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NAVFAC
Naval Facilities Engineering Command

Groundwater Sample Results, Combined Level 2 and Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, and the Sample Location Report, SDG 1701829

Naval Weapons Industrial Reserve Plant Calverton
Riverhead, New York

August 2019

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N96095_001097
CALVERTON_NWIRP
SSIC 5000-33c

LABORATORY DATA PACKAGE, 1701829, NWIRP CALVERTON NY
01/02/2018
VISTA ANALYTICAL LABORATORY

Approved for public release: distribution unlimited.

January 02, 2018

Vista Work Order No. 1701829

Ms. Kristi Francisco
Tetra Tech
5700 Lake Wright Drive, Suite 309
Norfolk, VA 23502

Dear Ms. Francisco,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on December 01, 2017. This sample set was analyzed on a standard turn-around time, under your Project Name '112G08005-WE05'. The SDG Number is WE05.

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,

Karen J. Volpendesta for

Martha Maier
Laboratory Director

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

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

SDG Number WE05
Vista Work Order No. 1701829
Case Narrative

Sample Condition on Receipt:

Fourteen groundwater samples and six QC 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

Sample "FT-MW08I-20171129", as well as the associated MS/MSD, contained particulate and was centrifuged prior to extraction.

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 Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 the LOQ. The OPR recoveries were within the method acceptance criteria

The extracts of the following samples, as well as the Matrix Spike Duplicates, were re-injected because one or more Injection Internal Standard Analyte response areas were outside of criteria:

Laboratory ID	Sample Name
1701829-04	FT-MW08I-20171129
1701829-05	FT-MW01S-20171130
1701829-07	FT-MW01I-20171130
1701829-08	FT-DUP02-20171130
1701829-10	FT-MW03S-20171130
1701829-11	FT-MW09I-20171130
1701829-12	FT-DUP03-20171130
1701829-14	FT-MW07S-20171130
1701829-16	FT-MW06I-20171130
1701829-17	FT-MW06I-FRB-20171130
1701829-18	FT-MW10I-20171130
1701829-19	FT-MW06S-20171130
1701829-20	FT-EB01-20171130

The area criteria passed for all second injections except FT-DUP02-20171130. The results from the re-injections have been reported.

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

As requested, an MS/MSD was performed on sample "FT-MW08I-20171129" and "FT-MW01S-20171130". The MS/MSD recoveries and/or RPDs were out of the criteria for PFBS, PFHxA, PFHpA, PFHxS, PFOA, PFOS, PFNA, PFDA and PFUnA in "FT-MW08I-20171129" and for PFTrDA in "FT-MW01S-20171130".

In addition, the laboratory QC officer must read and sign a copy of the Quality Assurance Review Form displayed on the next page of this Attachment. Electronic deliverables are not considered to be complete without the accompanying Quality Assurance Review Form.

I Anna Helak, as the designated Quality Assurance Officer, hereby attest that all electronic deliverables have been thoroughly reviewed and are in agreement with the associated hardcopy data. The enclosed electronic files have been reviewed for accuracy (including significant figures), completeness and format. The laboratory will be responsible for any labor time necessary to correct enclosed electronic deliverables that have been found to be in error. I can be reached at (916) 673 1520 If there are any questions or problems with the enclosed electronic deliverables.

Signature: Title: QA Manager Date: 01/02/2018

Revision 9
ISG
08/18/16

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Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
1701829-01	FT-MW08S-20171129		29-Nov-17 15:12	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-02	FT-MW08S-FRB-20171129		29-Nov-17 15:12	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-03	FT-DUP01-20171129		29-Nov-17 12:00	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-04	FT-MW08I-20171129	MS/MSD	29-Nov-17 15:22	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-05	FT-MW01S-20171130	MS/MSD	30-Nov-17 09:35	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-06	FT-MW02I-20171130		30-Nov-17 08:49	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-07	FT-MW01I-20171130		30-Nov-17 09:32	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-08	FT-DUP02-20171130		30-Nov-17 09:00	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-09	FT-MW02S-20171130		30-Nov-17 09:52	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-10	FT-MW03S-20171130		30-Nov-17 11:18	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-11	FT-MW09I-20171130		30-Nov-17 11:22	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-12	FT-DUP03-20171130		30-Nov-17 12:00	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-13	FT-MW05I-20171130		30-Nov-17 12:00	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-14	FT-MW07S-20171130		30-Nov-17 13:36	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-15	FT-MW05S-20171130		30-Nov-17 12:55	01-Dec-17 09:20	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701829-16	FT-MW06I-20171130		30-Nov-17 13:22	01-Dec-17 09:20	HDPE Bottle, 250 mL

Vista Project: 1701829

Client Project: 112G08005-WE05

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1701829-16	FT-MW06I-20171130	30-Nov-17 13:22	01-Dec-17 09:20	HDPE Bottle, 250 mL
1701829-17	FT-MW06I-FRB-20171130	30-Nov-17 13:22	01-Dec-17 09:20	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701829-18	FT-MW10I-20171130	30-Nov-17 14:06	01-Dec-17 09:20	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701829-19	FT-MW06S-20171130	30-Nov-17 14:37	01-Dec-17 09:20	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701829-20	FT-EB01-20171130	30-Nov-17 15:00	01-Dec-17 09:20	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: Method Blank **Modified EPA Method 537**

Client Data
Name: Tetra Tech
Project: 112G08005-WE05
Matrix: Aqueous

Laboratory Data
Lab Sample: B7L0073-BLK1
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.895	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
PFHxA	ND	1.09	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
PFHpA	ND	0.296	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
PFHxS	ND	0.474	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
PFOA	ND	0.326	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
PFOS	ND	0.404	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
PFNA	ND	0.405	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
PFDA	ND	0.745	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
MeFOSAA	ND	0.825	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
PFUnA	ND	0.525	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
EtFOSAA	ND	0.685	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
PFDoA	ND	0.396	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
PFTrDA	ND	0.247	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
PFTeDA	ND	0.378	2.50	4.00		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	116	50 - 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
13C2-PFHxA	IS	106	50 - 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
13C4-PFHpA	IS	90.9	50 - 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
18O2-PFHxS	IS	95.3	50 - 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
13C2-PFOA	IS	99.6	50 - 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
13C8-PFOS	IS	87.1	50 - 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
13C5-PFNA	IS	90.4	50 - 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
13C2-PFDA	IS	92.9	50 - 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
d3-MeFOSAA	IS	72.5	50 - 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
13C2-PFUnA	IS	74.7	50 - 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
d5-EtFOSAA	IS	70.5	50 - 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
13C2-PFDoA	IS	68.9	50 - 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	1
13C2-PFTeDA	IS	64.6	50 - 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:45	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: OPR **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
Matrix: Aqueous

Laboratory Data

Lab Sample: B7L0073-BS1
Column: BEH C18

Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	38.3	40.0	95.8	70-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
PFHxA	33.1	40.0	82.8	70-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
PFHpA	40.0	40.0	99.9	70-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
PFHxS	34.6	40.0	86.4	70-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
PFOA	36.4	40.0	91.1	70-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
PFOS	34.6	40.0	86.4	70-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
PFNA	36.8	40.0	92.0	70-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
PFDA	33.0	40.0	82.5	70-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
MeFOSAA	40.9	40.0	102	70-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
PFUnA	45.1	40.0	113	70-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
EtFOSAA	44.4	40.0	111	70-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
PFDoA	36.1	40.0	90.2	70-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
PFTrDA	43.2	40.0	108	60-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
PFTeDA	36.8	40.0	92.1	70-130		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	109	50- 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
13C2-PFHxA	IS	110	50- 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
13C4-PFHpA	IS	104	50- 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
18O2-PFHxS	IS	106	50- 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
13C2-PFOA	IS	118	50- 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
13C8-PFOS	IS	116	50- 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
13C5-PFNA	IS	103	50- 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
13C2-PFDA	IS	94.0	50- 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
d3-MeFOSAA	IS	79.2	50- 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
13C2-PFUnA	IS	88.2	50- 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
d5-EtFOSAA	IS	79.1	50- 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
13C2-PFDoA	IS	85.3	50- 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1
13C2-PFTeDA	IS	113	50- 150		B7L0073	12-Dec-17	0.250 L	27-Dec-17 23:23	1

Sample ID: FT-MW08S-20171129

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Groundwater
Date Collected: 29-Nov-17 15:12

Laboratory Data

Lab Sample: 1701829-01
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.76	0.844	2.36	3.77	J	B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
PFHxA	15.5	1.03	2.36	3.77		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
PFHpA	20.7	0.279	2.36	3.77		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
PFHxS	37.5	0.447	2.36	3.77		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
PFOA	45.6	0.307	2.36	3.77		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
PFOS	83.5	0.381	2.36	3.77		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
PFNA	154	0.382	2.36	3.77		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
PFDA	11.1	0.703	2.36	3.77		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
MeFOSAA	ND	0.778	2.36	3.77		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
PFUnA	62.1	0.495	2.36	3.77		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
EtFOSAA	ND	0.646	2.36	3.77		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
PFDoA	ND	0.373	2.36	3.77		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
PFTrDA	ND	0.233	2.36	3.77		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
PFTeDA	ND	0.356	2.36	3.77		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	108	50 - 150		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
13C2-PFHxA	IS	112	50 - 150		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
13C4-PFHpA	IS	87.5	50 - 150		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
18O2-PFHxS	IS	91.9	50 - 150		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
13C2-PFOA	IS	108	50 - 150		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
13C8-PFOS	IS	83.1	50 - 150		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
13C5-PFNA	IS	94.6	50 - 150		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
13C2-PFDA	IS	83.4	50 - 150		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
d3-MeFOSAA	IS	83.2	50 - 150		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
13C2-PFUnA	IS	79.6	50 - 150		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
d5-EtFOSAA	IS	77.1	50 - 150		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
13C2-PFDoA	IS	82.4	50 - 150		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	1
13C2-PFTeDA	IS	114	50 - 150		B7L0073	12-Dec-17	0.265 L	28-Dec-17 01:15	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: FT-MW08S-FRB-20171129

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: QC Water
Date Collected: 29-Nov-17 15:12

Laboratory Data

Lab Sample: 1701829-02
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.836	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
PFHxA	ND	1.02	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
PFHpA	ND	0.276	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
PFHxS	ND	0.442	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
PFOA	ND	0.304	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
PFOS	ND	0.377	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
PFNA	ND	0.378	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
PFDA	ND	0.696	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
MeFOSAA	ND	0.771	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
PFUnA	ND	0.490	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
EtFOSAA	ND	0.640	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
PFDoA	ND	0.370	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
PFTrDA	ND	0.231	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
PFTeDA	ND	0.353	2.33	3.74		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	118	50 - 150		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
13C2-PFHxA	IS	103	50 - 150		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
13C4-PFHpA	IS	96.6	50 - 150		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
18O2-PFHxS	IS	79.5	50 - 150		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
13C2-PFOA	IS	101	50 - 150		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
13C8-PFOS	IS	101	50 - 150		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
13C5-PFNA	IS	96.1	50 - 150		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
13C2-PFDA	IS	78.2	50 - 150		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
d3-MeFOSAA	IS	76.6	50 - 150		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
13C2-PFUnA	IS	87.5	50 - 150		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
d5-EtFOSAA	IS	82.9	50 - 150		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
13C2-PFDoA	IS	92.5	50 - 150		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	1
13C2-PFTeDA	IS	122	50 - 150		B7L0073	12-Dec-17	0.268 L	28-Dec-17 01:26	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: FT-DUP01-20171129

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: QC Water
Date Collected: 29-Nov-17 12:00

Laboratory Data

Lab Sample: 1701829-03
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.65	0.882	2.46	3.94	J	B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
PFHxA	14.6	1.07	2.46	3.94		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
PFHpA	19.5	0.291	2.46	3.94		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
PFHxS	36.4	0.467	2.46	3.94		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
PFOA	38.1	0.321	2.46	3.94		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
PFOS	62.3	0.398	2.46	3.94		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
PFNA	132	0.399	2.46	3.94		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
PFDA	12.3	0.734	2.46	3.94		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
MeFOSAA	ND	0.813	2.46	3.94		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
PFUnA	56.6	0.517	2.46	3.94		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
EtFOSAA	ND	0.675	2.46	3.94		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
PFDoA	ND	0.390	2.46	3.94		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
PFTrDA	ND	0.243	2.46	3.94		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
PFTeDA	ND	0.372	2.46	3.94		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	121	50 - 150		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
13C2-PFHxA	IS	115	50 - 150		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
13C4-PFHpA	IS	100	50 - 150		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
18O2-PFHxS	IS	109	50 - 150		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
13C2-PFOA	IS	99.6	50 - 150		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
13C8-PFOS	IS	106	50 - 150		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
13C5-PFNA	IS	94.3	50 - 150		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
13C2-PFDA	IS	118	50 - 150		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
d3-MeFOSAA	IS	86.2	50 - 150		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
13C2-PFUnA	IS	97.4	50 - 150		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
d5-EtFOSAA	IS	80.5	50 - 150		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
13C2-PFDoA	IS	83.7	50 - 150		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	1
13C2-PFTeDA	IS	110	50 - 150		B7L0073	12-Dec-17	0.254 L	28-Dec-17 01:37	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: FT-MW08I-20171129 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05
Matrix: Groundwater
Date Collected: 29-Nov-17 15:22

Laboratory Data

Lab Sample: 1701829-04
Date Received: 01-Dec-17 09:20
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	4.63	0.855	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
PFHxA	109	1.04	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
PFHpA	70.8	0.282	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
PFHxS	460	0.453	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
PFOA	367	0.311	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
PFOS	818	1.93	11.9	19.1	D	B7L0073	12-Dec-17	0.262 L	30-Dec-17 06:08	5
PFNA	1870	1.94	11.9	19.1	D	B7L0073	12-Dec-17	0.262 L	30-Dec-17 06:08	5
PFDA	278	0.712	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
MeFOSAA	ND	0.788	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
PFUnA	478	0.502	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
EtFOSAA	ND	0.655	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
PFDoA	ND	0.378	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
PFTrDA	ND	0.236	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
PFTeDA	ND	0.361	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	110	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
13C2-PFHxA	IS	114	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
13C4-PFHpA	IS	114	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
18O2-PFHxS	IS	103	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
13C2-PFOA	IS	87.2	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
13C8-PFOS	IS	104	50 - 150	D	B7L0073	12-Dec-17	0.262 L	30-Dec-17 06:08	5
13C5-PFNA	IS	99.2	50 - 150	D	B7L0073	12-Dec-17	0.262 L	30-Dec-17 06:08	5
13C2-PFDA	IS	84.9	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
d3-MeFOSAA	IS	85.9	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
13C2-PFUnA	IS	71.6	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
d5-EtFOSAA	IS	80.7	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
13C2-PFDoA	IS	79.2	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1
13C2-PFTeDA	IS	72.4	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 01:48	1

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

Sample ID: FT-MW08I-20171129 **Modified EPA Method 537**

Name:	Tetra Tech	Lab Sample:	B7L0073-MS1/B7L0073-MSD1	Source Lab Sample:	1701829-04
Project:	112G08005-WE05	QC Batch:	B7L0073	Date Extracted:	12-Dec-17
Matrix:	Aqueous	Samp Size:	0.240/0.255 L	Column:	BEH C18

Analyte	Sample (ng/L)	MS (ng/L)	MS Spike Amt	MS % Rec	MS Quals	MSD (ng/L)	MSD Spike Amt	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBS	4.63	33.7	41.6	69.9	H	36.0	39.2	79.9	13.4		70-130	30	27-Dec-17 23:56	1	28-Dec-17 00:07	1
PFHxA	109	132	41.6	55.1	H	140	39.2	79.3	36.0	H	70-130	30	27-Dec-17 23:56	1	28-Dec-17 00:07	1
PFHpA	70.8	127	41.6	134	H	122	39.2	130	3.03		70-130	30	27-Dec-17 23:56	1	28-Dec-17 00:07	1
PFHxS	460	410	41.6	-120	H	490	39.2	77.3	924	H	70-130	30	27-Dec-17 23:56	1	28-Dec-17 00:07	1
PFOA	367	378	41.6	28.6	H	374	39.2	18.2	44.4	H	70-130	30	27-Dec-17 23:56	1	28-Dec-17 00:07	1
PFOS	818	1570	208	360	D, H	1220	196	204	55.3	D, H	70-130	30	30-Dec-17 05:46	5	30-Dec-17 05:57	5
PFNA	1870	1280	208	-287	D, H	1700	196	-86.2	108	D, H	70-130	30	30-Dec-17 05:46	5	30-Dec-17 05:57	5
PFDA	278	441	41.6	392	H	361	39.2	212	59.6	H	70-130	30	27-Dec-17 23:56	1	28-Dec-17 00:07	1
MeFOSAA	ND	33.3	41.6	80.0		36.3	39.2	92.6	14.6		70-130	30	27-Dec-17 23:56	1	28-Dec-17 00:07	1
PFUnA	478	513	41.6	84.7		607	39.2	329	118	H	70-130	30	27-Dec-17 23:56	1	28-Dec-17 00:07	1
EtFOSAA	ND	43.0	41.6	103		37.0	39.2	94.5	8.61		70-130	30	27-Dec-17 23:56	1	28-Dec-17 00:07	1
PFDoA	ND	34.8	41.6	83.6		35.3	39.2	90.1	7.48		70-130	30	27-Dec-17 23:56	1	28-Dec-17 00:07	1
PFTrDA	ND	35.1	41.6	84.4		31.5	39.2	80.3	4.98		60-130	30	27-Dec-17 23:56	1	28-Dec-17 00:07	1
PFTeDA	ND	39.0	41.6	93.7		34.4	39.2	87.7	6.62		70-130	30	27-Dec-17 23:56	1	28-Dec-17 00:07	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBS	IS	120		110		50-150	27-Dec-17 23:56	1	28-Dec-17 00:07	1
13C2-PFHxA	IS	110		108		50-150	27-Dec-17 23:56	1	28-Dec-17 00:07	1
13C4-PFHpA	IS	97.1		93.2		50-150	27-Dec-17 23:56	1	28-Dec-17 00:07	1
18O2-PFHxS	IS	101		81.6		50-150	27-Dec-17 23:56	1	28-Dec-17 00:07	1
13C2-PFOA	IS	97.0		93.9		50-150	27-Dec-17 23:56	1	28-Dec-17 00:07	1
13C8-PFOS	IS	71.5	D	95.8	D	50-150	30-Dec-17 05:46	5	30-Dec-17 05:57	5
13C5-PFNA	IS	107	D	89.6	D	50-150	30-Dec-17 05:46	5	30-Dec-17 05:57	5
13C2-PFDA	IS	96.6		98.0		50-150	27-Dec-17 23:56	1	28-Dec-17 00:07	1
d3-MeFOSAA	IS	91.5		62.3		50-150	27-Dec-17 23:56	1	28-Dec-17 00:07	1
13C2-PFUnA	IS	90.5		63.8		50-150	27-Dec-17 23:56	1	28-Dec-17 00:07	1
d5-EtFOSAA	IS	67.7		68.6		50-150	27-Dec-17 23:56	1	28-Dec-17 00:07	1
13C2-PFDoA	IS	85.6		77.2		50-150	27-Dec-17 23:56	1	28-Dec-17 00:07	1
13C2-PFTeDA	IS	123		96.5		50-150	27-Dec-17 23:56	1	28-Dec-17 00:07	1

Sample ID: FT-MW01S-20171130

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Groundwater
Date Collected: 30-Nov-17 09:35

Laboratory Data

Lab Sample: 1701829-05
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.884	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
PFHxA	ND	1.08	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
PFHpA	ND	0.292	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
PFHxS	ND	0.468	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
PFOA	ND	0.321	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
PFOS	ND	0.399	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
PFNA	ND	0.400	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
PFDA	ND	0.736	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
MeFOSAA	ND	0.815	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
PFUnA	ND	0.519	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
EtFOSAA	ND	0.677	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
PFDoA	ND	0.391	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
PFTrDA	ND	0.244	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
PFTeDA	ND	0.373	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	135	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
13C2-PFHxA	IS	112	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
13C4-PFHpA	IS	112	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
18O2-PFHxS	IS	105	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
13C2-PFOA	IS	111	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
13C8-PFOS	IS	120	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
13C5-PFNA	IS	101	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
13C2-PFDA	IS	74.7	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
d3-MeFOSAA	IS	81.3	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
13C2-PFUnA	IS	74.4	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
d5-EtFOSAA	IS	63.6	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
13C2-PFDoA	IS	65.2	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	1
13C2-PFTeDA	IS	108	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 01:59	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: FT-MW01S-20171130 **Modified EPA Method 537**

Name:	Tetra Tech	Lab Sample:	B7L0073-MS2/B7L0073-MSD2	Source Lab Sample:	1701829-05
Project:	112G08005-WE05	QC Batch:	B7L0073	Date Extracted:	12-Dec-17
Matrix:	Aqueous	Samp Size:	0.258/0.259 L	Column:	BEH C18

Analyte	Sample (ng/L)	MS (ng/L)	MS Spike Amt	MS % Rec	MS Quals	MSD (ng/L)	MSD Spike Amt	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBS	ND	33.4	38.7	86.4		30.6	38.7	79.0	8.95		70-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1
PFHxA	ND	28.2	38.7	73.0		28.2	38.7	72.9	0.137		70-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1
PFHpA	ND	41.2	38.7	106		32.9	38.7	85.1	21.9		70-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1
PFHxS	ND	36.5	38.7	93.1		33.2	38.7	84.7	9.45		70-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1
PFOA	ND	32.8	38.7	84.8		33.2	38.7	85.7	1.06		70-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1
PFOS	ND	30.8	38.7	79.6		31.4	38.7	81.2	1.99		70-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1
PFNA	ND	33.5	38.7	86.7		29.8	38.7	77.0	11.9		70-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1
PFDA	ND	38.3	38.7	99.0		31.0	38.7	80.0	21.2		70-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1
MeFOSAA	ND	40.3	38.7	104		31.0	38.7	80.0	26.1		70-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1
PFUnA	ND	47.0	38.7	122		36.9	38.7	95.3	24.6		70-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1
EtFOSAA	ND	43.5	38.7	113		43.6	38.7	113	0		70-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1
PFDoA	ND	33.0	38.7	85.3		32.0	38.7	82.8	2.97		70-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1
PFTrDA	ND	22.5	38.7	58.2	H	37.2	38.7	96.1	49.1	H	60-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1
PFTeDA	ND	42.4	38.7	110		34.2	38.7	88.2	22.0		70-130	30	28-Dec-17 00:30	1	28-Dec-17 00:19	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBS	IS	107		115		50-150	28-Dec-17 00:30	1	28-Dec-17 00:19	1
13C2-PFHxA	IS	115		113		50-150	28-Dec-17 00:30	1	28-Dec-17 00:19	1
13C4-PFHpA	IS	85.6		102		50-150	28-Dec-17 00:30	1	28-Dec-17 00:19	1
18O2-PFHxS	IS	107		91.9		50-150	28-Dec-17 00:30	1	28-Dec-17 00:19	1
13C2-PFOA	IS	100		106		50-150	28-Dec-17 00:30	1	28-Dec-17 00:19	1
13C8-PFOS	IS	116		99.8		50-150	28-Dec-17 00:30	1	28-Dec-17 00:19	1
13C5-PFNA	IS	107		111		50-150	28-Dec-17 00:30	1	28-Dec-17 00:19	1
13C2-PFDA	IS	98.2		93.6		50-150	28-Dec-17 00:30	1	28-Dec-17 00:19	1
d3-MeFOSAA	IS	71.7		86.1		50-150	28-Dec-17 00:30	1	28-Dec-17 00:19	1
13C2-PFUnA	IS	65.5		64.3		50-150	28-Dec-17 00:30	1	28-Dec-17 00:19	1
d5-EtFOSAA	IS	64.1		59.3		50-150	28-Dec-17 00:30	1	28-Dec-17 00:19	1
13C2-PFDoA	IS	116		80.1		50-150	28-Dec-17 00:30	1	28-Dec-17 00:19	1
13C2-PFTeDA	IS	78.5		99.0		50-150	28-Dec-17 00:30	1	28-Dec-17 00:19	1

Sample ID: FT-MW02I-20171130

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Groundwater
Date Collected: 30-Nov-17 08:49

Laboratory Data

Lab Sample: 1701829-06
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.846	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
PFHxA	ND	1.03	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
PFHpA	ND	0.279	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
PFHxS	ND	0.448	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
PFOA	ND	0.308	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
PFOS	ND	0.382	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
PFNA	ND	0.383	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
PFDA	ND	0.705	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
MeFOSAA	ND	0.780	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
PFUnA	ND	0.497	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
EtFOSAA	ND	0.648	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
PFDoA	ND	0.375	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
PFTrDA	ND	0.234	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
PFTeDA	ND	0.357	2.37	3.78		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	125	50 - 150		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
13C2-PFHxA	IS	95.2	50 - 150		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
13C4-PFHpA	IS	98.6	50 - 150		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
18O2-PFHxS	IS	113	50 - 150		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
13C2-PFOA	IS	115	50 - 150		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
13C8-PFOS	IS	97.6	50 - 150		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
13C5-PFNA	IS	101	50 - 150		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
13C2-PFDA	IS	77.9	50 - 150		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
d3-MeFOSAA	IS	71.3	50 - 150		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
13C2-PFUnA	IS	87.1	50 - 150		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
d5-EtFOSAA	IS	83.0	50 - 150		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
13C2-PFDoA	IS	101	50 - 150		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	1
13C2-PFTeDA	IS	120	50 - 150		B7L0073	12-Dec-17	0.264 L	28-Dec-17 02:10	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: FT-MW01I-20171130

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Groundwater
Date Collected: 30-Nov-17 09:32

Laboratory Data

Lab Sample: 1701829-07
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.854	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
PFHxA	ND	1.04	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
PFHpA	ND	0.282	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
PFHxS	ND	0.452	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
PFOA	ND	0.311	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
PFOS	ND	0.385	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
PFNA	ND	0.387	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
PFDA	ND	0.711	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
MeFOSAA	ND	0.787	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
PFUnA	ND	0.501	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
EtFOSAA	ND	0.654	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
PFDoA	ND	0.378	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
PFTrDA	ND	0.236	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
PFTeDA	ND	0.360	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	144	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
13C2-PFHxA	IS	103	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
13C4-PFHpA	IS	101	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
18O2-PFHxS	IS	82.7	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
13C2-PFOA	IS	104	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
13C8-PFOS	IS	93.6	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
13C5-PFNA	IS	106	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
13C2-PFDA	IS	71.0	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
d3-MeFOSAA	IS	90.9	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
13C2-PFUnA	IS	94.6	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
d5-EtFOSAA	IS	93.5	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
13C2-PFDoA	IS	96.8	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	1
13C2-PFTeDA	IS	134	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:22	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: FT-DUP02-20171130

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: QC Water
Date Collected: 30-Nov-17 09:00

Laboratory Data

Lab Sample: 1701829-08
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.838	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
PFHxA	ND	1.02	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
PFHpA	ND	0.277	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
PFHxS	ND	0.443	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
PFOA	ND	0.305	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
PFOS	ND	0.378	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
PFNA	ND	0.379	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
PFDA	ND	0.697	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
MeFOSAA	ND	0.772	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
PFUnA	ND	0.491	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
EtFOSAA	ND	0.641	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
PFDoA	ND	0.371	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
PFTrDA	ND	0.231	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
PFTeDA	ND	0.353	2.34	3.74		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	118	50 - 150		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
13C2-PFHxA	IS	105	50 - 150		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
13C4-PFHpA	IS	98.0	50 - 150		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
18O2-PFHxS	IS	108	50 - 150		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
13C2-PFOA	IS	115	50 - 150		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
13C8-PFOS	IS	95.4	50 - 150		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
13C5-PFNA	IS	88.9	50 - 150		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
13C2-PFDA	IS	81.6	50 - 150		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
d3-MeFOSAA	IS	81.1	50 - 150		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
13C2-PFUnA	IS	81.8	50 - 150		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
d5-EtFOSAA	IS	71.7	50 - 150		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
13C2-PFDoA	IS	81.4	50 - 150		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1
13C2-PFTeDA	IS	71.1	50 - 150		B7L0073	12-Dec-17	0.267 L	28-Dec-17 02:33	1

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

Sample ID: FT-MW02S-20171130

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Groundwater
Date Collected: 30-Nov-17 09:52

Laboratory Data

Lab Sample: 1701829-09
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	3.61	0.865	2.41	3.86	J	B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
PFHxA	35.8	1.05	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
PFHpA	19.2	0.285	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
PFHxS	451	0.457	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
PFOA	272	0.314	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
PFOS	108	0.390	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
PFNA	451	0.391	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
PFDA	12.5	0.720	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
MeFOSAA	ND	0.797	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
PFUnA	180	0.507	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
EtFOSAA	ND	0.662	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
PFDoA	ND	0.383	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
PFTrDA	ND	0.239	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
PFTeDA	ND	0.365	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	98.4	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
13C2-PFHxA	IS	101	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
13C4-PFHpA	IS	93.6	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
18O2-PFHxS	IS	89.8	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
13C2-PFOA	IS	106	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
13C8-PFOS	IS	91.0	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
13C5-PFNA	IS	107	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
13C2-PFDA	IS	98.6	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
d3-MeFOSAA	IS	70.4	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
13C2-PFUnA	IS	88.8	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
d5-EtFOSAA	IS	79.5	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
13C2-PFDoA	IS	105	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	1
13C2-PFTeDA	IS	112	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 02:44	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: FT-MW03S-20171130

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Groundwater
Date Collected: 30-Nov-17 11:18

Laboratory Data

Lab Sample: 1701829-10
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.85	0.855	2.39	3.82	J	B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
PFHxA	4.66	1.04	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
PFHpA	2.13	0.282	2.39	3.82	J	B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
PFHxS	2.65	0.453	2.39	3.82	J	B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
PFOA	3.35	0.311	2.39	3.82	J	B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
PFOS	3.04	0.386	2.39	3.82	J	B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
PFNA	7.29	0.387	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
PFDA	ND	0.712	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
MeFOSAA	ND	0.789	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
PFUnA	ND	0.502	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
EtFOSAA	ND	0.655	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
PFDoA	ND	0.378	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
PFTrDA	ND	0.236	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
PFTeDA	ND	0.361	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	110	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
13C2-PFHxA	IS	102	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
13C4-PFHpA	IS	91.4	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
18O2-PFHxS	IS	100	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
13C2-PFOA	IS	89.2	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
13C8-PFOS	IS	122	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
13C5-PFNA	IS	84.1	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
13C2-PFDA	IS	94.9	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
d3-MeFOSAA	IS	84.0	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
13C2-PFUnA	IS	85.9	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
d5-EtFOSAA	IS	72.0	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
13C2-PFDoA	IS	74.1	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	1
13C2-PFTeDA	IS	125	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 02:55	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: FT-MW09I-20171130

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Groundwater
Date Collected: 30-Nov-17 11:22

Laboratory Data

Lab Sample: 1701829-11
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.15	0.891	2.49	3.98	J	B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
PFHxA	3.08	1.08	2.49	3.98	J	B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
PFHpA	1.30	0.294	2.49	3.98	J	B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
PFHxS	2.35	0.471	2.49	3.98	J	B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
PFOA	4.05	0.324	2.49	3.98		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
PFOS	ND	0.402	2.49	3.98		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
PFNA	1.50	0.403	2.49	3.98	J	B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
PFDA	ND	0.742	2.49	3.98		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
MeFOSAA	ND	0.821	2.49	3.98		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
PFUnA	ND	0.523	2.49	3.98		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
EtFOSAA	ND	0.682	2.49	3.98		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
PFDoA	ND	0.394	2.49	3.98		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
PFTrDA	ND	0.246	2.49	3.98		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
PFTeDA	ND	0.376	2.49	3.98		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	125	50 - 150		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
13C2-PFHxA	IS	118	50 - 150		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
13C4-PFHpA	IS	113	50 - 150		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
18O2-PFHxS	IS	91.6	50 - 150		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
13C2-PFOA	IS	114	50 - 150		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
13C8-PFOS	IS	95.5	50 - 150		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
13C5-PFNA	IS	85.0	50 - 150		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
13C2-PFDA	IS	77.3	50 - 150		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
d3-MeFOSAA	IS	93.3	50 - 150		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
13C2-PFUnA	IS	99.2	50 - 150		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
d5-EtFOSAA	IS	78.4	50 - 150		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
13C2-PFDoA	IS	103	50 - 150		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	1
13C2-PFTeDA	IS	149	50 - 150		B7L0073	12-Dec-17	0.251 L	28-Dec-17 03:06	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: FT-DUP03-20171130 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Groundwater
Date Collected: 30-Nov-17 12:00

Laboratory Data

Lab Sample: 1701829-12
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.07	0.912	2.55	4.08	J	B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
PFHxA	2.70	1.11	2.55	4.08	J	B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
PFHpA	1.49	0.301	2.55	4.08	J	B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
PFHxS	2.34	0.482	2.55	4.08	J	B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
PFOA	4.29	0.332	2.55	4.08		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
PFOS	ND	0.411	2.55	4.08		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
PFNA	1.23	0.413	2.55	4.08	J	B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
PFDA	ND	0.759	2.55	4.08		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
MeFOSAA	ND	0.840	2.55	4.08		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
PFUnA	ND	0.535	2.55	4.08		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
EtFOSAA	ND	0.698	2.55	4.08		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
PFDoA	ND	0.403	2.55	4.08		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
PFTrDA	ND	0.252	2.55	4.08		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
PFTeDA	ND	0.385	2.55	4.08		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	114	50 - 150		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
13C2-PFHxA	IS	98.0	50 - 150		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
13C4-PFHpA	IS	88.9	50 - 150		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
18O2-PFHxS	IS	108	50 - 150		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
13C2-PFOA	IS	103	50 - 150		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
13C8-PFOS	IS	107	50 - 150		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
13C5-PFNA	IS	96.3	50 - 150		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
13C2-PFDA	IS	109	50 - 150		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
d3-MeFOSAA	IS	111	50 - 150		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
13C2-PFUnA	IS	121	50 - 150		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
d5-EtFOSAA	IS	92.6	50 - 150		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
13C2-PFDoA	IS	96.4	50 - 150		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	1
13C2-PFTeDA	IS	111	50 - 150		B7L0073	12-Dec-17	0.245 L	28-Dec-17 03:51	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: FT-MW05I-20171130

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Groundwater
Date Collected: 30-Nov-17 12:00

Laboratory Data

Lab Sample: 1701829-13
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.46	0.865	2.41	3.86	J	B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
PFHxA	14.6	1.05	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
PFHpA	18.6	0.286	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
PFHxS	53.1	0.458	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
PFOA	66.3	0.315	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
PFOS	180	0.390	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
PFNA	216	0.391	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
PFDA	1.05	0.720	2.41	3.86	J	B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
MeFOSAA	ND	0.797	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
PFUnA	ND	0.507	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
EtFOSAA	ND	0.662	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
PFDoA	ND	0.383	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
PFTrDA	ND	0.239	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
PFTeDA	ND	0.365	2.41	3.86		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	123	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
13C2-PFHxA	IS	109	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
13C4-PFHpA	IS	87.7	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
18O2-PFHxS	IS	115	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
13C2-PFOA	IS	106	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
13C8-PFOS	IS	96.6	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
13C5-PFNA	IS	106	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
13C2-PFDA	IS	110	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
d3-MeFOSAA	IS	75.3	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
13C2-PFUnA	IS	79.1	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
d5-EtFOSAA	IS	76.4	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
13C2-PFDoA	IS	87.4	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	1
13C2-PFTeDA	IS	108	50 - 150		B7L0073	12-Dec-17	0.259 L	28-Dec-17 04:02	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: FT-MW07S-20171130

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Groundwater
Date Collected: 30-Nov-17 13:36

Laboratory Data

Lab Sample: 1701829-14
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.855	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
PFHxA	ND	1.04	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
PFHpA	ND	0.282	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
PFHxS	ND	0.452	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
PFOA	ND	0.311	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
PFOS	ND	0.385	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
PFNA	ND	0.387	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
PFDA	ND	0.712	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
MeFOSAA	ND	0.788	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
PFUnA	ND	0.501	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
EtFOSAA	ND	0.654	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
PFDoA	ND	0.378	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
PFTrDA	ND	0.236	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
PFTeDA	ND	0.361	2.39	3.82		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	111	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
13C2-PFHxA	IS	98.5	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
13C4-PFHpA	IS	78.8	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
18O2-PFHxS	IS	81.0	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
13C2-PFOA	IS	93.1	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
13C8-PFOS	IS	84.1	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
13C5-PFNA	IS	94.2	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
13C2-PFDA	IS	93.5	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
d3-MeFOSAA	IS	61.0	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
13C2-PFUnA	IS	76.0	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
d5-EtFOSAA	IS	73.2	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
13C2-PFDoA	IS	78.5	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	1
13C2-PFTeDA	IS	104	50 - 150		B7L0073	12-Dec-17	0.262 L	28-Dec-17 04:14	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: FT-MW05S-20171130

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Groundwater
Date Collected: 30-Nov-17 12:55

Laboratory Data

Lab Sample: 1701829-15
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.43	0.871	2.43	3.89	J	B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
PFHxA	5.05	1.06	2.43	3.89		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
PFHpA	3.94	0.288	2.43	3.89		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
PFHxS	21.9	0.461	2.43	3.89		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
PFOA	4.86	0.317	2.43	3.89		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
PFOS	20.9	0.393	2.43	3.89		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
PFNA	28.3	0.394	2.43	3.89		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
PFDA	1.14	0.725	2.43	3.89	J	B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
MeFOSAA	ND	0.803	2.43	3.89		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
PFUnA	ND	0.511	2.43	3.89		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
EtFOSAA	ND	0.667	2.43	3.89		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
PFDoA	ND	0.385	2.43	3.89		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
PFTrDA	ND	0.240	2.43	3.89		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
PFTeDA	ND	0.367	2.43	3.89		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	112	50 - 150		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
13C2-PFHxA	IS	100	50 - 150		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
13C4-PFHpA	IS	82.6	50 - 150		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
18O2-PFHxS	IS	89.7	50 - 150		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
13C2-PFOA	IS	105	50 - 150		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
13C8-PFOS	IS	81.3	50 - 150		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
13C5-PFNA	IS	88.0	50 - 150		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
13C2-PFDA	IS	81.5	50 - 150		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
d3-MeFOSAA	IS	77.2	50 - 150		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
13C2-PFUnA	IS	102	50 - 150		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
d5-EtFOSAA	IS	70.6	50 - 150		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
13C2-PFDoA	IS	102	50 - 150		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	1
13C2-PFTeDA	IS	122	50 - 150		B7L0073	12-Dec-17	0.257 L	28-Dec-17 04:25	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: FT-MW06I-20171130 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Groundwater
Date Collected: 30-Nov-17 13:22

Laboratory Data

Lab Sample: 1701829-16
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.895	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
PFHxA	ND	1.09	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
PFHpA	ND	0.296	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
PFHxS	ND	0.474	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
PFOA	ND	0.326	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
PFOS	ND	0.404	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
PFNA	ND	0.405	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
PFDA	ND	0.745	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
MeFOSAA	ND	0.825	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
PFUnA	ND	0.525	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
EtFOSAA	ND	0.685	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
PFDoA	ND	0.396	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
PFTrDA	ND	0.247	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
PFTeDA	ND	0.378	2.50	4.00		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	120	50 - 150		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
13C2-PFHxA	IS	108	50 - 150		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
13C4-PFHpA	IS	99.9	50 - 150		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
18O2-PFHxS	IS	104	50 - 150		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
13C2-PFOA	IS	95.9	50 - 150		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
13C8-PFOS	IS	116	50 - 150		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
13C5-PFNA	IS	92.6	50 - 150		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
13C2-PFDA	IS	70.7	50 - 150		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
d3-MeFOSAA	IS	56.1	50 - 150		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
13C2-PFUnA	IS	76.9	50 - 150		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
d5-EtFOSAA	IS	50.2	50 - 150		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
13C2-PFDoA	IS	71.4	50 - 150		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1
13C2-PFTeDA	IS	131	50 - 150		B7L0073	12-Dec-17	0.250 L	28-Dec-17 04:36	1

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

Sample ID: FT-MW06I-FRB-20171130

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05
Matrix: Groundwater
Date Collected: 30-Nov-17 13:22

Laboratory Data

Lab Sample: 1701829-17
Date Received: 01-Dec-17 09:20
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.833	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
PFHxA	ND	1.01	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
PFHpA	ND	0.275	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
PFHxS	ND	0.441	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
PFOA	ND	0.303	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
PFOS	ND	0.376	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
PFNA	ND	0.377	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
PFDA	ND	0.694	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
MeFOSAA	ND	0.768	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
PFUnA	ND	0.489	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
EtFOSAA	ND	0.638	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
PFDoA	ND	0.369	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
PFTrDA	ND	0.230	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
PFTeDA	ND	0.351	2.32	3.72		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	121	50 - 150		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
13C2-PFHxA	IS	106	50 - 150		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
13C4-PFHpA	IS	105	50 - 150		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
18O2-PFHxS	IS	91.7	50 - 150		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
13C2-PFOA	IS	102	50 - 150		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
13C8-PFOS	IS	85.1	50 - 150		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
13C5-PFNA	IS	97.6	50 - 150		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
13C2-PFDA	IS	78.8	50 - 150		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
d3-MeFOSAA	IS	66.3	50 - 150		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
13C2-PFUnA	IS	85.7	50 - 150		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
d5-EtFOSAA	IS	57.0	50 - 150		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
13C2-PFDoA	IS	80.7	50 - 150		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	1
13C2-PFTeDA	IS	122	50 - 150		B7L0073	12-Dec-17	0.269 L	28-Dec-17 04:47	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: FT-MW10I-20171130 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05
Matrix: Groundwater
Date Collected: 30-Nov-17 14:06

Laboratory Data

Lab Sample: 1701829-18
Date Received: 01-Dec-17 09:20
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.885	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
PFHxA	1.79	1.08	2.47	3.95	J	B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
PFHpA	0.823	0.292	2.47	3.95	J	B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
PFHxS	1.58	0.468	2.47	3.95	J	B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
PFOA	2.96	0.322	2.47	3.95	J	B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
PFOS	ND	0.399	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
PFNA	0.826	0.400	2.47	3.95	J	B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
PFDA	ND	0.736	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
MeFOSAA	ND	0.815	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
PFUnA	ND	0.519	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
EtFOSAA	ND	0.677	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
PFDoA	ND	0.391	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
PFTrDA	ND	0.244	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
PFTeDA	ND	0.373	2.47	3.95		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	115	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
13C2-PFHxA	IS	91.6	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
13C4-PFHpA	IS	113	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
18O2-PFHxS	IS	98.6	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
13C2-PFOA	IS	114	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
13C8-PFOS	IS	118	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
13C5-PFNA	IS	116	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
13C2-PFDA	IS	108	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
d3-MeFOSAA	IS	84.7	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
13C2-PFUnA	IS	104	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
d5-EtFOSAA	IS	97.9	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
13C2-PFDoA	IS	131	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1
13C2-PFTeDA	IS	111	50 - 150		B7L0073	12-Dec-17	0.253 L	28-Dec-17 04:58	1

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

Sample ID: FT-MW06S-20171130

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Groundwater
Date Collected: 30-Nov-17 14:37

Laboratory Data

Lab Sample: 1701829-19
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.887	2.48	3.97		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
PFHxA	1.13	1.08	2.48	3.97	J	B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
PFHpA	ND	0.293	2.48	3.97		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
PFHxS	0.694	0.469	2.48	3.97	J	B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
PFOA	ND	0.323	2.48	3.97		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
PFOS	ND	0.400	2.48	3.97		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
PFNA	ND	0.401	2.48	3.97		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
PFDA	ND	0.739	2.48	3.97		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
MeFOSAA	ND	0.818	2.48	3.97		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
PFUnA	ND	0.520	2.48	3.97		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
EtFOSAA	ND	0.679	2.48	3.97		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
PFDoA	ND	0.393	2.48	3.97		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
PFTrDA	ND	0.245	2.48	3.97		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
PFTeDA	ND	0.374	2.48	3.97		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	120	50 - 150		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
13C2-PFHxA	IS	97.3	50 - 150		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
13C4-PFHpA	IS	92.3	50 - 150		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
18O2-PFHxS	IS	98.2	50 - 150		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
13C2-PFOA	IS	97.0	50 - 150		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
13C8-PFOS	IS	108	50 - 150		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
13C5-PFNA	IS	107	50 - 150		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
13C2-PFDA	IS	66.6	50 - 150		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
d3-MeFOSAA	IS	77.9	50 - 150		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
13C2-PFUnA	IS	99.9	50 - 150		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
d5-EtFOSAA	IS	76.1	50 - 150		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
13C2-PFDoA	IS	82.0	50 - 150		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	1
13C2-PFTeDA	IS	101	50 - 150		B7L0073	12-Dec-17	0.252 L	28-Dec-17 05:09	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: FT-EB01-20171130

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: QC Water
Date Collected: 30-Nov-17 15:00

Laboratory Data

Lab Sample: 1701829-20
Date Received: 01-Dec-17 09:20

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.861	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
PFHxA	ND	1.05	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
PFHpA	ND	0.284	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
PFHxS	ND	0.456	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
PFOA	ND	0.313	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
PFOS	ND	0.388	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
PFNA	ND	0.390	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
PFDA	ND	0.717	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
MeFOSAA	ND	0.794	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
PFUnA	ND	0.505	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
EtFOSAA	ND	0.659	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
PFDoA	ND	0.381	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
PFTrDA	ND	0.238	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
PFTeDA	ND	0.363	2.40	3.85		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	104	50 - 150		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
13C2-PFHxA	IS	103	50 - 150		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
13C4-PFHpA	IS	106	50 - 150		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
18O2-PFHxS	IS	67.6	50 - 150		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
13C2-PFOA	IS	92.6	50 - 150		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
13C8-PFOS	IS	92.6	50 - 150		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
13C5-PFNA	IS	77.7	50 - 150		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
13C2-PFDA	IS	88.8	50 - 150		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
d3-MeFOSAA	IS	67.3	50 - 150		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
13C2-PFUnA	IS	68.1	50 - 150		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
d5-EtFOSAA	IS	57.1	50 - 150		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
13C2-PFDoA	IS	57.8	50 - 150		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1
13C2-PFTeDA	IS	91.9	50 - 150		B7L0073	12-Dec-17	0.260 L	28-Dec-17 05:21	1

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

DATA QUALIFIERS & ABBREVIATIONS

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

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

CERTIFICATIONS

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

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

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1701829 Temp: 3.9 °C
Storage ID: WR-2 Storage Secured: Yes [X] No [ ]

Project ID: 112G08005-WE05 PO#: _____ Sampler: LD/JB/BB (name)

TAT (check one): Standard: [X] 21 days; Rush (surcharge may apply): [ ] 14 days [ ] 7 days Specify: _____

Invoice to: Name | Company | Address | City | State | Ph# | Fax#
Tetra Tech | 5700 Lake Wright Dr. Suite 102 | Norfolk | VA

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Lauren Donston Lauren Donston	11/30/17	1730	Ian Arguello	12/1/17	0957
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: _____

Method of Shipment: Fed Ex

Tracking No.: _____

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
FT-MW08S-20171129	11-29-17	1512		2	P	GW			X						
FT-MW08S-FRB-20171129	11-29-17	1512				GA			X						FRB
FT-DUP01-20171129	11-29-17	1200		↓		GA			↓						Duplicate
FT-MW08I-20171129	↓	~~1428~~	1522 XD	6		GW									MS/MSD
FT-MW01S-20171130	11-30-17	~~0845~~	0935 XD	6		GW									MS/MSD
FT-MW02I-20171130	↓	0849		2		↓									
FT-MW01I-20171130		0932		2											
FT-DUP02-20171130		0900		2		GA									Duplicate
FT-MW02S-20171130		0952		2		GW									
FT-MW03S-20171130	↓	~~1030~~	1118 XD	2	↓	GW			↓						

Special Instructions/Comments:
~~Extract FRB. only analyze FRB extract if parent sample~~
Extract FRB. only analyze FRB extract if parent sample is positive for PFAS.

SEND DOCUMENTATION AND RESULTS TO:
Name: Kristi Francisco
Company: Tetra Tech
Address: 5700 Lake Wright Dr. Suite 102
City: Norfolk State: VA Zip: 23502
Phone: 757-466-4902 Fax: _____
Email: Kristi.Francisco@teratech.com

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

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

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

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1701829 Temp: 3.9 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: 112G08005-WE05 PO#: _____ Sampler: LD/JB/BB (name)

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

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
	Tetra Tech	5700 Lake Wright Dr. Suite 102	Norfolk	VA	757-466-4902	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Lauren Dorston Lauren Dorston	11/30/17	1730	Ian Arguelles	12/1/17	0957
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: _____

Method of Shipment: Fed Ex

Tracking No.: _____

Add Analysis(es) Requested

Sample ID	Date	Time	Location/Sample Description	Container(s) Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	EPA Method 537(DW only): PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
FT-MW09I-20171130	11-30-17	1122		2	P	GW			X						
FT-DUP03-20171130	11-30-17	1200				QA									Duplicate
FT-MW05I-20171130	"	1200				GW									
FT-MW07S-20171130	"	~~1250~~ 1336				GW									
FT-MW05S-20171130	"	1255				GW									
FT-MW06I-20171130	"	1322				GW									
FT-MW06I-FRB-20171130	"	1322				QA									FRB
FT-MW10I-20171130	"	1406				GW									
FT-MW06S-20171130	"	1437				GW									
FT-EB01-20171130	"	1500		↓	↓	QA			↓						Equipment Blank

Special Instructions/Comments: Extract FRB. only analyze FRB extract if parent sample is positive for PFAS

SEND DOCUMENTATION AND RESULTS TO:

Name: Kristi Francisco
Company: Tetra Tech
Address: 5700 Lake Wright Dr. Suite 102
City: Norfolk State: VA Zip: 23502
Phone: 757-466-4902 Fax: _____
Email: Kristi.Francisco@tetratech.com

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

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

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

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1701829 **TAT** Std

Samples Arrival:	**Date/Time** 12/1/17 0920	**Initials:** IA	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 12/2/17 1312	**Initials:** SR	**Location:** WR-2 **Shelf/Rack:** B6

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

Temp °C: 3.8 (uncorrected)	**Time:** 0956	**Thermometer ID:** IR-1
Temp °C: 3.9 (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 # 8102 9107 043	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	✓

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

Comments:

EXTRACTION INFORMATION

Process Sheet

Workorder: 1701829

Prep Expiration: 2017-Dec-13
Client: Tetra Tech

Workorder Due: 22-Dec-17 00:00

TAT: 21

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

Prep Batch: B7L0073

Prep Data Entered: 12-13-17 TL
Date and Initials

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

Initial Sequence:

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1701829-01	A	☑	☑	FT-MW08S-20171129		WR-2 B-6	HDPE Bottle, 250 mL
1701829-02		☑	☑	FT-MW08S-FRB-20171129		WR-2 B-6	HDPE Bottle, 250 mL
1701829-03		☑	☑	FT-DUP01-20171129		WR-2 B-6	HDPE Bottle, 250 mL
1701829-04	B C	☑	☑	FT-MW08I-20171129	**MS/MSD**	WR-2 B-6	HDPE Bottle, 250 mL
1701829-05	↓ ↓	☑	☑	FT-MW01S-20171130	**MS/MSD**	WR-2 B-6	HDPE Bottle, 250 mL
1701829-06		☑	☑	FT-MW02I-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-07		☑	☑	FT-MW01I-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-08		☑	☑	FT-DUP02-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-09		☑	☑	FT-MW02S-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-10		☑	☑	FT-MW03S-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-11		☑	☑	FT-MW09I-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-12		☑	☑	FT-DUP03-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-13		☑	☑	FT-MW05I-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-14		☑	☑	FT-MW07S-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-15		☑	☑	FT-MW05S-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-16		☑	☑	FT-MW06I-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-17		☑	☑	FT-MW06I-FRB-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-18		☑	☑	FT-MW10I-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-19		☑	☑	FT-MW06S-20171130		WR-2 B-6	HDPE Bottle, 250 mL
1701829-20		☑	☑	FT-EB01-20171130		WR-2 B-6	HDPE Bottle, 250 mL

WO Comments: **Provide all analytical runs.**
MS/MSD per batch, if MS/MSD is not provided - LCS/LCSD.

Pre-Prep Check Out: 12/11/17 ST 12/12/17 Prep Check Out: N/A

Pre-Prep Check In: N/A Prep Check In: N/A

Prep Reconciled Initals/Date: 12/12/17 ST

Spike Reconciled Initals/Date: KC 12/12/17

VialBoxID: Glenn

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

B7L0073

Chemist: KC

Prep Date/Time: 12-Dec-17 ~~10:05~~ 13:15 KC 12/12/17

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: 12/12/17 JT | BalanceID: HRMS-8

Cen	VISTA Sample ID	pH Before	pH After	Chlorine (Cl)	Drops HCl Added	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
☐	B7L0073-BLK1	5	2	0	2	N/A	N/A	(0.250) ✓	KC GRB 12/12/17	JK 12.12.17	JK GRB 12.12.17
☐	B7L0073-BS1	5	2	0	2	↓	↓	(0.250) ✓	↓	↓	↓
☒	B7L0073-MS1 1701829-04	5	2	0	2	267.88	27.56	0.24032 ✓	↓	↓	↓
☐	B7L0073-MS2 1701829-05	4	2	0	1	286.22	27.82	0.25840 ✓	↓	↓	↓
☒	B7L0073-MSD1 1701829-04	5	2	0	2	282.35	26.96	0.25539 ✓	↓	↓	↓
☐	B7L0073-MSD2 1701829-05	4	2	0	1	285.51	26.98	0.25853 ✓	↓	↓	↓
☐	1701829-01	4	2	0	1	292.72	27.65	0.26507 ✓	↓	↓	↓
☐	1701829-02	4	2	0	1	295.23	27.61	0.26762 ✓	↓	↓	↓
☐	1701829-03	4	2	0	1	291.32	27.67	0.25365 ✓	↓	↓	↓
☒	1701829-04	~~4~~ 5 12/13/17	2	0	2	289.44	27.89	~~0.26155~~ 0.26160 ✓	KC 12/13/17	↓	↓
☐	1701829-05	4	2	0	1	290.99	27.87	0.25312 ✓	↓	↓	↓
☐	1701829-06	4	2	0	1	292.17	27.89	0.26433 ✓	↓	↓	↓
☐	1701829-07	4	2	0	1	289.59	27.68	0.26191 ✓	↓	↓	↓
☐	1701829-08	4	2	0	1	294.92	27.83	0.26709 ✓	↓	↓	↓
☐	1701829-09	6	2	0	6	296.56	27.78	0.25878 ✓	↓	↓	↓

IS: 17L0402, 10µL (V5)

IS SUP: NA KC 12/12/17

NS: ~~NA~~ 17J1829, 10µL (V2)

RS: 17L2502, 10µL (V4)

SPE Chem: Strata X-AW 33µm 200mg 6mL

Ele SOLV: 0.5% MtOH in MeOH/MeOH

Final Volume(s) 1 mL 2

Notes:

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

B7L0073

Chemist: KC

Prep Date/Time: 12-Dec-17 ~~10:05~~ 13:15 KC 12/12/17

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: 12/12/17 ST | BalanceID: HRMS-8

Cen	VISTA Sample ID	pH Before	pH After	Chlorine (Cl)	Drops HCl Added	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
☐	1701829-10	6	2	0	3	289.13	27.57	0.26156	KC GRB 12/12/17	KC 12-12-17	KC GRB 12-12-17
☐	1701829-11	5	2	0	2	278.81	27.63	0.25118			
☐	1701829-12	5	2	0	2	273.09	27.70	0.24539			
☐	1701829-13	4	2	0	1	286.44	27.70	0.25874			
☐	1701829-14	4	2	0	1	289.44	27.70	0.26174			
☐	1701829-15	5	2	0	2	284.50	27.69	0.25681			
☐	1701829-16	4	2	0	1	277.66	27.78	0.24988			
☐	1701829-17	4	2	0	1	296.26	27.70	0.26856			
☐	1701829-18	4	2	0	1	279.94	26.98	0.25296			
☐	1701829-19	4	2	0	1	279.89	27.69	0.25220			
☐	1701829-20	5	2	0	2	286.78	27.02	0.25976			

IS: 17L0402, 10 µL (V5)

IS SUP: NA

NS: 17J1820, 10 µL (V2)

RS: 17K2502, 10 µL (V4)

SPE Chem: Strata X-AW 33 µm 200 mg 6 mL

Ele SOLV: 0.5% NH4OH in MeOH/MeOH

Final Volume(s) 1 mL

Notes:

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

Batch: B7L0073

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1701829-01	0.26507	NA	NA	1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-02	0.26762			1000	12-Dec-17 13:15	KC			QC Water	537M PFAS DOD (LOQ as
1701829-03	0.25365			1000	12-Dec-17 13:15	KC			QC Water	537M PFAS DOD (LOQ as
1701829-04	0.2616			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-05	0.25312			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-06	0.26433			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-07	0.26191			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-08	0.26709			1000	12-Dec-17 13:15	KC			QC Water	537M PFAS DOD (LOQ as
1701829-09	0.25878			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-10	0.26156			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-11	0.25118			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-12	0.24539			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-13	0.25874			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-14	0.26174			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-15	0.25681			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-16	0.24988			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-17	0.26856			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-18	0.25296			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-19	0.2522			1000	12-Dec-17 13:15	KC			Groundwater	537M PFAS DOD (LOQ as
1701829-20	0.25976			1000	12-Dec-17 13:15	KC			QC Water	537M PFAS DOD (LOQ as
B7L0073-BLK1	~~0.125~~ 0.250 CT			1000	12-Dec-17 13:15	KC				QC
B7L0073-BS1	~~0.125~~ 0.250 12/18			1000	12-Dec-17 13:15	KC	17J1820	10		QC
B7L0073-MS1	0.24032			1000	12-Dec-17 13:15	KC	17J1820	10		QC
B7L0073-MS2	0.2584			1000	12-Dec-17 13:15	KC	17J1820	10		QC
B7L0073-MSD1	0.25539			1000	12-Dec-17 13:15	KC	17J1820	10		QC
B7L0073-MSD2	0.25853			1000	12-Dec-17 13:15	KC	17J1820	10		QC

TC 12.13.17

SAMPLE DATA – MODIFIED EPA METHOD 537

Vista Analytical Laboratory

Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-35.qld

Last Altered: Friday, December 29, 2017 11:23:41 Pacific Standard Time
Printed: Friday, December 29, 2017 11:25:35 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 28 Dec 2017 14:10:02
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_35, Date: 27-Dec-2017, Time: 23:45:34, ID: B7L0073-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.52e3	0.250		2.70				
2	4	PFHxA	313.2 > 268.9		3.27e3	0.250		3.20				
3	5	PFHpA	363.0 > 318.9		7.89e3	0.250		3.80				
4	6	L-PFHxS	398.9 > 79.6	2.25e0	1.06e3	0.250		3.95	3.98	0.0266	0.2097	
5	9	L-PFOA	413 > 368.7		1.40e4	0.250		4.32				
6	12	PFNA	463.0 > 418.8	9.36e1	8.46e3	0.250		4.75	4.76	0.138	0.3943	
7	14	L-PFOS	499 > 79.9		2.45e3	0.250		4.83				
8	16	PFDA	513 > 468.8		8.57e3	0.250		5.11				
9	18	N-MeFOSAA	570.1 > 419		4.00e3	0.250		5.26				
10	19	N-EtFOSAA	584.2 > 419		4.51e3	0.250		5.42				
11	20	PFUdA	563.0 > 518.9		9.36e3	0.250		5.43				
12	22	PFDoA	612.9 > 569.0		5.92e3	0.250		5.70				

MSF 12/29/17

Vista Analytical Laboratory

Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-35.qld

Last Altered: Friday, December 29, 2017 11:23:41 Pacific Standard Time
Printed: Friday, December 29, 2017 11:25:50 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 28 Dec 2017 14:10:02
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_35, Date: 27-Dec-2017, Time: 23:45:34, ID: B7L0073-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		5.92e3	0.250		5.95				
2	25	PFTeDA	712.9 > 668.8		1.42e3	0.250		6.16				
3	33	13C3-PFBS	302. > 98.8	1.52e3	1.28e4	0.250	0.101	2.70	2.75	1.47	58.1877	116.4
4	34	13C2-PFHxA	315 > 269.8	3.27e3	1.28e4	0.250	0.601	3.20	3.24	3.19	21.2157	106.1
5	35	13C4-PFHpA	367.2 > 321.8	7.89e3	1.28e4	0.250	0.676	3.80	3.84	7.68	45.4407	90.9
6	36	18O2-PFHxS	403.0 > 102.6	1.06e3	3.21e3	0.250	0.347	3.95	3.98	4.13	47.6608	95.3
7	37	13C2-6:2 FTS	429.1 > 408.9	2.86e3	1.42e4	0.250	0.210	4.26	4.29	2.51	47.9143	95.8
8	38	13C2-PFOA	414.9 > 369.7	1.40e4	1.42e4	0.250	0.990	4.32	4.34	12.3	49.8177	99.6
9	39	13C5-PFNA	468.2 > 422.9	8.46e3	1.11e4	0.250	0.845	4.75	4.76	9.55	45.2112	90.4
10	40	13C8-PFOSA	506.1 > 77.7	1.29e3	1.35e4	0.250	0.199	4.81	4.83	1.19	23.9420	47.9
11	41	13C8-PFOS	507.0 > 79.9	2.45e3	3.25e3	0.250	0.865	4.83	4.84	9.42	43.5615	87.1
12	42	13C2-PFDA	515.1 > 469.9	8.57e3	1.04e4	0.250	0.886	5.11	5.12	10.3	46.4644	92.9
13	43	13C2-8:2 FTS	529.1 > 508.7	1.38e3	1.28e4	0.250	0.136	5.09	5.10	1.35	39.7066	79.4
14	44	d3-N-MeFOSAA	573.3 > 419	4.00e3	1.35e4	0.250	0.409	5.26	5.27	3.71	36.2618	72.5
15	45	d5-N-EtFOSAA	589.3 > 419	4.51e3	1.35e4	0.250	0.474	5.42	5.42	4.18	35.2565	70.5
16	46	13C2-PFUdA	565 > 519.8	9.36e3	1.35e4	0.250	0.928	5.43	5.44	8.67	37.3423	74.7
17	47	13C2-PFDoA	615.0 > 569.7	5.92e3	1.35e4	0.250	0.636	5.70	5.71	5.48	34.4743	68.9
18	49	13C2-PFTeDA	714.8 > 669.6	1.42e3	1.35e4	0.250	0.163	6.16	6.16	1.31	32.2893	64.6
19	55	13C5-PFHxA	318 > 272.9	1.28e4	1.28e4	0.250	1.000	3.20	3.24	12.5	50.0000	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.21e3	3.21e3	0.250	1.000	3.95	3.98	12.5	50.0000	100.0
21	57	13C8-PFOA	421.3 > 376	1.42e4	1.42e4	0.250	1.000	4.32	4.34	12.5	50.0000	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.11e4	1.11e4	0.250	1.000	4.75	4.76	12.5	50.0000	100.0
23	59	13C4-PFOS	503 > 79.9	3.25e3	3.25e3	0.250	1.000	4.83	4.84	12.5	50.0000	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.04e4	1.04e4	0.250	1.000	5.11	5.12	12.5	50.0000	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.35e4	1.35e4	0.250	1.000	5.43	5.44	12.5	50.0000	100.0
26	62	Total PFHxS	398.9 > 79.6	2.25e0	1.06e3	0.250		4.00		0.0266	0.2097	
27	63	Total PFOA	413 > 368.7	0.00e0	1.40e4	0.250		4.30		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.45e3	0.250		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	4.00e3	0.250		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.51e3	0.250		5.40		0.000		

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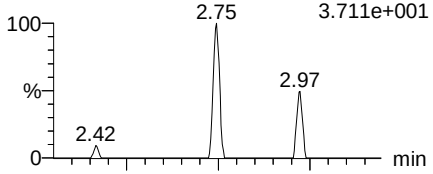
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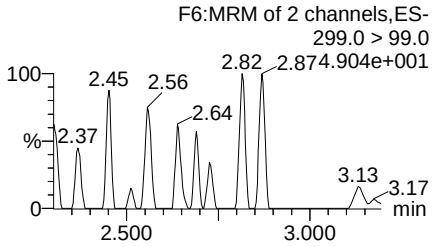
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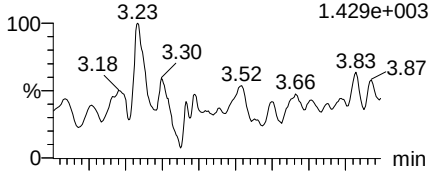
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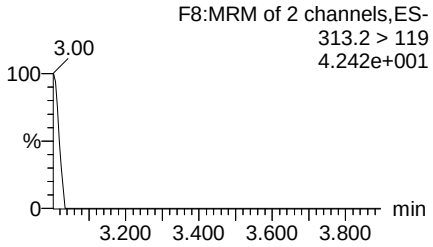
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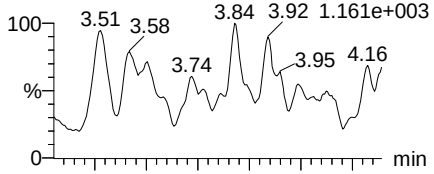


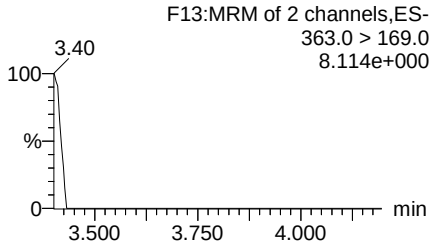
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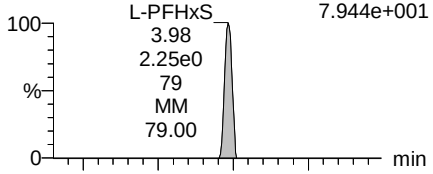


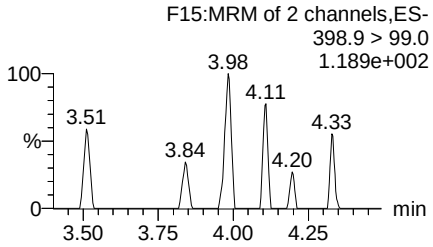
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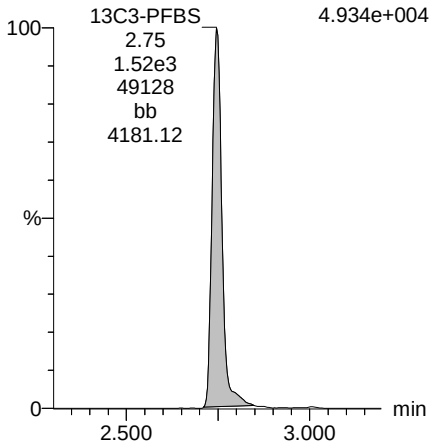


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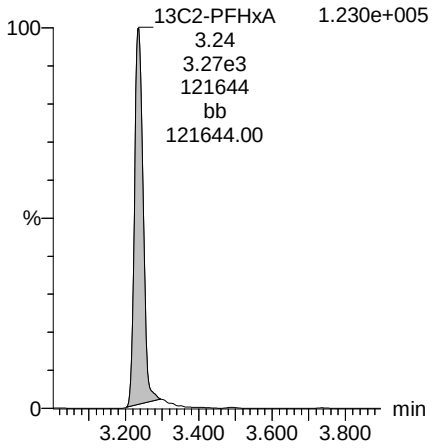




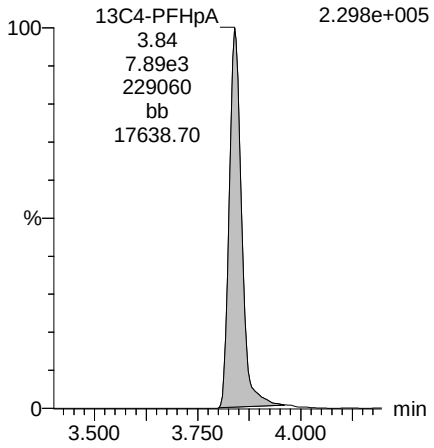
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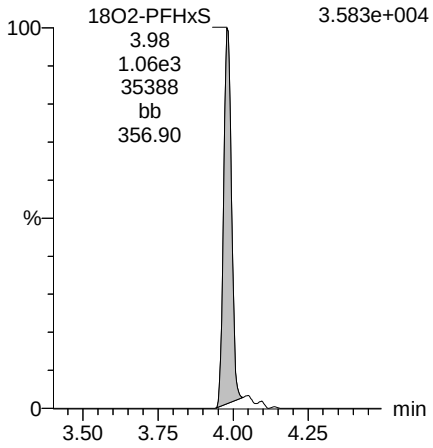
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13C4-PFHpA



18O2-PFHxS



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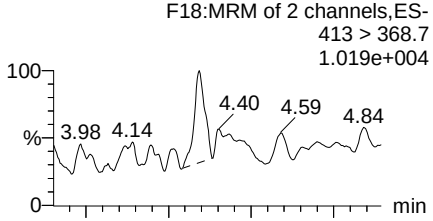
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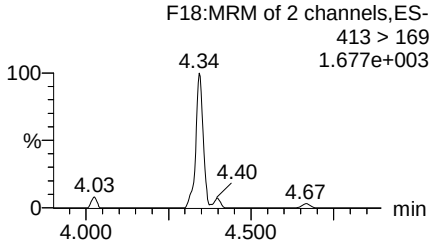
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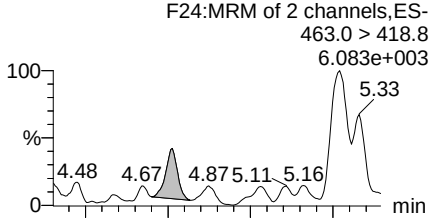
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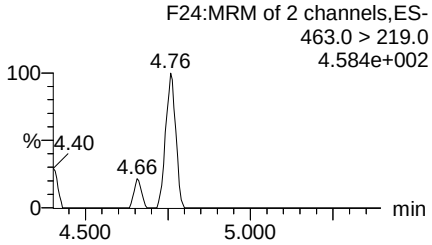
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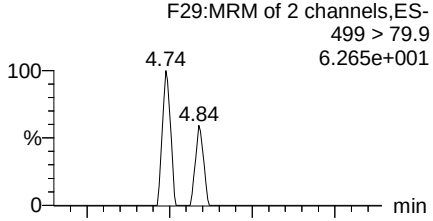


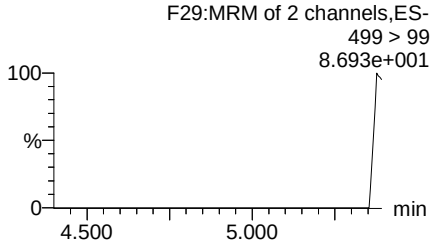
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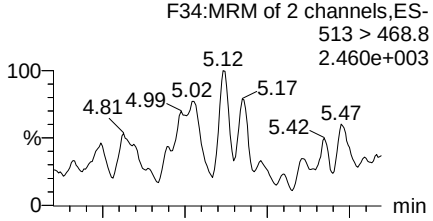


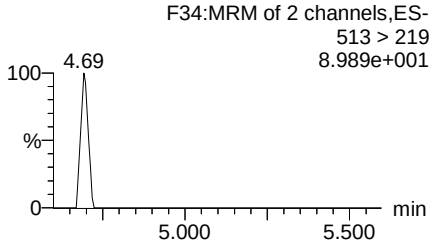
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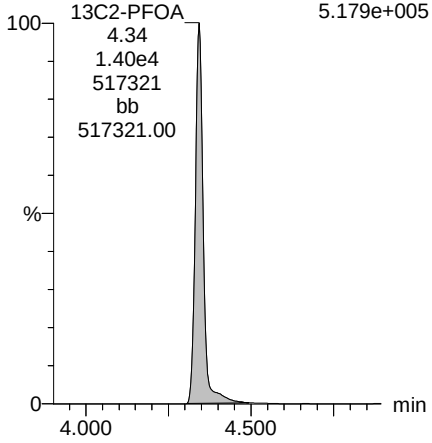


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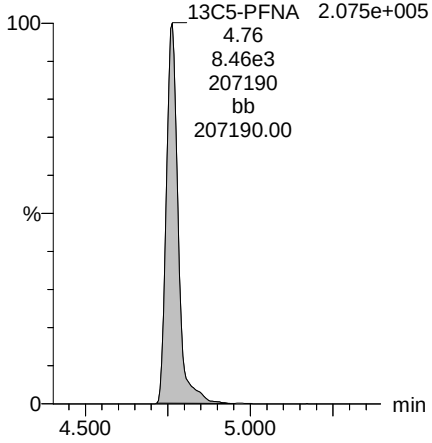




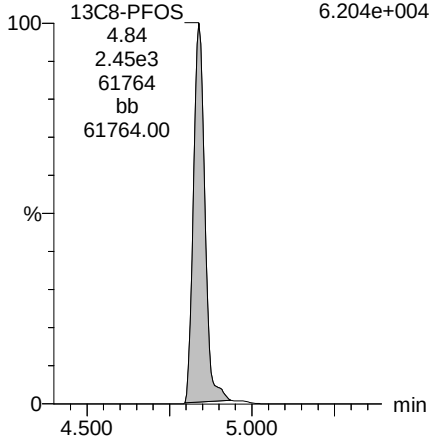
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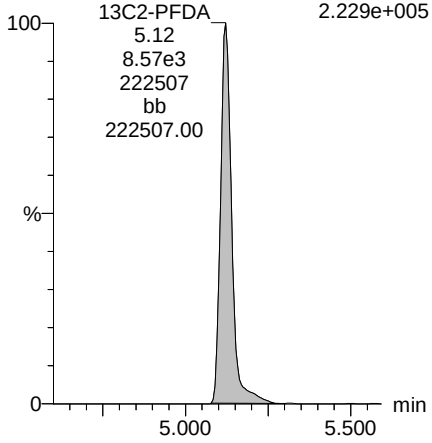
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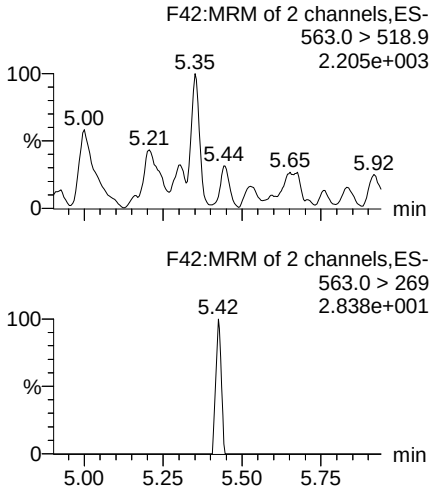
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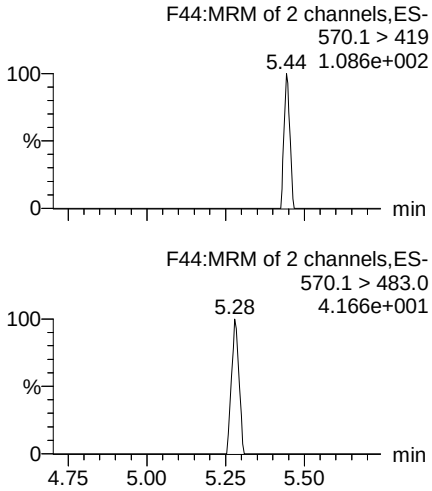
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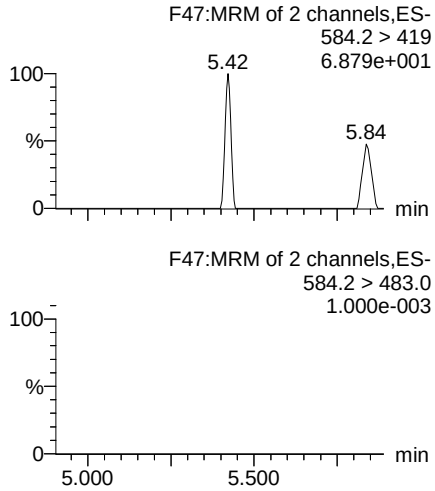
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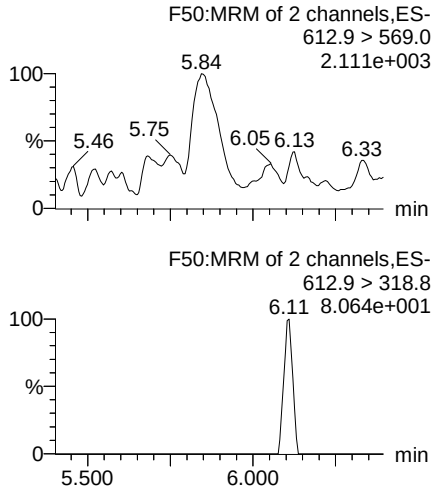
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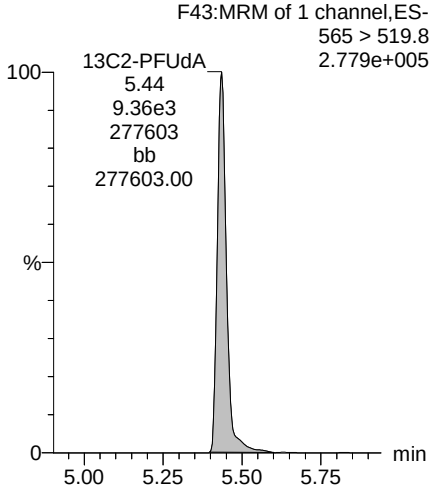
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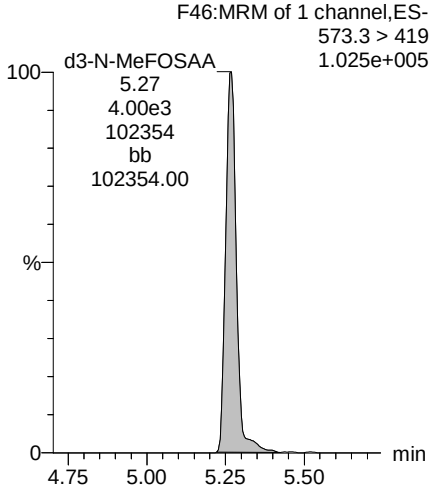
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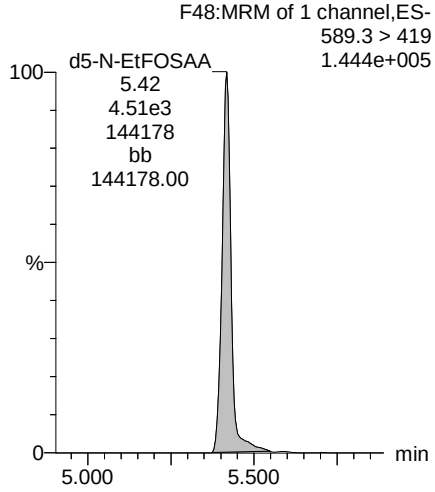
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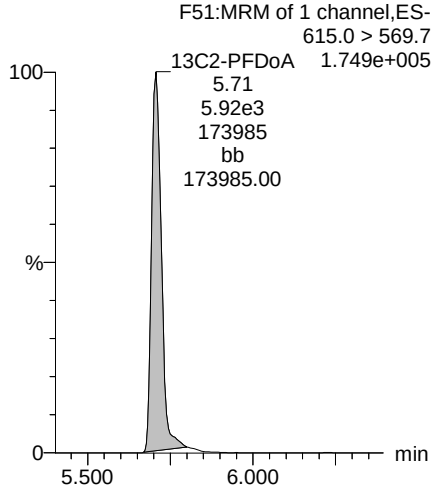
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d5-N-EtFOSAA



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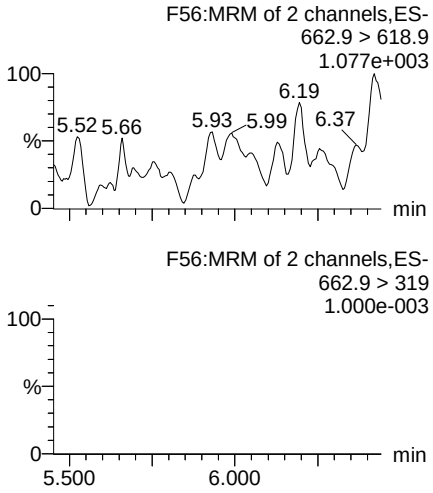
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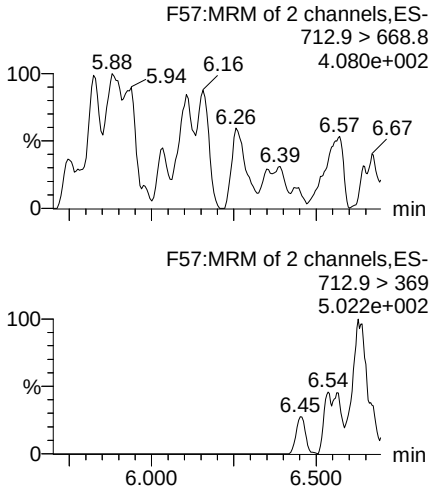
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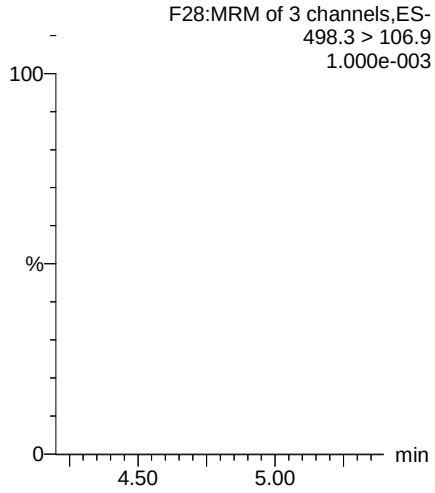
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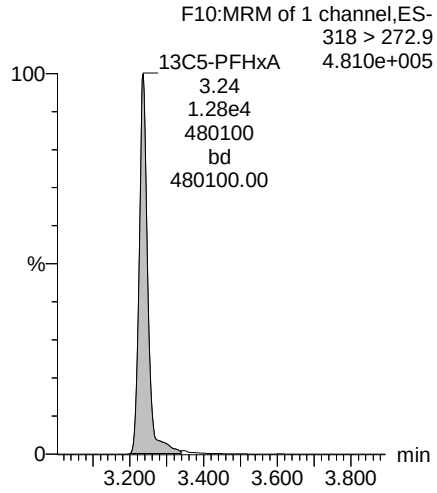
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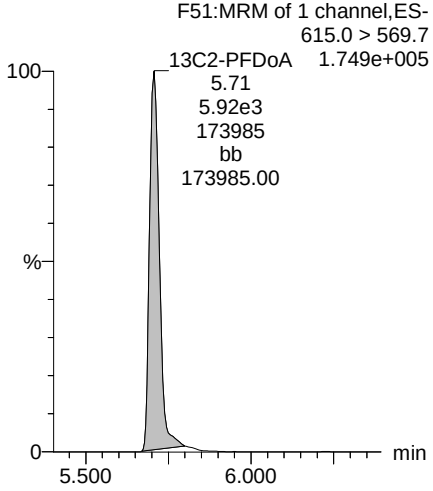
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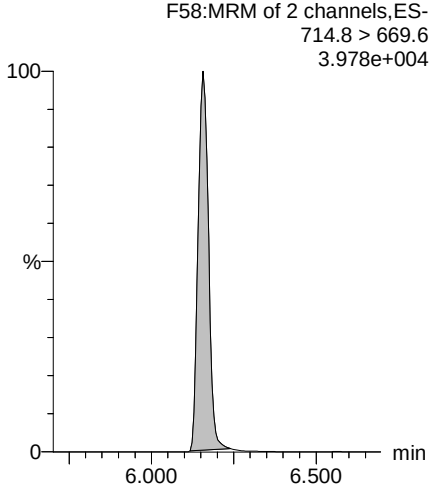
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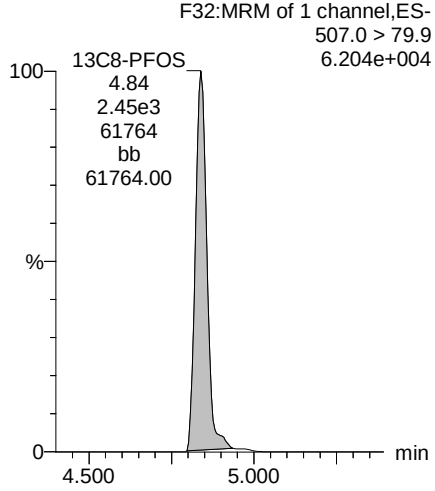
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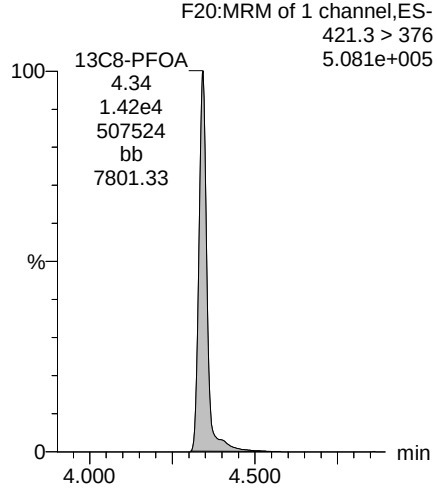
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13C8-PFOS



13C8-PFOA



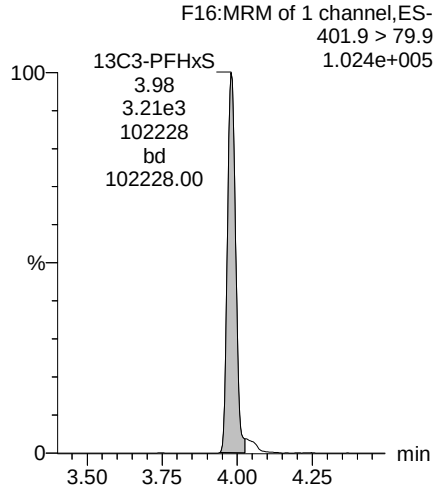
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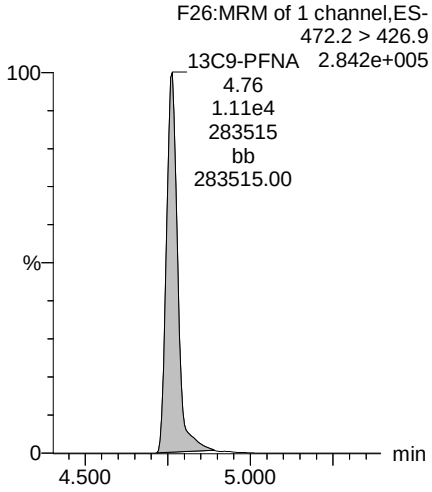
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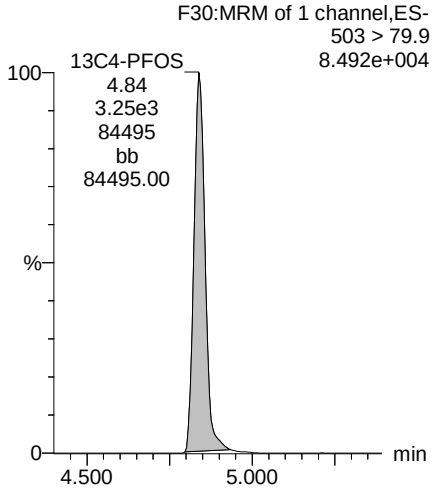
13C3-PFHxS



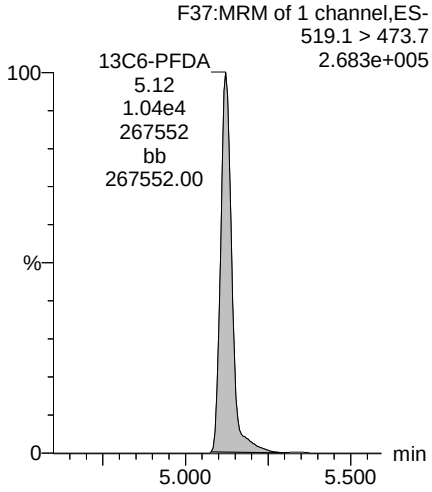
13C9-PFNA



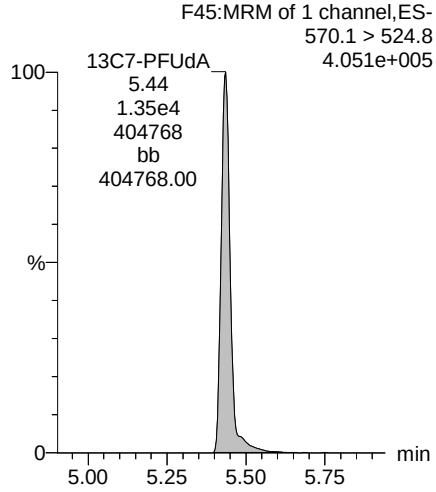
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-33.qld

Last Altered: Friday, December 29, 2017 11:11:02 Pacific Standard Time
Printed: Friday, December 29, 2017 11:19:13 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 28 Dec 2017 14:10:02
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_33, Date: 27-Dec-2017, Time: 23:23:12, ID: B7L0073-BS1 OPR 0.125, Description: OPR

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.62e3	1.44e3	0.250		2.70	2.75	22.7	38.3126	95.8
2	4	PFHxA	313.2 > 268.9	1.16e4	3.45e3	0.250		3.20	3.24	16.9	33.1043	82.8
3	5	PFHpA	363.0 > 318.9	1.20e4	9.14e3	0.250		3.80	3.84	16.4	39.9696	99.9
4	6	L-PFHxS	398.9 > 79.6	2.12e3	1.44e3	0.250		3.95	3.98	18.4	34.5755	86.4
5	9	L-PFOA	413 > 368.7	1.44e4	1.55e4	0.250		4.32	4.34	11.6	36.4402	91.1
6	12	PFNA	463.0 > 418.8	1.12e4	9.89e3	0.250		4.75	4.76	14.1	36.7864	92.0
7	14	L-PFOS	499 > 79.9	2.88e3	3.36e3	0.250		4.83	4.84	10.7	34.5749	86.4
8	16	PFDA	513 > 468.8	9.97e3	1.00e4	0.250		5.11	5.12	12.4	33.0111	82.5
9	18	N-MeFOSAA	570.1 > 419	5.74e3	4.17e3	0.250		5.26	5.27	17.2	40.8786	102.2
10	19	N-EtFOSAA	584.2 > 419	5.03e3	4.82e3	0.250		5.42	5.42	13.0	43.2916	108.2
11	20	PFUdA	563.0 > 518.9	9.82e3	1.05e4	0.250		5.43	5.44	11.6	45.0791	112.7
12	22	PFDoA	612.9 > 569.0	8.87e3	6.99e3	0.250		5.70	5.71	15.9	36.0888	90.2

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Vista Analytical Laboratory

Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-33.qld

Last Altered: Friday, December 29, 2017 11:11:02 Pacific Standard Time
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Name: 171227M2_33, Date: 27-Dec-2017, Time: 23:23:12, ID: B7L0073-BS1 OPR 0.125, Description: OPR

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	9.93e3	6.99e3	0.250		5.95	5.94	17.8	43.2091	108.0
2	25	PFTeDA	712.9 > 668.8	4.75e3	2.37e3	0.250		6.16	6.16	25.0	36.8423	92.1
3	33	13C3-PFBS	302. > 98.8	1.44e3	1.30e4	0.250	0.101	2.70	2.75	1.39	54.6550	109.3
4	34	13C2-PFHxA	315 > 269.8	3.45e3	1.30e4	0.250	0.601	3.20	3.24	3.31	22.0566	110.3
5	35	13C4-PFHpA	367.2 > 321.8	9.14e3	1.30e4	0.250	0.676	3.80	3.84	8.78	51.9122	103.8
6	36	18O2-PFHxS	403.0 > 102.6	1.44e3	3.92e3	0.250	0.347	3.95	3.98	4.59	52.9387	105.9
7	37	13C2-6:2 FTS	429.1 > 408.9	3.21e3	1.33e4	0.250	0.210	4.26	4.29	3.02	57.5895	115.2
8	38	13C2-PFOA	414.9 > 369.7	1.55e4	1.33e4	0.250	0.990	4.32	4.34	14.6	58.9142	117.8
9	39	13C5-PFNA	468.2 > 422.9	9.89e3	1.14e4	0.250	0.845	4.75	4.76	10.9	51.5535	103.1
10	40	13C8-PFOSA	506.1 > 77.7	1.28e3	1.29e4	0.250	0.199	4.81	4.83	1.24	24.8515	49.7
11	41	13C8-PFOS	507.0 > 79.9	3.36e3	3.34e3	0.250	0.865	4.83	4.84	12.6	58.1403	116.3
12	42	13C2-PFDA	515.1 > 469.9	1.00e4	1.20e4	0.250	0.886	5.11	5.12	10.4	46.9753	94.0
13	43	13C2-8:2 FTS	529.1 > 508.7	2.11e3	1.30e4	0.250	0.136	5.09	5.10	2.03	59.6824	119.4
14	44	d3-N-MeFOSAA	573.3 > 419	4.17e3	1.29e4	0.250	0.409	5.26	5.26	4.05	39.6129	79.2
15	45	d5-N-EtFOSAA	589.3 > 419	4.82e3	1.29e4	0.250	0.474	5.42	5.41	4.68	39.5367	79.1
16	46	13C2-PFUdA	565 > 519.8	1.05e4	1.29e4	0.250	0.928	5.43	5.43	10.2	44.0879	88.2
17	47	13C2-PFDoA	615.0 > 569.7	6.99e3	1.29e4	0.250	0.636	5.70	5.71	6.79	42.6731	85.3
18	49	13C2-PFTeDA	714.8 > 669.6	2.37e3	1.29e4	0.250	0.163	6.16	6.16	2.30	56.6059	113.2
19	55	13C5-PFHxA	318 > 272.9	1.30e4	1.30e4	0.250	1.000	3.20	3.23	12.5	50.0000	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.92e3	3.92e3	0.250	1.000	3.95	3.98	12.5	50.0000	100.0
21	57	13C8-PFOA	421.3 > 376	1.33e4	1.33e4	0.250	1.000	4.32	4.34	12.5	50.0000	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.14e4	1.14e4	0.250	1.000	4.75	4.76	12.5	50.0000	100.0
23	59	13C4-PFOS	503 > 79.9	3.34e3	3.34e3	0.250	1.000	4.83	4.84	12.5	50.0000	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.20e4	1.20e4	0.250	1.000	5.11	5.12	12.5	50.0000	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.29e4	1.29e4	0.250	1.000	5.43	5.43	12.5	50.0000	100.0
26	62	Total PFHxS	398.9 > 79.6	2.12e3	1.44e3	0.250		4.00		18.4	34.5755	
27	63	Total PFOA	413 > 368.7	1.44e4	1.55e4	0.250		4.30		11.6	36.4402	
28	64	Total PFOS	499 > 79.9	2.88e3	3.36e3	0.250		4.80		10.7	34.5749	
29	65	Total N-MeFOSAA	570.1 > 419	5.74e3	4.17e3	0.250		5.20		17.2	40.8786	
30	66	Total N-EtFOSAA	584.2 > 419	5.13e3	4.82e3	0.250		5.40		13.3	44.4003	

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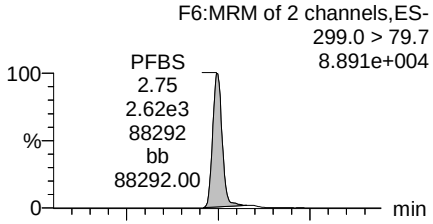
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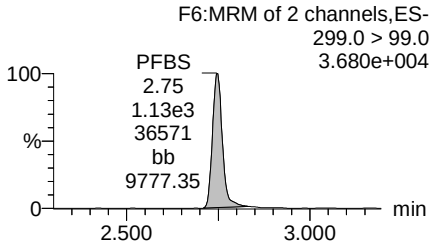
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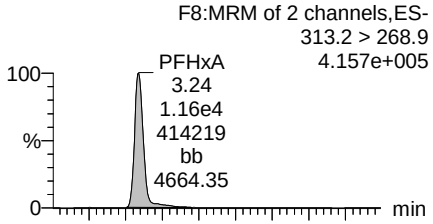
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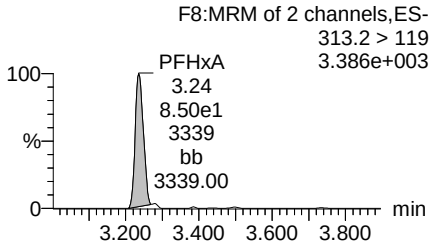
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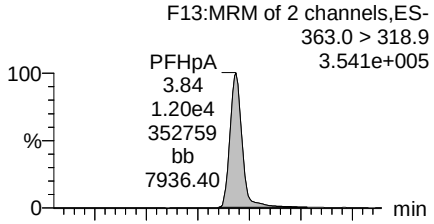


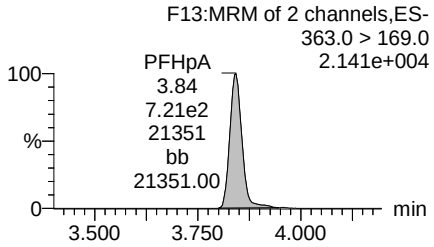
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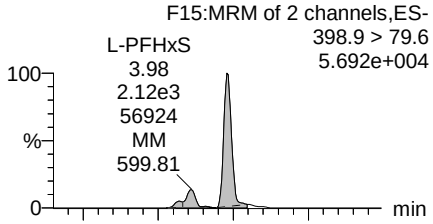


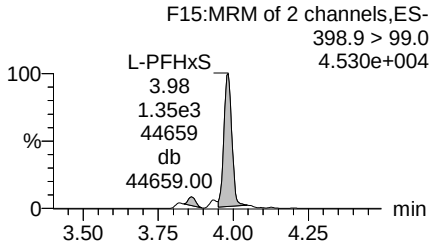
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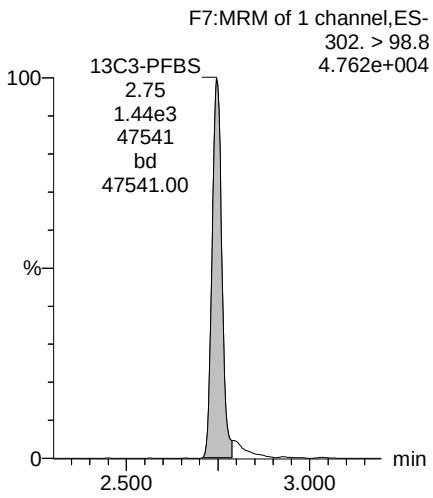


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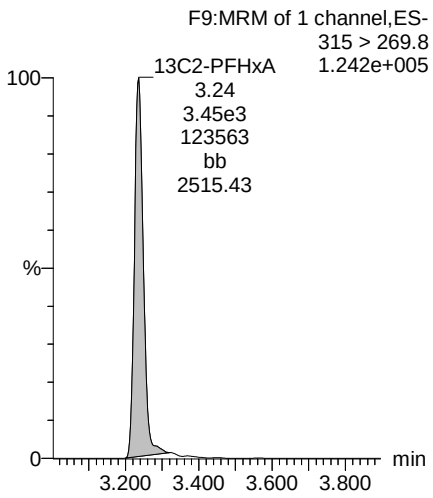




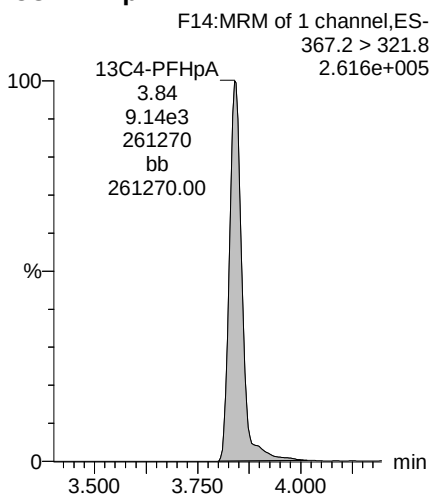
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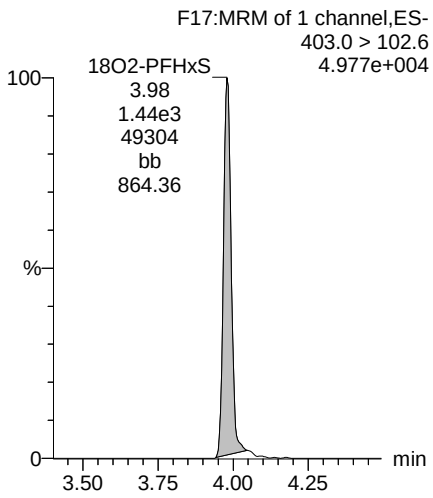
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13C4-PFHpA



18O2-PFHxS



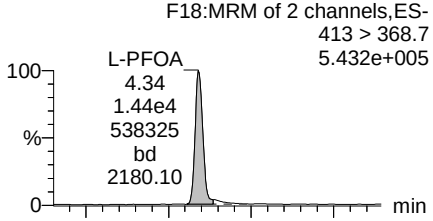
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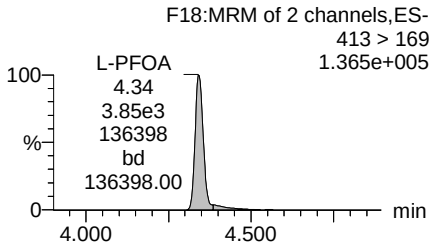
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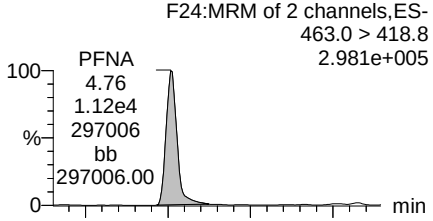
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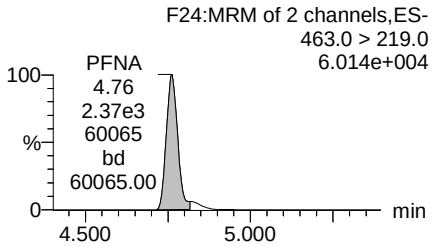
Total PFOA



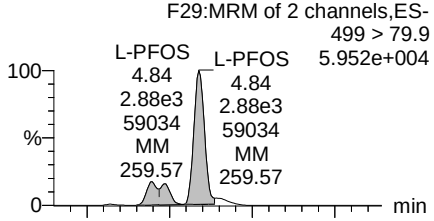


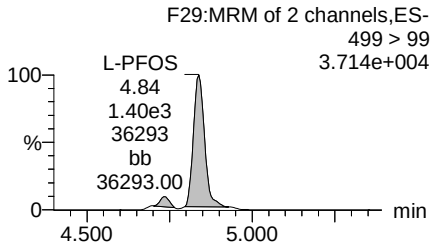
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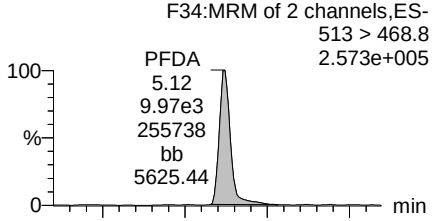


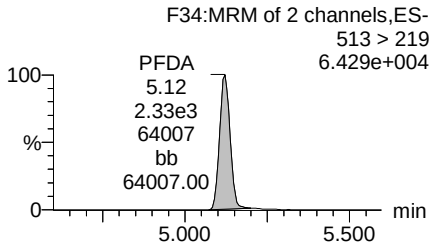
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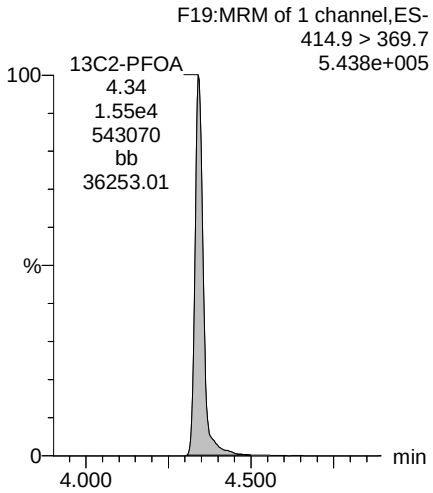


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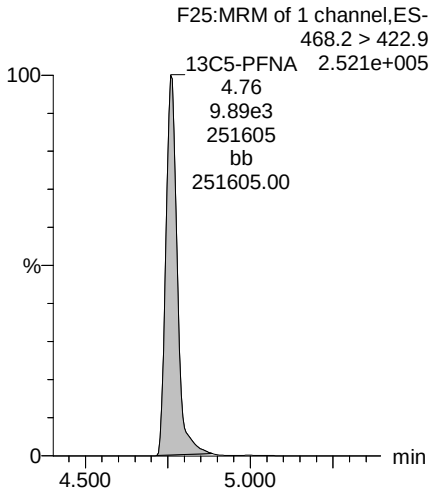




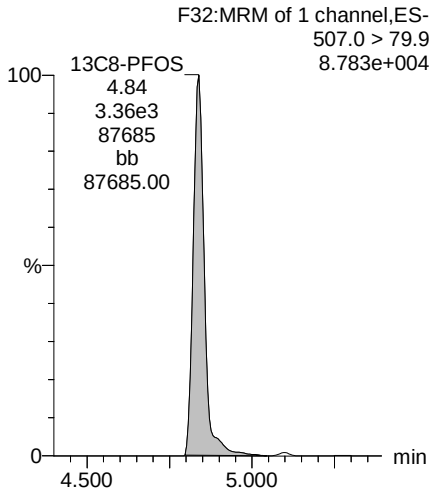
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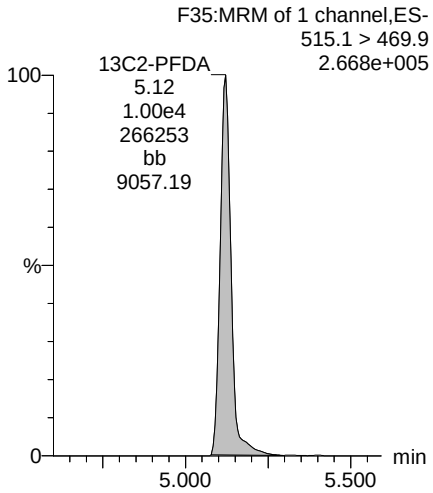
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13C8-PFOS



13C2-PFDA



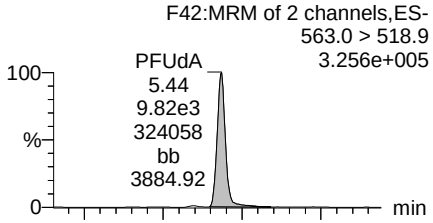
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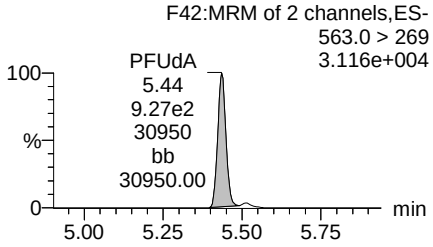
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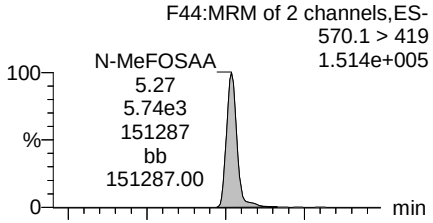
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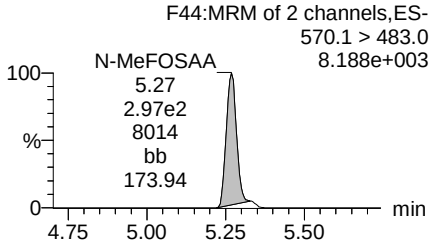
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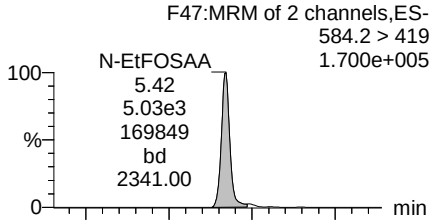


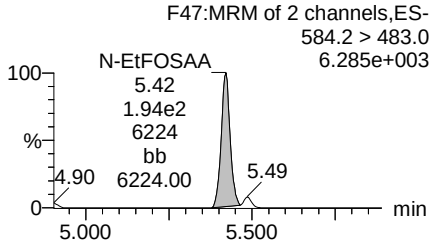
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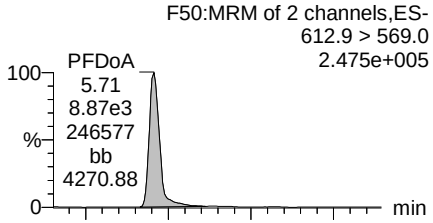


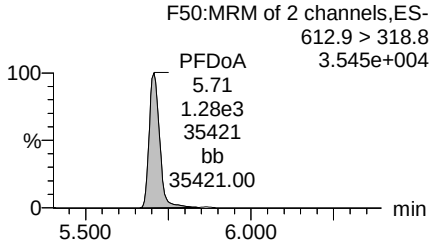
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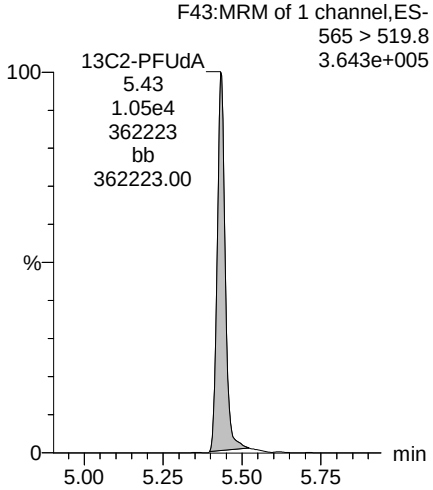


PFDoA

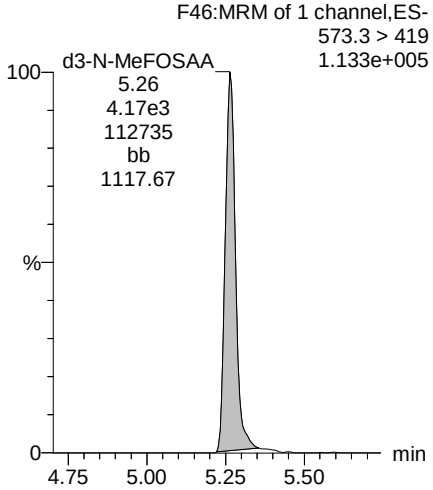




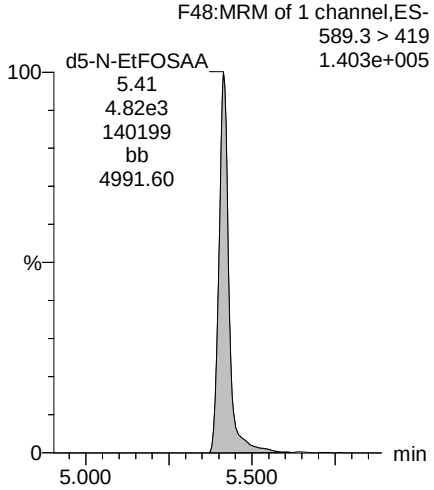
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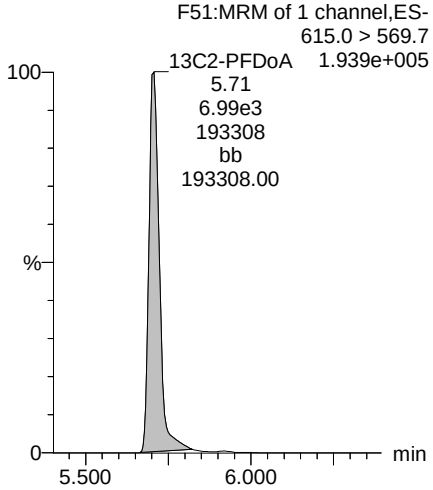
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



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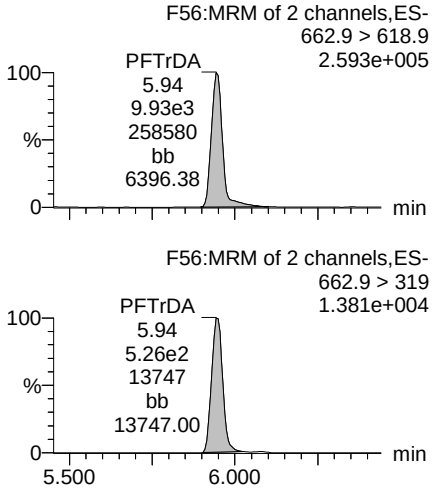
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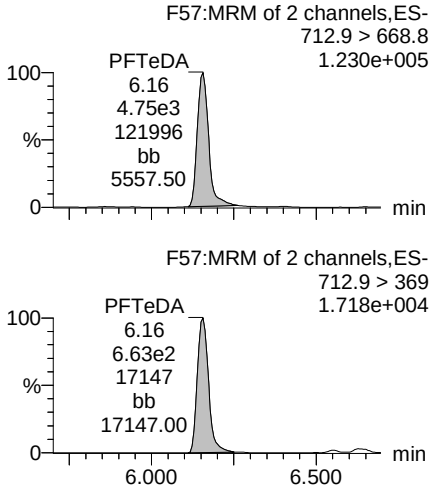
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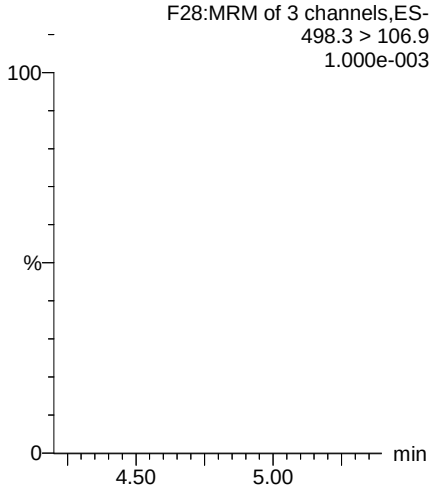
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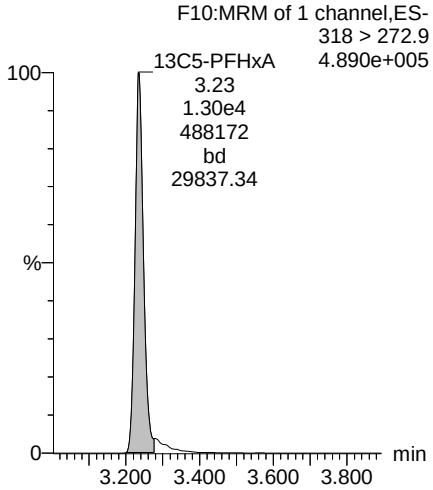
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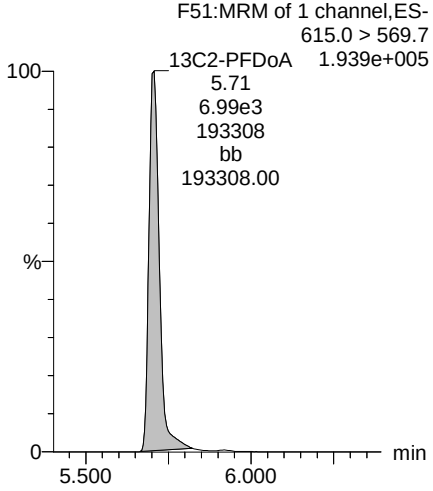
TCDA



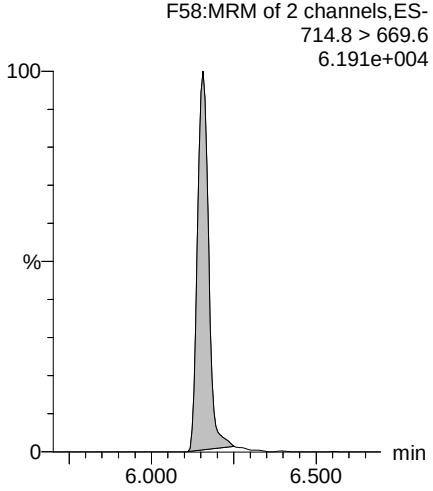
13C5-PFHxA



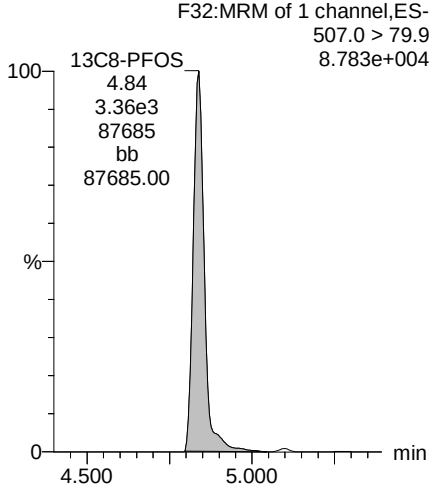
13C2-PFDoA



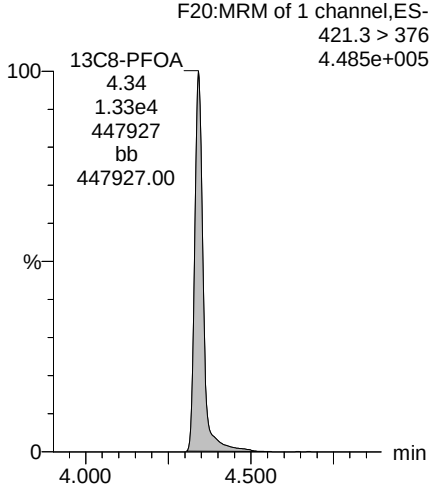
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13C8-PFOS



13C8-PFOA



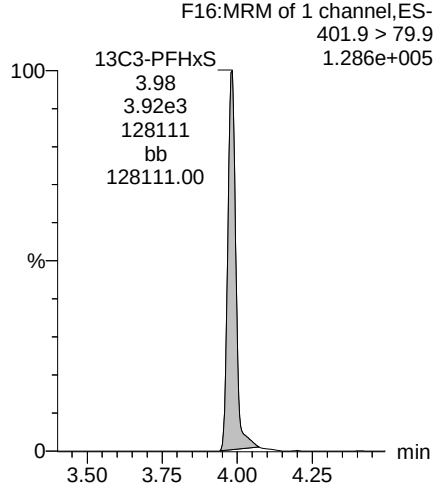
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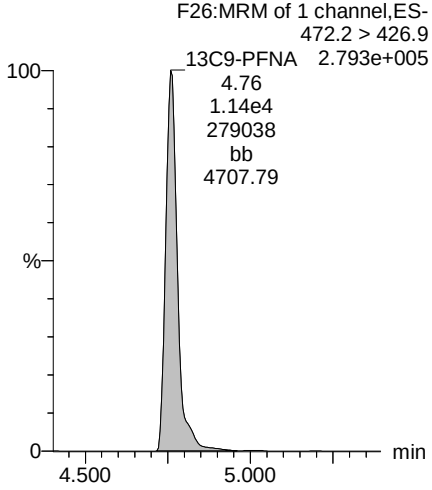
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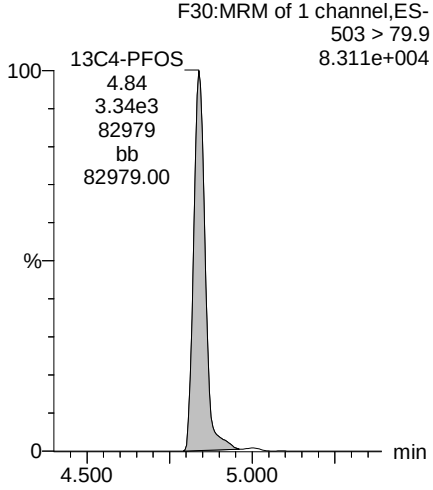
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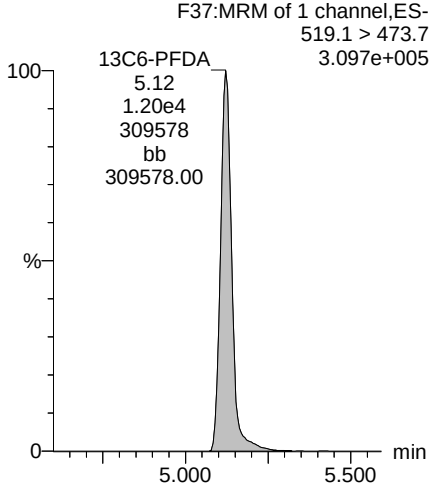
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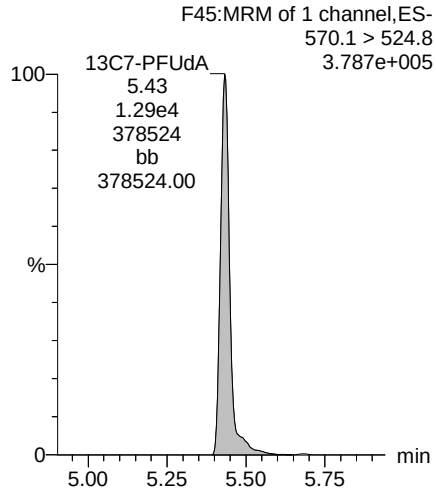
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171227M2\171227M2-43.qld

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Printed: Friday, December 29, 2017 11:55:07 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_43, Date: 28-Dec-2017, Time: 01:15:02, ID: 1701829-01 FT-MW08S-20171129 0.26507, Description: FT-MW08S-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	7.87e1	1.62e3	0.265		2.70	2.75	0.605	1.7595	
2	4	PFHxA	313.2 > 268.9	6.61e3	3.98e3	0.265		3.20	3.24	8.30	15.5378	
3	5	PFHpA	363.0 > 318.9	6.30e3	8.79e3	0.265		3.80	3.84	8.95	20.7229	
4	6	L-PFHxS	398.9 > 79.6	1.90e3	1.12e3	0.265		3.95	3.98	21.2	37.5367	
5	9	L-PFOA	413 > 368.7	1.49e4	1.33e4	0.265		4.32	4.34	14.0	41.6584	
6	12	PFNA	463.0 > 418.8	5.90e4	1.17e4	0.265		4.75	4.76	63.2	154.2990	
7	14	L-PFOS	499 > 79.9	5.90e3	2.68e3	0.265		4.83	4.84	27.5	83.4503	
8	16	PFDA	513 > 468.8	3.77e3	1.05e4	0.265		5.11	5.12	4.47	11.1290	
9	18	N-MeFOSAA	570.1 > 419		5.80e3	0.265		5.26				
10	19	N-EtFOSAA	584.2 > 419		6.22e3	0.265		5.42				
11	20	PFUdA	563.0 > 518.9	1.72e4	1.26e4	0.265		5.43	5.44	17.1	62.1442	
12	22	PFDoA	612.9 > 569.0		8.92e3	0.265		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-43.qld

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Name: 171227M2_43, Date: 28-Dec-2017, Time: 01:15:02, ID: 1701829-01 FT-MW08S-20171129 0.26507, Description: FT-MW08S-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		8.92e3	0.265		5.95				
2	25	PFTeDA	712.9 > 668.8		3.17e3	0.265		6.16				
3	33	13C3-PFBS	302. > 98.8	1.62e3	1.49e4	0.265	0.101	2.70	2.75	1.37	50.8770	107.9
4	34	13C2-PFHxA	315 > 269.8	3.98e3	1.49e4	0.265	0.601	3.20	3.24	3.35	21.0609	111.7
5	35	13C4-PFHpA	367.2 > 321.8	8.79e3	1.49e4	0.265	0.676	3.80	3.84	7.40	41.2731	87.5
6	36	18O2-PFHxS	403.0 > 102.6	1.12e3	3.51e3	0.265	0.347	3.95	3.98	3.98	43.3473	91.9
7	37	13C2-6:2 FTS	429.1 > 408.9	3.45e3	1.25e4	0.265	0.210	4.26	4.29	3.45	62.0586	131.6
8	38	13C2-PFOA	414.9 > 369.7	1.33e4	1.25e4	0.265	0.990	4.32	4.35	13.4	50.9027	107.9
9	39	13C5-PFNA	468.2 > 422.9	1.17e4	1.46e4	0.265	0.845	4.75	4.76	9.99	44.5968	94.6
10	40	13C8-PFOSA	506.1 > 77.7	1.62e3	1.70e4	0.265	0.199	4.81	4.84	1.19	22.5520	47.8
11	41	13C8-PFOS	507.0 > 79.9	2.68e3	3.73e3	0.265	0.865	4.83	4.84	8.99	39.1894	83.1
12	42	13C2-PFDA	515.1 > 469.9	1.05e4	1.43e4	0.265	0.886	5.11	5.13	9.24	39.3524	83.4
13	43	13C2-8:2 FTS	529.1 > 508.7	2.09e3	1.49e4	0.265	0.136	5.09	5.10	1.76	48.9299	103.8
14	44	d3-N-MeFOSAA	573.3 > 419	5.80e3	1.70e4	0.265	0.409	5.26	5.27	4.25	39.2569	83.2
15	45	d5-N-EtFOSAA	589.3 > 419	6.22e3	1.70e4	0.265	0.474	5.42	5.42	4.57	36.3725	77.1
16	46	13C2-PFUdA	565 > 519.8	1.26e4	1.70e4	0.265	0.928	5.43	5.44	9.24	37.5292	79.6
17	47	13C2-PFDoA	615.0 > 569.7	8.92e3	1.70e4	0.265	0.636	5.70	5.71	6.55	38.8431	82.4
18	49	13C2-PFTeDA	714.8 > 669.6	3.17e3	1.70e4	0.265	0.163	6.16	6.16	2.33	53.9145	114.3
19	55	13C5-PFHxA	318 > 272.9	1.49e4	1.49e4	0.265	1.000	3.20	3.24	12.5	47.1574	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.51e3	3.51e3	0.265	1.000	3.95	3.98	12.5	47.1574	100.0
21	57	13C8-PFOA	421.3 > 376	1.25e4	1.25e4	0.265	1.000	4.32	4.34	12.5	47.1574	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.46e4	1.46e4	0.265	1.000	4.75	4.76	12.5	47.1574	100.0
23	59	13C4-PFOS	503 > 79.9	3.73e3	3.73e3	0.265	1.000	4.83	4.84	12.5	47.1574	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.43e4	1.43e4	0.265	1.000	5.11	5.13	12.5	47.1574	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.70e4	1.70e4	0.265	1.000	5.43	5.44	12.5	47.1574	100.0
26	62	Total PFHxS	398.9 > 79.6	1.90e3	1.12e3	0.265		4.00		21.2	37.5367	
27	63	Total PFOA	413 > 368.7	1.66e4	1.33e4	0.265		4.30		15.6	45.6395	
28	64	Total PFOS	499 > 79.9	5.90e3	2.68e3	0.265		4.80		27.5	83.4503	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	5.80e3	0.265		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	6.22e3	0.265		5.40		0.000		

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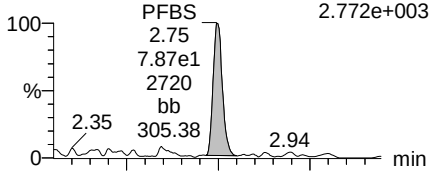
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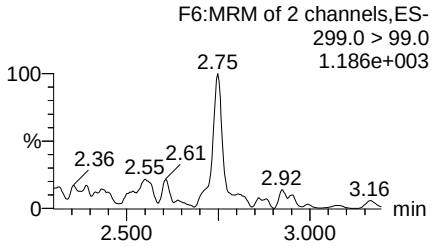
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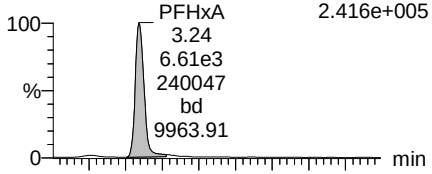
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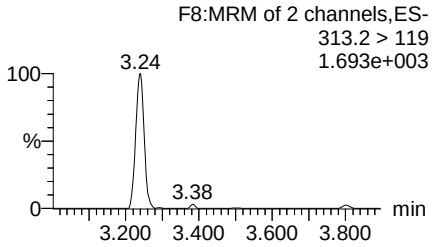
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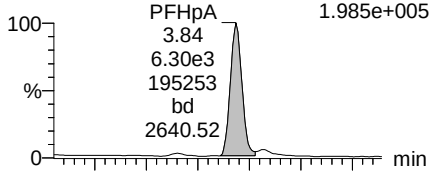


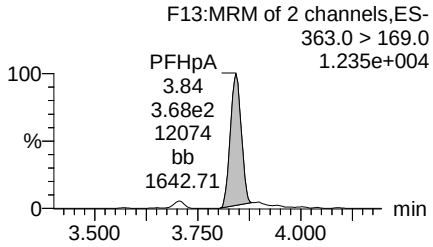
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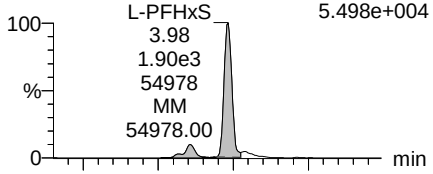


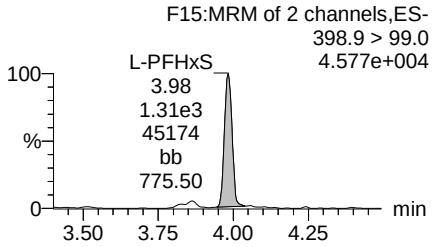
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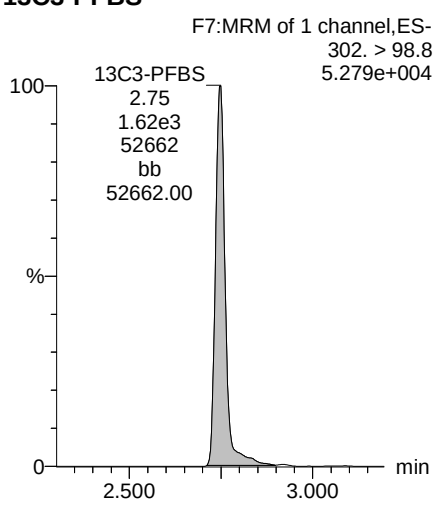


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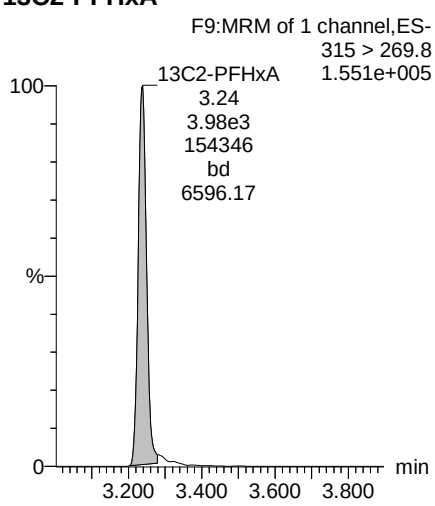




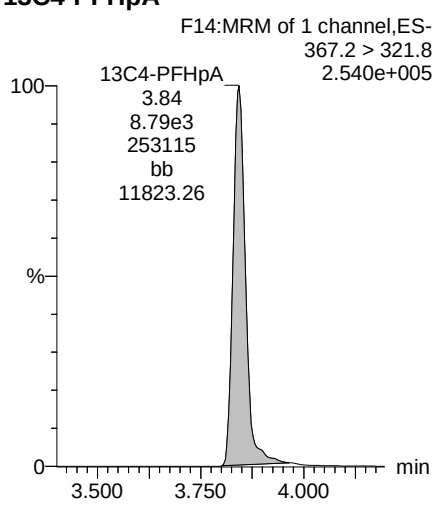
13C3-PFBS



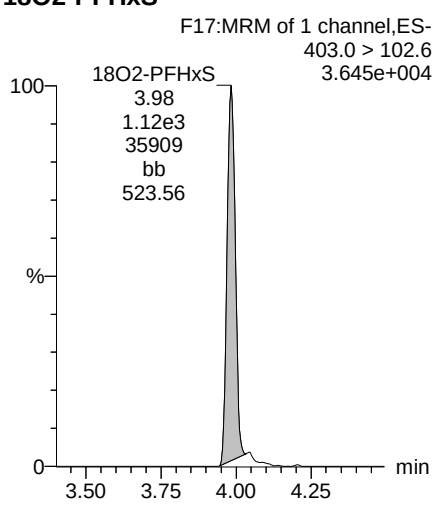
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



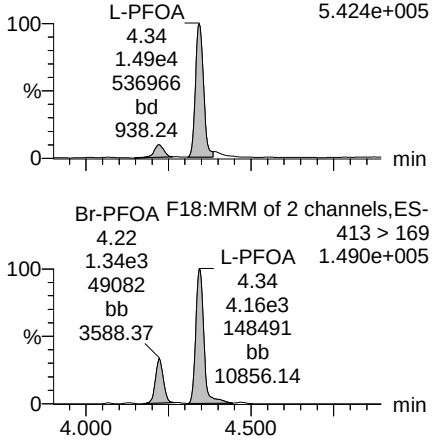
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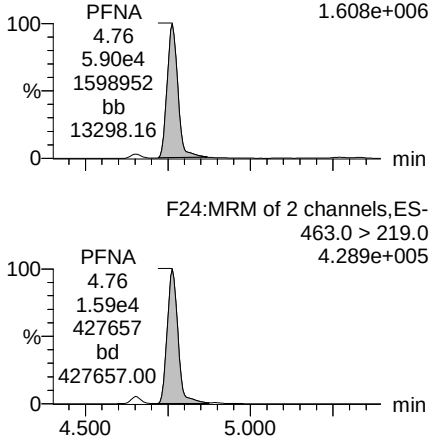
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Name: 171227M2_43, Date: 28-Dec-2017, Time: 01:15:02, ID: 1701829-01 FT-MW08S-20171129 0.26507, Description: FT-MW08S-20171129

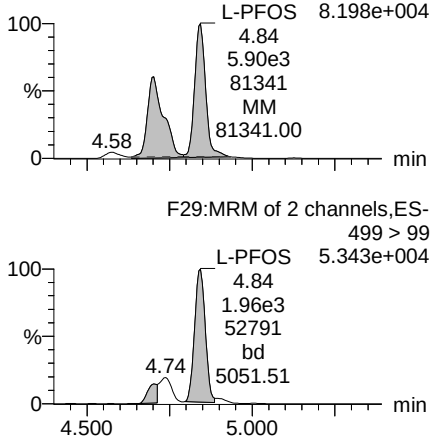
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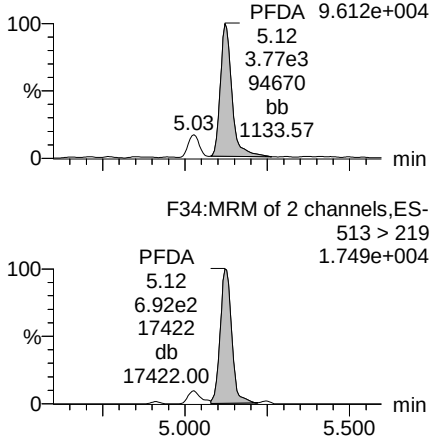
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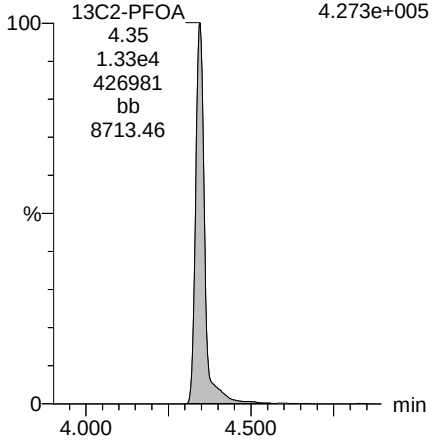
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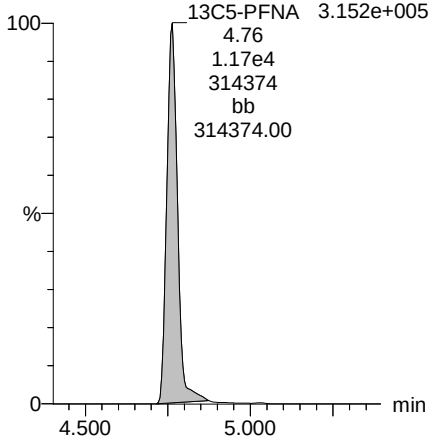
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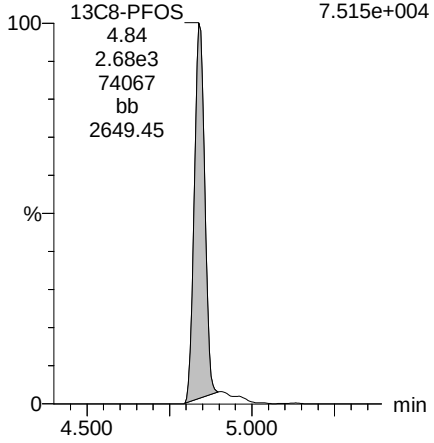
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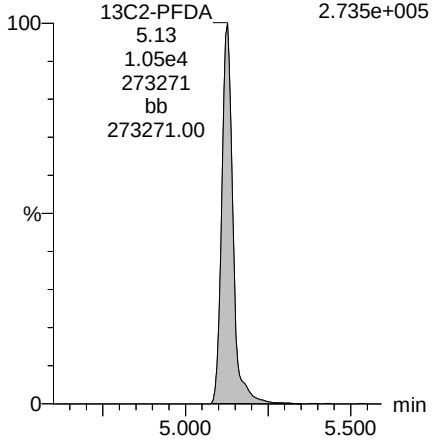
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13C8-PFOS



13C2-PFDA



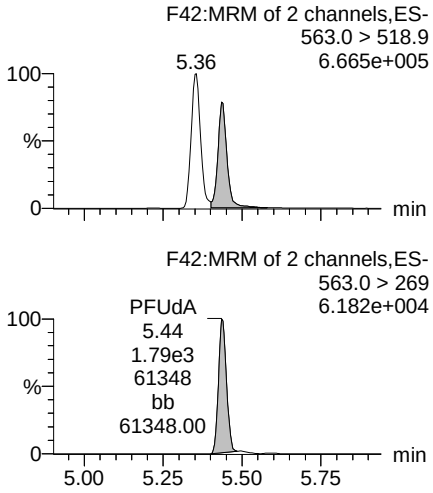
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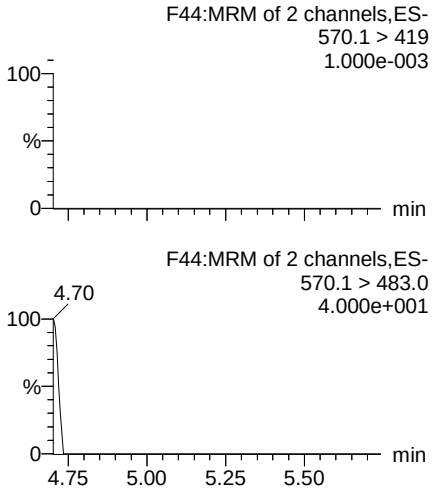
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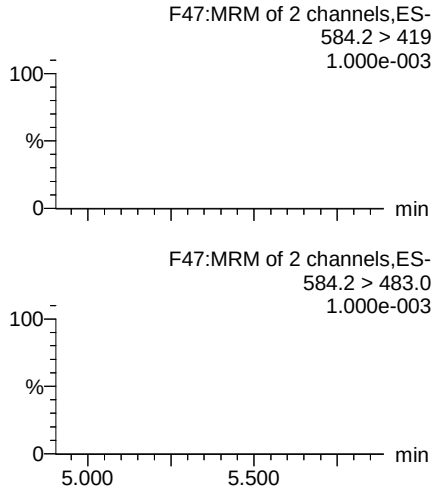
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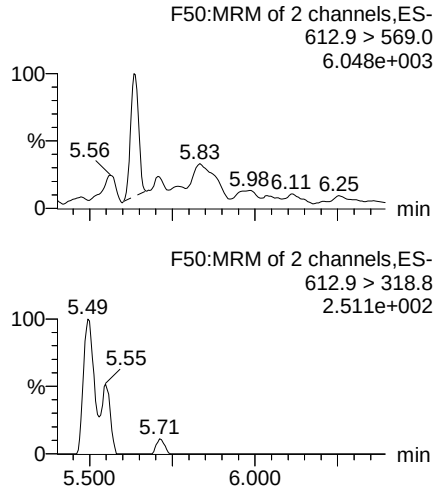
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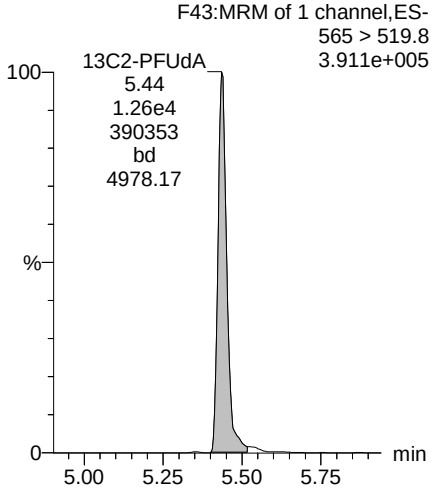
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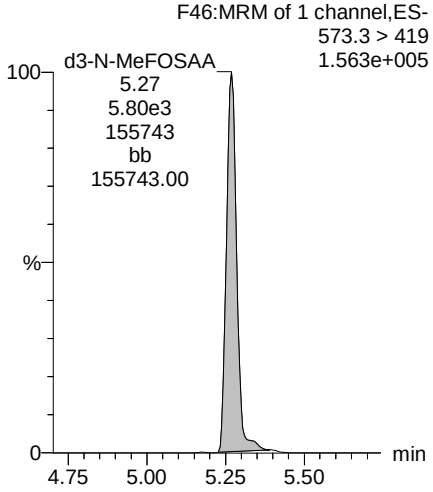
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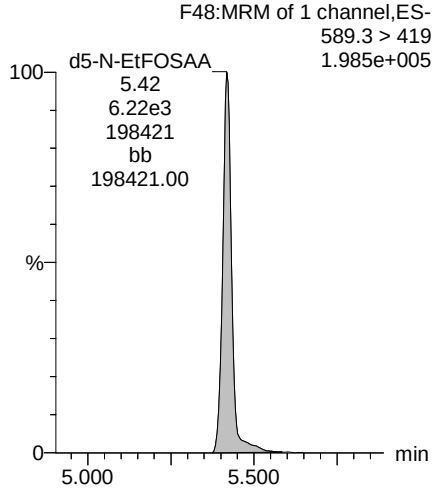
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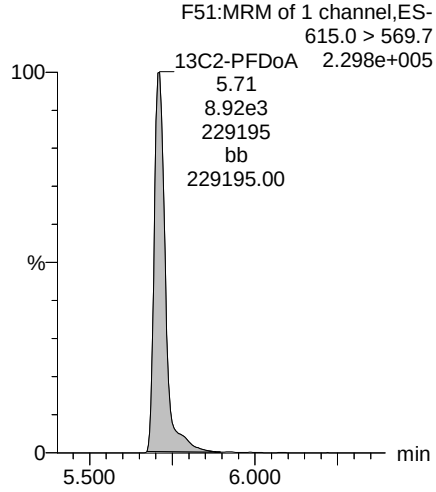
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



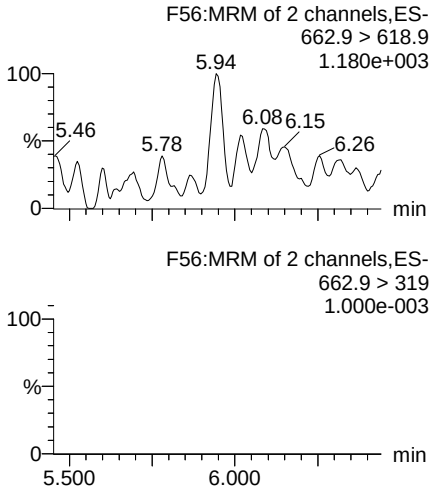
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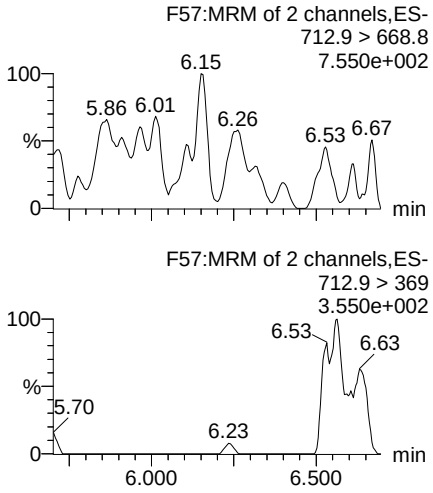
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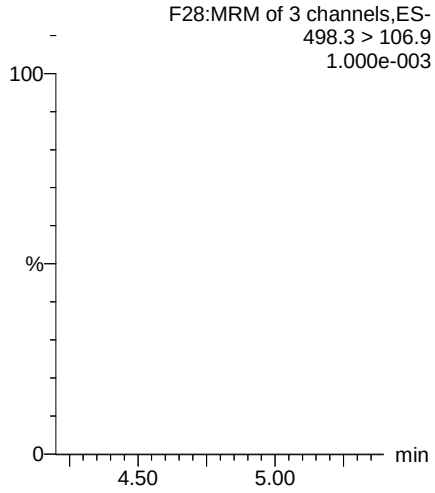
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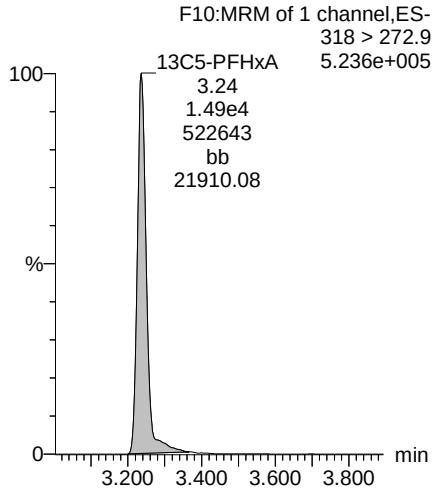
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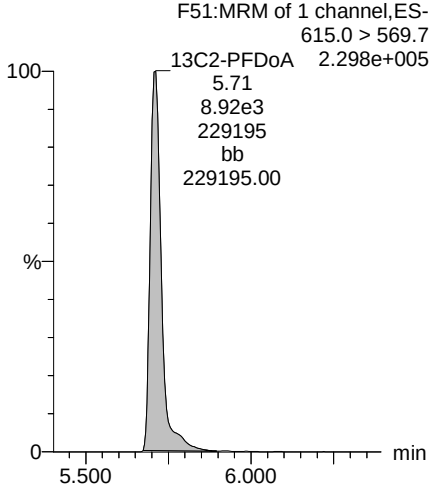
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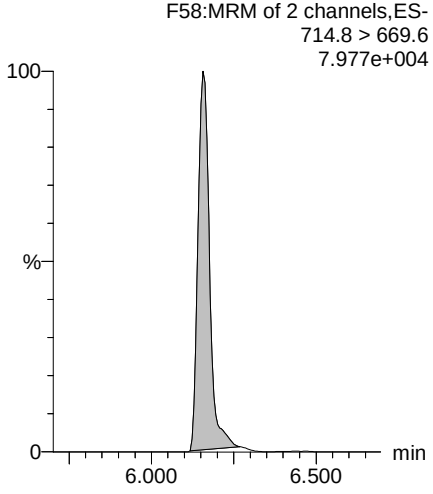
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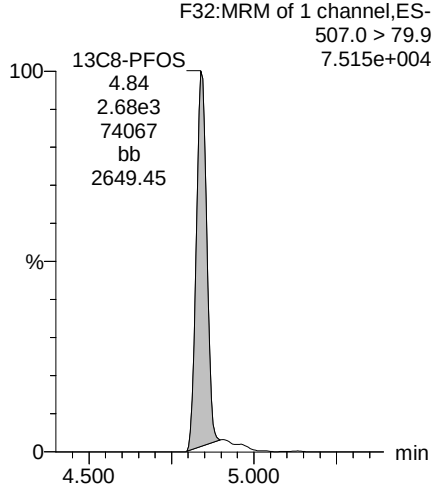
13C2-PFDoA



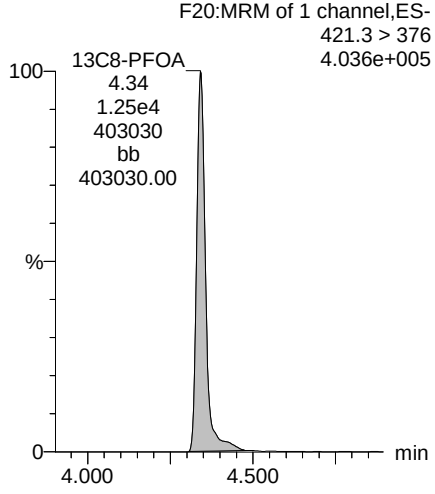
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13C8-PFOS



13C8-PFOA



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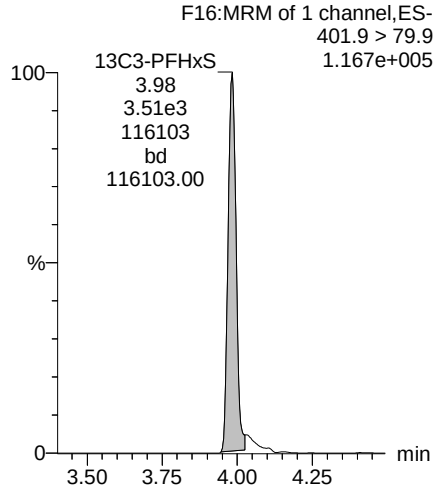
Rev'd: MM 12/31/17

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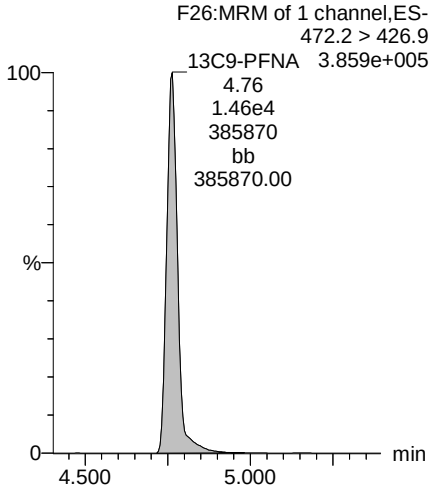
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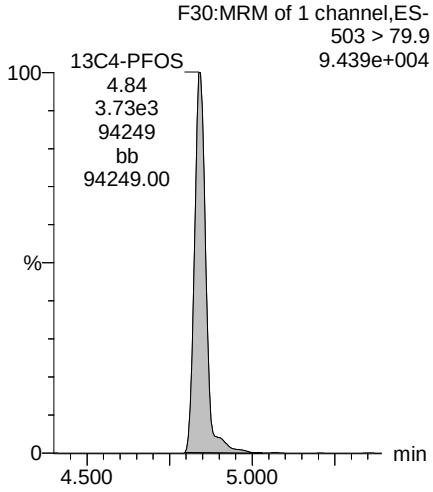
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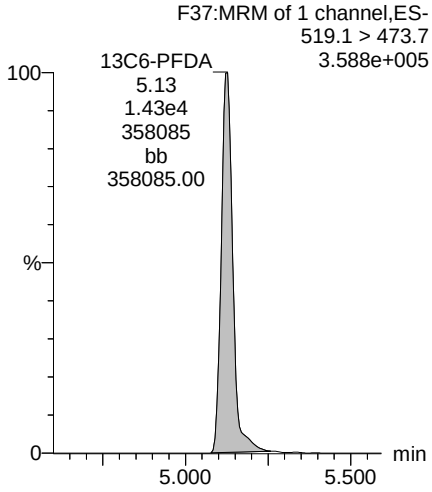
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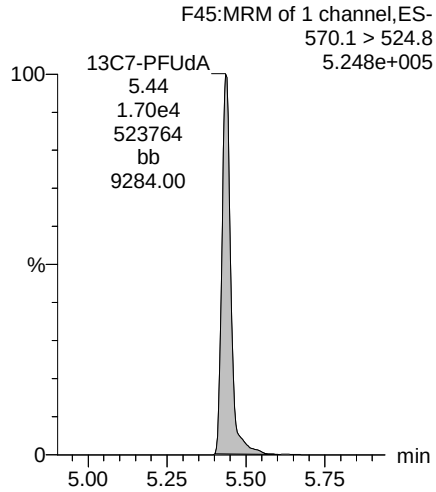
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-44.qld

Last Altered: Sunday, December 31, 2017 13:51:11 Pacific Standard Time
Printed: Sunday, December 31, 2017 13:51:49 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_44, Date: 28-Dec-2017, Time: 01:26:13, ID: 1701829-02 FT-MW08S-FRB-20171129 0.26762, Description: FT-MW08S-FRB-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.48e3	0.268		2.70				
2	4	PFHxA	313.2 > 268.9		3.09e3	0.268		3.20				
3	5	PFHpA	363.0 > 318.9		8.13e3	0.268		3.80				
4	6	L-PFHxS	398.9 > 79.6		8.97e2	0.268		3.95				
5	9	L-PFOA	413 > 368.7	2.12e2	1.20e4	0.268		4.32	4.34	0.221		
6	12	PFNA	463.0 > 418.8	4.56e1	9.98e3	0.268		4.75	4.75	0.0571	0.1706	
7	14	L-PFOS	499 > 79.9		2.84e3	0.268		4.83				
8	16	PFDA	513 > 468.8		7.34e3	0.268		5.11				
9	18	N-MeFOSAA	570.1 > 419		3.73e3	0.268		5.26				
10	19	N-EtFOSAA	584.2 > 419		4.68e3	0.268		5.42				
11	20	PFUdA	563.0 > 518.9		9.67e3	0.268		5.43				
12	22	PFDoA	612.9 > 569.0		7.01e3	0.268		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-44.qld

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Printed: Sunday, December 31, 2017 13:52:08 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_44, Date: 28-Dec-2017, Time: 01:26:13, ID: 1701829-02 FT-MW08S-FRB-20171129 0.26762, Description: FT-MW08S-FRB-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		7.01e3	0.268		5.95				
2	25	PFTeDA	712.9 > 668.8		2.35e3	0.268		6.16				
3	33	13C3-PFBS	302. > 98.8	1.48e3	1.24e4	0.268	0.101	2.70	2.75	1.49	54.8751	117.5
4	34	13C2-PFHxA	315 > 269.8	3.09e3	1.24e4	0.268	0.601	3.20	3.24	3.11	19.3187	103.4
5	35	13C4-PFHpA	367.2 > 321.8	8.13e3	1.24e4	0.268	0.676	3.80	3.84	8.17	45.1363	96.6
6	36	18O2-PFHxS	403.0 > 102.6	8.97e2	3.26e3	0.268	0.347	3.95	3.98	3.44	37.1166	79.5
7	37	13C2-6:2 FTS	429.1 > 408.9	3.41e3	1.20e4	0.268	0.210	4.26	4.29	3.56	63.3092	135.5
8	38	13C2-PFOA	414.9 > 369.7	1.20e4	1.20e4	0.268	0.990	4.32	4.34	12.5	47.1890	101.0
9	39	13C5-PFNA	468.2 > 422.9	9.98e3	1.23e4	0.268	0.845	4.75	4.76	10.2	44.8943	96.1
10	40	13C8-PFOSA	506.1 > 77.7	1.20e3	1.19e4	0.268	0.199	4.81	4.83	1.26	23.5921	50.5
11	41	13C8-PFOS	507.0 > 79.9	2.84e3	3.26e3	0.268	0.865	4.83	4.84	10.9	47.1147	100.9
12	42	13C2-PFDA	515.1 > 469.9	7.34e3	1.06e4	0.268	0.886	5.11	5.12	8.66	36.5149	78.2
13	43	13C2-8:2 FTS	529.1 > 508.7	1.32e3	1.24e4	0.268	0.136	5.09	5.10	1.32	36.4094	78.0
14	44	d3-N-MeFOSAA	573.3 > 419	3.73e3	1.19e4	0.268	0.409	5.26	5.26	3.91	35.7784	76.6
15	45	d5-N-EtFOSAA	589.3 > 419	4.68e3	1.19e4	0.268	0.474	5.42	5.41	4.91	38.7017	82.9
16	46	13C2-PFUdA	565 > 519.8	9.67e3	1.19e4	0.268	0.928	5.43	5.44	10.1	40.8466	87.5
17	47	13C2-PFDoA	615.0 > 569.7	7.01e3	1.19e4	0.268	0.636	5.70	5.71	7.36	43.2282	92.5
18	49	13C2-PFTeDA	714.8 > 669.6	2.35e3	1.19e4	0.268	0.163	6.16	6.16	2.47	56.7361	121.5
19	55	13C5-PFHxA	318 > 272.9	1.24e4	1.24e4	0.268	1.000	3.20	3.23	12.5	46.7080	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.26e3	3.26e3	0.268	1.000	3.95	3.98	12.5	46.7080	100.0
21	57	13C8-PFOA	421.3 > 376	1.20e4	1.20e4	0.268	1.000	4.32	4.34	12.5	46.7080	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.23e4	1.23e4	0.268	1.000	4.75	4.76	12.5	46.7080	100.0
23	59	13C4-PFOS	503 > 79.9	3.26e3	3.26e3	0.268	1.000	4.83	4.84	12.5	46.7080	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.06e4	1.06e4	0.268	1.000	5.11	5.12	12.5	46.7080	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.19e4	1.19e4	0.268	1.000	5.43	5.44	12.5	46.7080	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	8.97e2	0.268		4.00		0.000		
27	63	Total PFOA	413 > 368.7	2.12e2	1.20e4	0.268		4.30		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.84e3	0.268		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.73e3	0.268		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.68e3	0.268		5.40		0.000		

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Rev'd: MM 12/31/17

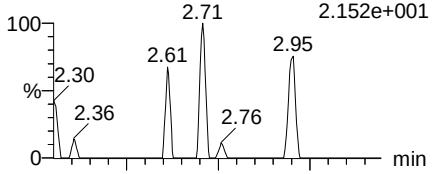
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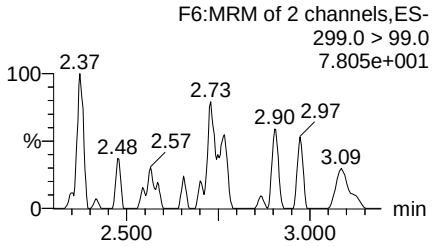
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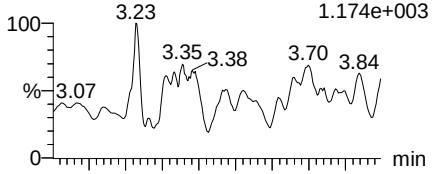
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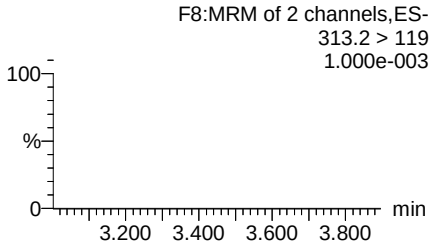
PFBS



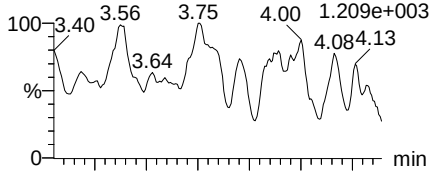


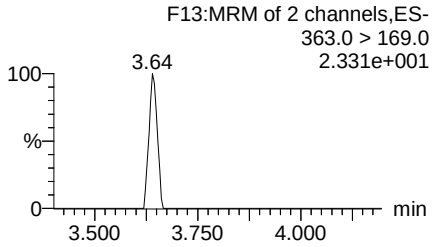
PFHxA



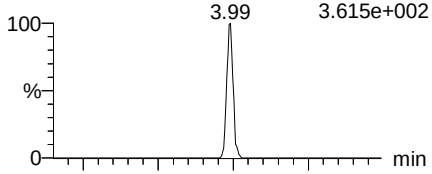


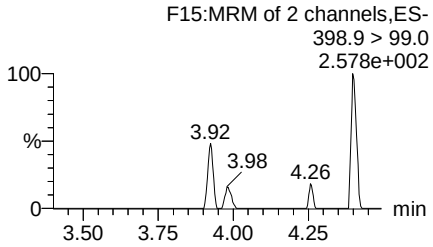
PFHpA



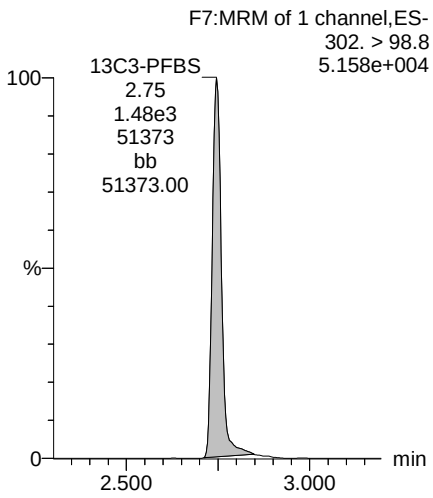


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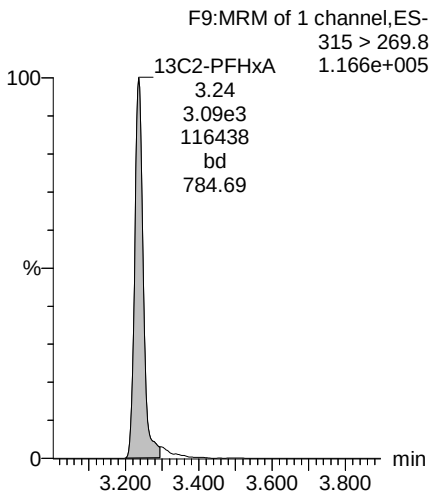




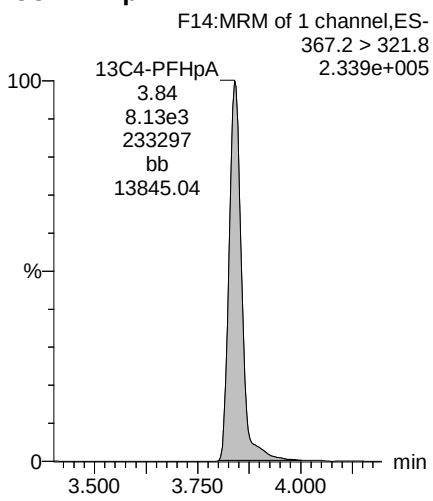
13C3-PFBS



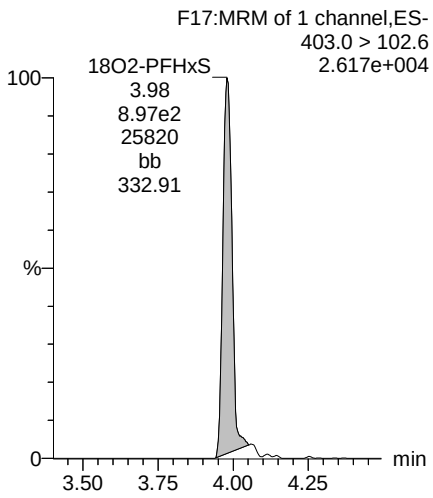
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



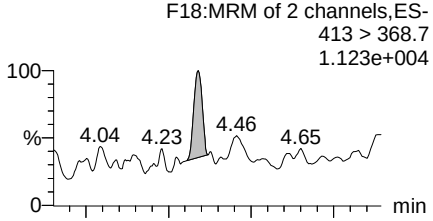
MSF 12/30/17

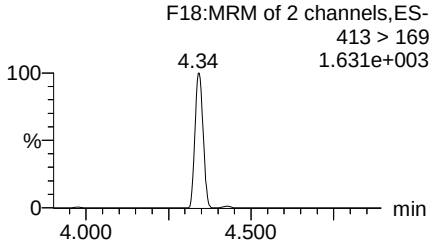
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Printed: Sunday, December 31, 2017 13:52:08 Pacific Standard Time

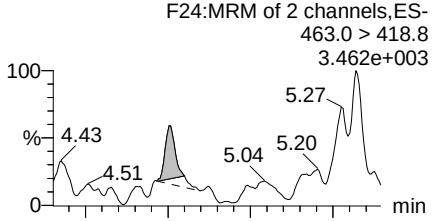
Name: 171227M2_44, Date: 28-Dec-2017, Time: 01:26:13, ID: 1701829-02 FT-MW08S-FRB-20171129 0.26762, Description: FT-MW08S-FRB-20171129

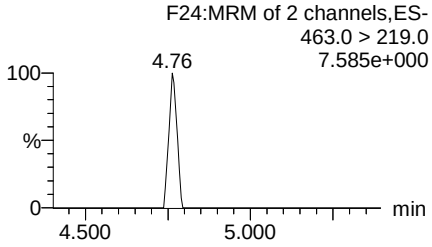
Total PFOA



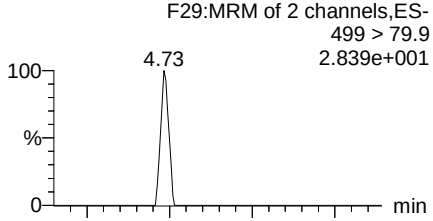


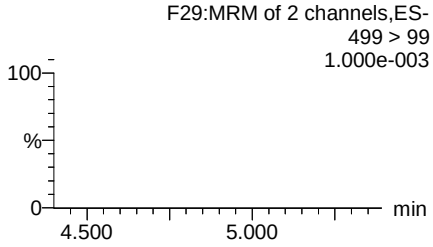
PFNA



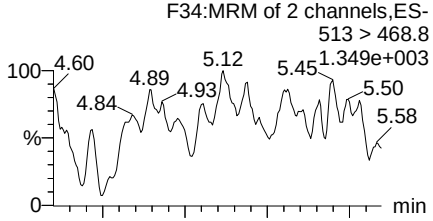


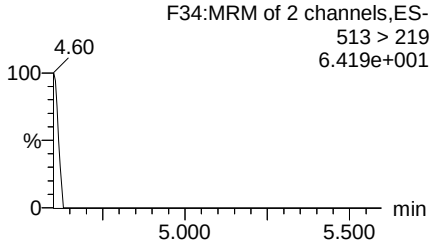
Total PFOS



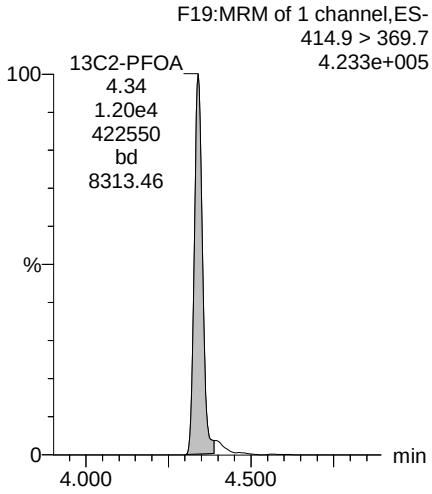


PFDA

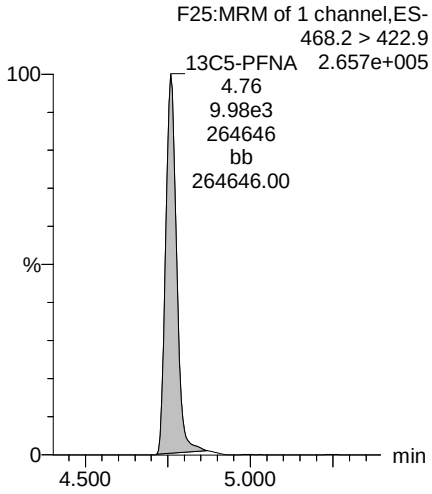




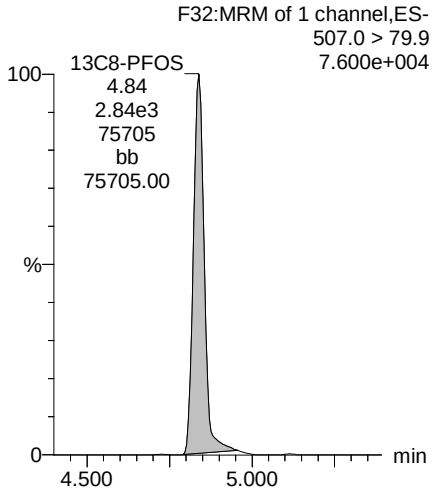
13C2-PFOA



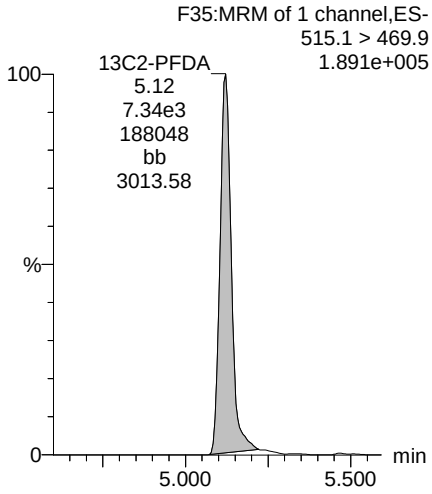
13C5-PFNA



13C8-PFOS



13C2-PFDA



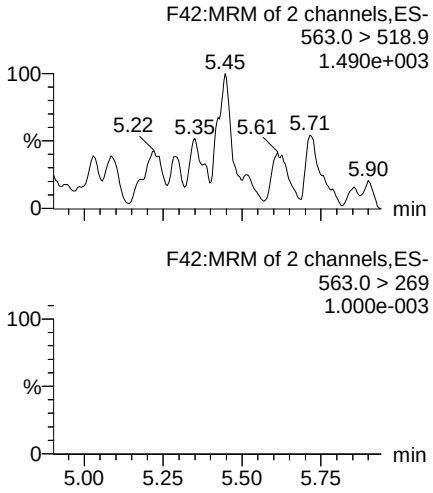
MSF 12/30/17

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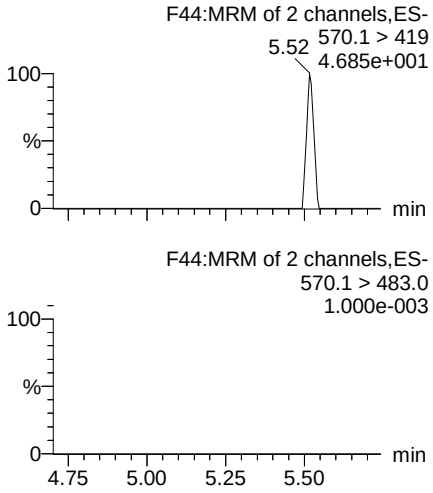
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Name: 171227M2_44, Date: 28-Dec-2017, Time: 01:26:13, ID: 1701829-02 FT-MW08S-FRB-20171129 0.26762, Description: FT-MW08S-FRB-20171129

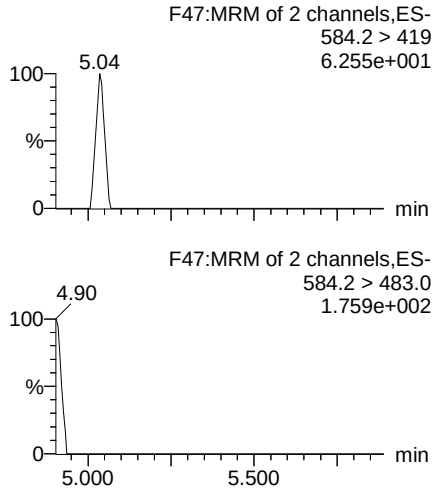
PFUdA



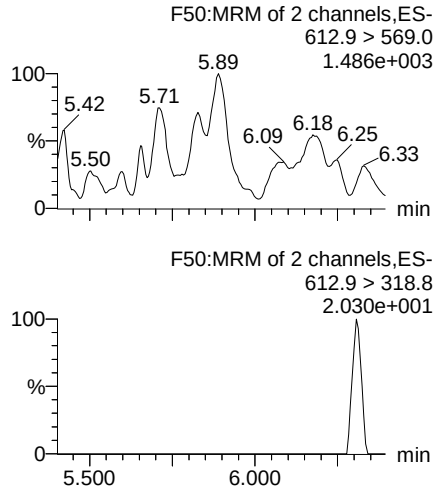
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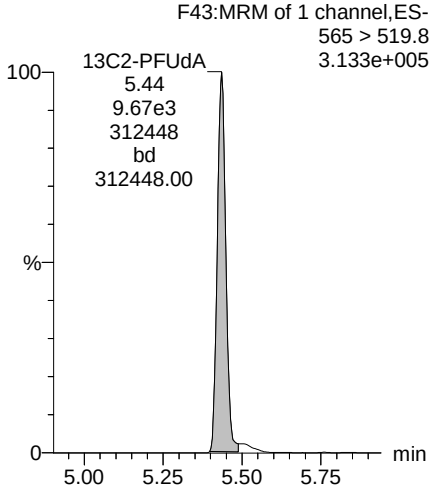
N-EtFOSAA



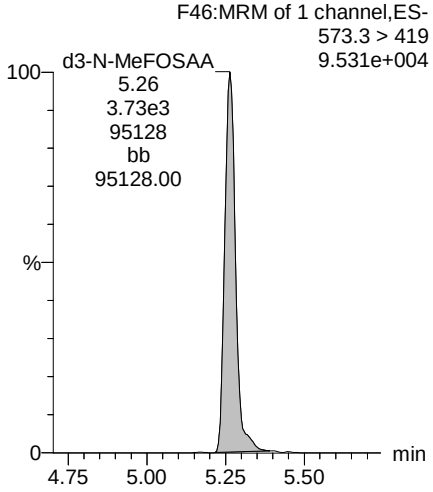
PFDoA



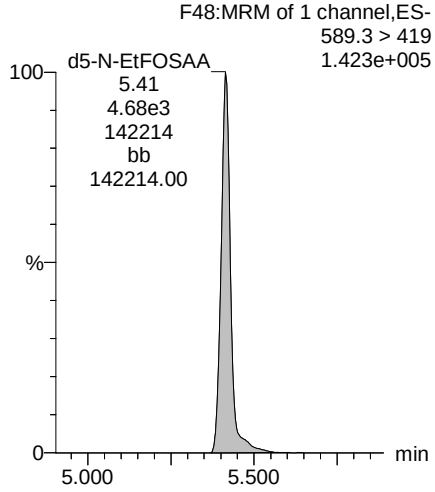
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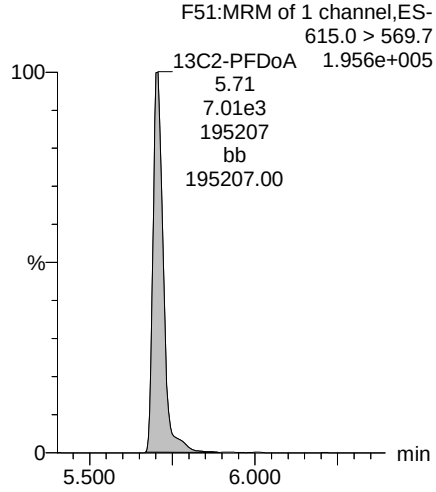
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



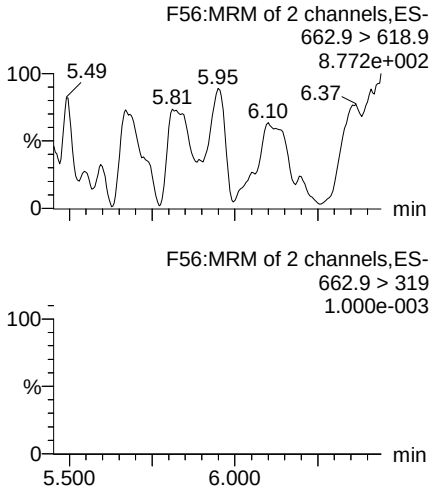
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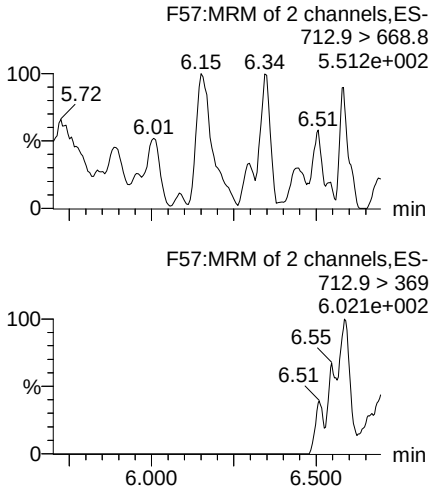
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Name: 171227M2_44, Date: 28-Dec-2017, Time: 01:26:13, ID: 1701829-02 FT-MW08S-FRB-20171129 0.26762, Description: FT-MW08S-FRB-20171129

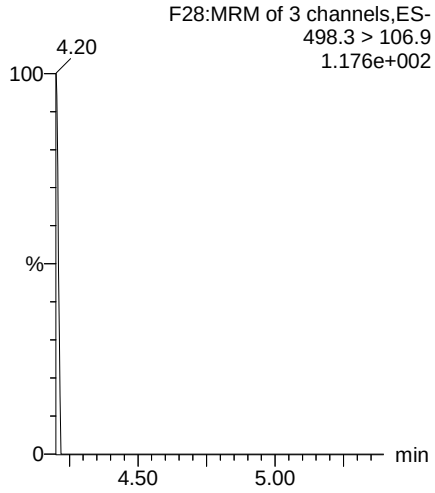
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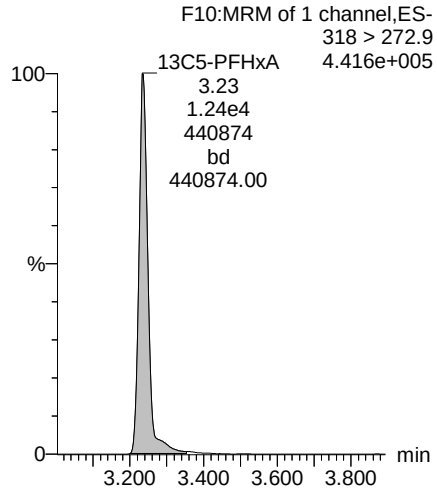
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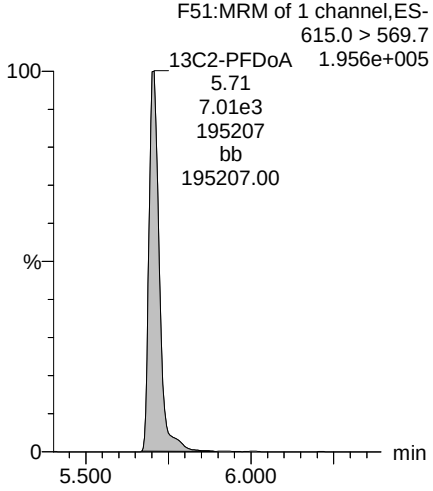
TCDA



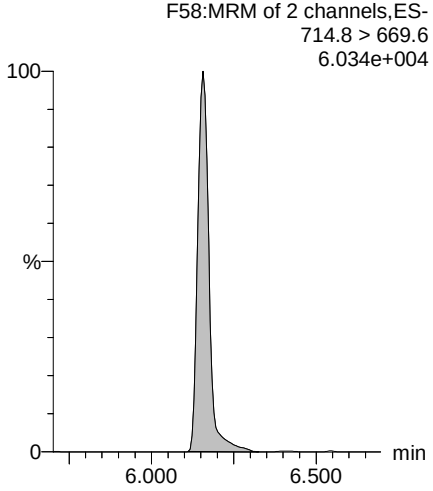
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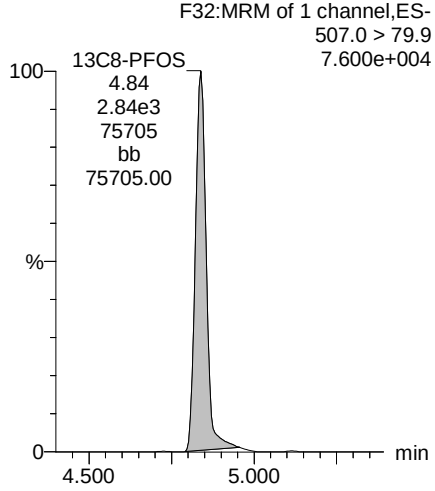
13C2-PFDoA



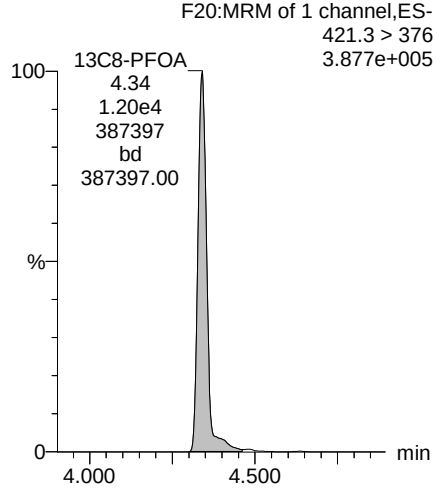
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



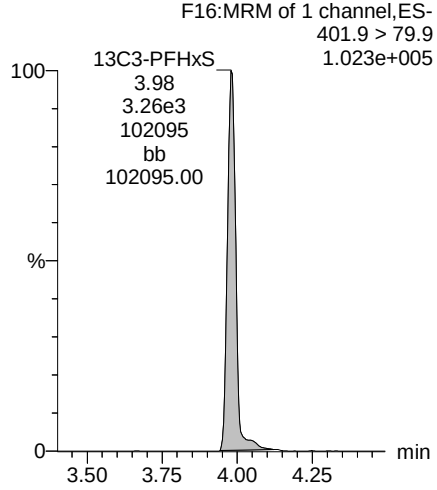
MSF 12/30/17

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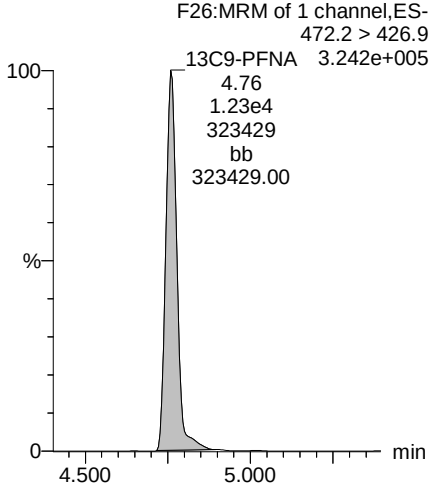
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Name: 171227M2_44, Date: 28-Dec-2017, Time: 01:26:13, ID: 1701829-02 FT-MW08S-FRB-20171129 0.26762, Description: FT-MW08S-FRB-20171129

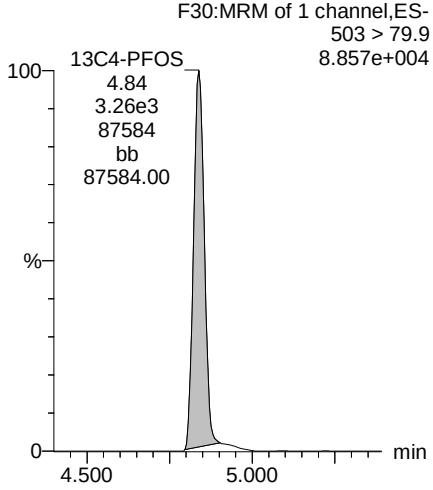
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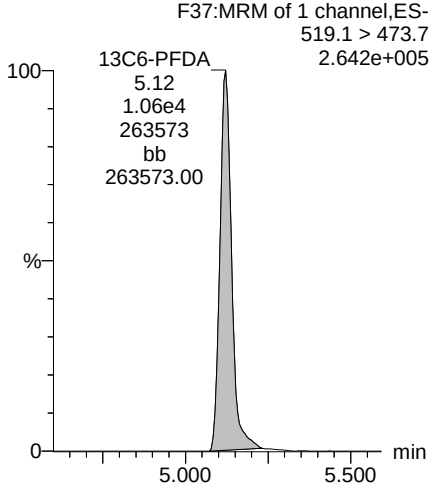
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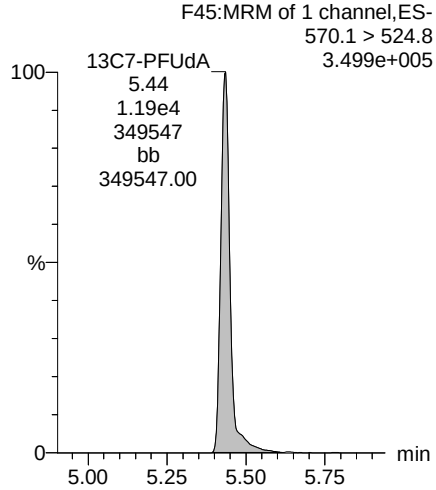
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-45.qld

Last Altered: Friday, December 29, 2017 12:01:06 Pacific Standard Time
Printed: Friday, December 29, 2017 12:01:52 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_45, Date: 28-Dec-2017, Time: 01:37:23, ID: 1701829-03 FT-DUP01-20171129 0.25365, Description: FT-DUP01-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	5.60e1	1.43e3	0.254		2.70	2.75	0.488	1.6471	
2	4	PFHxA	313.2 > 268.9	4.77e3	3.21e3	0.254		3.20	3.24	7.42	14.5804	
3	5	PFHpA	363.0 > 318.9	5.11e3	7.92e3	0.254		3.80	3.84	8.06	19.5149	
4	6	L-PFHxS	398.9 > 79.6	1.78e3	1.13e3	0.254		3.95	3.98	19.6	36.3624	
5	9	L-PFOA	413 > 368.7	1.06e4	1.19e4	0.254		4.32	4.34	11.2	34.5557	
6	12	PFNA	463.0 > 418.8	3.82e4	9.23e3	0.254		4.75	4.76	51.7	132.1958	
7	14	L-PFOS	499 > 79.9	5.38e3	3.43e3	0.254		4.83	4.84	19.6	62.2807	
8	16	PFDA	513 > 468.8	3.30e3	8.70e3	0.254		5.11	5.12	4.74	12.3204	
9	18	N-MeFOSAA	570.1 > 419		4.30e3	0.254		5.26				
10	19	N-EtFOSAA	584.2 > 419		4.66e3	0.254		5.42				
11	20	PFUdA	563.0 > 518.9	1.32e4	1.11e4	0.254		5.43	5.44	14.9	56.6113	
12	22	PFDoA	612.9 > 569.0		6.51e3	0.254		5.70				

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Vista Analytical Laboratory

Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-45.qld

Last Altered: Friday, December 29, 2017 12:01:06 Pacific Standard Time
Printed: Friday, December 29, 2017 12:02:07 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_45, Date: 28-Dec-2017, Time: 01:37:23, ID: 1701829-03 FT-DUP01-20171129 0.25365, Description: FT-DUP01-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		6.51e3	0.254		5.95				
2	25	PFTeDA	712.9 > 668.8		2.18e3	0.254		6.16				
3	33	13C3-PFBS	302. > 98.8	1.43e3	1.17e4	0.254	0.101	2.70	2.75	1.54	59.7074	121.2
4	34	13C2-PFHxA	315 > 269.8	3.21e3	1.17e4	0.254	0.601	3.20	3.23	3.44	22.5616	114.5
5	35	13C4-PFHpA	367.2 > 321.8	7.92e3	1.17e4	0.254	0.676	3.80	3.84	8.48	49.4205	100.3
6	36	18O2-PFHxS	403.0 > 102.6	1.13e3	3.00e3	0.254	0.347	3.95	3.98	4.72	53.6536	108.9
7	37	13C2-6:2 FTS	429.1 > 408.9	2.79e3	1.20e4	0.254	0.210	4.26	4.29	2.89	54.3626	110.3
8	38	13C2-PFOA	414.9 > 369.7	1.19e4	1.20e4	0.254	0.990	4.32	4.34	12.3	49.0755	99.6
9	39	13C5-PFNA	468.2 > 422.9	9.23e3	1.16e4	0.254	0.845	4.75	4.76	9.96	46.4773	94.3
10	40	13C8-PFOSA	506.1 > 77.7	1.72e3	1.22e4	0.254	0.199	4.81	4.83	1.76	34.6968	70.4
11	41	13C8-PFOS	507.0 > 79.9	3.43e3	3.75e3	0.254	0.865	4.83	4.84	11.4	52.0212	105.6
12	42	13C2-PFDA	515.1 > 469.9	8.70e3	8.31e3	0.254	0.886	5.11	5.12	13.1	58.2567	118.2
13	43	13C2-8:2 FTS	529.1 > 508.7	2.08e3	1.17e4	0.254	0.136	5.09	5.09	2.23	64.7559	131.4
14	44	d3-N-MeFOSAA	573.3 > 419	4.30e3	1.22e4	0.254	0.409	5.26	5.26	4.40	42.4680	86.2
15	45	d5-N-EtFOSAA	589.3 > 419	4.66e3	1.22e4	0.254	0.474	5.42	5.41	4.77	39.6878	80.5
16	46	13C2-PFUdA	565 > 519.8	1.11e4	1.22e4	0.254	0.928	5.43	5.44	11.3	48.0038	97.4
17	47	13C2-PFDoA	615.0 > 569.7	6.51e3	1.22e4	0.254	0.636	5.70	5.71	6.66	41.2520	83.7
18	49	13C2-PFTeDA	714.8 > 669.6	2.18e3	1.22e4	0.254	0.163	6.16	6.16	2.23	54.1088	109.8
19	55	13C5-PFHxA	318 > 272.9	1.17e4	1.17e4	0.254	1.000	3.20	3.23	12.5	49.2805	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.00e3	3.00e3	0.254	1.000	3.95	3.98	12.5	49.2805	100.0
21	57	13C8-PFOA	421.3 > 376	1.20e4	1.20e4	0.254	1.000	4.32	4.34	12.5	49.2805	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.16e4	1.16e4	0.254	1.000	4.75	4.76	12.5	49.2805	100.0
23	59	13C4-PFOS	503 > 79.9	3.75e3	3.75e3	0.254	1.000	4.83	4.84	12.5	49.2805	100.0
24	60	13C6-PFDA	519.1 > 473.7	8.31e3	8.31e3	0.254	1.000	5.11	5.12	12.5	49.2805	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.22e4	1.22e4	0.254	1.000	5.43	5.43	12.5	49.2805	100.0
26	62	Total PFHxS	398.9 > 79.6	1.78e3	1.13e3	0.254		4.00		19.6	36.3624	
27	63	Total PFOA	413 > 368.7	1.19e4	1.19e4	0.254		4.30		12.5	38.0783	
28	64	Total PFOS	499 > 79.9	5.38e3	3.43e3	0.254		4.80		19.6	62.2807	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	4.30e3	0.254		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.66e3	0.254		5.40		0.000		

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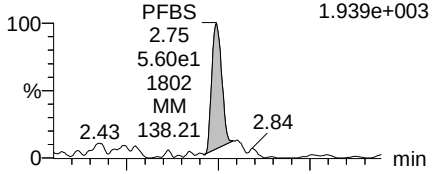
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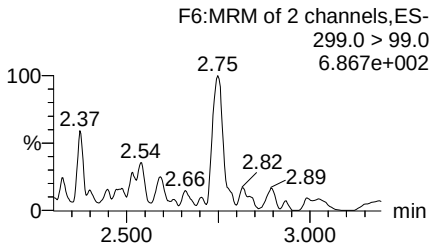
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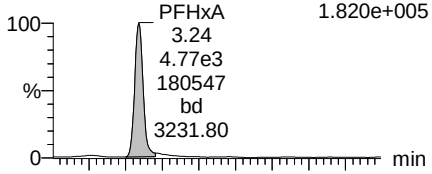
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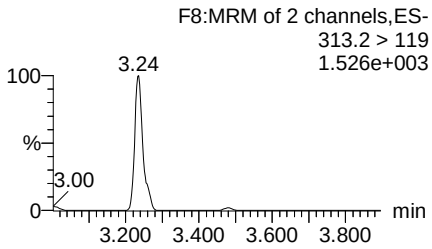
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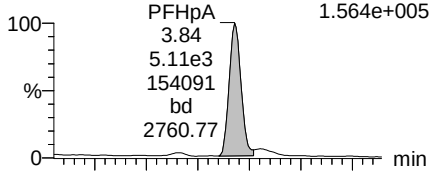


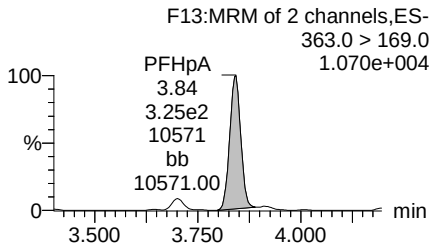
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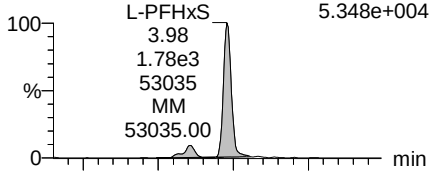


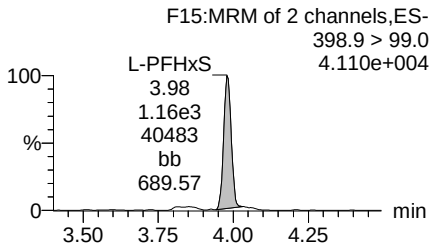
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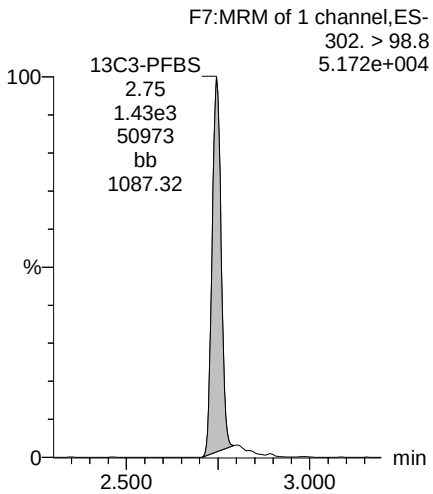


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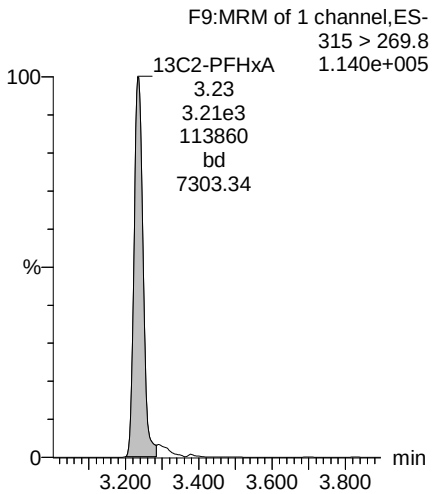




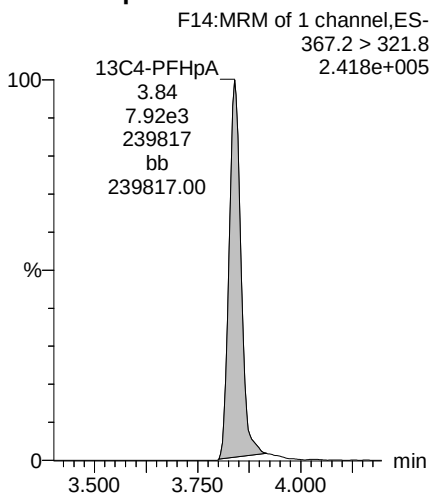
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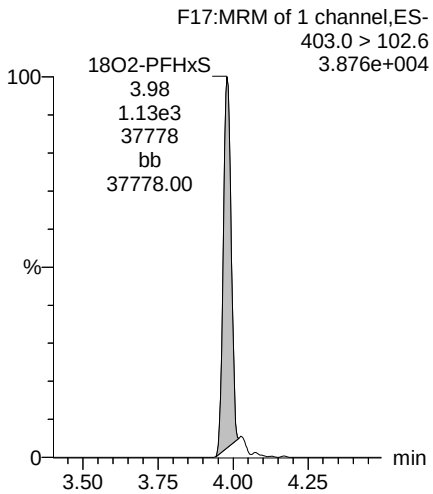
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13C4-PFHpA



18O2-PFHxS



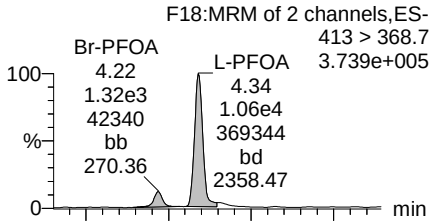
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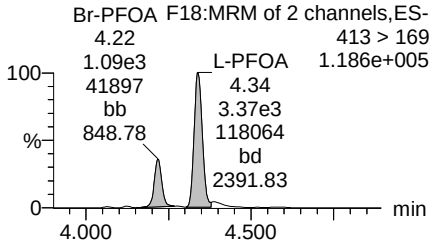
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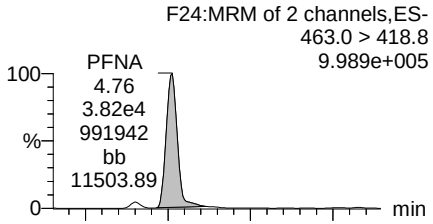
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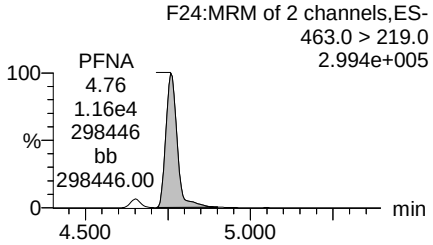
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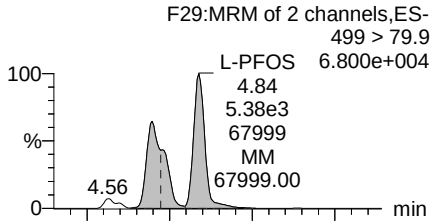


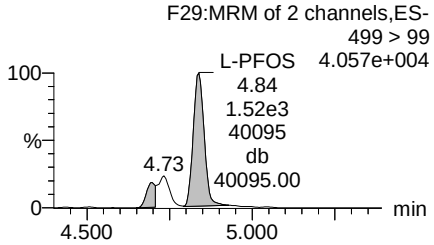
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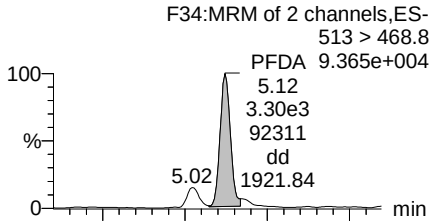


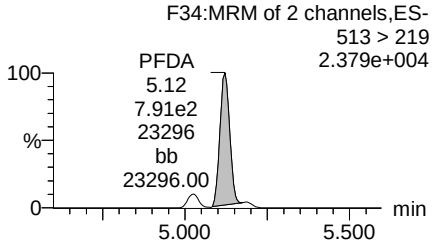
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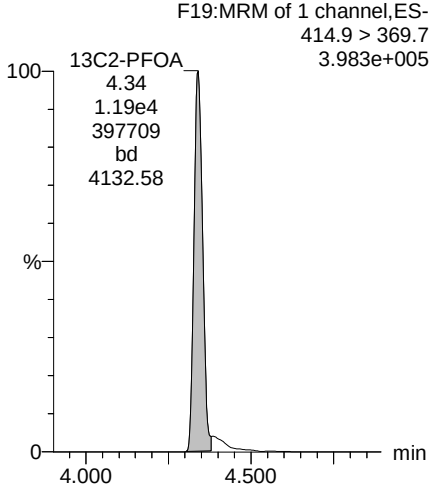


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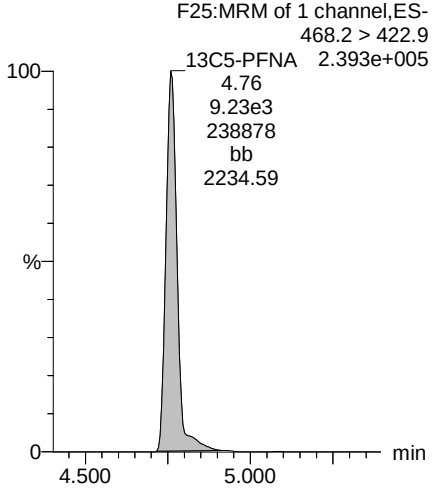




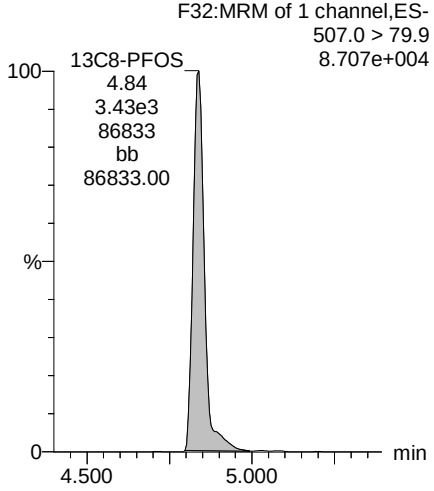
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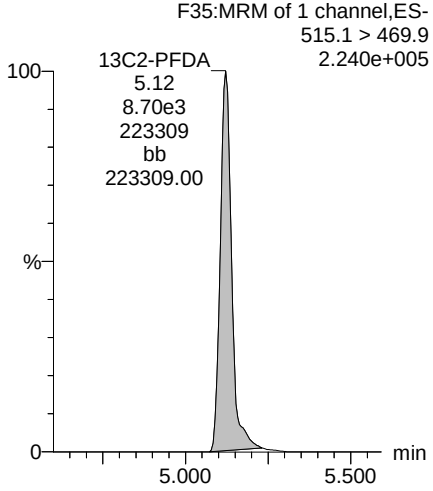
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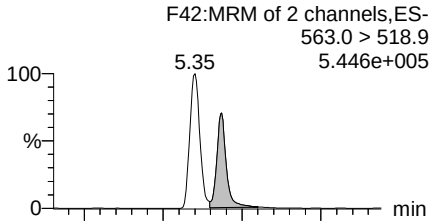
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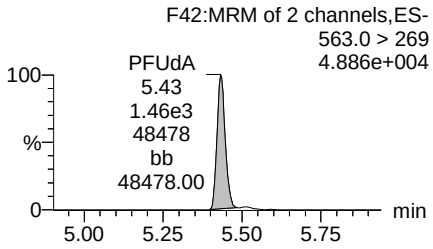
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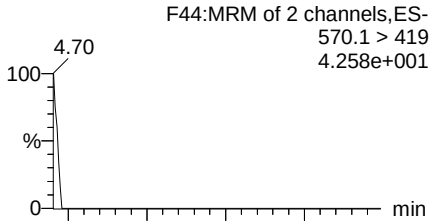
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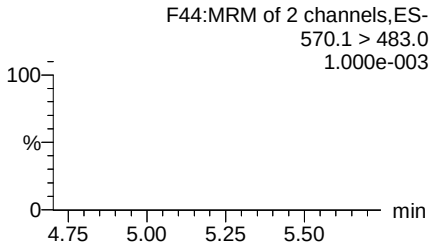
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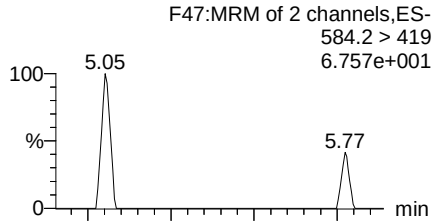


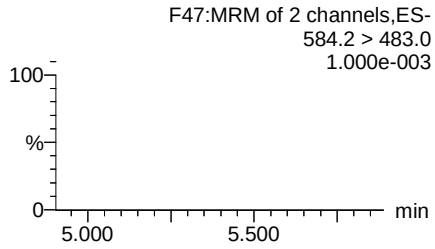
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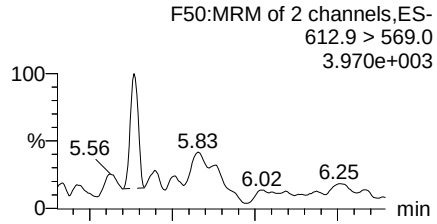


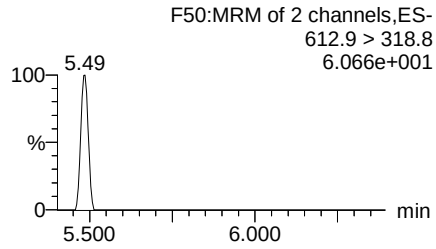
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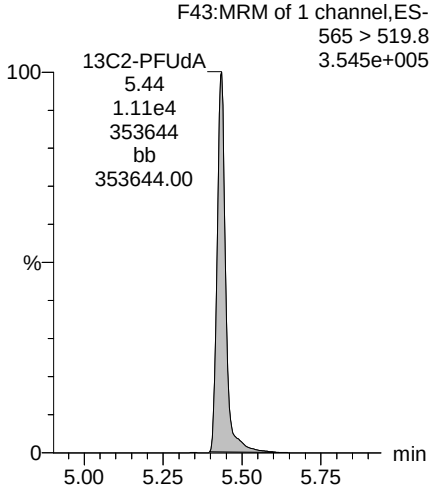


PFDoA

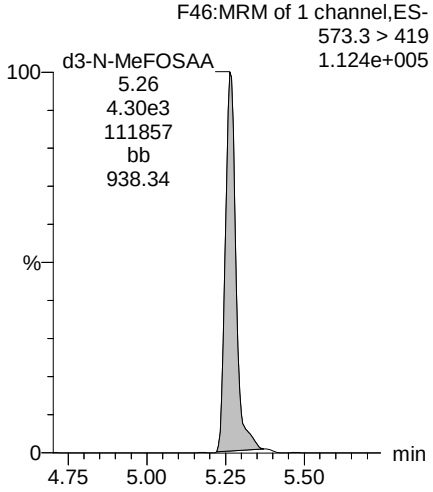




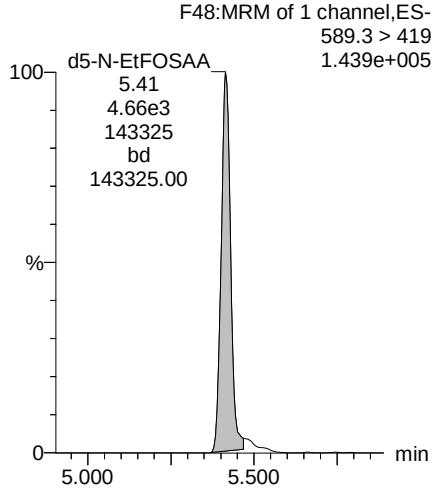
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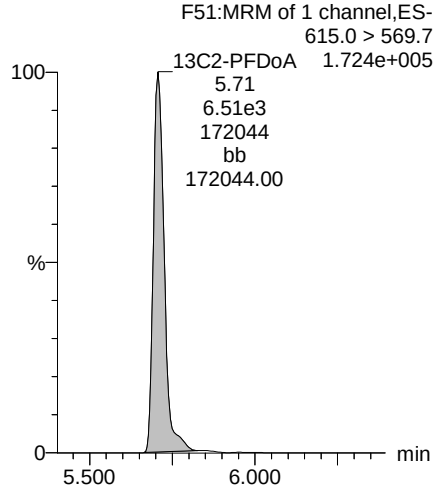
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d5-N-EtFOSAA



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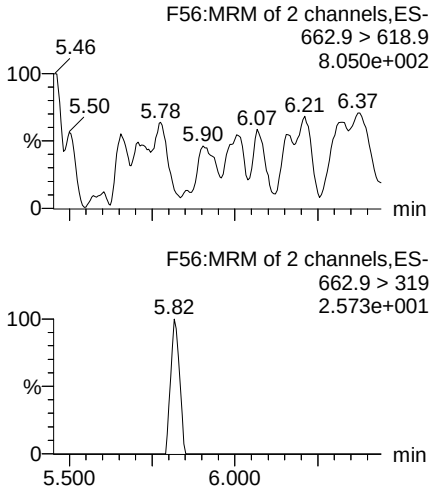
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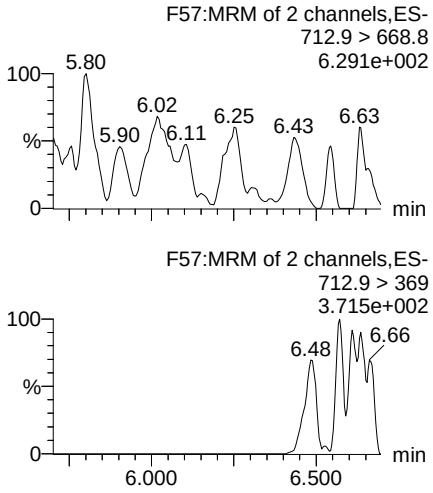
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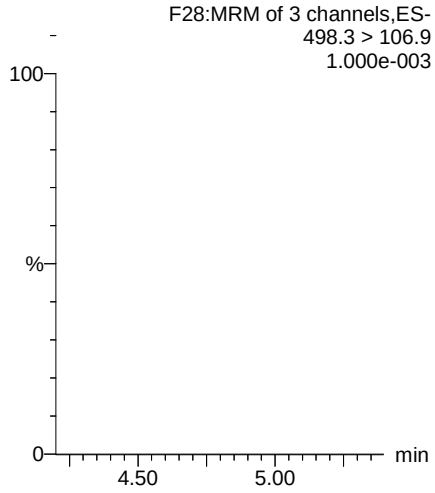
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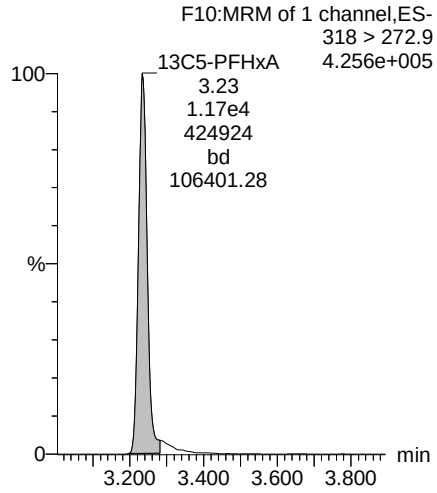
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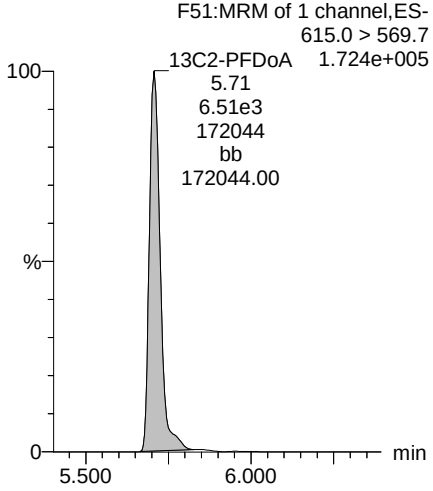
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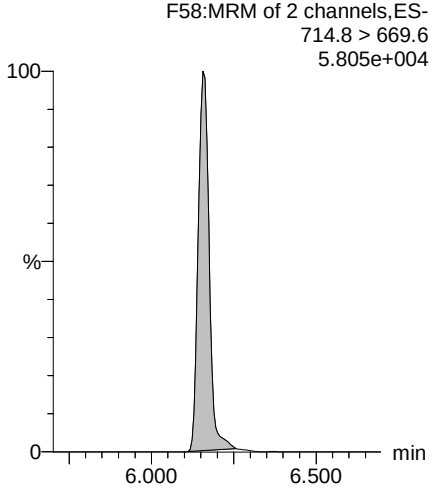
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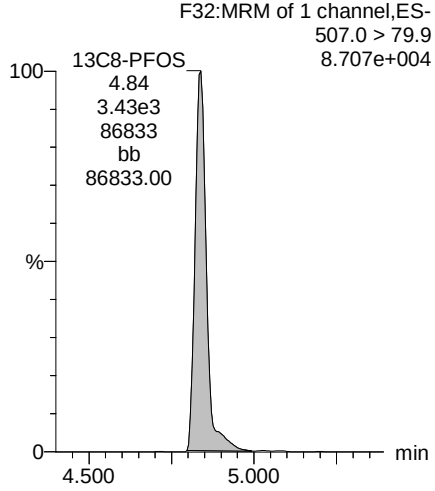
13C2-PFDoA



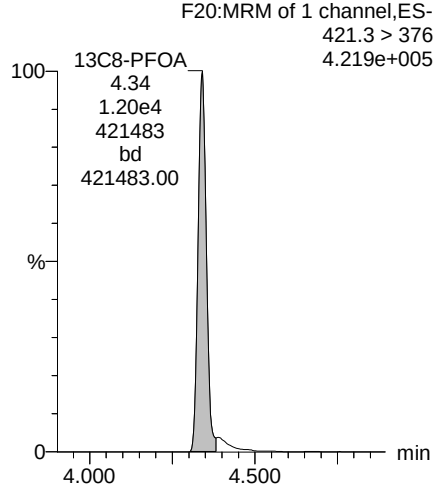
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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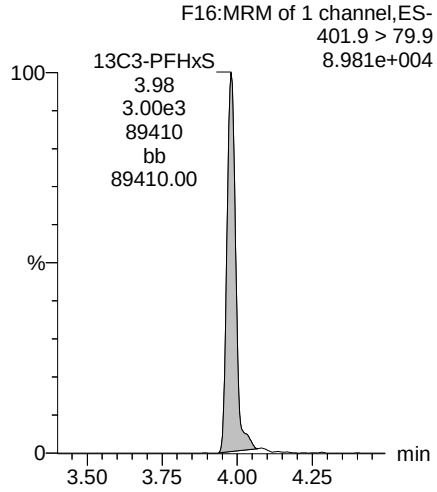
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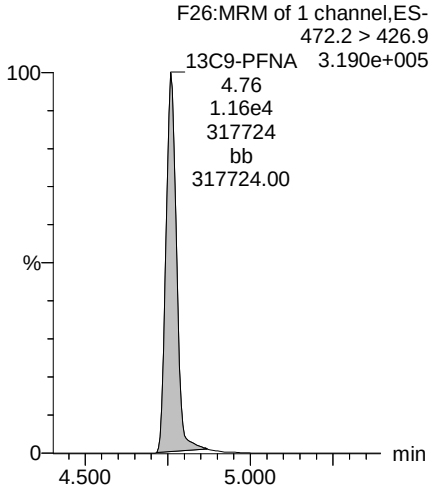
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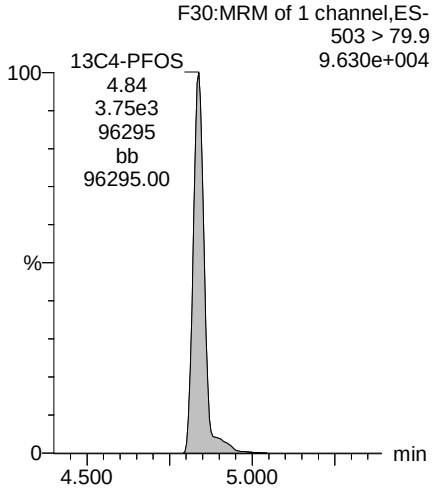
13C3-PFHxS



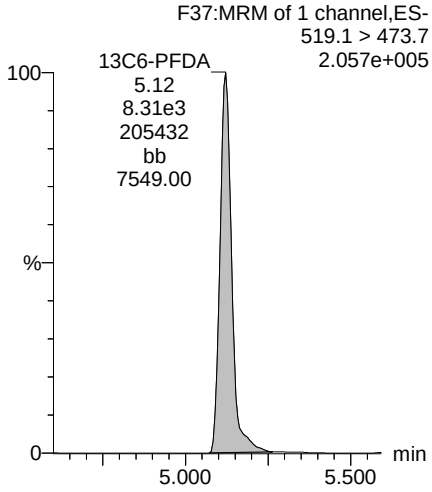
13C9-PFNA



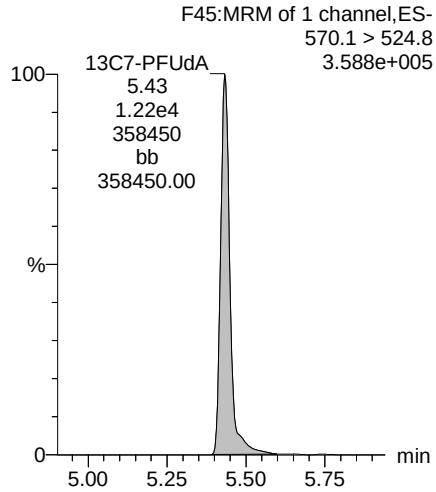
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-46.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_46, Date: 28-Dec-2017, Time: 01:48:34, ID: 1701829-04 FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.68e2	1.39e3	0.262		2.70	2.75	2.41	4.6256	
2	4	PFHxA	313.2 > 268.9	3.79e4	3.42e3	0.262		3.20	3.23	55.3	108.8140	
3	5	PFHpA	363.0 > 318.9	2.33e4	9.57e3	0.262		3.80	3.84	30.4	70.8439	
4	6	L-PFHxS	398.9 > 79.6	2.36e4	1.15e3	0.262		3.95	3.98	257	459.9576	
5	9	L-PFOA	413 > 368.7	9.38e4	1.09e4	0.262		4.32	4.34	107	329.0636	
6	12	PFNA	463.0 > 418.8	3.84e5	7.81e3	0.262		4.75	4.76	615	1443.4267	E
7	14	L-PFOS	499 > 79.9	7.78e4	2.92e3	0.262		4.83	4.84	333	968.6667	E
8	16	PFDA	513 > 468.8	5.62e4	8.10e3	0.262		5.11	5.12	86.7	278.1267	
9	18	N-MeFOSAA	570.1 > 419		4.92e3	0.262		5.26				
10	19	N-EtFOSAA	584.2 > 419		5.36e3	0.262		5.42				
11	20	PFUdA	563.0 > 518.9	1.11e5	9.31e3	0.262		5.43	5.44	149	478.0972	
12	22	PFDoA	612.9 > 569.0		7.06e3	0.262		5.70				

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Dataset: U:\Q4.PRO\results\171227M2\171227M2-46.qld

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Name: 171227M2_46, Date: 28-Dec-2017, Time: 01:48:34, ID: 1701829-04 FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		7.06e3	0.262		5.95				
2	25	PFTeDA	712.9 > 668.8		1.65e3	0.262		6.16				
3	33	13C3-PFBS	302. > 98.8	1.39e3	1.25e4	0.262	0.101	2.70	2.74	1.39	52.5026	109.9
4	34	13C2-PFHxA	315 > 269.8	3.42e3	1.25e4	0.262	0.601	3.20	3.23	3.43	21.8535	114.3
5	35	13C4-PFHpA	367.2 > 321.8	9.57e3	1.25e4	0.262	0.676	3.80	3.84	9.60	54.2732	113.6
6	36	18O2-PFHxS	403.0 > 102.6	1.15e3	3.22e3	0.262	0.347	3.95	3.98	4.46	49.2188	103.0
7	37	13C2-6:2 FTS	429.1 > 408.9	2.43e3	1.27e4	0.262	0.210	4.26	4.29	2.40	43.6849	91.4
8	38	13C2-PFOA	414.9 > 369.7	1.09e4	1.27e4	0.262	0.990	4.32	4.34	10.8	41.6621	87.2
9	39	13C5-PFNA	468.2 > 422.9	7.81e3	1.22e4	0.262	0.845	4.75	4.76	8.02	36.2763	75.9
10	40	13C8-PFOSA	506.1 > 77.7	1.56e3	1.40e4	0.262	0.199	4.81	4.83	1.39	26.6291	55.7
11	41	13C8-PFOS	507.0 > 79.9	2.92e3	3.43e3	0.262	0.865	4.83	4.83	10.6	46.9870	98.3
12	42	13C2-PFDA	515.1 > 469.9	8.10e3	1.08e4	0.262	0.886	5.11	5.12	9.41	40.5888	84.9
13	43	13C2-8:2 FTS	529.1 > 508.7	2.29e3	1.25e4	0.262	0.136	5.09	5.10	2.29	64.5195	135.0
14	44	d3-N-MeFOSAA	573.3 > 419	4.92e3	1.40e4	0.262	0.409	5.26	5.26	4.39	41.0291	85.9
15	45	d5-N-EtFOSAA	589.3 > 419	5.36e3	1.40e4	0.262	0.474	5.42	5.41	4.78	38.5792	80.7
16	46	13C2-PFUdA	565 > 519.8	9.31e3	1.40e4	0.262	0.928	5.43	5.44	8.31	34.1979	71.6
17	47	13C2-PFDoA	615.0 > 569.7	7.06e3	1.40e4	0.262	0.636	5.70	5.71	6.30	37.8424	79.2
18	49	13C2-PFTeDA	714.8 > 669.6	1.65e3	1.40e4	0.262	0.163	6.16	6.16	1.47	34.6150	72.4
19	55	13C5-PFHxA	318 > 272.9	1.25e4	1.25e4	0.262	1.000	3.20	3.23	12.5	47.7829	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.22e3	3.22e3	0.262	1.000	3.95	3.98	12.5	47.7829	100.0
21	57	13C8-PFOA	421.3 > 376	1.27e4	1.27e4	0.262	1.000	4.32	4.34	12.5	47.7829	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.22e4	1.22e4	0.262	1.000	4.75	4.76	12.5	47.7829	100.0
23	59	13C4-PFOS	503 > 79.9	3.43e3	3.43e3	0.262	1.000	4.83	4.84	12.5	47.7829	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.08e4	1.08e4	0.262	1.000	5.11	5.12	12.5	47.7829	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.40e4	1.40e4	0.262	1.000	5.43	5.44	12.5	47.7829	100.0
26	62	Total PFHxS	398.9 > 79.6	2.36e4	1.15e3	0.262		4.00		257	459.9576	
27	63	Total PFOA	413 > 368.7	1.05e5	1.09e4	0.262		4.30		120	366.5444	
28	64	Total PFOS	499 > 79.9	7.78e4	2.92e3	0.262		4.80		333	968.6667	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	4.92e3	0.262		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	5.36e3	0.262		5.40		0.000		

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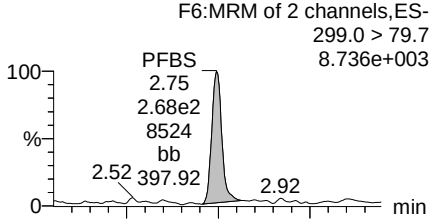
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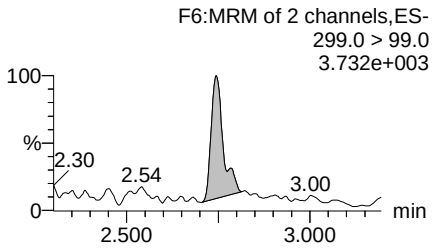
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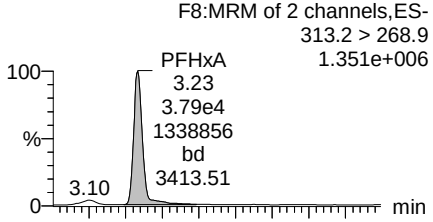
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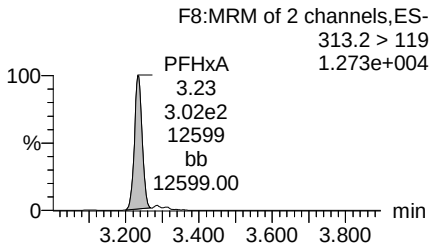
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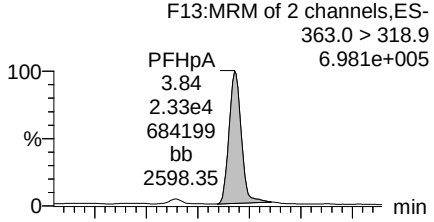


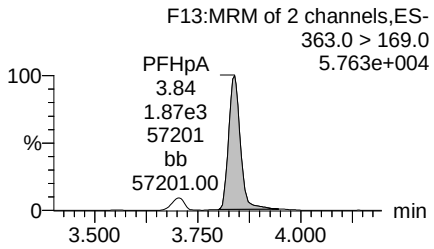
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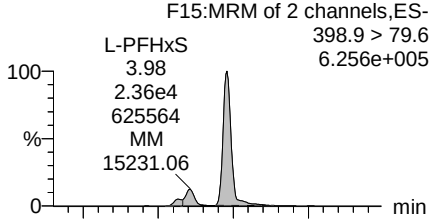


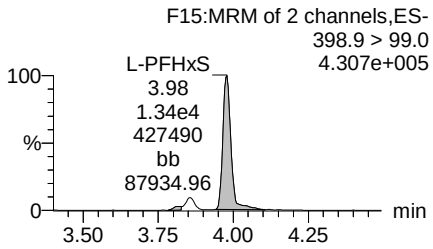
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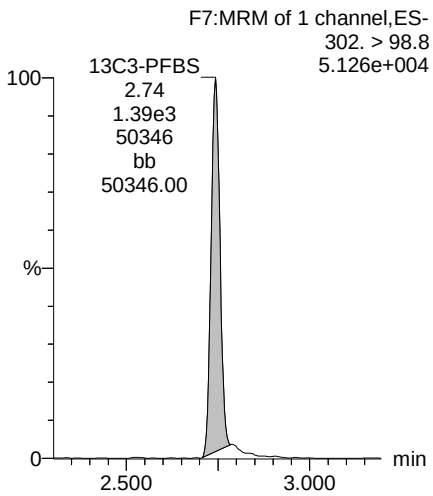


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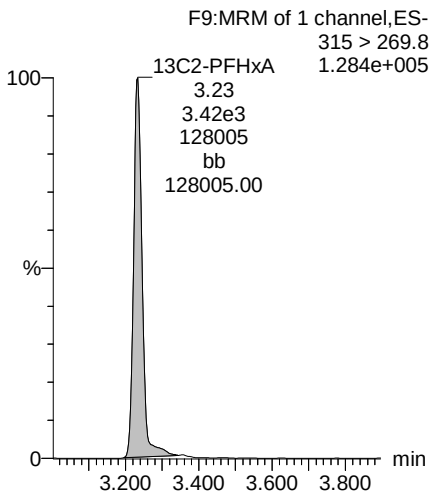




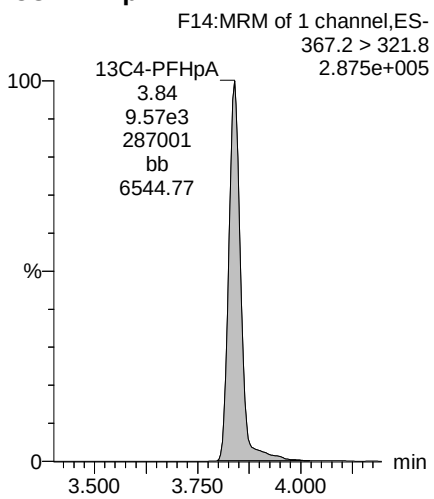
13C3-PFBS



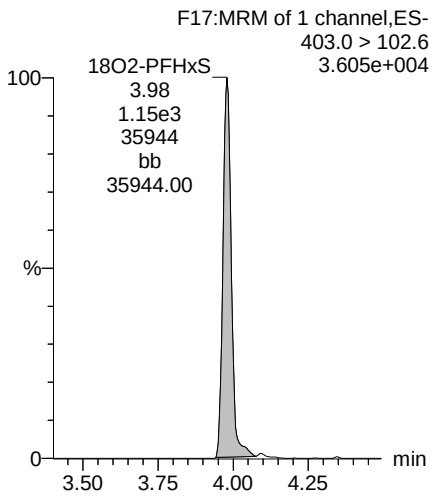
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



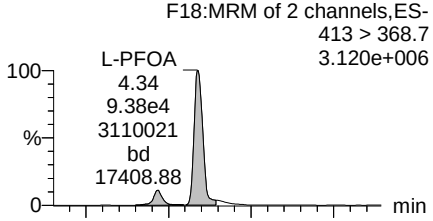
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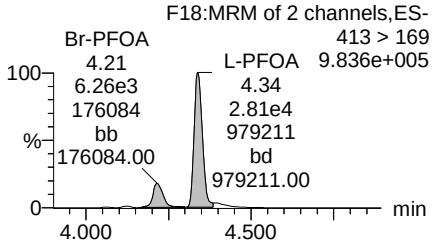
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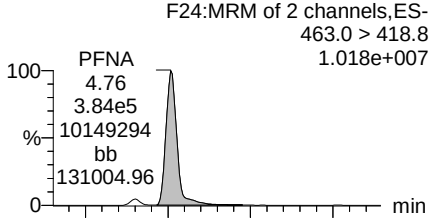
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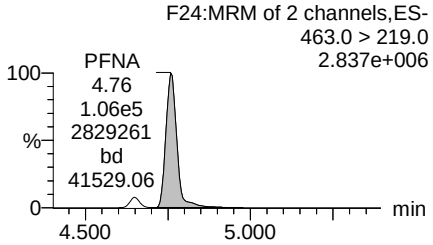
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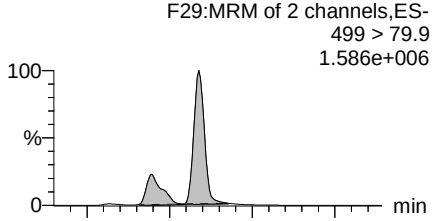


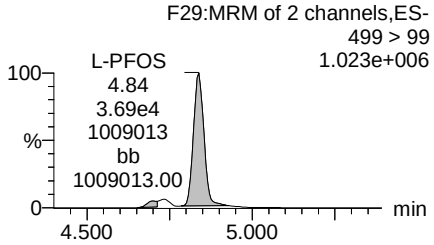
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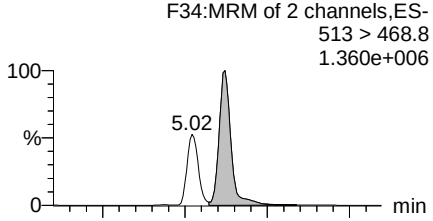


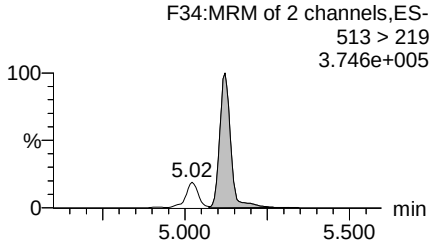
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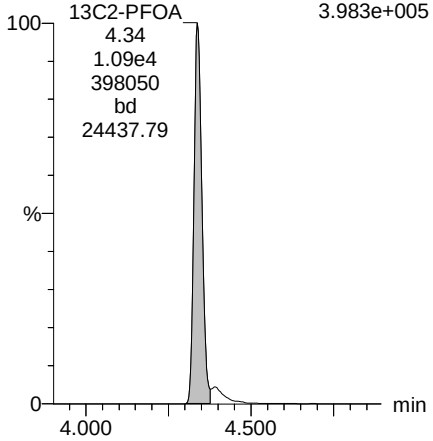


PFDA

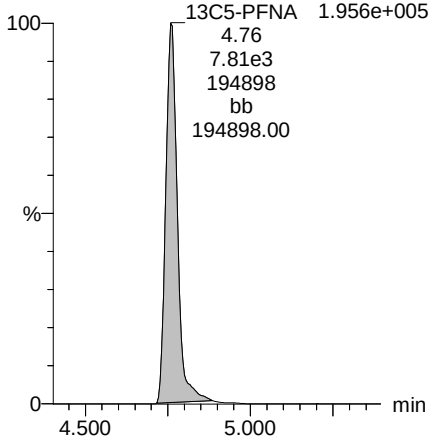




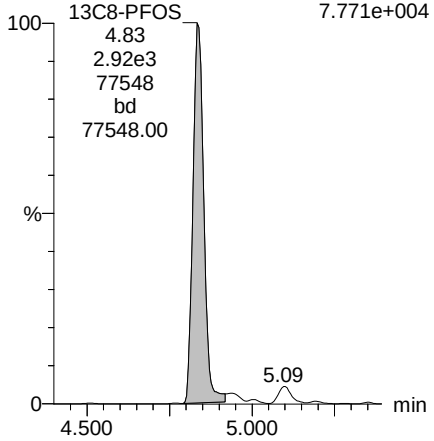
13C2-PFOA



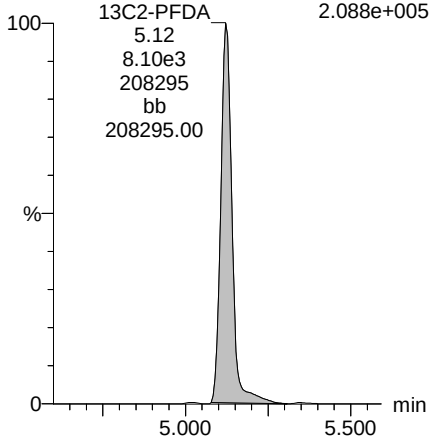
13C5-PFNA



13C8-PFOS



13C2-PFDA



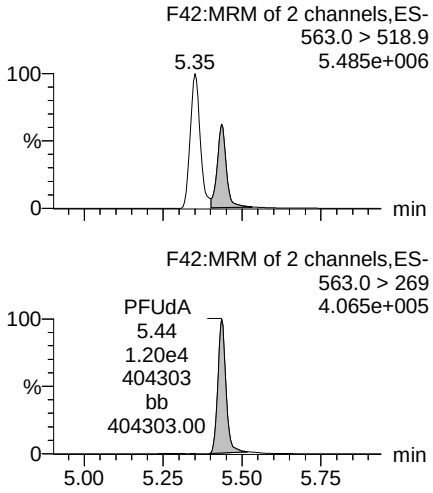
MSF 12/29/17

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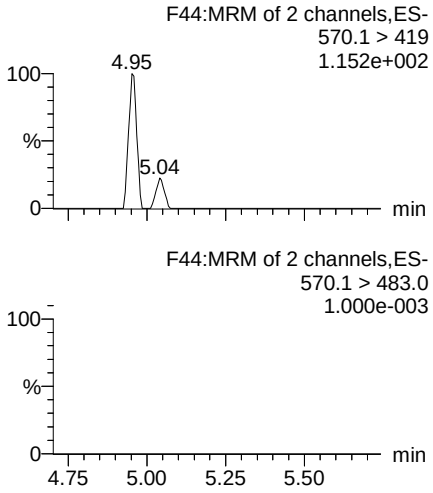
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Printed: Friday, December 29, 2017 12:05:11 Pacific Standard Time

Name: 171227M2_46, Date: 28-Dec-2017, Time: 01:48:34, ID: 1701829-04 FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

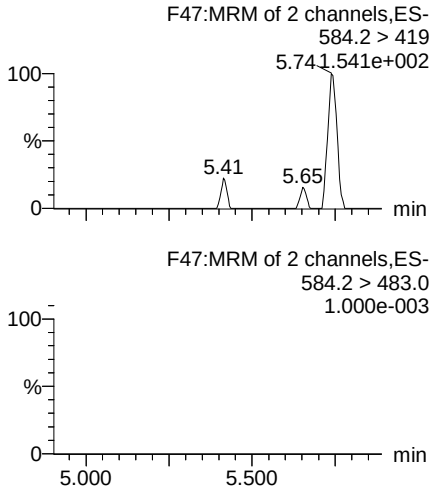
PFUdA



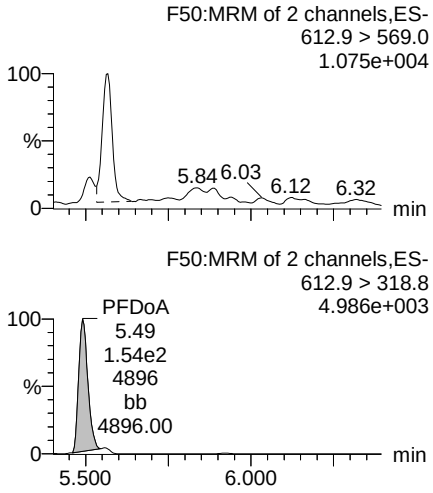
N-MeFOSAA



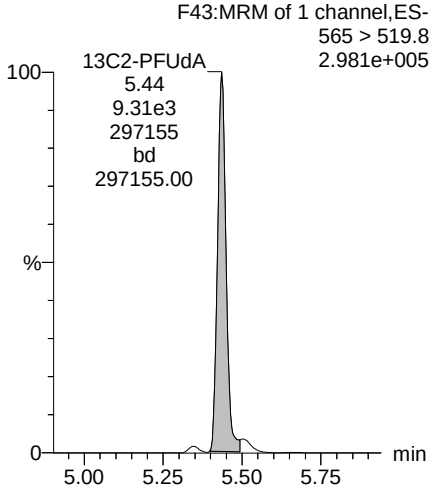
N-EtFOSAA



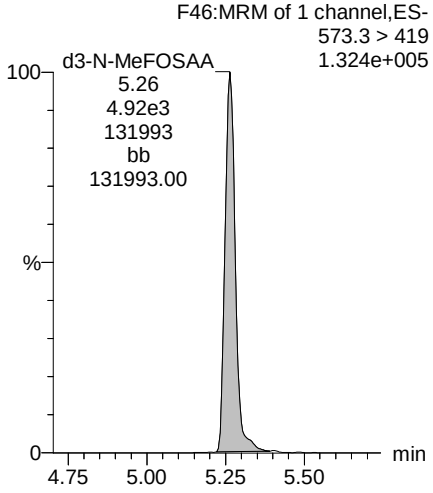
PFDoA



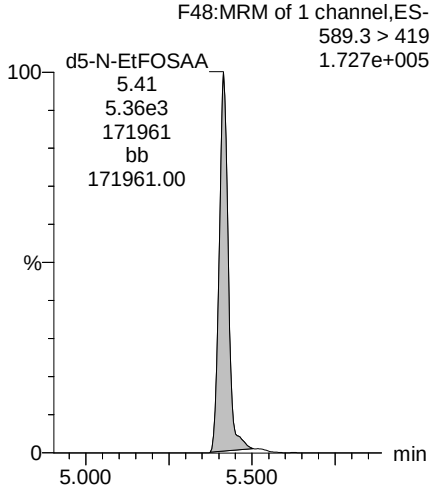
13C2-PFUdA



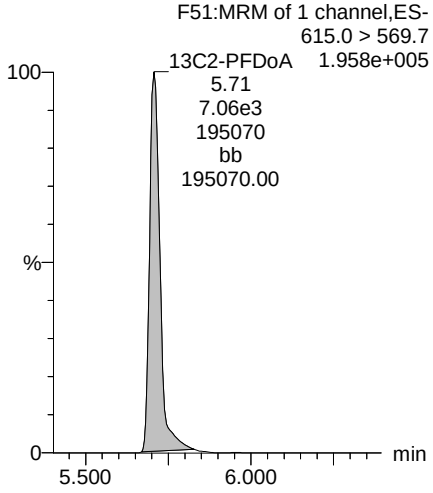
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



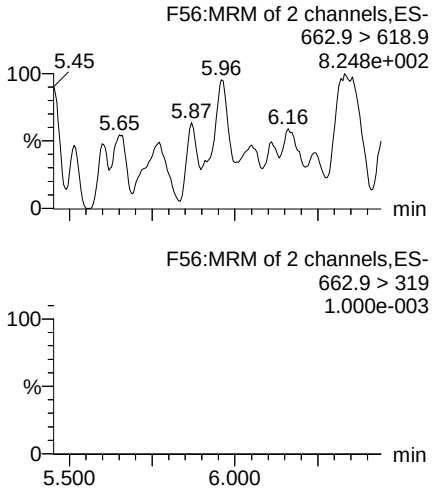
MSF 12/29/17

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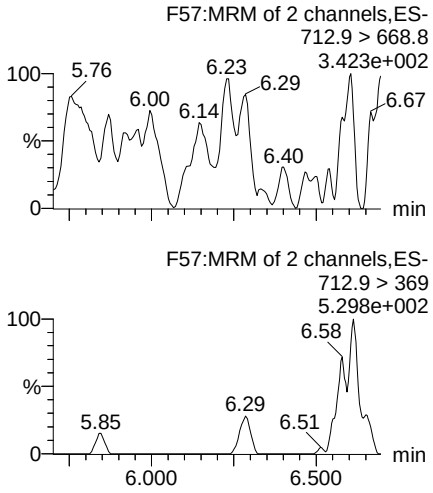
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Printed: Friday, December 29, 2017 12:05:11 Pacific Standard Time

Name: 171227M2_46, Date: 28-Dec-2017, Time: 01:48:34, ID: 1701829-04 FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

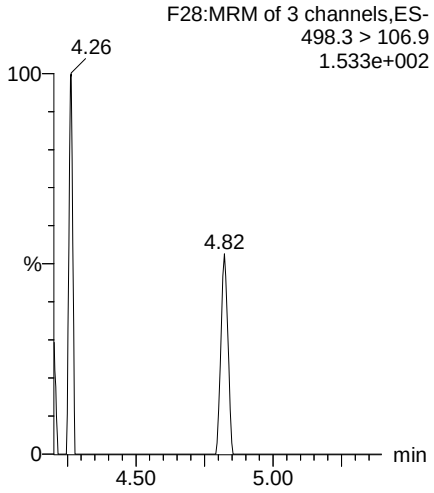
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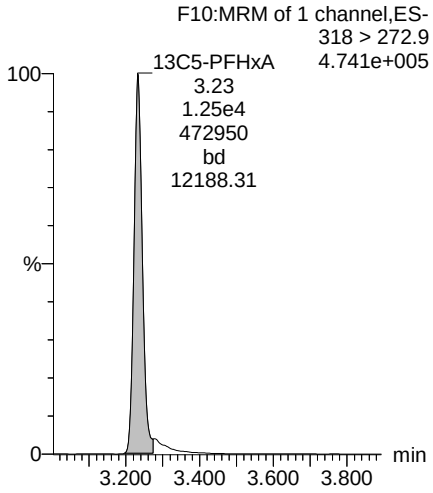
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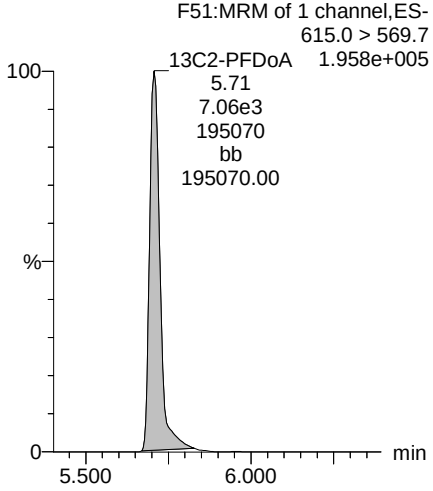
TCDA



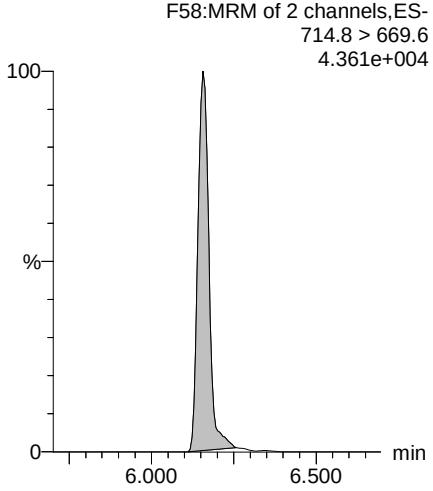
13C5-PFHxA



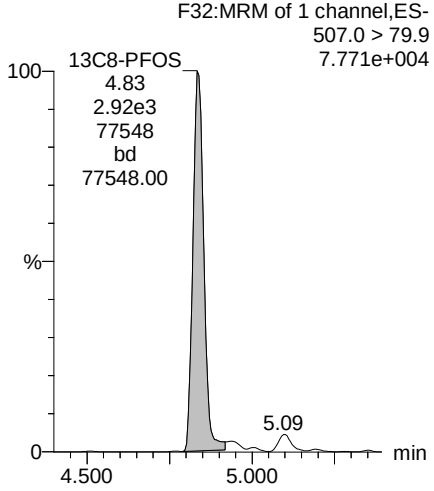
13C2-PFDoA



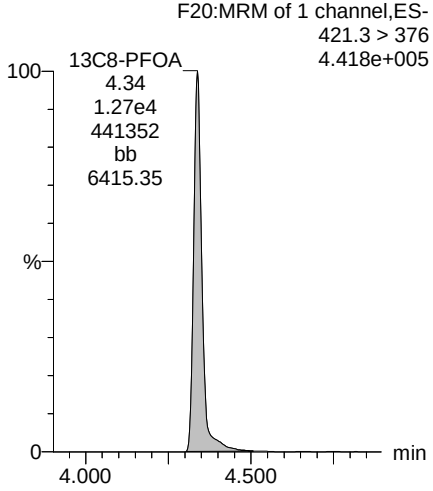
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



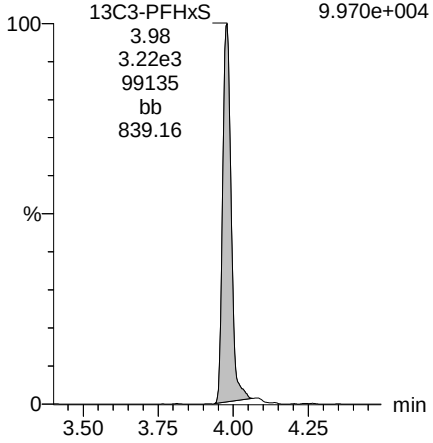
MSF 12/29/17

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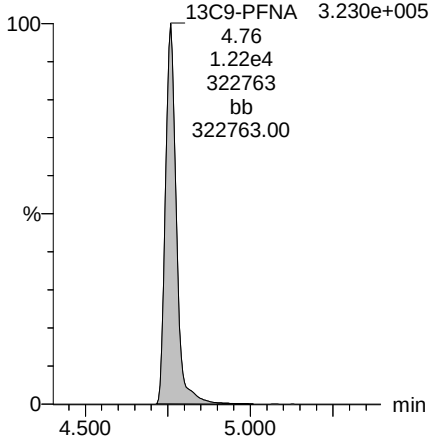
Last Altered: Friday, December 29, 2017 12:04:06 Pacific Standard Time
Printed: Friday, December 29, 2017 12:05:11 Pacific Standard Time

Name: 171227M2_46, Date: 28-Dec-2017, Time: 01:48:34, ID: 1701829-04 FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

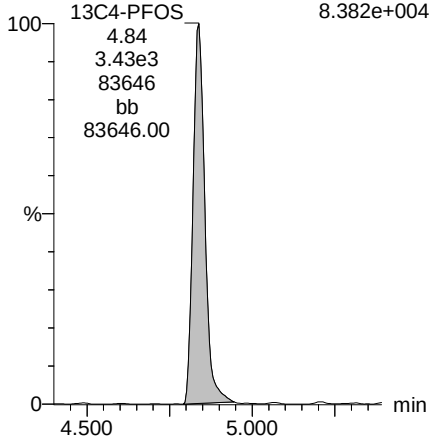
13C3-PFHxS



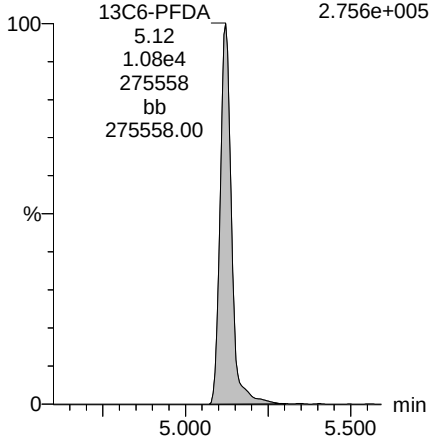
13C9-PFNA



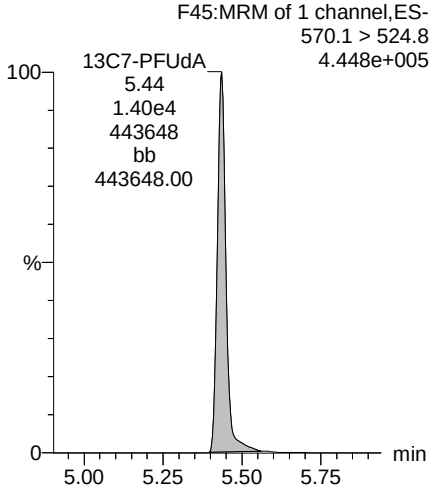
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171229M2\171229M2-90.qld

Last Altered: Saturday, December 30, 2017 14:51:10 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:51:36 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_90, Date: 30-Dec-2017, Time: 06:08:58, ID: 1701829-04@5X FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	12	PFNA	463.0 > 418.8	7.47e4	1.79e3	0.2616		4.70	4.68	522	1870	
2	14	L-PFOS	499 > 79.9	1.12e4	7.15e2	0.2616		4.75	4.76	197	642	
3	15	Br-PFOS	499 > 79.9	3.45e3	7.15e2	0.2616		4.65	4.62	60.3	176	
4	39	13C5-PFNA	468.2 > 422.9	1.79e3	2.16e3	0.2616	0.832	4.75	4.68	10.3	47.4	99.2
5	41	13C8-PFOS	507.0 > 79.9	7.15e2	7.23e2	0.2616	0.948	4.83	4.77	12.4	49.8	104.3
6	58	13C9-PFNA	472.2 > 426.9	2.16e3	2.16e3	0.2616	1.000	4.75	4.68	12.5	47.8	100.0
7	59	13C4-PFOS	503 > 79.9	7.23e2	7.23e2	0.2616	1.000	4.83	4.76	12.5	47.8	100.0
8	64	Total PFOS	499 > 79.9	1.47e4	7.15e2	0.2616		4.80		257	818	

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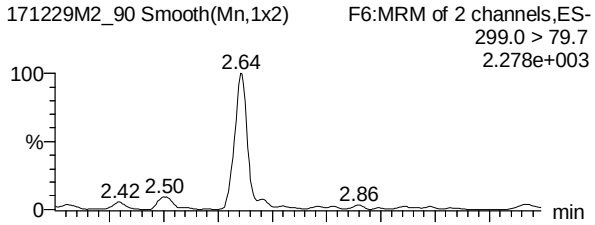
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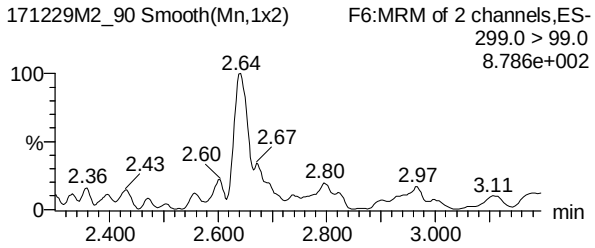
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

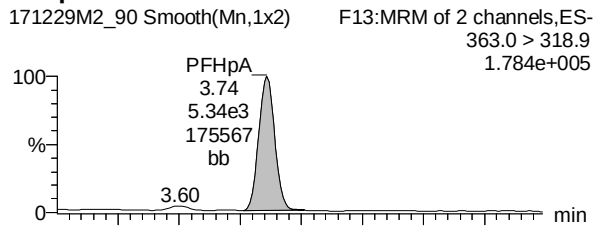
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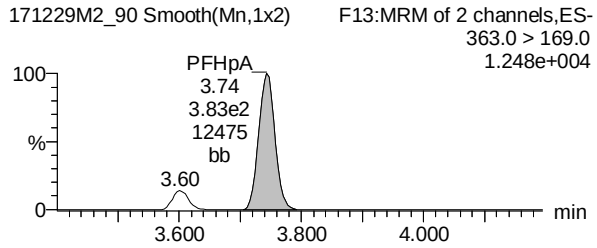
PFBS



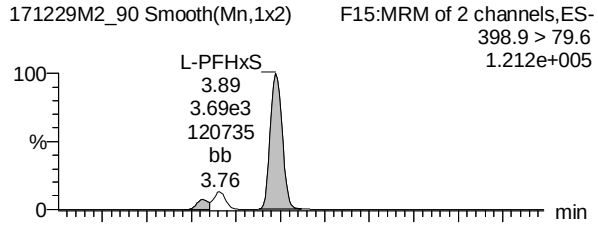


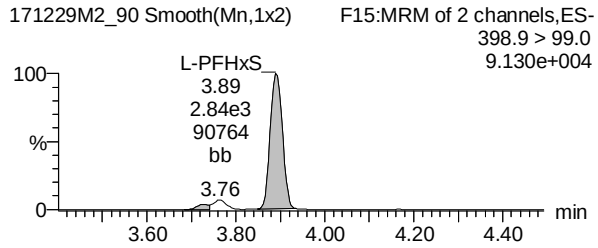
PFHpA



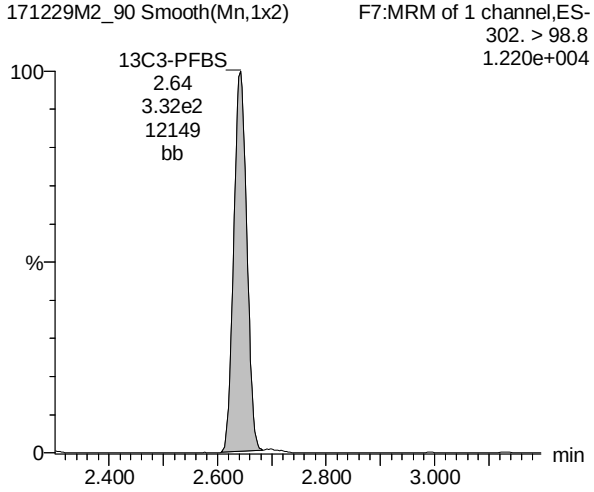


Total PFHxS

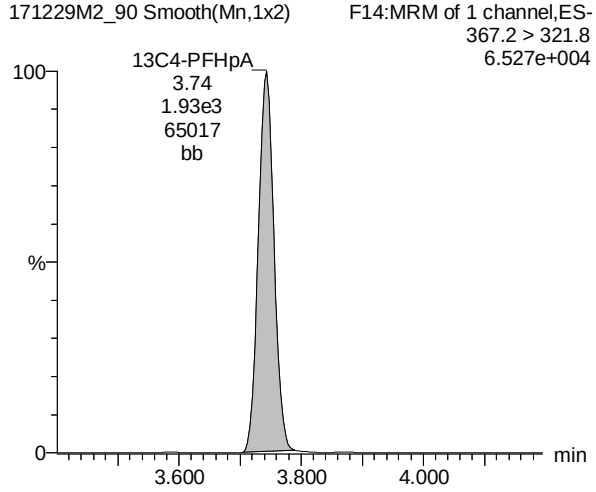




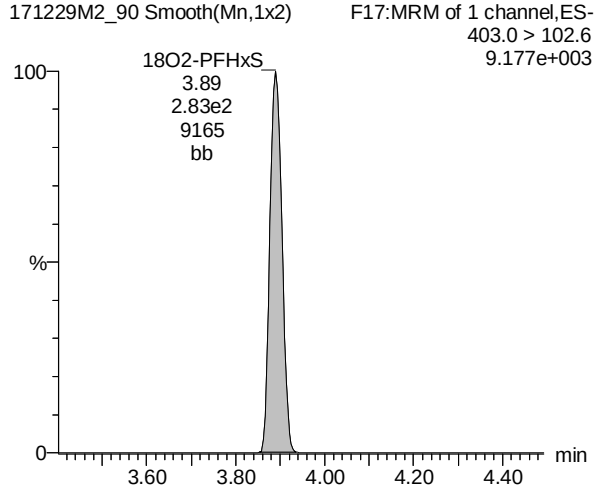
13C3-PFBS



13C4-PFHpA



18O2-PFHxS



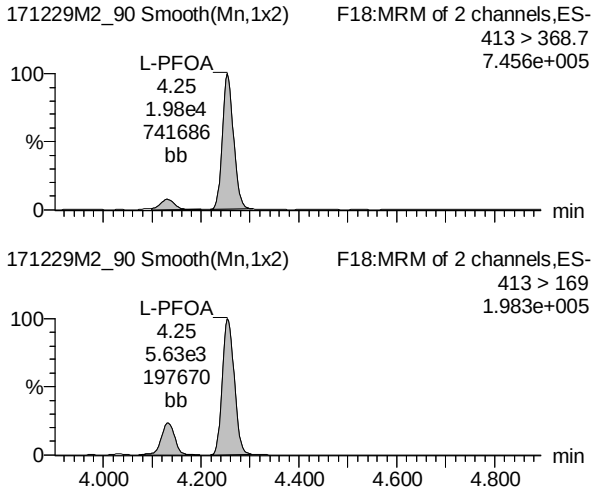
AC 12/30/17

Dataset: U:\Q4.PRO\results\171229M2\171229M2-90.qld

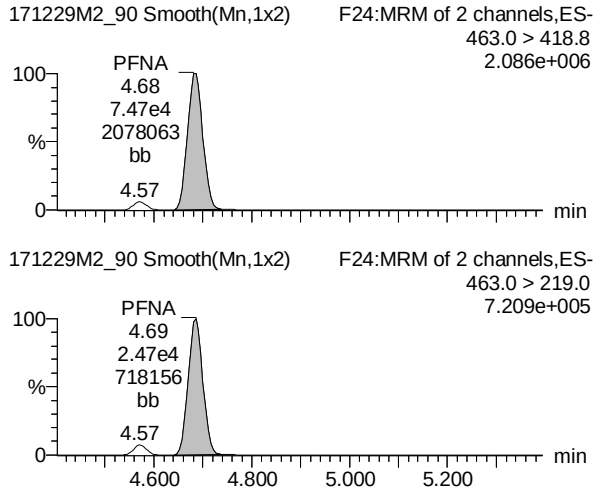
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Printed: Saturday, December 30, 2017 14:51:36 Pacific Standard Time

Name: 171229M2_90, Date: 30-Dec-2017, Time: 06:08:58, ID: 1701829-04@5X FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

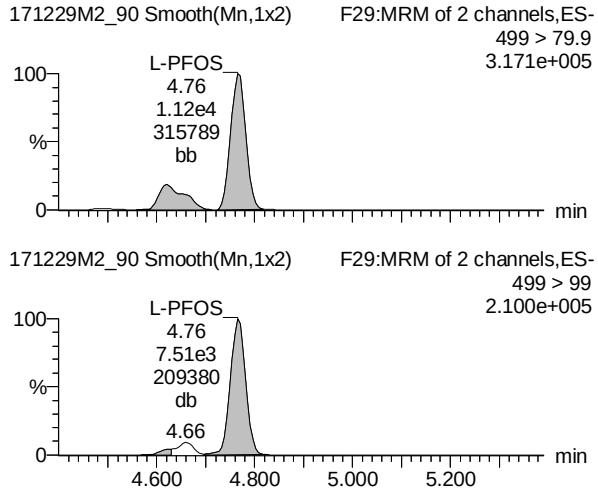
Total PFOA



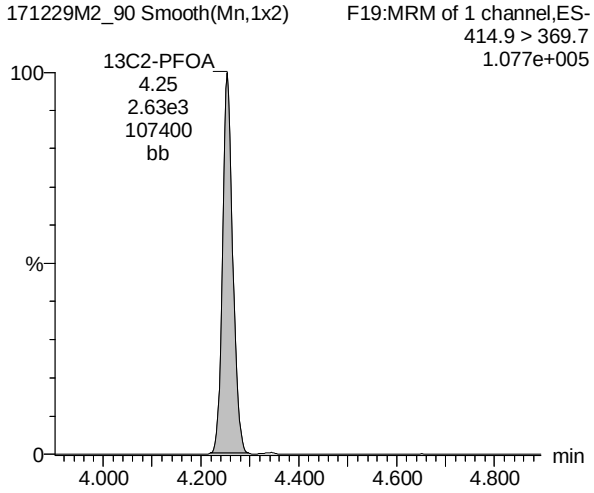
PFNA



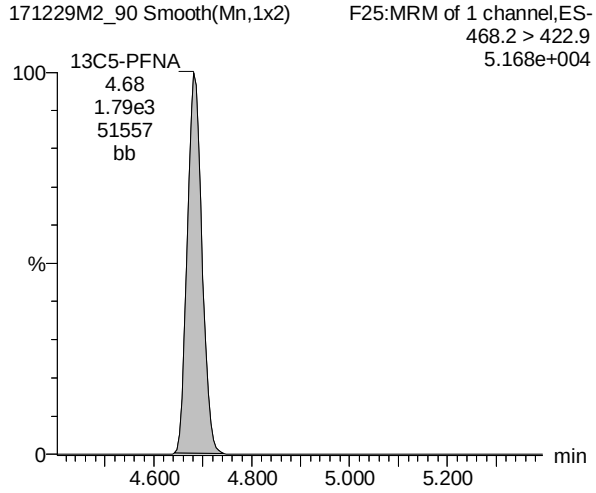
Total PFOS



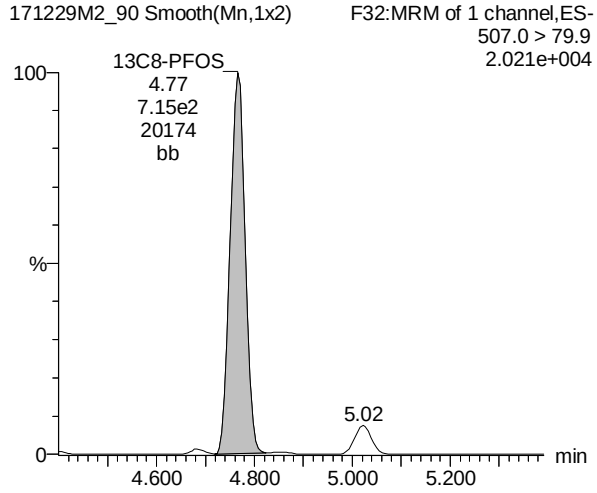
13C2-PFOA



13C5-PFNA



13C8-PFOS



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Vista Analytical Laboratory

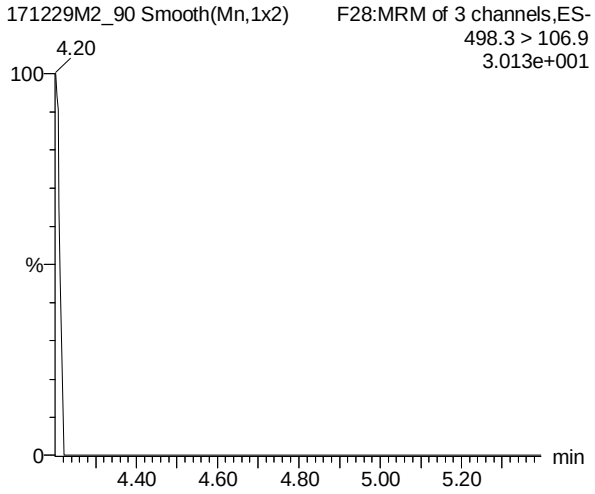
Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171229M2\171229M2-90.qld

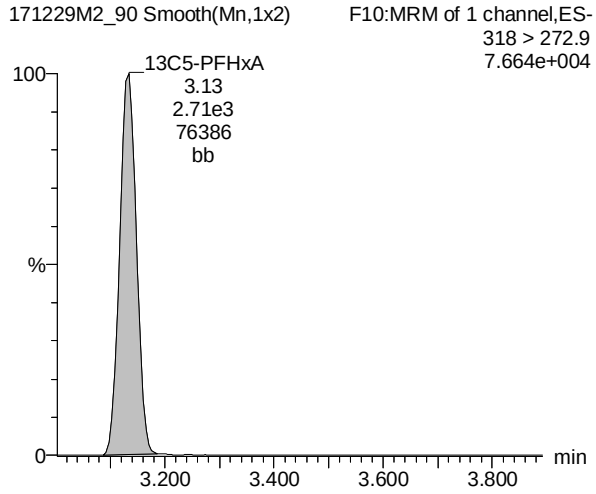
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Printed: Saturday, December 30, 2017 14:51:36 Pacific Standard Time

Name: 171229M2_90, Date: 30-Dec-2017, Time: 06:08:58, ID: 1701829-04@5X FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

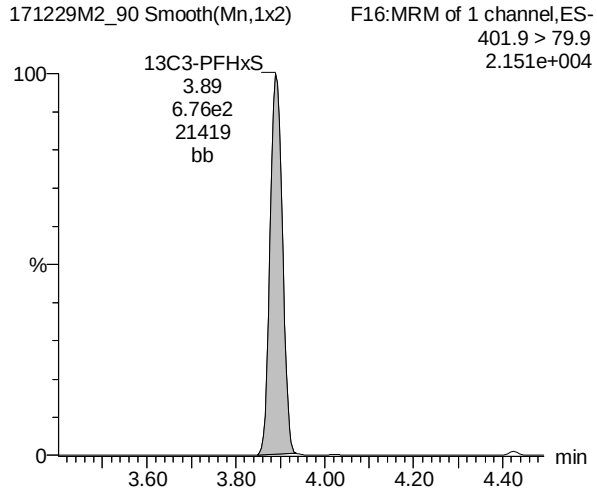
TCDA



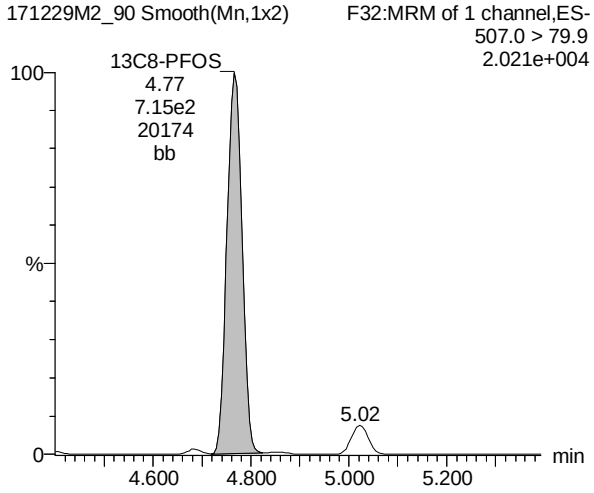
13C5-PFHxA



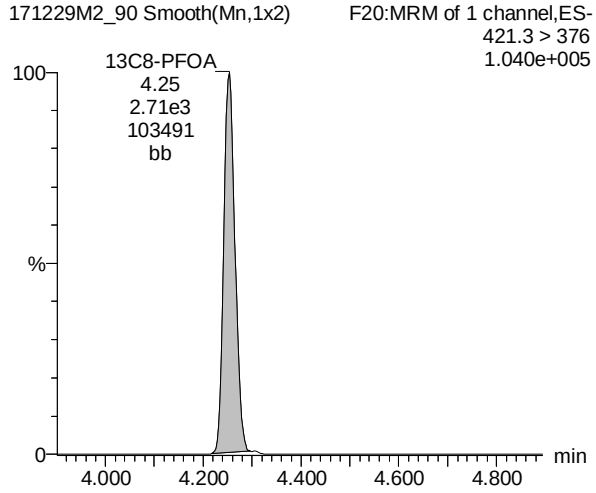
13C3-PFHxS



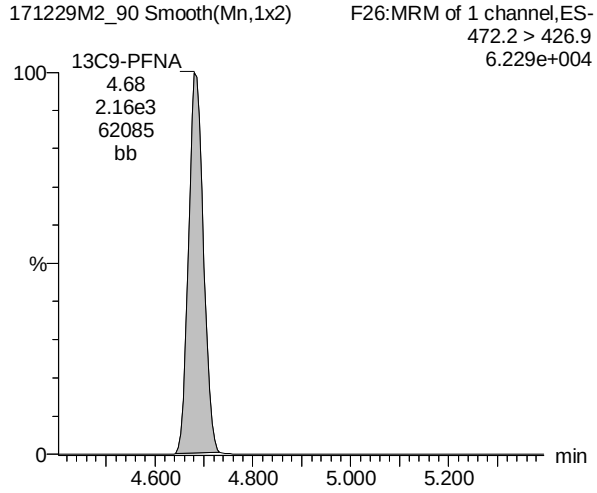
13C8-PFOS



13C8-PFOA



13C9-PFNA



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Vista Analytical Laboratory

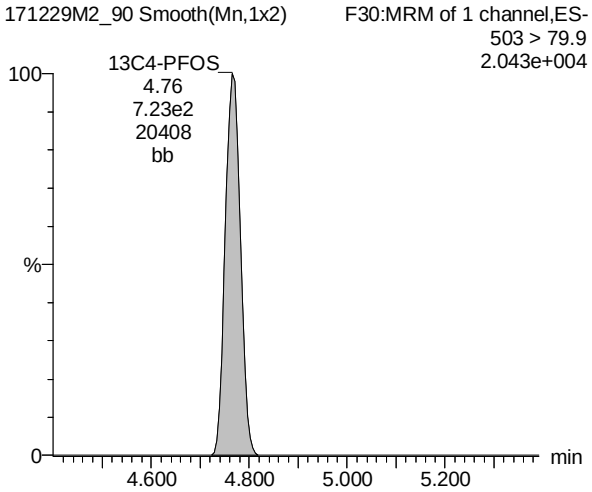
Rev'd: MM 12/31/17

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Last Altered: Saturday, December 30, 2017 14:51:10 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:51:36 Pacific Standard Time

Name: 171229M2_90, Date: 30-Dec-2017, Time: 06:08:58, ID: 1701829-04@5X FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

13C4-PFOS



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Vista Analytical Laboratory

Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-36.qld

Last Altered: Friday, December 29, 2017 11:29:45 Pacific Standard Time
Printed: Friday, December 29, 2017 11:30:58 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_36, Date: 27-Dec-2017, Time: 23:56:45, ID: B7L0073-MS1 Matrix Spike 0.24032, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.20e3	1.44e3	0.240		2.70	2.75	19.1	33.6855	
2	4	PFHxA	313.2 > 268.9	3.78e4	3.11e3	0.240		3.20	3.24	60.9	131.7274	
3	5	PFHpA	363.0 > 318.9	3.11e4	7.76e3	0.240		3.80	3.84	50.1	126.7457	
4	6	L-PFHxS	398.9 > 79.6	2.05e4	1.21e3	0.240		3.95	3.98	211	410.0338	
5	9	L-PFOA	413 > 368.7	1.01e5	1.23e4	0.240		4.32	4.34	103	342.4412	
6	12	PFNA	463.0 > 418.8	3.51e5	7.99e3	0.240		4.75	4.76	549	1410.4311	E
7	14	L-PFOS	499 > 79.9	6.96e4	2.51e3	0.240		4.83	4.84	346	1093.0997	E
8	16	PFDA	513 > 468.8	7.28e4	8.39e3	0.240		5.11	5.12	109	441.0284	
9	18	N-MeFOSAA	570.1 > 419	4.72e3	4.38e3	0.240		5.26	5.27	13.5	33.2837	
10	19	N-EtFOSAA	584.2 > 419	3.59e3	3.75e3	0.240		5.42	5.42	11.9	41.3108	
11	20	PFUdA	563.0 > 518.9	1.16e5	9.84e3	0.240		5.43	5.44	147	513.3527	
12	22	PFDoA	612.9 > 569.0	7.49e3	6.38e3	0.240		5.70	5.71	14.7	34.7722	

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Dataset: U:\Q4.PRO\results\171227M2\171227M2-36.qld

Last Altered: Friday, December 29, 2017 11:29:45 Pacific Standard Time
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Name: 171227M2_36, Date: 27-Dec-2017, Time: 23:56:45, ID: B7L0073-MS1 Matrix Spike 0.24032, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	7.03e3	6.38e3	0.240		5.95	5.95	13.8	35.1295	
2	25	PFTeDA	712.9 > 668.8	4.79e3	2.35e3	0.240		6.16	6.16	25.4	38.9945	
3	33	13C3-PFBS	302. > 98.8	1.44e3	1.18e4	0.240	0.101	2.70	2.74	1.53	62.6298	120.4
4	34	13C2-PFHxA	315 > 269.8	3.11e3	1.18e4	0.240	0.601	3.20	3.24	3.29	22.7917	109.5
5	35	13C4-PFHpA	367.2 > 321.8	7.76e3	1.18e4	0.240	0.676	3.80	3.84	8.21	50.5118	97.1
6	36	18O2-PFHxS	403.0 > 102.6	1.21e3	3.49e3	0.240	0.347	3.95	3.98	4.35	52.2762	100.5
7	37	13C2-6:2 FTS	429.1 > 408.9	2.73e3	1.28e4	0.240	0.210	4.26	4.29	2.68	53.0550	102.0
8	38	13C2-PFOA	414.9 > 369.7	1.23e4	1.28e4	0.240	0.990	4.32	4.34	12.0	50.4779	97.0
9	39	13C5-PFNA	468.2 > 422.9	7.99e3	9.85e3	0.240	0.845	4.75	4.76	10.1	49.9675	96.1
10	40	13C8-PFOSA	506.1 > 77.7	1.53e3	1.17e4	0.240	0.199	4.81	4.83	1.63	34.0474	65.5
11	41	13C8-PFOS	507.0 > 79.9	2.51e3	3.22e3	0.240	0.865	4.83	4.84	9.75	46.8709	90.1
12	42	13C2-PFDA	515.1 > 469.9	8.39e3	9.79e3	0.240	0.886	5.11	5.12	10.7	50.2744	96.6
13	43	13C2-8:2 FTS	529.1 > 508.7	2.62e3	1.18e4	0.240	0.136	5.09	5.10	2.77	85.0228	163.4
14	44	d3-N-MeFOSAA	573.3 > 419	4.38e3	1.17e4	0.240	0.409	5.26	5.27	4.68	47.6021	91.5
15	45	d5-N-EtFOSAA	589.3 > 419	3.75e3	1.17e4	0.240	0.474	5.42	5.42	4.01	35.1935	67.7
16	46	13C2-PFUdA	565 > 519.8	9.84e3	1.17e4	0.240	0.928	5.43	5.44	10.5	47.0608	90.5
17	47	13C2-PFDoA	615.0 > 569.7	6.38e3	1.17e4	0.240	0.636	5.70	5.71	6.80	44.5146	85.6
18	49	13C2-PFTeDA	714.8 > 669.6	2.35e3	1.17e4	0.240	0.163	6.16	6.16	2.51	64.2052	123.4
19	55	13C5-PFHxA	318 > 272.9	1.18e4	1.18e4	0.240	1.000	3.20	3.24	12.5	52.0183	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.49e3	3.49e3	0.240	1.000	3.95	3.98	12.5	52.0183	100.0
21	57	13C8-PFOA	421.3 > 376	1.28e4	1.28e4	0.240	1.000	4.32	4.34	12.5	52.0183	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.85e3	9.85e3	0.240	1.000	4.75	4.76	12.5	52.0183	100.0
23	59	13C4-PFOS	503 > 79.9	3.22e3	3.22e3	0.240	1.000	4.83	4.84	12.5	52.0183	100.0
24	60	13C6-PFDA	519.1 > 473.7	9.79e3	9.79e3	0.240	1.000	5.11	5.12	12.5	52.0183	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.17e4	1.17e4	0.240	1.000	5.43	5.44	12.5	52.0183	100.0
26	62	Total PFHxS	398.9 > 79.6	2.05e4	1.21e3	0.240		4.00		211	410.0338	
27	63	Total PFOA	413 > 368.7	1.11e5	1.23e4	0.240		4.30		114	378.4309	
28	64	Total PFOS	499 > 79.9	6.96e4	2.51e3	0.240		4.80		346	1093.0997	
29	65	Total N-MeFOSAA	570.1 > 419	4.72e3	4.38e3	0.240		5.20		13.5	33.2837	
30	66	Total N-EtFOSAA	584.2 > 419	3.71e3	3.75e3	0.240		5.40		12.3	42.9918	

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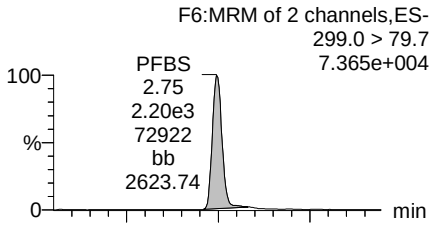
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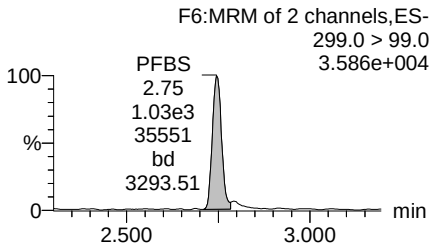
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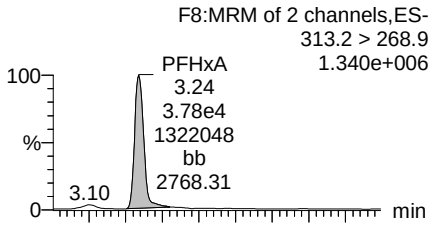
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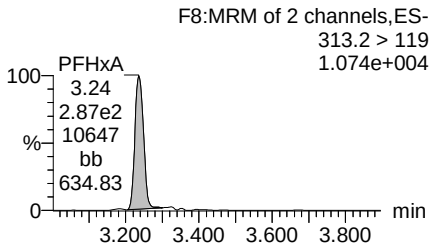
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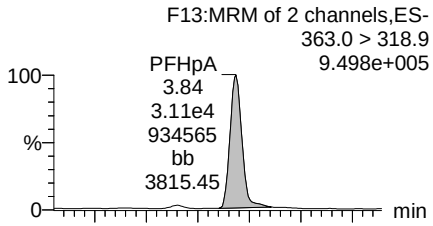


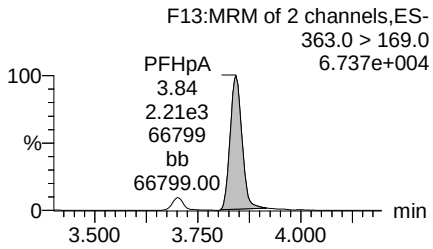
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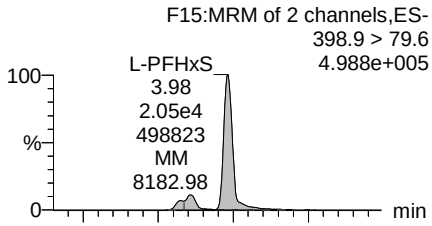


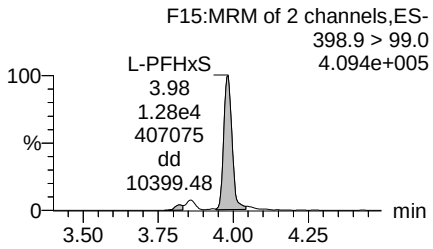
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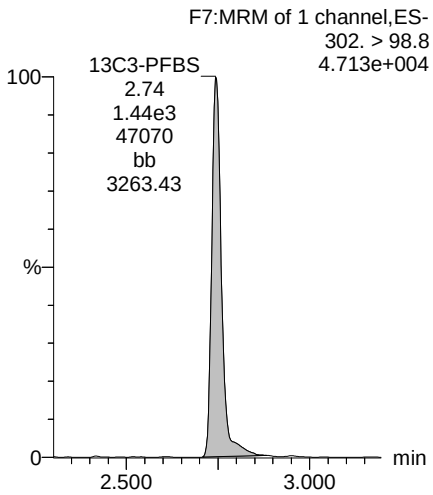


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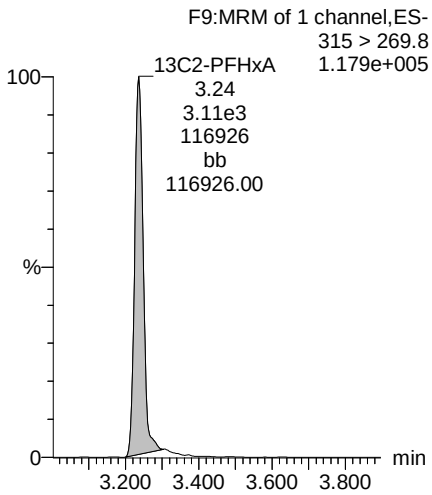




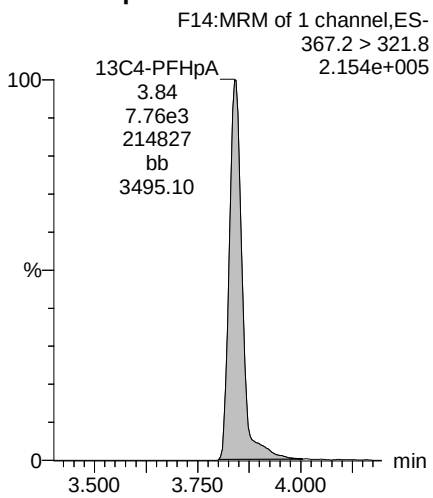
13C3-PFBS



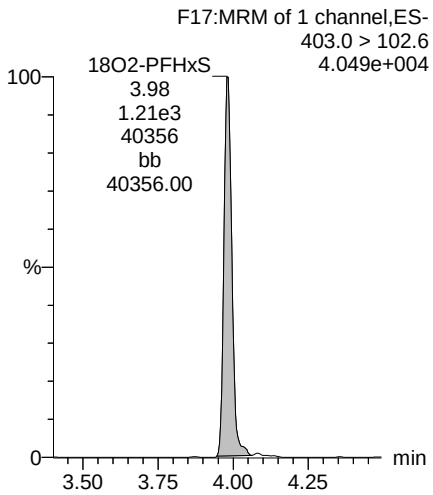
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13C4-PFHpA



18O2-PFHxS



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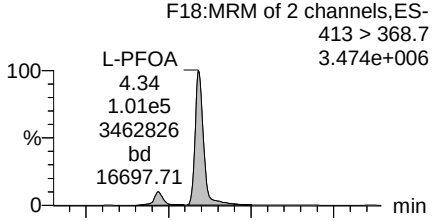
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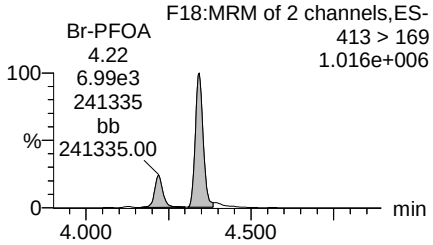
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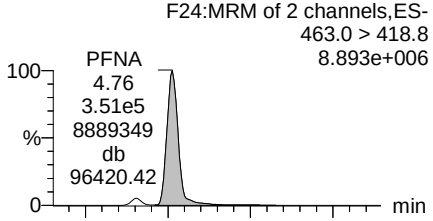
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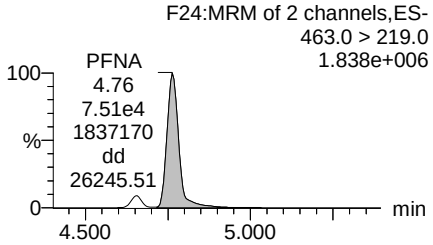
Total PFOA



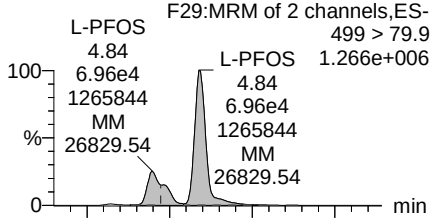


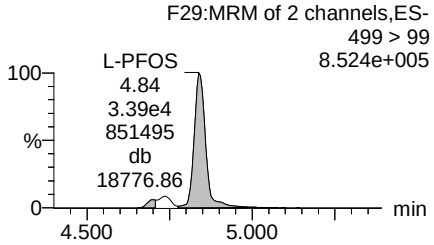
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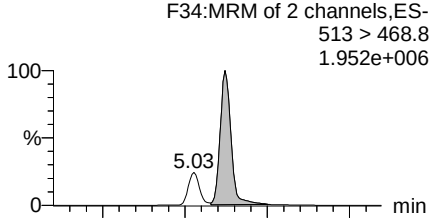


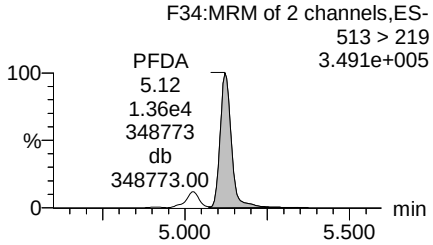
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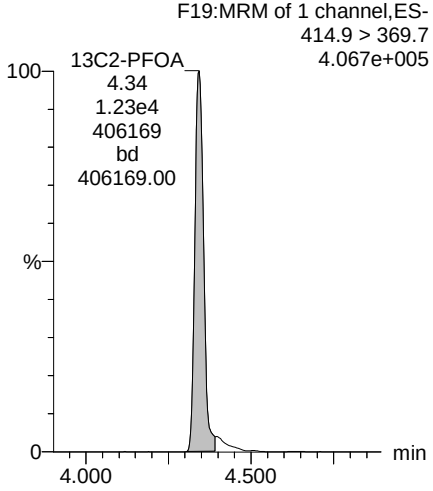


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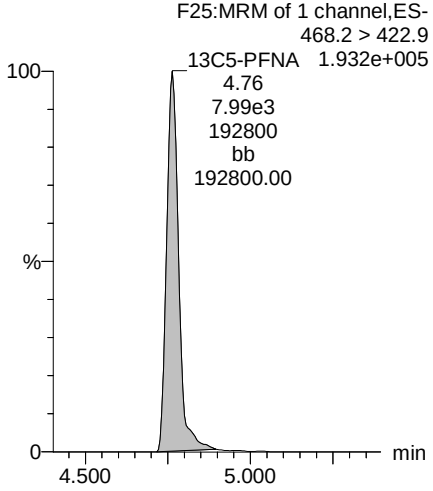




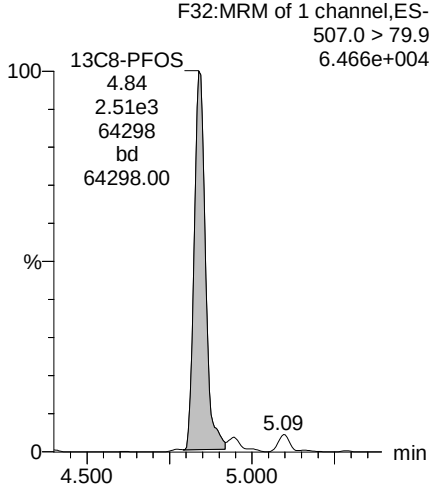
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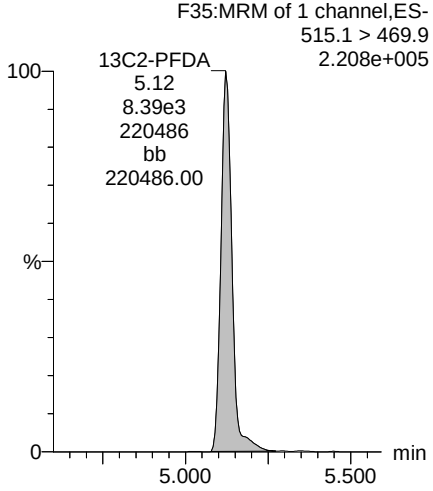
13C5-PFNA



13C8-PFOS



13C2-PFDA



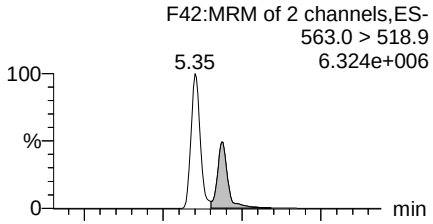
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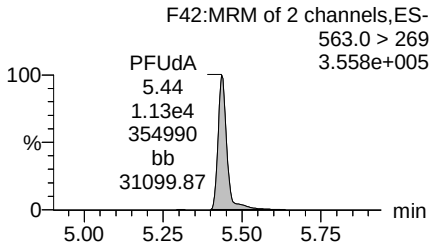
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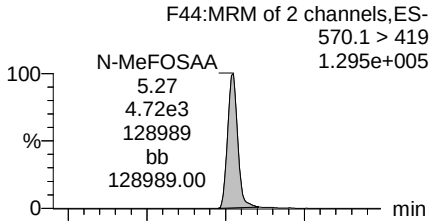
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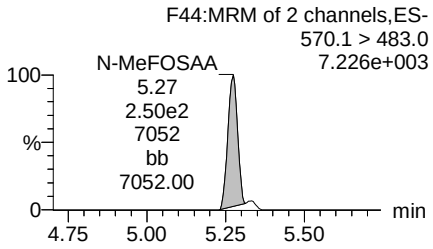
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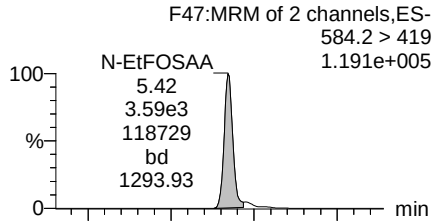


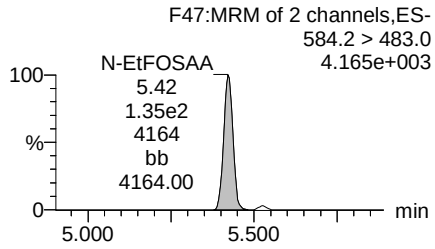
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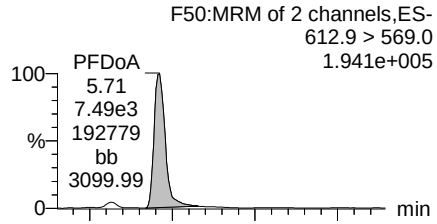


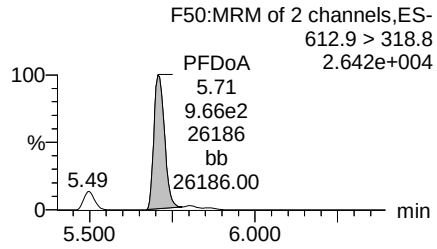
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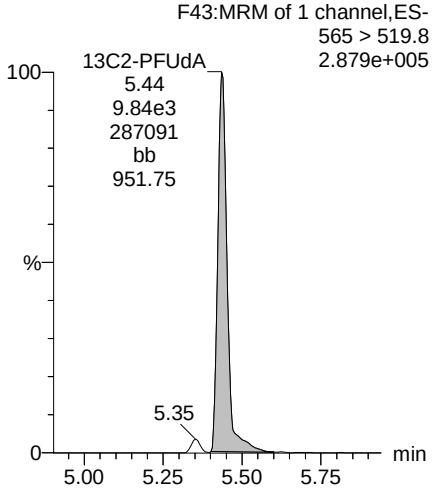


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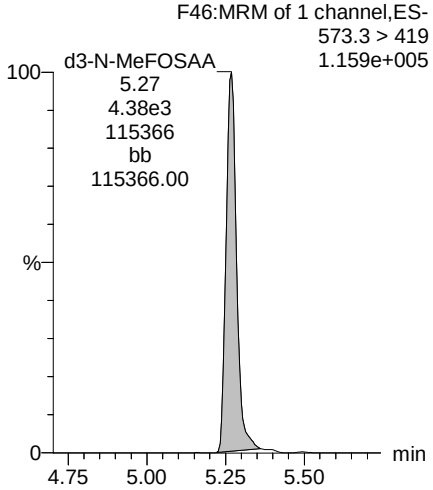




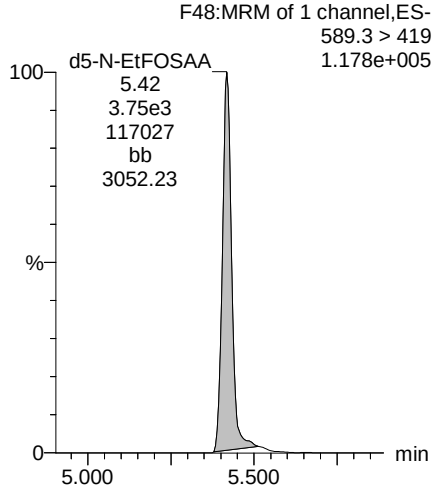
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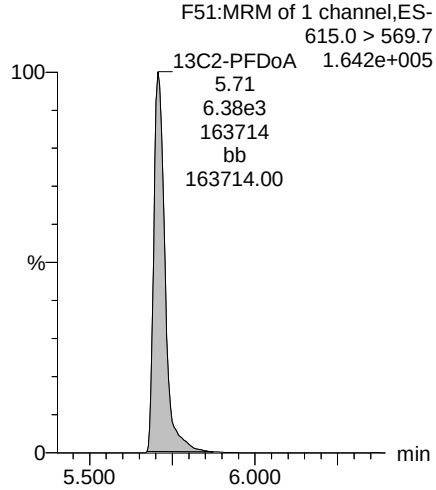
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



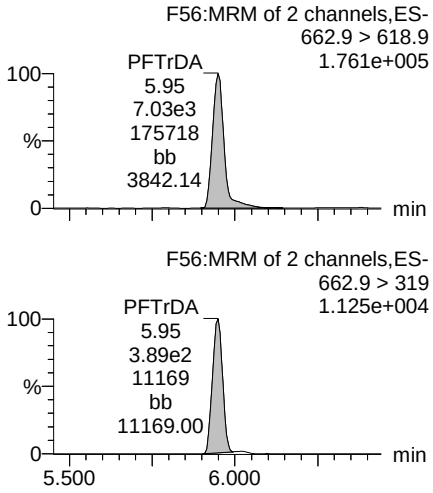
MSF 12/29/17

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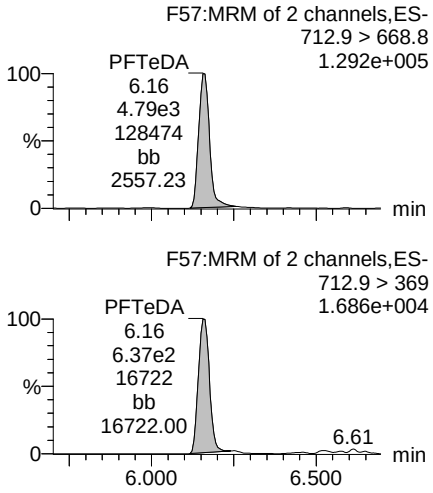
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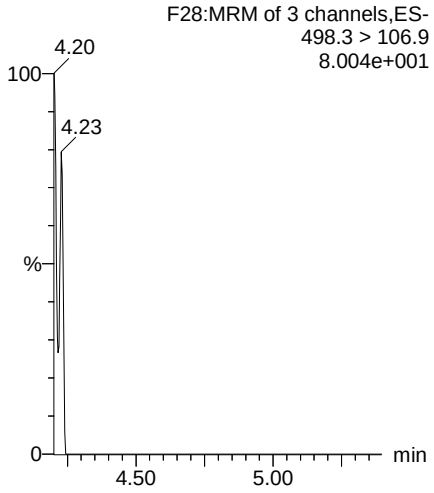
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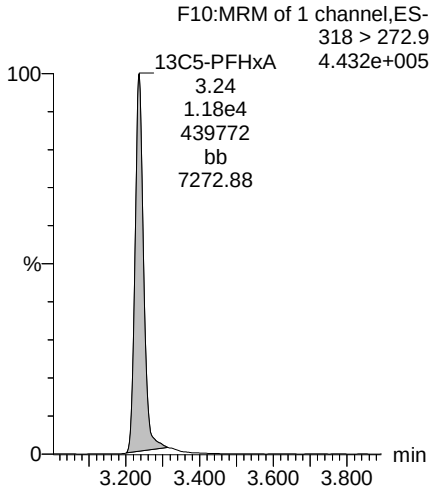
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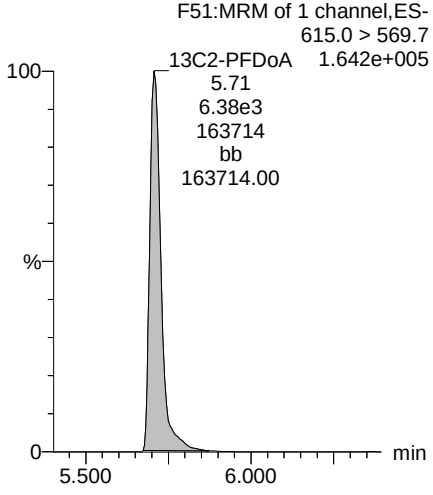
TCDA



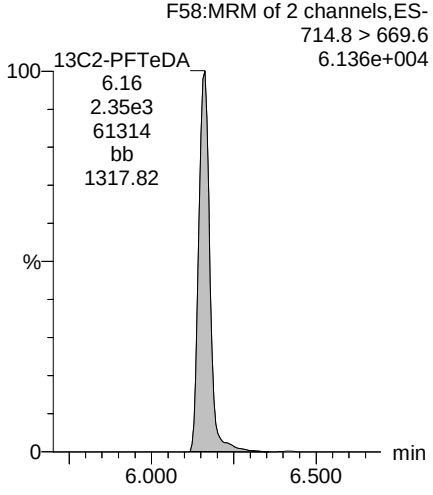
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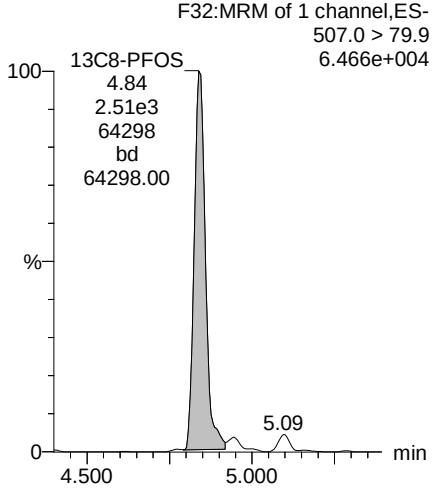
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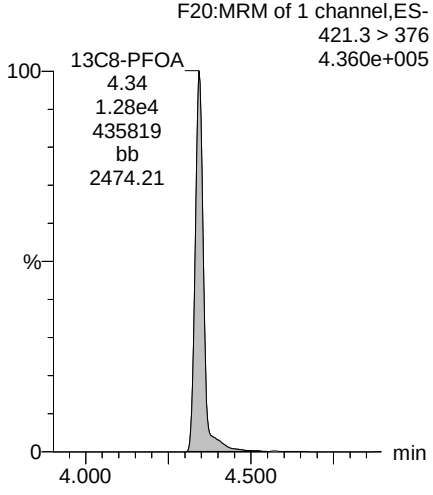
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13C8-PFOS



13C8-PFOA



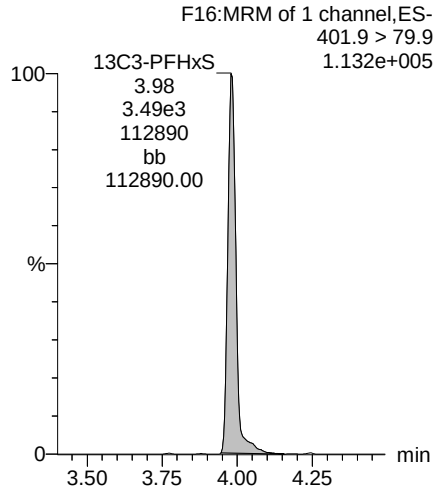
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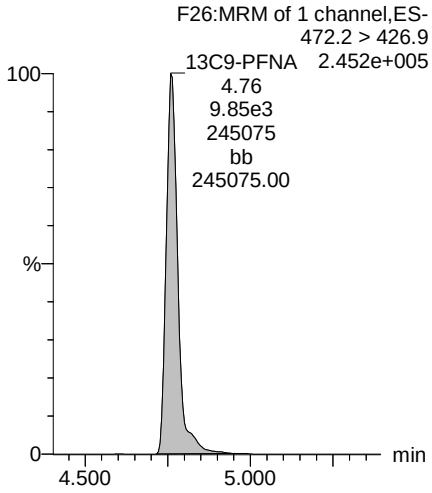
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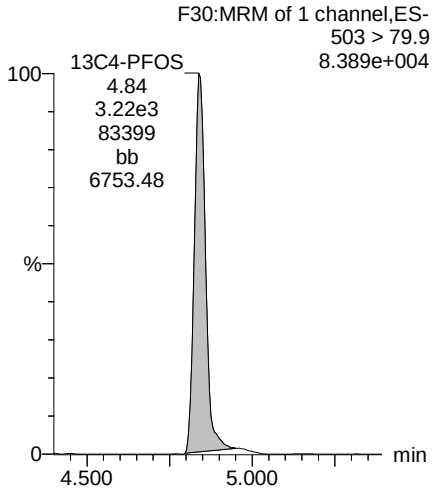
13C3-PFHxS



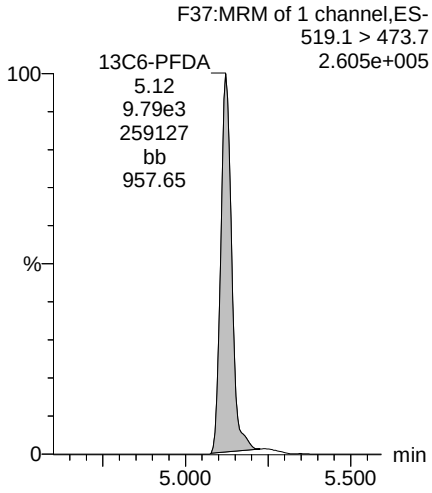
13C9-PFNA



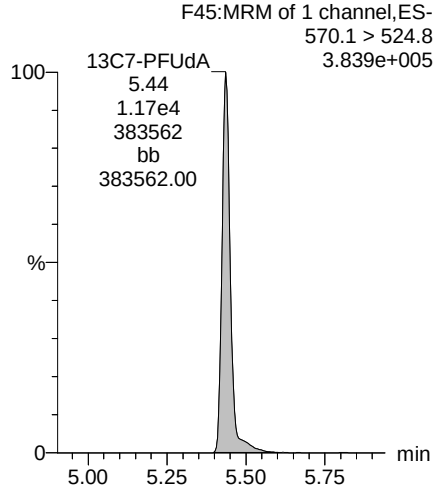
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-37.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_37, Date: 28-Dec-2017, Time: 00:07:55, ID: B7L0073-MSD1 Matrix Spike Dup 0.25539, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	3	PFBS	299.0 > 79.7	2.35e3	1.35e3	0.255		2.70	2.75	21.7	35.9597		
2	4	PFHxA	313.2 > 268.9	4.25e4	3.13e3	0.255		3.20	3.24	67.8	139.8923		
3	5	PFHpA	363.0 > 318.9	3.11e4	7.60e3	0.255		3.80	3.84	51.2	121.9442		
4	6	L-PFHxS	398.9 > 79.6	2.24e4	1.04e3	0.255		3.95	3.98	268	490.2469		
5	9	L-PFOA	413 > 368.7	1.13e5	1.28e4	0.255		4.32	4.34	110	344.6135		
6	12	PFNA	463.0 > 418.8	2.96e5	6.98e3	0.255		4.75	4.76	530	1283.3692		E
7	14	L-PFOS	499 > 79.9	7.73e4	2.81e3	0.255		4.83	4.84	344	1022.9223		E
8	16	PFDA	513 > 468.8	7.28e4	9.02e3	0.255		5.11	5.12	101	361.1721		
9	18	N-MeFOSAA	570.1 > 419	4.59e3	3.68e3	0.255		5.26	5.27	15.6	36.2800		
10	19	N-EtFOSAA	584.2 > 419	4.07e3	4.69e3	0.255		5.42	5.42	10.9	35.3345		
11	20	PFUdA	563.0 > 518.9	1.31e5	8.55e3	0.255		5.43	5.44	192	607.0592		
12	22	PFDoA	612.9 > 569.0	8.99e3	7.09e3	0.255		5.70	5.71	15.9	35.3200		

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Vista Analytical Laboratory

Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-37.qld

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Name: 171227M2_37, Date: 28-Dec-2017, Time: 00:07:55, ID: B7L0073-MSD1 Matrix Spike Dup 0.25539, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	7.43e3	7.09e3	0.255		5.95	5.95	13.1	31.4928	
2	25	PFTeDA	712.9 > 668.8	4.33e3	2.27e3	0.255		6.16	6.16	23.9	34.3645	
3	33	13C3-PFBS	302. > 98.8	1.35e3	1.21e4	0.255	0.101	2.70	2.75	1.40	54.0306	110.4
4	34	13C2-PFHxA	315 > 269.8	3.13e3	1.21e4	0.255	0.601	3.20	3.24	3.25	21.1776	108.2
5	35	13C4-PFHpA	367.2 > 321.8	7.60e3	1.21e4	0.255	0.676	3.80	3.84	7.88	45.6308	93.2
6	36	18O2-PFHxS	403.0 > 102.6	1.04e3	3.70e3	0.255	0.347	3.95	3.98	3.53	39.9205	81.6
7	37	13C2-6:2 FTS	429.1 > 408.9	2.85e3	1.38e4	0.255	0.210	4.26	4.29	2.58	48.0896	98.3
8	38	13C2-PFOA	414.9 > 369.7	1.28e4	1.38e4	0.255	0.990	4.32	4.34	11.6	45.9509	93.9
9	39	13C5-PFNA	468.2 > 422.9	6.98e3	8.29e3	0.255	0.845	4.75	4.76	10.5	48.7788	99.7
10	40	13C8-PFOSA	506.1 > 77.7	1.32e3	1.44e4	0.255	0.199	4.81	4.83	1.14	22.4665	45.9
11	41	13C8-PFOS	507.0 > 79.9	2.81e3	3.06e3	0.255	0.865	4.83	4.84	11.5	51.8952	106.0
12	42	13C2-PFDA	515.1 > 469.9	9.02e3	1.04e4	0.255	0.886	5.11	5.12	10.9	47.9557	98.0
13	43	13C2-8:2 FTS	529.1 > 508.7	3.14e3	1.21e4	0.255	0.136	5.09	5.10	3.25	93.7767	191.6
14	44	d3-N-MeFOSAA	573.3 > 419	3.68e3	1.44e4	0.255	0.409	5.26	5.27	3.18	30.5095	62.3
15	45	d5-N-EtFOSAA	589.3 > 419	4.69e3	1.44e4	0.255	0.474	5.42	5.42	4.06	33.5662	68.6
16	46	13C2-PFUdA	565 > 519.8	8.55e3	1.44e4	0.255	0.928	5.43	5.44	7.40	31.2051	63.8
17	47	13C2-PFDoA	615.0 > 569.7	7.09e3	1.44e4	0.255	0.636	5.70	5.71	6.14	37.7716	77.2
18	49	13C2-PFTeDA	714.8 > 669.6	2.27e3	1.44e4	0.255	0.163	6.16	6.16	1.96	47.2387	96.5
19	55	13C5-PFHxA	318 > 272.9	1.21e4	1.21e4	0.255	1.000	3.20	3.23	12.5	48.9448	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.70e3	3.70e3	0.255	1.000	3.95	3.98	12.5	48.9448	100.0
21	57	13C8-PFOA	421.3 > 376	1.38e4	1.38e4	0.255	1.000	4.32	4.34	12.5	48.9448	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.29e3	8.29e3	0.255	1.000	4.75	4.76	12.5	48.9448	100.0
23	59	13C4-PFOS	503 > 79.9	3.06e3	3.06e3	0.255	1.000	4.83	4.84	12.5	48.9448	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.04e4	1.04e4	0.255	1.000	5.11	5.12	12.5	48.9448	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.44e4	1.44e4	0.255	1.000	5.43	5.44	12.5	48.9448	100.0
26	62	Total PFHxS	398.9 > 79.6	2.24e4	1.04e3	0.255		4.00		268	490.2469	
27	63	Total PFOA	413 > 368.7	1.22e5	1.28e4	0.255		4.30		119	373.6624	
28	64	Total PFOS	499 > 79.9	7.73e4	2.81e3	0.255		4.80		344	1022.9223	
29	65	Total N-MeFOSAA	570.1 > 419	4.59e3	3.68e3	0.255		5.20		15.6	36.2800	
30	66	Total N-EtFOSAA	584.2 > 419	4.24e3	4.69e3	0.255		5.40		11.3	37.0474	

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Rev'd: MM 12/31/17

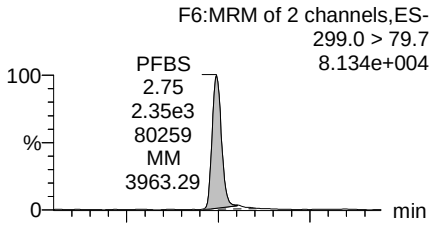
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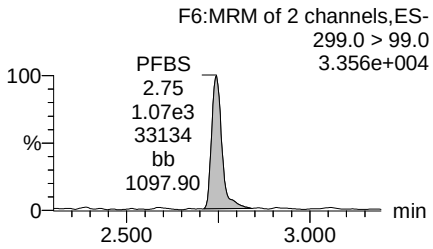
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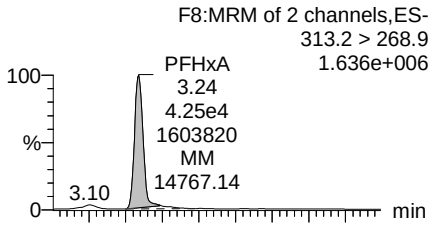
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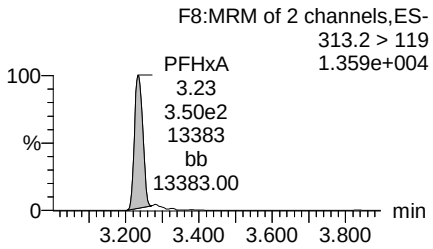
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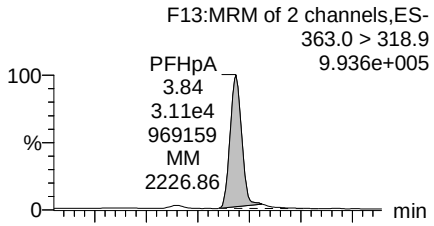


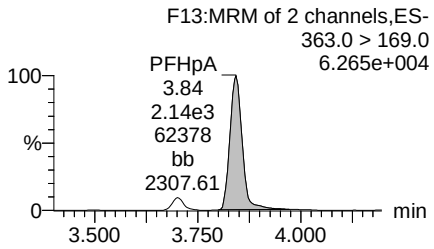
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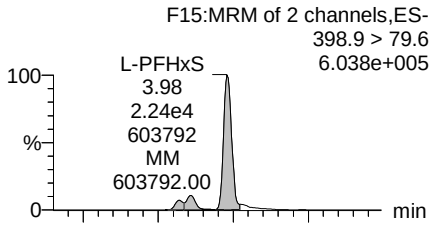


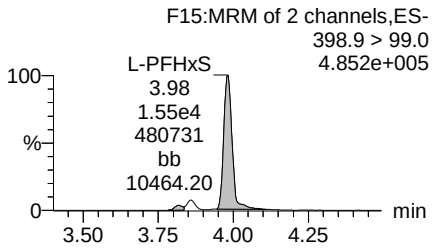
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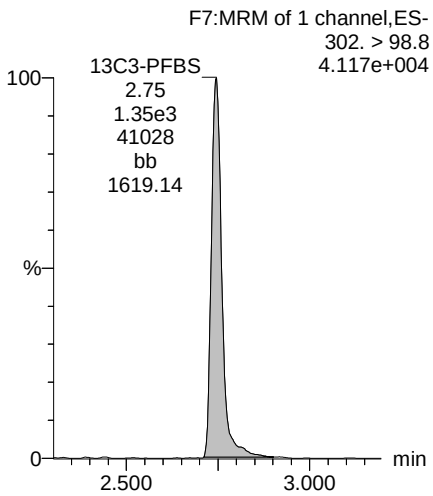


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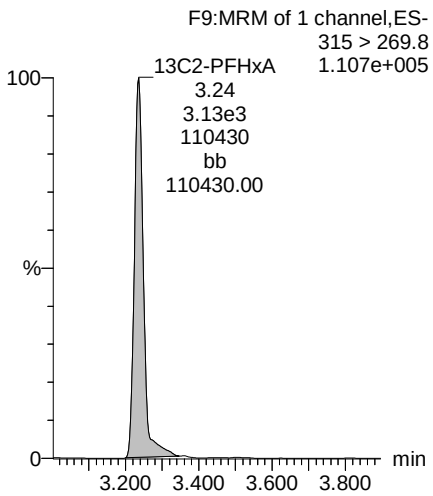




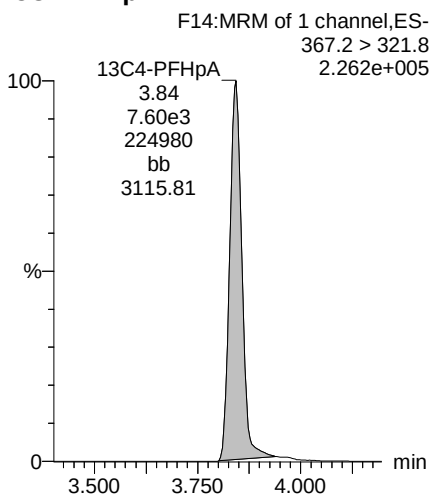
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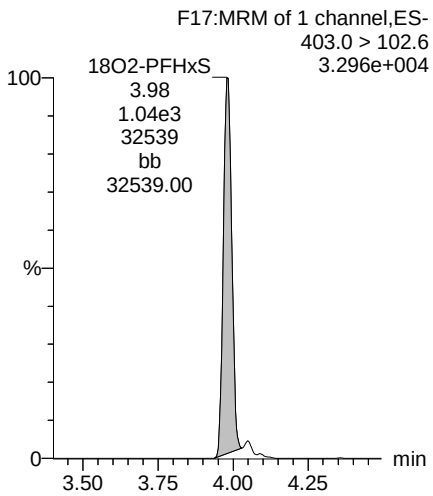
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13C4-PFHpA



18O2-PFHxS



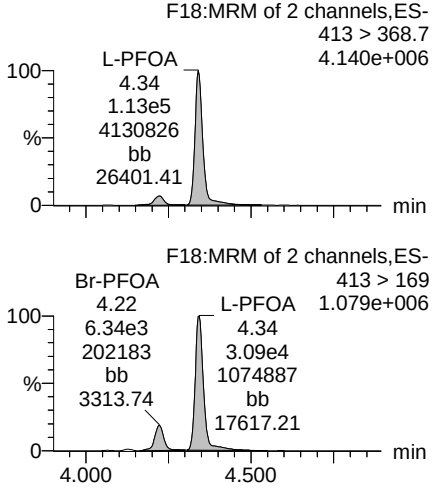
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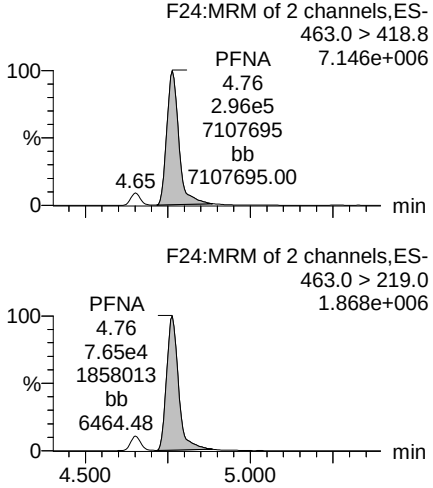
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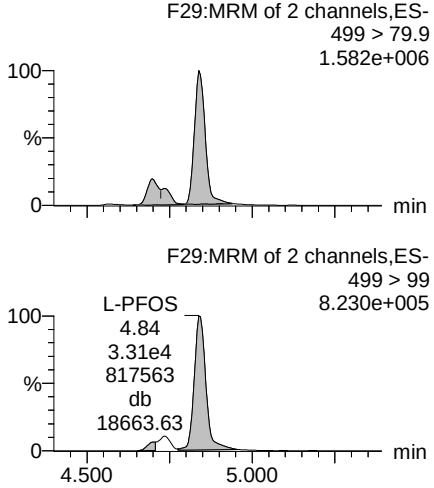
Total PFOA



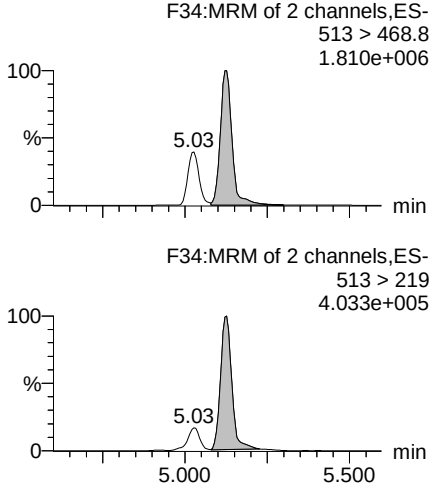
PFNA



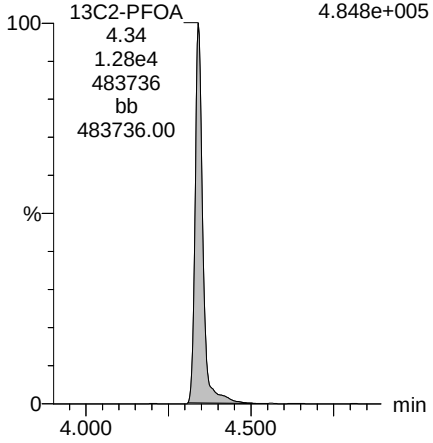
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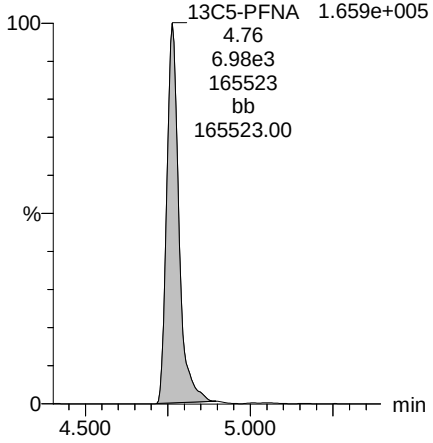
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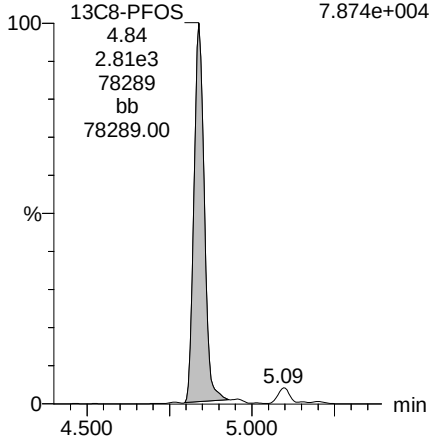
13C2-PFOA



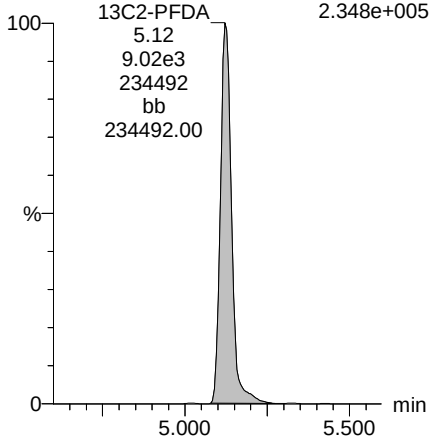
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13C8-PFOS



13C2-PFDA



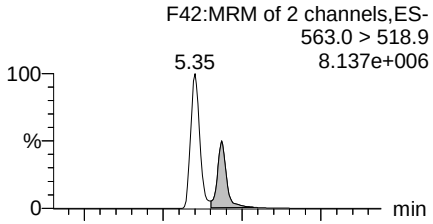
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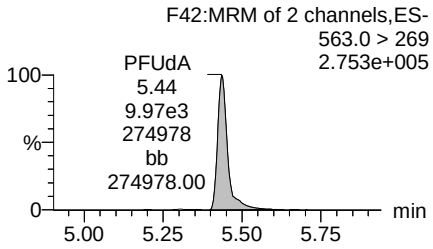
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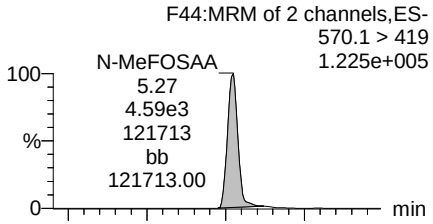
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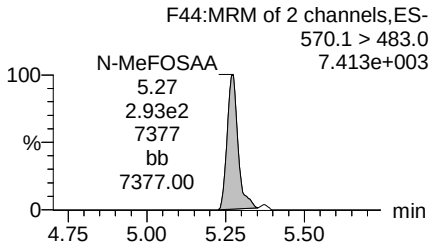
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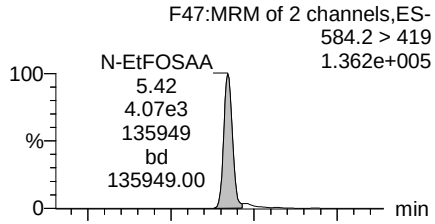


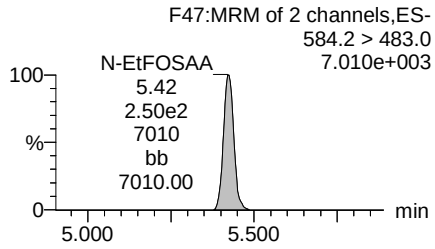
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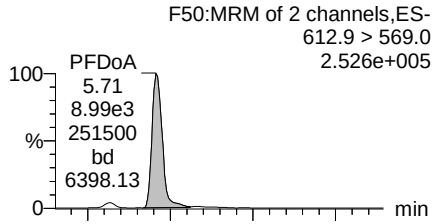


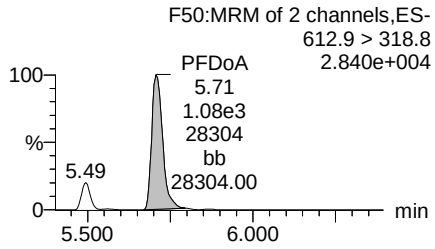
N-EtFOSAA



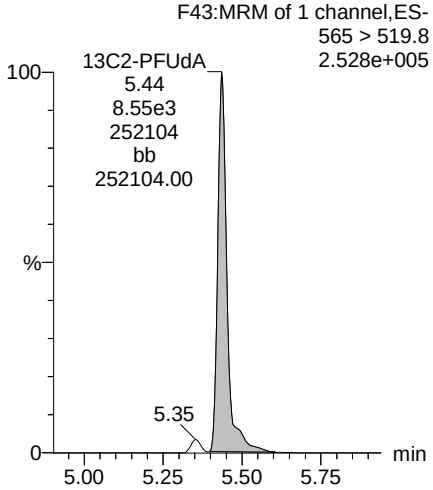


PFDoA

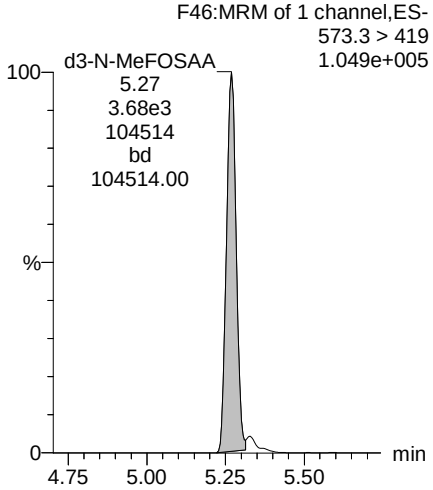




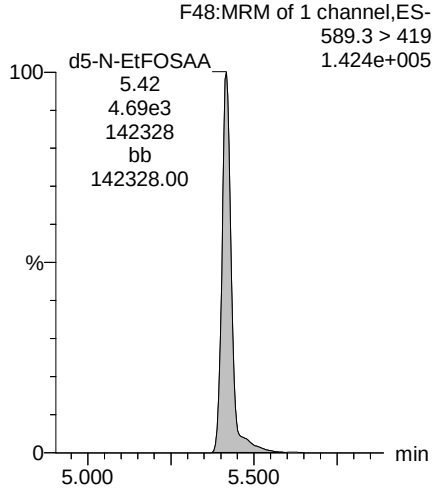
13C2-PFUdA



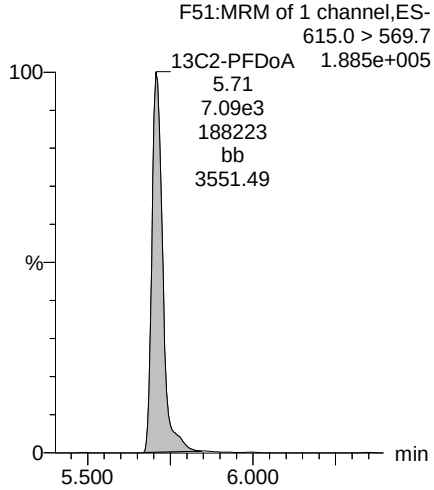
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



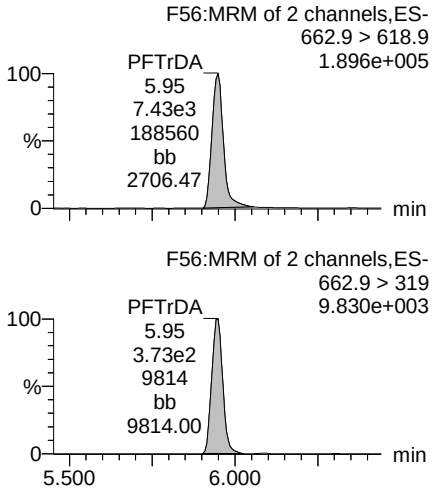
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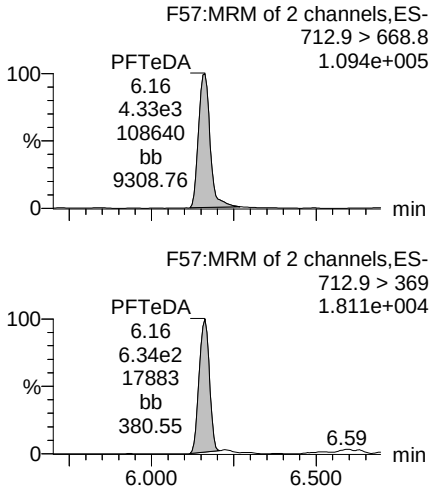
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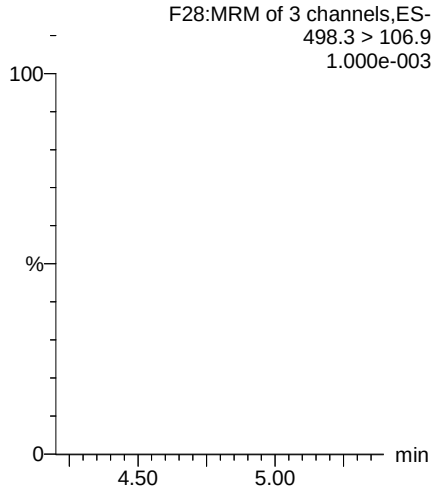
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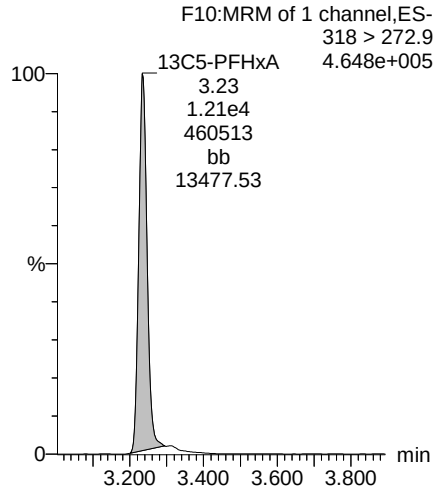
PFTeDA



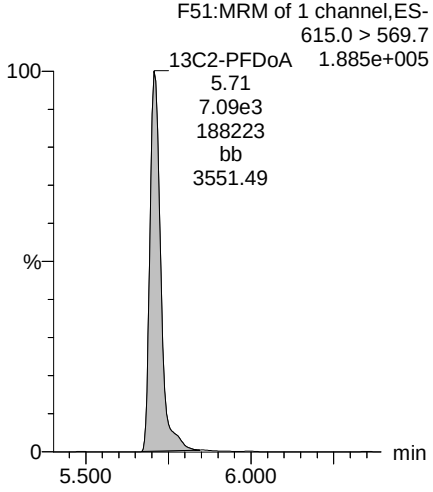
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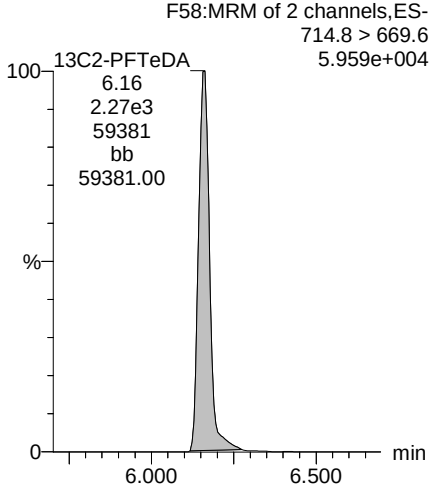
13C5-PFHxA



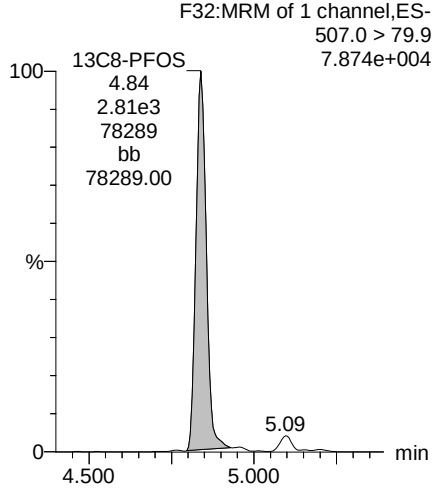
13C2-PFDoA



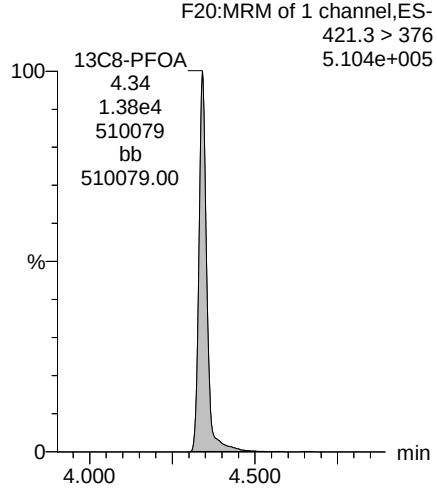
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13C8-PFOS



13C8-PFOA



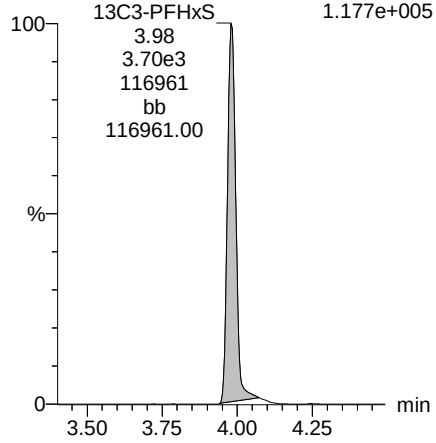
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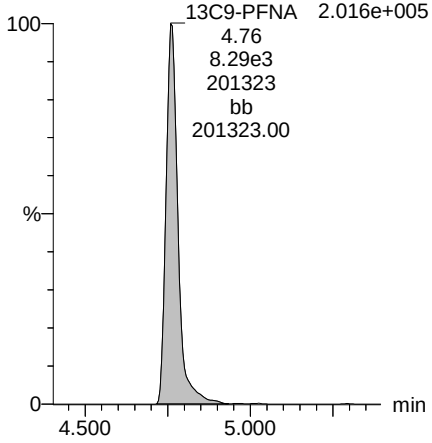
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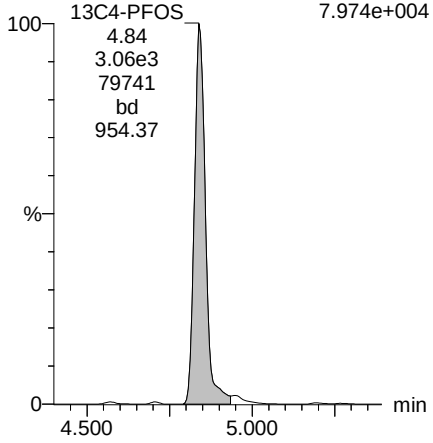
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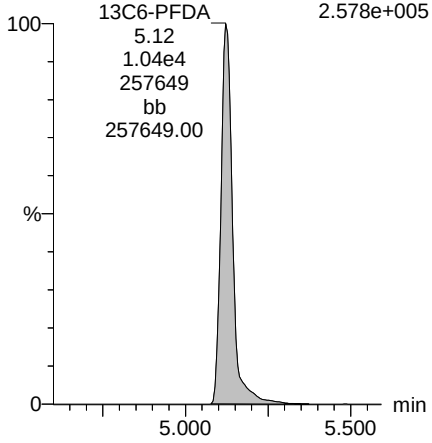
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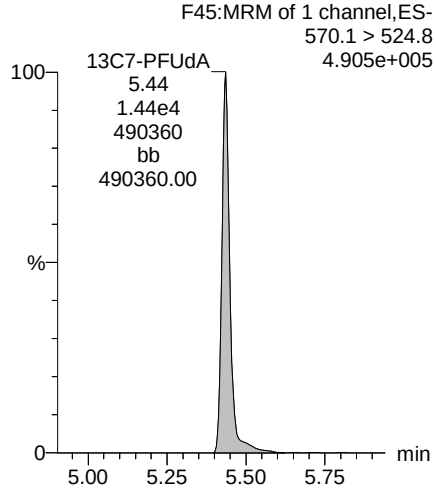
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13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-47.qld

Last Altered: Sunday, December 31, 2017 13:53:29 Pacific Standard Time
Printed: Sunday, December 31, 2017 13:54:04 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_47, Date: 28-Dec-2017, Time: 01:59:45, ID: 1701829-05 FT-MW01S-20171130 0.25312, Description: FT-MW01S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.45e3	0.253		2.70				
2	4	PFHxA	313.2 > 268.9		2.86e3	0.253		3.20				
3	5	PFHpA	363.0 > 318.9		8.05e3	0.253		3.80				
4	6	L-PFHxS	398.9 > 79.6	1.38e1	1.20e3	0.253		3.95	3.98	0.145	0.4253	
5	9	L-PFOA	413 > 368.7	1.52e2	1.30e4	0.253		4.32	4.35	0.146		
6	12	PFNA	463.0 > 418.8		9.21e3	0.253		4.75				
7	14	L-PFOS	499 > 79.9		3.28e3	0.253		4.83				
8	16	PFDA	513 > 468.8		6.42e3	0.253		5.11				
9	18	N-MeFOSAA	570.1 > 419		3.82e3	0.253		5.26				
10	19	N-EtFOSAA	584.2 > 419		3.46e3	0.253		5.42				
11	20	PFUdA	563.0 > 518.9		7.94e3	0.253		5.43				
12	22	PFDoA	612.9 > 569.0		4.77e3	0.253		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-47.qld

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_47, Date: 28-Dec-2017, Time: 01:59:45, ID: 1701829-05 FT-MW01S-20171130 0.25312, Description: FT-MW01S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.77e3	0.253		5.95				
2	25	PFTeDA	712.9 > 668.8		2.02e3	0.253		6.16				
3	33	13C3-PFBS	302. > 98.8	1.45e3	1.06e4	0.253	0.101	2.70	2.75	1.71	66.5677	134.8
4	34	13C2-PFHxA	315 > 269.8	2.86e3	1.06e4	0.253	0.601	3.20	3.24	3.36	22.1230	112.0
5	35	13C4-PFHpA	367.2 > 321.8	8.05e3	1.06e4	0.253	0.676	3.80	3.84	9.45	55.2180	111.8
6	36	18O2-PFHxS	403.0 > 102.6	1.20e3	3.30e3	0.253	0.347	3.95	3.98	4.53	51.6022	104.5
7	37	13C2-6:2 FTS	429.1 > 408.9	2.74e3	1.18e4	0.253	0.210	4.26	4.29	2.91	54.7328	110.8
8	38	13C2-PFOA	414.9 > 369.7	1.30e4	1.18e4	0.253	0.990	4.32	4.34	13.7	54.7760	110.9
9	39	13C5-PFNA	468.2 > 422.9	9.21e3	1.08e4	0.253	0.845	4.75	4.76	10.6	49.7057	100.7
10	40	13C8-PFOSA	506.1 > 77.7	1.44e3	1.15e4	0.253	0.199	4.81	4.83	1.56	30.9813	62.7
11	41	13C8-PFOS	507.0 > 79.9	3.28e3	3.16e3	0.253	0.865	4.83	4.84	13.0	59.2679	120.0
12	42	13C2-PFDA	515.1 > 469.9	6.42e3	9.70e3	0.253	0.886	5.11	5.12	8.28	36.9049	74.7
13	43	13C2-8:2 FTS	529.1 > 508.7	1.57e3	1.06e4	0.253	0.136	5.09	5.10	1.84	53.4904	108.3
14	44	d3-N-MeFOSAA	573.3 > 419	3.82e3	1.15e4	0.253	0.409	5.26	5.27	4.16	40.1657	81.3
15	45	d5-N-EtFOSAA	589.3 > 419	3.46e3	1.15e4	0.253	0.474	5.42	5.42	3.77	31.4196	63.6
16	46	13C2-PFUdA	565 > 519.8	7.94e3	1.15e4	0.253	0.928	5.43	5.44	8.63	36.7259	74.4
17	47	13C2-PFDoA	615.0 > 569.7	4.77e3	1.15e4	0.253	0.636	5.70	5.71	5.19	32.2076	65.2
18	49	13C2-PFTeDA	714.8 > 669.6	2.02e3	1.15e4	0.253	0.163	6.16	6.16	2.19	53.2488	107.8
19	55	13C5-PFHxA	318 > 272.9	1.06e4	1.06e4	0.253	1.000	3.20	3.24	12.5	49.3837	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.30e3	3.30e3	0.253	1.000	3.95	3.98	12.5	49.3837	100.0
21	57	13C8-PFOA	421.3 > 376	1.18e4	1.18e4	0.253	1.000	4.32	4.34	12.5	49.3837	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.08e4	1.08e4	0.253	1.000	4.75	4.76	12.5	49.3837	100.0
23	59	13C4-PFOS	503 > 79.9	3.16e3	3.16e3	0.253	1.000	4.83	4.84	12.5	49.3837	100.0
24	60	13C6-PFDA	519.1 > 473.7	9.70e3	9.70e3	0.253	1.000	5.11	5.12	12.5	49.3837	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.15e4	1.15e4	0.253	1.000	5.43	5.44	12.5	49.3837	100.0
26	62	Total PFHxS	398.9 > 79.6	1.38e1	1.20e3	0.253		4.00		0.145	0.4253	
27	63	Total PFOA	413 > 368.7	1.52e2	1.30e4	0.253		4.30		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	3.28e3	0.253		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.82e3	0.253		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.46e3	0.253		5.40		0.000		

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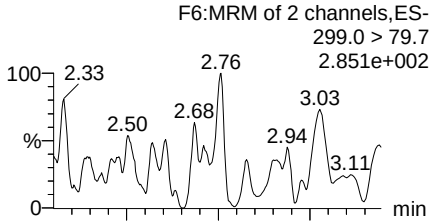
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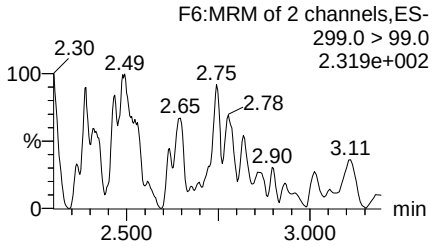
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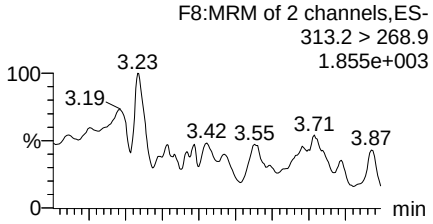
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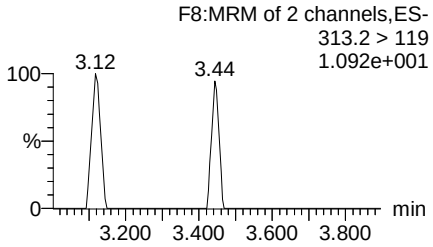
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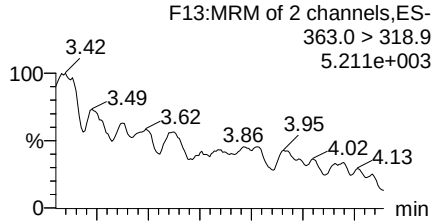


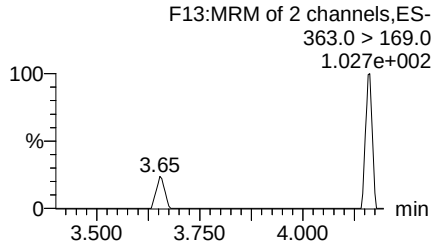
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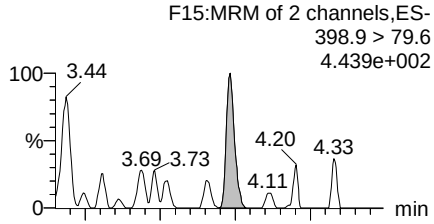


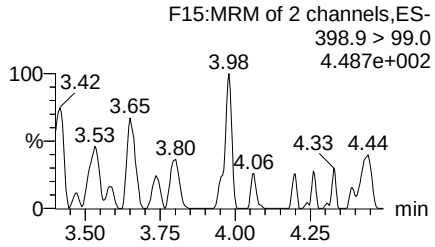
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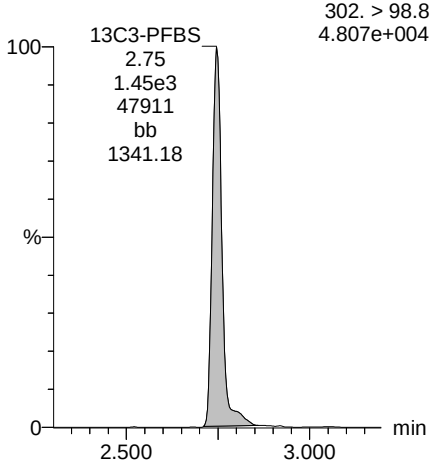


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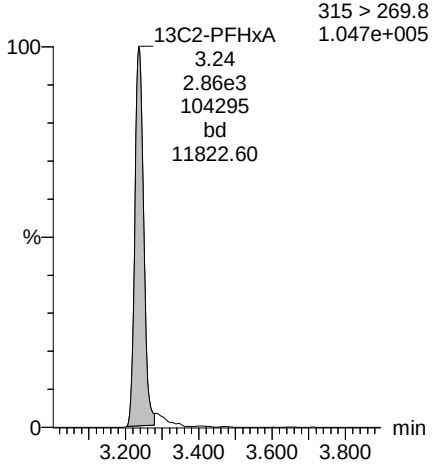




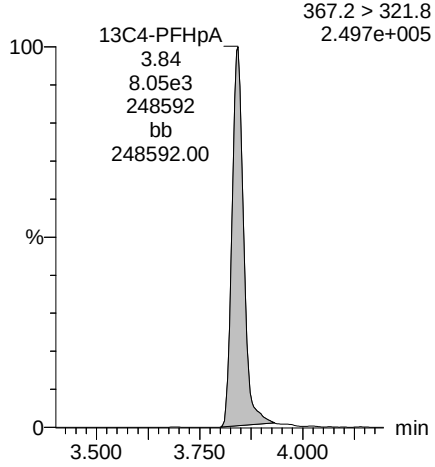
13C3-PFBS



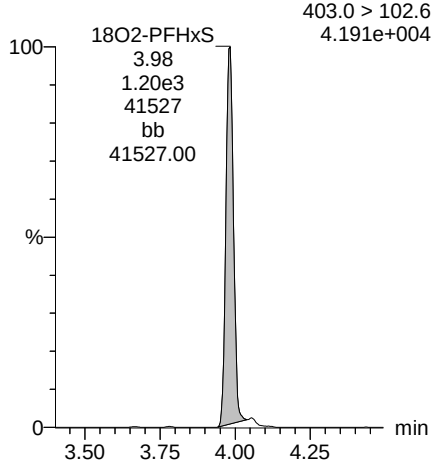
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



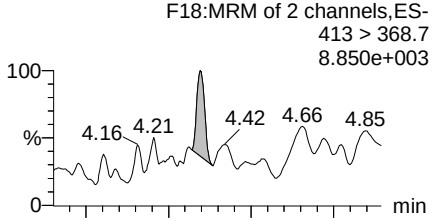
MSF 12/30/17

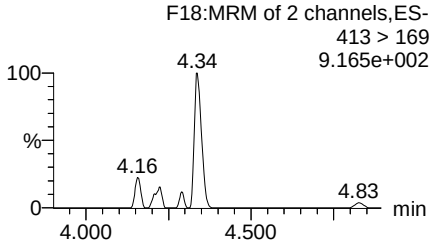
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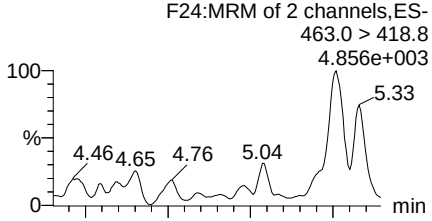
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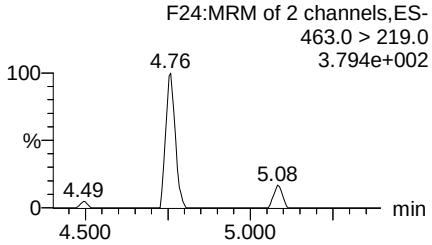
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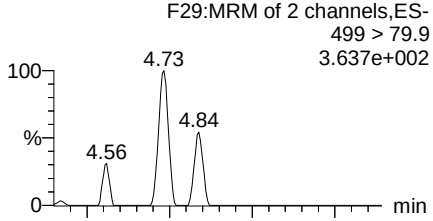


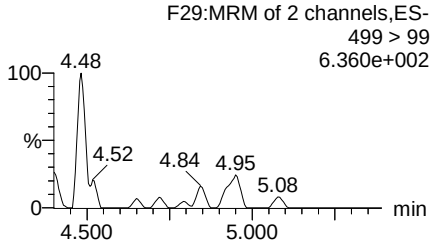
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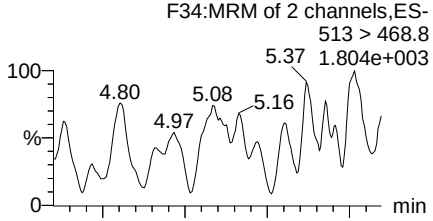


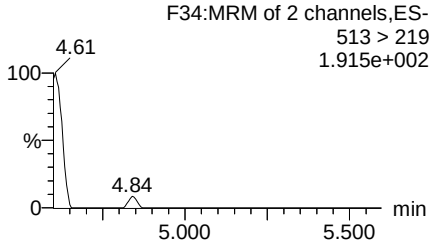
Total PFOS



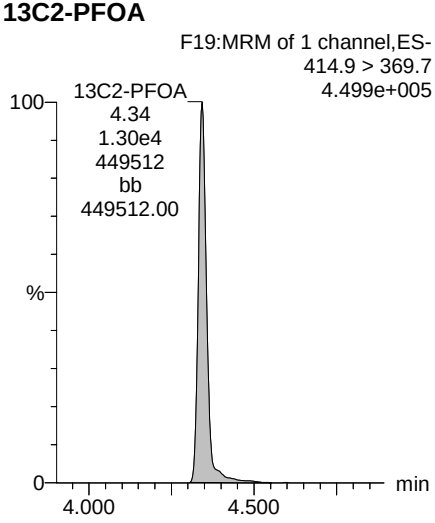


PFDA

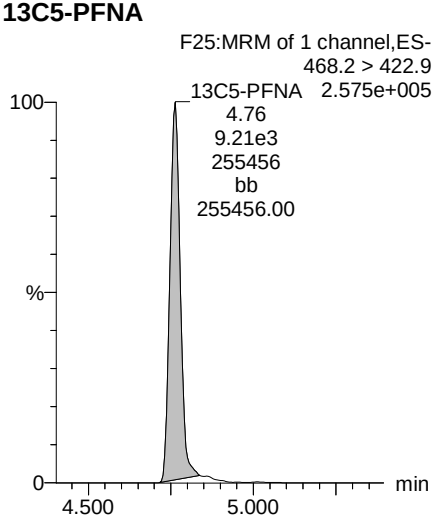




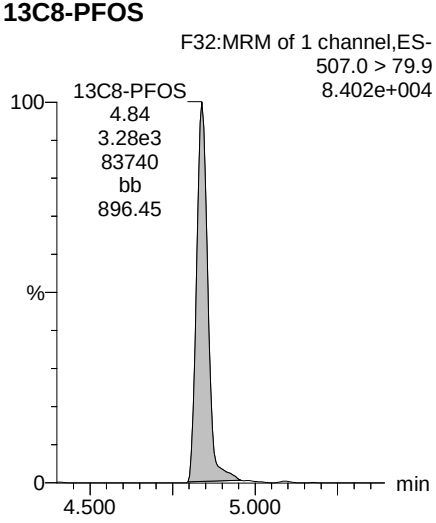
13C2-PFOA



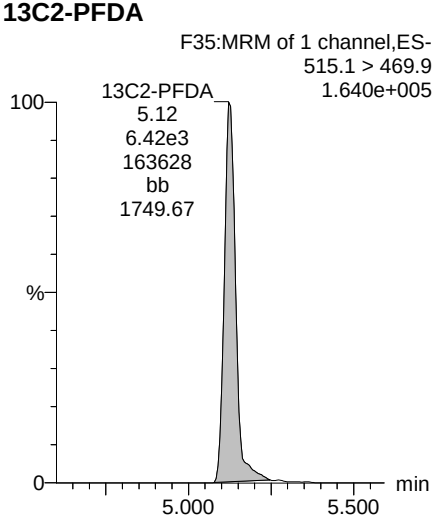
13C5-PFNA



13C8-PFOS



13C2-PFDA



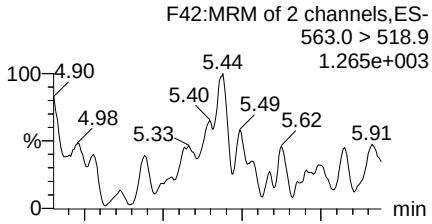
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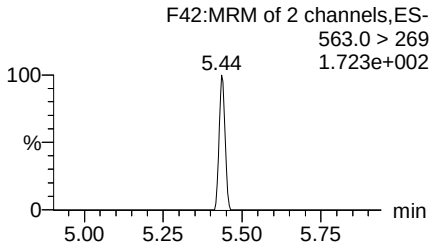
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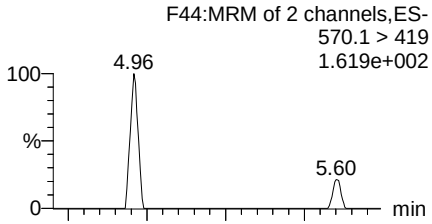
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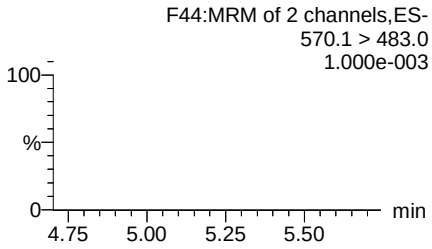
PFUdA



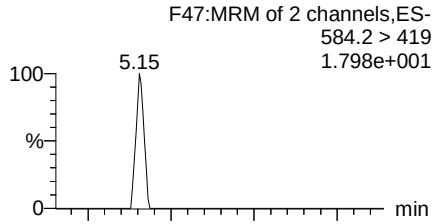


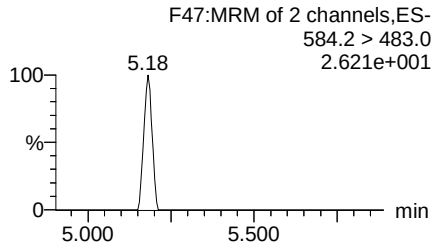
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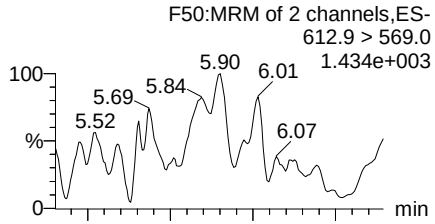


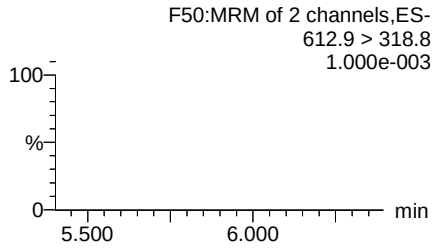
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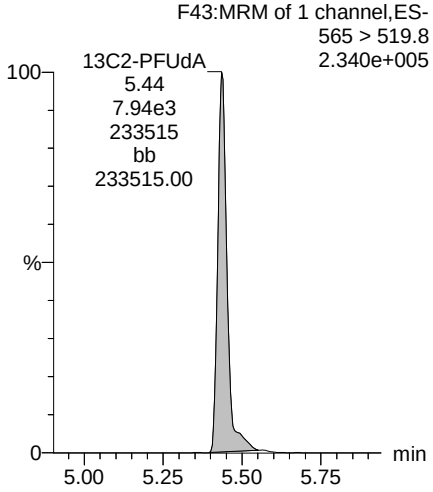


PFDoA

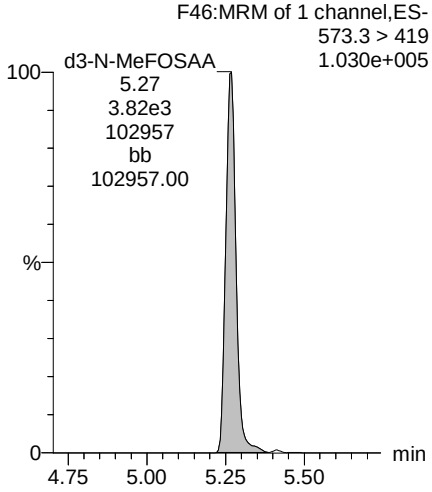




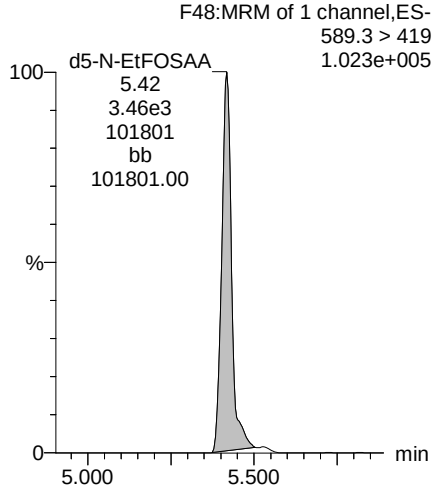
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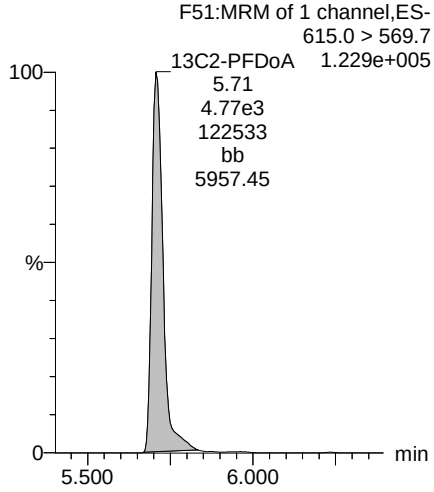
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d5-N-EtFOSAA



13C2-PFDoA



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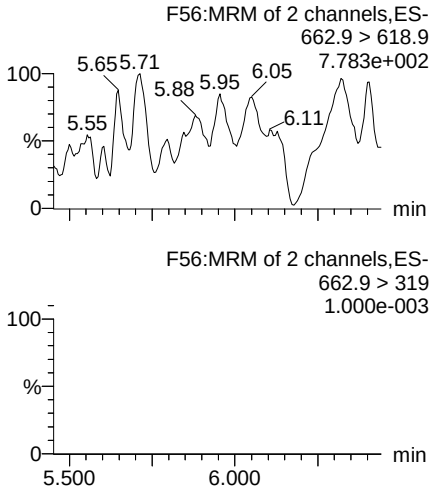
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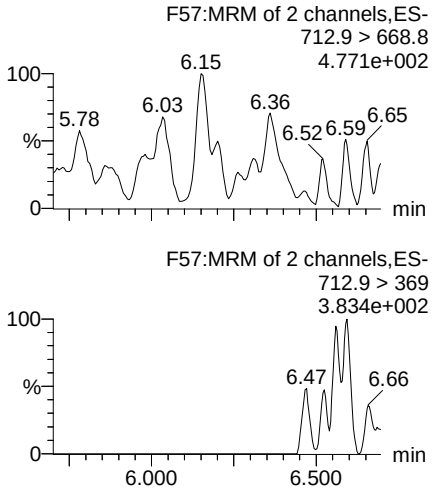
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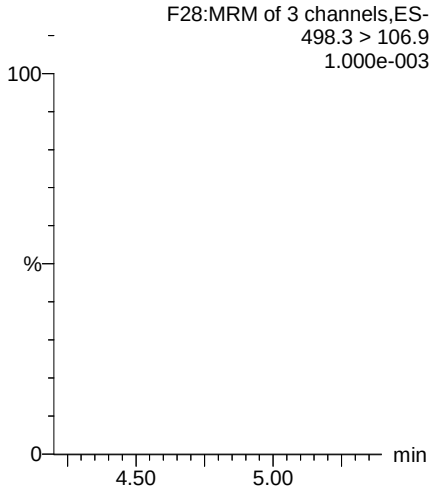
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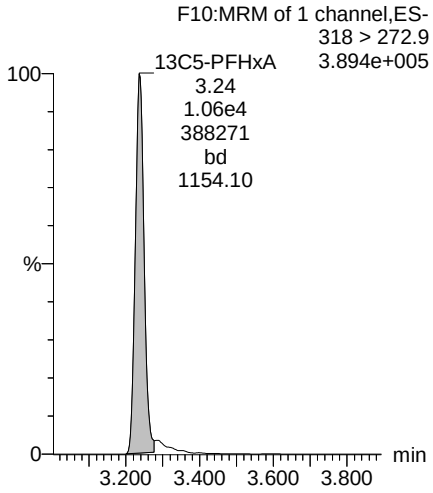
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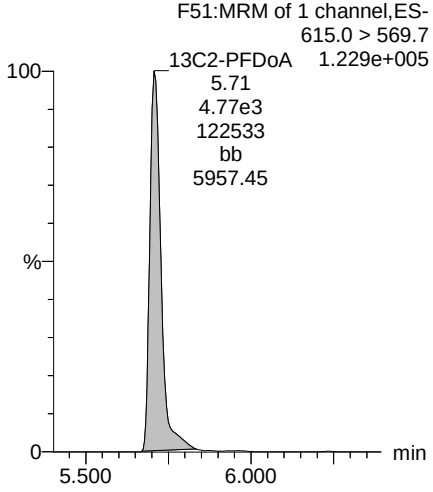
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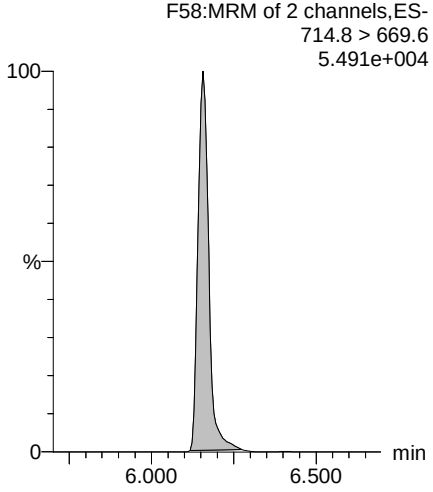
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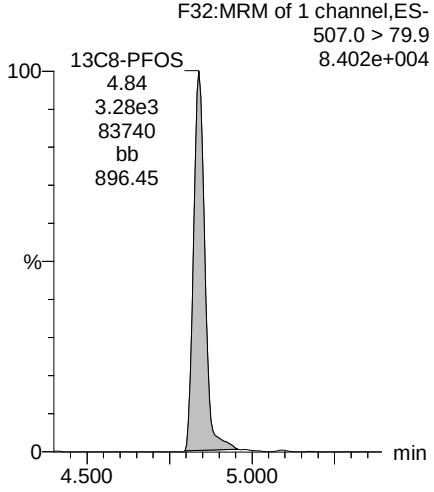
13C2-PFDoA



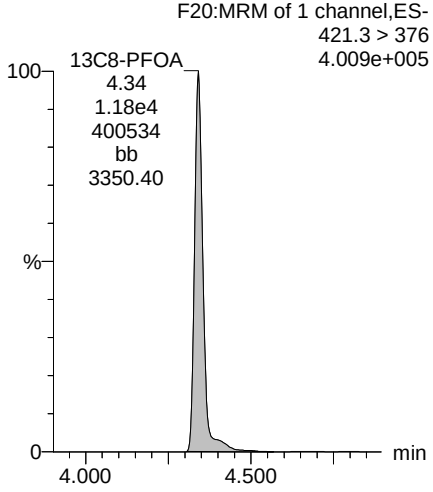
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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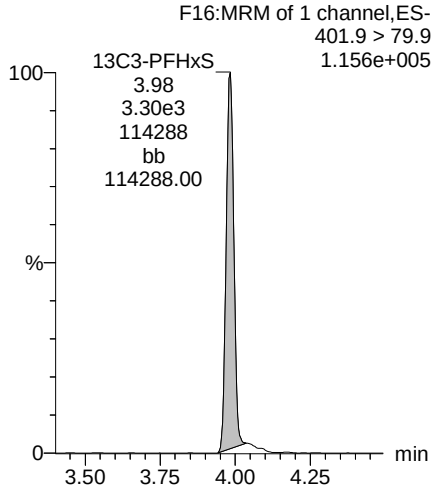
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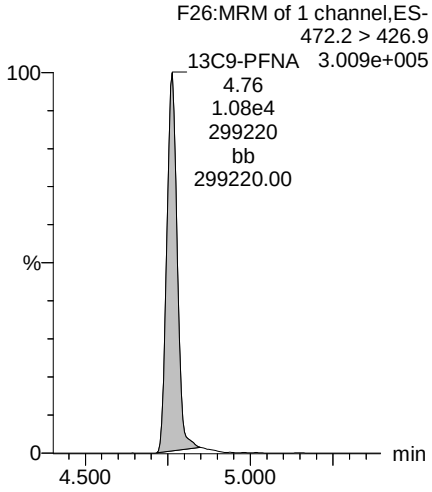
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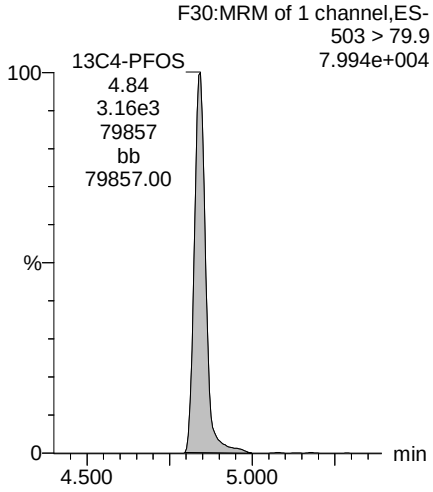
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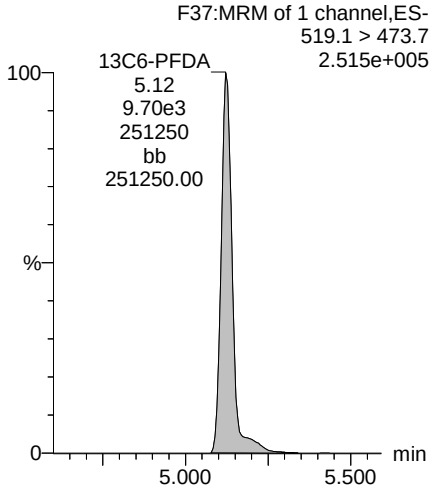
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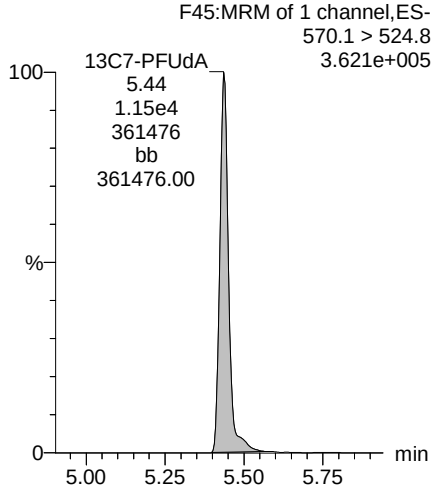
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-39.qld

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Printed: Friday, December 29, 2017 11:44:27 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_39, Date: 28-Dec-2017, Time: 00:30:19, ID: B7L0073-MS2 Matrix Spike 0.2584, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.07e3	1.27e3	0.258		2.70	2.74	20.4	33.4365	
2	4	PFHxA	313.2 > 268.9	9.55e3	3.21e3	0.258		3.20	3.23	14.9	28.2435	
3	5	PFHpA	363.0 > 318.9	9.43e3	6.76e3	0.258		3.80	3.84	17.4	41.1650	
4	6	L-PFHxS	398.9 > 79.6	1.90e3	1.18e3	0.258		3.95	3.98	20.1	36.4638	
5	9	L-PFOA	413 > 368.7	8.70e3	1.01e4	0.258		4.32	4.34	10.8	32.8327	
6	12	PFNA	463.0 > 418.8	8.50e3	7.99e3	0.258		4.75	4.76	13.3	33.5446	
7	14	L-PFOS	499 > 79.9	2.39e3	3.03e3	0.258		4.83	4.84	9.85	30.7972	
8	16	PFDA	513 > 468.8	9.43e3	7.93e3	0.258		5.11	5.12	14.9	38.3047	
9	18	N-MeFOSAA	570.1 > 419	4.61e3	3.28e3	0.258		5.26	5.27	17.6	40.3166	
10	19	N-EtFOSAA	584.2 > 419	3.46e3	3.40e3	0.258		5.42	5.42	12.7	40.9260	
11	20	PFUdA	563.0 > 518.9	6.84e3	6.81e3	0.258		5.43	5.44	12.6	47.0206	
12	22	PFDoA	612.9 > 569.0	9.88e3	8.24e3	0.258		5.70	5.71	15.0	33.0119	

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-39.qld

Last Altered: Friday, December 29, 2017 11:43:17 Pacific Standard Time
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Name: 171227M2_39, Date: 28-Dec-2017, Time: 00:30:19, ID: B7L0073-MS2 Matrix Spike 0.2584, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	6.17e3	8.24e3	0.258		5.95	5.95	9.35	22.5092	
2	25	PFTeDA	712.9 > 668.8	3.37e3	1.43e3	0.258		6.16	6.16	29.5	42.3808	
3	33	13C3-PFBS	302. > 98.8	1.27e3	1.17e4	0.258	0.101	2.70	2.74	1.36	51.8235	107.1
4	34	13C2-PFHxA	315 > 269.8	3.21e3	1.17e4	0.258	0.601	3.20	3.23	3.44	22.1515	114.5
5	35	13C4-PFHpA	367.2 > 321.8	6.76e3	1.17e4	0.258	0.676	3.80	3.84	7.23	41.3897	85.6
6	36	18O2-PFHxS	403.0 > 102.6	1.18e3	3.19e3	0.258	0.347	3.95	3.98	4.64	51.8271	107.1
7	37	13C2-6:2 FTS	429.1 > 408.9	2.62e3	1.01e4	0.258	0.210	4.26	4.28	3.23	59.5860	123.2
8	38	13C2-PFOA	414.9 > 369.7	1.01e4	1.01e4	0.258	0.990	4.32	4.34	12.4	48.3950	100.0
9	39	13C5-PFNA	468.2 > 422.9	7.99e3	8.81e3	0.258	0.845	4.75	4.76	11.3	51.9225	107.3
10	40	13C8-PFOSA	506.1 > 77.7	1.45e3	1.12e4	0.258	0.199	4.81	4.83	1.62	31.4149	64.9
11	41	13C8-PFOS	507.0 > 79.9	3.03e3	3.01e3	0.258	0.865	4.83	4.84	12.6	56.2582	116.3
12	42	13C2-PFDA	515.1 > 469.9	7.93e3	9.12e3	0.258	0.886	5.11	5.12	10.9	47.5005	98.2
13	43	13C2-8:2 FTS	529.1 > 508.7	1.95e3	1.17e4	0.258	0.136	5.09	5.10	2.08	59.3515	122.7
14	44	d3-N-MeFOSAA	573.3 > 419	3.28e3	1.12e4	0.258	0.409	5.26	5.26	3.66	34.6913	71.7
15	45	d5-N-EtFOSAA	589.3 > 419	3.40e3	1.12e4	0.258	0.474	5.42	5.42	3.80	31.0198	64.1
16	46	13C2-PFUdA	565 > 519.8	6.81e3	1.12e4	0.258	0.928	5.43	5.44	7.60	31.6846	65.5
17	47	13C2-PFDoA	615.0 > 569.7	8.24e3	1.12e4	0.258	0.636	5.70	5.71	9.20	55.9864	115.7
18	49	13C2-PFTeDA	714.8 > 669.6	1.43e3	1.12e4	0.258	0.163	6.16	6.16	1.60	37.9790	78.5
19	55	13C5-PFHxA	318 > 272.9	1.17e4	1.17e4	0.258	1.000	3.20	3.23	12.5	48.3746	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.19e3	3.19e3	0.258	1.000	3.95	3.98	12.5	48.3746	100.0
21	57	13C8-PFOA	421.3 > 376	1.01e4	1.01e4	0.258	1.000	4.32	4.34	12.5	48.3746	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.81e3	8.81e3	0.258	1.000	4.75	4.76	12.5	48.3746	100.0
23	59	13C4-PFOS	503 > 79.9	3.01e3	3.01e3	0.258	1.000	4.83	4.84	12.5	48.3746	100.0
24	60	13C6-PFDA	519.1 > 473.7	9.12e3	9.12e3	0.258	1.000	5.11	5.12	12.5	48.3746	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.12e4	1.12e4	0.258	1.000	5.43	5.43	12.5	48.3746	100.0
26	62	Total PFHxS	398.9 > 79.6	1.90e3	1.18e3	0.258		4.00		20.1	36.4638	
27	63	Total PFOA	413 > 368.7	8.70e3	1.01e4	0.258		4.30		10.8	32.8327	
28	64	Total PFOS	499 > 79.9	2.39e3	3.03e3	0.258		4.80		9.85	30.7972	
29	65	Total N-MeFOSAA	570.1 > 419	4.61e3	3.28e3	0.258		5.20		17.6	40.3166	
30	66	Total N-EtFOSAA	584.2 > 419	3.66e3	3.40e3	0.258		5.40		13.5	43.5428	

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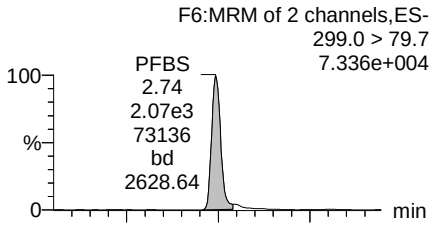
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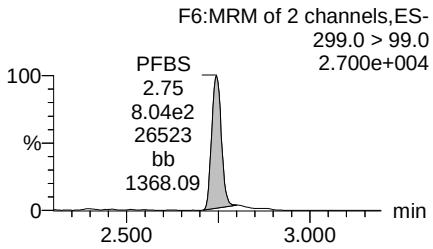
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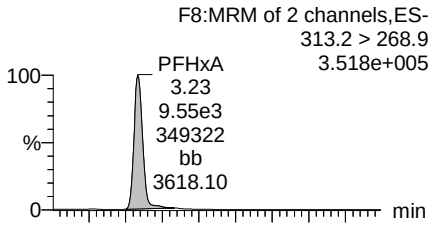
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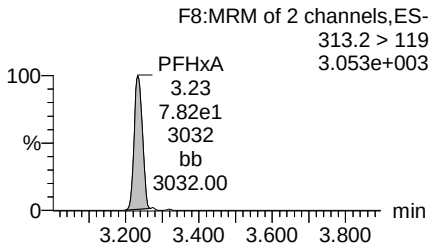
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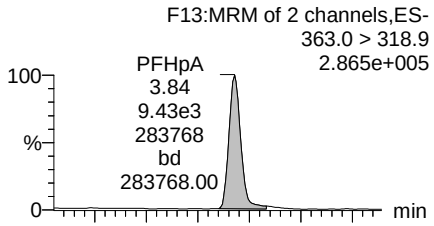


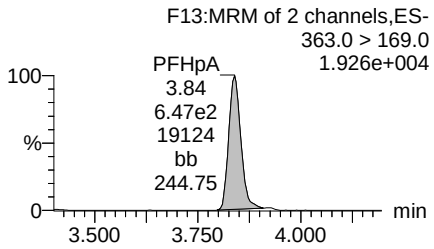
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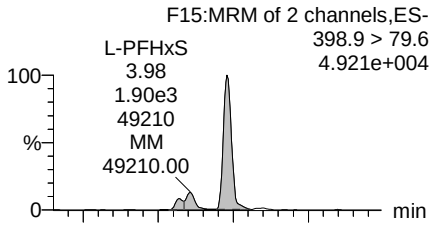


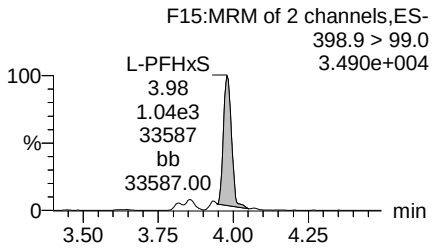
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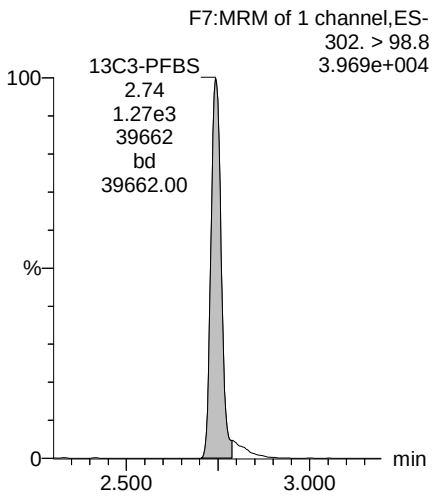


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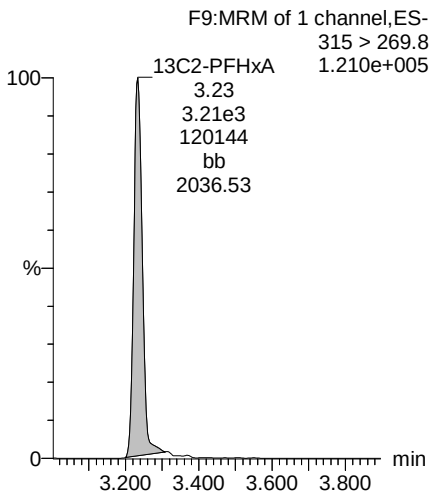




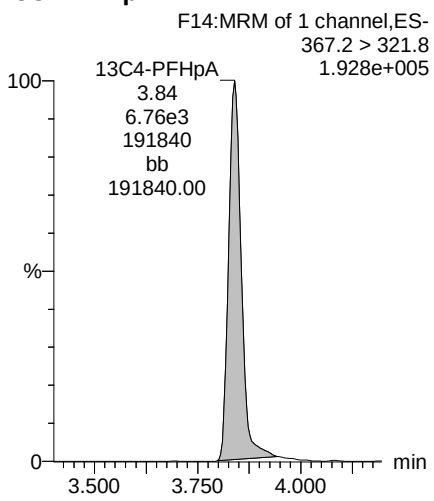
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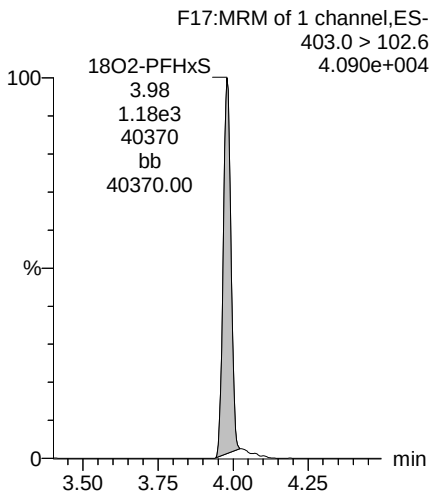
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13C4-PFHpA



18O2-PFHxS



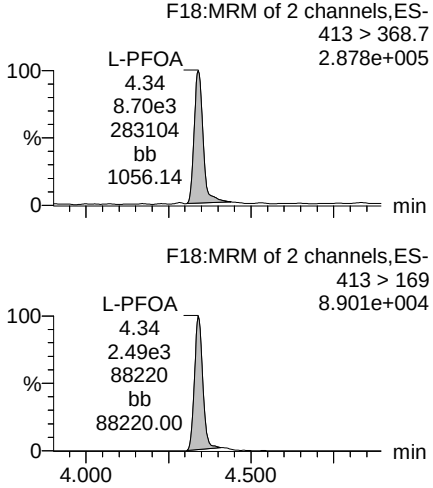
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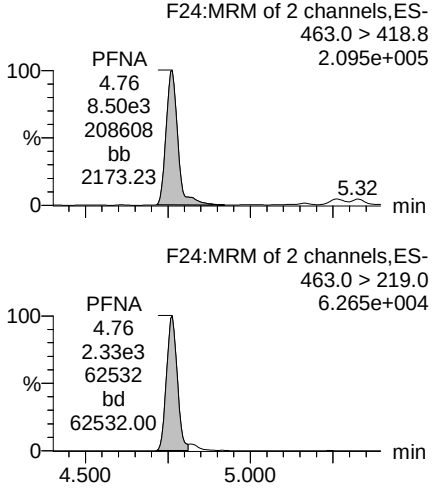
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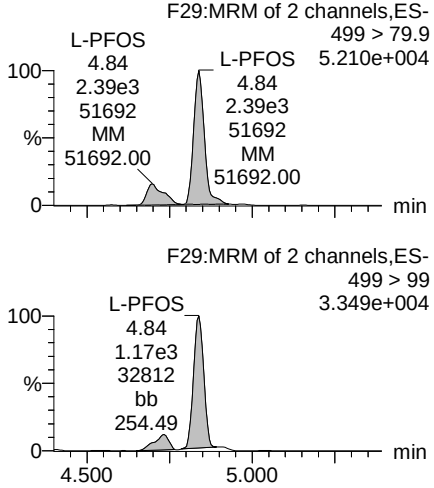
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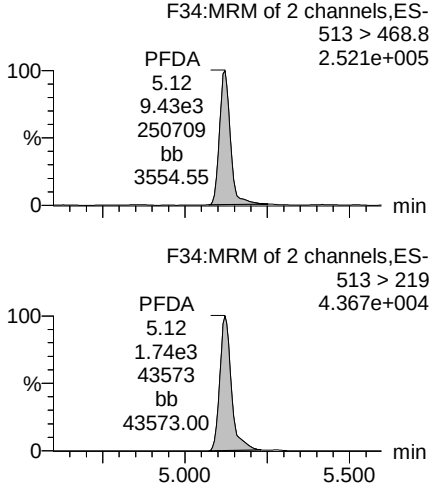
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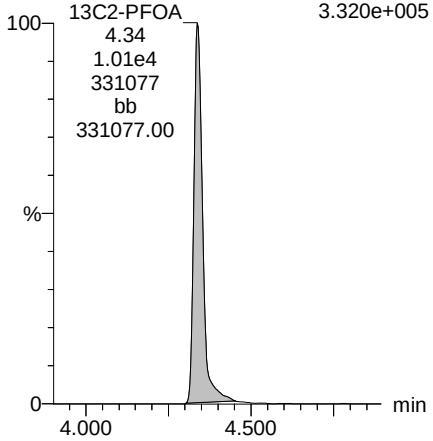
Total PFOS



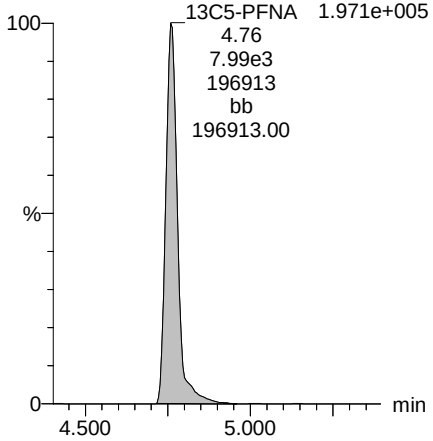
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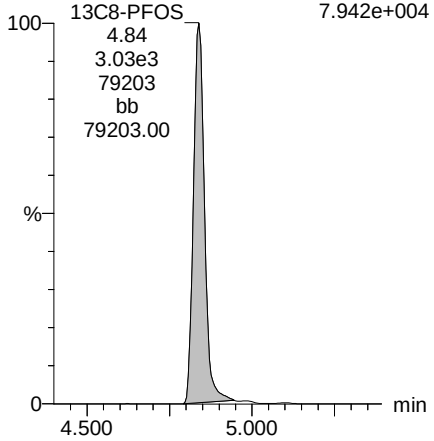
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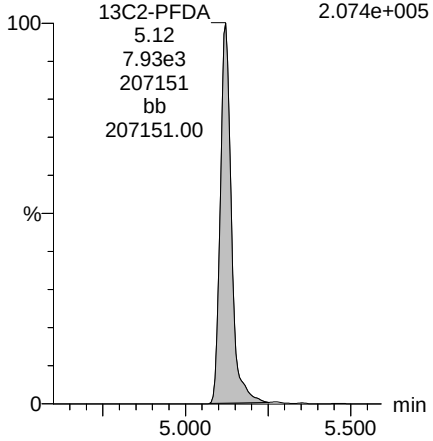
13C5-PFNA



13C8-PFOS



13C2-PFDA



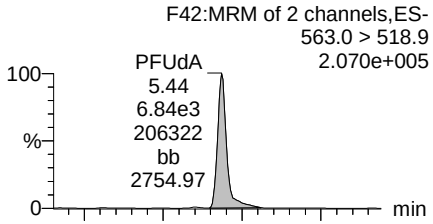
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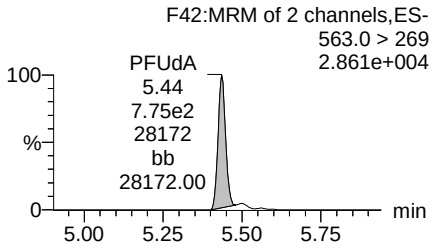
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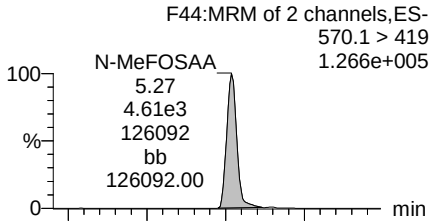
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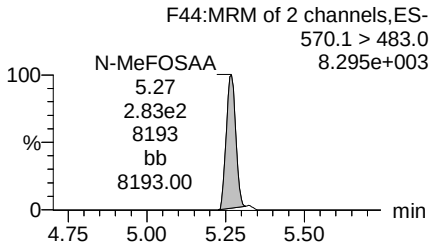
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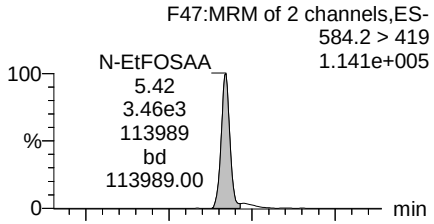


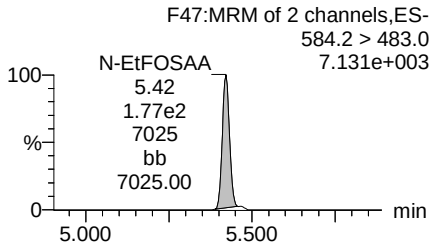
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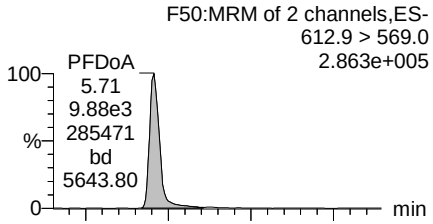


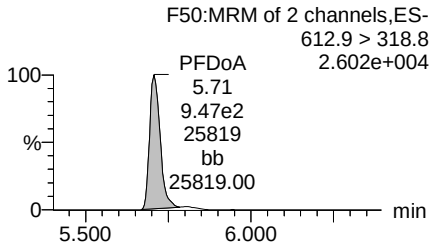
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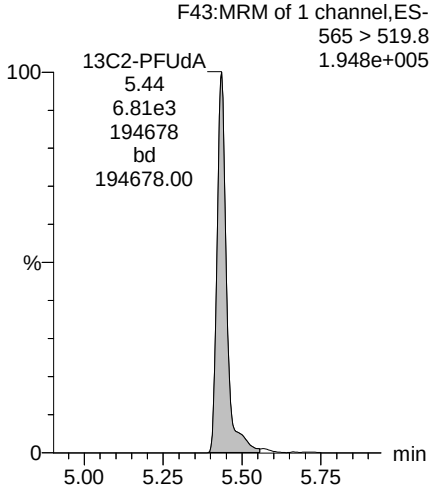


PFDoA

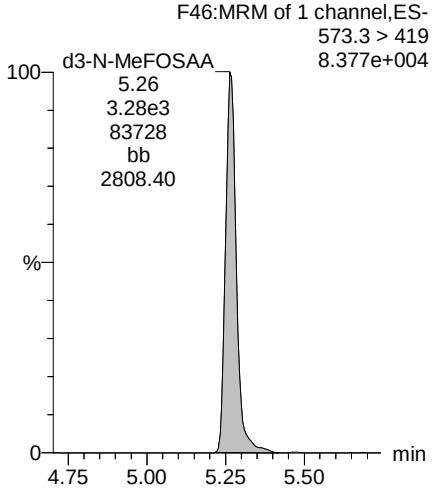




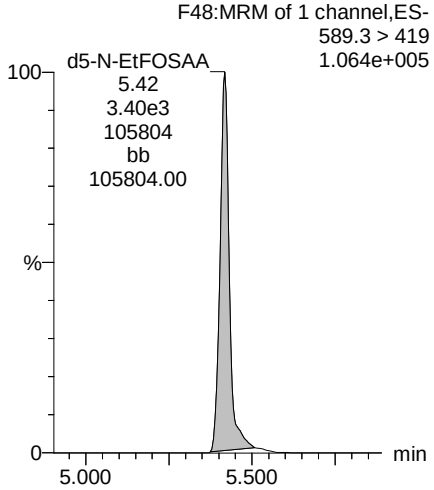
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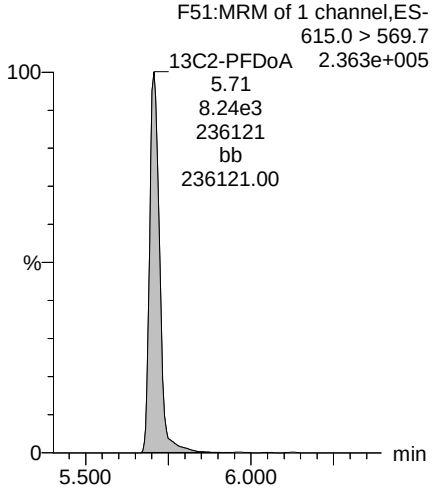
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d5-N-EtFOSAA



13C2-PFDoA



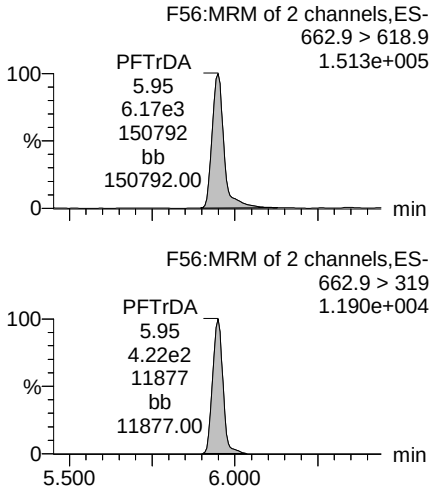
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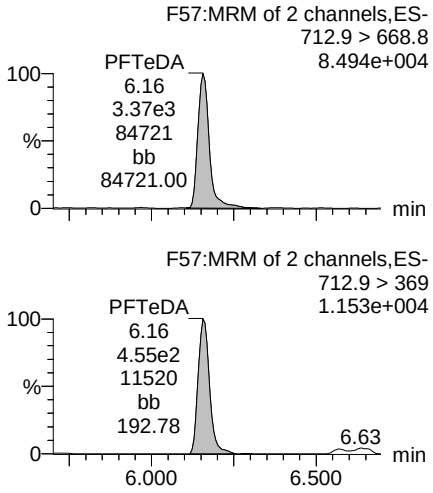
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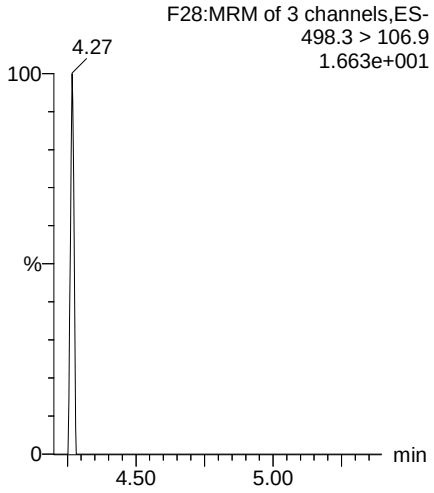
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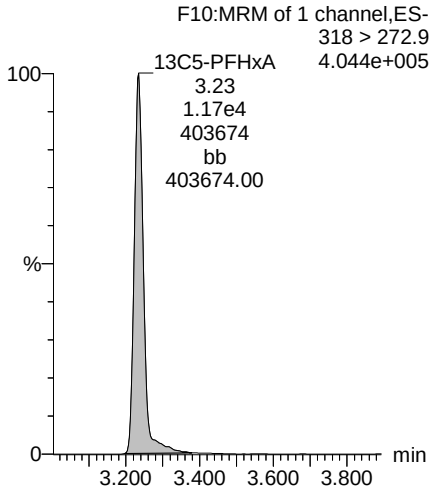
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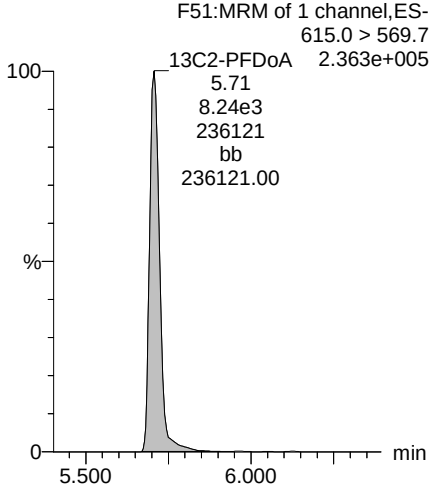
TCDA



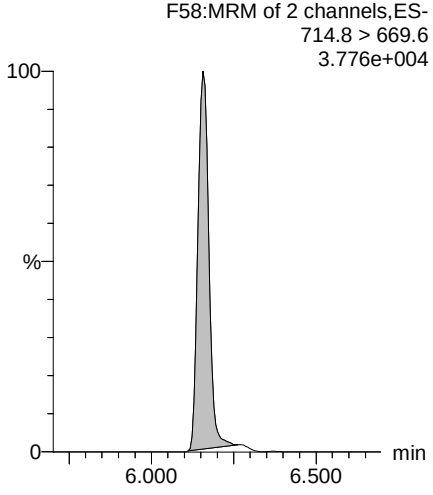
13C5-PFHxA



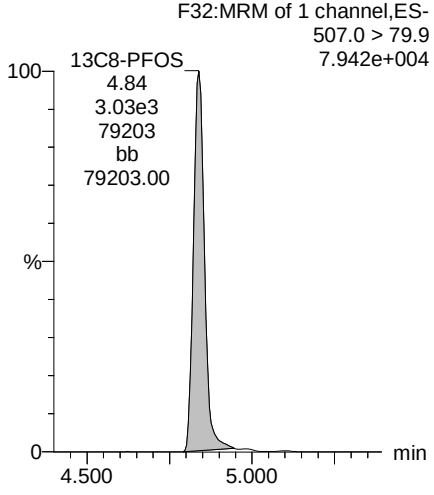
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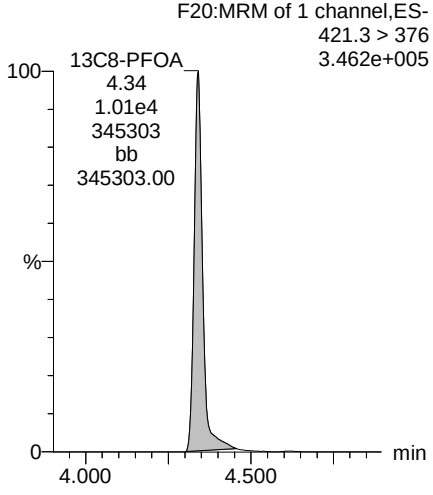
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



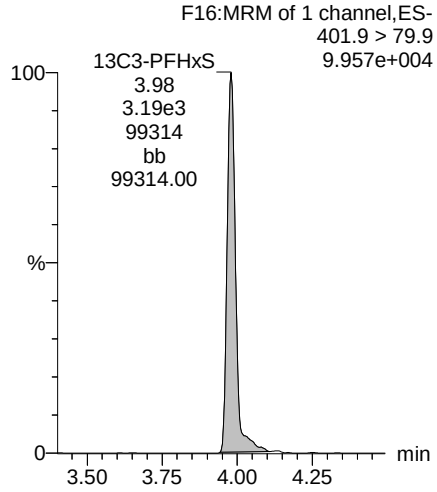
MSF 12/29/17

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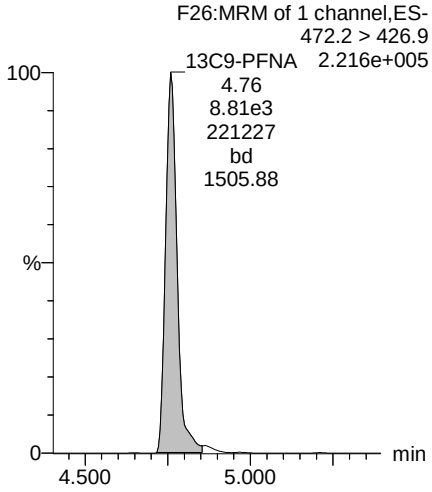
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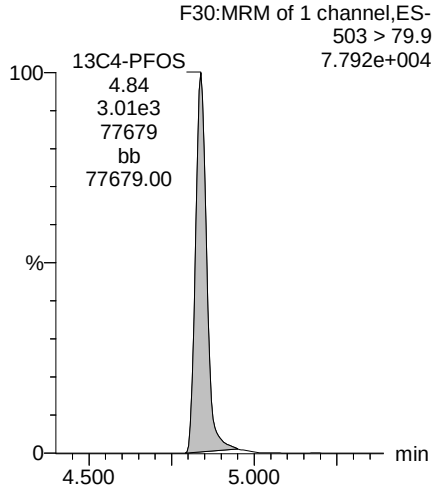
13C3-PFHxS



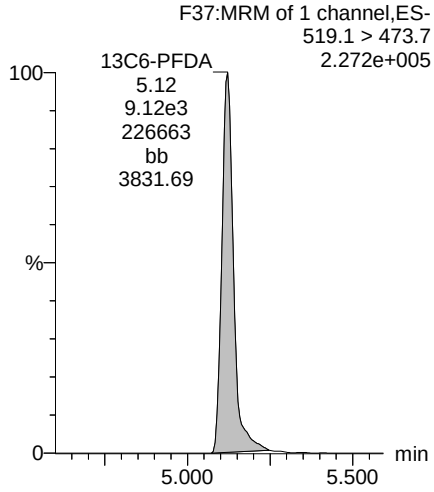
13C9-PFNA



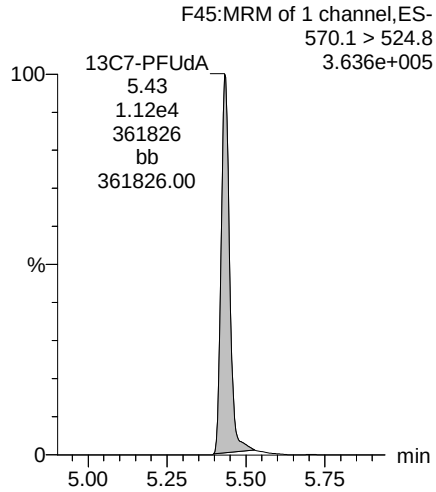
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-38.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_38, Date: 28-Dec-2017, Time: 00:19:08, ID: B7L0073-MSD2 Matrix Spike Dup 0.25853, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.07e3	1.39e3	0.259		2.70	2.75	18.6	30.5590	
2	4	PFHxA	313.2 > 268.9	9.62e3	3.24e3	0.259		3.20	3.24	14.9	28.2207	
3	5	PFHpA	363.0 > 318.9	9.15e3	8.21e3	0.259		3.80	3.84	13.9	32.9459	
4	6	L-PFHxS	398.9 > 79.6	1.90e3	1.30e3	0.259		3.95	3.98	18.3	33.2107	
5	9	L-PFOA	413 > 368.7	1.07e4	1.22e4	0.259		4.32	4.34	10.9	33.1474	
6	12	PFNA	463.0 > 418.8	9.19e3	9.72e3	0.259		4.75	4.76	11.8	29.8109	
7	14	L-PFOS	499 > 79.9	2.22e3	2.76e3	0.259		4.83	4.84	10.1	31.4117	
8	16	PFDA	513 > 468.8	9.35e3	9.68e3	0.259		5.11	5.12	12.1	30.9501	
9	18	N-MeFOSAA	570.1 > 419	4.63e3	4.29e3	0.259		5.26	5.27	13.5	30.9662	
10	19	N-EtFOSAA	584.2 > 419	3.61e3	3.43e3	0.259		5.42	5.42	13.2	42.3465	
11	20	PFUdA	563.0 > 518.9	5.73e3	7.29e3	0.259		5.43	5.44	9.83	36.8679	
12	22	PFDoA	612.9 > 569.0	7.25e3	6.22e3	0.259		5.70	5.71	14.6	32.0461	

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-38.qld

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Name: 171227M2_38, Date: 28-Dec-2017, Time: 00:19:08, ID: B7L0073-MSD2 Matrix Spike Dup 0.25853, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	7.84e3	6.22e3	0.259		5.95	5.95	15.8	37.1990	
2	25	PFTeDA	712.9 > 668.8	3.78e3	1.97e3	0.259		6.16	6.16	24.0	34.1523	
3	33	13C3-PFBS	302. > 98.8	1.39e3	1.19e4	0.259	0.101	2.70	2.75	1.45	55.4497	114.7
4	34	13C2-PFHxA	315 > 269.8	3.24e3	1.19e4	0.259	0.601	3.20	3.24	3.39	21.8436	112.9
5	35	13C4-PFHpA	367.2 > 321.8	8.21e3	1.19e4	0.259	0.676	3.80	3.84	8.60	49.1632	101.7
6	36	18O2-PFHxS	403.0 > 102.6	1.30e3	4.07e3	0.259	0.347	3.95	3.98	3.98	44.4506	91.9
7	37	13C2-6:2 FTS	429.1 > 408.9	2.83e3	1.17e4	0.259	0.210	4.26	4.29	3.04	56.0280	115.9
8	38	13C2-PFOA	414.9 > 369.7	1.22e4	1.17e4	0.259	0.990	4.32	4.34	13.1	51.1049	105.7
9	39	13C5-PFNA	468.2 > 422.9	9.72e3	1.03e4	0.259	0.845	4.75	4.76	11.8	53.7949	111.3
10	40	13C8-PFOSA	506.1 > 77.7	1.46e3	1.22e4	0.259	0.199	4.81	4.83	1.49	28.9531	59.9
11	41	13C8-PFOS	507.0 > 79.9	2.76e3	3.20e3	0.259	0.865	4.83	4.84	10.8	48.2656	99.8
12	42	13C2-PFDA	515.1 > 469.9	9.68e3	1.17e4	0.259	0.886	5.11	5.12	10.4	45.2768	93.6
13	43	13C2-8:2 FTS	529.1 > 508.7	1.60e3	1.19e4	0.259	0.136	5.09	5.10	1.68	47.8629	99.0
14	44	d3-N-MeFOSAA	573.3 > 419	4.29e3	1.22e4	0.259	0.409	5.26	5.26	4.40	41.6112	86.1
15	45	d5-N-EtFOSAA	589.3 > 419	3.43e3	1.22e4	0.259	0.474	5.42	5.41	3.51	28.6513	59.3
16	46	13C2-PFUdA	565 > 519.8	7.29e3	1.22e4	0.259	0.928	5.43	5.44	7.46	31.0987	64.3
17	47	13C2-PFDoA	615.0 > 569.7	6.22e3	1.22e4	0.259	0.636	5.70	5.71	6.37	38.7495	80.1
18	49	13C2-PFTeDA	714.8 > 669.6	1.97e3	1.22e4	0.259	0.163	6.16	6.16	2.01	47.8760	99.0
19	55	13C5-PFHxA	318 > 272.9	1.19e4	1.19e4	0.259	1.000	3.20	3.24	12.5	48.3503	100.0
20	56	13C3-PFHxS	401.9 > 79.9	4.07e3	4.07e3	0.259	1.000	3.95	3.98	12.5	48.3503	100.0
21	57	13C8-PFOA	421.3 > 376	1.17e4	1.17e4	0.259	1.000	4.32	4.34	12.5	48.3503	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.03e4	1.03e4	0.259	1.000	4.75	4.76	12.5	48.3503	100.0
23	59	13C4-PFOS	503 > 79.9	3.20e3	3.20e3	0.259	1.000	4.83	4.84	12.5	48.3503	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.17e4	1.17e4	0.259	1.000	5.11	5.12	12.5	48.3503	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.22e4	1.22e4	0.259	1.000	5.43	5.44	12.5	48.3503	100.0
26	62	Total PFHxS	398.9 > 79.6	1.90e3	1.30e3	0.259		4.00		18.3	33.2107	
27	63	Total PFOA	413 > 368.7	1.09e4	1.22e4	0.259		4.30		11.2	33.1673	
28	64	Total PFOS	499 > 79.9	2.22e3	2.76e3	0.259		4.80		10.1	31.4117	
29	65	Total N-MeFOSAA	570.1 > 419	4.63e3	4.29e3	0.259		5.20		13.5	30.9662	
30	66	Total N-EtFOSAA	584.2 > 419	3.70e3	3.43e3	0.259		5.40		13.5	43.5964	

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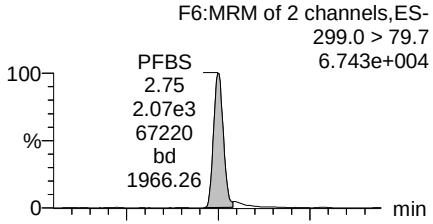
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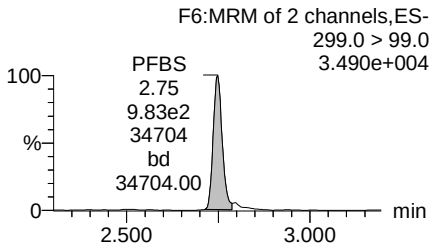
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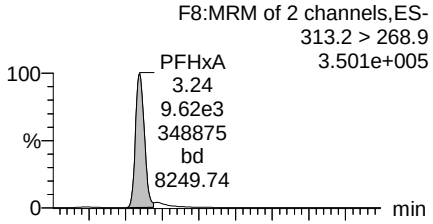
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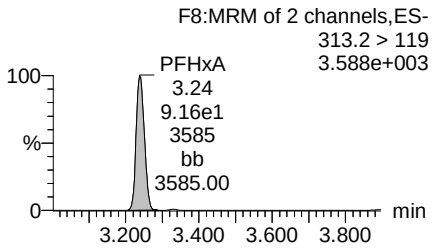
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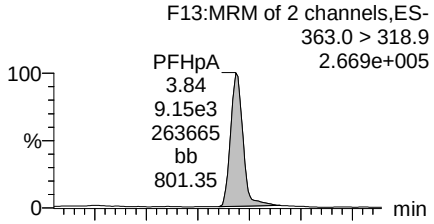


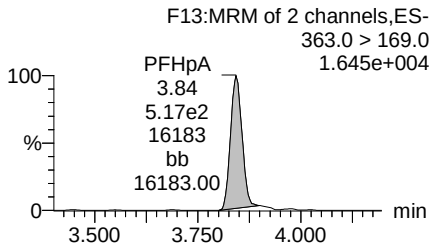
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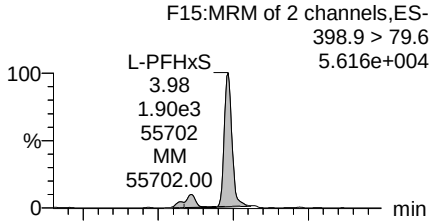


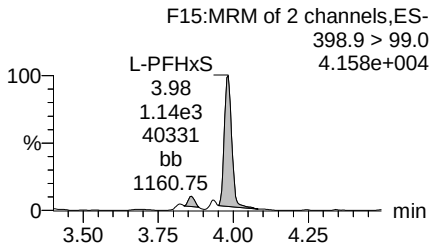
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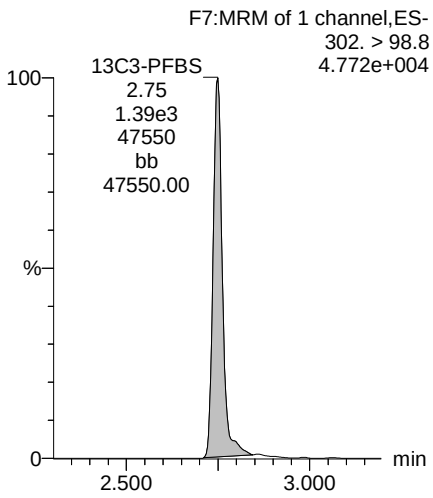


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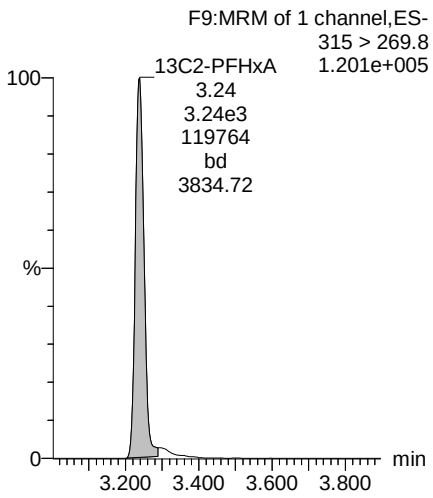




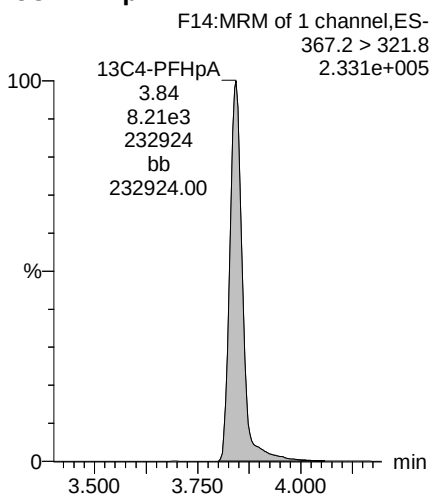
13C3-PFBS



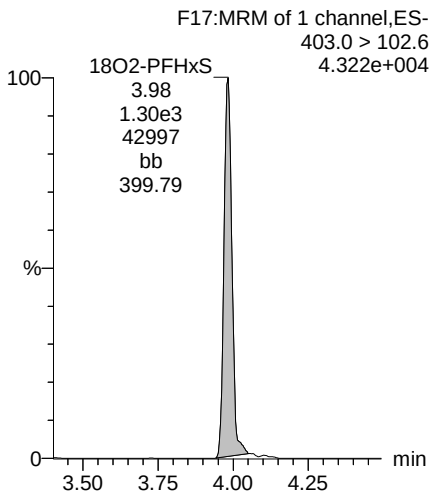
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13C4-PFHpA



18O2-PFHxS



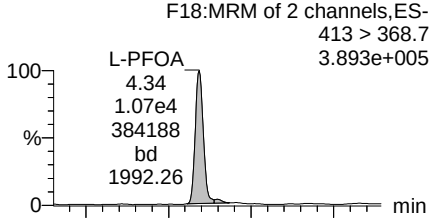
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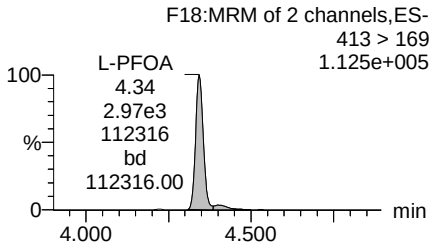
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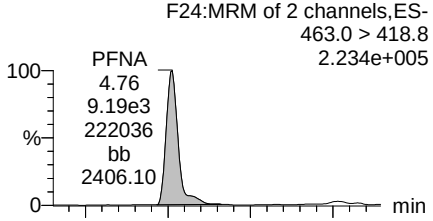
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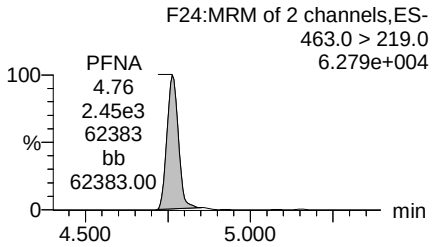
Total PFOA



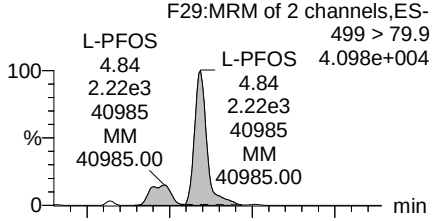


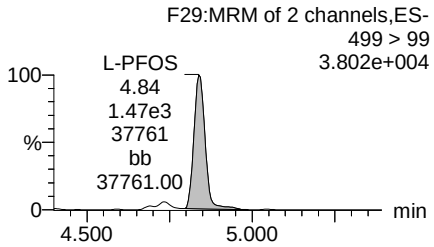
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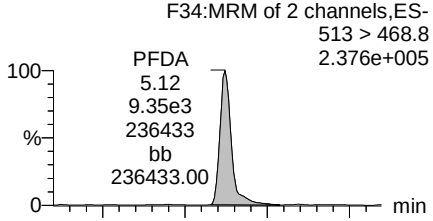


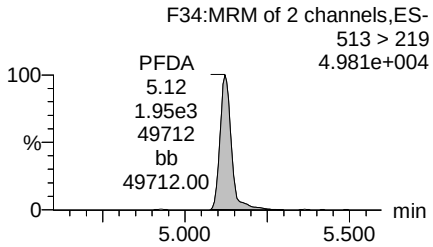
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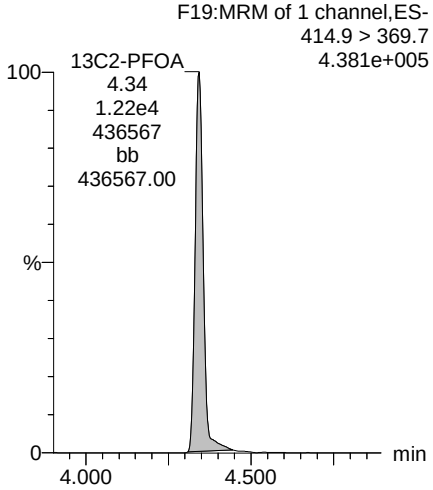


PFDA

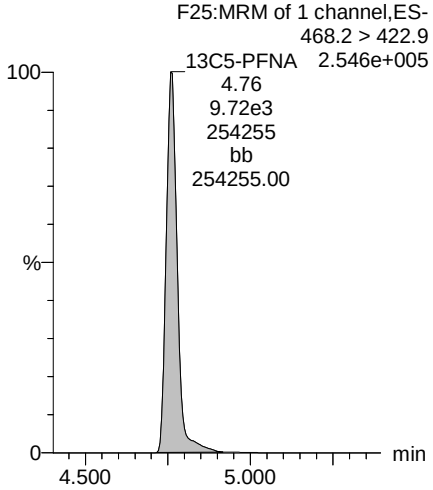




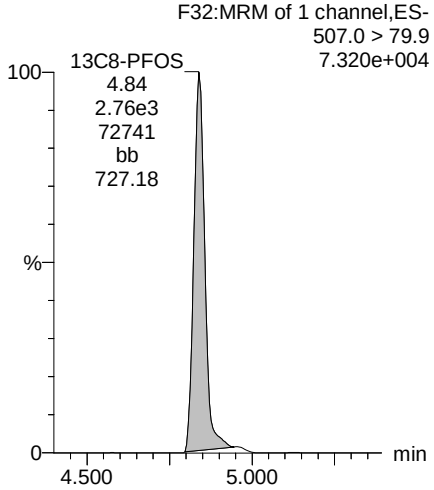
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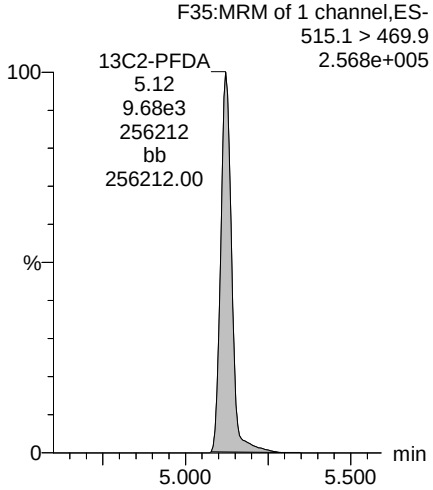
13C5-PFNA



13C8-PFOS



13C2-PFDA



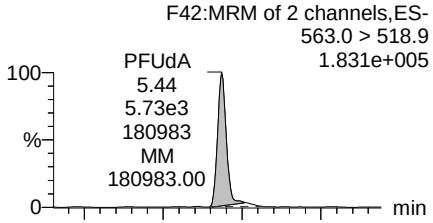
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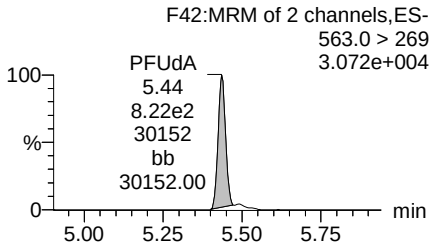
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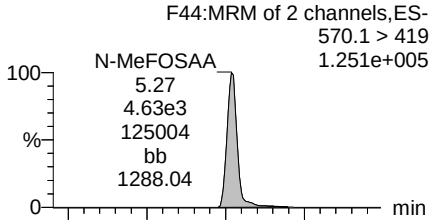
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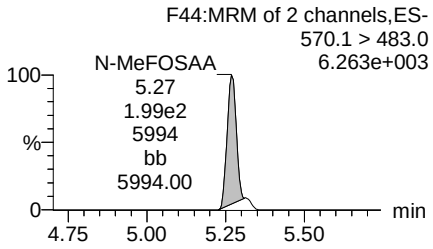
PFUdA



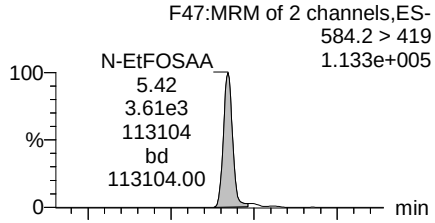


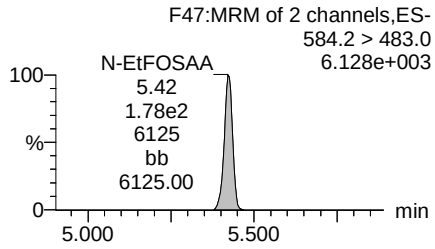
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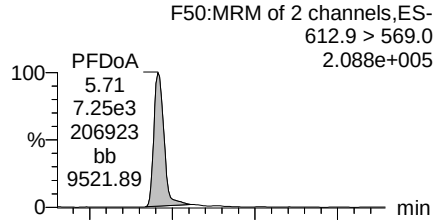


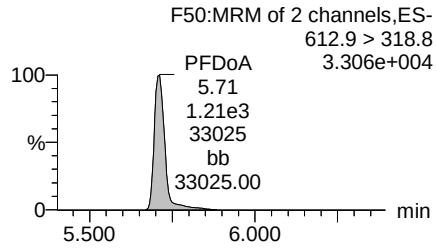
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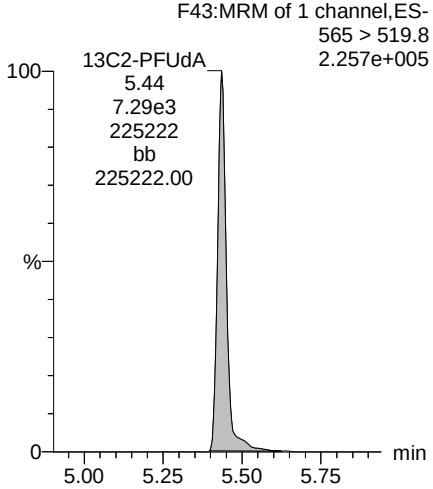


PFDoA

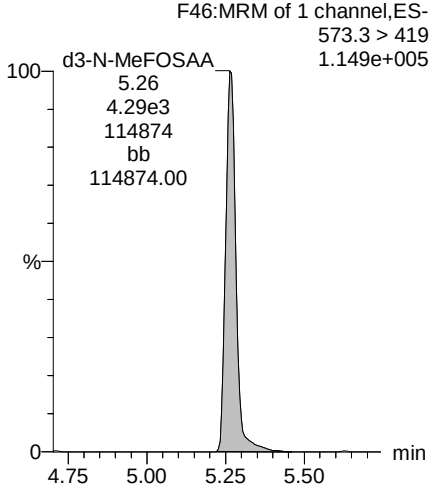




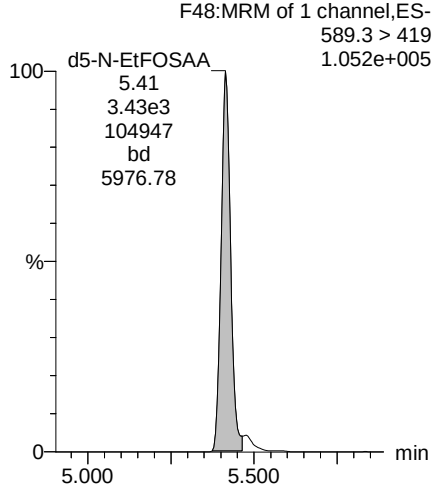
13C2-PFUdA



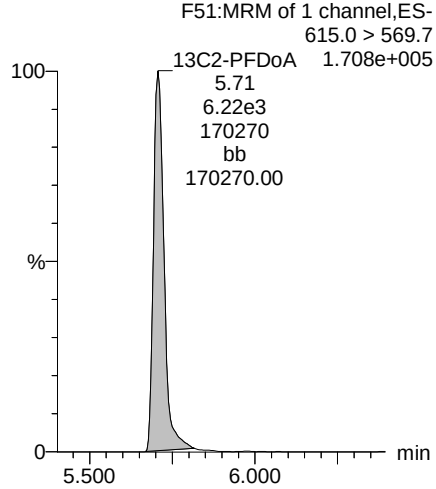
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



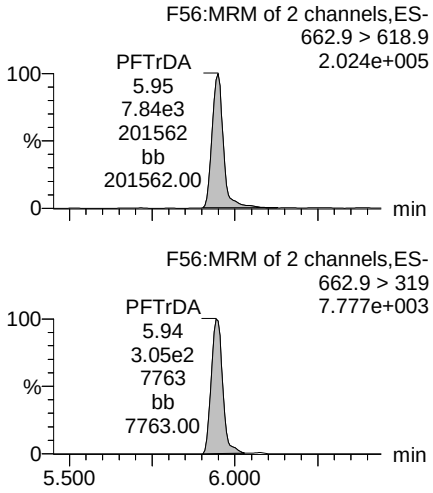
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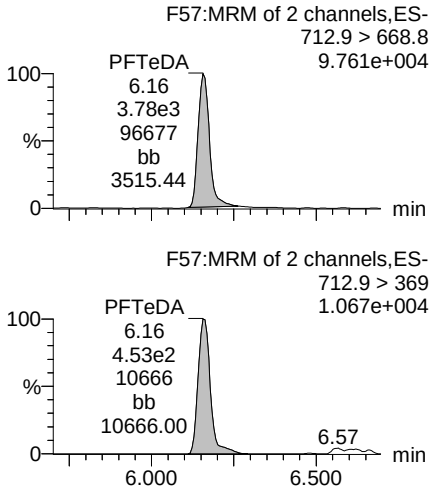
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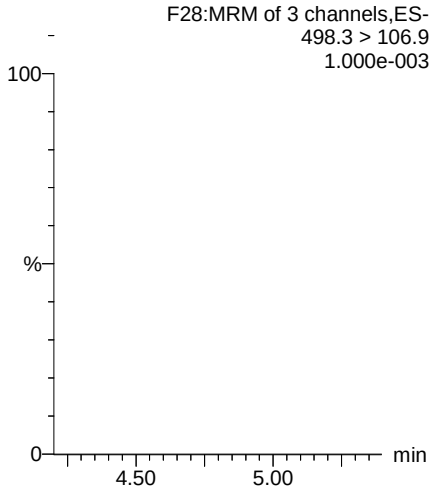
PFTrDA



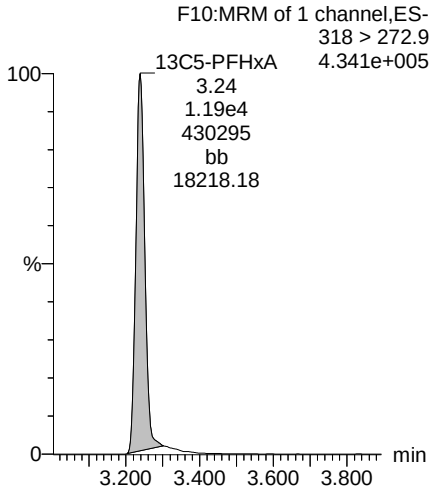
PFTeDA



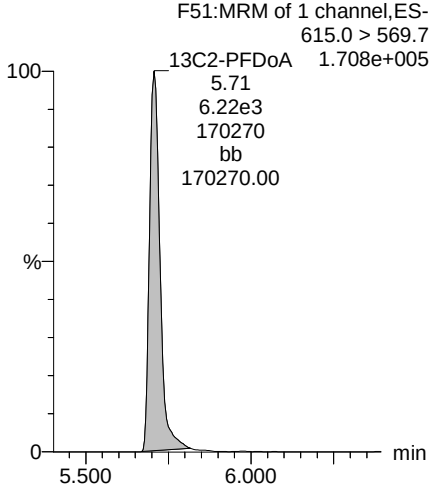
TCDA



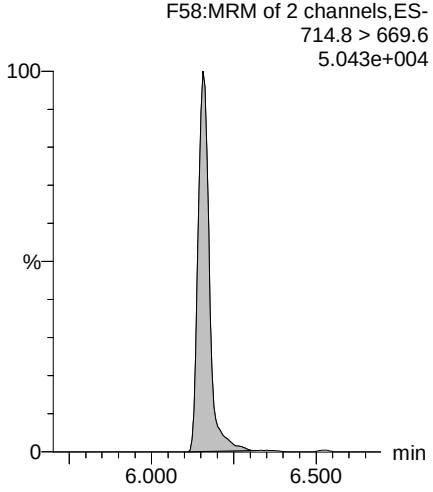
13C5-PFHxA



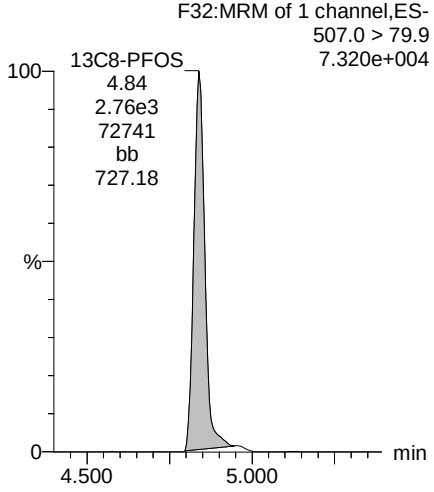
13C2-PFDoA



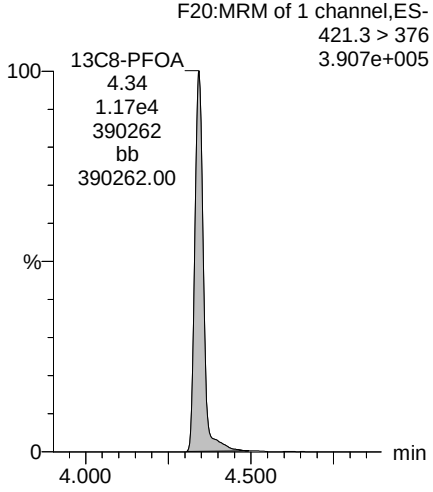
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



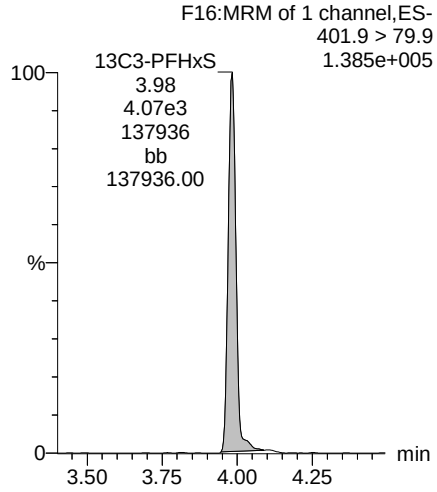
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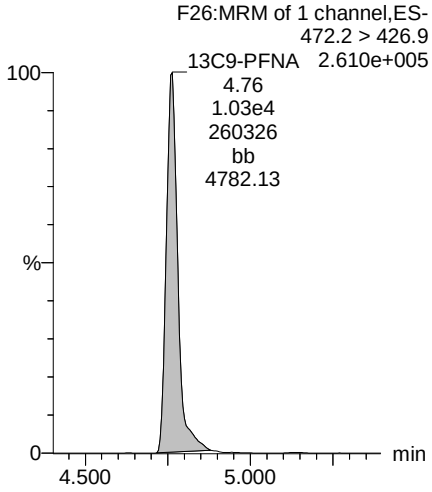
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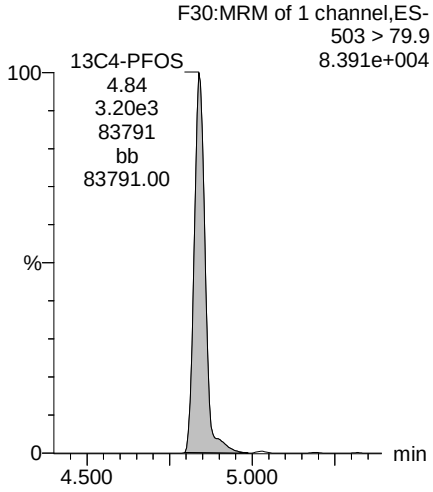
13C3-PFHxS



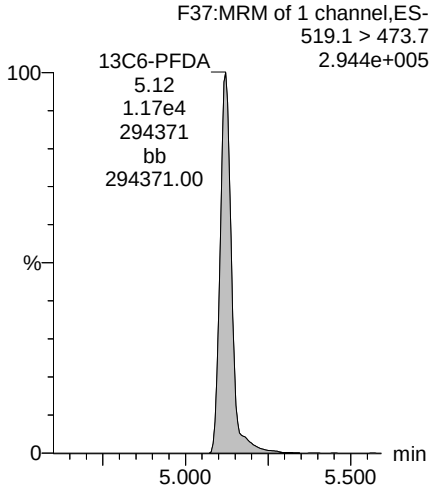
13C9-PFNA



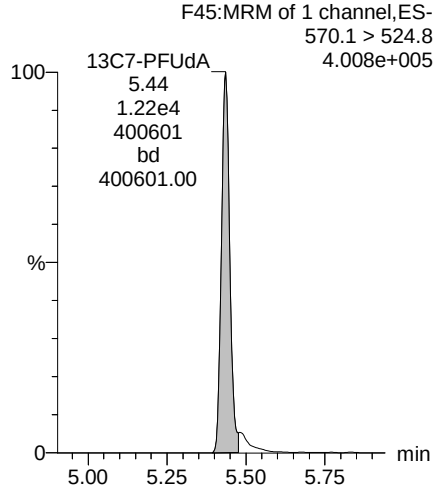
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-48.qld

Last Altered: Friday, December 29, 2017 12:11:07 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_48, Date: 28-Dec-2017, Time: 02:10:55, ID: 1701829-06 FT-MW02I-20171130 0.26433, Description: FT-MW02I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.75e3	0.264		2.70				
2	4	PFHxA	313.2 > 268.9		3.16e3	0.264		3.20				
3	5	PFHpA	363.0 > 318.9		9.21e3	0.264		3.80				
4	6	L-PFHxS	398.9 > 79.6	5.12e0	1.47e3	0.264		3.95	3.99	0.0434	0.2280	
5	9	L-PFOA	413 > 368.7	1.78e2	1.45e4	0.264		4.32	4.34	0.154		
6	12	PFNA	463.0 > 418.8	5.17e1	1.16e4	0.264		4.75	4.76	0.0559	0.1696	
7	14	L-PFOS	499 > 79.9		3.70e3	0.264		4.83				
8	16	PFDA	513 > 468.8		9.74e3	0.264		5.11				
9	18	N-MeFOSAA	570.1 > 419		3.32e3	0.264		5.26				
10	19	N-EtFOSAA	584.2 > 419		4.48e3	0.264		5.42				
11	20	PFUdA	563.0 > 518.9	3.83e1	9.21e3	0.264		5.43	5.44	0.0519		
12	22	PFDoA	612.9 > 569.0		7.30e3	0.264		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-48.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_48, Date: 28-Dec-2017, Time: 02:10:55, ID: 1701829-06 FT-MW02I-20171130 0.26433, Description: FT-MW02I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		7.30e3	0.264		5.95				
2	25	PFTeDA	712.9 > 668.8		2.22e3	0.264		6.16				
3	33	13C3-PFBS	302. > 98.8	1.75e3	1.38e4	0.264	0.101	2.70	2.75	1.59	59.2429	125.3
4	34	13C2-PFHxA	315 > 269.8	3.16e3	1.38e4	0.264	0.601	3.20	3.24	2.86	18.0141	95.2
5	35	13C4-PFHpA	367.2 > 321.8	9.21e3	1.38e4	0.264	0.676	3.80	3.84	8.34	46.6399	98.6
6	36	18O2-PFHxS	403.0 > 102.6	1.47e3	3.77e3	0.264	0.347	3.95	3.98	4.89	53.3900	112.9
7	37	13C2-6:2 FTS	429.1 > 408.9	3.58e3	1.28e4	0.264	0.210	4.26	4.29	3.50	63.1760	133.6
8	38	13C2-PFOA	414.9 > 369.7	1.45e4	1.28e4	0.264	0.990	4.32	4.34	14.2	54.1456	114.5
9	39	13C5-PFNA	468.2 > 422.9	1.16e4	1.36e4	0.264	0.845	4.75	4.76	10.7	47.6958	100.9
10	40	13C8-PFOSA	506.1 > 77.7	1.08e3	1.14e4	0.264	0.199	4.81	4.84	1.18	22.3895	47.3
11	41	13C8-PFOS	507.0 > 79.9	3.70e3	4.38e3	0.264	0.865	4.83	4.84	10.6	46.1545	97.6
12	42	13C2-PFDA	515.1 > 469.9	9.74e3	1.41e4	0.264	0.886	5.11	5.13	8.63	36.8416	77.9
13	43	13C2-8:2 FTS	529.1 > 508.7	2.15e3	1.38e4	0.264	0.136	5.09	5.10	1.95	54.1891	114.6
14	44	d3-N-MeFOSAA	573.3 > 419	3.32e3	1.14e4	0.264	0.409	5.26	5.27	3.64	33.7368	71.3
15	45	d5-N-EtFOSAA	589.3 > 419	4.48e3	1.14e4	0.264	0.474	5.42	5.42	4.92	39.2547	83.0
16	46	13C2-PFUdA	565 > 519.8	9.21e3	1.14e4	0.264	0.928	5.43	5.44	10.1	41.1825	87.1
17	47	13C2-PFDoA	615.0 > 569.7	7.30e3	1.14e4	0.264	0.636	5.70	5.71	8.01	47.6222	100.7
18	49	13C2-PFTeDA	714.8 > 669.6	2.22e3	1.14e4	0.264	0.163	6.16	6.16	2.43	56.6027	119.7
19	55	13C5-PFHxA	318 > 272.9	1.38e4	1.38e4	0.264	1.000	3.20	3.24	12.5	47.2894	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.77e3	3.77e3	0.264	1.000	3.95	3.98	12.5	47.2894	100.0
21	57	13C8-PFOA	421.3 > 376	1.28e4	1.28e4	0.264	1.000	4.32	4.34	12.5	47.2894	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.36e4	1.36e4	0.264	1.000	4.75	4.76	12.5	47.2894	100.0
23	59	13C4-PFOS	503 > 79.9	4.38e3	4.38e3	0.264	1.000	4.83	4.84	12.5	47.2894	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.41e4	1.41e4	0.264	1.000	5.11	5.12	12.5	47.2894	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.14e4	1.14e4	0.264	1.000	5.43	5.44	12.5	47.2894	100.0
26	62	Total PFHxS	398.9 > 79.6	5.12e0	1.47e3	0.264		4.00		0.0434	0.2280	
27	63	Total PFOA	413 > 368.7	1.78e2	1.45e4	0.264		4.30		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	3.70e3	0.264		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.32e3	0.264		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.48e3	0.264		5.40		0.000		

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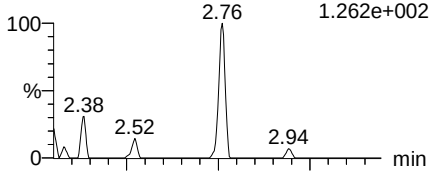
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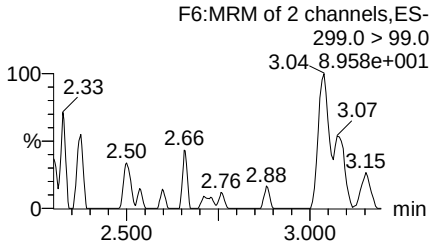
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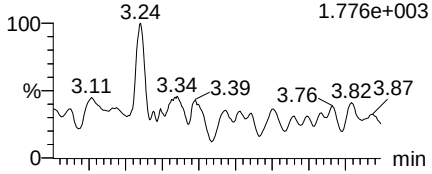
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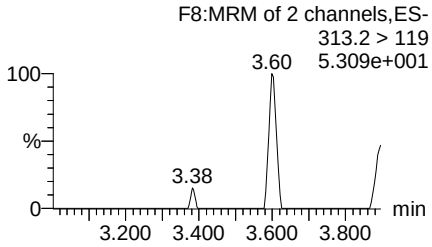
PFBS



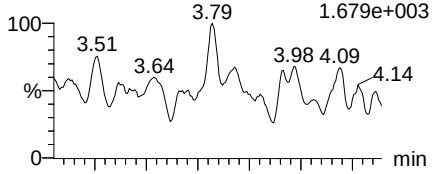


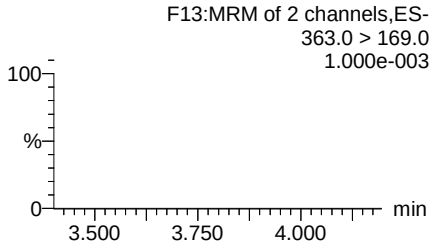
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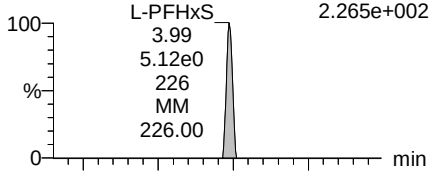


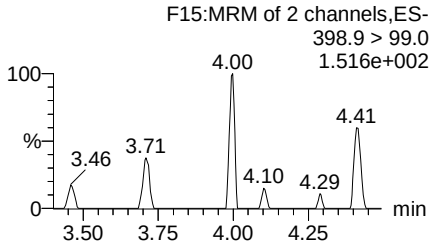
PFHpA



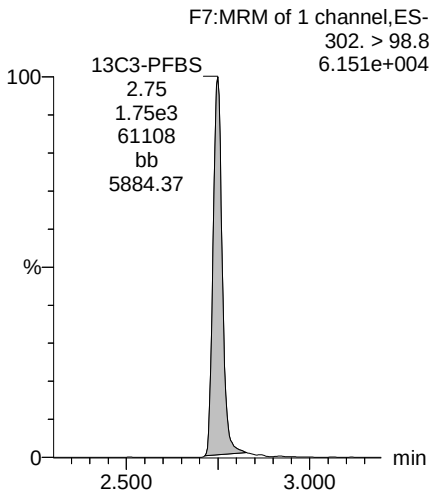


Total PFHxS

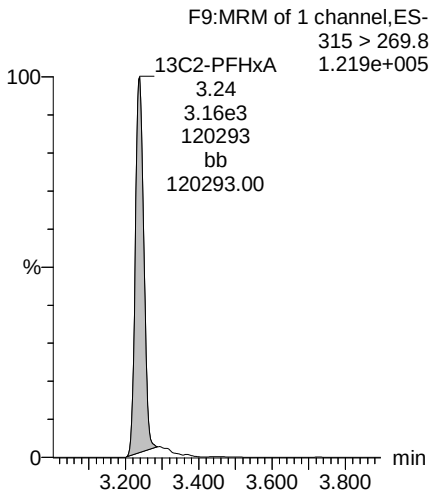




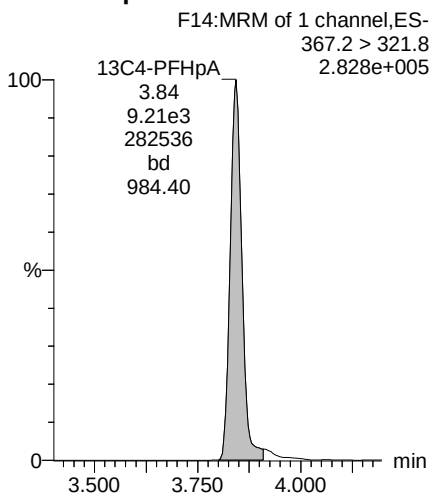
13C3-PFBS



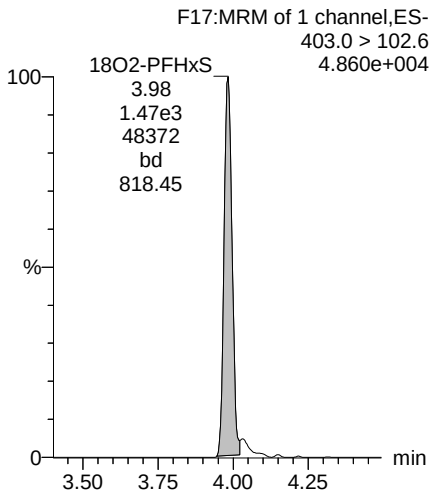
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



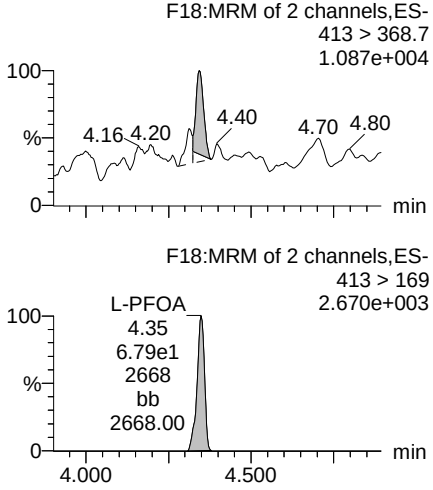
MSF 12/29/17

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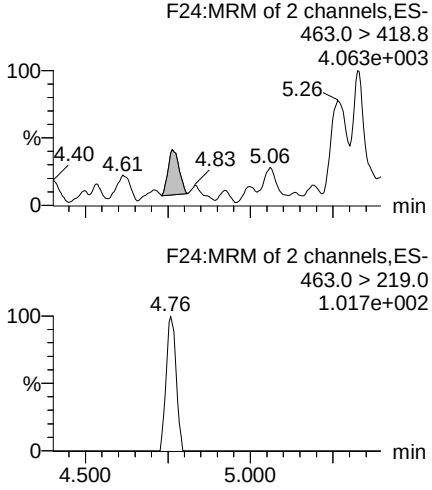
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Name: 171227M2_48, Date: 28-Dec-2017, Time: 02:10:55, ID: 1701829-06 FT-MW02I-20171130 0.26433, Description: FT-MW02I-20171130

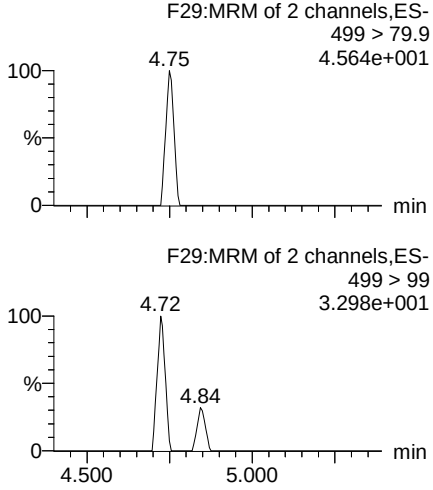
Total PFOA



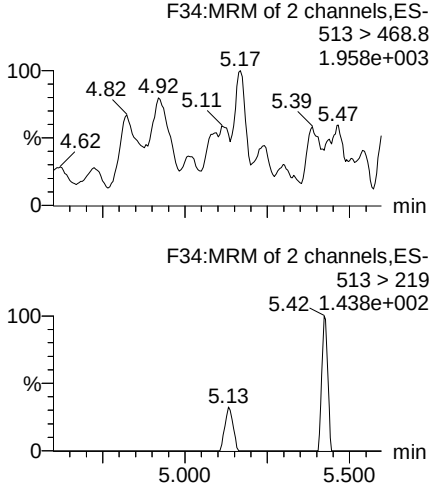
PFNA



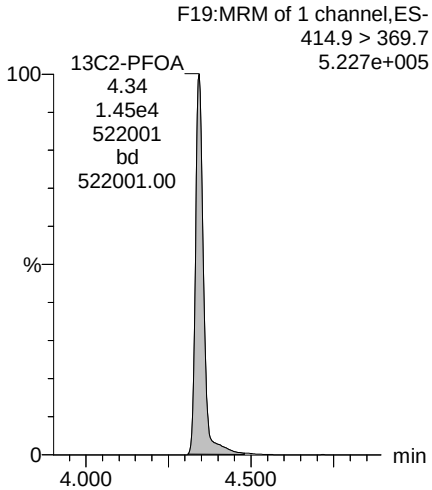
Total PFOS



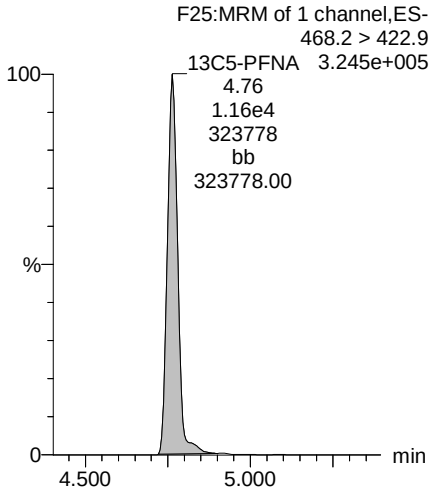
PFDA



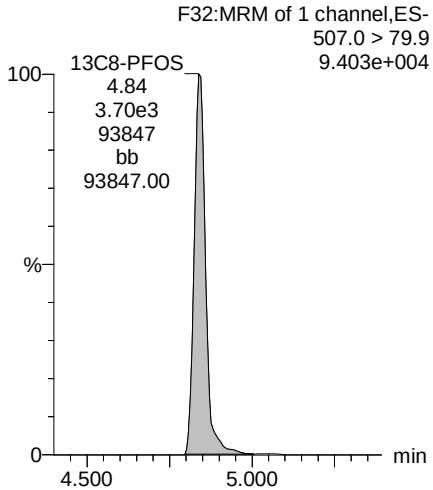
13C2-PFOA



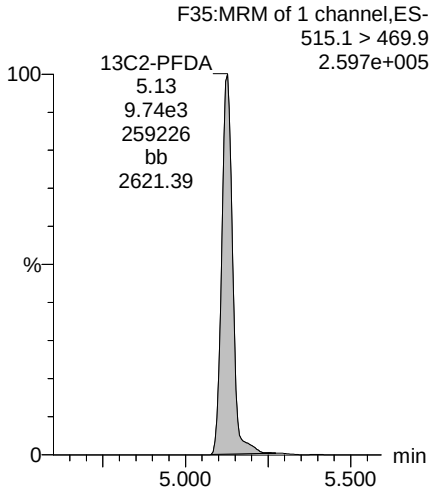
13C5-PFNA



13C8-PFOS



13C2-PFDA



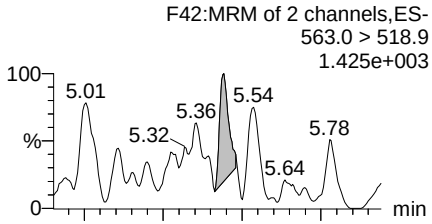
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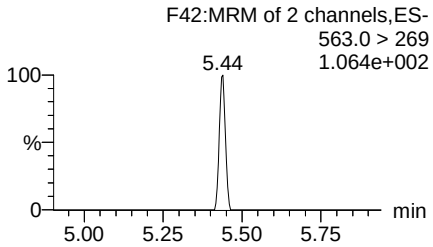
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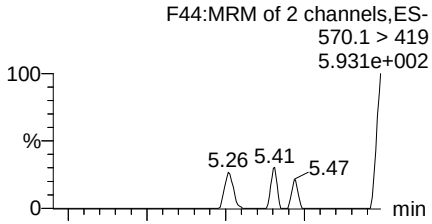
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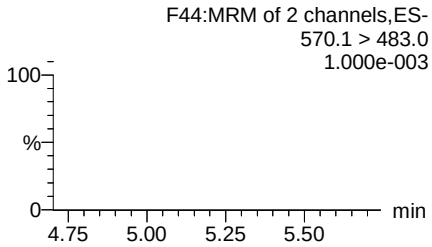
PFUdA



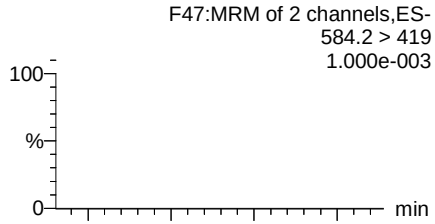


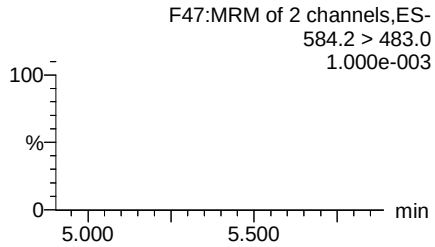
N-MeFOSAA



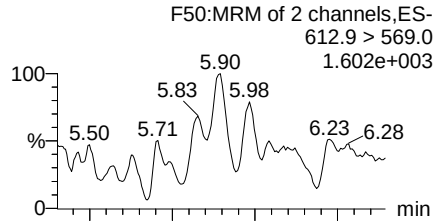


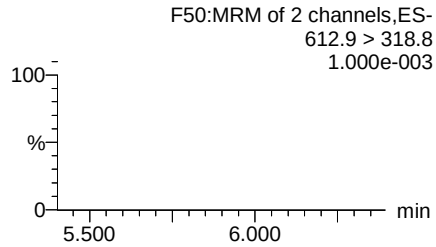
N-EtFOSAA



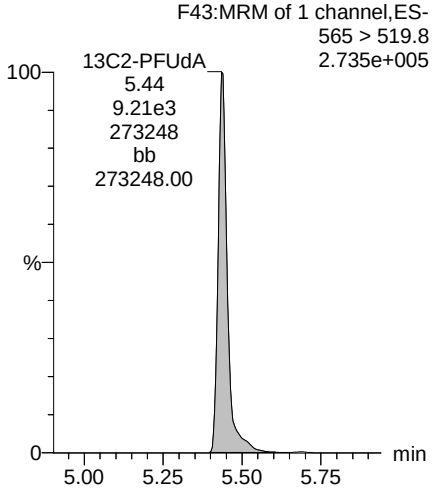


PFDoA

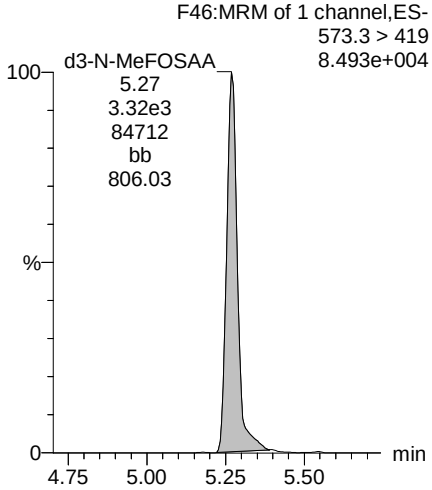




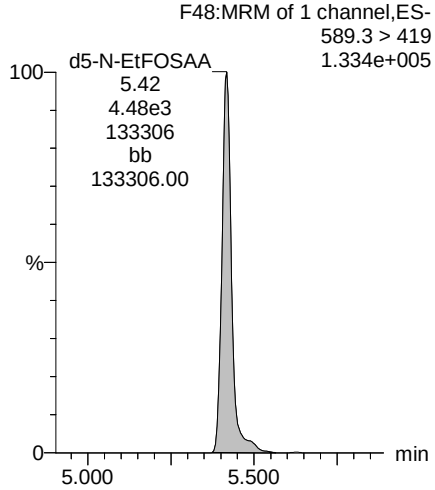
13C2-PFUdA



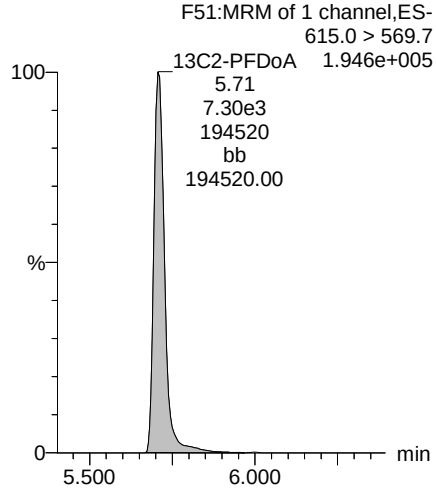
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



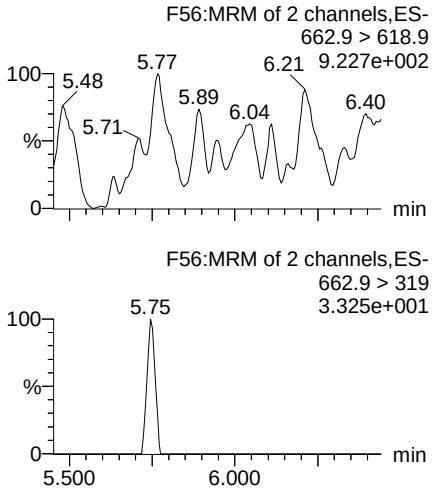
MSF 12/29/17

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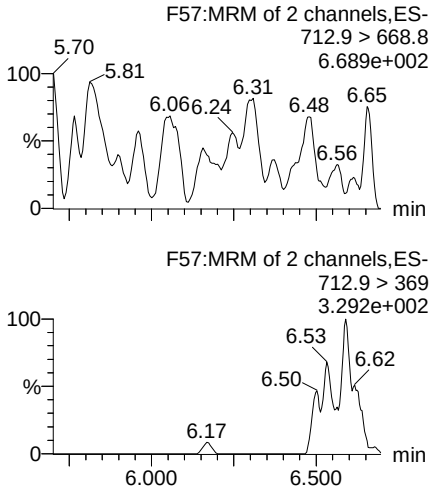
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Name: 171227M2_48, Date: 28-Dec-2017, Time: 02:10:55, ID: 1701829-06 FT-MW02I-20171130 0.26433, Description: FT-MW02I-20171130

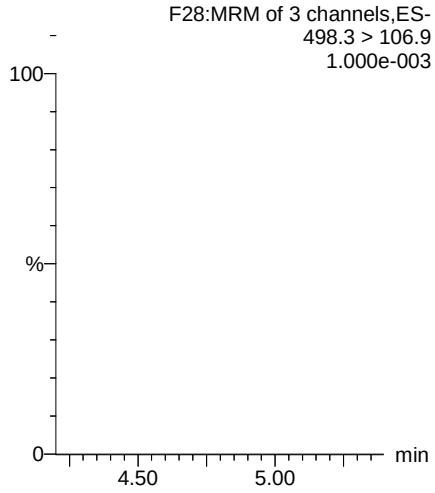
PFTrDA



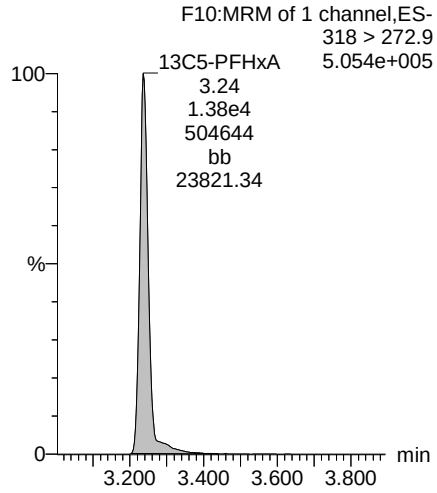
PFTeDA



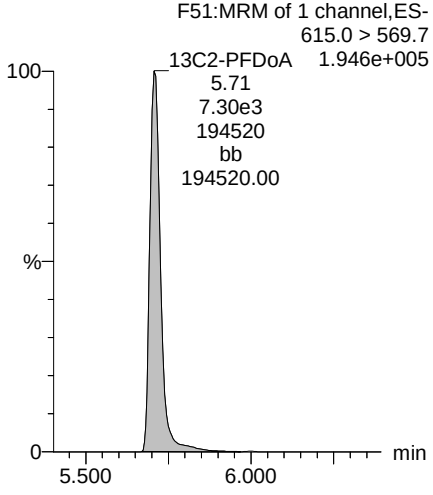
TCDA



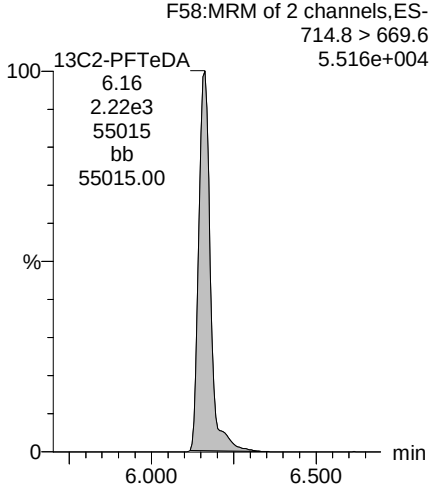
13C5-PFHxA



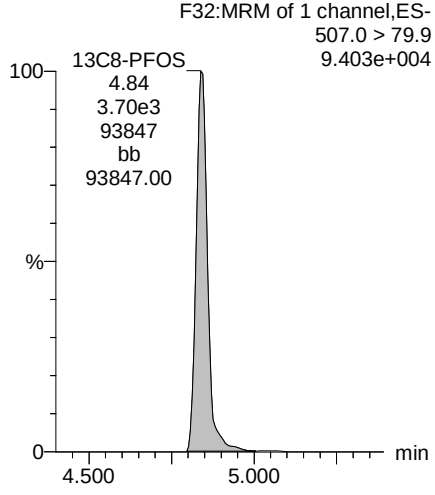
13C2-PFDoA



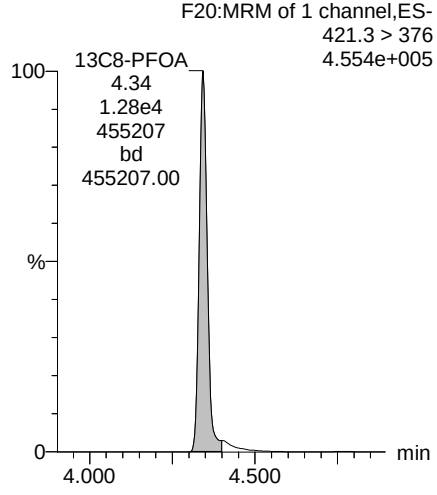
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



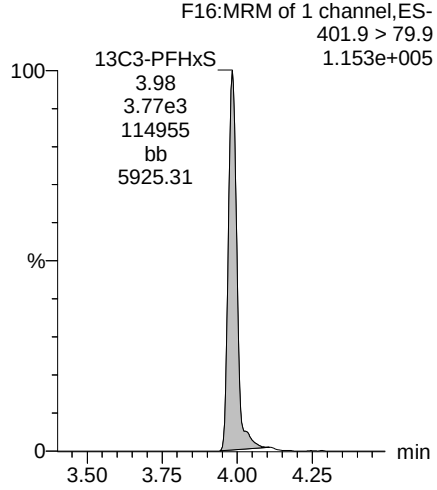
MSF 12/29/17

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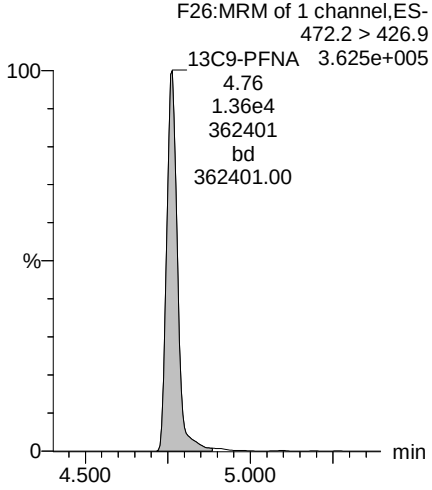
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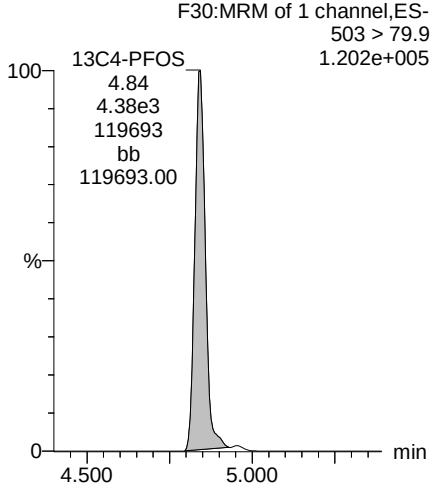
13C3-PFHxS



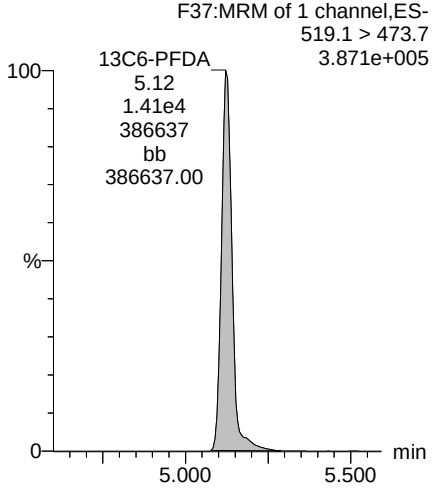
13C9-PFNA



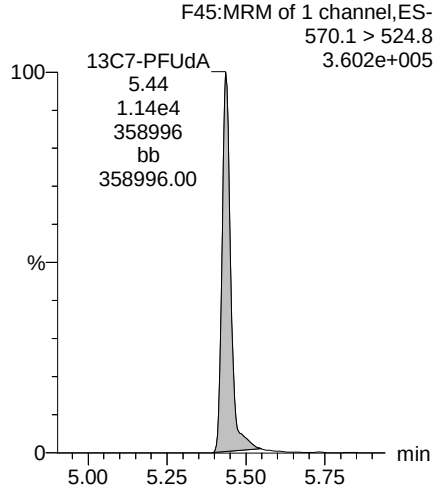
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-49.qld

Last Altered: Friday, December 29, 2017 12:14:02 Pacific Standard Time
Printed: Friday, December 29, 2017 12:15:04 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_49, Date: 28-Dec-2017, Time: 02:22:10, ID: 1701829-07 FT-MW01I-20171130 0.26191, Description: FT-MW01I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.40e3	0.262		2.70				
2	4	PFHxA	313.2 > 268.9		2.37e3	0.262		3.20				
3	5	PFHpA	363.0 > 318.9		6.57e3	0.262		3.80				
4	6	L-PFHxS	398.9 > 79.6		1.08e3	0.262		3.95				
5	9	L-PFOA	413 > 368.7	2.77e2	1.16e4	0.262		4.32	4.34	0.299	0.0756	
6	12	PFNA	463.0 > 418.8		7.66e3	0.262		4.75				
7	14	L-PFOS	499 > 79.9	7.54e0	2.78e3	0.262		4.83	4.83	0.0340	0.2025	
8	16	PFDA	513 > 468.8		6.99e3	0.262		5.11				
9	18	N-MeFOSAA	570.1 > 419		3.77e3	0.262		5.26				
10	19	N-EtFOSAA	584.2 > 419		4.49e3	0.262		5.42				
11	20	PFUdA	563.0 > 518.9	4.59e1	8.91e3	0.262		5.43	5.44	0.0644		
12	22	PFDoA	612.9 > 569.0		6.24e3	0.262		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-49.qld

Last Altered: Friday, December 29, 2017 12:14:02 Pacific Standard Time
Printed: Friday, December 29, 2017 12:15:17 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_49, Date: 28-Dec-2017, Time: 02:22:10, ID: 1701829-07 FT-MW01I-20171130 0.26191, Description: FT-MW01I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		6.24e3	0.262		5.95				
2	25	PFTeDA	712.9 > 668.8		2.21e3	0.262		6.16				
3	33	13C3-PFBS	302. > 98.8	1.40e3	9.57e3	0.262	0.101	2.70	2.75	1.82	68.7171	144.0
4	34	13C2-PFHxA	315 > 269.8	2.37e3	9.57e3	0.262	0.601	3.20	3.24	3.10	19.6962	103.2
5	35	13C4-PFHpA	367.2 > 321.8	6.57e3	9.57e3	0.262	0.676	3.80	3.84	8.57	48.3935	101.4
6	36	18O2-PFHxS	403.0 > 102.6	1.08e3	3.77e3	0.262	0.347	3.95	3.98	3.58	39.4598	82.7
7	37	13C2-6:2 FTS	429.1 > 408.9	2.89e3	1.13e4	0.262	0.210	4.26	4.29	3.19	58.0976	121.7
8	38	13C2-PFOA	414.9 > 369.7	1.16e4	1.13e4	0.262	0.990	4.32	4.34	12.8	49.3832	103.5
9	39	13C5-PFNA	468.2 > 422.9	7.66e3	8.52e3	0.262	0.845	4.75	4.76	11.2	50.7847	106.4
10	40	13C8-PFOSA	506.1 > 77.7	1.09e3	1.01e4	0.262	0.199	4.81	4.84	1.35	25.7955	54.0
11	41	13C8-PFOS	507.0 > 79.9	2.78e3	3.43e3	0.262	0.865	4.83	4.84	10.1	44.6872	93.6
12	42	13C2-PFDA	515.1 > 469.9	6.99e3	1.11e4	0.262	0.886	5.11	5.12	7.86	33.8654	71.0
13	43	13C2-8:2 FTS	529.1 > 508.7	1.66e3	9.57e3	0.262	0.136	5.09	5.10	2.16	60.8607	127.5
14	44	d3-N-MeFOSAA	573.3 > 419	3.77e3	1.01e4	0.262	0.409	5.26	5.26	4.65	43.4038	90.9
15	45	d5-N-EtFOSAA	589.3 > 419	4.49e3	1.01e4	0.262	0.474	5.42	5.42	5.53	44.6014	93.5
16	46	13C2-PFUdA	565 > 519.8	8.91e3	1.01e4	0.262	0.928	5.43	5.44	11.0	45.1625	94.6
17	47	13C2-PFDoA	615.0 > 569.7	6.24e3	1.01e4	0.262	0.636	5.70	5.71	7.70	46.1913	96.8
18	49	13C2-PFTeDA	714.8 > 669.6	2.21e3	1.01e4	0.262	0.163	6.16	6.16	2.73	63.9830	134.1
19	55	13C5-PFHxA	318 > 272.9	9.57e3	9.57e3	0.262	1.000	3.20	3.24	12.5	47.7263	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.77e3	3.77e3	0.262	1.000	3.95	3.98	12.5	47.7263	100.0
21	57	13C8-PFOA	421.3 > 376	1.13e4	1.13e4	0.262	1.000	4.32	4.34	12.5	47.7263	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.52e3	8.52e3	0.262	1.000	4.75	4.76	12.5	47.7263	100.0
23	59	13C4-PFOS	503 > 79.9	3.43e3	3.43e3	0.262	1.000	4.83	4.84	12.5	47.7263	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.11e4	1.11e4	0.262	1.000	5.11	5.12	12.5	47.7263	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.01e4	1.01e4	0.262	1.000	5.43	5.44	12.5	47.7263	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	1.08e3	0.262		4.00		0.000		
27	63	Total PFOA	413 > 368.7	2.77e2	1.16e4	0.262		4.30		0.299	0.0756	
28	64	Total PFOS	499 > 79.9	7.54e0	2.78e3	0.262		4.80		0.0340	0.2025	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.77e3	0.262		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.49e3	0.262		5.40		0.000		

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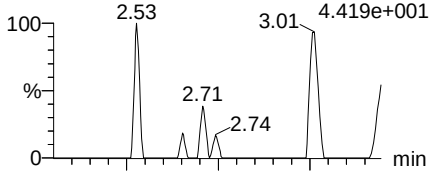
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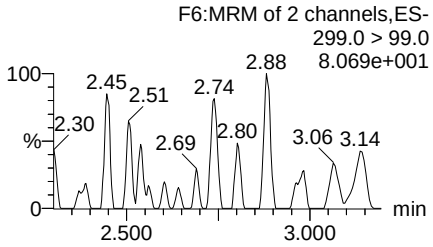
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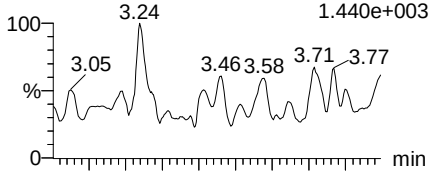
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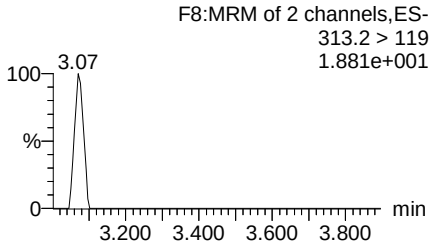
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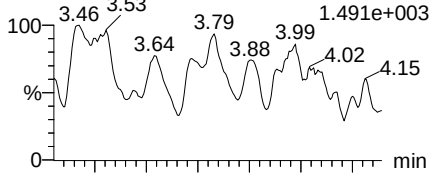


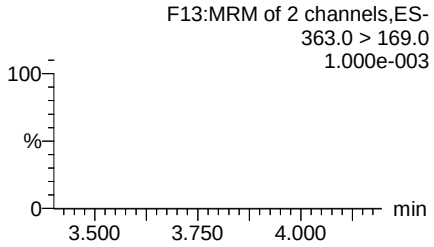
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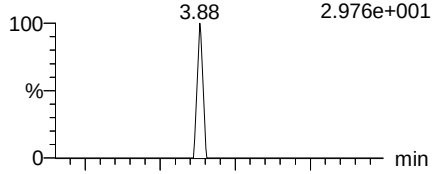


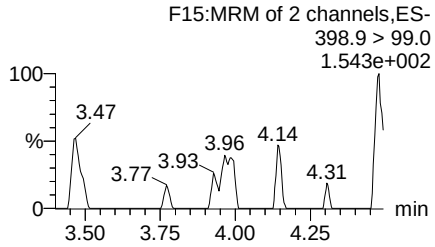
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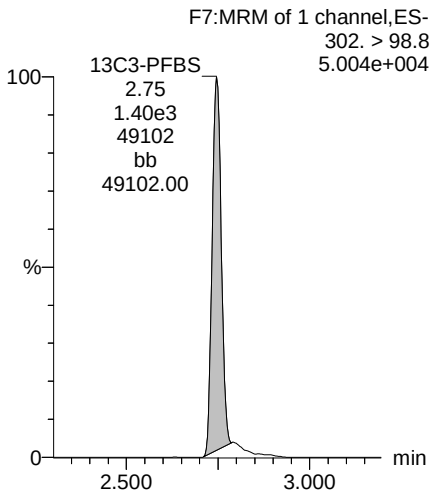


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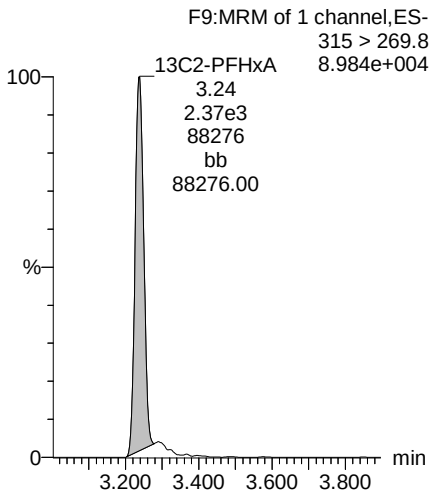




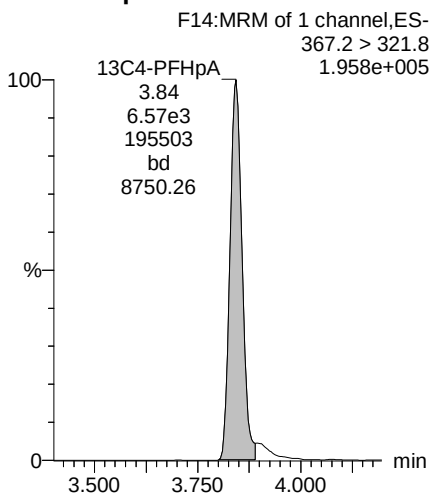
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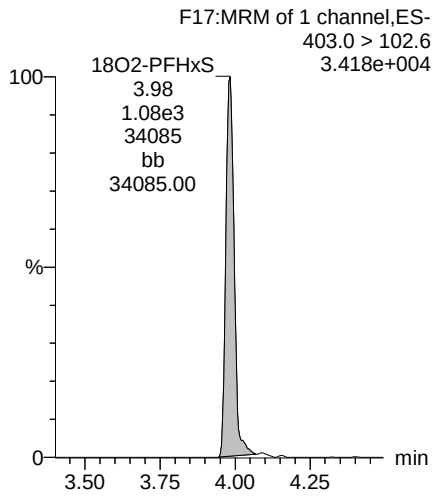
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13C4-PFHpA



18O2-PFHxS



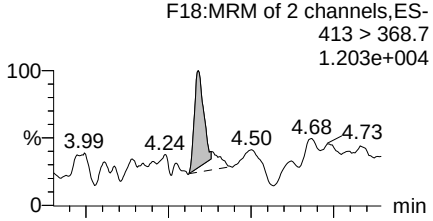
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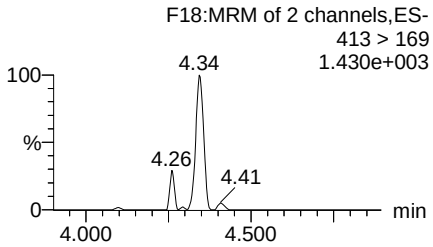
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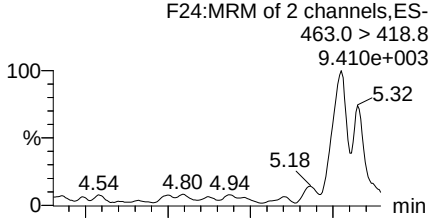
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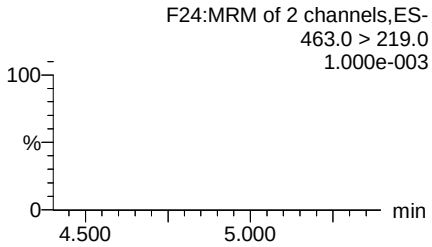
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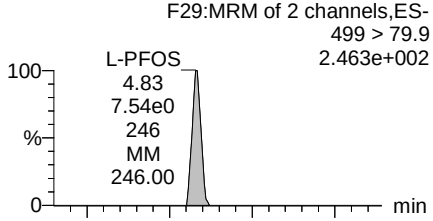


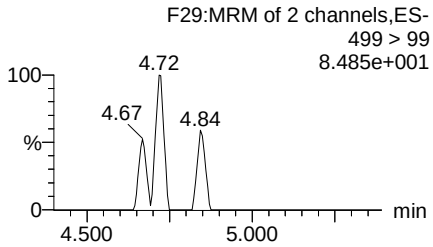
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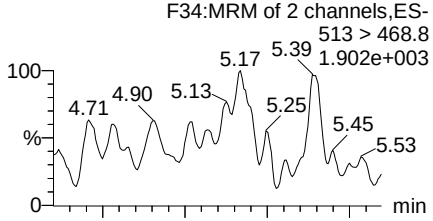


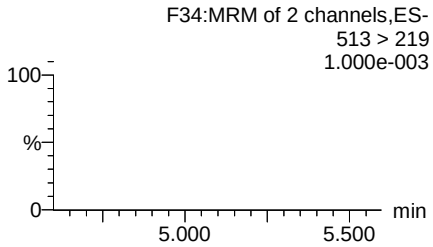
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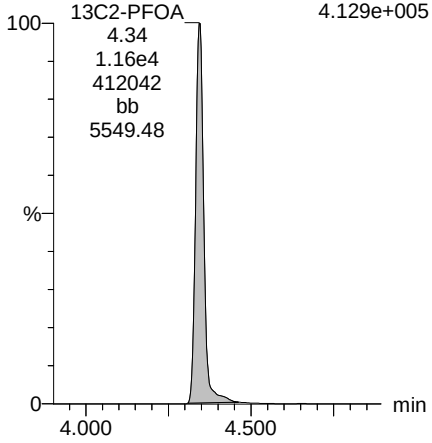


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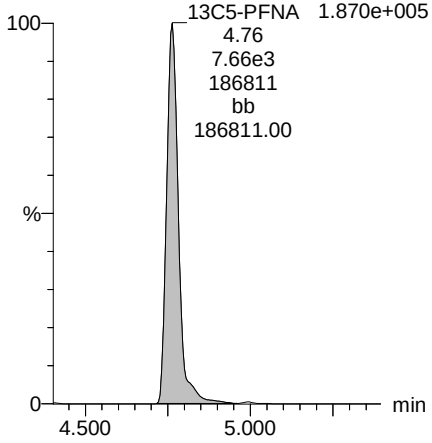




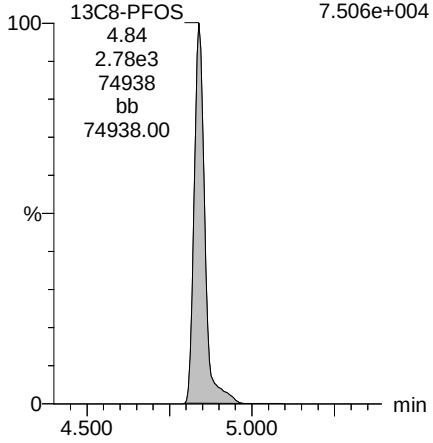
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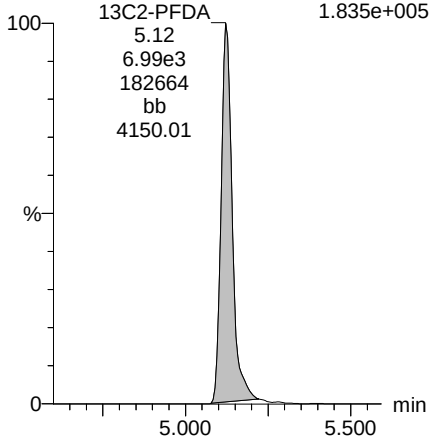
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13C8-PFOS



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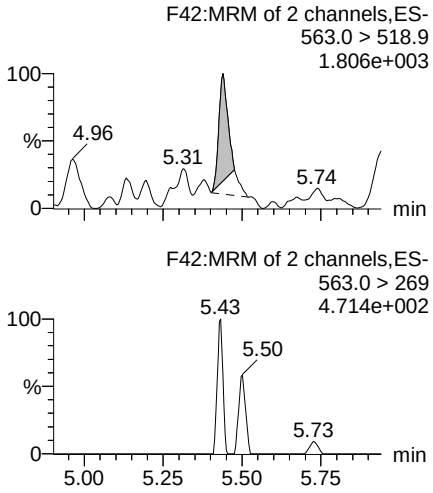
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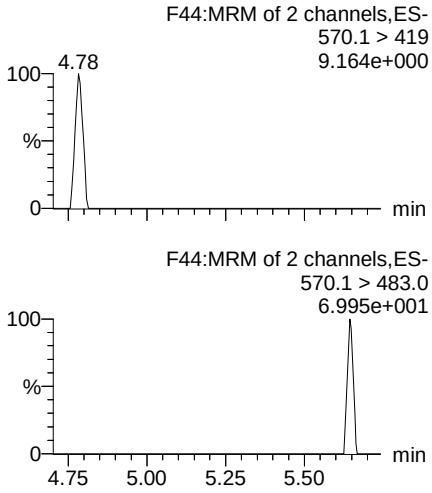
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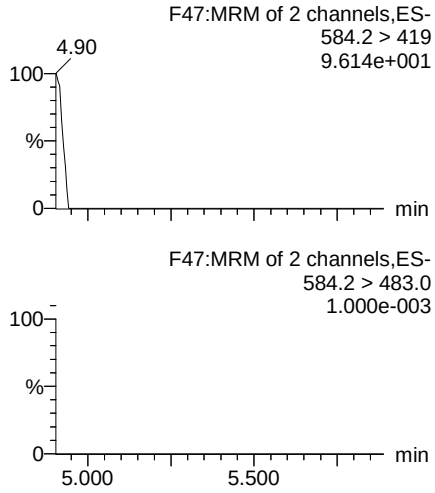
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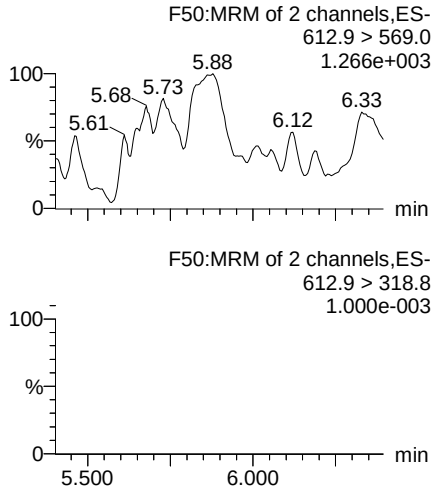
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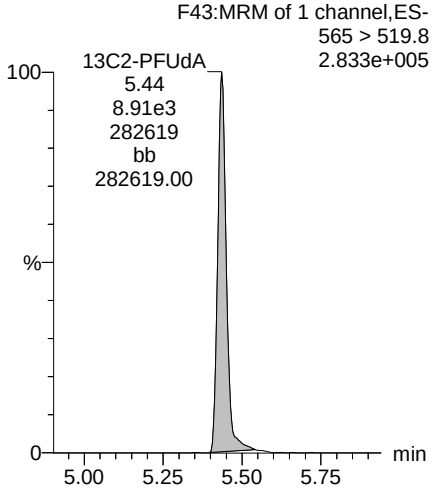
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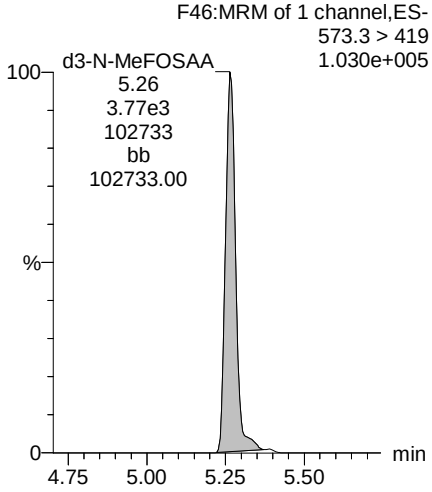
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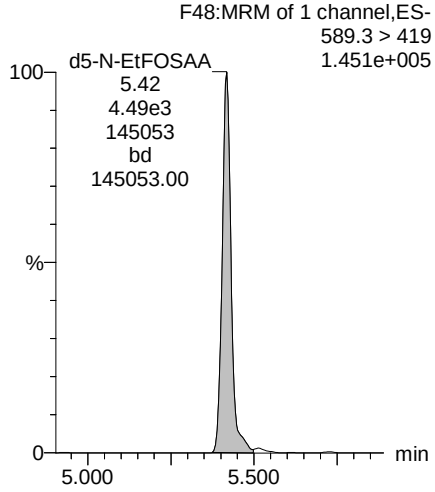
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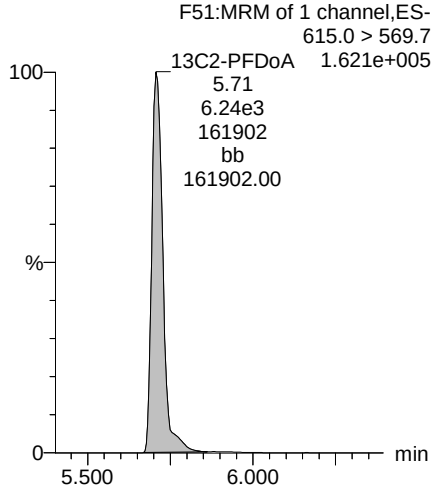
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d5-N-EtFOSAA



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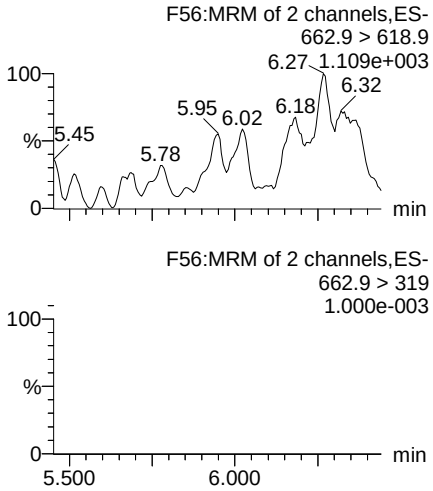
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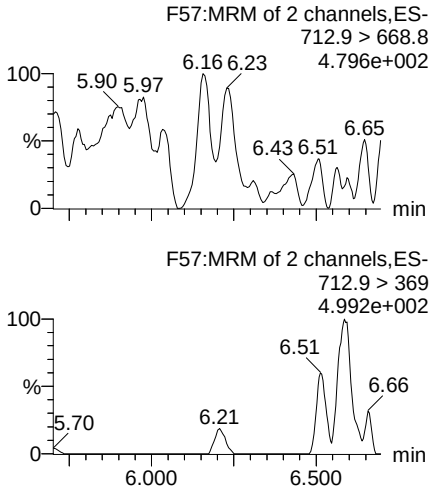
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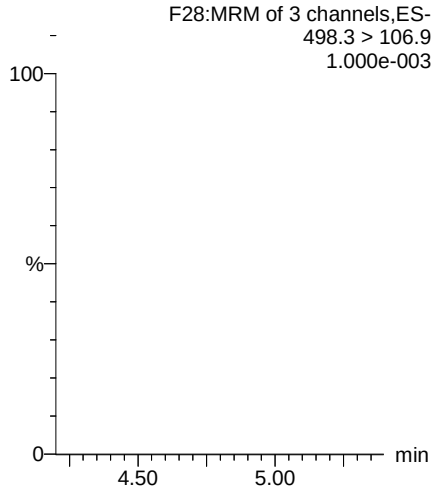
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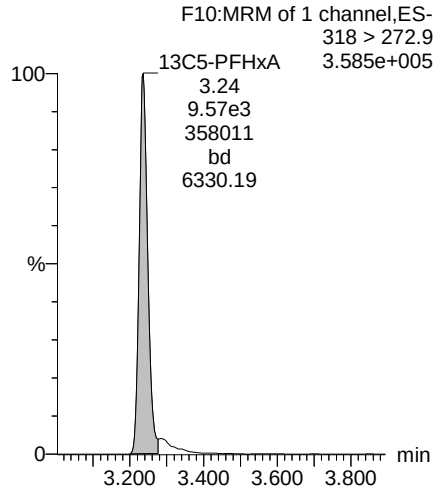
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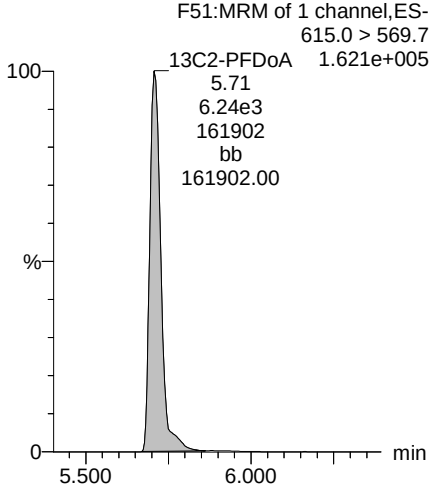
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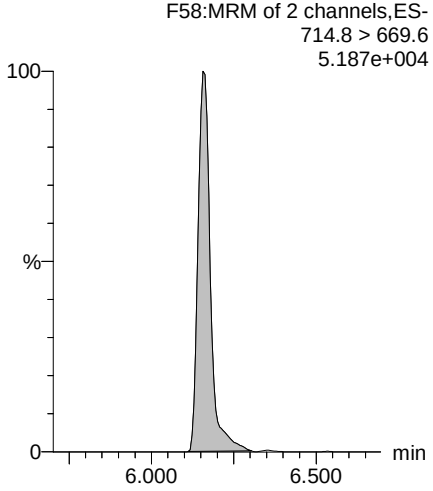
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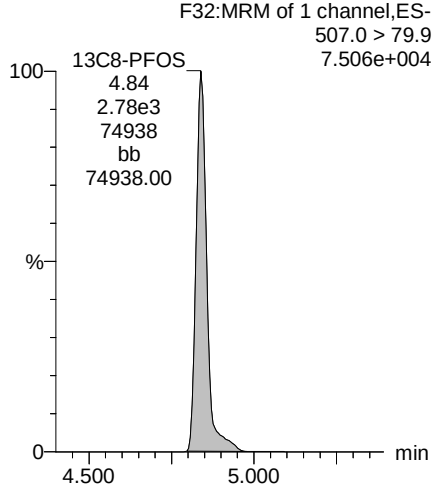
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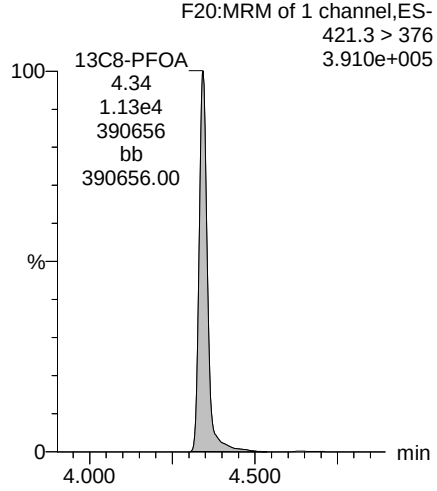
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13C8-PFOS



13C8-PFOA



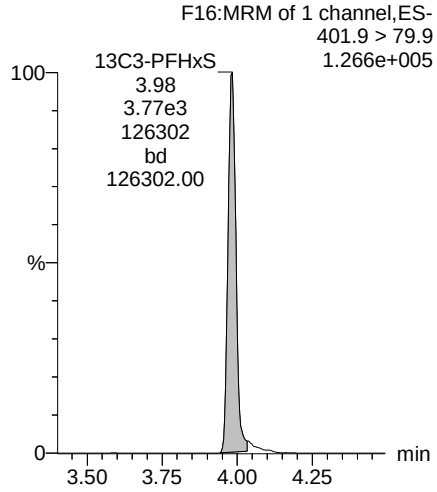
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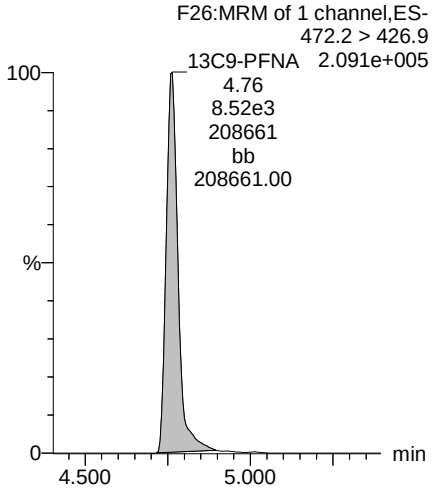
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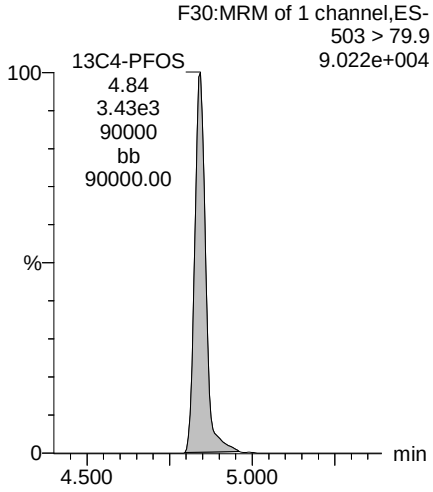
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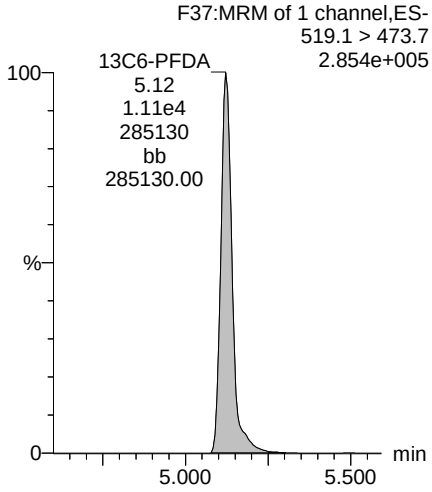
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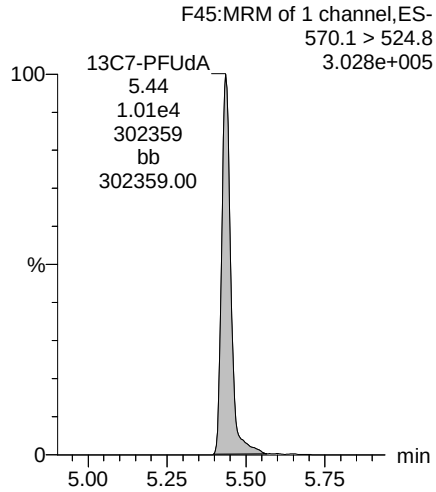
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

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Name: 171227M2_50, Date: 28-Dec-2017, Time: 02:33:25, ID: 1701829-08 FT-DUP02-20171130 0.26709, Description: FT-DUP02-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		3.60e3	0.267		2.70				
2	4	PFHxA	313.2 > 268.9		7.61e3	0.267		3.20				
3	5	PFHpA	363.0 > 318.9		2.00e4	0.267		3.80				
4	6	L-PFHxS	398.9 > 79.6	2.10e1	3.27e3	0.267		3.95	3.98	0.0805	0.2906	
5	9	L-PFOA	413 > 368.7	5.20e2	3.37e4	0.267		4.32	4.34	0.193		
6	12	PFNA	463.0 > 418.8		1.90e4	0.267		4.75				
7	14	L-PFOS	499 > 79.9		7.87e3	0.267		4.83				
8	16	PFDA	513 > 468.8		1.81e4	0.267		5.11				
9	18	N-MeFOSAA	570.1 > 419		1.01e4	0.267		5.26				
10	19	N-EtFOSAA	584.2 > 419		1.03e4	0.267		5.42				
11	20	PFUdA	563.0 > 518.9	1.50e2	2.31e4	0.267		5.43	5.43	0.0813		
12	22	PFDoA	612.9 > 569.0		1.57e4	0.267		5.70				

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Dataset: U:\Q4.PRO\results\171227M2\171227M2-50.qld

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Name: 171227M2_50, Date: 28-Dec-2017, Time: 02:33:25, ID: 1701829-08 FT-DUP02-20171130 0.26709, Description: FT-DUP02-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		1.57e4	0.267		5.95				
2	25	PFTeDA	712.9 > 668.8		3.52e3	0.267		6.16				
3	33	13C3-PFBS	302. > 98.8	3.60e3	3.01e4	0.267	0.101	2.70	2.75	1.49	55.1477	117.8
4	34	13C2-PFHxA	315 > 269.8	7.61e3	3.01e4	0.267	0.601	3.20	3.24	3.16	19.6852	105.2
5	35	13C4-PFHpA	367.2 > 321.8	2.00e4	3.01e4	0.267	0.676	3.80	3.84	8.29	45.8785	98.0
6	36	18O2-PFHxS	403.0 > 102.6	3.27e3	8.72e3	0.267	0.347	3.95	3.98	4.68	50.6204	108.2
7	37	13C2-6:2 FTS	429.1 > 408.9	7.05e3	2.97e4	0.267	0.210	4.26	4.29	2.97	52.9641	113.2
8	38	13C2-PFOA	414.9 > 369.7	3.37e4	2.97e4	0.267	0.990	4.32	4.34	14.2	53.6632	114.7
9	39	13C5-PFNA	468.2 > 422.9	1.90e4	2.52e4	0.267	0.845	4.75	4.76	9.39	41.5922	88.9
10	40	13C8-PFOSA	506.1 > 77.7	2.86e3	3.04e4	0.267	0.199	4.81	4.83	1.17	22.0445	47.1
11	41	13C8-PFOS	507.0 > 79.9	7.87e3	9.54e3	0.267	0.865	4.83	4.84	10.3	44.6409	95.4
12	42	13C2-PFDA	515.1 > 469.9	1.81e4	2.50e4	0.267	0.886	5.11	5.12	9.04	38.1841	81.6
13	43	13C2-8:2 FTS	529.1 > 508.7	3.67e3	3.01e4	0.267	0.136	5.09	5.10	1.52	42.0142	89.8
14	44	d3-N-MeFOSAA	573.3 > 419	1.01e4	3.04e4	0.267	0.409	5.26	5.26	4.15	37.9712	81.1
15	45	d5-N-EtFOSAA	589.3 > 419	1.03e4	3.04e4	0.267	0.474	5.42	5.41	4.24	33.5499	71.7
16	46	13C2-PFUdA	565 > 519.8	2.31e4	3.04e4	0.267	0.928	5.43	5.44	9.49	38.2788	81.8
17	47	13C2-PFDoA	615.0 > 569.7	1.57e4	3.04e4	0.267	0.636	5.70	5.71	6.47	38.0978	81.4
18	49	13C2-PFTeDA	714.8 > 669.6	3.52e3	3.04e4	0.267	0.163	6.16	6.16	1.45	33.2952	71.1
19	55	13C5-PFHxA	318 > 272.9	3.01e4	3.01e4	0.267	1.000	3.20	3.24	12.5	46.8007	100.0
20	56	13C3-PFHxS	401.9 > 79.9	8.72e3	8.72e3	0.267	1.000	3.95	3.98	12.5	46.8007	100.0
21	57	13C8-PFOA	421.3 > 376	2.97e4	2.97e4	0.267	1.000	4.32	4.34	12.5	46.8007	100.0
22	58	13C9-PFNA	472.2 > 426.9	2.52e4	2.52e4	0.267	1.000	4.75	4.76	12.5	46.8007	100.0
23	59	13C4-PFOS	503 > 79.9	9.54e3	9.54e3	0.267	1.000	4.83	4.84	12.5	46.8007	100.0
24	60	13C6-PFDA	519.1 > 473.7	2.50e4	2.50e4	0.267	1.000	5.11	5.12	12.5	46.8007	100.0
25	61	13C7-PFUdA	570.1 > 524.8	3.04e4	3.04e4	0.267	1.000	5.43	5.43	12.5	46.8007	100.0
26	62	Total PFHxS	398.9 > 79.6	2.10e1	3.27e3	0.267		4.00		0.0805	0.2906	
27	63	Total PFOA	413 > 368.7	5.20e2	3.37e4	0.267		4.30		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	7.87e3	0.267		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	1.01e4	0.267		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	1.03e4	0.267		5.40		0.000		

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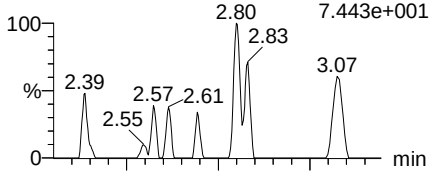
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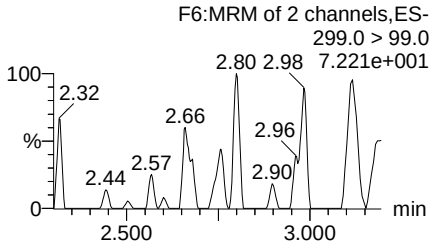
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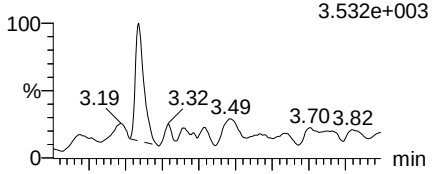
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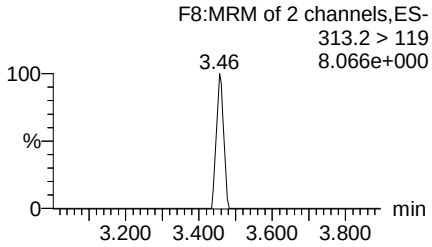
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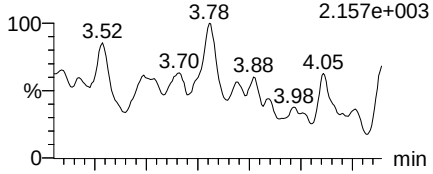


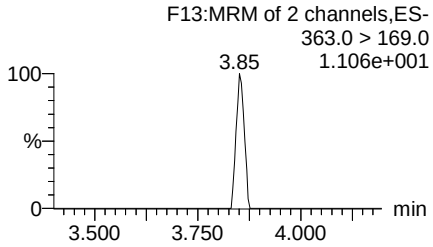
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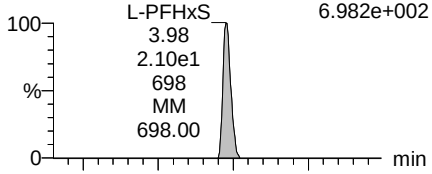


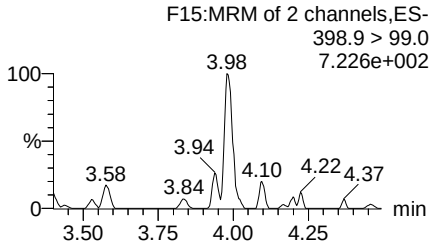
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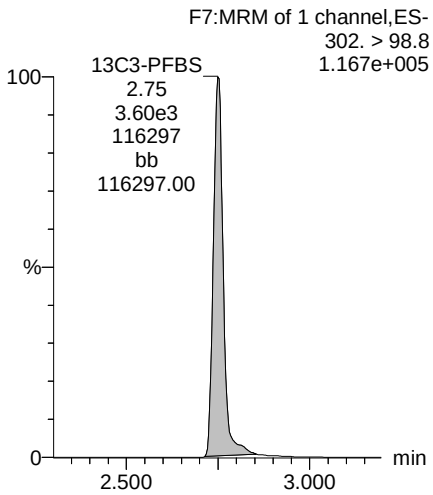


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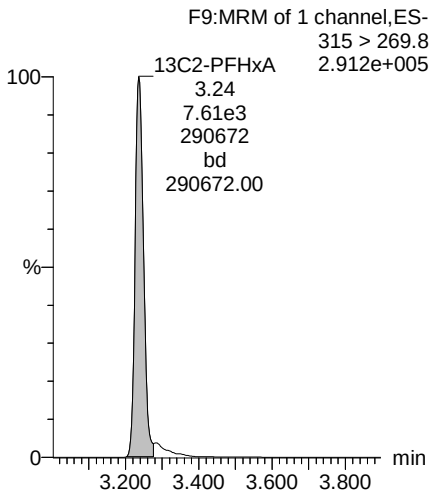




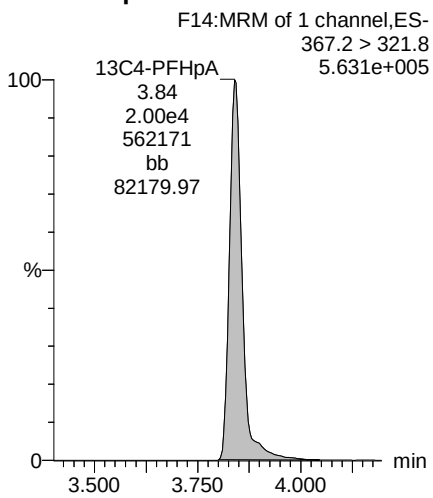
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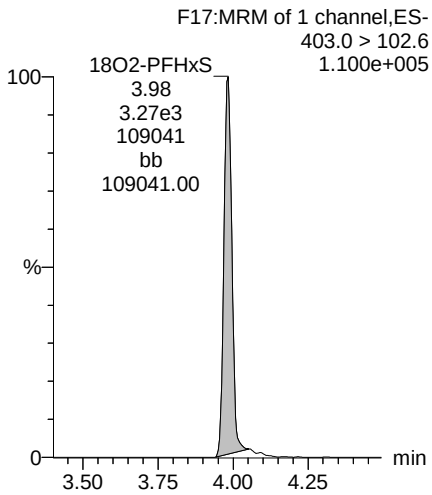
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13C4-PFHpA



18O2-PFHxS



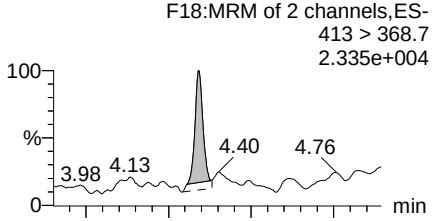
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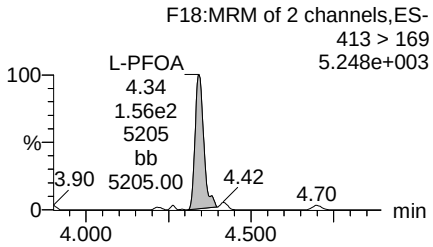
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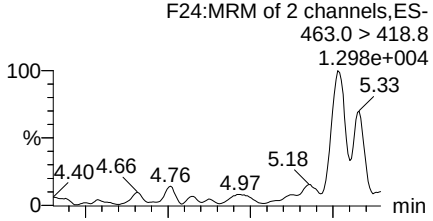
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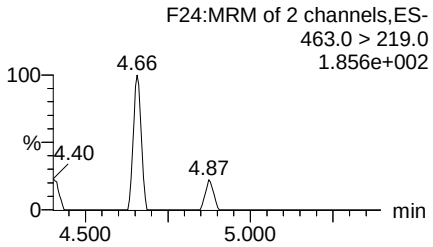
Total PFOA



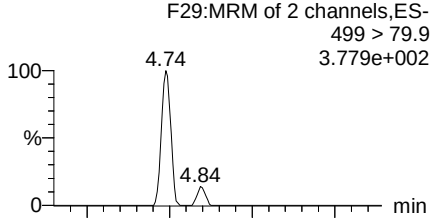


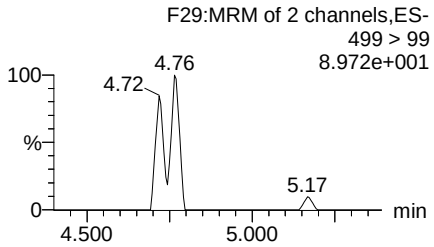
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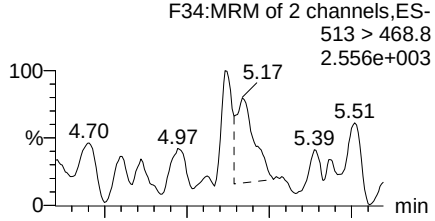


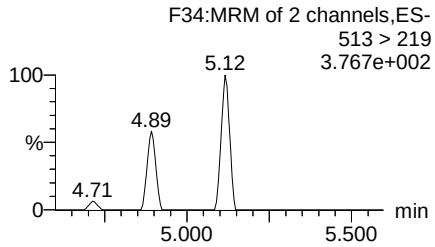
Total PFOS



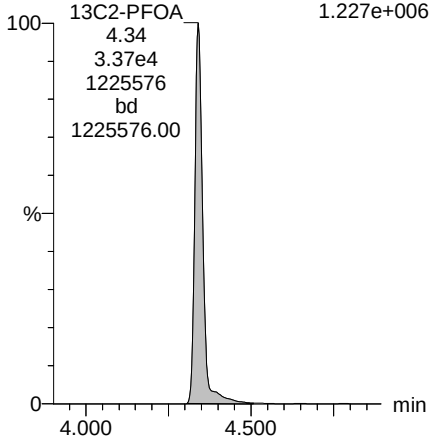


PFDA

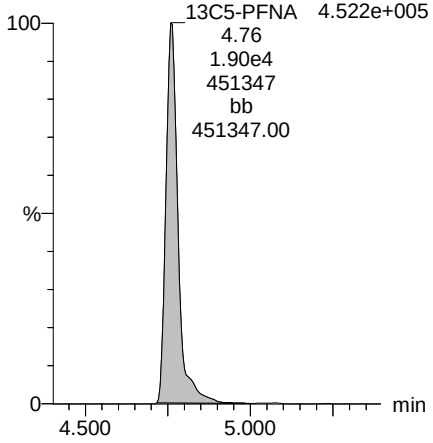




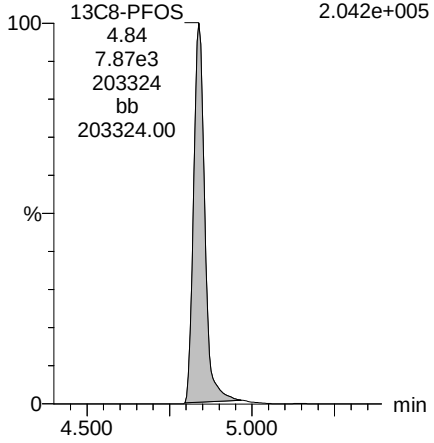
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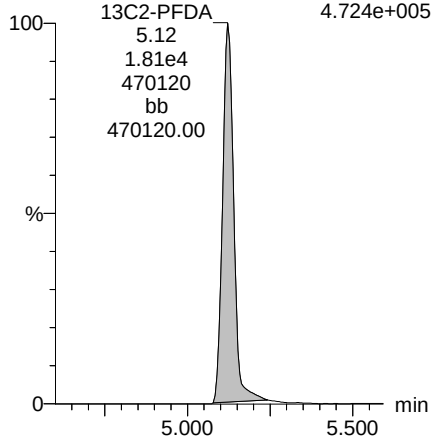
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13C8-PFOS



13C2-PFDA



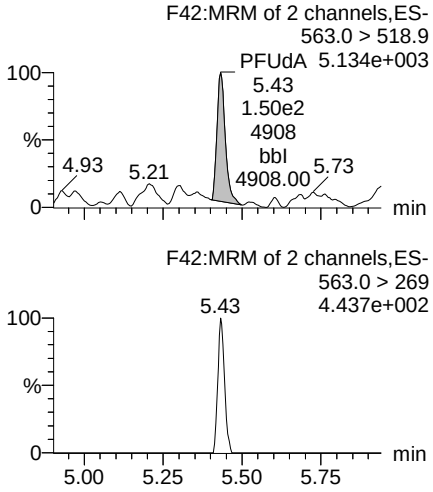
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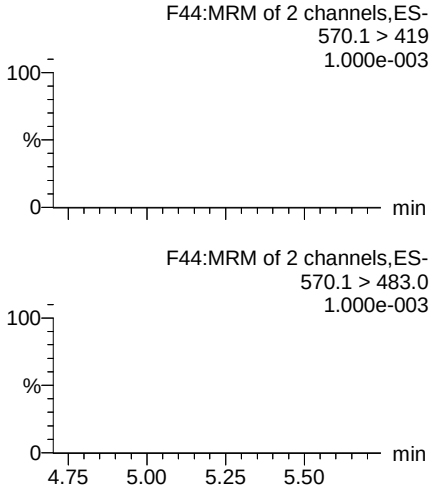
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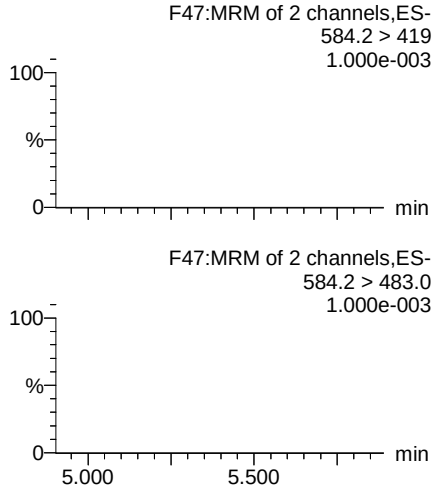
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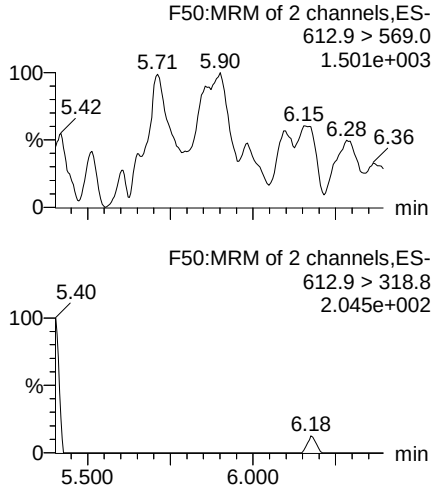
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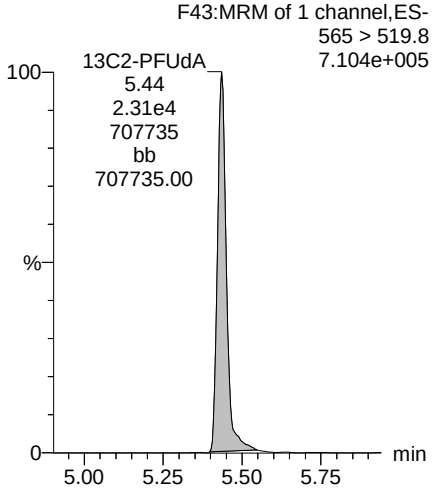
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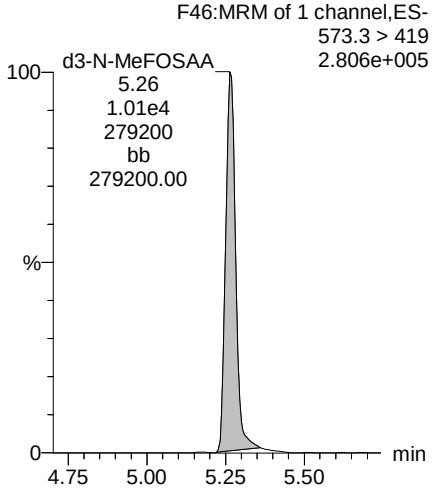
PFDoA



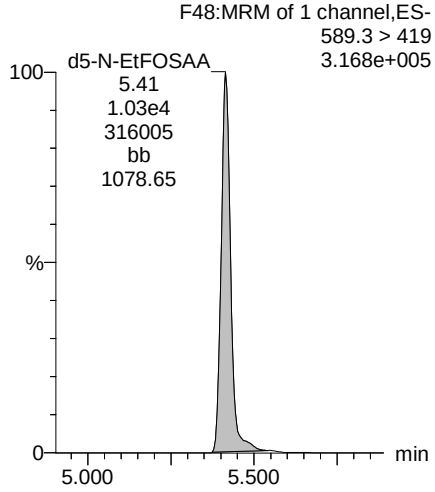
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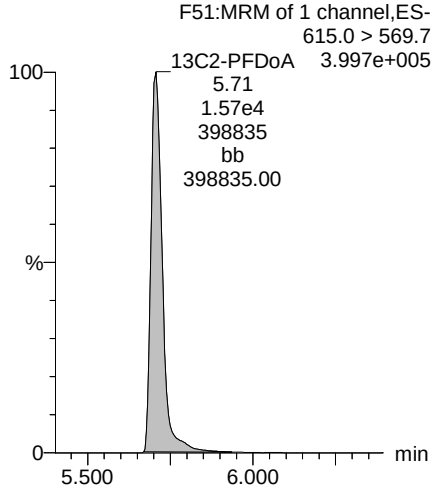
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



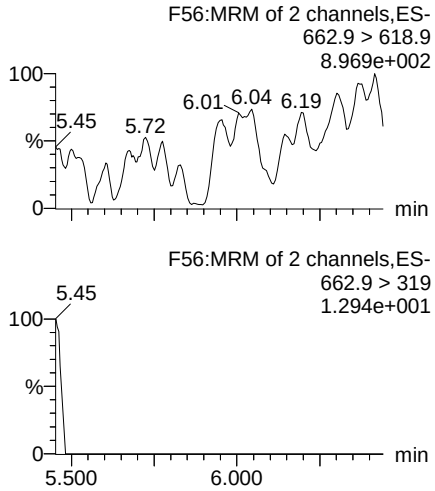
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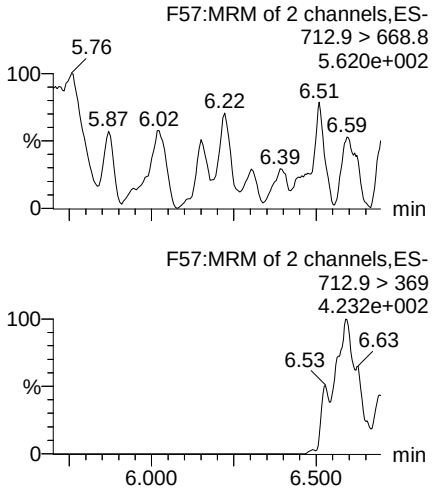
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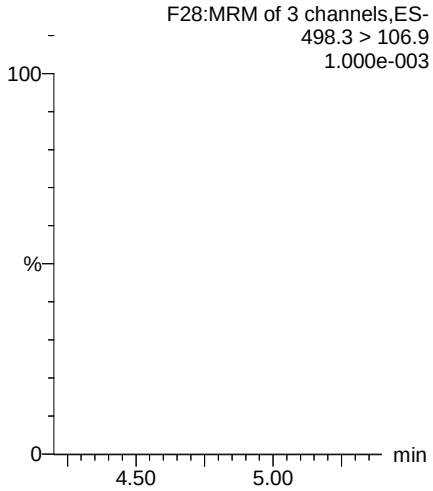
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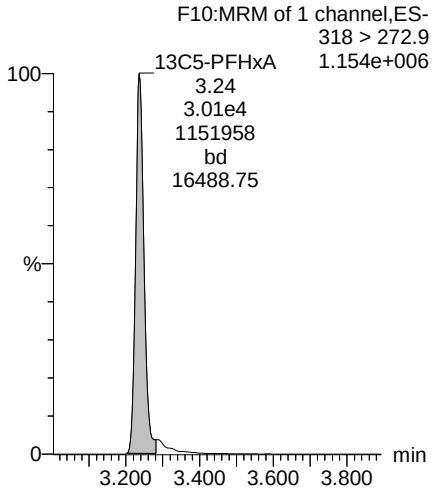
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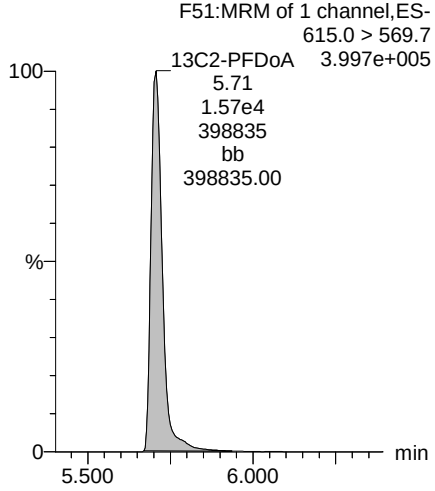
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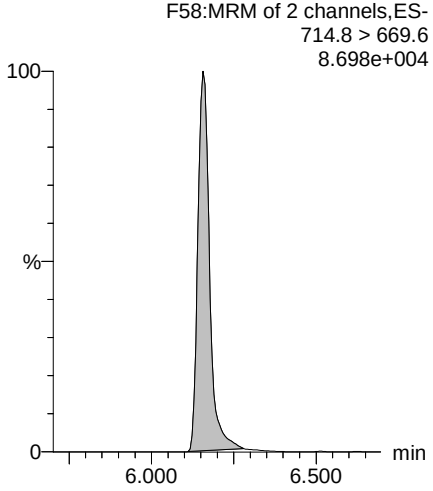
13C5-PFHxA



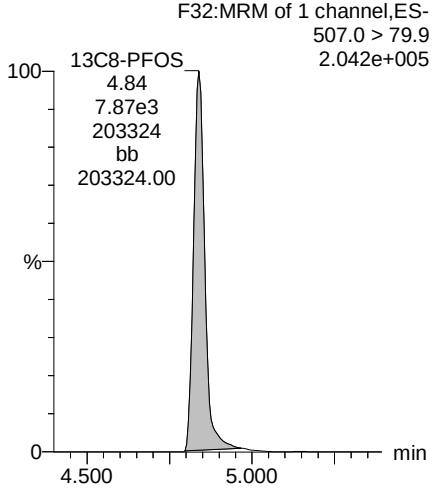
13C2-PFDoA



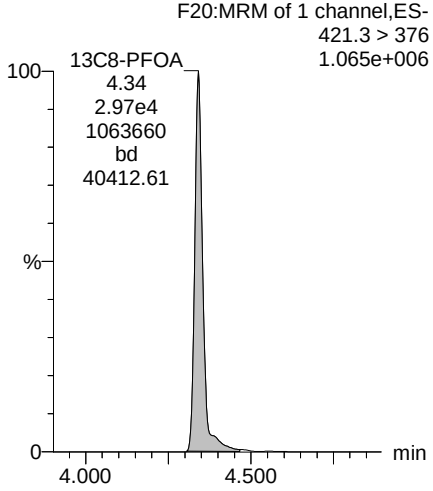
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



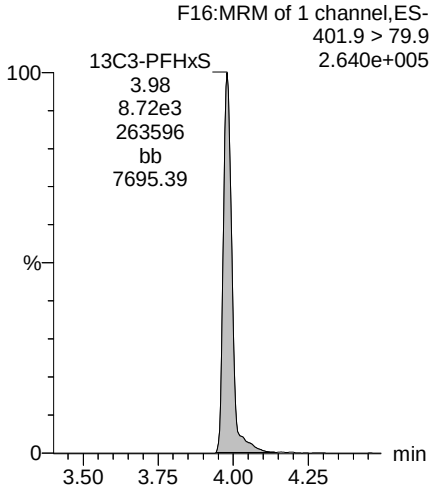
MSF 12/30/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-50.qld

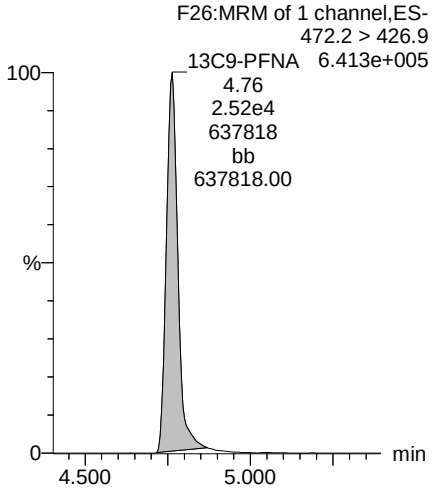
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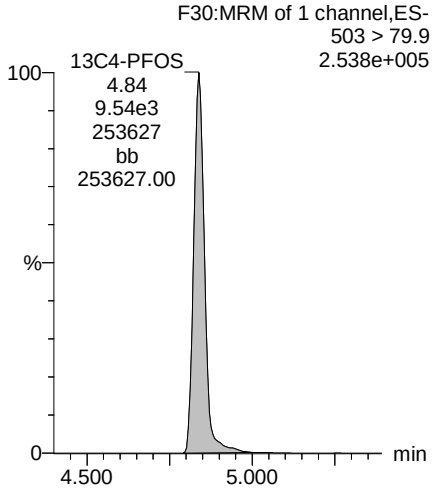
13C3-PFHxS



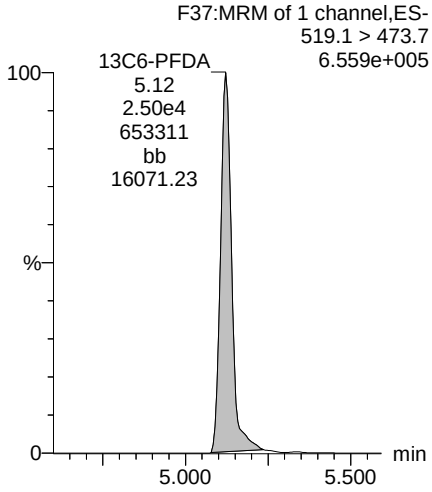
13C9-PFNA



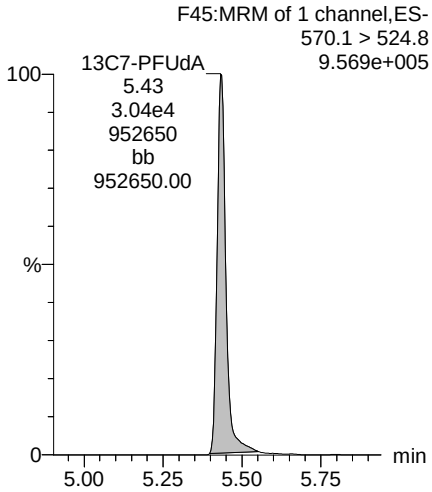
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-51.qld

Last Altered: Friday, December 29, 2017 12:23:05 Pacific Standard Time
Printed: Friday, December 29, 2017 12:23:57 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_51, Date: 28-Dec-2017, Time: 02:44:36, ID: 1701829-09 FT-MW02S-20171130 0.25878, Description: FT-MW02S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	1.87e2	1.35e3	0.259		2.70	2.72	1.74	3.6066	
2	4	PFHxA	313.2 > 268.9	1.23e4	3.27e3	0.259		3.20	3.21	18.9	35.8399	
3	5	PFHpA	363.0 > 318.9	5.53e3	8.54e3	0.259		3.80	3.83	8.09	19.2049	
4	6	L-PFHxS	398.9 > 79.6	2.13e4	1.07e3	0.259		3.95	3.97	250	451.1096	
5	9	L-PFOA	413 > 368.7	8.99e4	1.34e4	0.259		4.32	4.34	83.9	260.0840	
6	12	PFNA	463.0 > 418.8	1.50e5	1.02e4	0.259		4.75	4.76	183	451.0912	
7	14	L-PFOS	499 > 79.9	8.66e3	3.09e3	0.259		4.83	4.84	35.0	108.3660	
8	16	PFDA	513 > 468.8	3.44e3	8.76e3	0.259		5.11	5.12	4.92	12.5188	
9	18	N-MeFOSAA	570.1 > 419		3.64e3	0.259		5.26				
10	19	N-EtFOSAA	584.2 > 419		4.77e3	0.259		5.42				
11	20	PFUdA	563.0 > 518.9	4.19e4	1.04e4	0.259		5.43	5.44	50.3	179.8954	
12	22	PFDoA	612.9 > 569.0		8.45e3	0.259		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-51.qld

Last Altered: Friday, December 29, 2017 12:23:05 Pacific Standard Time
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Name: 171227M2_51, Date: 28-Dec-2017, Time: 02:44:36, ID: 1701829-09 FT-MW02S-20171130 0.25878, Description: FT-MW02S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		8.45e3	0.259		5.95				
2	25	PFTeDA	712.9 > 668.8		2.31e3	0.259		6.16				
3	33	13C3-PFBS	302. > 98.8	1.35e3	1.35e4	0.259	0.101	2.70	2.72	1.25	47.5194	98.4
4	34	13C2-PFHxA	315 > 269.8	3.27e3	1.35e4	0.259	0.601	3.20	3.21	3.03	19.4862	100.9
5	35	13C4-PFHpA	367.2 > 321.8	8.54e3	1.35e4	0.259	0.676	3.80	3.83	7.91	45.1990	93.6
6	36	18O2-PFHxS	403.0 > 102.6	1.07e3	3.43e3	0.259	0.347	3.95	3.97	3.89	43.3848	89.8
7	37	13C2-6:2 FTS	429.1 > 408.9	3.10e3	1.28e4	0.259	0.210	4.26	4.28	3.03	55.7321	115.4
8	38	13C2-PFOA	414.9 > 369.7	1.34e4	1.28e4	0.259	0.990	4.32	4.34	13.1	51.0019	105.6
9	39	13C5-PFNA	468.2 > 422.9	1.02e4	1.13e4	0.259	0.845	4.75	4.76	11.3	51.7132	107.1
10	40	13C8-PFOSA	506.1 > 77.7	1.63e3	1.27e4	0.259	0.199	4.81	4.83	1.61	31.1783	64.5
11	41	13C8-PFOS	507.0 > 79.9	3.09e3	3.93e3	0.259	0.865	4.83	4.84	9.85	43.9764	91.0
12	42	13C2-PFDA	515.1 > 469.9	8.76e3	1.00e4	0.259	0.886	5.11	5.12	10.9	47.6217	98.6
13	43	13C2-8:2 FTS	529.1 > 508.7	2.12e3	1.35e4	0.259	0.136	5.09	5.10	1.97	55.9154	115.8
14	44	d3-N-MeFOSAA	573.3 > 419	3.64e3	1.27e4	0.259	0.409	5.26	5.27	3.60	34.0294	70.4
15	45	d5-N-EtFOSAA	589.3 > 419	4.77e3	1.27e4	0.259	0.474	5.42	5.42	4.71	38.4219	79.5
16	46	13C2-PFUdA	565 > 519.8	1.04e4	1.27e4	0.259	0.928	5.43	5.44	10.3	42.8721	88.8
17	47	13C2-PFDoA	615.0 > 569.7	8.45e3	1.27e4	0.259	0.636	5.70	5.71	8.34	50.6925	104.9
18	49	13C2-PFTeDA	714.8 > 669.6	2.31e3	1.27e4	0.259	0.163	6.16	6.16	2.28	54.2208	112.3
19	55	13C5-PFHxA	318 > 272.9	1.35e4	1.35e4	0.259	1.000	3.20	3.21	12.5	48.3036	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.43e3	3.43e3	0.259	1.000	3.95	3.97	12.5	48.3036	100.0
21	57	13C8-PFOA	421.3 > 376	1.28e4	1.28e4	0.259	1.000	4.32	4.34	12.5	48.3036	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.13e4	1.13e4	0.259	1.000	4.75	4.76	12.5	48.3036	100.0
23	59	13C4-PFOS	503 > 79.9	3.93e3	3.93e3	0.259	1.000	4.83	4.84	12.5	48.3036	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.00e4	1.00e4	0.259	1.000	5.11	5.12	12.5	48.3036	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.27e4	1.27e4	0.259	1.000	5.43	5.44	12.5	48.3036	100.0
26	62	Total PFHxS	398.9 > 79.6	2.13e4	1.07e3	0.259		4.00		250	451.1096	
27	63	Total PFOA	413 > 368.7	9.43e4	1.34e4	0.259		4.30		88.0	272.1134	
28	64	Total PFOS	499 > 79.9	8.66e3	3.09e3	0.259		4.80		35.0	108.3660	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.64e3	0.259		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.77e3	0.259		5.40		0.000		

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Rev'd: MM 12/31/17

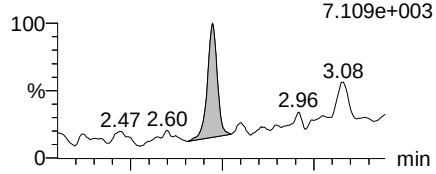
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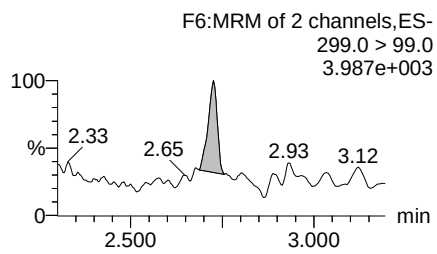
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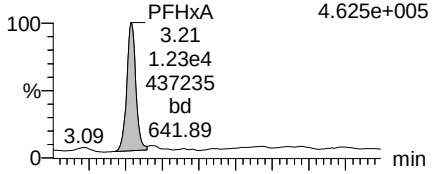
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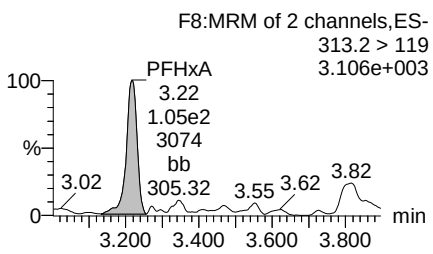
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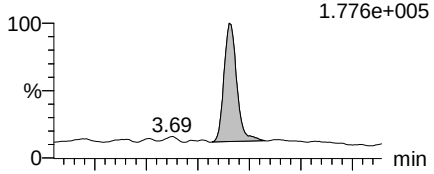


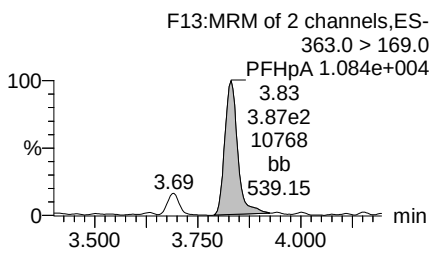
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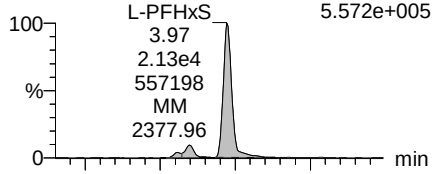


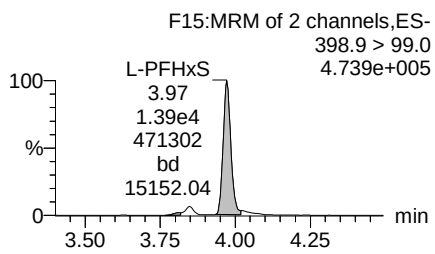
PFHpA



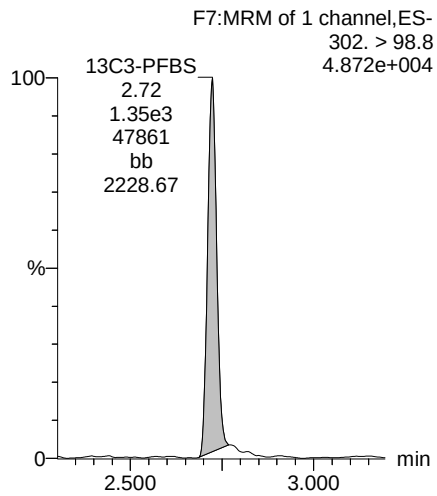


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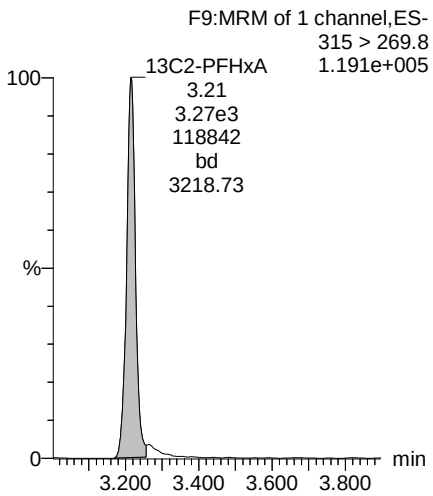




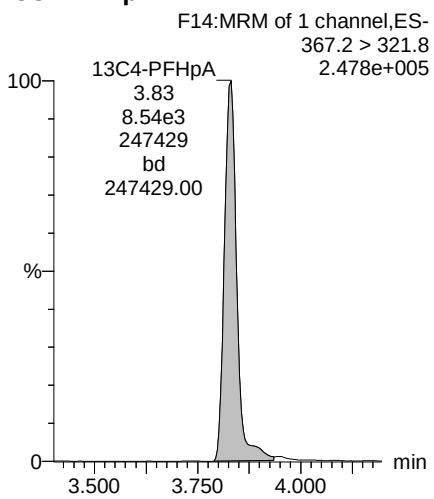
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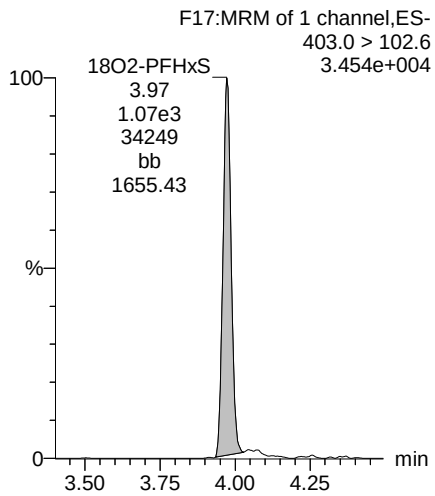
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13C4-PFHpA



18O2-PFHxS



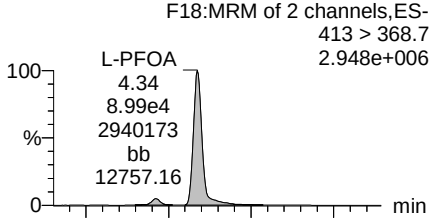
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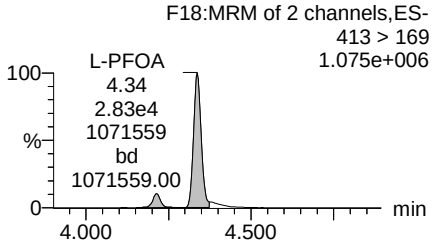
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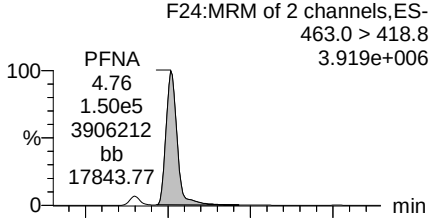
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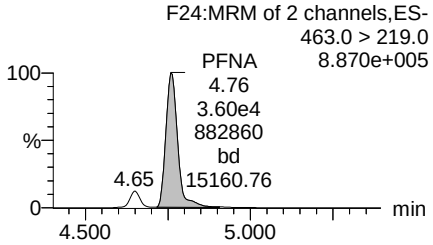
Total PFOA



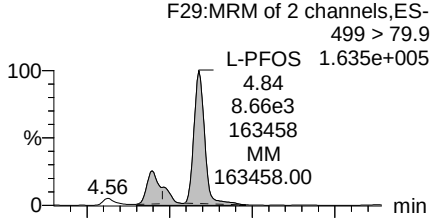


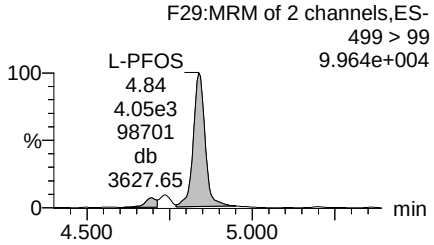
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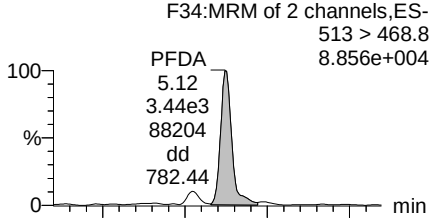


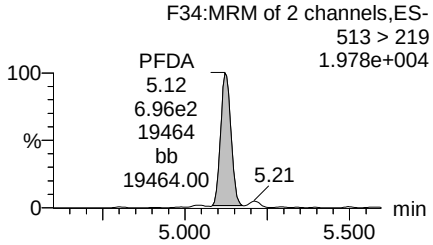
Total PFOS



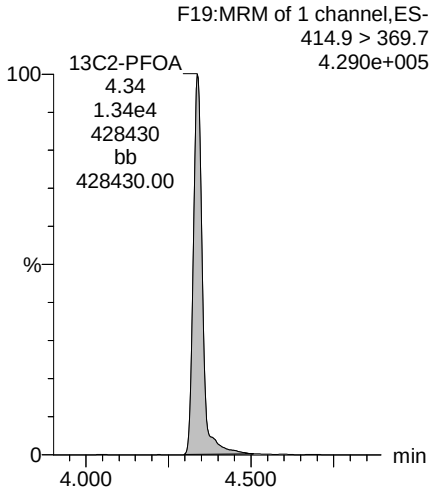


PFDA

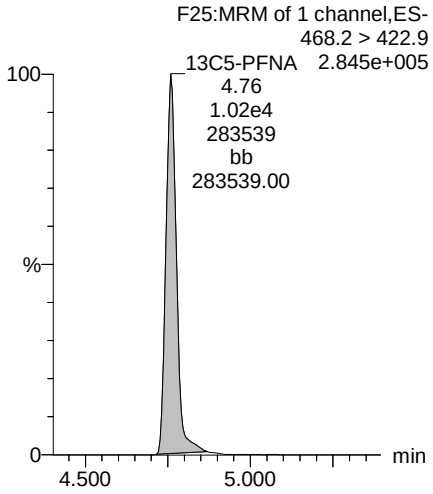




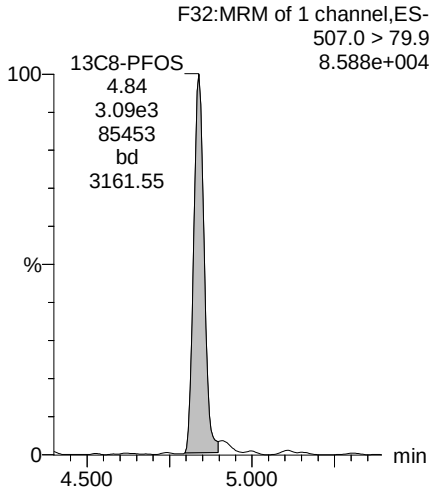
13C2-PFOA



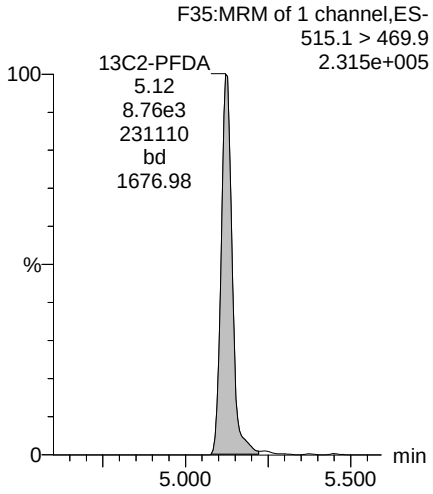
13C5-PFNA



13C8-PFOS



13C2-PFDA



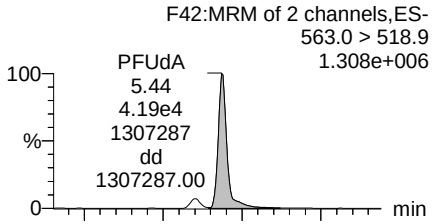
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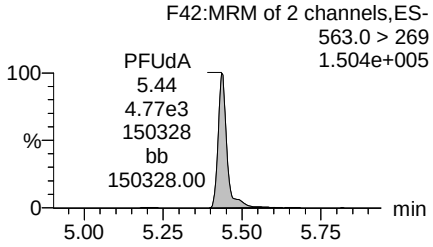
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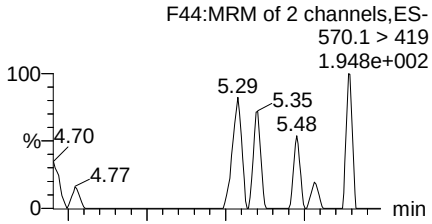
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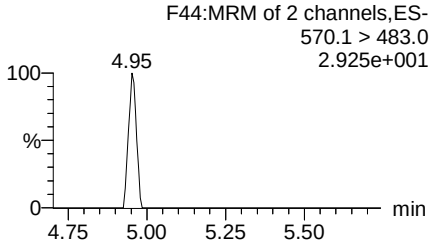
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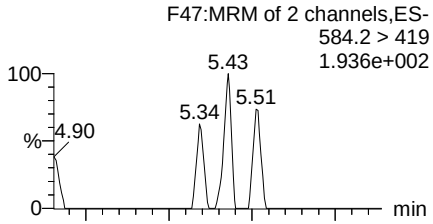


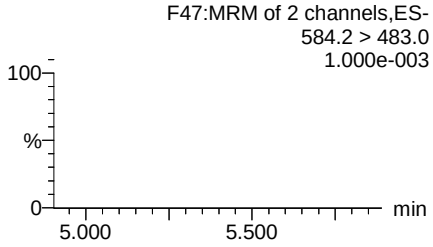
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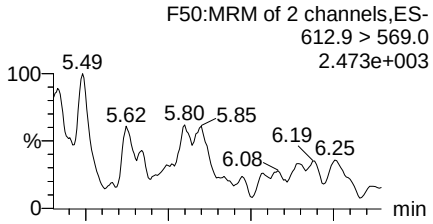


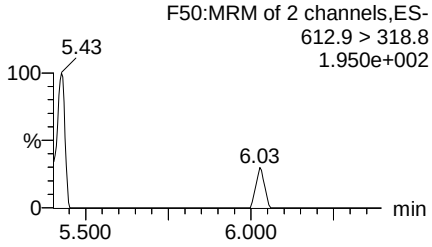
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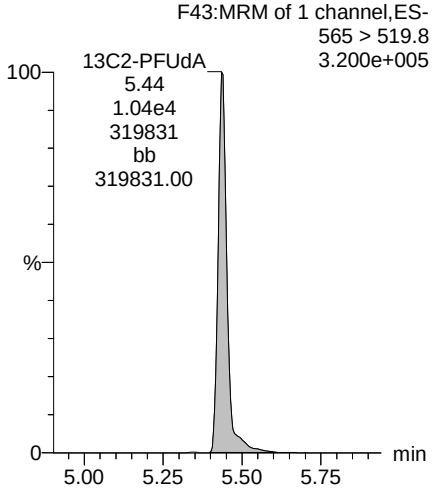


PFDoA

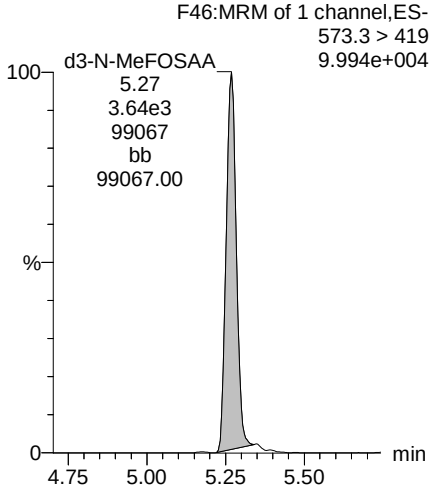




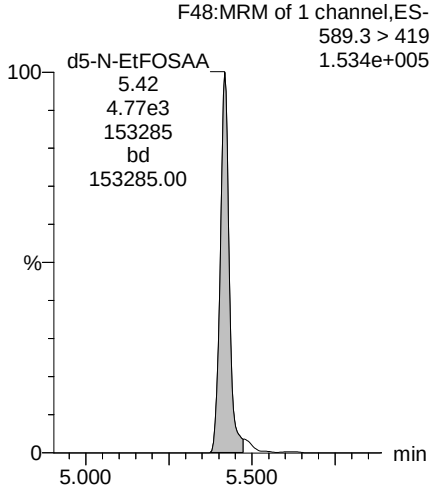
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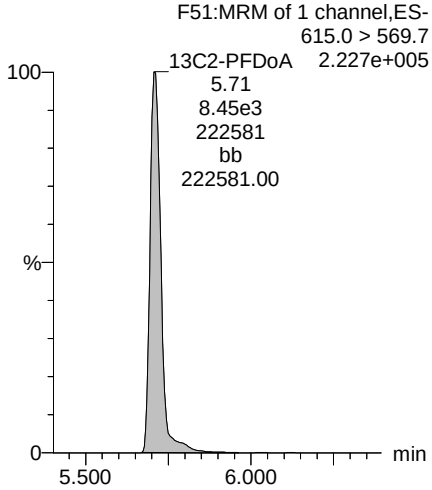
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



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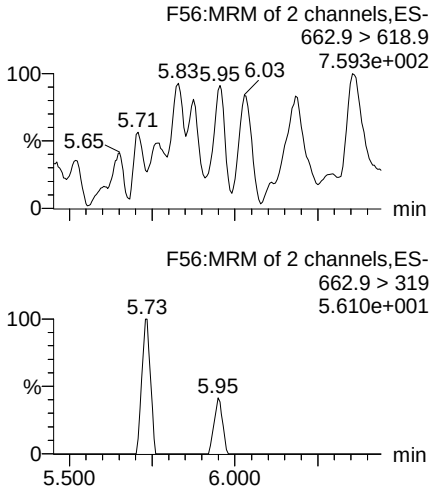
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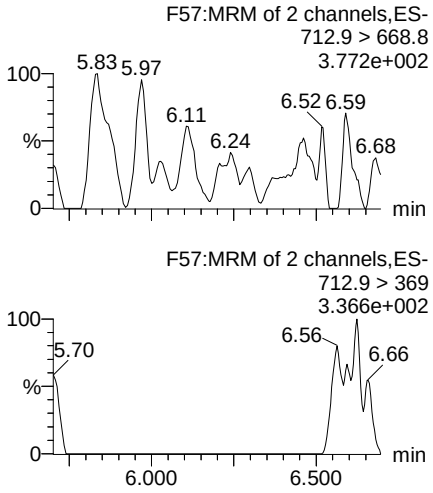
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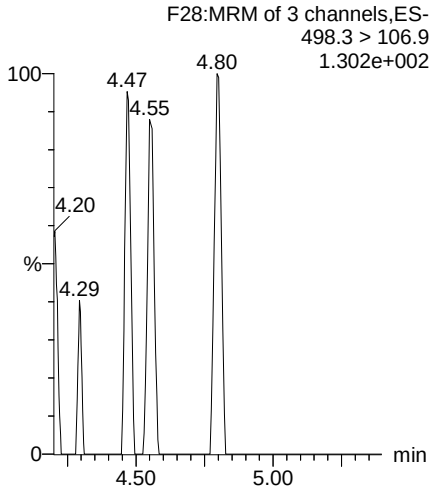
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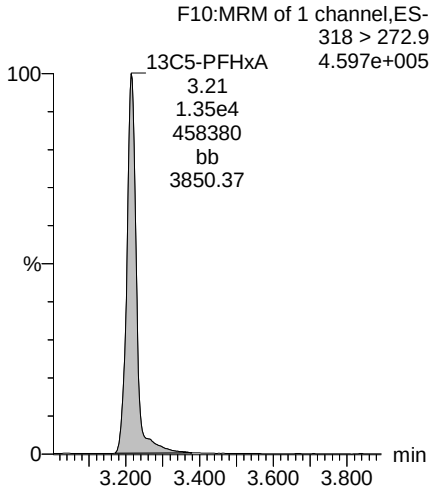
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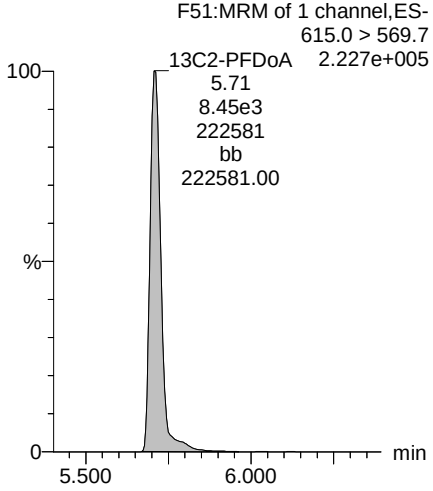
TCDA



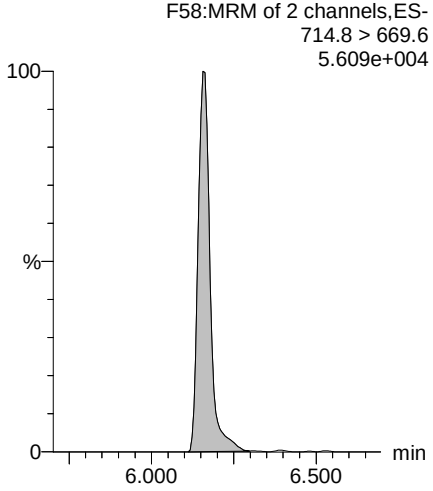
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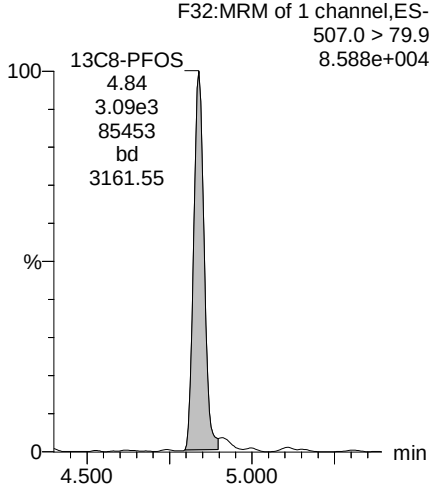
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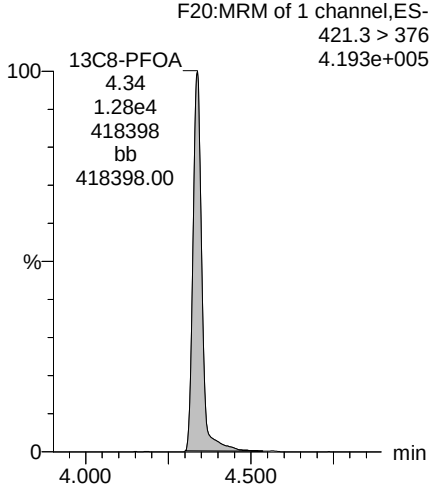
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13C8-PFOS



13C8-PFOA



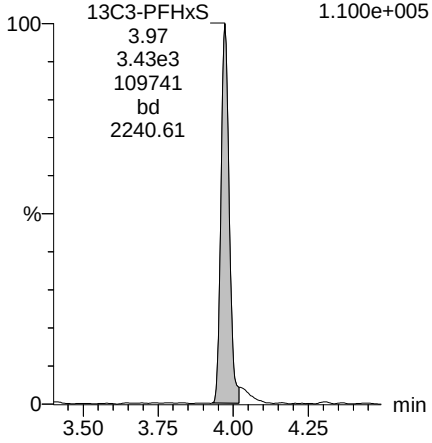
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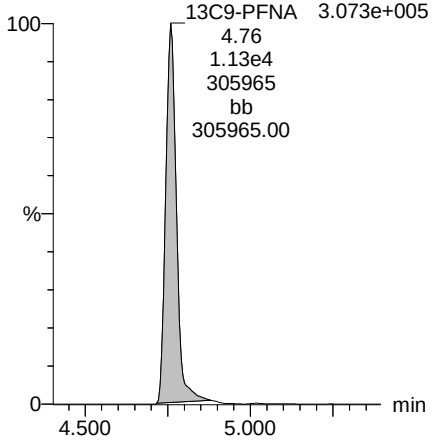
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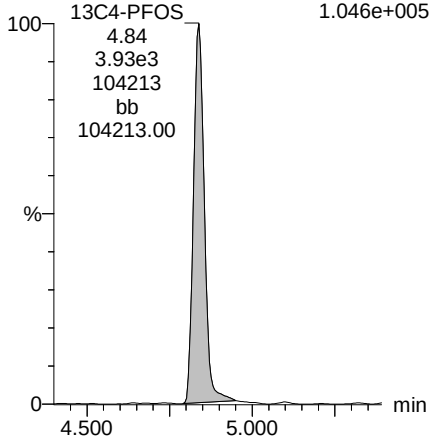
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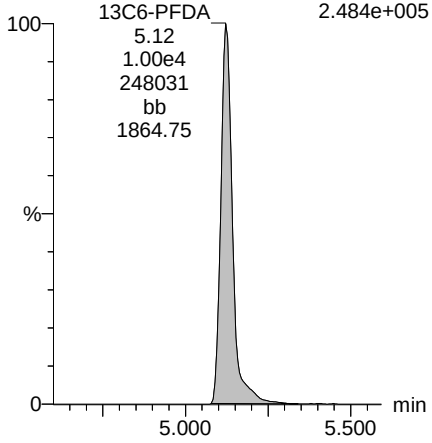
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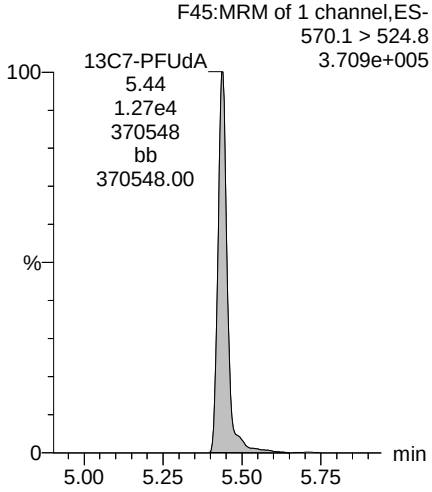
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13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-52.qld

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Printed: Friday, December 29, 2017 12:27:40 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_52, Date: 28-Dec-2017, Time: 02:55:47, ID: 1701829-10 FT-MW03S-20171130 0.26156, Description: FT-MW03S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	6.90e1	1.33e3	0.262		2.70	2.75	0.648	1.8498	
2	4	PFHxA	313.2 > 268.9	1.29e3	2.93e3	0.262		3.20	3.24	2.20	4.6552	
3	5	PFHpA	363.0 > 318.9	4.91e2	7.42e3	0.262		3.80	3.84	0.827	2.1332	
4	6	L-PFHxS	398.9 > 79.6	1.45e2	1.29e3	0.262		3.95	3.98	1.40	2.6515	
5	9	L-PFOA	413 > 368.7	1.26e3	1.16e4	0.262		4.32	4.34	1.36	3.3523	
6	12	PFNA	463.0 > 418.8	1.71e3	7.36e3	0.262		4.75	4.76	2.91	7.2858	
7	14	L-PFOS	499 > 79.9	2.70e2	3.54e3	0.262		4.83	4.84	0.954	3.0400	
8	16	PFDA	513 > 468.8		8.13e3	0.262		5.11				
9	18	N-MeFOSAA	570.1 > 419		3.95e3	0.262		5.26				
10	19	N-EtFOSAA	584.2 > 419		3.93e3	0.262		5.42				
11	20	PFUdA	563.0 > 518.9		9.18e3	0.262		5.43				
12	22	PFDoA	612.9 > 569.0		5.43e3	0.262		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-52.qld

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Name: 171227M2_52, Date: 28-Dec-2017, Time: 02:55:47, ID: 1701829-10 FT-MW03S-20171130 0.26156, Description: FT-MW03S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		5.43e3	0.262		5.95				
2	25	PFTeDA	712.9 > 668.8		2.34e3	0.262		6.16				
3	33	13C3-PFBS	302. > 98.8	1.33e3	1.20e4	0.262	0.101	2.70	2.75	1.39	52.3210	109.5
4	34	13C2-PFHxA	315 > 269.8	2.93e3	1.20e4	0.262	0.601	3.20	3.23	3.05	19.4102	101.5
5	35	13C4-PFHpA	367.2 > 321.8	7.42e3	1.20e4	0.262	0.676	3.80	3.84	7.73	43.6792	91.4
6	36	18O2-PFHxS	403.0 > 102.6	1.29e3	3.74e3	0.262	0.347	3.95	3.98	4.33	47.7744	100.0
7	37	13C2-6:2 FTS	429.1 > 408.9	2.76e3	1.31e4	0.262	0.210	4.26	4.29	2.63	47.9291	100.3
8	38	13C2-PFOA	414.9 > 369.7	1.16e4	1.31e4	0.262	0.990	4.32	4.34	11.0	42.6097	89.2
9	39	13C5-PFNA	468.2 > 422.9	7.36e3	1.04e4	0.262	0.845	4.75	4.76	8.88	40.1930	84.1
10	40	13C8-PFOSA	506.1 > 77.7	1.30e3	1.15e4	0.262	0.199	4.81	4.83	1.41	27.0195	56.5
11	41	13C8-PFOS	507.0 > 79.9	3.54e3	3.34e3	0.262	0.865	4.83	4.84	13.2	58.4807	122.4
12	42	13C2-PFDA	515.1 > 469.9	8.13e3	9.67e3	0.262	0.886	5.11	5.12	10.5	45.3479	94.9
13	43	13C2-8:2 FTS	529.1 > 508.7	1.40e3	1.20e4	0.262	0.136	5.09	5.10	1.45	40.9024	85.6
14	44	d3-N-MeFOSAA	573.3 > 419	3.95e3	1.15e4	0.262	0.409	5.26	5.26	4.29	40.1592	84.0
15	45	d5-N-EtFOSAA	589.3 > 419	3.93e3	1.15e4	0.262	0.474	5.42	5.41	4.26	34.4167	72.0
16	46	13C2-PFUdA	565 > 519.8	9.18e3	1.15e4	0.262	0.928	5.43	5.44	9.97	41.0581	85.9
17	47	13C2-PFDoA	615.0 > 569.7	5.43e3	1.15e4	0.262	0.636	5.70	5.71	5.89	35.4251	74.1
18	49	13C2-PFTeDA	714.8 > 669.6	2.34e3	1.15e4	0.262	0.163	6.16	6.16	2.54	59.7087	124.9
19	55	13C5-PFHxA	318 > 272.9	1.20e4	1.20e4	0.262	1.000	3.20	3.23	12.5	47.7902	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.74e3	3.74e3	0.262	1.000	3.95	3.98	12.5	47.7902	100.0
21	57	13C8-PFOA	421.3 > 376	1.31e4	1.31e4	0.262	1.000	4.32	4.34	12.5	47.7902	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.04e4	1.04e4	0.262	1.000	4.75	4.76	12.5	47.7902	100.0
23	59	13C4-PFOS	503 > 79.9	3.34e3	3.34e3	0.262	1.000	4.83	4.84	12.5	47.7902	100.0
24	60	13C6-PFDA	519.1 > 473.7	9.67e3	9.67e3	0.262	1.000	5.11	5.12	12.5	47.7902	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.15e4	1.15e4	0.262	1.000	5.43	5.44	12.5	47.7902	100.0
26	62	Total PFHxS	398.9 > 79.6	1.45e2	1.29e3	0.262		4.00		1.40	2.6515	
27	63	Total PFOA	413 > 368.7	1.43e3	1.16e4	0.262		4.30		1.36	3.3523	
28	64	Total PFOS	499 > 79.9	2.70e2	3.54e3	0.262		4.80		0.954	3.0400	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.95e3	0.262		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.93e3	0.262		5.40		0.000		

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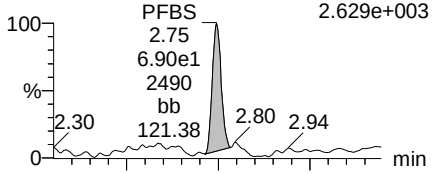
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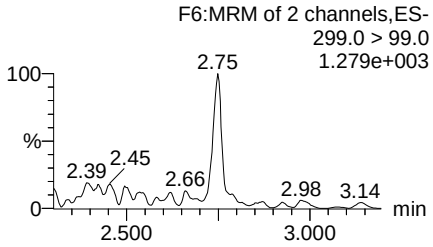
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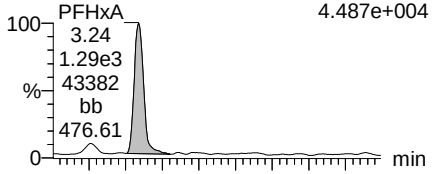
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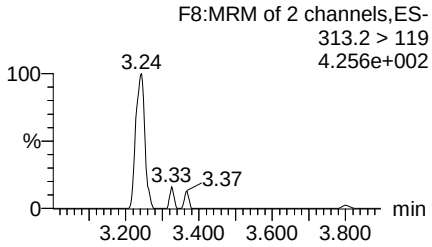
PFBS



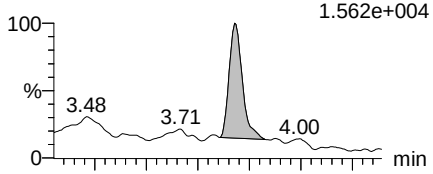


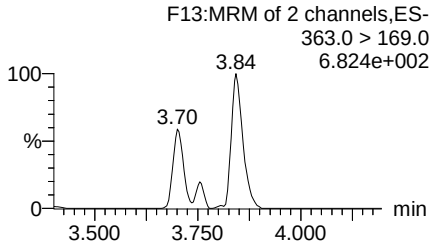
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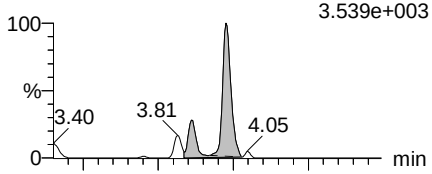


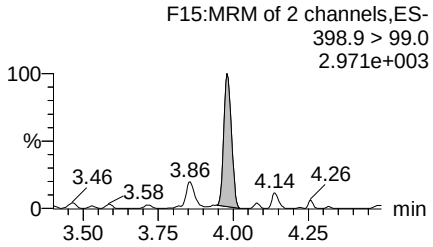
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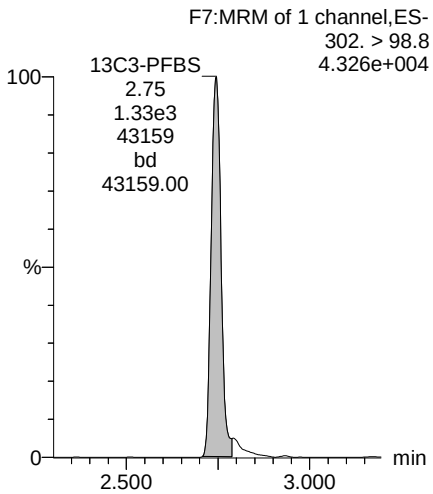


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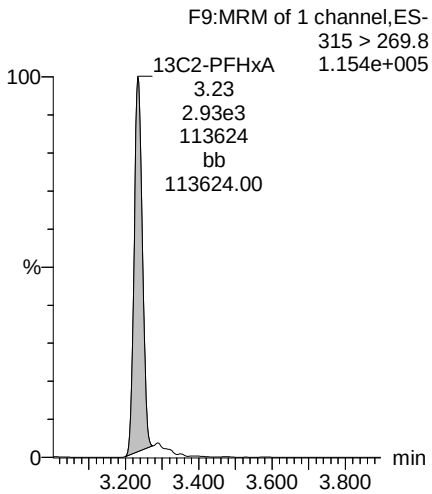




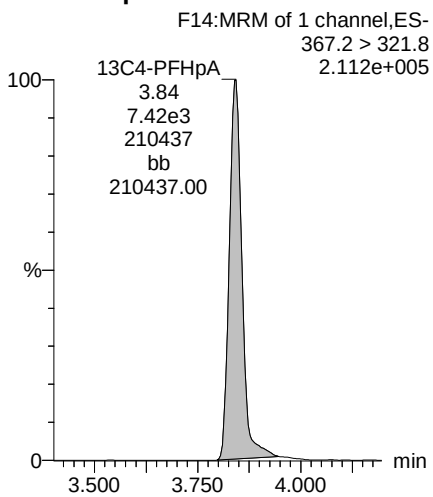
13C3-PFBS



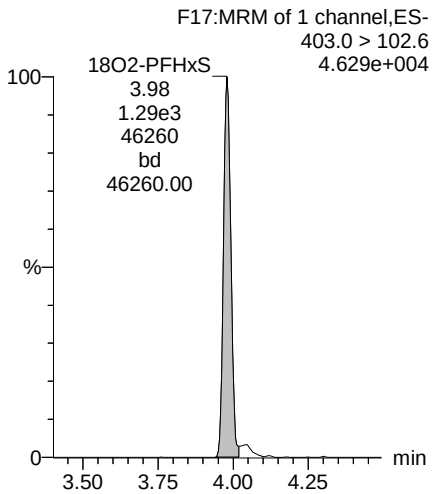
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13C4-PFHpA



18O2-PFHxS



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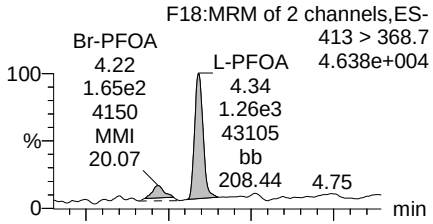
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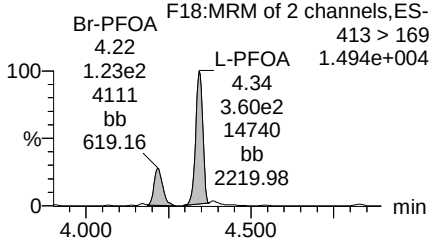
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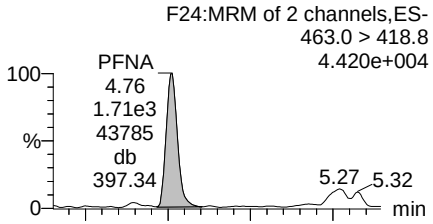
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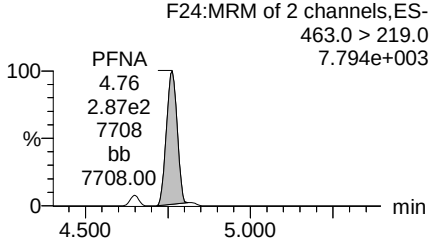
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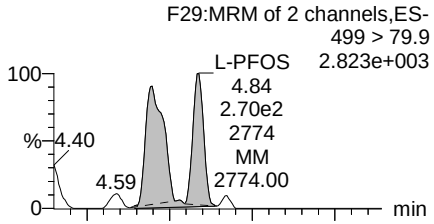


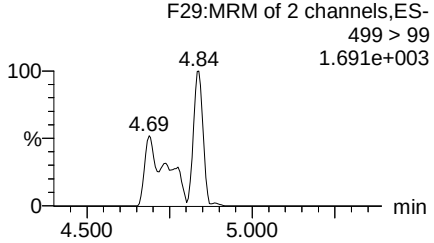
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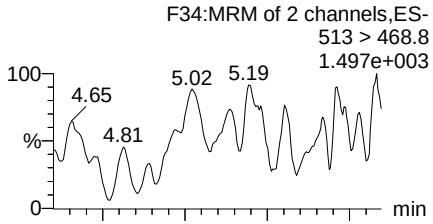


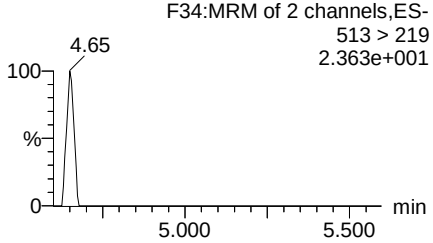
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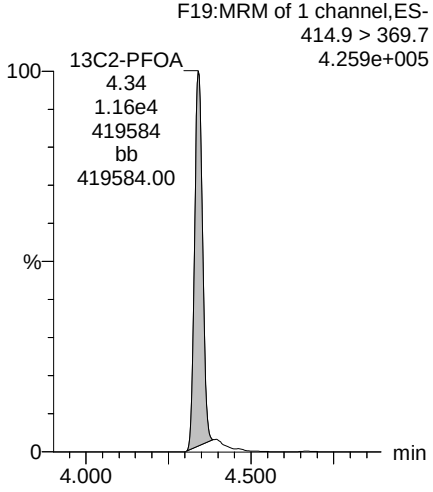


PFDA

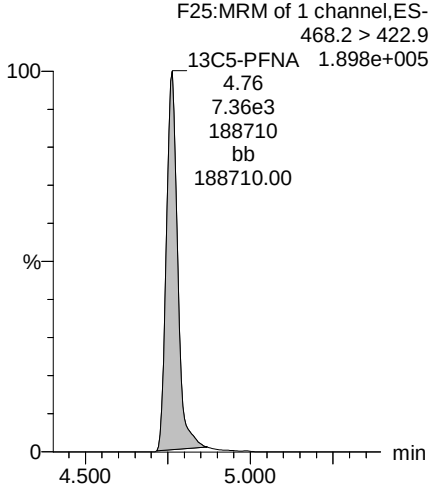




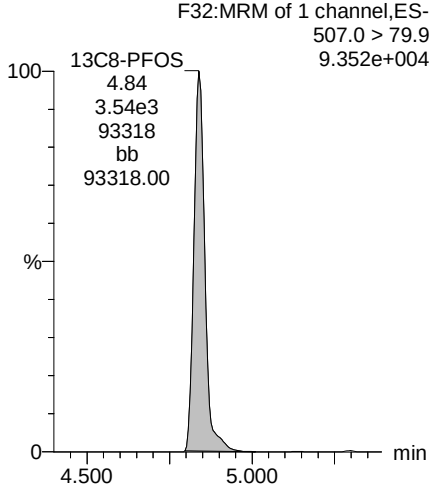
13C2-PFOA



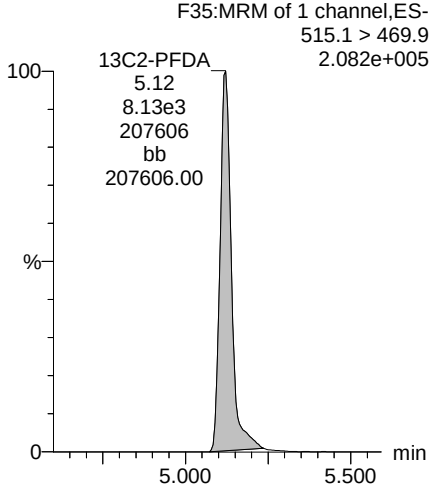
13C5-PFNA



13C8-PFOS



13C2-PFDA



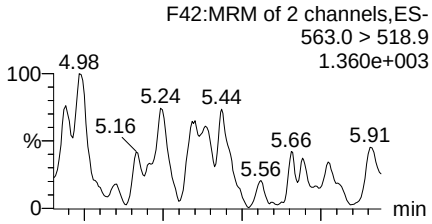
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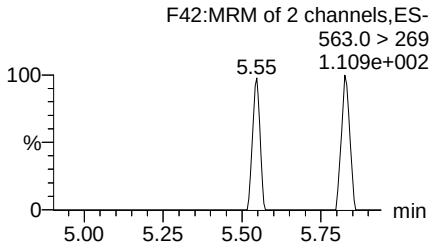
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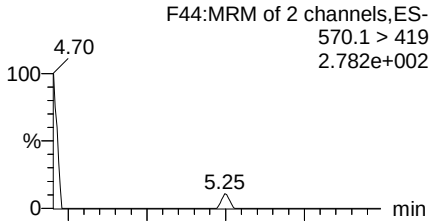
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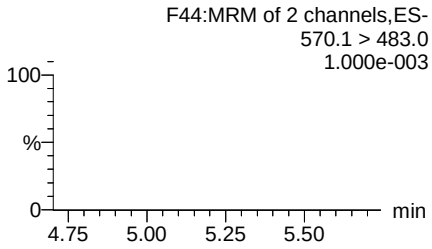
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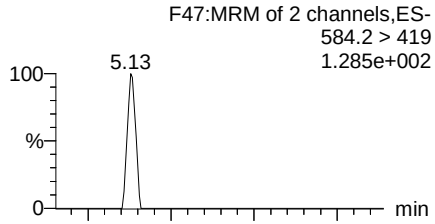


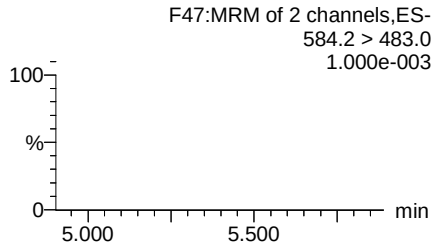
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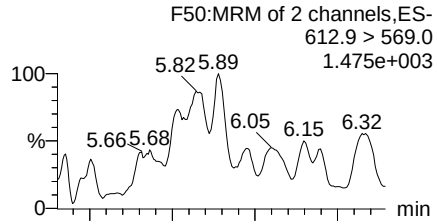


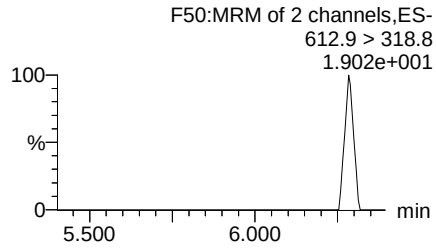
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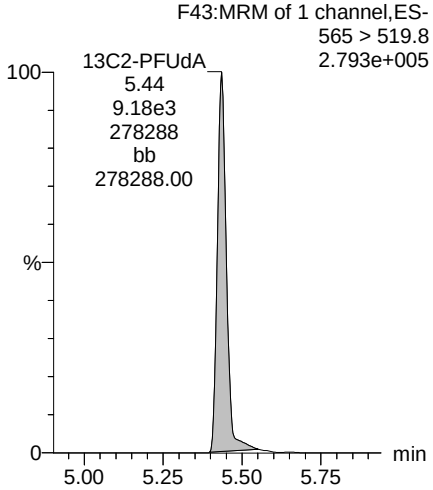


PFDoA

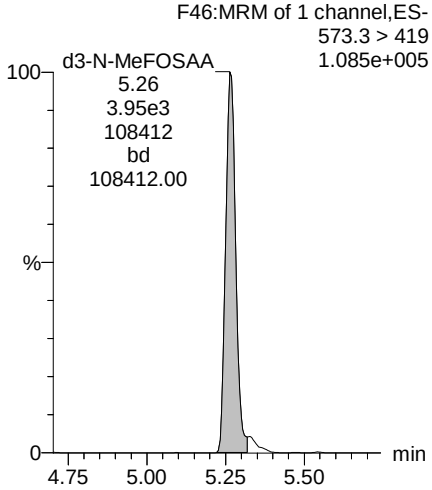




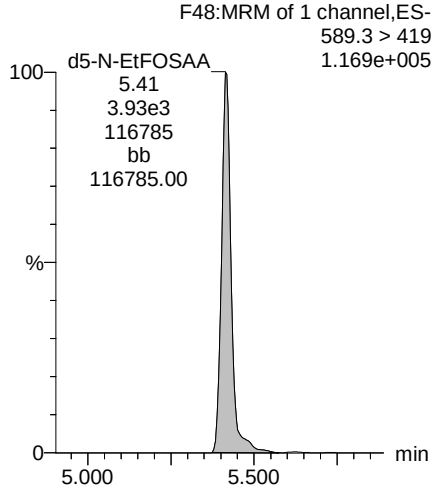
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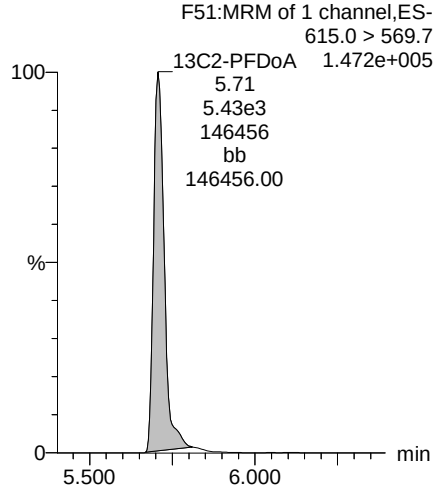
d3-N-MeFOSAA



d5-N-EtFOSAA



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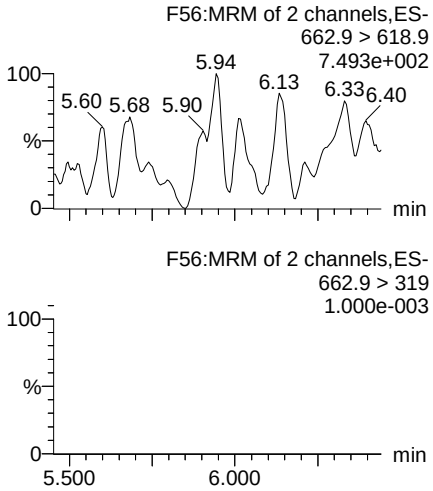
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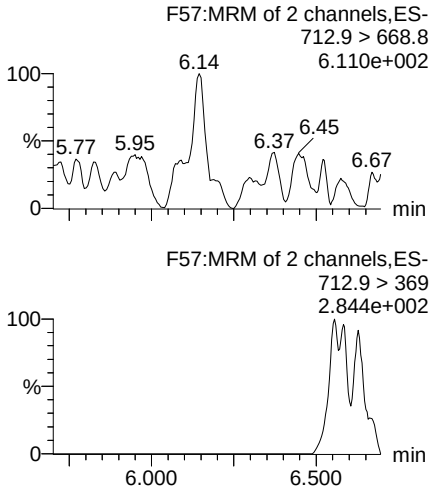
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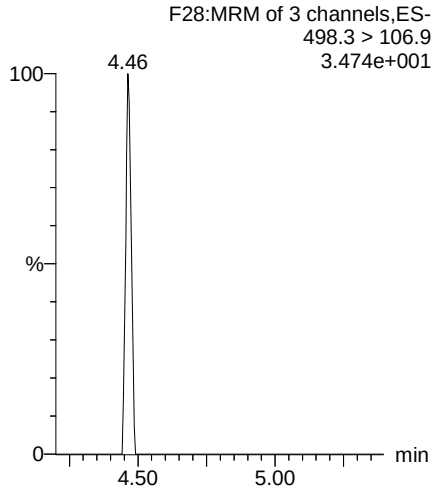
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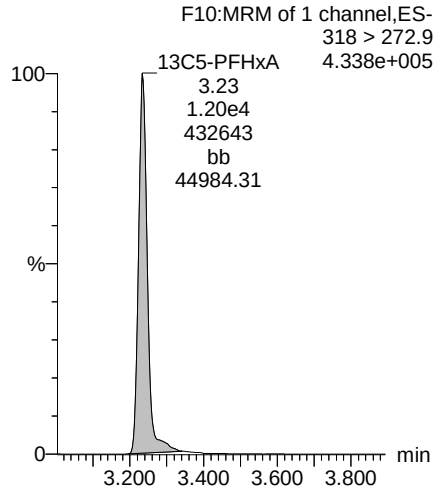
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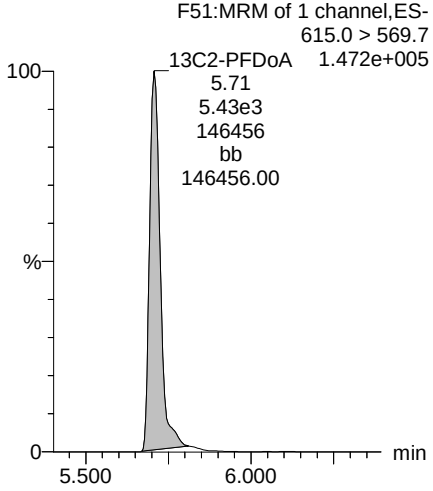
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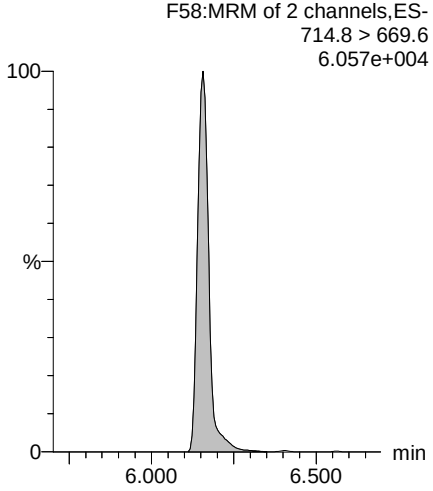
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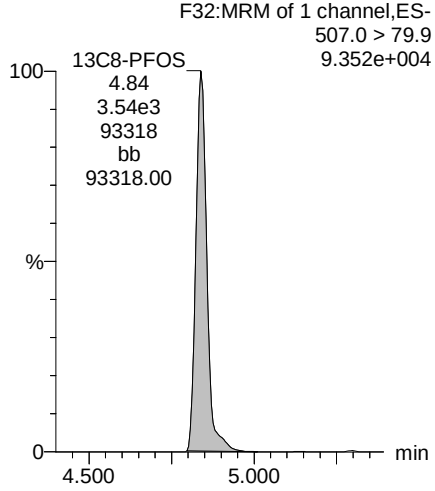
13C2-PFDoA



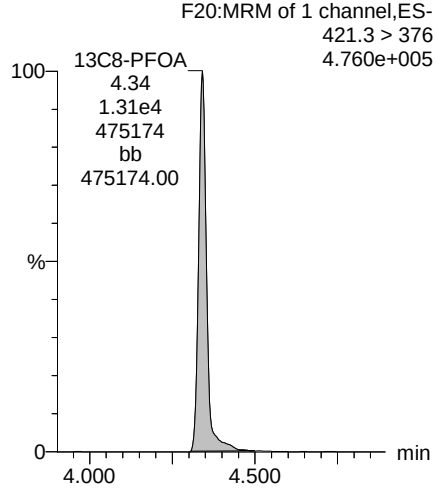
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



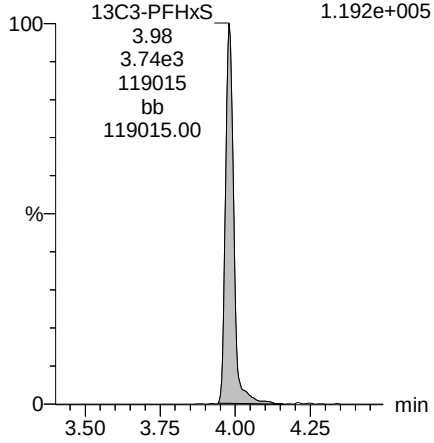
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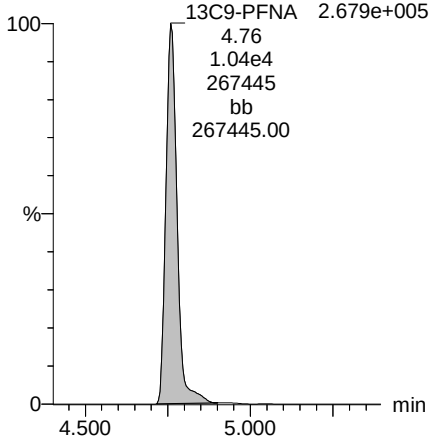
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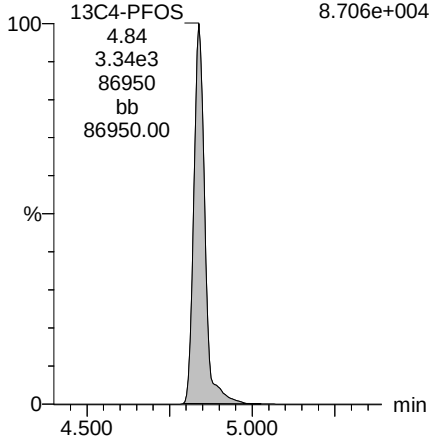
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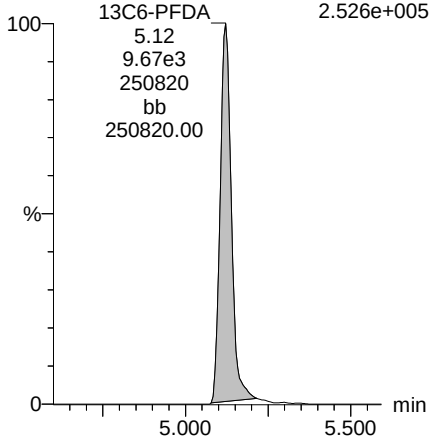
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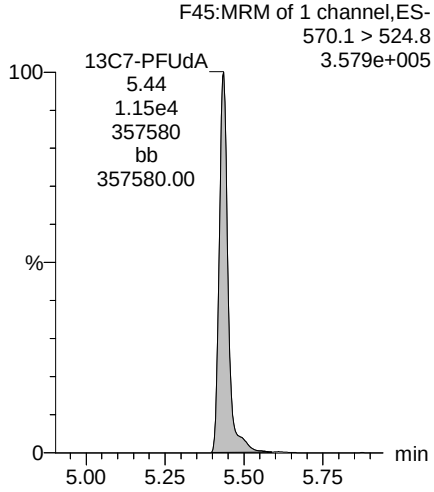
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13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171227M2\171227M2-53.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_53, Date: 28-Dec-2017, Time: 03:06:58, ID: 1701829-11 FT-MW09I-20171130 0.25118, Description: FT-MW09I-20171130

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1	3	PFBS	299.0 > 79.7	2.00e1	1.44e3	0.251		2.70	2.75	0.174	1.1479	
2	4	PFHxA	313.2 > 268.9	8.07e2	3.21e3	0.251		3.20	3.24	1.26	3.0791	
3	5	PFHpA	363.0 > 318.9	3.10e2	8.63e3	0.251		3.80	3.84	0.448	1.3048	
4	6	L-PFHxS	398.9 > 79.6	1.11e2	1.18e3	0.251		3.95	3.98	1.18	2.3548	
5	9	L-PFOA	413 > 368.7	1.48e3	1.21e4	0.251		4.32	4.34	1.54	4.0482	
6	12	PFNA	463.0 > 418.8	3.46e2	7.67e3	0.251		4.75	4.76	0.565	1.4984	
7	14	L-PFOS	499 > 79.9	6.74e0	2.88e3	0.251		4.83	4.84	0.0293	0.1960	
8	16	PFDA	513 > 468.8		8.41e3	0.251		5.11				
9	18	N-MeFOSAA	570.1 > 419		4.10e3	0.251		5.26				
10	19	N-EtFOSAA	584.2 > 419		4.00e3	0.251		5.42				
11	20	PFUdA	563.0 > 518.9		9.92e3	0.251		5.43				
12	22	PFDoA	612.9 > 569.0		7.07e3	0.251		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-53.qld

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Name: 171227M2_53, Date: 28-Dec-2017, Time: 03:06:58, ID: 1701829-11 FT-MW09I-20171130 0.25118, Description: FT-MW09I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		7.07e3	0.251		5.95				
2	25	PFTeDA	712.9 > 668.8		2.61e3	0.251		6.16				
3	33	13C3-PFBS	302. > 98.8	1.44e3	1.13e4	0.251	0.101	2.70	2.75	1.59	62.3743	125.3
4	34	13C2-PFHxA	315 > 269.8	3.21e3	1.13e4	0.251	0.601	3.20	3.24	3.54	23.4502	117.8
5	35	13C4-PFHpA	367.2 > 321.8	8.63e3	1.13e4	0.251	0.676	3.80	3.84	9.52	56.0531	112.6
6	36	18O2-PFHxS	403.0 > 102.6	1.18e3	3.70e3	0.251	0.347	3.95	3.98	3.97	45.5794	91.6
7	37	13C2-6:2 FTS	429.1 > 408.9	2.76e3	1.07e4	0.251	0.210	4.26	4.29	3.21	60.8883	122.4
8	38	13C2-PFOA	414.9 > 369.7	1.21e4	1.07e4	0.251	0.990	4.32	4.34	14.0	56.4721	113.5
9	39	13C5-PFNA	468.2 > 422.9	7.67e3	1.07e4	0.251	0.845	4.75	4.76	8.98	42.3206	85.0
10	40	13C8-PFOSA	506.1 > 77.7	8.68e2	1.08e4	0.251	0.199	4.81	4.83	1.01	20.1211	40.4
11	41	13C8-PFOS	507.0 > 79.9	2.88e3	3.48e3	0.251	0.865	4.83	4.84	10.3	47.5274	95.5
12	42	13C2-PFDA	515.1 > 469.9	8.41e3	1.23e4	0.251	0.886	5.11	5.12	8.56	38.4773	77.3
13	43	13C2-8:2 FTS	529.1 > 508.7	1.54e3	1.13e4	0.251	0.136	5.09	5.10	1.70	49.6969	99.9
14	44	d3-N-MeFOSAA	573.3 > 419	4.10e3	1.08e4	0.251	0.409	5.26	5.27	4.77	46.4177	93.3
15	45	d5-N-EtFOSAA	589.3 > 419	4.00e3	1.08e4	0.251	0.474	5.42	5.42	4.64	39.0029	78.4
16	46	13C2-PFUdA	565 > 519.8	9.92e3	1.08e4	0.251	0.928	5.43	5.44	11.5	49.3728	99.2
17	47	13C2-PFDoA	615.0 > 569.7	7.07e3	1.08e4	0.251	0.636	5.70	5.71	8.21	51.3875	103.3
18	49	13C2-PFTeDA	714.8 > 669.6	2.61e3	1.08e4	0.251	0.163	6.16	6.16	3.03	74.1078	148.9
19	55	13C5-PFHxA	318 > 272.9	1.13e4	1.13e4	0.251	1.000	3.20	3.24	12.5	49.7651	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.70e3	3.70e3	0.251	1.000	3.95	3.98	12.5	49.7651	100.0
21	57	13C8-PFOA	421.3 > 376	1.07e4	1.07e4	0.251	1.000	4.32	4.34	12.5	49.7651	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.07e4	1.07e4	0.251	1.000	4.75	4.76	12.5	49.7651	100.0
23	59	13C4-PFOS	503 > 79.9	3.48e3	3.48e3	0.251	1.000	4.83	4.84	12.5	49.7651	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.23e4	1.23e4	0.251	1.000	5.11	5.12	12.5	49.7651	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.08e4	1.08e4	0.251	1.000	5.43	5.44	12.5	49.7651	100.0
26	62	Total PFHxS	398.9 > 79.6	1.11e2	1.18e3	0.251		4.00		1.18	2.3548	
27	63	Total PFOA	413 > 368.7	1.66e3	1.21e4	0.251		4.30		1.54	4.0482	
28	64	Total PFOS	499 > 79.9	6.74e0	2.88e3	0.251		4.80		0.0293	0.1960	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	4.10e3	0.251		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.00e3	0.251		5.40		0.000		

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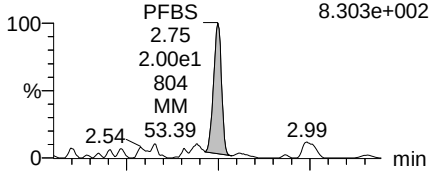
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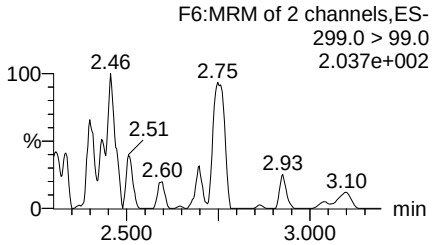
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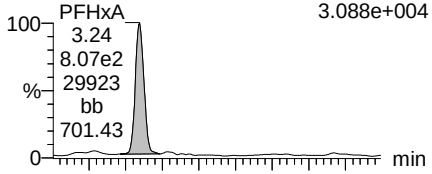
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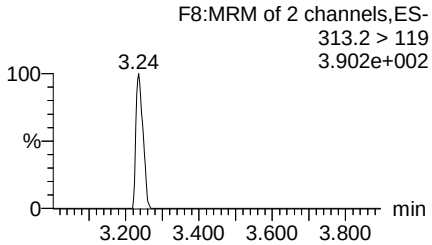
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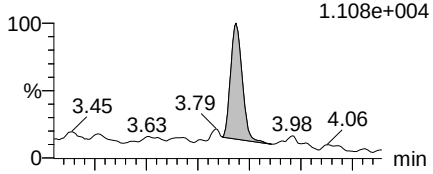


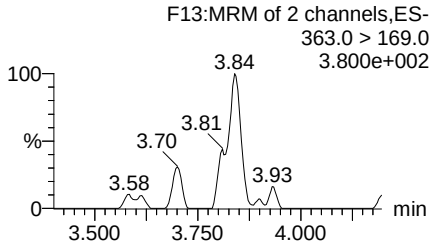
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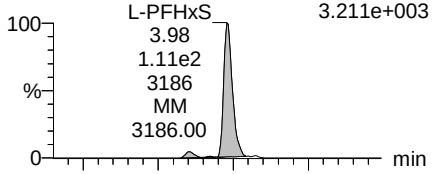


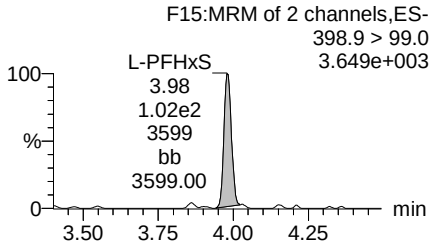
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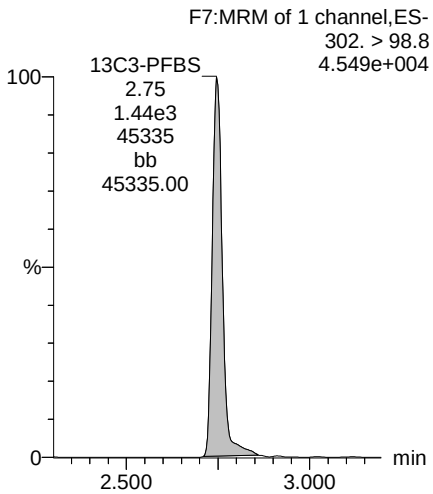


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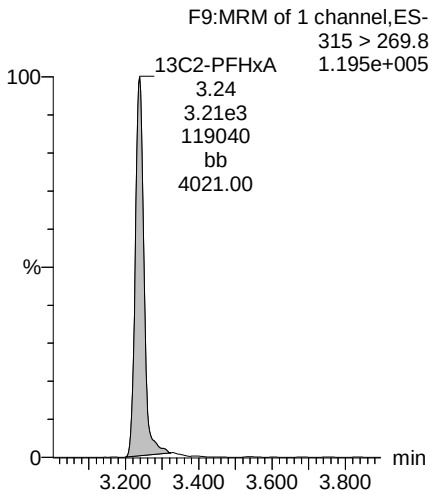




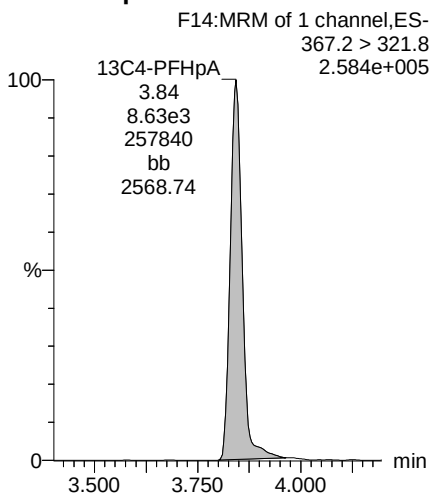
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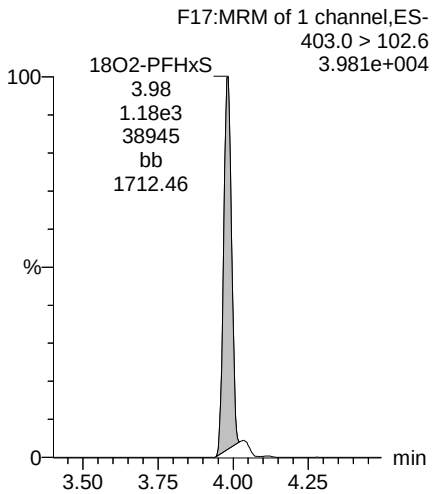
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13C4-PFHpA



18O2-PFHxS



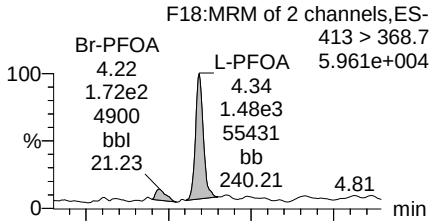
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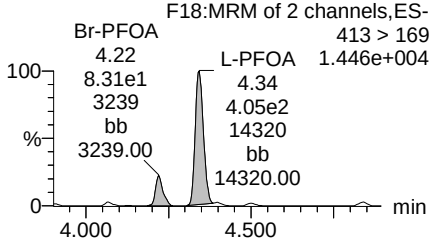
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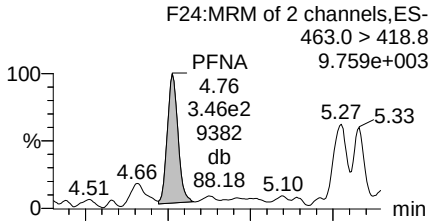
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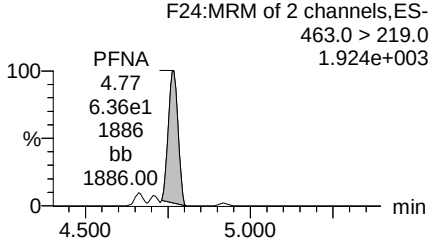
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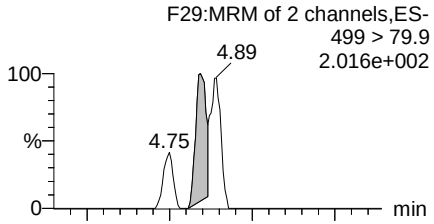


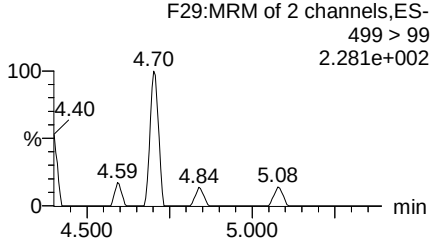
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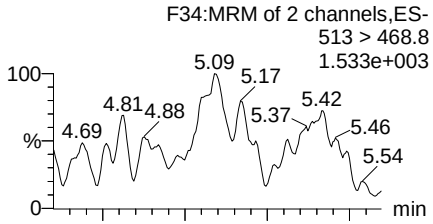


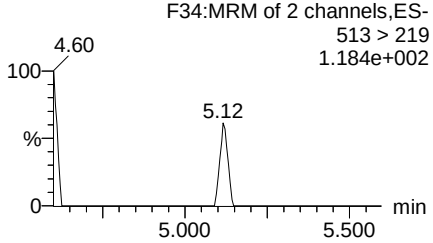
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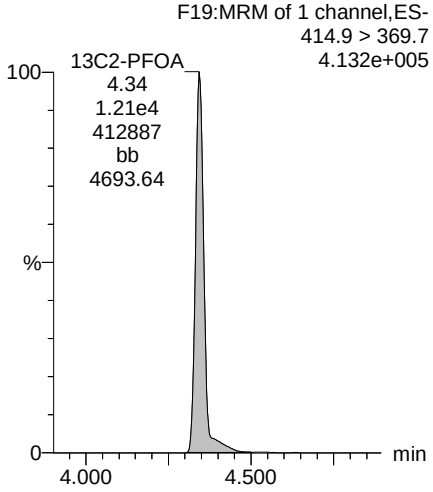


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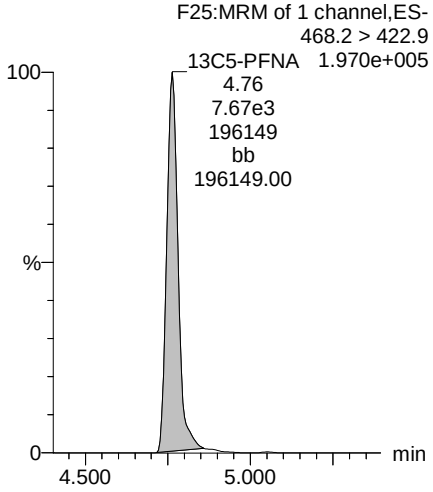




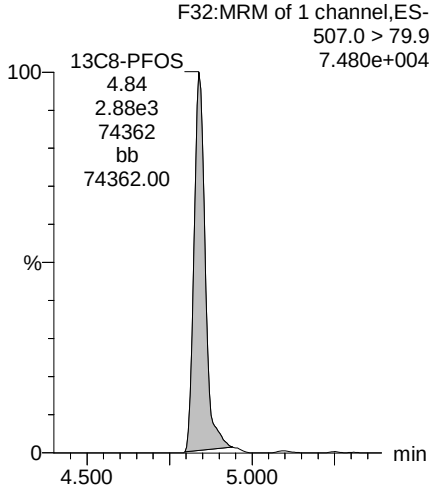
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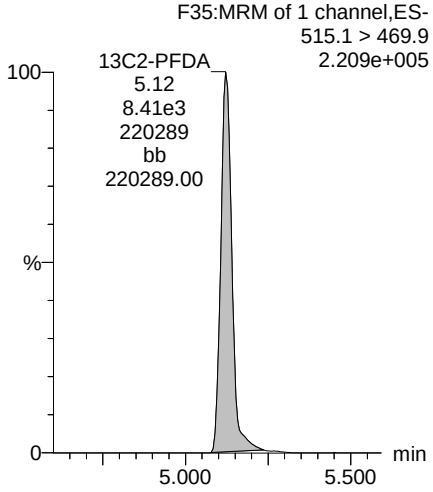
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13C8-PFOS



13C2-PFDA



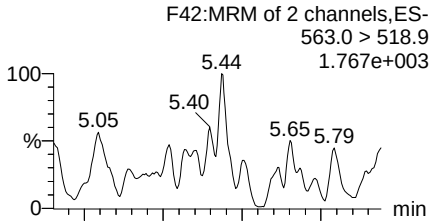
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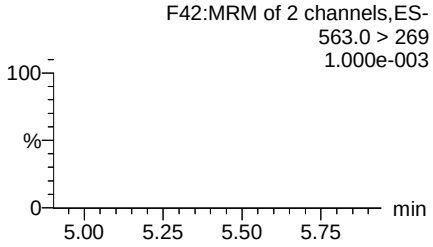
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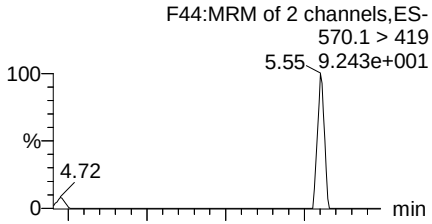
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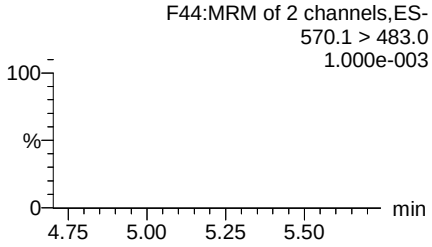
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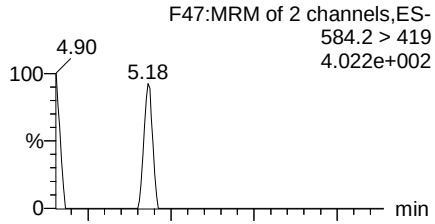


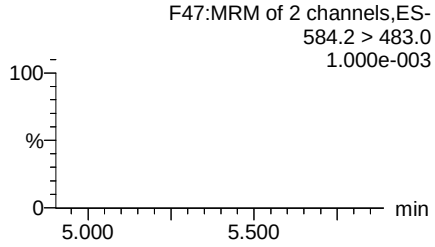
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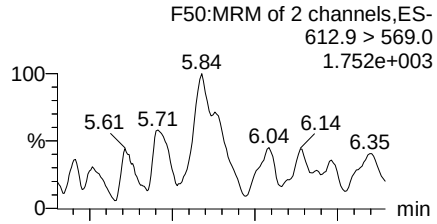


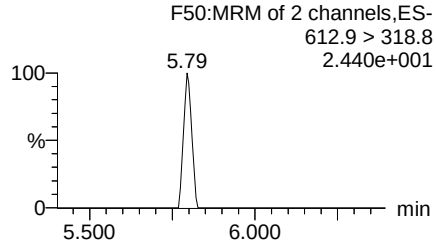
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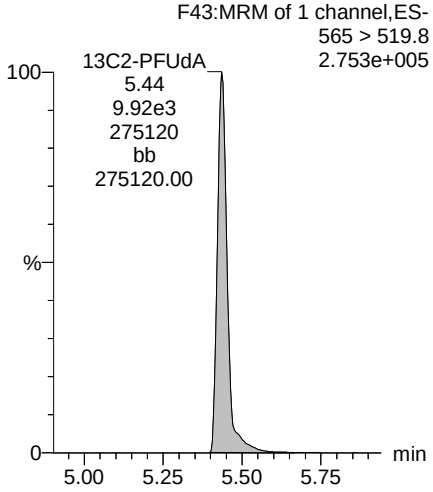


PFDoA

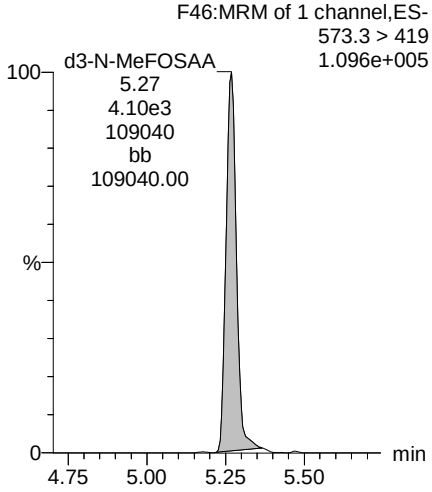




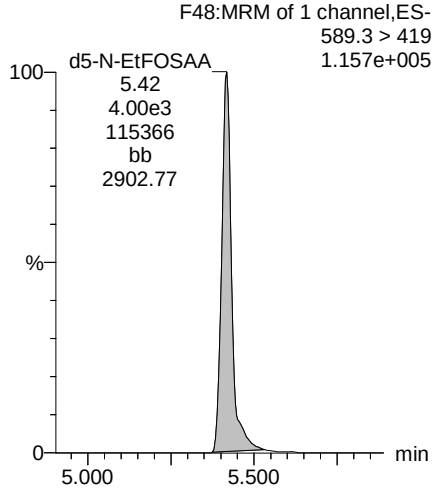
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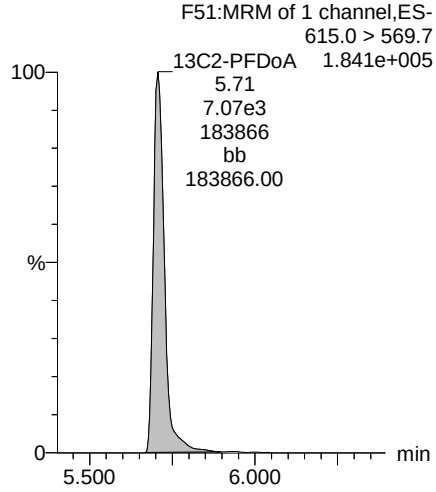
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



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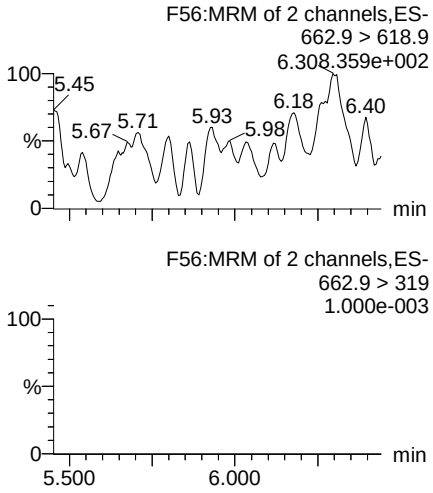
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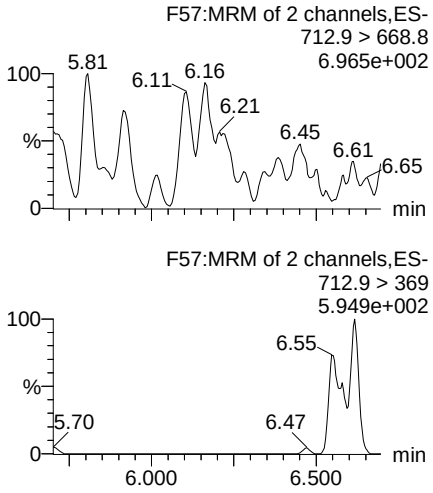
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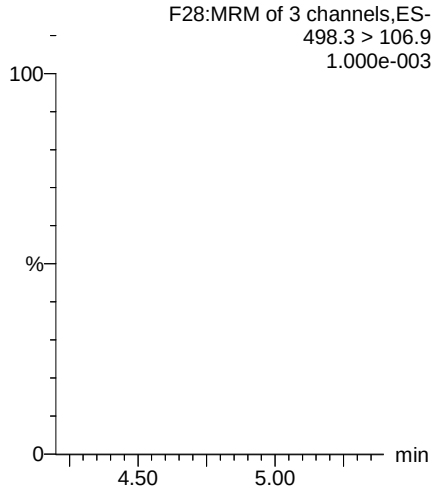
PFTrDA



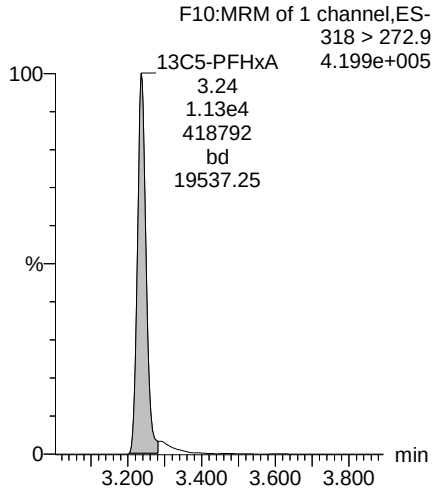
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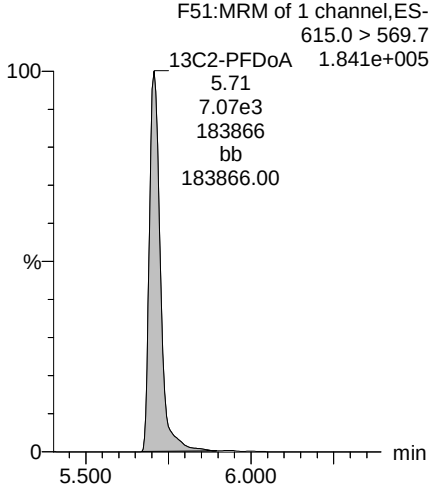
TCDA



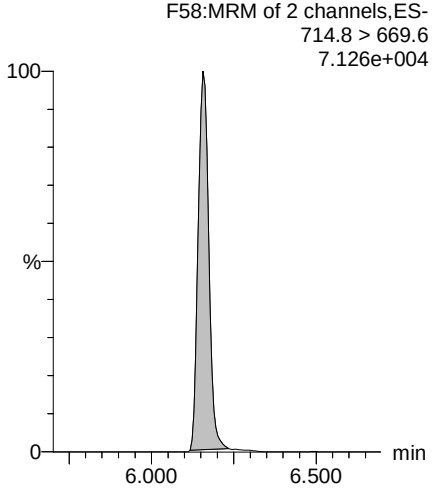
13C5-PFHxA



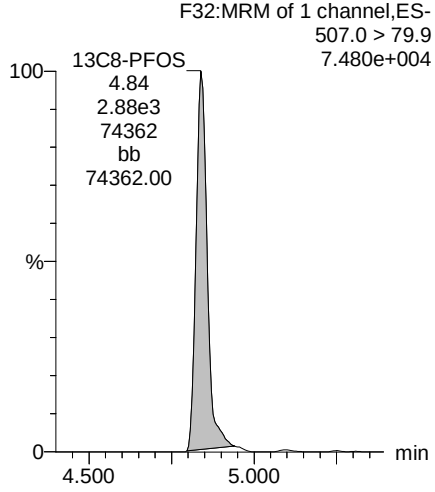
13C2-PFDoA



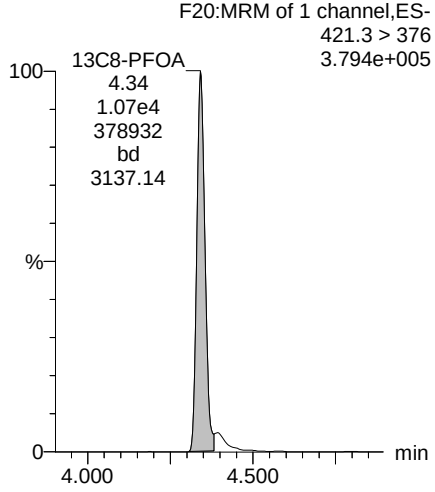
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



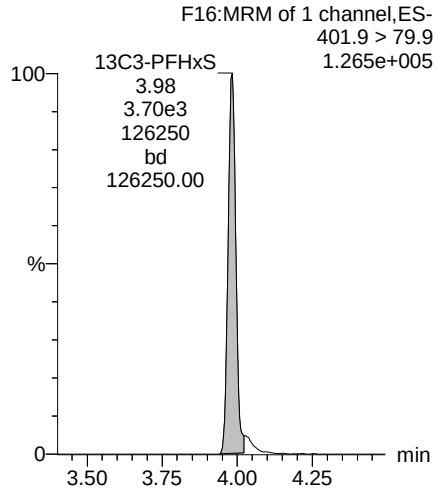
MSF 12/29/17

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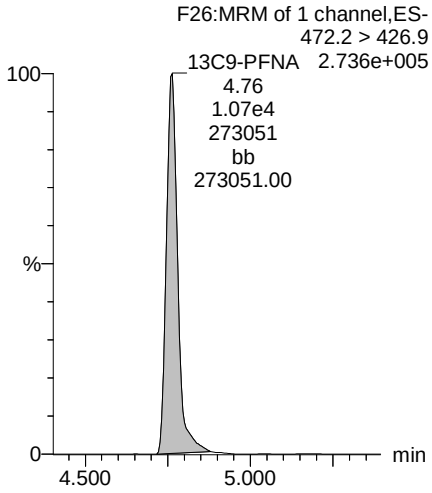
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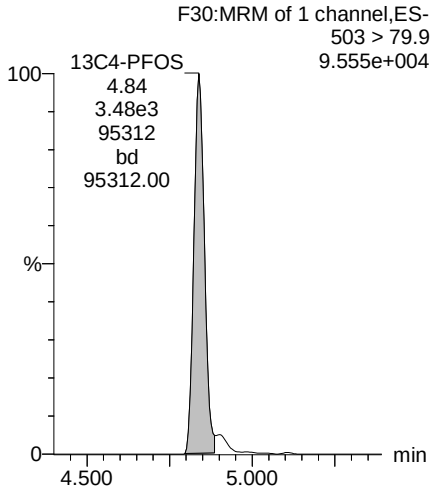
13C3-PFHxS



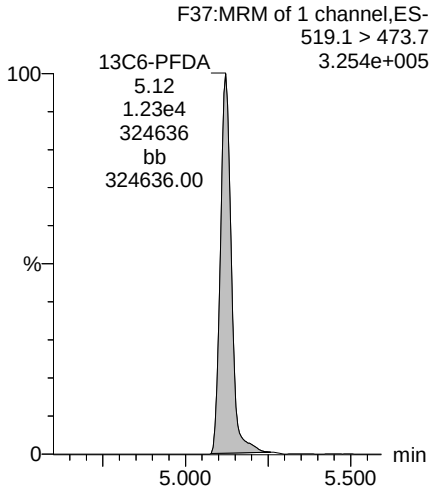
13C9-PFNA



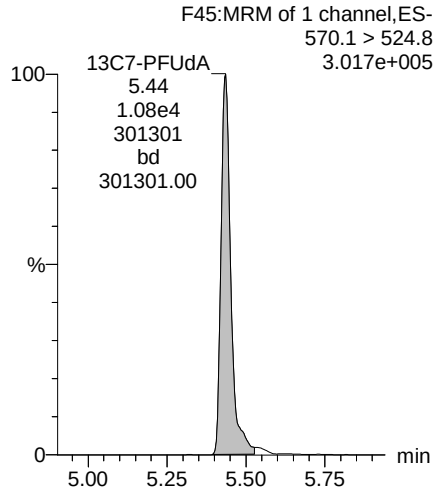
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-57.qld

Last Altered: Friday, December 29, 2017 12:33:59 Pacific Standard Time
Printed: Friday, December 29, 2017 12:34:42 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_57, Date: 28-Dec-2017, Time: 03:51:40, ID: 1701829-12 FT-DUP03-20171130 0.24539, Description: FT-DUP03-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	1.36e1	1.54e3	0.245		2.70	2.75	0.110	1.0686	
2	4	PFHxA	313.2 > 268.9	6.41e2	3.13e3	0.245		3.20	3.24	1.02	2.7009	
3	5	PFHpA	363.0 > 318.9	3.28e2	8.00e3	0.245		3.80	3.84	0.512	1.4939	
4	6	L-PFHxS	398.9 > 79.6	1.18e2	1.29e3	0.245		3.95	3.98	1.14	2.3405	
5	9	L-PFOA	413 > 368.7	1.56e3	1.23e4	0.245		4.32	4.34	1.58	4.2911	
6	12	PFNA	463.0 > 418.8	2.90e2	8.06e3	0.245		4.75	4.76	0.450	1.2283	
7	14	L-PFOS	499 > 79.9	9.58e0	3.51e3	0.245		4.83	4.83	0.0341	0.2166	
8	16	PFDA	513 > 468.8		8.60e3	0.245		5.11				
9	18	N-MeFOSAA	570.1 > 419		4.76e3	0.245		5.26				
10	19	N-EtFOSAA	584.2 > 419		4.61e3	0.245		5.42				
11	20	PFUdA	563.0 > 518.9		1.18e4	0.245		5.43				
12	22	PFDoA	612.9 > 569.0		6.44e3	0.245		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-57.qld

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Name: 171227M2_57, Date: 28-Dec-2017, Time: 03:51:40, ID: 1701829-12 FT-DUP03-20171130 0.24539, Description: FT-DUP03-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		6.44e3	0.245		5.95				
2	25	PFTeDA	712.9 > 668.8		1.89e3	0.245		6.16				
3	33	13C3-PFBS	302. > 98.8	1.54e3	1.33e4	0.245	0.101	2.70	2.75	1.44	58.0344	113.9
4	34	13C2-PFHxA	315 > 269.8	3.13e3	1.33e4	0.245	0.601	3.20	3.24	2.94	19.9620	98.0
5	35	13C4-PFHpA	367.2 > 321.8	8.00e3	1.33e4	0.245	0.676	3.80	3.84	7.51	45.2677	88.9
6	36	18O2-PFHxS	403.0 > 102.6	1.29e3	3.42e3	0.245	0.347	3.95	3.98	4.69	55.1808	108.3
7	37	13C2-6:2 FTS	429.1 > 408.9	2.40e3	1.21e4	0.245	0.210	4.26	4.29	2.49	48.3052	94.8
8	38	13C2-PFOA	414.9 > 369.7	1.23e4	1.21e4	0.245	0.990	4.32	4.34	12.8	52.5920	103.2
9	39	13C5-PFNA	468.2 > 422.9	8.06e3	9.90e3	0.245	0.845	4.75	4.76	10.2	49.0556	96.3
10	40	13C8-PFOSA	506.1 > 77.7	1.37e3	1.05e4	0.245	0.199	4.81	4.83	1.63	33.2159	65.2
11	41	13C8-PFOS	507.0 > 79.9	3.51e3	3.81e3	0.245	0.865	4.83	4.84	11.5	54.3002	106.6
12	42	13C2-PFDA	515.1 > 469.9	8.60e3	8.90e3	0.245	0.886	5.11	5.12	12.1	55.5693	109.1
13	43	13C2-8:2 FTS	529.1 > 508.7	1.85e3	1.33e4	0.245	0.136	5.09	5.09	1.74	52.1825	102.4
14	44	d3-N-MeFOSAA	573.3 > 419	4.76e3	1.05e4	0.245	0.409	5.26	5.26	5.67	56.4928	110.9
15	45	d5-N-EtFOSAA	589.3 > 419	4.61e3	1.05e4	0.245	0.474	5.42	5.41	5.48	47.1793	92.6
16	46	13C2-PFUdA	565 > 519.8	1.18e4	1.05e4	0.245	0.928	5.43	5.43	14.0	61.4960	120.7
17	47	13C2-PFDoA	615.0 > 569.7	6.44e3	1.05e4	0.245	0.636	5.70	5.70	7.67	49.1239	96.4
18	49	13C2-PFTeDA	714.8 > 669.6	1.89e3	1.05e4	0.245	0.163	6.16	6.16	2.25	56.3490	110.6
19	55	13C5-PFHxA	318 > 272.9	1.33e4	1.33e4	0.245	1.000	3.20	3.24	12.5	50.9393	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.42e3	3.42e3	0.245	1.000	3.95	3.98	12.5	50.9393	100.0
21	57	13C8-PFOA	421.3 > 376	1.21e4	1.21e4	0.245	1.000	4.32	4.34	12.5	50.9393	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.90e3	9.90e3	0.245	1.000	4.75	4.76	12.5	50.9393	100.0
23	59	13C4-PFOS	503 > 79.9	3.81e3	3.81e3	0.245	1.000	4.83	4.84	12.5	50.9393	100.0
24	60	13C6-PFDA	519.1 > 473.7	8.90e3	8.90e3	0.245	1.000	5.11	5.12	12.5	50.9393	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.05e4	1.05e4	0.245	1.000	5.43	5.43	12.5	50.9393	100.0
26	62	Total PFHxS	398.9 > 79.6	1.18e2	1.29e3	0.245		4.00		1.14	2.3405	
27	63	Total PFOA	413 > 368.7	1.77e3	1.23e4	0.245		4.30		1.58	4.2911	
28	64	Total PFOS	499 > 79.9	9.58e0	3.51e3	0.245		4.80		0.0341	0.2166	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	4.76e3	0.245		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.61e3	0.245		5.40		0.000		

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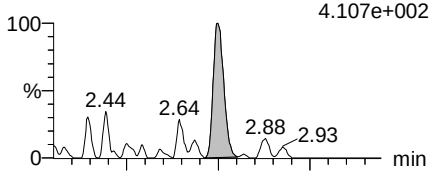
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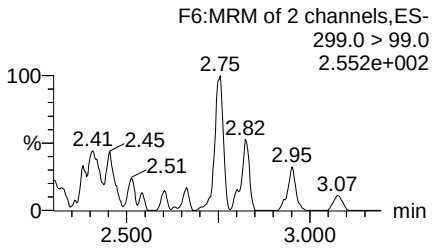
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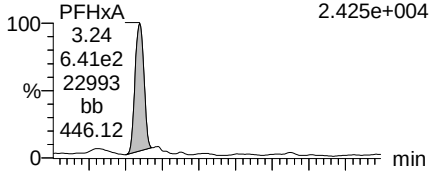
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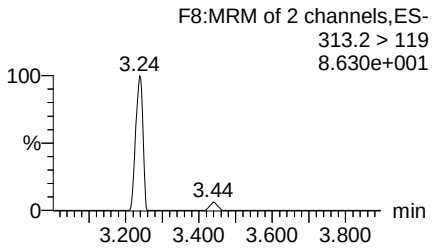
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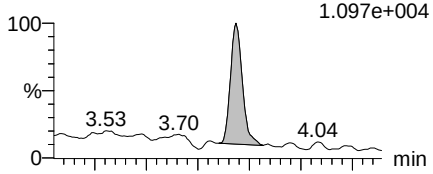


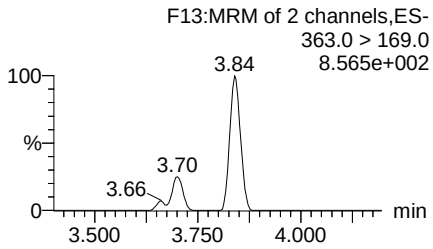
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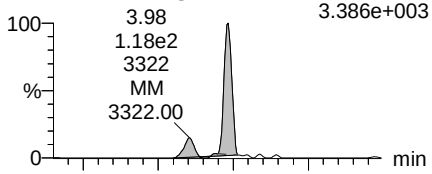


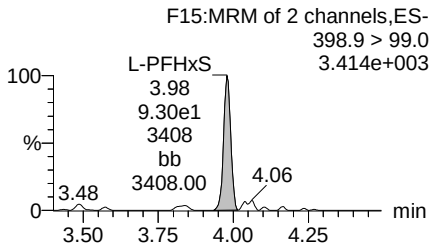
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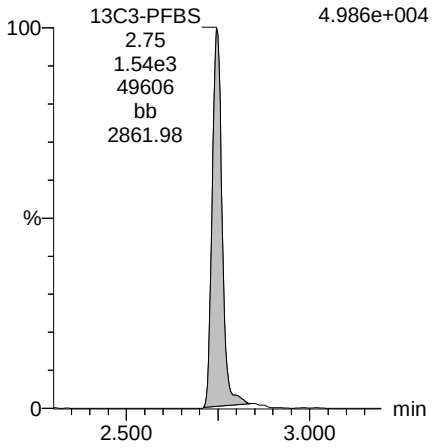


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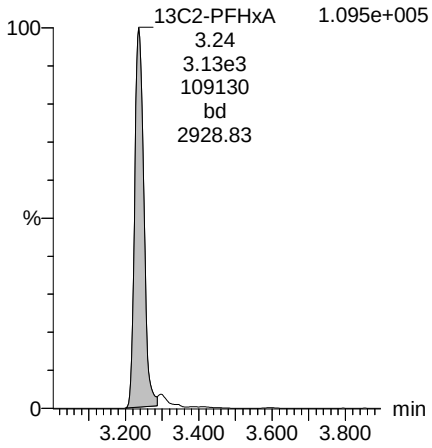




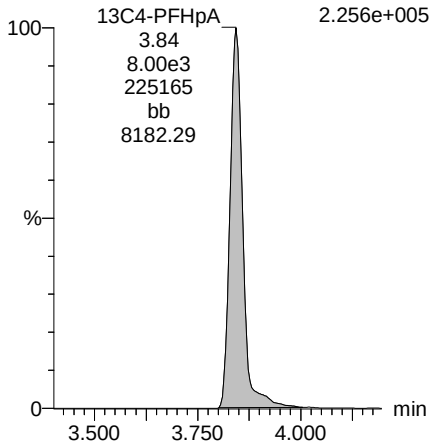
13C3-PFBS



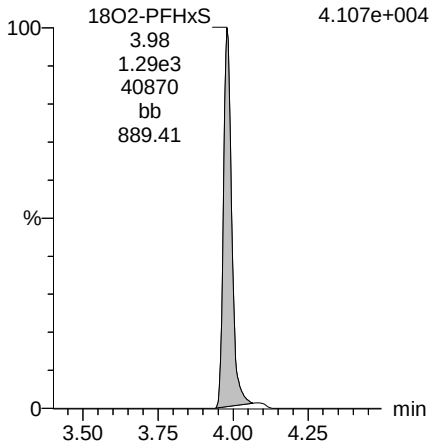
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



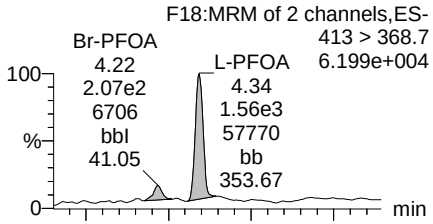
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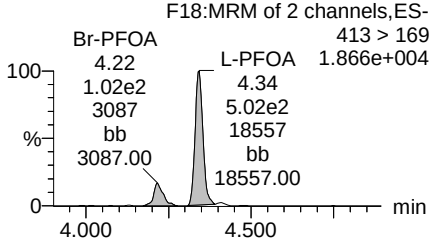
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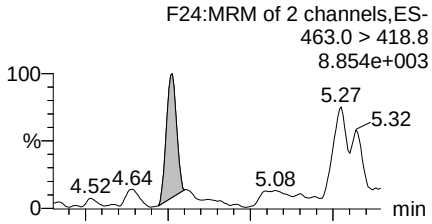
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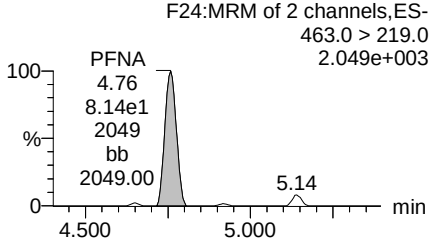
Total PFOA



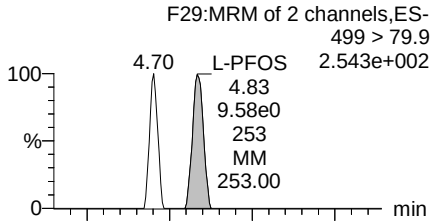


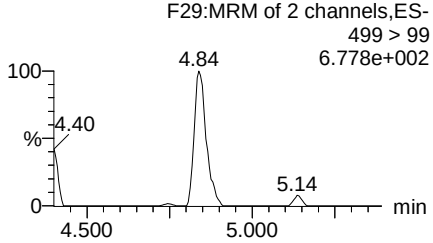
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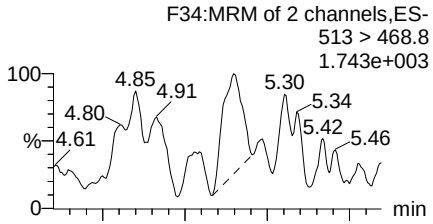


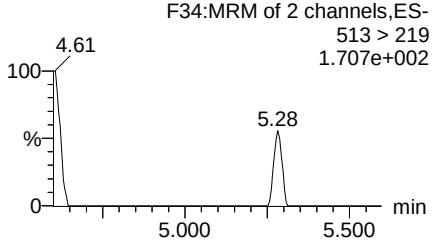
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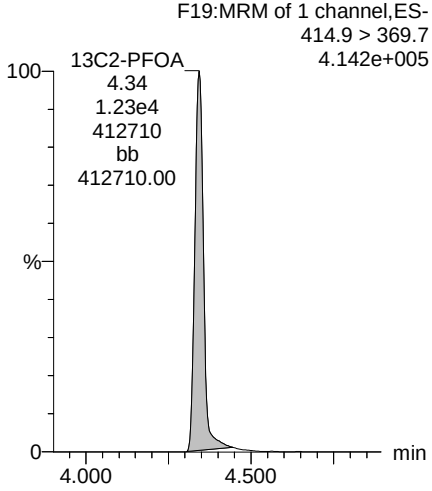


PFDA

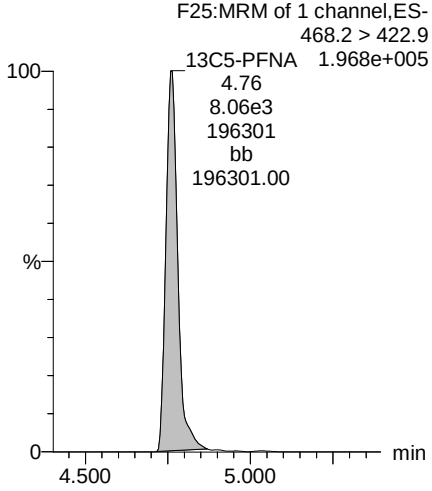




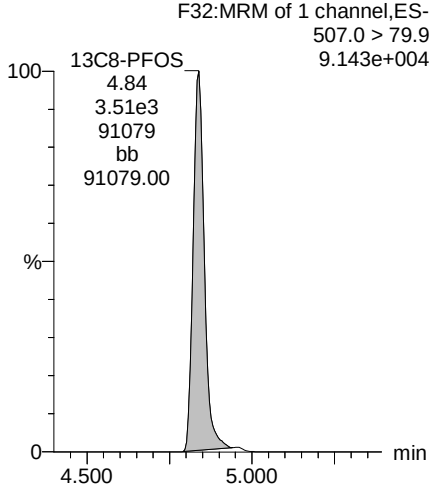
13C2-PFOA



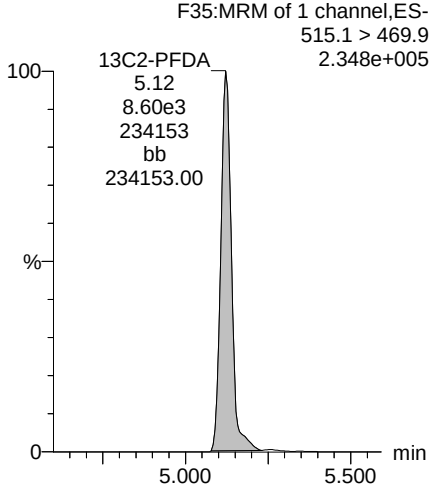
13C5-PFNA



13C8-PFOS



13C2-PFDA



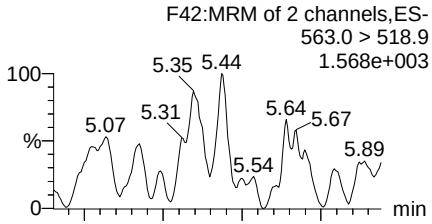
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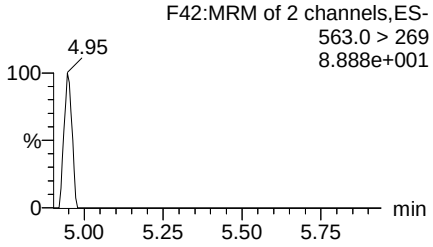
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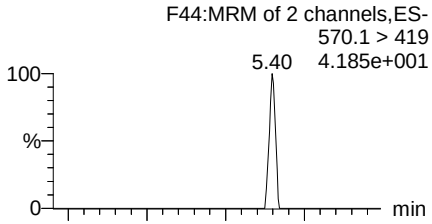
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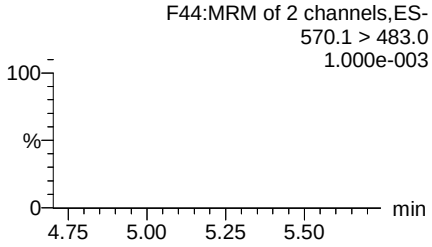
PFUdA



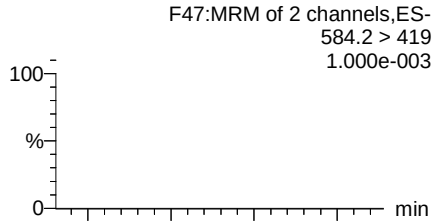


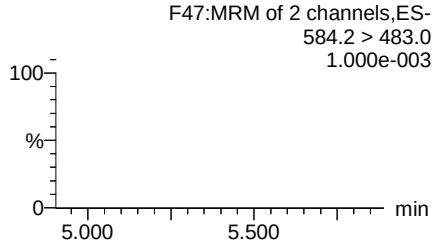
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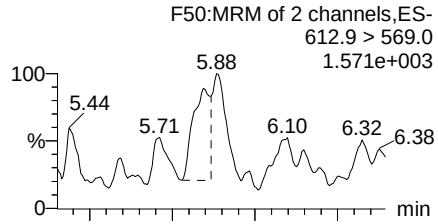


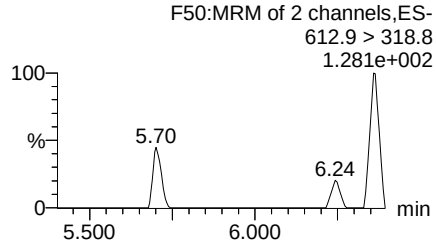
N-EtFOSAA



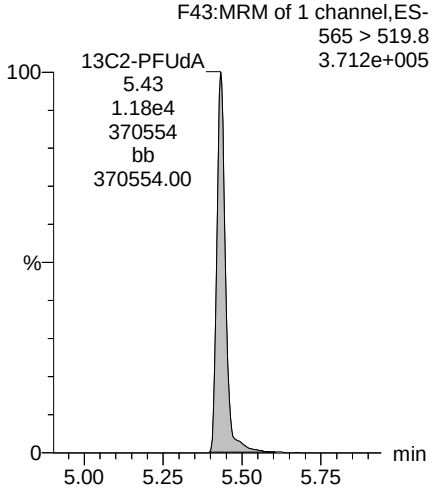


PFDoA

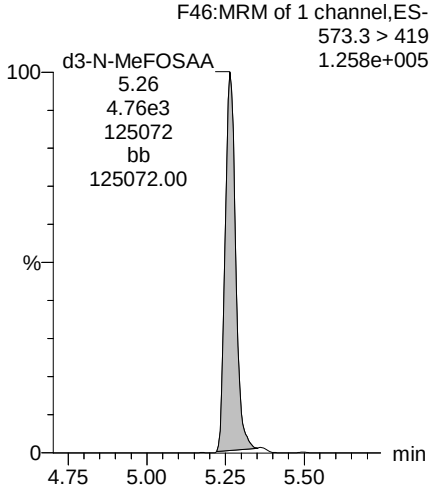




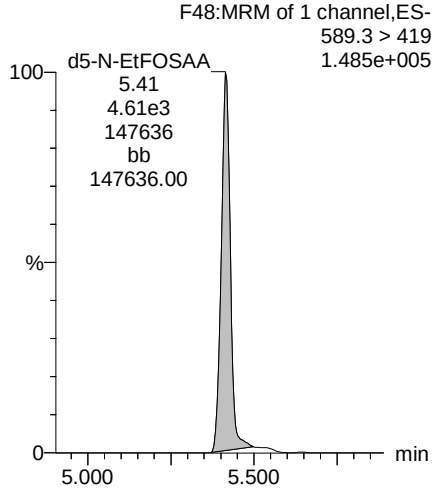
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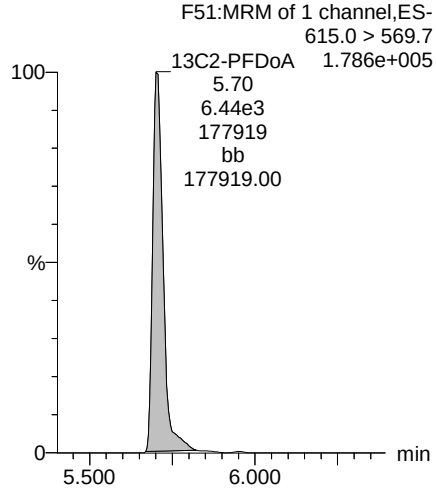
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



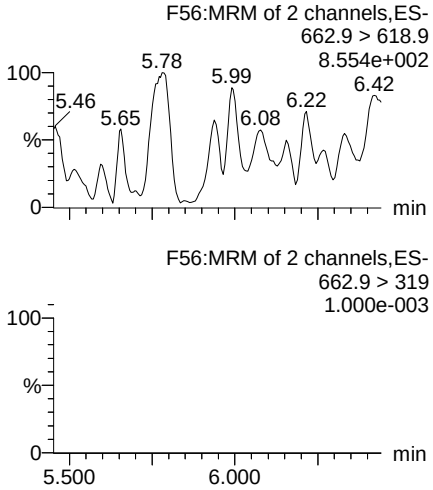
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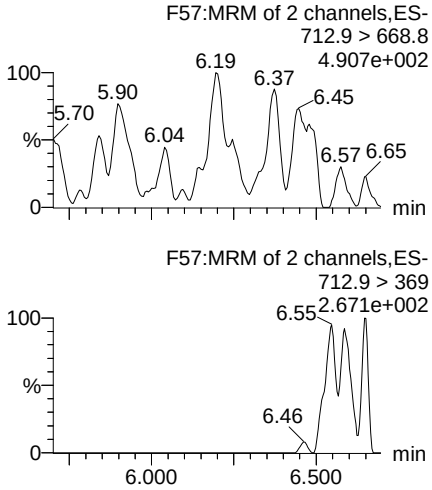
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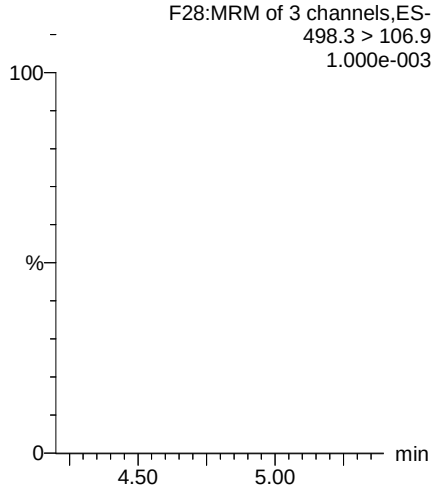
PFTrDA



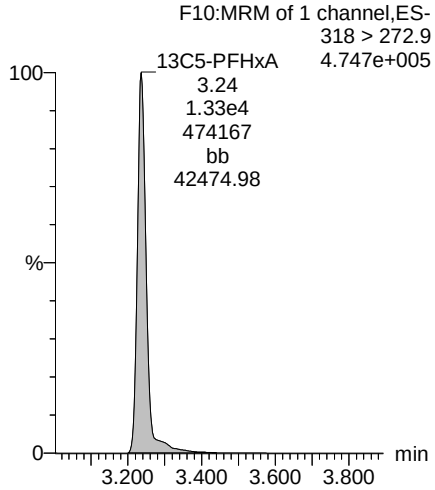
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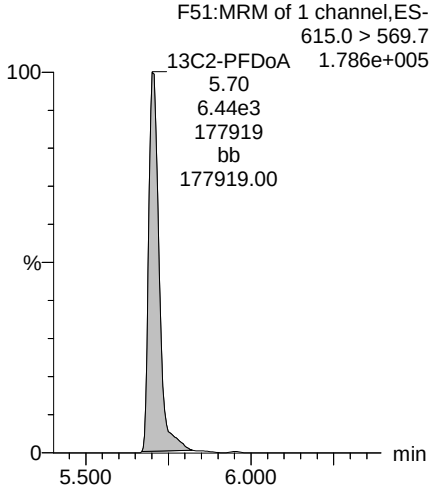
TCDA



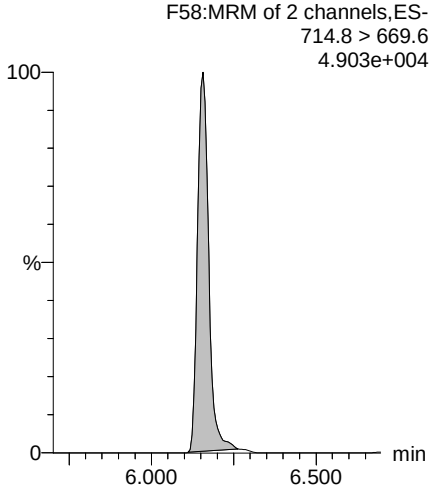
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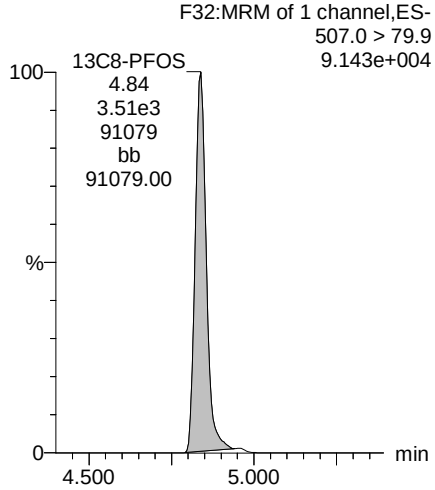
13C2-PFDoA



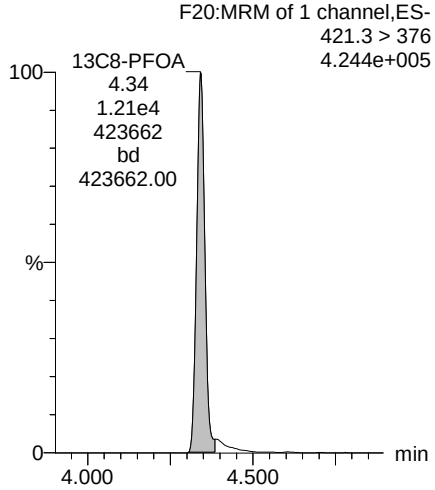
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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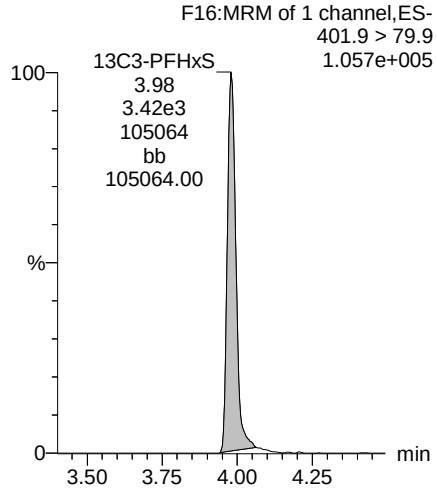
Rev'd: MM 12/31/17

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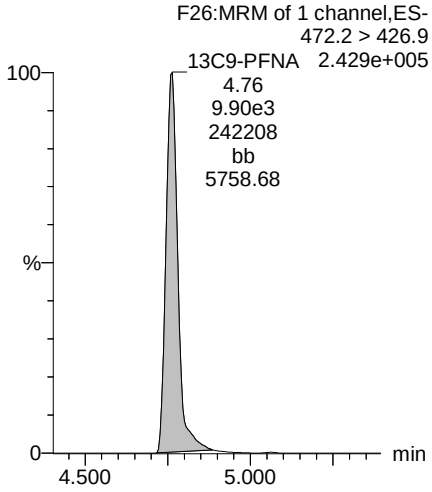
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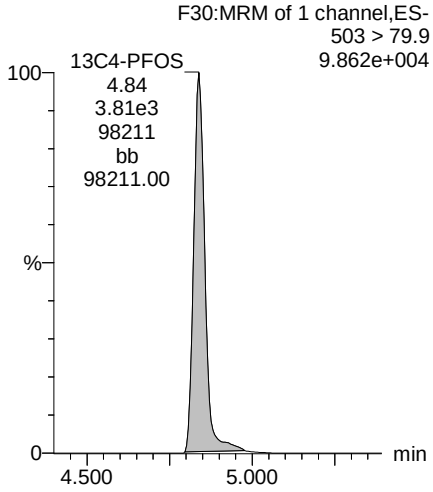
13C3-PFHxS



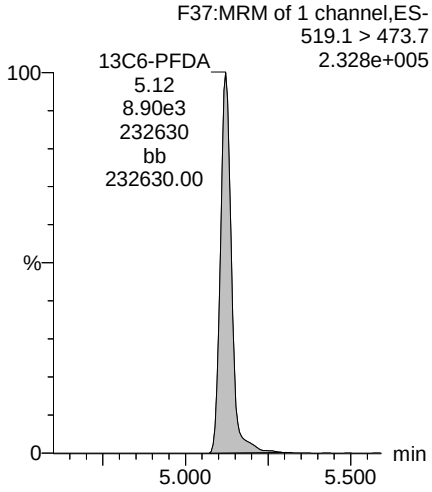
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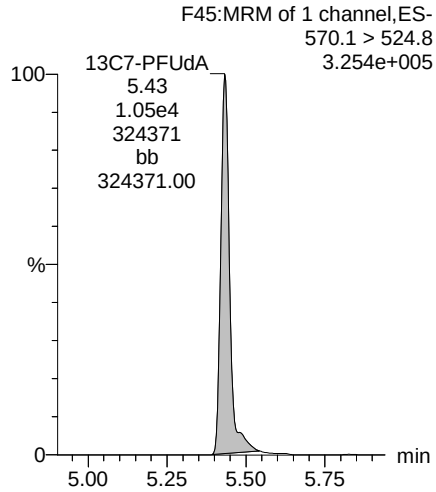
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-58.qld

Last Altered: Friday, December 29, 2017 12:37:12 Pacific Standard Time
Printed: Friday, December 29, 2017 12:38:04 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_58, Date: 28-Dec-2017, Time: 04:02:51, ID: 1701829-13 FT-MW05I-20171130 0.25874, Description: FT-MW05I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	4.91e1	1.58e3	0.259		2.70	2.75	0.390	1.4587	
2	4	PFHxA	313.2 > 268.9	5.02e3	3.32e3	0.259		3.20	3.24	7.57	14.5672	
3	5	PFHpA	363.0 > 318.9	4.71e3	7.50e3	0.259		3.80	3.84	7.85	18.6320	
4	6	L-PFHxS	398.9 > 79.6	3.01e3	1.29e3	0.259		3.95	3.98	29.3	53.1461	
5	9	L-PFOA	413 > 368.7	1.95e4	1.20e4	0.259		4.32	4.34	20.4	62.5250	
6	12	PFNA	463.0 > 418.8	7.08e4	1.02e4	0.259		4.75	4.76	86.6	216.0606	
7	14	L-PFOS	499 > 79.9	1.44e4	3.09e3	0.259		4.83	4.84	58.4	180.2380	
8	16	PFDA	513 > 468.8	2.42e2	8.94e3	0.259		5.11	5.13	0.338	1.0477	
9	18	N-MeFOSAA	570.1 > 419		3.92e3	0.259		5.26				
10	19	N-EtFOSAA	584.2 > 419		4.61e3	0.259		5.42				
11	20	PFUdA	563.0 > 518.9		9.36e3	0.259		5.43				
12	22	PFDoA	612.9 > 569.0		7.08e3	0.259		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-58.qld

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Name: 171227M2_58, Date: 28-Dec-2017, Time: 04:02:51, ID: 1701829-13 FT-MW05I-20171130 0.25874, Description: FT-MW05I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		7.08e3	0.259		5.95				
2	25	PFTeDA	712.9 > 668.8		2.23e3	0.259		6.16				
3	33	13C3-PFBS	302. > 98.8	1.58e3	1.26e4	0.259	0.101	2.70	2.75	1.56	59.4237	123.0
4	34	13C2-PFHxA	315 > 269.8	3.32e3	1.26e4	0.259	0.601	3.20	3.24	3.28	21.0912	109.1
5	35	13C4-PFHpA	367.2 > 321.8	7.50e3	1.26e4	0.259	0.676	3.80	3.84	7.42	42.3761	87.7
6	36	18O2-PFHxS	403.0 > 102.6	1.29e3	3.24e3	0.259	0.347	3.95	3.98	4.96	55.3199	114.5
7	37	13C2-6:2 FTS	429.1 > 408.9	3.21e3	1.14e4	0.259	0.210	4.26	4.29	3.52	64.8239	134.2
8	38	13C2-PFOA	414.9 > 369.7	1.20e4	1.14e4	0.259	0.990	4.32	4.34	13.1	51.1521	105.9
9	39	13C5-PFNA	468.2 > 422.9	1.02e4	1.15e4	0.259	0.845	4.75	4.76	11.2	51.0837	105.7
10	40	13C8-PFOSA	506.1 > 77.7	1.34e3	1.27e4	0.259	0.199	4.81	4.83	1.31	25.4259	52.6
11	41	13C8-PFOS	507.0 > 79.9	3.09e3	3.70e3	0.259	0.865	4.83	4.84	10.4	46.6563	96.6
12	42	13C2-PFDA	515.1 > 469.9	8.94e3	9.22e3	0.259	0.886	5.11	5.13	12.1	52.8793	109.5
13	43	13C2-8:2 FTS	529.1 > 508.7	1.96e3	1.26e4	0.259	0.136	5.09	5.10	1.93	55.0357	113.9
14	44	d3-N-MeFOSAA	573.3 > 419	3.92e3	1.27e4	0.259	0.409	5.26	5.27	3.85	36.3931	75.3
15	45	d5-N-EtFOSAA	589.3 > 419	4.61e3	1.27e4	0.259	0.474	5.42	5.42	4.52	36.9101	76.4
16	46	13C2-PFUdA	565 > 519.8	9.36e3	1.27e4	0.259	0.928	5.43	5.44	9.18	38.2327	79.1
17	47	13C2-PFDoA	615.0 > 569.7	7.08e3	1.27e4	0.259	0.636	5.70	5.71	6.95	42.2225	87.4
18	49	13C2-PFTeDA	714.8 > 669.6	2.23e3	1.27e4	0.259	0.163	6.16	6.16	2.19	52.0092	107.7
19	55	13C5-PFHxA	318 > 272.9	1.26e4	1.26e4	0.259	1.000	3.20	3.24	12.5	48.3110	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.24e3	3.24e3	0.259	1.000	3.95	3.98	12.5	48.3110	100.0
21	57	13C8-PFOA	421.3 > 376	1.14e4	1.14e4	0.259	1.000	4.32	4.34	12.5	48.3110	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.15e4	1.15e4	0.259	1.000	4.75	4.76	12.5	48.3110	100.0
23	59	13C4-PFOS	503 > 79.9	3.70e3	3.70e3	0.259	1.000	4.83	4.84	12.5	48.3110	100.0
24	60	13C6-PFDA	519.1 > 473.7	9.22e3	9.22e3	0.259	1.000	5.11	5.12	12.5	48.3110	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.27e4	1.27e4	0.259	1.000	5.43	5.44	12.5	48.3110	100.0
26	62	Total PFHxS	398.9 > 79.6	3.01e3	1.29e3	0.259		4.00		29.3	53.1461	
27	63	Total PFOA	413 > 368.7	2.09e4	1.20e4	0.259		4.30		21.9	66.2995	
28	64	Total PFOS	499 > 79.9	1.44e4	3.09e3	0.259		4.80		58.4	180.2380	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.92e3	0.259		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.61e3	0.259		5.40		0.000		

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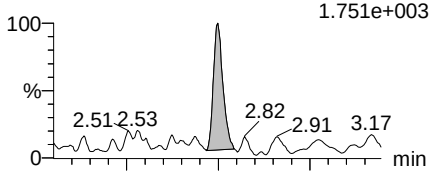
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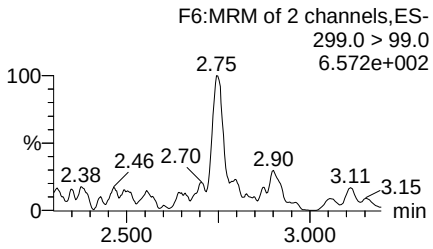
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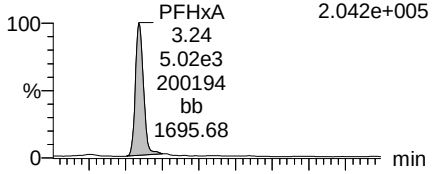
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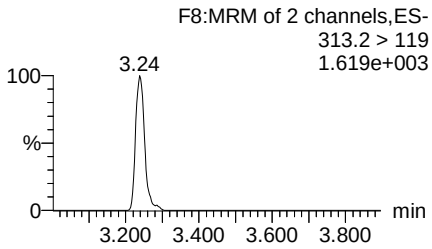
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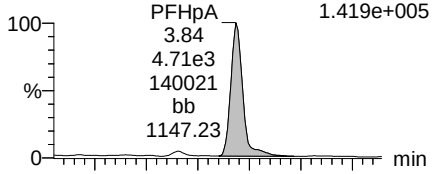


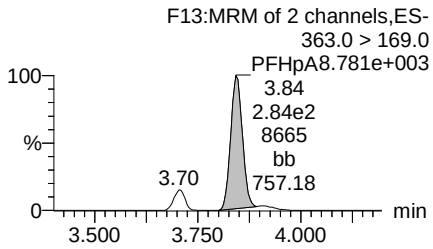
PFHxA



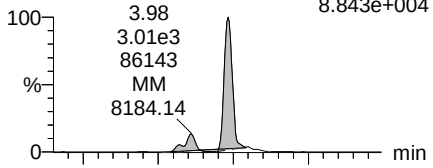


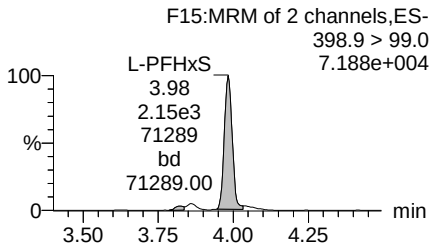
PFHpA



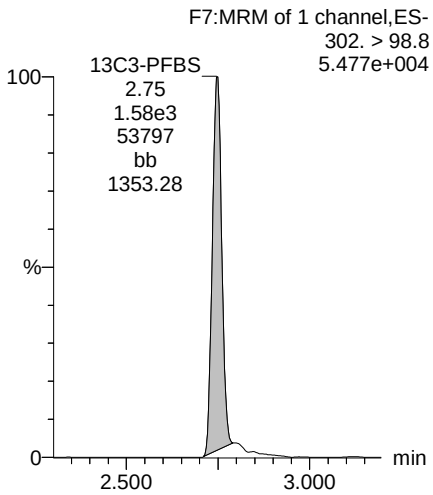


Total PFHxS

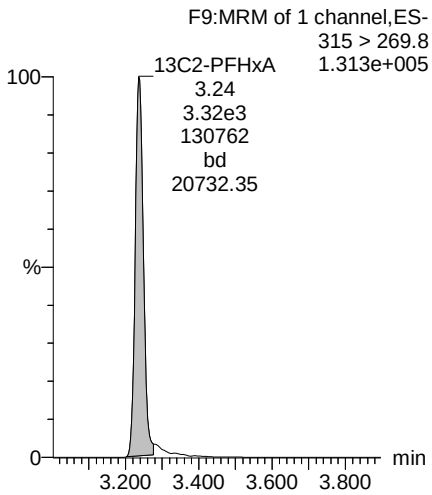




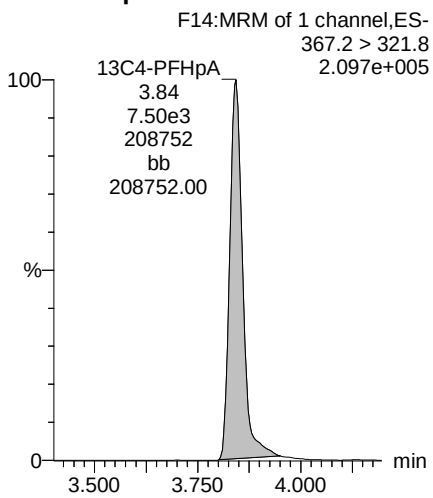
13C3-PFBS



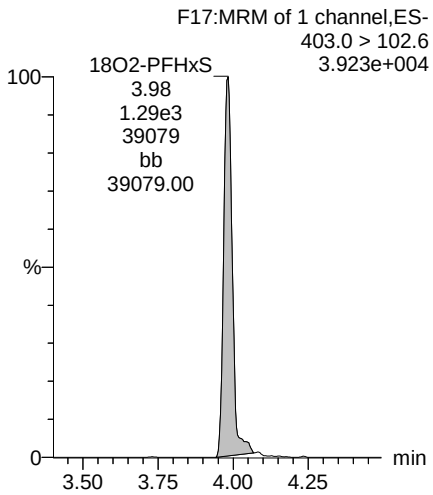
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



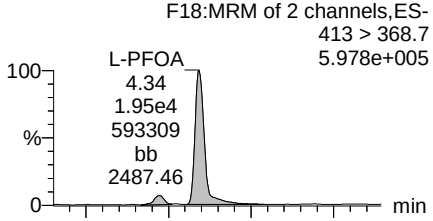
MSF 12/29/17

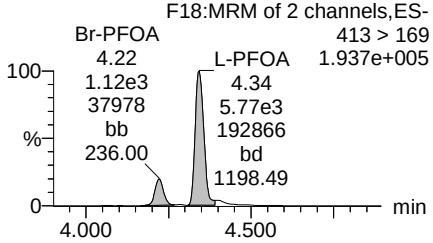
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Printed: Friday, December 29, 2017 12:38:19 Pacific Standard Time

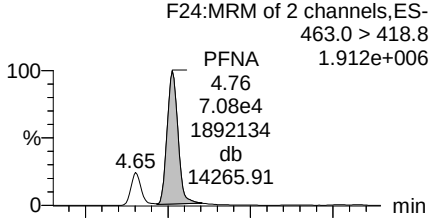
Name: 171227M2_58, Date: 28-Dec-2017, Time: 04:02:51, ID: 1701829-13 FT-MW05I-20171130 0.25874, Description: FT-MW05I-20171130

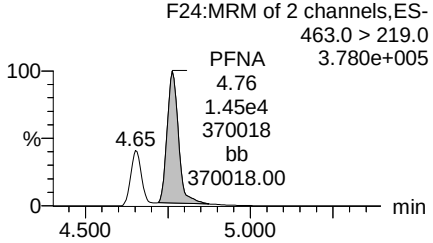
Total PFOA



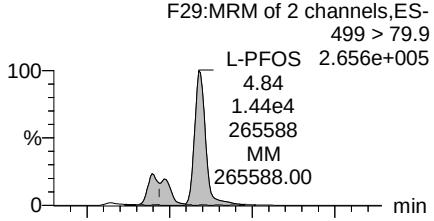


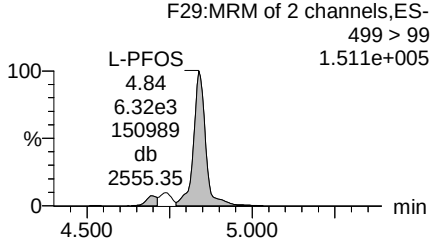
PFNA



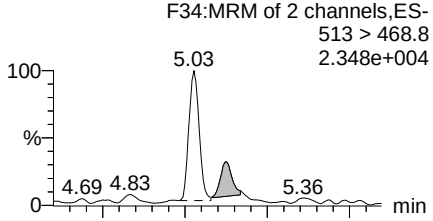


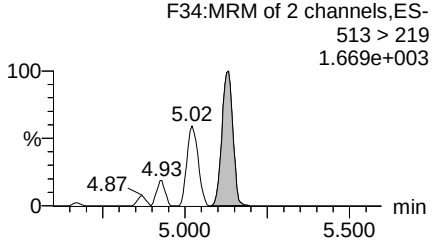
Total PFOS



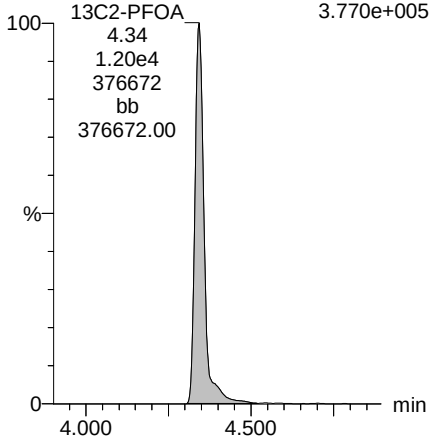


PFDA

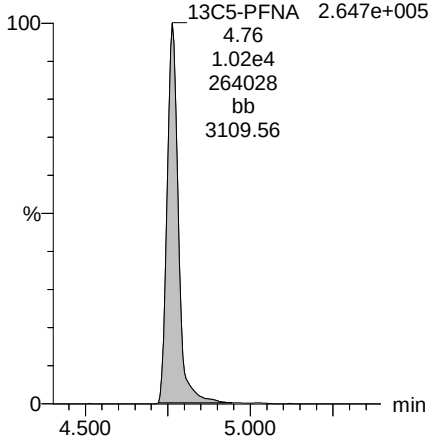




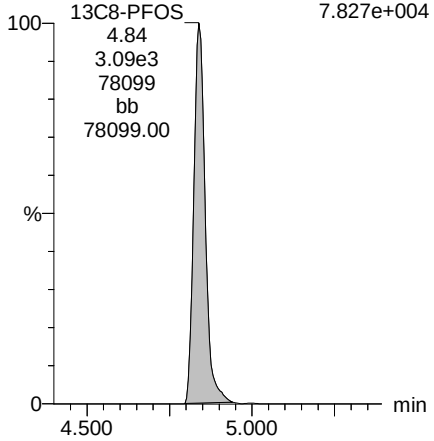
13C2-PFOA



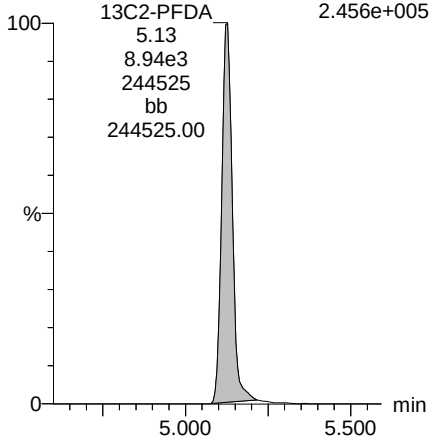
13C5-PFNA



13C8-PFOS



13C2-PFDA



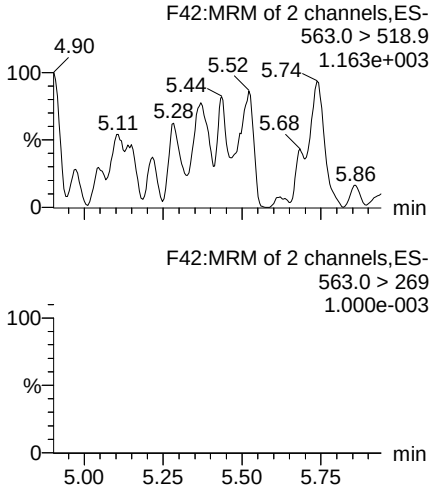
MSF 12/29/17

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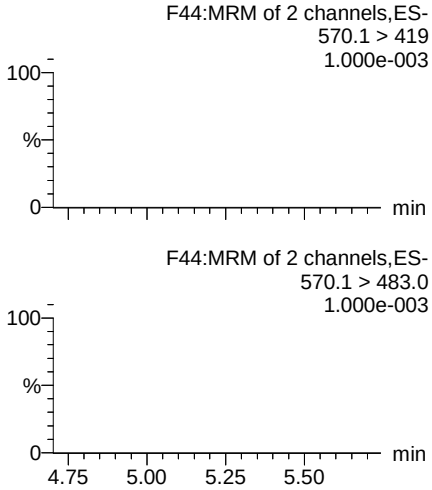
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Name: 171227M2_58, Date: 28-Dec-2017, Time: 04:02:51, ID: 1701829-13 FT-MW05I-20171130 0.25874, Description: FT-MW05I-20171130

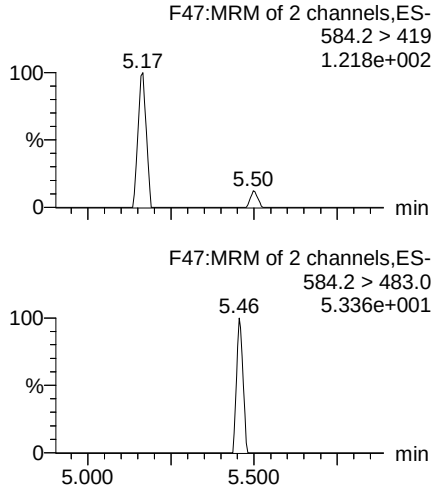
PFUdA



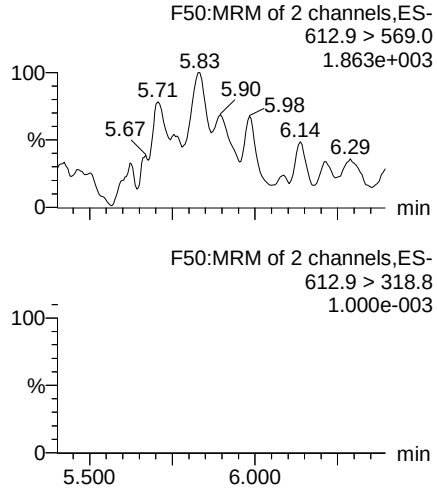
N-MeFOSAA



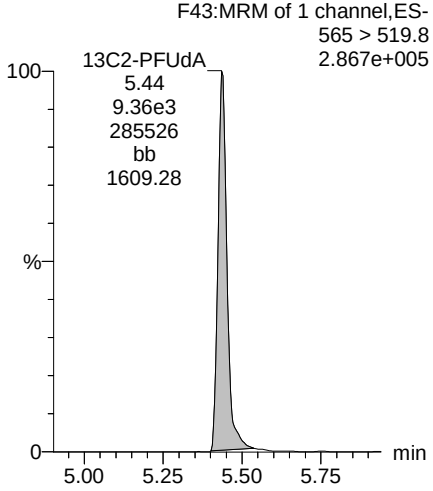
N-EtFOSAA



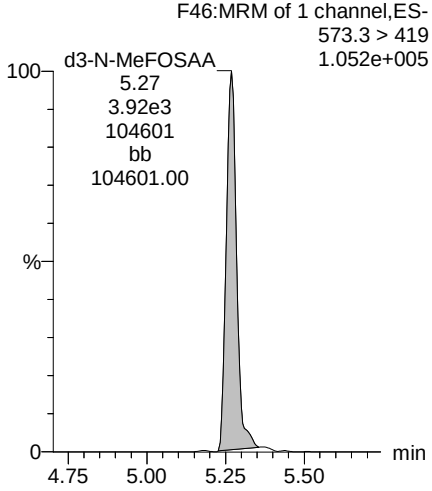
PFDoA



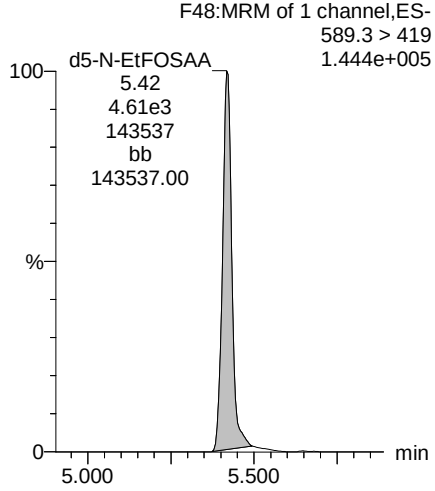
13C2-PFUdA



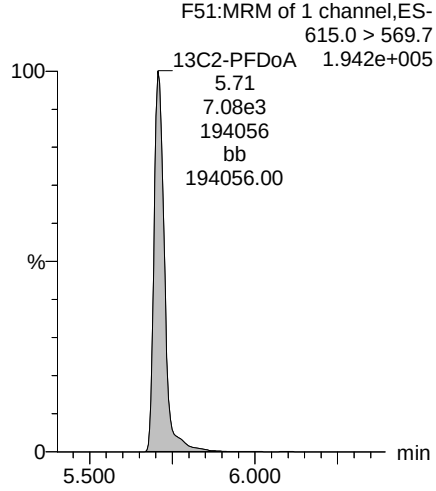
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



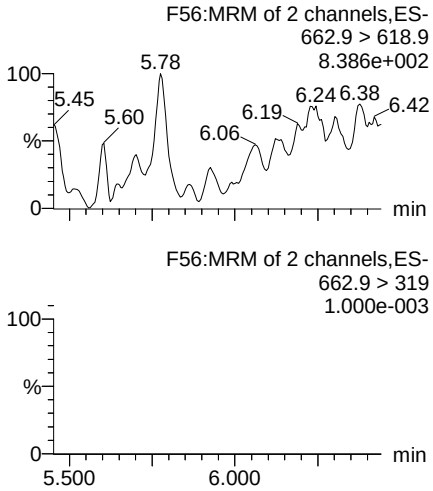
MSF 12/29/17

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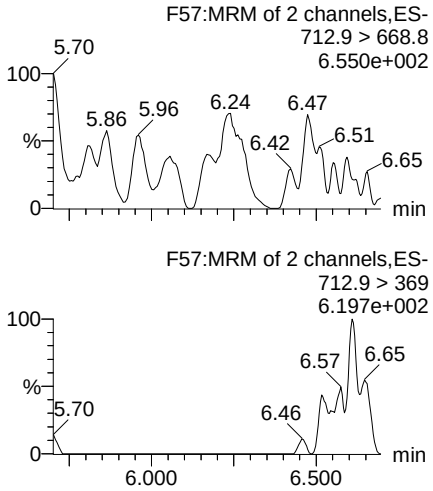
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Name: 171227M2_58, Date: 28-Dec-2017, Time: 04:02:51, ID: 1701829-13 FT-MW05I-20171130 0.25874, Description: FT-MW05I-20171130

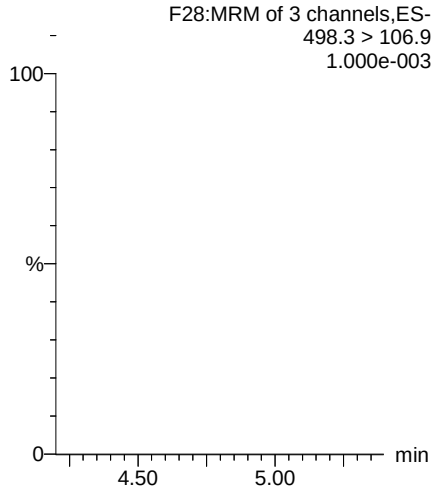
PFTrDA



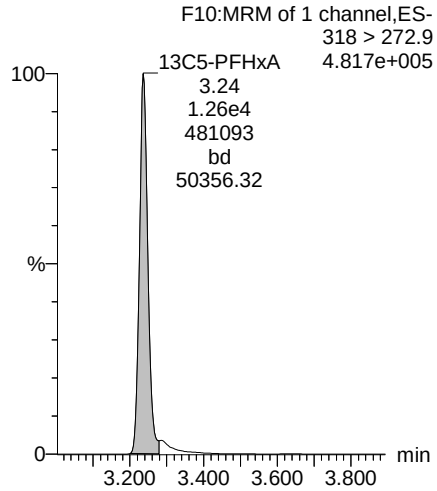
PFTeDA



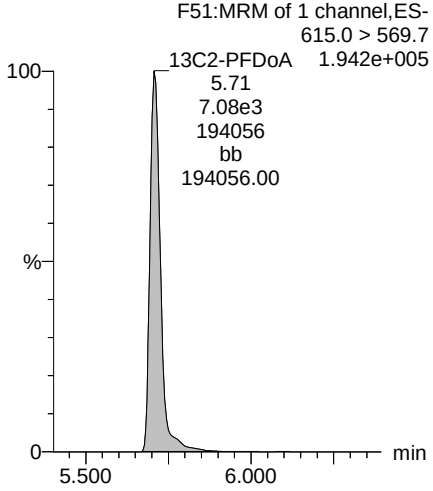
TCDA



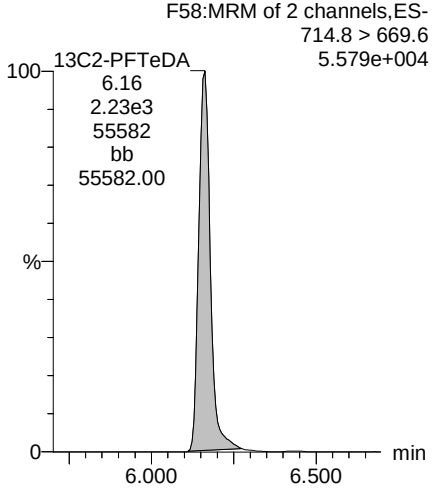
13C5-PFHxA



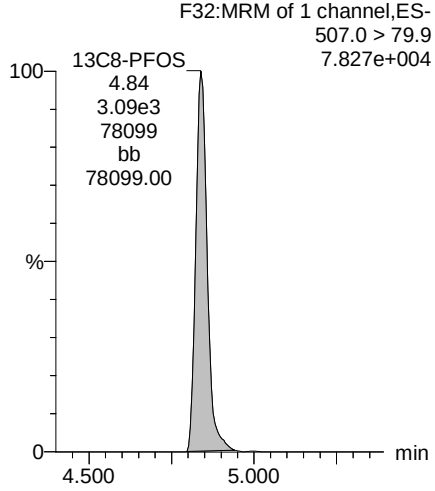
13C2-PFDoA



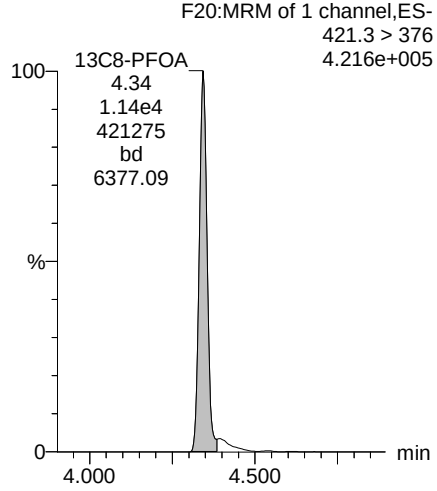
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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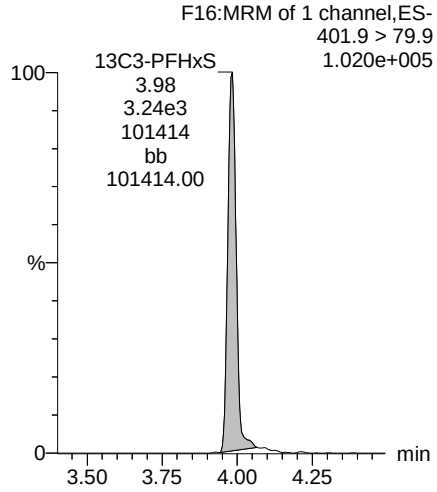
Rev'd: MM 12/31/17

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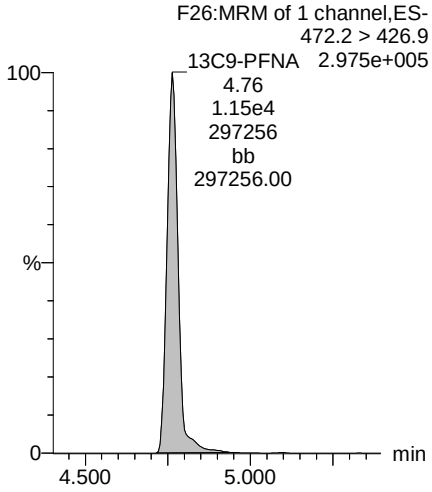
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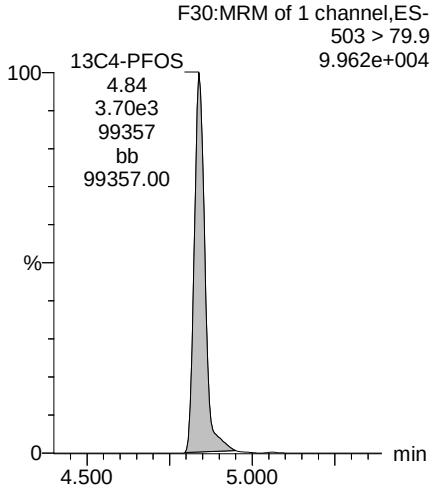
13C3-PFHxS



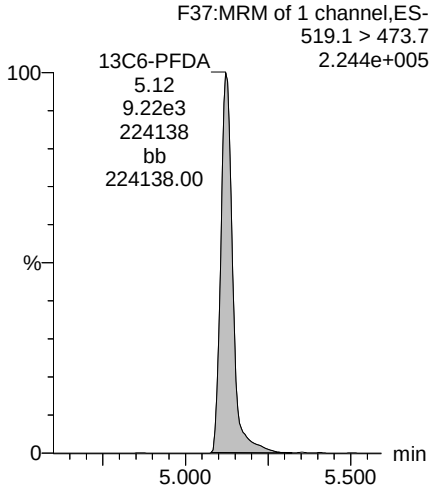
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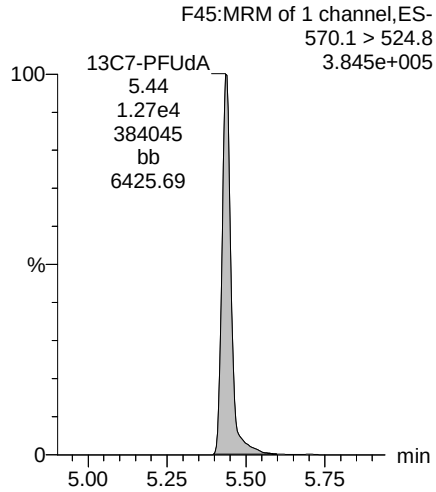
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-59.qld

Last Altered: Friday, December 29, 2017 12:40:02 Pacific Standard Time
Printed: Friday, December 29, 2017 12:40:54 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_59, Date: 28-Dec-2017, Time: 04:14:01, ID: 1701829-14 FT-MW07S-20171130 0.26174, Description: FT-MW07S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.52e3	0.262		2.70				
2	4	PFHxA	313.2 > 268.9		3.20e3	0.262		3.20				
3	5	PFHpA	363.0 > 318.9		7.21e3	0.262		3.80				
4	6	L-PFHxS	398.9 > 79.6	8.88e0	1.03e3	0.262		3.95	3.98	0.108	0.3455	
5	9	L-PFOA	413 > 368.7	1.79e2	1.07e4	0.262		4.32	4.34	0.209		
6	12	PFNA	463.0 > 418.8	5.00e1	7.98e3	0.262		4.75	4.76	0.0784	0.2273	
7	14	L-PFOS	499 > 79.9		2.79e3	0.262		4.83				
8	16	PFDA	513 > 468.8		7.61e3	0.262		5.11				
9	18	N-MeFOSAA	570.1 > 419		3.21e3	0.262		5.26				
10	19	N-EtFOSAA	584.2 > 419		4.47e3	0.262		5.42				
11	20	PFUdA	563.0 > 518.9	7.52e1	9.10e3	0.262		5.43	5.43	0.103	0.0796	
12	22	PFDoA	612.9 > 569.0		6.43e3	0.262		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-59.qld

Last Altered: Friday, December 29, 2017 12:40:02 Pacific Standard Time
Printed: Friday, December 29, 2017 12:41:34 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_59, Date: 28-Dec-2017, Time: 04:14:01, ID: 1701829-14 FT-MW07S-20171130 0.26174, Description: FT-MW07S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		6.43e3	0.262		5.95				
2	25	PFTeDA	712.9 > 668.8		2.18e3	0.262		6.16				
3	33	13C3-PFBS	302. > 98.8	1.52e3	1.35e4	0.262	0.101	2.70	2.75	1.40	52.9133	110.8
4	34	13C2-PFHxA	315 > 269.8	3.20e3	1.35e4	0.262	0.601	3.20	3.24	2.96	18.8171	98.5
5	35	13C4-PFHpA	367.2 > 321.8	7.21e3	1.35e4	0.262	0.676	3.80	3.84	6.66	37.6419	78.8
6	36	18O2-PFHxS	403.0 > 102.6	1.03e3	3.67e3	0.262	0.347	3.95	3.98	3.51	38.6653	81.0
7	37	13C2-6:2 FTS	429.1 > 408.9	2.72e3	1.16e4	0.262	0.210	4.26	4.29	2.92	53.0891	111.2
8	38	13C2-PFOA	414.9 > 369.7	1.07e4	1.16e4	0.262	0.990	4.32	4.34	11.5	44.4434	93.1
9	39	13C5-PFNA	468.2 > 422.9	7.98e3	1.00e4	0.262	0.845	4.75	4.76	9.95	44.9784	94.2
10	40	13C8-PFOSA	506.1 > 77.7	9.72e2	1.29e4	0.262	0.199	4.81	4.83	0.942	18.0482	37.8
11	41	13C8-PFOS	507.0 > 79.9	2.79e3	3.83e3	0.262	0.865	4.83	4.84	9.10	40.1845	84.1
12	42	13C2-PFDA	515.1 > 469.9	7.61e3	9.19e3	0.262	0.886	5.11	5.12	10.4	44.6560	93.5
13	43	13C2-8:2 FTS	529.1 > 508.7	1.87e3	1.35e4	0.262	0.136	5.09	5.10	1.73	48.6500	101.9
14	44	d3-N-MeFOSAA	573.3 > 419	3.21e3	1.29e4	0.262	0.409	5.26	5.27	3.12	29.1221	61.0
15	45	d5-N-EtFOSAA	589.3 > 419	4.47e3	1.29e4	0.262	0.474	5.42	5.42	4.34	34.9635	73.2
16	46	13C2-PFUdA	565 > 519.8	9.10e3	1.29e4	0.262	0.928	5.43	5.44	8.83	36.3168	76.0
17	47	13C2-PFDoA	615.0 > 569.7	6.43e3	1.29e4	0.262	0.636	5.70	5.71	6.24	37.4837	78.5
18	49	13C2-PFTeDA	714.8 > 669.6	2.18e3	1.29e4	0.262	0.163	6.16	6.16	2.11	49.6443	104.0
19	55	13C5-PFHxA	318 > 272.9	1.35e4	1.35e4	0.262	1.000	3.20	3.24	12.5	47.7573	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.67e3	3.67e3	0.262	1.000	3.95	3.98	12.5	47.7573	100.0
21	57	13C8-PFOA	421.3 > 376	1.16e4	1.16e4	0.262	1.000	4.32	4.34	12.5	47.7573	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.00e4	1.00e4	0.262	1.000	4.75	4.76	12.5	47.7573	100.0
23	59	13C4-PFOS	503 > 79.9	3.83e3	3.83e3	0.262	1.000	4.83	4.84	12.5	47.7573	100.0
24	60	13C6-PFDA	519.1 > 473.7	9.19e3	9.19e3	0.262	1.000	5.11	5.12	12.5	47.7573	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.29e4	1.29e4	0.262	1.000	5.43	5.44	12.5	47.7573	100.0
26	62	Total PFHxS	398.9 > 79.6	8.88e0	1.03e3	0.262		4.00		0.108	0.3455	
27	63	Total PFOA	413 > 368.7	1.79e2	1.07e4	0.262		4.30		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.79e3	0.262		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.21e3	0.262		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.47e3	0.262		5.40		0.000		

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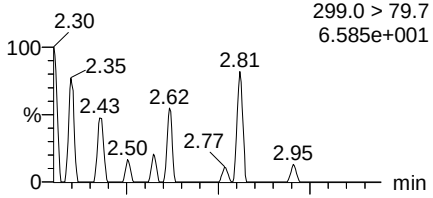
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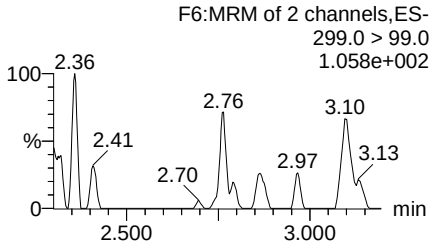
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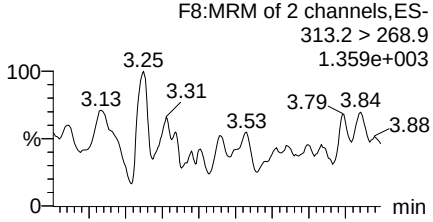
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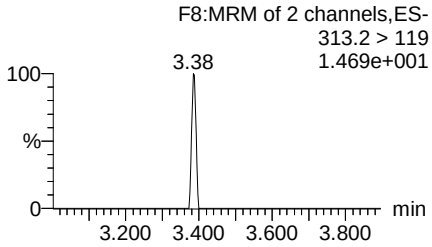
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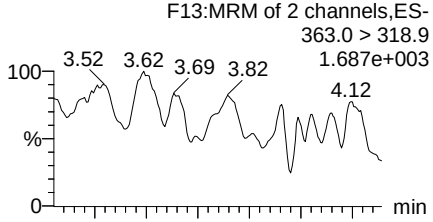


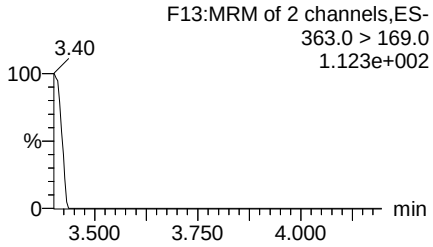
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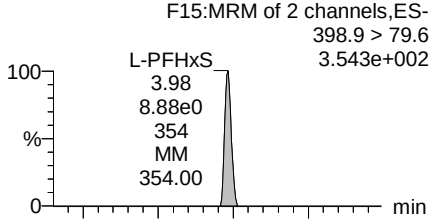


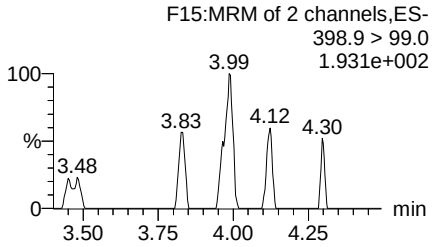
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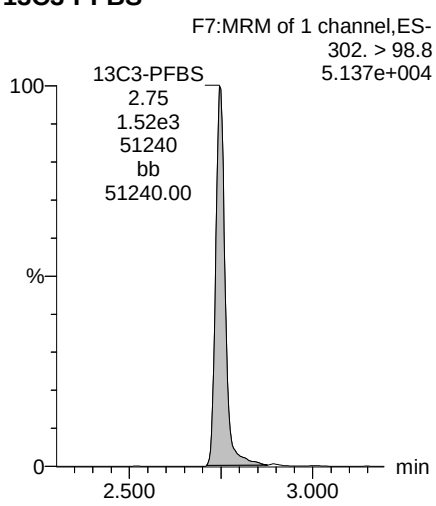


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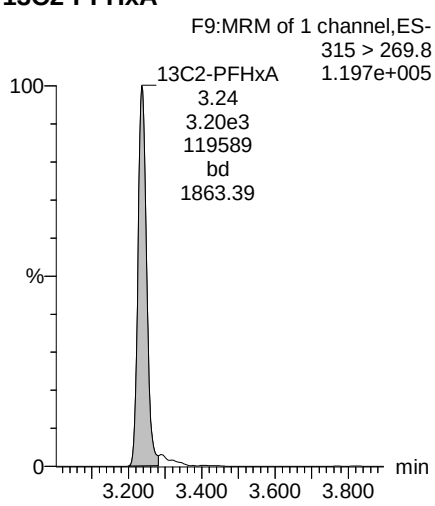




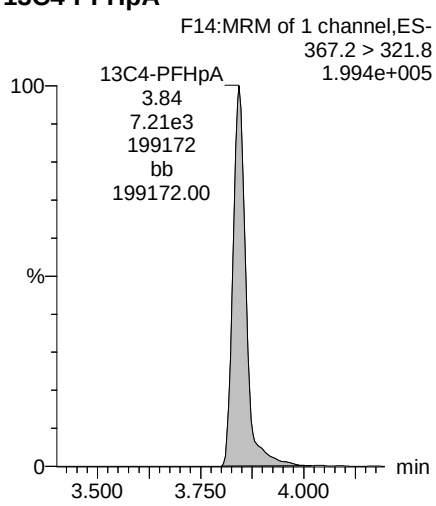
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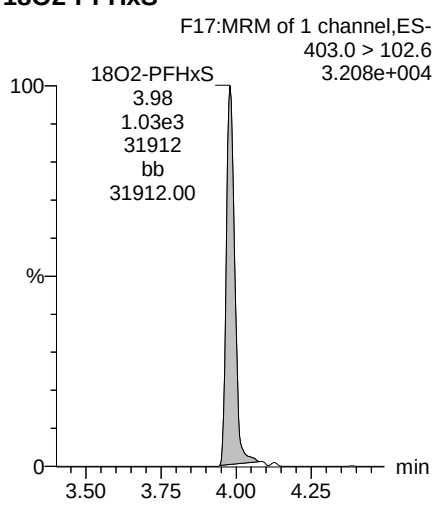
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13C4-PFHpA



18O2-PFHxS



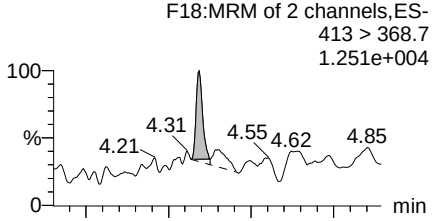
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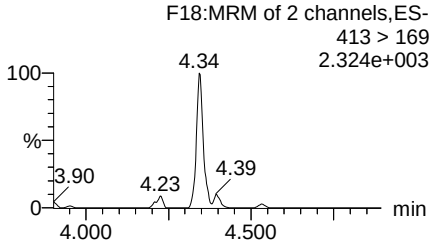
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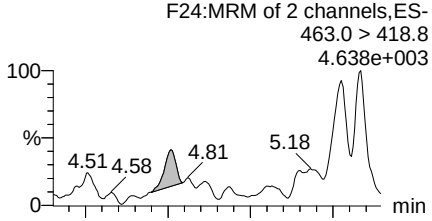
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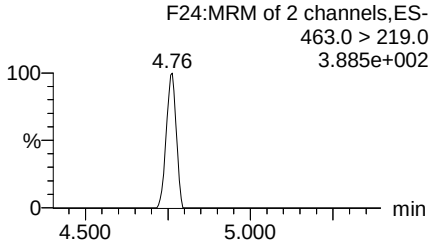
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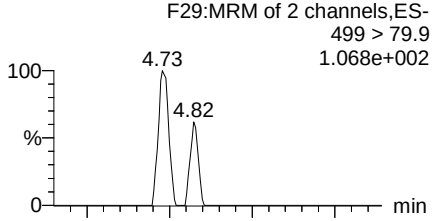


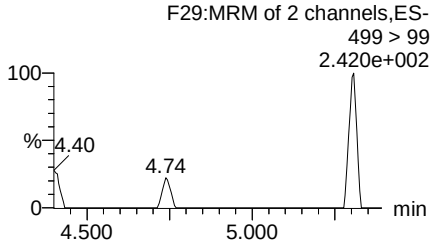
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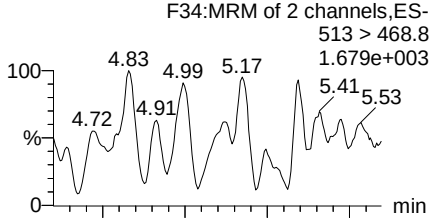


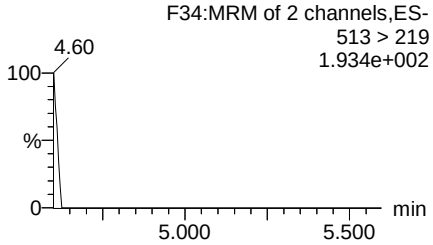
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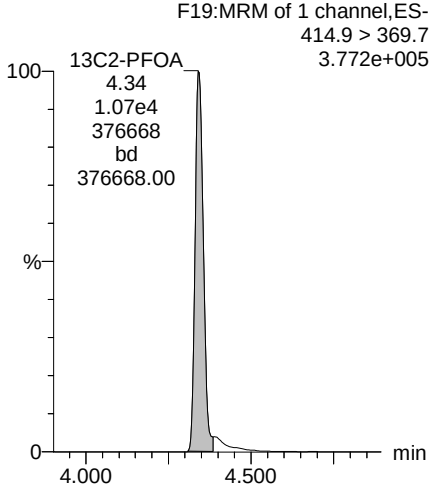


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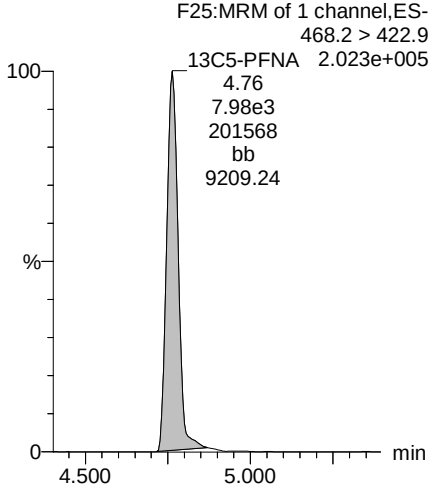




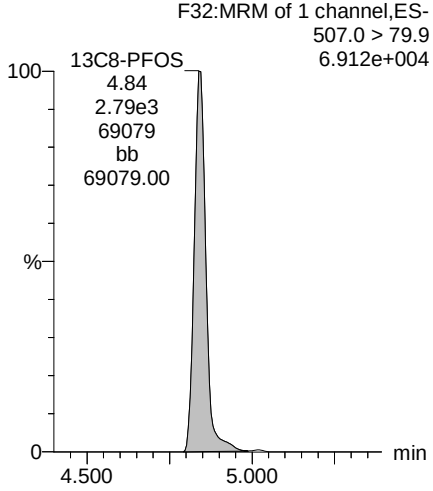
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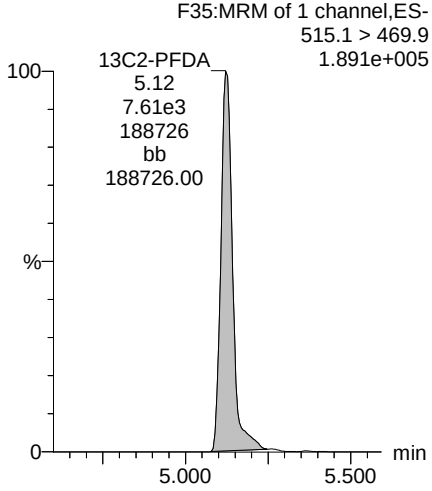
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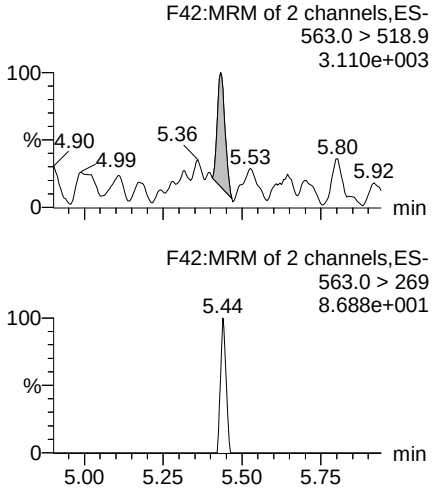
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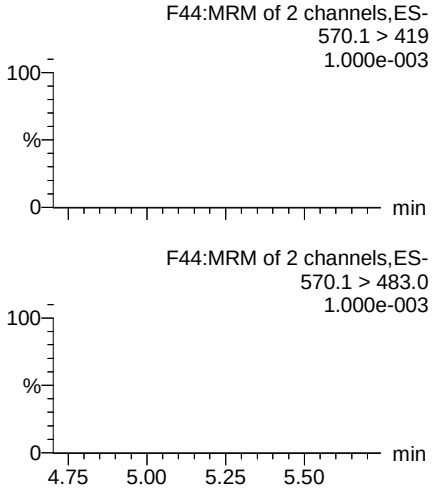
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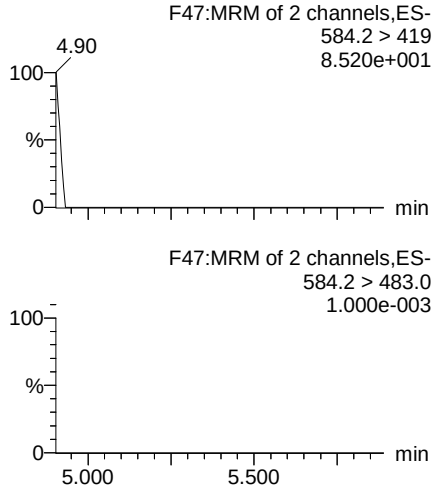
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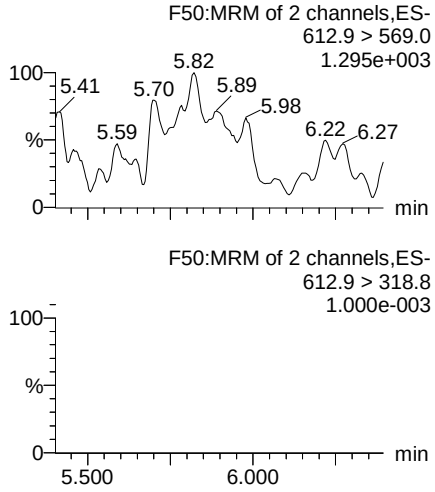
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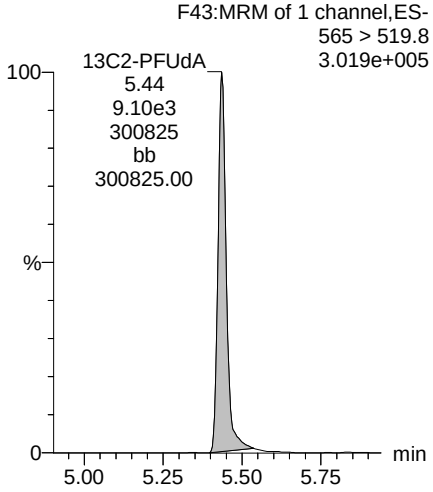
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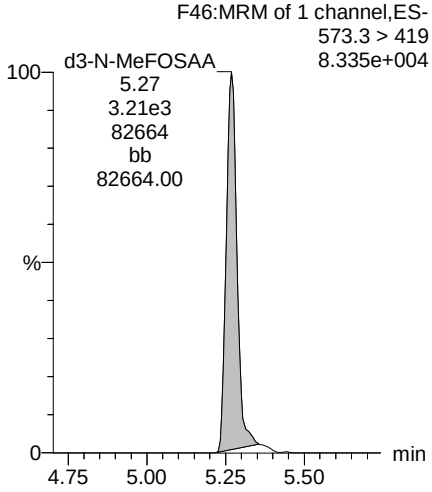
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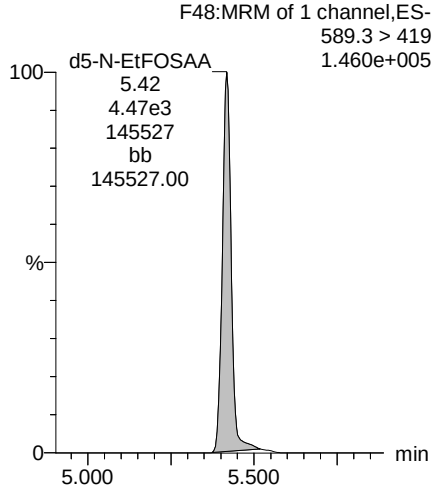
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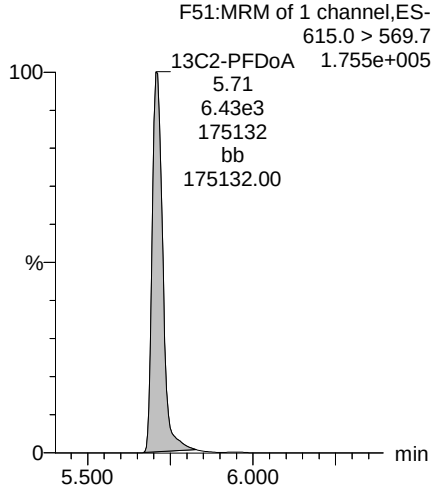
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d5-N-EtFOSAA



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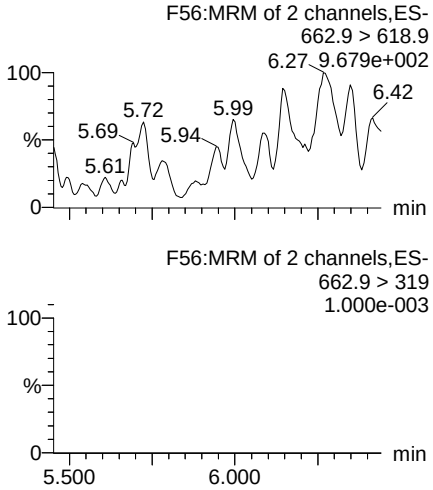
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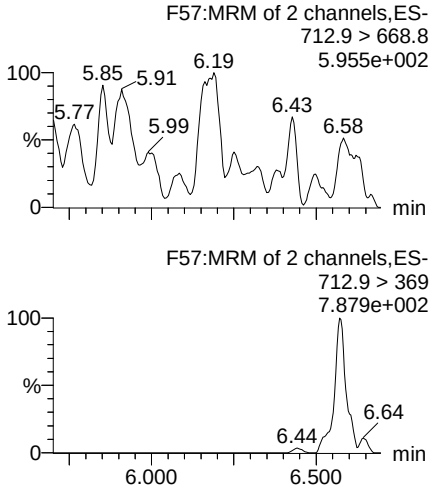
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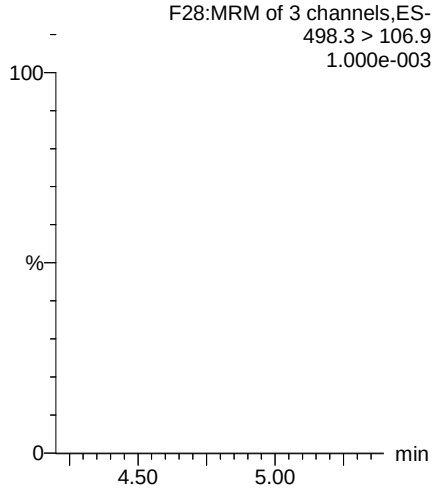
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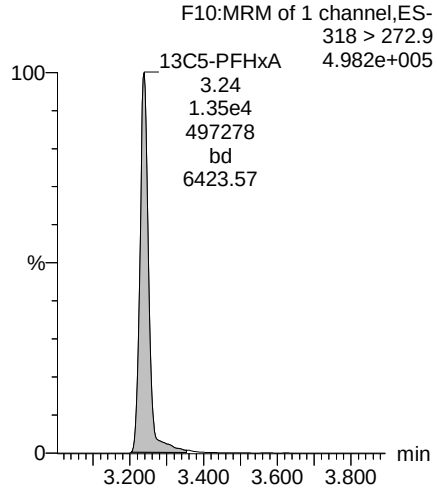
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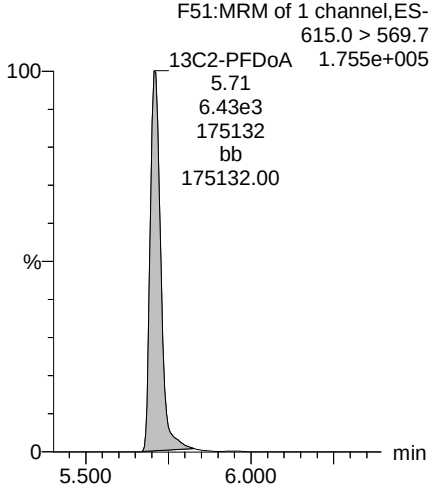
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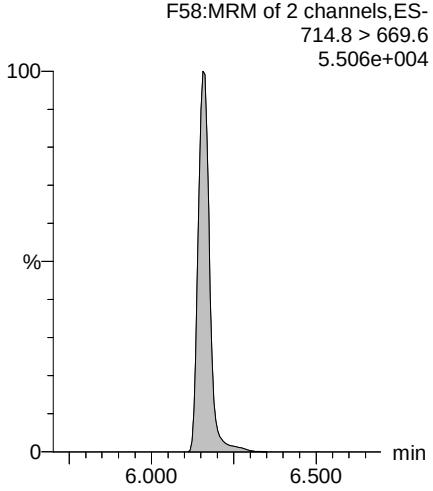
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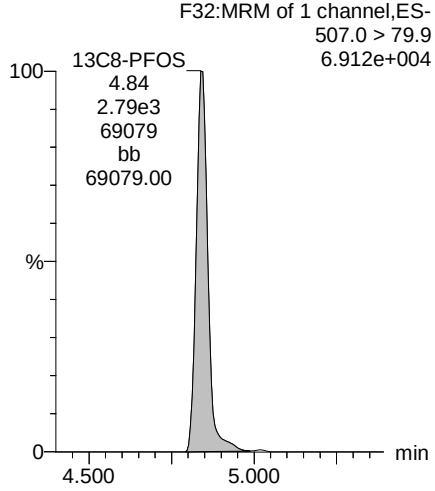
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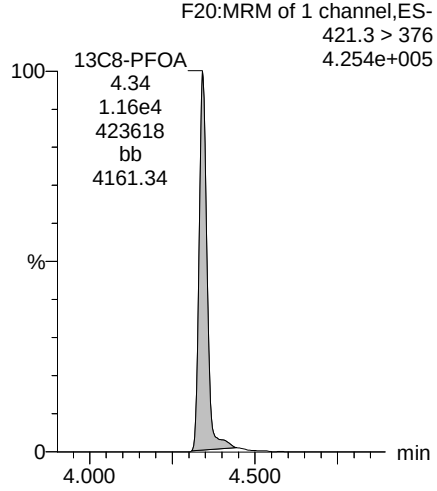
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13C8-PFOA



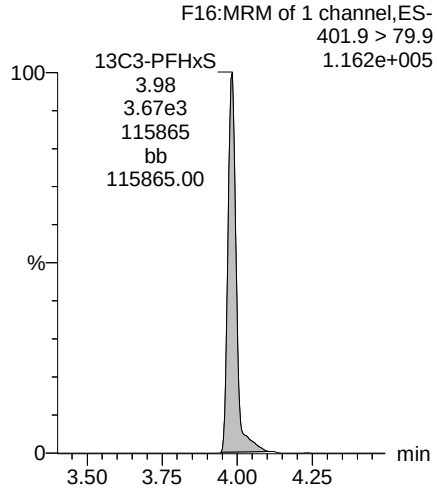
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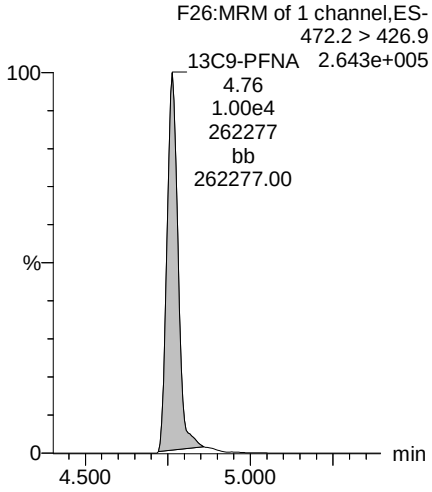
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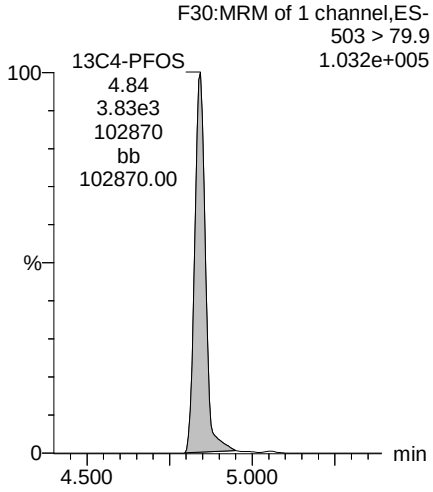
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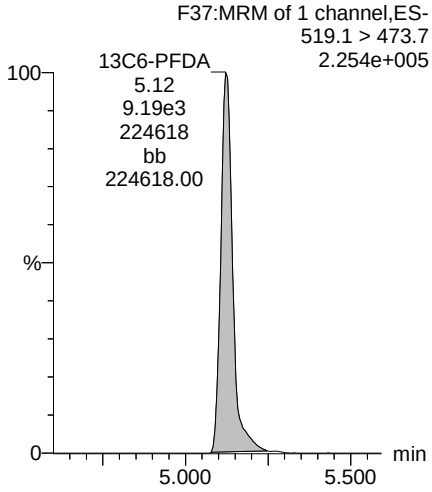
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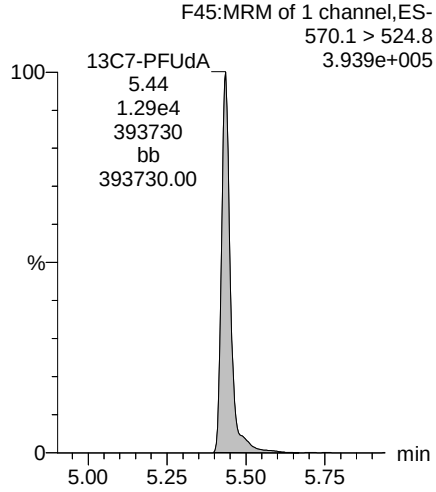
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-60.qld

Last Altered: Friday, December 29, 2017 12:43:26 Pacific Standard Time
Printed: Friday, December 29, 2017 12:44:09 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_60, Date: 28-Dec-2017, Time: 04:25:12, ID: 1701829-15 FT-MW05S-20171130 0.25681, Description: FT-MW05S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	4.38e1	1.50e3	0.257		2.70	2.75	0.365	1.4307	
2	4	PFHxA	313.2 > 268.9	1.52e3	3.19e3	0.257		3.20	3.24	2.37	5.0540	
3	5	PFHpA	363.0 > 318.9	9.32e2	7.41e3	0.257		3.80	3.84	1.57	3.9362	
4	6	L-PFHxS	398.9 > 79.6	9.57e2	1.00e3	0.257		3.95	3.98	12.0	21.9306	
5	9	L-PFOA	413 > 368.7	1.82e3	1.29e4	0.257		4.32	4.34	1.76	4.6655	
6	12	PFNA	463.0 > 418.8	8.06e3	9.02e3	0.257		4.75	4.76	11.2	28.3232	
7	14	L-PFOS	499 > 79.9	1.55e3	2.92e3	0.257		4.83	4.84	6.63	20.9003	
8	16	PFDA	513 > 468.8	2.12e2	7.12e3	0.257		5.11	5.12	0.372	1.1390	
9	18	N-MeFOSAA	570.1 > 419		3.66e3	0.257		5.26				
10	19	N-EtFOSAA	584.2 > 419		3.88e3	0.257		5.42				
11	20	PFUdA	563.0 > 518.9	1.49e2	1.10e4	0.257		5.43	5.44	0.169	0.3366	
12	22	PFDoA	612.9 > 569.0		7.51e3	0.257		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-60.qld

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Name: 171227M2_60, Date: 28-Dec-2017, Time: 04:25:12, ID: 1701829-15 FT-MW05S-20171130 0.25681, Description: FT-MW05S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		7.51e3	0.257		5.95				
2	25	PFTeDA	712.9 > 668.8		2.30e3	0.257		6.16				
3	33	13C3-PFBS	302. > 98.8	1.50e3	1.33e4	0.257	0.101	2.70	2.75	1.41	54.3308	111.6
4	34	13C2-PFHxA	315 > 269.8	3.19e3	1.33e4	0.257	0.601	3.20	3.24	3.01	19.5338	100.3
5	35	13C4-PFHpA	367.2 > 321.8	7.41e3	1.33e4	0.257	0.676	3.80	3.84	6.99	40.2155	82.6
6	36	18O2-PFHxS	403.0 > 102.6	1.00e3	3.22e3	0.257	0.347	3.95	3.98	3.88	43.6499	89.7
7	37	13C2-6:2 FTS	429.1 > 408.9	2.90e3	1.24e4	0.257	0.210	4.26	4.29	2.93	54.3263	111.6
8	38	13C2-PFOA	414.9 > 369.7	1.29e4	1.24e4	0.257	0.990	4.32	4.34	13.0	51.2608	105.3
9	39	13C5-PFNA	468.2 > 422.9	9.02e3	1.21e4	0.257	0.845	4.75	4.76	9.30	42.8446	88.0
10	40	13C8-PFOSA	506.1 > 77.7	1.39e3	1.16e4	0.257	0.199	4.81	4.84	1.50	29.2849	60.2
11	41	13C8-PFOS	507.0 > 79.9	2.92e3	4.15e3	0.257	0.865	4.83	4.84	8.79	39.5573	81.3
12	42	13C2-PFDA	515.1 > 469.9	7.12e3	9.87e3	0.257	0.886	5.11	5.13	9.03	39.6693	81.5
13	43	13C2-8:2 FTS	529.1 > 508.7	1.73e3	1.33e4	0.257	0.136	5.09	5.10	1.64	46.9051	96.4
14	44	d3-N-MeFOSAA	573.3 > 419	3.66e3	1.16e4	0.257	0.409	5.26	5.27	3.95	37.5849	77.2
15	45	d5-N-EtFOSAA	589.3 > 419	3.88e3	1.16e4	0.257	0.474	5.42	5.42	4.18	34.3601	70.6
16	46	13C2-PFUdA	565 > 519.8	1.10e4	1.16e4	0.257	0.928	5.43	5.44	11.8	49.5979	101.9
17	47	13C2-PFDoA	615.0 > 569.7	7.51e3	1.16e4	0.257	0.636	5.70	5.71	8.10	49.5951	101.9
18	49	13C2-PFTeDA	714.8 > 669.6	2.30e3	1.16e4	0.257	0.163	6.16	6.16	2.48	59.3305	121.9
19	55	13C5-PFHxA	318 > 272.9	1.33e4	1.33e4	0.257	1.000	3.20	3.24	12.5	48.6741	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.22e3	3.22e3	0.257	1.000	3.95	3.98	12.5	48.6741	100.0
21	57	13C8-PFOA	421.3 > 376	1.24e4	1.24e4	0.257	1.000	4.32	4.34	12.5	48.6741	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.21e4	1.21e4	0.257	1.000	4.75	4.76	12.5	48.6741	100.0
23	59	13C4-PFOS	503 > 79.9	4.15e3	4.15e3	0.257	1.000	4.83	4.84	12.5	48.6741	100.0
24	60	13C6-PFDA	519.1 > 473.7	9.87e3	9.87e3	0.257	1.000	5.11	5.13	12.5	48.6741	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.16e4	1.16e4	0.257	1.000	5.43	5.44	12.5	48.6741	100.0
26	62	Total PFHxS	398.9 > 79.6	9.57e2	1.00e3	0.257		4.00		12.0	21.9306	
27	63	Total PFOA	413 > 368.7	2.17e3	1.29e4	0.257		4.30		2.10	4.8632	
28	64	Total PFOS	499 > 79.9	1.55e3	2.92e3	0.257		4.80		6.63	20.9003	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.66e3	0.257		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.88e3	0.257		5.40		0.000		

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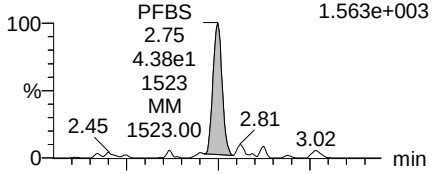
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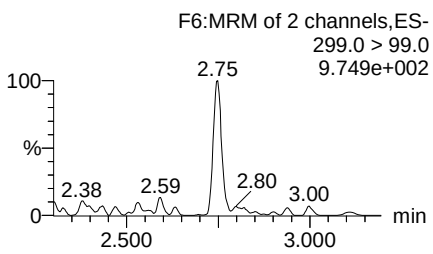
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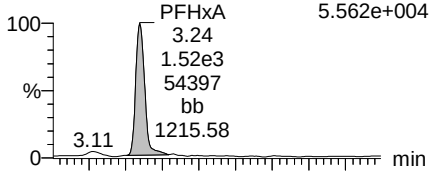
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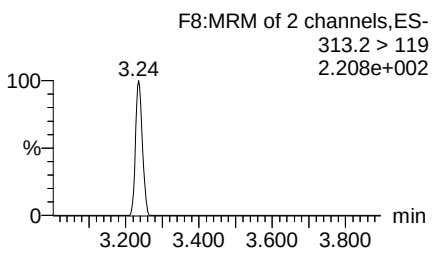
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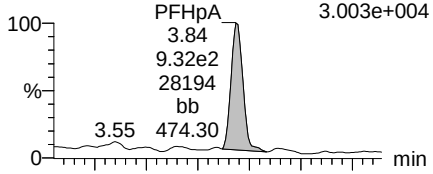


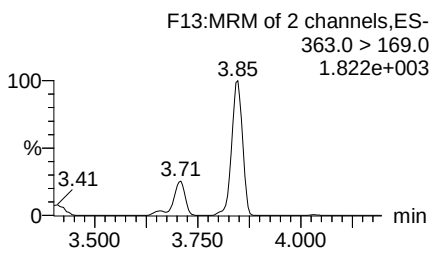
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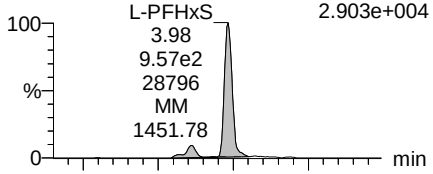


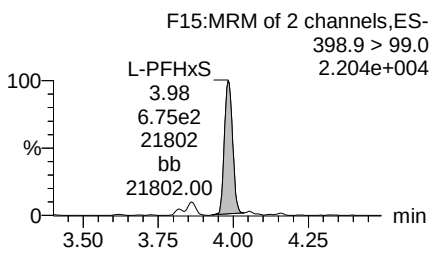
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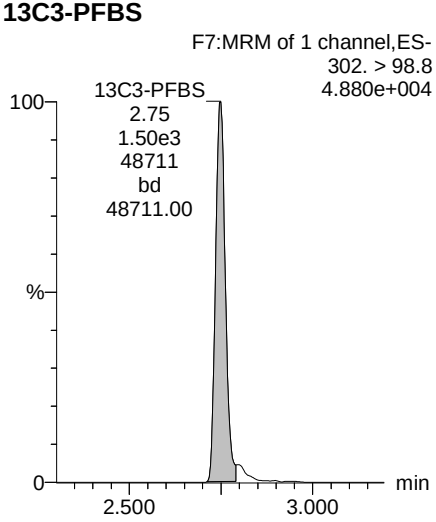


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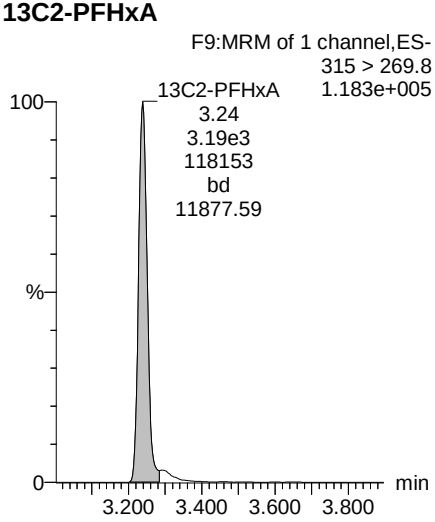




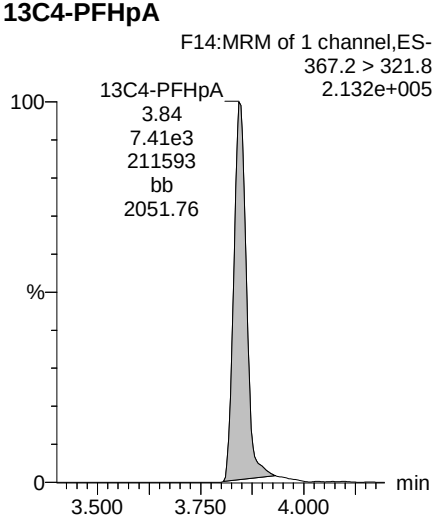
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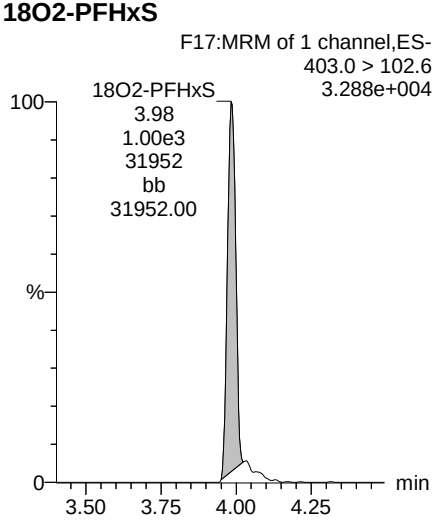
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13C4-PFHpA



18O2-PFHxS



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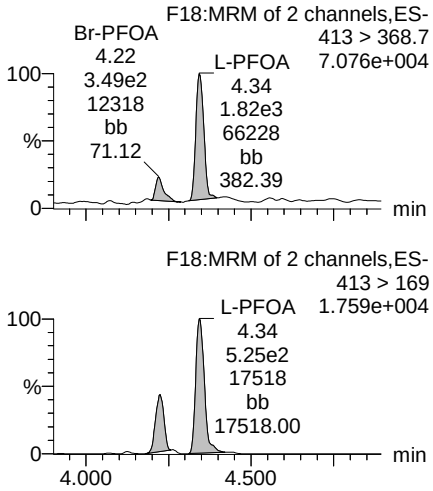
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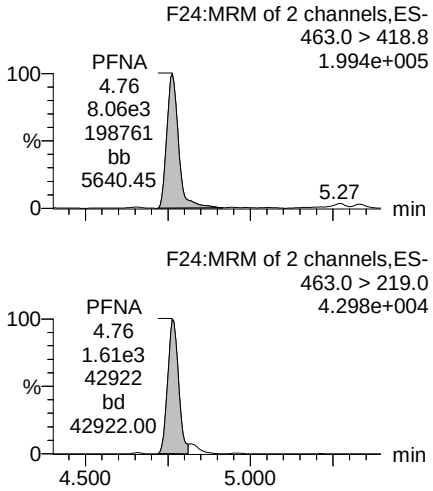
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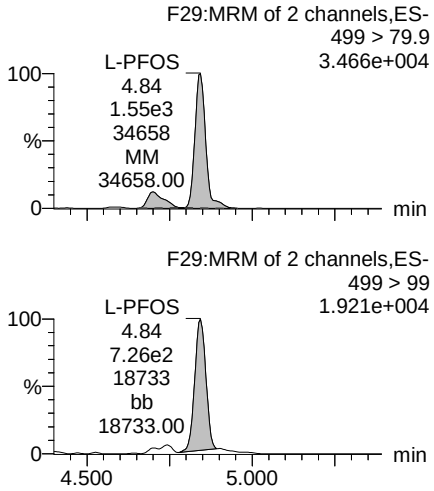
Total PFOA



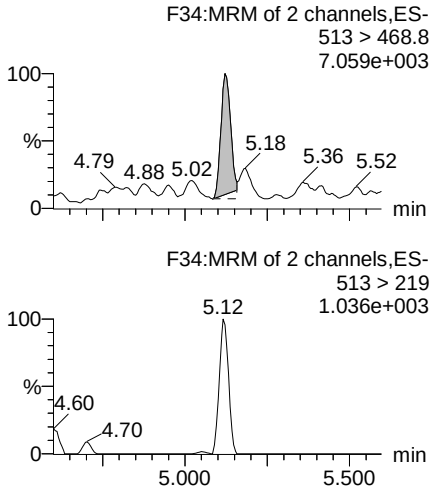
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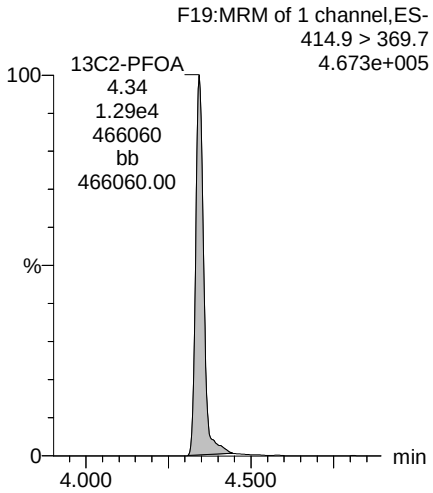
Total PFOS



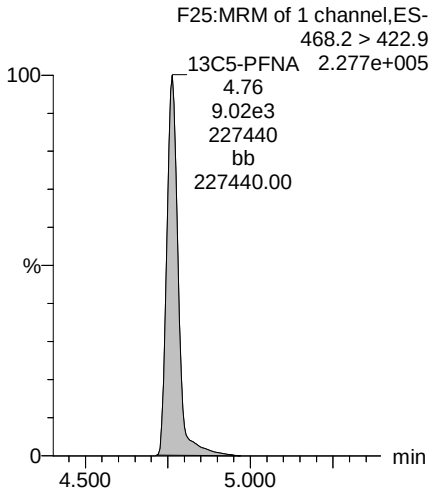
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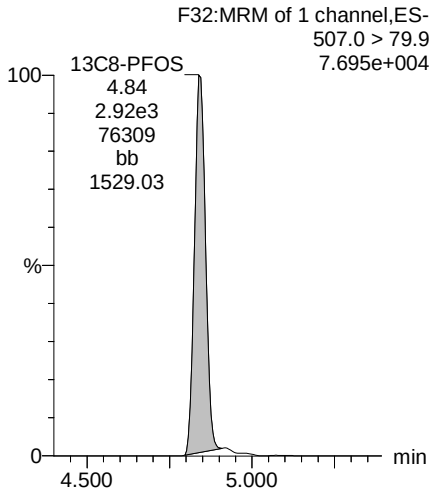
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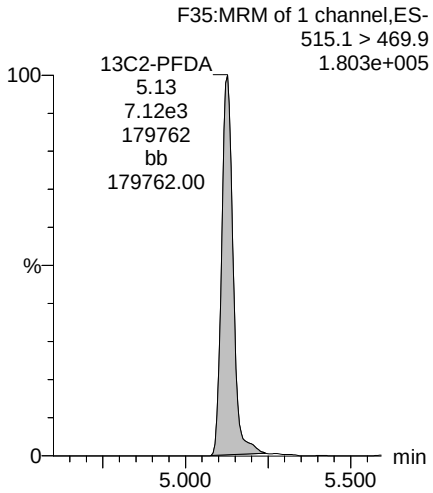
13C5-PFNA



13C8-PFOS



13C2-PFDA



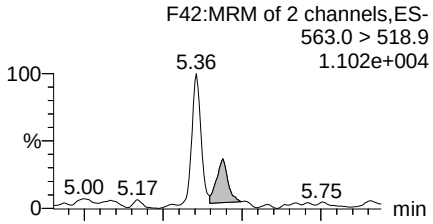
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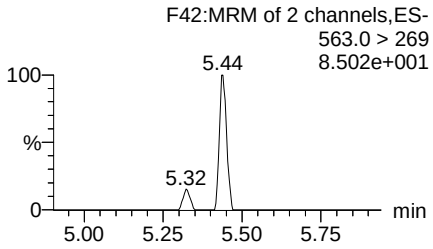
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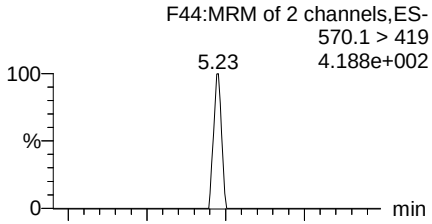
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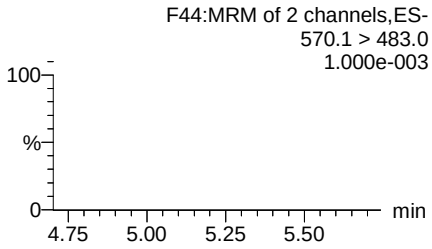
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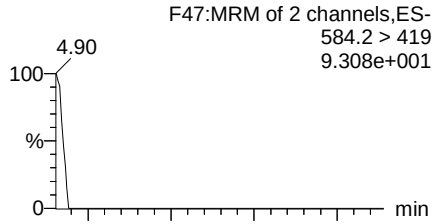


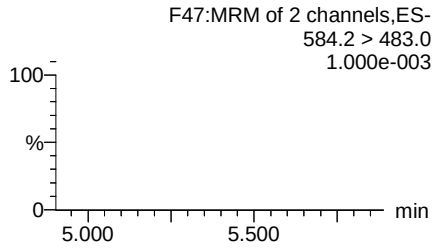
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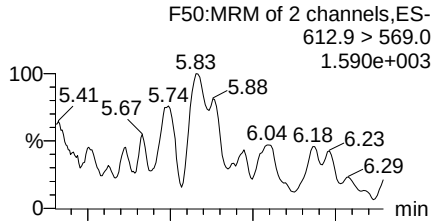


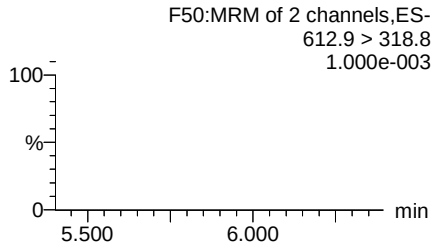
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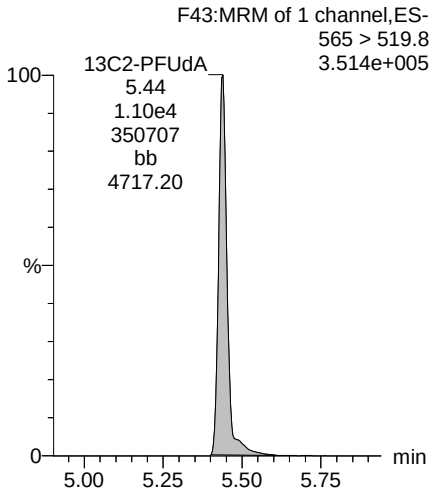


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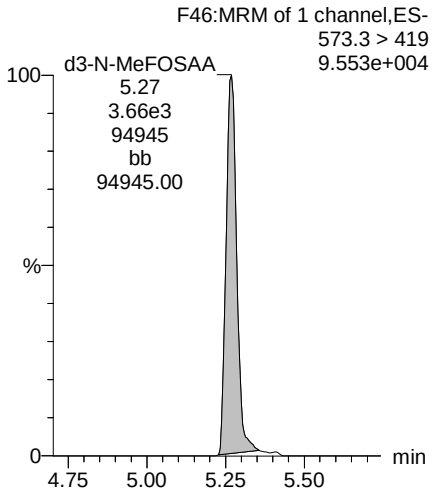




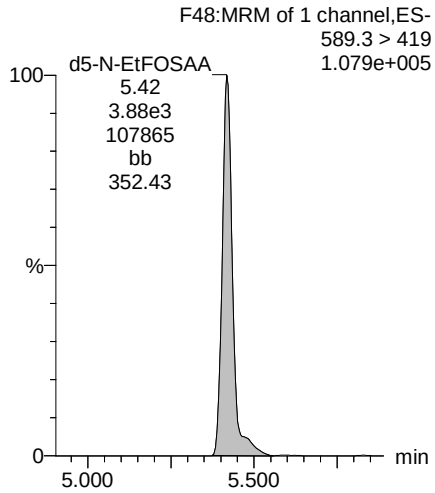
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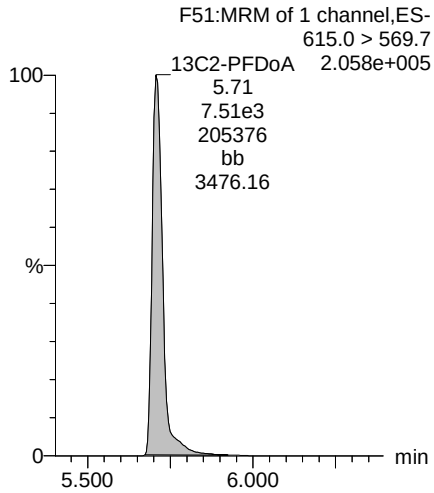
d3-N-MeFOSAA



d5-N-EtFOSAA



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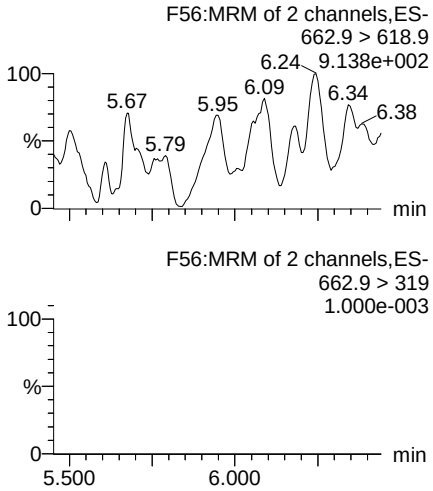
MSF 12/29/17

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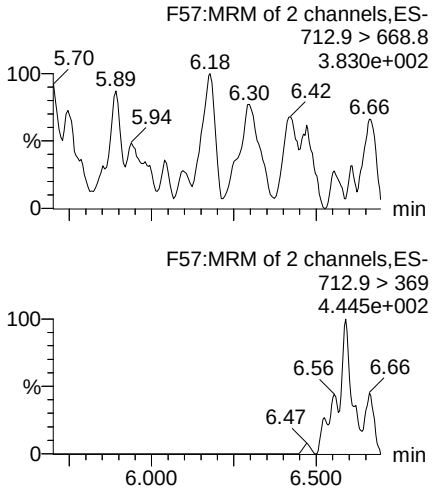
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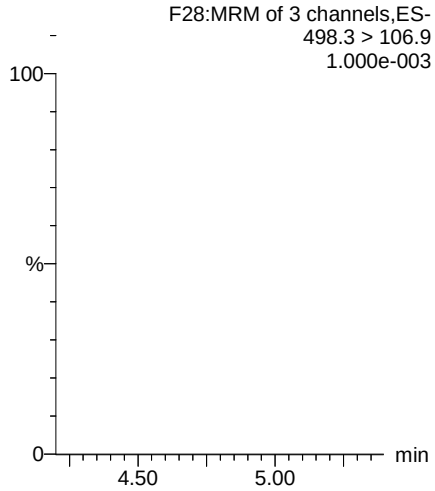
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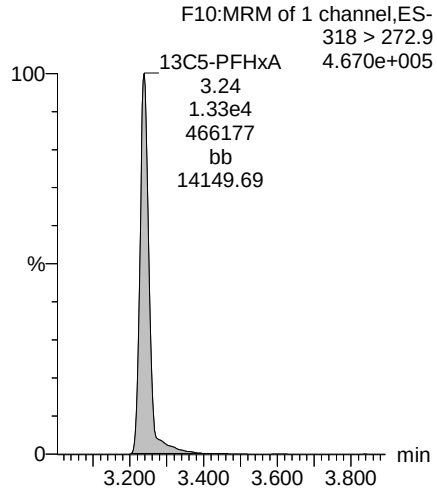
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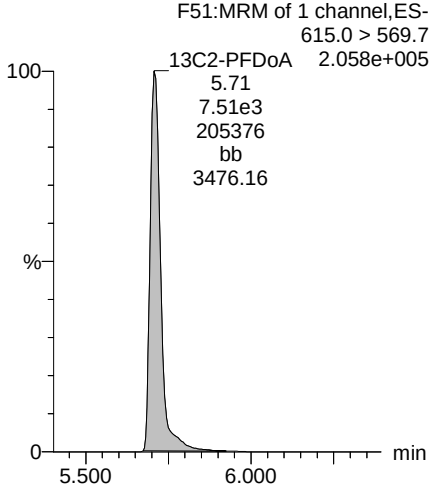
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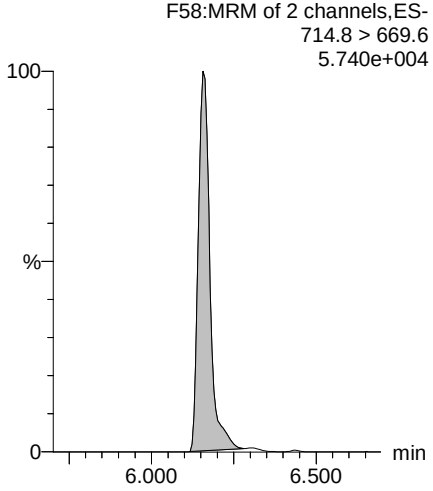
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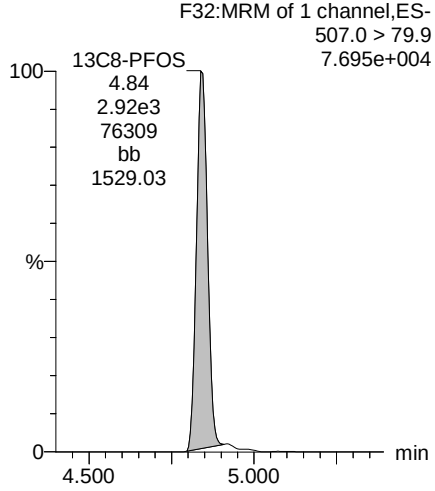
13C2-PFDoA



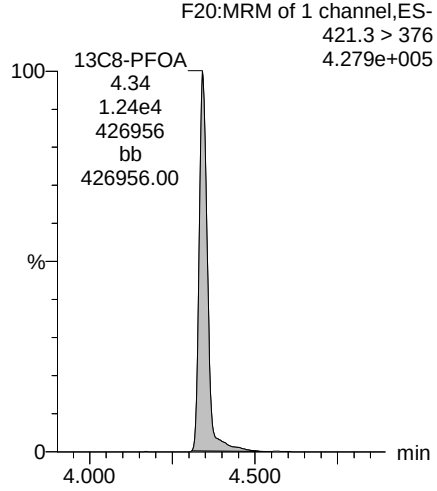
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13C8-PFOS



13C8-PFOA



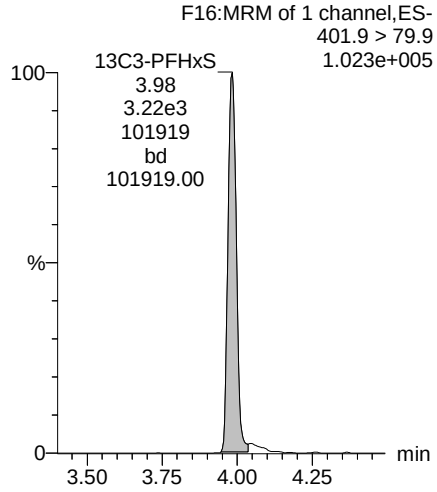
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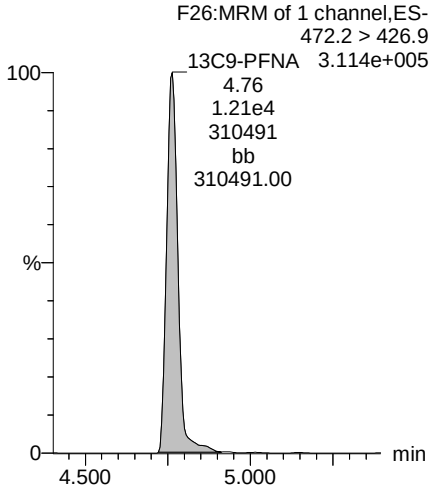
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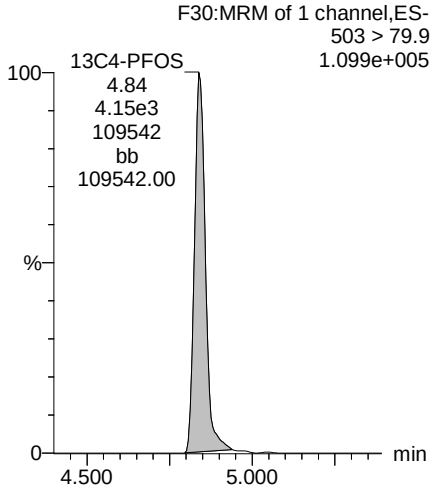
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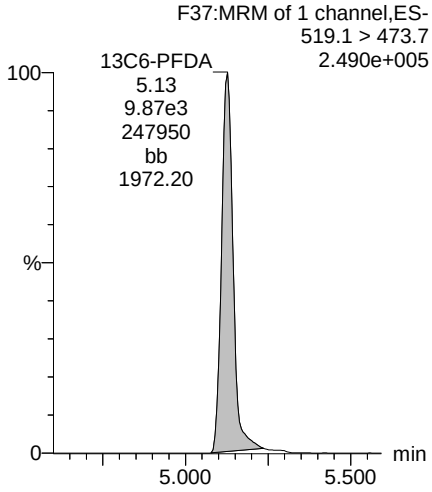
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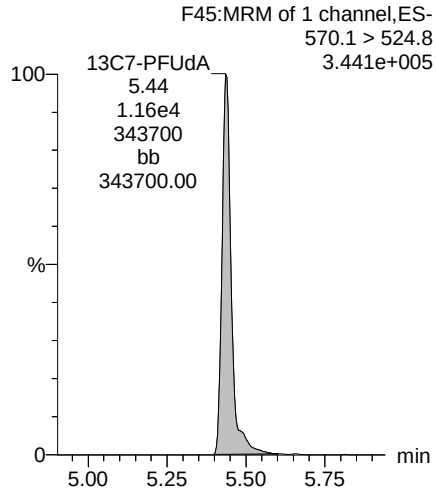
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13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-61.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_61, Date: 28-Dec-2017, Time: 04:36:24, ID: 1701829-16 FT-MW06I-20171130 0.24988, Description: FT-MW06I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.58e3	0.250		2.70				
2	4	PFHxA	313.2 > 268.9		3.34e3	0.250		3.20				
3	5	PFHpA	363.0 > 318.9		8.72e3	0.250		3.80				
4	6	L-PFHxS	398.9 > 79.6		1.24e3	0.250		3.95				
5	9	L-PFOA	413 > 368.7	2.10e2	1.09e4	0.250		4.32	4.35	0.241		
6	12	PFNA	463.0 > 418.8	3.93e1	1.09e4	0.250		4.75	4.77	0.0451	0.1512	
7	14	L-PFOS	499 > 79.9		3.33e3	0.250		4.83				
8	16	PFDA	513 > 468.8		7.71e3	0.250		5.11				
9	18	N-MeFOSAA	570.1 > 419		2.90e3	0.250		5.26				
10	19	N-EtFOSAA	584.2 > 419		3.01e3	0.250		5.42				
11	20	PFUdA	563.0 > 518.9		9.04e3	0.250		5.43				
12	22	PFDoA	612.9 > 569.0		5.75e3	0.250		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-61.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_61, Date: 28-Dec-2017, Time: 04:36:24, ID: 1701829-16 FT-MW06I-20171130 0.24988, Description: FT-MW06I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		5.75e3	0.250		5.95				
2	25	PFTeDA	712.9 > 668.8		2.71e3	0.250		6.16				
3	33	13C3-PFBS	302. > 98.8	1.58e3	1.29e4	0.250	0.101	2.70	2.75	1.53	60.2468	120.4
4	34	13C2-PFHxA	315 > 269.8	3.34e3	1.29e4	0.250	0.601	3.20	3.24	3.23	21.5253	107.6
5	35	13C4-PFHpA	367.2 > 321.8	8.72e3	1.29e4	0.250	0.676	3.80	3.84	8.45	49.9811	99.9
6	36	18O2-PFHxS	403.0 > 102.6	1.24e3	3.46e3	0.250	0.347	3.95	3.98	4.49	51.8378	103.6
7	37	13C2-6:2 FTS	429.1 > 408.9	2.43e3	1.15e4	0.250	0.210	4.26	4.29	2.65	50.4928	100.9
8	38	13C2-PFOA	414.9 > 369.7	1.09e4	1.15e4	0.250	0.990	4.32	4.35	11.9	47.9601	95.9
9	39	13C5-PFNA	468.2 > 422.9	1.09e4	1.40e4	0.250	0.845	4.75	4.76	9.78	46.2990	92.6
10	40	13C8-PFOSA	506.1 > 77.7	9.80e2	1.27e4	0.250	0.199	4.81	4.84	0.967	19.3917	38.8
11	41	13C8-PFOS	507.0 > 79.9	3.33e3	3.33e3	0.250	0.865	4.83	4.84	12.5	57.8262	115.6
12	42	13C2-PFDA	515.1 > 469.9	7.71e3	1.23e4	0.250	0.886	5.11	5.13	7.83	35.3640	70.7
13	43	13C2-8:2 FTS	529.1 > 508.7	1.60e3	1.29e4	0.250	0.136	5.09	5.10	1.55	45.6222	91.2
14	44	d3-N-MeFOSAA	573.3 > 419	2.90e3	1.27e4	0.250	0.409	5.26	5.27	2.87	28.0566	56.1
15	45	d5-N-EtFOSAA	589.3 > 419	3.01e3	1.27e4	0.250	0.474	5.42	5.42	2.97	25.1253	50.2
16	46	13C2-PFUdA	565 > 519.8	9.04e3	1.27e4	0.250	0.928	5.43	5.44	8.92	38.4440	76.9
17	47	13C2-PFDoA	615.0 > 569.7	5.75e3	1.27e4	0.250	0.636	5.70	5.71	5.68	35.7041	71.4
18	49	13C2-PFTeDA	714.8 > 669.6	2.71e3	1.27e4	0.250	0.163	6.16	6.16	2.67	65.6990	131.3
19	55	13C5-PFHxA	318 > 272.9	1.29e4	1.29e4	0.250	1.000	3.20	3.24	12.5	50.0240	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.46e3	3.46e3	0.250	1.000	3.95	3.98	12.5	50.0240	100.0
21	57	13C8-PFOA	421.3 > 376	1.15e4	1.15e4	0.250	1.000	4.32	4.34	12.5	50.0240	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.40e4	1.40e4	0.250	1.000	4.75	4.76	12.5	50.0240	100.0
23	59	13C4-PFOS	503 > 79.9	3.33e3	3.33e3	0.250	1.000	4.83	4.84	12.5	50.0240	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.23e4	1.23e4	0.250	1.000	5.11	5.13	12.5	50.0240	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.27e4	1.27e4	0.250	1.000	5.43	5.44	12.5	50.0240	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	1.24e3	0.250		4.00		0.000		
27	63	Total PFOA	413 > 368.7	2.10e2	1.09e4	0.250		4.30		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	3.33e3	0.250		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.90e3	0.250		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.01e3	0.250		5.40		0.000		

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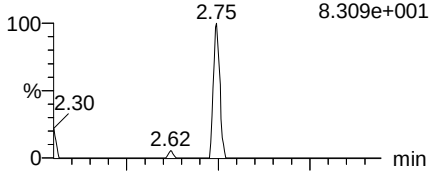
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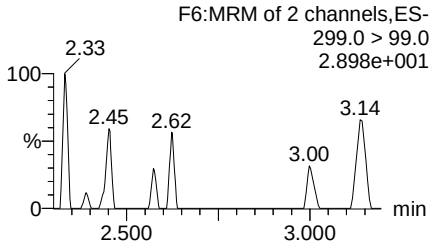
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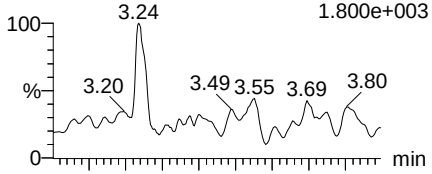
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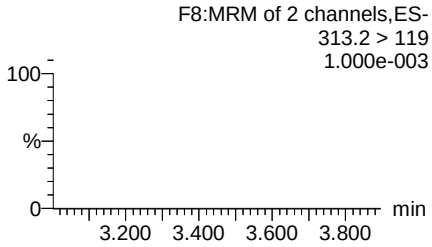
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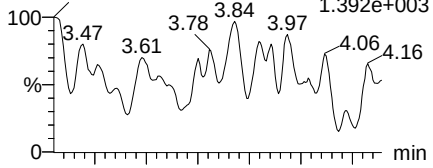


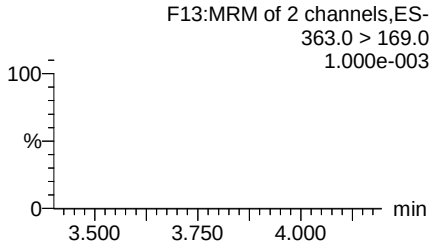
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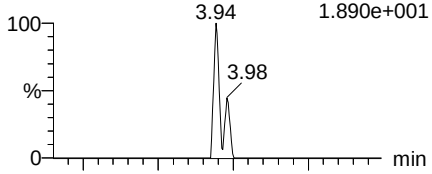


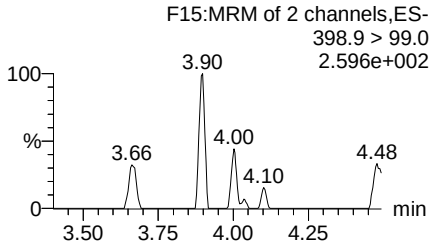
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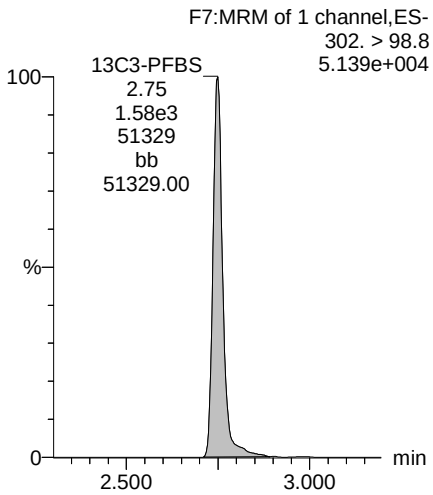


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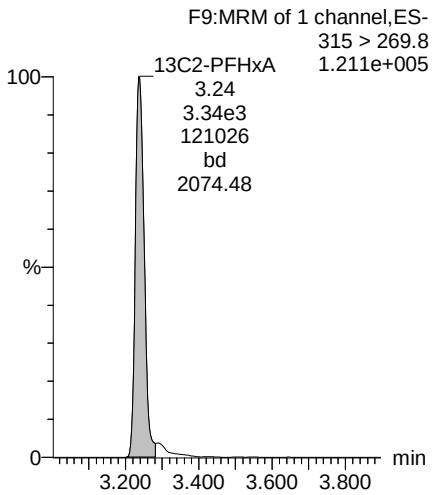




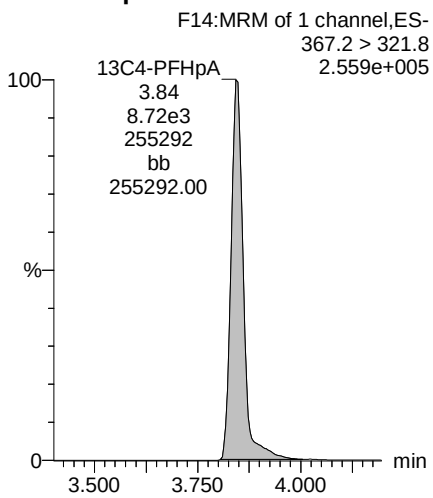
13C3-PFBS



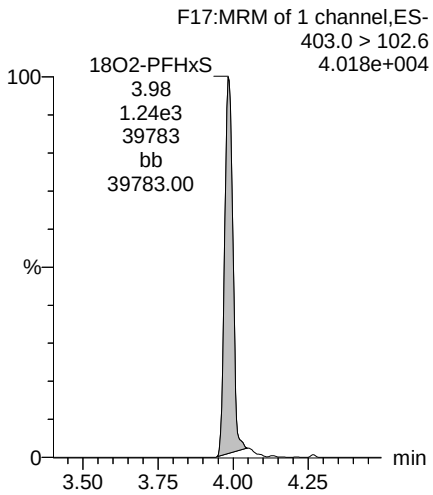
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



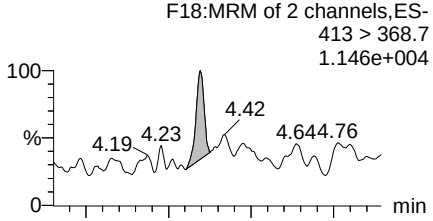
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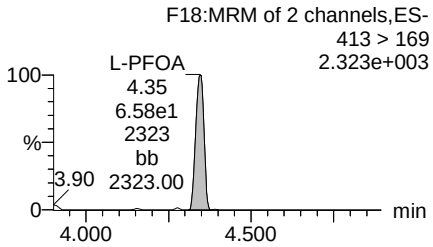
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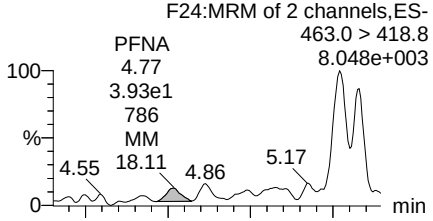
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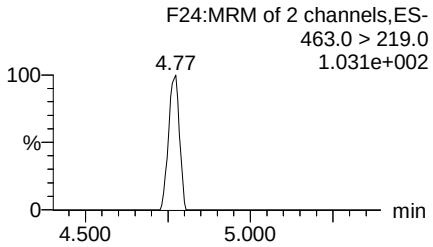
Total PFOA



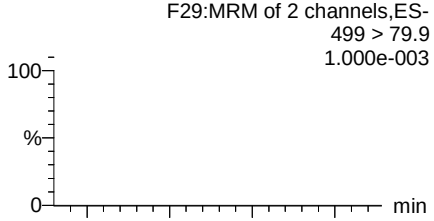


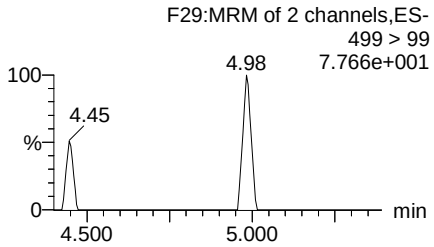
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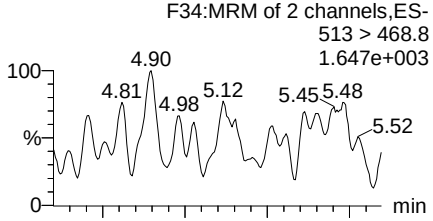


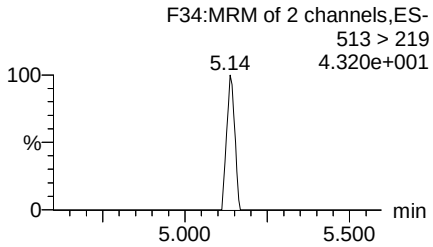
Total PFOS



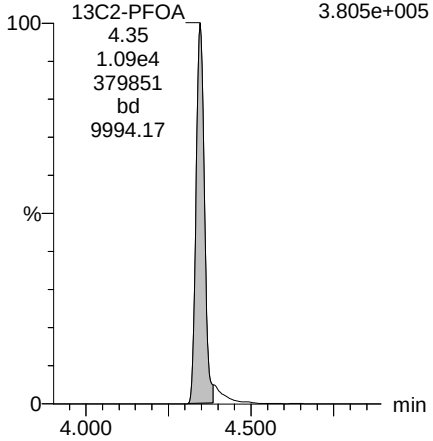


PFDA

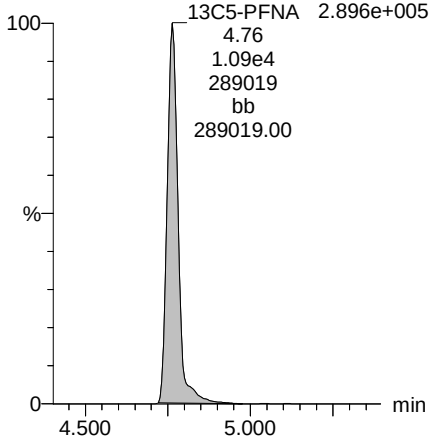




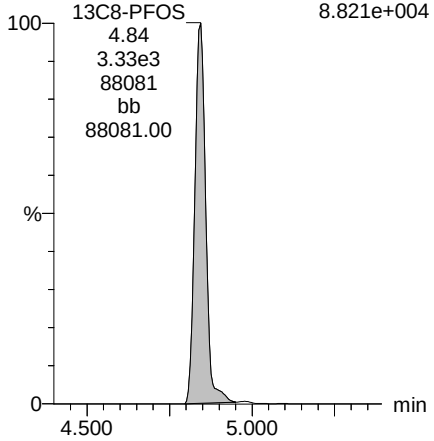
13C2-PFOA



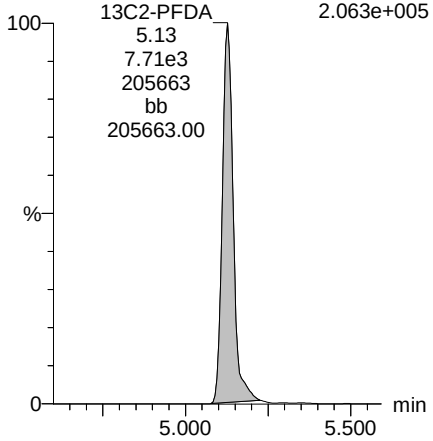
13C5-PFNA



13C8-PFOS



13C2-PFDA



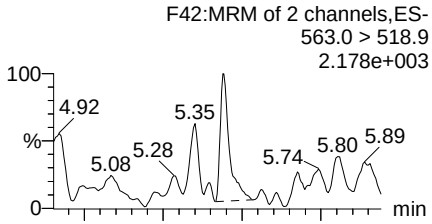
MSF 12/29/17

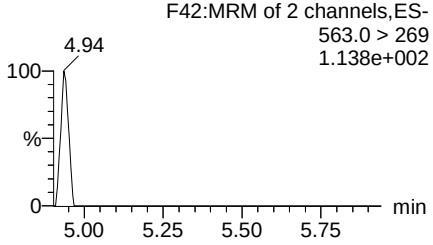
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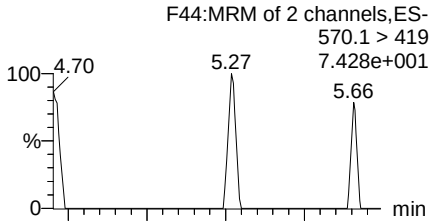
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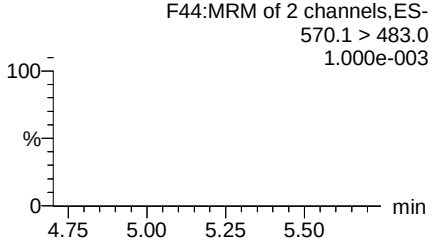
PFUdA



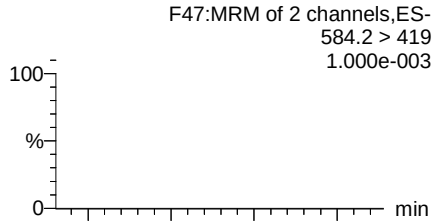


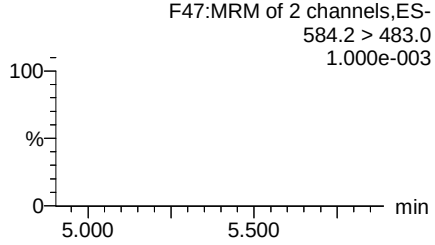
N-MeFOSAA



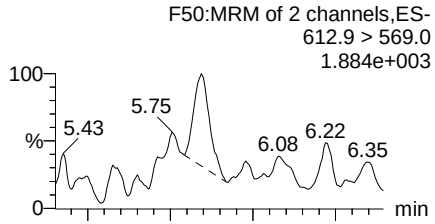


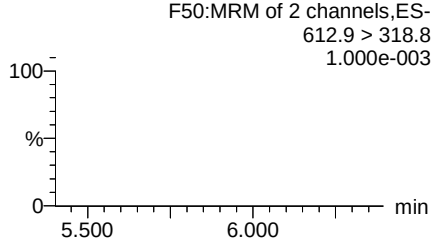
N-EtFOSAA



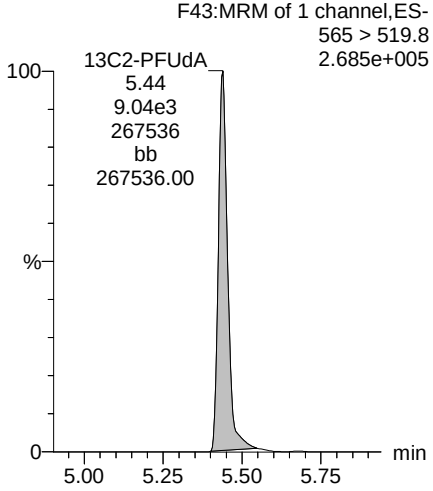


PFDoA

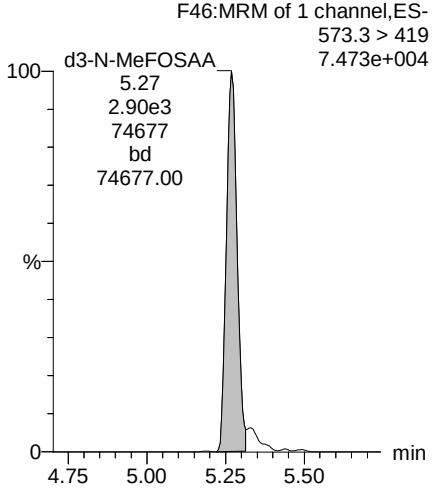




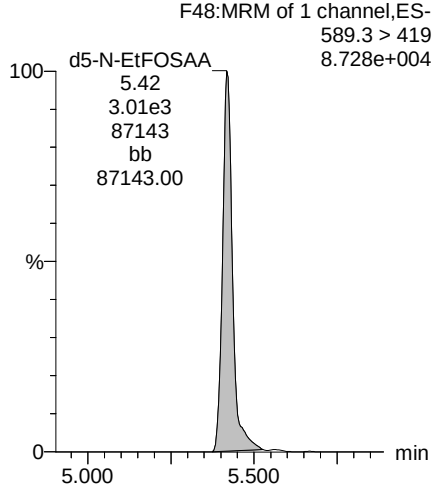
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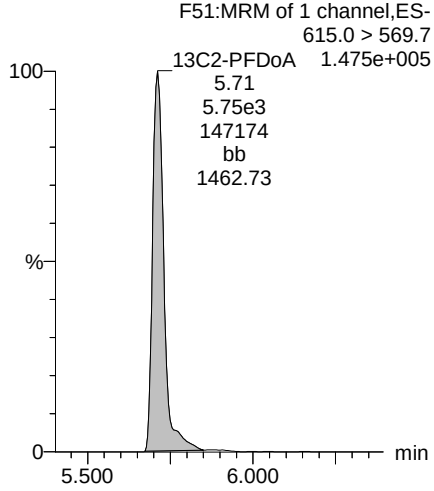
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



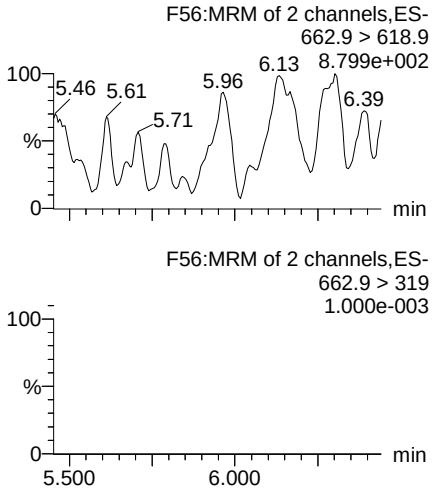
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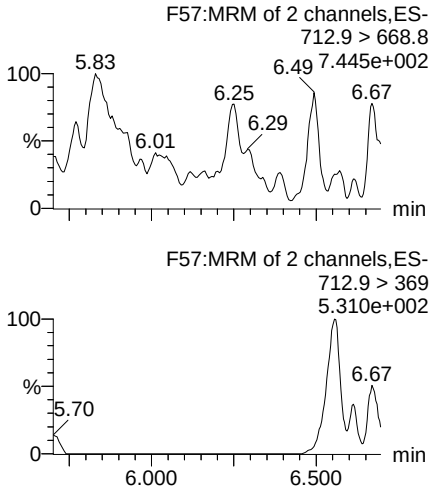
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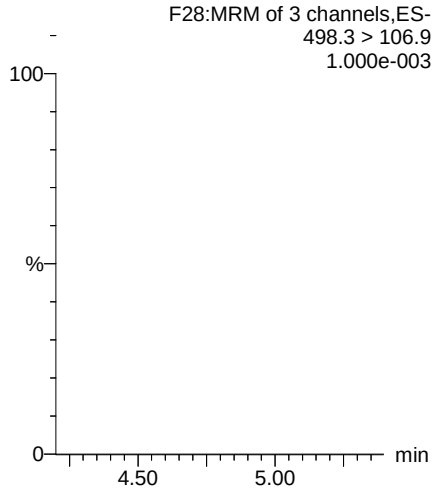
PFTrDA



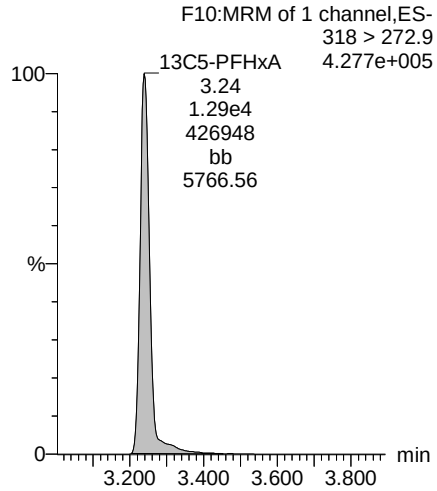
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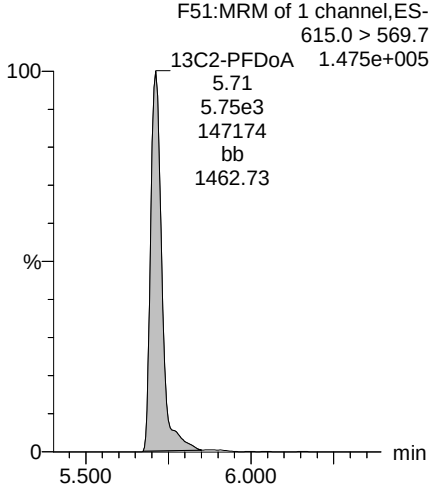
TCDA



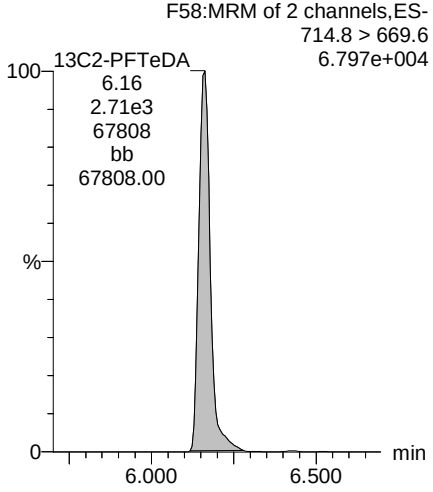
13C5-PFHxA



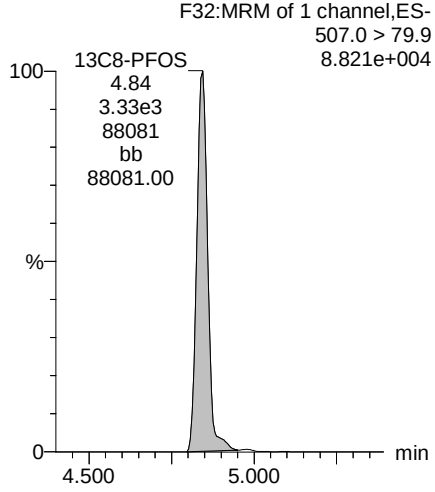
13C2-PFDoA



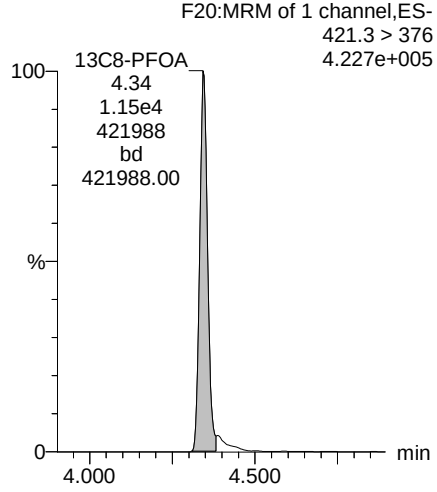
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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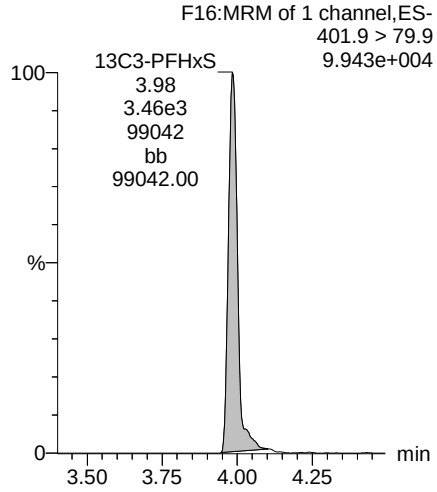
Rev'd: MM 12/31/17

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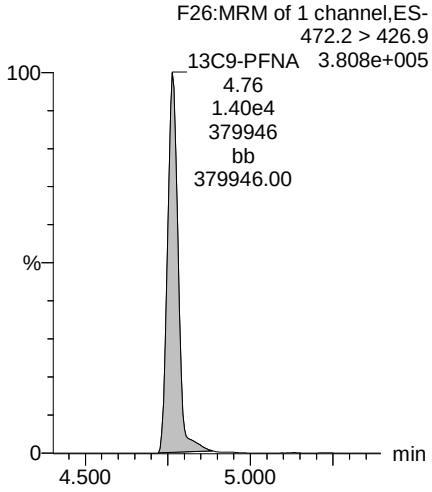
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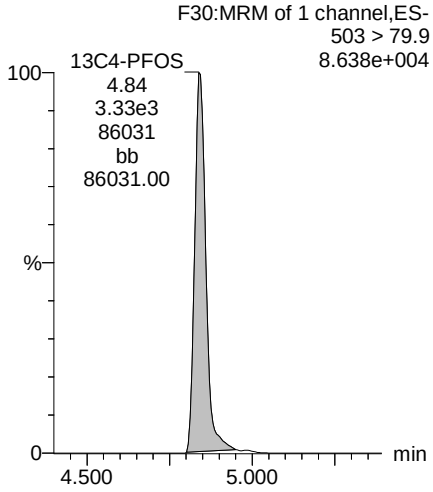
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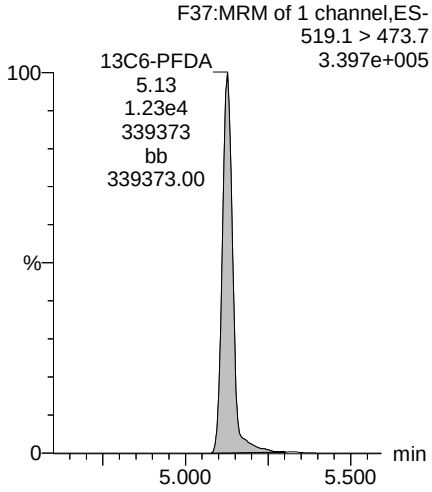
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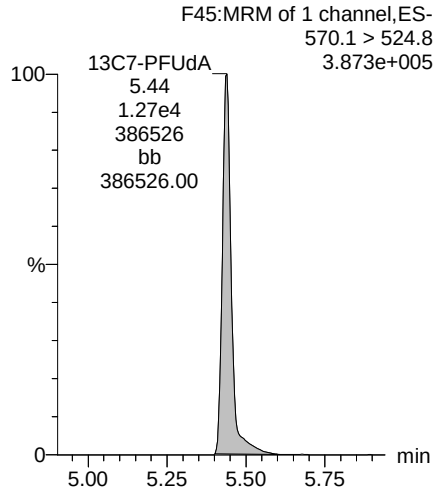
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/2/18

Dataset: U:\Q4.PRO\results\171227M2\171227M2-62.qld

Last Altered: Friday, December 29, 2017 12:50:47 Pacific Standard Time
Printed: Friday, December 29, 2017 12:51:12 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_62, Date: 28-Dec-2017, Time: 04:47:35, ID: 1701829-17 FT-MW06I-FRB-20171130 0.26856, Description: FT-MW06I-FRB-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.38e3	0.269		2.70				
2	4	PFHxA	313.2 > 268.9		2.86e3	0.269		3.20				
3	5	PFHpA	363.0 > 318.9		7.98e3	0.269		3.80				
4	6	L-PFHxS	398.9 > 79.6	4.95e0	1.19e3	0.269		3.95	3.98	0.0520	0.2394	
5	9	L-PFOA	413 > 368.7	1.59e2	1.16e4	0.269		4.32	4.34	0.171		
6	12	PFNA	463.0 > 418.8		8.45e3	0.269		4.75				
7	14	L-PFOS	499 > 79.9		2.78e3	0.269		4.83				
8	16	PFDA	513 > 468.8		7.68e3	0.269		5.11				
9	18	N-MeFOSAA	570.1 > 419		3.37e3	0.269		5.26				
10	19	N-EtFOSAA	584.2 > 419		3.36e3	0.269		5.42				
11	20	PFUdA	563.0 > 518.9		9.90e3	0.269		5.43				
12	22	PFDoA	612.9 > 569.0		6.38e3	0.269		5.70				

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Rev'd: MM 1/2/18

Dataset: U:\Q4.PRO\results\171227M2\171227M2-62.qld

Last Altered: Friday, December 29, 2017 12:50:47 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:52:34 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_62, Date: 28-Dec-2017, Time: 04:47:35, ID: 1701829-17 FT-MW06I-FRB-20171130 0.26856, Description: FT-MW06I-FRB-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		6.38e3	0.269		5.95				
2	25	PFTeDA	712.9 > 668.8		2.47e3	0.269		6.16				
3	33	13C3-PFBS	302. > 98.8	1.38e3	1.12e4	0.269	0.101	2.70	2.75	1.54	56.4000	121.2
4	34	13C2-PFHxA	315 > 269.8	2.86e3	1.12e4	0.269	0.601	3.20	3.24	3.18	19.7325	106.0
5	35	13C4-PFHpA	367.2 > 321.8	7.98e3	1.12e4	0.269	0.676	3.80	3.84	8.88	48.8892	105.0
6	36	18O2-PFHxS	403.0 > 102.6	1.19e3	3.75e3	0.269	0.347	3.95	3.98	3.97	42.6694	91.7
7	37	13C2-6:2 FTS	429.1 > 408.9	2.48e3	1.15e4	0.269	0.210	4.26	4.29	2.69	47.7591	102.6
8	38	13C2-PFOA	414.9 > 369.7	1.16e4	1.15e4	0.269	0.990	4.32	4.34	12.6	47.5592	102.2
9	39	13C5-PFNA	468.2 > 422.9	8.45e3	1.02e4	0.269	0.845	4.75	4.76	10.3	45.4333	97.6
10	40	13C8-PFOSA	506.1 > 77.7	1.08e3	1.24e4	0.269	0.199	4.81	4.84	1.08	20.1771	43.4
11	41	13C8-PFOS	507.0 > 79.9	2.78e3	3.77e3	0.269	0.865	4.83	4.84	9.20	39.6064	85.1
12	42	13C2-PFDA	515.1 > 469.9	7.68e3	1.10e4	0.269	0.886	5.11	5.13	8.73	36.6836	78.8
13	43	13C2-8:2 FTS	529.1 > 508.7	1.55e3	1.12e4	0.269	0.136	5.09	5.10	1.73	47.4193	101.9
14	44	d3-N-MeFOSAA	573.3 > 419	3.37e3	1.24e4	0.269	0.409	5.26	5.27	3.39	30.8639	66.3
15	45	d5-N-EtFOSAA	589.3 > 419	3.36e3	1.24e4	0.269	0.474	5.42	5.42	3.38	26.5385	57.0
16	46	13C2-PFUdA	565 > 519.8	9.90e3	1.24e4	0.269	0.928	5.43	5.44	9.95	39.8943	85.7
17	47	13C2-PFDoA	615.0 > 569.7	6.38e3	1.24e4	0.269	0.636	5.70	5.71	6.41	37.5403	80.7
18	49	13C2-PFTeDA	714.8 > 669.6	2.47e3	1.24e4	0.269	0.163	6.16	6.16	2.48	56.7651	122.0
19	55	13C5-PFHxA	318 > 272.9	1.12e4	1.12e4	0.269	1.000	3.20	3.24	12.5	46.5445	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.75e3	3.75e3	0.269	1.000	3.95	3.98	12.5	46.5445	100.0
21	57	13C8-PFOA	421.3 > 376	1.15e4	1.15e4	0.269	1.000	4.32	4.34	12.5	46.5445	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.02e4	1.02e4	0.269	1.000	4.75	4.76	12.5	46.5445	100.0
23	59	13C4-PFOS	503 > 79.9	3.77e3	3.77e3	0.269	1.000	4.83	4.84	12.5	46.5445	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.10e4	1.10e4	0.269	1.000	5.11	5.13	12.5	46.5445	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.24e4	1.24e4	0.269	1.000	5.43	5.44	12.5	46.5445	100.0
26	62	Total PFHxS	398.9 > 79.6	4.95e0	1.19e3	0.269		4.00		0.0520	0.2394	
27	63	Total PFOA	413 > 368.7	1.59e2	1.16e4	0.269		4.30		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.78e3	0.269		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.37e3	0.269		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.36e3	0.269		5.40		0.000		

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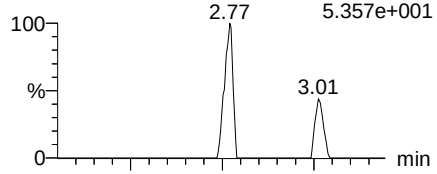
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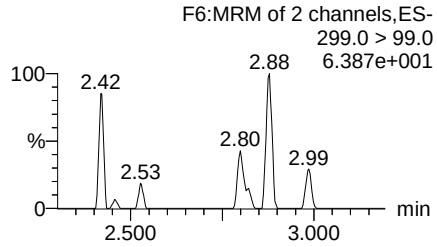
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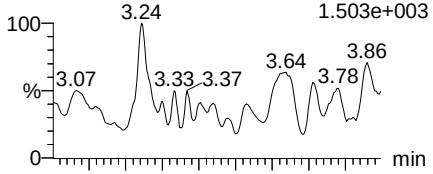
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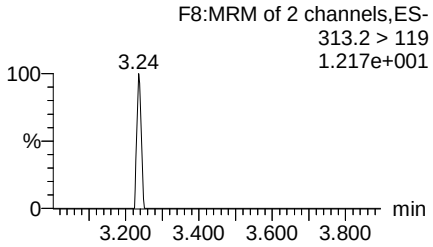
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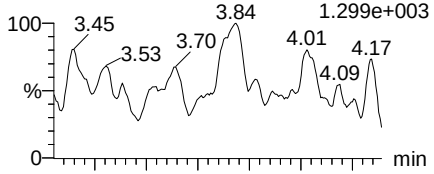


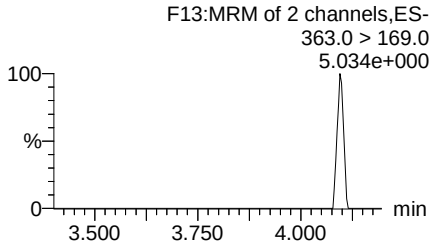
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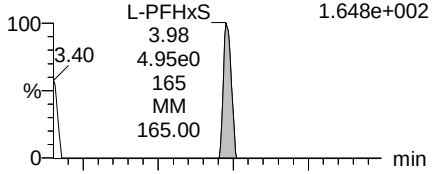


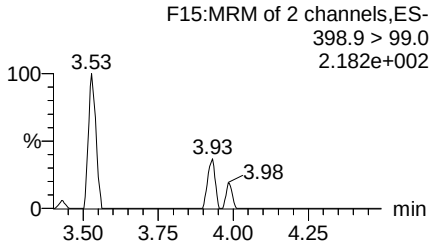
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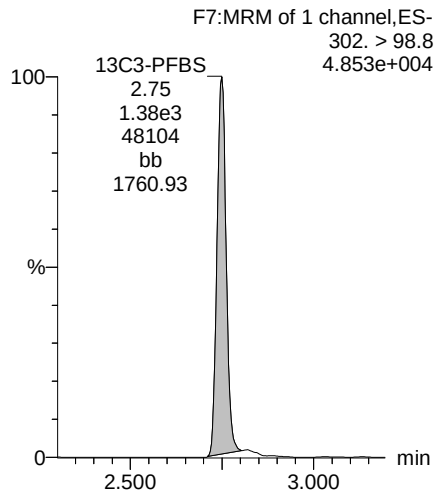


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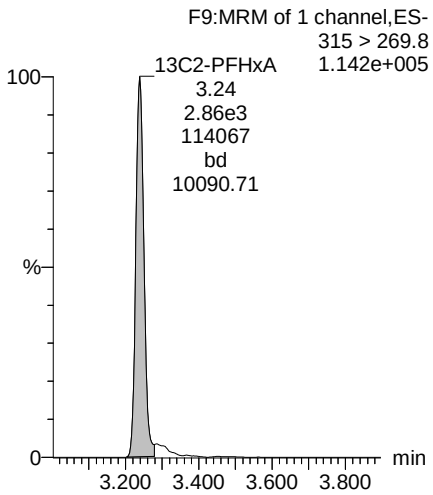




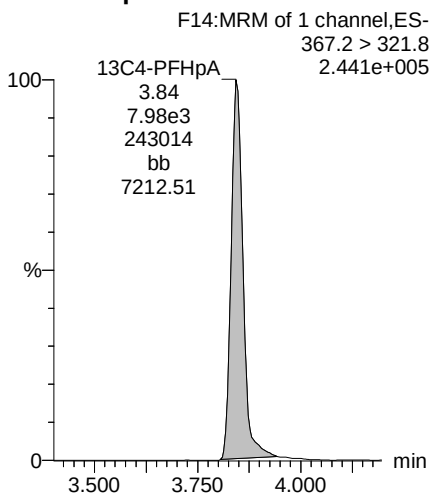
13C3-PFBS



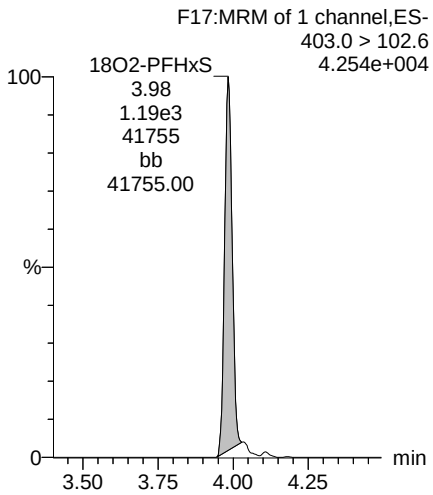
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



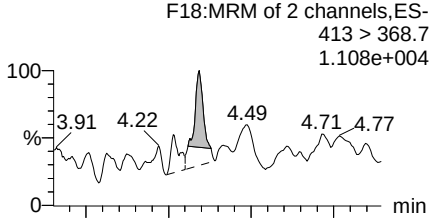
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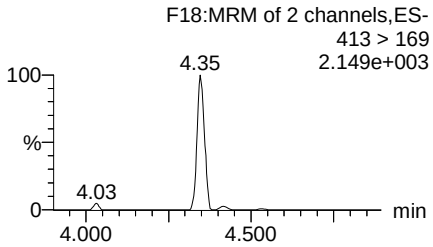
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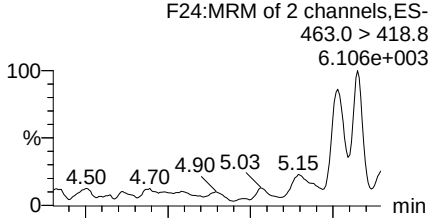
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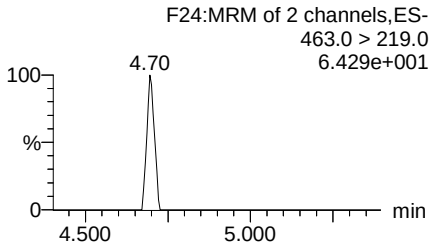
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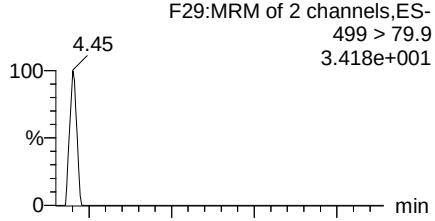


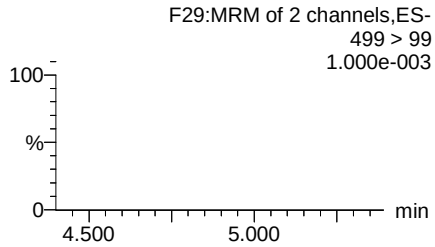
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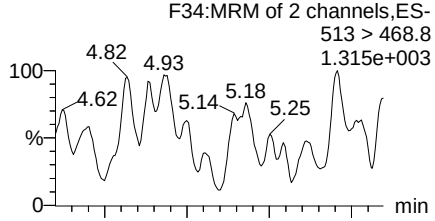


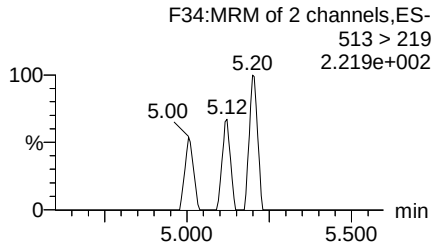
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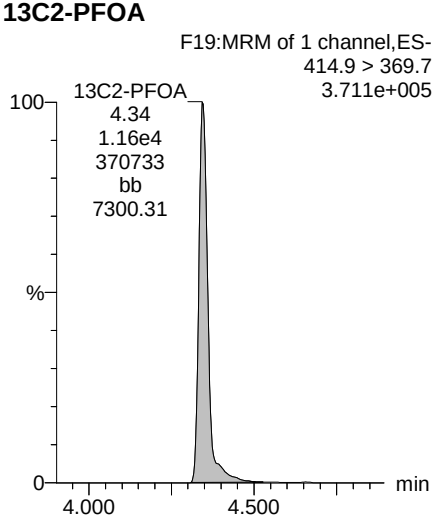


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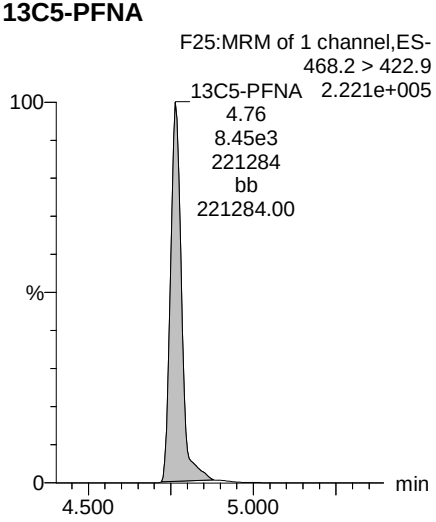




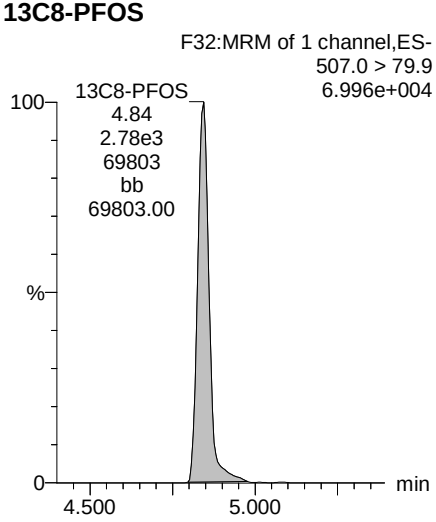
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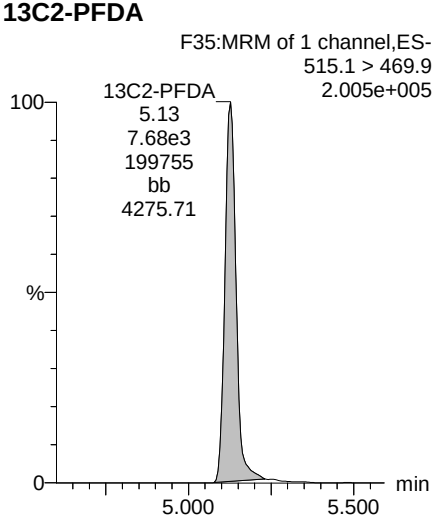
13C5-PFNA



13C8-PFOS



13C2-PFDA



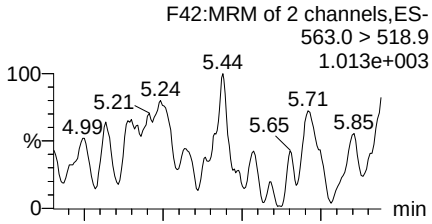
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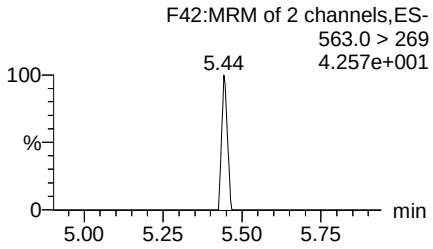
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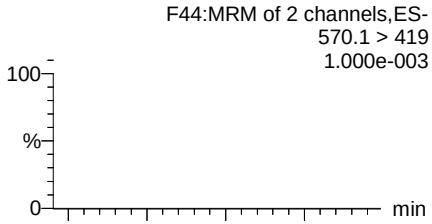
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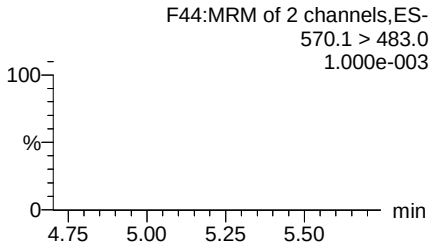
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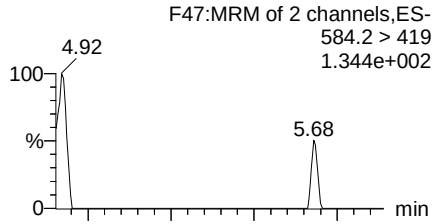


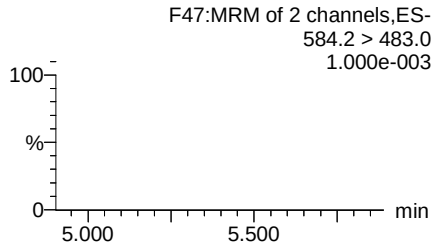
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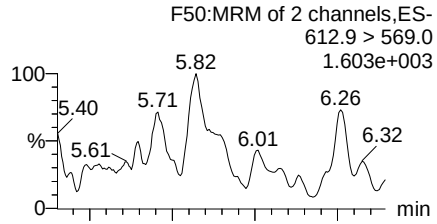


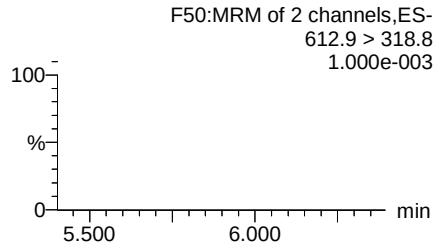
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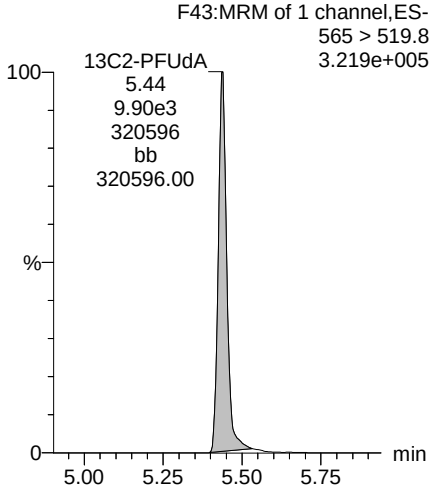


PFDoA

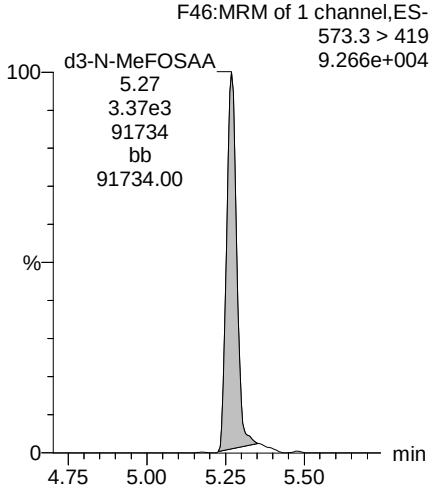




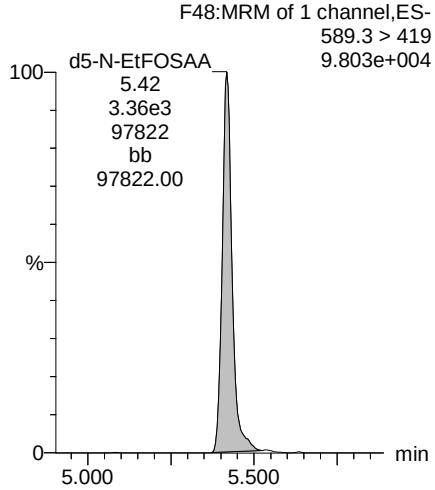
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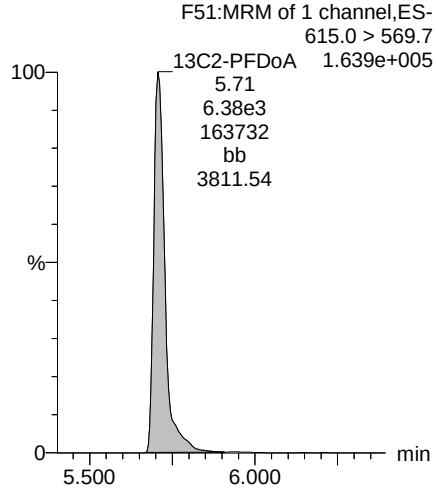
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d5-N-EtFOSAA



13C2-PFDoA



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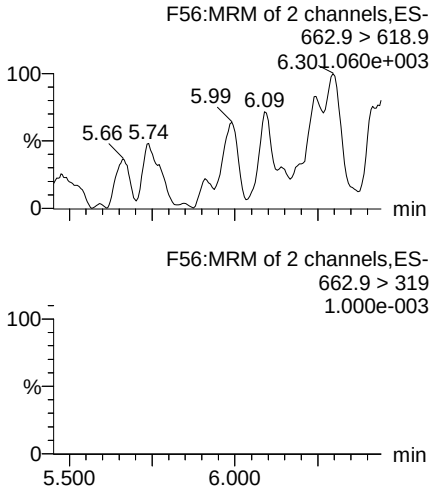
Rev'd: MM 1/2/18

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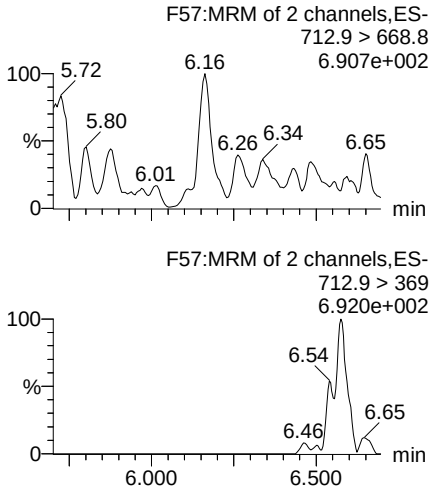
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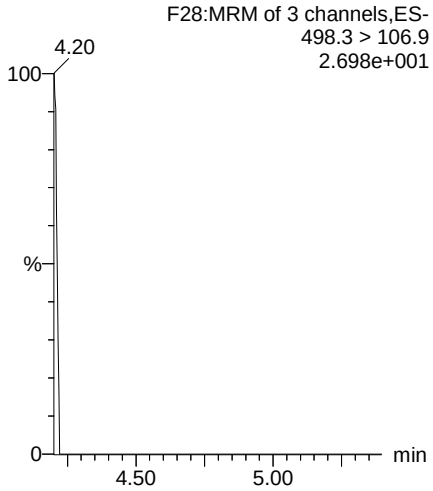
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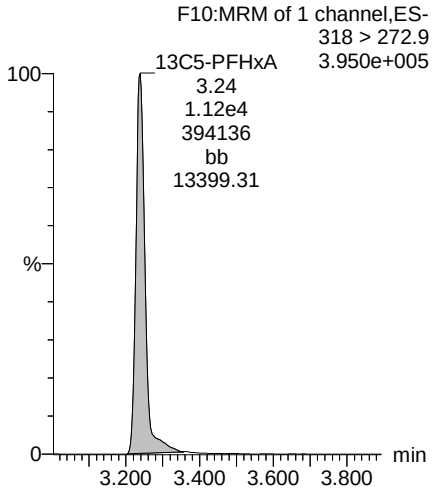
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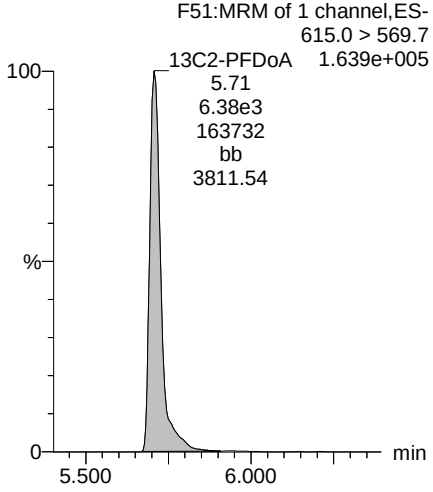
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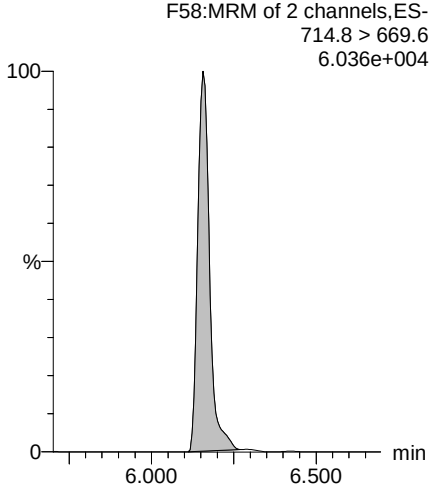
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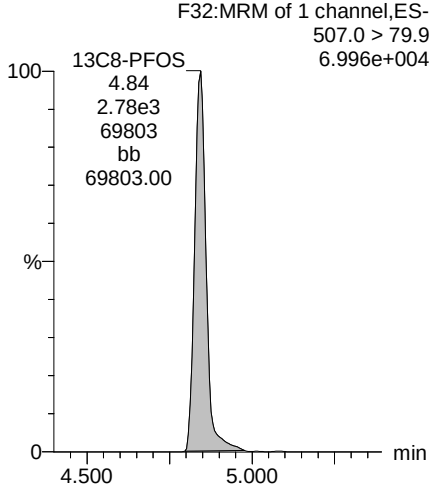
13C2-PFDoA



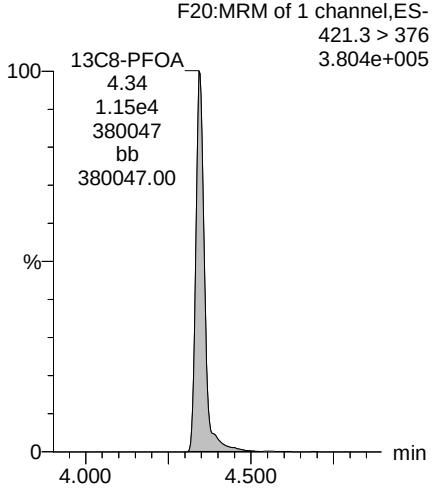
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



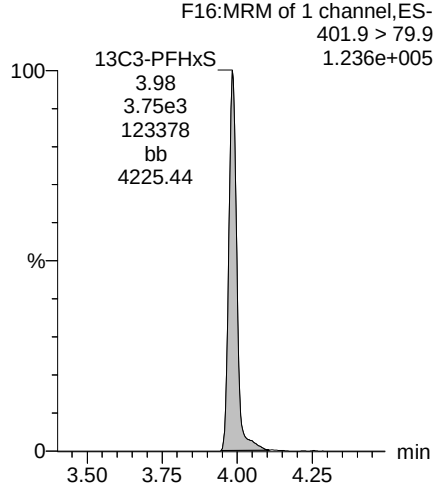
MSF 12/29/17

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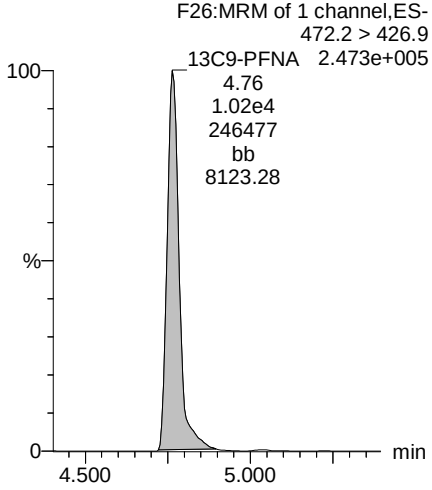
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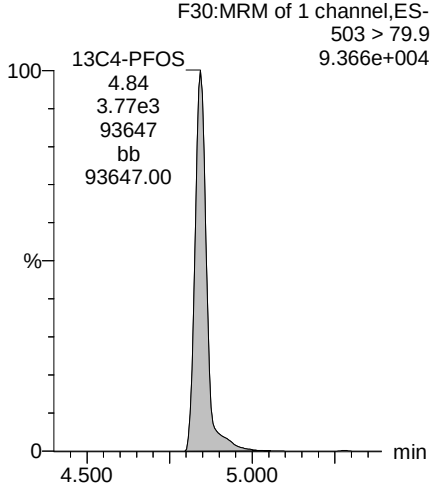
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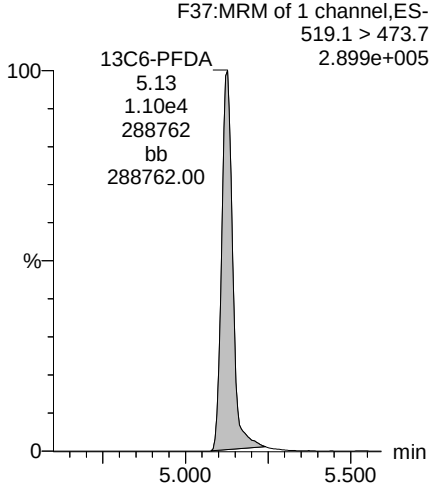
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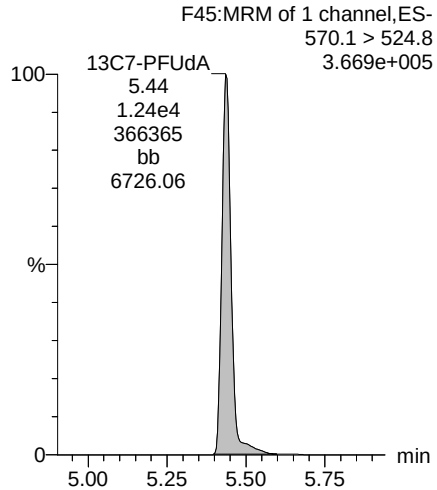
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13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-63.qld

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Printed: Friday, December 29, 2017 12:54:46 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_63, Date: 28-Dec-2017, Time: 04:58:45, ID: 1701829-18 FT-MW10I-20171130 0.25296, Description: FT-MW10I-20171130

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1	3	PFBS	299.0 > 79.7		1.36e3	0.253		2.70				
2	4	PFHxA	313.2 > 268.9	2.96e2	2.57e3	0.253		3.20	3.24	0.576	1.7904	
3	5	PFHpA	363.0 > 318.9	1.79e2	8.92e3	0.253		3.80	3.84	0.251	0.8227	
4	6	L-PFHxS	398.9 > 79.6	7.39e1	1.20e3	0.253		3.95	3.98	0.771	1.5840	
5	9	L-PFOA	413 > 368.7	1.12e3	1.16e4	0.253		4.32	4.34	1.20	2.9591	
6	12	PFNA	463.0 > 418.8	2.04e2	8.27e3	0.253		4.75	4.76	0.308	0.8262	
7	14	L-PFOS	499 > 79.9		2.73e3	0.253		4.83				
8	16	PFDA	513 > 468.8		7.99e3	0.253		5.11				
9	18	N-MeFOSAA	570.1 > 419		3.57e3	0.253		5.26				
10	19	N-EtFOSAA	584.2 > 419		4.78e3	0.253		5.42				
11	20	PFUdA	563.0 > 518.9		9.91e3	0.253		5.43				
12	22	PFDoA	612.9 > 569.0		8.61e3	0.253		5.70				

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Dataset: U:\Q4.PRO\results\171227M2\171227M2-63.qld

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Name: 171227M2_63, Date: 28-Dec-2017, Time: 04:58:45, ID: 1701829-18 FT-MW10I-20171130 0.25296, Description: FT-MW10I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		8.61e3	0.253		5.95				
2	25	PFTeDA	712.9 > 668.8		1.87e3	0.253		6.16				
3	33	13C3-PFBS	302. > 98.8	1.36e3	1.17e4	0.253	0.101	2.70	2.75	1.45	56.6612	114.7
4	34	13C2-PFHxA	315 > 269.8	2.57e3	1.17e4	0.253	0.601	3.20	3.24	2.75	18.1065	91.6
5	35	13C4-PFHpA	367.2 > 321.8	8.92e3	1.17e4	0.253	0.676	3.80	3.84	9.54	55.7559	112.8
6	36	18O2-PFHxS	403.0 > 102.6	1.20e3	3.50e3	0.253	0.347	3.95	3.98	4.27	48.7426	98.6
7	37	13C2-6:2 FTS	429.1 > 408.9	2.68e3	1.03e4	0.253	0.210	4.26	4.29	3.26	61.4364	124.3
8	38	13C2-PFOA	414.9 > 369.7	1.16e4	1.03e4	0.253	0.990	4.32	4.34	14.1	56.4910	114.3
9	39	13C5-PFNA	468.2 > 422.9	8.27e3	8.46e3	0.253	0.845	4.75	4.76	12.2	57.1569	115.7
10	40	13C8-PFOSA	506.1 > 77.7	1.18e3	1.03e4	0.253	0.199	4.81	4.83	1.43	28.2732	57.2
11	41	13C8-PFOS	507.0 > 79.9	2.73e3	2.68e3	0.253	0.865	4.83	4.84	12.7	58.1440	117.7
12	42	13C2-PFDA	515.1 > 469.9	7.99e3	8.33e3	0.253	0.886	5.11	5.12	12.0	53.4791	108.2
13	43	13C2-8:2 FTS	529.1 > 508.7	1.69e3	1.17e4	0.253	0.136	5.09	5.09	1.80	52.5381	106.3
14	44	d3-N-MeFOSAA	573.3 > 419	3.57e3	1.03e4	0.253	0.409	5.26	5.26	4.33	41.8758	84.7
15	45	d5-N-EtFOSAA	589.3 > 419	4.78e3	1.03e4	0.253	0.474	5.42	5.41	5.80	48.3620	97.9
16	46	13C2-PFUdA	565 > 519.8	9.91e3	1.03e4	0.253	0.928	5.43	5.43	12.0	51.1375	103.5
17	47	13C2-PFDoA	615.0 > 569.7	8.61e3	1.03e4	0.253	0.636	5.70	5.70	10.4	64.8644	131.3
18	49	13C2-PFTeDA	714.8 > 669.6	1.87e3	1.03e4	0.253	0.163	6.16	6.16	2.26	54.9337	111.2
19	55	13C5-PFHxA	318 > 272.9	1.17e4	1.17e4	0.253	1.000	3.20	3.23	12.5	49.4149	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.50e3	3.50e3	0.253	1.000	3.95	3.98	12.5	49.4149	100.0
21	57	13C8-PFOA	421.3 > 376	1.03e4	1.03e4	0.253	1.000	4.32	4.34	12.5	49.4149	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.46e3	8.46e3	0.253	1.000	4.75	4.76	12.5	49.4149	100.0
23	59	13C4-PFOS	503 > 79.9	2.68e3	2.68e3	0.253	1.000	4.83	4.84	12.5	49.4149	100.0
24	60	13C6-PFDA	519.1 > 473.7	8.33e3	8.33e3	0.253	1.000	5.11	5.12	12.5	49.4149	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.03e4	1.03e4	0.253	1.000	5.43	5.43	12.5	49.4149	100.0
26	62	Total PFHxS	398.9 > 79.6	7.39e1	1.20e3	0.253		4.00		0.771	1.5840	
27	63	Total PFOA	413 > 368.7	1.27e3	1.16e4	0.253		4.30		1.20	2.9591	
28	64	Total PFOS	499 > 79.9	0.00e0	2.73e3	0.253		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.57e3	0.253		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.78e3	0.253		5.40		0.000		

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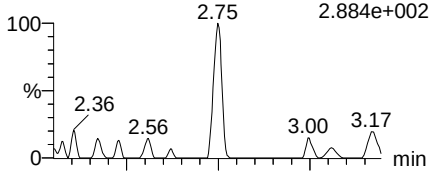
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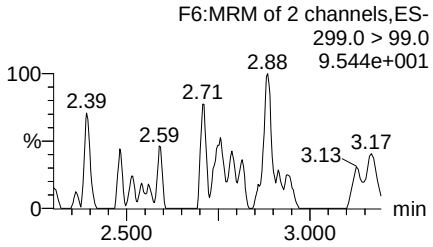
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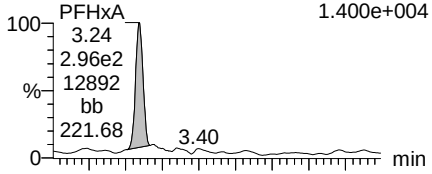
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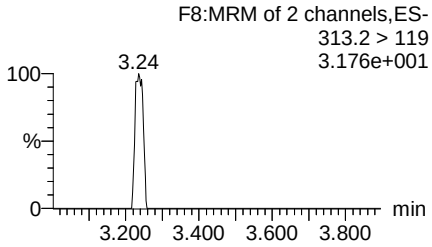
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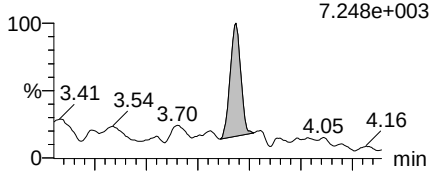


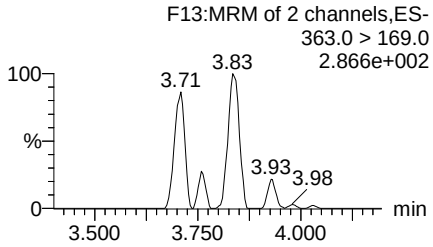
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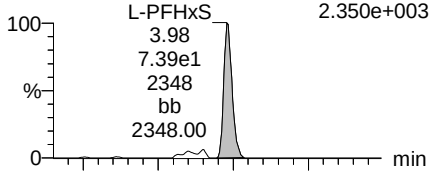


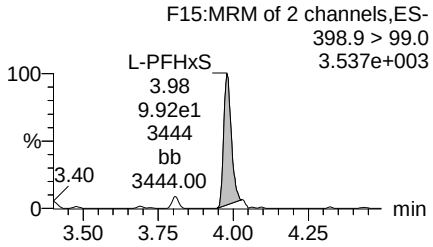
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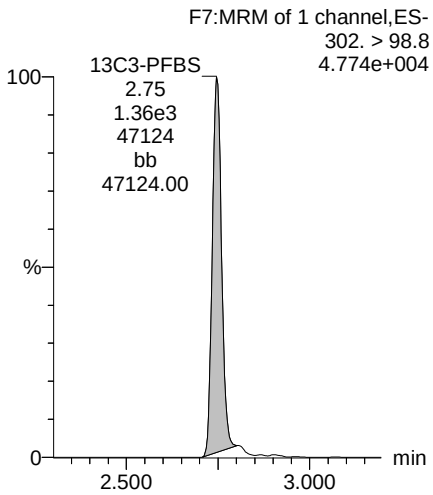


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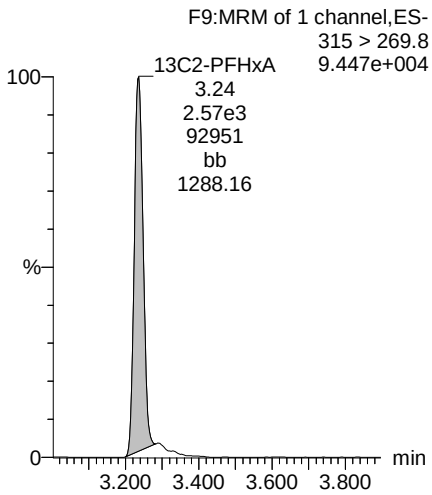




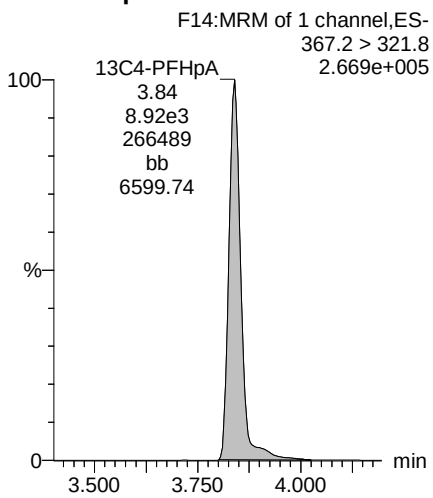
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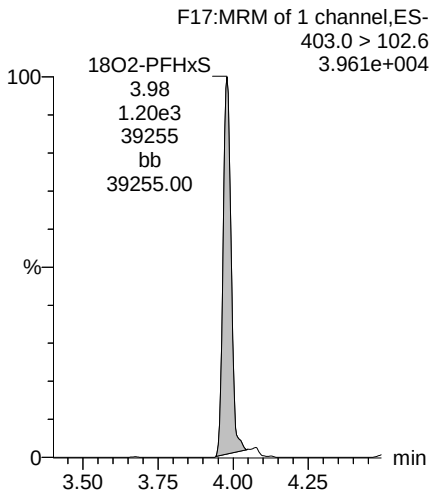
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13C4-PFHpA



18O2-PFHxS



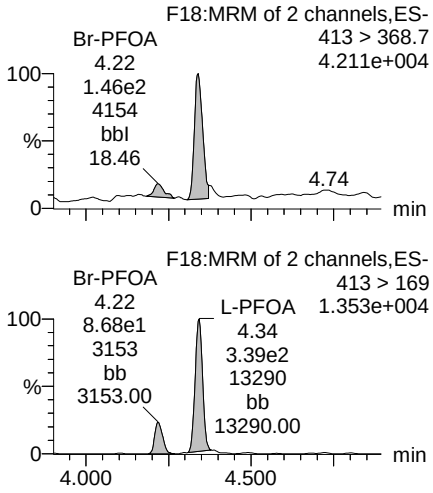
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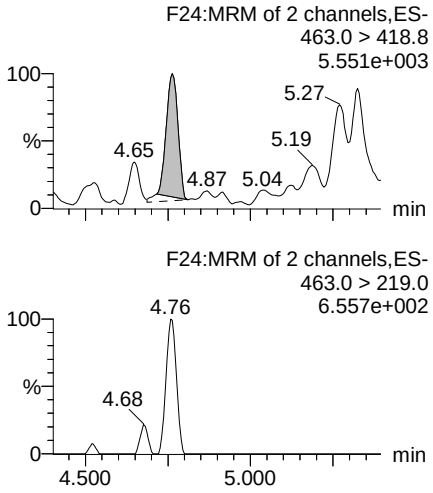
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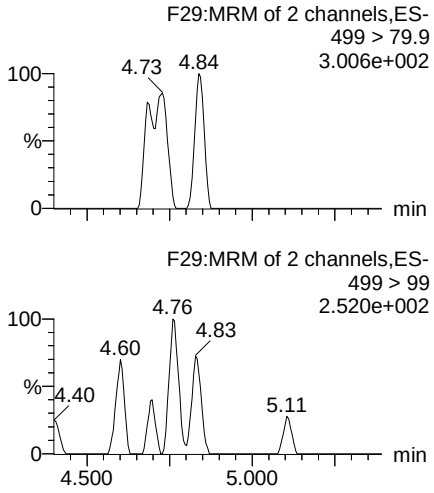
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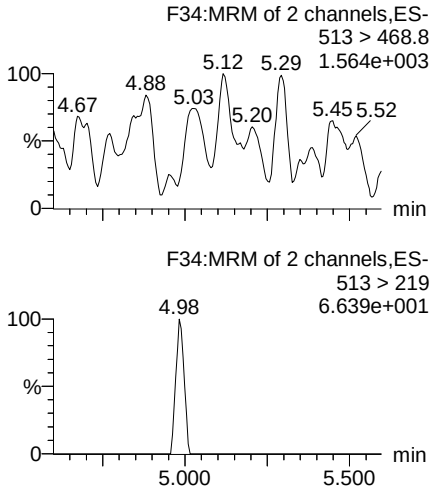
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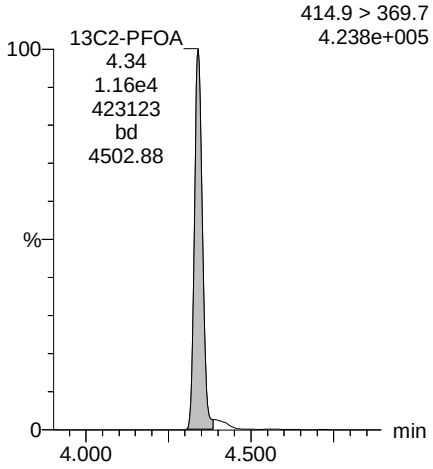
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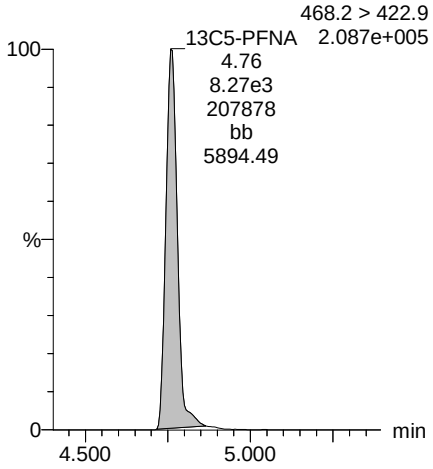
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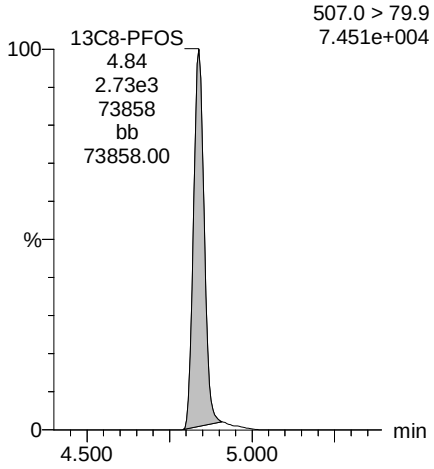
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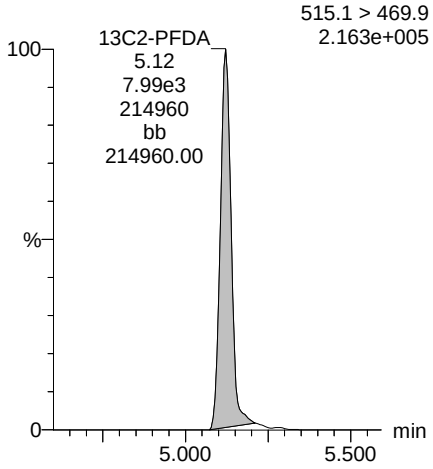
13C5-PFNA



13C8-PFOS



13C2-PFDA



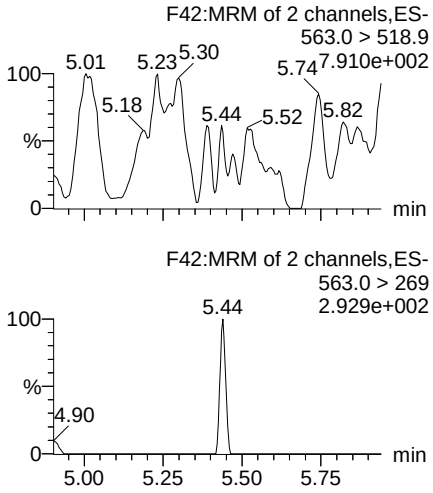
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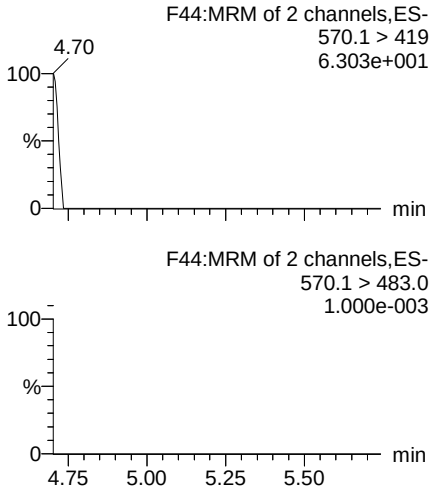
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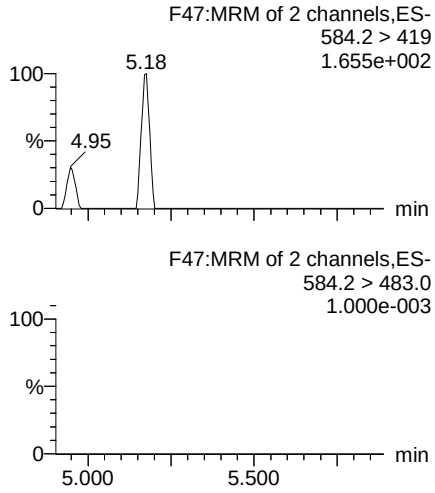
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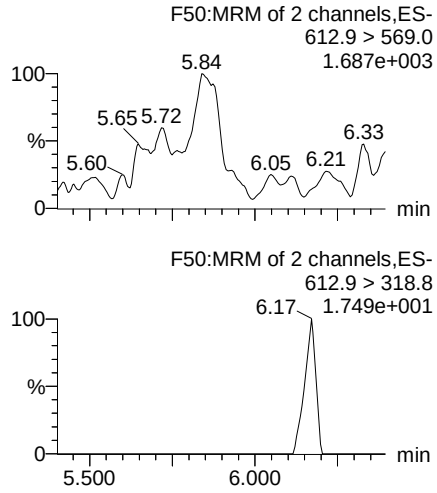
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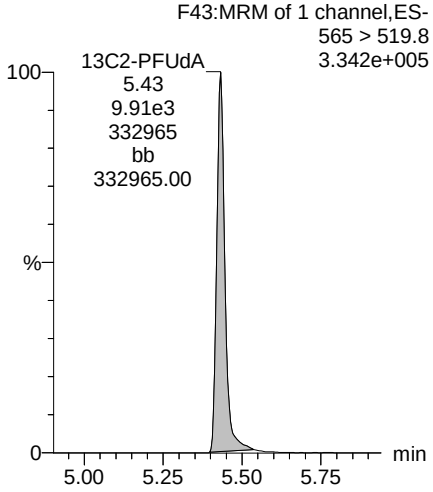
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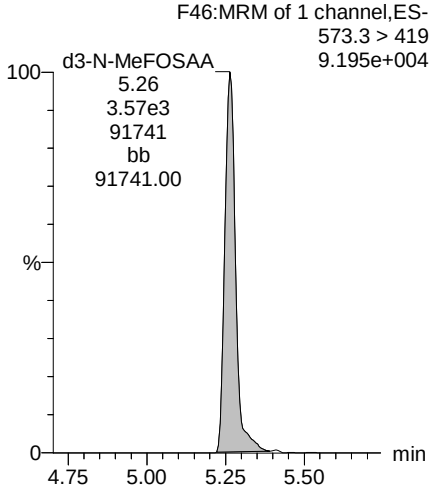
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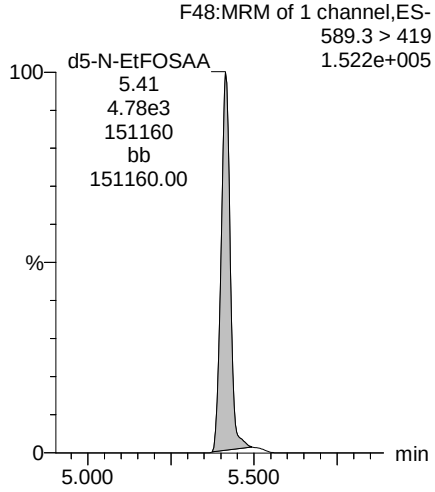
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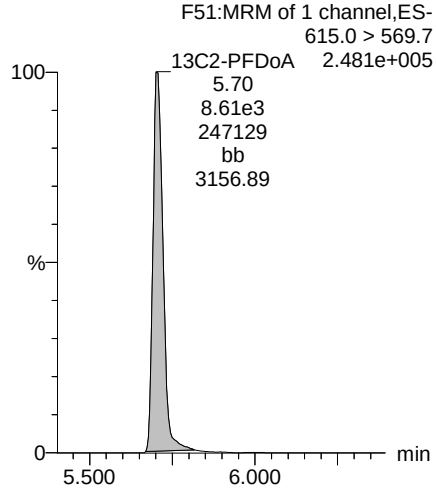
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d5-N-EtFOSAA



13C2-PFDoA



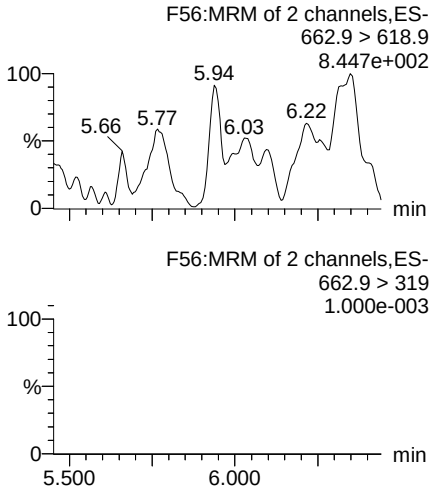
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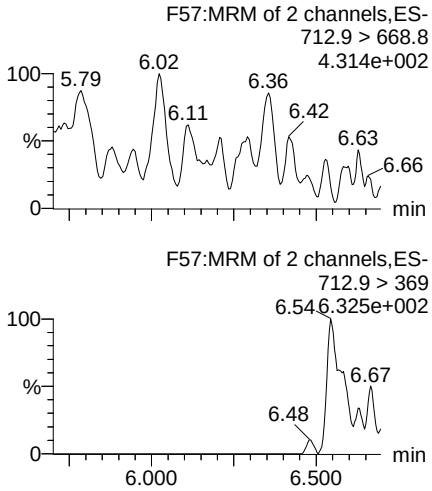
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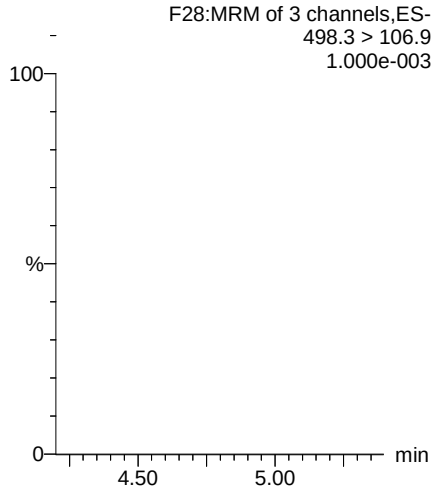
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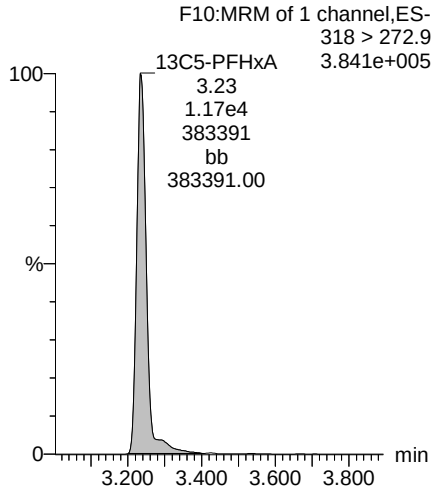
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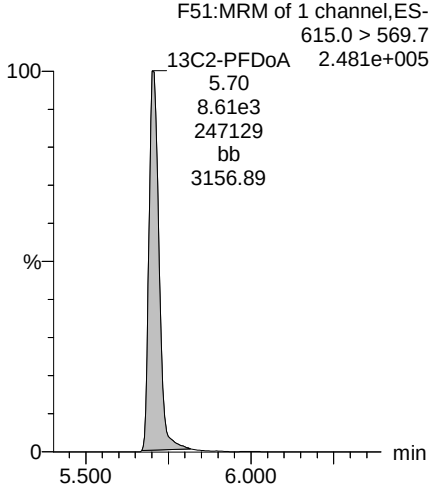
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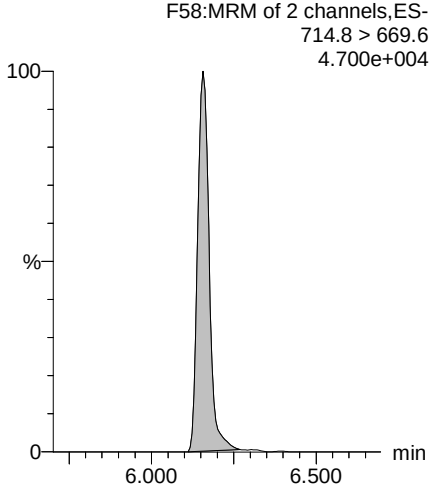
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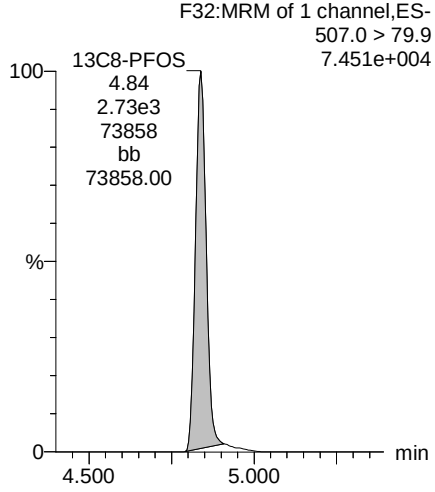
13C2-PFDoA



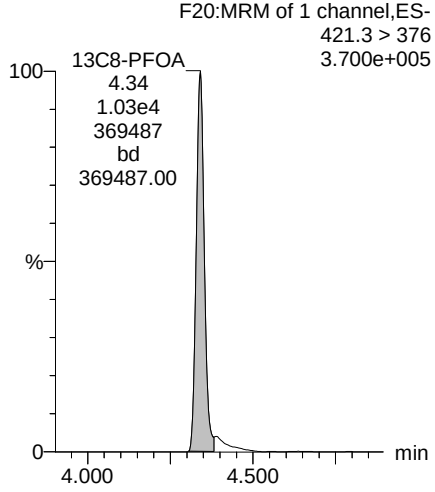
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13C8-PFOS



13C8-PFOA



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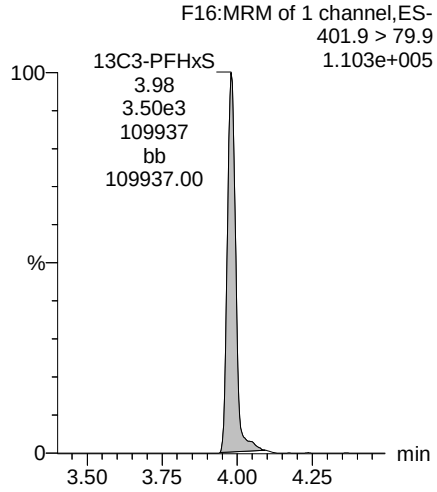
Rev'd: MM 12/31/17

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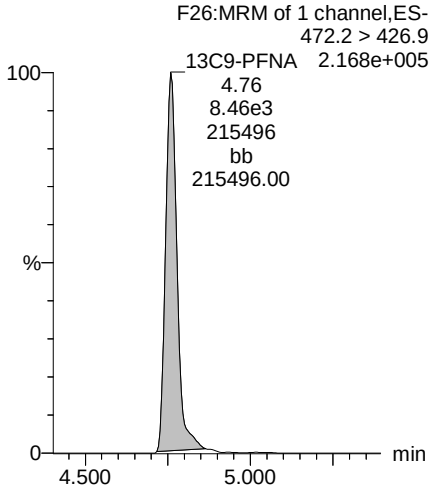
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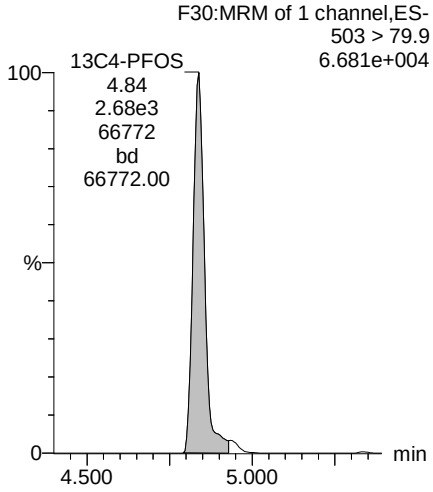
13C3-PFHxS



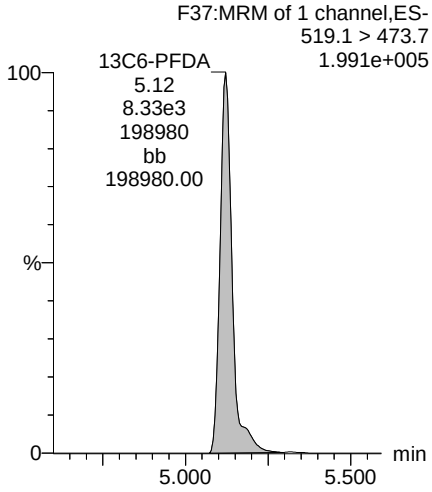
13C9-PFNA



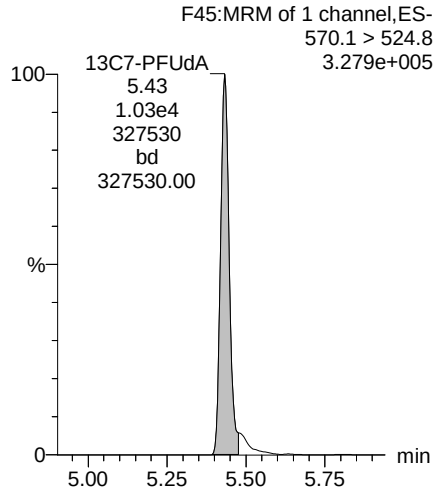
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-64.qld

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Printed: Sunday, December 31, 2017 13:46:36 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_64, Date: 28-Dec-2017, Time: 05:09:56, ID: 1701829-19 FT-MW06S-20171130 0.2522, Description: FT-MW06S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.58e3	0.252		2.70				
2	4	PFHxA	313.2 > 268.9	1.33e2	3.04e3	0.252		3.20	3.24	0.218	1.1308	
3	5	PFHpA	363.0 > 318.9		8.12e3	0.252		3.80				
4	6	L-PFHxS	398.9 > 79.6	2.48e1	1.07e3	0.252		3.95	3.99	0.289	0.6943	
5	9	L-PFOA	413 > 368.7	2.90e2	1.18e4	0.252		4.32	4.34	0.307	0.1047	
6	12	PFNA	463.0 > 418.8	5.97e1	8.96e3	0.252		4.75	4.76	0.0833	0.2485	
7	14	L-PFOS	499 > 79.9		2.69e3	0.252		4.83				
8	16	PFDA	513 > 468.8		7.04e3	0.252		5.11				
9	18	N-MeFOSAA	570.1 > 419		3.95e3	0.252		5.26				
10	19	N-EtFOSAA	584.2 > 419		4.48e3	0.252		5.42				
11	20	PFUdA	563.0 > 518.9	3.43e1	1.15e4	0.252		5.43	5.43	0.0372		
12	22	PFDoA	612.9 > 569.0		6.48e3	0.252		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-64.qld

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Name: 171227M2_64, Date: 28-Dec-2017, Time: 05:09:56, ID: 1701829-19 FT-MW06S-20171130 0.2522, Description: FT-MW06S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		6.48e3	0.252		5.95				
2	25	PFTeDA	712.9 > 668.8		2.04e3	0.252		6.16				
3	33	13C3-PFBS	302. > 98.8	1.58e3	1.30e4	0.252	0.101	2.70	2.75	1.52	59.3573	119.8
4	34	13C2-PFHxA	315 > 269.8	3.04e3	1.30e4	0.252	0.601	3.20	3.24	2.92	19.2882	97.3
5	35	13C4-PFHpA	367.2 > 321.8	8.12e3	1.30e4	0.252	0.676	3.80	3.84	7.80	45.7259	92.3
6	36	18O2-PFHxS	403.0 > 102.6	1.07e3	3.16e3	0.252	0.347	3.95	3.98	4.25	48.6853	98.2
7	37	13C2-6:2 FTS	429.1 > 408.9	2.83e3	1.23e4	0.252	0.210	4.26	4.29	2.87	54.3167	109.6
8	38	13C2-PFOA	414.9 > 369.7	1.18e4	1.23e4	0.252	0.990	4.32	4.35	12.0	48.1017	97.0
9	39	13C5-PFNA	468.2 > 422.9	8.96e3	9.88e3	0.252	0.845	4.75	4.76	11.3	53.2026	107.3
10	40	13C8-PFOSA	506.1 > 77.7	1.39e3	1.24e4	0.252	0.199	4.81	4.83	1.40	27.8906	56.3
11	41	13C8-PFOS	507.0 > 79.9	2.69e3	2.87e3	0.252	0.865	4.83	4.84	11.7	53.7362	108.4
12	42	13C2-PFDA	515.1 > 469.9	7.04e3	1.19e4	0.252	0.886	5.11	5.12	7.38	33.0028	66.6
13	43	13C2-8:2 FTS	529.1 > 508.7	1.44e3	1.30e4	0.252	0.136	5.09	5.10	1.38	40.3316	81.4
14	44	d3-N-MeFOSAA	573.3 > 419	3.95e3	1.24e4	0.252	0.409	5.26	5.27	3.98	38.6032	77.9
15	45	d5-N-EtFOSAA	589.3 > 419	4.48e3	1.24e4	0.252	0.474	5.42	5.41	4.50	37.7020	76.1
16	46	13C2-PFUdA	565 > 519.8	1.15e4	1.24e4	0.252	0.928	5.43	5.44	11.6	49.5257	99.9
17	47	13C2-PFDoA	615.0 > 569.7	6.48e3	1.24e4	0.252	0.636	5.70	5.71	6.52	40.6401	82.0
18	49	13C2-PFTeDA	714.8 > 669.6	2.04e3	1.24e4	0.252	0.163	6.16	6.16	2.05	49.9291	100.7
19	55	13C5-PFHxA	318 > 272.9	1.30e4	1.30e4	0.252	1.000	3.20	3.24	12.5	49.5638	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.16e3	3.16e3	0.252	1.000	3.95	3.98	12.5	49.5638	100.0
21	57	13C8-PFOA	421.3 > 376	1.23e4	1.23e4	0.252	1.000	4.32	4.34	12.5	49.5638	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.88e3	9.88e3	0.252	1.000	4.75	4.76	12.5	49.5638	100.0
23	59	13C4-PFOS	503 > 79.9	2.87e3	2.87e3	0.252	1.000	4.83	4.84	12.5	49.5638	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.19e4	1.19e4	0.252	1.000	5.11	5.12	12.5	49.5638	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.24e4	1.24e4	0.252	1.000	5.43	5.44	12.5	49.5638	100.0
26	62	Total PFHxS	398.9 > 79.6	2.48e1	1.07e3	0.252		4.00		0.289	0.6943	
27	63	Total PFOA	413 > 368.7	3.68e2	1.18e4	0.252		4.30		0.307	0.1047	
28	64	Total PFOS	499 > 79.9	0.00e0	2.69e3	0.252		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.95e3	0.252		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.48e3	0.252		5.40		0.000		

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Rev'd: MM 12/31/17

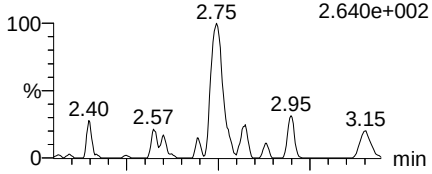
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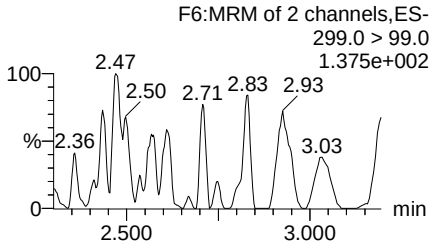
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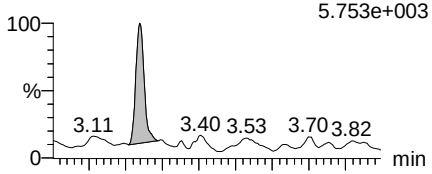
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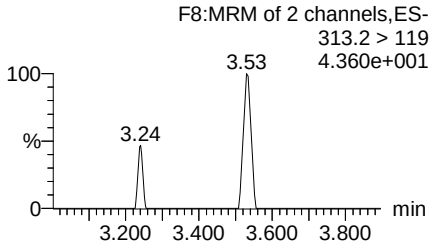
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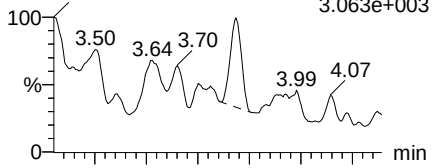


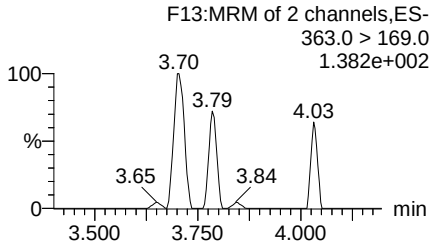
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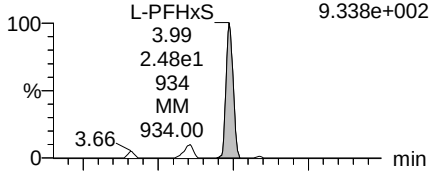


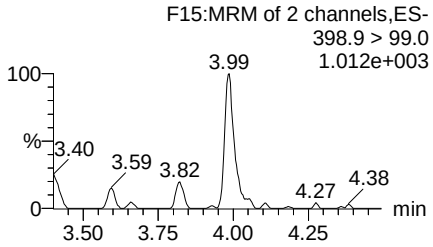
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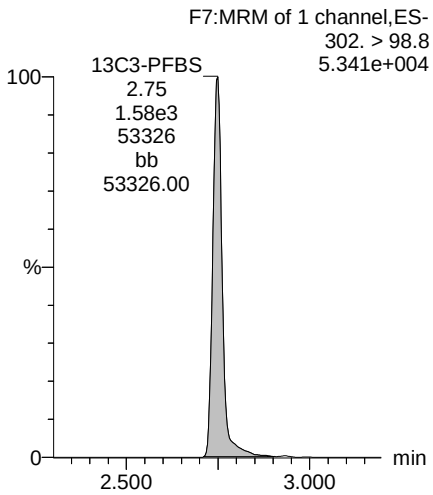


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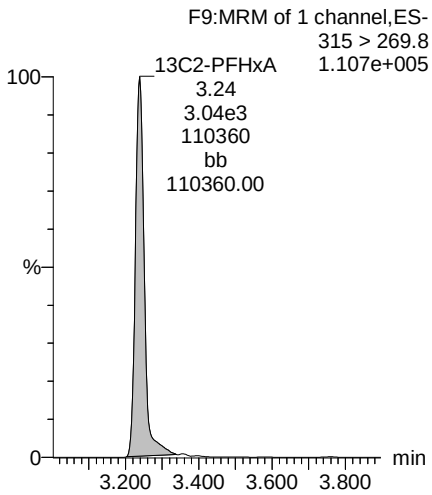




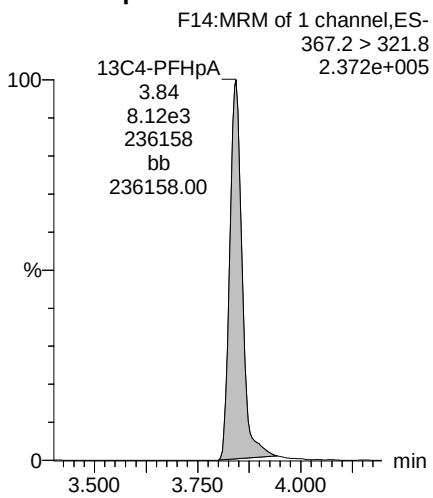
13C3-PFBS



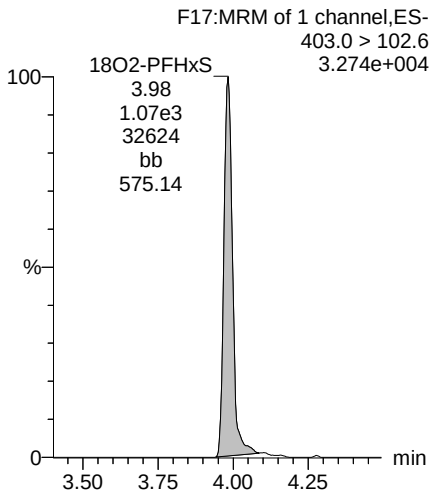
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13C4-PFHpA



18O2-PFHxS



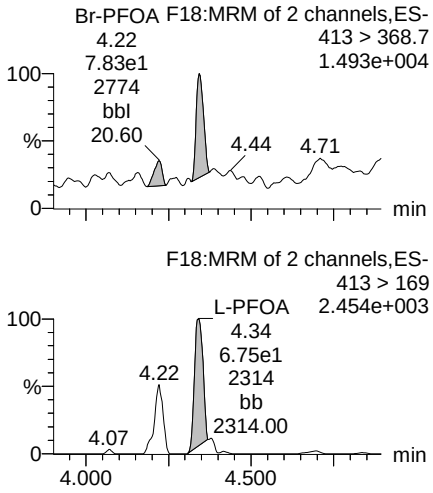
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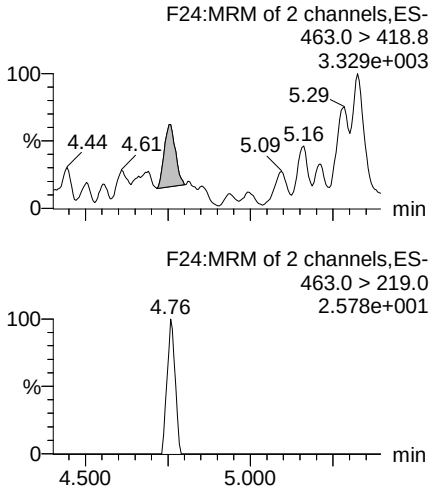
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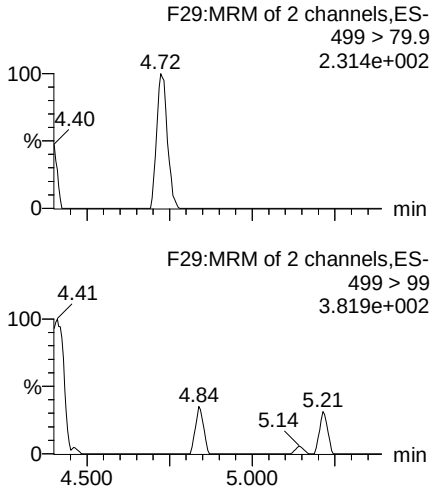
Total PFOA



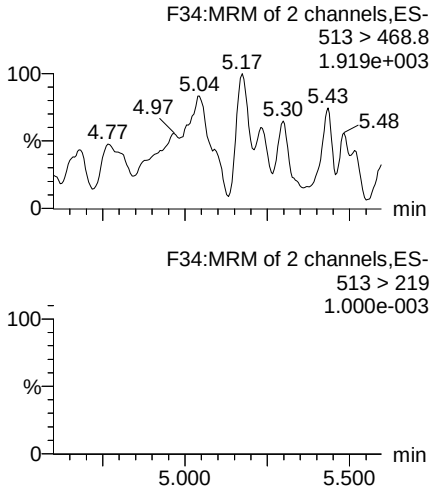
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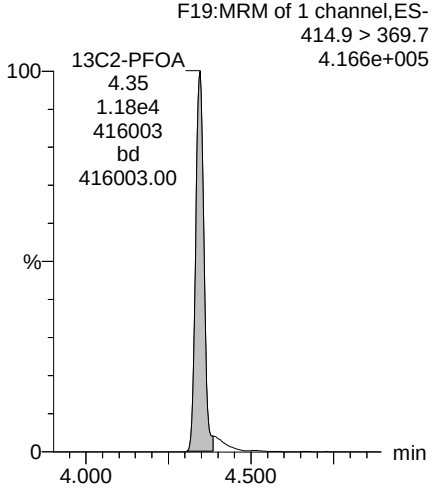
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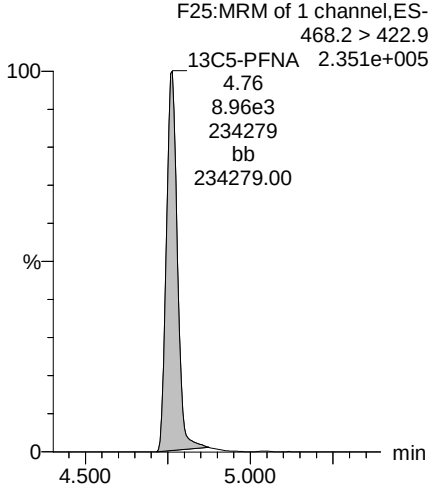
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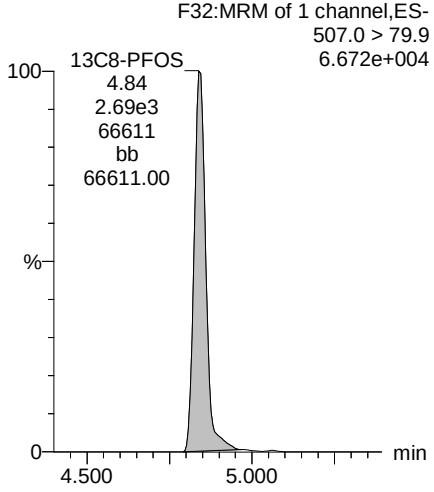
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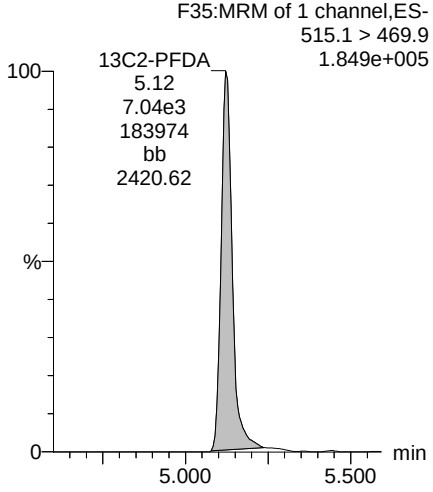
13C5-PFNA



13C8-PFOS



13C2-PFDA



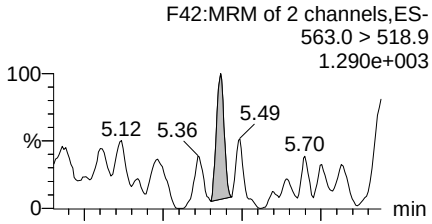
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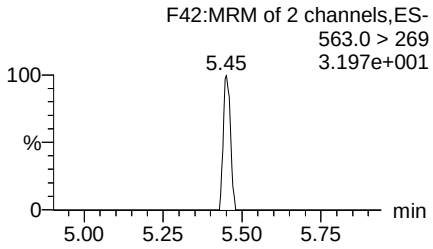
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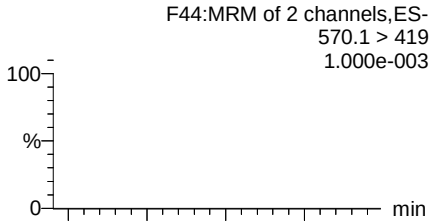
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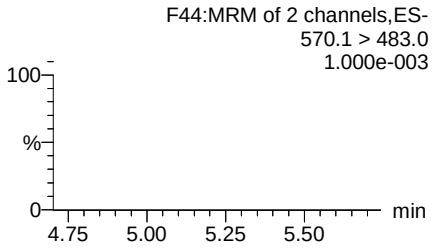
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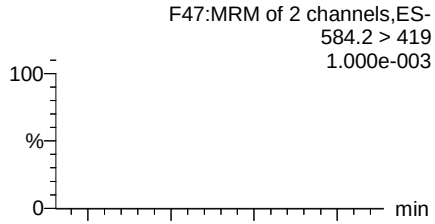


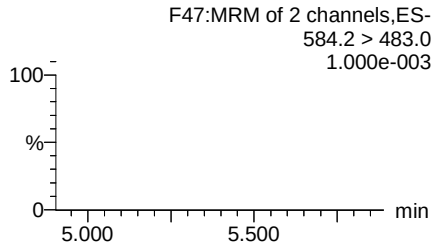
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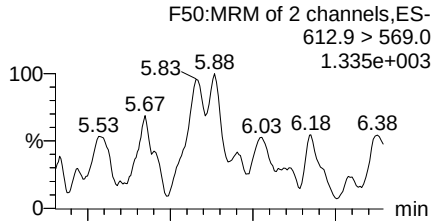


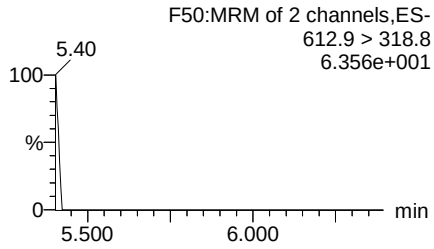
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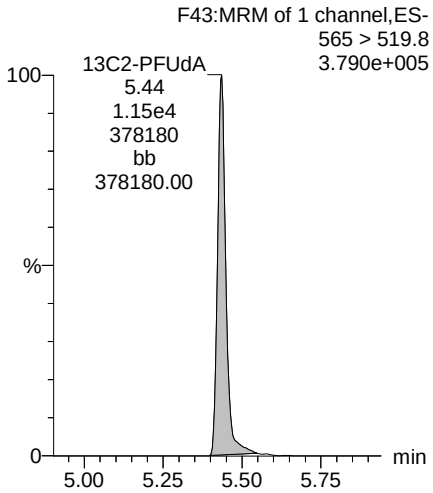


PFDoA

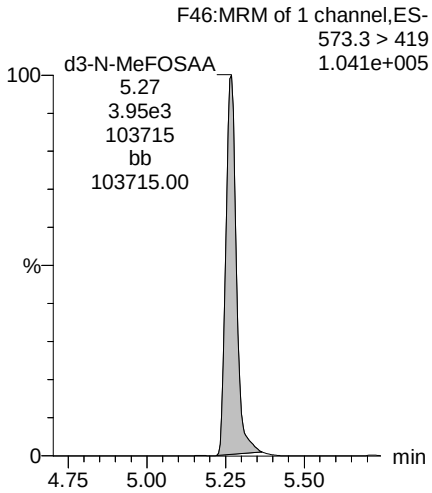




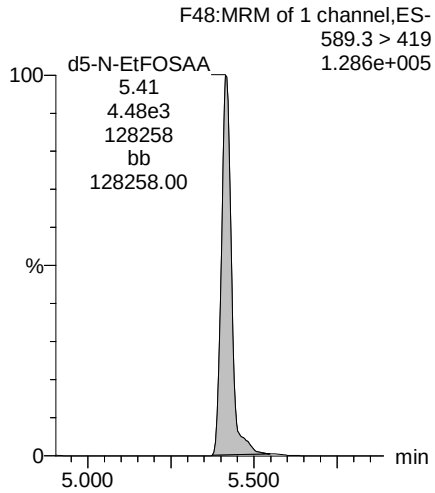
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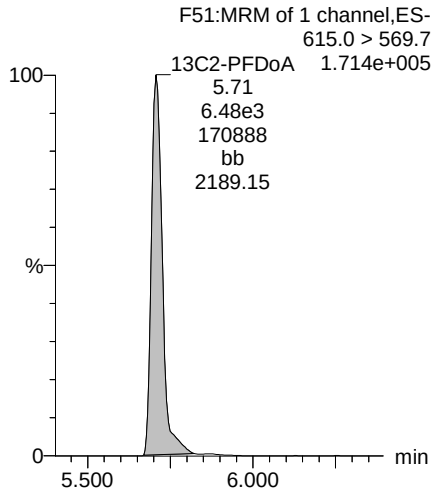
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



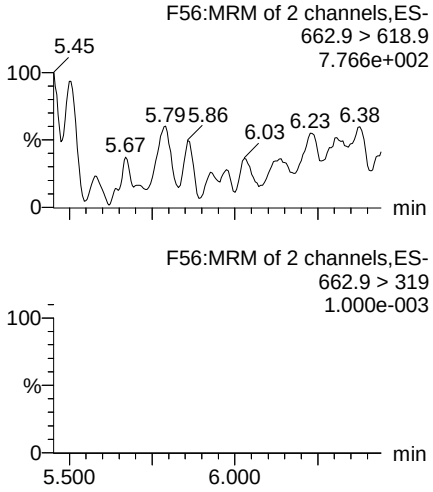
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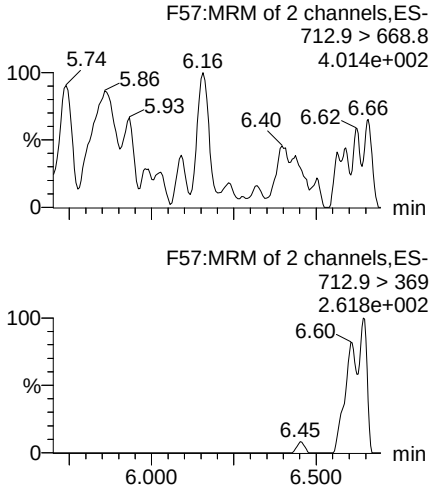
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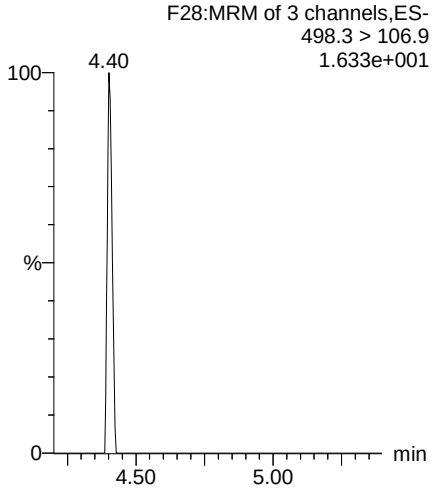
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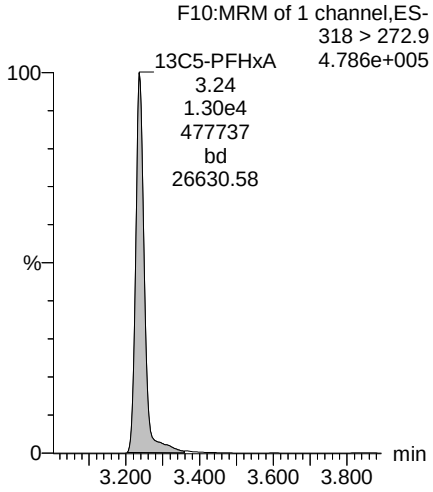
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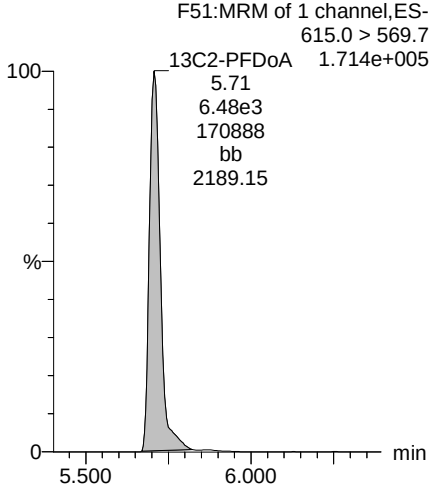
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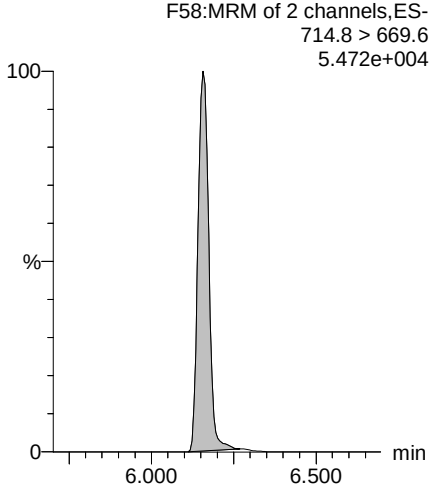
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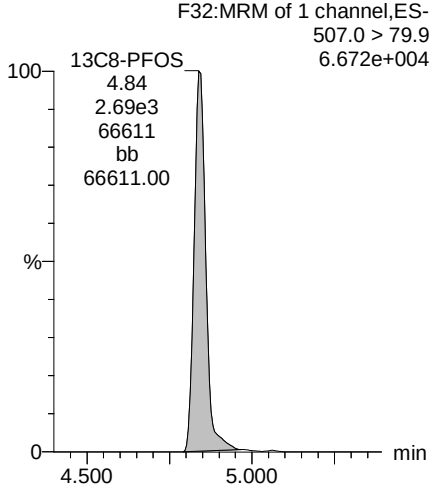
13C2-PFDoA



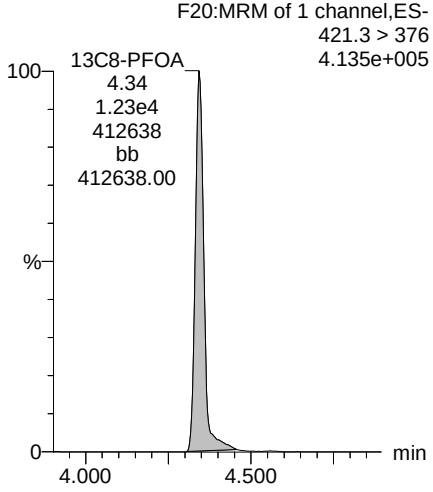
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13C8-PFOS



13C8-PFOA



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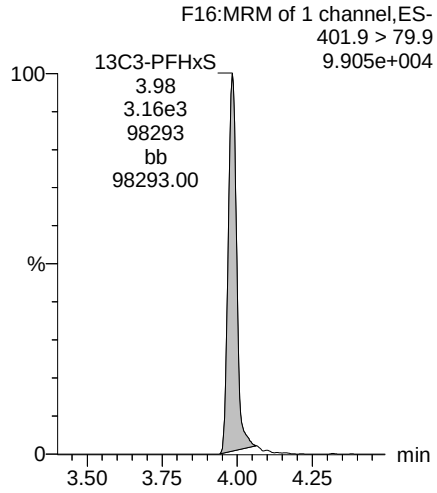
Rev'd: MM 12/31/17

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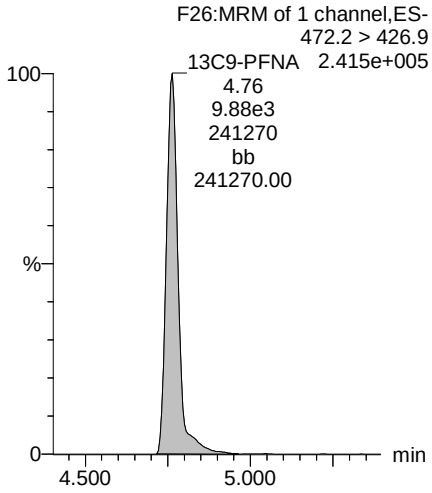
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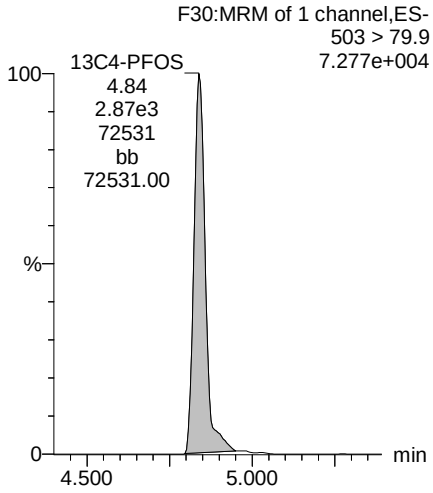
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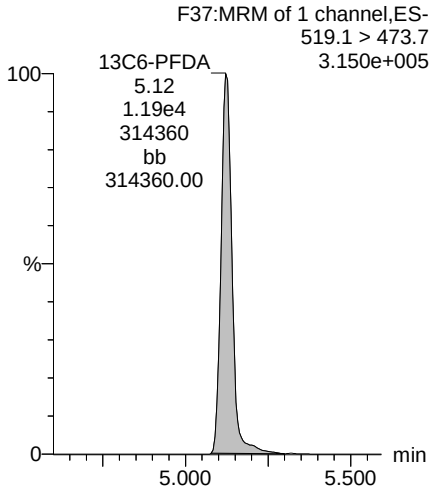
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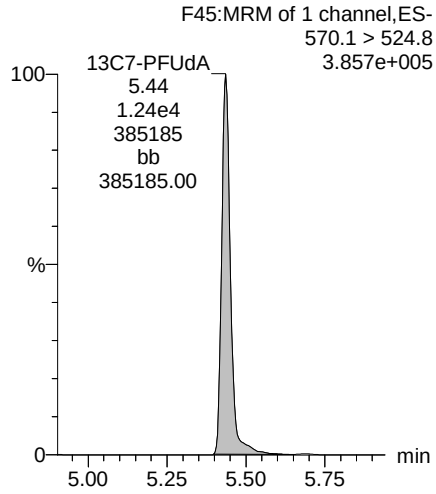
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-65.qld

Last Altered: Friday, December 29, 2017 13:01:13 Pacific Standard Time
Printed: Friday, December 29, 2017 13:01:53 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_65, Date: 28-Dec-2017, Time: 05:21:07, ID: 1701829-20 FT-EB01-20171130 0.25976, Description: FT-EB01-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.23e3	0.260		2.70				
2	4	PFHxA	313.2 > 268.9		2.90e3	0.260		3.20				
3	5	PFHpA	363.0 > 318.9		8.32e3	0.260		3.80				
4	6	L-PFHxS	398.9 > 79.6	2.36e0	8.88e2	0.260		3.95	3.98	0.0333	0.2138	
5	9	L-PFOA	413 > 368.7	1.26e2	1.16e4	0.260		4.32	4.35	0.136		
6	12	PFNA	463.0 > 418.8		9.26e3	0.260		4.75				
7	14	L-PFOS	499 > 79.9		2.95e3	0.260		4.83				
8	16	PFDA	513 > 468.8		7.87e3	0.260		5.11				
9	18	N-MeFOSAA	570.1 > 419		4.20e3	0.260		5.26				
10	19	N-EtFOSAA	584.2 > 419		4.14e3	0.260		5.42				
11	20	PFUdA	563.0 > 518.9	3.70e1	9.67e3	0.260		5.43	5.44	0.0478		
12	22	PFDoA	612.9 > 569.0		5.62e3	0.260		5.70				

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Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-65.qld

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Printed: Friday, December 29, 2017 13:02:06 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_65, Date: 28-Dec-2017, Time: 05:21:07, ID: 1701829-20 FT-EB01-20171130 0.25976, Description: FT-EB01-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		5.62e3	0.260		5.95				
2	25	PFTeDA	712.9 > 668.8		2.29e3	0.260		6.16				
3	33	13C3-PFBS	302. > 98.8	1.23e3	1.17e4	0.260	0.101	2.70	2.75	1.32	50.0199	103.9
4	34	13C2-PFHxA	315 > 269.8	2.90e3	1.17e4	0.260	0.601	3.20	3.24	3.11	19.9012	103.4
5	35	13C4-PFHpA	367.2 > 321.8	8.32e3	1.17e4	0.260	0.676	3.80	3.84	8.92	50.7445	105.5
6	36	18O2-PFHxS	403.0 > 102.6	8.88e2	3.79e3	0.260	0.347	3.95	3.98	2.93	32.5333	67.6
7	37	13C2-6:2 FTS	429.1 > 408.9	2.42e3	1.26e4	0.260	0.210	4.26	4.29	2.40	44.0332	91.5
8	38	13C2-PFOA	414.9 > 369.7	1.16e4	1.26e4	0.260	0.990	4.32	4.34	11.5	44.5645	92.6
9	39	13C5-PFNA	468.2 > 422.9	9.26e3	1.41e4	0.260	0.845	4.75	4.76	8.21	37.3994	77.7
10	40	13C8-PFOSA	506.1 > 77.7	9.39e2	1.53e4	0.260	0.199	4.81	4.84	0.768	14.8283	30.8
11	41	13C8-PFOS	507.0 > 79.9	2.95e3	3.68e3	0.260	0.865	4.83	4.84	10.0	44.5692	92.6
12	42	13C2-PFDA	515.1 > 469.9	7.87e3	9.99e3	0.260	0.886	5.11	5.12	9.84	42.7541	88.8
13	43	13C2-8:2 FTS	529.1 > 508.7	1.79e3	1.17e4	0.260	0.136	5.09	5.10	1.92	54.4302	113.1
14	44	d3-N-MeFOSAA	573.3 > 419	4.20e3	1.53e4	0.260	0.409	5.26	5.27	3.44	32.3665	67.3
15	45	d5-N-EtFOSAA	589.3 > 419	4.14e3	1.53e4	0.260	0.474	5.42	5.42	3.38	27.5008	57.1
16	46	13C2-PFUdA	565 > 519.8	9.67e3	1.53e4	0.260	0.928	5.43	5.44	7.91	32.7805	68.1
17	47	13C2-PFDoA	615.0 > 569.7	5.62e3	1.53e4	0.260	0.636	5.70	5.71	4.59	27.7987	57.8
18	49	13C2-PFTeDA	714.8 > 669.6	2.29e3	1.53e4	0.260	0.163	6.16	6.16	1.87	44.2328	91.9
19	55	13C5-PFHxA	318 > 272.9	1.17e4	1.17e4	0.260	1.000	3.20	3.24	12.5	48.1213	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.79e3	3.79e3	0.260	1.000	3.95	3.98	12.5	48.1213	100.0
21	57	13C8-PFOA	421.3 > 376	1.26e4	1.26e4	0.260	1.000	4.32	4.34	12.5	48.1213	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.41e4	1.41e4	0.260	1.000	4.75	4.76	12.5	48.1213	100.0
23	59	13C4-PFOS	503 > 79.9	3.68e3	3.68e3	0.260	1.000	4.83	4.84	12.5	48.1213	100.0
24	60	13C6-PFDA	519.1 > 473.7	9.99e3	9.99e3	0.260	1.000	5.11	5.12	12.5	48.1213	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.53e4	1.53e4	0.260	1.000	5.43	5.44	12.5	48.1213	100.0
26	62	Total PFHxS	398.9 > 79.6	2.36e0	8.88e2	0.260		4.00		0.0333	0.2138	
27	63	Total PFOA	413 > 368.7	1.26e2	1.16e4	0.260		4.30		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.95e3	0.260		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	4.20e3	0.260		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.14e3	0.260		5.40		0.000		

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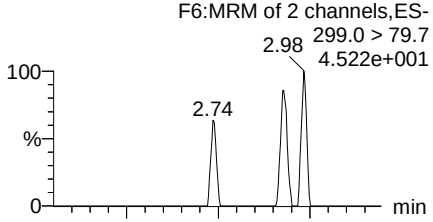
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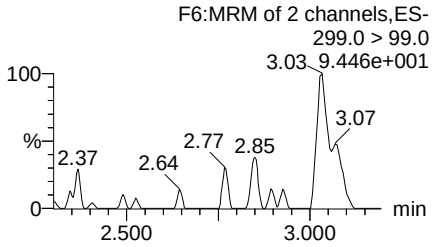
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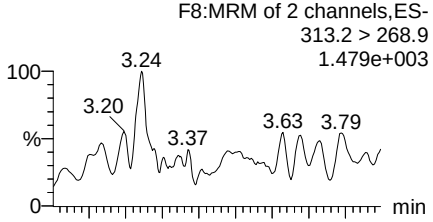
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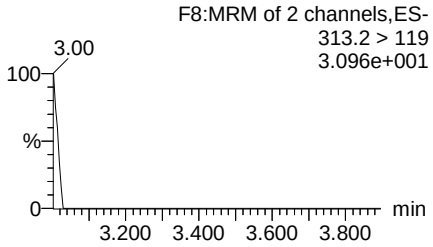
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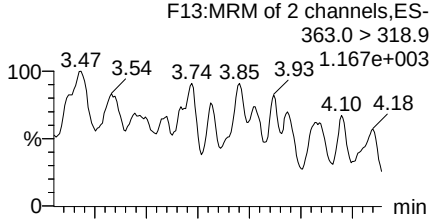


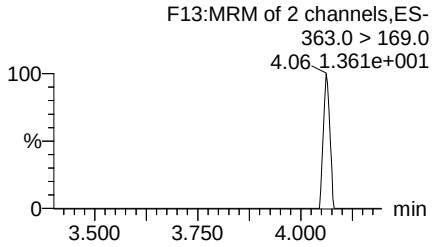
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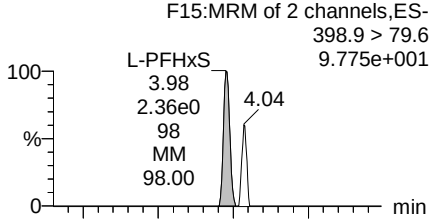


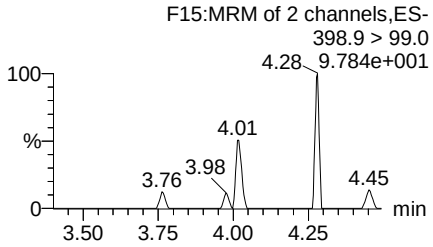
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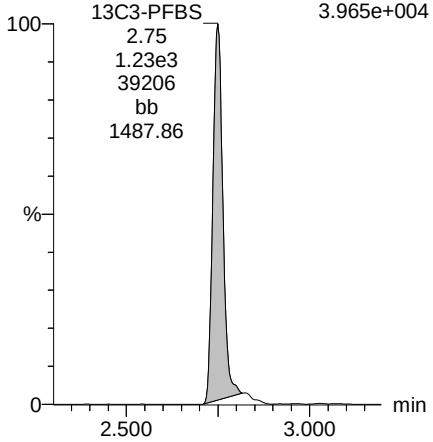


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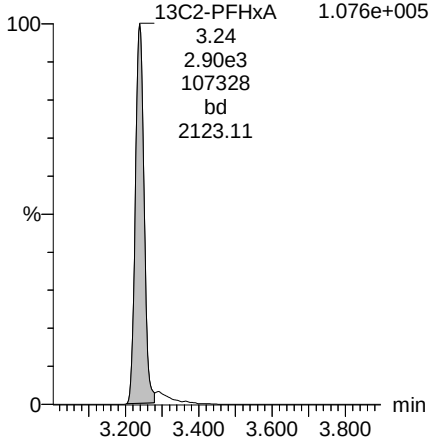




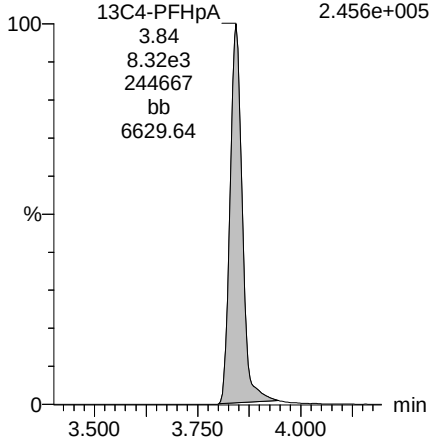
13C3-PFBS



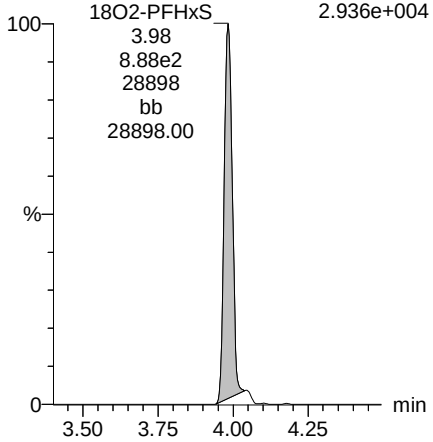
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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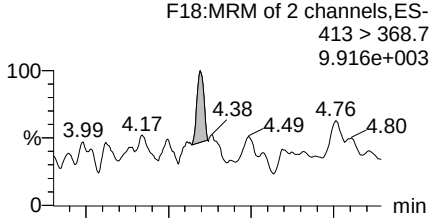
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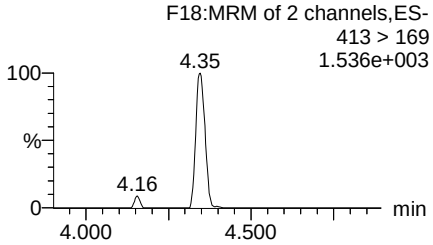
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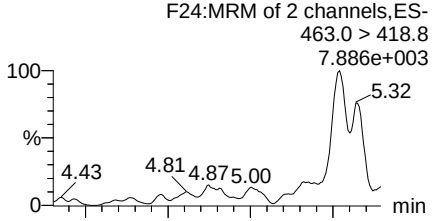
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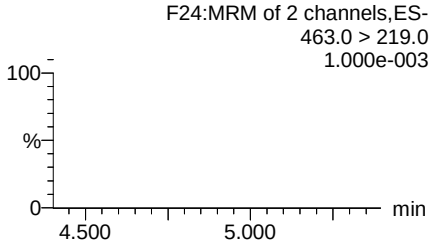
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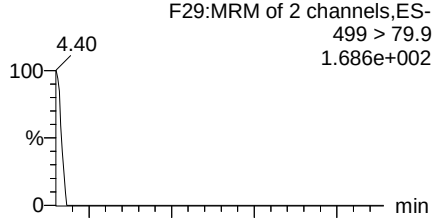


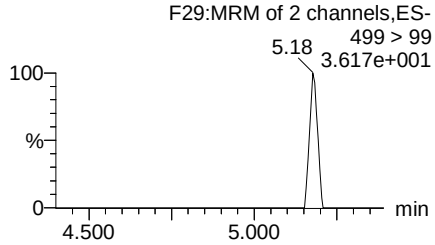
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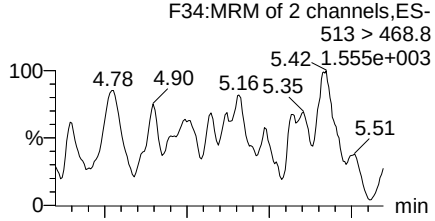


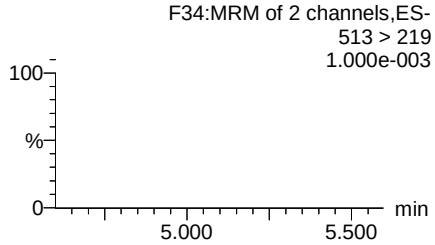
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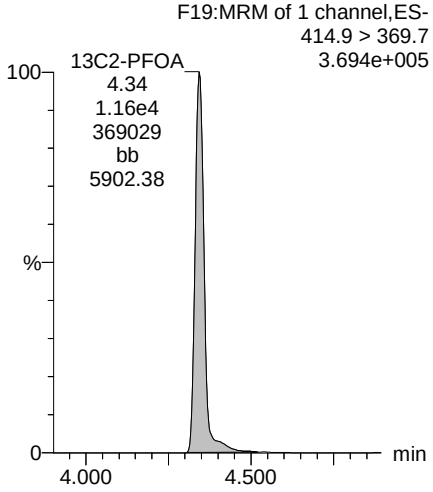


PFDA

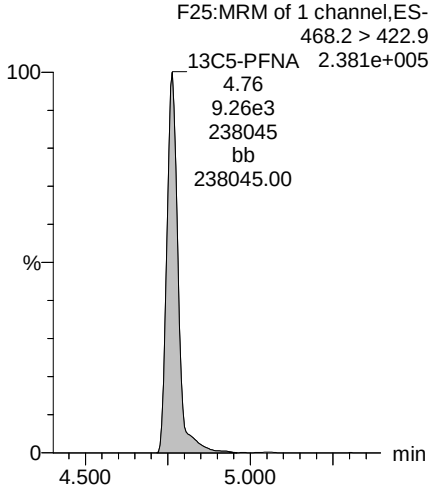




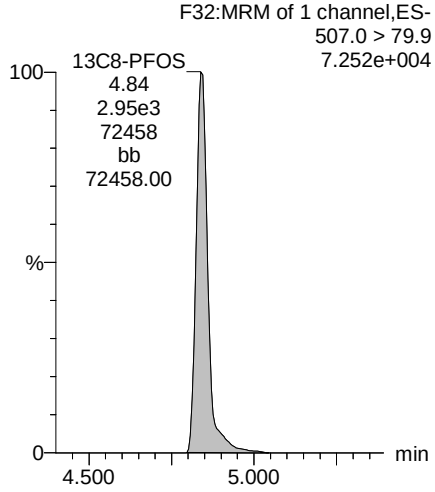
13C2-PFOA



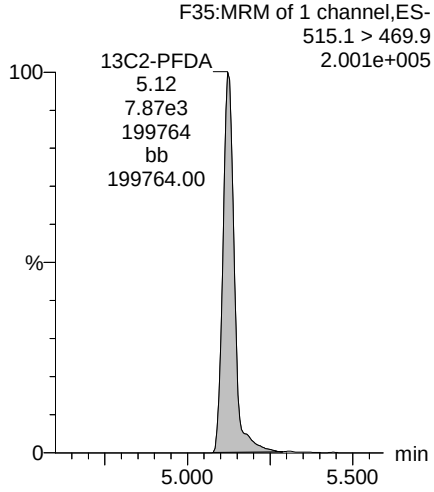
13C5-PFNA



13C8-PFOS



13C2-PFDA



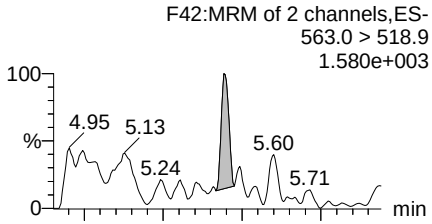
MSF 12/29/17

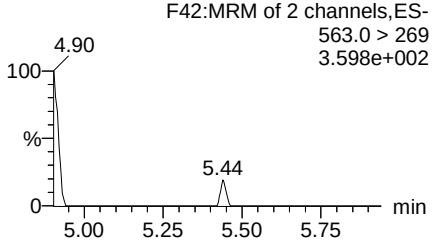
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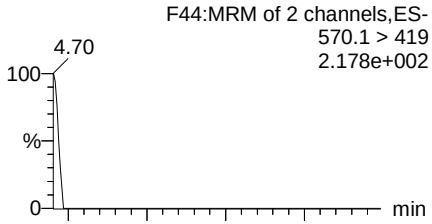
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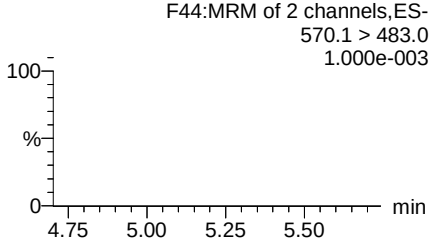
PFUdA



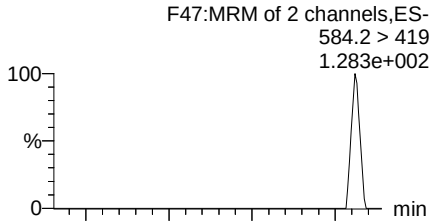


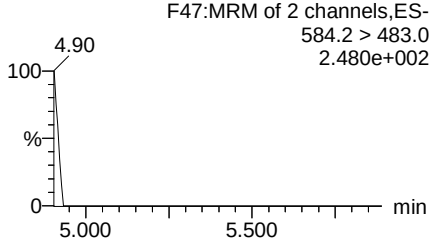
N-MeFOSAA



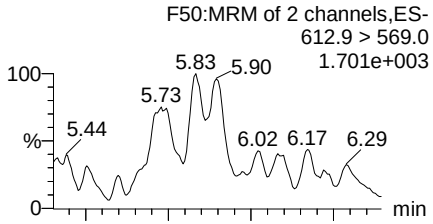


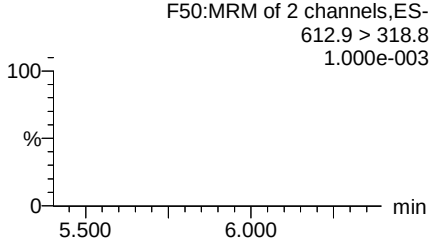
N-EtFOSAA



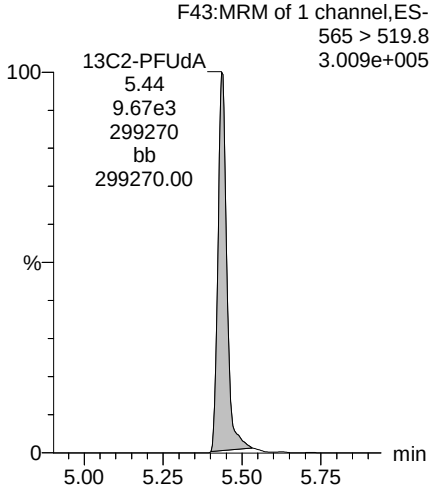


PFDoA

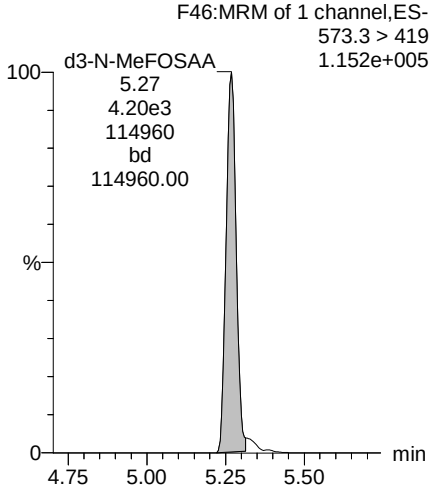




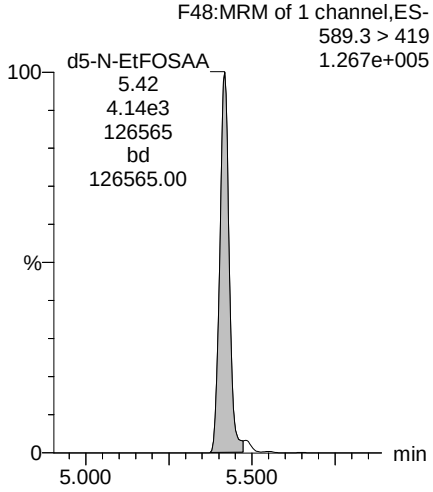
13C2-PFUdA



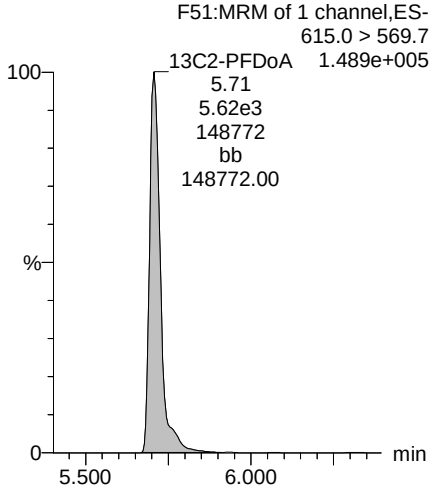
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



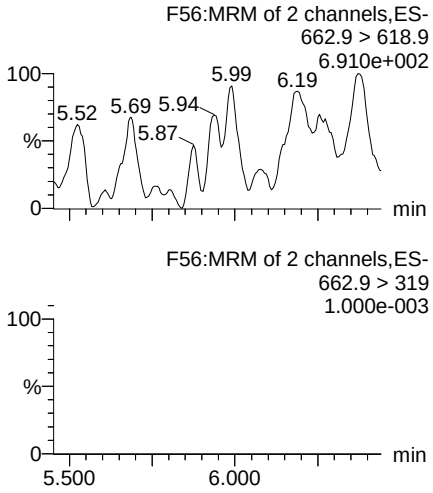
MSF 12/29/17

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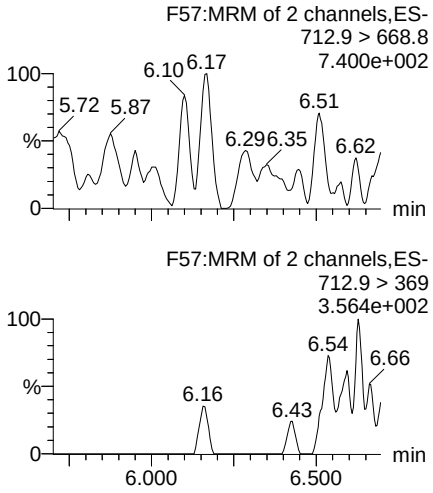
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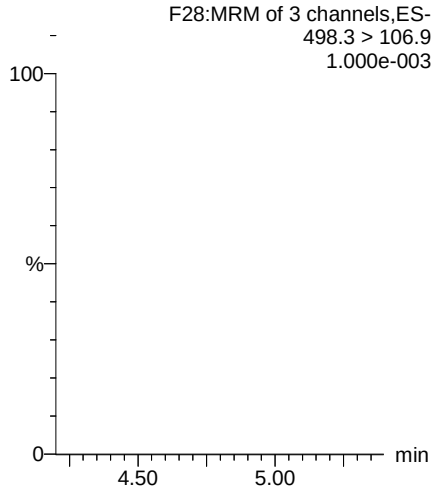
PFTrDA



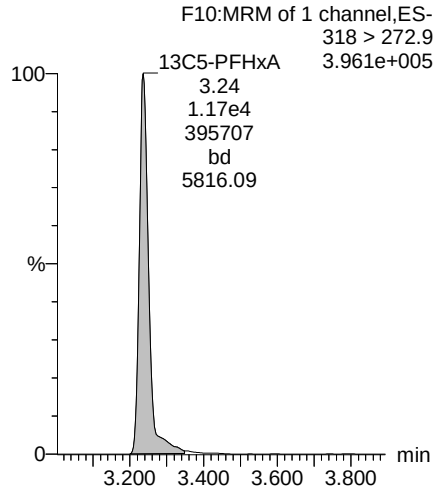
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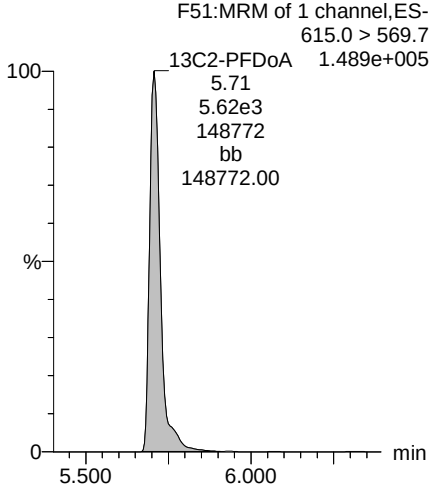
TCDA



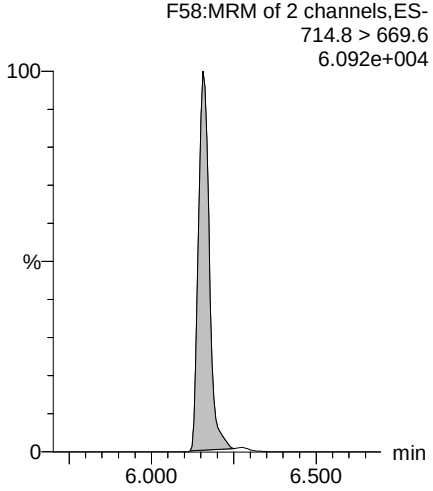
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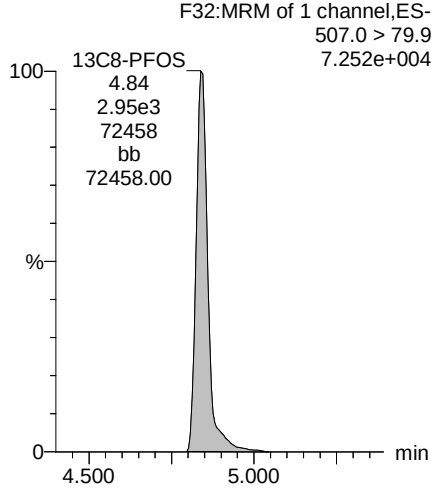
13C2-PFDoA



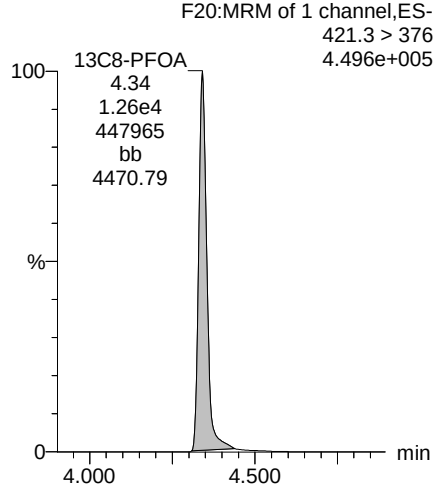
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



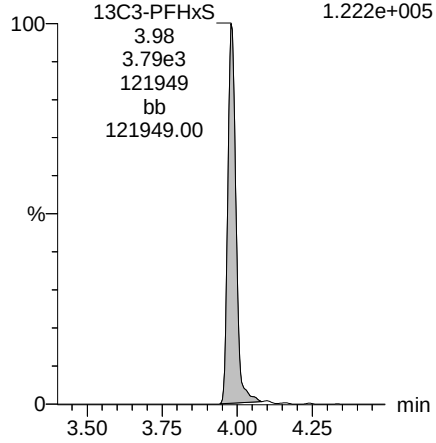
MSF 12/29/17

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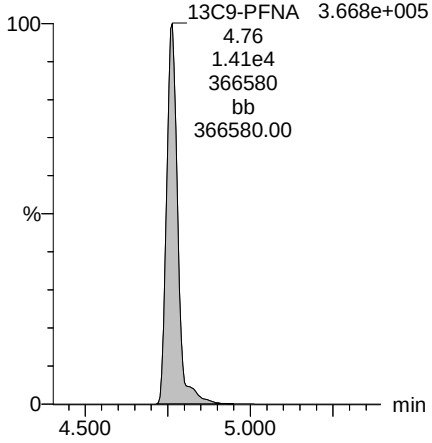
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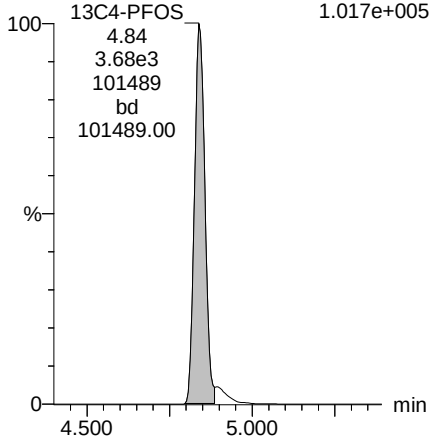
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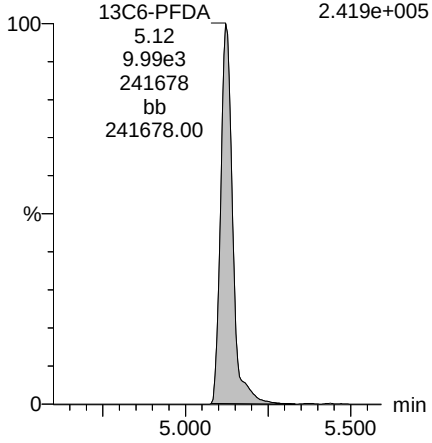
13C9-PFNA



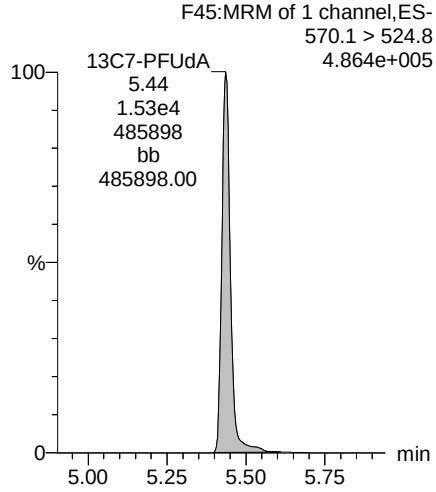
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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UNREPORTED RUNS

Vista Analytical Laboratory

Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171224M2\171224m2_33.qld

Last Altered: Friday, December 29, 2017 10:05:49 Pacific Standard Time
Printed: Friday, December 29, 2017 10:06:59 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_33, Date: 25-Dec-2017, Time: 06:18:58, ID: B7L0073-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.07e3	0.125		2.70				
2	4	PFHxA	313.2 > 268.9		2.97e3	0.125		3.20				
3	5	PFHpA	363.0 > 318.9		5.51e3	0.125		3.80				
4	6	L-PFHxS	398.9 > 79.6		9.23e2	0.125		3.95				
5	9	L-PFOA	413 > 368.7		8.00e3	0.125		4.32				
6	12	PFNA	463.0 > 418.8		6.73e3	0.125		4.75				
7	14	L-PFOS	499 > 79.9		2.07e3	0.125		4.83				
8	16	PFDA	513 > 468.8		6.71e3	0.125		5.11				
9	18	N-MeFOSAA	570.1 > 419		2.01e3	0.125		5.26				
10	19	N-EtFOSAA	584.2 > 419		3.02e3	0.125		5.42				
11	20	PFUdA	563.0 > 518.9		6.63e3	0.125		5.43				
12	22	PFDoA	612.9 > 569.0		3.98e3	0.125		5.70				

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Vista Analytical Laboratory

Rev'd: MM 12/31/17

Dataset: U:\Q4.PRO\results\171224M2\171224m2_33.qld

Last Altered: Friday, December 29, 2017 10:05:49 Pacific Standard Time
Printed: Friday, December 29, 2017 10:07:35 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_33, Date: 25-Dec-2017, Time: 06:18:58, ID: B7L0073-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.34e3	0.125		5.95				
2	25	PFTeDA	712.9 > 668.8		3.34e3	0.125		6.16				
3	33	13C3-PFBS	302. > 98.8	1.07e3	1.05e4	0.125	0.101	2.70	2.72	1.27	100.8062	100.8
4	34	13C2-PFHxA	315 > 269.8	2.97e3	1.05e4	0.125	0.758	3.20	3.21	3.54	37.3344	93.3
5	35	13C4-PFHpA	367.2 > 321.8	5.51e3	1.05e4	0.125	0.562	3.80	3.82	6.56	93.3707	93.4
6	36	18O2-PFHxS	403.0 > 102.6	9.23e2	2.38e3	0.125	0.435	3.95	3.96	4.85	89.2300	89.2
7	37	13C2-6:2 FTS	429.1 > 408.9	1.91e3	8.60e3	0.125	0.393	4.26	4.27	2.78	56.5953	56.6
8	38	13C2-PFOA	414.9 > 369.7	8.00e3	8.60e3	0.125	1.252	4.32	4.33	11.6	74.3006	74.3
9	39	13C5-PFNA	468.2 > 422.9	6.73e3	9.08e3	0.125	0.962	4.75	4.75	9.26	77.0034	77.0
10	40	13C8-PFOSA	506.1 > 77.7	1.62e3	7.28e3	0.125	0.345	4.81	4.81	2.79	64.7607	64.8
11	41	13C8-PFOS	507.0 > 79.9	2.07e3	2.86e3	0.125	1.003	4.83	4.83	9.07	72.3105	72.3
12	42	13C2-PFDA	515.1 > 469.9	6.71e3	6.81e3	0.125	1.194	5.11	5.11	12.3	82.5811	82.6
13	43	13C2-8:2 FTS	529.1 > 508.7	1.12e3	1.05e4	0.125	0.150	5.09	5.09	1.33	71.1913	71.2
14	44	d3-N-MeFOSAA	573.3 > 419	2.01e3	7.28e3	0.125	0.372	5.26	5.26	3.46	74.2636	74.3
15	45	d5-N-EtFOSAA	589.3 > 419	3.02e3	7.28e3	0.125	0.444	5.42	5.41	5.20	93.7106	93.7
16	46	13C2-PFUdA	565 > 519.8	6.63e3	7.28e3	0.125	1.091	5.43	5.43	11.4	83.5603	83.6
17	47	13C2-PFDoA	615.0 > 569.7	3.98e3	7.28e3	0.125	0.629	5.70	5.70	6.84	86.9335	86.9
18	49	13C2-PFTeDA	714.8 > 669.6	3.34e3	7.28e3	0.125	0.551	6.16	6.16	5.74	83.3845	83.4
19	55	13C5-PFHxA	318 > 272.9	1.05e4	1.05e4	0.125	1.000	3.20	3.21	12.5	100.0000	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.38e3	2.38e3	0.125	1.000	3.95	3.96	12.5	100.0000	100.0
21	57	13C8-PFOA	421.3 > 376	8.60e3	8.60e3	0.125	1.000	4.32	4.33	12.5	100.0000	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.08e3	9.08e3	0.125	1.000	4.75	4.75	12.5	100.0000	100.0
23	59	13C4-PFOS	503 > 79.9	2.86e3	2.86e3	0.125	1.000	4.83	4.83	12.5	100.0000	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.81e3	6.81e3	0.125	1.000	5.11	5.11	12.5	100.0000	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.28e3	7.28e3	0.125	1.000	5.43	5.43	12.5	100.0000	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	9.23e2	0.125		4.00		0.000		
27	63	Total PFOA	413 > 368.7	0.00e0	8.00e3	0.125		4.30		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.07e3	0.125		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.01e3	0.125		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.02e3	0.125		5.40		0.000		

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Rev'd: MM 12/31/17

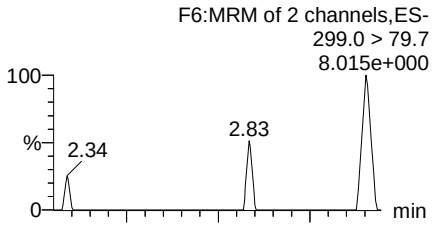
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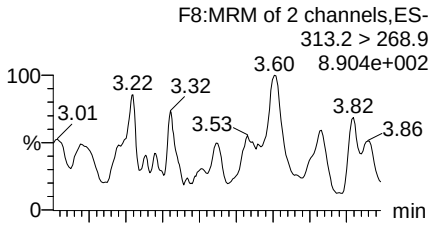
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

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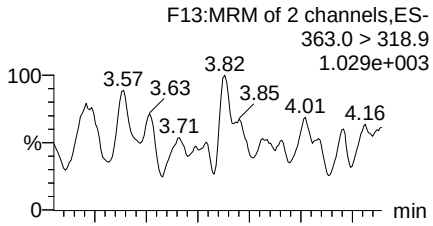
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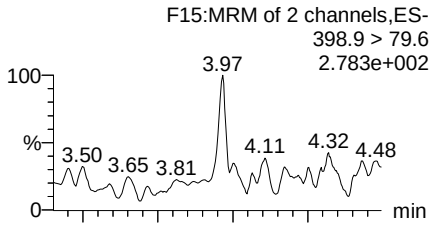
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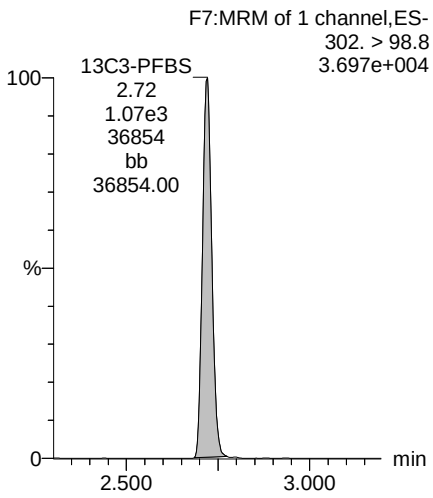
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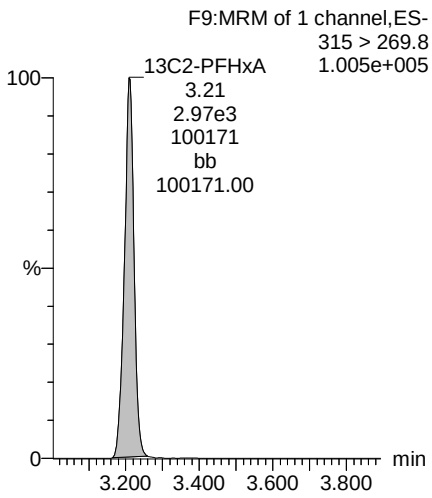
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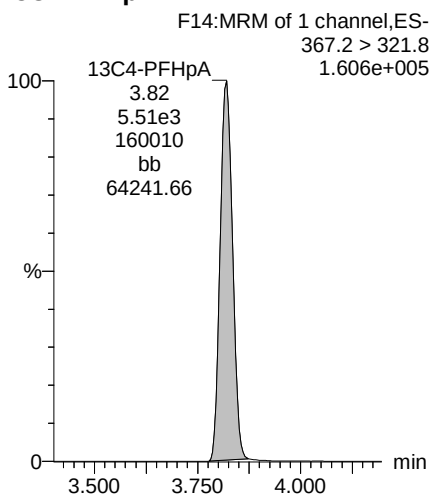
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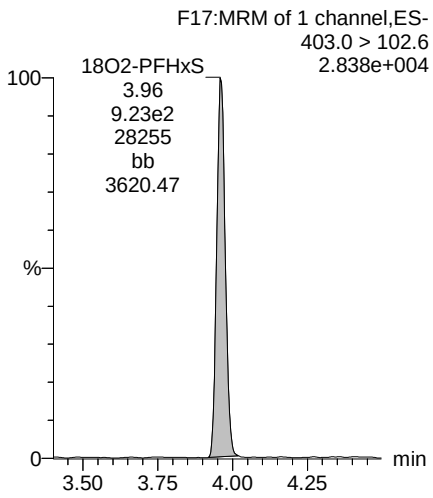
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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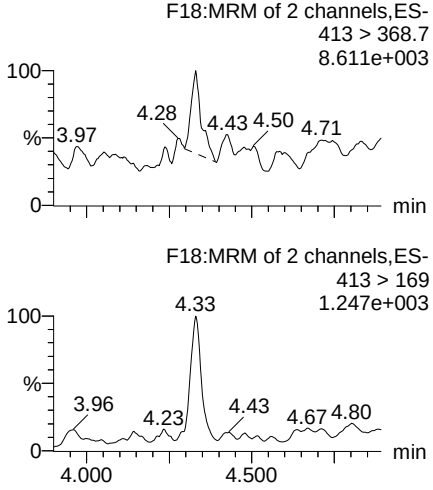
Rev'd: MM 12/31/17

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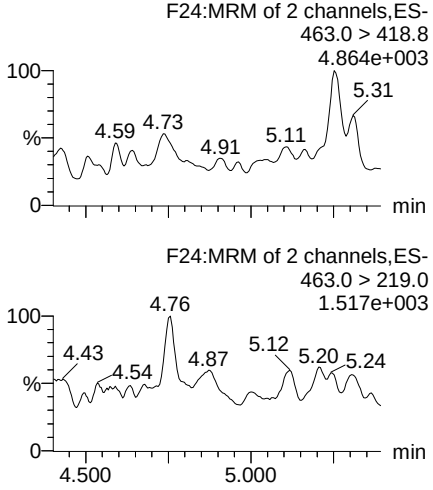
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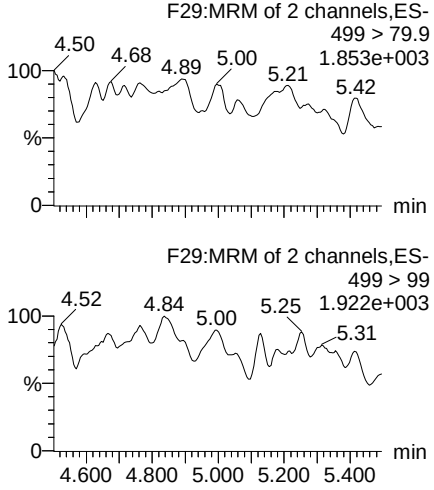
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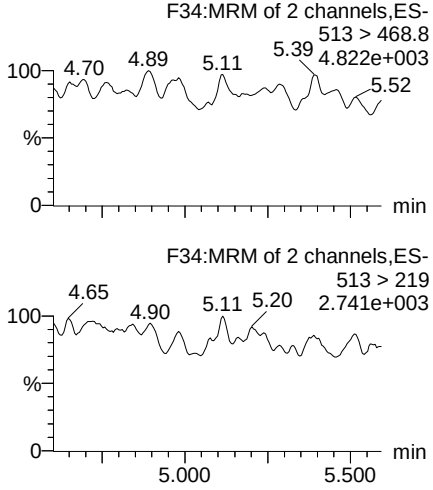
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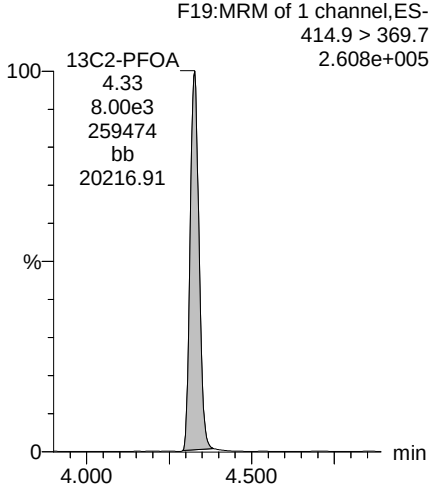
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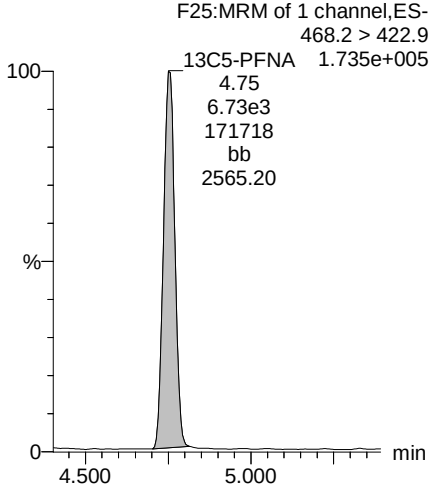
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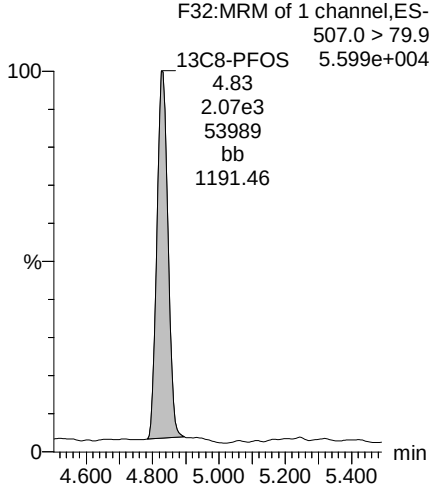
13C2-PFOA



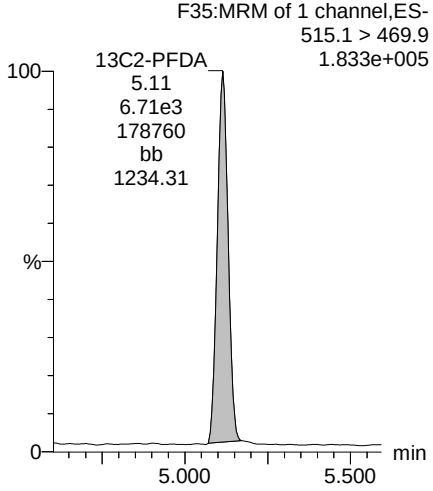
13C5-PFNA



13C8-PFOS



13C2-PFDA



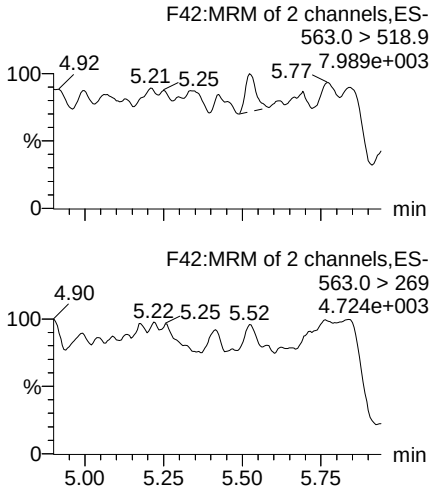
ANP 12/29/2017

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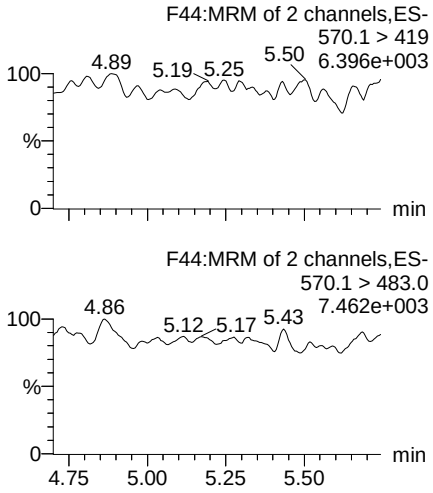
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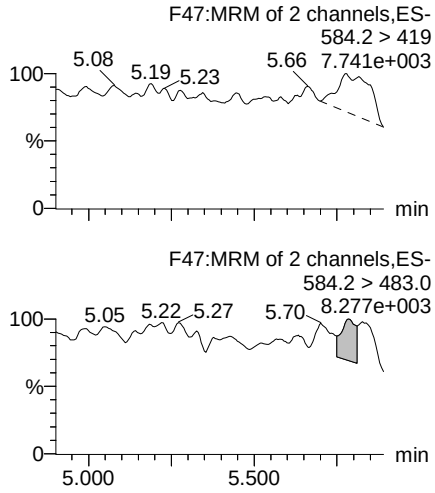
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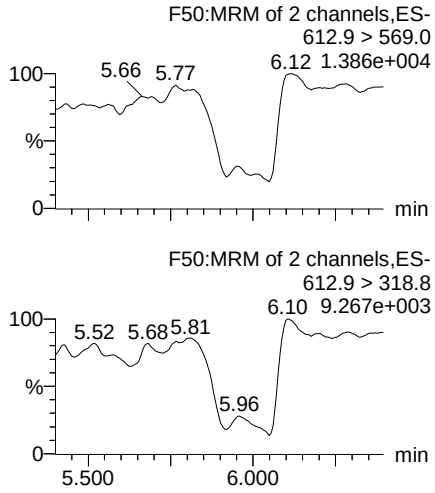
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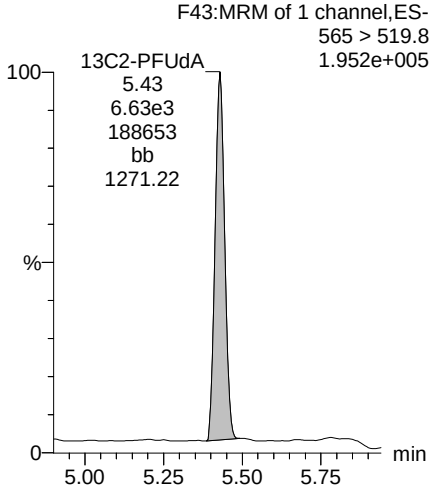
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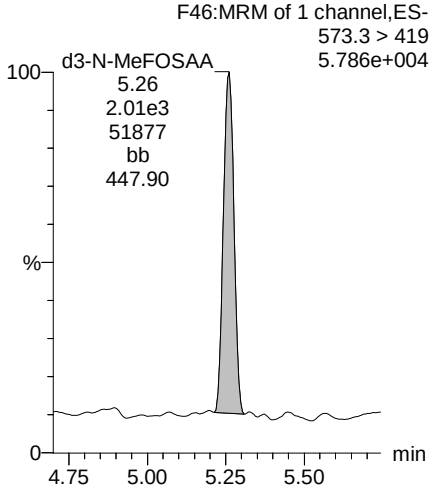
PFDoA



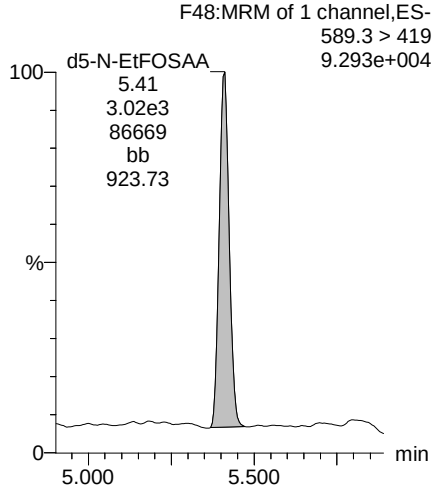
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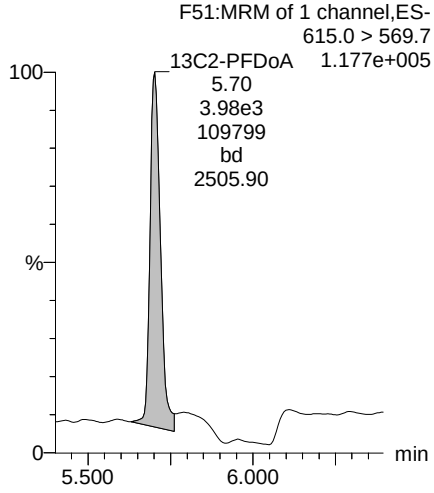
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



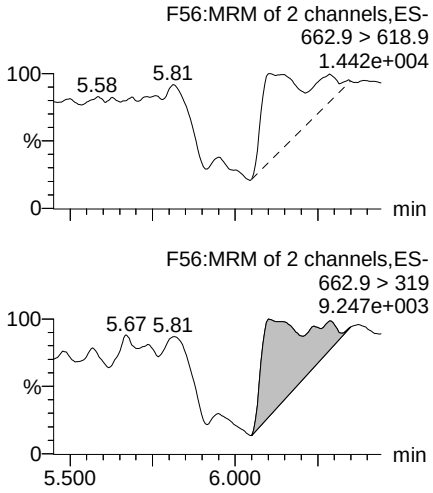
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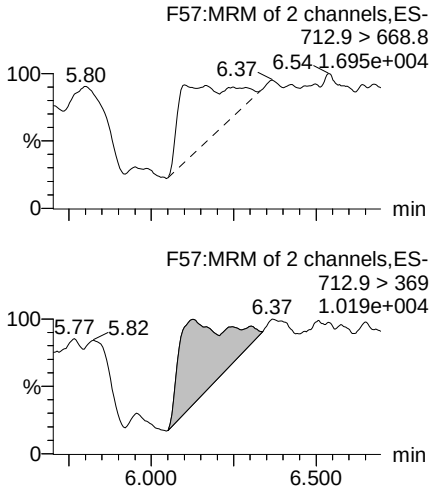
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Name: 171224M2_33, Date: 25-Dec-2017, Time: 06:18:58, ID: B7L0073-BLK1 Method Blank 0.125, Description: Method Blank

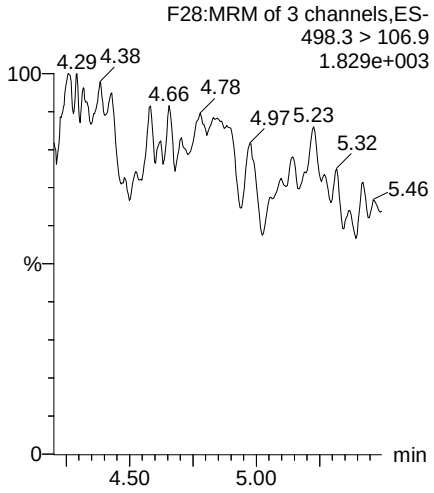
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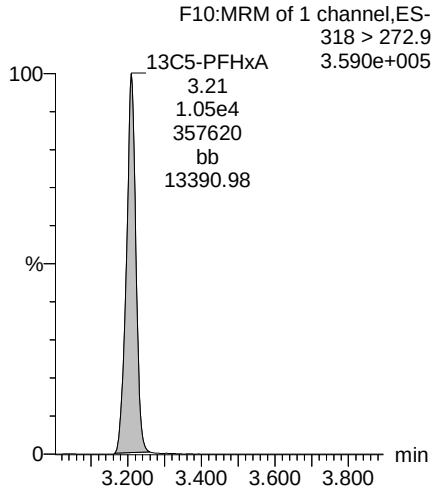
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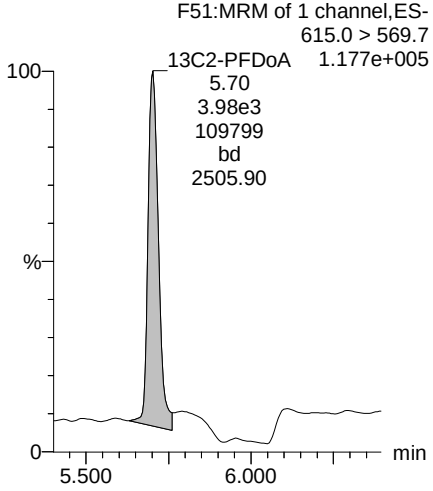
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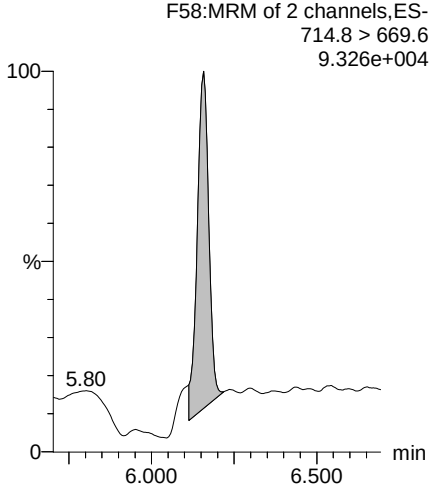
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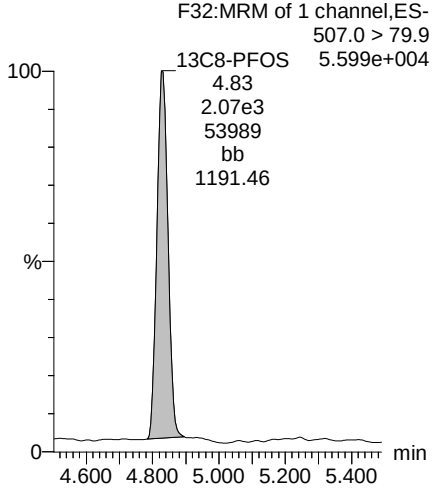
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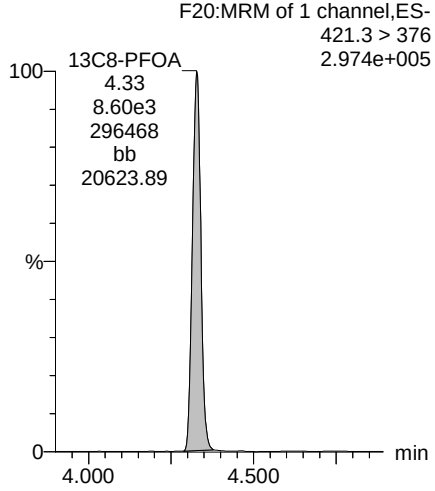
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



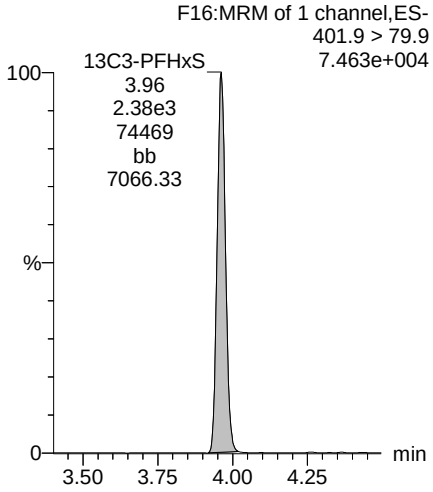
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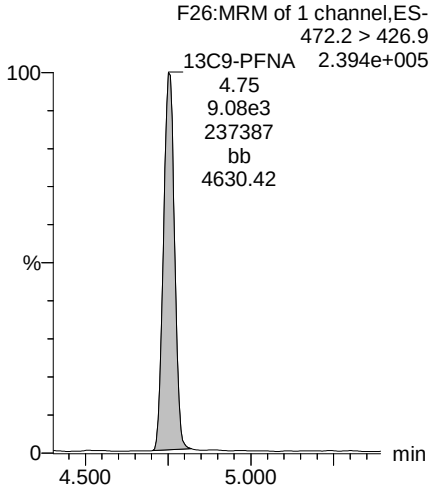
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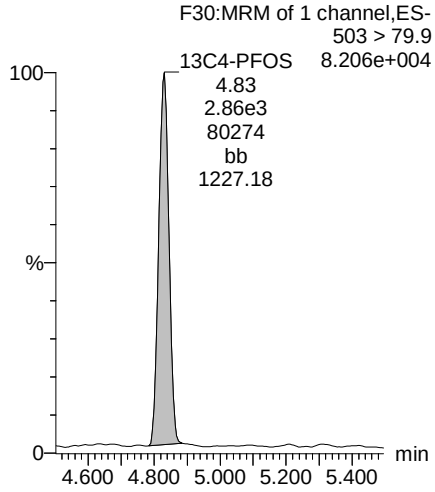
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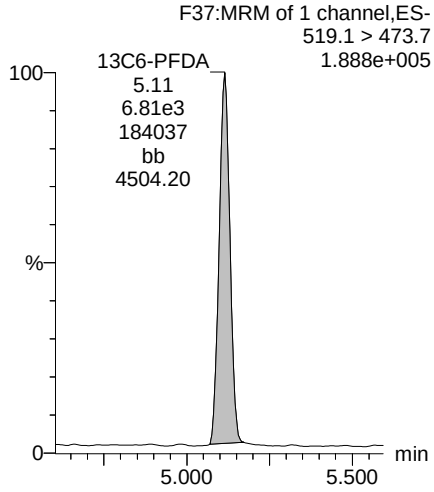
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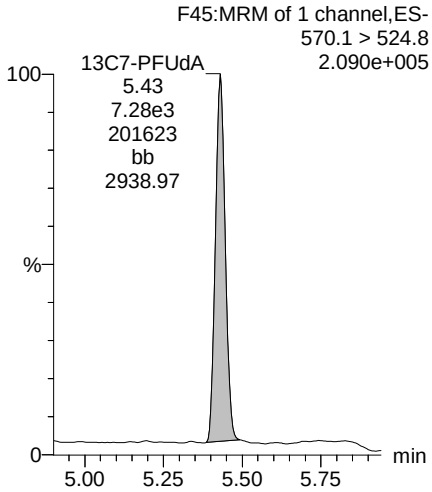
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171224M2\171224m2_35.qld

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_35, Date: 25-Dec-2017, Time: 06:41:19, ID: B7L0073-BS1 OPR 0.125, Description: OPR

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.19e3	1.10e3	0.125		2.70	2.72	25.0	89.3456	111.7
2	4	PFHxA	313.2 > 268.9	1.02e4	3.77e3	0.125		3.20	3.21	13.5	74.4467	93.1
3	5	PFHpA	363.0 > 318.9	8.21e3	6.69e3	0.125		3.80	3.82	15.3	80.4192	100.5
4	6	L-PFHxS	398.9 > 79.6	1.47e3	9.65e2	0.125		3.95	3.96	19.0	68.9585	86.2
5	9	L-PFOA	413 > 368.7	9.00e3	9.04e3	0.125		4.32	4.33	12.4	95.5024	119.4
6	12	PFNA	463.0 > 418.8	8.19e3	8.38e3	0.125		4.75	4.75	12.2	65.5426	81.9
7	14	L-PFOS	499 > 79.9	1.46e3	2.41e3	0.125		4.83	4.83	7.61	56.5460	70.7
8	16	PFDA	513 > 468.8	7.68e3	8.43e3	0.125		5.11	5.11	11.4	69.8384	87.3
9	18	N-MeFOSAA	570.1 > 419	3.13e3	2.91e3	0.125		5.26	5.26	13.4	52.6382	65.8
10	19	N-EtFOSAA	584.2 > 419	2.62e3	3.20e3	0.125		5.42	5.41	10.2	75.3980	94.2
11	20	PFUdA	563.0 > 518.9	7.70e3	8.92e3	0.125		5.43	5.43	10.8	71.8651	89.8
12	22	PFDoA	612.9 > 569.0	7.98e3	4.40e3	0.125		5.70	5.70	22.7	74.0522	92.6

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Dataset: U:\Q4.PRO\results\171224M2\171224m2_35.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_35, Date: 25-Dec-2017, Time: 06:41:19, ID: B7L0073-BS1 OPR 0.125, Description: OPR

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	6.15e3	4.07e3	0.125		5.95	5.94	18.9	58.6378	73.3
2	25	PFTeDA	712.9 > 668.8	7.63e3	4.07e3	0.125		6.16	6.15	23.4	93.6655	117.1
3	33	13C3-PFBS	302. > 98.8	1.10e3	1.27e4	0.125	0.101	2.70	2.72	1.08	85.3795	85.4
4	34	13C2-PFHxA	315 > 269.8	3.77e3	1.27e4	0.125	0.758	3.20	3.21	3.71	39.2007	98.0
5	35	13C4-PFHpA	367.2 > 321.8	6.69e3	1.27e4	0.125	0.562	3.80	3.82	6.59	93.7398	93.7
6	36	18O2-PFHxS	403.0 > 102.6	9.65e2	2.32e3	0.125	0.435	3.95	3.96	5.20	95.5549	95.6
7	37	13C2-6:2 FTS	429.1 > 408.9	2.58e3	8.21e3	0.125	0.393	4.26	4.27	3.93	79.9960	80.0
8	38	13C2-PFOA	414.9 > 369.7	9.04e3	8.21e3	0.125	1.252	4.32	4.33	13.8	87.8617	87.9
9	39	13C5-PFNA	468.2 > 422.9	8.38e3	1.12e4	0.125	0.962	4.75	4.75	9.33	77.5559	77.6
10	40	13C8-PFOSA	506.1 > 77.7	1.62e3	1.03e4	0.125	0.345	4.81	4.81	1.97	45.6829	45.7
11	41	13C8-PFOS	507.0 > 79.9	2.41e3	2.86e3	0.125	1.003	4.83	4.83	10.5	83.7335	83.7
12	42	13C2-PFDA	515.1 > 469.9	8.43e3	8.39e3	0.125	1.194	5.11	5.11	12.6	84.2277	84.2
13	43	13C2-8:2 FTS	529.1 > 508.7	1.00e3	1.27e4	0.125	0.150	5.09	5.09	0.988	52.7291	52.7
14	44	d3-N-MeFOSAA	573.3 > 419	2.91e3	1.03e4	0.125	0.372	5.26	5.26	3.53	75.8534	75.9
15	45	d5-N-EtFOSAA	589.3 > 419	3.20e3	1.03e4	0.125	0.444	5.42	5.41	3.88	69.9161	69.9
16	46	13C2-PFUdA	565 > 519.8	8.92e3	1.03e4	0.125	1.091	5.43	5.43	10.8	79.3823	79.4
17	47	13C2-PFDoA	615.0 > 569.7	4.40e3	1.03e4	0.125	0.629	5.70	5.70	5.34	67.8756	67.9
18	49	13C2-PFTeDA	714.8 > 669.6	4.07e3	1.03e4	0.125	0.551	6.16	6.16	4.94	71.8184	71.8
19	55	13C5-PFHxA	318 > 272.9	1.27e4	1.27e4	0.125	1.000	3.20	3.21	12.5	100.0000	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.32e3	2.32e3	0.125	1.000	3.95	3.96	12.5	100.0000	100.0
21	57	13C8-PFOA	421.3 > 376	8.21e3	8.21e3	0.125	1.000	4.32	4.32	12.5	100.0000	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.12e4	1.12e4	0.125	1.000	4.75	4.75	12.5	100.0000	100.0
23	59	13C4-PFOS	503 > 79.9	2.86e3	2.86e3	0.125	1.000	4.83	4.83	12.5	100.0000	100.0
24	60	13C6-PFDA	519.1 > 473.7	8.39e3	8.39e3	0.125	1.000	5.11	5.11	12.5	100.0000	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.03e4	1.03e4	0.125	1.000	5.43	5.43	12.5	100.0000	100.0
26	62	Total PFHxS	398.9 > 79.6	1.56e3	9.65e2	0.125		4.00		20.2	73.3751	
27	63	Total PFOA	413 > 368.7	9.00e3	9.04e3	0.125		4.30		12.4	95.5024	
28	64	Total PFOS	499 > 79.9	1.66e3	2.41e3	0.125		4.80		8.62	63.9351	
29	65	Total N-MeFOSAA	570.1 > 419	3.13e3	2.91e3	0.125		5.20		13.4	52.6382	
30	66	Total N-EtFOSAA	584.2 > 419	2.62e3	3.20e3	0.125		5.40		10.2	75.3980	

Vista Analytical Laboratory

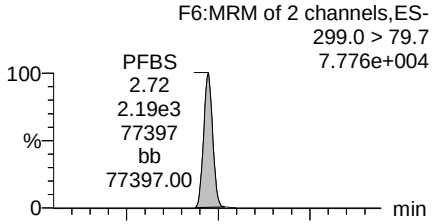
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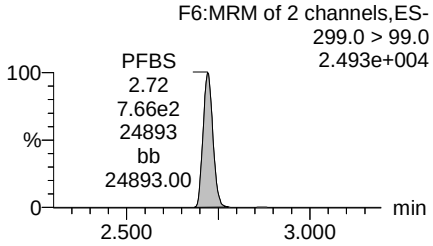
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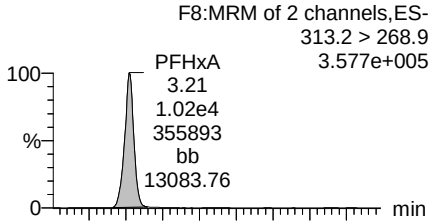
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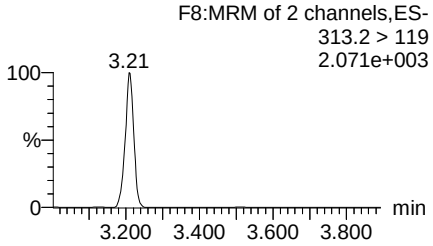
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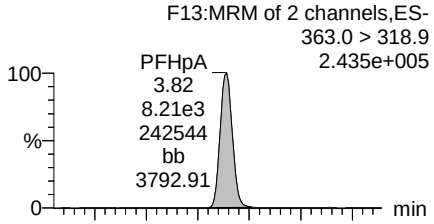


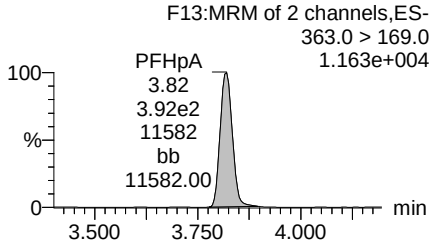
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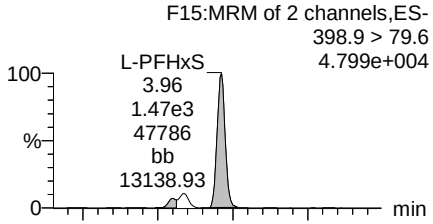


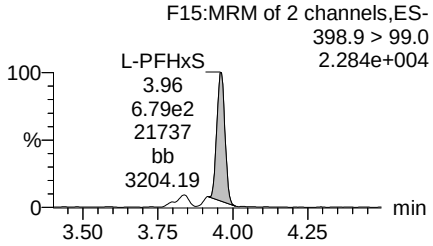
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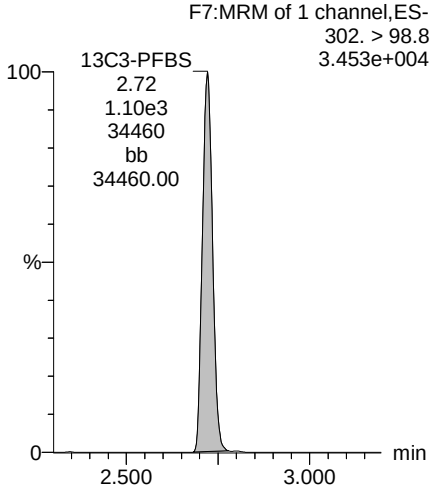


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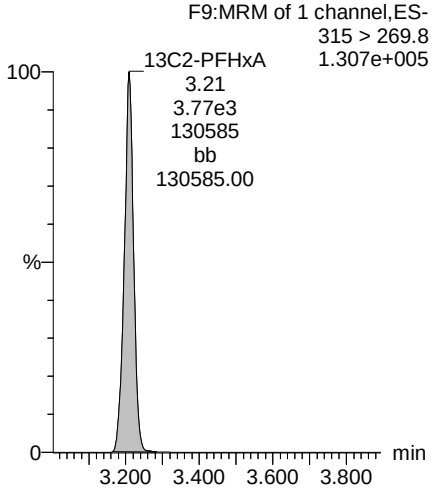




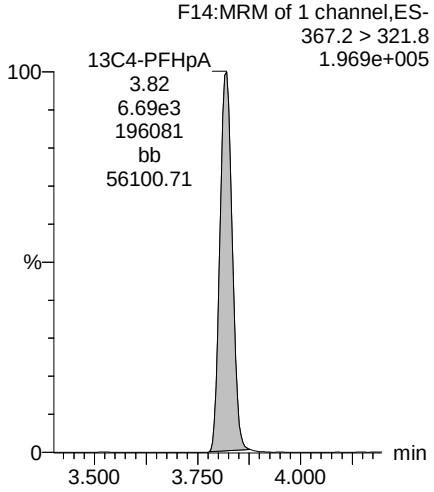
13C3-PFBS



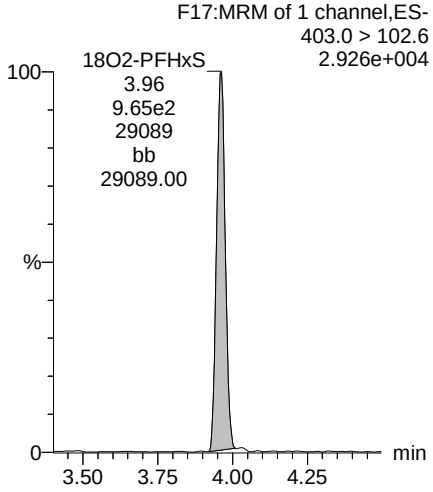
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13C4-PFHpA



18O2-PFHxS



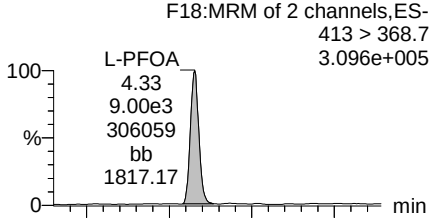
Vista Analytical Laboratory

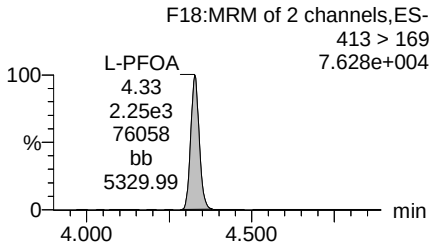
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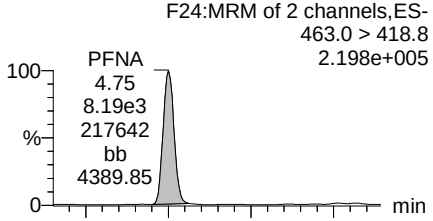
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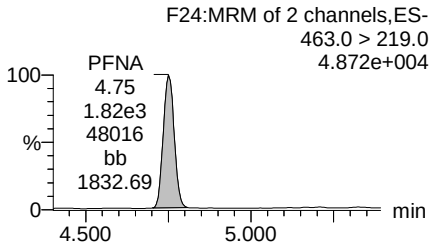
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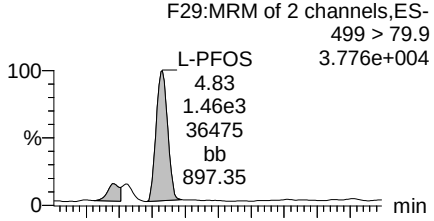


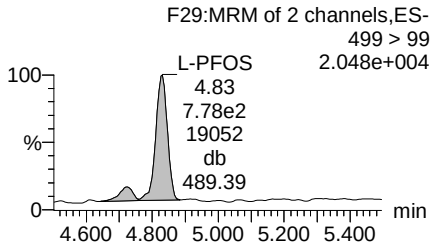
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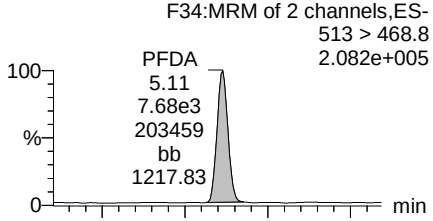


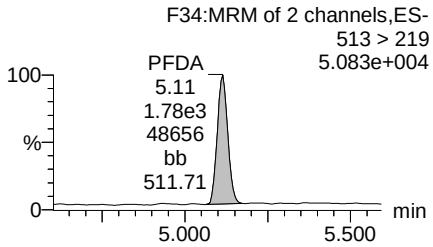
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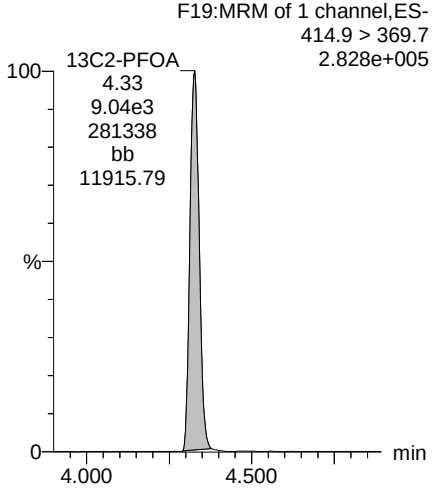


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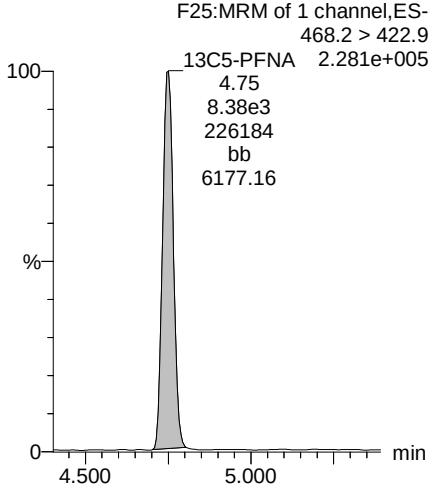




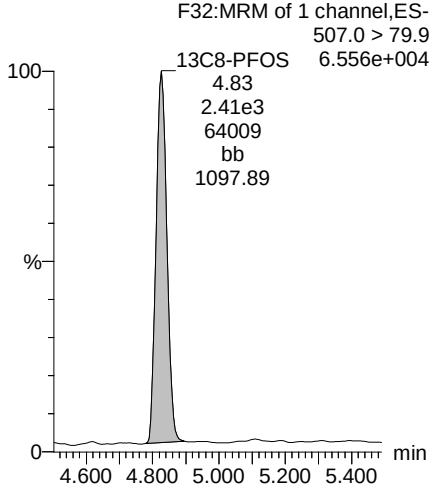
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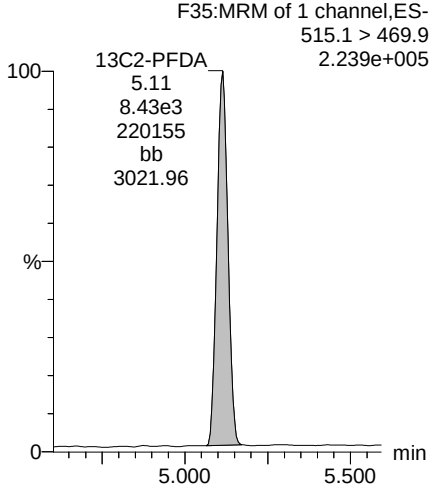
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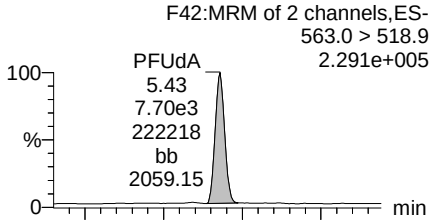


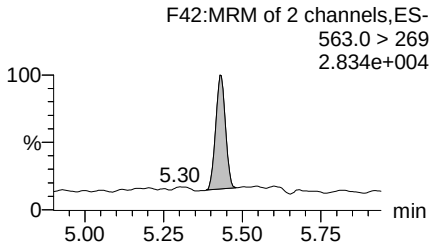
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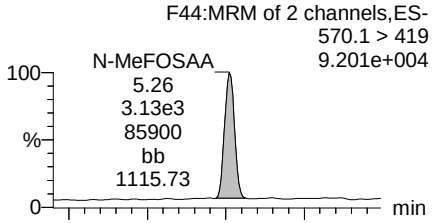
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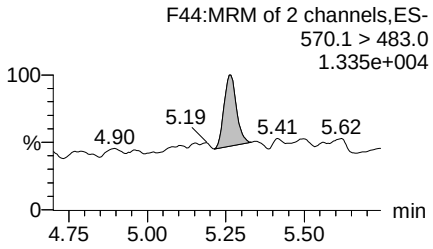
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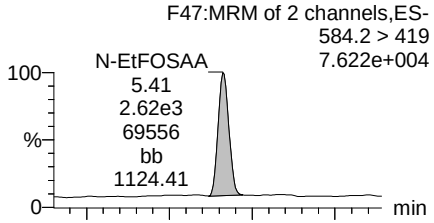


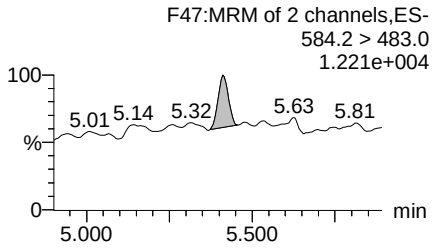
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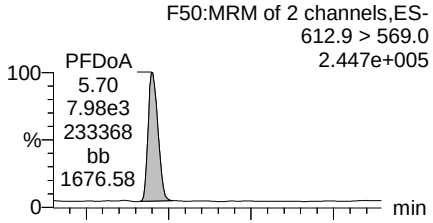


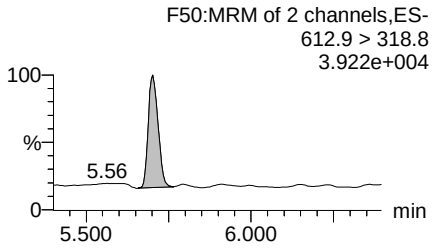
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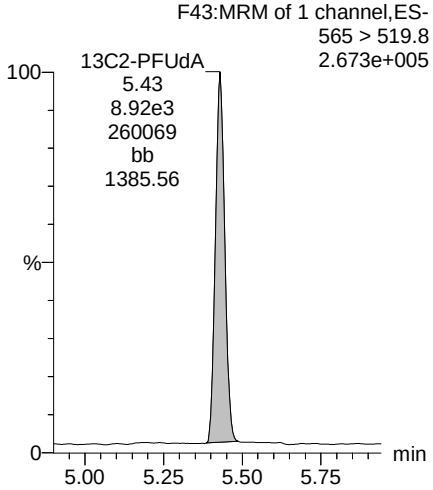


PFDoA

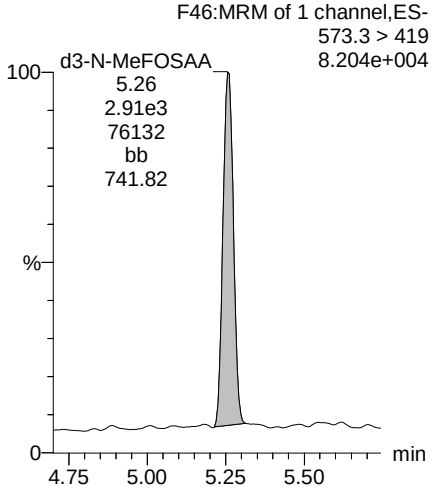




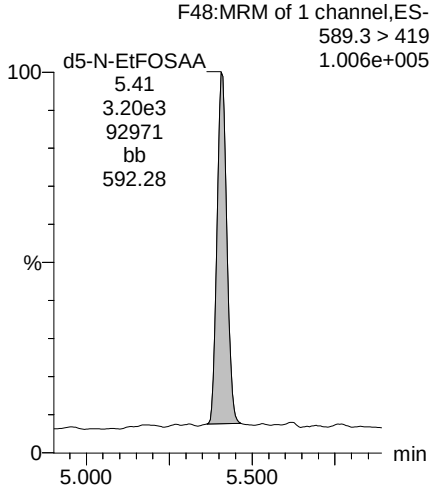
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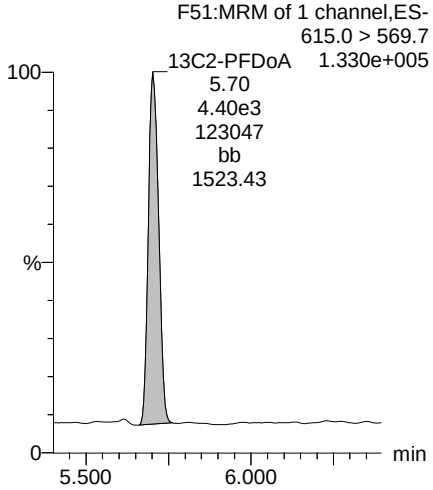
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d5-N-EtFOSAA



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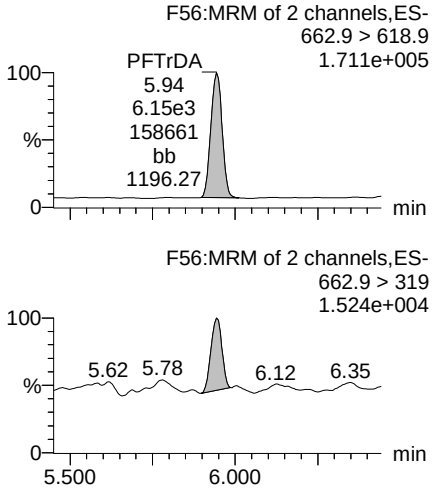


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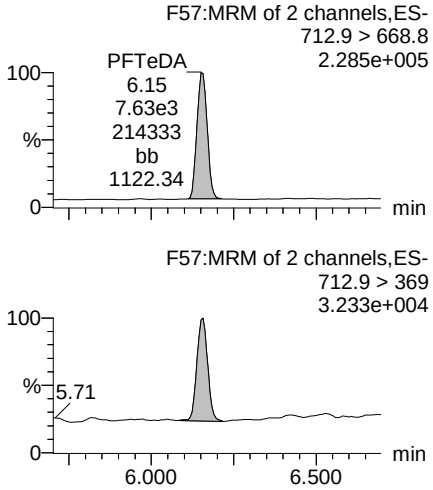
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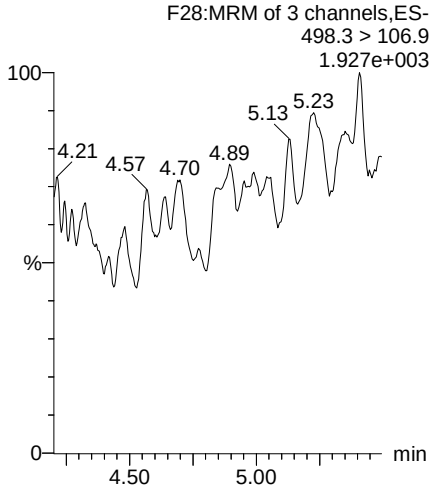
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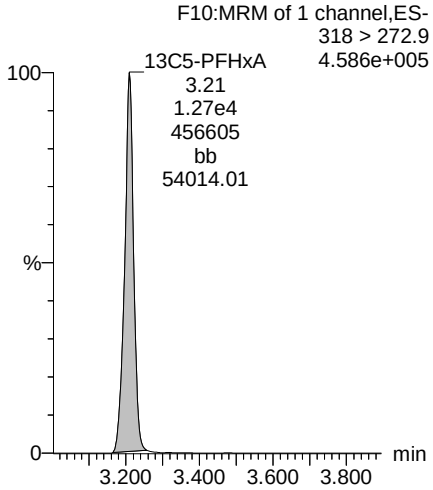
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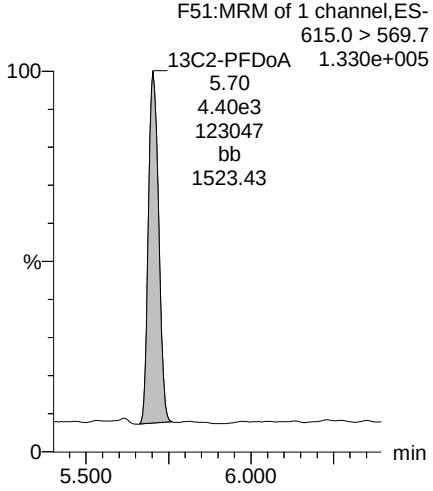
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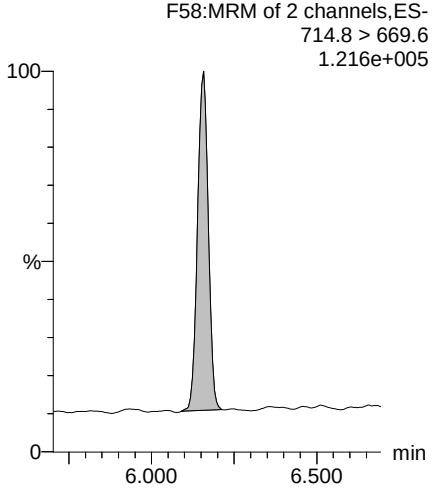
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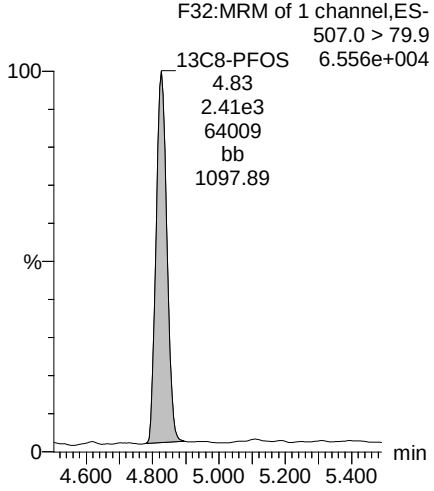
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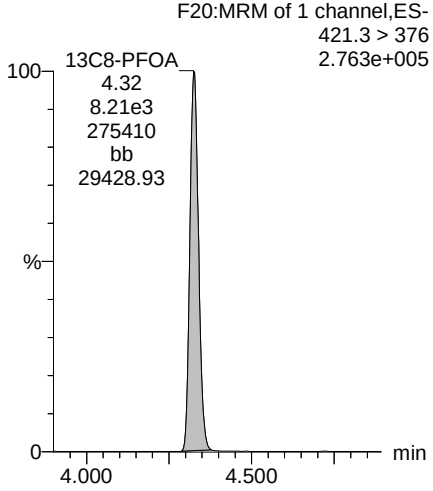
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13C8-PFOS



13C8-PFOA

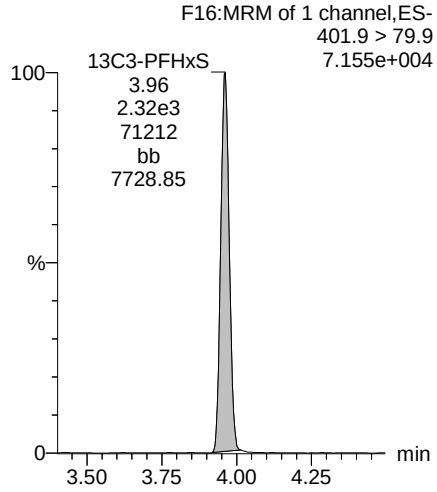


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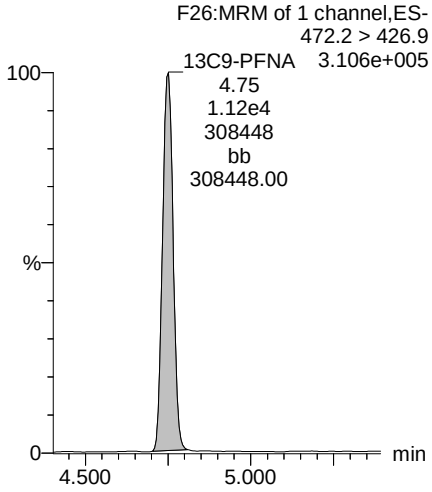
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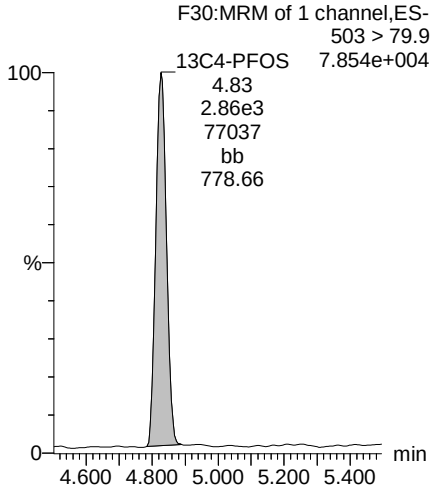
13C3-PFHxS



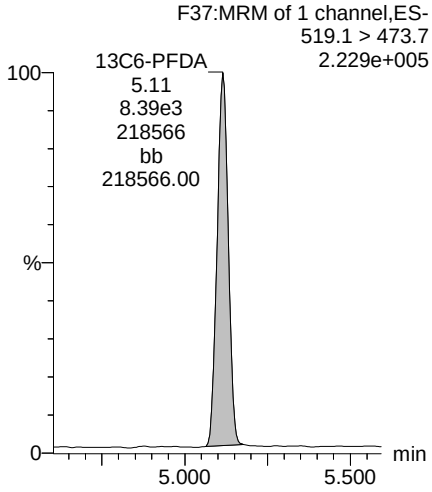
13C9-PFNA



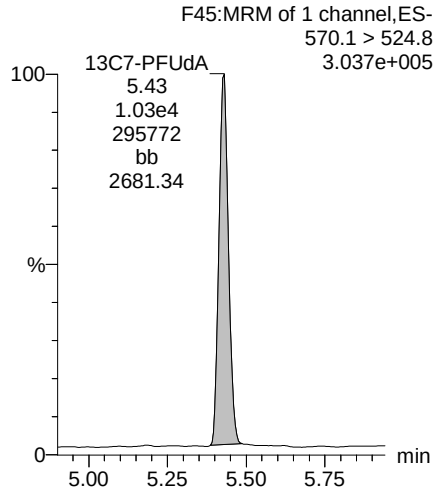
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_43.qld

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Printed: Friday, December 29, 2017 14:33:56 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_43, Date: 25-Dec-2017, Time: 08:10:47, ID: 1701829-01 FT-MW08S-20171129 0.26507, Description: FT-MW08S-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	6.55e1	1.27e3	0.265		2.70	2.72	0.643	1.6538	
2	4	PFHxA	313.2 > 268.9	5.94e3	3.65e3	0.265		3.20	3.21	8.14	20.9657	
3	5	PFHpA	363.0 > 318.9	4.89e3	6.98e3	0.265		3.80	3.82	8.75	21.8309	
4	6	L-PFHxS	398.9 > 79.6	1.71e3	1.00e3	0.265		3.95	3.96	21.3	36.5370	
5	9	L-PFOA	413 > 368.7	1.01e4	1.02e4	0.265		4.32	4.33	12.5	45.0993	
6	12	PFNA	463.0 > 418.8	3.95e4	7.62e3	0.265		4.75	4.76	64.8	161.3384	
7	14	L-PFOS	499 > 79.9	2.51e3	3.05e3	0.265		4.83	4.83	10.3	36.0271	
8	16	PFDA	513 > 468.8	3.72e3	7.54e3	0.265		5.11	5.11	6.16	17.6708	
9	18	N-MeFOSAA	570.1 > 419		3.47e3	0.265		5.26				
10	19	N-EtFOSAA	584.2 > 419		3.19e3	0.265		5.42				
11	20	PFUdA	563.0 > 518.9	1.96e4	7.79e3	0.265		5.43	5.34	31.5	99.4641	
12	22	PFDoA	612.9 > 569.0	8.66e2	5.01e3	0.265		5.70	5.99	2.16	3.4441	

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_43.qld

Last Altered: Friday, December 29, 2017 14:33:30 Pacific Standard Time
Printed: Friday, December 29, 2017 14:34:08 Pacific Standard Time

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Name: 171224M2_43, Date: 25-Dec-2017, Time: 08:10:47, ID: 1701829-01 FT-MW08S-20171129 0.26507, Description: FT-MW08S-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	1.04e3	4.15e3	0.265		5.95	5.99	3.12	5.2053	
2	25	PFTeDA	712.9 > 668.8	1.10e3	4.15e3	0.265		6.16	6.02	3.33	6.0889	
3	33	13C3-PFBS	302. > 98.8	1.27e3	1.31e4	0.265	0.101	2.70	2.72	1.21	45.3356	96.1
4	34	13C2-PFHxA	315 > 269.8	3.65e3	1.31e4	0.265	0.758	3.20	3.21	3.48	17.3306	91.9
5	35	13C4-PFHpA	367.2 > 321.8	6.98e3	1.31e4	0.265	0.562	3.80	3.82	6.65	44.6443	94.7
6	36	18O2-PFHxS	403.0 > 102.6	1.00e3	2.93e3	0.265	0.435	3.95	3.96	4.27	37.0170	78.5
7	37	13C2-6:2 FTS	429.1 > 408.9	2.13e3	9.45e3	0.265	0.393	4.26	4.28	2.82	27.1188	57.5
8	38	13C2-PFOA	414.9 > 369.7	1.02e4	9.45e3	0.265	1.252	4.32	4.33	13.5	40.5368	86.0
9	39	13C5-PFNA	468.2 > 422.9	7.62e3	9.11e3	0.265	0.962	4.75	4.75	10.5	40.9699	86.9
10	40	13C8-PFOSA	506.1 > 77.7	2.05e3	1.01e4	0.265	0.345	4.81	4.81	2.54	27.7605	58.9
11	41	13C8-PFOS	507.0 > 79.9	3.05e3	3.38e3	0.265	1.003	4.83	4.83	11.3	42.3962	89.9
12	42	13C2-PFDA	515.1 > 469.9	7.54e3	9.15e3	0.265	1.194	5.11	5.12	10.3	32.5228	69.0
13	43	13C2-8:2 FTS	529.1 > 508.7	1.06e3	1.31e4	0.265	0.150	5.09	5.09	1.01	25.3093	53.7
14	44	d3-N-MeFOSAA	573.3 > 419	3.47e3	1.01e4	0.265	0.372	5.26	5.26	4.29	43.4416	92.1
15	45	d5-N-EtFOSAA	589.3 > 419	3.19e3	1.01e4	0.265	0.444	5.42	5.41	3.95	33.5651	71.2
16	46	13C2-PFUdA	565 > 519.8	7.79e3	1.01e4	0.265	1.091	5.43	5.43	9.63	33.3084	70.6
17	47	13C2-PFDoA	615.0 > 569.7	5.01e3	1.01e4	0.265	0.629	5.70	5.70	6.19	37.0754	78.6
18	49	13C2-PFTeDA	714.8 > 669.6	4.15e3	1.01e4	0.265	0.551	6.16	6.16	5.12	35.1165	74.5
19	55	13C5-PFHxA	318 > 272.9	1.31e4	1.31e4	0.265	1.000	3.20	3.21	12.5	47.1574	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.93e3	2.93e3	0.265	1.000	3.95	3.96	12.5	47.1574	100.0
21	57	13C8-PFOA	421.3 > 376	9.45e3	9.45e3	0.265	1.000	4.32	4.33	12.5	47.1574	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.11e3	9.11e3	0.265	1.000	4.75	4.75	12.5	47.1574	100.0
23	59	13C4-PFOS	503 > 79.9	3.38e3	3.38e3	0.265	1.000	4.83	4.83	12.5	47.1574	100.0
24	60	13C6-PFDA	519.1 > 473.7	9.15e3	9.15e3	0.265	1.000	5.11	5.12	12.5	47.1574	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.01e4	1.01e4	0.265	1.000	5.43	5.43	12.5	47.1574	100.0
26	62	Total PFHxS	398.9 > 79.6	1.82e3	1.00e3	0.265		4.00		22.8	38.9787	
27	63	Total PFOA	413 > 368.7	1.15e4	1.02e4	0.265		4.30		14.1	50.3619	
28	64	Total PFOS	499 > 79.9	4.60e3	3.05e3	0.265		4.80		18.8	66.0280	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.47e3	0.265		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.19e3	0.265		5.40		0.000		

Vista Analytical Laboratory

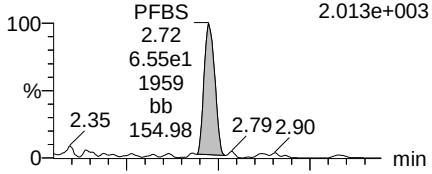
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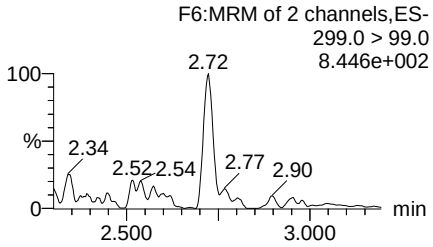
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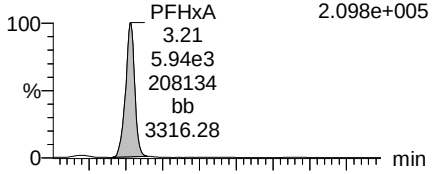
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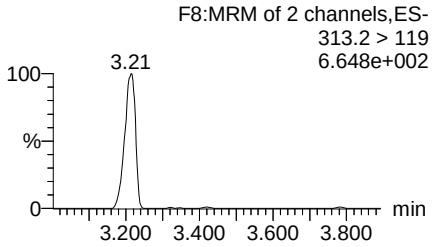
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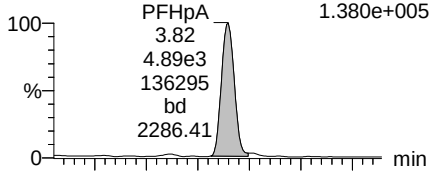


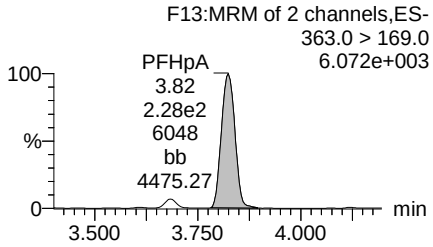
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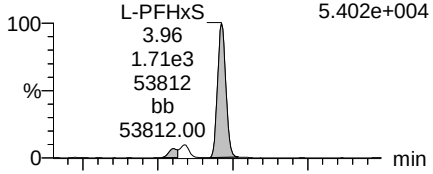


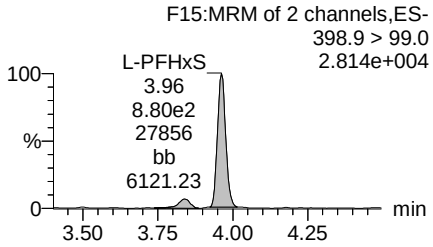
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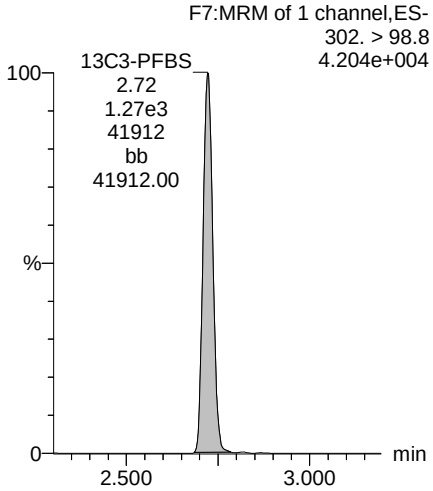


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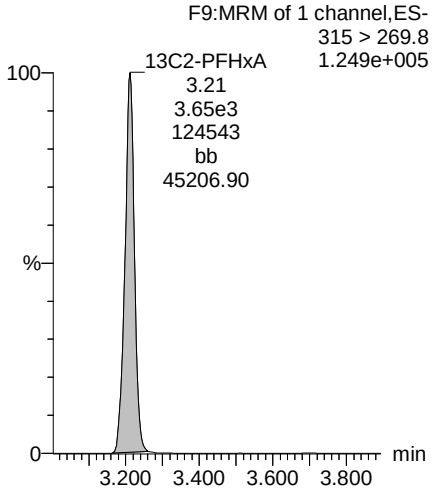




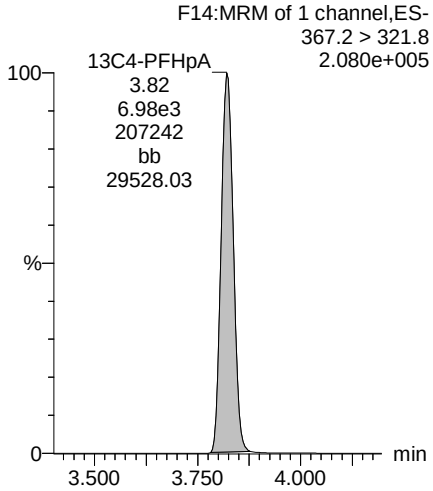
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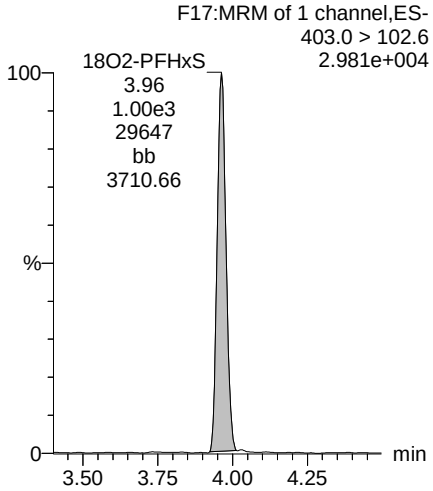
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

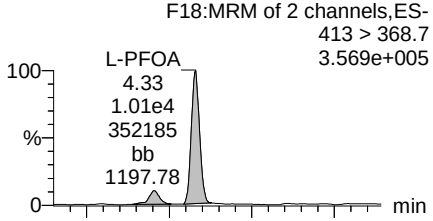


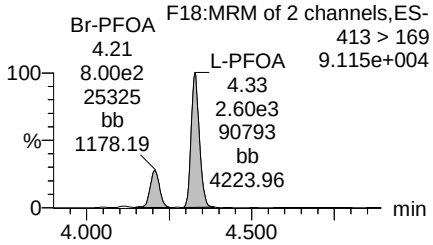
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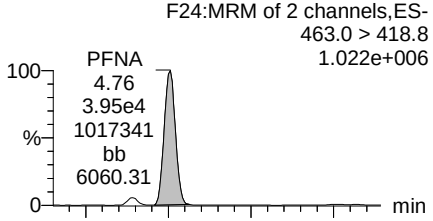
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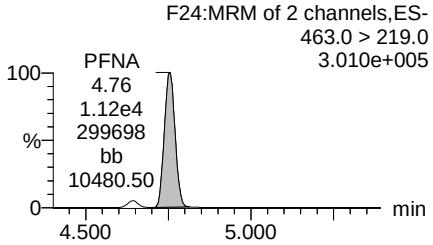
Total PFOA



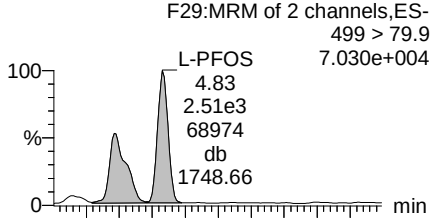


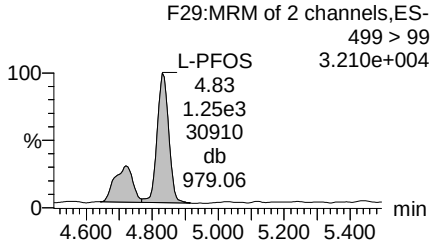
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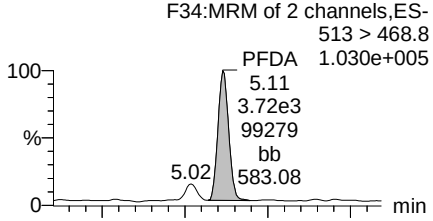


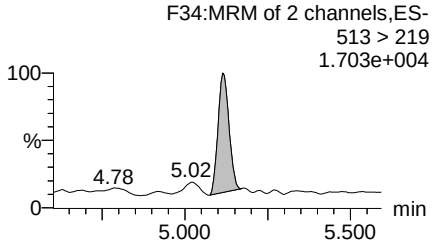
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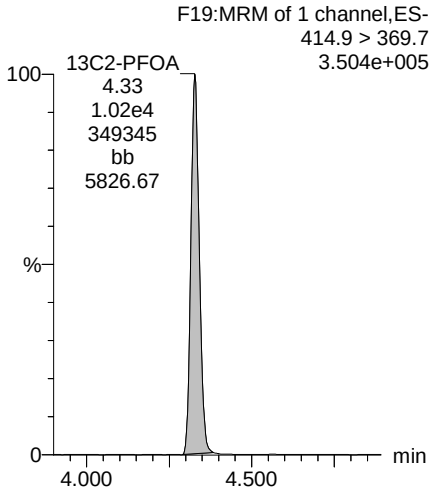


PFDA

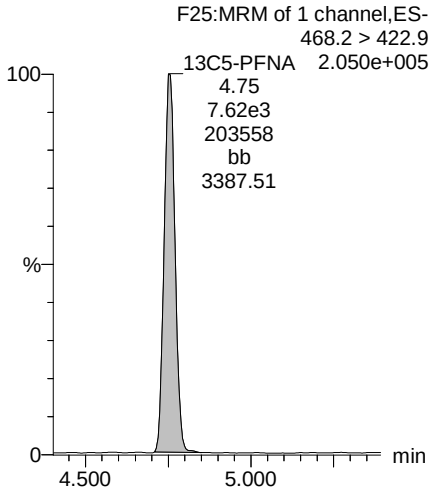




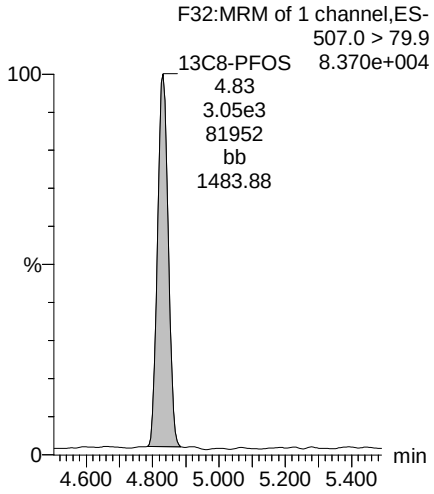
13C2-PFOA



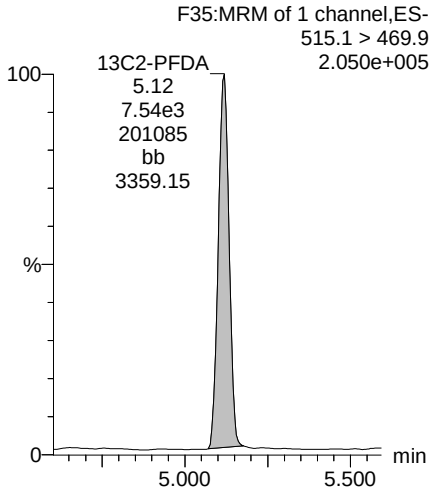
13C5-PFNA



13C8-PFOS



13C2-PFDA

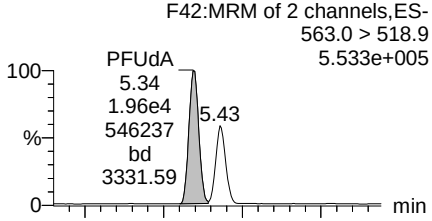


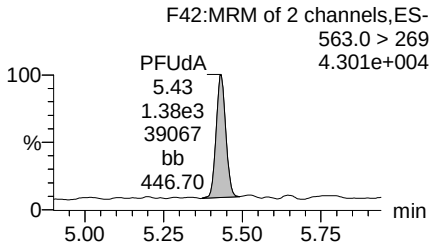
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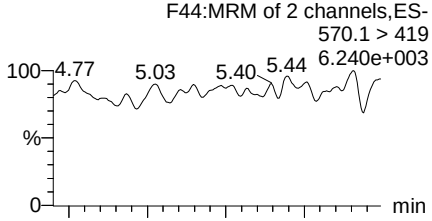
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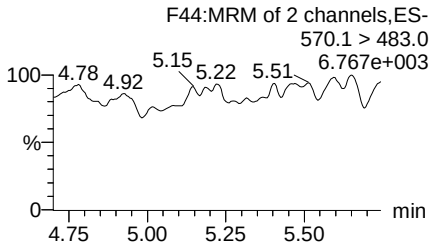
PFUdA



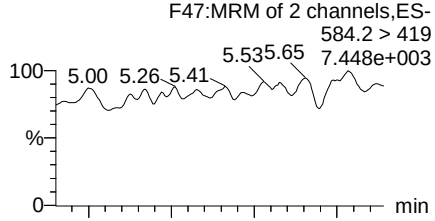


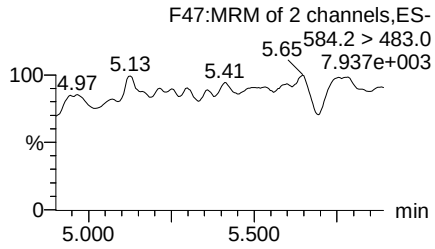
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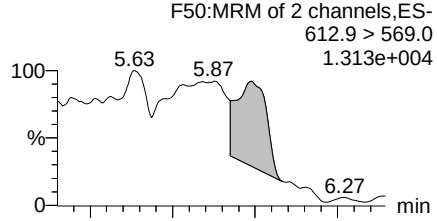


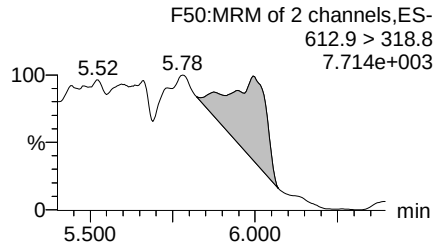
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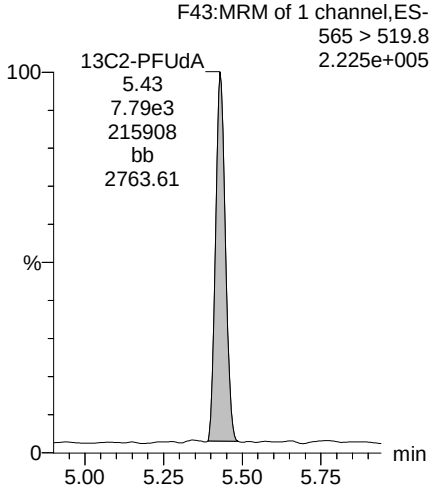


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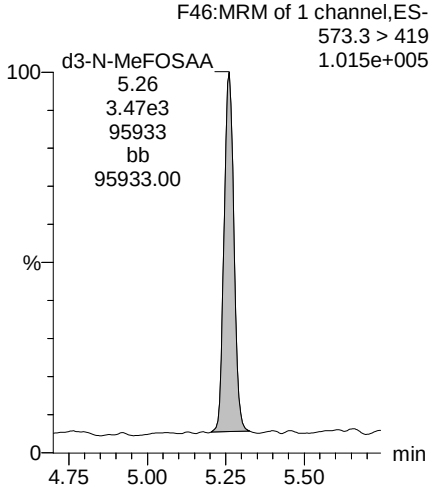




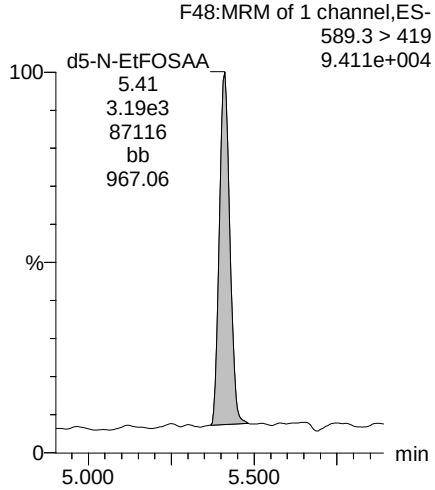
13C2-PFUdA



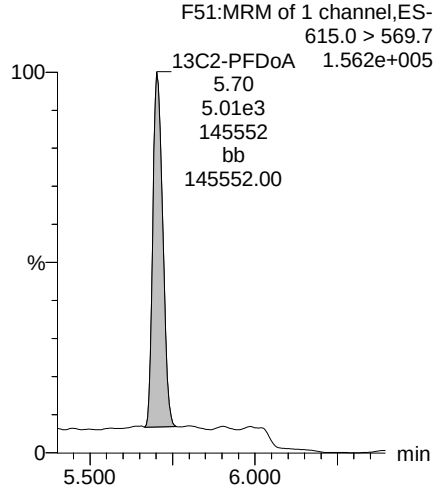
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

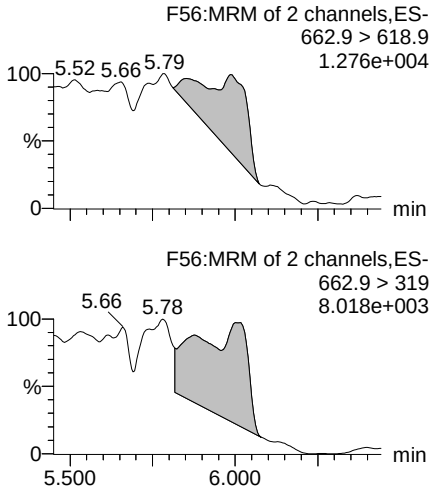


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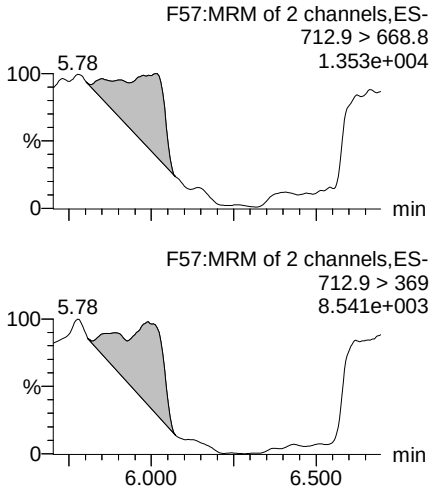
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Name: 171224M2_43, Date: 25-Dec-2017, Time: 08:10:47, ID: 1701829-01 FT-MW08S-20171129 0.26507, Description: FT-MW08S-20171129

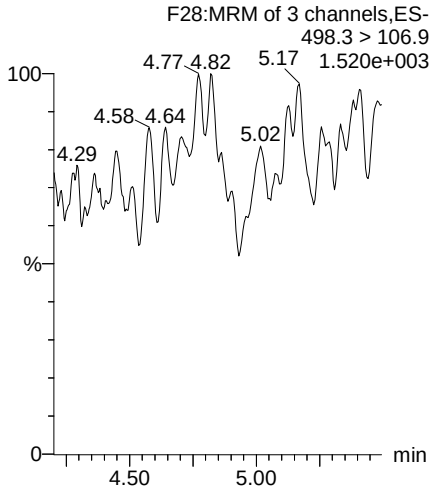
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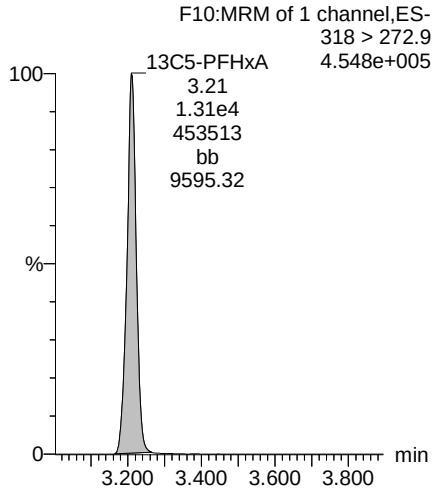
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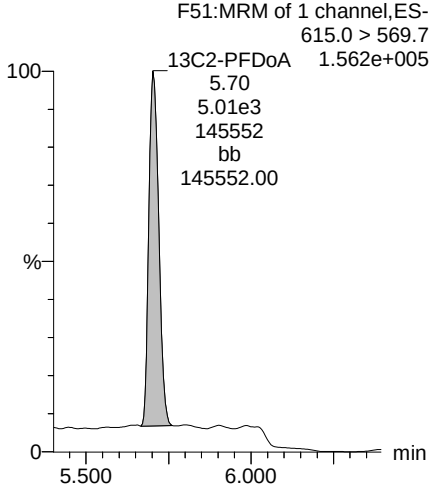
TCDA



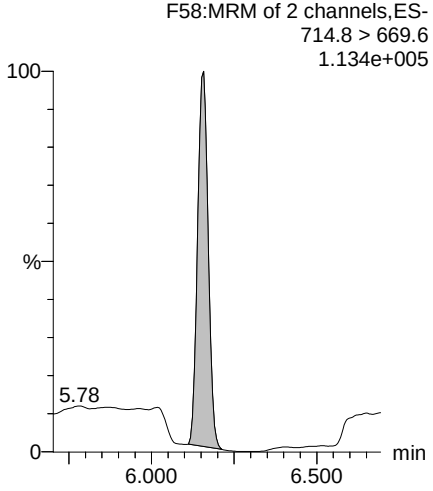
13C5-PFHxA



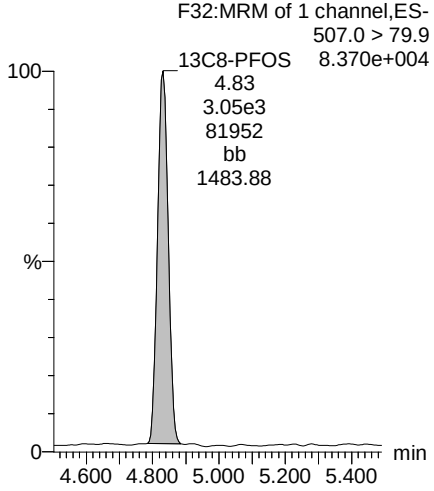
13C2-PFDoA



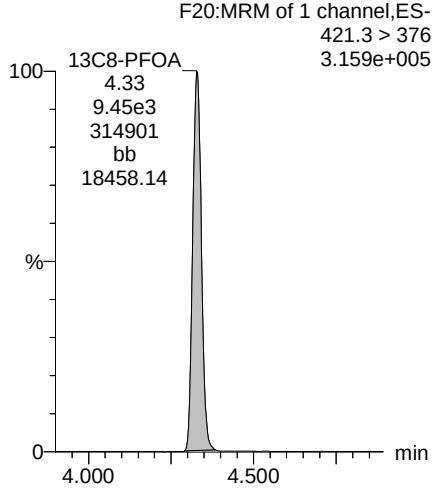
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

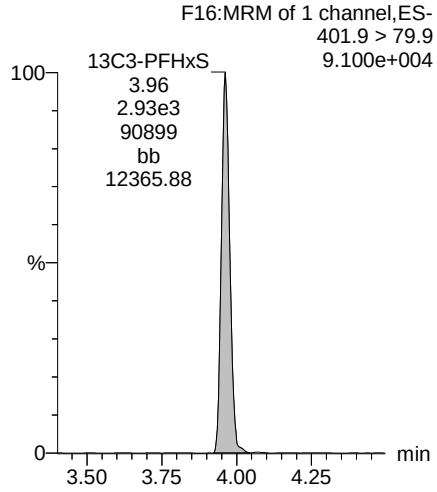


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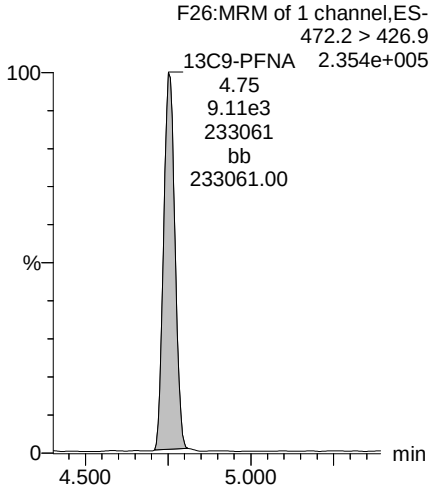
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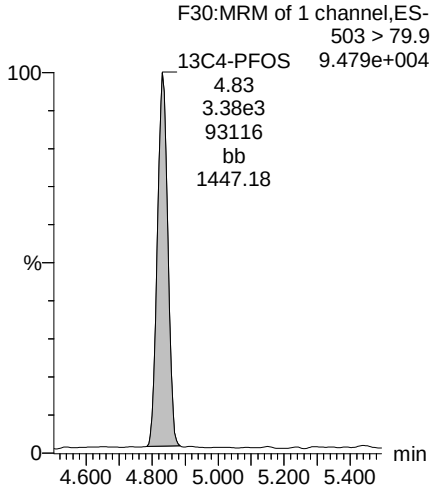
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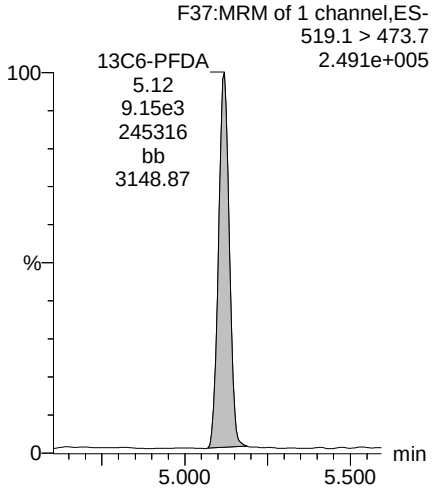
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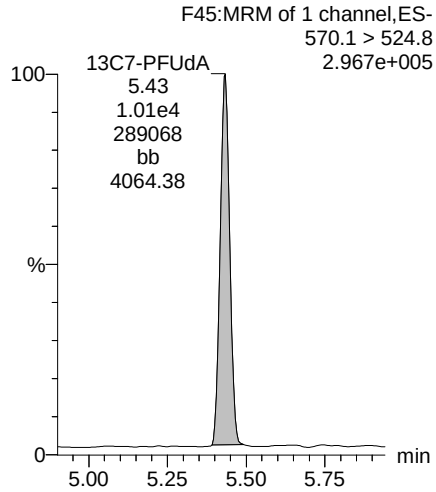
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_44.qld

Last Altered: Friday, December 29, 2017 14:35:10 Pacific Standard Time
Printed: Friday, December 29, 2017 14:35:33 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_44, Date: 25-Dec-2017, Time: 08:21:58, ID: 1701829-02 FT-MW08S-FRB-20171129 0.26762, Description: FT-MW08S-FRB-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.05e3	0.268		2.70				
2	4	PFHxA	313.2 > 268.9		3.10e3	0.268		3.20				
3	5	PFHpA	363.0 > 318.9		4.89e3	0.268		3.80				
4	6	L-PFHxS	398.9 > 79.6		9.69e2	0.268		3.95				
5	9	L-PFOA	413 > 368.7	1.88e2	9.15e3	0.268		4.32	4.33	0.256	0.1768	
6	12	PFNA	463.0 > 418.8		6.37e3	0.268		4.75				
7	14	L-PFOS	499 > 79.9		2.77e3	0.268		4.83				
8	16	PFDA	513 > 468.8		8.07e3	0.268		5.11				
9	18	N-MeFOSAA	570.1 > 419		1.85e3	0.268		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.75e3	0.268		5.42				
11	20	PFUdA	563.0 > 518.9		6.76e3	0.268		5.43				
12	22	PFDoA	612.9 > 569.0		4.33e3	0.268		5.70				

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_44.qld

Last Altered: Friday, December 29, 2017 14:35:10 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_44, Date: 25-Dec-2017, Time: 08:21:58, ID: 1701829-02 FT-MW08S-FRB-20171129 0.26762, Description: FT-MW08S-FRB-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	2.07e2	3.77e3	0.268		5.95	6.06	0.687	1.7163	
2	25	PFTeDA	712.9 > 668.8	5.11e2	3.77e3	0.268		6.16	6.42	1.69	2.9464	
3	33	13C3-PFBS	302. > 98.8	1.05e3	1.15e4	0.268	0.101	2.70	2.72	1.14	42.3045	90.6
4	34	13C2-PFHxA	315 > 269.8	3.10e3	1.15e4	0.268	0.758	3.20	3.21	3.39	16.6961	89.4
5	35	13C4-PFHpA	367.2 > 321.8	4.89e3	1.15e4	0.268	0.562	3.80	3.82	5.34	35.4627	75.9
6	36	18O2-PFHxS	403.0 > 102.6	9.69e2	2.87e3	0.268	0.435	3.95	3.96	4.22	36.2863	77.7
7	37	13C2-6:2 FTS	429.1 > 408.9	2.31e3	9.51e3	0.268	0.393	4.26	4.28	3.04	28.9169	61.9
8	38	13C2-PFOA	414.9 > 369.7	9.15e3	9.51e3	0.268	1.252	4.32	4.33	12.0	35.8882	76.8
9	39	13C5-PFNA	468.2 > 422.9	6.37e3	9.22e3	0.268	0.962	4.75	4.75	8.64	33.5269	71.8
10	40	13C8-PFOSA	506.1 > 77.7	1.59e3	8.04e3	0.268	0.345	4.81	4.81	2.47	26.8044	57.4
11	41	13C8-PFOS	507.0 > 79.9	2.77e3	2.93e3	0.268	1.003	4.83	4.83	11.8	44.0240	94.3
12	42	13C2-PFDA	515.1 > 469.9	8.07e3	7.89e3	0.268	1.194	5.11	5.11	12.8	40.0152	85.7
13	43	13C2-8:2 FTS	529.1 > 508.7	1.08e3	1.15e4	0.268	0.150	5.09	5.09	1.18	29.4210	63.0
14	44	d3-N-MeFOSAA	573.3 > 419	1.85e3	8.04e3	0.268	0.372	5.26	5.26	2.87	28.8320	61.7
15	45	d5-N-EtFOSAA	589.3 > 419	2.75e3	8.04e3	0.268	0.444	5.42	5.41	4.27	35.9823	77.0
16	46	13C2-PFUdA	565 > 519.8	6.76e3	8.04e3	0.268	1.091	5.43	5.43	10.5	36.0057	77.1
17	47	13C2-PFDoA	615.0 > 569.7	4.33e3	8.04e3	0.268	0.629	5.70	5.70	6.74	39.9873	85.6
18	49	13C2-PFTeDA	714.8 > 669.6	3.77e3	8.04e3	0.268	0.551	6.16	6.15	5.86	39.7752	85.2
19	55	13C5-PFHxA	318 > 272.9	1.15e4	1.15e4	0.268	1.000	3.20	3.21	12.5	46.7080	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.87e3	2.87e3	0.268	1.000	3.95	3.96	12.5	46.7080	100.0
21	57	13C8-PFOA	421.3 > 376	9.51e3	9.51e3	0.268	1.000	4.32	4.32	12.5	46.7080	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.22e3	9.22e3	0.268	1.000	4.75	4.75	12.5	46.7080	100.0
23	59	13C4-PFOS	503 > 79.9	2.93e3	2.93e3	0.268	1.000	4.83	4.83	12.5	46.7080	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.89e3	7.89e3	0.268	1.000	5.11	5.11	12.5	46.7080	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.04e3	8.04e3	0.268	1.000	5.43	5.43	12.5	46.7080	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	9.69e2	0.268		4.00		0.000		
27	63	Total PFOA	413 > 368.7	1.88e2	9.15e3	0.268		4.30		0.256	0.1768	
28	64	Total PFOS	499 > 79.9	0.00e0	2.77e3	0.268		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	1.85e3	0.268		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.75e3	0.268		5.40		0.000		

Vista Analytical Laboratory

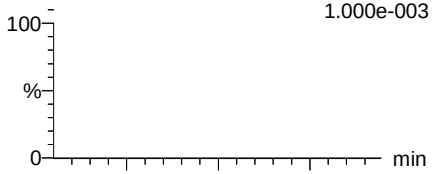
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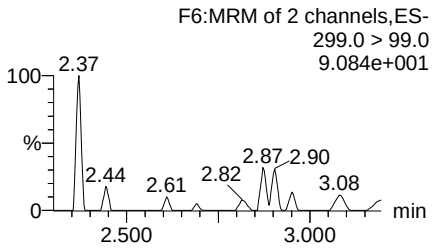
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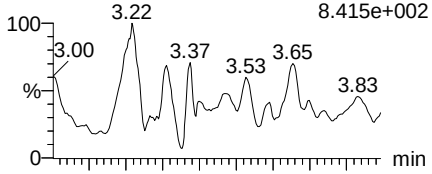
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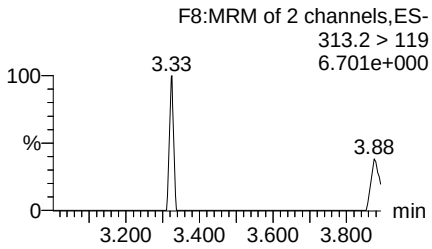
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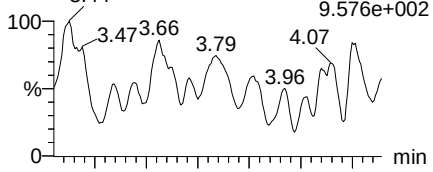


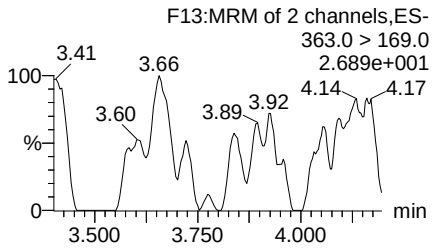
PFHxA



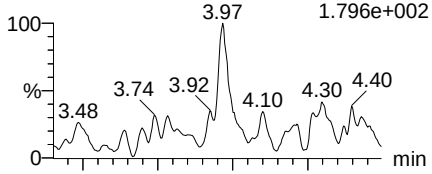


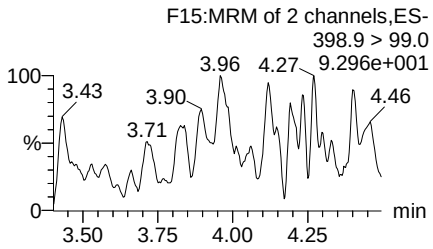
PFHpA



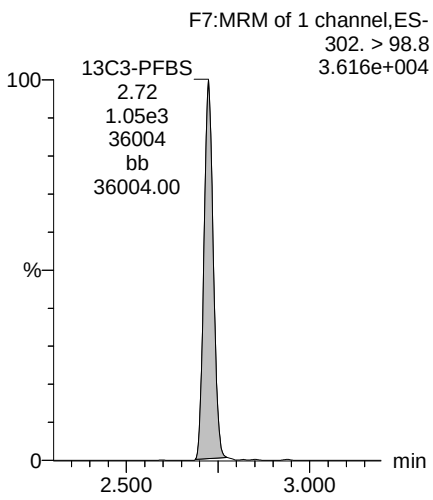


Total PFHxS

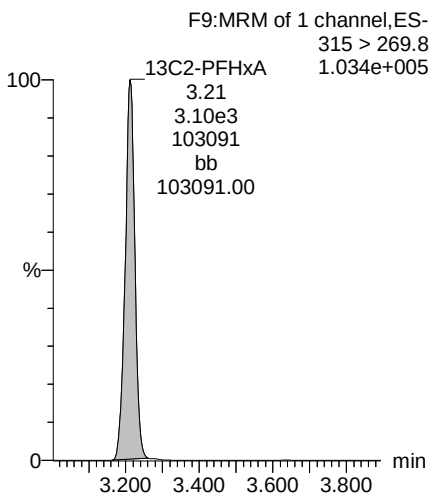




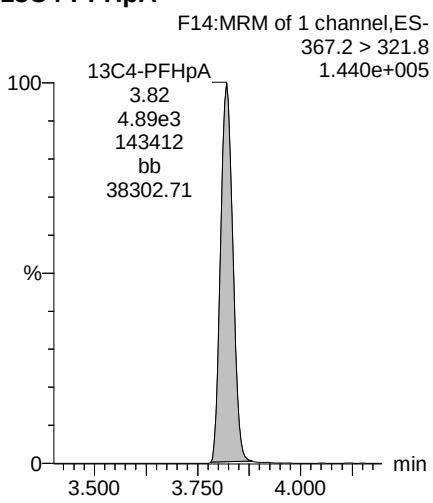
13C3-PFBS



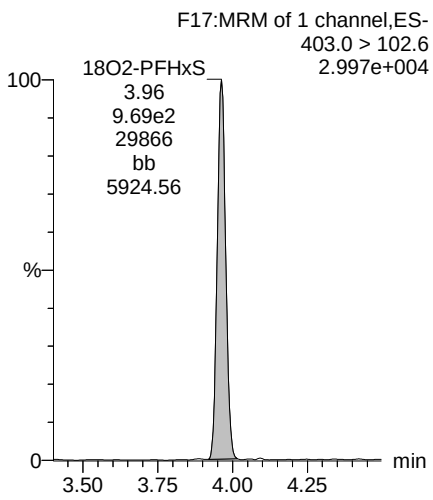
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

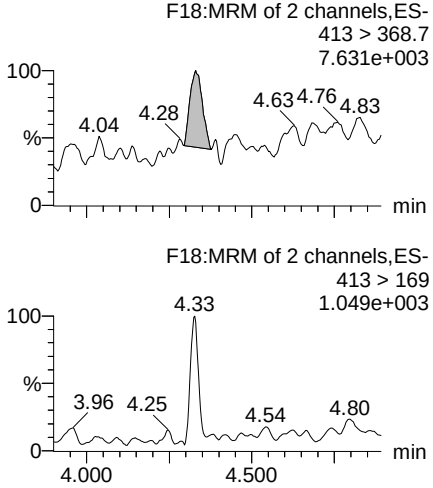


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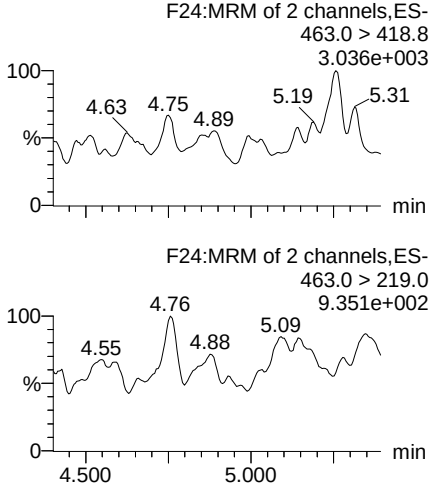
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Name: 171224M2_44, Date: 25-Dec-2017, Time: 08:21:58, ID: 1701829-02 FT-MW08S-FRB-20171129 0.26762, Description: FT-MW08S-FRB-20171129

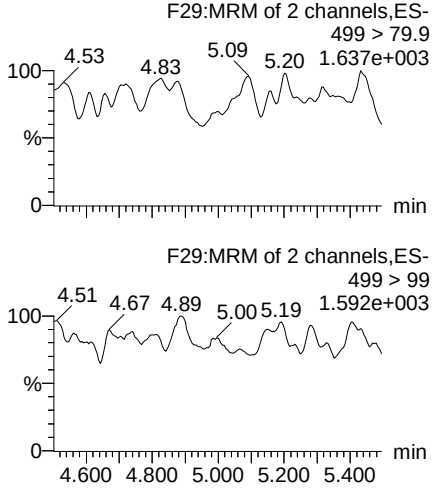
Total PFOA



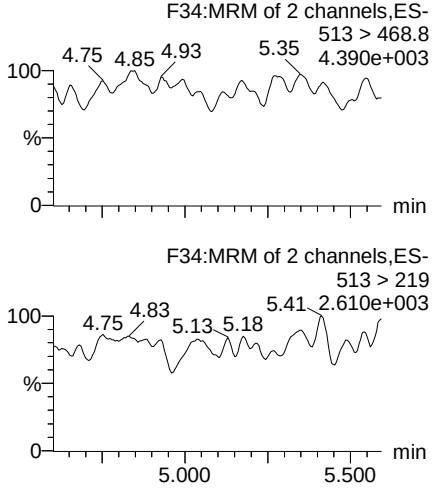
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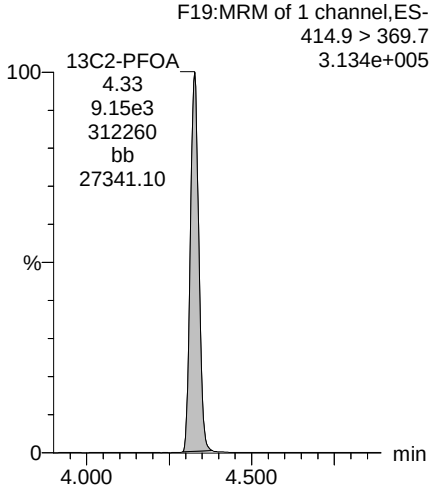
Total PFOS



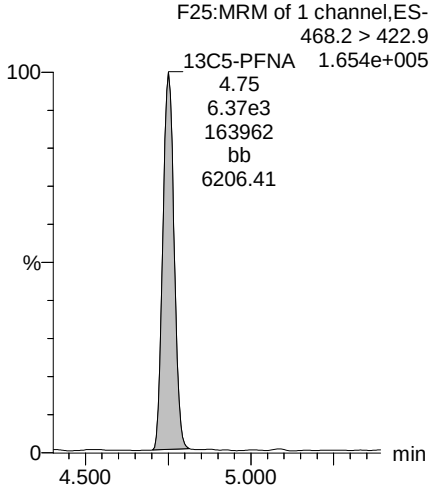
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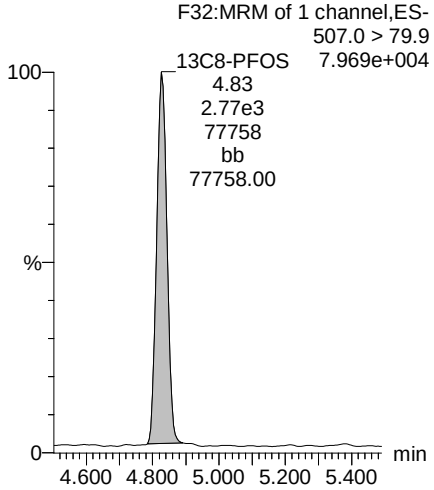
13C2-PFOA



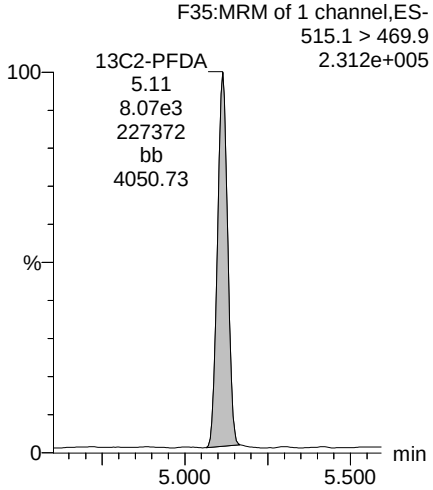
13C5-PFNA



13C8-PFOS



13C2-PFDA

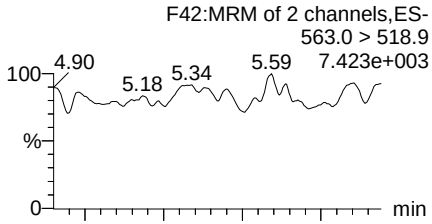


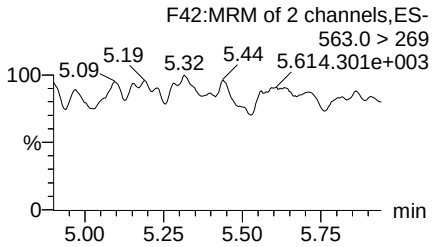
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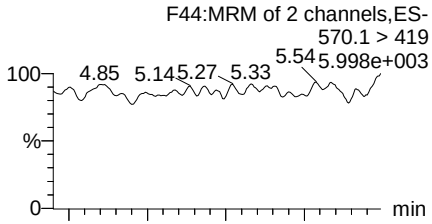
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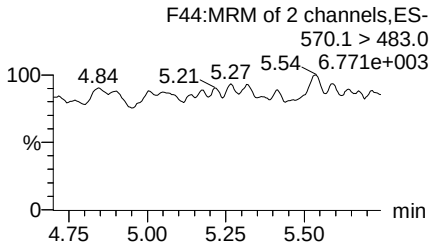
PFUdA



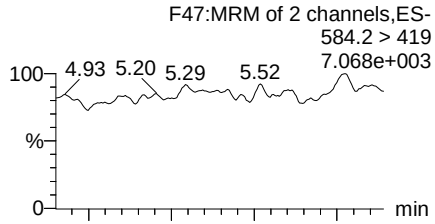


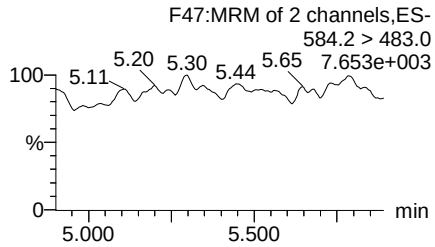
N-MeFOSAA



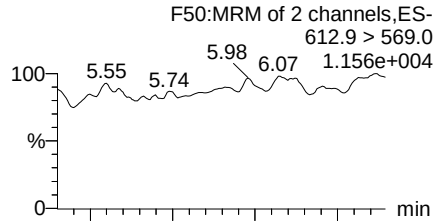


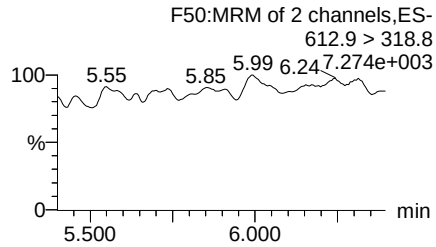
N-EtFOSAA



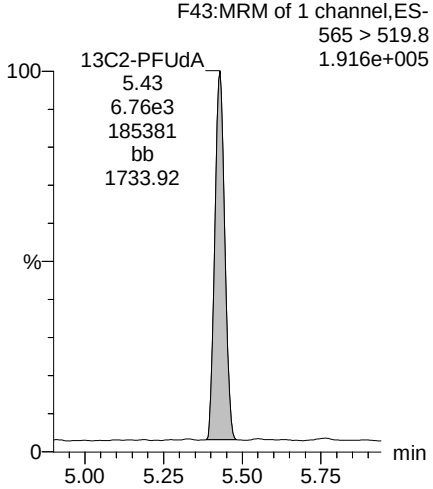


PFDoA

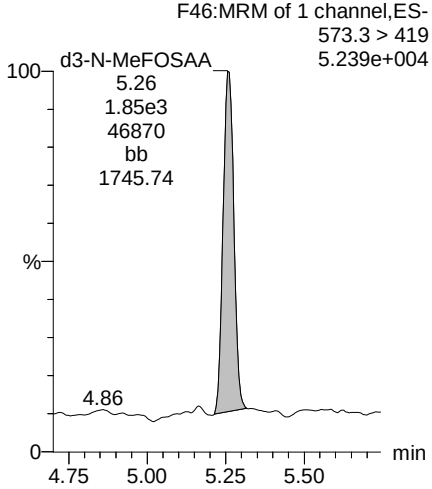




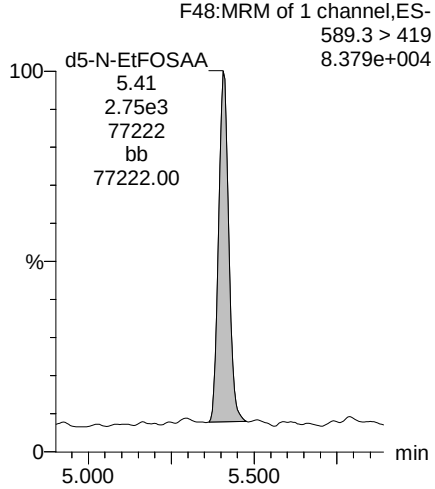
13C2-PFUdA



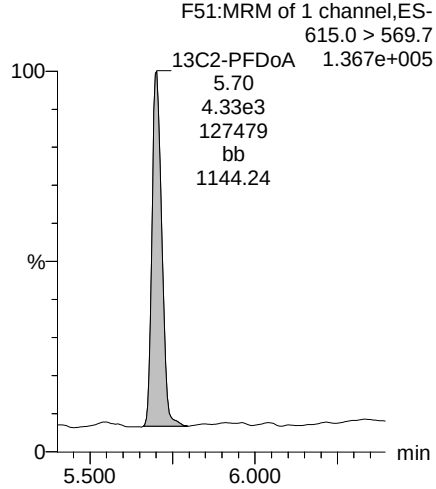
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

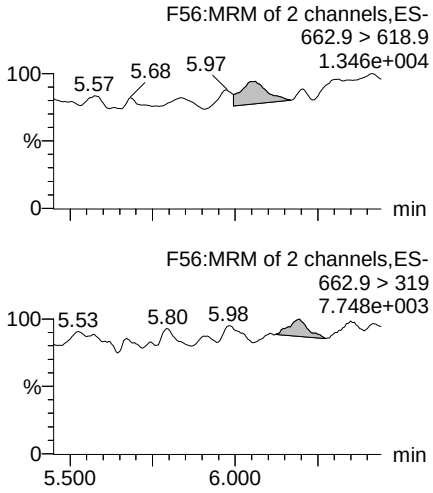


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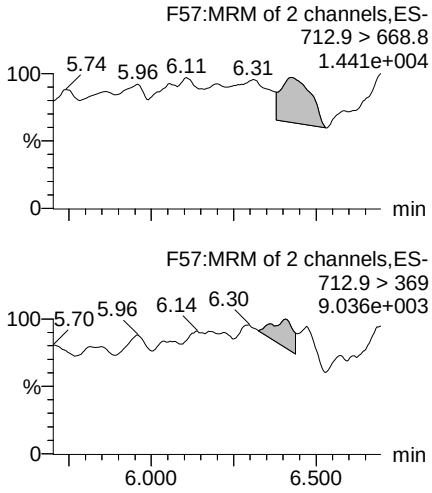
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Name: 171224M2_44, Date: 25-Dec-2017, Time: 08:21:58, ID: 1701829-02 FT-MW08S-FRB-20171129 0.26762, Description: FT-MW08S-FRB-20171129

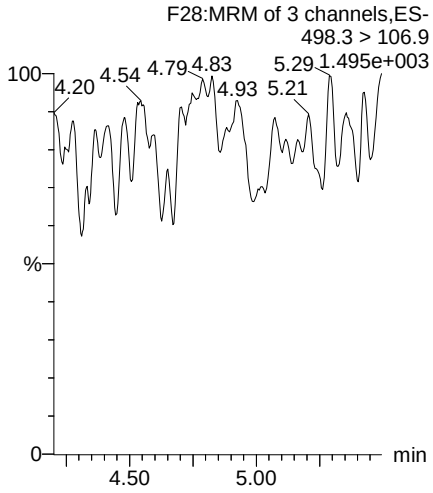
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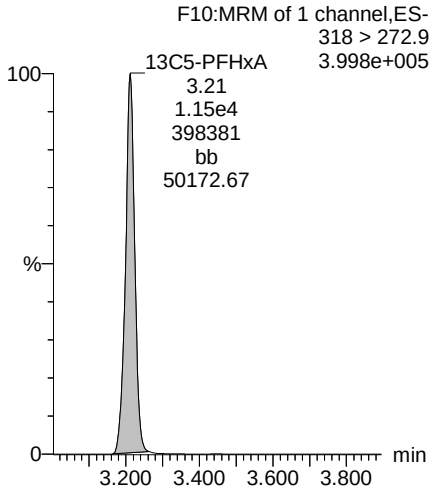
PFTeDA



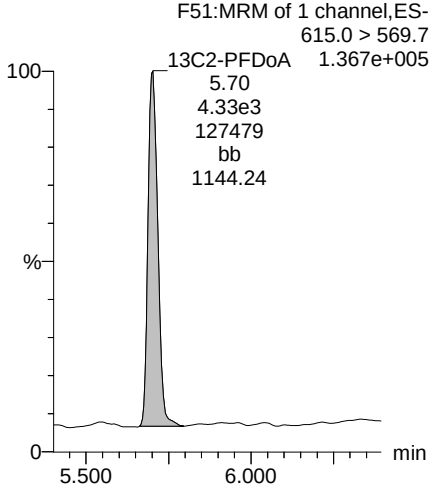
TCDA



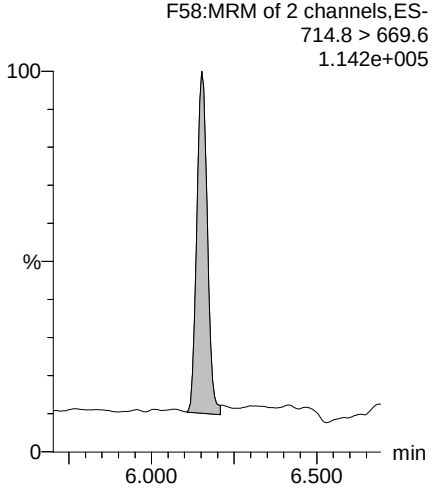
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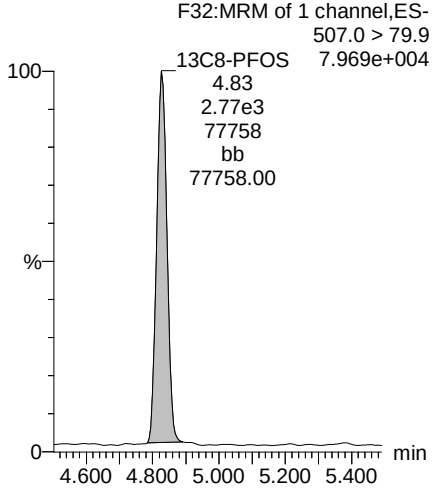
13C2-PFDoA



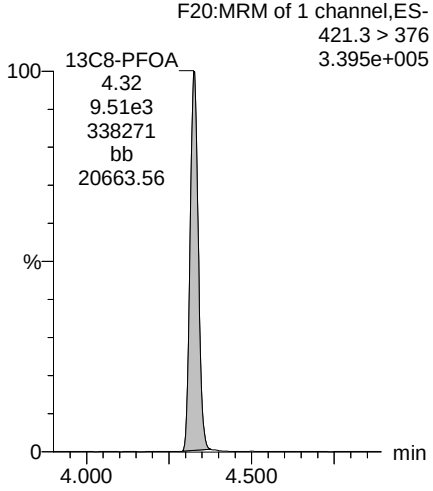
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

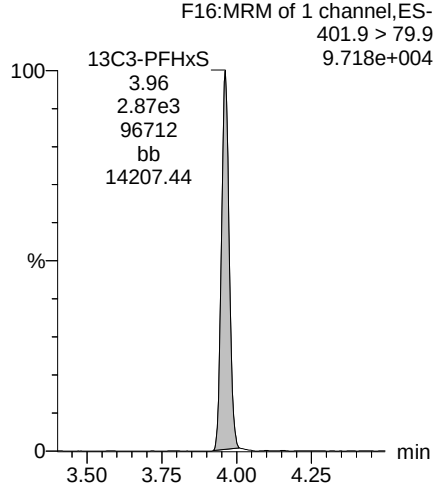


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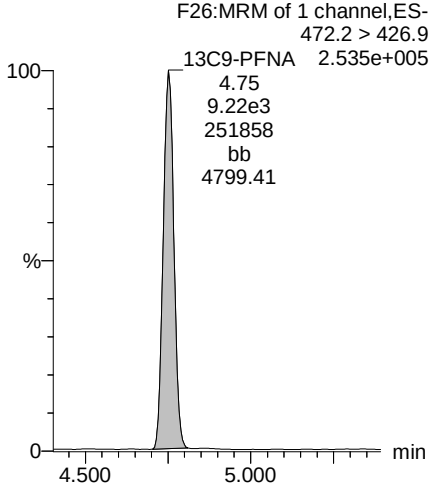
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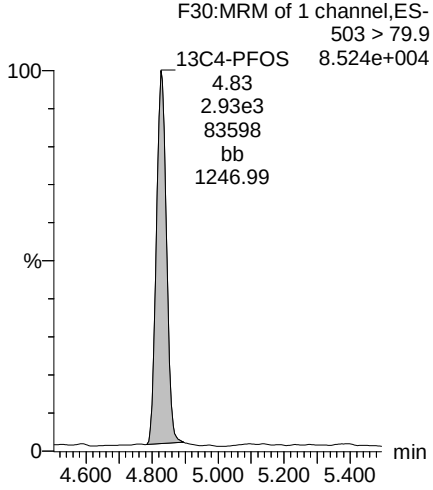
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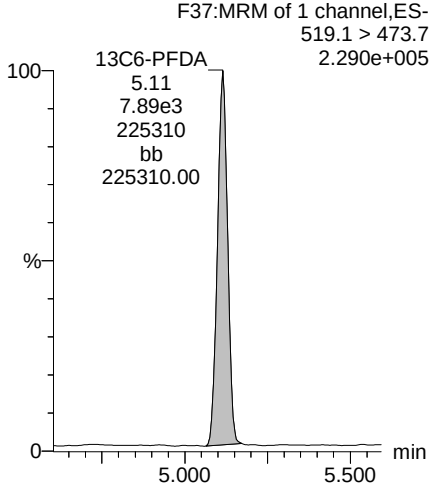
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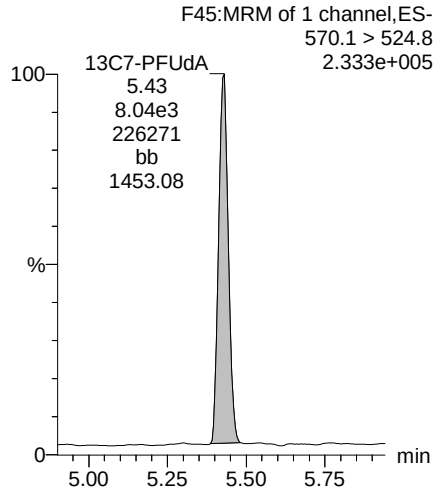
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171224M2\171224m2_45.qld

Last Altered: Friday, December 29, 2017 14:36:47 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_45, Date: 25-Dec-2017, Time: 08:33:09, ID: 1701829-03 FT-DUP01-20171129 0.25365, Description: FT-DUP01-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.14e3	0.254		2.70				
2	4	PFHxA	313.2 > 268.9	5.07e3	2.97e3	0.254		3.20	3.21	8.54	23.0116	
3	5	PFHpA	363.0 > 318.9	3.85e3	5.32e3	0.254		3.80	3.82	9.03	23.5354	
4	6	L-PFHxS	398.9 > 79.6	1.23e3	1.03e3	0.254		3.95	3.96	14.9	26.6264	
5	9	L-PFOA	413 > 368.7	6.77e3	8.88e3	0.254		4.32	4.33	9.53	35.8263	
6	12	PFNA	463.0 > 418.8	3.73e4	6.40e3	0.254		4.75	4.75	72.9	189.4477	
7	14	L-PFOS	499 > 79.9	1.74e3	2.28e3	0.254		4.83	4.83	9.54	34.9231	
8	16	PFDA	513 > 468.8	2.51e3	5.85e3	0.254		5.11	5.11	5.37	16.0342	
9	18	N-MeFOSAA	570.1 > 419		2.18e3	0.254		5.26				
10	19	N-EtFOSAA	584.2 > 419		3.20e3	0.254		5.42				
11	20	PFUdA	563.0 > 518.9	1.95e4	6.14e3	0.254		5.43	5.34	39.7	131.2827	
12	22	PFDoA	612.9 > 569.0	9.44e1	4.24e3	0.254		5.70	5.63	0.278	0.7067	

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Dataset: U:\Q4.PRO\results\171224M2\171224m2_45.qld

Last Altered: Friday, December 29, 2017 14:36:47 Pacific Standard Time
Printed: Friday, December 29, 2017 14:37:28 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_45, Date: 25-Dec-2017, Time: 08:33:09, ID: 1701829-03 FT-DUP01-20171129 0.25365, Description: FT-DUP01-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	6.18e1	4.60e3	0.254		5.95	6.21	0.168	1.0370	
2	25	PFTeDA	712.9 > 668.8		4.60e3	0.254		6.16				
3	33	13C3-PFBS	302. > 98.8	1.14e3	1.14e4	0.254	0.101	2.70	2.72	1.25	48.9370	99.3
4	34	13C2-PFHxA	315 > 269.8	2.97e3	1.14e4	0.254	0.758	3.20	3.21	3.26	16.9415	85.9
5	35	13C4-PFHpA	367.2 > 321.8	5.32e3	1.14e4	0.254	0.562	3.80	3.82	5.84	40.9494	83.1
6	36	18O2-PFHxS	403.0 > 102.6	1.03e3	2.37e3	0.254	0.435	3.95	3.96	5.44	49.2657	100.0
7	37	13C2-6:2 FTS	429.1 > 408.9	1.86e3	7.57e3	0.254	0.393	4.26	4.27	3.07	30.8323	62.6
8	38	13C2-PFOA	414.9 > 369.7	8.88e3	7.57e3	0.254	1.252	4.32	4.33	14.7	46.1631	93.7
9	39	13C5-PFNA	468.2 > 422.9	6.40e3	8.51e3	0.254	0.962	4.75	4.75	9.40	38.4901	78.1
10	40	13C8-PFOSA	506.1 > 77.7	1.81e3	8.31e3	0.254	0.345	4.81	4.81	2.72	31.0932	63.1
11	41	13C8-PFOS	507.0 > 79.9	2.28e3	2.58e3	0.254	1.003	4.83	4.83	11.0	43.3734	88.0
12	42	13C2-PFDA	515.1 > 469.9	5.85e3	7.35e3	0.254	1.194	5.11	5.11	9.95	32.8542	66.7
13	43	13C2-8:2 FTS	529.1 > 508.7	8.44e2	1.14e4	0.254	0.150	5.09	5.09	0.925	24.3290	49.4
14	44	d3-N-MeFOSAA	573.3 > 419	2.18e3	8.31e3	0.254	0.372	5.26	5.26	3.28	34.7271	70.5
15	45	d5-N-EtFOSAA	589.3 > 419	3.20e3	8.31e3	0.254	0.444	5.42	5.41	4.82	42.8422	86.9
16	46	13C2-PFUdA	565 > 519.8	6.14e3	8.31e3	0.254	1.091	5.43	5.42	9.24	33.4025	67.8
17	47	13C2-PFDoA	615.0 > 569.7	4.24e3	8.31e3	0.254	0.629	5.70	5.70	6.38	39.9721	81.1
18	49	13C2-PFTeDA	714.8 > 669.6	4.60e3	8.31e3	0.254	0.551	6.16	6.15	6.92	49.5662	100.6
19	55	13C5-PFHxA	318 > 272.9	1.14e4	1.14e4	0.254	1.000	3.20	3.21	12.5	49.2805	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.37e3	2.37e3	0.254	1.000	3.95	3.96	12.5	49.2805	100.0
21	57	13C8-PFOA	421.3 > 376	7.57e3	7.57e3	0.254	1.000	4.32	4.33	12.5	49.2805	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.51e3	8.51e3	0.254	1.000	4.75	4.75	12.5	49.2805	100.0
23	59	13C4-PFOS	503 > 79.9	2.58e3	2.58e3	0.254	1.000	4.83	4.83	12.5	49.2805	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.35e3	7.35e3	0.254	1.000	5.11	5.11	12.5	49.2805	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.31e3	8.31e3	0.254	1.000	5.43	5.43	12.5	49.2805	100.0
26	62	Total PFHxS	398.9 > 79.6	1.33e3	1.03e3	0.254		4.00		16.1	28.7709	
27	63	Total PFOA	413 > 368.7	7.69e3	8.88e3	0.254		4.30		10.8	40.0184	
28	64	Total PFOS	499 > 79.9	3.50e3	2.28e3	0.254		4.80		19.2	70.2922	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.18e3	0.254		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.20e3	0.254		5.40		0.000		

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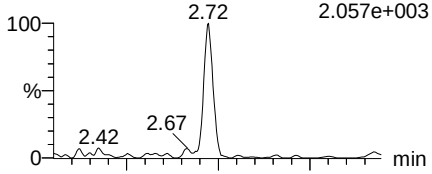
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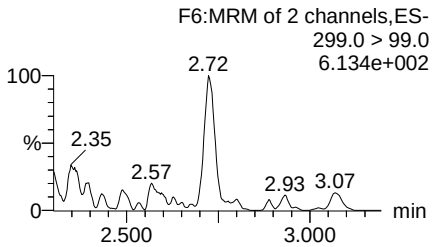
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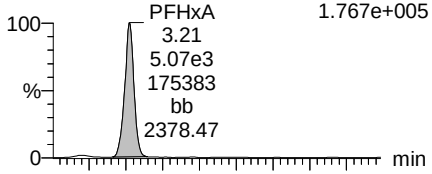
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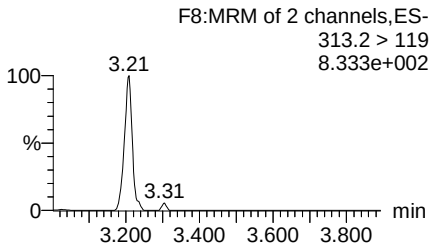
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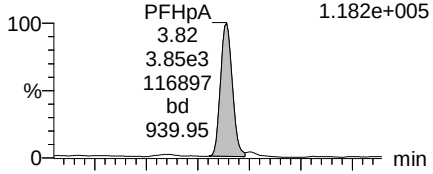


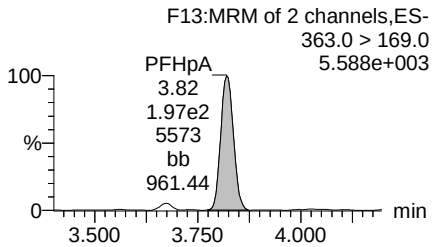
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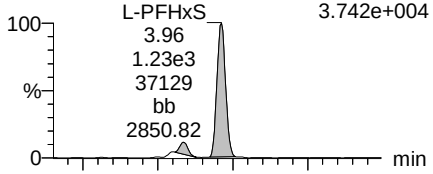


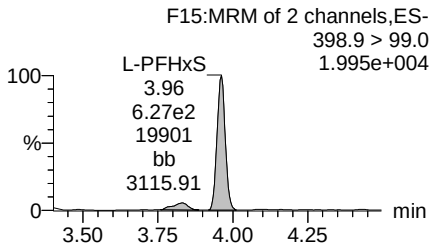
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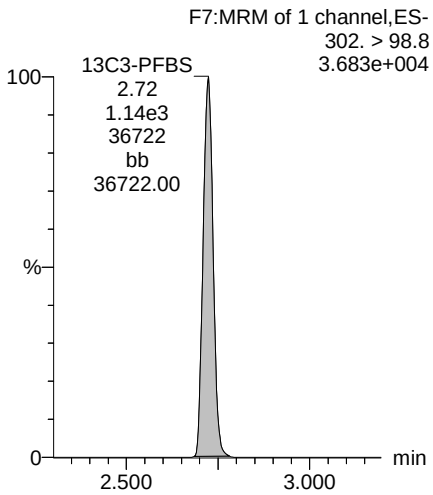


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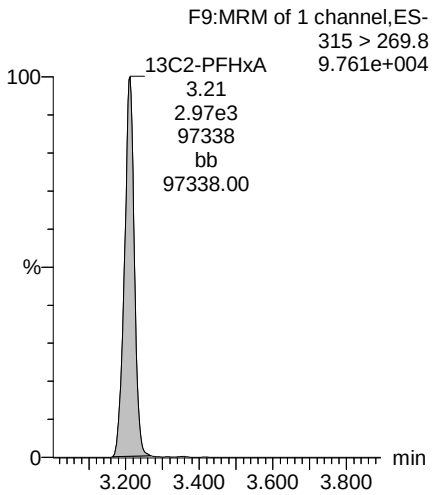




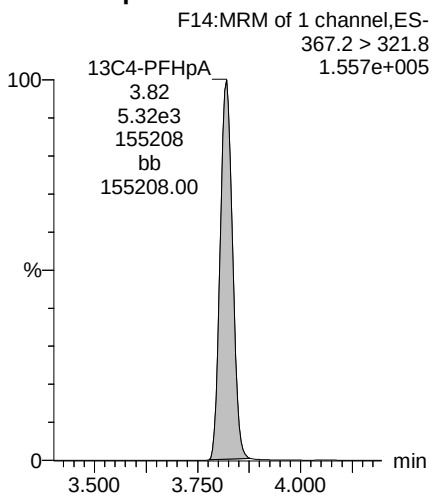
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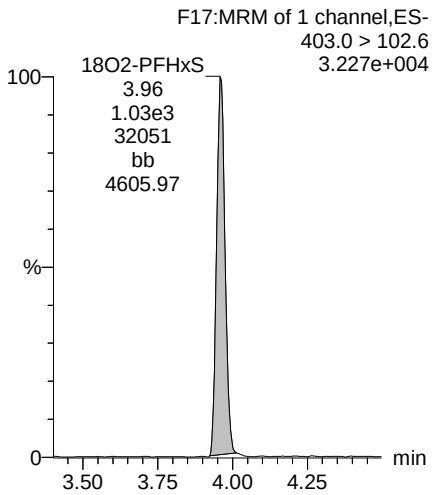
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13C4-PFHpA



18O2-PFHxS

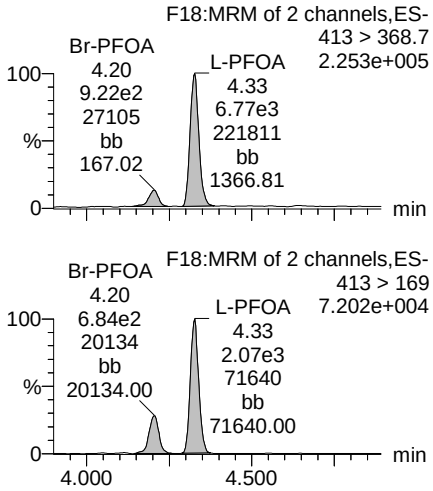


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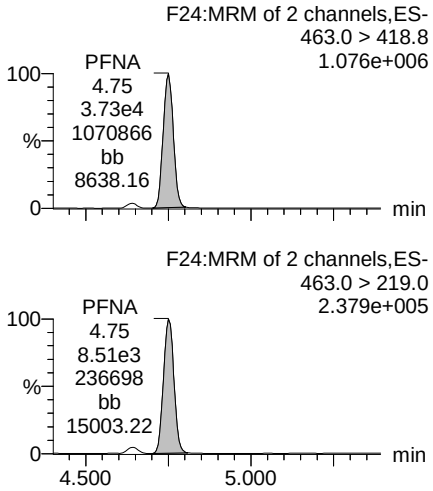
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Name: 171224M2_45, Date: 25-Dec-2017, Time: 08:33:09, ID: 1701829-03 FT-DUP01-20171129 0.25365, Description: FT-DUP01-20171129

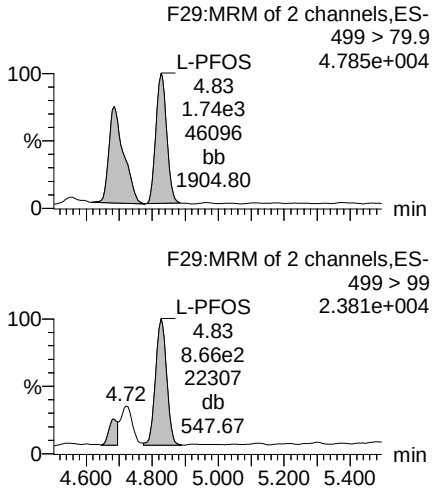
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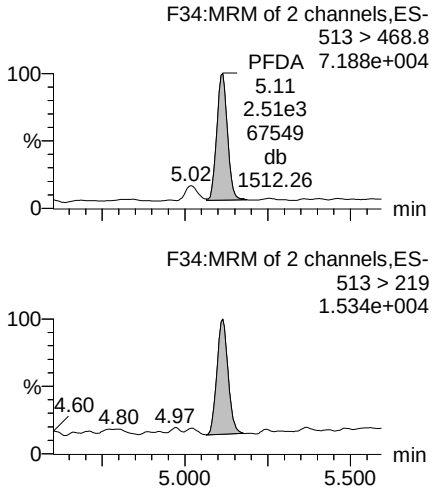
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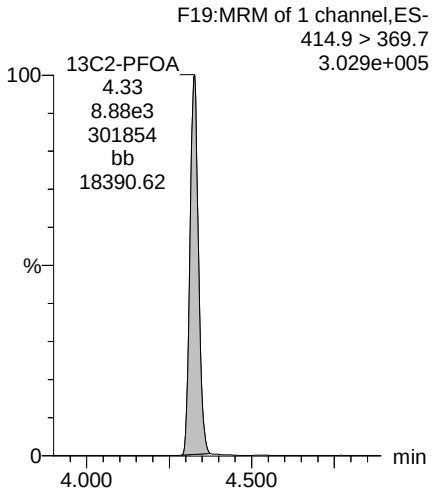
Total PFOS



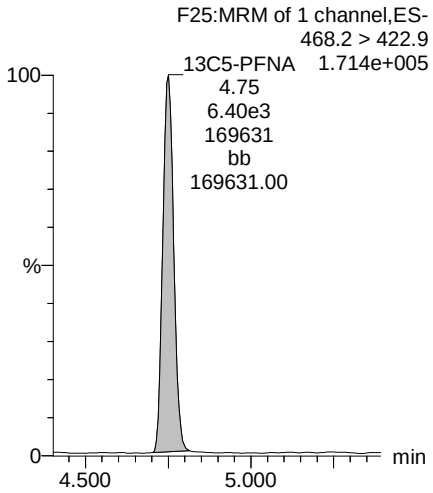
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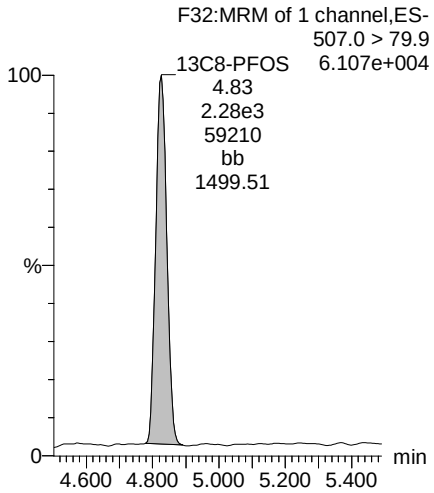
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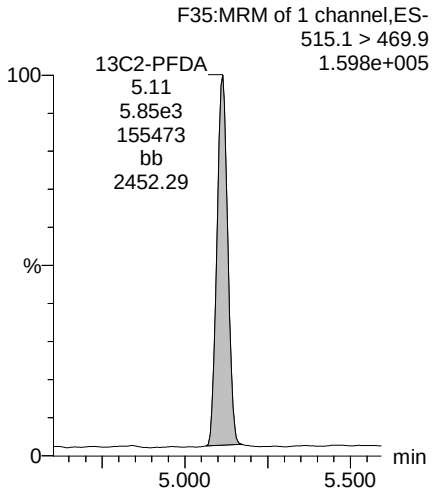
13C5-PFNA



13C8-PFOS



13C2-PFDA

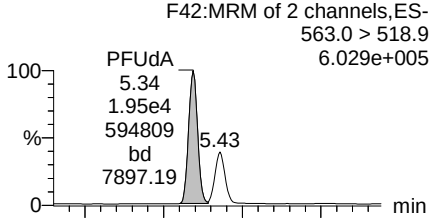


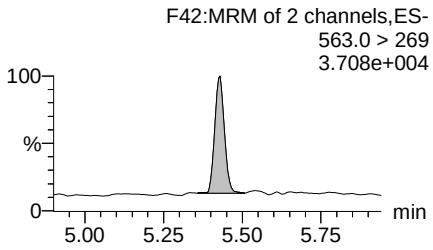
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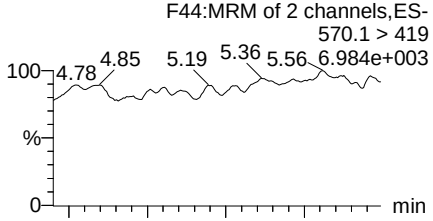
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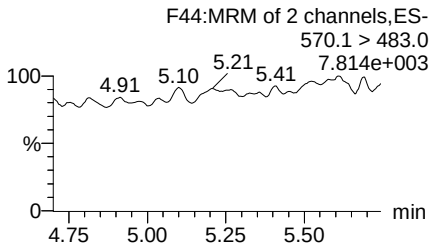
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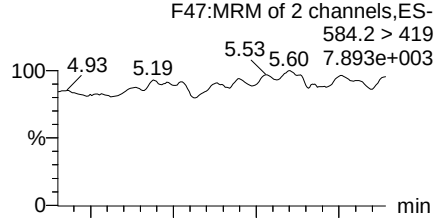


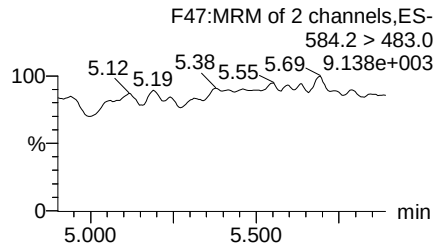
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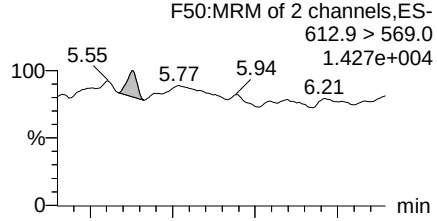


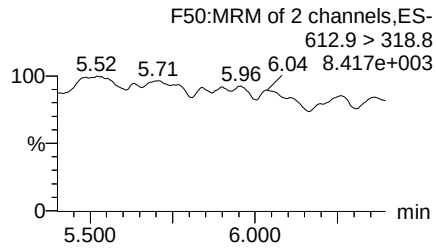
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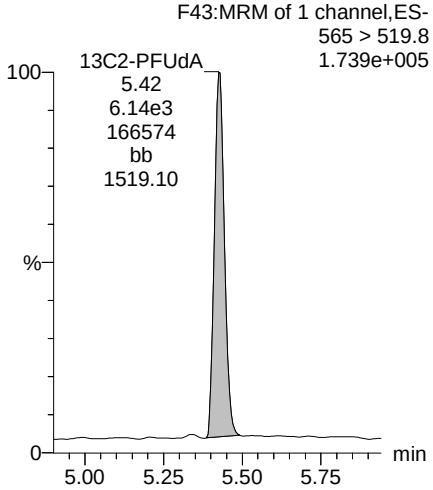


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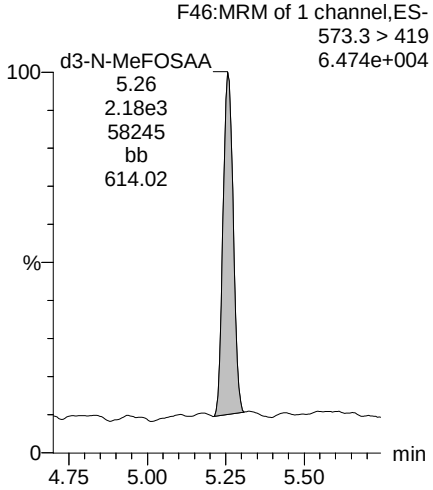




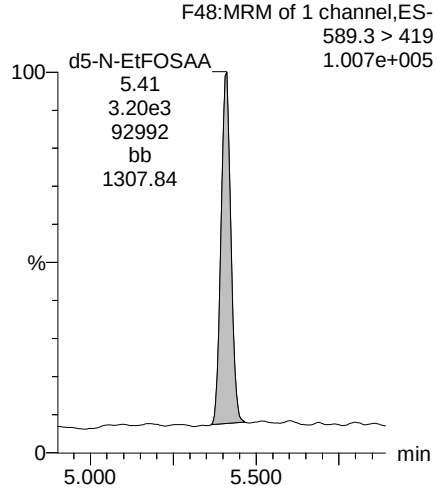
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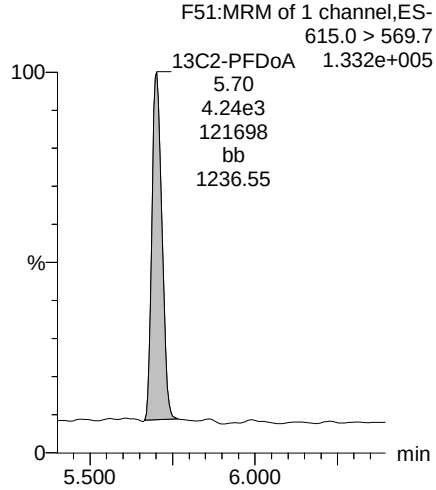
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

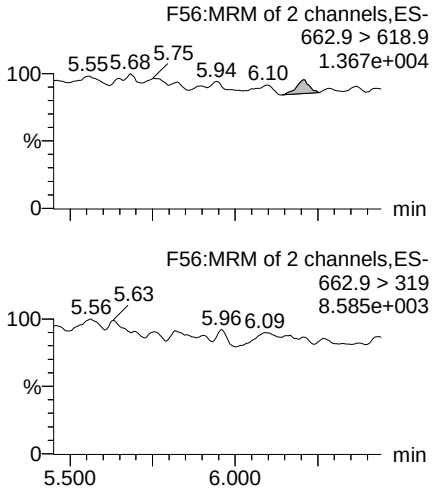


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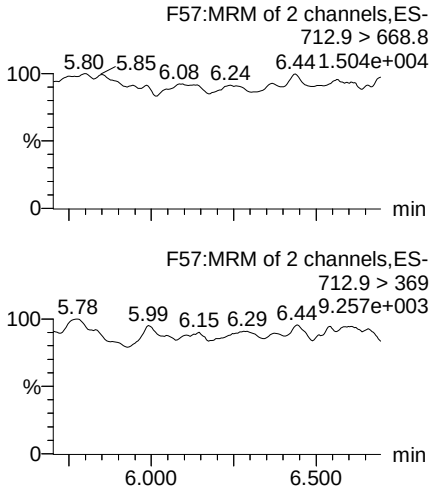
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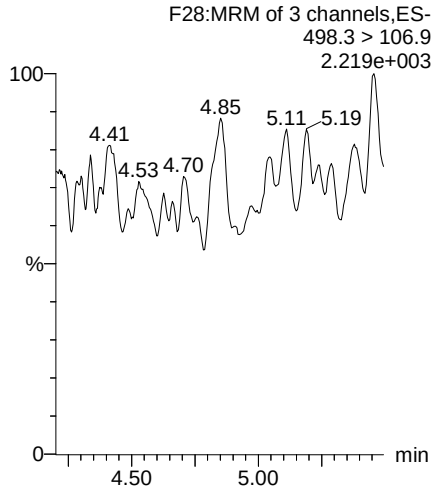
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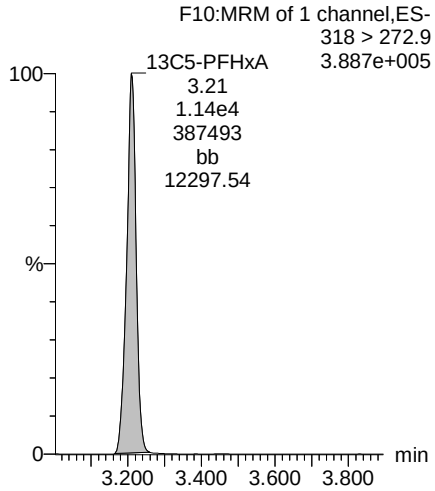
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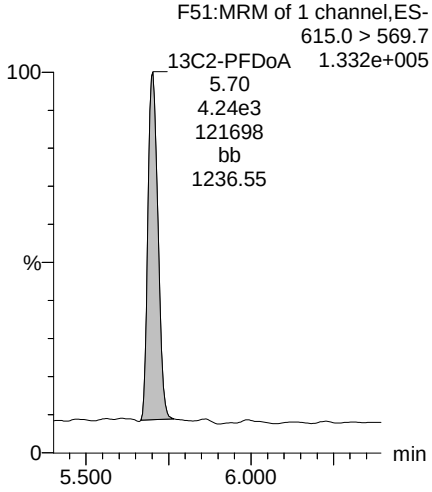
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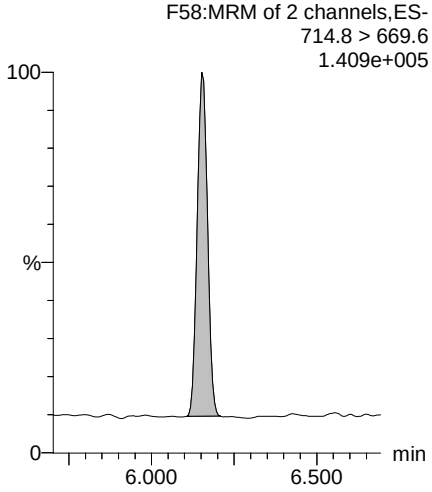
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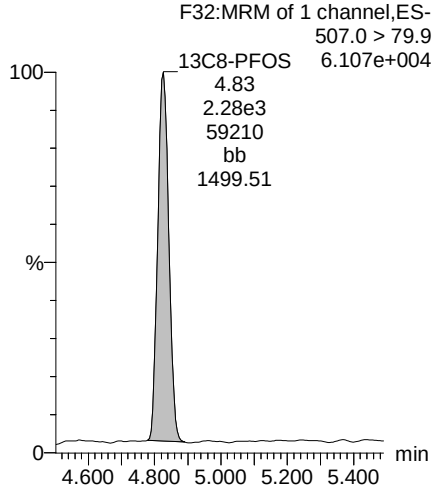
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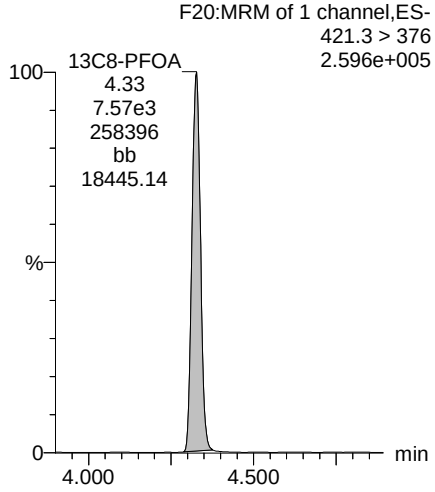
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

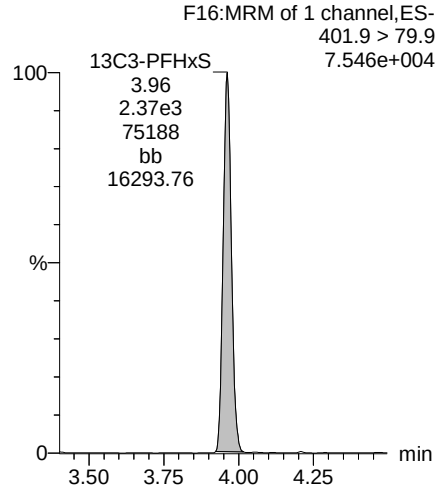


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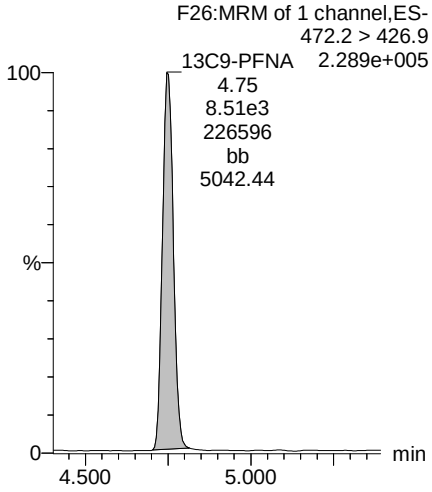
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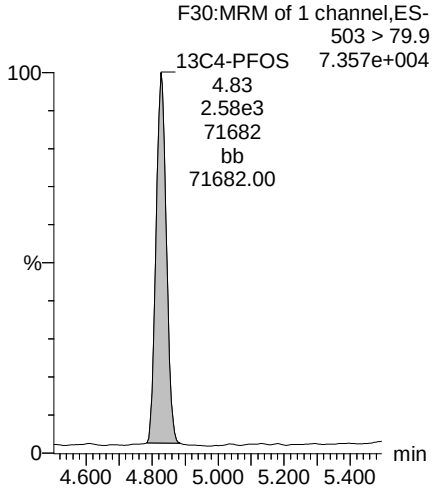
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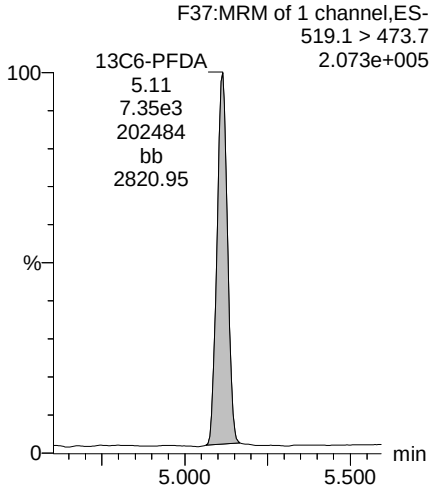
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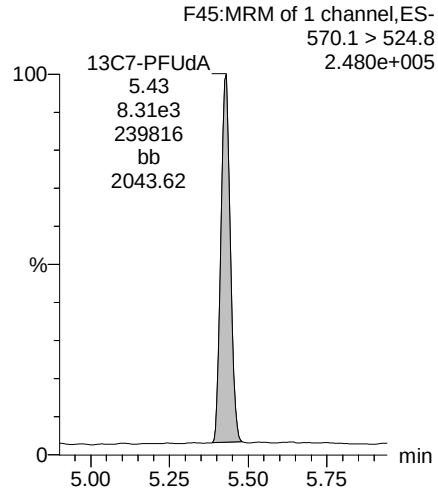
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13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_46.qld

Last Altered: Friday, December 29, 2017 14:38:16 Pacific Standard Time
Printed: Friday, December 29, 2017 14:38:37 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_46, Date: 25-Dec-2017, Time: 08:44:19, ID: 1701829-04 FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.54e2	1.24e3	0.262		2.70	2.72	2.57	4.9208	
2	4	PFHxA	313.2 > 268.9	3.29e4	3.09e3	0.262		3.20	3.21	53.2	141.9224	
3	5	PFHpA	363.0 > 318.9	1.84e4	5.78e3	0.262		3.80	3.82	39.7	98.8502	
4	6	L-PFHxS	398.9 > 79.6	1.57e4	8.88e2	0.262		3.95	3.97	221	383.2237	
5	9	L-PFOA	413 > 368.7	7.06e4	8.70e3	0.262		4.32	4.33	101	377.3662	
6	12	PFNA	463.0 > 418.8	2.79e5	6.42e3	0.262		4.75	4.75	543	1314.2858	
7	14	L-PFOS	499 > 79.9	3.61e4	2.52e3	0.262		4.83	4.83	179	623.5366	
8	16	PFDA	513 > 468.8	4.88e4	6.50e3	0.262		5.11	5.12	93.8	275.3588	
9	18	N-MeFOSAA	570.1 > 419		2.95e3	0.262		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.99e3	0.262		5.42				
11	20	PFUdA	563.0 > 518.9	1.86e5	7.45e3	0.262		5.43	5.34	312	1145.4733	
12	22	PFDoA	612.9 > 569.0	3.18e2	3.83e3	0.262		5.70	5.56	1.04	1.8145	

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_46.qld

Last Altered: Friday, December 29, 2017 14:38:16 Pacific Standard Time
Printed: Friday, December 29, 2017 14:38:51 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_46, Date: 25-Dec-2017, Time: 08:44:19, ID: 1701829-04 FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	1.35e2	3.25e3	0.262		5.95	5.77	0.520	1.5135	
2	25	PFTeDA	712.9 > 668.8	1.14e2	3.25e3	0.262		6.16	6.23	0.439	0.5869	
3	33	13C3-PFBS	302. > 98.8	1.24e3	1.23e4	0.262	0.101	2.70	2.72	1.25	47.4099	99.2
4	34	13C2-PFHxA	315 > 269.8	3.09e3	1.23e4	0.262	0.758	3.20	3.21	3.13	15.7890	82.6
5	35	13C4-PFHpA	367.2 > 321.8	5.78e3	1.23e4	0.262	0.562	3.80	3.82	5.85	39.8058	83.3
6	36	18O2-PFHxS	403.0 > 102.6	8.88e2	2.27e3	0.262	0.435	3.95	3.96	4.89	42.9520	89.9
7	37	13C2-6:2 FTS	429.1 > 408.9	2.11e3	8.87e3	0.262	0.393	4.26	4.28	2.98	29.0006	60.7
8	38	13C2-PFOA	414.9 > 369.7	8.70e3	8.87e3	0.262	1.252	4.32	4.33	12.3	37.4226	78.3
9	39	13C5-PFNA	468.2 > 422.9	6.42e3	8.07e3	0.262	0.962	4.75	4.76	9.95	39.4987	82.7
10	40	13C8-PFOSA	506.1 > 77.7	1.87e3	9.16e3	0.262	0.345	4.81	4.82	2.55	28.3152	59.3
11	41	13C8-PFOS	507.0 > 79.9	2.52e3	2.48e3	0.262	1.003	4.83	4.83	12.7	48.5501	101.6
12	42	13C2-PFDA	515.1 > 469.9	6.50e3	6.33e3	0.262	1.194	5.11	5.12	12.8	41.0833	86.0
13	43	13C2-8:2 FTS	529.1 > 508.7	2.16e3	1.23e4	0.262	0.150	5.09	5.09	2.18	55.6481	116.5
14	44	d3-N-MeFOSAA	573.3 > 419	2.95e3	9.16e3	0.262	0.372	5.26	5.26	4.02	41.3009	86.4
15	45	d5-N-EtFOSAA	589.3 > 419	2.99e3	9.16e3	0.262	0.444	5.42	5.41	4.08	35.1485	73.6
16	46	13C2-PFUdA	565 > 519.8	7.45e3	9.16e3	0.262	1.091	5.43	5.43	10.2	35.6353	74.6
17	47	13C2-PFDoA	615.0 > 569.7	3.83e3	9.16e3	0.262	0.629	5.70	5.70	5.22	31.7182	66.4
18	49	13C2-PFTeDA	714.8 > 669.6	3.25e3	9.16e3	0.262	0.551	6.16	6.16	4.43	30.7786	64.4
19	55	13C5-PFHxA	318 > 272.9	1.23e4	1.23e4	0.262	1.000	3.20	3.21	12.5	47.7829	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.27e3	2.27e3	0.262	1.000	3.95	3.96	12.5	47.7829	100.0
21	57	13C8-PFOA	421.3 > 376	8.87e3	8.87e3	0.262	1.000	4.32	4.33	12.5	47.7829	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.07e3	8.07e3	0.262	1.000	4.75	4.76	12.5	47.7829	100.0
23	59	13C4-PFOS	503 > 79.9	2.48e3	2.48e3	0.262	1.000	4.83	4.83	12.5	47.7829	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.33e3	6.33e3	0.262	1.000	5.11	5.12	12.5	47.7829	100.0
25	61	13C7-PFUdA	570.1 > 524.8	9.16e3	9.16e3	0.262	1.000	5.43	5.43	12.5	47.7829	100.0
26	62	Total PFHxS	398.9 > 79.6	1.66e4	8.88e2	0.262		4.00		233	404.9900	
27	63	Total PFOA	413 > 368.7	7.84e4	8.70e3	0.262		4.30		113	418.7116	
28	64	Total PFOS	499 > 79.9	4.54e4	2.52e3	0.262		4.80		225	786.6027	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.95e3	0.262		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.99e3	0.262		5.40		0.000		

Vista Analytical Laboratory

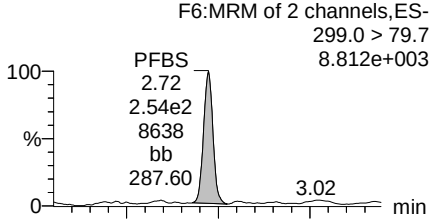
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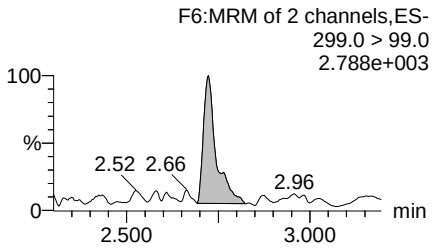
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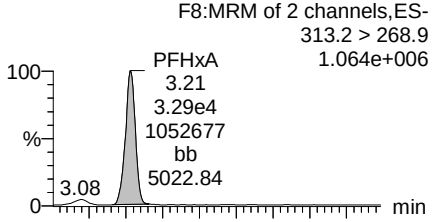
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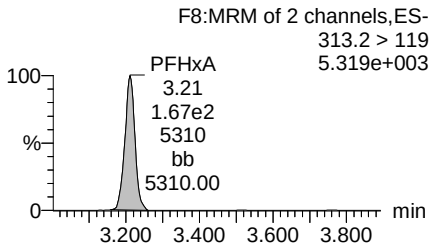
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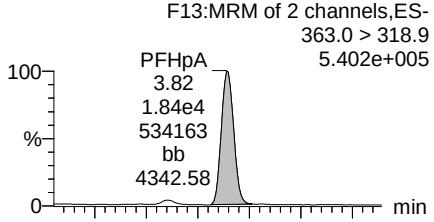


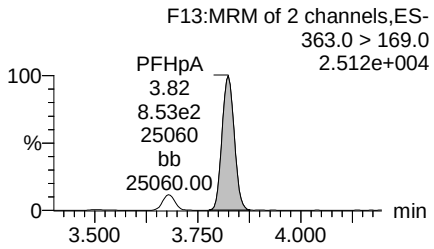
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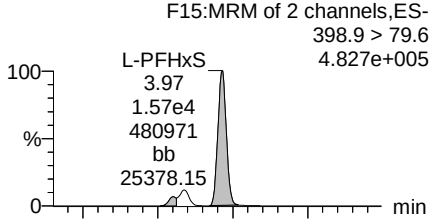


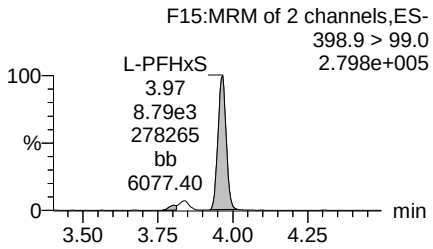
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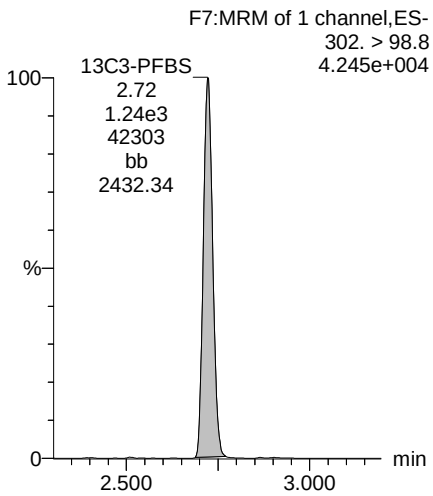


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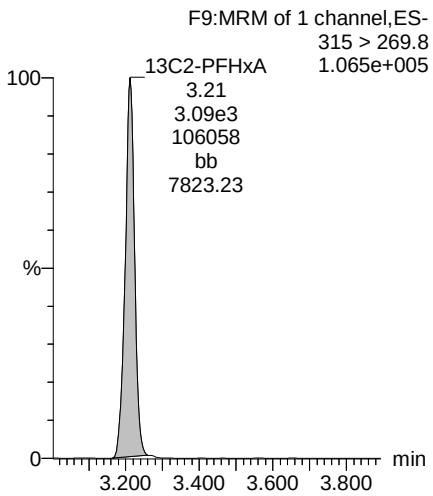




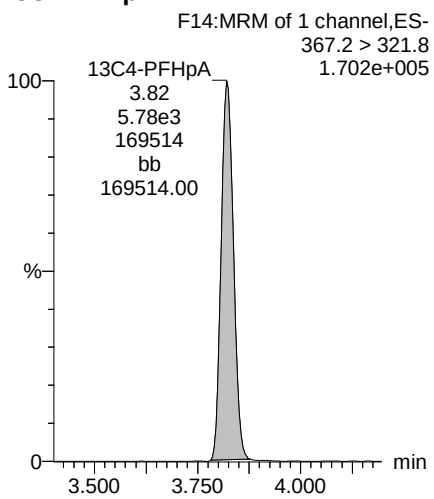
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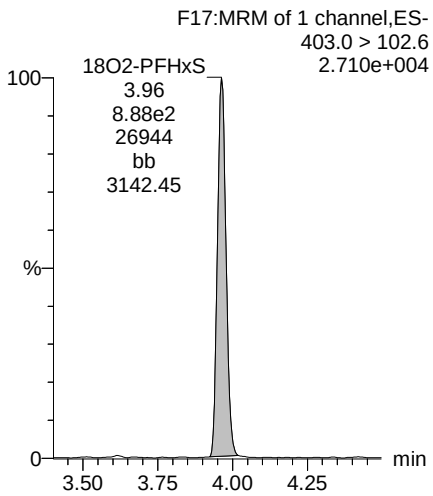
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13C4-PFHpA



18O2-PFHxS

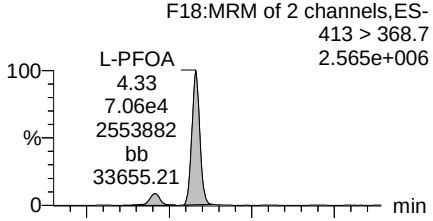


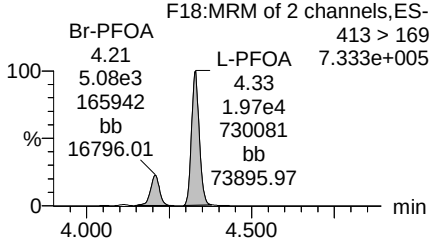
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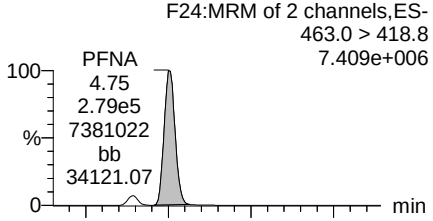
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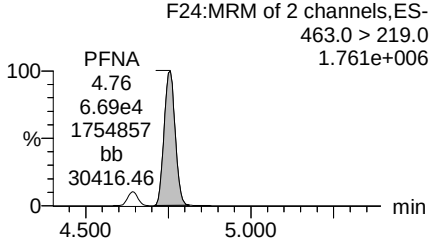
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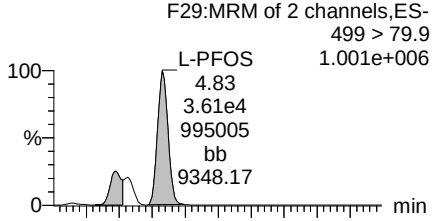


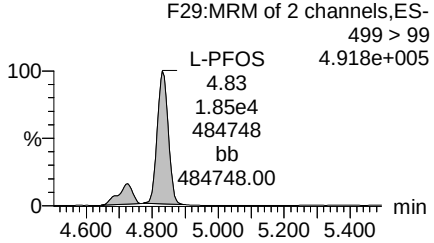
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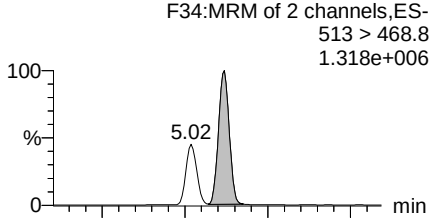


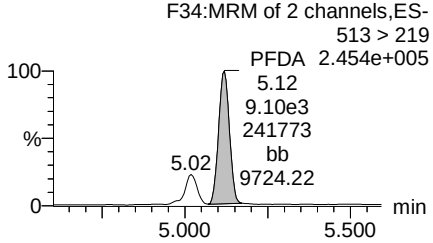
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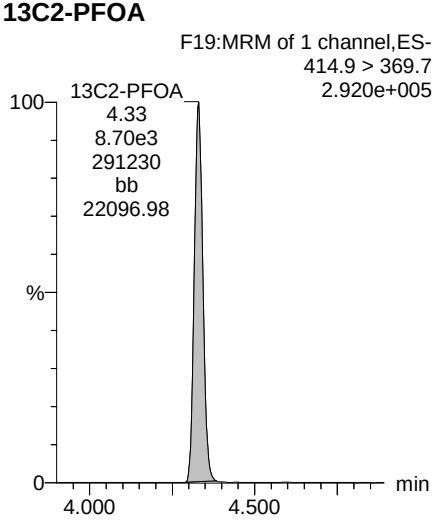


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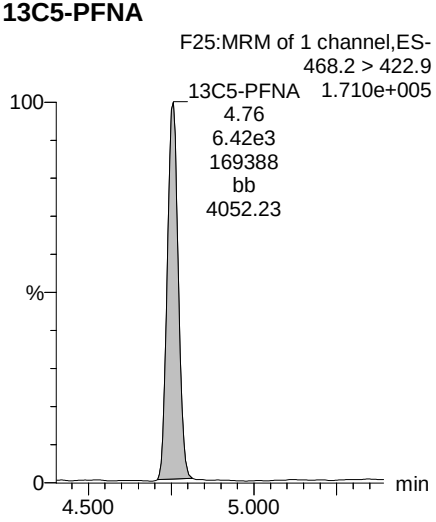




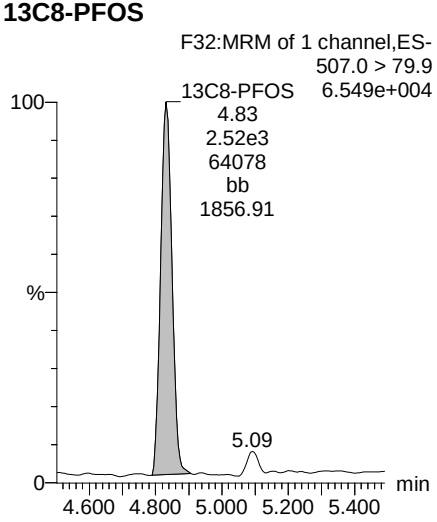
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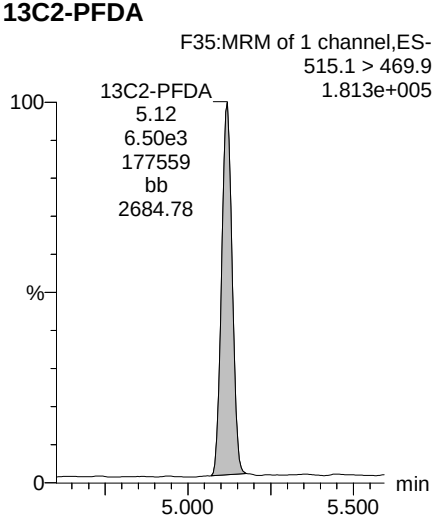
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13C8-PFOS



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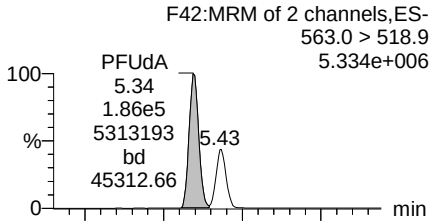


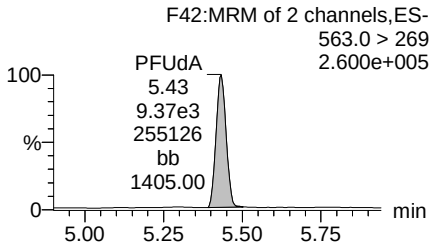
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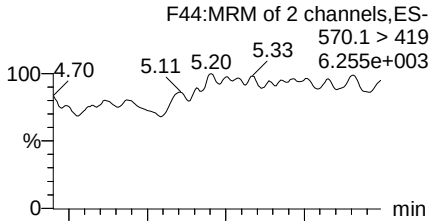
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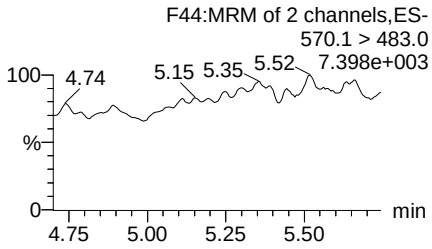
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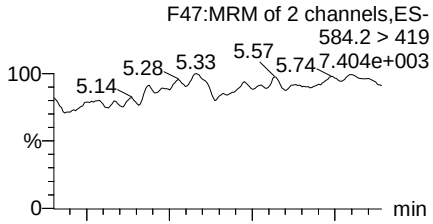


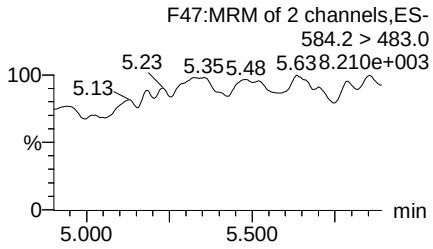
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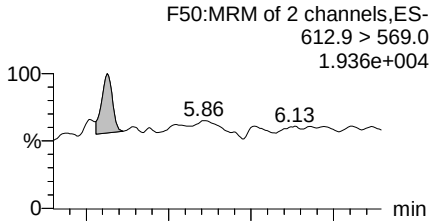


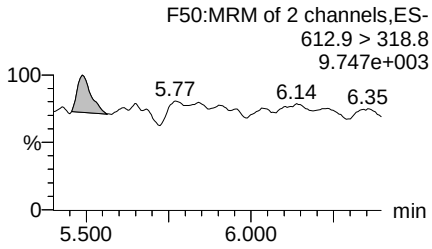
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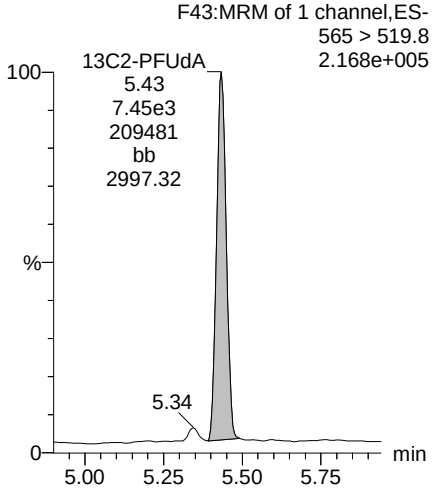


PFDoA

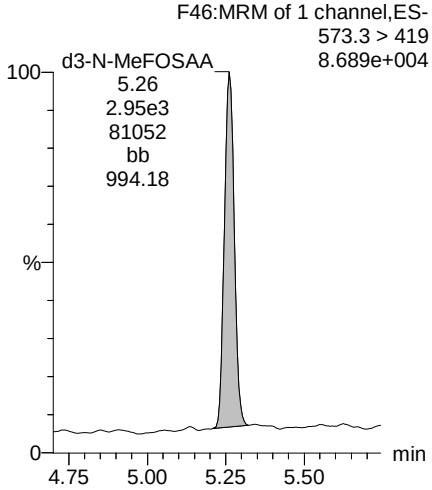




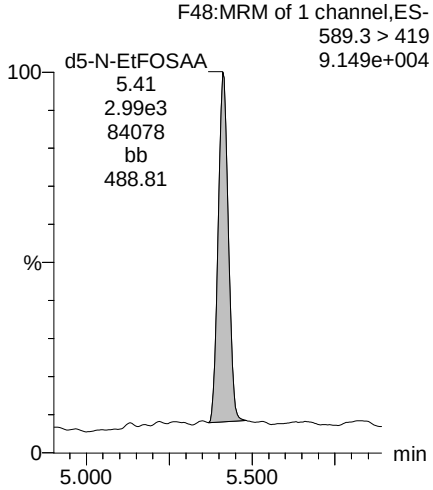
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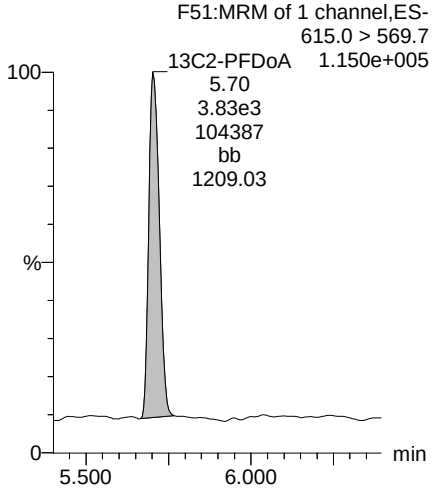
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d5-N-EtFOSAA



13C2-PFDoA

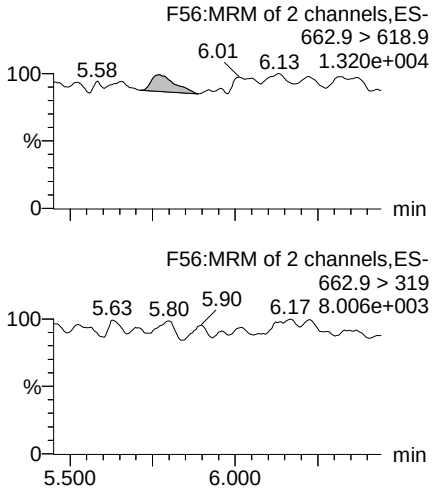


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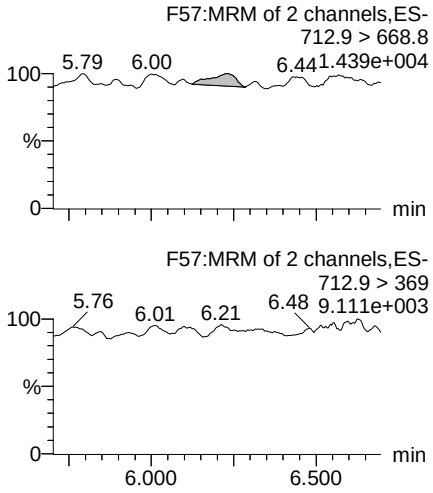
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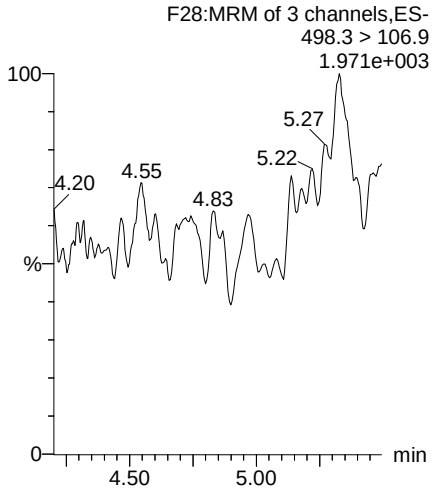
PFTrDA



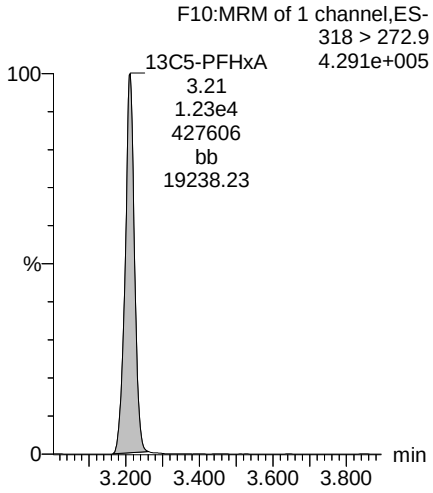
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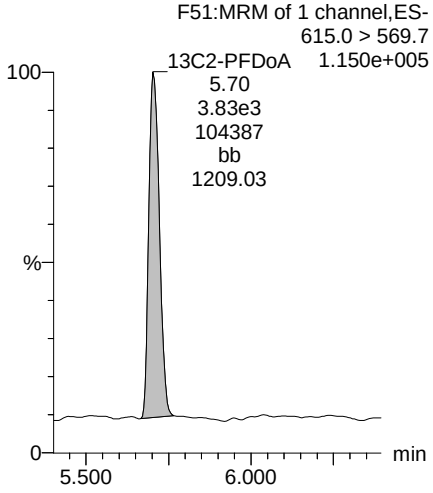
TCDA



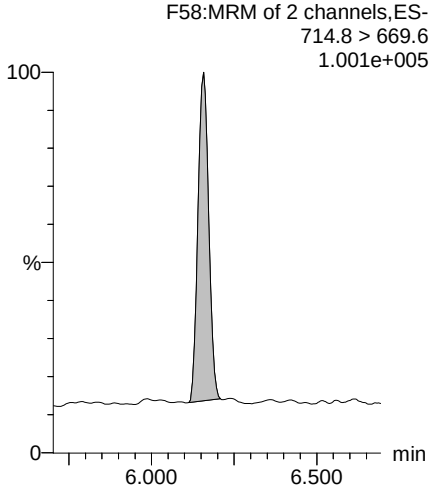
13C5-PFHxA



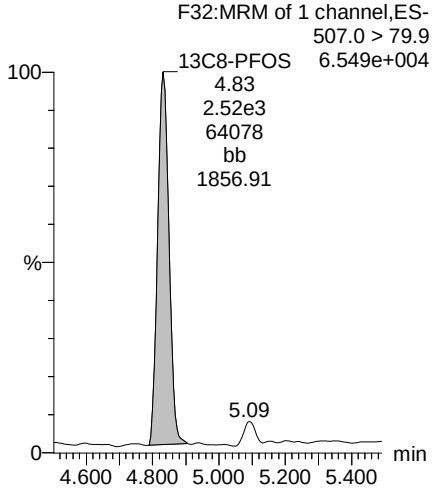
13C2-PFDoA



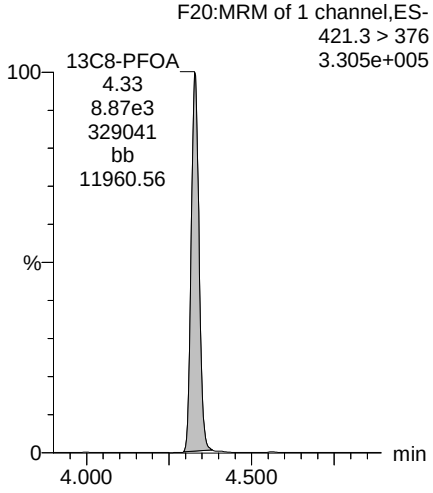
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



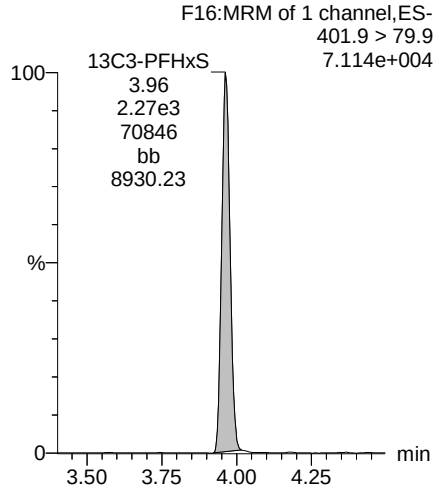
Vista Analytical Laboratory

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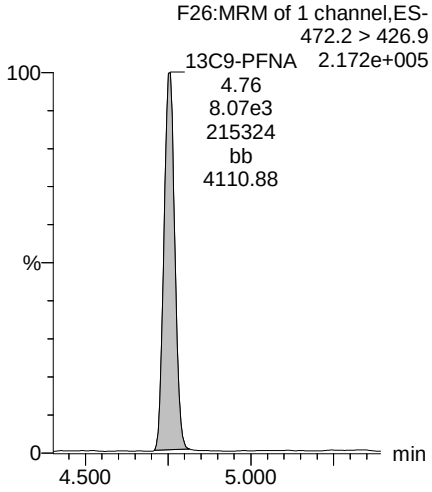
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Name: 171224M2_46, Date: 25-Dec-2017, Time: 08:44:19, ID: 1701829-04 FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

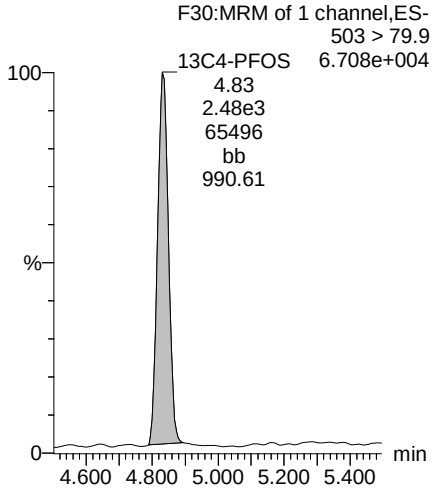
13C3-PFHxS



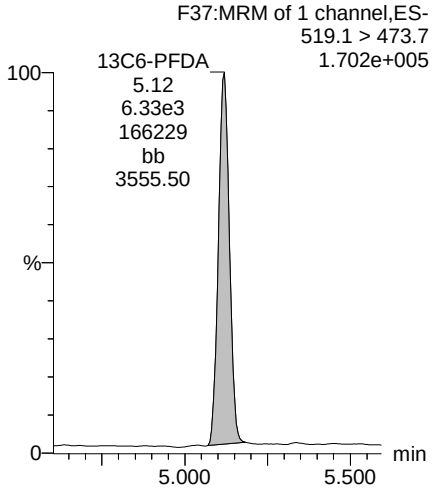
13C9-PFNA



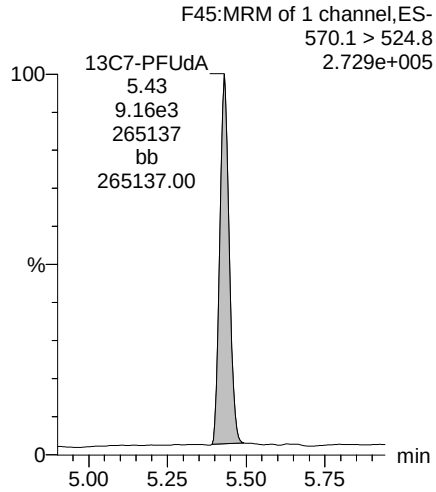
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_36.qld

Last Altered: Friday, December 29, 2017 14:26:05 Pacific Standard Time
Printed: Friday, December 29, 2017 14:26:38 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_36, Date: 25-Dec-2017, Time: 06:52:30, ID: B7L0073-MS1 Matrix Spike 0.24032, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.32e3	1.26e3	0.240		2.70	2.72	23.1	43.0047	
2	4	PFHxA	313.2 > 268.9	4.22e4	3.34e3	0.240		3.20	3.21	63.2	183.4808	
3	5	PFHpA	363.0 > 318.9	2.65e4	6.78e3	0.240		3.80	3.82	48.9	132.6033	
4	6	L-PFHxS	398.9 > 79.6	1.68e4	9.17e2	0.240		3.95	3.96	230	434.1354	
5	9	L-PFOA	413 > 368.7	7.59e4	8.78e3	0.240		4.32	4.32	108	437.5077	
6	12	PFNA	463.0 > 418.8	2.59e5	6.49e3	0.240		4.75	4.75	499	1318.9796	
7	14	L-PFOS	499 > 79.9	4.04e4	2.35e3	0.240		4.83	4.83	215	812.7291	
8	16	PFDA	513 > 468.8	5.38e4	6.31e3	0.240		5.11	5.11	106	339.8335	
9	18	N-MeFOSAA	570.1 > 419	3.72e3	2.70e3	0.240		5.26	5.26	17.2	35.0577	
10	19	N-EtFOSAA	584.2 > 419	2.83e3	3.39e3	0.240		5.42	5.41	10.4	39.9847	
11	20	PFUdA	563.0 > 518.9	1.74e5	7.02e3	0.240		5.43	5.34	310	1236.7605	
12	22	PFDoA	612.9 > 569.0	6.94e3	4.44e3	0.240		5.70	5.70	19.5	33.0140	

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_36.qld

Last Altered: Friday, December 29, 2017 14:26:05 Pacific Standard Time
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Name: 171224M2_36, Date: 25-Dec-2017, Time: 06:52:30, ID: B7L0073-MS1 Matrix Spike 0.24032, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	6.39e3	2.92e3	0.240		5.95	5.94	27.4	43.8769	
2	25	PFTeDA	712.9 > 668.8	4.24e3	2.92e3	0.240		6.16	6.16	18.2	37.8655	
3	33	13C3-PFBS	302. > 98.8	1.26e3	1.18e4	0.240	0.101	2.70	2.72	1.33	54.6164	105.0
4	34	13C2-PFHxA	315 > 269.8	3.34e3	1.18e4	0.240	0.758	3.20	3.21	3.52	19.3362	92.9
5	35	13C4-PFHpA	367.2 > 321.8	6.78e3	1.18e4	0.240	0.562	3.80	3.82	7.15	52.9402	101.8
6	36	18O2-PFHxS	403.0 > 102.6	9.17e2	2.06e3	0.240	0.435	3.95	3.96	5.57	53.2838	102.4
7	37	13C2-6:2 FTS	429.1 > 408.9	2.10e3	8.15e3	0.240	0.393	4.26	4.27	3.22	34.0870	65.5
8	38	13C2-PFOA	414.9 > 369.7	8.78e3	8.15e3	0.240	1.252	4.32	4.32	13.5	44.7447	86.0
9	39	13C5-PFNA	468.2 > 422.9	6.49e3	8.47e3	0.240	0.962	4.75	4.75	9.57	41.3950	79.6
10	40	13C8-PFOSA	506.1 > 77.7	1.62e3	8.28e3	0.240	0.345	4.81	4.81	2.45	29.5610	56.8
11	41	13C8-PFOS	507.0 > 79.9	2.35e3	2.38e3	0.240	1.003	4.83	4.83	12.3	51.1821	98.4
12	42	13C2-PFDA	515.1 > 469.9	6.31e3	7.35e3	0.240	1.194	5.11	5.11	10.7	37.4314	72.0
13	43	13C2-8:2 FTS	529.1 > 508.7	1.78e3	1.18e4	0.240	0.150	5.09	5.09	1.88	52.0789	100.1
14	44	d3-N-MeFOSAA	573.3 > 419	2.70e3	8.28e3	0.240	0.372	5.26	5.26	4.08	45.5577	87.6
15	45	d5-N-EtFOSAA	589.3 > 419	3.39e3	8.28e3	0.240	0.444	5.42	5.41	5.11	47.9276	92.1
16	46	13C2-PFUdA	565 > 519.8	7.02e3	8.28e3	0.240	1.091	5.43	5.43	10.6	40.4079	77.7
17	47	13C2-PFDoA	615.0 > 569.7	4.44e3	8.28e3	0.240	0.629	5.70	5.70	6.70	44.3189	85.2
18	49	13C2-PFTeDA	714.8 > 669.6	2.92e3	8.28e3	0.240	0.551	6.16	6.15	4.40	33.2556	63.9
19	55	13C5-PFHxA	318 > 272.9	1.18e4	1.18e4	0.240	1.000	3.20	3.21	12.5	52.0140	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.06e3	2.06e3	0.240	1.000	3.95	3.96	12.5	52.0140	100.0
21	57	13C8-PFOA	421.3 > 376	8.15e3	8.15e3	0.240	1.000	4.32	4.32	12.5	52.0140	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.47e3	8.47e3	0.240	1.000	4.75	4.75	12.5	52.0140	100.0
23	59	13C4-PFOS	503 > 79.9	2.38e3	2.38e3	0.240	1.000	4.83	4.83	12.5	52.0140	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.35e3	7.35e3	0.240	1.000	5.11	5.11	12.5	52.0140	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.28e3	8.28e3	0.240	1.000	5.43	5.42	12.5	52.0140	100.0
26	62	Total PFHxS	398.9 > 79.6	1.76e4	9.17e2	0.240		4.00		240	454.3145	
27	63	Total PFOA	413 > 368.7	8.22e4	8.78e3	0.240		4.30		117	472.9302	
28	64	Total PFOS	499 > 79.9	4.61e4	2.35e3	0.240		4.80		245	929.7260	
29	65	Total N-MeFOSAA	570.1 > 419	3.72e3	2.70e3	0.240		5.20		17.2	35.0577	
30	66	Total N-EtFOSAA	584.2 > 419	2.83e3	3.39e3	0.240		5.40		10.4	39.9847	

Vista Analytical Laboratory

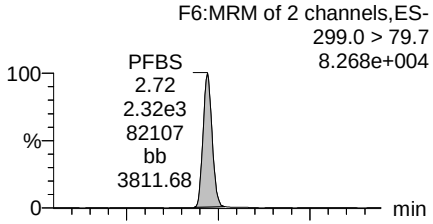
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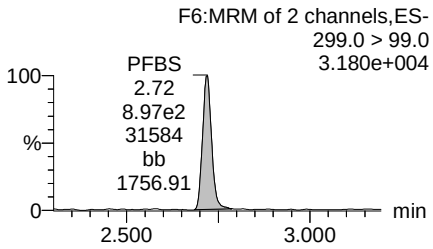
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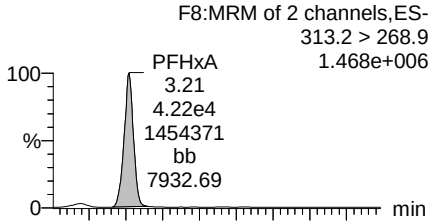
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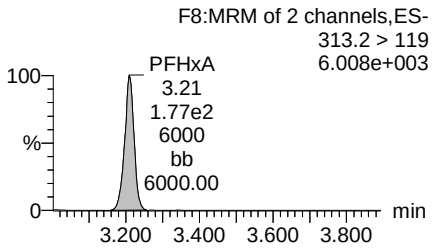
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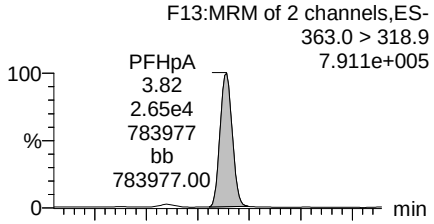


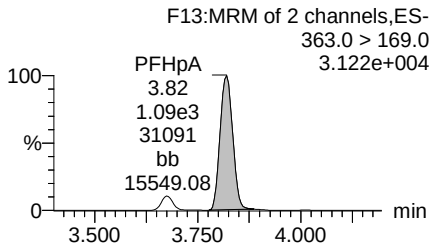
PFHxA



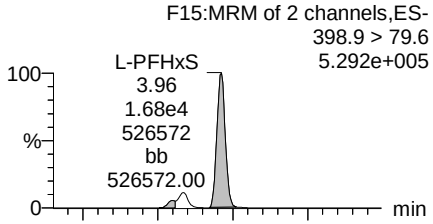


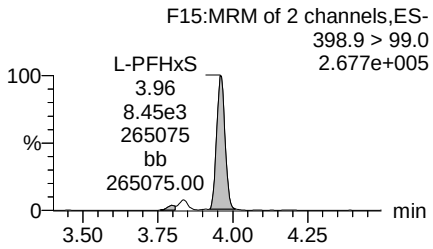
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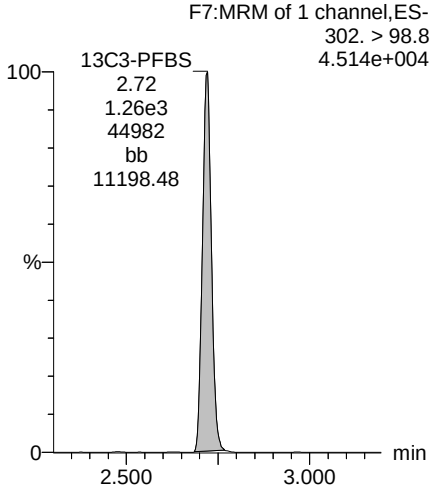


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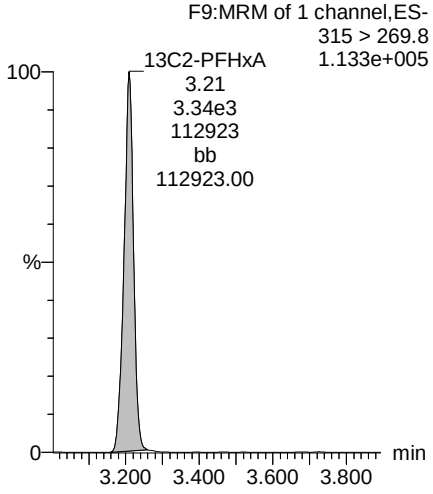




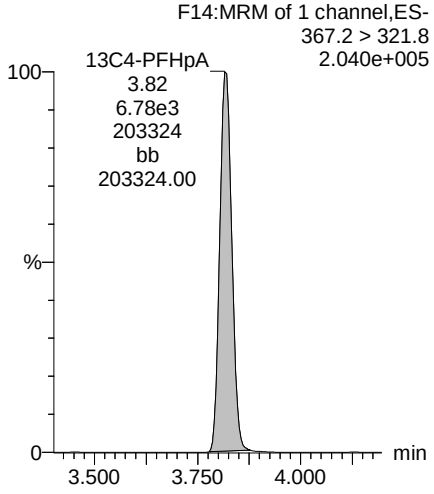
13C3-PFBS



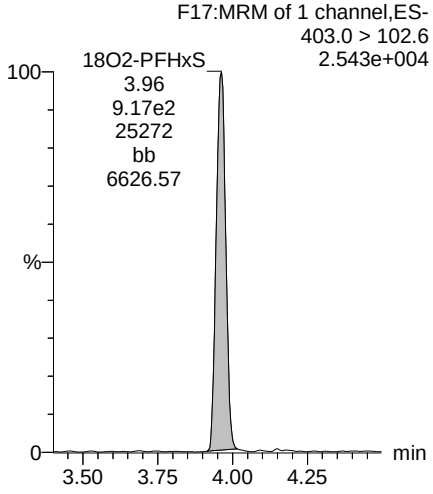
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

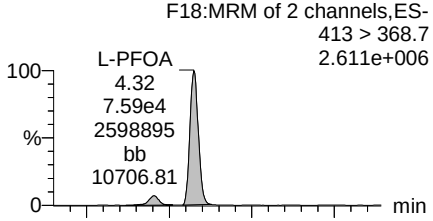


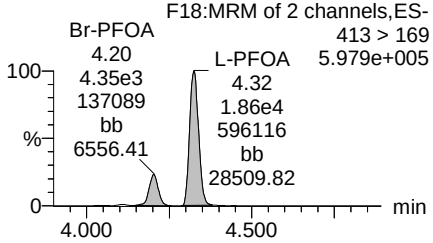
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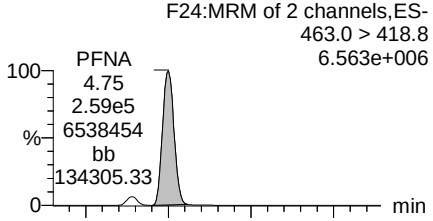
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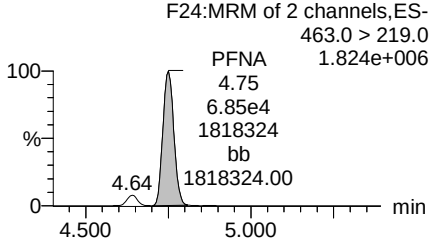
Total PFOA



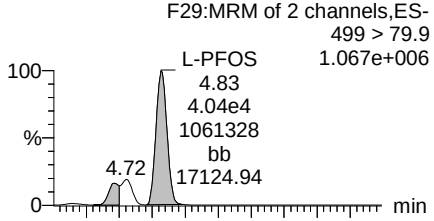


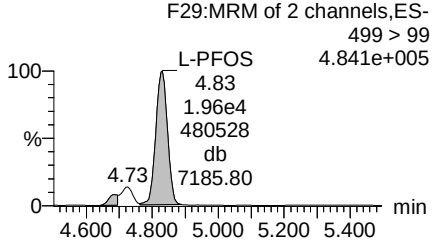
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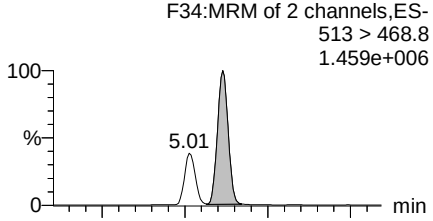


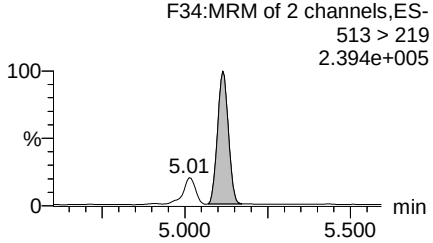
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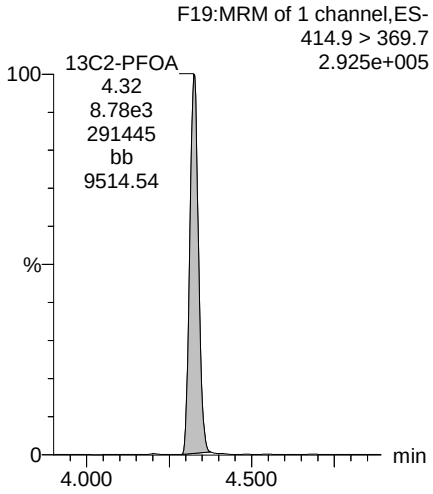


PFDA

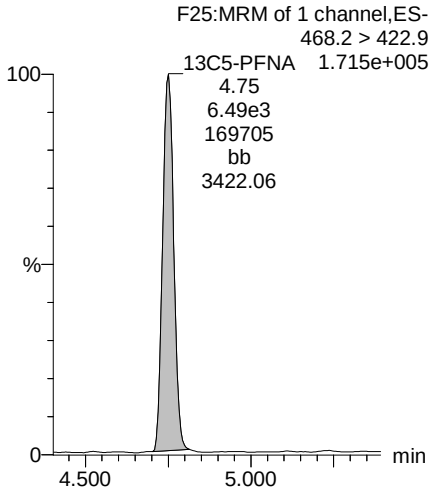




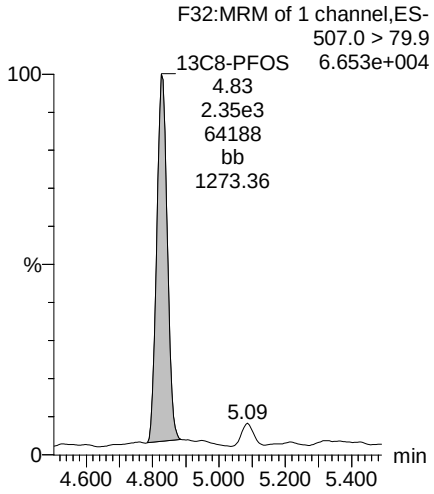
13C2-PFOA



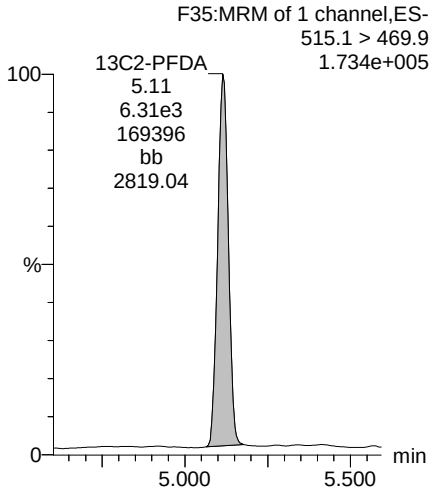
13C5-PFNA



13C8-PFOS



13C2-PFDA

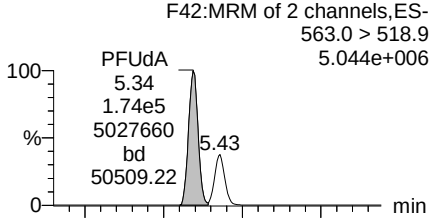


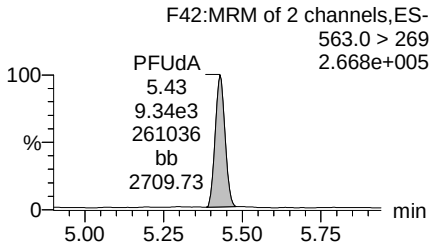
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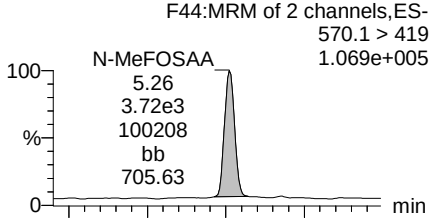
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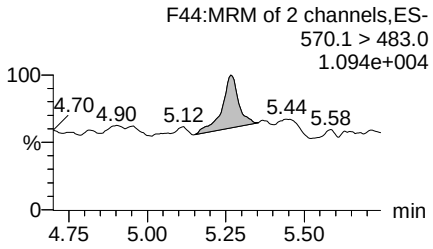
PFUdA



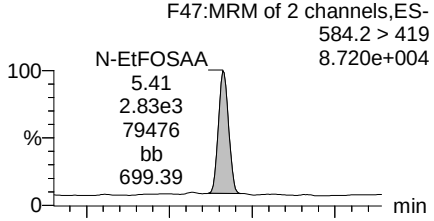


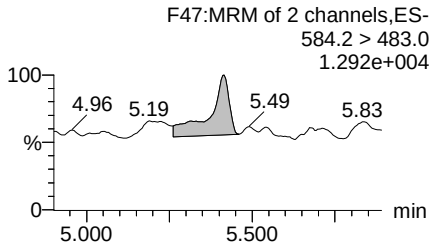
N-MeFOSAA



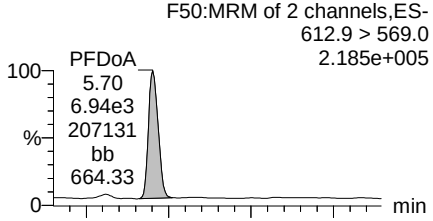


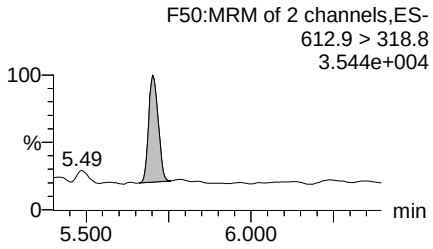
N-EtFOSAA



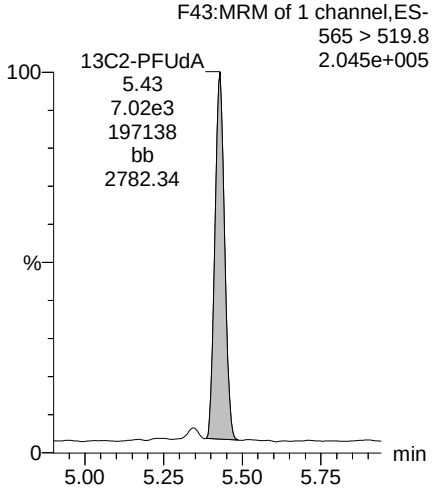


PFDoA

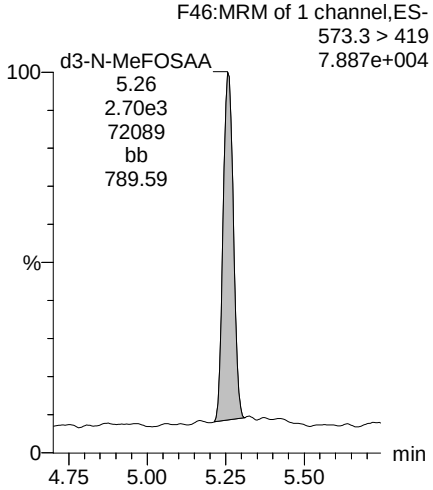




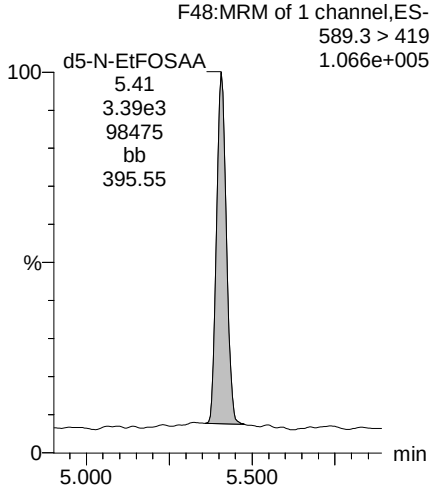
13C2-PFUdA



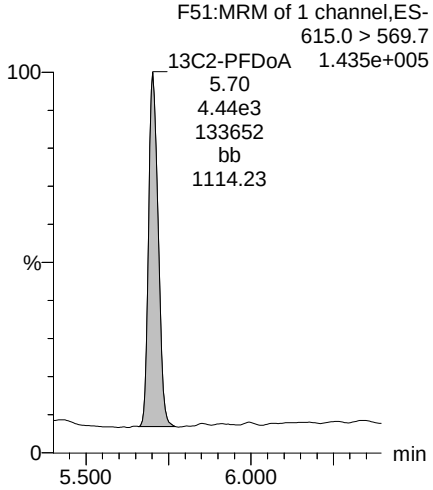
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

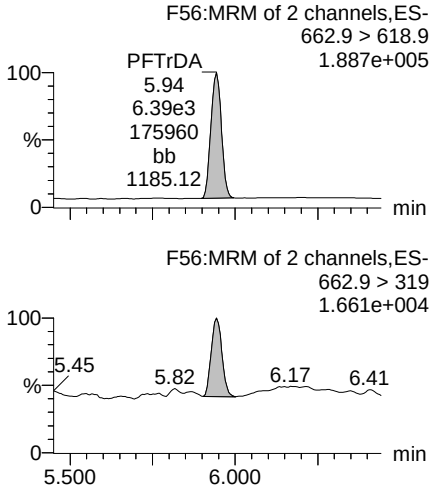


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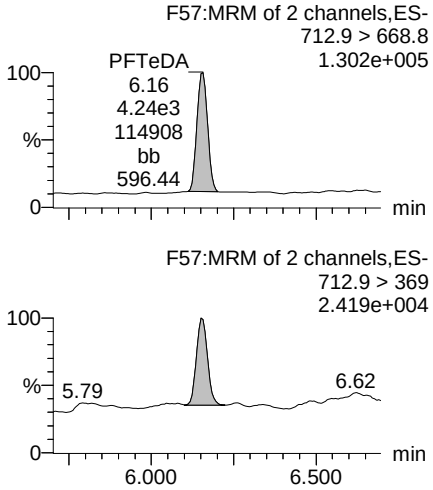
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Name: 171224M2_36, Date: 25-Dec-2017, Time: 06:52:30, ID: B7L0073-MS1 Matrix Spike 0.24032, Description: Matrix Spike

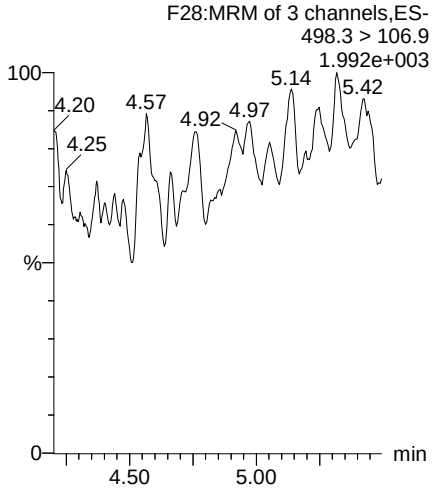
PFTrDA



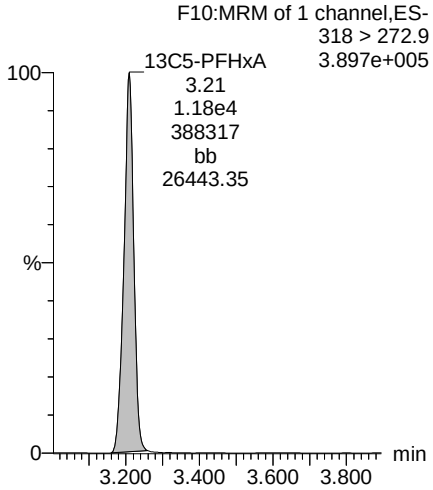
PFTeDA



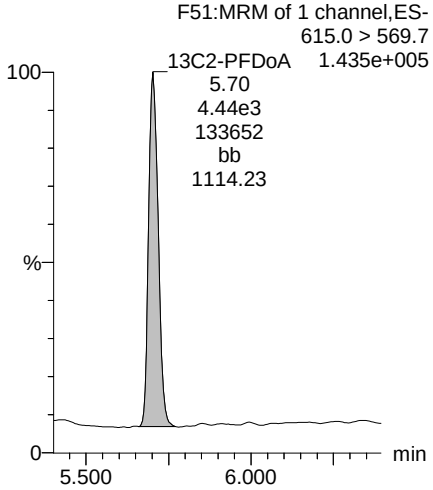
TCDA



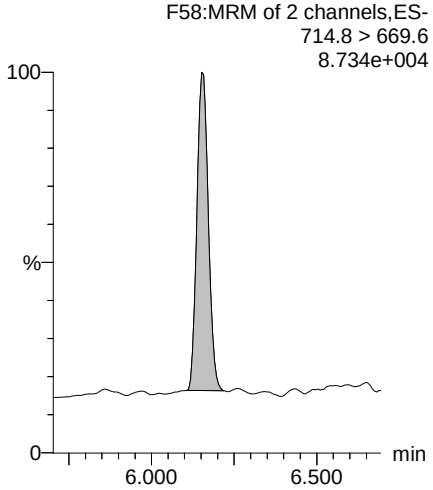
13C5-PFHxA



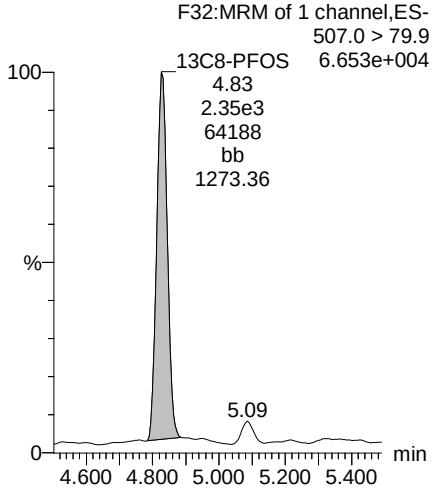
13C2-PFDoA



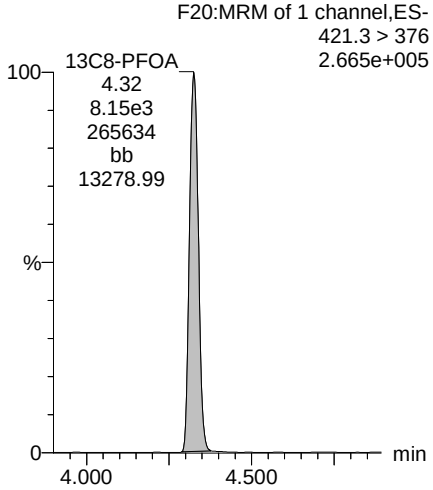
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

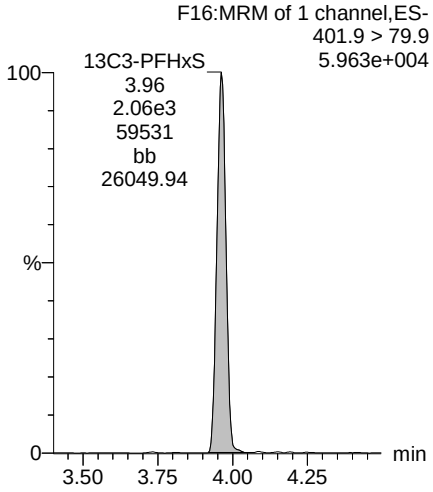


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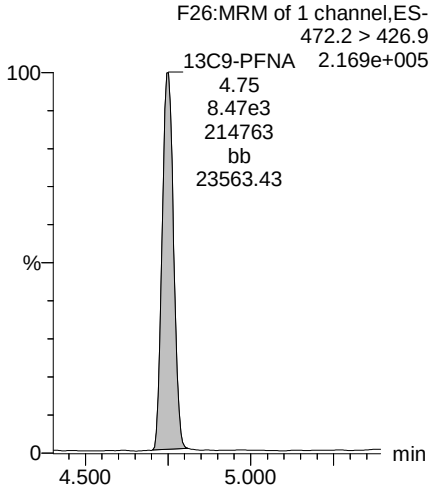
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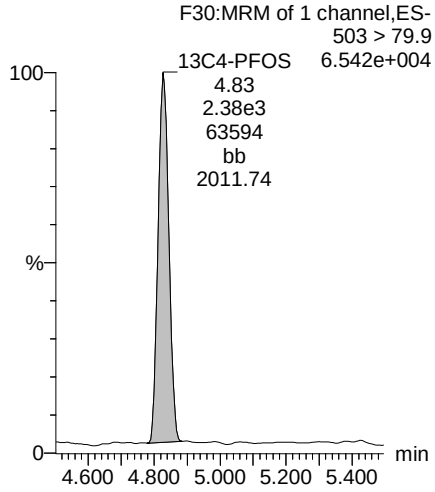
13C3-PFHxS



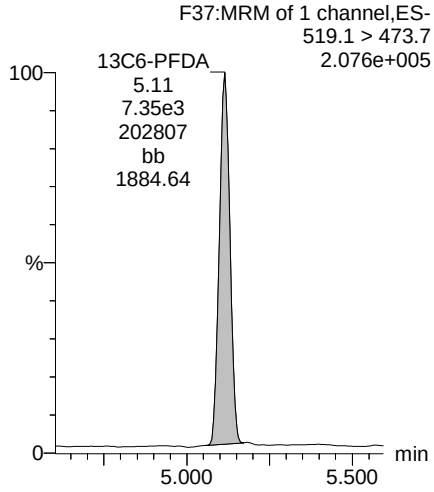
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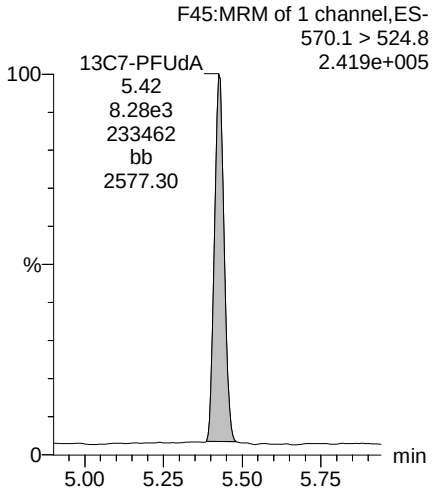
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171224M2\171224m2_37.qld

Last Altered: Friday, December 29, 2017 14:27:56 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_37, Date: 25-Dec-2017, Time: 07:03:41, ID: B7L0073-MSD1 Matrix Spike Dup 0.25539, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	1.91e3	8.89e2	0.255		2.70	2.72	26.8	46.9174	
2	4	PFHxA	313.2 > 268.9	4.44e4	2.73e3	0.255		3.20	3.21	81.2	222.0003	
3	5	PFHpA	363.0 > 318.9	2.54e4	5.53e3	0.255		3.80	3.82	57.5	146.5892	
4	6	L-PFHxS	398.9 > 79.6	1.58e4	9.11e2	0.255		3.95	3.96	216	384.8970	
5	9	L-PFOA	413 > 368.7	7.34e4	8.42e3	0.255		4.32	4.33	109	415.1146	
6	12	PFNA	463.0 > 418.8	2.74e5	6.35e3	0.255		4.75	4.75	540	1337.7700	
7	14	L-PFOS	499 > 79.9	3.79e4	2.26e3	0.255		4.83	4.83	210	746.6717	
8	16	PFDA	513 > 468.8	5.89e4	6.72e3	0.255		5.11	5.11	110	328.9507	
9	18	N-MeFOSAA	570.1 > 419	4.23e3	2.38e3	0.255		5.26	5.26	22.2	42.5369	
10	19	N-EtFOSAA	584.2 > 419	2.42e3	2.82e3	0.255		5.42	5.41	10.8	38.7587	
11	20	PFUdA	563.0 > 518.9	1.53e5	7.01e3	0.255		5.43	5.34	274	1005.5387	
12	22	PFDoA	612.9 > 569.0	6.08e3	3.85e3	0.255		5.70	5.70	19.8	31.4534	

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_37.qld

Last Altered: Friday, December 29, 2017 14:27:56 Pacific Standard Time
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Name: 171224M2_37, Date: 25-Dec-2017, Time: 07:03:41, ID: B7L0073-MSD1 Matrix Spike Dup 0.25539, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	6.99e3	2.84e3	0.255		5.95	5.94	30.8	46.2872	
2	25	PFTeDA	712.9 > 668.8	4.80e3	2.84e3	0.255		6.16	6.15	21.1	41.3869	
3	33	13C3-PFBS	302. > 98.8	8.89e2	1.14e4	0.255	0.101	2.70	2.72	0.979	37.9472	77.5
4	34	13C2-PFHxA	315 > 269.8	2.73e3	1.14e4	0.255	0.758	3.20	3.21	3.01	15.5423	79.4
5	35	13C4-PFHpA	367.2 > 321.8	5.53e3	1.14e4	0.255	0.562	3.80	3.82	6.09	42.3933	86.6
6	36	18O2-PFHxS	403.0 > 102.6	9.11e2	1.97e3	0.255	0.435	3.95	3.96	5.79	52.1027	106.5
7	37	13C2-6:2 FTS	429.1 > 408.9	1.68e3	7.89e3	0.255	0.393	4.26	4.27	2.67	26.5757	54.3
8	38	13C2-PFOA	414.9 > 369.7	8.42e3	7.89e3	0.255	1.252	4.32	4.33	13.3	41.7035	85.2
9	39	13C5-PFNA	468.2 > 422.9	6.35e3	7.33e3	0.255	0.962	4.75	4.75	10.8	44.0620	90.0
10	40	13C8-PFOSA	506.1 > 77.7	1.49e3	8.01e3	0.255	0.345	4.81	4.81	2.32	26.3357	53.8
11	41	13C8-PFOS	507.0 > 79.9	2.26e3	2.25e3	0.255	1.003	4.83	4.83	12.5	48.9155	99.9
12	42	13C2-PFDA	515.1 > 469.9	6.72e3	6.76e3	0.255	1.194	5.11	5.11	12.4	40.7437	83.2
13	43	13C2-8:2 FTS	529.1 > 508.7	2.13e3	1.14e4	0.255	0.150	5.09	5.08	2.34	61.1419	124.9
14	44	d3-N-MeFOSAA	573.3 > 419	2.38e3	8.01e3	0.255	0.372	5.26	5.26	3.72	39.1030	79.9
15	45	d5-N-EtFOSAA	589.3 > 419	2.82e3	8.01e3	0.255	0.444	5.42	5.41	4.40	38.7975	79.3
16	46	13C2-PFUdA	565 > 519.8	7.01e3	8.01e3	0.255	1.091	5.43	5.43	10.9	39.2674	80.2
17	47	13C2-PFDoA	615.0 > 569.7	3.85e3	8.01e3	0.255	0.629	5.70	5.70	6.00	37.3480	76.3
18	49	13C2-PFTeDA	714.8 > 669.6	2.84e3	8.01e3	0.255	0.551	6.16	6.16	4.43	31.5060	64.4
19	55	13C5-PFHxA	318 > 272.9	1.14e4	1.14e4	0.255	1.000	3.20	3.21	12.5	48.9448	100.0
20	56	13C3-PFHxS	401.9 > 79.9	1.97e3	1.97e3	0.255	1.000	3.95	3.96	12.5	48.9448	100.0
21	57	13C8-PFOA	421.3 > 376	7.89e3	7.89e3	0.255	1.000	4.32	4.32	12.5	48.9448	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.33e3	7.33e3	0.255	1.000	4.75	4.75	12.5	48.9448	100.0
23	59	13C4-PFOS	503 > 79.9	2.25e3	2.25e3	0.255	1.000	4.83	4.83	12.5	48.9448	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.76e3	6.76e3	0.255	1.000	5.11	5.11	12.5	48.9448	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.01e3	8.01e3	0.255	1.000	5.43	5.42	12.5	48.9448	100.0
26	62	Total PFHxS	398.9 > 79.6	1.69e4	9.11e2	0.255		4.00		231	411.7326	
27	63	Total PFOA	413 > 368.7	8.07e4	8.42e3	0.255		4.30		120	455.7844	
28	64	Total PFOS	499 > 79.9	5.23e4	2.26e3	0.255		4.80		289	1034.1249	
29	65	Total N-MeFOSAA	570.1 > 419	4.23e3	2.38e3	0.255		5.20		22.2	42.5369	
30	66	Total N-EtFOSAA	584.2 > 419	2.42e3	2.82e3	0.255		5.40		10.8	38.7587	

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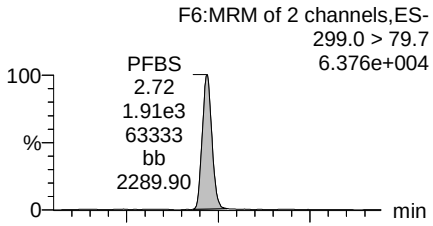
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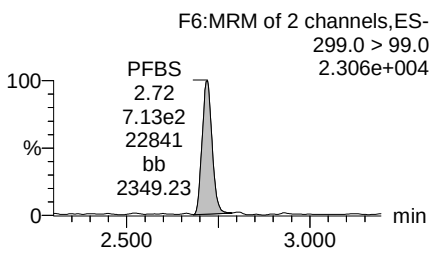
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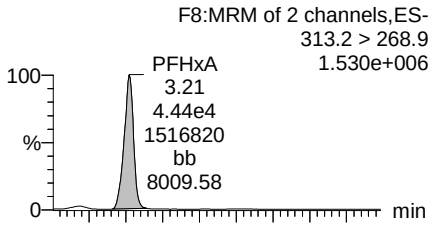
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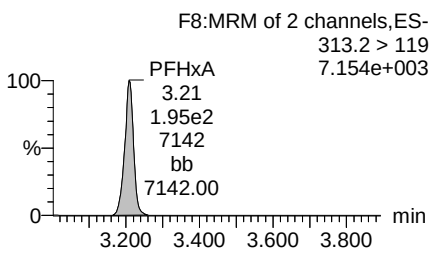
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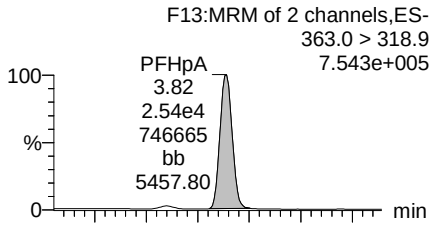


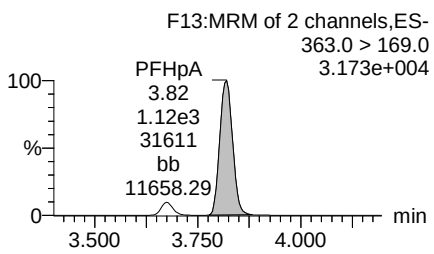
PFHxA



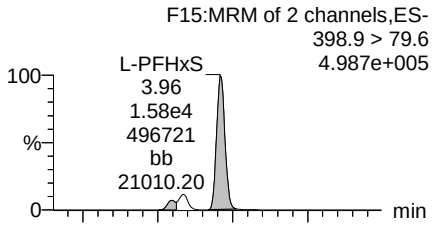


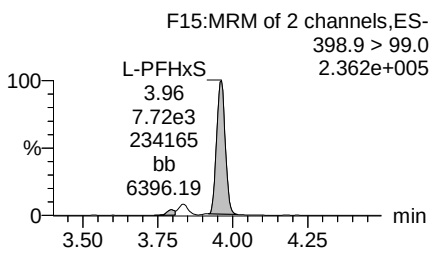
PFHpA



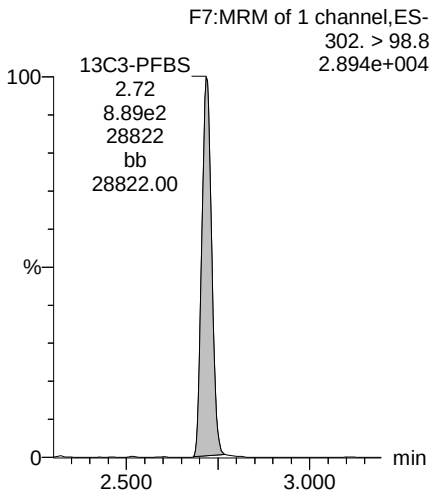


Total PFHxS

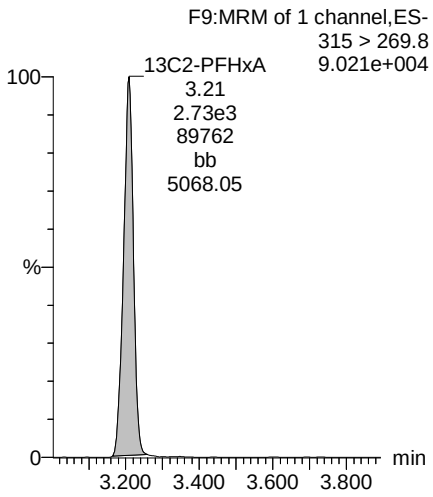




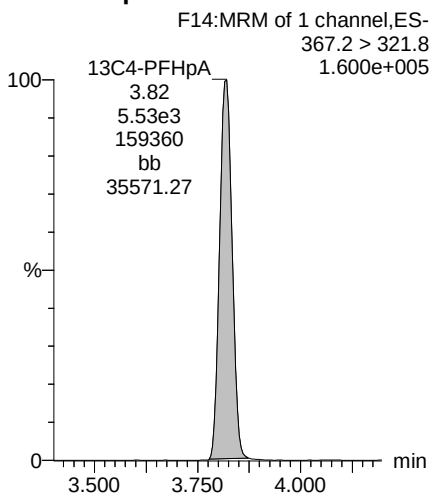
13C3-PFBS



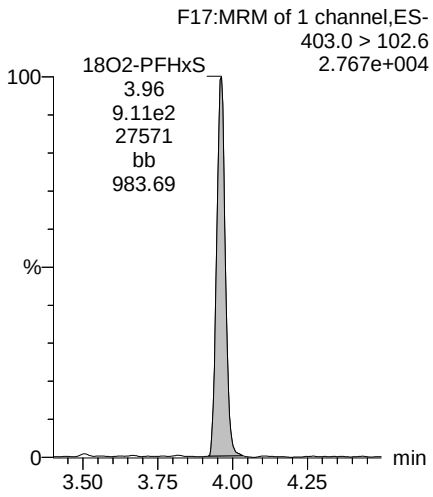
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

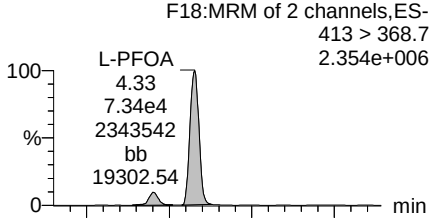


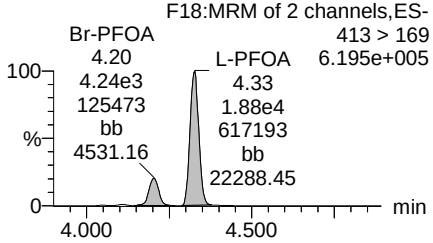
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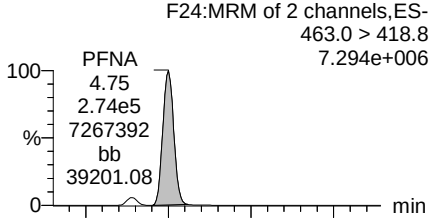
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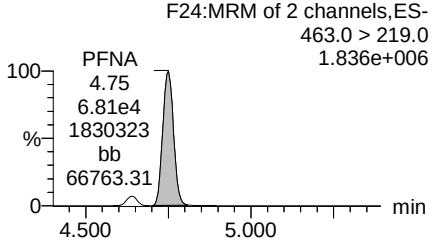
Total PFOA



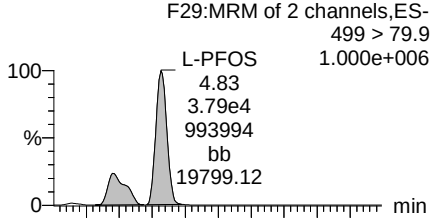


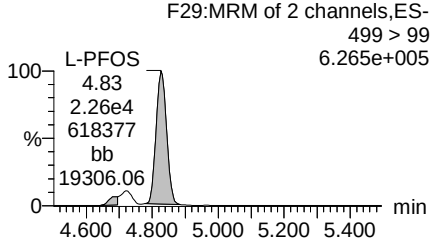
PFNA



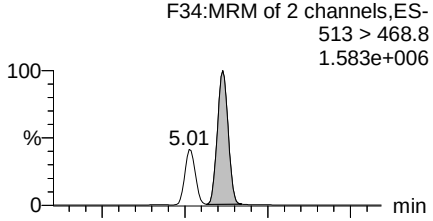


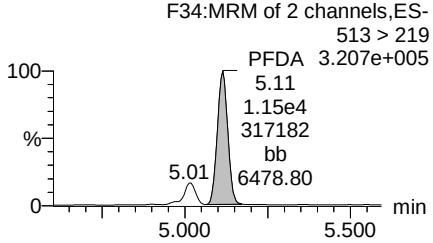
Total PFOS



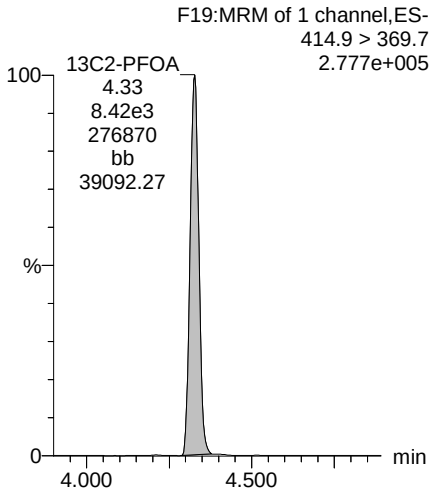


PFDA

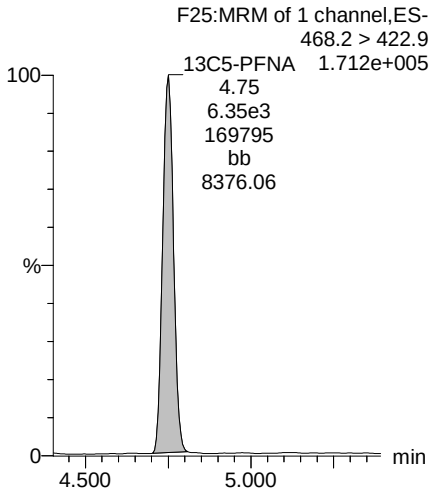




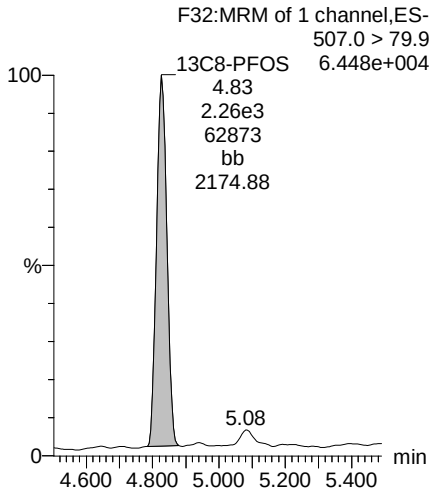
13C2-PFOA



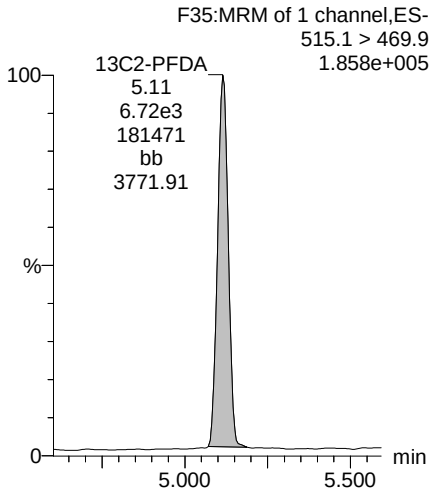
13C5-PFNA



13C8-PFOS



13C2-PFDA

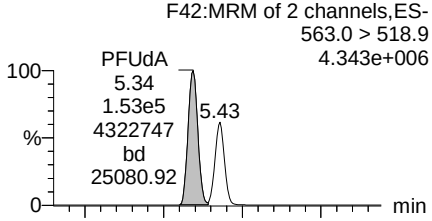


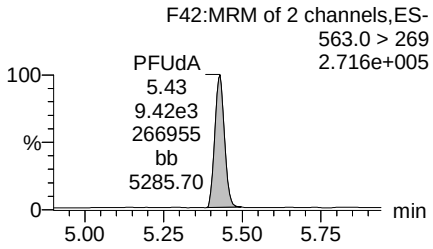
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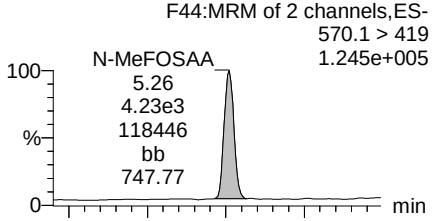
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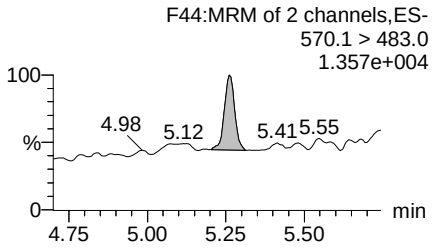
PFUdA



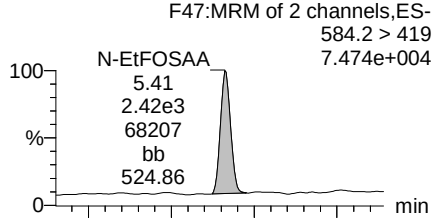


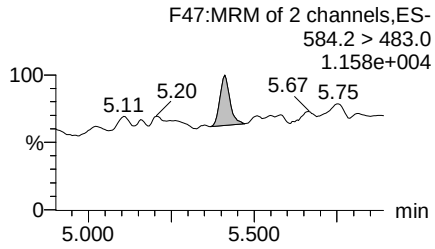
N-MeFOSAA



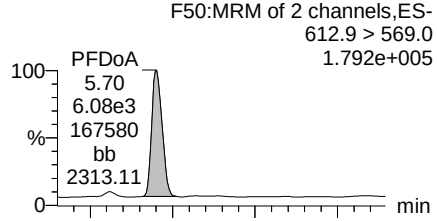


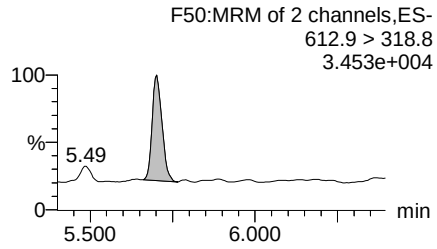
N-EtFOSAA



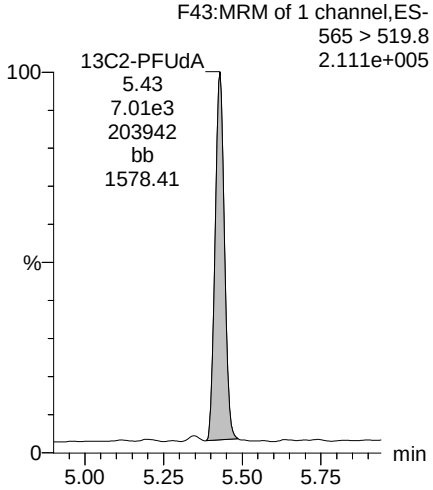


PFDoA

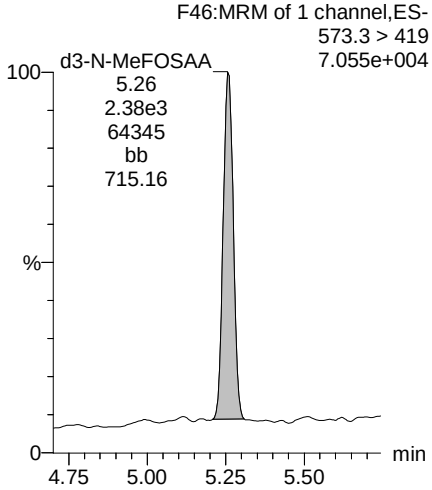




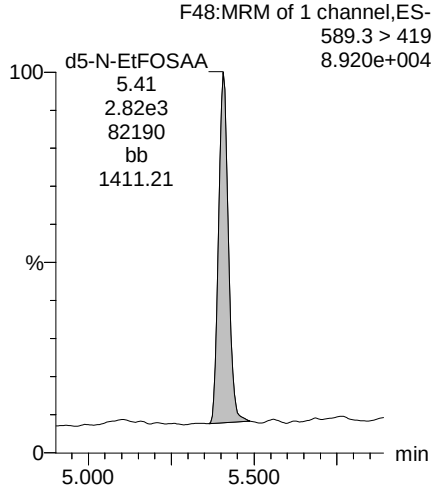
13C2-PFUdA



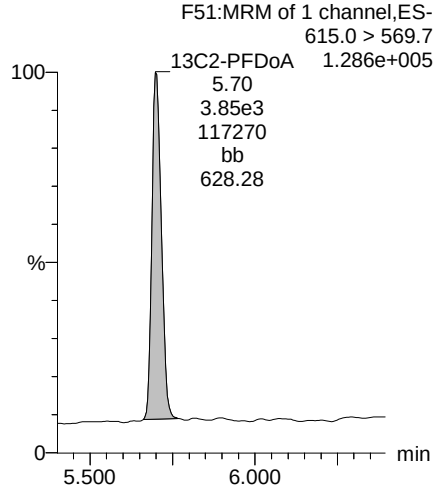
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

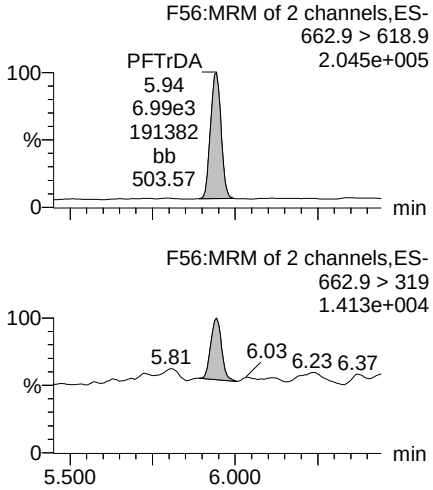


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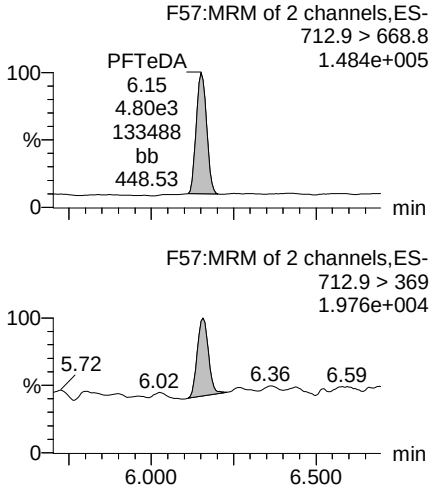
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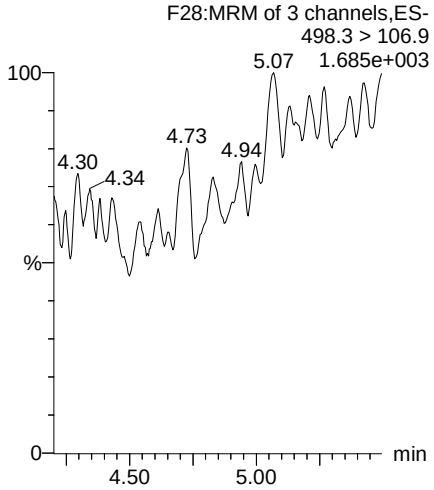
PFTrDA



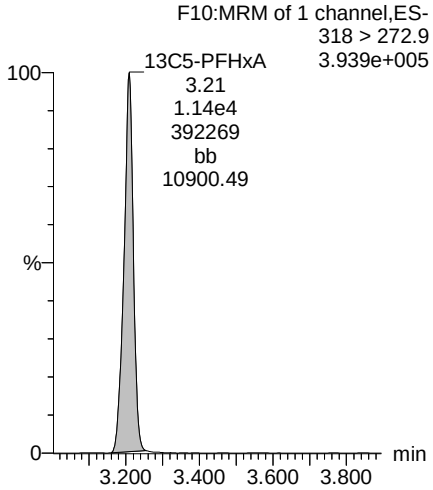
PFTeDA



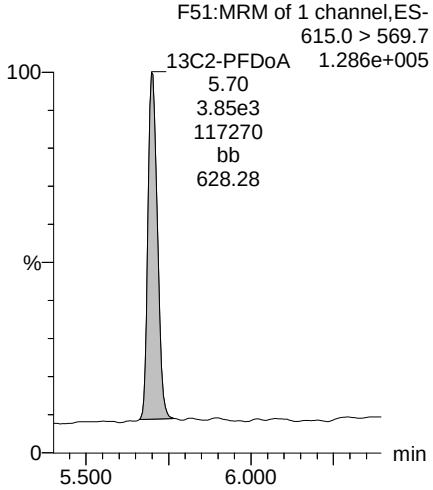
TCDA



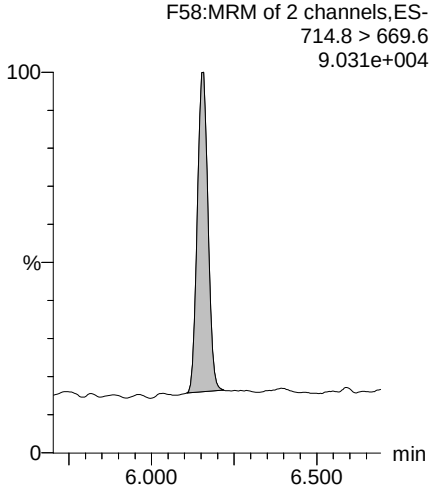
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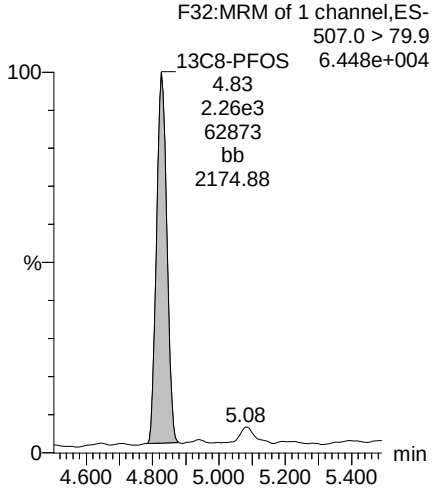
13C2-PFDoA



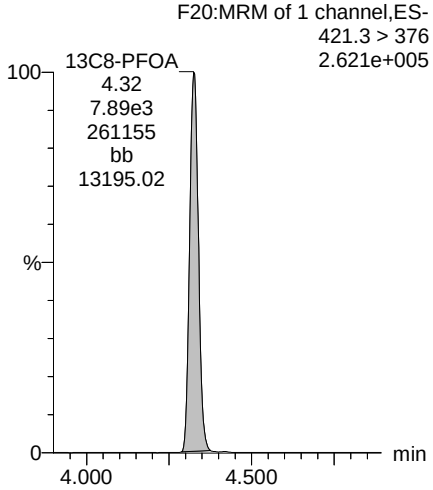
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

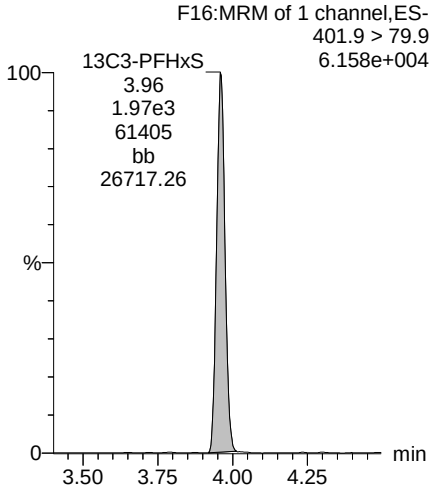


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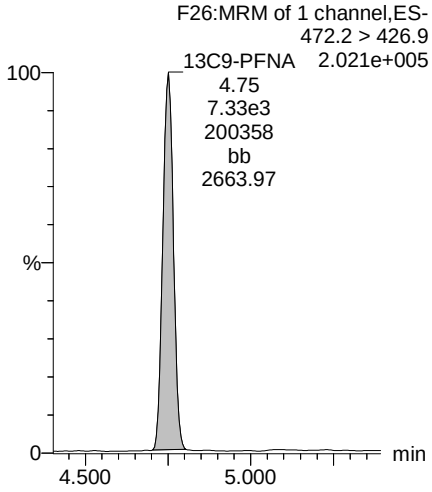
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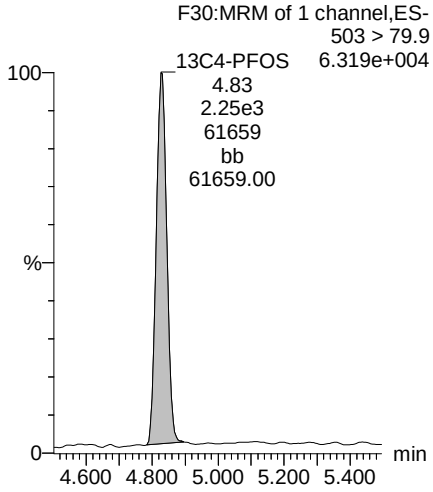
13C3-PFHxS



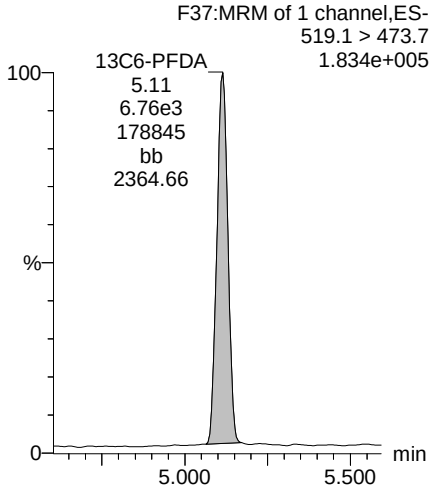
13C9-PFNA



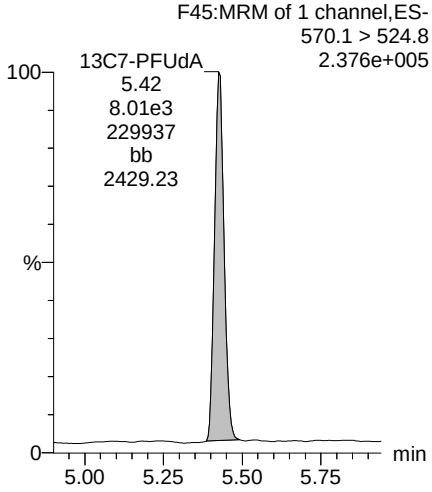
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_47.qld

Last Altered: Friday, December 29, 2017 14:39:43 Pacific Standard Time
Printed: Friday, December 29, 2017 14:40:17 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_47, Date: 25-Dec-2017, Time: 08:55:30, ID: 1701829-05 FT-MW01S-20171130 0.25312, Description: FT-MW01S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.09e3	0.253		2.70				
2	4	PFHxA	313.2 > 268.9		2.79e3	0.253		3.20				
3	5	PFHpA	363.0 > 318.9		5.60e3	0.253		3.80				
4	6	L-PFHxS	398.9 > 79.6		8.90e2	0.253		3.95				
5	9	L-PFOA	413 > 368.7	2.98e2	7.86e3	0.253		4.32	4.34	0.474	1.0259	
6	12	PFNA	463.0 > 418.8		5.09e3	0.253		4.75				
7	14	L-PFOS	499 > 79.9		1.84e3	0.253		4.83				
8	16	PFDA	513 > 468.8		6.34e3	0.253		5.11				
9	18	N-MeFOSAA	570.1 > 419		2.24e3	0.253		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.16e3	0.253		5.42				
11	20	PFUdA	563.0 > 518.9		6.79e3	0.253		5.43				
12	22	PFDoA	612.9 > 569.0		3.17e3	0.253		5.70				

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_47.qld

Last Altered: Friday, December 29, 2017 14:39:43 Pacific Standard Time
Printed: Friday, December 29, 2017 14:40:33 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_47, Date: 25-Dec-2017, Time: 08:55:30, ID: 1701829-05 FT-MW01S-20171130 0.25312, Description: FT-MW01S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	9.07e2	4.13e3	0.253		5.95	6.08	2.74	4.8813	
2	25	PFTeDA	712.9 > 668.8	9.73e2	4.13e3	0.253		6.16	6.02	2.94	5.6122	
3	33	13C3-PFBS	302. > 98.8	1.09e3	9.80e3	0.253	0.101	2.70	2.73	1.40	54.5771	110.5
4	34	13C2-PFHxA	315 > 269.8	2.79e3	9.80e3	0.253	0.758	3.20	3.21	3.56	18.5638	94.0
5	35	13C4-PFHpA	367.2 > 321.8	5.60e3	9.80e3	0.253	0.562	3.80	3.82	7.15	50.2063	101.7
6	36	18O2-PFHxS	403.0 > 102.6	8.90e2	2.12e3	0.253	0.435	3.95	3.96	5.24	47.6382	96.5
7	37	13C2-6:2 FTS	429.1 > 408.9	2.08e3	6.46e3	0.253	0.393	4.26	4.28	4.03	40.5468	82.1
8	38	13C2-PFOA	414.9 > 369.7	7.86e3	6.46e3	0.253	1.252	4.32	4.33	15.2	47.9957	97.2
9	39	13C5-PFNA	468.2 > 422.9	5.09e3	8.20e3	0.253	0.962	4.75	4.76	7.76	31.8580	64.5
10	40	13C8-PFOSA	506.1 > 77.7	1.50e3	8.51e3	0.253	0.345	4.81	4.82	2.21	25.2839	51.2
11	41	13C8-PFOS	507.0 > 79.9	1.84e3	2.50e3	0.253	1.003	4.83	4.83	9.17	36.1084	73.1
12	42	13C2-PFDA	515.1 > 469.9	6.34e3	5.48e3	0.253	1.194	5.11	5.11	14.5	47.8180	96.8
13	43	13C2-8:2 FTS	529.1 > 508.7	9.09e2	9.80e3	0.253	0.150	5.09	5.09	1.16	30.5327	61.8
14	44	d3-N-MeFOSAA	573.3 > 419	2.24e3	8.51e3	0.253	0.372	5.26	5.26	3.29	34.9372	70.7
15	45	d5-N-EtFOSAA	589.3 > 419	2.16e3	8.51e3	0.253	0.444	5.42	5.41	3.18	28.2875	57.3
16	46	13C2-PFUdA	565 > 519.8	6.79e3	8.51e3	0.253	1.091	5.43	5.43	9.98	36.1392	73.2
17	47	13C2-PFDoA	615.0 > 569.7	3.17e3	8.51e3	0.253	0.629	5.70	5.70	4.66	29.2680	59.3
18	49	13C2-PFTeDA	714.8 > 669.6	4.13e3	8.51e3	0.253	0.551	6.16	6.16	6.07	43.5729	88.2
19	55	13C5-PFHxA	318 > 272.9	9.80e3	9.80e3	0.253	1.000	3.20	3.21	12.5	49.3837	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.12e3	2.12e3	0.253	1.000	3.95	3.97	12.5	49.3837	100.0
21	57	13C8-PFOA	421.3 > 376	6.46e3	6.46e3	0.253	1.000	4.32	4.33	12.5	49.3837	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.20e3	8.20e3	0.253	1.000	4.75	4.75	12.5	49.3837	100.0
23	59	13C4-PFOS	503 > 79.9	2.50e3	2.50e3	0.253	1.000	4.83	4.83	12.5	49.3837	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.48e3	5.48e3	0.253	1.000	5.11	5.11	12.5	49.3837	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.51e3	8.51e3	0.253	1.000	5.43	5.43	12.5	49.3837	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	8.90e2	0.253		4.00		0.000		
27	63	Total PFOA	413 > 368.7	3.76e2	7.86e3	0.253		4.30		0.474	1.0259	
28	64	Total PFOS	499 > 79.9	0.00e0	1.84e3	0.253		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.24e3	0.253		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.16e3	0.253		5.40		0.000		

Vista Analytical Laboratory

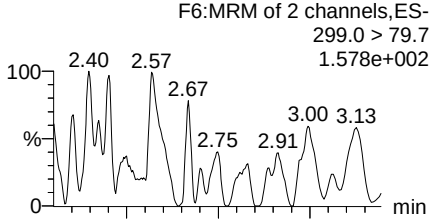
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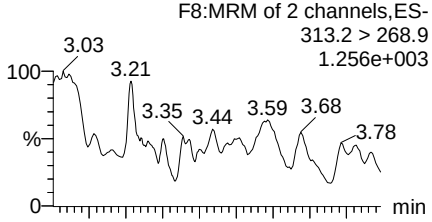
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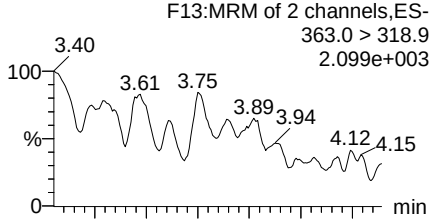
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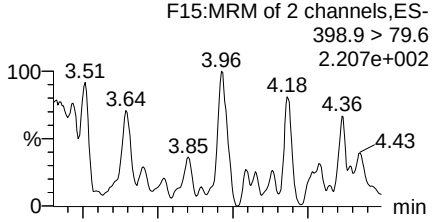
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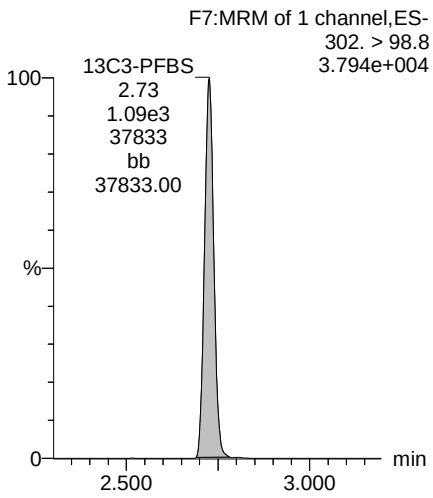
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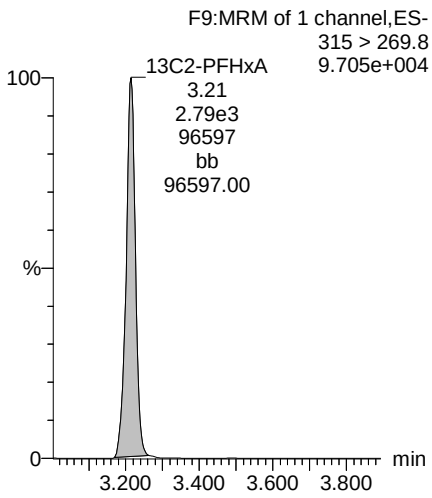
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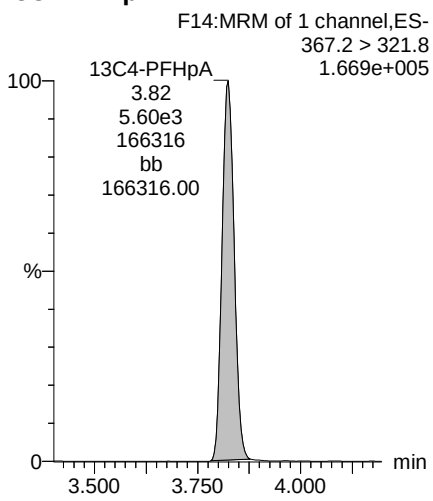
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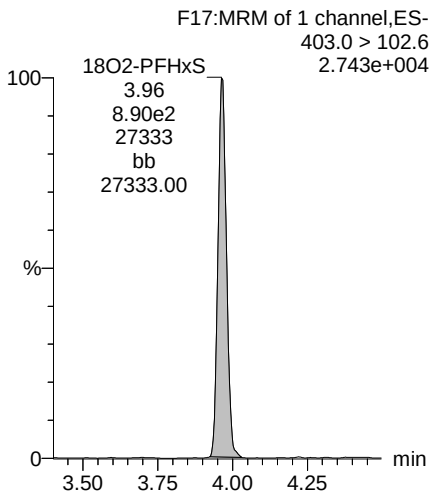
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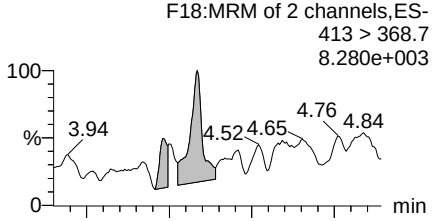


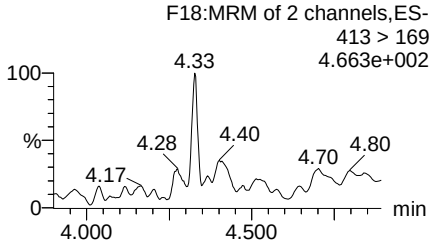
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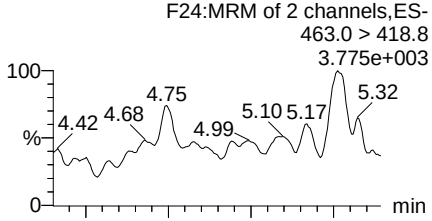
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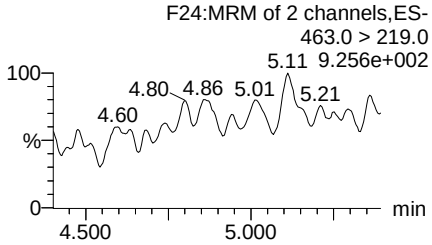
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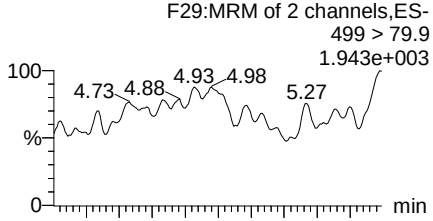


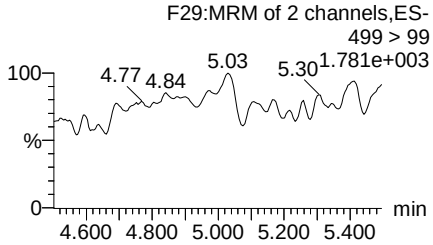
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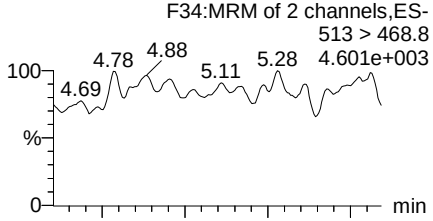


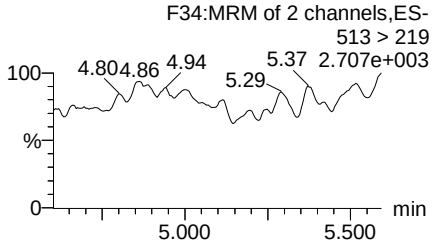
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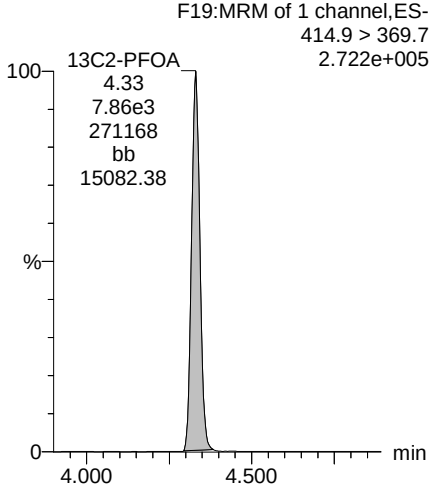


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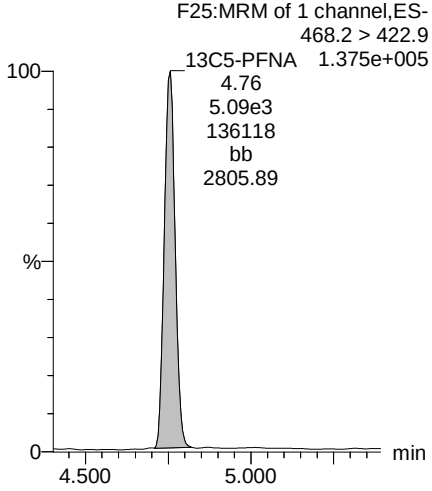




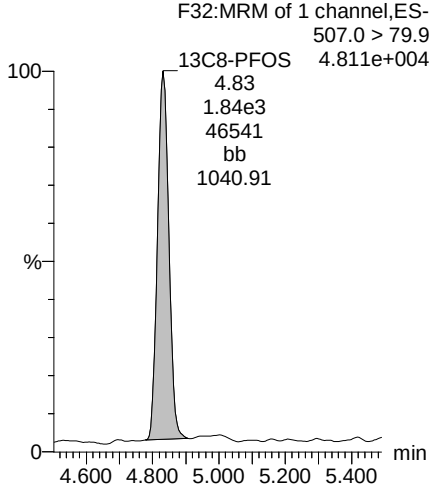
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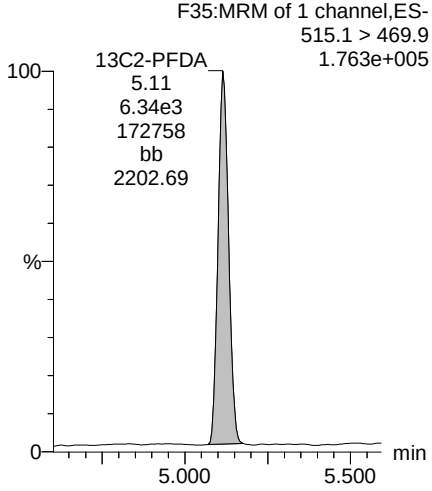
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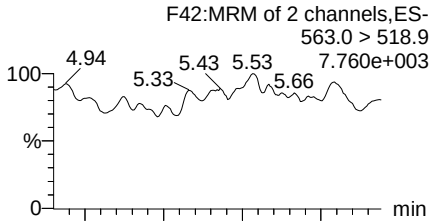


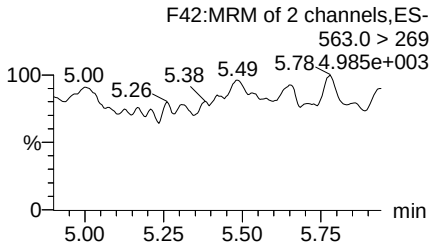
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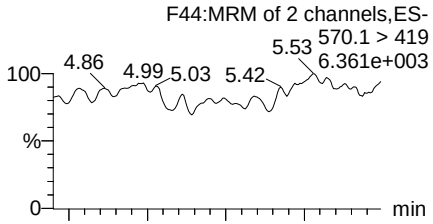
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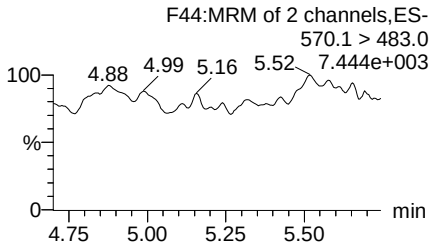
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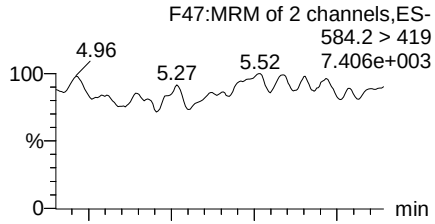


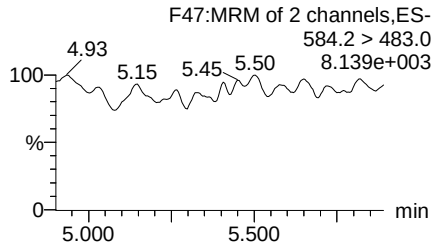
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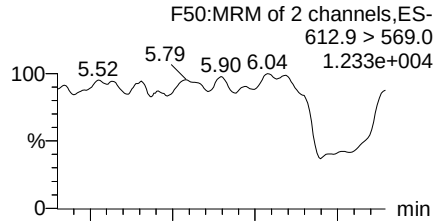


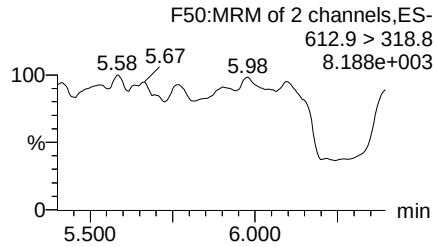
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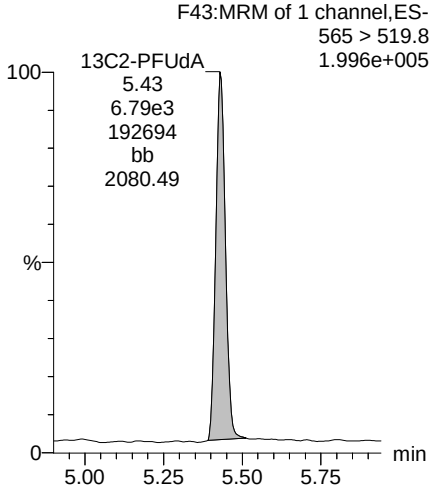


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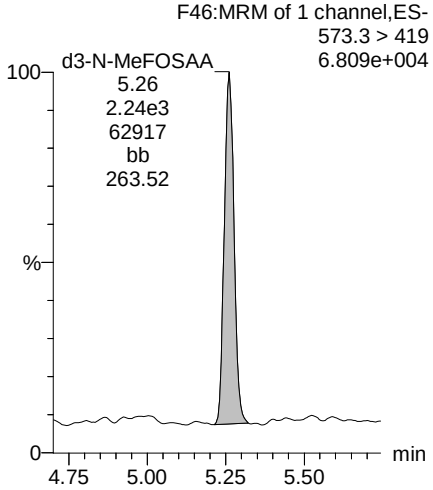




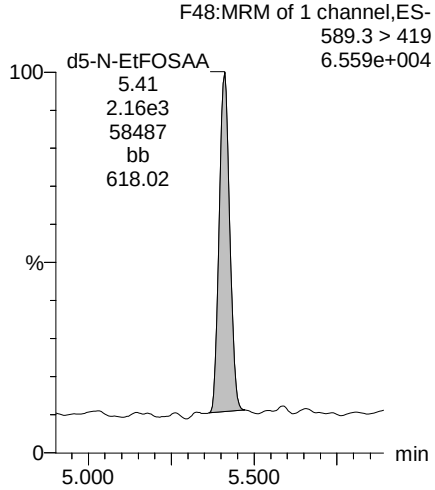
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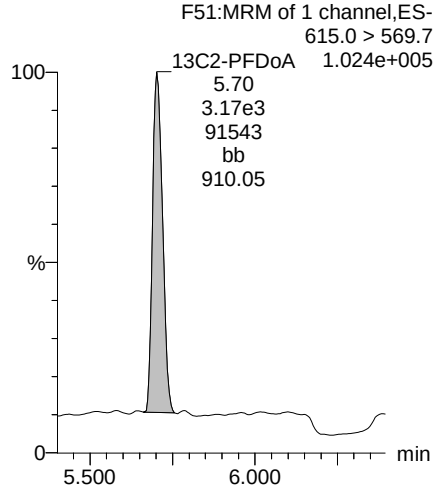
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d5-N-EtFOSAA



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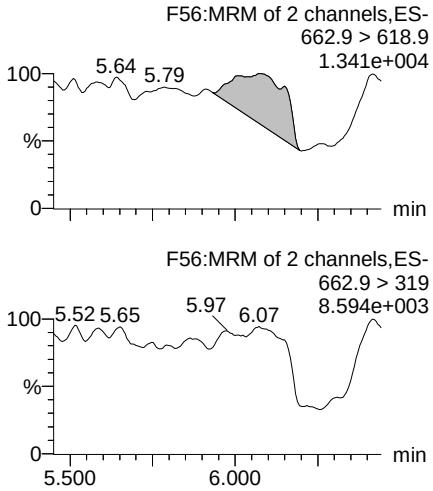


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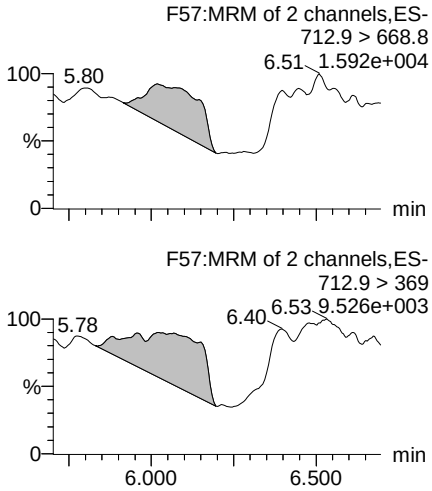
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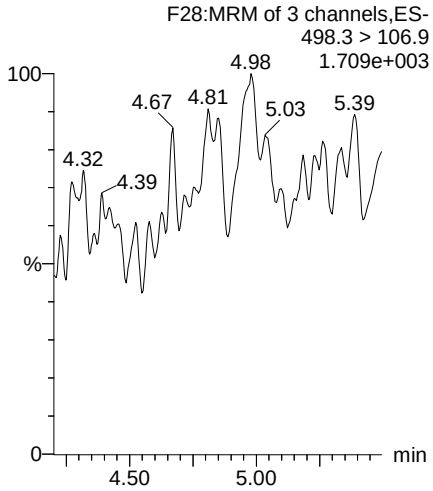
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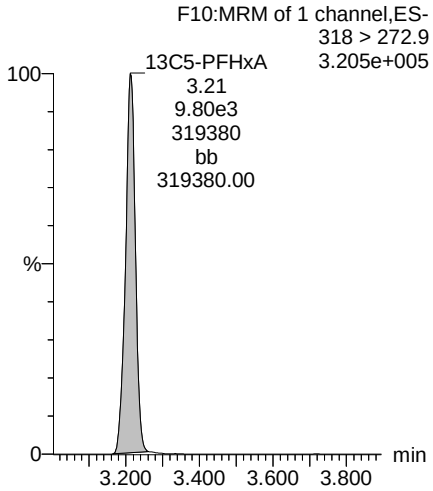
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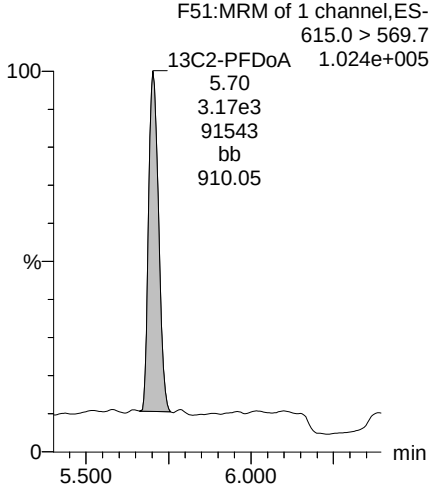
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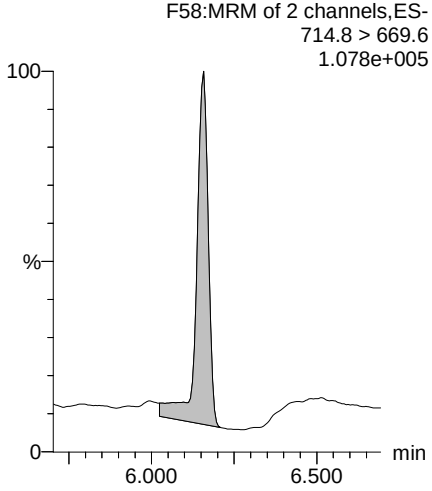
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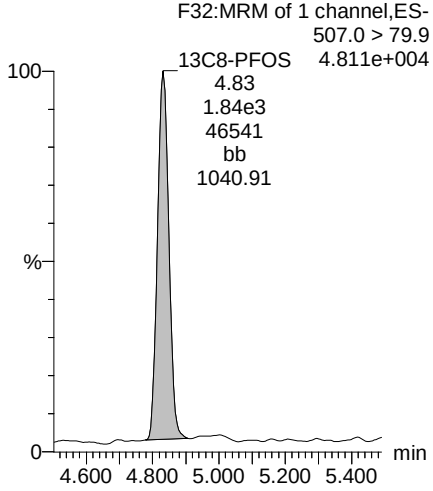
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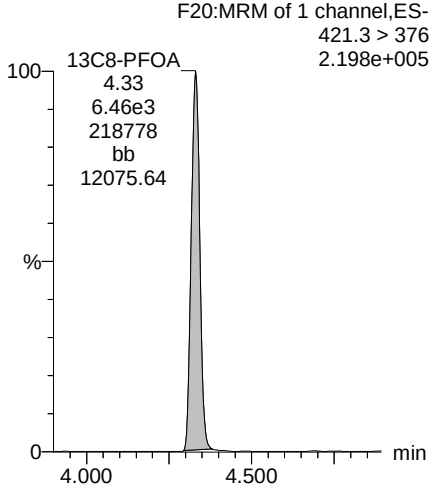
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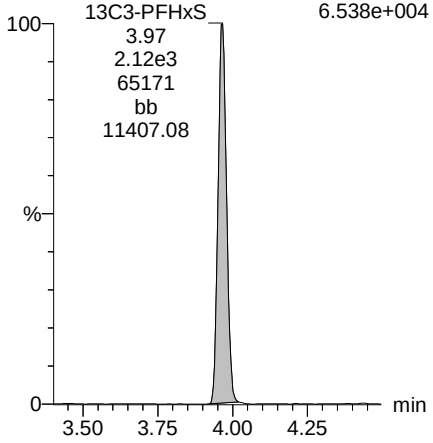


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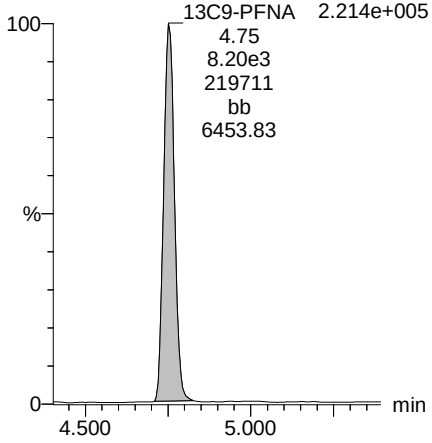
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Name: 171224M2_47, Date: 25-Dec-2017, Time: 08:55:30, ID: 1701829-05 FT-MW01S-20171130 0.25312, Description: FT-MW01S-20171130

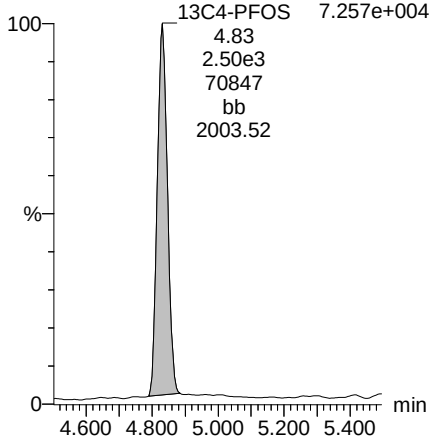
13C3-PFHxS



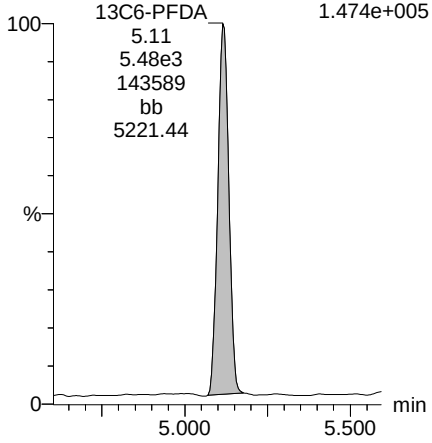
13C9-PFNA



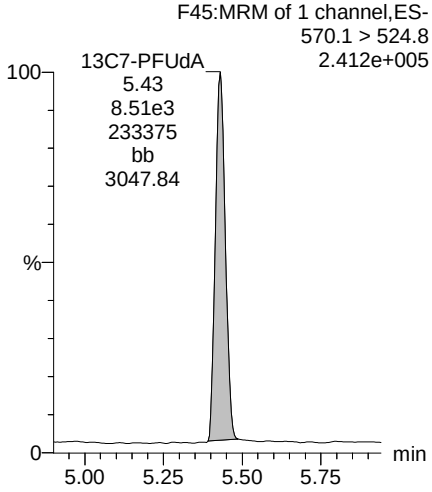
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_39.qld

Last Altered: Friday, December 29, 2017 14:31:55 Pacific Standard Time
Printed: Friday, December 29, 2017 14:32:23 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_39, Date: 25-Dec-2017, Time: 07:26:05, ID: B7L0073-MS2 Matrix Spike 0.2584, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.12e3	1.10e3	0.258		2.70	2.72	24.1	41.8002	
2	4	PFHxA	313.2 > 268.9	1.01e4	3.25e3	0.258		3.20	3.21	15.6	41.6205	
3	5	PFHpA	363.0 > 318.9	7.24e3	6.21e3	0.258		3.80	3.82	14.6	36.9977	
4	6	L-PFHxS	398.9 > 79.6	1.41e3	1.06e3	0.258		3.95	3.96	16.6	29.1063	
5	9	L-PFOA	413 > 368.7	7.67e3	9.73e3	0.258		4.32	4.32	9.86	36.4261	
6	12	PFNA	463.0 > 418.8	8.98e3	7.75e3	0.258		4.75	4.75	14.5	37.5122	
7	14	L-PFOS	499 > 79.9	1.81e3	2.44e3	0.258		4.83	4.83	9.26	33.3069	
8	16	PFDA	513 > 468.8	7.03e3	7.42e3	0.258		5.11	5.11	11.8	35.1533	
9	18	N-MeFOSAA	570.1 > 419	3.75e3	2.41e3	0.258		5.26	5.26	19.4	36.8030	
10	19	N-EtFOSAA	584.2 > 419	2.37e3	2.22e3	0.258		5.42	5.41	13.3	47.5023	
11	20	PFUdA	563.0 > 518.9	5.90e3	6.62e3	0.258		5.43	5.43	11.1	35.9053	
12	22	PFDoA	612.9 > 569.0	7.46e3	3.52e3	0.258		5.70	5.70	26.5	42.1630	

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_39.qld

Last Altered: Friday, December 29, 2017 14:31:55 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
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Name: 171224M2_39, Date: 25-Dec-2017, Time: 07:26:05, ID: B7L0073-MS2 Matrix Spike 0.2584, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	5.98e3	3.02e3	0.258		5.95	5.94	24.7	36.9057	
2	25	PFTeDA	712.9 > 668.8	3.67e3	3.02e3	0.258		6.16	6.15	15.2	29.3424	
3	33	13C3-PFBS	302. > 98.8	1.10e3	1.19e4	0.258	0.101	2.70	2.72	1.16	44.2880	91.6
4	34	13C2-PFHxA	315 > 269.8	3.25e3	1.19e4	0.258	0.758	3.20	3.21	3.42	17.4807	90.3
5	35	13C4-PFHpA	367.2 > 321.8	6.21e3	1.19e4	0.258	0.562	3.80	3.82	6.54	45.0422	93.1
6	36	18O2-PFHxS	403.0 > 102.6	1.06e3	2.26e3	0.258	0.435	3.95	3.96	5.88	52.3457	108.2
7	37	13C2-6:2 FTS	429.1 > 408.9	2.26e3	8.90e3	0.258	0.393	4.26	4.27	3.18	31.3187	64.7
8	38	13C2-PFOA	414.9 > 369.7	9.73e3	8.90e3	0.258	1.252	4.32	4.32	13.7	42.2337	87.3
9	39	13C5-PFNA	468.2 > 422.9	7.75e3	1.00e4	0.258	0.962	4.75	4.75	9.66	38.8258	80.3
10	40	13C8-PFOSA	506.1 > 77.7	1.93e3	8.67e3	0.258	0.345	4.81	4.81	2.78	31.2695	64.6
11	41	13C8-PFOS	507.0 > 79.9	2.44e3	3.04e3	0.258	1.003	4.83	4.83	10.0	38.7239	80.1
12	42	13C2-PFDA	515.1 > 469.9	7.42e3	7.47e3	0.258	1.194	5.11	5.11	12.4	40.2848	83.3
13	43	13C2-8:2 FTS	529.1 > 508.7	1.35e3	1.19e4	0.258	0.150	5.09	5.09	1.42	36.6869	75.8
14	44	d3-N-MeFOSAA	573.3 > 419	2.41e3	8.67e3	0.258	0.372	5.26	5.26	3.48	36.1615	74.8
15	45	d5-N-EtFOSAA	589.3 > 419	2.22e3	8.67e3	0.258	0.444	5.42	5.41	3.21	27.9749	57.8
16	46	13C2-PFUdA	565 > 519.8	6.62e3	8.67e3	0.258	1.091	5.43	5.43	9.54	33.8708	70.0
17	47	13C2-PFDoA	615.0 > 569.7	3.52e3	8.67e3	0.258	0.629	5.70	5.70	5.08	31.2145	64.5
18	49	13C2-PFTeDA	714.8 > 669.6	3.02e3	8.67e3	0.258	0.551	6.16	6.16	4.36	30.6463	63.4
19	55	13C5-PFHxA	318 > 272.9	1.19e4	1.19e4	0.258	1.000	3.20	3.21	12.5	48.3746	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.26e3	2.26e3	0.258	1.000	3.95	3.96	12.5	48.3746	100.0
21	57	13C8-PFOA	421.3 > 376	8.90e3	8.90e3	0.258	1.000	4.32	4.33	12.5	48.3746	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.00e4	1.00e4	0.258	1.000	4.75	4.75	12.5	48.3746	100.0
23	59	13C4-PFOS	503 > 79.9	3.04e3	3.04e3	0.258	1.000	4.83	4.83	12.5	48.3746	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.47e3	7.47e3	0.258	1.000	5.11	5.11	12.5	48.3746	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.67e3	8.67e3	0.258	1.000	5.43	5.43	12.5	48.3746	100.0
26	62	Total PFHxS	398.9 > 79.6	1.53e3	1.06e3	0.258		4.00		17.9	31.4868	
27	63	Total PFOA	413 > 368.7	7.67e3	9.73e3	0.258		4.30		9.86	36.4261	
28	64	Total PFOS	499 > 79.9	2.06e3	2.44e3	0.258		4.80		10.5	37.8693	
29	65	Total N-MeFOSAA	570.1 > 419	3.75e3	2.41e3	0.258		5.20		19.4	36.8030	
30	66	Total N-EtFOSAA	584.2 > 419	2.37e3	2.22e3	0.258		5.40		13.3	47.5023	

Vista Analytical Laboratory

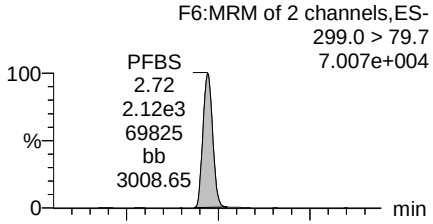
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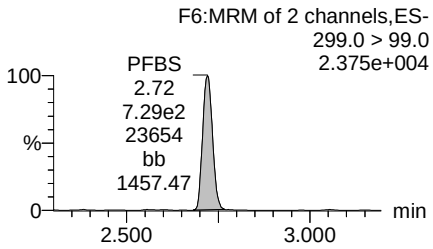
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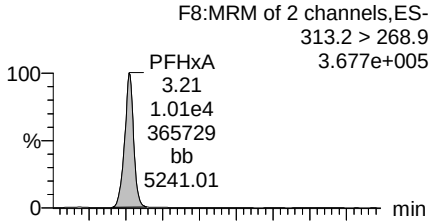
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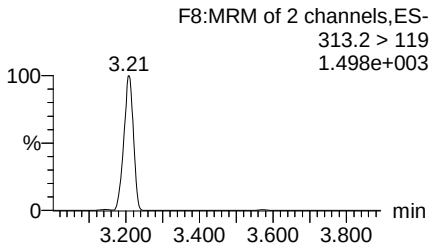
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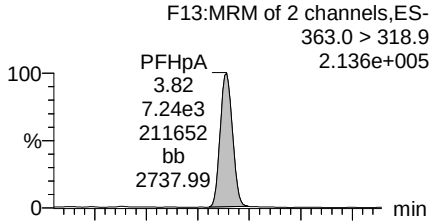


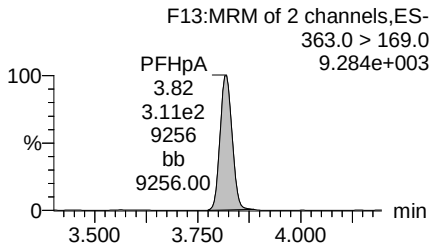
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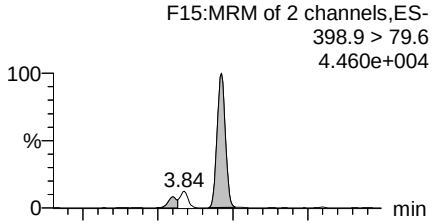


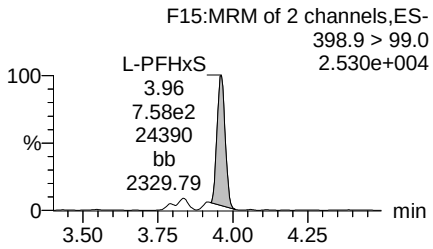
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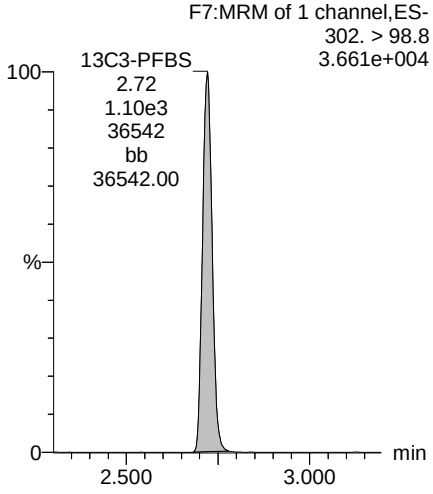


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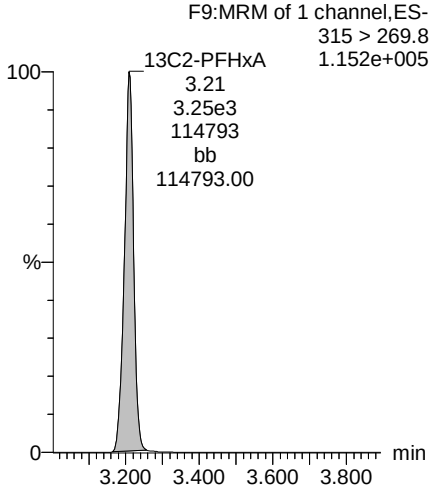




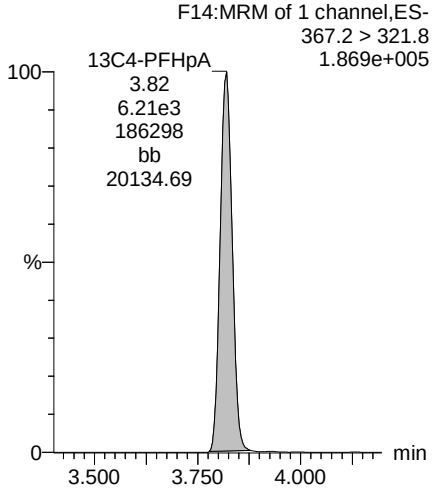
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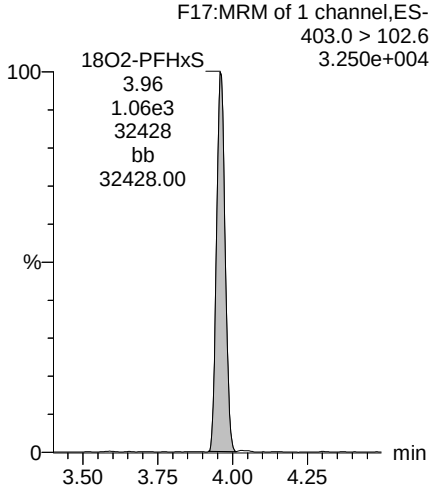
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13C4-PFHpA



18O2-PFHxS

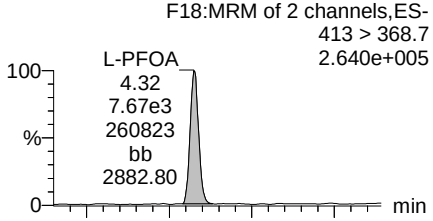


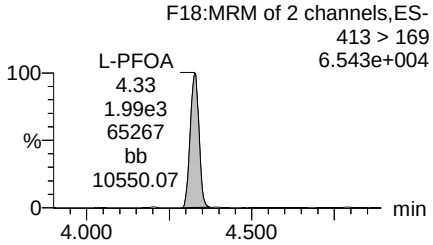
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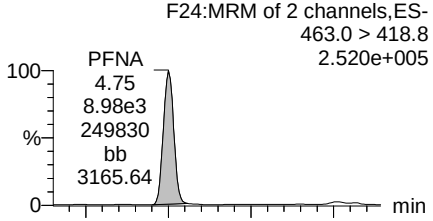
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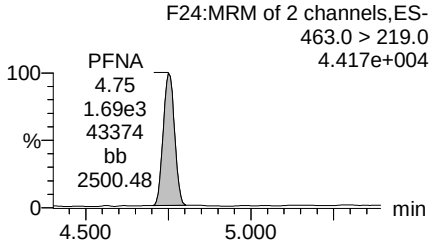
Total PFOA



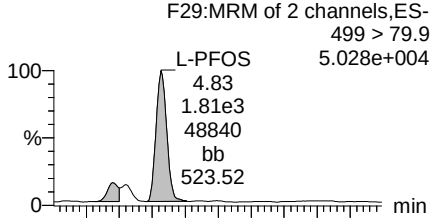


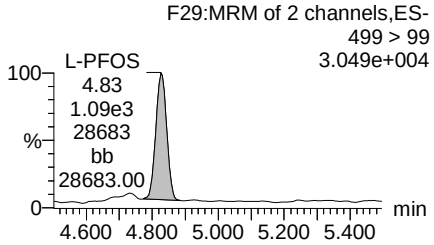
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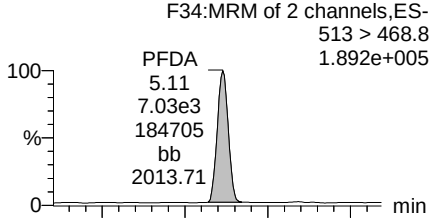


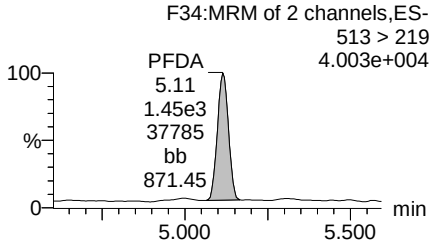
Total PFOS



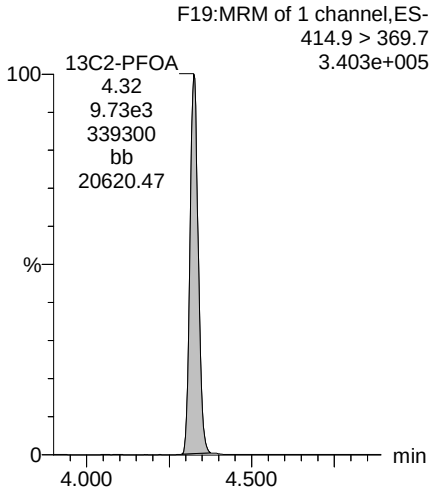


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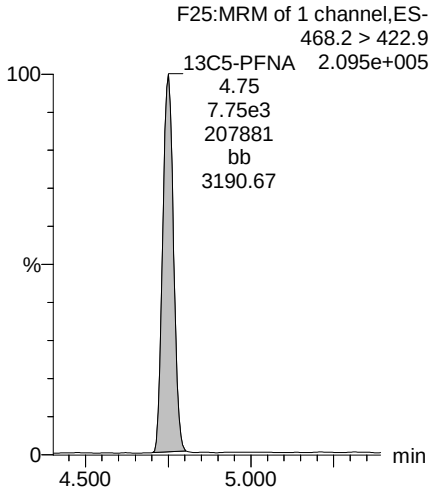




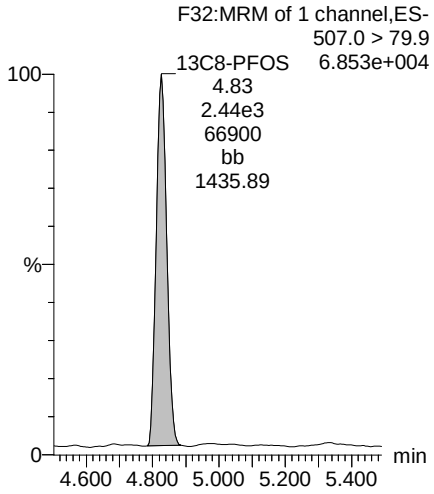
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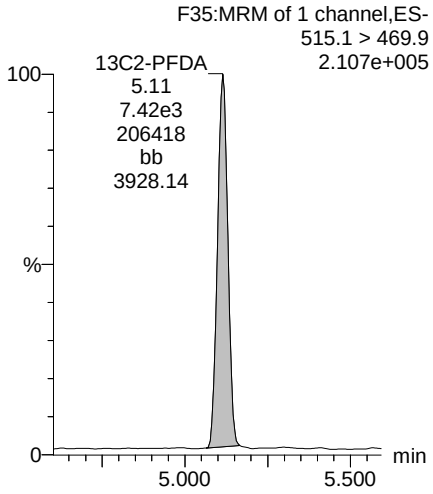
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13C8-PFOS



13C2-PFDA

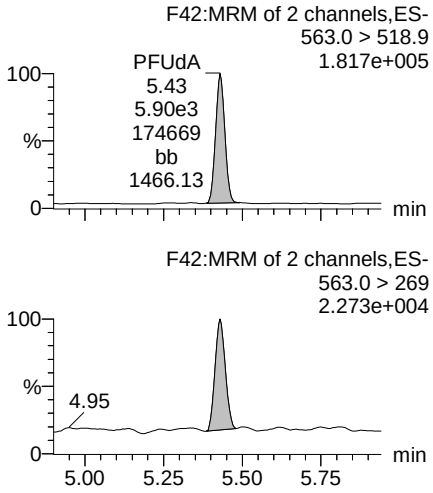


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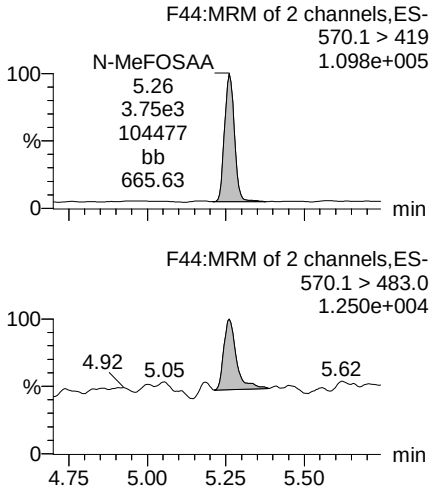
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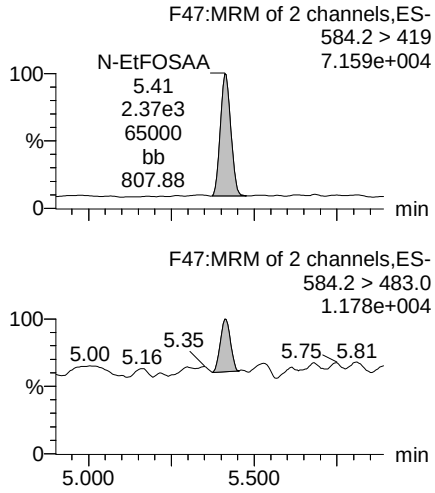
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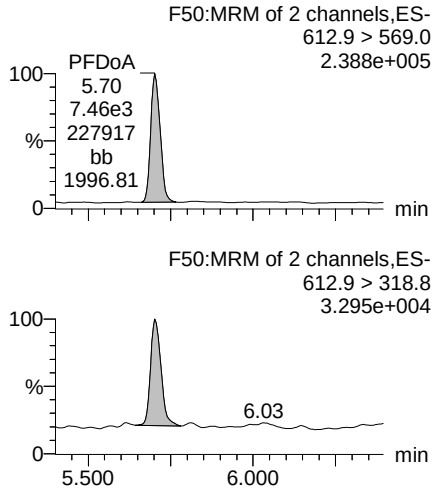
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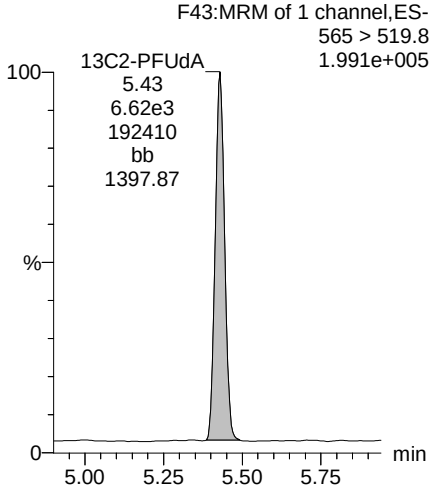
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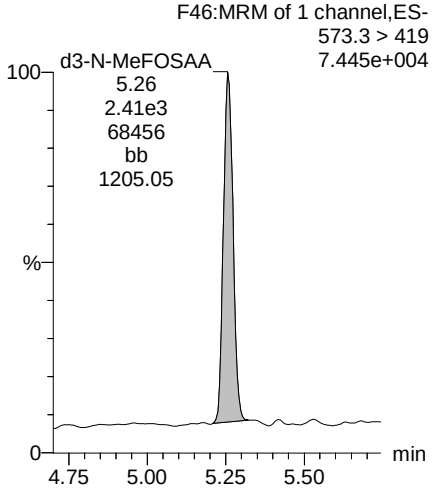
PFDoA



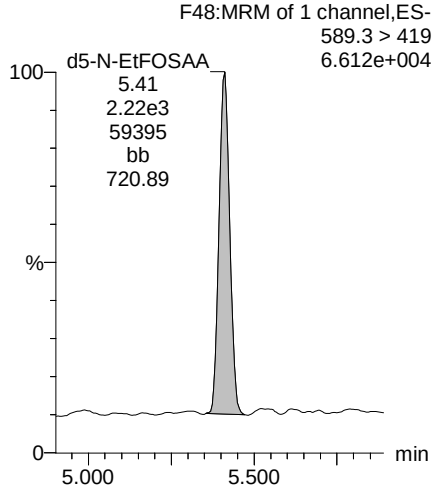
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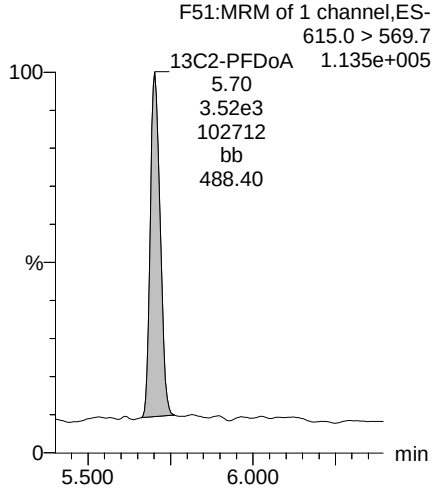
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

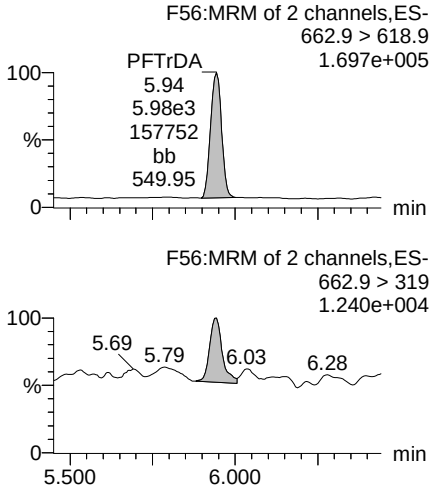


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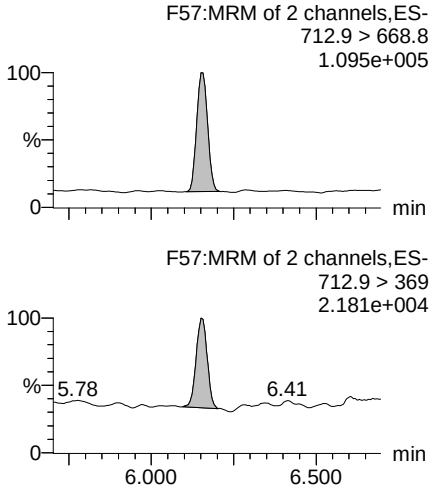
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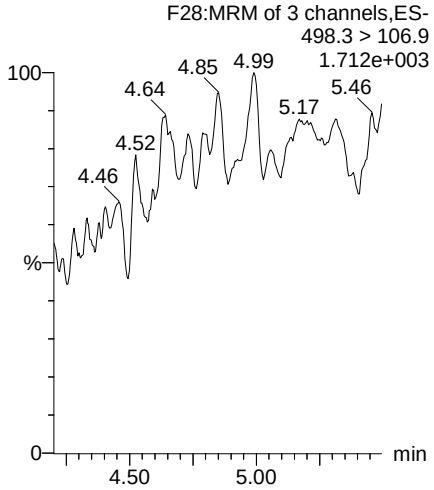
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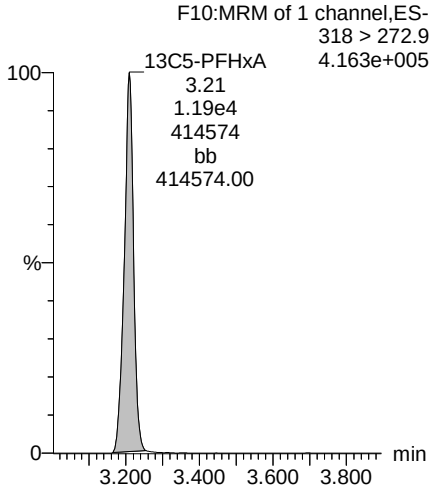
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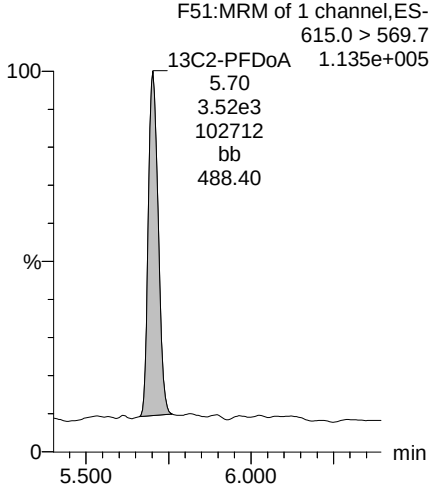
TCDA



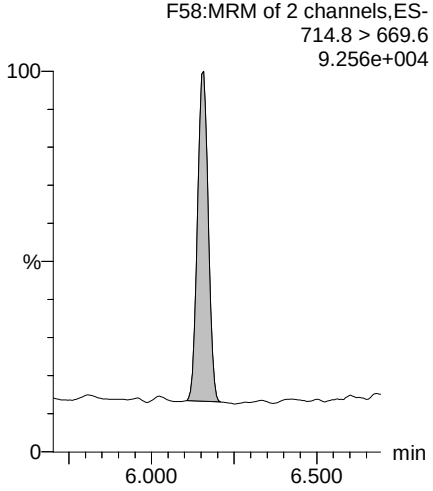
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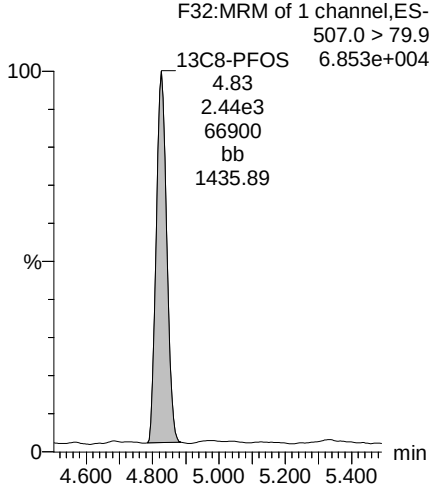
13C2-PFDoA



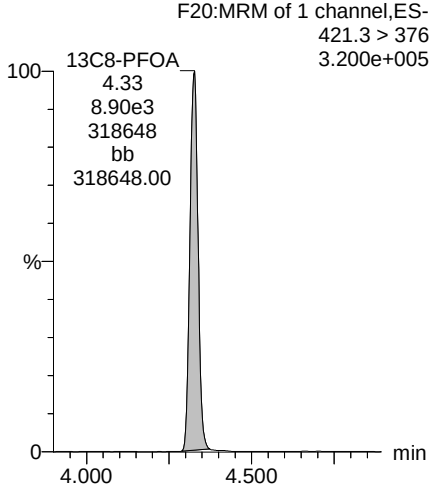
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13C8-PFOS



13C8-PFOA

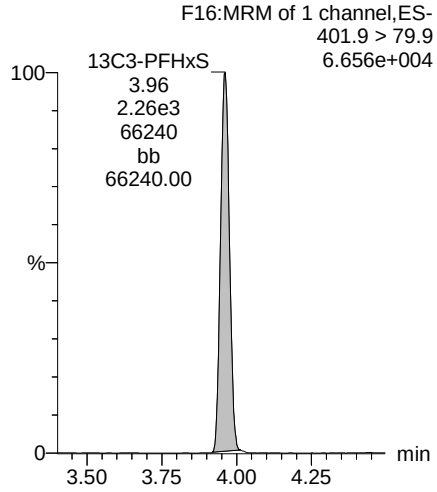


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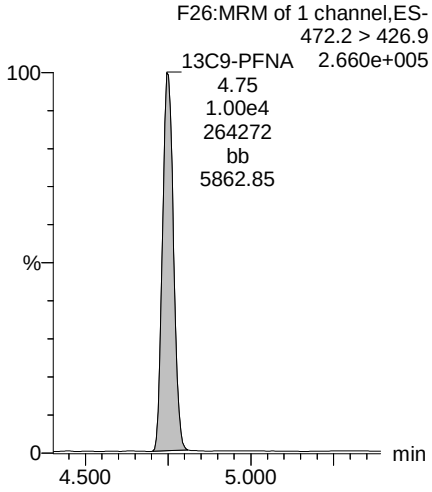
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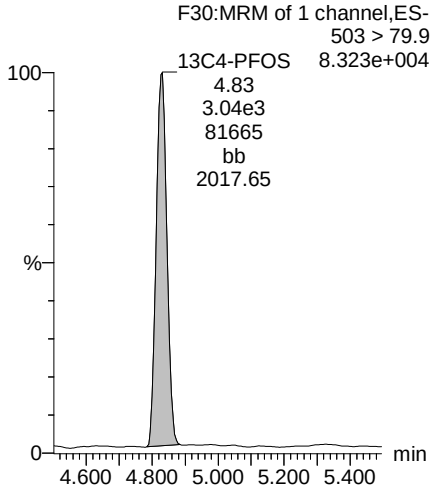
13C3-PFHxS



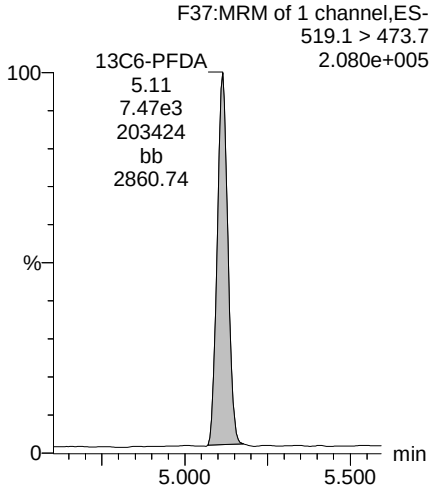
13C9-PFNA



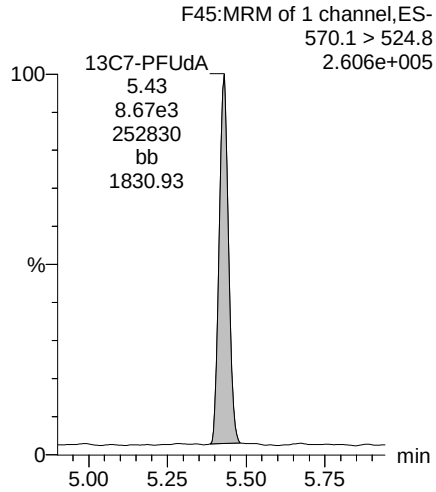
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_38, Date: 25-Dec-2017, Time: 07:14:54, ID: B7L0073-MSD2 Matrix Spike Dup 0.25853, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	1.84e3	1.05e3	0.259		2.70	2.72	21.9	37.9234	
2	4	PFHxA	313.2 > 268.9	9.15e3	2.93e3	0.259		3.20	3.21	15.6	41.7175	
3	5	PFHpA	363.0 > 318.9	6.37e3	5.81e3	0.259		3.80	3.82	13.7	34.7920	
4	6	L-PFHxS	398.9 > 79.6	1.23e3	1.02e3	0.259		3.95	3.96	15.1	26.4544	
5	9	L-PFOA	413 > 368.7	7.54e3	8.11e3	0.259		4.32	4.33	11.6	43.0553	
6	12	PFNA	463.0 > 418.8	7.81e3	5.51e3	0.259		4.75	4.75	17.7	45.7820	
7	14	L-PFOS	499 > 79.9	1.49e3	2.10e3	0.259		4.83	4.83	8.87	31.8701	
8	16	PFDA	513 > 468.8	7.16e3	6.97e3	0.259		5.11	5.11	12.9	38.1836	
9	18	N-MeFOSAA	570.1 > 419	3.31e3	1.95e3	0.259		5.26	5.26	21.2	40.1218	
10	19	N-EtFOSAA	584.2 > 419	2.49e3	2.09e3	0.259		5.42	5.42	14.9	53.0088	
11	20	PFUdA	563.0 > 518.9	5.90e3	6.35e3	0.259		5.43	5.43	11.6	37.4163	
12	22	PFDoA	612.9 > 569.0	6.41e3	3.67e3	0.259		5.70	5.70	21.8	34.4599	

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Dataset: U:\Q4.PRO\results\171224M2\171224m2_38.qld

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Name: 171224M2_38, Date: 25-Dec-2017, Time: 07:14:54, ID: B7L0073-MSD2 Matrix Spike Dup 0.25853, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	6.66e3	2.36e3	0.259		5.95	5.94	35.2	52.2803	
2	25	PFTeDA	712.9 > 668.8	5.04e3	2.36e3	0.259		6.16	6.15	26.7	51.6236	
3	33	13C3-PFBS	302. > 98.8	1.05e3	1.06e4	0.259	0.101	2.70	2.72	1.24	47.6071	98.5
4	34	13C2-PFHxA	315 > 269.8	2.93e3	1.06e4	0.259	0.758	3.20	3.21	3.46	17.6580	91.3
5	35	13C4-PFHpA	367.2 > 321.8	5.81e3	1.06e4	0.259	0.562	3.80	3.82	6.86	47.1738	97.6
6	36	18O2-PFHxS	403.0 > 102.6	1.02e3	2.53e3	0.259	0.435	3.95	3.96	5.04	44.8314	92.7
7	37	13C2-6:2 FTS	429.1 > 408.9	1.92e3	8.35e3	0.259	0.393	4.26	4.27	2.88	28.3516	58.6
8	38	13C2-PFOA	414.9 > 369.7	8.11e3	8.35e3	0.259	1.252	4.32	4.33	12.1	37.5145	77.6
9	39	13C5-PFNA	468.2 > 422.9	5.51e3	8.17e3	0.259	0.962	4.75	4.75	8.43	33.8689	70.0
10	40	13C8-PFOSA	506.1 > 77.7	1.64e3	6.89e3	0.259	0.345	4.81	4.81	2.97	33.3811	69.0
11	41	13C8-PFOS	507.0 > 79.9	2.10e3	2.17e3	0.259	1.003	4.83	4.83	12.1	46.6736	96.5
12	42	13C2-PFDA	515.1 > 469.9	6.97e3	7.21e3	0.259	1.194	5.11	5.11	12.1	39.1432	81.0
13	43	13C2-8:2 FTS	529.1 > 508.7	1.39e3	1.06e4	0.259	0.150	5.09	5.09	1.65	42.4511	87.8
14	44	d3-N-MeFOSAA	573.3 > 419	1.95e3	6.89e3	0.259	0.372	5.26	5.26	3.54	36.8083	76.1
15	45	d5-N-EtFOSAA	589.3 > 419	2.09e3	6.89e3	0.259	0.444	5.42	5.41	3.80	33.1021	68.5
16	46	13C2-PFUdA	565 > 519.8	6.35e3	6.89e3	0.259	1.091	5.43	5.43	11.5	40.8381	84.5
17	47	13C2-PFDoA	615.0 > 569.7	3.67e3	6.89e3	0.259	0.629	5.70	5.70	6.65	40.8805	84.6
18	49	13C2-PFTeDA	714.8 > 669.6	2.36e3	6.89e3	0.259	0.551	6.16	6.15	4.28	30.1035	62.3
19	55	13C5-PFHxA	318 > 272.9	1.06e4	1.06e4	0.259	1.000	3.20	3.21	12.5	48.3503	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.53e3	2.53e3	0.259	1.000	3.95	3.96	12.5	48.3503	100.0
21	57	13C8-PFOA	421.3 > 376	8.35e3	8.35e3	0.259	1.000	4.32	4.32	12.5	48.3503	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.17e3	8.17e3	0.259	1.000	4.75	4.75	12.5	48.3503	100.0
23	59	13C4-PFOS	503 > 79.9	2.17e3	2.17e3	0.259	1.000	4.83	4.83	12.5	48.3503	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.21e3	7.21e3	0.259	1.000	5.11	5.11	12.5	48.3503	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.89e3	6.89e3	0.259	1.000	5.43	5.43	12.5	48.3503	100.0
26	62	Total PFHxS	398.9 > 79.6	1.33e3	1.02e3	0.259		4.00		16.3	28.6009	
27	63	Total PFOA	413 > 368.7	7.54e3	8.11e3	0.259		4.30		11.6	43.0553	
28	64	Total PFOS	499 > 79.9	1.71e3	2.10e3	0.259		4.80		10.2	36.6100	
29	65	Total N-MeFOSAA	570.1 > 419	3.31e3	1.95e3	0.259		5.20		21.2	40.1218	
30	66	Total N-EtFOSAA	584.2 > 419	2.49e3	2.09e3	0.259		5.40		14.9	53.0088	

Vista Analytical Laboratory

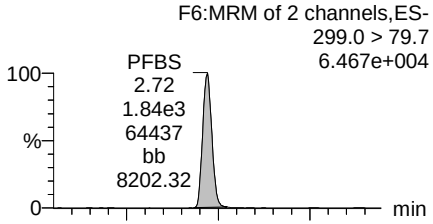
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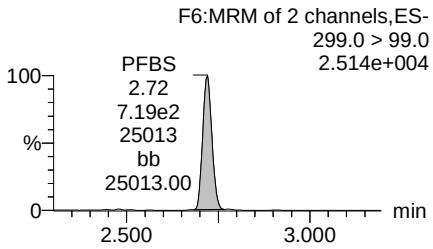
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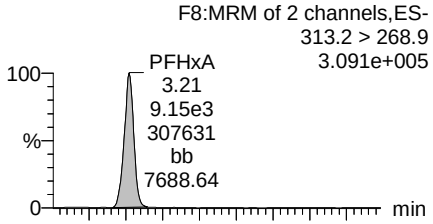
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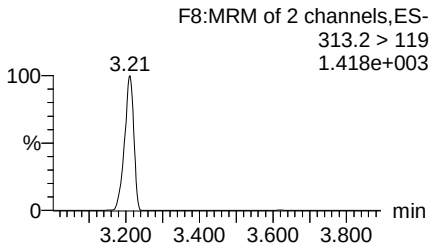
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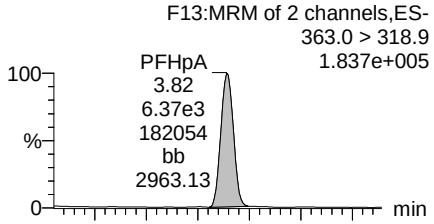


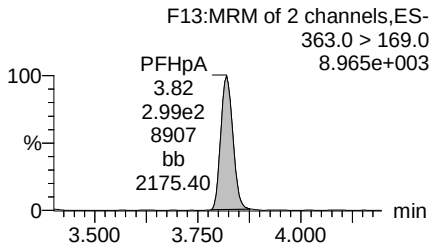
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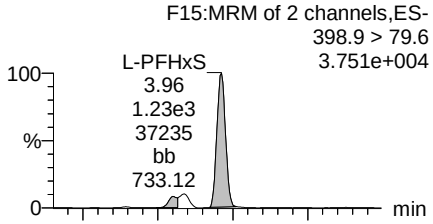


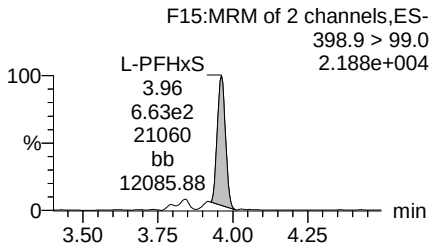
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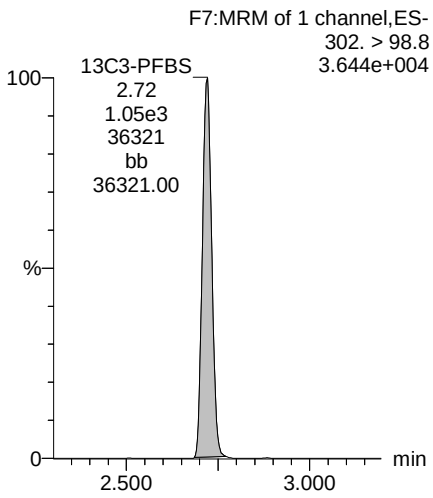


Total PFHxS

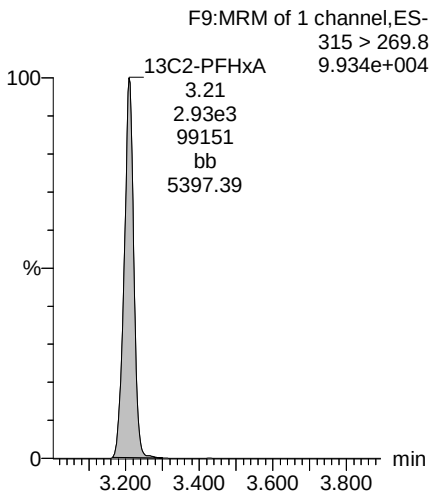




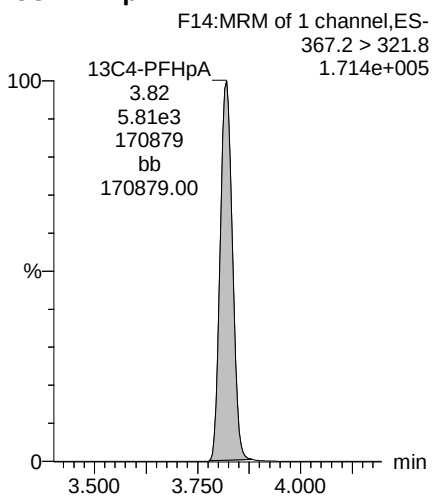
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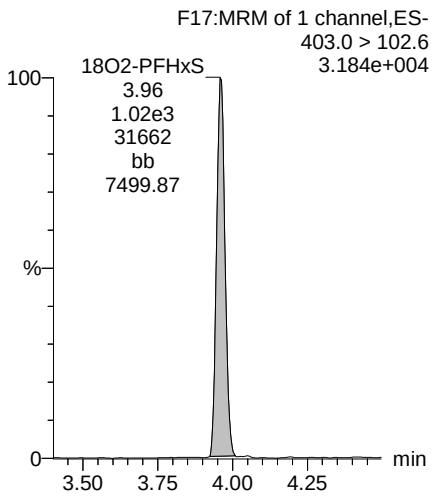
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13C4-PFHpA



18O2-PFHxS

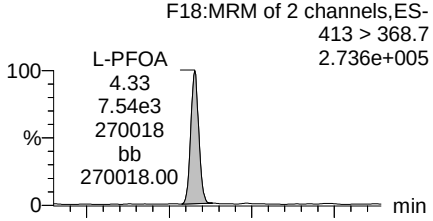


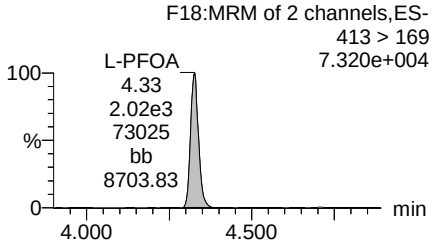
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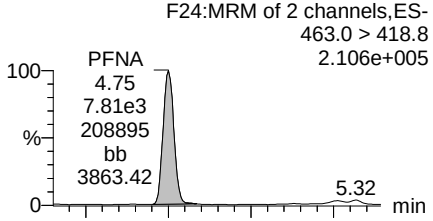
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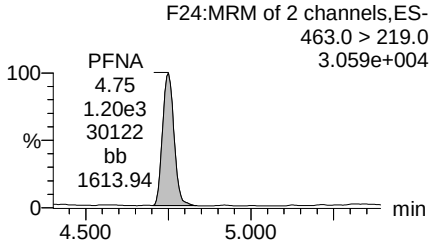
Total PFOA



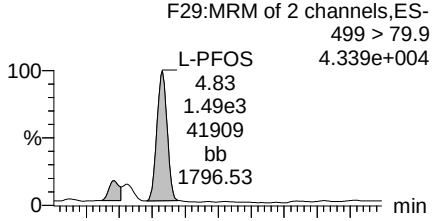


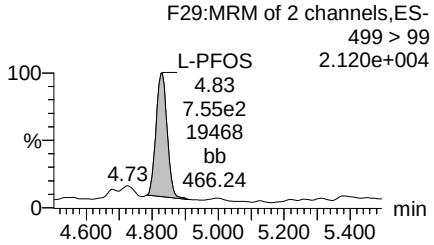
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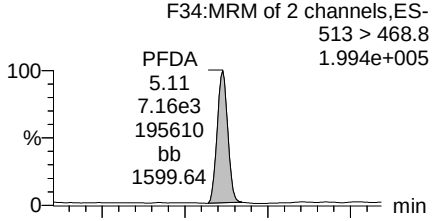


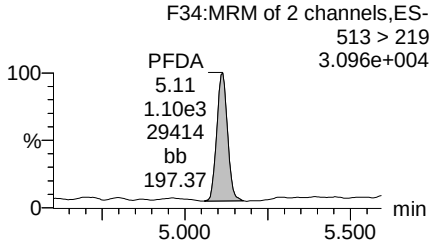
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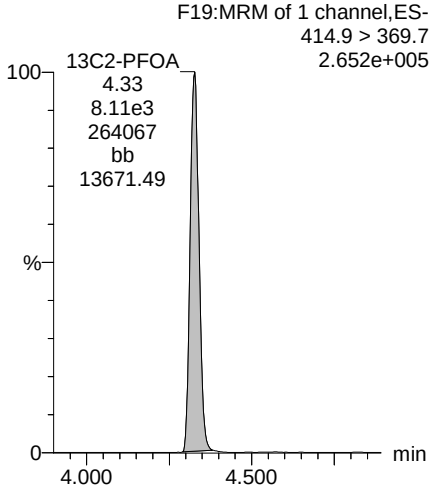


PFDA

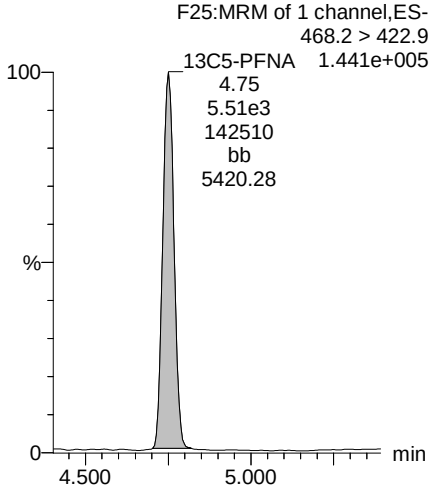




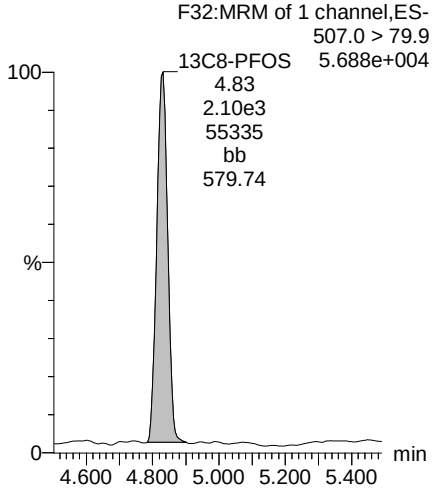
13C2-PFOA



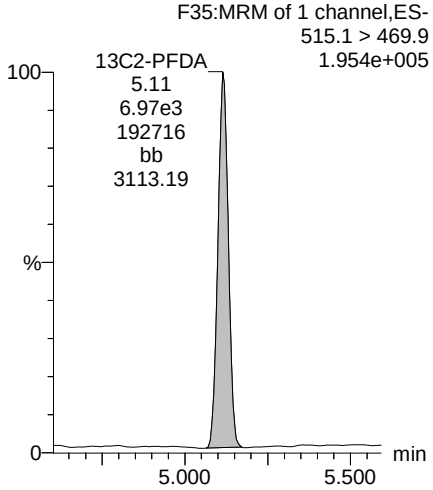
13C5-PFNA



13C8-PFOS



13C2-PFDA

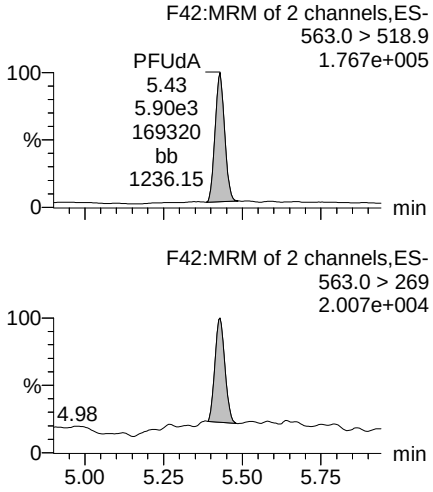


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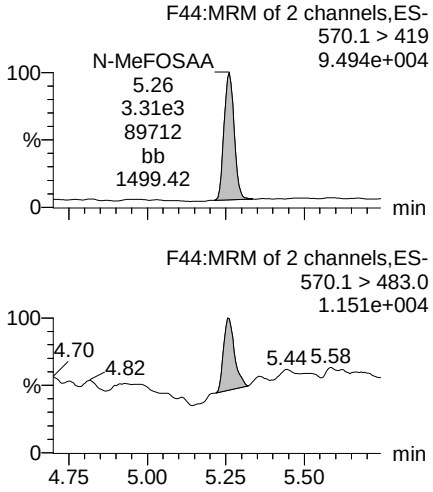
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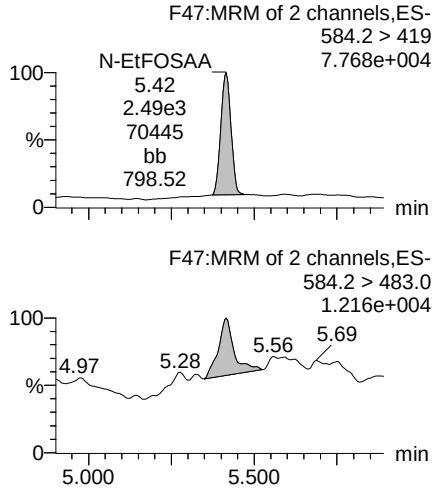
PFUdA



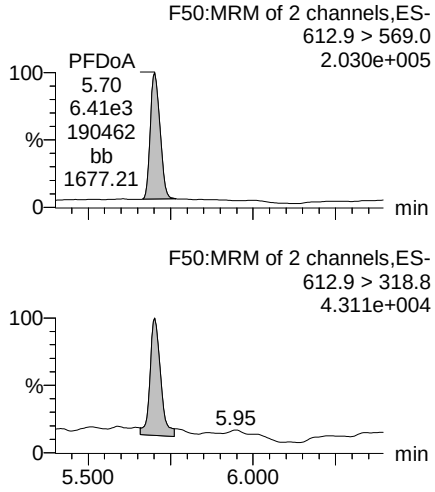
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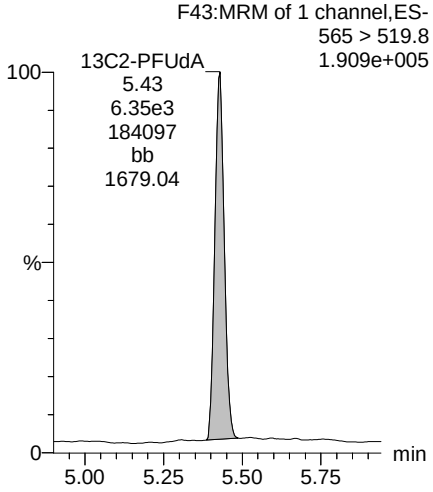
N-EtFOSAA



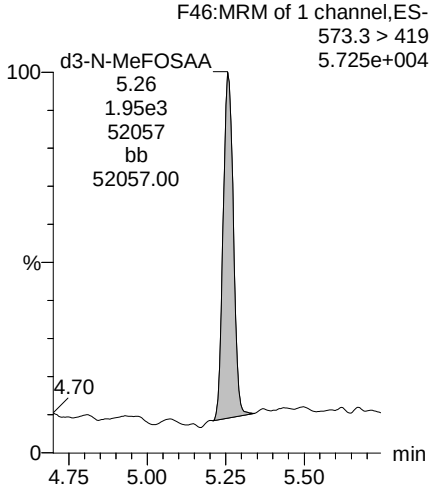
PFDoA



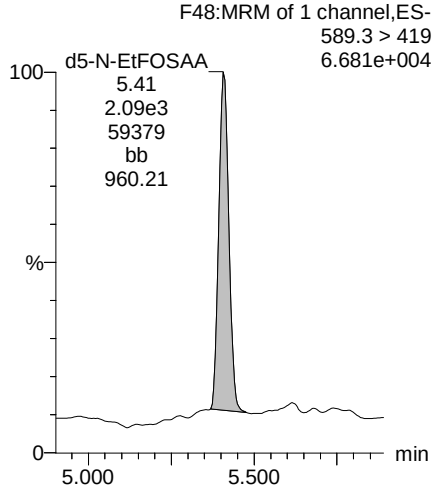
13C2-PFUdA



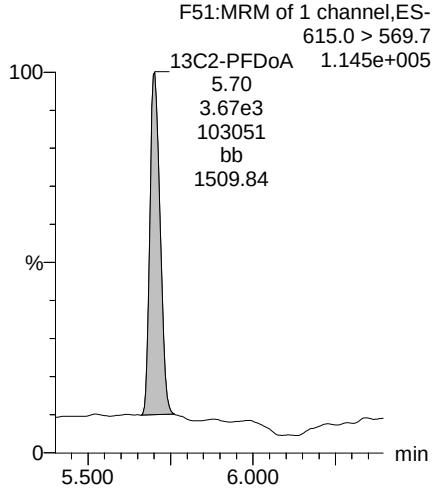
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

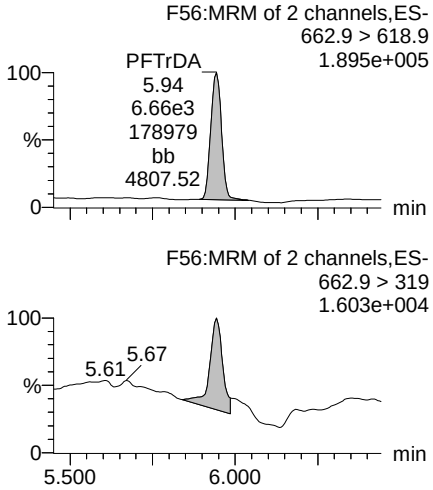


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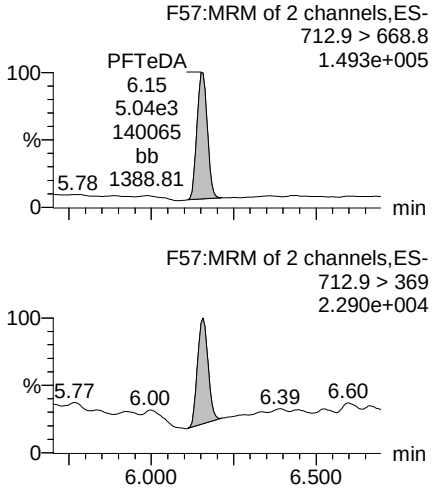
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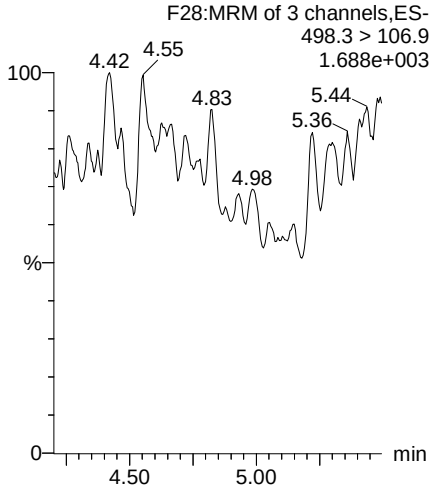
PFTrDA



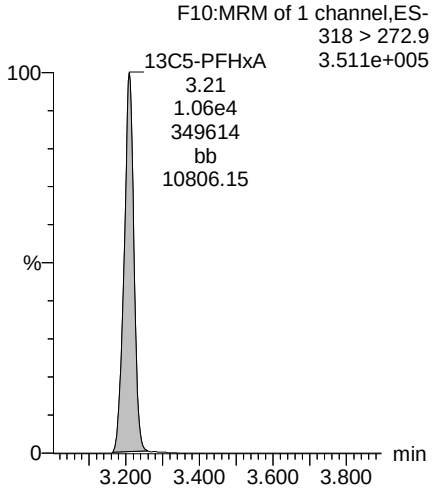
PFTeDA



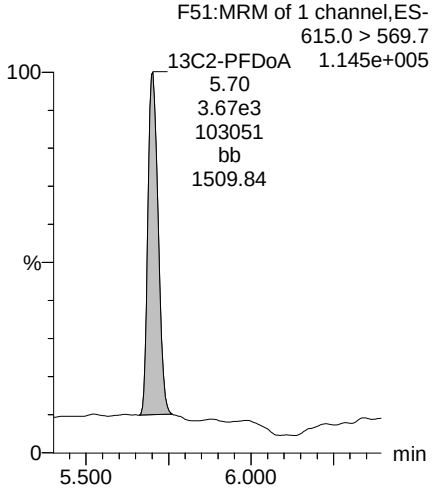
TCDA



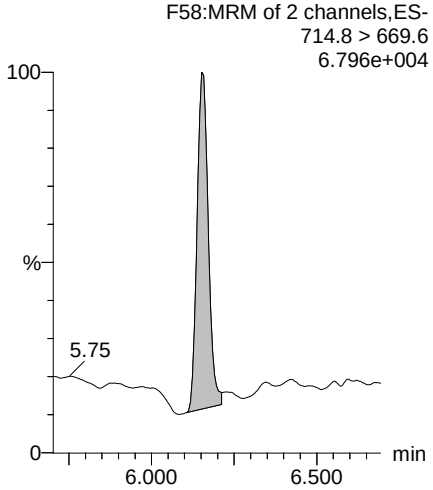
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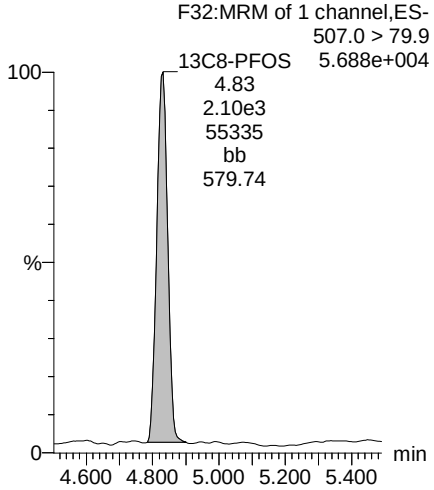
13C2-PFDoA



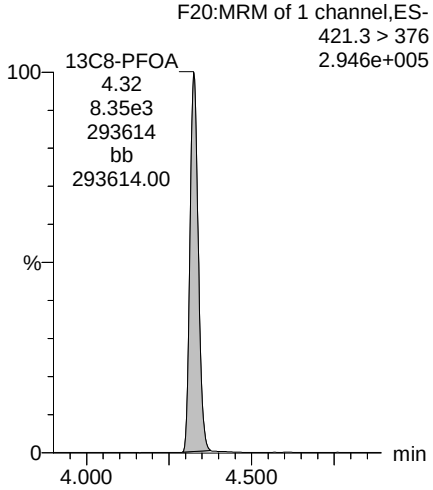
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

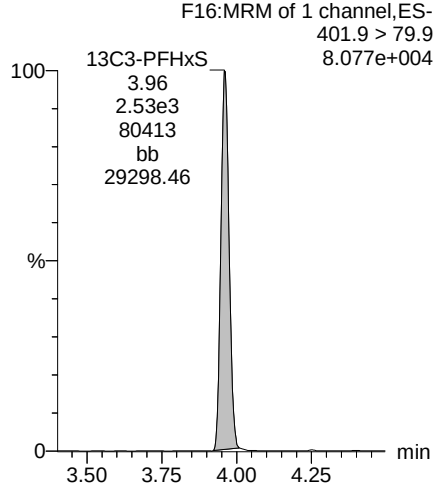


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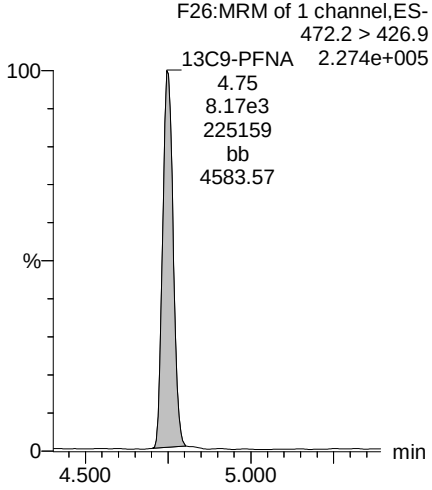
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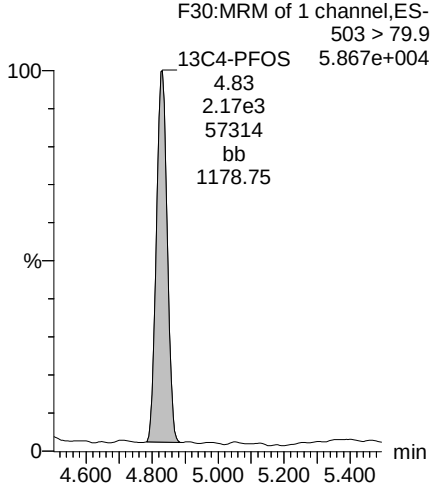
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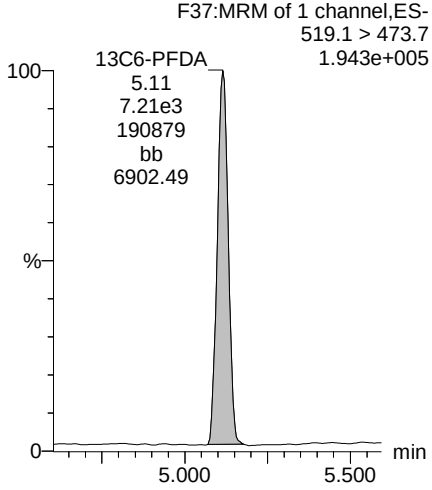
13C9-PFNA



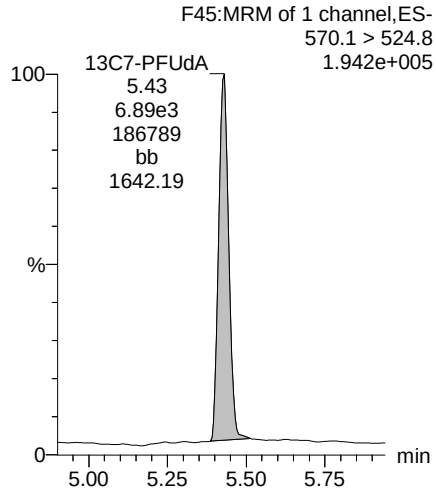
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_48.qld

Last Altered: Friday, December 29, 2017 14:41:12 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_48, Date: 25-Dec-2017, Time: 09:06:41, ID: 1701829-06 FT-MW02I-20171130 0.26433, Description: FT-MW02I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.30e3	0.264		2.70				
2	4	PFHxA	313.2 > 268.9		3.28e3	0.264		3.20				
3	5	PFHpA	363.0 > 318.9		5.62e3	0.264		3.80				
4	6	L-PFHxS	398.9 > 79.6		1.15e3	0.264		3.95				
5	9	L-PFOA	413 > 368.7	2.16e2	8.98e3	0.264		4.32	4.33	0.301	0.3427	
6	12	PFNA	463.0 > 418.8		7.31e3	0.264		4.75				
7	14	L-PFOS	499 > 79.9		3.02e3	0.264		4.83				
8	16	PFDA	513 > 468.8		8.04e3	0.264		5.11				
9	18	N-MeFOSAA	570.1 > 419		2.53e3	0.264		5.26				
10	19	N-EtFOSAA	584.2 > 419	1.49e2	2.84e3	0.264		5.42	5.39	0.655	2.3079	
11	20	PFUdA	563.0 > 518.9		7.79e3	0.264		5.43				
12	22	PFDoA	612.9 > 569.0	6.74e1	5.38e3	0.264		5.70	5.59	0.157	0.4994	

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_48.qld

Last Altered: Friday, December 29, 2017 14:41:12 Pacific Standard Time
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_48, Date: 25-Dec-2017, Time: 09:06:41, ID: 1701829-06 FT-MW02I-20171130 0.26433, Description: FT-MW02I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	9.00e1	4.37e3	0.264		5.95	5.56	0.257	1.1229	
2	25	PFTeDA	712.9 > 668.8	8.99e1	4.37e3	0.264		6.16	5.97	0.257	0.2315	
3	33	13C3-PFBS	302. > 98.8	1.30e3	1.18e4	0.264	0.101	2.70	2.72	1.38	51.6953	109.3
4	34	13C2-PFHxA	315 > 269.8	3.28e3	1.18e4	0.264	0.758	3.20	3.21	3.48	17.3961	92.0
5	35	13C4-PFHpA	367.2 > 321.8	5.62e3	1.18e4	0.264	0.562	3.80	3.82	5.97	40.1864	85.0
6	36	18O2-PFHxS	403.0 > 102.6	1.15e3	2.74e3	0.264	0.435	3.95	3.96	5.24	45.5558	96.3
7	37	13C2-6:2 FTS	429.1 > 408.9	2.22e3	7.61e3	0.264	0.393	4.26	4.27	3.64	35.0589	74.1
8	38	13C2-PFOA	414.9 > 369.7	8.98e3	7.61e3	0.264	1.252	4.32	4.33	14.8	44.5641	94.2
9	39	13C5-PFNA	468.2 > 422.9	7.31e3	9.12e3	0.264	0.962	4.75	4.75	10.0	39.3682	83.2
10	40	13C8-PFOSA	506.1 > 77.7	1.59e3	1.02e4	0.264	0.345	4.81	4.82	1.94	21.2707	45.0
11	41	13C8-PFOS	507.0 > 79.9	3.02e3	3.15e3	0.264	1.003	4.83	4.83	12.0	45.0935	95.4
12	42	13C2-PFDA	515.1 > 469.9	8.04e3	8.32e3	0.264	1.194	5.11	5.11	12.1	38.3069	81.0
13	43	13C2-8:2 FTS	529.1 > 508.7	1.63e3	1.18e4	0.264	0.150	5.09	5.09	1.73	43.6101	92.2
14	44	d3-N-MeFOSAA	573.3 > 419	2.53e3	1.02e4	0.264	0.372	5.26	5.26	3.09	31.4205	66.4
15	45	d5-N-EtFOSAA	589.3 > 419	2.84e3	1.02e4	0.264	0.444	5.42	5.41	3.47	29.5776	62.5
16	46	13C2-PFUdA	565 > 519.8	7.79e3	1.02e4	0.264	1.091	5.43	5.43	9.51	32.9882	69.8
17	47	13C2-PFDoA	615.0 > 569.7	5.38e3	1.02e4	0.264	0.629	5.70	5.70	6.57	39.5034	83.5
18	49	13C2-PFTeDA	714.8 > 669.6	4.37e3	1.02e4	0.264	0.551	6.16	6.15	5.34	36.6711	77.5
19	55	13C5-PFHxA	318 > 272.9	1.18e4	1.18e4	0.264	1.000	3.20	3.21	12.5	47.2894	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.74e3	2.74e3	0.264	1.000	3.95	3.96	12.5	47.2894	100.0
21	57	13C8-PFOA	421.3 > 376	7.61e3	7.61e3	0.264	1.000	4.32	4.33	12.5	47.2894	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.12e3	9.12e3	0.264	1.000	4.75	4.75	12.5	47.2894	100.0
23	59	13C4-PFOS	503 > 79.9	3.15e3	3.15e3	0.264	1.000	4.83	4.83	12.5	47.2894	100.0
24	60	13C6-PFDA	519.1 > 473.7	8.32e3	8.32e3	0.264	1.000	5.11	5.11	12.5	47.2894	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.02e4	1.02e4	0.264	1.000	5.43	5.43	12.5	47.2894	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	1.15e3	0.264		4.00		0.000		
27	63	Total PFOA	413 > 368.7	2.16e2	8.98e3	0.264		4.30		0.301	0.3427	
28	64	Total PFOS	499 > 79.9	0.00e0	3.02e3	0.264		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.53e3	0.264		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	1.19e3	2.84e3	0.264		5.40		5.25	18.5936	

Vista Analytical Laboratory

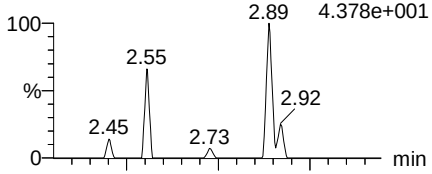
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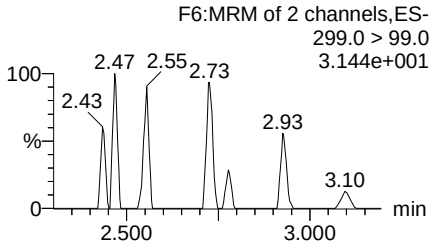
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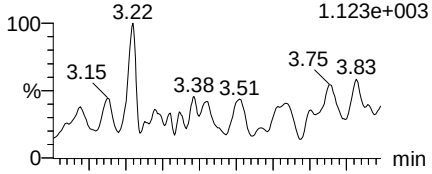
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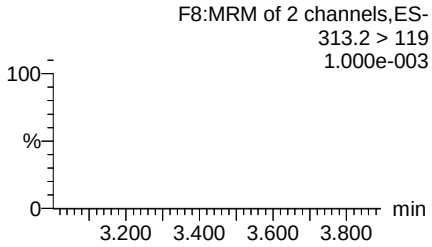
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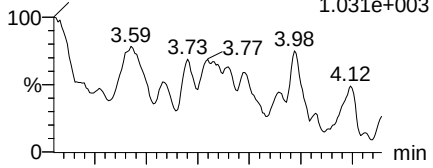


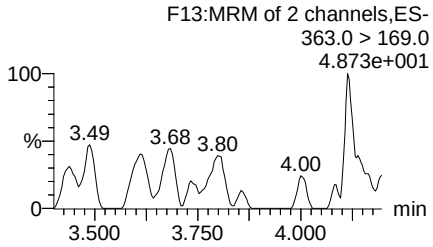
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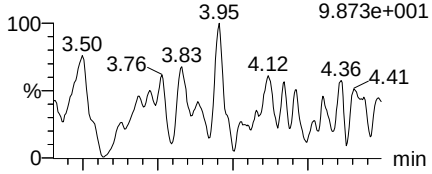


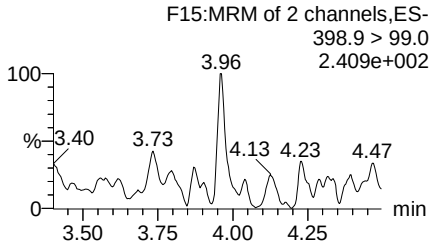
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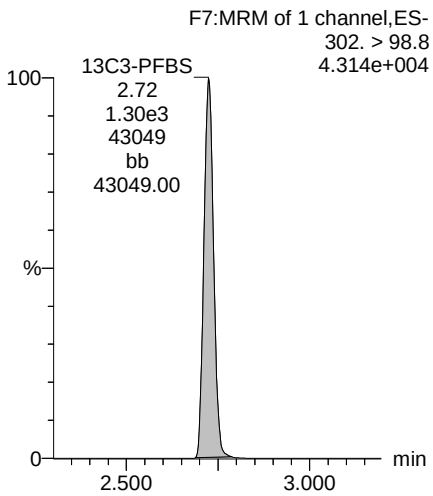


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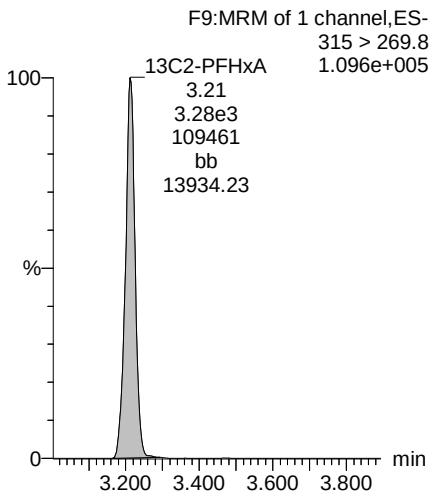




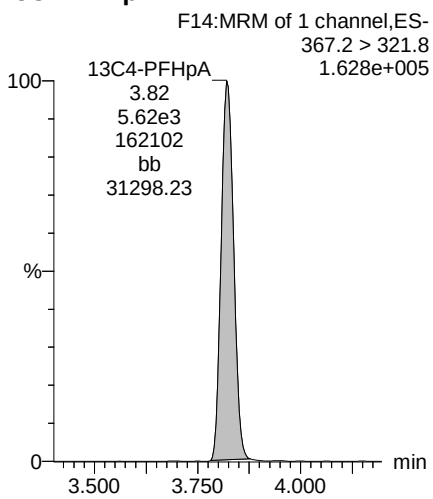
13C3-PFBS



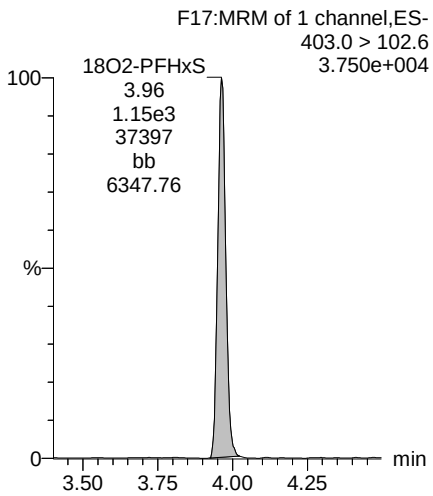
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

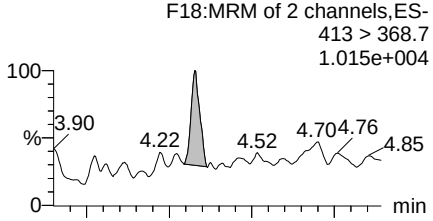


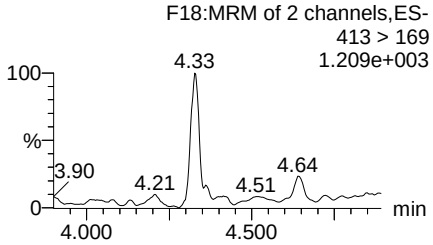
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Printed: Friday, December 29, 2017 14:41:53 Pacific Standard Time

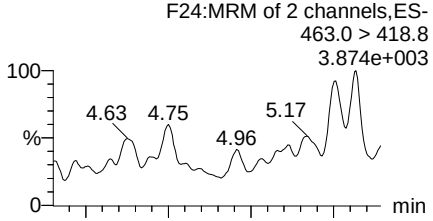
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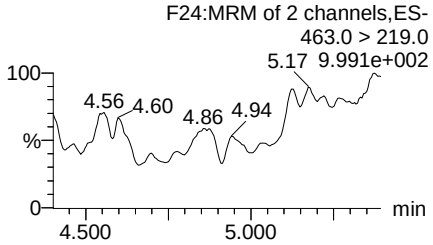
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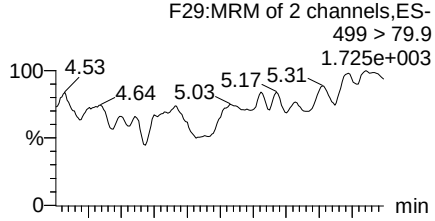


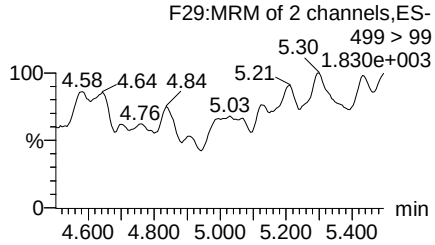
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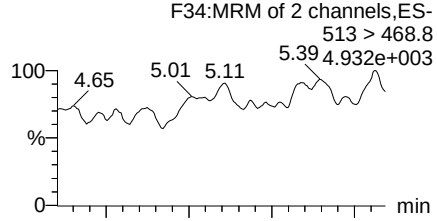


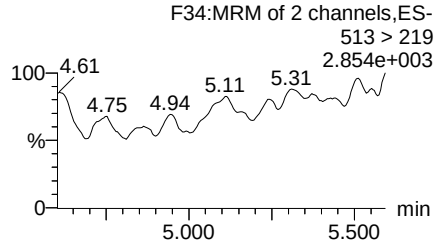
Total PFOS



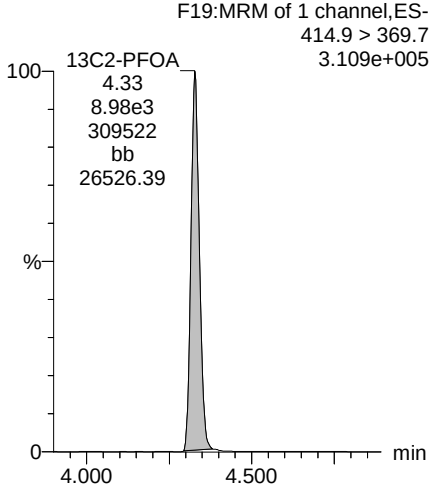


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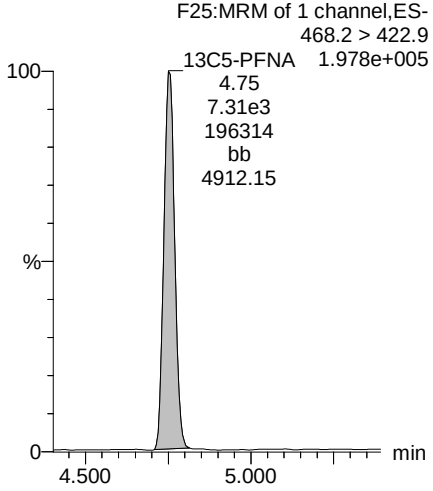




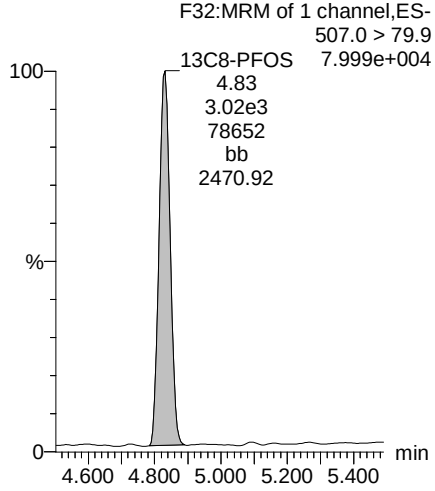
13C2-PFOA



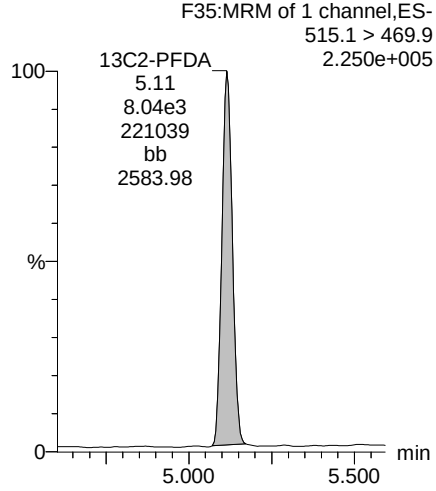
13C5-PFNA



13C8-PFOS



13C2-PFDA

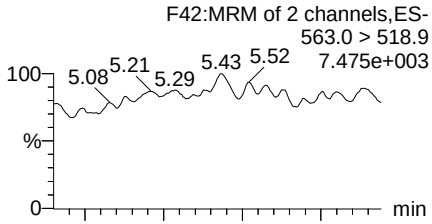


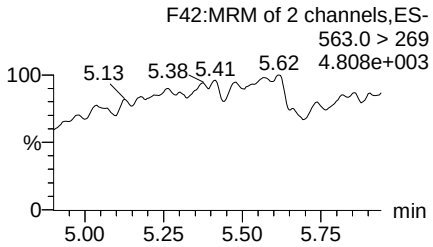
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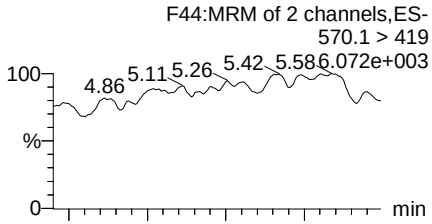
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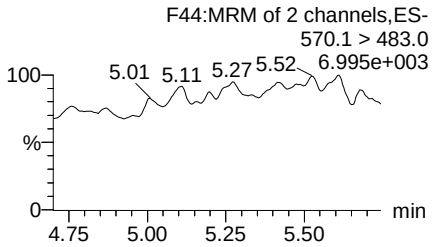
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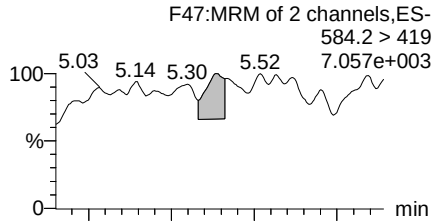


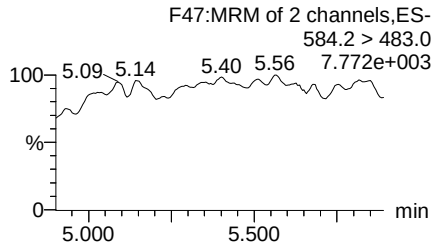
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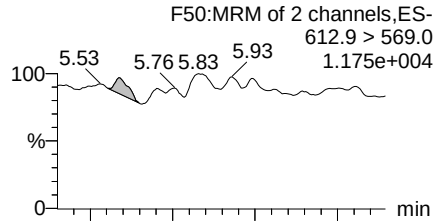


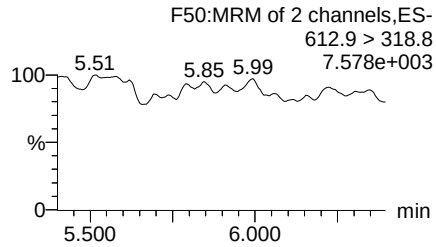
N-EtFOSAA



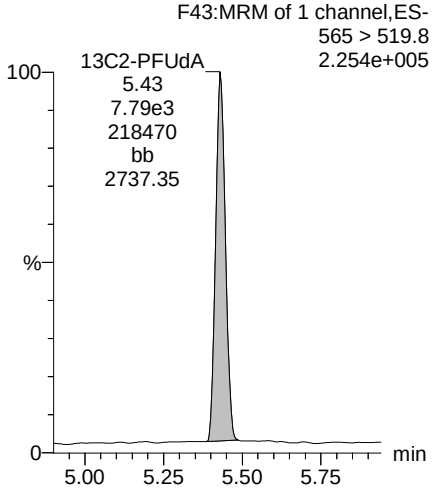


PFDoA

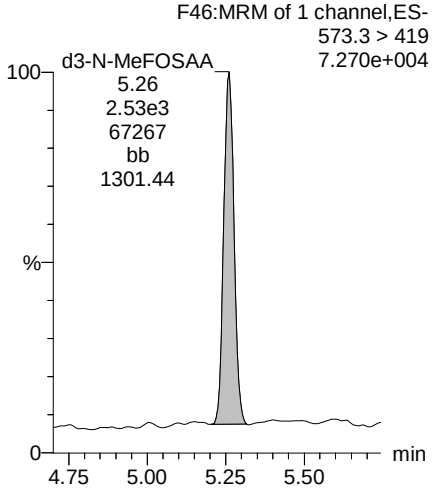




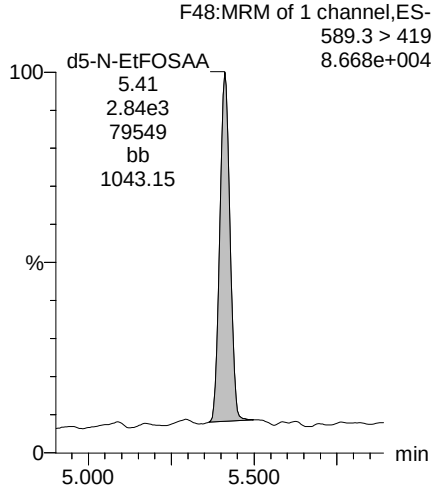
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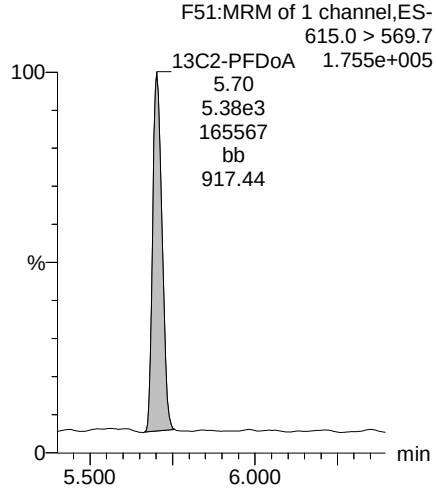
d3-N-MeFOSAA



d5-N-EtFOSAA



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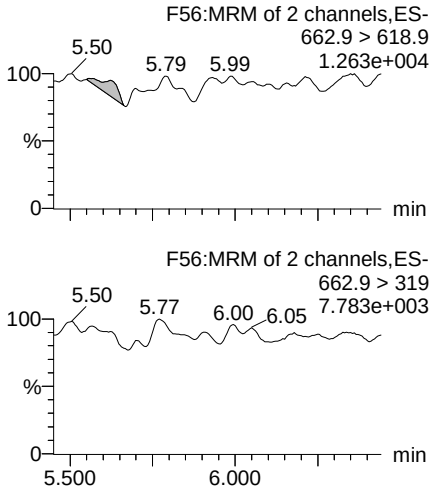


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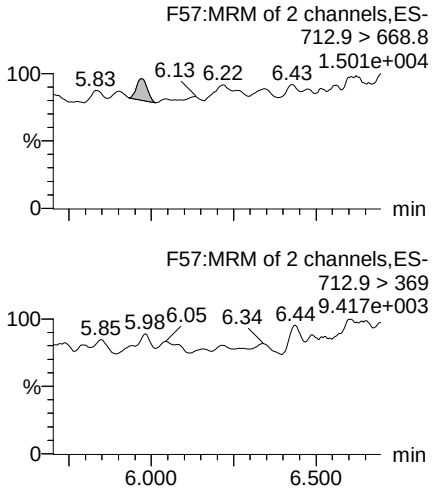
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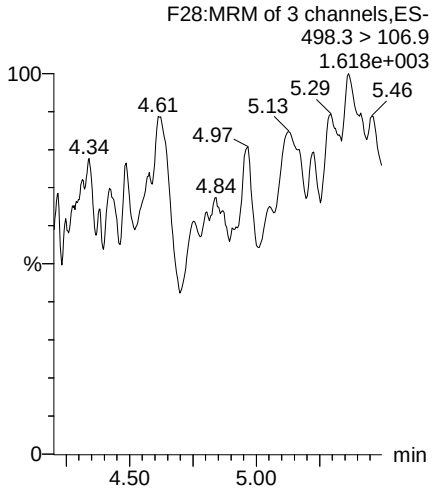
PFTrDA



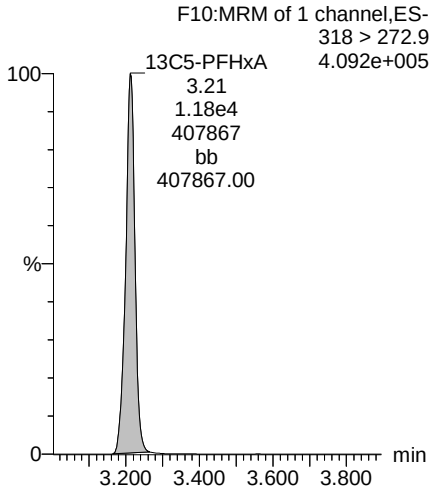
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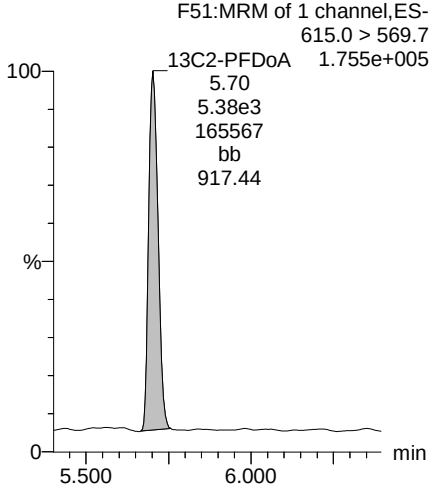
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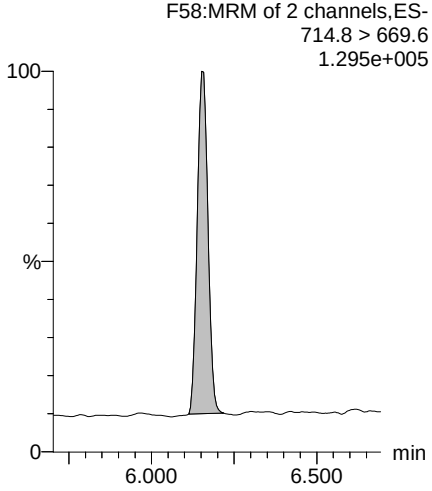
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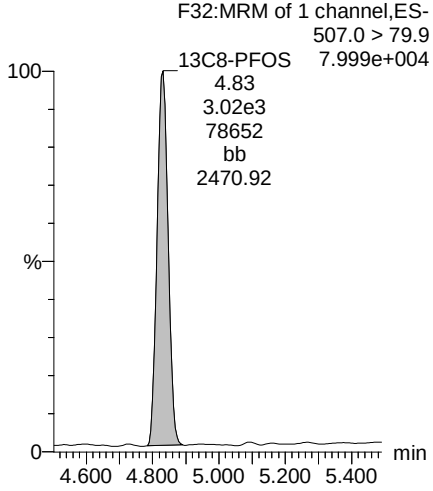
13C2-PFDoA



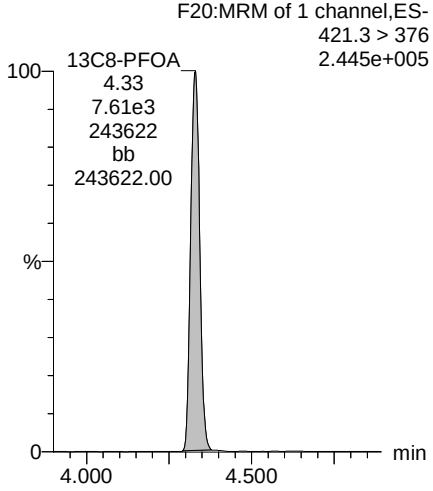
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

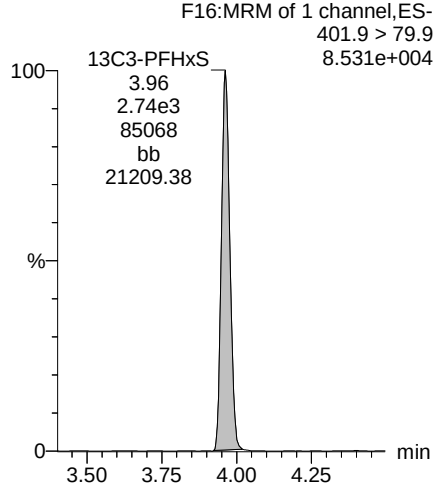


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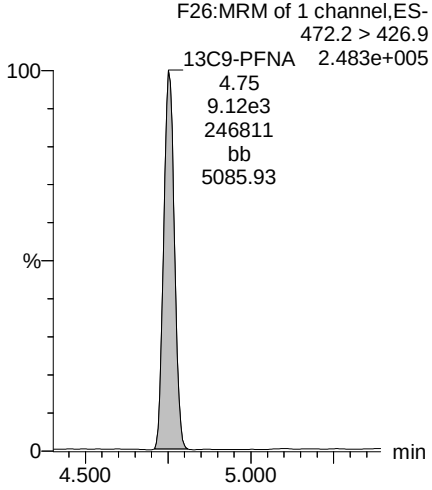
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Name: 171224M2_48, Date: 25-Dec-2017, Time: 09:06:41, ID: 1701829-06 FT-MW02I-20171130 0.26433, Description: FT-MW02I-20171130

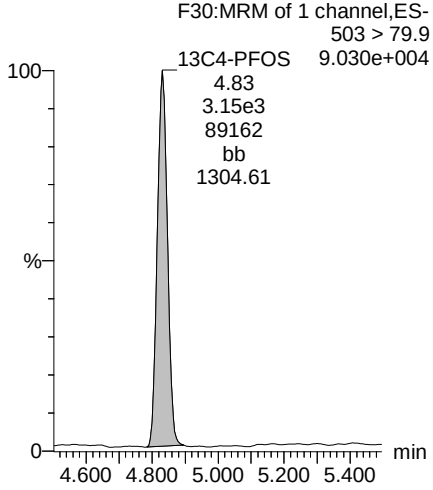
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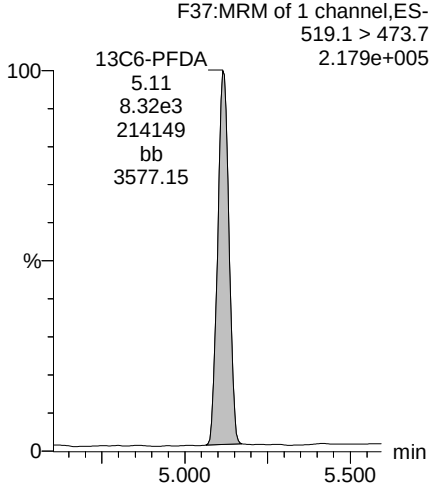
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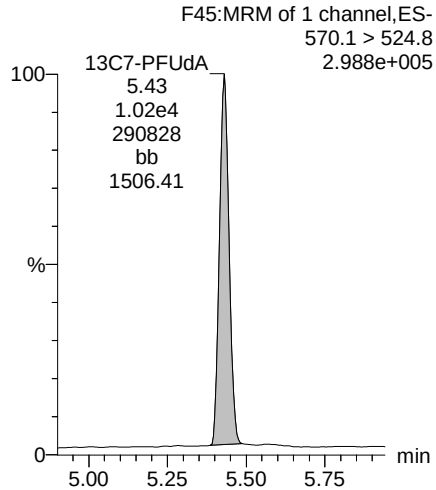
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_49.qld

Last Altered: Friday, December 29, 2017 14:42:41 Pacific Standard Time
Printed: Friday, December 29, 2017 14:43:07 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_49, Date: 25-Dec-2017, Time: 09:17:52, ID: 1701829-07 FT-MW01I-20171130 0.26191, Description: FT-MW01I-20171130

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1	3	PFBS	299.0 > 79.7		1.06e3	0.262		2.70				
2	4	PFHxA	313.2 > 268.9		2.77e3	0.262		3.20				
3	5	PFHpA	363.0 > 318.9		5.30e3	0.262		3.80				
4	6	L-PFHxS	398.9 > 79.6		9.71e2	0.262		3.95				
5	9	L-PFOA	413 > 368.7	1.94e2	6.61e3	0.262		4.32	4.33	0.367	0.5907	
6	12	PFNA	463.0 > 418.8		6.96e3	0.262		4.75				
7	14	L-PFOS	499 > 79.9		2.31e3	0.262		4.83				
8	16	PFDA	513 > 468.8		5.51e3	0.262		5.11				
9	18	N-MeFOSAA	570.1 > 419		1.97e3	0.262		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.58e3	0.262		5.42				
11	20	PFUdA	563.0 > 518.9		5.80e3	0.262		5.43				
12	22	PFDoA	612.9 > 569.0		3.42e3	0.262		5.70				

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_49.qld

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Printed: Friday, December 29, 2017 14:43:19 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_49, Date: 25-Dec-2017, Time: 09:17:52, ID: 1701829-07 FT-MW01I-20171130 0.26191, Description: FT-MW01I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	9.84e1	3.35e3	0.262		5.95	5.73	0.367	1.2916	
2	25	PFTeDA	712.9 > 668.8	6.04e1	3.35e3	0.262		6.16	6.13	0.225	0.1719	
3	33	13C3-PFBS	302. > 98.8	1.06e3	9.82e3	0.262	0.101	2.70	2.72	1.35	50.9176	106.7
4	34	13C2-PFHxA	315 > 269.8	2.77e3	9.82e3	0.262	0.758	3.20	3.21	3.53	17.7909	93.2
5	35	13C4-PFHpA	367.2 > 321.8	5.30e3	9.82e3	0.262	0.562	3.80	3.82	6.74	45.7876	95.9
6	36	18O2-PFHxS	403.0 > 102.6	9.71e2	2.46e3	0.262	0.435	3.95	3.96	4.94	43.3625	90.9
7	37	13C2-6:2 FTS	429.1 > 408.9	2.15e3	6.21e3	0.262	0.393	4.26	4.27	4.33	42.1302	88.3
8	38	13C2-PFOA	414.9 > 369.7	6.61e3	6.21e3	0.262	1.252	4.32	4.33	13.3	40.5154	84.9
9	39	13C5-PFNA	468.2 > 422.9	6.96e3	7.73e3	0.262	0.962	4.75	4.75	11.3	44.6567	93.6
10	40	13C8-PFOSA	506.1 > 77.7	1.29e3	6.48e3	0.262	0.345	4.81	4.81	2.50	27.6481	57.9
11	41	13C8-PFOS	507.0 > 79.9	2.31e3	2.01e3	0.262	1.003	4.83	4.83	14.3	54.4460	114.1
12	42	13C2-PFDA	515.1 > 469.9	5.51e3	7.14e3	0.262	1.194	5.11	5.11	9.65	30.8709	64.7
13	43	13C2-8:2 FTS	529.1 > 508.7	1.06e3	9.82e3	0.262	0.150	5.09	5.09	1.35	34.3394	72.0
14	44	d3-N-MeFOSAA	573.3 > 419	1.97e3	6.48e3	0.262	0.372	5.26	5.26	3.79	38.9083	81.5
15	45	d5-N-EtFOSAA	589.3 > 419	2.58e3	6.48e3	0.262	0.444	5.42	5.41	4.97	42.7932	89.7
16	46	13C2-PFUdA	565 > 519.8	5.80e3	6.48e3	0.262	1.091	5.43	5.43	11.2	39.1724	82.1
17	47	13C2-PFDoA	615.0 > 569.7	3.42e3	6.48e3	0.262	0.629	5.70	5.70	6.59	39.9904	83.8
18	49	13C2-PFTeDA	714.8 > 669.6	3.35e3	6.48e3	0.262	0.551	6.16	6.15	6.46	44.8165	93.9
19	55	13C5-PFHxA	318 > 272.9	9.82e3	9.82e3	0.262	1.000	3.20	3.21	12.5	47.7263	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.46e3	2.46e3	0.262	1.000	3.95	3.96	12.5	47.7263	100.0
21	57	13C8-PFOA	421.3 > 376	6.21e3	6.21e3	0.262	1.000	4.32	4.33	12.5	47.7263	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.73e3	7.73e3	0.262	1.000	4.75	4.75	12.5	47.7263	100.0
23	59	13C4-PFOS	503 > 79.9	2.01e3	2.01e3	0.262	1.000	4.83	4.83	12.5	47.7263	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.14e3	7.14e3	0.262	1.000	5.11	5.11	12.5	47.7263	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.48e3	6.48e3	0.262	1.000	5.43	5.43	12.5	47.7263	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	9.71e2	0.262		4.00		0.000		
27	63	Total PFOA	413 > 368.7	1.94e2	6.61e3	0.262		4.30		0.367	0.5907	
28	64	Total PFOS	499 > 79.9	0.00e0	2.31e3	0.262		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	1.97e3	0.262		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.58e3	0.262		5.40		0.000		

Vista Analytical Laboratory

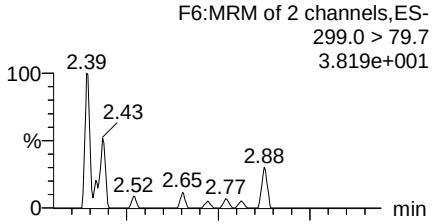
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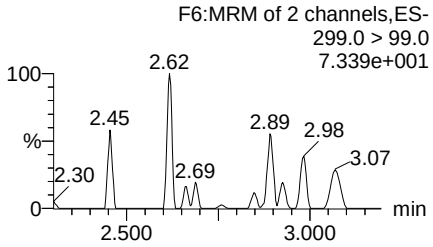
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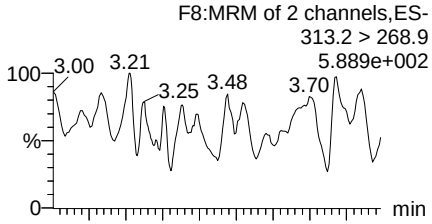
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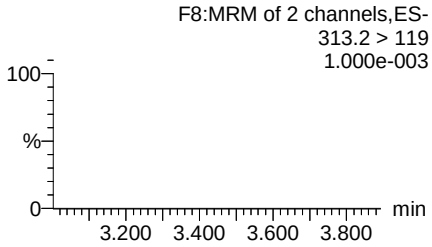
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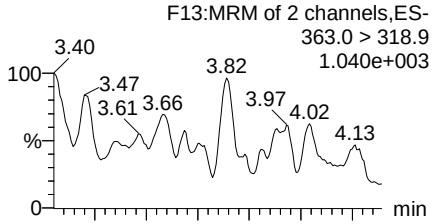


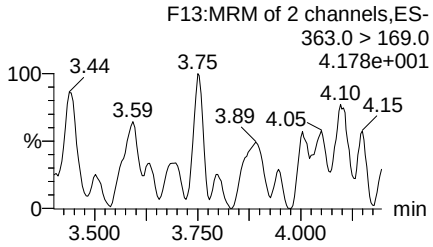
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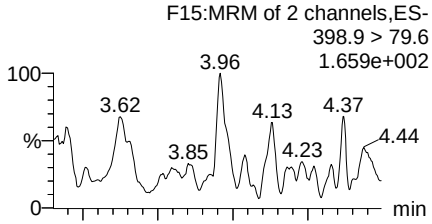


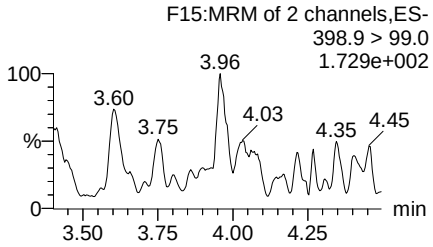
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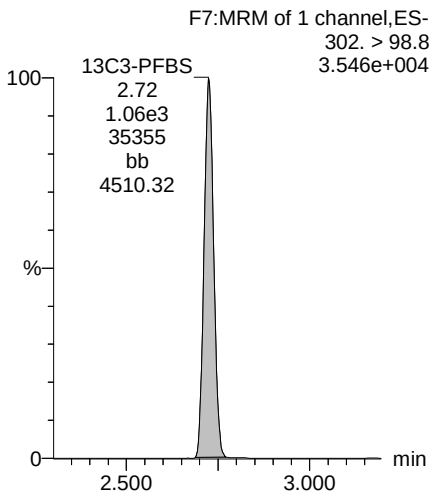


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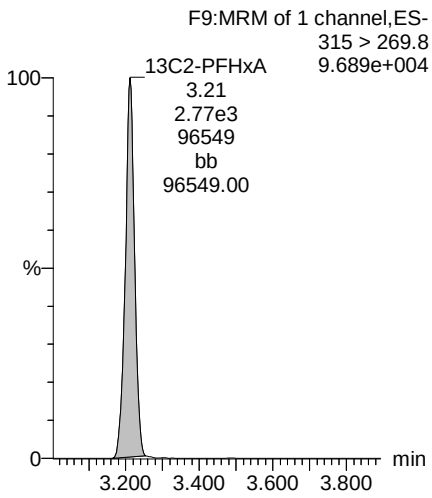




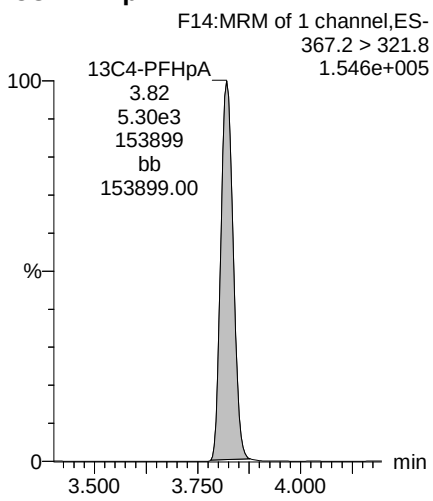
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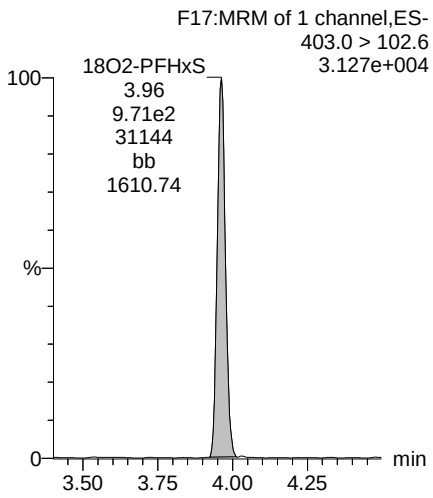
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13C4-PFHpA



18O2-PFHxS



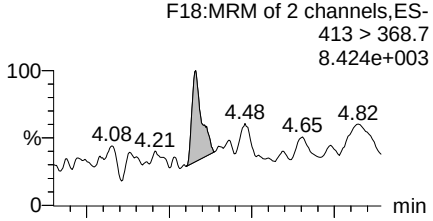
Vista Analytical Laboratory

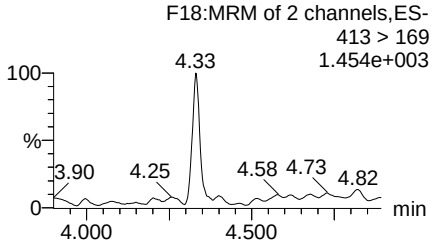
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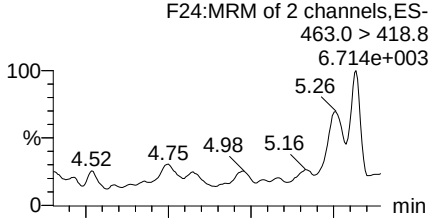
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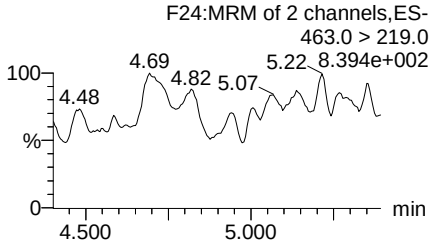
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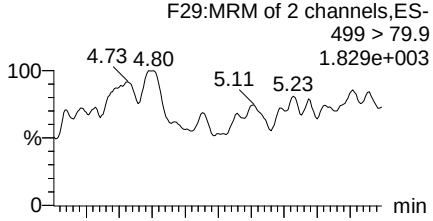


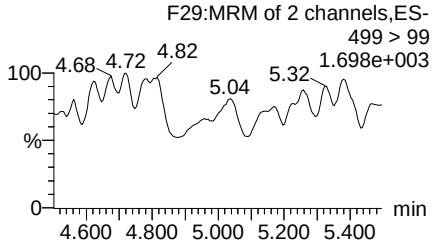
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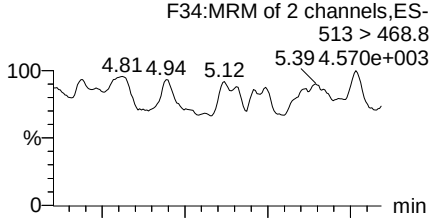


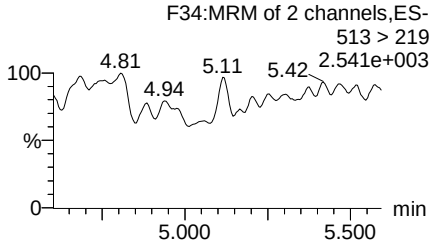
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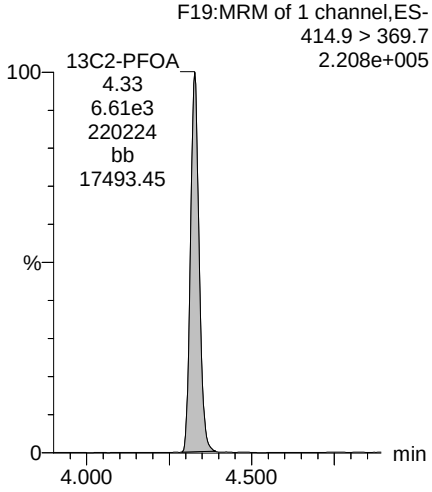


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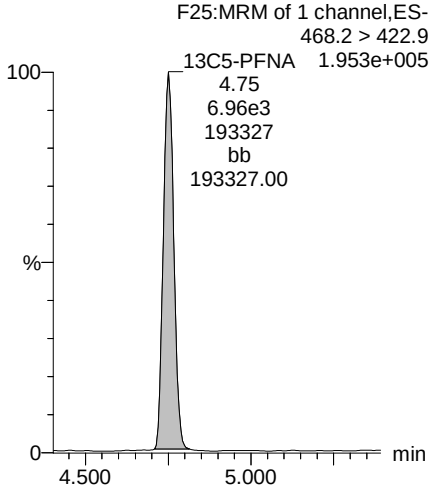




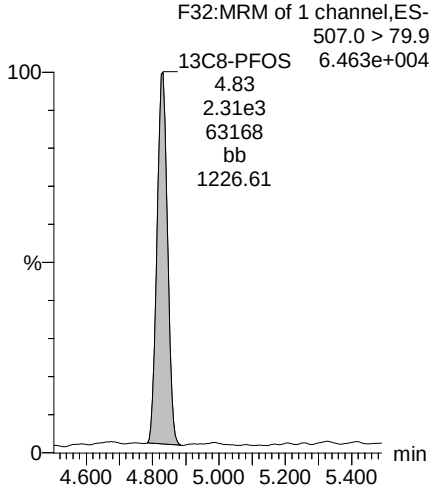
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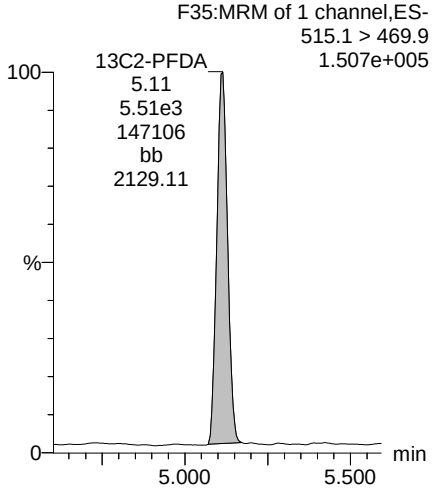
13C5-PFNA



13C8-PFOS



13C2-PFDA

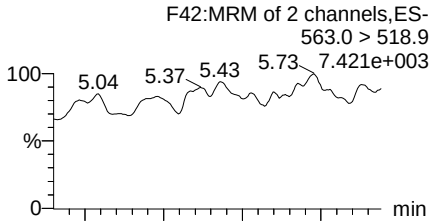


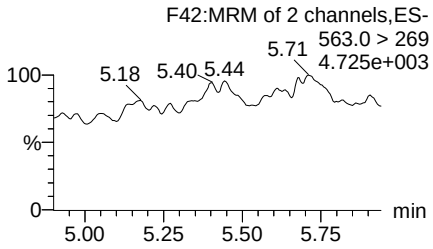
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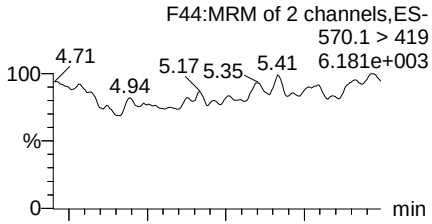
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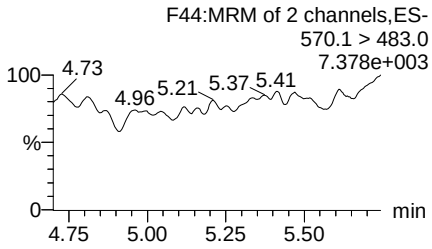
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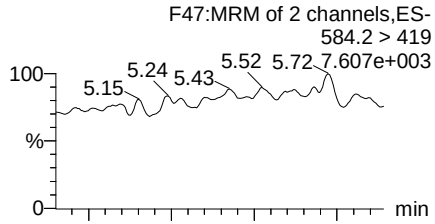


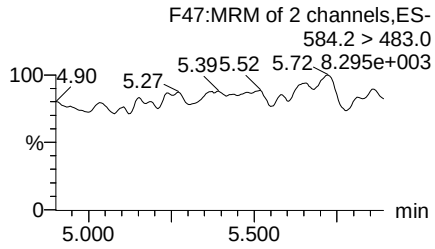
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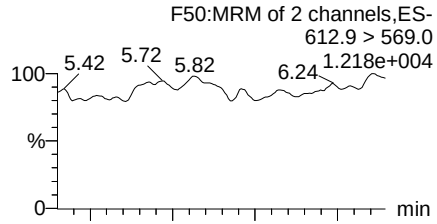


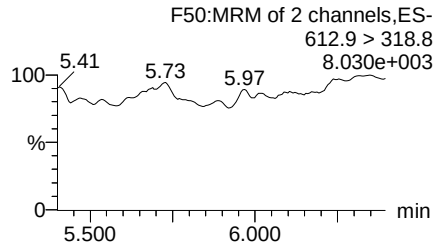
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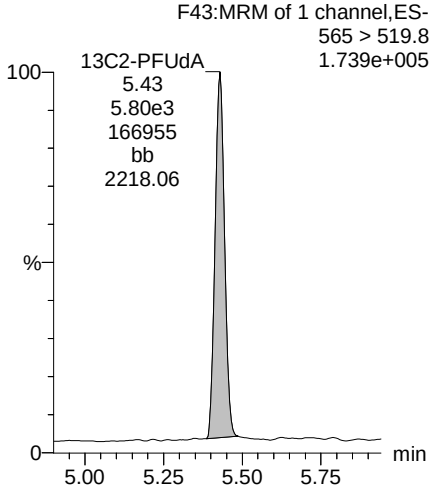


PFDoA

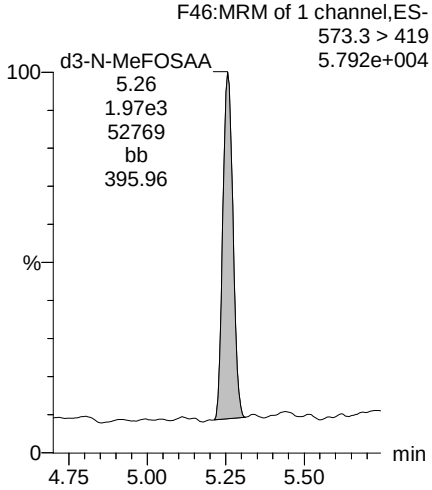




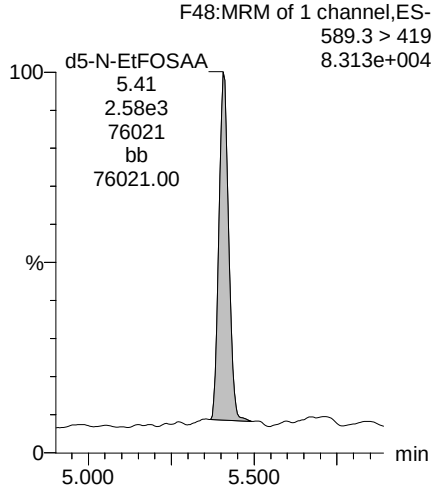
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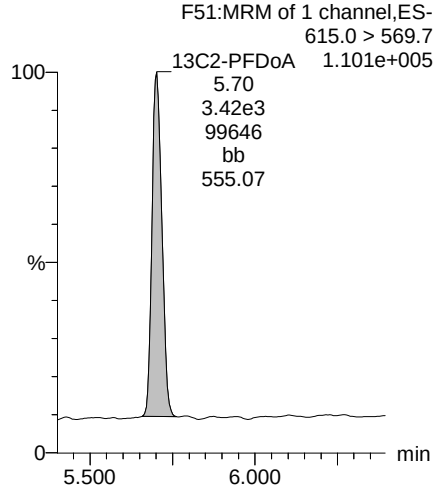
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

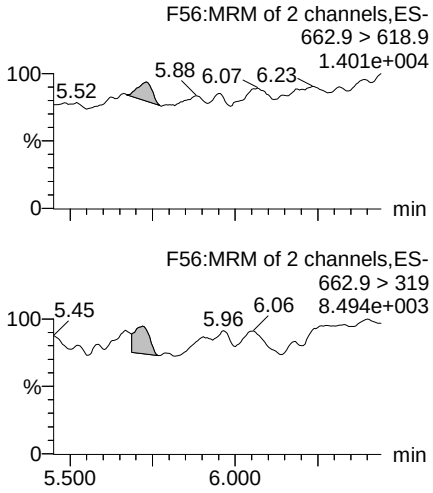


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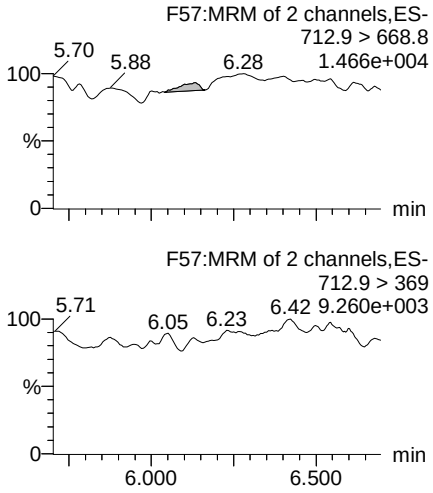
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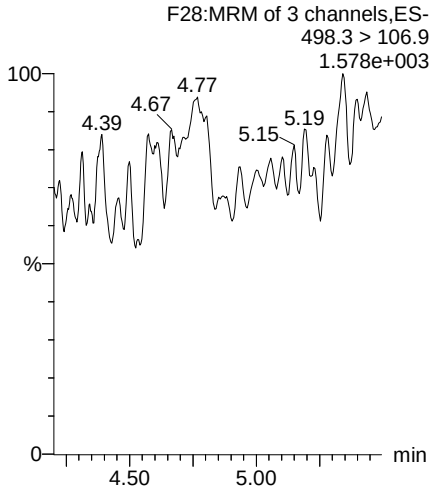
PFTrDA



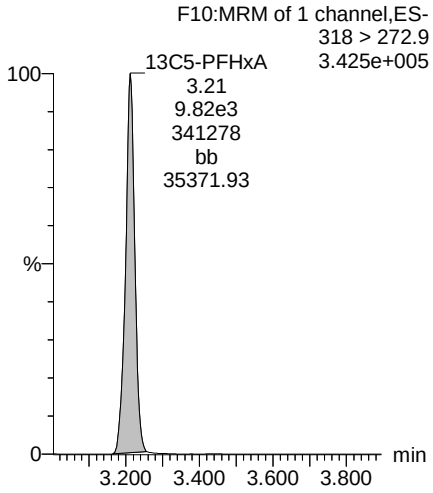
PFTeDA



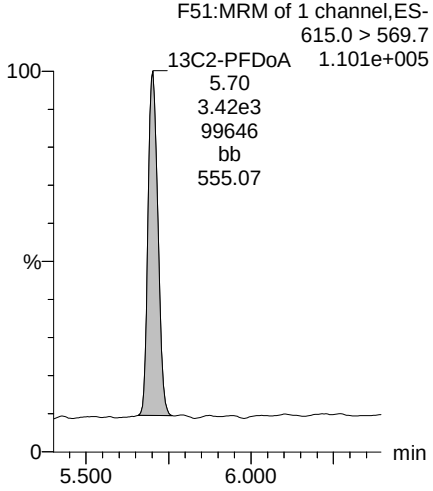
TCDA



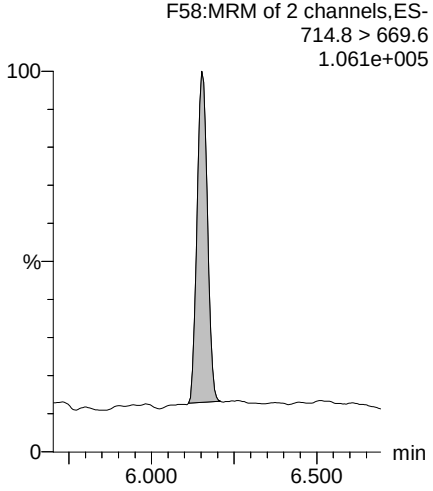
13C5-PFHxA



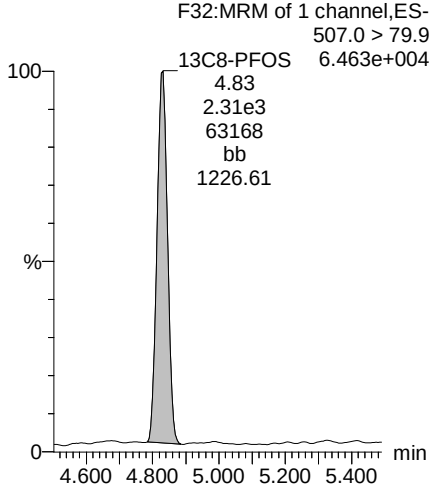
13C2-PFDoA



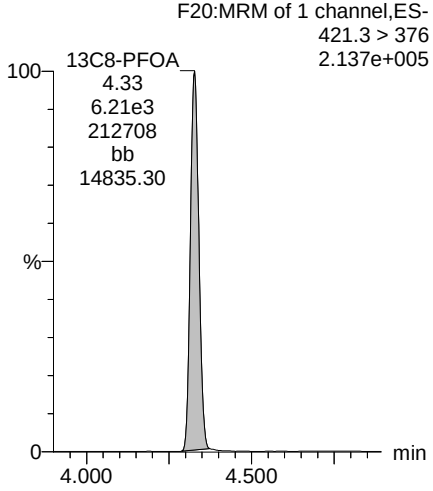
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

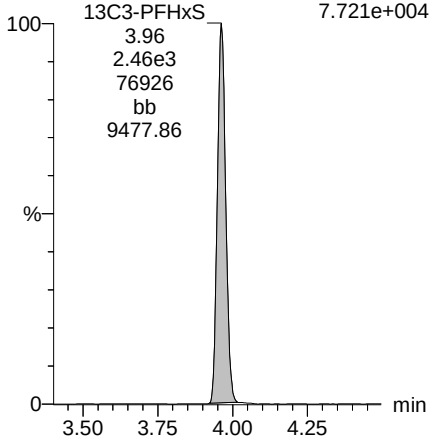


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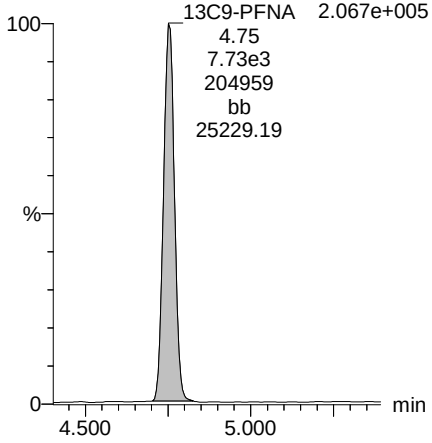
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Name: 171224M2_49, Date: 25-Dec-2017, Time: 09:17:52, ID: 1701829-07 FT-MW01I-20171130 0.26191, Description: FT-MW01I-20171130

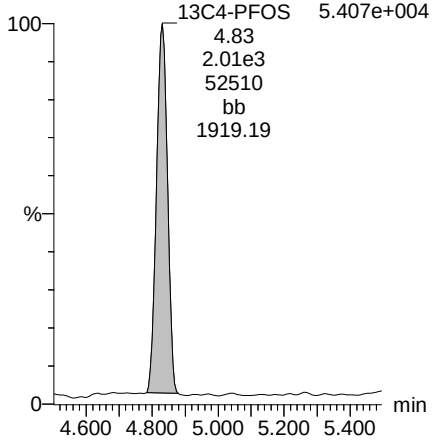
13C3-PFHxS



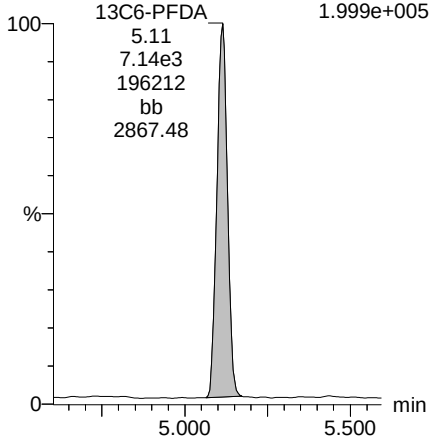
13C9-PFNA



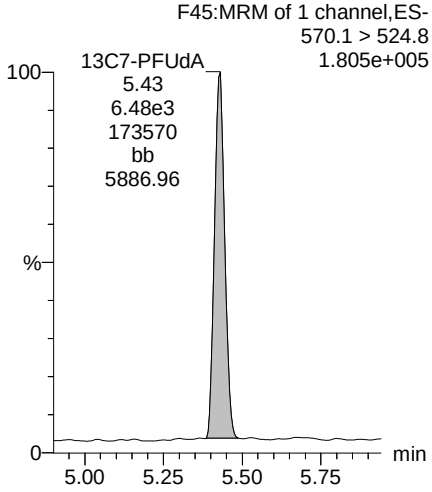
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_50.qld

Last Altered: Friday, December 29, 2017 14:44:28 Pacific Standard Time
Printed: Friday, December 29, 2017 14:44:59 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_50, Date: 25-Dec-2017, Time: 09:29:02, ID: 1701829-08 FT-DUP02-20171130 0.26709, Description: FT-DUP02-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		2.78e3	0.267		2.70				
2	4	PFHxA	313.2 > 268.9		6.53e3	0.267		3.20				
3	5	PFHpA	363.0 > 318.9		1.31e4	0.267		3.80				
4	6	L-PFHxS	398.9 > 79.6		2.05e3	0.267		3.95				
5	9	L-PFOA	413 > 368.7	3.26e2	1.89e4	0.267		4.32	4.33	0.215	0.0266	
6	12	PFNA	463.0 > 418.8		1.45e4	0.267		4.75				
7	14	L-PFOS	499 > 79.9		4.61e3	0.267		4.83				
8	16	PFDA	513 > 468.8		1.74e4	0.267		5.11				
9	18	N-MeFOSAA	570.1 > 419		5.36e3	0.267		5.26				
10	19	N-EtFOSAA	584.2 > 419		5.36e3	0.267		5.42				
11	20	PFUdA	563.0 > 518.9	1.44e2	1.80e4	0.267		5.43	5.44	0.100	0.5302	
12	22	PFDoA	612.9 > 569.0		8.21e3	0.267		5.70				

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_50.qld

Last Altered: Friday, December 29, 2017 14:44:28 Pacific Standard Time
Printed: Friday, December 29, 2017 14:45:10 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_50, Date: 25-Dec-2017, Time: 09:29:02, ID: 1701829-08 FT-DUP02-20171130 0.26709, Description: FT-DUP02-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	1.47e2	8.45e3	0.267		5.95	6.22	0.217	1.0537	
2	25	PFTeDA	712.9 > 668.8		8.45e3	0.267		6.16				
3	33	13C3-PFBS	302. > 98.8	2.78e3	2.51e4	0.267	0.101	2.70	2.72	1.39	51.3895	109.8
4	34	13C2-PFHxA	315 > 269.8	6.53e3	2.51e4	0.267	0.758	3.20	3.21	3.25	16.0725	85.9
5	35	13C4-PFHpA	367.2 > 321.8	1.31e4	2.51e4	0.267	0.562	3.80	3.82	6.51	43.3541	92.6
6	36	18O2-PFHxS	403.0 > 102.6	2.05e3	5.04e3	0.267	0.435	3.95	3.97	5.09	43.8059	93.6
7	37	13C2-6:2 FTS	429.1 > 408.9	4.51e3	1.56e4	0.267	0.393	4.26	4.27	3.61	34.4387	73.6
8	38	13C2-PFOA	414.9 > 369.7	1.89e4	1.56e4	0.267	1.252	4.32	4.33	15.2	45.3362	96.9
9	39	13C5-PFNA	468.2 > 422.9	1.45e4	2.03e4	0.267	0.962	4.75	4.75	8.96	34.8691	74.5
10	40	13C8-PFOSA	506.1 > 77.7	3.06e3	2.19e4	0.267	0.345	4.81	4.82	1.75	18.9906	40.6
11	41	13C8-PFOS	507.0 > 79.9	4.61e3	6.17e3	0.267	1.003	4.83	4.83	9.34	34.8537	74.5
12	42	13C2-PFDA	515.1 > 469.9	1.74e4	1.54e4	0.267	1.194	5.11	5.11	14.2	44.4881	95.1
13	43	13C2-8:2 FTS	529.1 > 508.7	2.67e3	2.51e4	0.267	0.150	5.09	5.09	1.33	33.2377	71.0
14	44	d3-N-MeFOSAA	573.3 > 419	5.36e3	2.19e4	0.267	0.372	5.26	5.26	3.06	30.8004	65.8
15	45	d5-N-EtFOSAA	589.3 > 419	5.36e3	2.19e4	0.267	0.444	5.42	5.41	3.06	25.8331	55.2
16	46	13C2-PFUdA	565 > 519.8	1.80e4	2.19e4	0.267	1.091	5.43	5.43	10.3	35.3080	75.4
17	47	13C2-PFDoA	615.0 > 569.7	8.21e3	2.19e4	0.267	0.629	5.70	5.70	4.69	27.9185	59.7
18	49	13C2-PFTeDA	714.8 > 669.6	8.45e3	2.19e4	0.267	0.551	6.16	6.16	4.83	32.8552	70.2
19	55	13C5-PFHxA	318 > 272.9	2.51e4	2.51e4	0.267	1.000	3.20	3.21	12.5	46.8007	100.0
20	56	13C3-PFHxS	401.9 > 79.9	5.04e3	5.04e3	0.267	1.000	3.95	3.97	12.5	46.8007	100.0
21	57	13C8-PFOA	421.3 > 376	1.56e4	1.56e4	0.267	1.000	4.32	4.33	12.5	46.8007	100.0
22	58	13C9-PFNA	472.2 > 426.9	2.03e4	2.03e4	0.267	1.000	4.75	4.75	12.5	46.8007	100.0
23	59	13C4-PFOS	503 > 79.9	6.17e3	6.17e3	0.267	1.000	4.83	4.83	12.5	46.8007	100.0
24	60	13C6-PFDA	519.1 > 473.7	1.54e4	1.54e4	0.267	1.000	5.11	5.11	12.5	46.8007	100.0
25	61	13C7-PFUdA	570.1 > 524.8	2.19e4	2.19e4	0.267	1.000	5.43	5.43	12.5	46.8007	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	2.05e3	0.267		4.00		0.000		
27	63	Total PFOA	413 > 368.7	3.26e2	1.89e4	0.267		4.30		0.215	0.0266	
28	64	Total PFOS	499 > 79.9	0.00e0	4.61e3	0.267		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	5.36e3	0.267		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	5.36e3	0.267		5.40		0.000		

Vista Analytical Laboratory

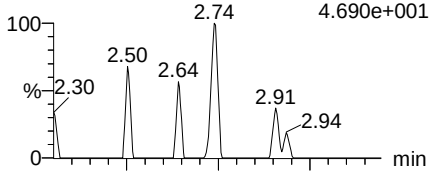
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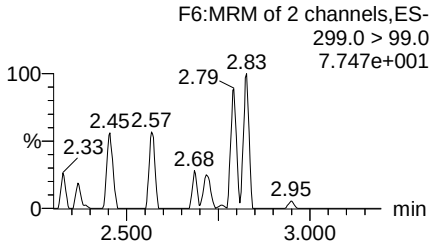
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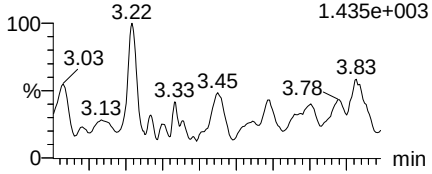
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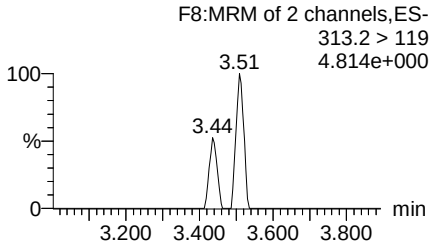
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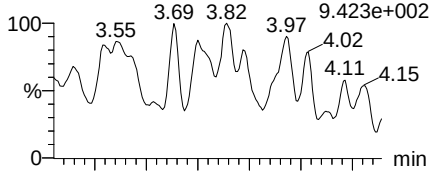


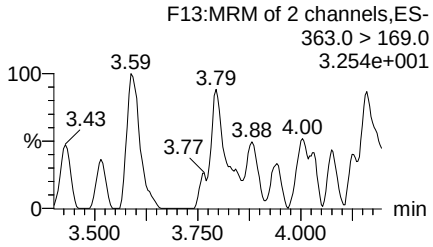
PFHxA



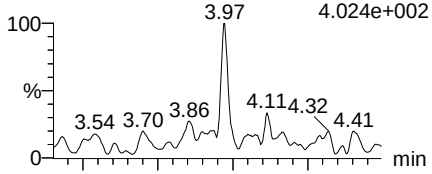


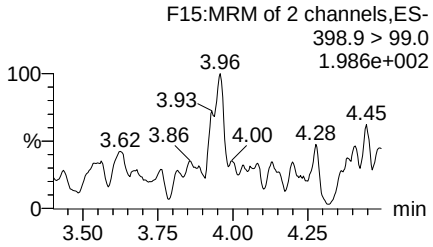
PFHpA



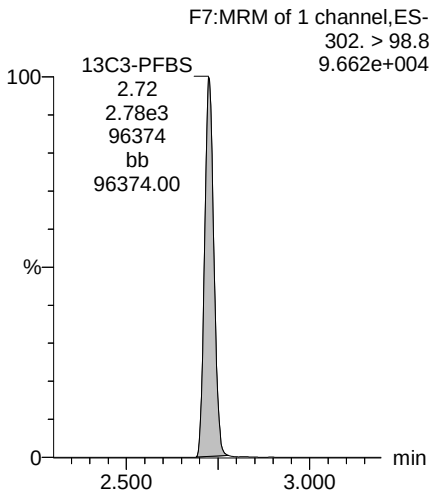


Total PFHxS

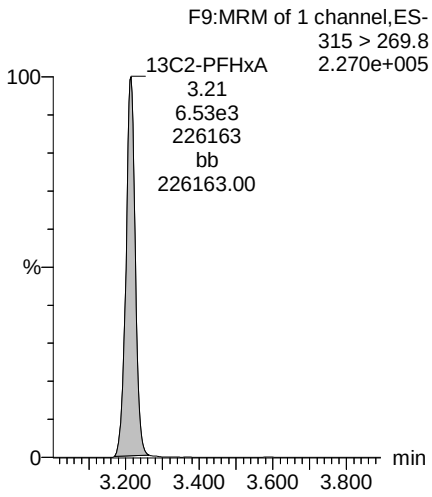




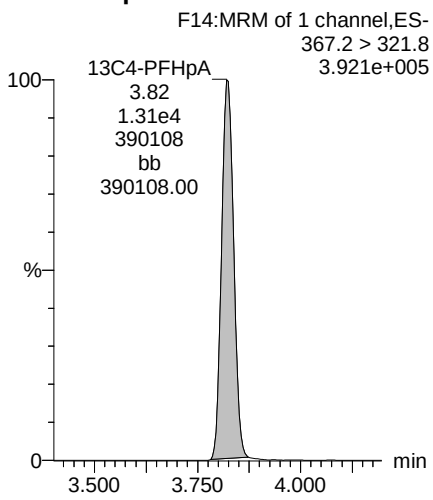
13C3-PFBS



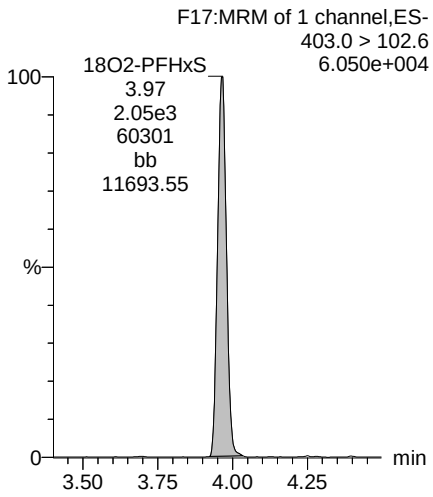
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

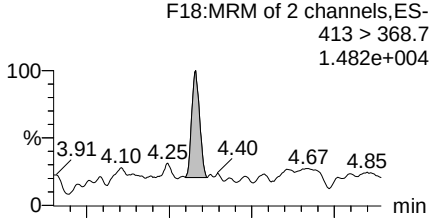


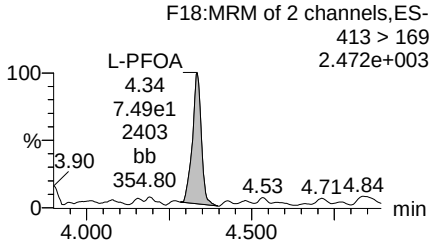
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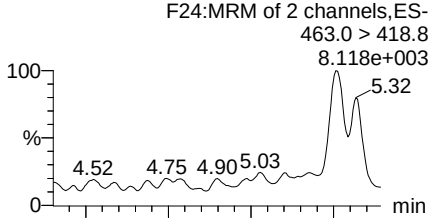
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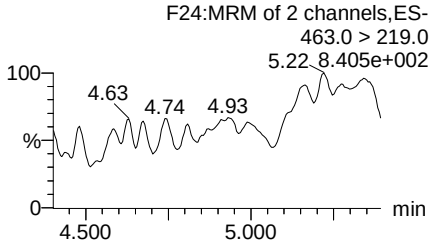
Total PFOA



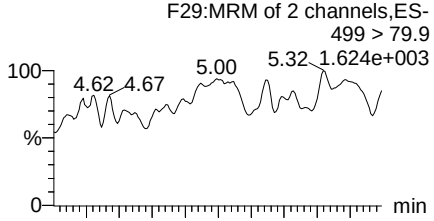


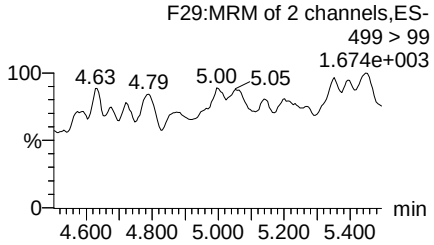
PFNA



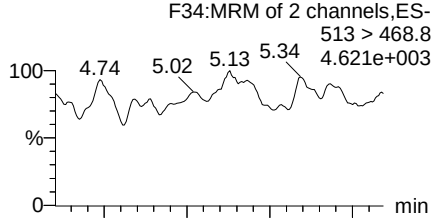


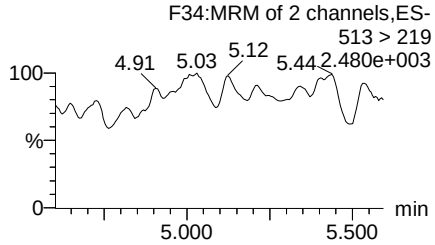
Total PFOS



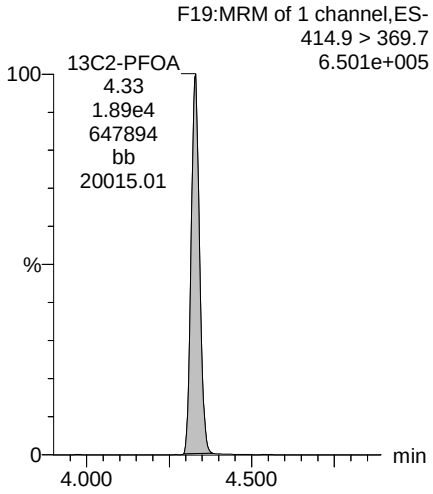


PFDA

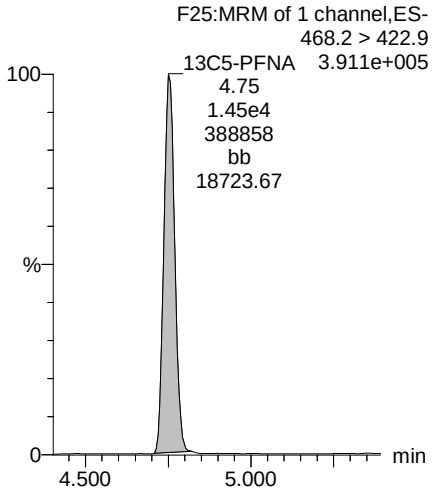




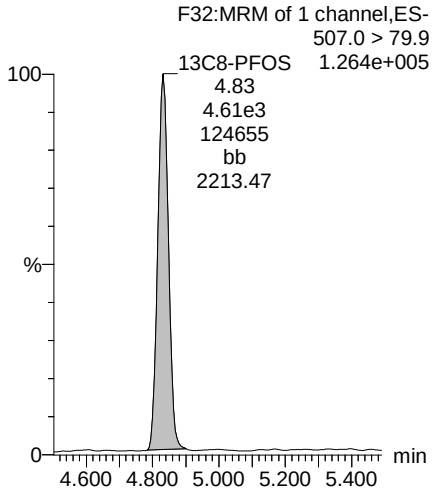
13C2-PFOA



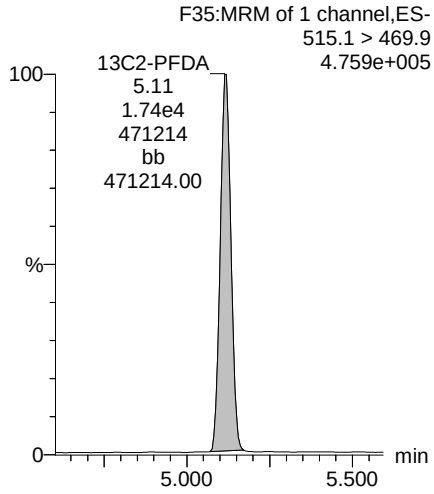
13C5-PFNA



13C8-PFOS



13C2-PFDA

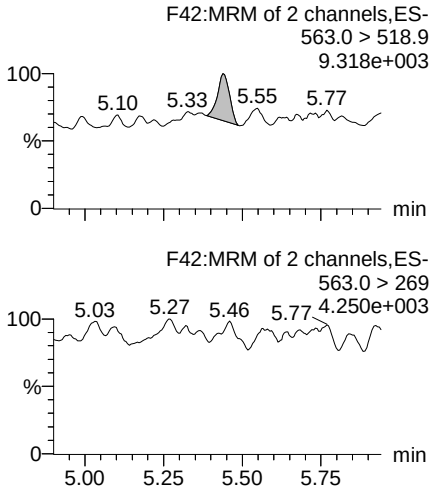


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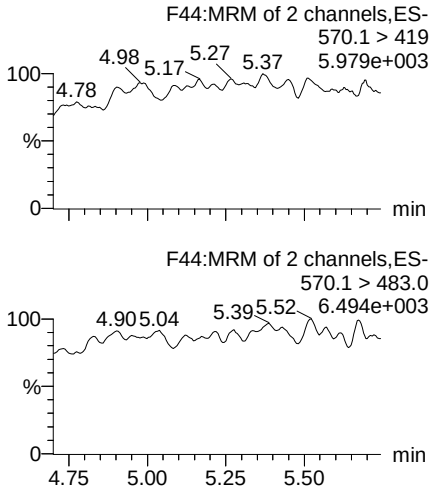
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Name: 171224M2_50, Date: 25-Dec-2017, Time: 09:29:02, ID: 1701829-08 FT-DUP02-20171130 0.26709, Description: FT-DUP02-20171130

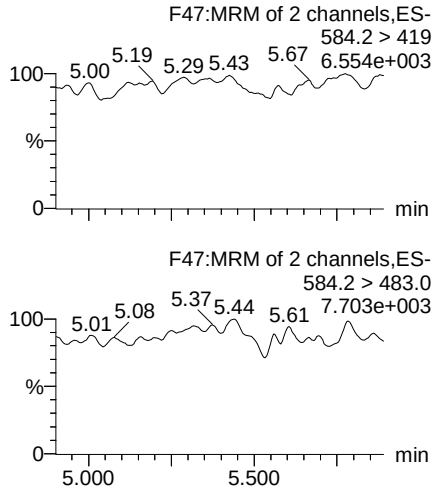
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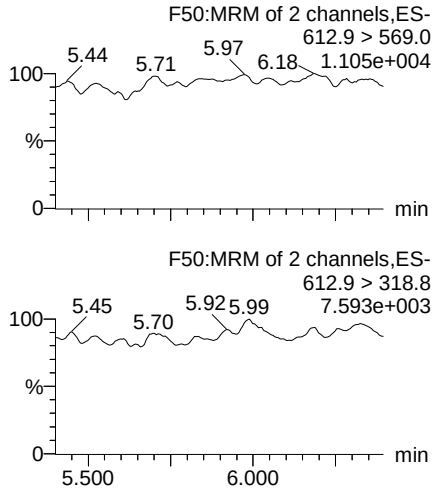
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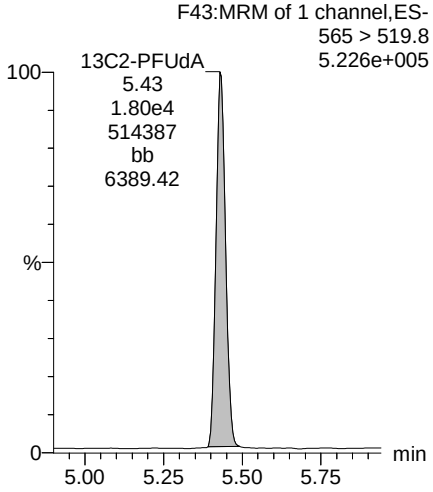
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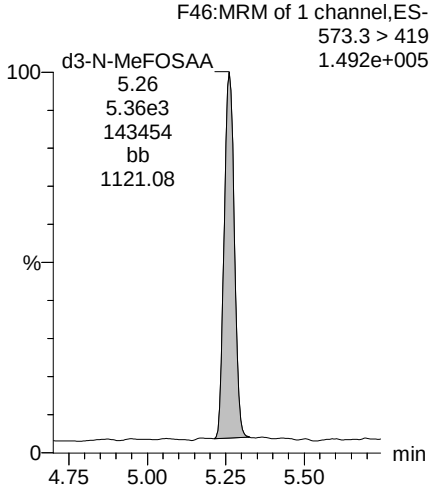
PFDoA



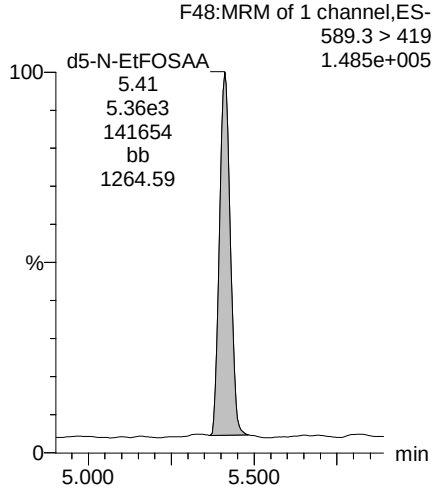
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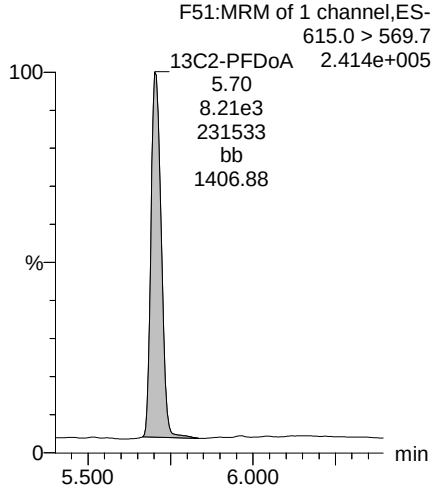
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d5-N-EtFOSAA



13C2-PFDoA

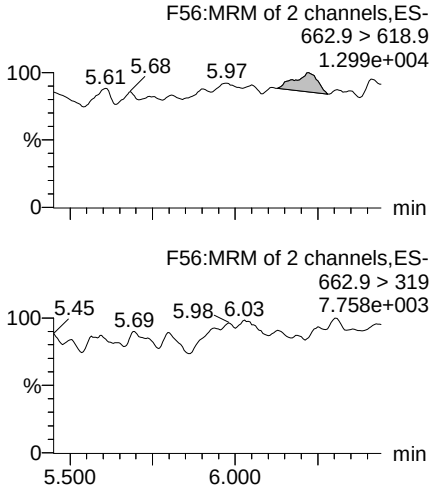


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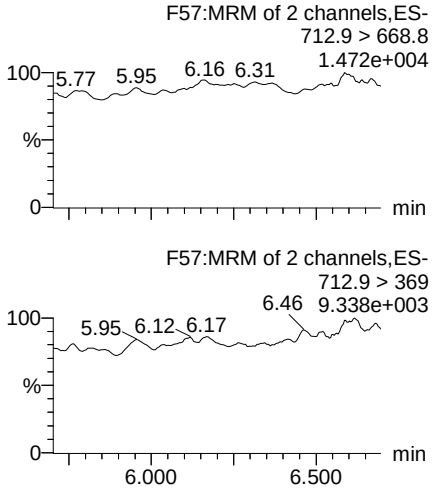
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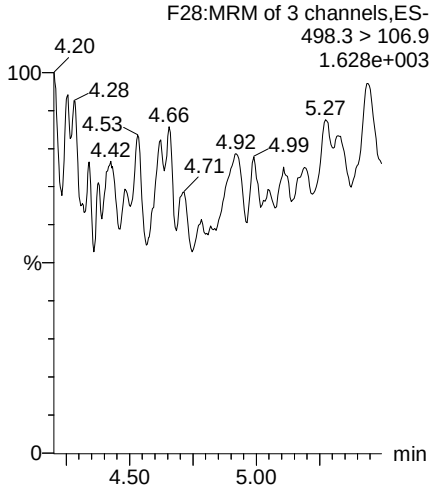
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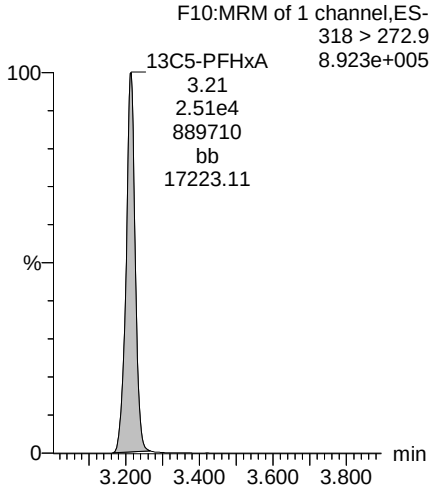
PFTeDA



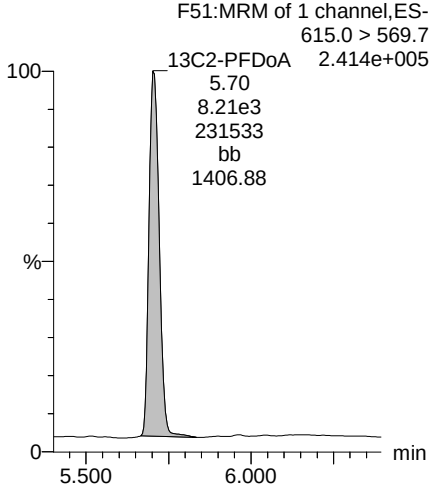
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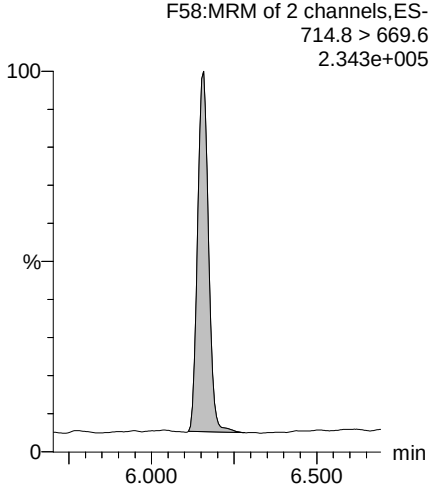
13C5-PFHxA



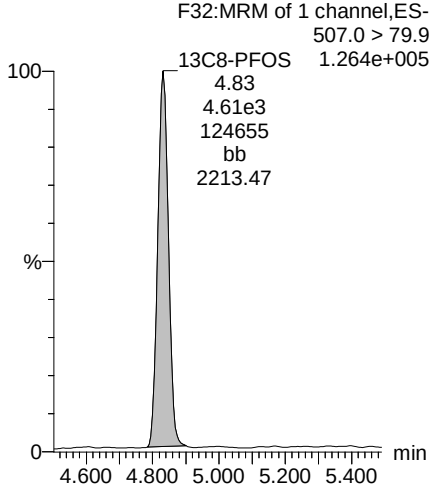
13C2-PFDoA



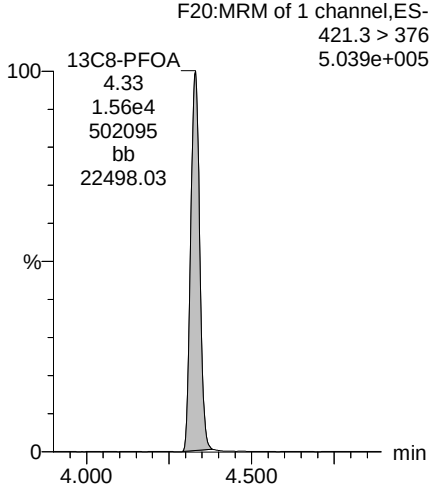
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

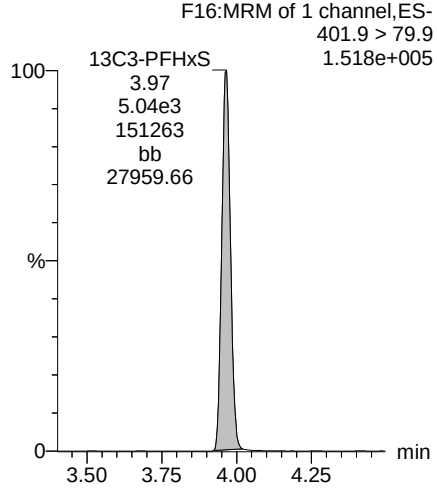


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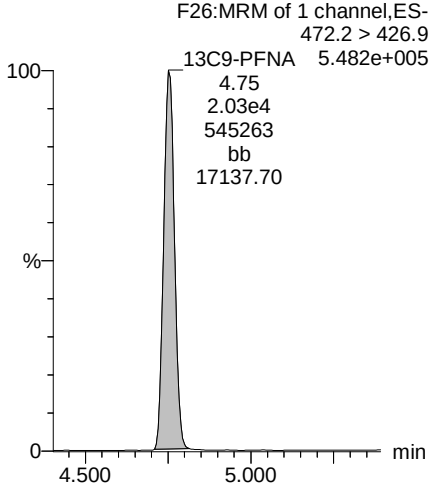
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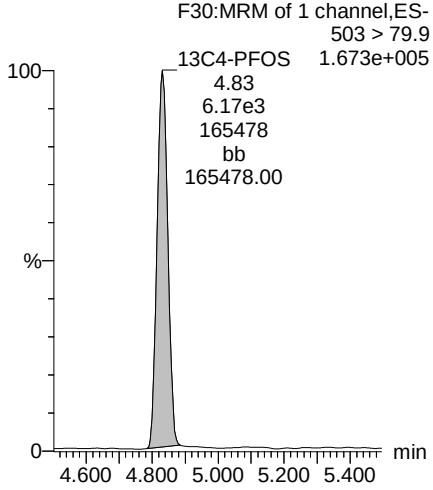
13C3-PFHxS



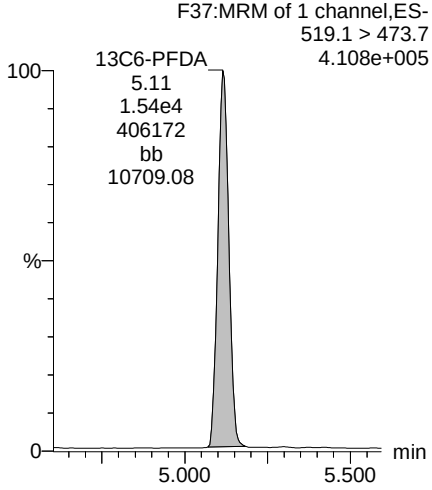
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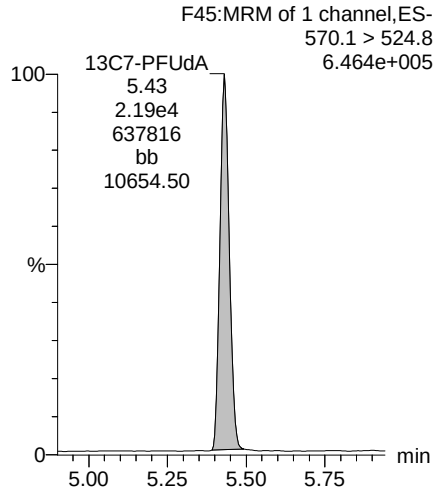
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_51.qld

Last Altered: Friday, December 29, 2017 14:46:00 Pacific Standard Time
Printed: Friday, December 29, 2017 14:46:22 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_51, Date: 25-Dec-2017, Time: 09:40:13, ID: 1701829-09 FT-MW02S-20171130 0.25878, Description: FT-MW02S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	1.40e2	1.14e3	0.259		2.70	2.70	1.54	3.2175	
2	4	PFHxA	313.2 > 268.9	1.04e4	2.81e3	0.259		3.20	3.20	18.4	49.2914	
3	5	PFHpA	363.0 > 318.9	4.58e3	5.85e3	0.259		3.80	3.81	9.79	24.9749	
4	6	L-PFHxS	398.9 > 79.6	1.59e4	9.41e2	0.259		3.95	3.95	211	370.7287	
5	9	L-PFOA	413 > 368.7	5.49e4	8.93e3	0.259		4.32	4.32	76.9	289.0595	
6	12	PFNA	463.0 > 418.8	1.08e5	6.75e3	0.259		4.75	4.75	199	501.0507	
7	14	L-PFOS	499 > 79.9	3.57e3	2.44e3	0.259		4.83	4.83	18.3	65.7027	
8	16	PFDA	513 > 468.8	2.60e3	7.05e3	0.259		5.11	5.11	4.61	13.4362	
9	18	N-MeFOSAA	570.1 > 419		2.26e3	0.259		5.26				
10	19	N-EtFOSAA	584.2 > 419		3.00e3	0.259		5.42				
11	20	PFUdA	563.0 > 518.9	2.90e4	6.55e3	0.259		5.43	5.43	55.4	180.5409	
12	22	PFDoA	612.9 > 569.0		3.40e3	0.259		5.70				

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_51.qld

Last Altered: Friday, December 29, 2017 14:46:00 Pacific Standard Time
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Name: 171224M2_51, Date: 25-Dec-2017, Time: 09:40:13, ID: 1701829-09 FT-MW02S-20171130 0.25878, Description: FT-MW02S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	1.94e2	3.32e3	0.259		5.95	5.96	0.731	1.8379	
2	25	PFTeDA	712.9 > 668.8		3.32e3	0.259		6.16				
3	33	13C3-PFBS	302. > 98.8	1.14e3	1.08e4	0.259	0.101	2.70	2.70	1.32	50.5023	104.6
4	34	13C2-PFHxA	315 > 269.8	2.81e3	1.08e4	0.259	0.758	3.20	3.20	3.26	16.6260	86.0
5	35	13C4-PFHpA	367.2 > 321.8	5.85e3	1.08e4	0.259	0.562	3.80	3.81	6.78	46.5711	96.4
6	36	18O2-PFHxS	403.0 > 102.6	9.41e2	2.82e3	0.259	0.435	3.95	3.95	4.18	37.0979	76.8
7	37	13C2-6:2 FTS	429.1 > 408.9	2.04e3	8.25e3	0.259	0.393	4.26	4.27	3.10	30.4553	63.0
8	38	13C2-PFOA	414.9 > 369.7	8.93e3	8.25e3	0.259	1.252	4.32	4.32	13.5	41.7544	86.4
9	39	13C5-PFNA	468.2 > 422.9	6.75e3	8.15e3	0.259	0.962	4.75	4.75	10.4	41.5730	86.1
10	40	13C8-PFOSA	506.1 > 77.7	1.60e3	8.67e3	0.259	0.345	4.81	4.81	2.31	25.8997	53.6
11	41	13C8-PFOS	507.0 > 79.9	2.44e3	2.57e3	0.259	1.003	4.83	4.83	11.9	45.6495	94.5
12	42	13C2-PFDA	515.1 > 469.9	7.05e3	7.91e3	0.259	1.194	5.11	5.11	11.1	36.0517	74.6
13	43	13C2-8:2 FTS	529.1 > 508.7	1.45e3	1.08e4	0.259	0.150	5.09	5.09	1.68	43.2937	89.6
14	44	d3-N-MeFOSAA	573.3 > 419	2.26e3	8.67e3	0.259	0.372	5.26	5.26	3.26	33.8865	70.2
15	45	d5-N-EtFOSAA	589.3 > 419	3.00e3	8.67e3	0.259	0.444	5.42	5.41	4.33	37.6894	78.0
16	46	13C2-PFUdA	565 > 519.8	6.55e3	8.67e3	0.259	1.091	5.43	5.43	9.45	33.4833	69.3
17	47	13C2-PFDoA	615.0 > 569.7	3.40e3	8.67e3	0.259	0.629	5.70	5.70	4.90	30.0946	62.3
18	49	13C2-PFTeDA	714.8 > 669.6	3.32e3	8.67e3	0.259	0.551	6.16	6.15	4.79	33.6517	69.7
19	55	13C5-PFHxA	318 > 272.9	1.08e4	1.08e4	0.259	1.000	3.20	3.20	12.5	48.3036	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.82e3	2.82e3	0.259	1.000	3.95	3.95	12.5	48.3036	100.0
21	57	13C8-PFOA	421.3 > 376	8.25e3	8.25e3	0.259	1.000	4.32	4.32	12.5	48.3036	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.15e3	8.15e3	0.259	1.000	4.75	4.75	12.5	48.3036	100.0
23	59	13C4-PFOS	503 > 79.9	2.57e3	2.57e3	0.259	1.000	4.83	4.83	12.5	48.3036	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.91e3	7.91e3	0.259	1.000	5.11	5.11	12.5	48.3036	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.67e3	8.67e3	0.259	1.000	5.43	5.43	12.5	48.3036	100.0
26	62	Total PFHxS	398.9 > 79.6	1.65e4	9.41e2	0.259		4.00		220	385.8905	
27	63	Total PFOA	413 > 368.7	5.79e4	8.93e3	0.259		4.30		81.1	303.9017	
28	64	Total PFOS	499 > 79.9	4.13e3	2.44e3	0.259		4.80		21.2	76.0402	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.26e3	0.259		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.00e3	0.259		5.40		0.000		

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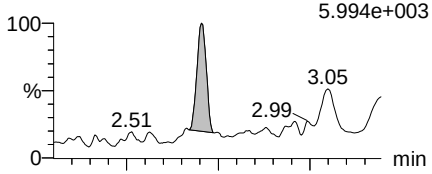
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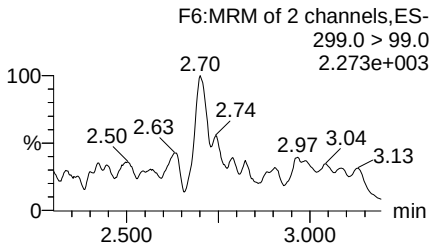
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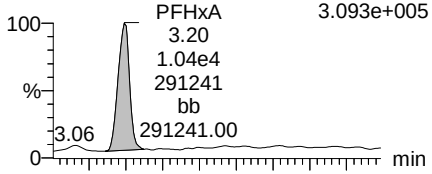
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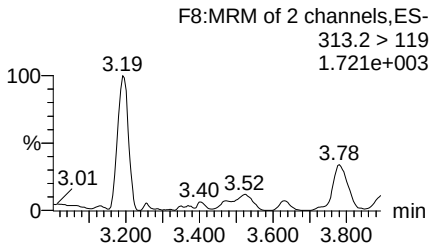
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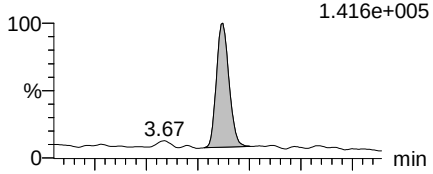


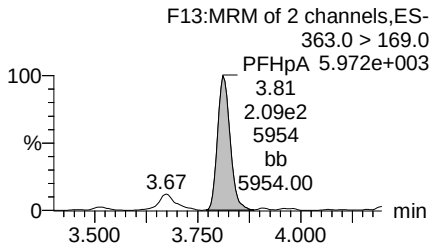
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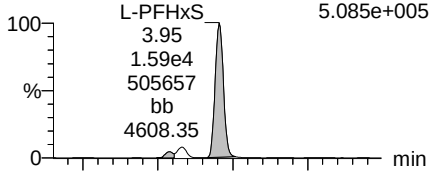


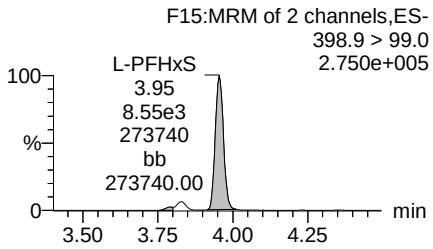
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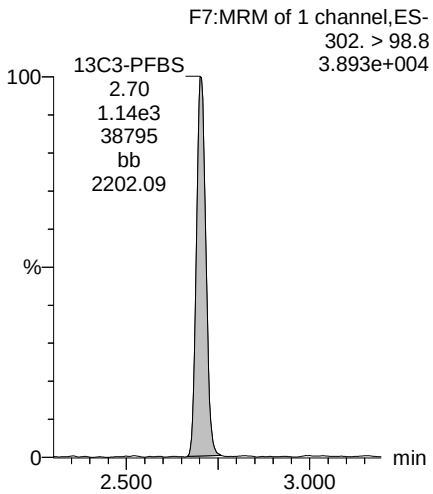


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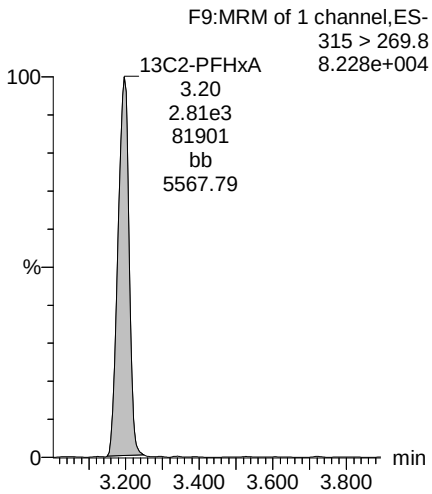




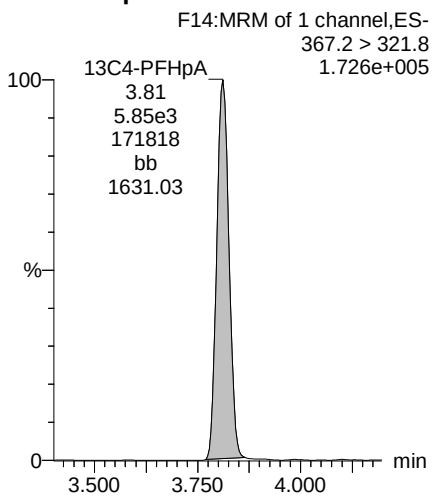
13C3-PFBS



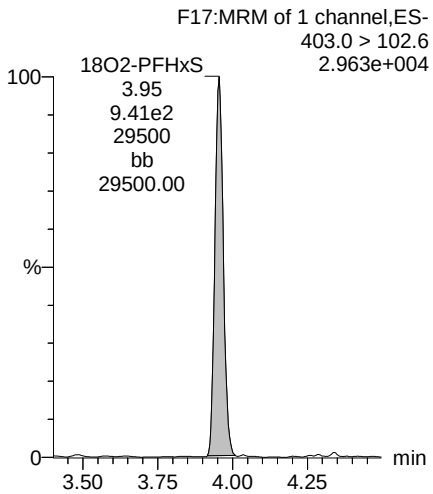
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

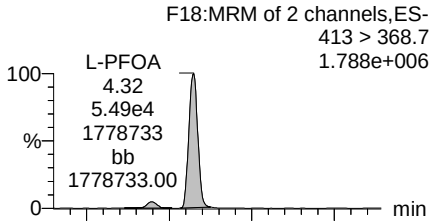


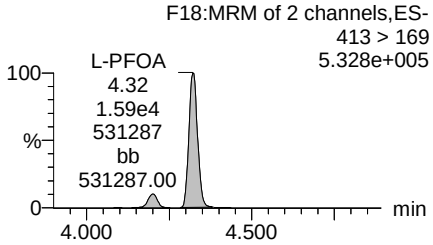
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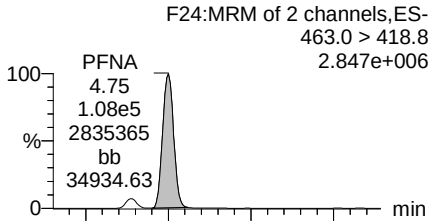
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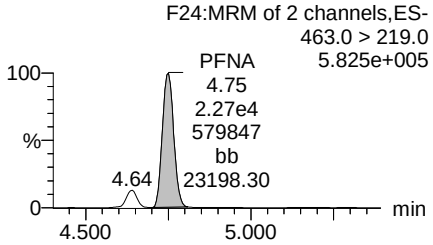
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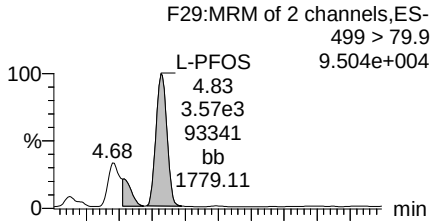


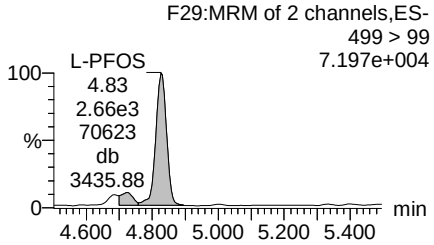
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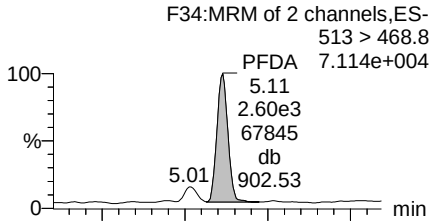


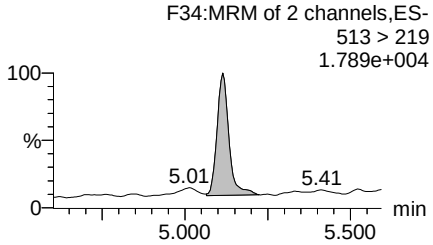
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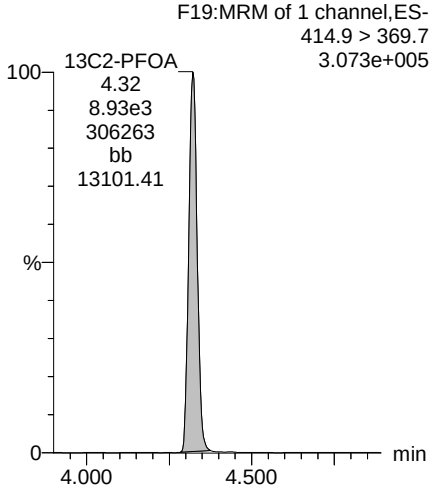


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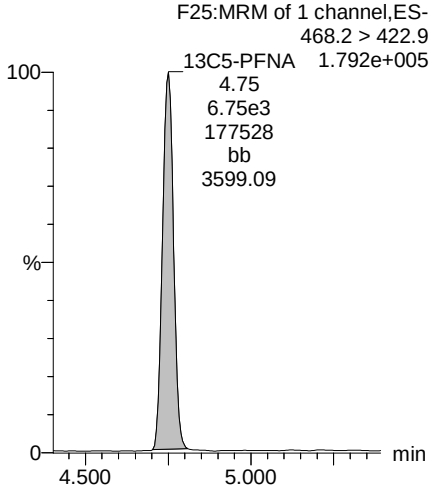




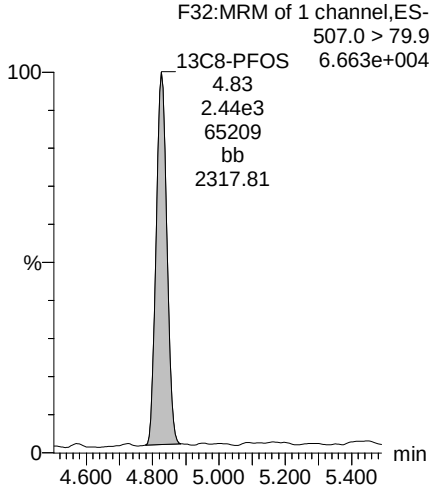
13C2-PFOA



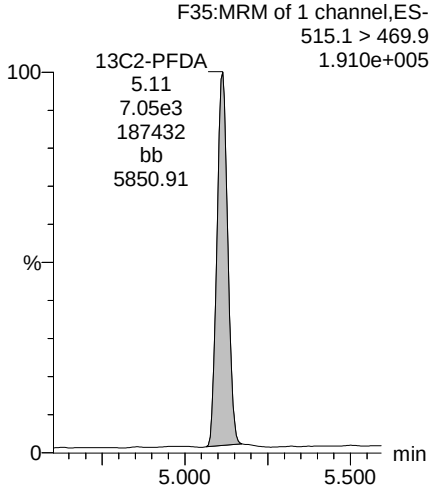
13C5-PFNA



13C8-PFOS



13C2-PFDA

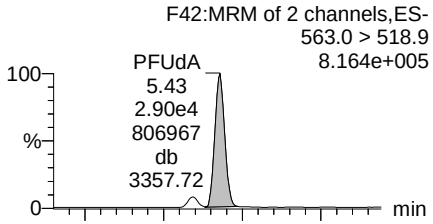


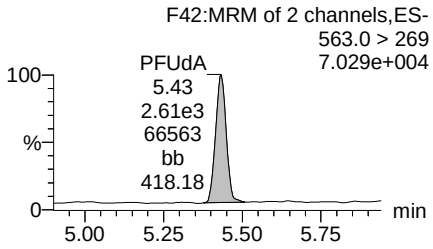
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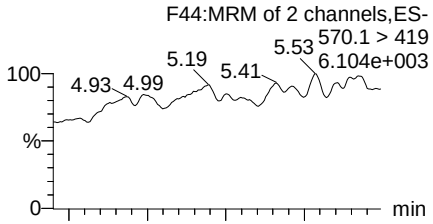
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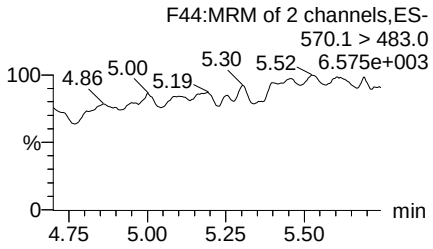
PFUdA



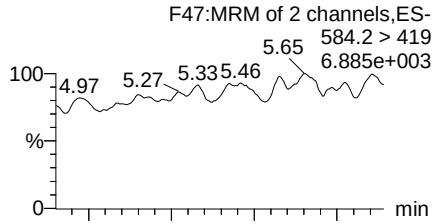


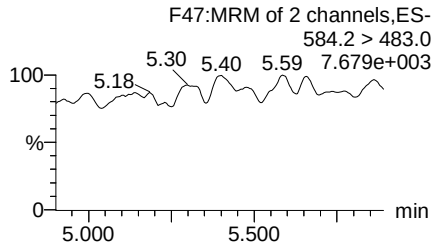
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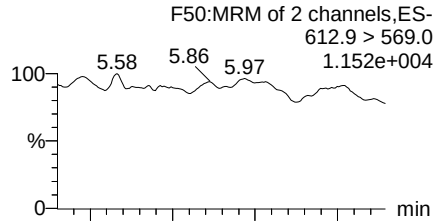


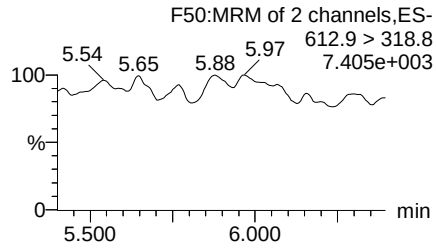
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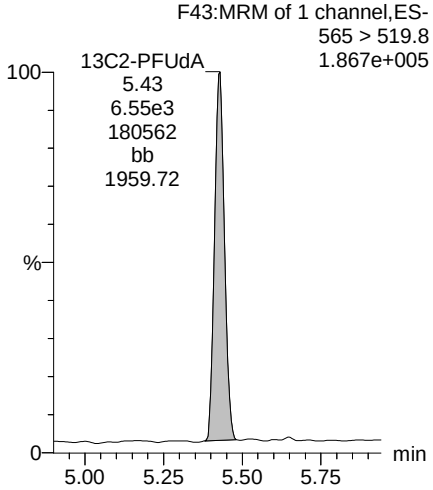


PFDoA

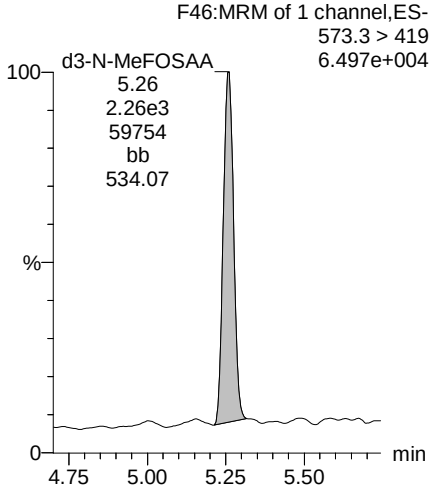




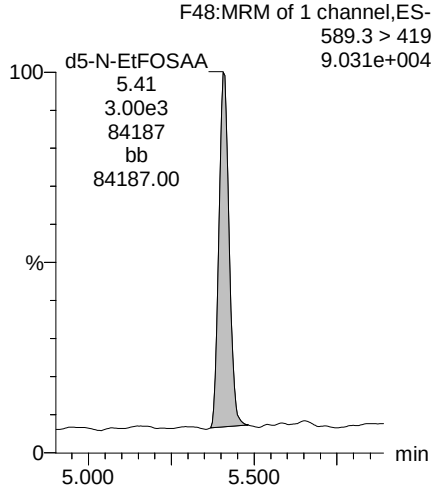
13C2-PFUdA



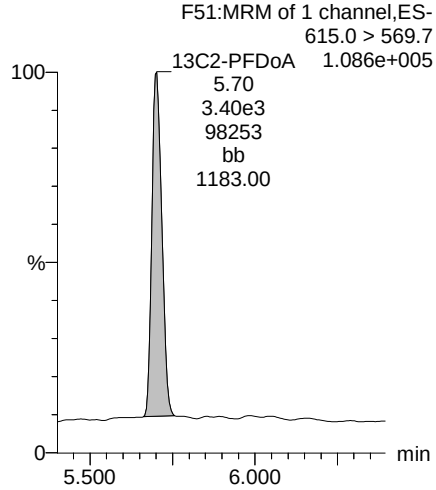
d3-N-MeFOSAA



d5-N-EtFOSAA



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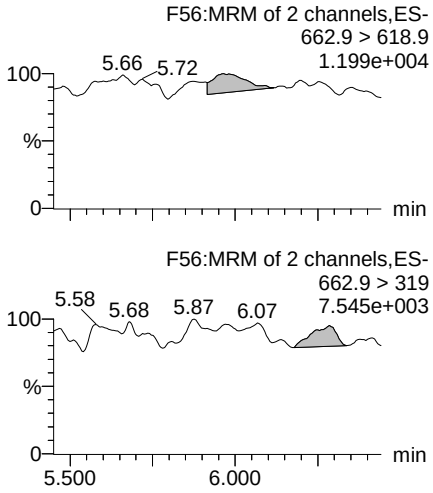


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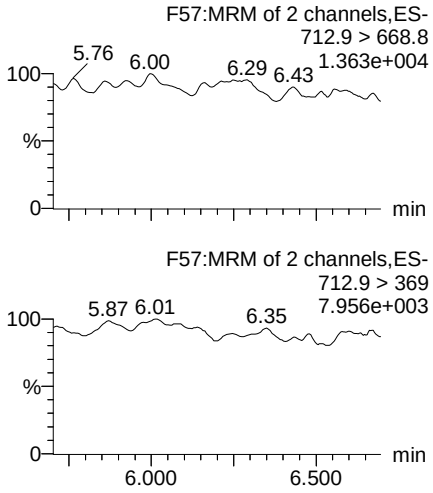
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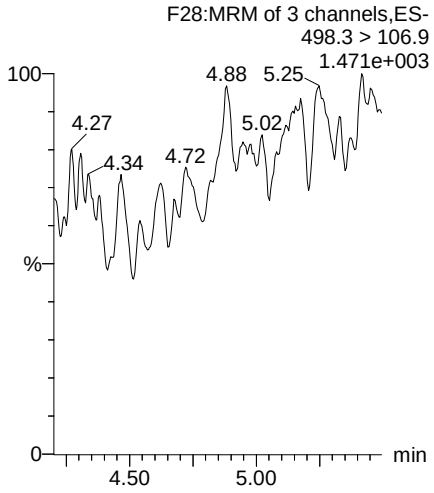
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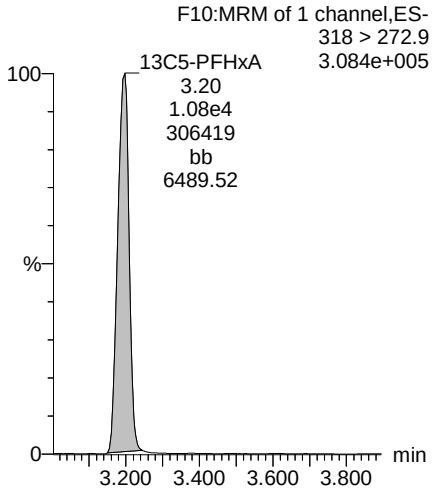
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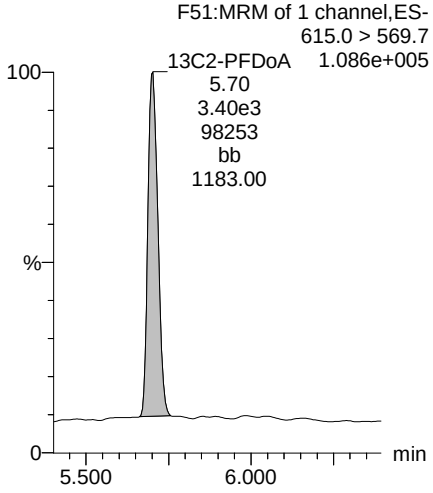
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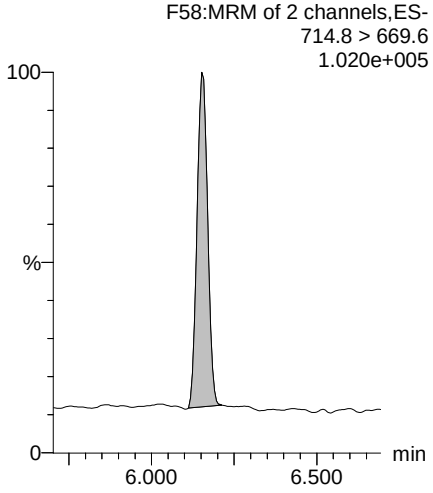
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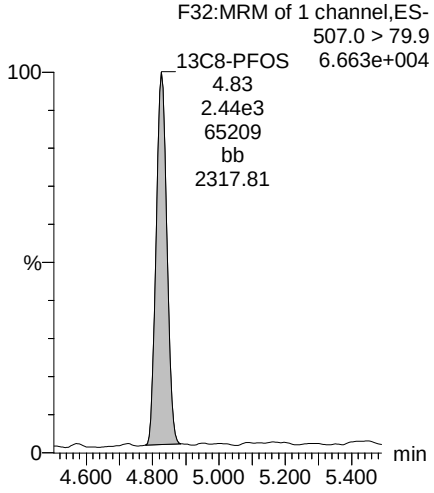
13C2-PFDoA



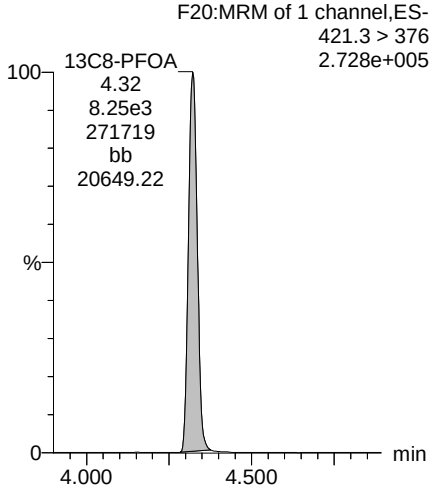
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

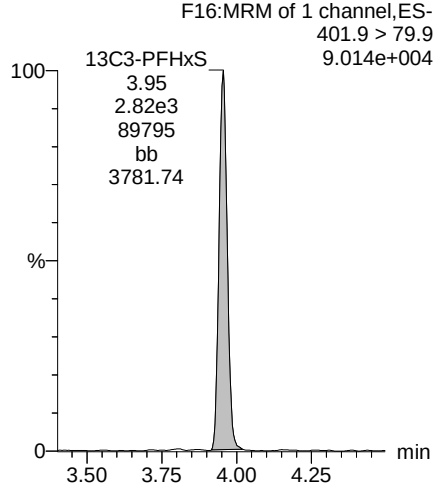


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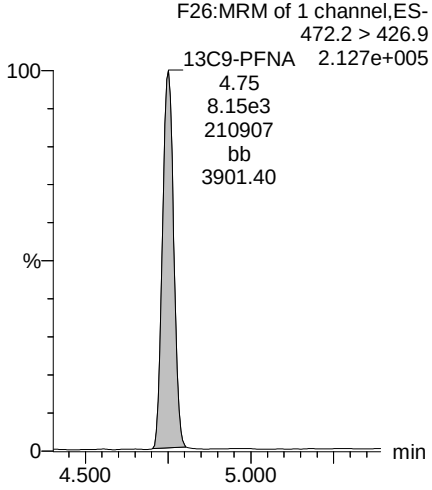
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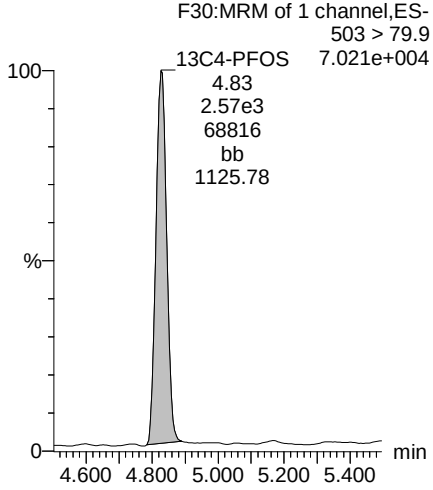
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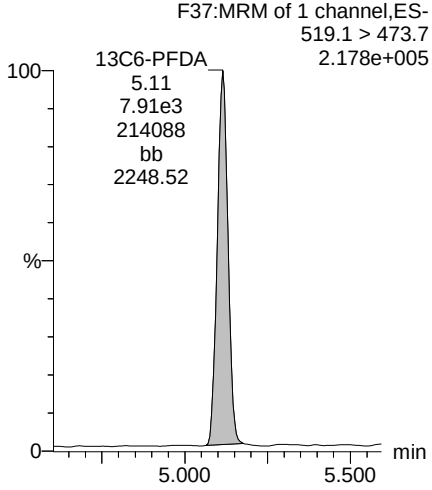
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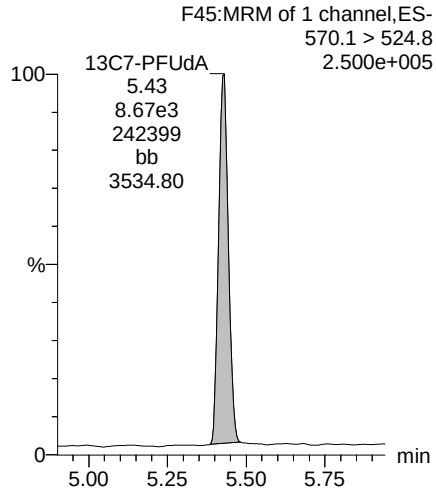
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_52.qld

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Printed: Friday, December 29, 2017 14:47:50 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_52, Date: 25-Dec-2017, Time: 09:51:24, ID: 1701829-10 FT-MW03S-20171130 0.26156, Description: FT-MW03S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	6.05e1	1.11e3	0.262		2.70	2.73	0.682	1.7423	
2	4	PFHxA	313.2 > 268.9	1.34e3	3.15e3	0.262		3.20	3.21	2.12	5.1554	
3	5	PFHpA	363.0 > 318.9	3.48e2	5.15e3	0.262		3.80	3.82	0.846	2.4979	
4	6	L-PFHxS	398.9 > 79.6	1.07e2	9.76e2	0.262		3.95	3.97	1.37	2.3415	
5	9	L-PFOA	413 > 368.7	1.08e3	8.41e3	0.262		4.32	4.33	1.61	5.2289	
6	12	PFNA	463.0 > 418.8	1.35e3	7.20e3	0.262		4.75	4.75	2.35	6.4223	
7	14	L-PFOS	499 > 79.9	7.61e1	2.82e3	0.262		4.83	4.83	0.338	1.1542	
8	16	PFDA	513 > 468.8		6.58e3	0.262		5.11				
9	18	N-MeFOSAA	570.1 > 419		2.80e3	0.262		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.75e3	0.262		5.42				
11	20	PFUdA	563.0 > 518.9		6.24e3	0.262		5.43				
12	22	PFDoA	612.9 > 569.0	1.09e2	3.25e3	0.262		5.70	5.83	0.418	0.8925	

Vista Analytical Laboratory

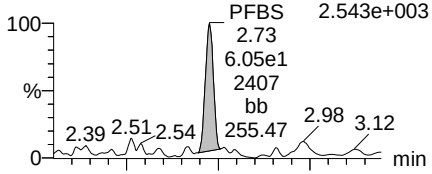
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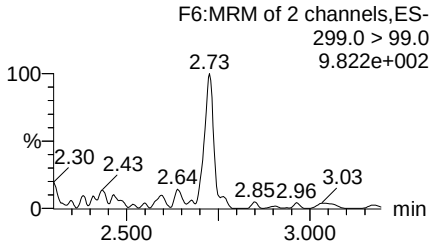
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
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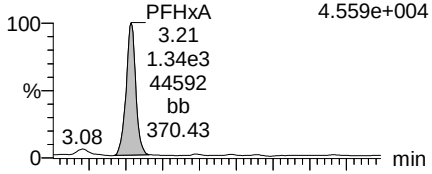
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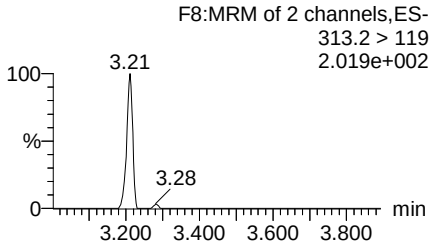
PFBS



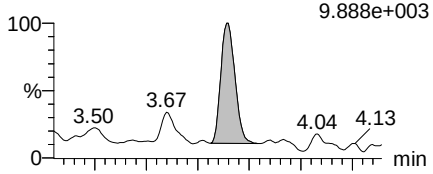


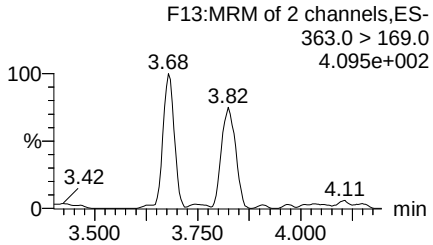
PFHxA



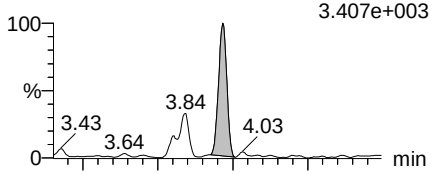


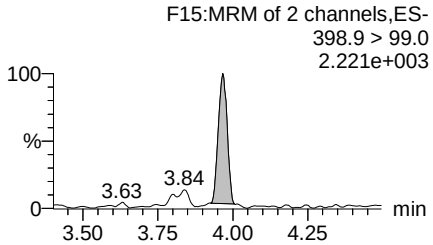
PFHpA



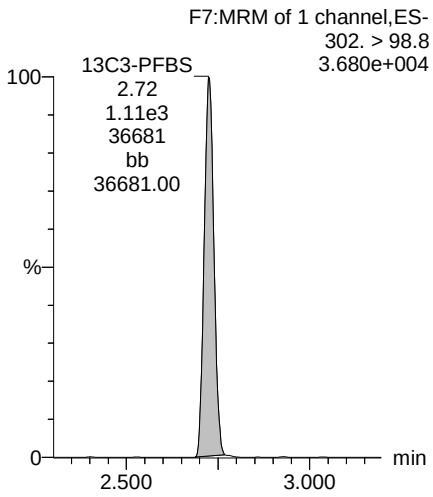


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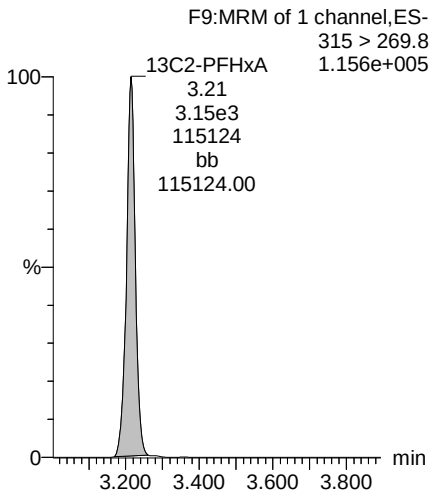




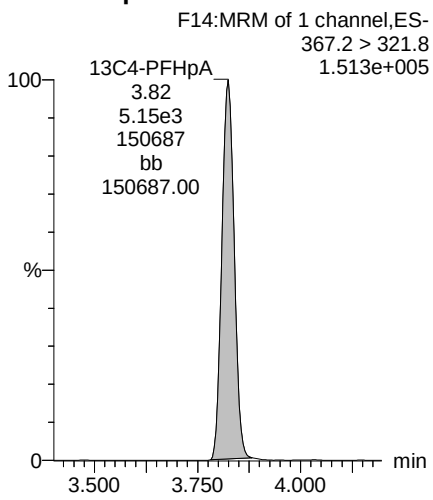
13C3-PFBS



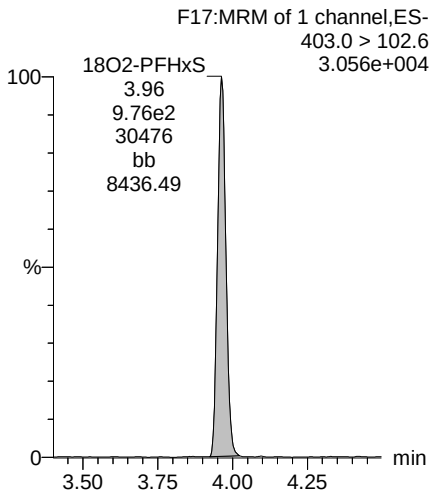
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

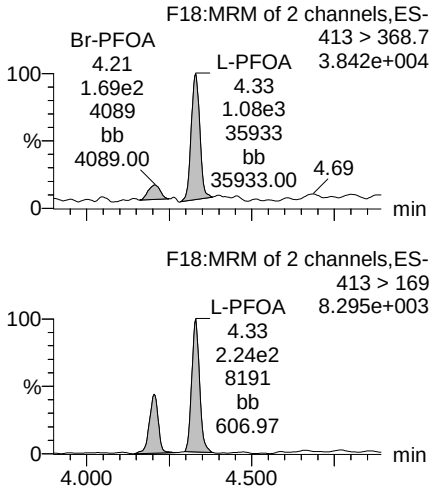


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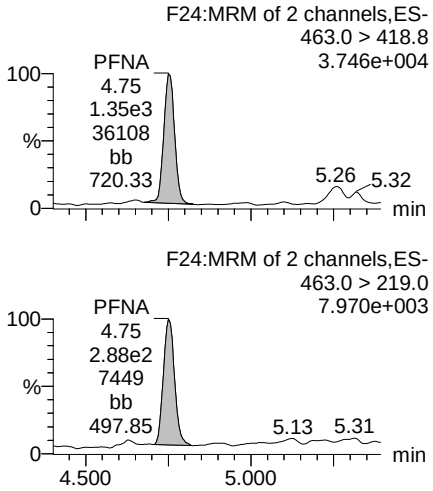
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Name: 171224M2_52, Date: 25-Dec-2017, Time: 09:51:24, ID: 1701829-10 FT-MW03S-20171130 0.26156, Description: FT-MW03S-20171130

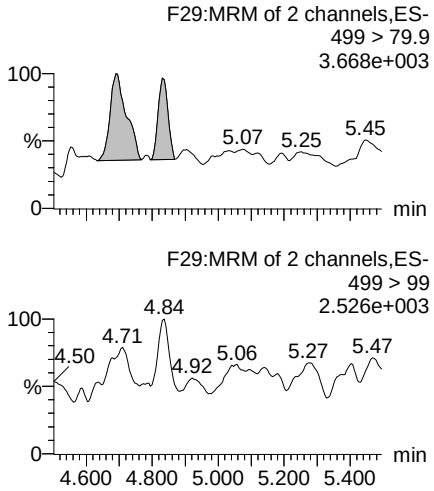
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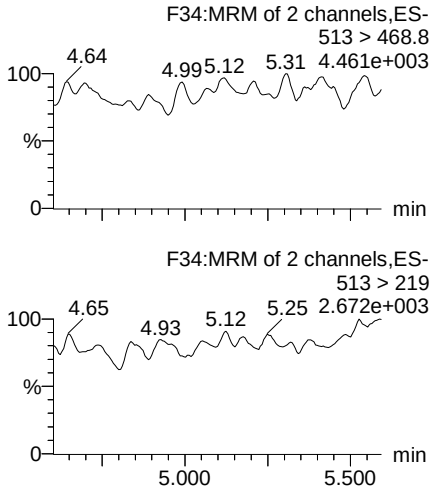
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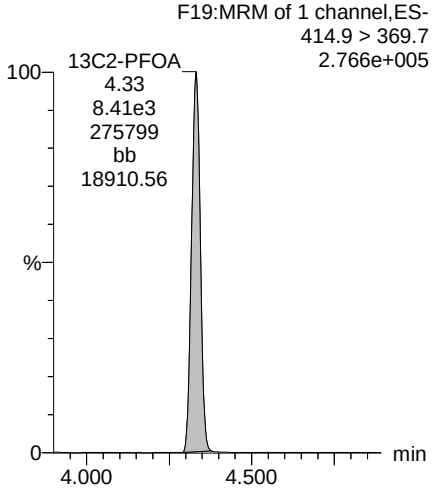
Total PFOS



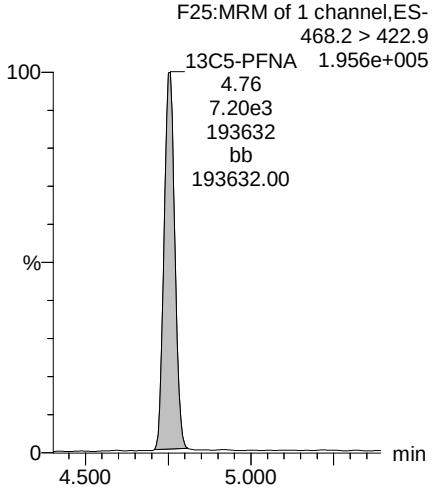
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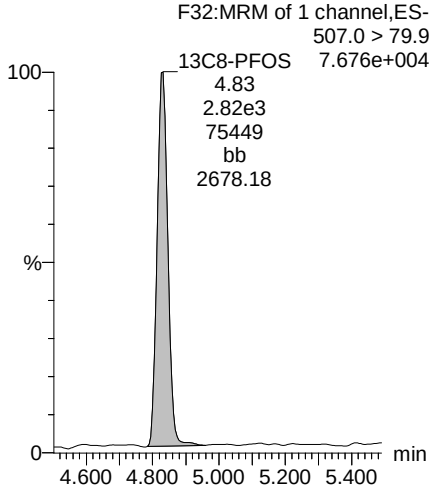
13C2-PFOA



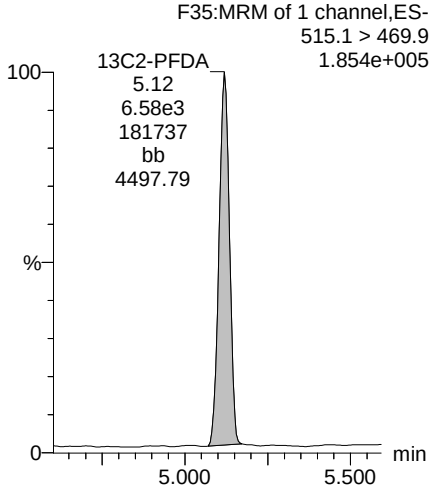
13C5-PFNA



13C8-PFOS



13C2-PFDA

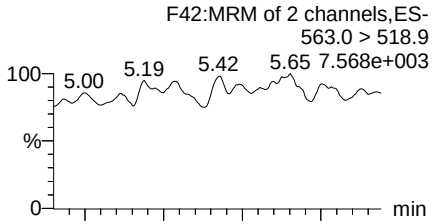


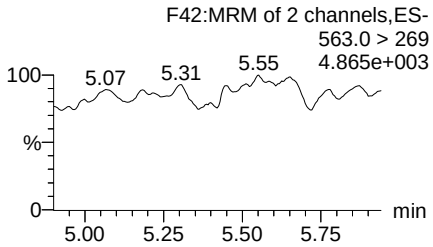
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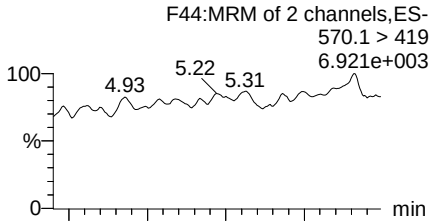
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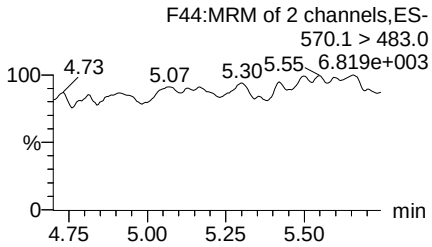
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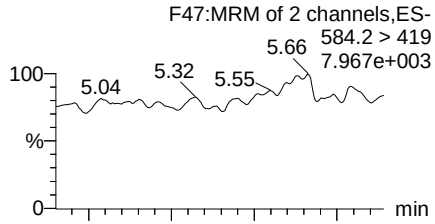


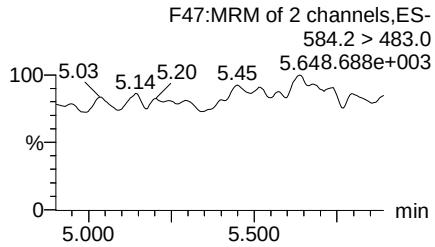
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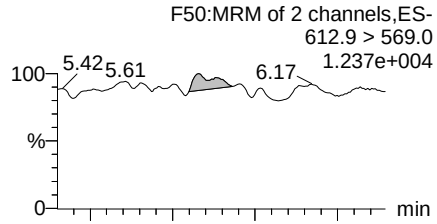


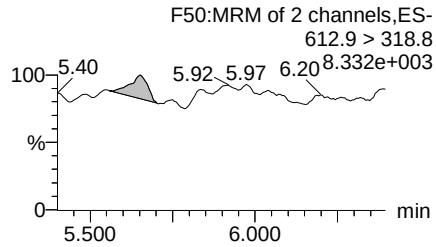
N-EtFOSAA



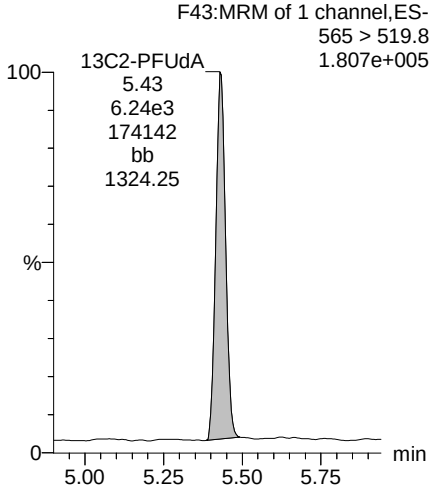


PFDoA

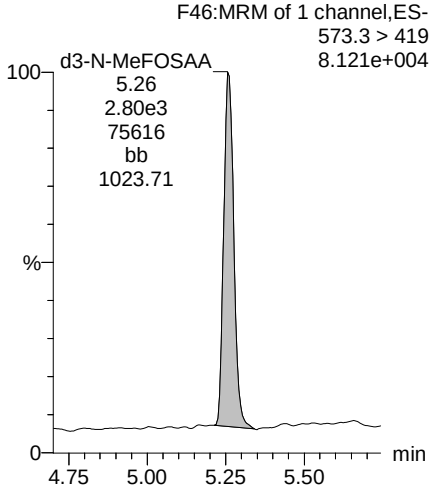




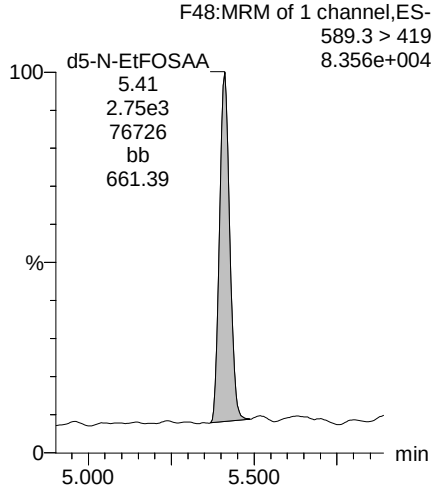
13C2-PFUdA



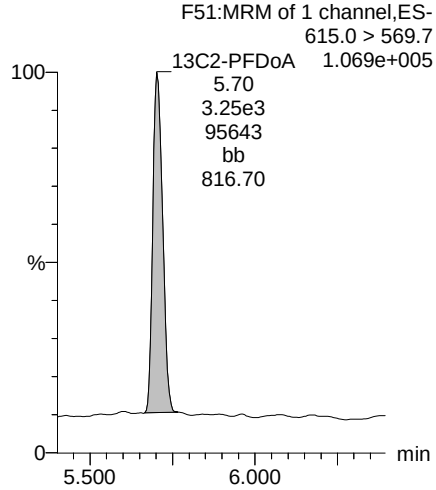
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

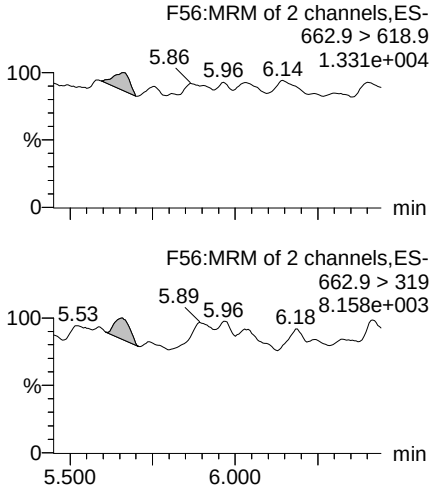


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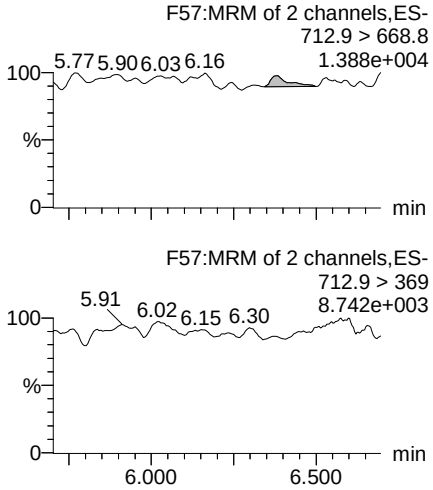
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Name: 171224M2_52, Date: 25-Dec-2017, Time: 09:51:24, ID: 1701829-10 FT-MW03S-20171130 0.26156, Description: FT-MW03S-20171130

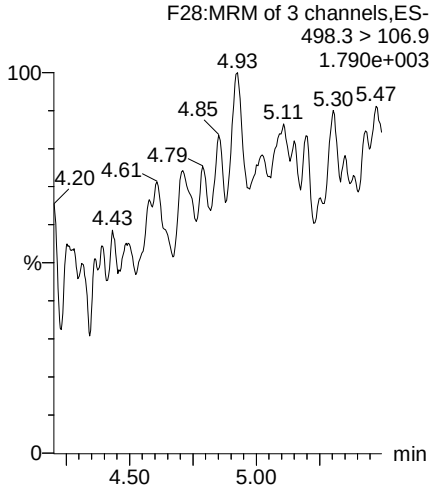
PFTrDA



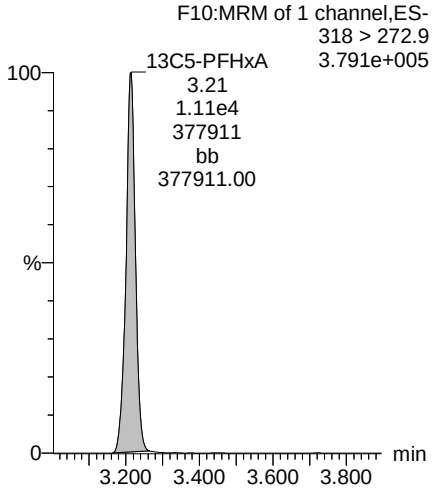
PFTeDA



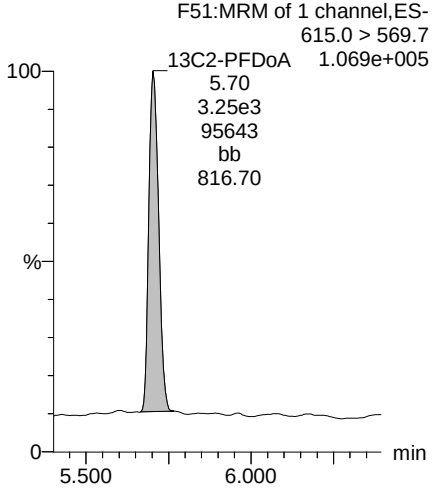
TCDA



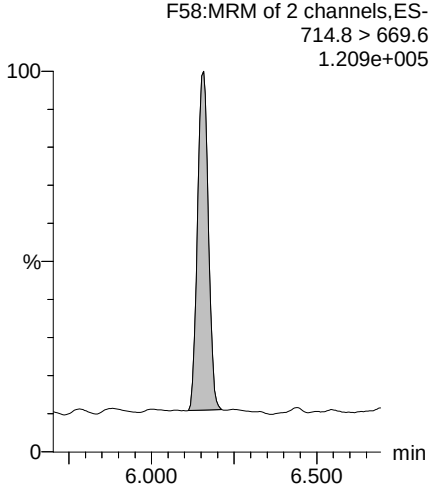
13C5-PFHxA



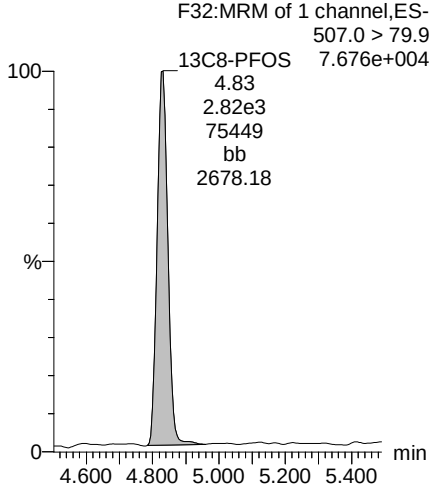
13C2-PFDoA



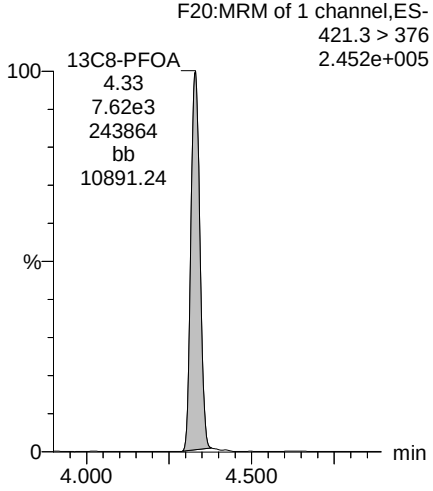
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

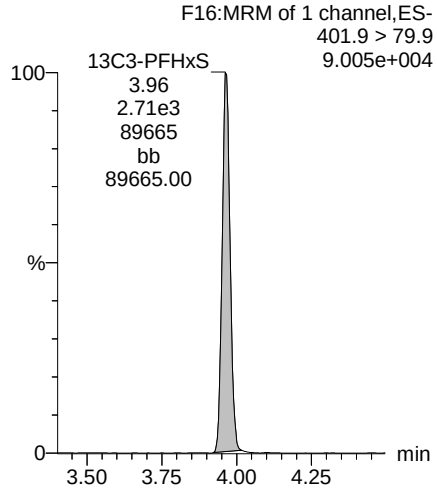


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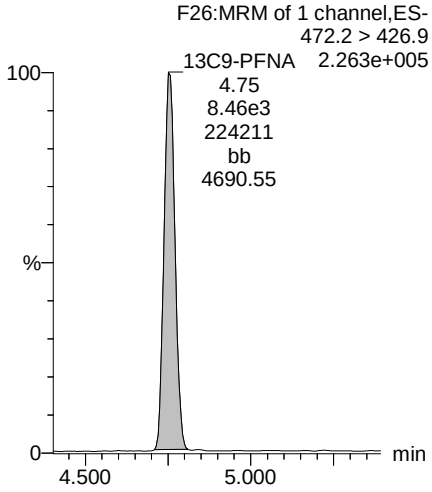
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Name: 171224M2_52, Date: 25-Dec-2017, Time: 09:51:24, ID: 1701829-10 FT-MW03S-20171130 0.26156, Description: FT-MW03S-20171130

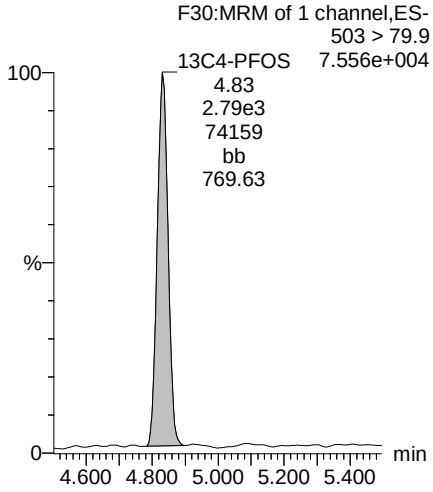
13C3-PFHxS



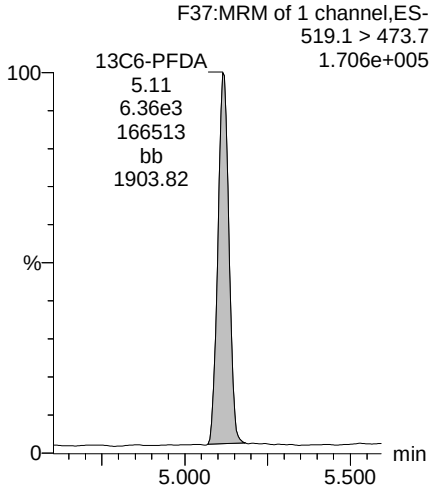
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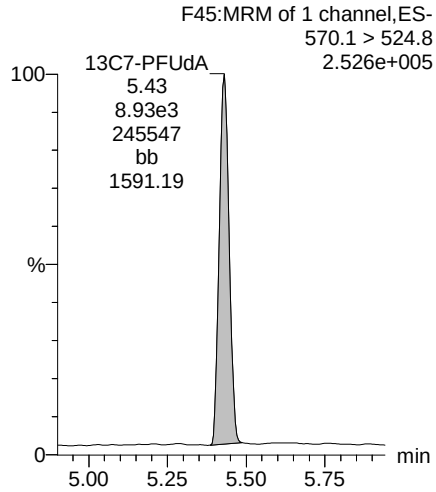
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_52.qld

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Name: 171224M2_52, Date: 25-Dec-2017, Time: 09:51:24, ID: 1701829-10 FT-MW03S-20171130 0.26156, Description: FT-MW03S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	9.72e1	4.08e3	0.262		5.95	5.66	0.298	1.1930	
2	25	PFTeDA	712.9 > 668.8	6.67e1	4.08e3	0.262		6.16	6.38	0.204	0.1319	
3	33	13C3-PFBS	302. > 98.8	1.11e3	1.11e4	0.262	0.101	2.70	2.72	1.25	47.3662	99.1
4	34	13C2-PFHxA	315 > 269.8	3.15e3	1.11e4	0.262	0.758	3.20	3.21	3.56	17.9427	93.9
5	35	13C4-PFHpA	367.2 > 321.8	5.15e3	1.11e4	0.262	0.562	3.80	3.82	5.81	39.4748	82.6
6	36	18O2-PFHxS	403.0 > 102.6	9.76e2	2.71e3	0.262	0.435	3.95	3.96	4.50	39.5391	82.7
7	37	13C2-6:2 FTS	429.1 > 408.9	1.67e3	7.62e3	0.262	0.393	4.26	4.28	2.74	26.6360	55.7
8	38	13C2-PFOA	414.9 > 369.7	8.41e3	7.62e3	0.262	1.252	4.32	4.33	13.8	42.1179	88.1
9	39	13C5-PFNA	468.2 > 422.9	7.20e3	8.46e3	0.262	0.962	4.75	4.76	10.6	42.2458	88.4
10	40	13C8-PFOSA	506.1 > 77.7	1.48e3	8.93e3	0.262	0.345	4.81	4.82	2.08	23.0314	48.2
11	41	13C8-PFOS	507.0 > 79.9	2.82e3	2.79e3	0.262	1.003	4.83	4.83	12.6	48.1247	100.7
12	42	13C2-PFDA	515.1 > 469.9	6.58e3	6.36e3	0.262	1.194	5.11	5.12	12.9	41.4001	86.6
13	43	13C2-8:2 FTS	529.1 > 508.7	1.10e3	1.11e4	0.262	0.150	5.09	5.09	1.24	31.5044	65.9
14	44	d3-N-MeFOSAA	573.3 > 419	2.80e3	8.93e3	0.262	0.372	5.26	5.26	3.91	40.1863	84.1
15	45	d5-N-EtFOSAA	589.3 > 419	2.75e3	8.93e3	0.262	0.444	5.42	5.41	3.85	33.1901	69.4
16	46	13C2-PFUdA	565 > 519.8	6.24e3	8.93e3	0.262	1.091	5.43	5.43	8.74	30.6323	64.1
17	47	13C2-PFDoA	615.0 > 569.7	3.25e3	8.93e3	0.262	0.629	5.70	5.70	4.55	27.6686	57.9
18	49	13C2-PFTeDA	714.8 > 669.6	4.08e3	8.93e3	0.262	0.551	6.16	6.16	5.71	39.6738	83.0
19	55	13C5-PFHxA	318 > 272.9	1.11e4	1.11e4	0.262	1.000	3.20	3.21	12.5	47.7902	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.71e3	2.71e3	0.262	1.000	3.95	3.96	12.5	47.7902	100.0
21	57	13C8-PFOA	421.3 > 376	7.62e3	7.62e3	0.262	1.000	4.32	4.33	12.5	47.7902	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.46e3	8.46e3	0.262	1.000	4.75	4.75	12.5	47.7902	100.0
23	59	13C4-PFOS	503 > 79.9	2.79e3	2.79e3	0.262	1.000	4.83	4.83	12.5	47.7902	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.36e3	6.36e3	0.262	1.000	5.11	5.11	12.5	47.7902	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.93e3	8.93e3	0.262	1.000	5.43	5.43	12.5	47.7902	100.0
26	62	Total PFHxS	398.9 > 79.6	1.07e2	9.76e2	0.262		4.00		1.37	2.3415	
27	63	Total PFOA	413 > 368.7	1.25e3	8.41e3	0.262		4.30		1.86	5.3890	
28	64	Total PFOS	499 > 79.9	2.11e2	2.82e3	0.262		4.80		0.935	3.2317	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.80e3	0.262		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.75e3	0.262		5.40		0.000		

Vista Analytical Laboratory

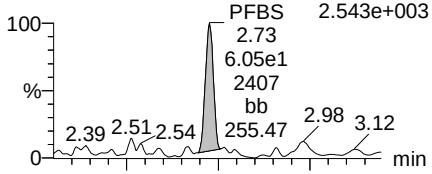
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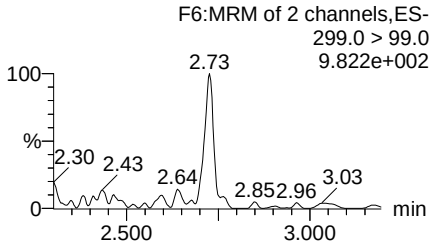
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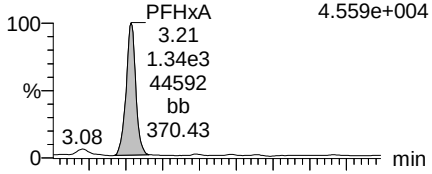
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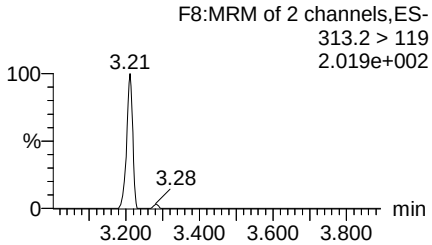
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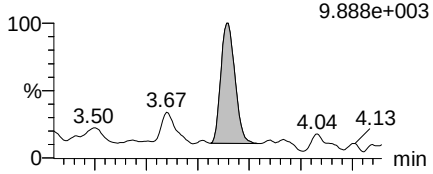


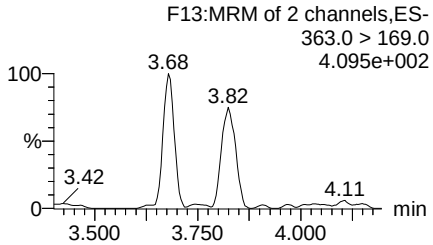
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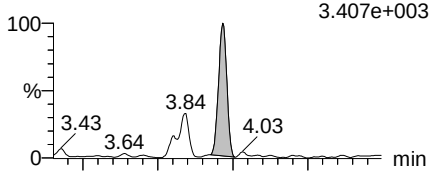


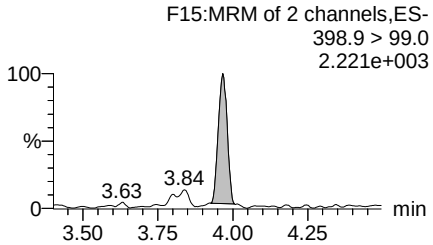
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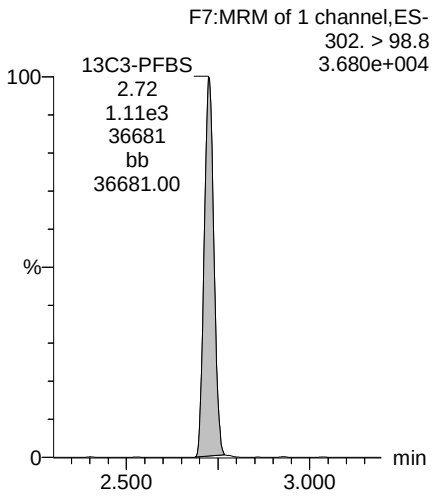


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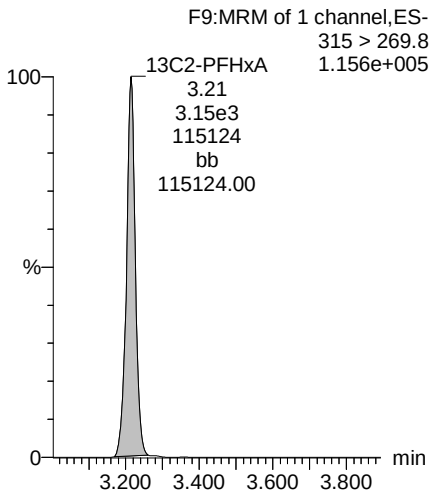




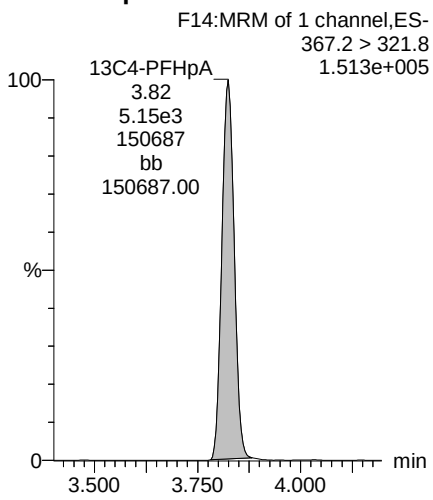
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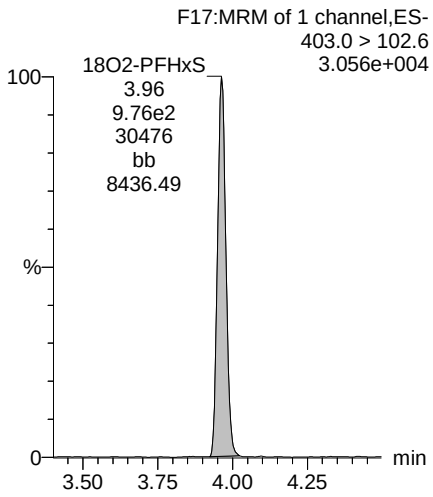
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13C4-PFHpA



18O2-PFHxS

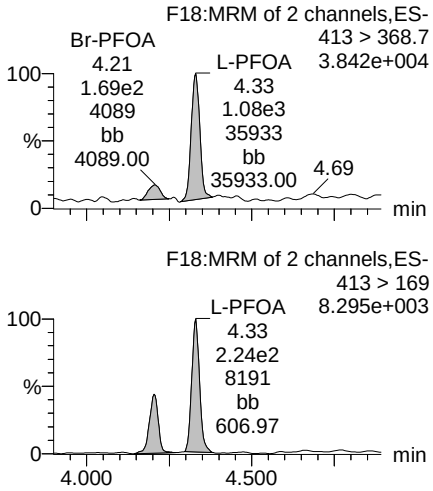


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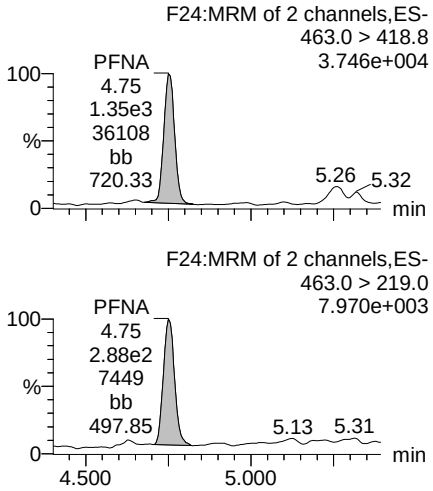
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Name: 171224M2_52, Date: 25-Dec-2017, Time: 09:51:24, ID: 1701829-10 FT-MW03S-20171130 0.26156, Description: FT-MW03S-20171130

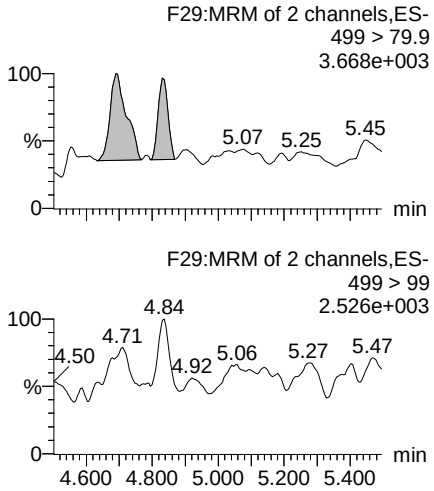
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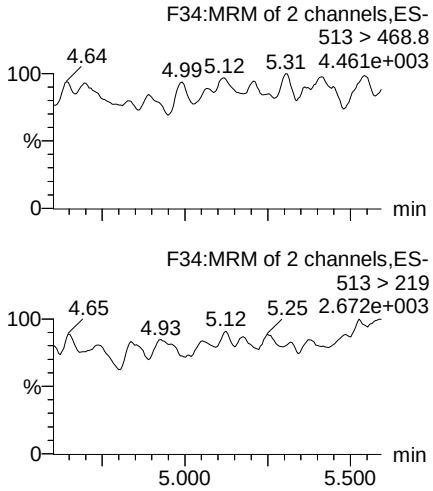
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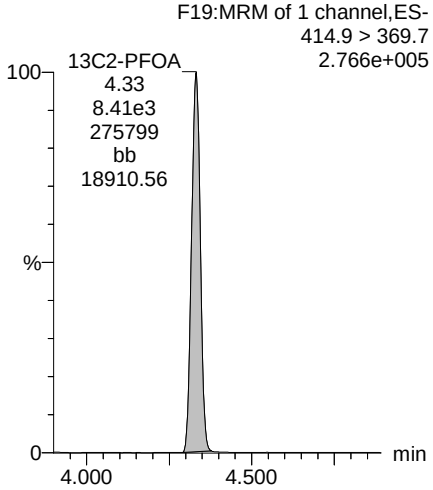
Total PFOS



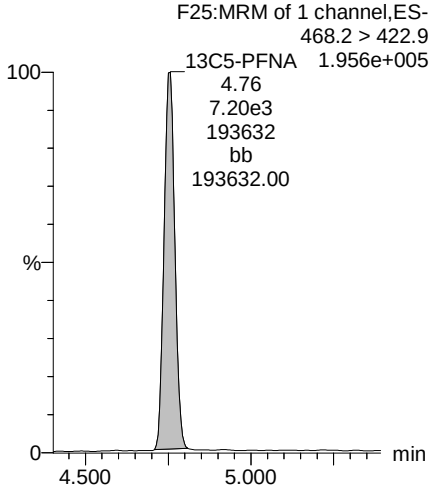
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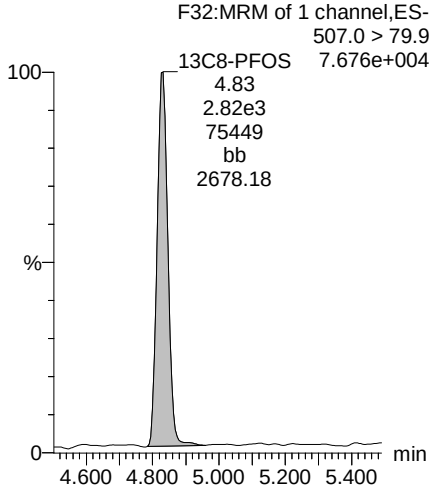
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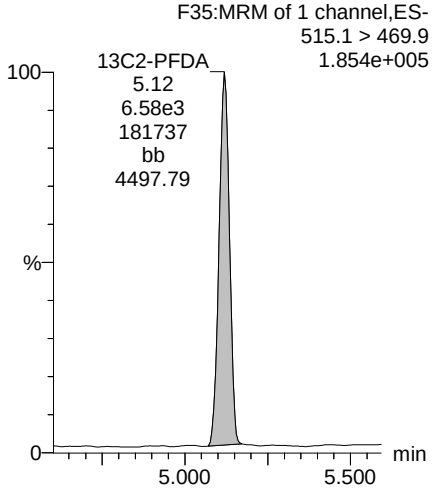
13C5-PFNA



13C8-PFOS



13C2-PFDA

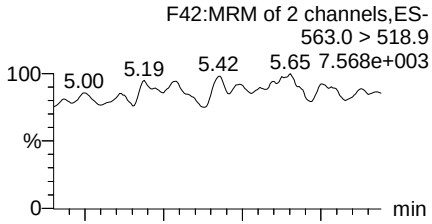


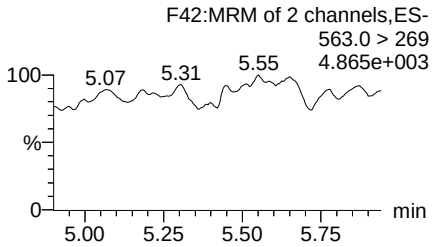
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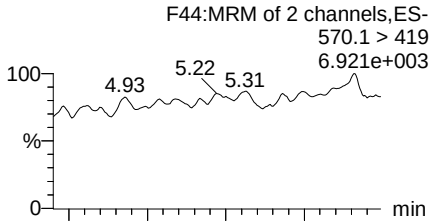
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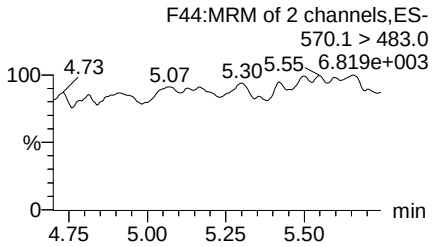
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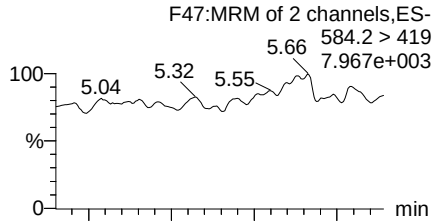


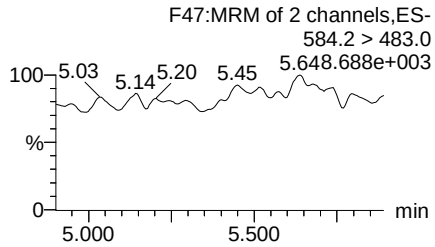
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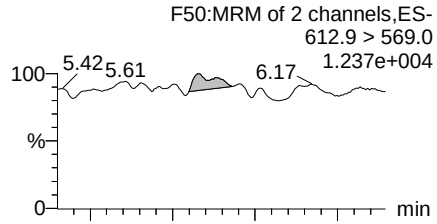


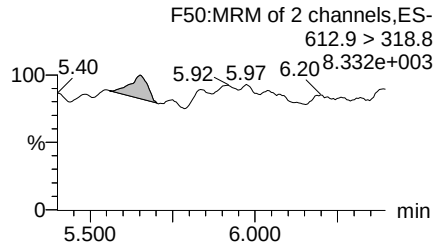
N-EtFOSAA



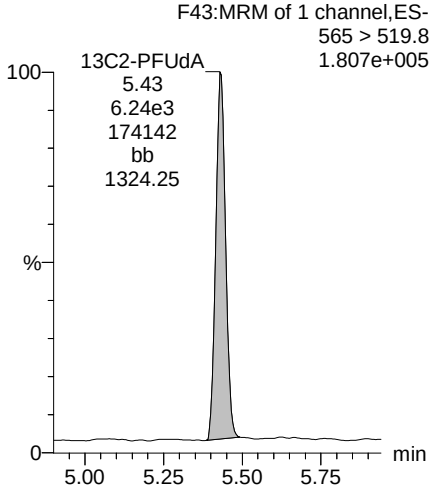


PFDoA

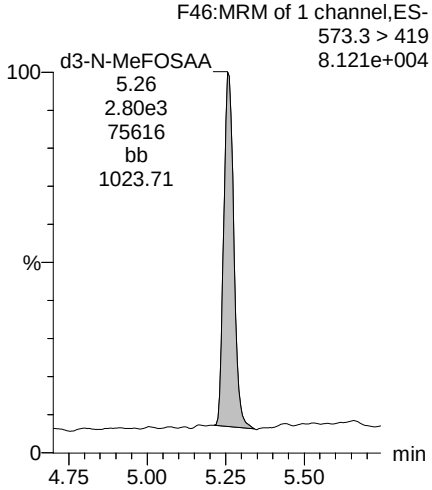




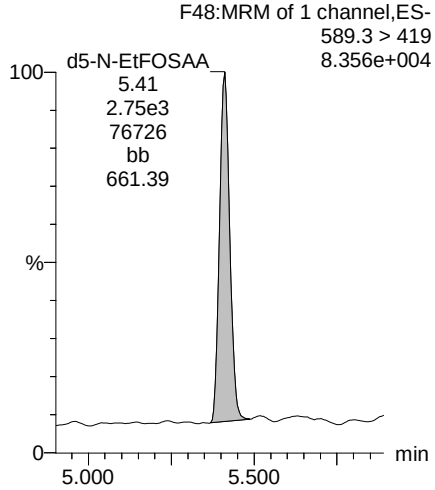
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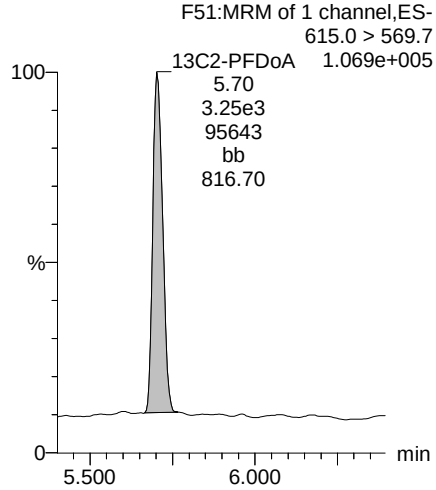
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d5-N-EtFOSAA



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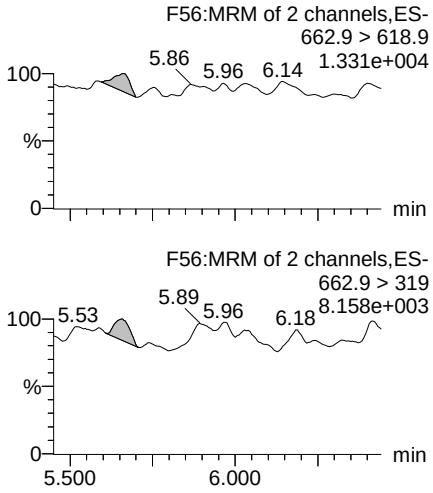


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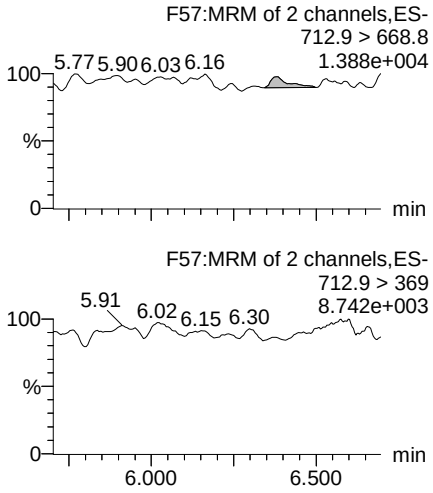
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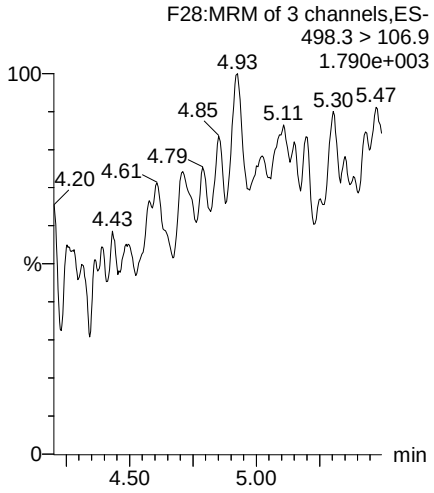
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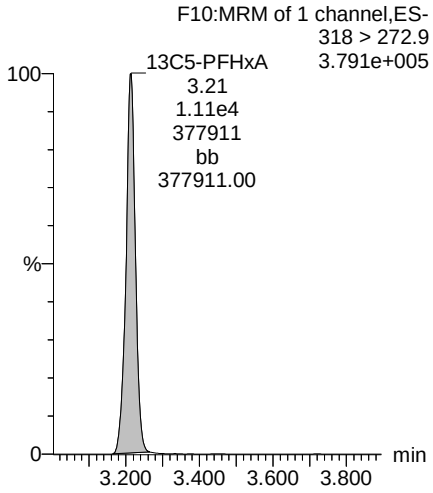
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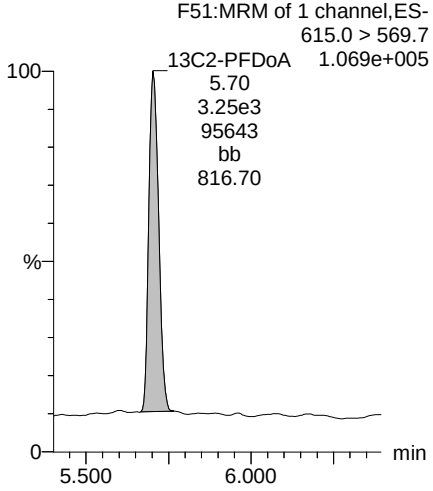
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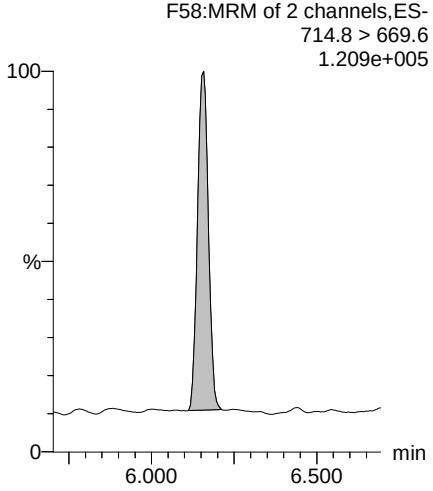
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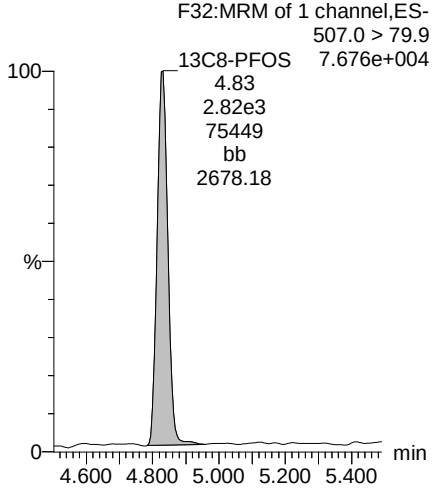
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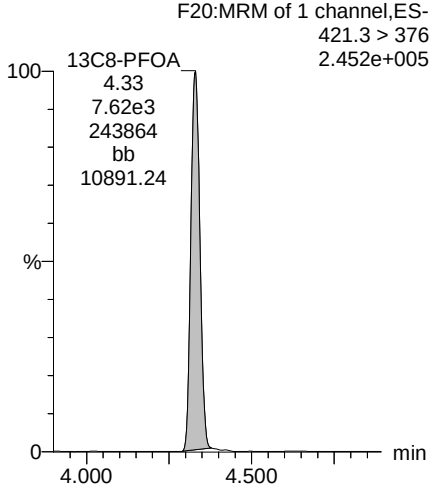
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

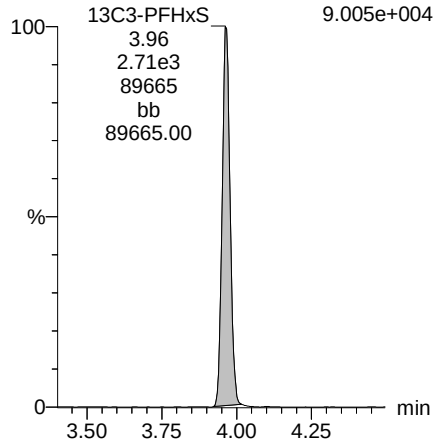


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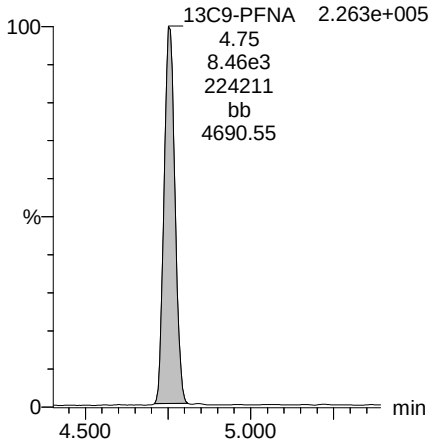
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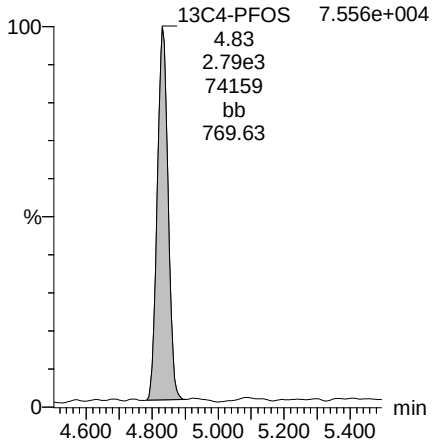
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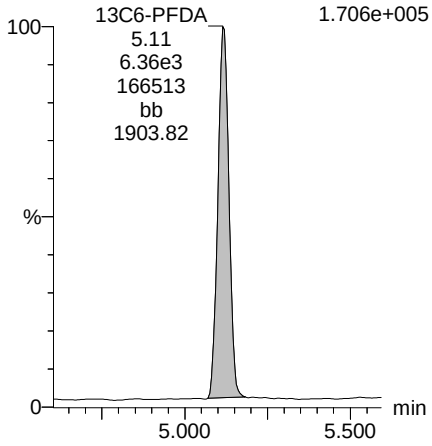
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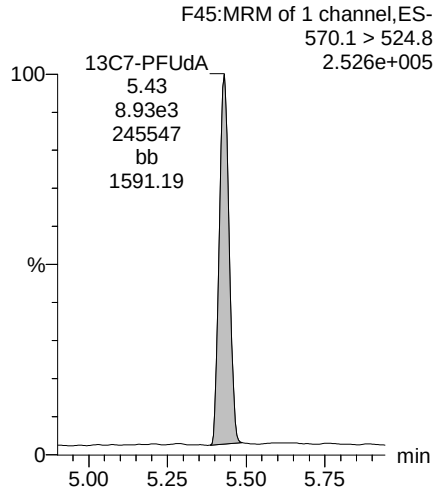
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_53.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

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	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.17e3	0.251		2.70				
2	4	PFHxA	313.2 > 268.9	6.56e2	3.02e3	0.251		3.20	3.21	1.09	2.4844	
3	5	PFHpA	363.0 > 318.9	2.69e2	5.58e3	0.251		3.80	3.82	0.602	1.9719	
4	6	L-PFHxS	398.9 > 79.6	1.10e2	8.77e2	0.251		3.95	3.97	1.57	2.8081	
5	9	L-PFOA	413 > 368.7	1.19e3	7.85e3	0.251		4.32	4.33	1.90	6.5529	
6	12	PFNA	463.0 > 418.8	3.10e2	6.45e3	0.251		4.75	4.76	0.601	2.0802	
7	14	L-PFOS	499 > 79.9		2.51e3	0.251		4.83				
8	16	PFDA	513 > 468.8		6.18e3	0.251		5.11				
9	18	N-MeFOSAA	570.1 > 419		2.39e3	0.251		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.51e3	0.251		5.42				
11	20	PFUdA	563.0 > 518.9	6.50e1	6.61e3	0.251		5.43	5.43	0.123	0.6393	
12	22	PFDoA	612.9 > 569.0		4.27e3	0.251		5.70				

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_53.qld

Last Altered: Friday, December 29, 2017 14:48:36 Pacific Standard Time
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Name: 171224M2_53, Date: 25-Dec-2017, Time: 10:02:34, ID: 1701829-11 FT-MW09I-20171130 0.25118, Description: FT-MW09I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	6.82e1	2.71e3	0.251		5.95	6.02	0.315	1.2682	
2	25	PFTeDA	712.9 > 668.8		2.71e3	0.251		6.16				
3	33	13C3-PFBS	302. > 98.8	1.17e3	1.15e4	0.251	0.101	2.70	2.72	1.27	50.0667	100.6
4	34	13C2-PFHxA	315 > 269.8	3.02e3	1.15e4	0.251	0.758	3.20	3.21	3.28	17.2203	86.5
5	35	13C4-PFHpA	367.2 > 321.8	5.58e3	1.15e4	0.251	0.562	3.80	3.82	6.06	42.9187	86.2
6	36	18O2-PFHxS	403.0 > 102.6	8.77e2	2.43e3	0.251	0.435	3.95	3.97	4.51	41.2604	82.9
7	37	13C2-6:2 FTS	429.1 > 408.9	1.92e3	7.15e3	0.251	0.393	4.26	4.28	3.35	33.9604	68.2
8	38	13C2-PFOA	414.9 > 369.7	7.85e3	7.15e3	0.251	1.252	4.32	4.33	13.7	43.6276	87.7
9	39	13C5-PFNA	468.2 > 422.9	6.45e3	7.02e3	0.251	0.962	4.75	4.76	11.5	47.4503	95.3
10	40	13C8-PFOSA	506.1 > 77.7	1.36e3	8.50e3	0.251	0.345	4.81	4.82	2.01	23.1982	46.6
11	41	13C8-PFOS	507.0 > 79.9	2.51e3	2.83e3	0.251	1.003	4.83	4.83	11.1	44.0423	88.5
12	42	13C2-PFDA	515.1 > 469.9	6.18e3	7.03e3	0.251	1.194	5.11	5.11	11.0	36.6689	73.7
13	43	13C2-8:2 FTS	529.1 > 508.7	8.92e2	1.15e4	0.251	0.150	5.09	5.09	0.968	25.7071	51.7
14	44	d3-N-MeFOSAA	573.3 > 419	2.39e3	8.50e3	0.251	0.372	5.26	5.26	3.51	37.5805	75.5
15	45	d5-N-EtFOSAA	589.3 > 419	2.51e3	8.50e3	0.251	0.444	5.42	5.41	3.69	33.1122	66.5
16	46	13C2-PFUdA	565 > 519.8	6.61e3	8.50e3	0.251	1.091	5.43	5.43	9.72	35.4836	71.3
17	47	13C2-PFDoA	615.0 > 569.7	4.27e3	8.50e3	0.251	0.629	5.70	5.70	6.28	39.7261	79.8
18	49	13C2-PFTeDA	714.8 > 669.6	2.71e3	8.50e3	0.251	0.551	6.16	6.16	3.98	28.7789	57.8
19	55	13C5-PFHxA	318 > 272.9	1.15e4	1.15e4	0.251	1.000	3.20	3.21	12.5	49.7651	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.43e3	2.43e3	0.251	1.000	3.95	3.96	12.5	49.7651	100.0
21	57	13C8-PFOA	421.3 > 376	7.15e3	7.15e3	0.251	1.000	4.32	4.33	12.5	49.7651	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.02e3	7.02e3	0.251	1.000	4.75	4.75	12.5	49.7651	100.0
23	59	13C4-PFOS	503 > 79.9	2.83e3	2.83e3	0.251	1.000	4.83	4.83	12.5	49.7651	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.03e3	7.03e3	0.251	1.000	5.11	5.12	12.5	49.7651	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.50e3	8.50e3	0.251	1.000	5.43	5.43	12.5	49.7651	100.0
26	62	Total PFHxS	398.9 > 79.6	1.10e2	8.77e2	0.251		4.00		1.57	2.8081	
27	63	Total PFOA	413 > 368.7	1.46e3	7.85e3	0.251		4.30		2.33	7.4365	
28	64	Total PFOS	499 > 79.9	0.00e0	2.51e3	0.251		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.39e3	0.251		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.51e3	0.251		5.40		0.000		

Vista Analytical Laboratory

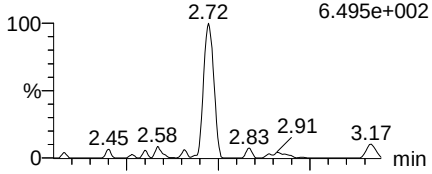
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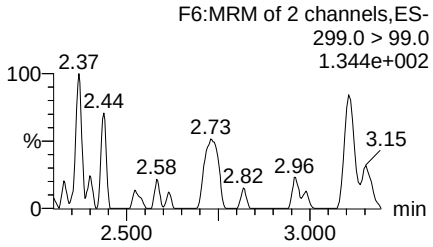
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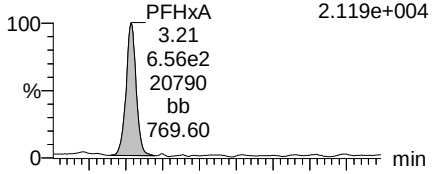
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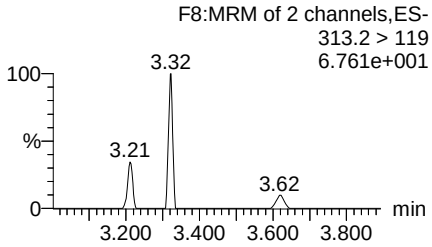
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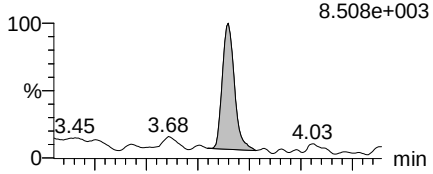


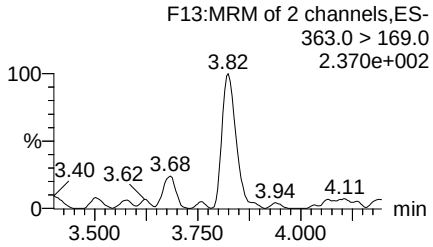
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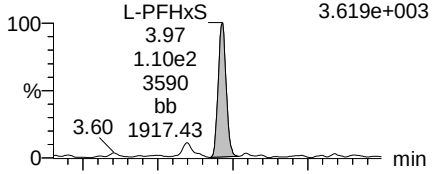


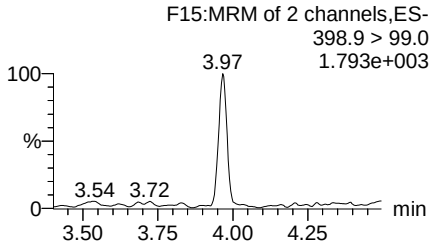
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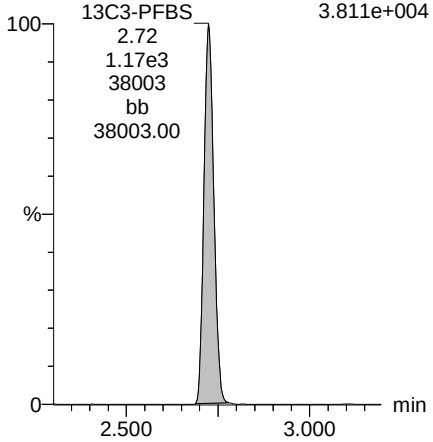


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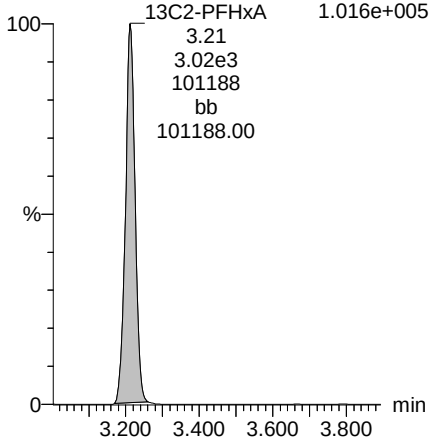




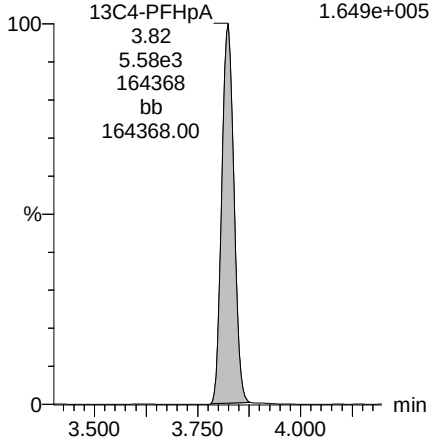
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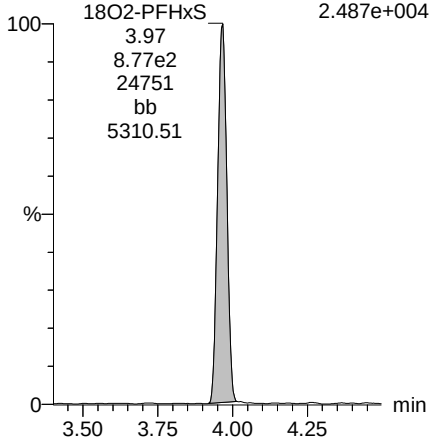
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13C4-PFHpA



18O2-PFHxS

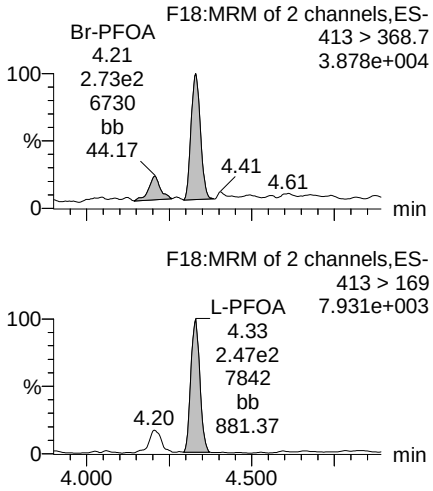


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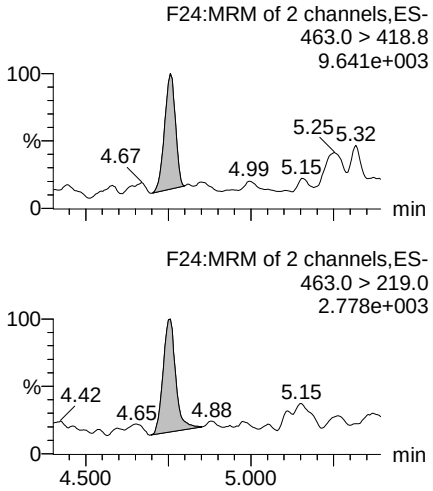
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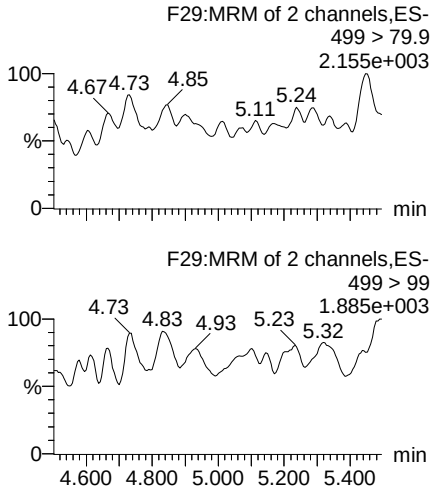
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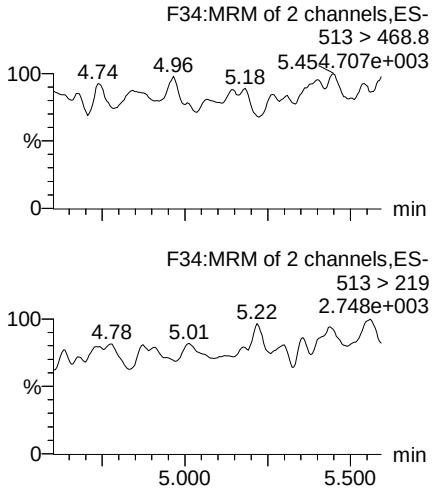
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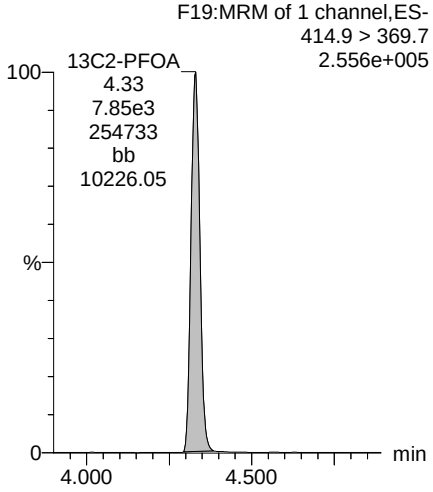
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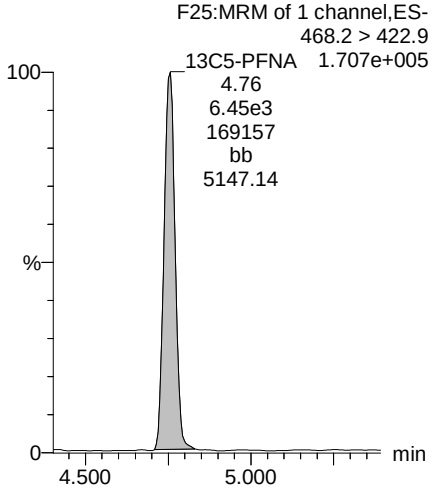
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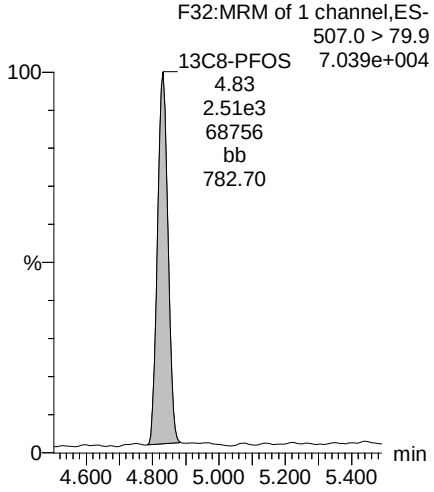
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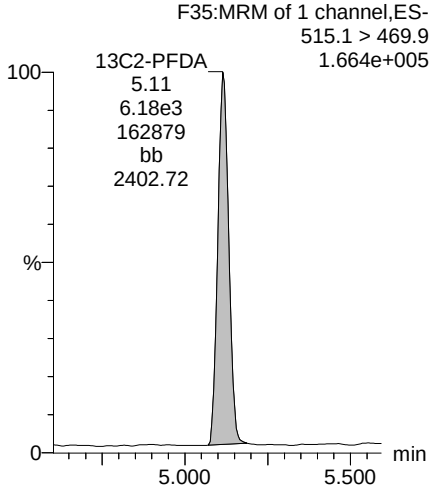
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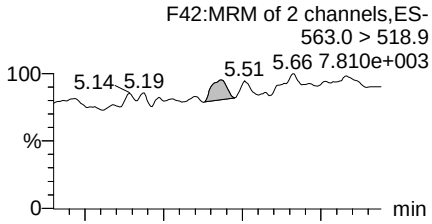


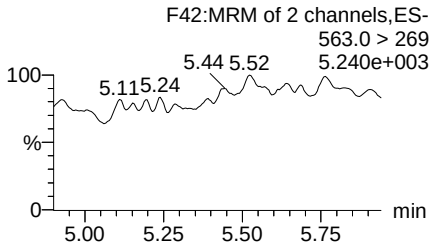
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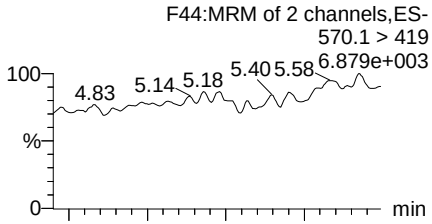
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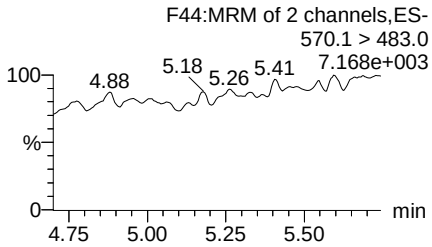
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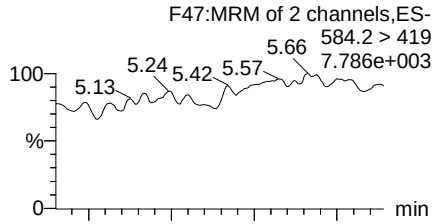


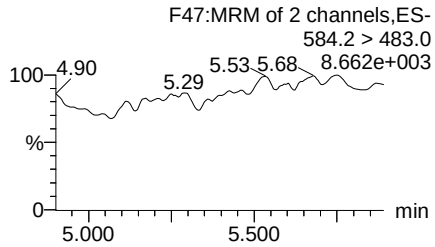
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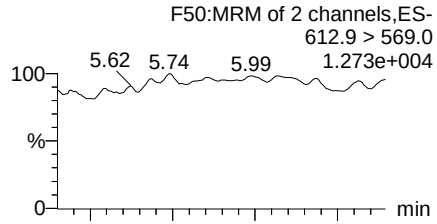


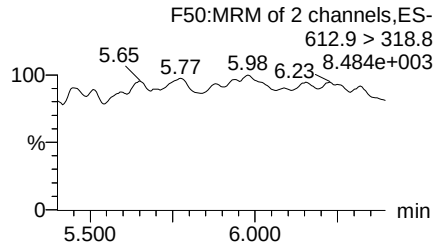
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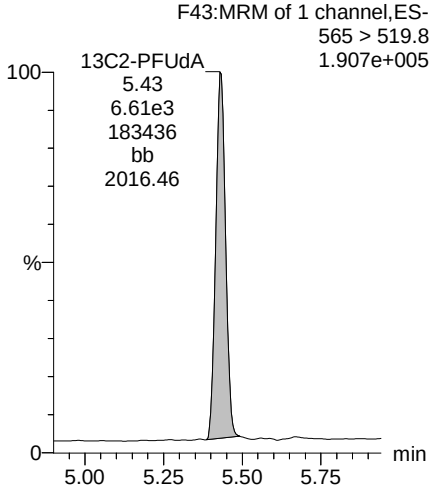


PFDoA

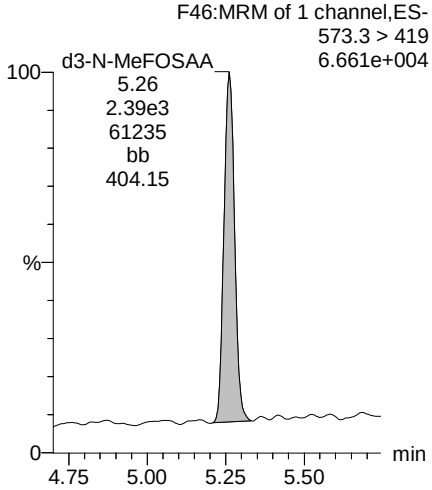




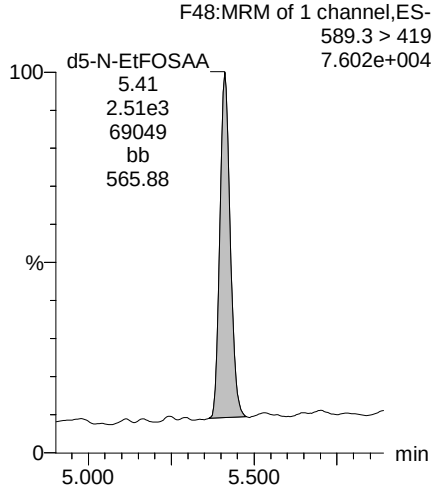
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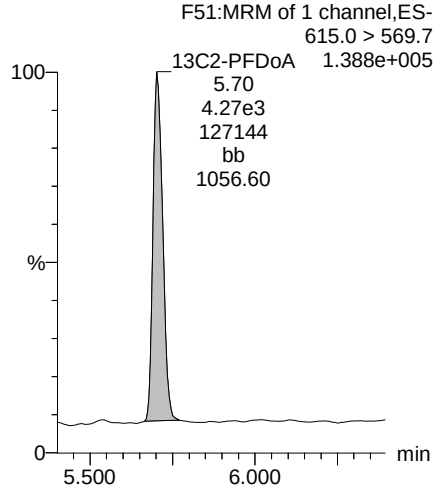
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d5-N-EtFOSAA



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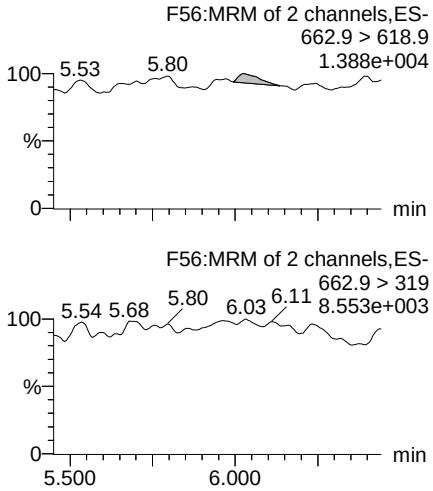


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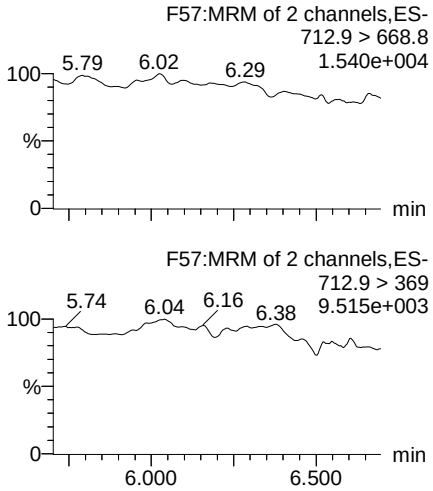
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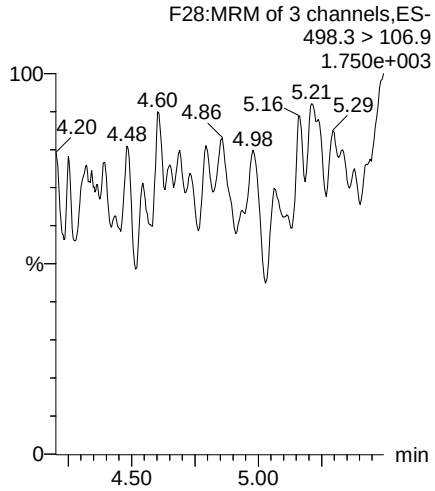
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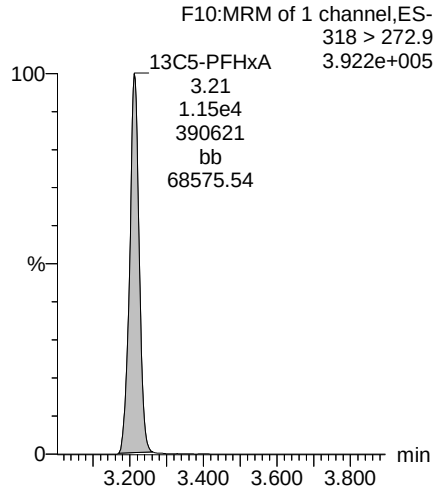
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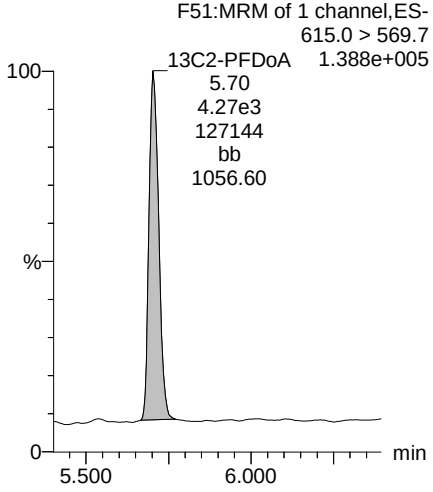
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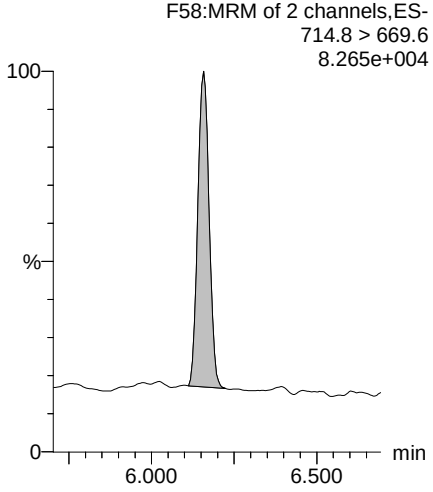
13C5-PFHxA



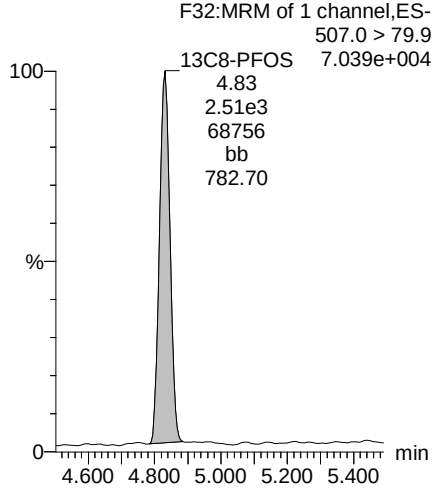
13C2-PFDoA



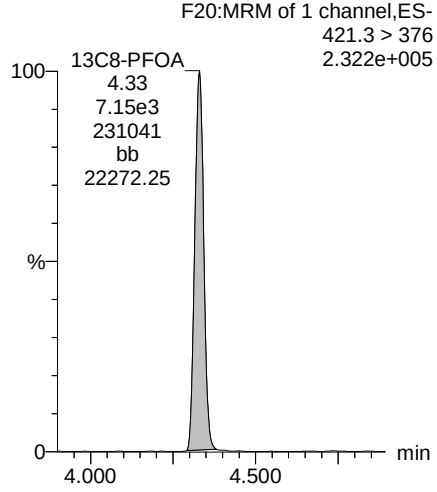
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

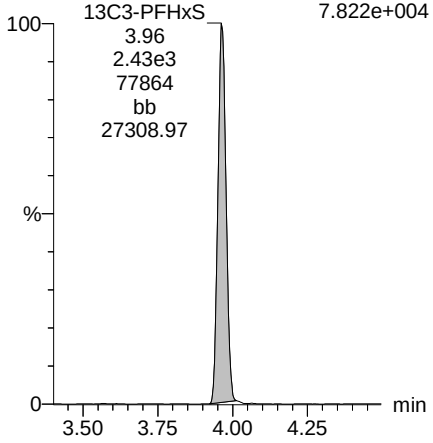


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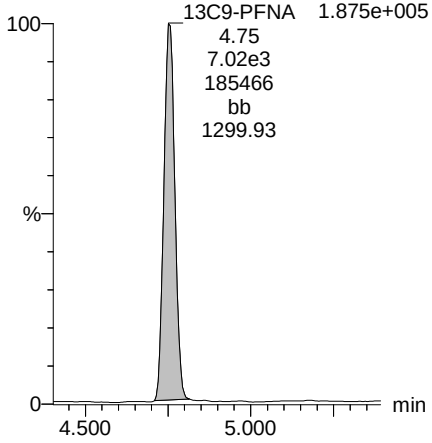
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Name: 171224M2_53, Date: 25-Dec-2017, Time: 10:02:34, ID: 1701829-11 FT-MW09I-20171130 0.25118, Description: FT-MW09I-20171130

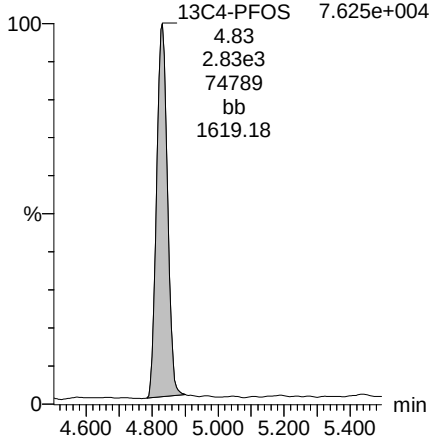
13C3-PFHxS



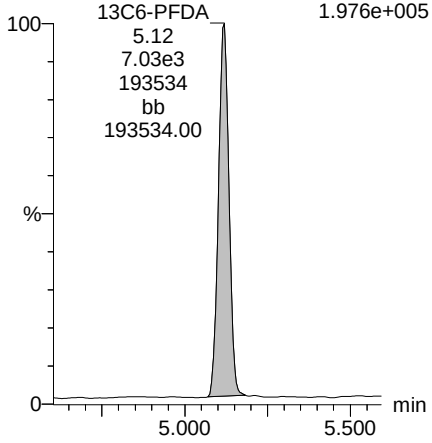
13C9-PFNA



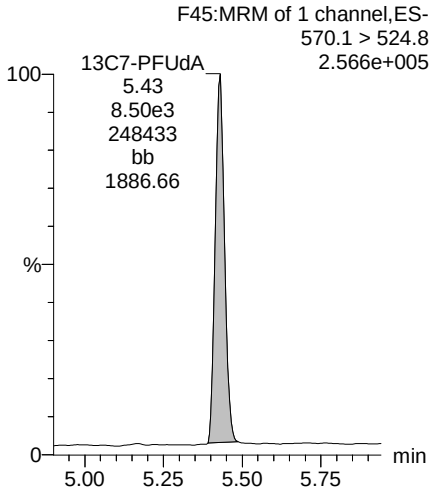
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_57.qld

Last Altered: Friday, December 29, 2017 14:50:16 Pacific Standard Time
Printed: Friday, December 29, 2017 14:50:44 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_57, Date: 25-Dec-2017, Time: 10:47:17, ID: 1701829-12 FT-DUP03-20171130 0.24539, Description: FT-DUP03-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.24e3	0.245		2.70				
2	4	PFHxA	313.2 > 268.9	7.08e2	3.15e3	0.245		3.20	3.22	1.12	2.6450	
3	5	PFHpA	363.0 > 318.9	2.31e2	6.31e3	0.245		3.80	3.82	0.458	1.6375	
4	6	L-PFHxS	398.9 > 79.6	9.94e1	8.80e2	0.245		3.95	3.97	1.41	2.5759	
5	9	L-PFOA	413 > 368.7	1.11e3	9.40e3	0.245		4.32	4.33	1.48	5.0485	
6	12	PFNA	463.0 > 418.8	2.50e2	6.44e3	0.245		4.75	4.76	0.486	1.8173	
7	14	L-PFOS	499 > 79.9		2.84e3	0.245		4.83				
8	16	PFDA	513 > 468.8		7.95e3	0.245		5.11				
9	18	N-MeFOSAA	570.1 > 419		2.10e3	0.245		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.92e3	0.245		5.42				
11	20	PFUdA	563.0 > 518.9		6.27e3	0.245		5.43				
12	22	PFDoA	612.9 > 569.0	1.04e2	3.59e3	0.245		5.70	5.89	0.363	0.8646	

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_57.qld

Last Altered: Friday, December 29, 2017 14:50:16 Pacific Standard Time
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_57, Date: 25-Dec-2017, Time: 10:47:17, ID: 1701829-12 FT-DUP03-20171130 0.24539, Description: FT-DUP03-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		2.62e3	0.245		5.95				
2	25	PFTeDA	712.9 > 668.8	4.97e2	2.62e3	0.245		6.16	6.03	2.37	4.6085	
3	33	13C3-PFBS	302. > 98.8	1.24e3	1.11e4	0.245	0.101	2.70	2.72	1.39	55.9149	109.8
4	34	13C2-PFHxA	315 > 269.8	3.15e3	1.11e4	0.245	0.758	3.20	3.22	3.54	19.0299	93.4
5	35	13C4-PFHpA	367.2 > 321.8	6.31e3	1.11e4	0.245	0.562	3.80	3.82	7.08	51.3131	100.7
6	36	18O2-PFHxS	403.0 > 102.6	8.80e2	2.58e3	0.245	0.435	3.95	3.97	4.26	39.9533	78.4
7	37	13C2-6:2 FTS	429.1 > 408.9	2.26e3	7.02e3	0.245	0.393	4.26	4.28	4.02	41.6550	81.8
8	38	13C2-PFOA	414.9 > 369.7	9.40e3	7.02e3	0.245	1.252	4.32	4.33	16.7	54.4136	106.8
9	39	13C5-PFNA	468.2 > 422.9	6.44e3	8.59e3	0.245	0.962	4.75	4.76	9.37	39.6664	77.9
10	40	13C8-PFOSA	506.1 > 77.7	1.30e3	7.77e3	0.245	0.345	4.81	4.82	2.09	24.6741	48.4
11	41	13C8-PFOS	507.0 > 79.9	2.84e3	2.54e3	0.245	1.003	4.83	4.83	13.9	56.6372	111.2
12	42	13C2-PFDA	515.1 > 469.9	7.95e3	5.70e3	0.245	1.194	5.11	5.12	17.4	59.5560	116.9
13	43	13C2-8:2 FTS	529.1 > 508.7	9.85e2	1.11e4	0.245	0.150	5.09	5.09	1.11	30.0350	59.0
14	44	d3-N-MeFOSAA	573.3 > 419	2.10e3	7.77e3	0.245	0.372	5.26	5.26	3.37	36.9132	72.5
15	45	d5-N-EtFOSAA	589.3 > 419	2.92e3	7.77e3	0.245	0.444	5.42	5.41	4.69	43.0939	84.6
16	46	13C2-PFUdA	565 > 519.8	6.27e3	7.77e3	0.245	1.091	5.43	5.43	10.1	37.6752	74.0
17	47	13C2-PFDoA	615.0 > 569.7	3.59e3	7.77e3	0.245	0.629	5.70	5.70	5.78	37.4096	73.4
18	49	13C2-PFTeDA	714.8 > 669.6	2.62e3	7.77e3	0.245	0.551	6.16	6.15	4.22	31.2142	61.3
19	55	13C5-PFHxA	318 > 272.9	1.11e4	1.11e4	0.245	1.000	3.20	3.22	12.5	50.9393	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.58e3	2.58e3	0.245	1.000	3.95	3.97	12.5	50.9393	100.0
21	57	13C8-PFOA	421.3 > 376	7.02e3	7.02e3	0.245	1.000	4.32	4.33	12.5	50.9393	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.59e3	8.59e3	0.245	1.000	4.75	4.76	12.5	50.9393	100.0
23	59	13C4-PFOS	503 > 79.9	2.54e3	2.54e3	0.245	1.000	4.83	4.83	12.5	50.9393	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.70e3	5.70e3	0.245	1.000	5.11	5.12	12.5	50.9393	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.77e3	7.77e3	0.245	1.000	5.43	5.43	12.5	50.9393	100.0
26	62	Total PFHxS	398.9 > 79.6	9.94e1	8.80e2	0.245		4.00		1.41	2.5759	
27	63	Total PFOA	413 > 368.7	1.32e3	9.40e3	0.245		4.30		1.76	5.3337	
28	64	Total PFOS	499 > 79.9	0.00e0	2.84e3	0.245		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.10e3	0.245		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.92e3	0.245		5.40		0.000		

Vista Analytical Laboratory

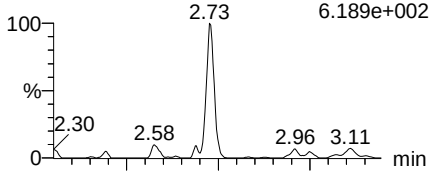
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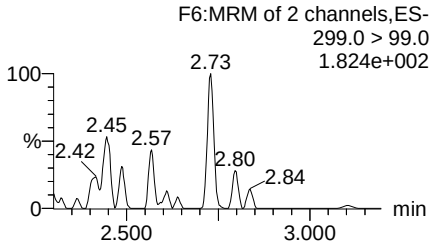
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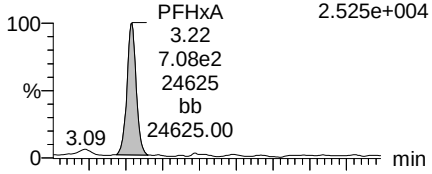
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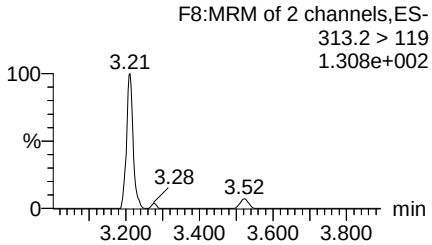
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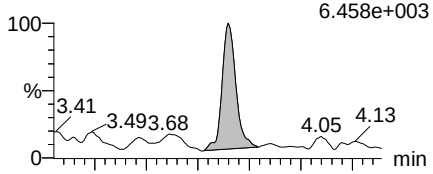


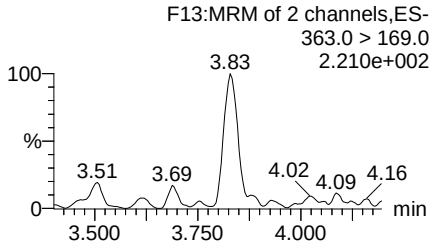
PFHxA



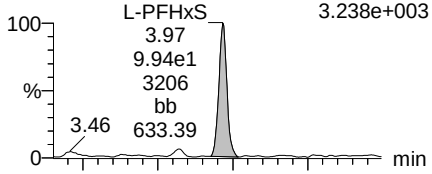


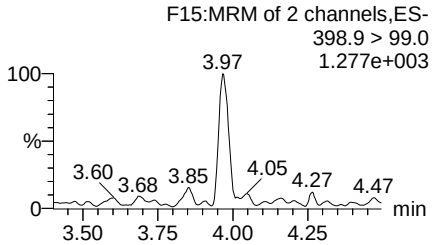
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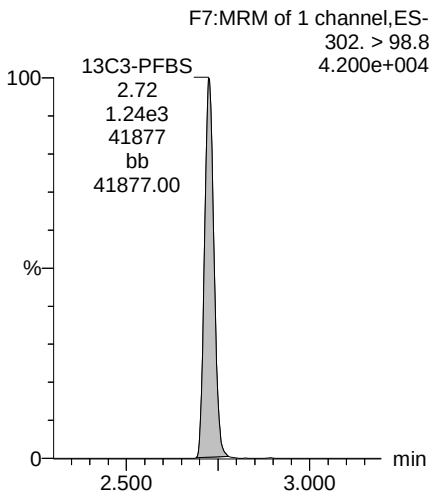


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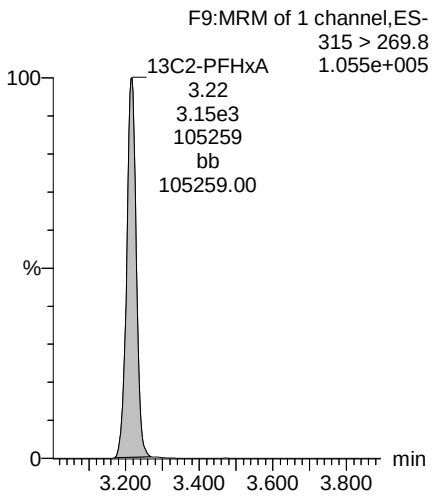




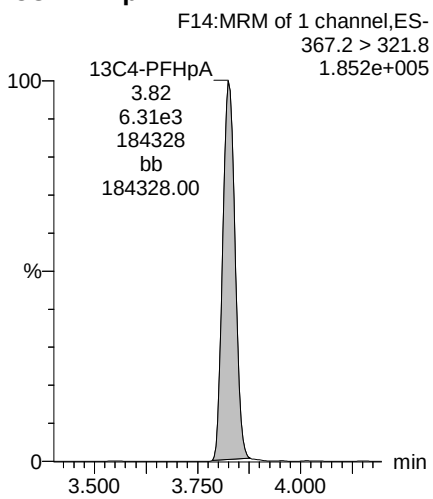
13C3-PFBS



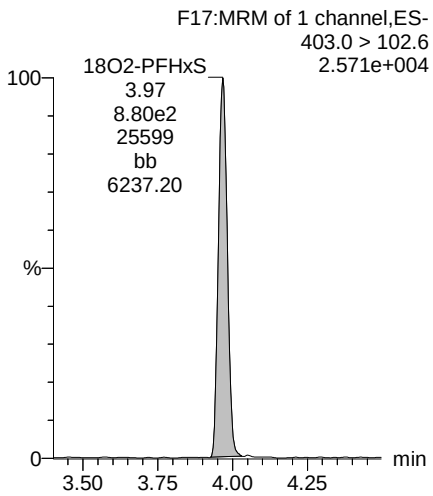
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



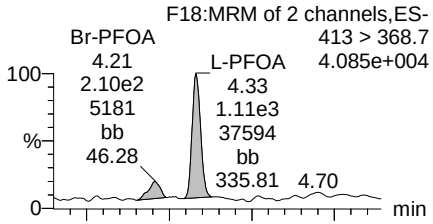
Vista Analytical Laboratory

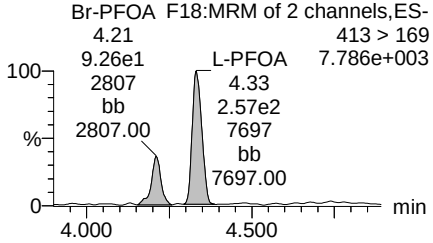
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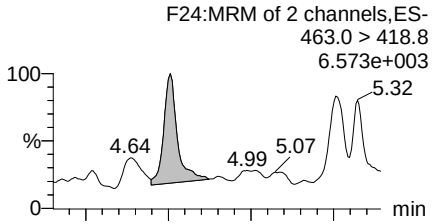
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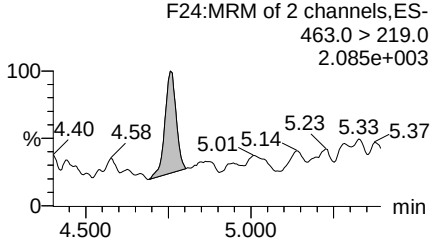
Total PFOA



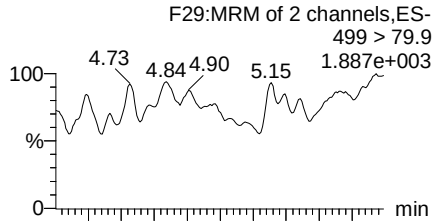


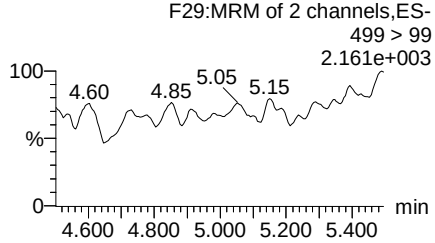
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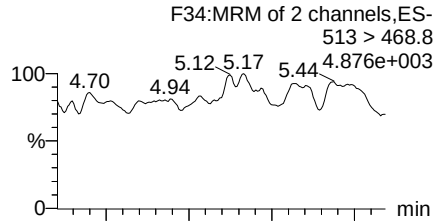


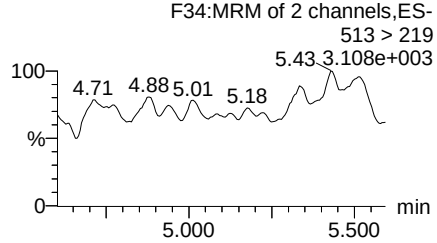
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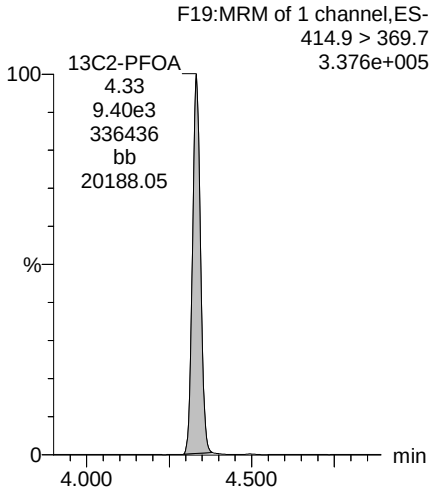


PFDA

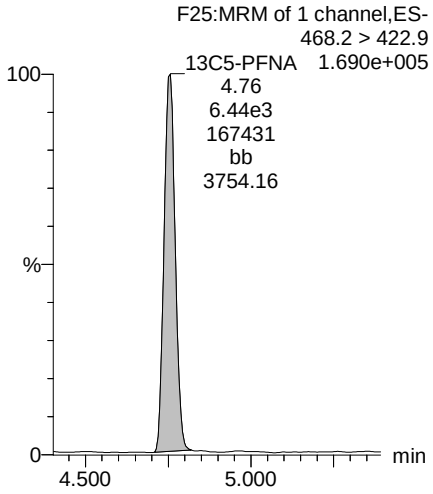




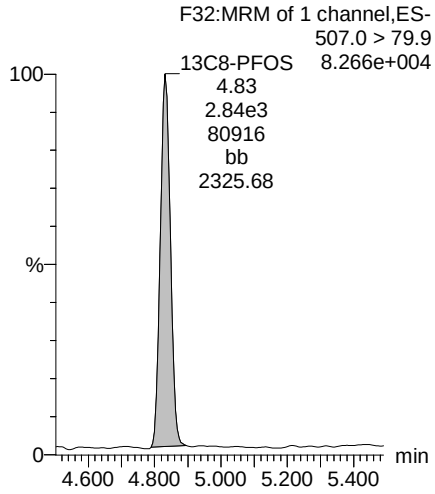
13C2-PFOA



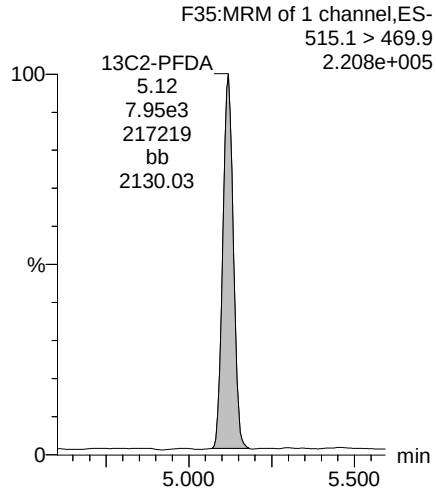
13C5-PFNA



13C8-PFOS



13C2-PFDA

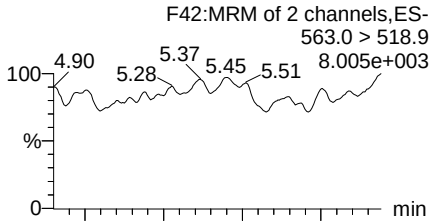


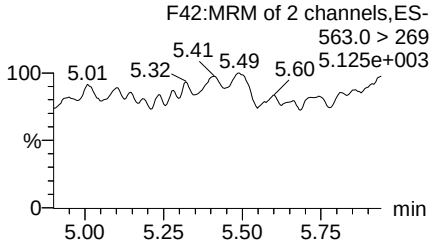
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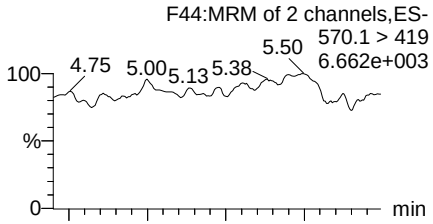
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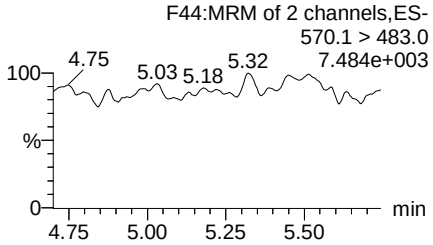
PFUdA



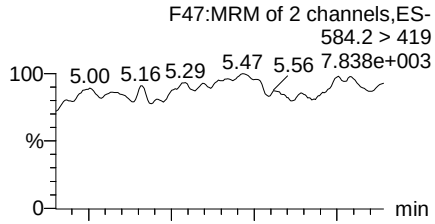


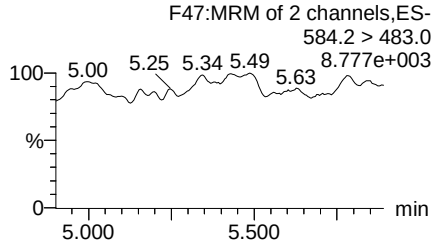
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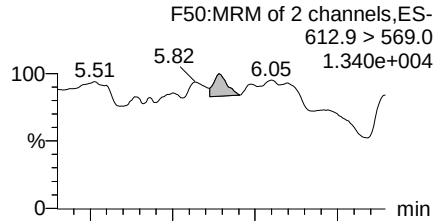


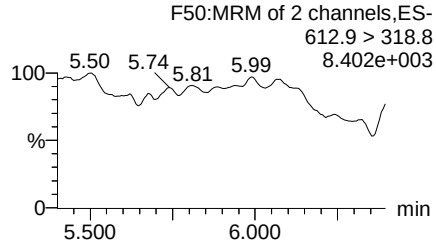
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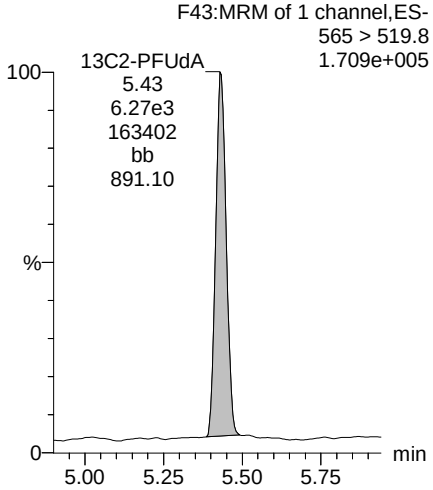


PFDoA

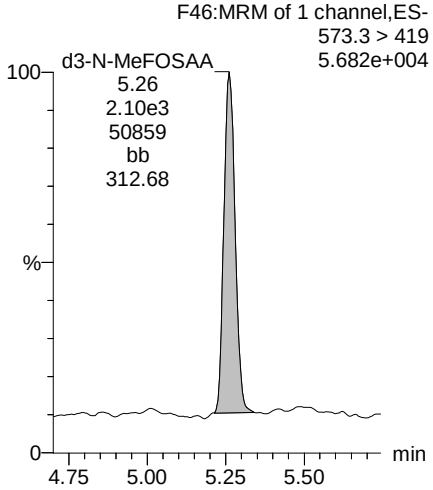




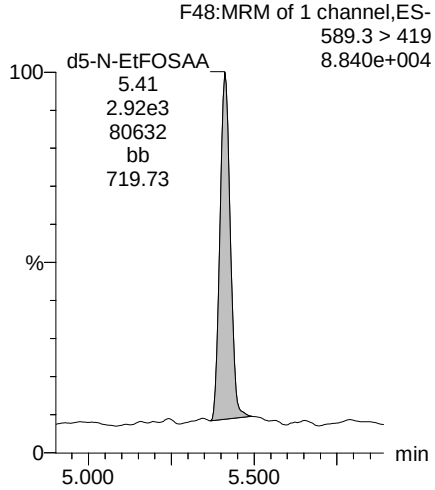
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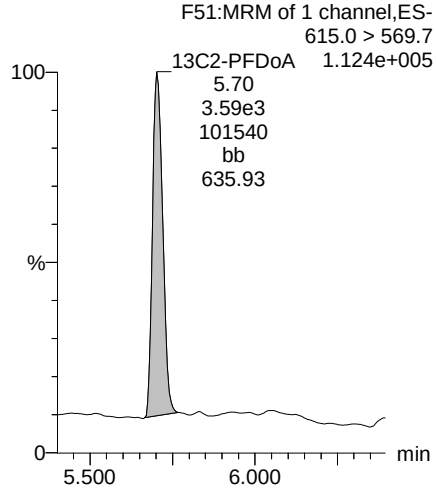
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d5-N-EtFOSAA



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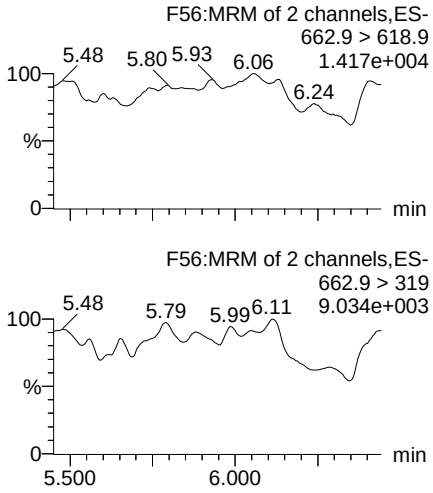


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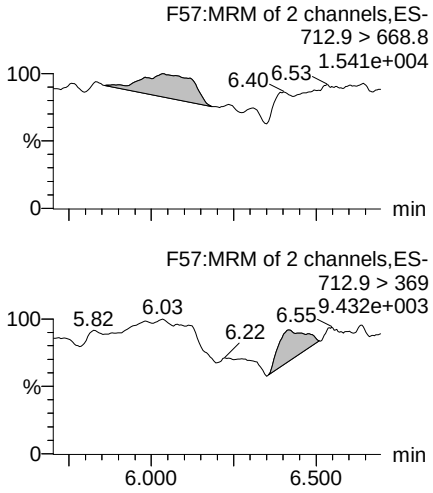
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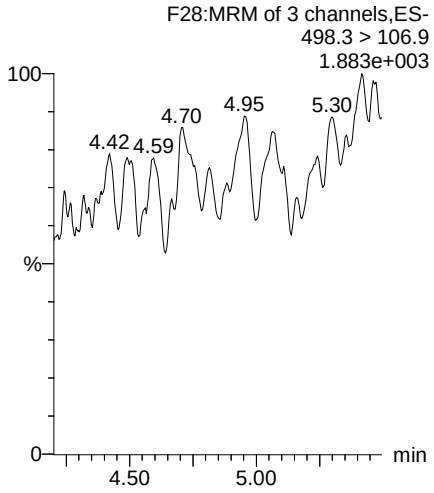
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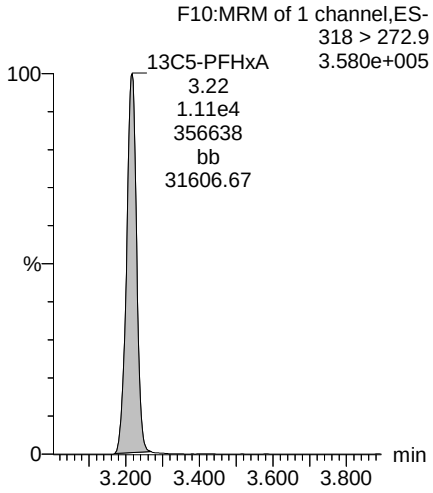
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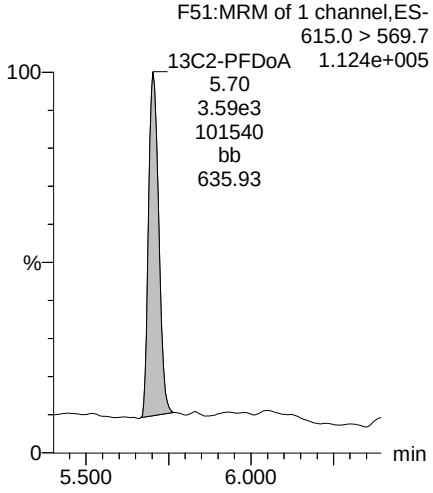
TCDA



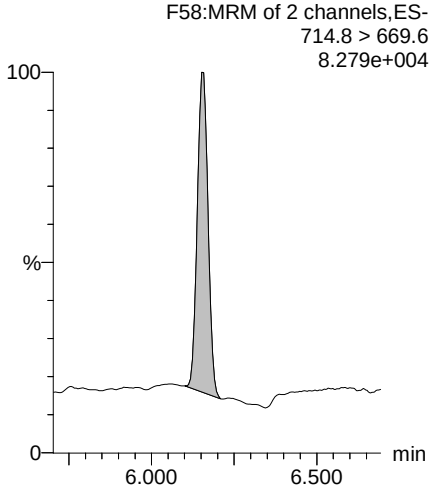
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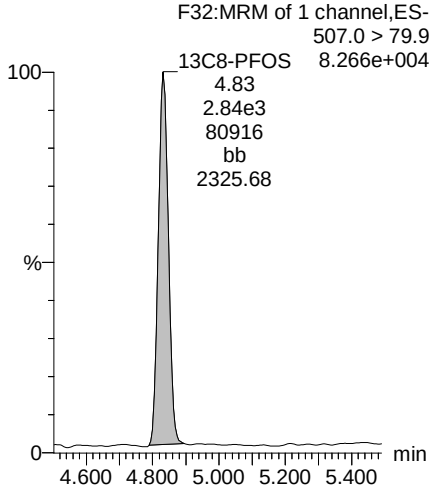
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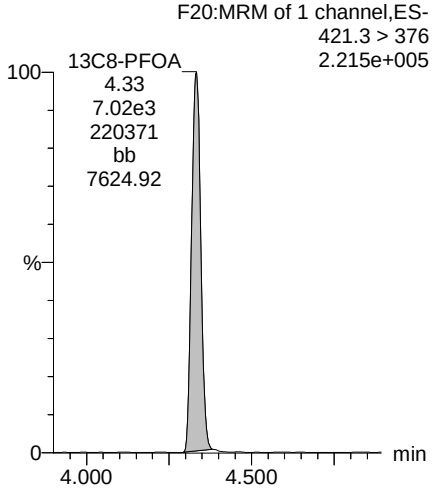
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

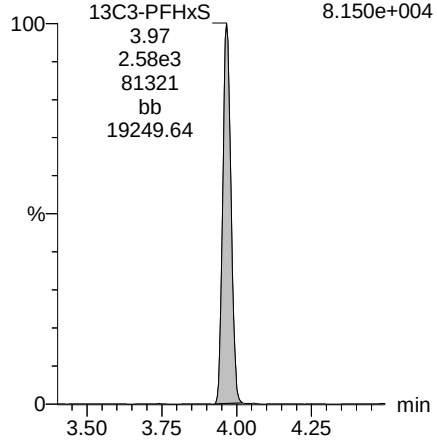


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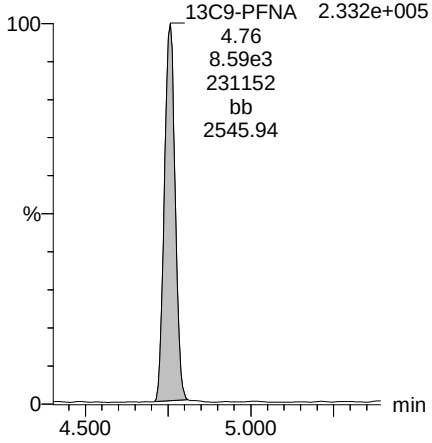
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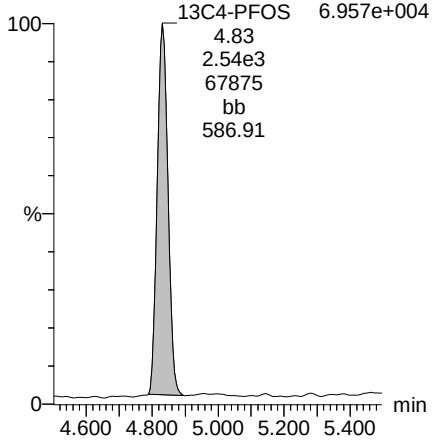
13C3-PFHxS



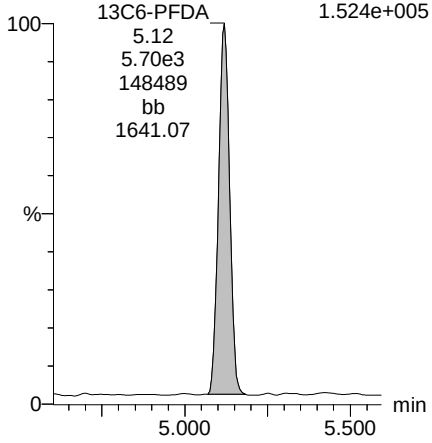
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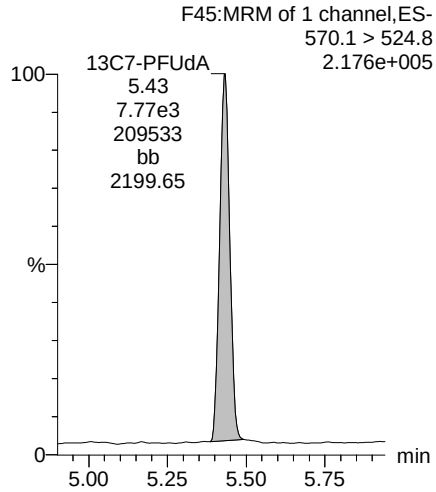
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171224M2\171224m2_58.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_58, Date: 25-Dec-2017, Time: 10:58:28, ID: 1701829-13 FT-MW05I-20171130 0.25874, Description: FT-MW05I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.24e3	0.259		2.70				
2	4	PFHxA	313.2 > 268.9	4.77e3	3.30e3	0.259		3.20	3.21	7.24	19.0570	
3	5	PFHpA	363.0 > 318.9	3.42e3	6.38e3	0.259		3.80	3.82	6.71	17.2470	
4	6	L-PFHxS	398.9 > 79.6	2.73e3	1.18e3	0.259		3.95	3.96	29.0	50.9671	
5	9	L-PFOA	413 > 368.7	1.73e4	9.97e3	0.259		4.32	4.33	21.7	80.9019	
6	12	PFNA	463.0 > 418.8	6.26e4	7.91e3	0.259		4.75	4.75	99.0	251.3857	
7	14	L-PFOS	499 > 79.9	6.84e3	2.57e3	0.259		4.83	4.83	33.2	119.0995	
8	16	PFDA	513 > 468.8	6.03e2	9.07e3	0.259		5.11	5.02	0.830	2.0932	
9	18	N-MeFOSAA	570.1 > 419		2.43e3	0.259		5.26				
10	19	N-EtFOSAA	584.2 > 419	1.03e2	2.47e3	0.259		5.42	5.06	0.519	1.8730	
11	20	PFUdA	563.0 > 518.9		6.84e3	0.259		5.43				
12	22	PFDoA	612.9 > 569.0	1.90e2	3.97e3	0.259		5.70	5.88	0.600	1.1746	

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Dataset: U:\Q4.PRO\results\171224M2\171224m2_58.qld

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Name: 171224M2_58, Date: 25-Dec-2017, Time: 10:58:28, ID: 1701829-13 FT-MW05I-20171130 0.25874, Description: FT-MW05I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	7.03e1	3.80e3	0.259		5.95	5.80	0.231	1.1089	
2	25	PFTeDA	712.9 > 668.8	7.68e1	3.80e3	0.259		6.16	5.88	0.253	0.2277	
3	33	13C3-PFBS	302. > 98.8	1.24e3	1.07e4	0.259	0.101	2.70	2.73	1.45	55.5285	114.9
4	34	13C2-PFHxA	315 > 269.8	3.30e3	1.07e4	0.259	0.758	3.20	3.21	3.86	19.7089	102.0
5	35	13C4-PFHpA	367.2 > 321.8	6.38e3	1.07e4	0.259	0.562	3.80	3.82	7.47	51.3660	106.3
6	36	18O2-PFHxS	403.0 > 102.6	1.18e3	3.17e3	0.259	0.435	3.95	3.96	4.64	41.2177	85.3
7	37	13C2-6:2 FTS	429.1 > 408.9	2.31e3	8.29e3	0.259	0.393	4.26	4.28	3.48	34.1913	70.8
8	38	13C2-PFOA	414.9 > 369.7	9.97e3	8.29e3	0.259	1.252	4.32	4.33	15.0	46.3778	96.0
9	39	13C5-PFNA	468.2 > 422.9	7.91e3	7.93e3	0.259	0.962	4.75	4.75	12.5	50.0442	103.6
10	40	13C8-PFOSA	506.1 > 77.7	1.44e3	7.97e3	0.259	0.345	4.81	4.82	2.25	25.2858	52.3
11	41	13C8-PFOS	507.0 > 79.9	2.57e3	2.63e3	0.259	1.003	4.83	4.83	12.3	47.2025	97.7
12	42	13C2-PFDA	515.1 > 469.9	9.07e3	8.03e3	0.259	1.194	5.11	5.11	14.1	45.7186	94.6
13	43	13C2-8:2 FTS	529.1 > 508.7	1.19e3	1.07e4	0.259	0.150	5.09	5.09	1.39	35.9022	74.3
14	44	d3-N-MeFOSAA	573.3 > 419	2.43e3	7.97e3	0.259	0.372	5.26	5.26	3.81	39.5755	81.9
15	45	d5-N-EtFOSAA	589.3 > 419	2.47e3	7.97e3	0.259	0.444	5.42	5.41	3.88	33.7933	69.9
16	46	13C2-PFUdA	565 > 519.8	6.84e3	7.97e3	0.259	1.091	5.43	5.43	10.7	38.0123	78.7
17	47	13C2-PFDoA	615.0 > 569.7	3.97e3	7.97e3	0.259	0.629	5.70	5.70	6.22	38.2112	79.1
18	49	13C2-PFTeDA	714.8 > 669.6	3.80e3	7.97e3	0.259	0.551	6.16	6.16	5.96	41.8261	86.6
19	55	13C5-PFHxA	318 > 272.9	1.07e4	1.07e4	0.259	1.000	3.20	3.21	12.5	48.3110	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.17e3	3.17e3	0.259	1.000	3.95	3.96	12.5	48.3110	100.0
21	57	13C8-PFOA	421.3 > 376	8.29e3	8.29e3	0.259	1.000	4.32	4.33	12.5	48.3110	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.93e3	7.93e3	0.259	1.000	4.75	4.75	12.5	48.3110	100.0
23	59	13C4-PFOS	503 > 79.9	2.63e3	2.63e3	0.259	1.000	4.83	4.83	12.5	48.3110	100.0
24	60	13C6-PFDA	519.1 > 473.7	8.03e3	8.03e3	0.259	1.000	5.11	5.11	12.5	48.3110	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.97e3	7.97e3	0.259	1.000	5.43	5.43	12.5	48.3110	100.0
26	62	Total PFHxS	398.9 > 79.6	2.85e3	1.18e3	0.259		4.00		30.3	53.1655	
27	63	Total PFOA	413 > 368.7	1.87e4	9.97e3	0.259		4.30		23.4	86.6155	
28	64	Total PFOS	499 > 79.9	8.42e3	2.57e3	0.259		4.80		40.9	146.5015	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.43e3	0.259		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	1.03e2	2.47e3	0.259		5.40		0.519	1.8730	

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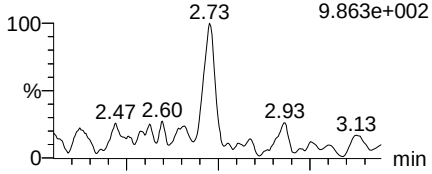
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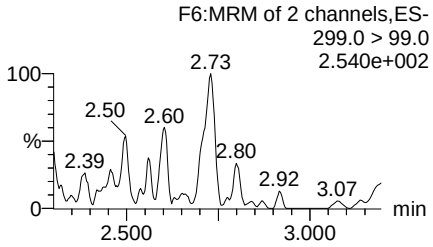
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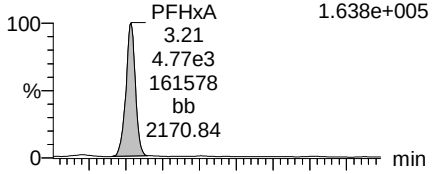
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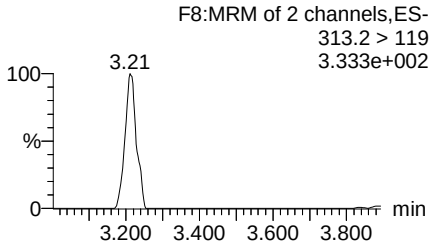
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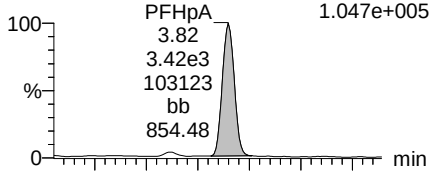


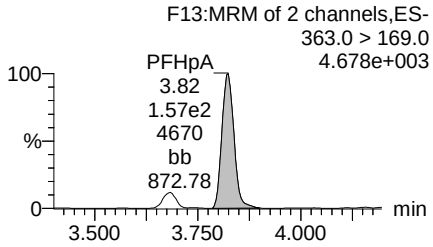
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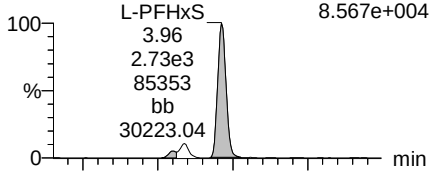


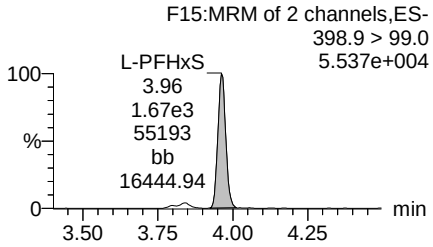
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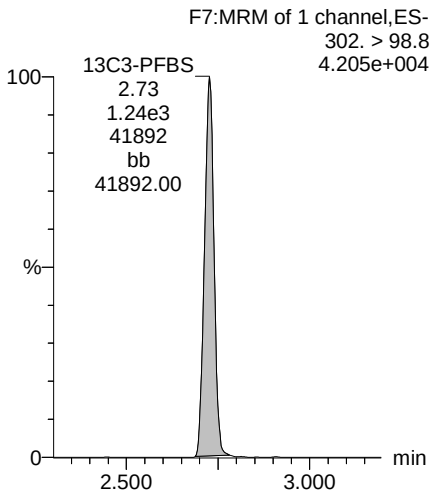


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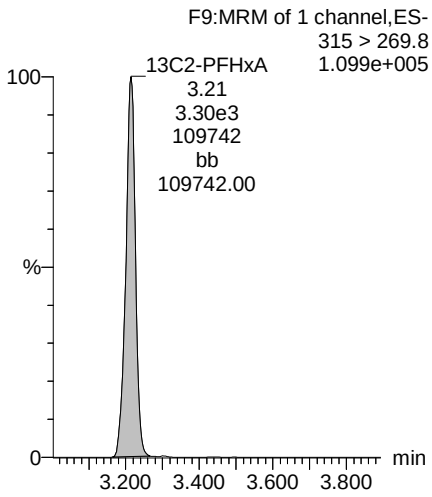




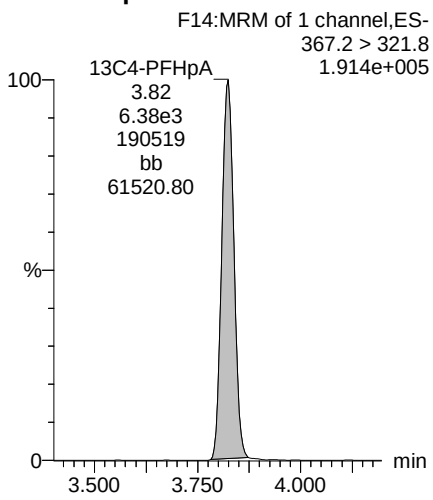
13C3-PFBS



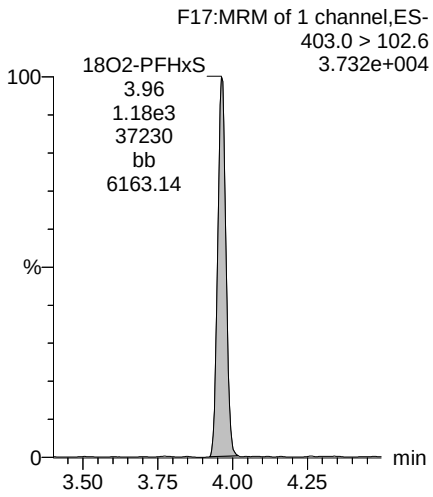
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

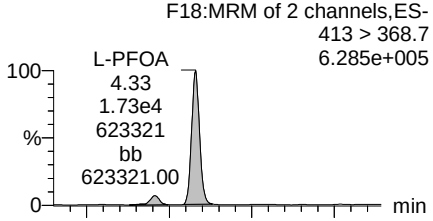


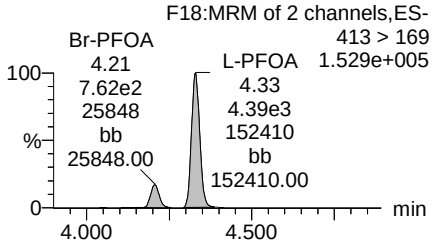
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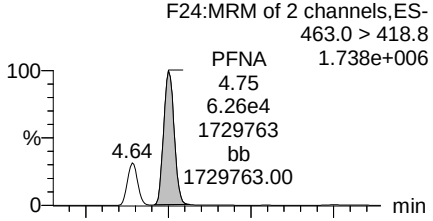
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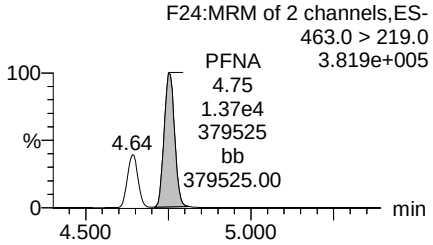
Total PFOA



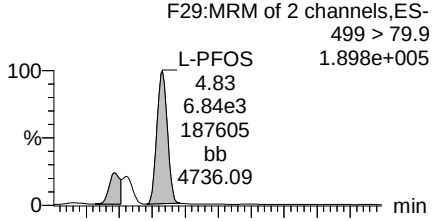


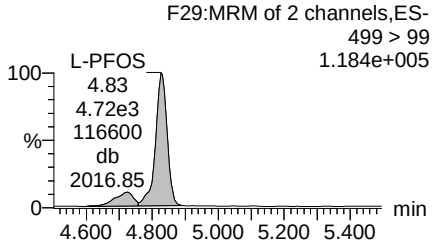
PFNA



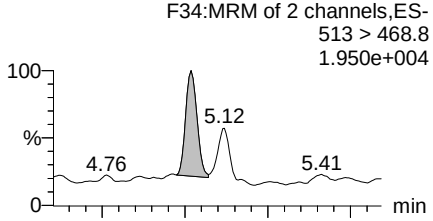


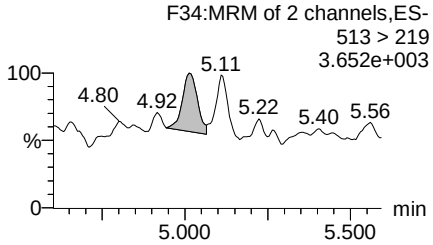
Total PFOS



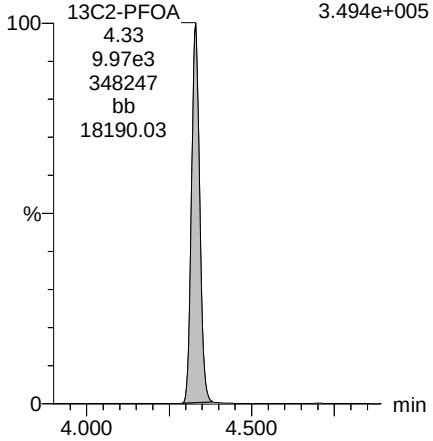


PFDA

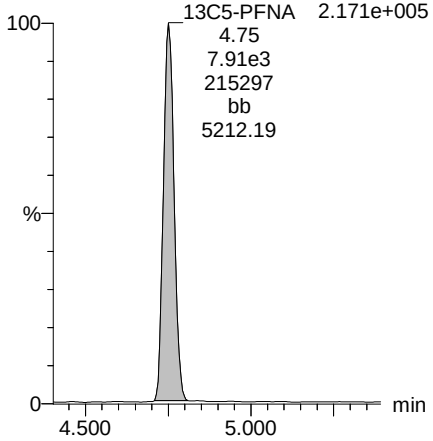




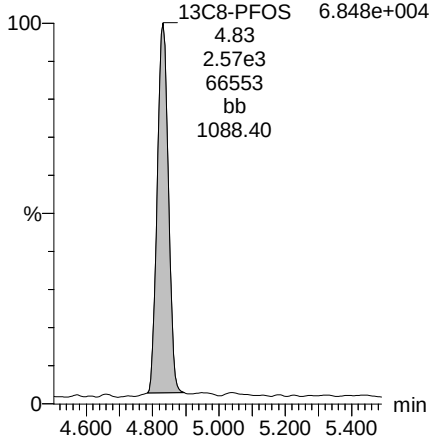
13C2-PFOA



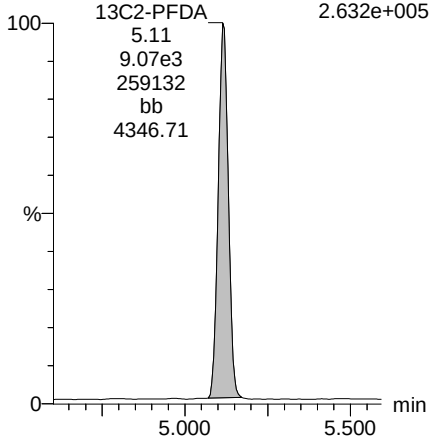
13C5-PFNA



13C8-PFOS



13C2-PFDA

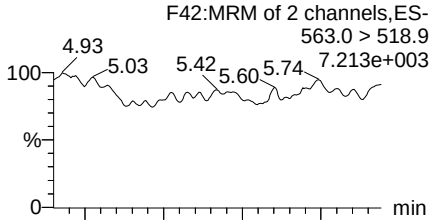


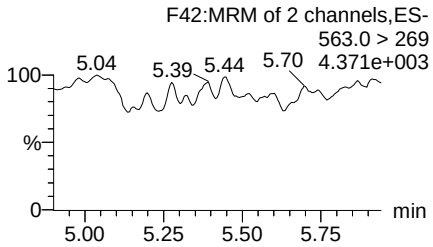
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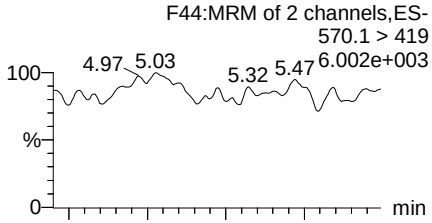
Name: 171224M2_58, Date: 25-Dec-2017, Time: 10:58:28, ID: 1701829-13 FT-MW05I-20171130 0.25874, Description: FT-MW05I-20171130

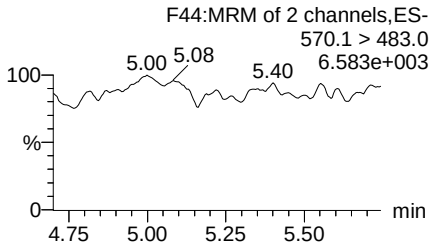
PFUdA



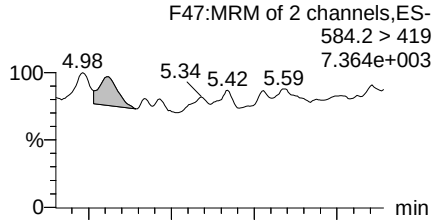


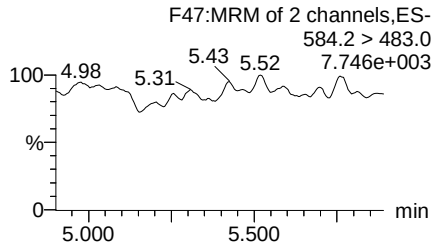
N-MeFOSAA



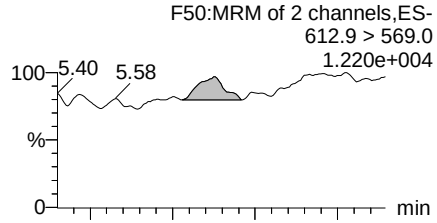


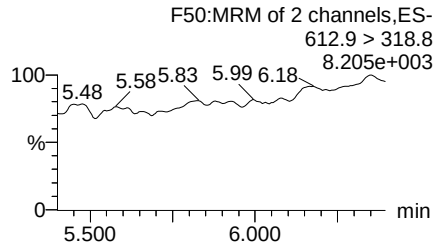
N-EtFOSAA



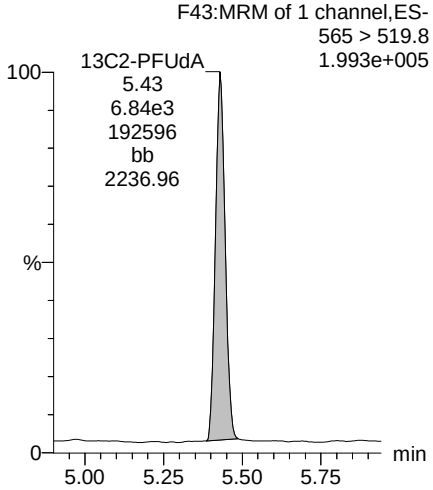


PFDoA

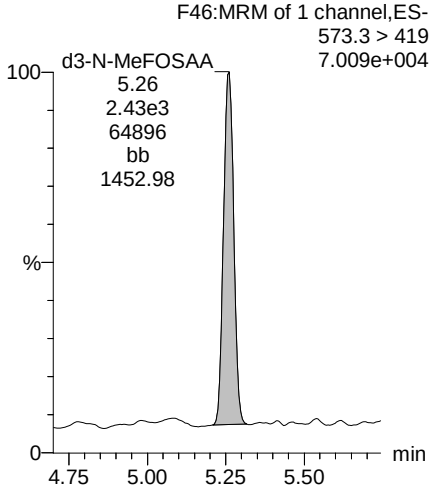




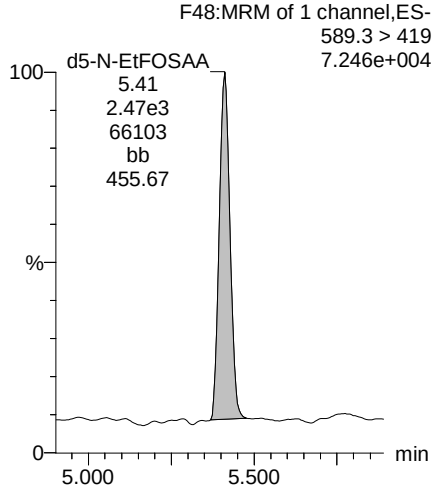
13C2-PFUdA



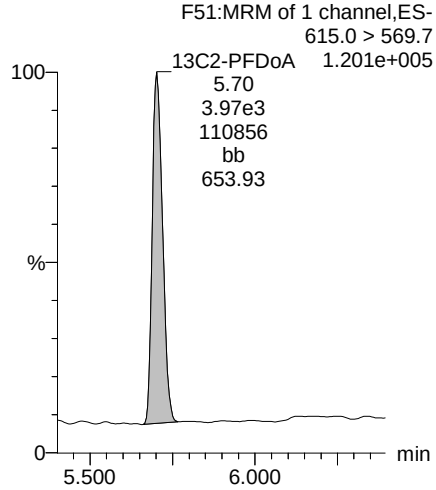
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

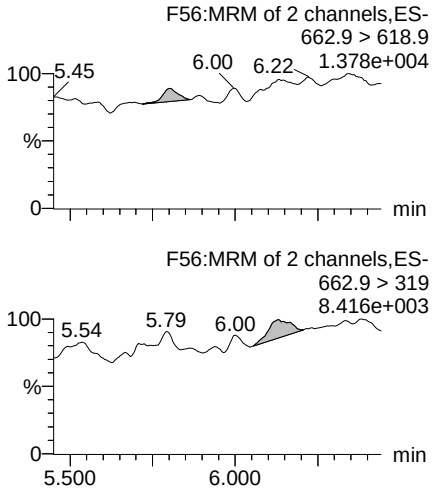


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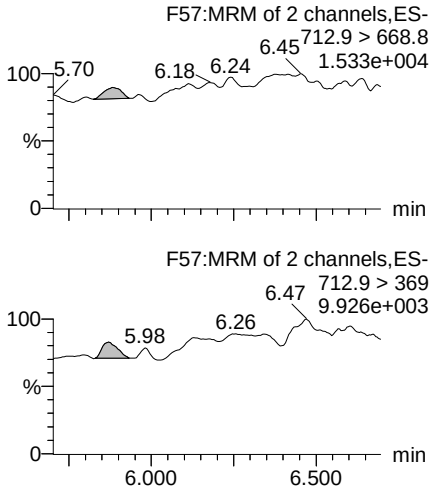
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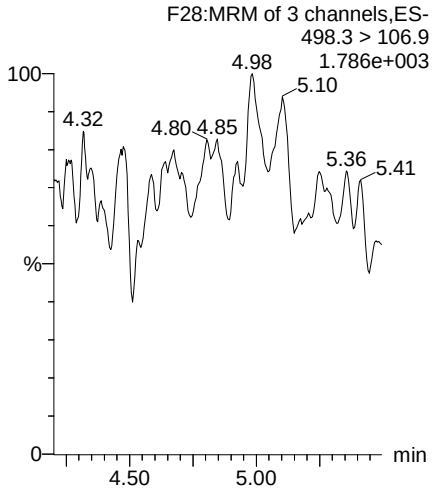
PFTrDA



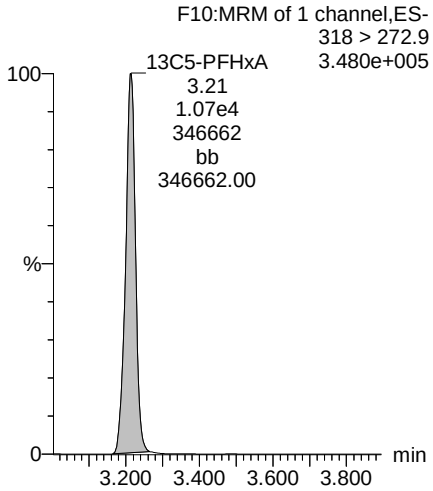
PFTeDA



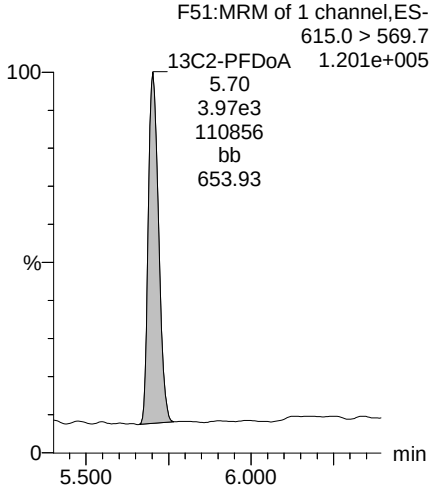
TCDA



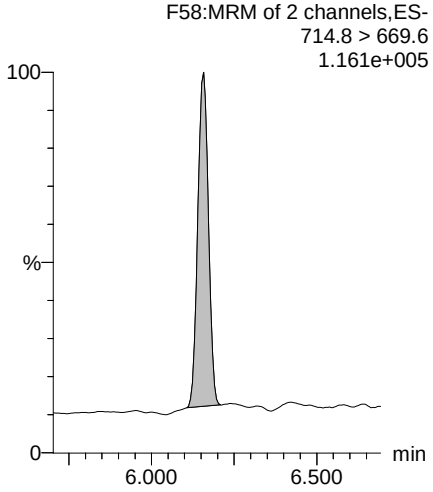
13C5-PFHxA



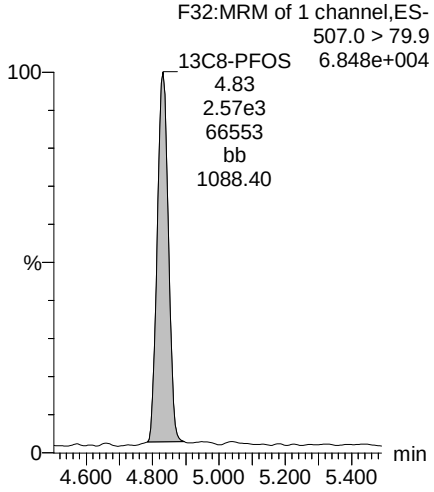
13C2-PFDoA



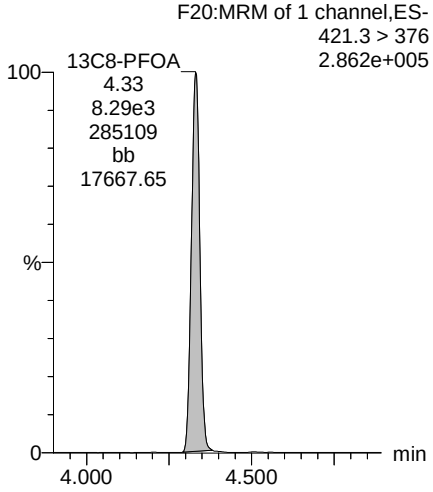
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

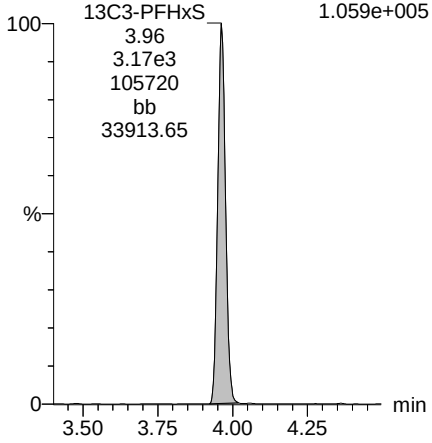


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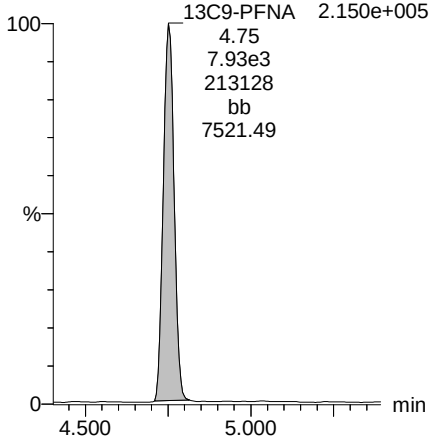
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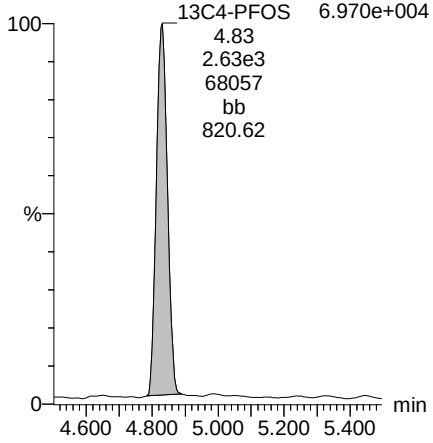
13C3-PFHxS



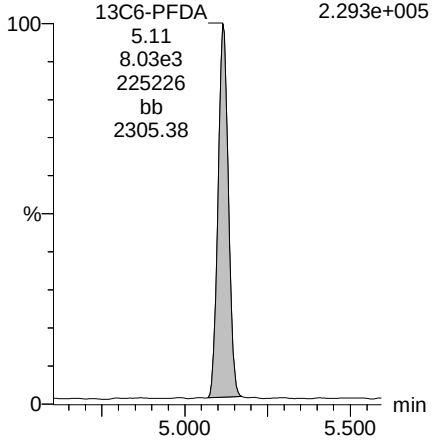
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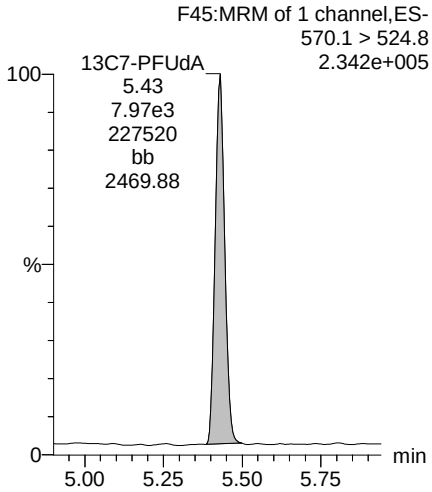
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_59.qld

Last Altered: Friday, December 29, 2017 14:53:25 Pacific Standard Time
Printed: Friday, December 29, 2017 14:53:52 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_59, Date: 25-Dec-2017, Time: 11:09:39, ID: 1701829-14 FT-MW07S-20171130 0.26174, Description: FT-MW07S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.11e3	0.262		2.70				
2	4	PFHxA	313.2 > 268.9		3.07e3	0.262		3.20				
3	5	PFHpA	363.0 > 318.9		5.64e3	0.262		3.80				
4	6	L-PFHxS	398.9 > 79.6		1.06e3	0.262		3.95				
5	9	L-PFOA	413 > 368.7	1.69e2	8.42e3	0.262		4.32	4.33	0.251	0.1588	
6	12	PFNA	463.0 > 418.8	7.25e1	5.91e3	0.262		4.75	4.76	0.153	0.8637	
7	14	L-PFOS	499 > 79.9		2.19e3	0.262		4.83				
8	16	PFDA	513 > 468.8		6.31e3	0.262		5.11				
9	18	N-MeFOSAA	570.1 > 419		2.42e3	0.262		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.64e3	0.262		5.42				
11	20	PFUdA	563.0 > 518.9		6.25e3	0.262		5.43				
12	22	PFDoA	612.9 > 569.0		4.13e3	0.262		5.70				

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_59.qld

Last Altered: Friday, December 29, 2017 14:53:25 Pacific Standard Time
Printed: Friday, December 29, 2017 14:54:05 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_59, Date: 25-Dec-2017, Time: 11:09:39, ID: 1701829-14 FT-MW07S-20171130 0.26174, Description: FT-MW07S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.20e3	0.262		5.95				
2	25	PFTeDA	712.9 > 668.8		3.20e3	0.262		6.16				
3	33	13C3-PFBS	302. > 98.8	1.11e3	1.22e4	0.262	0.101	2.70	2.73	1.14	43.0750	90.2
4	34	13C2-PFHxA	315 > 269.8	3.07e3	1.22e4	0.262	0.758	3.20	3.22	3.14	15.8237	82.8
5	35	13C4-PFHpA	367.2 > 321.8	5.64e3	1.22e4	0.262	0.562	3.80	3.82	5.77	39.2208	82.1
6	36	18O2-PFHxS	403.0 > 102.6	1.06e3	2.64e3	0.262	0.435	3.95	3.97	5.01	43.9962	92.1
7	37	13C2-6:2 FTS	429.1 > 408.9	1.71e3	8.27e3	0.262	0.393	4.26	4.28	2.59	25.1574	52.7
8	38	13C2-PFOA	414.9 > 369.7	8.42e3	8.27e3	0.262	1.252	4.32	4.33	12.7	38.8278	81.3
9	39	13C5-PFNA	468.2 > 422.9	5.91e3	7.55e3	0.262	0.962	4.75	4.76	9.78	38.8351	81.3
10	40	13C8-PFOSA	506.1 > 77.7	1.18e3	8.15e3	0.262	0.345	4.81	4.82	1.80	19.9800	41.8
11	41	13C8-PFOS	507.0 > 79.9	2.19e3	2.41e3	0.262	1.003	4.83	4.83	11.4	43.2989	90.7
12	42	13C2-PFDA	515.1 > 469.9	6.31e3	5.95e3	0.262	1.194	5.11	5.12	13.3	42.4343	88.9
13	43	13C2-8:2 FTS	529.1 > 508.7	1.34e3	1.22e4	0.262	0.150	5.09	5.09	1.37	34.8323	72.9
14	44	d3-N-MeFOSAA	573.3 > 419	2.42e3	8.15e3	0.262	0.372	5.26	5.26	3.70	38.0169	79.6
15	45	d5-N-EtFOSAA	589.3 > 419	2.64e3	8.15e3	0.262	0.444	5.42	5.41	4.05	34.8645	73.0
16	46	13C2-PFUdA	565 > 519.8	6.25e3	8.15e3	0.262	1.091	5.43	5.43	9.59	33.5912	70.3
17	47	13C2-PFDoA	615.0 > 569.7	4.13e3	8.15e3	0.262	0.629	5.70	5.70	6.33	38.4415	80.5
18	49	13C2-PFTeDA	714.8 > 669.6	3.20e3	8.15e3	0.262	0.551	6.16	6.15	4.90	34.0369	71.3
19	55	13C5-PFHxA	318 > 272.9	1.22e4	1.22e4	0.262	1.000	3.20	3.22	12.5	47.7573	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.64e3	2.64e3	0.262	1.000	3.95	3.97	12.5	47.7573	100.0
21	57	13C8-PFOA	421.3 > 376	8.27e3	8.27e3	0.262	1.000	4.32	4.33	12.5	47.7573	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.55e3	7.55e3	0.262	1.000	4.75	4.76	12.5	47.7573	100.0
23	59	13C4-PFOS	503 > 79.9	2.41e3	2.41e3	0.262	1.000	4.83	4.83	12.5	47.7573	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.95e3	5.95e3	0.262	1.000	5.11	5.12	12.5	47.7573	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.15e3	8.15e3	0.262	1.000	5.43	5.43	12.5	47.7573	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	1.06e3	0.262		4.00		0.000		
27	63	Total PFOA	413 > 368.7	1.69e2	8.42e3	0.262		4.30		0.251	0.1588	
28	64	Total PFOS	499 > 79.9	0.00e0	2.19e3	0.262		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.42e3	0.262		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.64e3	0.262		5.40		0.000		

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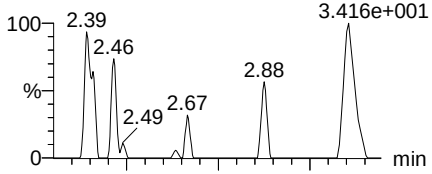
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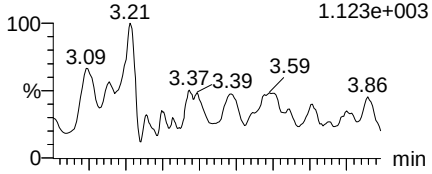
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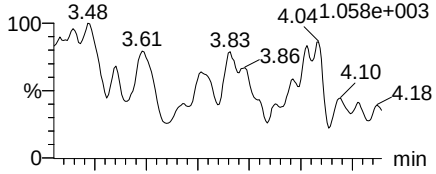
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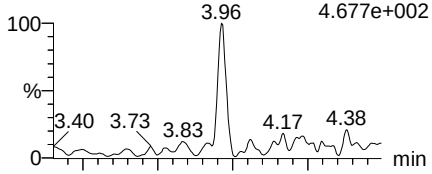
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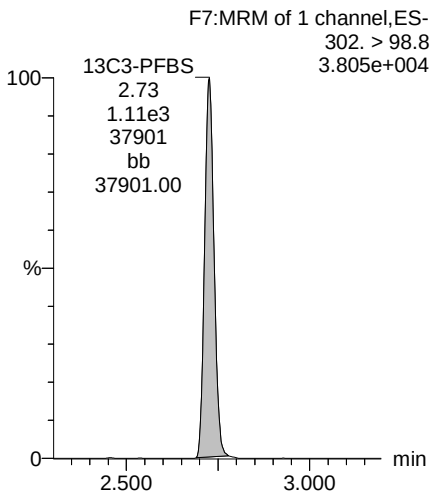
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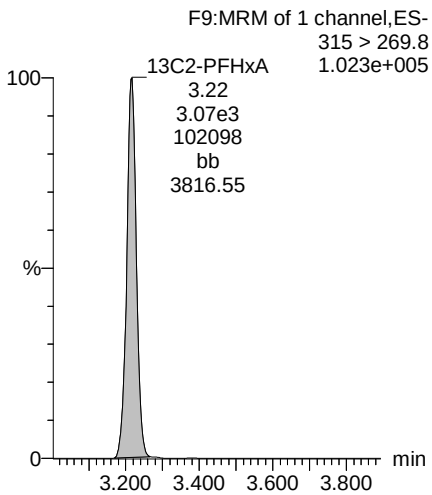
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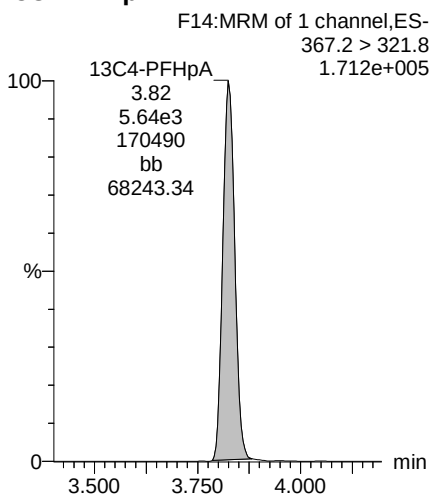
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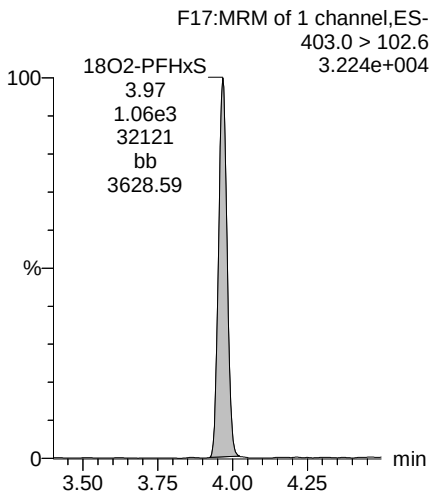
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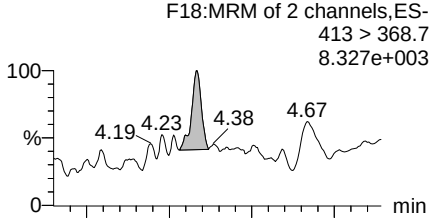


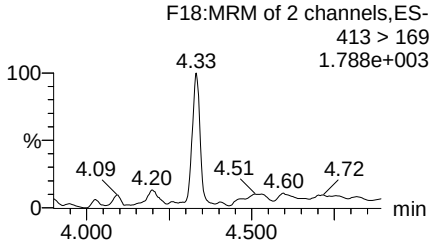
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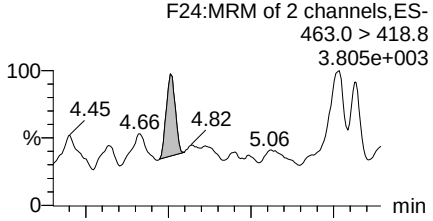
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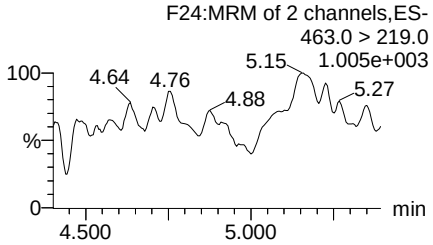
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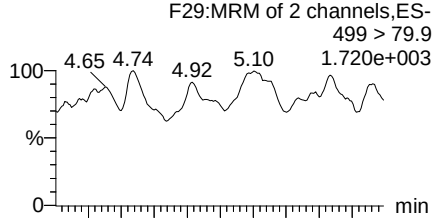


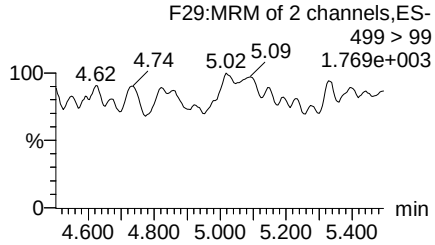
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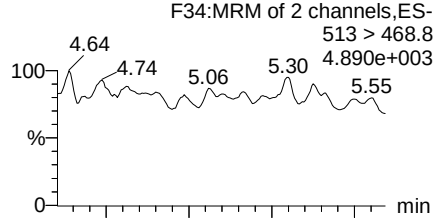


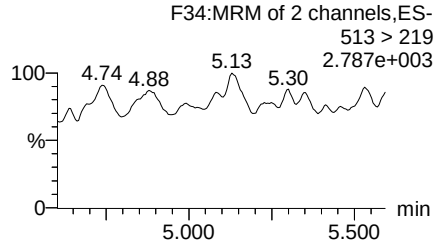
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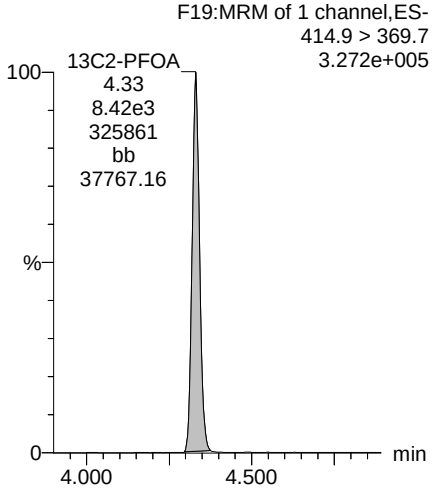


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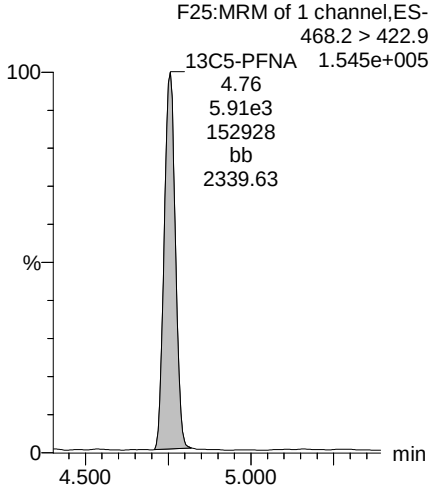




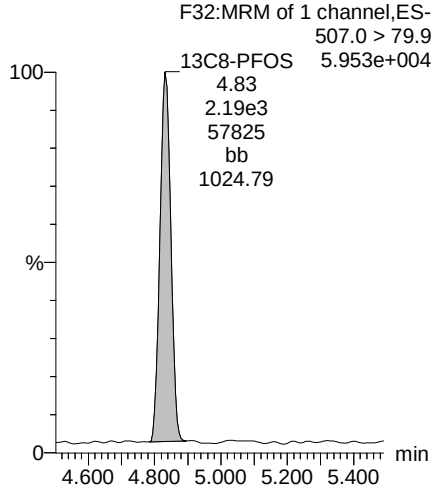
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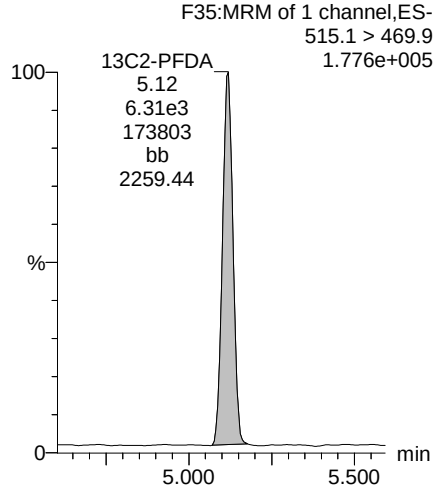
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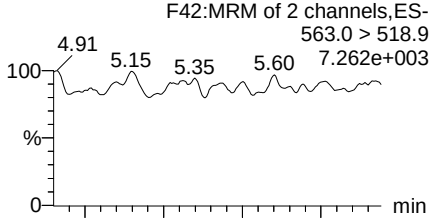


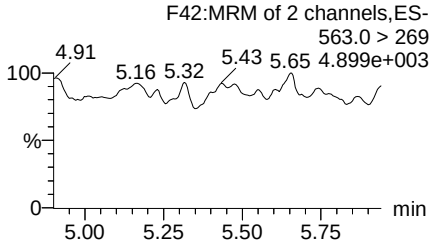
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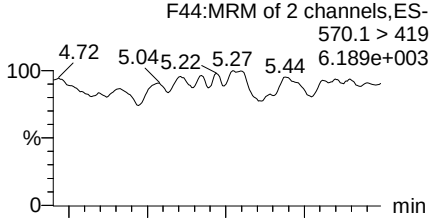
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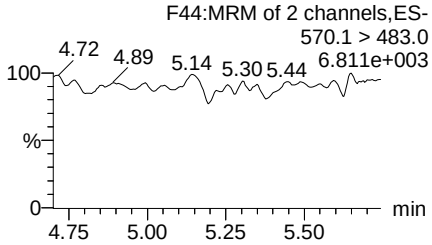
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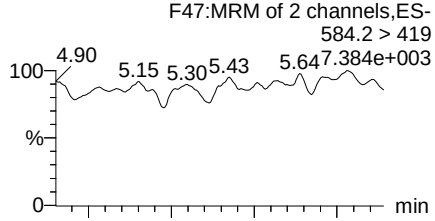


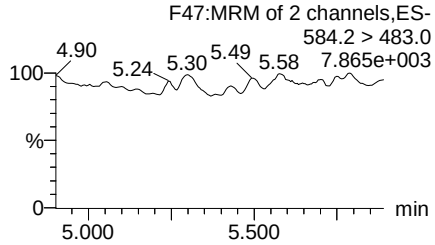
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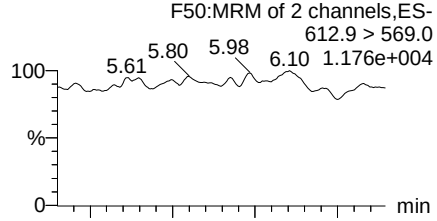


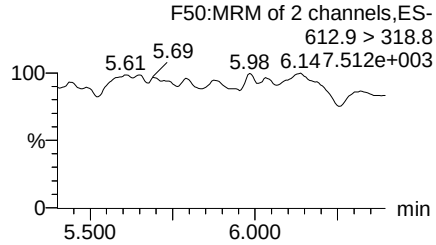
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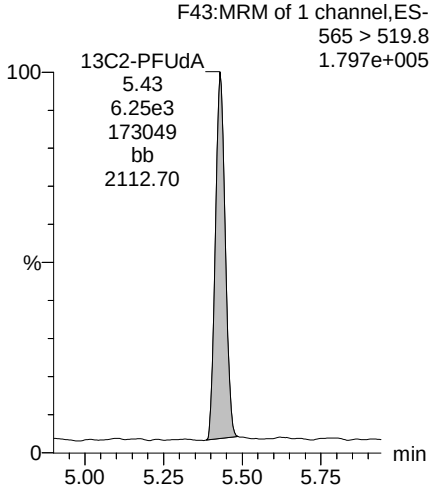


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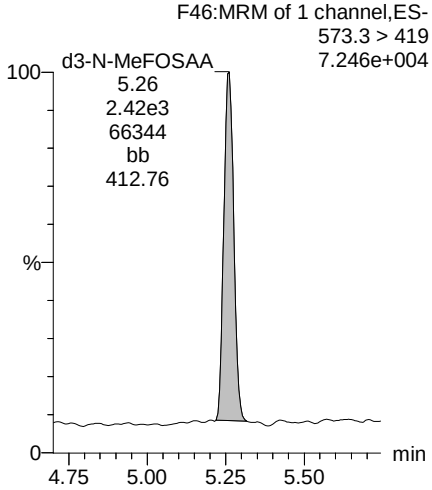




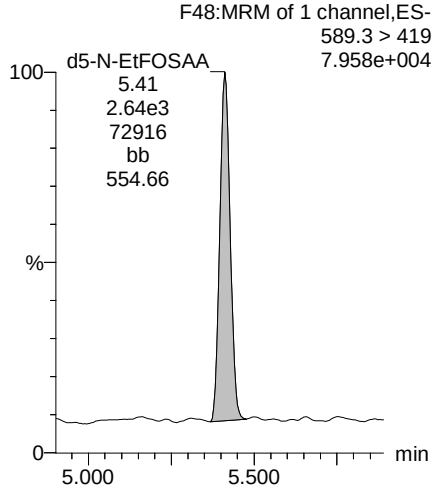
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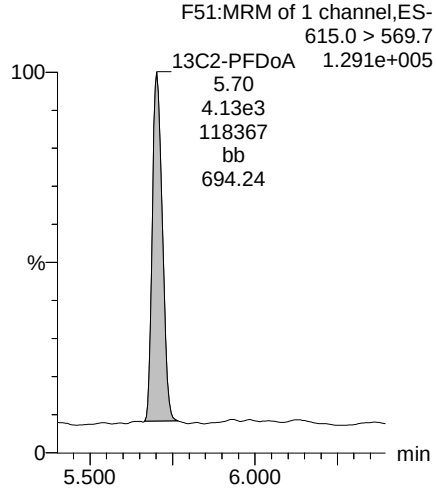
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d5-N-EtFOSAA



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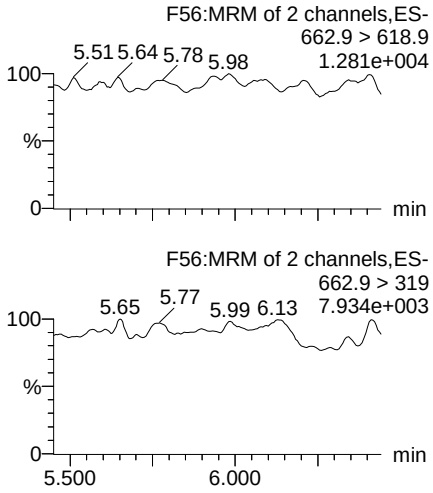


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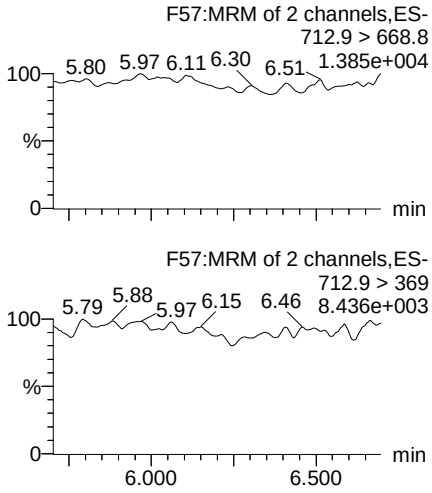
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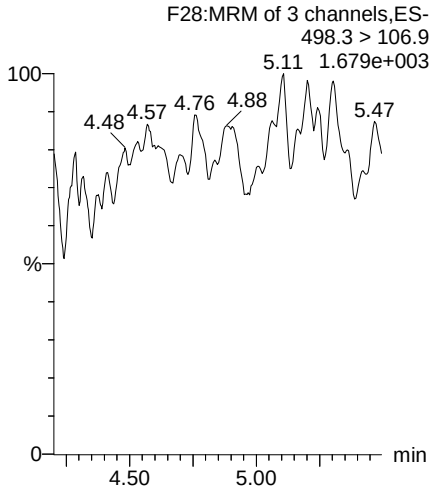
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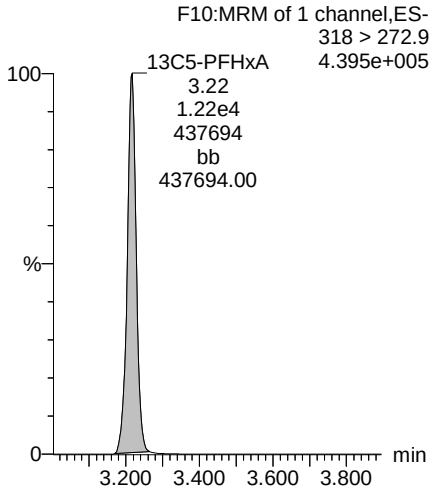
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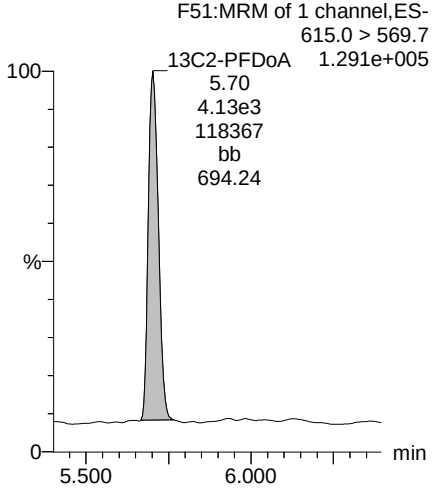
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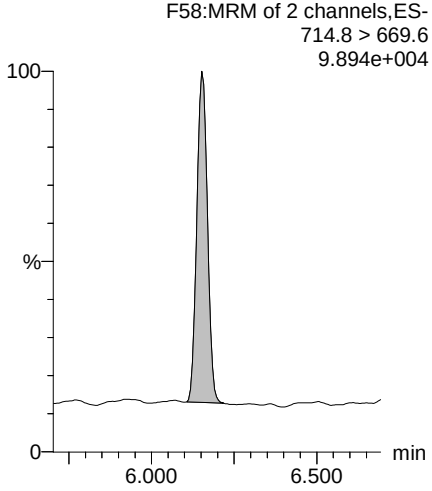
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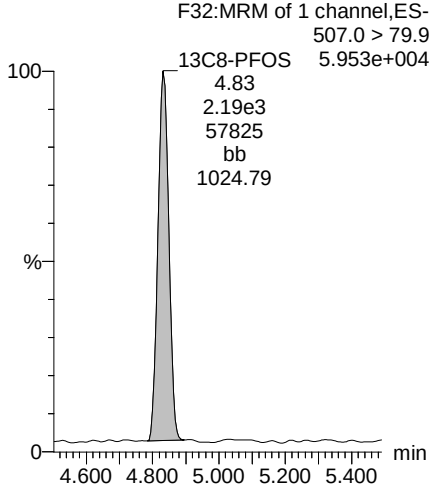
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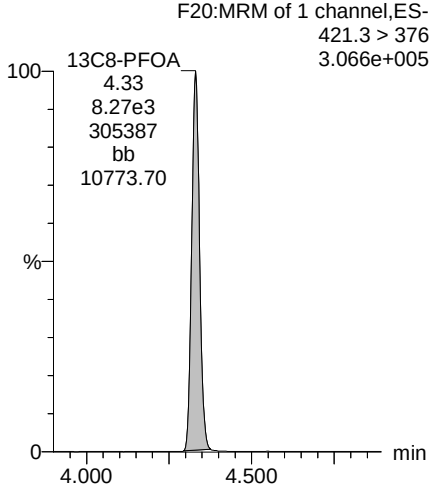
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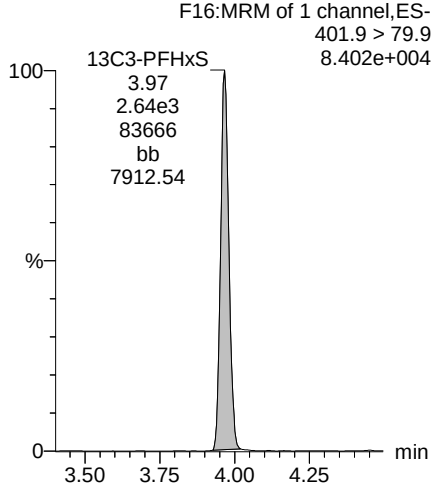


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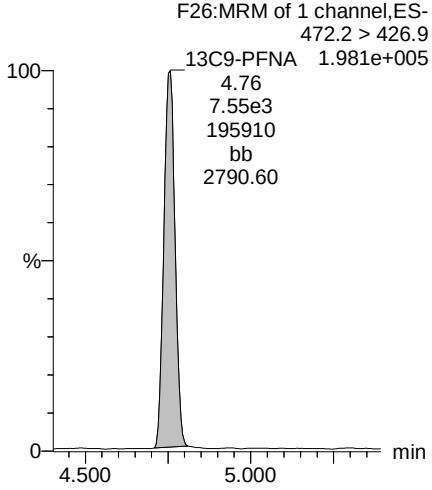
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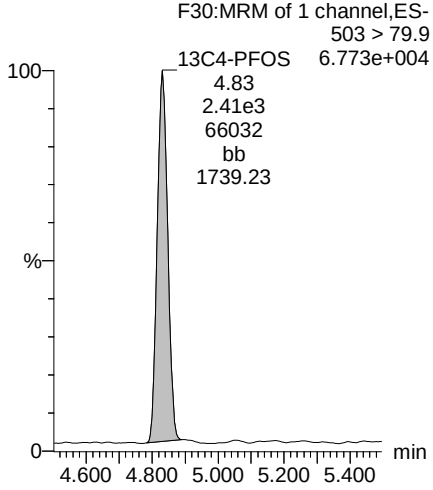
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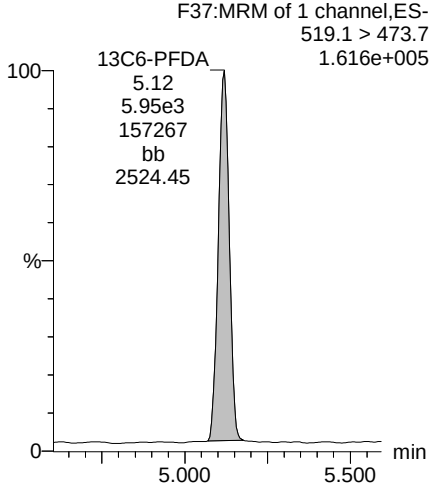
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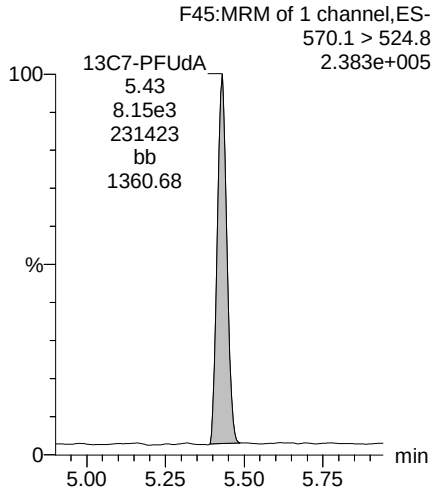
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13C6-PFDA



13C7-PFUdA



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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_60, Date: 25-Dec-2017, Time: 11:20:49, ID: 1701829-15 FT-MW05S-20171130 0.25681, Description: FT-MW05S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.14e3	0.257		2.70				
2	4	PFHxA	313.2 > 268.9	1.41e3	2.96e3	0.257		3.20	3.22	2.38	5.9543	
3	5	PFHpA	363.0 > 318.9	4.95e2	5.51e3	0.257		3.80	3.82	1.12	3.2431	
4	6	L-PFHxS	398.9 > 79.6	9.08e2	9.58e2	0.257		3.95	3.97	11.9	20.9398	
5	9	L-PFOA	413 > 368.7	1.13e3	7.87e3	0.257		4.32	4.33	1.80	6.0346	
6	12	PFNA	463.0 > 418.8	6.06e3	6.95e3	0.257		4.75	4.76	10.9	28.5430	
7	14	L-PFOS	499 > 79.9	8.35e2	2.21e3	0.257		4.83	4.83	4.72	17.0468	
8	16	PFDA	513 > 468.8	2.22e2	6.25e3	0.257		5.11	5.11	0.443	0.9362	
9	18	N-MeFOSAA	570.1 > 419		2.06e3	0.257		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.67e3	0.257		5.42				
11	20	PFUdA	563.0 > 518.9	2.83e2	6.44e3	0.257		5.43	5.34	0.549	1.9913	
12	22	PFDoA	612.9 > 569.0		3.70e3	0.257		5.70				

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Dataset: U:\Q4.PRO\results\171224M2\171224m2_60.qld

Last Altered: Friday, December 29, 2017 14:54:46 Pacific Standard Time
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Name: 171224M2_60, Date: 25-Dec-2017, Time: 11:20:49, ID: 1701829-15 FT-MW05S-20171130 0.25681, Description: FT-MW05S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		2.85e3	0.257		5.95				
2	25	PFTeDA	712.9 > 668.8		2.85e3	0.257		6.16				
3	33	13C3-PFBS	302. > 98.8	1.14e3	1.15e4	0.257	0.101	2.70	2.73	1.25	48.0553	98.7
4	34	13C2-PFHxA	315 > 269.8	2.96e3	1.15e4	0.257	0.758	3.20	3.22	3.23	16.5961	85.2
5	35	13C4-PFHpA	367.2 > 321.8	5.51e3	1.15e4	0.257	0.562	3.80	3.82	6.01	41.6062	85.5
6	36	18O2-PFHxS	403.0 > 102.6	9.58e2	2.43e3	0.257	0.435	3.95	3.96	4.93	44.1540	90.7
7	37	13C2-6:2 FTS	429.1 > 408.9	1.71e3	7.19e3	0.257	0.393	4.26	4.28	2.98	29.4993	60.6
8	38	13C2-PFOA	414.9 > 369.7	7.87e3	7.19e3	0.257	1.252	4.32	4.33	13.7	42.5253	87.4
9	39	13C5-PFNA	468.2 > 422.9	6.95e3	8.78e3	0.257	0.962	4.75	4.76	9.89	40.0299	82.2
10	40	13C8-PFOSA	506.1 > 77.7	1.34e3	7.39e3	0.257	0.345	4.81	4.82	2.26	25.5808	52.6
11	41	13C8-PFOS	507.0 > 79.9	2.21e3	2.37e3	0.257	1.003	4.83	4.83	11.7	45.2153	92.9
12	42	13C2-PFDA	515.1 > 469.9	6.25e3	7.48e3	0.257	1.194	5.11	5.12	10.4	34.0789	70.0
13	43	13C2-8:2 FTS	529.1 > 508.7	8.58e2	1.15e4	0.257	0.150	5.09	5.09	0.935	24.2889	49.9
14	44	d3-N-MeFOSAA	573.3 > 419	2.06e3	7.39e3	0.257	0.372	5.26	5.26	3.48	36.4335	74.9
15	45	d5-N-EtFOSAA	589.3 > 419	2.67e3	7.39e3	0.257	0.444	5.42	5.41	4.52	39.6635	81.5
16	46	13C2-PFUdA	565 > 519.8	6.44e3	7.39e3	0.257	1.091	5.43	5.43	10.9	38.8646	79.8
17	47	13C2-PFDoA	615.0 > 569.7	3.70e3	7.39e3	0.257	0.629	5.70	5.70	6.25	38.6632	79.4
18	49	13C2-PFTeDA	714.8 > 669.6	2.85e3	7.39e3	0.257	0.551	6.16	6.16	4.82	34.0936	70.0
19	55	13C5-PFHxA	318 > 272.9	1.15e4	1.15e4	0.257	1.000	3.20	3.21	12.5	48.6741	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.43e3	2.43e3	0.257	1.000	3.95	3.96	12.5	48.6741	100.0
21	57	13C8-PFOA	421.3 > 376	7.19e3	7.19e3	0.257	1.000	4.32	4.33	12.5	48.6741	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.78e3	8.78e3	0.257	1.000	4.75	4.75	12.5	48.6741	100.0
23	59	13C4-PFOS	503 > 79.9	2.37e3	2.37e3	0.257	1.000	4.83	4.83	12.5	48.6741	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.48e3	7.48e3	0.257	1.000	5.11	5.11	12.5	48.6741	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.39e3	7.39e3	0.257	1.000	5.43	5.43	12.5	48.6741	100.0
26	62	Total PFHxS	398.9 > 79.6	1.04e3	9.58e2	0.257		4.00		13.6	24.0099	
27	63	Total PFOA	413 > 368.7	1.36e3	7.87e3	0.257		4.30		2.17	6.6470	
28	64	Total PFOS	499 > 79.9	1.00e3	2.21e3	0.257		4.80		5.67	20.4602	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.06e3	0.257		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.67e3	0.257		5.40		0.000		

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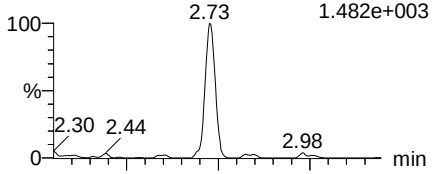
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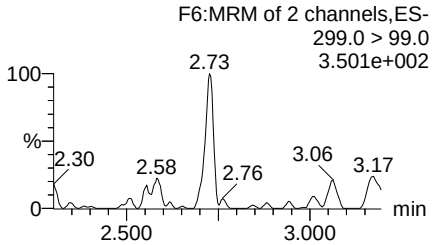
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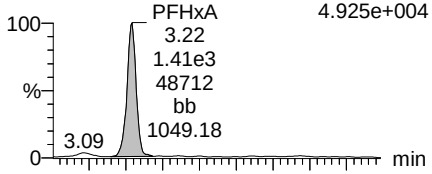
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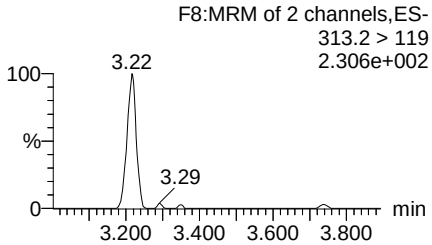
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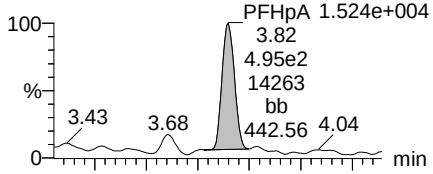


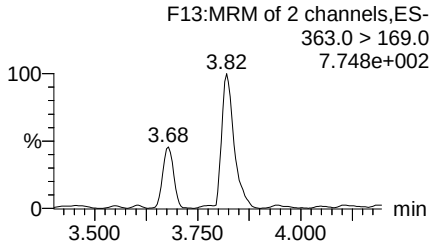
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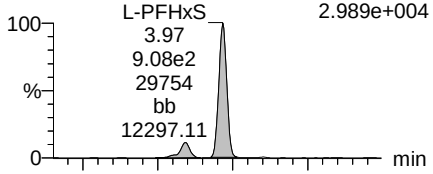


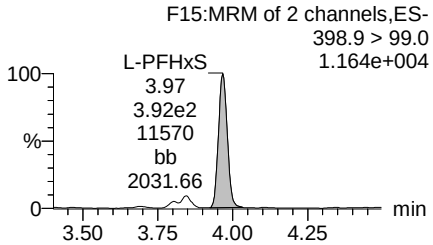
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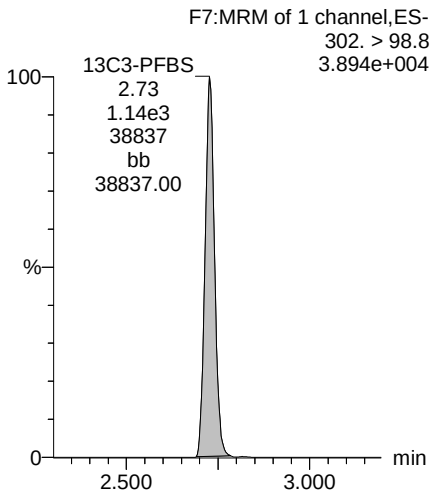


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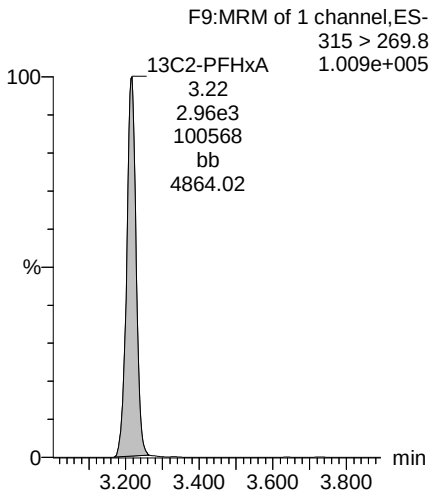




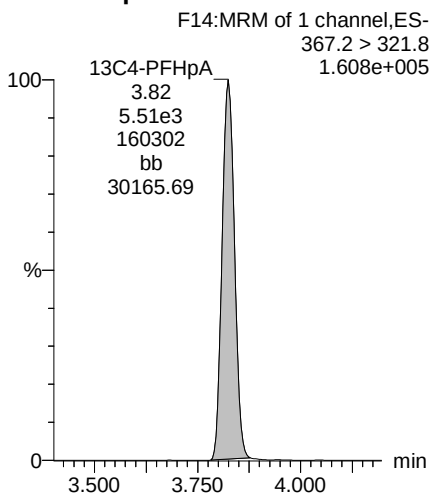
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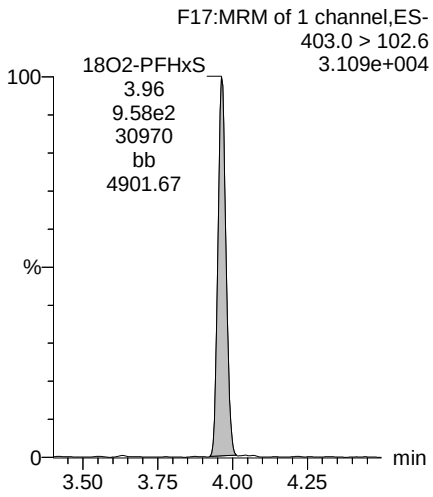
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13C4-PFHpA



18O2-PFHxS

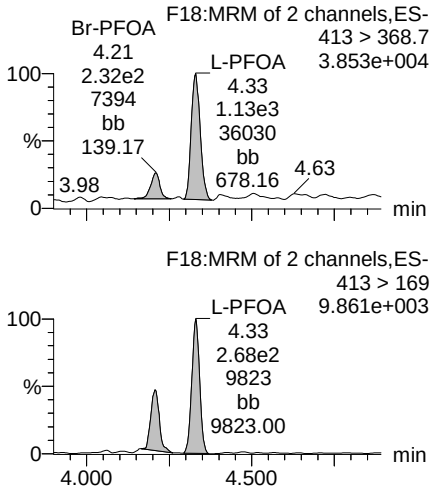


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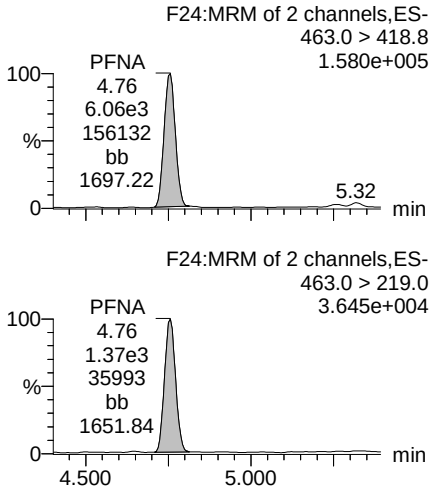
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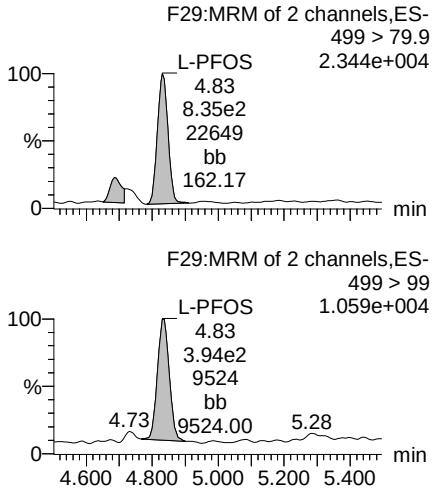
Total PFOA



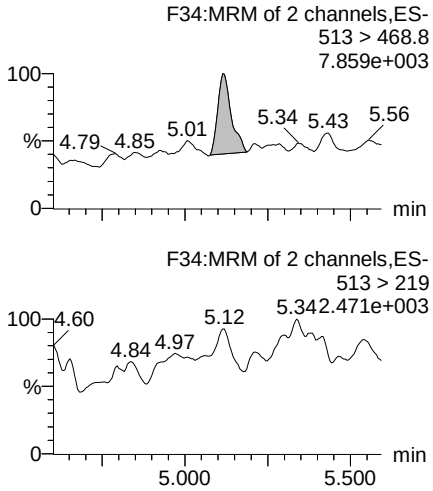
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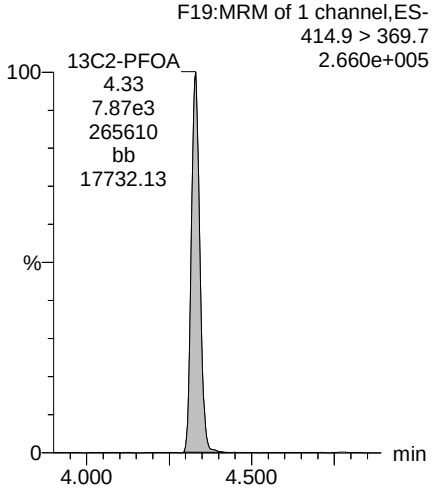
Total PFOS



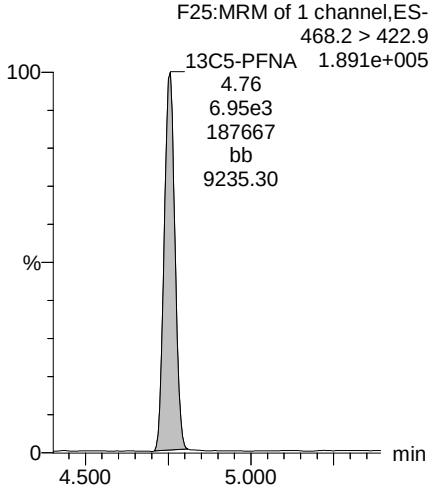
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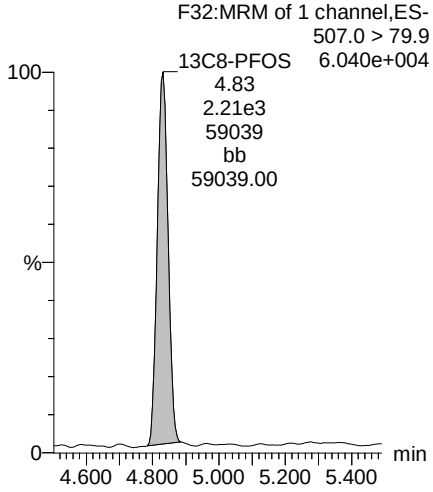
13C2-PFOA



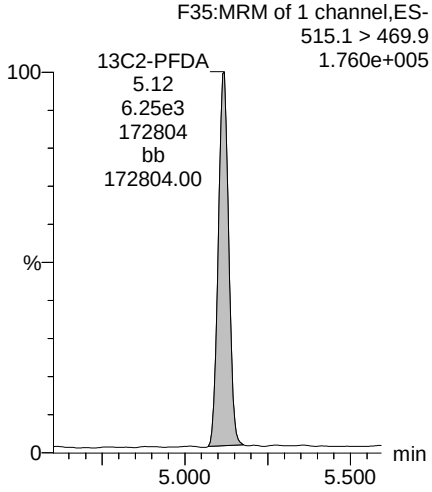
13C5-PFNA



13C8-PFOS



13C2-PFDA

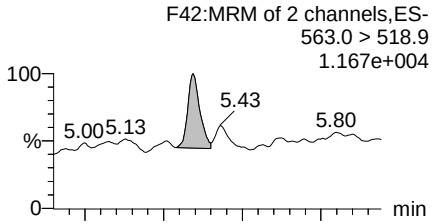


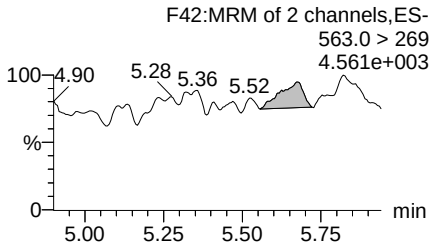
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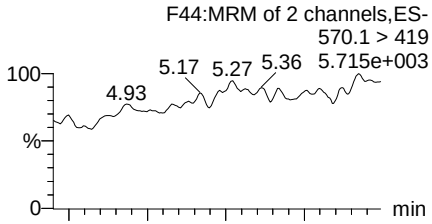
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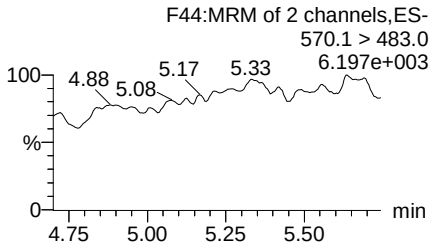
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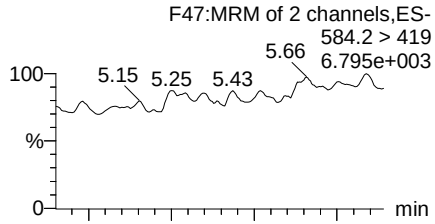


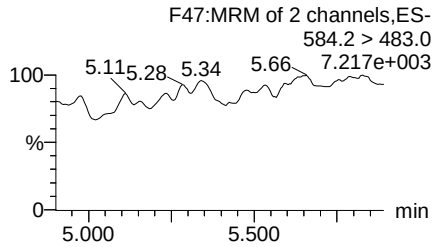
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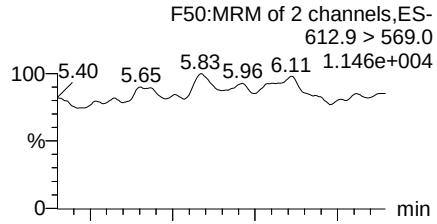


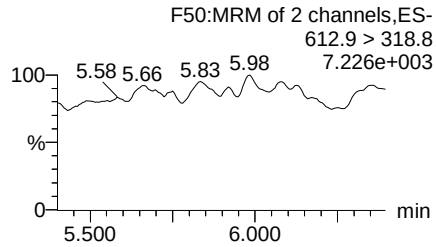
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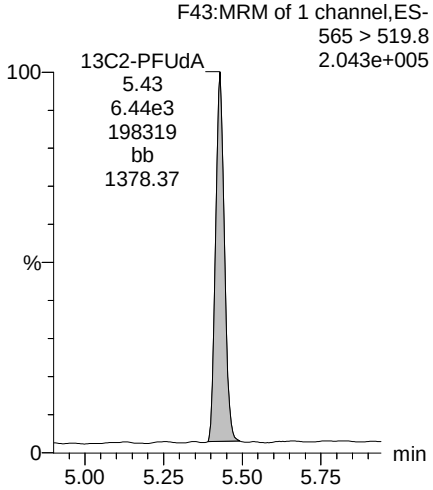


PFDoA

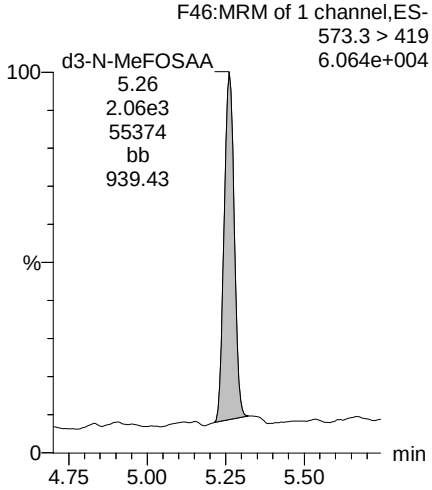




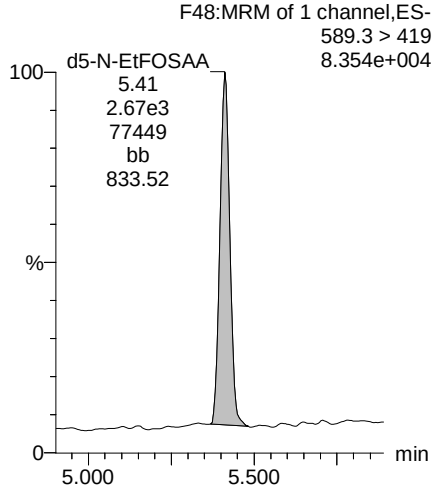
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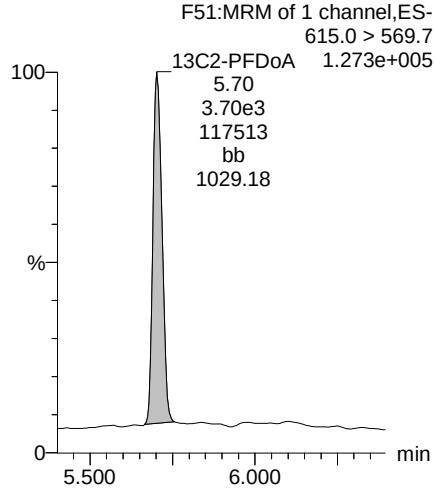
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d5-N-EtFOSAA



13C2-PFDoA



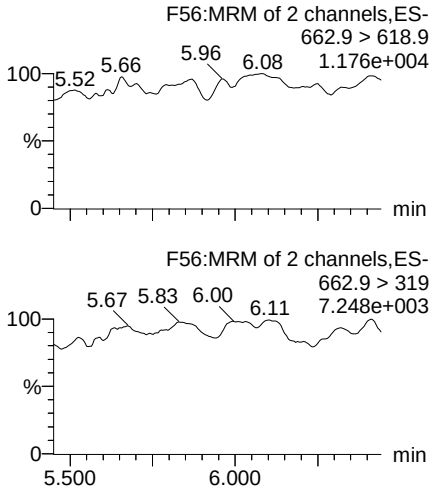
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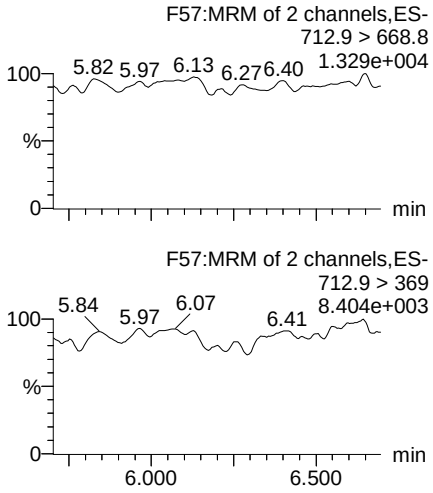
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Name: 171224M2_60, Date: 25-Dec-2017, Time: 11:20:49, ID: 1701829-15 FT-MW05S-20171130 0.25681, Description: FT-MW05S-20171130

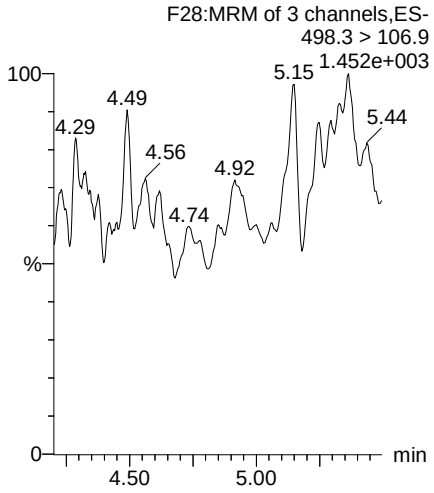
PFTrDA



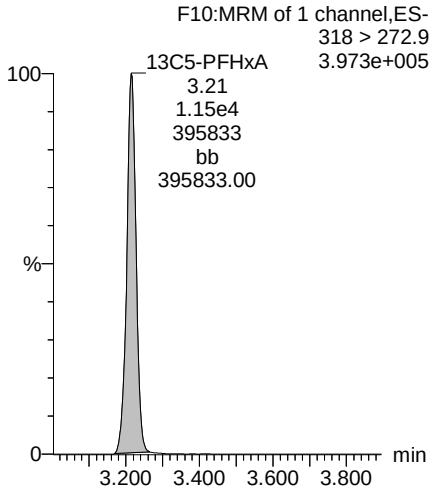
PFTeDA



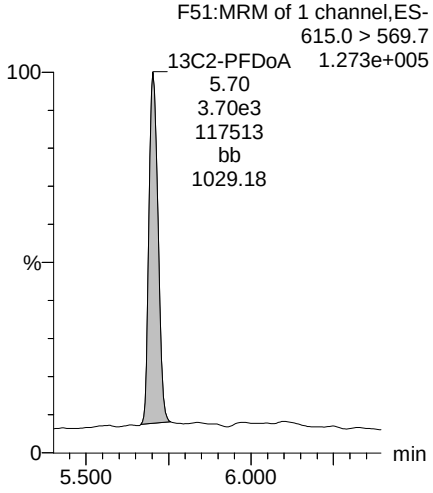
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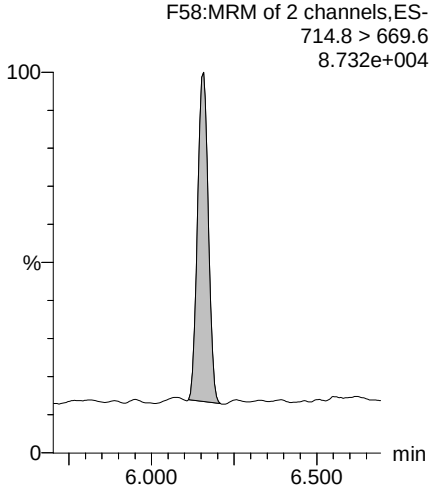
13C5-PFHxA



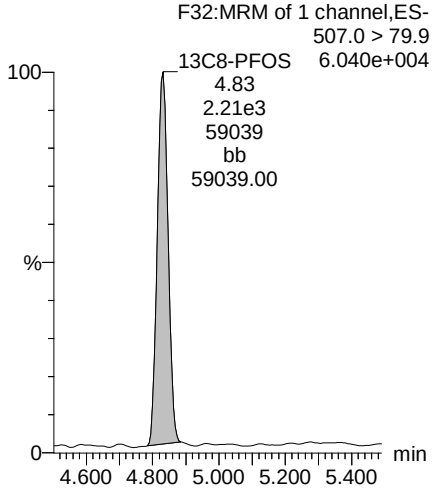
13C2-PFDoA



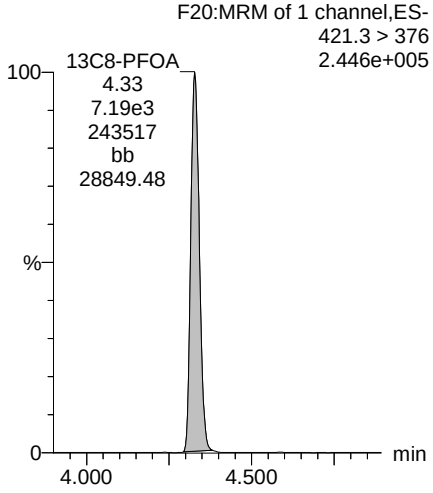
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13C8-PFOS



13C8-PFOA

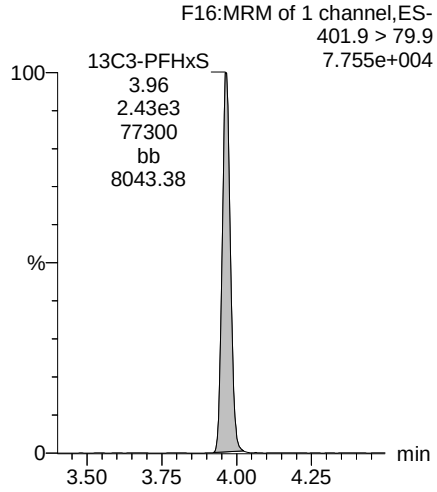


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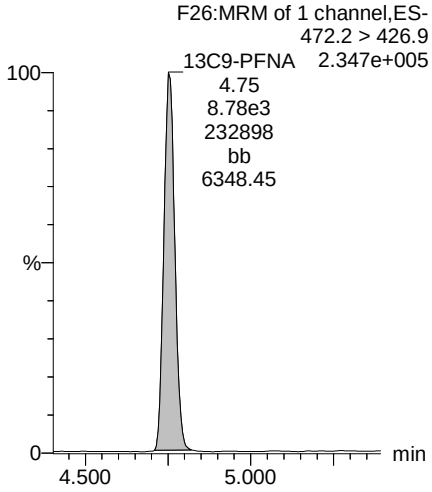
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Name: 171224M2_60, Date: 25-Dec-2017, Time: 11:20:49, ID: 1701829-15 FT-MW05S-20171130 0.25681, Description: FT-MW05S-20171130

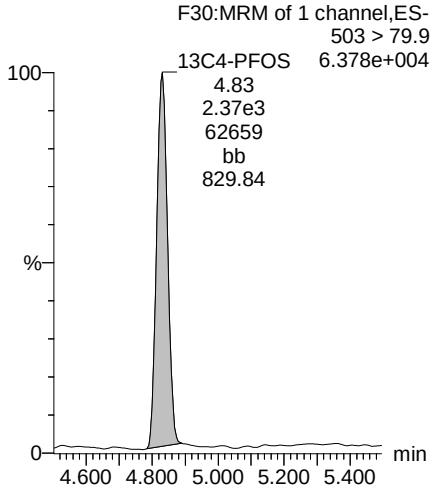
13C3-PFHxS



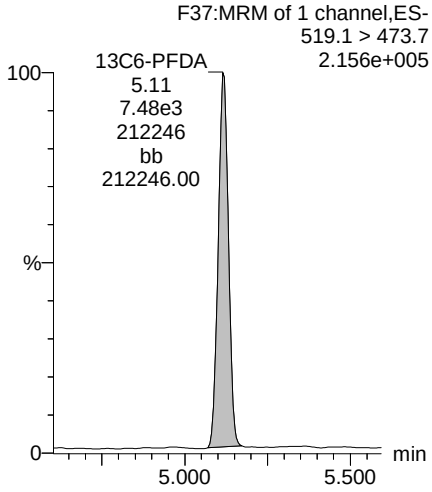
13C9-PFNA



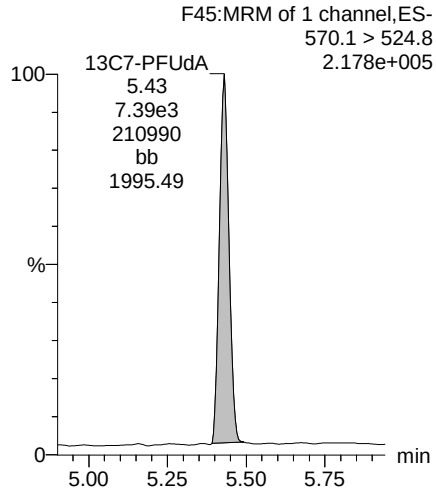
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171224M2\171224m2_61.qld

Last Altered: Friday, December 29, 2017 14:56:08 Pacific Standard Time
Printed: Friday, December 29, 2017 14:56:52 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_61, Date: 25-Dec-2017, Time: 11:32:00, ID: 1701829-16 FT-MW06I-20171130 0.24988, Description: FT-MW06I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.21e3	0.250		2.70				
2	4	PFHxA	313.2 > 268.9		3.02e3	0.250		3.20				
3	5	PFHpA	363.0 > 318.9		5.90e3	0.250		3.80				
4	6	L-PFHxS	398.9 > 79.6		9.94e2	0.250		3.95				
5	9	L-PFOA	413 > 368.7	1.37e2	8.47e3	0.250		4.32	4.34	0.202		
6	12	PFNA	463.0 > 418.8		7.46e3	0.250		4.75				
7	14	L-PFOS	499 > 79.9		2.88e3	0.250		4.83				
8	16	PFDA	513 > 468.8		6.88e3	0.250		5.11				
9	18	N-MeFOSAA	570.1 > 419		2.69e3	0.250		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.72e3	0.250		5.42				
11	20	PFUdA	563.0 > 518.9		7.26e3	0.250		5.43				
12	22	PFDoA	612.9 > 569.0		3.33e3	0.250		5.70				

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Dataset: U:\Q4.PRO\results\171224M2\171224m2_61.qld

Last Altered: Friday, December 29, 2017 14:56:08 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_61, Date: 25-Dec-2017, Time: 11:32:00, ID: 1701829-16 FT-MW06I-20171130 0.24988, Description: FT-MW06I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.35e3	0.250		5.95				
2	25	PFTeDA	712.9 > 668.8	1.48e2	3.35e3	0.250		6.16	6.16	0.552	0.8423	
3	33	13C3-PFBS	302. > 98.8	1.21e3	1.17e4	0.250	0.101	2.70	2.73	1.29	51.1234	102.2
4	34	13C2-PFHxA	315 > 269.8	3.02e3	1.17e4	0.250	0.758	3.20	3.21	3.21	16.9659	84.8
5	35	13C4-PFHpA	367.2 > 321.8	5.90e3	1.17e4	0.250	0.562	3.80	3.82	6.28	44.7097	89.4
6	36	18O2-PFHxS	403.0 > 102.6	9.94e2	2.93e3	0.250	0.435	3.95	3.97	4.24	38.9954	78.0
7	37	13C2-6:2 FTS	429.1 > 408.9	2.50e3	8.35e3	0.250	0.393	4.26	4.28	3.75	38.1554	76.3
8	38	13C2-PFOA	414.9 > 369.7	8.47e3	8.35e3	0.250	1.252	4.32	4.33	12.7	40.5229	81.0
9	39	13C5-PFNA	468.2 > 422.9	7.46e3	1.03e4	0.250	0.962	4.75	4.76	9.08	37.7439	75.5
10	40	13C8-PFOSA	506.1 > 77.7	1.10e3	8.65e3	0.250	0.345	4.81	4.82	1.59	18.5058	37.0
11	41	13C8-PFOS	507.0 > 79.9	2.88e3	3.28e3	0.250	1.003	4.83	4.83	11.0	43.8117	87.6
12	42	13C2-PFDA	515.1 > 469.9	6.88e3	5.81e3	0.250	1.194	5.11	5.12	14.8	49.5653	99.1
13	43	13C2-8:2 FTS	529.1 > 508.7	1.15e3	1.17e4	0.250	0.150	5.09	5.09	1.23	32.7154	65.4
14	44	d3-N-MeFOSAA	573.3 > 419	2.69e3	8.65e3	0.250	0.372	5.26	5.26	3.89	41.7917	83.5
15	45	d5-N-EtFOSAA	589.3 > 419	2.72e3	8.65e3	0.250	0.444	5.42	5.41	3.93	35.4789	70.9
16	46	13C2-PFUdA	565 > 519.8	7.26e3	8.65e3	0.250	1.091	5.43	5.43	10.5	38.5120	77.0
17	47	13C2-PFDoA	615.0 > 569.7	3.33e3	8.65e3	0.250	0.629	5.70	5.70	4.81	30.5699	61.1
18	49	13C2-PFTeDA	714.8 > 669.6	3.35e3	8.65e3	0.250	0.551	6.16	6.16	4.84	35.1930	70.4
19	55	13C5-PFHxA	318 > 272.9	1.17e4	1.17e4	0.250	1.000	3.20	3.21	12.5	50.0240	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.93e3	2.93e3	0.250	1.000	3.95	3.97	12.5	50.0240	100.0
21	57	13C8-PFOA	421.3 > 376	8.35e3	8.35e3	0.250	1.000	4.32	4.33	12.5	50.0240	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.03e4	1.03e4	0.250	1.000	4.75	4.76	12.5	50.0240	100.0
23	59	13C4-PFOS	503 > 79.9	3.28e3	3.28e3	0.250	1.000	4.83	4.83	12.5	50.0240	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.81e3	5.81e3	0.250	1.000	5.11	5.12	12.5	50.0240	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.65e3	8.65e3	0.250	1.000	5.43	5.43	12.5	50.0240	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	9.94e2	0.250		4.00		0.000		
27	63	Total PFOA	413 > 368.7	1.37e2	8.47e3	0.250		4.30		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.88e3	0.250		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.69e3	0.250		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.72e3	0.250		5.40		0.000		

Vista Analytical Laboratory

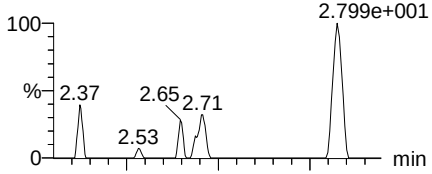
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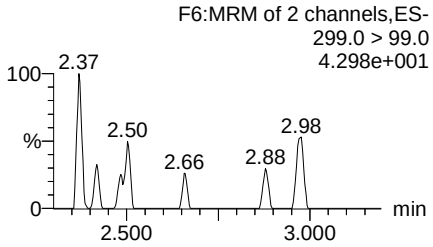
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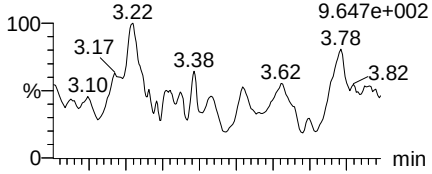
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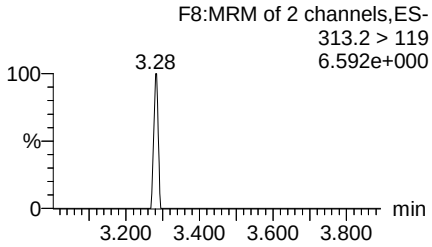
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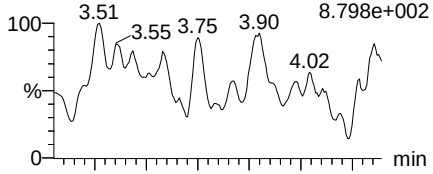


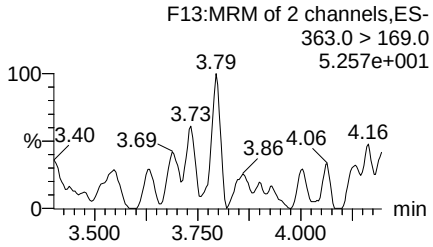
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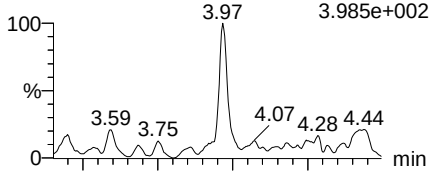


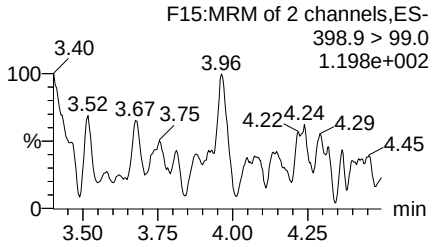
PFHpA



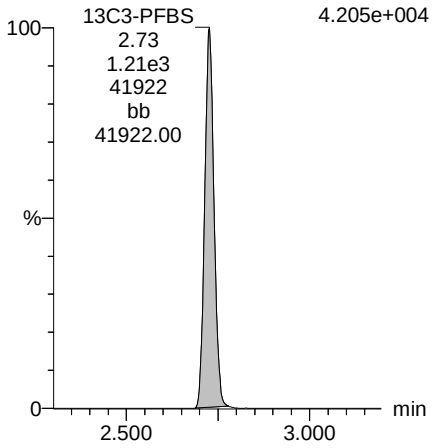


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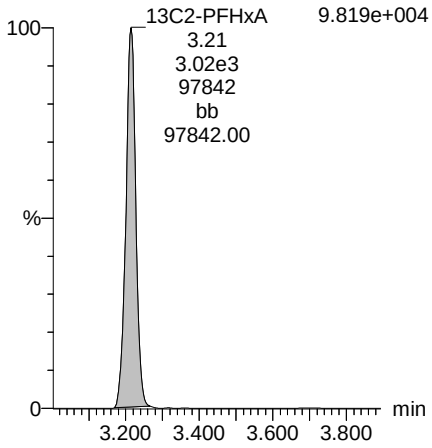




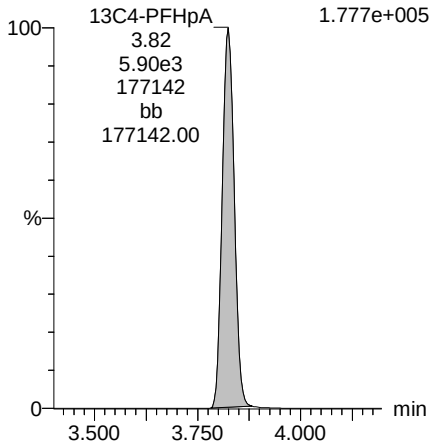
13C3-PFBS



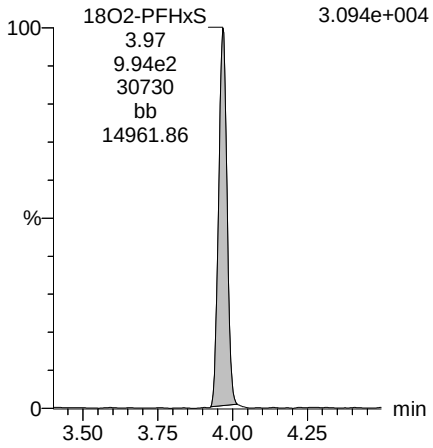
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

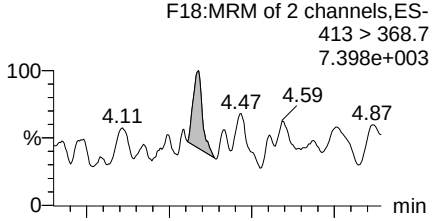


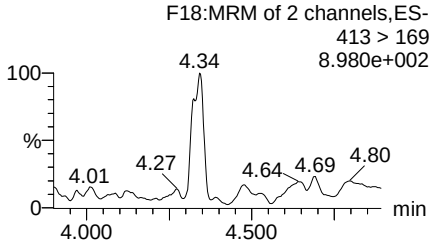
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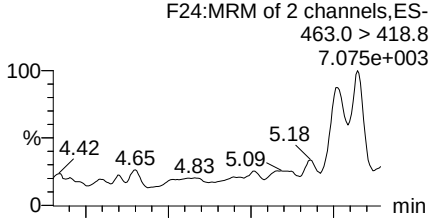
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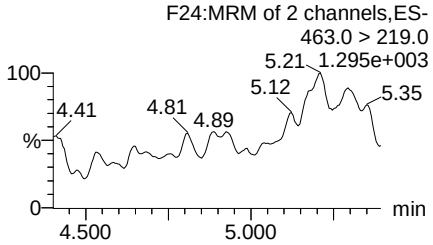
Total PFOA



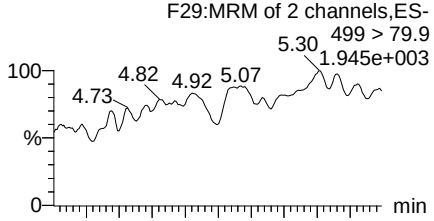


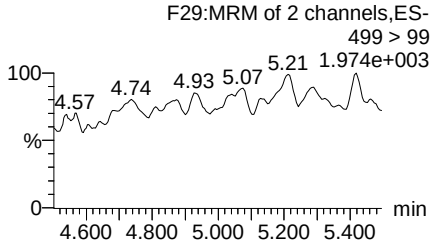
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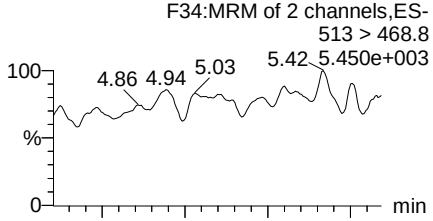


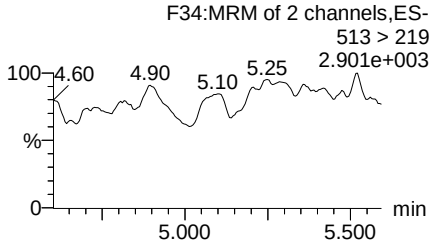
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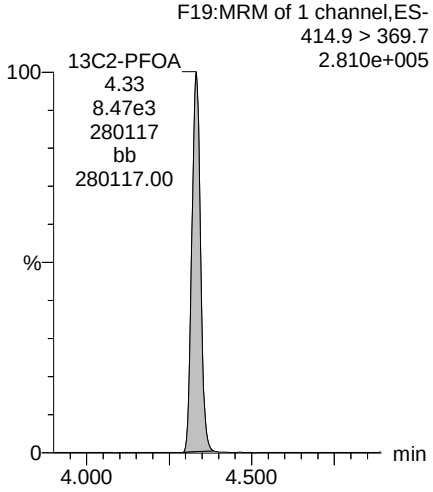


PFDA

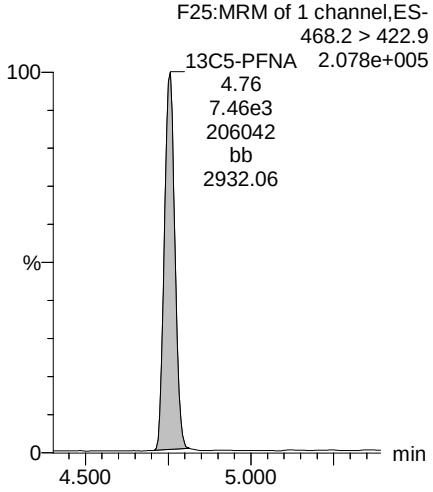




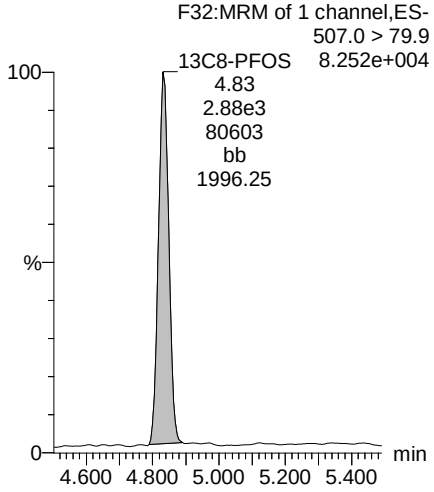
13C2-PFOA



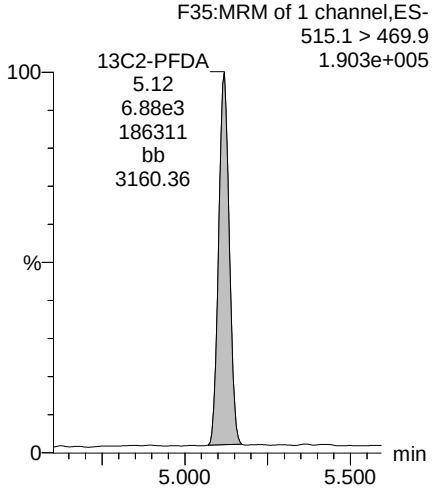
13C5-PFNA



13C8-PFOS



13C2-PFDA

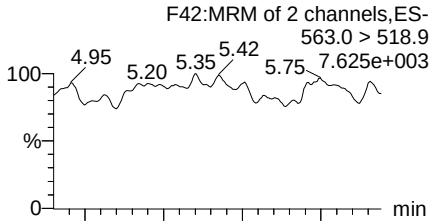


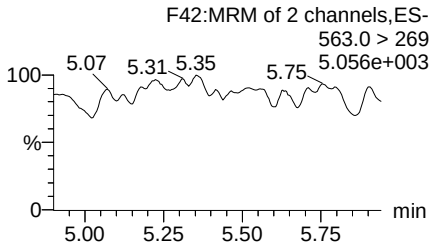
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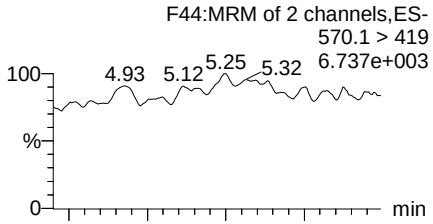
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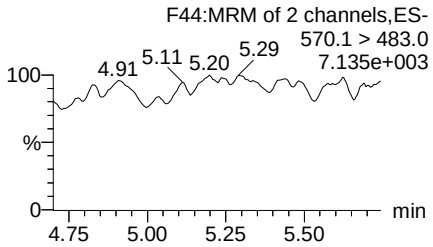
PFUdA



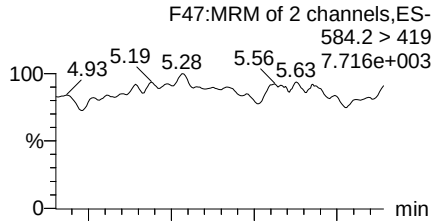


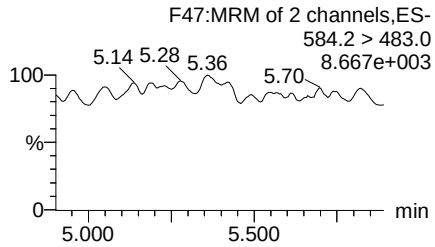
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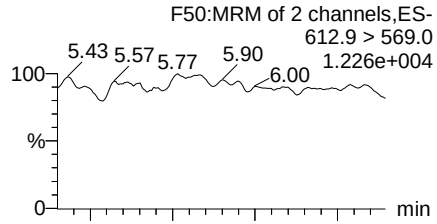


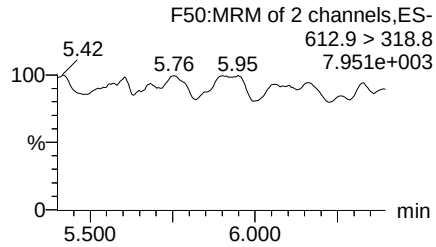
N-EtFOSAA



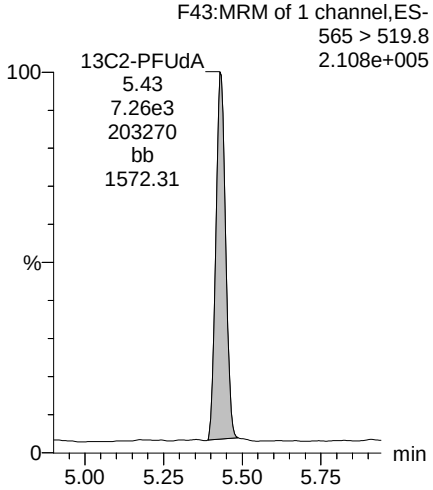


PFDoA

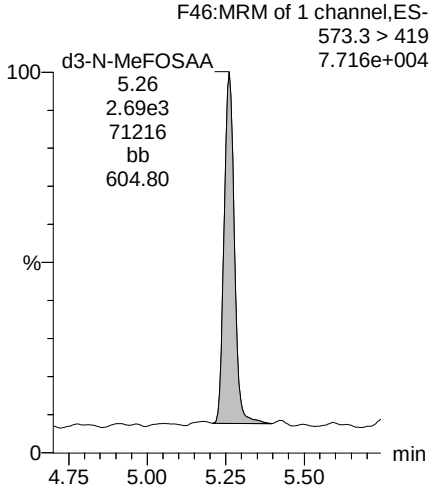




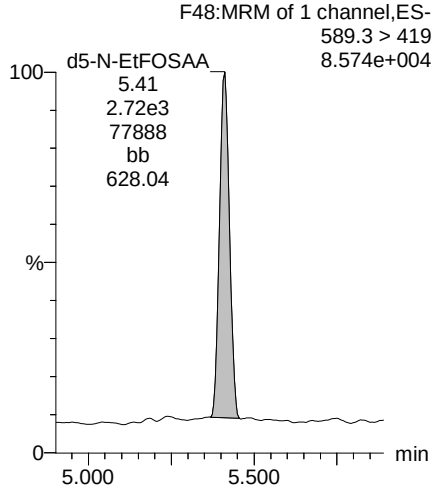
13C2-PFUdA



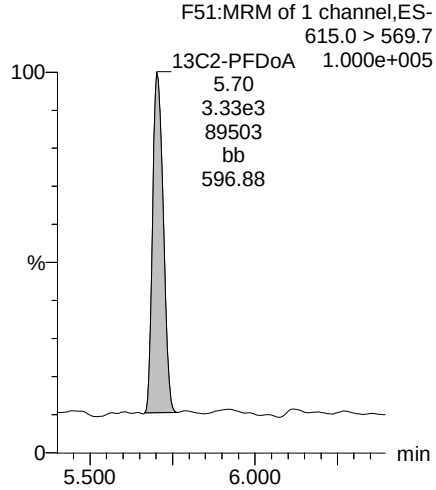
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

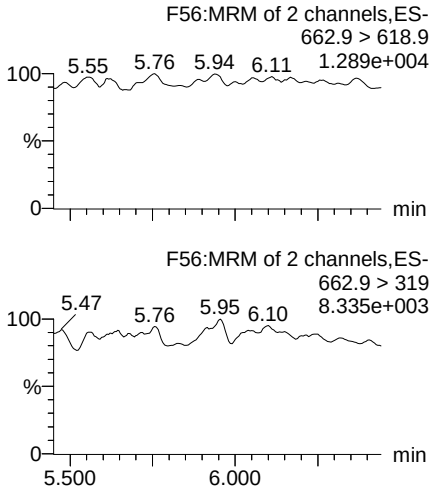


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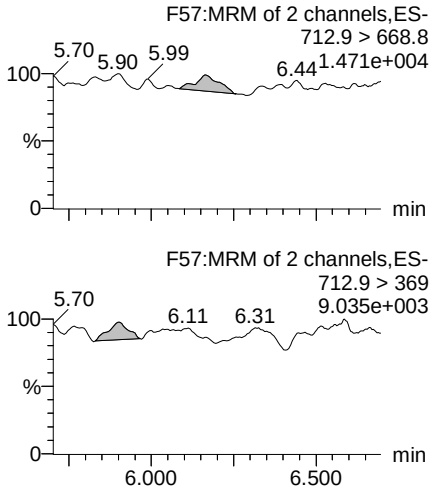
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Name: 171224M2_61, Date: 25-Dec-2017, Time: 11:32:00, ID: 1701829-16 FT-MW06I-20171130 0.24988, Description: FT-MW06I-20171130

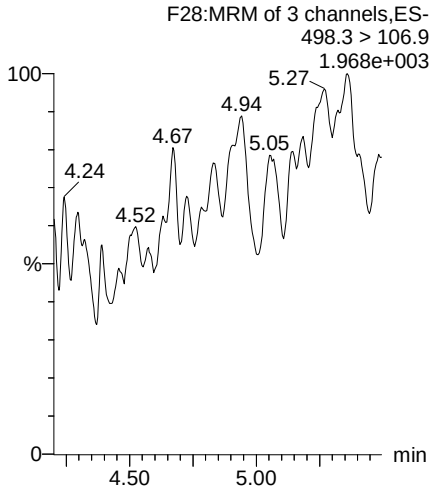
PFTrDA



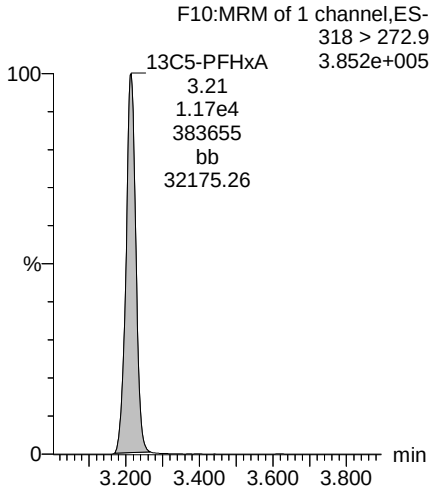
PFTeDA



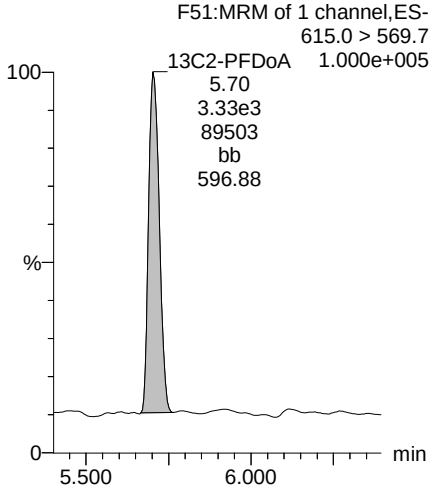
TCDA



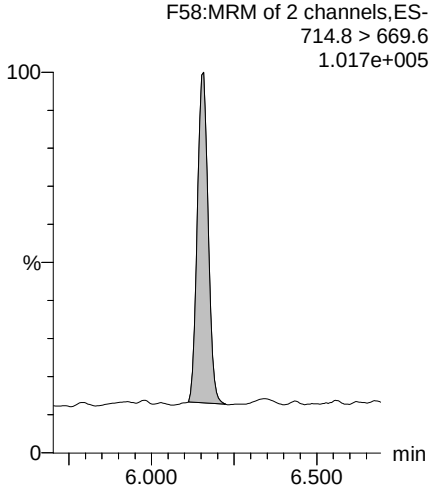
13C5-PFHxA



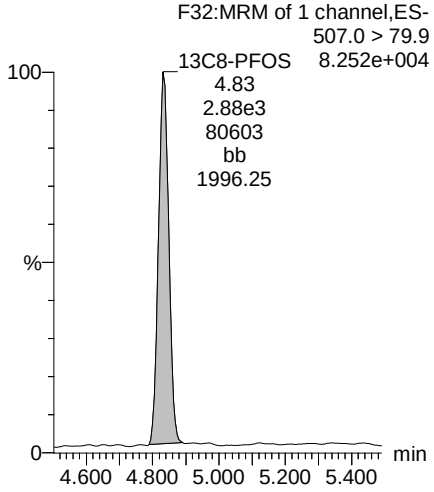
13C2-PFDoA



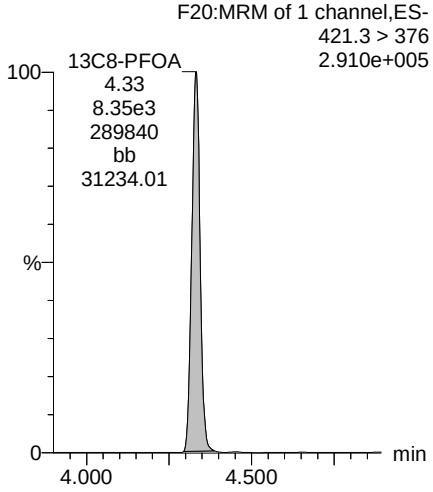
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

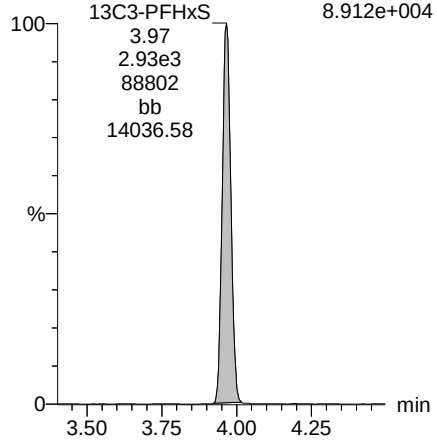


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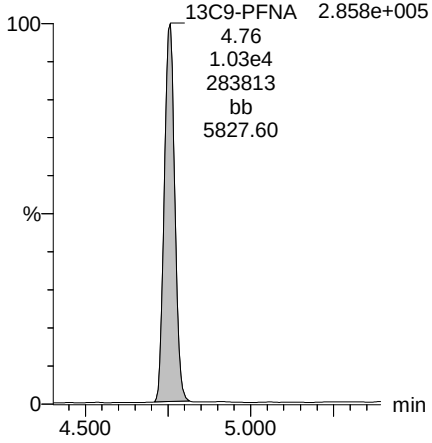
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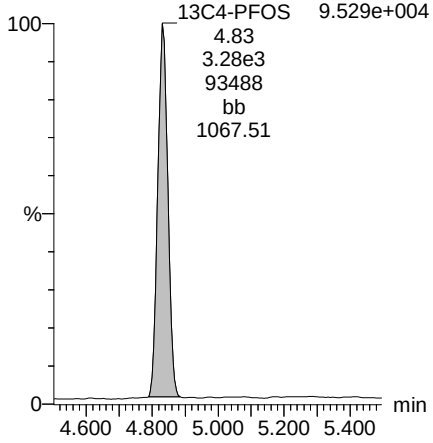
13C3-PFHxS



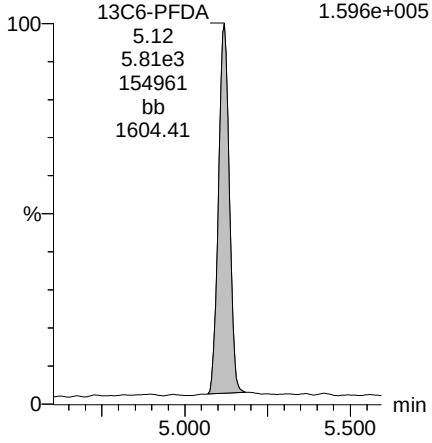
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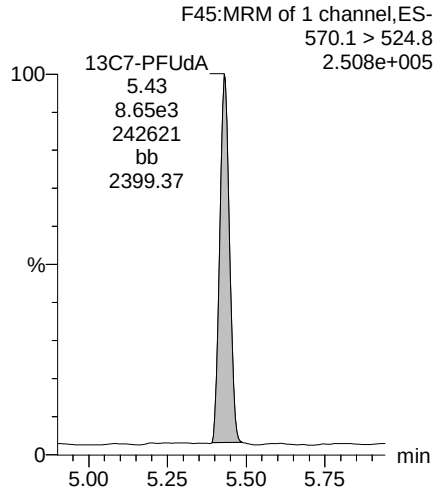
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_62.qld

Last Altered: Friday, December 29, 2017 14:57:48 Pacific Standard Time
Printed: Friday, December 29, 2017 14:58:18 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_62, Date: 25-Dec-2017, Time: 11:43:11, ID: 1701829-17 FT-MW06I-FRB-20171130 0.26856, Description: FT-MW06I-FRB-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		9.83e2	0.269		2.70				
2	4	PFHxA	313.2 > 268.9		2.68e3	0.269		3.20				
3	5	PFHpA	363.0 > 318.9		5.18e3	0.269		3.80				
4	6	L-PFHxS	398.9 > 79.6		8.56e2	0.269		3.95				
5	9	L-PFOA	413 > 368.7	1.84e2	7.99e3	0.269		4.32	4.34	0.289	0.2927	
6	12	PFNA	463.0 > 418.8		6.69e3	0.269		4.75				
7	14	L-PFOS	499 > 79.9		2.57e3	0.269		4.83				
8	16	PFDA	513 > 468.8	6.30e1	6.34e3	0.269		5.11	4.74	0.124		
9	18	N-MeFOSAA	570.1 > 419		2.14e3	0.269		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.76e3	0.269		5.42				
11	20	PFUdA	563.0 > 518.9	7.43e1	5.69e3	0.269		5.43	5.66	0.163	0.7214	
12	22	PFDoA	612.9 > 569.0		3.13e3	0.269		5.70				

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_62.qld

Last Altered: Friday, December 29, 2017 14:57:48 Pacific Standard Time
Printed: Friday, December 29, 2017 14:58:31 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_62, Date: 25-Dec-2017, Time: 11:43:11, ID: 1701829-17 FT-MW06I-FRB-20171130 0.26856, Description: FT-MW06I-FRB-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	1.04e2	2.89e3	0.269		5.95	5.64	0.447	1.3726	
2	25	PFTeDA	712.9 > 668.8		2.89e3	0.269		6.16				
3	33	13C3-PFBS	302. > 98.8	9.83e2	9.61e3	0.269	0.101	2.70	2.73	1.28	47.1754	101.4
4	34	13C2-PFHxA	315 > 269.8	2.68e3	9.61e3	0.269	0.758	3.20	3.22	3.49	17.1526	92.1
5	35	13C4-PFHpA	367.2 > 321.8	5.18e3	9.61e3	0.269	0.562	3.80	3.82	6.74	44.6194	95.9
6	36	18O2-PFHxS	403.0 > 102.6	8.56e2	2.55e3	0.269	0.435	3.95	3.97	4.20	35.9537	77.2
7	37	13C2-6:2 FTS	429.1 > 408.9	1.67e3	7.75e3	0.269	0.393	4.26	4.28	2.69	25.4853	54.8
8	38	13C2-PFOA	414.9 > 369.7	7.99e3	7.75e3	0.269	1.252	4.32	4.33	12.9	38.3333	82.4
9	39	13C5-PFNA	468.2 > 422.9	6.69e3	8.81e3	0.269	0.962	4.75	4.76	9.49	36.7161	78.9
10	40	13C8-PFOSA	506.1 > 77.7	1.27e3	6.86e3	0.269	0.345	4.81	4.82	2.31	24.9917	53.7
11	41	13C8-PFOS	507.0 > 79.9	2.57e3	2.94e3	0.269	1.003	4.83	4.83	10.9	40.4954	87.0
12	42	13C2-PFDA	515.1 > 469.9	6.34e3	6.34e3	0.269	1.194	5.11	5.11	12.5	38.9384	83.7
13	43	13C2-8:2 FTS	529.1 > 508.7	1.15e3	9.61e3	0.269	0.150	5.09	5.09	1.50	37.2737	80.1
14	44	d3-N-MeFOSAA	573.3 > 419	2.14e3	6.86e3	0.269	0.372	5.26	5.26	3.90	38.9762	83.7
15	45	d5-N-EtFOSAA	589.3 > 419	2.76e3	6.86e3	0.269	0.444	5.42	5.41	5.02	42.1706	90.6
16	46	13C2-PFUdA	565 > 519.8	5.69e3	6.86e3	0.269	1.091	5.43	5.43	10.4	35.3863	76.0
17	47	13C2-PFDoA	615.0 > 569.7	3.13e3	6.86e3	0.269	0.629	5.70	5.70	5.70	33.7370	72.5
18	49	13C2-PFTeDA	714.8 > 669.6	2.89e3	6.86e3	0.269	0.551	6.16	6.15	5.27	35.6560	76.6
19	55	13C5-PFHxA	318 > 272.9	9.61e3	9.61e3	0.269	1.000	3.20	3.22	12.5	46.5445	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.55e3	2.55e3	0.269	1.000	3.95	3.97	12.5	46.5445	100.0
21	57	13C8-PFOA	421.3 > 376	7.75e3	7.75e3	0.269	1.000	4.32	4.33	12.5	46.5445	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.81e3	8.81e3	0.269	1.000	4.75	4.75	12.5	46.5445	100.0
23	59	13C4-PFOS	503 > 79.9	2.94e3	2.94e3	0.269	1.000	4.83	4.83	12.5	46.5445	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.34e3	6.34e3	0.269	1.000	5.11	5.11	12.5	46.5445	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.86e3	6.86e3	0.269	1.000	5.43	5.43	12.5	46.5445	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	8.56e2	0.269		4.00		0.000		
27	63	Total PFOA	413 > 368.7	1.84e2	7.99e3	0.269		4.30		0.289	0.2927	
28	64	Total PFOS	499 > 79.9	0.00e0	2.57e3	0.269		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.14e3	0.269		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.76e3	0.269		5.40		0.000		

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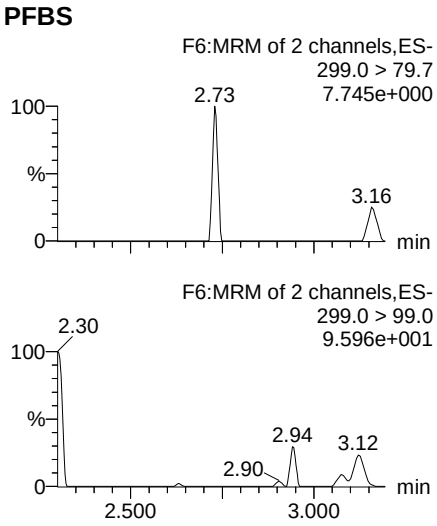
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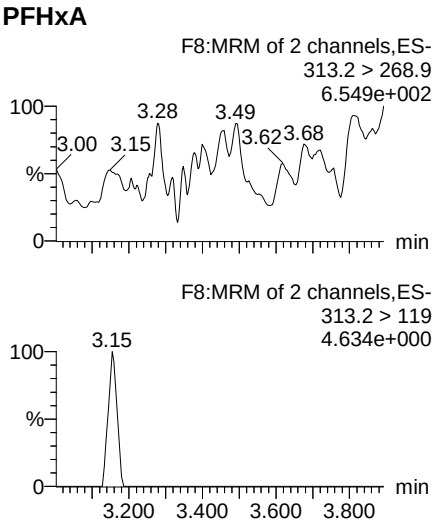
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_62, Date: 25-Dec-2017, Time: 11:43:11, ID: 1701829-17 FT-MW06I-FRB-20171130 0.26856, Description: FT-MW06I-FRB-20171130

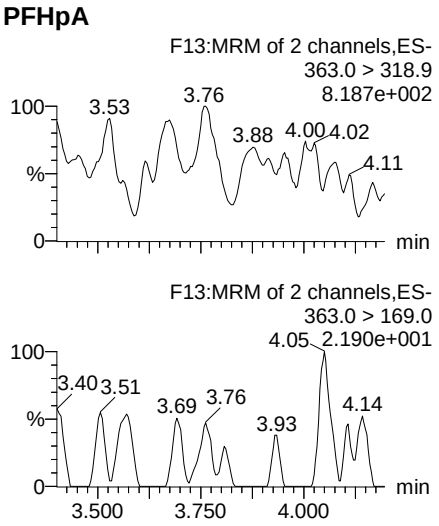
PFBS



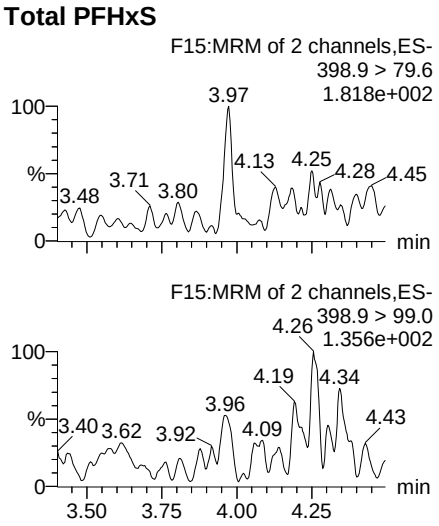
PFHxA



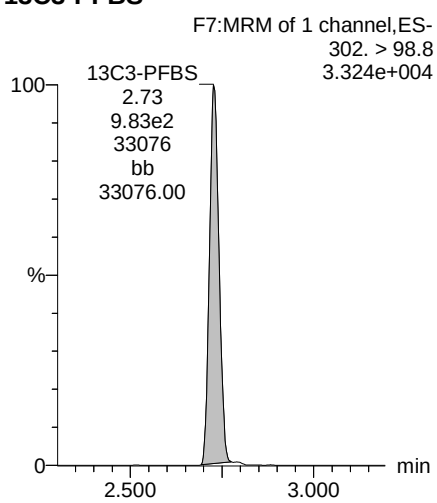
PFHpA



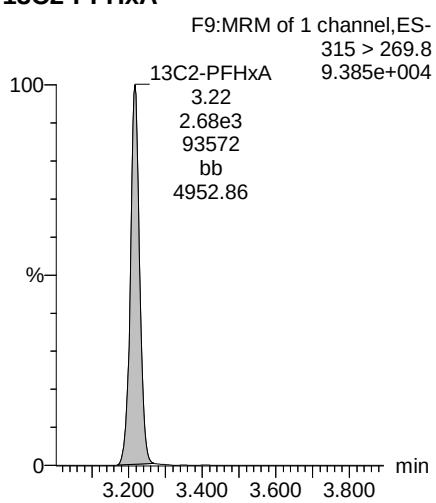
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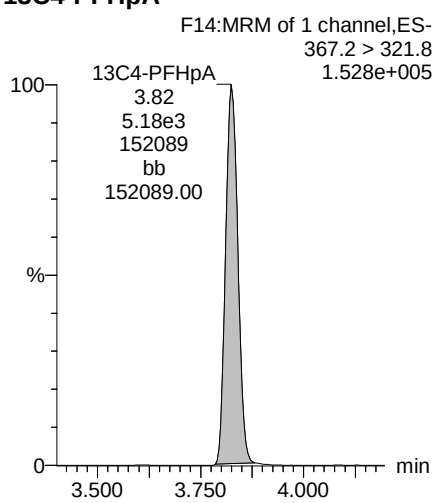
13C3-PFBS



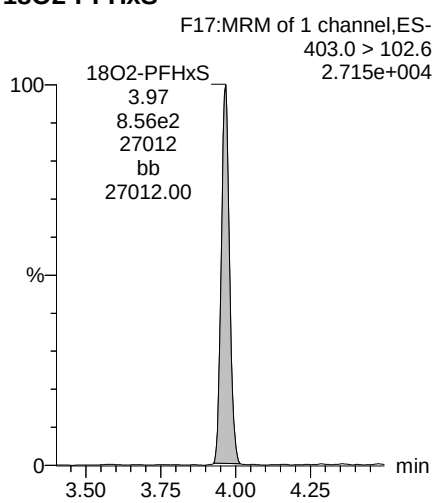
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

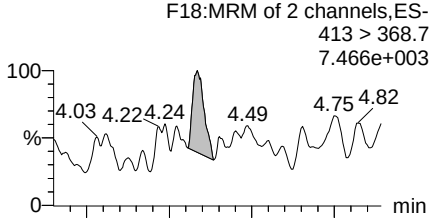


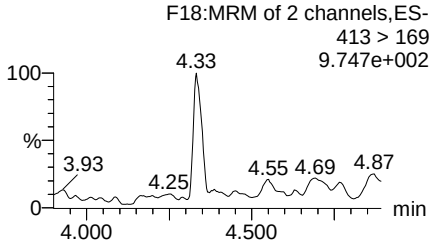
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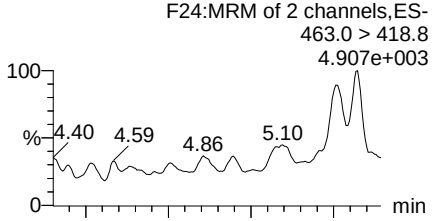
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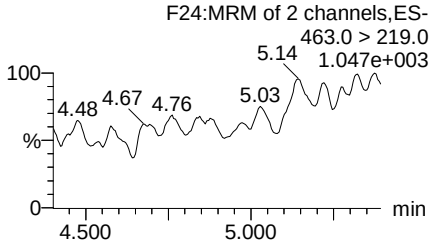
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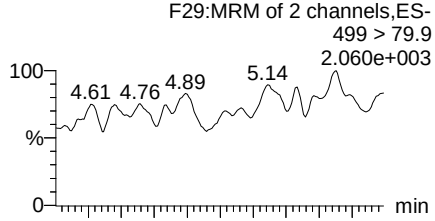


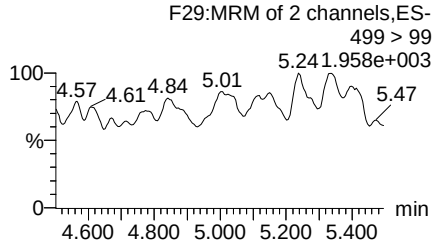
PFNA



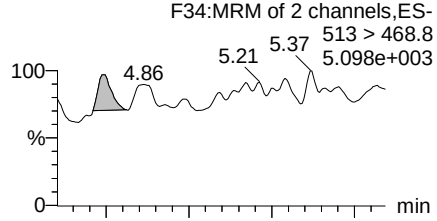


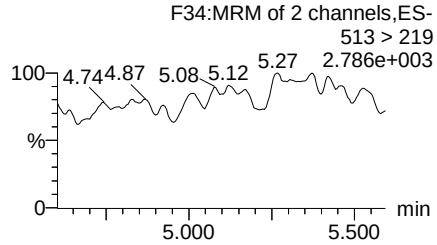
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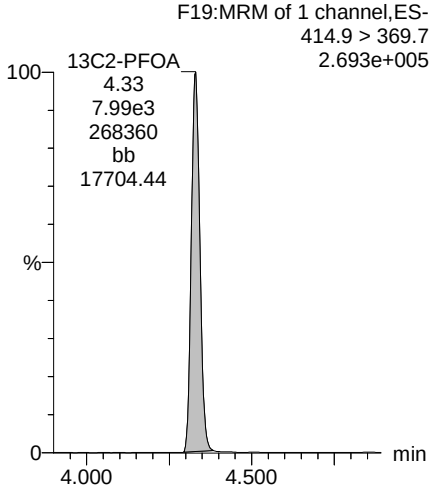


PFDA

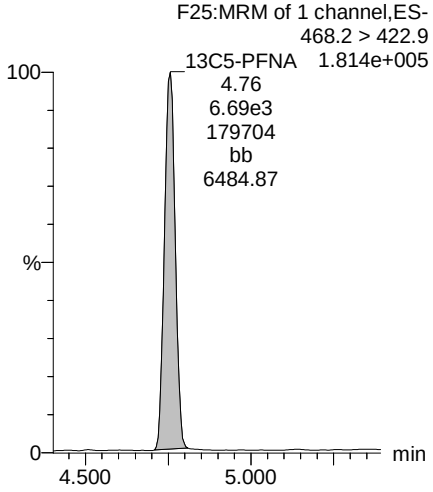




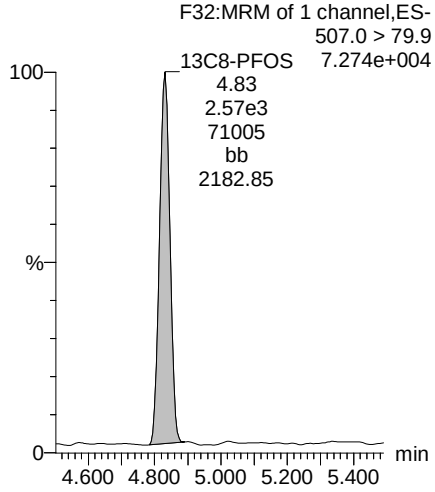
13C2-PFOA



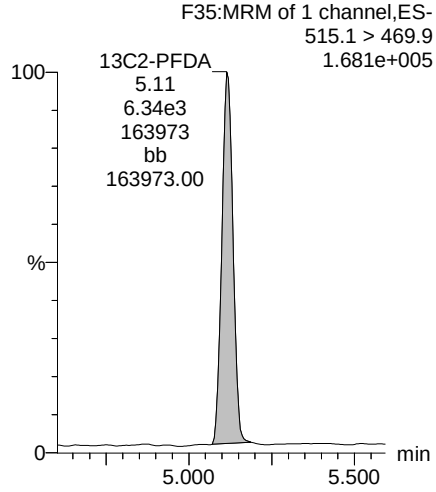
13C5-PFNA



13C8-PFOS



13C2-PFDA

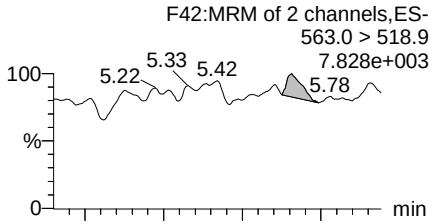


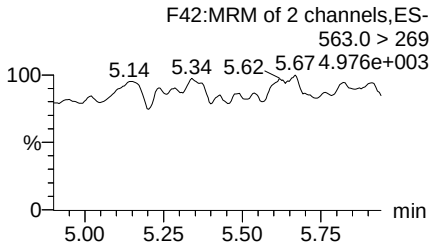
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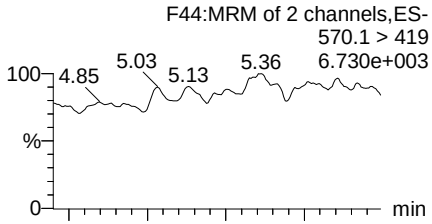
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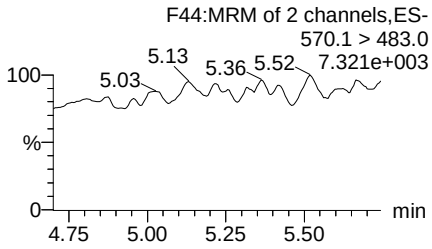
PFUdA



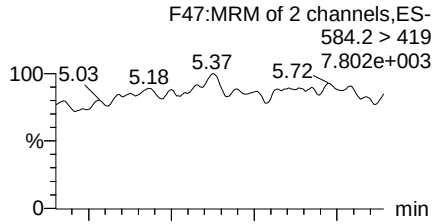


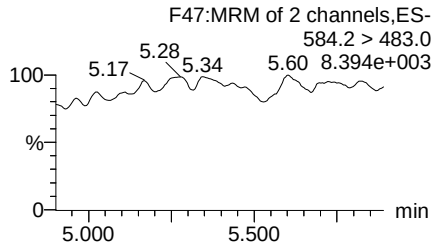
N-MeFOSAA



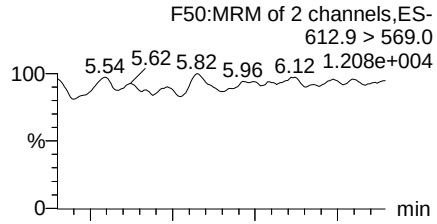


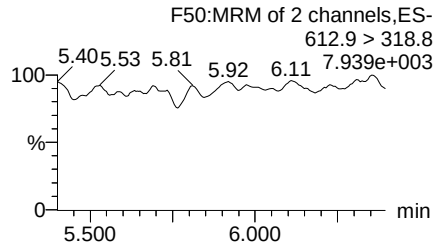
N-EtFOSAA



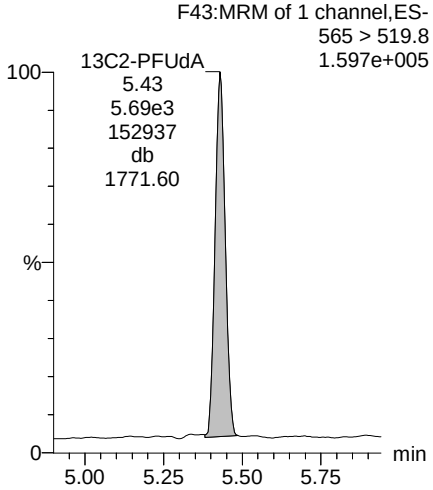


PFDoA

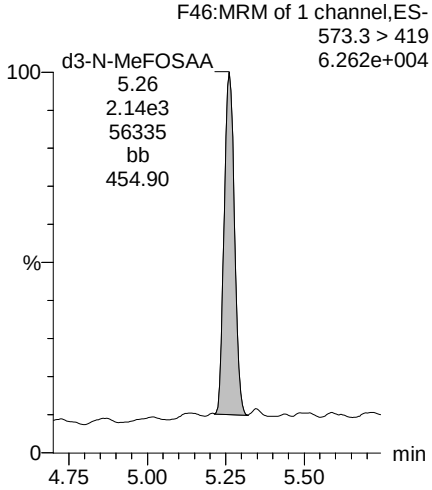




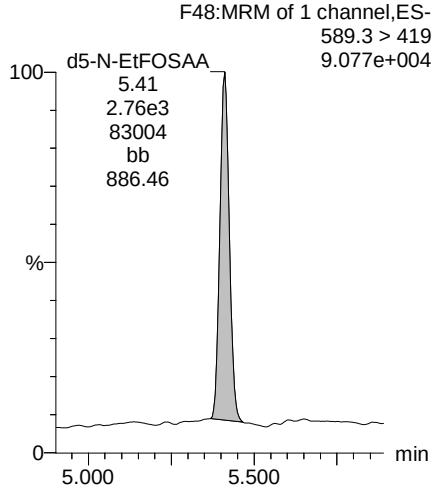
13C2-PFUdA



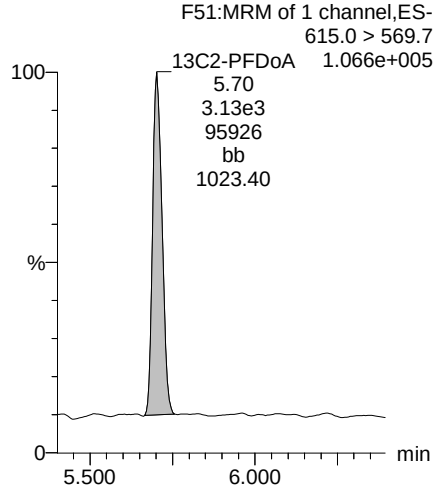
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

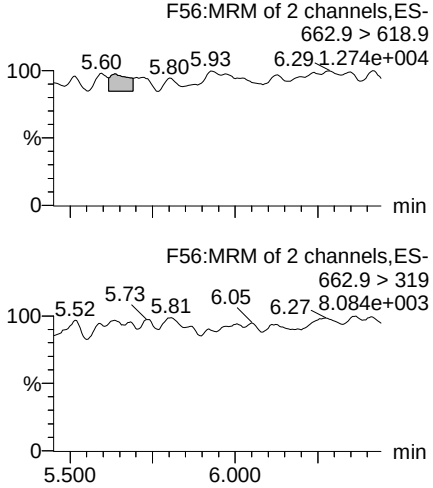


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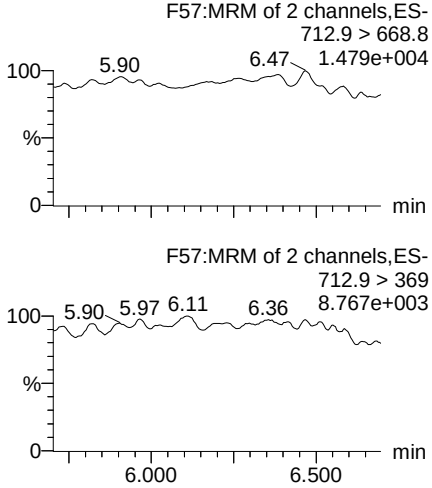
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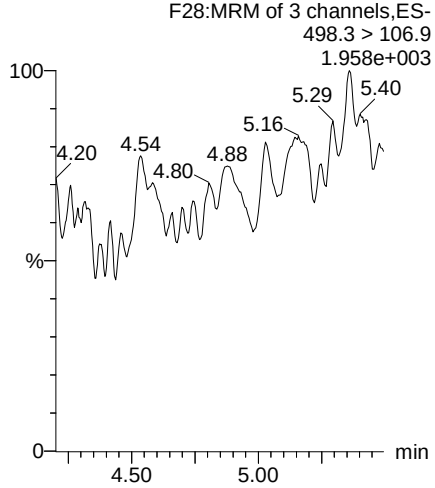
PFTrDA



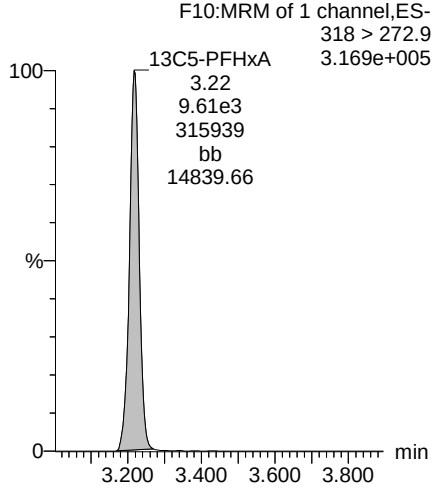
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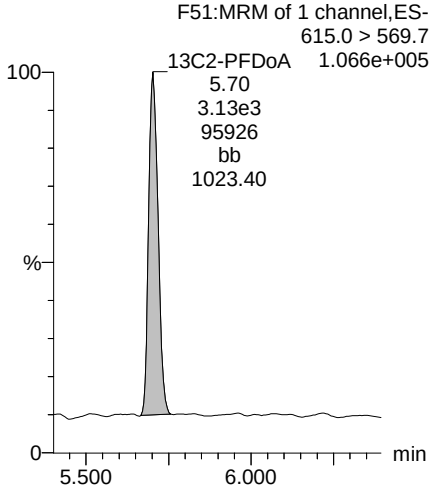
TCDA



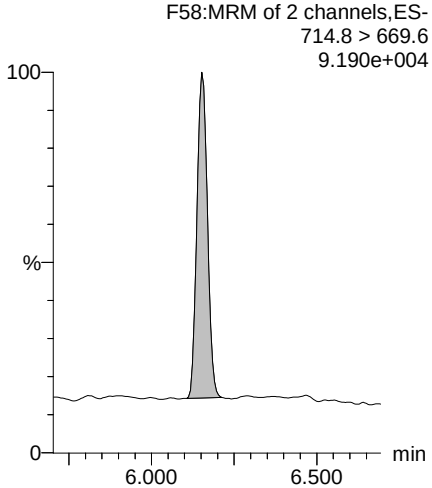
13C5-PFHxA



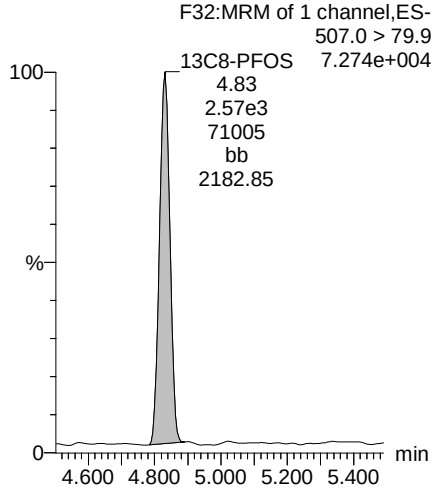
13C2-PFDoA



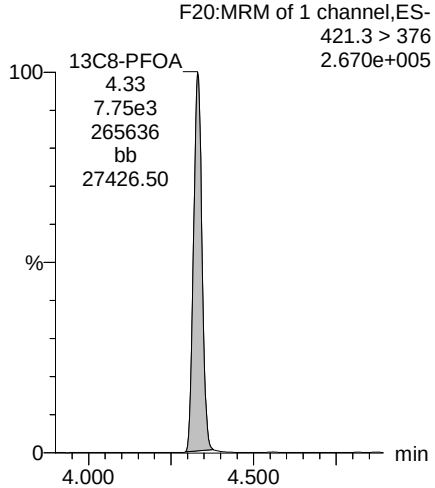
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

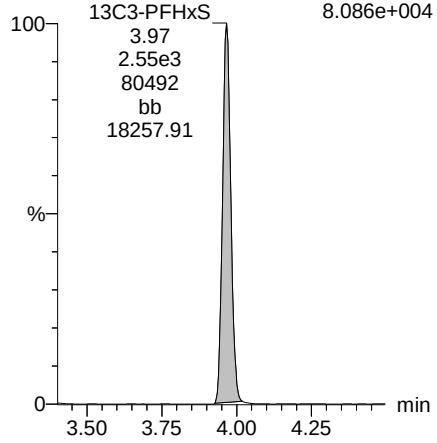


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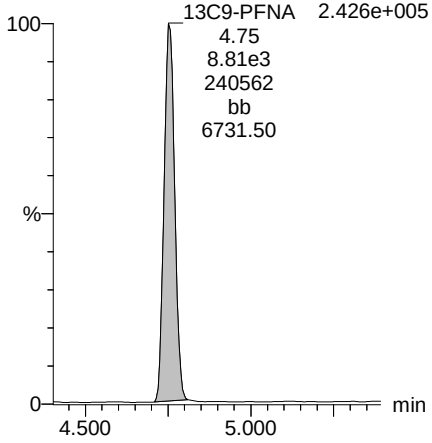
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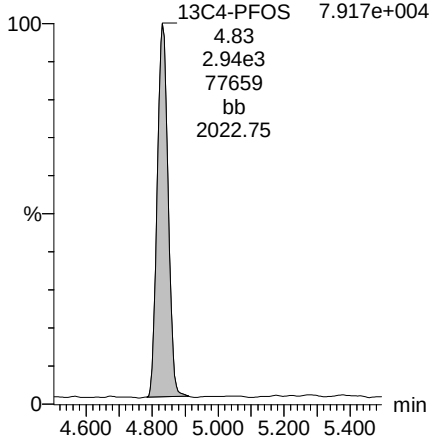
13C3-PFHxS



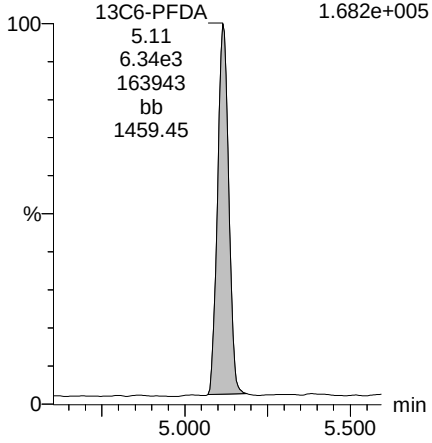
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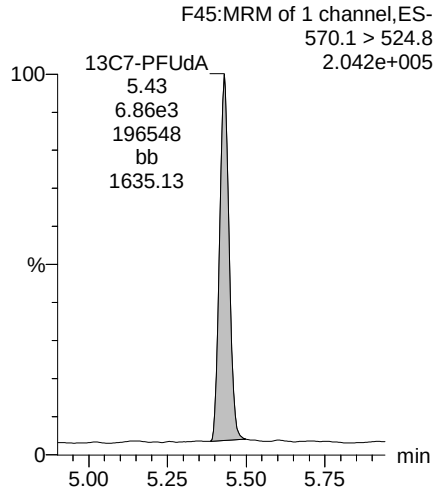
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171224M2\171224m2_63.qld

Last Altered: Friday, December 29, 2017 14:59:17 Pacific Standard Time
Printed: Friday, December 29, 2017 14:59:48 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_63, Date: 25-Dec-2017, Time: 11:54:22, ID: 1701829-18 FT-MW10I-20171130 0.25296, Description: FT-MW10I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		9.83e2	0.253		2.70				
2	4	PFHxA	313.2 > 268.9	2.46e2	2.78e3	0.253		3.20	3.21	0.443	0.6872	
3	5	PFHpA	363.0 > 318.9	1.27e2	5.50e3	0.253		3.80	3.82	0.288	1.1509	
4	6	L-PFHxS	398.9 > 79.6	8.61e1	7.96e2	0.253		3.95	3.97	1.35	2.3888	
5	9	L-PFOA	413 > 368.7	8.37e2	6.67e3	0.253		4.32	4.33	1.57	5.2481	
6	12	PFNA	463.0 > 418.8	1.75e2	5.30e3	0.253		4.75	4.75	0.414	1.5740	
7	14	L-PFOS	499 > 79.9		1.73e3	0.253		4.83				
8	16	PFDA	513 > 468.8		5.81e3	0.253		5.11				
9	18	N-MeFOSAA	570.1 > 419		1.84e3	0.253		5.26				
10	19	N-EtFOSAA	584.2 > 419	8.80e1	3.06e3	0.253		5.42	5.47	0.360	1.3380	
11	20	PFUdA	563.0 > 518.9		5.95e3	0.253		5.43				
12	22	PFDoA	612.9 > 569.0	7.86e1	3.55e3	0.253		5.70	5.84	0.277	0.7064	

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_63.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_63, Date: 25-Dec-2017, Time: 11:54:22, ID: 1701829-18 FT-MW10I-20171130 0.25296, Description: FT-MW10I-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		2.61e3	0.253		5.95				
2	25	PFTeDA	712.9 > 668.8	9.21e1	2.61e3	0.253		6.16	6.44	0.442	0.6116	
3	33	13C3-PFBS	302. > 98.8	9.83e2	9.59e3	0.253	0.101	2.70	2.73	1.28	50.1426	101.5
4	34	13C2-PFHxA	315 > 269.8	2.78e3	9.59e3	0.253	0.758	3.20	3.22	3.62	18.8693	95.5
5	35	13C4-PFHpA	367.2 > 321.8	5.50e3	9.59e3	0.253	0.562	3.80	3.82	7.17	50.3780	101.9
6	36	18O2-PFHxS	403.0 > 102.6	7.96e2	2.03e3	0.253	0.435	3.95	3.97	4.90	44.4895	90.0
7	37	13C2-6:2 FTS	429.1 > 408.9	1.80e3	7.17e3	0.253	0.393	4.26	4.28	3.14	31.6440	64.0
8	38	13C2-PFOA	414.9 > 369.7	6.67e3	7.17e3	0.253	1.252	4.32	4.33	11.6	36.7272	74.3
9	39	13C5-PFNA	468.2 > 422.9	5.30e3	7.21e3	0.253	0.962	4.75	4.76	9.18	37.6939	76.3
10	40	13C8-PFOSA	506.1 > 77.7	1.37e3	8.55e3	0.253	0.345	4.81	4.82	2.00	22.9569	46.5
11	41	13C8-PFOS	507.0 > 79.9	1.73e3	2.52e3	0.253	1.003	4.83	4.83	8.57	33.7665	68.3
12	42	13C2-PFDA	515.1 > 469.9	5.81e3	5.89e3	0.253	1.194	5.11	5.11	12.3	40.8042	82.6
13	43	13C2-8:2 FTS	529.1 > 508.7	9.12e2	9.59e3	0.253	0.150	5.09	5.09	1.19	31.3127	63.4
14	44	d3-N-MeFOSAA	573.3 > 419	1.84e3	8.55e3	0.253	0.372	5.26	5.26	2.68	28.4854	57.6
15	45	d5-N-EtFOSAA	589.3 > 419	3.06e3	8.55e3	0.253	0.444	5.42	5.41	4.47	39.7962	80.5
16	46	13C2-PFUdA	565 > 519.8	5.95e3	8.55e3	0.253	1.091	5.43	5.43	8.69	31.5140	63.8
17	47	13C2-PFDoA	615.0 > 569.7	3.55e3	8.55e3	0.253	0.629	5.70	5.70	5.18	32.5581	65.9
18	49	13C2-PFTeDA	714.8 > 669.6	2.61e3	8.55e3	0.253	0.551	6.16	6.16	3.81	27.3377	55.3
19	55	13C5-PFHxA	318 > 272.9	9.59e3	9.59e3	0.253	1.000	3.20	3.22	12.5	49.4149	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.03e3	2.03e3	0.253	1.000	3.95	3.97	12.5	49.4149	100.0
21	57	13C8-PFOA	421.3 > 376	7.17e3	7.17e3	0.253	1.000	4.32	4.33	12.5	49.4149	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.21e3	7.21e3	0.253	1.000	4.75	4.76	12.5	49.4149	100.0
23	59	13C4-PFOS	503 > 79.9	2.52e3	2.52e3	0.253	1.000	4.83	4.83	12.5	49.4149	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.89e3	5.89e3	0.253	1.000	5.11	5.11	12.5	49.4149	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.55e3	8.55e3	0.253	1.000	5.43	5.43	12.5	49.4149	100.0
26	62	Total PFHxS	398.9 > 79.6	8.61e1	7.96e2	0.253		4.00		1.35	2.3888	
27	63	Total PFOA	413 > 368.7	9.60e2	6.67e3	0.253		4.30		1.80	5.3325	
28	64	Total PFOS	499 > 79.9	0.00e0	1.73e3	0.253		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	1.84e3	0.253		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	8.80e1	3.06e3	0.253		5.40		0.360	1.3380	

Vista Analytical Laboratory

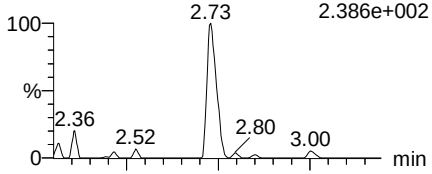
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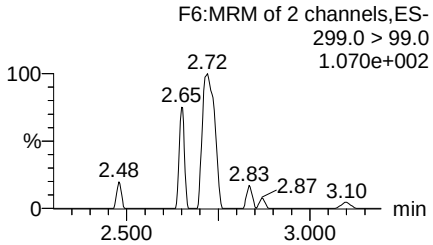
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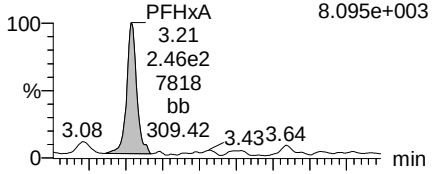
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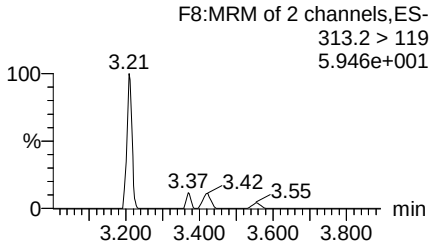
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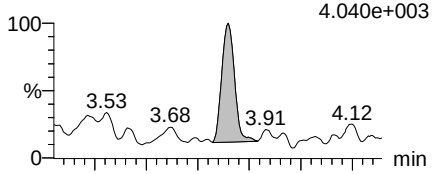


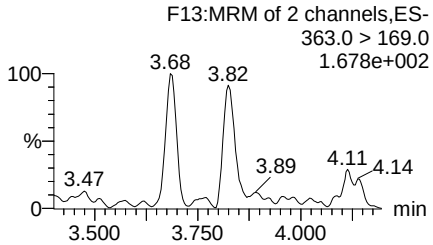
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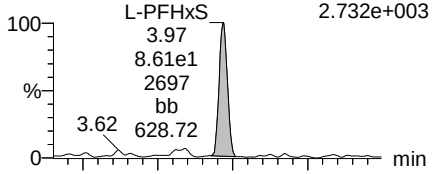


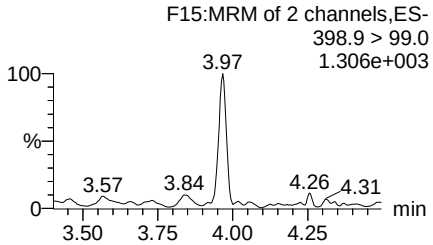
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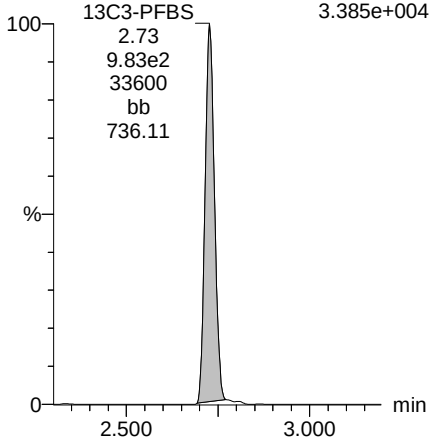


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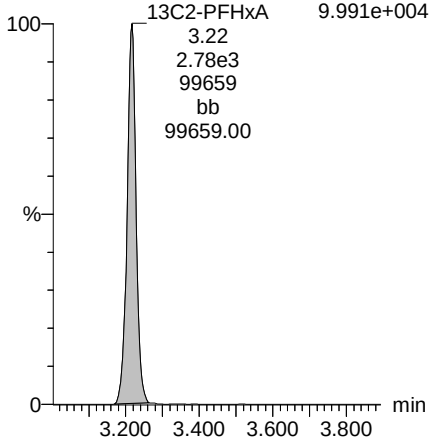




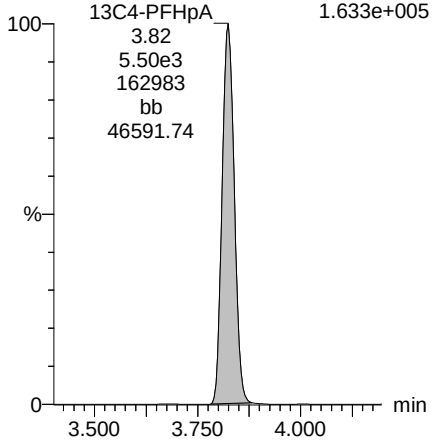
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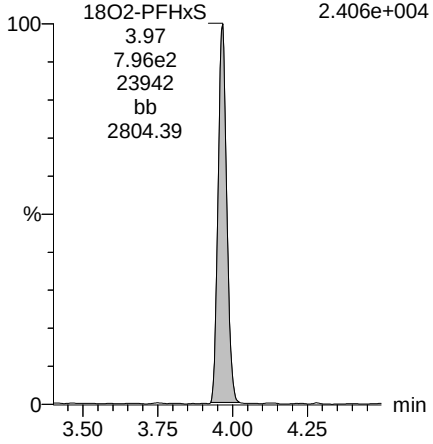
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13C4-PFHpA



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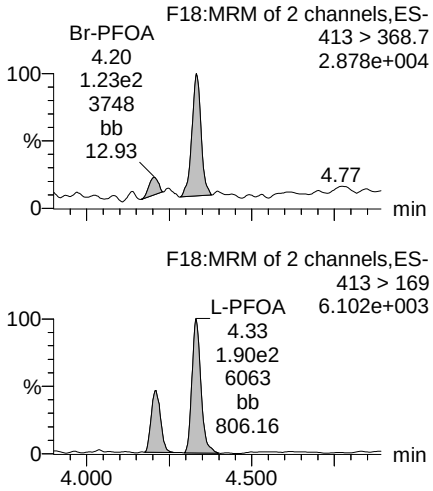


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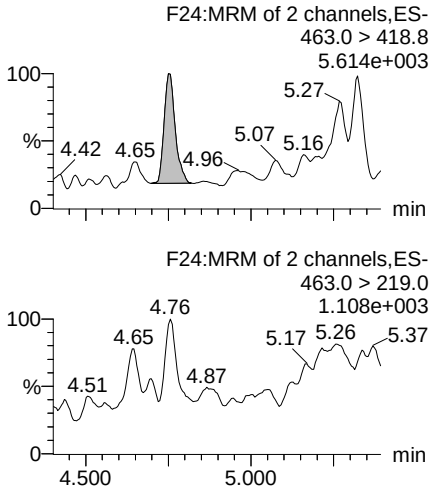
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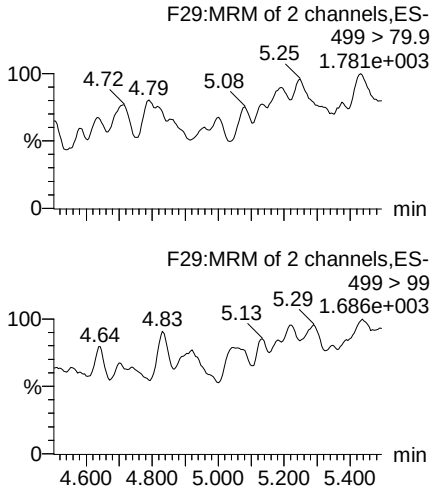
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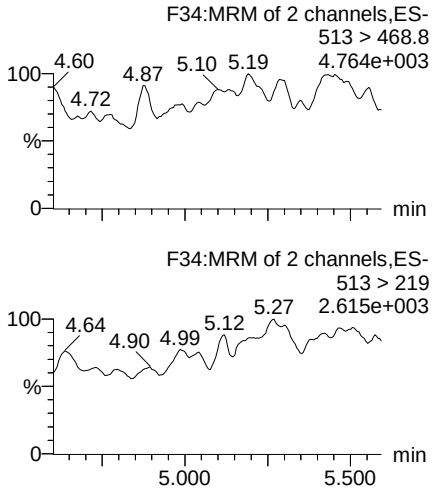
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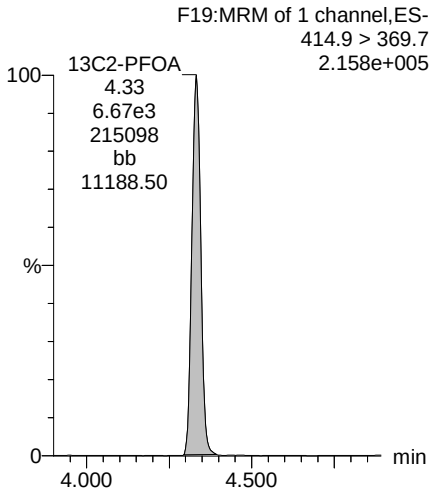
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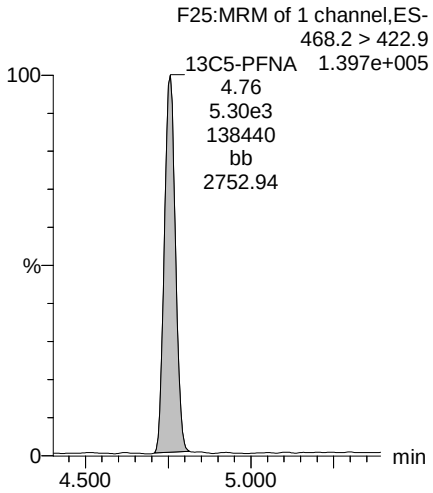
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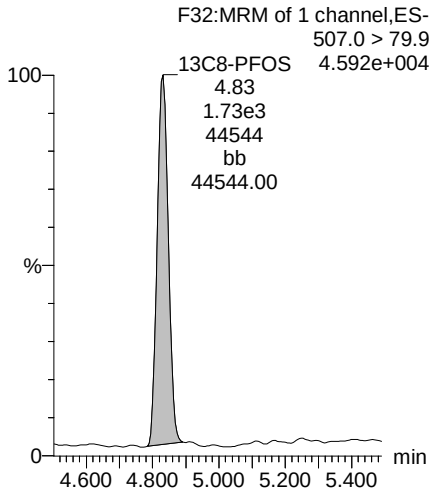
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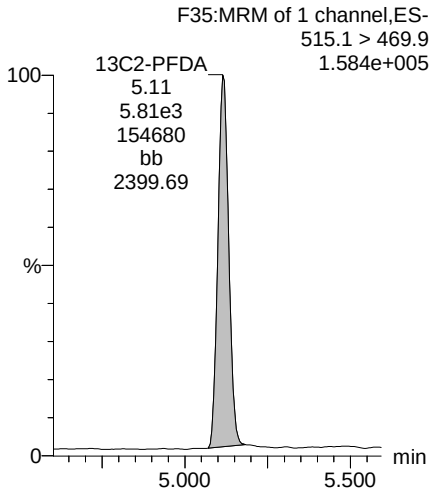
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13C8-PFOS



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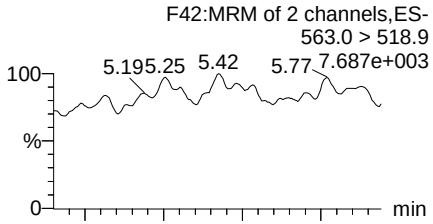
Vista Analytical Laboratory

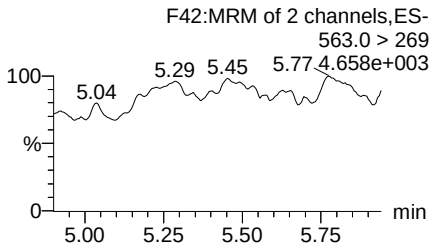
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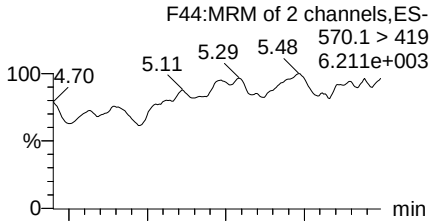
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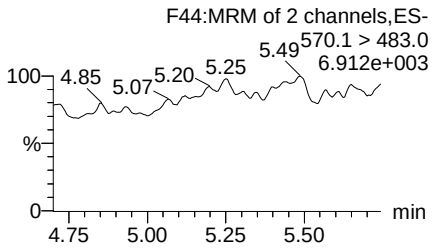
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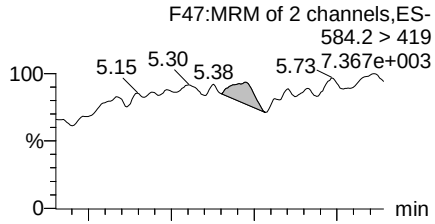


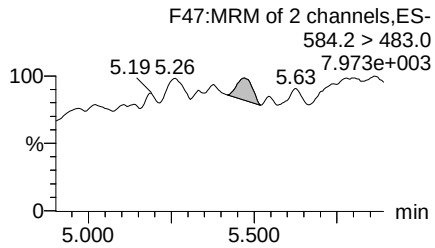
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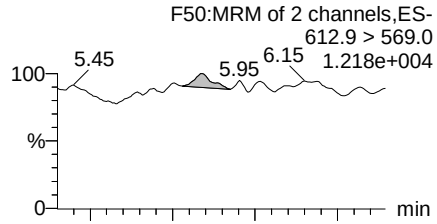


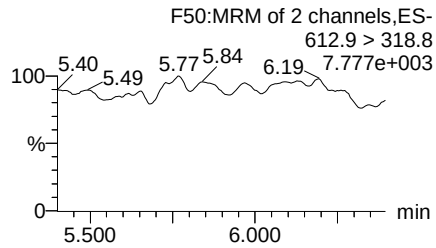
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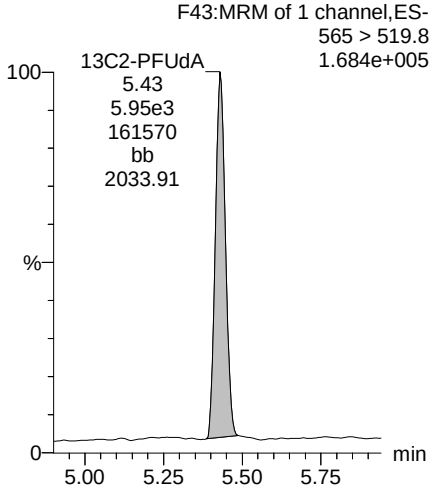


PFDoA

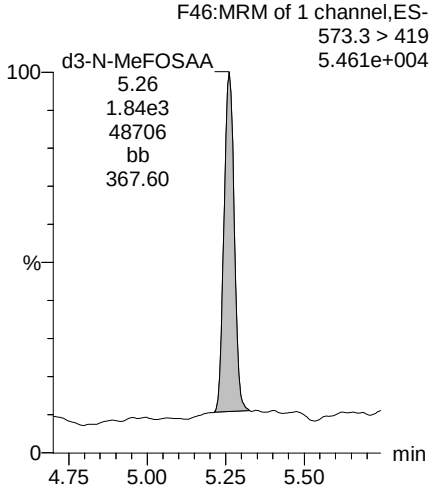




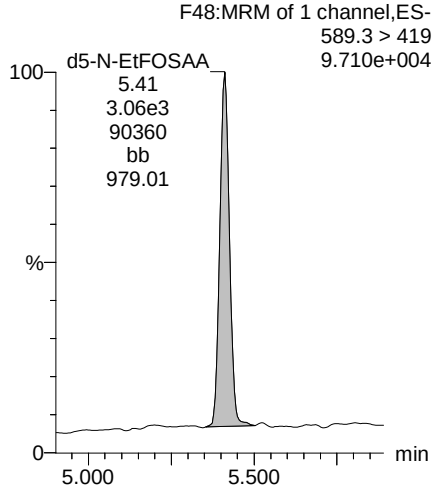
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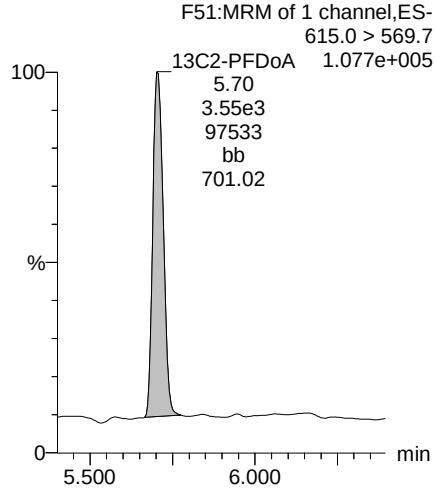
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d5-N-EtFOSAA



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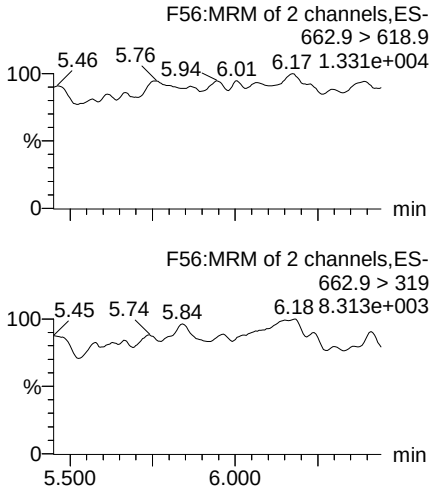


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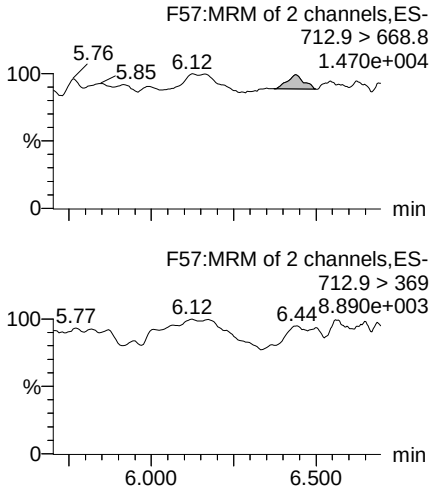
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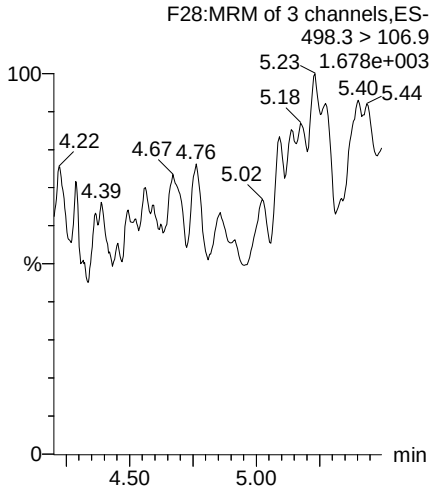
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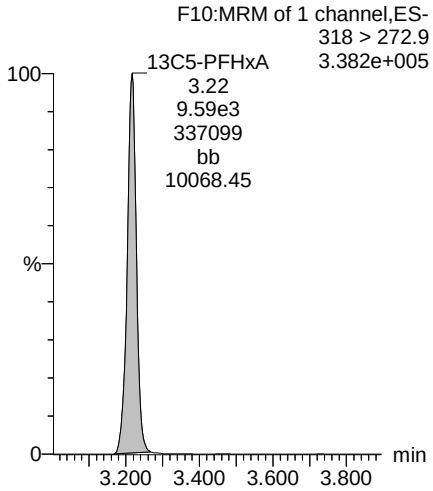
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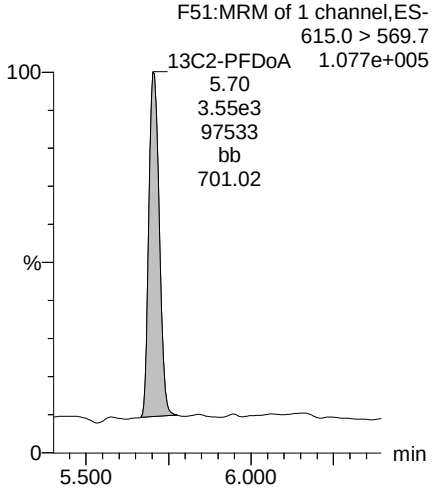
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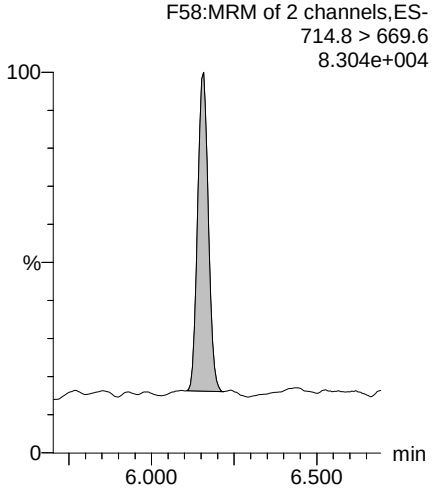
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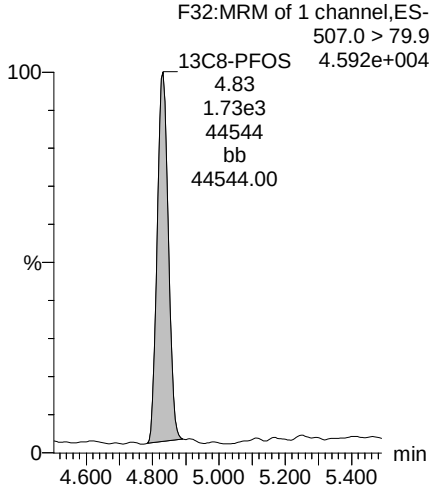
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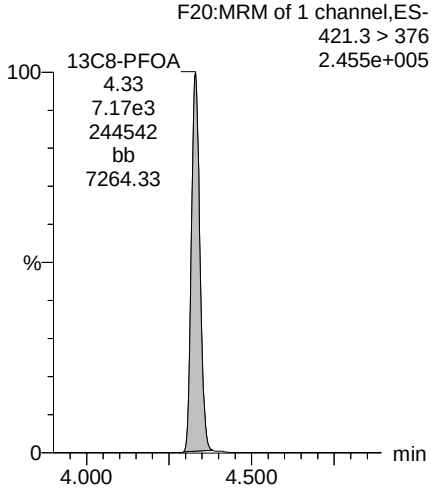
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13C8-PFOS



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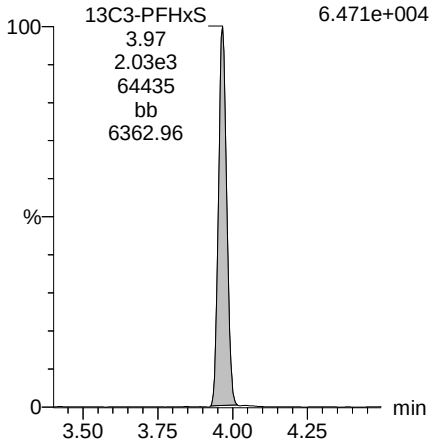


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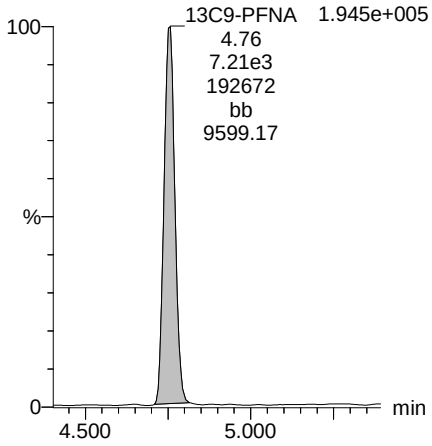
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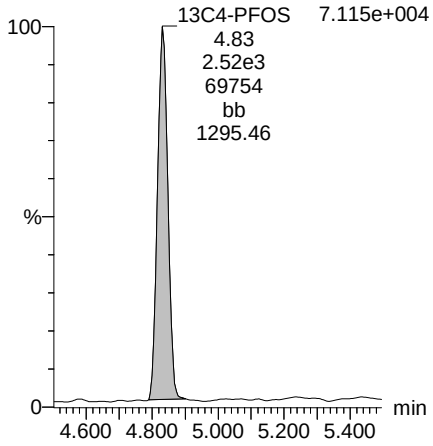
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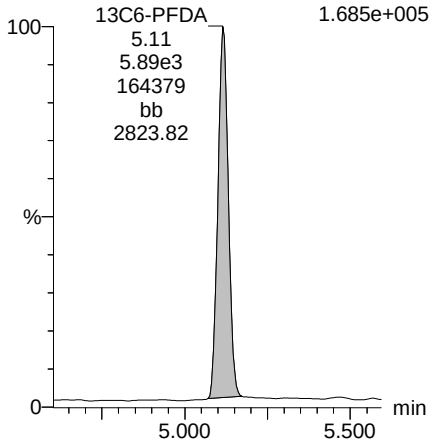
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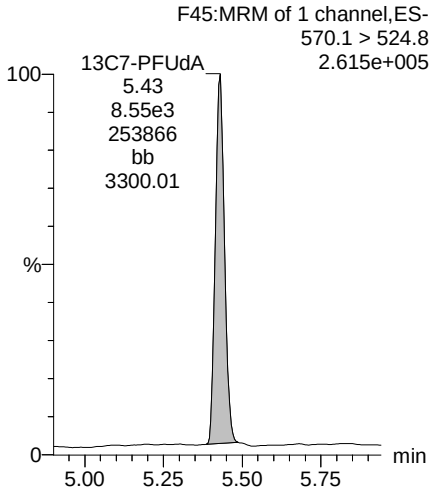
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_64.qld

Last Altered: Friday, December 29, 2017 15:00:43 Pacific Standard Time
Printed: Friday, December 29, 2017 15:01:05 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_64, Date: 25-Dec-2017, Time: 12:05:33, ID: 1701829-19 FT-MW06S-20171130 0.2522, Description: FT-MW06S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.12e3	0.252		2.70				
2	4	PFHxA	313.2 > 268.9	1.74e2	3.45e3	0.252		3.20	3.21	0.251	0.1569	
3	5	PFHpA	363.0 > 318.9		6.12e3	0.252		3.80				
4	6	L-PFHxS	398.9 > 79.6		8.88e2	0.252		3.95				
5	9	L-PFOA	413 > 368.7	1.76e2	9.42e3	0.252		4.32	4.33	0.233	0.0983	
6	12	PFNA	463.0 > 418.8		5.69e3	0.252		4.75				
7	14	L-PFOS	499 > 79.9		2.55e3	0.252		4.83				
8	16	PFDA	513 > 468.8		7.10e3	0.252		5.11				
9	18	N-MeFOSAA	570.1 > 419	7.36e1	2.62e3	0.252		5.26	5.55	0.352	0.7724	
10	19	N-EtFOSAA	584.2 > 419		3.14e3	0.252		5.42				
11	20	PFUdA	563.0 > 518.9	6.12e1	7.42e3	0.252		5.43	5.47	0.103	0.5716	
12	22	PFDoA	612.9 > 569.0	6.90e1	4.65e3	0.252		5.70	5.74	0.185	0.5677	

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_64.qld

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Name: 171224M2_64, Date: 25-Dec-2017, Time: 12:05:33, ID: 1701829-19 FT-MW06S-20171130 0.2522, Description: FT-MW06S-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		2.38e3	0.252		5.95				
2	25	PFTeDA	712.9 > 668.8	1.88e2	2.38e3	0.252		6.16	6.43	0.992	1.7177	
3	33	13C3-PFBS	302. > 98.8	1.12e3	1.26e4	0.252	0.101	2.70	2.73	1.11	43.3933	87.6
4	34	13C2-PFHxA	315 > 269.8	3.45e3	1.26e4	0.252	0.758	3.20	3.22	3.42	17.8928	90.3
5	35	13C4-PFHpA	367.2 > 321.8	6.12e3	1.26e4	0.252	0.562	3.80	3.82	6.06	42.7482	86.2
6	36	18O2-PFHxS	403.0 > 102.6	8.88e2	2.41e3	0.252	0.435	3.95	3.97	4.60	41.9427	84.6
7	37	13C2-6:2 FTS	429.1 > 408.9	2.15e3	9.36e3	0.252	0.393	4.26	4.28	2.88	29.0223	58.6
8	38	13C2-PFOA	414.9 > 369.7	9.42e3	9.36e3	0.252	1.252	4.32	4.33	12.6	39.8509	80.4
9	39	13C5-PFNA	468.2 > 422.9	5.69e3	7.50e3	0.252	0.962	4.75	4.76	9.49	39.0789	78.8
10	40	13C8-PFOSA	506.1 > 77.7	1.88e3	7.94e3	0.252	0.345	4.81	4.82	2.97	34.1413	68.9
11	41	13C8-PFOS	507.0 > 79.9	2.55e3	3.25e3	0.252	1.003	4.83	4.83	9.83	38.8359	78.4
12	42	13C2-PFDA	515.1 > 469.9	7.10e3	6.32e3	0.252	1.194	5.11	5.12	14.1	46.6856	94.2
13	43	13C2-8:2 FTS	529.1 > 508.7	1.36e3	1.26e4	0.252	0.150	5.09	5.09	1.34	35.5083	71.6
14	44	d3-N-MeFOSAA	573.3 > 419	2.62e3	7.94e3	0.252	0.372	5.26	5.26	4.12	43.8500	88.5
15	45	d5-N-EtFOSAA	589.3 > 419	3.14e3	7.94e3	0.252	0.444	5.42	5.41	4.94	44.1434	89.1
16	46	13C2-PFUdA	565 > 519.8	7.42e3	7.94e3	0.252	1.091	5.43	5.43	11.7	42.4949	85.7
17	47	13C2-PFDoA	615.0 > 569.7	4.65e3	7.94e3	0.252	0.629	5.70	5.71	7.32	46.1346	93.1
18	49	13C2-PFTeDA	714.8 > 669.6	2.38e3	7.94e3	0.252	0.551	6.16	6.16	3.74	26.9384	54.4
19	55	13C5-PFHxA	318 > 272.9	1.26e4	1.26e4	0.252	1.000	3.20	3.21	12.5	49.5638	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.41e3	2.41e3	0.252	1.000	3.95	3.97	12.5	49.5638	100.0
21	57	13C8-PFOA	421.3 > 376	9.36e3	9.36e3	0.252	1.000	4.32	4.33	12.5	49.5638	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.50e3	7.50e3	0.252	1.000	4.75	4.76	12.5	49.5638	100.0
23	59	13C4-PFOS	503 > 79.9	3.25e3	3.25e3	0.252	1.000	4.83	4.83	12.5	49.5638	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.32e3	6.32e3	0.252	1.000	5.11	5.12	12.5	49.5638	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.94e3	7.94e3	0.252	1.000	5.43	5.43	12.5	49.5638	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	8.88e2	0.252		4.00		0.000		
27	63	Total PFOA	413 > 368.7	1.76e2	9.42e3	0.252		4.30		0.233	0.0983	
28	64	Total PFOS	499 > 79.9	0.00e0	2.55e3	0.252		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	7.36e1	2.62e3	0.252		5.20		0.352	0.7724	
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.14e3	0.252		5.40		0.000		

Vista Analytical Laboratory

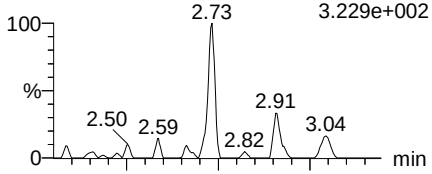
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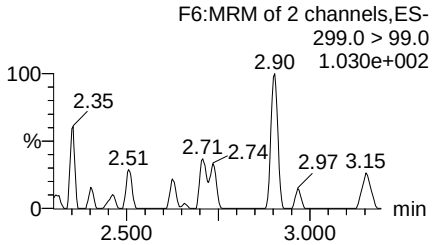
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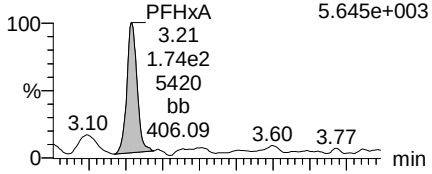
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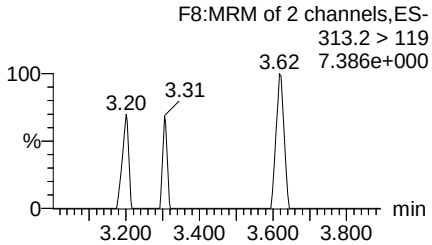
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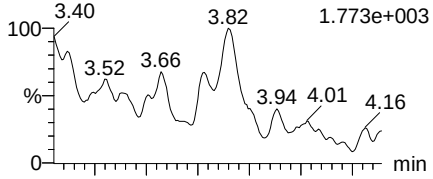


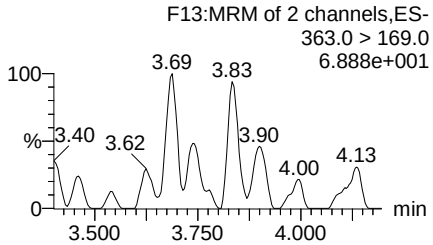
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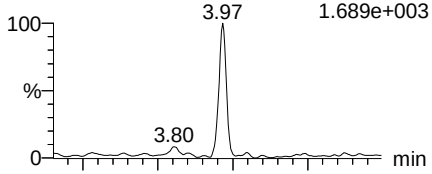


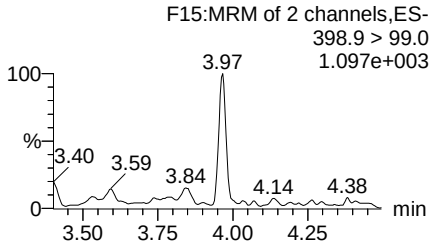
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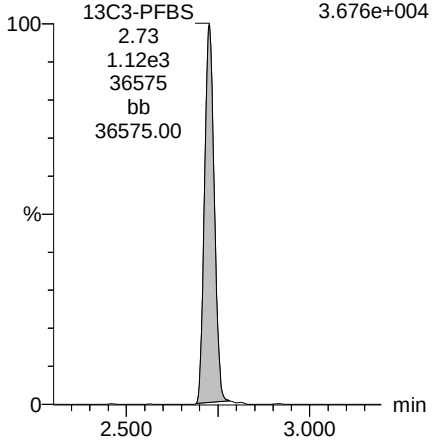


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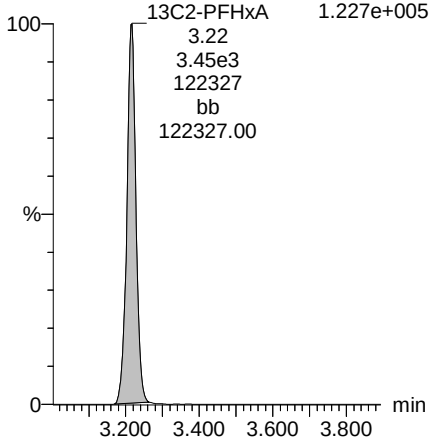




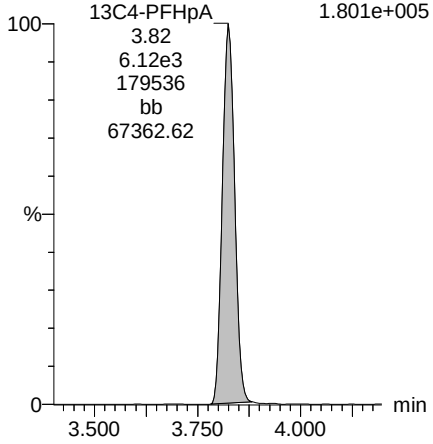
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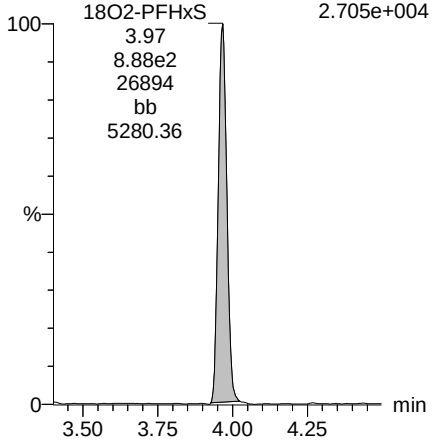
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

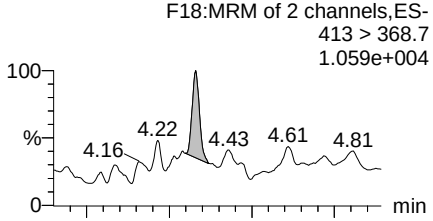


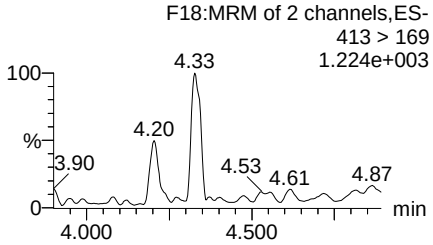
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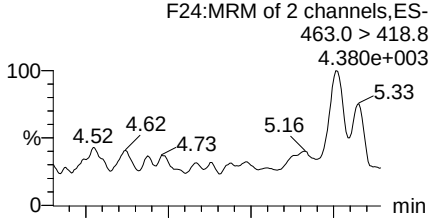
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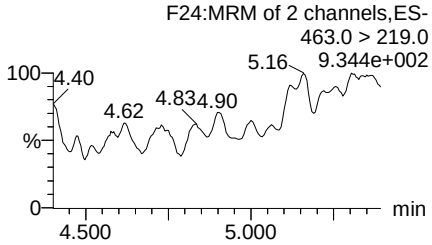
Total PFOA



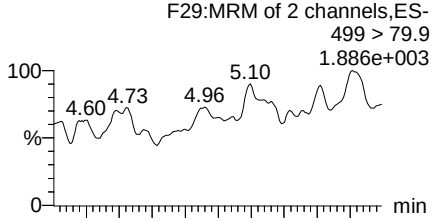


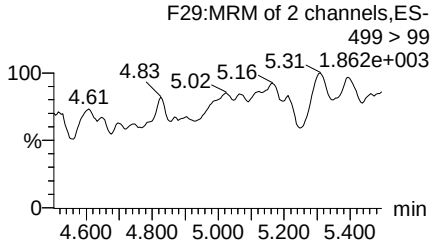
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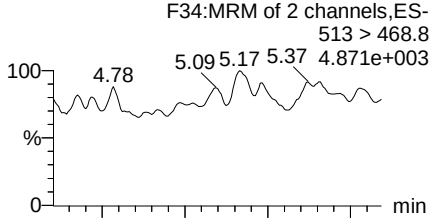


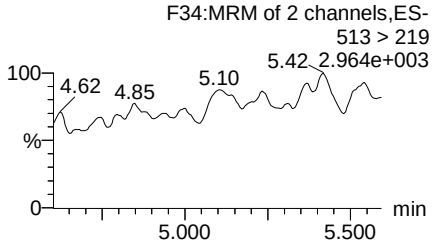
Total PFOS



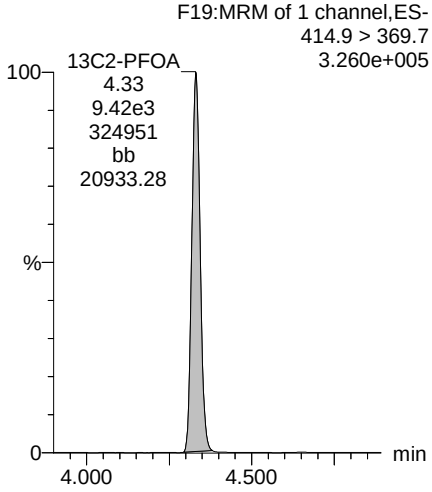


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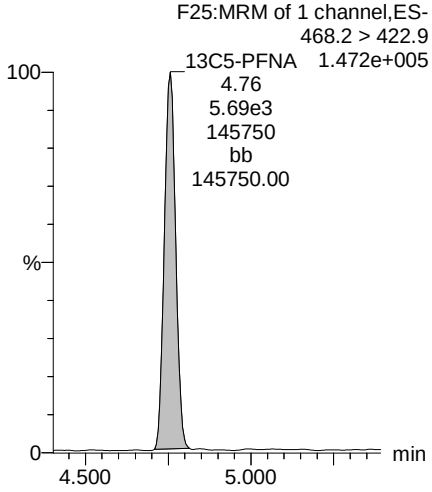




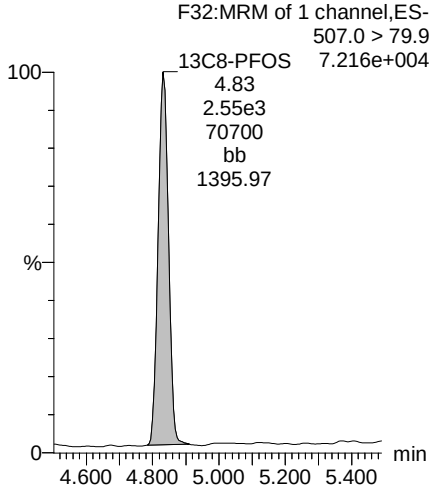
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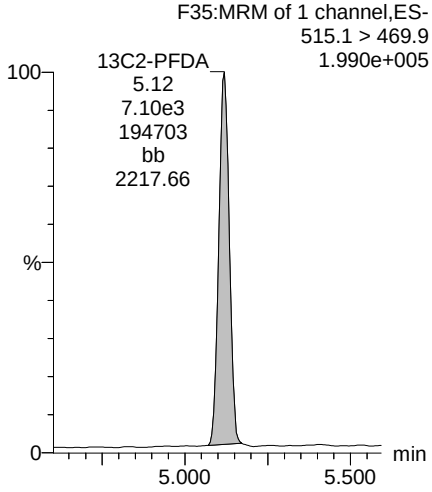
13C5-PFNA



13C8-PFOS



13C2-PFDA

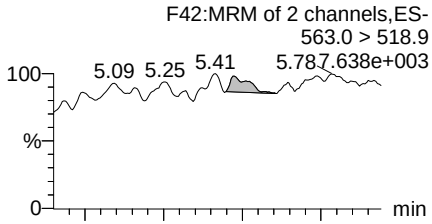


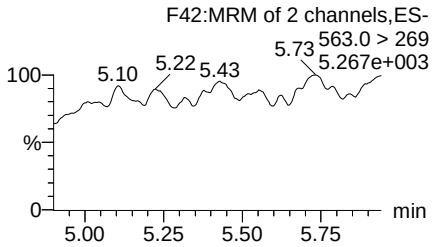
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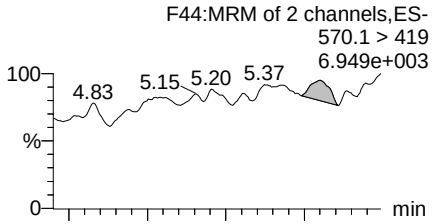
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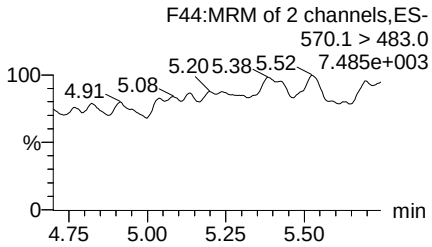
PFUdA



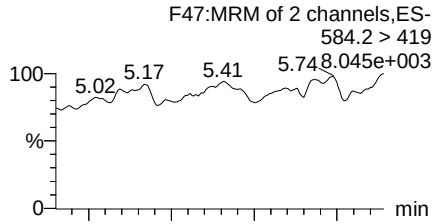


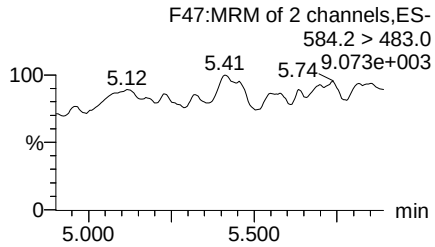
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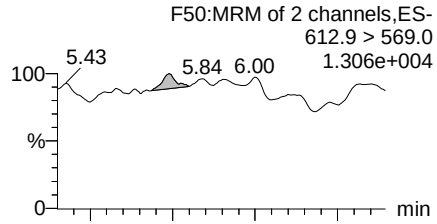


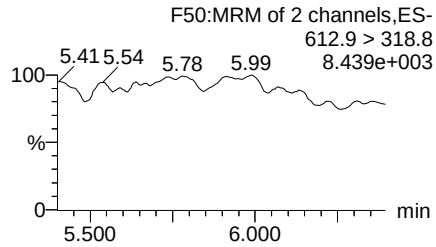
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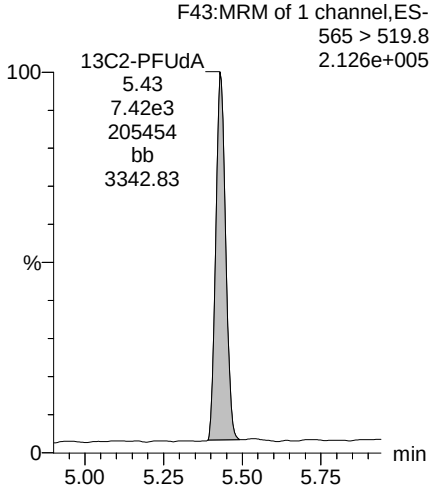


PFDoA

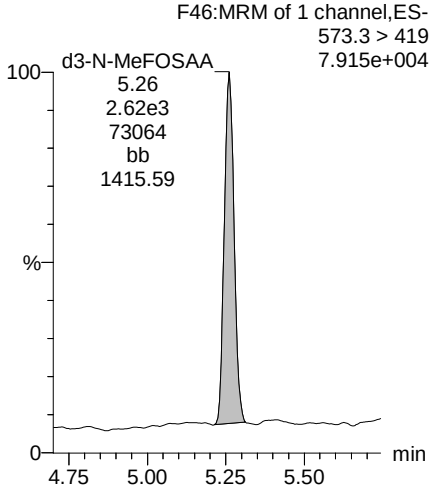




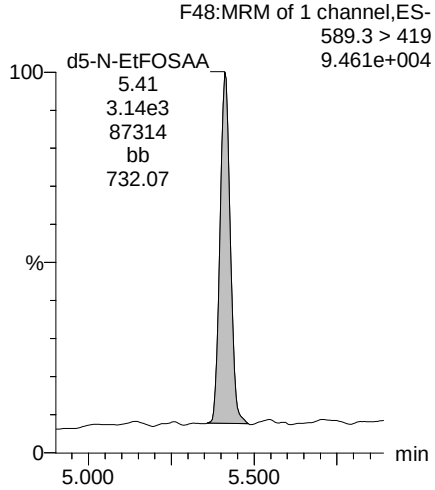
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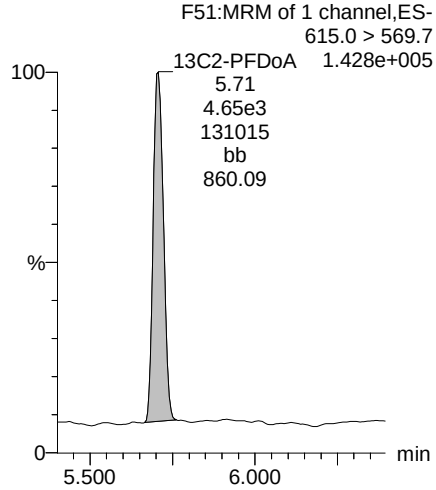
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

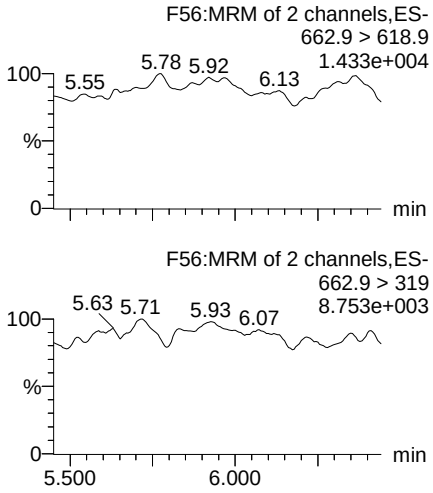


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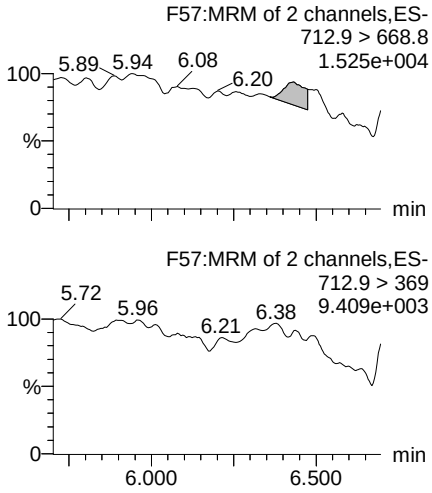
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Name: 171224M2_64, Date: 25-Dec-2017, Time: 12:05:33, ID: 1701829-19 FT-MW06S-20171130 0.2522, Description: FT-MW06S-20171130

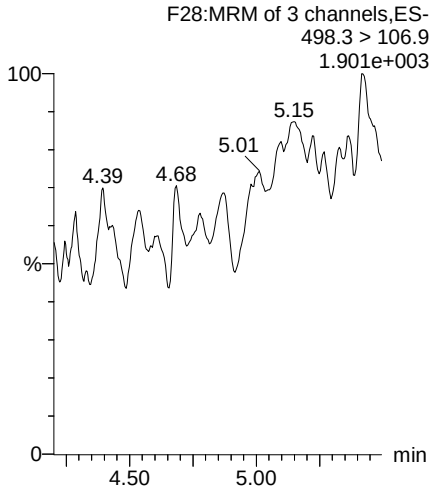
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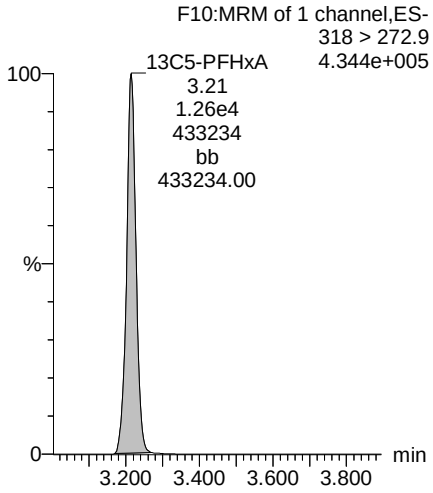
PFTeDA



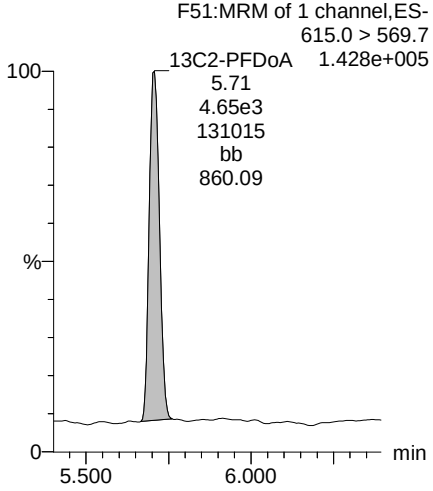
TCDA



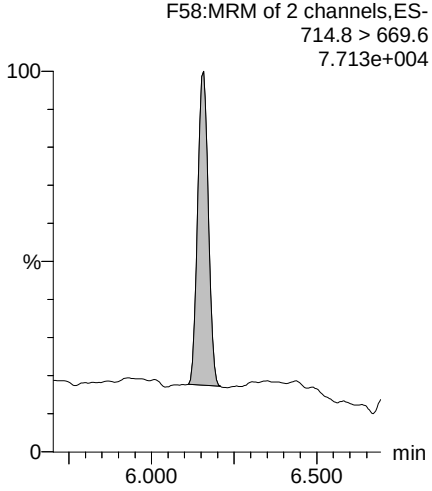
13C5-PFHxA



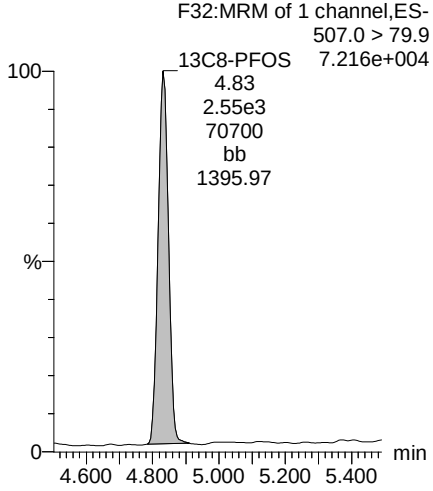
13C2-PFDoA



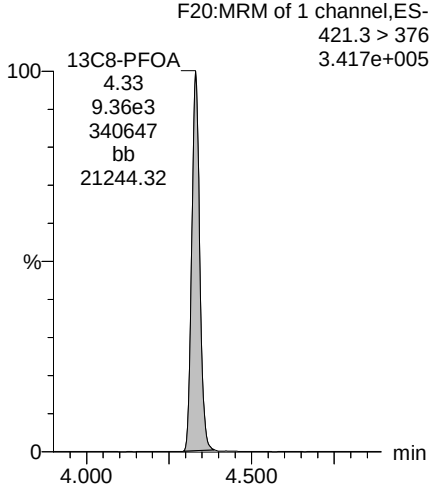
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13C8-PFOS



13C8-PFOA

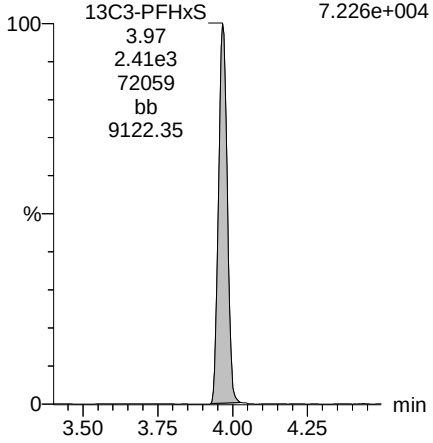


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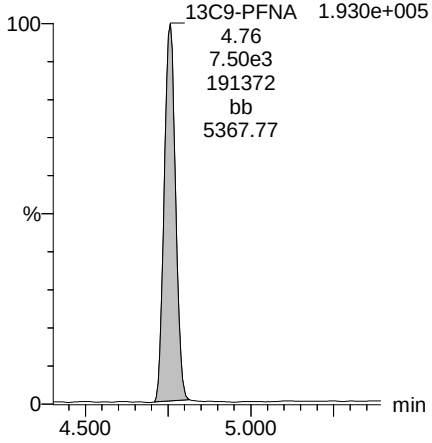
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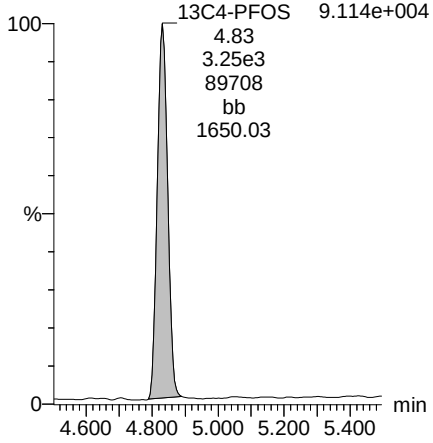
13C3-PFHxS



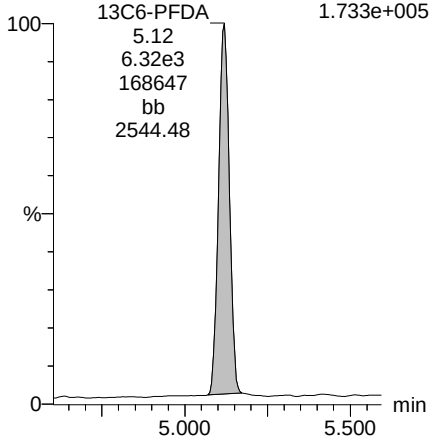
13C9-PFNA



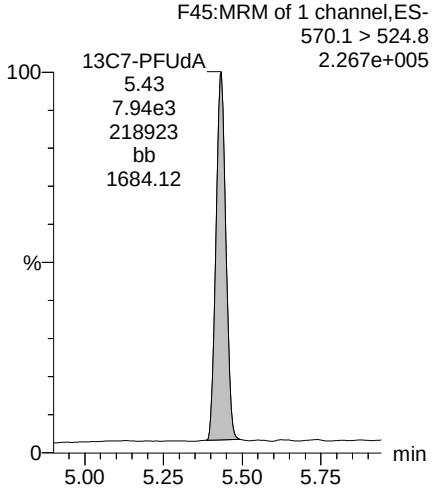
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

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Last Altered: Friday, December 29, 2017 15:02:05 Pacific Standard Time
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-24-17_NEWIS-M2.cdb 28 Dec 2017 07:47:09

Name: 171224M2_65, Date: 25-Dec-2017, Time: 12:16:43, ID: 1701829-20 FT-EB01-20171130 0.25976, Description: FT-EB01-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.05e3	0.260		2.70				
2	4	PFHxA	313.2 > 268.9		2.93e3	0.260		3.20				
3	5	PFHpA	363.0 > 318.9		5.05e3	0.260		3.80				
4	6	L-PFHxS	398.9 > 79.6		9.29e2	0.260		3.95				
5	9	L-PFOA	413 > 368.7	1.82e2	7.91e3	0.260		4.32	4.34	0.288	0.3008	
6	12	PFNA	463.0 > 418.8		7.45e3	0.260		4.75				
7	14	L-PFOS	499 > 79.9		2.59e3	0.260		4.83				
8	16	PFDA	513 > 468.8		6.48e3	0.260		5.11				
9	18	N-MeFOSAA	570.1 > 419		1.84e3	0.260		5.26				
10	19	N-EtFOSAA	584.2 > 419	6.16e1	2.36e3	0.260		5.42	5.04	0.326	1.1824	
11	20	PFUdA	563.0 > 518.9	1.09e2	5.43e3	0.260		5.43	5.78	0.252	1.0260	
12	22	PFDoA	612.9 > 569.0		3.45e3	0.260		5.70				

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171224M2\171224m2_65.qld

Last Altered: Friday, December 29, 2017 15:02:05 Pacific Standard Time
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Name: 171224M2_65, Date: 25-Dec-2017, Time: 12:16:43, ID: 1701829-20 FT-EB01-20171130 0.25976, Description: FT-EB01-20171130

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	1.36e2	2.59e3	0.260		5.95	5.96	0.654	1.7198	
2	25	PFTeDA	712.9 > 668.8	6.80e1	2.59e3	0.260		6.16	6.36	0.328	0.3737	
3	33	13C3-PFBS	302. > 98.8	1.05e3	1.13e4	0.260	0.101	2.70	2.73	1.17	44.6019	92.7
4	34	13C2-PFHxA	315 > 269.8	2.93e3	1.13e4	0.260	0.758	3.20	3.22	3.25	16.5274	85.9
5	35	13C4-PFHpA	367.2 > 321.8	5.05e3	1.13e4	0.260	0.562	3.80	3.82	5.60	38.3664	79.7
6	36	18O2-PFHxS	403.0 > 102.6	9.29e2	2.30e3	0.260	0.435	3.95	3.97	5.06	44.7438	93.0
7	37	13C2-6:2 FTS	429.1 > 408.9	1.93e3	7.80e3	0.260	0.393	4.26	4.28	3.09	30.3085	63.0
8	38	13C2-PFOA	414.9 > 369.7	7.91e3	7.80e3	0.260	1.252	4.32	4.33	12.7	38.9791	81.0
9	39	13C5-PFNA	468.2 > 422.9	7.45e3	8.75e3	0.260	0.962	4.75	4.76	10.7	42.6028	88.5
10	40	13C8-PFOSA	506.1 > 77.7	1.03e3	7.92e3	0.260	0.345	4.81	4.82	1.62	18.1499	37.7
11	41	13C8-PFOS	507.0 > 79.9	2.59e3	2.49e3	0.260	1.003	4.83	4.83	13.0	49.8857	103.7
12	42	13C2-PFDA	515.1 > 469.9	6.48e3	6.11e3	0.260	1.194	5.11	5.12	13.2	42.7148	88.8
13	43	13C2-8:2 FTS	529.1 > 508.7	1.06e3	1.13e4	0.260	0.150	5.09	5.09	1.18	30.2530	62.9
14	44	d3-N-MeFOSAA	573.3 > 419	1.84e3	7.92e3	0.260	0.372	5.26	5.26	2.91	30.0514	62.4
15	45	d5-N-EtFOSAA	589.3 > 419	2.36e3	7.92e3	0.260	0.444	5.42	5.41	3.73	32.3890	67.3
16	46	13C2-PFUdA	565 > 519.8	5.43e3	7.92e3	0.260	1.091	5.43	5.43	8.57	30.2569	62.9
17	47	13C2-PFDoA	615.0 > 569.7	3.45e3	7.92e3	0.260	0.629	5.70	5.70	5.45	33.3350	69.3
18	49	13C2-PFTeDA	714.8 > 669.6	2.59e3	7.92e3	0.260	0.551	6.16	6.16	4.10	28.6436	59.5
19	55	13C5-PFHxA	318 > 272.9	1.13e4	1.13e4	0.260	1.000	3.20	3.22	12.5	48.1213	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.30e3	2.30e3	0.260	1.000	3.95	3.97	12.5	48.1213	100.0
21	57	13C8-PFOA	421.3 > 376	7.80e3	7.80e3	0.260	1.000	4.32	4.33	12.5	48.1213	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.75e3	8.75e3	0.260	1.000	4.75	4.75	12.5	48.1213	100.0
23	59	13C4-PFOS	503 > 79.9	2.49e3	2.49e3	0.260	1.000	4.83	4.83	12.5	48.1213	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.11e3	6.11e3	0.260	1.000	5.11	5.12	12.5	48.1213	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.92e3	7.92e3	0.260	1.000	5.43	5.43	12.5	48.1213	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	9.29e2	0.260		4.00		0.000		
27	63	Total PFOA	413 > 368.7	2.44e2	7.91e3	0.260		4.30		0.288	0.3008	
28	64	Total PFOS	499 > 79.9	0.00e0	2.59e3	0.260		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	1.84e3	0.260		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	6.16e1	2.36e3	0.260		5.40		0.326	1.1824	

Vista Analytical Laboratory

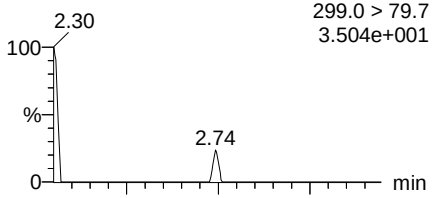
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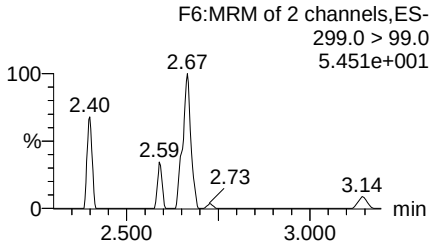
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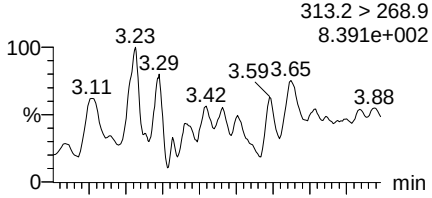
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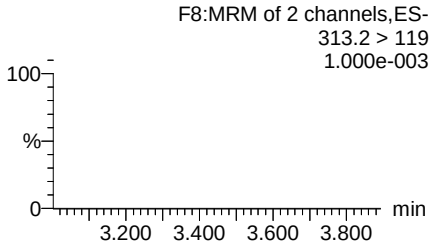
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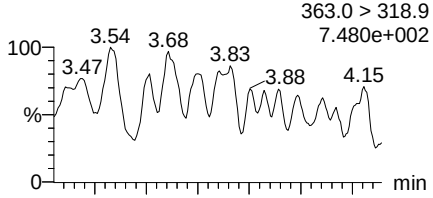


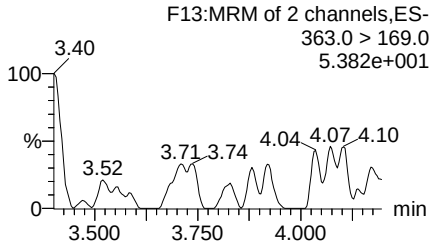
PFHxA



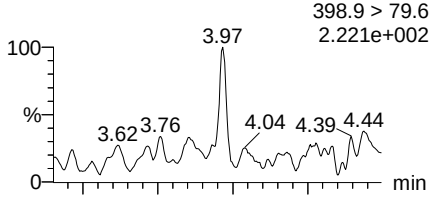


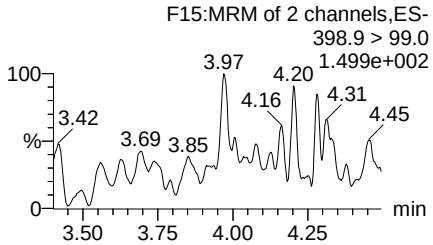
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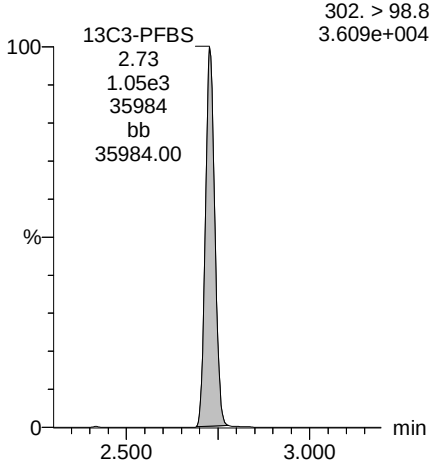


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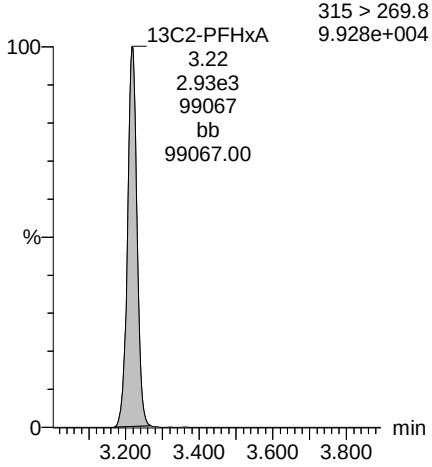




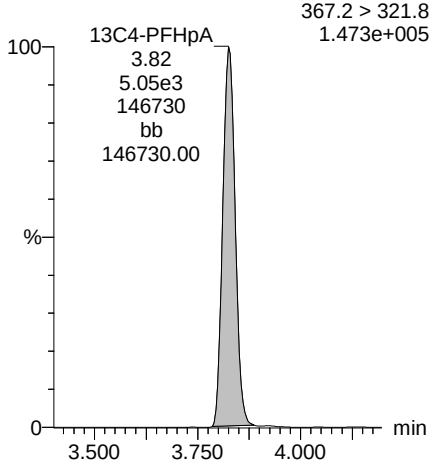
13C3-PFBS



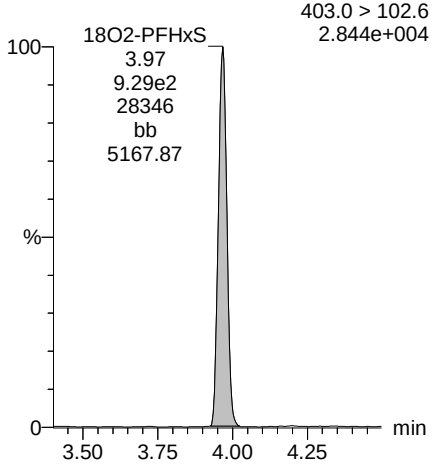
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

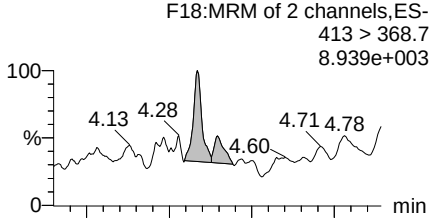


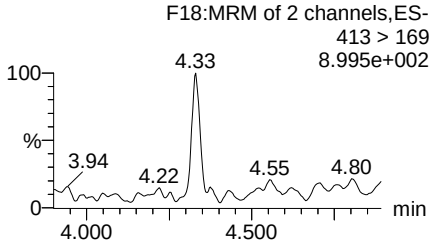
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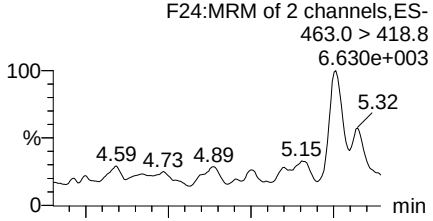
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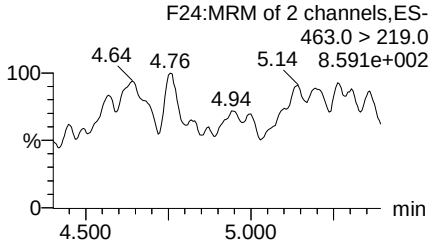
Total PFOA



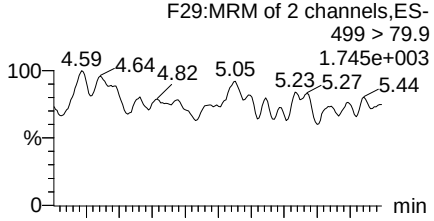


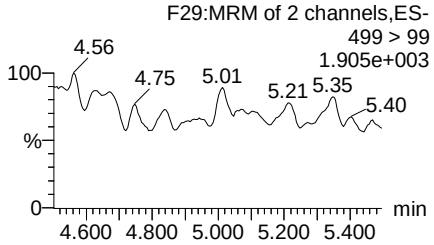
PFNA



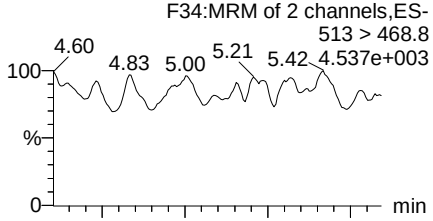


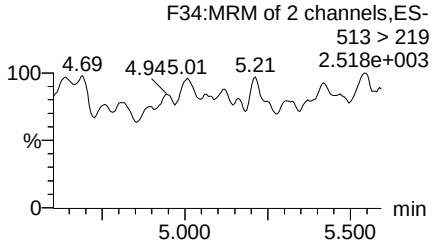
Total PFOS



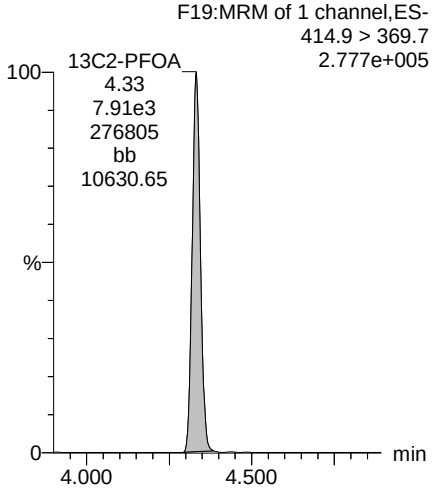


PFDA

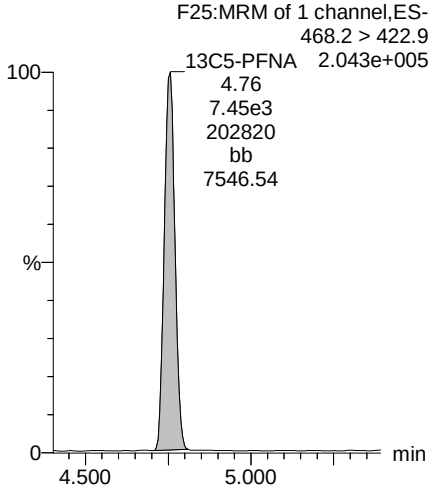




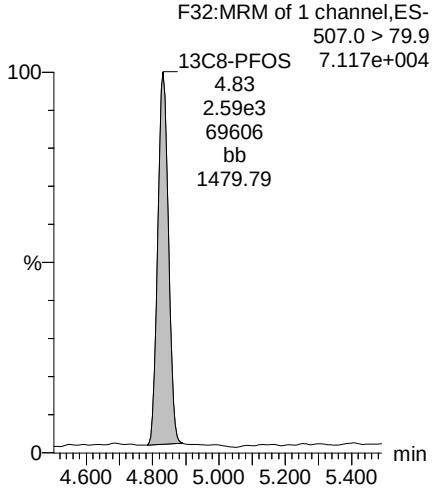
13C2-PFOA



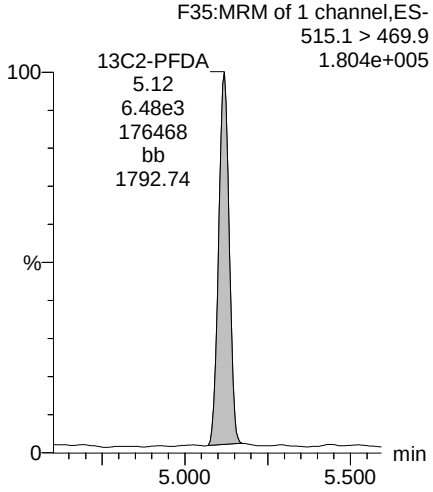
13C5-PFNA



13C8-PFOS



13C2-PFDA

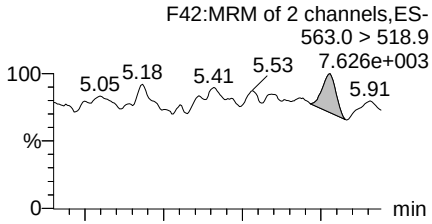


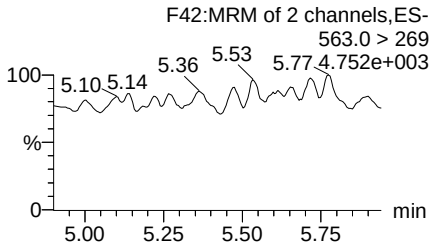
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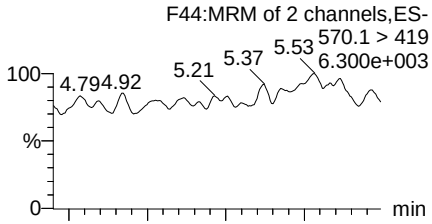
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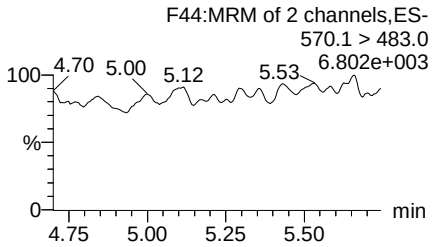
PFUdA



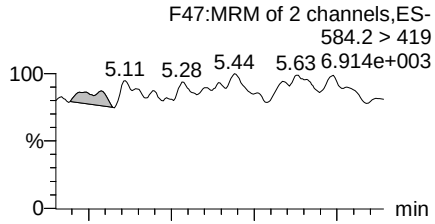


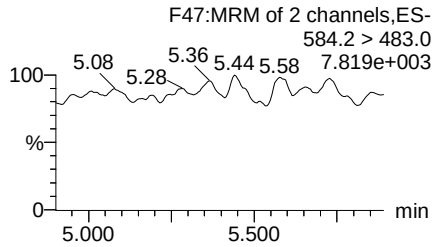
N-MeFOSAA



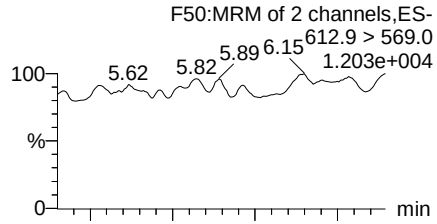


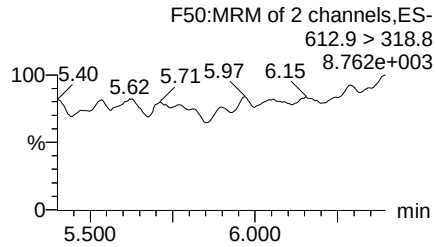
N-EtFOSAA



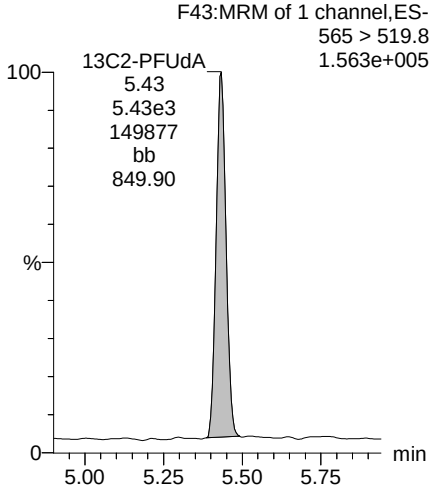


PFDoA

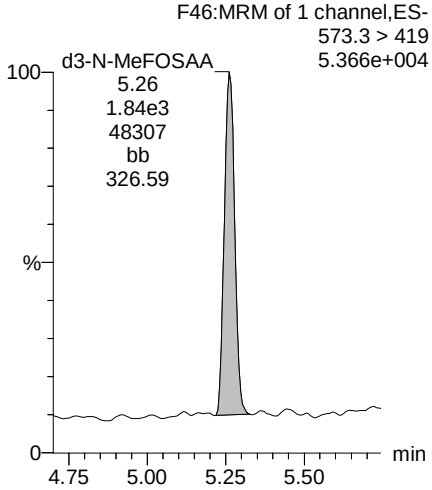




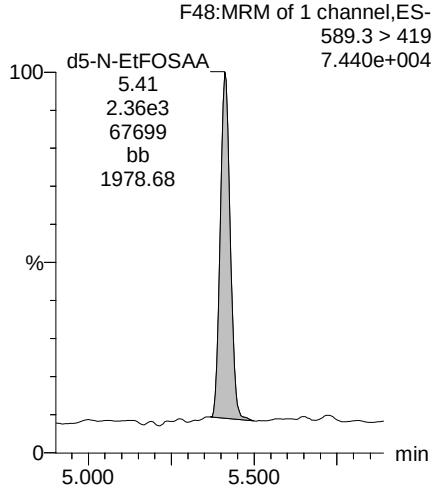
13C2-PFUdA



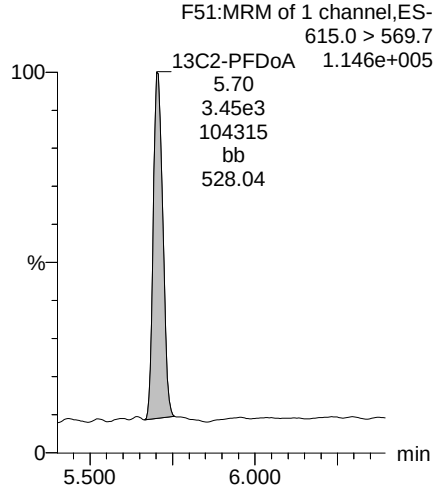
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA

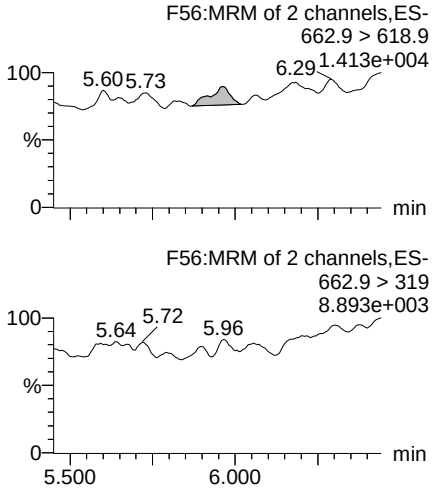


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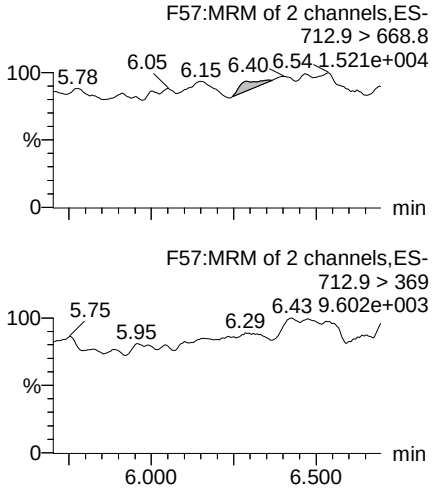
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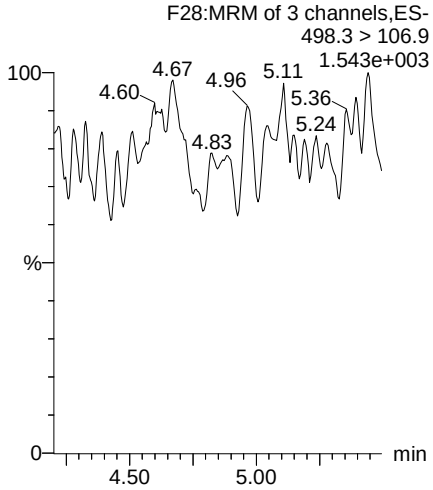
PFTrDA



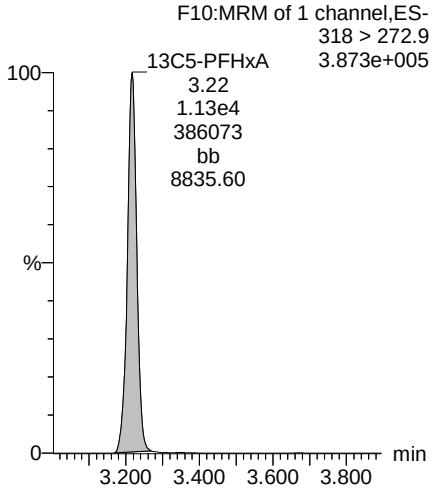
PFTeDA



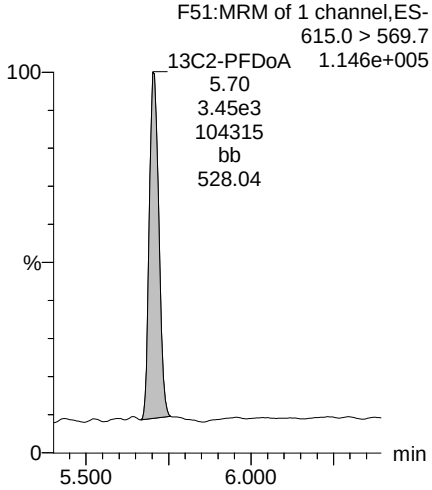
TCDA



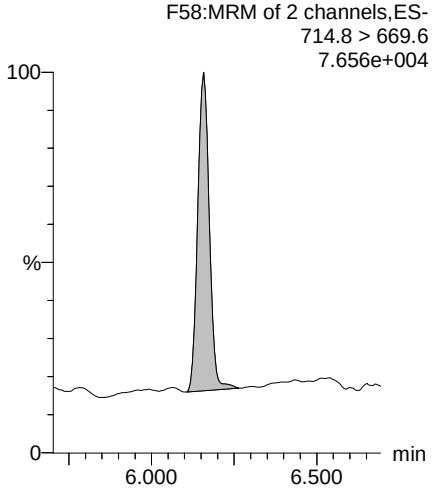
13C5-PFHxA



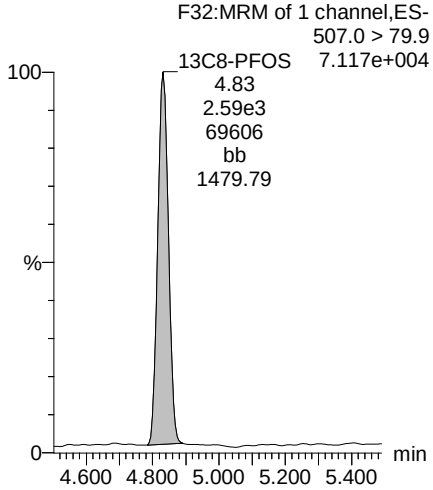
13C2-PFDoA



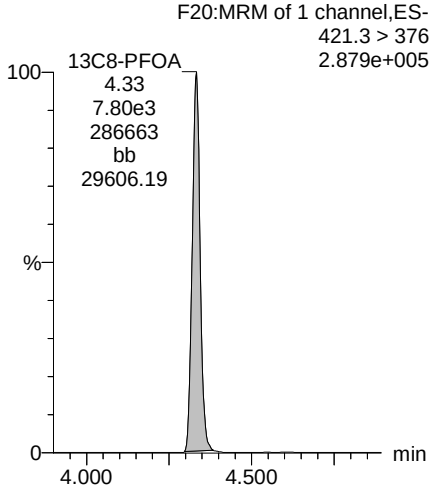
13C2-PFTeDA



13C8-PFOS



13C8-PFOA

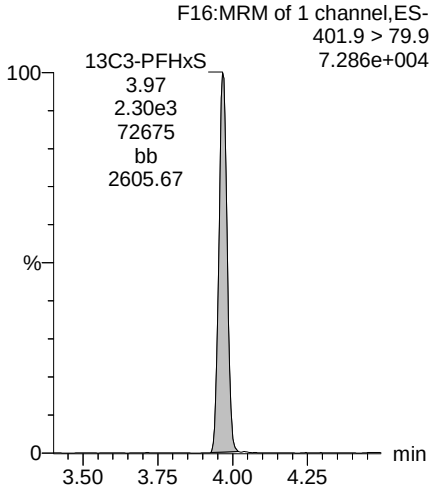


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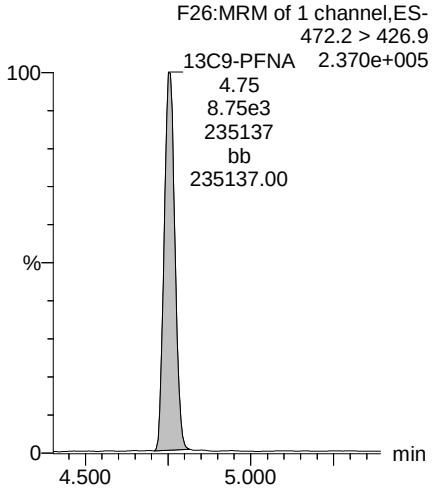
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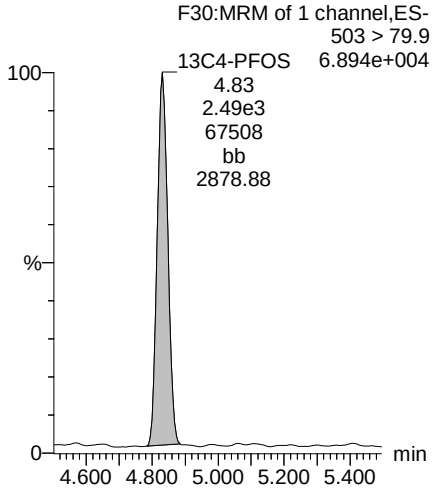
13C3-PFHxS



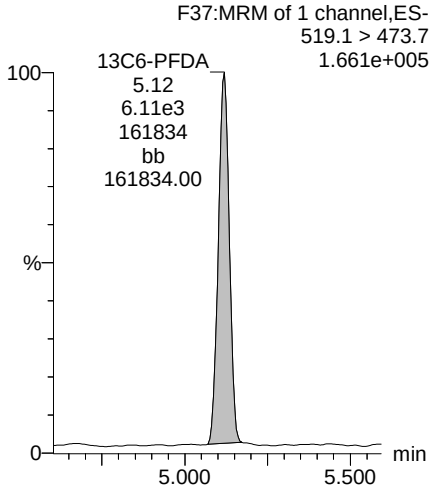
13C9-PFNA



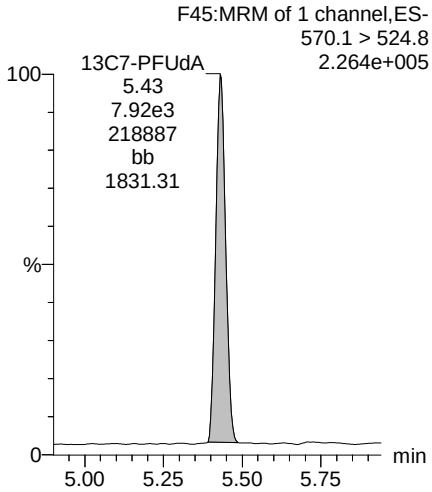
13C4-PFOS



13C6-PFDA



13C7-PFUdA



INJECTION INTERNAL STANDARD (IIS) AREAS,

INSTRUMENT BLANKS (IB)

AND

CONTINUTING CALIBRATION VERIFICATIONS CCV)

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171227M2\171227M2-IIS AREAS.qld

Last Altered: Thursday, December 28, 2017 12:04:16 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:08:44 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-12-21-17.mdb 21 Dec 2017 14:40:41
Calibration: 28 Dec 2017 12:04:16

Name: 171227M2_7, Date: 27-Dec-2017, Time: 18:32:34, ID: ST171227M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171227M2-6 PFC CS3 17L2611	1.22e4	100.0	NO
2	2	13C5-PFHxA	ST171227M2-6 PFC CS3 17L2611	1.42e4	100.0	NO
3	3	13C3-PFHxS	ST171227M2-6 PFC CS3 17L2611	3.71e3	100.0	NO
4	4	13C8-PFOA	ST171227M2-6 PFC CS3 17L2611	1.24e4	100.0	NO
5	5	13C9-PFNA	ST171227M2-6 PFC CS3 17L2611	1.20e4	100.0	NO
6	6	13C4-PFOS	ST171227M2-6 PFC CS3 17L2611	3.94e3	100.0	NO
7	7	13C6-PFDA	ST171227M2-6 PFC CS3 17L2611	1.01e4	100.0	NO
8	8	13C7-PFUdA	ST171227M2-6 PFC CS3 17L2611	1.31e4	100.0	NO

Name: 171227M2_8, Date: 27-Dec-2017, Time: 18:43:45, ID: ST171227M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171227M2-7 PFC CS4 17L2612	1.23e4	100.4	NO
2	2	13C5-PFHxA	ST171227M2-7 PFC CS4 17L2612	1.22e4	86.3	NO
3	3	13C3-PFHxS	ST171227M2-7 PFC CS4 17L2612	3.63e3	97.9	NO
4	4	13C8-PFOA	ST171227M2-7 PFC CS4 17L2612	1.43e4	114.9	NO
5	5	13C9-PFNA	ST171227M2-7 PFC CS4 17L2612	1.15e4	95.9	NO
6	6	13C4-PFOS	ST171227M2-7 PFC CS4 17L2612	4.02e3	102.1	NO
7	7	13C6-PFDA	ST171227M2-7 PFC CS4 17L2612	1.23e4	121.1	NO
8	8	13C7-PFUdA	ST171227M2-7 PFC CS4 17L2612	1.21e4	92.6	NO

Name: 171227M2_9, Date: 27-Dec-2017, Time: 18:54:55, ID: ST171227M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171227M2-8 PFC CS5 17L2613	1.20e4	98.4	NO
2	2	13C5-PFHxA	ST171227M2-8 PFC CS5 17L2613	1.31e4	92.6	NO
3	3	13C3-PFHxS	ST171227M2-8 PFC CS5 17L2613	3.42e3	92.3	NO
4	4	13C8-PFOA	ST171227M2-8 PFC CS5 17L2613	1.35e4	109.0	NO
5	5	13C9-PFNA	ST171227M2-8 PFC CS5 17L2613	1.04e4	86.3	NO
6	6	13C4-PFOS	ST171227M2-8 PFC CS5 17L2613	3.62e3	91.9	NO
7	7	13C6-PFDA	ST171227M2-8 PFC CS5 17L2613	1.15e4	113.9	NO
8	8	13C7-PFUdA	ST171227M2-8 PFC CS5 17L2613	1.27e4	97.0	NO

Name: 171227M2_10, Date: 27-Dec-2017, Time: 19:06:06, ID: ST171227M2-9 PFC CS6 17L2710, Description: PFC CS6 17L2710

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171227M2-9 PFC CS6 17L2710	1.18e4	97.1	NO
2	2	13C5-PFHxA	ST171227M2-9 PFC CS6 17L2710	1.19e4	83.7	NO
3	3	13C3-PFHxS	ST171227M2-9 PFC CS6 17L2710	3.38e3	91.0	NO
4	4	13C8-PFOA	ST171227M2-9 PFC CS6 17L2710	1.35e4	108.5	NO
5	5	13C9-PFNA	ST171227M2-9 PFC CS6 17L2710	1.05e4	87.4	NO
6	6	13C4-PFOS	ST171227M2-9 PFC CS6 17L2710	3.88e3	98.4	NO
7	7	13C6-PFDA	ST171227M2-9 PFC CS6 17L2710	9.21e3	90.9	NO
8	8	13C7-PFUdA	ST171227M2-9 PFC CS6 17L2710	1.10e4	84.5	NO

AC 12/28/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-IIS AREAS.qld

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Name: 171227M2_11, Date: 27-Dec-2017, Time: 19:17:17, ID: ST171227M2-10 PFC CS7 17L1804, Description: PFC CS7 17L1804

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171227M2-10 PFC CS7 17L1804	1.63e4	133.4	NO
2	2	13C5-PFHxA	ST171227M2-10 PFC CS7 17L1804	1.61e4	113.5	NO
3	3	13C3-PFHxS	ST171227M2-10 PFC CS7 17L1804	4.67e3	125.9	NO
4	4	13C8-PFOA	ST171227M2-10 PFC CS7 17L1804	1.87e4	150.9	YES
5	5	13C9-PFNA	ST171227M2-10 PFC CS7 17L1804	1.54e4	127.8	NO
6	6	13C4-PFOS	ST171227M2-10 PFC CS7 17L1804	4.91e3	124.6	NO
7	7	13C6-PFDA	ST171227M2-10 PFC CS7 17L1804	1.44e4	142.3	NO
8	8	13C7-PFUdA	ST171227M2-10 PFC CS7 17L1804	1.84e4	141.0	NO

Name: 171227M2_12, Date: 27-Dec-2017, Time: 19:28:28, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA	7.74e0	0.2	NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171227M2_13, Date: 27-Dec-2017, Time: 19:39:38, ID: ICV171227M2-1 PFC ICV 17L2605, Description: PFC ICV 17L2605

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ICV171227M2-1 PFC ICV 17L2605	1.19e4	97.9	NO
2	2	13C5-PFHxA	ICV171227M2-1 PFC ICV 17L2605	1.40e4	98.3	NO
3	3	13C3-PFHxS	ICV171227M2-1 PFC ICV 17L2605	4.18e3	112.6	NO
4	4	13C8-PFOA	ICV171227M2-1 PFC ICV 17L2605	1.30e4	104.4	NO
5	5	13C9-PFNA	ICV171227M2-1 PFC ICV 17L2605	1.20e4	100.0	NO
6	6	13C4-PFOS	ICV171227M2-1 PFC ICV 17L2605	3.86e3	98.0	NO
7	7	13C6-PFDA	ICV171227M2-1 PFC ICV 17L2605	1.17e4	115.3	NO
8	8	13C7-PFUdA	ICV171227M2-1 PFC ICV 17L2605	1.64e4	125.3	NO

Name: 171227M2_14, Date: 27-Dec-2017, Time: 19:50:49, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 171227M2_15, Date: 27-Dec-2017, Time: 20:02:00, ID: 1701845-16 Pier D 0.25847, Description: Pier D

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701845-16 Pier D 0.25847	9.41e3	77.2	NO
2	2	13C5-PFHxA	1701845-16 Pier D 0.25847	1.04e4	73.6	NO
3	3	13C3-PFHxS	1701845-16 Pier D 0.25847	2.66e3	71.7	NO
4	4	13C8-PFOA	1701845-16 Pier D 0.25847	1.09e4	88.2	NO
5	5	13C9-PFNA	1701845-16 Pier D 0.25847	8.93e3	74.3	NO
6	6	13C4-PFOS	1701845-16 Pier D 0.25847	3.44e3	87.2	NO
7	7	13C6-PFDA	1701845-16 Pier D 0.25847	1.01e4	99.6	NO
8	8	13C7-PFUdA	1701845-16 Pier D 0.25847	1.24e4	95.3	NO

Name: 171227M2_16, Date: 27-Dec-2017, Time: 20:13:10, ID: 1701845-17 BD-1 0.26049, Description: BD-1

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701845-17 BD-1 0.26049	9.24e3	75.8	NO
2	2	13C5-PFHxA	1701845-17 BD-1 0.26049	1.13e4	79.9	NO
3	3	13C3-PFHxS	1701845-17 BD-1 0.26049	3.10e3	83.5	NO
4	4	13C8-PFOA	1701845-17 BD-1 0.26049	1.08e4	87.1	NO
5	5	13C9-PFNA	1701845-17 BD-1 0.26049	9.69e3	80.6	NO
6	6	13C4-PFOS	1701845-17 BD-1 0.26049	3.15e3	79.8	NO
7	7	13C6-PFDA	1701845-17 BD-1 0.26049	9.37e3	92.5	NO
8	8	13C7-PFUdA	1701845-17 BD-1 0.26049	1.13e4	86.4	NO

Name: 171227M2_17, Date: 27-Dec-2017, Time: 20:24:22, ID: B7L0120-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0120-BS1 OPR 0.25	8.23e3	67.5	NO
2	2	13C5-PFHxA	B7L0120-BS1 OPR 0.25	1.03e4	72.5	NO
3	3	13C3-PFHxS	B7L0120-BS1 OPR 0.25	2.82e3	76.0	NO
4	4	13C8-PFOA	B7L0120-BS1 OPR 0.25	9.22e3	74.2	NO
5	5	13C9-PFNA	B7L0120-BS1 OPR 0.25	9.75e3	81.1	NO
6	6	13C4-PFOS	B7L0120-BS1 OPR 0.25	2.38e3	60.4	NO
7	7	13C6-PFDA	B7L0120-BS1 OPR 0.25	9.84e3	97.1	NO
8	8	13C7-PFUdA	B7L0120-BS1 OPR 0.25	1.01e4	77.5	NO

Name: 171227M2_18, Date: 27-Dec-2017, Time: 20:35:32, ID: B7L0120-BSD1 LCSD 0.25, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0120-BSD1 LCSD 0.25	9.40e3	77.0	NO
2	2	13C5-PFHxA	B7L0120-BSD1 LCSD 0.25	1.12e4	79.1	NO
3	3	13C3-PFHxS	B7L0120-BSD1 LCSD 0.25	3.25e3	87.8	NO
4	4	13C8-PFOA	B7L0120-BSD1 LCSD 0.25	1.21e4	97.3	NO
5	5	13C9-PFNA	B7L0120-BSD1 LCSD 0.25	1.05e4	87.2	NO
6	6	13C4-PFOS	B7L0120-BSD1 LCSD 0.25	3.12e3	79.1	NO
7	7	13C6-PFDA	B7L0120-BSD1 LCSD 0.25	1.05e4	103.4	NO
8	8	13C7-PFUdA	B7L0120-BSD1 LCSD 0.25	1.15e4	88.0	NO

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Name: 171227M2_19, Date: 27-Dec-2017, Time: 20:46:43, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171227M2_20, Date: 27-Dec-2017, Time: 20:57:53, ID: B7L0120-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0120-BLK1 Method Blank 0.25	7.13e3	58.4	NO
2	2	13C5-PFHxA	B7L0120-BLK1 Method Blank 0.25	9.18e3	64.7	NO
3	3	13C3-PFHxS	B7L0120-BLK1 Method Blank 0.25	2.11e3	56.9	NO
4	4	13C8-PFOA	B7L0120-BLK1 Method Blank 0.25	8.78e3	70.7	NO
5	5	13C9-PFNA	B7L0120-BLK1 Method Blank 0.25	7.50e3	62.4	NO
6	6	13C4-PFOS	B7L0120-BLK1 Method Blank 0.25	2.47e3	62.8	NO
7	7	13C6-PFDA	B7L0120-BLK1 Method Blank 0.25	7.77e3	76.7	NO
8	8	13C7-PFUdA	B7L0120-BLK1 Method Blank 0.25	9.20e3	70.4	NO

Name: 171227M2_21, Date: 27-Dec-2017, Time: 21:09:04, ID: 1701955-01 WR1712141615JLB 0.27017, Description: WR1712141615JLB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701955-01 WR1712141615JLB 0.27017	8.36e3	68.5	NO
2	2	13C5-PFHxA	1701955-01 WR1712141615JLB 0.27017	9.26e3	65.2	NO
3	3	13C3-PFHxS	1701955-01 WR1712141615JLB 0.27017	2.86e3	77.1	NO
4	4	13C8-PFOA	1701955-01 WR1712141615JLB 0.27017	1.01e4	81.2	NO
5	5	13C9-PFNA	1701955-01 WR1712141615JLB 0.27017	9.51e3	79.1	NO
6	6	13C4-PFOS	1701955-01 WR1712141615JLB 0.27017	2.78e3	70.6	NO
7	7	13C6-PFDA	1701955-01 WR1712141615JLB 0.27017	9.20e3	90.8	NO
8	8	13C7-PFUdA	1701955-01 WR1712141615JLB 0.27017	9.64e3	73.8	NO

Name: 171227M2_22, Date: 27-Dec-2017, Time: 21:20:15, ID: B7L0092-BS1 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0092-BS1 OPR 1	9.35e3	76.6	NO
2	2	13C5-PFHxA	B7L0092-BS1 OPR 1	1.03e4	72.8	NO
3	3	13C3-PFHxS	B7L0092-BS1 OPR 1	3.20e3	86.4	NO
4	4	13C8-PFOA	B7L0092-BS1 OPR 1	1.05e4	84.3	NO
5	5	13C9-PFNA	B7L0092-BS1 OPR 1	9.50e3	79.1	NO
6	6	13C4-PFOS	B7L0092-BS1 OPR 1	2.61e3	66.2	NO
7	7	13C6-PFDA	B7L0092-BS1 OPR 1	1.03e4	101.8	NO
8	8	13C7-PFUdA	B7L0092-BS1 OPR 1	1.23e4	94.2	NO

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Name: 171227M2_23, Date: 27-Dec-2017, Time: 21:31:25, ID: B7L0092-BLK1 Method Blank 1, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0092-BLK1 Method Blank 1	9.89e3	81.1	NO
2	2	13C5-PFHxA	B7L0092-BLK1 Method Blank 1	1.27e4	89.6	NO
3	3	13C3-PFHxS	B7L0092-BLK1 Method Blank 1	3.47e3	93.5	NO
4	4	13C8-PFOA	B7L0092-BLK1 Method Blank 1	1.15e4	92.9	NO
5	5	13C9-PFNA	B7L0092-BLK1 Method Blank 1	8.84e3	73.5	NO
6	6	13C4-PFOS	B7L0092-BLK1 Method Blank 1	3.50e3	88.9	NO
7	7	13C6-PFDA	B7L0092-BLK1 Method Blank 1	8.66e3	85.5	NO
8	8	13C7-PFUdA	B7L0092-BLK1 Method Blank 1	1.14e4	87.6	NO

Name: 171227M2_24, Date: 27-Dec-2017, Time: 21:42:36, ID: B7L0092-MS1 Matrix Spike 16.49, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0092-MS1 Matrix Spike 16.49	1.14e4	93.8	NO
2	2	13C5-PFHxA	B7L0092-MS1 Matrix Spike 16.49	1.27e4	89.7	NO
3	3	13C3-PFHxS	B7L0092-MS1 Matrix Spike 16.49	3.75e3	101.2	NO
4	4	13C8-PFOA	B7L0092-MS1 Matrix Spike 16.49	1.28e4	103.5	NO
5	5	13C9-PFNA	B7L0092-MS1 Matrix Spike 16.49	1.42e4	118.2	NO
6	6	13C4-PFOS	B7L0092-MS1 Matrix Spike 16.49	2.40e3	60.9	NO
7	7	13C6-PFDA	B7L0092-MS1 Matrix Spike 16.49	1.25e4	123.5	NO
8	8	13C7-PFUdA	B7L0092-MS1 Matrix Spike 16.49	1.53e4	117.4	NO

Name: 171227M2_25, Date: 27-Dec-2017, Time: 21:53:47, ID: B7L0092-MSD1 Matrix Spike Dup 16.11, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0092-MSD1 Matrix Spike Dup 16.11	8.79e3	72.0	NO
2	2	13C5-PFHxA	B7L0092-MSD1 Matrix Spike Dup 16.11	1.03e4	72.4	NO
3	3	13C3-PFHxS	B7L0092-MSD1 Matrix Spike Dup 16.11	2.89e3	77.8	NO
4	4	13C8-PFOA	B7L0092-MSD1 Matrix Spike Dup 16.11	1.08e4	87.3	NO
5	5	13C9-PFNA	B7L0092-MSD1 Matrix Spike Dup 16.11	1.23e4	102.4	NO
6	6	13C4-PFOS	B7L0092-MSD1 Matrix Spike Dup 16.11	1.91e3	48.4	YES
7	7	13C6-PFDA	B7L0092-MSD1 Matrix Spike Dup 16.11	1.06e4	104.8	NO
8	8	13C7-PFUdA	B7L0092-MSD1 Matrix Spike Dup 16.11	1.35e4	103.7	NO

Name: 171227M2_26, Date: 27-Dec-2017, Time: 22:04:58, ID: 1701841-01 OF-SLG01-1217 17.61, Description: OF-SLG01-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701841-01 OF-SLG01-1217 17.61	8.80e3	72.1	NO
2	2	13C5-PFHxA	1701841-01 OF-SLG01-1217 17.61	1.13e4	79.3	NO
3	3	13C3-PFHxS	1701841-01 OF-SLG01-1217 17.61	2.65e3	71.6	NO
4	4	13C8-PFOA	1701841-01 OF-SLG01-1217 17.61	9.19e3	74.0	NO
5	5	13C9-PFNA	1701841-01 OF-SLG01-1217 17.61	1.14e4	95.0	NO
6	6	13C4-PFOS	1701841-01 OF-SLG01-1217 17.61	1.90e3	48.2	YES
7	7	13C6-PFDA	1701841-01 OF-SLG01-1217 17.61	1.01e4	99.5	NO
8	8	13C7-PFUdA	1701841-01 OF-SLG01-1217 17.61	1.38e4	105.6	NO

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Name: 171227M2_27, Date: 27-Dec-2017, Time: 22:16:08, ID: 1701841-02 OF-SLG02-1217 10.1, Description: OF-SLG02-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701841-02 OF-SLG02-1217 10.1	1.01e4	82.7	NO
2	2	13C5-PFHxA	1701841-02 OF-SLG02-1217 10.1	1.20e4	84.7	NO
3	3	13C3-PFHxS	1701841-02 OF-SLG02-1217 10.1	3.46e3	93.3	NO
4	4	13C8-PFOA	1701841-02 OF-SLG02-1217 10.1	1.32e4	106.5	NO
5	5	13C9-PFNA	1701841-02 OF-SLG02-1217 10.1	1.29e4	107.1	NO
6	6	13C4-PFOS	1701841-02 OF-SLG02-1217 10.1	1.98e3	50.3	NO
7	7	13C6-PFDA	1701841-02 OF-SLG02-1217 10.1	1.21e4	119.2	NO
8	8	13C7-PFUdA	1701841-02 OF-SLG02-1217 10.1	1.33e4	101.6	NO

Name: 171227M2_28, Date: 27-Dec-2017, Time: 22:27:19, ID: 1701841-03 OF-SLG02P-1217 6.48, Description: OF-SLG02P-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701841-03 OF-SLG02P-1217 6.48	9.33e3	76.5	NO
2	2	13C5-PFHxA	1701841-03 OF-SLG02P-1217 6.48	1.04e4	73.4	NO
3	3	13C3-PFHxS	1701841-03 OF-SLG02P-1217 6.48	3.13e3	84.3	NO
4	4	13C8-PFOA	1701841-03 OF-SLG02P-1217 6.48	1.01e4	81.4	NO
5	5	13C9-PFNA	1701841-03 OF-SLG02P-1217 6.48	9.75e3	81.1	NO
6	6	13C4-PFOS	1701841-03 OF-SLG02P-1217 6.48	1.87e3	47.4	YES
7	7	13C6-PFDA	1701841-03 OF-SLG02P-1217 6.48	1.09e4	107.3	NO
8	8	13C7-PFUdA	1701841-03 OF-SLG02P-1217 6.48	1.18e4	90.0	NO

Name: 171227M2_29, Date: 27-Dec-2017, Time: 22:38:30, ID: 1701841-04 OF-SLG03-1217 11.57, Description: OF-SLG03-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701841-04 OF-SLG03-1217 11.57	1.21e4	99.6	NO
2	2	13C5-PFHxA	1701841-04 OF-SLG03-1217 11.57	1.52e4	107.2	NO
3	3	13C3-PFHxS	1701841-04 OF-SLG03-1217 11.57	4.42e3	119.2	NO
4	4	13C8-PFOA	1701841-04 OF-SLG03-1217 11.57	1.38e4	111.5	NO
5	5	13C9-PFNA	1701841-04 OF-SLG03-1217 11.57	1.48e4	123.4	NO
6	6	13C4-PFOS	1701841-04 OF-SLG03-1217 11.57	2.88e3	73.2	NO
7	7	13C6-PFDA	1701841-04 OF-SLG03-1217 11.57	1.23e4	121.8	NO
8	8	13C7-PFUdA	1701841-04 OF-SLG03-1217 11.57	1.61e4	123.4	NO

Name: 171227M2_30, Date: 27-Dec-2017, Time: 22:49:41, ID: 1701841-05 OF-SLG04-1217 5.07, Description: OF-SLG04-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701841-05 OF-SLG04-1217 5.07	9.57e3	78.5	NO
2	2	13C5-PFHxA	1701841-05 OF-SLG04-1217 5.07	1.10e4	77.5	NO
3	3	13C3-PFHxS	1701841-05 OF-SLG04-1217 5.07	3.12e3	84.1	NO
4	4	13C8-PFOA	1701841-05 OF-SLG04-1217 5.07	1.17e4	94.1	NO
5	5	13C9-PFNA	1701841-05 OF-SLG04-1217 5.07	1.03e4	85.9	NO
6	6	13C4-PFOS	1701841-05 OF-SLG04-1217 5.07	2.95e3	74.8	NO
7	7	13C6-PFDA	1701841-05 OF-SLG04-1217 5.07	1.06e4	104.7	NO
8	8	13C7-PFUdA	1701841-05 OF-SLG04-1217 5.07	1.30e4	99.9	NO

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Name: 171227M2_31, Date: 27-Dec-2017, Time: 23:00:51, ID: 1701866-01 Soil-B101A 1.62, Description: Soil-B101A

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701866-01 Soil-B101A 1.62	1.17e4	96.0	NO
2	2	13C5-PFHxA	1701866-01 Soil-B101A 1.62	1.41e4	99.3	NO
3	3	13C3-PFHxS	1701866-01 Soil-B101A 1.62	3.73e3	100.6	NO
4	4	13C8-PFOA	1701866-01 Soil-B101A 1.62	1.41e4	113.7	NO
5	5	13C9-PFNA	1701866-01 Soil-B101A 1.62	1.40e4	116.5	NO
6	6	13C4-PFOS	1701866-01 Soil-B101A 1.62	3.79e3	96.1	NO
7	7	13C6-PFDA	1701866-01 Soil-B101A 1.62	1.55e4	153.3	YES
8	8	13C7-PFUdA	1701866-01 Soil-B101A 1.62	1.74e4	133.0	NO

Name: 171227M2_32, Date: 27-Dec-2017, Time: 23:12:02, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA	5.24e0	0.0	YES
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171227M2_33, Date: 27-Dec-2017, Time: 23:23:12, ID: B7L0073-BS1 OPR 0.125, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0073-BS1 OPR 0.125	1.08e4	88.7	NO
2	2	13C5-PFHxA	B7L0073-BS1 OPR 0.125	1.30e4	91.7	NO
3	3	13C3-PFHxS	B7L0073-BS1 OPR 0.125	3.92e3	105.7	NO
4	4	13C8-PFOA	B7L0073-BS1 OPR 0.125	1.33e4	107.0	NO
5	5	13C9-PFNA	B7L0073-BS1 OPR 0.125	1.14e4	94.4	NO
6	6	13C4-PFOS	B7L0073-BS1 OPR 0.125	3.37e3	85.6	NO
7	7	13C6-PFDA	B7L0073-BS1 OPR 0.125	1.20e4	118.8	NO
8	8	13C7-PFUdA	B7L0073-BS1 OPR 0.125	1.29e4	98.6	NO

Name: 171227M2_34, Date: 27-Dec-2017, Time: 23:34:23, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA	6.01e0	0.0	YES
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 171227M2_35, Date: 27-Dec-2017, Time: 23:45:34, ID: B7L0073-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0073-BLK1 Method Blank 0.125	9.94e3	81.5	NO
2	2	13C5-PFHxA	B7L0073-BLK1 Method Blank 0.125	1.28e4	90.5	NO
3	3	13C3-PFHxS	B7L0073-BLK1 Method Blank 0.125	3.21e3	86.5	NO
4	4	13C8-PFOA	B7L0073-BLK1 Method Blank 0.125	1.42e4	114.6	NO
5	5	13C9-PFNA	B7L0073-BLK1 Method Blank 0.125	1.11e4	92.1	NO
6	6	13C4-PFOS	B7L0073-BLK1 Method Blank 0.125	3.25e3	82.6	NO
7	7	13C6-PFDA	B7L0073-BLK1 Method Blank 0.125	1.04e4	102.8	NO
8	8	13C7-PFUdA	B7L0073-BLK1 Method Blank 0.125	1.35e4	103.3	NO

Name: 171227M2_36, Date: 27-Dec-2017, Time: 23:56:45, ID: B7L0073-MS1 Matrix Spike 0.24032, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0073-MS1 Matrix Spike 0.24032	1.01e4	83.0	NO
2	2	13C5-PFHxA	B7L0073-MS1 Matrix Spike 0.24032	1.18e4	83.2	NO
3	3	13C3-PFHxS	B7L0073-MS1 Matrix Spike 0.24032	3.49e3	94.1	NO
4	4	13C8-PFOA	B7L0073-MS1 Matrix Spike 0.24032	1.28e4	102.9	NO
5	5	13C9-PFNA	B7L0073-MS1 Matrix Spike 0.24032	9.88e3	82.2	NO
6	6	13C4-PFOS	B7L0073-MS1 Matrix Spike 0.24032	3.31e3	83.9	NO
7	7	13C6-PFDA	B7L0073-MS1 Matrix Spike 0.24032	9.79e3	96.7	NO
8	8	13C7-PFUdA	B7L0073-MS1 Matrix Spike 0.24032	1.17e4	89.7	NO

Name: 171227M2_37, Date: 28-Dec-2017, Time: 00:07:55, ID: B7L0073-MSD1 Matrix Spike Dup 0.25539, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0073-MSD1 Matrix Spike Dup 0.255...	9.53e3	78.1	NO
2	2	13C5-PFHxA	B7L0073-MSD1 Matrix Spike Dup 0.255...	1.21e4	84.9	NO
3	3	13C3-PFHxS	B7L0073-MSD1 Matrix Spike Dup 0.255...	3.70e3	99.7	NO
4	4	13C8-PFOA	B7L0073-MSD1 Matrix Spike Dup 0.255...	1.38e4	111.3	NO
5	5	13C9-PFNA	B7L0073-MSD1 Matrix Spike Dup 0.255...	8.29e3	69.0	NO
6	6	13C4-PFOS	B7L0073-MSD1 Matrix Spike Dup 0.255...	3.06e3	77.6	NO
7	7	13C6-PFDA	B7L0073-MSD1 Matrix Spike Dup 0.255...	1.04e4	102.6	NO
8	8	13C7-PFUdA	B7L0073-MSD1 Matrix Spike Dup 0.255...	1.44e4	110.5	NO

Name: 171227M2_38, Date: 28-Dec-2017, Time: 00:19:08, ID: B7L0073-MSD2 Matrix Spike Dup 0.25853, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0073-MSD2 Matrix Spike Dup 0.258...	9.65e3	79.1	NO
2	2	13C5-PFHxA	B7L0073-MSD2 Matrix Spike Dup 0.258...	1.27e4	89.2	NO
3	3	13C3-PFHxS	B7L0073-MSD2 Matrix Spike Dup 0.258...	4.13e3	111.5	NO
4	4	13C8-PFOA	B7L0073-MSD2 Matrix Spike Dup 0.258...	1.17e4	93.9	NO
5	5	13C9-PFNA	B7L0073-MSD2 Matrix Spike Dup 0.258...	1.03e4	86.0	NO
6	6	13C4-PFOS	B7L0073-MSD2 Matrix Spike Dup 0.258...	3.20e3	81.1	NO
7	7	13C6-PFDA	B7L0073-MSD2 Matrix Spike Dup 0.258...	1.17e4	115.2	NO
8	8	13C7-PFUdA	B7L0073-MSD2 Matrix Spike Dup 0.258...	1.22e4	93.5	NO

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Name: 171227M2_39, Date: 28-Dec-2017, Time: 00:30:19, ID: B7L0073-MS2 Matrix Spike 0.2584, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0073-MS2 Matrix Spike 0.2584	9.61e3	78.8	NO
2	2	13C5-PFHxA	B7L0073-MS2 Matrix Spike 0.2584	1.17e4	82.3	NO
3	3	13C3-PFHxS	B7L0073-MS2 Matrix Spike 0.2584	3.19e3	86.0	NO
4	4	13C8-PFOA	B7L0073-MS2 Matrix Spike 0.2584	1.01e4	81.7	NO
5	5	13C9-PFNA	B7L0073-MS2 Matrix Spike 0.2584	8.81e3	73.3	NO
6	6	13C4-PFOS	B7L0073-MS2 Matrix Spike 0.2584	3.01e3	76.3	NO
7	7	13C6-PFDA	B7L0073-MS2 Matrix Spike 0.2584	9.12e3	90.0	NO
8	8	13C7-PFUdA	B7L0073-MS2 Matrix Spike 0.2584	1.12e4	85.7	NO

Name: 171227M2_40, Date: 28-Dec-2017, Time: 00:41:30, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171227M2_41, Date: 28-Dec-2017, Time: 00:52:40, ID: ST171227M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171227M2-11 PFC CS3 17L2611	1.25e4	102.3	NO
2	2	13C5-PFHxA	ST171227M2-11 PFC CS3 17L2611	1.64e4	115.9	NO
3	3	13C3-PFHxS	ST171227M2-11 PFC CS3 17L2611	3.55e3	95.7	NO
4	4	13C8-PFOA	ST171227M2-11 PFC CS3 17L2611	1.33e4	107.0	NO
5	5	13C9-PFNA	ST171227M2-11 PFC CS3 17L2611	1.31e4	108.8	NO
6	6	13C4-PFOS	ST171227M2-11 PFC CS3 17L2611	3.73e3	94.7	NO
7	7	13C6-PFDA	ST171227M2-11 PFC CS3 17L2611	1.35e4	133.0	NO
8	8	13C7-PFUdA	ST171227M2-11 PFC CS3 17L2611	1.45e4	111.1	NO

Name: 171227M2_42, Date: 28-Dec-2017, Time: 01:03:51, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 171227M2_43, Date: 28-Dec-2017, Time: 01:15:02, ID: 1701829-01 FT-MW08S-20171129 0.26507, Description: FT-MW08S-20171129

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-01 FT-MW08S-20171129 0.26...	1.22e4	100.3	NO
2	2	13C5-PFHxA	1701829-01 FT-MW08S-20171129 0.26...	1.50e4	105.5	NO
3	3	13C3-PFHxS	1701829-01 FT-MW08S-20171129 0.26...	3.54e3	95.5	NO
4	4	13C8-PFOA	1701829-01 FT-MW08S-20171129 0.26...	1.25e4	100.5	NO
5	5	13C9-PFNA	1701829-01 FT-MW08S-20171129 0.26...	1.46e4	121.6	NO
6	6	13C4-PFOS	1701829-01 FT-MW08S-20171129 0.26...	3.73e3	94.5	NO
7	7	13C6-PFDA	1701829-01 FT-MW08S-20171129 0.26...	1.44e4	142.1	NO
8	8	13C7-PFUdA	1701829-01 FT-MW08S-20171129 0.26...	1.70e4	130.4	NO

Name: 171227M2_44, Date: 28-Dec-2017, Time: 01:26:13, ID: 1701829-02 FT-MW08S-FRB-20171129 0.26762, Description: FT-MW08S-FRB-20171129

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-02 FT-MW08S-FRB-20171129...	9.90e3	81.1	NO
2	2	13C5-PFHxA	1701829-02 FT-MW08S-FRB-20171129...	1.24e4	87.7	NO
3	3	13C3-PFHxS	1701829-02 FT-MW08S-FRB-20171129...	3.30e3	88.9	NO
4	4	13C8-PFOA	1701829-02 FT-MW08S-FRB-20171129...	1.20e4	96.5	NO
5	5	13C9-PFNA	1701829-02 FT-MW08S-FRB-20171129...	1.24e4	102.9	NO
6	6	13C4-PFOS	1701829-02 FT-MW08S-FRB-20171129...	3.26e3	82.7	NO
7	7	13C6-PFDA	1701829-02 FT-MW08S-FRB-20171129...	1.06e4	104.6	NO
8	8	13C7-PFUdA	1701829-02 FT-MW08S-FRB-20171129...	1.19e4	91.3	NO

Name: 171227M2_45, Date: 28-Dec-2017, Time: 01:37:23, ID: 1701829-03 FT-DUP01-20171129 0.25365, Description: FT-DUP01-20171129

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-03 FT-DUP01-20171129 0.253...	1.04e4	84.9	NO
2	2	13C5-PFHxA	1701829-03 FT-DUP01-20171129 0.253...	1.17e4	82.3	NO
3	3	13C3-PFHxS	1701829-03 FT-DUP01-20171129 0.253...	3.06e3	82.5	NO
4	4	13C8-PFOA	1701829-03 FT-DUP01-20171129 0.253...	1.20e4	97.1	NO
5	5	13C9-PFNA	1701829-03 FT-DUP01-20171129 0.253...	1.16e4	96.4	NO
6	6	13C4-PFOS	1701829-03 FT-DUP01-20171129 0.253...	3.75e3	95.2	NO
7	7	13C6-PFDA	1701829-03 FT-DUP01-20171129 0.253...	8.31e3	82.0	NO
8	8	13C7-PFUdA	1701829-03 FT-DUP01-20171129 0.253...	1.22e4	93.5	NO

Name: 171227M2_46, Date: 28-Dec-2017, Time: 01:48:34, ID: 1701829-04 FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-04 FT-MW08I-20171129 0.2616	1.04e4	85.1	NO
2	2	13C5-PFHxA	1701829-04 FT-MW08I-20171129 0.2616	1.25e4	88.2	NO
3	3	13C3-PFHxS	1701829-04 FT-MW08I-20171129 0.2616	3.30e3	89.0	NO
4	4	13C8-PFOA	1701829-04 FT-MW08I-20171129 0.2616	1.27e4	102.1	NO
5	5	13C9-PFNA	1701829-04 FT-MW08I-20171129 0.2616	1.22e4	101.3	NO
6	6	13C4-PFOS	1701829-04 FT-MW08I-20171129 0.2616	3.44e3	87.2	NO
7	7	13C6-PFDA	1701829-04 FT-MW08I-20171129 0.2616	1.08e4	106.5	NO
8	8	13C7-PFUdA	1701829-04 FT-MW08I-20171129 0.2616	1.41e4	108.1	NO

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Name: 171227M2_47, Date: 28-Dec-2017, Time: 01:59:45, ID: 1701829-05 FT-MW01S-20171130 0.25312, Description: FT-MW01S-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-05 FT-MW01S-20171130 0.25...	9.49e3	77.8	NO
2	2	13C5-PFHxA	1701829-05 FT-MW01S-20171130 0.25...	1.07e4	75.4	NO
3	3	13C3-PFHxS	1701829-05 FT-MW01S-20171130 0.25...	3.43e3	92.5	NO
4	4	13C8-PFOA	1701829-05 FT-MW01S-20171130 0.25...	1.18e4	94.8	NO
5	5	13C9-PFNA	1701829-05 FT-MW01S-20171130 0.25...	1.08e4	90.1	NO
6	6	13C4-PFOS	1701829-05 FT-MW01S-20171130 0.25...	3.16e3	80.2	NO
7	7	13C6-PFDA	1701829-05 FT-MW01S-20171130 0.25...	9.70e3	95.7	NO
8	8	13C7-PFUdA	1701829-05 FT-MW01S-20171130 0.25...	1.15e4	88.0	NO

Name: 171227M2_48, Date: 28-Dec-2017, Time: 02:10:55, ID: 1701829-06 FT-MW02I-20171130 0.26433, Description: FT-MW02I-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-06 FT-MW02I-20171130 0.264...	9.91e3	81.3	NO
2	2	13C5-PFHxA	1701829-06 FT-MW02I-20171130 0.264...	1.38e4	97.3	NO
3	3	13C3-PFHxS	1701829-06 FT-MW02I-20171130 0.264...	3.86e3	104.0	NO
4	4	13C8-PFOA	1701829-06 FT-MW02I-20171130 0.264...	1.28e4	102.9	NO
5	5	13C9-PFNA	1701829-06 FT-MW02I-20171130 0.264...	1.36e4	112.8	NO
6	6	13C4-PFOS	1701829-06 FT-MW02I-20171130 0.264...	4.38e3	111.1	NO
7	7	13C6-PFDA	1701829-06 FT-MW02I-20171130 0.264...	1.41e4	139.2	NO
8	8	13C7-PFUdA	1701829-06 FT-MW02I-20171130 0.264...	1.14e4	87.2	NO

Name: 171227M2_49, Date: 28-Dec-2017, Time: 02:22:10, ID: 1701829-07 FT-MW01I-20171130 0.26191, Description: FT-MW01I-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-07 FT-MW01I-20171130 0.261...	8.36e3	68.5	NO
2	2	13C5-PFHxA	1701829-07 FT-MW01I-20171130 0.261...	9.58e3	67.5	NO
3	3	13C3-PFHxS	1701829-07 FT-MW01I-20171130 0.261...	3.79e3	102.3	NO
4	4	13C8-PFOA	1701829-07 FT-MW01I-20171130 0.261...	1.13e4	91.0	NO
5	5	13C9-PFNA	1701829-07 FT-MW01I-20171130 0.261...	8.52e3	70.9	NO
6	6	13C4-PFOS	1701829-07 FT-MW01I-20171130 0.261...	3.43e3	86.9	NO
7	7	13C6-PFDA	1701829-07 FT-MW01I-20171130 0.261...	1.11e4	109.7	NO
8	8	13C7-PFUdA	1701829-07 FT-MW01I-20171130 0.261...	1.02e4	78.0	NO

Name: 171227M2_50, Date: 28-Dec-2017, Time: 02:33:25, ID: 1701829-08 FT-DUP02-20171130 0.26709, Description: FT-DUP02-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-08 FT-DUP02-20171130 0.267...	2.28e4	187.1	YES
2	2	13C5-PFHxA	1701829-08 FT-DUP02-20171130 0.267...	3.01e4	212.1	YES
3	3	13C3-PFHxS	1701829-08 FT-DUP02-20171130 0.267...	8.75e3	235.9	YES
4	4	13C8-PFOA	1701829-08 FT-DUP02-20171130 0.267...	2.97e4	239.5	YES
5	5	13C9-PFNA	1701829-08 FT-DUP02-20171130 0.267...	2.52e4	210.0	YES
6	6	13C4-PFOS	1701829-08 FT-DUP02-20171130 0.267...	9.58e3	242.9	YES
7	7	13C6-PFDA	1701829-08 FT-DUP02-20171130 0.267...	2.50e4	246.9	YES
8	8	13C7-PFUdA	1701829-08 FT-DUP02-20171130 0.267...	3.14e4	240.2	YES

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Name: 171227M2_51, Date: 28-Dec-2017, Time: 02:44:36, ID: 1701829-09 FT-MW02S-20171130 0.25878, Description: FT-MW02S-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-09 FT-MW02S-20171130 0.25...	1.01e4	82.7	NO
2	2	13C5-PFHxA	1701829-09 FT-MW02S-20171130 0.25...	1.35e4	95.1	NO
3	3	13C3-PFHxS	1701829-09 FT-MW02S-20171130 0.25...	3.52e3	94.9	NO
4	4	13C8-PFOA	1701829-09 FT-MW02S-20171130 0.25...	1.29e4	103.5	NO
5	5	13C9-PFNA	1701829-09 FT-MW02S-20171130 0.25...	1.13e4	94.2	NO
6	6	13C4-PFOS	1701829-09 FT-MW02S-20171130 0.25...	3.93e3	99.7	NO
7	7	13C6-PFDA	1701829-09 FT-MW02S-20171130 0.25...	1.00e4	99.0	NO
8	8	13C7-PFUdA	1701829-09 FT-MW02S-20171130 0.25...	1.27e4	96.9	NO

Name: 171227M2_52, Date: 28-Dec-2017, Time: 02:55:47, ID: 1701829-10 FT-MW03S-20171130 0.26156, Description: FT-MW03S-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-10 FT-MW03S-20171130 0.26...	9.62e3	78.9	NO
2	2	13C5-PFHxA	1701829-10 FT-MW03S-20171130 0.26...	1.22e4	85.9	NO
3	3	13C3-PFHxS	1701829-10 FT-MW03S-20171130 0.26...	3.74e3	100.8	NO
4	4	13C8-PFOA	1701829-10 FT-MW03S-20171130 0.26...	1.31e4	105.8	NO
5	5	13C9-PFNA	1701829-10 FT-MW03S-20171130 0.26...	1.04e4	86.1	NO
6	6	13C4-PFOS	1701829-10 FT-MW03S-20171130 0.26...	3.34e3	84.8	NO
7	7	13C6-PFDA	1701829-10 FT-MW03S-20171130 0.26...	9.67e3	95.4	NO
8	8	13C7-PFUdA	1701829-10 FT-MW03S-20171130 0.26...	1.15e4	88.4	NO

Name: 171227M2_53, Date: 28-Dec-2017, Time: 03:06:58, ID: 1701829-11 FT-MW09I-20171130 0.25118, Description: FT-MW09I-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-11 FT-MW09I-20171130 0.251...	9.45e3	77.4	NO
2	2	13C5-PFHxA	1701829-11 FT-MW09I-20171130 0.251...	1.13e4	79.9	NO
3	3	13C3-PFHxS	1701829-11 FT-MW09I-20171130 0.251...	3.70e3	99.9	NO
4	4	13C8-PFOA	1701829-11 FT-MW09I-20171130 0.251...	1.07e4	86.5	NO
5	5	13C9-PFNA	1701829-11 FT-MW09I-20171130 0.251...	1.07e4	88.8	NO
6	6	13C4-PFOS	1701829-11 FT-MW09I-20171130 0.251...	3.49e3	88.6	NO
7	7	13C6-PFDA	1701829-11 FT-MW09I-20171130 0.251...	1.24e4	122.4	NO
8	8	13C7-PFUdA	1701829-11 FT-MW09I-20171130 0.251...	1.08e4	82.4	NO

Name: 171227M2_54, Date: 28-Dec-2017, Time: 03:18:08, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA	5.79e0	0.0	YES
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA	5.66e0	0.0	YES
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 171227M2_55, Date: 28-Dec-2017, Time: 03:29:19, ID: ST171227M2-12 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171227M2-12 PFC CS3 17L2611	1.21e4	99.6	NO
2	2	13C5-PFHxA	ST171227M2-12 PFC CS3 17L2611	1.40e4	98.8	NO
3	3	13C3-PFHxS	ST171227M2-12 PFC CS3 17L2611	3.63e3	97.8	NO
4	4	13C8-PFOA	ST171227M2-12 PFC CS3 17L2611	1.42e4	114.2	NO
5	5	13C9-PFNA	ST171227M2-12 PFC CS3 17L2611	1.40e4	116.5	NO
6	6	13C4-PFOS	ST171227M2-12 PFC CS3 17L2611	4.19e3	106.2	NO
7	7	13C6-PFDA	ST171227M2-12 PFC CS3 17L2611	1.31e4	129.3	NO
8	8	13C7-PFUdA	ST171227M2-12 PFC CS3 17L2611	1.47e4	112.8	NO

Name: 171227M2_56, Date: 28-Dec-2017, Time: 03:40:29, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171227M2_57, Date: 28-Dec-2017, Time: 03:51:40, ID: 1701829-12 FT-DUP03-20171130 0.24539, Description: FT-DUP03-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-12 FT-DUP03-20171130 0.245...	9.83e3	80.6	NO
2	2	13C5-PFHxA	1701829-12 FT-DUP03-20171130 0.245...	1.33e4	93.6	NO
3	3	13C3-PFHxS	1701829-12 FT-DUP03-20171130 0.245...	3.42e3	92.3	NO
4	4	13C8-PFOA	1701829-12 FT-DUP03-20171130 0.245...	1.21e4	97.1	NO
5	5	13C9-PFNA	1701829-12 FT-DUP03-20171130 0.245...	9.90e3	82.4	NO
6	6	13C4-PFOS	1701829-12 FT-DUP03-20171130 0.245...	3.81e3	96.6	NO
7	7	13C6-PFDA	1701829-12 FT-DUP03-20171130 0.245...	8.94e3	88.2	NO
8	8	13C7-PFUdA	1701829-12 FT-DUP03-20171130 0.245...	1.05e4	80.4	NO

Name: 171227M2_58, Date: 28-Dec-2017, Time: 04:02:51, ID: 1701829-13 FT-MW05I-20171130 0.25874, Description: FT-MW05I-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-13 FT-MW05I-20171130 0.258...	9.43e3	77.3	NO
2	2	13C5-PFHxA	1701829-13 FT-MW05I-20171130 0.258...	1.26e4	89.1	NO
3	3	13C3-PFHxS	1701829-13 FT-MW05I-20171130 0.258...	3.24e3	87.3	NO
4	4	13C8-PFOA	1701829-13 FT-MW05I-20171130 0.258...	1.14e4	91.9	NO
5	5	13C9-PFNA	1701829-13 FT-MW05I-20171130 0.258...	1.15e4	95.2	NO
6	6	13C4-PFOS	1701829-13 FT-MW05I-20171130 0.258...	3.70e3	93.8	NO
7	7	13C6-PFDA	1701829-13 FT-MW05I-20171130 0.258...	9.22e3	91.0	NO
8	8	13C7-PFUdA	1701829-13 FT-MW05I-20171130 0.258...	1.28e4	97.7	NO

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Name: 171227M2_59, Date: 28-Dec-2017, Time: 04:14:01, ID: 1701829-14 FT-MW07S-20171130 0.26174, Description: FT-MW07S-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-14 FT-MW07S-20171130 0.26...	9.96e3	81.7	NO
2	2	13C5-PFHxA	1701829-14 FT-MW07S-20171130 0.26...	1.35e4	95.3	NO
3	3	13C3-PFHxS	1701829-14 FT-MW07S-20171130 0.26...	3.70e3	99.9	NO
4	4	13C8-PFOA	1701829-14 FT-MW07S-20171130 0.26...	1.16e4	93.8	NO
5	5	13C9-PFNA	1701829-14 FT-MW07S-20171130 0.26...	1.00e4	83.4	NO
6	6	13C4-PFOS	1701829-14 FT-MW07S-20171130 0.26...	3.83e3	97.3	NO
7	7	13C6-PFDA	1701829-14 FT-MW07S-20171130 0.26...	9.19e3	90.7	NO
8	8	13C7-PFUdA	1701829-14 FT-MW07S-20171130 0.26...	1.29e4	98.7	NO

Name: 171227M2_60, Date: 28-Dec-2017, Time: 04:25:12, ID: 1701829-15 FT-MW05S-20171130 0.25681, Description: FT-MW05S-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-15 FT-MW05S-20171130 0.25...	9.70e3	79.5	NO
2	2	13C5-PFHxA	1701829-15 FT-MW05S-20171130 0.25...	1.33e4	93.4	NO
3	3	13C3-PFHxS	1701829-15 FT-MW05S-20171130 0.25...	3.22e3	86.8	NO
4	4	13C8-PFOA	1701829-15 FT-MW05S-20171130 0.25...	1.24e4	99.8	NO
5	5	13C9-PFNA	1701829-15 FT-MW05S-20171130 0.25...	1.22e4	101.3	NO
6	6	13C4-PFOS	1701829-15 FT-MW05S-20171130 0.25...	4.15e3	105.3	NO
7	7	13C6-PFDA	1701829-15 FT-MW05S-20171130 0.25...	9.87e3	97.4	NO
8	8	13C7-PFUdA	1701829-15 FT-MW05S-20171130 0.25...	1.16e4	88.8	NO

Name: 171227M2_61, Date: 28-Dec-2017, Time: 04:36:24, ID: 1701829-16 FT-MW06I-20171130 0.24988, Description: FT-MW06I-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-16 FT-MW06I-20171130 0.249...	9.43e3	77.3	NO
2	2	13C5-PFHxA	1701829-16 FT-MW06I-20171130 0.249...	1.29e4	90.9	NO
3	3	13C3-PFHxS	1701829-16 FT-MW06I-20171130 0.249...	3.53e3	95.2	NO
4	4	13C8-PFOA	1701829-16 FT-MW06I-20171130 0.249...	1.15e4	92.4	NO
5	5	13C9-PFNA	1701829-16 FT-MW06I-20171130 0.249...	1.40e4	116.1	NO
6	6	13C4-PFOS	1701829-16 FT-MW06I-20171130 0.249...	3.33e3	84.4	NO
7	7	13C6-PFDA	1701829-16 FT-MW06I-20171130 0.249...	1.24e4	122.3	NO
8	8	13C7-PFUdA	1701829-16 FT-MW06I-20171130 0.249...	1.27e4	97.0	NO

Name: 171227M2_62, Date: 28-Dec-2017, Time: 04:47:35, ID: 1701829-17 FT-MW06I-FRB-20171130 0.26856, Description: FT-MW06I-FRB-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-17 FT-MW06I-FRB-20171130 ...	8.46e3	69.3	NO
2	2	13C5-PFHxA	1701829-17 FT-MW06I-FRB-20171130 ...	1.14e4	80.1	NO
3	3	13C3-PFHxS	1701829-17 FT-MW06I-FRB-20171130 ...	3.75e3	101.1	NO
4	4	13C8-PFOA	1701829-17 FT-MW06I-FRB-20171130 ...	1.15e4	92.7	NO
5	5	13C9-PFNA	1701829-17 FT-MW06I-FRB-20171130 ...	1.02e4	85.2	NO
6	6	13C4-PFOS	1701829-17 FT-MW06I-FRB-20171130 ...	3.77e3	95.7	NO
7	7	13C6-PFDA	1701829-17 FT-MW06I-FRB-20171130 ...	1.10e4	108.5	NO
8	8	13C7-PFUdA	1701829-17 FT-MW06I-FRB-20171130 ...	1.25e4	95.5	NO

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Name: 171227M2_63, Date: 28-Dec-2017, Time: 04:58:45, ID: 1701829-18 FT-MW10I-20171130 0.25296, Description: FT-MW10I-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-18 FT-MW10I-20171130 0.252...	9.40e3	77.1	NO
2	2	13C5-PFHxA	1701829-18 FT-MW10I-20171130 0.252...	1.17e4	82.6	NO
3	3	13C3-PFHxS	1701829-18 FT-MW10I-20171130 0.252...	3.56e3	96.0	NO
4	4	13C8-PFOA	1701829-18 FT-MW10I-20171130 0.252...	1.03e4	82.8	NO
5	5	13C9-PFNA	1701829-18 FT-MW10I-20171130 0.252...	8.46e3	70.4	NO
6	6	13C4-PFOS	1701829-18 FT-MW10I-20171130 0.252...	2.68e3	67.9	NO
7	7	13C6-PFDA	1701829-18 FT-MW10I-20171130 0.252...	8.36e3	82.6	NO
8	8	13C7-PFUdA	1701829-18 FT-MW10I-20171130 0.252...	1.03e4	79.0	NO

Name: 171227M2_64, Date: 28-Dec-2017, Time: 05:09:56, ID: 1701829-19 FT-MW06S-20171130 0.2522, Description: FT-MW06S-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-19 FT-MW06S-20171130 0.25...	9.79e3	80.2	NO
2	2	13C5-PFHxA	1701829-19 FT-MW06S-20171130 0.25...	1.30e4	91.7	NO
3	3	13C3-PFHxS	1701829-19 FT-MW06S-20171130 0.25...	3.27e3	88.1	NO
4	4	13C8-PFOA	1701829-19 FT-MW06S-20171130 0.25...	1.23e4	99.0	NO
5	5	13C9-PFNA	1701829-19 FT-MW06S-20171130 0.25...	9.88e3	82.2	NO
6	6	13C4-PFOS	1701829-19 FT-MW06S-20171130 0.25...	2.87e3	72.8	NO
7	7	13C6-PFDA	1701829-19 FT-MW06S-20171130 0.25...	1.19e4	117.9	NO
8	8	13C7-PFUdA	1701829-19 FT-MW06S-20171130 0.25...	1.24e4	95.2	NO

Name: 171227M2_65, Date: 28-Dec-2017, Time: 05:21:07, ID: 1701829-20 FT-EB01-20171130 0.25976, Description: FT-EB01-20171130

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-20 FT-EB01-20171130 0.25976	9.47e3	77.6	NO
2	2	13C5-PFHxA	1701829-20 FT-EB01-20171130 0.25976	1.17e4	82.4	NO
3	3	13C3-PFHxS	1701829-20 FT-EB01-20171130 0.25976	3.82e3	102.9	NO
4	4	13C8-PFOA	1701829-20 FT-EB01-20171130 0.25976	1.27e4	102.0	NO
5	5	13C9-PFNA	1701829-20 FT-EB01-20171130 0.25976	1.41e4	117.5	NO
6	6	13C4-PFOS	1701829-20 FT-EB01-20171130 0.25976	3.68e3	93.4	NO
7	7	13C6-PFDA	1701829-20 FT-EB01-20171130 0.25976	9.99e3	98.6	NO
8	8	13C7-PFUdA	1701829-20 FT-EB01-20171130 0.25976	1.53e4	117.4	NO

Name: 171227M2_66, Date: 28-Dec-2017, Time: 05:32:17, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA	7.83e0	0.1	YES
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA	5.72e0	0.1	YES
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 171227M2_67, Date: 28-Dec-2017, Time: 05:43:28, ID: ST171227M2-13 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171227M2-13 PFC CS3 17L2611	1.31e4	107.4	NO
2	2	13C5-PFHxA	ST171227M2-13 PFC CS3 17L2611	1.40e4	98.3	NO
3	3	13C3-PFHxS	ST171227M2-13 PFC CS3 17L2611	3.65e3	98.5	NO
4	4	13C8-PFOA	ST171227M2-13 PFC CS3 17L2611	1.30e4	105.0	NO
5	5	13C9-PFNA	ST171227M2-13 PFC CS3 17L2611	1.23e4	102.7	NO
6	6	13C4-PFOS	ST171227M2-13 PFC CS3 17L2611	3.64e3	92.4	NO
7	7	13C6-PFDA	ST171227M2-13 PFC CS3 17L2611	1.20e4	118.8	NO
8	8	13C7-PFUdA	ST171227M2-13 PFC CS3 17L2611	1.32e4	100.9	NO

Name: 171227M2_68, Date: 28-Dec-2017, Time: 05:54:39, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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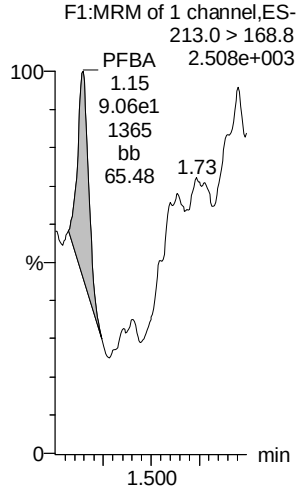
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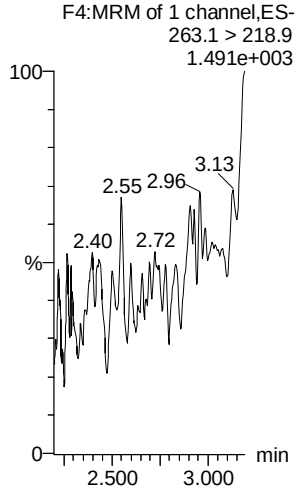
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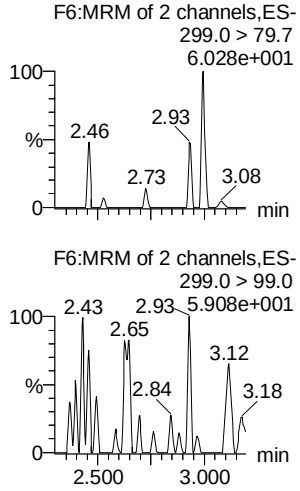
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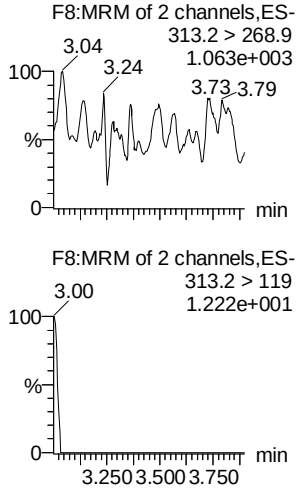
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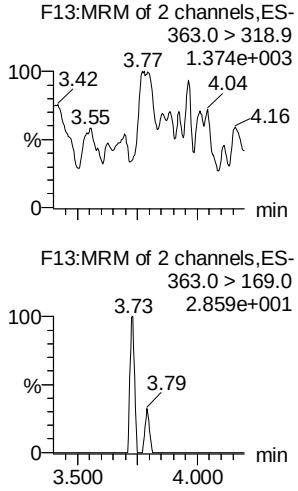
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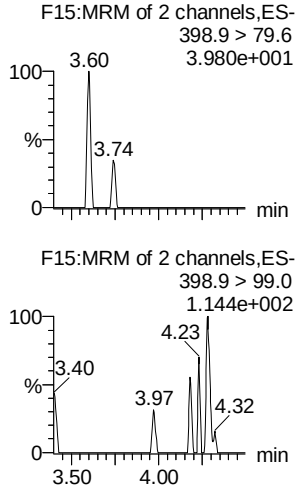
PFHxA



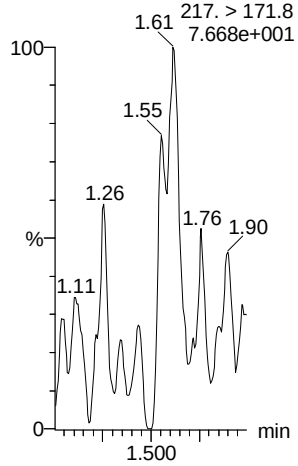
PFHpA



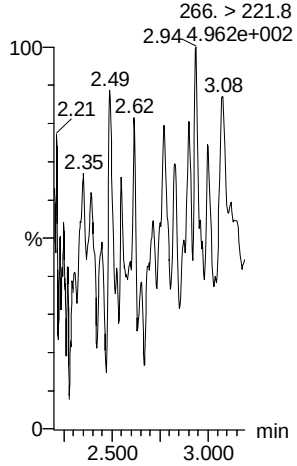
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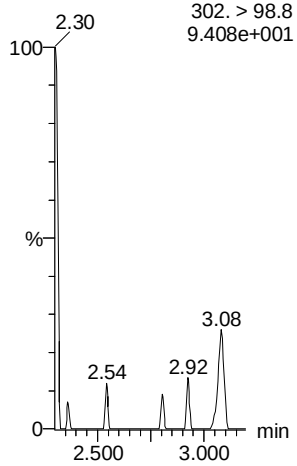
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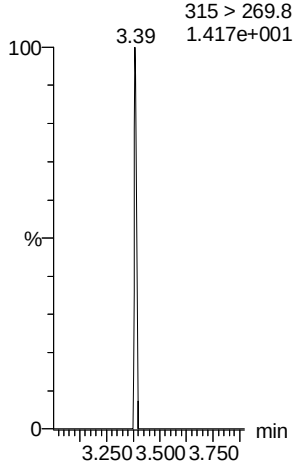
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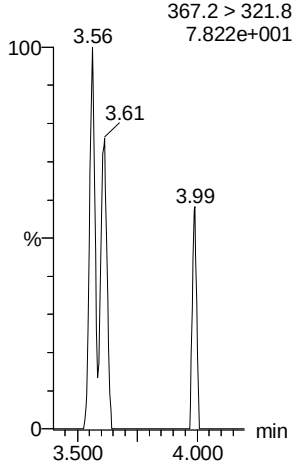
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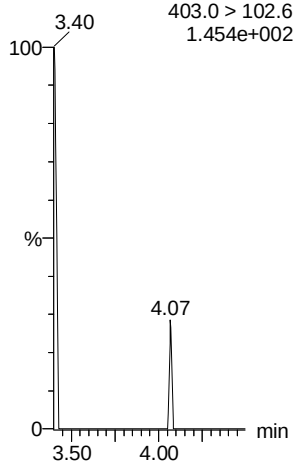
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13C4-PFHpA



18O2-PFHxS



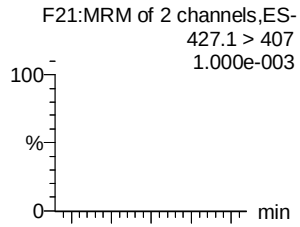
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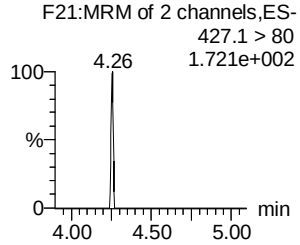
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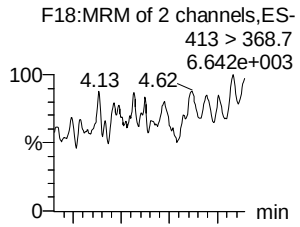
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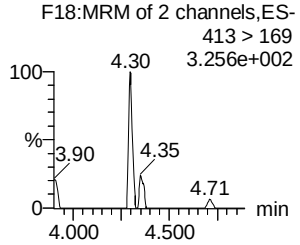
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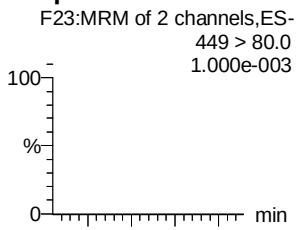


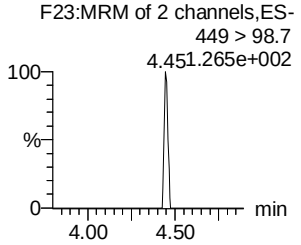
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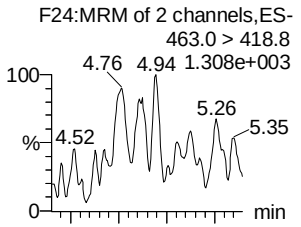


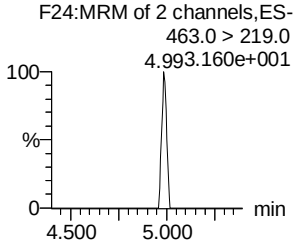
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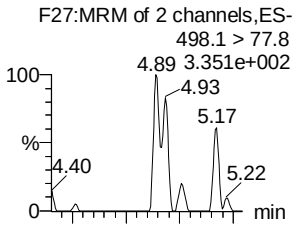


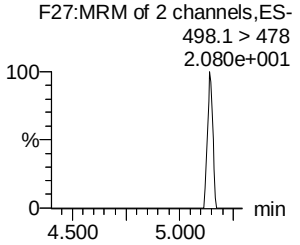
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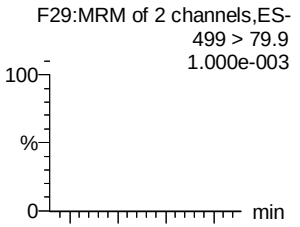


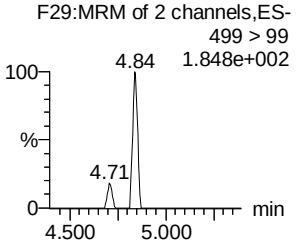
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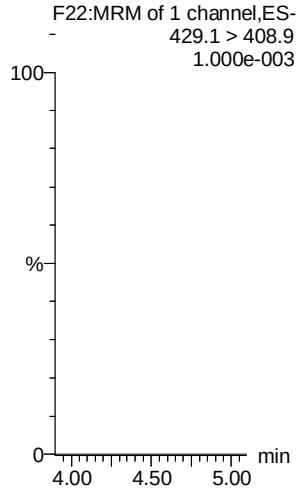


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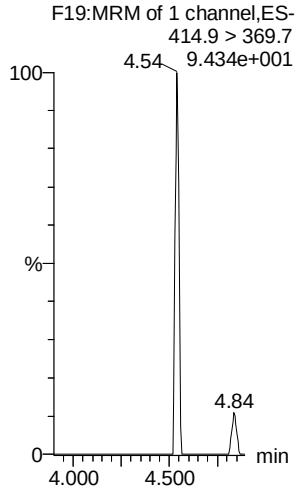




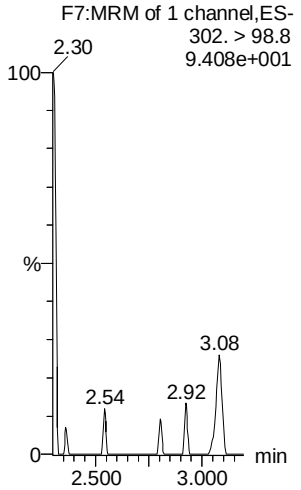
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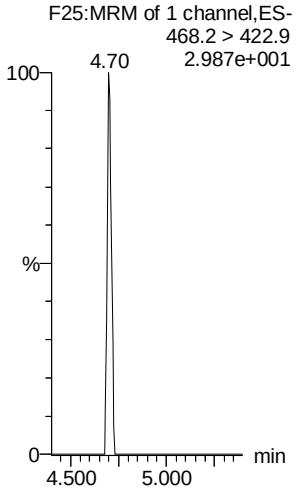
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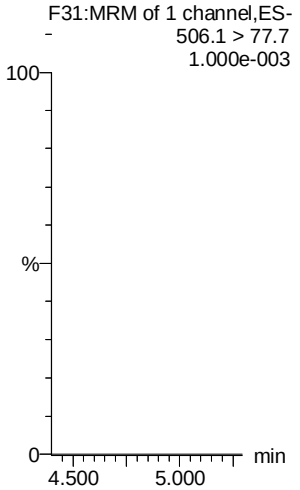
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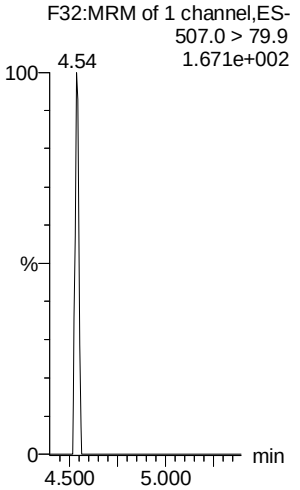
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13C8-PFOSA



13C8-PFOS



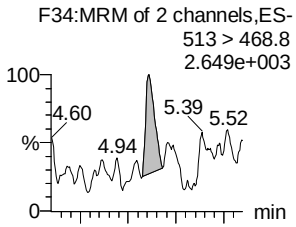
AC 12/28/17

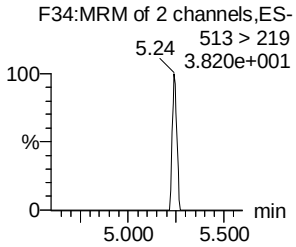
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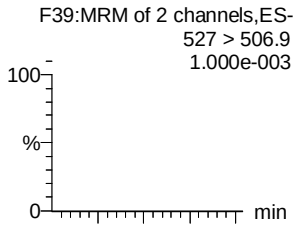
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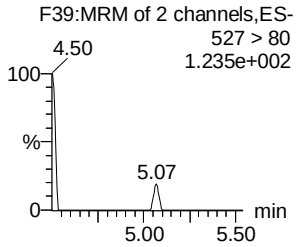
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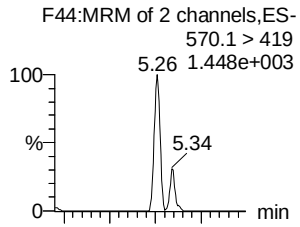


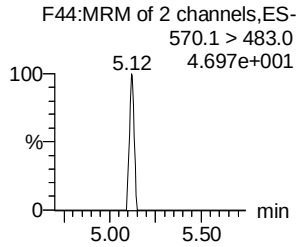
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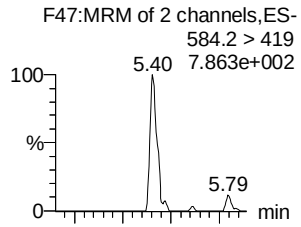


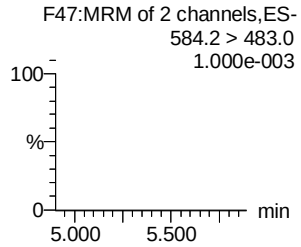
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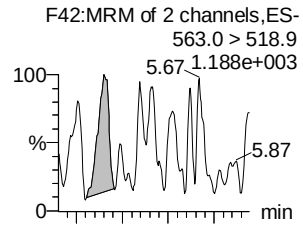


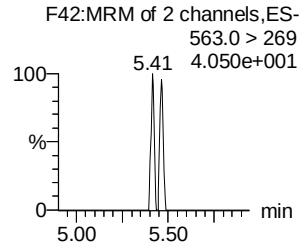
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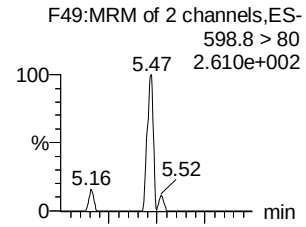


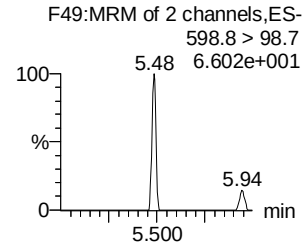
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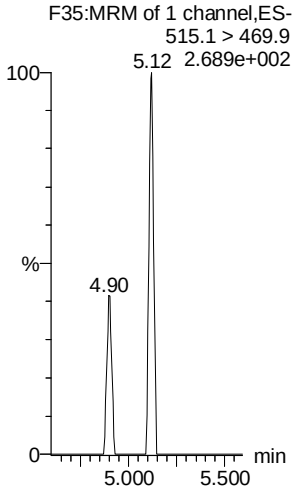


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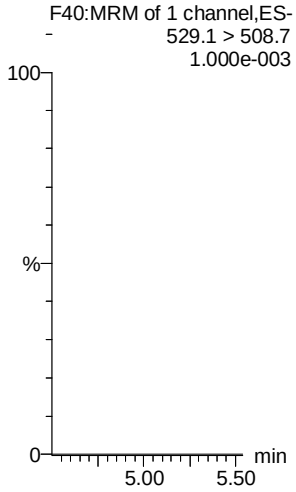




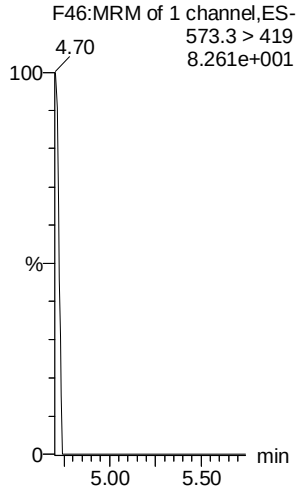
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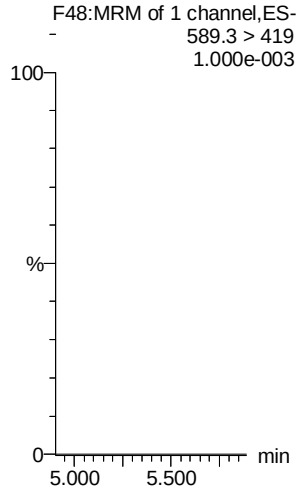
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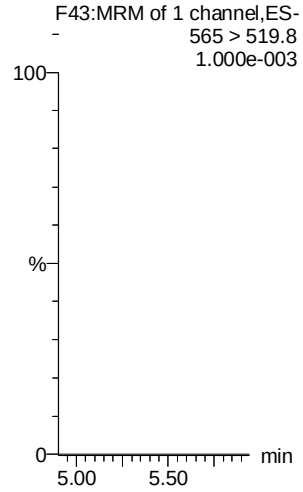
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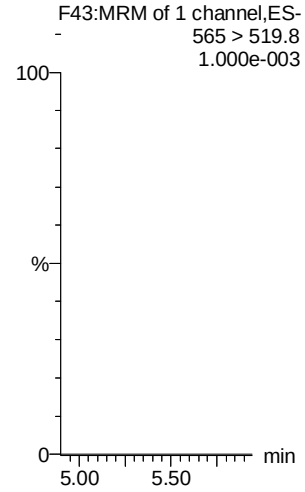
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13C2-PFUdA



13C2-PFUdA



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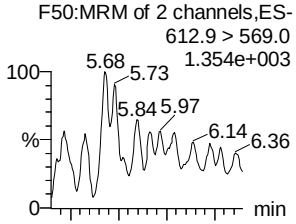
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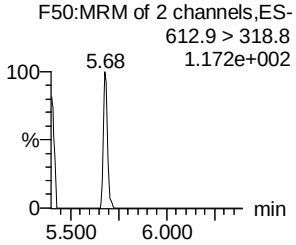
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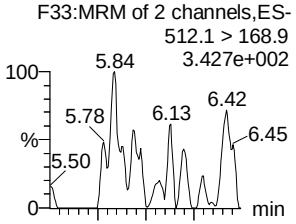
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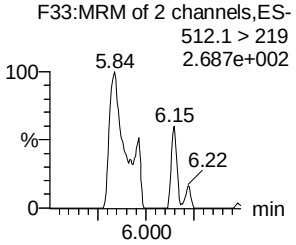
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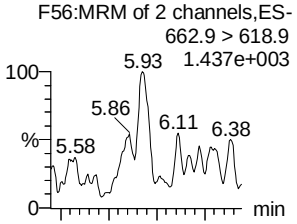


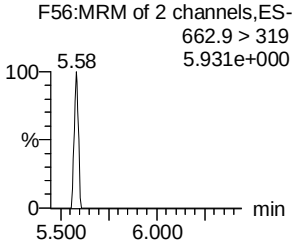
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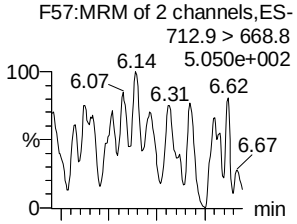


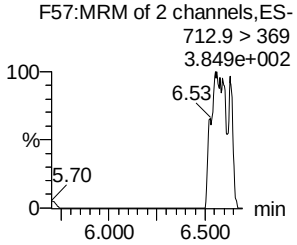
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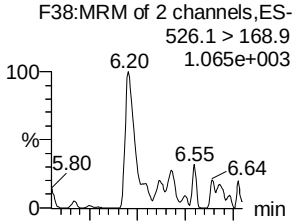


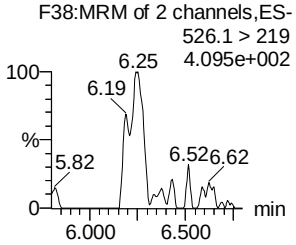
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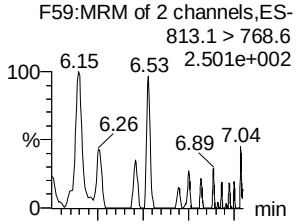


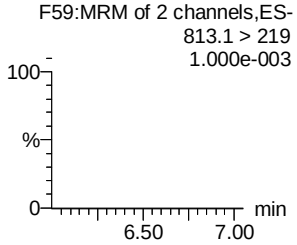
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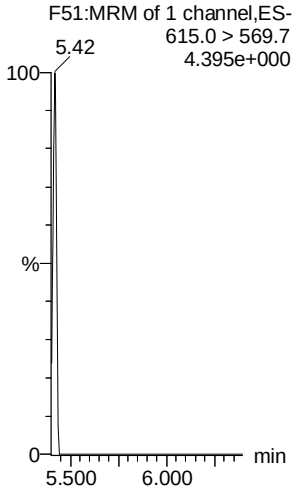


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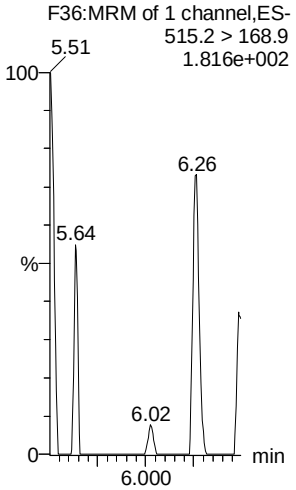




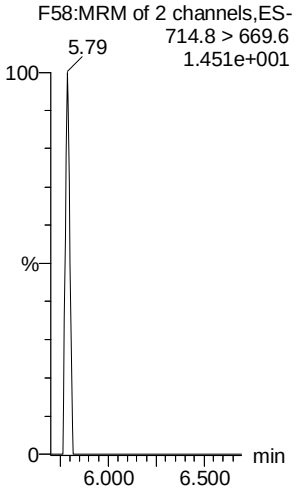
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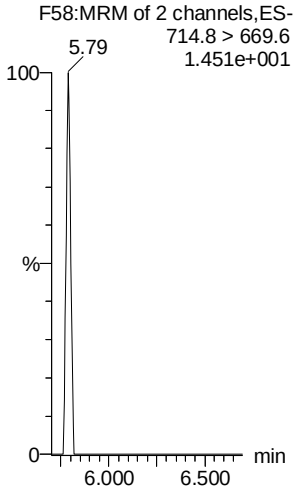
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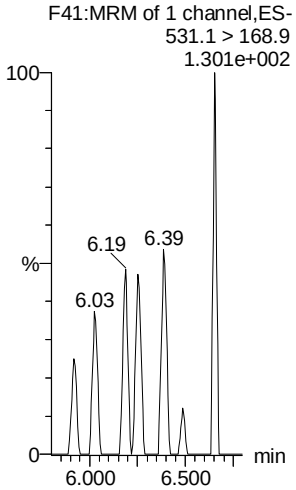
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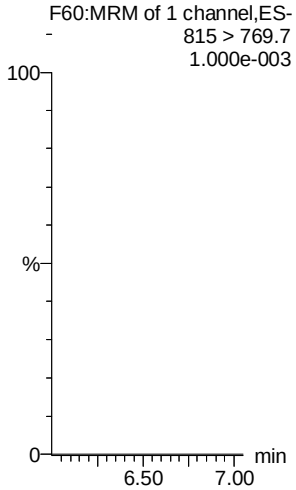
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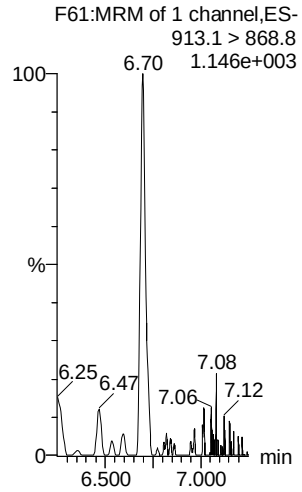
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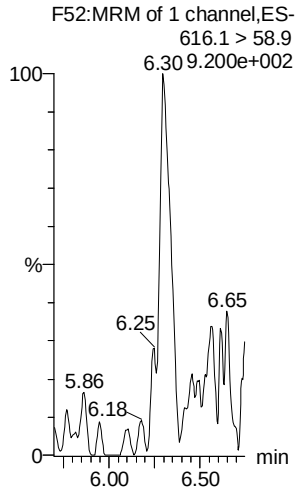
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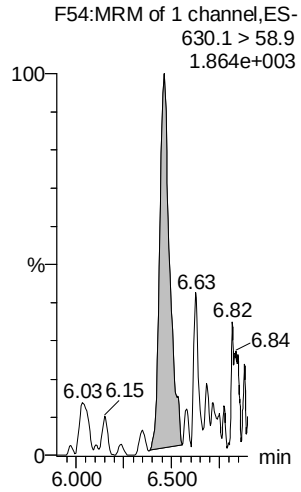
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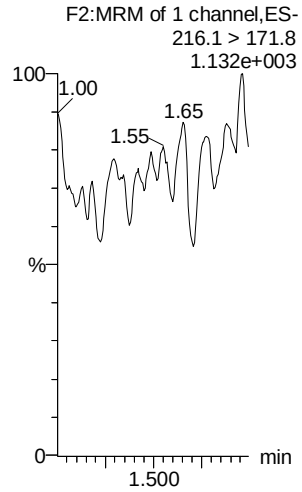
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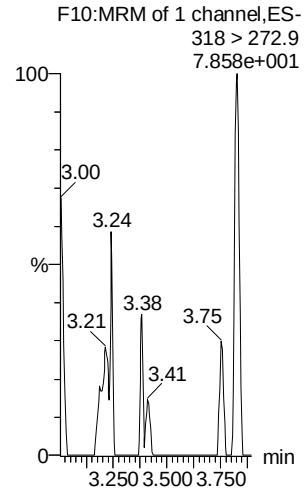
N-EtFOSE



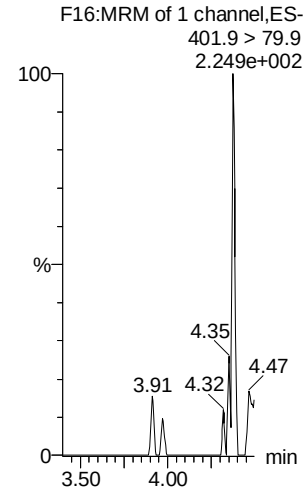
13C4-PFBA



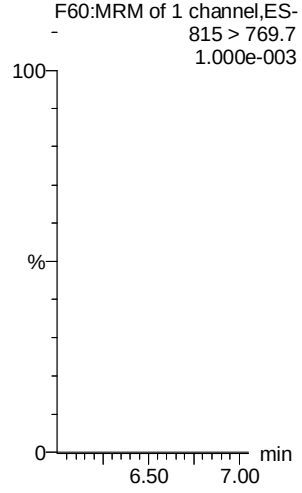
13C5-PFHxA



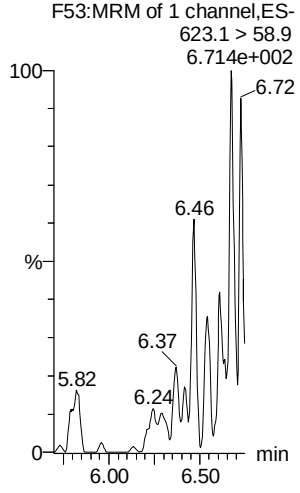
13C3-PFHxS



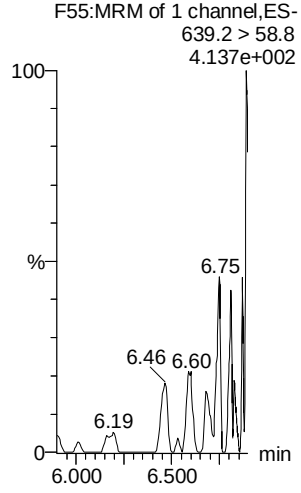
13C2-PFHxDA



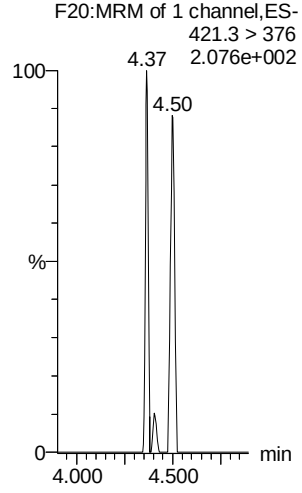
d7-N-MeFOSE



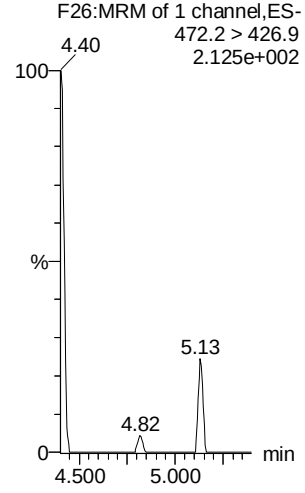
d9-N-EtFOSE



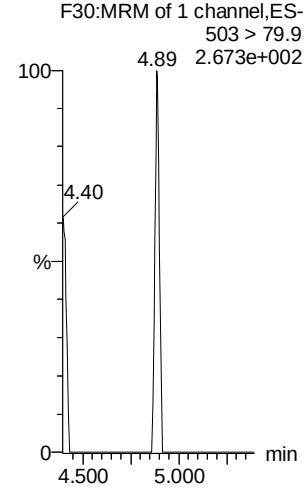
13C8-PFOA



13C9-PFNA



13C4-PFOS



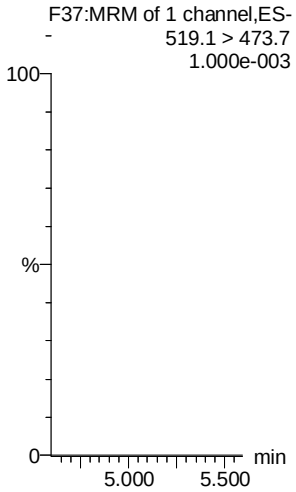
AC 12/28/17

Dataset: U:\Q4.PRO\results\171227M2\171227M2-12.qld

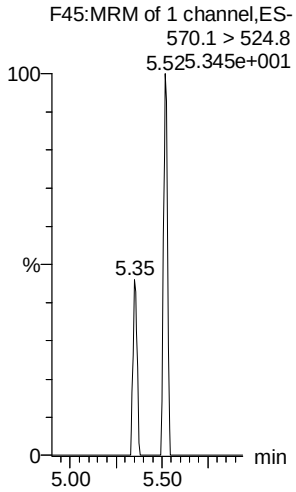
Last Altered: Thursday, December 28, 2017 11:43:38 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:44:00 Pacific Standard Time

Name: 171227M2_12, Date: 27-Dec-2017, Time: 19:28:28, ID: IPA, Description: IPA

13C6-PFDA



13C7-PFUdA



AC 12/28/17

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Dataset: U:\Q4.PRO\results\171227M2\171227M2-41.qld

Last Altered: Thursday, December 28, 2017 12:13:28 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:14:36 Pacific Standard Time

AC 12/28/17

✓ JA. 12/28/2017

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 28 Dec 2017 11:43:33
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_41, Date: 28-Dec-2017, Time: 00:52:40, ID: ST171227M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	1.10e4	9.51e3	1.0000		1.47	1.53	14.4	10.233	102.3
2	2	PFPeA	263.1 > 218.9	1.19e4	1.14e4	1.0000		2.44	2.48	13.1	11.102	111.0
3	3	PFBS	299.0 > 79.7	2.77e3	1.42e3	1.0000		2.70	2.75	24.3	10.252	102.5
4	4	PFHxA	313.2 > 268.9	1.39e4	3.79e3	1.0000		3.20	3.24	18.3	9.009	90.1
5	5	PFHpA	363.0 > 318.9	1.44e4	9.60e3	1.0000		3.80	3.84	18.8	11.446	114.5
6	6	L-PFHxS	398.9 > 79.6	2.12e3	1.11e3	1.0000		3.95	3.98	23.9	11.197	112.0
7	8	6:2 FTS	427.1 > 407	3.16e3	1.47e4	1.0000		4.26	4.29	2.69	11.723	117.2
8	9	L-PFOA	413 > 368.7	1.49e4	1.47e4	1.0000		4.32	4.34	12.7	9.980	99.8
9	11	PFHpS	449 > 80.0	3.07e3	1.47e4	1.0000		4.43	4.44	2.62	8.911	89.1
10	12	PFNA	463.0 > 418.8	1.45e4	1.37e4	1.0000		4.75	4.76	13.2	8.609	86.1
11	13	PFOSA	498.1 > 77.8	2.76e3	2.59e3	1.0000		4.81	4.84	13.3	10.648	106.5
12	14	L-PFOS	499 > 79.9	3.16e3	3.17e3	1.0000		4.83	4.84	12.5	10.077	100.8
13	16	PFDA	513 > 468.8	1.52e4	1.05e4	1.0000		5.11	5.12	18.1	12.168	121.7
14	17	8:2 FTS	527 > 506.9	3.01e3	1.05e4	1.0000		5.09	5.10	3.60	10.689	106.9
15	18	N-MeFOSAA	570.1 > 419	6.94e3	5.37e3	1.0000		5.26	5.27	16.1	9.581	95.8
16	19	N-EtFOSAA	584.2 > 419	5.17e3	6.19e3	1.0000		5.42	5.42	10.4	8.677	86.8
17	20	PFUdA	563.0 > 518.9	1.21e4	1.17e4	1.0000		5.43	5.44	12.9	12.516	125.2
18	21	PFDS	598.8 > 80	3.40e3	1.17e4	1.0000		5.50	5.48	3.62	11.401	114.0
19	22	PFDoA	612.9 > 569.0	1.29e4	9.40e3	1.0000		5.70	5.71	17.2	9.757	97.6
20	23	N-MeFOSA	512.1 > 168.9	7.51e3	1.85e4	1.0000		5.77	5.87	60.8	53.734	107.5
21	24	PFTrDA	662.9 > 618.9	1.15e4	9.40e3	1.0000		5.95	5.95	15.2	9.310	93.1
22	25	PFTeDA	712.9 > 668.8	6.93e3	3.02e3	1.0000		6.16	6.16	28.7	10.654	106.5
23	26	N-EtFOSA	526.1 > 168.9	1.01e4	2.84e4	1.0000		6.15	6.23	53.5	50.666	101.3
24	27	PFHxDA	813.1 > 768.6	4.16e3	2.30e3	1.0000		6.48	6.48	9.06	9.987	99.9
25	28	PFODA	913.1 > 868.8	6.75e3	2.30e3	1.0000		6.70	6.70	14.7	10.483	104.8
26	29	N-MeFOSE	616.1 > 58.9	9.20e3	2.57e4	1.0000		6.30	6.32	53.7	44.436	88.9
27	30	N-EtFOSE	630.1 > 58.9	1.25e4	2.47e4	1.0000		6.42	6.47	76.1	57.420	114.8
28	31	13C4-PFBA	216.1 > 171.8	9.51e3	1.25e4	1.0000	1.000	1.47	1.52	9.53	9.530	76.2
29	32	13C3-PFPeA	266. > 221.8	1.14e4	1.64e4	1.0000	0.747	2.44	2.48	8.64	11.560	92.5
30	33	13C3-PFBS	302. > 98.8	1.42e3	1.64e4	1.0000	0.101	2.70	2.75	1.08	10.679	85.4
31	34	13C2-PFHxA	315 > 269.8	3.79e3	1.64e4	1.0000	0.601	3.20	3.24	2.88	4.799	96.0

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Dataset: U:\Q4.PRO\results\171227M2\171227M2-41.qld

Last Altered: Thursday, December 28, 2017 12:13:28 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:14:36 Pacific Standard Time

Name: 171227M2_41, Date: 28-Dec-2017, Time: 00:52:40, ID: ST171227M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	9.60e3	1.64e4	1.0000	0.676	3.80	3.84	7.30	10.788	86.3
33	36	18O2-PFHxS	403.0 > 102.6	1.11e3	3.53e3	1.0000	0.347	3.95	3.98	3.93	11.343	90.7
34	37	13C2-6:2 FTS	429.1 > 408.9	3.08e3	1.33e4	1.0000	0.210	4.26	4.29	2.90	13.824	110.6
35	38	13C2-PFOA	414.9 > 369.7	1.47e4	1.33e4	1.0000	0.990	4.32	4.34	13.8	13.944	111.6
36	39	13C5-PFNA	468.2 > 422.9	1.37e4	1.28e4	1.0000	0.845	4.75	4.76	13.3	15.788	126.3
37	40	13C8-PFOSA	506.1 > 77.7	2.59e3	1.45e4	1.0000	0.199	4.81	4.83	2.24	11.204	89.6
38	41	13C8-PFOS	507.0 > 79.9	3.17e3	3.69e3	1.0000	0.865	4.83	4.84	10.7	12.388	99.1
39	42	13C2-PFDA	515.1 > 469.9	1.05e4	1.35e4	1.0000	0.886	5.11	5.12	9.73	10.977	87.8
40	43	13C2-8:2 FTS	529.1 > 508.7	1.83e3	1.64e4	1.0000	0.136	5.09	5.10	1.39	10.264	82.1
41	44	d3-N-MeFOSAA	573.3 > 419	5.37e3	1.45e4	1.0000	0.409	5.26	5.27	4.63	11.320	90.6
42	45	d5-N-EtFOSAA	589.3 > 419	6.19e3	1.45e4	1.0000	0.474	5.42	5.42	5.33	11.260	90.1
43	46	13C2-PFUdA	565 > 519.8	1.17e4	1.45e4	1.0000	0.928	5.43	5.44	10.1	10.880	87.0
44	47	13C2-PFDoA	615.0 > 569.7	9.40e3	1.45e4	1.0000	0.636	5.70	5.71	8.10	12.735	101.9
45	48	d3-N-MeFOSA	515.2 > 168.9	1.85e4	1.45e4	1.0000	0.112	5.80	5.89	16.0	143.166	95.4
46	49	13C2-PFTeDA	714.8 > 669.6	3.02e3	1.45e4	1.0000	0.163	6.16	6.16	2.60	15.976	127.8
47	50	d5-N-ETFOSA	531.1 > 168.9	2.84e4	1.45e4	1.0000	0.170	6.16	6.24	24.5	144.388	96.3
48	51	13C2-PFHxDA	815 > 769.7	2.30e3	1.45e4	1.0000	0.394	6.48	6.48	1.98	5.028	100.6
49	52	d7-N-MeFOSE	623.1 > 58.9	2.57e4	1.45e4	1.0000	0.148	6.30	6.31	22.1	148.968	99.3
50	53	d9-N-EtFOSE	639.2 > 58.8	2.47e4	1.45e4	1.0000	0.154	6.42	6.46	21.3	138.073	92.0
51	54	13C3-PFBA	217. > 171.8	1.25e4	1.25e4	1.0000		1.47	1.52	12.5		
52	55	13C5-PFHxA	318 > 272.9	1.64e4	1.64e4	1.0000	1.000	3.20	3.24	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.53e3	3.53e3	1.0000	1.000	3.95	3.98	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.33e4	1.33e4	1.0000	1.000	4.32	4.34	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.28e4	1.28e4	1.0000	1.000	4.75	4.76	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	3.69e3	3.69e3	1.0000	1.000	4.83	4.84	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.35e4	1.35e4	1.0000	1.000	5.11	5.12	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.45e4	1.45e4	1.0000	1.000	5.43	5.44	12.5	12.500	100.0

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Dataset: Untitled

Last Altered: Thursday, December 28, 2017 12:53:47 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:55:40 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 28 Dec 2017 11:43:33
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171227M2_1	IPA	27-Dec-17	17:25:22
2	171227M2_2	ST171227M2-1 PFC CS-2 17L2606	27-Dec-17	17:36:41
3	171227M2_3	ST171227M2-2 PFC CS-1 17L2607	27-Dec-17	17:47:52
4	171227M2_4	ST171227M2-3 PFC CS0 17L2608	27-Dec-17	17:59:02
5	171227M2_5	ST171227M2-4 PFC CS1 17L2609	27-Dec-17	18:10:13
6	171227M2_6	ST171227M2-5 PFC CS2 17L2610	27-Dec-17	18:21:24
7	171227M2_7	ST171227M2-6 PFC CS3 17L2611	27-Dec-17	18:32:34
8	171227M2_8	ST171227M2-7 PFC CS4 17L2612	27-Dec-17	18:43:45
9	171227M2_9	ST171227M2-8 PFC CS5 17L2613	27-Dec-17	18:54:55
10	171227M2_10	ST171227M2-9 PFC CS6 17L2710	27-Dec-17	19:06:06
11	171227M2_11	ST171227M2-10 PFC CS7 17L1804	27-Dec-17	19:17:17
12	171227M2_12	IPA	27-Dec-17	19:28:28
13	171227M2_13	ICV171227M2-1 PFC ICV 17L2605	27-Dec-17	19:39:38
14	171227M2_14	IPA	27-Dec-17	19:50:49
15	171227M2_15	1701845-16 Pier D 0.25847	27-Dec-17	20:02:00
16	171227M2_16	1701845-17 BD-1 0.26049	27-Dec-17	20:13:10
17	171227M2_17	B7L0120-BS1 OPR 0.25	27-Dec-17	20:24:22
18	171227M2_18	B7L0120-BSD1 LCSD 0.25	27-Dec-17	20:35:32
19	171227M2_19	IPA	27-Dec-17	20:46:43
20	171227M2_20	B7L0120-BLK1 Method Blank 0.25	27-Dec-17	20:57:53
21	171227M2_21	1701955-01 WR1712141615JLB 0.27017	27-Dec-17	21:09:04
22	171227M2_22	B7L0092-BS1 OPR 1	27-Dec-17	21:20:15
23	171227M2_23	B7L0092-BLK1 Method Blank 1	27-Dec-17	21:31:25
24	171227M2_24	B7L0092-MS1 Matrix Spike 16.49	27-Dec-17	21:42:36
25	171227M2_25	B7L0092-MSD1 Matrix Spike Dup 16.11	27-Dec-17	21:53:47
26	171227M2_26	1701841-01 OF-SLG01-1217 17.61	27-Dec-17	22:04:58
27	171227M2_27	1701841-02 OF-SLG02-1217 10.1	27-Dec-17	22:16:08
28	171227M2_28	1701841-03 OF-SLG02P-1217 6.48	27-Dec-17	22:27:19
29	171227M2_29	1701841-04 OF-SLG03-1217 11.57	27-Dec-17	22:38:30
30	171227M2_30	1701841-05 OF-SLG04-1217 5.07	27-Dec-17	22:49:41
31	171227M2_31	1701866-01 Soil-B101A 1.62	27-Dec-17	23:00:51

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Dataset: Untitled

Last Altered: Thursday, December 28, 2017 12:53:47 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:55:40 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	171227M2_32	IPA	27-Dec-17	23:12:02
33	171227M2_33	B7L0073-BS1 OPR 0.125	27-Dec-17	23:23:12
34	171227M2_34	IPA	27-Dec-17	23:34:23
35	171227M2_35	B7L0073-BLK1 Method Blank 0.125	27-Dec-17	23:45:34
36	171227M2_36	B7L0073-MS1 Matrix Spike 0.24032	27-Dec-17	23:56:45
37	171227M2_37	B7L0073-MSD1 Matrix Spike Dup 0.25539	28-Dec-17	00:07:55
38	171227M2_38	B7L0073-MSD2 Matrix Spike Dup 0.25853	28-Dec-17	00:19:08
39	171227M2_39	B7L0073-MS2 Matrix Spike 0.2584	28-Dec-17	00:30:19
40	171227M2_40	IPA	28-Dec-17	00:41:30
41	171227M2_41	ST171227M2-11 PFC CS3 17L2611	28-Dec-17	00:52:40
42	171227M2_42	IPA	28-Dec-17	01:03:51
43	171227M2_43	1701829-01 FT-MW08S-20171129 0.26507	28-Dec-17	01:15:02
44	171227M2_44	1701829-02 FT-MW08S-FRB-20171129 0.267...	28-Dec-17	01:26:13
45	171227M2_45	1701829-03 FT-DUP01-20171129 0.25365	28-Dec-17	01:37:23
46	171227M2_46	1701829-04 FT-MW08I-20171129 0.2616	28-Dec-17	01:48:34
47	171227M2_47	1701829-05 FT-MW01S-20171130 0.25312	28-Dec-17	01:59:45
48	171227M2_48	1701829-06 FT-MW02I-20171130 0.26433	28-Dec-17	02:10:55
49	171227M2_49	1701829-07 FT-MW01I-20171130 0.26191	28-Dec-17	02:22:10
50	171227M2_50	1701829-08 FT-DUP02-20171130 0.26709	28-Dec-17	02:33:25
51	171227M2_51	1701829-09 FT-MW02S-20171130 0.25878	28-Dec-17	02:44:36
52	171227M2_52	1701829-10 FT-MW03S-20171130 0.26156	28-Dec-17	02:55:47
53	171227M2_53	1701829-11 FT-MW09I-20171130 0.25118	28-Dec-17	03:06:58
54	171227M2_54	IPA	28-Dec-17	03:18:08
55	171227M2_55	ST171227M2-12 PFC CS3 17L2611	28-Dec-17	03:29:19
56	171227M2_56	IPA	28-Dec-17	03:40:29
57	171227M2_57	1701829-12 FT-DUP03-20171130 0.24539	28-Dec-17	03:51:40
58	171227M2_58	1701829-13 FT-MW05I-20171130 0.25874	28-Dec-17	04:02:51
59	171227M2_59	1701829-14 FT-MW07S-20171130 0.26174	28-Dec-17	04:14:01
60	171227M2_60	1701829-15 FT-MW05S-20171130 0.25681	28-Dec-17	04:25:12
61	171227M2_61	1701829-16 FT-MW06I-20171130 0.24988	28-Dec-17	04:36:24
62	171227M2_62	1701829-17 FT-MW06I-FRB-20171130 0.26856	28-Dec-17	04:47:35
63	171227M2_63	1701829-18 FT-MW10I-20171130 0.25296	28-Dec-17	04:58:45
64	171227M2_64	1701829-19 FT-MW06S-20171130 0.2522	28-Dec-17	05:09:56
65	171227M2_65	1701829-20 FT-EB01-20171130 0.25976	28-Dec-17	05:21:07

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Dataset: Untitled

Last Altered: Thursday, December 28, 2017 12:53:47 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:55:40 Pacific Standard Time

Compound name: PFBA

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66	171227M2_66	IPA	28-Dec-17	05:32:17
67	171227M2_67	ST171227M2-13 PFC CS3 17L2611	28-Dec-17	05:43:28
68	171227M2_68	IPA	28-Dec-17	05:54:39

LC Calibration Standards Review Checklist Q4

			ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	N/A
Calibration ID:	ST71227M2-11	L (M) H	N/A ☑	☑	☑	☑	☑	☑	☐
Calibration ID:	-12	L (M) H	☐	☑ (A)	☑	☑	☑	☑	☐
Calibration ID:	-13	L (M) H	☑	☐ (B)	☑	☑	☑	☑	☑
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: 12/27/17

Run Log Present: ☑

of Samples per Sequence Checked: ☑

Reviewed By: JA - 12/28/2017
Initials/Date

Comments:
(A) PFTrDA, PFTeDA > 130%.
(B) PFOSA > 130%.

Vista Analytical Laboratory

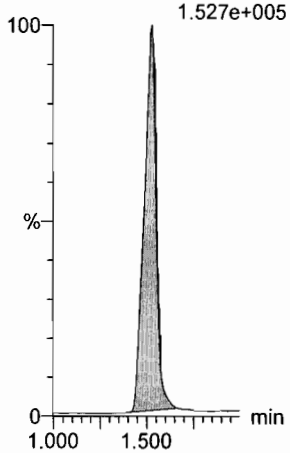
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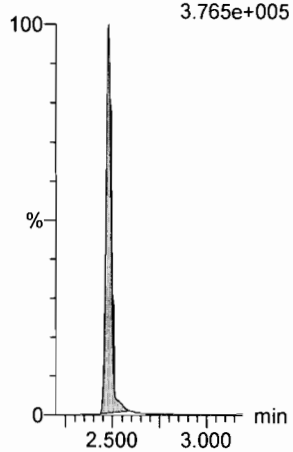
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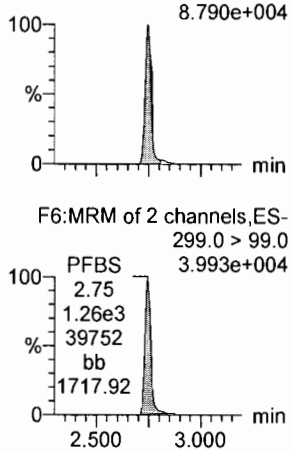
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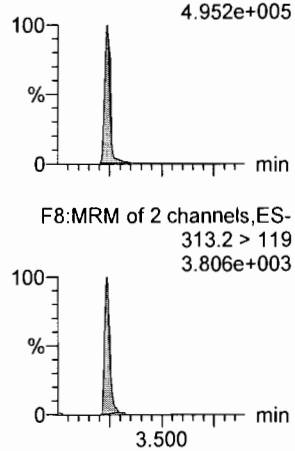
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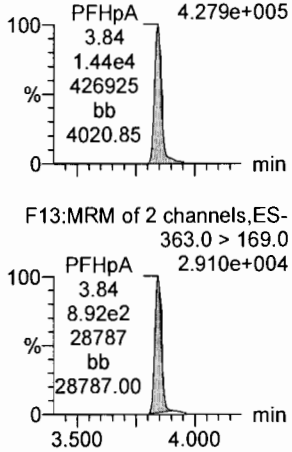
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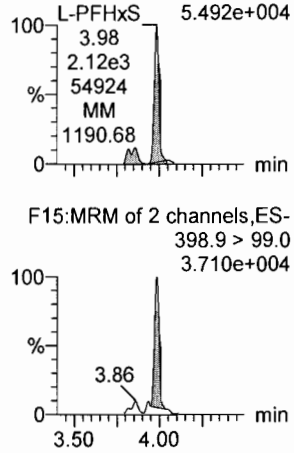
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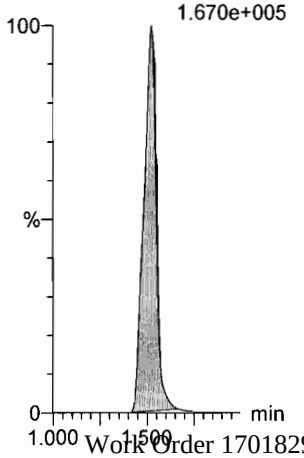
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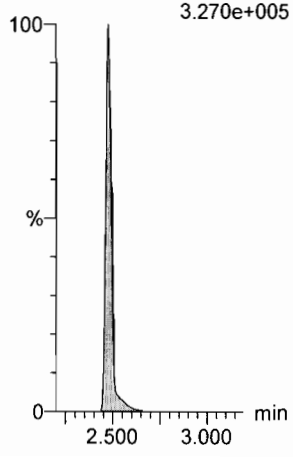
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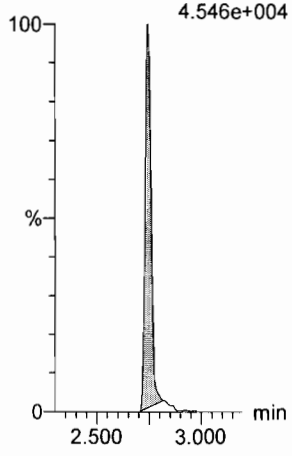
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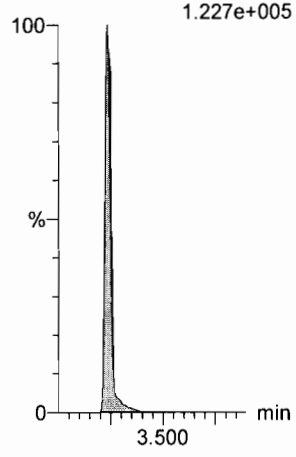
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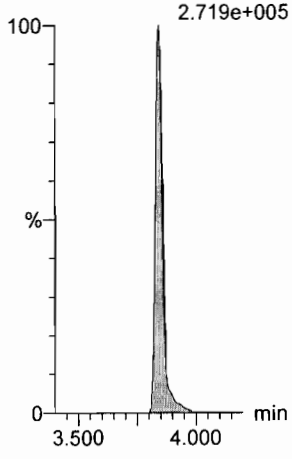
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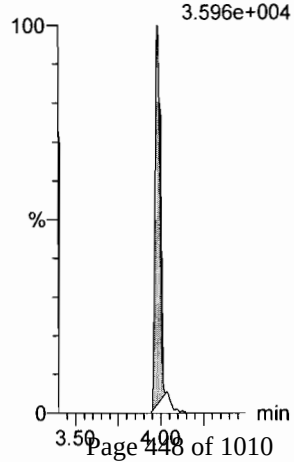
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13C4-PFHpA



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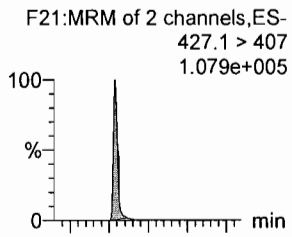


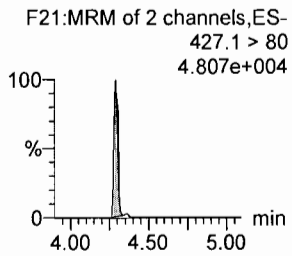
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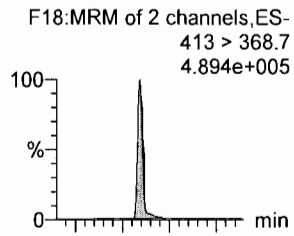
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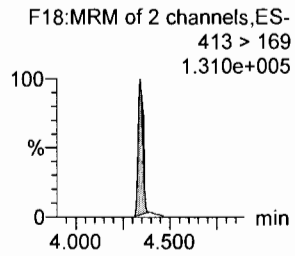
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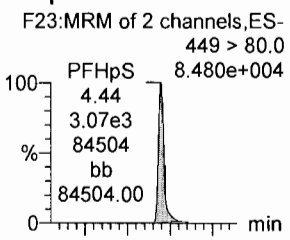


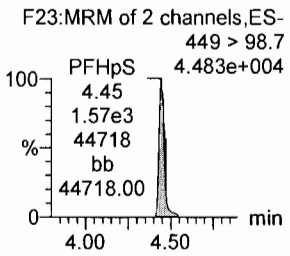
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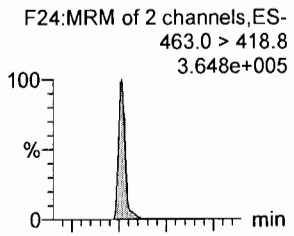


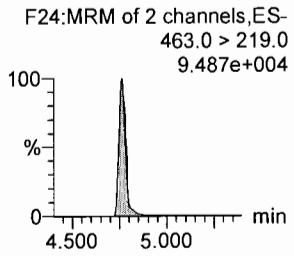
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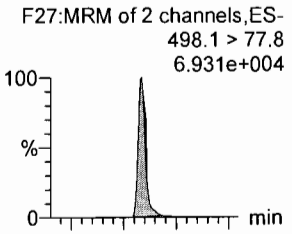


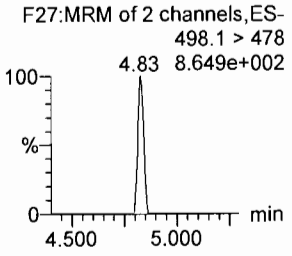
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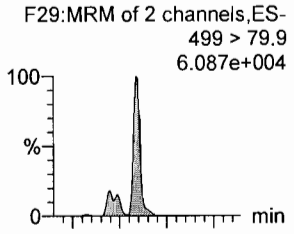


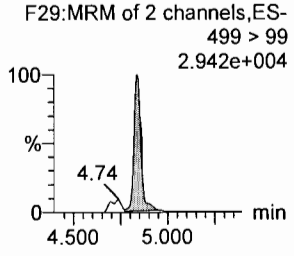
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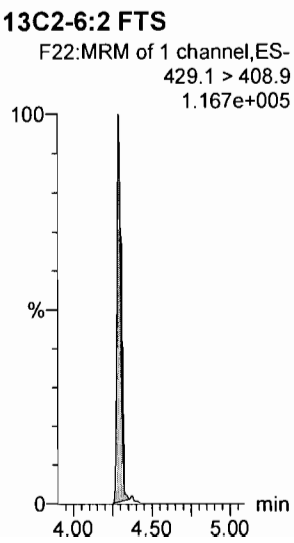


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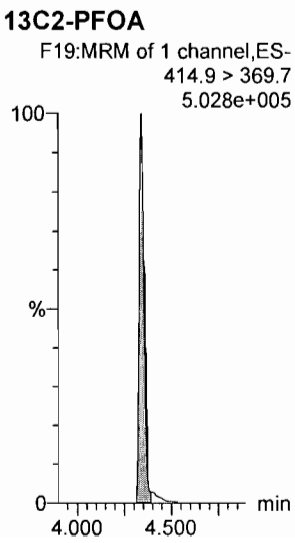




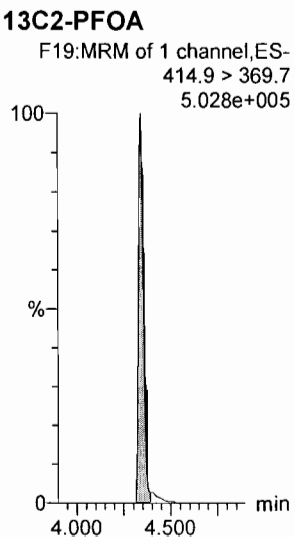
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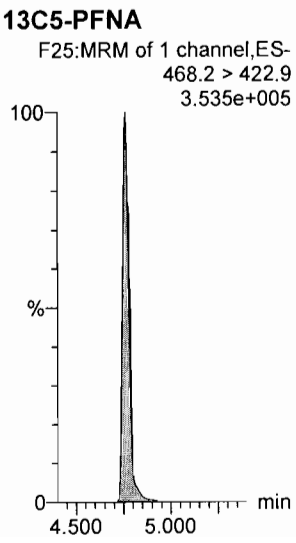
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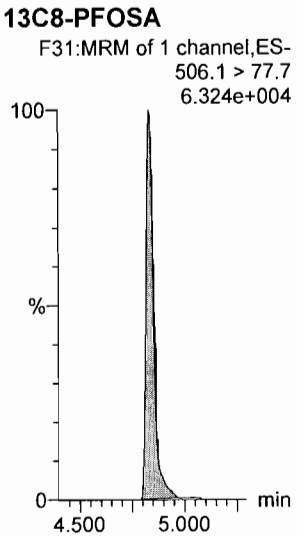
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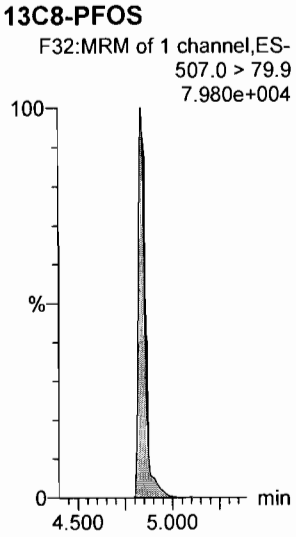
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13C8-PFOSA



13C8-PFOS

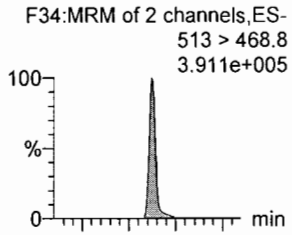


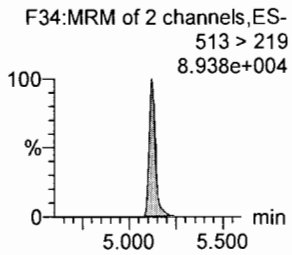
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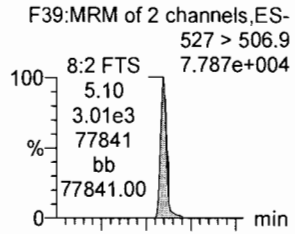
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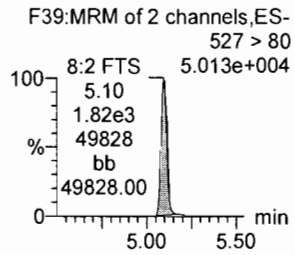
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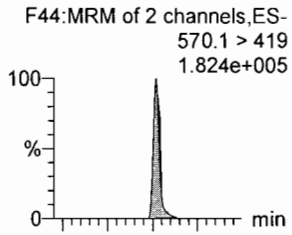


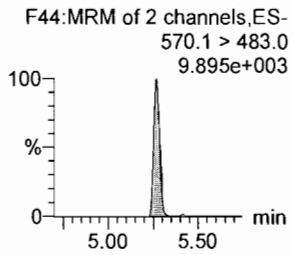
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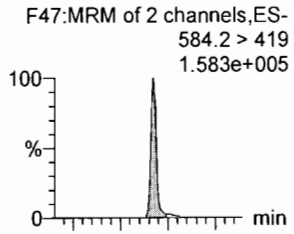


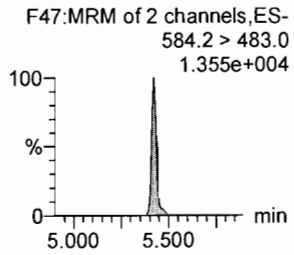
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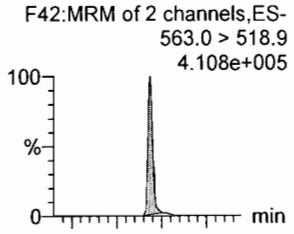


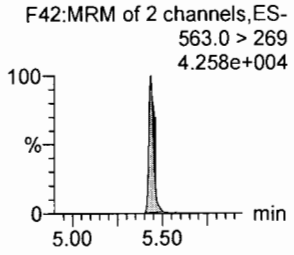
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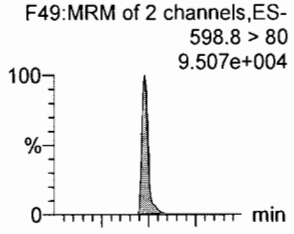


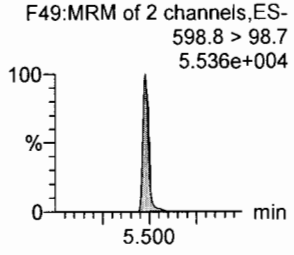
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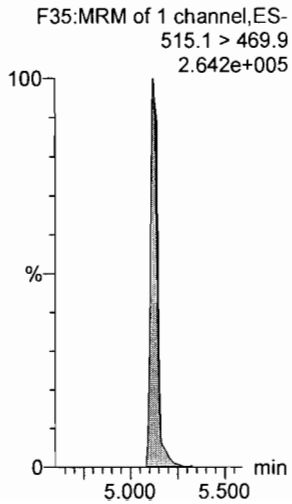


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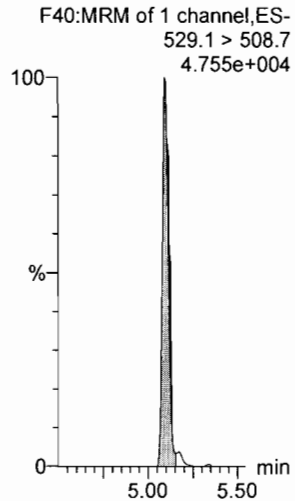




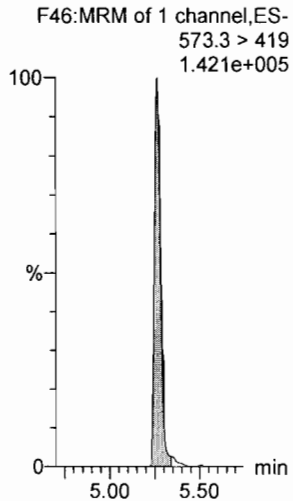
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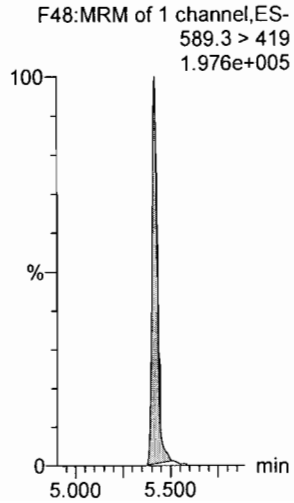
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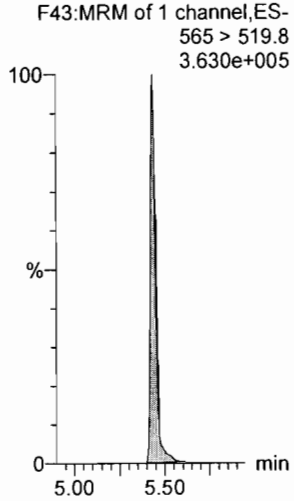
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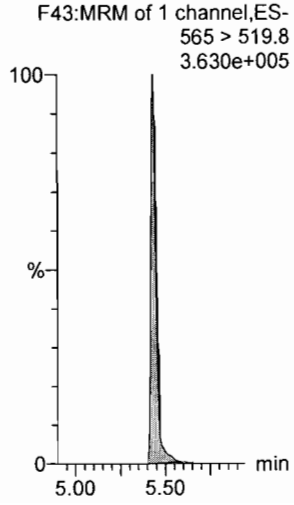
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13C2-PFUdA



13C2-PFUdA

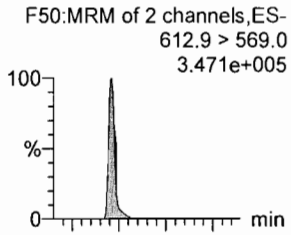


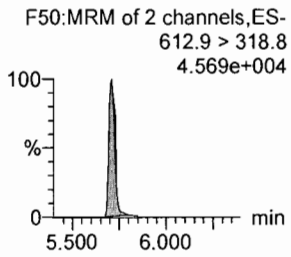
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Printed: Thursday, December 28, 2017 12:14:36 Pacific Standard Time

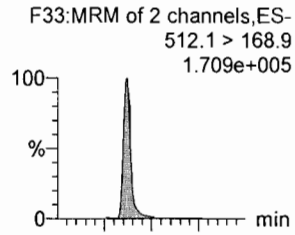
Name: 171227M2_41, Date: 28-Dec-2017, Time: 00:52:40, ID: ST171227M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

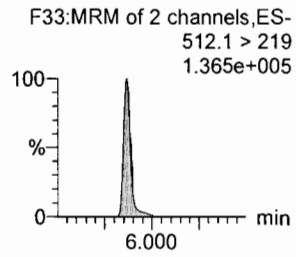
PFDoA



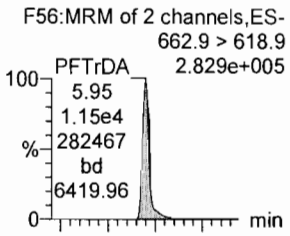


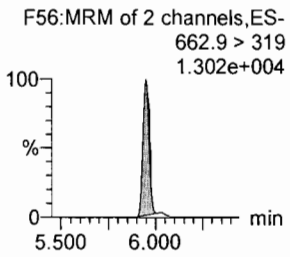
N-MeFOSA



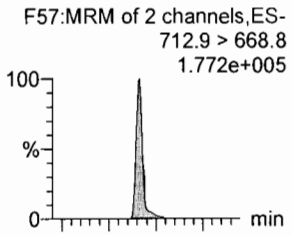


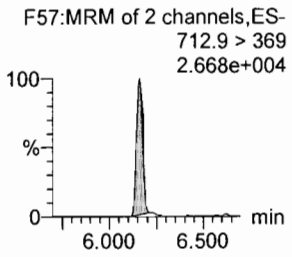
PFTrDA



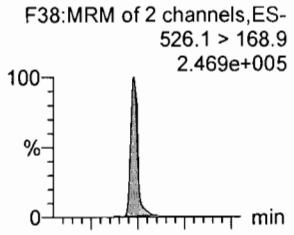


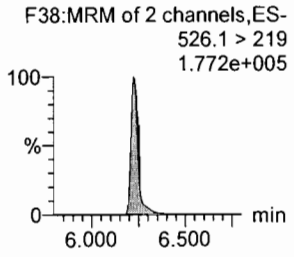
PFTeDA



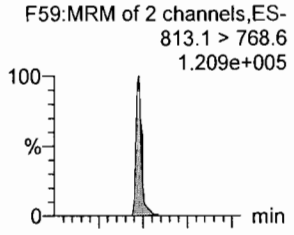


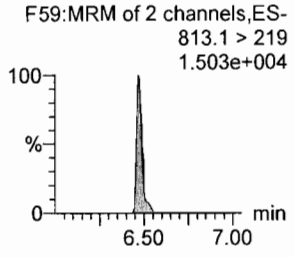
N-EtFOSA



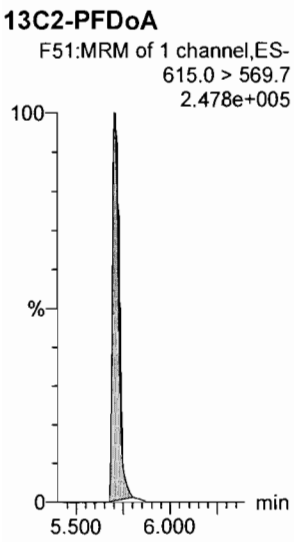


PFHxDA

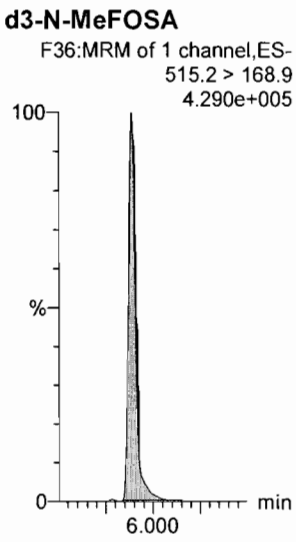




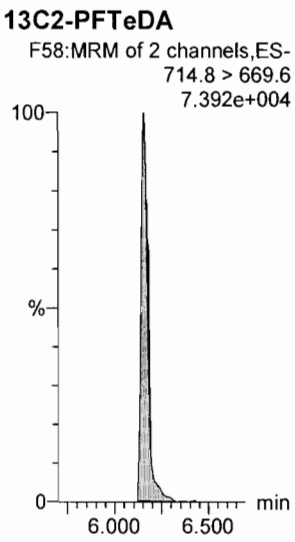
13C2-PFDoA



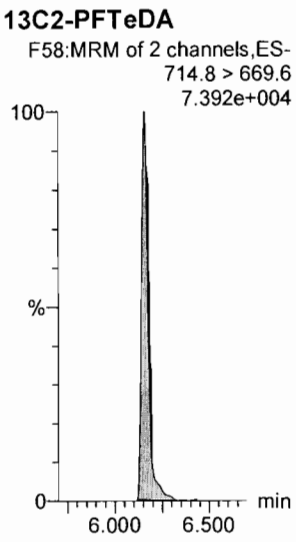
d3-N-MeFOSA



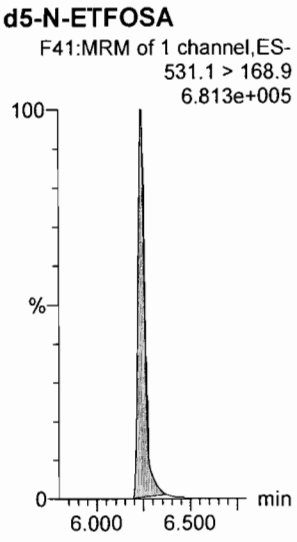
13C2-PFTeDA



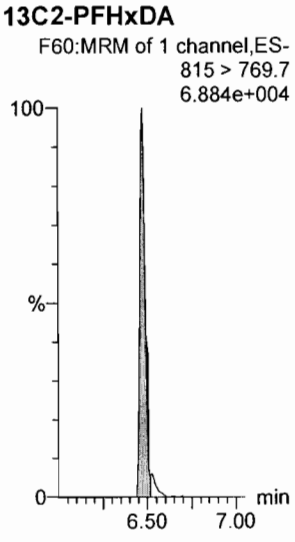
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

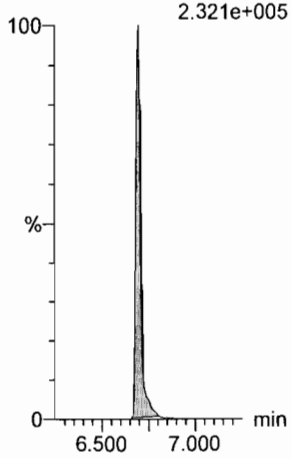


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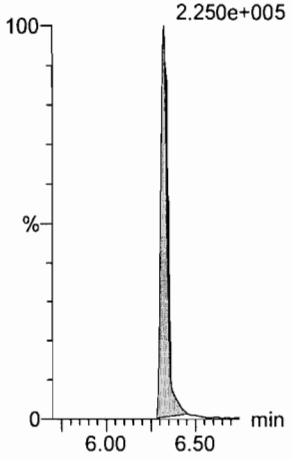
Last Altered: Thursday, December 28, 2017 12:13:28 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:14:36 Pacific Standard Time

Name: 171227M2_41, Date: 28-Dec-2017, Time: 00:52:40, ID: ST171227M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

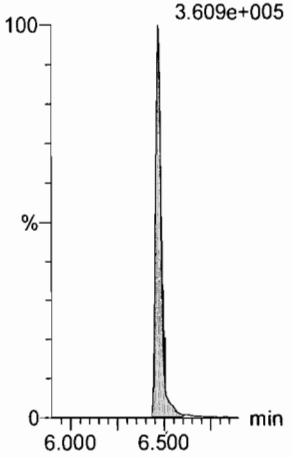
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.321e+005



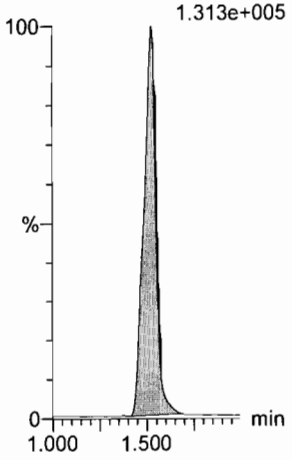
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.250e+005



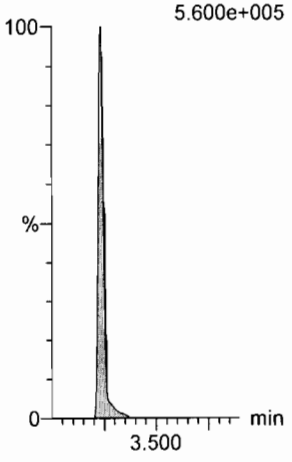
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.609e+005



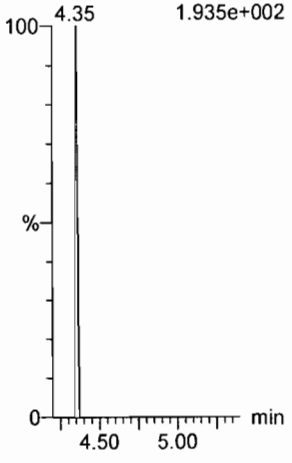
13C4-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.313e+005



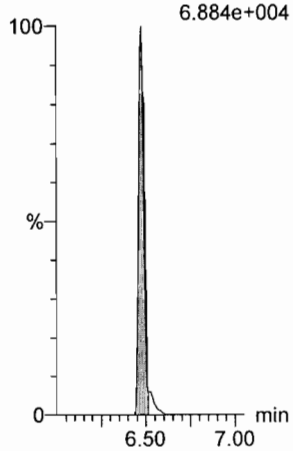
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.600e+005



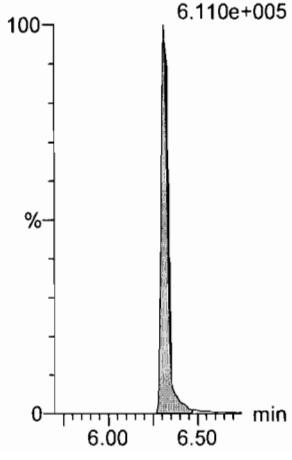
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.935e+002



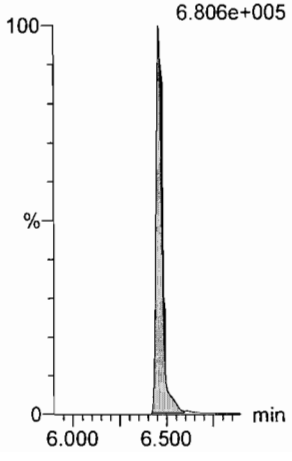
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.884e+004



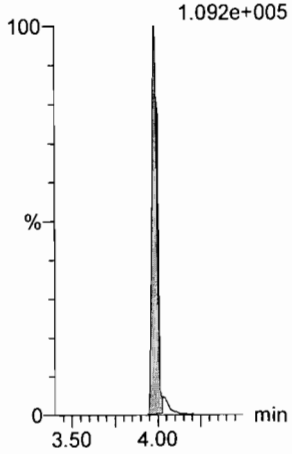
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.110e+005



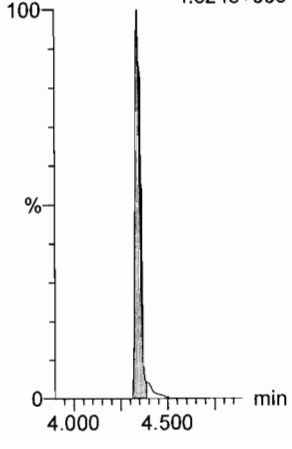
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.806e+005



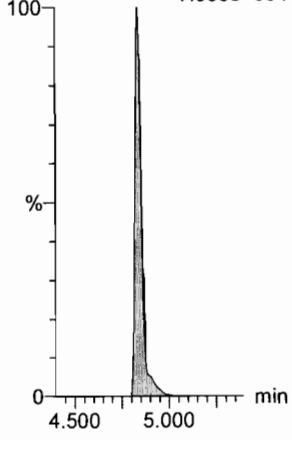
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.092e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.524e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
7.980e+004

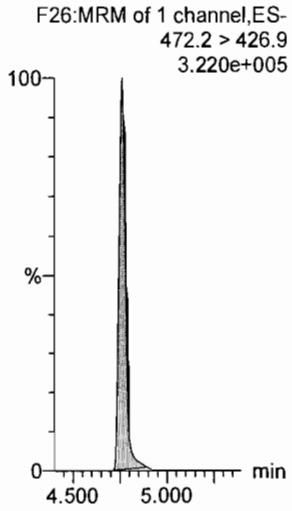


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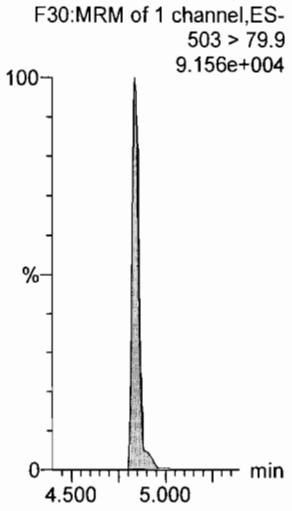
Last Altered: Thursday, December 28, 2017 12:13:28 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:14:36 Pacific Standard Time

Name: 171227M2_41, Date: 28-Dec-2017, Time: 00:52:40, ID: ST171227M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

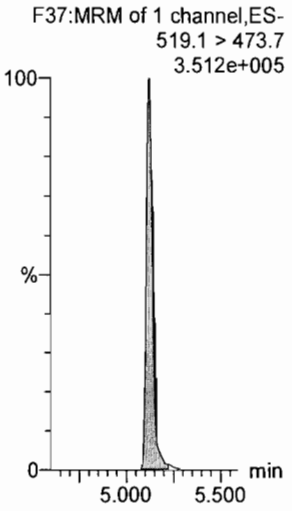
13C9-PFNA



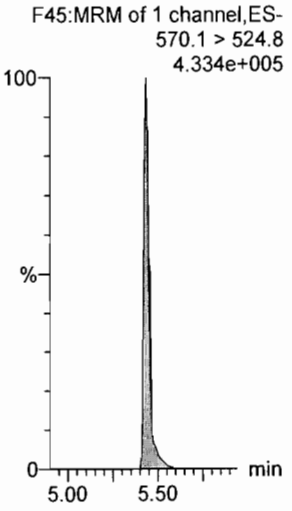
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Ⓐ PFTrDA, PFTeDA > 130%.

Dataset: U:\Q4.PRO\results\171227M2\171227M2-55.qld

Last Altered: Thursday, December 28, 2017 12:36:45 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:37:39 Pacific Standard Time

AC 12/28/17

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 28 Dec 2017 11:43:33
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

JA. 12/28/2017

Name: 171227M2_55, Date: 28-Dec-2017, Time: 03:29:19, ID: ST171227M2-12 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	1.09e4	9.56e3	1.0000		1.47	1.53	14.3	10.149	101.5
2	2	PFPeA	263.1 > 218.9	1.05e4	1.06e4	1.0000		2.44	2.48	12.4	10.507	105.1
3	3	PFBS	299.0 > 79.7	2.83e3	1.51e3	1.0000		2.70	2.75	23.5	9.899	99.0
4	4	PFHxA	313.2 > 268.9	1.39e4	3.78e3	1.0000		3.20	3.24	18.3	9.000	90.0
5	5	PFHpA	363.0 > 318.9	1.33e4	9.05e3	1.0000		3.80	3.84	18.4	11.235	112.4
6	6	L-PFHxS	398.9 > 79.6	1.87e3	1.20e3	1.0000		3.95	3.98	19.5	9.170	91.7
7	8	6:2 FTS	427.1 > 407	3.28e3	1.56e4	1.0000		4.26	4.29	2.63	11.469	114.7
8	9	L-PFOA	413 > 368.7	1.47e4	1.56e4	1.0000		4.32	4.35	11.9	9.318	93.2
9	11	PFHpS	449 > 80.0	3.22e3	1.56e4	1.0000		4.43	4.45	2.58	8.796	88.0
10	12	PFNA	463.0 > 418.8	1.43e4	1.20e4	1.0000		4.75	4.76	14.9	9.715	97.1
11	13	PFOSA	498.1 > 77.8	2.61e3	2.53e3	1.0000		4.81	4.84	12.9	10.317	103.2
12	14	L-PFOS	499 > 79.9	2.98e3	3.25e3	1.0000		4.83	4.84	11.5	9.248	92.5
13	16	PFDA	513 > 468.8	1.40e4	1.02e4	1.0000		5.11	5.13	17.1	11.464	114.6
14	17	8:2 FTS	527 > 506.9	2.37e3	1.02e4	1.0000		5.09	5.10	2.90	8.507	85.1
15	18	N-MeFOSAA	570.1 > 419	8.14e3	6.00e3	1.0000		5.26	5.27	17.0	10.061	100.6
16	19	N-EtFOSAA	584.2 > 419	7.25e3	6.35e3	1.0000		5.42	5.43	14.3	11.851	118.5
17	20	PFUdA	563.0 > 518.9	1.51e4	1.53e4	1.0000		5.43	5.44	12.3	11.911	119.1
18	21	PFDS	598.8 > 80	3.92e3	1.53e4	1.0000		5.50	5.48	3.20	10.074	100.7
19	22	PFDoA	612.9 > 569.0	1.14e4	8.20e3	1.0000		5.70	5.71	17.4	9.903	99.0
20	23	N-MeFOSA	512.1 > 168.9	6.99e3	1.74e4	1.0000		5.77	5.87	60.1	53.173	106.3
21	24	PFTrDA	662.9 > 618.9	1.48e4	8.20e3	1.0000		5.95	5.95	22.6	13.699	Ⓐ 137.0
22	25	PFTeDA	712.9 > 668.8	9.84e3	3.19e3	1.0000		6.16	6.16	38.5	14.616	↓ 146.2
23	26	N-EtFOSA	526.1 > 168.9	1.01e4	2.72e4	1.0000		6.15	6.23	55.8	52.846	105.7
24	27	PFHxDA	813.1 > 768.6	4.99e3	2.89e3	1.0000		6.48	6.48	8.64	9.528	95.3
25	28	PFODA	913.1 > 868.8	7.69e3	2.89e3	1.0000		6.70	6.70	13.3	9.510	95.1
26	29	N-MeFOSE	616.1 > 58.9	1.12e4	2.50e4	1.0000		6.30	6.32	67.2	55.446	110.9
27	30	N-EtFOSE	630.1 > 58.9	1.03e4	2.52e4	1.0000		6.42	6.47	61.3	46.268	92.5
28	31	13C4-PFBA	216.1 > 171.8	9.56e3	1.21e4	1.0000	1.000	1.47	1.52	9.84	9.837	78.7
29	32	13C3-PFPeA	266. > 221.8	1.06e4	1.40e4	1.0000	0.747	2.44	2.48	9.45	12.646	101.2
30	33	13C3-PFBS	302. > 98.8	1.51e3	1.40e4	1.0000	0.101	2.70	2.75	1.35	13.286	106.3
31	34	13C2-PFHxA	315 > 269.8	3.78e3	1.40e4	1.0000	0.601	3.20	3.24	3.38	5.623	112.5

70-130

50-150

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Dataset: U:\Q4.PRO\results\171227M2\171227M2-55.qld

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Name: 171227M2_55, Date: 28-Dec-2017, Time: 03:29:19, ID: ST171227M2-12 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	9.05e3	1.40e4	1.0000	0.676	3.80	3.84	8.08	11.942	95.5
33	36	18O2-PFHxS	403.0 > 102.6	1.20e3	3.62e3	1.0000	0.347	3.95	3.98	4.13	11.905	95.2
34	37	13C2-6:2 FTS	429.1 > 408.9	3.28e3	1.42e4	1.0000	0.210	4.26	4.29	2.89	13.771	110.2
35	38	13C2-PFOA	414.9 > 369.7	1.56e4	1.42e4	1.0000	0.990	4.32	4.35	13.7	13.854	110.8
36	39	13C5-PFNA	468.2 > 422.9	1.20e4	1.40e4	1.0000	0.845	4.75	4.76	10.7	12.634	101.1
37	40	13C8-PFOSA	506.1 > 77.7	2.53e3	1.47e4	1.0000	0.199	4.81	4.84	2.14	10.744	86.0
38	41	13C8-PFOS	507.0 > 79.9	3.25e3	4.19e3	1.0000	0.865	4.83	4.84	9.71	11.218	89.7
39	42	13C2-PFDA	515.1 > 469.9	1.02e4	1.31e4	1.0000	0.886	5.11	5.13	9.77	11.023	88.2
40	43	13C2-8:2 FTS	529.1 > 508.7	1.67e3	1.40e4	1.0000	0.136	5.09	5.10	1.49	10.957	87.7
41	44	d3-N-MeFOSAA	573.3 > 419	6.00e3	1.47e4	1.0000	0.409	5.26	5.27	5.09	12.461	99.7
42	45	d5-N-EtFOSAA	589.3 > 419	6.35e3	1.47e4	1.0000	0.474	5.42	5.42	5.38	11.363	90.9
43	46	13C2-PFUdA	565 > 519.8	1.53e4	1.47e4	1.0000	0.928	5.43	5.44	13.0	14.004	112.0
44	47	13C2-PFDoA	615.0 > 569.7	8.20e3	1.47e4	1.0000	0.636	5.70	5.71	6.95	10.932	87.5
45	48	d3-N-MeFOSA	515.2 > 168.9	1.74e4	1.47e4	1.0000	0.112	5.80	5.89	14.8	132.511	88.3
46	49	13C2-PFTeDA	714.8 > 669.6	3.19e3	1.47e4	1.0000	0.163	6.16	6.16	2.71	16.655	133.2
47	50	d5-N-ETFOSA	531.1 > 168.9	2.72e4	1.47e4	1.0000	0.170	6.16	6.24	23.1	136.202	90.8
48	51	13C2-PFHxDA	815 > 769.7	2.89e3	1.47e4	1.0000	0.394	6.48	6.48	2.45	6.216	124.3
49	52	d7-N-MeFOSE	623.1 > 58.9	2.50e4	1.47e4	1.0000	0.148	6.30	6.32	21.2	143.014	95.3
50	53	d9-N-EtFOSE	639.2 > 58.8	2.52e4	1.47e4	1.0000	0.154	6.42	6.46	21.4	138.830	92.6
51	54	13C3-PFBA	217. > 171.8	1.21e4	1.21e4	1.0000		1.47	1.52	12.5		
52	55	13C5-PFHxA	318 > 272.9	1.40e4	1.40e4	1.0000	1.000	3.20	3.24	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.62e3	3.62e3	1.0000	1.000	3.95	3.98	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.42e4	1.42e4	1.0000	1.000	4.32	4.34	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.40e4	1.40e4	1.0000	1.000	4.75	4.76	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	4.19e3	4.19e3	1.0000	1.000	4.83	4.84	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.31e4	1.31e4	1.0000	1.000	5.11	5.13	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.47e4	1.47e4	1.0000	1.000	5.43	5.44	12.5	12.500	100.0

50-150

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Dataset: Untitled

Last Altered: Thursday, December 28, 2017 12:53:47 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:55:40 Pacific Standard Time

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Compound name: PFBA

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1	171227M2_1	IPA	27-Dec-17	17:25:22
2	171227M2_2	ST171227M2-1 PFC CS-2 17L2606	27-Dec-17	17:36:41
3	171227M2_3	ST171227M2-2 PFC CS-1 17L2607	27-Dec-17	17:47:52
4	171227M2_4	ST171227M2-3 PFC CS0 17L2608	27-Dec-17	17:59:02
5	171227M2_5	ST171227M2-4 PFC CS1 17L2609	27-Dec-17	18:10:13
6	171227M2_6	ST171227M2-5 PFC CS2 17L2610	27-Dec-17	18:21:24
7	171227M2_7	ST171227M2-6 PFC CS3 17L2611	27-Dec-17	18:32:34
8	171227M2_8	ST171227M2-7 PFC CS4 17L2612	27-Dec-17	18:43:45
9	171227M2_9	ST171227M2-8 PFC CS5 17L2613	27-Dec-17	18:54:55
10	171227M2_10	ST171227M2-9 PFC CS6 17L2710	27-Dec-17	19:06:06
11	171227M2_11	ST171227M2-10 PFC CS7 17L1804	27-Dec-17	19:17:17
12	171227M2_12	IPA	27-Dec-17	19:28:28
13	171227M2_13	ICV171227M2-1 PFC ICV 17L2605	27-Dec-17	19:39:38
14	171227M2_14	IPA	27-Dec-17	19:50:49
15	171227M2_15	1701845-16 Pier D 0.25847	27-Dec-17	20:02:00
16	171227M2_16	1701845-17 BD-1 0.26049	27-Dec-17	20:13:10
17	171227M2_17	B7L0120-BS1 OPR 0.25	27-Dec-17	20:24:22
18	171227M2_18	B7L0120-BSD1 LCSD 0.25	27-Dec-17	20:35:32
19	171227M2_19	IPA	27-Dec-17	20:46:43
20	171227M2_20	B7L0120-BLK1 Method Blank 0.25	27-Dec-17	20:57:53
21	171227M2_21	1701955-01 WR1712141615JLB 0.27017	27-Dec-17	21:09:04
22	171227M2_22	B7L0092-BS1 OPR 1	27-Dec-17	21:20:15
23	171227M2_23	B7L0092-BLK1 Method Blank 1	27-Dec-17	21:31:25
24	171227M2_24	B7L0092-MS1 Matrix Spike 16.49	27-Dec-17	21:42:36
25	171227M2_25	B7L0092-MSD1 Matrix Spike Dup 16.11	27-Dec-17	21:53:47
26	171227M2_26	1701841-01 OF-SLG01-1217 17.61	27-Dec-17	22:04:58
27	171227M2_27	1701841-02 OF-SLG02-1217 10.1	27-Dec-17	22:16:08
28	171227M2_28	1701841-03 OF-SLG02P-1217 6.48	27-Dec-17	22:27:19
29	171227M2_29	1701841-04 OF-SLG03-1217 11.57	27-Dec-17	22:38:30
30	171227M2_30	1701841-05 OF-SLG04-1217 5.07	27-Dec-17	22:49:41
31	171227M2_31	1701866-01 Soil-B101A 1.62	27-Dec-17	23:00:51

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Compound name: PFBA

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33	171227M2_33	B7L0073-BS1 OPR 0.125	27-Dec-17	23:23:12
34	171227M2_34	IPA	27-Dec-17	23:34:23
35	171227M2_35	B7L0073-BLK1 Method Blank 0.125	27-Dec-17	23:45:34
36	171227M2_36	B7L0073-MS1 Matrix Spike 0.24032	27-Dec-17	23:56:45
37	171227M2_37	B7L0073-MSD1 Matrix Spike Dup 0.25539	28-Dec-17	00:07:55
38	171227M2_38	B7L0073-MSD2 Matrix Spike Dup 0.25853	28-Dec-17	00:19:08
39	171227M2_39	B7L0073-MS2 Matrix Spike 0.2584	28-Dec-17	00:30:19
40	171227M2_40	IPA	28-Dec-17	00:41:30
41	171227M2_41	ST171227M2-11 PFC CS3 17L2611	28-Dec-17	00:52:40
42	171227M2_42	IPA	28-Dec-17	01:03:51
43	171227M2_43	1701829-01 FT-MW08S-20171129 0.26507	28-Dec-17	01:15:02
44	171227M2_44	1701829-02 FT-MW08S-FRB-20171129 0.267...	28-Dec-17	01:26:13
45	171227M2_45	1701829-03 FT-DUP01-20171129 0.25365	28-Dec-17	01:37:23
46	171227M2_46	1701829-04 FT-MW08I-20171129 0.2616	28-Dec-17	01:48:34
47	171227M2_47	1701829-05 FT-MW01S-20171130 0.25312	28-Dec-17	01:59:45
48	171227M2_48	1701829-06 FT-MW02I-20171130 0.26433	28-Dec-17	02:10:55
49	171227M2_49	1701829-07 FT-MW01I-20171130 0.26191	28-Dec-17	02:22:10
50	171227M2_50	1701829-08 FT-DUP02-20171130 0.26709	28-Dec-17	02:33:25
51	171227M2_51	1701829-09 FT-MW02S-20171130 0.25878	28-Dec-17	02:44:36
52	171227M2_52	1701829-10 FT-MW03S-20171130 0.26156	28-Dec-17	02:55:47
53	171227M2_53	1701829-11 FT-MW09I-20171130 0.25118	28-Dec-17	03:06:58
54	171227M2_54	IPA	28-Dec-17	03:18:08
55	171227M2_55	ST171227M2-12 PFC CS3 17L2611	28-Dec-17	03:29:19
56	171227M2_56	IPA	28-Dec-17	03:40:29
57	171227M2_57	1701829-12 FT-DUP03-20171130 0.24539	28-Dec-17	03:51:40
58	171227M2_58	1701829-13 FT-MW05I-20171130 0.25874	28-Dec-17	04:02:51
59	171227M2_59	1701829-14 FT-MW07S-20171130 0.26174	28-Dec-17	04:14:01
60	171227M2_60	1701829-15 FT-MW05S-20171130 0.25681	28-Dec-17	04:25:12
61	171227M2_61	1701829-16 FT-MW06I-20171130 0.24988	28-Dec-17	04:36:24
62	171227M2_62	1701829-17 FT-MW06I-FRB-20171130 0.26856	28-Dec-17	04:47:35
63	171227M2_63	1701829-18 FT-MW10I-20171130 0.25296	28-Dec-17	04:58:45
64	171227M2_64	1701829-19 FT-MW06S-20171130 0.2522	28-Dec-17	05:09:56
65	171227M2_65	1701829-20 FT-EB01-20171130 0.25976	28-Dec-17	05:21:07

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Compound name: PFBA

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67	171227M2_67	ST171227M2-13 PFC CS3 17L2611	28-Dec-17	05:43:28
68	171227M2_68	IPA	28-Dec-17	05:54:39

Quantify Sample Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

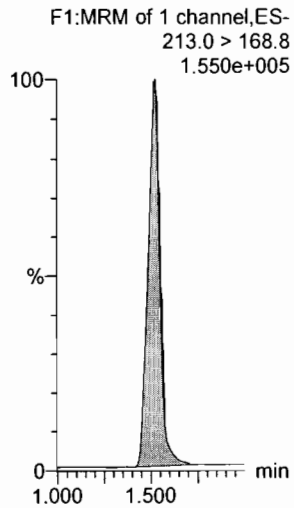
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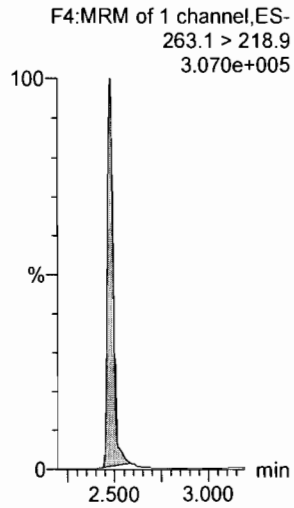
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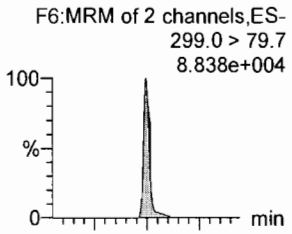
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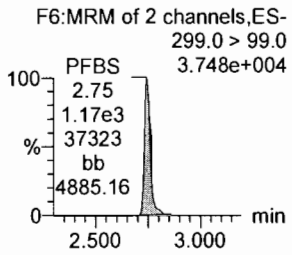


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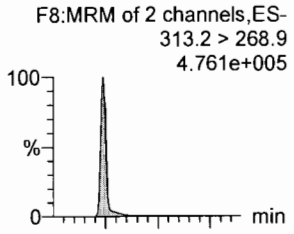


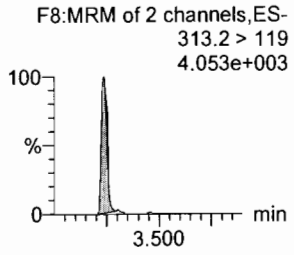
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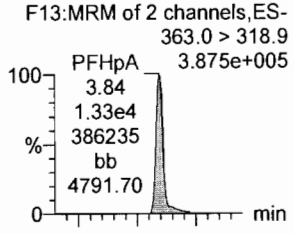


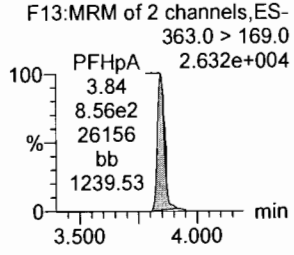
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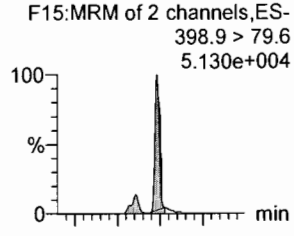


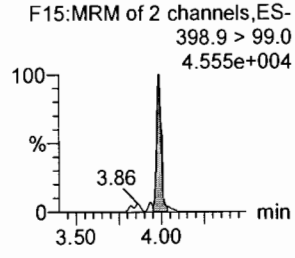
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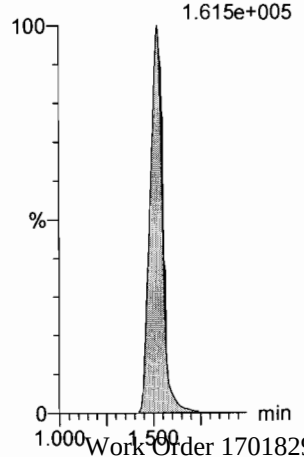


L-PFHxS

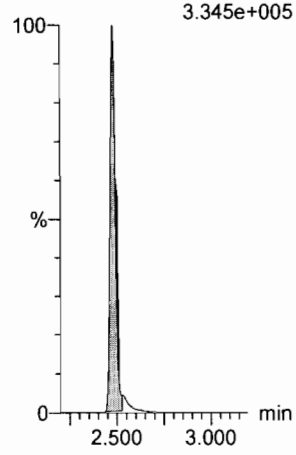




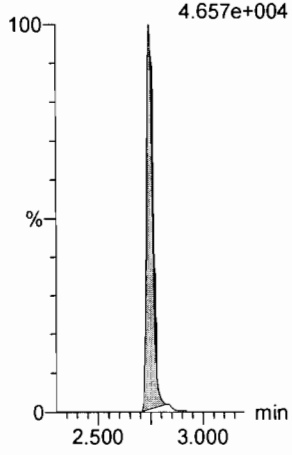
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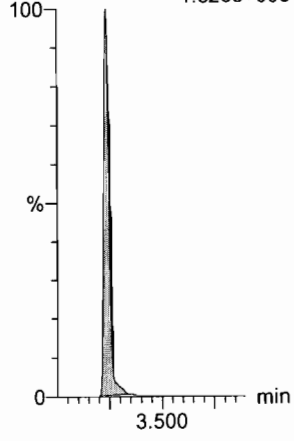
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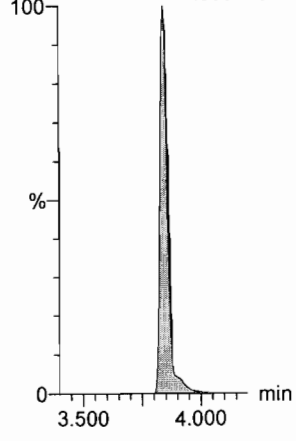
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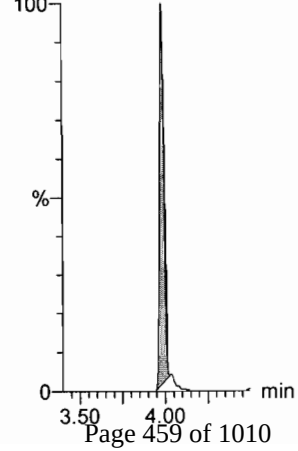
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13C4-PFHpA



18O2-PFHxS

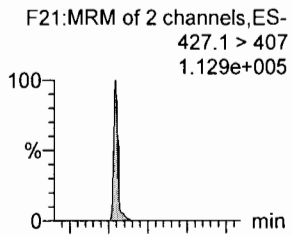


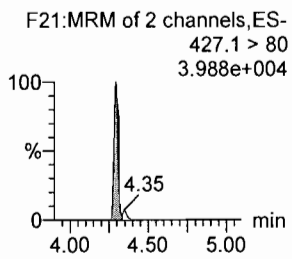
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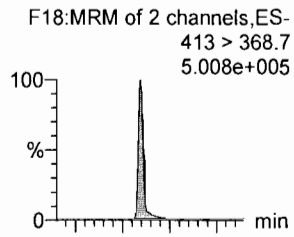
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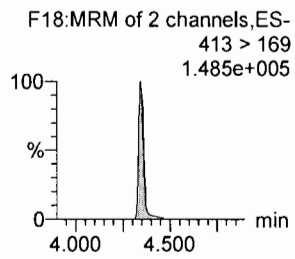
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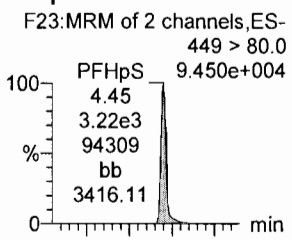


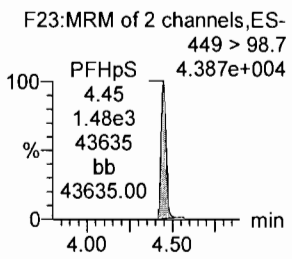
L-PFOA



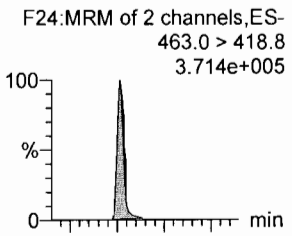


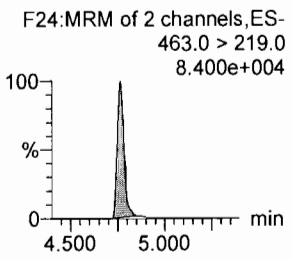
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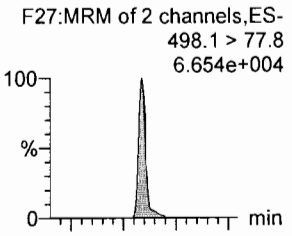


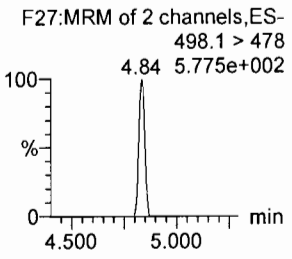
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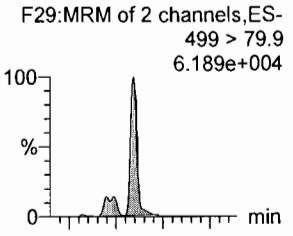


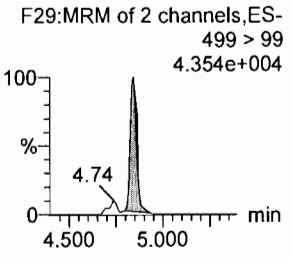
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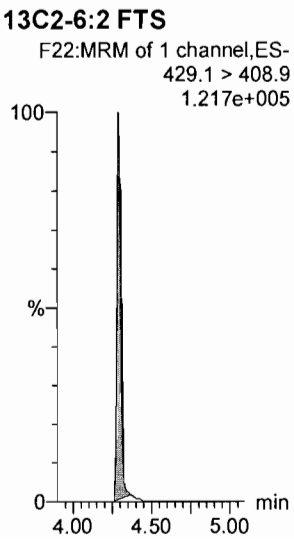


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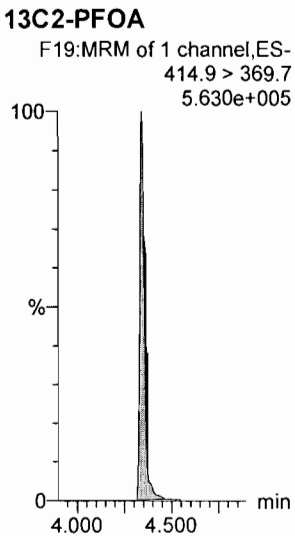




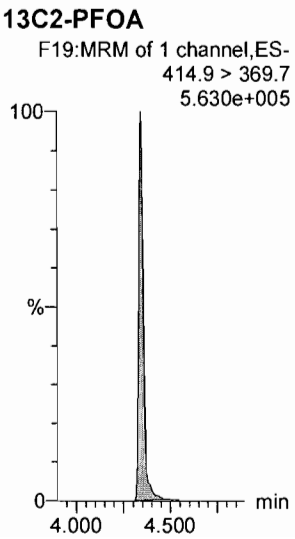
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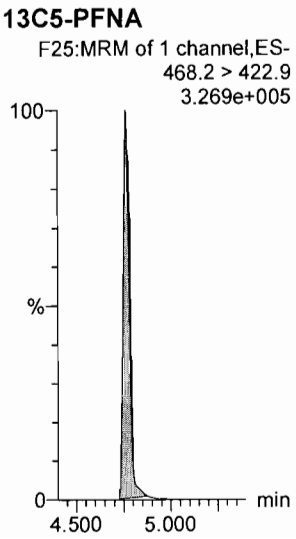
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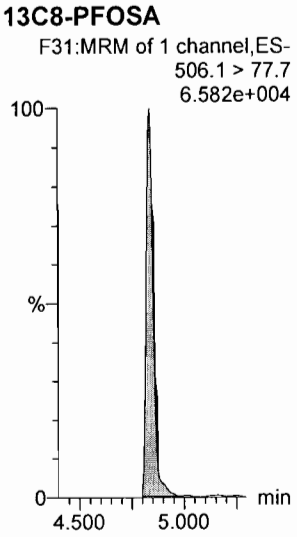
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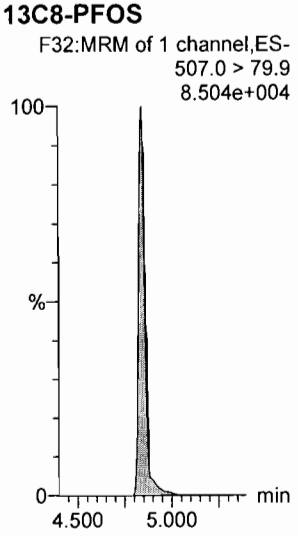
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13C8-PFOSA



13C8-PFOS

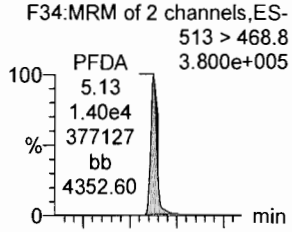


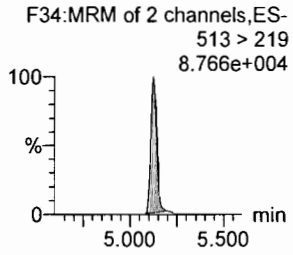
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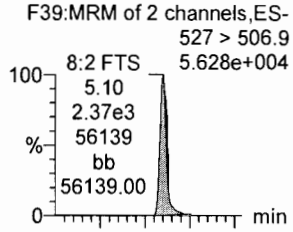
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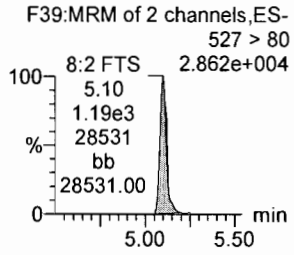
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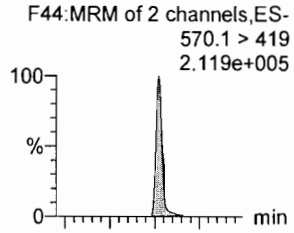


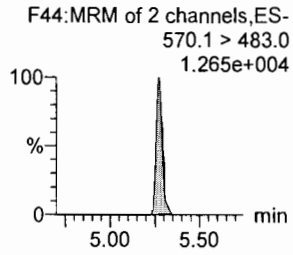
8:2 FTS



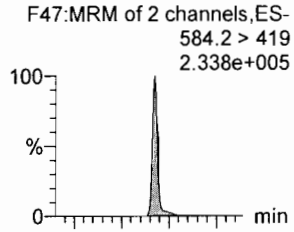


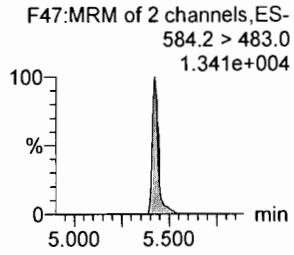
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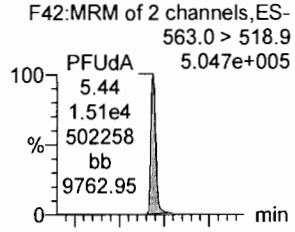


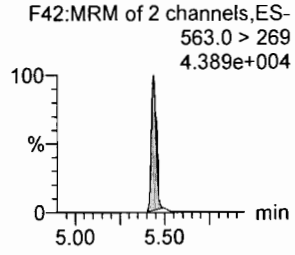
N-EtFOSAA



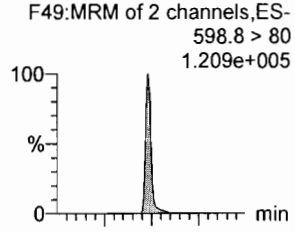


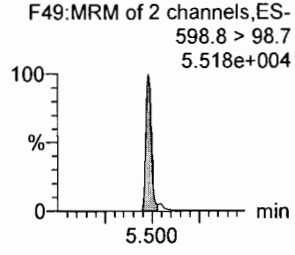
PFUdA



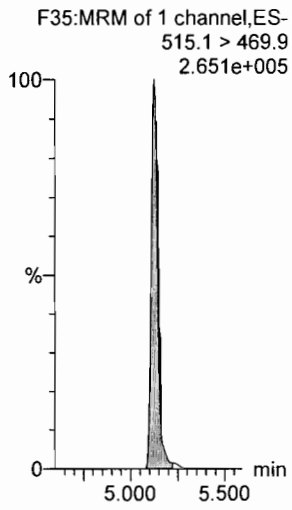


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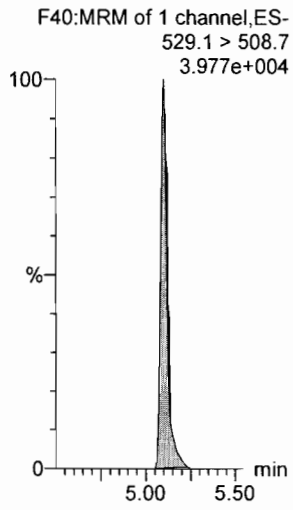




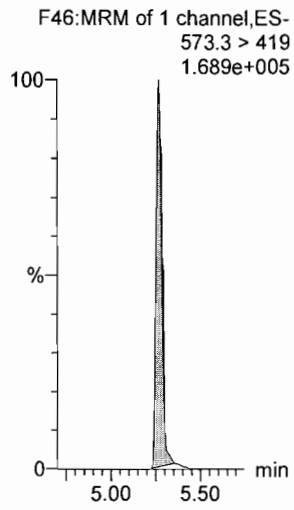
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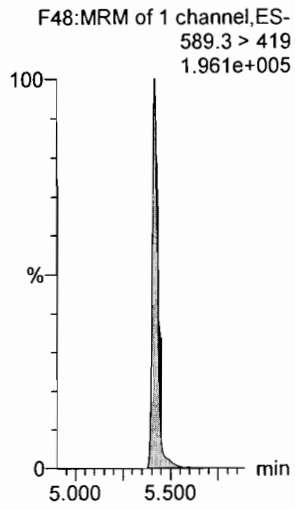
13C2-8:2 FTS



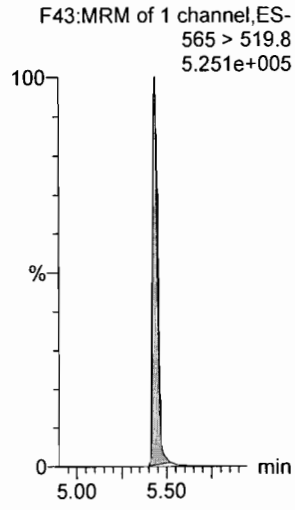
d3-N-MeFOSAA



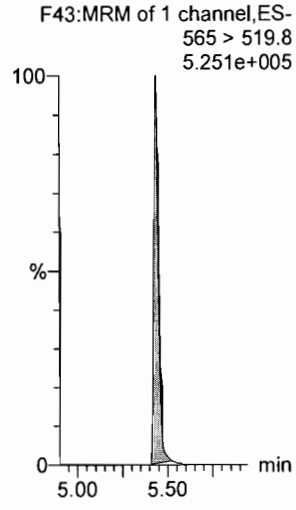
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

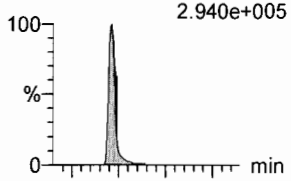


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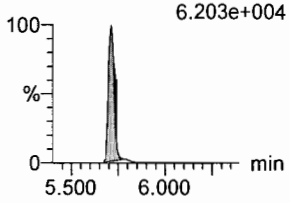
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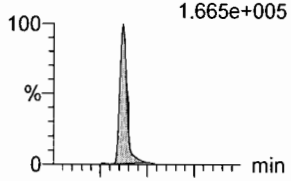
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
2.940e+005



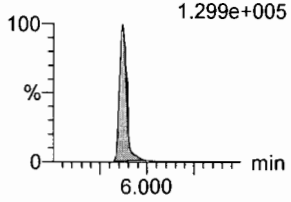
F50:MRM of 2 channels,ES-
612.9 > 318.8
6.203e+004



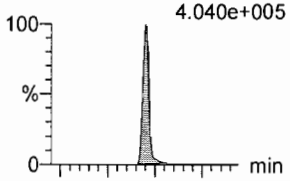
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
1.665e+005



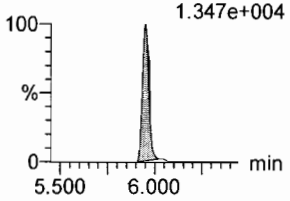
F33:MRM of 2 channels,ES-
512.1 > 219
1.299e+005



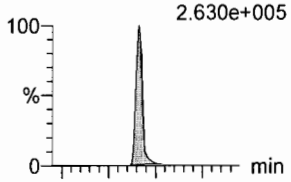
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
4.040e+005



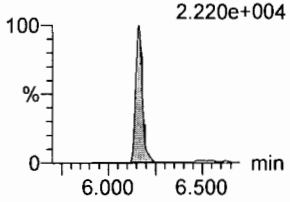
F56:MRM of 2 channels,ES-
662.9 > 319
1.347e+004



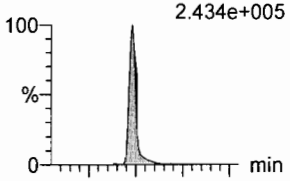
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
2.630e+005



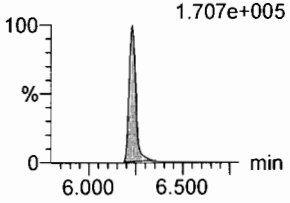
F57:MRM of 2 channels,ES-
712.9 > 369
2.220e+004



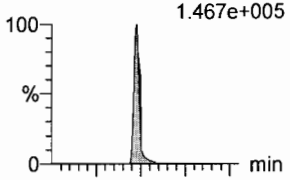
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
2.434e+005



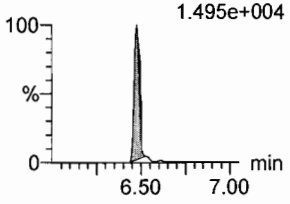
F38:MRM of 2 channels,ES-
526.1 > 219
1.707e+005



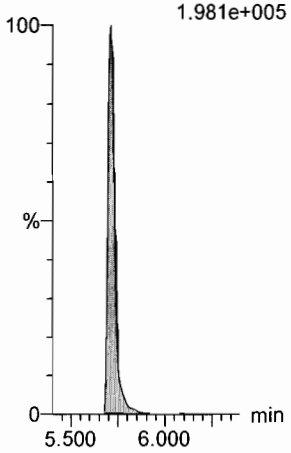
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
1.467e+005



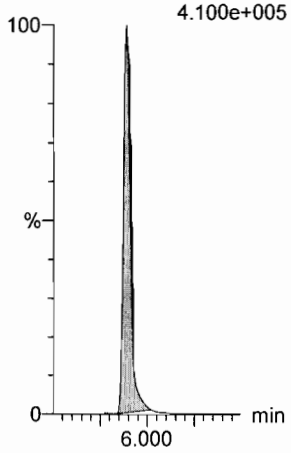
F59:MRM of 2 channels,ES-
813.1 > 219
1.495e+004



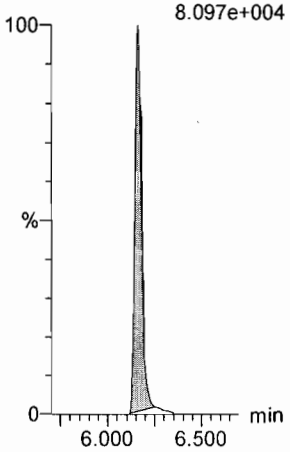
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
1.981e+005



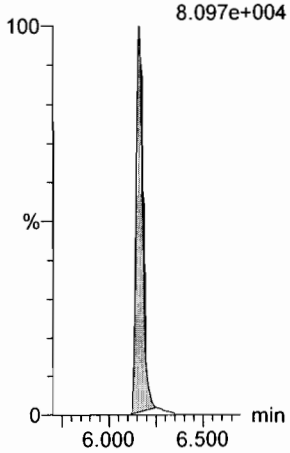
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.100e+005



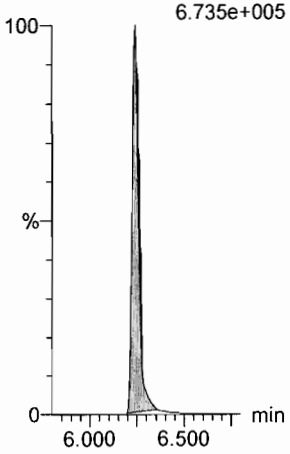
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
8.097e+004



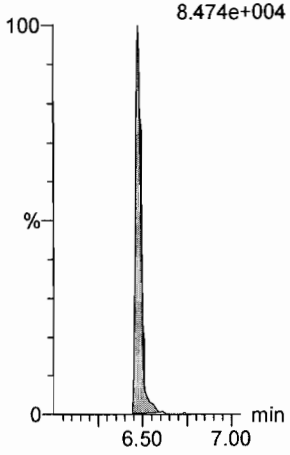
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
8.097e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.735e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.474e+004

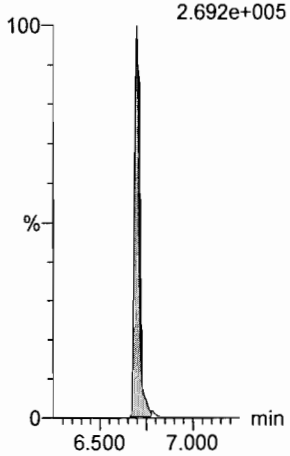


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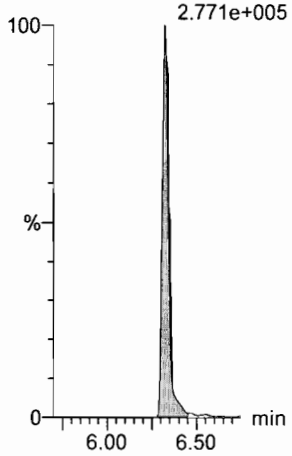
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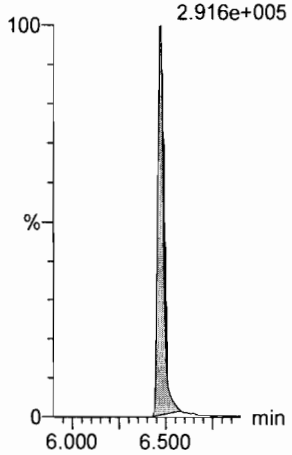
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.692e+005



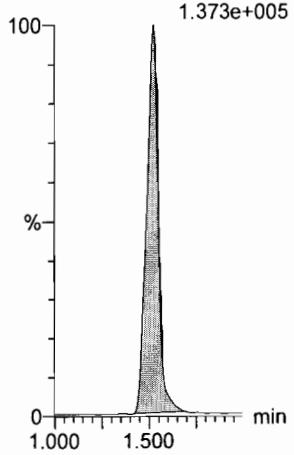
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.771e+005



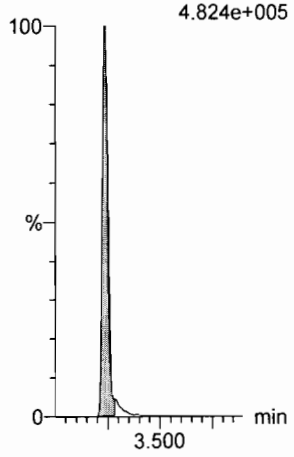
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.916e+005



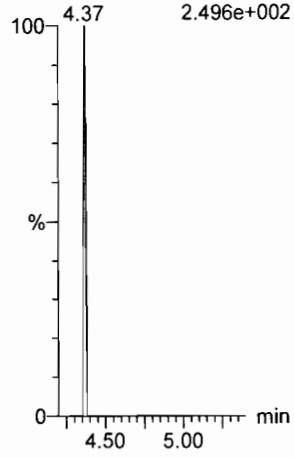
13C4-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.373e+005



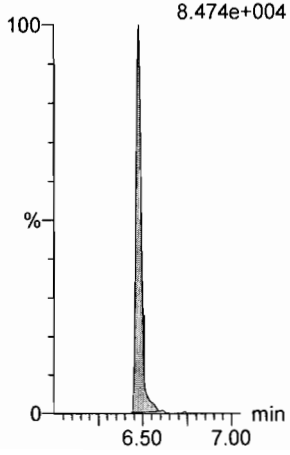
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.824e+005



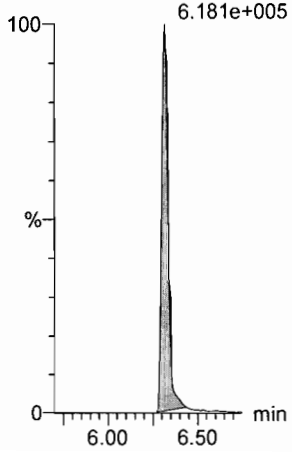
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
2.496e+002



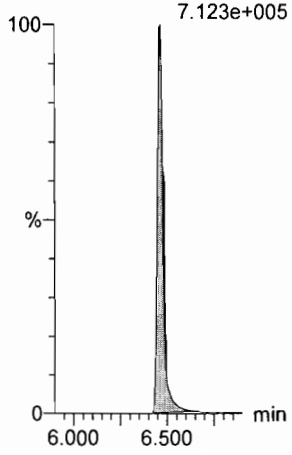
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.474e+004



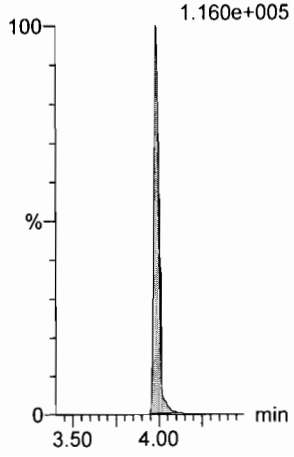
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.181e+005



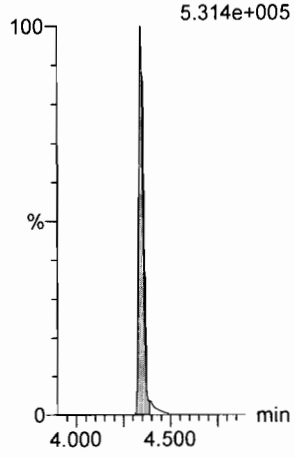
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.123e+005



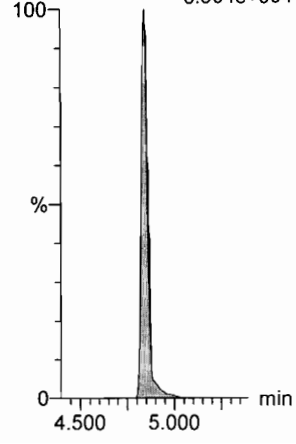
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.160e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.314e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
8.504e+004

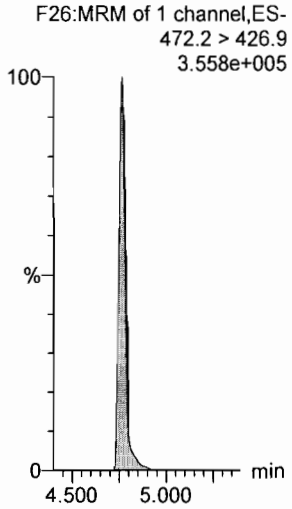


Dataset: U:\Q4.PRO\results\171227M2\171227M2-55.qld

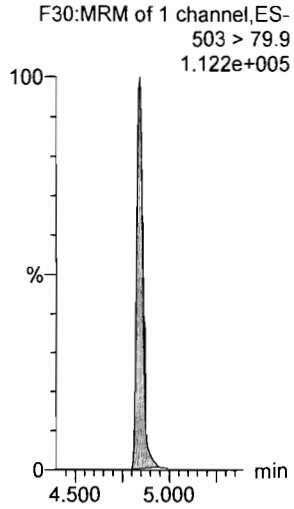
Last Altered: Thursday, December 28, 2017 12:36:45 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:37:39 Pacific Standard Time

Name: 171227M2_55, Date: 28-Dec-2017, Time: 03:29:19, ID: ST171227M2-12 PFC CS3 17L2611, Description: PFC CS3 17L2611

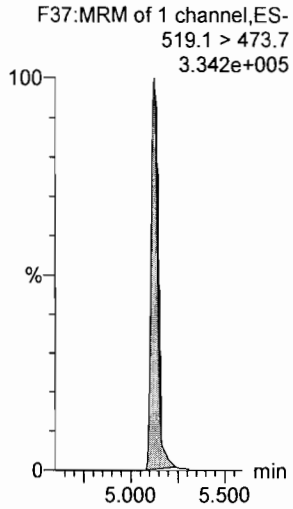
13C9-PFNA



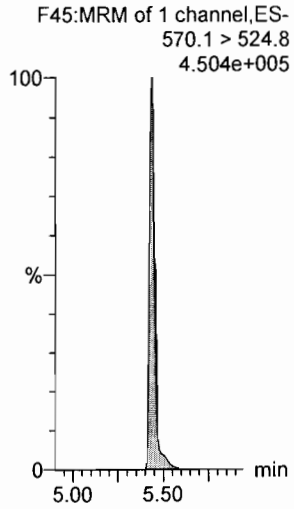
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

Ⓐ PFOSA > 130%

Dataset: U:\Q4.PRO\results\171227M2\171227M2-67.qld

Last Altered: Thursday, December 28, 2017 12:40:59 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:41:59 Pacific Standard Time

AC 12/28/17

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 28 Dec 2017 11:43:33
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

v JA 12/28/2017

Name: 171227M2_67, Date: 28-Dec-2017, Time: 05:43:28, ID: ST171227M2-13 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	1.12e4	1.03e4	1.0000		1.47	1.52	13.7	9.707	97.1
2	2	PFPeA	263.1 > 218.9	1.20e4	1.16e4	1.0000		2.44	2.48	13.0	11.014	110.1
3	3	PFBS	299.0 > 79.7	2.94e3	1.58e3	1.0000		2.70	2.75	23.3	9.826	98.3
4	4	PFHxA	313.2 > 268.9	1.31e4	3.29e3	1.0000		3.20	3.24	19.8	9.745	97.5
5	5	PFHpA	363.0 > 318.9	1.31e4	8.81e3	1.0000		3.80	3.84	18.6	11.360	113.6
6	6	L-PFHxS	398.9 > 79.6	2.36e3	1.36e3	1.0000		3.95	3.98	21.6	10.147	101.5
7	8	6:2 FTS	427.1 > 407	2.74e3	1.30e4	1.0000		4.26	4.29	2.65	11.540	115.4
8	9	L-PFOA	413 > 368.7	1.17e4	1.30e4	1.0000		4.32	4.34	11.3	8.885	88.9
9	11	PFHpS	449 > 80.0	3.54e3	1.30e4	1.0000		4.43	4.44	3.42	11.602	116.0
10	12	PFNA	463.0 > 418.8	1.28e4	9.89e3	1.0000		4.75	4.76	16.2	10.522	105.2
11	13	PFOSA	498.1 > 77.8	3.05e3	2.23e3	1.0000		4.81	4.83	17.1	13.655	Ⓐ 136.5
12	14	L-PFOS	499 > 79.9	3.58e3	3.15e3	1.0000		4.83	4.84	14.2	11.436	114.4
13	16	PFDA	513 > 468.8	1.33e4	1.02e4	1.0000		5.11	5.12	16.2	10.841	108.4
14	17	8:2 FTS	527 > 506.9	2.57e3	1.02e4	1.0000		5.09	5.09	3.14	9.259	92.6
15	18	N-MeFOSAA	570.1 > 419	7.56e3	4.94e3	1.0000		5.26	5.27	19.1	11.341	113.4
16	19	N-EtFOSAA	584.2 > 419	5.18e3	6.06e3	1.0000		5.42	5.42	10.7	8.876	88.8
17	20	PFUdA	563.0 > 518.9	1.17e4	1.26e4	1.0000		5.43	5.43	11.7	11.280	112.8
18	21	PFDS	598.8 > 80	3.79e3	1.26e4	1.0000		5.50	5.48	3.77	11.845	118.5
19	22	PFDoA	612.9 > 569.0	1.15e4	8.25e3	1.0000		5.70	5.70	17.4	9.880	98.8
20	23	N-MeFOSA	512.1 > 168.9	7.09e3	1.77e4	1.0000		5.77	5.86	60.0	53.018	106.0
21	24	PFTrDA	662.9 > 618.9	1.36e4	8.25e3	1.0000		5.95	5.94	20.7	12.527	125.3
22	25	PFTeDA	712.9 > 668.8	7.31e3	2.69e3	1.0000		6.16	6.16	33.9	12.735	127.4
23	26	N-EtFOSA	526.1 > 168.9	1.05e4	2.94e4	1.0000		6.15	6.23	53.5	50.630	101.3
24	27	PFHxDA	813.1 > 768.6	3.24e3	2.41e3	1.0000		6.48	6.47	6.70	7.401	74.0
25	28	PFODA	913.1 > 868.8	7.00e3	2.41e3	1.0000		6.70	6.69	14.5	10.346	103.5
26	29	N-MeFOSE	616.1 > 58.9	1.09e4	2.77e4	1.0000		6.30	6.32	58.8	48.582	97.2
27	30	N-EtFOSE	630.1 > 58.9	1.27e4	2.79e4	1.0000		6.42	6.46	68.3	51.499	103.0
28	31	13C4-PFBA	216.1 > 171.8	1.03e4	1.31e4	1.0000	1.000	1.47	1.52	9.81	9.807	78.5
29	32	13C3-PFPeA	266. > 221.8	1.16e4	1.40e4	1.0000	0.747	2.44	2.48	10.4	13.896	111.2
30	33	13C3-PFBS	302. > 98.8	1.58e3	1.40e4	1.0000	0.101	2.70	2.74	1.41	13.924	111.4
31	34	13C2-PFHxA	315 > 269.8	3.29e3	1.40e4	1.0000	0.601	3.20	3.24	2.95	4.912	98.2

70-130

50-150

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Dataset: U:\Q4.PRO\results\171227M2\171227M2-67.qld

Last Altered: Thursday, December 28, 2017 12:40:59 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:41:59 Pacific Standard Time

Name: 171227M2_67, Date: 28-Dec-2017, Time: 05:43:28, ID: ST171227M2-13 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	8.81e3	1.40e4	1.0000	0.676	3.80	3.84	7.89	11.660	93.3
33	36	18O2-PFHxS	403.0 > 102.6	1.36e3	3.54e3	1.0000	0.347	3.95	3.98	4.82	13.911	111.3
34	37	13C2-6:2 FTS	429.1 > 408.9	3.11e3	1.30e4	1.0000	0.210	4.26	4.29	2.99	14.231	113.8
35	38	13C2-PFOA	414.9 > 369.7	1.30e4	1.30e4	1.0000	0.990	4.32	4.34	12.4	12.549	100.4
36	39	13C5-PFNA	468.2 > 422.9	9.89e3	1.23e4	1.0000	0.845	4.75	4.76	10.0	11.852	94.8
37	40	13C8-PFOSA	506.1 > 77.7	2.23e3	1.32e4	1.0000	0.199	4.81	4.83	2.11	10.589	84.7
38	41	13C8-PFOS	507.0 > 79.9	3.15e3	3.64e3	1.0000	0.865	4.83	4.84	10.8	12.507	100.1
39	42	13C2-PFDA	515.1 > 469.9	1.02e4	1.20e4	1.0000	0.886	5.11	5.12	10.6	11.976	95.8
40	43	13C2-8:2 FTS	529.1 > 508.7	2.07e3	1.40e4	1.0000	0.136	5.09	5.09	1.85	13.633	109.1
41	44	d3-N-MeFOSAA	573.3 > 419	4.94e3	1.32e4	1.0000	0.409	5.26	5.26	4.69	11.467	91.7
42	45	d5-N-EtFOSAA	589.3 > 419	6.06e3	1.32e4	1.0000	0.474	5.42	5.41	5.75	12.136	97.1
43	46	13C2-PFUdA	565 > 519.8	1.26e4	1.32e4	1.0000	0.928	5.43	5.43	11.9	12.862	102.9
44	47	13C2-PFDoA	615.0 > 569.7	8.25e3	1.32e4	1.0000	0.636	5.70	5.71	7.82	12.293	98.3
45	48	d3-N-MeFOSA	515.2 > 168.9	1.77e4	1.32e4	1.0000	0.112	5.80	5.89	16.8	150.658	100.4
46	49	13C2-PFTeDA	714.8 > 669.6	2.69e3	1.32e4	1.0000	0.163	6.16	6.16	2.55	15.703	125.6
47	50	d5-N-ETFOSA	531.1 > 168.9	2.94e4	1.32e4	1.0000	0.170	6.16	6.24	27.8	164.205	109.5
48	51	13C2-PFHxDA	815 > 769.7	2.41e3	1.32e4	1.0000	0.394	6.48	6.47	2.29	5.810	116.2
49	52	d7-N-MeFOSE	623.1 > 58.9	2.77e4	1.32e4	1.0000	0.148	6.30	6.31	26.3	176.865	117.9
50	53	d9-N-EtFOSE	639.2 > 58.8	2.79e4	1.32e4	1.0000	0.154	6.42	6.46	26.4	171.637	114.4
51	54	13C3-PFBA	217. > 171.8	1.31e4	1.31e4	1.0000		1.47	1.52	12.5		
52	55	13C5-PFHxA	318 > 272.9	1.40e4	1.40e4	1.0000	1.000	3.20	3.23	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.54e3	3.54e3	1.0000	1.000	3.95	3.98	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.30e4	1.30e4	1.0000	1.000	4.32	4.34	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.23e4	1.23e4	1.0000	1.000	4.75	4.76	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	3.64e3	3.64e3	1.0000	1.000	4.83	4.84	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.20e4	1.20e4	1.0000	1.000	5.11	5.12	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.32e4	1.32e4	1.0000	1.000	5.43	5.43	12.5	12.500	100.0

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Dataset: Untitled

Last Altered: Thursday, December 28, 2017 12:53:47 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:55:40 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 28 Dec 2017 11:43:33
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171227M2_1	IPA	27-Dec-17	17:25:22
2	171227M2_2	ST171227M2-1 PFC CS-2 17L2606	27-Dec-17	17:36:41
3	171227M2_3	ST171227M2-2 PFC CS-1 17L2607	27-Dec-17	17:47:52
4	171227M2_4	ST171227M2-3 PFC CS0 17L2608	27-Dec-17	17:59:02
5	171227M2_5	ST171227M2-4 PFC CS1 17L2609	27-Dec-17	18:10:13
6	171227M2_6	ST171227M2-5 PFC CS2 17L2610	27-Dec-17	18:21:24
7	171227M2_7	ST171227M2-6 PFC CS3 17L2611	27-Dec-17	18:32:34
8	171227M2_8	ST171227M2-7 PFC CS4 17L2612	27-Dec-17	18:43:45
9	171227M2_9	ST171227M2-8 PFC CS5 17L2613	27-Dec-17	18:54:55
10	171227M2_10	ST171227M2-9 PFC CS6 17L2710	27-Dec-17	19:06:06
11	171227M2_11	ST171227M2-10 PFC CS7 17L1804	27-Dec-17	19:17:17
12	171227M2_12	IPA	27-Dec-17	19:28:28
13	171227M2_13	ICV171227M2-1 PFC ICV 17L2605	27-Dec-17	19:39:38
14	171227M2_14	IPA	27-Dec-17	19:50:49
15	171227M2_15	1701845-16 Pier D 0.25847	27-Dec-17	20:02:00
16	171227M2_16	1701845-17 BD-1 0.26049	27-Dec-17	20:13:10
17	171227M2_17	B7L0120-BS1 OPR 0.25	27-Dec-17	20:24:22
18	171227M2_18	B7L0120-BSD1 LCSD 0.25	27-Dec-17	20:35:32
19	171227M2_19	IPA	27-Dec-17	20:46:43
20	171227M2_20	B7L0120-BLK1 Method Blank 0.25	27-Dec-17	20:57:53
21	171227M2_21	1701955-01 WR1712141615JLB 0.27017	27-Dec-17	21:09:04
22	171227M2_22	B7L0092-BS1 OPR 1	27-Dec-17	21:20:15
23	171227M2_23	B7L0092-BLK1 Method Blank 1	27-Dec-17	21:31:25
24	171227M2_24	B7L0092-MS1 Matrix Spike 16.49	27-Dec-17	21:42:36
25	171227M2_25	B7L0092-MSD1 Matrix Spike Dup 16.11	27-Dec-17	21:53:47
26	171227M2_26	1701841-01 OF-SLG01-1217 17.61	27-Dec-17	22:04:58
27	171227M2_27	1701841-02 OF-SLG02-1217 10.1	27-Dec-17	22:16:08
28	171227M2_28	1701841-03 OF-SLG02P-1217 6.48	27-Dec-17	22:27:19
29	171227M2_29	1701841-04 OF-SLG03-1217 11.57	27-Dec-17	22:38:30
30	171227M2_30	1701841-05 OF-SLG04-1217 5.07	27-Dec-17	22:49:41
31	171227M2_31	1701866-01 Soil-B101A 1.62	27-Dec-17	23:00:51

Dataset: Untitled

Last Altered: Thursday, December 28, 2017 12:53:47 Pacific Standard Time
Printed: Thursday, December 28, 2017 12:55:40 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	171227M2_32	IPA	27-Dec-17	23:12:02
33	171227M2_33	B7L0073-BS1 OPR 0.125	27-Dec-17	23:23:12
34	171227M2_34	IPA	27-Dec-17	23:34:23
35	171227M2_35	B7L0073-BLK1 Method Blank 0.125	27-Dec-17	23:45:34
36	171227M2_36	B7L0073-MS1 Matrix Spike 0.24032	27-Dec-17	23:56:45
37	171227M2_37	B7L0073-MSD1 Matrix Spike Dup 0.25539	28-Dec-17	00:07:55
38	171227M2_38	B7L0073-MSD2 Matrix Spike Dup 0.25853	28-Dec-17	00:19:08
39	171227M2_39	B7L0073-MS2 Matrix Spike 0.2584	28-Dec-17	00:30:19
40	171227M2_40	IPA	28-Dec-17	00:41:30
41	171227M2_41	ST171227M2-11 PFC CS3 17L2611	28-Dec-17	00:52:40
42	171227M2_42	IPA	28-Dec-17	01:03:51
43	171227M2_43	1701829-01 FT-MW08S-20171129 0.26507	28-Dec-17	01:15:02
44	171227M2_44	1701829-02 FT-MW08S-FRB-20171129 0.267...	28-Dec-17	01:26:13
45	171227M2_45	1701829-03 FT-DUP01-20171129 0.25365	28-Dec-17	01:37:23
46	171227M2_46	1701829-04 FT-MW08I-20171129 0.2616	28-Dec-17	01:48:34
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67	171227M2_67	ST171227M2-13 PFC CS3 17L2611	28-Dec-17	05:43:28
68	171227M2_68	IPA	28-Dec-17	05:54:39

Quantify Sample Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

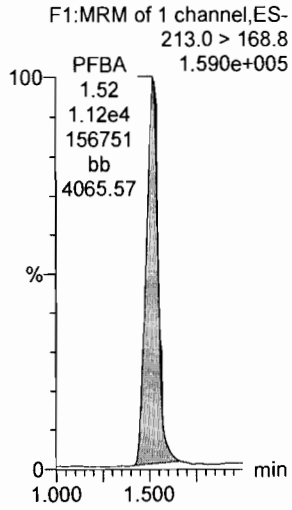
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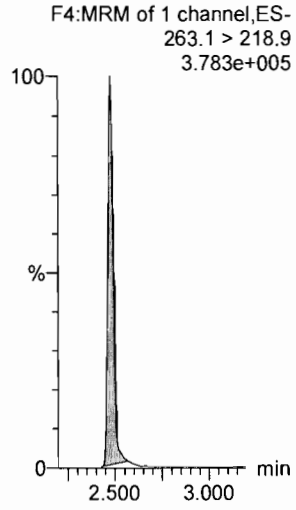
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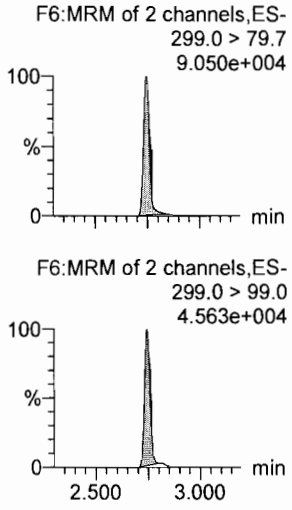
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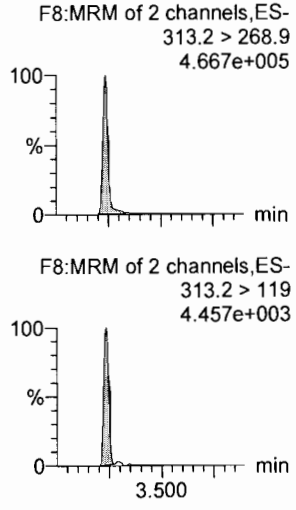
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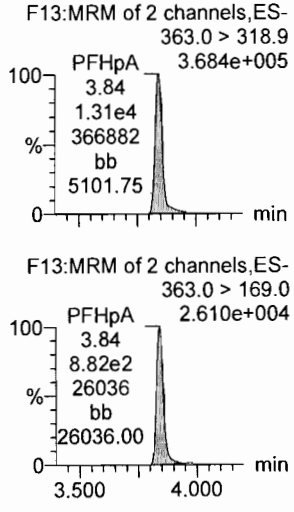
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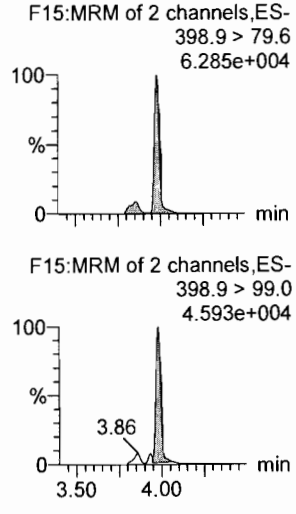
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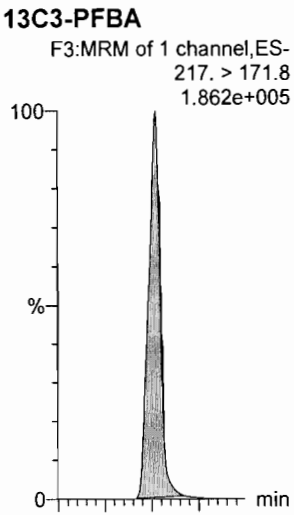
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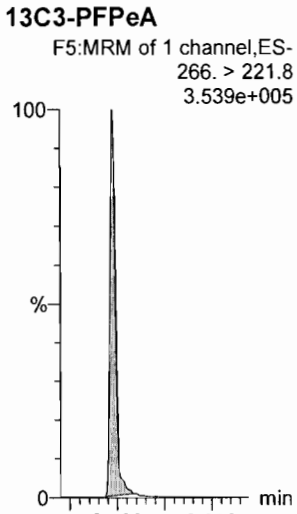
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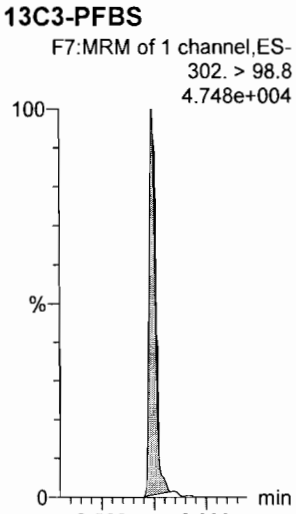
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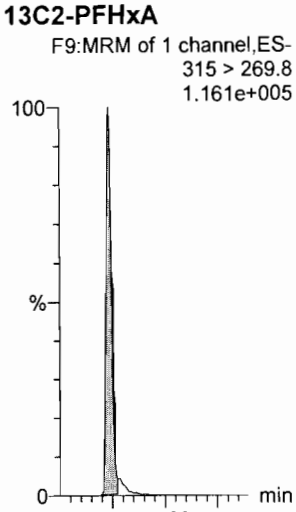
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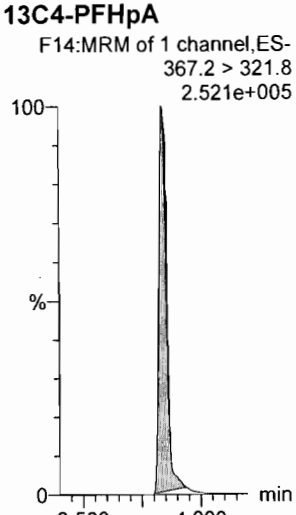
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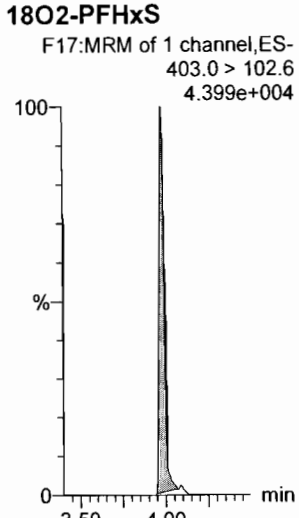
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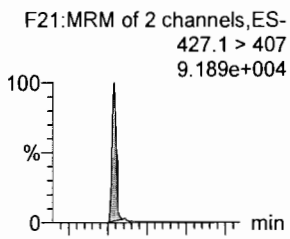


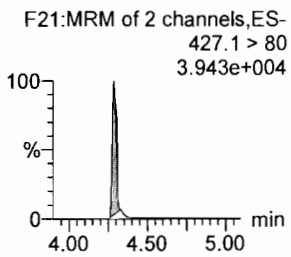
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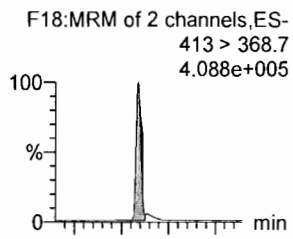
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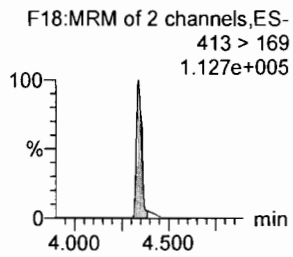
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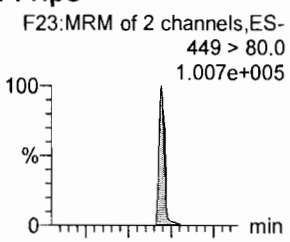


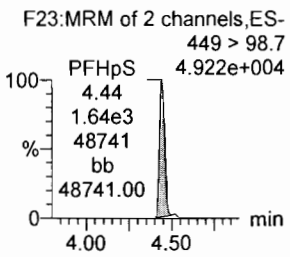
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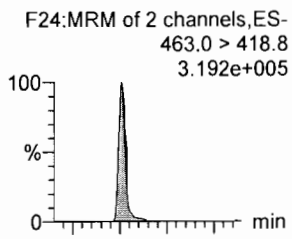


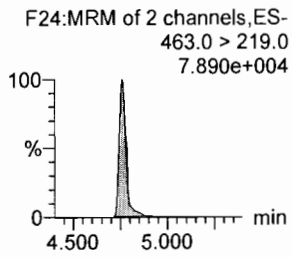
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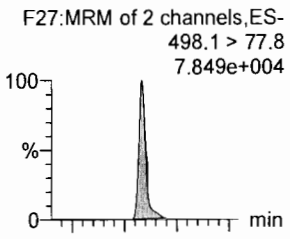


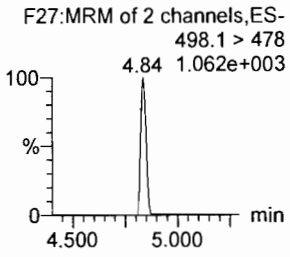
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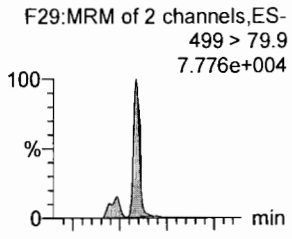


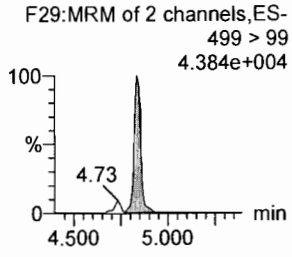
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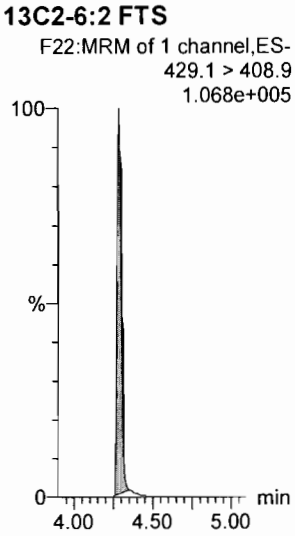


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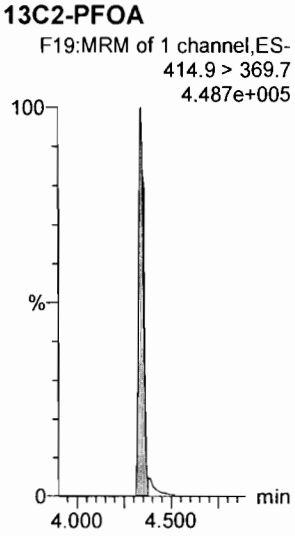




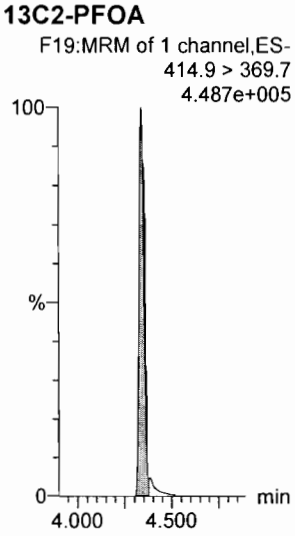
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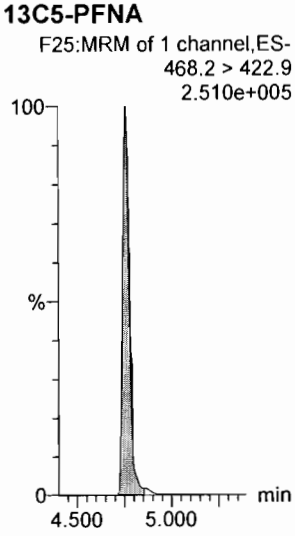
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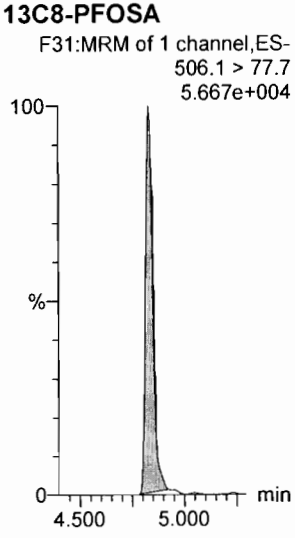
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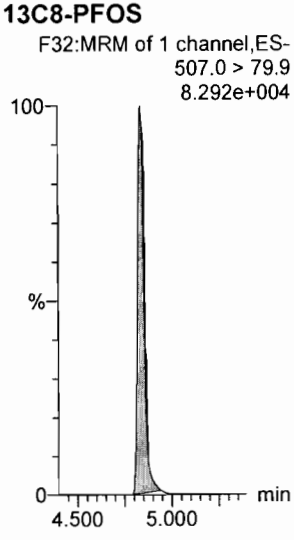
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13C8-PFOSA



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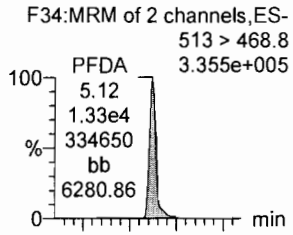


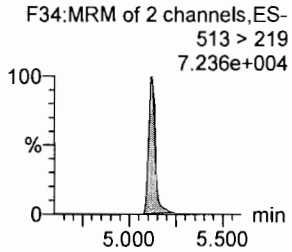
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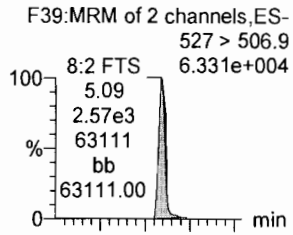
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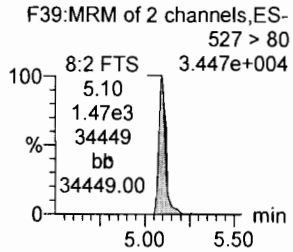
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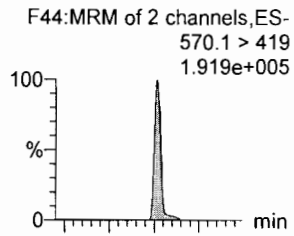


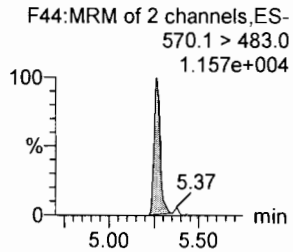
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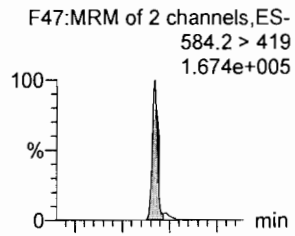


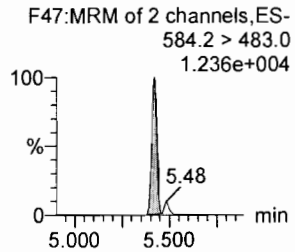
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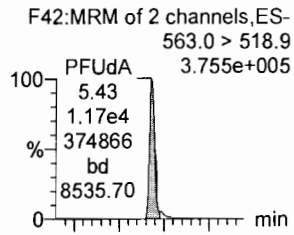


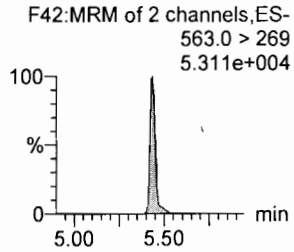
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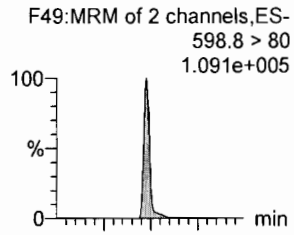


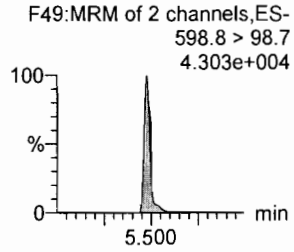
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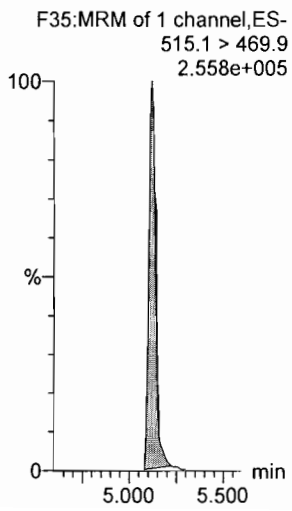


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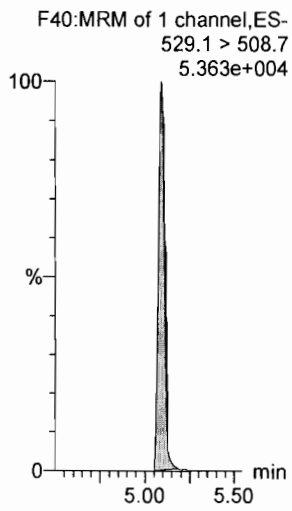




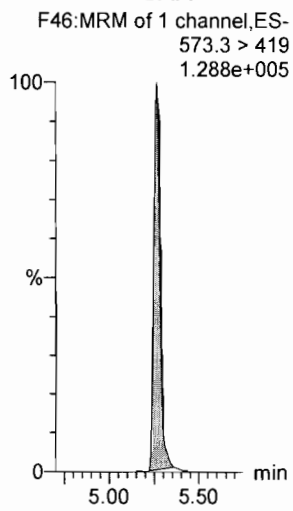
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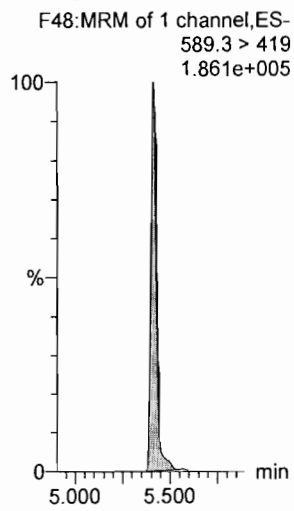
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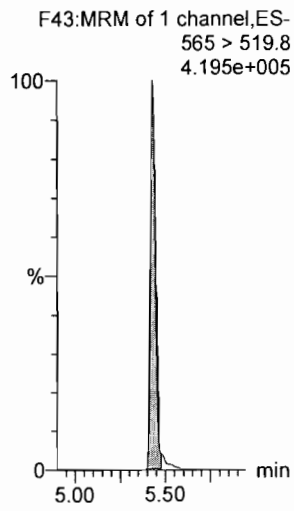
d3-N-MeFOSAA



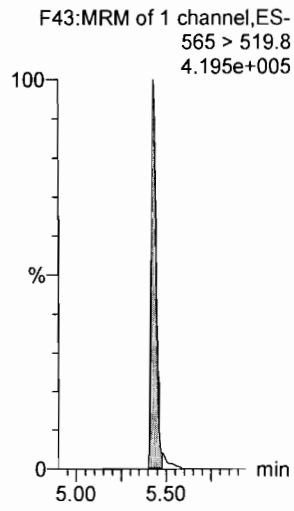
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

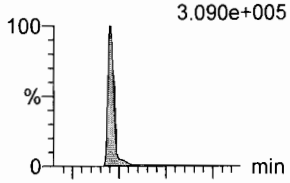


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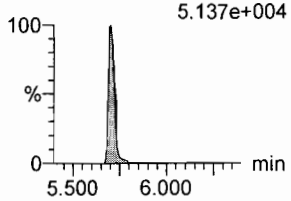
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Name: 171227M2_67, Date: 28-Dec-2017, Time: 05:43:28, ID: ST171227M2-13 PFC CS3 17L2611, Description: PFC CS3 17L2611

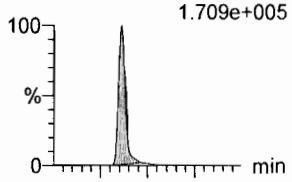
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
3.090e+005



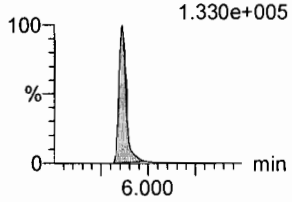
F50:MRM of 2 channels,ES-
612.9 > 318.8
5.137e+004



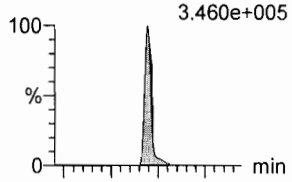
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
1.709e+005



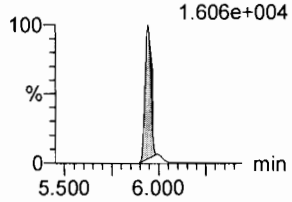
F33:MRM of 2 channels,ES-
512.1 > 219
1.330e+005



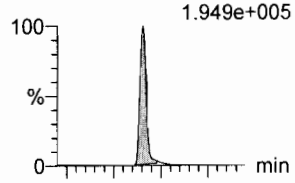
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
3.460e+005



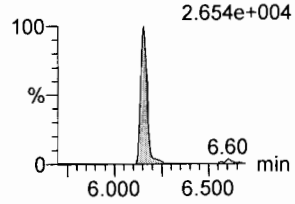
F56:MRM of 2 channels,ES-
662.9 > 319
1.606e+004



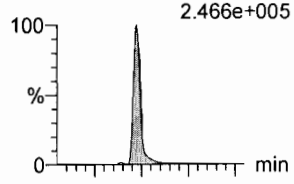
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
1.949e+005



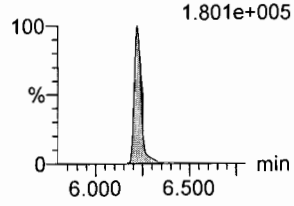
F57:MRM of 2 channels,ES-
712.9 > 369
2.654e+004



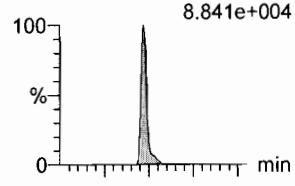
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
2.466e+005



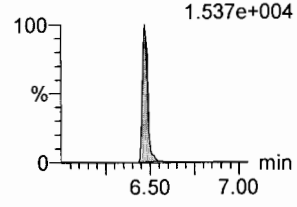
F38:MRM of 2 channels,ES-
526.1 > 219
1.801e+005



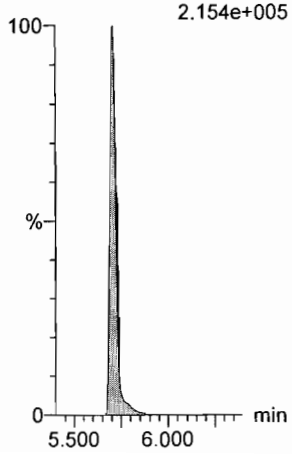
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
8.841e+004



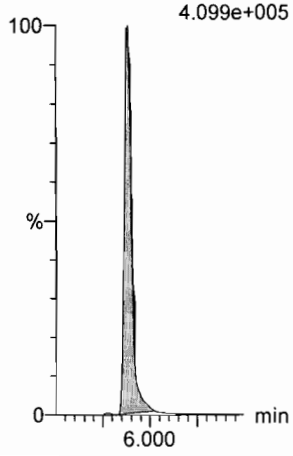
F59:MRM of 2 channels,ES-
813.1 > 219
1.537e+004



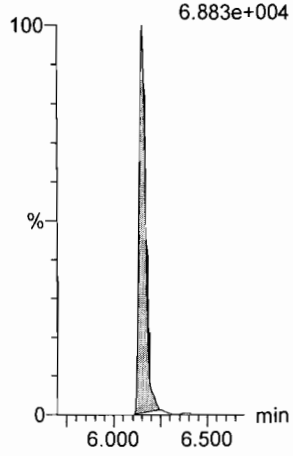
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
2.154e+005



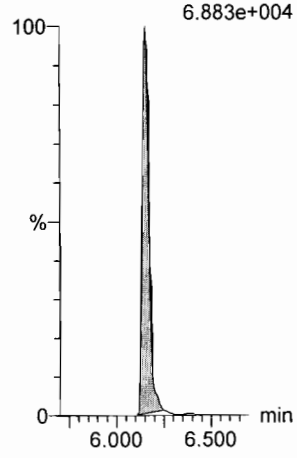
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.099e+005



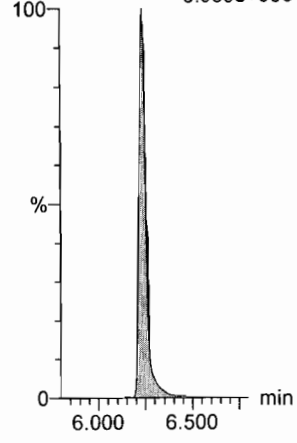
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
6.883e+004



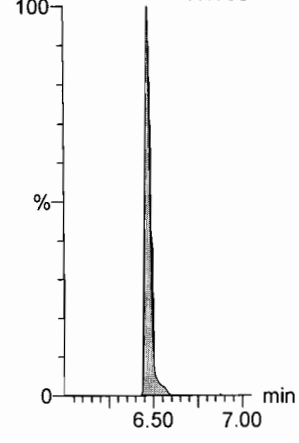
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
6.883e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.939e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
7.179e+004

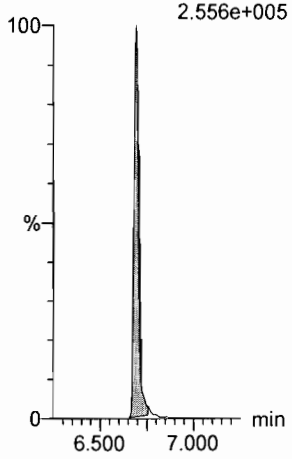


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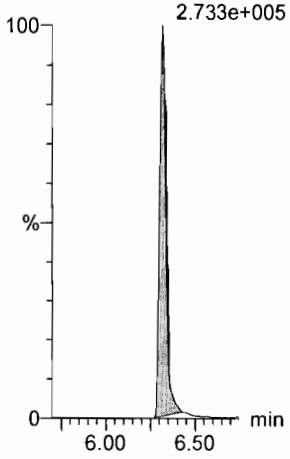
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Name: 171227M2_67, Date: 28-Dec-2017, Time: 05:43:28, ID: ST171227M2-13 PFC CS3 17L2611, Description: PFC CS3 17L2611

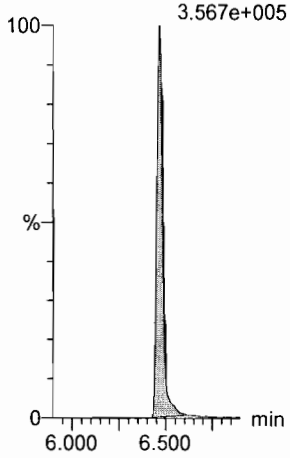
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.556e+005



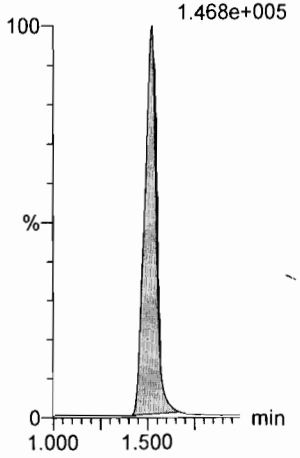
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.733e+005



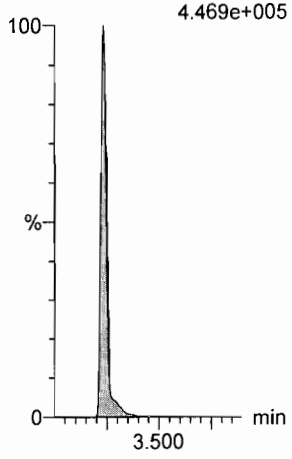
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.567e+005



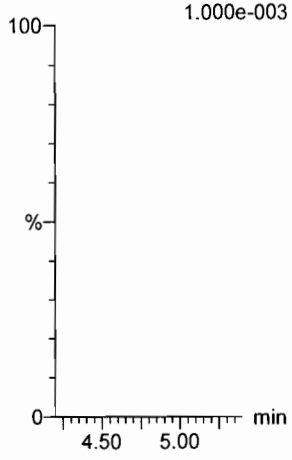
13C4-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.468e+005



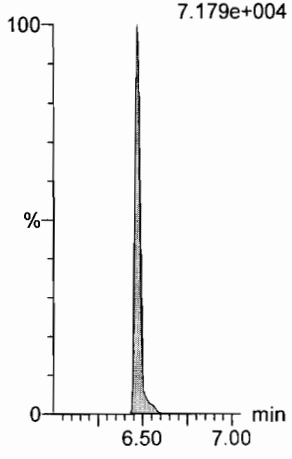
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.469e+005



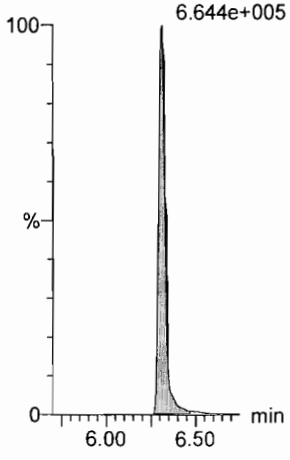
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



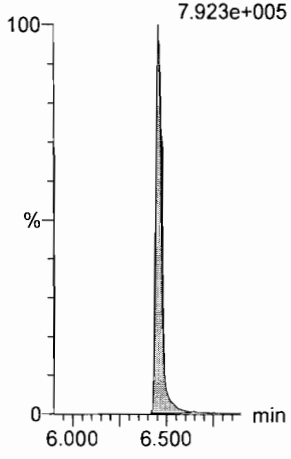
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
7.179e+004



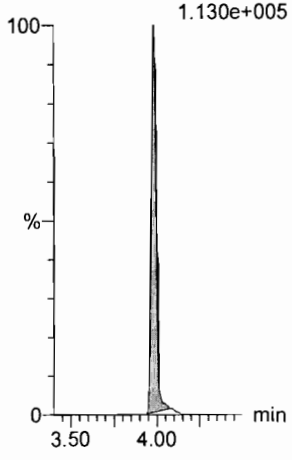
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.644e+005



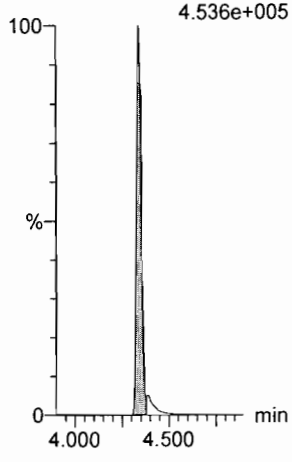
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.923e+005



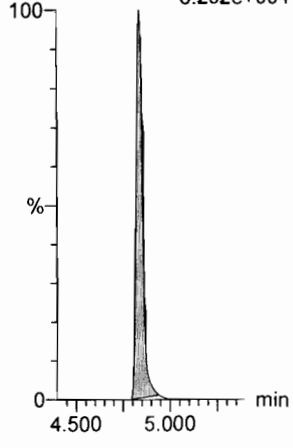
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.130e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.536e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
8.292e+004

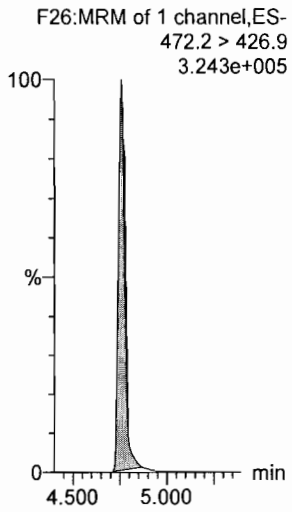


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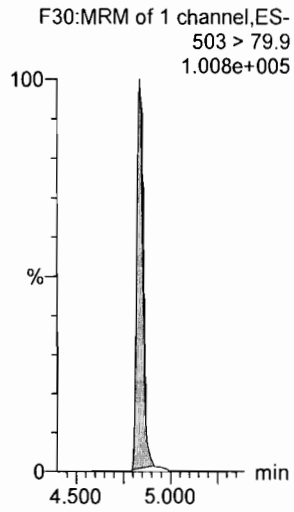
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Name: 171227M2_67, Date: 28-Dec-2017, Time: 05:43:28, ID: ST171227M2-13 PFC CS3 17L2611, Description: PFC CS3 17L2611

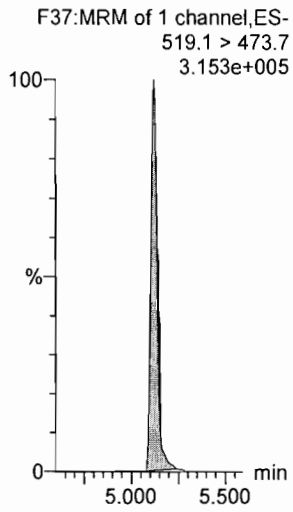
13C9-PFNA



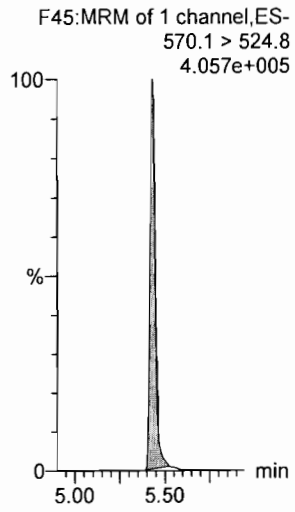
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171229M2\171229M2-IIS AREAS.qld

Last Altered: Saturday, December 30, 2017 10:17:27 Pacific Standard Time
Printed: Saturday, December 30, 2017 10:20:32 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-12-29-17.mdb 30 Dec 2017 10:03:31
Calibration: 30 Dec 2017 10:05:45

Name: 171229M2_7, Date: 29-Dec-2017, Time: 14:27:38, ID: ST171229M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171229M2-6 PFC CS3 17L2611	1.29e4	100.0	NO
2	2	13C5-PFHxA	ST171229M2-6 PFC CS3 17L2611	1.60e4	100.0	NO
3	3	13C3-PFHxS	ST171229M2-6 PFC CS3 17L2611	3.88e3	100.0	NO
4	4	13C8-PFOA	ST171229M2-6 PFC CS3 17L2611	1.49e4	100.0	NO
5	5	13C9-PFNA	ST171229M2-6 PFC CS3 17L2611	1.59e4	100.0	NO
6	6	13C4-PFOS	ST171229M2-6 PFC CS3 17L2611	3.71e3	100.0	NO
7	7	13C6-PFDA	ST171229M2-6 PFC CS3 17L2611	1.25e4	100.0	NO
8	8	13C7-PFUdA	ST171229M2-6 PFC CS3 17L2611	1.44e4	100.0	NO

Name: 171229M2_8, Date: 29-Dec-2017, Time: 14:38:48, ID: ST171229M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171229M2-7 PFC CS4 17L2612	1.31e4	102.0	NO
2	2	13C5-PFHxA	ST171229M2-7 PFC CS4 17L2612	1.65e4	103.0	NO
3	3	13C3-PFHxS	ST171229M2-7 PFC CS4 17L2612	4.02e3	103.6	NO
4	4	13C8-PFOA	ST171229M2-7 PFC CS4 17L2612	1.53e4	102.4	NO
5	5	13C9-PFNA	ST171229M2-7 PFC CS4 17L2612	1.38e4	86.7	NO
6	6	13C4-PFOS	ST171229M2-7 PFC CS4 17L2612	4.07e3	109.6	NO
7	7	13C6-PFDA	ST171229M2-7 PFC CS4 17L2612	1.05e4	83.9	NO
8	8	13C7-PFUdA	ST171229M2-7 PFC CS4 17L2612	1.41e4	98.1	NO

Name: 171229M2_9, Date: 29-Dec-2017, Time: 14:49:59, ID: ST171229M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171229M2-8 PFC CS5 17L2613	1.15e4	89.0	NO
2	2	13C5-PFHxA	ST171229M2-8 PFC CS5 17L2613	1.55e4	96.5	NO
3	3	13C3-PFHxS	ST171229M2-8 PFC CS5 17L2613	3.66e3	94.3	NO
4	4	13C8-PFOA	ST171229M2-8 PFC CS5 17L2613	1.34e4	90.0	NO
5	5	13C9-PFNA	ST171229M2-8 PFC CS5 17L2613	1.34e4	83.9	NO
6	6	13C4-PFOS	ST171229M2-8 PFC CS5 17L2613	3.52e3	94.9	NO
7	7	13C6-PFDA	ST171229M2-8 PFC CS5 17L2613	9.25e3	73.9	NO
8	8	13C7-PFUdA	ST171229M2-8 PFC CS5 17L2613	1.50e4	104.4	NO

Name: 171229M2_10, Date: 29-Dec-2017, Time: 15:01:10, ID: ST171229M2-9 PFC CS6 17L2710, Description: PFC CS6 17L2710

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171229M2-9 PFC CS6 17L2710	1.31e4	101.8	NO
2	2	13C5-PFHxA	ST171229M2-9 PFC CS6 17L2710	1.54e4	96.0	NO
3	3	13C3-PFHxS	ST171229M2-9 PFC CS6 17L2710	3.87e3	99.7	NO
4	4	13C8-PFOA	ST171229M2-9 PFC CS6 17L2710	1.37e4	91.8	NO
5	5	13C9-PFNA	ST171229M2-9 PFC CS6 17L2710	1.53e4	96.1	NO
6	6	13C4-PFOS	ST171229M2-9 PFC CS6 17L2710	3.57e3	96.2	NO
7	7	13C6-PFDA	ST171229M2-9 PFC CS6 17L2710	9.15e3	73.0	NO
8	8	13C7-PFUdA	ST171229M2-9 PFC CS6 17L2710	1.60e4	111.3	NO

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Name: 171229M2_11, Date: 29-Dec-2017, Time: 15:12:20, ID: ST171229M2-10 PFC CS7 17L1804, Description: PFC CS7 17L1804

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171229M2-10 PFC CS7 17L1804	2.75e4	213.6	YES
2	2	13C5-PFHxA	ST171229M2-10 PFC CS7 17L1804	3.30e4	205.6	YES
3	3	13C3-PFHxS	ST171229M2-10 PFC CS7 17L1804	6.68e3	172.1	YES
4	4	13C8-PFOA	ST171229M2-10 PFC CS7 17L1804	2.90e4	194.3	YES
5	5	13C9-PFNA	ST171229M2-10 PFC CS7 17L1804	2.73e4	171.3	YES
6	6	13C4-PFOS	ST171229M2-10 PFC CS7 17L1804	6.16e3	166.1	YES
7	7	13C6-PFDA	ST171229M2-10 PFC CS7 17L1804	2.06e4	164.6	YES
8	8	13C7-PFUdA	ST171229M2-10 PFC CS7 17L1804	2.22e4	153.8	YES

Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171229M2_13, Date: 29-Dec-2017, Time: 15:34:42, ID: ICV171229M2-1 PFC ICV 17L2907, Description: PFC ICV 17L2907

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ICV171229M2-1 PFC ICV 17L2907	1.27e4	98.5	NO
2	2	13C5-PFHxA	ICV171229M2-1 PFC ICV 17L2907	1.61e4	100.3	NO
3	3	13C3-PFHxS	ICV171229M2-1 PFC ICV 17L2907	4.24e3	109.2	NO
4	4	13C8-PFOA	ICV171229M2-1 PFC ICV 17L2907	1.44e4	96.3	NO
5	5	13C9-PFNA	ICV171229M2-1 PFC ICV 17L2907	1.31e4	82.3	NO
6	6	13C4-PFOS	ICV171229M2-1 PFC ICV 17L2907	4.22e3	113.8	NO
7	7	13C6-PFDA	ICV171229M2-1 PFC ICV 17L2907	1.10e4	88.1	NO
8	8	13C7-PFUdA	ICV171229M2-1 PFC ICV 17L2907	1.40e4	97.3	NO

Name: 171229M2_14, Date: 29-Dec-2017, Time: 15:54:47, ID: ICV171229M2-2 PFC ICV 17L1201, Description: PFC ICV 17L1201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ICV171229M2-2 PFC ICV 17L1201	1.24e4	96.0	NO
2	2	13C5-PFHxA	ICV171229M2-2 PFC ICV 17L1201	1.56e4	97.6	NO
3	3	13C3-PFHxS	ICV171229M2-2 PFC ICV 17L1201	3.38e3	86.9	NO
4	4	13C8-PFOA	ICV171229M2-2 PFC ICV 17L1201	1.44e4	96.5	NO
5	5	13C9-PFNA	ICV171229M2-2 PFC ICV 17L1201	1.26e4	78.9	NO
6	6	13C4-PFOS	ICV171229M2-2 PFC ICV 17L1201	3.55e3	95.7	NO
7	7	13C6-PFDA	ICV171229M2-2 PFC ICV 17L1201	1.34e4	107.3	NO
8	8	13C7-PFUdA	ICV171229M2-2 PFC ICV 17L1201	1.37e4	95.4	NO

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	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			
2	2	13C5-PFHxA	IPA			
3	3	13C3-PFHxS	IPA			
4	4	13C8-PFOA	IPA			
5	5	13C9-PFNA	IPA			
6	6	13C4-PFOS	IPA			
7	7	13C6-PFDA	IPA			
8	8	13C7-PFUdA	IPA			

Name: 171229M2_16, Date: 29-Dec-2017, Time: 16:20:48, ID: B7L0125-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0125-BS1 OPR 0.25	8.77e3	68.0	NO
2	2	13C5-PFHxA	B7L0125-BS1 OPR 0.25	1.05e4	65.6	NO
3	3	13C3-PFHxS	B7L0125-BS1 OPR 0.25	2.16e3	55.7	NO
4	4	13C8-PFOA	B7L0125-BS1 OPR 0.25	1.09e4	72.6	NO
5	5	13C9-PFNA	B7L0125-BS1 OPR 0.25	1.12e4	70.5	NO
6	6	13C4-PFOS	B7L0125-BS1 OPR 0.25	2.43e3	65.5	NO
7	7	13C6-PFDA	B7L0125-BS1 OPR 0.25	8.43e3	67.3	NO
8	8	13C7-PFUdA	B7L0125-BS1 OPR 0.25	1.18e4	82.2	NO

Name: 171229M2_17, Date: 29-Dec-2017, Time: 16:31:57, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0125-BSD1 LCSD 0.25	7.58e3	58.8	NO
2	2	13C5-PFHxA	B7L0125-BSD1 LCSD 0.25	9.58e3	59.7	NO
3	3	13C3-PFHxS	B7L0125-BSD1 LCSD 0.25	2.33e3	59.9	NO
4	4	13C8-PFOA	B7L0125-BSD1 LCSD 0.25	9.06e3	60.7	NO
5	5	13C9-PFNA	B7L0125-BSD1 LCSD 0.25	8.89e3	55.9	NO
6	6	13C4-PFOS	B7L0125-BSD1 LCSD 0.25	2.35e3	63.3	NO
7	7	13C6-PFDA	B7L0125-BSD1 LCSD 0.25	7.50e3	59.8	NO
8	8	13C7-PFUdA	B7L0125-BSD1 LCSD 0.25	1.04e4	71.9	NO

Name: 171229M2_18, Date: 29-Dec-2017, Time: 16:43:08, ID: B7L0125-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0125-BLK1 Method Blank 0.25	7.20e3	55.9	NO
2	2	13C5-PFHxA	B7L0125-BLK1 Method Blank 0.25	7.44e3	46.4	YES
3	3	13C3-PFHxS	B7L0125-BLK1 Method Blank 0.25	2.57e3	66.1	NO
4	4	13C8-PFOA	B7L0125-BLK1 Method Blank 0.25	8.41e3	56.3	NO
5	5	13C9-PFNA	B7L0125-BLK1 Method Blank 0.25	9.62e3	60.4	NO
6	6	13C4-PFOS	B7L0125-BLK1 Method Blank 0.25	2.25e3	60.5	NO
7	7	13C6-PFDA	B7L0125-BLK1 Method Blank 0.25	8.00e3	63.9	NO
8	8	13C7-PFUdA	B7L0125-BLK1 Method Blank 0.25	8.97e3	62.3	NO

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Name: 171229M2_19, Date: 29-Dec-2017, Time: 16:54:19, ID: 1701850-01 REEPDW022 0.11501, Description: REEPDW022

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701850-01 REEPDW022 0.11501	8.72e3	67.6	NO
2	2	13C5-PFHxA	1701850-01 REEPDW022 0.11501	1.06e4	65.9	NO
3	3	13C3-PFHxS	1701850-01 REEPDW022 0.11501	2.57e3	66.2	NO
4	4	13C8-PFOA	1701850-01 REEPDW022 0.11501	9.17e3	61.4	NO
5	5	13C9-PFNA	1701850-01 REEPDW022 0.11501	1.05e4	65.9	NO
6	6	13C4-PFOS	1701850-01 REEPDW022 0.11501	2.82e3	76.1	NO
7	7	13C6-PFDA	1701850-01 REEPDW022 0.11501	7.72e3	61.7	NO
8	8	13C7-PFUdA	1701850-01 REEPDW022 0.11501	1.23e4	85.7	NO

Name: 171229M2_20, Date: 29-Dec-2017, Time: 17:05:30, ID: 1701850-02 REEPDW023 0.11853, Description: REEPDW023

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701850-02 REEPDW023 0.11853	8.02e3	62.2	NO
2	2	13C5-PFHxA	1701850-02 REEPDW023 0.11853	1.05e4	65.4	NO
3	3	13C3-PFHxS	1701850-02 REEPDW023 0.11853	2.65e3	68.3	NO
4	4	13C8-PFOA	1701850-02 REEPDW023 0.11853	9.23e3	61.8	NO
5	5	13C9-PFNA	1701850-02 REEPDW023 0.11853	1.05e4	65.7	NO
6	6	13C4-PFOS	1701850-02 REEPDW023 0.11853	2.70e3	72.7	NO
7	7	13C6-PFDA	1701850-02 REEPDW023 0.11853	7.32e3	58.4	NO
8	8	13C7-PFUdA	1701850-02 REEPDW023 0.11853	1.01e4	70.2	NO

Name: 171229M2_21, Date: 29-Dec-2017, Time: 17:16:48, ID: 1701850-03 REEPDW024 0.117, Description: REEPDW024

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701850-03 REEPDW024 0.117	9.24e3	71.7	NO
2	2	13C5-PFHxA	1701850-03 REEPDW024 0.117	1.12e4	69.7	NO
3	3	13C3-PFHxS	1701850-03 REEPDW024 0.117	2.94e3	75.7	NO
4	4	13C8-PFOA	1701850-03 REEPDW024 0.117	1.09e4	73.3	NO
5	5	13C9-PFNA	1701850-03 REEPDW024 0.117	1.09e4	68.5	NO
6	6	13C4-PFOS	1701850-03 REEPDW024 0.117	2.86e3	77.1	NO
7	7	13C6-PFDA	1701850-03 REEPDW024 0.117	7.06e3	56.3	NO
8	8	13C7-PFUdA	1701850-03 REEPDW024 0.117	1.07e4	74.6	NO

Name: 171229M2_22, Date: 29-Dec-2017, Time: 17:27:59, ID: 1701850-04 REEPDW025 0.11877, Description: REEPDW025

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701850-04 REEPDW025 0.11877	8.89e3	68.9	NO
2	2	13C5-PFHxA	1701850-04 REEPDW025 0.11877	1.10e4	68.6	NO
3	3	13C3-PFHxS	1701850-04 REEPDW025 0.11877	2.78e3	71.6	NO
4	4	13C8-PFOA	1701850-04 REEPDW025 0.11877	1.07e4	71.6	NO
5	5	13C9-PFNA	1701850-04 REEPDW025 0.11877	8.45e3	53.1	NO
6	6	13C4-PFOS	1701850-04 REEPDW025 0.11877	3.07e3	82.7	NO
7	7	13C6-PFDA	1701850-04 REEPDW025 0.11877	7.28e3	58.1	NO
8	8	13C7-PFUdA	1701850-04 REEPDW025 0.11877	1.01e4	69.8	NO

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Name: 171229M2_23, Date: 29-Dec-2017, Time: 17:39:09, ID: 1701850-05 REEPDW026 0.1191, Description: REEPDW026

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701850-05 REEPDW026 0.1191	8.63e3	66.9	NO
2	2	13C5-PFHxA	1701850-05 REEPDW026 0.1191	1.12e4	69.7	NO
3	3	13C3-PFHxS	1701850-05 REEPDW026 0.1191	2.86e3	73.6	NO
4	4	13C8-PFOA	1701850-05 REEPDW026 0.1191	9.86e3	66.0	NO
5	5	13C9-PFNA	1701850-05 REEPDW026 0.1191	8.92e3	56.0	NO
6	6	13C4-PFOS	1701850-05 REEPDW026 0.1191	2.82e3	76.0	NO
7	7	13C6-PFDA	1701850-05 REEPDW026 0.1191	8.72e3	69.6	NO
8	8	13C7-PFUdA	1701850-05 REEPDW026 0.1191	1.11e4	77.3	NO

Name: 171229M2_24, Date: 29-Dec-2017, Time: 17:50:20, ID: 1701850-06 REEPDW027 0.12081, Description: REEPDW027

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701850-06 REEPDW027 0.12081	8.05e3	62.4	NO
2	2	13C5-PFHxA	1701850-06 REEPDW027 0.12081	9.76e3	60.9	NO
3	3	13C3-PFHxS	1701850-06 REEPDW027 0.12081	2.24e3	57.7	NO
4	4	13C8-PFOA	1701850-06 REEPDW027 0.12081	9.51e3	63.7	NO
5	5	13C9-PFNA	1701850-06 REEPDW027 0.12081	8.54e3	53.6	NO
6	6	13C4-PFOS	1701850-06 REEPDW027 0.12081	2.10e3	56.8	NO
7	7	13C6-PFDA	1701850-06 REEPDW027 0.12081	8.90e3	71.0	NO
8	8	13C7-PFUdA	1701850-06 REEPDW027 0.12081	8.79e3	61.0	NO

Name: 171229M2_25, Date: 29-Dec-2017, Time: 18:01:31, ID: 1701850-07 REEPDW028 0.11799, Description: REEPDW028

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701850-07 REEPDW028 0.11799	8.80e3	68.3	NO
2	2	13C5-PFHxA	1701850-07 REEPDW028 0.11799	1.01e4	62.7	NO
3	3	13C3-PFHxS	1701850-07 REEPDW028 0.11799	2.94e3	75.8	NO
4	4	13C8-PFOA	1701850-07 REEPDW028 0.11799	1.12e4	75.3	NO
5	5	13C9-PFNA	1701850-07 REEPDW028 0.11799	9.49e3	59.6	NO
6	6	13C4-PFOS	1701850-07 REEPDW028 0.11799	2.60e3	70.2	NO
7	7	13C6-PFDA	1701850-07 REEPDW028 0.11799	7.27e3	58.1	NO
8	8	13C7-PFUdA	1701850-07 REEPDW028 0.11799	1.23e4	85.3	NO

Name: 171229M2_26, Date: 29-Dec-2017, Time: 18:12:42, ID: 1701850-08 REEPDW029 0.12009, Description: REEPDW029

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701850-08 REEPDW029 0.12009	8.35e3	64.8	NO
2	2	13C5-PFHxA	1701850-08 REEPDW029 0.12009	1.01e4	62.9	NO
3	3	13C3-PFHxS	1701850-08 REEPDW029 0.12009	2.87e3	73.9	NO
4	4	13C8-PFOA	1701850-08 REEPDW029 0.12009	1.04e4	69.8	NO
5	5	13C9-PFNA	1701850-08 REEPDW029 0.12009	9.81e3	61.6	NO
6	6	13C4-PFOS	1701850-08 REEPDW029 0.12009	3.07e3	82.8	NO
7	7	13C6-PFDA	1701850-08 REEPDW029 0.12009	8.19e3	65.4	NO
8	8	13C7-PFUdA	1701850-08 REEPDW029 0.12009	1.20e4	83.5	NO

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Name: 171229M2_27, Date: 29-Dec-2017, Time: 18:23:52, ID: 1701850-10 REEPDW502 0.09932, Description: REEPDW502

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701850-10 REEPDW502 0.09932	7.47e3	58.0	NO
2	2	13C5-PFHxA	1701850-10 REEPDW502 0.09932	9.40e3	58.6	NO
3	3	13C3-PFHxS	1701850-10 REEPDW502 0.09932	2.22e3	57.3	NO
4	4	13C8-PFOA	1701850-10 REEPDW502 0.09932	9.25e3	61.9	NO
5	5	13C9-PFNA	1701850-10 REEPDW502 0.09932	9.01e3	56.6	NO
6	6	13C4-PFOS	1701850-10 REEPDW502 0.09932	2.96e3	79.9	NO
7	7	13C6-PFDA	1701850-10 REEPDW502 0.09932	7.88e3	62.9	NO
8	8	13C7-PFUdA	1701850-10 REEPDW502 0.09932	1.08e4	75.2	NO

Name: 171229M2_28, Date: 29-Dec-2017, Time: 18:35:03, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171229M2_29, Date: 29-Dec-2017, Time: 18:46:14, ID: ST171229M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171229M2-11 PFC CS3 17L2611	1.33e4	102.8	NO
2	2	13C5-PFHxA	ST171229M2-11 PFC CS3 17L2611	1.62e4	101.3	NO
3	3	13C3-PFHxS	ST171229M2-11 PFC CS3 17L2611	3.96e3	102.1	NO
4	4	13C8-PFOA	ST171229M2-11 PFC CS3 17L2611	1.59e4	106.7	NO
5	5	13C9-PFNA	ST171229M2-11 PFC CS3 17L2611	1.45e4	91.1	NO
6	6	13C4-PFOS	ST171229M2-11 PFC CS3 17L2611	4.11e3	110.9	NO
7	7	13C6-PFDA	ST171229M2-11 PFC CS3 17L2611	9.46e3	75.5	NO
8	8	13C7-PFUdA	ST171229M2-11 PFC CS3 17L2611	1.45e4	101.0	NO

Name: 171229M2_30, Date: 29-Dec-2017, Time: 18:57:24, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 171229M2_31, Date: 29-Dec-2017, Time: 19:08:35, ID: 1701850-11 REEPDW031 0.11718, Description: REEPDW031

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701850-11 REEPDW031 0.11718	7.35e3	57.0	NO
2	2	13C5-PFHxA	1701850-11 REEPDW031 0.11718	1.01e4	62.9	NO
3	3	13C3-PFHxS	1701850-11 REEPDW031 0.11718	2.63e3	67.7	NO
4	4	13C8-PFOA	1701850-11 REEPDW031 0.11718	8.68e3	58.1	NO
5	5	13C9-PFNA	1701850-11 REEPDW031 0.11718	7.99e3	50.2	NO
6	6	13C4-PFOS	1701850-11 REEPDW031 0.11718	2.63e3	70.8	NO
7	7	13C6-PFDA	1701850-11 REEPDW031 0.11718	8.11e3	64.8	NO
8	8	13C7-PFUdA	1701850-11 REEPDW031 0.11718	9.92e3	68.9	NO

Name: 171229M2_32, Date: 29-Dec-2017, Time: 19:19:45, ID: 1701850-12 REEPDW032 0.11903, Description: REEPDW032

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701850-12 REEPDW032 0.11903	7.27e3	56.4	NO
2	2	13C5-PFHxA	1701850-12 REEPDW032 0.11903	8.30e3	51.8	NO
3	3	13C3-PFHxS	1701850-12 REEPDW032 0.11903	2.40e3	61.8	NO
4	4	13C8-PFOA	1701850-12 REEPDW032 0.11903	8.17e3	54.7	NO
5	5	13C9-PFNA	1701850-12 REEPDW032 0.11903	9.20e3	57.8	NO
6	6	13C4-PFOS	1701850-12 REEPDW032 0.11903	2.05e3	55.2	NO
7	7	13C6-PFDA	1701850-12 REEPDW032 0.11903	9.38e3	74.9	NO
8	8	13C7-PFUdA	1701850-12 REEPDW032 0.11903	1.11e4	77.3	NO

Name: 171229M2_33, Date: 29-Dec-2017, Time: 19:30:56, ID: 1701850-13 REEPDW033 0.12087, Description: REEPDW033

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701850-13 REEPDW033 0.12087	7.53e3	58.4	NO
2	2	13C5-PFHxA	1701850-13 REEPDW033 0.12087	8.84e3	55.1	NO
3	3	13C3-PFHxS	1701850-13 REEPDW033 0.12087	2.46e3	63.3	NO
4	4	13C8-PFOA	1701850-13 REEPDW033 0.12087	9.04e3	60.5	NO
5	5	13C9-PFNA	1701850-13 REEPDW033 0.12087	1.04e4	65.6	NO
6	6	13C4-PFOS	1701850-13 REEPDW033 0.12087	2.43e3	65.6	NO
7	7	13C6-PFDA	1701850-13 REEPDW033 0.12087	8.99e3	71.8	NO
8	8	13C7-PFUdA	1701850-13 REEPDW033 0.12087	1.05e4	72.8	NO

Name: 171229M2_34, Date: 29-Dec-2017, Time: 19:42:07, ID: 1701850-14 REEPDW034 0.12073, Description: REEPDW034

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701850-14 REEPDW034 0.12073	7.01e3	54.4	NO
2	2	13C5-PFHxA	1701850-14 REEPDW034 0.12073	8.94e3	55.8	NO
3	3	13C3-PFHxS	1701850-14 REEPDW034 0.12073	2.47e3	63.7	NO
4	4	13C8-PFOA	1701850-14 REEPDW034 0.12073	9.20e3	61.6	NO
5	5	13C9-PFNA	1701850-14 REEPDW034 0.12073	8.73e3	54.8	NO
6	6	13C4-PFOS	1701850-14 REEPDW034 0.12073	2.38e3	64.1	NO
7	7	13C6-PFDA	1701850-14 REEPDW034 0.12073	7.06e3	56.4	NO
8	8	13C7-PFUdA	1701850-14 REEPDW034 0.12073	7.52e3	52.2	NO

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Name: 171229M2_35, Date: 29-Dec-2017, Time: 19:53:18, ID: 1701940-01 REEPDWO40FRB 0.11341, Description: REEPDWO40FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701940-01 REEPDWO40FRB 0.11341	8.30e3	64.4	NO
2	2	13C5-PFHxA	1701940-01 REEPDWO40FRB 0.11341	1.12e4	69.8	NO
3	3	13C3-PFHxS	1701940-01 REEPDWO40FRB 0.11341	2.58e3	66.4	NO
4	4	13C8-PFOA	1701940-01 REEPDWO40FRB 0.11341	8.43e3	56.4	NO
5	5	13C9-PFNA	1701940-01 REEPDWO40FRB 0.11341	9.85e3	61.9	NO
6	6	13C4-PFOS	1701940-01 REEPDWO40FRB 0.11341	2.49e3	67.2	NO
7	7	13C6-PFDA	1701940-01 REEPDWO40FRB 0.11341	9.98e3	79.7	NO
8	8	13C7-PFUdA	1701940-01 REEPDWO40FRB 0.11341	1.22e4	84.6	NO

Name: 171229M2_36, Date: 29-Dec-2017, Time: 20:04:31, ID: 1701940-02 REEPDW041FRB 0.11678, Description: REEPDW041FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701940-02 REEPDW041FRB 0.11678	8.13e3	63.1	NO
2	2	13C5-PFHxA	1701940-02 REEPDW041FRB 0.11678	8.77e3	54.7	NO
3	3	13C3-PFHxS	1701940-02 REEPDW041FRB 0.11678	2.59e3	66.7	NO
4	4	13C8-PFOA	1701940-02 REEPDW041FRB 0.11678	9.38e3	62.8	NO
5	5	13C9-PFNA	1701940-02 REEPDW041FRB 0.11678	9.30e3	58.4	NO
6	6	13C4-PFOS	1701940-02 REEPDW041FRB 0.11678	2.03e3	54.8	NO
7	7	13C6-PFDA	1701940-02 REEPDW041FRB 0.11678	8.87e3	70.9	NO
8	8	13C7-PFUdA	1701940-02 REEPDW041FRB 0.11678	9.45e3	65.6	NO

Name: 171229M2_37, Date: 29-Dec-2017, Time: 20:15:44, ID: 1701940-03 REEPDW042FRB 0.11364, Description: REEPDW042FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701940-03 REEPDW042FRB 0.11364	8.39e3	65.0	NO
2	2	13C5-PFHxA	1701940-03 REEPDW042FRB 0.11364	9.74e3	60.7	NO
3	3	13C3-PFHxS	1701940-03 REEPDW042FRB 0.11364	2.72e3	70.0	NO
4	4	13C8-PFOA	1701940-03 REEPDW042FRB 0.11364	1.01e4	67.4	NO
5	5	13C9-PFNA	1701940-03 REEPDW042FRB 0.11364	9.08e3	57.0	NO
6	6	13C4-PFOS	1701940-03 REEPDW042FRB 0.11364	2.03e3	54.7	NO
7	7	13C6-PFDA	1701940-03 REEPDW042FRB 0.11364	8.69e3	69.4	NO
8	8	13C7-PFUdA	1701940-03 REEPDW042FRB 0.11364	1.18e4	82.1	NO

Name: 171229M2_38, Date: 29-Dec-2017, Time: 20:26:54, ID: 1701802-01RE1 FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-01RE1 FC-MW02SR1-NP-20...	8.38e3	65.0	NO
2	2	13C5-PFHxA	1701802-01RE1 FC-MW02SR1-NP-20...	1.03e4	64.3	NO
3	3	13C3-PFHxS	1701802-01RE1 FC-MW02SR1-NP-20...	2.35e3	60.6	NO
4	4	13C8-PFOA	1701802-01RE1 FC-MW02SR1-NP-20...	9.88e3	66.2	NO
5	5	13C9-PFNA	1701802-01RE1 FC-MW02SR1-NP-20...	9.34e3	58.7	NO
6	6	13C4-PFOS	1701802-01RE1 FC-MW02SR1-NP-20...	3.12e3	84.1	NO
7	7	13C6-PFDA	1701802-01RE1 FC-MW02SR1-NP-20...	7.68e3	61.3	NO
8	8	13C7-PFUdA	1701802-01RE1 FC-MW02SR1-NP-20...	9.04e3	62.7	NO

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Name: 171229M2_39, Date: 29-Dec-2017, Time: 20:38:04, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-02RE1 FC-MW02SR1-P1-201...	9.78e3	75.8	NO
2	2	13C5-PFHxA	1701802-02RE1 FC-MW02SR1-P1-201...	1.18e4	73.4	NO
3	3	13C3-PFHxS	1701802-02RE1 FC-MW02SR1-P1-201...	2.72e3	70.2	NO
4	4	13C8-PFOA	1701802-02RE1 FC-MW02SR1-P1-201...	1.07e4	71.3	NO
5	5	13C9-PFNA	1701802-02RE1 FC-MW02SR1-P1-201...	9.00e3	56.5	NO
6	6	13C4-PFOS	1701802-02RE1 FC-MW02SR1-P1-201...	2.62e3	70.7	NO
7	7	13C6-PFDA	1701802-02RE1 FC-MW02SR1-P1-201...	8.61e3	68.8	NO
8	8	13C7-PFUdA	1701802-02RE1 FC-MW02SR1-P1-201...	9.02e3	62.6	NO

Name: 171229M2_40, Date: 29-Dec-2017, Time: 20:49:15, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-03RE1 FC-MW02SR1-P2-201...	7.57e3	58.7	NO
2	2	13C5-PFHxA	1701802-03RE1 FC-MW02SR1-P2-201...	9.49e3	59.2	NO
3	3	13C3-PFHxS	1701802-03RE1 FC-MW02SR1-P2-201...	2.41e3	62.1	NO
4	4	13C8-PFOA	1701802-03RE1 FC-MW02SR1-P2-201...	1.04e4	69.6	NO
5	5	13C9-PFNA	1701802-03RE1 FC-MW02SR1-P2-201...	9.60e3	60.3	NO
6	6	13C4-PFOS	1701802-03RE1 FC-MW02SR1-P2-201...	2.63e3	70.9	NO
7	7	13C6-PFDA	1701802-03RE1 FC-MW02SR1-P2-201...	6.58e3	52.5	NO
8	8	13C7-PFUdA	1701802-03RE1 FC-MW02SR1-P2-201...	8.80e3	61.1	NO

Name: 171229M2_41, Date: 29-Dec-2017, Time: 21:00:26, ID: 1701802-04RE1 FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-04RE1 FC-MW02SR1-P3-201...	7.62e3	59.1	NO
2	2	13C5-PFHxA	1701802-04RE1 FC-MW02SR1-P3-201...	9.08e3	56.7	NO
3	3	13C3-PFHxS	1701802-04RE1 FC-MW02SR1-P3-201...	2.38e3	61.3	NO
4	4	13C8-PFOA	1701802-04RE1 FC-MW02SR1-P3-201...	9.17e3	61.4	NO
5	5	13C9-PFNA	1701802-04RE1 FC-MW02SR1-P3-201...	9.70e3	60.9	NO
6	6	13C4-PFOS	1701802-04RE1 FC-MW02SR1-P3-201...	2.81e3	75.7	NO
7	7	13C6-PFDA	1701802-04RE1 FC-MW02SR1-P3-201...	8.02e3	64.0	NO
8	8	13C7-PFUdA	1701802-04RE1 FC-MW02SR1-P3-201...	8.74e3	60.7	NO

Name: 171229M2_42, Date: 29-Dec-2017, Time: 21:11:37, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-05RE1 FC-MW02SR1-FRB-2...	7.42e3	57.6	NO
2	2	13C5-PFHxA	1701802-05RE1 FC-MW02SR1-FRB-2...	8.83e3	55.1	NO
3	3	13C3-PFHxS	1701802-05RE1 FC-MW02SR1-FRB-2...	2.22e3	57.2	NO
4	4	13C8-PFOA	1701802-05RE1 FC-MW02SR1-FRB-2...	8.33e3	55.8	NO
5	5	13C9-PFNA	1701802-05RE1 FC-MW02SR1-FRB-2...	9.03e3	56.7	NO
6	6	13C4-PFOS	1701802-05RE1 FC-MW02SR1-FRB-2...	2.25e3	60.6	NO
7	7	13C6-PFDA	1701802-05RE1 FC-MW02SR1-FRB-2...	8.07e3	64.4	NO
8	8	13C7-PFUdA	1701802-05RE1 FC-MW02SR1-FRB-2...	9.16e3	63.6	NO

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Name: 171229M2_43, Date: 29-Dec-2017, Time: 21:22:47, ID: 1701802-06RE1 FC-MW02IR1-NP-20171128 0.26838, Description: FC-MW02IR1-NP-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-06RE1 FC-MW02IR1-NP-201...	7.12e3	55.2	NO
2	2	13C5-PFHxA	1701802-06RE1 FC-MW02IR1-NP-201...	8.60e3	53.7	NO
3	3	13C3-PFHxS	1701802-06RE1 FC-MW02IR1-NP-201...	2.14e3	55.0	NO
4	4	13C8-PFOA	1701802-06RE1 FC-MW02IR1-NP-201...	8.82e3	59.0	NO
5	5	13C9-PFNA	1701802-06RE1 FC-MW02IR1-NP-201...	8.83e3	55.5	NO
6	6	13C4-PFOS	1701802-06RE1 FC-MW02IR1-NP-201...	2.16e3	58.3	NO
7	7	13C6-PFDA	1701802-06RE1 FC-MW02IR1-NP-201...	8.68e3	69.3	NO
8	8	13C7-PFUdA	1701802-06RE1 FC-MW02IR1-NP-201...	8.01e3	55.6	NO

Name: 171229M2_44, Date: 29-Dec-2017, Time: 21:33:58, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-07RE1 FC-MW02IR1-P1-201...	7.23e3	56.0	NO
2	2	13C5-PFHxA	1701802-07RE1 FC-MW02IR1-P1-201...	9.05e3	56.4	NO
3	3	13C3-PFHxS	1701802-07RE1 FC-MW02IR1-P1-201...	2.64e3	68.1	NO
4	4	13C8-PFOA	1701802-07RE1 FC-MW02IR1-P1-201...	9.13e3	61.1	NO
5	5	13C9-PFNA	1701802-07RE1 FC-MW02IR1-P1-201...	8.21e3	51.5	NO
6	6	13C4-PFOS	1701802-07RE1 FC-MW02IR1-P1-201...	2.54e3	68.5	NO
7	7	13C6-PFDA	1701802-07RE1 FC-MW02IR1-P1-201...	7.04e3	56.2	NO
8	8	13C7-PFUdA	1701802-07RE1 FC-MW02IR1-P1-201...	7.56e3	52.5	NO

Name: 171229M2_45, Date: 29-Dec-2017, Time: 21:45:09, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171229M2_46, Date: 29-Dec-2017, Time: 21:56:19, ID: ST171229M2-12 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171229M2-12 PFC CS0 17L2608	1.33e4	103.5	NO
2	2	13C5-PFHxA	ST171229M2-12 PFC CS0 17L2608	1.65e4	103.0	NO
3	3	13C3-PFHxS	ST171229M2-12 PFC CS0 17L2608	4.35e3	112.1	NO
4	4	13C8-PFOA	ST171229M2-12 PFC CS0 17L2608	1.31e4	87.9	NO
5	5	13C9-PFNA	ST171229M2-12 PFC CS0 17L2608	1.70e4	106.6	NO
6	6	13C4-PFOS	ST171229M2-12 PFC CS0 17L2608	3.99e3	107.7	NO
7	7	13C6-PFDA	ST171229M2-12 PFC CS0 17L2608	1.24e4	98.9	NO
8	8	13C7-PFUdA	ST171229M2-12 PFC CS0 17L2608	1.61e4	112.0	NO

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Name: 171229M2_47, Date: 29-Dec-2017, Time: 22:07:32, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171229M2_48, Date: 29-Dec-2017, Time: 22:18:51, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-08RE1 FC-MW02IR1-P2-201...	5.99e3	46.5	YES
2	2	13C5-PFHxA	1701802-08RE1 FC-MW02IR1-P2-201...	7.93e3	49.5	YES
3	3	13C3-PFHxS	1701802-08RE1 FC-MW02IR1-P2-201...	2.38e3	61.3	NO
4	4	13C8-PFOA	1701802-08RE1 FC-MW02IR1-P2-201...	8.43e3	56.4	NO
5	5	13C9-PFNA	1701802-08RE1 FC-MW02IR1-P2-201...	6.27e3	39.4	YES
6	6	13C4-PFOS	1701802-08RE1 FC-MW02IR1-P2-201...	2.26e3	60.9	NO
7	7	13C6-PFDA	1701802-08RE1 FC-MW02IR1-P2-201...	6.43e3	51.3	NO
8	8	13C7-PFUdA	1701802-08RE1 FC-MW02IR1-P2-201...	7.95e3	55.2	NO

Name: 171229M2_49, Date: 29-Dec-2017, Time: 22:30:05, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-09RE1 FC-MW02IR1-P3-201...	6.78e3	52.5	NO
2	2	13C5-PFHxA	1701802-09RE1 FC-MW02IR1-P3-201...	9.21e3	57.4	NO
3	3	13C3-PFHxS	1701802-09RE1 FC-MW02IR1-P3-201...	1.95e3	50.2	NO
4	4	13C8-PFOA	1701802-09RE1 FC-MW02IR1-P3-201...	8.06e3	53.9	NO
5	5	13C9-PFNA	1701802-09RE1 FC-MW02IR1-P3-201...	8.21e3	51.6	NO
6	6	13C4-PFOS	1701802-09RE1 FC-MW02IR1-P3-201...	2.26e3	60.9	NO
7	7	13C6-PFDA	1701802-09RE1 FC-MW02IR1-P3-201...	8.74e3	69.8	NO
8	8	13C7-PFUdA	1701802-09RE1 FC-MW02IR1-P3-201...	9.09e3	63.1	NO

Name: 171229M2_50, Date: 29-Dec-2017, Time: 22:41:16, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 171229M2_51, Date: 29-Dec-2017, Time: 22:52:26, ID: B7L0171-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0171-BS1 OPR 0.25	8.78e3	68.1	NO
2	2	13C5-PFHxA	B7L0171-BS1 OPR 0.25	1.05e4	65.6	NO
3	3	13C3-PFHxS	B7L0171-BS1 OPR 0.25	2.90e3	74.7	NO
4	4	13C8-PFOA	B7L0171-BS1 OPR 0.25	1.04e4	69.9	NO
5	5	13C9-PFNA	B7L0171-BS1 OPR 0.25	9.32e3	58.5	NO
6	6	13C4-PFOS	B7L0171-BS1 OPR 0.25	2.60e3	70.2	NO
7	7	13C6-PFDA	B7L0171-BS1 OPR 0.25	7.54e3	60.2	NO
8	8	13C7-PFUdA	B7L0171-BS1 OPR 0.25	1.07e4	74.2	NO

Name: 171229M2_52, Date: 29-Dec-2017, Time: 23:03:37, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171229M2_53, Date: 29-Dec-2017, Time: 23:14:47, ID: B7L0171-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0171-BLK1 Method Blank 0.25	9.07e3	70.4	NO
2	2	13C5-PFHxA	B7L0171-BLK1 Method Blank 0.25	1.10e4	68.6	NO
3	3	13C3-PFHxS	B7L0171-BLK1 Method Blank 0.25	2.98e3	76.6	NO
4	4	13C8-PFOA	B7L0171-BLK1 Method Blank 0.25	1.01e4	67.7	NO
5	5	13C9-PFNA	B7L0171-BLK1 Method Blank 0.25	1.16e4	72.6	NO
6	6	13C4-PFOS	B7L0171-BLK1 Method Blank 0.25	2.76e3	74.3	NO
7	7	13C6-PFDA	B7L0171-BLK1 Method Blank 0.25	9.49e3	75.7	NO
8	8	13C7-PFUdA	B7L0171-BLK1 Method Blank 0.25	1.08e4	74.8	NO

Name: 171229M2_54, Date: 29-Dec-2017, Time: 23:25:59, ID: B7L0171-MS1 Matrix Spike 0.25217, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0171-MS1 Matrix Spike 0.25217	8.04e3	62.3	NO
2	2	13C5-PFHxA	B7L0171-MS1 Matrix Spike 0.25217	1.08e4	67.2	NO
3	3	13C3-PFHxS	B7L0171-MS1 Matrix Spike 0.25217	2.76e3	71.1	NO
4	4	13C8-PFOA	B7L0171-MS1 Matrix Spike 0.25217	1.10e4	73.6	NO
5	5	13C9-PFNA	B7L0171-MS1 Matrix Spike 0.25217	1.10e4	69.3	NO
6	6	13C4-PFOS	B7L0171-MS1 Matrix Spike 0.25217	2.54e3	68.4	NO
7	7	13C6-PFDA	B7L0171-MS1 Matrix Spike 0.25217	1.02e4	81.6	NO
8	8	13C7-PFUdA	B7L0171-MS1 Matrix Spike 0.25217	1.30e4	90.4	NO

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Name: 171229M2_55, Date: 29-Dec-2017, Time: 23:37:09, ID: B7L0171-MSD1 Matrix Spike Dup 0.2644, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0171-MSD1 Matrix Spike Dup 0.2644	8.94e3	69.3	NO
2	2	13C5-PFHxA	B7L0171-MSD1 Matrix Spike Dup 0.2644	1.12e4	69.6	NO
3	3	13C3-PFHxS	B7L0171-MSD1 Matrix Spike Dup 0.2644	2.95e3	75.9	NO
4	4	13C8-PFOA	B7L0171-MSD1 Matrix Spike Dup 0.2644	1.19e4	79.8	NO
5	5	13C9-PFNA	B7L0171-MSD1 Matrix Spike Dup 0.2644	1.11e4	69.9	NO
6	6	13C4-PFOS	B7L0171-MSD1 Matrix Spike Dup 0.2644	2.85e3	76.9	NO
7	7	13C6-PFDA	B7L0171-MSD1 Matrix Spike Dup 0.2644	8.20e3	65.4	NO
8	8	13C7-PFUdA	B7L0171-MSD1 Matrix Spike Dup 0.2644	1.18e4	81.8	NO

Name: 171229M2_56, Date: 29-Dec-2017, Time: 23:48:20, ID: 1701929-01 SB01 0.26085, Description: SB01

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701929-01 SB01 0.26085	8.62e3	66.8	NO
2	2	13C5-PFHxA	1701929-01 SB01 0.26085	9.51e3	59.3	NO
3	3	13C3-PFHxS	1701929-01 SB01 0.26085	2.31e3	59.6	NO
4	4	13C8-PFOA	1701929-01 SB01 0.26085	8.92e3	59.7	NO
5	5	13C9-PFNA	1701929-01 SB01 0.26085	8.05e3	50.5	NO
6	6	13C4-PFOS	1701929-01 SB01 0.26085	2.63e3	71.0	NO
7	7	13C6-PFDA	1701929-01 SB01 0.26085	7.40e3	59.1	NO
8	8	13C7-PFUdA	1701929-01 SB01 0.26085	1.04e4	72.4	NO

Name: 171229M2_57, Date: 29-Dec-2017, Time: 23:59:31, ID: 1701929-02 EB01 0.26531, Description: EB01

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701929-02 EB01 0.26531	7.81e3	60.6	NO
2	2	13C5-PFHxA	1701929-02 EB01 0.26531	9.36e3	58.4	NO
3	3	13C3-PFHxS	1701929-02 EB01 0.26531	2.67e3	68.8	NO
4	4	13C8-PFOA	1701929-02 EB01 0.26531	8.99e3	60.2	NO
5	5	13C9-PFNA	1701929-02 EB01 0.26531	1.09e4	68.3	NO
6	6	13C4-PFOS	1701929-02 EB01 0.26531	1.91e3	51.4	NO
7	7	13C6-PFDA	1701929-02 EB01 0.26531	8.33e3	66.5	NO
8	8	13C7-PFUdA	1701929-02 EB01 0.26531	1.01e4	70.2	NO

Name: 171229M2_58, Date: 30-Dec-2017, Time: 00:10:41, ID: 1701929-03 UXOSite11-GW-GMMW04-20171211 0.2532, Description: UXOSite11-GW-GMMW04-20171211

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701929-03 UXOSite11-GW-GMMW04-...	8.36e3	64.9	NO
2	2	13C5-PFHxA	1701929-03 UXOSite11-GW-GMMW04-...	1.02e4	63.9	NO
3	3	13C3-PFHxS	1701929-03 UXOSite11-GW-GMMW04-...	2.92e3	75.1	NO
4	4	13C8-PFOA	1701929-03 UXOSite11-GW-GMMW04-...	1.03e4	68.7	NO
5	5	13C9-PFNA	1701929-03 UXOSite11-GW-GMMW04-...	1.15e4	72.1	NO
6	6	13C4-PFOS	1701929-03 UXOSite11-GW-GMMW04-...	2.98e3	80.4	NO
7	7	13C6-PFDA	1701929-03 UXOSite11-GW-GMMW04-...	9.01e3	72.0	NO
8	8	13C7-PFUdA	1701929-03 UXOSite11-GW-GMMW04-...	1.08e4	74.7	NO

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Name: 171229M2_59, Date: 30-Dec-2017, Time: 00:21:52, ID: 1701929-04 UXOSite11-GW-GMMW08-20171211 0.25344, Description: UXOSite11-GW-GMMW08-20171211

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701929-04 UXOSite11-GW-GMMW08-...	8.15e3	63.2	NO
2	2	13C5-PFHxA	1701929-04 UXOSite11-GW-GMMW08-...	1.05e4	65.7	NO
3	3	13C3-PFHxS	1701929-04 UXOSite11-GW-GMMW08-...	2.86e3	73.8	NO
4	4	13C8-PFOA	1701929-04 UXOSite11-GW-GMMW08-...	1.08e4	72.2	NO
5	5	13C9-PFNA	1701929-04 UXOSite11-GW-GMMW08-...	1.15e4	72.3	NO
6	6	13C4-PFOS	1701929-04 UXOSite11-GW-GMMW08-...	2.31e3	62.4	NO
7	7	13C6-PFDA	1701929-04 UXOSite11-GW-GMMW08-...	9.97e3	79.6	NO
8	8	13C7-PFUdA	1701929-04 UXOSite11-GW-GMMW08-...	1.22e4	84.8	NO

Name: 171229M2_60, Date: 30-Dec-2017, Time: 00:33:02, ID: 1701929-05 UXOSite11-GW-GMMW10-20171211 0.26122, Description: UXOSite11-GW-GMMW10-20171211

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701929-05 UXOSite11-GW-GMMW10-...	8.33e3	64.6	NO
2	2	13C5-PFHxA	1701929-05 UXOSite11-GW-GMMW10-...	9.70e3	60.5	NO
3	3	13C3-PFHxS	1701929-05 UXOSite11-GW-GMMW10-...	2.77e3	71.4	NO
4	4	13C8-PFOA	1701929-05 UXOSite11-GW-GMMW10-...	1.08e4	72.2	NO
5	5	13C9-PFNA	1701929-05 UXOSite11-GW-GMMW10-...	1.07e4	66.9	NO
6	6	13C4-PFOS	1701929-05 UXOSite11-GW-GMMW10-...	2.84e3	76.5	NO
7	7	13C6-PFDA	1701929-05 UXOSite11-GW-GMMW10-...	8.63e3	68.9	NO
8	8	13C7-PFUdA	1701929-05 UXOSite11-GW-GMMW10-...	1.37e4	95.1	NO

Name: 171229M2_61, Date: 30-Dec-2017, Time: 00:44:13, ID: 1701929-06 IRSite13-GW-BUAMW011-20171211 0.26365, Description: IRSite13-GW-BUAMW011-20171211

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701929-06 IRSite13-GW-BUAMW011-...	7.91e3	61.4	NO
2	2	13C5-PFHxA	1701929-06 IRSite13-GW-BUAMW011-...	9.69e3	60.4	NO
3	3	13C3-PFHxS	1701929-06 IRSite13-GW-BUAMW011-...	2.25e3	58.0	NO
4	4	13C8-PFOA	1701929-06 IRSite13-GW-BUAMW011-...	1.01e4	67.5	NO
5	5	13C9-PFNA	1701929-06 IRSite13-GW-BUAMW011-...	8.11e3	51.0	NO
6	6	13C4-PFOS	1701929-06 IRSite13-GW-BUAMW011-...	2.55e3	68.7	NO
7	7	13C6-PFDA	1701929-06 IRSite13-GW-BUAMW011-...	1.01e4	80.5	NO
8	8	13C7-PFUdA	1701929-06 IRSite13-GW-BUAMW011-...	9.28e3	64.4	NO

Name: 171229M2_62, Date: 30-Dec-2017, Time: 00:55:25, ID: 1701929-07 IRSite13-GW-BUAMW015-20171211 0.27003, Description: IRSite13-GW-BUAMW015-20171211

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701929-07 IRSite13-GW-BUAMW015-...	7.86e3	61.0	NO
2	2	13C5-PFHxA	1701929-07 IRSite13-GW-BUAMW015-...	9.75e3	60.8	NO
3	3	13C3-PFHxS	1701929-07 IRSite13-GW-BUAMW015-...	2.29e3	59.0	NO
4	4	13C8-PFOA	1701929-07 IRSite13-GW-BUAMW015-...	8.15e3	54.6	NO
5	5	13C9-PFNA	1701929-07 IRSite13-GW-BUAMW015-...	9.49e3	59.6	NO
6	6	13C4-PFOS	1701929-07 IRSite13-GW-BUAMW015-...	2.02e3	54.5	NO
7	7	13C6-PFDA	1701929-07 IRSite13-GW-BUAMW015-...	8.68e3	69.3	NO
8	8	13C7-PFUdA	1701929-07 IRSite13-GW-BUAMW015-...	9.95e3	69.1	NO

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Name: 171229M2_63, Date: 30-Dec-2017, Time: 01:06:43, ID: 1701929-08 IRSite13-GW-BUAMW012-20171211 0.27094, Description: IRSite13-GW-BUAMW012-20171211

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701929-08 IRSite13-GW-BUAMW012-...	8.78e3	68.1	NO
2	2	13C5-PFHxA	1701929-08 IRSite13-GW-BUAMW012-...	1.08e4	67.6	NO
3	3	13C3-PFHxS	1701929-08 IRSite13-GW-BUAMW012-...	2.66e3	68.5	NO
4	4	13C8-PFOA	1701929-08 IRSite13-GW-BUAMW012-...	9.46e3	63.3	NO
5	5	13C9-PFNA	1701929-08 IRSite13-GW-BUAMW012-...	9.84e3	61.8	NO
6	6	13C4-PFOS	1701929-08 IRSite13-GW-BUAMW012-...	2.66e3	71.7	NO
7	7	13C6-PFDA	1701929-08 IRSite13-GW-BUAMW012-...	8.08e3	64.5	NO
8	8	13C7-PFUdA	1701929-08 IRSite13-GW-BUAMW012-...	8.66e3	60.1	NO

Name: 171229M2_64, Date: 30-Dec-2017, Time: 01:17:53, ID: 1701929-09 IRSite13-GW-BUAMW016-20171211 0.27485, Description: IRSite13-GW-BUAMW016-20171211

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701929-09 IRSite13-GW-BUAMW016-...	8.54e3	66.3	NO
2	2	13C5-PFHxA	1701929-09 IRSite13-GW-BUAMW016-...	1.06e4	65.9	NO
3	3	13C3-PFHxS	1701929-09 IRSite13-GW-BUAMW016-...	2.81e3	72.4	NO
4	4	13C8-PFOA	1701929-09 IRSite13-GW-BUAMW016-...	9.27e3	62.1	NO
5	5	13C9-PFNA	1701929-09 IRSite13-GW-BUAMW016-...	1.19e4	74.8	NO
6	6	13C4-PFOS	1701929-09 IRSite13-GW-BUAMW016-...	2.72e3	73.3	NO
7	7	13C6-PFDA	1701929-09 IRSite13-GW-BUAMW016-...	1.01e4	80.9	NO
8	8	13C7-PFUdA	1701929-09 IRSite13-GW-BUAMW016-...	1.08e4	75.1	NO

Name: 171229M2_65, Date: 30-Dec-2017, Time: 01:29:05, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171229M2_66, Date: 30-Dec-2017, Time: 01:40:17, ID: ST171229M2-13 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171229M2-13 PFC CS3 17L2611	1.39e4	108.1	NO
2	2	13C5-PFHxA	ST171229M2-13 PFC CS3 17L2611	1.60e4	99.6	NO
3	3	13C3-PFHxS	ST171229M2-13 PFC CS3 17L2611	3.20e3	82.5	NO
4	4	13C8-PFOA	ST171229M2-13 PFC CS3 17L2611	1.62e4	108.4	NO
5	5	13C9-PFNA	ST171229M2-13 PFC CS3 17L2611	1.58e4	99.0	NO
6	6	13C4-PFOS	ST171229M2-13 PFC CS3 17L2611	4.23e3	114.0	NO
7	7	13C6-PFDA	ST171229M2-13 PFC CS3 17L2611	1.13e4	90.3	NO
8	8	13C7-PFUdA	ST171229M2-13 PFC CS3 17L2611	1.63e4	113.3	NO

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Name: 171229M2_67, Date: 30-Dec-2017, Time: 01:51:27, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171229M2_68, Date: 30-Dec-2017, Time: 02:02:42, ID: 1701929-10 DUP01 27034, Description: DUP01

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701929-10 DUP01 27034	7.72e3	59.9	NO
2	2	13C5-PFHxA	1701929-10 DUP01 27034	1.05e4	65.4	NO
3	3	13C3-PFHxS	1701929-10 DUP01 27034	2.30e3	59.2	NO
4	4	13C8-PFOA	1701929-10 DUP01 27034	9.48e3	63.5	NO
5	5	13C9-PFNA	1701929-10 DUP01 27034	9.89e3	62.1	NO
6	6	13C4-PFOS	1701929-10 DUP01 27034	2.56e3	69.0	NO
7	7	13C6-PFDA	1701929-10 DUP01 27034	7.53e3	60.2	NO
8	8	13C7-PFUdA	1701929-10 DUP01 27034	8.59e3	59.6	NO

Name: 171229M2_69, Date: 30-Dec-2017, Time: 02:14:01, ID: 1701929-11 IRSite13-GW-BUAMW010-20171211 0.26473, Description: IRSite13-GW-BUAMW010-20171211

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701929-11 IRSite13-GW-BUAMW010-...	8.31e3	64.5	NO
2	2	13C5-PFHxA	1701929-11 IRSite13-GW-BUAMW010-...	9.94e3	62.0	NO
3	3	13C3-PFHxS	1701929-11 IRSite13-GW-BUAMW010-...	2.83e3	72.8	NO
4	4	13C8-PFOA	1701929-11 IRSite13-GW-BUAMW010-...	9.61e3	64.3	NO
5	5	13C9-PFNA	1701929-11 IRSite13-GW-BUAMW010-...	8.16e3	51.3	NO
6	6	13C4-PFOS	1701929-11 IRSite13-GW-BUAMW010-...	2.87e3	77.3	NO
7	7	13C6-PFDA	1701929-11 IRSite13-GW-BUAMW010-...	8.66e3	69.1	NO
8	8	13C7-PFUdA	1701929-11 IRSite13-GW-BUAMW010-...	1.13e4	78.1	NO

Name: 171229M2_70, Date: 30-Dec-2017, Time: 02:25:16, ID: 1701929-12 IRSite13-GW-BUAMW002-20171211 0.2628, Description: IRSite13-GW-BUAMW002-20171211

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701929-12 IRSite13-GW-BUAMW002-...	8.02e3	62.2	NO
2	2	13C5-PFHxA	1701929-12 IRSite13-GW-BUAMW002-...	9.97e3	62.2	NO
3	3	13C3-PFHxS	1701929-12 IRSite13-GW-BUAMW002-...	2.35e3	60.4	NO
4	4	13C8-PFOA	1701929-12 IRSite13-GW-BUAMW002-...	9.29e3	62.2	NO
5	5	13C9-PFNA	1701929-12 IRSite13-GW-BUAMW002-...	9.95e3	62.5	NO
6	6	13C4-PFOS	1701929-12 IRSite13-GW-BUAMW002-...	2.33e3	62.9	NO
7	7	13C6-PFDA	1701929-12 IRSite13-GW-BUAMW002-...	8.41e3	67.2	NO
8	8	13C7-PFUdA	1701929-12 IRSite13-GW-BUAMW002-...	1.08e4	75.3	NO

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Name: 171229M2_71, Date: 30-Dec-2017, Time: 02:36:26, ID: 1701943-01 WI-A06-6-S-04-1217 0.125, Description: WI-A06-6-S-04-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701943-01 WI-A06-6-S-04-1217 0.125	8.09e3	62.7	NO
2	2	13C5-PFHxA	1701943-01 WI-A06-6-S-04-1217 0.125	9.68e3	60.4	NO
3	3	13C3-PFHxS	1701943-01 WI-A06-6-S-04-1217 0.125	2.41e3	62.1	NO
4	4	13C8-PFOA	1701943-01 WI-A06-6-S-04-1217 0.125	8.90e3	59.6	NO
5	5	13C9-PFNA	1701943-01 WI-A06-6-S-04-1217 0.125	1.09e4	68.4	NO
6	6	13C4-PFOS	1701943-01 WI-A06-6-S-04-1217 0.125	2.44e3	65.8	NO
7	7	13C6-PFDA	1701943-01 WI-A06-6-S-04-1217 0.125	7.29e3	58.2	NO
8	8	13C7-PFUdA	1701943-01 WI-A06-6-S-04-1217 0.125	9.03e3	62.7	NO

Name: 171229M2_72, Date: 30-Dec-2017, Time: 02:47:37, ID: 1701943-03 WI-A06-6-S-19-1217 0.12062, Description: WI-A06-6-S-19-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701943-03 WI-A06-6-S-19-1217 0.120...	7.38e3	57.3	NO
2	2	13C5-PFHxA	1701943-03 WI-A06-6-S-19-1217 0.120...	8.42e3	52.5	NO
3	3	13C3-PFHxS	1701943-03 WI-A06-6-S-19-1217 0.120...	2.28e3	58.7	NO
4	4	13C8-PFOA	1701943-03 WI-A06-6-S-19-1217 0.120...	8.83e3	59.1	NO
5	5	13C9-PFNA	1701943-03 WI-A06-6-S-19-1217 0.120...	8.02e3	50.4	NO
6	6	13C4-PFOS	1701943-03 WI-A06-6-S-19-1217 0.120...	2.81e3	75.7	NO
7	7	13C6-PFDA	1701943-03 WI-A06-6-S-19-1217 0.120...	8.95e3	71.5	NO
8	8	13C7-PFUdA	1701943-03 WI-A06-6-S-19-1217 0.120...	1.03e4	71.6	NO

Name: 171229M2_73, Date: 30-Dec-2017, Time: 02:58:48, ID: 1701943-05 WI-A06-6-S-19P-1217 0.11997, Description: WI-A06-6-S-19P-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701943-05 WI-A06-6-S-19P-1217 0.11...	7.59e3	58.8	NO
2	2	13C5-PFHxA	1701943-05 WI-A06-6-S-19P-1217 0.11...	9.34e3	58.3	NO
3	3	13C3-PFHxS	1701943-05 WI-A06-6-S-19P-1217 0.11...	2.32e3	59.8	NO
4	4	13C8-PFOA	1701943-05 WI-A06-6-S-19P-1217 0.11...	8.72e3	58.3	NO
5	5	13C9-PFNA	1701943-05 WI-A06-6-S-19P-1217 0.11...	1.00e4	62.8	NO
6	6	13C4-PFOS	1701943-05 WI-A06-6-S-19P-1217 0.11...	2.02e3	54.5	NO
7	7	13C6-PFDA	1701943-05 WI-A06-6-S-19P-1217 0.11...	6.34e3	50.7	NO
8	8	13C7-PFUdA	1701943-05 WI-A06-6-S-19P-1217 0.11...	1.13e4	78.6	NO

Name: 171229M2_74, Date: 30-Dec-2017, Time: 03:09:59, ID: 1701943-07 WI-A06-6-S-31-1217 0.12406, Description: WI-A06-6-S-31-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701943-07 WI-A06-6-S-31-1217 0.124...	8.00e3	62.1	NO
2	2	13C5-PFHxA	1701943-07 WI-A06-6-S-31-1217 0.124...	1.07e4	66.5	NO
3	3	13C3-PFHxS	1701943-07 WI-A06-6-S-31-1217 0.124...	2.56e3	66.0	NO
4	4	13C8-PFOA	1701943-07 WI-A06-6-S-31-1217 0.124...	8.95e3	59.9	NO
5	5	13C9-PFNA	1701943-07 WI-A06-6-S-31-1217 0.124...	1.06e4	66.6	NO
6	6	13C4-PFOS	1701943-07 WI-A06-6-S-31-1217 0.124...	2.09e3	56.4	NO
7	7	13C6-PFDA	1701943-07 WI-A06-6-S-31-1217 0.124...	9.61e3	76.7	NO
8	8	13C7-PFUdA	1701943-07 WI-A06-6-S-31-1217 0.124...	1.13e4	78.4	NO

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Name: 171229M2_75, Date: 30-Dec-2017, Time: 03:21:10, ID: 1701943-09 WI-A06-EB07-121117 0.12057, Description: WI-A06-EB07-121117

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701943-09 WI-A06-EB07-121117 0.12...	7.39e3	57.3	NO
2	2	13C5-PFHxA	1701943-09 WI-A06-EB07-121117 0.12...	1.02e4	63.5	NO
3	3	13C3-PFHxS	1701943-09 WI-A06-EB07-121117 0.12...	2.75e3	70.7	NO
4	4	13C8-PFOA	1701943-09 WI-A06-EB07-121117 0.12...	9.86e3	66.0	NO
5	5	13C9-PFNA	1701943-09 WI-A06-EB07-121117 0.12...	9.84e3	61.8	NO
6	6	13C4-PFOS	1701943-09 WI-A06-EB07-121117 0.12...	2.59e3	69.8	NO
7	7	13C6-PFDA	1701943-09 WI-A06-EB07-121117 0.12...	1.03e4	82.3	NO
8	8	13C7-PFUdA	1701943-09 WI-A06-EB07-121117 0.12...	1.08e4	74.8	NO

Name: 171229M2_76, Date: 30-Dec-2017, Time: 03:32:20, ID: 1701943-11 WI-A06-6-S-08-1217 0.12355, Description: WI-A06-6-S-08-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701943-11 WI-A06-6-S-08-1217 0.123...	7.71e3	59.8	NO
2	2	13C5-PFHxA	1701943-11 WI-A06-6-S-08-1217 0.123...	9.42e3	58.8	NO
3	3	13C3-PFHxS	1701943-11 WI-A06-6-S-08-1217 0.123...	2.78e3	71.5	NO
4	4	13C8-PFOA	1701943-11 WI-A06-6-S-08-1217 0.123...	8.88e3	59.5	NO
5	5	13C9-PFNA	1701943-11 WI-A06-6-S-08-1217 0.123...	1.06e4	66.4	NO
6	6	13C4-PFOS	1701943-11 WI-A06-6-S-08-1217 0.123...	2.91e3	78.6	NO
7	7	13C6-PFDA	1701943-11 WI-A06-6-S-08-1217 0.123...	9.14e3	73.0	NO
8	8	13C7-PFUdA	1701943-11 WI-A06-6-S-08-1217 0.123...	1.11e4	77.4	NO

Name: 171229M2_77, Date: 30-Dec-2017, Time: 03:43:31, ID: 1701943-13 WI-A06-EB08-121217 0.12255, Description: WI-A06-EB08-121217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701943-13 WI-A06-EB08-121217 0.12...	8.27e3	64.1	NO
2	2	13C5-PFHxA	1701943-13 WI-A06-EB08-121217 0.12...	1.03e4	64.4	NO
3	3	13C3-PFHxS	1701943-13 WI-A06-EB08-121217 0.12...	2.60e3	66.9	NO
4	4	13C8-PFOA	1701943-13 WI-A06-EB08-121217 0.12...	9.67e3	64.7	NO
5	5	13C9-PFNA	1701943-13 WI-A06-EB08-121217 0.12...	9.42e3	59.2	NO
6	6	13C4-PFOS	1701943-13 WI-A06-EB08-121217 0.12...	2.76e3	74.5	NO
7	7	13C6-PFDA	1701943-13 WI-A06-EB08-121217 0.12...	9.33e3	74.5	NO
8	8	13C7-PFUdA	1701943-13 WI-A06-EB08-121217 0.12...	1.24e4	86.4	NO

Name: 171229M2_78, Date: 30-Dec-2017, Time: 03:54:41, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 171229M2_79, Date: 30-Dec-2017, Time: 04:05:52, ID: ST171229M2-14 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171229M2-14 PFC CS0 17L2608	1.41e4	109.4	NO
2	2	13C5-PFHxA	ST171229M2-14 PFC CS0 17L2608	1.65e4	102.6	NO
3	3	13C3-PFHxS	ST171229M2-14 PFC CS0 17L2608	3.94e3	101.4	NO
4	4	13C8-PFOA	ST171229M2-14 PFC CS0 17L2608	1.52e4	101.6	NO
5	5	13C9-PFNA	ST171229M2-14 PFC CS0 17L2608	1.59e4	99.8	NO
6	6	13C4-PFOS	ST171229M2-14 PFC CS0 17L2608	4.09e3	110.4	NO
7	7	13C6-PFDA	ST171229M2-14 PFC CS0 17L2608	1.30e4	104.0	NO
8	8	13C7-PFUdA	ST171229M2-14 PFC CS0 17L2608	1.52e4	105.4	NO

Name: 171229M2_80, Date: 30-Dec-2017, Time: 04:17:05, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171229M2_81, Date: 30-Dec-2017, Time: 04:28:22, ID: B7L0092-MS1@20X Matrix Spike 16.49, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0092-MS1@20X Matrix Spike 16.49			NO
2	2	13C5-PFHxA	B7L0092-MS1@20X Matrix Spike 16.49			NO
3	3	13C3-PFHxS	B7L0092-MS1@20X Matrix Spike 16.49			NO
4	4	13C8-PFOA	B7L0092-MS1@20X Matrix Spike 16.49			NO
5	5	13C9-PFNA	B7L0092-MS1@20X Matrix Spike 16.49			NO
6	6	13C4-PFOS	B7L0092-MS1@20X Matrix Spike 16.49			NO
7	7	13C6-PFDA	B7L0092-MS1@20X Matrix Spike 16.49			NO
8	8	13C7-PFUdA	B7L0092-MS1@20X Matrix Spike 16.49			NO

Name: 171229M2_82, Date: 30-Dec-2017, Time: 04:39:32, ID: B7L0092-MSD1@20X Matrix Spike Dup 16.11, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0092-MSD1@20X Matrix Spike Dup...	5.43e2	4.2	YES
2	2	13C5-PFHxA	B7L0092-MSD1@20X Matrix Spike Dup...	6.94e2	4.3	YES
3	3	13C3-PFHxS	B7L0092-MSD1@20X Matrix Spike Dup...	1.91e2	4.9	YES
4	4	13C8-PFOA	B7L0092-MSD1@20X Matrix Spike Dup...	6.36e2	4.3	YES
5	5	13C9-PFNA	B7L0092-MSD1@20X Matrix Spike Dup...	6.88e2	4.3	YES
6	6	13C4-PFOS	B7L0092-MSD1@20X Matrix Spike Dup...	1.82e2	4.9	YES
7	7	13C6-PFDA	B7L0092-MSD1@20X Matrix Spike Dup...	4.13e2	3.3	YES
8	8	13C7-PFUdA	B7L0092-MSD1@20X Matrix Spike Dup...	7.56e2	5.2	YES

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Name: 171229M2_83, Date: 30-Dec-2017, Time: 04:50:43, ID: 1701841-01@20X OF-SLG01-1217 17.61, Description: OF-SLG01-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701841-01@20X OF-SLG01-1217 17.61	4.54e2	3.5	YES
2	2	13C5-PFHxA	1701841-01@20X OF-SLG01-1217 17.61	5.73e2	3.6	YES
3	3	13C3-PFHxS	1701841-01@20X OF-SLG01-1217 17.61	1.24e2	3.2	YES
4	4	13C8-PFOA	1701841-01@20X OF-SLG01-1217 17.61	5.27e2	3.5	YES
5	5	13C9-PFNA	1701841-01@20X OF-SLG01-1217 17.61	5.35e2	3.4	YES
6	6	13C4-PFOS	1701841-01@20X OF-SLG01-1217 17.61	8.96e1	2.4	YES
7	7	13C6-PFDA	1701841-01@20X OF-SLG01-1217 17.61	4.46e2	3.6	YES
8	8	13C7-PFUdA	1701841-01@20X OF-SLG01-1217 17.61	4.13e2	2.9	YES

Name: 171229M2_84, Date: 30-Dec-2017, Time: 05:01:54, ID: 1701841-02@20X OF-SLG02-1217 10.1, Description: OF-SLG02-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701841-02@20X OF-SLG02-1217 10.1	5.23e2	4.1	YES
2	2	13C5-PFHxA	1701841-02@20X OF-SLG02-1217 10.1	6.91e2	4.3	YES
3	3	13C3-PFHxS	1701841-02@20X OF-SLG02-1217 10.1	1.27e2	3.3	YES
4	4	13C8-PFOA	1701841-02@20X OF-SLG02-1217 10.1	7.34e2	4.9	YES
5	5	13C9-PFNA	1701841-02@20X OF-SLG02-1217 10.1	6.32e2	4.0	YES
6	6	13C4-PFOS	1701841-02@20X OF-SLG02-1217 10.1	1.40e2	3.8	YES
7	7	13C6-PFDA	1701841-02@20X OF-SLG02-1217 10.1	6.23e2	5.0	YES
8	8	13C7-PFUdA	1701841-02@20X OF-SLG02-1217 10.1	5.21e2	3.6	YES

Name: 171229M2_85, Date: 30-Dec-2017, Time: 05:13:05, ID: 1701841-03@20X OF-SLG02P-1217 6.48, Description: OF-SLG02P-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701841-03@20X OF-SLG02P-1217 6....	5.09e2	3.9	YES
2	2	13C5-PFHxA	1701841-03@20X OF-SLG02P-1217 6....	6.59e2	4.1	YES
3	3	13C3-PFHxS	1701841-03@20X OF-SLG02P-1217 6....	1.42e2	3.7	YES
4	4	13C8-PFOA	1701841-03@20X OF-SLG02P-1217 6....	6.36e2	4.3	YES
5	5	13C9-PFNA	1701841-03@20X OF-SLG02P-1217 6....	5.49e2	3.4	YES
6	6	13C4-PFOS	1701841-03@20X OF-SLG02P-1217 6....	1.01e2	2.7	YES
7	7	13C6-PFDA	1701841-03@20X OF-SLG02P-1217 6....	4.88e2	3.9	YES
8	8	13C7-PFUdA	1701841-03@20X OF-SLG02P-1217 6....	7.04e2	4.9	YES

Name: 171229M2_86, Date: 30-Dec-2017, Time: 05:24:15, ID: 1701841-04@10X OF-SLG03-1217 11.57, Description: OF-SLG03-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701841-04@10X OF-SLG03-1217 11.57	1.38e3	10.7	YES
2	2	13C5-PFHxA	1701841-04@10X OF-SLG03-1217 11.57	1.80e3	11.2	YES
3	3	13C3-PFHxS	1701841-04@10X OF-SLG03-1217 11.57	4.14e2	10.7	YES
4	4	13C8-PFOA	1701841-04@10X OF-SLG03-1217 11.57	1.70e3	11.4	YES
5	5	13C9-PFNA	1701841-04@10X OF-SLG03-1217 11.57	1.47e3	9.3	YES
6	6	13C4-PFOS	1701841-04@10X OF-SLG03-1217 11.57	4.02e2	10.8	YES
7	7	13C6-PFDA	1701841-04@10X OF-SLG03-1217 11.57	1.36e3	10.9	YES
8	8	13C7-PFUdA	1701841-04@10X OF-SLG03-1217 11.57	2.12e3	14.7	YES

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Name: 171229M2_87, Date: 30-Dec-2017, Time: 05:35:26, ID: 1701841-05@10X OF-SLG04-1217 5.07, Description: OF-SLG04-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701841-05@10X OF-SLG04-1217 5.07	1.12e3	8.7	YES
2	2	13C5-PFHxA	1701841-05@10X OF-SLG04-1217 5.07	1.41e3	8.8	YES
3	3	13C3-PFHxS	1701841-05@10X OF-SLG04-1217 5.07	3.71e2	9.6	YES
4	4	13C8-PFOA	1701841-05@10X OF-SLG04-1217 5.07	1.35e3	9.0	YES
5	5	13C9-PFNA	1701841-05@10X OF-SLG04-1217 5.07	1.29e3	8.1	YES
6	6	13C4-PFOS	1701841-05@10X OF-SLG04-1217 5.07	3.19e2	8.6	YES
7	7	13C6-PFDA	1701841-05@10X OF-SLG04-1217 5.07	1.40e3	11.2	YES
8	8	13C7-PFUdA	1701841-05@10X OF-SLG04-1217 5.07	1.55e3	10.8	YES

Name: 171229M2_88, Date: 30-Dec-2017, Time: 05:46:37, ID: B7L0073-MS1@5X Matrix Spike 0.24032, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0073-MS1@5X Matrix Spike 0.24032	1.96e3	15.2	YES
2	2	13C5-PFHxA	B7L0073-MS1@5X Matrix Spike 0.24032	2.44e3	15.2	YES
3	3	13C3-PFHxS	B7L0073-MS1@5X Matrix Spike 0.24032	6.55e2	16.9	YES
4	4	13C8-PFOA	B7L0073-MS1@5X Matrix Spike 0.24032	2.56e3	17.1	YES
5	5	13C9-PFNA	B7L0073-MS1@5X Matrix Spike 0.24032	2.17e3	13.6	YES
6	6	13C4-PFOS	B7L0073-MS1@5X Matrix Spike 0.24032	6.30e2	17.0	YES
7	7	13C6-PFDA	B7L0073-MS1@5X Matrix Spike 0.24032	2.02e3	16.1	YES
8	8	13C7-PFUdA	B7L0073-MS1@5X Matrix Spike 0.24032	2.65e3	18.4	YES

Name: 171229M2_89, Date: 30-Dec-2017, Time: 05:57:47, ID: B7L0073-MSD1@5X Matrix Spike Dup 0.25539, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0073-MSD1@5X Matrix Spike Dup ...	1.93e3	15.0	YES
2	2	13C5-PFHxA	B7L0073-MSD1@5X Matrix Spike Dup ...	2.31e3	14.4	YES
3	3	13C3-PFHxS	B7L0073-MSD1@5X Matrix Spike Dup ...	6.38e2	16.4	YES
4	4	13C8-PFOA	B7L0073-MSD1@5X Matrix Spike Dup ...	2.65e3	17.7	YES
5	5	13C9-PFNA	B7L0073-MSD1@5X Matrix Spike Dup ...	2.20e3	13.8	YES
6	6	13C4-PFOS	B7L0073-MSD1@5X Matrix Spike Dup ...	5.95e2	16.1	YES
7	7	13C6-PFDA	B7L0073-MSD1@5X Matrix Spike Dup ...	1.81e3	14.5	YES
8	8	13C7-PFUdA	B7L0073-MSD1@5X Matrix Spike Dup ...	2.60e3	18.0	YES

Name: 171229M2_90, Date: 30-Dec-2017, Time: 06:08:58, ID: 1701829-04@5X FT-MW08I-20171129 0.2616, Description: FT-MW08I-20171129

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701829-04@5X FT-MW08I-20171129 ...	2.08e3	16.1	YES
2	2	13C5-PFHxA	1701829-04@5X FT-MW08I-20171129 ...	2.71e3	16.9	YES
3	3	13C3-PFHxS	1701829-04@5X FT-MW08I-20171129 ...	6.76e2	17.4	YES
4	4	13C8-PFOA	1701829-04@5X FT-MW08I-20171129 ...	2.71e3	18.1	YES
5	5	13C9-PFNA	1701829-04@5X FT-MW08I-20171129 ...	2.16e3	13.6	YES
6	6	13C4-PFOS	1701829-04@5X FT-MW08I-20171129 ...	7.23e2	19.5	YES
7	7	13C6-PFDA	1701829-04@5X FT-MW08I-20171129 ...	2.51e3	20.0	YES
8	8	13C7-PFUdA	1701829-04@5X FT-MW08I-20171129 ...	3.18e3	22.1	YES

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	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171229M2_92, Date: 30-Dec-2017, Time: 06:31:20, ID: B7K0027-BLK1 Method Blank 1, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0027-BLK1 Method Blank 1	1.18e4	91.2	NO
2	2	13C5-PFHxA	B7K0027-BLK1 Method Blank 1	1.50e4	93.9	NO
3	3	13C3-PFHxS	B7K0027-BLK1 Method Blank 1	3.48e3	89.7	NO
4	4	13C8-PFOA	B7K0027-BLK1 Method Blank 1	1.49e4	99.7	NO
5	5	13C9-PFNA	B7K0027-BLK1 Method Blank 1	1.50e4	94.0	NO
6	6	13C4-PFOS	B7K0027-BLK1 Method Blank 1	3.76e3	101.5	NO
7	7	13C6-PFDA	B7K0027-BLK1 Method Blank 1	1.34e4	107.2	NO
8	8	13C7-PFUdA	B7K0027-BLK1 Method Blank 1	1.55e4	107.3	NO

Name: 171229M2_93, Date: 30-Dec-2017, Time: 06:42:30, ID: B7L0069-BLK1 Method Blank 1, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0069-BLK1 Method Blank 1	9.80e3	76.0	NO
2	2	13C5-PFHxA	B7L0069-BLK1 Method Blank 1	1.41e4	87.8	NO
3	3	13C3-PFHxS	B7L0069-BLK1 Method Blank 1	3.28e3	84.6	NO
4	4	13C8-PFOA	B7L0069-BLK1 Method Blank 1	1.38e4	92.4	NO
5	5	13C9-PFNA	B7L0069-BLK1 Method Blank 1	1.36e4	85.2	NO
6	6	13C4-PFOS	B7L0069-BLK1 Method Blank 1	3.83e3	103.2	NO
7	7	13C6-PFDA	B7L0069-BLK1 Method Blank 1	1.22e4	97.3	NO
8	8	13C7-PFUdA	B7L0069-BLK1 Method Blank 1	1.52e4	105.6	NO

Name: 171229M2_94, Date: 30-Dec-2017, Time: 06:53:41, ID: B7L0069-BS2 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0069-BS2 OPR 1	9.96e3	77.2	NO
2	2	13C5-PFHxA	B7L0069-BS2 OPR 1	1.16e4	72.6	NO
3	3	13C3-PFHxS	B7L0069-BS2 OPR 1	3.15e3	81.2	NO
4	4	13C8-PFOA	B7L0069-BS2 OPR 1	1.11e4	74.0	NO
5	5	13C9-PFNA	B7L0069-BS2 OPR 1	1.24e4	78.1	NO
6	6	13C4-PFOS	B7L0069-BS2 OPR 1	3.35e3	90.4	NO
7	7	13C6-PFDA	B7L0069-BS2 OPR 1	1.13e4	90.2	NO
8	8	13C7-PFUdA	B7L0069-BS2 OPR 1	1.27e4	88.2	NO

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Name: 171229M2_95, Date: 30-Dec-2017, Time: 07:04:51, ID: B7L0069-BS3 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0069-BS3 OPR 1	8.60e3	66.7	NO
2	2	13C5-PFHxA	B7L0069-BS3 OPR 1	1.09e4	68.0	NO
3	3	13C3-PFHxS	B7L0069-BS3 OPR 1	3.15e3	81.2	NO
4	4	13C8-PFOA	B7L0069-BS3 OPR 1	1.13e4	75.6	NO
5	5	13C9-PFNA	B7L0069-BS3 OPR 1	1.16e4	72.9	NO
6	6	13C4-PFOS	B7L0069-BS3 OPR 1	3.34e3	90.1	NO
7	7	13C6-PFDA	B7L0069-BS3 OPR 1	1.07e4	85.2	NO
8	8	13C7-PFUdA	B7L0069-BS3 OPR 1	1.16e4	80.5	NO

Name: 171229M2_96, Date: 30-Dec-2017, Time: 07:16:02, ID: B7L0069-BS4 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0069-BS4 OPR 1	8.36e3	64.8	NO
2	2	13C5-PFHxA	B7L0069-BS4 OPR 1	1.10e4	68.3	NO
3	3	13C3-PFHxS	B7L0069-BS4 OPR 1	2.66e3	68.5	NO
4	4	13C8-PFOA	B7L0069-BS4 OPR 1	1.08e4	72.0	NO
5	5	13C9-PFNA	B7L0069-BS4 OPR 1	1.11e4	69.5	NO
6	6	13C4-PFOS	B7L0069-BS4 OPR 1	3.38e3	91.3	NO
7	7	13C6-PFDA	B7L0069-BS4 OPR 1	1.04e4	82.9	NO
8	8	13C7-PFUdA	B7L0069-BS4 OPR 1	1.22e4	84.4	NO

Name: 171229M2_97, Date: 30-Dec-2017, Time: 07:27:13, ID: B7L0069-BS5 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0069-BS5 OPR 1	9.97e3	77.3	NO
2	2	13C5-PFHxA	B7L0069-BS5 OPR 1	1.27e4	79.2	NO
3	3	13C3-PFHxS	B7L0069-BS5 OPR 1	3.07e3	79.1	NO
4	4	13C8-PFOA	B7L0069-BS5 OPR 1	1.28e4	85.6	NO
5	5	13C9-PFNA	B7L0069-BS5 OPR 1	1.26e4	79.0	NO
6	6	13C4-PFOS	B7L0069-BS5 OPR 1	3.28e3	88.5	NO
7	7	13C6-PFDA	B7L0069-BS5 OPR 1	1.33e4	106.5	NO
8	8	13C7-PFUdA	B7L0069-BS5 OPR 1	1.28e4	89.1	NO

Name: 171229M2_98, Date: 30-Dec-2017, Time: 07:38:24, ID: B7K0027-BS1 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0027-BS1 OPR 1	1.19e4	92.5	NO
2	2	13C5-PFHxA	B7K0027-BS1 OPR 1	1.50e4	93.8	NO
3	3	13C3-PFHxS	B7K0027-BS1 OPR 1	4.23e3	108.9	NO
4	4	13C8-PFOA	B7K0027-BS1 OPR 1	1.40e4	93.7	NO
5	5	13C9-PFNA	B7K0027-BS1 OPR 1	1.61e4	101.1	NO
6	6	13C4-PFOS	B7K0027-BS1 OPR 1	3.60e3	97.0	NO
7	7	13C6-PFDA	B7K0027-BS1 OPR 1	1.27e4	101.7	NO
8	8	13C7-PFUdA	B7K0027-BS1 OPR 1	1.53e4	106.1	NO

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Name: 171229M2_99, Date: 30-Dec-2017, Time: 07:49:34, ID: B7K0027-BS2 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0027-BS2 OPR 1	1.16e4	90.0	NO
2	2	13C5-PFHxA	B7K0027-BS2 OPR 1	1.52e4	94.9	NO
3	3	13C3-PFHxS	B7K0027-BS2 OPR 1	3.77e3	97.0	NO
4	4	13C8-PFOA	B7K0027-BS2 OPR 1	1.51e4	100.8	NO
5	5	13C9-PFNA	B7K0027-BS2 OPR 1	1.38e4	86.9	NO
6	6	13C4-PFOS	B7K0027-BS2 OPR 1	3.03e3	81.7	NO
7	7	13C6-PFDA	B7K0027-BS2 OPR 1	1.08e4	86.3	NO
8	8	13C7-PFUdA	B7K0027-BS2 OPR 1	1.51e4	105.1	NO

Name: 171229M2_100, Date: 30-Dec-2017, Time: 08:00:45, ID: B7K0027-BS3 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0027-BS3 OPR 1	1.16e4	89.7	NO
2	2	13C5-PFHxA	B7K0027-BS3 OPR 1	1.41e4	87.7	NO
3	3	13C3-PFHxS	B7K0027-BS3 OPR 1	4.20e3	108.3	NO
4	4	13C8-PFOA	B7K0027-BS3 OPR 1	1.24e4	83.2	NO
5	5	13C9-PFNA	B7K0027-BS3 OPR 1	1.44e4	90.4	NO
6	6	13C4-PFOS	B7K0027-BS3 OPR 1	2.78e3	75.0	NO
7	7	13C6-PFDA	B7K0027-BS3 OPR 1	1.21e4	96.8	NO
8	8	13C7-PFUdA	B7K0027-BS3 OPR 1	1.38e4	95.9	NO

Name: 171229M2_101, Date: 30-Dec-2017, Time: 08:11:55, ID: B7K0027-BS4 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7K0027-BS4 OPR 1	1.17e4	90.8	NO
2	2	13C5-PFHxA	B7K0027-BS4 OPR 1	1.41e4	88.0	NO
3	3	13C3-PFHxS	B7K0027-BS4 OPR 1	3.84e3	98.8	NO
4	4	13C8-PFOA	B7K0027-BS4 OPR 1	1.09e4	73.2	NO
5	5	13C9-PFNA	B7K0027-BS4 OPR 1	1.21e4	75.8	NO
6	6	13C4-PFOS	B7K0027-BS4 OPR 1	3.64e3	98.1	NO
7	7	13C6-PFDA	B7K0027-BS4 OPR 1	1.04e4	83.3	NO
8	8	13C7-PFUdA	B7K0027-BS4 OPR 1	1.61e4	111.9	NO

Name: 171229M2_102, Date: 30-Dec-2017, Time: 08:23:07, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 171229M2_103, Date: 30-Dec-2017, Time: 08:34:17, ID: ST171229M2-15 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171229M2-15 PFC CS3 17L2611	1.48e4	114.4	NO
2	2	13C5-PFHxA	ST171229M2-15 PFC CS3 17L2611	1.68e4	105.0	NO
3	3	13C3-PFHxS	ST171229M2-15 PFC CS3 17L2611	4.27e3	110.1	NO
4	4	13C8-PFOA	ST171229M2-15 PFC CS3 17L2611	1.69e4	112.8	NO
5	5	13C9-PFNA	ST171229M2-15 PFC CS3 17L2611	1.56e4	98.0	NO
6	6	13C4-PFOS	ST171229M2-15 PFC CS3 17L2611	4.67e3	126.0	NO
7	7	13C6-PFDA	ST171229M2-15 PFC CS3 17L2611	1.51e4	120.7	NO
8	8	13C7-PFUdA	ST171229M2-15 PFC CS3 17L2611	1.98e4	137.3	NO

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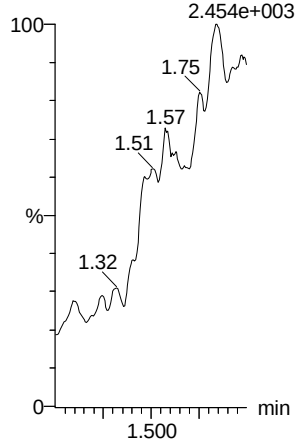
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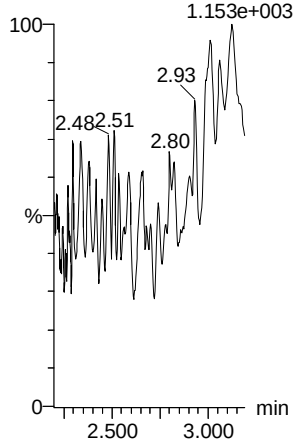
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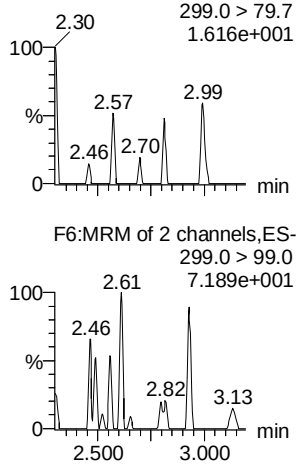
PFBA



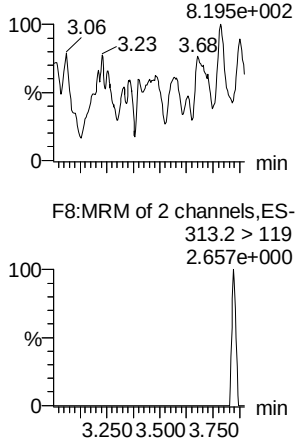
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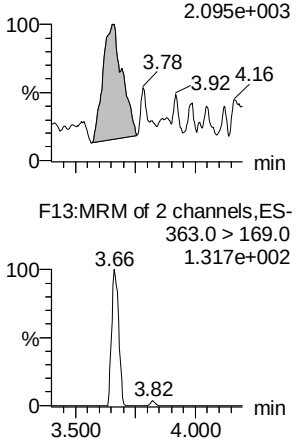
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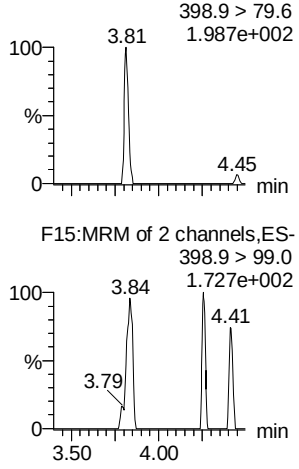
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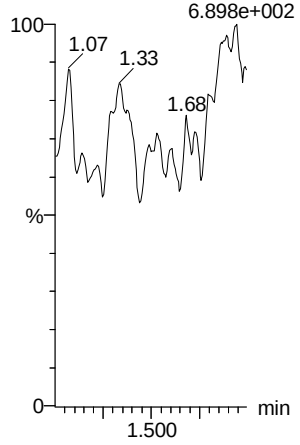
PFHpA



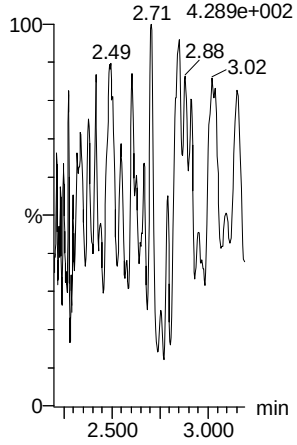
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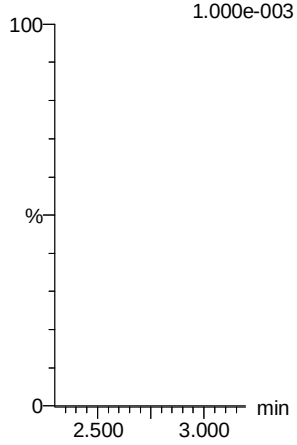
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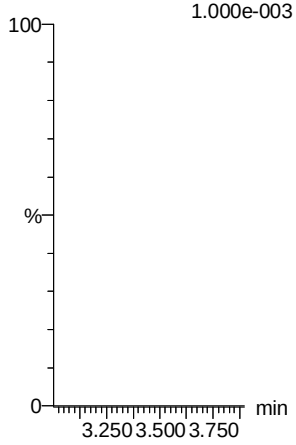
13C3-PFPeA



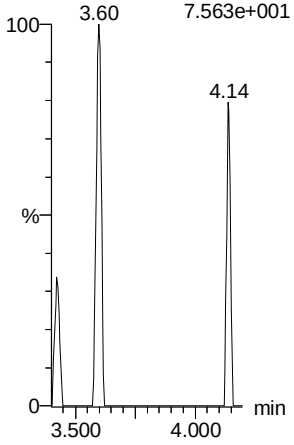
13C3-PFBS



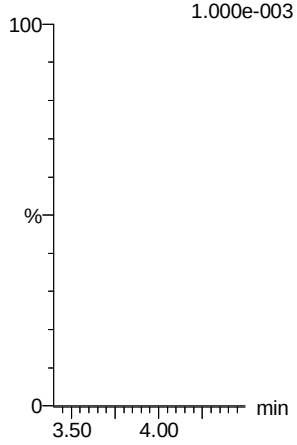
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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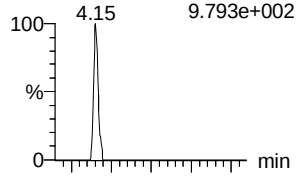
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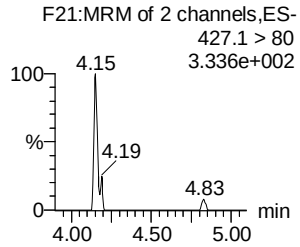
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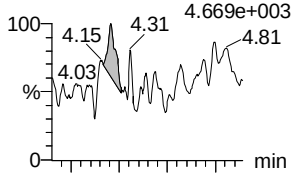
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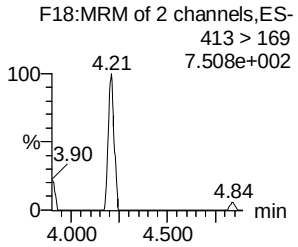
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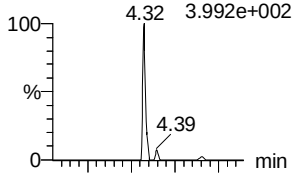


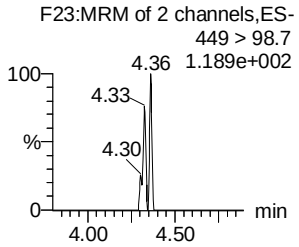
L-PFOA



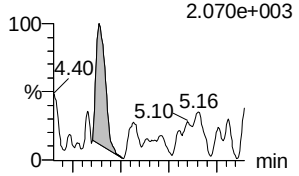


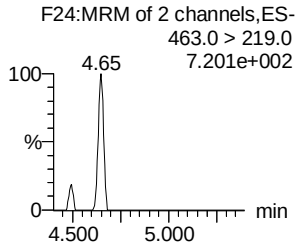
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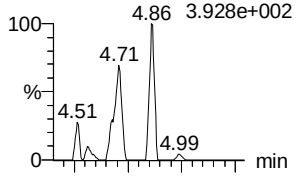


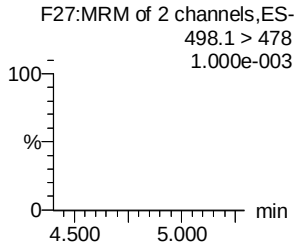
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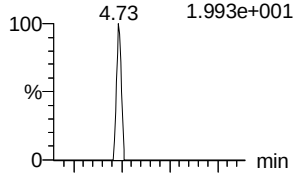


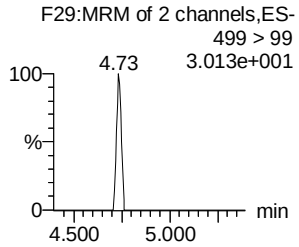
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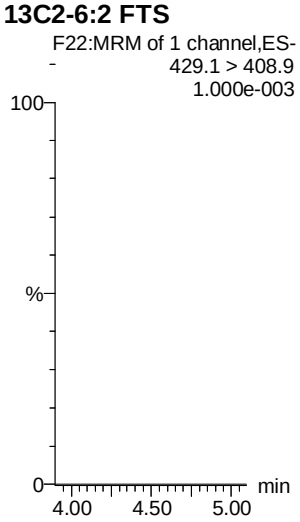


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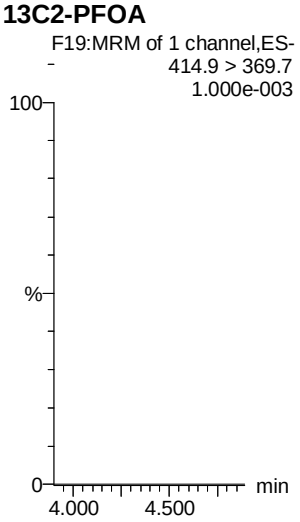




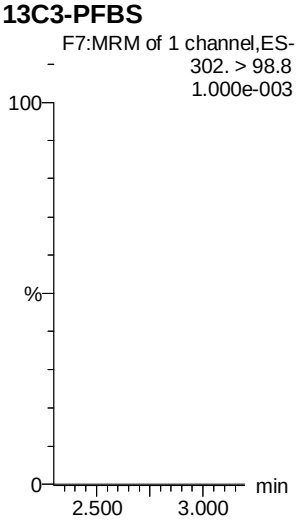
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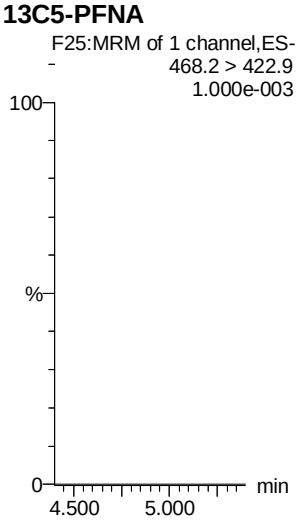
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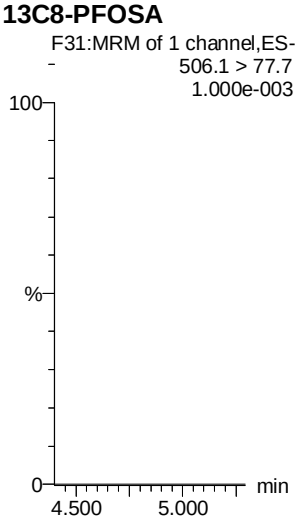
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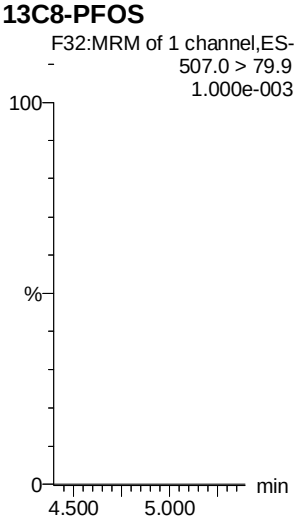
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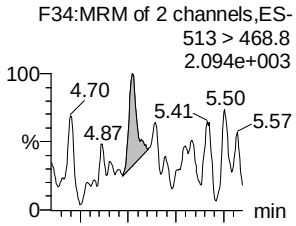
AC 12/30/17

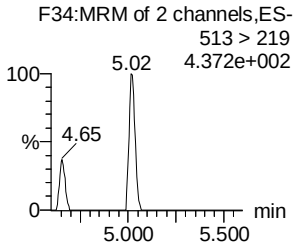
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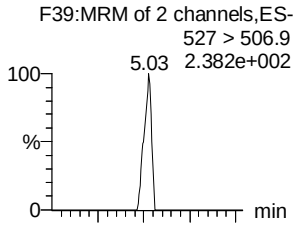
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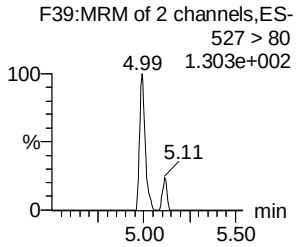
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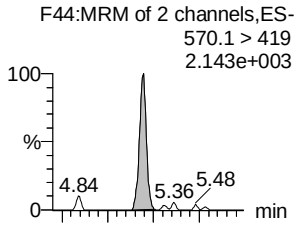


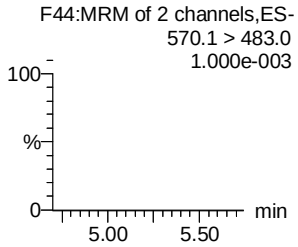
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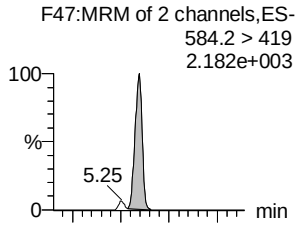


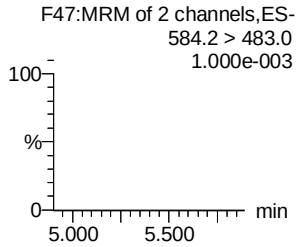
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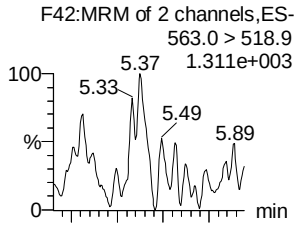


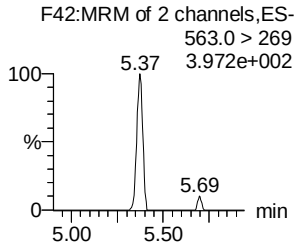
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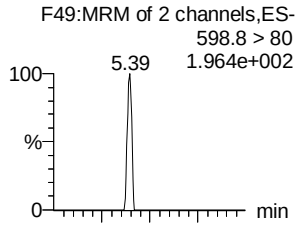


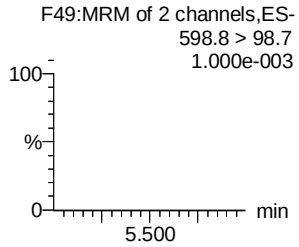
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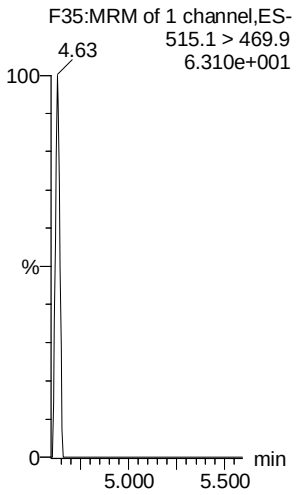


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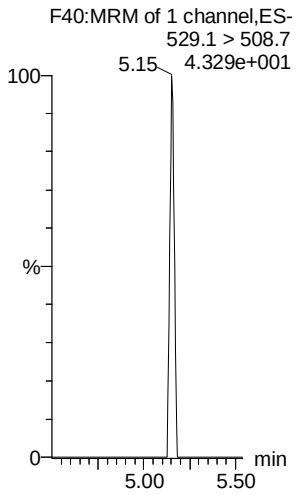




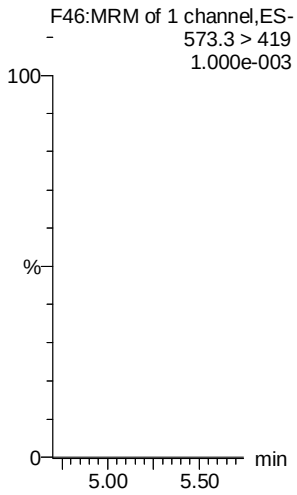
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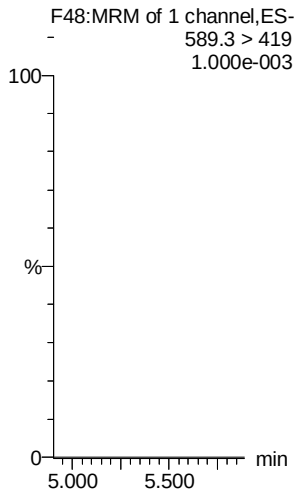
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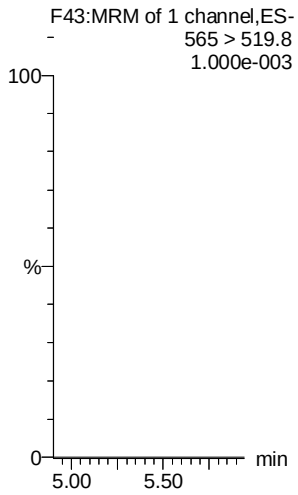
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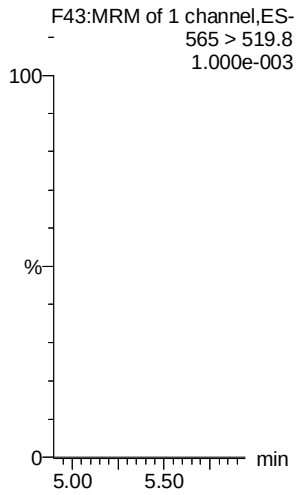
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13C2-PFUdA



13C2-PFUdA



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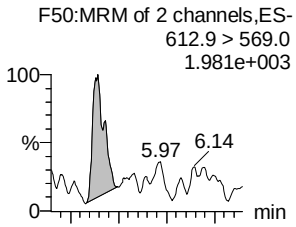
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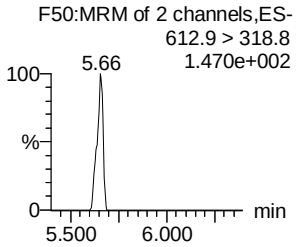
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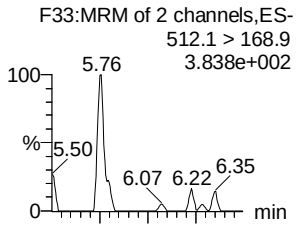
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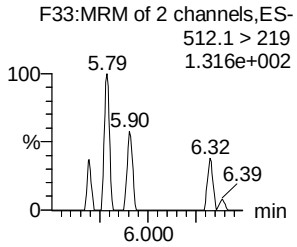
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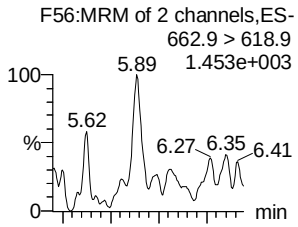


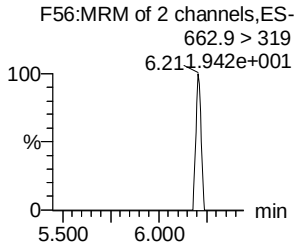
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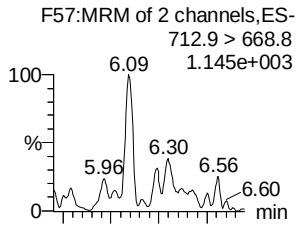


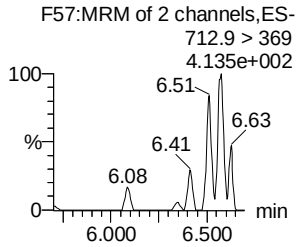
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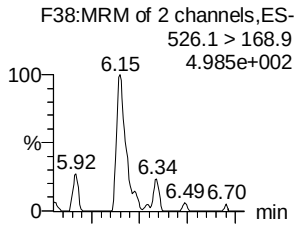


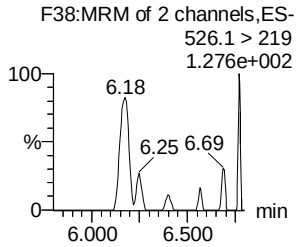
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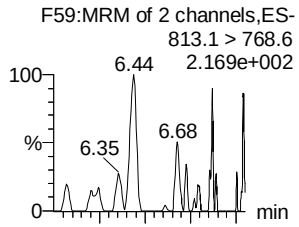


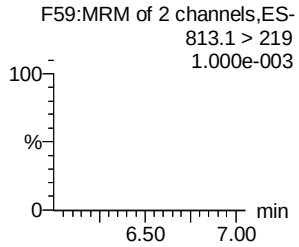
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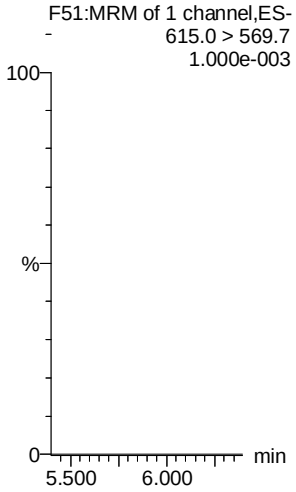


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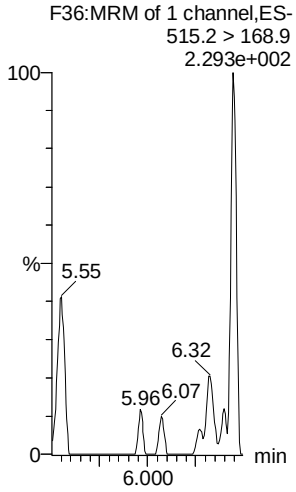




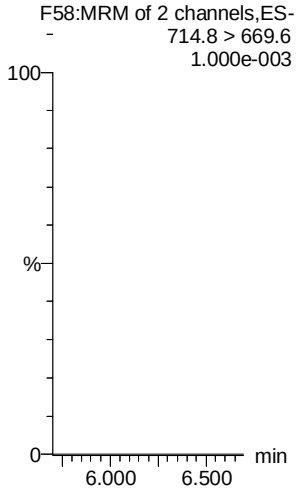
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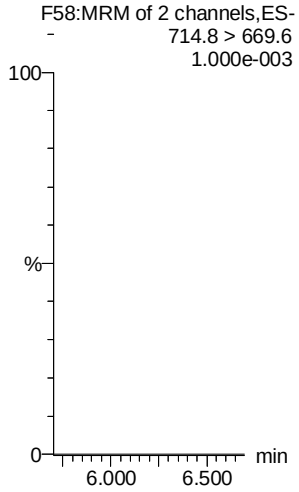
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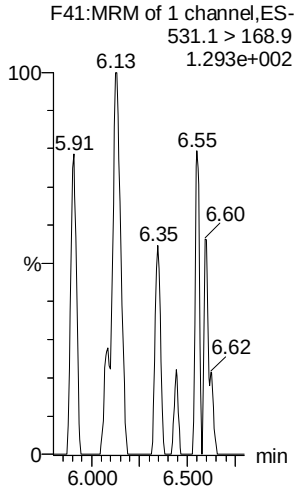
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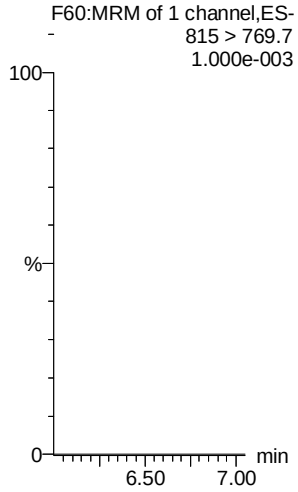
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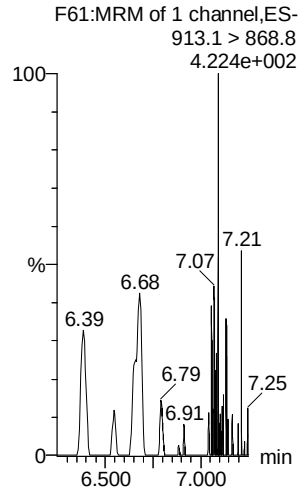
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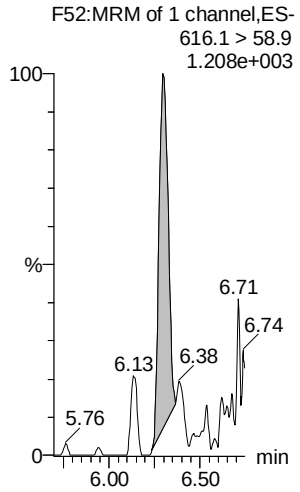
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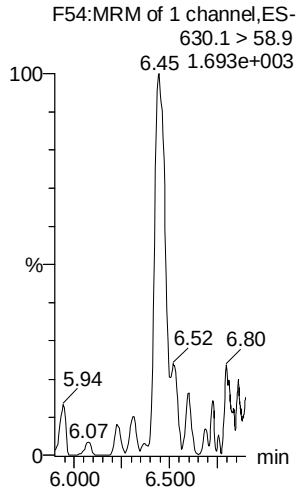
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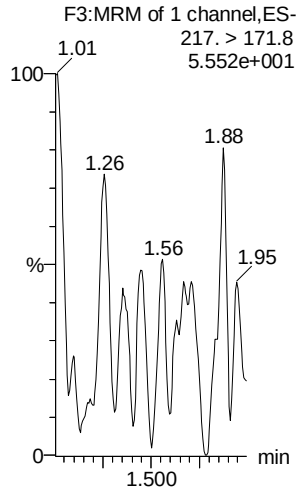
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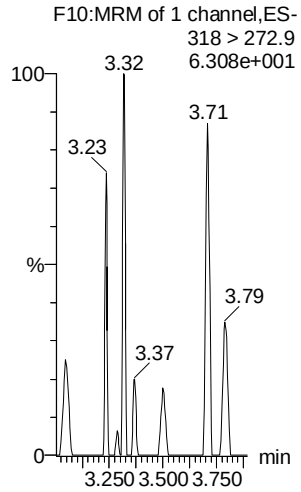
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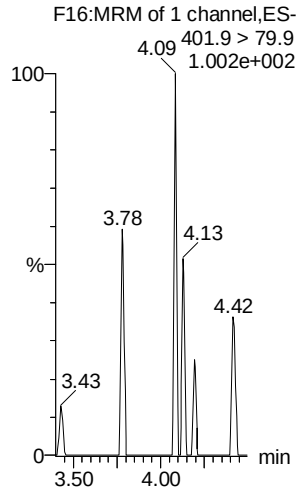
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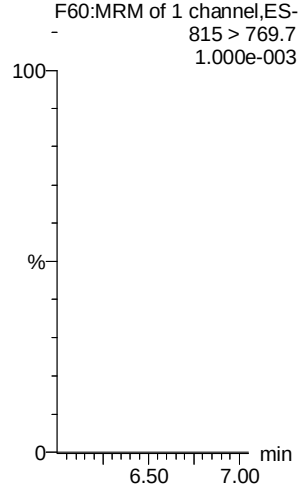
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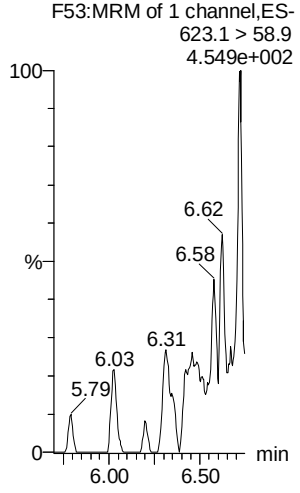
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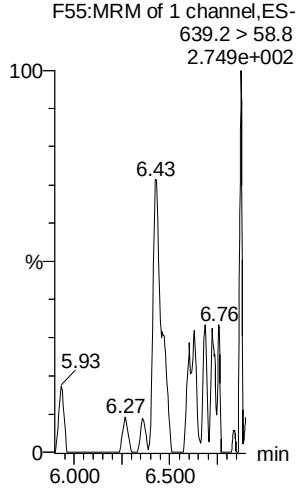
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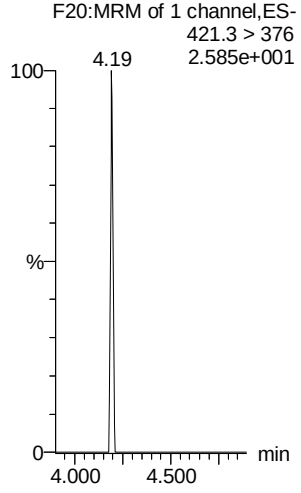
d7-N-MeFOSE



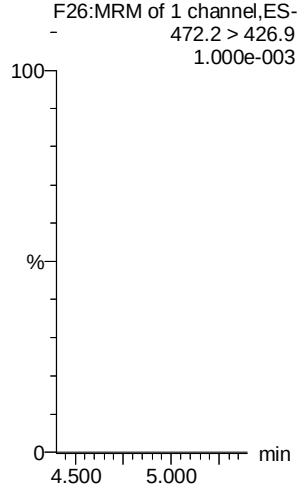
d9-N-EtFOSE



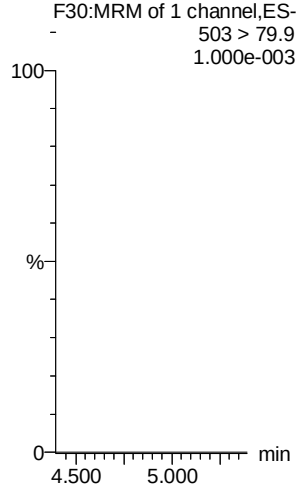
13C8-PFOA



13C9-PFNA



13C4-PFOS



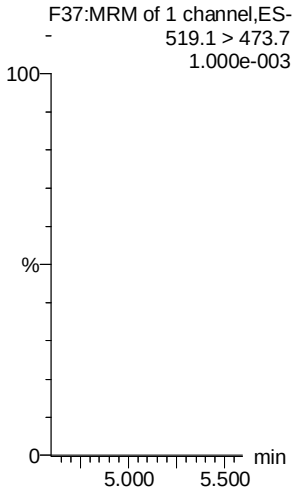
AC 12/30/17

Dataset: U:\Q4.PRO\results\171229M2\171229M2-12.qld

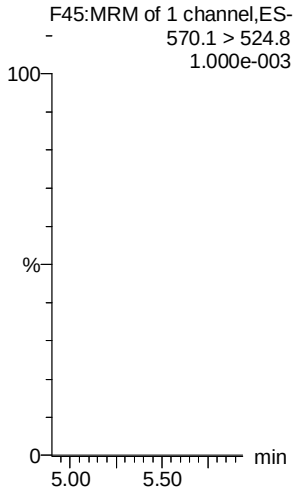
Last Altered: Saturday, December 30, 2017 10:26:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 10:27:32 Pacific Standard Time

Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

13C6-PFDA



13C7-PFUdA



AC 12/30/17

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(A) PFTrDA 2 10%, not used

Dataset: U:\Q4.PRO\results\171229M2\171229M2-79.qld

Last Altered: Saturday, December 30, 2017 09:43:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:20:13 Pacific Standard Time

AC 12/30/17

vJA. 12/30/2017

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_79, Date: 30-Dec-2017, Time: 04:05:52, ID: ST171229M2-14 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	1.14e3	1.09e4	1.0000		1.47	1.41	1.31	1.007	100.7
2	2	PFPeA	263.1 > 218.9	1.14e3	1.32e4	1.0000		2.35	2.37	1.07	0.932	93.2
3	3	PFBS	299.0 > 79.7	2.52e2	1.78e3	1.0000		2.70	2.64	1.77	0.847	84.7
4	4	PFHxA	313.2 > 268.9	1.49e3	4.12e3	1.0000		3.12	3.13	1.81	0.986	98.6
5	5	PFHpA	363.0 > 318.9	1.09e3	9.53e3	1.0000		3.75	3.75	1.44	0.967	96.7
6	6	L-PFHxS	398.9 > 79.6	2.17e2	1.29e3	1.0000		3.85	3.89	2.10	1.022	102.2
7	8	6:2 FTS	427.1 > 407	3.06e2	1.61e4	1.0000		4.20	4.20	0.237	0.912	91.2
8	9	L-PFOA	413 > 368.7	1.85e3	1.61e4	1.0000		4.25	4.26	1.44	1.010	101.0
9	11	PFHpS	449 > 80.0	3.31e2	1.61e4	1.0000		4.35	4.37	0.257	0.978	97.8
10	12	PFNA	463.0 > 418.8	1.26e3	1.21e4	1.0000		4.70	4.69	1.29	0.829	82.9
11	13	PFOSA	498.1 > 77.8	2.70e2	2.69e3	1.0000		4.81	4.76	1.26	1.001	100.1
12	14	L-PFOS	499 > 79.9	3.61e2	3.28e3	1.0000		4.75	4.77	1.38	1.114	111.4
13	16	PFDA	513 > 468.8	1.13e3	1.29e4	1.0000		5.05	5.06	1.10	0.762	76.2
14	17	8:2 FTS	527 > 506.9	3.18e2	1.29e4	1.0000		5.02	5.03	0.309	1.113	111.3
15	18	N-MeFOSAA	570.1 > 419	7.11e2	6.23e3	1.0000		5.20	5.21	1.43	0.892	89.2
16	19	N-EtFOSAA	584.2 > 419	5.65e2	6.39e3	1.0000		5.42	5.36	1.10	0.886	88.6
17	20	PFUdA	563.0 > 518.9	1.58e3	1.57e4	1.0000		5.35	5.37	1.26	1.039	103.9
18	21	PFDS	598.8 > 80	3.80e2	1.57e4	1.0000		5.50	5.42	0.303	0.844	84.4
19	22	PFDoA	612.9 > 569.0	1.78e3	1.44e4	1.0000		5.70	5.65	1.54	0.739	73.9
20	23	N-MeFOSA	512.1 > 168.9	6.11e2	1.82e4	1.0000		5.77	5.81	5.05	4.570	91.4
21	24	PFTrDA	662.9 > 618.9	1.37e3	1.44e4	1.0000		5.95	5.90	1.19	0.633 (A)	63.3
22	25	PFTeDA	712.9 > 668.8	8.24e2	4.48e3	1.0000		6.16	6.11	2.30	0.841	84.1
23	26	N-EtFOSA	526.1 > 168.9	8.21e2	2.57e4	1.0000		6.15	6.20	4.80	5.107	102.1
24	27	PFHxDA	813.1 > 768.6	6.08e2	4.26e3	1.0000		6.48	6.45	0.714	0.704	70.4
25	28	PFODA	913.1 > 868.8	8.72e2	4.26e3	1.0000		6.70	6.67	1.02	1.045	104.5
26	29	N-MeFOSE	616.1 > 58.9	7.05e2	1.86e4	1.0000		6.30	6.32	5.68	4.861	97.2
27	30	N-EtFOSE	630.1 > 58.9	8.87e2	1.94e4	1.0000		6.42	6.47	6.87	5.526	110.5
28	31	13C3-PFBA	216.1 > 171.8	1.09e4	1.41e4	1.0000	0.783	1.47	1.41	9.61	12.273	98.2
29	32	13C3-PFPeA	266. > 221.8	1.32e4	1.65e4	1.0000	0.807	2.44	2.37	10.0	12.454	99.6
30	33	13C3-PFBS	302. > 98.8	1.78e3	1.65e4	1.0000	0.108	2.70	2.64	1.35	12.519	100.2
31	34	13C2-PFHxA	315 > 269.8	4.12e3	1.65e4	1.0000	0.636	3.20	3.13	3.13	4.923	98.5

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(B) PFDoA, PFTeDA, PFHxDA >150%.

Dataset: U:\Q4.PRO\results\171229M2\171229M2-79.qld

Last Altered: Saturday, December 30, 2017 09:43:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:20:13 Pacific Standard Time

Name: 171229M2_79, Date: 30-Dec-2017, Time: 04:05:52, ID: ST171229M2-14 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	9.53e3	1.65e4	1.0000	0.652	3.80	3.74	7.24	11.098	88.8
33	36	18O2-PFHxS	403.0 > 102.6	1.29e3	3.94e3	1.0000	0.321	3.95	3.89	4.10	12.788	102.3
34	37	13C2-6:2 FTS	429.1 > 408.9	3.45e3	1.52e4	1.0000	0.192	4.26	4.20	2.84	14.778	118.2
35	38	13C2-PFOA	414.9 > 369.7	1.61e4	1.52e4	1.0000	0.945	4.32	4.26	13.3	14.050	112.4
36	39	13C5-PFNA	468.2 > 422.9	1.21e4	1.60e4	1.0000	0.832	4.75	4.69	9.51	11.424	91.4
37	40	13C8-PFOSA	506.1 > 77.7	2.69e3	1.52e4	1.0000	0.204	4.81	4.75	2.22	10.873	87.0
38	41	13C8-PFOS	507.0 > 79.9	3.28e3	4.09e3	1.0000	0.948	4.83	4.77	10.0	10.558	84.5
39	42	13C2-PFDA	515.1 > 469.9	1.29e4	1.30e4	1.0000	0.986	5.11	5.06	12.3	12.514	100.1
40	43	13C2-8:2 FTS	529.1 > 508.7	1.88e3	1.65e4	1.0000	0.124	5.09	5.03	1.43	11.474	91.8
41	44	d3-N-MeFOSAA	573.3 > 419	6.23e3	1.52e4	1.0000	0.391	5.26	5.20	5.13	13.111	104.9
42	45	d5-N-EtFOSAA	589.3 > 419	6.39e3	1.52e4	1.0000	0.451	5.42	5.36	5.27	11.670	93.4
43	46	13C2-PFUdA	565 > 519.8	1.57e4	1.52e4	1.0000	0.900	5.43	5.37	12.9	14.365	114.9
44	47	13C2-PFDoA	615.0 > 569.7	1.44e4	1.52e4	1.0000	0.617	5.70	5.65	11.9	19.253	(B) 154.0
45	48	d3-N-MeFOSA	515.2 > 168.9	1.82e4	1.52e4	1.0000	0.097	5.80	5.83	15.0	153.538	102.4
46	49	13C2-PFTeDA	714.8 > 669.6	4.48e3	1.52e4	1.0000	0.196	6.16	6.11	3.69	18.842	(B) 150.7
47	50	d5-N-ETFOSA	531.1 > 168.9	2.57e4	1.52e4	1.0000	0.147	6.16	6.21	21.1	144.065	96.0
48	51	13C2-PFHxDA	815 > 769.7	4.26e3	1.52e4	1.0000	0.435	6.48	6.44	3.51	8.064	(B) 161.3
49	52	d7-N-MeFOSE	623.1 > 58.9	1.86e4	1.52e4	1.0000	0.108	6.30	6.31	15.3	141.759	94.5
50	53	d9-N-EtFOSE	639.2 > 58.8	1.94e4	1.52e4	1.0000	0.116	6.42	6.46	16.0	138.102	92.1
51	54	13C4-PFBA	217. > 171.8	1.41e4	1.41e4	1.0000	1.000	1.47	1.41	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.65e4	1.65e4	1.0000	1.000	3.20	3.13	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.94e3	3.94e3	1.0000	1.000	3.95	3.89	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.52e4	1.52e4	1.0000	1.000	4.32	4.26	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.60e4	1.60e4	1.0000	1.000	4.75	4.69	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	4.09e3	4.09e3	1.0000	1.000	4.83	4.77	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.30e4	1.30e4	1.0000	1.000	5.11	5.06	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.52e4	1.52e4	1.0000	1.000	5.43	5.37	12.5	12.500	100.0

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Dataset: Untitled

Last Altered: Saturday, December 30, 2017 14:34:40 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:35:25 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171229M2_1	IPA	29-Dec-17	13:20:29
2	171229M2_2	ST171229M2-1 PFC CS-2 17L2606	29-Dec-17	13:31:42
3	171229M2_3	ST171229M2-2 PFC CS-1 17L2607	29-Dec-17	13:42:53
4	171229M2_4	ST171229M2-3 PFC CS0 17L2608	29-Dec-17	13:54:04
5	171229M2_5	ST171229M2-4 PFC CS1 17L2609	29-Dec-17	14:05:15
6	171229M2_6	ST171229M2-5 PFC CS2 17L2610	29-Dec-17	14:16:26
7	171229M2_7	ST171229M2-6 PFC CS3 17L2611	29-Dec-17	14:27:38
8	171229M2_8	ST171229M2-7 PFC CS4 17L2612	29-Dec-17	14:38:48
9	171229M2_9	ST171229M2-8 PFC CS5 17L2613	29-Dec-17	14:49:59
10	171229M2_10	ST171229M2-9 PFC CS6 17L2710	29-Dec-17	15:01:10
11	171229M2_11	ST171229M2-10 PFC CS7 17L1804	29-Dec-17	15:12:20
12	171229M2_12	IPA	29-Dec-17	15:23:31
13	171229M2_13	ICV171229M2-1 PFC ICV 17L2907	29-Dec-17	15:34:42
14	171229M2_14	ICV171229M2-2 PFC ICV 17L1201	29-Dec-17	15:54:47
15	171229M2_15	IPA		
16	171229M2_16	B7L0125-BS1 OPR 0.25	29-Dec-17	16:20:48
17	171229M2_17	B7L0125-BSD1 LCSD 0.25	29-Dec-17	16:31:57
18	171229M2_18	B7L0125-BLK1 Method Blank 0.25	29-Dec-17	16:43:08
19	171229M2_19	1701850-01 REEPDW022 0.11501	29-Dec-17	16:54:19
20	171229M2_20	1701850-02 REEPDW023 0.11853	29-Dec-17	17:05:30
21	171229M2_21	1701850-03 REEPDW024 0.117	29-Dec-17	17:16:48
22	171229M2_22	1701850-04 REEPDW025 0.11877	29-Dec-17	17:27:59
23	171229M2_23	1701850-05 REEPDW026 0.1191	29-Dec-17	17:39:09
24	171229M2_24	1701850-06 REEPDW027 0.12081	29-Dec-17	17:50:20
25	171229M2_25	1701850-07 REEPDW028 0.11799	29-Dec-17	18:01:31
26	171229M2_26	1701850-08 REEPDW029 0.12009	29-Dec-17	18:12:42
27	171229M2_27	1701850-10 REEPDW502 0.09932	29-Dec-17	18:23:52
28	171229M2_28	IPA	29-Dec-17	18:35:03
29	171229M2_29	ST171229M2-11 PFC CS3 17L2611	29-Dec-17	18:46:14
30	171229M2_30	IPA	29-Dec-17	18:57:24
31	171229M2_31	1701850-11 REEPDW031 0.11718	29-Dec-17	19:08:35

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Dataset: Untitled

Last Altered: Saturday, December 30, 2017 14:34:40 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:35:25 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	171229M2_32	1701850-12 REEPDW032 0.11903	29-Dec-17	19:19:45
33	171229M2_33	1701850-13 REEPDW033 0.12087	29-Dec-17	19:30:56
34	171229M2_34	1701850-14 REEPDW034 0.12073	29-Dec-17	19:42:07
35	171229M2_35	1701940-01 REEPDWO40FRB 0.11341	29-Dec-17	19:53:18
36	171229M2_36	1701940-02 REEPDW041FRB 0.11678	29-Dec-17	20:04:31
37	171229M2_37	1701940-03 REEPDW042FRB 0.11364	29-Dec-17	20:15:44
38	171229M2_38	1701802-01RE1 FC-MW02SR1-NP-20171128...	29-Dec-17	20:26:54
39	171229M2_39	1701802-02RE1 FC-MW02SR1-P1-20171128 ...	29-Dec-17	20:38:04
40	171229M2_40	1701802-03RE1 FC-MW02SR1-P2-20171128 ...	29-Dec-17	20:49:15
41	171229M2_41	1701802-04RE1 FC-MW02SR1-P3-20171128 ...	29-Dec-17	21:00:26
42	171229M2_42	1701802-05RE1 FC-MW02SR1-FRB-2017112...	29-Dec-17	21:11:37
43	171229M2_43	1701802-06RE1 FC-MW02IR1-NP-20171128 ...	29-Dec-17	21:22:47
44	171229M2_44	1701802-07RE1 FC-MW02IR1-P1-20171128 ...	29-Dec-17	21:33:58
45	171229M2_45	IPA	29-Dec-17	21:45:09
46	171229M2_46	ST171229M2-12 PFC CS0 17L2608	29-Dec-17	21:56:19
47	171229M2_47	IPA	29-Dec-17	22:07:32
48	171229M2_48	1701802-08RE1 FC-MW02IR1-P2-20171128 ...	29-Dec-17	22:18:51
49	171229M2_49	1701802-09RE1 FC-MW02IR1-P3-20171128 ...	29-Dec-17	22:30:05
50	171229M2_50	IPA	29-Dec-17	22:41:16
51	171229M2_51	B7L0171-BS1 OPR 0.25	29-Dec-17	22:52:26
52	171229M2_52	IPA	29-Dec-17	23:03:37
53	171229M2_53	B7L0171-BLK1 Method Blank 0.25	29-Dec-17	23:14:47
54	171229M2_54	B7L0171-MS1 Matrix Spike 0.25217	29-Dec-17	23:25:59
55	171229M2_55	B7L0171-MSD1 Matrix Spike Dup 0.2644	29-Dec-17	23:37:09
56	171229M2_56	1701929-01 SB01 0.26085	29-Dec-17	23:48:20
57	171229M2_57	1701929-02 EB01 0.26531	29-Dec-17	23:59:31
58	171229M2_58	1701929-03 UXOSite11-GW-GMMW04-20171...	30-Dec-17	00:10:41
59	171229M2_59	1701929-04 UXOSite11-GW-GMMW08-20171...	30-Dec-17	00:21:52
60	171229M2_60	1701929-05 UXOSite11-GW-GMMW10-20171...	30-Dec-17	00:33:02
61	171229M2_61	1701929-06 IRSite13-GW-BUAMW011-20171...	30-Dec-17	00:44:13
62	171229M2_62	1701929-07 IRSite13-GW-BUAMW015-20171...	30-Dec-17	00:55:25
63	171229M2_63	1701929-08 IRSite13-GW-BUAMW012-20171...	30-Dec-17	01:06:43
64	171229M2_64	1701929-09 IRSite13-GW-BUAMW016-20171...	30-Dec-17	01:17:53
65	171229M2_65	IPA	30-Dec-17	01:29:05

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Dataset: Untitled

Last Altered: Saturday, December 30, 2017 14:34:40 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:35:25 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
66	171229M2_66	ST171229M2-13 PFC CS3 17L2611	30-Dec-17	01:40:17
67	171229M2_67	IPA	30-Dec-17	01:51:27
68	171229M2_68	1701929-10 DUP01 27034	30-Dec-17	02:02:42
69	171229M2_69	1701929-11 IRSite13-GW-BUAMW010-20171...	30-Dec-17	02:14:01
70	171229M2_70	1701929-12 IRSite13-GW-BUAMW002-20171...	30-Dec-17	02:25:16
71	171229M2_71	1701943-01 WI-A06-6-S-04-1217 0.125	30-Dec-17	02:36:26
72	171229M2_72	1701943-03 WI-A06-6-S-19-1217 0.12062	30-Dec-17	02:47:37
73	171229M2_73	1701943-05 WI-A06-6-S-19P-1217 0.11997	30-Dec-17	02:58:48
74	171229M2_74	1701943-07 WI-A06-6-S-31-1217 0.12406	30-Dec-17	03:09:59
75	171229M2_75	1701943-09 WI-A06-EB07-121117 0.12057	30-Dec-17	03:21:10
76	171229M2_76	1701943-11 WI-A06-6-S-08-1217 0.12355	30-Dec-17	03:32:20
77	171229M2_77	1701943-13 WI-A06-EB08-121217 0.12255	30-Dec-17	03:43:31
78	171229M2_78	IPA	30-Dec-17	03:54:41
79	171229M2_79	ST171229M2-14 PFC CS0 17L2608	30-Dec-17	04:05:52
80	171229M2_80	IPA	30-Dec-17	04:17:05
81	171229M2_81	B7L0092-MS1@20X Matrix Spike 16.49	30-Dec-17	04:28:22
82	171229M2_82	B7L0092-MSD1@20X Matrix Spike Dup 16.11	30-Dec-17	04:39:32
83	171229M2_83	1701841-01@20X OF-SLG01-1217 17.61	30-Dec-17	04:50:43
84	171229M2_84	1701841-02@20X OF-SLG02-1217 10.1	30-Dec-17	05:01:54
85	171229M2_85	1701841-03@20X OF-SLG02P-1217 6.48	30-Dec-17	05:13:05
86	171229M2_86	1701841-04@10X OF-SLG03-1217 11.57	30-Dec-17	05:24:15
87	171229M2_87	1701841-05@10X OF-SLG04-1217 5.07	30-Dec-17	05:35:26
88	171229M2_88	B7L0073-MS1@5X Matrix Spike 0.24032	30-Dec-17	05:46:37
89	171229M2_89	B7L0073-MSD1@5X Matrix Spike Dup 0.25539	30-Dec-17	05:57:47
90	171229M2_90	1701829-04@5X FT-MW08I-20171129 0.2616	30-Dec-17	06:08:58
91	171229M2_91	IPA	30-Dec-17	06:20:09
92	171229M2_92	B7K0027-BLK1 Method Blank 1	30-Dec-17	06:31:20
93	171229M2_93	B7L0069-BLK1 Method Blank 1	30-Dec-17	06:42:30
94	171229M2_94	B7L0069-BS2 OPR 1	30-Dec-17	06:53:41
95	171229M2_95	B7L0069-BS3 OPR 1	30-Dec-17	07:04:51
96	171229M2_96	B7L0069-BS4 OPR 1	30-Dec-17	07:16:02
97	171229M2_97	B7L0069-BS5 OPR 1	30-Dec-17	07:27:13
98	171229M2_98	B7K0027-BS1 OPR 1	30-Dec-17	07:38:24
99	171229M2_99	B7K0027-BS2 OPR 1	30-Dec-17	07:49:34

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101	171229M2_101	B7K0027-BS4 OPR 1	30-Dec-17	08:11:55
102	171229M2_102	IPA	30-Dec-17	08:23:07
103	171229M2_103	ST171229M2-15 PFC CS3 17L2611	30-Dec-17	08:34:17
104	171229M2_104	IPA	30-Dec-17	08:45:28
105	171229M2_105	B7L0072-BS1 OPR 3	30-Dec-17	08:56:39
106	171229M2_106	B7L0181-BS1 OPR 1	30-Dec-17	09:07:50
107	171229M2_107	IPA	30-Dec-17	09:19:01
108	171229M2_108	B7L0072-BLK1 Method Blank 3	30-Dec-17	09:30:12
109	171229M2_109	B7L0181-BLK1 Method Blank 1	30-Dec-17	09:41:22
110	171229M2_110	1701617-01 1644210 1.2	30-Dec-17	09:52:33
111	171229M2_111	1701618-01 103017B 3	30-Dec-17	10:03:44
112	171229M2_112	1701629-01 102017A 3	30-Dec-17	10:14:55
113	171229M2_113	1701629-01RE1 102017A 1	30-Dec-17	10:26:05
114	171229M2_114	IPA	30-Dec-17	10:37:16
115	171229M2_115	ST171229M2-16 PFC CS3 17L2611	30-Dec-17	10:48:27
116	171229M2_116	IPA	30-Dec-17	10:59:39

Vista Analytical Laboratory

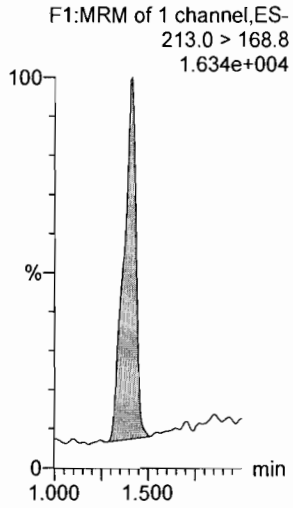
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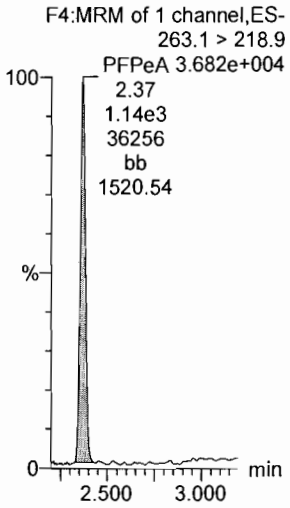
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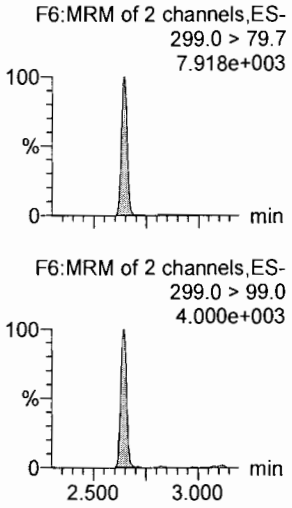
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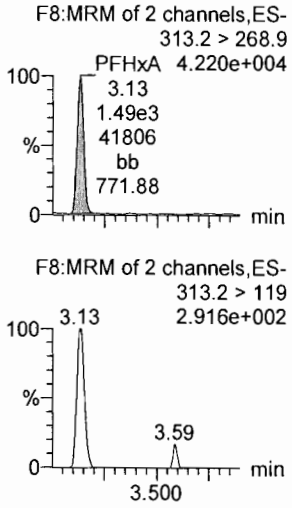
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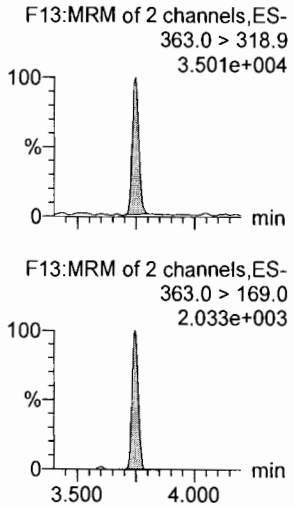
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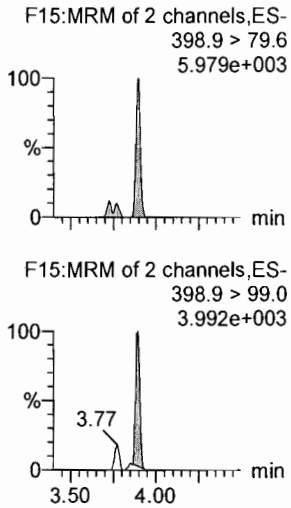
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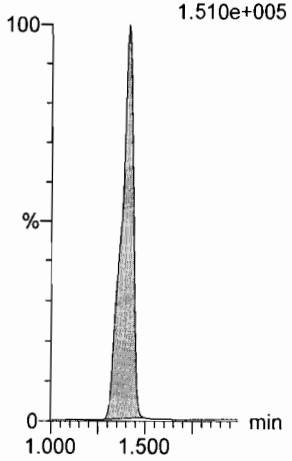
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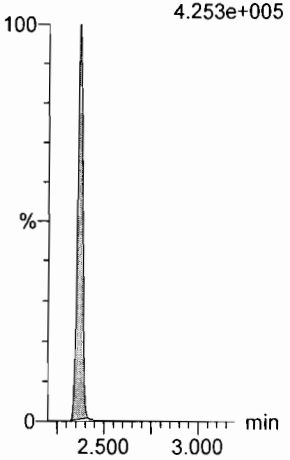
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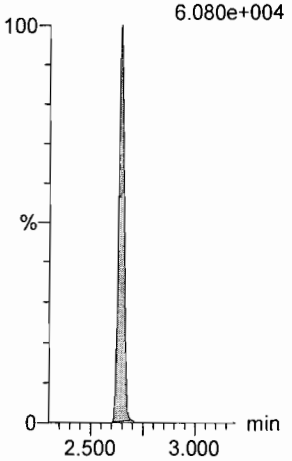
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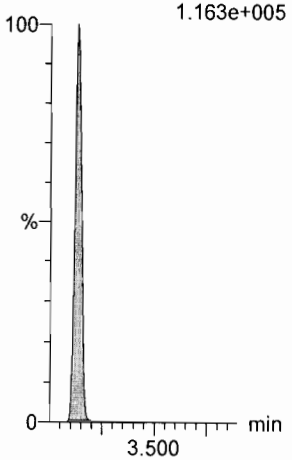
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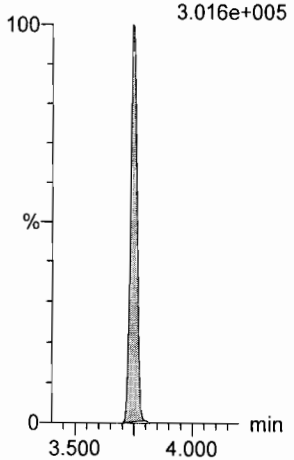
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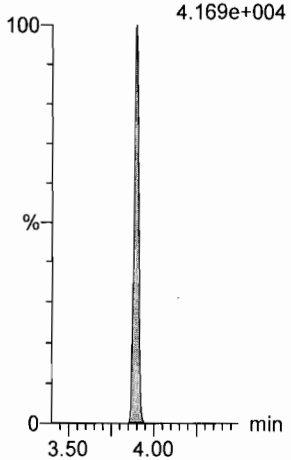
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13C4-PFHpA



18O2-PFHxS



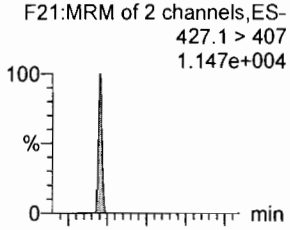
Vista Analytical Laboratory

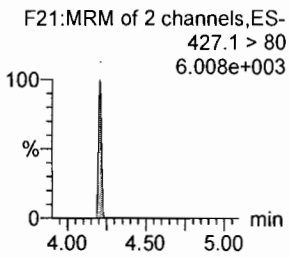
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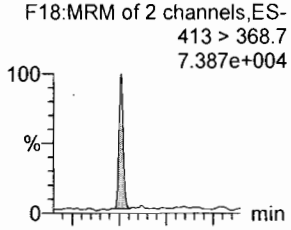
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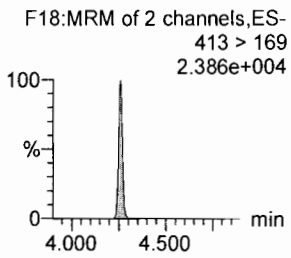
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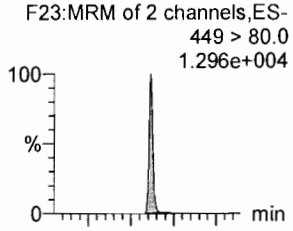


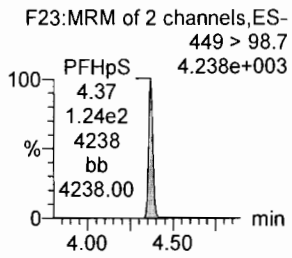
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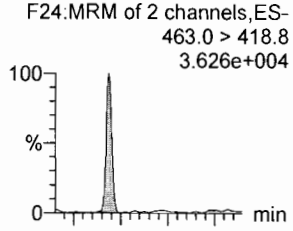


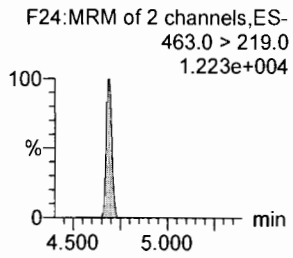
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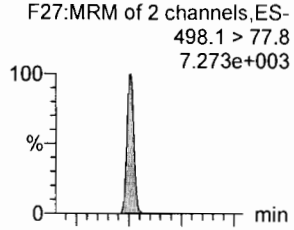


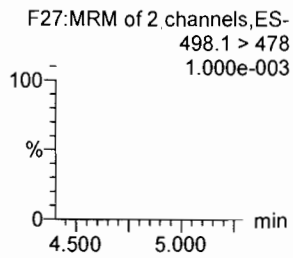
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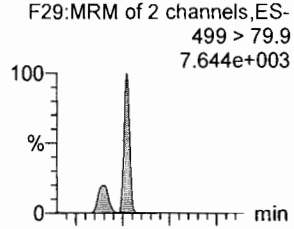


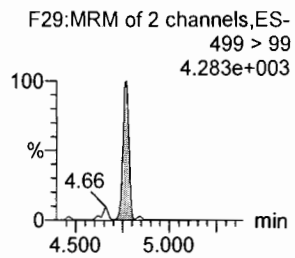
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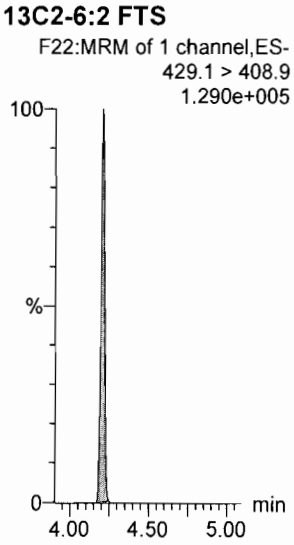


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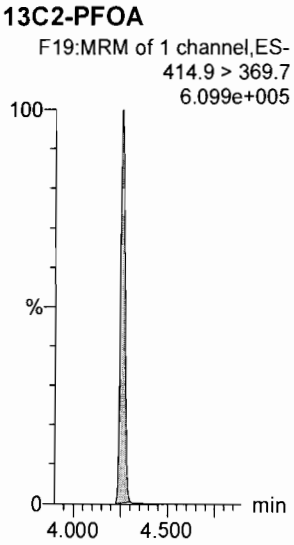




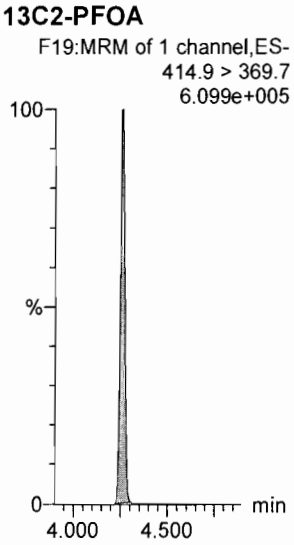
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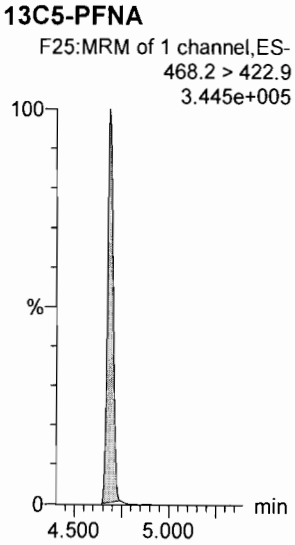
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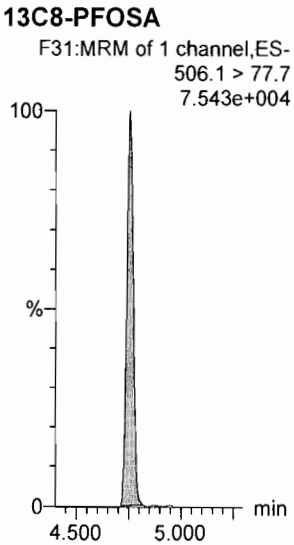
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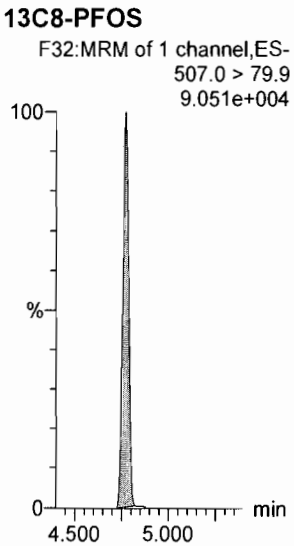
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13C8-PFOS

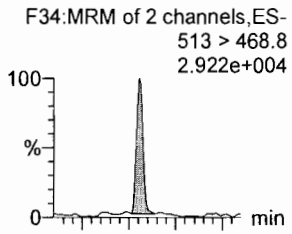


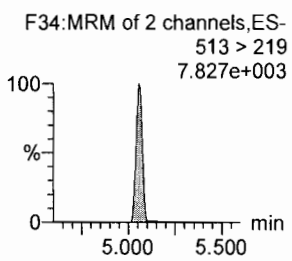
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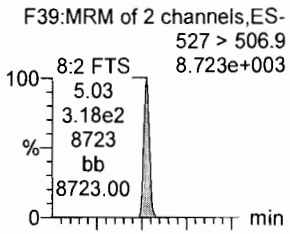
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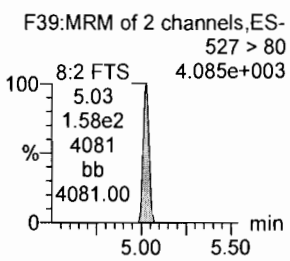
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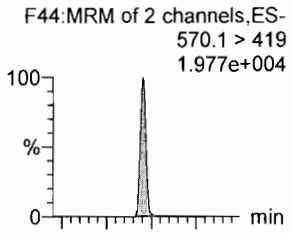


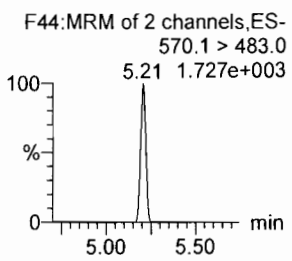
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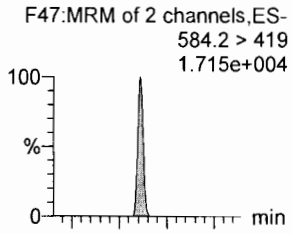


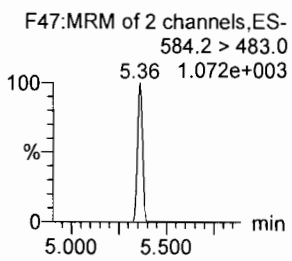
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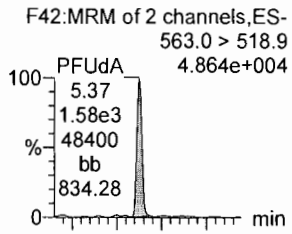


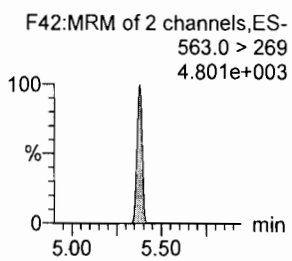
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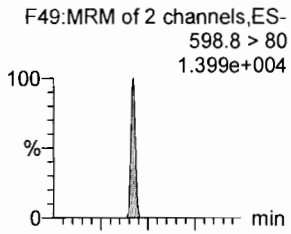


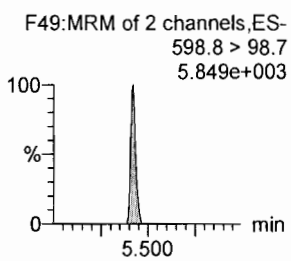
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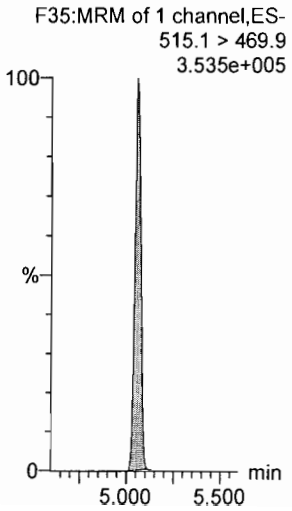


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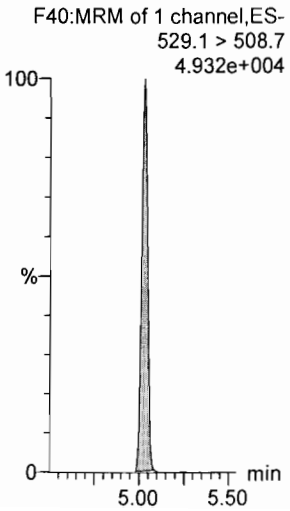




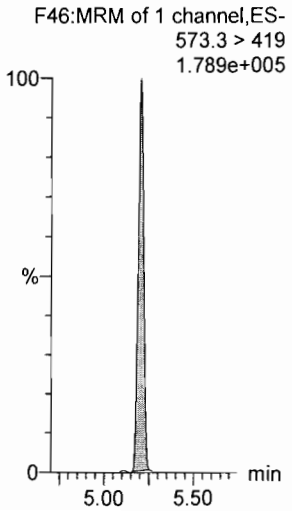
13C2-PFDA



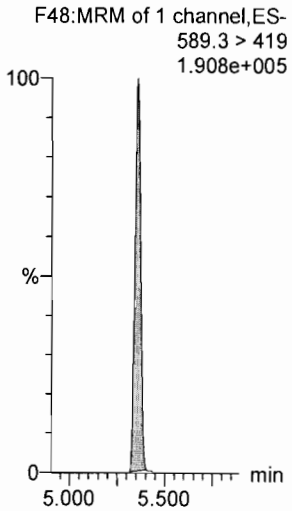
13C2-8:2 FTS



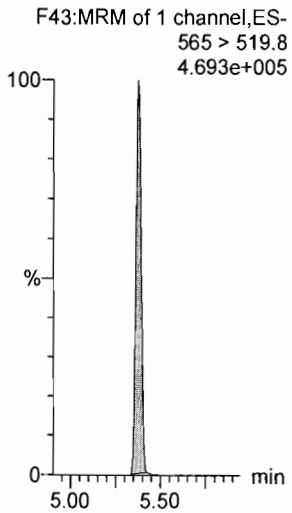
d3-N-MeFOSAA



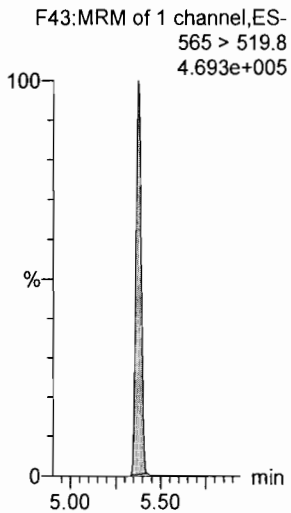
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

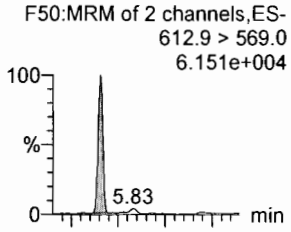


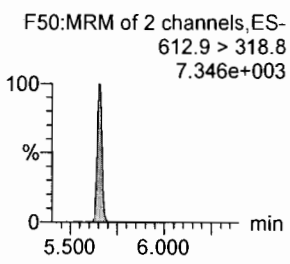
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Printed: Saturday, December 30, 2017 14:20:13 Pacific Standard Time

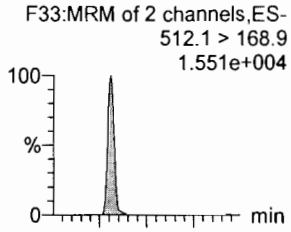
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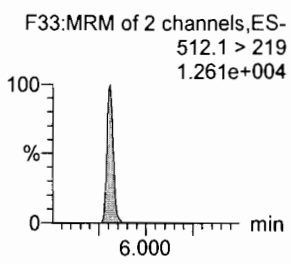
PFDoA



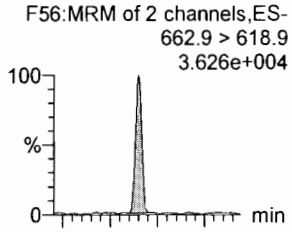


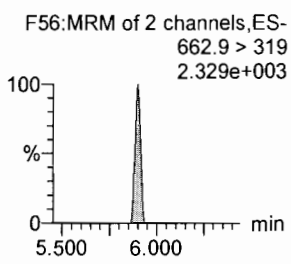
N-MeFOSA



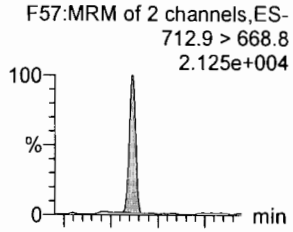


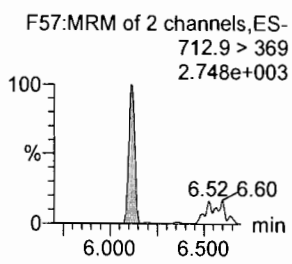
PFTrDA



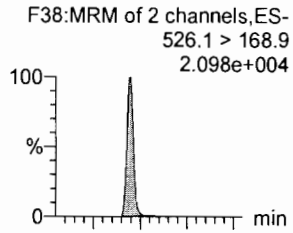


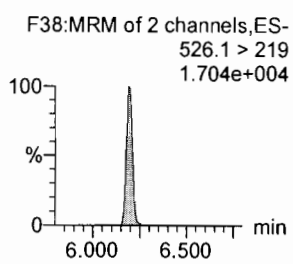
PFTeDA



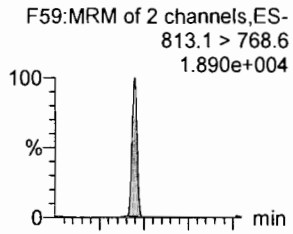


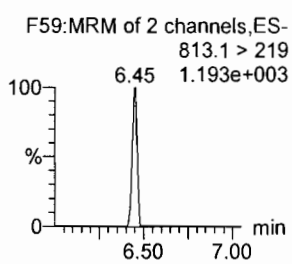
N-EtFOSA



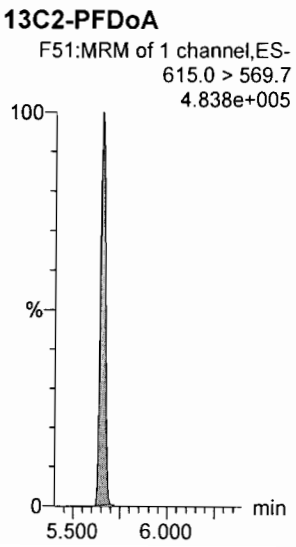


PFHxDA

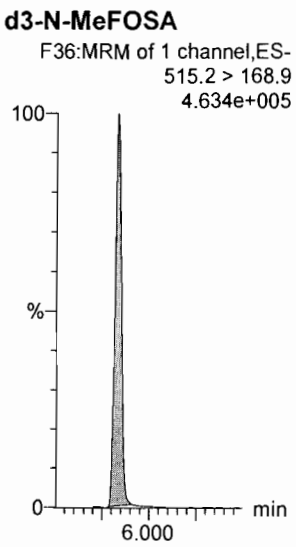




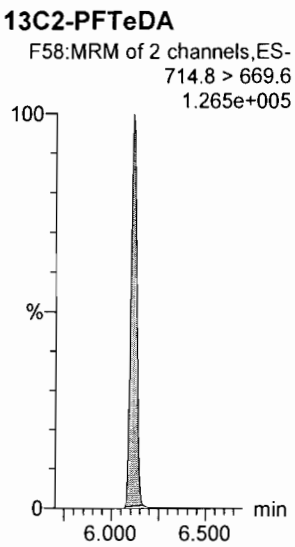
13C2-PFDoA



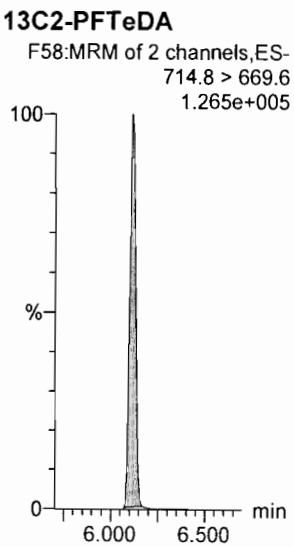
d3-N-MeFOSA



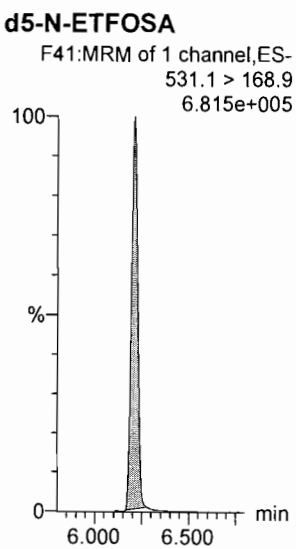
13C2-PFTeDA



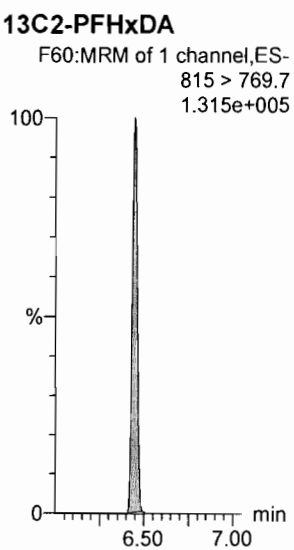
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



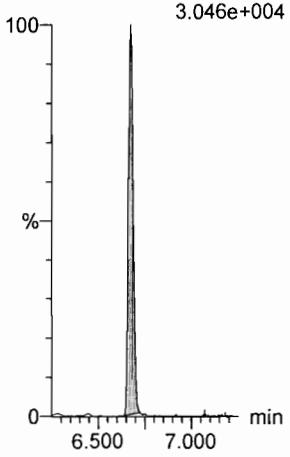
Vista Analytical Laboratory

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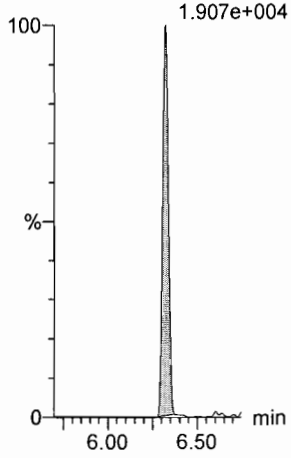
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Name: 171229M2_79, Date: 30-Dec-2017, Time: 04:05:52, ID: ST171229M2-14 PFC CS0 17L2608, Description: PFC CS0 17L2608

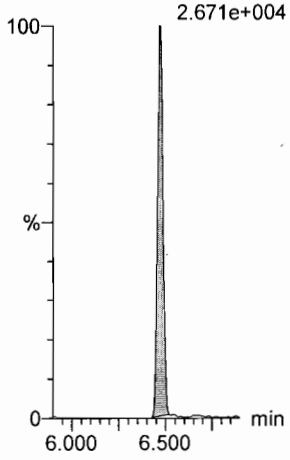
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.046e+004



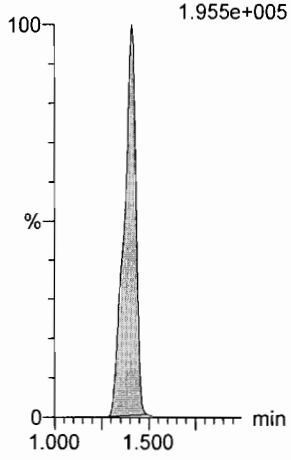
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.907e+004



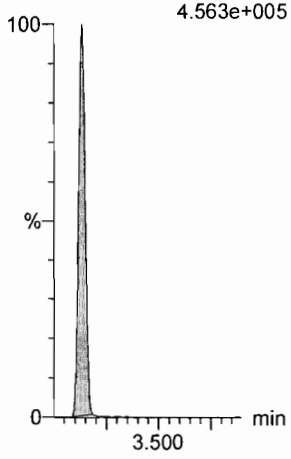
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.671e+004



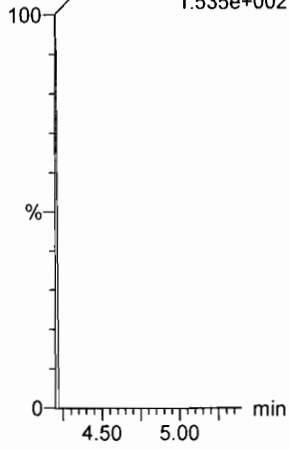
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.955e+005



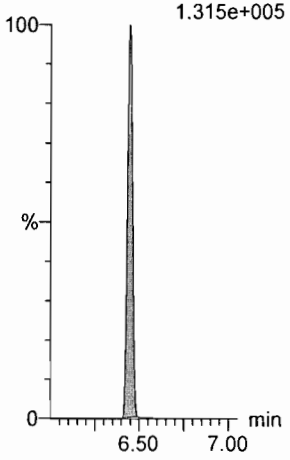
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.563e+005



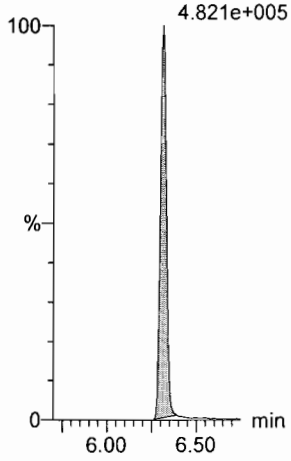
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.535e+002



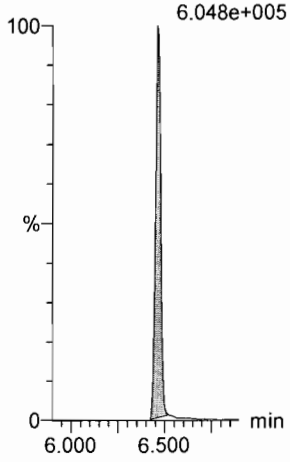
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.315e+005



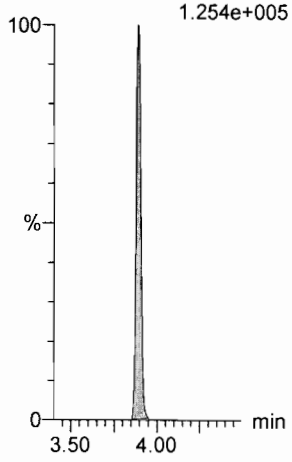
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.821e+005



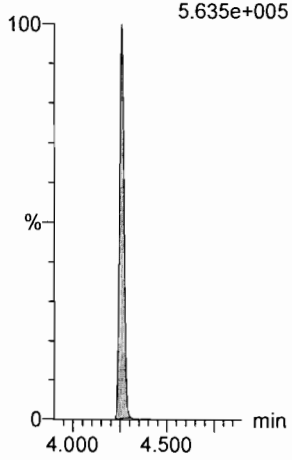
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.048e+005



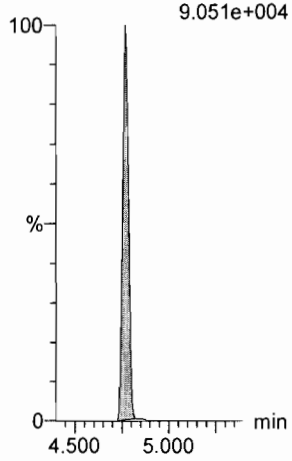
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.254e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.635e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
9.051e+004

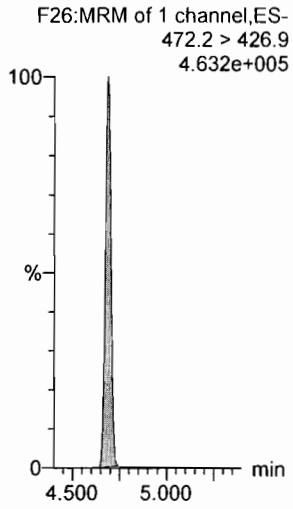


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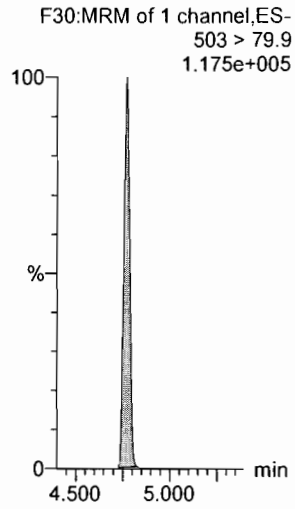
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Name: 171229M2_79, Date: 30-Dec-2017, Time: 04:05:52, ID: ST171229M2-14 PFC CS0 17L2608, Description: PFC CS0 17L2608

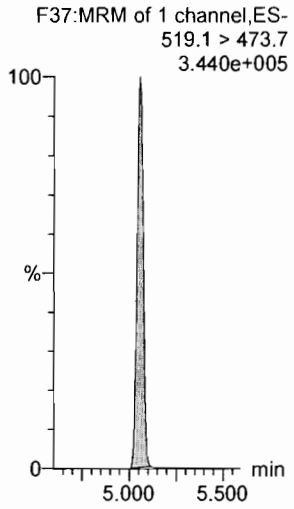
13C9-PFNA



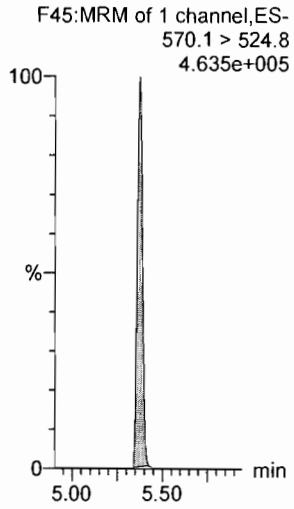
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171229M2\171229M2-103.qld

Last Altered: Saturday, December 30, 2017 09:46:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:24:01 Pacific Standard Time

AC 12/30/17

rjh. 12/30/2017

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_103, Date: 30-Dec-2017, Time: 08:34:17, ID: ST171229M2-15 PFC CS3 17L2611, Description: PFC CS3 17L2611

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1	1	PFBA	213.0 > 168.8	1.33e4	1.16e4	1.0000		1.47	1.41	14.4	10.539	105.4
2	2	PFPeA	263.1 > 218.9	1.38e4	1.35e4	1.0000		2.35	2.37	12.8	10.779	107.8
3	3	PFBS	299.0 > 79.7	3.46e3	1.96e3	1.0000		2.70	2.64	22.1	10.235	102.4
4	4	PFHxA	313.2 > 268.9	1.68e4	4.40e3	1.0000		3.12	3.13	19.1	10.232	102.3
5	5	PFHpA	363.0 > 318.9	1.28e4	9.99e3	1.0000		3.75	3.74	16.1	10.213	102.1
6	6	L-PFHxS	398.9 > 79.6	2.51e3	1.52e3	1.0000		3.85	3.89	20.7	9.758	97.6
7	8	6:2 FTS	427.1 > 407	3.42e3	1.68e4	1.0000		4.20	4.20	2.55	10.282	102.8
8	9	L-PFOA	413 > 368.7	1.54e4	1.68e4	1.0000		4.25	4.26	11.5	9.433	94.3
9	11	PFHpS	449 > 80.0	3.82e3	1.68e4	1.0000		4.35	4.36	2.85	11.342	113.4
10	12	PFNA	463.0 > 418.8	1.51e4	1.28e4	1.0000		4.70	4.69	14.7	9.464	94.6
11	13	PFOSA	498.1 > 77.8	3.60e3	3.43e3	1.0000		4.81	4.75	13.1	9.862	98.6
12	14	L-PFOS	499 > 79.9	4.52e3	3.69e3	1.0000		4.75	4.76	15.3	11.478	114.8
13	16	PFDA	513 > 468.8	1.45e4	1.53e4	1.0000		5.05	5.06	11.8	7.894	78.9
14	17	8:2 FTS	527 > 506.9	3.46e3	1.53e4	1.0000		5.02	5.02	2.82	9.174	91.7
15	18	N-MeFOSAA	570.1 > 419	8.63e3	6.39e3	1.0000		5.20	5.20	16.9	10.145	101.5
16	19	N-EtFOSAA	584.2 > 419	8.01e3	7.30e3	1.0000		5.42	5.36	13.7	10.289	102.9
17	20	PFUdA	563.0 > 518.9	1.75e4	1.94e4	1.0000		5.35	5.37	11.3	9.165	91.6
18	21	PFDS	598.8 > 80	4.24e3	1.94e4	1.0000		5.50	5.42	2.74	7.734	77.3
19	22	PFDoA	612.9 > 569.0	1.80e4	1.24e4	1.0000		5.70	5.65	18.2	8.542	85.4
20	23	N-MeFOSA	512.1 > 168.9	7.16e3	1.84e4	1.0000		5.77	5.81	58.2	52.316	104.6
21	24	PFTrDA	662.9 > 618.9	1.87e4	1.24e4	1.0000		5.95	5.90	18.9	10.849	108.5
22	25	PFTeDA	712.9 > 668.8	1.29e4	4.71e3	1.0000		6.16	6.11	34.3	10.218	102.2
23	26	N-EtFOSA	526.1 > 168.9	9.91e3	2.73e4	1.0000		6.15	6.19	54.4	54.460	108.9
24	27	PFHxDA	813.1 > 768.6	5.34e3	3.04e3	1.0000		6.48	6.44	8.78	9.014	90.1
25	28	PFODA	913.1 > 868.8	9.49e3	3.04e3	1.0000		6.70	6.67	15.6	10.657	106.6
26	29	N-MeFOSE	616.1 > 58.9	7.79e3	2.12e4	1.0000		6.30	6.32	55.2	43.320	86.6
27	30	N-EtFOSE	630.1 > 58.9	8.76e3	2.35e4	1.0000		6.42	6.47	56.0	45.607	91.2
28	31	13C3-PFBA	216.1 > 171.8	1.16e4	1.48e4	1.0000	0.783	1.47	1.41	9.83	12.546	100.4
29	32	13C3-PFPeA	266. > 221.8	1.35e4	1.68e4	1.0000	0.807	2.44	2.37	10.0	12.412	99.3
30	33	13C3-PFBS	302. > 98.8	1.96e3	1.68e4	1.0000	0.108	2.70	2.64	1.46	13.490	107.9
31	34	13C2-PFHxA	315 > 269.8	4.40e3	1.68e4	1.0000	0.636	3.20	3.13	3.27	5.138	102.8

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Dataset: U:\Q4.PRO\results\171229M2\171229M2-103.qld

Last Altered: Saturday, December 30, 2017 09:46:21 Pacific Standard Time
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Name: 171229M2_103, Date: 30-Dec-2017, Time: 08:34:17, ID: ST171229M2-15 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	9.99e3	1.68e4	1.0000	0.652	3.80	3.74	7.42	11.375	91.0
33	36	18O2-PFHxS	403.0 > 102.6	1.52e3	4.34e3	1.0000	0.321	3.95	3.89	4.37	13.615	108.9
34	37	13C2-6:2 FTS	429.1 > 408.9	3.36e3	1.69e4	1.0000	0.192	4.26	4.20	2.50	12.995	104.0
35	38	13C2-PFOA	414.9 > 369.7	1.68e4	1.69e4	1.0000	0.945	4.32	4.26	12.4	13.163	105.3
36	39	13C5-PFNA	468.2 > 422.9	1.28e4	1.56e4	1.0000	0.832	4.75	4.68	10.3	12.366	98.9
37	40	13C8-PFOSA	506.1 > 77.7	3.43e3	1.98e4	1.0000	0.204	4.81	4.75	2.17	10.626	85.0
38	41	13C8-PFOS	507.0 > 79.9	3.69e3	4.67e3	1.0000	0.948	4.83	4.77	9.86	10.405	83.2
39	42	13C2-PFDA	515.1 > 469.9	1.53e4	1.51e4	1.0000	0.986	5.11	5.06	12.7	12.838	102.7
40	43	13C2-8:2 FTS	529.1 > 508.7	2.54e3	1.68e4	1.0000	0.124	5.09	5.02	1.88	15.132	121.1
41	44	d3-N-MeFOSAA	573.3 > 419	6.39e3	1.98e4	1.0000	0.391	5.26	5.20	4.04	10.319	82.6
42	45	d5-N-EtFOSAA	589.3 > 419	7.30e3	1.98e4	1.0000	0.451	5.42	5.35	4.61	10.218	81.7
43	46	13C2-PFUdA	565 > 519.8	1.94e4	1.98e4	1.0000	0.900	5.43	5.37	12.2	13.579	108.6
44	47	13C2-PFDoA	615.0 > 569.7	1.24e4	1.98e4	1.0000	0.617	5.70	5.65	7.81	12.658	101.3
45	48	d3-N-MeFOSA	515.2 > 168.9	1.84e4	1.98e4	1.0000	0.097	5.80	5.83	11.6	119.539	79.7
46	49	13C2-PFTeDA	714.8 > 669.6	4.71e3	1.98e4	1.0000	0.196	6.16	6.11	2.98	15.204	121.6
47	50	d5-N-ETFOSA	531.1 > 168.9	2.73e4	1.98e4	1.0000	0.147	6.16	6.21	17.3	117.840	78.6
48	51	13C2-PFHxDA	815 > 769.7	3.04e3	1.98e4	1.0000	0.435	6.48	6.44	1.92	4.420	88.4
49	52	d7-N-MeFOSE	623.1 > 58.9	2.12e4	1.98e4	1.0000	0.108	6.30	6.31	13.4	123.714	82.5
50	53	d9-N-EtFOSE	639.2 > 58.8	2.35e4	1.98e4	1.0000	0.116	6.42	6.46	14.8	128.410	85.6
51	54	13C4-PFBA	217. > 171.8	1.48e4	1.48e4	1.0000	1.000	1.47	1.41	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.68e4	1.68e4	1.0000	1.000	3.20	3.13	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	4.34e3	4.34e3	1.0000	1.000	3.95	3.89	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.69e4	1.69e4	1.0000	1.000	4.32	4.25	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.56e4	1.56e4	1.0000	1.000	4.75	4.69	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	4.67e3	4.67e3	1.0000	1.000	4.83	4.76	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.51e4	1.51e4	1.0000	1.000	5.11	5.06	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.98e4	1.98e4	1.0000	1.000	5.43	5.37	12.5	12.500	100.0

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Dataset: Untitled

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Compound name: PFBA

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1	171229M2_1	IPA	29-Dec-17	13:20:29
2	171229M2_2	ST171229M2-1 PFC CS-2 17L2606	29-Dec-17	13:31:42
3	171229M2_3	ST171229M2-2 PFC CS-1 17L2607	29-Dec-17	13:42:53
4	171229M2_4	ST171229M2-3 PFC CS0 17L2608	29-Dec-17	13:54:04
5	171229M2_5	ST171229M2-4 PFC CS1 17L2609	29-Dec-17	14:05:15
6	171229M2_6	ST171229M2-5 PFC CS2 17L2610	29-Dec-17	14:16:26
7	171229M2_7	ST171229M2-6 PFC CS3 17L2611	29-Dec-17	14:27:38
8	171229M2_8	ST171229M2-7 PFC CS4 17L2612	29-Dec-17	14:38:48
9	171229M2_9	ST171229M2-8 PFC CS5 17L2613	29-Dec-17	14:49:59
10	171229M2_10	ST171229M2-9 PFC CS6 17L2710	29-Dec-17	15:01:10
11	171229M2_11	ST171229M2-10 PFC CS7 17L1804	29-Dec-17	15:12:20
12	171229M2_12	IPA	29-Dec-17	15:23:31
13	171229M2_13	ICV171229M2-1 PFC ICV 17L2907	29-Dec-17	15:34:42
14	171229M2_14	ICV171229M2-2 PFC ICV 17L1201	29-Dec-17	15:54:47
15	171229M2_15	IPA		
16	171229M2_16	B7L0125-BS1 OPR 0.25	29-Dec-17	16:20:48
17	171229M2_17	B7L0125-BSD1 LCSD 0.25	29-Dec-17	16:31:57
18	171229M2_18	B7L0125-BLK1 Method Blank 0.25	29-Dec-17	16:43:08
19	171229M2_19	1701850-01 REEPDW022 0.11501	29-Dec-17	16:54:19
20	171229M2_20	1701850-02 REEPDW023 0.11853	29-Dec-17	17:05:30
21	171229M2_21	1701850-03 REEPDW024 0.117	29-Dec-17	17:16:48
22	171229M2_22	1701850-04 REEPDW025 0.11877	29-Dec-17	17:27:59
23	171229M2_23	1701850-05 REEPDW026 0.1191	29-Dec-17	17:39:09
24	171229M2_24	1701850-06 REEPDW027 0.12081	29-Dec-17	17:50:20
25	171229M2_25	1701850-07 REEPDW028 0.11799	29-Dec-17	18:01:31
26	171229M2_26	1701850-08 REEPDW029 0.12009	29-Dec-17	18:12:42
27	171229M2_27	1701850-10 REEPDW502 0.09932	29-Dec-17	18:23:52
28	171229M2_28	IPA	29-Dec-17	18:35:03
29	171229M2_29	ST171229M2-11 PFC CS3 17L2611	29-Dec-17	18:46:14
30	171229M2_30	IPA	29-Dec-17	18:57:24
31	171229M2_31	1701850-11 REEPDW031 0.11718	29-Dec-17	19:08:35

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Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	171229M2_32	1701850-12 REEPDW032 0.11903	29-Dec-17	19:19:45
33	171229M2_33	1701850-13 REEPDW033 0.12087	29-Dec-17	19:30:56
34	171229M2_34	1701850-14 REEPDW034 0.12073	29-Dec-17	19:42:07
35	171229M2_35	1701940-01 REEPDWO40FRB 0.11341	29-Dec-17	19:53:18
36	171229M2_36	1701940-02 REEPDW041FRB 0.11678	29-Dec-17	20:04:31
37	171229M2_37	1701940-03 REEPDW042FRB 0.11364	29-Dec-17	20:15:44
38	171229M2_38	1701802-01RE1 FC-MW02SR1-NP-20171128...	29-Dec-17	20:26:54
39	171229M2_39	1701802-02RE1 FC-MW02SR1-P1-20171128 ...	29-Dec-17	20:38:04
40	171229M2_40	1701802-03RE1 FC-MW02SR1-P2-20171128 ...	29-Dec-17	20:49:15
41	171229M2_41	1701802-04RE1 FC-MW02SR1-P3-20171128 ...	29-Dec-17	21:00:26
42	171229M2_42	1701802-05RE1 FC-MW02SR1-FRB-2017112...	29-Dec-17	21:11:37
43	171229M2_43	1701802-06RE1 FC-MW02IR1-NP-20171128 ...	29-Dec-17	21:22:47
44	171229M2_44	1701802-07RE1 FC-MW02IR1-P1-20171128 ...	29-Dec-17	21:33:58
45	171229M2_45	IPA	29-Dec-17	21:45:09
46	171229M2_46	ST171229M2-12 PFC CS0 17L2608	29-Dec-17	21:56:19
47	171229M2_47	IPA	29-Dec-17	22:07:32
48	171229M2_48	1701802-08RE1 FC-MW02IR1-P2-20171128 ...	29-Dec-17	22:18:51
49	171229M2_49	1701802-09RE1 FC-MW02IR1-P3-20171128 ...	29-Dec-17	22:30:05
50	171229M2_50	IPA	29-Dec-17	22:41:16
51	171229M2_51	B7L0171-BS1 OPR 0.25	29-Dec-17	22:52:26
52	171229M2_52	IPA	29-Dec-17	23:03:37
53	171229M2_53	B7L0171-BLK1 Method Blank 0.25	29-Dec-17	23:14:47
54	171229M2_54	B7L0171-MS1 Matrix Spike 0.25217	29-Dec-17	23:25:59
55	171229M2_55	B7L0171-MSD1 Matrix Spike Dup 0.2644	29-Dec-17	23:37:09
56	171229M2_56	1701929-01 SB01 0.26085	29-Dec-17	23:48:20
57	171229M2_57	1701929-02 EB01 0.26531	29-Dec-17	23:59:31
58	171229M2_58	1701929-03 UXOSite11-GW-GMMW04-20171...	30-Dec-17	00:10:41
59	171229M2_59	1701929-04 UXOSite11-GW-GMMW08-20171...	30-Dec-17	00:21:52
60	171229M2_60	1701929-05 UXOSite11-GW-GMMW10-20171...	30-Dec-17	00:33:02
61	171229M2_61	1701929-06 IRSite13-GW-BUAMW011-20171...	30-Dec-17	00:44:13
62	171229M2_62	1701929-07 IRSite13-GW-BUAMW015-20171...	30-Dec-17	00:55:25
63	171229M2_63	1701929-08 IRSite13-GW-BUAMW012-20171...	30-Dec-17	01:06:43
64	171229M2_64	1701929-09 IRSite13-GW-BUAMW016-20171...	30-Dec-17	01:17:53
65	171229M2_65	IPA	30-Dec-17	01:29:05

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Last Altered: Saturday, December 30, 2017 14:34:40 Pacific Standard Time
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Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
66	171229M2_66	ST171229M2-13 PFC CS3 17L2611	30-Dec-17	01:40:17
67	171229M2_67	IPA	30-Dec-17	01:51:27
68	171229M2_68	1701929-10 DUP01 27034	30-Dec-17	02:02:42
69	171229M2_69	1701929-11 IRSite13-GW-BUAMW010-20171...	30-Dec-17	02:14:01
70	171229M2_70	1701929-12 IRSite13-GW-BUAMW002-20171...	30-Dec-17	02:25:16
71	171229M2_71	1701943-01 WI-A06-6-S-04-1217 0.125	30-Dec-17	02:36:26
72	171229M2_72	1701943-03 WI-A06-6-S-19-1217 0.12062	30-Dec-17	02:47:37
73	171229M2_73	1701943-05 WI-A06-6-S-19P-1217 0.11997	30-Dec-17	02:58:48
74	171229M2_74	1701943-07 WI-A06-6-S-31-1217 0.12406	30-Dec-17	03:09:59
75	171229M2_75	1701943-09 WI-A06-EB07-121117 0.12057	30-Dec-17	03:21:10
76	171229M2_76	1701943-11 WI-A06-6-S-08-1217 0.12355	30-Dec-17	03:32:20
77	171229M2_77	1701943-13 WI-A06-EB08-121217 0.12255	30-Dec-17	03:43:31
78	171229M2_78	IPA	30-Dec-17	03:54:41
79	171229M2_79	ST171229M2-14 PFC CS0 17L2608	30-Dec-17	04:05:52
80	171229M2_80	IPA	30-Dec-17	04:17:05
81	171229M2_81	B7L0092-MS1@20X Matrix Spike 16.49	30-Dec-17	04:28:22
82	171229M2_82	B7L0092-MSD1@20X Matrix Spike Dup 16.11	30-Dec-17	04:39:32
83	171229M2_83	1701841-01@20X OF-SLG01-1217 17.61	30-Dec-17	04:50:43
84	171229M2_84	1701841-02@20X OF-SLG02-1217 10.1	30-Dec-17	05:01:54
85	171229M2_85	1701841-03@20X OF-SLG02P-1217 6.48	30-Dec-17	05:13:05
86	171229M2_86	1701841-04@10X OF-SLG03-1217 11.57	30-Dec-17	05:24:15
87	171229M2_87	1701841-05@10X OF-SLG04-1217 5.07	30-Dec-17	05:35:26
88	171229M2_88	B7L0073-MS1@5X Matrix Spike 0.24032	30-Dec-17	05:46:37
89	171229M2_89	B7L0073-MSD1@5X Matrix Spike Dup 0.25539	30-Dec-17	05:57:47
90	171229M2_90	1701829-04@5X FT-MW08I-20171129 0.2616	30-Dec-17	06:08:58
91	171229M2_91	IPA	30-Dec-17	06:20:09
92	171229M2_92	B7K0027-BLK1 Method Blank 1	30-Dec-17	06:31:20
93	171229M2_93	B7L0069-BLK1 Method Blank 1	30-Dec-17	06:42:30
94	171229M2_94	B7L0069-BS2 OPR 1	30-Dec-17	06:53:41
95	171229M2_95	B7L0069-BS3 OPR 1	30-Dec-17	07:04:51
96	171229M2_96	B7L0069-BS4 OPR 1	30-Dec-17	07:16:02
97	171229M2_97	B7L0069-BS5 OPR 1	30-Dec-17	07:27:13
98	171229M2_98	B7K0027-BS1 OPR 1	30-Dec-17	07:38:24
99	171229M2_99	B7K0027-BS2 OPR 1	30-Dec-17	07:49:34

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Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
100	171229M2_100	B7K0027-BS3 OPR 1	30-Dec-17	08:00:45
101	171229M2_101	B7K0027-BS4 OPR 1	30-Dec-17	08:11:55
102	171229M2_102	IPA	30-Dec-17	08:23:07
103	171229M2_103	ST171229M2-15 PFC CS3 17L2611	30-Dec-17	08:34:17
104	171229M2_104	IPA	30-Dec-17	08:45:28
105	171229M2_105	B7L0072-BS1 OPR 3	30-Dec-17	08:56:39
106	171229M2_106	B7L0181-BS1 OPR 1	30-Dec-17	09:07:50
107	171229M2_107	IPA	30-Dec-17	09:19:01
108	171229M2_108	B7L0072-BLK1 Method Blank 3	30-Dec-17	09:30:12
109	171229M2_109	B7L0181-BLK1 Method Blank 1	30-Dec-17	09:41:22
110	171229M2_110	1701617-01 1644210 1.2	30-Dec-17	09:52:33
111	171229M2_111	1701618-01 103017B 3	30-Dec-17	10:03:44
112	171229M2_112	1701629-01 102017A 3	30-Dec-17	10:14:55
113	171229M2_113	1701629-01RE1 102017A 1	30-Dec-17	10:26:05
114	171229M2_114	IPA	30-Dec-17	10:37:16
115	171229M2_115	ST171229M2-16 PFC CS3 17L2611	30-Dec-17	10:48:27
116	171229M2_116	IPA	30-Dec-17	10:59:39

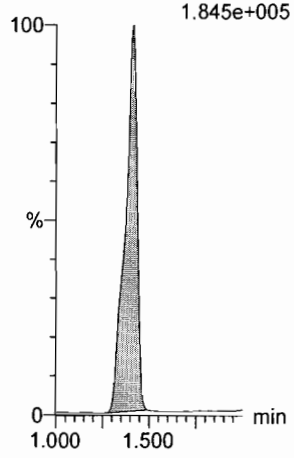
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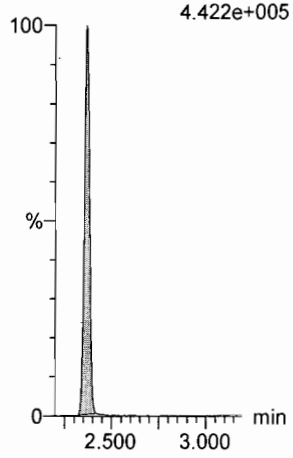
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Name: 171229M2_103, Date: 30-Dec-2017, Time: 08:34:17, ID: ST171229M2-15 PFC CS3 17L2611, Description: PFC CS3 17L2611

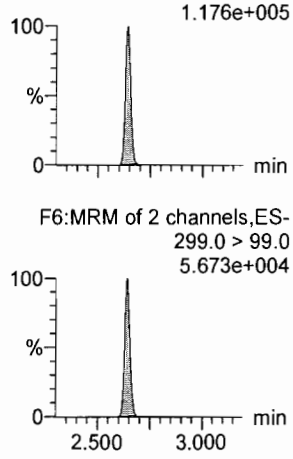
PFBA



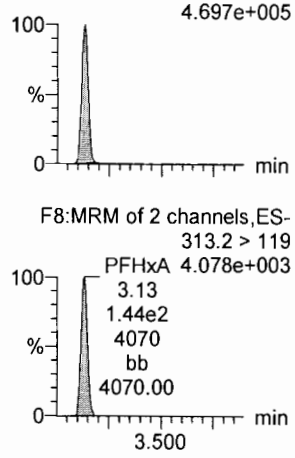
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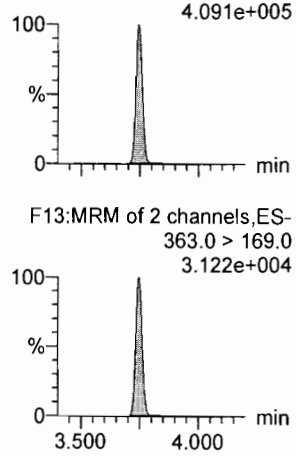
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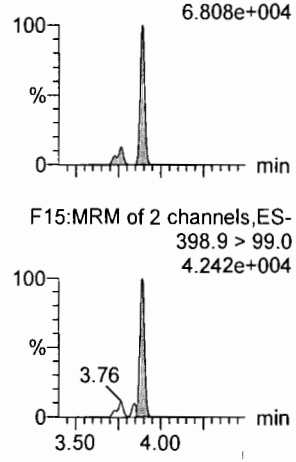
PFHxA



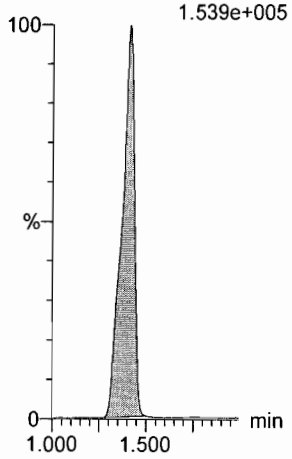
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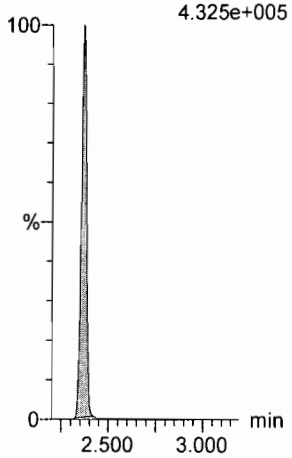
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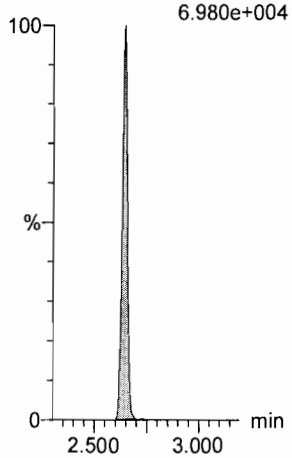
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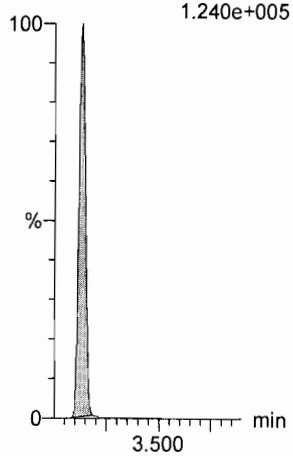
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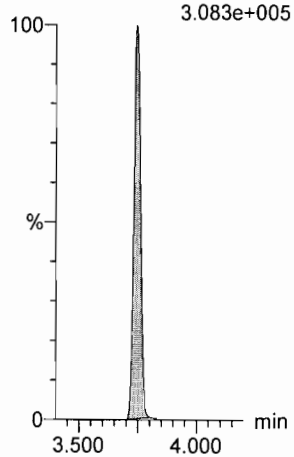
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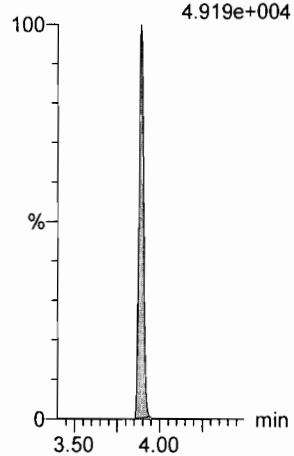
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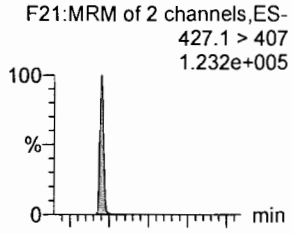


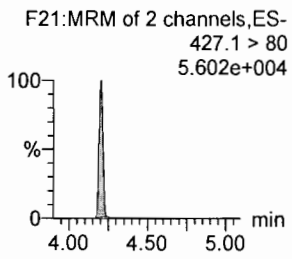
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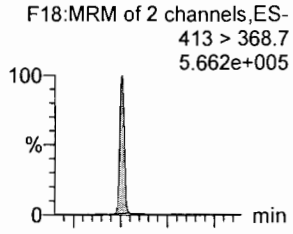
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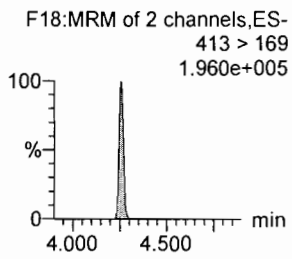
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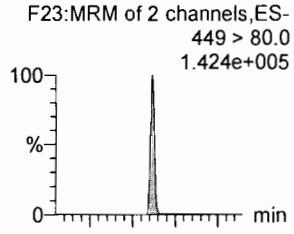


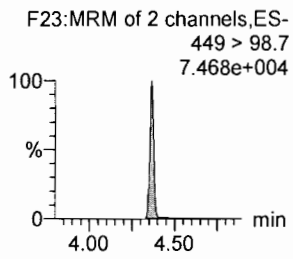
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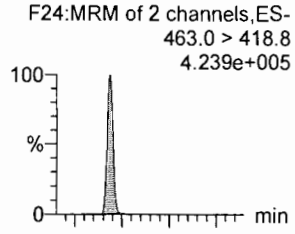


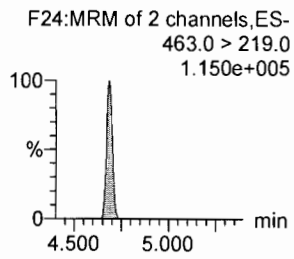
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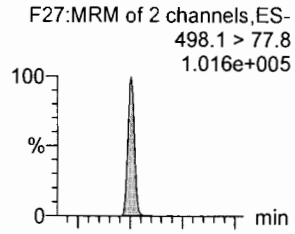


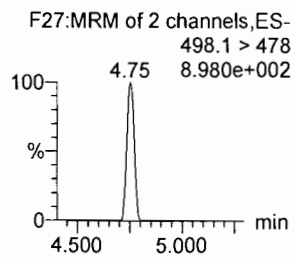
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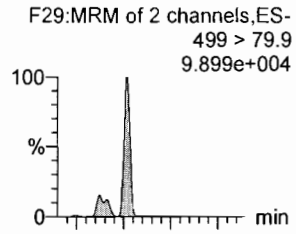


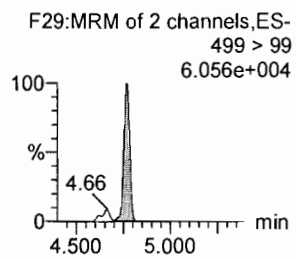
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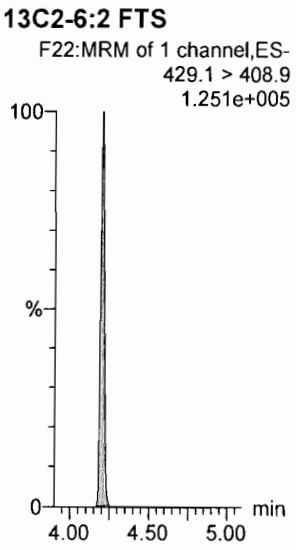


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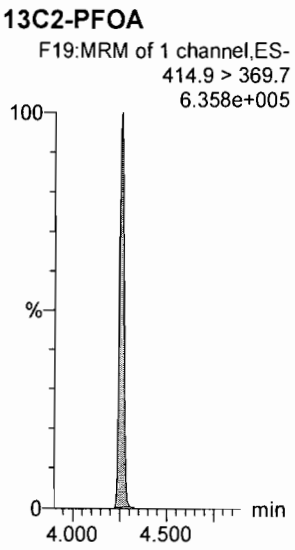




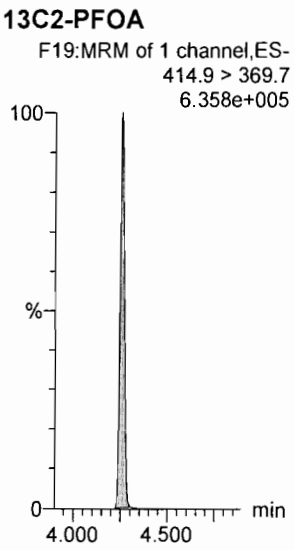
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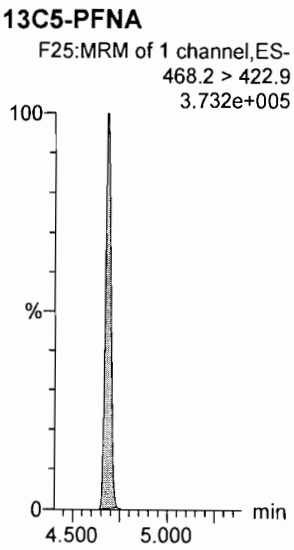
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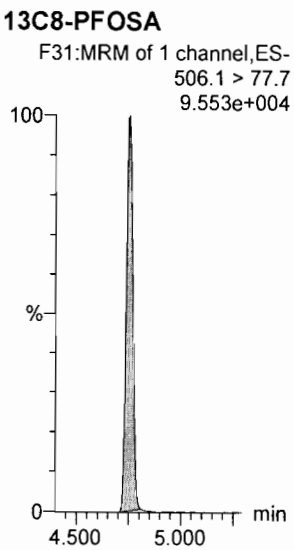
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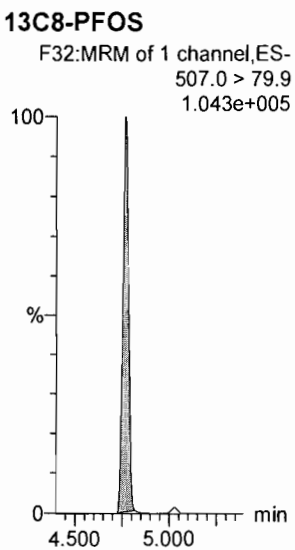
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13C8-PFOSA



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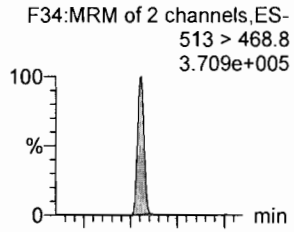


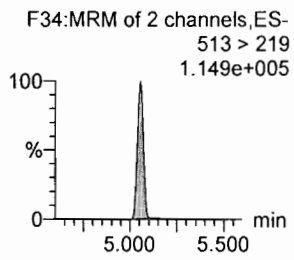
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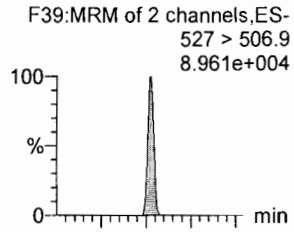
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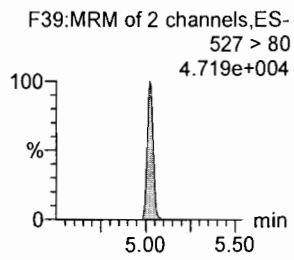
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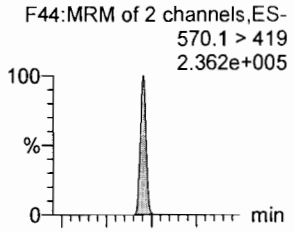


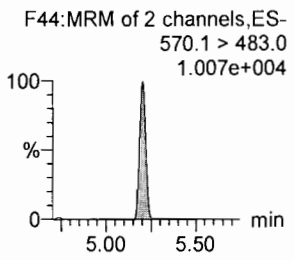
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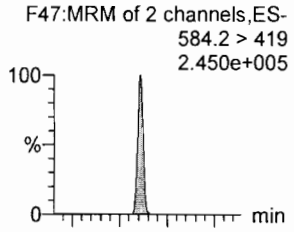


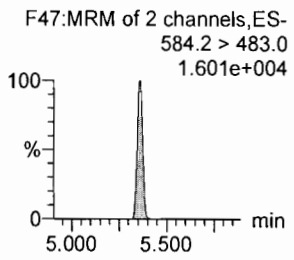
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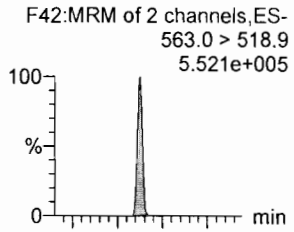


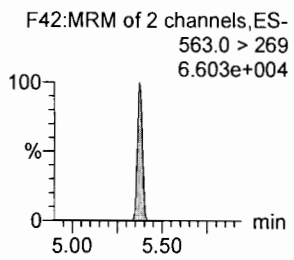
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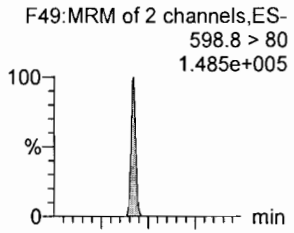


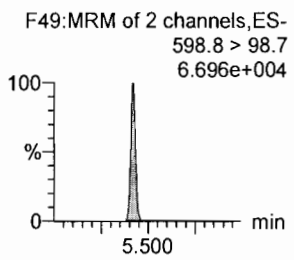
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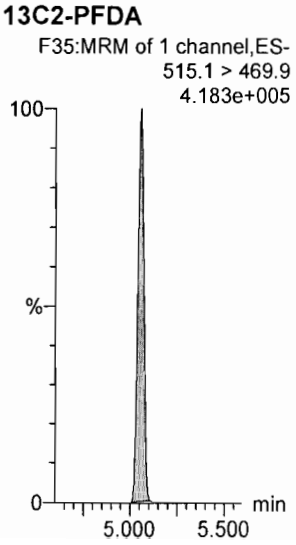


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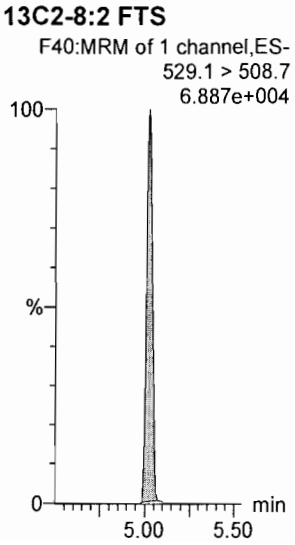




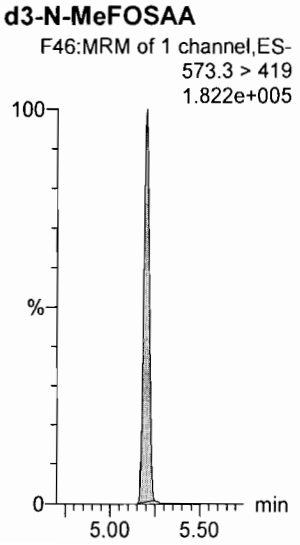
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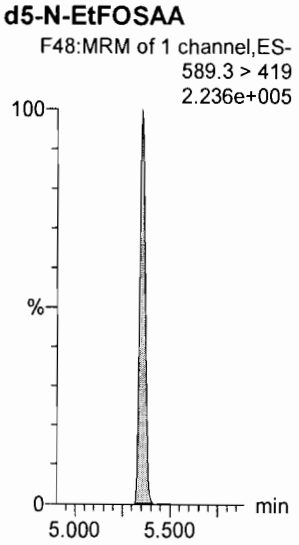
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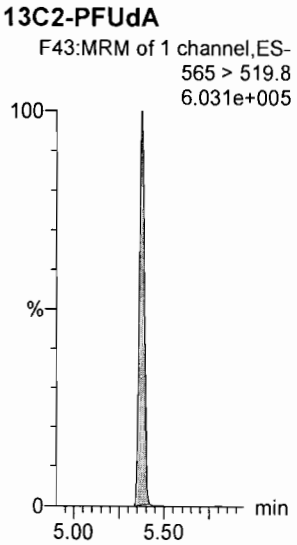
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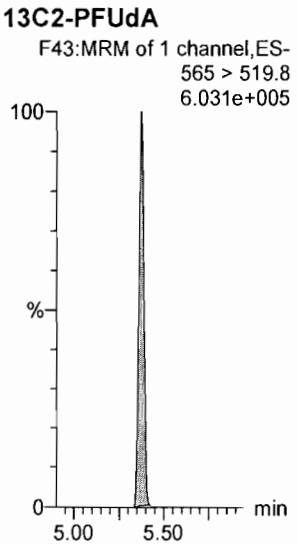
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13C2-PFUdA



13C2-PFUdA

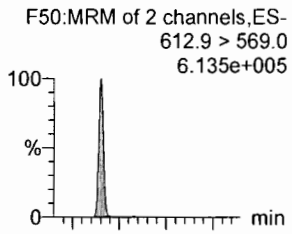


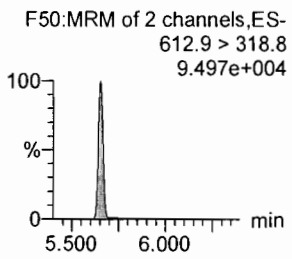
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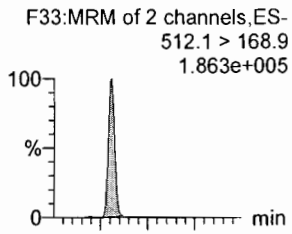
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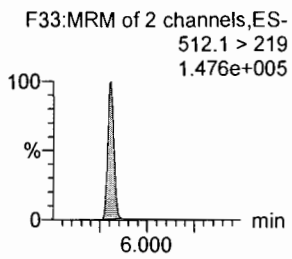
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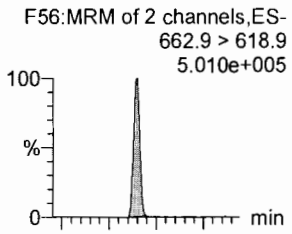


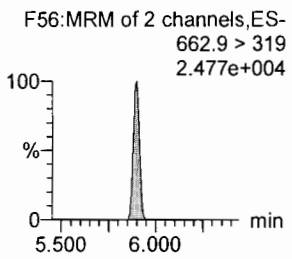
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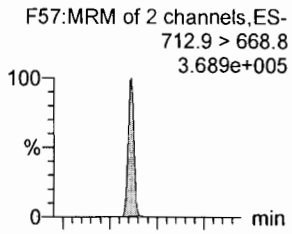


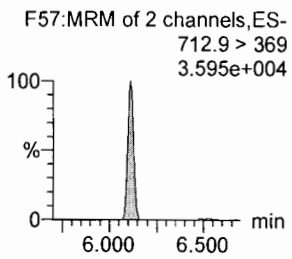
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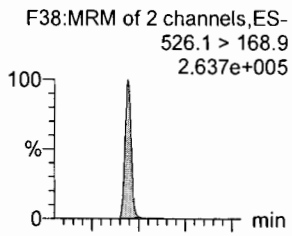


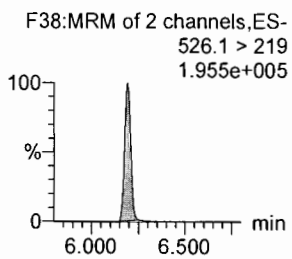
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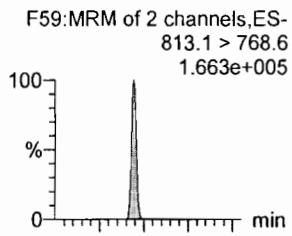


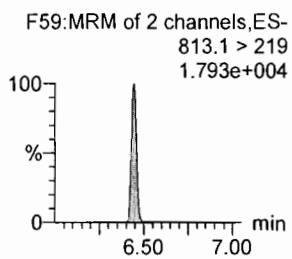
N-EtFOSA



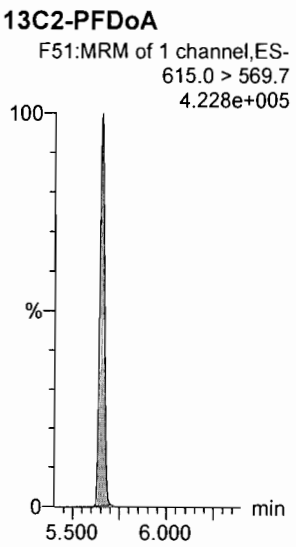


PFHxDA

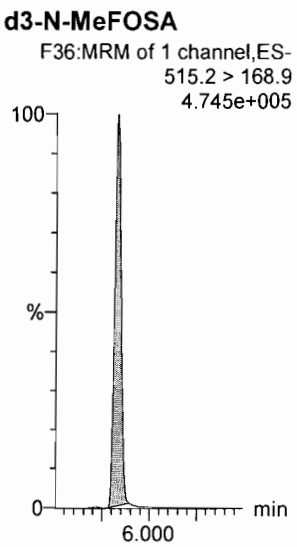




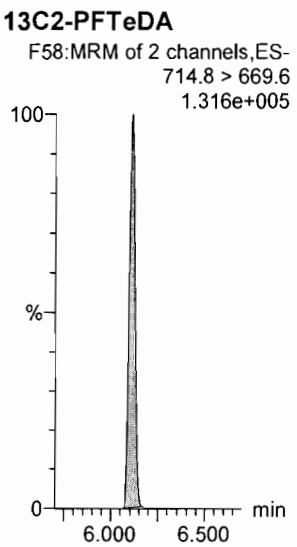
13C2-PFDoA



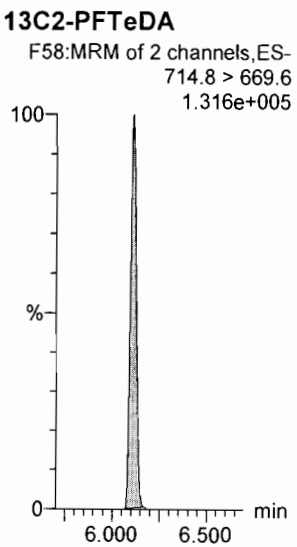
d3-N-MeFOSA



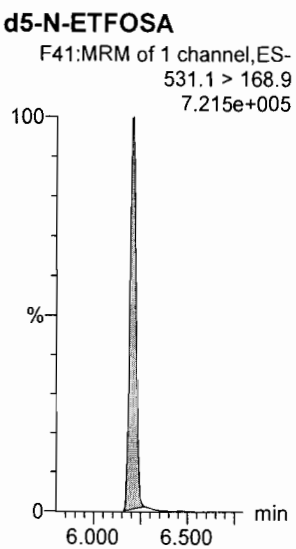
13C2-PFTeDA



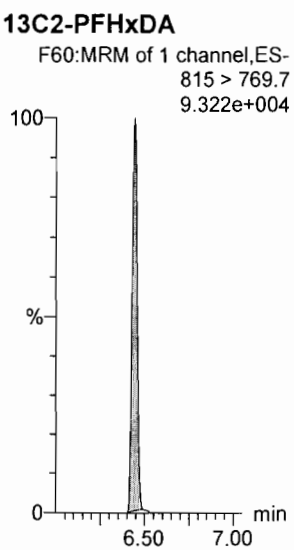
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

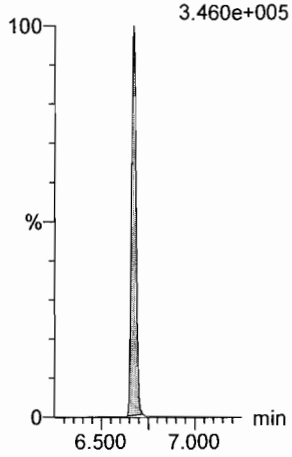


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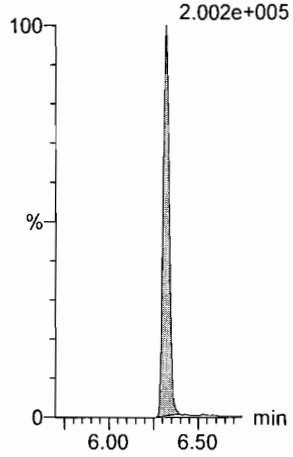
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Printed: Saturday, December 30, 2017 14:24:01 Pacific Standard Time

Name: 171229M2_103, Date: 30-Dec-2017, Time: 08:34:17, ID: ST171229M2-15 PFC CS3 17L2611, Description: PFC CS3 17L2611

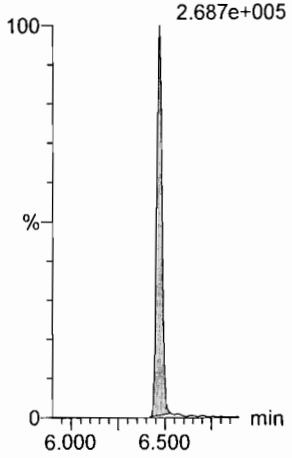
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.460e+005



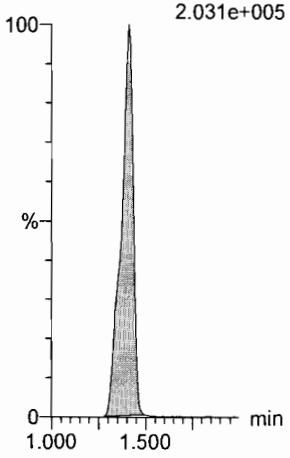
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.002e+005



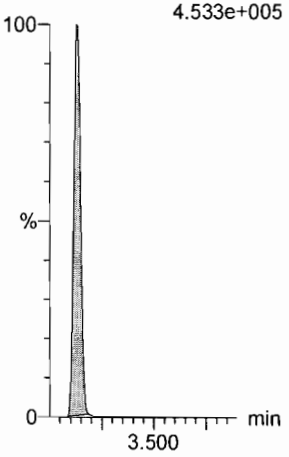
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.687e+005



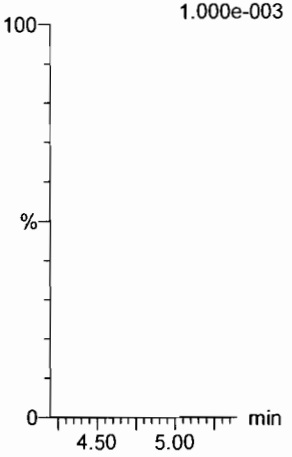
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
2.031e+005



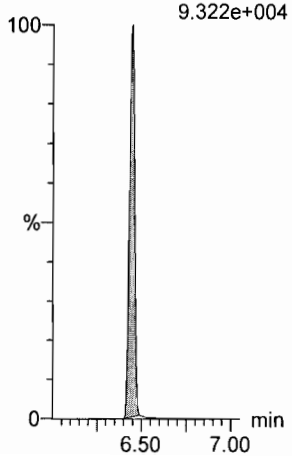
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.533e+005



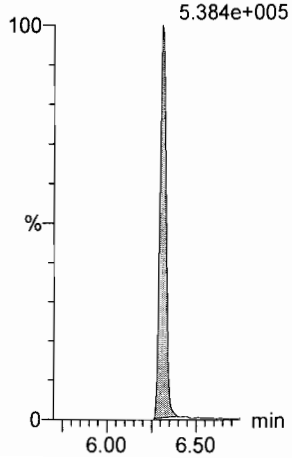
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



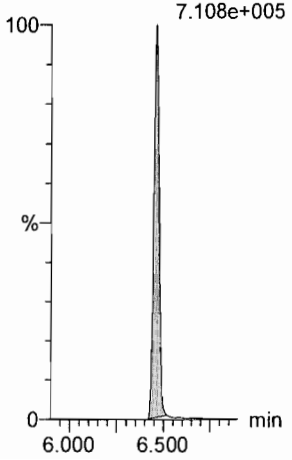
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
9.322e+004



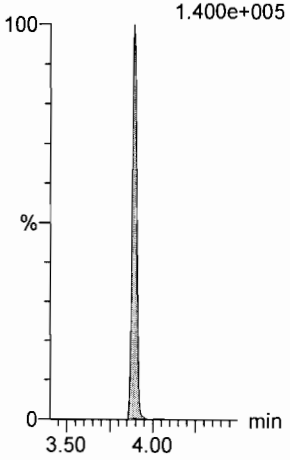
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.384e+005



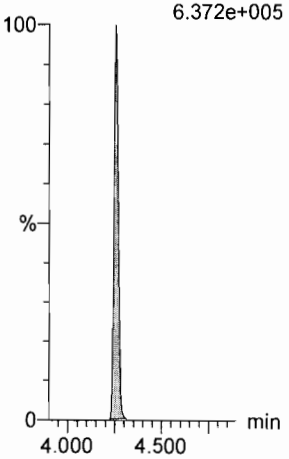
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.108e+005



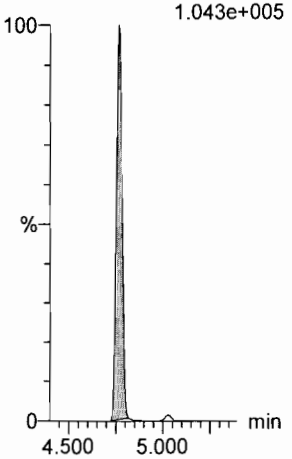
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.400e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
6.372e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
1.043e+005

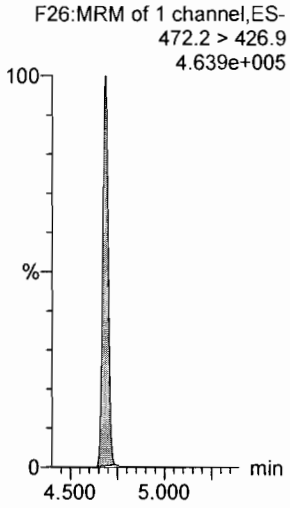


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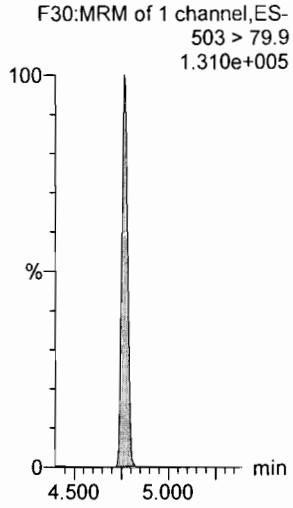
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Printed: Saturday, December 30, 2017 14:24:01 Pacific Standard Time

Name: 171229M2_103, Date: 30-Dec-2017, Time: 08:34:17, ID: ST171229M2-15 PFC CS3 17L2611, Description: PFC CS3 17L2611

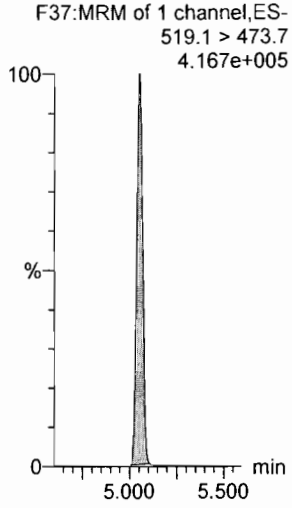
13C9-PFNA



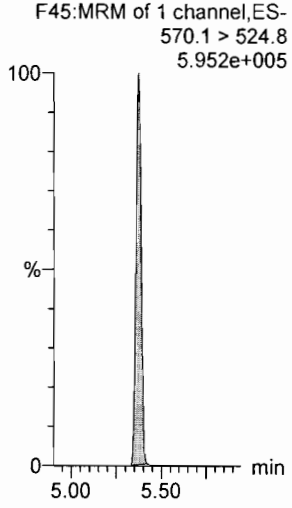
13C4-PFOS



13C6-PFDA



13C7-PFUdA



INITIAL CALIBRATION (ICAL)

INCLUDING ASSOCIATED

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

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:25:22 Pacific Standard Time

AC 12/28/17

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Compound name: PFBA
Correlation coefficient: r = 0.999714, r^2 = 0.999428
Calibration curve: 1.41688 * x + -0.0844562
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

VA 12/28/2017

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171227M2_2	Standard	0.250	1.51	200.855	9109.702	0.276	0.3	1.6	NO	0.999	NO	bb
2	2 171227M2_3	Standard	0.500	1.52	411.571	8940.615	0.575	0.5	-6.9	NO	0.999	NO	bb
3	3 171227M2_4	Standard	1.000	1.51	913.939	9244.819	1.236	0.9	-6.8	NO	0.999	NO	bb
4	4 171227M2_5	Standard	2.000	1.52	1922.570	9637.834	2.494	1.8	-9.0	NO	0.999	NO	bb
5	5 171227M2_6	Standard	5.000	1.52	5080.765	9386.572	6.766	4.8	-3.3	NO	0.999	NO	bb
6	6 171227M2_7	Standard	10.000	1.52	10629.204	9079.917	14.633	10.4	3.9	NO	0.999	NO	bb
7	7 171227M2_8	Standard	50.000	1.52	52212.934	9406.534	69.384	49.0	-1.9	NO	0.999	NO	bb
8	8 171227M2_9	Standard	100.000	1.52	99463.430	9055.936	137.290	97.0	-3.0	NO	0.999	NO	bb
9	9 171227M2_10	Standard	250.000	1.52	256225.172	8899.062	359.905	254.1	1.6	NO	0.999	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.999071, r^2 = 0.998143
Calibration curve: 1.17898 * x + -0.0138581
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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 171227M2_2	Standard	0.250	2.47	226.939	10138.515	0.280	0.2	-0.4	NO	0.998	NO	bb
2	2 171227M2_3	Standard	0.500	2.47	441.227	10123.872	0.545	0.5	-5.2	NO	0.998	NO	bb
3	3 171227M2_4	Standard	1.000	2.47	890.896	9829.790	1.133	1.0	-2.7	NO	0.998	NO	bb
4	4 171227M2_5	Standard	2.000	2.47	1807.953	10132.158	2.230	1.9	-4.8	NO	0.998	NO	bd
5	5 171227M2_6	Standard	5.000	2.47	5259.210	10246.948	6.416	5.5	9.1	NO	0.998	NO	bb
6	6 171227M2_7	Standard	10.000	2.47	9010.288	9841.680	11.444	9.7	-2.8	NO	0.998	NO	bb
7	7 171227M2_8	Standard	50.000	2.48	49878.492	9541.606	65.343	55.4	10.9	NO	0.998	NO	bb
8	8 171227M2_9	Standard	100.000	2.47	90618.992	9903.929	114.373	97.0	-3.0	NO	0.998	NO	bb
9	9 171227M2_10	Standard	250.000	2.48	226345.406	9695.774	291.809	247.5	-1.0	NO	0.998	NO	bb

Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

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Compound name: PFBS
Correlation coefficient: r = 0.996361, r^2 = 0.992735
Calibration curve: 2.42453 * x + -0.525381
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171227M2_2	Standard	0.250	2.74	59.858	1310.046	0.571	0.5	80.9	NO	0.993	NO	MMX
2	2	171227M2_3	Standard	0.500	2.74	106.140	1399.401	0.948	0.6	21.5	NO	0.993	NO	bb
3	3	171227M2_4	Standard	1.000	2.74	174.071	1499.687	1.451	0.8	-18.5	NO	0.993	NO	bb
4	4	171227M2_5	Standard	2.000	2.74	439.490	1333.655	4.119	1.9	-4.2	NO	0.993	NO	bb
5	5	171227M2_6	Standard	5.000	2.74	1121.018	1292.882	10.838	4.7	-6.3	NO	0.993	NO	bb
6	6	171227M2_7	Standard	10.000	2.74	2532.465	1368.757	23.127	9.8	-2.4	NO	0.993	NO	bd
7	7	171227M2_8	Standard	50.000	2.75	13093.902	1339.128	122.224	50.6	1.3	NO	0.993	NO	bb
8	8	171227M2_9	Standard	100.000	2.74	25473.293	1151.352	276.558	114.3	14.3	NO	0.993	NO	bd
9	9	171227M2_10	Standard	250.000	2.74	65284.344	1428.674	571.197	235.8	-5.7	NO	0.993	NO	bb

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.994958
Calibration curve: -0.00634236 * x^2 + 2.1363 * x + -0.390389
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171227M2_2	Standard	0.250	3.24	232.680	3269.867	0.356	0.3	39.9	NO	0.995	NO	bbX
2	2	171227M2_3	Standard	0.500	3.23	504.518	3115.723	0.810	0.6	12.5	NO	0.995	NO	bb
3	3	171227M2_4	Standard	1.000	3.23	855.336	3457.569	1.237	0.8	-23.7	NO	0.995	NO	bb
4	4	171227M2_5	Standard	2.000	3.23	2097.619	3128.971	3.352	1.8	-12.0	NO	0.995	NO	bb
5	5	171227M2_6	Standard	5.000	3.23	5625.306	3174.698	8.860	4.4	-12.3	NO	0.995	NO	bd
6	6	171227M2_7	Standard	10.000	3.23	12275.598	3240.993	18.938	9.3	-7.0	NO	0.995	NO	bd
7	7	171227M2_8	Standard	50.000	3.23	60930.879	3133.422	97.227	54.5	9.0	NO	0.995	NO	bb
8	8	171227M2_9	Standard	100.000	3.23	99186.602	3380.480	146.705	96.5	-3.5	NO	0.995	NO	bd
9	9	171227M2_10	Standard	250.000	3.23	300766.344	2893.191	519.783			NO	0.995	YES	MMXI

Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

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Compound name: PFHpA
Correlation coefficient: r = 0.999445, r^2 = 0.998890
Calibration curve: 1.64689 * x + -0.0913929
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171227M2_2	Standard	0.250	3.84	283.627	8496.508	0.417	0.3	23.5	NO	0.999	NO	bb
2	2	171227M2_3	Standard	0.500	3.83	599.143	9226.614	0.812	0.5	9.7	NO	0.999	NO	bb
3	3	171227M2_4	Standard	1.000	3.84	1030.449	8782.837	1.467	0.9	-5.4	NO	0.999	NO	bb
4	4	171227M2_5	Standard	2.000	3.84	1995.367	9480.081	2.631	1.7	-17.3	NO	0.999	NO	bb
5	5	171227M2_6	Standard	5.000	3.84	5509.665	8254.716	8.343	5.1	2.4	NO	0.999	NO	bd
6	6	171227M2_7	Standard	10.000	3.84	10947.364	9052.288	15.117	9.2	-7.7	NO	0.999	NO	bb
7	7	171227M2_8	Standard	50.000	3.84	58088.418	9428.651	77.011	46.8	-6.4	NO	0.999	NO	bb
8	8	171227M2_9	Standard	100.000	3.84	119483.109	9154.792	163.143	99.1	-0.9	NO	0.999	NO	bb
9	9	171227M2_10	Standard	250.000	3.84	297770.719	8864.943	419.871	255.0	2.0	NO	0.999	NO	bb

Compound name: L-PFHxS
Correlation coefficient: r = 0.999319, r^2 = 0.998639
Calibration curve: 2.13865 * x + -0.0855212
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171227M2_2	Standard	0.250	3.98	54.171	1383.153	0.490	0.3	7.6	NO	0.999	NO	MM
2	2	171227M2_3	Standard	0.500	3.98	66.982	1262.645	0.663	0.4	-30.0	NO	0.999	NO	MM
3	3	171227M2_4	Standard	1.000	3.98	205.763	1275.236	2.017	1.0	-1.7	NO	0.999	NO	MM
4	4	171227M2_5	Standard	2.000	3.98	421.746	1046.561	5.037	2.4	19.8	NO	0.999	NO	MM
5	5	171227M2_6	Standard	5.000	3.98	1131.681	1328.807	10.646	5.0	0.4	NO	0.999	NO	MM
6	6	171227M2_7	Standard	10.000	3.98	2300.463	1249.226	23.019	10.8	8.0	NO	0.999	NO	MM
7	7	171227M2_8	Standard	50.000	3.98	10048.782	1181.561	106.308	49.7	-0.5	NO	0.999	NO	MM
8	8	171227M2_9	Standard	100.000	3.98	20539.982	1268.674	202.376	94.7	-5.3	NO	0.999	NO	MM
9	9	171227M2_10	Standard	250.000	3.98	53125.645	1220.190	544.235	254.5	1.8	NO	0.999	NO	MM

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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.998918
Calibration curve: 8.87912e-005 * x^2 + 0.22705 * x + 0.0173879
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171227M2_2	Standard	0.250	4.29	89.897	13163.429	0.085	0.3	19.7	NO	0.999	NO	bb
2	2	171227M2_3	Standard	0.500	4.28	146.298	14294.111	0.128	0.5	-2.6	NO	0.999	NO	bb
3	3	171227M2_4	Standard	1.000	4.29	219.027	13555.376	0.202	0.8	-18.7	NO	0.999	NO	bb
4	4	171227M2_5	Standard	2.000	4.28	489.448	14219.026	0.430	1.8	-9.1	NO	0.999	NO	bb
5	5	171227M2_6	Standard	5.000	4.28	1302.923	15102.760	1.078	4.7	-6.7	NO	0.999	NO	bb
6	6	171227M2_7	Standard	10.000	4.29	3011.673	13826.356	2.723	11.9	18.6	NO	0.999	NO	bb
7	7	171227M2_8	Standard	50.000	4.29	12740.854	13611.259	11.701	50.5	0.9	NO	0.999	NO	bb
8	8	171227M2_9	Standard	100.000	4.29	25105.082	13623.771	23.034	97.6	-2.4	NO	0.999	NO	bb
9	9	171227M2_10	Standard	250.000	4.28	63740.547	12743.418	62.523	250.7	0.3	NO	0.999	NO	bb

Compound name: L-PFOA
Correlation coefficient: r = 0.998602, r^2 = 0.997206
Calibration curve: 1.24231 * x + 0.274251
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171227M2_2	Standard	0.250	4.34	681.019	13163.429	0.647	0.3	19.9	NO	0.997	NO	bb
2	2	171227M2_3	Standard	0.500	4.33	1055.797	14294.111	0.923	0.5	4.5	NO	0.997	NO	bb
3	3	171227M2_4	Standard	1.000	4.34	1446.105	13555.376	1.334	0.9	-14.7	NO	0.997	NO	bb
4	4	171227M2_5	Standard	2.000	4.34	2767.211	14219.026	2.433	1.7	-13.1	NO	0.997	NO	bb
5	5	171227M2_6	Standard	5.000	4.34	7742.191	15102.760	6.408	4.9	-1.3	NO	0.997	NO	bb
6	6	171227M2_7	Standard	10.000	4.34	15377.668	13826.356	13.902	11.0	9.7	NO	0.997	NO	bb
7	7	171227M2_8	Standard	50.000	4.34	68270.938	13611.259	62.697	50.2	0.5	NO	0.997	NO	bb
8	8	171227M2_9	Standard	100.000	4.34	124057.992	13623.771	113.825	91.4	-8.6	NO	0.997	NO	bb
9	9	171227M2_10	Standard	250.000	4.34	326759.563	12743.418	320.518	257.8	3.1	NO	0.997	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999640
Calibration curve: -8.23107e-005 * x^2 + 0.300027 * x + -0.0487822
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171227M2_2	Standard	0.250	4.44	48.204	13163.429	0.046	0.3	26.1	NO	1.000	NO	MM
2	2	171227M2_3	Standard	0.500	4.44	122.189	14294.111	0.107	0.5	3.8	NO	1.000	NO	bb
3	3	171227M2_4	Standard	1.000	4.44	211.832	13555.376	0.195	0.8	-18.6	NO	1.000	NO	bb
4	4	171227M2_5	Standard	2.000	4.44	546.853	14219.026	0.481	1.8	-11.7	NO	1.000	NO	bb
5	5	171227M2_6	Standard	5.000	4.44	1683.078	15102.760	1.393	4.8	-3.8	NO	1.000	NO	bb
6	6	171227M2_7	Standard	10.000	4.44	3355.859	13826.356	3.034	10.3	3.0	NO	1.000	NO	bb
7	7	171227M2_8	Standard	50.000	4.44	16420.051	13611.259	15.079	51.1	2.3	NO	1.000	NO	bb
8	8	171227M2_9	Standard	100.000	4.44	31390.182	13623.771	28.801	98.8	-1.2	NO	1.000	NO	bb
9	9	171227M2_10	Standard	250.000	4.44	71238.086	12743.418	69.877	250.2	0.1	NO	1.000	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.999012
Calibration curve: 0.000248018 * x^2 + 1.53471 * x + -0.0129473
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171227M2_2	Standard	0.250	4.76	318.003	9859.559	0.403	0.3	8.4	NO	0.999	NO	bb
2	2	171227M2_3	Standard	0.500	4.76	551.765	8777.721	0.786	0.5	4.1	NO	0.999	NO	bb
3	3	171227M2_4	Standard	1.000	4.76	1311.051	11751.393	1.395	0.9	-8.3	NO	0.999	NO	bb
4	4	171227M2_5	Standard	2.000	4.76	2012.020	10893.109	2.309	1.5	-24.4	NO	0.999	NO	bb
5	5	171227M2_6	Standard	5.000	4.76	7032.202	9332.128	9.419	6.1	22.8	NO	0.999	NO	bb
6	6	171227M2_7	Standard	10.000	4.76	12528.771	10484.868	14.937	9.7	-2.7	NO	0.999	NO	bb
7	7	171227M2_8	Standard	50.000	4.76	59371.309	9467.145	78.391	50.7	1.3	NO	0.999	NO	bb
8	8	171227M2_9	Standard	100.000	4.76	117937.258	9591.712	153.697	98.6	-1.4	NO	0.999	NO	bb
9	9	171227M2_10	Standard	250.000	4.76	327242.750	10230.392	399.841	250.4	0.2	NO	0.999	NO	bb

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Compound name: PFOSA
Correlation coefficient: r = 0.999701, r^2 = 0.999402
Calibration curve: 1.2583 * x + -0.0765078
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171227M2_2	Standard	0.250	4.83	58.116	2569.672	0.283	0.3	14.2	NO	0.999	NO	MM
2	2	171227M2_3	Standard	0.500	4.83	120.281	2700.973	0.557	0.5	0.6	NO	0.999	NO	bb
3	3	171227M2_4	Standard	1.000	4.83	238.391	2843.462	1.048	0.9	-10.6	NO	0.999	NO	bb
4	4	171227M2_5	Standard	2.000	4.83	440.340	2542.202	2.165	1.8	-10.9	NO	0.999	NO	bb
5	5	171227M2_6	Standard	5.000	4.83	1349.713	2613.613	6.455	5.2	3.8	NO	0.999	NO	bb
6	6	171227M2_7	Standard	10.000	4.83	2753.695	2651.221	12.983	10.4	3.8	NO	0.999	NO	bb
7	7	171227M2_8	Standard	50.000	4.83	13685.002	2819.033	60.681	48.3	-3.4	NO	0.999	NO	bb
8	8	171227M2_9	Standard	100.000	4.83	23358.801	2247.480	129.917	103.3	3.3	NO	0.999	NO	bb
9	9	171227M2_10	Standard	250.000	4.83	56545.727	2264.458	312.137	248.1	-0.8	NO	0.999	NO	bd

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.996007
Calibration curve: 0.000300694 * x^2 + 1.23969 * x + -0.0317851
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171227M2_2	Standard	0.250	4.84	70.847	2886.512	0.307	0.3	9.2	NO	0.996	NO	MM
2	2	171227M2_3	Standard	0.500	4.84	150.287	3604.530	0.521	0.4	-10.8	NO	0.996	NO	MM
3	3	171227M2_4	Standard	1.000	4.84	311.359	3164.295	1.230	1.0	1.8	NO	0.996	NO	MM
4	4	171227M2_5	Standard	2.000	4.83	564.189	3039.063	2.321	1.9	-5.2	NO	0.996	NO	MM
5	5	171227M2_6	Standard	5.000	4.84	1372.968	3003.427	5.714	4.6	-7.4	NO	0.996	NO	MM
6	6	171227M2_7	Standard	10.000	4.84	3319.461	3098.998	13.389	10.8	8.0	NO	0.996	NO	MM
7	7	171227M2_8	Standard	50.000	4.84	15166.981	3495.231	54.242	43.3	-13.4	NO	0.996	NO	MM
8	8	171227M2_9	Standard	100.000	4.84	33462.152	3039.179	137.628	108.2	8.2	NO	0.996	NO	MM
9	9	171227M2_10	Standard	250.000	4.84	79229.375	3037.251	326.074	248.1	-0.8	NO	0.996	NO	MM

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.997832
Calibration curve: -0.0050479 * x^2 + 1.55973 * x + -0.0842373
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171227M2_2	Standard	0.250	5.12	343.974	9518.367	0.452	0.3	37.6	NO	0.998	NO	MMX
2	2	171227M2_3	Standard	0.500	5.12	609.614	10515.332	0.725	0.5	3.9	NO	0.998	NO	bb
3	3	171227M2_4	Standard	1.000	5.12	1101.790	9300.638	1.481	1.0	0.7	NO	0.998	NO	bb
4	4	171227M2_5	Standard	2.000	5.12	2121.444	10007.011	2.650	1.8	-11.8	NO	0.998	NO	bb
5	5	171227M2_6	Standard	5.000	5.12	6452.377	9589.339	8.411	5.5	10.9	NO	0.998	NO	bd
6	6	171227M2_7	Standard	10.000	5.12	11038.605	9535.366	14.471	9.6	-3.7	NO	0.998	NO	bb
7	7	171227M2_8	Standard	50.000	5.12	64673.234	12375.918	65.322	50.0	0.1	NO	0.998	NO	bb
8	8	171227M2_9	Standard	100.000	5.12	133575.094	9066.912	184.152			NO	0.998	NO	bbXl
9	9	171227M2_10	Standard	250.000	5.12	268778.500	9175.472	366.164			NO	0.998	NO	bdXl

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.996846
Calibration curve: -0.00223216 * x^2 + 0.362891 * x + -0.0269702
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171227M2_2	Standard	0.250	5.09	49.811	9518.367	0.065	0.3	2.0	NO	0.997	NO	MM
2	2	171227M2_3	Standard	0.500	5.10	98.045	10515.332	0.117	0.4	-20.7	NO	0.997	NO	bb
3	3	171227M2_4	Standard	1.000	5.09	246.138	9300.638	0.331	1.0	-0.8	NO	0.997	NO	bb
4	4	171227M2_5	Standard	2.000	5.09	472.333	10007.011	0.590	1.7	-14.1	NO	0.997	NO	bb
5	5	171227M2_6	Standard	5.000	5.09	1297.019	9589.339	1.691	4.9	-2.4	NO	0.997	NO	bd
6	6	171227M2_7	Standard	10.000	5.10	2740.242	9535.366	3.592	10.7	6.7	NO	0.997	NO	bb
7	7	171227M2_8	Standard	50.000	5.10	12378.889	12375.918	12.503	49.8	-0.5	NO	0.997	NO	bb
8	8	171227M2_9	Standard	100.000	5.09	27738.313	9066.912	38.241			NO	0.997	NO	bbXl
9	9	171227M2_10	Standard	250.000	5.10	64158.574	9175.472	87.405			NO	0.997	NO	bdXl

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.998037
Calibration curve: -0.00194018 * x^2 + 1.72273 * x + -0.181365
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171227M2_2	Standard	0.250	5.27	82.713	4963.580	0.208	0.2	-9.5	NO	0.998	NO	bb
2	2	171227M2_3	Standard	0.500	5.26	226.672	5539.444	0.511	0.4	-19.5	NO	0.998	NO	bb
3	3	171227M2_4	Standard	1.000	5.27	502.756	5332.894	1.178	0.8	-21.0	NO	0.998	NO	bb
4	4	171227M2_5	Standard	2.000	5.27	1505.595	6130.912	3.070	1.9	-5.4	NO	0.998	NO	bb
5	5	171227M2_6	Standard	5.000	5.26	3821.920	4858.688	9.833	5.9	17.0	NO	0.998	NO	bd
6	6	171227M2_7	Standard	10.000	5.27	6520.119	5008.923	16.271	9.7	-3.4	NO	0.998	NO	bb
7	7	171227M2_8	Standard	50.000	5.27	36506.973	5641.206	80.894	49.9	-0.3	NO	0.998	NO	bb
8	8	171227M2_9	Standard	100.000	5.26	62330.102	5099.348	152.789	100.1	0.1	NO	0.998	NO	bd
9	9	171227M2_10	Standard	250.000	5.27	183947.938	5086.673	452.034			NO	0.998	NO	bbXl

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.997029
Calibration curve: 1.84032e-005 * x^2 + 1.21223 * x + -0.0878562
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171227M2_2	Standard	0.250	5.42	103.996	5765.227	0.225	0.3	3.4	NO	0.997	NO	bb
2	2	171227M2_3	Standard	0.500	5.42	227.732	5889.360	0.483	0.5	-5.8	NO	0.997	NO	bb
3	3	171227M2_4	Standard	1.000	5.42	497.781	6991.896	0.890	0.8	-19.3	NO	0.997	NO	bb
4	4	171227M2_5	Standard	2.000	5.42	947.947	6313.761	1.877	1.6	-19.0	NO	0.997	NO	bb
5	5	171227M2_6	Standard	5.000	5.42	3101.046	6451.895	6.008	5.0	0.6	NO	0.997	NO	bb
6	6	171227M2_7	Standard	10.000	5.42	6353.150	6152.865	12.907	10.7	7.2	NO	0.997	NO	bd
7	7	171227M2_8	Standard	50.000	5.42	34523.953	6457.469	66.829	55.2	10.3	NO	0.997	NO	bb
8	8	171227M2_9	Standard	100.000	5.42	58484.148	6485.901	112.714	92.9	-7.1	NO	0.997	NO	bb
9	9	171227M2_10	Standard	250.000	5.42	120767.375	4928.821	306.279	251.8	0.7	NO	0.997	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.997047
Calibration curve: 0.00147838 * x^2 + 1.00891 * x + 0.082257
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171227M2_2	Standard	0.250	5.43	290.951	11874.624	0.306	0.2	-11.2	NO	0.997	NO	bb
2	2	171227M2_3	Standard	0.500	5.43	450.827	11943.025	0.472	0.4	-22.8	NO	0.997	NO	bb
3	3	171227M2_4	Standard	1.000	5.43	899.385	12096.048	0.929	0.8	-16.1	NO	0.997	NO	bb
4	4	171227M2_5	Standard	2.000	5.43	2015.876	11576.810	2.177	2.1	3.5	NO	0.997	NO	bb
5	5	171227M2_6	Standard	5.000	5.43	6349.792	12204.513	6.504	6.3	26.1	NO	0.997	NO	bd
6	6	171227M2_7	Standard	10.000	5.43	11864.395	11786.622	12.582	12.2	21.7	NO	0.997	NO	bb
7	7	171227M2_8	Standard	50.000	5.44	56536.574	12370.035	57.131	52.5	5.0	NO	0.997	NO	bb
8	8	171227M2_9	Standard	100.000	5.43	109716.914	12881.869	106.464	92.8	-7.2	NO	0.997	NO	bb
9	9	171227M2_10	Standard	250.000	5.43	311114.34	11183.854	347.727	251.7	0.7	NO	0.997	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.995097
Calibration curve: 0.000194307 * x^2 + 0.317229 * x + -0.0197315
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171227M2_2	Standard	0.250	5.48	55.818	11874.624	0.059	0.2	-1.0	NO	0.995	NO	MM
2	2	171227M2_3	Standard	0.500	5.47	151.670	11943.025	0.159	0.6	12.5	NO	0.995	NO	bb
3	3	171227M2_4	Standard	1.000	5.48	270.753	12096.048	0.280	0.9	-5.6	NO	0.995	NO	bb
4	4	171227M2_5	Standard	2.000	5.47	482.954	11576.810	0.521	1.7	-14.8	NO	0.995	NO	bb
5	5	171227M2_6	Standard	5.000	5.48	1744.112	12204.513	1.786	5.7	13.5	NO	0.995	NO	bb
6	6	171227M2_7	Standard	10.000	5.48	2629.248	11786.622	2.788	8.8	-12.0	NO	0.995	NO	bb
7	7	171227M2_8	Standard	50.000	5.48	18683.514	12370.035	18.880	57.5	15.1	NO	0.995	NO	bb
8	8	171227M2_9	Standard	100.000	5.48	31595.900	12881.869	30.659	91.6	-8.4	NO	0.995	NO	bb
9	9	171227M2_10	Standard	250.000	5.48	82427.578	11183.854	92.128	251.7	0.7	NO	0.995	NO	bb

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999022
Calibration curve: 0.00126025 * x^2 + 1.75677 * x + -0.0893572
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171227M2_2	Standard	0.250	5.71	281.413	8054.505	0.437	0.3	19.8	NO	0.999	NO	bb
2	2	171227M2_3	Standard	0.500	5.71	459.677	8743.186	0.657	0.4	-15.0	NO	0.999	NO	bb
3	3	171227M2_4	Standard	1.000	5.71	1187.869	8431.139	1.761	1.1	5.3	NO	0.999	NO	bb
4	4	171227M2_5	Standard	2.000	5.71	1932.598	9103.854	2.654	1.6	-22.0	NO	0.999	NO	bb
5	5	171227M2_6	Standard	5.000	5.71	5590.929	8413.934	8.306	4.8	-4.7	NO	0.999	NO	bd
6	6	171227M2_7	Standard	10.000	5.70	13316.887	7956.292	20.922	11.9	18.6	NO	0.999	NO	bb
7	7	171227M2_8	Standard	50.000	5.71	63050.801	8744.809	90.126	49.6	-0.8	NO	0.999	NO	bd
8	8	171227M2_9	Standard	100.000	5.71	117327.805	7893.276	185.803	98.8	-1.2	NO	0.999	NO	bb
9	9	171227M2_10	Standard	250.000	5.71	289757.656	6980.643	518.859	250.4	0.2	NO	0.999	NO	bb

Compound name: N-MeFOSA
Correlation coefficient: r = 0.998604, r^2 = 0.997211
Calibration curve: 1.13158 * x + -0.0254576
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, 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	171227M2_2	Standard	1.250	5.86	167.310	17951.223	1.398	1.3	0.6	NO	0.997	NO	bb
2	2	171227M2_3	Standard	2.500	5.86	302.246	16653.398	2.722	2.4	-2.9	NO	0.997	NO	bb
3	3	171227M2_4	Standard	5.000	5.86	569.019	16891.504	5.053	4.5	-10.2	NO	0.997	NO	bb
4	4	171227M2_5	Standard	10.000	5.86	1194.250	17379.400	10.307	9.1	-8.7	NO	0.997	NO	bb
5	5	171227M2_6	Standard	25.000	5.86	3483.596	18111.424	28.851	25.5	2.1	NO	0.997	NO	bb
6	6	171227M2_7	Standard	50.000	5.86	7164.417	17693.111	60.739	53.7	7.4	NO	0.997	NO	bb
7	7	171227M2_8	Standard	250.000	5.86	34627.773	16898.027	307.383	271.7	8.7	NO	0.997	NO	bb
8	8	171227M2_9	Standard	500.000	5.86	66696.031	16794.846	595.683	526.4	5.3	NO	0.997	NO	bb
9	9	171227M2_10	Standard	1250.000	5.86	154509.922	17080.729	1356.879	1199.1	-4.1	NO	0.997	NO	bb

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Compound name: PFTrDA
Correlation coefficient: r = 0.996052, r^2 = 0.992119
Calibration curve: 1.68443 * x + -0.444294
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171227M2_2	Standard	0.250	5.94	372.353	8054.505	0.578	0.6	142.7	NO	0.992	NO	bbX
2	2	171227M2_3	Standard	0.500	5.94	419.267	8743.186	0.599	0.6	23.9	NO	0.992	NO	bb
3	3	171227M2_4	Standard	1.000	5.94	1076.364	8431.139	1.596	1.2	21.1	NO	0.992	NO	bb
4	4	171227M2_5	Standard	2.000	5.95	1691.315	9103.854	2.322	1.6	-17.9	NO	0.992	NO	bb
5	5	171227M2_6	Standard	5.000	5.95	5638.848	8413.934	8.377	5.2	4.7	NO	0.992	NO	bb
6	6	171227M2_7	Standard	10.000	5.94	8845.055	7956.292	13.896	8.5	-14.9	NO	0.992	NO	bd
7	7	171227M2_8	Standard	50.000	5.95	47442.535	8744.809	67.815	40.5	-19.0	NO	0.992	NO	bb
8	8	171227M2_9	Standard	100.000	5.94	101851.219	7893.276	161.294	96.0	-4.0	NO	0.992	NO	bb
9	9	171227M2_10	Standard	250.000	5.94	248778.781	6980.643	445.480	264.7	5.9	NO	0.992	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.996372
Calibration curve: -0.0148538 * x^2 + 2.8497 * x + 0.0369329
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171227M2_2	Standard	0.250	6.16	127.963	2234.556	0.716	0.2	-4.6	NO	0.996	NO	bb
2	2	171227M2_3	Standard	0.500	6.15	194.907	2124.994	1.147	0.4	-22.0	NO	0.996	NO	bb
3	3	171227M2_4	Standard	1.000	6.16	574.462	2146.656	3.345	1.2	16.8	NO	0.996	NO	bb
4	4	171227M2_5	Standard	2.000	6.16	916.039	1846.036	6.203	2.2	9.4	NO	0.996	NO	bb
5	5	171227M2_6	Standard	5.000	6.16	2650.909	2216.522	14.950	5.4	7.7	NO	0.996	NO	bb
6	6	171227M2_7	Standard	10.000	6.16	4695.736	2338.622	25.099	9.2	-7.6	NO	0.996	NO	bb
7	7	171227M2_8	Standard	50.000	6.16	22797.658	2697.390	105.647	50.2	0.4	NO	0.996	NO	bb
8	8	171227M2_9	Standard	100.000	6.16	51095.570	2097.857	304.451			NO	0.996	YES	bbXI
9	9	171227M2_10	Standard	250.000	6.16	141048.547	2847.631	619.149			NO	0.996	YES	dbXI

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999673
Calibration curve: -2.63342e-005 * x^2 + 1.06304 * x + -0.300904
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171227M2_2	Standard	1.250	6.22	203.185	26271.311	1.160	1.4	10.0	NO	1.000	NO	bb
2	2	171227M2_3	Standard	2.500	6.23	420.743	25612.781	2.464	2.6	4.0	NO	1.000	NO	bb
3	3	171227M2_4	Standard	5.000	6.22	817.192	27238.842	4.500	4.5	-9.7	NO	1.000	NO	bb
4	4	171227M2_5	Standard	10.000	6.22	1673.314	26307.252	9.541	9.3	-7.4	NO	1.000	NO	bb
5	5	171227M2_6	Standard	25.000	6.23	4856.281	27591.568	26.401	25.1	0.5	NO	1.000	NO	bb
6	6	171227M2_7	Standard	50.000	6.22	9341.880	26260.840	53.360	50.5	1.1	NO	1.000	NO	bb
7	7	171227M2_8	Standard	250.000	6.23	48911.148	26899.170	272.747	258.5	3.4	NO	1.000	NO	bb
8	8	171227M2_9	Standard	500.000	6.22	91253.445	26665.355	513.326	489.1	-2.2	NO	1.000	NO	bb
9	9	171227M2_10	Standard	1250.000	6.23	206874.781	24053.830	1290.074	1252.7	0.2	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998631
Calibration curve: -0.000996916 * x^2 + 0.929338 * x + -0.12247
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171227M2_2	Standard	0.250	6.48	77.953	2174.156	0.179	0.3	29.9	NO	0.999	NO	bb
2	2	171227M2_3	Standard	0.500	6.47	164.604	2237.443	0.368	0.5	5.6	NO	0.999	NO	bb
3	3	171227M2_4	Standard	1.000	6.47	279.220	2126.996	0.656	0.8	-16.1	NO	0.999	NO	bb
4	4	171227M2_5	Standard	2.000	6.47	609.740	2023.093	1.507	1.8	-12.2	NO	0.999	NO	bb
5	5	171227M2_6	Standard	5.000	6.47	1814.293	2095.904	4.328	4.8	-3.7	NO	0.999	NO	bb
6	6	171227M2_7	Standard	10.000	6.47	3322.816	1887.999	8.800	9.7	-3.0	NO	0.999	NO	bb
7	7	171227M2_8	Standard	50.000	6.47	16787.875	2006.273	41.838	47.6	-4.8	NO	0.999	NO	bb
8	8	171227M2_9	Standard	100.000	6.47	35592.371	2052.555	86.703	105.3	5.3	NO	0.999	NO	bb
9	9	171227M2_10	Standard	250.000	6.47	85349.086	2528.415	168.780	247.4	-1.0	NO	0.999	NO	bd

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.994872
Calibration curve: -0.00177409 * x^2 + 1.42876 * x + -0.0978488
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171227M2_2	Standard	0.250	6.69	136.954	2174.156	0.315	0.3	15.6	NO	0.995	NO	bb
2	2	171227M2_3	Standard	0.500	6.69	235.605	2237.443	0.527	0.4	-12.6	NO	0.995	NO	bb
3	3	171227M2_4	Standard	1.000	6.69	562.518	2126.996	1.322	1.0	-0.5	NO	0.995	NO	bb
4	4	171227M2_5	Standard	2.000	6.69	830.344	2023.093	2.052	1.5	-24.6	NO	0.995	NO	bb
5	5	171227M2_6	Standard	5.000	6.69	2947.758	2095.904	7.032	5.0	0.4	NO	0.995	NO	bd
6	6	171227M2_7	Standard	10.000	6.69	5127.245	1887.999	13.579	9.7	-3.1	NO	0.995	NO	bb
7	7	171227M2_8	Standard	50.000	6.70	24005.162	2006.273	59.825	44.4	-11.2	NO	0.995	NO	bb
8	8	171227M2_9	Standard	100.000	6.69	55972.047	2052.555	136.347	110.7	10.7	NO	0.995	NO	bb
9	9	171227M2_10	Standard	250.000	6.70	122945.156	2528.415	243.127	244.4	-2.2	NO	0.995	NO	bd

Compound name: N-MeFOSE
Correlation coefficient: r = 0.999225, r^2 = 0.998451
Calibration curve: 1.22136 * x + -0.531738
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171227M2_2	Standard	1.250	6.32	205.606	23424.840	1.317	1.5	21.1	NO	0.998	NO	bb
2	2	171227M2_3	Standard	2.500	6.32	453.707	21551.338	3.158	3.0	20.8	NO	0.998	NO	bb
3	3	171227M2_4	Standard	5.000	6.32	765.497	21977.563	5.225	4.7	-5.7	NO	0.998	NO	bb
4	4	171227M2_5	Standard	10.000	6.32	1496.693	23542.486	9.536	8.2	-17.6	NO	0.998	NO	bb
5	5	171227M2_6	Standard	25.000	6.32	4314.532	24058.156	26.901	22.5	-10.2	NO	0.998	NO	bb
6	6	171227M2_7	Standard	50.000	6.32	8735.879	22955.393	57.084	47.2	-5.7	NO	0.998	NO	bb
7	7	171227M2_8	Standard	250.000	6.32	42795.691	22730.518	282.411	231.7	-7.3	NO	0.998	NO	bb
8	8	171227M2_9	Standard	500.000	6.32	94872.117	22370.564	636.140	521.3	4.3	NO	0.998	NO	bd
9	9	171227M2_10	Standard	1250.000	6.32	245576.656	24065.676	1530.665	1253.7	0.3	NO	0.998	NO	bd

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.996730, r^2 = 0.993471
Calibration curve: 1.33127 * x + -0.306208
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171227M2_2	Standard	1.250	6.47	243.128	23821.568	1.531	1.4	10.4	NO	0.993	NO	bb
2	2	171227M2_3	Standard	2.500	6.47	365.379	22501.572	2.436	2.1	-17.6	NO	0.993	NO	bb
3	3	171227M2_4	Standard	5.000	6.47	1079.125	23379.631	6.923	5.4	8.6	NO	0.993	NO	bb
4	4	171227M2_5	Standard	10.000	6.47	2111.330	26375.297	12.007	9.2	-7.5	NO	0.993	NO	bb
5	5	171227M2_6	Standard	25.000	6.46	5614.565	28445.939	29.607	22.5	-10.1	NO	0.993	NO	bb
6	6	171227M2_7	Standard	50.000	6.47	10684.882	22042.639	72.711	54.8	9.7	NO	0.993	NO	bb
7	7	171227M2_8	Standard	250.000	6.47	56215.973	25817.605	326.614	245.6	-1.8	NO	0.993	NO	bb
8	8	171227M2_9	Standard	500.000	6.46	96747.531	19219.795	755.062	567.4	13.5	NO	0.993	NO	bd
9	9	171227M2_10	Standard	1250.000	6.47	249659.031	23736.309	1577.703	1185.3	-5.2	NO	0.993	NO	bd

Compound name: 13C3-PFBA
Response Factor: 0.771377
RRF SD: 0.0287392, Relative SD: 3.7257
Response type: Internal Std (Ref 54), 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	171227M2_2	Standard	12.500	1.51	9109.702	11266.789	10.107	13.1	4.8	NO		NO	bb
2	2	171227M2_3	Standard	12.500	1.52	8940.615	11474.547	9.740	12.6	1.0	NO		NO	bb
3	3	171227M2_4	Standard	12.500	1.52	9244.819	11800.232	9.793	12.7	1.6	NO		NO	bb
4	4	171227M2_5	Standard	12.500	1.52	9637.834	11773.504	10.233	13.3	6.1	NO		NO	bb
5	5	171227M2_6	Standard	12.500	1.52	9386.572	12782.838	9.179	11.9	-4.8	NO		NO	bb
6	6	171227M2_7	Standard	12.500	1.52	9079.917	12197.028	9.305	12.1	-3.5	NO		NO	bb
7	7	171227M2_8	Standard	12.500	1.52	9406.534	12250.466	9.598	12.4	-0.5	NO		NO	bb
8	8	171227M2_9	Standard	12.500	1.52	9055.936	12006.595	9.428	12.2	-2.2	NO		NO	bb
9	9	171227M2_10	Standard	12.500	1.52	8899.062	11837.236	9.397	12.2	-2.5	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 0.747447
RRF SD: 0.0494811, Relative SD: 6.62002
Response type: Internal Std (Ref 55), 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 171227M2_2	Standard	12.500	2.47	10138.515	13336.426	9.503	12.7	1.7	NO		NO	bb
2	2 171227M2_3	Standard	12.500	2.47	10123.872	13355.194	9.476	12.7	1.4	NO		NO	bb
3	3 171227M2_4	Standard	12.500	2.47	9829.790	14296.511	8.595	11.5	-8.0	NO		NO	bb
4	4 171227M2_5	Standard	12.500	2.47	10132.158	12722.052	9.955	13.3	6.6	NO		NO	bb
5	5 171227M2_6	Standard	12.500	2.47	10246.948	15057.541	8.506	11.4	-9.0	NO		NO	bb
6	6 171227M2_7	Standard	12.500	2.47	9841.680	14190.524	8.669	11.6	-7.2	NO		NO	bd
7	7 171227M2_8	Standard	12.500	2.47	9541.606	12244.098	9.741	13.0	4.3	NO		NO	bb
8	8 171227M2_9	Standard	12.500	2.47	9903.929	13133.470	9.426	12.6	0.9	NO		NO	bb
9	9 171227M2_10	Standard	12.500	2.47	9695.774	11862.702	10.217	13.7	9.3	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.101392
RRF SD: 0.0107575, Relative SD: 10.6098
Response type: Internal Std (Ref 55), 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 171227M2_2	Standard	12.500	2.74	1310.046	13336.426	1.228	12.1	-3.1	NO		NO	bb
2	2 171227M2_3	Standard	12.500	2.74	1399.401	13355.194	1.310	12.9	3.3	NO		NO	bd
3	3 171227M2_4	Standard	12.500	2.74	1499.687	14296.511	1.311	12.9	3.5	NO		NO	bb
4	4 171227M2_5	Standard	12.500	2.74	1333.655	12722.052	1.310	12.9	3.4	NO		NO	bb
5	5 171227M2_6	Standard	12.500	2.74	1292.882	15057.541	1.073	10.6	-15.3	NO		NO	bb
6	6 171227M2_7	Standard	12.500	2.74	1368.757	14190.524	1.206	11.9	-4.9	NO		NO	bb
7	7 171227M2_8	Standard	12.500	2.74	1339.128	12244.098	1.367	13.5	7.9	NO		NO	bb
8	8 171227M2_9	Standard	12.500	2.74	1151.352	13133.470	1.096	10.8	-13.5	NO		NO	bb
9	9 171227M2_10	Standard	12.500	2.74	1428.674	11862.702	1.505	14.8	18.8	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.60075
RRF SD: 0.036076, Relative SD: 6.00516
Response type: Internal Std (Ref 55), 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	171227M2_2	Standard	5.000	3.23	3269.867	13336.426	3.065	5.1	2.0	NO		NO	bb
2	2	171227M2_3	Standard	5.000	3.23	3115.723	13355.194	2.916	4.9	-2.9	NO		NO	bb
3	3	171227M2_4	Standard	5.000	3.23	3457.569	14296.511	3.023	5.0	0.6	NO		NO	bb
4	4	171227M2_5	Standard	5.000	3.23	3128.971	12722.052	3.074	5.1	2.4	NO		NO	bb
5	5	171227M2_6	Standard	5.000	3.23	3174.698	15057.541	2.635	4.4	-12.3	NO		NO	bb
6	6	171227M2_7	Standard	5.000	3.23	3240.993	14190.524	2.855	4.8	-5.0	NO		NO	bb
7	7	171227M2_8	Standard	5.000	3.23	3133.422	12244.098	3.199	5.3	6.5	NO		NO	bb
8	8	171227M2_9	Standard	5.000	3.23	3380.480	13133.470	3.217	5.4	7.1	NO		NO	bd
9	9	171227M2_10	Standard	5.000	3.23	2893.191	11862.702	3.049	5.1	1.5	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.676443
RRF SD: 0.0728646, Relative SD: 10.7717
Response type: Internal Std (Ref 55), 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	171227M2_2	Standard	12.500	3.84	8496.508	13336.426	7.964	11.8	-5.8	NO		NO	bb
2	2	171227M2_3	Standard	12.500	3.83	9226.614	13355.194	8.636	12.8	2.1	NO		NO	bb
3	3	171227M2_4	Standard	12.500	3.84	8782.837	14296.511	7.679	11.4	-9.2	NO		NO	bb
4	4	171227M2_5	Standard	12.500	3.83	9480.081	12722.052	9.315	13.8	10.2	NO		NO	bb
5	5	171227M2_6	Standard	12.500	3.83	8254.716	15057.541	6.853	10.1	-19.0	NO		NO	bb
6	6	171227M2_7	Standard	12.500	3.84	9052.288	14190.524	7.974	11.8	-5.7	NO		NO	bb
7	7	171227M2_8	Standard	12.500	3.84	9428.651	12244.098	9.626	14.2	13.8	NO		NO	bb
8	8	171227M2_9	Standard	12.500	3.83	9154.792	13133.470	8.713	12.9	3.0	NO		NO	bb
9	9	171227M2_10	Standard	12.500	3.84	8864.943	11862.702	9.341	13.8	10.5	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.346518
RRF SD: 0.0364423, Relative SD: 10.5167
Response type: Internal Std (Ref 56), 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	171227M2_2	Standard	12.500	3.98	1383.153	3915.972	4.415	12.7	1.9	NO		NO	bb
2	2	171227M2_3	Standard	12.500	3.98	1262.645	3250.903	4.855	14.0	12.1	NO		NO	bb
3	3	171227M2_4	Standard	12.500	3.98	1275.236	4190.863	3.804	11.0	-12.2	NO		NO	bb
4	4	171227M2_5	Standard	12.500	3.98	1046.561	3669.464	3.565	10.3	-17.7	NO		NO	bd
5	5	171227M2_6	Standard	12.500	3.98	1328.807	3437.959	4.831	13.9	11.5	NO		NO	bb
6	6	171227M2_7	Standard	12.500	3.98	1249.226	3707.999	4.211	12.2	-2.8	NO		NO	MM
7	7	171227M2_8	Standard	12.500	3.98	1181.561	3628.547	4.070	11.7	-6.0	NO		NO	MM
8	8	171227M2_9	Standard	12.500	3.98	1268.674	3364.836	4.713	13.6	8.8	NO		NO	MM
9	9	171227M2_10	Standard	12.500	3.98	1220.190	3375.579	4.518	13.0	4.3	NO		NO	MM

Compound name: 13C2-6:2 FTS
Response Factor: 0.209824
RRF SD: 0.0313478, Relative SD: 14.94
Response type: Internal Std (Ref 57), 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	171227M2_2	Standard	12.500	4.29	2466.189	15017.985	2.053	9.8	-21.7	NO		NO	bb
2	2	171227M2_3	Standard	12.500	4.28	3151.372	13305.198	2.961	14.1	12.9	NO		NO	bb
3	3	171227M2_4	Standard	12.500	4.29	2625.291	13841.206	2.371	11.3	-9.6	NO		NO	bb
4	4	171227M2_5	Standard	12.500	4.28	3236.319	14312.646	2.826	13.5	7.8	NO		NO	bd
5	5	171227M2_6	Standard	12.500	4.29	2851.812	15421.653	2.312	11.0	-11.9	NO		NO	bd
6	6	171227M2_7	Standard	12.500	4.28	3126.507	12414.578	3.148	15.0	20.0	NO		NO	bb
7	7	171227M2_8	Standard	12.500	4.29	3154.304	14661.149	2.689	12.8	2.5	NO		NO	bd
8	8	171227M2_9	Standard	12.500	4.29	4196.086	13534.527	3.875	18.5	47.8	NO		NO	bdX
9	9	171227M2_10	Standard	12.500	4.29	6163.296	13276.432	5.803	27.7	121.2	NO		NO	bbX

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Compound name: 13C2-PFOA
Response Factor: 0.990169
RRF SD: 0.0711655, Relative SD: 7.18721
Response type: Internal Std (Ref 57), 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	171227M2_2	Standard	12.500	4.34	13163.429	15017.985	10.956	11.1	-11.5	NO		NO	bb
2	2	171227M2_3	Standard	12.500	4.34	14294.111	13305.198	13.429	13.6	8.5	NO		NO	bd
3	3	171227M2_4	Standard	12.500	4.34	13555.376	13841.206	12.242	12.4	-1.1	NO		NO	bb
4	4	171227M2_5	Standard	12.500	4.34	14219.026	14312.646	12.418	12.5	0.3	NO		NO	bd
5	5	171227M2_6	Standard	12.500	4.33	15102.760	15421.653	12.242	12.4	-1.1	NO		NO	bb
6	6	171227M2_7	Standard	12.500	4.34	13826.356	12414.578	13.921	14.1	12.5	NO		NO	bd
7	7	171227M2_8	Standard	12.500	4.34	13611.259	14661.149	11.605	11.7	-6.2	NO		NO	bb
8	8	171227M2_9	Standard	12.500	4.34	13623.771	13534.527	12.582	12.7	1.7	NO		NO	bb
9	9	171227M2_10	Standard	12.500	4.34	12743.418	13276.432	11.998	12.1	-3.1	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.844932
RRF SD: 0.0800463, Relative SD: 9.4737
Response type: Internal Std (Ref 58), 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	171227M2_2	Standard	12.500	4.76	9859.559	11712.082	10.523	12.5	-0.4	NO		NO	bb
2	2	171227M2_3	Standard	12.500	4.76	8777.721	12763.171	8.597	10.2	-18.6	NO		NO	bb
3	3	171227M2_4	Standard	12.500	4.76	11751.393	14679.309	10.007	11.8	-5.3	NO		NO	bb
4	4	171227M2_5	Standard	12.500	4.76	10893.109	12778.089	10.656	12.6	0.9	NO		NO	bb
5	5	171227M2_6	Standard	12.500	4.76	9332.128	11391.607	10.240	12.1	-3.0	NO		NO	bb
6	6	171227M2_7	Standard	12.500	4.76	10484.868	12021.911	10.902	12.9	3.2	NO		NO	bb
7	7	171227M2_8	Standard	12.500	4.76	9467.145	11376.679	10.402	12.3	-1.5	NO		NO	bb
8	8	171227M2_9	Standard	12.500	4.76	9591.712	10376.387	11.555	13.7	9.4	NO		NO	bd
9	9	171227M2_10	Standard	12.500	4.76	10230.392	10504.468	12.174	14.4	15.3	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.199498
RRF SD: 0.0262345, Relative SD: 13.1503
Response type: Internal Std (Ref 61), 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 171227M2_2	Standard	12.500	4.83	2569.672	10522.952	3.052	15.3	22.4	NO		NO	bb
2	2 171227M2_3	Standard	12.500	4.83	2700.973	13625.164	2.478	12.4	-0.6	NO		NO	bb
3	3 171227M2_4	Standard	12.500	4.83	2843.462	14650.646	2.426	12.2	-2.7	NO		NO	bb
4	4 171227M2_5	Standard	12.500	4.83	2542.202	15544.572	2.044	10.2	-18.0	NO		NO	bd
5	5 171227M2_6	Standard	12.500	4.83	2613.613	14786.616	2.209	11.1	-11.4	NO		NO	bb
6	6 171227M2_7	Standard	12.500	4.83	2651.221	13063.165	2.537	12.7	1.7	NO		NO	bb
7	7 171227M2_8	Standard	12.500	4.83	2819.033	12088.432	2.915	14.6	16.9	NO		NO	bb
8	8 171227M2_9	Standard	12.500	4.83	2247.480	12668.264	2.218	11.1	-11.1	NO		NO	bb
9	9 171227M2_10	Standard	12.500	4.83	2264.458	11040.664	2.564	12.9	2.8	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 0.865254
RRF SD: 0.127819, Relative SD: 14.7724
Response type: Internal Std (Ref 59), 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 171227M2_2	Standard	12.500	4.84	2886.512	3416.256	10.562	12.2	-2.3	NO		NO	bb
2	2 171227M2_3	Standard	12.500	4.83	3604.530	3020.019	14.919	17.2	37.9	NO		NO	bb
3	3 171227M2_4	Standard	12.500	4.84	3164.295	3631.896	10.891	12.6	0.7	NO		NO	bb
4	4 171227M2_5	Standard	12.500	4.83	3039.063	3899.005	9.743	11.3	-9.9	NO		NO	bb
5	5 171227M2_6	Standard	12.500	4.83	3003.427	3700.067	10.147	11.7	-6.2	NO		NO	bb
6	6 171227M2_7	Standard	12.500	4.84	3098.998	3942.271	9.826	11.4	-9.1	NO		NO	bb
7	7 171227M2_8	Standard	12.500	4.84	3495.231	4023.819	10.858	12.5	0.4	NO		NO	bb
8	8 171227M2_9	Standard	12.500	4.83	3039.179	3621.847	10.489	12.1	-3.0	NO		NO	bb
9	9 171227M2_10	Standard	12.500	4.84	3037.251	3832.320	9.907	11.4	-8.4	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 0.886126
RRF SD: 0.0956847, Relative SD: 10.7981
Response type: Internal Std (Ref 60), 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 171227M2_2	Standard	12.500	5.12	9518.367	9868.478	12.057	13.6	8.8	NO		NO	bb
2	2 171227M2_3	Standard	12.500	5.12	10515.332	11925.573	11.022	12.4	-0.5	NO		NO	bb
3	3 171227M2_4	Standard	12.500	5.12	9300.638	12082.603	9.622	10.9	-13.1	NO		NO	bb
4	4 171227M2_5	Standard	12.500	5.12	10007.011	12878.628	9.713	11.0	-12.3	NO		NO	bb
5	5 171227M2_6	Standard	12.500	5.12	9589.339	11278.664	10.628	12.0	-4.1	NO		NO	bb
6	6 171227M2_7	Standard	12.500	5.12	9535.366	10129.650	11.767	13.3	6.2	NO		NO	bb
7	7 171227M2_8	Standard	12.500	5.12	12375.918	12265.921	12.612	14.2	13.9	NO		NO	bb
8	8 171227M2_9	Standard	12.500	5.12	9066.912	11542.679	9.819	11.1	-11.4	NO		NO	bb
9	9 171227M2_10	Standard	12.500	5.12	9175.472	9211.848	12.451	14.1	12.4	NO		NO	bb

~~**Compound name: 13C2-8:2 FTS**~~
~~Response Factor: 0.135805~~
~~RRF SD: 0.0328957, Relative SD: 24.2227~~
~~Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)~~
Curve type: RF

Not used.

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171227M2_2	Standard	12.500	5.09	1526.711	13336.426	1.431	10.5	-15.7	NO		NO	bd
2	2 171227M2_3	Standard	12.500	5.09	2048.786	13355.194	1.918	14.1	13.0	NO		NO	bb
3	3 171227M2_4	Standard	12.500	5.09	1697.438	14296.511	1.484	10.9	-12.6	NO		NO	bb
4	4 171227M2_5	Standard	12.500	5.09	1669.713	12722.052	1.641	12.1	-3.4	NO		NO	bb
5	5 171227M2_6	Standard	12.500	5.09	1694.837	15057.541	1.407	10.4	-17.1	NO		NO	bb
6	6 171227M2_7	Standard	12.500	5.10	1337.944	14190.524	1.179	8.7	-30.6	NO		NO	bb
7	7 171227M2_8	Standard	12.500	5.09	2328.025	12244.098	2.377	17.5	40.0	NO		NO	bb
8	8 171227M2_9	Standard	12.500	5.09	2253.783	13133.470	2.145	15.8	26.4	NO		NO	bd
9	9 171227M2_10	Standard	12.500	5.09	3634.338	11862.702	3.830	28.2	125.6	NO		NO	bdX

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Compound name: d3-N-MeFOSAA
Response Factor: 0.408733
RRF SD: 0.0491611, Relative SD: 12.0277
Response type: Internal Std (Ref 61), 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	171227M2_2	Standard	12.500	5.26	4963.580	10522.952	5.896	14.4	15.4	NO		NO	bb
2	2	171227M2_3	Standard	12.500	5.26	5539.444	13625.164	5.082	12.4	-0.5	NO		NO	bb
3	3	171227M2_4	Standard	12.500	5.26	5332.894	14650.646	4.550	11.1	-10.9	NO		NO	bd
4	4	171227M2_5	Standard	12.500	5.26	6130.912	15544.572	4.930	12.1	-3.5	NO		NO	bb
5	5	171227M2_6	Standard	12.500	5.26	4858.688	14786.616	4.107	10.0	-19.6	NO		NO	bb
6	6	171227M2_7	Standard	12.500	5.26	5008.923	13063.165	4.793	11.7	-6.2	NO		NO	bb
7	7	171227M2_8	Standard	12.500	5.26	5641.206	12088.432	5.833	14.3	14.2	NO		NO	bb
8	8	171227M2_9	Standard	12.500	5.26	5099.348	12668.264	5.032	12.3	-1.5	NO		NO	bb
9	9	171227M2_10	Standard	12.500	5.26	5086.673	11040.664	5.759	14.1	12.7	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.473718
RRF SD: 0.0488163, Relative SD: 10.3049
Response type: Internal Std (Ref 61), 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	171227M2_2	Standard	12.500	5.41	5765.227	10522.952	6.848	14.5	15.7	NO		NO	bb
2	2	171227M2_3	Standard	12.500	5.41	5889.360	13625.164	5.403	11.4	-8.8	NO		NO	bb
3	3	171227M2_4	Standard	12.500	5.41	6991.896	14650.646	5.966	12.6	0.7	NO		NO	bb
4	4	171227M2_5	Standard	12.500	5.41	6313.761	15544.572	5.077	10.7	-14.3	NO		NO	bb
5	5	171227M2_6	Standard	12.500	5.41	6451.895	14786.616	5.454	11.5	-7.9	NO		NO	bd
6	6	171227M2_7	Standard	12.500	5.41	6152.865	13063.165	5.888	12.4	-0.6	NO		NO	bb
7	7	171227M2_8	Standard	12.500	5.41	6457.469	12088.432	6.677	14.1	12.8	NO		NO	bb
8	8	171227M2_9	Standard	12.500	5.41	6485.901	12668.264	6.400	13.5	8.1	NO		NO	bb
9	9	171227M2_10	Standard	12.500	5.41	4928.821	11040.664	5.580	11.8	-5.8	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 0.928462
RRF SD: 0.123631, Relative SD: 13.3157
Response type: Internal Std (Ref 61), 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	171227M2_2	Standard	12.500	5.43	11874.624	10522.952	14.106	15.2	21.5	NO		NO	bb
2	2	171227M2_3	Standard	12.500	5.43	11943.025	13625.164	10.957	11.8	-5.6	NO		NO	bb
3	3	171227M2_4	Standard	12.500	5.43	12096.048	14650.646	10.320	11.1	-11.1	NO		NO	bb
4	4	171227M2_5	Standard	12.500	5.43	11576.810	15544.572	9.309	10.0	-19.8	NO		NO	bb
5	5	171227M2_6	Standard	12.500	5.43	12204.513	14786.616	10.317	11.1	-11.1	NO		NO	bb
6	6	171227M2_7	Standard	12.500	5.43	11786.622	13063.165	11.278	12.1	-2.8	NO		NO	bd
7	7	171227M2_8	Standard	12.500	5.44	12370.035	12088.432	12.791	13.8	10.2	NO		NO	bb
8	8	171227M2_9	Standard	12.500	5.43	12881.869	12668.264	12.711	13.7	9.5	NO		NO	bb
9	9	171227M2_10	Standard	12.500	5.44	11183.854	11040.664	12.662	13.6	9.1	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.636121
RRF SD: 0.0670923, Relative SD: 10.5471
Response type: Internal Std (Ref 61), 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	171227M2_2	Standard	12.500	5.71	8054.505	10522.952	9.568	15.0	20.3	NO		NO	bb
2	2	171227M2_3	Standard	12.500	5.70	8743.186	13625.164	8.021	12.6	0.9	NO		NO	bb
3	3	171227M2_4	Standard	12.500	5.70	8431.139	14650.646	7.193	11.3	-9.5	NO		NO	bb
4	4	171227M2_5	Standard	12.500	5.70	9103.854	15544.572	7.321	11.5	-7.9	NO		NO	bb
5	5	171227M2_6	Standard	12.500	5.70	8413.934	14786.616	7.113	11.2	-10.5	NO		NO	bb
6	6	171227M2_7	Standard	12.500	5.70	7956.292	13063.165	7.613	12.0	-4.3	NO		NO	bb
7	7	171227M2_8	Standard	12.500	5.70	8744.809	12088.432	9.043	14.2	13.7	NO		NO	bb
8	8	171227M2_9	Standard	12.500	5.70	7893.276	12668.264	7.788	12.2	-2.1	NO		NO	bb
9	9	171227M2_10	Standard	12.500	5.71	6980.643	11040.664	7.903	12.4	-0.6	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.111566
RRF SD: 0.015918, Relative SD: 14.2678
Response type: Internal Std (Ref 61), 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	171227M2_2	Standard	150.000	5.88	17951.223	10522.952	21.324	191.1	27.4	NO		NO	bb
2	2	171227M2_3	Standard	150.000	5.88	16653.398	13625.164	15.278	136.9	-8.7	NO		NO	bb
3	3	171227M2_4	Standard	150.000	5.88	16891.504	14650.646	14.412	129.2	-13.9	NO		NO	bb
4	4	171227M2_5	Standard	150.000	5.88	17379.400	15544.572	13.975	125.3	-16.5	NO		NO	bb
5	5	171227M2_6	Standard	150.000	5.88	18111.424	14786.616	15.311	137.2	-8.5	NO		NO	bb
6	6	171227M2_7	Standard	150.000	5.88	17693.111	13063.165	16.930	151.8	1.2	NO		NO	bd
7	7	171227M2_8	Standard	150.000	5.88	16898.027	12088.432	17.473	156.6	4.4	NO		NO	bb
8	8	171227M2_9	Standard	150.000	5.88	16794.846	12668.264	16.572	148.5	-1.0	NO		NO	bb
9	9	171227M2_10	Standard	150.000	5.88	17080.729	11040.664	19.338	173.3	15.6	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.162701
RRF SD: 0.0324795, Relative SD: 19.9628
Response type: Internal Std (Ref 61), 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	171227M2_2	Standard	12.500	6.16	2234.556	10522.952	2.654	16.3	30.5	NO		NO	MMX
2	2	171227M2_3	Standard	12.500	6.16	2124.994	13625.164	1.950	12.0	-4.1	NO		NO	bb
3	3	171227M2_4	Standard	12.500	6.16	2146.656	14650.646	1.832	11.3	-9.9	NO		NO	bb
4	4	171227M2_5	Standard	12.500	6.16	1846.036	15544.572	1.484	9.1	-27.0	NO		NO	MM
5	5	171227M2_6	Standard	12.500	6.16	2216.522	14786.616	1.874	11.5	-7.9	NO		NO	bb
6	6	171227M2_7	Standard	12.500	6.15	2338.622	13063.165	2.238	13.8	10.0	NO		NO	MM
7	7	171227M2_8	Standard	12.500	6.16	2697.390	12088.432	2.789	17.1	37.1	NO		NO	MM
8	8	171227M2_9	Standard	12.500	6.15	2097.857	12668.264	2.070	12.7	1.8	NO		NO	bb
9	9	171227M2_10	Standard	12.500	6.16	2847.631	11040.664	3.224	19.8	58.5	NO		NO	bbX

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Compound name: d5-N-ETFOSA
Response Factor: 0.169565
RRF SD: 0.0203335, Relative SD: 11.9916
Response type: Internal Std (Ref 61), 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	171227M2_2	Standard	150.000	6.24	26271.311	10522.952	31.207	184.0	22.7	NO		NO	bb
2	2	171227M2_3	Standard	150.000	6.24	25612.781	13625.164	23.498	138.6	-7.6	NO		NO	bb
3	3	171227M2_4	Standard	150.000	6.24	27238.842	14650.646	23.240	137.1	-8.6	NO		NO	bb
4	4	171227M2_5	Standard	150.000	6.23	26307.252	15544.572	21.155	124.8	-16.8	NO		NO	bb
5	5	171227M2_6	Standard	150.000	6.24	27591.568	14786.616	23.325	137.6	-8.3	NO		NO	bb
6	6	171227M2_7	Standard	150.000	6.24	26260.840	13063.165	25.129	148.2	-1.2	NO		NO	bb
7	7	171227M2_8	Standard	150.000	6.24	26899.170	12088.432	27.815	164.0	9.4	NO		NO	bb
8	8	171227M2_9	Standard	150.000	6.23	26665.355	12668.264	26.311	155.2	3.4	NO		NO	bb
9	9	171227M2_10	Standard	150.000	6.24	24053.830	11040.664	27.233	160.6	7.1	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.39388
RRF SD: 0.0587481, Relative SD: 14.9152
Response type: Internal Std (Ref 61), 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	171227M2_2	Standard	5.000	6.47	2174.156	10522.952	2.583	6.6	31.1	NO		NO	bb
2	2	171227M2_3	Standard	5.000	6.47	2237.443	13625.164	2.053	5.2	4.2	NO		NO	bb
3	3	171227M2_4	Standard	5.000	6.47	2126.996	14650.646	1.815	4.6	-7.9	NO		NO	bb
4	4	171227M2_5	Standard	5.000	6.47	2023.093	15544.572	1.627	4.1	-17.4	NO		NO	bb
5	5	171227M2_6	Standard	5.000	6.47	2095.904	14786.616	1.772	4.5	-10.0	NO		NO	bb
6	6	171227M2_7	Standard	5.000	6.47	1887.999	13063.165	1.807	4.6	-8.3	NO		NO	bb
7	7	171227M2_8	Standard	5.000	6.47	2006.273	12088.432	2.075	5.3	5.3	NO		NO	bb
8	8	171227M2_9	Standard	5.000	6.47	2052.555	12668.264	2.025	5.1	2.8	NO		NO	bb
9	9	171227M2_10	Standard	5.000	6.47	2528.415	11040.664	2.863	7.3	45.4	NO		NO	bbX

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Compound name: d7-N-MeFOSE
Response Factor: 0.148451
RRF SD: 0.0224588, Relative SD: 15.1288
Response type: Internal Std (Ref 61), 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	171227M2_2	Standard	150.000	6.31	23424.840	10522.952	27.826	187.4	25.0	NO		NO	bd
2	2	171227M2_3	Standard	150.000	6.31	21551.338	13625.164	19.772	133.2	-11.2	NO		NO	bd
3	3	171227M2_4	Standard	150.000	6.31	21977.563	14650.646	18.751	126.3	-15.8	NO		NO	bd
4	4	171227M2_5	Standard	150.000	6.31	23542.486	15544.572	18.931	127.5	-15.0	NO		NO	bb
5	5	171227M2_6	Standard	150.000	6.31	24058.156	14786.616	20.338	137.0	-8.7	NO		NO	bb
6	6	171227M2_7	Standard	150.000	6.31	22955.393	13063.165	21.966	148.0	-1.4	NO		NO	bb
7	7	171227M2_8	Standard	150.000	6.31	22730.518	12088.432	23.504	158.3	5.6	NO		NO	bb
8	8	171227M2_9	Standard	150.000	6.31	22370.564	12668.264	22.073	148.7	-0.9	NO		NO	bb
9	9	171227M2_10	Standard	150.000	6.31	24065.676	11040.664	27.247	183.5	22.4	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.153905
RRF SD: 0.0230653, Relative SD: 14.9867
Response type: Internal Std (Ref 61), 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	171227M2_2	Standard	150.000	6.46	23821.568	10522.952	28.297	183.9	22.6	NO		NO	bb
2	2	171227M2_3	Standard	150.000	6.46	22501.572	13625.164	20.643	134.1	-10.6	NO		NO	bd
3	3	171227M2_4	Standard	150.000	6.46	23379.631	14650.646	19.948	129.6	-13.6	NO		NO	bb
4	4	171227M2_5	Standard	150.000	6.46	26375.297	15544.572	21.209	137.8	-8.1	NO		NO	bb
5	5	171227M2_6	Standard	150.000	6.46	28445.939	14786.616	24.047	156.2	4.2	NO		NO	bd
6	6	171227M2_7	Standard	150.000	6.46	22042.639	13063.165	21.092	137.0	-8.6	NO		NO	bb
7	7	171227M2_8	Standard	150.000	6.46	25817.605	12088.432	26.697	173.5	15.6	NO		NO	bd
8	8	171227M2_9	Standard	150.000	6.46	19219.795	12668.264	18.965	123.2	-17.9	NO		NO	bb
9	9	171227M2_10	Standard	150.000	6.46	23736.309	11040.664	26.874	174.6	16.4	NO		NO	bd

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Compound name: 13C4-PFBA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 54), 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	171227M2_2	Standard	12.500	1.51	11266.789	11266.789	12.500	12.5	0.0	NO		NO	bb
2	2	171227M2_3	Standard	12.500	1.52	11474.547	11474.547	12.500	12.5	0.0	NO		NO	bb
3	3	171227M2_4	Standard	12.500	1.52	11800.232	11800.232	12.500	12.5	0.0	NO		NO	bb
4	4	171227M2_5	Standard	12.500	1.52	11773.504	11773.504	12.500	12.5	0.0	NO		NO	bb
5	5	171227M2_6	Standard	12.500	1.52	12782.838	12782.838	12.500	12.5	0.0	NO		NO	bb
6	6	171227M2_7	Standard	12.500	1.52	12197.028	12197.028	12.500	12.5	0.0	NO		NO	bb
7	7	171227M2_8	Standard	12.500	1.52	12250.466	12250.466	12.500	12.5	0.0	NO		NO	bb
8	8	171227M2_9	Standard	12.500	1.52	12006.595	12006.595	12.500	12.5	0.0	NO		NO	bb
9	9	171227M2_10	Standard	12.500	1.52	11837.236	11837.236	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 55), 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	171227M2_2	Standard	12.500	3.23	13336.426	13336.426	12.500	12.5	0.0	NO		NO	bb
2	2	171227M2_3	Standard	12.500	3.23	13355.194	13355.194	12.500	12.5	0.0	NO		NO	bb
3	3	171227M2_4	Standard	12.500	3.23	14296.511	14296.511	12.500	12.5	0.0	NO		NO	bb
4	4	171227M2_5	Standard	12.500	3.23	12722.052	12722.052	12.500	12.5	0.0	NO		NO	bd
5	5	171227M2_6	Standard	12.500	3.23	15057.541	15057.541	12.500	12.5	0.0	NO		NO	bb
6	6	171227M2_7	Standard	12.500	3.23	14190.524	14190.524	12.500	12.5	0.0	NO		NO	bb
7	7	171227M2_8	Standard	12.500	3.23	12244.098	12244.098	12.500	12.5	0.0	NO		NO	bd
8	8	171227M2_9	Standard	12.500	3.23	13133.470	13133.470	12.500	12.5	0.0	NO		NO	bd
9	9	171227M2_10	Standard	12.500	3.23	11862.702	11862.702	12.500	12.5	0.0	NO		NO	bd

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Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 56), 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	171227M2_2	Standard	12.500	3.98	3915.972	3915.972	12.500	12.5	0.0	NO		NO	bd
2	2	171227M2_3	Standard	12.500	3.98	3250.903	3250.903	12.500	12.5	0.0	NO		NO	bd
3	3	171227M2_4	Standard	12.500	3.98	4190.863	4190.863	12.500	12.5	0.0	NO		NO	bb
4	4	171227M2_5	Standard	12.500	3.98	3669.464	3669.464	12.500	12.5	0.0	NO		NO	bb
5	5	171227M2_6	Standard	12.500	3.98	3437.959	3437.959	12.500	12.5	0.0	NO		NO	bb
6	6	171227M2_7	Standard	12.500	3.98	3707.999	3707.999	12.500	12.5	0.0	NO		NO	bd
7	7	171227M2_8	Standard	12.500	3.98	3628.547	3628.547	12.500	12.5	0.0	NO		NO	bb
8	8	171227M2_9	Standard	12.500	3.98	3364.836	3364.836	12.500	12.5	0.0	NO		NO	bd
9	9	171227M2_10	Standard	12.500	3.98	3375.579	3375.579	12.500	12.5	0.0	NO		NO	bd

Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 57), 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	171227M2_2	Standard	12.500	4.34	15017.985	15017.985	12.500	12.5	0.0	NO		NO	bd
2	2	171227M2_3	Standard	12.500	4.33	13305.198	13305.198	12.500	12.5	0.0	NO		NO	bb
3	3	171227M2_4	Standard	12.500	4.34	13841.206	13841.206	12.500	12.5	0.0	NO		NO	bb
4	4	171227M2_5	Standard	12.500	4.34	14312.646	14312.646	12.500	12.5	0.0	NO		NO	bb
5	5	171227M2_6	Standard	12.500	4.33	15421.653	15421.653	12.500	12.5	0.0	NO		NO	bb
6	6	171227M2_7	Standard	12.500	4.34	12414.578	12414.578	12.500	12.5	0.0	NO		NO	bd
7	7	171227M2_8	Standard	12.500	4.34	14661.149	14661.149	12.500	12.5	0.0	NO		NO	bb
8	8	171227M2_9	Standard	12.500	4.33	13534.527	13534.527	12.500	12.5	0.0	NO		NO	bd
9	9	171227M2_10	Standard	12.500	4.34	13276.432	13276.432	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 58), 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	171227M2_2	Standard	12.500	4.76	11712.082	11712.082	12.500	12.5	0.0	NO		NO	bb
2	2	171227M2_3	Standard	12.500	4.76	12763.171	12763.171	12.500	12.5	0.0	NO		NO	bb
3	3	171227M2_4	Standard	12.500	4.76	14679.309	14679.309	12.500	12.5	0.0	NO		NO	bb
4	4	171227M2_5	Standard	12.500	4.76	12778.089	12778.089	12.500	12.5	0.0	NO		NO	bb
5	5	171227M2_6	Standard	12.500	4.76	11391.607	11391.607	12.500	12.5	0.0	NO		NO	bd
6	6	171227M2_7	Standard	12.500	4.76	12021.911	12021.911	12.500	12.5	0.0	NO		NO	bb
7	7	171227M2_8	Standard	12.500	4.76	11376.679	11376.679	12.500	12.5	0.0	NO		NO	bb
8	8	171227M2_9	Standard	12.500	4.76	10376.387	10376.387	12.500	12.5	0.0	NO		NO	bb
9	9	171227M2_10	Standard	12.500	4.76	10504.468	10504.468	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 59), 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	171227M2_2	Standard	12.500	4.84	3416.256	3416.256	12.500	12.5	0.0	NO		NO	bb
2	2	171227M2_3	Standard	12.500	4.83	3020.019	3020.019	12.500	12.5	0.0	NO		NO	bb
3	3	171227M2_4	Standard	12.500	4.84	3631.896	3631.896	12.500	12.5	0.0	NO		NO	bb
4	4	171227M2_5	Standard	12.500	4.83	3899.005	3899.005	12.500	12.5	0.0	NO		NO	bb
5	5	171227M2_6	Standard	12.500	4.83	3700.067	3700.067	12.500	12.5	0.0	NO		NO	bb
6	6	171227M2_7	Standard	12.500	4.84	3942.271	3942.271	12.500	12.5	0.0	NO		NO	bb
7	7	171227M2_8	Standard	12.500	4.84	4023.819	4023.819	12.500	12.5	0.0	NO		NO	bb
8	8	171227M2_9	Standard	12.500	4.83	3621.847	3621.847	12.500	12.5	0.0	NO		NO	bb
9	9	171227M2_10	Standard	12.500	4.84	3832.320	3832.320	12.500	12.5	0.0	NO		NO	bb

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Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 60), 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	171227M2_2	Standard	12.500	5.12	9868.478	9868.478	12.500	12.5	0.0	NO		NO	bb
2	2	171227M2_3	Standard	12.500	5.12	11925.573	11925.573	12.500	12.5	0.0	NO		NO	bb
3	3	171227M2_4	Standard	12.500	5.12	12082.603	12082.603	12.500	12.5	0.0	NO		NO	bb
4	4	171227M2_5	Standard	12.500	5.12	12878.628	12878.628	12.500	12.5	0.0	NO		NO	bb
5	5	171227M2_6	Standard	12.500	5.12	11278.664	11278.664	12.500	12.5	0.0	NO		NO	bb
6	6	171227M2_7	Standard	12.500	5.12	10129.650	10129.650	12.500	12.5	0.0	NO		NO	bb
7	7	171227M2_8	Standard	12.500	5.12	12265.921	12265.921	12.500	12.5	0.0	NO		NO	bb
8	8	171227M2_9	Standard	12.500	5.12	11542.679	11542.679	12.500	12.5	0.0	NO		NO	bb
9	9	171227M2_10	Standard	12.500	5.12	9211.848	9211.848	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C7-PFUdA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 61), 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	171227M2_2	Standard	12.500	5.43	10522.952	10522.952	12.500	12.5	0.0	NO		NO	bd
2	2	171227M2_3	Standard	12.500	5.43	13625.164	13625.164	12.500	12.5	0.0	NO		NO	bb
3	3	171227M2_4	Standard	12.500	5.43	14650.646	14650.646	12.500	12.5	0.0	NO		NO	bb
4	4	171227M2_5	Standard	12.500	5.43	15544.572	15544.572	12.500	12.5	0.0	NO		NO	bb
5	5	171227M2_6	Standard	12.500	5.43	14786.616	14786.616	12.500	12.5	0.0	NO		NO	bb
6	6	171227M2_7	Standard	12.500	5.43	13063.165	13063.165	12.500	12.5	0.0	NO		NO	bb
7	7	171227M2_8	Standard	12.500	5.43	12088.432	12088.432	12.500	12.5	0.0	NO		NO	bd
8	8	171227M2_9	Standard	12.500	5.43	12668.264	12668.264	12.500	12.5	0.0	NO		NO	bb
9	9	171227M2_10	Standard	12.500	5.43	11040.664	11040.664	12.500	12.5	0.0	NO		NO	bd

Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_2, Date: 27-Dec-2017, Time: 17:36:41, ID: ST171227M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBA	0.9994	NO	
2	2	PFPeA	0.9981	NO	
3	3	PFBS	0.9927	NO	
4	4	PFHxA	0.9950	NO	
5	5	PFHpA	0.9989	NO	
6	6	L-PFHxS	0.9986	NO	
7	8	6:2 FTS	0.9989	NO	
8	9	L-PFOA	0.9972	NO	
9	11	PFHpS	0.9996	NO	
10	12	PFNA	0.9990	NO	
11	13	PFOSA	0.9994	NO	
12	14	L-PFOS	0.9960	NO	
13	16	PFDA	0.9978	NO	
14	17	8:2 FTS	0.9968	NO	
15	18	N-MeFOSAA	0.9980	NO	
16	19	N-EtFOSAA	0.9970	NO	
17	20	PFUdA	0.9970	NO	
18	21	PFDS	0.9951	NO	
19	22	PFDoA	0.9990	NO	
20	23	N-MeFOSA	0.9972	NO	
21	24	PFTrDA	0.9921	NO	
22	25	PFTeDA	0.9964	NO	
23	26	N-EtFOSA	0.9997	NO	
24	27	PFHxDA	0.9986	NO	
25	28	PFODA	0.9949	NO	
26	29	N-MeFOSE	0.9985	NO	
27	30	N-EtFOSE	0.9935	NO	
28	31	13C3-PFBA		NO	3.726
29	32	13C3-PFPeA		NO	6.620
30	33	13C3-PFBS		NO	10.610
31	34	13C2-PFHxA		NO	6.005

Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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Name: 171227M2_2, Date: 27-Dec-2017, Time: 17:36:41, ID: ST171227M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD
32	35	13C4-PFHpA		NO	10.772
33	36	18O2-PFHxS		NO	10.517
34	37	13C2-6:2 FTS		NO	14.940
35	38	13C2-PFOA		NO	7.187
36	39	13C5-PFNA		NO	9.474
37	40	13C8-PFOSA		NO	13.150
38	41	13C8-PFOS		NO	14.772
39	42	13C2-PFDA		NO	10.798
40	43	13C2-8:2 FTS		NO	24.223
41	44	d3-N-MeFOSAA		NO	12.028
42	45	d5-N-EtFOSAA		NO	10.305
43	46	13C2-PFUdA		NO	13.316
44	47	13C2-PFDoA		NO	10.547
45	48	d3-N-MeFOSA		NO	14.268
46	49	13C2-PFTeDA		NO	19.963
47	50	d5-N-ETFOSA		NO	11.992
48	51	13C2-PFHxDA		NO	14.915
49	52	d7-N-MeFOSE		NO	15.129
50	53	d9-N-EtFOSE		NO	14.987
51	54	13C4-PFBA		NO	0.000
52	55	13C5-PFHxA		NO	0.000
53	56	13C3-PFHxS		NO	0.000
54	57	13C8-PFOA		NO	0.000
55	58	13C9-PFNA		NO	0.000
56	59	13C4-PFOS		NO	0.000
57	60	13C6-PFDA		NO	0.000
58	61	13C7-PFUdA		NO	0.000

not used. AC 12/28/17

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Dataset: Untitled

Last Altered: Thursday, December 28, 2017 11:32:53 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:34:14 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 28 Dec 2017 11:09:15
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171227M2_1	IPA	27-Dec-17	17:25:22
2	171227M2_2	ST171227M2-1 PFC CS-2 17L2606	27-Dec-17	17:36:41
3	171227M2_3	ST171227M2-2 PFC CS-1 17L2607	27-Dec-17	17:47:52
4	171227M2_4	ST171227M2-3 PFC CS0 17L2608	27-Dec-17	17:59:02
5	171227M2_5	ST171227M2-4 PFC CS1 17L2609	27-Dec-17	18:10:13
6	171227M2_6	ST171227M2-5 PFC CS2 17L2610	27-Dec-17	18:21:24
7	171227M2_7	ST171227M2-6 PFC CS3 17L2611	27-Dec-17	18:32:34
8	171227M2_8	ST171227M2-7 PFC CS4 17L2612	27-Dec-17	18:43:45
9	171227M2_9	ST171227M2-8 PFC CS5 17L2613	27-Dec-17	18:54:55
10	171227M2_10	ST171227M2-9 PFC CS6 17L2710	27-Dec-17	19:06:06
11	171227M2_11	ST171227M2-10 PFC CS7 17L1804	27-Dec-17	19:17:17
12	171227M2_12	IPA	27-Dec-17	19:28:28
13	171227M2_13	ICV171227M2-1 PFC ICV 17L2605	27-Dec-17	19:39:38
14	171227M2_14	IPA	27-Dec-17	19:50:49

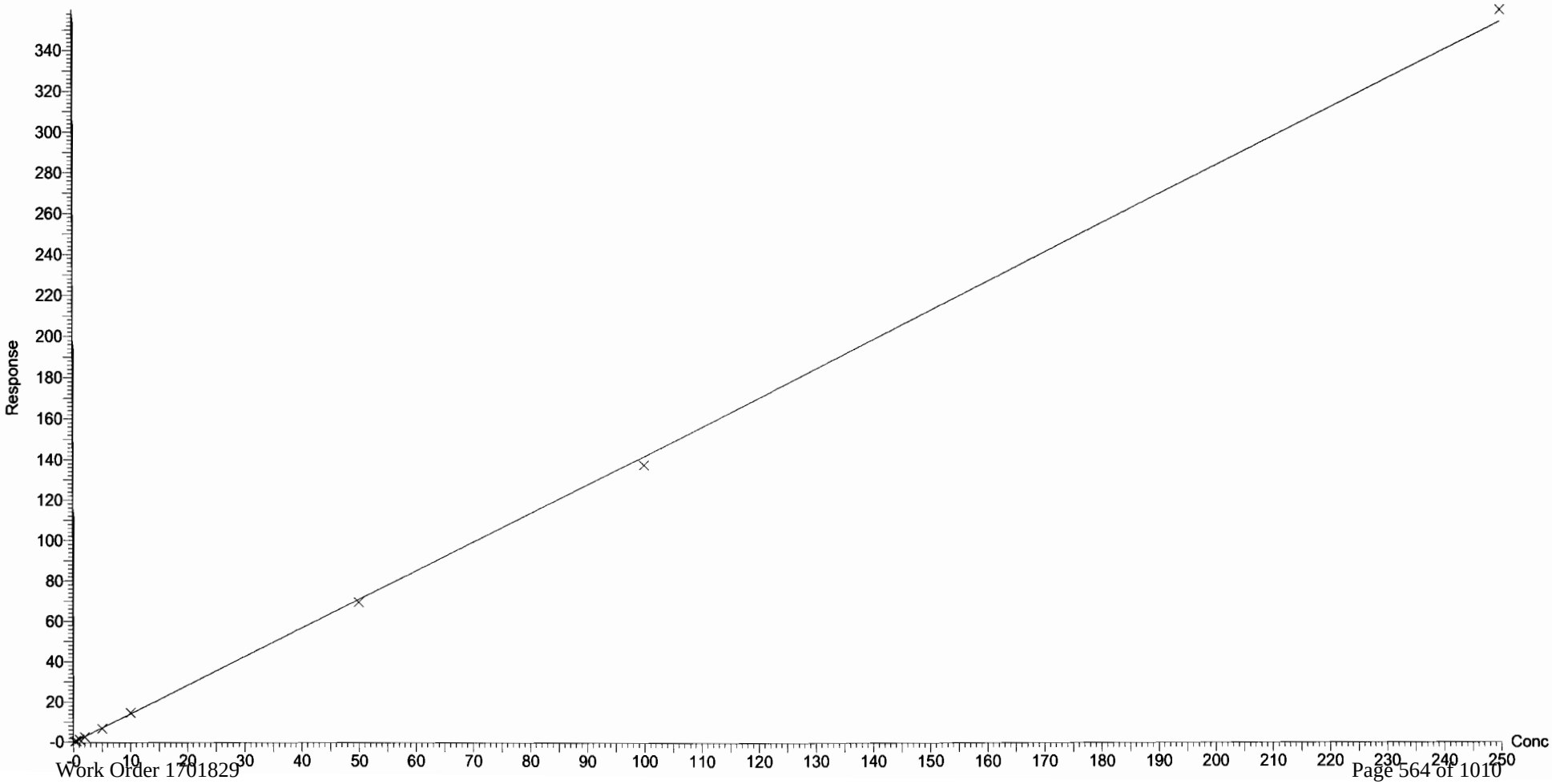
Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:14:38 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122317.mdb 28 Dec 2017 08:41:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

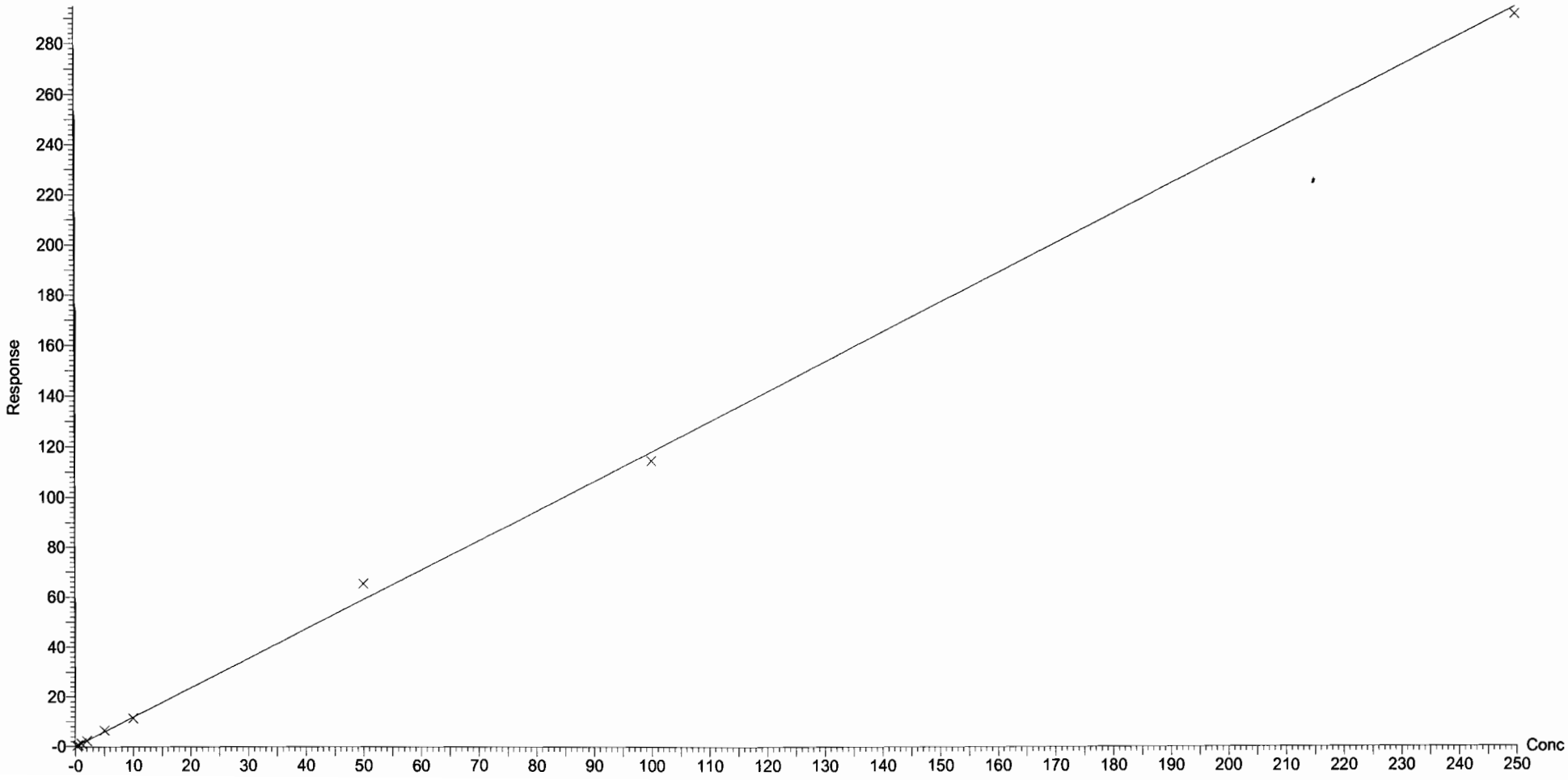
Compound name: PFBA
Correlation coefficient: r = 0.999714, r^2 = 0.999428
Calibration curve: 1.41688 * x + -0.0844562
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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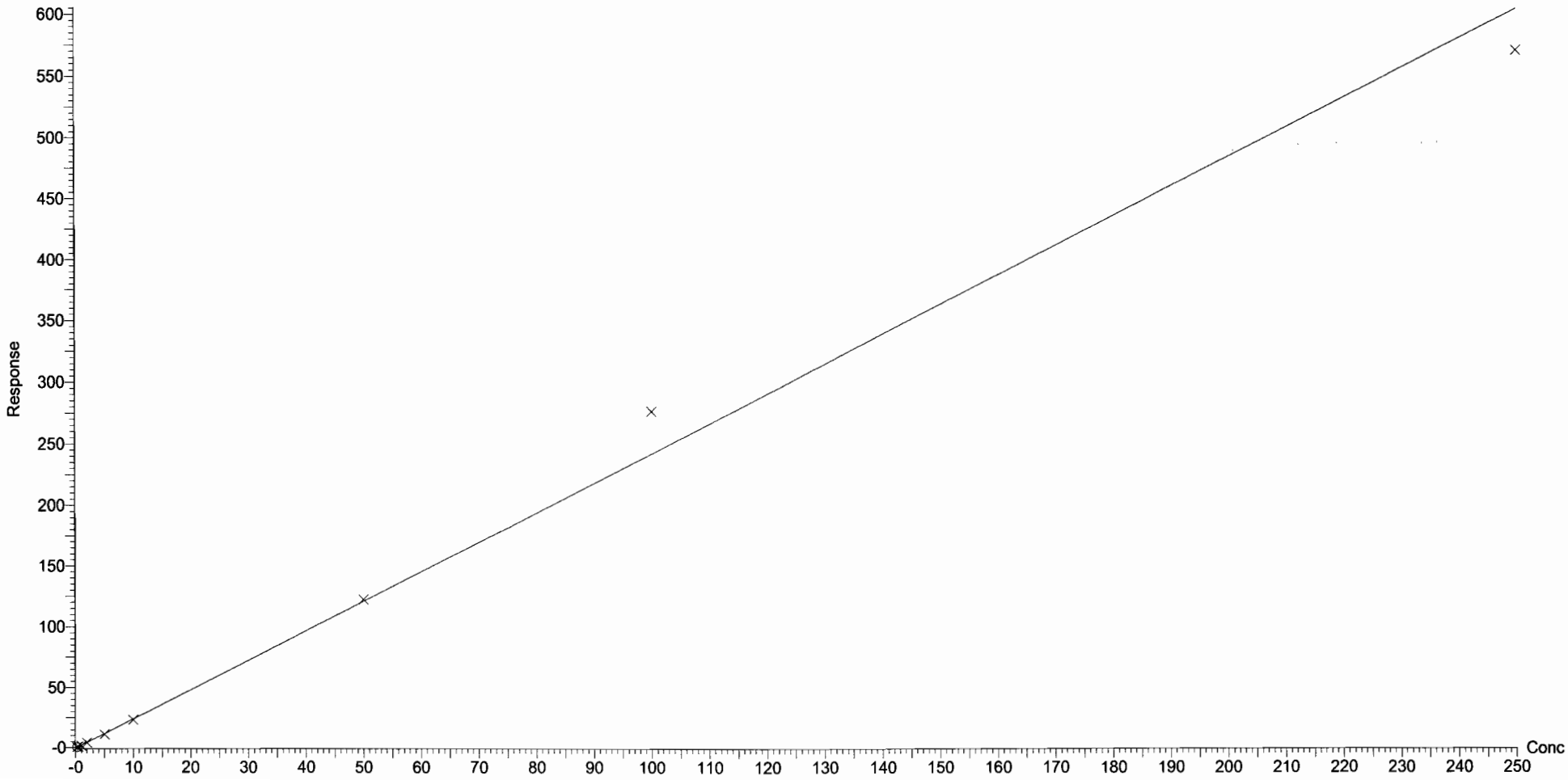
Compound name: PFPeA
Correlation coefficient: r = 0.999071, r^2 = 0.998143
Calibration curve: 1.17898 * x + -0.0138581
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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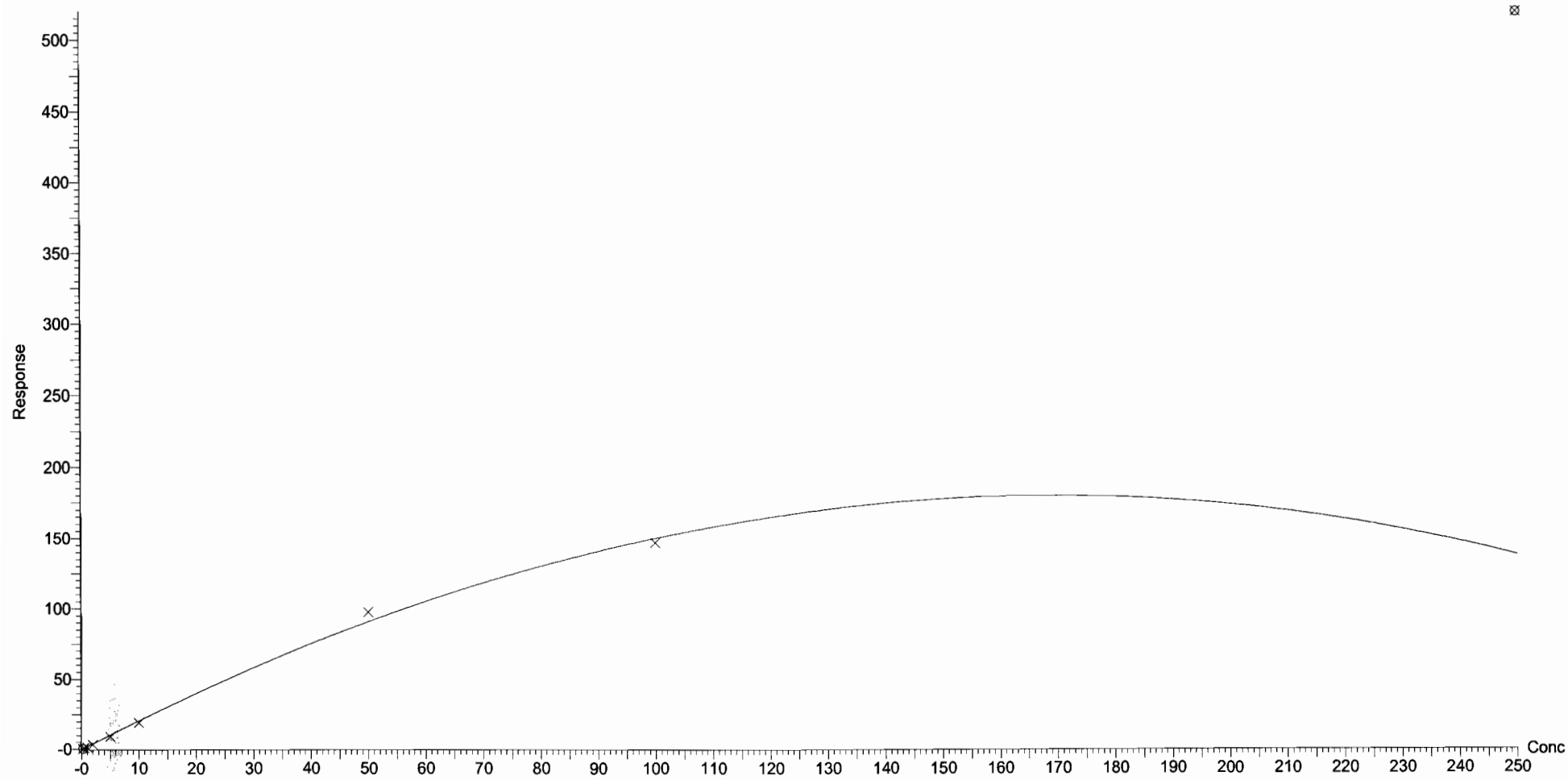
Compound name: PFBS
Correlation coefficient: r = 0.996361, r^2 = 0.992735
Calibration curve: 2.42453 * x + -0.525381
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

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Compound name: PFHxA
Coefficient of Determination: R^2 = 0.994958
Calibration curve: -0.00634236 * x^2 + 2.1363 * x + -0.390389
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

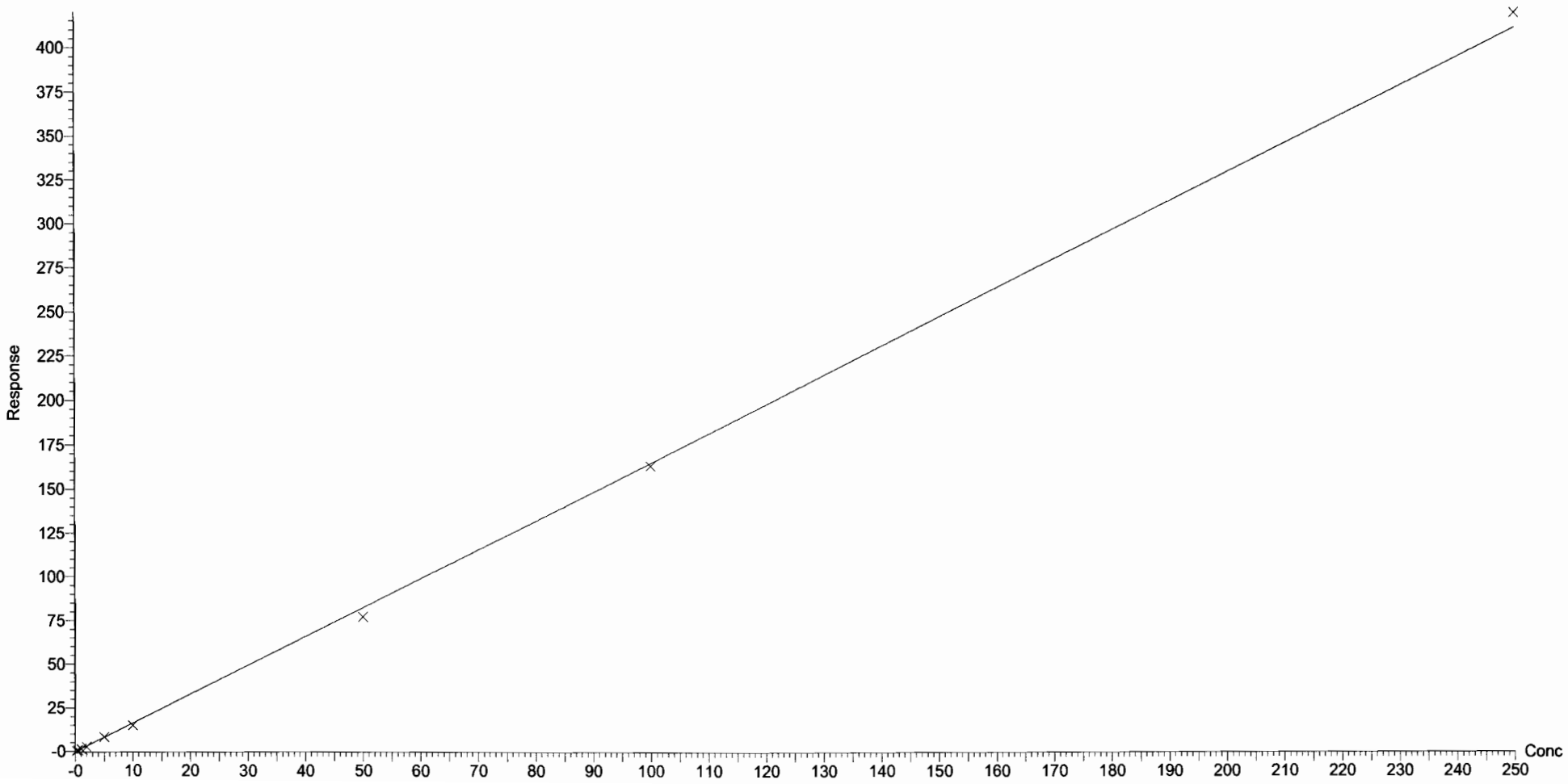


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:14:38 Pacific Standard Time

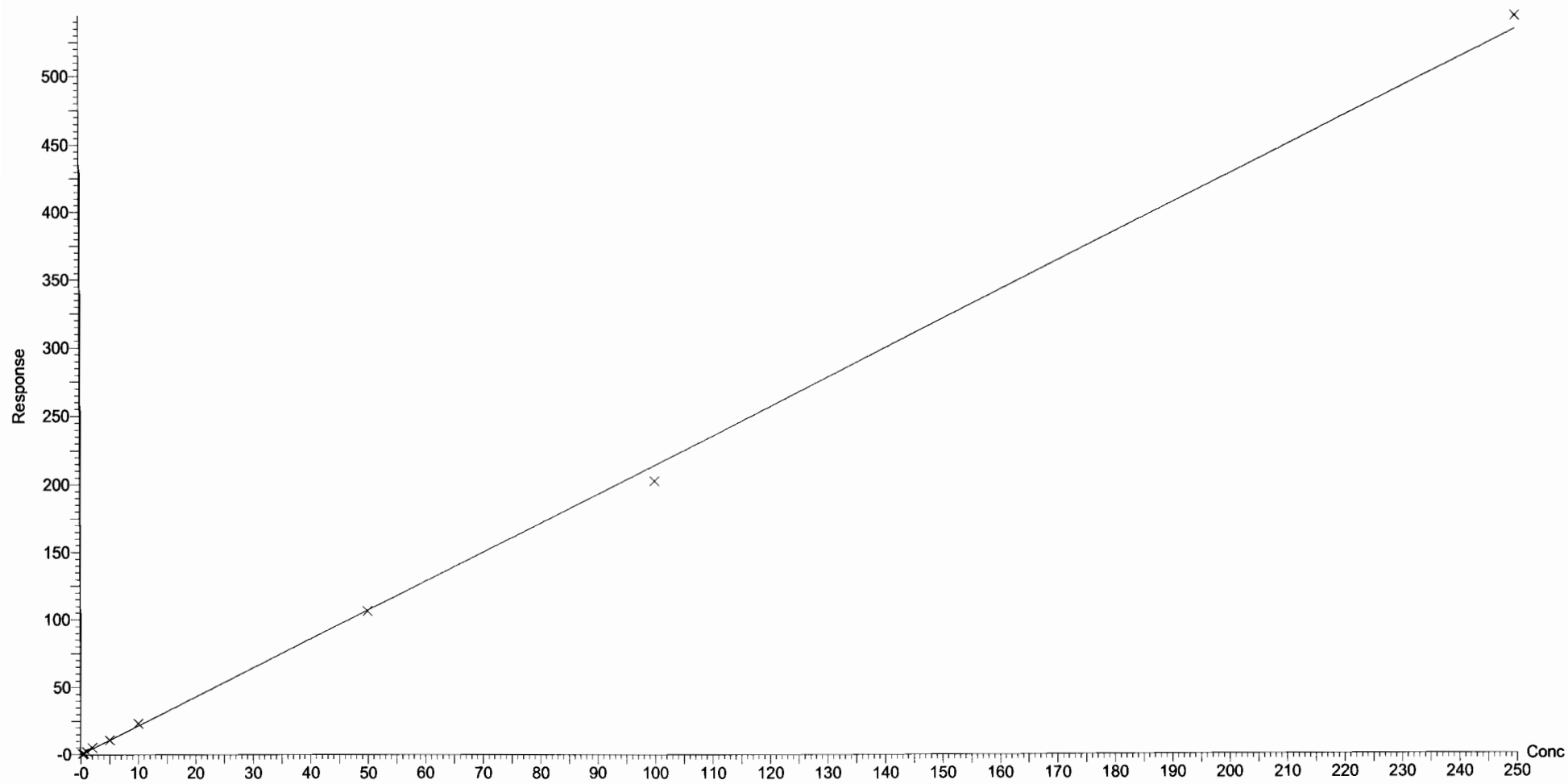
Compound name: PFHpA
Correlation coefficient: r = 0.999445, r^2 = 0.998890
Calibration curve: 1.64689 * x + -0.0913929
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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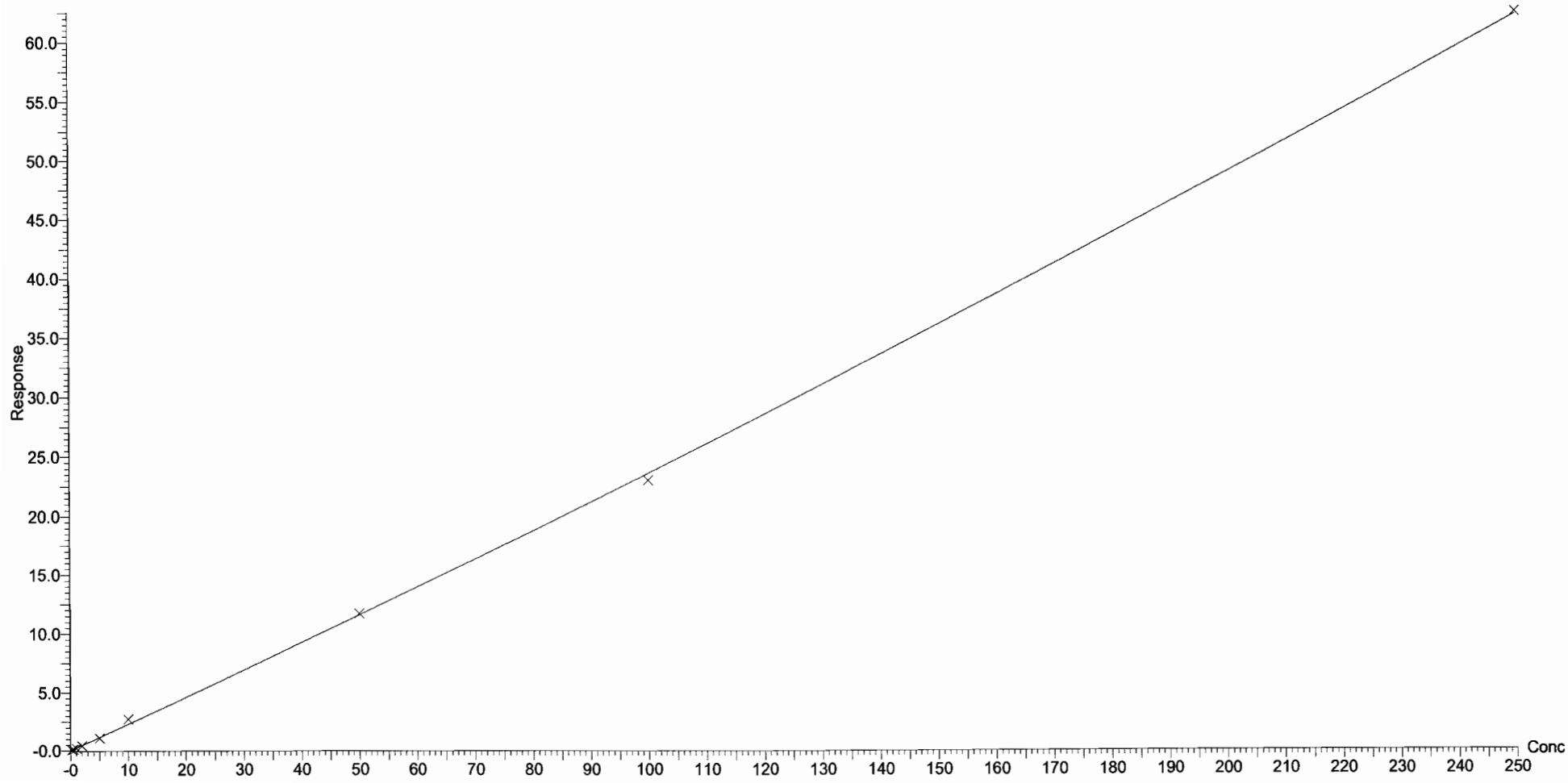
Compound name: L-PFHxS
Correlation coefficient: r = 0.999319, r^2 = 0.998639
Calibration curve: 2.13865 * x + -0.0855212
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.998918
Calibration curve: 8.87912e-005 * x^2 + 0.22705 * x + 0.0173879
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

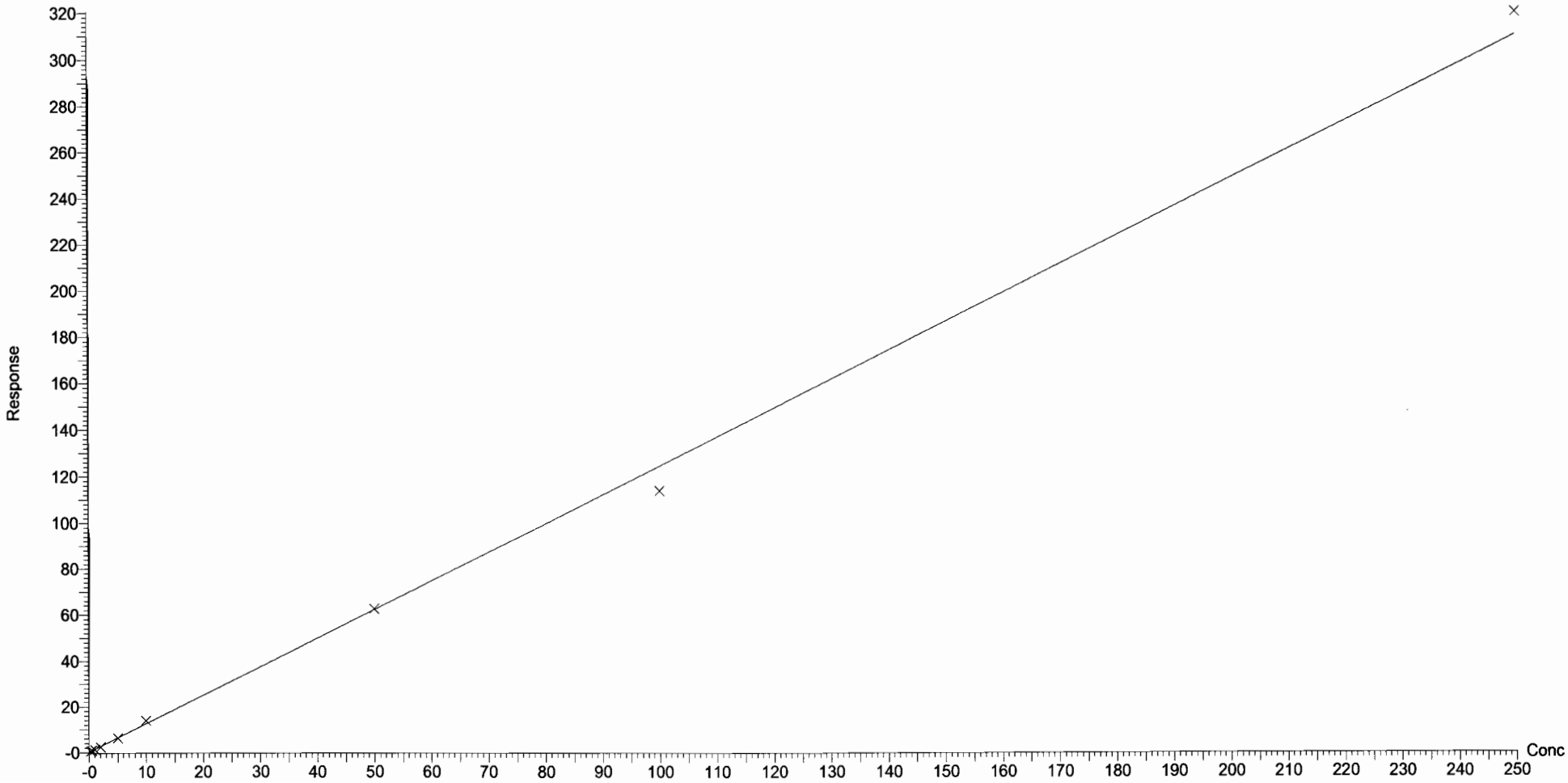


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:14:38 Pacific Standard Time

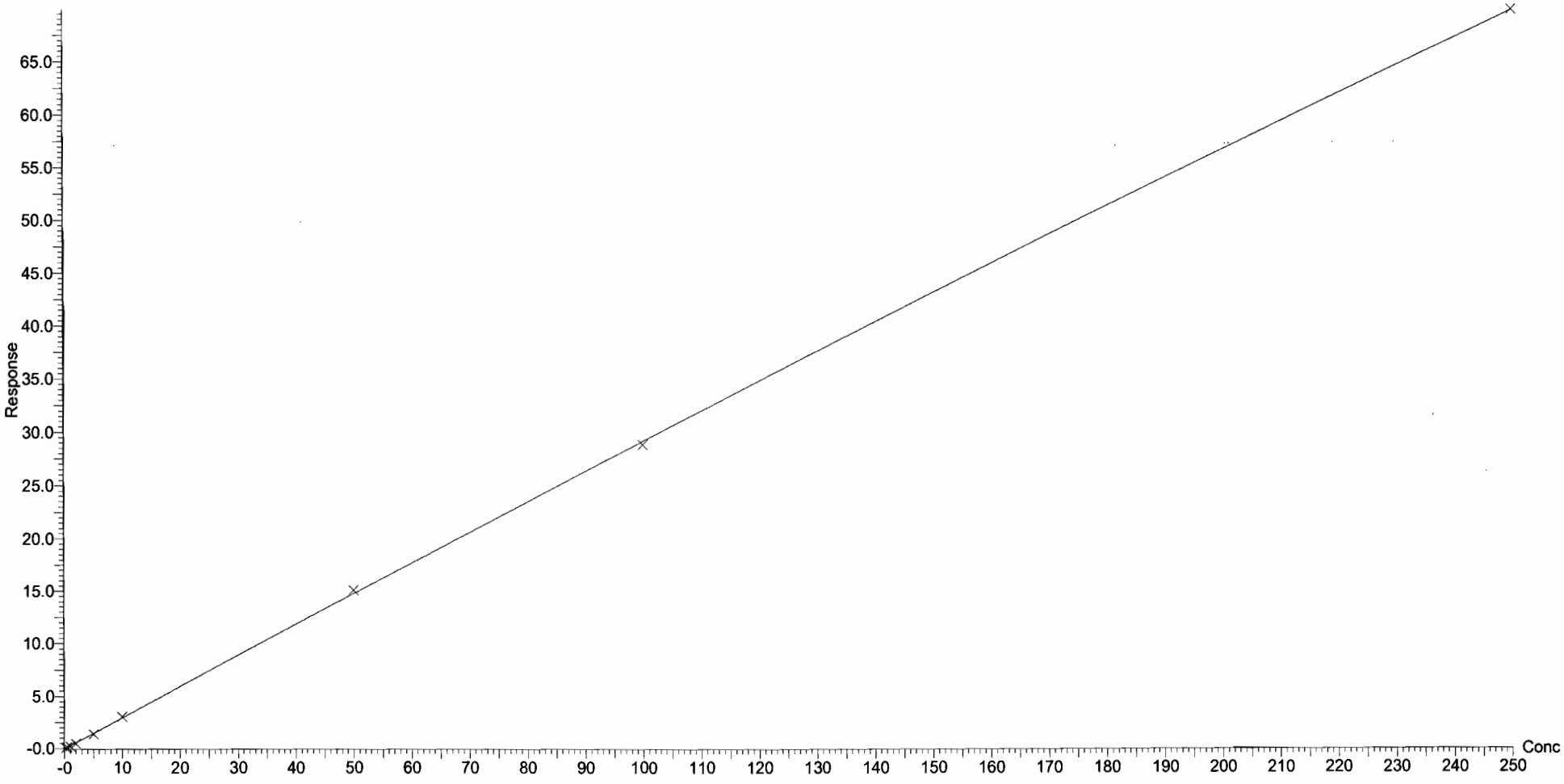
Compound name: L-PFOA
Correlation coefficient: r = 0.998602, r^2 = 0.997206
Calibration curve: 1.24231 * x + 0.274251
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999640
Calibration curve: -8.23107e-005 * x^2 + 0.300027 * x + -0.0487822
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

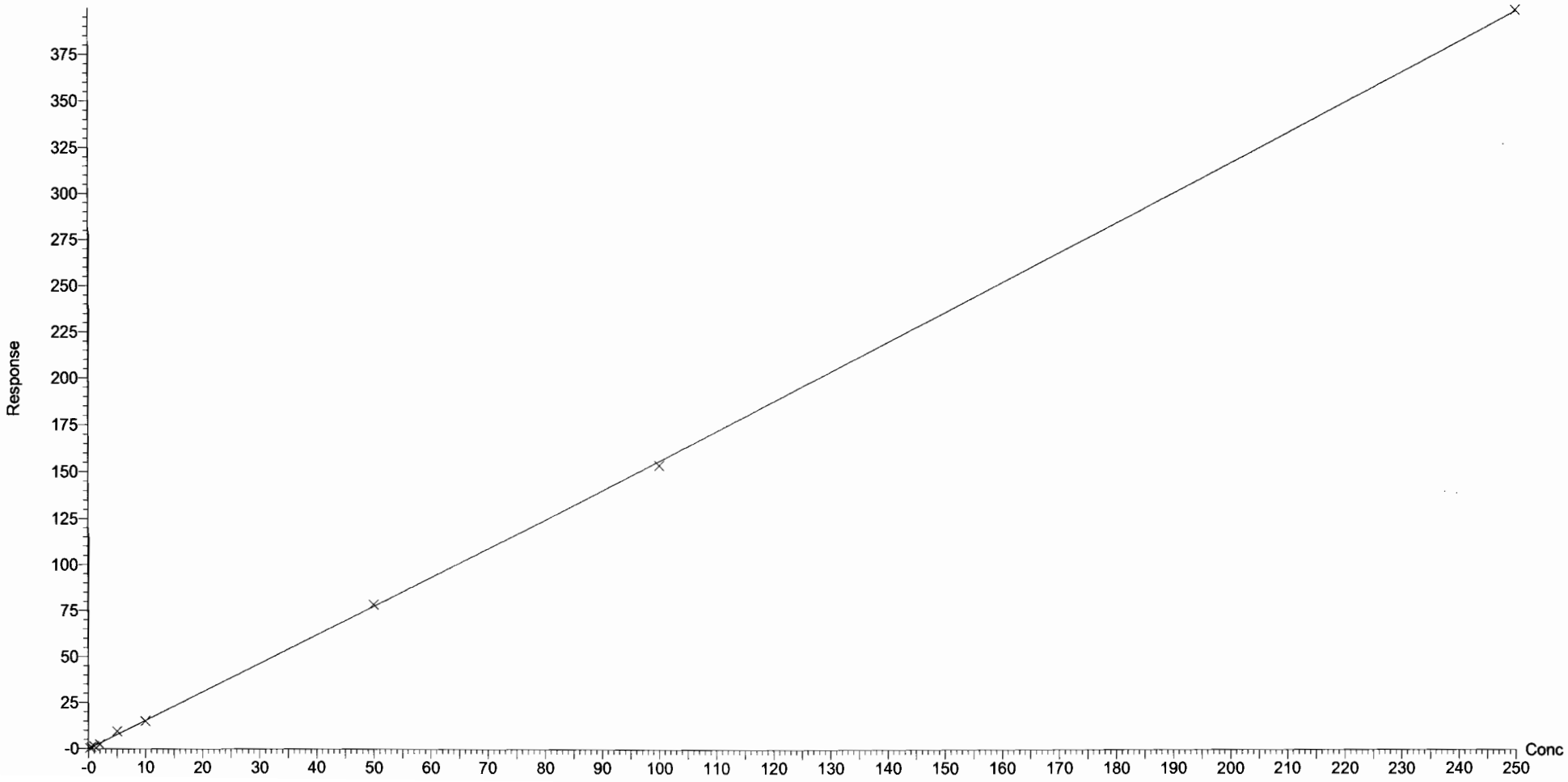


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

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Printed: Thursday, December 28, 2017 11:14:38 Pacific Standard Time

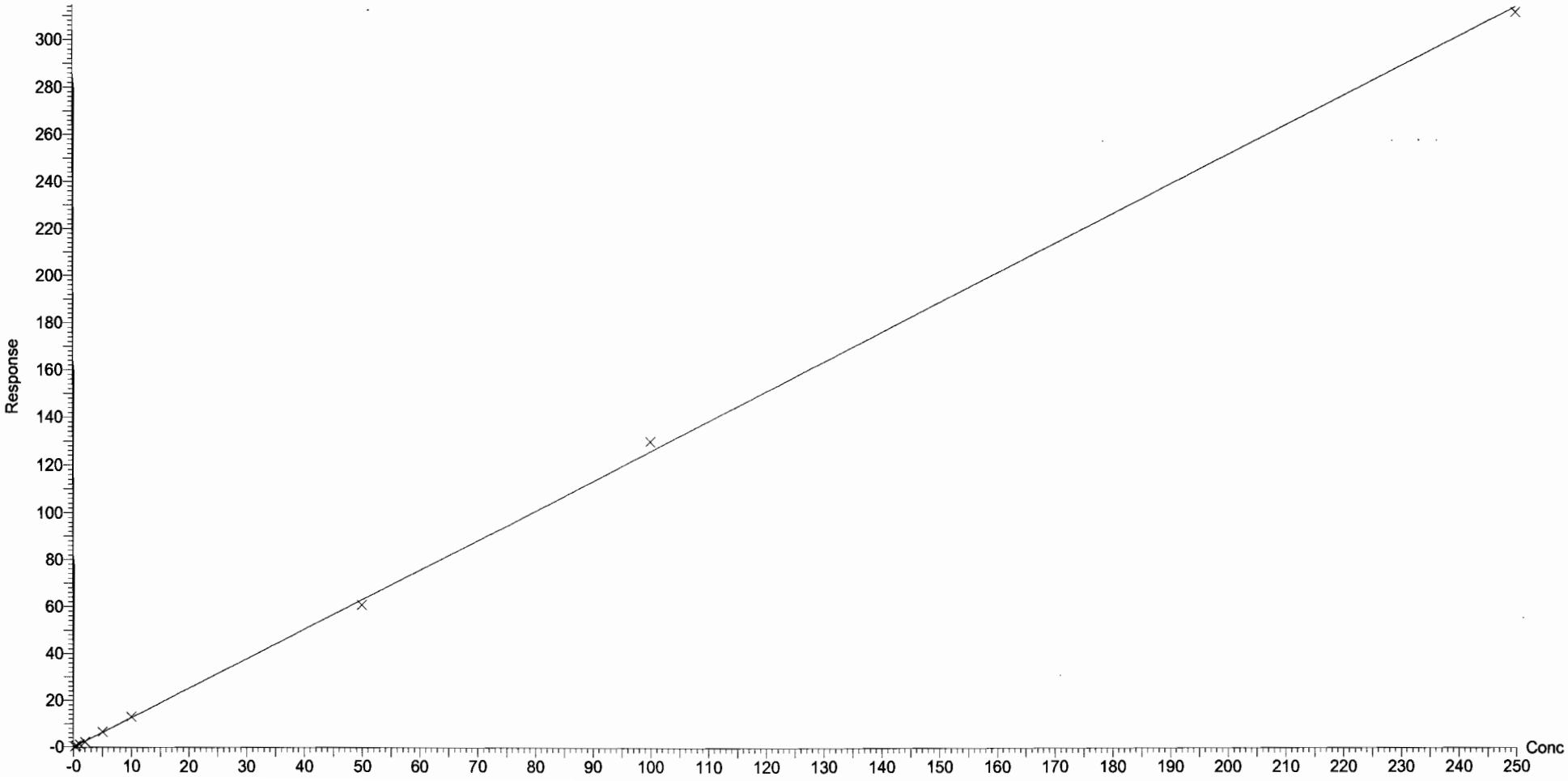
Compound name: PFNA
Coefficient of Determination: R^2 = 0.999012
Calibration curve: 0.000248018 * x^2 + 1.53471 * x + -0.0129473
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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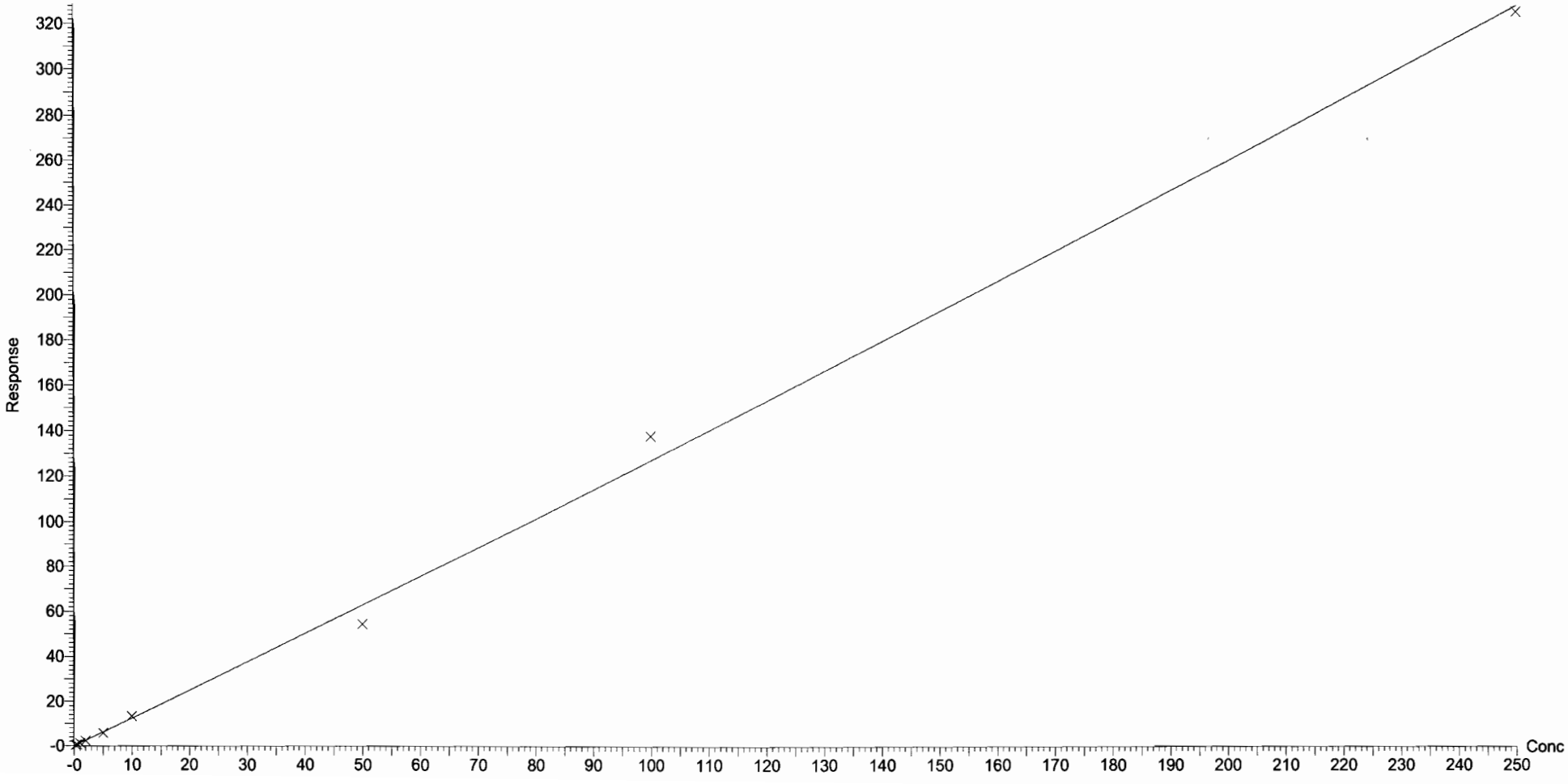
Compound name: PFOSA
Correlation coefficient: r = 0.999701, r^2 = 0.999402
Calibration curve: 1.2583 * x + -0.0765078
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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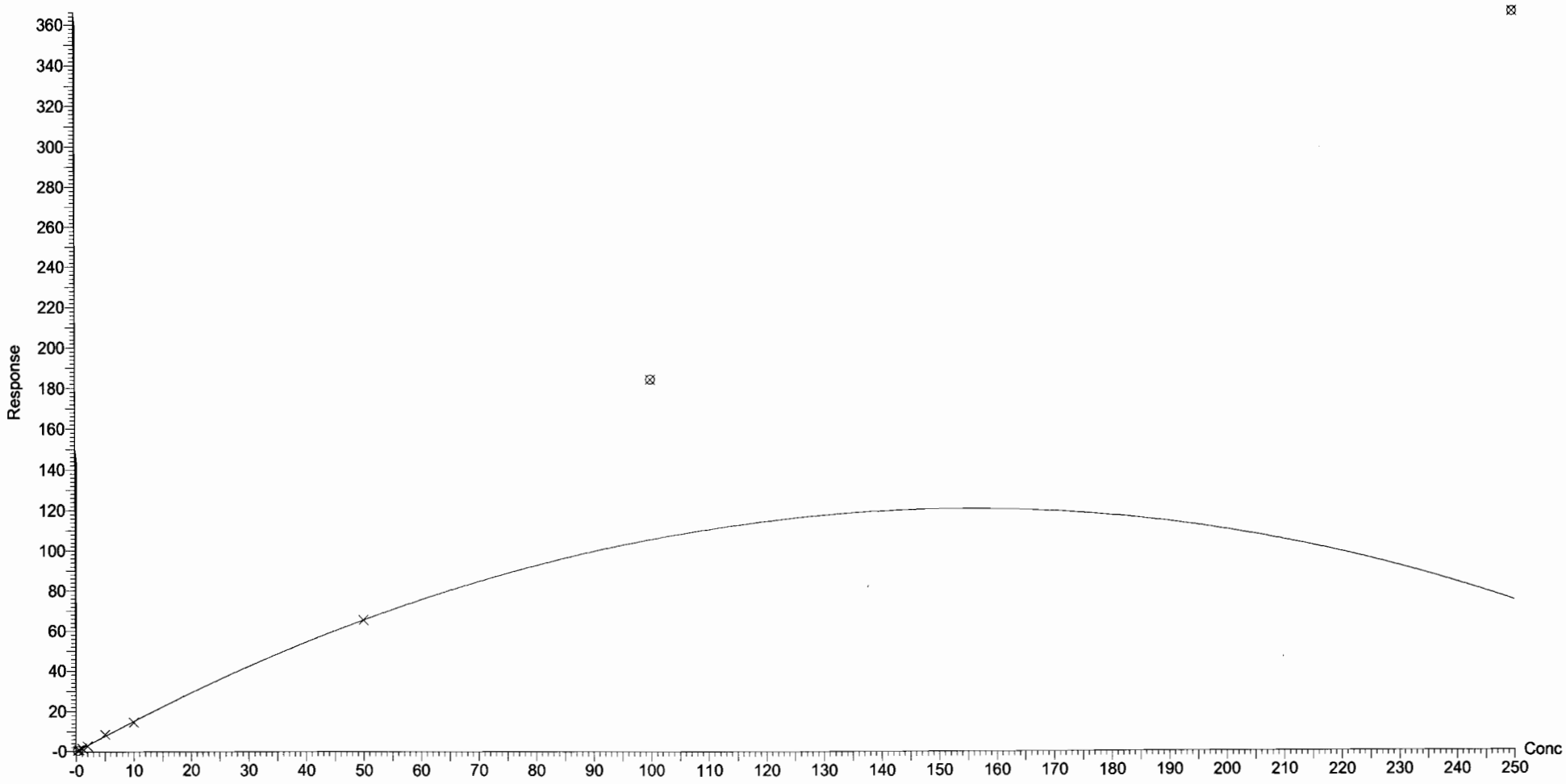
Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.996007
Calibration curve: 0.000300694 * x^2 + 1.23969 * x + -0.0317851
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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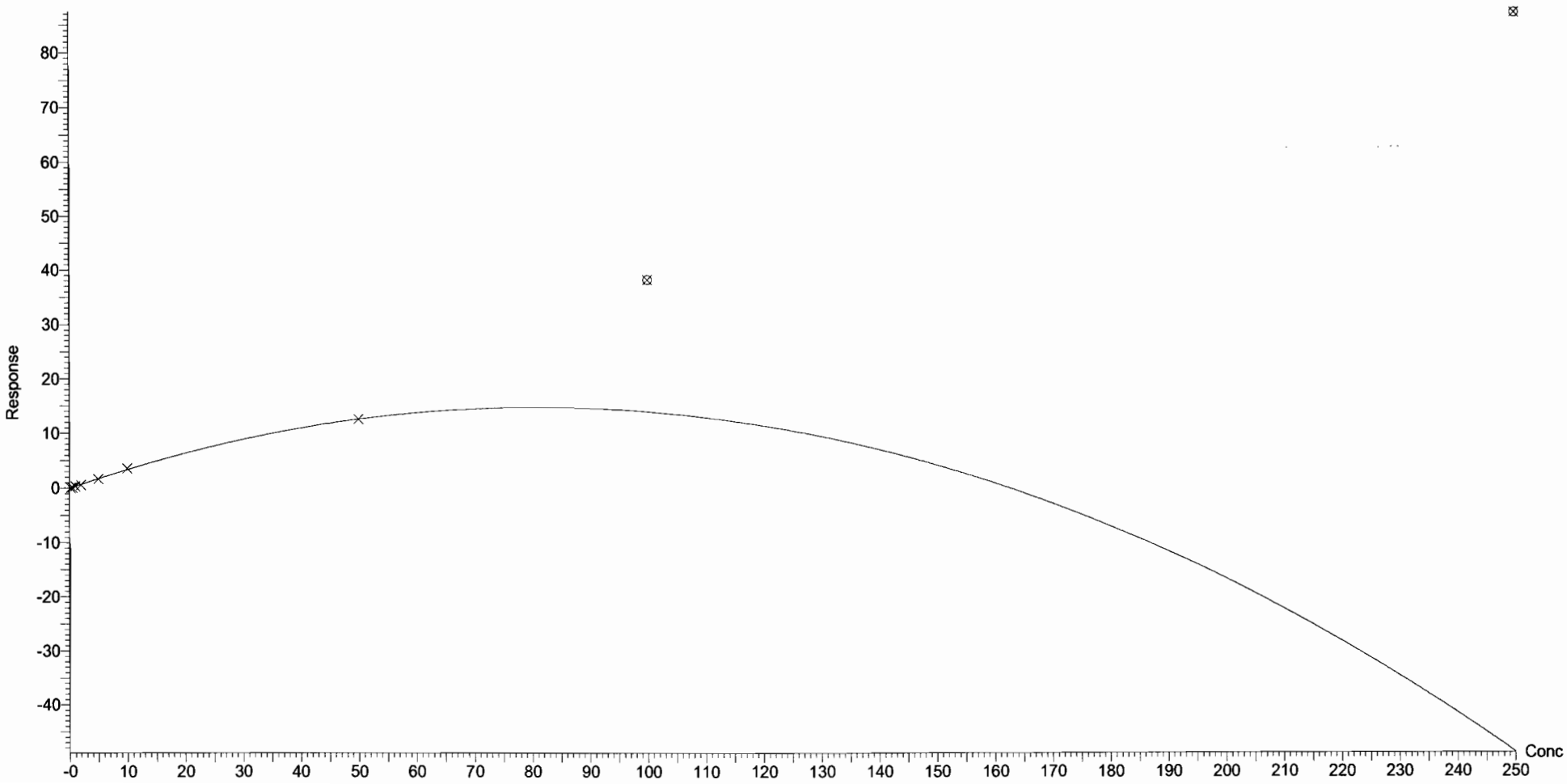
Compound name: PFDA
Coefficient of Determination: R^2 = 0.997832
Calibration curve: -0.0050479 * x^2 + 1.55973 * x + -0.0842373
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:14:38 Pacific Standard Time

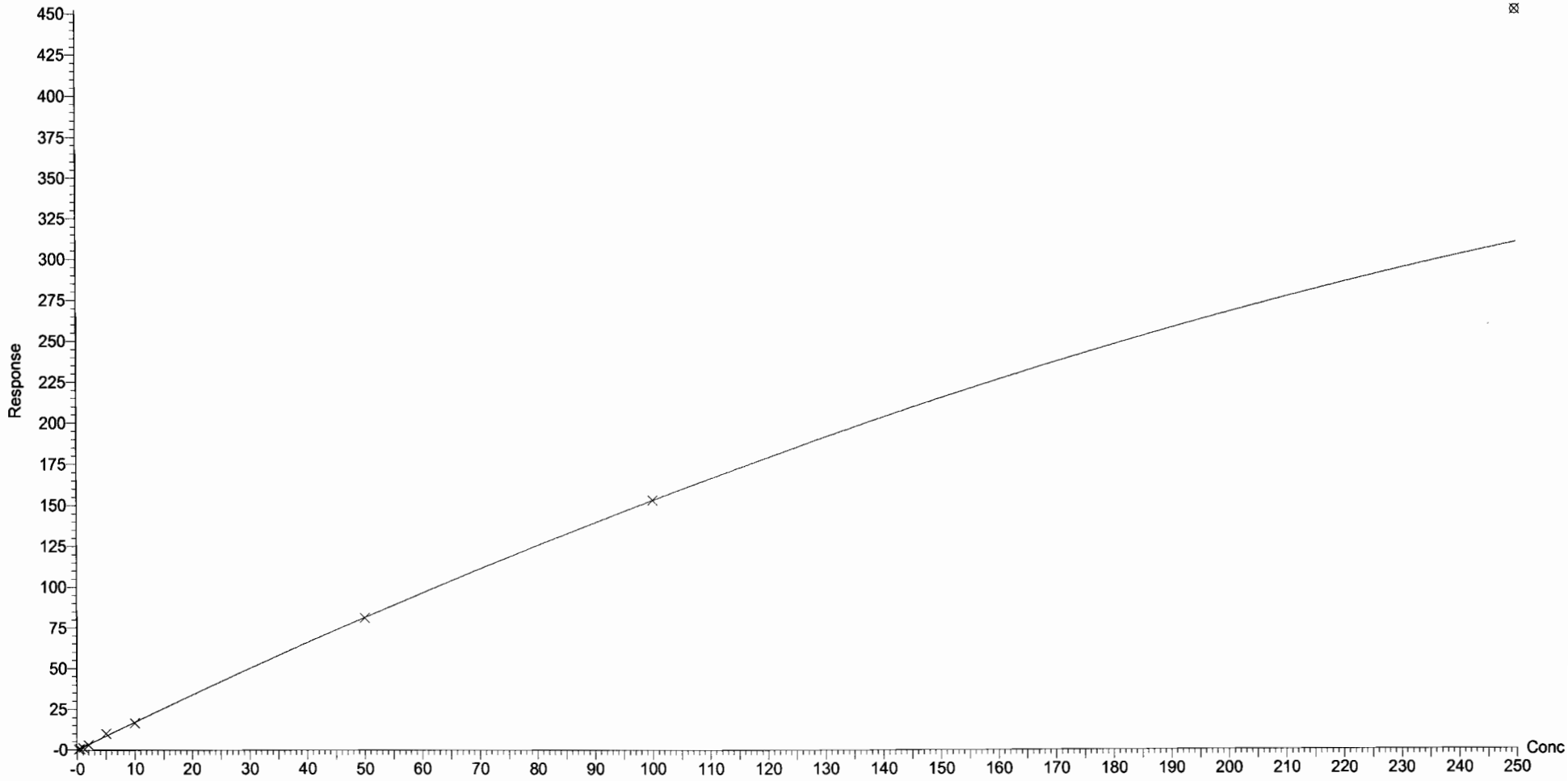
Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.996846
Calibration curve: -0.00223216 * x^2 + 0.362891 * x + -0.0269702
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:14:38 Pacific Standard Time

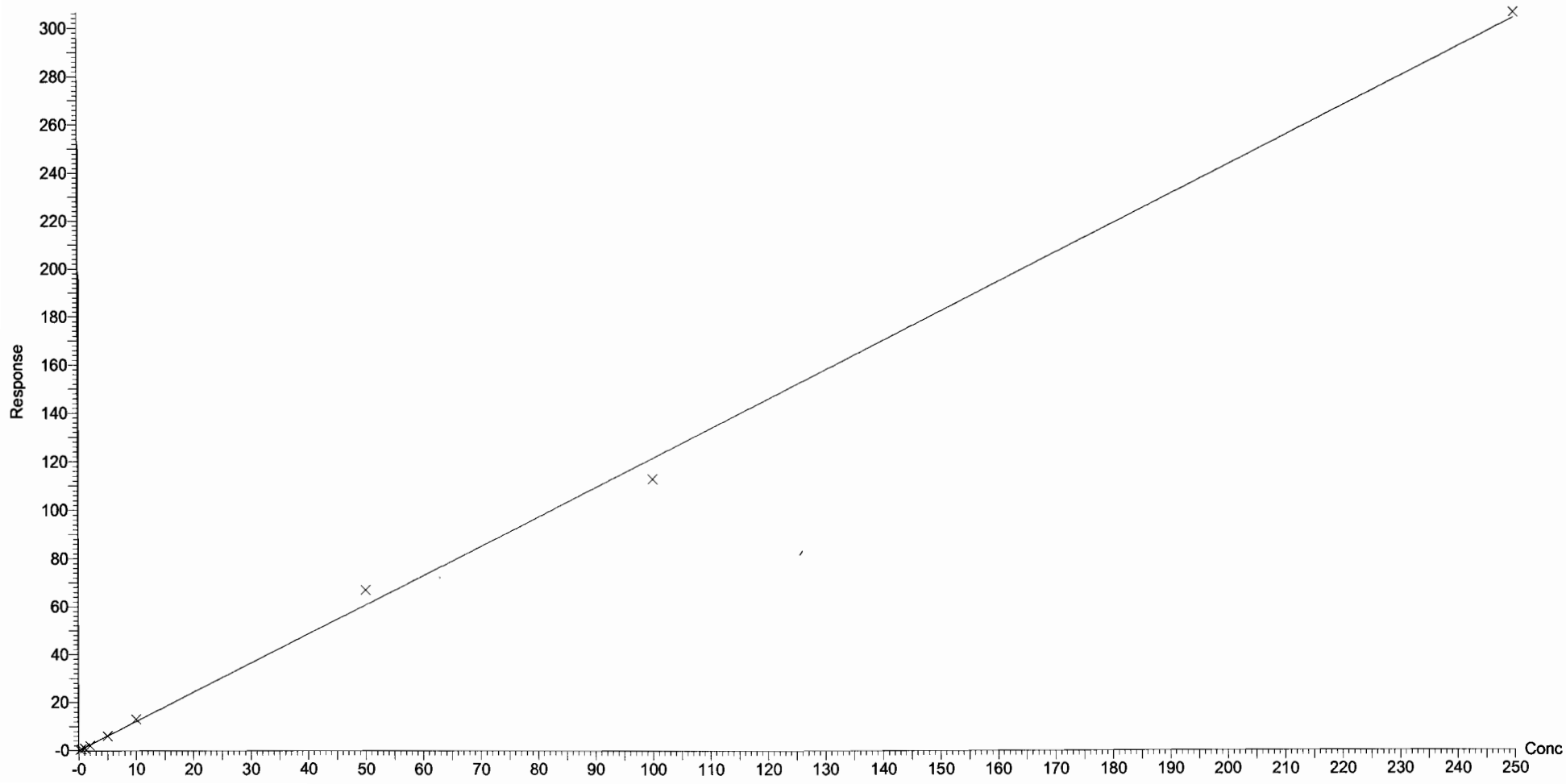
Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.998037
Calibration curve: -0.00194018 * x^2 + 1.72273 * x + -0.181365
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

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Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.997029
Calibration curve: 1.84032e-005 * x^2 + 1.21223 * x + -0.0878562
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

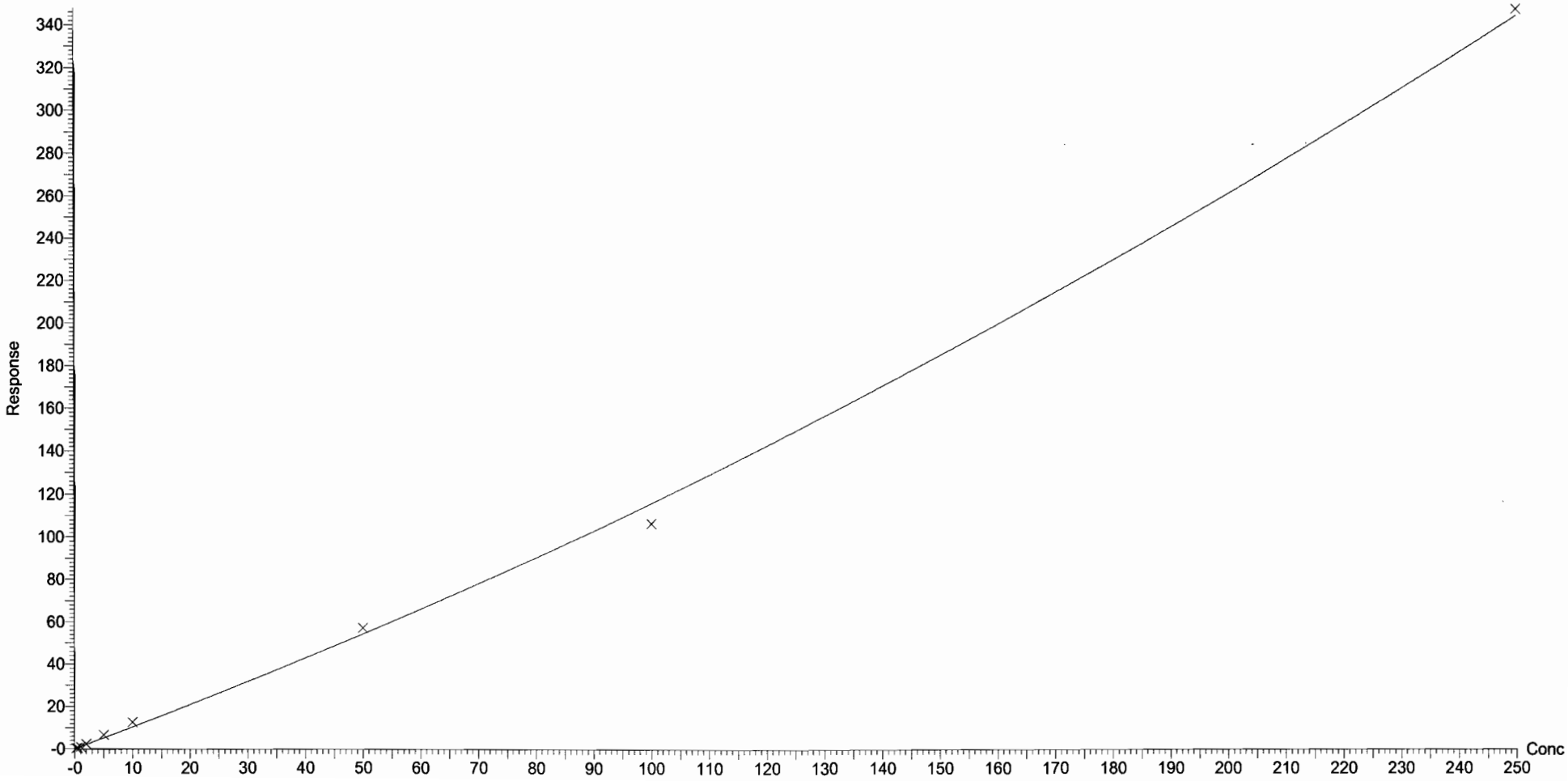


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

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Printed: Thursday, December 28, 2017 11:14:38 Pacific Standard Time

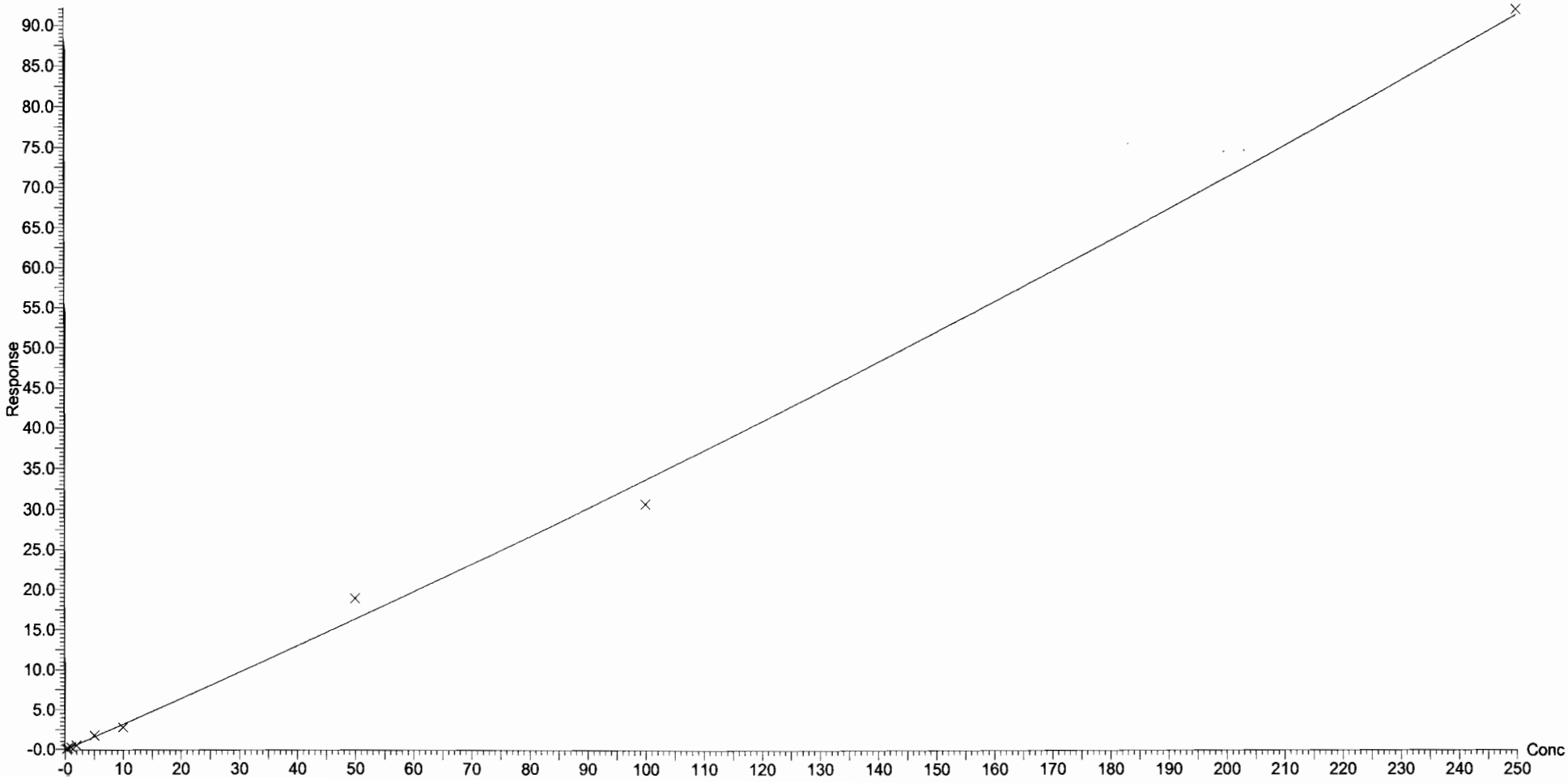
Compound name: PFUdA
Coefficient of Determination: R^2 = 0.997047
Calibration curve: 0.00147838 * x^2 + 1.00891 * x + 0.082257
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

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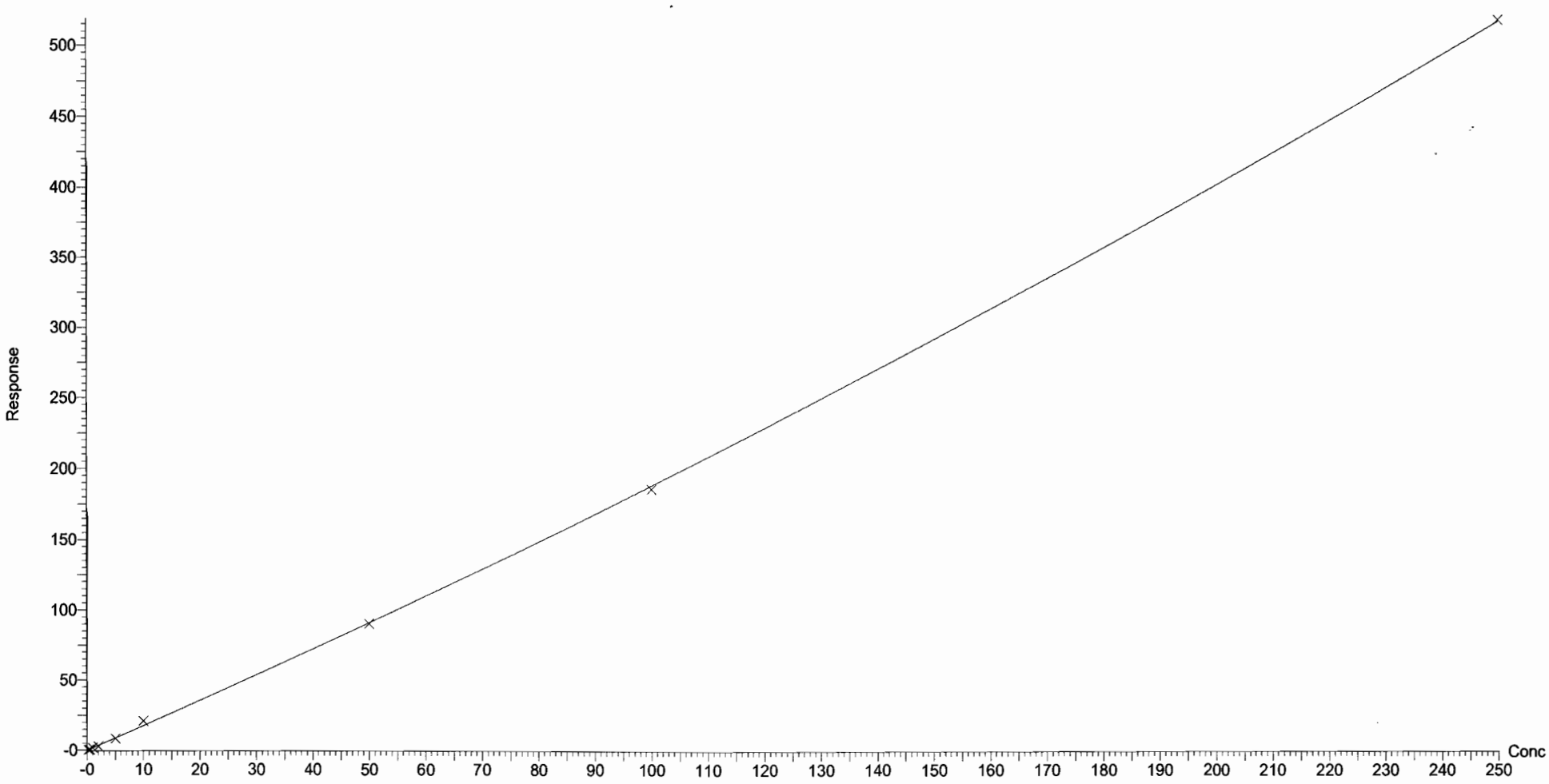
Compound name: PFDS
Coefficient of Determination: R^2 = 0.995097
Calibration curve: 0.000194307 * x^2 + 0.317229 * x + -0.0197315
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:14:38 Pacific Standard Time

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999022
Calibration curve: 0.00126025 * x^2 + 1.75677 * x + -0.0893572
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

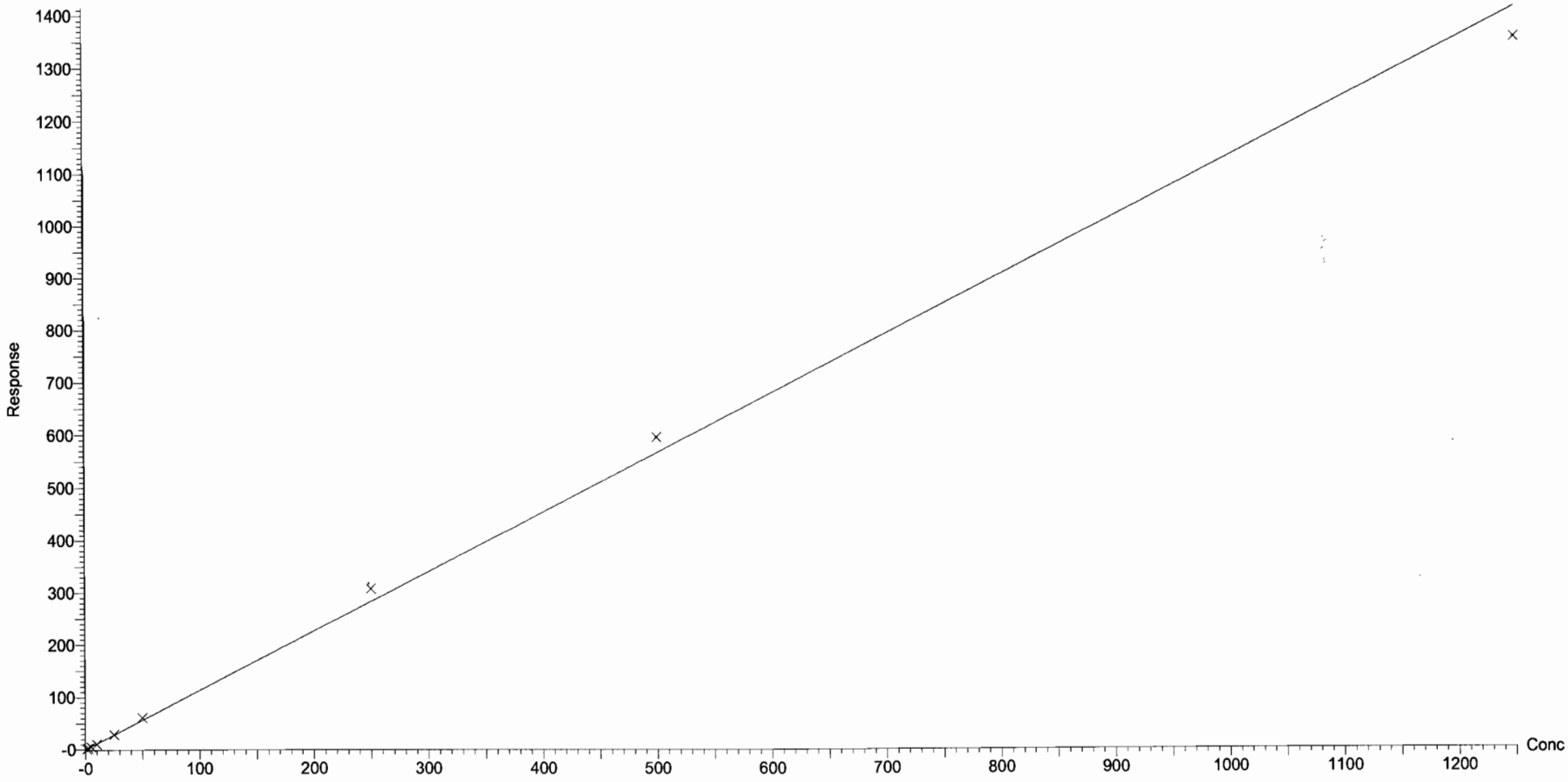


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

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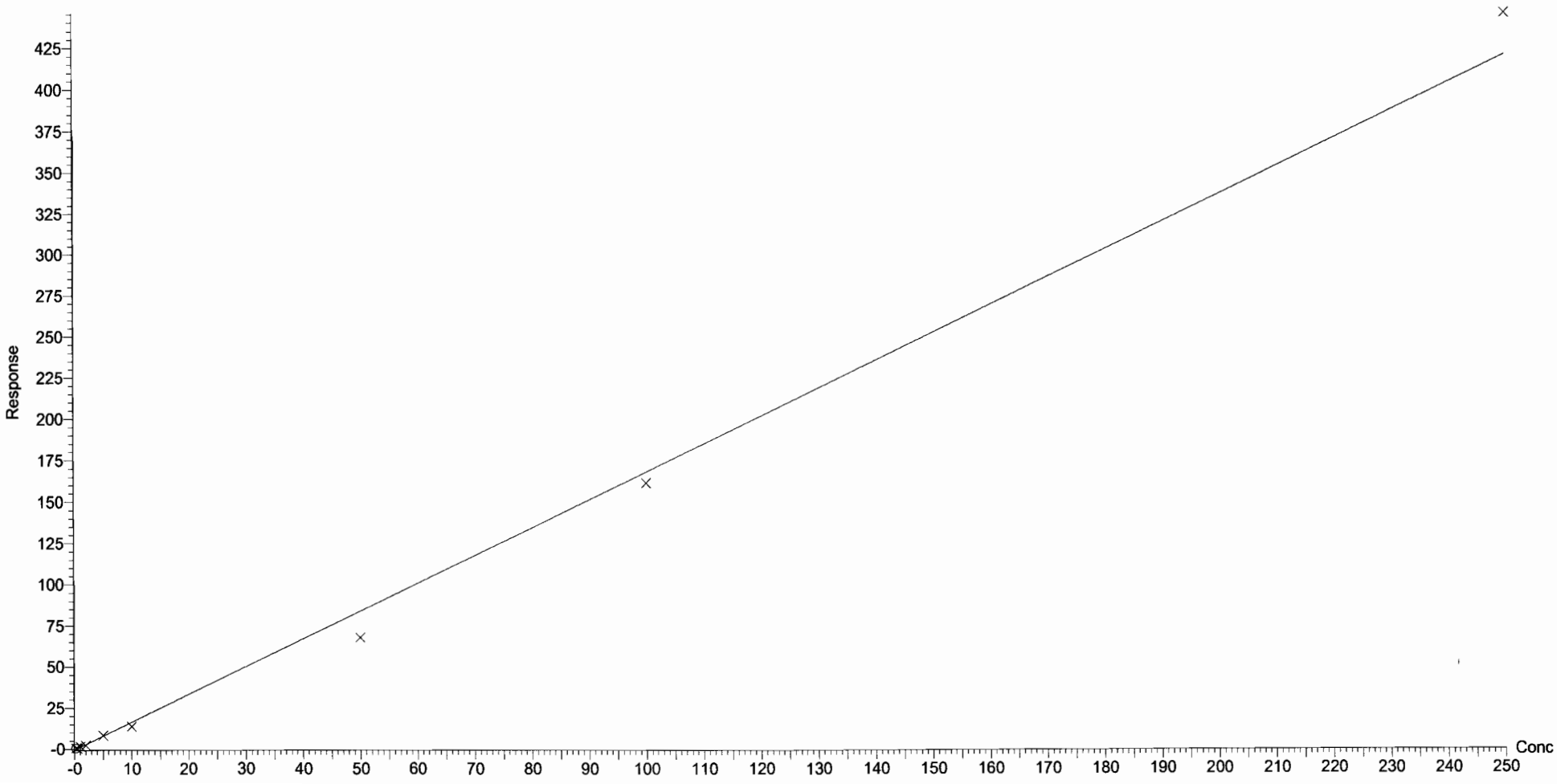
Compound name: N-MeFOSA
Correlation coefficient: r = 0.998604, r^2 = 0.997211
Calibration curve: 1.13158 * x + -0.0254576
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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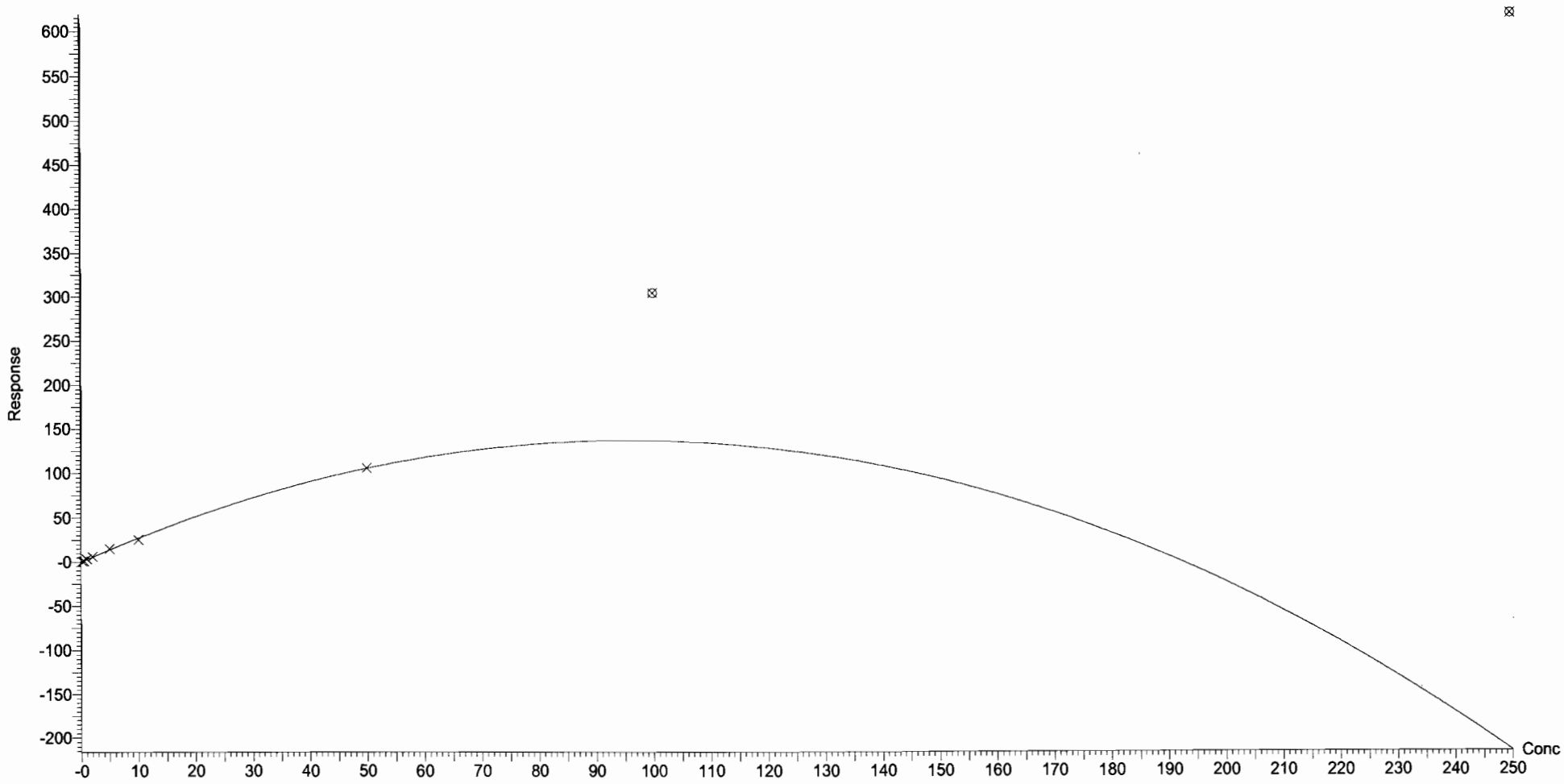
Compound name: PFTrDA
Correlation coefficient: r = 0.996052, r^2 = 0.992119
Calibration curve: 1.68443 * x + -0.444294
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.996372
Calibration curve: -0.0148538 * x^2 + 2.8497 * x + 0.0369329
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
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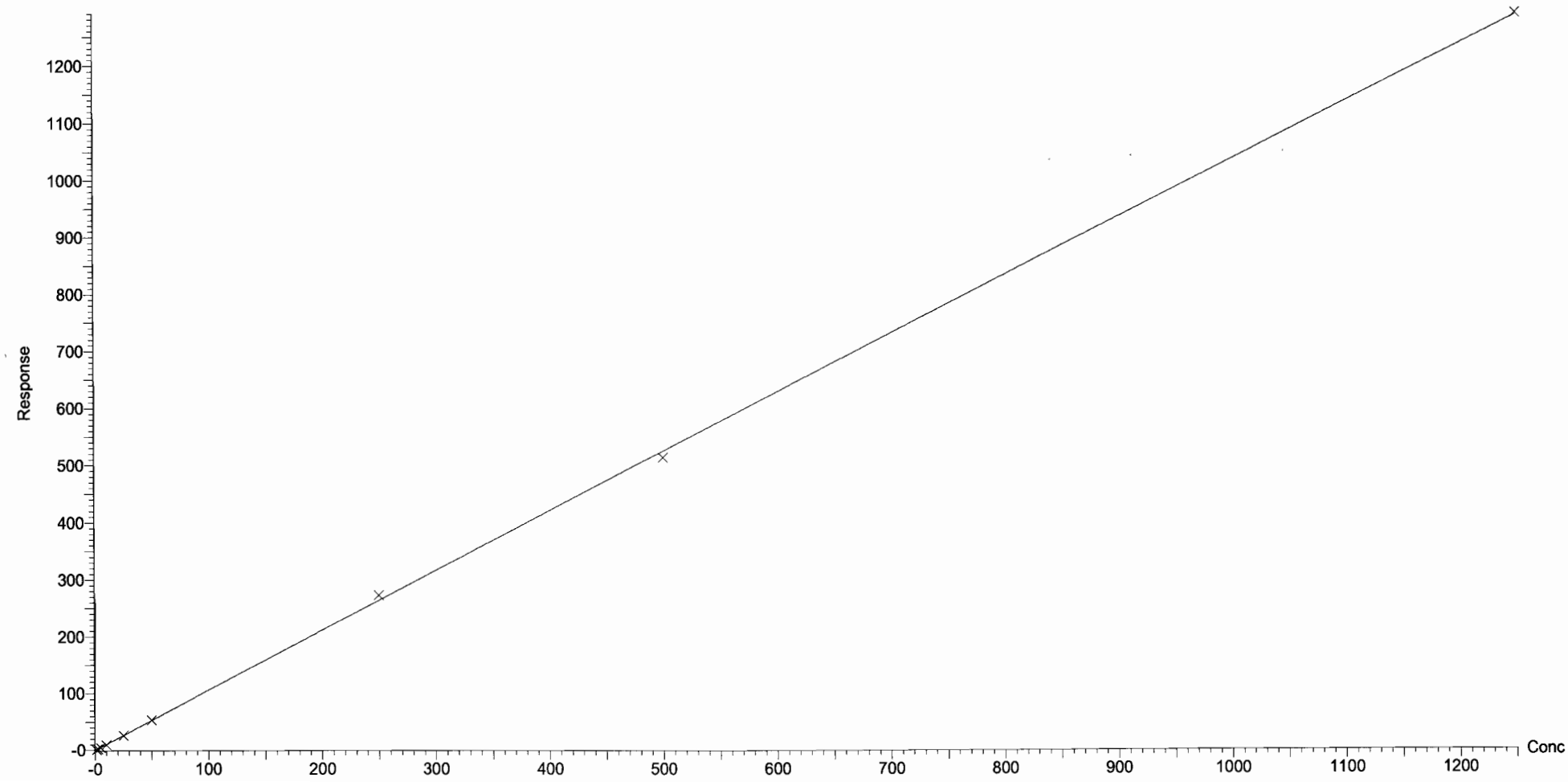


Vista Analytical Laboratory Q1

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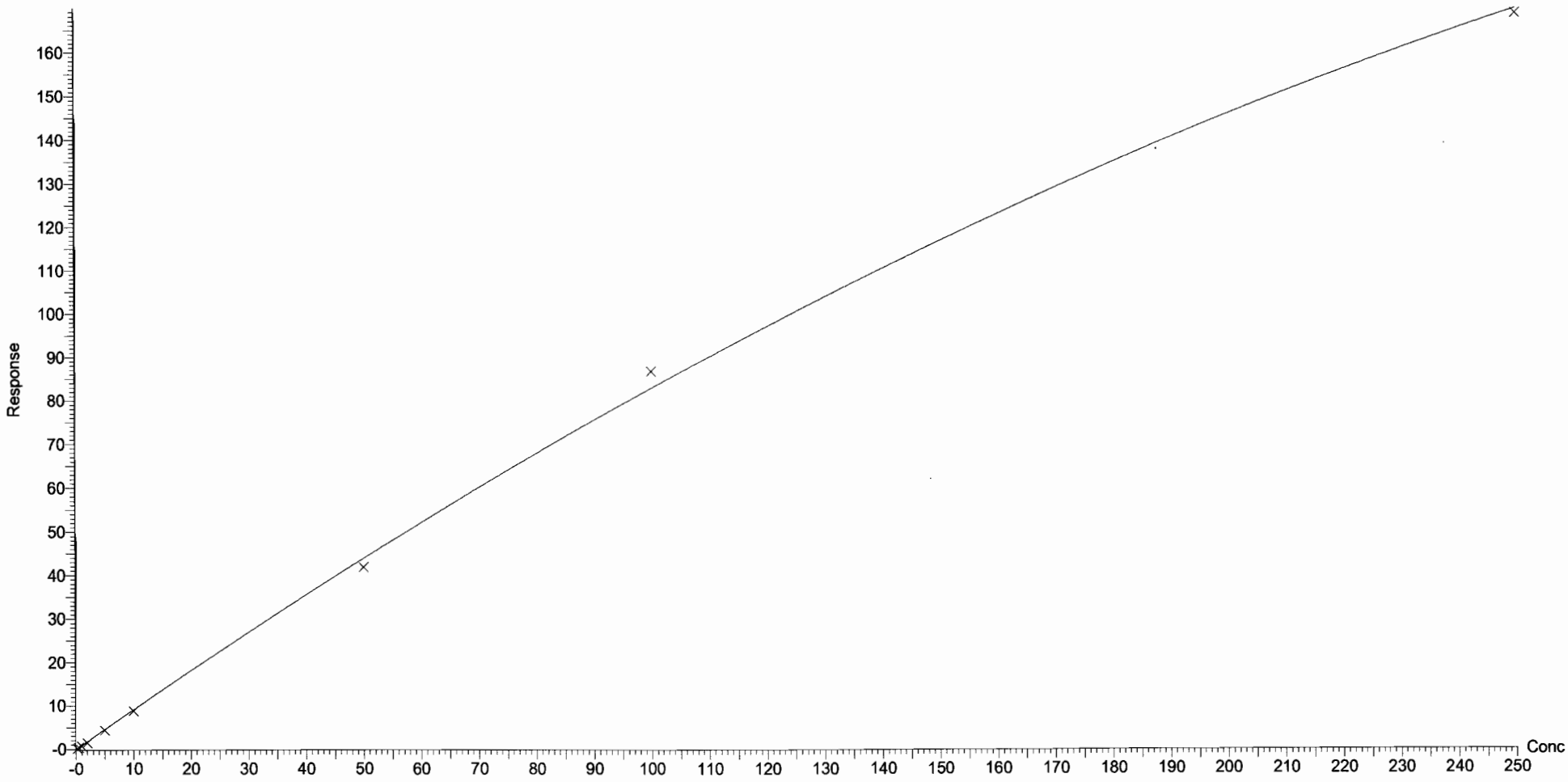
Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999673
Calibration curve: -2.63342e-005 * x^2 + 1.06304 * x + -0.300904
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171227M2\171227M2-CRV.qld

Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998631
Calibration curve: -0.000996916 * x^2 + 0.929338 * x + -0.12247
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

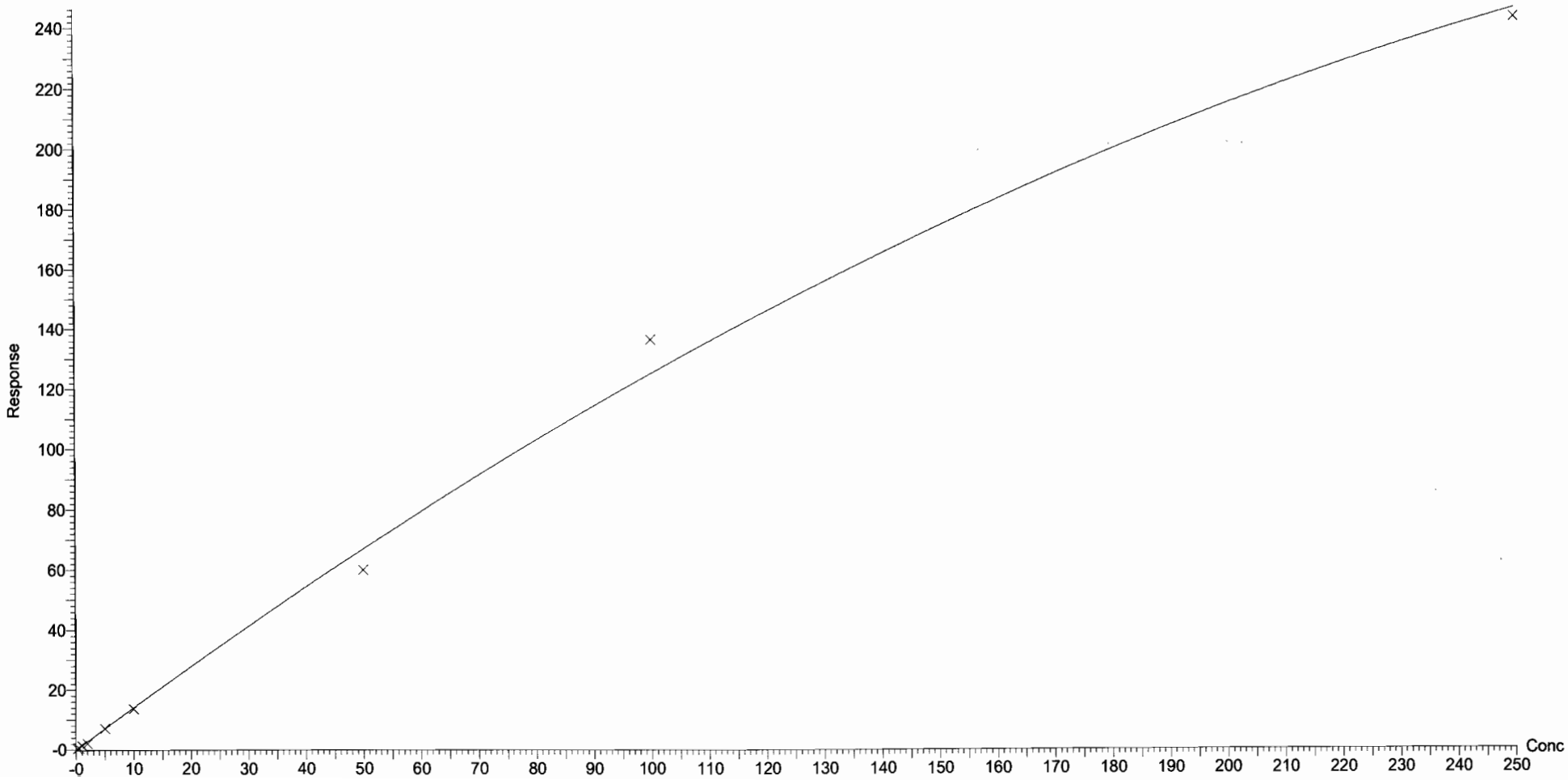


Vista Analytical Laboratory Q1

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Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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Compound name: PFODA
Coefficient of Determination: R^2 = 0.994872
Calibration curve: -0.00177409 * x^2 + 1.42876 * x + -0.0978488
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

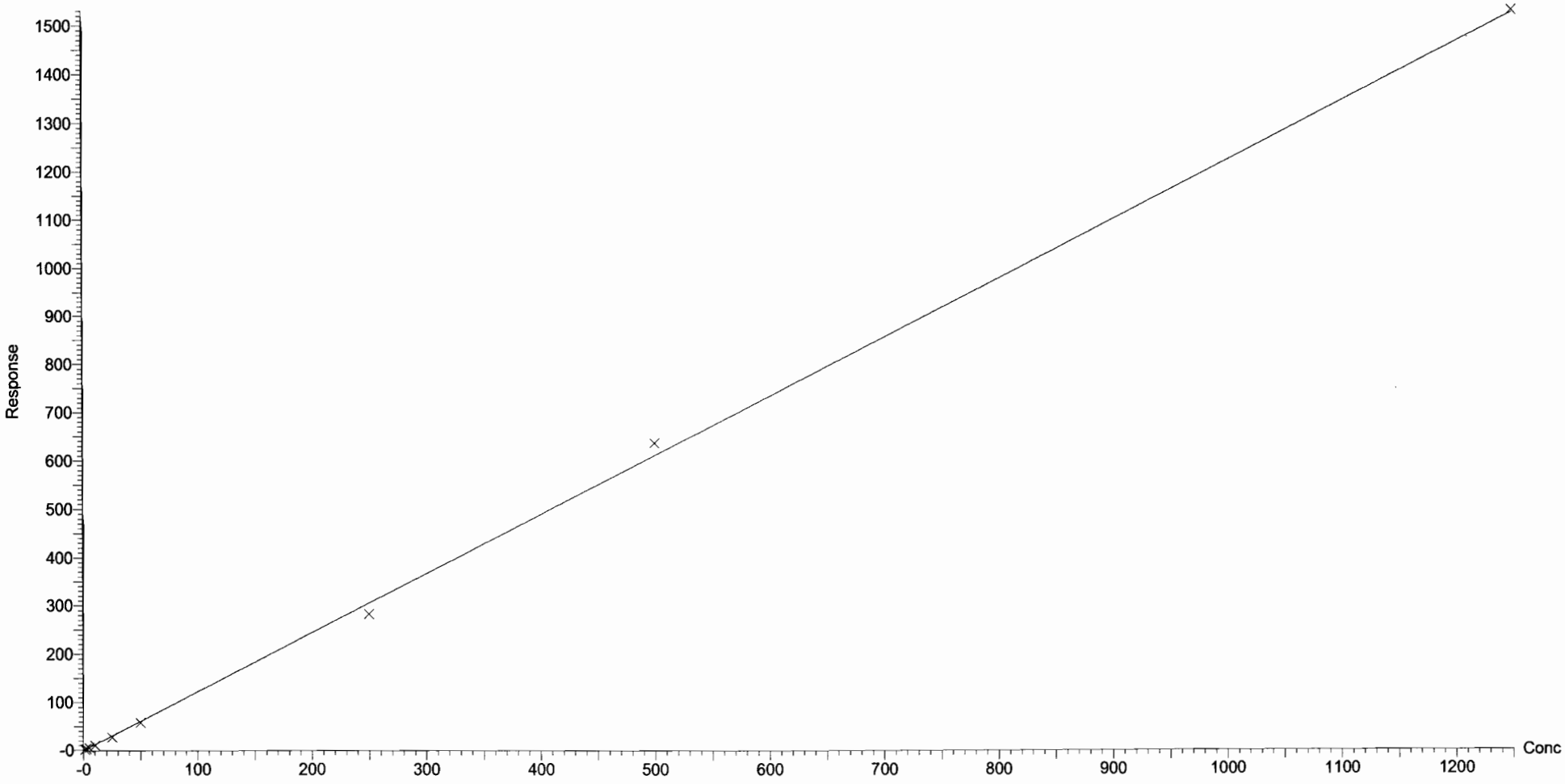


Vista Analytical Laboratory Q1

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Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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Compound name: N-MeFOSE
Correlation coefficient: r = 0.999225, r^2 = 0.998451
Calibration curve: 1.22136 * x + -0.531738
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

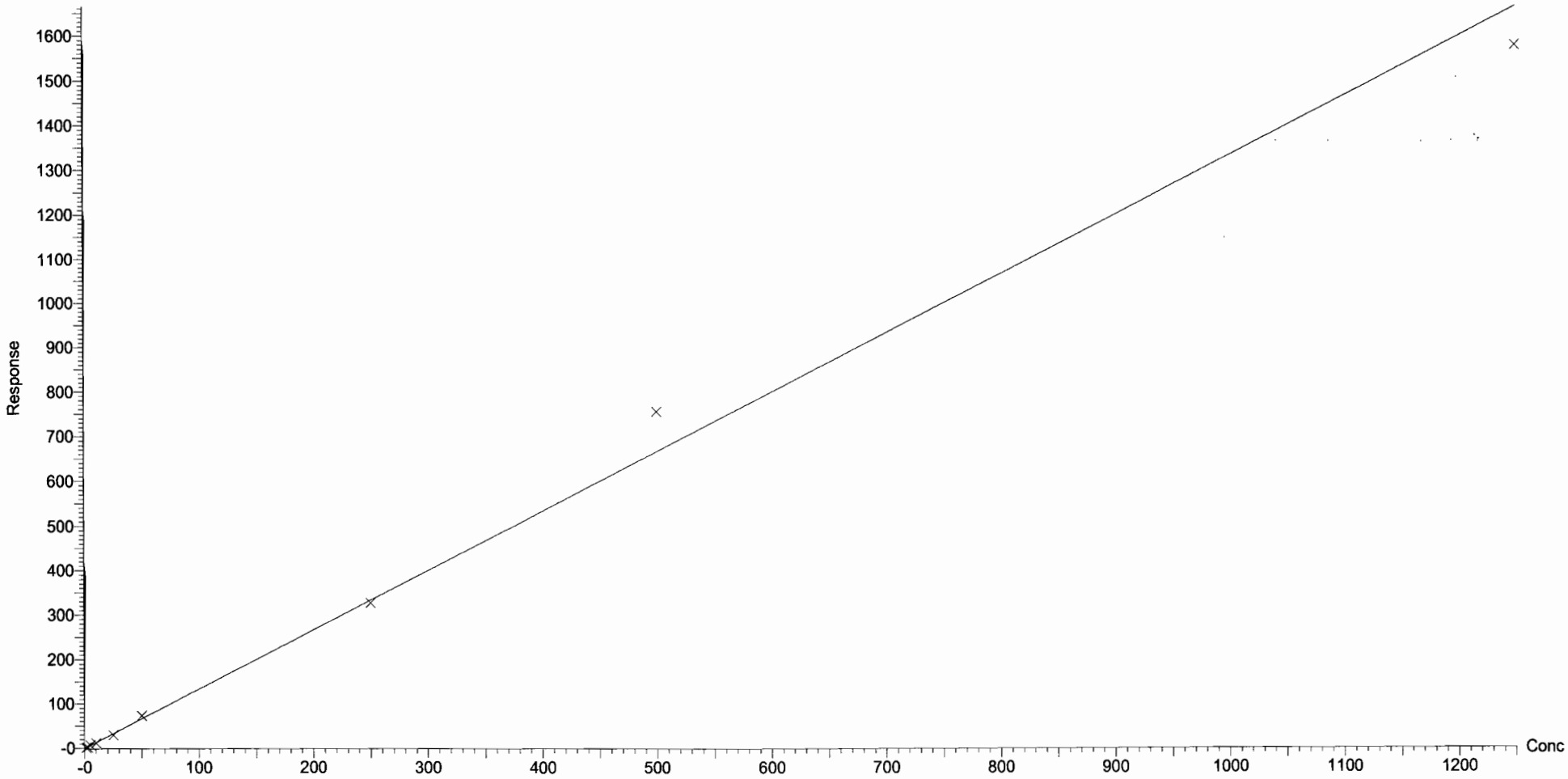


Vista Analytical Laboratory Q1

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Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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Compound name: N-EtFOSE
Correlation coefficient: r = 0.996730, r^2 = 0.993471
Calibration curve: 1.33127 * x + -0.306208
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Vista Analytical Laboratory

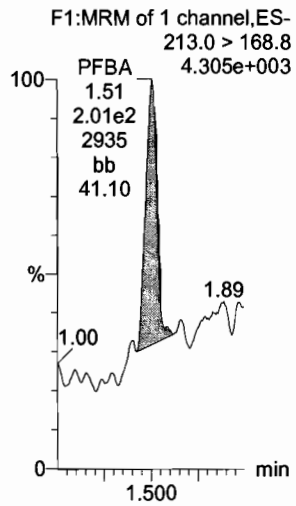
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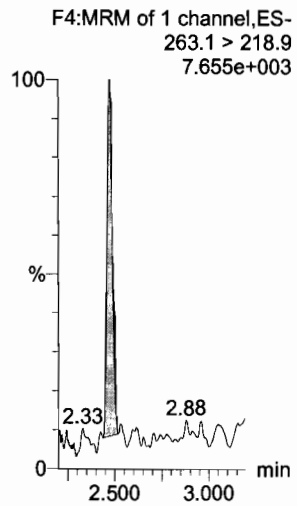
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

Name: 171227M2_2, Date: 27-Dec-2017, Time: 17:36:41, ID: ST171227M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

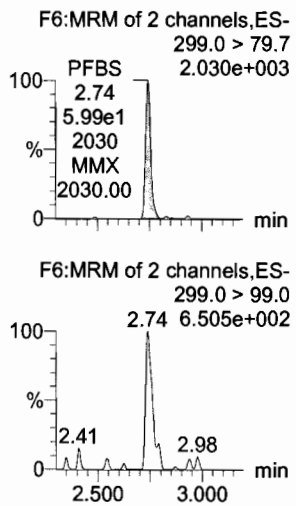
PFBA



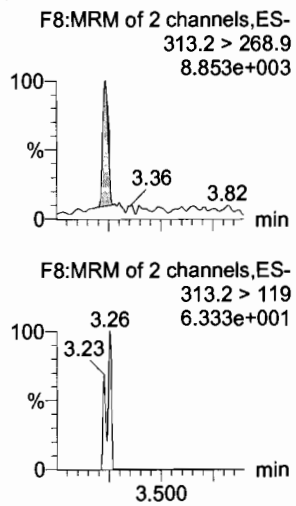
PFPeA



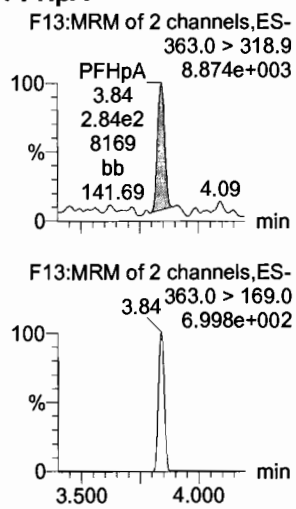
PFBS



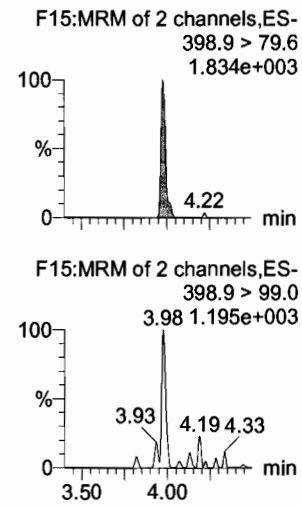
PFHxA



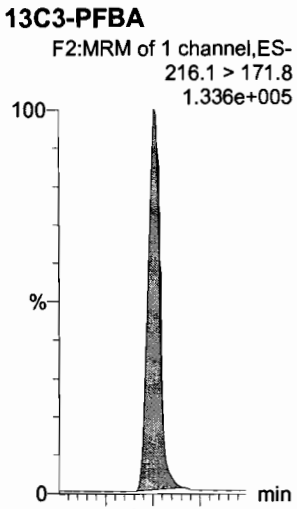
PFHpA



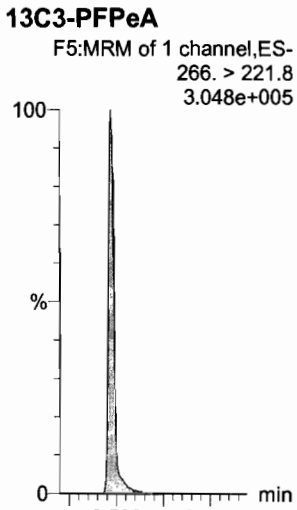
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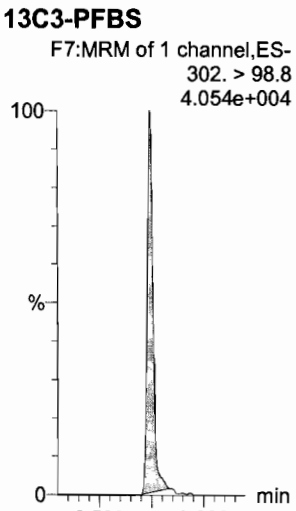
13C3-PFBA



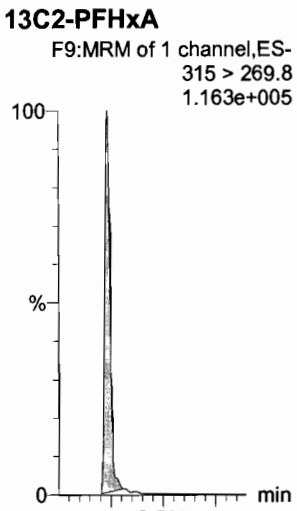
13C3-PFPeA



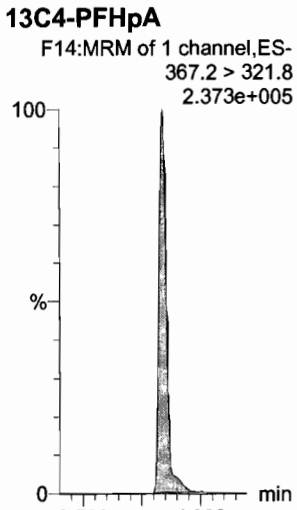
13C3-PFBS



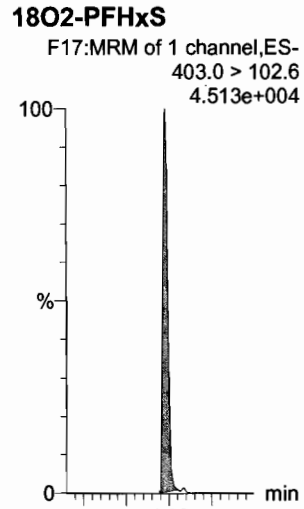
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

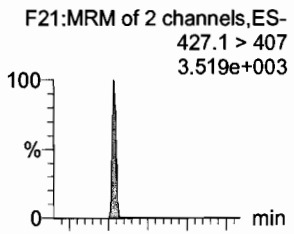


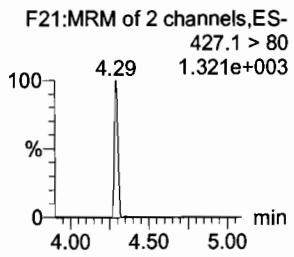
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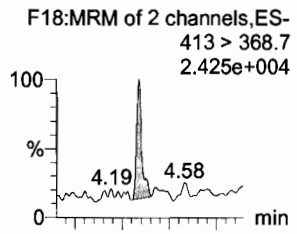
Name: 171227M2_2, Date: 27-Dec-2017, Time: 17:36:41, ID: ST171227M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

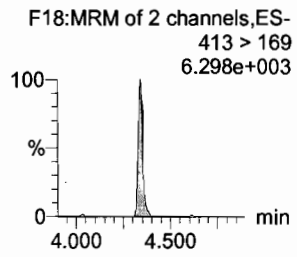
6:2 FTS



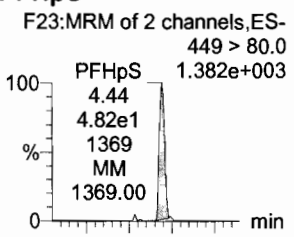


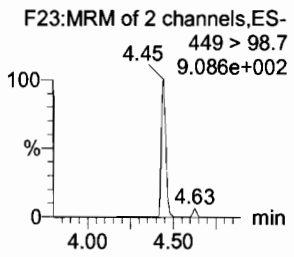
L-PFOA



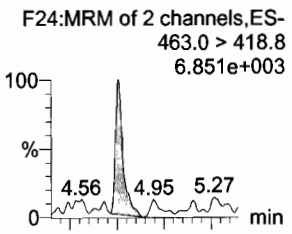


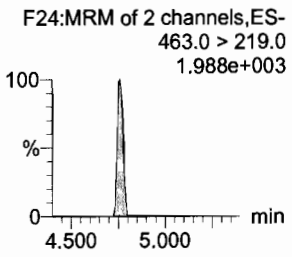
PFHpS



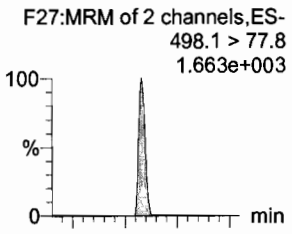


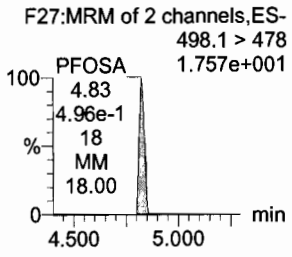
PFNA



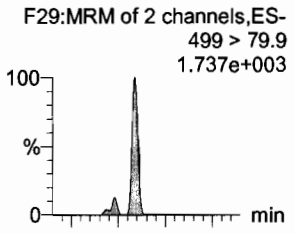


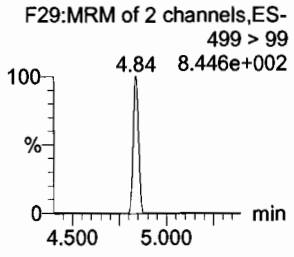
PFOSA



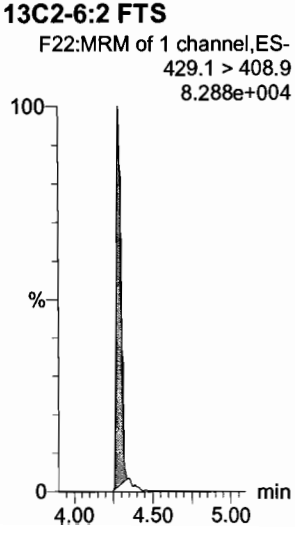


L-PFOS

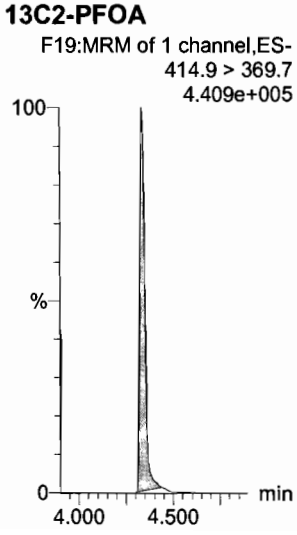




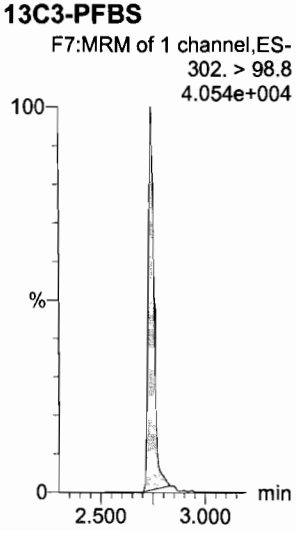
13C2-6:2 FTS



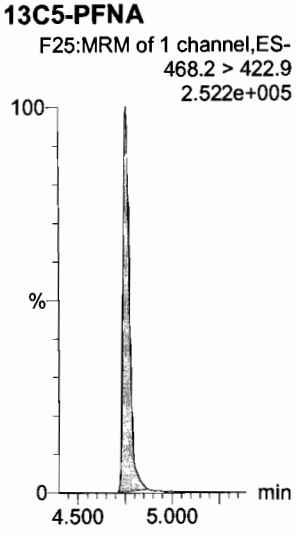
13C2-PFOA



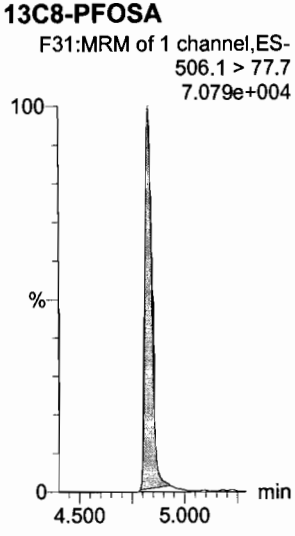
13C3-PFBS



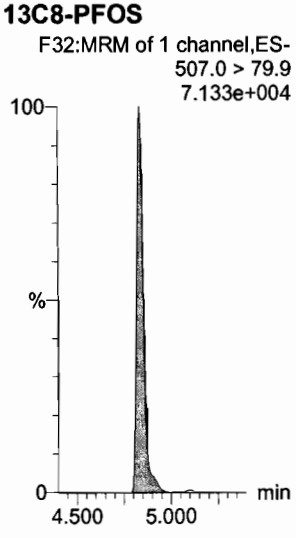
13C5-PFNA



13C8-PFOSA



13C8-PFOS

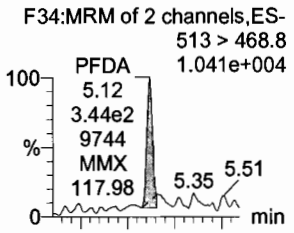


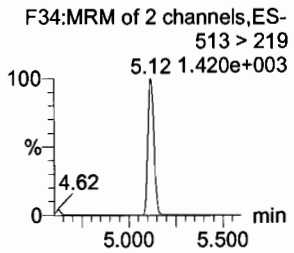
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Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

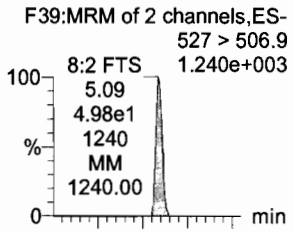
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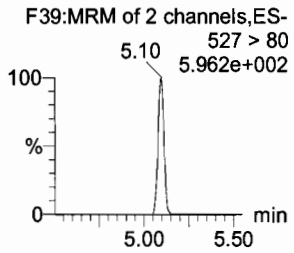
PFDA



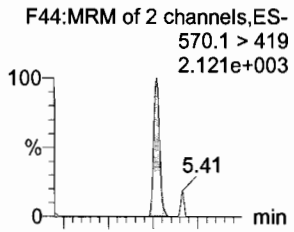


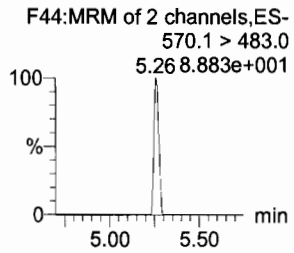
8:2 FTS



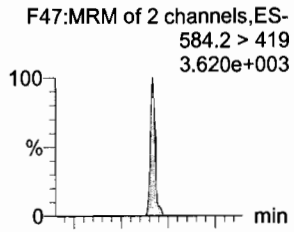


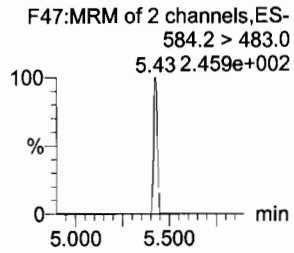
N-MeFOSAA



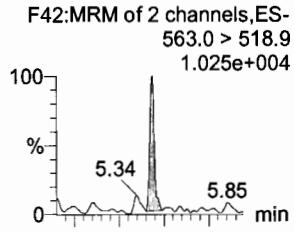


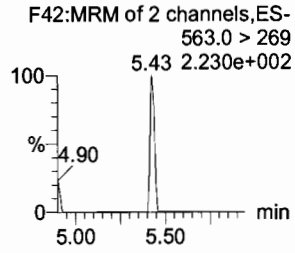
N-EtFOSAA



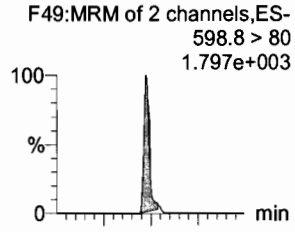


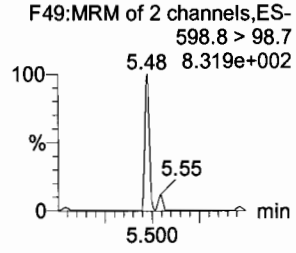
PFUdA



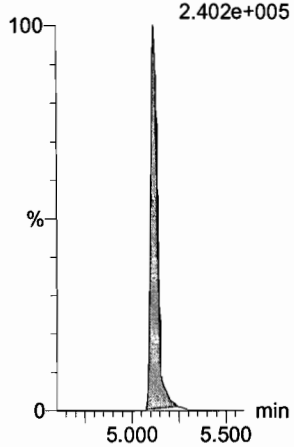


PFDS

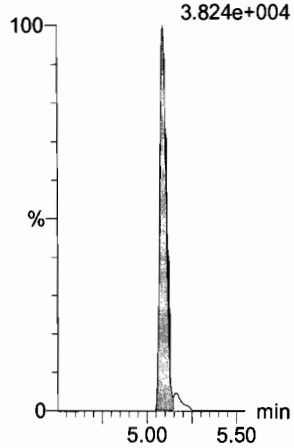




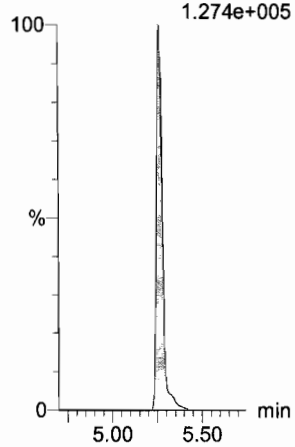
13C2-PFDA



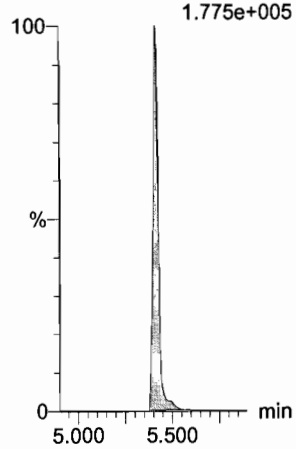
13C2-8:2 FTS



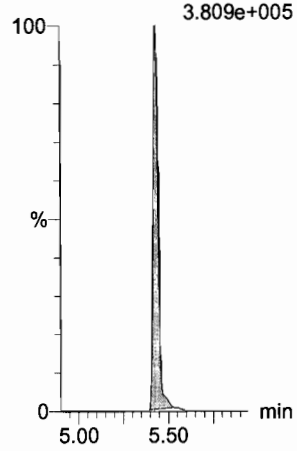
d3-N-MeFOSAA



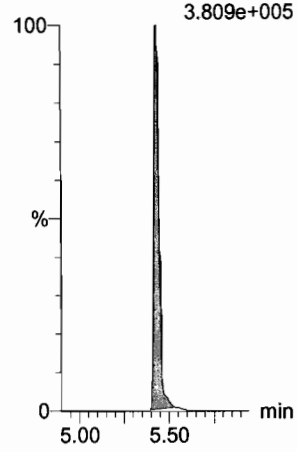
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

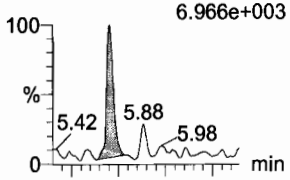


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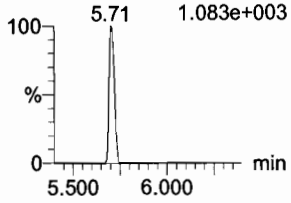
Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
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Name: 171227M2_2, Date: 27-Dec-2017, Time: 17:36:41, ID: ST171227M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

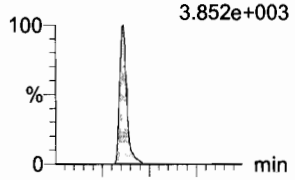
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
6.966e+003



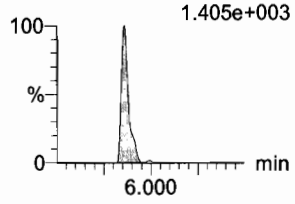
F50:MRM of 2 channels,ES-
612.9 > 318.8
1.083e+003



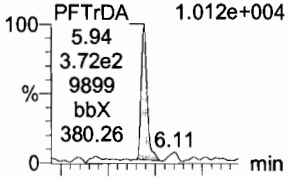
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
3.852e+003



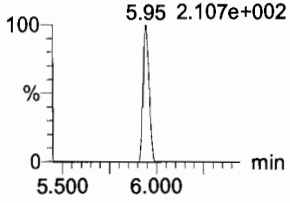
F33:MRM of 2 channels,ES-
512.1 > 219
1.405e+003



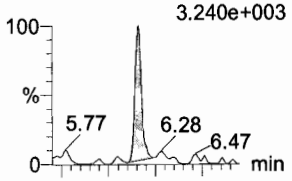
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
1.012e+004



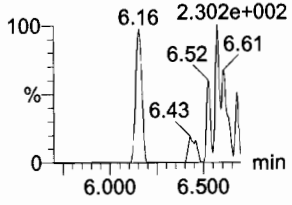
F56:MRM of 2 channels,ES-
662.9 > 319
5.95 2.107e+002



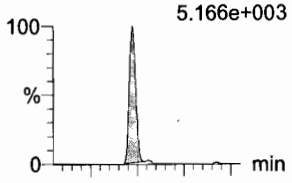
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
3.240e+003



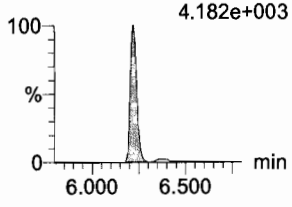
F57:MRM of 2 channels,ES-
712.9 > 369
2.302e+002



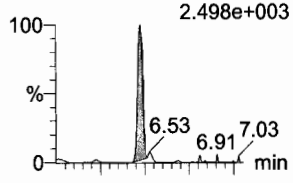
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
5.166e+003



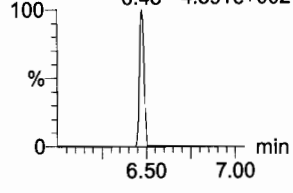
F38:MRM of 2 channels,ES-
526.1 > 219
4.182e+003



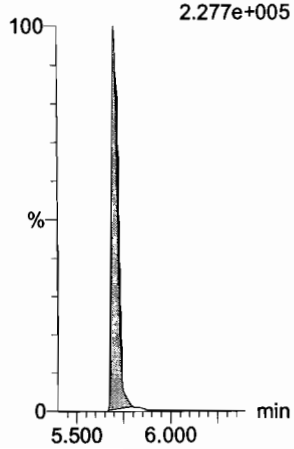
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
2.498e+003



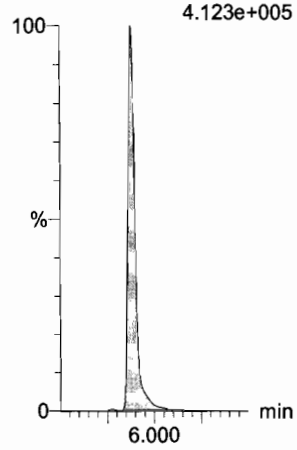
F59:MRM of 2 channels,ES-
813.1 > 219
4.891e+002



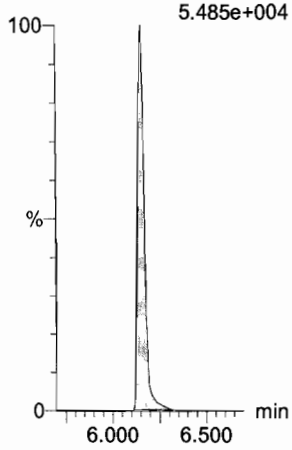
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
2.277e+005



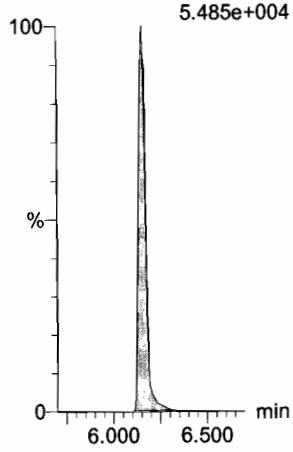
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.123e+005



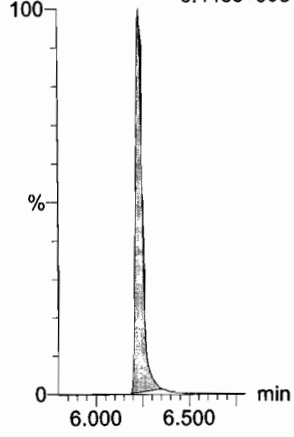
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
5.485e+004



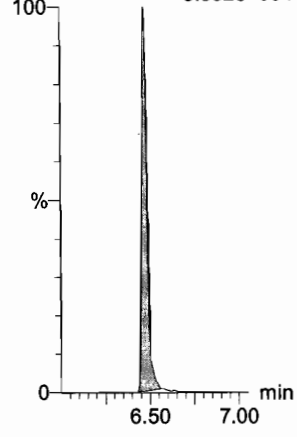
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
5.485e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.443e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.562e+004

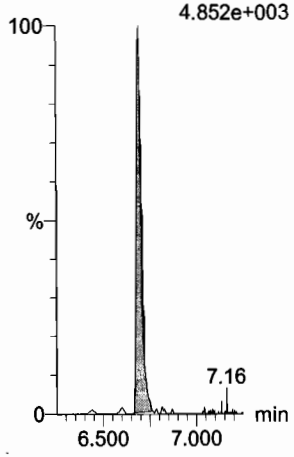


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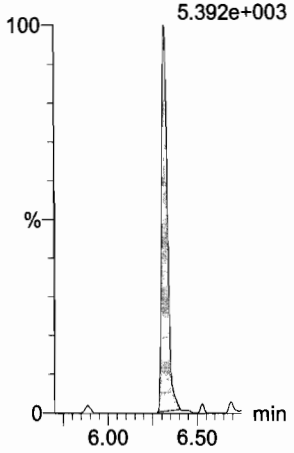
Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

Name: 171227M2_2, Date: 27-Dec-2017, Time: 17:36:41, ID: ST171227M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

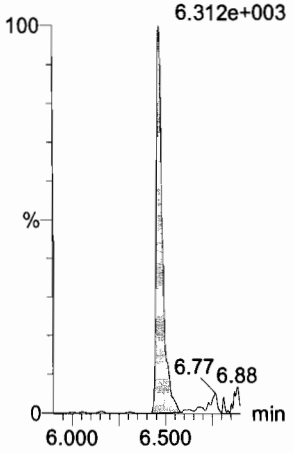
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
4.852e+003



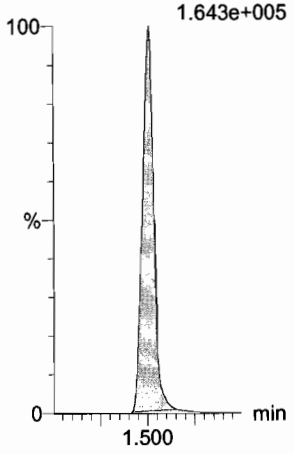
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
5.392e+003



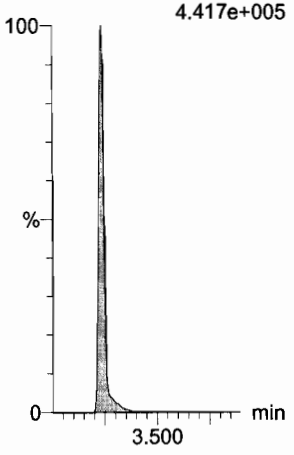
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
6.312e+003



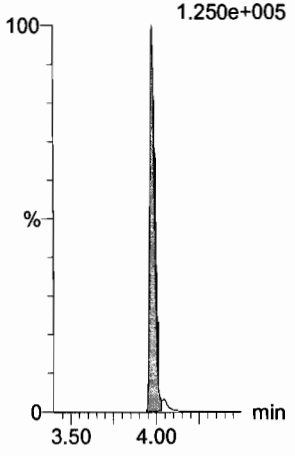
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.643e+005



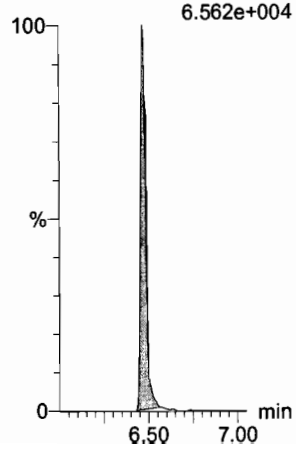
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.417e+005



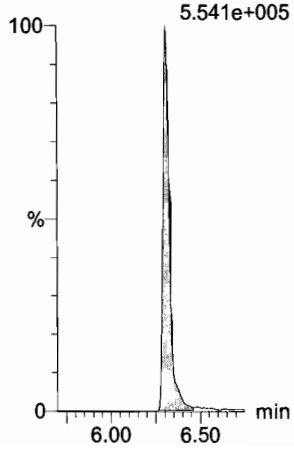
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.250e+005



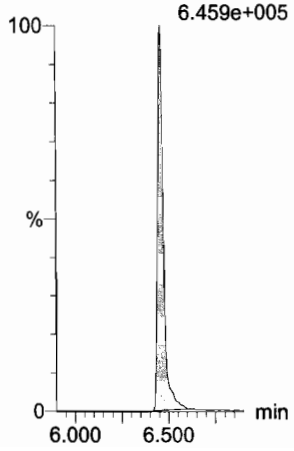
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.562e+004



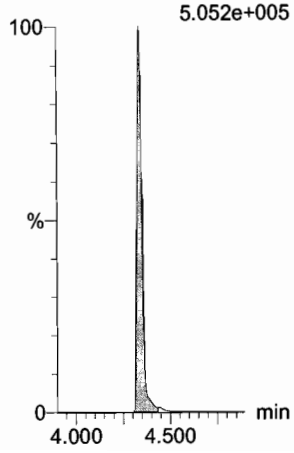
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.541e+005



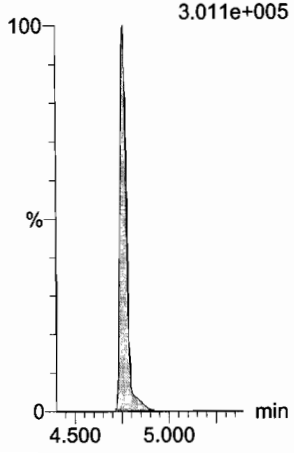
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.459e+005



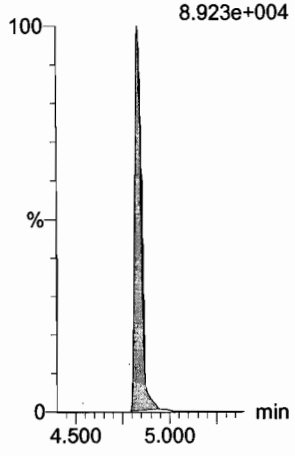
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.052e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.011e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.923e+004

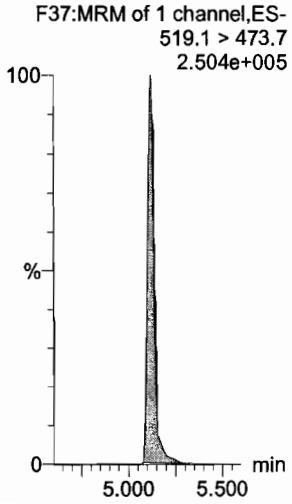


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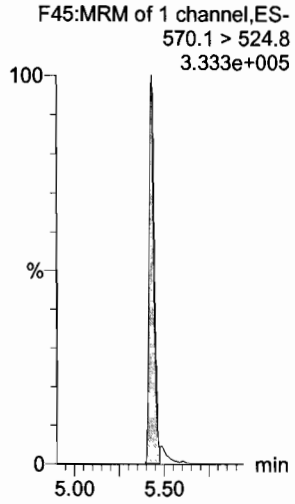
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Name: 171227M2_2, Date: 27-Dec-2017, Time: 17:36:41, ID: ST171227M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

13C6-PFDA



13C7-PFUdA

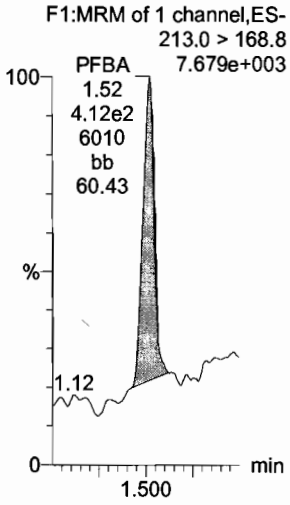


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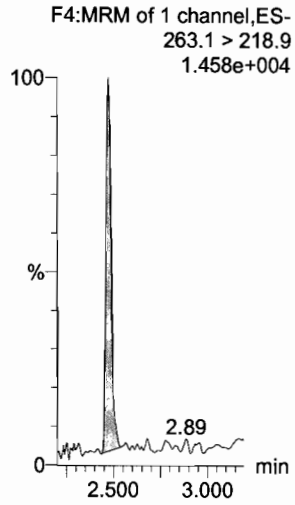
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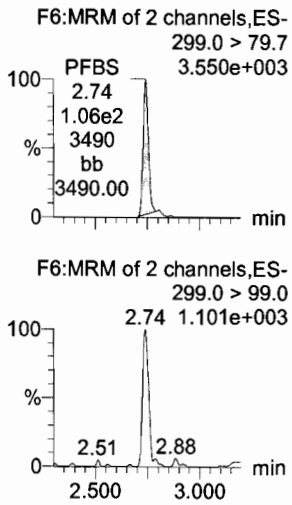
PFBA



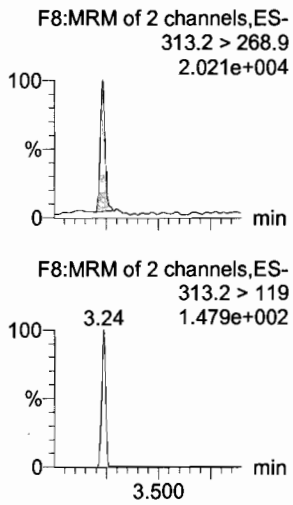
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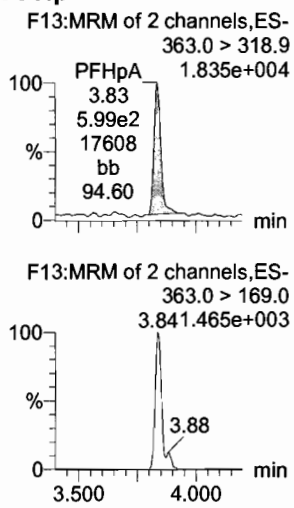
PFBS



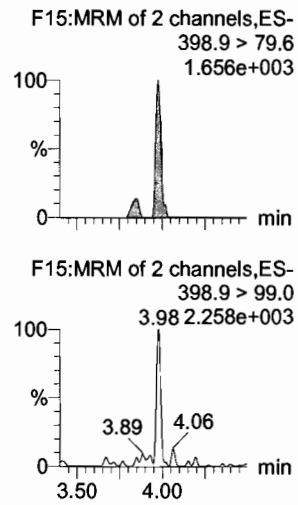
PFHxA



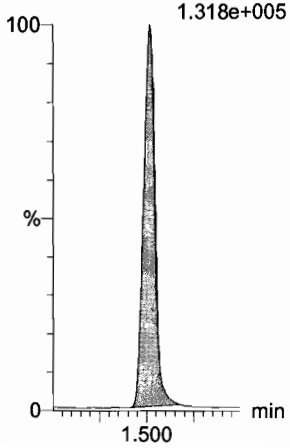
PFHpA



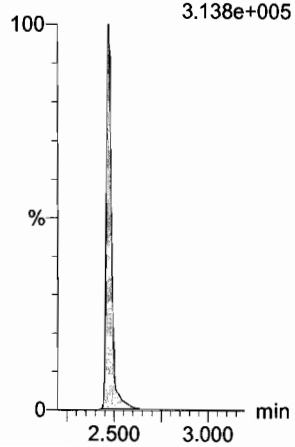
L-PFHxS



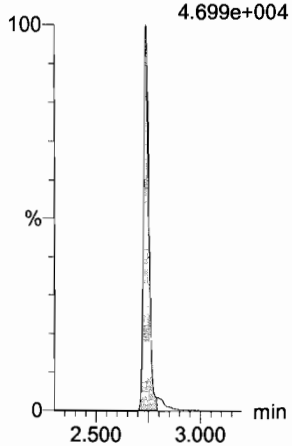
13C3-PFBA



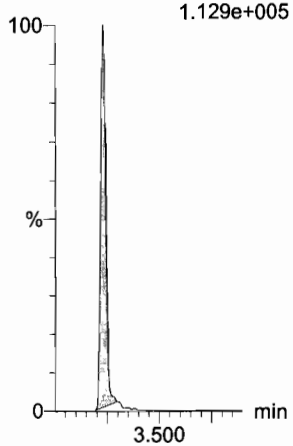
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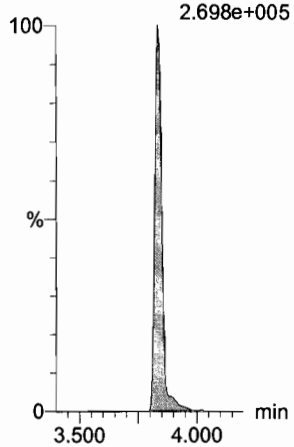
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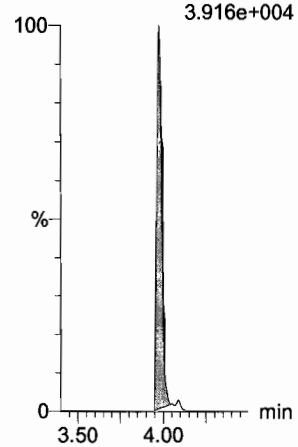
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

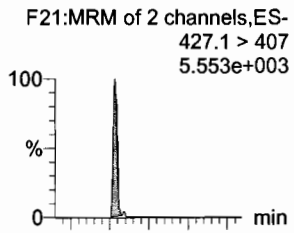


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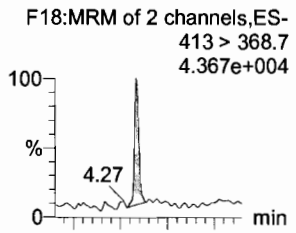
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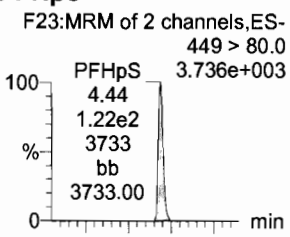
6:2 FTS



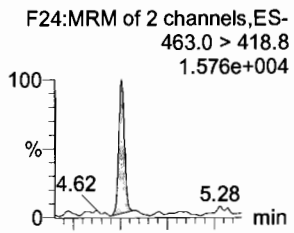
L-PFOA



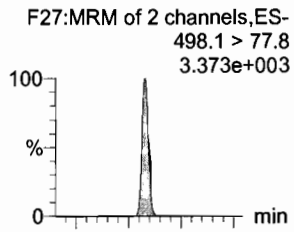
PFHpS



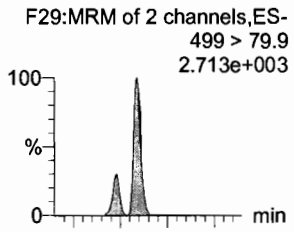
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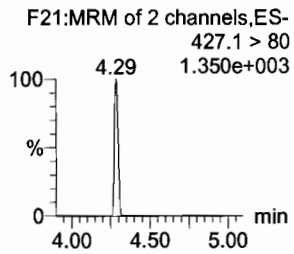


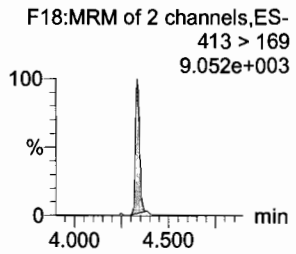
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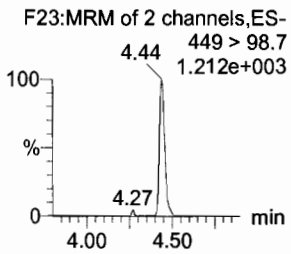


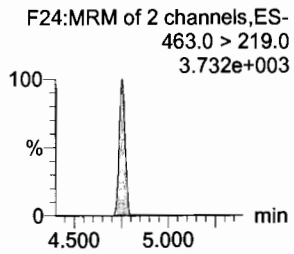
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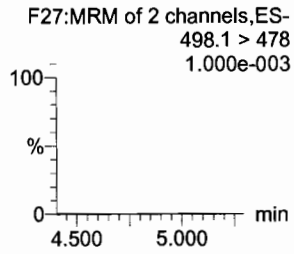


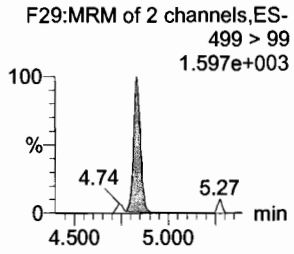




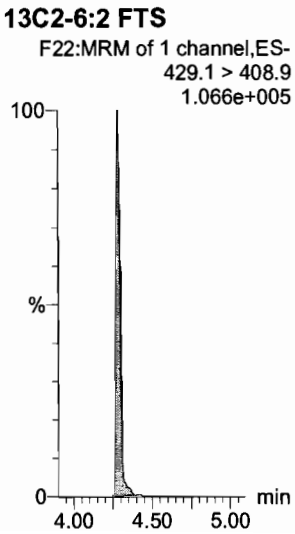




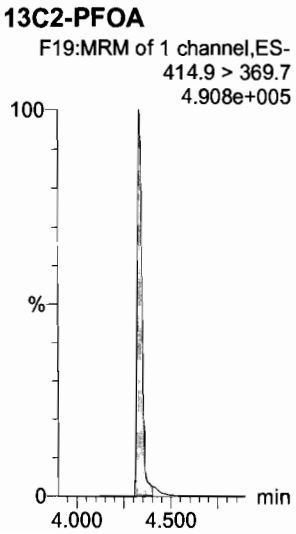




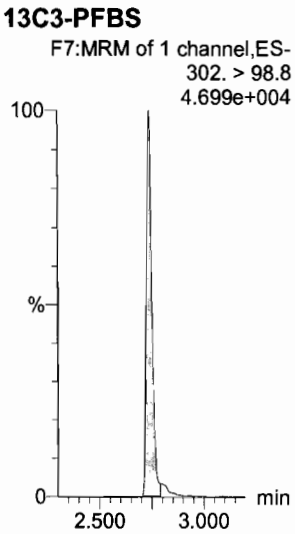
13C2-6:2 FTS



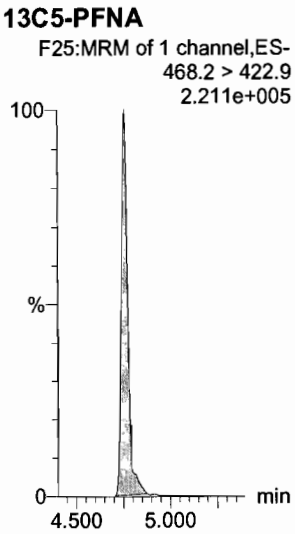
13C2-PFOA



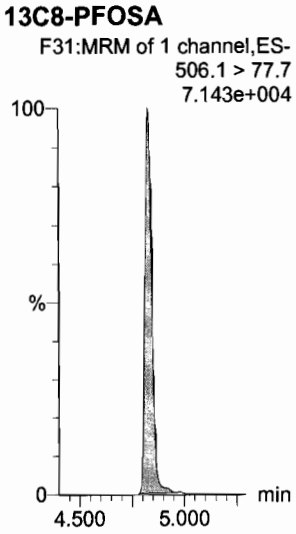
13C3-PFBS



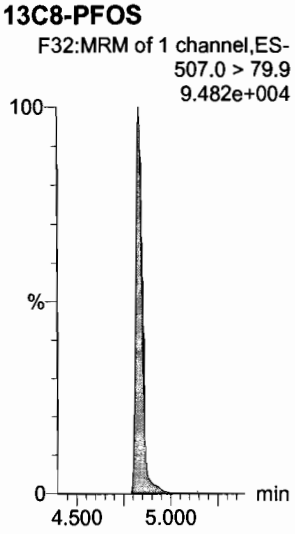
13C5-PFNA



13C8-PFOSA



13C8-PFOS

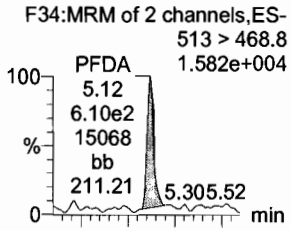


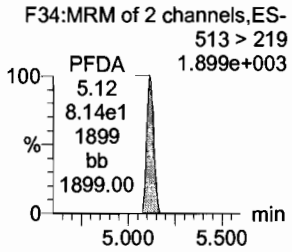
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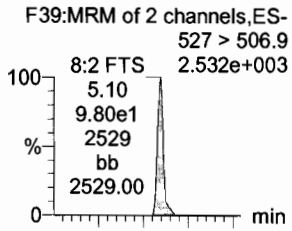
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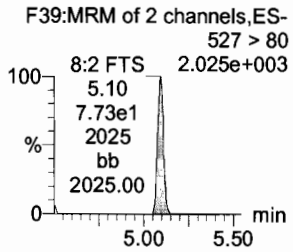
PFDA



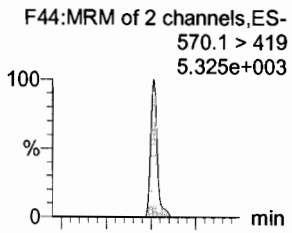


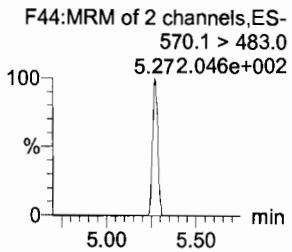
8:2 FTS



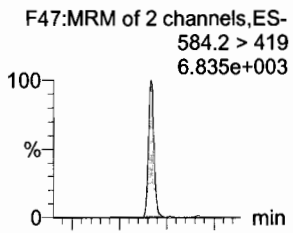


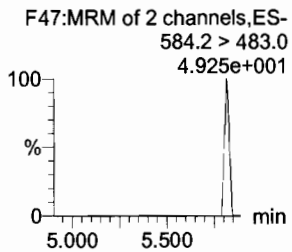
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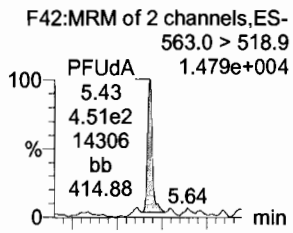


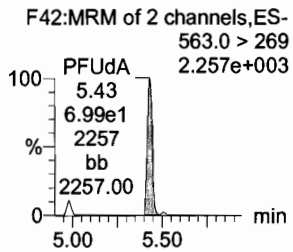
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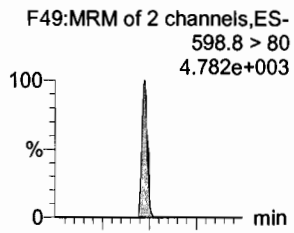


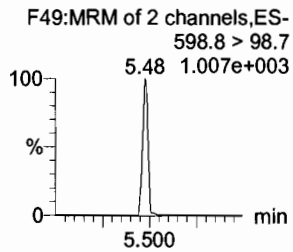
PFUdA



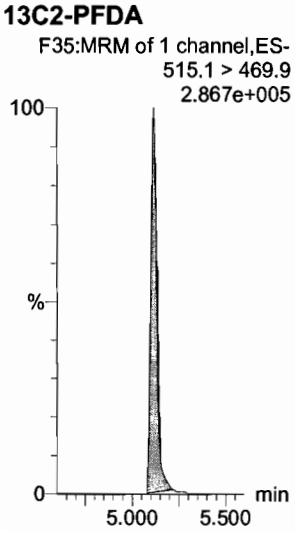


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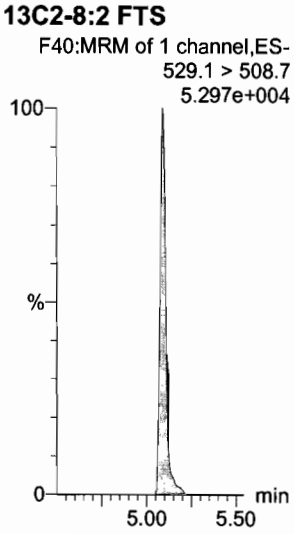




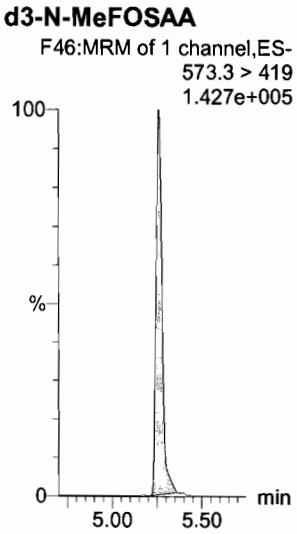
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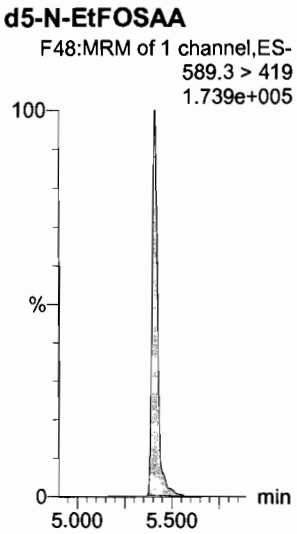
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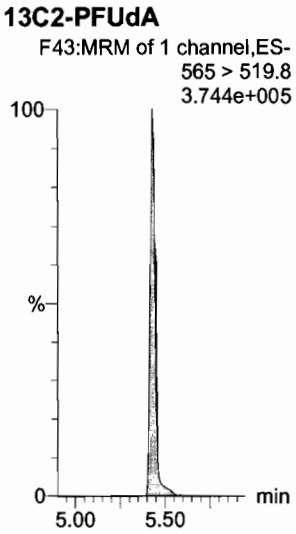
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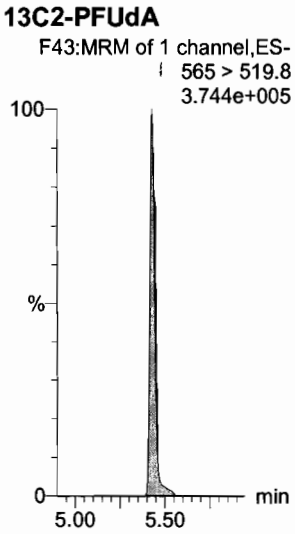
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13C2-PFUdA



13C2-PFUdA

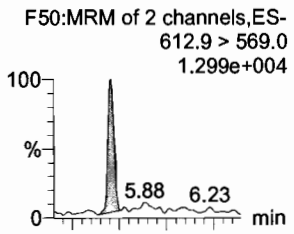


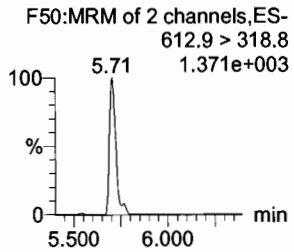
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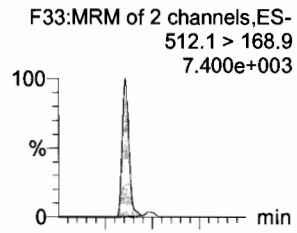
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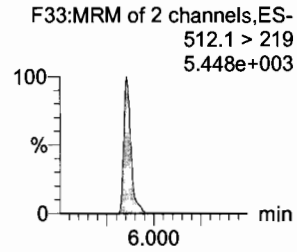
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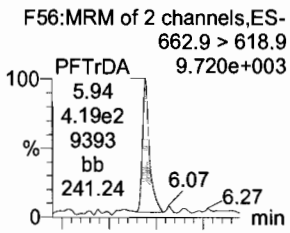


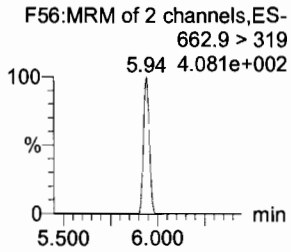
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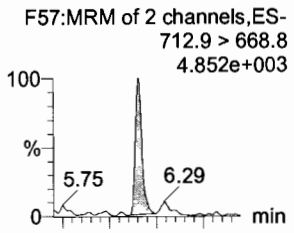


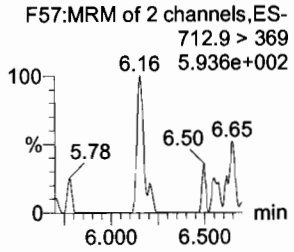
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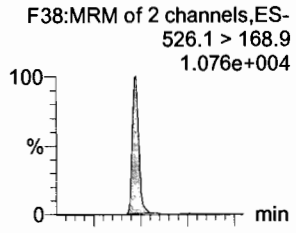


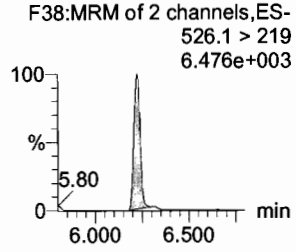
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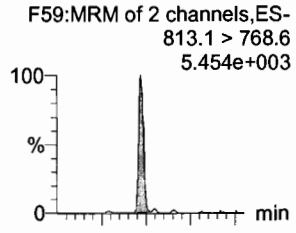


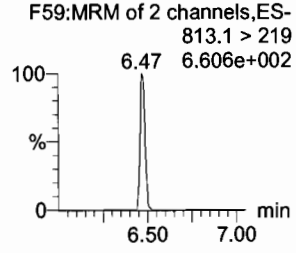
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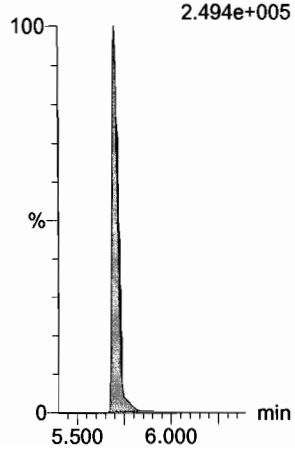


PFHxDA

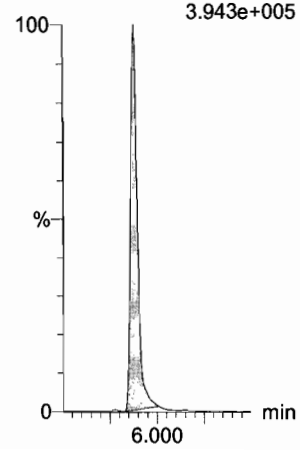




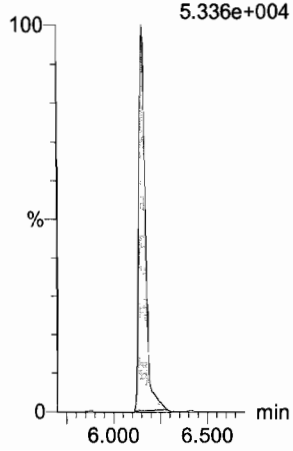
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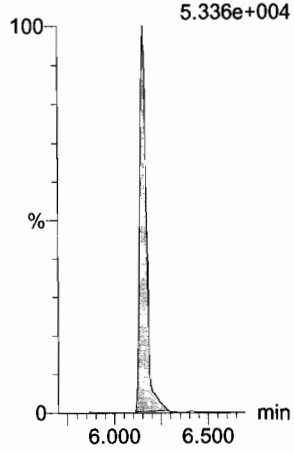
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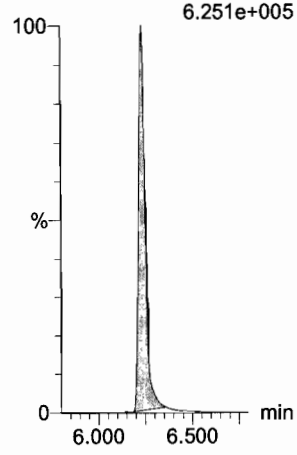
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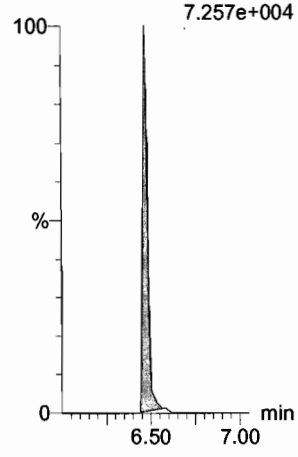
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d5-N-ETFOSA



13C2-PFHxDA

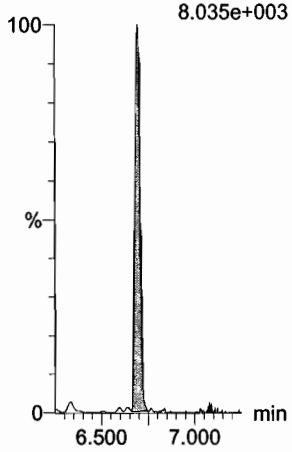


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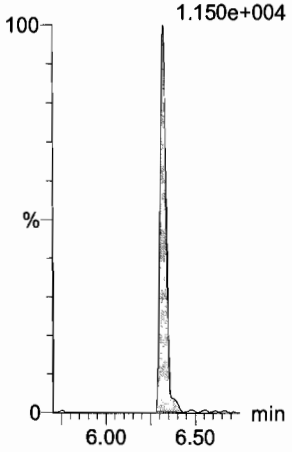
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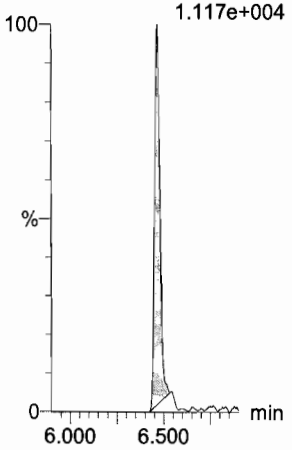
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
8.035e+003



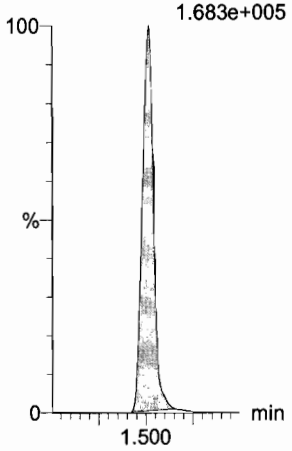
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.150e+004



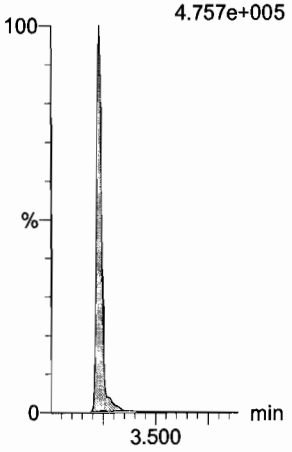
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F54:MRM of 1 channel,ES-
630.1 > 58.9
1.117e+004



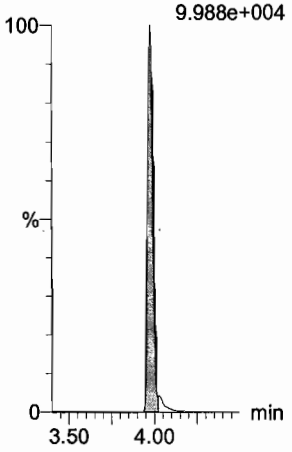
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F3:MRM of 1 channel,ES-
217. > 171.8
1.683e+005



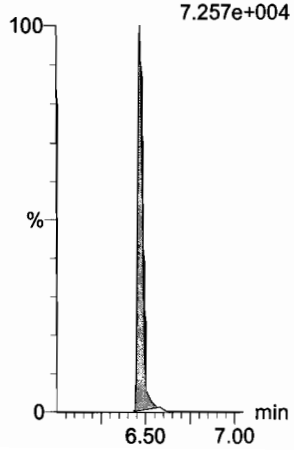
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.757e+005



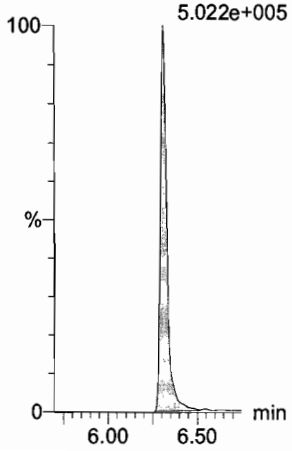
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.988e+004



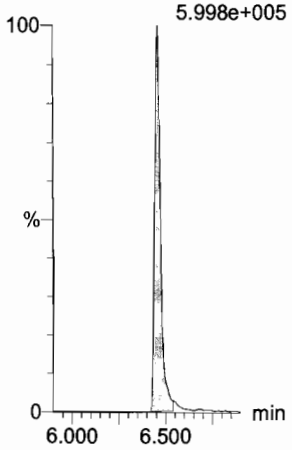
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
7.257e+004



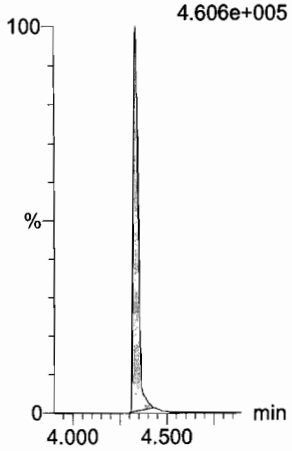
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.022e+005



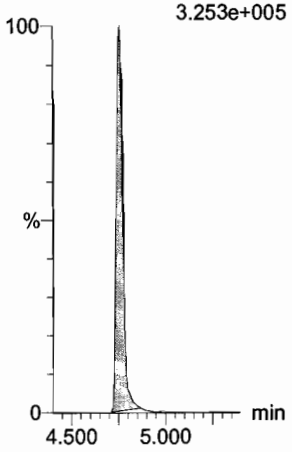
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.998e+005



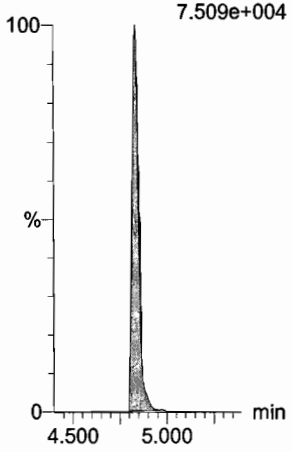
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.606e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.253e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.509e+004

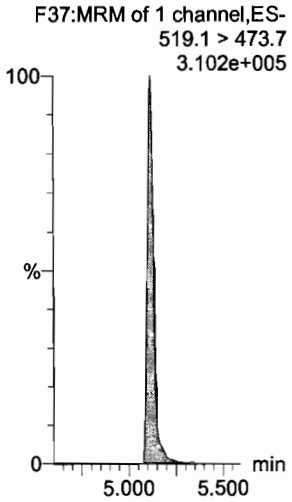


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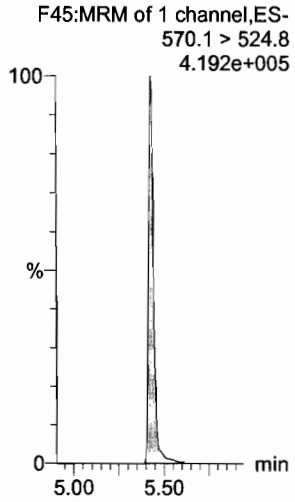
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13C6-PFDA



13C7-PFUdA

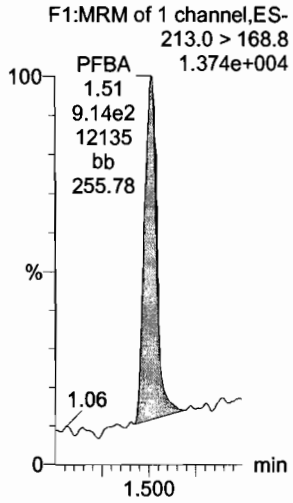


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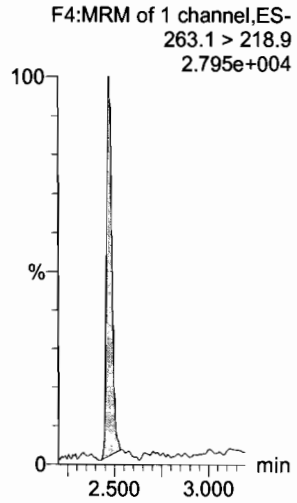
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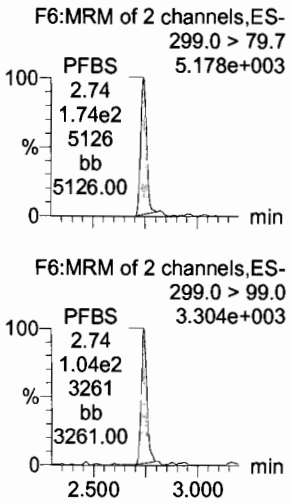
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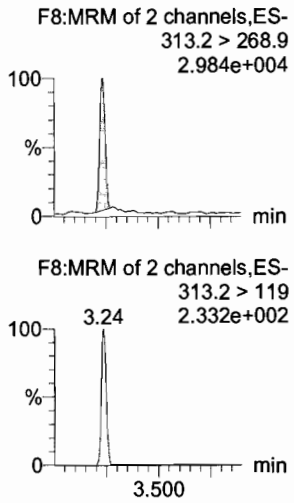
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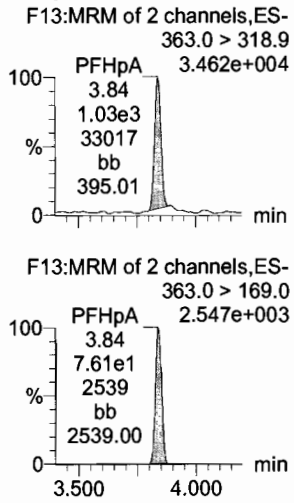
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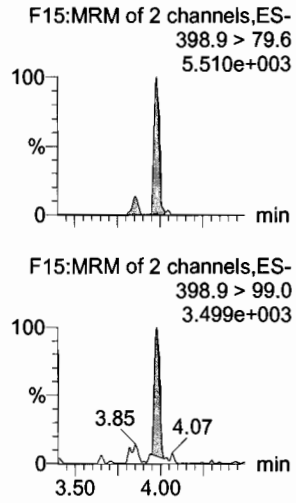
PFHxA



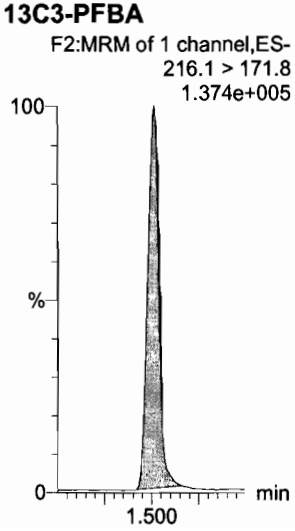
PFHpA



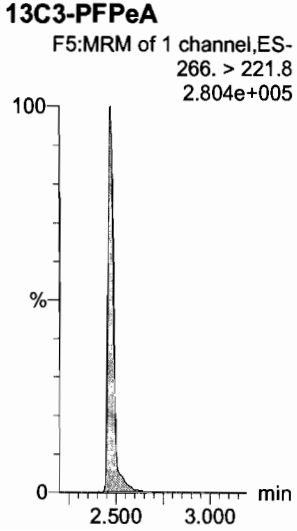
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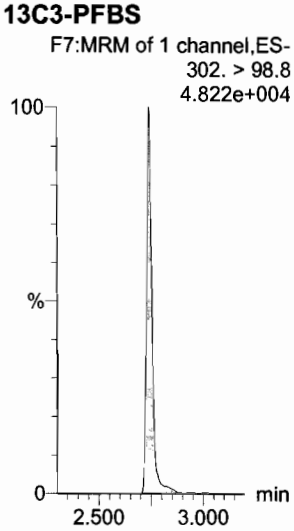
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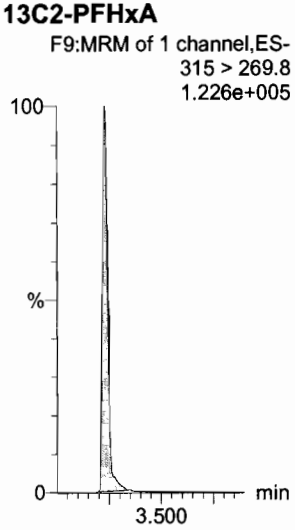
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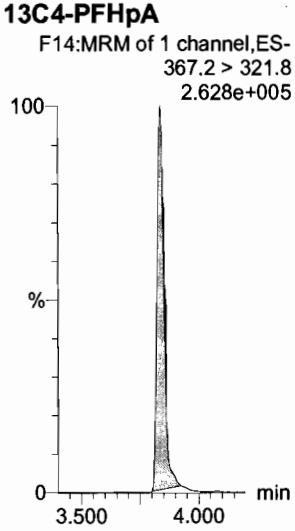
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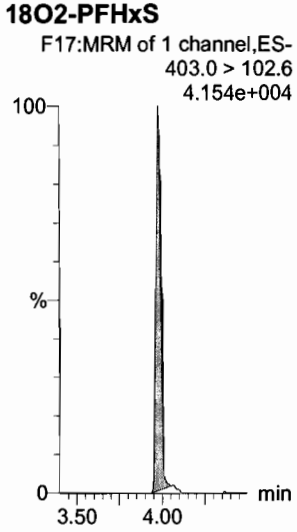
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13C4-PFHpA



18O2-PFHxS



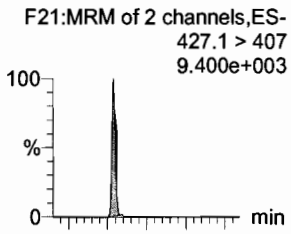
Vista Analytical Laboratory

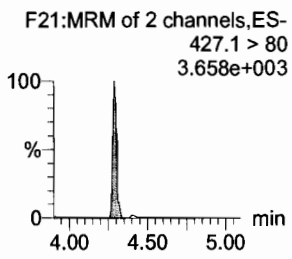
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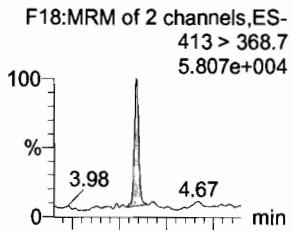
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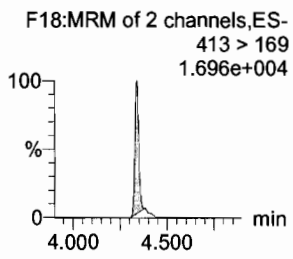
6:2 FTS



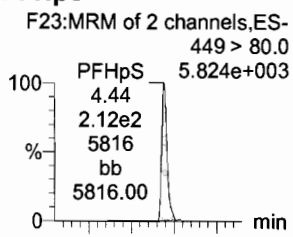


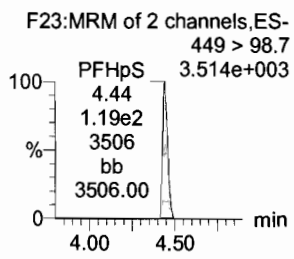
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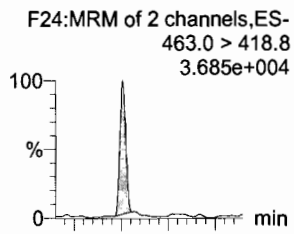


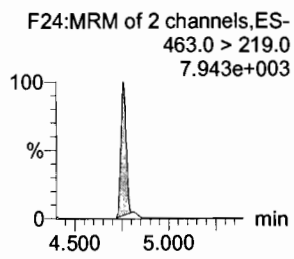
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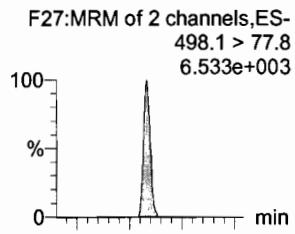


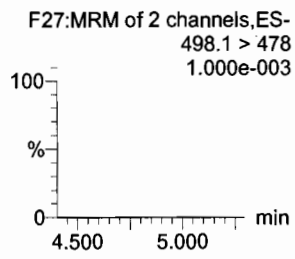
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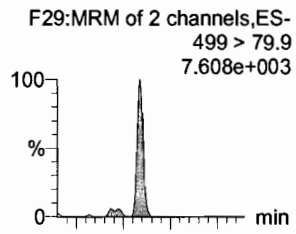


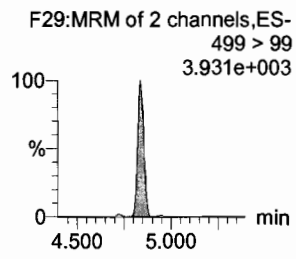
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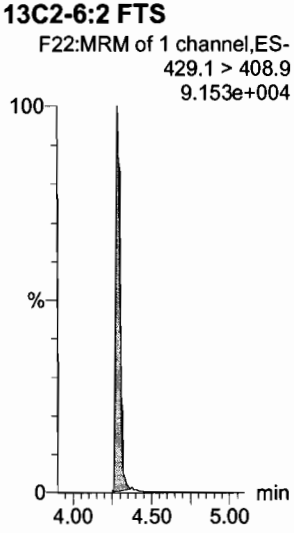


L-PFOS

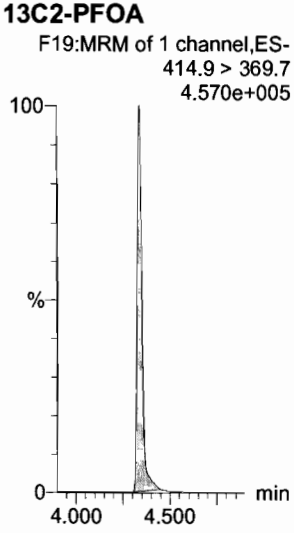




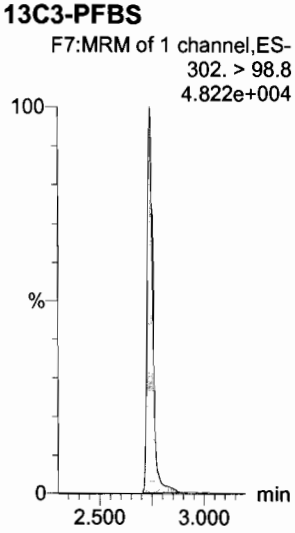
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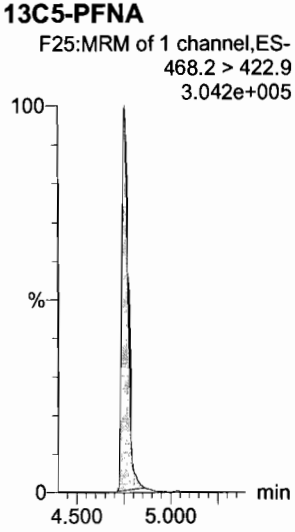
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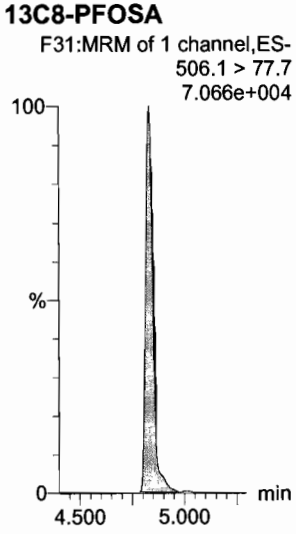
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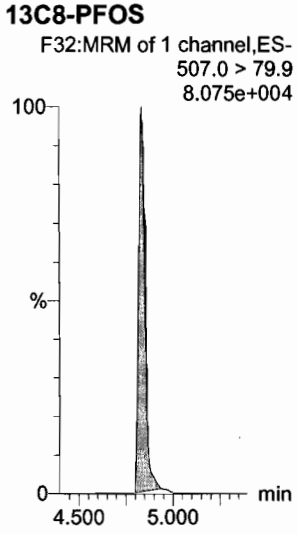
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13C8-PFOSA



13C8-PFOS

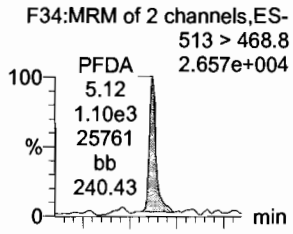


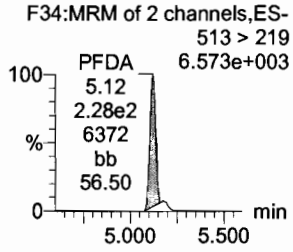
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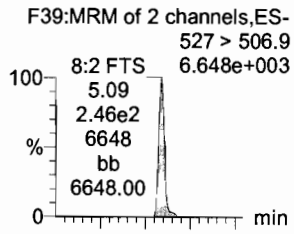
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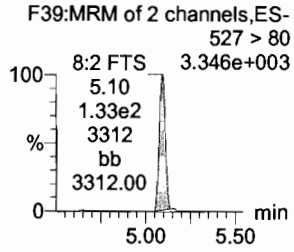
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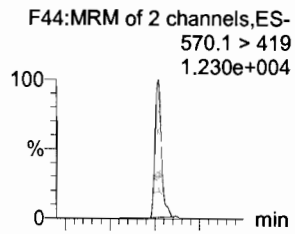


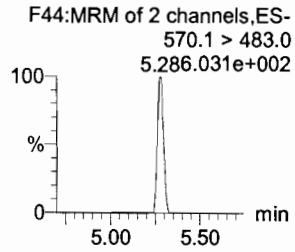
8:2 FTS



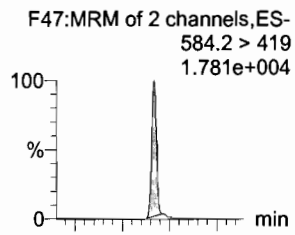


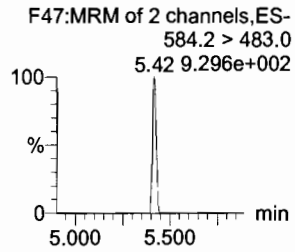
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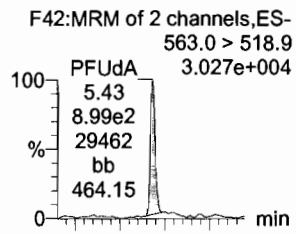


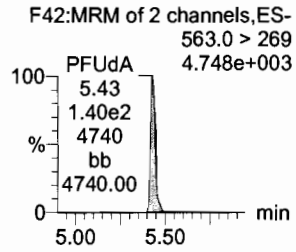
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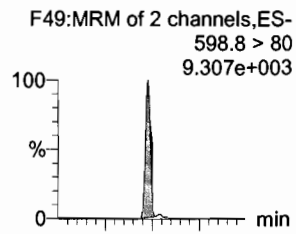


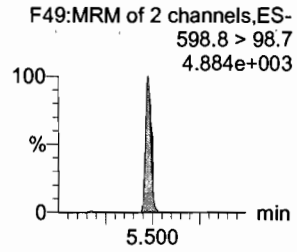
PFUdA



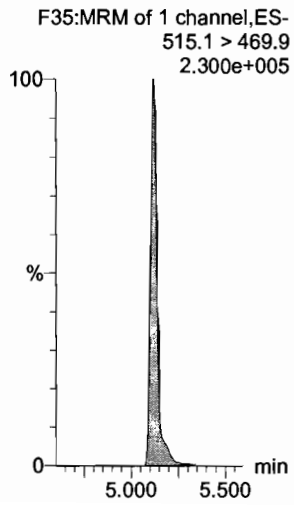


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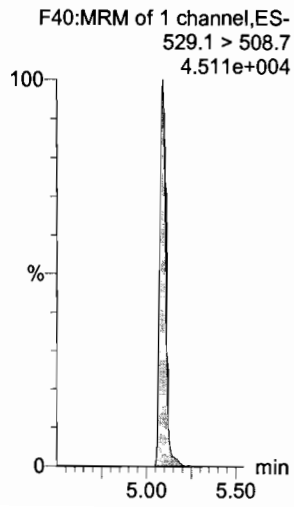




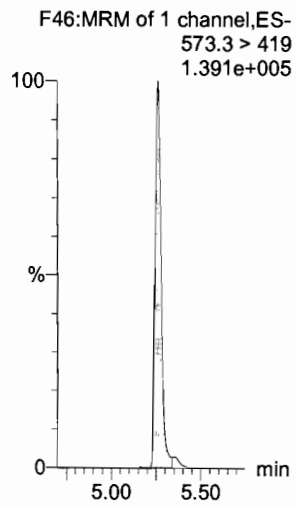
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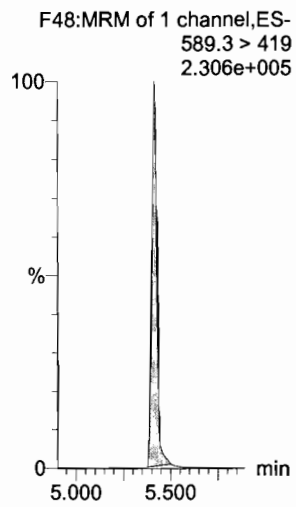
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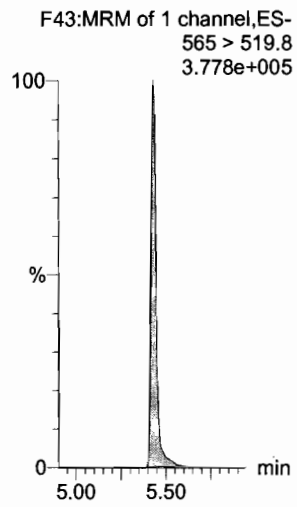
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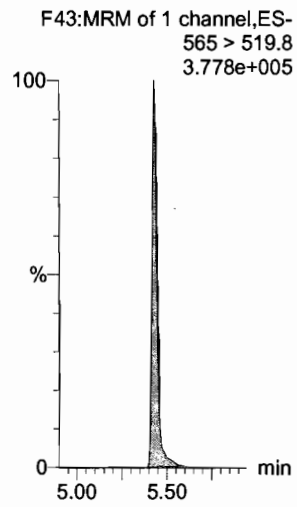
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13C2-PFUdA



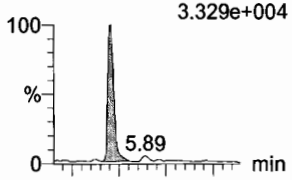
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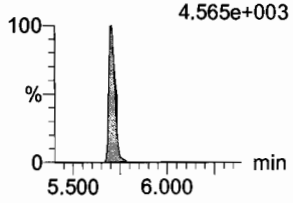


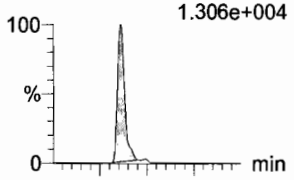
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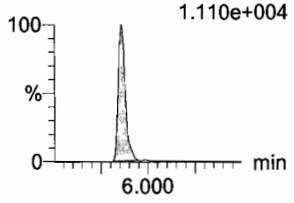
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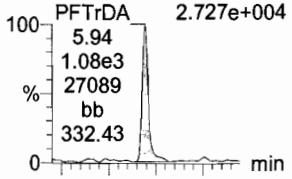
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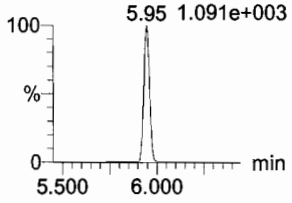
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
3.329e+004


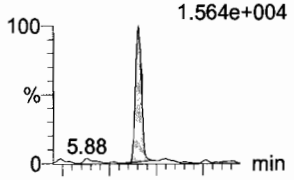
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612.9 > 318.8
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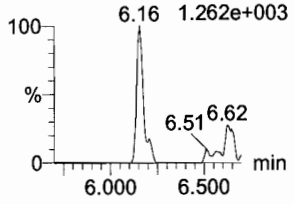
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F33:MRM of 2 channels,ES-
512.1 > 168.9
1.306e+004


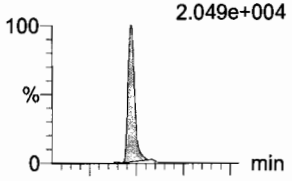
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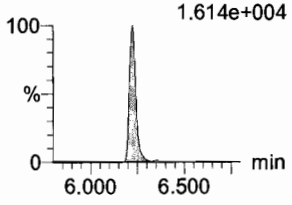
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
2.727e+004


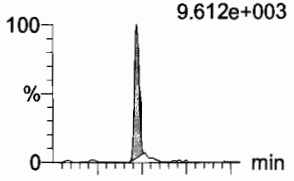
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662.9 > 319
5.95 1.091e+003


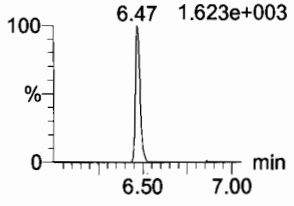
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
1.564e+004


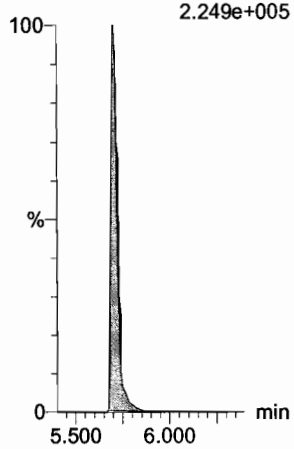
F57:MRM of 2 channels,ES-
712.9 > 369
6.16 1.262e+003


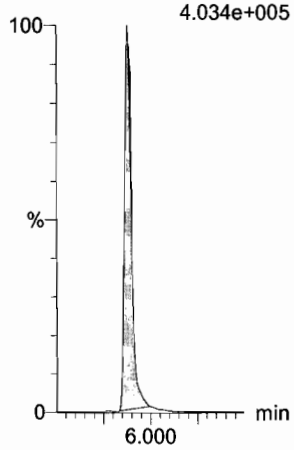
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
2.049e+004


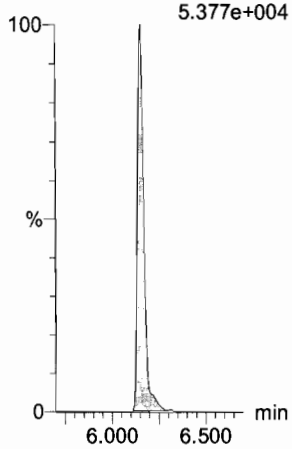
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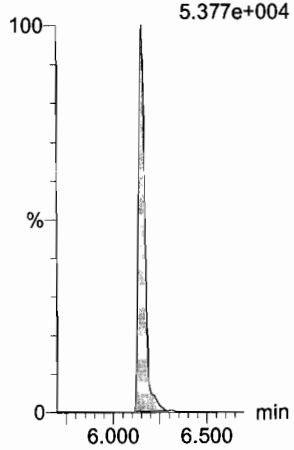
PFHxDA
F59:MRM of 2 channels,ES-
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9.612e+003


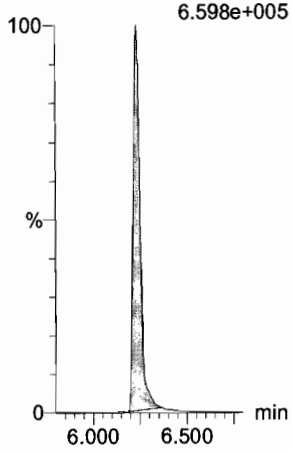
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6.47 1.623e+003


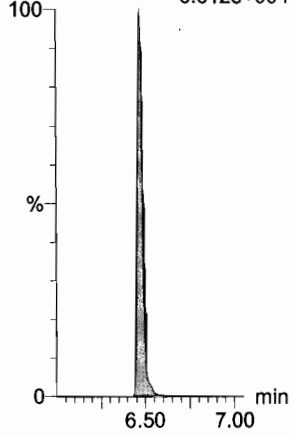
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
2.249e+005


d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.034e+005


13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
5.377e+004


13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
5.377e+004


d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.598e+005


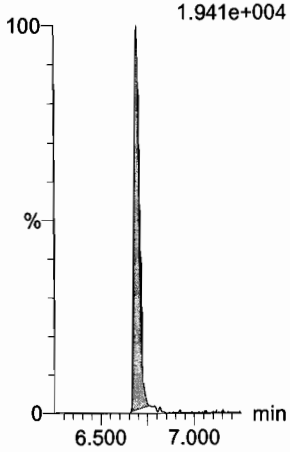
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.612e+004


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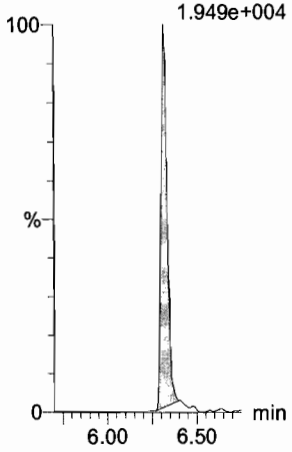
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Name: 171227M2_4, Date: 27-Dec-2017, Time: 17:59:02, ID: ST171227M2-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

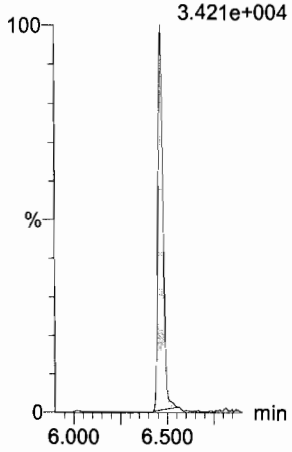
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.941e+004



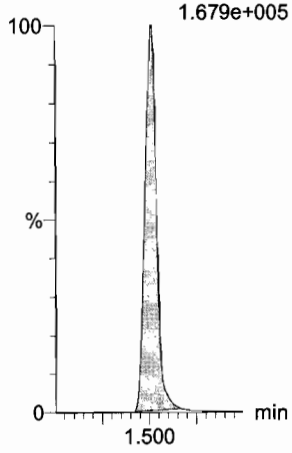
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F52:MRM of 1 channel,ES-
616.1 > 58.9
1.949e+004



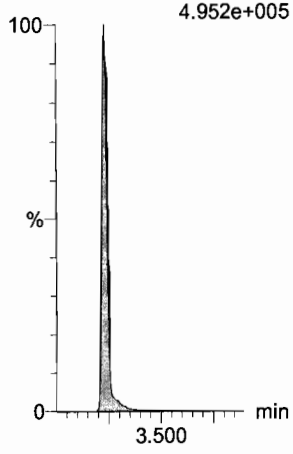
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.421e+004



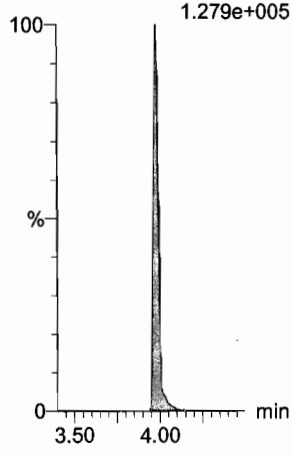
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.679e+005



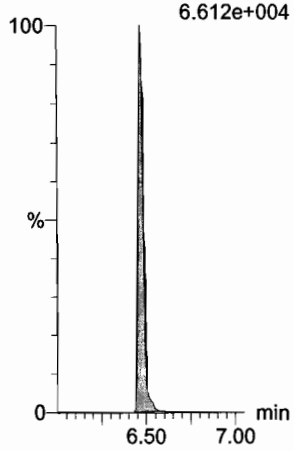
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.952e+005



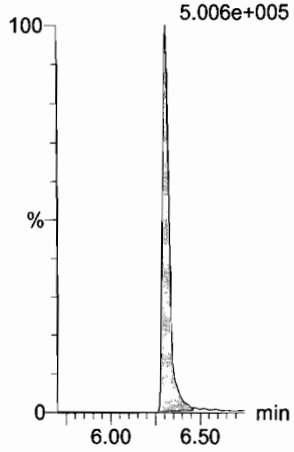
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F16:MRM of 1 channel,ES-
401.9 > 79.9
1.279e+005



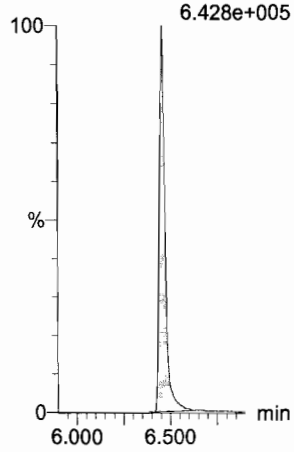
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F60:MRM of 1 channel,ES-
815 > 769.7
6.612e+004



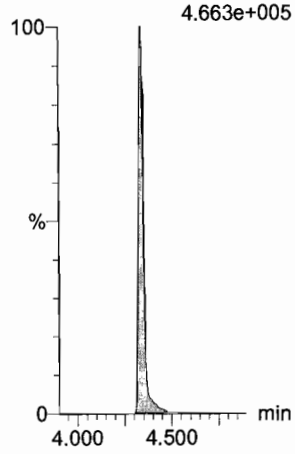
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.006e+005



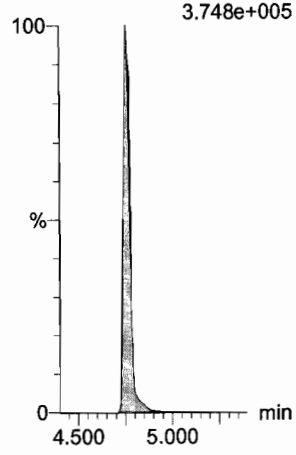
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F55:MRM of 1 channel,ES-
639.2 > 58.8
6.428e+005



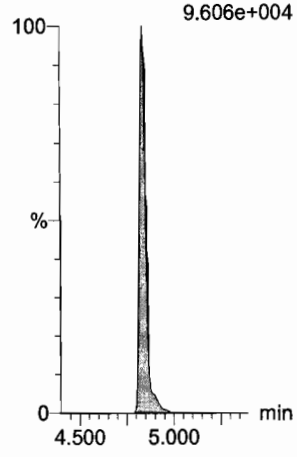
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.663e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.748e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.606e+004

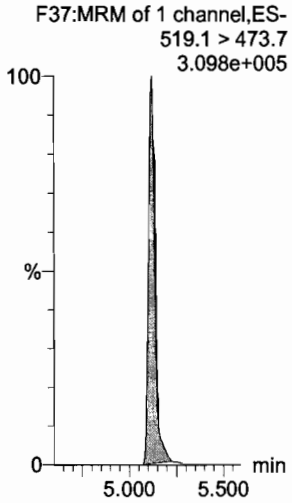


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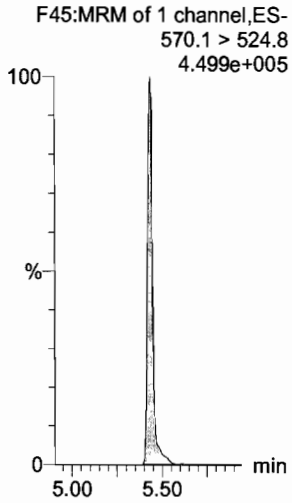
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Name: 171227M2_4, Date: 27-Dec-2017, Time: 17:59:02, ID: ST171227M2-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

13C6-PFDA



13C7-PFUdA

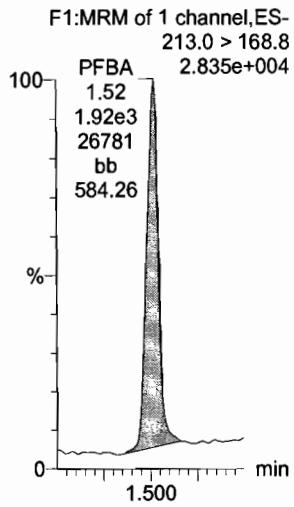


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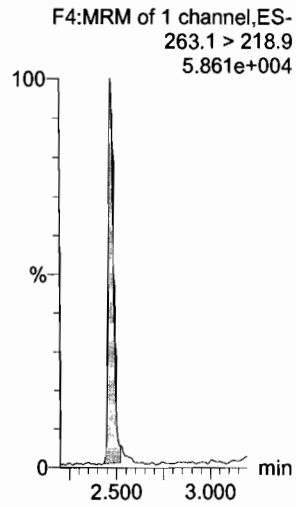
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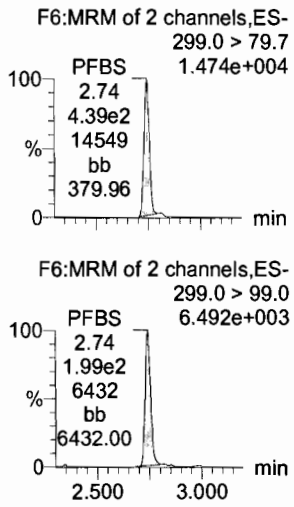
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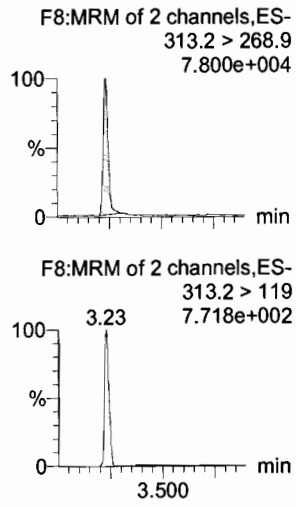
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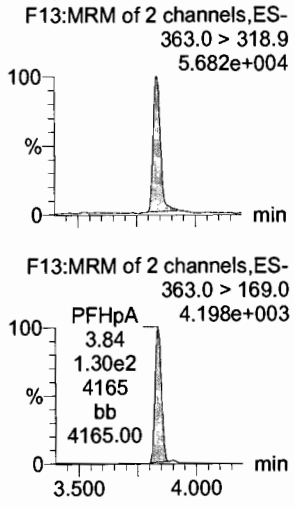
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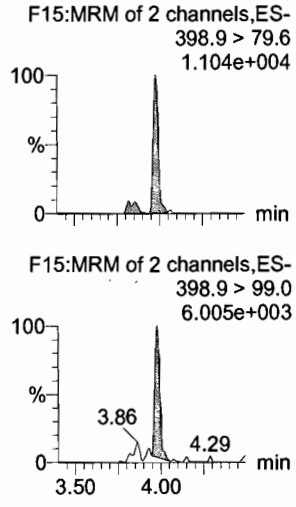
PFHxA



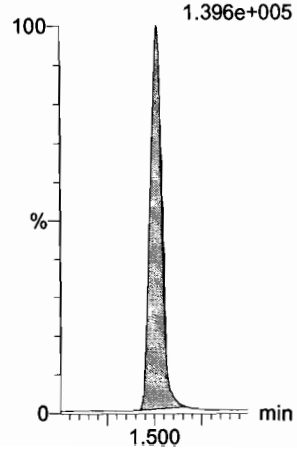
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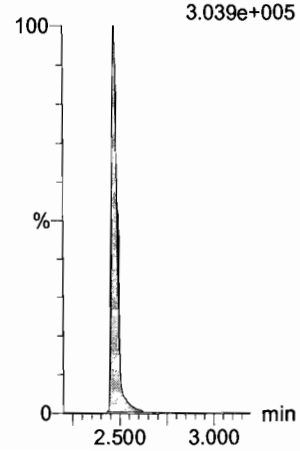
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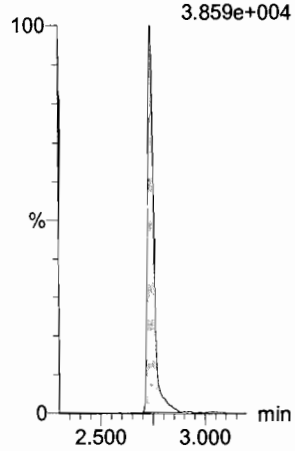
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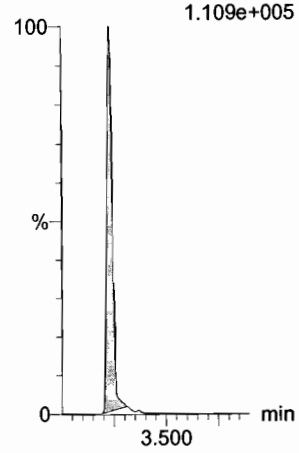
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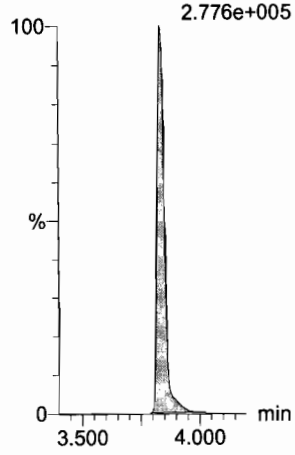
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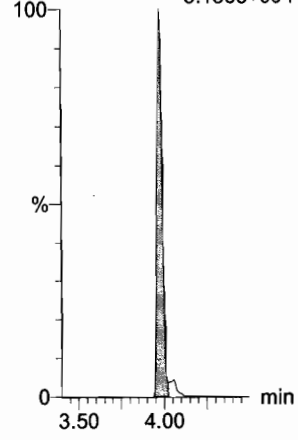
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13C4-PFHpA



18O2-PFHxS

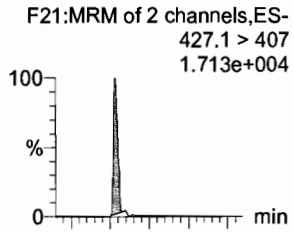


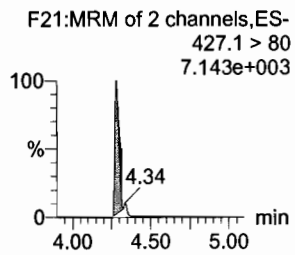
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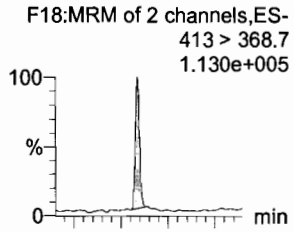
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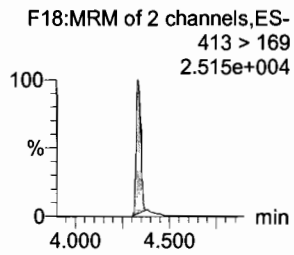
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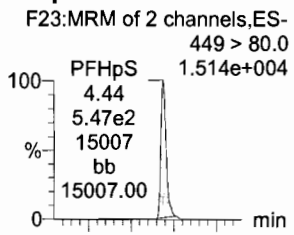


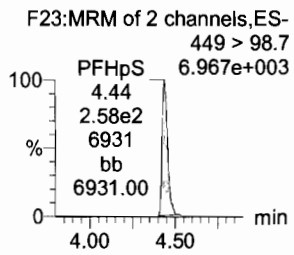
L-PFOA



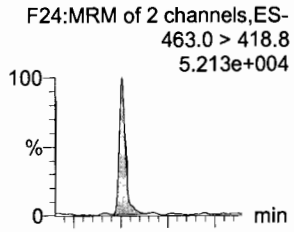


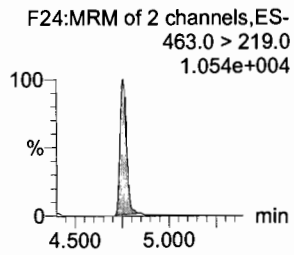
PFHpS



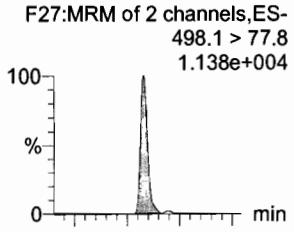


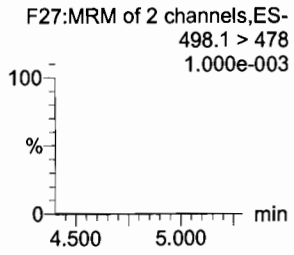
PFNA



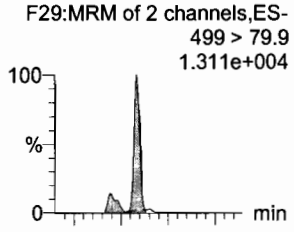


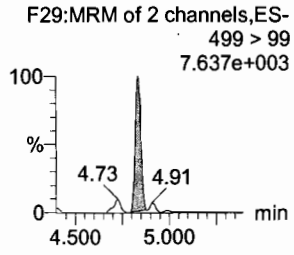
PFOSA



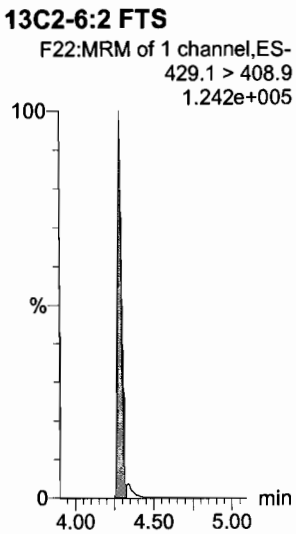


L-PFOS

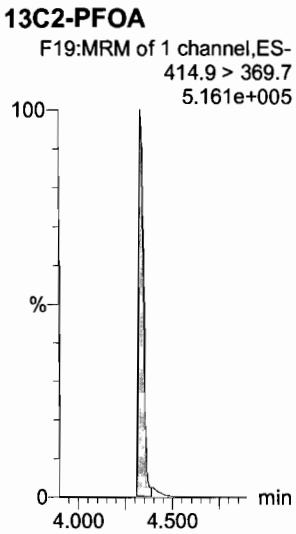




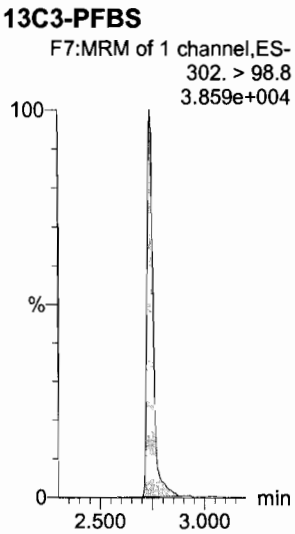
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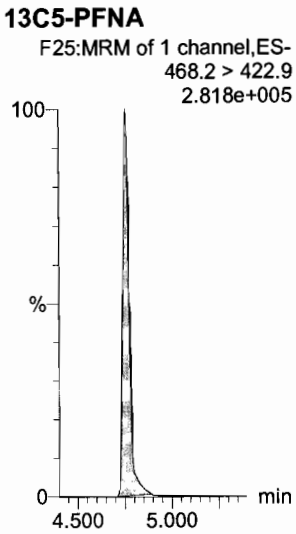
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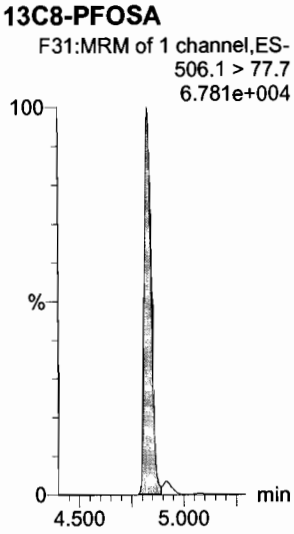
13C3-PFBS



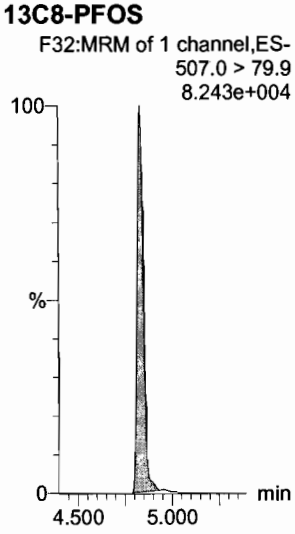
13C5-PFNA



13C8-PFOSA



13C8-PFOS

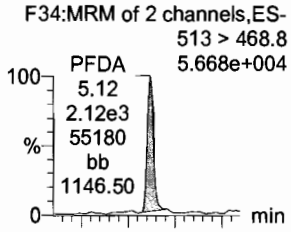


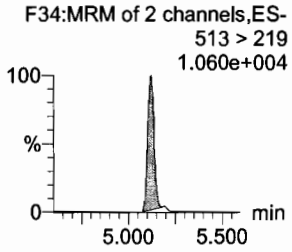
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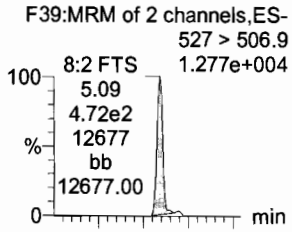
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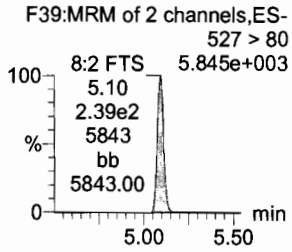
PFDA



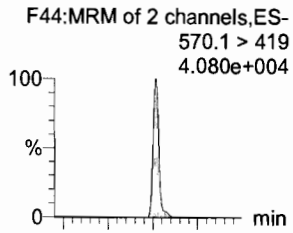


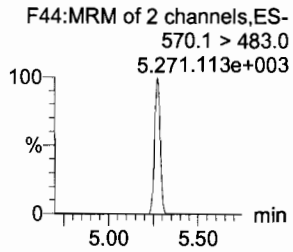
8:2 FTS



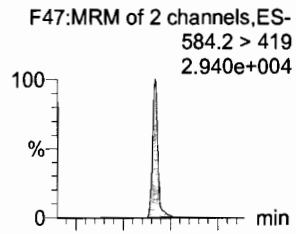


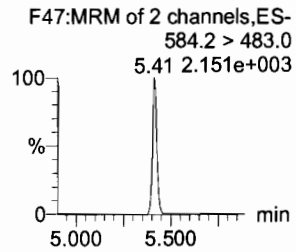
N-MeFOSAA



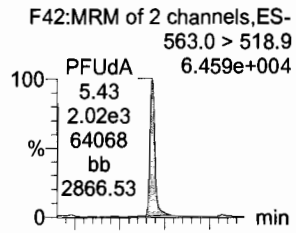


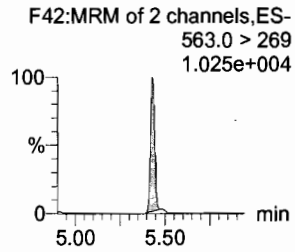
N-EtFOSAA



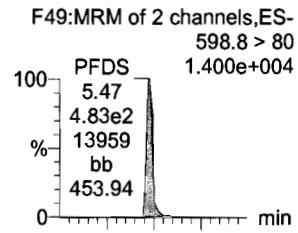


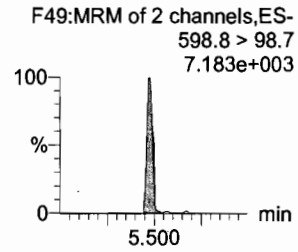
PFUdA



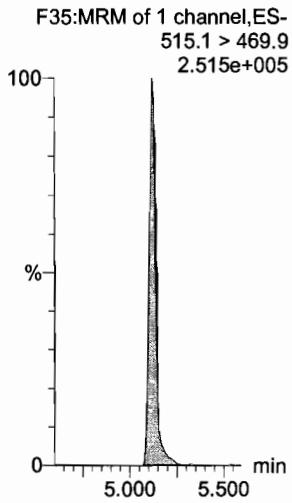


PFDS

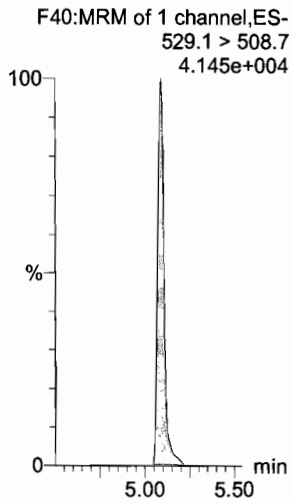




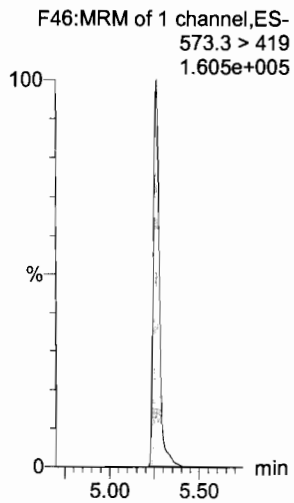
13C2-PFDA



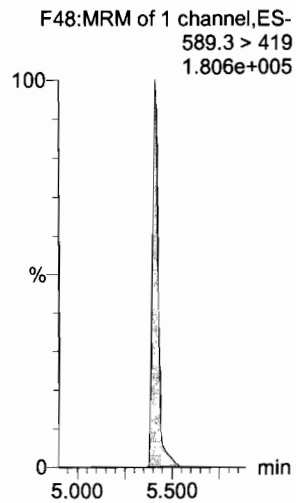
13C2-8:2 FTS



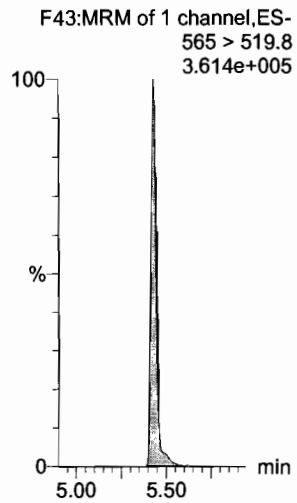
d3-N-MeFOSAA



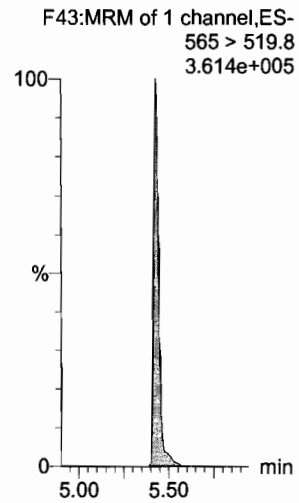
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

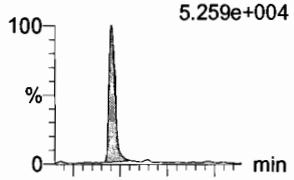


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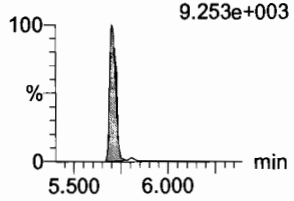
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Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

Name: 171227M2_5, Date: 27-Dec-2017, Time: 18:10:13, ID: ST171227M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

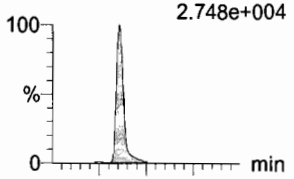
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
5.259e+004



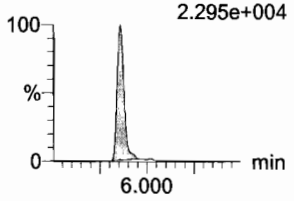
F50:MRM of 2 channels,ES-
612.9 > 318.8
9.253e+003



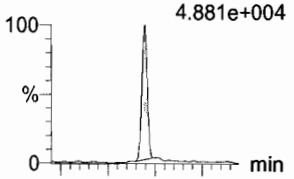
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
2.748e+004



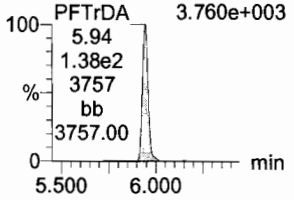
F33:MRM of 2 channels,ES-
512.1 > 219
2.295e+004



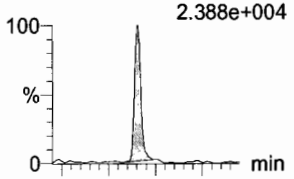
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
4.881e+004



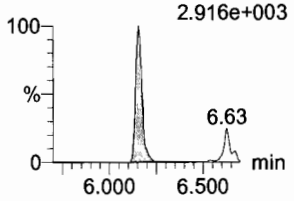
F56:MRM of 2 channels,ES-
662.9 > 319
3.760e+003



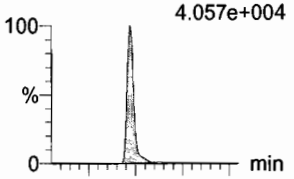
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
2.388e+004



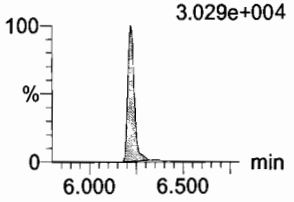
F57:MRM of 2 channels,ES-
712.9 > 369
2.916e+003



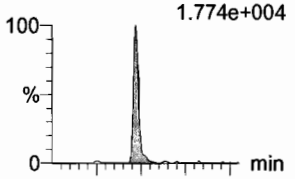
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
4.057e+004



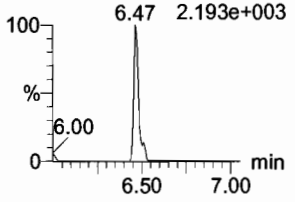
F38:MRM of 2 channels,ES-
526.1 > 219
3.029e+004



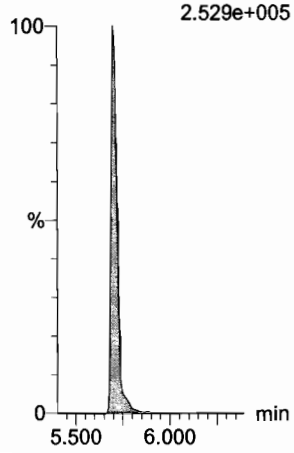
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
1.774e+004



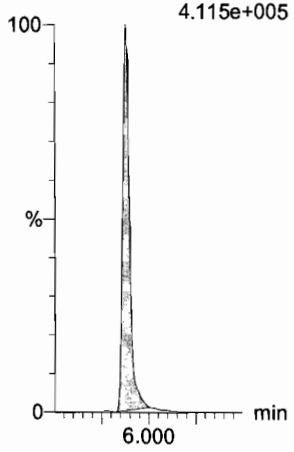
F59:MRM of 2 channels,ES-
813.1 > 219
6.47 2.193e+003



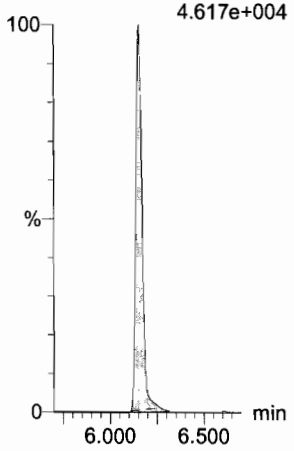
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
2.529e+005



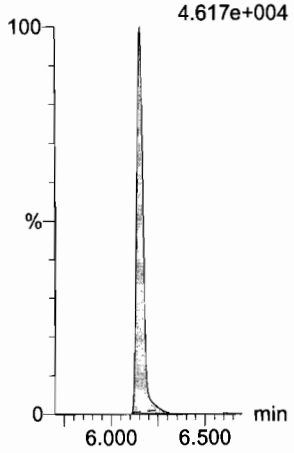
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.115e+005



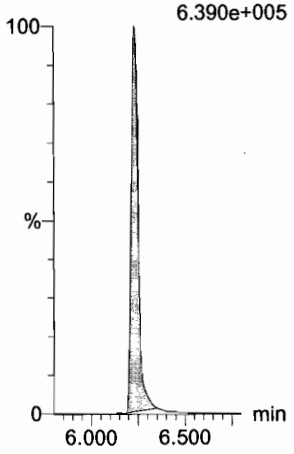
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
4.617e+004



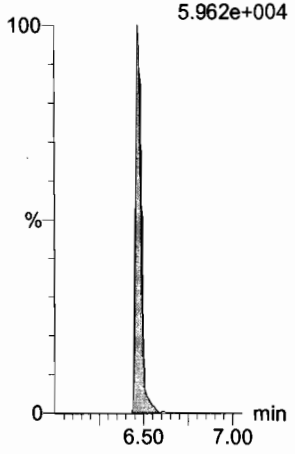
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
4.617e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.390e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.962e+004

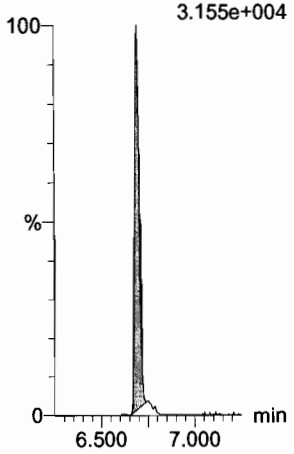


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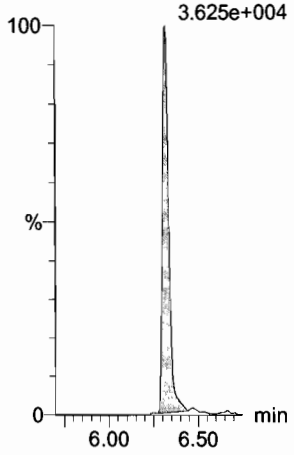
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Name: 171227M2_5, Date: 27-Dec-2017, Time: 18:10:13, ID: ST171227M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

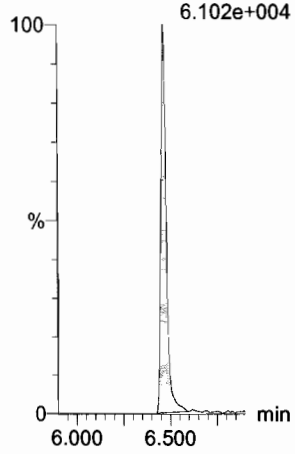
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.155e+004



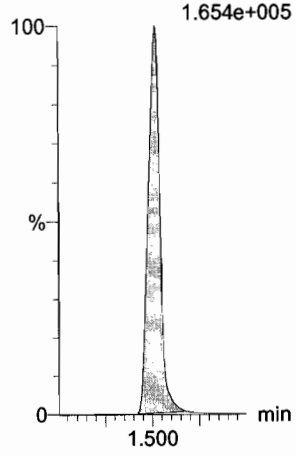
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.625e+004



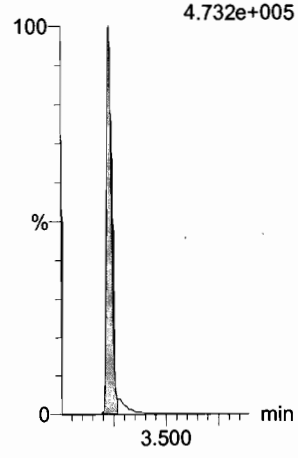
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
6.102e+004



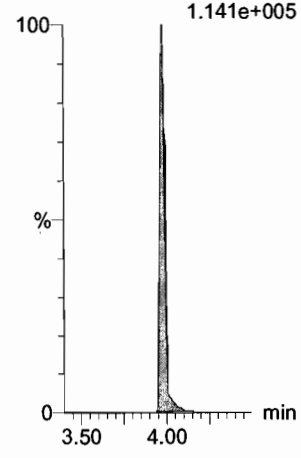
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.654e+005



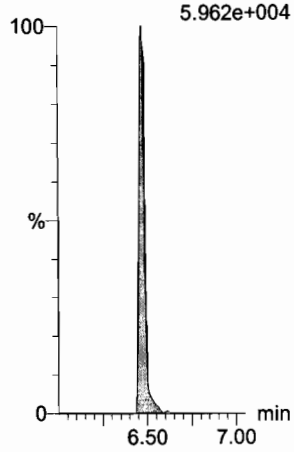
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.732e+005



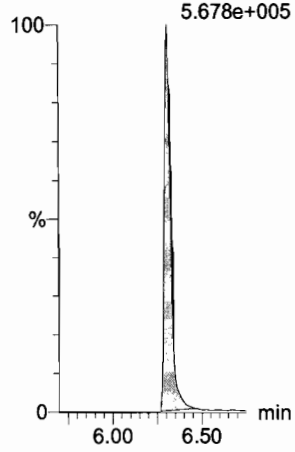
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.141e+005



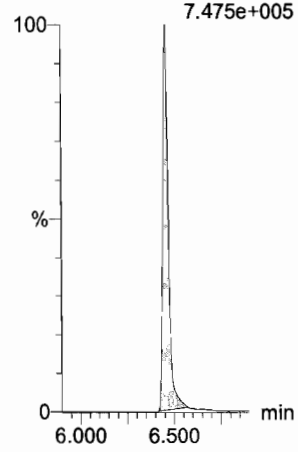
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.962e+004



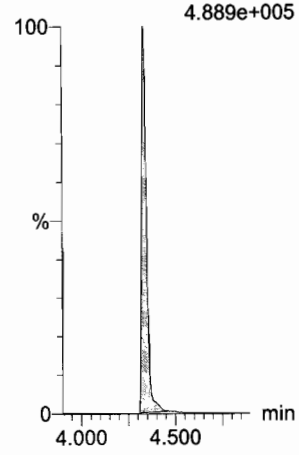
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.678e+005



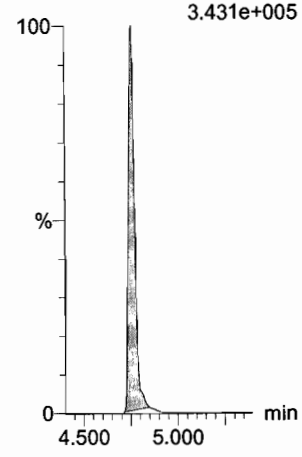
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.475e+005



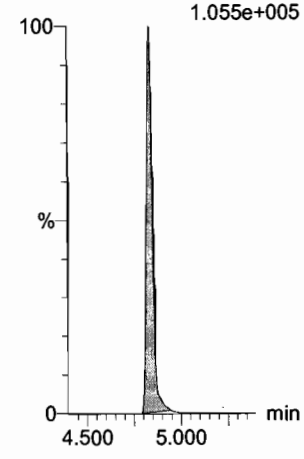
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.889e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.431e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.055e+005

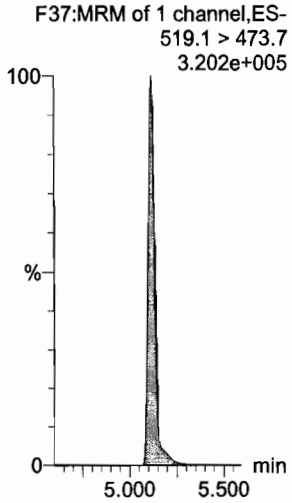


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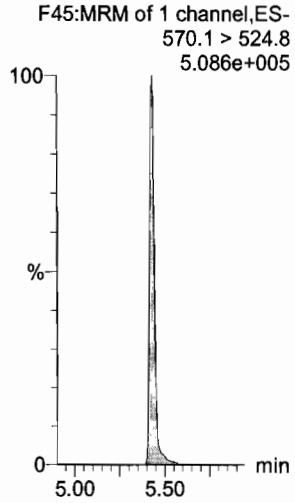
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Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

Name: 171227M2_5, Date: 27-Dec-2017, Time: 18:10:13, ID: ST171227M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

13C6-PFDA



13C7-PFUdA

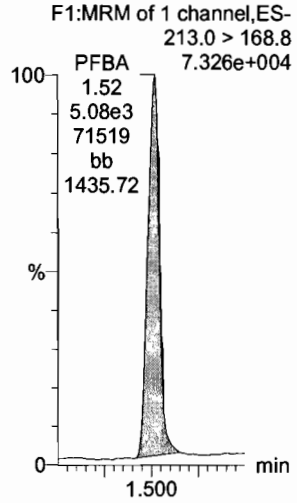


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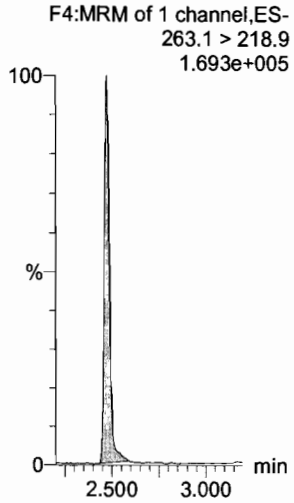
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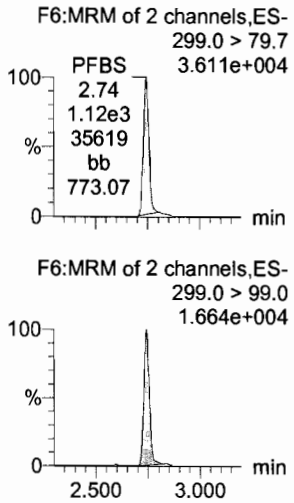
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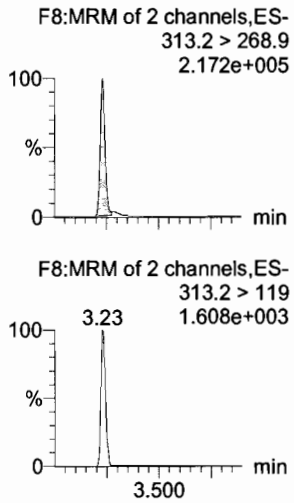
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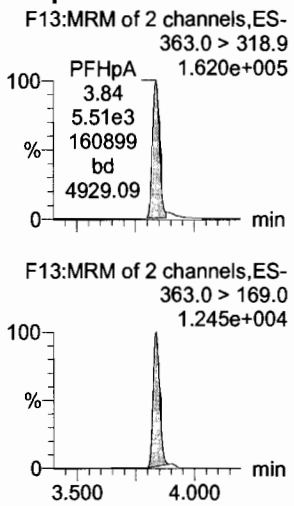
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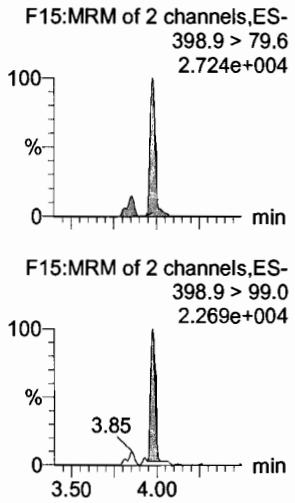
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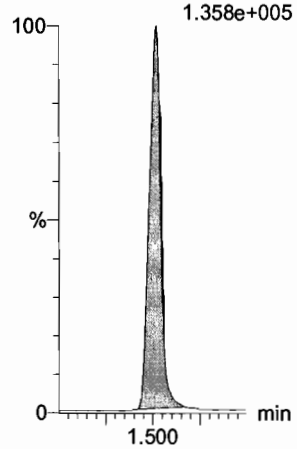
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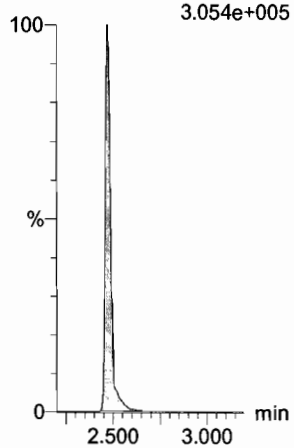
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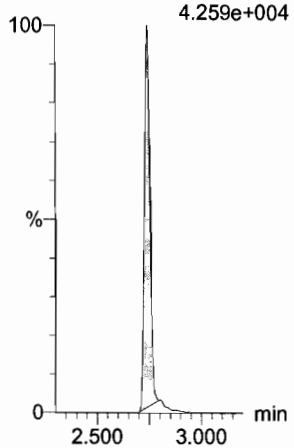
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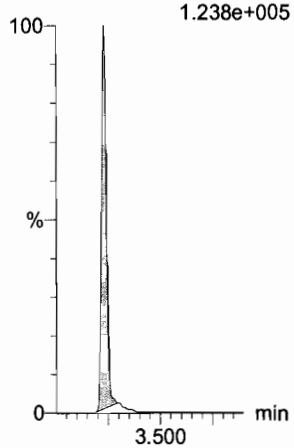
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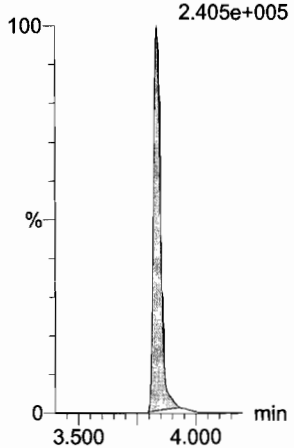
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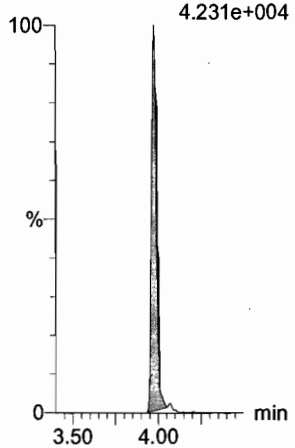
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13C4-PFHpA



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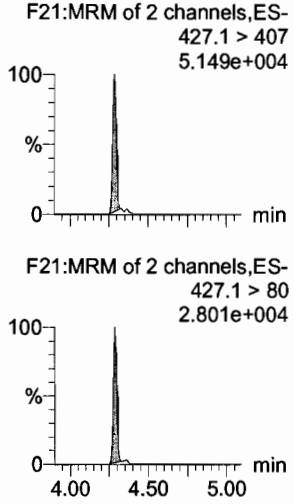


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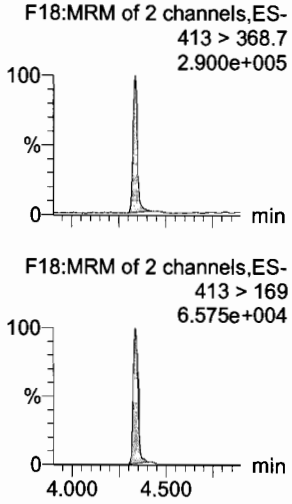
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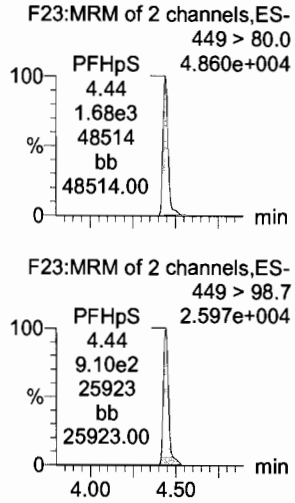
6:2 FTS



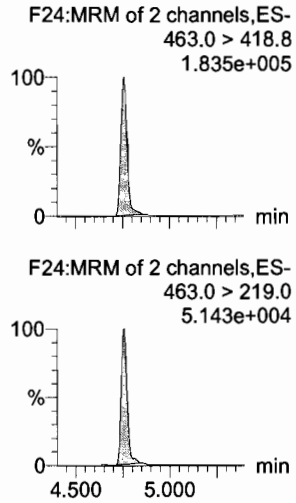
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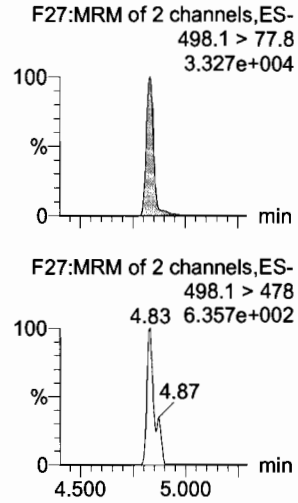
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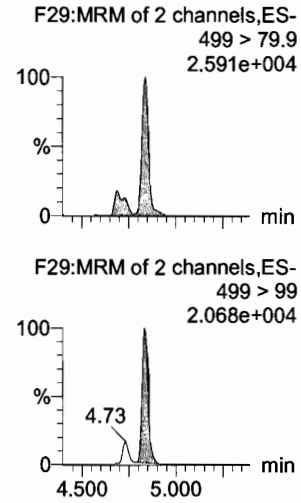
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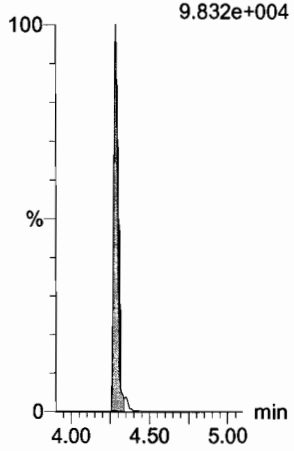
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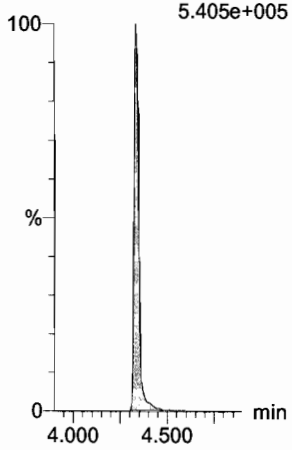
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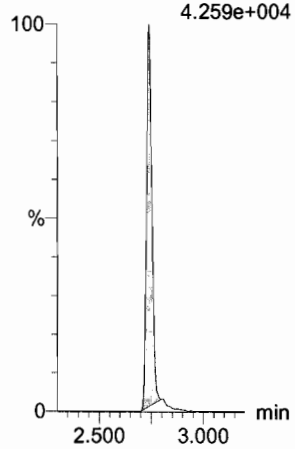
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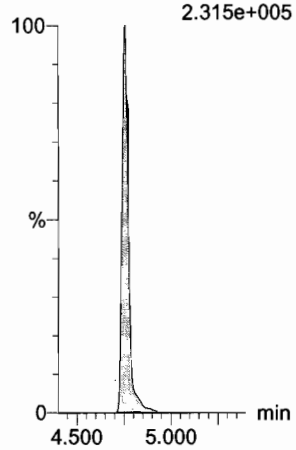
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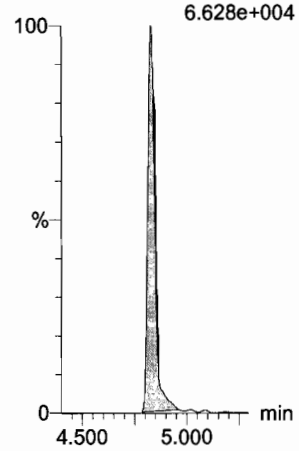
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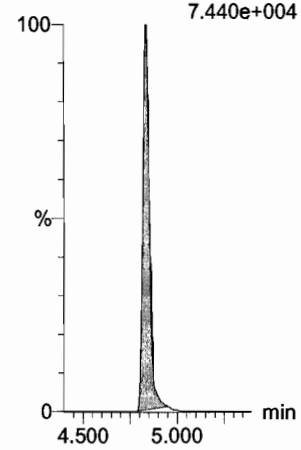
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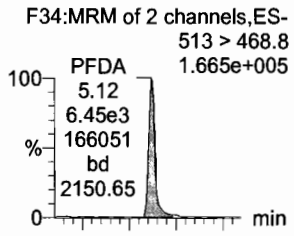


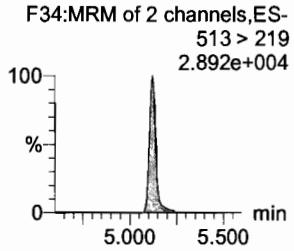
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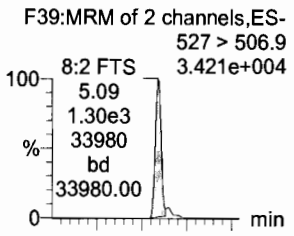
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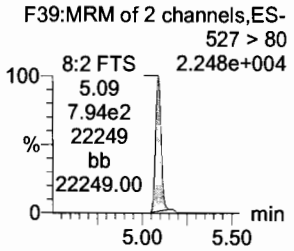
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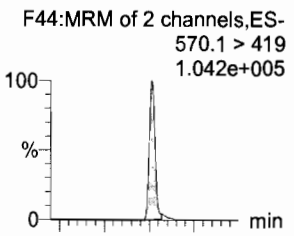


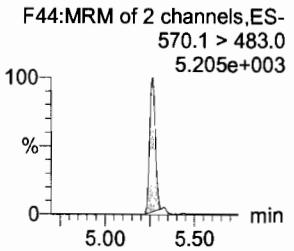
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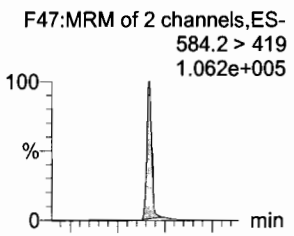


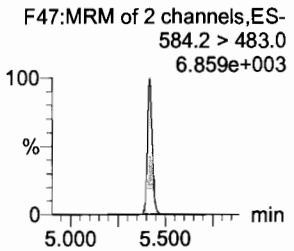
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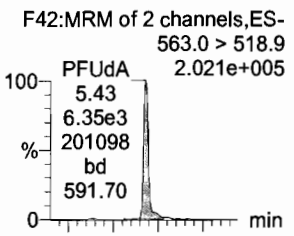


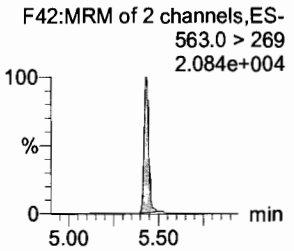
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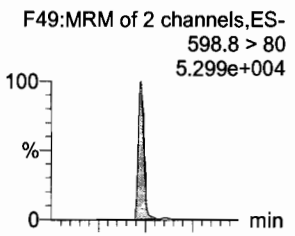


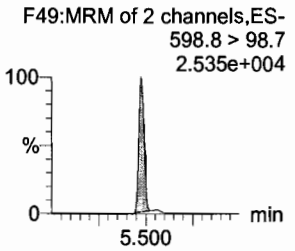
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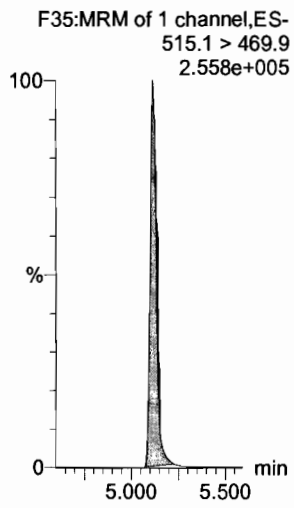


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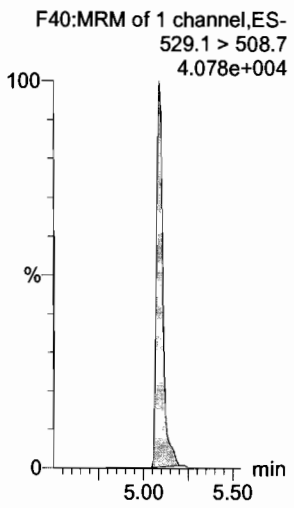




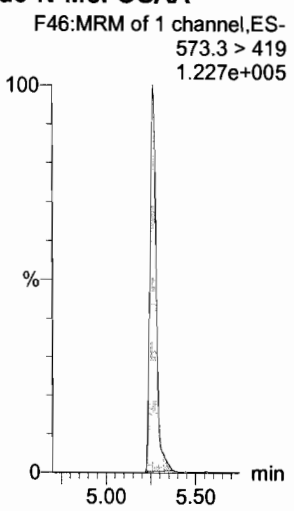
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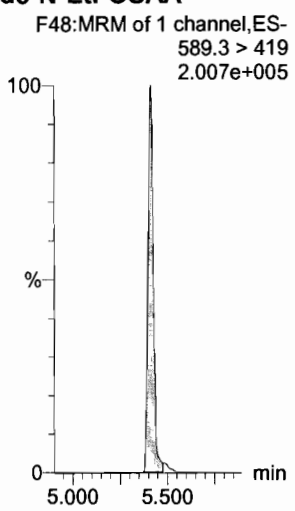
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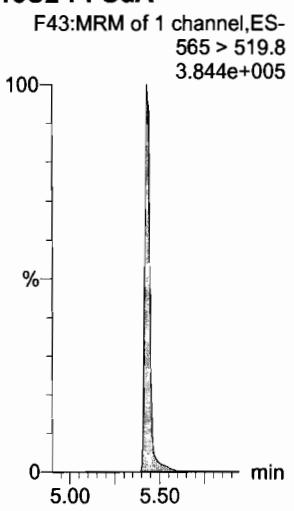
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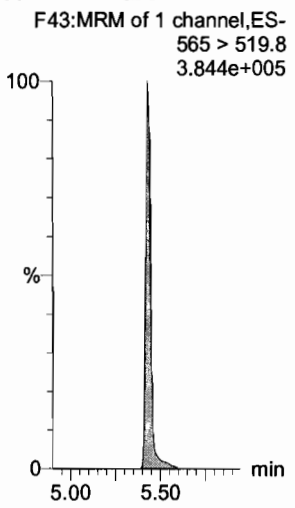
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13C2-PFUdA

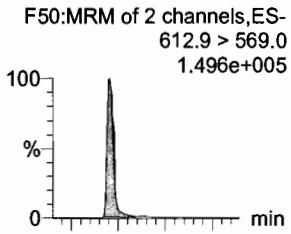


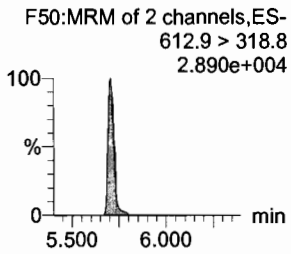
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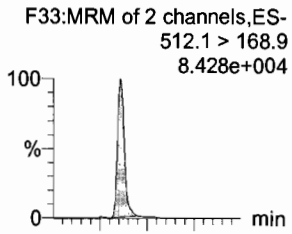
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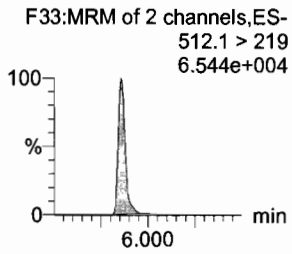
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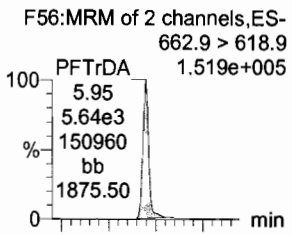


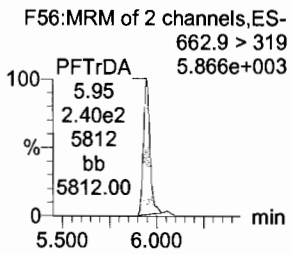
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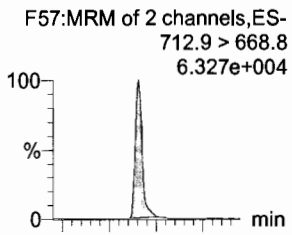


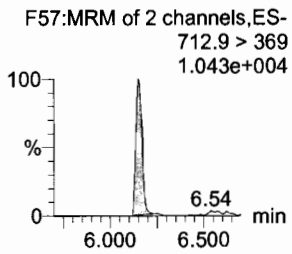
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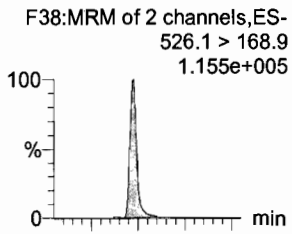


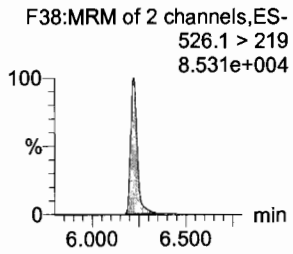
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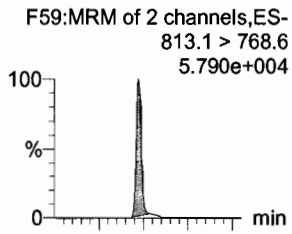


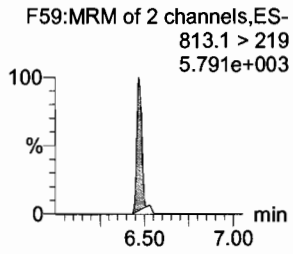
N-EtFOSA



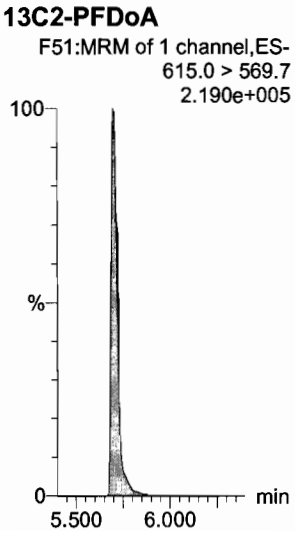


PFHxDA

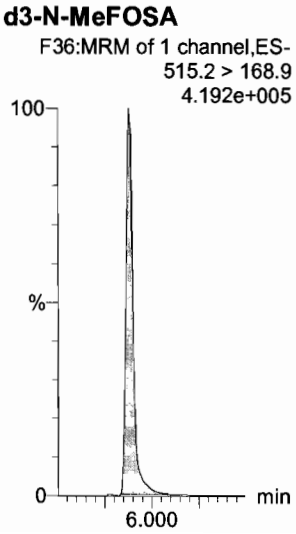




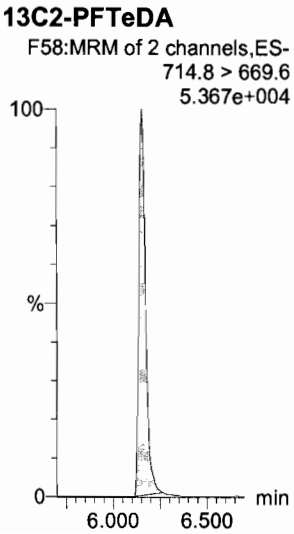
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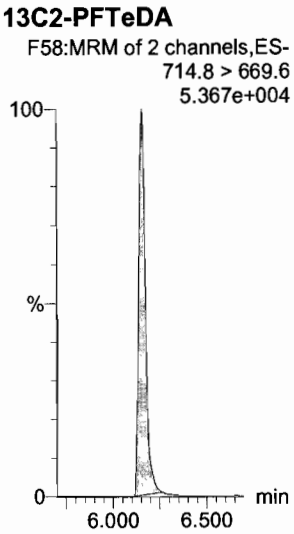
d3-N-MeFOSA



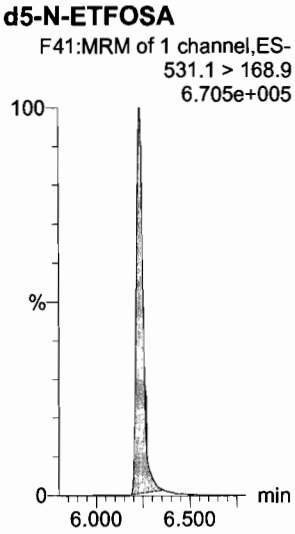
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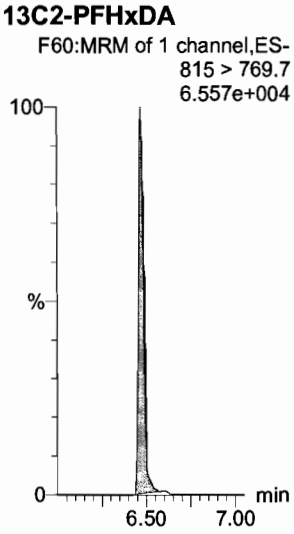
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d5-N-ETFOSA



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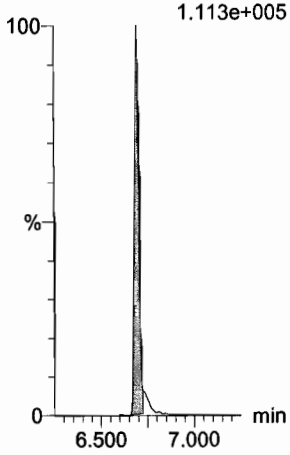


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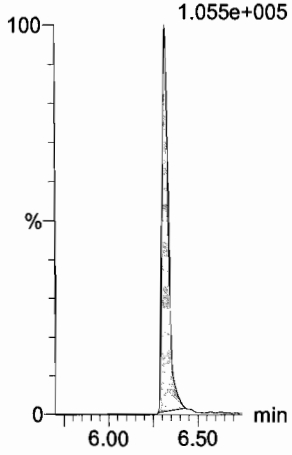
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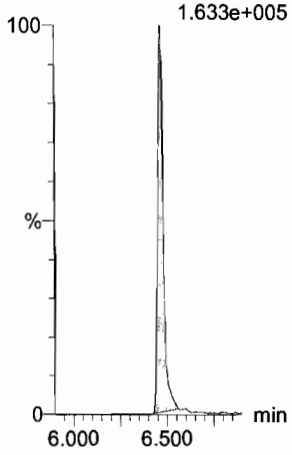
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.113e+005



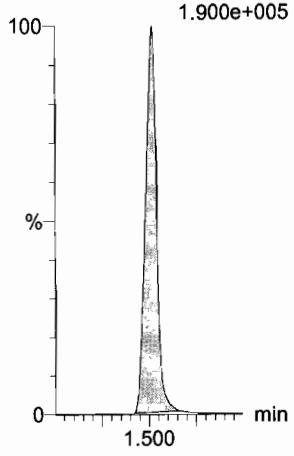
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.055e+005



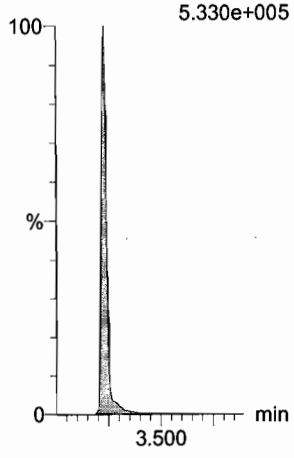
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.633e+005



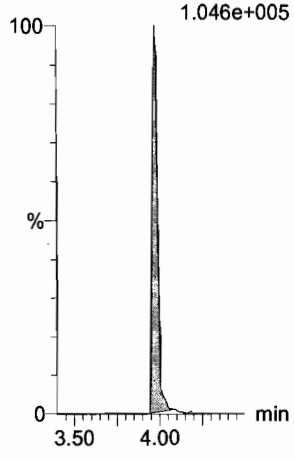
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.900e+005



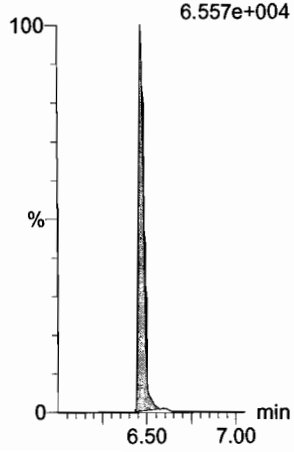
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.330e+005



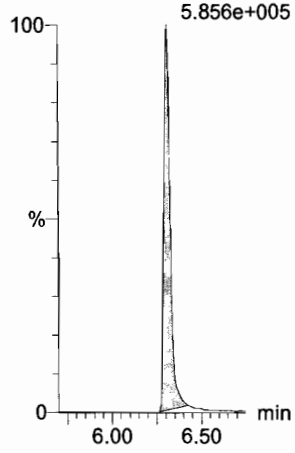
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.046e+005



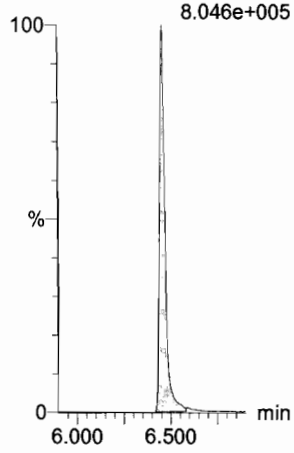
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.557e+004



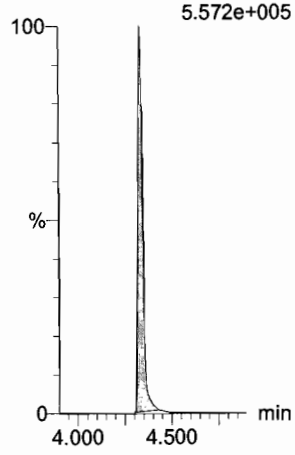
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.856e+005



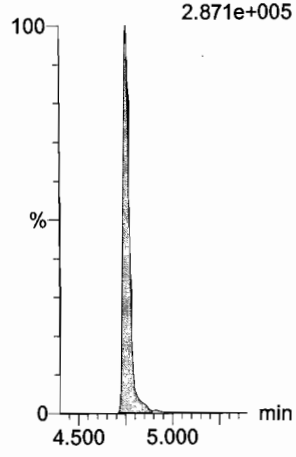
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
8.046e+005



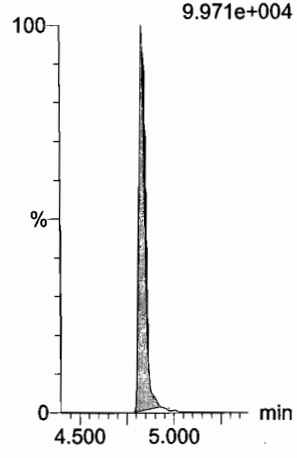
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.572e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.871e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.971e+004

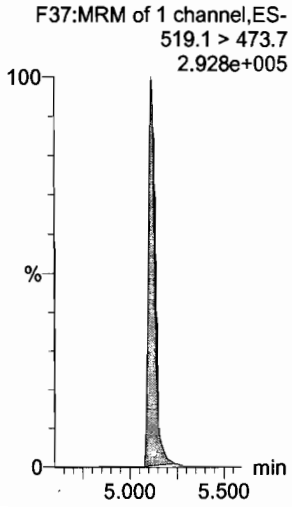


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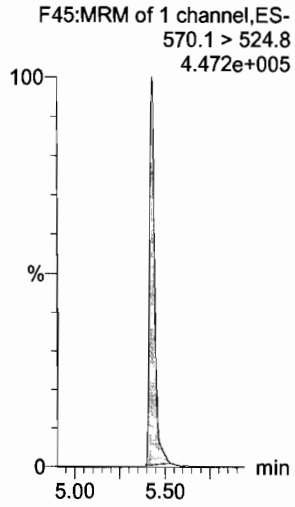
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Name: 171227M2_6, Date: 27-Dec-2017, Time: 18:21:24, ID: ST171227M2-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

13C6-PFDA



13C7-PFUdA

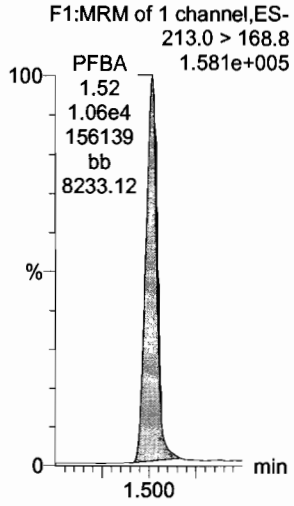


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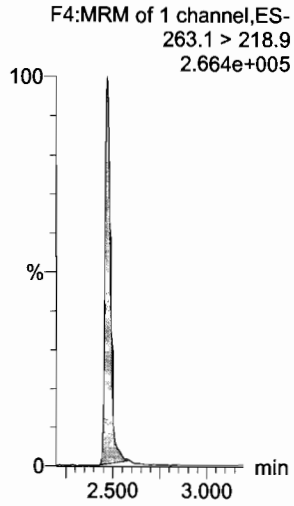
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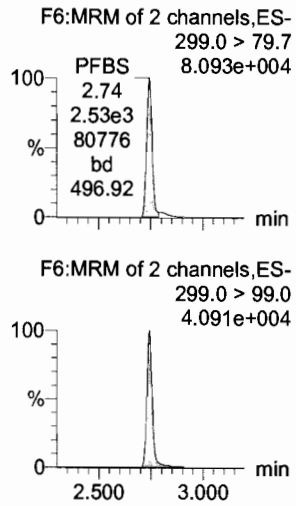
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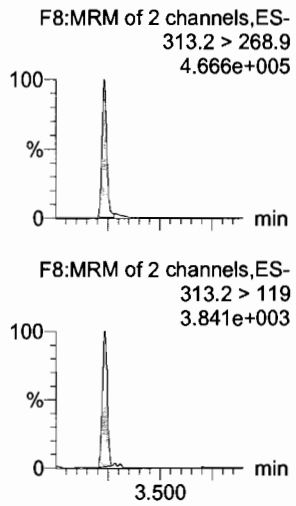
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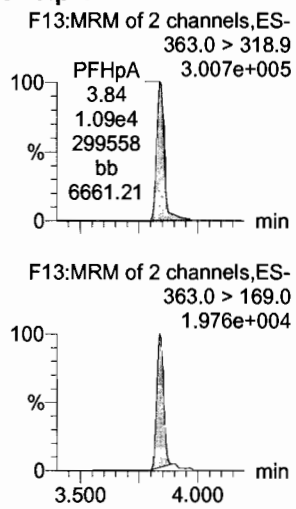
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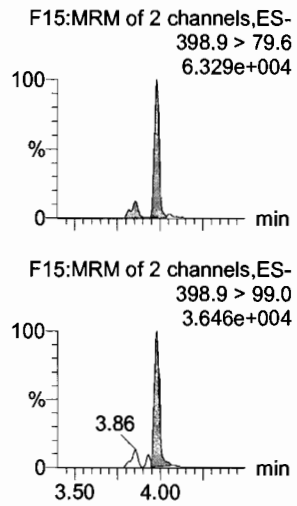
PFHxA



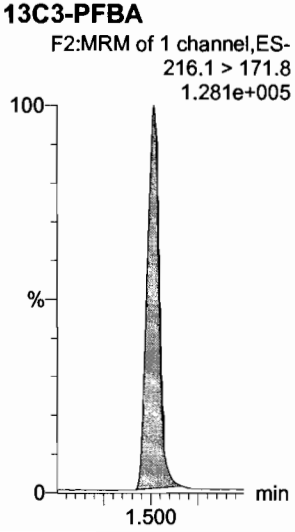
PFHpA



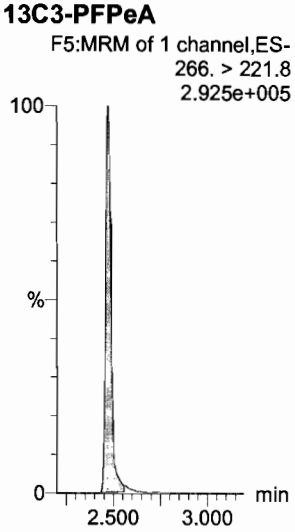
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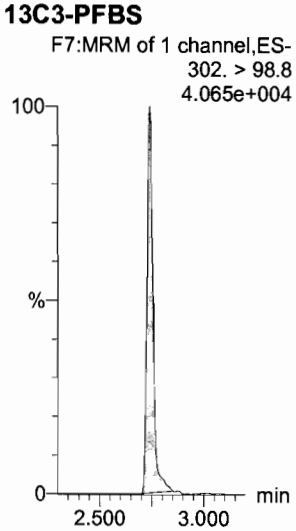
13C3-PFBA



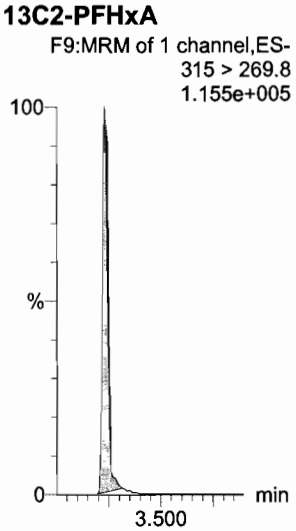
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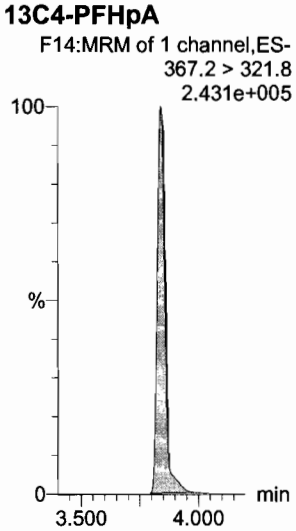
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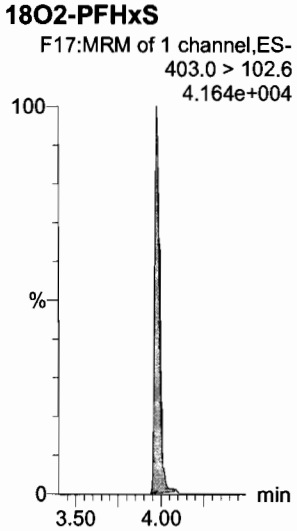
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13C4-PFHpA



18O2-PFHxS

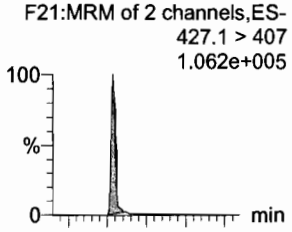


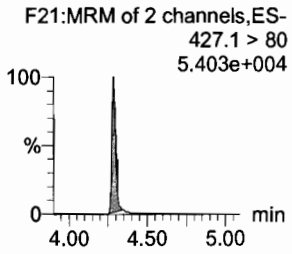
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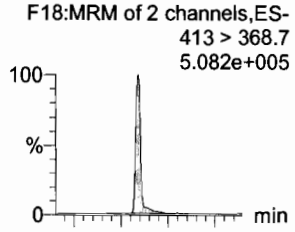
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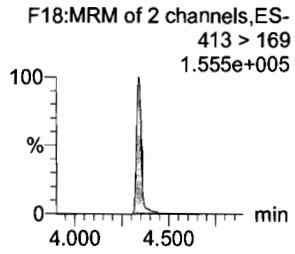
6:2 FTS



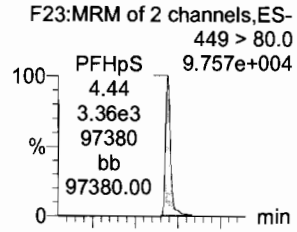


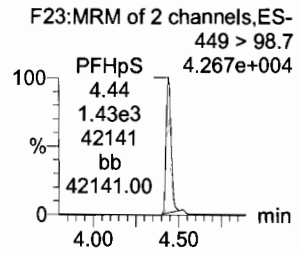
L-PFOA



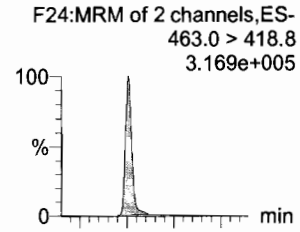


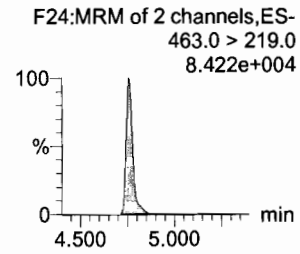
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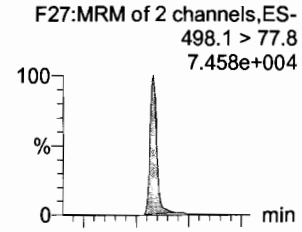


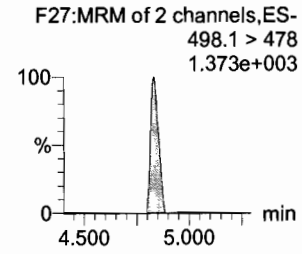
PFNA



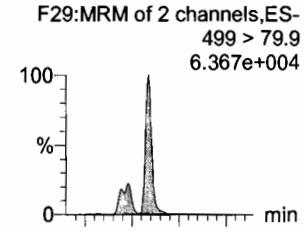


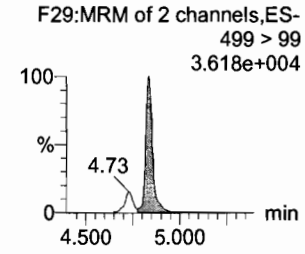
PFOSA



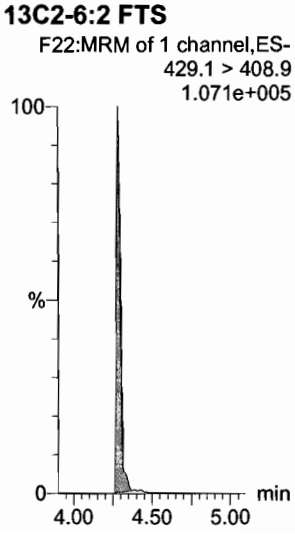


L-PFOS

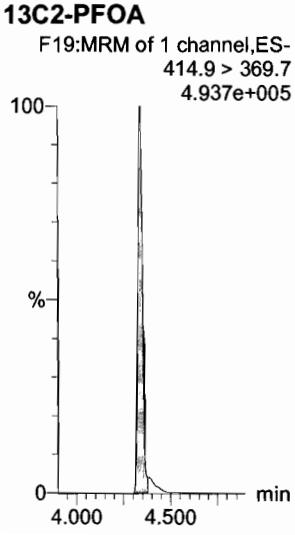




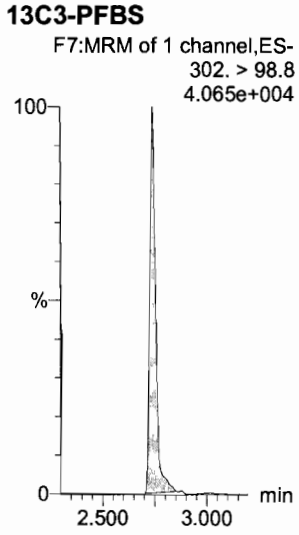
13C2-6:2 FTS



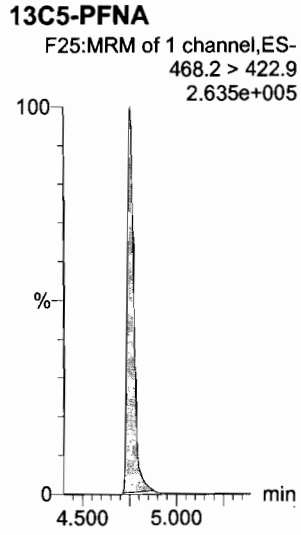
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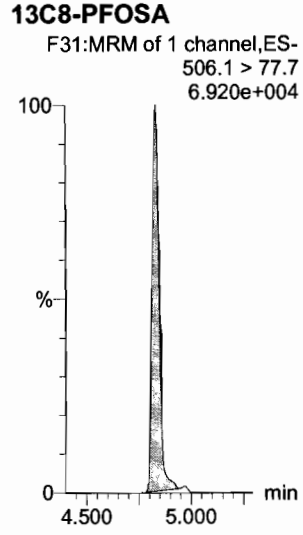
13C3-PFBS



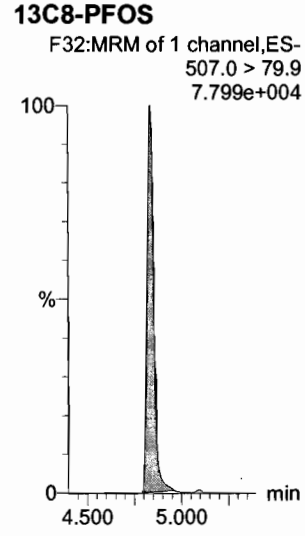
13C5-PFNA



13C8-PFOSA



13C8-PFOS

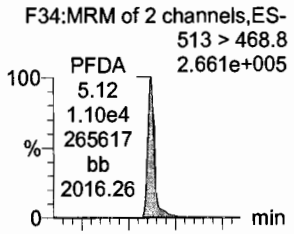


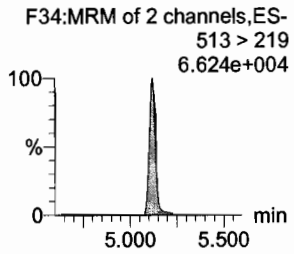
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Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

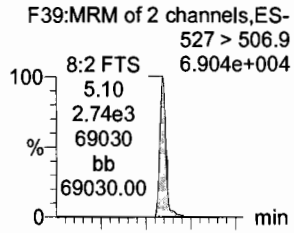
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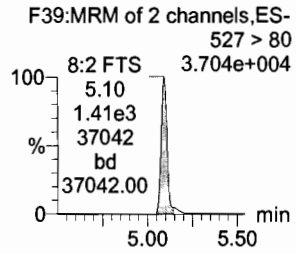
PFDA



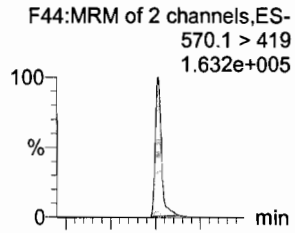


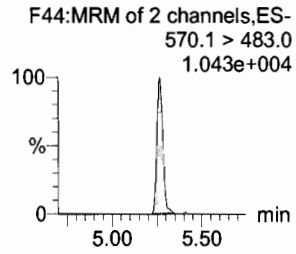
8:2 FTS



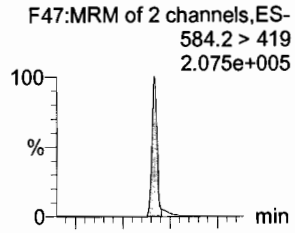


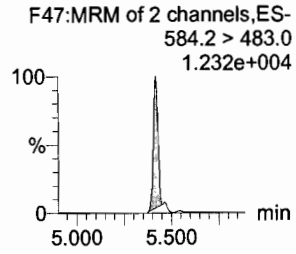
N-MeFOSAA



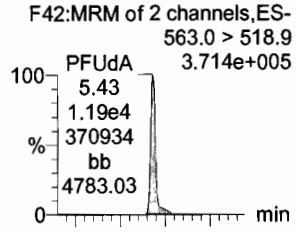


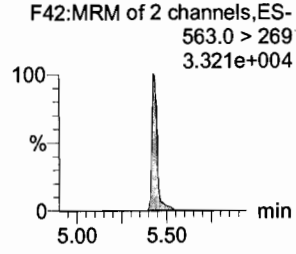
N-EtFOSAA



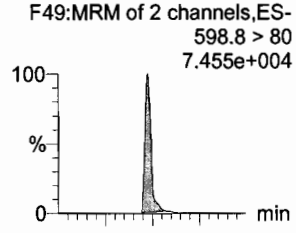


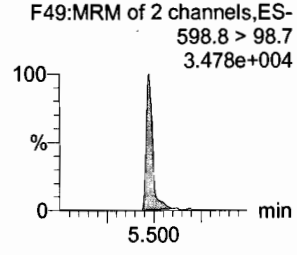
PFUdA



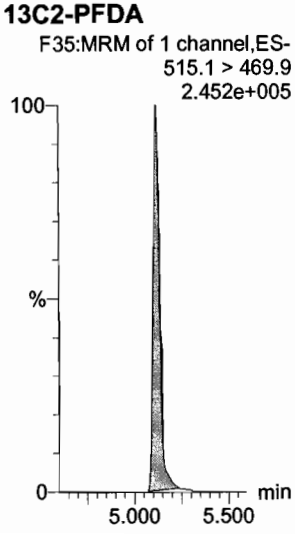


PFDS

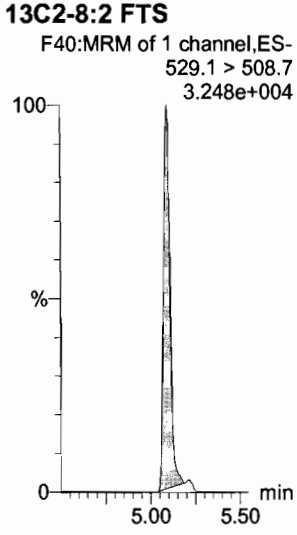




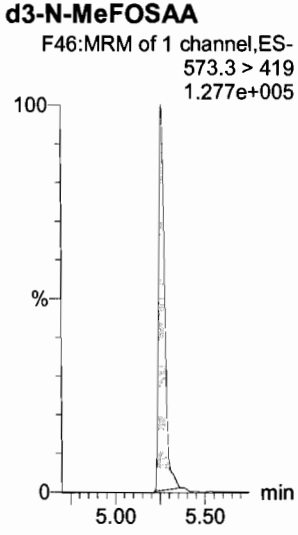
13C2-PFDA



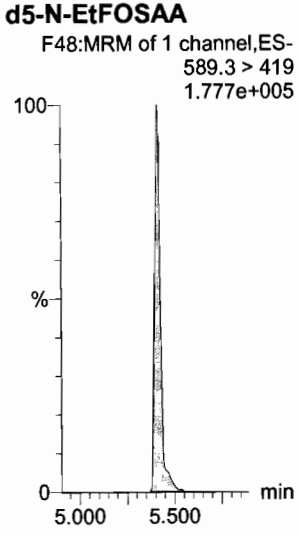
13C2-8:2 FTS



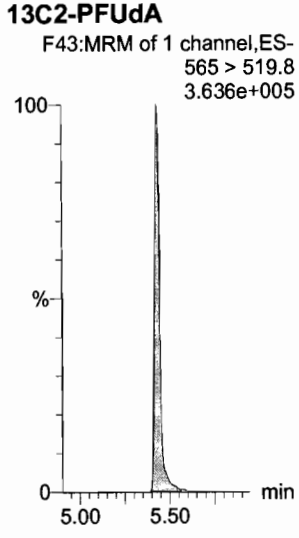
d3-N-MeFOSAA



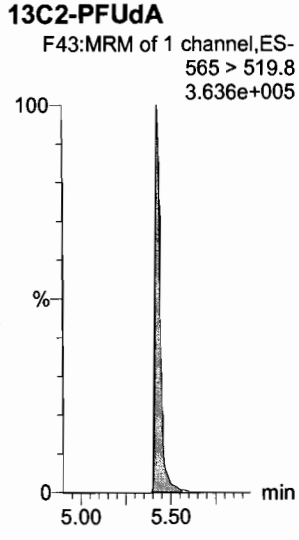
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

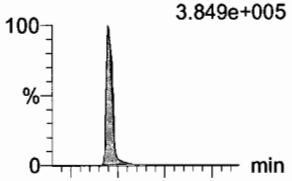


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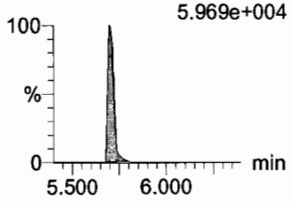
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Name: 171227M2_7, Date: 27-Dec-2017, Time: 18:32:34, ID: ST171227M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

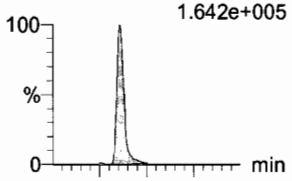
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
3.849e+005



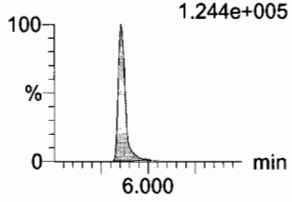
F50:MRM of 2 channels,ES-
612.9 > 318.8
5.969e+004



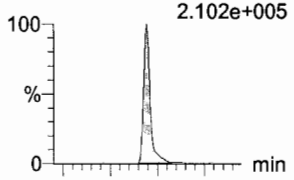
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
1.642e+005



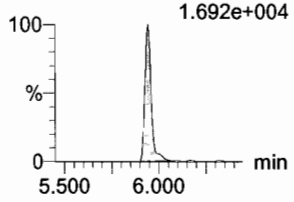
F33:MRM of 2 channels,ES-
512.1 > 219
1.244e+005



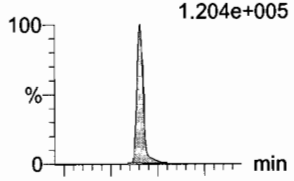
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
2.102e+005



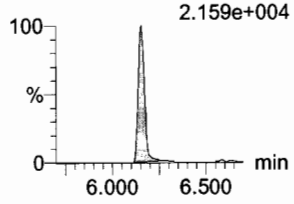
F56:MRM of 2 channels,ES-
662.9 > 319
1.692e+004



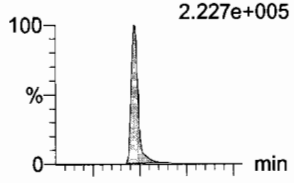
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
1.204e+005



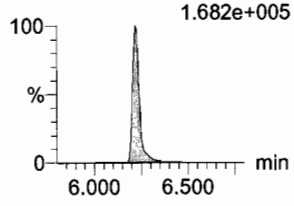
F57:MRM of 2 channels,ES-
712.9 > 369
2.159e+004



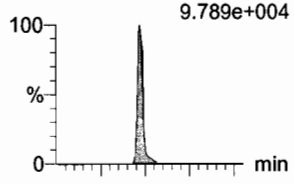
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
2.227e+005



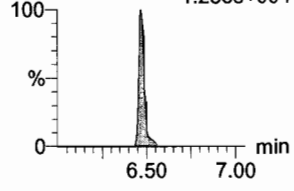
F38:MRM of 2 channels,ES-
526.1 > 219
1.682e+005



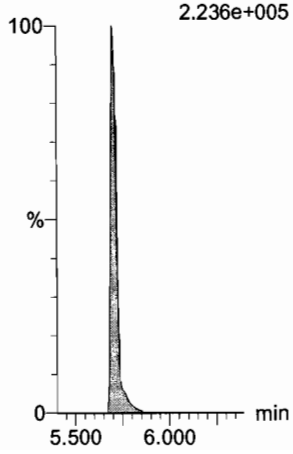
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
9.789e+004



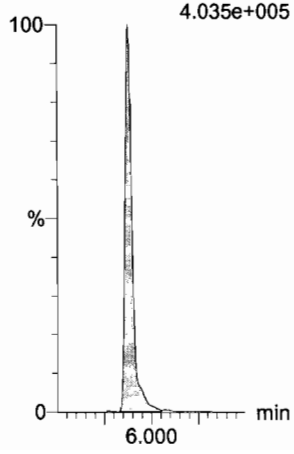
F59:MRM of 2 channels,ES-
813.1 > 219
1.253e+004



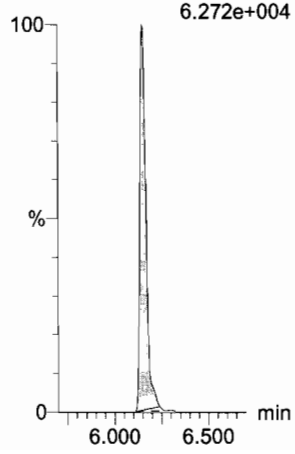
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
2.236e+005



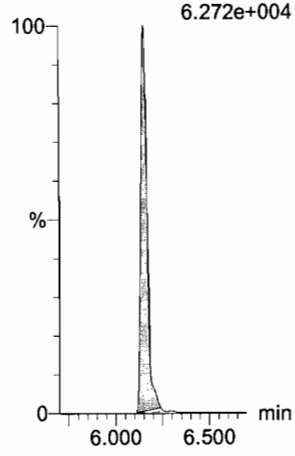
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.035e+005



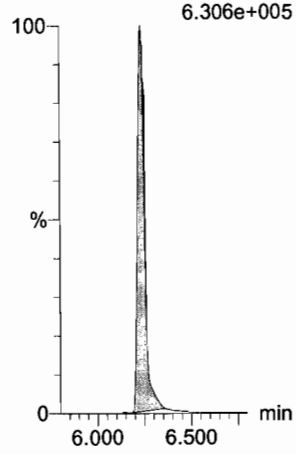
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
6.272e+004



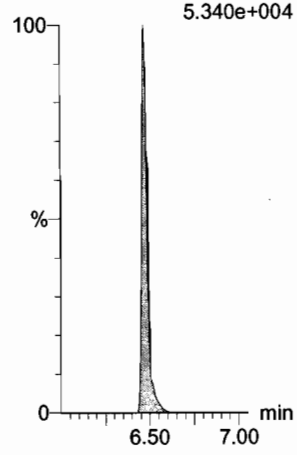
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
6.272e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.306e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.340e+004

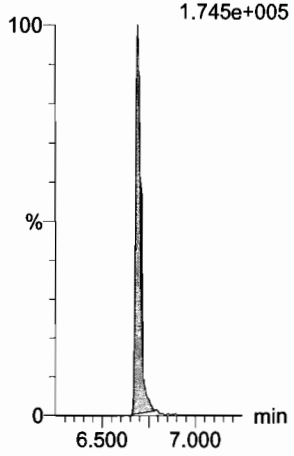


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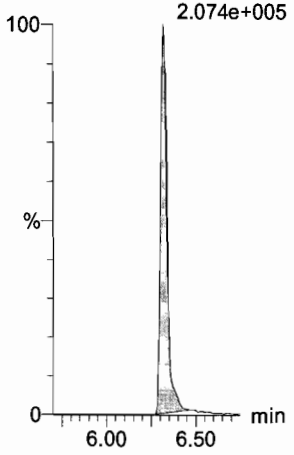
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Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

Name: 171227M2_7, Date: 27-Dec-2017, Time: 18:32:34, ID: ST171227M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

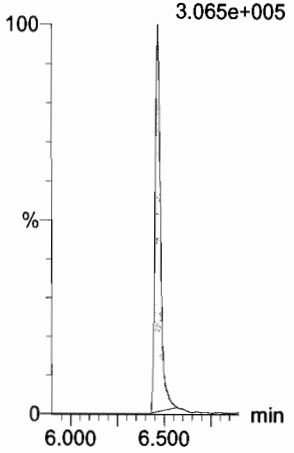
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.745e+005



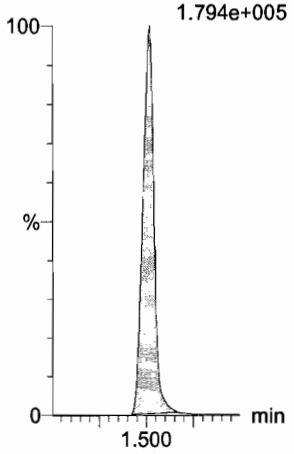
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.074e+005



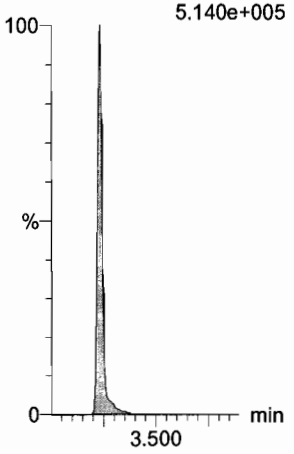
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.065e+005



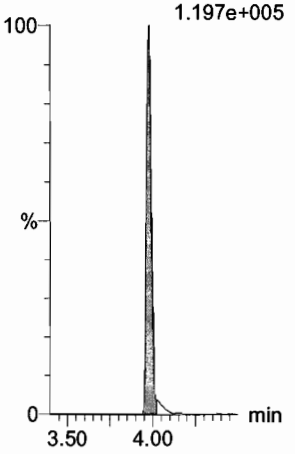
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.794e+005



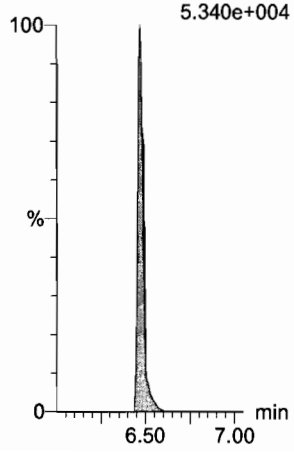
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.140e+005



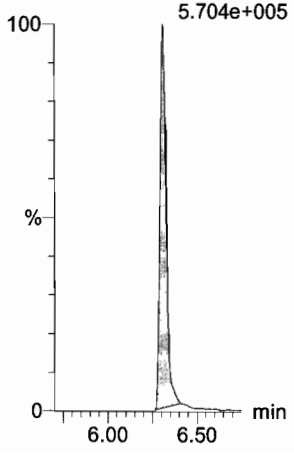
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.197e+005



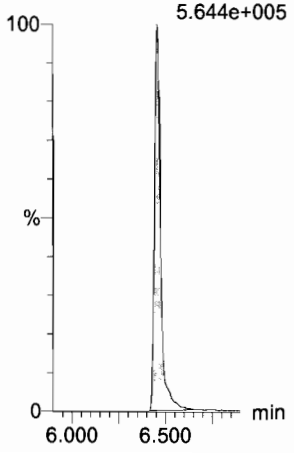
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.340e+004



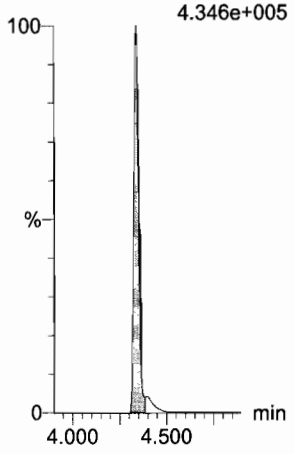
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.704e+005



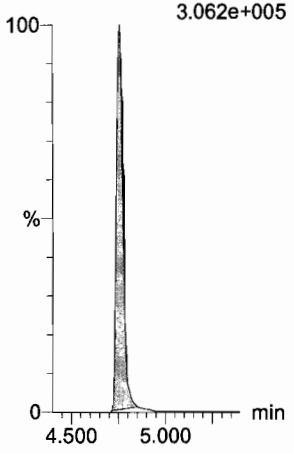
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.644e+005



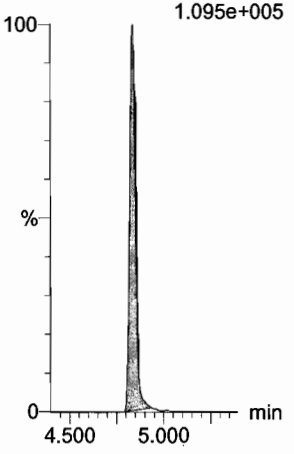
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.346e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.062e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.095e+005

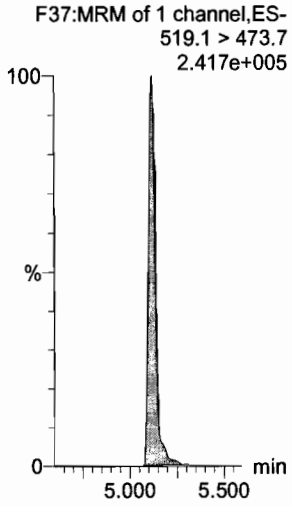


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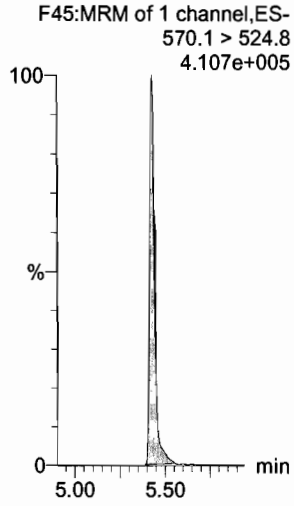
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Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

Name: 171227M2_7, Date: 27-Dec-2017, Time: 18:32:34, ID: ST171227M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

13C6-PFDA



13C7-PFUdA

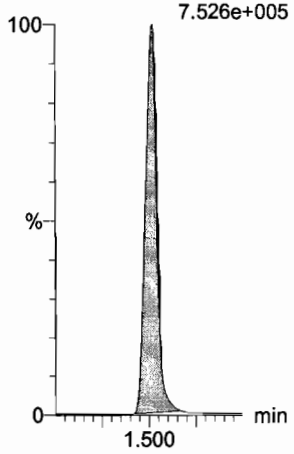


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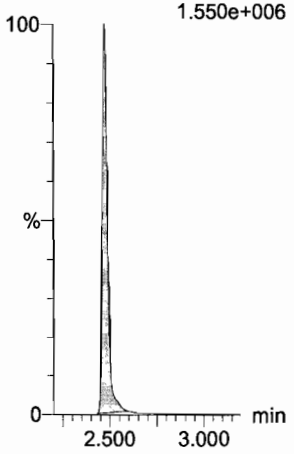
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Name: 171227M2_8, Date: 27-Dec-2017, Time: 18:43:45, ID: ST171227M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

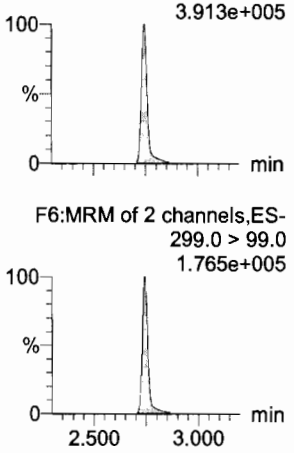
PFBA



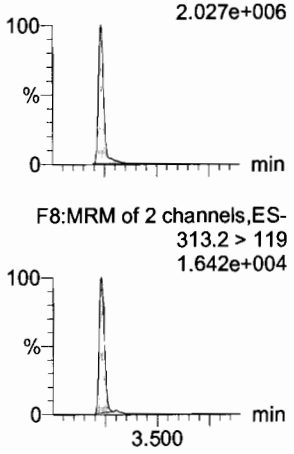
PFPeA



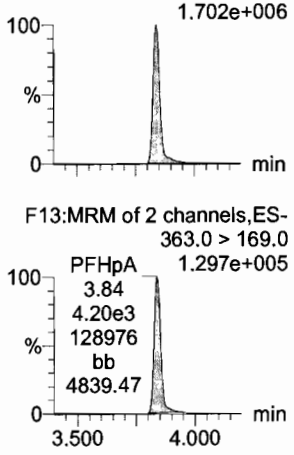
PFBS



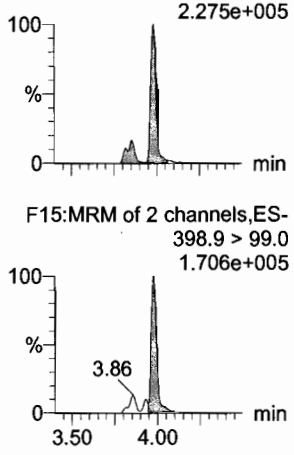
PFHxA



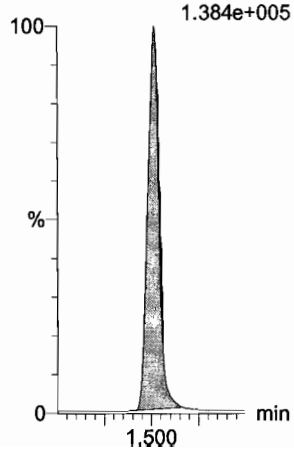
PFHpA



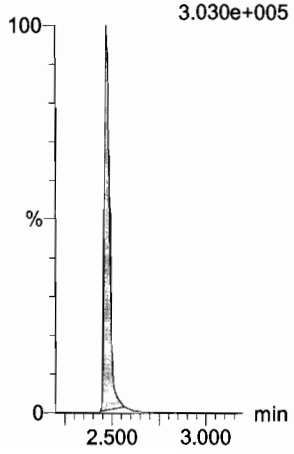
L-PFHxS



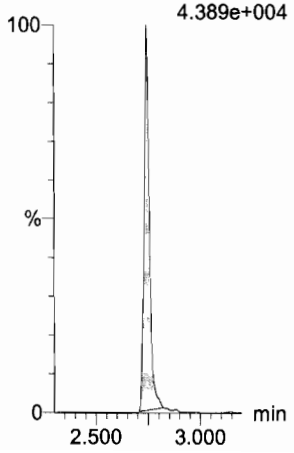
13C3-PFBA



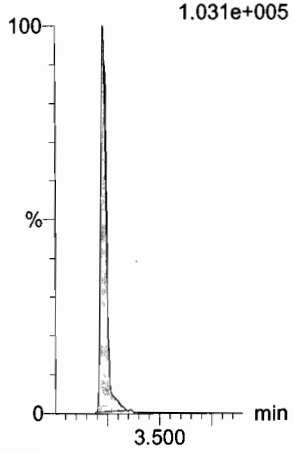
13C3-PFPeA



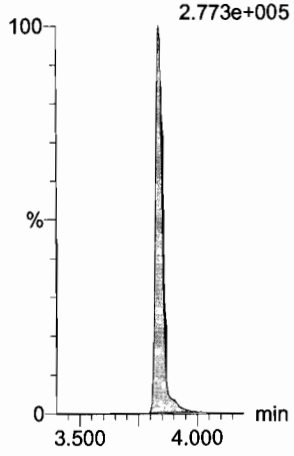
13C3-PFBS



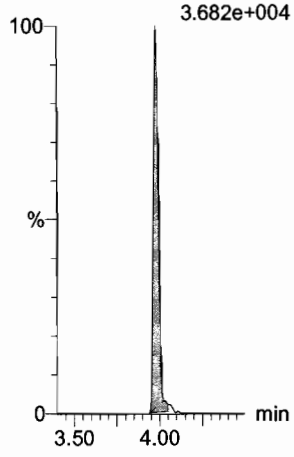
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

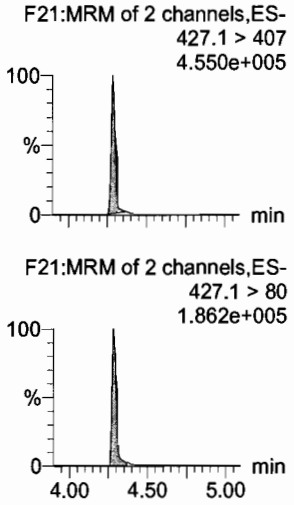


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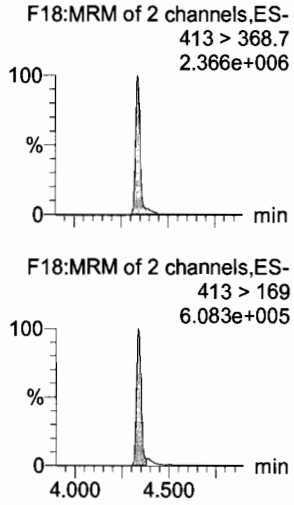
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Name: 171227M2_8, Date: 27-Dec-2017, Time: 18:43:45, ID: ST171227M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

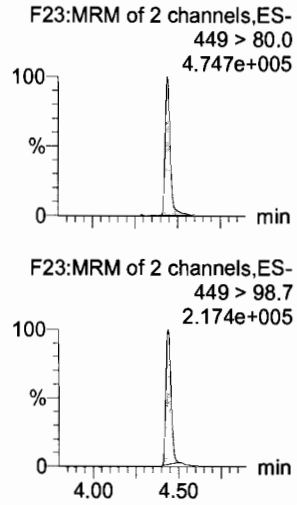
6:2 FTS



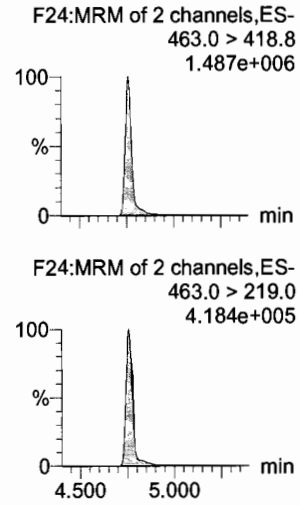
L-PFOA



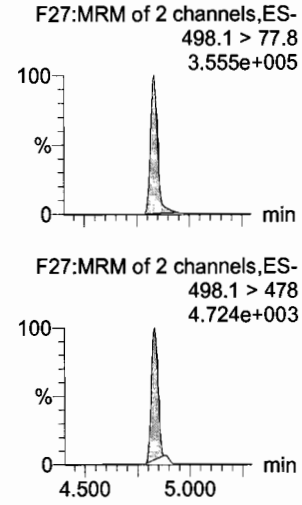
PFHpS



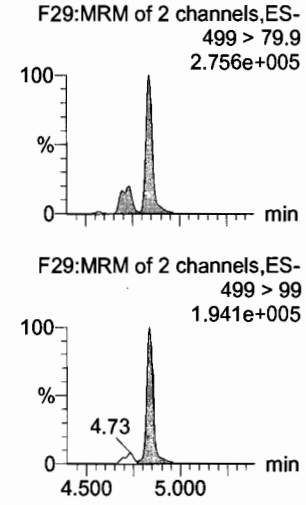
PFNA



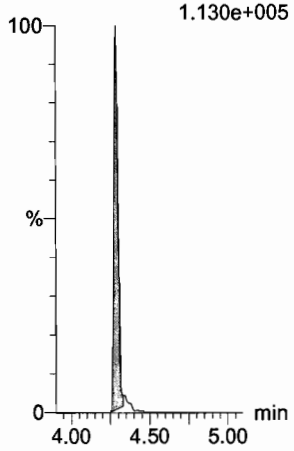
PFOSA



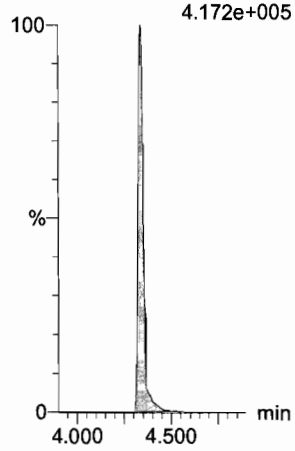
L-PFOS



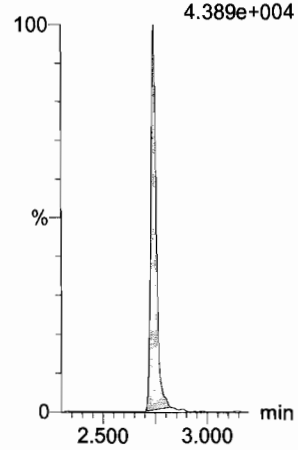
13C2-6:2 FTS



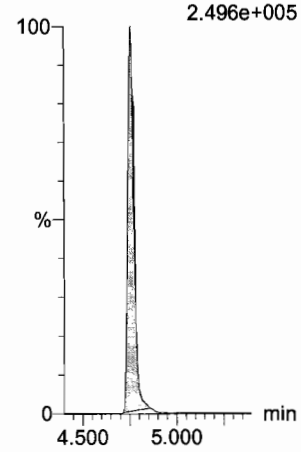
13C2-PFOA



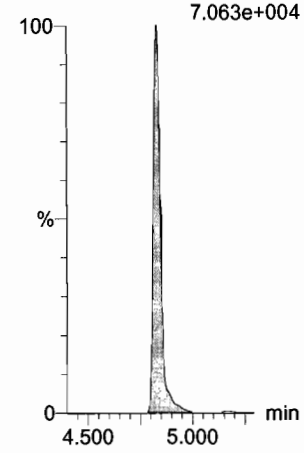
13C3-PFBS



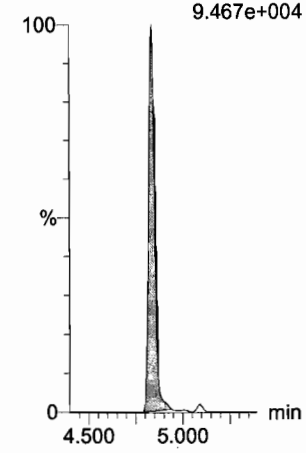
13C5-PFNA



13C8-PFOSA



13C8-PFOS

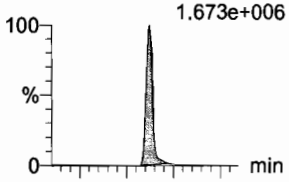


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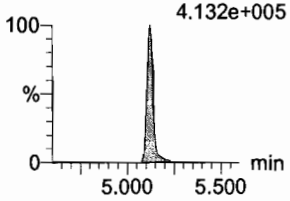
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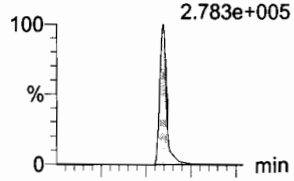
PFDA
F34:MRM of 2 channels,ES-
513 > 468.8
1.673e+006



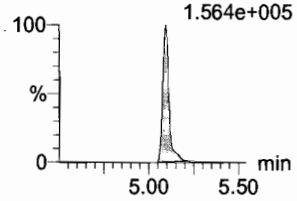
F34:MRM of 2 channels,ES-
513 > 219
4.132e+005



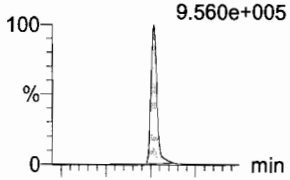
8:2 FTS
F39:MRM of 2 channels,ES-
527 > 506.9
2.783e+005



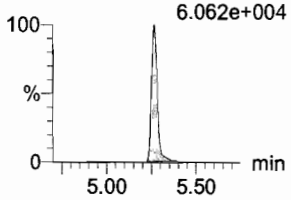
F39:MRM of 2 channels,ES-
527 > 80
1.564e+005



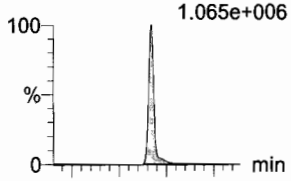
N-MeFOSAA
F44:MRM of 2 channels,ES-
570.1 > 419
9.560e+005



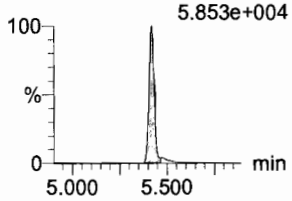
F44:MRM of 2 channels,ES-
570.1 > 483.0
6.062e+004



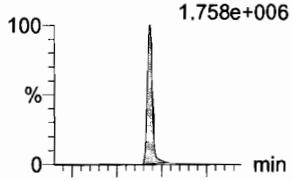
N-EtFOSAA
F47:MRM of 2 channels,ES-
584.2 > 419
1.065e+006



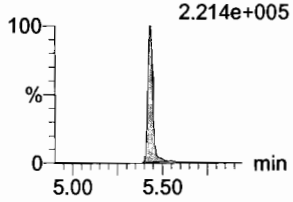
F47:MRM of 2 channels,ES-
584.2 > 483.0
5.853e+004



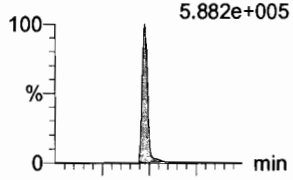
PFUdA
F42:MRM of 2 channels,ES-
563.0 > 518.9
1.758e+006



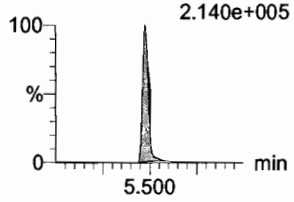
F42:MRM of 2 channels,ES-
563.0 > 269
2.214e+005



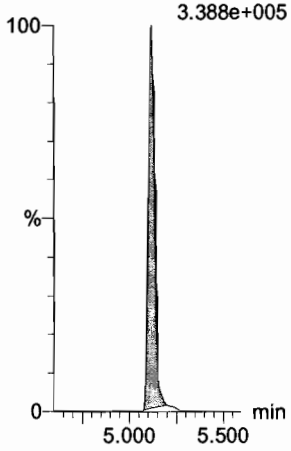
PFDS
F49:MRM of 2 channels,ES-
598.8 > 80
5.882e+005



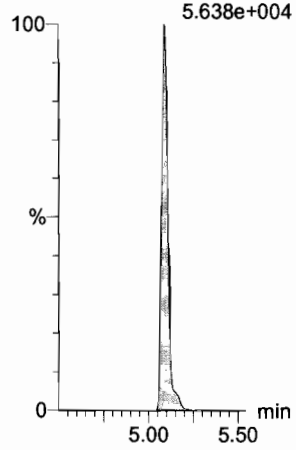
F49:MRM of 2 channels,ES-
598.8 > 98.7
2.140e+005



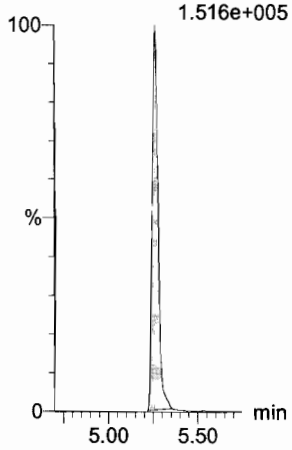
13C2-PFDA
F35:MRM of 1 channel,ES-
515.1 > 469.9
3.388e+005



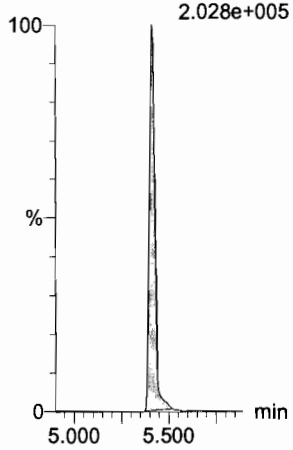
13C2-8:2 FTS
F40:MRM of 1 channel,ES-
529.1 > 508.7
5.638e+004



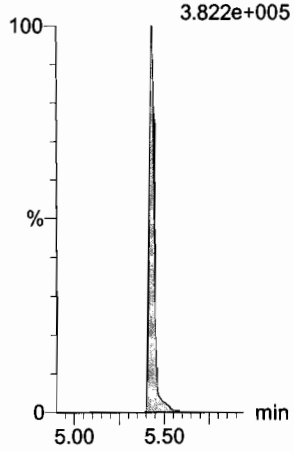
d3-N-MeFOSAA
F46:MRM of 1 channel,ES-
573.3 > 419
1.516e+005



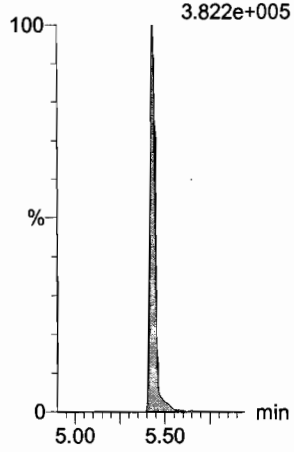
d5-N-EtFOSAA
F48:MRM of 1 channel,ES-
589.3 > 419
2.028e+005



13C2-PFUdA
F43:MRM of 1 channel,ES-
565 > 519.8
3.822e+005



13C2-PFUdA
F43:MRM of 1 channel,ES-
565 > 519.8
3.822e+005

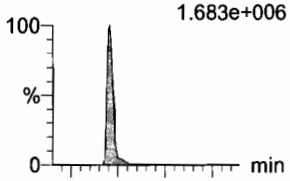


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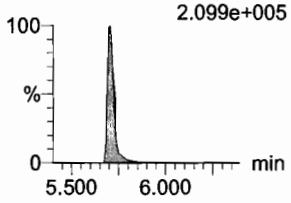
Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

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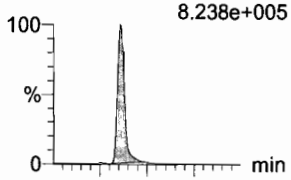
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
1.683e+006



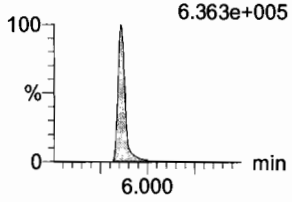
F50:MRM of 2 channels,ES-
612.9 > 318.8
2.099e+005



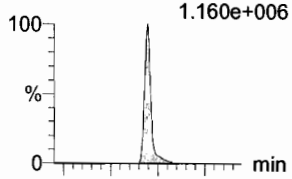
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
8.238e+005



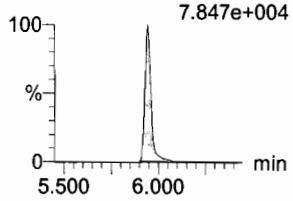
F33:MRM of 2 channels,ES-
512.1 > 219
6.363e+005



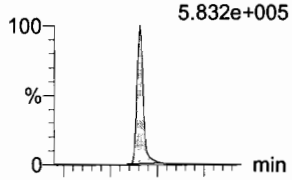
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
1.160e+006



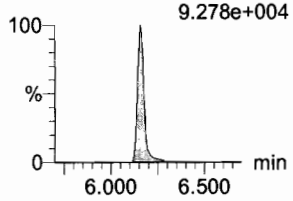
F56:MRM of 2 channels,ES-
662.9 > 319
7.847e+004



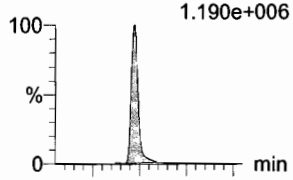
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
5.832e+005



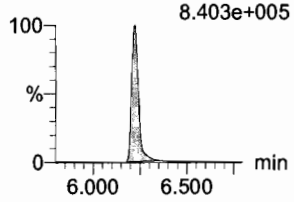
F57:MRM of 2 channels,ES-
712.9 > 369
9.278e+004



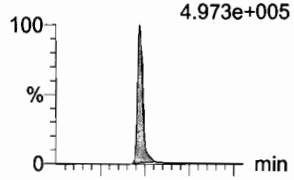
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
1.190e+006



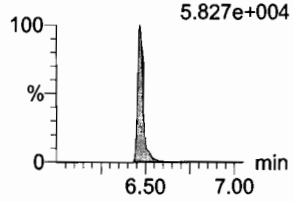
F38:MRM of 2 channels,ES-
526.1 > 219
8.403e+005



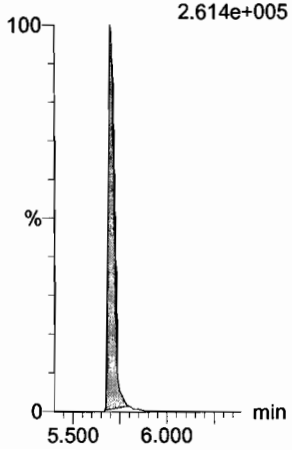
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
4.973e+005



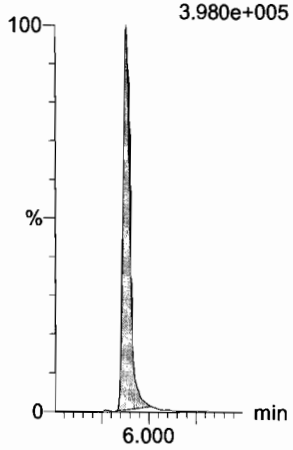
F59:MRM of 2 channels,ES-
813.1 > 219
5.827e+004



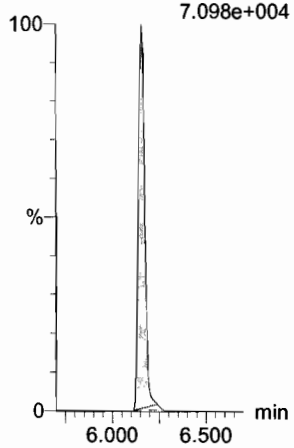
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
2.614e+005



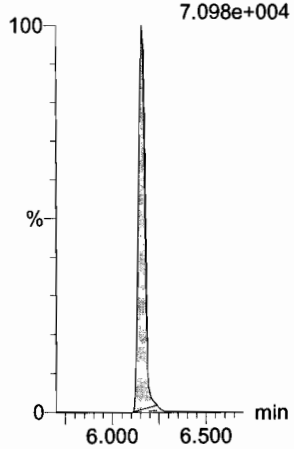
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
3.980e+005



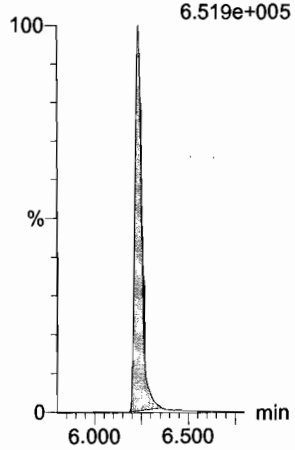
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
7.098e+004



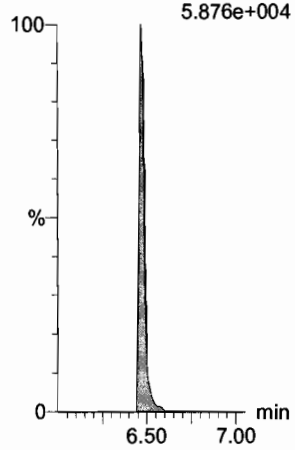
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
7.098e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.519e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.876e+004

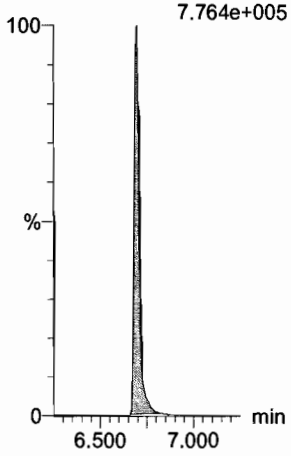


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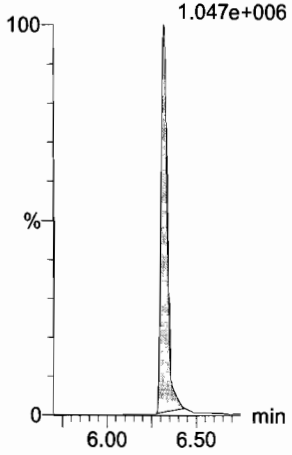
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Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

Name: 171227M2_8, Date: 27-Dec-2017, Time: 18:43:45, ID: ST171227M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

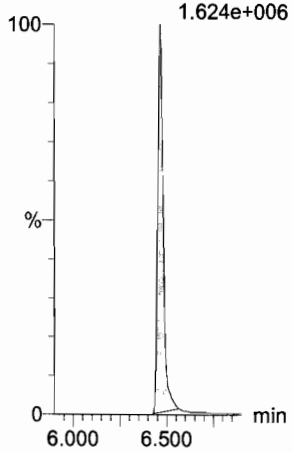
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
7.764e+005



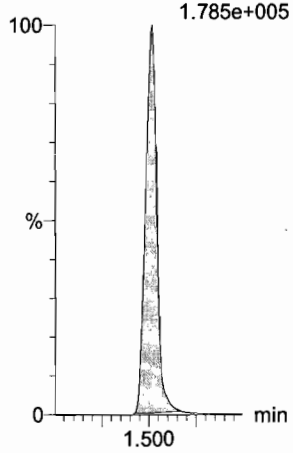
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.047e+006



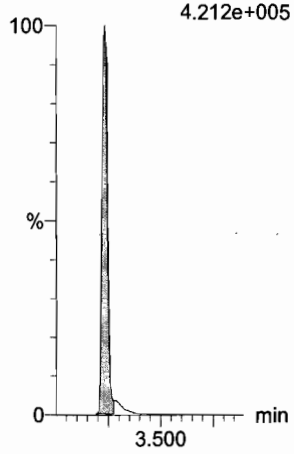
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.624e+006



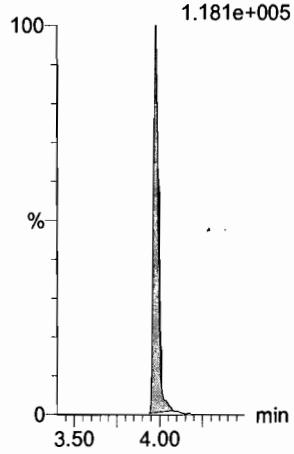
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.785e+005



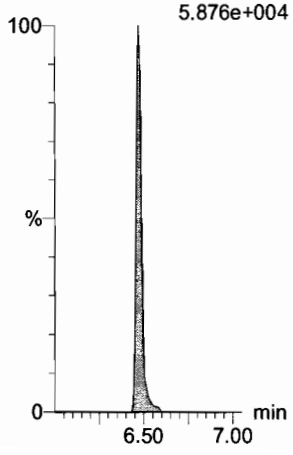
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.212e+005



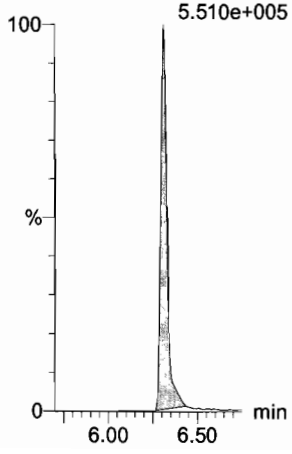
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.181e+005



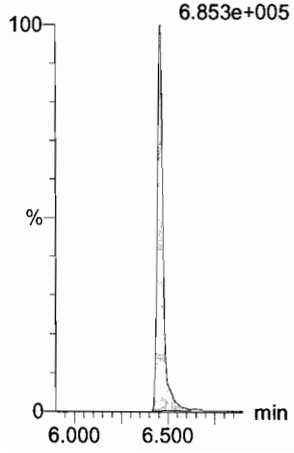
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.876e+004



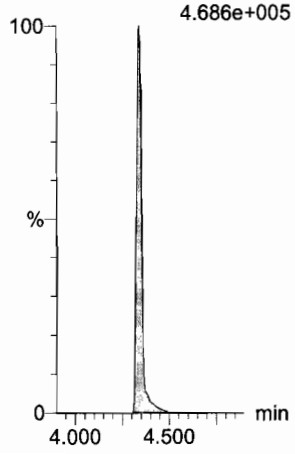
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.510e+005



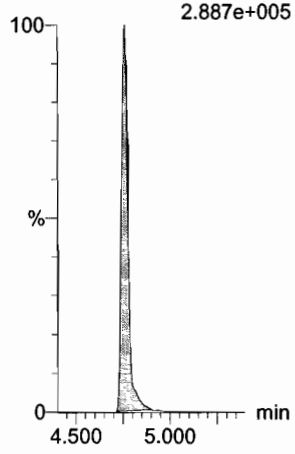
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.853e+005



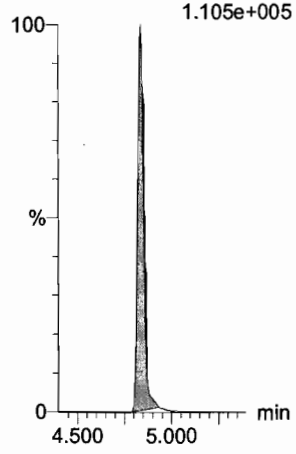
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.686e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.887e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.105e+005

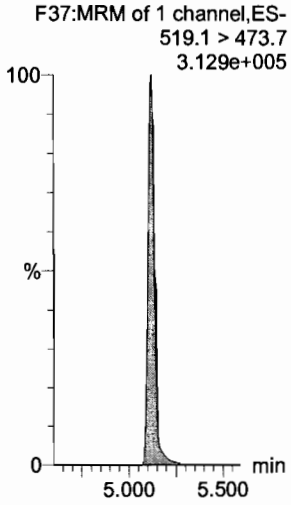


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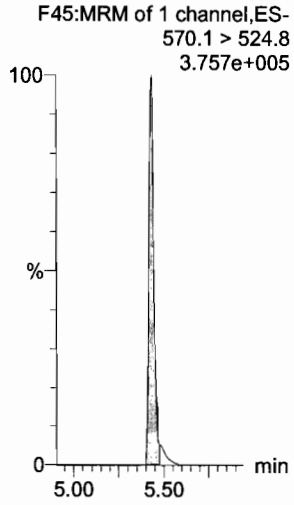
Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

Name: 171227M2_8, Date: 27-Dec-2017, Time: 18:43:45, ID: ST171227M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

13C6-PFDA



13C7-PFUdA

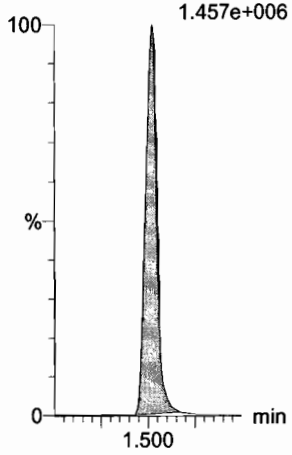


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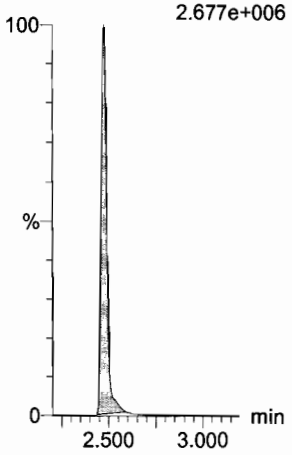
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Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

Name: 171227M2_9, Date: 27-Dec-2017, Time: 18:54:55, ID: ST171227M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

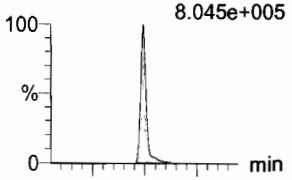
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.457e+006



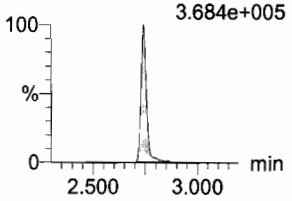
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
2.677e+006



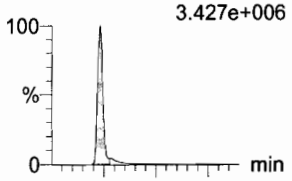
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
8.045e+005



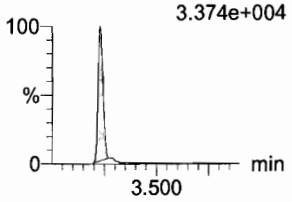
F6:MRM of 2 channels,ES-
299.0 > 99.0
3.684e+005



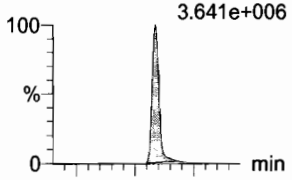
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
3.427e+006



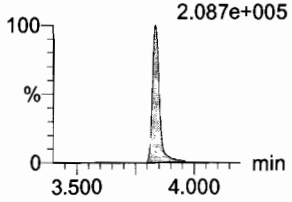
F8:MRM of 2 channels,ES-
313.2 > 119
3.374e+004



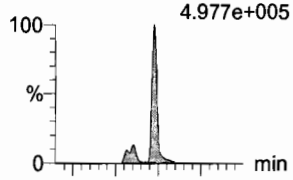
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
3.641e+006



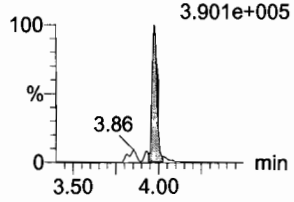
F13:MRM of 2 channels,ES-
363.0 > 169.0
2.087e+005



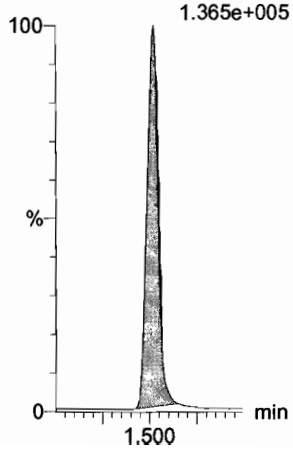
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
4.977e+005



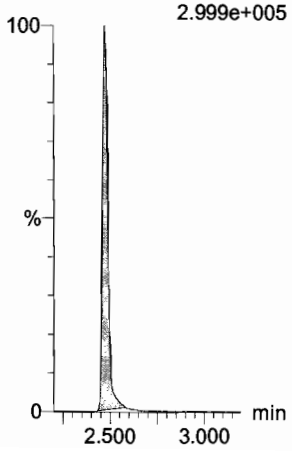
F15:MRM of 2 channels,ES-
398.9 > 99.0
3.901e+005



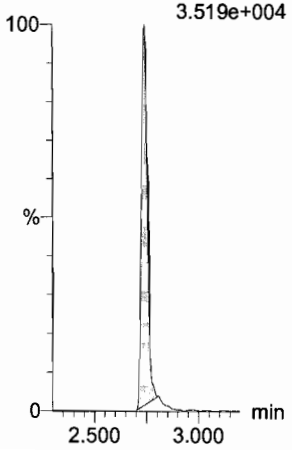
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.365e+005



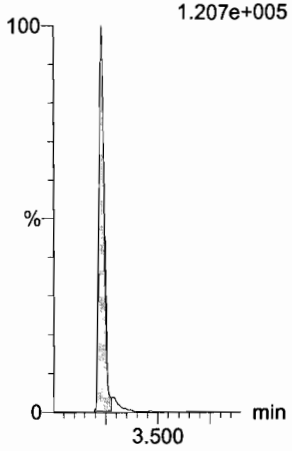
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
2.999e+005



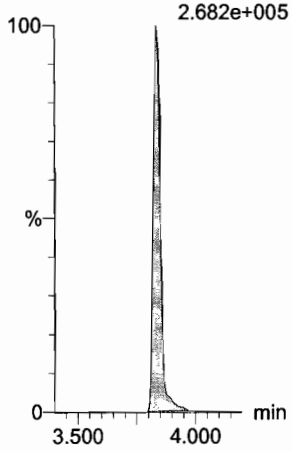
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
3.519e+004



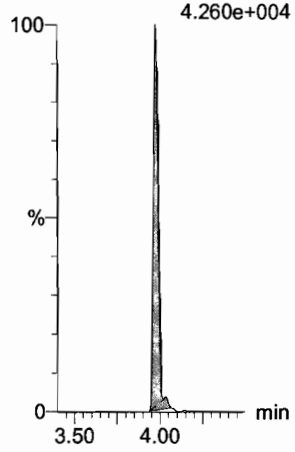
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.207e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
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2.682e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
4.260e+004

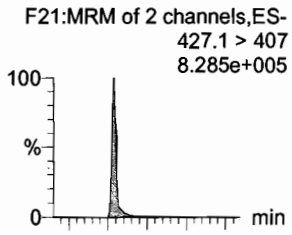


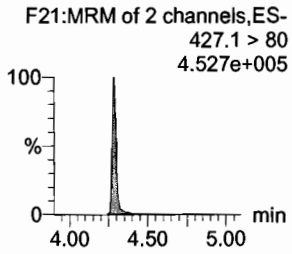
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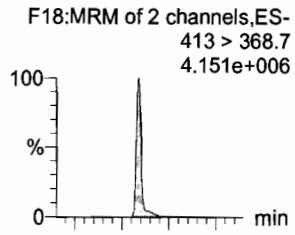
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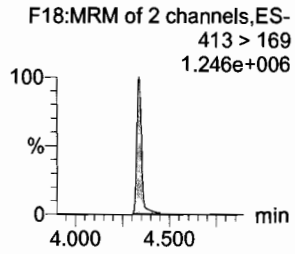
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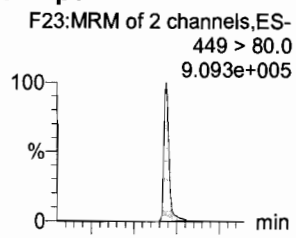


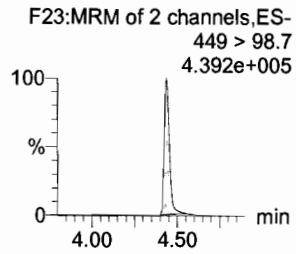
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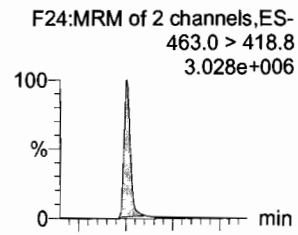


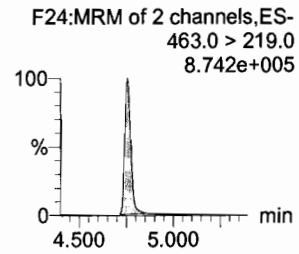
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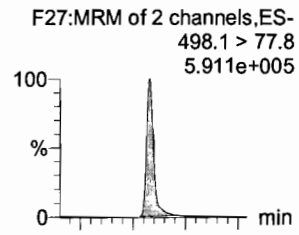


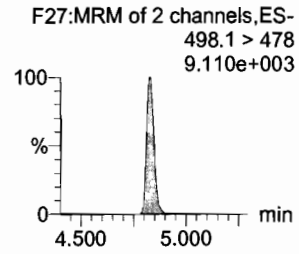
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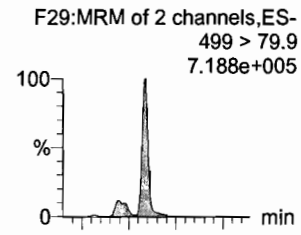


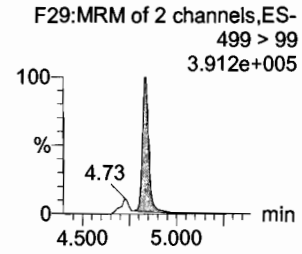
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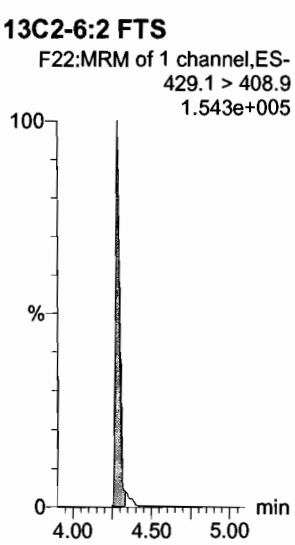


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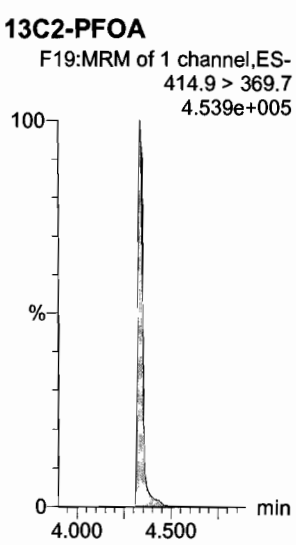




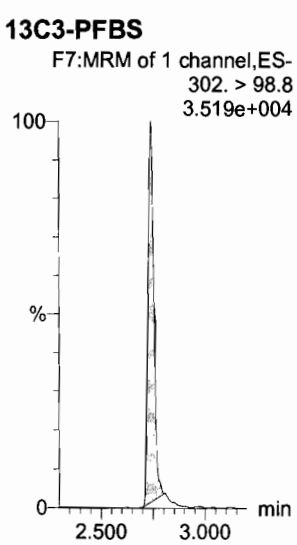
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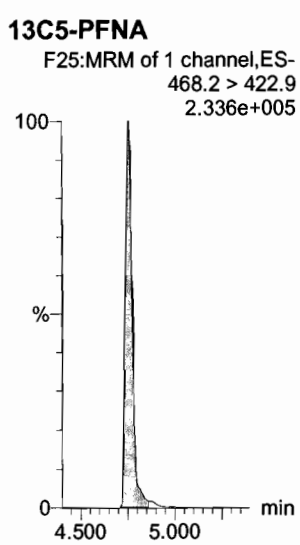
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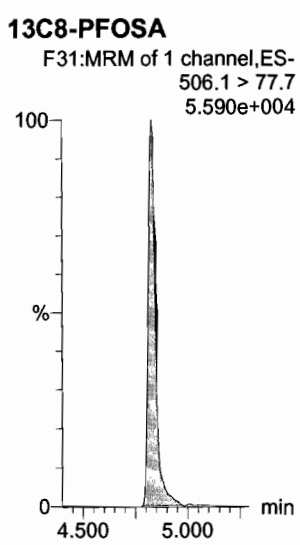
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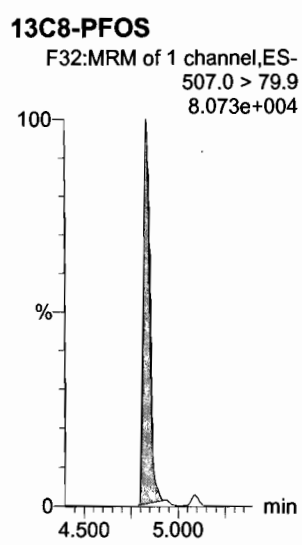
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13C8-PFOSA



13C8-PFOS

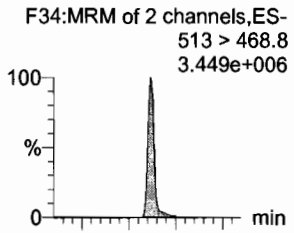


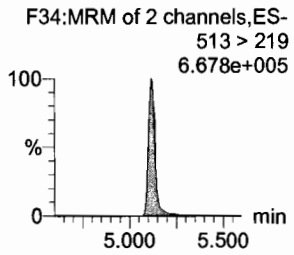
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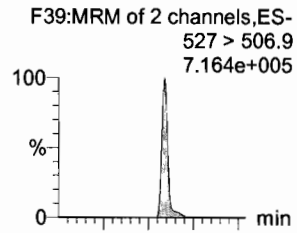
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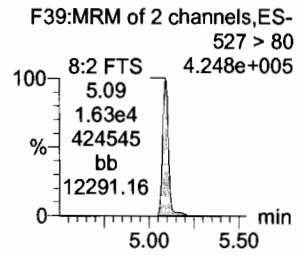
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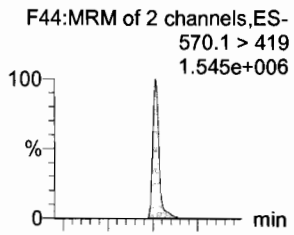


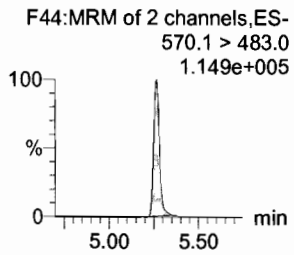
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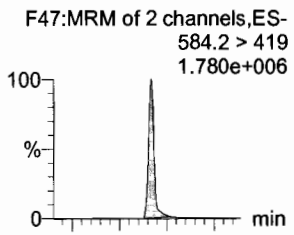


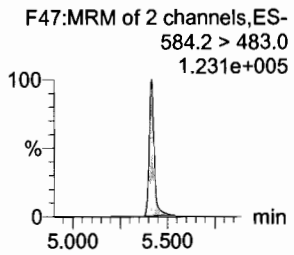
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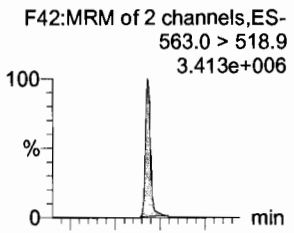


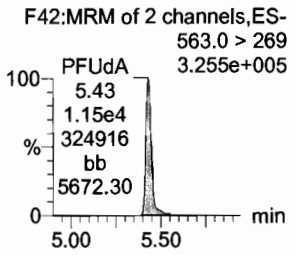
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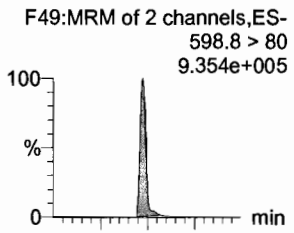


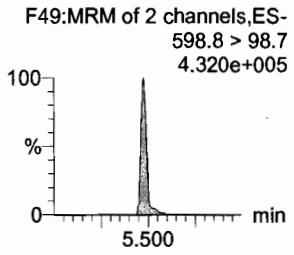
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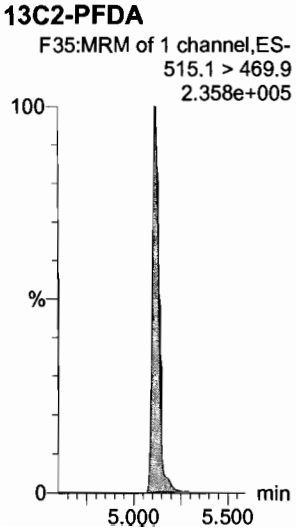


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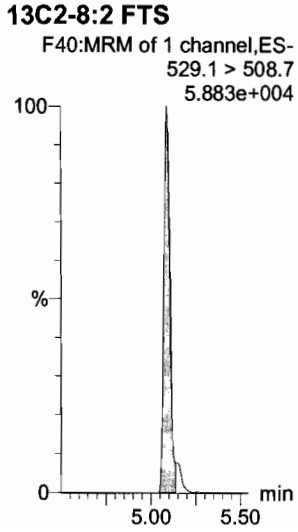




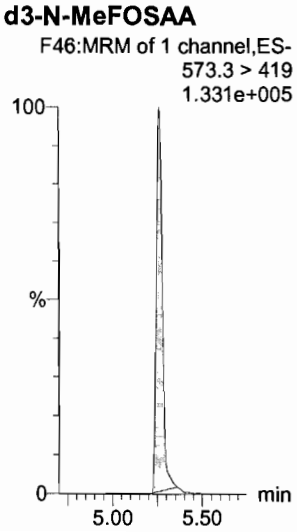
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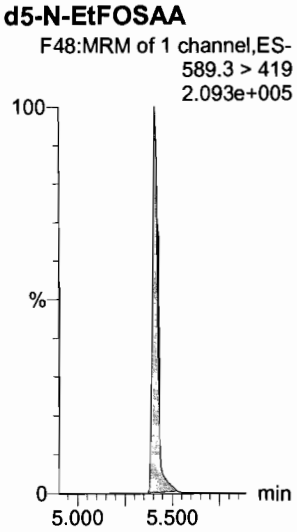
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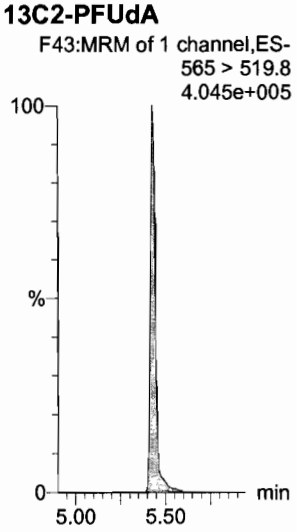
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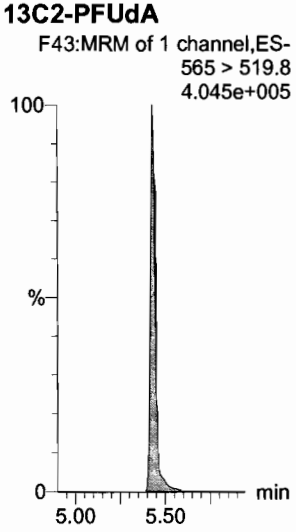
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13C2-PFUdA



13C2-PFUdA

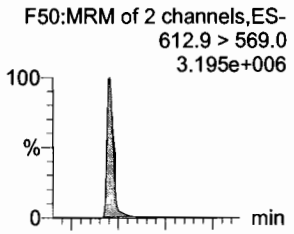


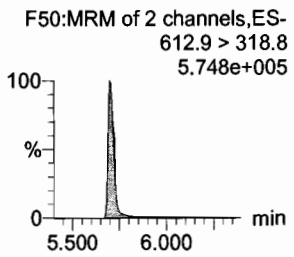
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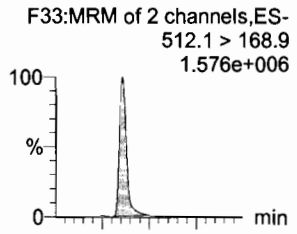
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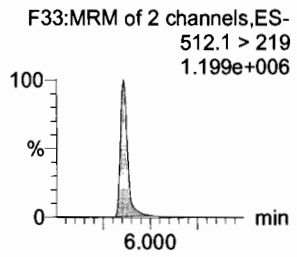
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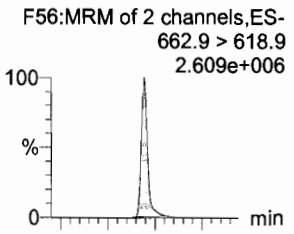


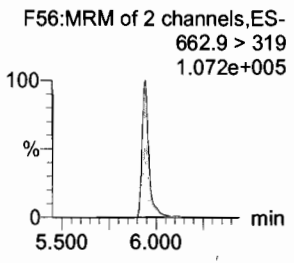
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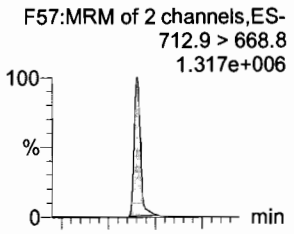


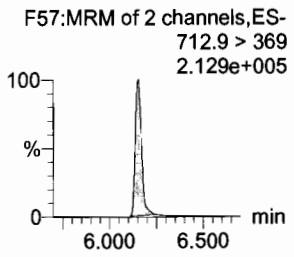
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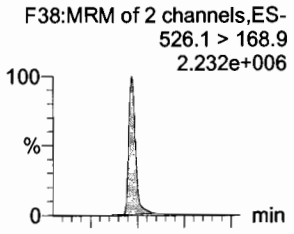


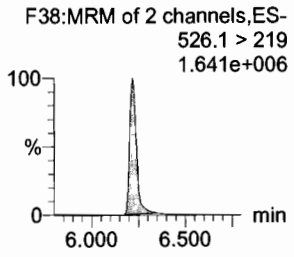
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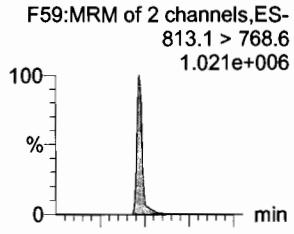


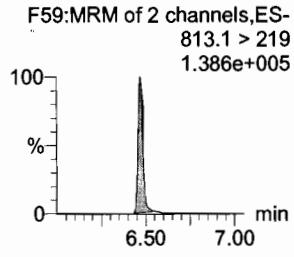
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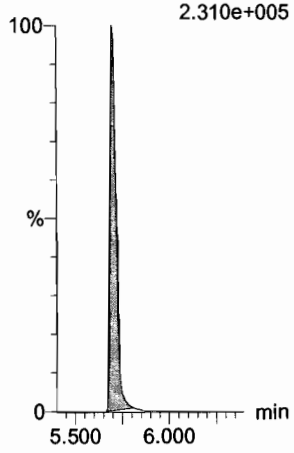


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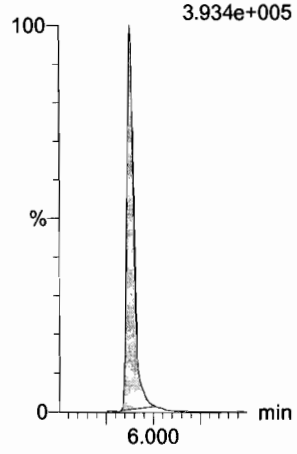




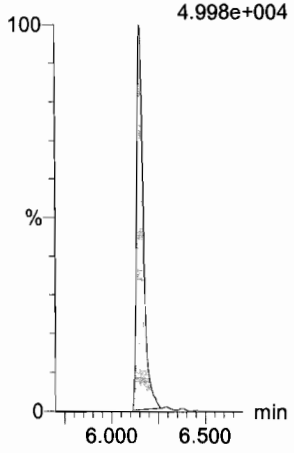
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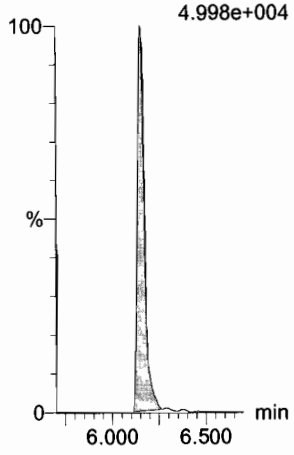
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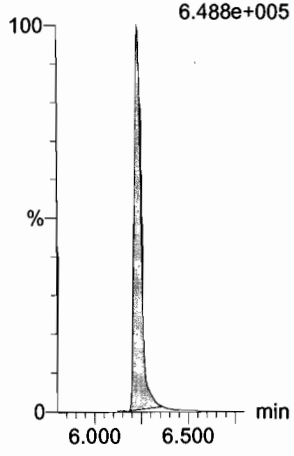
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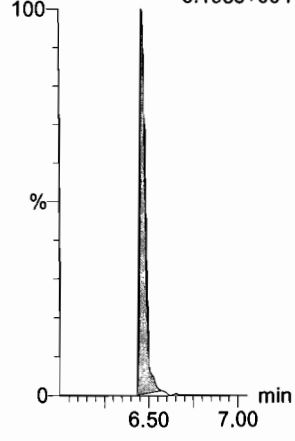
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d5-N-ETFOSA



13C2-PFHxDA

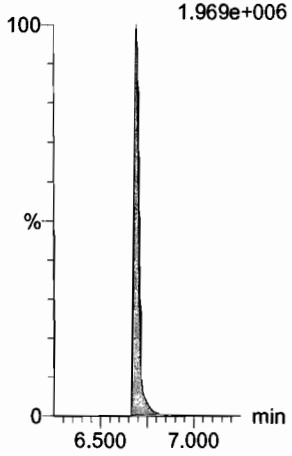


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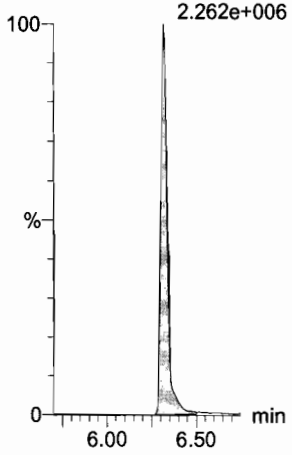
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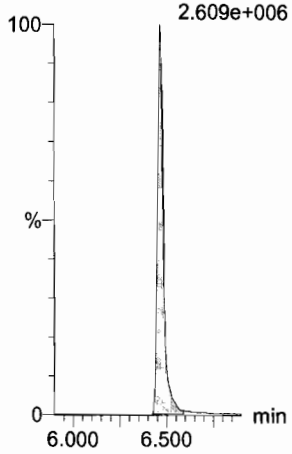
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.969e+006



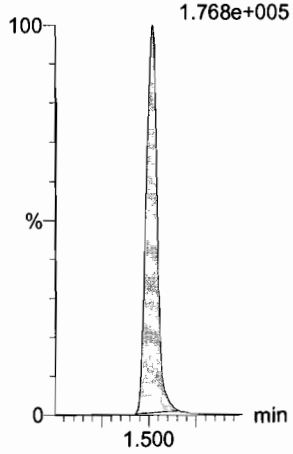
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.262e+006



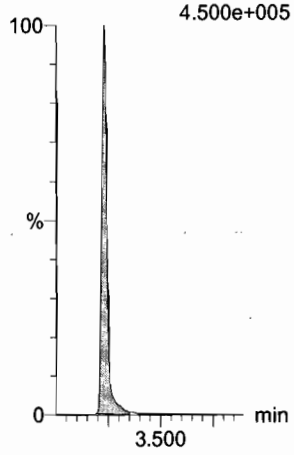
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.609e+006



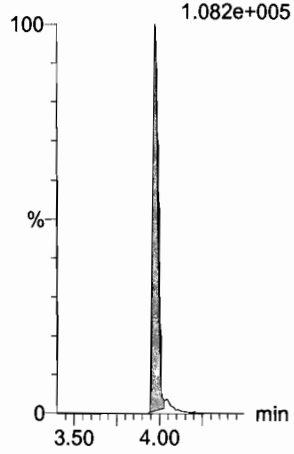
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.768e+005



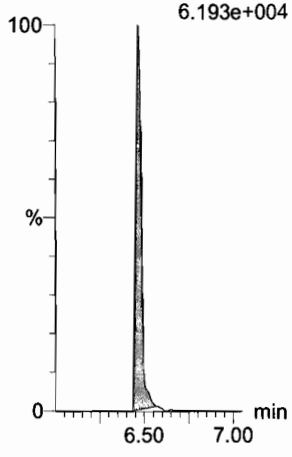
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.500e+005



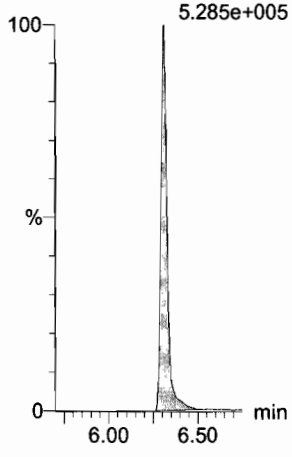
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.082e+005



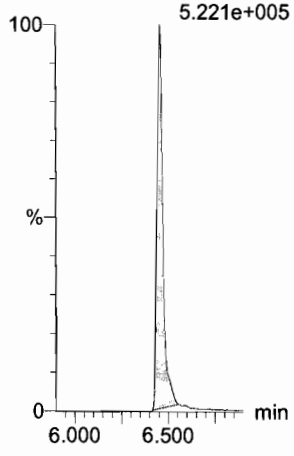
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F60:MRM of 1 channel,ES-
815 > 769.7
6.193e+004



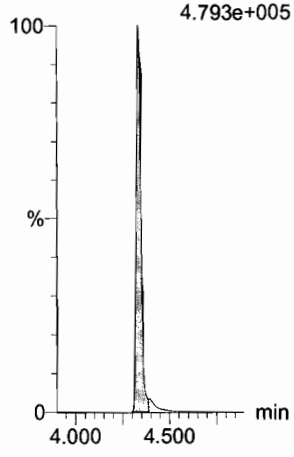
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.285e+005



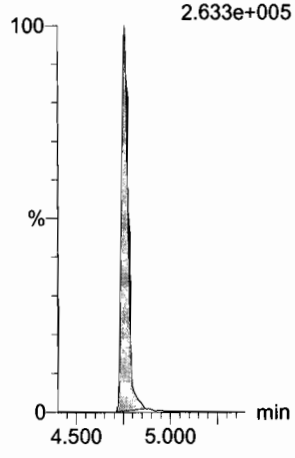
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.221e+005



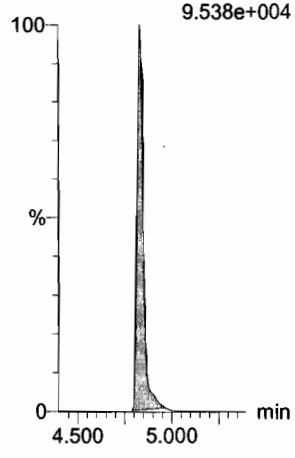
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.793e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.633e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.538e+004

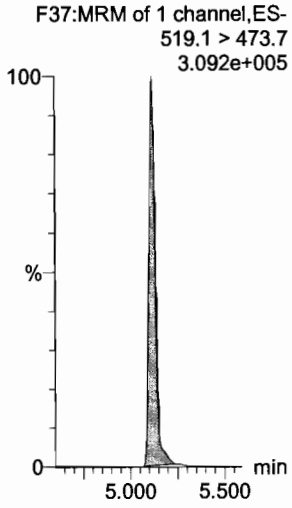


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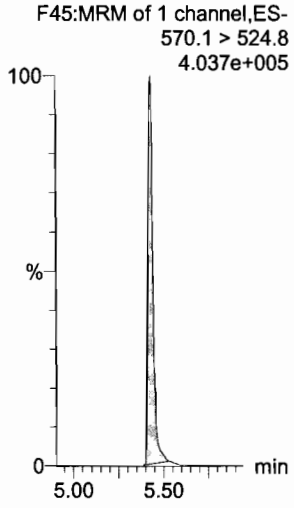
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Name: 171227M2_9, Date: 27-Dec-2017, Time: 18:54:55, ID: ST171227M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

13C6-PFDA



13C7-PFUdA

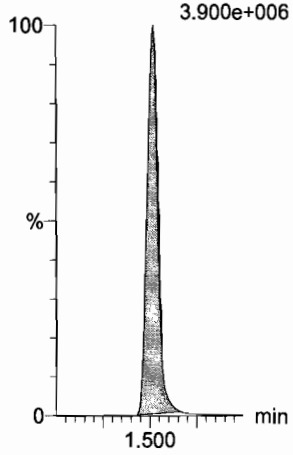


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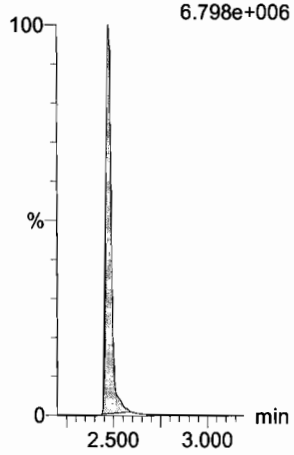
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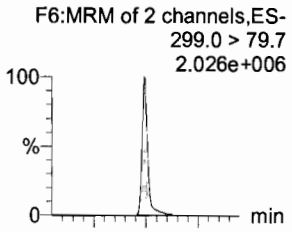
PFBA

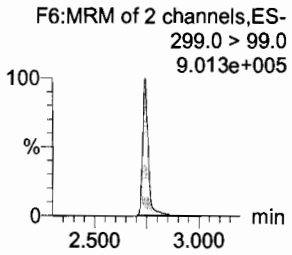


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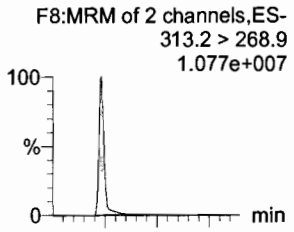


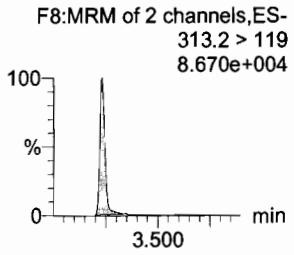
PFBS



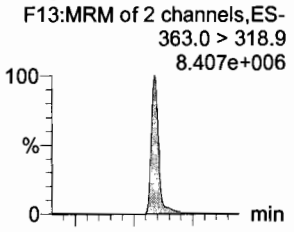


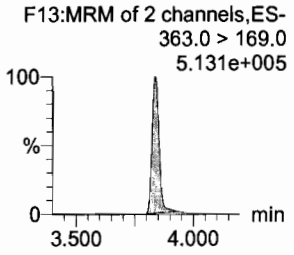
PFHxA



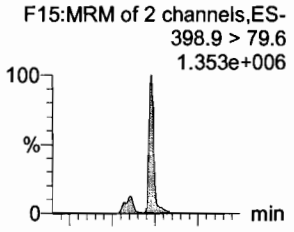


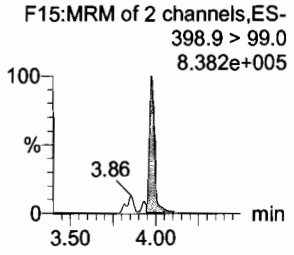
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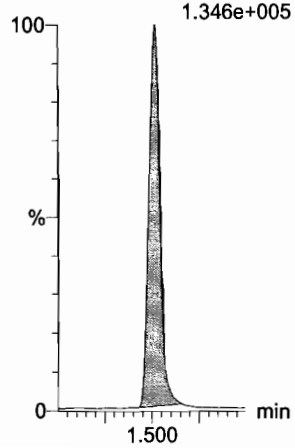


L-PFHxS

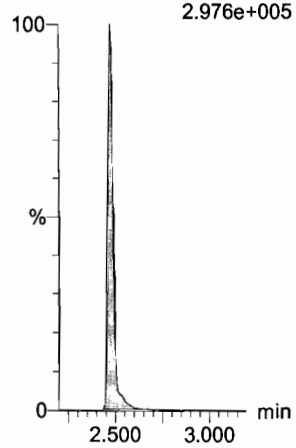




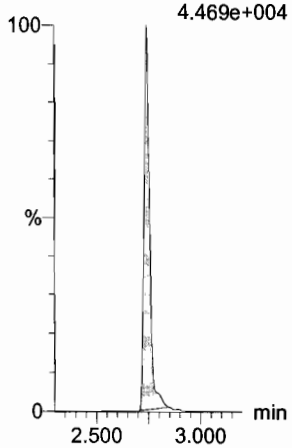
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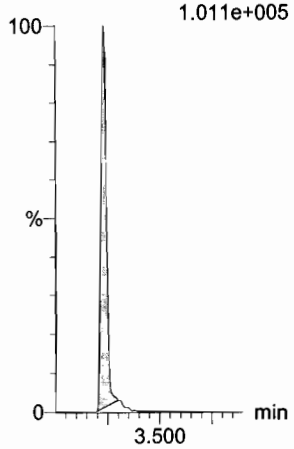
13C3-PFPeA



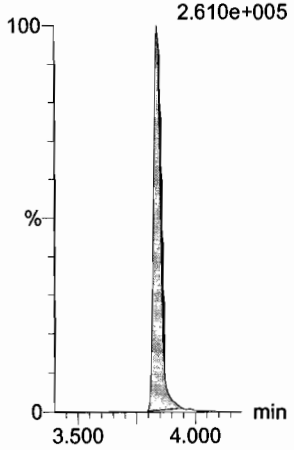
13C3-PFBS



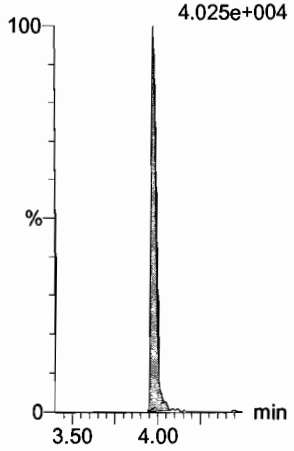
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

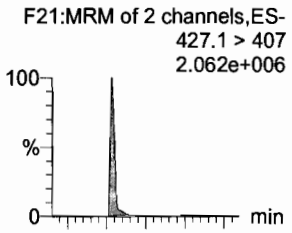


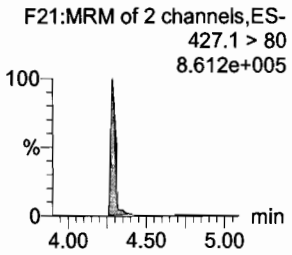
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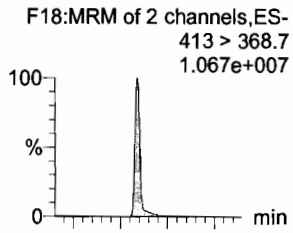
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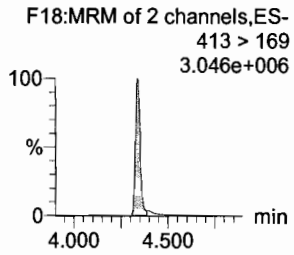
6:2 FTS



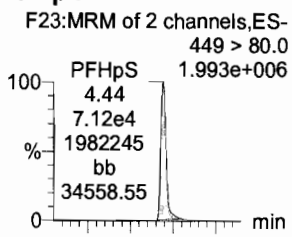


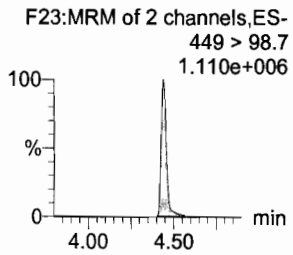
L-PFOA



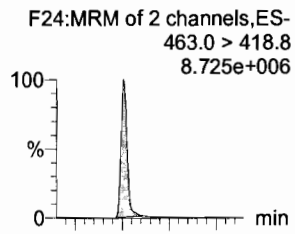


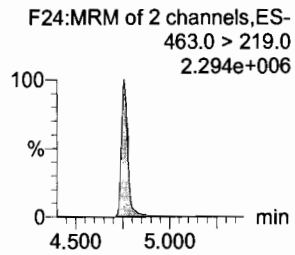
PFHpS



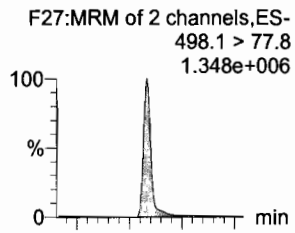


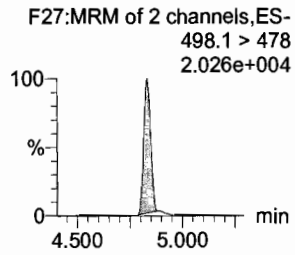
PFNA



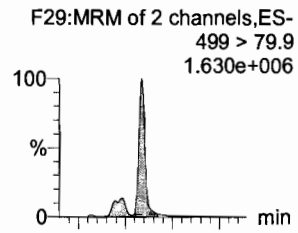


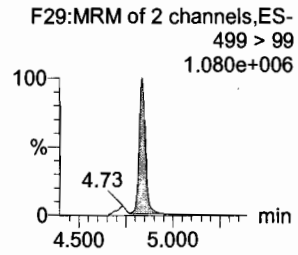
PFOSA



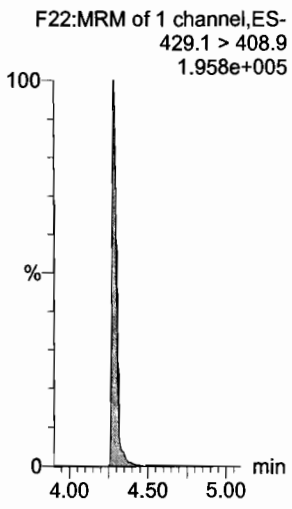


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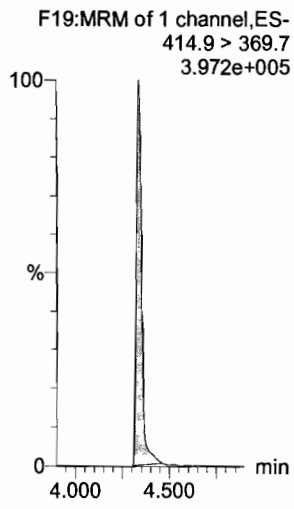




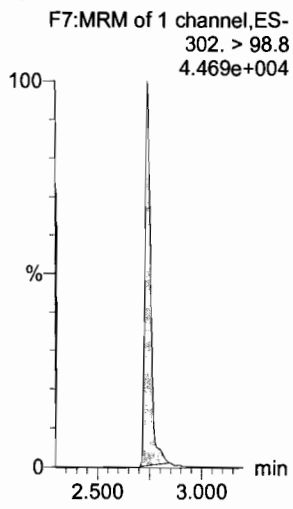
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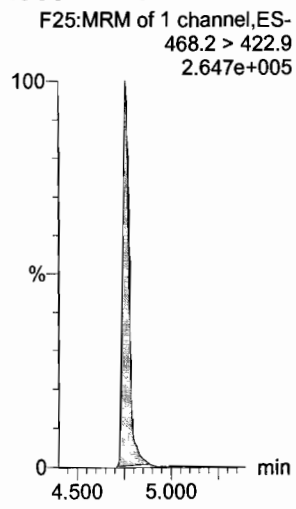
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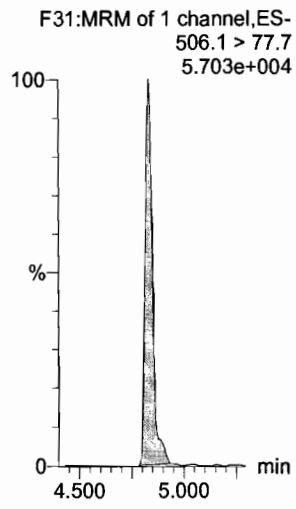
13C3-PFBS



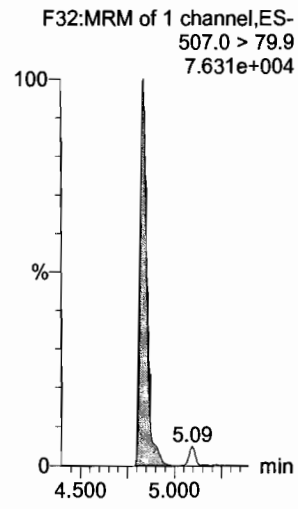
13C5-PFNA



13C8-PFOSA



13C8-PFOS

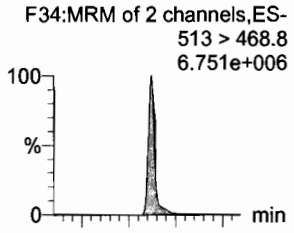


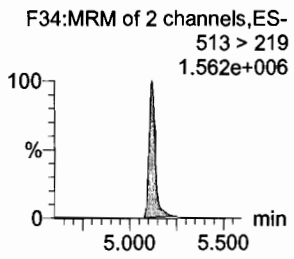
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Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

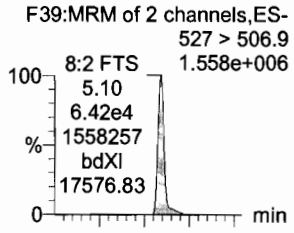
Name: 171227M2_10, Date: 27-Dec-2017, Time: 19:06:06, ID: ST171227M2-9 PFC CS6 17L2710, Description: PFC CS6 17L2710

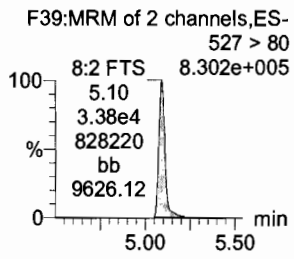
PFDA



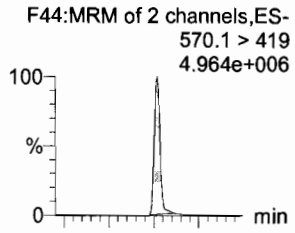


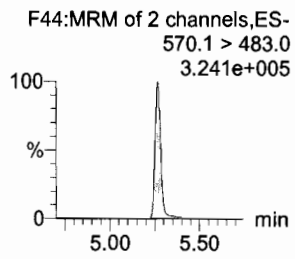
8:2 FTS



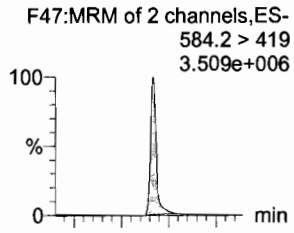


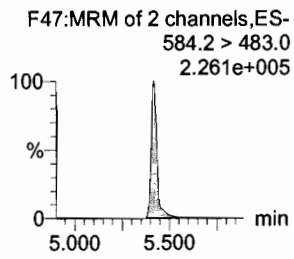
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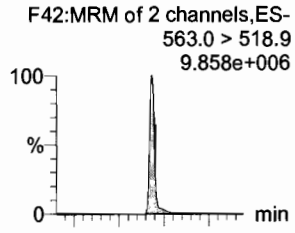


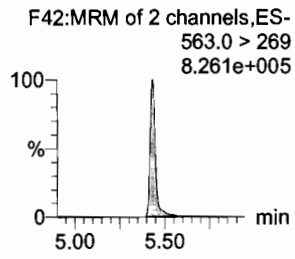
N-EtFOSAA



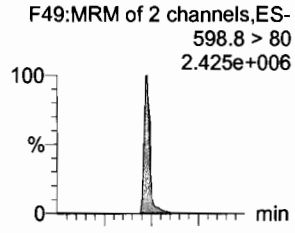


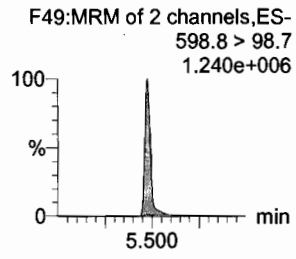
PFUdA



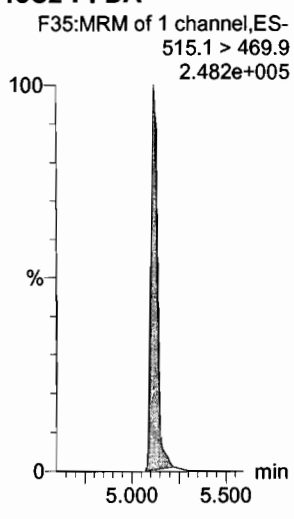


PFDS

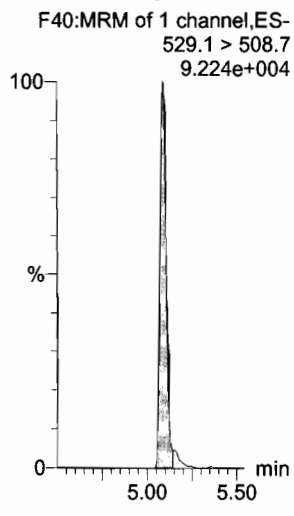




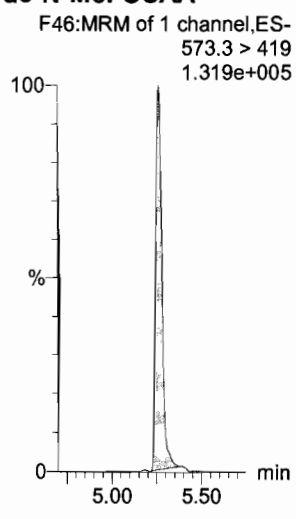
13C2-PFDA



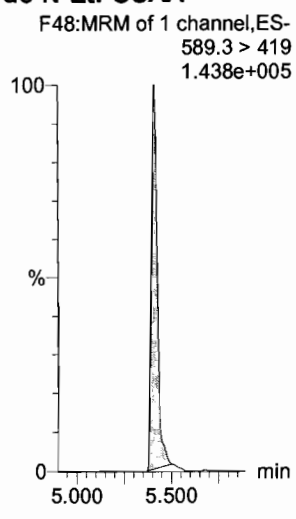
13C2-8:2 FTS



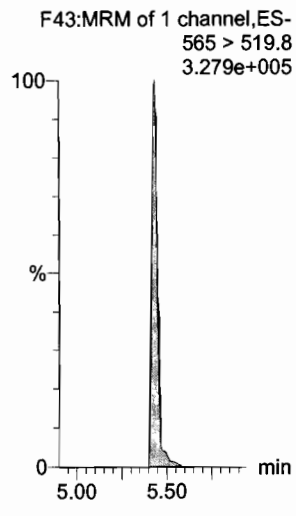
d3-N-MeFOSAA



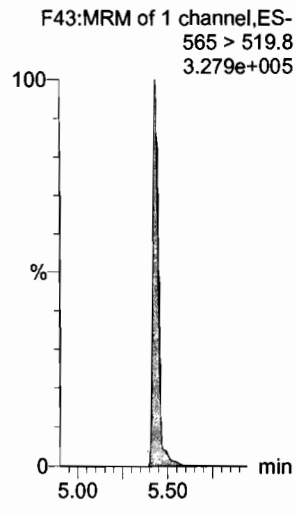
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

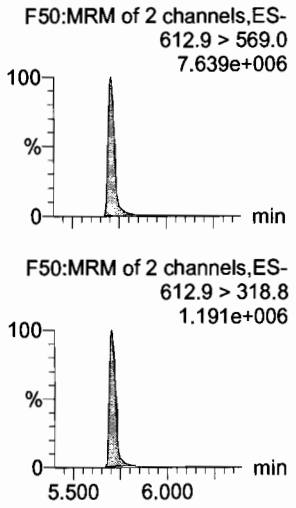


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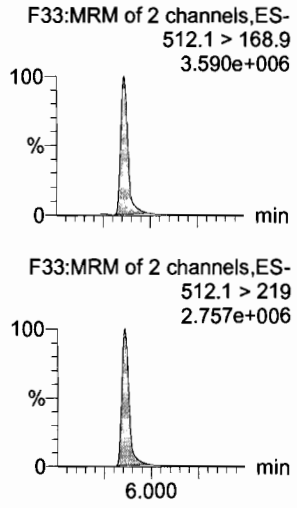
Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

Name: 171227M2_10, Date: 27-Dec-2017, Time: 19:06:06, ID: ST171227M2-9 PFC CS6 17L2710, Description: PFC CS6 17L2710

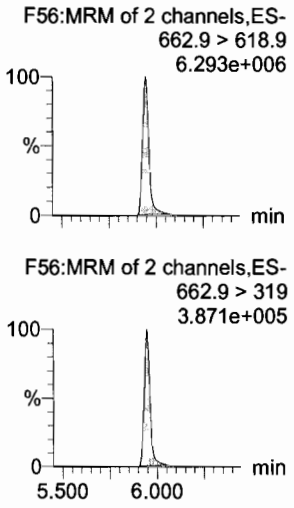
PFDoA



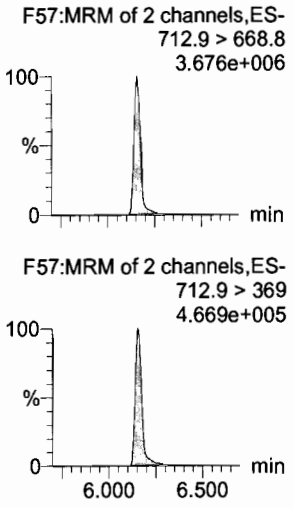
N-MeFOSA



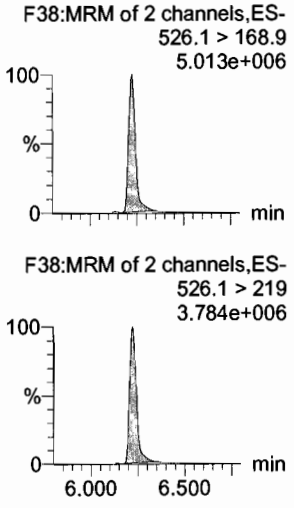
PFTrDA



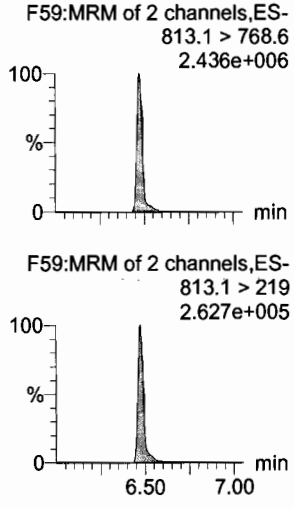
PFTeDA



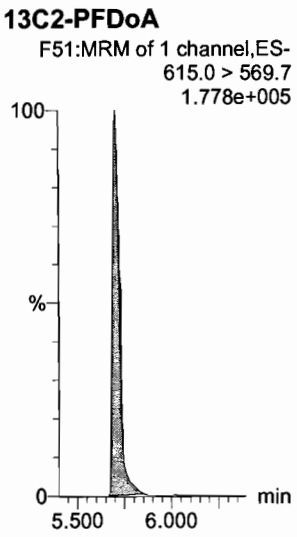
N-EtFOSA



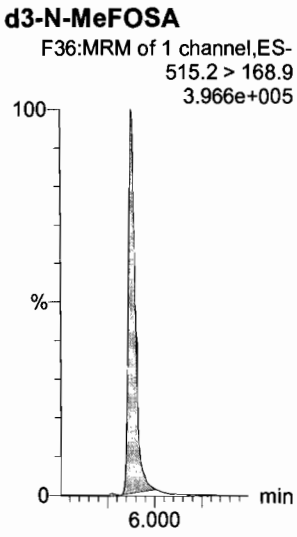
PFHxDA



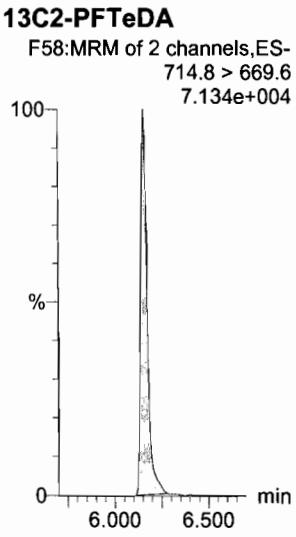
13C2-PFDoA



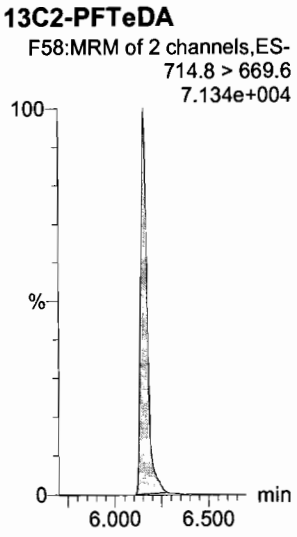
d3-N-MeFOSA



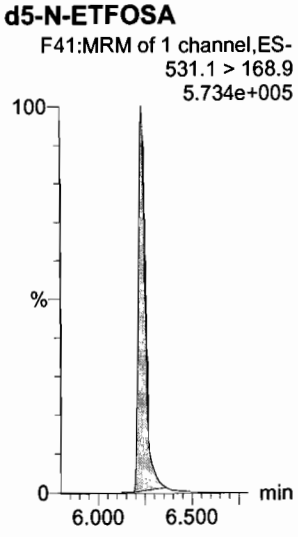
13C2-PFTeDA



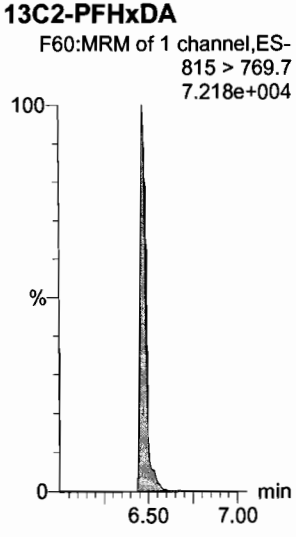
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

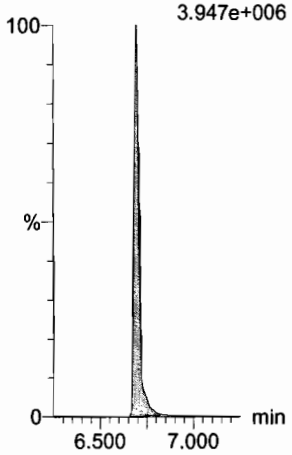


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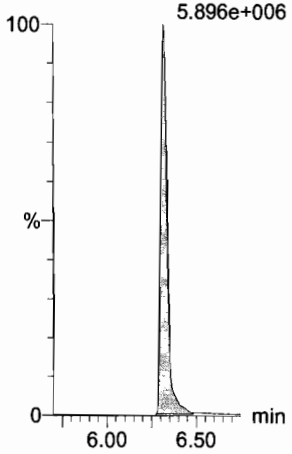
Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

Name: 171227M2_10, Date: 27-Dec-2017, Time: 19:06:06, ID: ST171227M2-9 PFC CS6 17L2710, Description: PFC CS6 17L2710

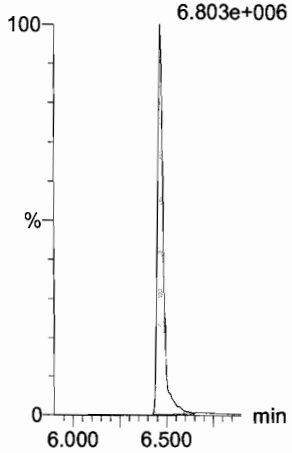
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.947e+006



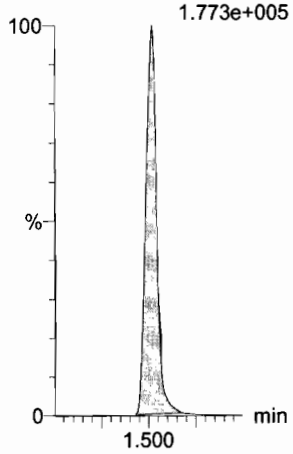
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
5.896e+006



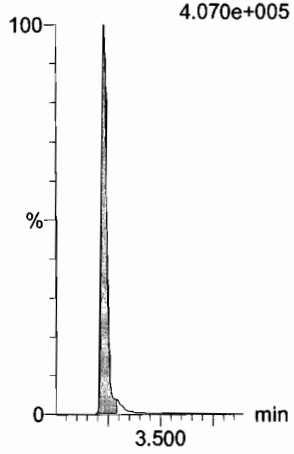
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
6.803e+006



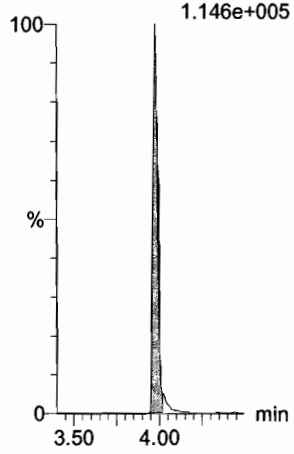
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.773e+005



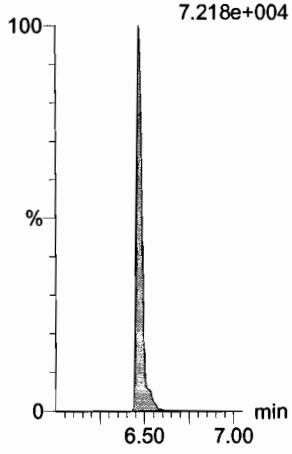
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.070e+005



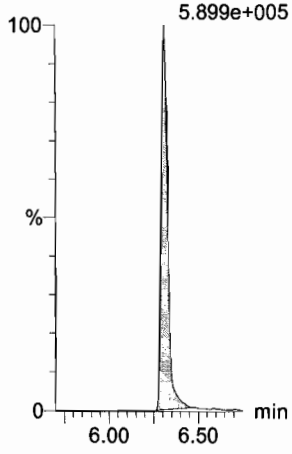
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.146e+005



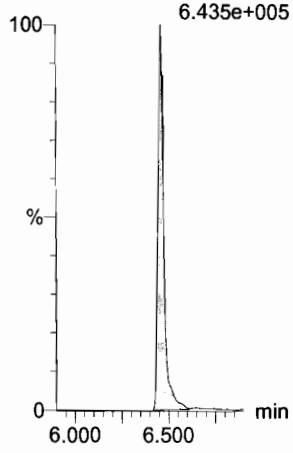
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
7.218e+004



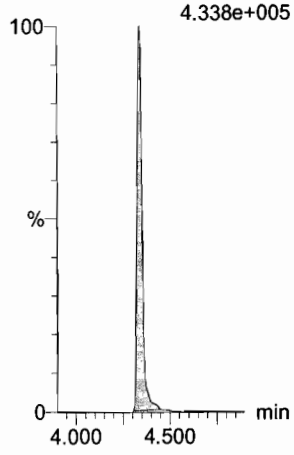
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.899e+005



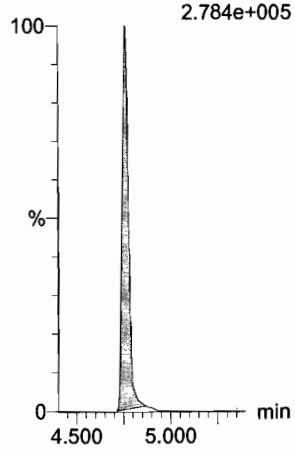
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.435e+005



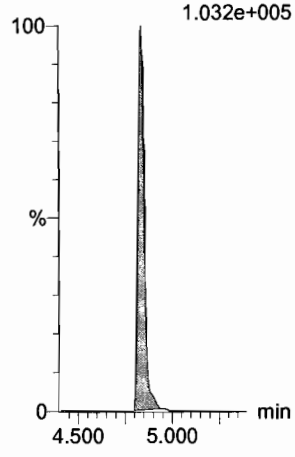
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.338e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.784e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.032e+005

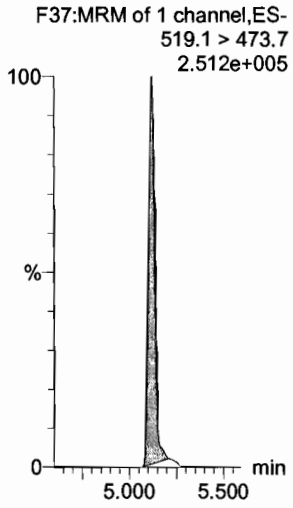


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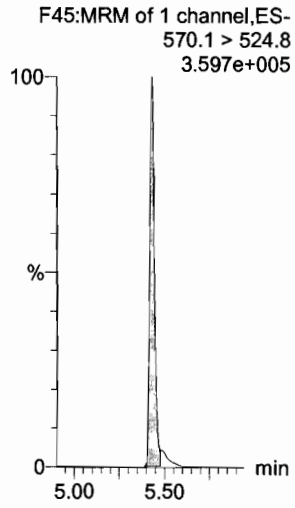
Last Altered: Thursday, December 28, 2017 10:26:33 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:11:42 Pacific Standard Time

Name: 171227M2_10, Date: 27-Dec-2017, Time: 19:06:06, ID: ST171227M2-9 PFC CS6 17L2710, Description: PFC CS6 17L2710

13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171227M2\171227M2-13.qld

Last Altered: Thursday, December 28, 2017 11:56:02 Pacific Standard Time
Printed: Thursday, December 28, 2017 11:57:15 Pacific Standard Time

(A) No second source available.

AC 12/28/17

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 28 Dec 2017 11:43:33
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-27-17_FULL.cdb 28 Dec 2017 10:26:33

JA. 12/28/2017

Name: 171227M2_13, Date: 27-Dec-2017, Time: 19:39:38, ID: ICV171227M2-1 PFC ICV 17L2605, Description: PFC ICV 17L2605

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	9.33e3	9.01e3	1.0000		1.47	1.52	12.9	9.194	91.9
2	2	PFPeA	263.1 > 218.9	9.10e3	1.06e4	1.0000		2.44	2.47	10.7	9.121	91.2
3	3	PFBS	299.0 > 79.7	2.10e3	1.19e3	1.0000		2.70	2.74	22.1	9.312	93.1
4	4	PFHxA	313.2 > 268.9	1.10e4	3.18e3	1.0000		3.20	3.24	17.3	8.479	84.8
5	5	PFHpA	363.0 > 318.9	1.20e4	8.98e3	1.0000		3.80	3.84	16.7	10.209	102.1
6	6	L-PFHxS	398.9 > 79.6	1.68e3	1.33e3	1.0000		3.95	3.98	15.8	7.419	74.2
7	8	6:2 FTS	427.1 > 407	2.32e3	1.42e4	1.0000		4.26	4.29	2.04	8.866	88.7
8	9	L-PFOA	413 > 368.7	1.12e4	1.42e4	1.0000		4.32	4.34	9.82	7.681	76.8
9	11	PFHpS	449 > 80.0	2.70e3	1.42e4	1.0000		4.43	4.44	2.37	8.076	80.8
10	12	PFNA	463.0 > 418.8	1.12e4	9.67e3	1.0000		4.75	4.76	14.5	9.411	94.1
11	13	PFOSA	498.1 > 77.8	2.14e3	2.75e3	1.0000		4.81	4.83	9.72	7.788	77.9
12	14	L-PFOS	499 > 79.9	2.16e3	2.90e3	1.0000		4.83	4.84	9.31	7.524	75.2
13	16	PFDA	513 > 468.8	1.24e4	1.04e4	1.0000		5.11	5.12	15.0	9.985	99.8
14	17	8:2 FTS	527 > 506.9	2.66e3	1.04e4	1.0000		5.09	5.10	3.21	9.477	94.8
15	18	N-MeFOSAA	570.1 > 419	7.25e3	5.23e3	1.0000		5.26	5.27	17.3	10.286	102.9
16	19	N-EtFOSAA	584.2 > 419	5.51e3	6.22e3	1.0000		5.42	5.42	11.1	9.207	92.1
17	20	PFUdA	563.0 > 518.9	1.07e4	1.26e4	1.0000		5.43	5.44	10.6	10.287	102.9
18	21	PFDS	598.8 > 80	3.07e3	1.26e4	1.0000		5.50	5.48	3.05	9.635	96.4
19	22	PFDoA	612.9 > 569.0	1.26e4	8.51e3	1.0000		5.70	5.71	18.5	10.514	105.1
20	23	N-MeFOSA	512.1 > 168.9		1.69e4	1.0000		5.77				(A)
21	24	PFTrDA	662.9 > 618.9	1.06e4	8.51e3	1.0000		5.95	5.95	15.5	9.485	94.8
22	25	PFTeDA	712.9 > 668.8	7.53e3	3.02e3	1.0000		6.16	6.16	31.1	11.619	116.2
23	26	N-EtFOSA	526.1 > 168.9		2.69e4	1.0000		6.15				(A)
24	27	PFHxDA	813.1 > 768.6		2.60e3	1.0000		6.48				
25	28	PFODA	913.1 > 868.8		2.60e3	1.0000		6.70				
26	29	N-MeFOSE	616.1 > 58.9		2.20e4	1.0000		6.30				
27	30	N-EtFOSE	630.1 > 58.9		2.63e4	1.0000		6.42				
28	31	13C4-PFBA	216.1 > 171.8	9.01e3	1.19e4	1.0000	1.000	1.47	1.52	9.43	9.432	75.5
29	32	13C3-PFPeA	266. > 221.8	1.06e4	1.40e4	1.0000	0.747	2.44	2.47	9.49	12.699	101.6
30	33	13C3-PFBS	302. > 98.8	1.19e3	1.40e4	1.0000	0.101	2.70	2.74	1.07	10.516	84.1
31	34	13C2-PFHxA	315 > 269.8	3.18e3	1.40e4	1.0000	0.601	3.20	3.23	2.84	4.735	94.7

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Dataset: U:\Q4.PRO\results\171227M2\171227M2-13.qld

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Name: 171227M2_13, Date: 27-Dec-2017, Time: 19:39:38, ID: ICV171227M2-1 PFC ICV 17L2605, Description: PFC ICV 17L2605

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	8.98e3	1.40e4	1.0000	0.676	3.80	3.84	8.05	11.896	95.2
33	36	18O2-PFHxS	403.0 > 102.6	1.33e3	4.14e3	1.0000	0.347	3.95	3.98	4.03	11.640	93.1
34	37	13C2-6:2 FTS	429.1 > 408.9	3.29e3	1.30e4	1.0000	0.210	4.26	4.29	3.18	15.140	121.1
35	38	13C2-PFOA	414.9 > 369.7	1.42e4	1.30e4	1.0000	0.990	4.32	4.34	13.7	13.869	111.0
36	39	13C5-PFNA	468.2 > 422.9	9.67e3	1.20e4	1.0000	0.845	4.75	4.76	10.1	11.901	95.2
37	40	13C8-PFOSA	506.1 > 77.7	2.75e3	1.64e4	1.0000	0.199	4.81	4.83	2.10	10.528	84.2
38	41	13C8-PFOS	507.0 > 79.9	2.90e3	3.86e3	1.0000	0.865	4.83	4.84	9.39	10.850	86.8
39	42	13C2-PFDA	515.1 > 469.9	1.04e4	1.17e4	1.0000	0.886	5.11	5.12	11.1	12.512	100.1
40	43	13C2-8:2 FTS	529.1 > 508.7	1.40e3	1.40e4	1.0000	0.136	5.09	5.10	1.26	9.258	74.1
41	44	d3-N-MeFOSAA	573.3 > 419	5.23e3	1.64e4	1.0000	0.409	5.26	5.27	3.99	9.769	78.2
42	45	d5-N-EtFOSAA	589.3 > 419	6.22e3	1.64e4	1.0000	0.474	5.42	5.41	4.75	10.023	80.2
43	46	13C2-PFUdA	565 > 519.8	1.26e4	1.64e4	1.0000	0.928	5.43	5.44	9.60	10.336	82.7
44	47	13C2-PFDoA	615.0 > 569.7	8.51e3	1.64e4	1.0000	0.636	5.70	5.71	6.50	10.212	81.7
45	48	d3-N-MeFOSA	515.2 > 168.9	1.69e4	1.64e4	1.0000	0.112	5.80	5.89	12.9	115.661	77.1
46	49	13C2-PFTeDA	714.8 > 669.6	3.02e3	1.64e4	1.0000	0.163	6.16	6.16	2.31	14.176	113.4
47	50	d5-N-ETFOSA	531.1 > 168.9	2.69e4	1.64e4	1.0000	0.170	6.16	6.24	20.5	120.914	80.6
48	51	13C2-PFHxDA	815 > 769.7	2.60e3	1.64e4	1.0000	0.394	6.48	6.47	1.98	5.037	100.7
49	52	d7-N-MeFOSE	623.1 > 58.9	2.20e4	1.64e4	1.0000	0.148	6.30	6.31	16.8	112.925	75.3
50	53	d9-N-EtFOSE	639.2 > 58.8	2.63e4	1.64e4	1.0000	0.154	6.42	6.46	20.0	130.264	86.8
51	54	13C3-PFBA	217. > 171.8	1.19e4	1.19e4	1.0000		1.47	1.52	12.5		
52	55	13C5-PFHxA	318 > 272.9	1.40e4	1.40e4	1.0000	1.000	3.20	3.23	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	4.14e3	4.14e3	1.0000	1.000	3.95	3.98	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.30e4	1.30e4	1.0000	1.000	4.32	4.34	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.20e4	1.20e4	1.0000	1.000	4.75	4.76	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	3.86e3	3.86e3	1.0000	1.000	4.83	4.84	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.17e4	1.17e4	1.0000	1.000	5.11	5.12	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.64e4	1.64e4	1.0000	1.000	5.43	5.43	12.5	12.500	100.0

Vista Analytical Laboratory

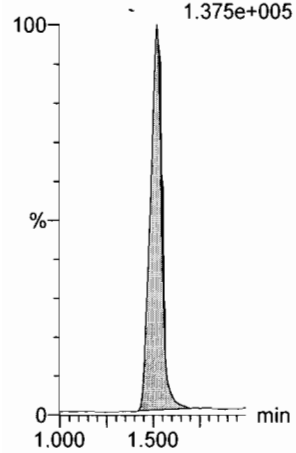
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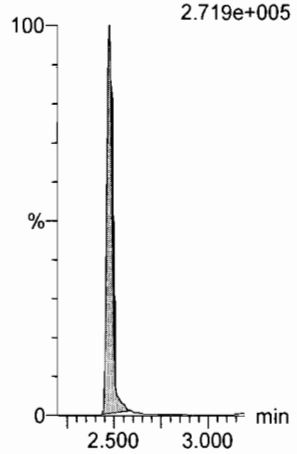
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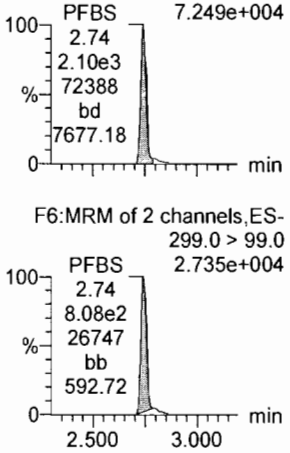
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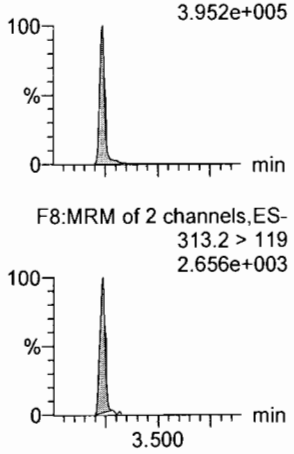
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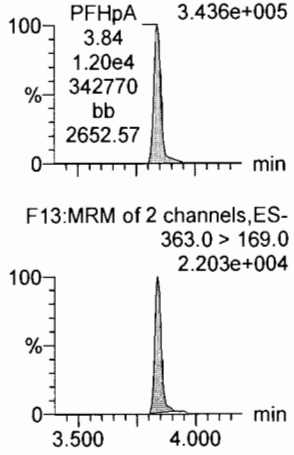
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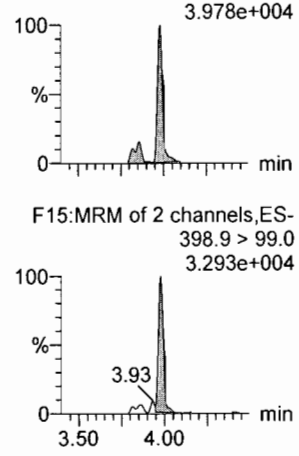
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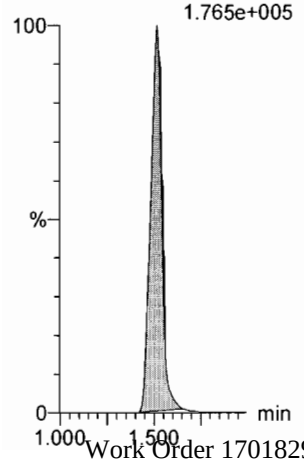
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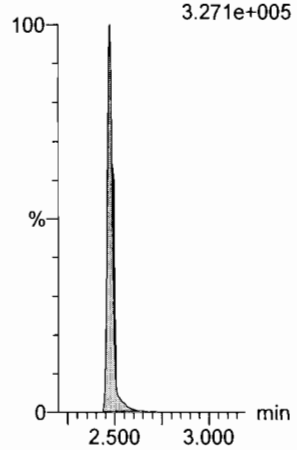
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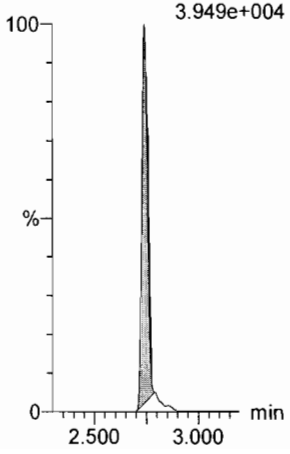
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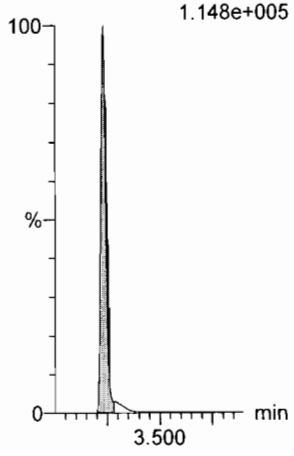
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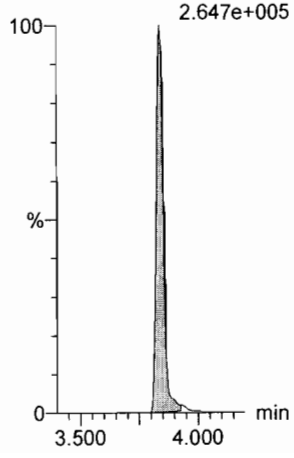
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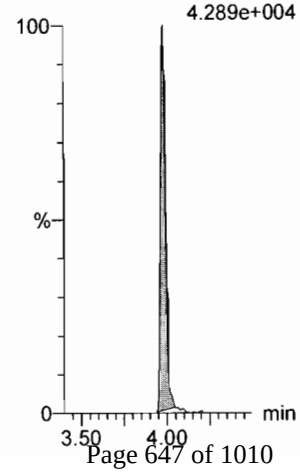
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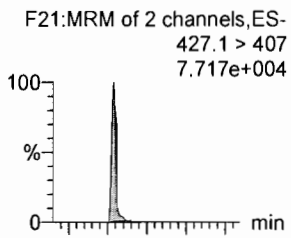


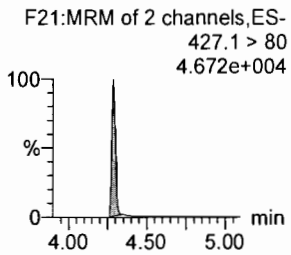
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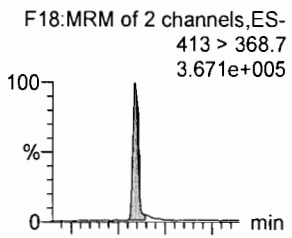
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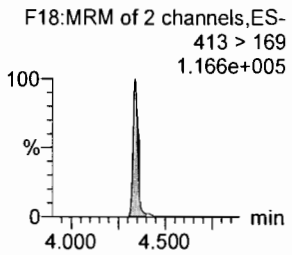
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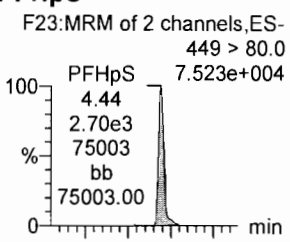


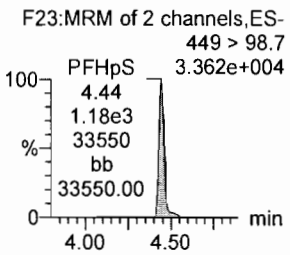
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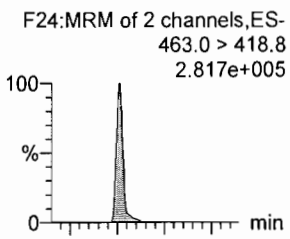


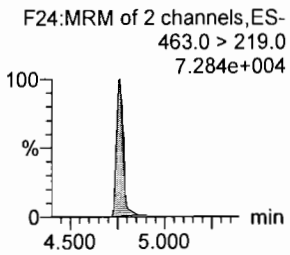
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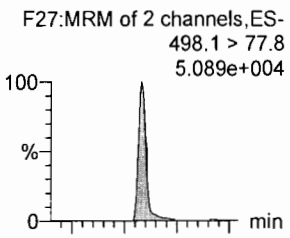


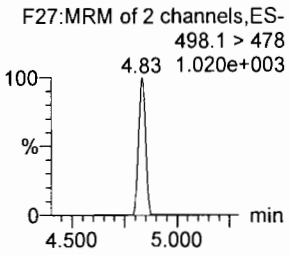
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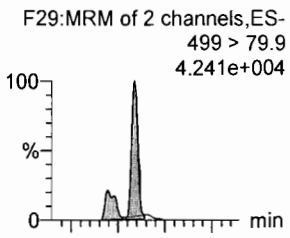


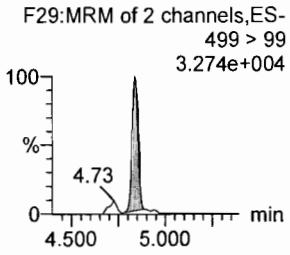
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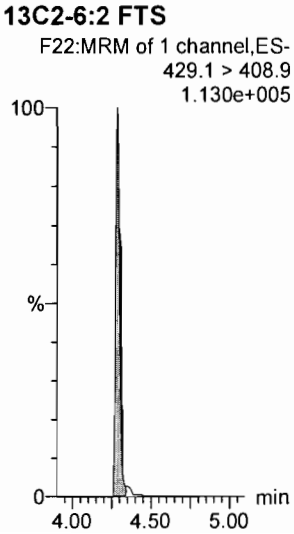


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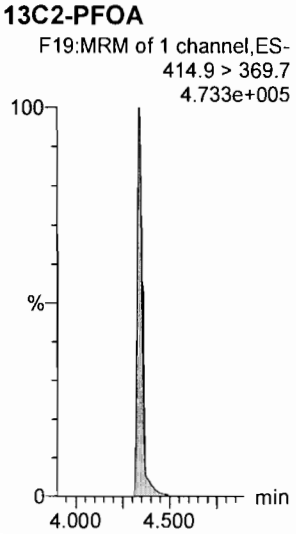




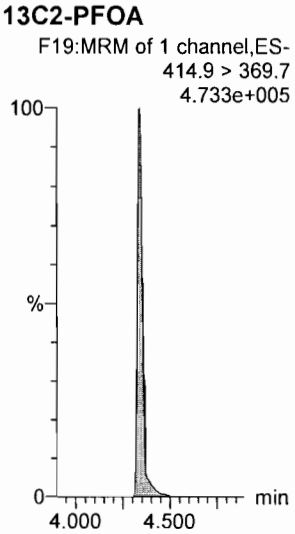
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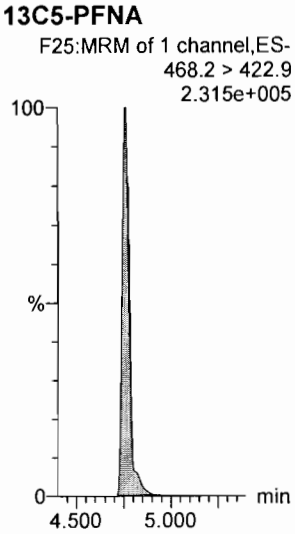
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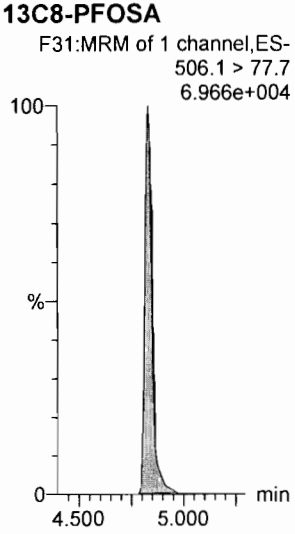
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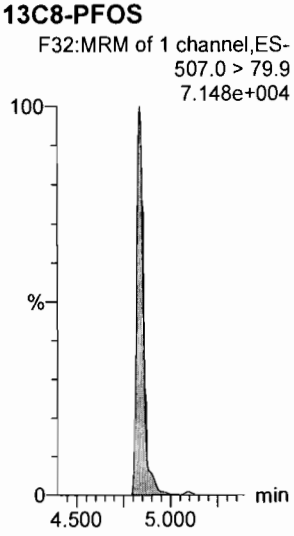
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13C8-PFOSA



13C8-PFOS

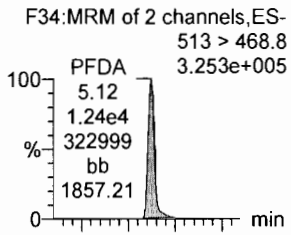


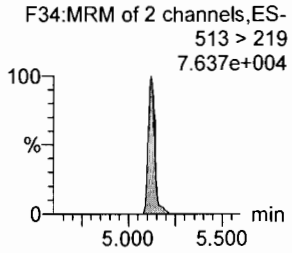
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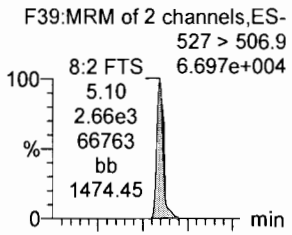
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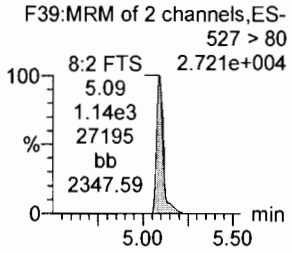
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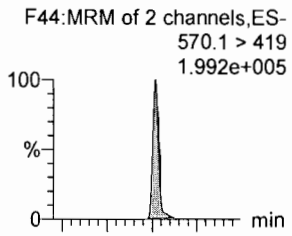


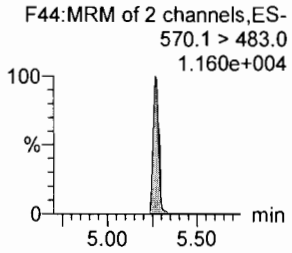
8:2 FTS



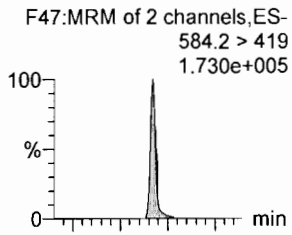


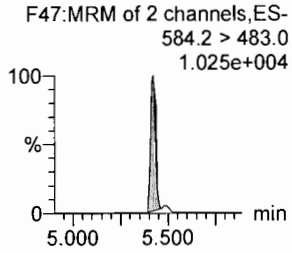
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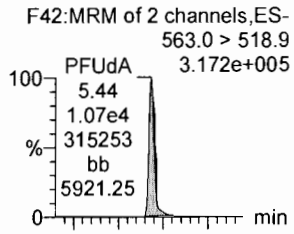


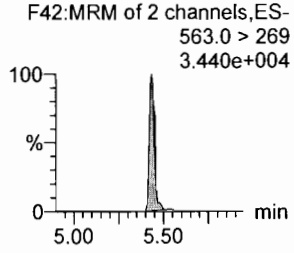
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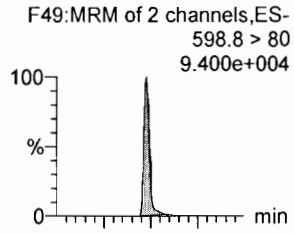


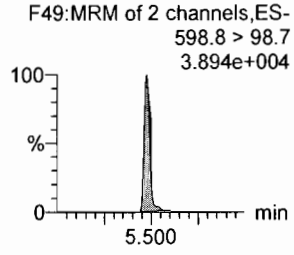
PFUdA



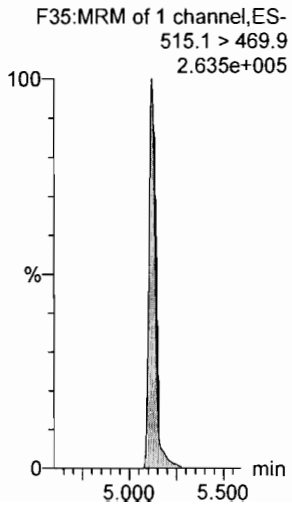


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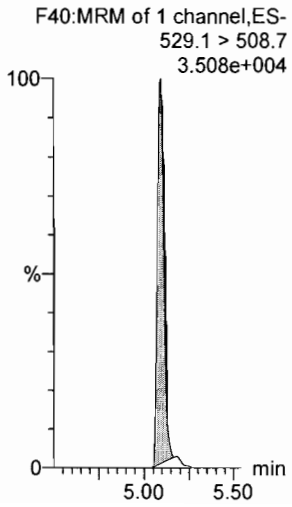




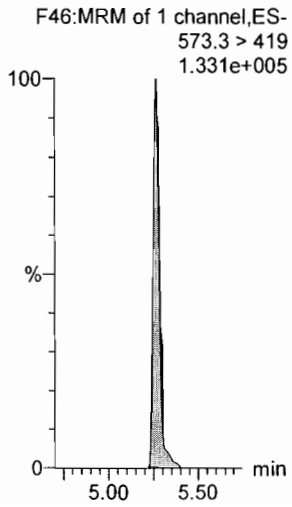
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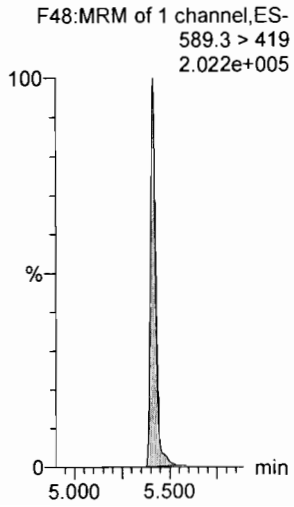
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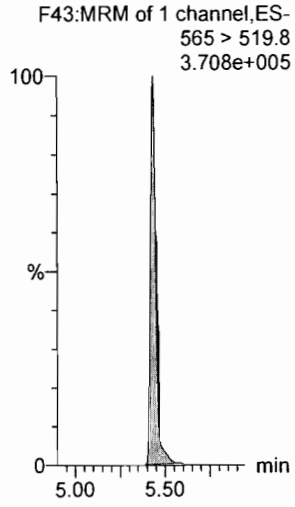
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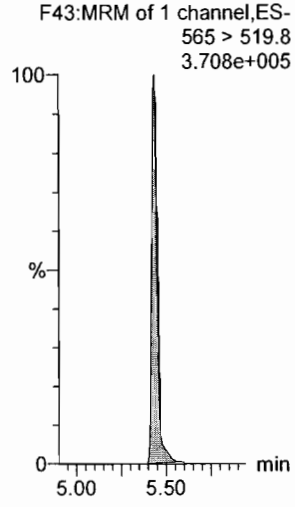
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13C2-PFUdA



13C2-PFUdA

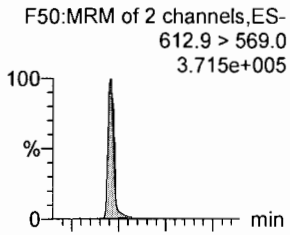


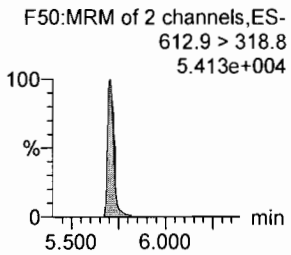
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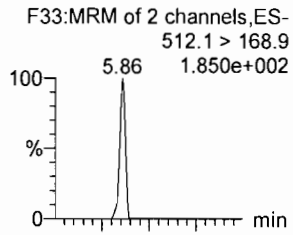
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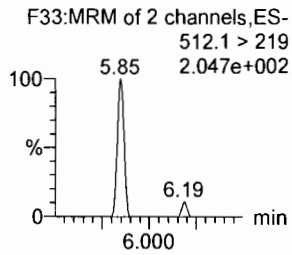
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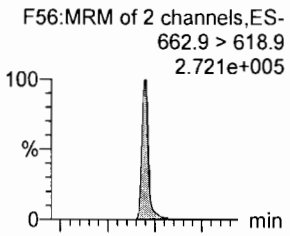


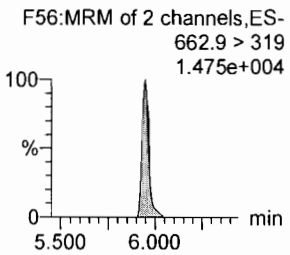
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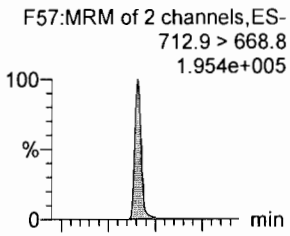


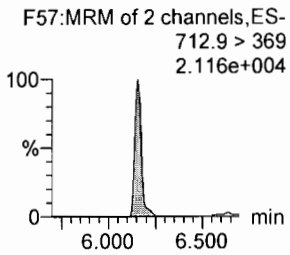
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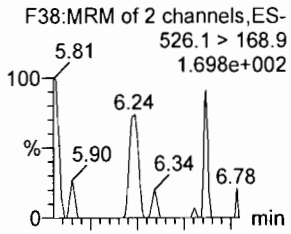


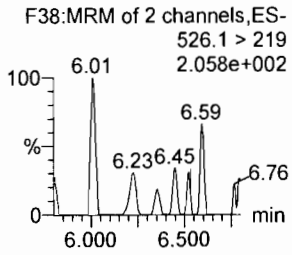
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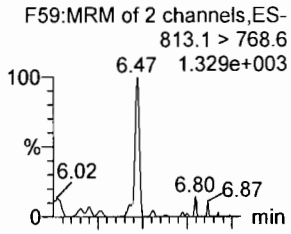


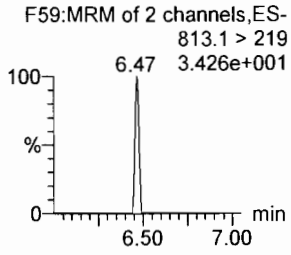
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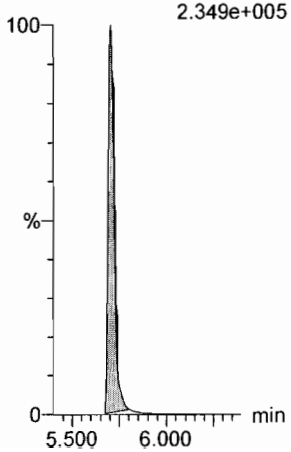


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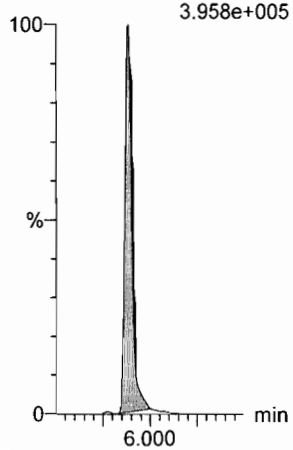




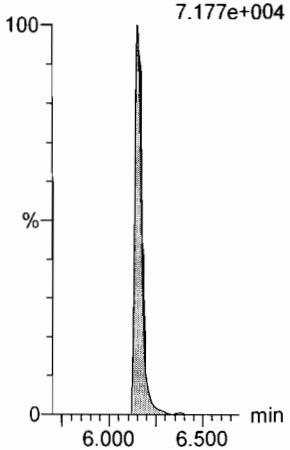
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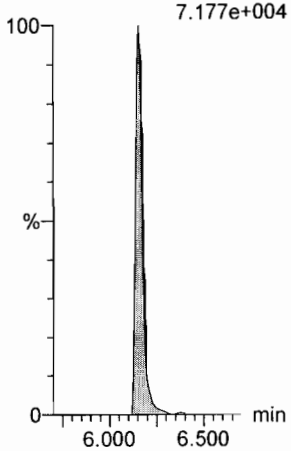
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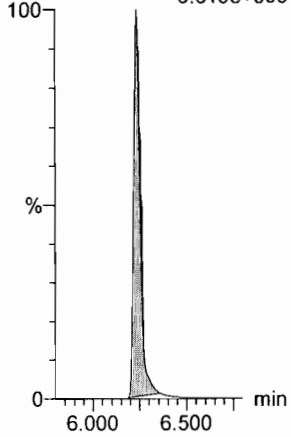
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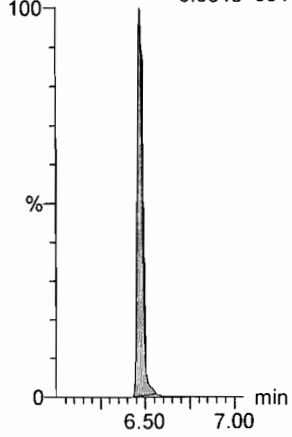
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d5-N-ETFOSA



13C2-PFHxDA

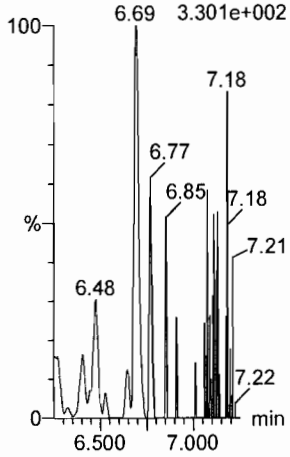


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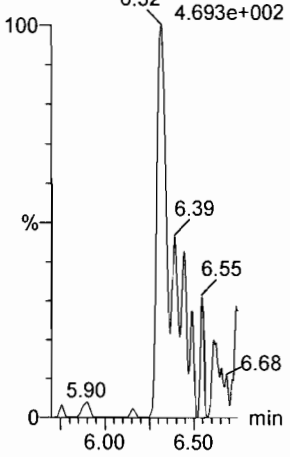
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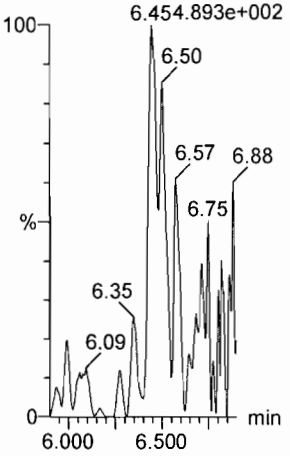
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F61:MRM of 1 channel,ES-
913.1 > 868.8
3.301e+002



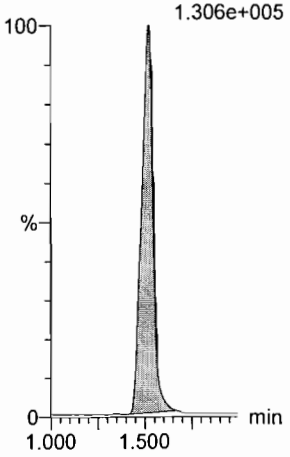
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
4.693e+002



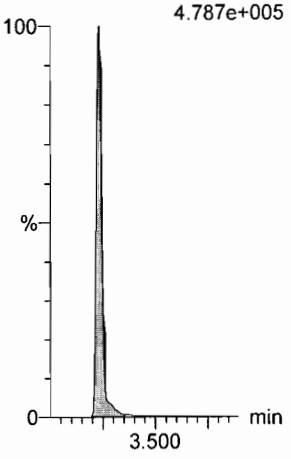
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F54:MRM of 1 channel,ES-
630.1 > 58.9
4.893e+002



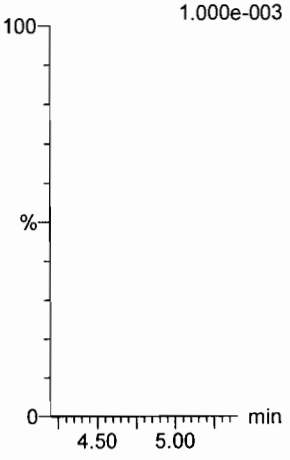
13C4-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.306e+005



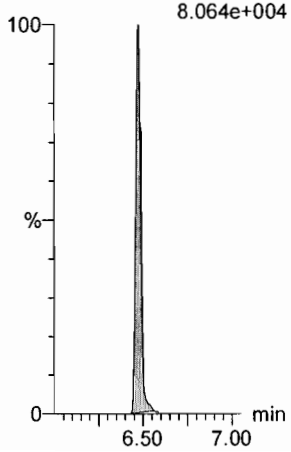
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.787e+005



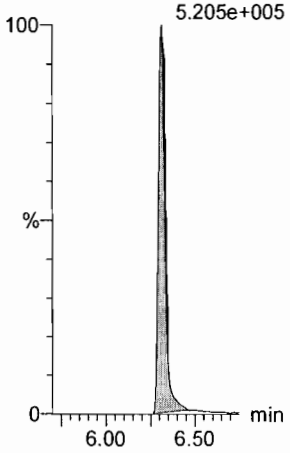
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



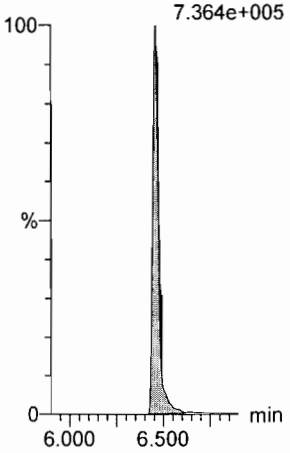
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.064e+004



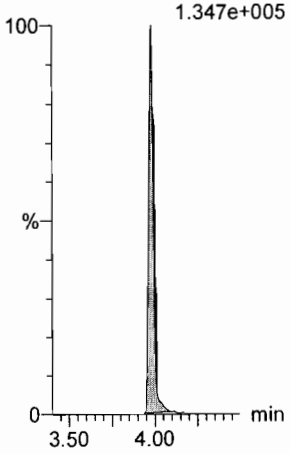
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.205e+005



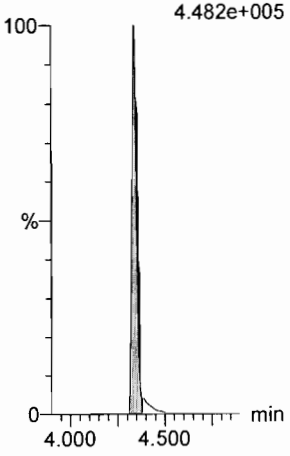
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.364e+005



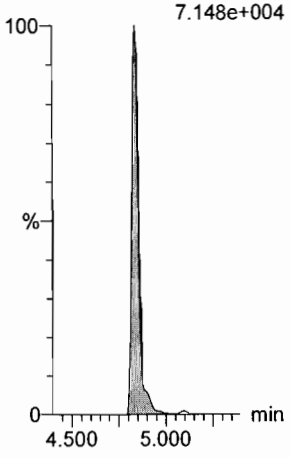
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.347e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.482e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
7.148e+004

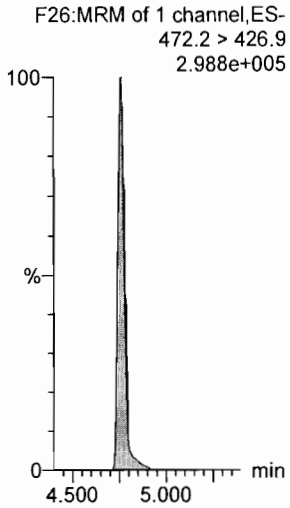


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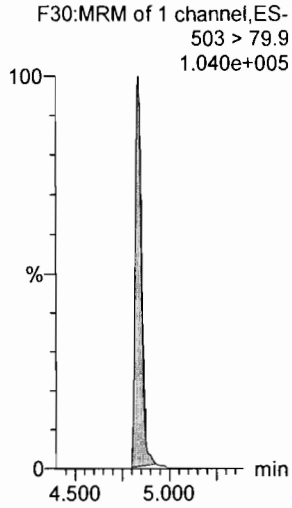
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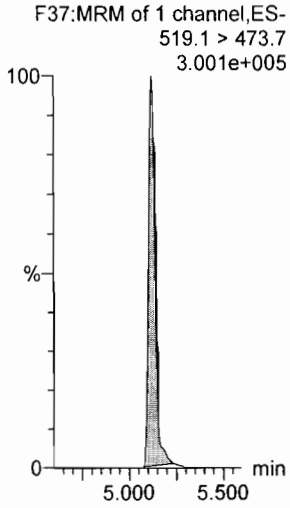
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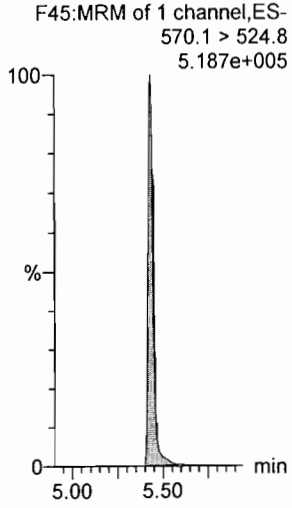
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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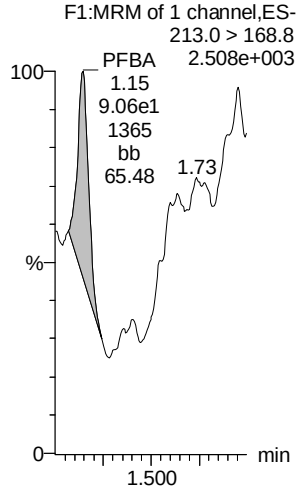
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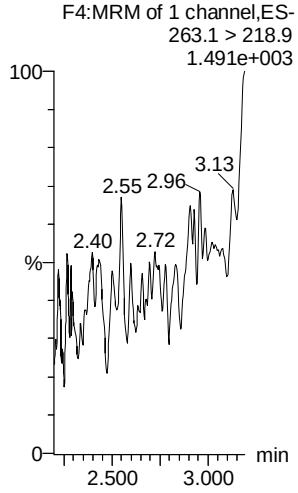
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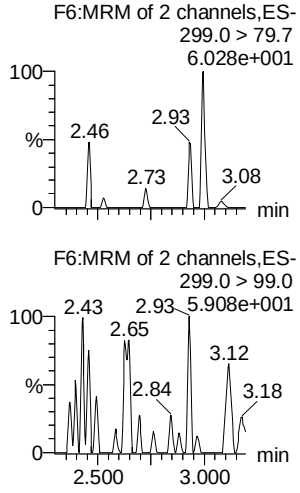
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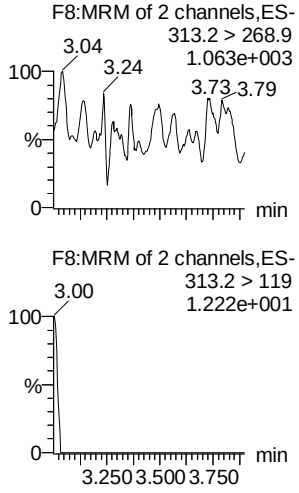
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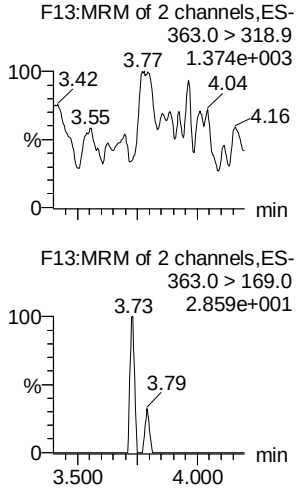
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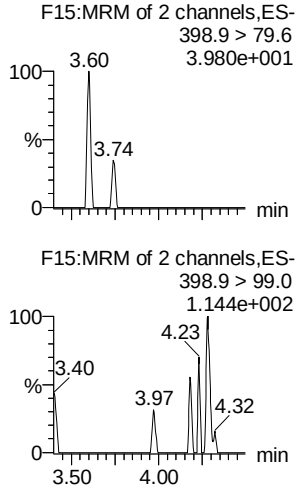
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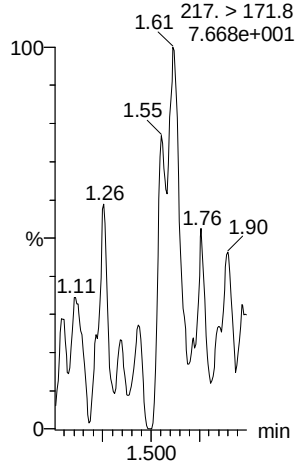
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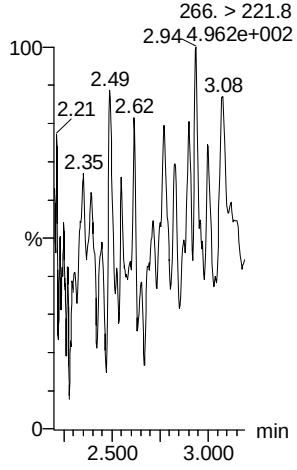
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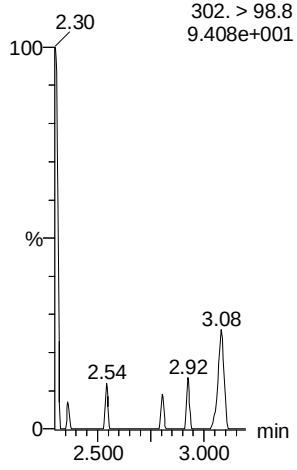
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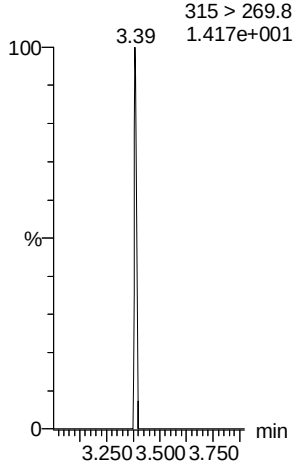
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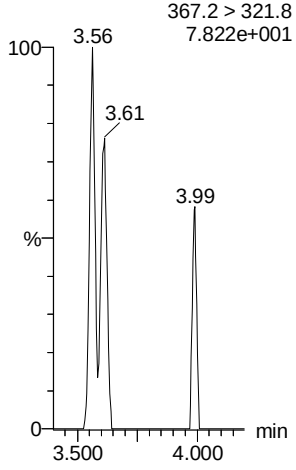
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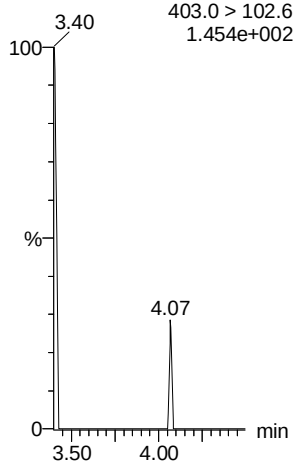
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13C4-PFHpA



18O2-PFHxS



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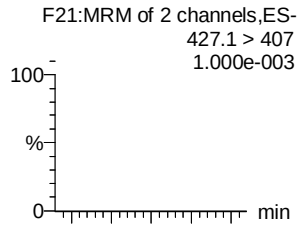
Vista Analytical Laboratory

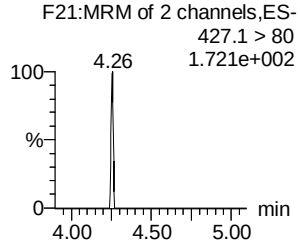
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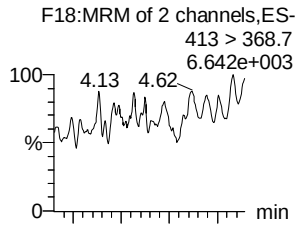
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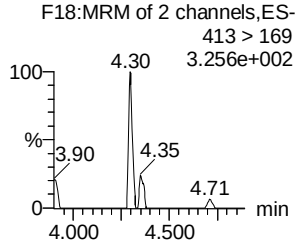
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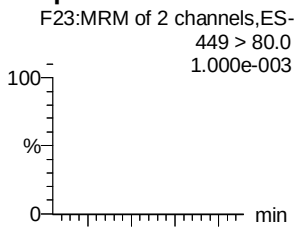


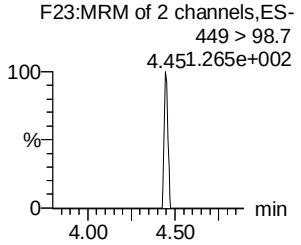
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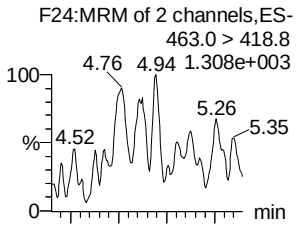


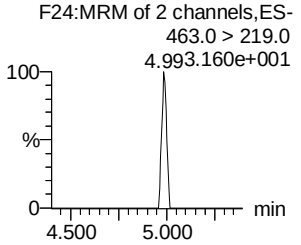
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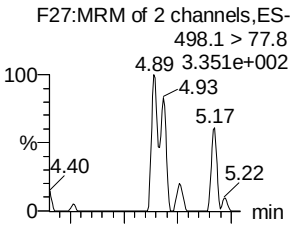


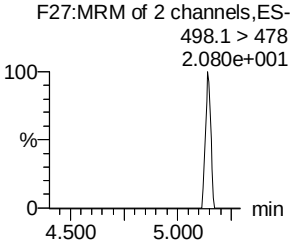
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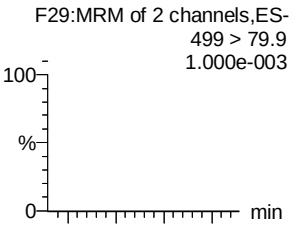


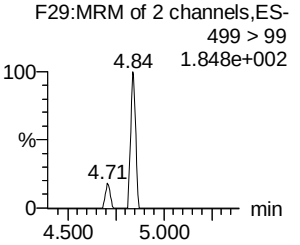
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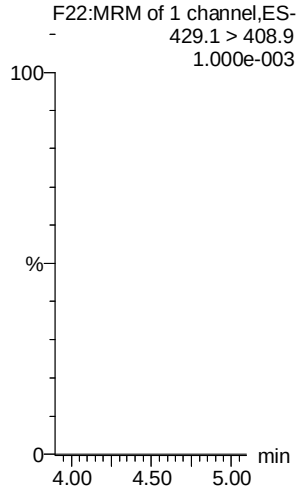


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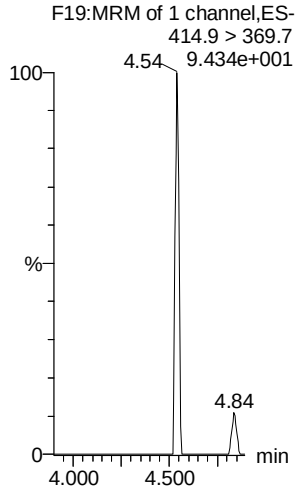




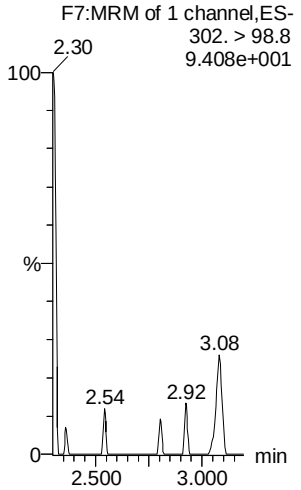
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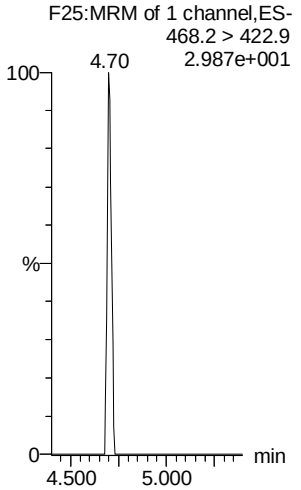
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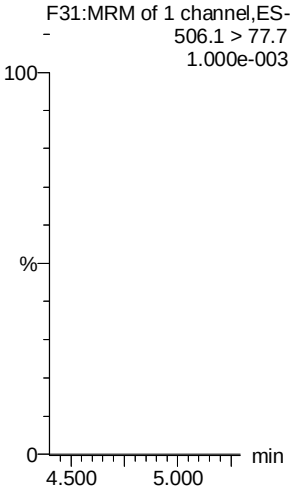
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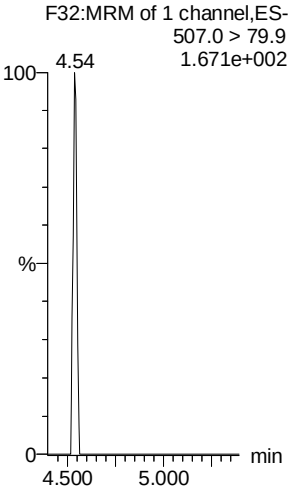
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13C8-PFOSA



13C8-PFOS



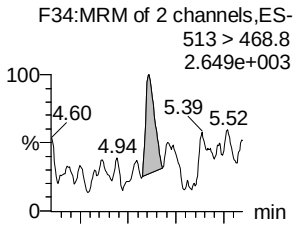
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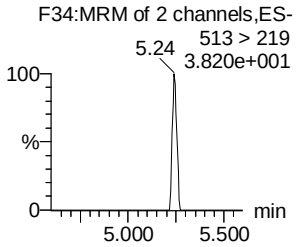
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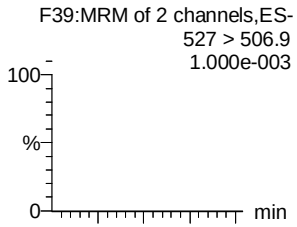
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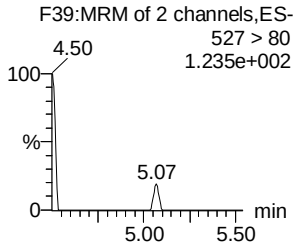
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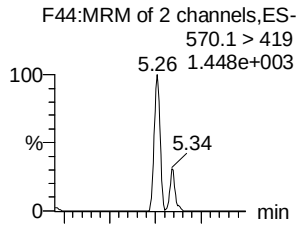


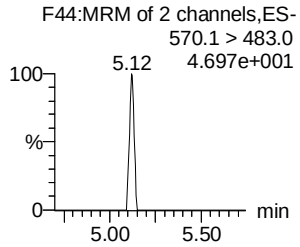
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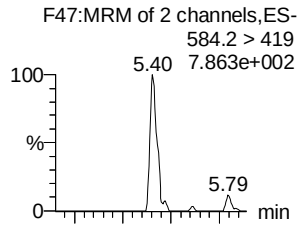


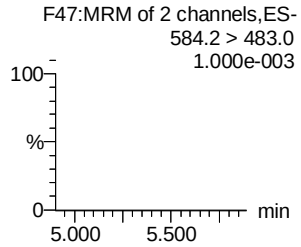
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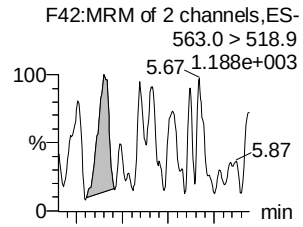


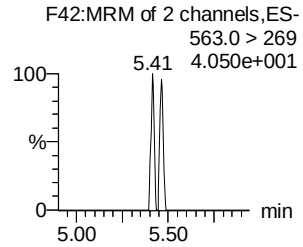
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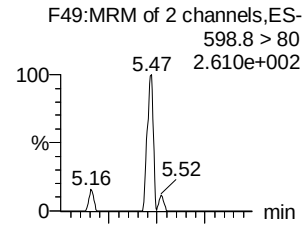


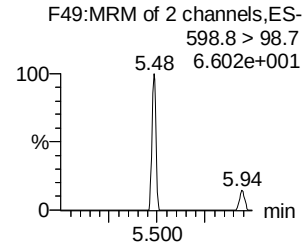
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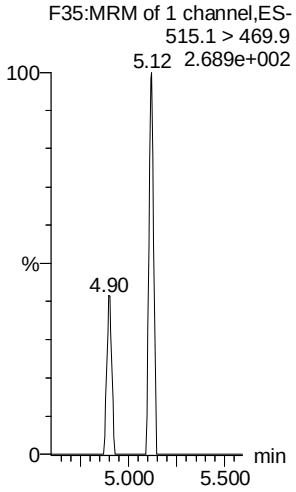


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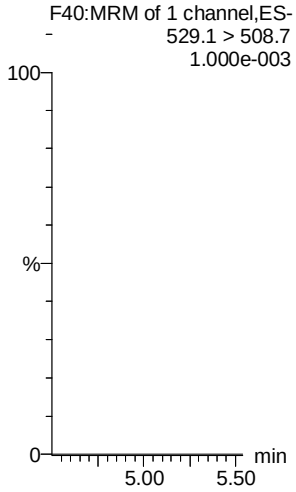




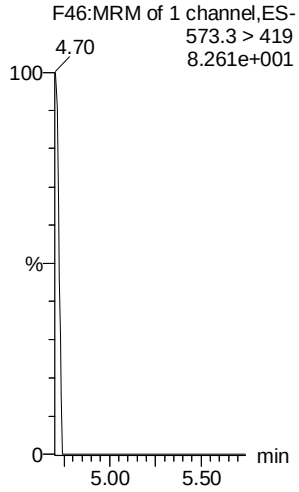
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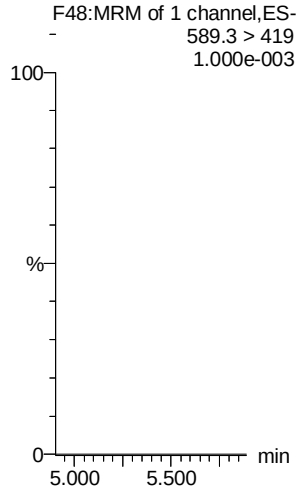
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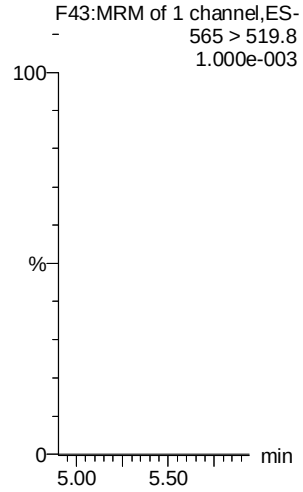
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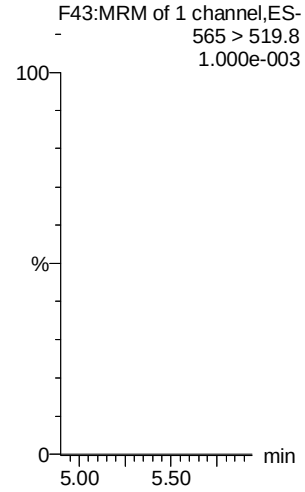
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13C2-PFUdA



13C2-PFUdA



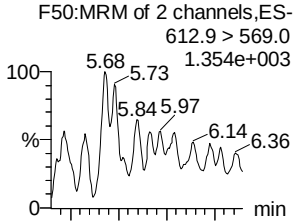
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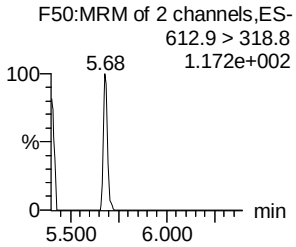
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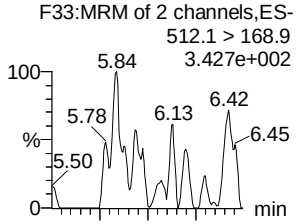
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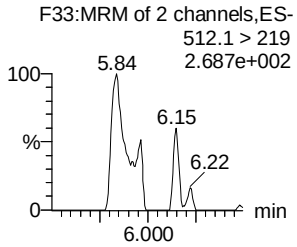
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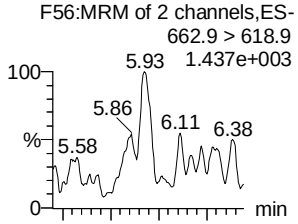


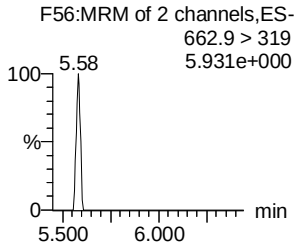
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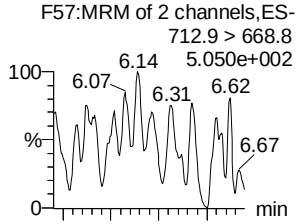


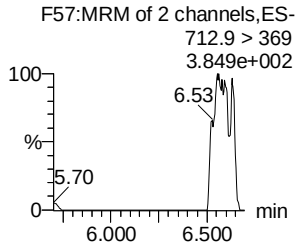
PFTrDA



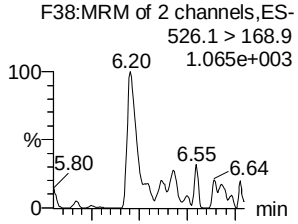


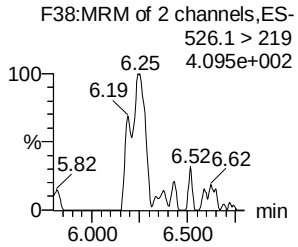
PFTeDA



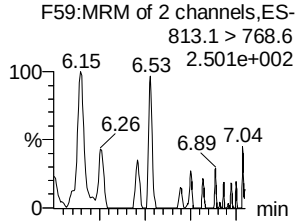


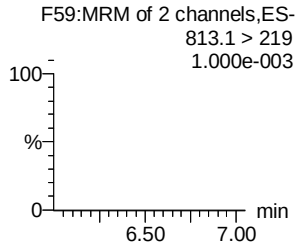
N-EtFOSA



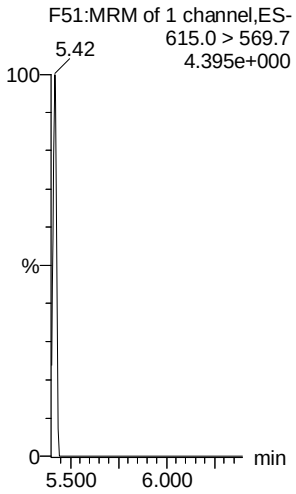


PFHxDA

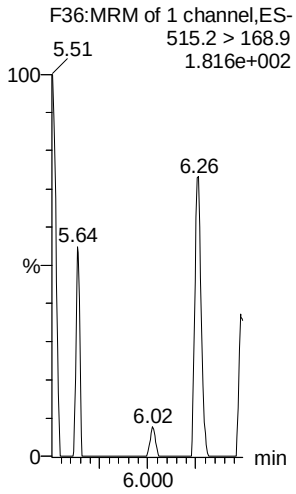




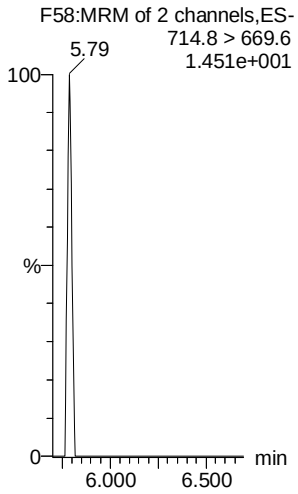
13C2-PFDoA



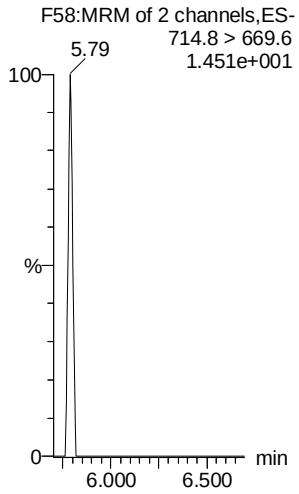
d3-N-MeFOSA



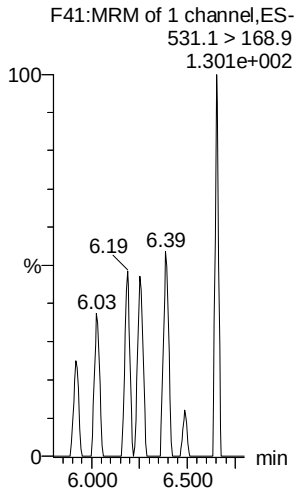
13C2-PFTeDA



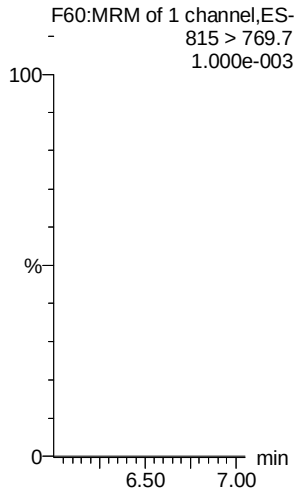
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



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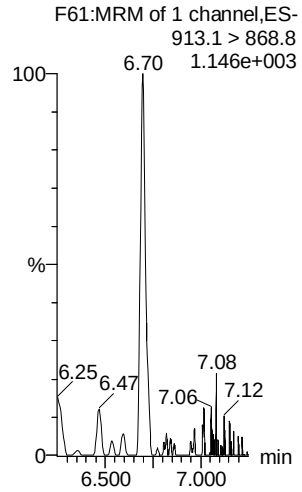
Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171227M2\171227M2-12.qld

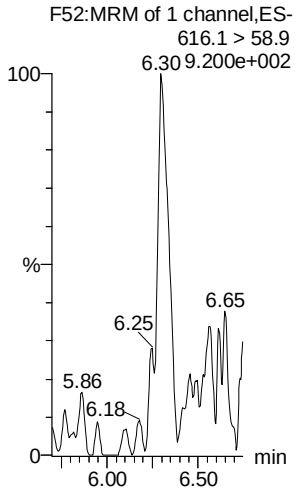
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Printed: Thursday, December 28, 2017 11:44:00 Pacific Standard Time

Name: 171227M2_12, Date: 27-Dec-2017, Time: 19:28:28, ID: IPA, Description: IPA

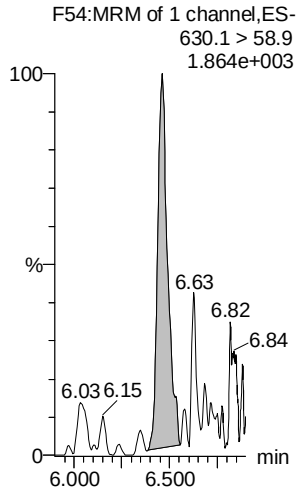
PFODA



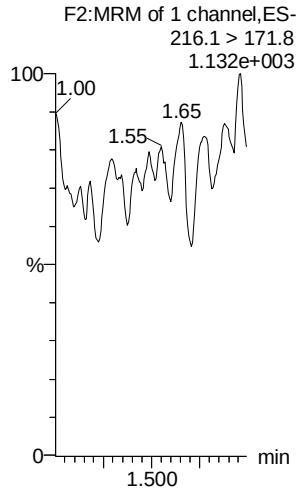
N-MeFOSE



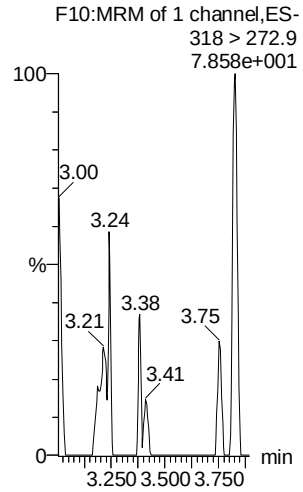
N-EtFOSE



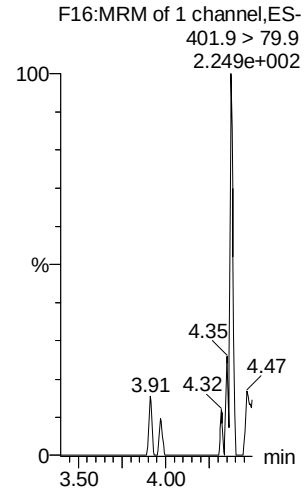
13C4-PFBA



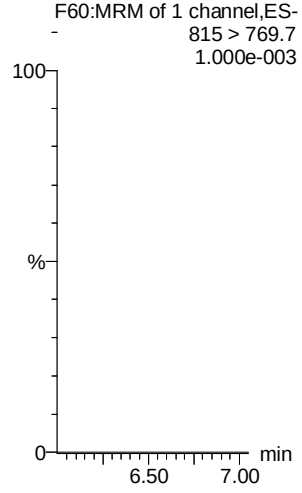
13C5-PFHxA



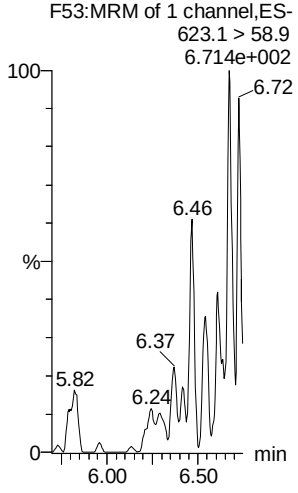
13C3-PFHxS



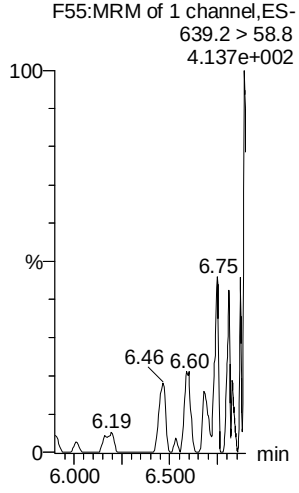
13C2-PFHxDA



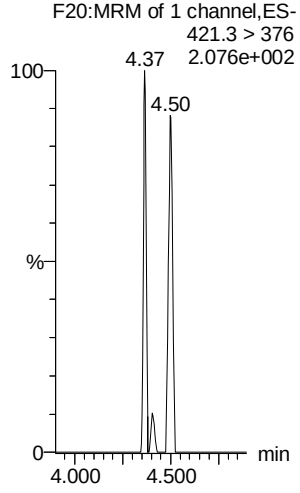
d7-N-MeFOSE



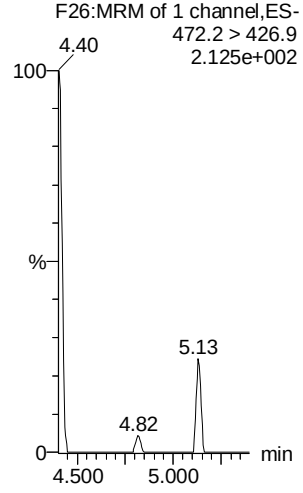
d9-N-EtFOSE



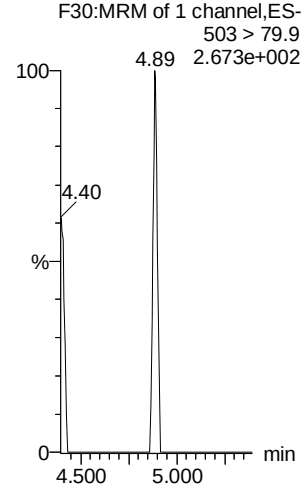
13C8-PFOA



13C9-PFNA



13C4-PFOS



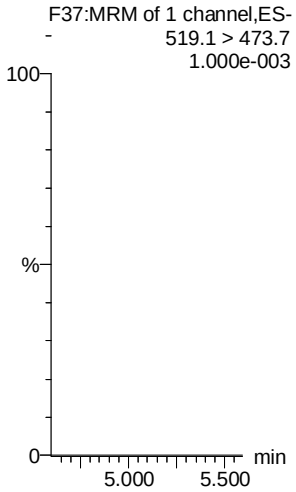
AC 12/28/17

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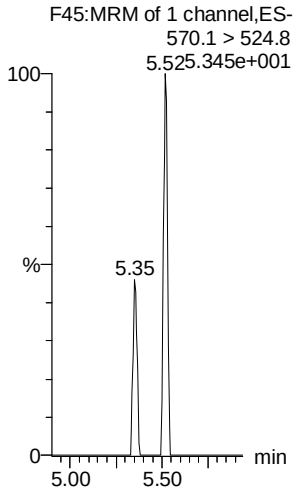
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Printed: Thursday, December 28, 2017 11:44:00 Pacific Standard Time

Name: 171227M2_12, Date: 27-Dec-2017, Time: 19:28:28, ID: IPA, Description: IPA

13C6-PFDA



13C7-PFUdA



AC 12/28/17

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Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 16:04:07 Pacific Standard Time
Printed: Friday, December 29, 2017 16:06:54 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

AC 12/29/17

✓JA 12/29/2017

Compound name: PFBA
Correlation coefficient: r = 0.999642, r^2 = 0.999283
Calibration curve: 1.37088 * x + -0.0691704
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, 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	171229M2_2	Standard	0.250	1.40	203.083	8904.588	0.285	0.3	3.4	NO	0.999	NO	bb
2	2	171229M2_3	Standard	0.500	1.40	379.981	9984.899	0.476	0.4	-20.5	NO	0.999	NO	db
3	3	171229M2_4	Standard	1.000	1.41	955.540	9468.932	1.261	1.0	-2.9	NO	0.999	NO	bb
4	4	171229M2_5	Standard	2.000	1.40	2103.677	10485.881	2.508	1.9	-6.0	NO	0.999	NO	bb
5	5	171229M2_6	Standard	5.000	1.40	5282.352	9617.440	6.866	5.1	1.2	NO	0.999	NO	bb
6	6	171229M2_7	Standard	10.000	1.40	11461.131	10147.202	14.119	10.3	3.5	NO	0.999	NO	bb
7	7	171229M2_8	Standard	50.000	1.40	56432.824	10018.672	70.410	51.4	2.8	NO	0.999	NO	bb
8	8	171229M2_9	Standard	100.000	1.40	101946.633	9449.357	134.859	98.4	-1.6	NO	0.999	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.999696, r^2 = 0.999391
Calibration curve: 1.19449 * x + -0.0389932
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171229M2_2	Standard	0.250	2.35	265.946	10303.608	0.323	0.3	21.1	NO	0.999	NO	bb
2	2	171229M2_3	Standard	0.500	2.35	545.145	11963.811	0.570	0.5	1.9	NO	0.999	NO	bb
3	3	171229M2_4	Standard	1.000	2.36	964.432	11397.529	1.058	0.9	-8.2	NO	0.999	NO	bb
4	4	171229M2_5	Standard	2.000	2.35	2111.940	12774.396	2.067	1.8	-11.9	NO	0.999	NO	bb
5	5	171229M2_6	Standard	5.000	2.36	5688.785	12100.899	5.876	5.0	-1.0	NO	0.999	NO	bb
6	6	171229M2_7	Standard	10.000	2.36	11905.028	12664.979	11.750	9.9	-1.3	NO	0.999	NO	bb
7	7	171229M2_8	Standard	50.000	2.36	58060.059	12439.228	58.344	48.9	-2.2	NO	0.999	NO	bb
8	8	171229M2_9	Standard	100.000	2.35	108102.617	11142.673	121.271	101.6	1.6	NO	0.999	NO	bb

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Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 16:04:07 Pacific Standard Time
Printed: Friday, December 29, 2017 16:06:54 Pacific Standard Time

Compound name: PFBS
Correlation coefficient: r = 0.999500, r^2 = 0.999001
Calibration curve: 2.16257 * x + -0.0590175
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171229M2_2	Standard	0.250	2.63	62.026	1558.021	0.498	0.3	3.0	NO	0.999	NO	bb
2	2	171229M2_3	Standard	0.500	2.63	152.137	1616.337	1.177	0.6	14.3	NO	0.999	NO	bb
3	3	171229M2_4	Standard	1.000	2.63	252.478	1539.314	2.050	1.0	-2.5	NO	0.999	NO	bb
4	4	171229M2_5	Standard	2.000	2.63	479.775	1659.784	3.613	1.7	-15.1	NO	0.999	NO	bb
5	5	171229M2_6	Standard	5.000	2.63	1383.079	1591.105	10.866	5.1	1.0	NO	0.999	NO	bb
6	6	171229M2_7	Standard	10.000	2.63	2621.392	1504.048	21.786	10.1	1.0	NO	0.999	NO	bb
7	7	171229M2_8	Standard	50.000	2.63	13557.104	1627.218	104.143	48.2	-3.6	NO	0.999	NO	bb
8	8	171229M2_9	Standard	100.000	2.63	27388.484	1553.847	220.328	101.9	1.9	NO	0.999	NO	bb

Compound name: PFHxA
Correlation coefficient: r = 0.999421, r^2 = 0.998842
Calibration curve: 1.87128 * x + -0.0343505
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171229M2_2	Standard	0.250	3.12	350.182	3513.841	0.498	0.3	13.9	NO	0.999	NO	bb
2	2	171229M2_3	Standard	0.500	3.12	675.696	4036.555	0.837	0.5	-6.9	NO	0.999	NO	bb
3	3	171229M2_4	Standard	1.000	3.12	1089.318	3698.728	1.473	0.8	-19.5	NO	0.999	NO	bb
4	4	171229M2_5	Standard	2.000	3.12	2680.715	3464.033	3.869	2.1	4.3	NO	0.999	NO	bb
5	5	171229M2_6	Standard	5.000	3.12	6861.220	3759.616	9.125	4.9	-2.1	NO	0.999	NO	bb
6	6	171229M2_7	Standard	10.000	3.12	15657.951	3763.830	20.801	11.1	11.3	NO	0.999	NO	bb
7	7	171229M2_8	Standard	50.000	3.12	73381.172	3933.006	93.289	49.9	-0.3	NO	0.999	NO	bb
8	8	171229M2_9	Standard	100.000	3.12	137598.078	3706.605	185.612	99.2	-0.8	NO	0.999	NO	bb

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Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 16:04:07 Pacific Standard Time
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Compound name: PFHpA
Correlation coefficient: r = 0.999428, r^2 = 0.998856
Calibration curve: 1.58151 * x + -0.0944503
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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 171229M2_2	Standard	0.250	3.74	202.101	8907.467	0.284	0.2	-4.4	NO	0.999	NO	bb
2	2 171229M2_3	Standard	0.500	3.74	594.596	9815.644	0.757	0.5	7.7	NO	0.999	NO	bb
3	3 171229M2_4	Standard	1.000	3.73	1098.379	8838.820	1.553	1.0	4.2	NO	0.999	NO	bb
4	4 171229M2_5	Standard	2.000	3.74	2238.531	10366.868	2.699	1.8	-11.7	NO	0.999	NO	bb
5	5 171229M2_6	Standard	5.000	3.74	6362.017	9360.222	8.496	5.4	8.6	NO	0.999	NO	bb
6	6 171229M2_7	Standard	10.000	3.74	12309.141	10473.959	14.690	9.3	-6.5	NO	0.999	NO	bb
7	7 171229M2_8	Standard	50.000	3.74	60958.422	9336.860	81.610	51.7	3.3	NO	0.999	NO	bb
8	8 171229M2_9	Standard	100.000	3.74	117741.930	9432.322	156.035	98.7	-1.3	NO	0.999	NO	bb

Compound name: L-PFHxS
Correlation coefficient: r = 0.999540, r^2 = 0.999081
Calibration curve: 2.12712 * x + -0.0697927
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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 171229M2_2	Standard	0.250	3.89	47.271	1144.698	0.516	0.3	10.2	NO	0.999	NO	MM
2	2 171229M2_3	Standard	0.500	3.88	108.905	1280.945	1.063	0.5	6.5	NO	0.999	NO	MM
3	3 171229M2_4	Standard	1.000	3.88	168.136	1074.276	1.956	1.0	-4.7	NO	0.999	NO	MM
4	4 171229M2_5	Standard	2.000	3.89	418.823	1469.055	3.564	1.7	-14.6	NO	0.999	NO	MM
5	5 171229M2_6	Standard	5.000	3.88	1102.041	1196.888	11.509	5.4	8.9	NO	0.999	NO	MM
6	6 171229M2_7	Standard	10.000	3.89	2211.804	1407.185	19.647	9.3	-7.3	NO	0.999	NO	MM
7	7 171229M2_8	Standard	50.000	3.88	10720.032	1247.672	107.400	50.5	1.0	NO	0.999	NO	MM
8	8 171229M2_9	Standard	100.000	3.89	19606.227	1152.019	212.738	100.0	0.0	NO	0.999	NO	MM

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 16:04:07 Pacific Standard Time
Printed: Friday, December 29, 2017 16:06:54 Pacific Standard Time

Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.995124
Calibration curve: 0.000489747 * x^2 + 0.24128 * x + 0.0169506
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171229M2_2	Standard	0.250	4.19	75.243	13054.395	0.072	0.2	-8.7	NO	0.995	NO	bb
2	2	171229M2_3	Standard	0.500	4.19	147.079	14310.572	0.128	0.5	-7.6	NO	0.995	NO	bb
3	3	171229M2_4	Standard	1.000	4.19	250.888	12549.276	0.250	1.0	-3.6	NO	0.995	NO	bb
4	4	171229M2_5	Standard	2.000	4.20	547.291	15995.349	0.428	1.7	-15.2	NO	0.995	NO	bb
5	5	171229M2_6	Standard	5.000	4.19	1674.288	13236.790	1.581	6.4	28.0	NO	0.995	NO	bb
6	6	171229M2_7	Standard	10.000	4.19	3311.861	14776.837	2.802	11.3	12.8	NO	0.995	NO	bb
7	7	171229M2_8	Standard	50.000	4.19	14577.188	14864.127	12.259	46.4	-7.3	NO	0.995	NO	bb
8	8	171229M2_9	Standard	100.000	4.19	30013.492	12709.908	29.518	101.4	1.4	NO	0.995	NO	bb

Compound name: L-PFOA
Correlation coefficient: r = 0.999271, r^2 = 0.998543
Calibration curve: 1.19548 * x + 0.228921
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171229M2_2	Standard	0.250	4.25	623.100	13054.395	0.597	0.3	23.0	NO	0.999	NO	bb
2	2	171229M2_3	Standard	0.500	4.24	970.341	14310.572	0.848	0.5	3.5	NO	0.999	NO	bb
3	3	171229M2_4	Standard	1.000	4.25	1327.619	12549.276	1.322	0.9	-8.5	NO	0.999	NO	bb
4	4	171229M2_5	Standard	2.000	4.25	2816.831	15995.349	2.201	1.6	-17.5	NO	0.999	NO	bb
5	5	171229M2_6	Standard	5.000	4.25	6294.915	13236.790	5.945	4.8	-4.4	NO	0.999	NO	bb
6	6	171229M2_7	Standard	10.000	4.25	15220.946	14776.837	12.876	10.6	5.8	NO	0.999	NO	bb
7	7	171229M2_8	Standard	50.000	4.25	68644.867	14864.127	57.727	48.1	-3.8	NO	0.999	NO	bb
8	8	171229M2_9	Standard	100.000	4.25	124103.242	12709.908	122.054	101.9	1.9	NO	0.999	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.996923
Calibration curve: 0.000286563 * x^2 + 0.246658 * x + 0.015286
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171229M2_2	Standard	0.250	4.35	66.782	13054.395	0.064	0.2	-21.1	NO	0.997	NO	bb
2	2	171229M2_3	Standard	0.500	4.36	168.818	14310.572	0.147	0.5	7.1	NO	0.997	NO	bb
3	3	171229M2_4	Standard	1.000	4.36	252.970	12549.276	0.252	1.0	-4.1	NO	0.997	NO	bb
4	4	171229M2_5	Standard	2.000	4.36	607.702	15995.349	0.475	1.9	-7.0	NO	0.997	NO	bb
5	5	171229M2_6	Standard	5.000	4.36	1590.250	13236.790	1.502	6.0	19.7	NO	0.997	NO	bb
6	6	171229M2_7	Standard	10.000	4.36	3274.734	14776.837	2.770	11.0	10.3	NO	0.997	NO	bb
7	7	171229M2_8	Standard	50.000	4.36	14539.520	14864.127	12.227	46.9	-6.1	NO	0.997	NO	bb
8	8	171229M2_9	Standard	100.000	4.36	28397.074	12709.908	27.928	101.3	1.3	NO	0.997	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.997989
Calibration curve: -0.00101357 * x^2 + 1.56335 * x + -0.000922713
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171229M2_2	Standard	0.250	4.68	376.448	9559.854	0.492	0.3	26.2	NO	0.998	NO	bb
2	2	171229M2_3	Standard	0.500	4.68	656.091	11886.128	0.690	0.4	-11.6	NO	0.998	NO	bb
3	3	171229M2_4	Standard	1.000	4.68	1326.133	10985.445	1.509	1.0	-3.4	NO	0.998	NO	bb
4	4	171229M2_5	Standard	2.000	4.68	2590.874	11245.406	2.880	1.8	-7.8	NO	0.998	NO	bb
5	5	171229M2_6	Standard	5.000	4.68	7038.520	10698.335	8.224	5.3	5.6	NO	0.998	NO	bb
6	6	171229M2_7	Standard	10.000	4.68	13863.008	12722.333	13.621	8.8	-12.4	NO	0.998	NO	bb
7	7	171229M2_8	Standard	50.000	4.68	63810.574	10121.980	78.802	52.2	4.3	NO	0.998	NO	bb
8	8	171229M2_9	Standard	100.000	4.68	127829.383	11035.840	144.789	99.0	-1.0	NO	0.998	NO	bb

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Compound name: PFOSA
Correlation coefficient: r = 0.999632, r^2 = 0.999264
Calibration curve: 1.34133 * x + -0.0872836
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171229M2_2	Standard	0.250	4.74	49.790	2711.756	0.230	0.2	-5.5	NO	0.999	NO	MM
2	2	171229M2_3	Standard	0.500	4.74	177.518	3102.326	0.715	0.6	19.7	NO	0.999	NO	bb
3	3	171229M2_4	Standard	1.000	4.74	252.066	3049.030	1.033	0.8	-16.5	NO	0.999	NO	bb
4	4	171229M2_5	Standard	2.000	4.74	602.093	3142.559	2.395	1.9	-7.5	NO	0.999	NO	bb
5	5	171229M2_6	Standard	5.000	4.74	1470.173	2594.765	7.082	5.3	6.9	NO	0.999	NO	bb
6	6	171229M2_7	Standard	10.000	4.75	3202.764	2934.554	13.642	10.2	2.4	NO	0.999	NO	bb
7	7	171229M2_8	Standard	50.000	4.74	15490.584	2840.989	68.157	50.9	1.8	NO	0.999	NO	bb
8	8	171229M2_9	Standard	100.000	4.74	30231.414	2854.235	132.397	98.8	-1.2	NO	0.999	NO	bb

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.990401
Calibration curve: -0.00113144 * x^2 + 1.36155 * x + -0.136077
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171229M2_2	Standard	0.250	4.76	59.486	3197.572	0.233	0.3	8.3	NO	0.990	NO	MM
2	2	171229M2_3	Standard	0.500	4.76	168.210	3759.751	0.559	0.5	2.2	NO	0.990	NO	MM
3	3	171229M2_4	Standard	1.000	4.76	310.262	3437.048	1.128	0.9	-7.1	NO	0.990	NO	MM
4	4	171229M2_5	Standard	2.000	4.76	650.569	3679.354	2.210	1.7	-13.7	NO	0.990	NO	MM
5	5	171229M2_6	Standard	5.000	4.76	1422.476	3383.786	5.255	4.0	-20.6	NO	0.990	NO	MM
6	6	171229M2_7	Standard	10.000	4.76	3144.695	3618.413	10.864	8.1	-18.7	NO	0.990	NO	MM
7	7	171229M2_8	Standard	50.000	4.76	17382.598	2972.808	73.090	56.4	12.9	NO	0.990	NO	MM
8	8	171229M2_9	Standard	100.000	4.76	33925.844	3503.462	121.044	96.8	-3.2	NO	0.990	NO	MM

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.998686
Calibration curve: 0.00134624 * x^2 + 1.49368 * x + -0.0435348
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171229M2_2	Standard	0.250	5.04	264.860	9787.770	0.338	0.3	2.2	NO	0.999	NO	bb
2	2	171229M2_3	Standard	0.500	5.04	697.920	13313.300	0.655	0.5	-6.5	NO	0.999	NO	bb
3	3	171229M2_4	Standard	1.000	5.05	1510.254	11579.593	1.630	1.1	11.9	NO	0.999	NO	bb
4	4	171229M2_5	Standard	2.000	5.05	2157.441	10793.412	2.499	1.7	-15.0	NO	0.999	NO	bb
5	5	171229M2_6	Standard	5.000	5.05	6589.435	11236.213	7.331	4.9	-1.7	NO	0.999	NO	bb
6	6	171229M2_7	Standard	10.000	5.05	16440.434	12281.298	16.733	11.1	11.2	NO	0.999	NO	bb
7	7	171229M2_8	Standard	50.000	5.04	54934.242	9060.415	75.789	48.6	-2.7	NO	0.999	NO	bb
8	8	171229M2_9	Standard	100.000	5.05	143479.094	10953.324	163.739	100.5	0.5	NO	0.999	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.998718
Calibration curve: 0.00142024 * x^2 + 0.296775 * x + -0.0229517
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171229M2_2	Standard	0.250	5.02	57.565	9787.770	0.074	0.3	29.8	NO	0.999	NO	MM
2	2	171229M2_3	Standard	0.500	5.02	123.106	13313.300	0.116	0.5	-6.8	NO	0.999	NO	bb
3	3	171229M2_4	Standard	1.000	5.02	178.003	11579.593	0.192	0.7	-27.8	NO	0.999	NO	bb
4	4	171229M2_5	Standard	2.000	5.02	497.074	10793.412	0.576	2.0	-0.1	NO	0.999	NO	bb
5	5	171229M2_6	Standard	5.000	5.02	1411.300	11236.213	1.570	5.2	4.7	NO	0.999	NO	bb
6	6	171229M2_7	Standard	10.000	5.02	3037.472	12281.298	3.092	10.0	0.1	NO	0.999	NO	bb
7	7	171229M2_8	Standard	50.000	5.02	13307.744	9060.415	18.360	50.0	-0.0	NO	0.999	NO	bb
8	8	171229M2_9	Standard	100.000	5.02	28544.467	10953.324	32.575	79.6	-20.4	NO	0.999	NO	bbX

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.998636
Calibration curve: 0.000145261 * x^2 + 1.66875 * x + -0.0626511
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171229M2_2	Standard	0.250	5.20	144.439	5085.497	0.355	0.3	0.1	NO	0.999	NO	bb
2	2	171229M2_3	Standard	0.500	5.20	346.408	6075.852	0.713	0.5	-7.1	NO	0.999	NO	bb
3	3	171229M2_4	Standard	1.000	5.20	615.319	5465.513	1.407	0.9	-11.9	NO	0.999	NO	bb
4	4	171229M2_5	Standard	2.000	5.20	1596.097	6024.812	3.312	2.0	1.1	NO	0.999	NO	bb
5	5	171229M2_6	Standard	5.000	5.20	3357.144	5469.510	7.672	4.6	-7.3	NO	0.999	NO	bb
6	6	171229M2_7	Standard	10.000	5.20	8000.172	5362.439	18.649	11.2	12.0	NO	0.999	NO	bb
7	7	171229M2_8	Standard	50.000	5.20	37904.684	5797.623	81.725	48.8	-2.4	NO	0.999	NO	bb
8	8	171229M2_9	Standard	100.000	5.20	71340.836	5273.478	169.103	100.5	0.5	NO	0.999	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999635
Calibration curve: -0.000224178 * x^2 + 1.34483 * x + -0.0879337
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171229M2_2	Standard	0.250	5.35	100.624	6335.104	0.199	0.2	-14.8	NO	1.000	NO	bb
2	2	171229M2_3	Standard	0.500	5.35	287.867	6832.871	0.527	0.5	-8.6	NO	1.000	NO	bb
3	3	171229M2_4	Standard	1.000	5.35	529.499	6085.677	1.088	0.9	-12.6	NO	1.000	NO	bb
4	4	171229M2_5	Standard	2.000	5.35	1587.899	6995.571	2.837	2.2	8.8	NO	1.000	NO	bb
5	5	171229M2_6	Standard	5.000	5.35	3530.072	6601.813	6.684	5.0	0.8	NO	1.000	NO	bb
6	6	171229M2_7	Standard	10.000	5.35	7551.377	7053.357	13.383	10.0	0.3	NO	1.000	NO	bb
7	7	171229M2_8	Standard	50.000	5.35	32249.033	6062.098	66.497	49.9	-0.1	NO	1.000	NO	bb
8	8	171229M2_9	Standard	100.000	5.35	56977.098	5387.725	132.192	100.0	0.0	NO	1.000	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.999185
Calibration curve: 0.00400691 * x^2 + 1.19417 * x + 0.0119652
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171229M2_2	Standard	0.250	5.36	352.251	12200.924	0.361	0.3	16.8	NO	0.999	NO	MM
2	2	171229M2_3	Standard	0.500	5.36	591.197	13014.458	0.568	0.5	-7.0	NO	0.999	NO	bb
3	3	171229M2_4	Standard	1.000	5.37	1014.264	11054.450	1.147	0.9	-5.3	NO	0.999	NO	bb
4	4	171229M2_5	Standard	2.000	5.37	2260.135	13105.806	2.156	1.8	-10.8	NO	0.999	NO	bb
5	5	171229M2_6	Standard	5.000	5.36	6342.362	12129.378	6.536	5.4	7.3	NO	0.999	NO	bb
6	6	171229M2_7	Standard	10.000	5.37	14299.663	14621.663	12.225	9.9	-1.0	NO	0.999	NO	bb
7	7	171229M2_8	Standard	50.000	5.37	68892.594	12349.849	69.730	50.0	-0.0	NO	0.999	NO	bb
8	8	171229M2_9	Standard	100.000	5.37	113701.578	14387.557	98.785	67.4	-32.6	NO	0.999	NO	bbX

Compound name: PFDS
Coefficient of Determination: R^2 = 0.999749
Calibration curve: 0.000948867 * x^2 + 0.345044 * x + 0.010668
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171229M2_2	Standard	0.250	5.41	80.006	12200.924	0.082	0.2	-17.4	NO	1.000	NO	bb
2	2	171229M2_3	Standard	0.500	5.41	211.902	13014.458	0.204	0.6	11.6	NO	1.000	NO	bb
3	3	171229M2_4	Standard	1.000	5.41	329.451	11054.450	0.373	1.0	4.6	NO	1.000	NO	bb
4	4	171229M2_5	Standard	2.000	5.41	756.411	13105.806	0.721	2.0	2.4	NO	1.000	NO	bb
5	5	171229M2_6	Standard	5.000	5.41	1707.430	12129.378	1.760	5.0	-0.0	NO	1.000	NO	bb
6	6	171229M2_7	Standard	10.000	5.41	4105.881	14621.663	3.510	9.9	-1.3	NO	1.000	NO	bb
7	7	171229M2_8	Standard	50.000	5.41	19407.148	12349.849	19.643	50.0	0.0	NO	1.000	NO	bb
8	8	171229M2_9	Standard	100.000	5.42	32172.121	14387.557	27.951	68.2	-31.8	NO	1.000	NO	bbX

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999669
Calibration curve: 0.00495795 * x^2 + 2.08516 * x + -0.00338272
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171229M2_2	Standard	0.250	5.65	370.890	8043.755	0.576	0.3	11.1	NO	1.000	NO	bb
2	2	171229M2_3	Standard	0.500	5.65	729.228	9002.822	1.012	0.5	-2.7	NO	1.000	NO	bb
3	3	171229M2_4	Standard	1.000	5.65	1390.614	9574.130	1.816	0.9	-12.9	NO	1.000	NO	bb
4	4	171229M2_5	Standard	2.000	5.65	3035.353	8821.307	4.301	2.1	2.7	NO	1.000	NO	bb
5	5	171229M2_6	Standard	5.000	5.65	7252.884	8400.495	10.792	5.1	2.3	NO	1.000	NO	bb
6	6	171229M2_7	Standard	10.000	5.65	16908.895	9958.397	21.224	9.9	-0.5	NO	1.000	NO	bb
7	7	171229M2_8	Standard	50.000	5.65	82767.836	8869.276	116.650	50.0	0.0	NO	1.000	NO	bb
8	8	171229M2_9	Standard	100.000	5.65	133277.297	7321.213	227.553	89.9	-10.1	NO	1.000	NO	bbX

Compound name: N-MeFOSA
Correlation coefficient: r = 0.999575, r^2 = 0.999151
Calibration curve: 1.1137 * x + -0.0420228
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, 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	171229M2_2	Standard	1.250	5.79	139.498	15269.275	1.370	1.3	1.5	NO	0.999	NO	bb
2	2	171229M2_3	Standard	2.500	5.79	272.447	16568.037	2.467	2.3	-9.9	NO	0.999	NO	bb
3	3	171229M2_4	Standard	5.000	5.79	611.306	16161.567	5.674	5.1	2.6	NO	0.999	NO	bb
4	4	171229M2_5	Standard	10.000	5.79	1167.968	17375.629	10.083	9.1	-9.1	NO	0.999	NO	bb
5	5	171229M2_6	Standard	25.000	5.79	3164.595	16523.939	28.727	25.8	3.3	NO	0.999	NO	bb
6	6	171229M2_7	Standard	50.000	5.79	6869.791	17052.381	60.430	54.3	8.6	NO	0.999	NO	bb
7	7	171229M2_8	Standard	250.000	5.79	33022.855	17525.244	282.645	253.8	1.5	NO	0.999	NO	bb
8	8	171229M2_9	Standard	500.000	5.79	60258.223	16495.586	547.949	492.0	-1.6	NO	0.999	NO	bb

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Compound name: PFTrDA
Correlation coefficient: r = 0.997052, r^2 = 0.994114
Calibration curve: 1.7339 * x + 0.0945455
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171229M2_2	Standard	0.250	5.89	282.867	8043.755	0.440	0.2	-20.4	NO	0.994	NO	bb
2	2	171229M2_3	Standard	0.500	5.89	729.105	9002.822	1.012	0.5	5.9	NO	0.994	NO	bb
3	3	171229M2_4	Standard	1.000	5.89	1436.530	9574.130	1.876	1.0	2.7	NO	0.994	NO	bb
4	4	171229M2_5	Standard	2.000	5.89	2986.740	8821.307	4.232	2.4	19.3	NO	0.994	NO	bb
5	5	171229M2_6	Standard	5.000	5.89	6268.928	8400.495	9.328	5.3	6.5	NO	0.994	NO	bb
6	6	171229M2_7	Standard	10.000	5.89	11719.059	9958.397	14.710	8.4	-15.7	NO	0.994	NO	bb
7	7	171229M2_8	Standard	50.000	5.89	62631.121	8869.276	88.270	50.9	1.7	NO	0.994	NO	bb
8	8	171229M2_9	Standard	100.000	5.89	139096.016	7321.213	237.488	136.9	36.9	NO	0.994	NO	bbX

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.992136
Calibration curve: -0.0140955 * x^2 + 3.56538 * x + -0.690853
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171229M2_2	Standard	0.250	6.11	244.810	2829.090	1.082	0.5	99.3	NO	0.992	NO	bbX
2	2	171229M2_3	Standard	0.500	6.11	367.674	2958.684	1.553	0.6	26.2	NO	0.992	NO	bb
3	3	171229M2_4	Standard	1.000	6.11	509.214	2615.306	2.434	0.9	-12.1	NO	0.992	NO	bb
4	4	171229M2_5	Standard	2.000	6.11	1326.894	3232.627	5.131	1.6	-17.8	NO	0.992	NO	bb
5	5	171229M2_6	Standard	5.000	6.11	3081.166	2664.266	14.456	4.3	-13.6	NO	0.992	NO	bb
6	6	171229M2_7	Standard	10.000	6.11	7154.924	2219.846	40.290	12.1	20.7	NO	0.992	NO	bb
7	7	171229M2_8	Standard	50.000	6.11	29792.066	2718.020	137.012	47.6	-4.9	NO	0.992	NO	bb
8	8	171229M2_9	Standard	100.000	6.11	54455.273	3136.443	217.026	103.0	3.0	NO	0.992	NO	db

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999388
Calibration curve: 7.91091e-005 * x^2 + 0.999512 * x + -0.30824
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171229M2_2	Standard	1.250	6.18	164.125	23839.549	1.033	1.3	7.3	NO	0.999	NO	bb
2	2	171229M2_3	Standard	2.500	6.18	385.344	26388.232	2.190	2.5	-0.0	NO	0.999	NO	bb
3	3	171229M2_4	Standard	5.000	6.18	692.366	24893.941	4.172	4.5	-10.4	NO	0.999	NO	bb
4	4	171229M2_5	Standard	10.000	6.18	1595.581	26004.342	9.204	9.5	-4.9	NO	0.999	NO	bb
5	5	171229M2_6	Standard	25.000	6.18	4264.833	25204.795	25.381	25.6	2.6	NO	0.999	NO	bb
6	6	171229M2_7	Standard	50.000	6.18	9001.179	25237.131	53.500	53.6	7.2	NO	0.999	NO	bb
7	7	171229M2_8	Standard	250.000	6.18	42323.582	25543.053	248.543	244.3	-2.3	NO	0.999	NO	bb
8	8	171229M2_9	Standard	500.000	6.18	80006.500	22997.896	521.829	502.4	0.5	NO	0.999	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998957
Calibration curve: -0.00263936 * x^2 + 0.996705 * x + 0.0130421
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171229M2_2	Standard	0.250	6.44	152.043	2686.105	0.283	0.3	8.4	NO	0.999	NO	bb
2	2	171229M2_3	Standard	0.500	6.44	227.073	2563.167	0.443	0.4	-13.6	NO	0.999	NO	bb
3	3	171229M2_4	Standard	1.000	6.44	480.162	2352.455	1.021	1.0	1.4	NO	0.999	NO	bb
4	4	171229M2_5	Standard	2.000	6.44	1022.876	2540.338	2.013	2.0	0.9	NO	0.999	NO	bb
5	5	171229M2_6	Standard	5.000	6.44	2409.130	2528.023	4.765	4.8	-3.4	NO	0.999	NO	bb
6	6	171229M2_7	Standard	10.000	6.44	4359.802	2073.382	10.514	10.8	8.5	NO	0.999	NO	bb
7	7	171229M2_8	Standard	50.000	6.44	23275.369	2760.265	42.161	48.5	-3.0	NO	0.999	NO	bb
8	8	171229M2_9	Standard	100.000	6.44	33664.332	2281.944	73.762	101.0	1.0	NO	0.999	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.995499
Calibration curve: 0.0585969 * x^2 + 0.831628 * x + 0.090875
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171229M2_2	Standard	0.250	6.67	146.344	2686.105	0.272	0.2	-14.0	NO	0.995	NO	bb
2	2	171229M2_3	Standard	0.500	6.67	288.885	2563.167	0.564	0.5	9.4	NO	0.995	NO	bb
3	3	171229M2_4	Standard	1.000	6.67	543.023	2352.455	1.154	1.2	18.0	NO	0.995	NO	bb
4	4	171229M2_5	Standard	2.000	6.67	829.352	2540.338	1.632	1.7	-17.0	NO	0.995	NO	bb
5	5	171229M2_6	Standard	5.000	6.67	3008.684	2528.023	5.951	5.2	3.3	NO	0.995	NO	bb
6	6	171229M2_7	Standard	10.000	6.67	5888.835	2073.382	14.201	10.0	-0.3	NO	0.995	NO	bb
7	7	171229M2_8	Standard	50.000	6.67	26019.475	2760.265	47.132	22.1	-55.8	NO	0.995	NO	bbX
8	8	171229M2_9	Standard	100.000	6.67	49081.063	2281.944	107.542	36.3	-63.7	NO	0.995	NO	bbX

Compound name: N-MeFOSE
Coefficient of Determination: R^2 = 0.997660
Calibration curve: 0.000615894 * x^2 + 1.25794 * x + -0.447176
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171229M2_2	Standard	1.250	6.32	190.467	20735.168	1.378	1.4	16.0	NO	0.998	NO	bb
2	2	171229M2_3	Standard	2.500	6.31	334.189	17093.148	2.933	2.7	7.3	NO	0.998	NO	bb
3	3	171229M2_4	Standard	5.000	6.31	700.139	18824.010	5.579	4.8	-4.4	NO	0.998	NO	bb
4	4	171229M2_5	Standard	10.000	6.31	1444.433	22545.748	9.610	8.0	-20.4	NO	0.998	NO	bb
5	5	171229M2_6	Standard	25.000	6.31	3471.863	17676.176	29.462	23.5	-6.0	NO	0.998	NO	bb
6	6	171229M2_7	Standard	50.000	6.32	7659.868	16652.568	68.997	53.8	7.6	NO	0.998	NO	bb
7	7	171229M2_8	Standard	250.000	6.31	35312.465	15055.310	351.827	249.6	-0.2	NO	0.998	NO	bd
8	8	171229M2_9	Standard	500.000	6.31	68630.867	19010.402	541.526	365.5	-26.9	NO	0.998	NO	bbX

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.998071, r^2 = 0.996146
Calibration curve: 1.22487 * x + 0.0980341
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171229M2_2	Standard	1.250	6.46	162.695	17500.215	1.395	1.1	-15.3	NO	0.996	NO	bb
2	2	171229M2_3	Standard	2.500	6.46	450.188	20684.432	3.265	2.6	3.4	NO	0.996	NO	bb
3	3	171229M2_4	Standard	5.000	6.46	767.502	19115.492	6.023	4.8	-3.3	NO	0.996	NO	bb
4	4	171229M2_5	Standard	10.000	6.46	1577.034	19684.930	12.017	9.7	-2.7	NO	0.996	NO	bb
5	5	171229M2_6	Standard	25.000	6.46	4054.844	19050.596	31.927	26.0	3.9	NO	0.996	NO	bb
6	6	171229M2_7	Standard	50.000	6.46	8714.649	19081.916	68.505	55.8	11.7	NO	0.996	NO	bb
7	7	171229M2_8	Standard	250.000	6.46	45602.363	20876.885	327.652	267.4	7.0	NO	0.996	NO	bb
8	8	171229M2_9	Standard	500.000	6.46	85404.250	21955.451	583.483	476.3	-4.7	NO	0.996	NO	bb

Compound name: 13C3-PFBA
Response Factor: 0.783363
RRF SD: 0.0236111, Relative SD: 3.01407
Response type: Internal Std (Ref 54), 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	171229M2_2	Standard	12.500	1.40	8904.588	11498.604	9.680	12.4	-1.1	NO		NO	bb
2	2	171229M2_3	Standard	12.500	1.40	9984.899	12720.032	9.812	12.5	0.2	NO		NO	bb
3	3	171229M2_4	Standard	12.500	1.40	9468.932	12042.461	9.829	12.5	0.4	NO		NO	bb
4	4	171229M2_5	Standard	12.500	1.40	10485.881	13073.530	10.026	12.8	2.4	NO		NO	bb
5	5	171229M2_6	Standard	12.500	1.40	9617.440	12883.391	9.331	11.9	-4.7	NO		NO	bb
6	6	171229M2_7	Standard	12.500	1.40	10147.202	12893.346	9.838	12.6	0.5	NO		NO	bb
7	7	171229M2_8	Standard	12.500	1.40	10018.672	13149.171	9.524	12.2	-2.7	NO		NO	bb
8	8	171229M2_9	Standard	12.500	1.40	9449.357	11471.483	10.297	13.1	5.2	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 0.806685
RRF SD: 0.0738036, Relative SD: 9.149
Response type: Internal Std (Ref 55), 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	171229M2_2	Standard	12.500	2.35	10303.608	13026.970	9.887	12.3	-2.0	NO		NO	bb
2	2	171229M2_3	Standard	12.500	2.35	11963.811	14686.001	10.183	12.6	1.0	NO		NO	bb
3	3	171229M2_4	Standard	12.500	2.35	11397.529	13082.247	10.890	13.5	8.0	NO		NO	bb
4	4	171229M2_5	Standard	12.500	2.35	12774.396	13423.668	11.895	14.7	18.0	NO		NO	bb
5	5	171229M2_6	Standard	12.500	2.36	12100.899	15886.118	9.522	11.8	-5.6	NO		NO	bb
6	6	171229M2_7	Standard	12.500	2.35	12664.979	16032.948	9.874	12.2	-2.1	NO		NO	bb
7	7	171229M2_8	Standard	12.500	2.35	12439.228	16516.043	9.415	11.7	-6.6	NO		NO	bb
8	8	171229M2_9	Standard	12.500	2.36	11142.673	15471.245	9.003	11.2	-10.7	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.107987
RRF SD: 0.0112562, Relative SD: 10.4236
Response type: Internal Std (Ref 55), 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	171229M2_2	Standard	12.500	2.63	1558.021	13026.970	1.495	13.8	10.8	NO		NO	bb
2	2	171229M2_3	Standard	12.500	2.63	1616.337	14686.001	1.376	12.7	1.9	NO		NO	bb
3	3	171229M2_4	Standard	12.500	2.63	1539.314	13082.247	1.471	13.6	9.0	NO		NO	bb
4	4	171229M2_5	Standard	12.500	2.63	1659.784	13423.668	1.546	14.3	14.5	NO		NO	bb
5	5	171229M2_6	Standard	12.500	2.63	1591.105	15886.118	1.252	11.6	-7.3	NO		NO	bb
6	6	171229M2_7	Standard	12.500	2.63	1504.048	16032.948	1.173	10.9	-13.1	NO		NO	bb
7	7	171229M2_8	Standard	12.500	2.63	1627.218	16516.043	1.232	11.4	-8.8	NO		NO	bb
8	8	171229M2_9	Standard	12.500	2.63	1553.847	15471.245	1.255	11.6	-7.0	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.635783
RRF SD: 0.0486821, Relative SD: 7.65703
Response type: Internal Std (Ref 55), 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	171229M2_2	Standard	5.000	3.12	3513.841	13026.970	3.372	5.3	6.1	NO		NO	bb
2	2	171229M2_3	Standard	5.000	3.12	4036.555	14686.001	3.436	5.4	8.1	NO		NO	bb
3	3	171229M2_4	Standard	5.000	3.12	3698.728	13082.247	3.534	5.6	11.2	NO		NO	bb
4	4	171229M2_5	Standard	5.000	3.12	3464.033	13423.668	3.226	5.1	1.5	NO		NO	bb
5	5	171229M2_6	Standard	5.000	3.12	3759.616	15886.118	2.958	4.7	-6.9	NO		NO	bb
6	6	171229M2_7	Standard	5.000	3.12	3763.830	16032.948	2.934	4.6	-7.7	NO		NO	bb
7	7	171229M2_8	Standard	5.000	3.12	3933.006	16516.043	2.977	4.7	-6.4	NO		NO	bb
8	8	171229M2_9	Standard	5.000	3.12	3706.605	15471.245	2.995	4.7	-5.8	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.652191
RRF SD: 0.0649762, Relative SD: 9.96276
Response type: Internal Std (Ref 55), 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	171229M2_2	Standard	12.500	3.73	8907.467	13026.970	8.547	13.1	4.8	NO		NO	bb
2	2	171229M2_3	Standard	12.500	3.73	9815.644	14686.001	8.355	12.8	2.5	NO		NO	bb
3	3	171229M2_4	Standard	12.500	3.73	8838.820	13082.247	8.445	12.9	3.6	NO		NO	bb
4	4	171229M2_5	Standard	12.500	3.74	10366.868	13423.668	9.654	14.8	18.4	NO		NO	bb
5	5	171229M2_6	Standard	12.500	3.74	9360.222	15886.118	7.365	11.3	-9.7	NO		NO	bb
6	6	171229M2_7	Standard	12.500	3.74	10473.959	16032.948	8.166	12.5	0.2	NO		NO	bb
7	7	171229M2_8	Standard	12.500	3.74	9336.860	16516.043	7.067	10.8	-13.3	NO		NO	bb
8	8	171229M2_9	Standard	12.500	3.74	9432.322	15471.245	7.621	11.7	-6.5	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.320683
RRF SD: 0.0244918, Relative SD: 7.6374
Response type: Internal Std (Ref 56), 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	171229M2_2	Standard	12.500	3.88	1144.698	3848.441	3.718	11.6	-7.2	NO		NO	bb
2	2	171229M2_3	Standard	12.500	3.88	1280.945	4238.235	3.778	11.8	-5.8	NO		NO	bb
3	3	171229M2_4	Standard	12.500	3.88	1074.276	3181.425	4.221	13.2	5.3	NO		NO	bb
4	4	171229M2_5	Standard	12.500	3.89	1469.055	4267.268	4.303	13.4	7.4	NO		NO	bb
5	5	171229M2_6	Standard	12.500	3.88	1196.888	4034.508	3.708	11.6	-7.5	NO		NO	bb
6	6	171229M2_7	Standard	12.500	3.88	1407.185	3881.957	4.531	14.1	13.0	NO		NO	bb
7	7	171229M2_8	Standard	12.500	3.88	1247.672	4023.275	3.876	12.1	-3.3	NO		NO	bb
8	8	171229M2_9	Standard	12.500	3.88	1152.019	3662.087	3.932	12.3	-1.9	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.192047
RRF SD: 0.0252793, Relative SD: 13.1631
Response type: Internal Std (Ref 57), 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	171229M2_2	Standard	12.500	4.19	2316.373	15049.458	1.924	10.0	-19.9	NO		NO	bb
2	2	171229M2_3	Standard	12.500	4.19	2801.986	14379.889	2.436	12.7	1.5	NO		NO	bb
3	3	171229M2_4	Standard	12.500	4.19	2589.695	13387.784	2.418	12.6	0.7	NO		NO	bb
4	4	171229M2_5	Standard	12.500	4.19	2823.740	16520.527	2.137	11.1	-11.0	NO		NO	bb
5	5	171229M2_6	Standard	12.500	4.19	2811.475	15029.971	2.338	12.2	-2.6	NO		NO	bb
6	6	171229M2_7	Standard	12.500	4.19	3213.473	14938.239	2.689	14.0	12.0	NO		NO	bb
7	7	171229M2_8	Standard	12.500	4.19	3501.672	15289.608	2.863	14.9	19.3	NO		NO	bb
8	8	171229M2_9	Standard	12.500	4.19	4072.249	13438.497	3.788	19.7	57.8	NO		NO	bbX

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Compound name: 13C2-PFOA
Response Factor: 0.944504
RRF SD: 0.0477452, Relative SD: 5.05505
Response type: Internal Std (Ref 57), 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	171229M2_2	Standard	12.500	4.25	13054.395	15049.458	10.843	11.5	-8.2	NO		NO	bb
2	2	171229M2_3	Standard	12.500	4.24	14310.572	14379.889	12.440	13.2	5.4	NO		NO	bb
3	3	171229M2_4	Standard	12.500	4.25	12549.276	13387.784	11.717	12.4	-0.8	NO		NO	bb
4	4	171229M2_5	Standard	12.500	4.25	15995.349	16520.527	12.103	12.8	2.5	NO		NO	bb
5	5	171229M2_6	Standard	12.500	4.25	13236.790	15029.971	11.009	11.7	-6.8	NO		NO	bb
6	6	171229M2_7	Standard	12.500	4.25	14776.837	14938.239	12.365	13.1	4.7	NO		NO	bb
7	7	171229M2_8	Standard	12.500	4.25	14864.127	15289.608	12.152	12.9	2.9	NO		NO	bb
8	8	171229M2_9	Standard	12.500	4.25	12709.908	13438.497	11.822	12.5	0.1	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.832052
RRF SD: 0.0583635, Relative SD: 7.0144
Response type: Internal Std (Ref 58), 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	171229M2_2	Standard	12.500	4.68	9559.854	11482.184	10.407	12.5	0.1	NO		NO	bb
2	2	171229M2_3	Standard	12.500	4.68	11886.128	13994.057	10.617	12.8	2.1	NO		NO	bb
3	3	171229M2_4	Standard	12.500	4.68	10985.445	13520.063	10.157	12.2	-2.3	NO		NO	bb
4	4	171229M2_5	Standard	12.500	4.68	11245.406	11995.365	11.718	14.1	12.7	NO		NO	bb
5	5	171229M2_6	Standard	12.500	4.68	10698.335	12349.689	10.829	13.0	4.1	NO		NO	bb
6	6	171229M2_7	Standard	12.500	4.68	12722.333	15920.794	9.989	12.0	-4.0	NO		NO	bb
7	7	171229M2_8	Standard	12.500	4.68	10121.980	13803.214	9.166	11.0	-11.9	NO		NO	bb
8	8	171229M2_9	Standard	12.500	4.68	11035.840	13364.362	10.322	12.4	-0.8	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.203788
RRF SD: 0.0207952, Relative SD: 10.2043
Response type: Internal Std (Ref 61), 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	171229M2_2	Standard	12.500	4.74	2711.756	14815.704	2.288	11.2	-10.2	NO		NO	bb
2	2	171229M2_3	Standard	12.500	4.74	3102.326	16960.961	2.286	11.2	-10.2	NO		NO	bb
3	3	171229M2_4	Standard	12.500	4.74	3049.030	12370.712	3.081	15.1	20.9	NO		NO	bb
4	4	171229M2_5	Standard	12.500	4.74	3142.559	15033.304	2.613	12.8	2.6	NO		NO	bb
5	5	171229M2_6	Standard	12.500	4.74	2594.765	12111.065	2.678	13.1	5.1	NO		NO	bb
6	6	171229M2_7	Standard	12.500	4.74	2934.554	14405.790	2.546	12.5	-0.0	NO		NO	bb
7	7	171229M2_8	Standard	12.500	4.74	2840.989	14131.721	2.513	12.3	-1.4	NO		NO	bb
8	8	171229M2_9	Standard	12.500	4.74	2854.235	15033.200	2.373	11.6	-6.8	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 0.947914
RRF SD: 0.0975277, Relative SD: 10.2887
Response type: Internal Std (Ref 59), 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	171229M2_2	Standard	12.500	4.76	3197.572	2998.679	13.329	14.1	12.5	NO		NO	bb
2	2	171229M2_3	Standard	12.500	4.76	3759.751	4122.135	11.401	12.0	-3.8	NO		NO	bb
3	3	171229M2_4	Standard	12.500	4.76	3437.048	3587.060	11.977	12.6	1.1	NO		NO	bb
4	4	171229M2_5	Standard	12.500	4.76	3679.354	3787.616	12.143	12.8	2.5	NO		NO	bb
5	5	171229M2_6	Standard	12.500	4.76	3383.786	3479.518	12.156	12.8	2.6	NO		NO	bb
6	6	171229M2_7	Standard	12.500	4.76	3618.413	3708.112	12.198	12.9	2.9	NO		NO	bb
7	7	171229M2_8	Standard	12.500	4.76	2972.808	4065.431	9.141	9.6	-22.9	NO		NO	bb
8	8	171229M2_9	Standard	12.500	4.76	3503.462	3518.380	12.447	13.1	5.0	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 0.986444
RRF SD: 0.1074, Relative SD: 10.8876
Response type: Internal Std (Ref 60), 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	171229M2_2	Standard	12.500	5.05	9787.770	10283.326	11.898	12.1	-3.5	NO		NO	bb
2	2	171229M2_3	Standard	12.500	5.04	13313.300	12978.949	12.822	13.0	4.0	NO		NO	bb
3	3	171229M2_4	Standard	12.500	5.04	11579.593	10780.415	13.427	13.6	8.9	NO		NO	bb
4	4	171229M2_5	Standard	12.500	5.05	10793.412	12463.213	10.825	11.0	-12.2	NO		NO	bb
5	5	171229M2_6	Standard	12.500	5.05	11236.213	11862.046	11.841	12.0	-4.0	NO		NO	bb
6	6	171229M2_7	Standard	12.500	5.05	12281.298	12524.826	12.257	12.4	-0.6	NO		NO	bb
7	7	171229M2_8	Standard	12.500	5.04	9060.415	10505.381	10.781	10.9	-12.6	NO		NO	bb
8	8	171229M2_9	Standard	12.500	5.04	10953.324	9254.415	14.795	15.0	20.0	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.124479
RRF SD: 0.019342, Relative SD: 15.5383
Response type: Internal Std (Ref 55), 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	171229M2_2	Standard	12.500	5.02	1831.227	13026.970	1.757	14.1	12.9	NO		NO	bb
2	2	171229M2_3	Standard	12.500	5.02	1424.288	14686.001	1.212	9.7	-22.1	NO		NO	bb
3	3	171229M2_4	Standard	12.500	5.02	2009.474	13082.247	1.920	15.4	23.4	NO		NO	bb
4	4	171229M2_5	Standard	12.500	5.02	1798.888	13423.668	1.675	13.5	7.7	NO		NO	bb
5	5	171229M2_6	Standard	12.500	5.02	1757.374	15886.118	1.383	11.1	-11.1	NO		NO	bb
6	6	171229M2_7	Standard	12.500	5.02	1922.256	16032.948	1.499	12.0	-3.7	NO		NO	bb
7	7	171229M2_8	Standard	12.500	5.02	1910.405	16516.043	1.446	11.6	-7.1	NO		NO	bb
8	8	171229M2_9	Standard	12.500	5.02	3035.175	15471.245	2.452	19.7	57.6	NO		NO	bbX

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Compound name: d3-N-MeFOSAA
Response Factor: 0.391119
RRF SD: 0.0414808, Relative SD: 10.6057
Response type: Internal Std (Ref 61), 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	171229M2_2	Standard	12.500	5.19	5085.497	14815.704	4.291	11.0	-12.2	NO		NO	bb
2	2	171229M2_3	Standard	12.500	5.19	6075.852	16960.961	4.478	11.4	-8.4	NO		NO	bb
3	3	171229M2_4	Standard	12.500	5.19	5465.513	12370.712	5.523	14.1	13.0	NO		NO	bb
4	4	171229M2_5	Standard	12.500	5.19	6024.812	15033.304	5.010	12.8	2.5	NO		NO	bb
5	5	171229M2_6	Standard	12.500	5.19	5469.510	12111.065	5.645	14.4	15.5	NO		NO	bb
6	6	171229M2_7	Standard	12.500	5.20	5362.439	14405.790	4.653	11.9	-4.8	NO		NO	bb
7	7	171229M2_8	Standard	12.500	5.19	5797.623	14131.721	5.128	13.1	4.9	NO		NO	bb
8	8	171229M2_9	Standard	12.500	5.20	5273.478	15033.200	4.385	11.2	-10.3	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.451227
RRF SD: 0.0587445, Relative SD: 13.0188
Response type: Internal Std (Ref 61), 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	171229M2_2	Standard	12.500	5.35	6335.104	14815.704	5.345	11.8	-5.2	NO		NO	bb
2	2	171229M2_3	Standard	12.500	5.34	6832.871	16960.961	5.036	11.2	-10.7	NO		NO	bb
3	3	171229M2_4	Standard	12.500	5.35	6085.677	12370.712	6.149	13.6	9.0	NO		NO	bb
4	4	171229M2_5	Standard	12.500	5.35	6995.571	15033.304	5.817	12.9	3.1	NO		NO	bb
5	5	171229M2_6	Standard	12.500	5.35	6601.813	12111.065	6.814	15.1	20.8	NO		NO	bb
6	6	171229M2_7	Standard	12.500	5.35	7053.357	14405.790	6.120	13.6	8.5	NO		NO	bb
7	7	171229M2_8	Standard	12.500	5.35	6062.098	14131.721	5.362	11.9	-4.9	NO		NO	bb
8	8	171229M2_9	Standard	12.500	5.35	5387.725	15033.200	4.480	9.9	-20.6	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 0.900459
RRF SD: 0.0859834, Relative SD: 9.54884
Response type: Internal Std (Ref 61), 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	171229M2_2	Standard	12.500	5.37	12200.924	14815.704	10.294	11.4	-8.5	NO		NO	bb
2	2	171229M2_3	Standard	12.500	5.36	13014.458	16960.961	9.591	10.7	-14.8	NO		NO	bb
3	3	171229M2_4	Standard	12.500	5.36	11054.450	12370.712	11.170	12.4	-0.8	NO		NO	bb
4	4	171229M2_5	Standard	12.500	5.36	13105.806	15033.304	10.897	12.1	-3.2	NO		NO	bb
5	5	171229M2_6	Standard	12.500	5.36	12129.378	12111.065	12.519	13.9	11.2	NO		NO	bb
6	6	171229M2_7	Standard	12.500	5.37	14621.663	14405.790	12.687	14.1	12.7	NO		NO	bb
7	7	171229M2_8	Standard	12.500	5.36	12349.849	14131.721	10.924	12.1	-2.9	NO		NO	bb
8	8	171229M2_9	Standard	12.500	5.37	14387.557	15033.200	11.963	13.3	6.3	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.616744
RRF SD: 0.0977312, Relative SD: 15.8463
Response type: Internal Std (Ref 61), 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	171229M2_2	Standard	12.500	5.64	8043.755	14815.704	6.787	11.0	-12.0	NO		NO	bb
2	2	171229M2_3	Standard	12.500	5.65	9002.822	16960.961	6.635	10.8	-13.9	NO		NO	bb
3	3	171229M2_4	Standard	12.500	5.65	9574.130	12370.712	9.674	15.7	25.5	NO		NO	bb
4	4	171229M2_5	Standard	12.500	5.65	8821.307	15033.304	7.335	11.9	-4.9	NO		NO	bb
5	5	171229M2_6	Standard	12.500	5.65	8400.495	12111.065	8.670	14.1	12.5	NO		NO	bb
6	6	171229M2_7	Standard	12.500	5.65	9958.397	14405.790	8.641	14.0	12.1	NO		NO	bb
7	7	171229M2_8	Standard	12.500	5.65	8869.276	14131.721	7.845	12.7	1.8	NO		NO	bb
8	8	171229M2_9	Standard	12.500	5.65	7321.213	15033.200	6.088	9.9	-21.0	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.0974499
RRF SD: 0.0110792, Relative SD: 11.3691
Response type: Internal Std (Ref 61), 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	171229M2_2	Standard	150.000	5.81	15269.275	14815.704	12.883	132.2	-11.9	NO		NO	bb
2	2	171229M2_3	Standard	150.000	5.81	16568.037	16960.961	12.210	125.3	-16.5	NO		NO	bb
3	3	171229M2_4	Standard	150.000	5.81	16161.567	12370.712	16.330	167.6	11.7	NO		NO	bb
4	4	171229M2_5	Standard	150.000	5.81	17375.629	15033.304	14.448	148.3	-1.2	NO		NO	bb
5	5	171229M2_6	Standard	150.000	5.81	16523.939	12111.065	17.055	175.0	16.7	NO		NO	bb
6	6	171229M2_7	Standard	150.000	5.81	17052.381	14405.790	14.796	151.8	1.2	NO		NO	bb
7	7	171229M2_8	Standard	150.000	5.81	17525.244	14131.721	15.502	159.1	6.0	NO		NO	bd
8	8	171229M2_9	Standard	150.000	5.81	16495.586	15033.200	13.716	140.7	-6.2	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.195861
RRF SD: 0.02266, Relative SD: 11.5694
Response type: Internal Std (Ref 61), 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	171229M2_2	Standard	12.500	6.11	2829.090	14815.704	2.387	12.2	-2.5	NO		NO	bb
2	2	171229M2_3	Standard	12.500	6.11	2958.684	16960.961	2.181	11.1	-10.9	NO		NO	bb
3	3	171229M2_4	Standard	12.500	6.11	2615.306	12370.712	2.643	13.5	7.9	NO		NO	bb
4	4	171229M2_5	Standard	12.500	6.11	3232.627	15033.304	2.688	13.7	9.8	NO		NO	bb
5	5	171229M2_6	Standard	12.500	6.11	2664.266	12111.065	2.750	14.0	12.3	NO		NO	bb
6	6	171229M2_7	Standard	12.500	6.11	2219.846	14405.790	1.926	9.8	-21.3	NO		NO	bb
7	7	171229M2_8	Standard	12.500	6.11	2718.020	14131.721	2.404	12.3	-1.8	NO		NO	bb
8	8	171229M2_9	Standard	12.500	6.11	3136.443	15033.200	2.608	13.3	6.5	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.146639
RRF SD: 0.0168881, Relative SD: 11.5168
Response type: Internal Std (Ref 61), 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	171229M2_2	Standard	150.000	6.19	23839.549	14815.704	20.113	137.2	-8.6	NO		NO	bb
2	2	171229M2_3	Standard	150.000	6.19	26388.232	16960.961	19.448	132.6	-11.6	NO		NO	bb
3	3	171229M2_4	Standard	150.000	6.20	24893.941	12370.712	25.154	171.5	14.4	NO		NO	bb
4	4	171229M2_5	Standard	150.000	6.20	26004.342	15033.304	21.622	147.5	-1.7	NO		NO	bb
5	5	171229M2_6	Standard	150.000	6.20	25204.795	12111.065	26.014	177.4	18.3	NO		NO	bb
6	6	171229M2_7	Standard	150.000	6.20	25237.131	14405.790	21.898	149.3	-0.4	NO		NO	bb
7	7	171229M2_8	Standard	150.000	6.20	25543.053	14131.721	22.594	154.1	2.7	NO		NO	bb
8	8	171229M2_9	Standard	150.000	6.20	22997.896	15033.200	19.123	130.4	-13.1	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.434796
RRF SD: 0.0591757, Relative SD: 13.61
Response type: Internal Std (Ref 61), 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	171229M2_2	Standard	5.000	6.44	2686.105	14815.704	2.266	5.2	4.2	NO		NO	bb
2	2	171229M2_3	Standard	5.000	6.44	2563.167	16960.961	1.889	4.3	-13.1	NO		NO	bb
3	3	171229M2_4	Standard	5.000	6.44	2352.455	12370.712	2.377	5.5	9.3	NO		NO	bb
4	4	171229M2_5	Standard	5.000	6.44	2540.338	15033.304	2.112	4.9	-2.8	NO		NO	bb
5	5	171229M2_6	Standard	5.000	6.44	2528.023	12111.065	2.609	6.0	20.0	NO		NO	bb
6	6	171229M2_7	Standard	5.000	6.44	2073.382	14405.790	1.799	4.1	-17.2	NO		NO	bb
7	7	171229M2_8	Standard	5.000	6.44	2760.265	14131.721	2.442	5.6	12.3	NO		NO	bb
8	8	171229M2_9	Standard	5.000	6.44	2281.944	15033.200	1.897	4.4	-12.7	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.108064
RRF SD: 0.0168658, Relative SD: 15.6073
Response type: Internal Std (Ref 61), 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	171229M2_2	Standard	150.000	6.31	20735.168	14815.704	17.494	161.9	7.9	NO		NO	bb
2	2	171229M2_3	Standard	150.000	6.31	17093.148	16960.961	12.597	116.6	-22.3	NO		NO	bd
3	3	171229M2_4	Standard	150.000	6.31	18824.010	12370.712	19.021	176.0	17.3	NO		NO	bb
4	4	171229M2_5	Standard	150.000	6.31	22545.748	15033.304	18.747	173.5	15.7	NO		NO	bb
5	5	171229M2_6	Standard	150.000	6.31	17676.176	12111.065	18.244	168.8	12.6	NO		NO	bb
6	6	171229M2_7	Standard	150.000	6.31	16652.568	14405.790	14.450	133.7	-10.9	NO		NO	bb
7	7	171229M2_8	Standard	150.000	6.31	15055.310	14131.721	13.317	123.2	-17.8	NO		NO	bb
8	8	171229M2_9	Standard	150.000	6.30	19010.402	15033.200	15.807	146.3	-2.5	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.115528
RRF SD: 0.0123398, Relative SD: 10.6812
Response type: Internal Std (Ref 61), 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	171229M2_2	Standard	150.000	6.46	17500.215	14815.704	14.765	127.8	-14.8	NO		NO	bb
2	2	171229M2_3	Standard	150.000	6.46	20684.432	16960.961	15.244	132.0	-12.0	NO		NO	bb
3	3	171229M2_4	Standard	150.000	6.46	19115.492	12370.712	19.315	167.2	11.5	NO		NO	bb
4	4	171229M2_5	Standard	150.000	6.46	19684.930	15033.304	16.368	141.7	-5.5	NO		NO	bb
5	5	171229M2_6	Standard	150.000	6.46	19050.596	12111.065	19.662	170.2	13.5	NO		NO	bb
6	6	171229M2_7	Standard	150.000	6.46	19081.916	14405.790	16.558	143.3	-4.5	NO		NO	bd
7	7	171229M2_8	Standard	150.000	6.46	20876.885	14131.721	18.466	159.8	6.6	NO		NO	bb
8	8	171229M2_9	Standard	150.000	6.46	21955.451	15033.200	18.256	158.0	5.3	NO		NO	bb

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Compound name: 13C4-PFBA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 54), 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	171229M2_2	Standard	12.500	1.40	11498.604	11498.604	12.500	12.5	0.0	NO		NO	bb
2	2	171229M2_3	Standard	12.500	1.40	12720.032	12720.032	12.500	12.5	0.0	NO		NO	bb
3	3	171229M2_4	Standard	12.500	1.40	12042.461	12042.461	12.500	12.5	0.0	NO		NO	bb
4	4	171229M2_5	Standard	12.500	1.40	13073.530	13073.530	12.500	12.5	0.0	NO		NO	bb
5	5	171229M2_6	Standard	12.500	1.40	12883.391	12883.391	12.500	12.5	0.0	NO		NO	bb
6	6	171229M2_7	Standard	12.500	1.40	12893.346	12893.346	12.500	12.5	0.0	NO		NO	bb
7	7	171229M2_8	Standard	12.500	1.40	13149.171	13149.171	12.500	12.5	0.0	NO		NO	bb
8	8	171229M2_9	Standard	12.500	1.40	11471.483	11471.483	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 55), 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	171229M2_2	Standard	12.500	3.12	13026.970	13026.970	12.500	12.5	0.0	NO		NO	bb
2	2	171229M2_3	Standard	12.500	3.12	14686.001	14686.001	12.500	12.5	0.0	NO		NO	bb
3	3	171229M2_4	Standard	12.500	3.12	13082.247	13082.247	12.500	12.5	0.0	NO		NO	bb
4	4	171229M2_5	Standard	12.500	3.12	13423.668	13423.668	12.500	12.5	0.0	NO		NO	bb
5	5	171229M2_6	Standard	12.500	3.12	15886.118	15886.118	12.500	12.5	0.0	NO		NO	bb
6	6	171229M2_7	Standard	12.500	3.12	16032.948	16032.948	12.500	12.5	0.0	NO		NO	bb
7	7	171229M2_8	Standard	12.500	3.12	16516.043	16516.043	12.500	12.5	0.0	NO		NO	bb
8	8	171229M2_9	Standard	12.500	3.12	15471.245	15471.245	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 56), 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	171229M2_2	Standard	12.500	3.88	3848.441	3848.441	12.500	12.5	0.0	NO		NO	bb
2	2	171229M2_3	Standard	12.500	3.88	4238.235	4238.235	12.500	12.5	0.0	NO		NO	bb
3	3	171229M2_4	Standard	12.500	3.88	3181.425	3181.425	12.500	12.5	0.0	NO		NO	bb
4	4	171229M2_5	Standard	12.500	3.88	4267.268	4267.268	12.500	12.5	0.0	NO		NO	bb
5	5	171229M2_6	Standard	12.500	3.88	4034.508	4034.508	12.500	12.5	0.0	NO		NO	bb
6	6	171229M2_7	Standard	12.500	3.88	3881.957	3881.957	12.500	12.5	0.0	NO		NO	bb
7	7	171229M2_8	Standard	12.500	3.88	4023.275	4023.275	12.500	12.5	0.0	NO		NO	bb
8	8	171229M2_9	Standard	12.500	3.88	3662.087	3662.087	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 57), 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	171229M2_2	Standard	12.500	4.25	15049.458	15049.458	12.500	12.5	0.0	NO		NO	bb
2	2	171229M2_3	Standard	12.500	4.25	14379.889	14379.889	12.500	12.5	0.0	NO		NO	bb
3	3	171229M2_4	Standard	12.500	4.25	13387.784	13387.784	12.500	12.5	0.0	NO		NO	bb
4	4	171229M2_5	Standard	12.500	4.25	16520.527	16520.527	12.500	12.5	0.0	NO		NO	bb
5	5	171229M2_6	Standard	12.500	4.25	15029.971	15029.971	12.500	12.5	0.0	NO		NO	bb
6	6	171229M2_7	Standard	12.500	4.25	14938.239	14938.239	12.500	12.5	0.0	NO		NO	bb
7	7	171229M2_8	Standard	12.500	4.25	15289.608	15289.608	12.500	12.5	0.0	NO		NO	bb
8	8	171229M2_9	Standard	12.500	4.25	13438.497	13438.497	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 58), 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	171229M2_2	Standard	12.500	4.68	11482.184	11482.184	12.500	12.5	0.0	NO		NO	bb
2	2	171229M2_3	Standard	12.500	4.68	13994.057	13994.057	12.500	12.5	0.0	NO		NO	bb
3	3	171229M2_4	Standard	12.500	4.68	13520.063	13520.063	12.500	12.5	0.0	NO		NO	bb
4	4	171229M2_5	Standard	12.500	4.68	11995.365	11995.365	12.500	12.5	0.0	NO		NO	bb
5	5	171229M2_6	Standard	12.500	4.68	12349.689	12349.689	12.500	12.5	0.0	NO		NO	bb
6	6	171229M2_7	Standard	12.500	4.68	15920.794	15920.794	12.500	12.5	0.0	NO		NO	bb
7	7	171229M2_8	Standard	12.500	4.68	13803.214	13803.214	12.500	12.5	0.0	NO		NO	bb
8	8	171229M2_9	Standard	12.500	4.68	13364.362	13364.362	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 59), 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	171229M2_2	Standard	12.500	4.76	2998.679	2998.679	12.500	12.5	0.0	NO		NO	bb
2	2	171229M2_3	Standard	12.500	4.76	4122.135	4122.135	12.500	12.5	0.0	NO		NO	bb
3	3	171229M2_4	Standard	12.500	4.76	3587.060	3587.060	12.500	12.5	0.0	NO		NO	bb
4	4	171229M2_5	Standard	12.500	4.76	3787.616	3787.616	12.500	12.5	0.0	NO		NO	bb
5	5	171229M2_6	Standard	12.500	4.76	3479.518	3479.518	12.500	12.5	0.0	NO		NO	bb
6	6	171229M2_7	Standard	12.500	4.76	3708.112	3708.112	12.500	12.5	0.0	NO		NO	bb
7	7	171229M2_8	Standard	12.500	4.76	4065.431	4065.431	12.500	12.5	0.0	NO		NO	bb
8	8	171229M2_9	Standard	12.500	4.76	3518.380	3518.380	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 60), 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	171229M2_2	Standard	12.500	5.04	10283.326	10283.326	12.500	12.5	0.0	NO		NO	bb
2	2	171229M2_3	Standard	12.500	5.04	12978.949	12978.949	12.500	12.5	0.0	NO		NO	bb
3	3	171229M2_4	Standard	12.500	5.04	10780.415	10780.415	12.500	12.5	0.0	NO		NO	bb
4	4	171229M2_5	Standard	12.500	5.05	12463.213	12463.213	12.500	12.5	0.0	NO		NO	bb
5	5	171229M2_6	Standard	12.500	5.04	11862.046	11862.046	12.500	12.5	0.0	NO		NO	bb
6	6	171229M2_7	Standard	12.500	5.04	12524.826	12524.826	12.500	12.5	0.0	NO		NO	bb
7	7	171229M2_8	Standard	12.500	5.04	10505.381	10505.381	12.500	12.5	0.0	NO		NO	bb
8	8	171229M2_9	Standard	12.500	5.05	9254.415	9254.415	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C7-PFUdA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 61), 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	171229M2_2	Standard	12.500	5.37	14815.704	14815.704	12.500	12.5	0.0	NO		NO	bb
2	2	171229M2_3	Standard	12.500	5.37	16960.961	16960.961	12.500	12.5	0.0	NO		NO	bb
3	3	171229M2_4	Standard	12.500	5.37	12370.712	12370.712	12.500	12.5	0.0	NO		NO	bb
4	4	171229M2_5	Standard	12.500	5.37	15033.304	15033.304	12.500	12.5	0.0	NO		NO	bb
5	5	171229M2_6	Standard	12.500	5.37	12111.065	12111.065	12.500	12.5	0.0	NO		NO	bb
6	6	171229M2_7	Standard	12.500	5.37	14405.790	14405.790	12.500	12.5	0.0	NO		NO	bb
7	7	171229M2_8	Standard	12.500	5.37	14131.721	14131.721	12.500	12.5	0.0	NO		NO	bb
8	8	171229M2_9	Standard	12.500	5.37	15033.200	15033.200	12.500	12.5	0.0	NO		NO	bb

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Name: 171229M2_9, Date: 29-Dec-2017, Time: 14:49:59, ID: ST171229M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBA	0.9993	NO	
2	2	PFPeA	0.9994	NO	
3	3	PFBS	0.9990	NO	
4	4	PFHxA	0.9988	NO	
5	5	PFHpA	0.9989	NO	
6	6	L-PFHxS	0.9991	NO	
7	8	6:2 FTS	0.9951	NO	
8	9	L-PFOA	0.9985	NO	
9	11	PFHpS	0.9969	NO	
10	12	PFNA	0.9980	NO	
11	13	PFOSA	0.9993	NO	
12	14	L-PFOS	0.9904	NO	
13	16	PFDA	0.9987	NO	
14	17	8:2 FTS	0.9987	NO	
15	18	N-MeFOSAA	0.9986	NO	
16	19	N-EtFOSAA	0.9996	NO	
17	20	PFUdA	0.9992	NO	
18	21	PFDS	0.9997	NO	
19	22	PFDoA	0.9997	NO	
20	23	N-MeFOSA	0.9992	NO	
21	24	PFTrDA	0.9941	NO	
22	25	PFTeDA	0.9921	NO	
23	26	N-EtFOSA	0.9994	NO	
24	27	PFHxDA	0.9990	NO	
25	28	PFODA	0.9955	NO	
26	29	N-MeFOSE	0.9977	NO	
27	30	N-EtFOSE	0.9961	NO	
28	31	13C3-PFBA		NO	3.014
29	32	13C3-PFPeA		NO	9.149
30	33	13C3-PFBS		NO	10.424
31	34	13C2-PFHxA		NO	7.657
32	35	13C4-PFHpA		NO	9.963
33	36	18O2-PFHxS		NO	7.637
34	37	13C2-6:2 FTS		NO	13.163

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Name: 171229M2_9, Date: 29-Dec-2017, Time: 14:49:59, ID: ST171229M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

	#	Name	CoD	CoD Flag	%RSD
35	38	13C2-PFOA		NO	5.055
36	39	13C5-PFNA		NO	7.014
37	40	13C8-PFOSA		NO	10.204
38	41	13C8-PFOS		NO	10.289
39	42	13C2-PFDA		NO	10.888
40	43	13C2-8:2 FTS		NO	15.538
41	44	d3-N-MeFOSAA		NO	10.606
42	45	d5-N-EtFOSAA		NO	13.019
43	46	13C2-PFUdA		NO	9.549
44	47	13C2-PFDoA		NO	15.846
45	48	d3-N-MeFOSA		NO	11.369
46	49	13C2-PFTeDA		NO	11.569
47	50	d5-N-ETFOSA		NO	11.517
48	51	13C2-PFHxDA		NO	13.610
49	52	d7-N-MeFOSE		NO	15.607
50	53	d9-N-EtFOSE		NO	10.681
51	54	13C4-PFBA		NO	0.000
52	55	13C5-PFHxA		NO	0.000
53	56	13C3-PFHxS		NO	0.000
54	57	13C8-PFOA		NO	0.000
55	58	13C9-PFNA		NO	0.000
56	59	13C4-PFOS		NO	0.000
57	60	13C6-PFDA		NO	0.000
58	61	13C7-PFUdA		NO	0.000

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Dataset: Untitled

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 29 Dec 2017 15:16:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171229M2_1	IPA	29-Dec-17	13:20:29
2	171229M2_2	ST171229M2-1 PFC CS-2 17L2606	29-Dec-17	13:31:42
3	171229M2_3	ST171229M2-2 PFC CS-1 17L2607	29-Dec-17	13:42:53
4	171229M2_4	ST171229M2-3 PFC CS0 17L2608	29-Dec-17	13:54:04
5	171229M2_5	ST171229M2-4 PFC CS1 17L2609	29-Dec-17	14:05:15
6	171229M2_6	ST171229M2-5 PFC CS2 17L2610	29-Dec-17	14:16:26
7	171229M2_7	ST171229M2-6 PFC CS3 17L2611	29-Dec-17	14:27:38
8	171229M2_8	ST171229M2-7 PFC CS4 17L2612	29-Dec-17	14:38:48
9	171229M2_9	ST171229M2-8 PFC CS5 17L2613	29-Dec-17	14:49:59
10	171229M2_10	ST171229M2-9 PFC CS6 17L2710	29-Dec-17	15:01:10
11	171229M2_11	ST171229M2-10 PFC CS7 17L1804	29-Dec-17	15:12:20
12	171229M2_12	IPA	29-Dec-17	15:23:31
13	171229M2_13	ICV171229M2-1 PFC ICV 17L2907 (A)	29-Dec-17	15:34:42
14	171229M2_14	ICV171229M2-2 PFC ICV 17L1201	29-Dec-17	15:54:47
15	171229M2_15	IPA		

(A) Possible formulation error, used older SS.

AC 12/29/17

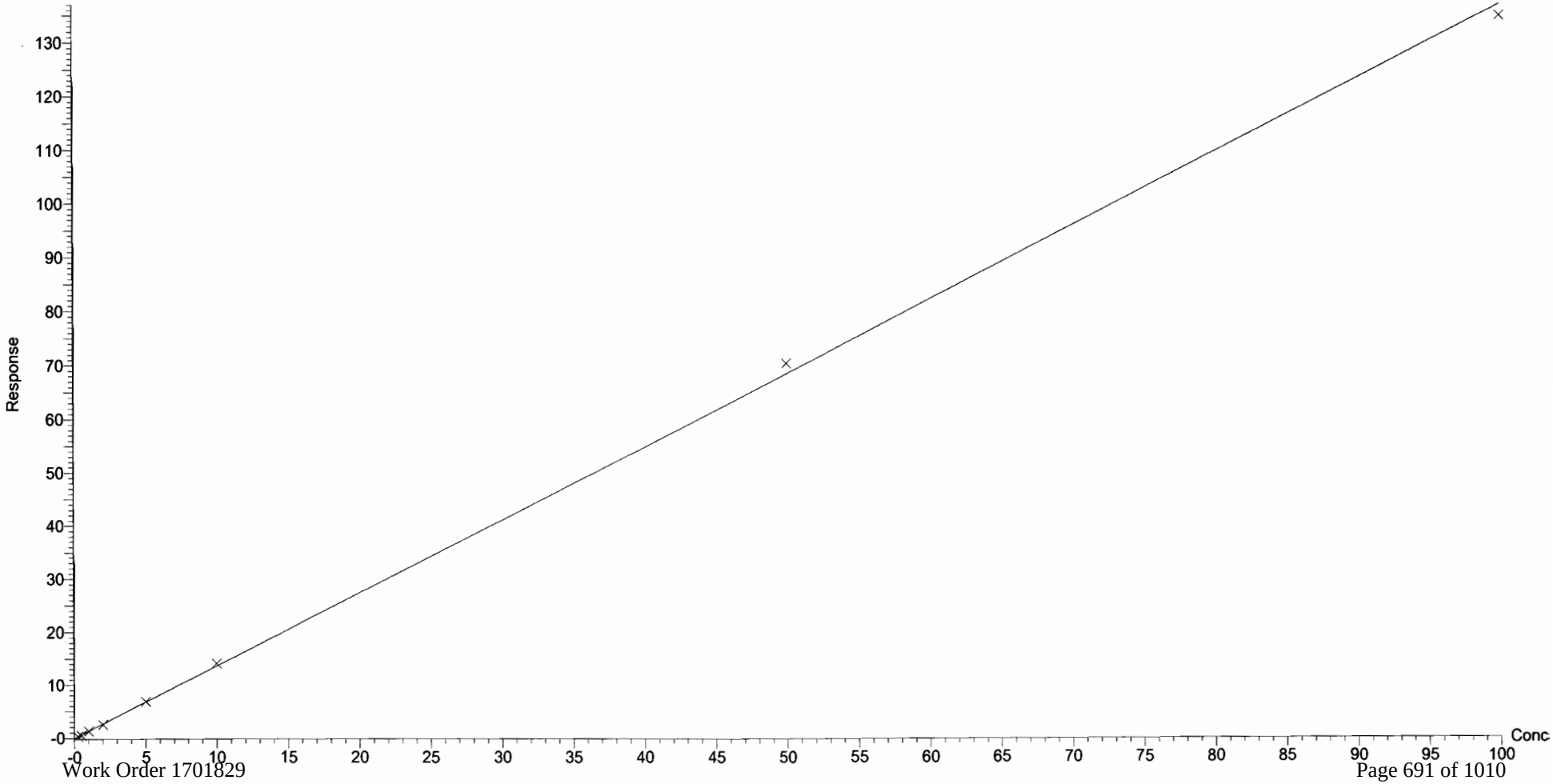
Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 15:29:28

Compound name: PFBA
Correlation coefficient: r = 0.999642, r^2 = 0.999283
Calibration curve: 1.37088 * x + -0.0691704
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

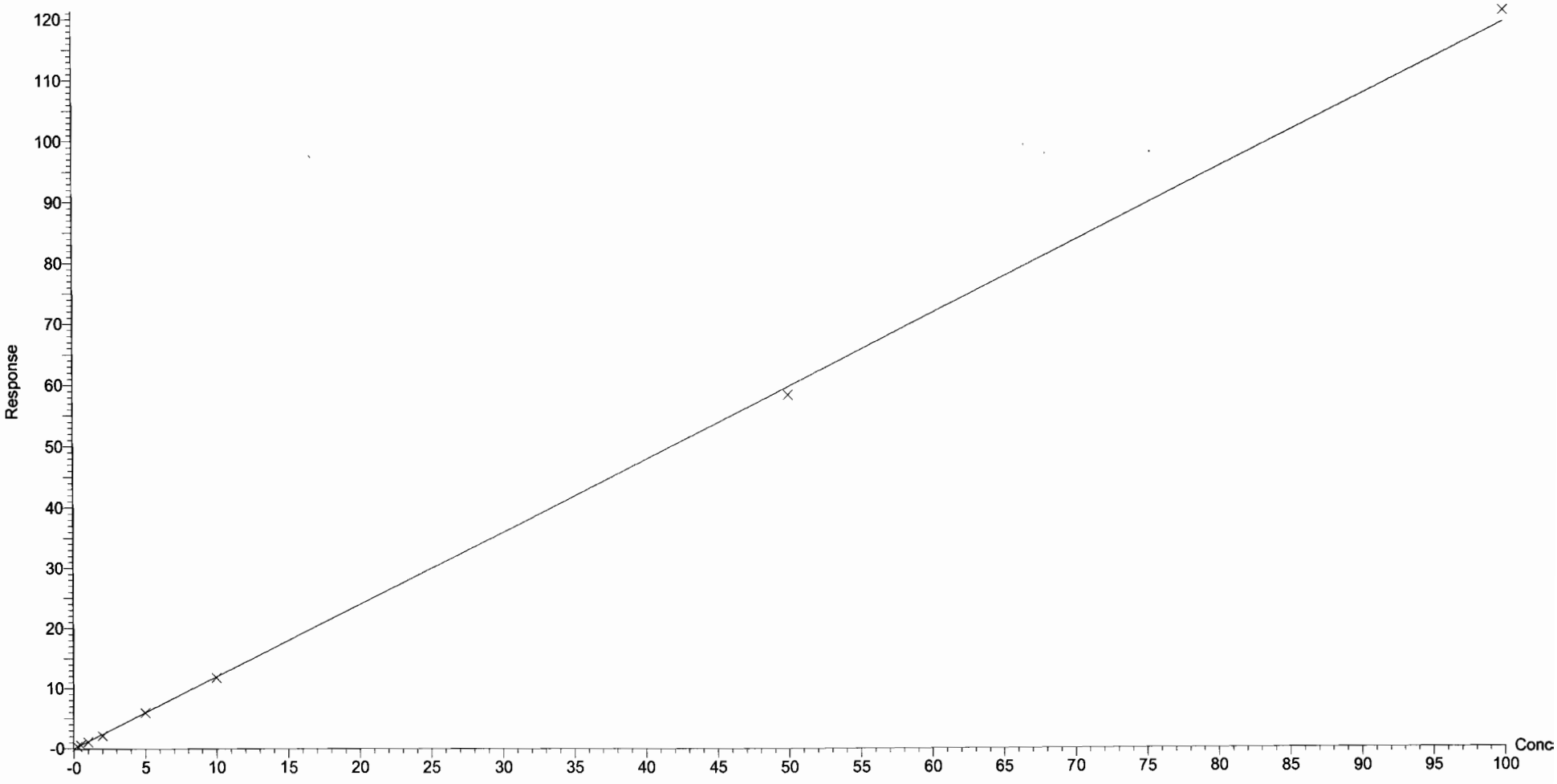


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: PFPeA
Correlation coefficient: r = 0.999696, r^2 = 0.999391
Calibration curve: 1.19449 * x + -0.0389932
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

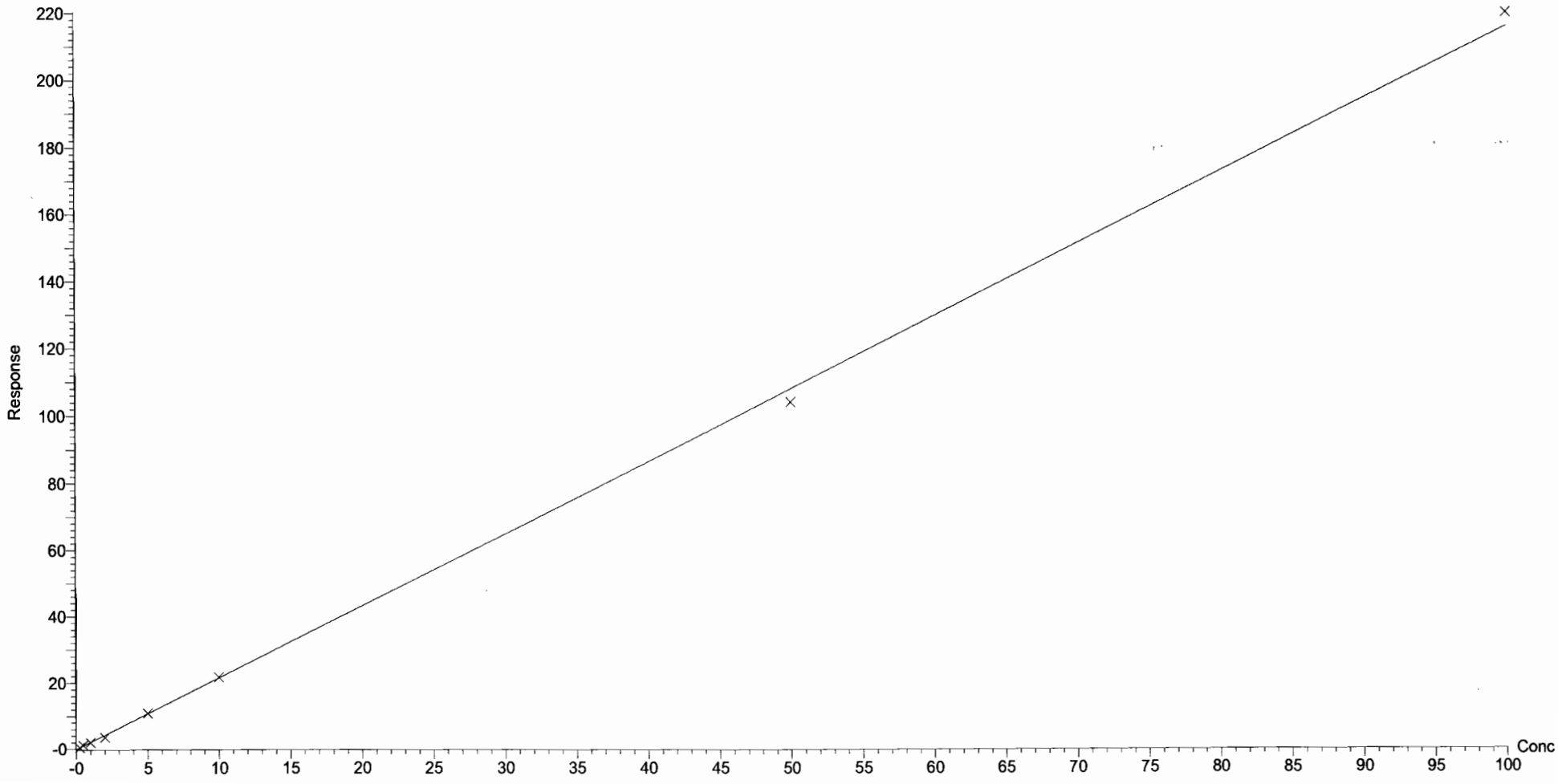


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: PFBS
Correlation coefficient: r = 0.999500, r^2 = 0.999001
Calibration curve: 2.16257 * x + -0.0590175
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

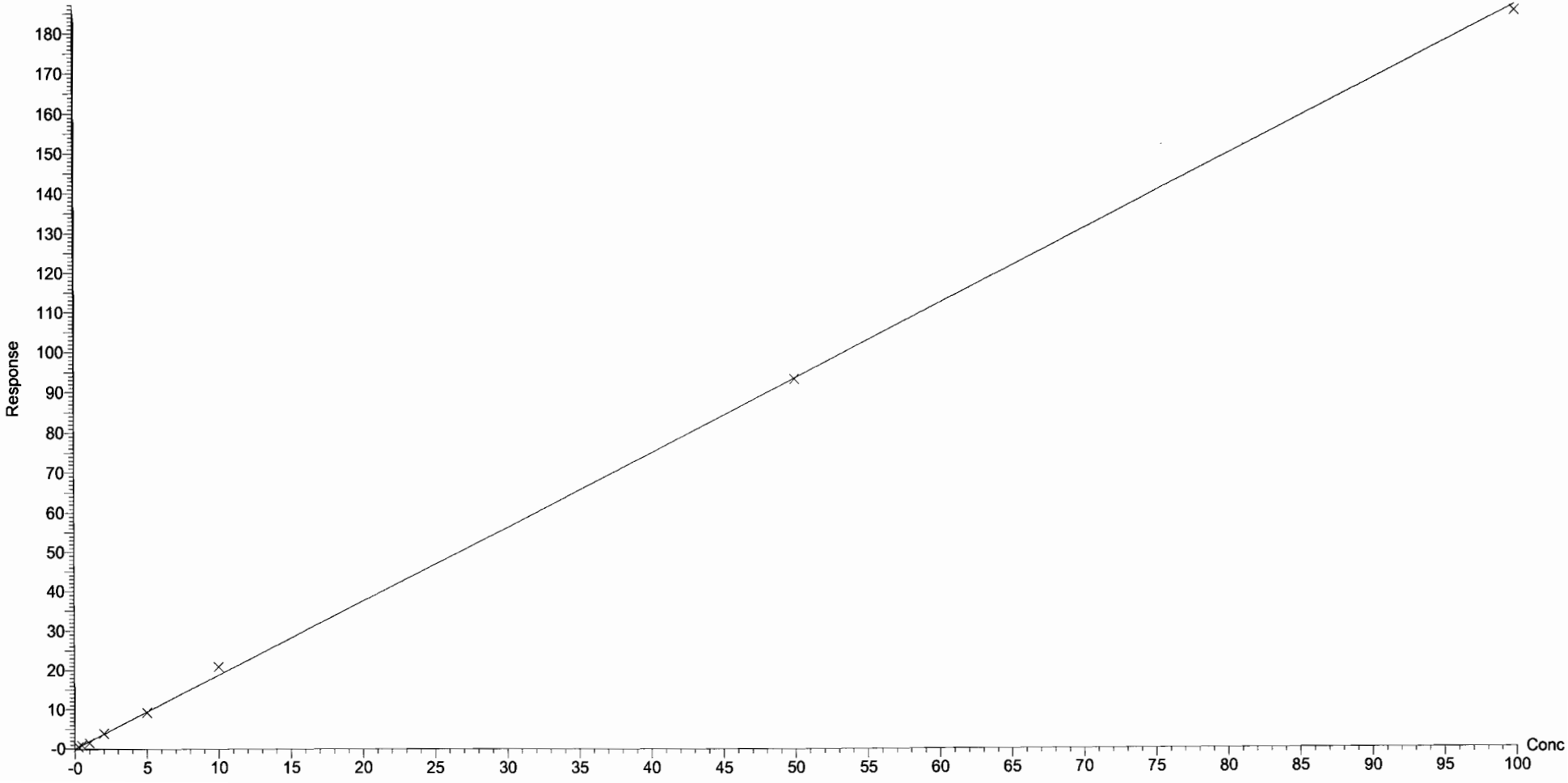


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

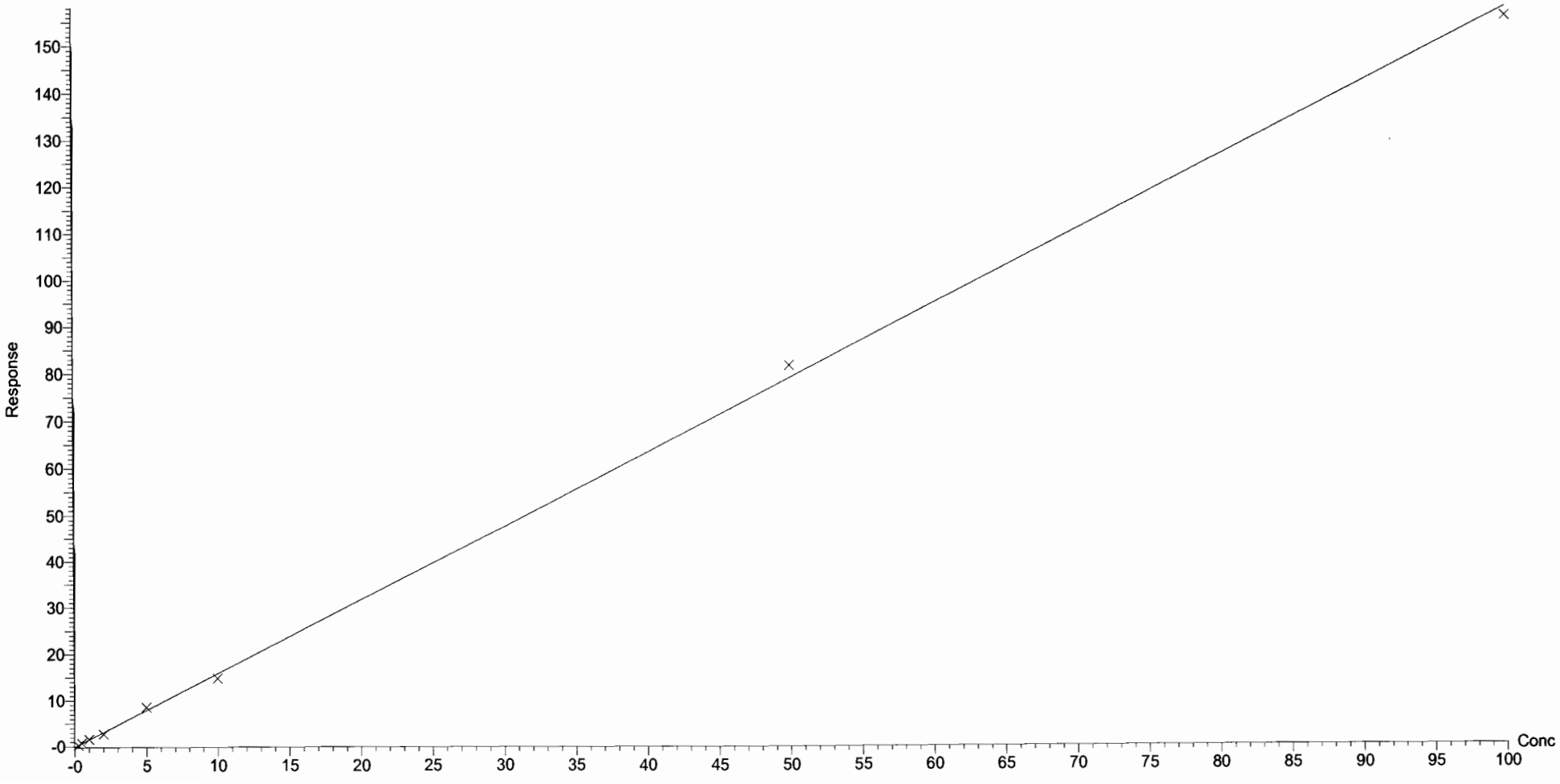
Compound name: PFHxA
Correlation coefficient: r = 0.999421, r^2 = 0.998842
Calibration curve: 1.87128 * x + -0.0343505
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: PFHpA
Correlation coefficient: r = 0.999428, r^2 = 0.998856
Calibration curve: 1.58151 * x + -0.0944503
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

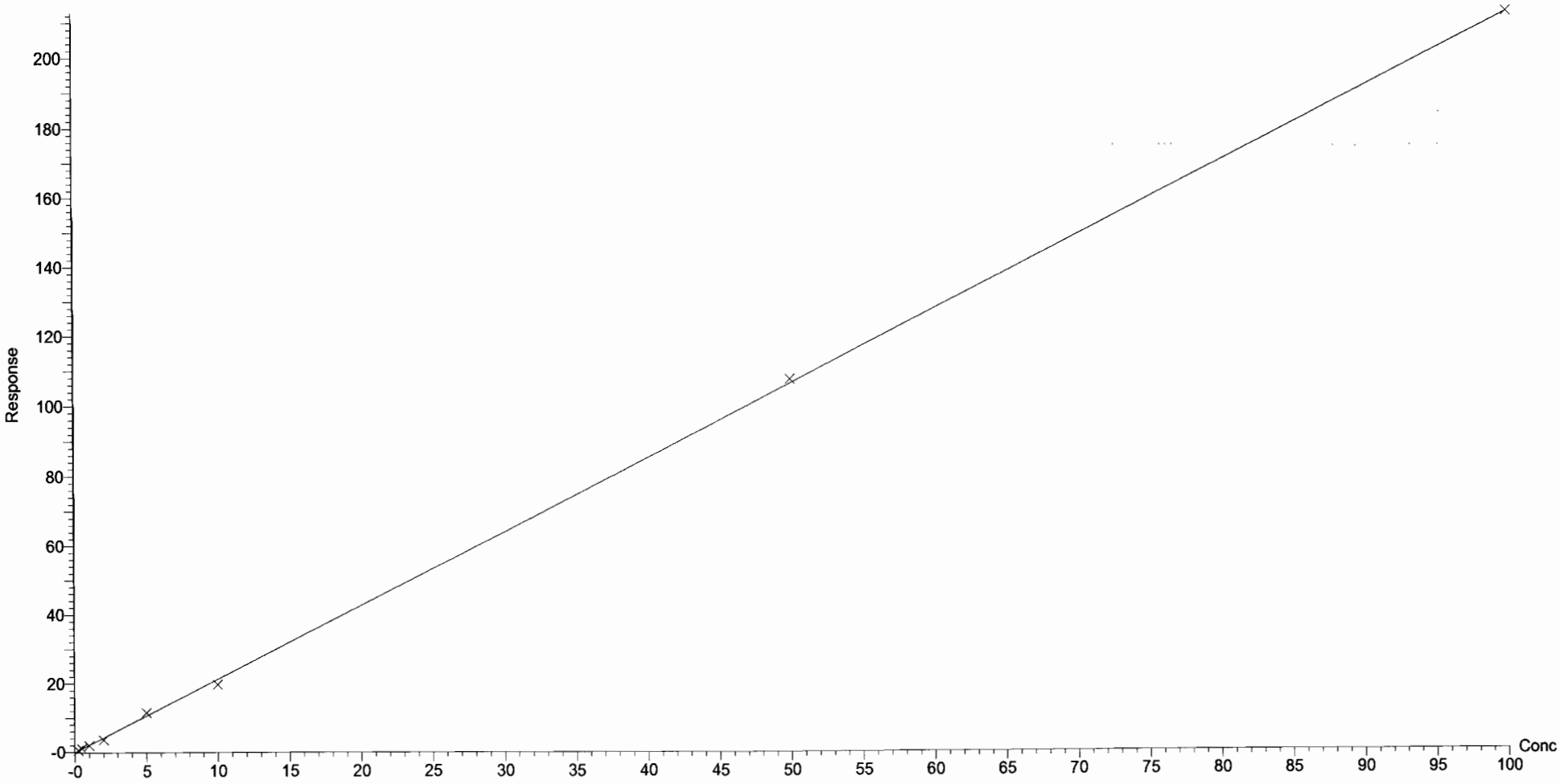


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

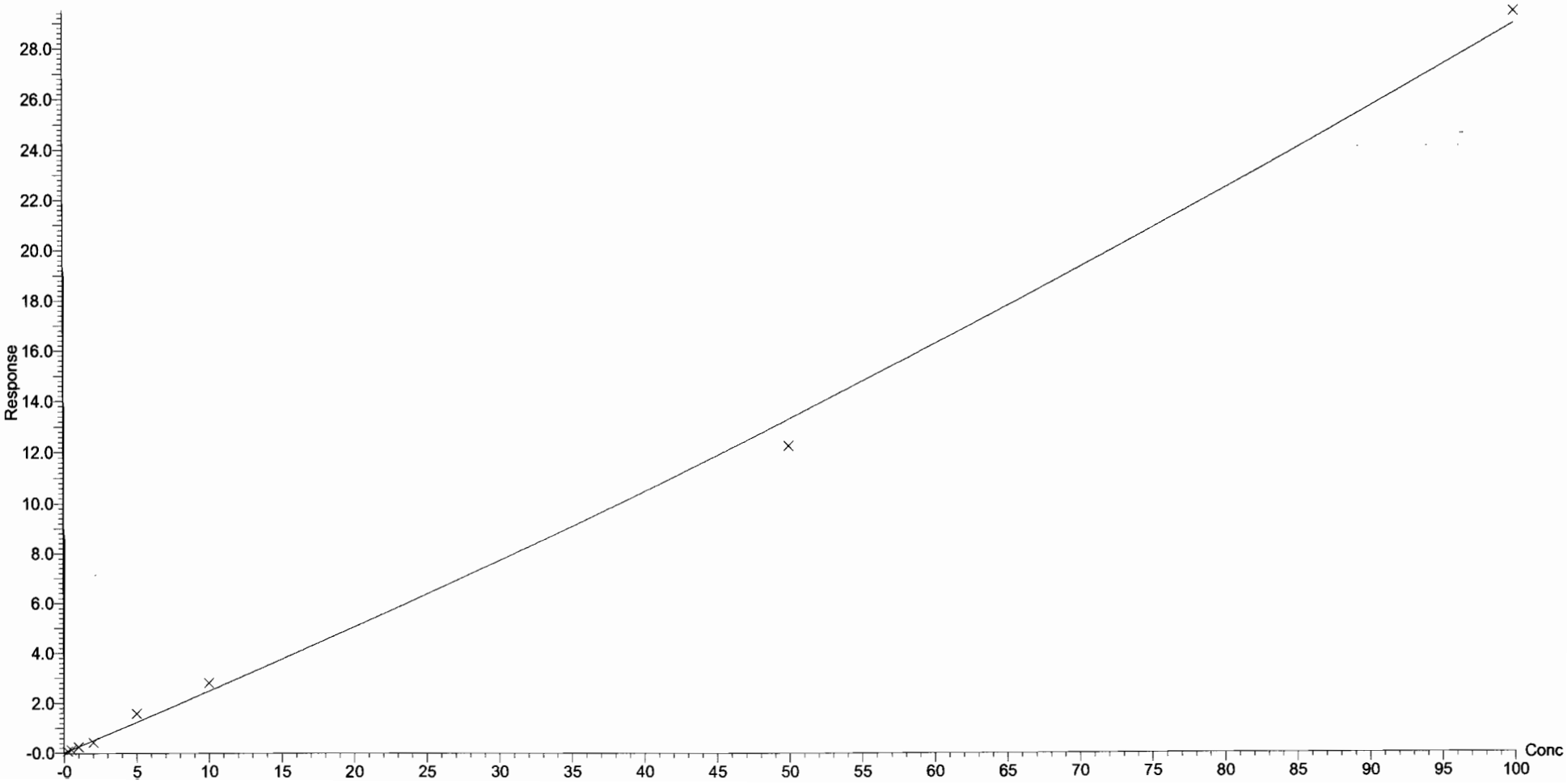
Compound name: L-PFHxS
Correlation coefficient: r = 0.999540, r^2 = 0.999081
Calibration curve: 2.12712 * x + -0.0697927
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.995124
Calibration curve: 0.000489747 * x^2 + 0.24128 * x + 0.0169506
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

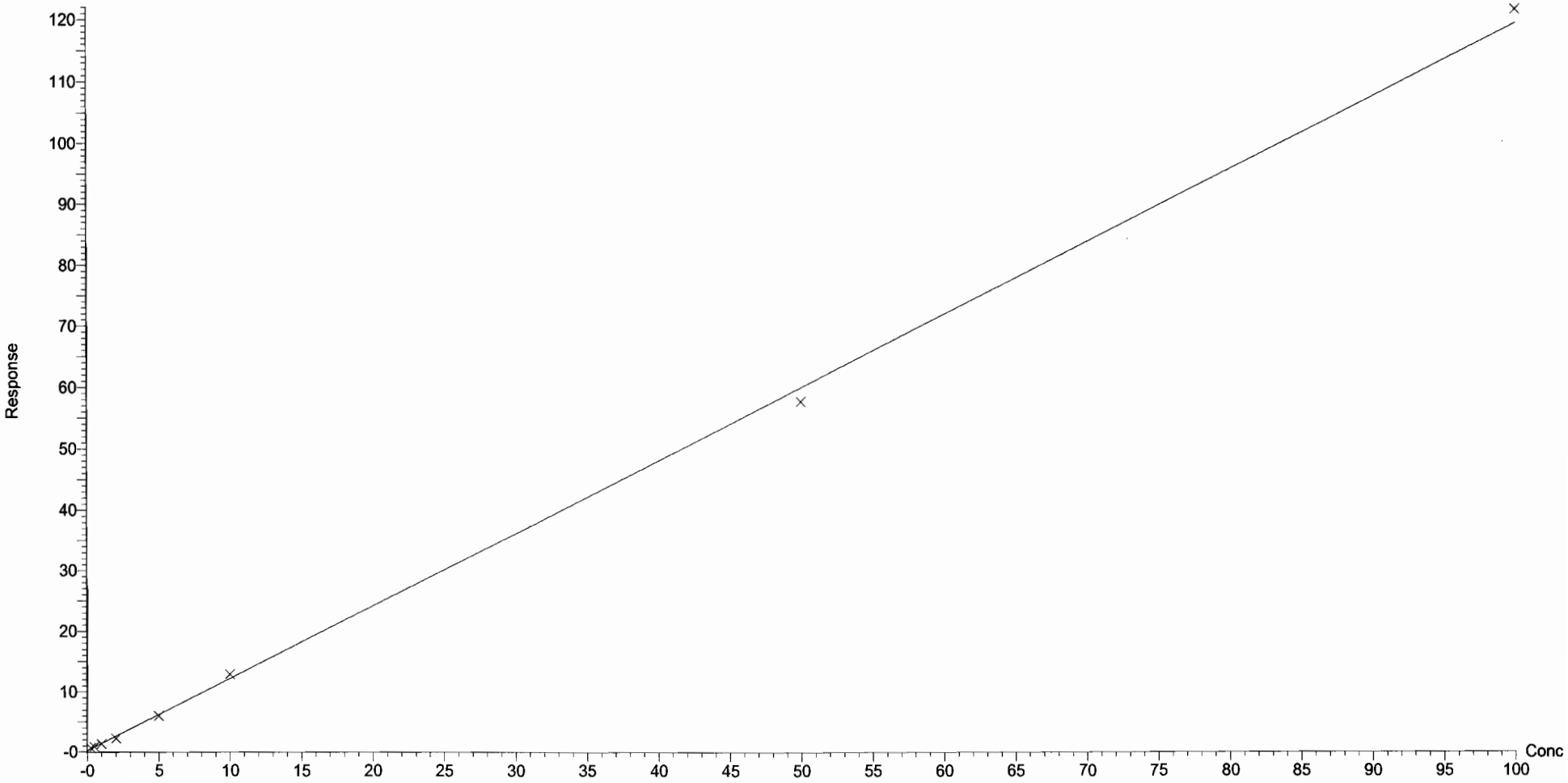


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: L-PFOA
Correlation coefficient: r = 0.999271, r^2 = 0.998543
Calibration curve: 1.19548 * x + 0.228921
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

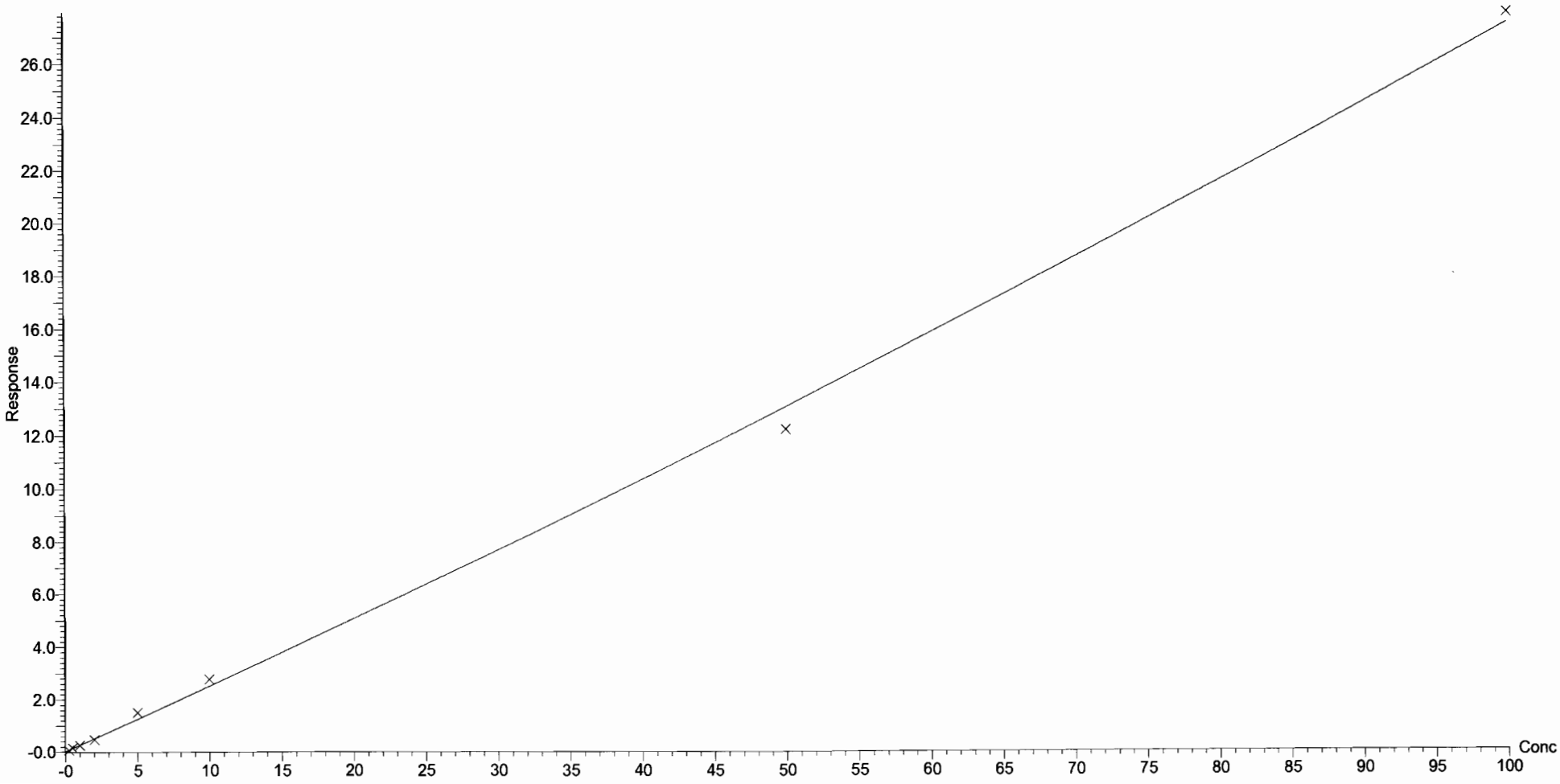


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

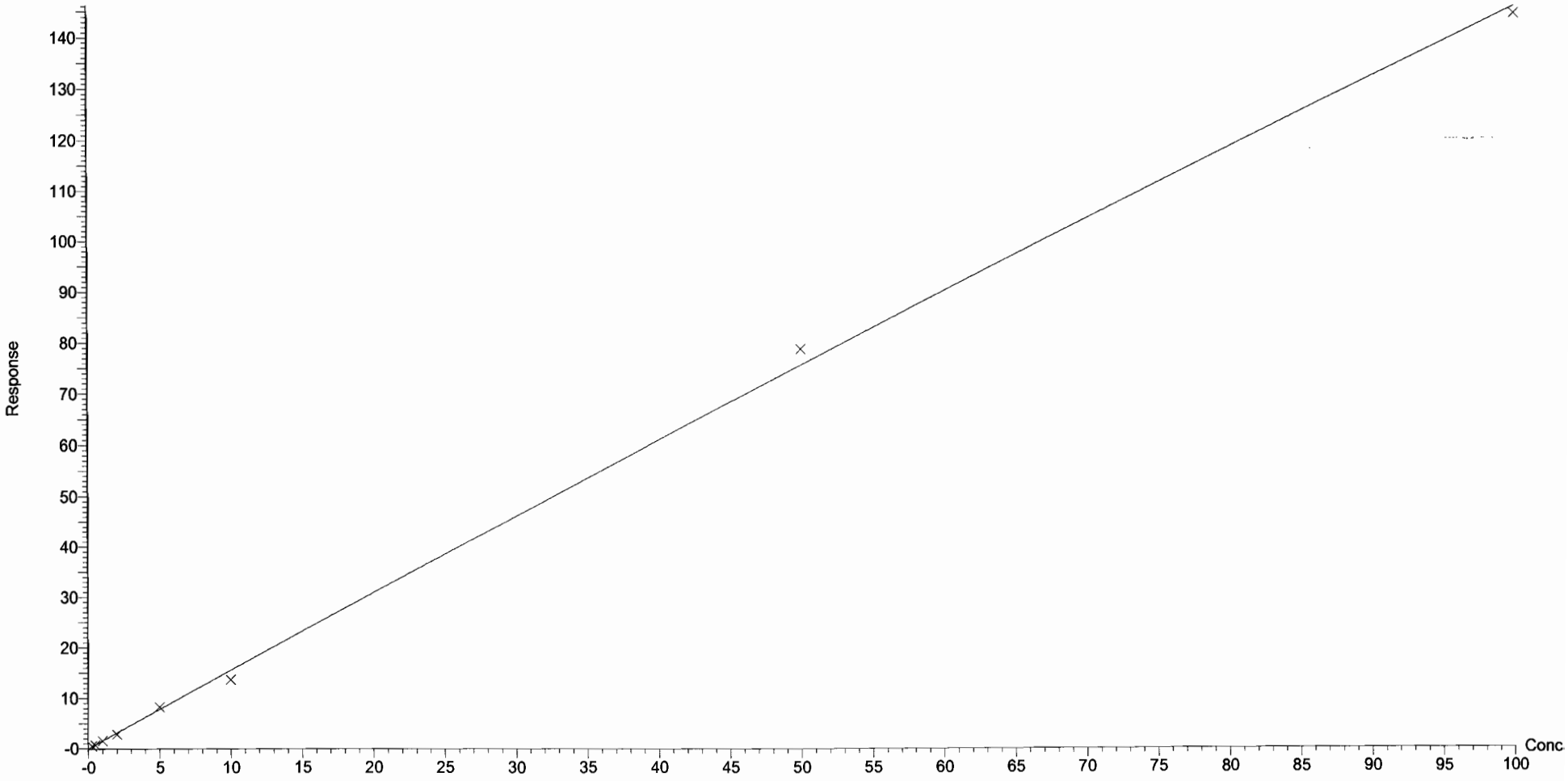
Compound name: PFHpS
Coefficient of Determination: R^2 = 0.996923
Calibration curve: 0.000286563 * x^2 + 0.246658 * x + 0.015286
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: PFNA
Coefficient of Determination: R^2 = 0.997989
Calibration curve: -0.00101357 * x^2 + 1.56335 * x + -0.000922713
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

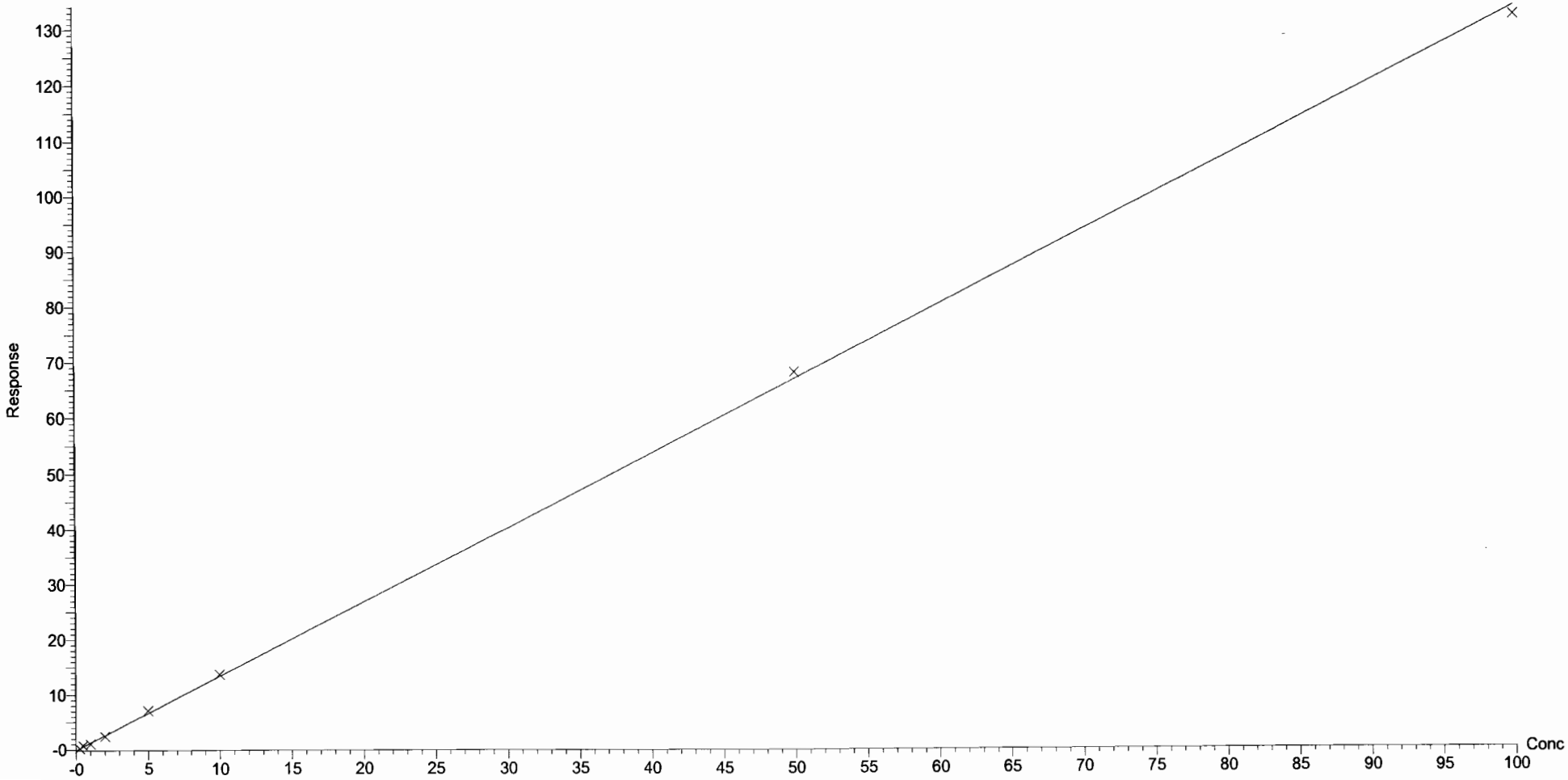


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

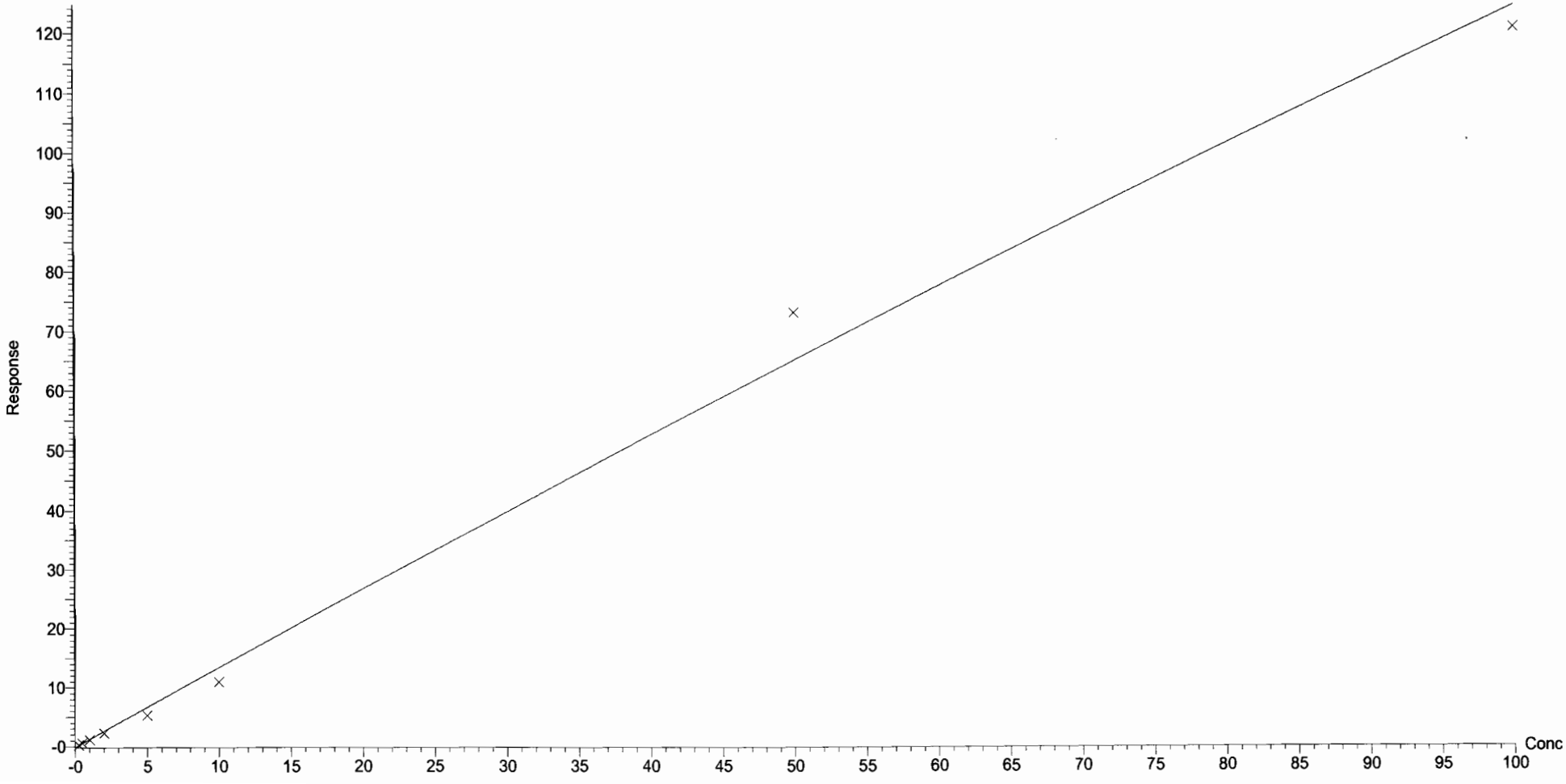
Compound name: PFOSA
Correlation coefficient: r = 0.999632, r^2 = 0.999264
Calibration curve: 1.34133 * x + -0.0872836
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.990401
Calibration curve: -0.00113144 * x^2 + 1.36155 * x + -0.136077
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

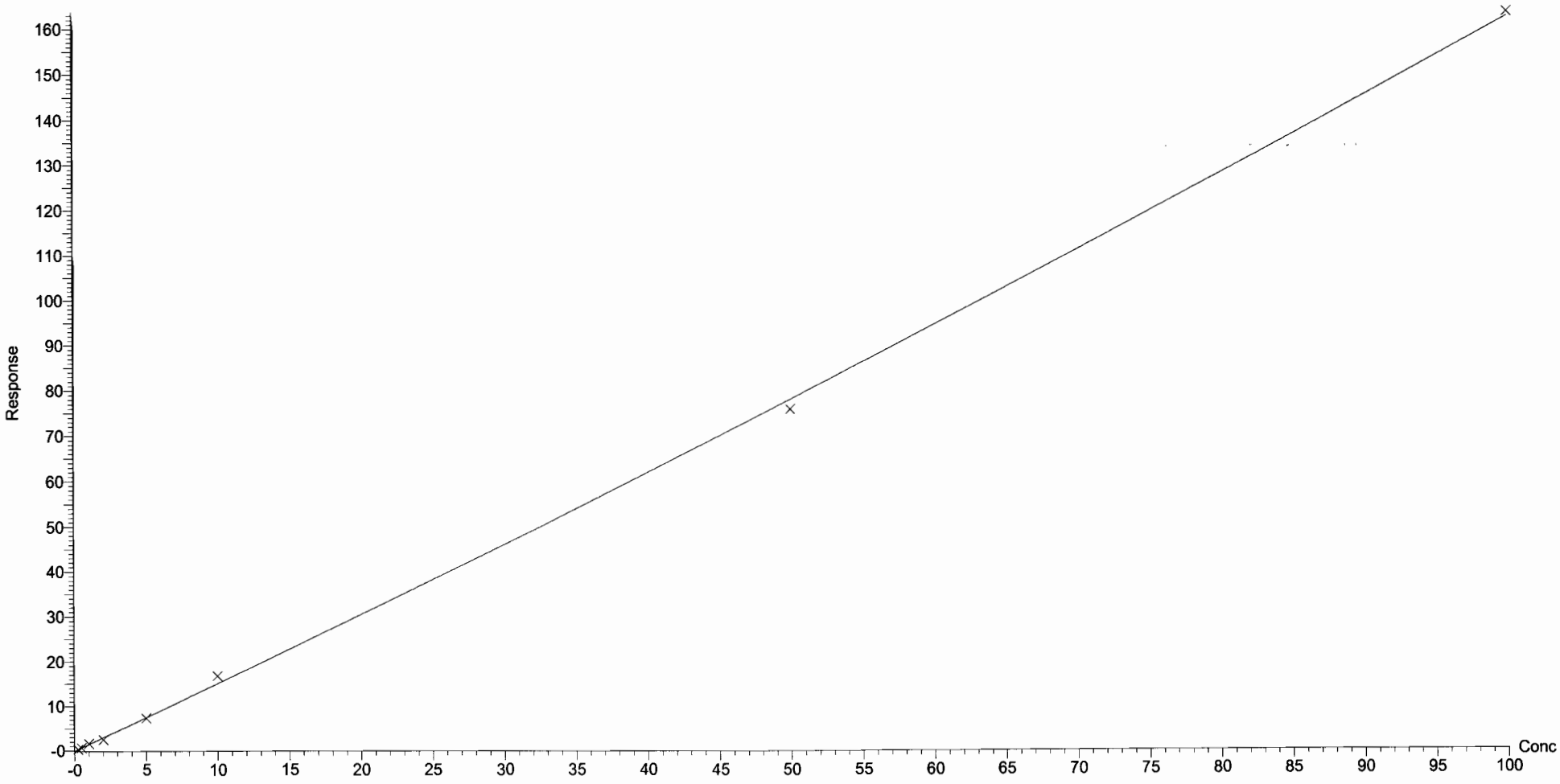


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: PFDA
Coefficient of Determination: R^2 = 0.998686
Calibration curve: 0.00134624 * x^2 + 1.49368 * x + -0.0435348
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

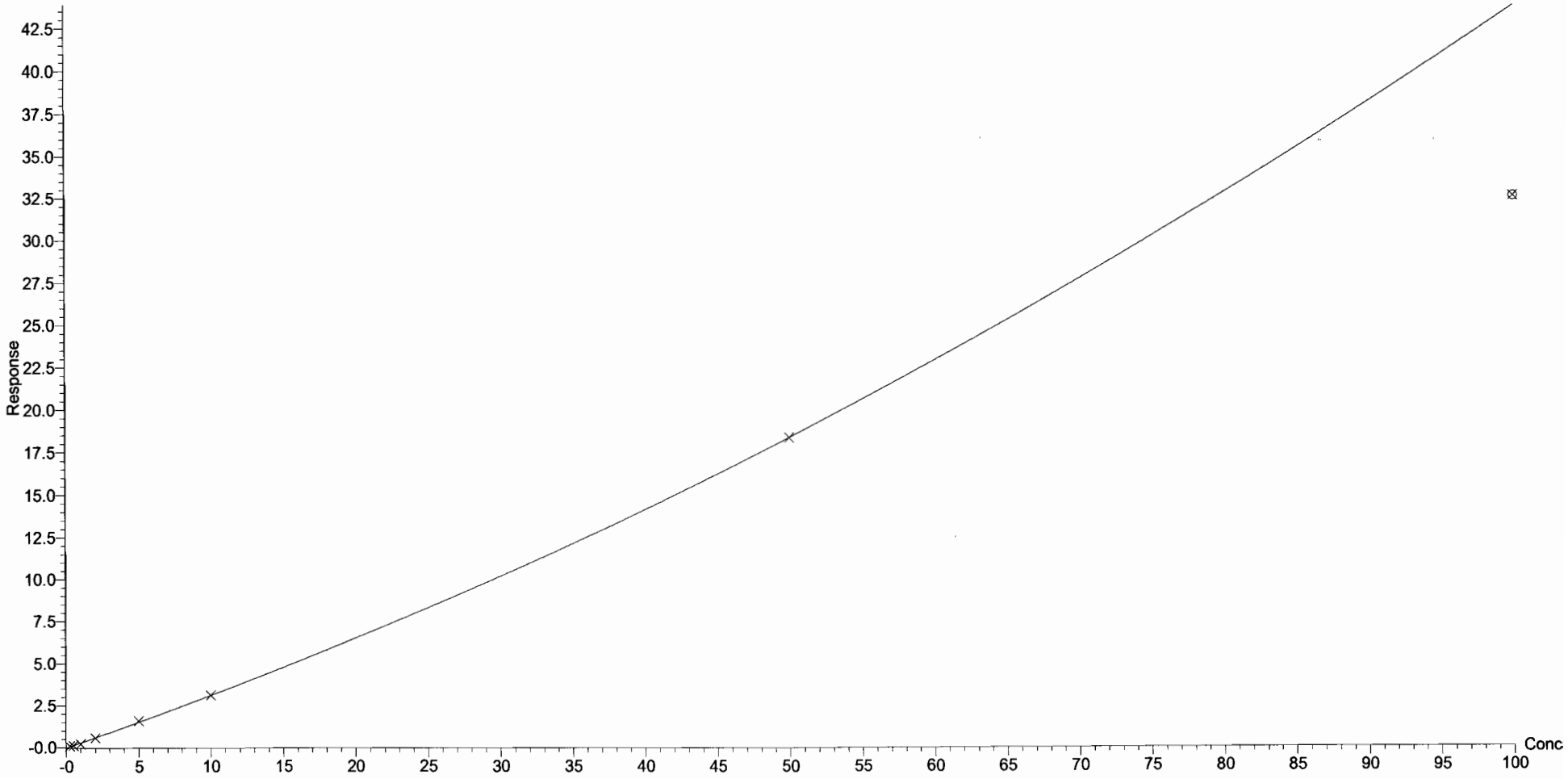


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.998718
Calibration curve: 0.00142024 * x^2 + 0.296775 * x + -0.0229517
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

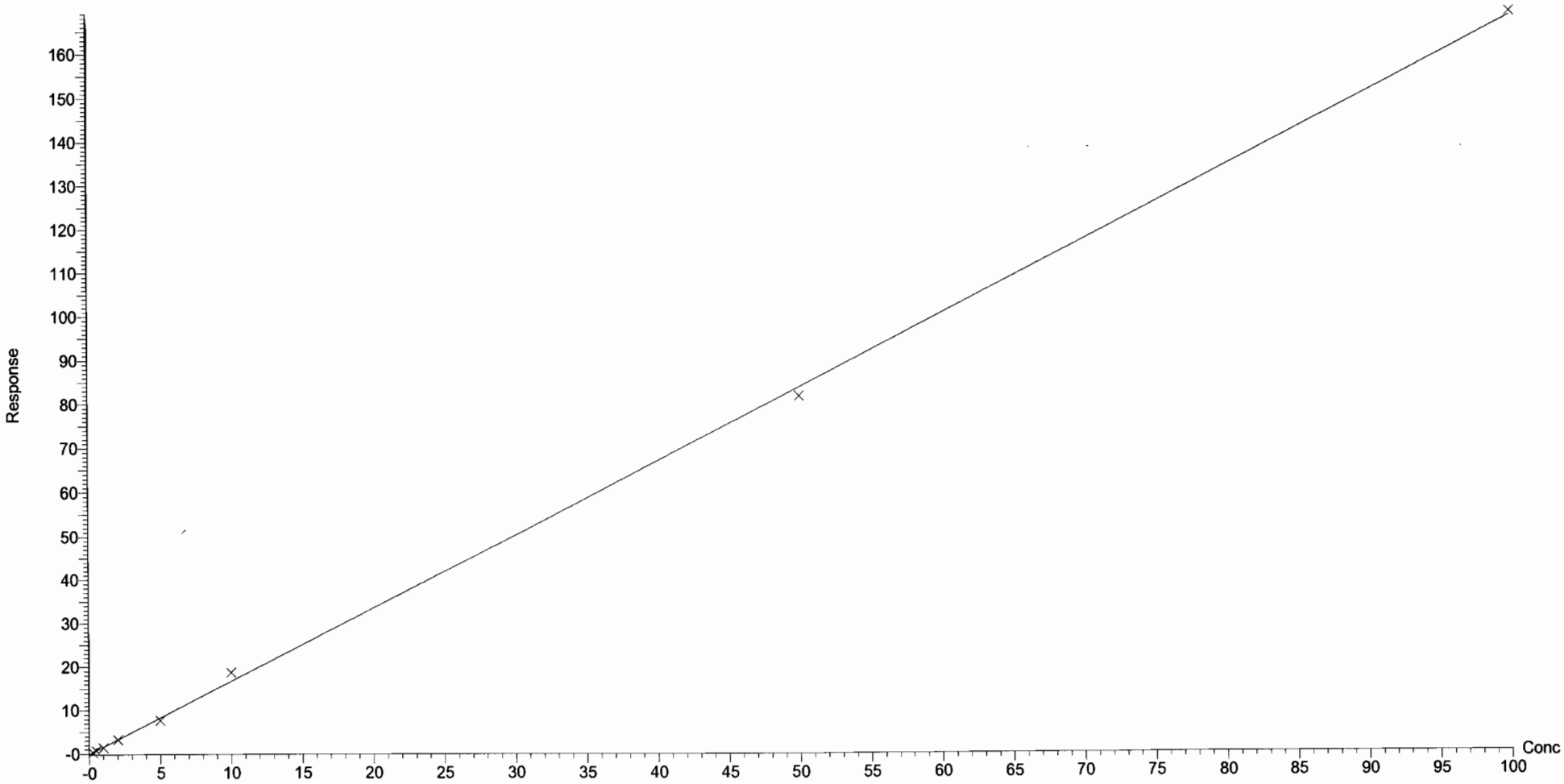


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.998636
Calibration curve: 0.000145261 * x^2 + 1.66875 * x + -0.0626511
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

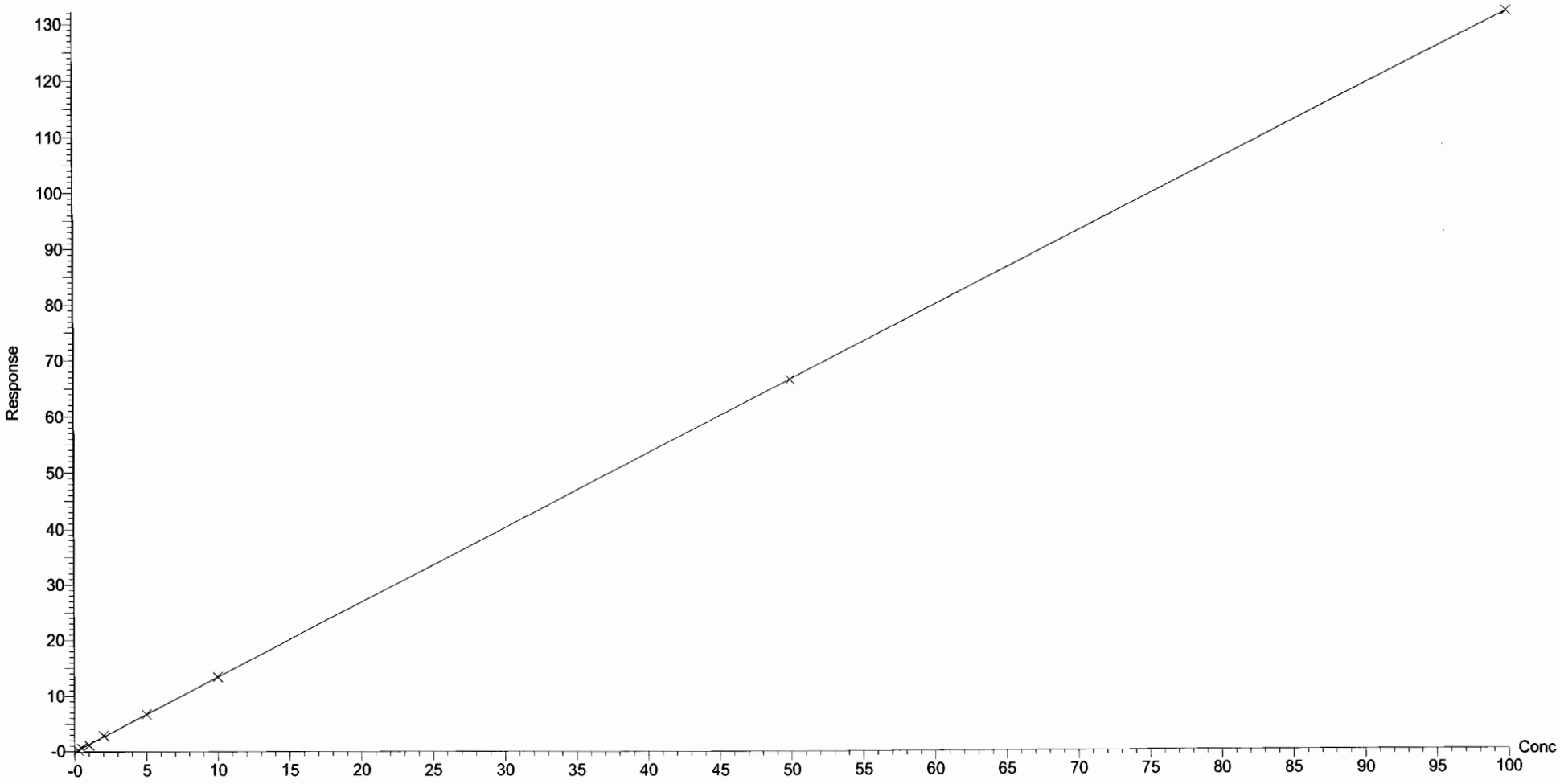


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999635
Calibration curve: -0.000224178 * x^2 + 1.34483 * x + -0.0879337
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

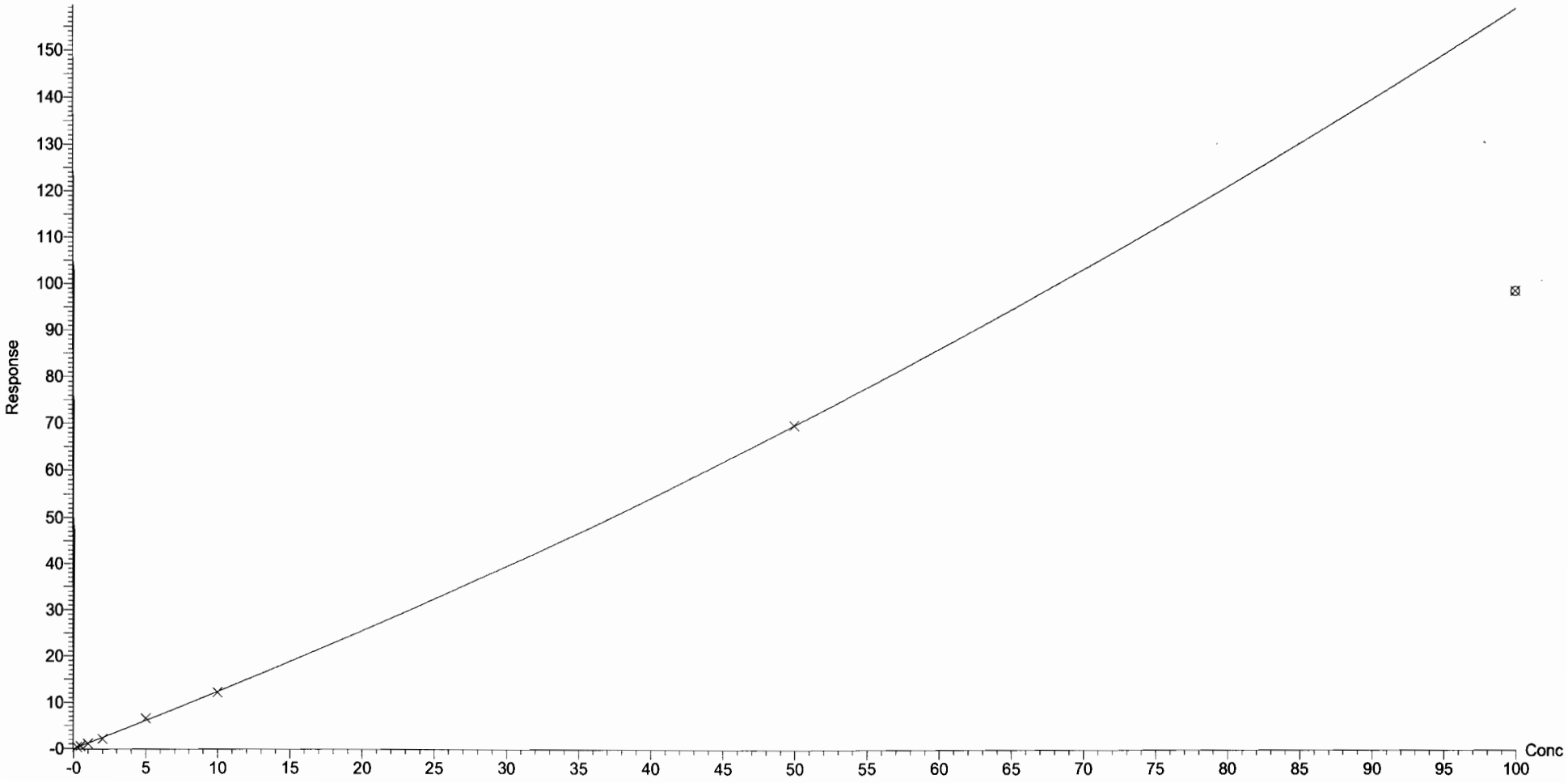


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: PFUdA
Coefficient of Determination: R^2 = 0.999185
Calibration curve: 0.00400691 * x^2 + 1.19417 * x + 0.0119652
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



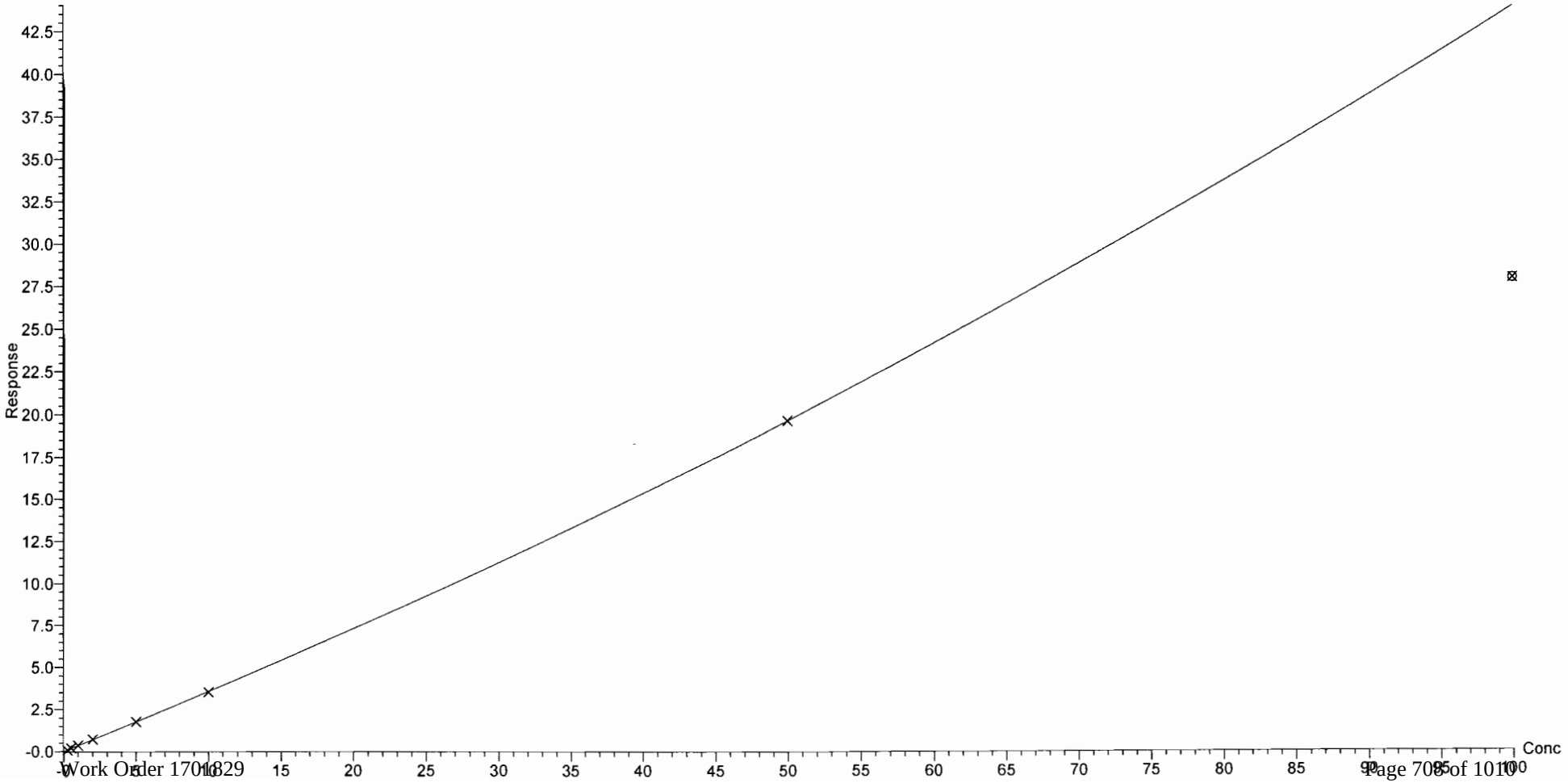
Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 16:04:07 Pacific Standard Time
Printed: Friday, December 29, 2017 16:05:29 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Compound name: PFDS
Coefficient of Determination: R^2 = 0.999749
Calibration curve: 0.000948867 * x^2 + 0.345044 * x + 0.010668
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

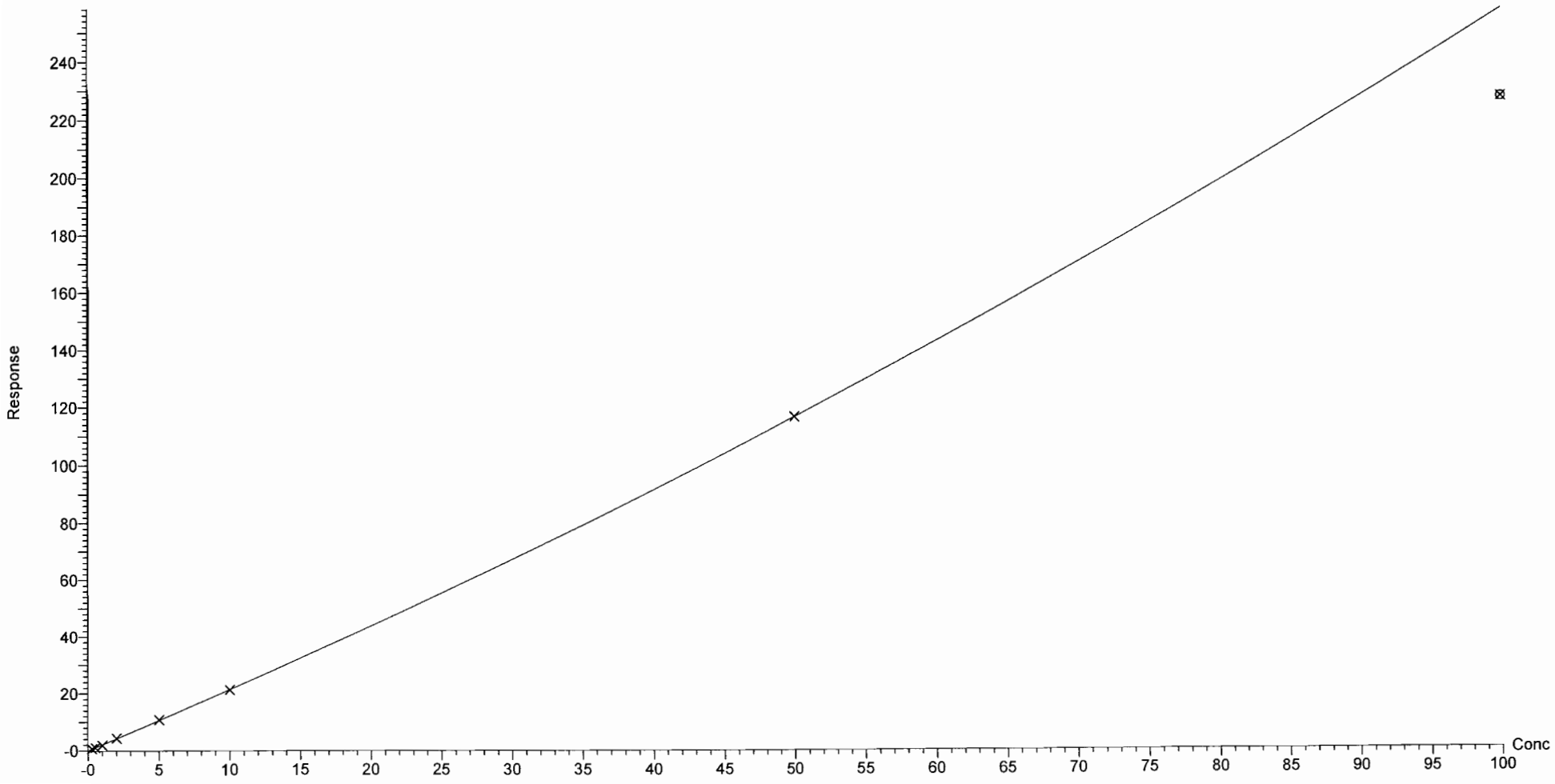


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 16:04:07 Pacific Standard Time
Printed: Friday, December 29, 2017 16:05:29 Pacific Standard Time

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999669
Calibration curve: 0.00495795 * x^2 + 2.08516 * x + -0.00338272
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

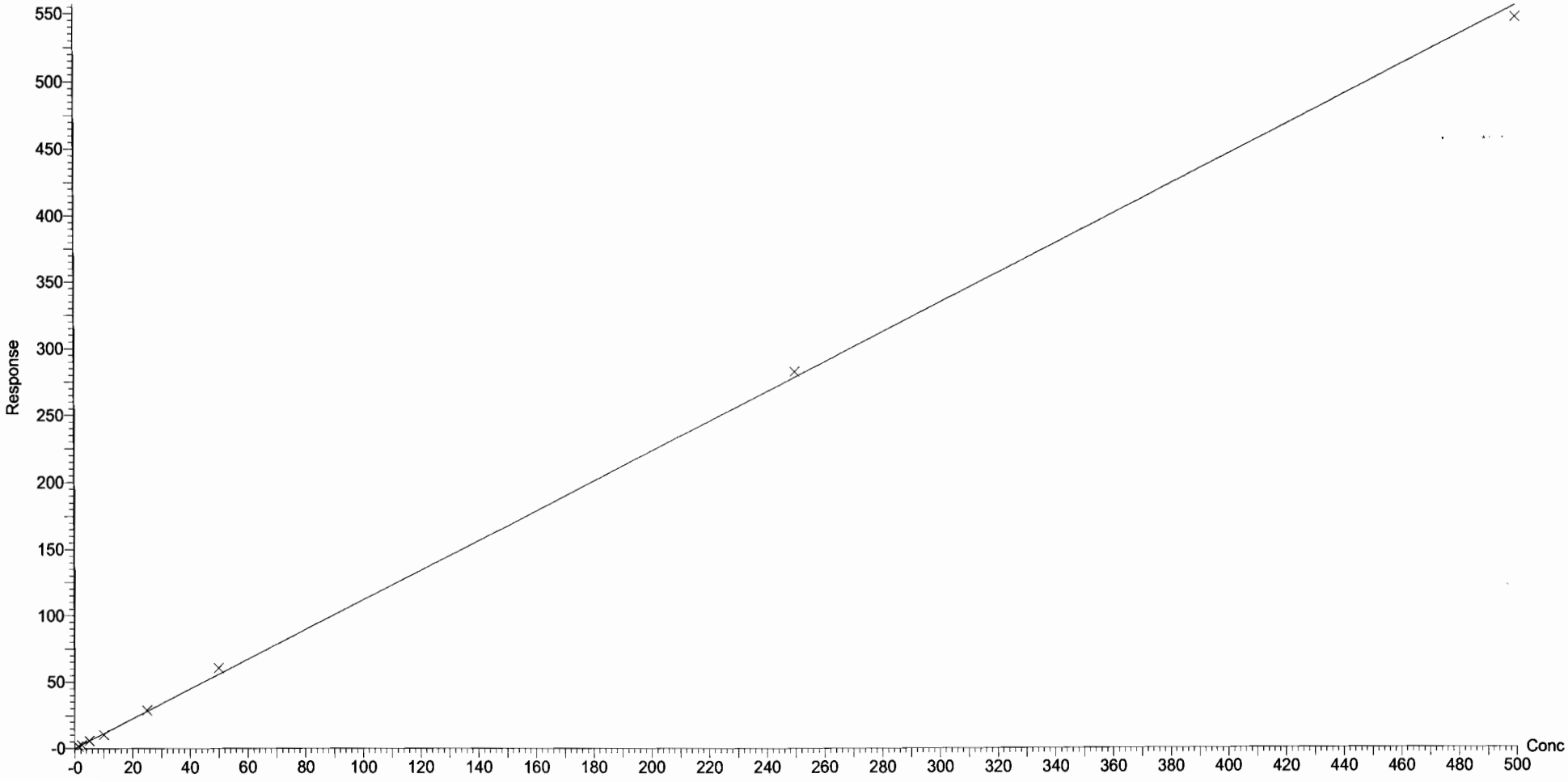


Vista Analytical Laboratory Q1

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Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

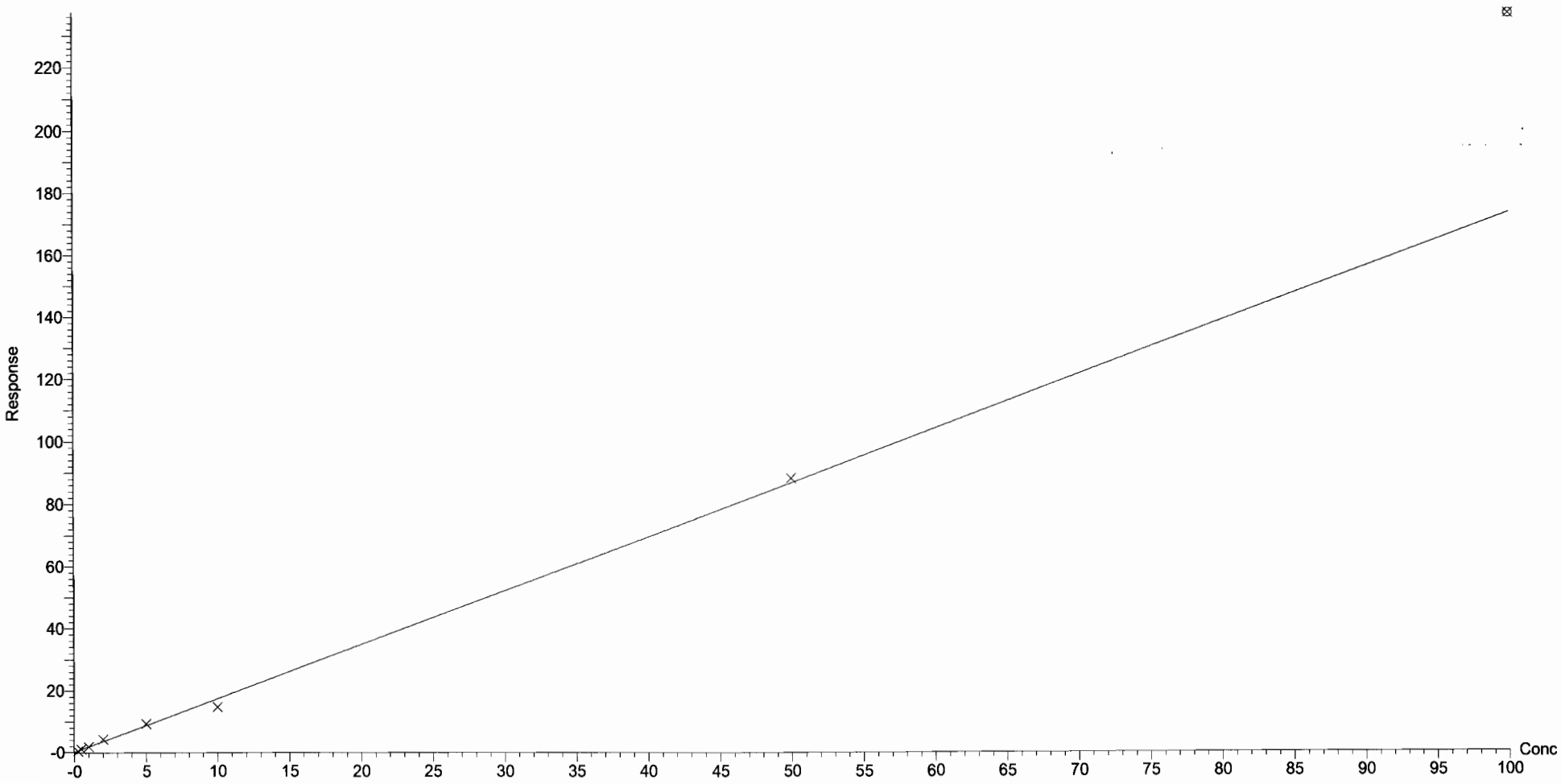
Compound name: N-MeFOSA
Correlation coefficient: r = 0.999575, r^2 = 0.999151
Calibration curve: 1.1137 * x + -0.0420228
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

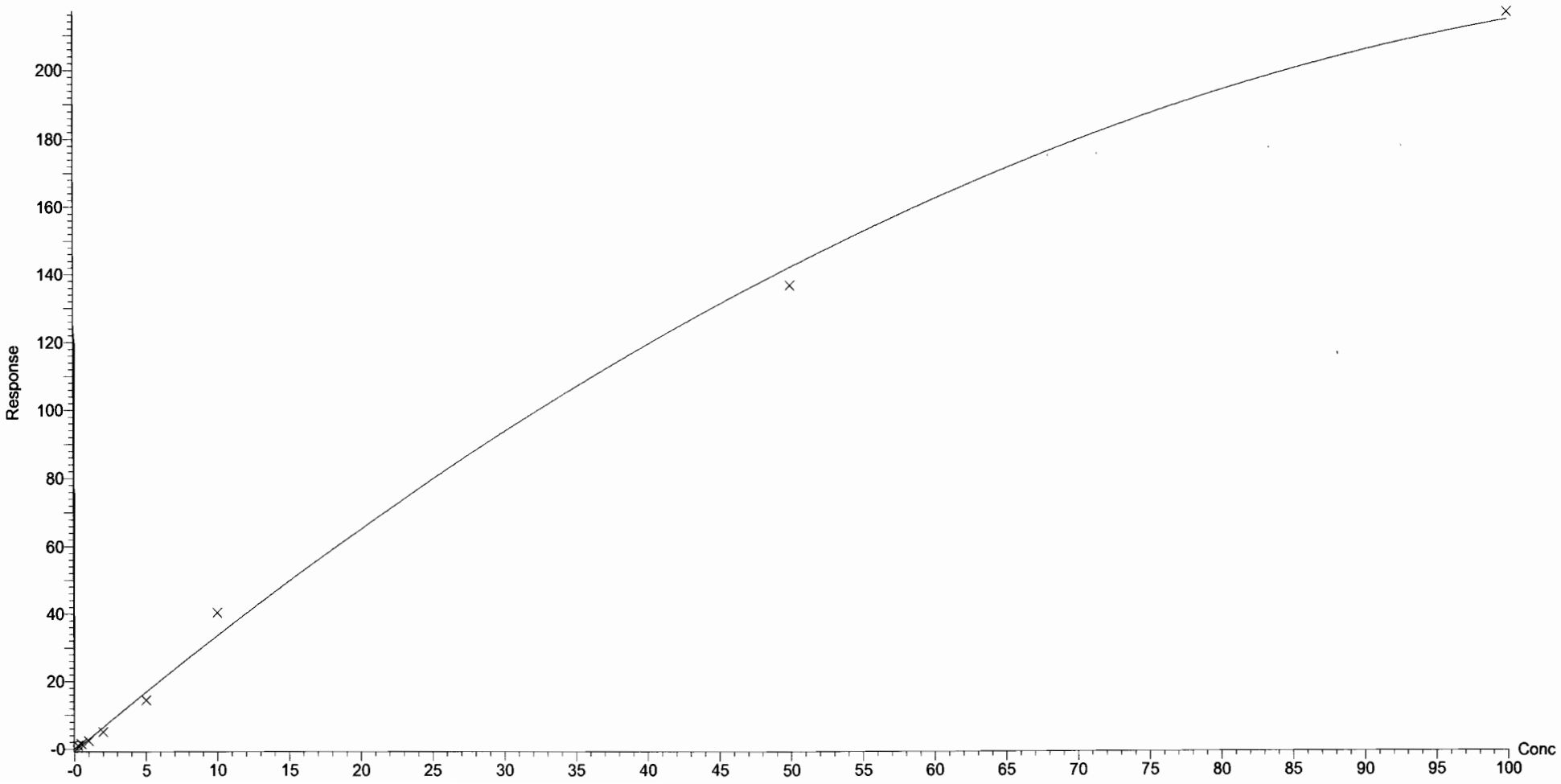
Compound name: PFTrDA
Correlation coefficient: r = 0.997052, r^2 = 0.994114
Calibration curve: 1.7339 * x + 0.0945455
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

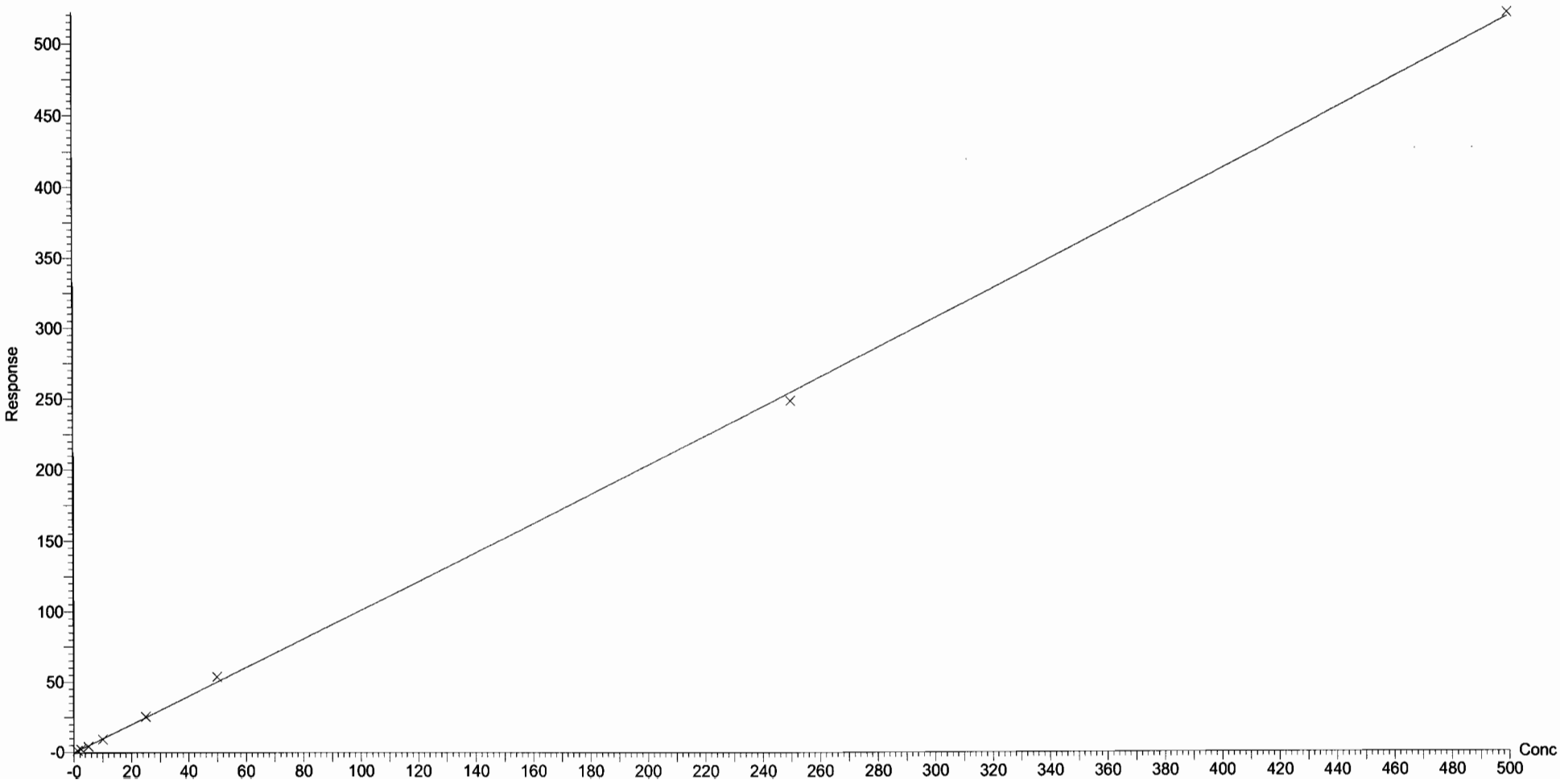
Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.992136
Calibration curve: -0.0140955 * x^2 + 3.56538 * x + -0.690853
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

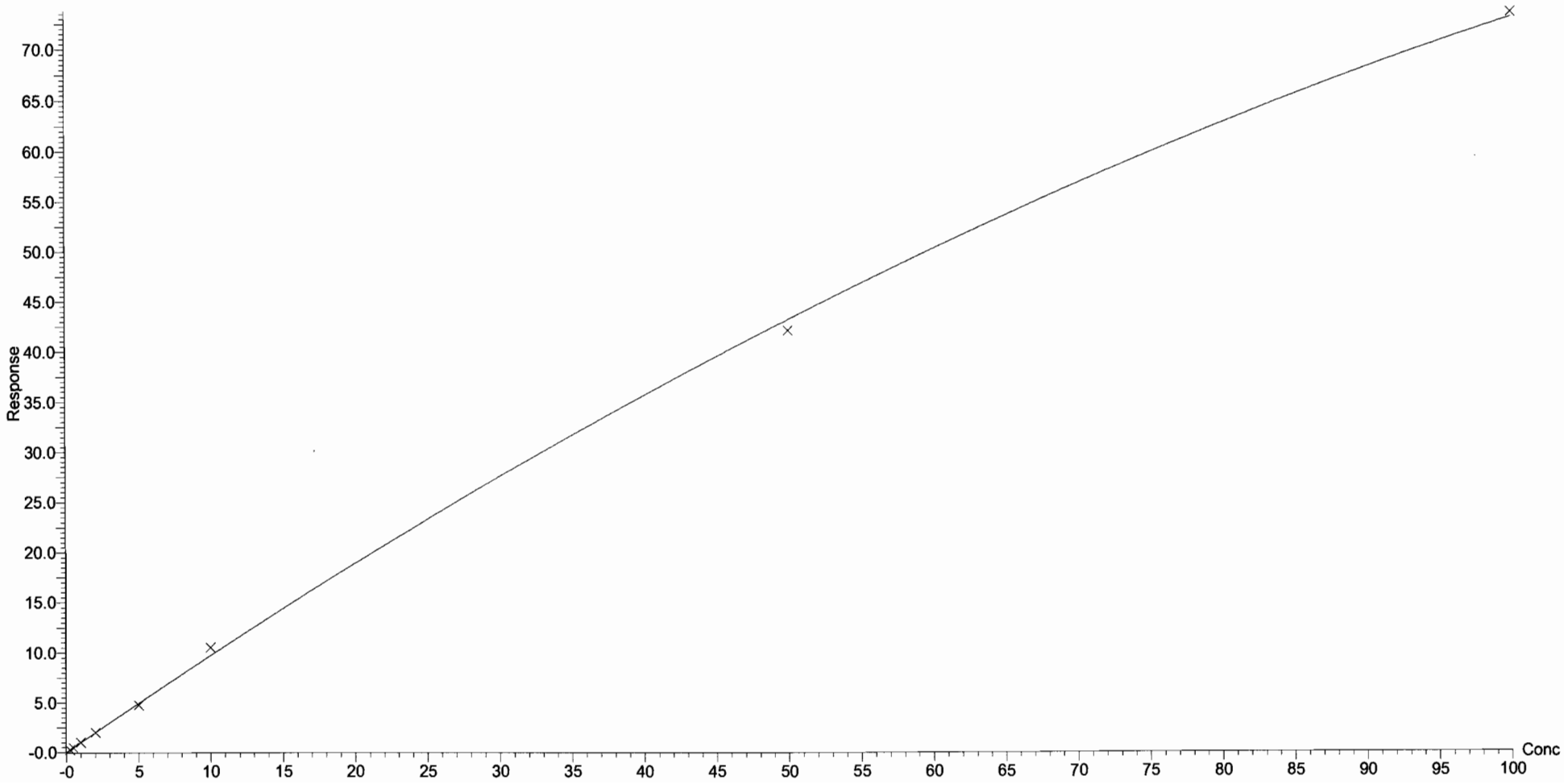
Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999388
Calibration curve: 7.91091e-005 * x^2 + 0.999512 * x + -0.30824
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998957
Calibration curve: -0.00263936 * x^2 + 0.996705 * x + 0.0130421
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

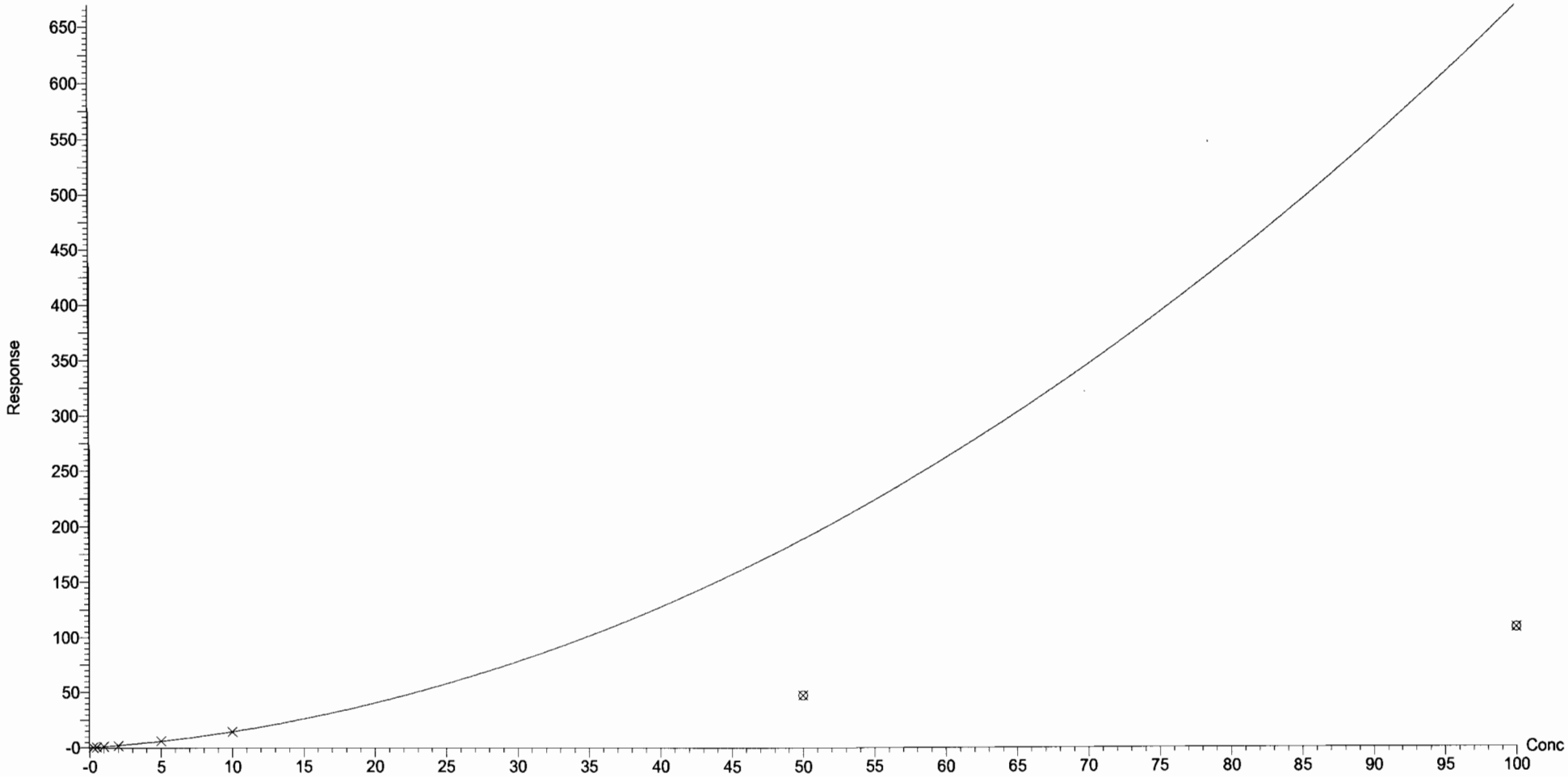


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

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Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

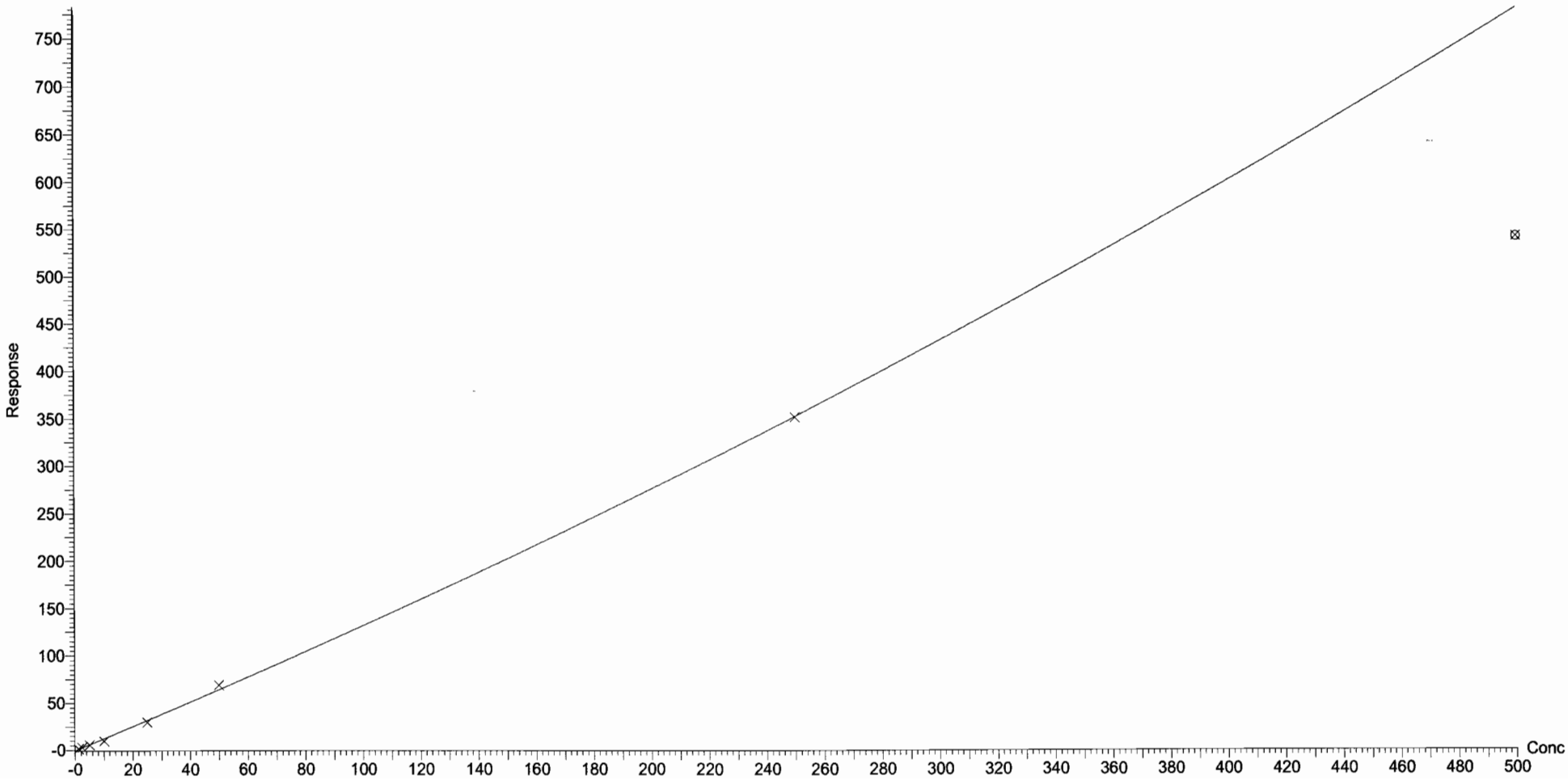
Compound name: PFODA
Coefficient of Determination: R^2 = 0.995499
Calibration curve: 0.0585969 * x^2 + 0.831628 * x + 0.090875
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: N-MeFOSE
Coefficient of Determination: R^2 = 0.997660
Calibration curve: 0.000615894 * x^2 + 1.25794 * x + -0.447176
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

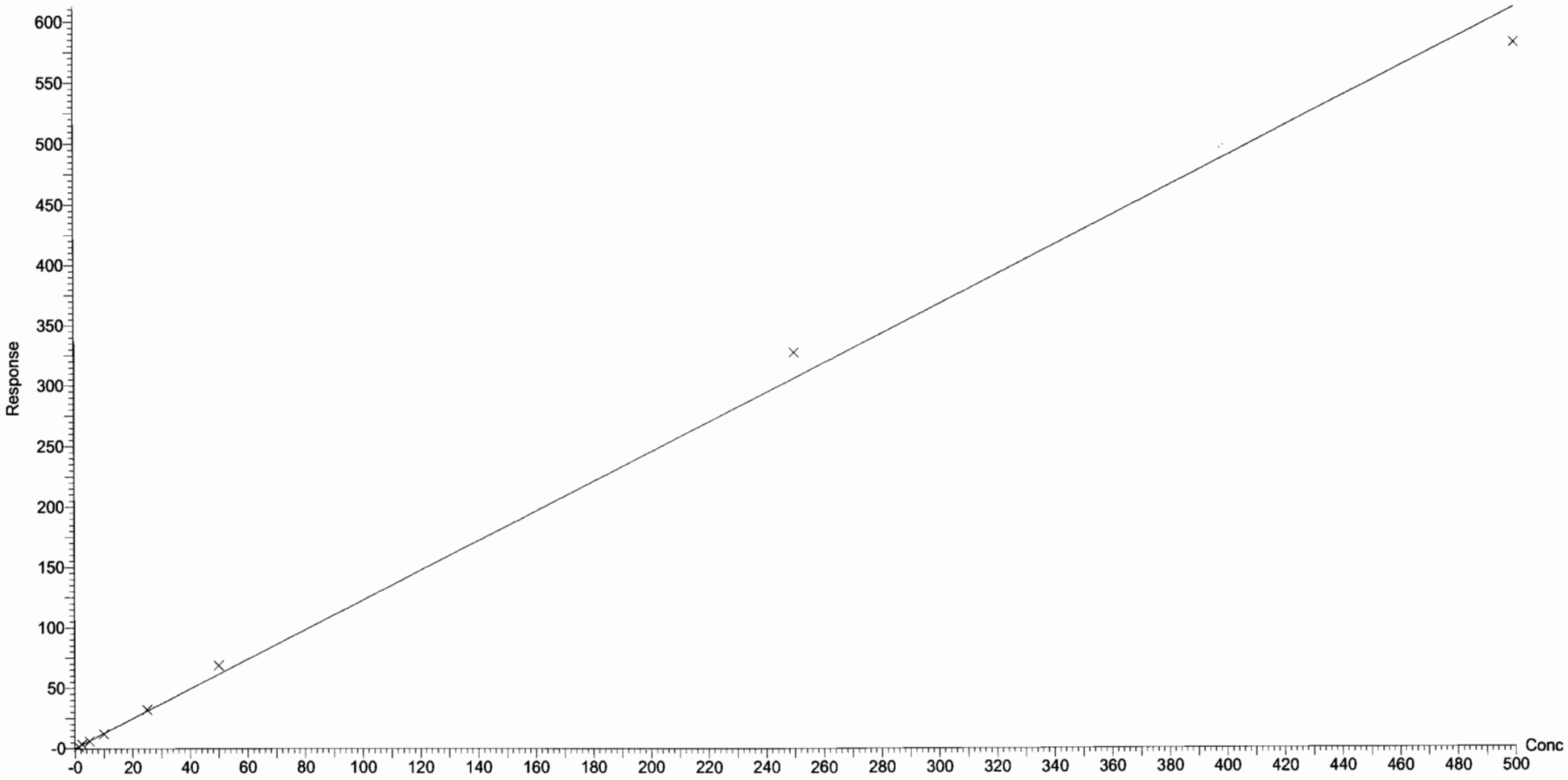


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:33:15 Pacific Standard Time

Compound name: N-EtFOSE
Correlation coefficient: r = 0.998071, r^2 = 0.996146
Calibration curve: 1.22487 * x + 0.0980341
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



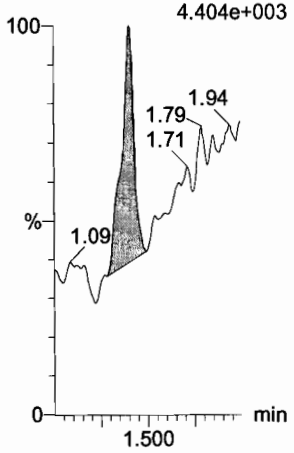
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Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

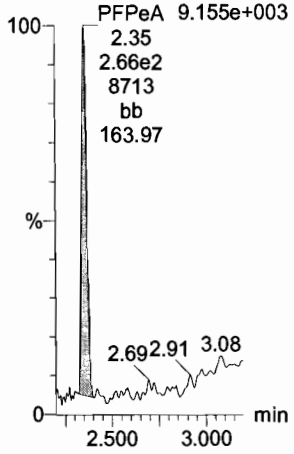
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 15:29:28

Name: 171229M2_2, Date: 29-Dec-2017, Time: 13:31:42, ID: ST171229M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

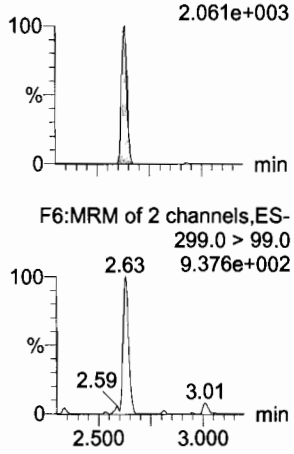
PFBA



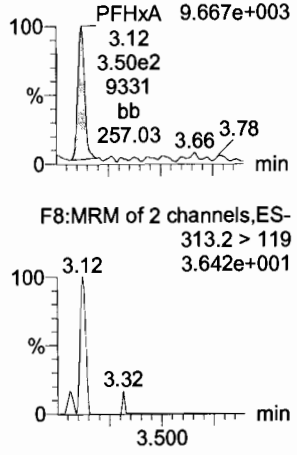
PFPeA



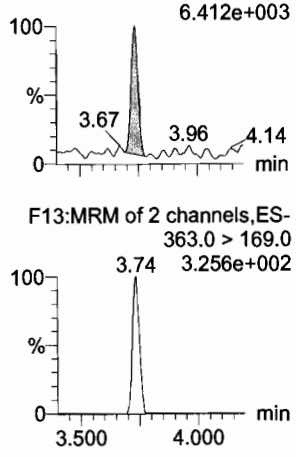
PFBS



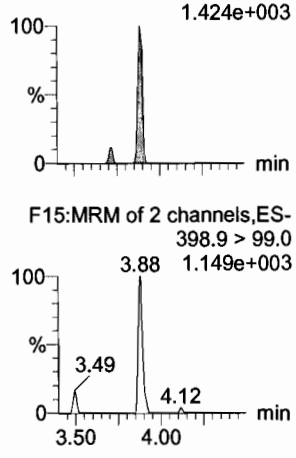
PFHxA



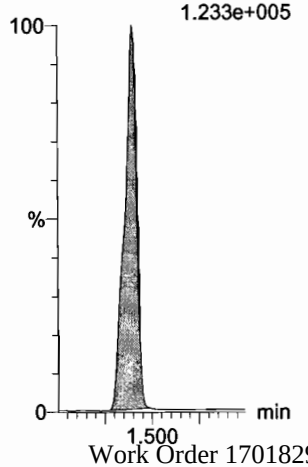
PFHpA



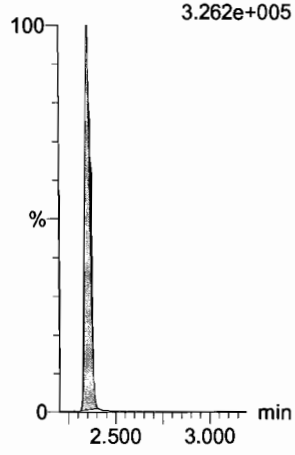
L-PFHxS



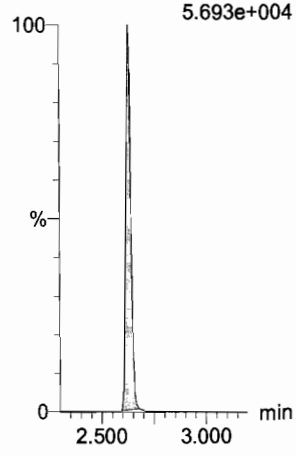
13C3-PFBA



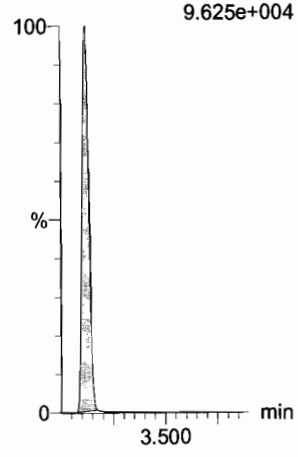
13C3-PFPeA



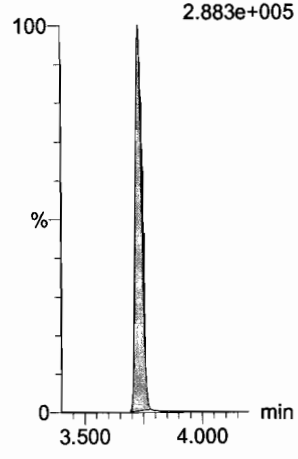
13C3-PFBS



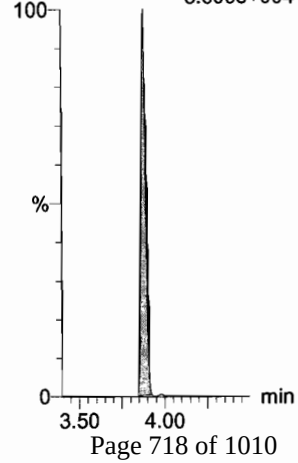
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

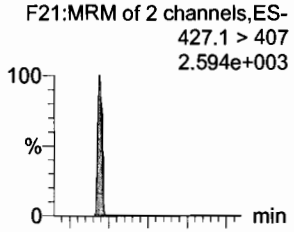


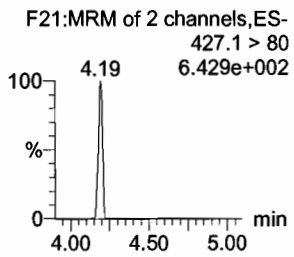
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Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

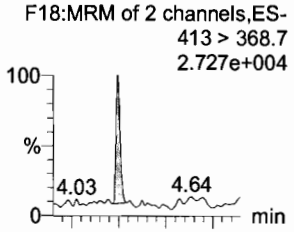
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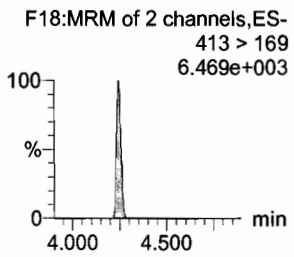
6:2 FTS



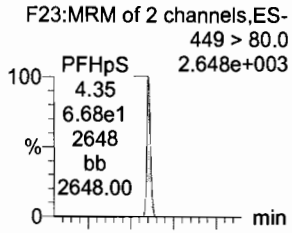


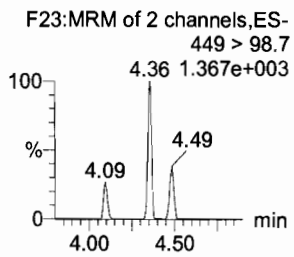
L-PFOA



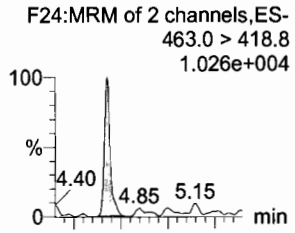


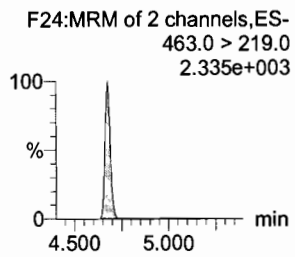
PFHpS



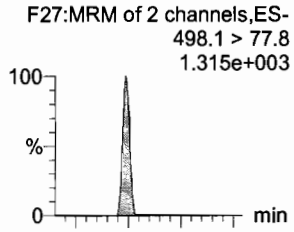


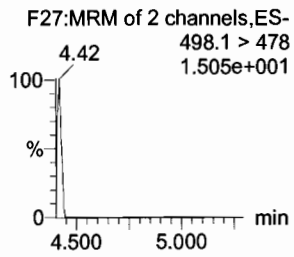
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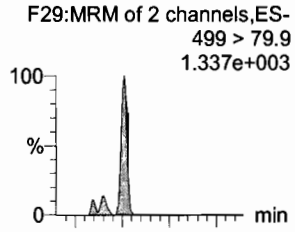


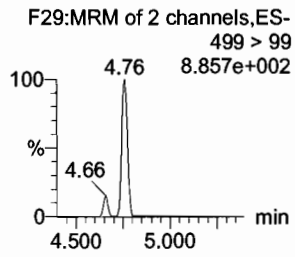
PFOSA



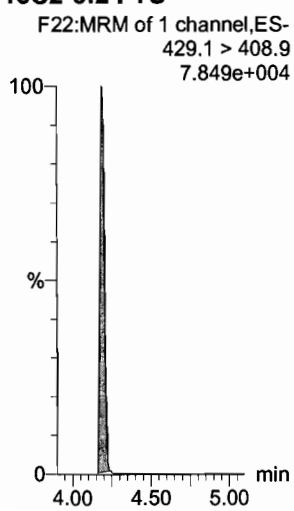


L-PFOS

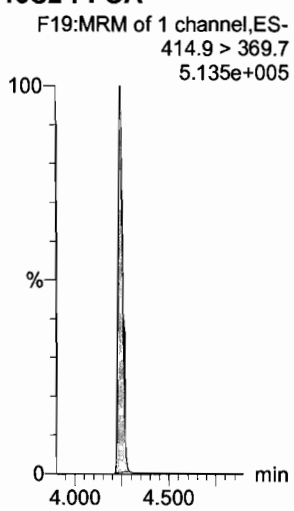




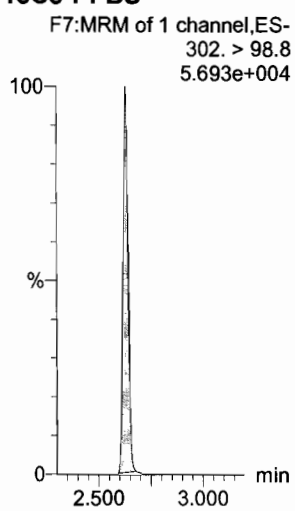
13C2-6:2 FTS



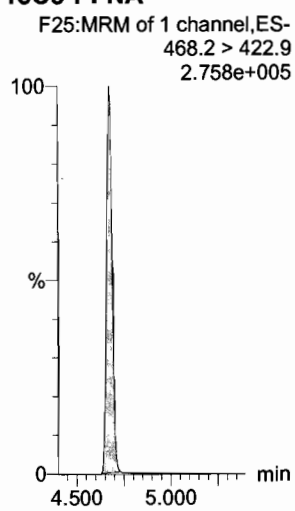
13C2-PFOA



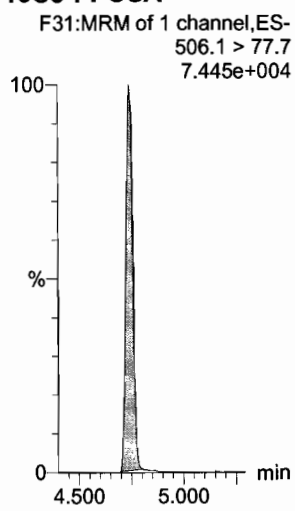
13C3-PFBS



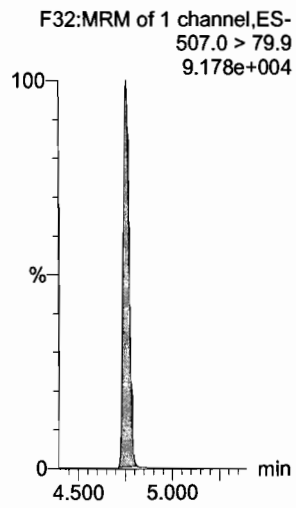
13C5-PFNA



13C8-PFOSA



13C8-PFOS

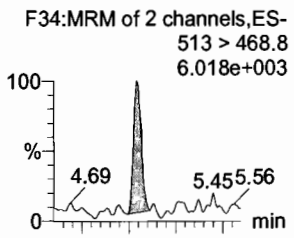


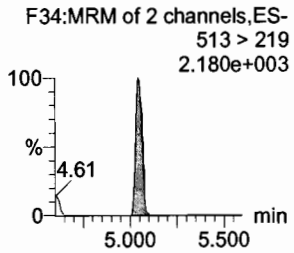
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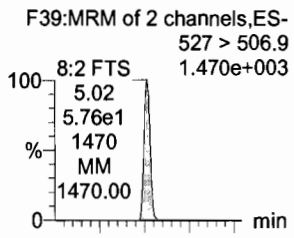
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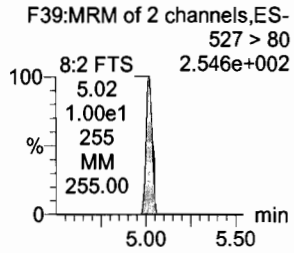
PFDA



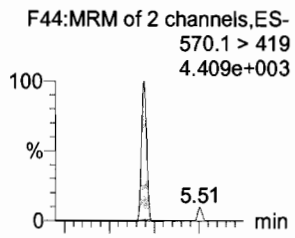


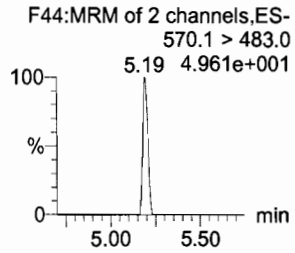
8:2 FTS



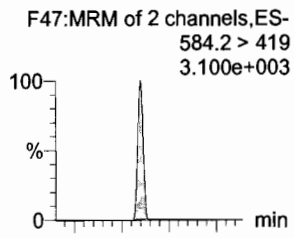


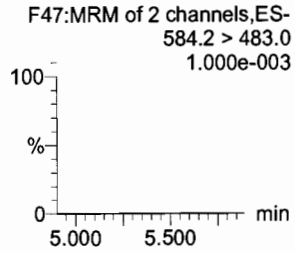
N-MeFOSAA



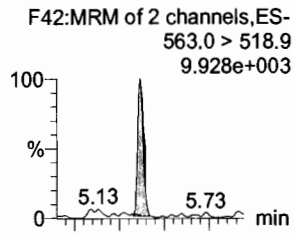


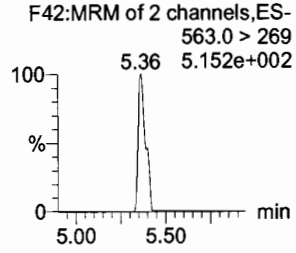
N-EtFOSAA



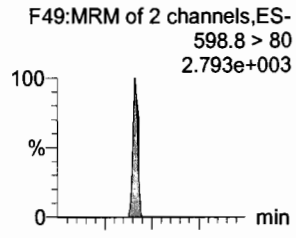


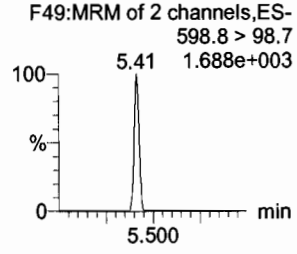
PFUdA



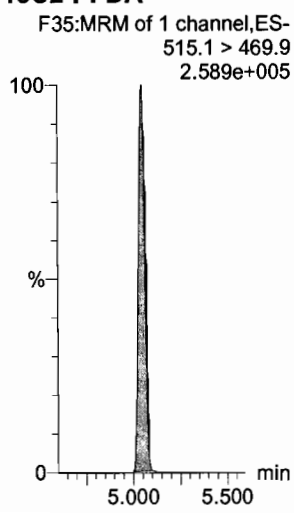


PFDS

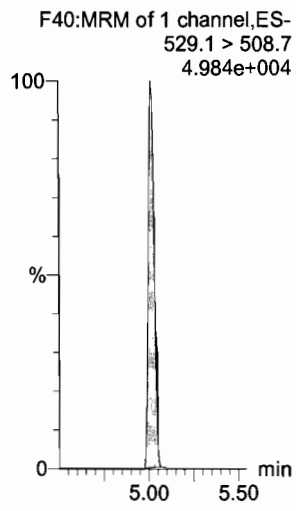




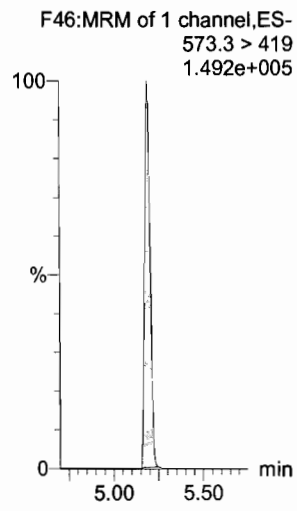
13C2-PFDA



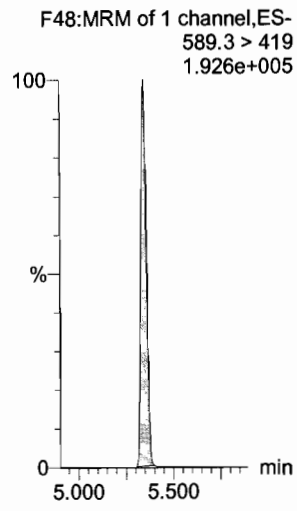
13C2-8:2 FTS



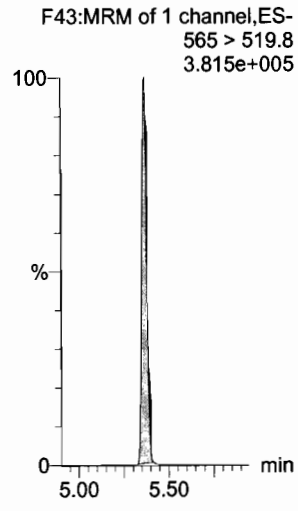
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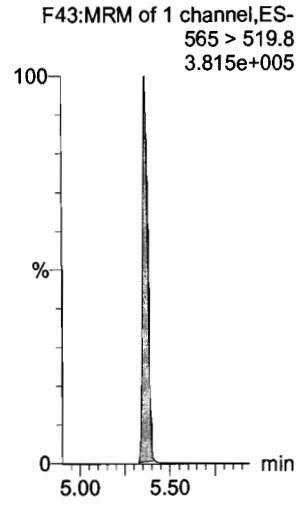
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13C2-PFUdA



13C2-PFUdA

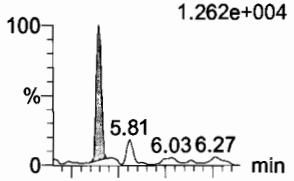


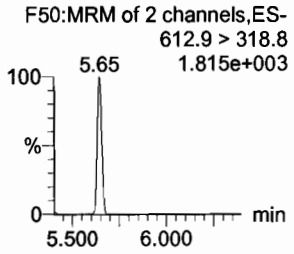
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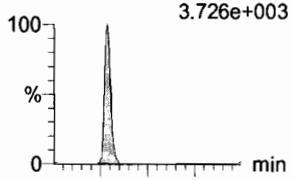
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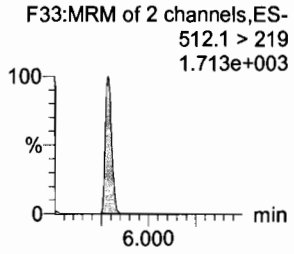
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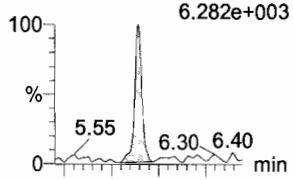


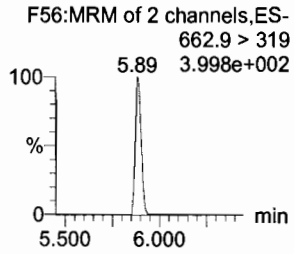
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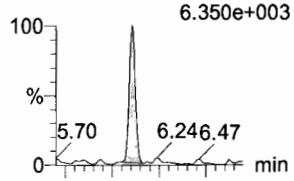


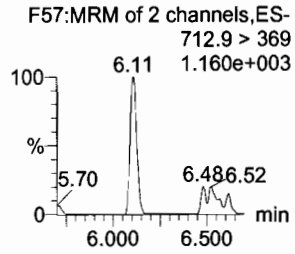
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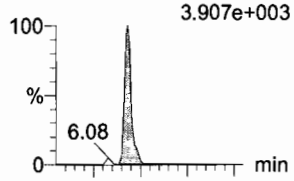


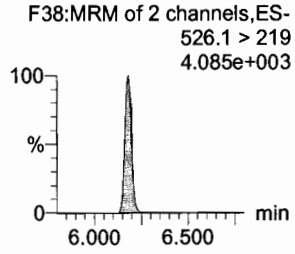
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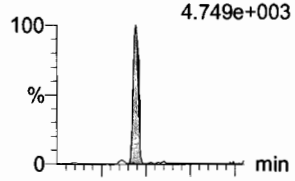


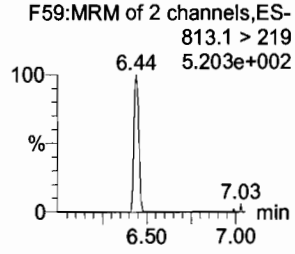
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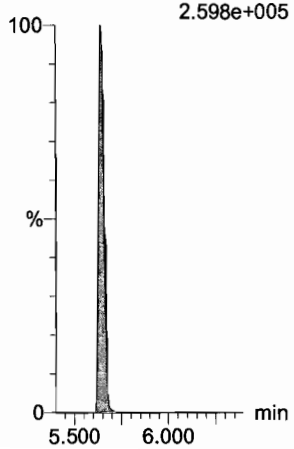


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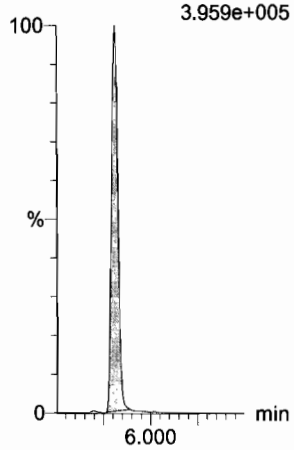




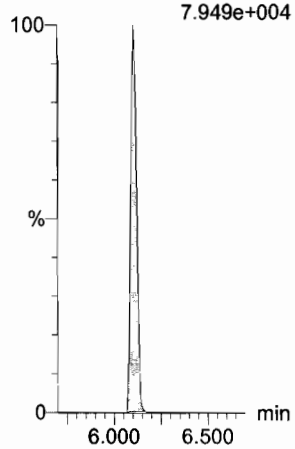
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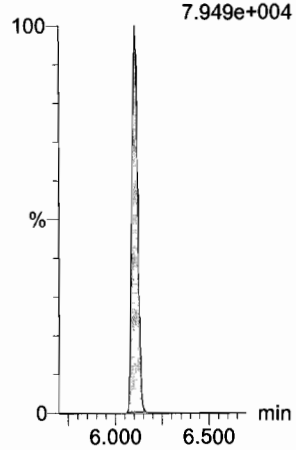
d3-N-MeFOSA



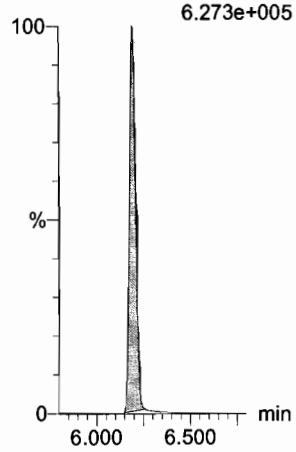
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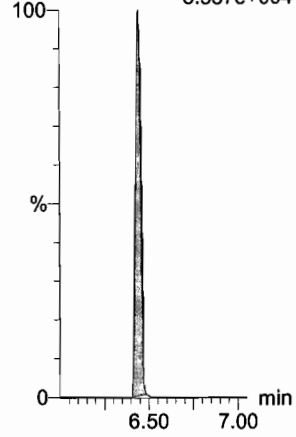
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d5-N-ETFOSA



13C2-PFHxDA

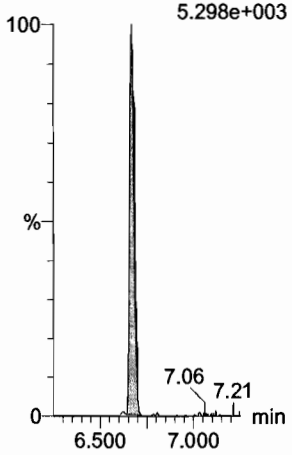


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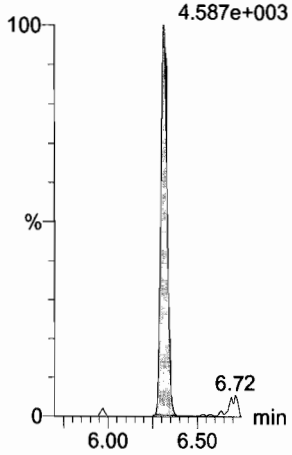
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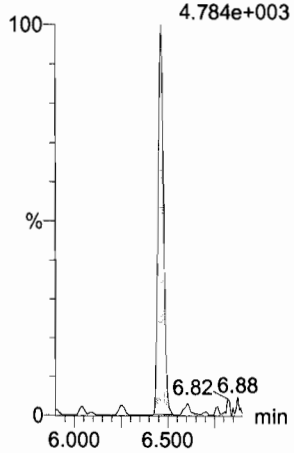
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
5.298e+003



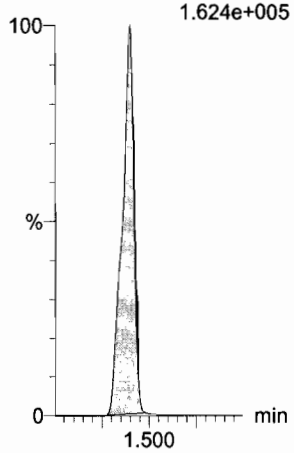
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
4.587e+003



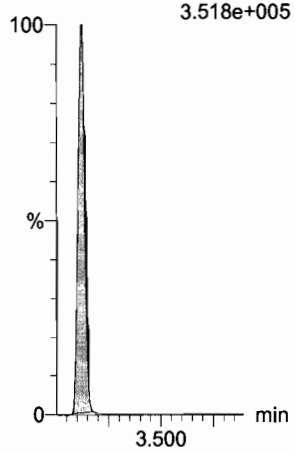
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
4.784e+003



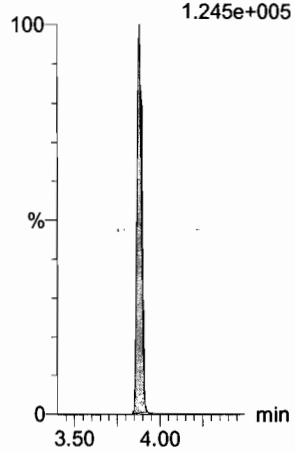
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.624e+005



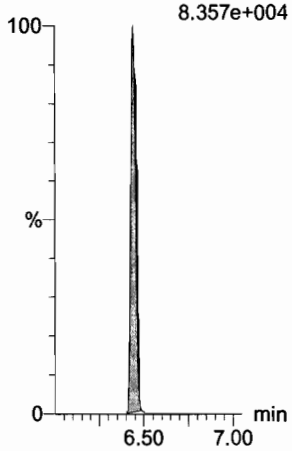
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.518e+005



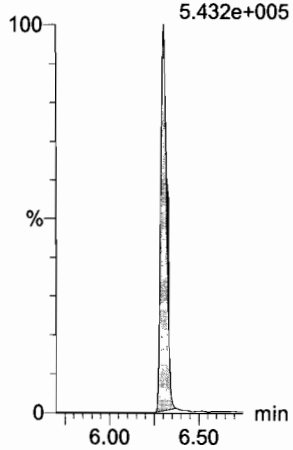
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.245e+005



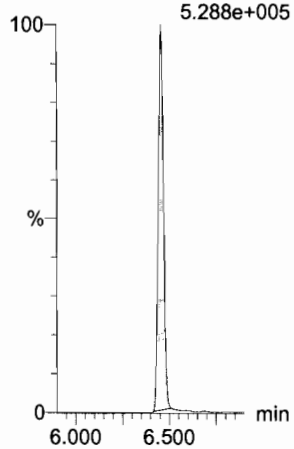
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.357e+004



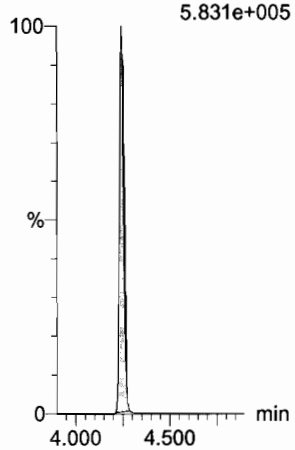
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.432e+005



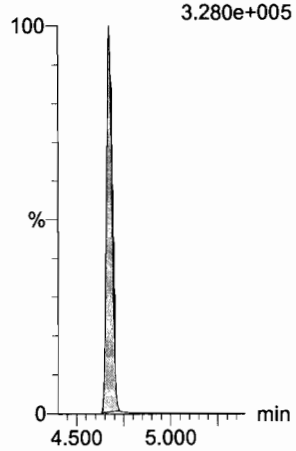
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.288e+005



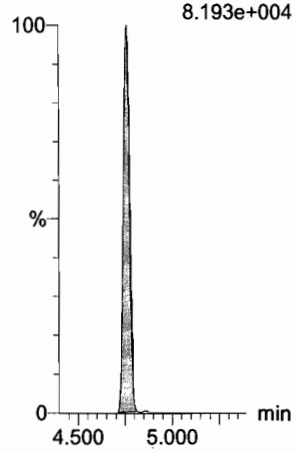
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.831e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.280e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.193e+004

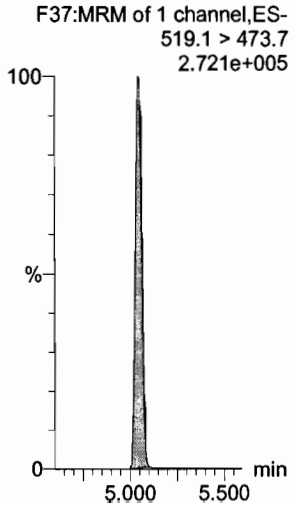


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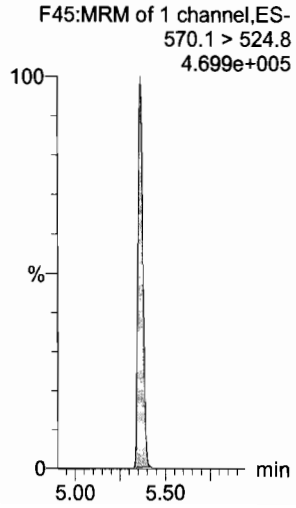
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13C6-PFDA



13C7-PFUdA

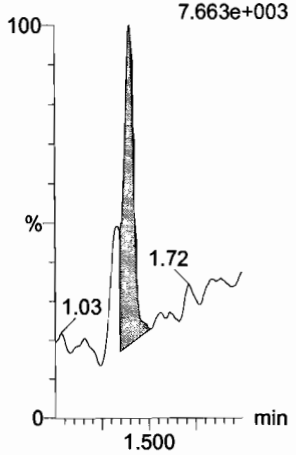


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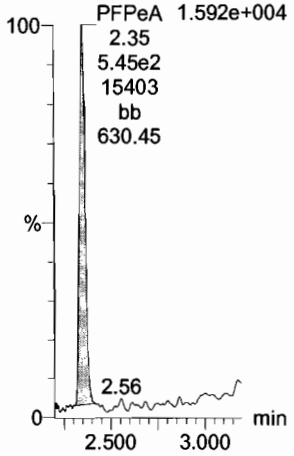
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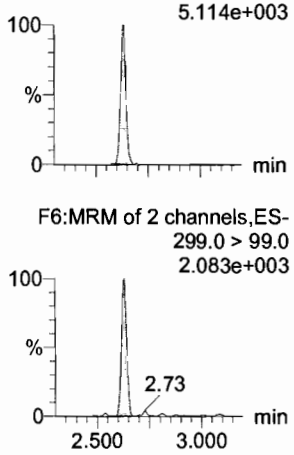
PFBA



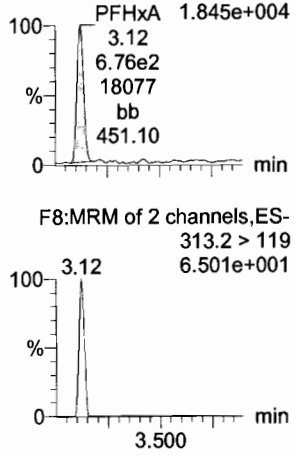
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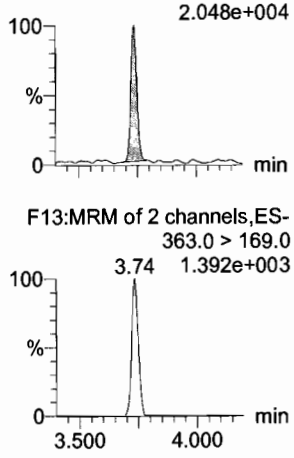
PFBS



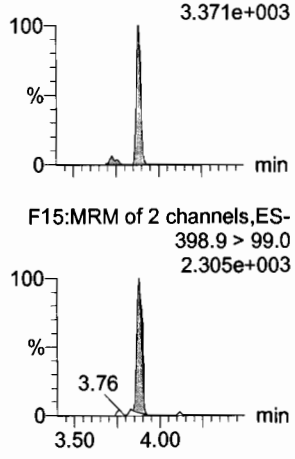
PFHxA



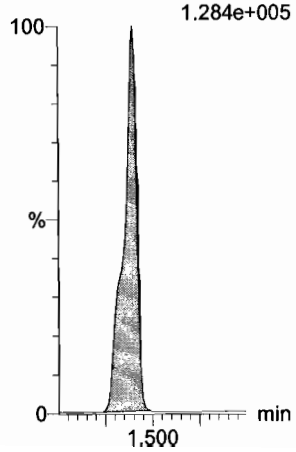
PFHpA



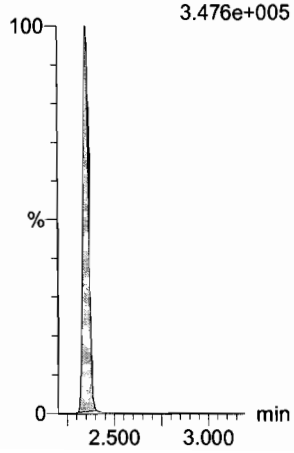
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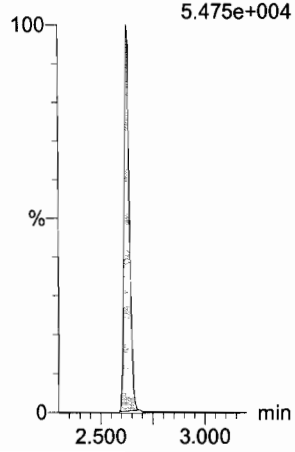
13C3-PFBA



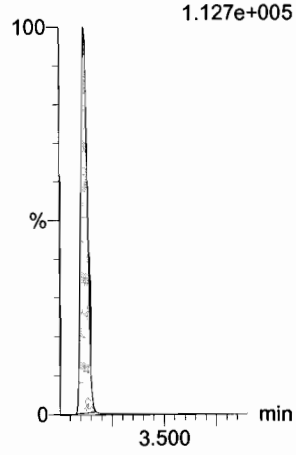
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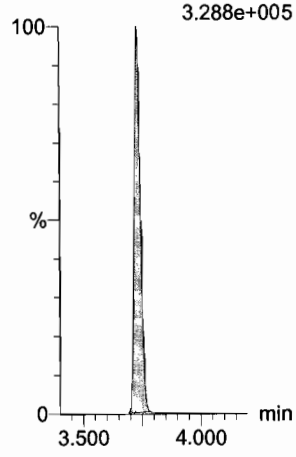
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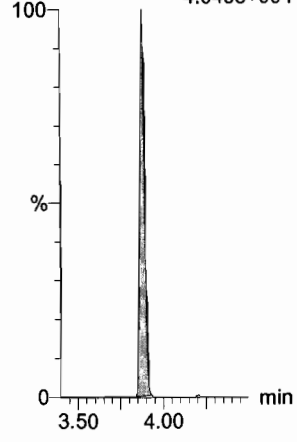
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13C4-PFHpA



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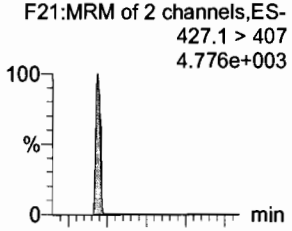


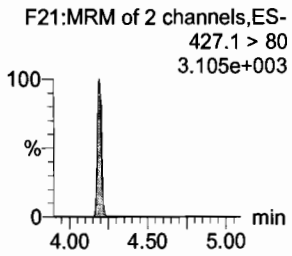
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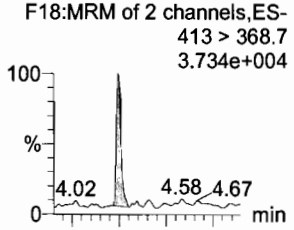
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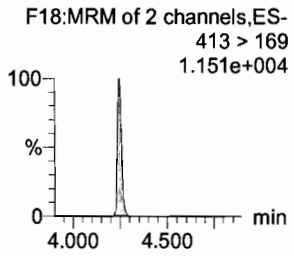
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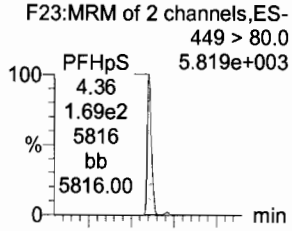


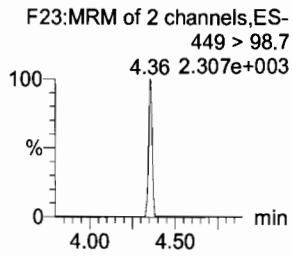
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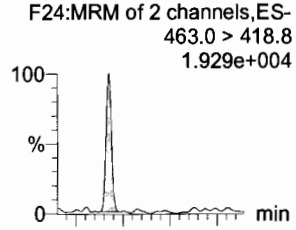


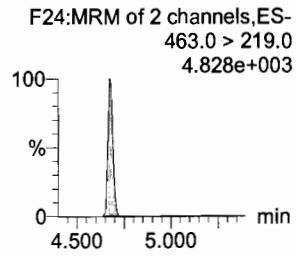
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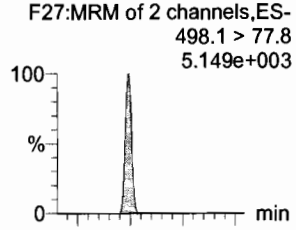


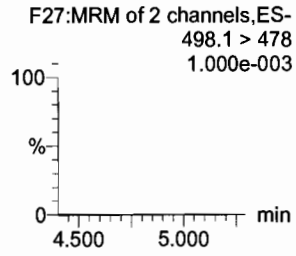
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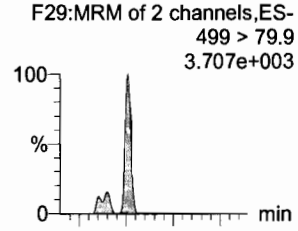


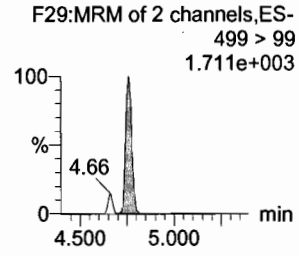
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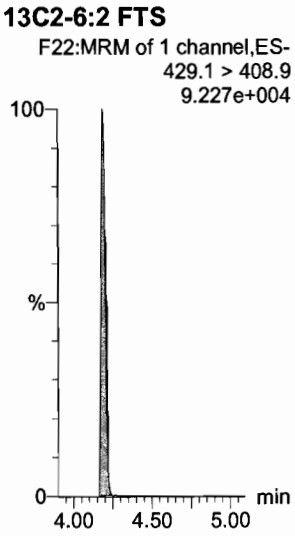


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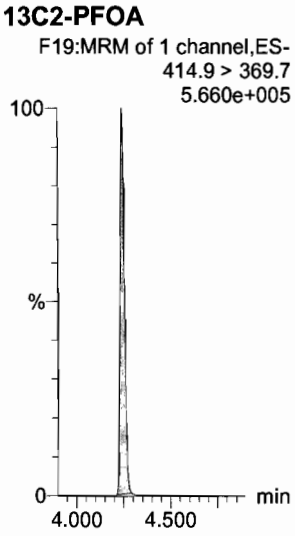




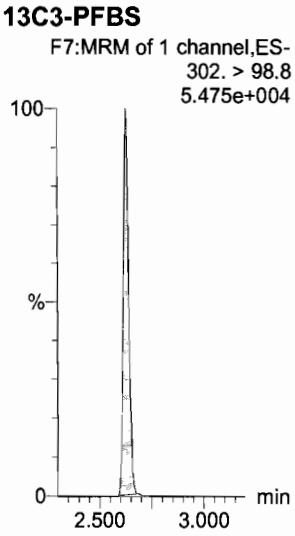
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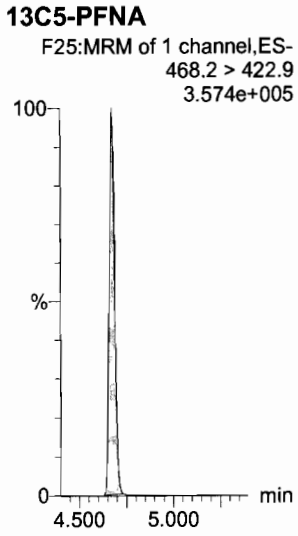
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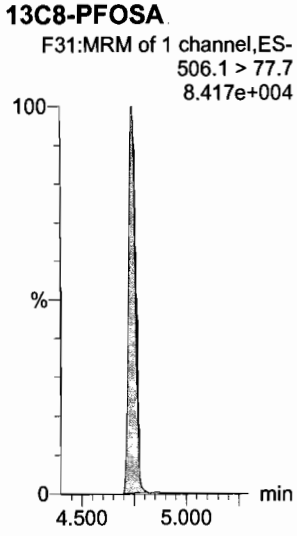
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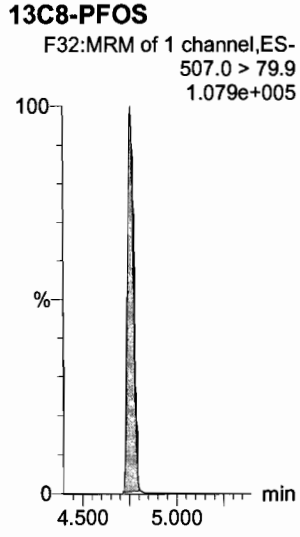
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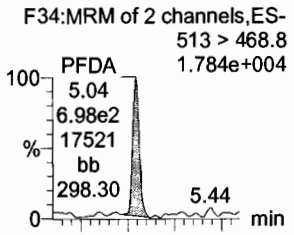


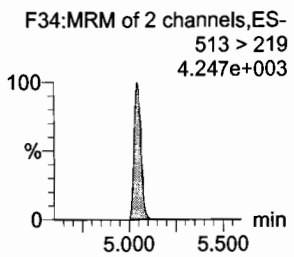
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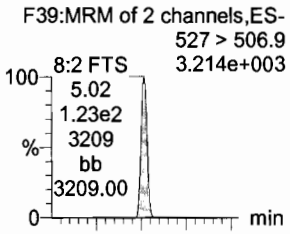
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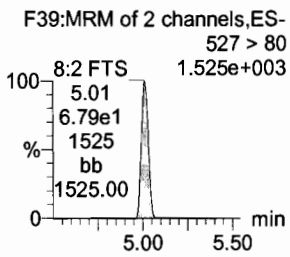
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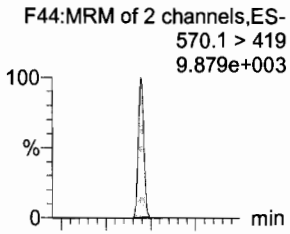


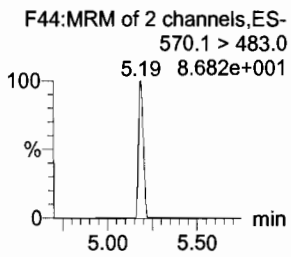
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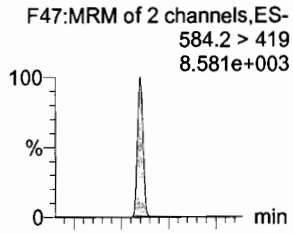


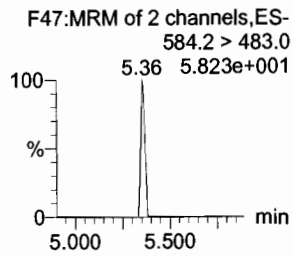
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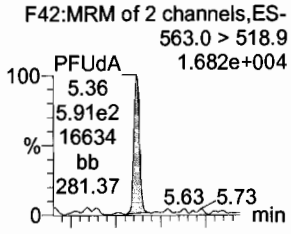


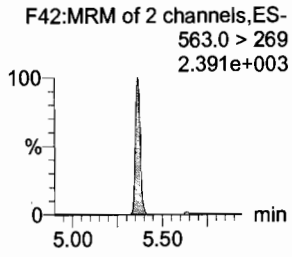
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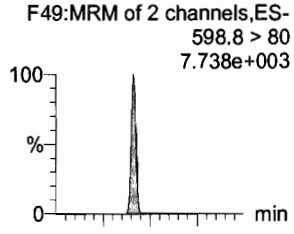


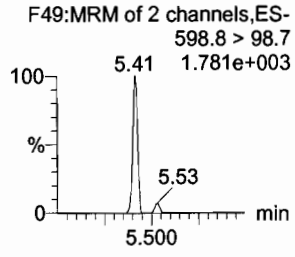
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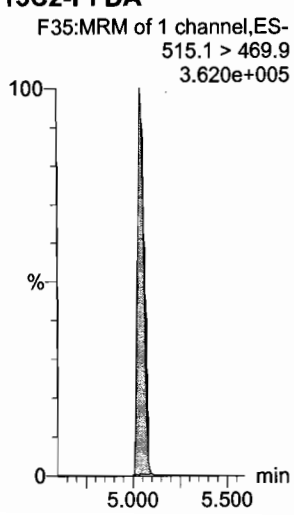


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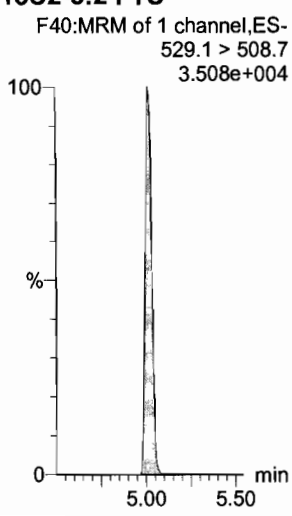




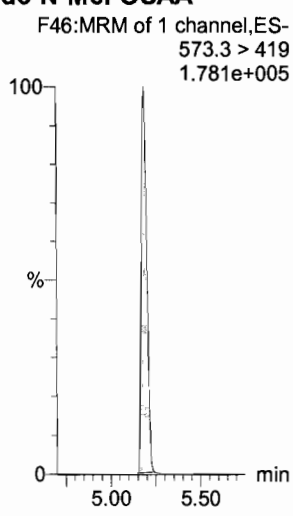
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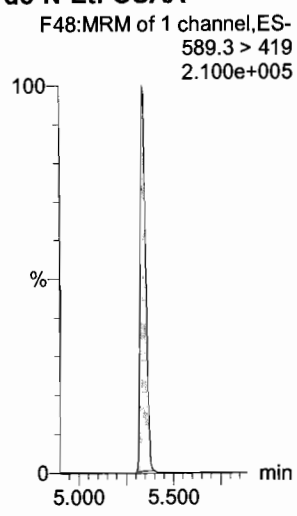
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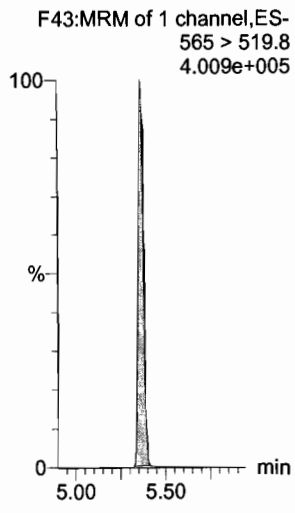
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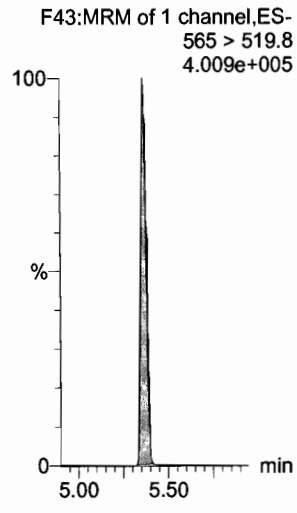
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13C2-PFUdA



13C2-PFUdA

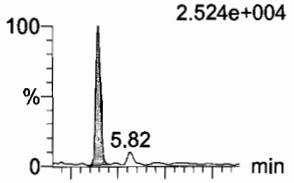


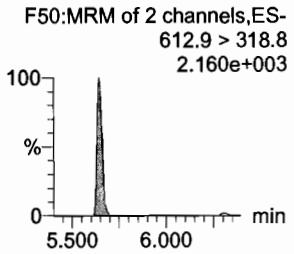
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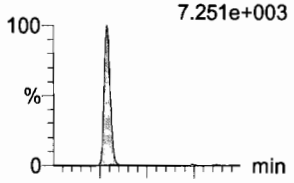
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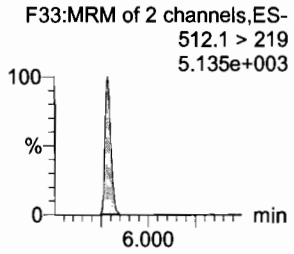
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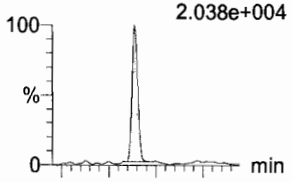


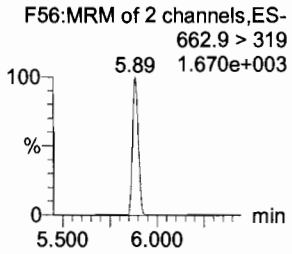
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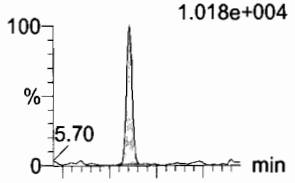


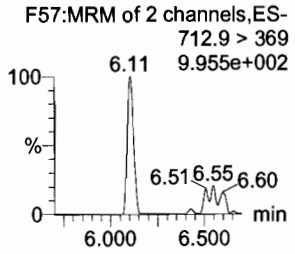
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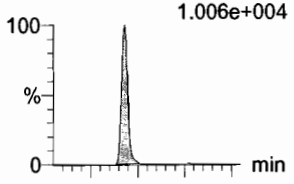


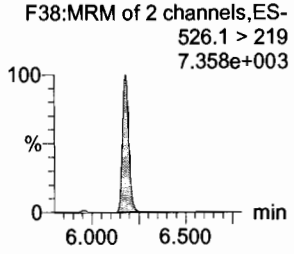
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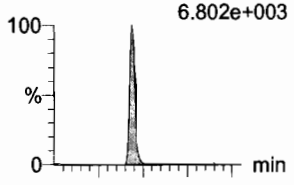


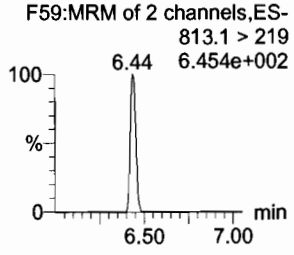
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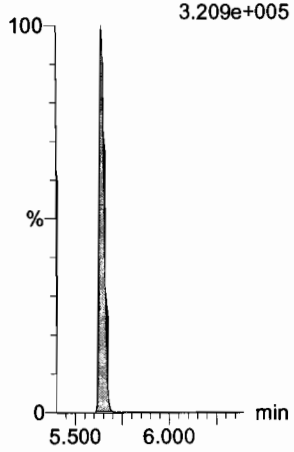


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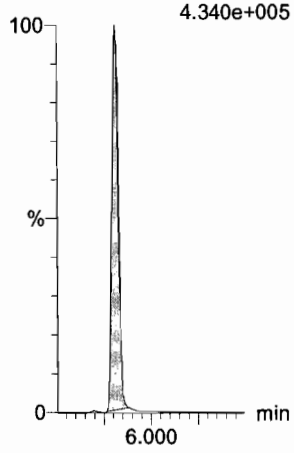




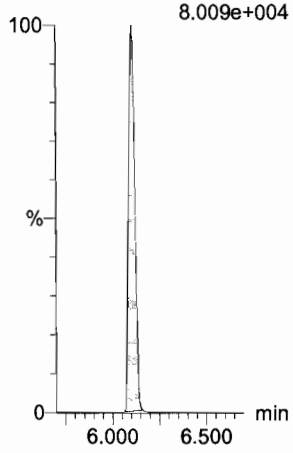
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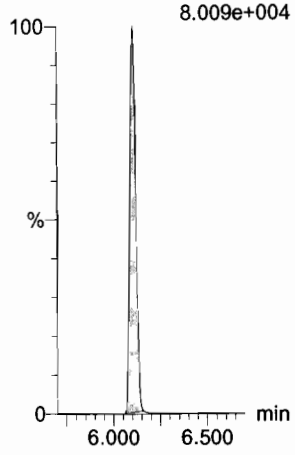
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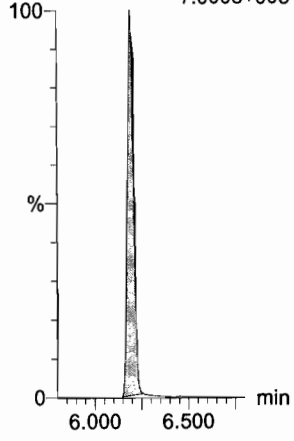
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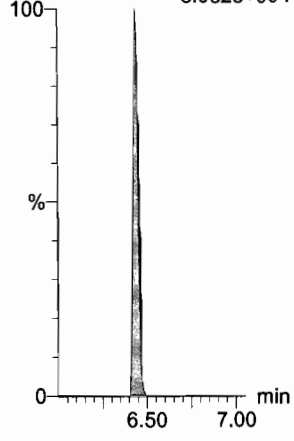
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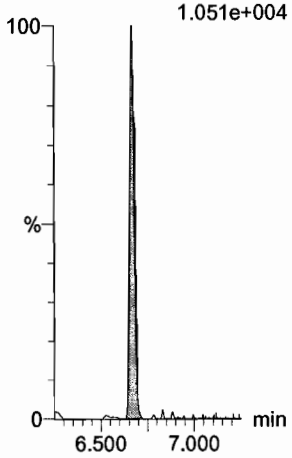


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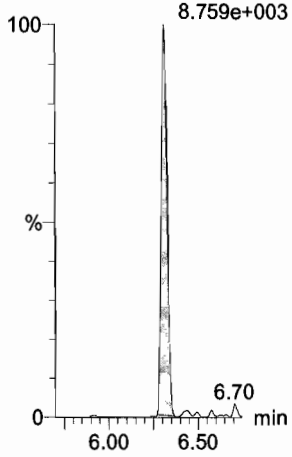
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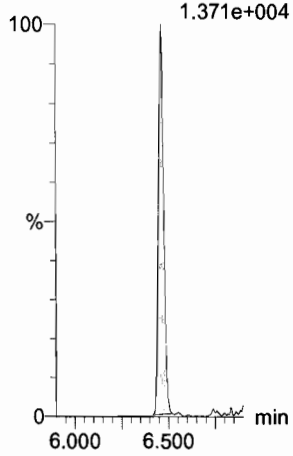
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.051e+004



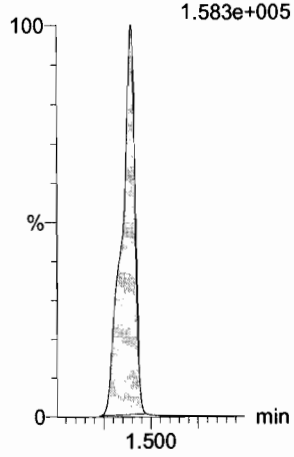
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616.1 > 58.9
8.759e+003



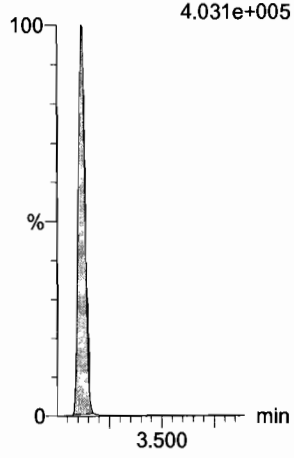
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F54:MRM of 1 channel,ES-
630.1 > 58.9
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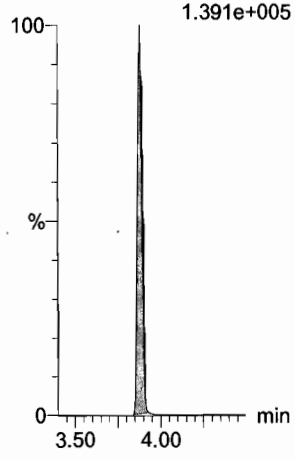
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F3:MRM of 1 channel,ES-
217. > 171.8
1.583e+005



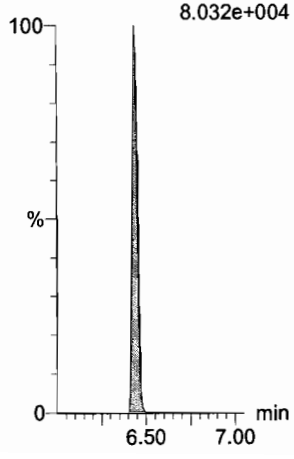
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F10:MRM of 1 channel,ES-
318 > 272.9
4.031e+005



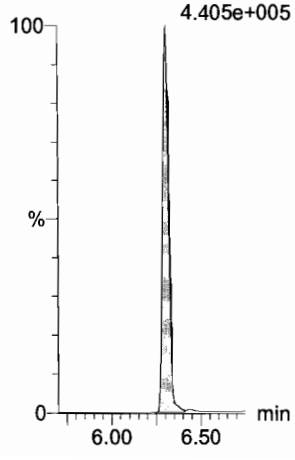
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F16:MRM of 1 channel,ES-
401.9 > 79.9
1.391e+005



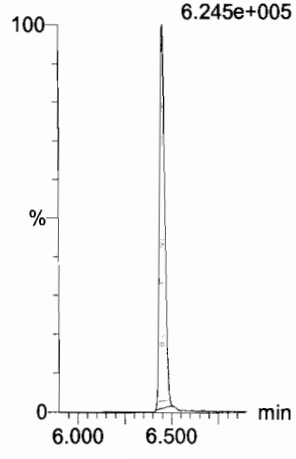
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815 > 769.7
8.032e+004



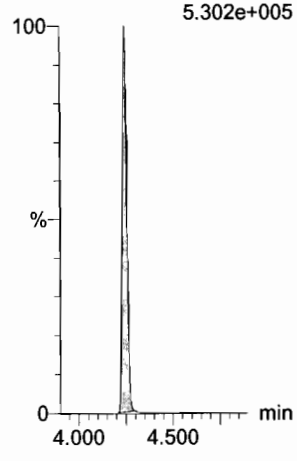
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.405e+005



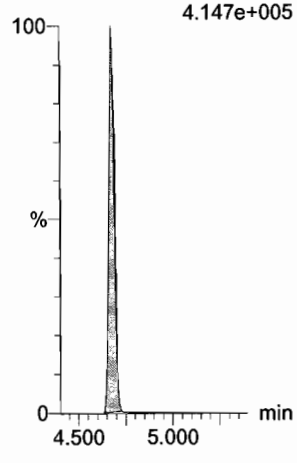
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F55:MRM of 1 channel,ES-
639.2 > 58.8
6.245e+005



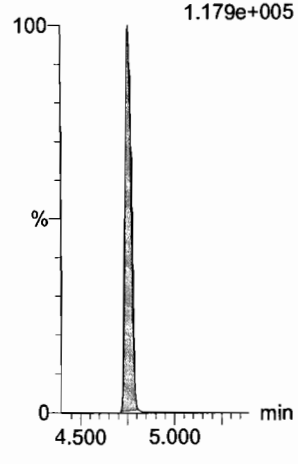
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.302e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.147e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.179e+005

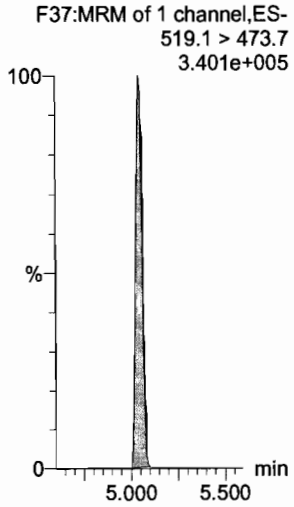


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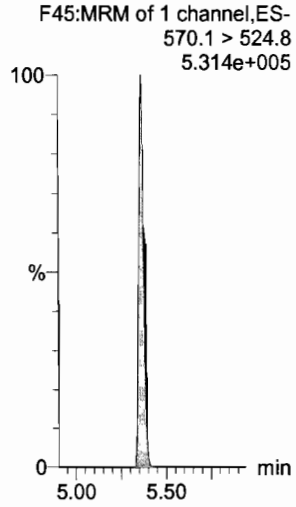
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Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_3, Date: 29-Dec-2017, Time: 13:42:53, ID: ST171229M2-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

13C6-PFDA



13C7-PFUdA

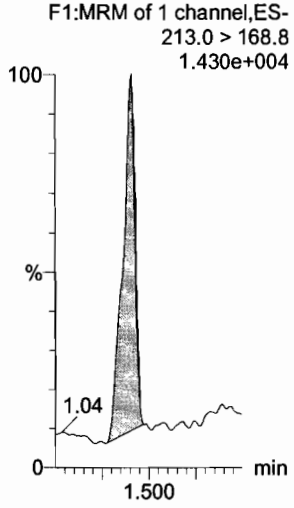


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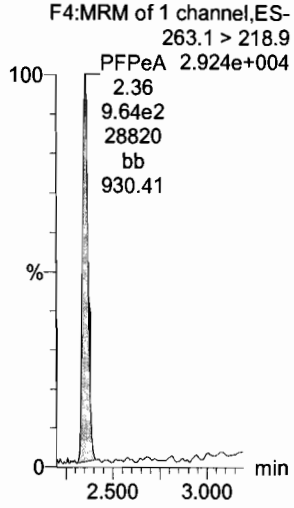
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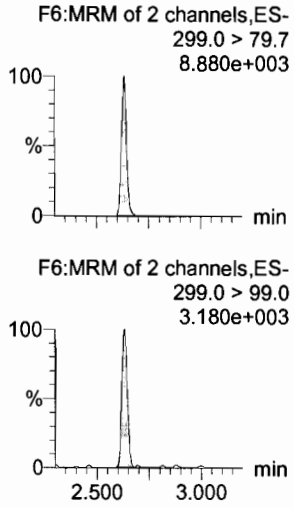
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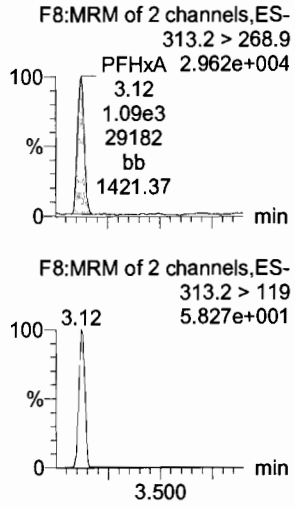
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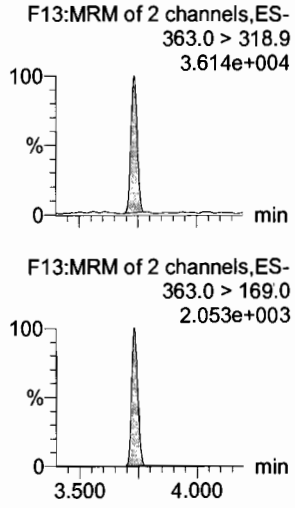
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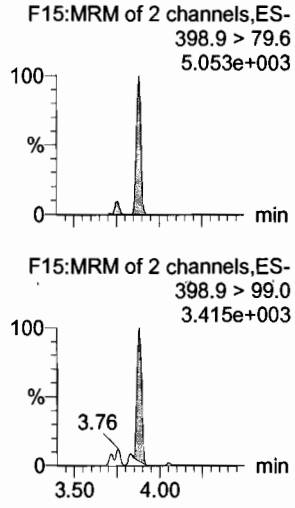
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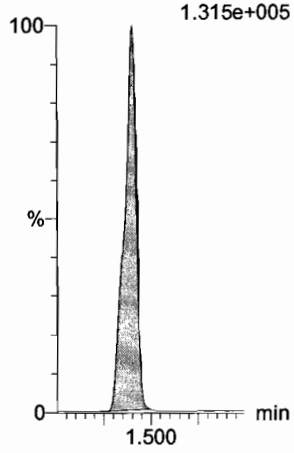
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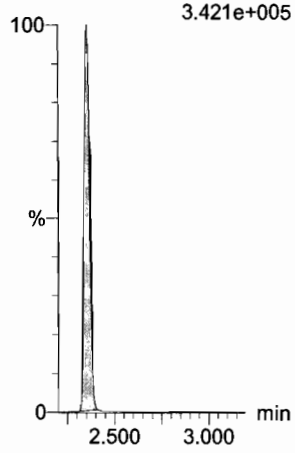
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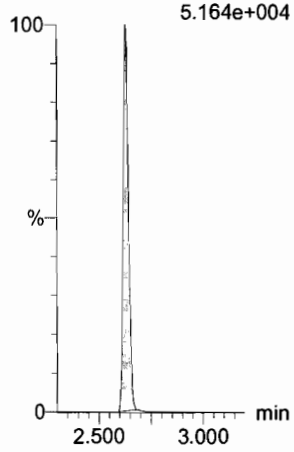
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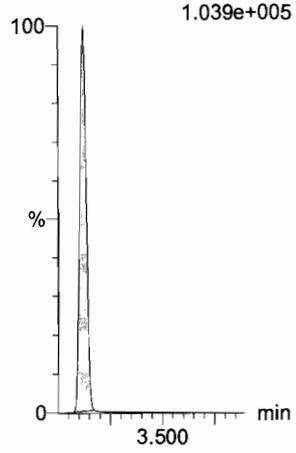
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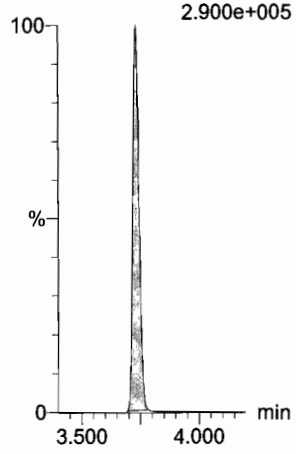
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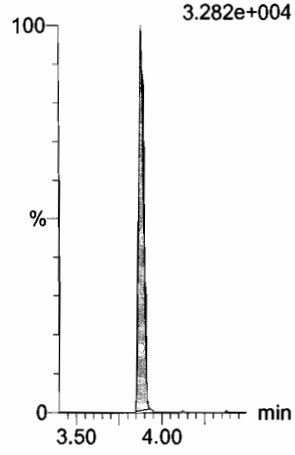
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13C4-PFHpA



18O2-PFHxS

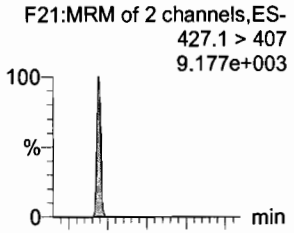


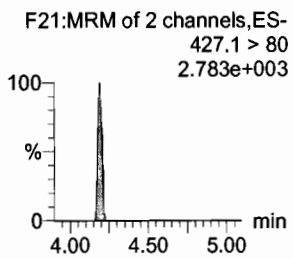
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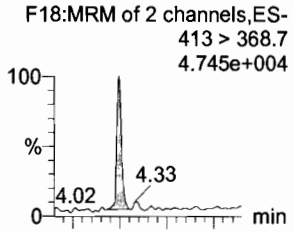
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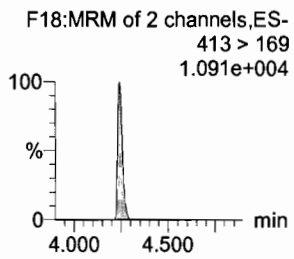
6:2 FTS



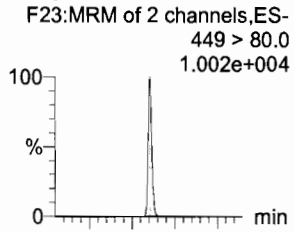


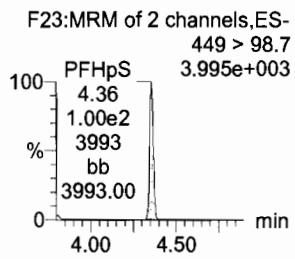
L-PFOA



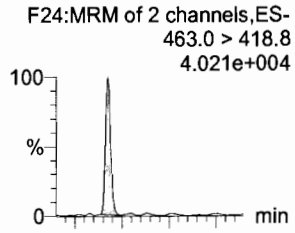


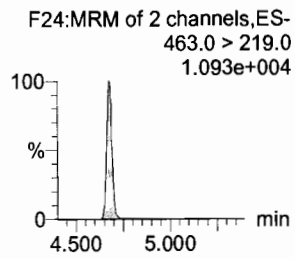
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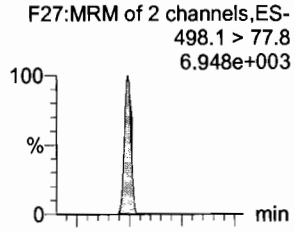


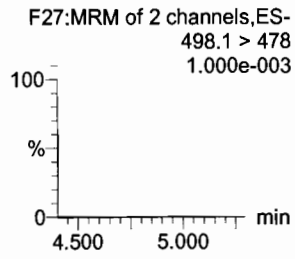
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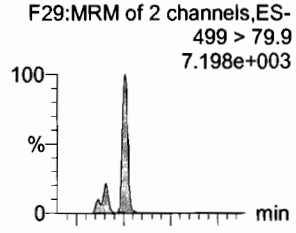


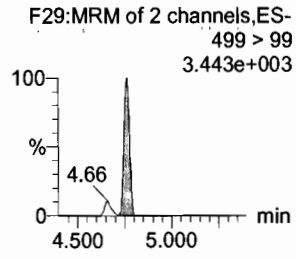
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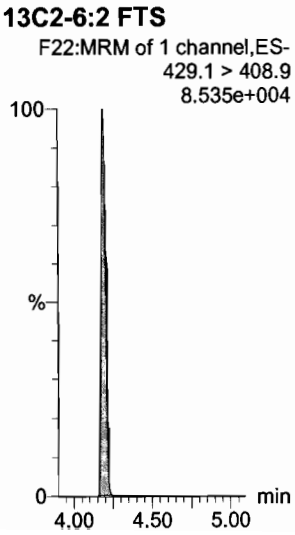


L-PFOS

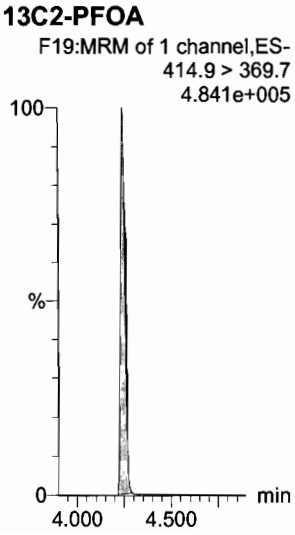




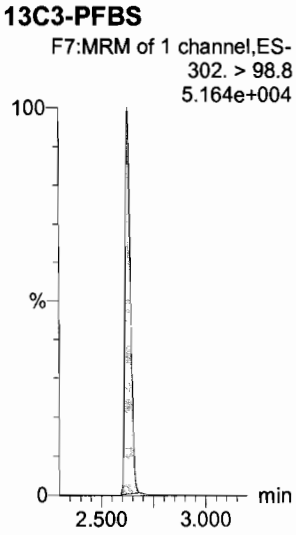
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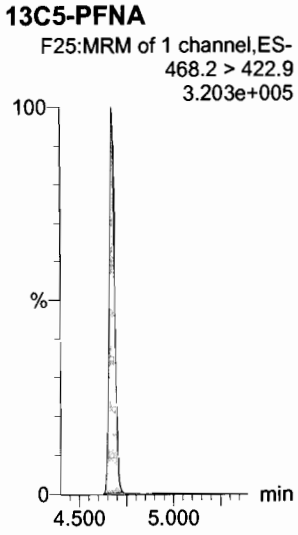
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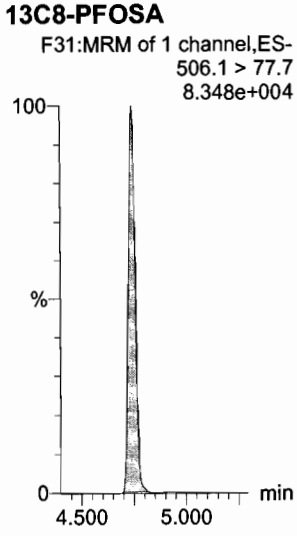
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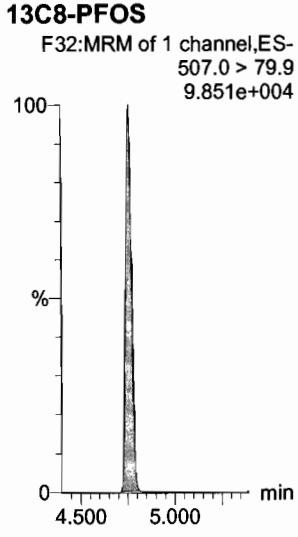
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13C8-PFOSA



13C8-PFOS

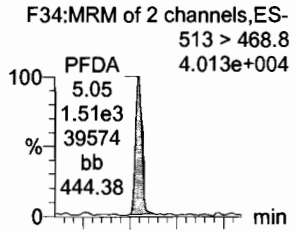


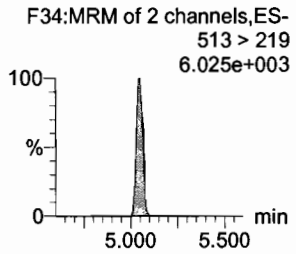
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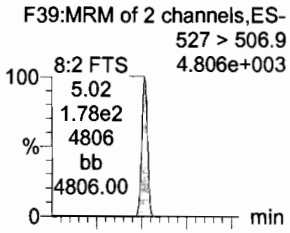
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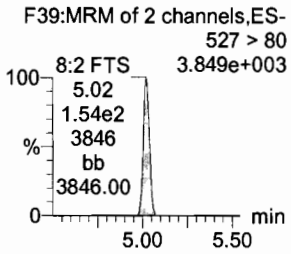
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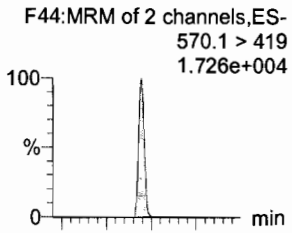


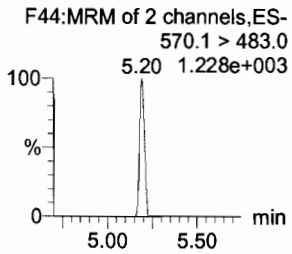
8:2 FTS



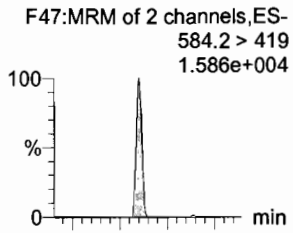


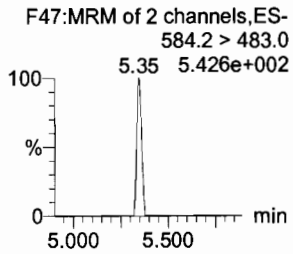
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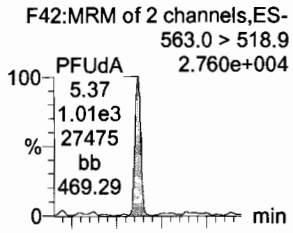


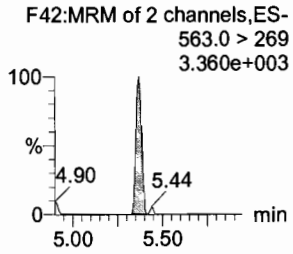
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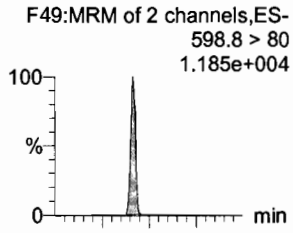


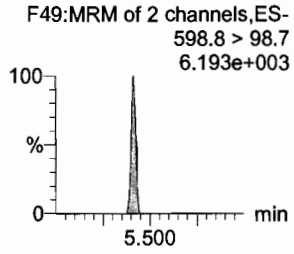
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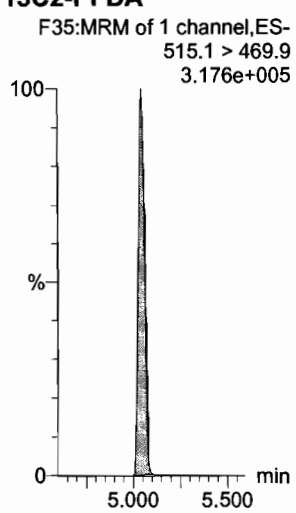


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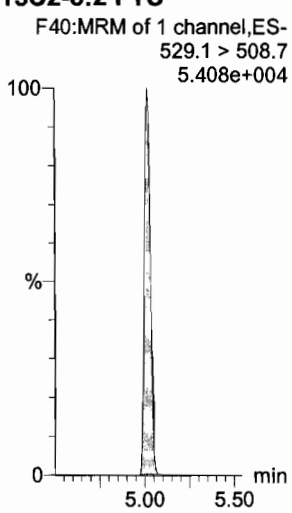




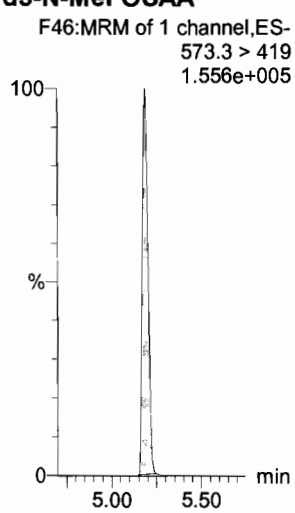
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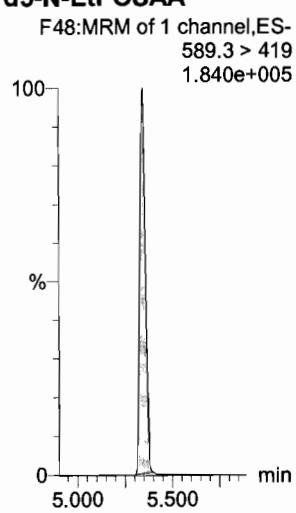
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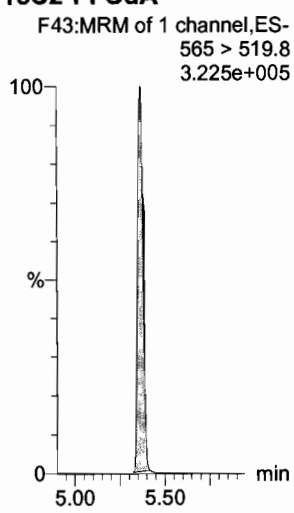
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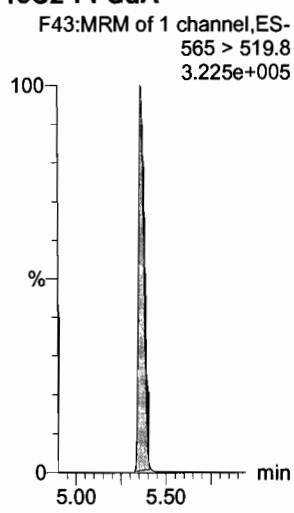
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

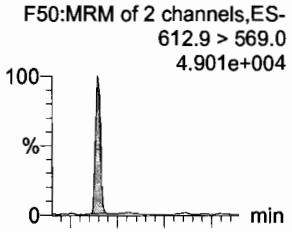


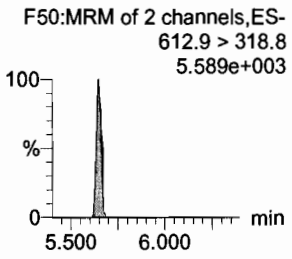
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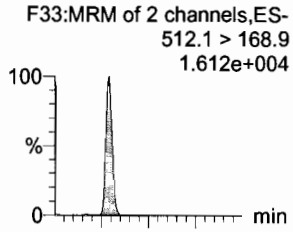
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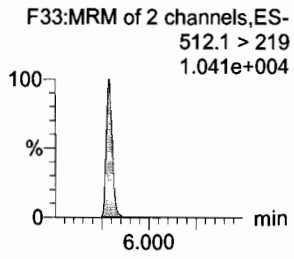
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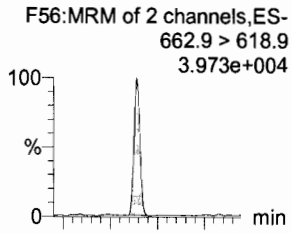


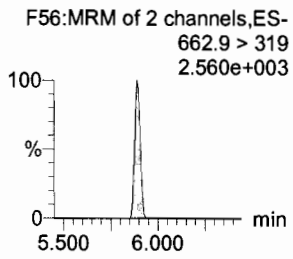
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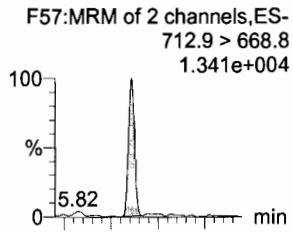


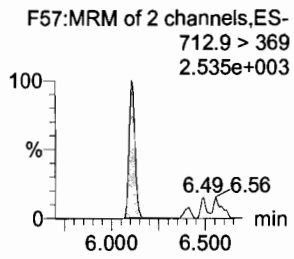
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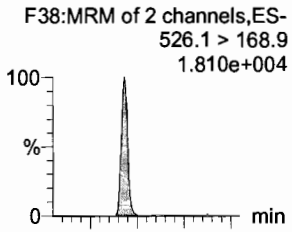


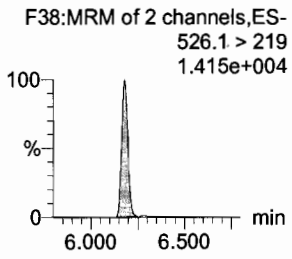
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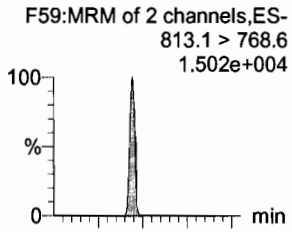


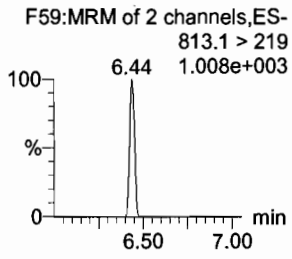
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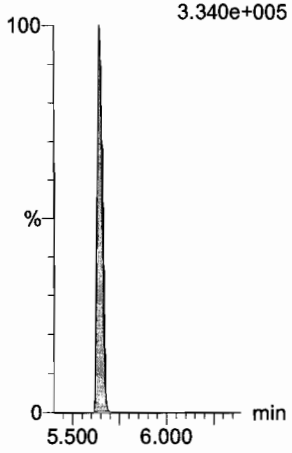


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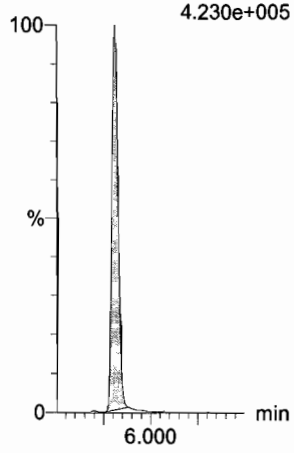




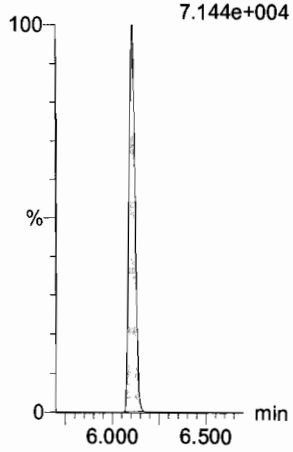
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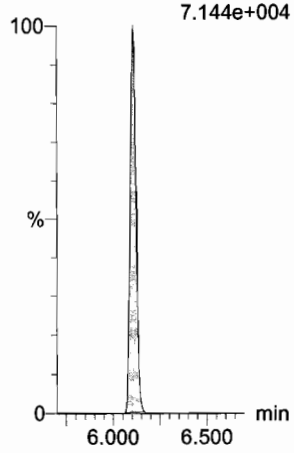
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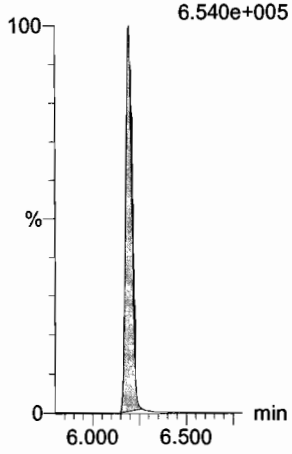
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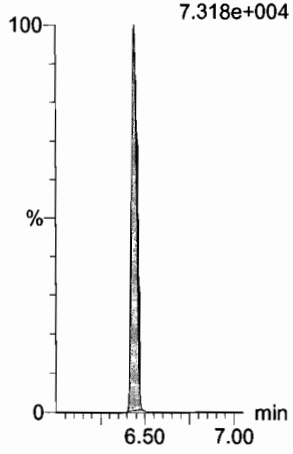
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d5-N-ETFOSA



13C2-PFHxDA

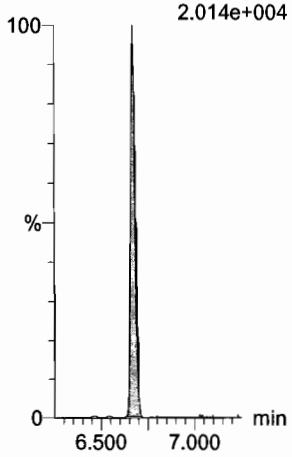


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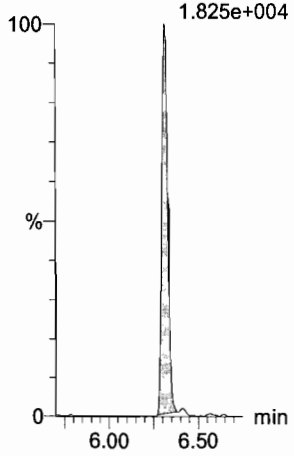
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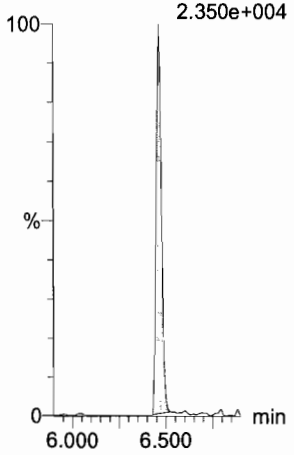
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.014e+004



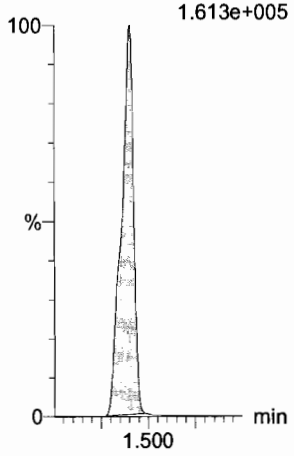
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.825e+004



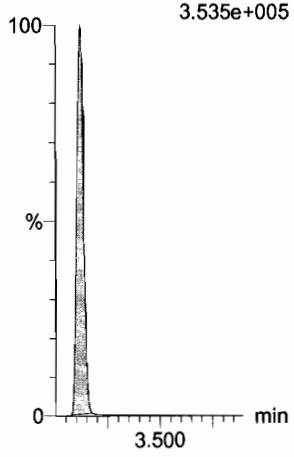
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F54:MRM of 1 channel,ES-
630.1 > 58.9
2.350e+004



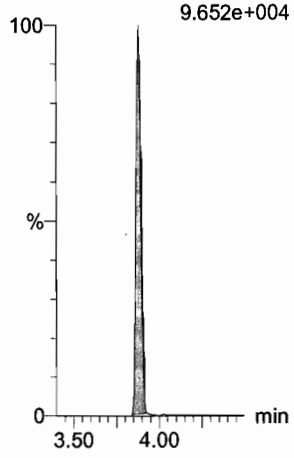
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.613e+005



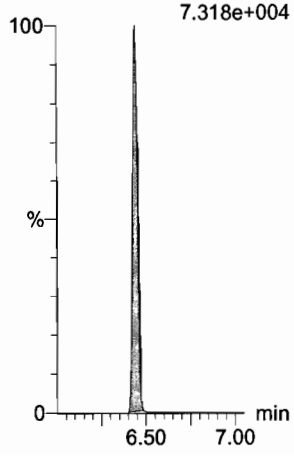
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.535e+005



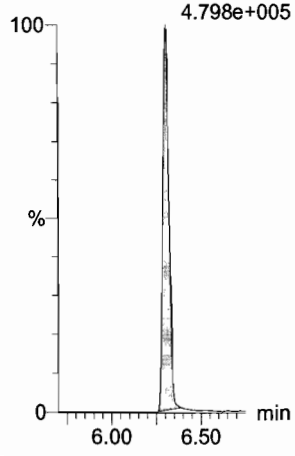
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.652e+004



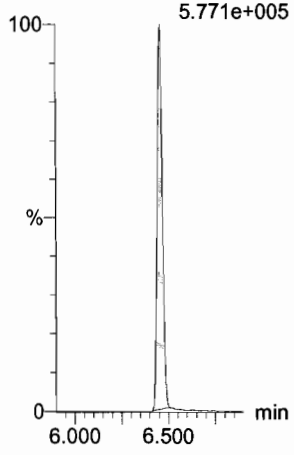
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
7.318e+004



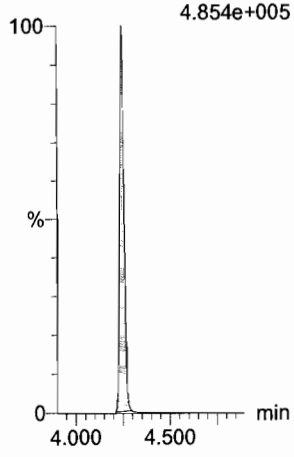
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.798e+005



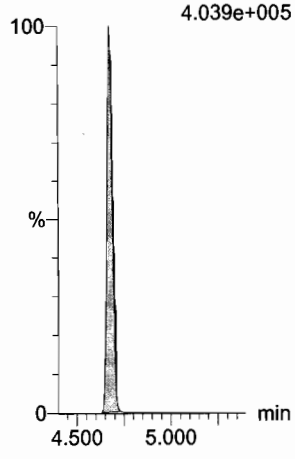
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.771e+005



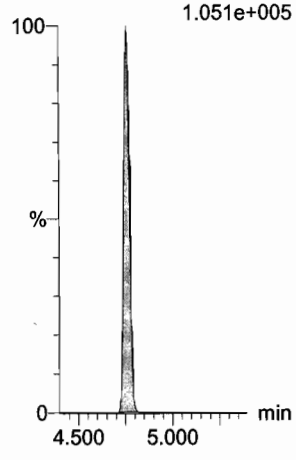
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.854e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.039e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.051e+005

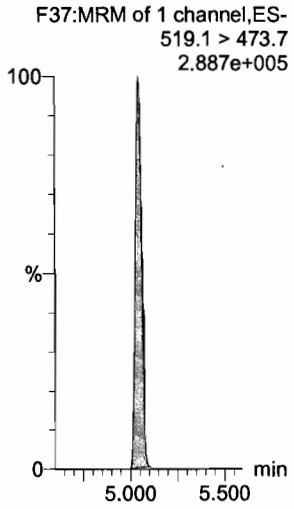


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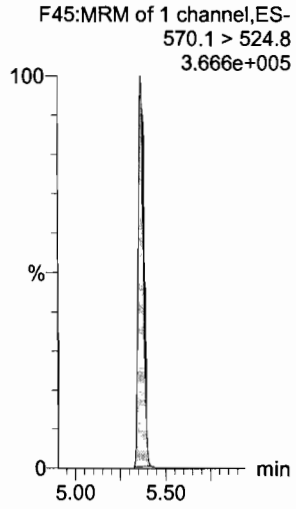
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13C6-PFDA



13C7-PFUdA

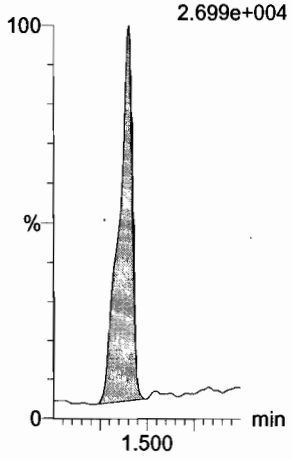


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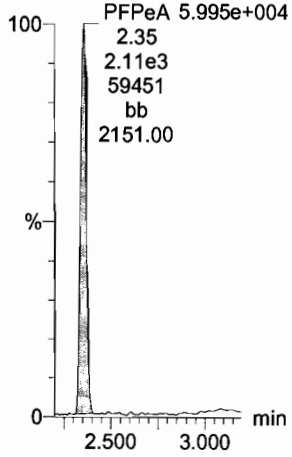
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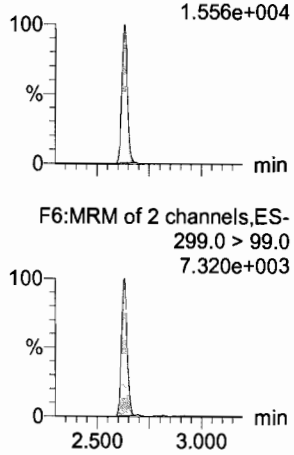
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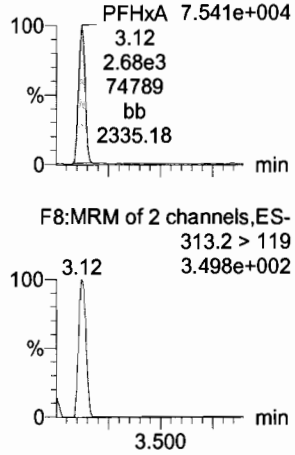
PFPeA



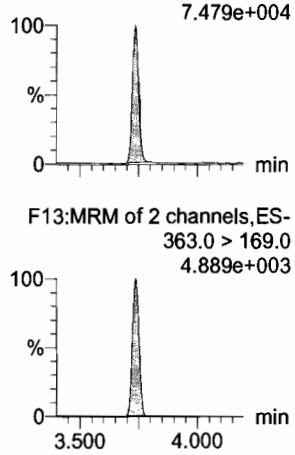
PFBS



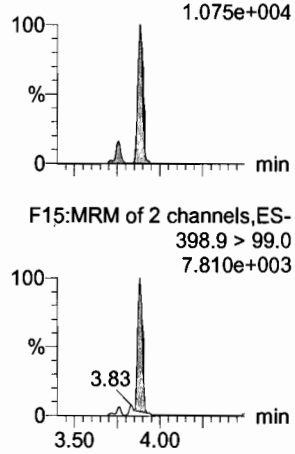
PFHxA



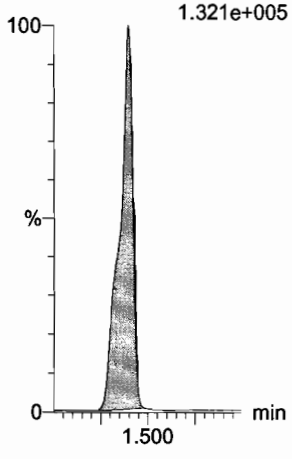
PFHpA



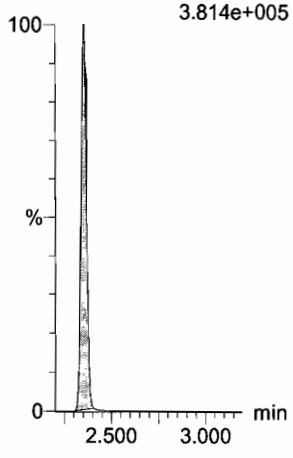
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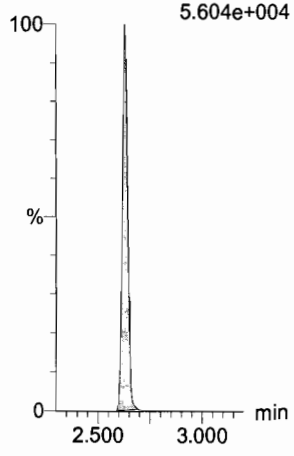
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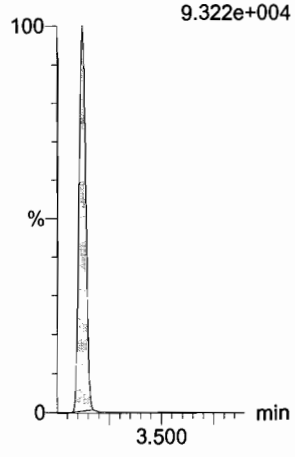
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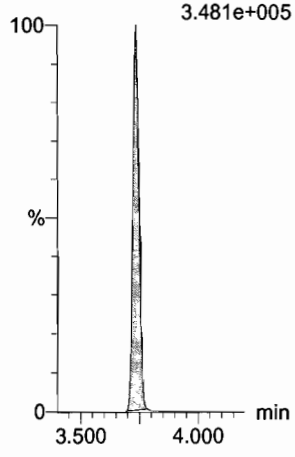
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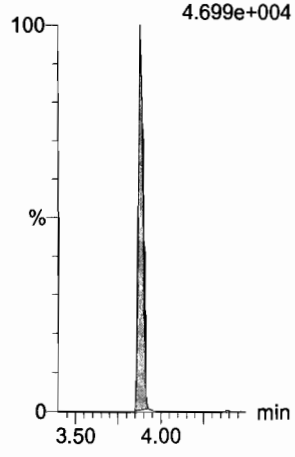
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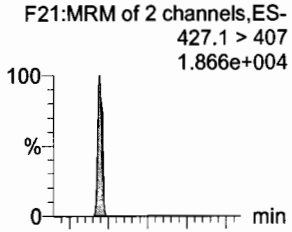


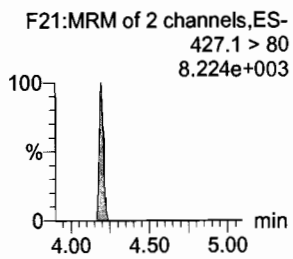
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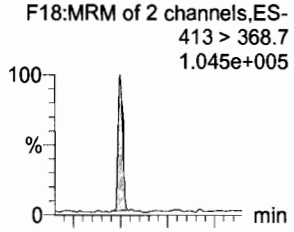
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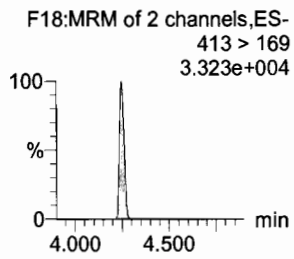
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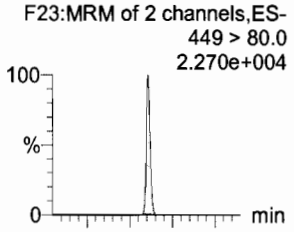


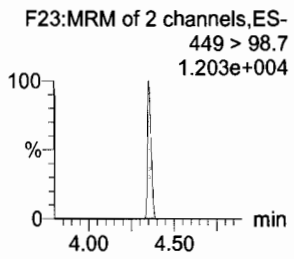
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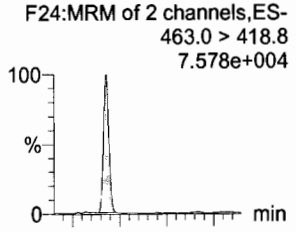


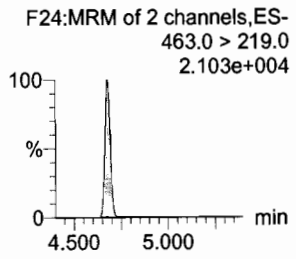
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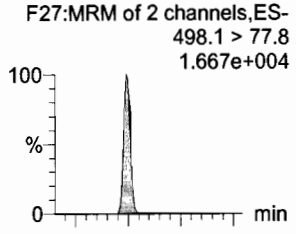


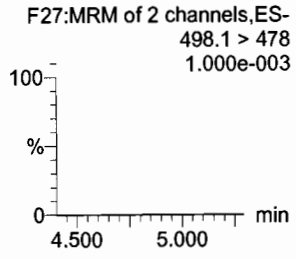
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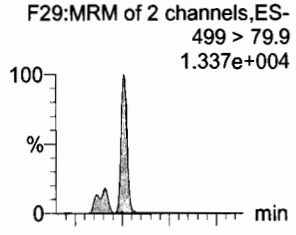


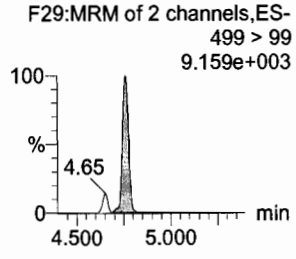
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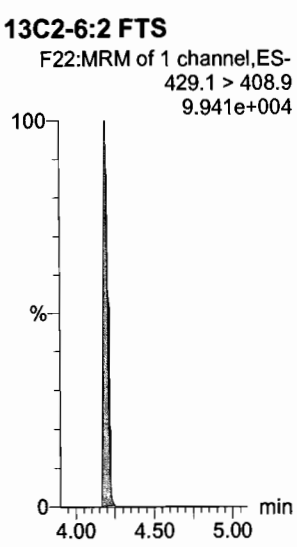


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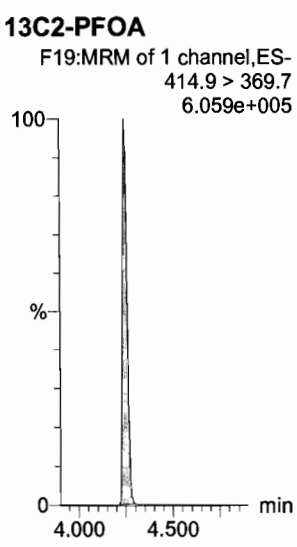




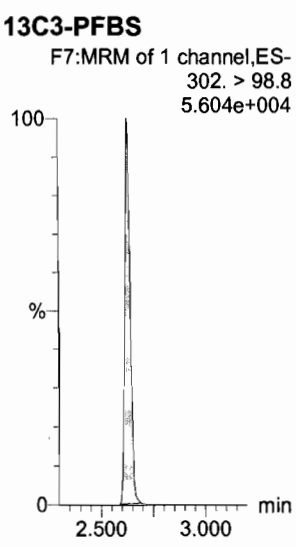
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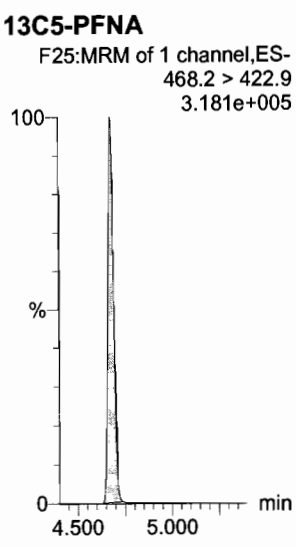
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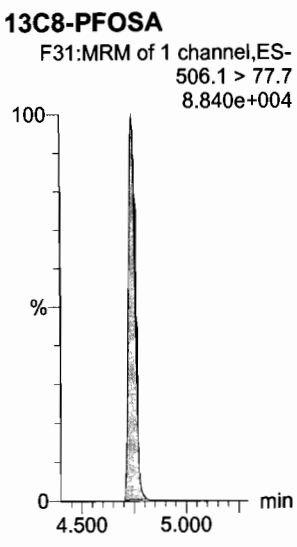
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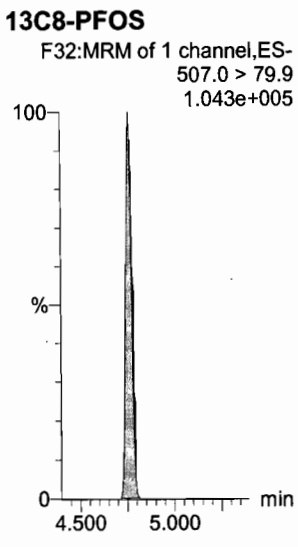
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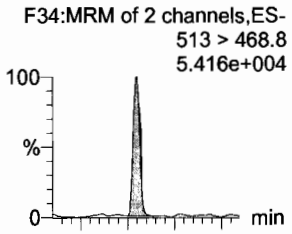


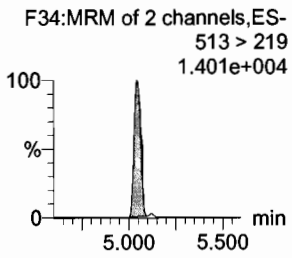
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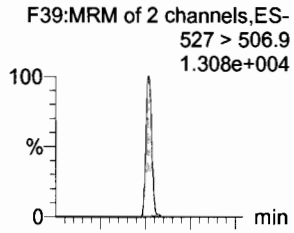
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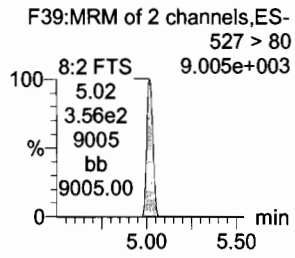
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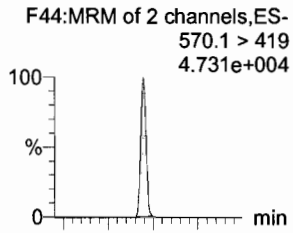


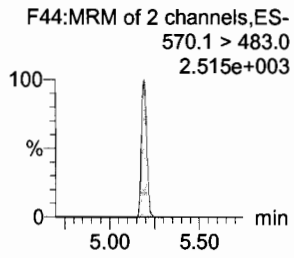
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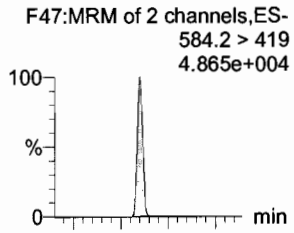


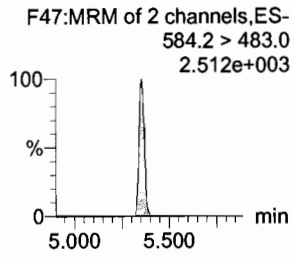
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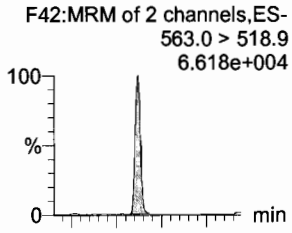


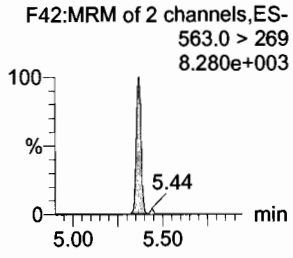
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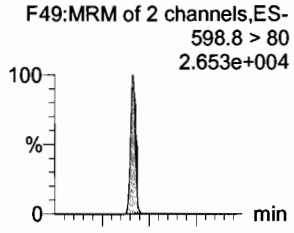


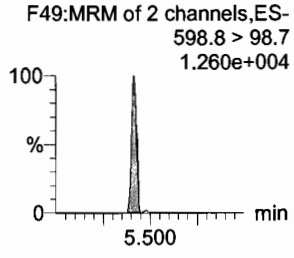
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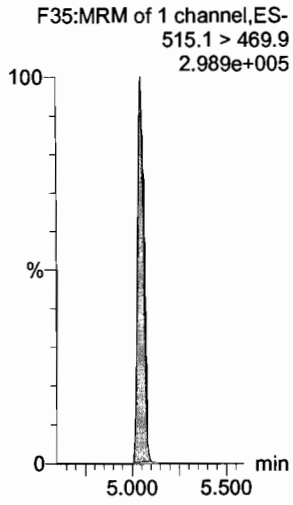


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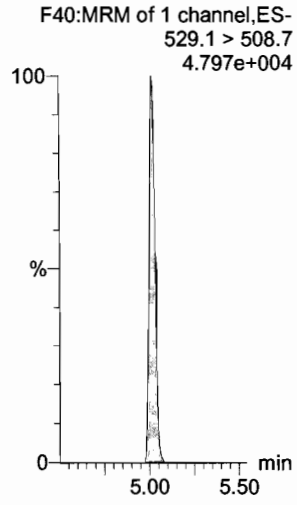




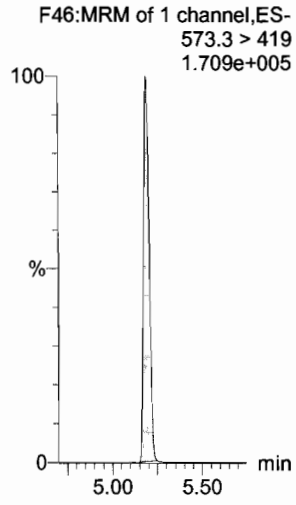
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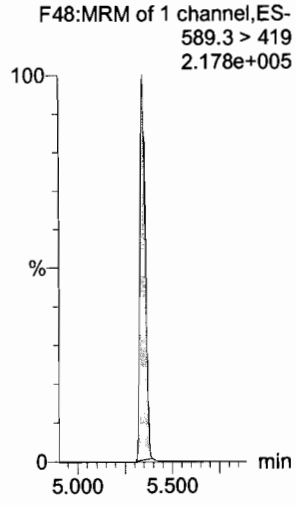
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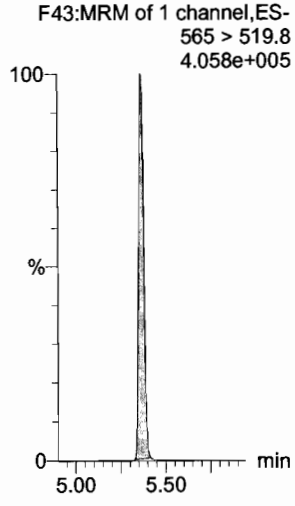
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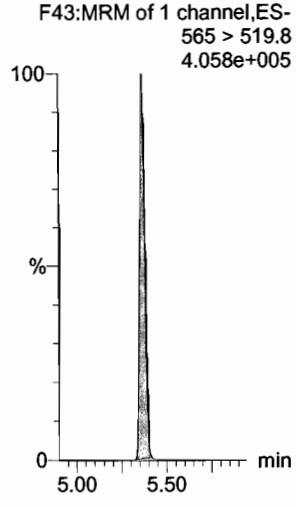
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13C2-PFUdA



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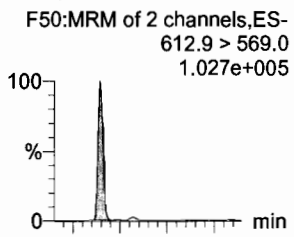


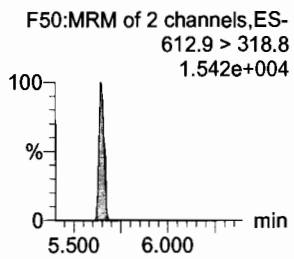
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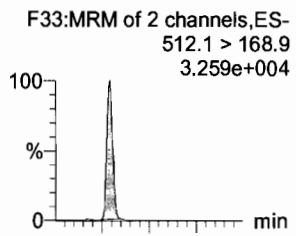
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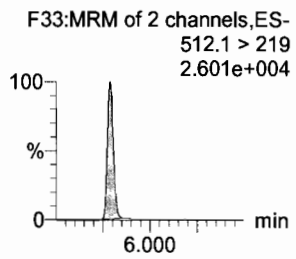
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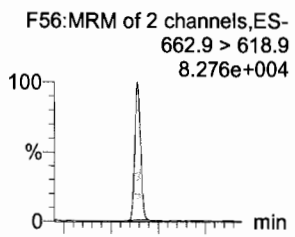


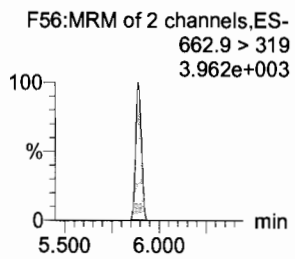
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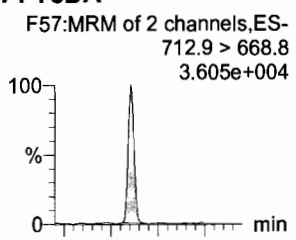


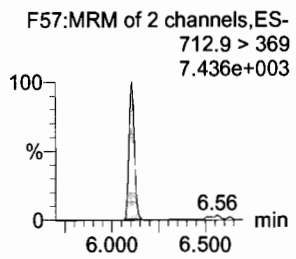
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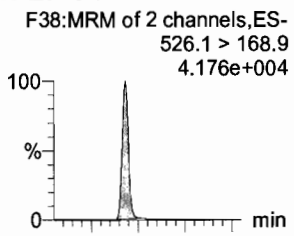


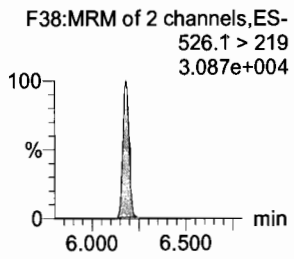
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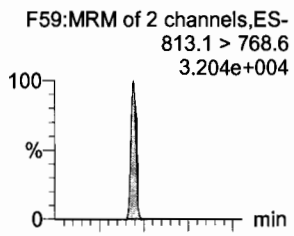


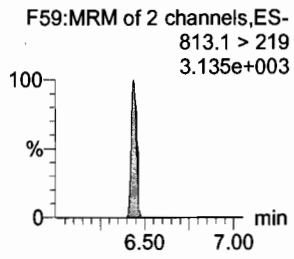
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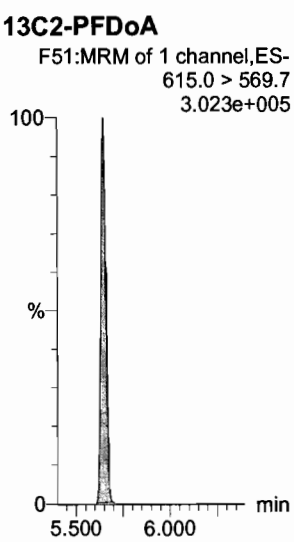


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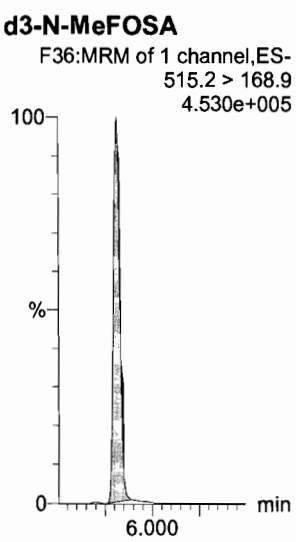




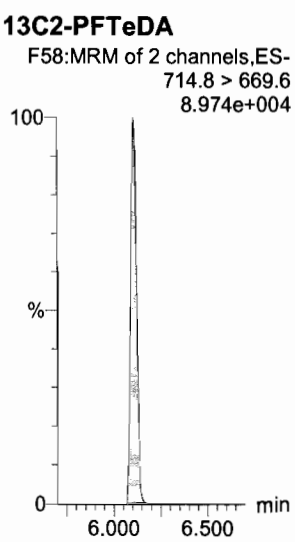
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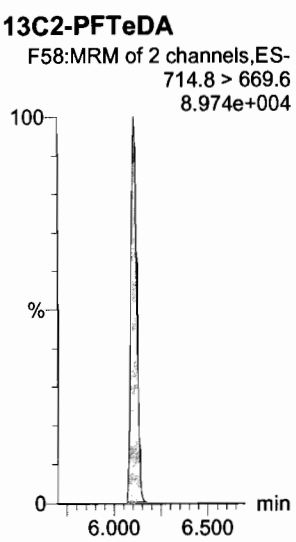
d3-N-MeFOSA



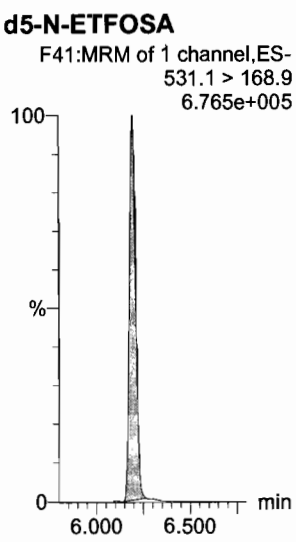
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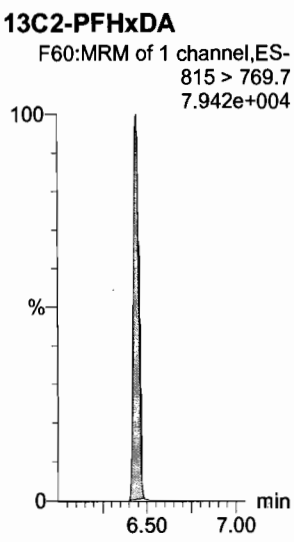
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d5-N-ETFOSA



13C2-PFHxDA

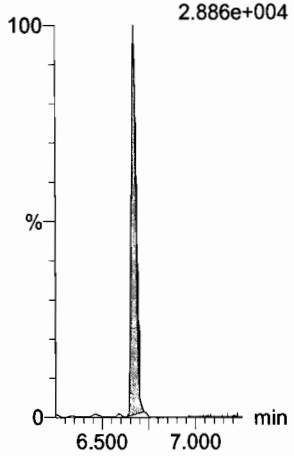


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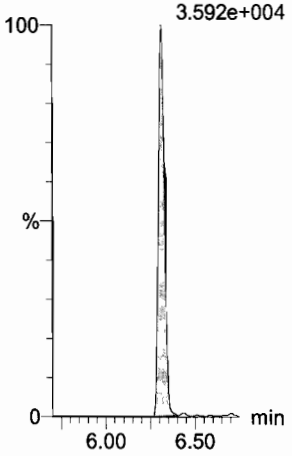
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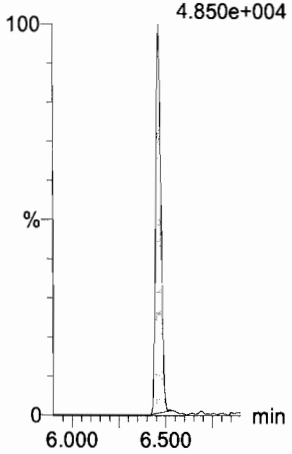
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.886e+004



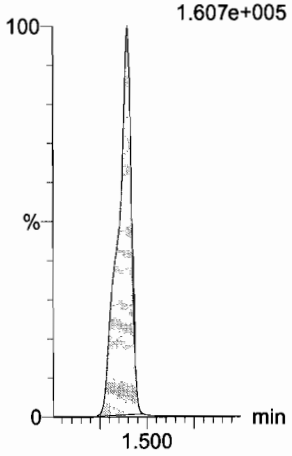
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.592e+004



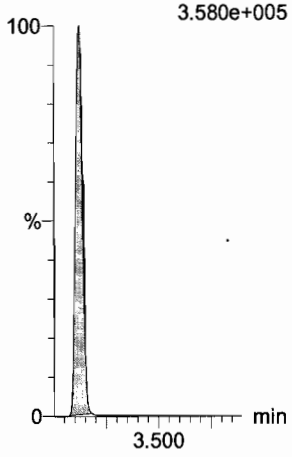
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
4.850e+004



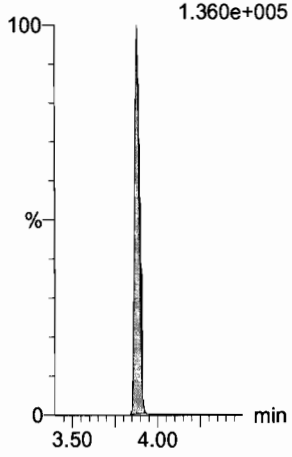
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.607e+005



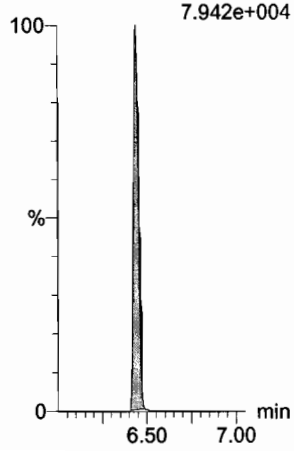
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F10:MRM of 1 channel,ES-
318 > 272.9
3.580e+005



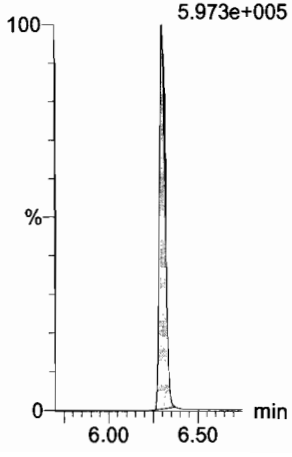
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F16:MRM of 1 channel,ES-
401.9 > 79.9
1.360e+005



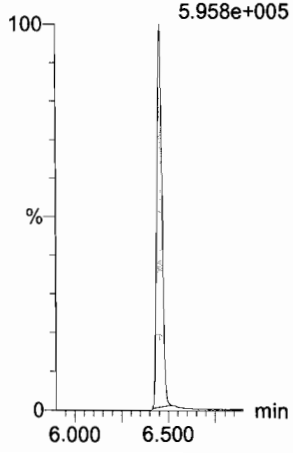
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
7.942e+004



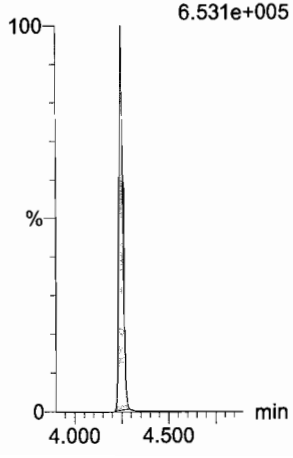
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.973e+005



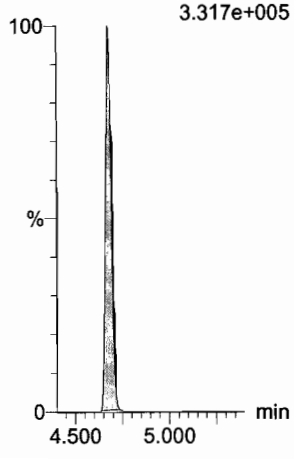
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.958e+005



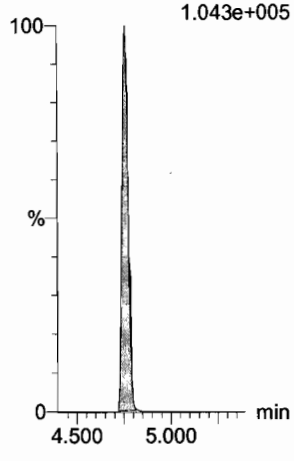
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
6.531e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.317e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.043e+005

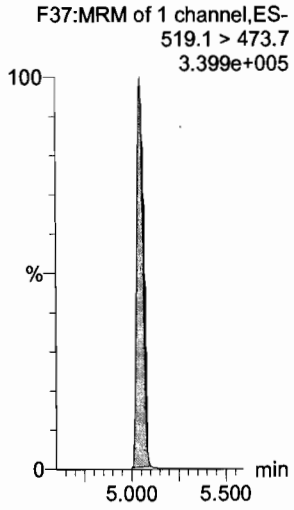


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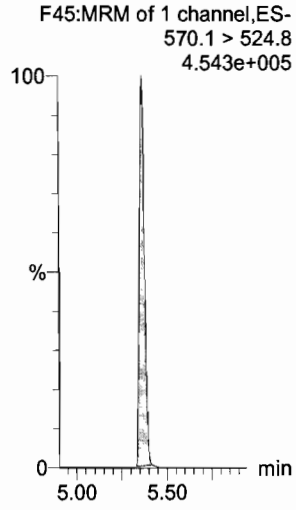
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Name: 171229M2_5, Date: 29-Dec-2017, Time: 14:05:15, ID: ST171229M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

13C6-PFDA



13C7-PFUdA

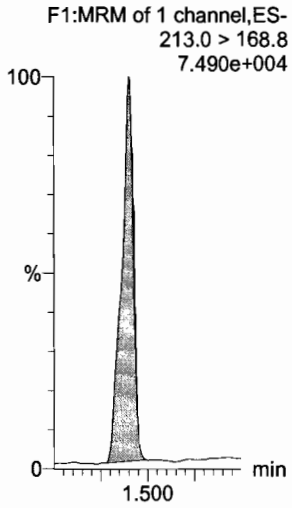


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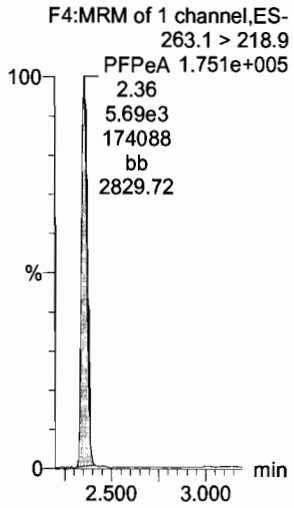
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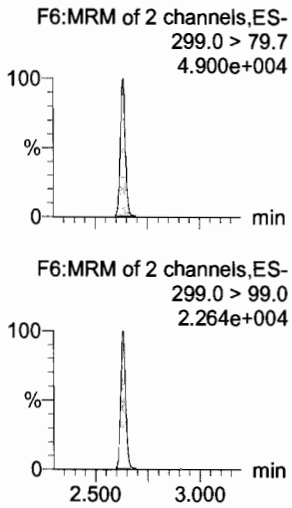
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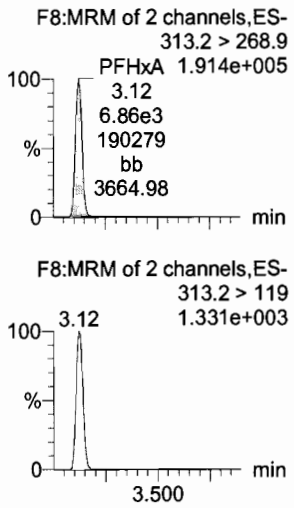
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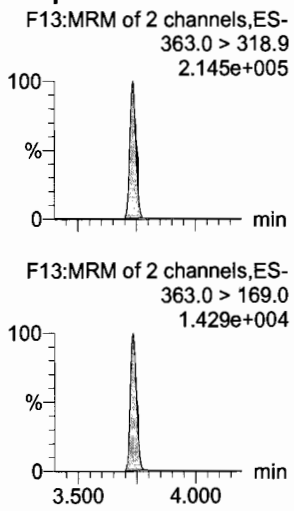
PFBS



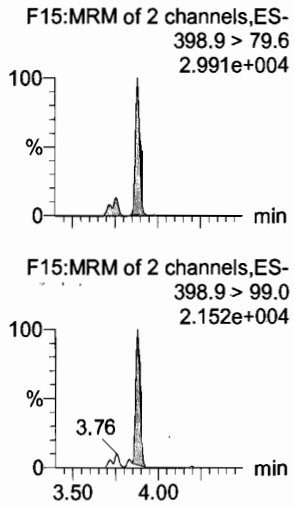
PFHxA



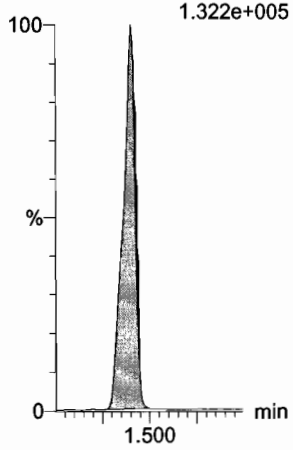
PFHpA



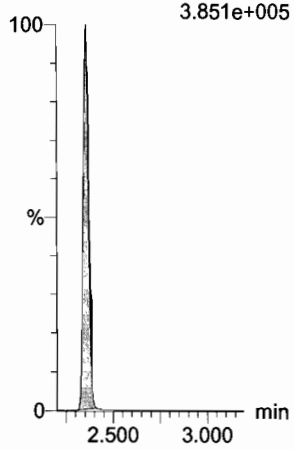
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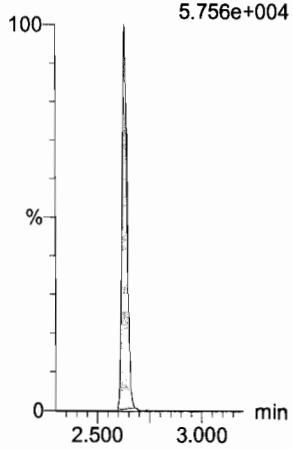
13C3-PFBA



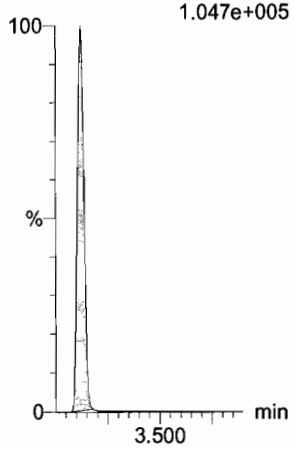
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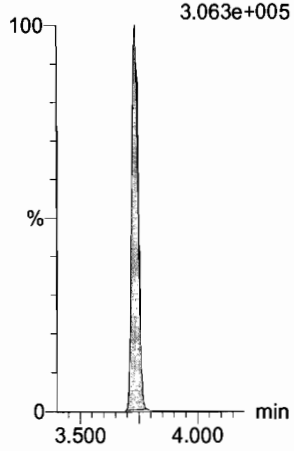
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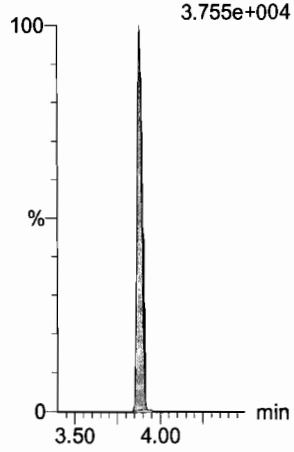
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13C4-PFHpA



18O2-PFHxS

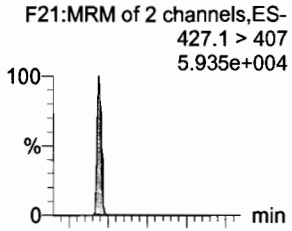


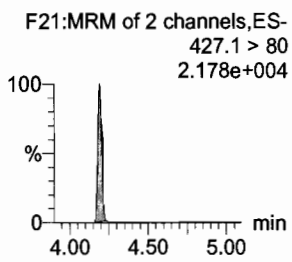
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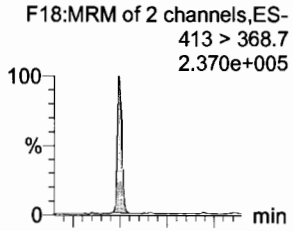
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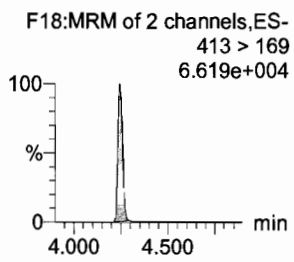
6:2 FTS



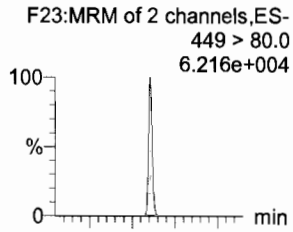


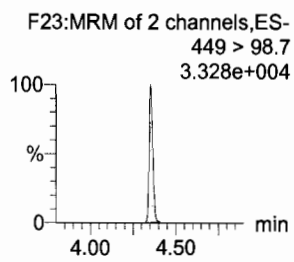
L-PFOA



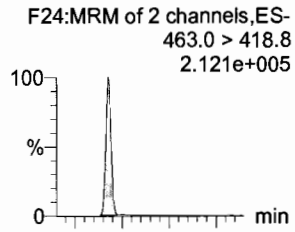


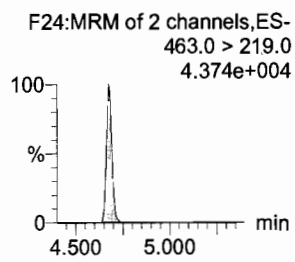
PFHpS



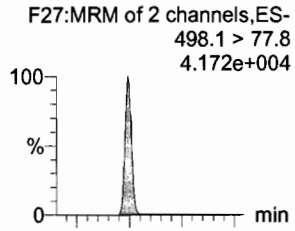


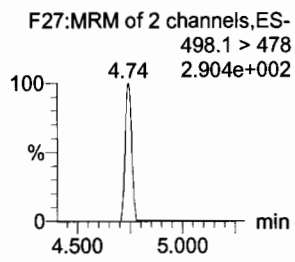
PFNA



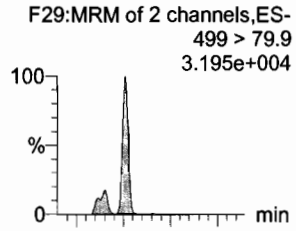


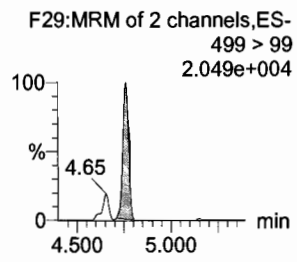
PFOSA



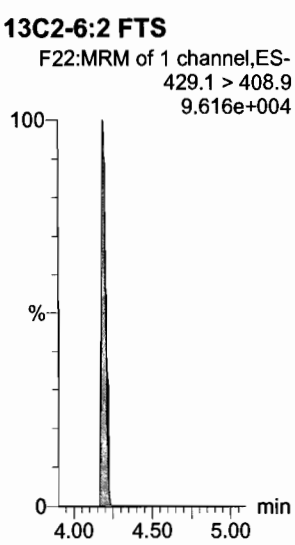


L-PFOS

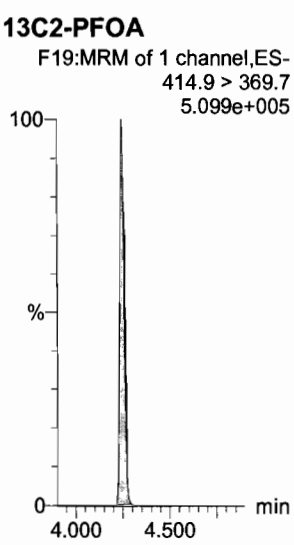




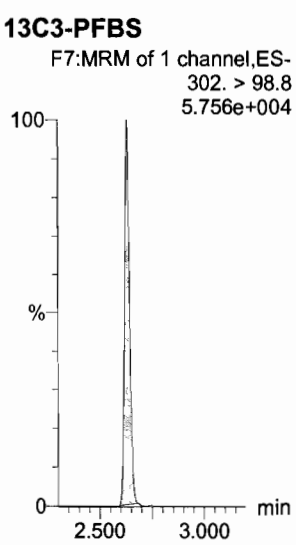
13C2-6:2 FTS



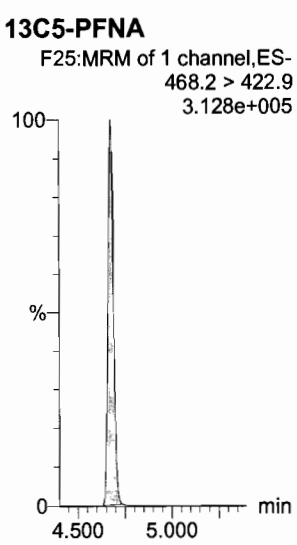
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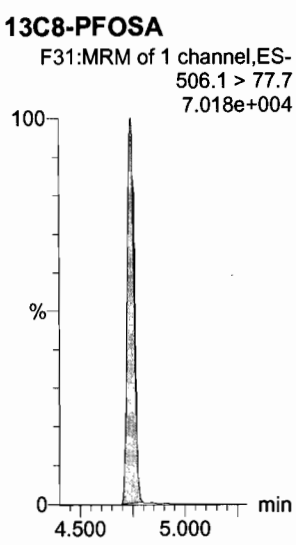
13C3-PFBS



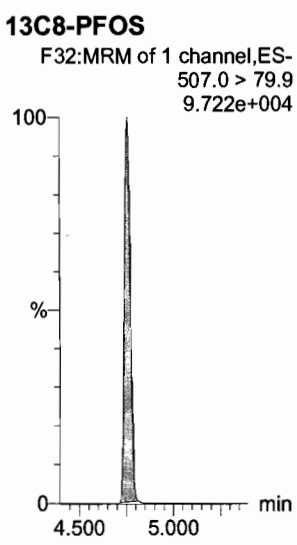
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13C8-PFOSA



13C8-PFOS

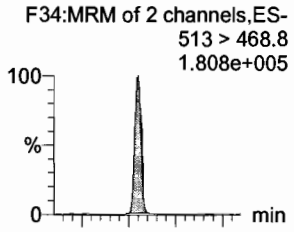


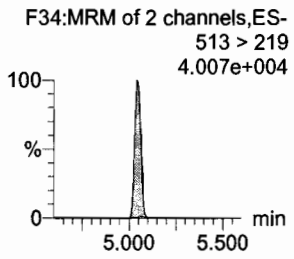
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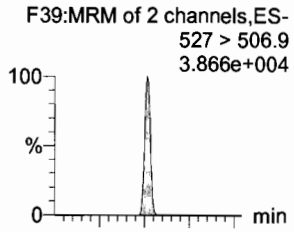
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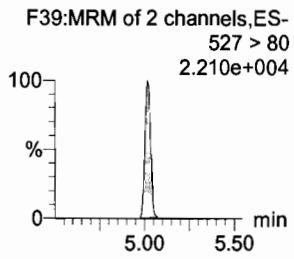
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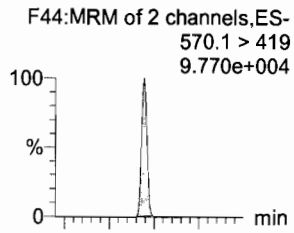


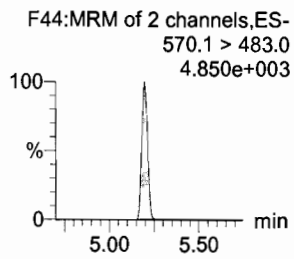
8:2 FTS



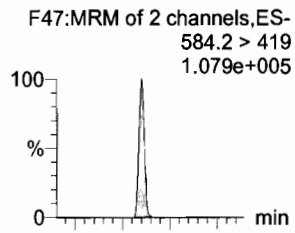


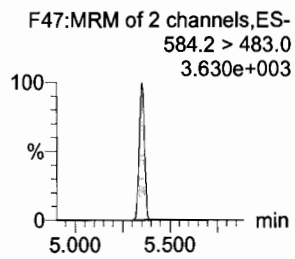
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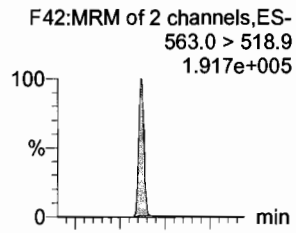


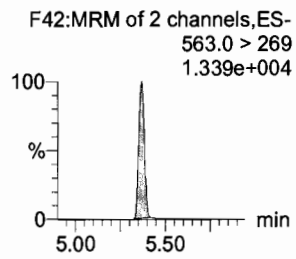
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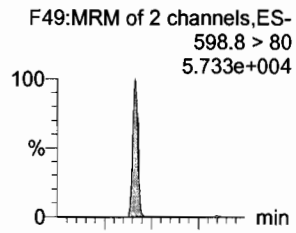


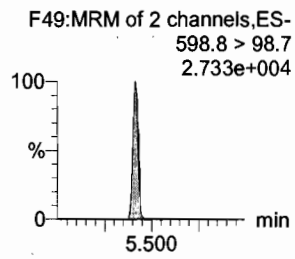
PFUdA



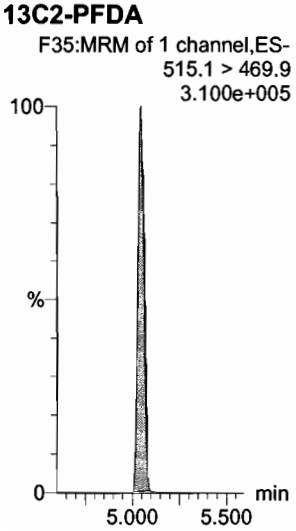


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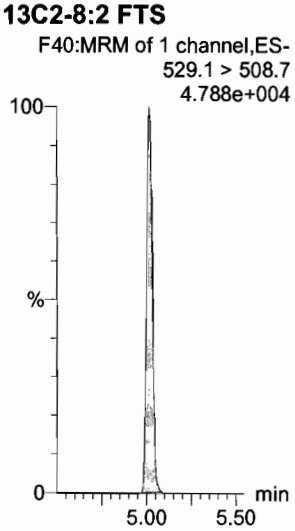




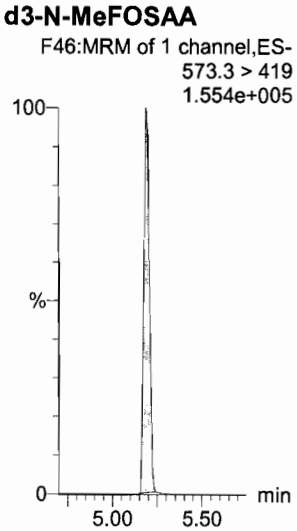
13C2-PFDA



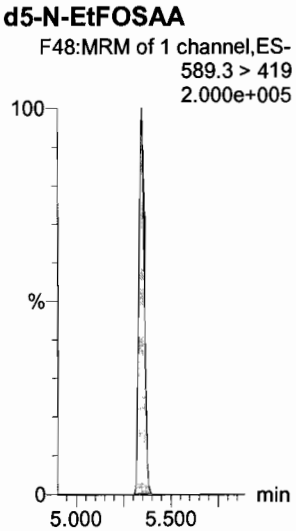
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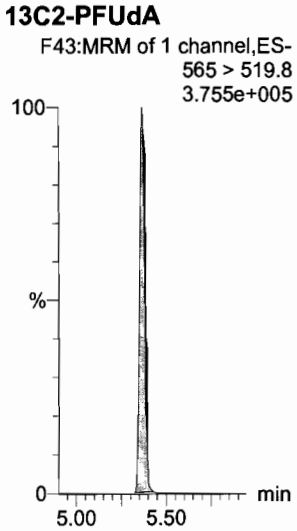
d3-N-MeFOSAA



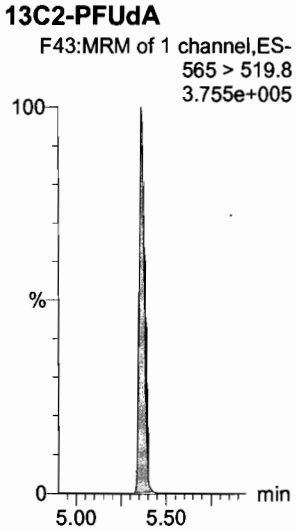
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

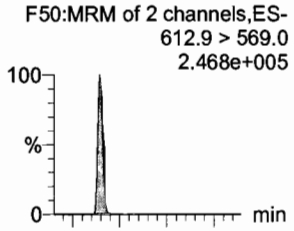


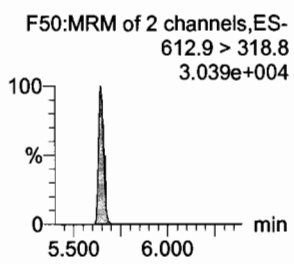
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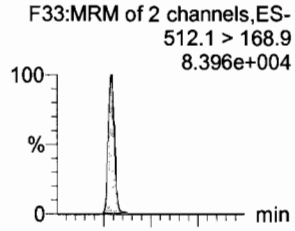
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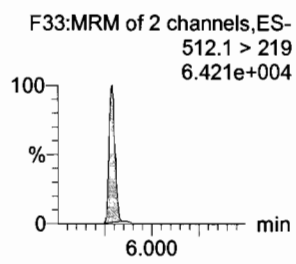
PFDoA



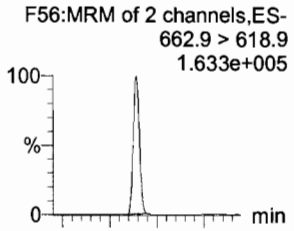


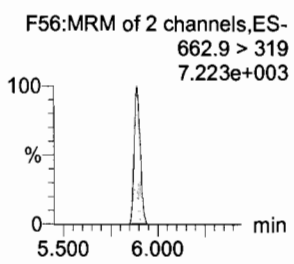
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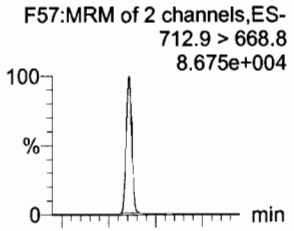


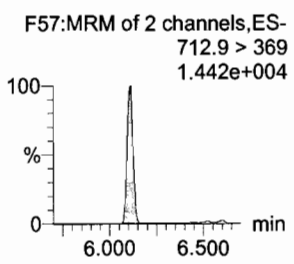
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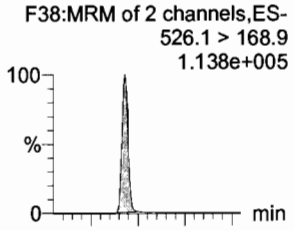


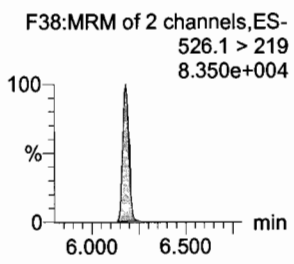
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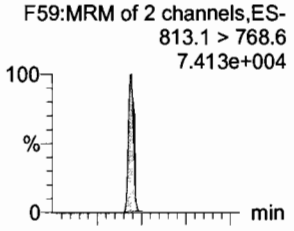


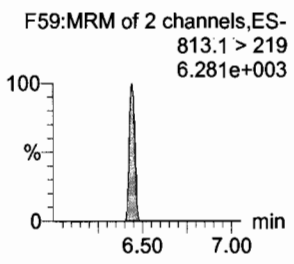
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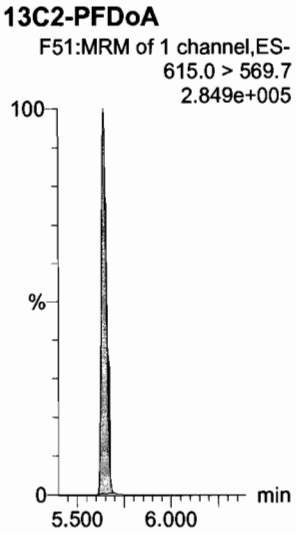


PFHxDA

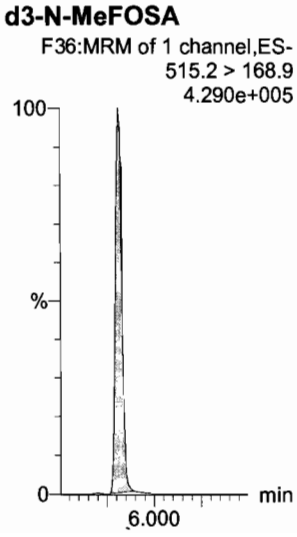




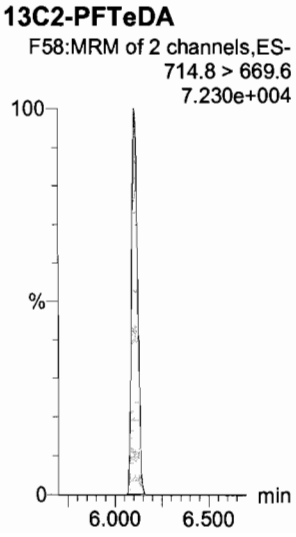
13C2-PFDoA



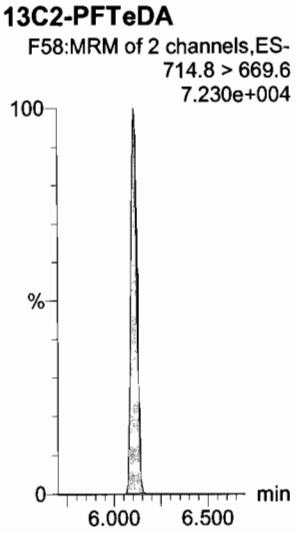
d3-N-MeFOSA



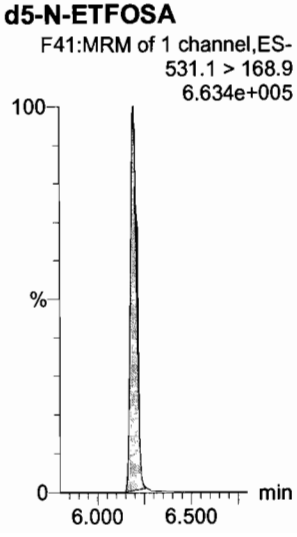
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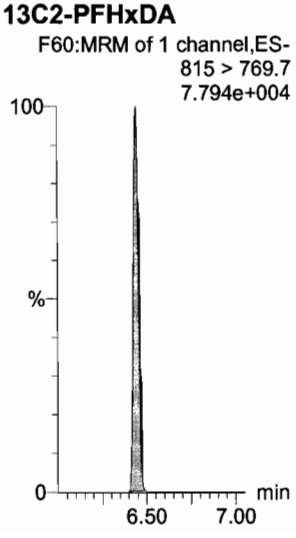
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

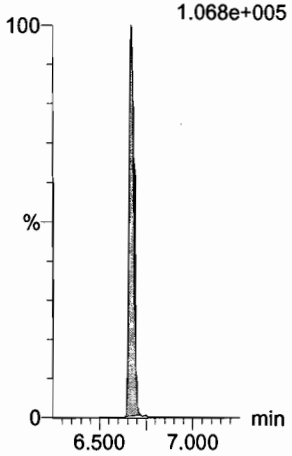


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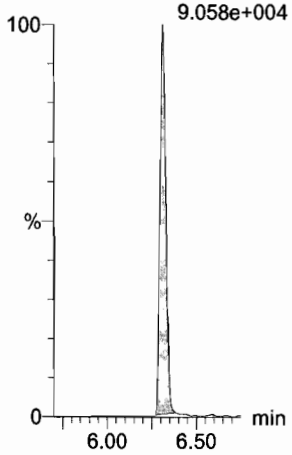
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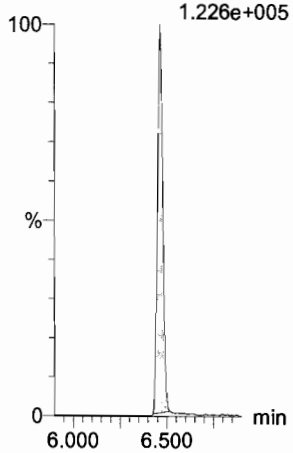
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.068e+005



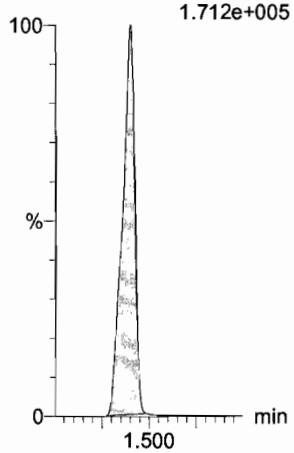
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F52:MRM of 1 channel,ES-
616.1 > 58.9
9.058e+004



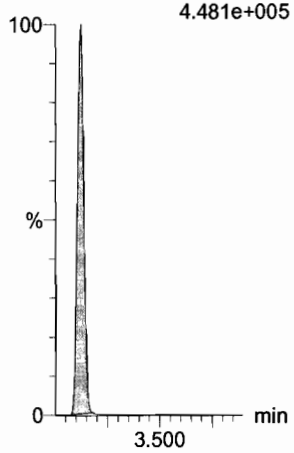
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.226e+005



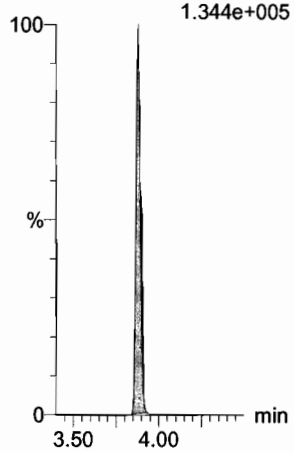
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.712e+005



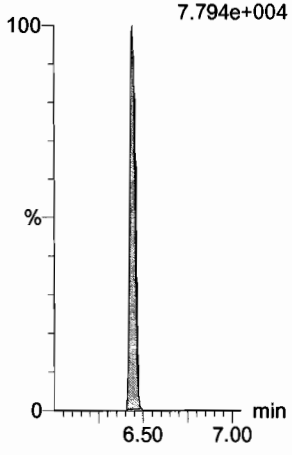
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.481e+005



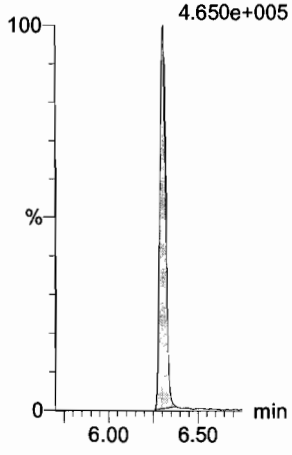
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.344e+005



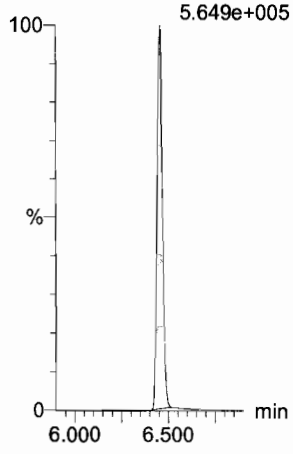
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
7.794e+004



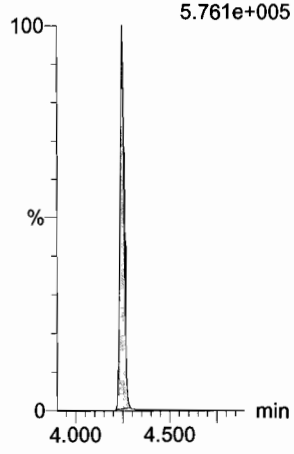
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.650e+005



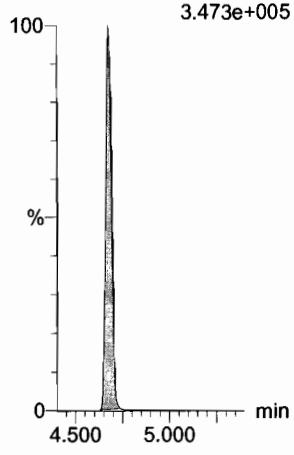
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.649e+005



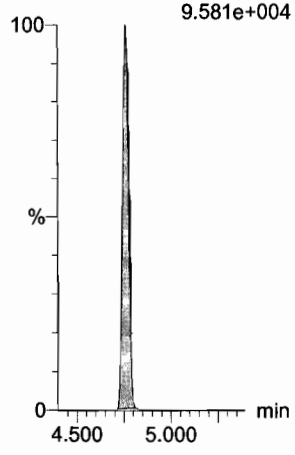
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.761e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.473e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.581e+004

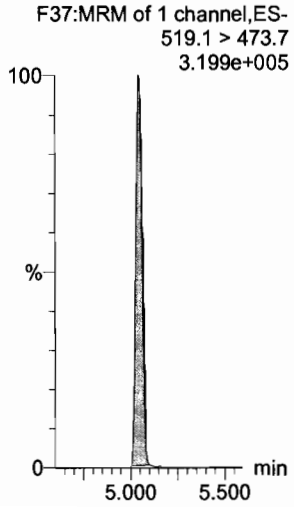


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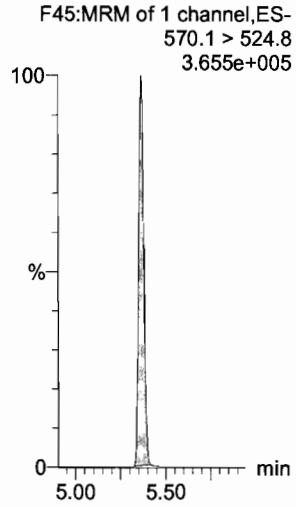
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13C6-PFDA



13C7-PFUdA

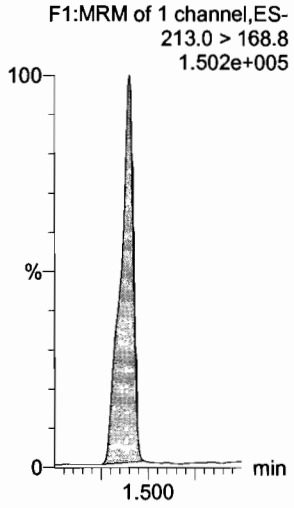


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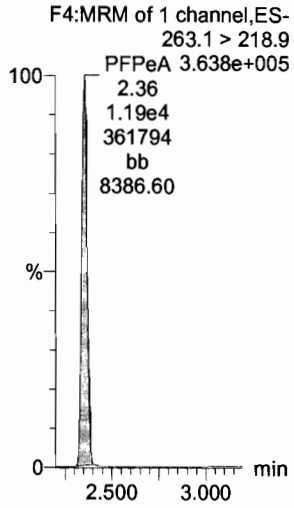
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Name: 171229M2_7, Date: 29-Dec-2017, Time: 14:27:38, ID: ST171229M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

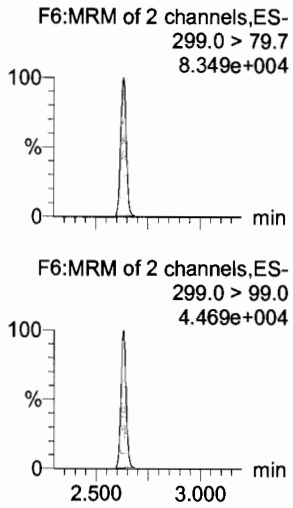
PFBA



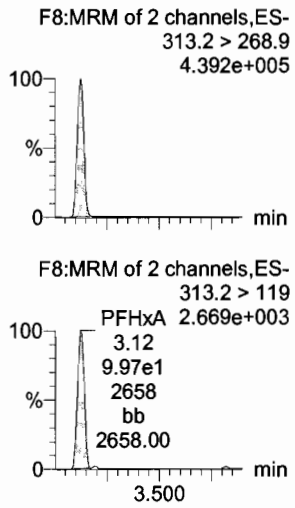
PFPeA



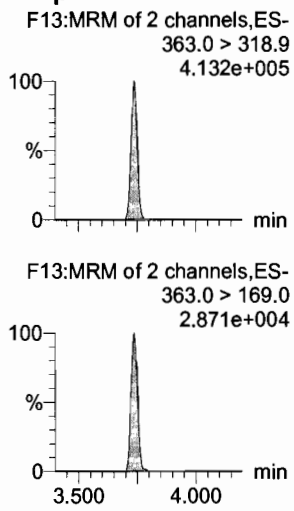
PFBS



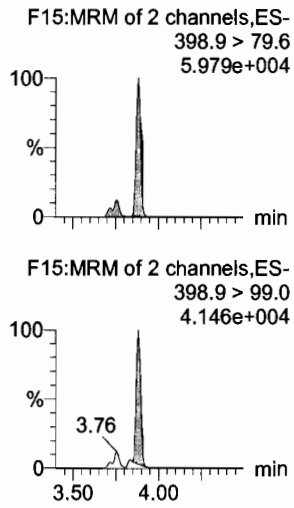
PFHxA



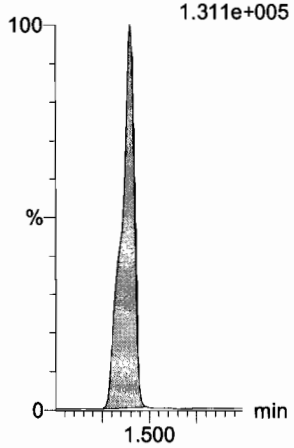
PFHpA



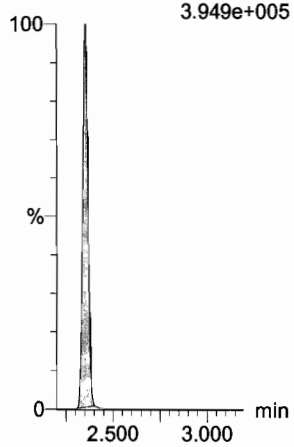
L-PFHxS



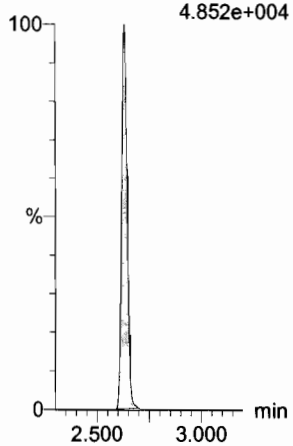
13C3-PFBA



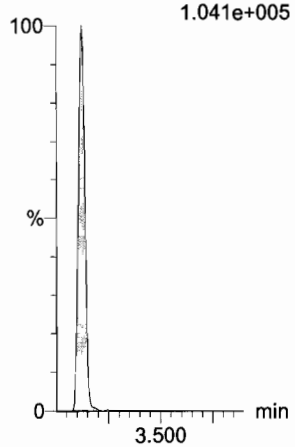
13C3-PFPeA



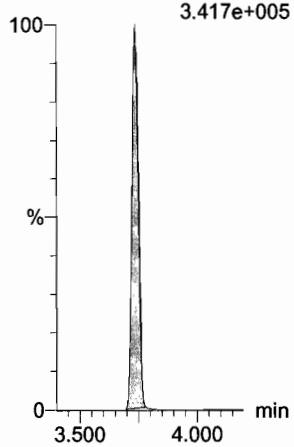
13C3-PFBS



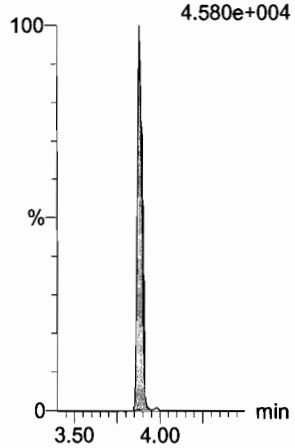
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

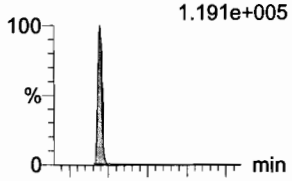


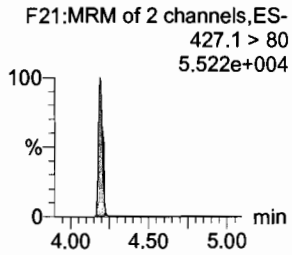
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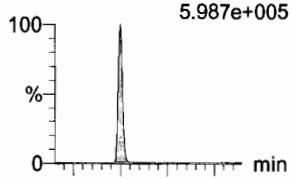
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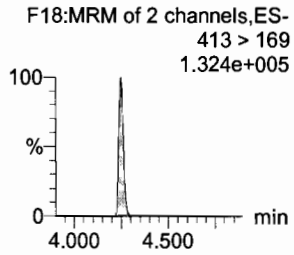
6:2 FTS



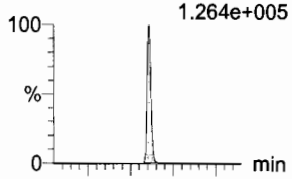


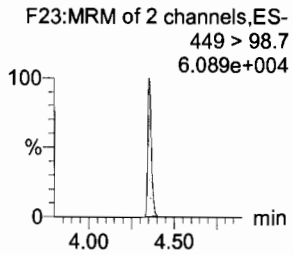
L-PFOA



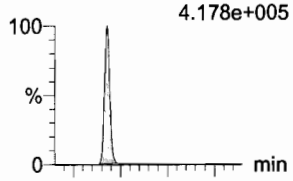


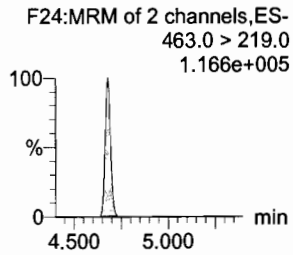
PFHpS



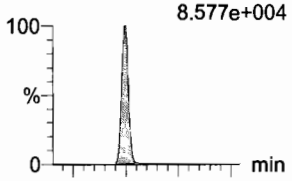


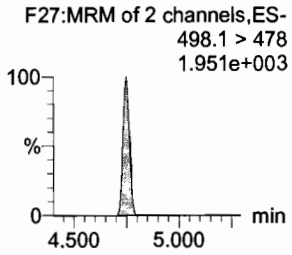
PFNA



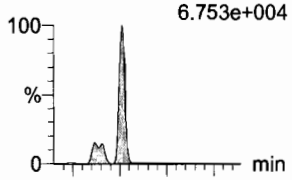


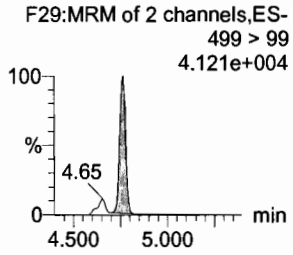
PFOSA



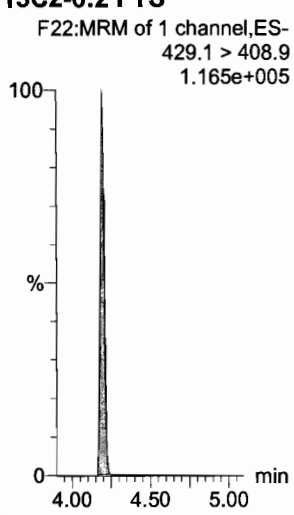


L-PFOS

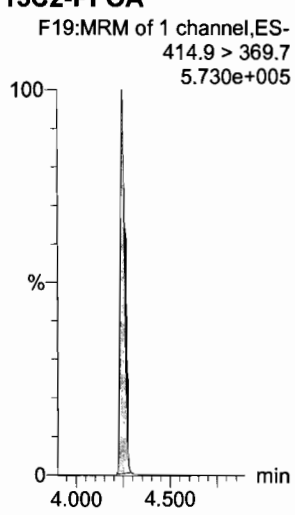




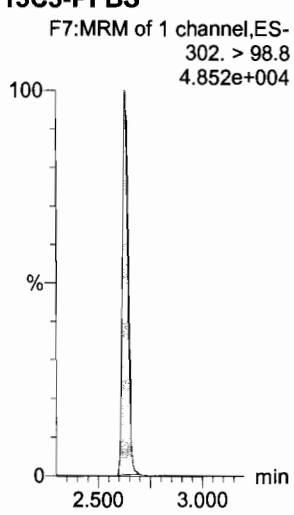
13C2-6:2 FTS



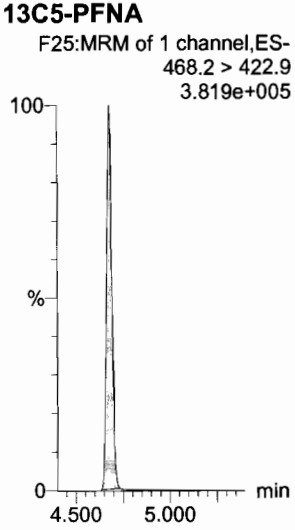
13C2-PFOA



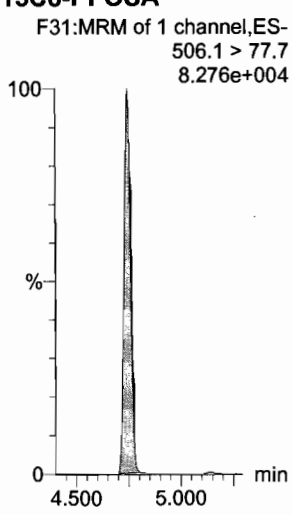
13C3-PFBS



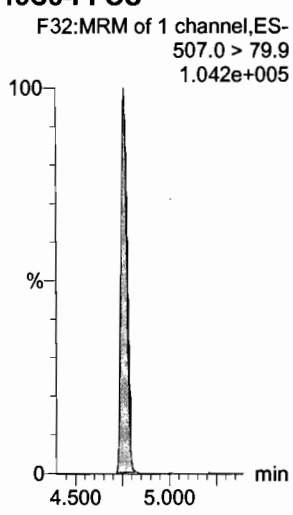
13C5-PFNA



13C8-PFOSA



13C8-PFOS

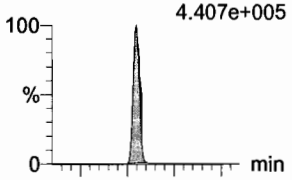


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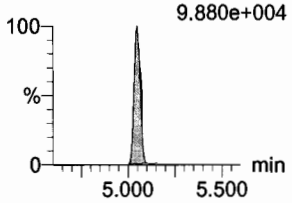
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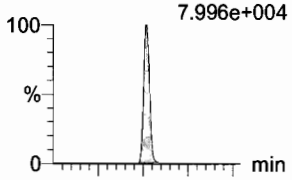
PFDA
F34:MRM of 2 channels,ES-
513 > 468.8
4.407e+005



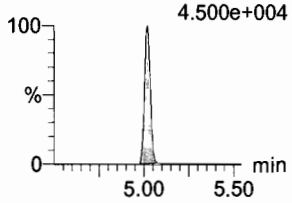
F34:MRM of 2 channels,ES-
513 > 219
9.880e+004



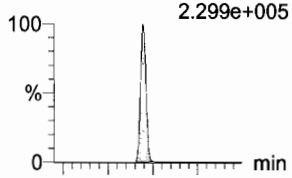
8:2 FTS
F39:MRM of 2 channels,ES-
527 > 506.9
7.996e+004



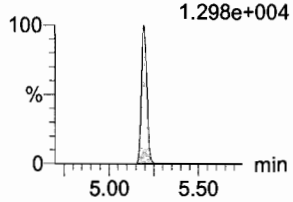
F39:MRM of 2 channels,ES-
527 > 80
4.500e+004



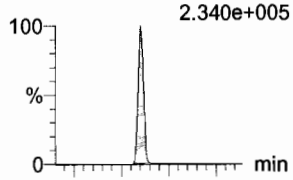
N-MeFOSAA
F44:MRM of 2 channels,ES-
570.1 > 419
2.299e+005



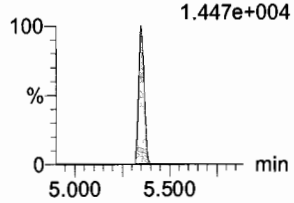
F44:MRM of 2 channels,ES-
570.1 > 483.0
1.298e+004



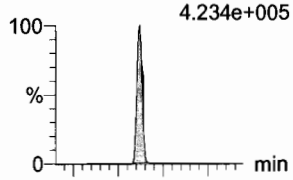
N-EtFOSAA
F47:MRM of 2 channels,ES-
584.2 > 419
2.340e+005



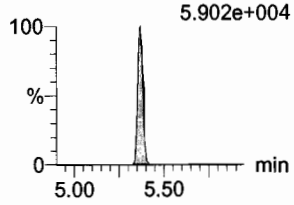
F47:MRM of 2 channels,ES-
584.2 > 483.0
1.447e+004



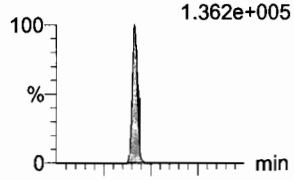
PFUdA
F42:MRM of 2 channels,ES-
563.0 > 518.9
4.234e+005



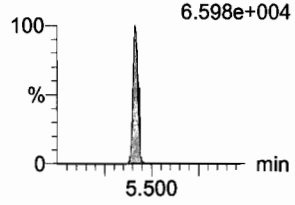
F42:MRM of 2 channels,ES-
563.0 > 269
5.902e+004



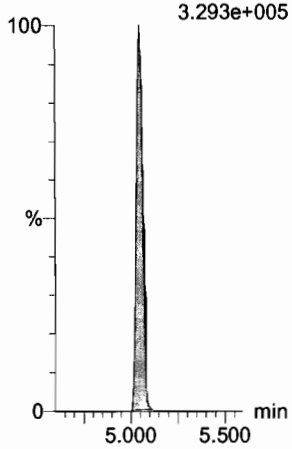
PFDS
F49:MRM of 2 channels,ES-
598.8 > 80
1.362e+005



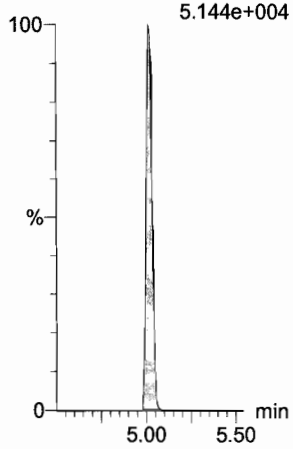
F49:MRM of 2 channels,ES-
598.8 > 98.7
6.598e+004



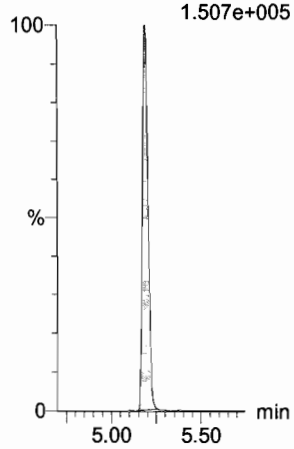
13C2-PFDA
F35:MRM of 1 channel,ES-
515.1 > 469.9
3.293e+005



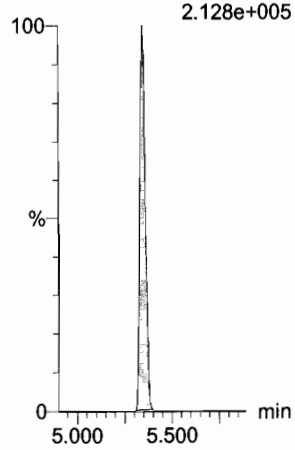
13C2-8:2 FTS
F40:MRM of 1 channel,ES-
529.1 > 508.7
5.144e+004



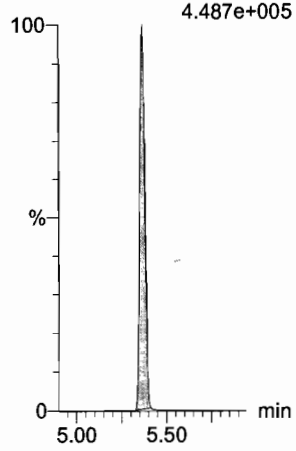
d3-N-MeFOSAA
F46:MRM of 1 channel,ES-
573.3 > 419
1.507e+005



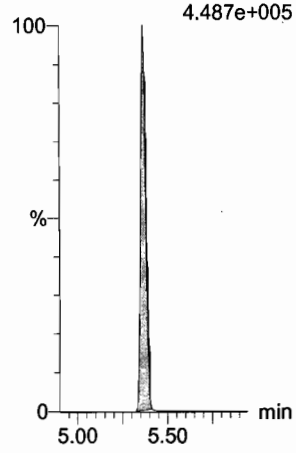
d5-N-EtFOSAA
F48:MRM of 1 channel,ES-
589.3 > 419
2.128e+005



13C2-PFUdA
F43:MRM of 1 channel,ES-
565 > 519.8
4.487e+005



13C2-PFUdA
F43:MRM of 1 channel,ES-
565 > 519.8
4.487e+005

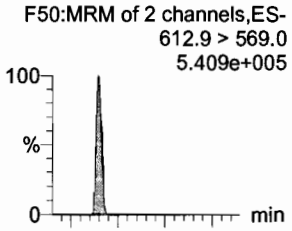


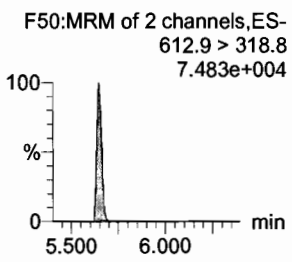
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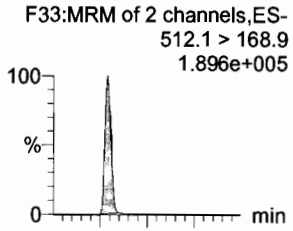
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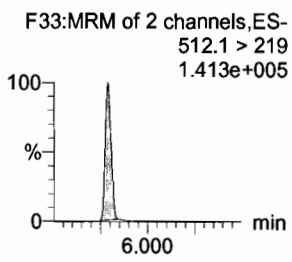
PFDoA



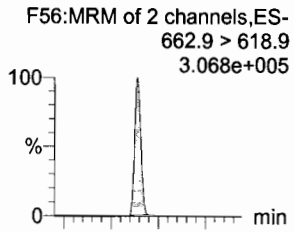


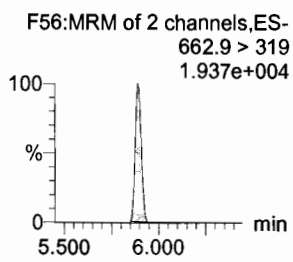
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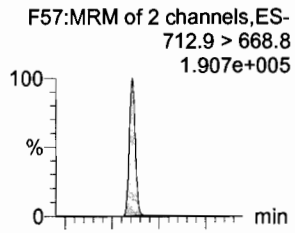


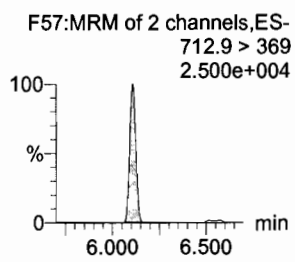
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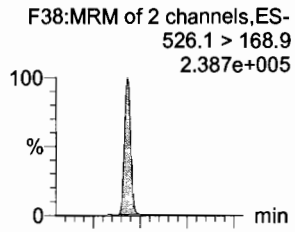


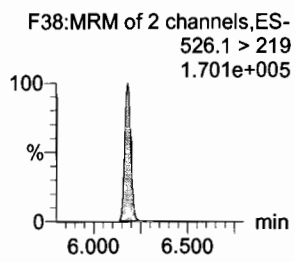
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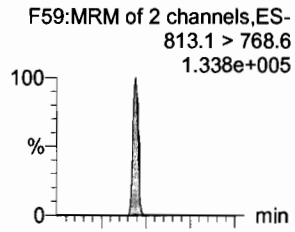


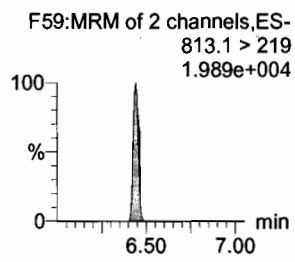
N-EtFOSA



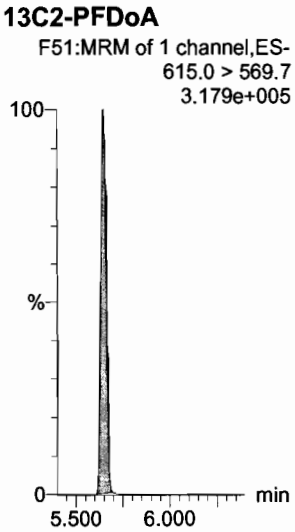


PFHxDA

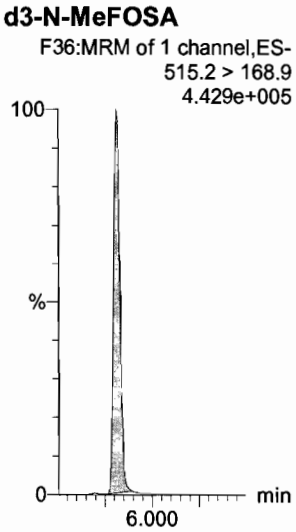




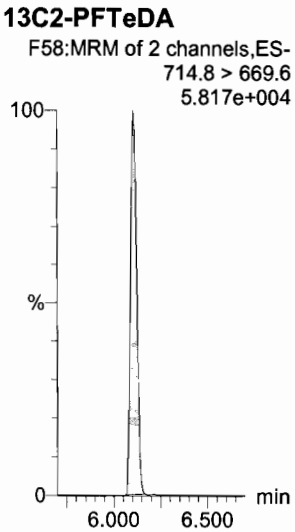
13C2-PFDoA



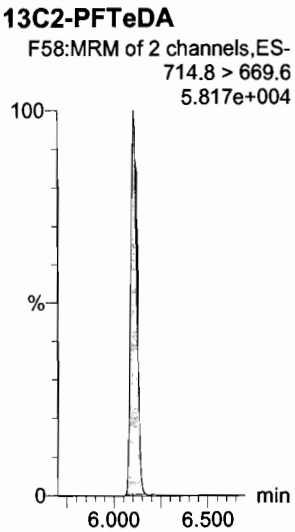
d3-N-MeFOSA



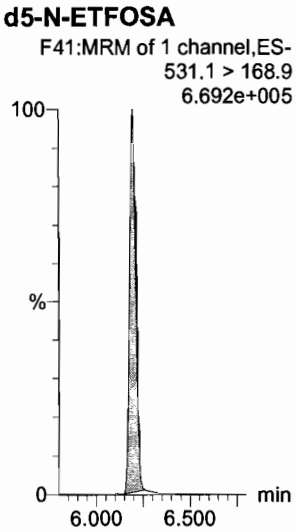
13C2-PFTeDA



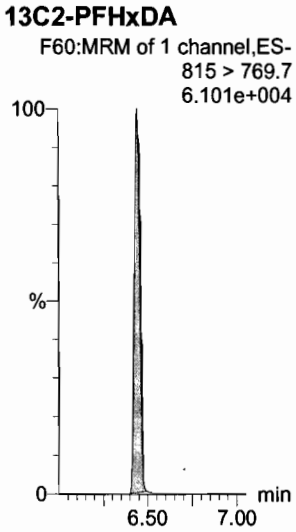
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

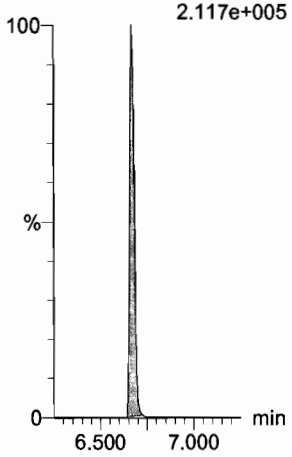


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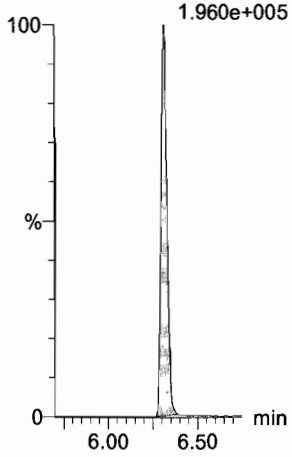
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Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_7, Date: 29-Dec-2017, Time: 14:27:38, ID: ST171229M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

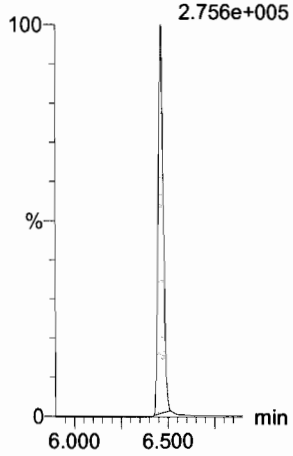
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.117e+005



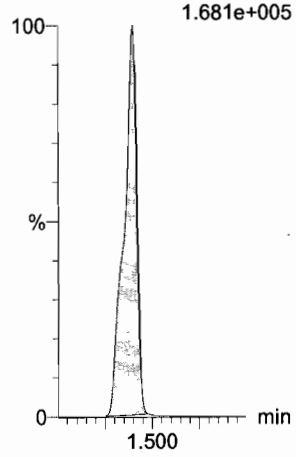
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.960e+005



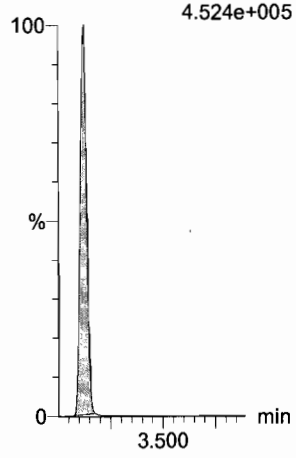
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.756e+005



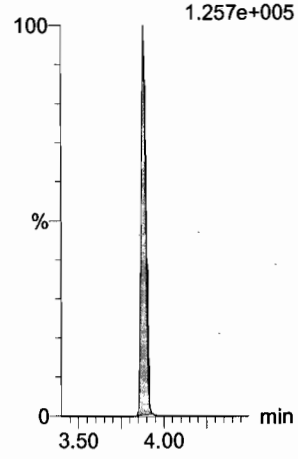
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.681e+005



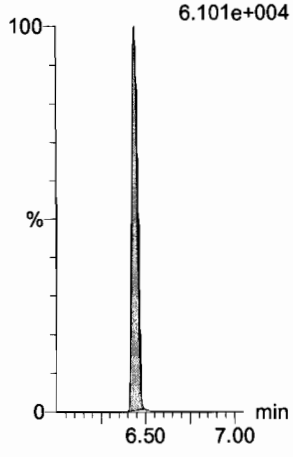
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.524e+005



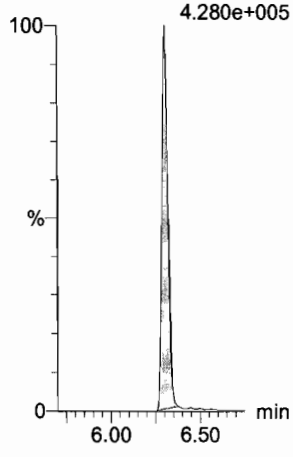
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.257e+005



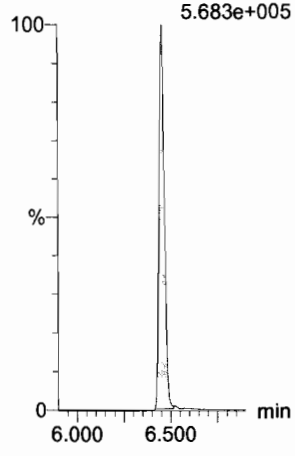
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.101e+004



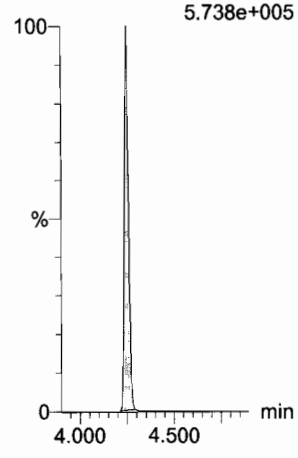
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.280e+005



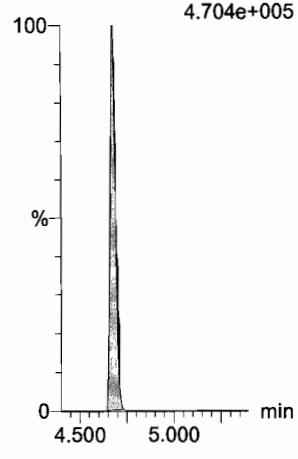
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.683e+005



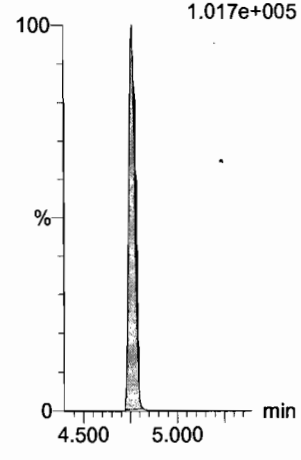
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.738e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.704e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.017e+005

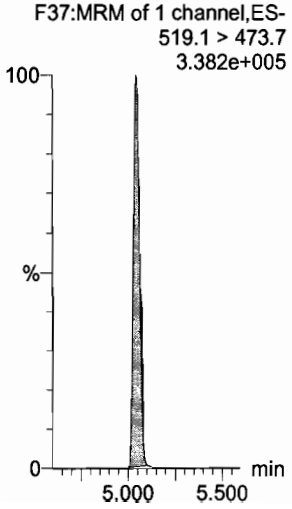


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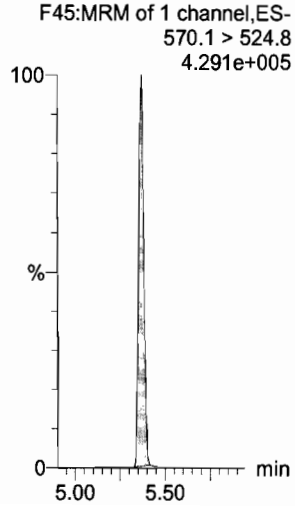
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Name: 171229M2_7, Date: 29-Dec-2017, Time: 14:27:38, ID: ST171229M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

13C6-PFDA



13C7-PFUdA

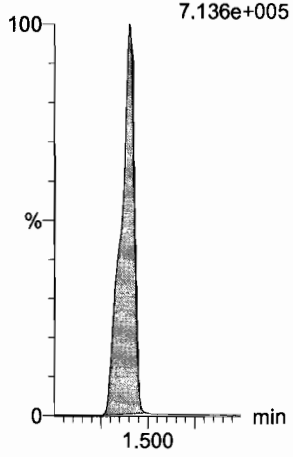


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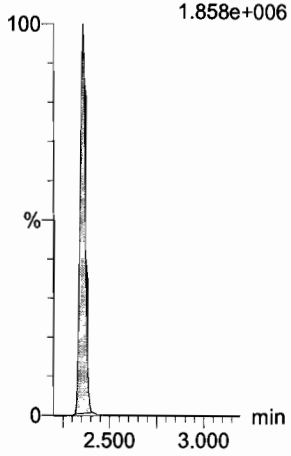
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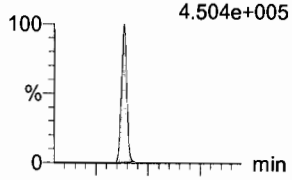
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
7.136e+005



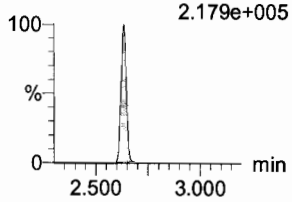
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
1.858e+006



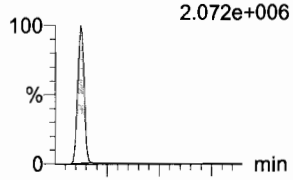
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
4.504e+005



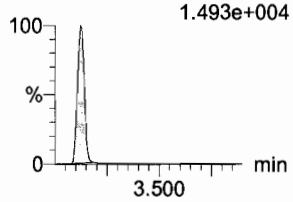
F6:MRM of 2 channels,ES-
299.0 > 99.0
2.179e+005



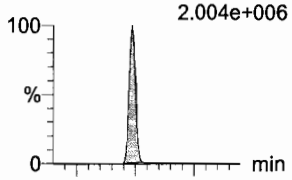
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
2.072e+006



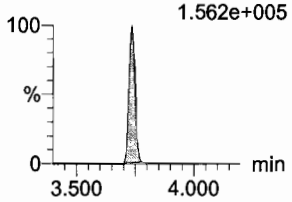
F8:MRM of 2 channels,ES-
313.2 > 119
1.493e+004



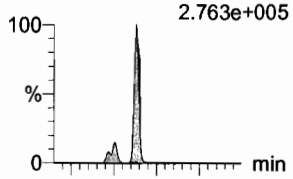
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
2.004e+006



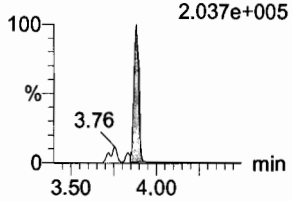
F13:MRM of 2 channels,ES-
363.0 > 169.0
1.562e+005



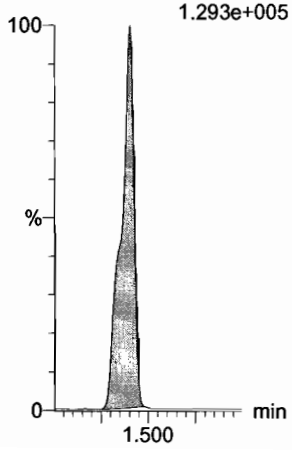
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
2.763e+005



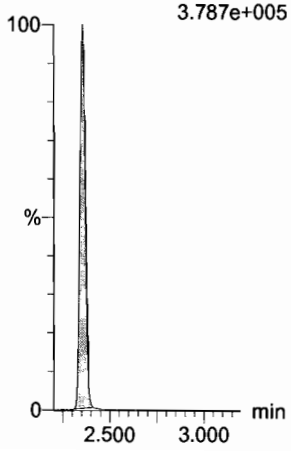
F15:MRM of 2 channels,ES-
398.9 > 99.0
2.037e+005



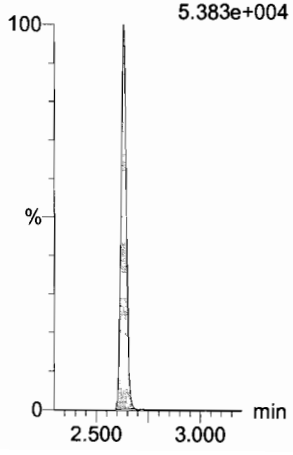
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.293e+005



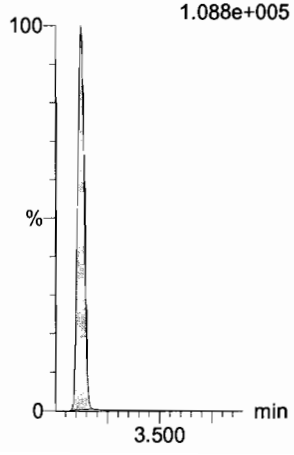
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.787e+005



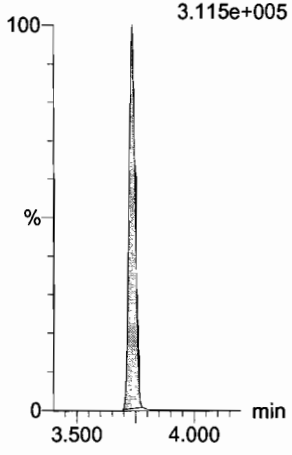
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
5.383e+004



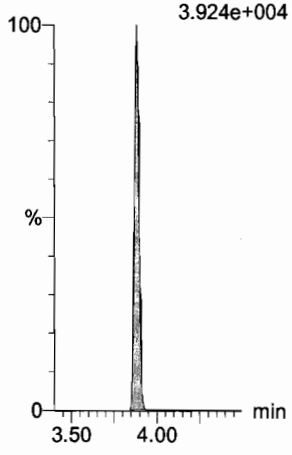
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.088e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
3.115e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
3.924e+004

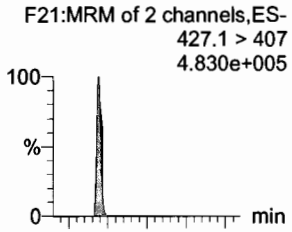


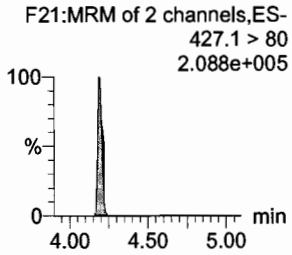
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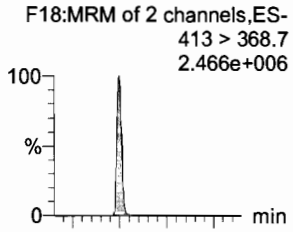
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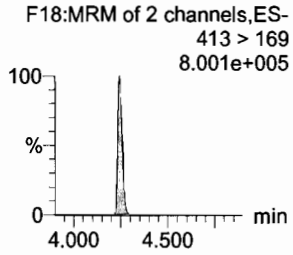
6:2 FTS



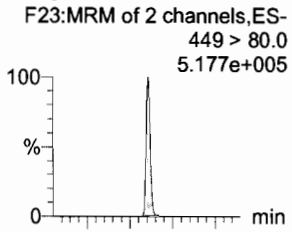


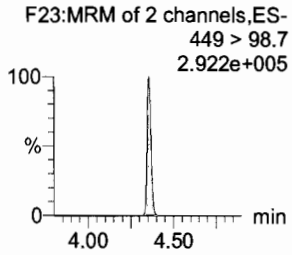
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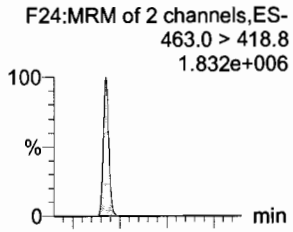


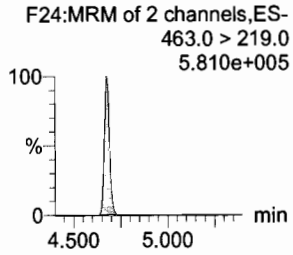
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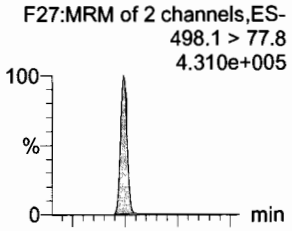


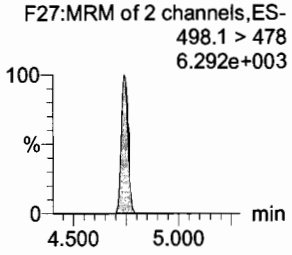
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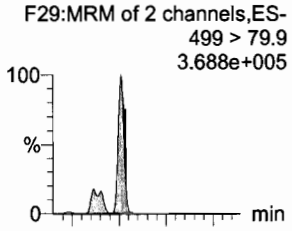


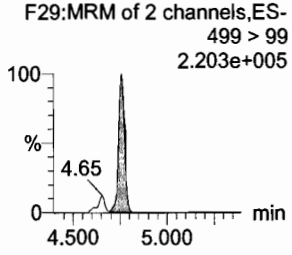
PFOSA



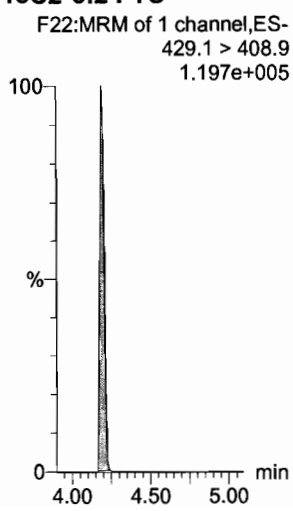


L-PFOS

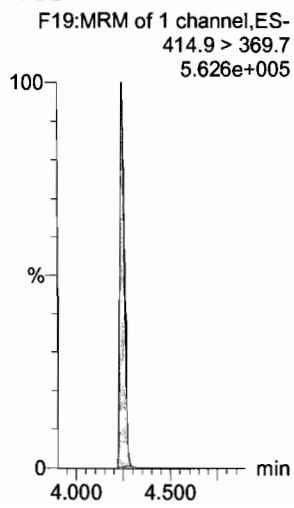




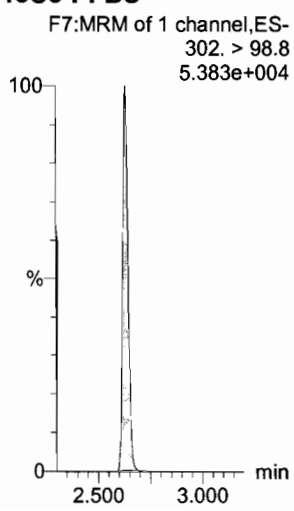
13C2-6:2 FTS



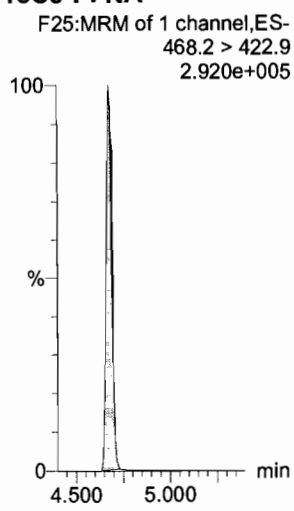
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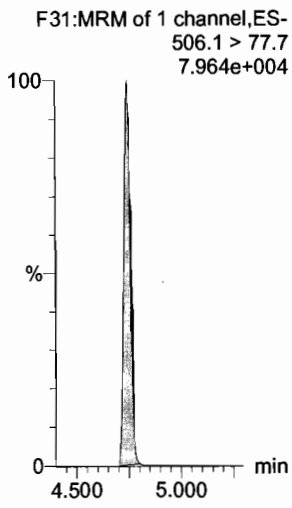
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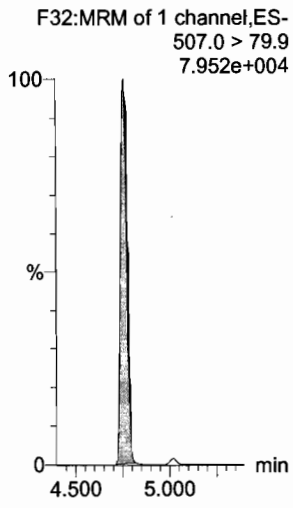
13C5-PFNA



13C8-PFOSA



13C8-PFOS

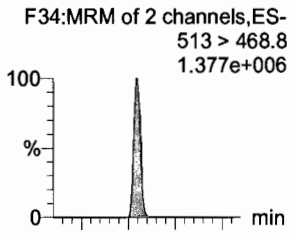


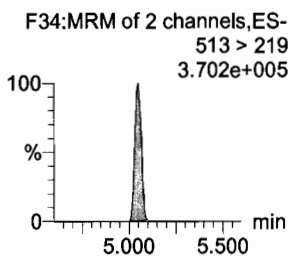
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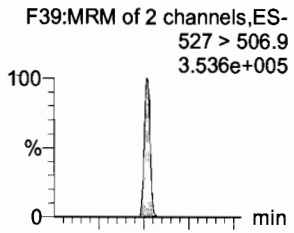
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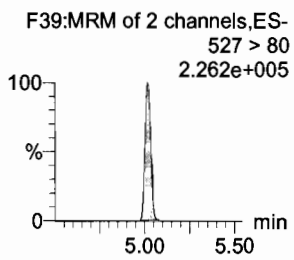
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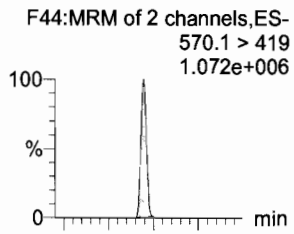


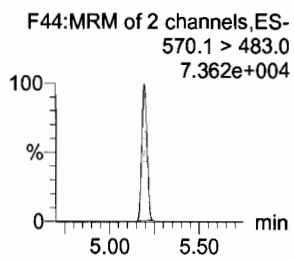
8:2 FTS



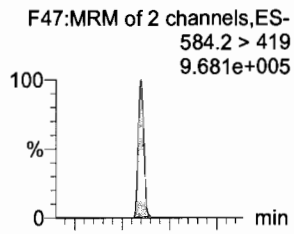


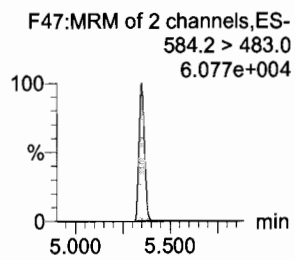
N-MeFOSAA



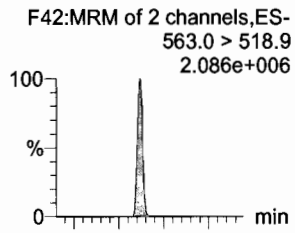


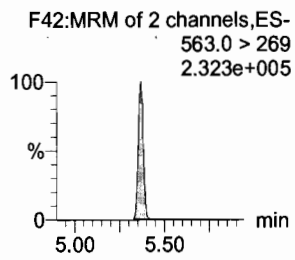
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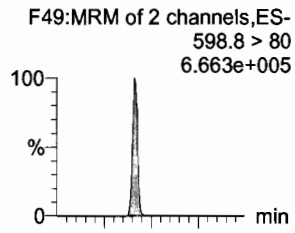


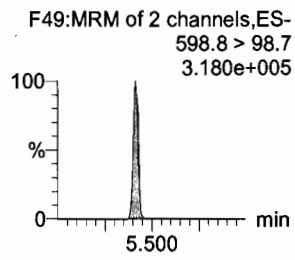
PFUdA



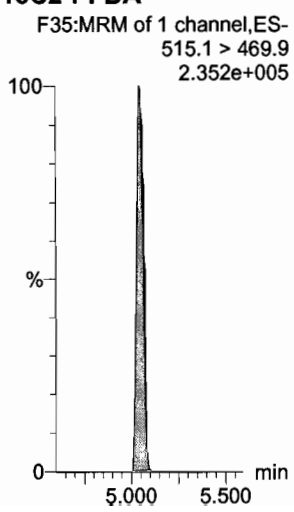


PFDS

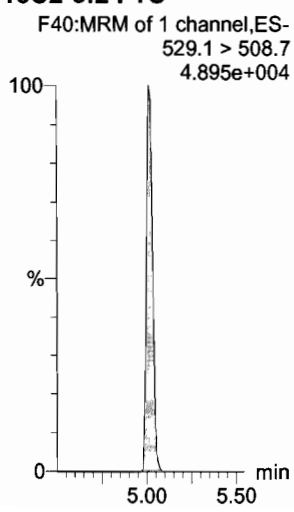




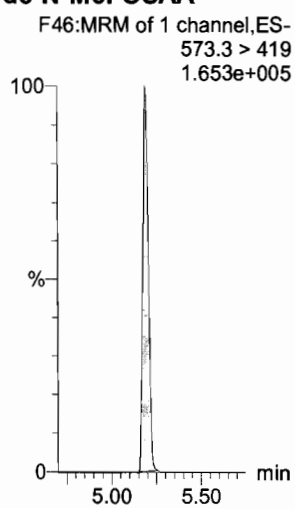
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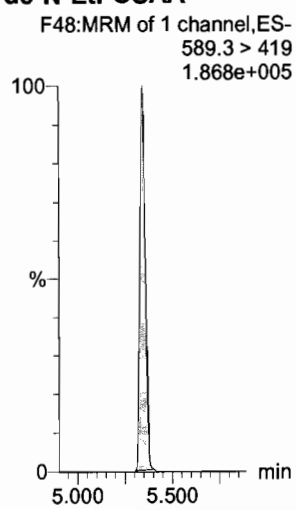
13C2-8:2 FTS



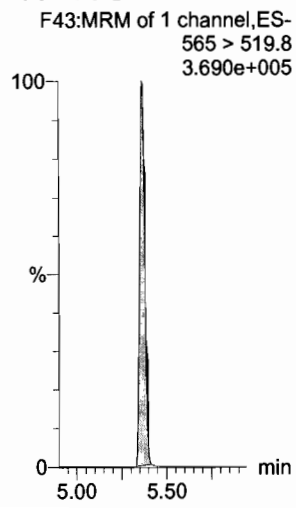
d3-N-MeFOSAA



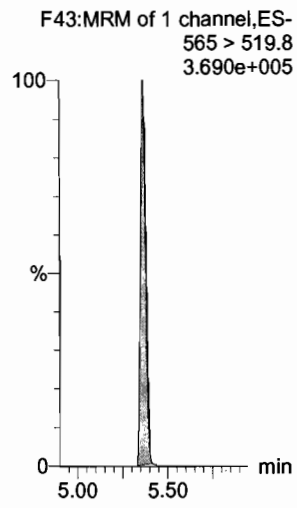
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

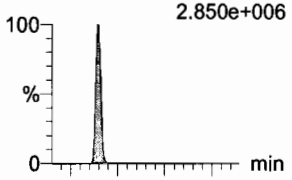


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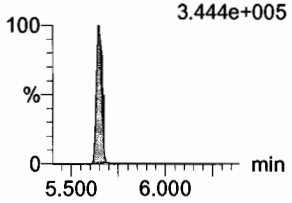
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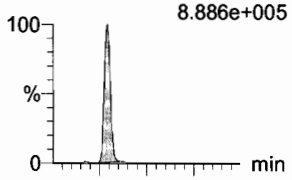
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
2.850e+006



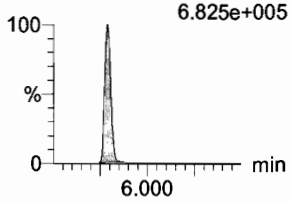
F50:MRM of 2 channels,ES-
612.9 > 318.8
3.444e+005



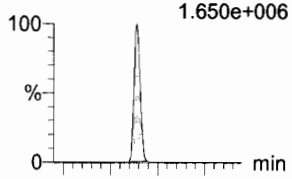
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
8.886e+005



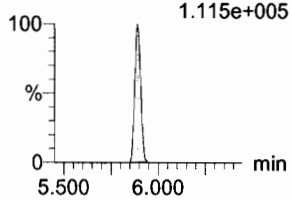
F33:MRM of 2 channels,ES-
512.1 > 219
6.825e+005



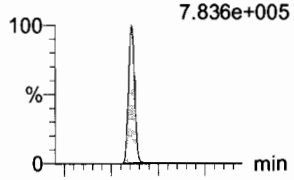
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
1.650e+006



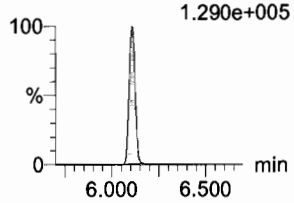
F56:MRM of 2 channels,ES-
662.9 > 319
1.115e+005



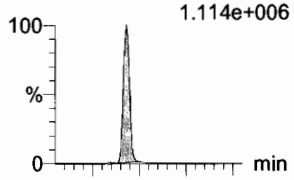
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
7.836e+005



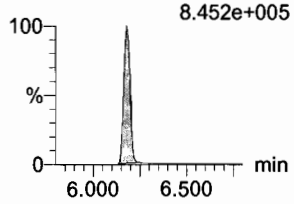
F57:MRM of 2 channels,ES-
712.9 > 369
1.290e+005



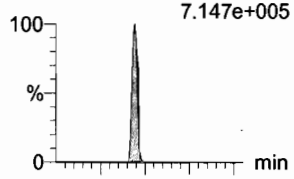
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
1.114e+006



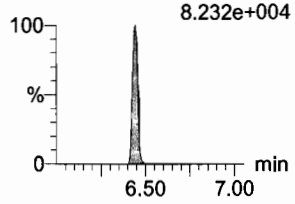
F38:MRM of 2 channels,ES-
526.1 > 219
8.452e+005



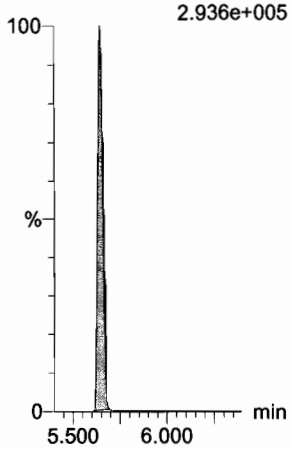
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
7.147e+005



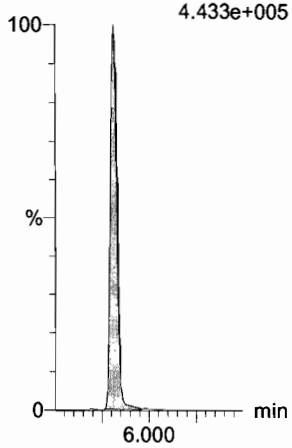
F59:MRM of 2 channels,ES-
813.1 > 219
8.232e+004



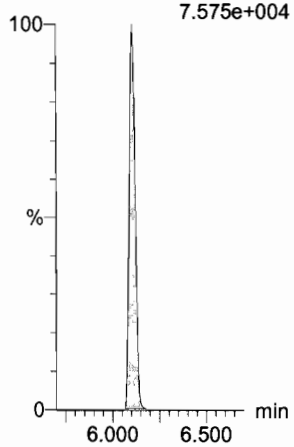
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
2.936e+005



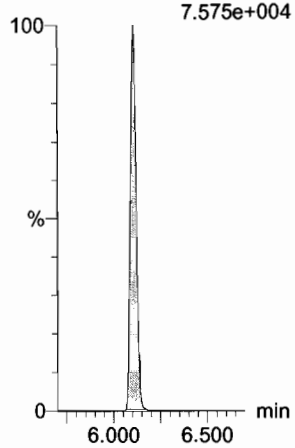
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.433e+005



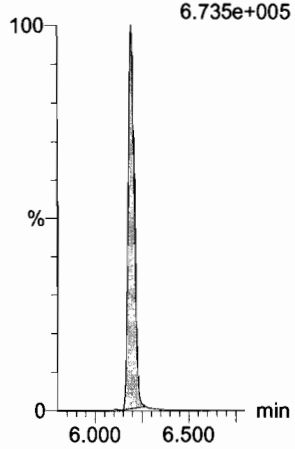
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
7.575e+004



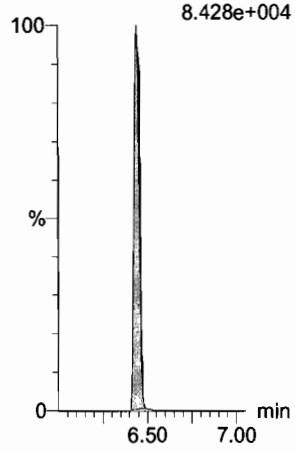
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
7.575e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.735e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.428e+004

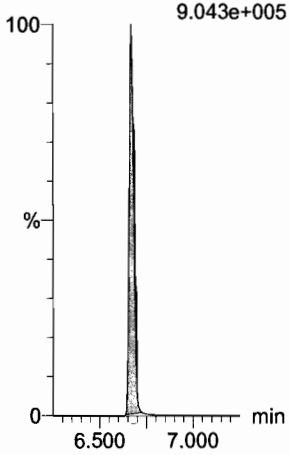


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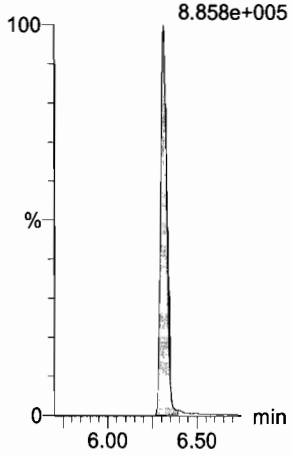
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Name: 171229M2_8, Date: 29-Dec-2017, Time: 14:38:48, ID: ST171229M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

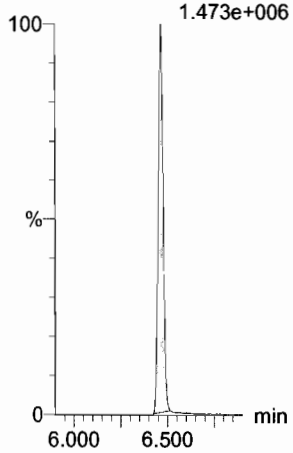
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
9.043e+005



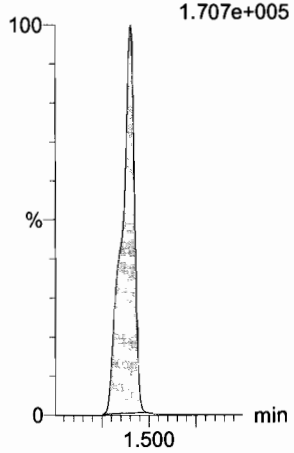
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
8.858e+005



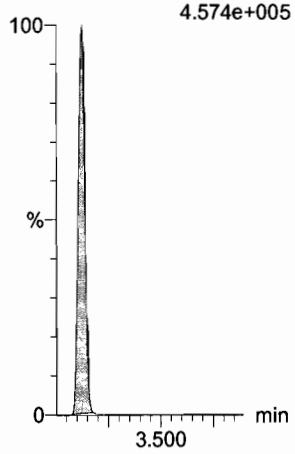
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.473e+006



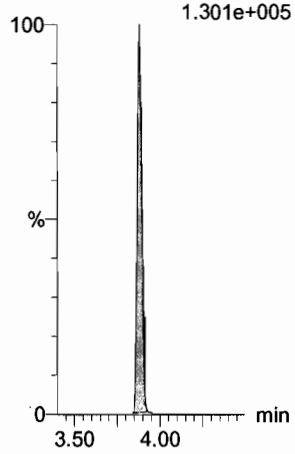
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.707e+005



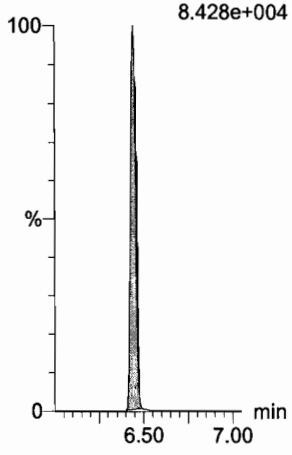
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.574e+005



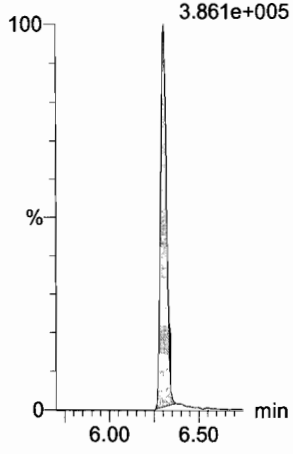
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.301e+005



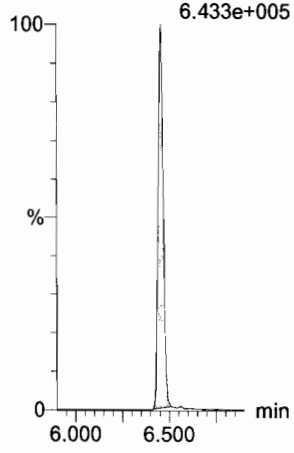
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.428e+004



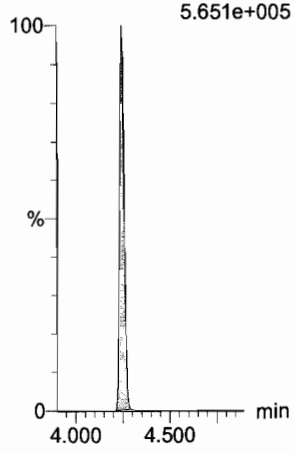
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
3.861e+005



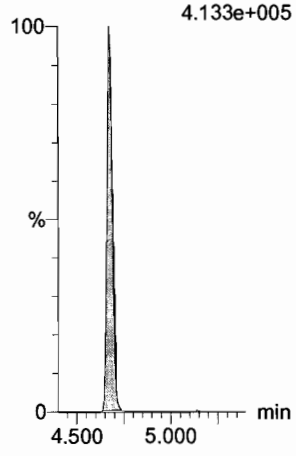
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.433e+005



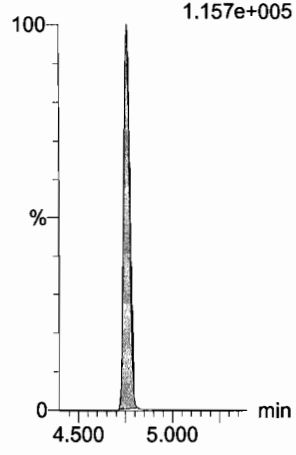
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.651e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.133e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.157e+005

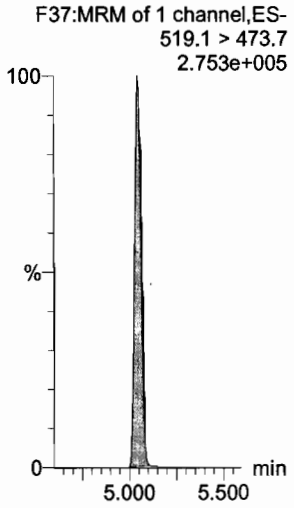


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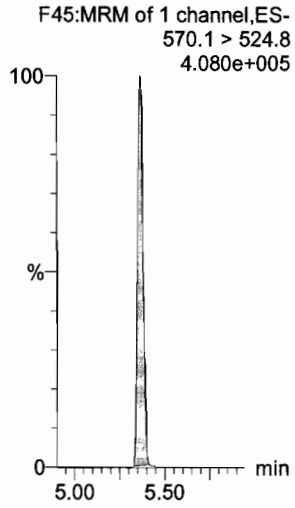
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Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_8, Date: 29-Dec-2017, Time: 14:38:48, ID: ST171229M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

13C6-PFDA



13C7-PFUdA

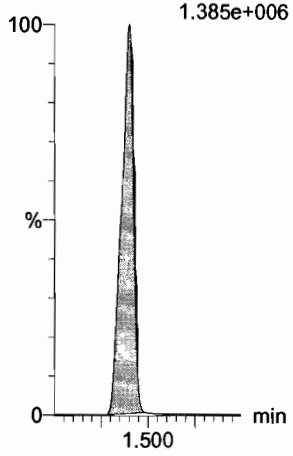


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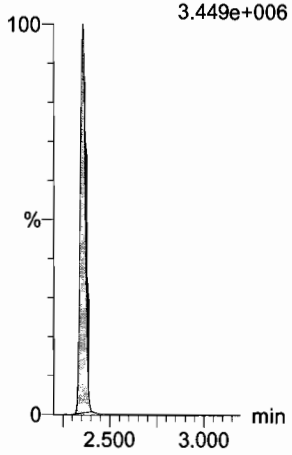
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Name: 171229M2_9, Date: 29-Dec-2017, Time: 14:49:59, ID: ST171229M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

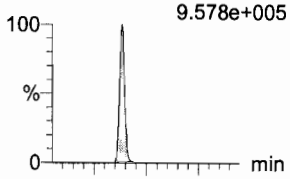
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.385e+006



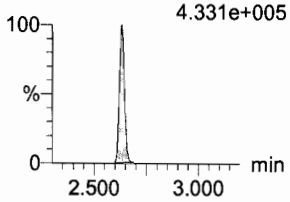
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
3.449e+006



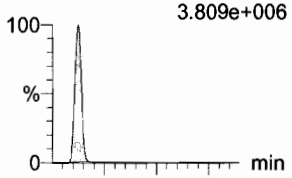
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
9.578e+005



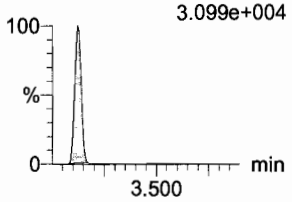
F6:MRM of 2 channels,ES-
299.0 > 99.0
4.331e+005



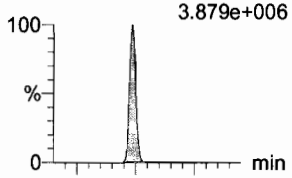
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
3.809e+006



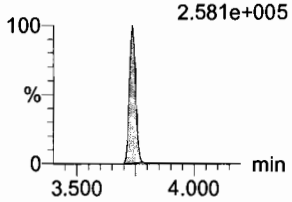
F8:MRM of 2 channels,ES-
313.2 > 119
3.099e+004



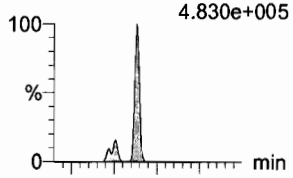
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
3.879e+006



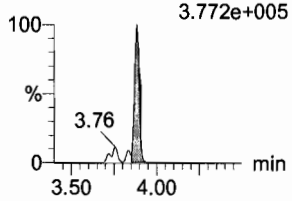
F13:MRM of 2 channels,ES-
363.0 > 169.0
2.581e+005



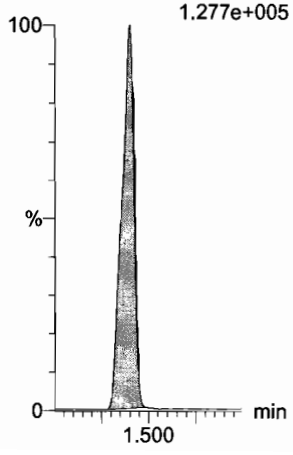
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
4.830e+005



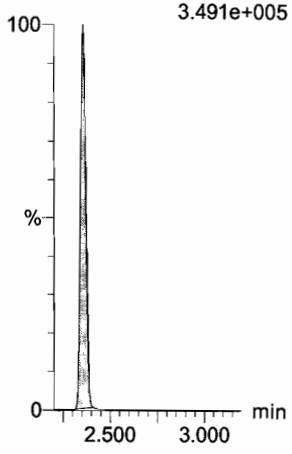
F15:MRM of 2 channels,ES-
398.9 > 99.0
3.772e+005



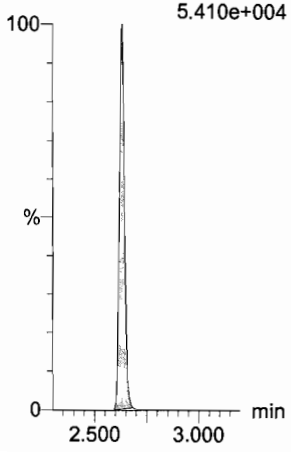
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.277e+005



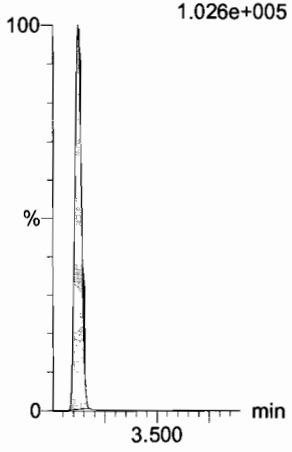
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.491e+005



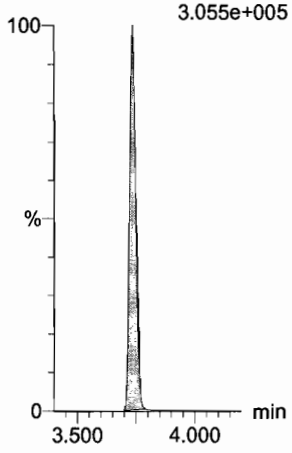
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
5.410e+004



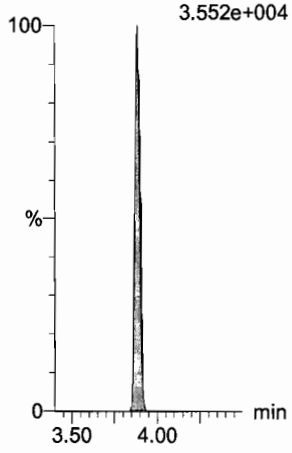
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.026e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
3.055e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
3.552e+004

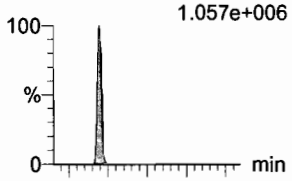


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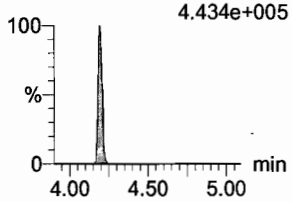
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Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_9, Date: 29-Dec-2017, Time: 14:49:59, ID: ST171229M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

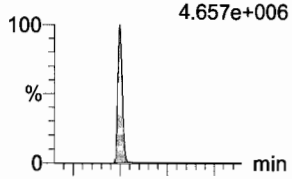
6:2 FTS
F21:MRM of 2 channels,ES-
427.1 > 407
1.057e+006



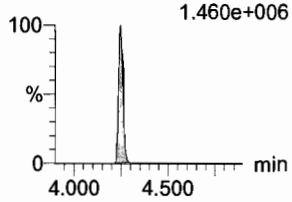
F21:MRM of 2 channels,ES-
427.1 > 80
4.434e+005



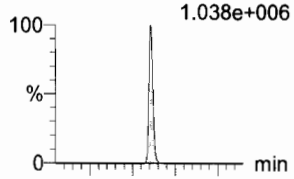
L-PFOA
F18:MRM of 2 channels,ES-
413 > 368.7
4.657e+006



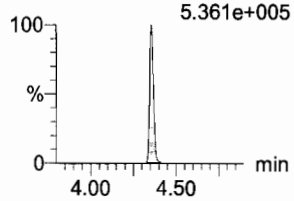
F18:MRM of 2 channels,ES-
413 > 169
1.460e+006



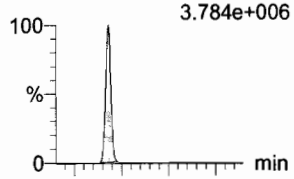
PFHpS
F23:MRM of 2 channels,ES-
449 > 80.0
1.038e+006



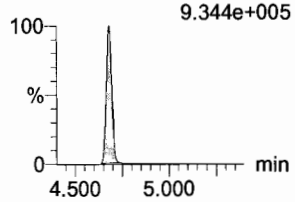
F23:MRM of 2 channels,ES-
449 > 98.7
5.361e+005



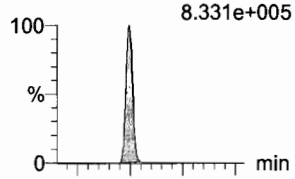
PFNA
F24:MRM of 2 channels,ES-
463.0 > 418.8
3.784e+006



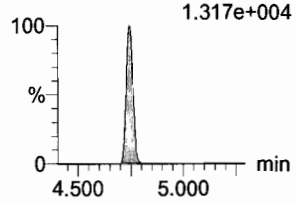
F24:MRM of 2 channels,ES-
463.0 > 219.0
9.344e+005



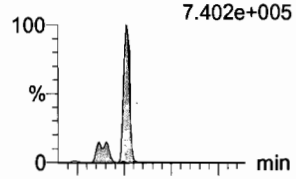
PFOSA
F27:MRM of 2 channels,ES-
498.1 > 77.8
8.331e+005



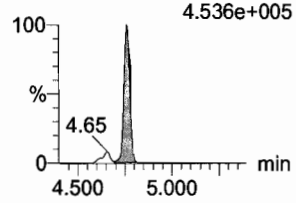
F27:MRM of 2 channels,ES-
498.1 > 478
1.317e+004



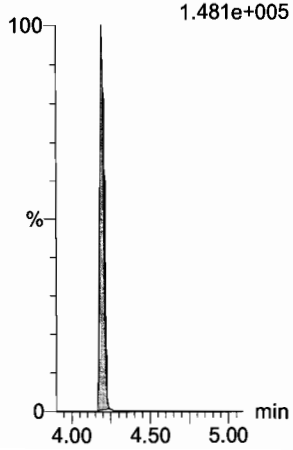
L-PFOS
F29:MRM of 2 channels,ES-
499 > 79.9
7.402e+005



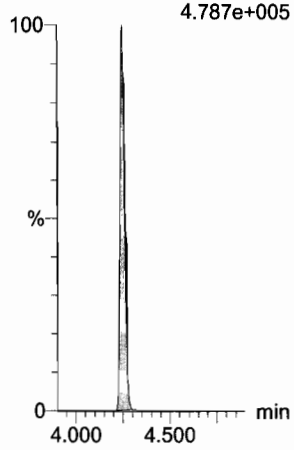
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499 > 99
4.536e+005



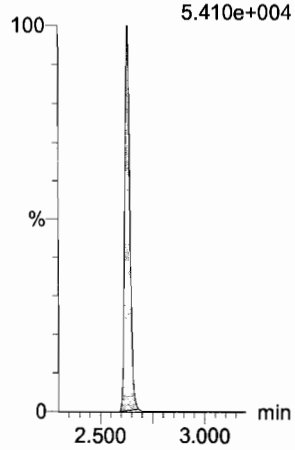
13C2-6:2 FTS
F22:MRM of 1 channel,ES-
429.1 > 408.9
1.481e+005



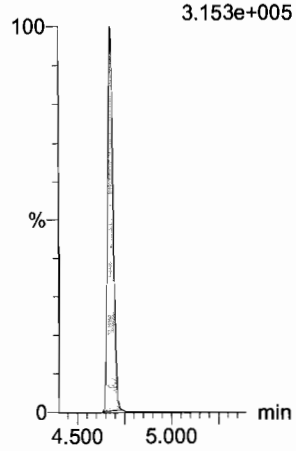
13C2-PFOA
F19:MRM of 1 channel,ES-
414.9 > 369.7
4.787e+005



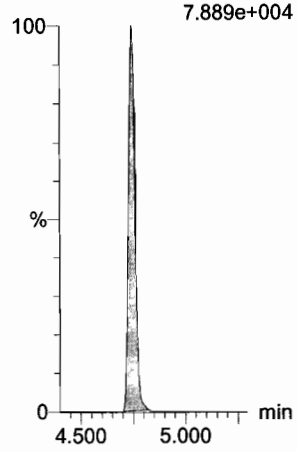
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
5.410e+004



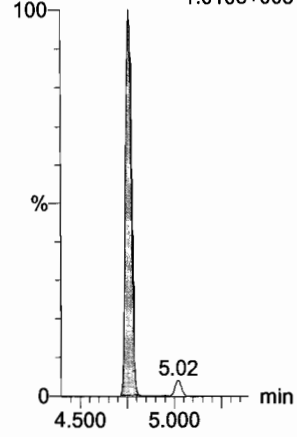
13C5-PFNA
F25:MRM of 1 channel,ES-
468.2 > 422.9
3.153e+005



13C8-PFOSA
F31:MRM of 1 channel,ES-
506.1 > 77.7
7.889e+004



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
1.010e+005

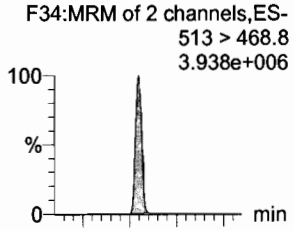


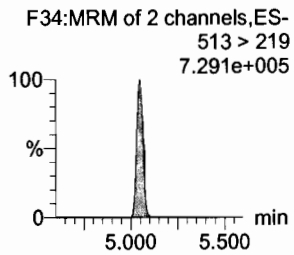
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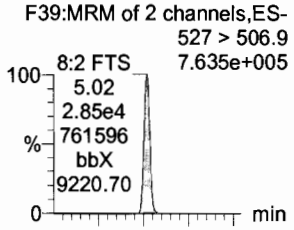
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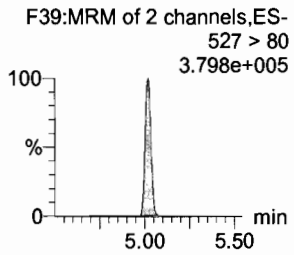
PFDA



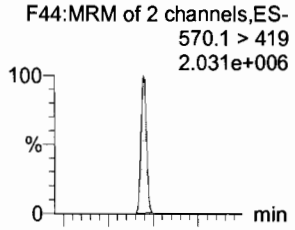


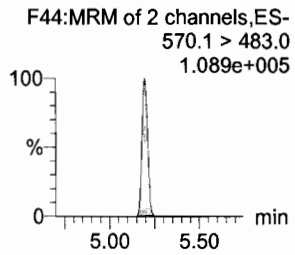
8:2 FTS



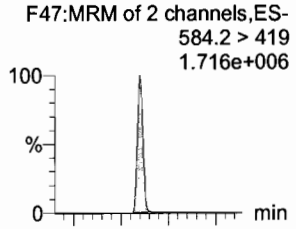


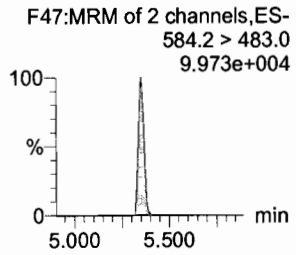
N-MeFOSAA



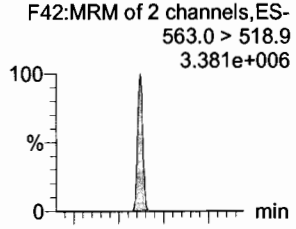


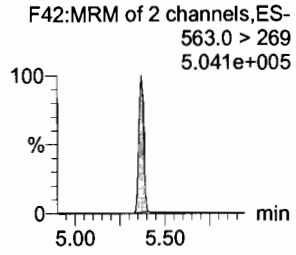
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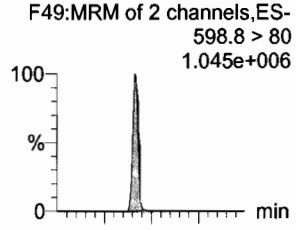


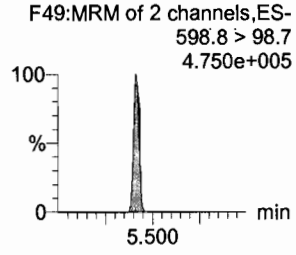
PFUdA



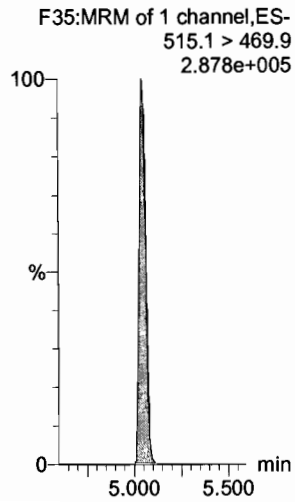


PFDS

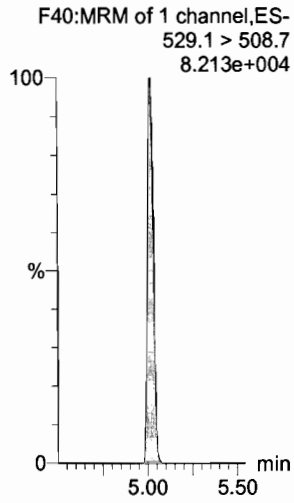




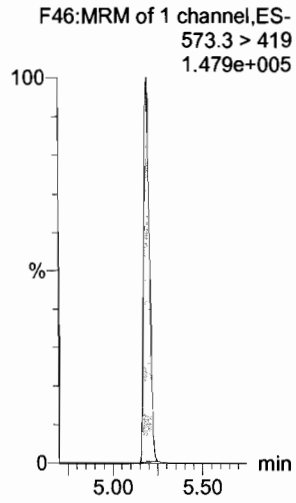
13C2-PFDA



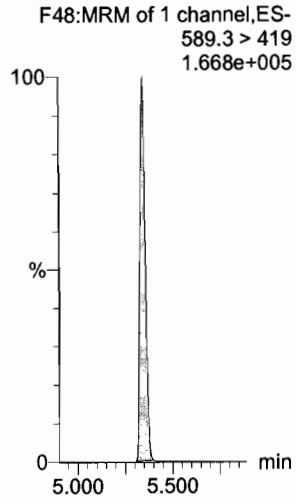
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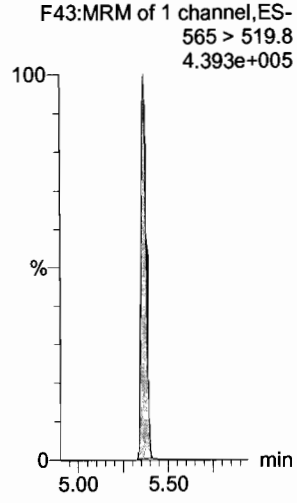
d3-N-MeFOSAA



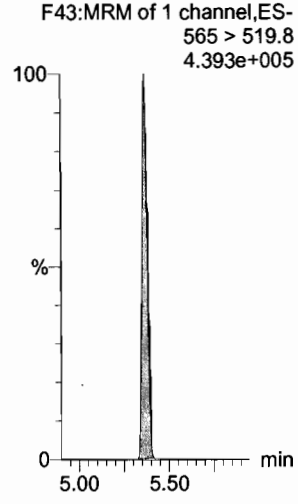
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

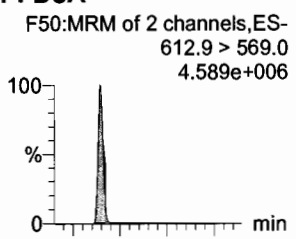


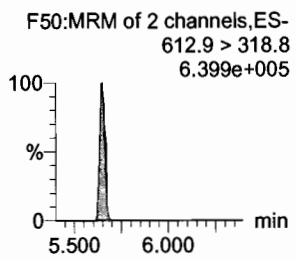
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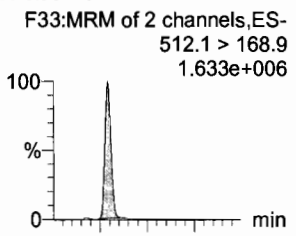
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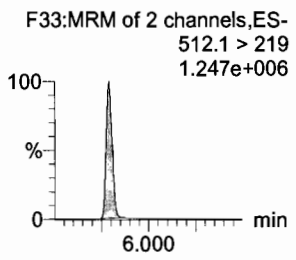
PFDoA



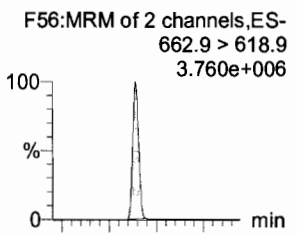


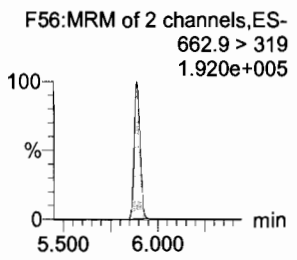
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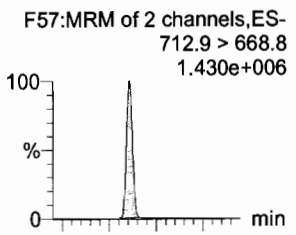


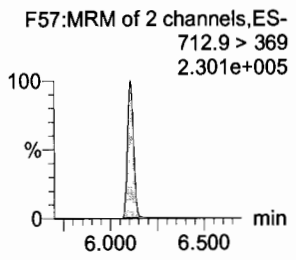
PFTrDA



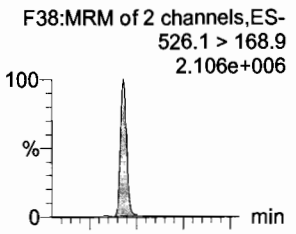


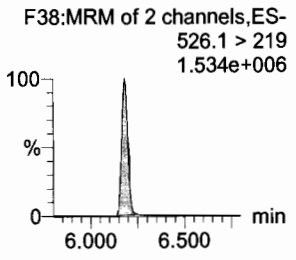
PFTeDA



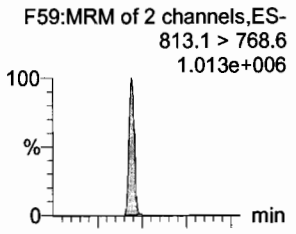


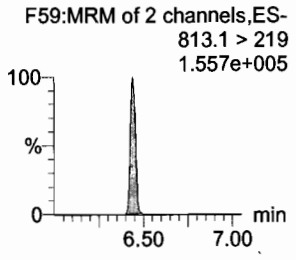
N-EtFOSA



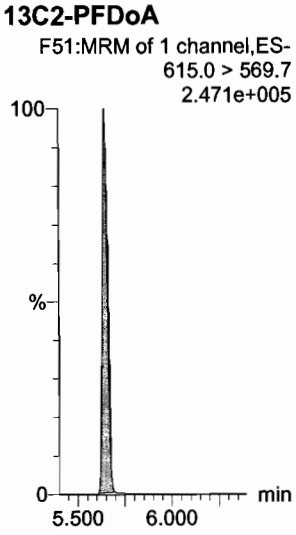


PFHxDA

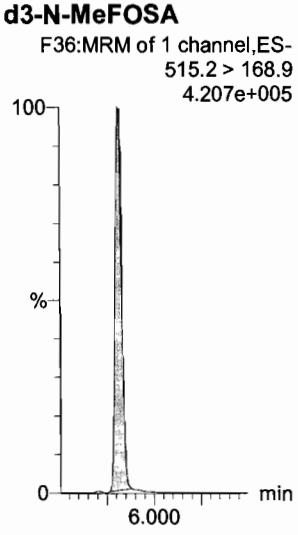




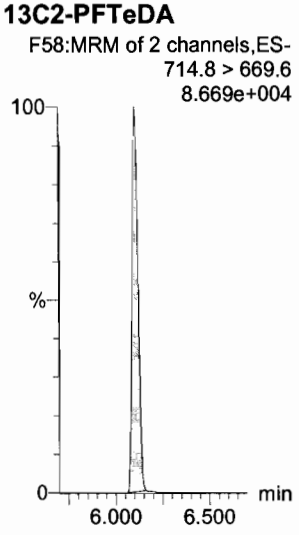
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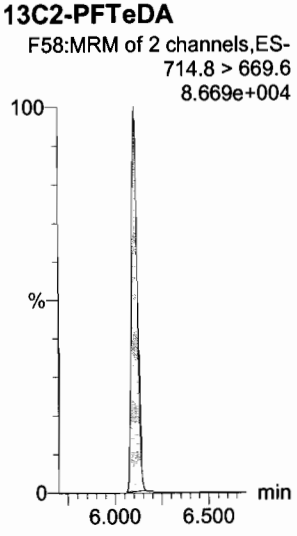
d3-N-MeFOSA



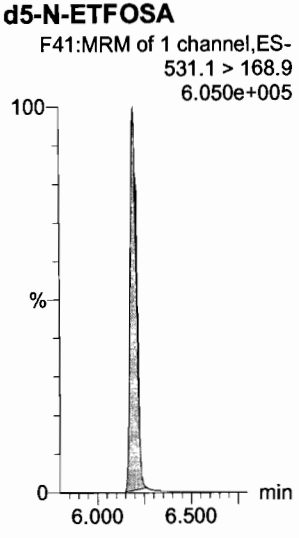
13C2-PFTeDA



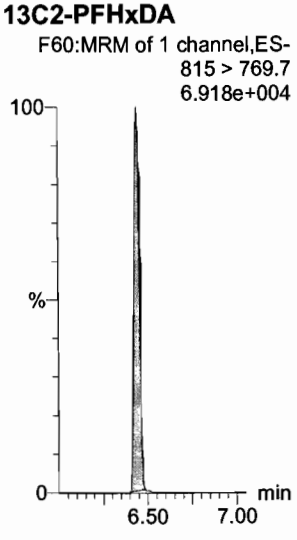
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d5-N-ETFOSA



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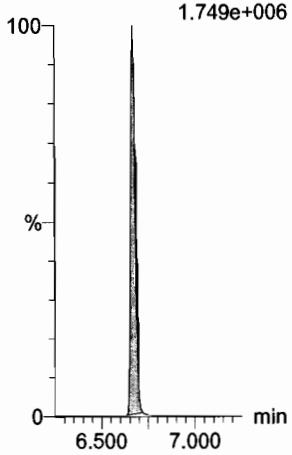


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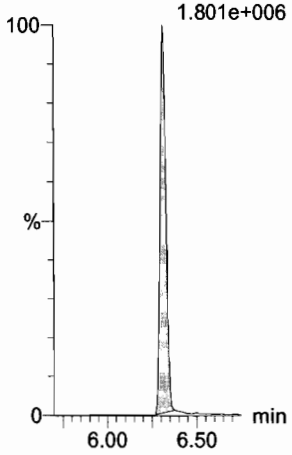
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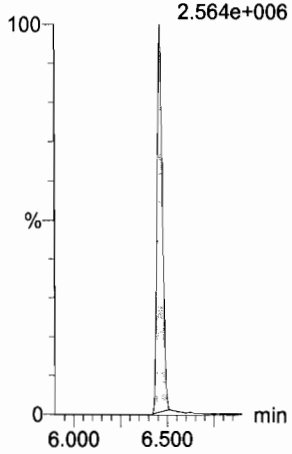
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.749e+006



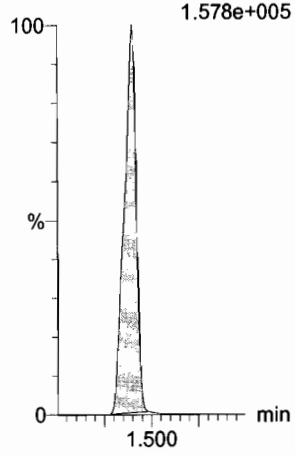
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.801e+006



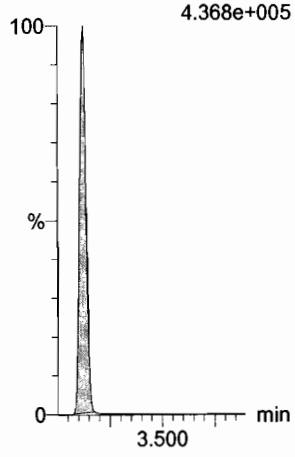
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.564e+006



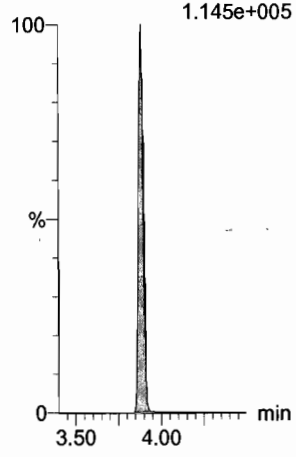
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.578e+005



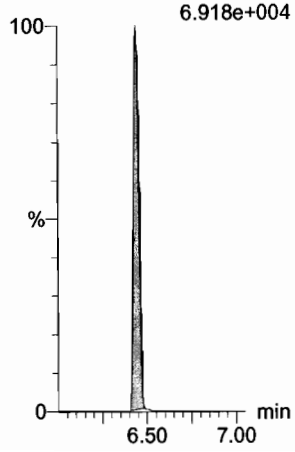
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.368e+005



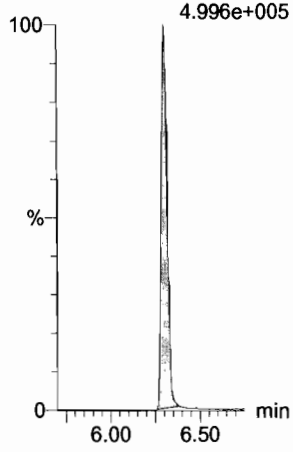
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.145e+005



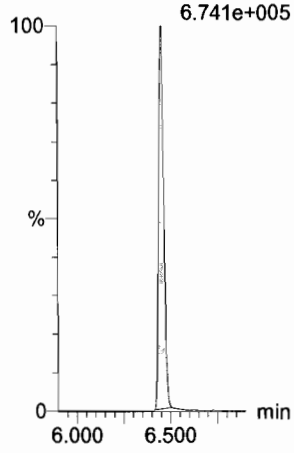
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.918e+004



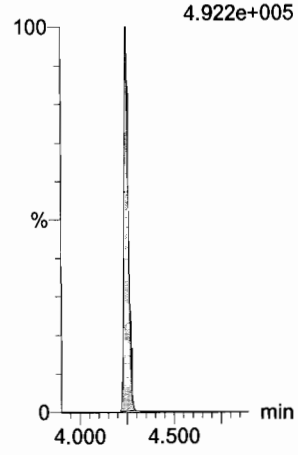
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.996e+005



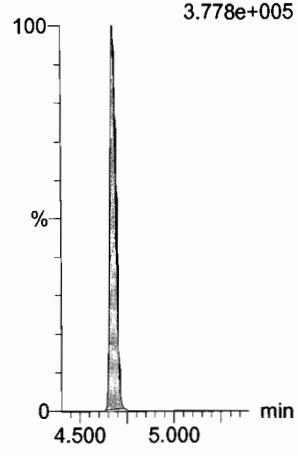
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.741e+005



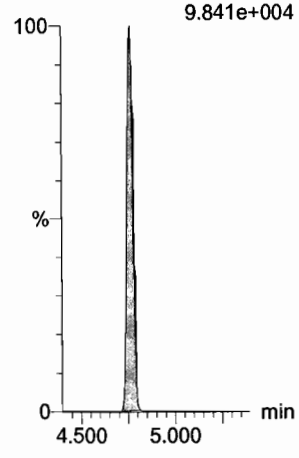
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.922e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.778e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.841e+004

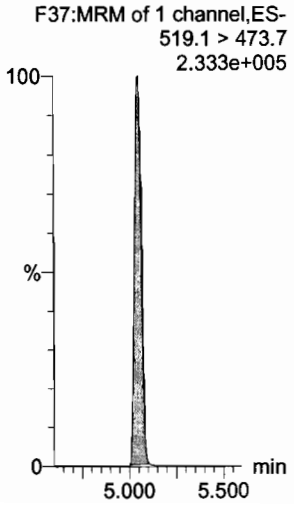


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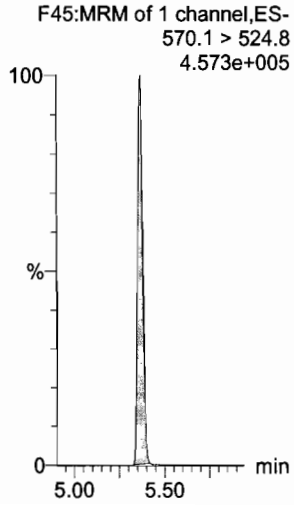
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Name: 171229M2_9, Date: 29-Dec-2017, Time: 14:49:59, ID: ST171229M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171229M2\171229M2-14.qld

Last Altered: Friday, December 29, 2017 16:10:03 Pacific Standard Time
Printed: Friday, December 29, 2017 16:10:34 Pacific Standard Time

(A) No SS available.

AC 12/29/17
VJH 12/30/2017

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 29 Dec 2017 15:16:53
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_14, Date: 29-Dec-2017, Time: 15:54:47, ID: ICV171229M2-2 PFC ICV 17L1201, Description: PFC ICV 17L1201

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	1.10e4	1.11e4	1.0000		1.47	1.41	12.4	9.096	91.0
2	2	PFPeA	263.1 > 218.9	1.15e4	1.33e4	1.0000		2.35	2.34	10.7	9.012	90.1
3	3	PFBS	299.0 > 79.7	2.33e3	1.87e3	1.0000		2.70	2.62	15.6	7.234	72.3
4	4	PFHxA	313.2 > 268.9	1.43e4	4.43e3	1.0000		3.12	3.12	16.2	8.656	86.6
5	5	PFHpA	363.0 > 318.9	1.18e4	1.18e4	1.0000		3.75	3.73	12.5	7.948	79.5
6	6	L-PFHxS	398.9 > 79.6	1.76e3	1.34e3	1.0000		3.85	3.88	16.5	7.782	77.8
7	8	6:2 FTS	427.1 > 407	2.92e3	1.55e4	1.0000		4.20	4.19	2.35	9.502	95.0
8	9	L-PFOA	413 > 368.7	1.26e4	1.55e4	1.0000		4.25	4.24	10.2	8.343	83.4
9	11	PFHpS	449 > 80.0	2.75e3	1.55e4	1.0000		4.35	4.35	2.22	8.862	88.6
10	12	PFNA	463.0 > 418.8	1.35e4	1.39e4	1.0000		4.70	4.68	12.2	7.836	78.4
11	13	PFOSA	498.1 > 77.8	3.29e3	3.47e3	1.0000		4.81	4.74	11.9	8.918	89.2
12	14	L-PFOS	499 > 79.9	3.02e3	3.75e3	1.0000		4.75	4.76	10.1	7.552	75.5
13	16	PFDA	513 > 468.8	1.46e4	1.50e4	1.0000		5.05	5.04	12.2	8.126	81.3
14	17	8:2 FTS	527 > 506.9	3.58e3	1.50e4	1.0000		5.02	5.01	2.99	9.704	97.0
15	18	N-MeFOSAA	570.1 > 419	7.78e3	5.75e3	1.0000		5.20	5.19	16.9	10.158	101.6
16	19	N-EtFOSAA	584.2 > 419	6.67e3	7.14e3	1.0000		5.42	5.35	11.7	8.765	87.6
17	20	PFUdA	563.0 > 518.9	1.36e4	1.68e4	1.0000		5.35	5.36	10.1	8.257	82.6
18	21	PFDS	598.8 > 80	3.62e3	1.68e4	1.0000		5.50	5.41	2.69	7.609	76.1
19	22	PFDoA	612.9 > 569.0	1.46e4	1.22e4	1.0000		5.70	5.64	14.9	7.029	70.3
20	23	N-MeFOSA	512.1 > 168.9		1.85e4	1.0000		5.77				(A)
21	24	PFTrDA	662.9 > 618.9	1.50e4	1.22e4	1.0000		5.95	5.89	15.3	8.772	87.7
22	25	PFTeDA	712.9 > 668.8	9.12e3	4.47e3	1.0000		6.16	6.11	25.5	7.569	75.7
23	26	N-EtFOSA	526.1 > 168.9		2.71e4	1.0000		6.15				(A)
24	27	PFHxDA	813.1 > 768.6		3.00e3	1.0000		6.48				
25	28	PFODA	913.1 > 868.8		3.00e3	1.0000		6.70				
26	29	N-MeFOSE	616.1 > 58.9		2.36e4	1.0000		6.30				
27	30	N-EtFOSE	630.1 > 58.9		2.02e4	1.0000		6.42				
28	31	13C3-PFBA	216.1 > 171.8	1.11e4	1.24e4	1.0000	0.783	1.47	1.41	11.2	14.247	114.0
29	32	13C3-PFPeA	266. > 221.8	1.33e4	1.56e4	1.0000	0.807	2.44	2.34	10.7	13.218	105.7
30	33	13C3-PFBS	302. > 98.8	1.87e3	1.56e4	1.0000	0.108	2.70	2.62	1.49	13.836	110.7
31	34	13C2-PFHxA	315 > 269.8	4.43e3	1.56e4	1.0000	0.636	3.20	3.12	3.54	5.563	111.3

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Dataset: U:\Q4.PRO\results\171229M2\171229M2-14.qld

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Name: 171229M2_14, Date: 29-Dec-2017, Time: 15:54:47, ID: ICV171229M2-2 PFC ICV 17L1201, Description: PFC ICV 17L1201

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.18e4	1.56e4	1.0000	0.652	3.80	3.73	9.45	14.492	115.9
33	36	18O2-PFHxS	403.0 > 102.6	1.34e3	3.38e3	1.0000	0.321	3.95	3.88	4.95	15.442	123.5
34	37	13C2-6:2 FTS	429.1 > 408.9	3.58e3	1.44e4	1.0000	0.192	4.26	4.19	3.10	16.139	129.1
35	38	13C2-PFOA	414.9 > 369.7	1.55e4	1.44e4	1.0000	0.945	4.32	4.24	13.4	14.215	113.7
36	39	13C5-PFNA	468.2 > 422.9	1.39e4	1.26e4	1.0000	0.832	4.75	4.67	13.8	16.588	132.7
37	40	13C8-PFOSA	506.1 > 77.7	3.47e3	1.37e4	1.0000	0.204	4.81	4.74	3.15	15.470	123.8
38	41	13C8-PFOS	507.0 > 79.9	3.75e3	3.55e3	1.0000	0.948	4.83	4.76	13.2	13.934	111.5
39	42	13C2-PFDA	515.1 > 469.9	1.50e4	1.34e4	1.0000	0.986	5.11	5.04	13.9	14.119	112.9
40	43	13C2-8:2 FTS	529.1 > 508.7	2.41e3	1.56e4	1.0000	0.124	5.09	5.01	1.93	15.476	123.8
41	44	d3-N-MeFOSAA	573.3 > 419	5.75e3	1.37e4	1.0000	0.391	5.26	5.19	5.23	13.377	107.0
42	45	d5-N-EtFOSAA	589.3 > 419	7.14e3	1.37e4	1.0000	0.451	5.42	5.34	6.49	14.381	115.0
43	46	13C2-PFUdA	565 > 519.8	1.68e4	1.37e4	1.0000	0.900	5.43	5.36	15.3	16.966	135.7
44	47	13C2-PFDoA	615.0 > 569.7	1.22e4	1.37e4	1.0000	0.617	5.70	5.64	11.1	18.058	144.5
45	48	d3-N-MeFOSA	515.2 > 168.9	1.85e4	1.37e4	1.0000	0.097	5.80	5.81	16.8	172.209	114.8
46	49	13C2-PFTeDA	714.8 > 669.6	4.47e3	1.37e4	1.0000	0.196	6.16	6.11	4.07	20.760	166.1
47	50	d5-N-ETFOSA	531.1 > 168.9	2.71e4	1.37e4	1.0000	0.147	6.16	6.19	24.6	167.987	112.0
48	51	13C2-PFHxDA	815 > 769.7	3.00e3	1.37e4	1.0000	0.435	6.48	6.44	2.73	6.269	125.4
49	52	d7-N-MeFOSE	623.1 > 58.9	2.36e4	1.37e4	1.0000	0.108	6.30	6.31	21.5	198.590	132.4
50	53	d9-N-EtFOSE	639.2 > 58.8	2.02e4	1.37e4	1.0000	0.116	6.42	6.45	18.4	158.938	106.0
51	54	13C4-PFBA	217. > 171.8	1.24e4	1.24e4	1.0000	1.000	1.47	1.41	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.56e4	1.56e4	1.0000	1.000	3.20	3.12	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.38e3	3.38e3	1.0000	1.000	3.95	3.88	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.44e4	1.44e4	1.0000	1.000	4.32	4.24	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.26e4	1.26e4	1.0000	1.000	4.75	4.67	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	3.55e3	3.55e3	1.0000	1.000	4.83	4.75	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.34e4	1.34e4	1.0000	1.000	5.11	5.04	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.37e4	1.37e4	1.0000	1.000	5.43	5.37	12.5	12.500	100.0

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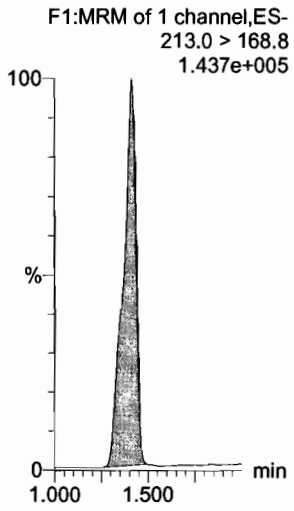
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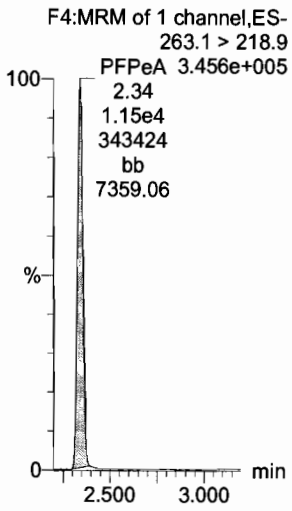
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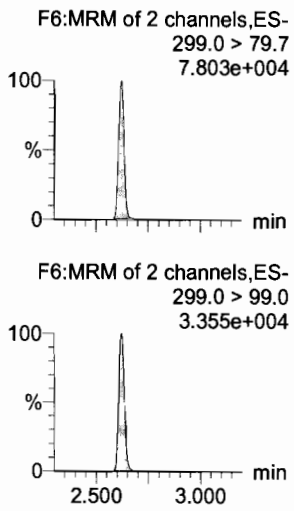
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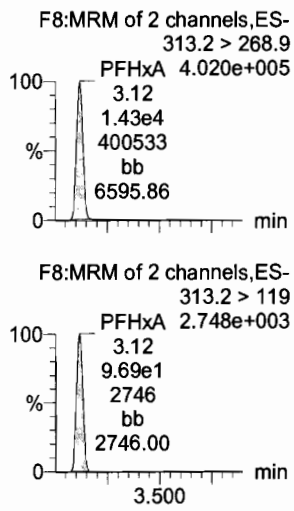
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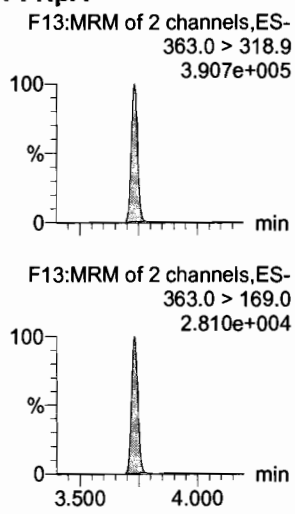
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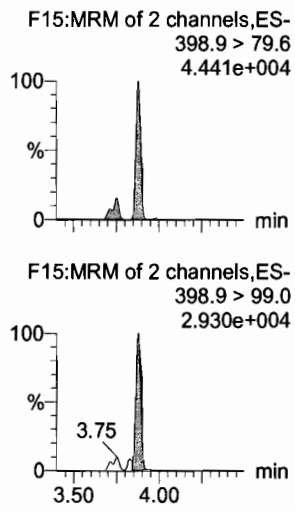
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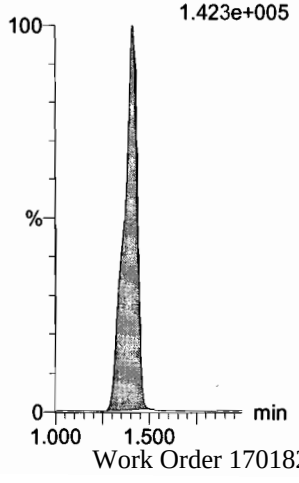
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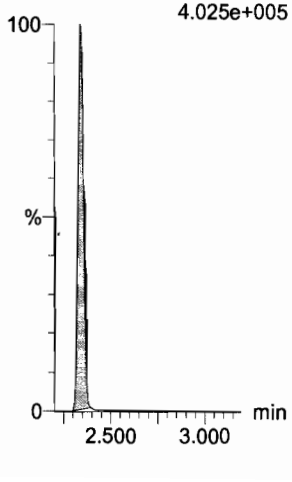
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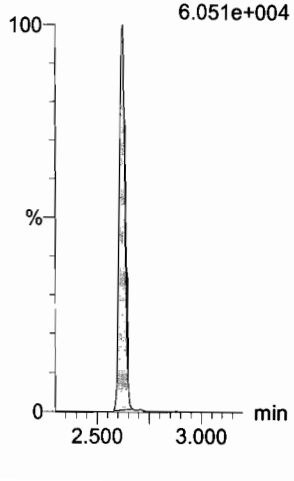
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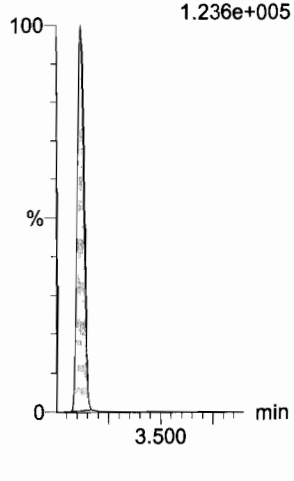
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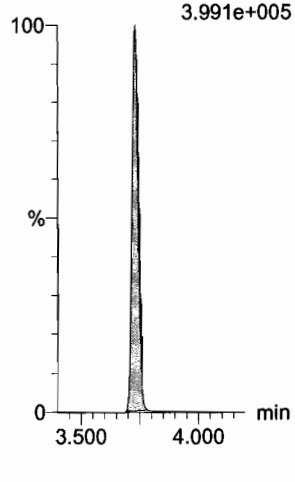
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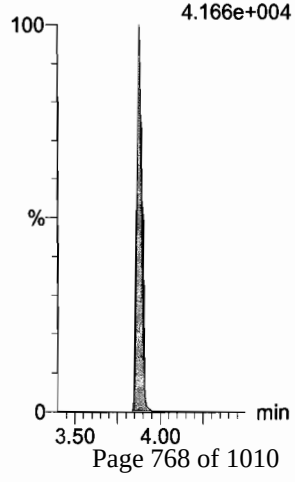
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13C4-PFHpA



18O2-PFHxS

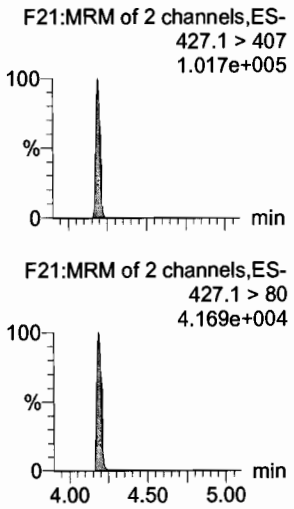


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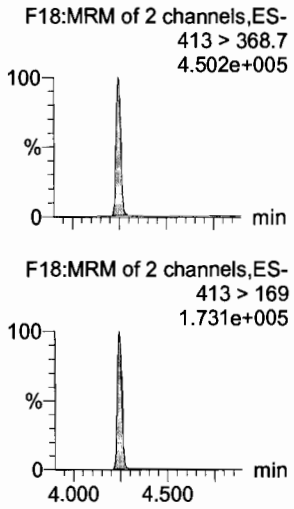
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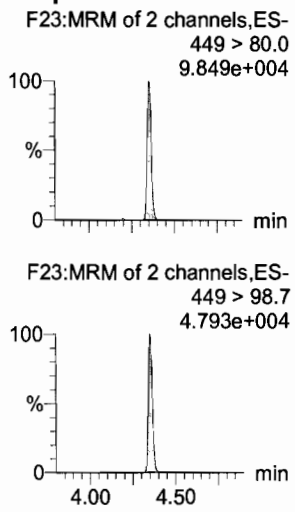
6:2 FTS



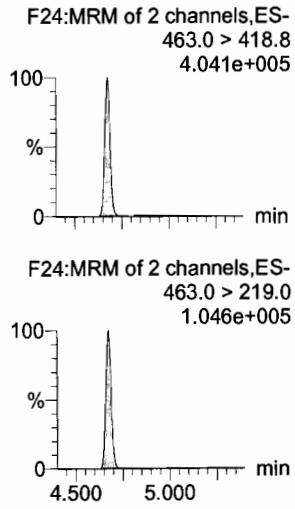
L-PFOA



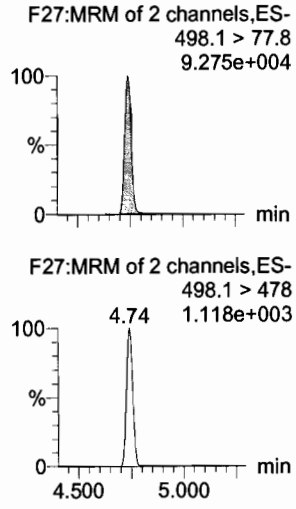
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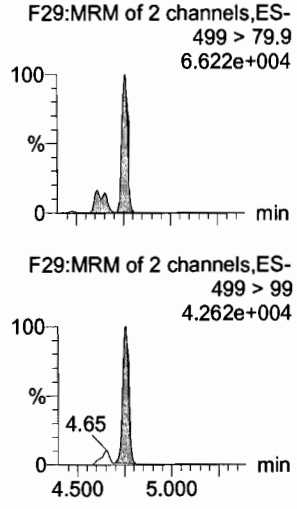
PFNA



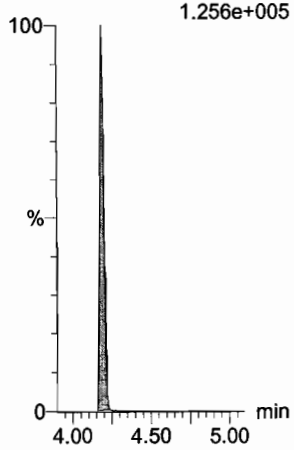
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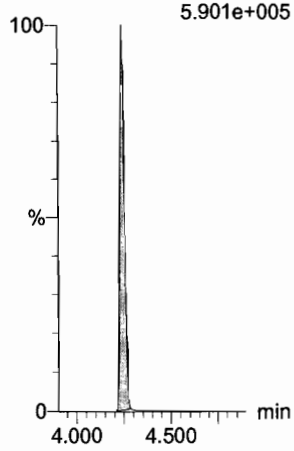
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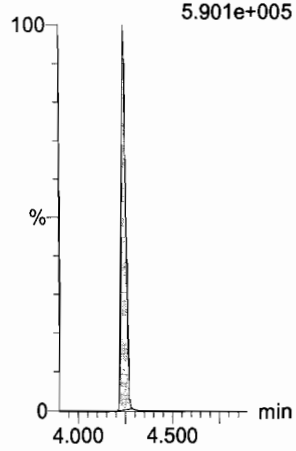
13C2-6:2 FTS



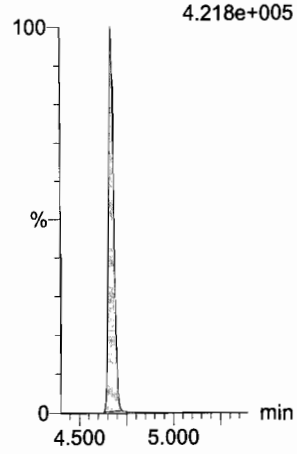
13C2-PFOA



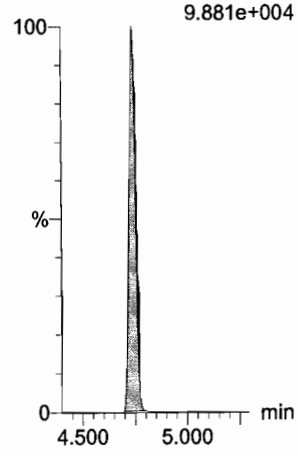
13C2-PFOA



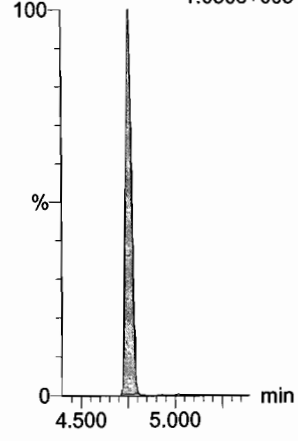
13C5-PFNA



13C8-PFOSA



13C8-PFOS



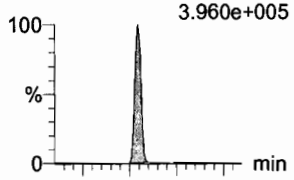
Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171229M2\171229M2-14.qld

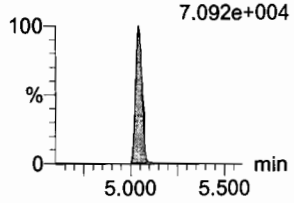
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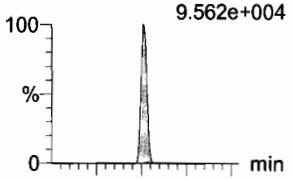
PFDA
F34:MRM of 2 channels,ES-
513 > 468.8
3.960e+005



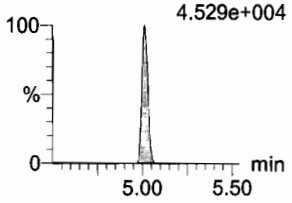
F34:MRM of 2 channels,ES-
513 > 219
7.092e+004



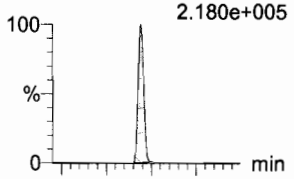
8:2 FTS
F39:MRM of 2 channels,ES-
527 > 506.9
9.562e+004



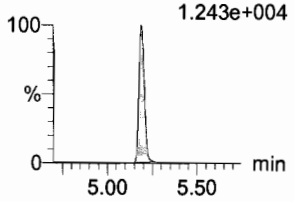
F39:MRM of 2 channels,ES-
527 > 80
4.529e+004



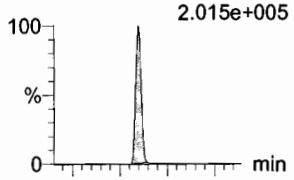
N-MeFOSAA
F44:MRM of 2 channels,ES-
570.1 > 419
2.180e+005



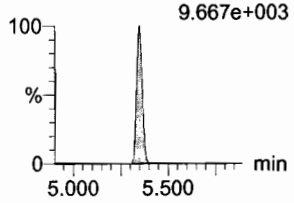
F44:MRM of 2 channels,ES-
570.1 > 483.0
1.243e+004



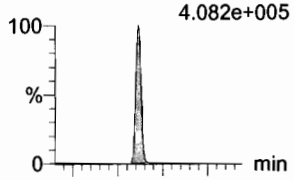
N-EtFOSAA
F47:MRM of 2 channels,ES-
584.2 > 419
2.015e+005



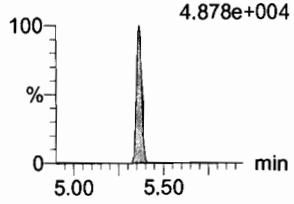
F47:MRM of 2 channels,ES-
584.2 > 483.0
9.667e+003



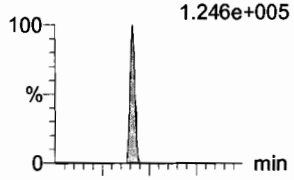
PFUdA
F42:MRM of 2 channels,ES-
563.0 > 518.9
4.082e+005



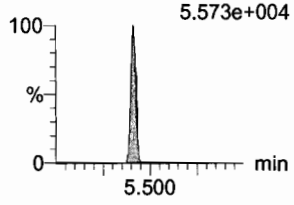
F42:MRM of 2 channels,ES-
563.0 > 269
4.878e+004



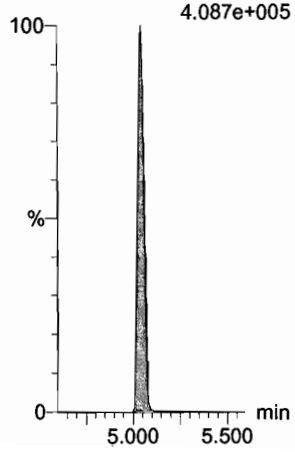
PFDS
F49:MRM of 2 channels,ES-
598.8 > 80
1.246e+005



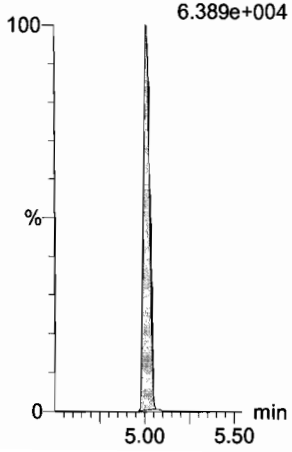
F49:MRM of 2 channels,ES-
598.8 > 98.7
5.573e+004



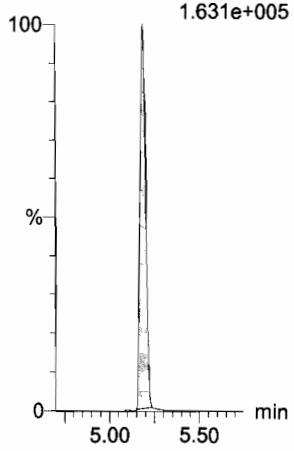
13C2-PFDA
F35:MRM of 1 channel,ES-
515.1 > 469.9
4.087e+005



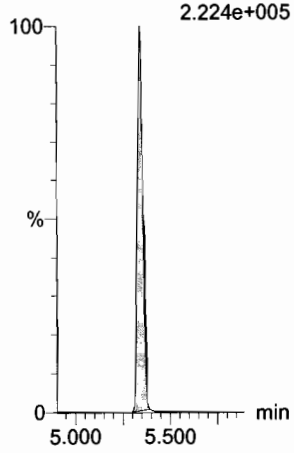
13C2-8:2 FTS
F40:MRM of 1 channel,ES-
529.1 > 508.7
6.389e+004



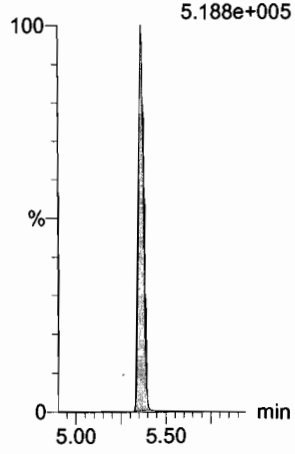
d3-N-MeFOSAA
F46:MRM of 1 channel,ES-
573.3 > 419
1.631e+005



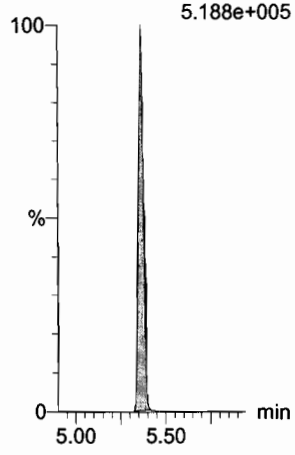
d5-N-EtFOSAA
F48:MRM of 1 channel,ES-
589.3 > 419
2.224e+005



13C2-PFUdA
F43:MRM of 1 channel,ES-
565 > 519.8
5.188e+005



13C2-PFUdA
F43:MRM of 1 channel,ES-
565 > 519.8
5.188e+005

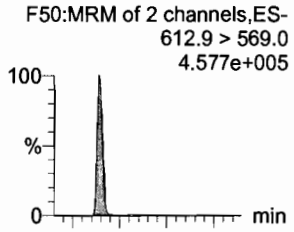


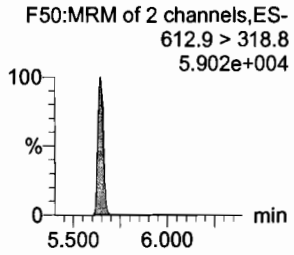
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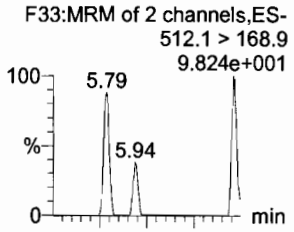
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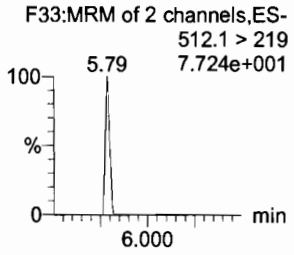
PFDoA



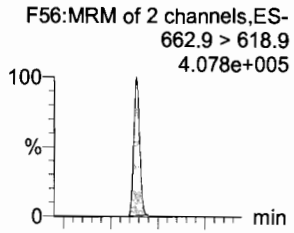


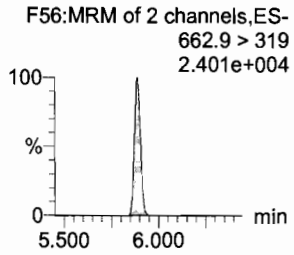
N-MeFOSA



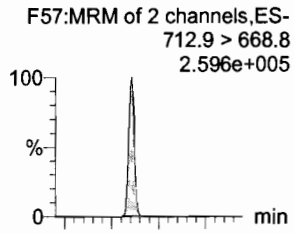


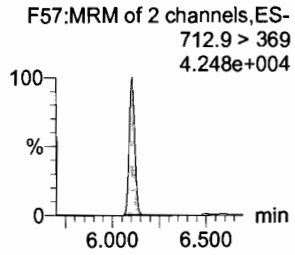
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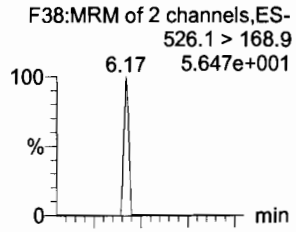


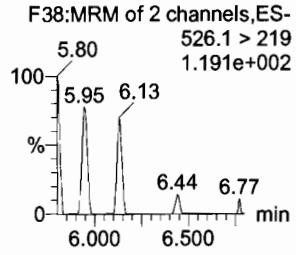
PFTeDA



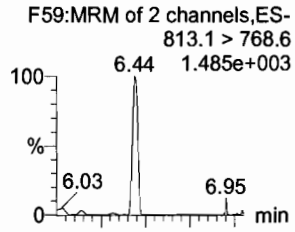


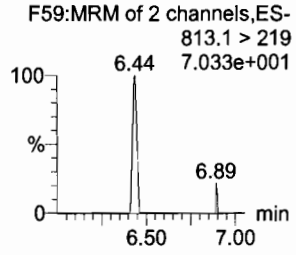
N-EtFOSA



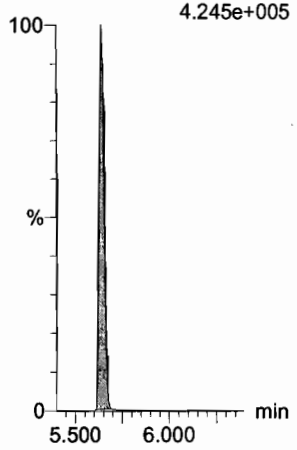


PFHxDA

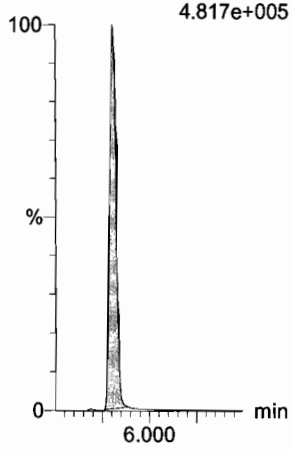




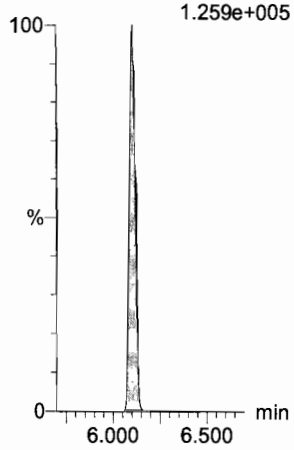
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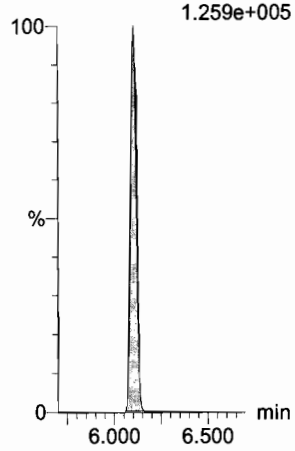
d3-N-MeFOSA



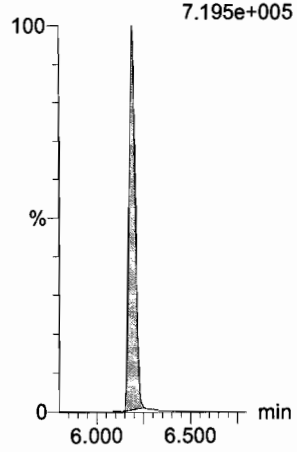
13C2-PFTeDA



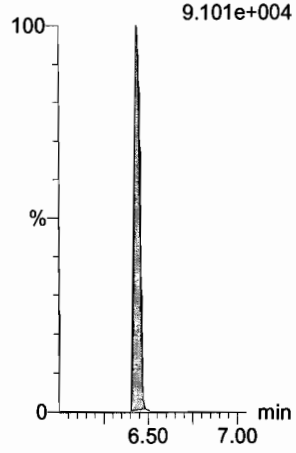
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

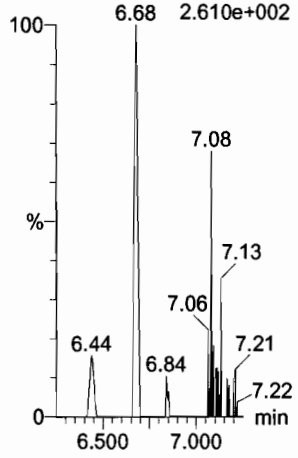


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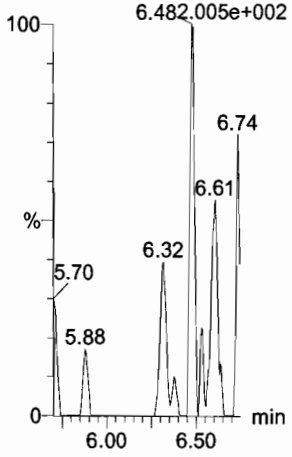
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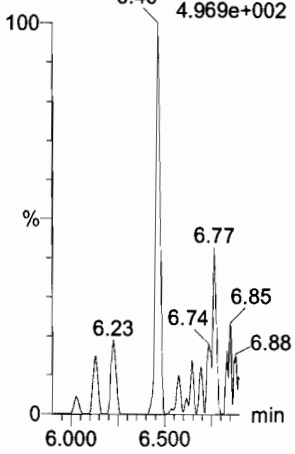
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.610e+002



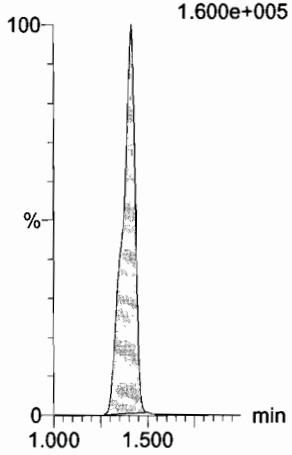
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
6.482.005e+002



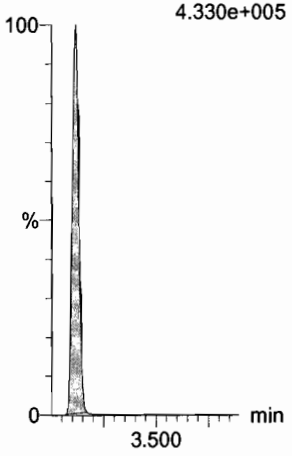
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
4.969e+002



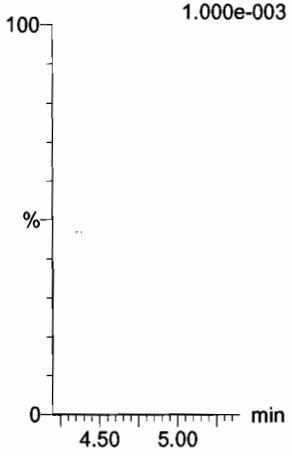
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.600e+005



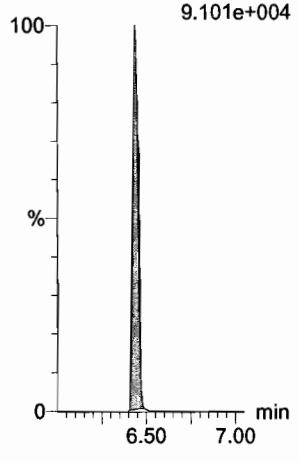
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.330e+005



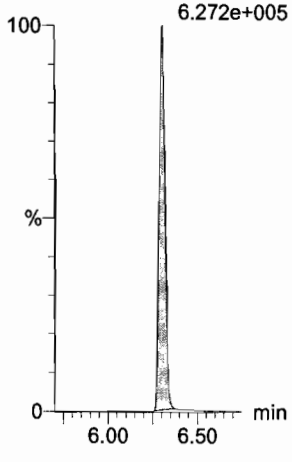
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



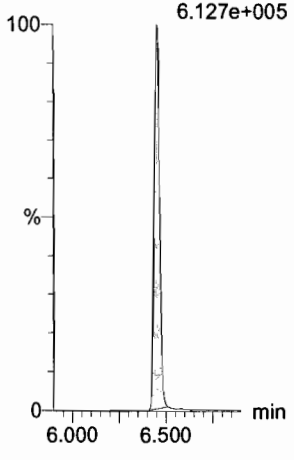
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
9.101e+004



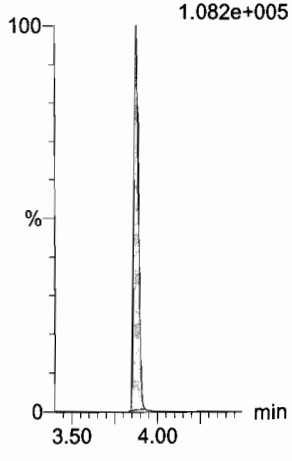
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.272e+005



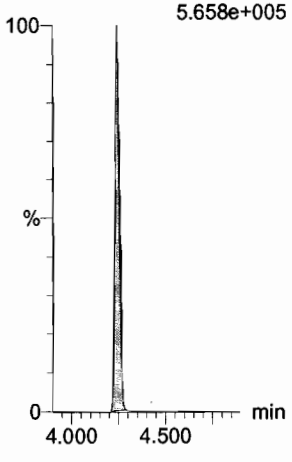
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.127e+005



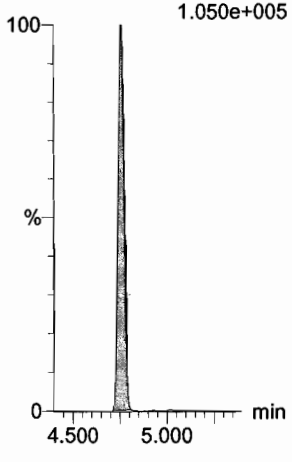
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.082e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.658e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
1.050e+005

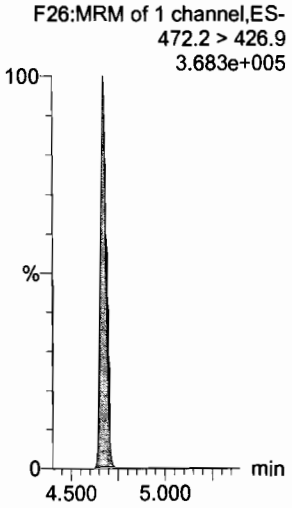


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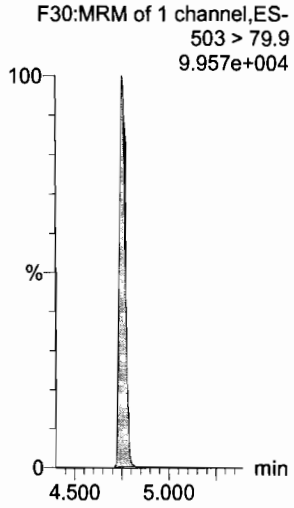
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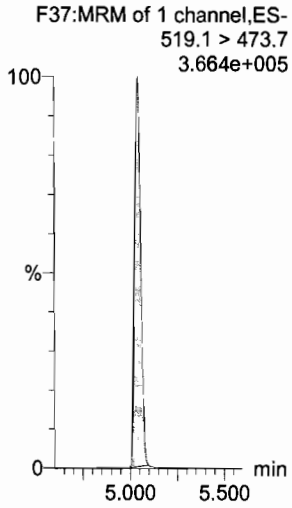
13C9-PFNA



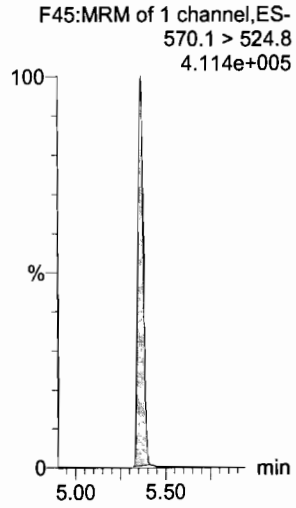
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

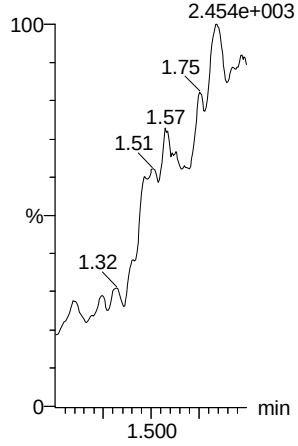
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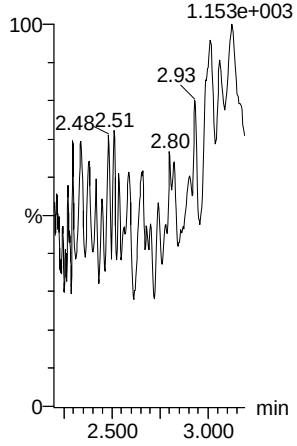
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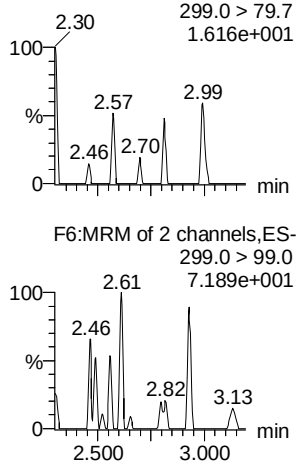
PFBA



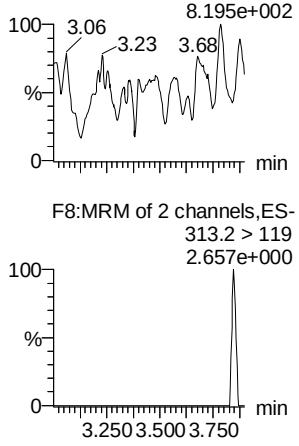
PFPeA



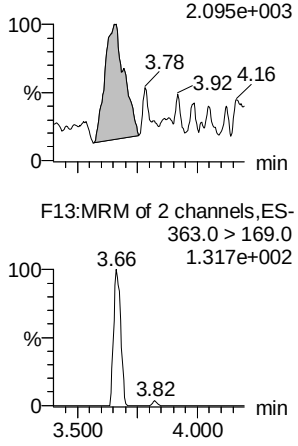
PFBS



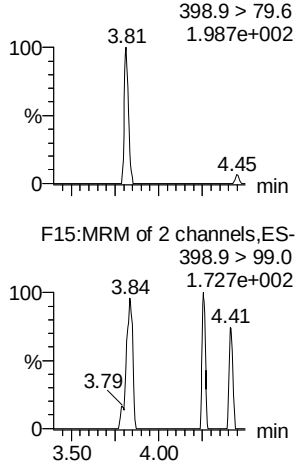
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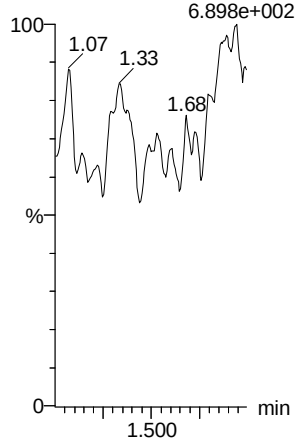
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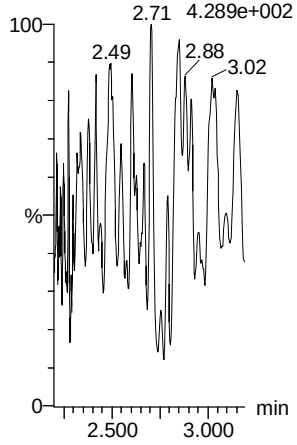
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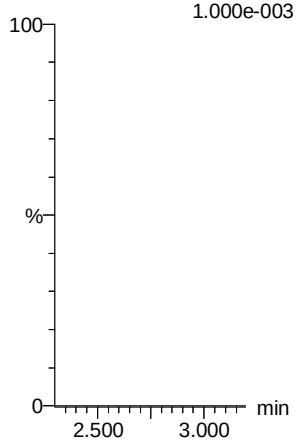
13C3-PFBA



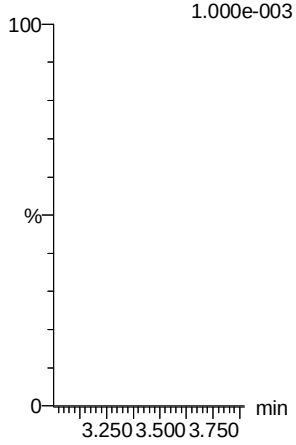
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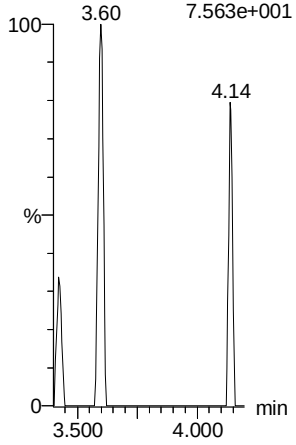
13C3-PFBS



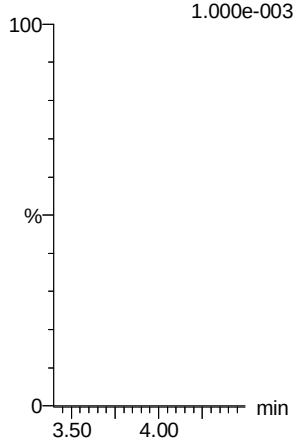
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



AC 12/30/17

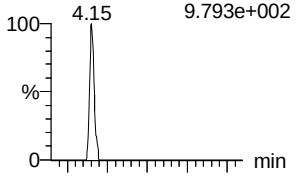
Vista Analytical Laboratory

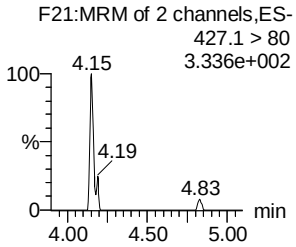
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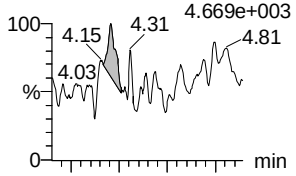
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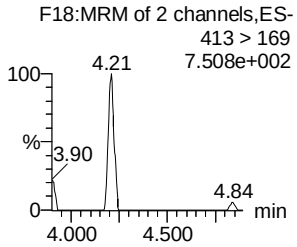
6:2 FTS



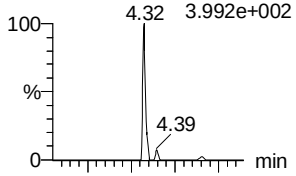


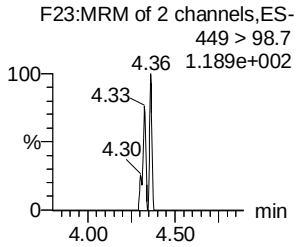
L-PFOA



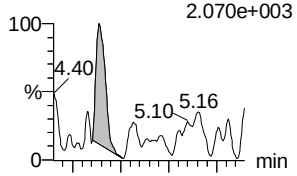


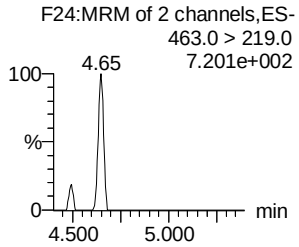
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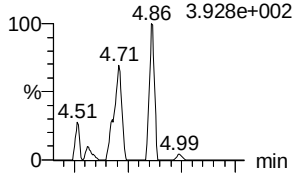


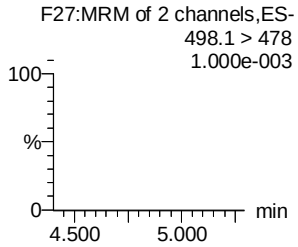
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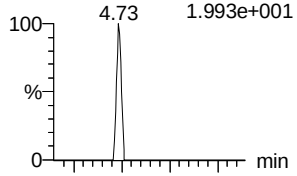


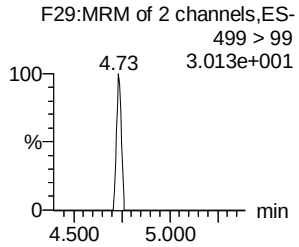
PFOSA



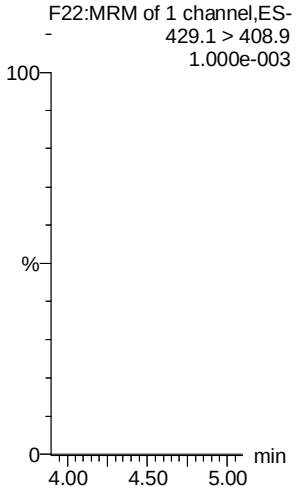


L-PFOS

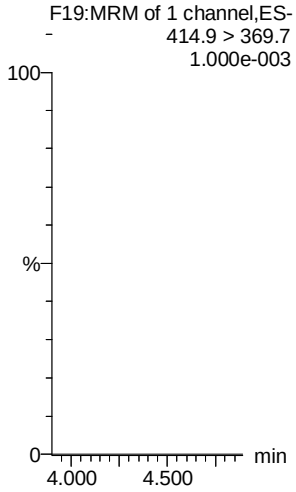




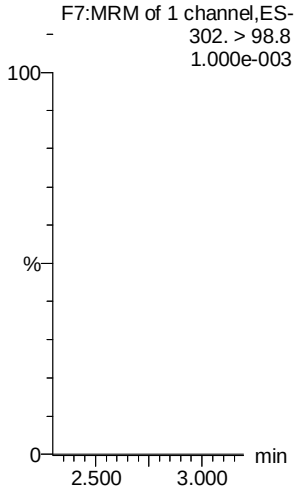
13C2-6:2 FTS



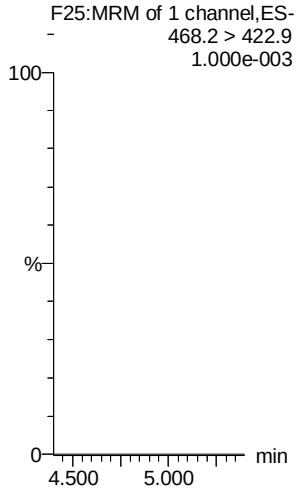
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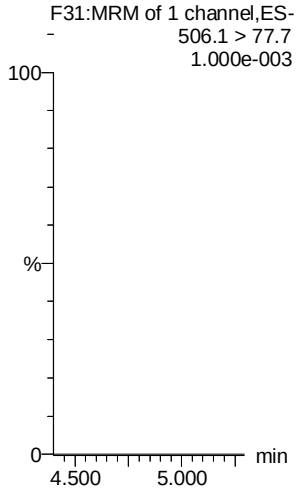
13C3-PFBS



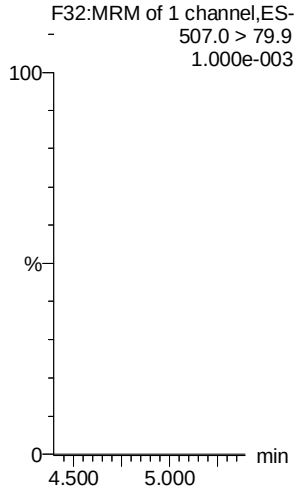
13C5-PFNA



13C8-PFOSA



13C8-PFOS



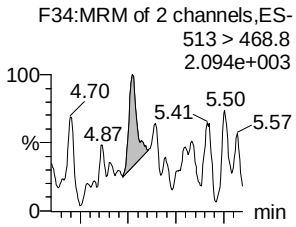
AC 12/30/17

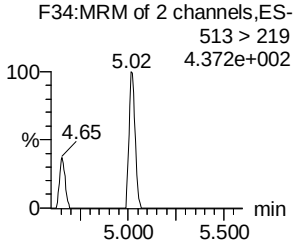
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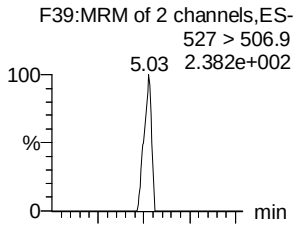
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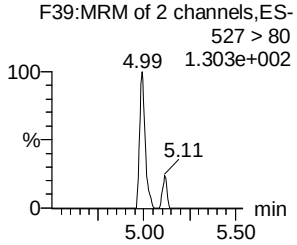
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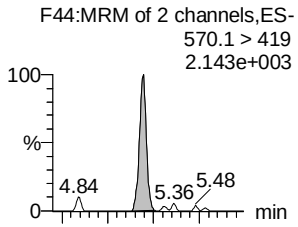


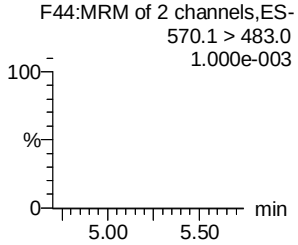
8:2 FTS



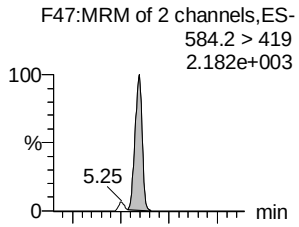


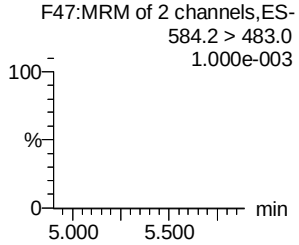
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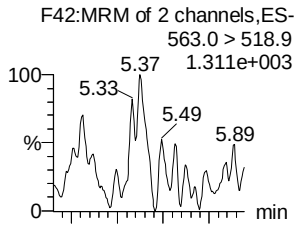


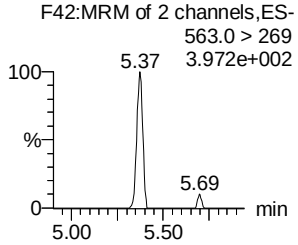
N-EtFOSAA



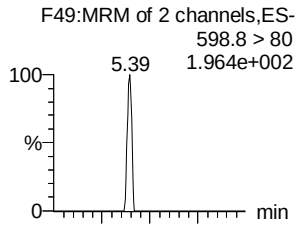


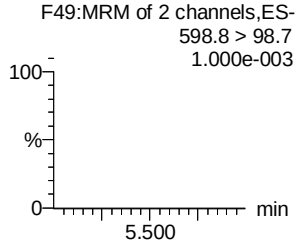
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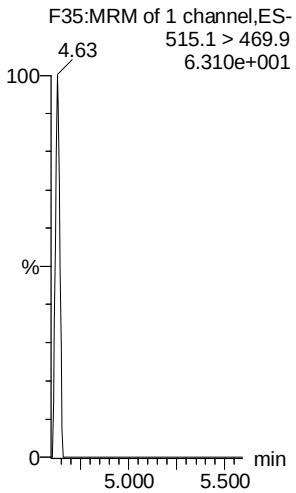


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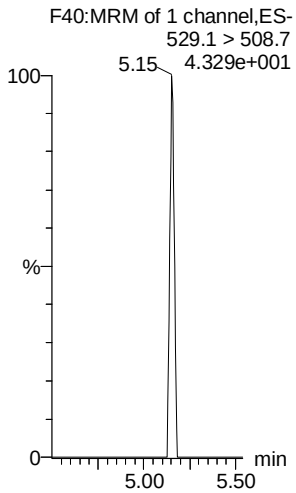




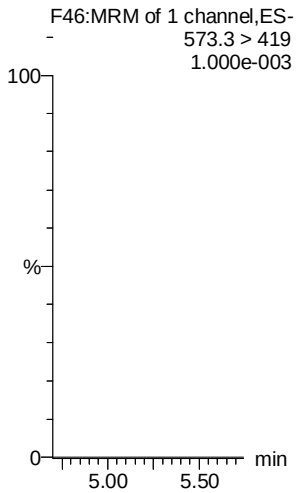
13C2-PFDA



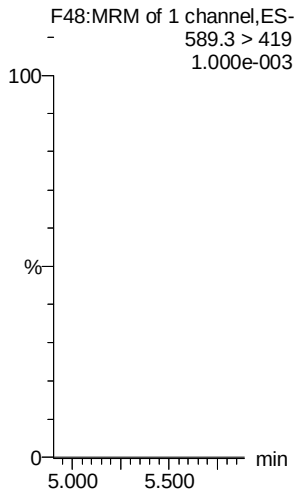
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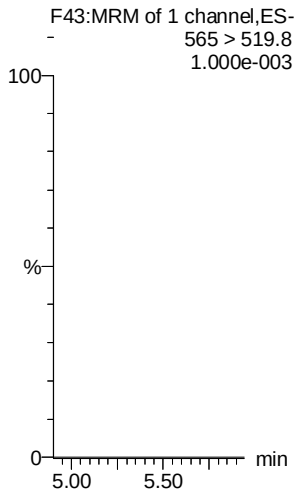
d3-N-MeFOSAA



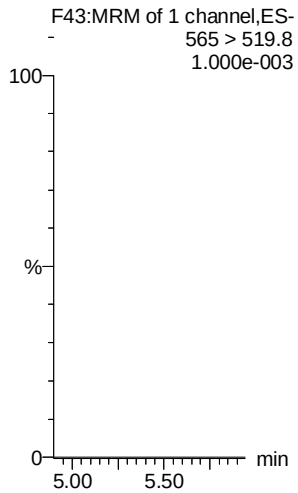
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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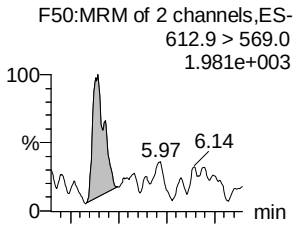
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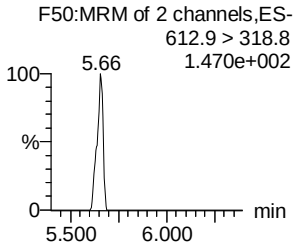
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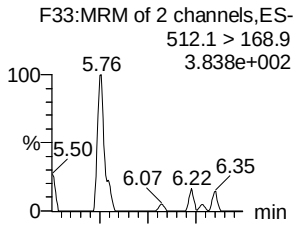
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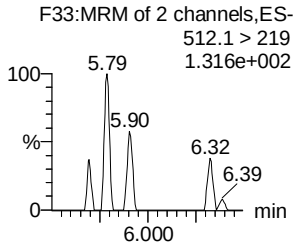
PFDoA



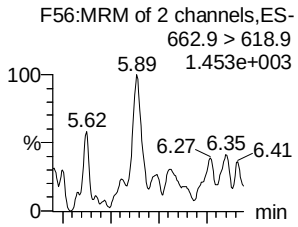


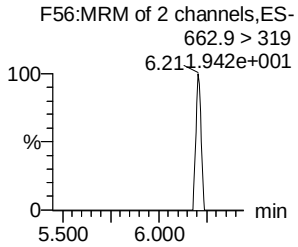
N-MeFOSA



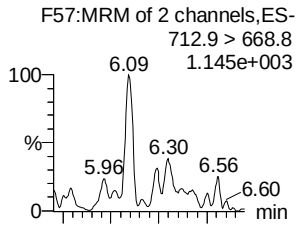


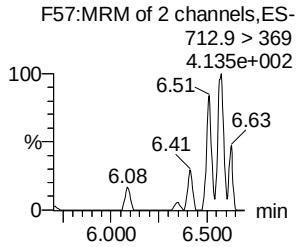
PFTrDA



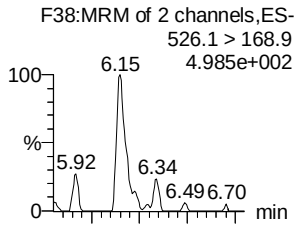


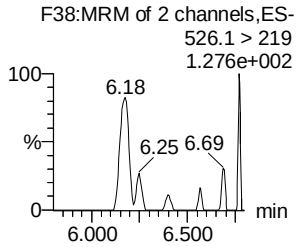
PFTeDA



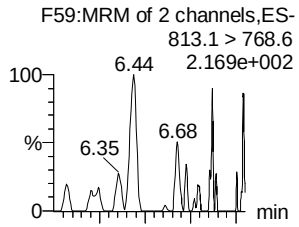


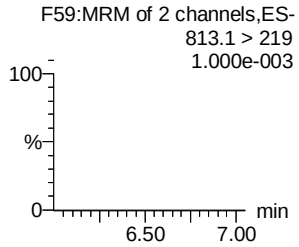
N-EtFOSA



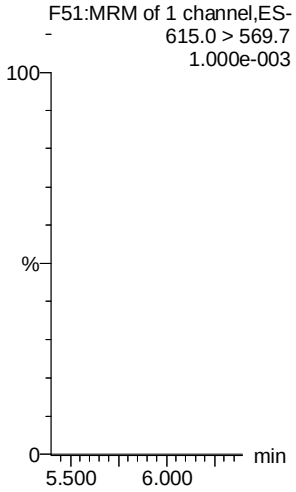


PFHxDA

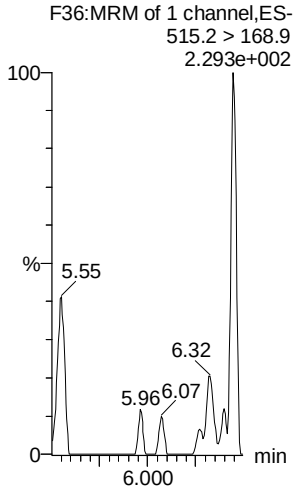




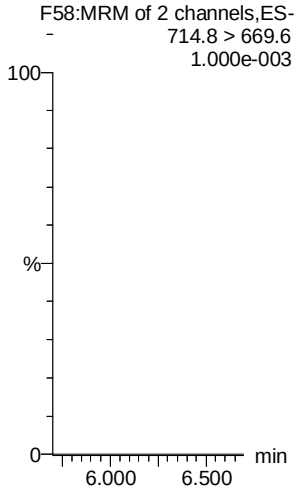
13C2-PFDoA



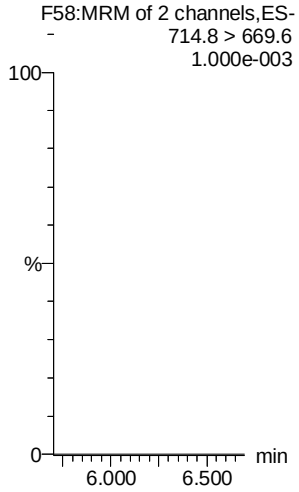
d3-N-MeFOSA



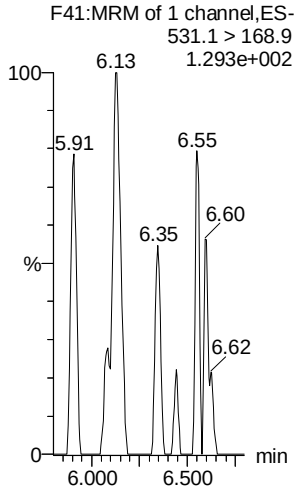
13C2-PFTeDA



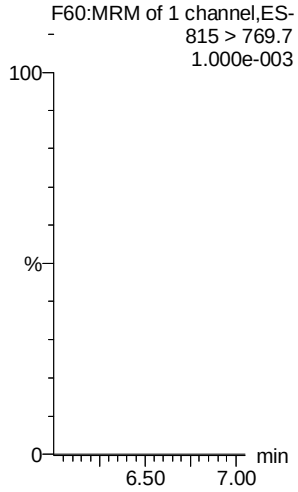
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



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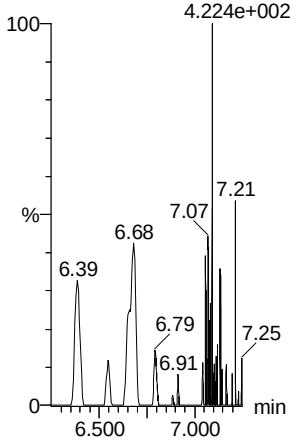
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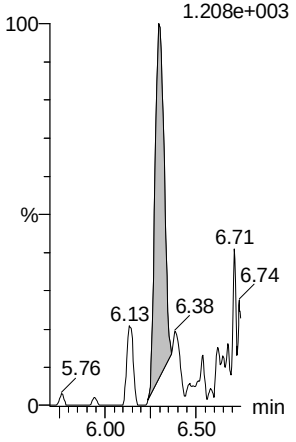
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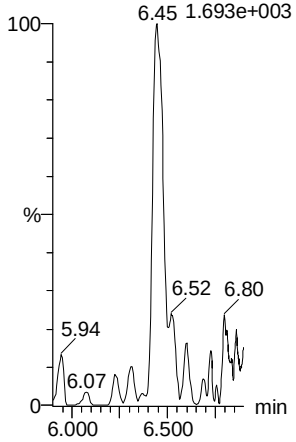
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
4.224e+002



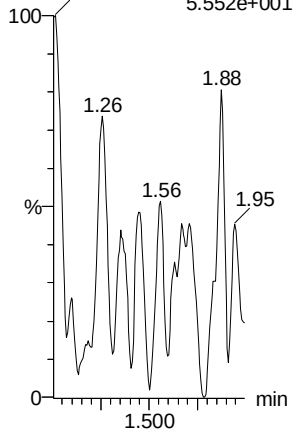
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.208e+003



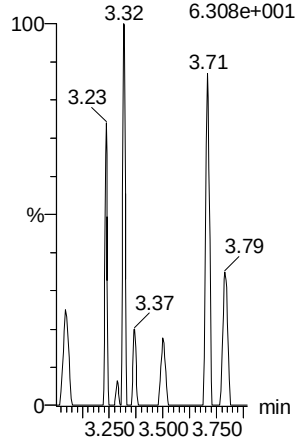
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.693e+003



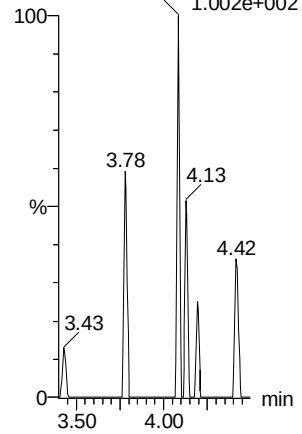
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
5.552e+001



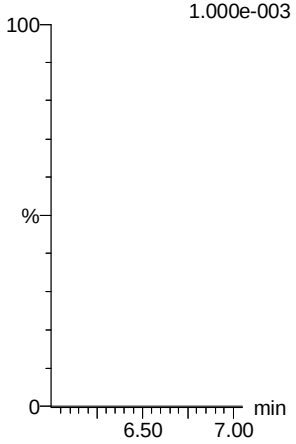
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
6.308e+001



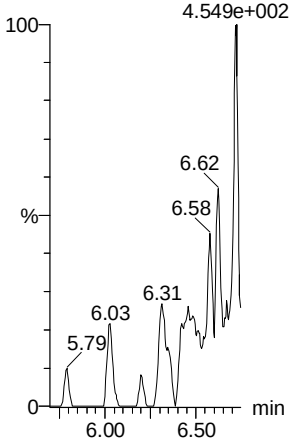
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.002e+002



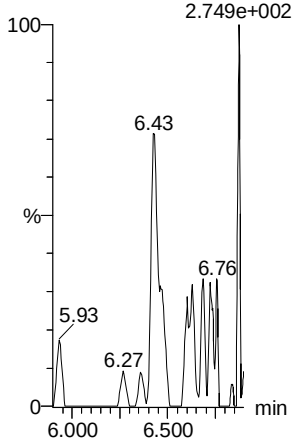
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.000e-003



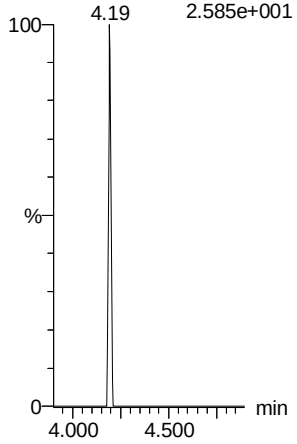
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.549e+002



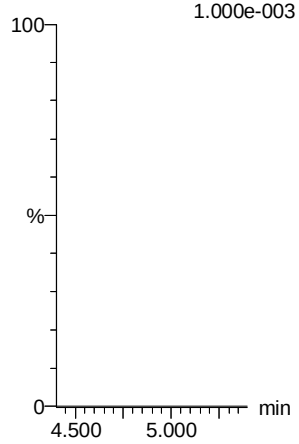
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
2.749e+002



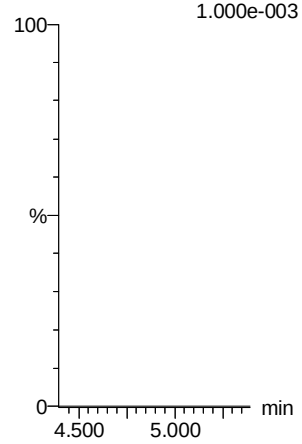
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
2.585e+001



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
1.000e-003



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.000e-003



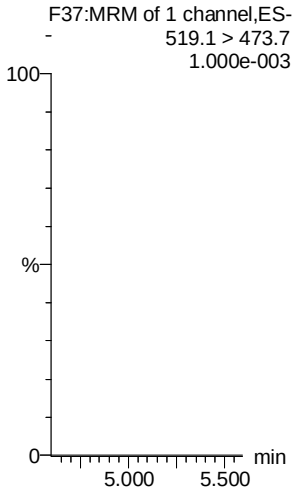
AC 12/30/17

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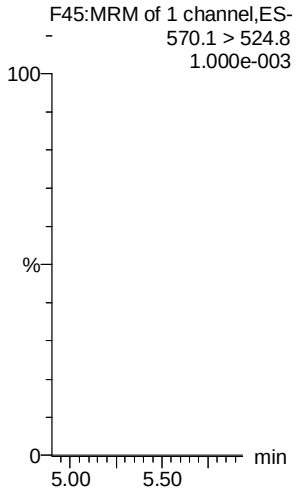
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Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

13C6-PFDA



13C7-PFUdA



AC 12/30/17

Analytical Standard Record

Vista Analytical Laboratory

17J1820

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
16G1221	br-PFOSK anion	12-Jul-16	** Vendor **	14-Oct-20	19-Oct-17 08:16 by INJ	0.431
17G1209	FOSA-I	12-Jul-17	** Vendor **	30-Sep-21	13-Jul-17 09:08 by INJ	0.4
17G1312	PFTeDA	13-Jul-17	** Vendor **	30-Sep-21	17-Jul-17 16:23 by INJ	0.4
17G1313	PFTrDA	13-Jul-17	** Vendor **	02-May-22	17-Jul-17 16:22 by INJ	0.4
17G1323	br-PFHxSK	13-Jul-17	** Vendor **	04-Jan-22	17-Jul-17 16:16 by INJ	0.44
17G1325	L-PFDS	13-Jul-17	** Vendor **	17-Feb-22	17-Jul-17 16:11 by INJ	0.415
17G1326	L-PFHpS	13-Jul-17	** Vendor **	18-Oct-21	17-Jul-17 16:08 by INJ	0.42
17G1805	PFDA	18-Jul-17	** Vendor **	31-May-21	18-Jul-17 12:37 by INJ	0.4
17G1806	PFHxA	18-Jul-17	** Vendor **	02-Dec-21	18-Jul-17 12:37 by INJ	0.4
17G1807	MeFOSAA	18-Jul-17	** Vendor **	11-Jan-22	18-Jul-17 12:37 by INJ	0.4
17G1808	EtFOSAA	18-Jul-17	** Vendor **	11-Jan-22	18-Jul-17 12:37 by INJ	0.4
17G1809	PFBA	18-Jul-17	** Vendor **	29-May-22	18-Jul-17 12:37 by INJ	0.4
17G1810	PFODA	18-Jul-17	** Vendor **	29-Apr-21	18-Jul-17 12:37 by INJ	0.4
17G1811	L-PFBS	18-Jul-17	** Vendor **	02-Dec-21	18-Jul-17 12:37 by INJ	0.454
17G1812	8:2FTS	18-Jul-17	** Vendor **	12-Dec-21	18-Jul-17 12:37 by INJ	0.418
17G1813	6:2FTS	18-Jul-17	** Vendor **	20-Apr-22	18-Jul-17 12:36 by INJ	0.422
17H0820	PFDoA	08-Aug-17	** Vendor **	31-May-21	08-Aug-17 11:02 by INJ	0.4
17H0821	PFNA	08-Aug-17	** Vendor **	30-Sep-21	08-Aug-17 11:03 by INJ	0.4
17H0822	PFPeA	08-Aug-17	** Vendor **	14-Jun-22	08-Aug-17 11:05 by INJ	0.4
17H0823	PFOA	08-Aug-17	** Vendor **	17-Feb-22	08-Aug-17 11:06 by INJ	0.4
17H0824	PFUdA	08-Aug-17	** Vendor **	18-Oct-21	08-Aug-17 11:08 by INJ	0.4
17H0825	PFHxDA	08-Aug-17	** Vendor **	25-May-21	08-Aug-17 11:09 by INJ	0.4
17H0826	PFHpA	08-Aug-17	** Vendor **	02-Dec-21	08-Aug-17 11:12 by INJ	0.4
17H0827	N-EtFOSA-M	08-Aug-17	** Vendor **	05-Jul-22	08-Aug-17 11:13 by INJ	2
17H0828	N-MeFOSA-M	08-Aug-17	** Vendor **	05-Jul-22	08-Aug-17 11:15 by INJ	2
17H0829	N-EtFOSE-M	08-Aug-17	** Vendor **	24-Apr-22	08-Aug-17 11:16 by INJ	2
17H0830	N-MeFOSE-M	08-Aug-17	** Vendor **	24-Apr-22	08-Aug-17 11:17 by INJ	2

Description:	PFC NS Stock	Expires:	18-Oct-19
Standard Type:	Analyte Spike	Prepared:	18-Oct-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	19-Oct-17 08:19 by INJ

PFOS and PFHxS linear and branched components

Analyte	CAS Number	Concentration	Units
L-PFDS		1	ug/mL
6:2 FTS	27619-97-2	1	ug/mL
L-PFTeDA		1	ug/mL
L-PFPeA		1	ug/mL
L-PFOSA		1	ug/mL
L-PFOS		0.789	ug/mL
L-PFODA		1	ug/mL
L-PFOA		1	ug/mL
L-PFNA		1	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

17J1820

Description:	PFC NS Stock	Expires:	18-Oct-19
Standard Type:	Analyte Spike	Prepared:	18-Oct-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	19-Oct-17 08:19 by INJ

PFOS and PFHxS linear and branched components

Analyte	CAS Number	Concentration	Units
L-PFHxS		0.812	ug/mL
L-PFHxDA		1	ug/mL
L-PFHxA		1	ug/mL
L-PFUnA		1	ug/mL
L-PFHpA		1	ug/mL
MeFOSA	31506-32-8	5	ug/mL
L-PFDoA		1	ug/mL
L-PFDA		1	ug/mL
L-PFBS		1	ug/mL
L-PFBA		1	ug/mL
L-8:2FTS		1	ug/mL
L-6:2 FTS		1	ug/mL
EtFOSE	1691-99-2	5	ug/mL
EtFOSAA	2991-50-6	1	ug/mL
EtFOSA	4151-50-2	5	ug/mL
Br-PFHxS	3871-99-6	0.189	ug/mL
8:2 FTS	39108-34-4	1	ug/mL
L-PFHpS		1	ug/mL
PFHxS	355-46-4	1	ug/mL
Total PFHxS		1	ug/mL
Total PFHpS		1	ug/mL
Total PFDS		1	ug/mL
Total 6:2 FTS		1	ug/mL
PFUnA	2058-94-8	1	ug/mL
PFTrDA	72629-94-8	1	ug/mL
PFTeDA	376-06-7	1	ug/mL
PFPeA	2706-90-3	1	ug/mL
PFOSA	754-91-6	1	ug/mL
PFOS	1763-23-1	1	ug/mL
PFODA	16517-11-6	1	ug/mL
L-PFTrDA		1	ug/mL
PFNA	375-95-1	1	ug/mL
Total PFUnA		1	ug/mL
PFHxDA	67905-19-5	1	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

17J1820

Description:	PFC NS Stock	Expires:	18-Oct-19
Standard Type:	Analyte Spike	Prepared:	18-Oct-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	19-Oct-17 08:19 by INJ

PFOS and PFHxS linear and branched components

Analyte	CAS Number	Concentration	Units
PFHxA	307-24-4	1	ug/mL
PFHpS	375-92-8	1	ug/mL
PFHpA	375-85-9	1	ug/mL
PFDS	335-77-3	1	ug/mL
PFDoA	307-55-1	1	ug/mL
PFDA	335-76-2	1	ug/mL
PFBS	375-73-5	1	ug/mL
PFBA	375-22-4	1	ug/mL
MeFOSE	24448-09-7	5	ug/mL
MeFOSAA	2355-31-9	1	ug/mL
PFOA	335-67-1	1	ug/mL

1701221

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK1015
CONCENTRATION:	50 ± 2.5 µg/ml (total potassium salt)
	46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	10/13/2015
LAST TESTED: (mm/dd/yyyy)	10/14/2015
EXPIRY DATE: (mm/dd/yyyy)	10/14/2020
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer; potassium salt).

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Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HAZARDS:

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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ANAB ACCREDITED

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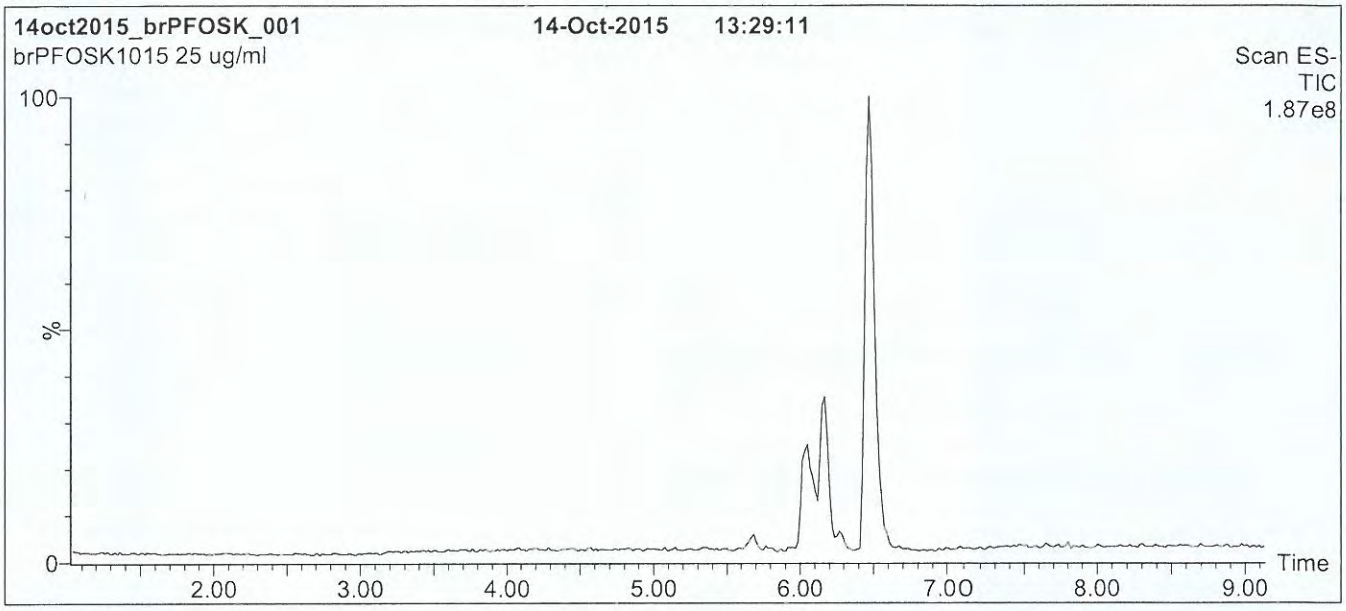
Table A: **br-PFOSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

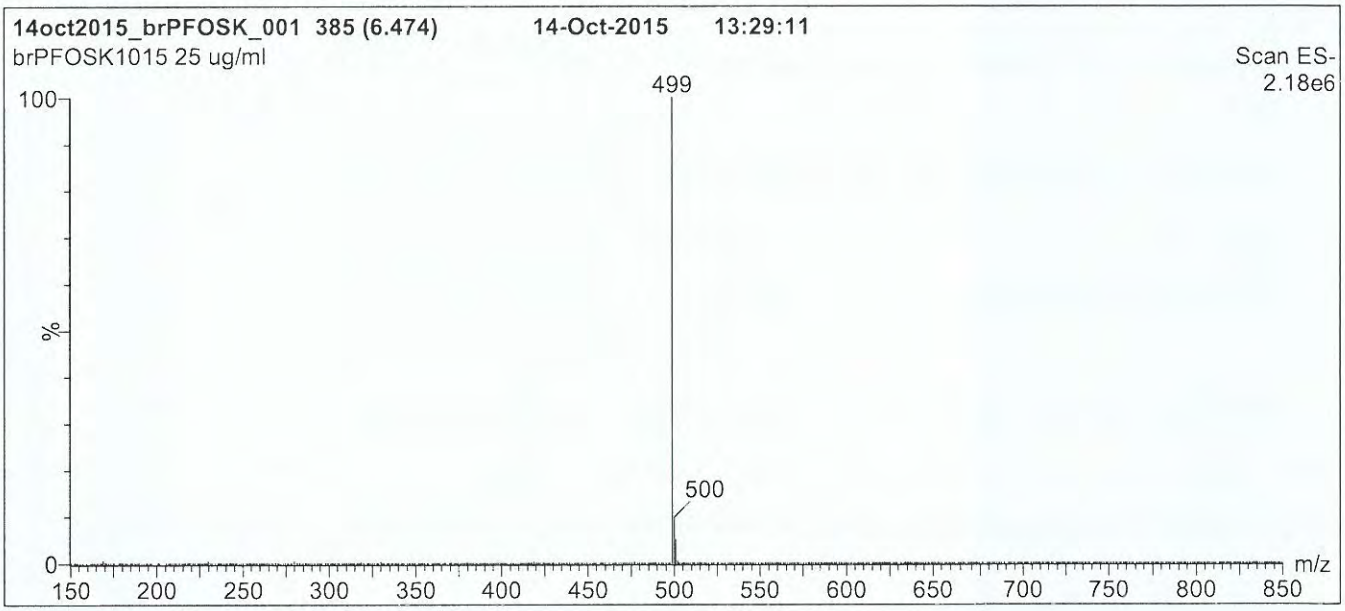
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-octanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$CF_3CF_2CF_2CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	0.6
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	1.9
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	2.2
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	4.5
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	10.0
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3C(CF_3)(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF_2C(CF_3)(CF_3)CF_2CF_2CF_2SO_3^-K^+$	0.03
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF(CF_3)CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF(CF_3)CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	0.07

* Percent of total perfluorooctanesulfonate isomers only. Isomers are labelled in Figure 2.
** Systematic Name: Potassium perfluorooctane-2-sulfonate.

Certified By: _____ **Date:** 10/15/2015
B.G. Chittim (mm/dd/yyyy)

Figure 1: br-PFOSK; LC/MS Data (TIC and Mass Spectrum)





Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 45% (80:20 MeOH:ACN) / 55% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 12 min and hold for 2 min.
Return to initial conditions over 0.5 min.
Time: 16 min

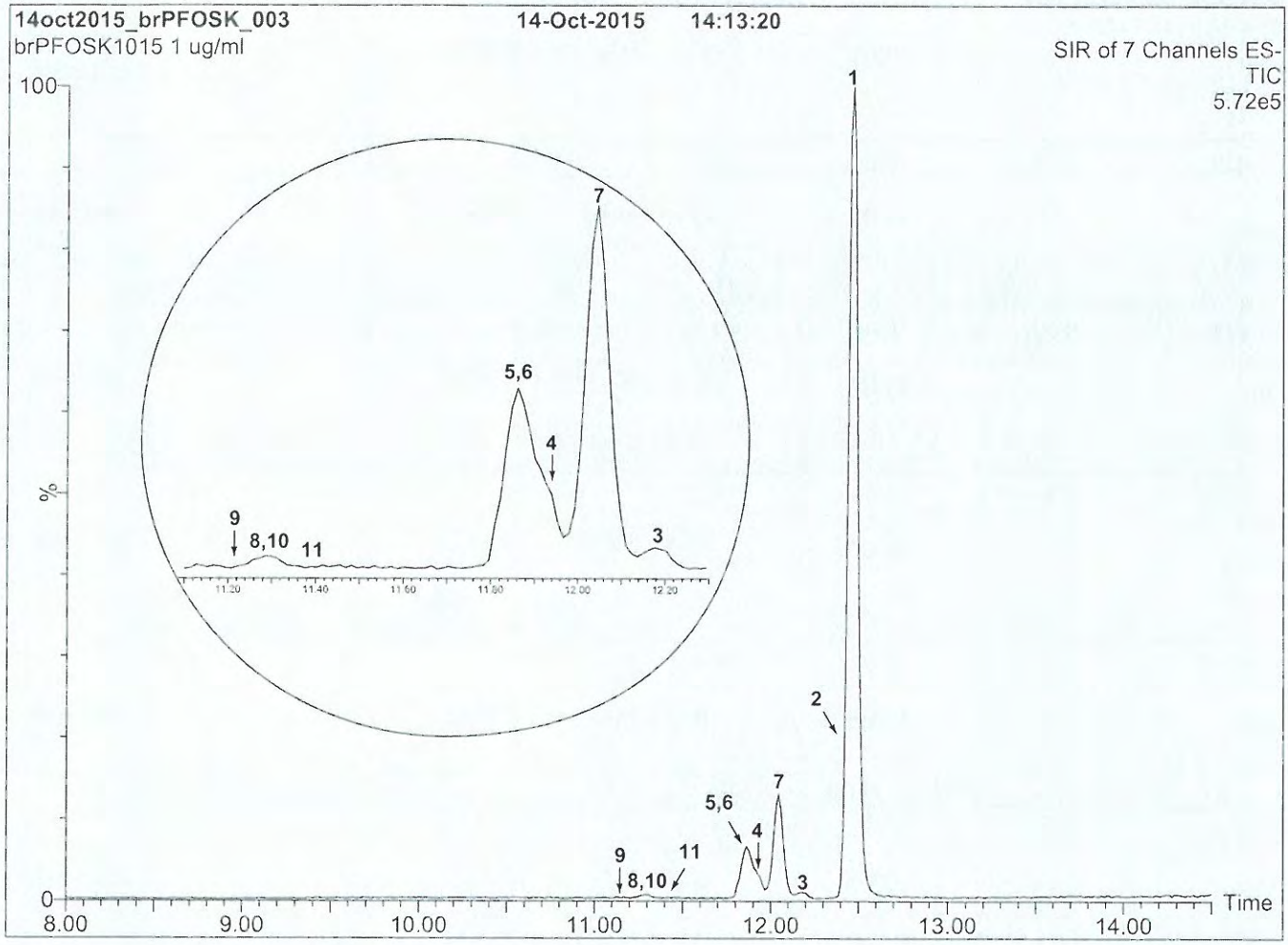
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **br-PFOSK; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions:

Column: Acquity UPLC BEH Shield RP_{18} (1.7 µm, 2.1 x 100 mm)

Injection: 1.0 µg/ml of br-PFOSK

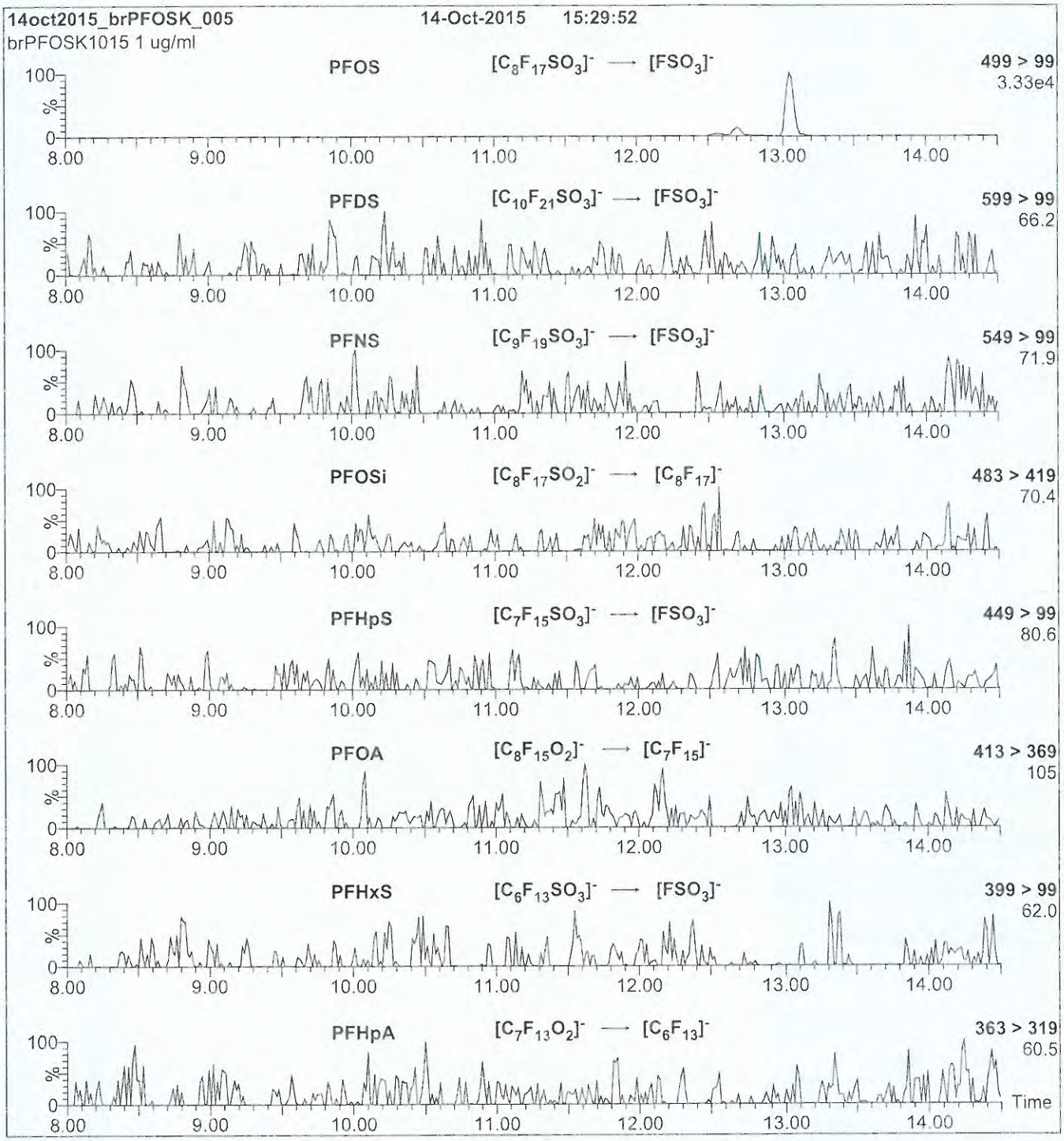
Mobile Phase: Gradient
45% (80:20 MeOH:ACN) / 55% H_2O (both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 15 min and hold for 3 min.
Return to initial conditions over 1 min.
Time: 20 min

Flow: 300 µl/min

MS Conditions:

SIR (ES^-)
Source = 110 °C
Desolvation = 325 °C
Cone Voltage = 60V

Figure 3: **br-PFOSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: On-column

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.06e-3
Collision Energy (eV) = 11-50 (variable)

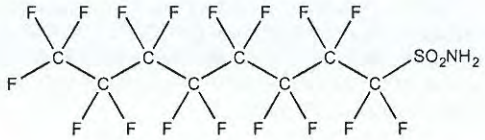
17G1209

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: FOSA-I
COMPOUND: Perfluoro-1-octanesulfonamide
LOT NUMBER: FOSA0916I

STRUCTURE:



CAS #: 754-91-6

MOLECULAR FORMULA:	$C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	499.14
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Isopropanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	09/30/2016		
EXPIRY DATE: (mm/dd/yyyy)	09/30/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: B.G. Chittim **Date:** 10/07/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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17G1209

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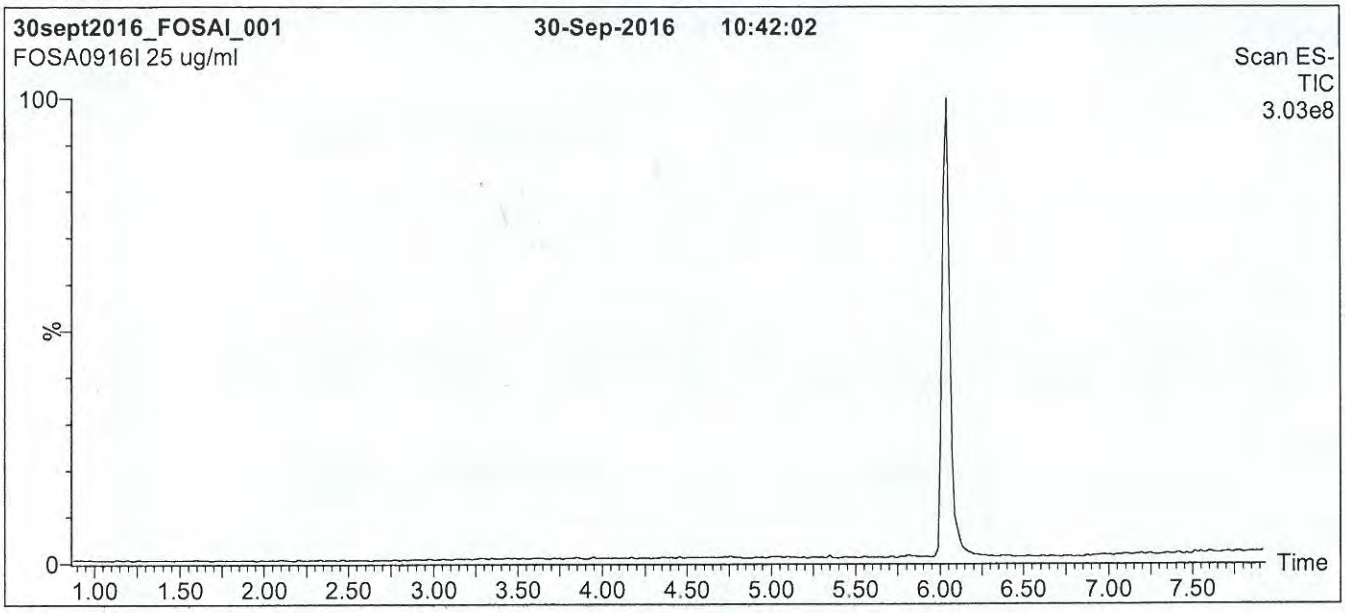
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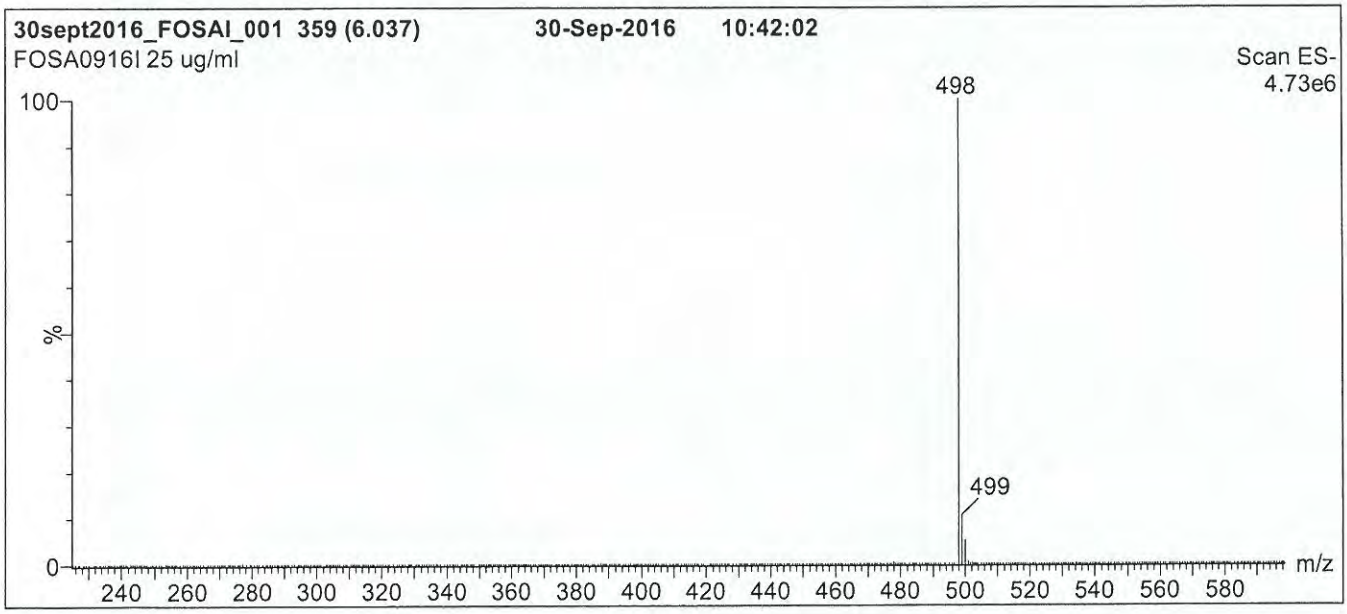
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1761209

Figure 1: **FOSA-I; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

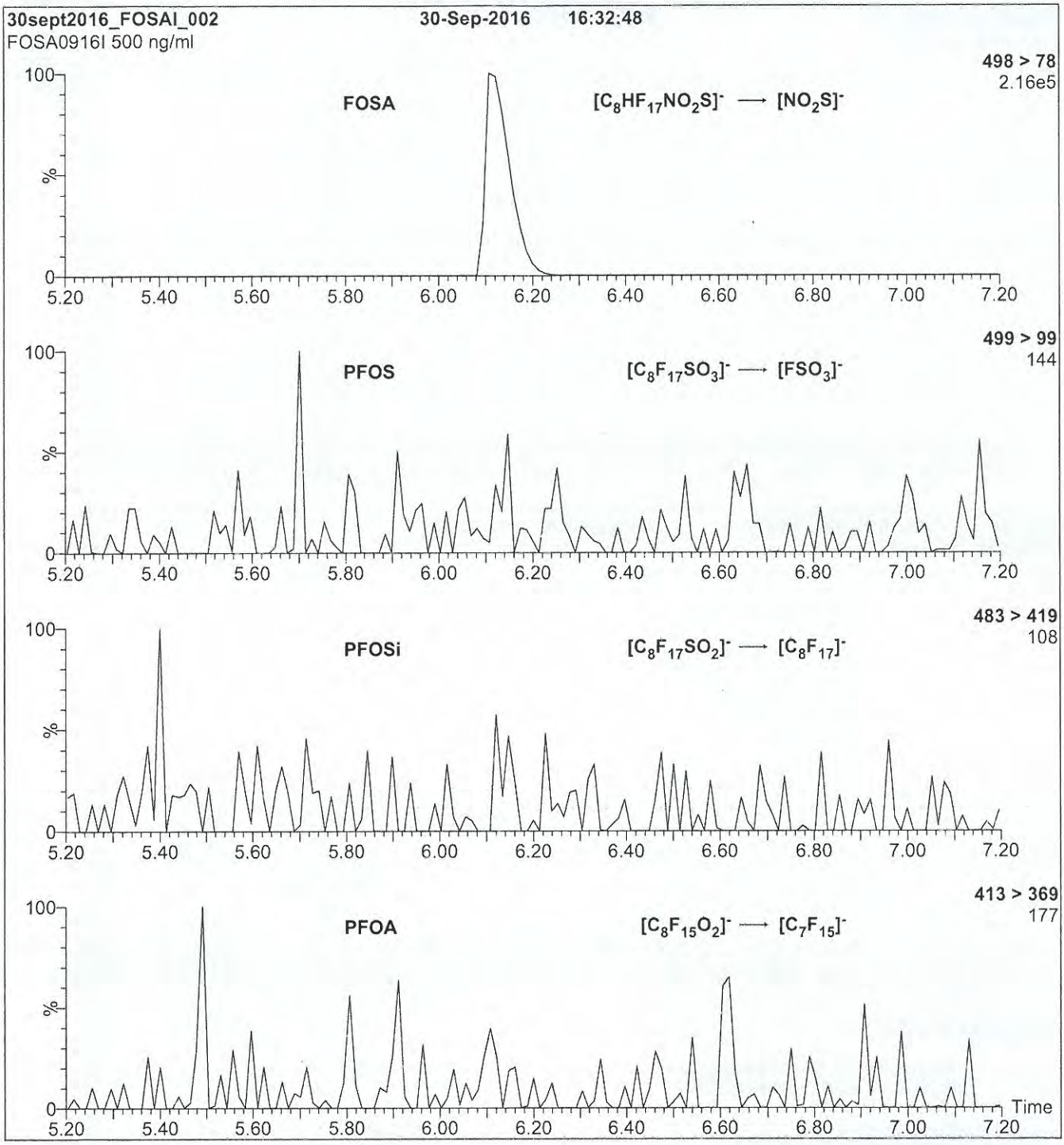
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1209

Figure 2: **FOSA-I; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml FOSA-I)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 30

17G1312

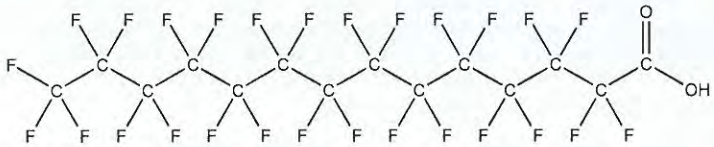
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFTeDA ✓ **LOT NUMBER:** PFTeDA0916 ✓

COMPOUND: Perfluoro-n-tetradecanoic acid

STRUCTURE: **CAS #:** 376-06-7



MOLECULAR FORMULA: $C_{14}HF_{27}O_2$ **MOLECULAR WEIGHT:** 714.11

CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 09/30/2016

EXPIRY DATE: (mm/dd/yyyy) 09/30/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of PFDoA ($C_{12}HF_{23}O_2$) and ~ 0.2% of PFPeDA ($C_{15}HF_{29}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/05/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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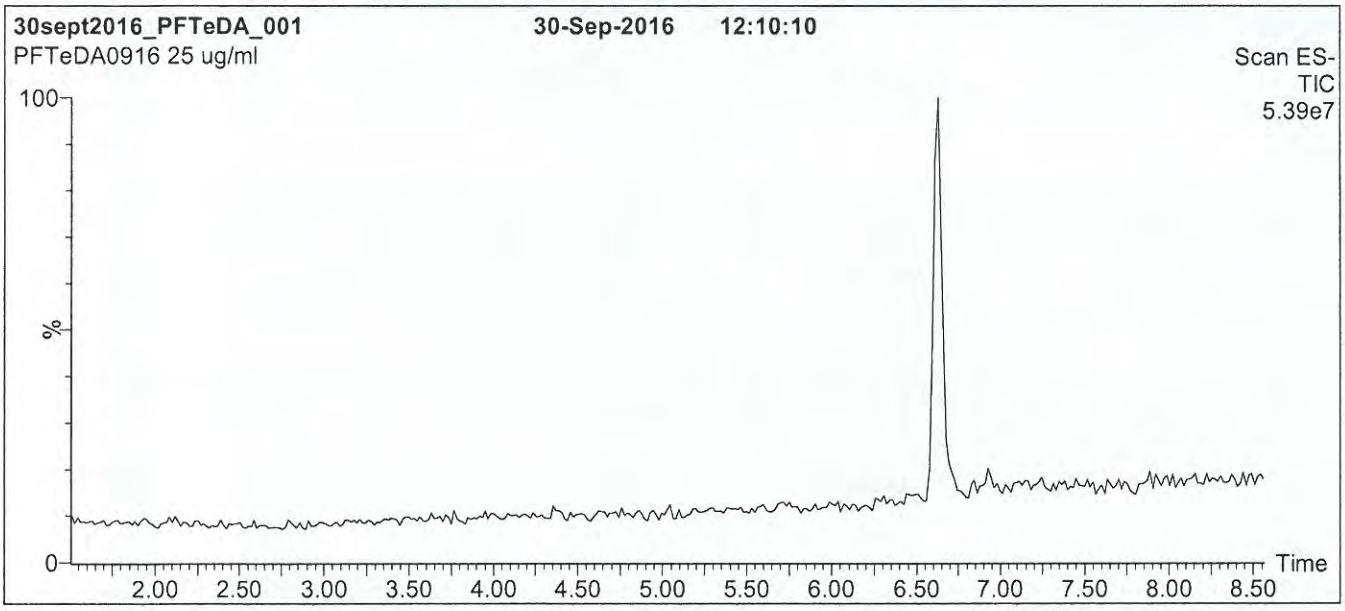
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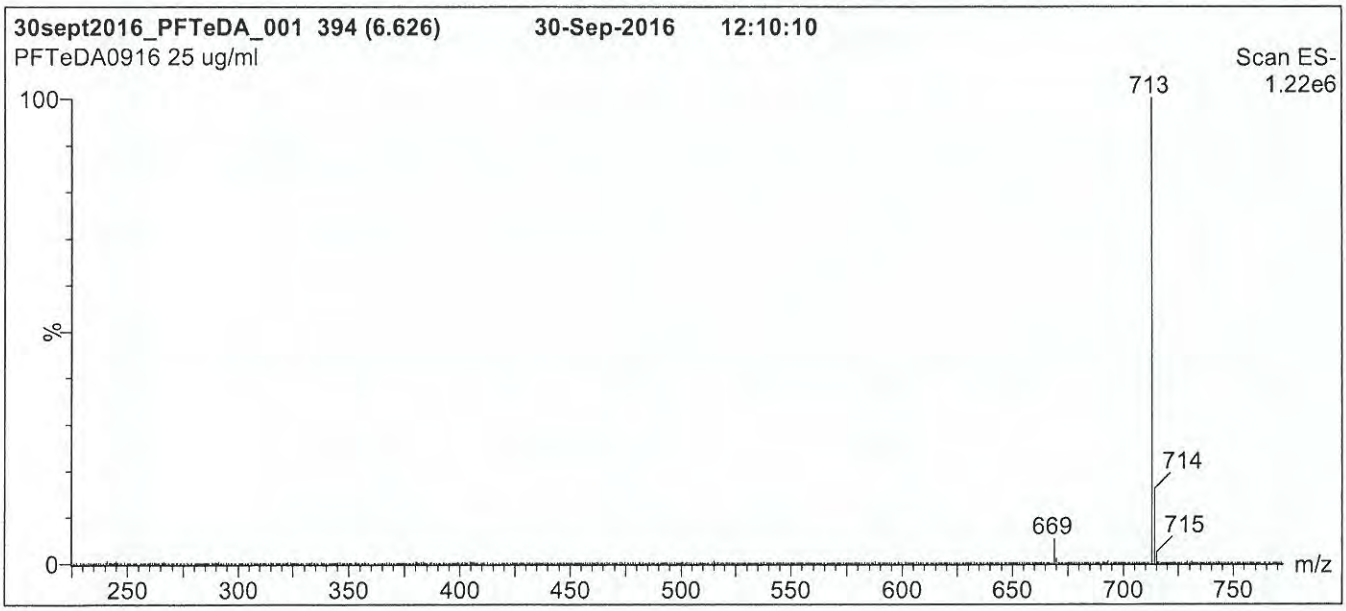
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1701312

Figure 1: **PFTeDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

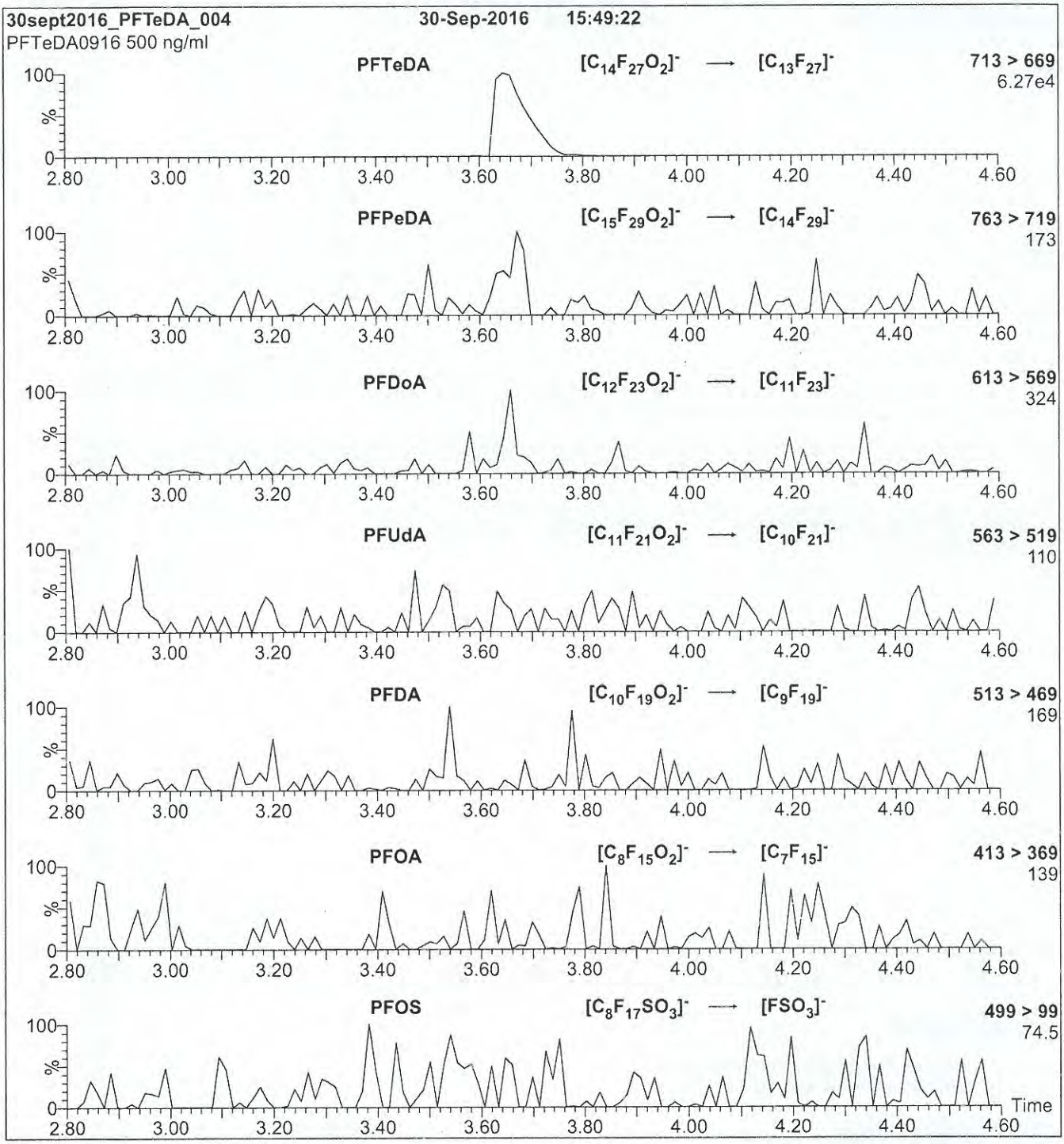
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17G1312

Figure 2: **PFTeDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFTeDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 14

17G1313

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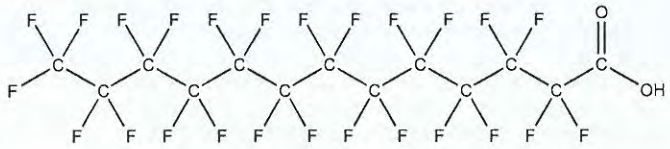
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFTrDA
COMPOUND: Perfluoro-n-tridecanoic acid

LOT NUMBER: PFTrDA0517

STRUCTURE:

CAS #: 72629-94-8



MOLECULAR FORMULA: $C_{13}HF_{25}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 664.11
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/02/2017
EXPIRY DATE: (mm/dd/yyyy) 05/02/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of PFUdA ($C_{11}HF_{21}O_2$), ~ 0.4% of PFDoA ($C_{12}HF_{23}O_2$), and ~ 0.1% of PFTeDA ($C_{14}HF_{27}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim, General Manager **Date:** 05/04/2017 (mm/dd/yyyy)

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17G1313

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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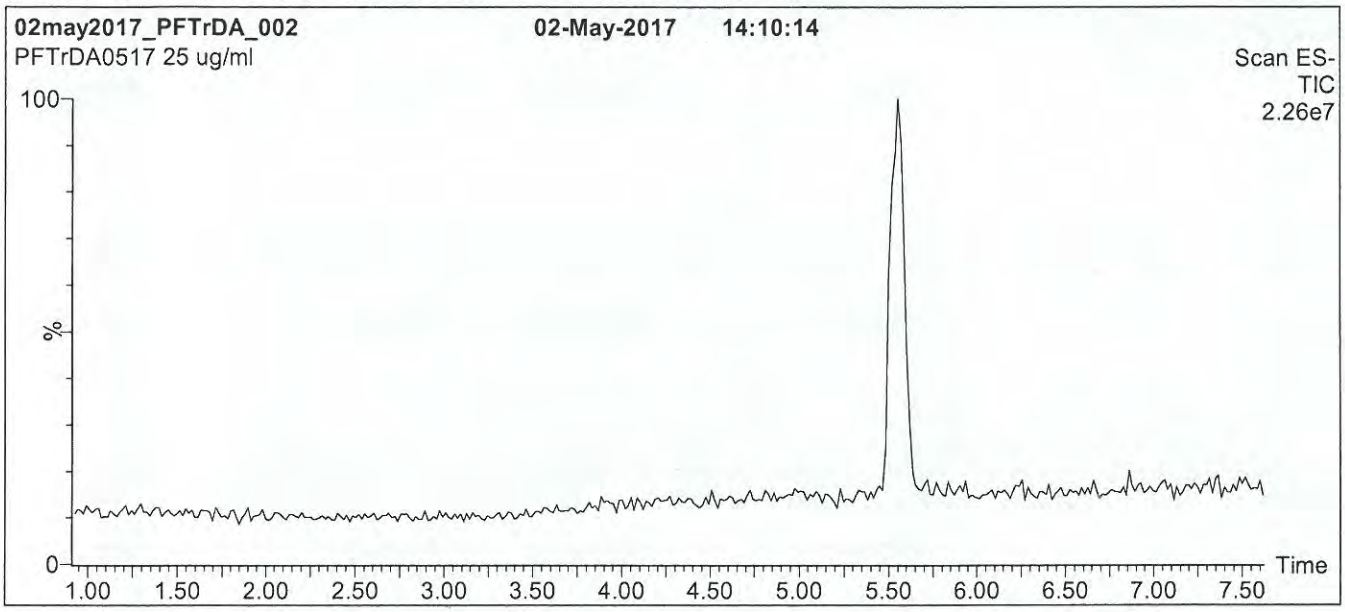
CALA

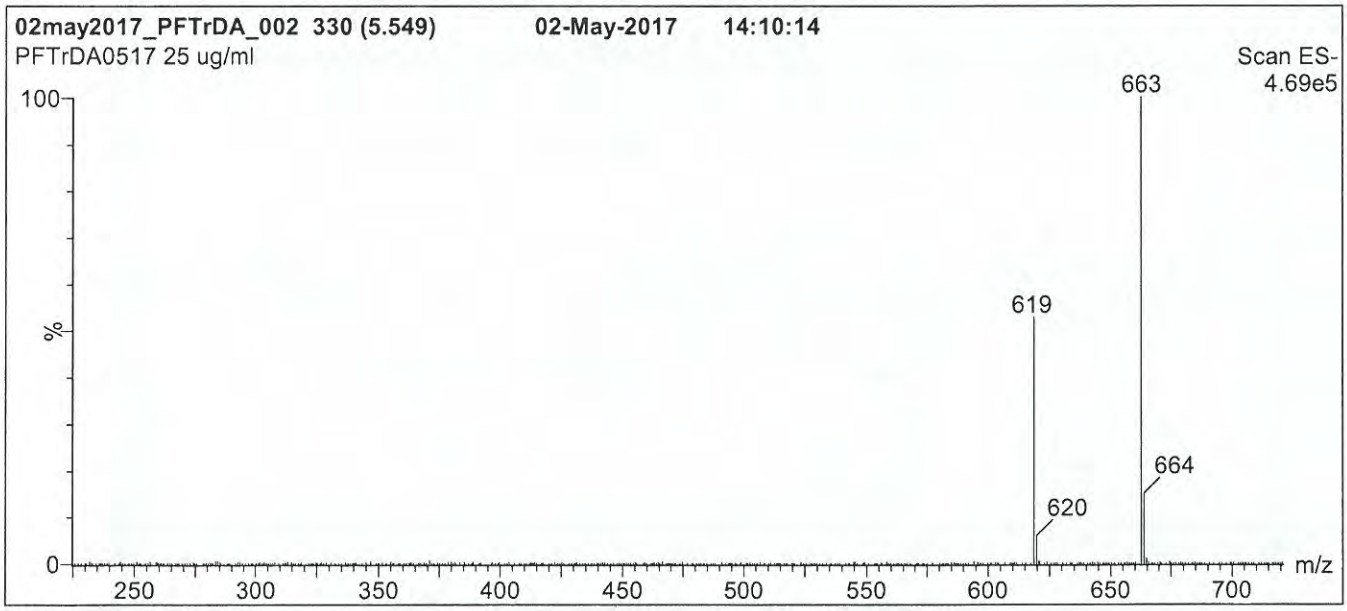
ANAB ACCREDITED

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17G1313

Figure 1: **PFTrDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

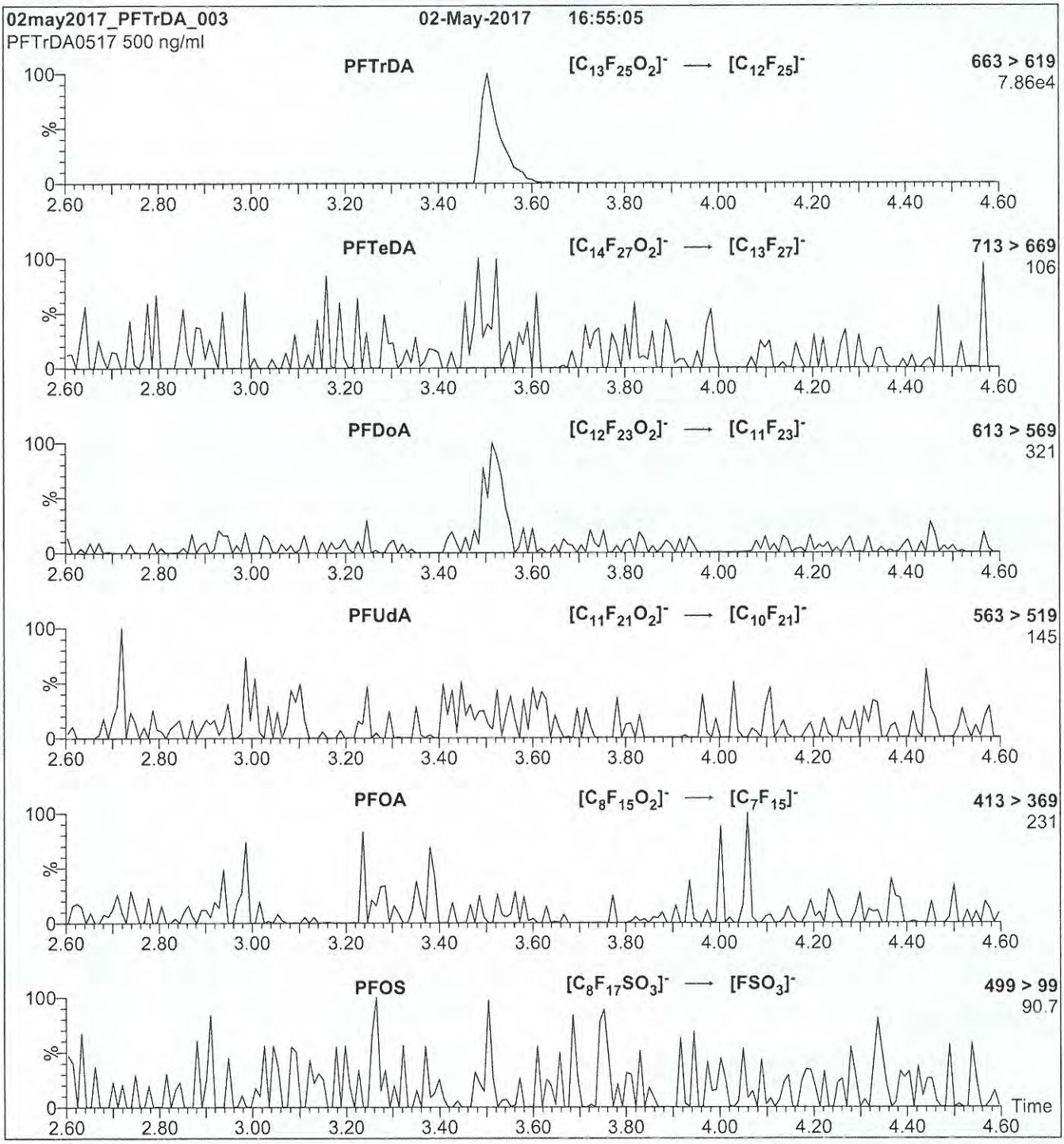
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 22.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 650

17G1313

Figure 2: **PFTrDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFTrDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.17e-3
Collision Energy (eV) = 15

17G1323

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CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFHxSK
LOT NUMBER:	brPFHxSK0117
CONCENTRATION:	50.0 ± 2.5 µg/ml (total potassium salt) 45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	01/03/2017
LAST TESTED: (mm/dd/yyyy)	01/04/2017
EXPIRY DATE: (mm/dd/yyyy)	01/04/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

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INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED Reference Material Producer

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17G1323

Table A: **br-PFHxSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

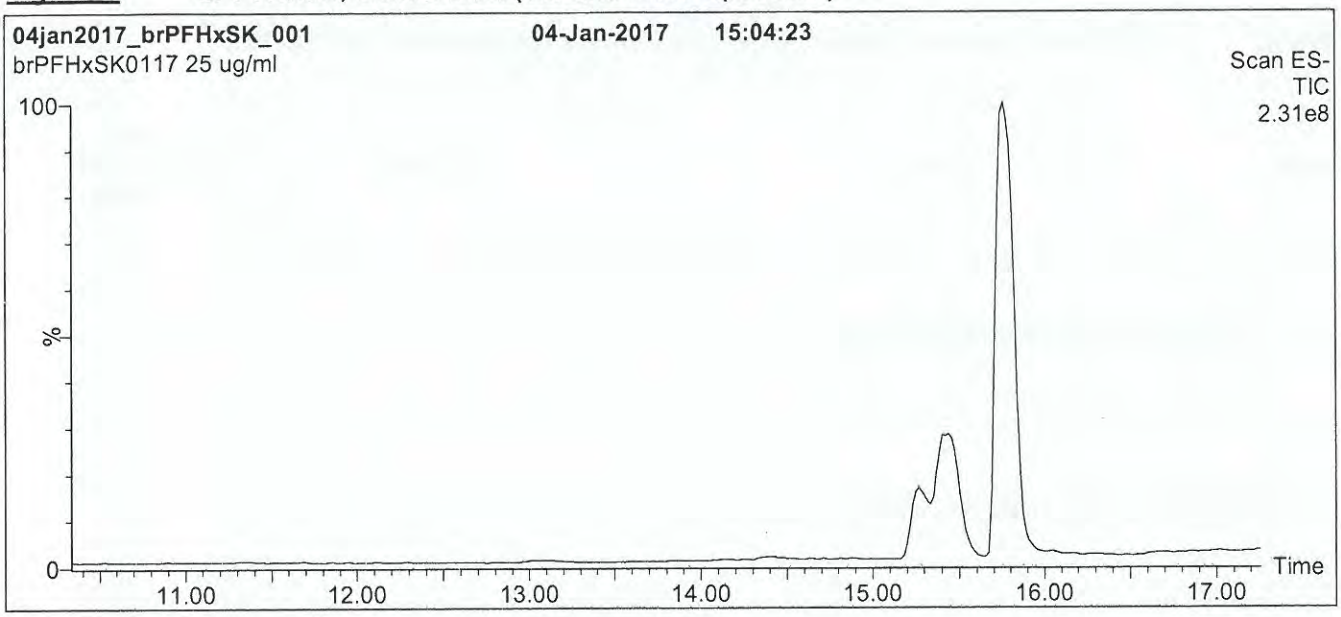
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	1.4
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	5.0
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	8.9
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$CF_3C(CF_3)CF_2CF_2SO_3^-K^+$	0.2
7	Other Unidentified Isomers		0.5

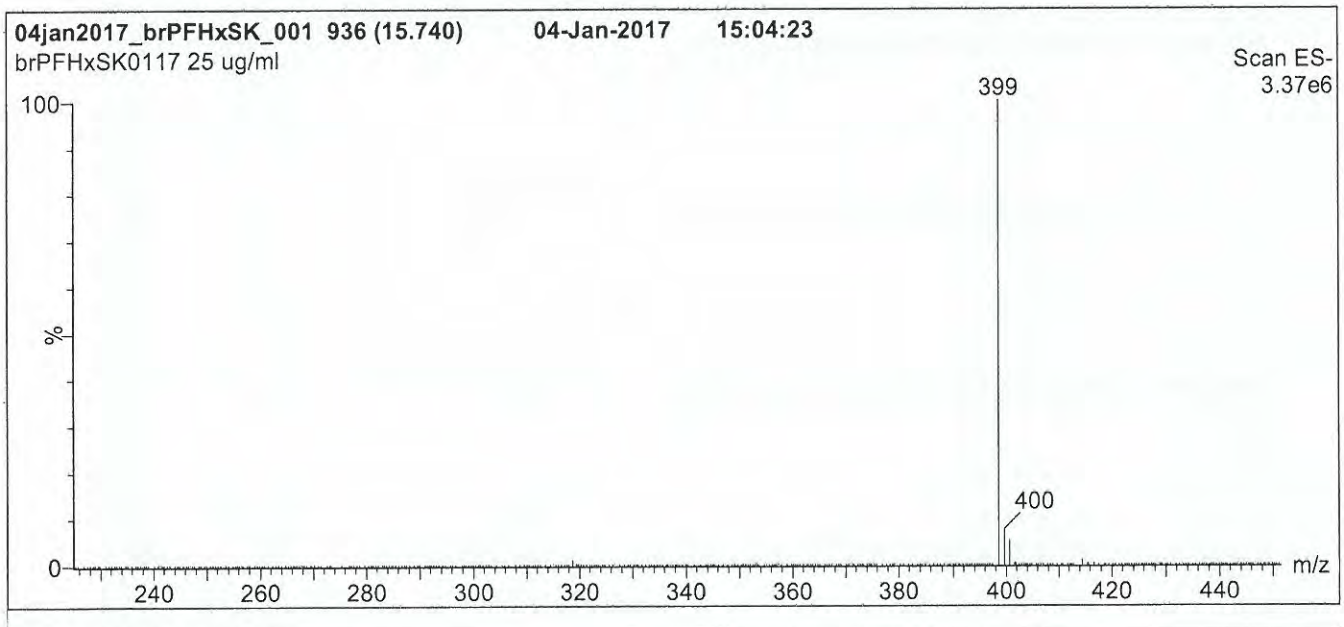
* Percent of total perfluorohexanesulfonate isomers only.
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

Certified By: _____ **Date:** 01/20/2017
B.G. Chittim (mm/dd/yyyy)

17G1323

Figure 1: **br-PFHxSK; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to 90% organic over 3 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 20 min

Flow: 300 µl/min

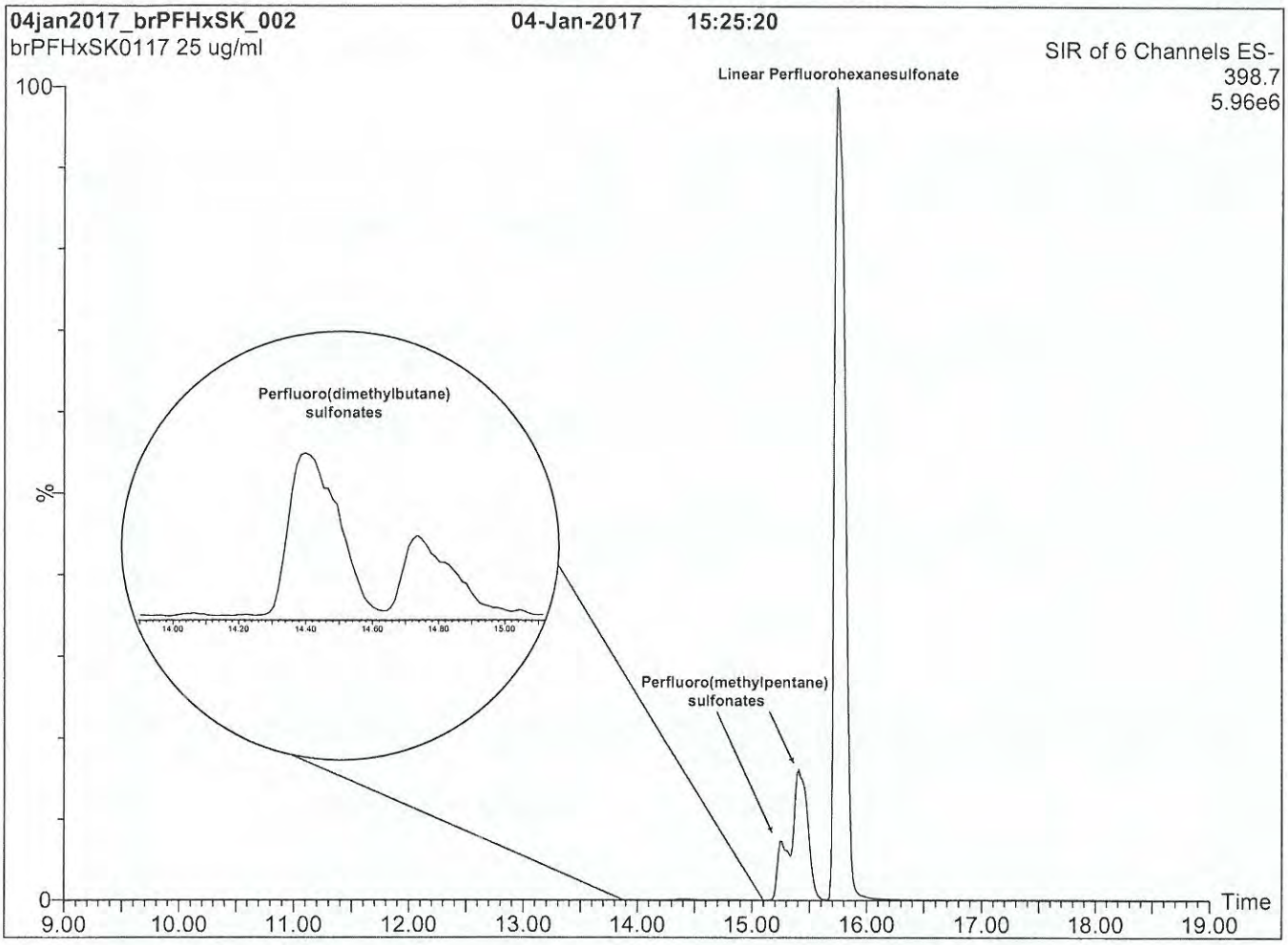
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17G1323

Figure 2: **br-PFHxSK; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to 90% organic over 3 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 20 min

Flow: 300 µl/min

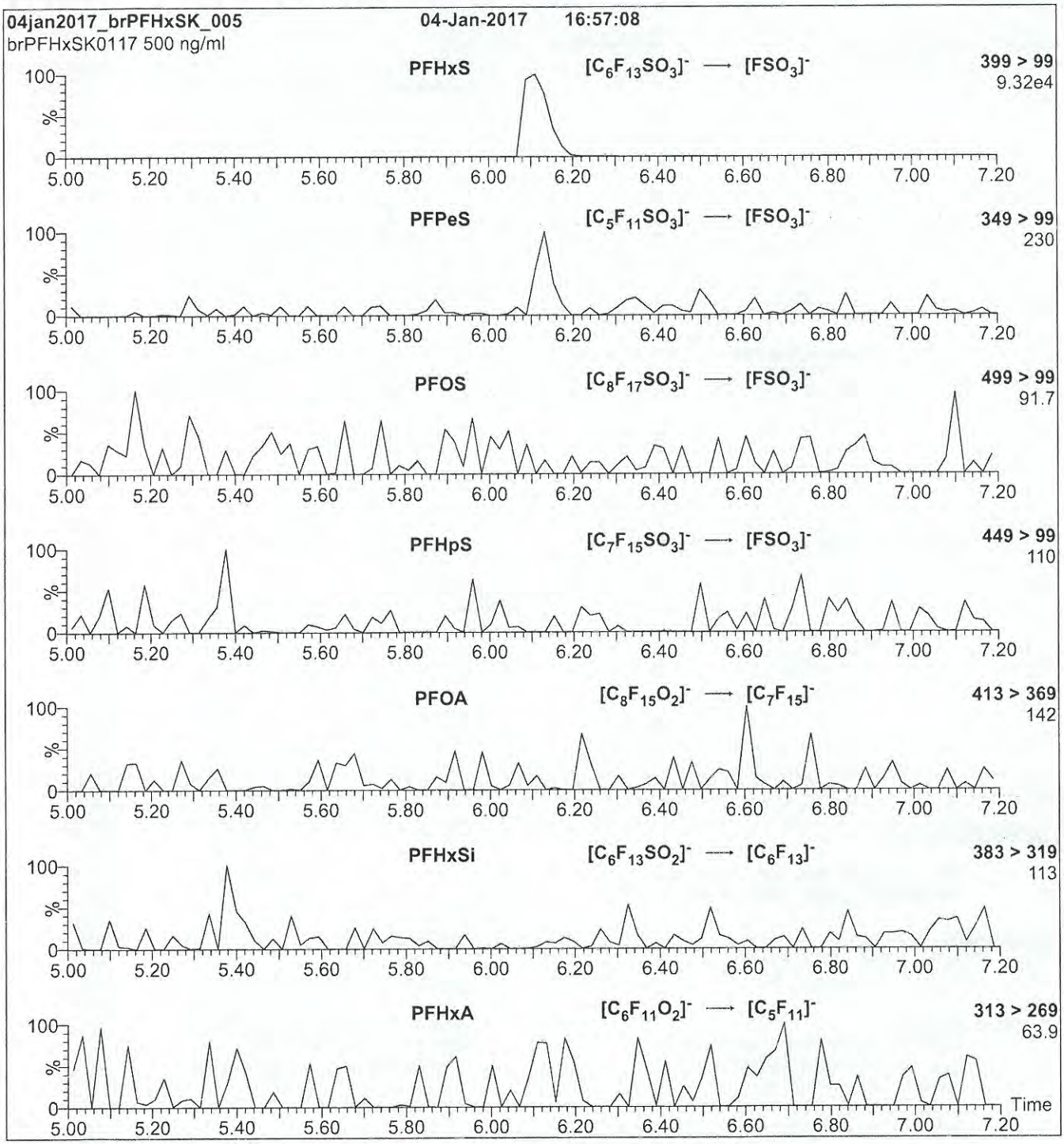
MS Parameters

Experiment: SIR (6 channels)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = variable (15-62)
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17G1323

Figure 3: **br-PFHxSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: Direct loop injection
10 µl (500 ng/ml br-PFHxSK)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 30

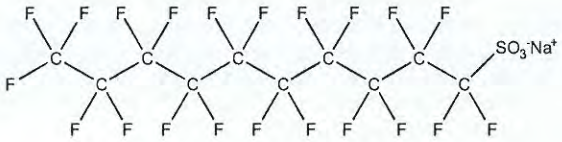
17G1325

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: L-PFDS
COMPOUND: Sodium perfluoro-1-decanesulfonate
LOT NUMBER: LPFDS0217

STRUCTURE:



CAS #: 2806-15-7

MOLECULAR FORMULA:	$C_{10}F_{21}SO_3Na$
MOLECULAR WEIGHT:	622.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 48.2 ± 2.4 µg/ml (PFDS anion)
SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	02/17/2017
EXPIRY DATE: (mm/dd/yyyy)	02/17/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.9% of sodium perfluoro-1-dodecanesulfonate (L-PFDoS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 02/22/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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17G1325

INTENDED USE:

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HAZARDS:

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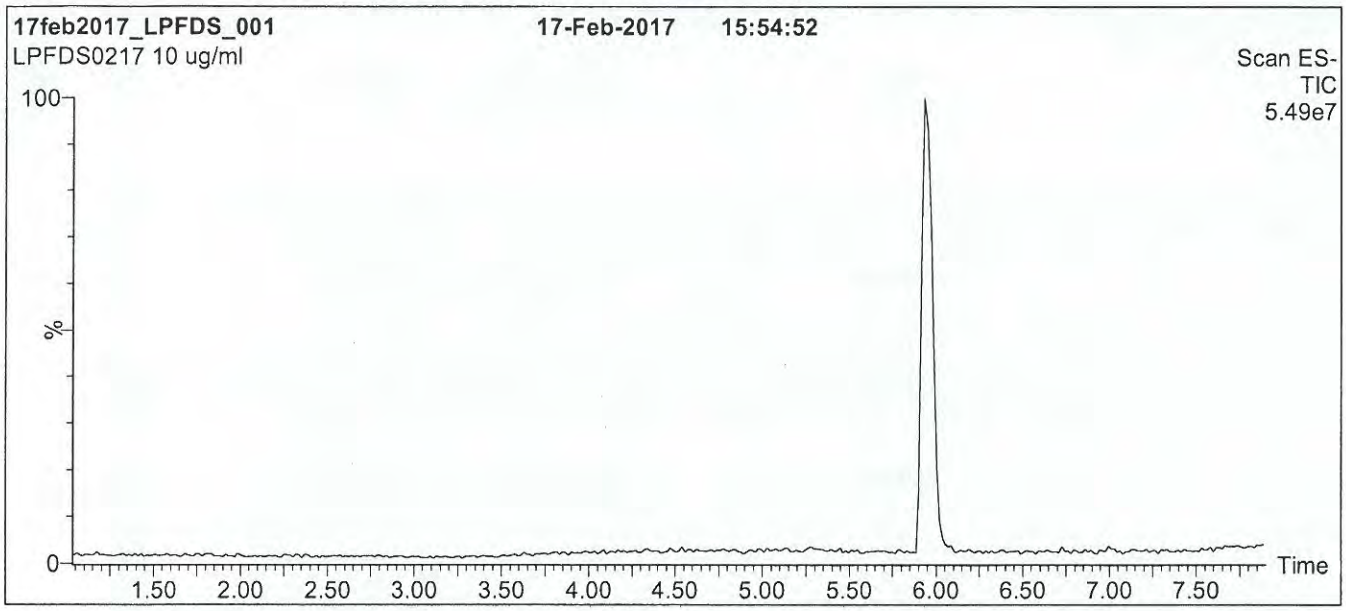
CALA Testing

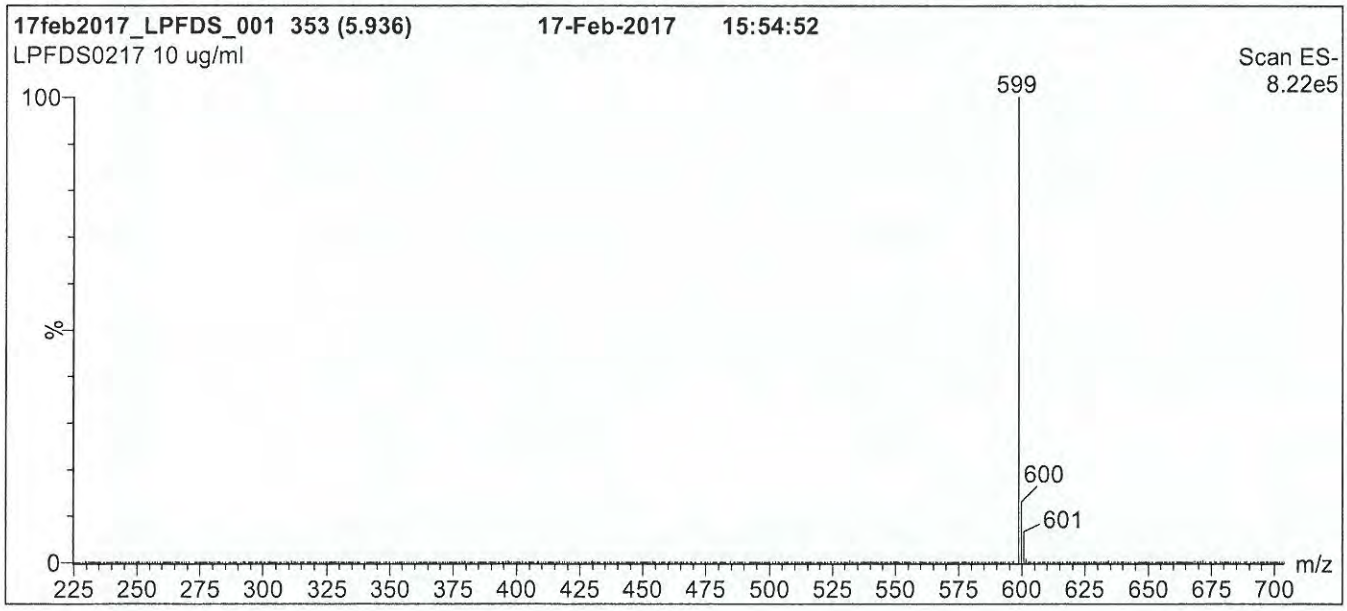
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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17G1325

Figure 1: **L-PFDS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
1 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

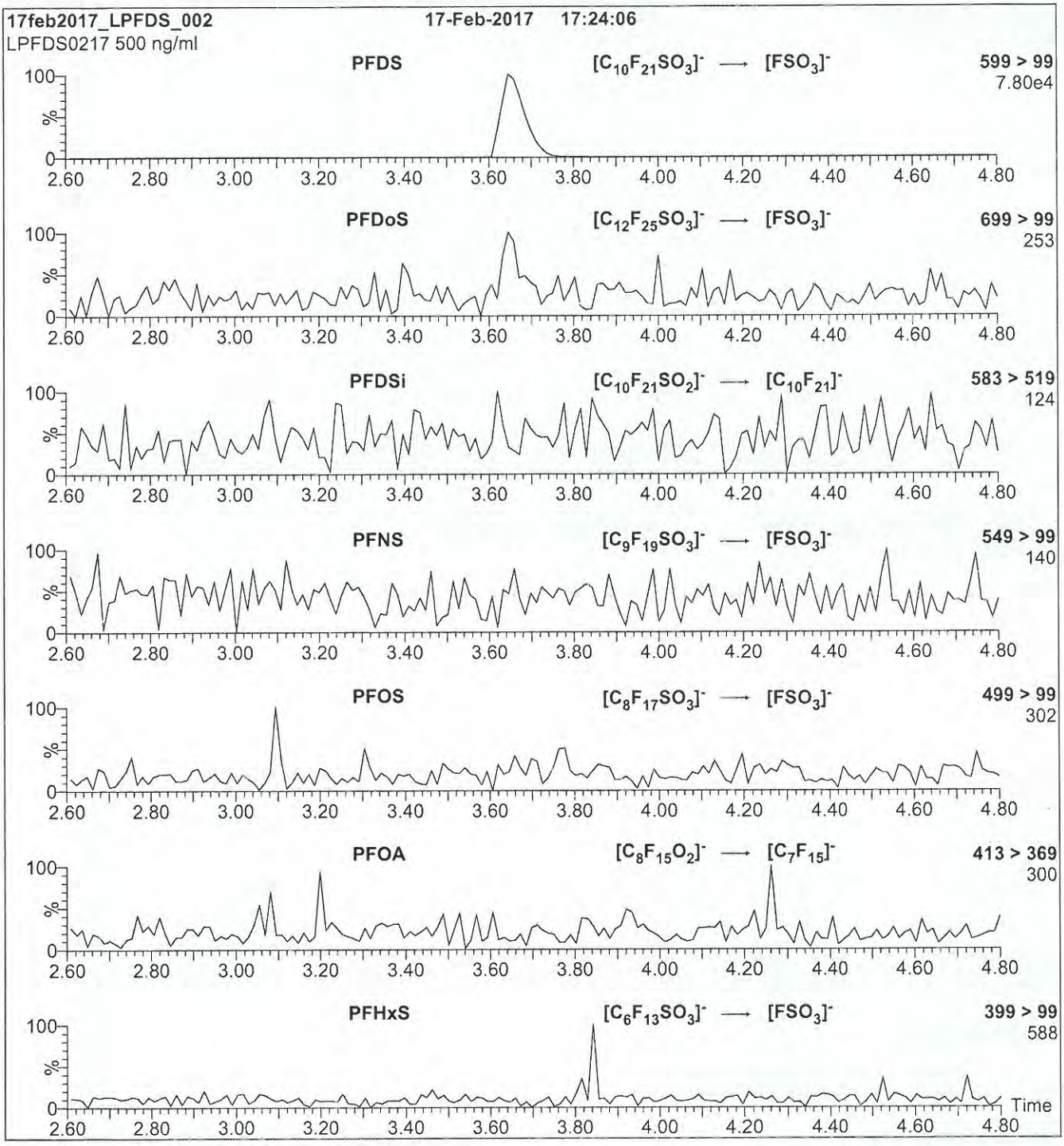
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 70.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1325

Figure 2: **L-PFDS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFDS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 50

17G1326

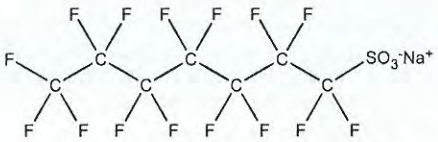
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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFHpS
COMPOUND: Sodium perfluoro-1-heptanesulfonate

LOT NUMBER: LPFHpS1016

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA:	$C_7F_{15}SO_3Na$
MOLECULAR WEIGHT:	472.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.6 ± 2.4 µg/ml (PFHpS anion)
SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	10/18/2016
EXPIRY DATE: (mm/dd/yyyy)	10/18/2021
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.2% of L-PFHxS ($C_6F_{13}SO_3Na$) and ~ 0.1% of L-PFOS ($C_8F_{17}SO_3Na$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/20/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1326

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

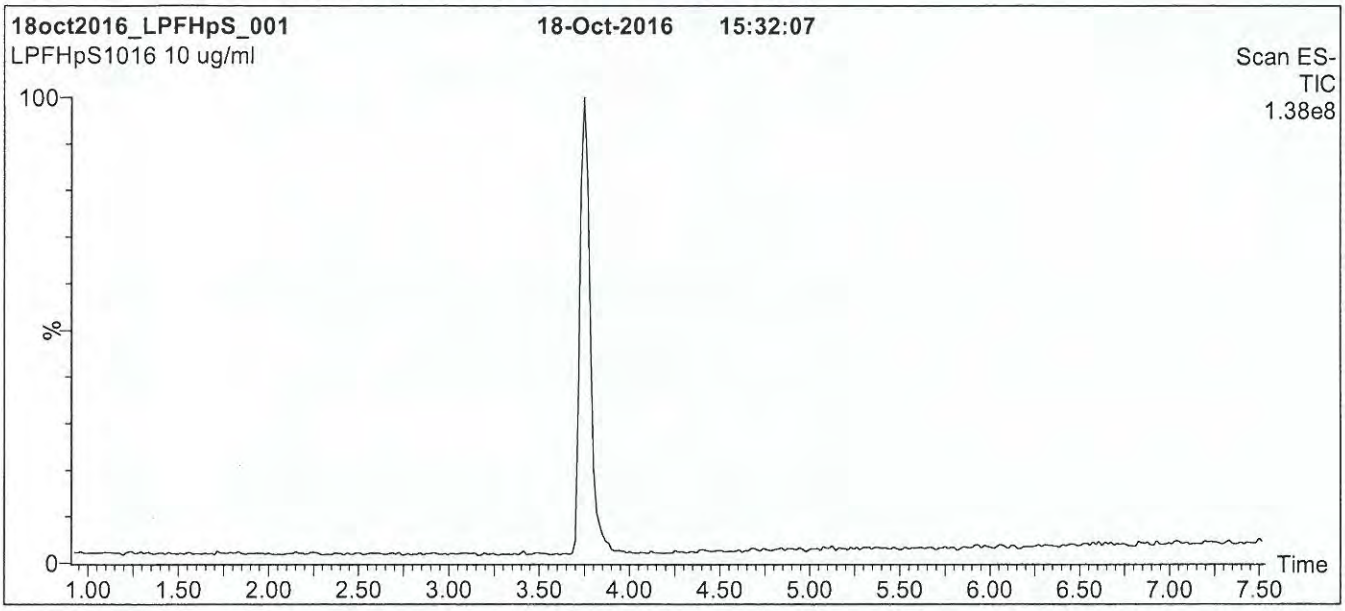
CALA

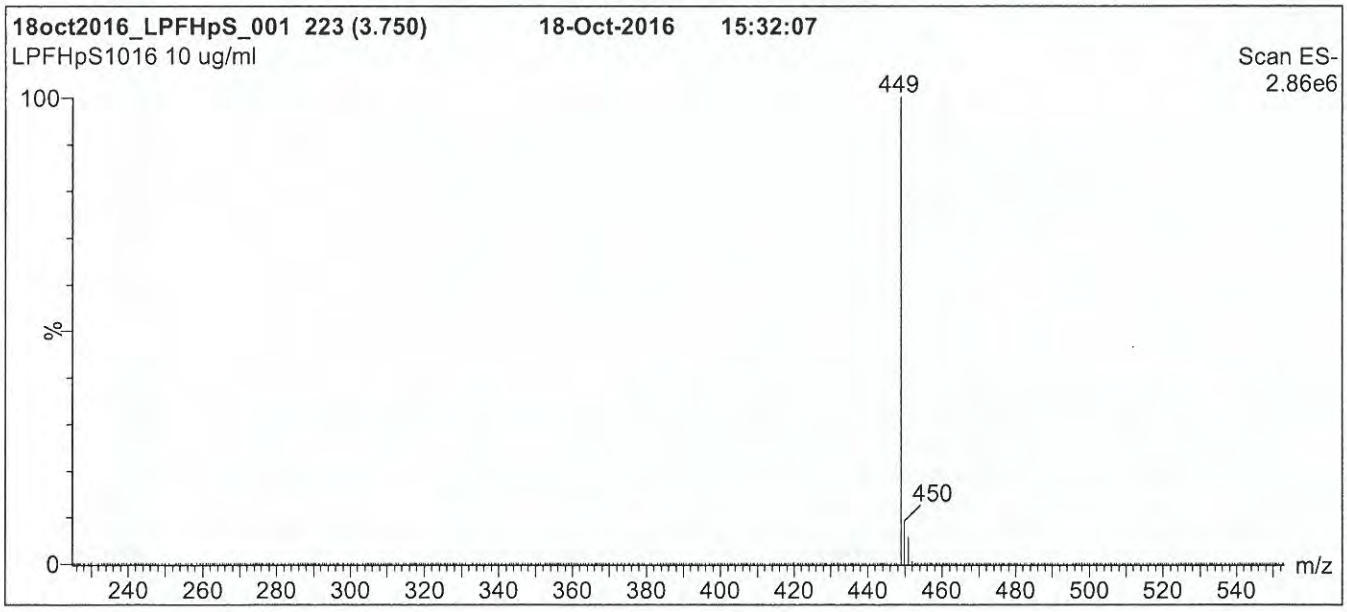
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17G1326

Figure 1: **L-PFHpS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold
for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

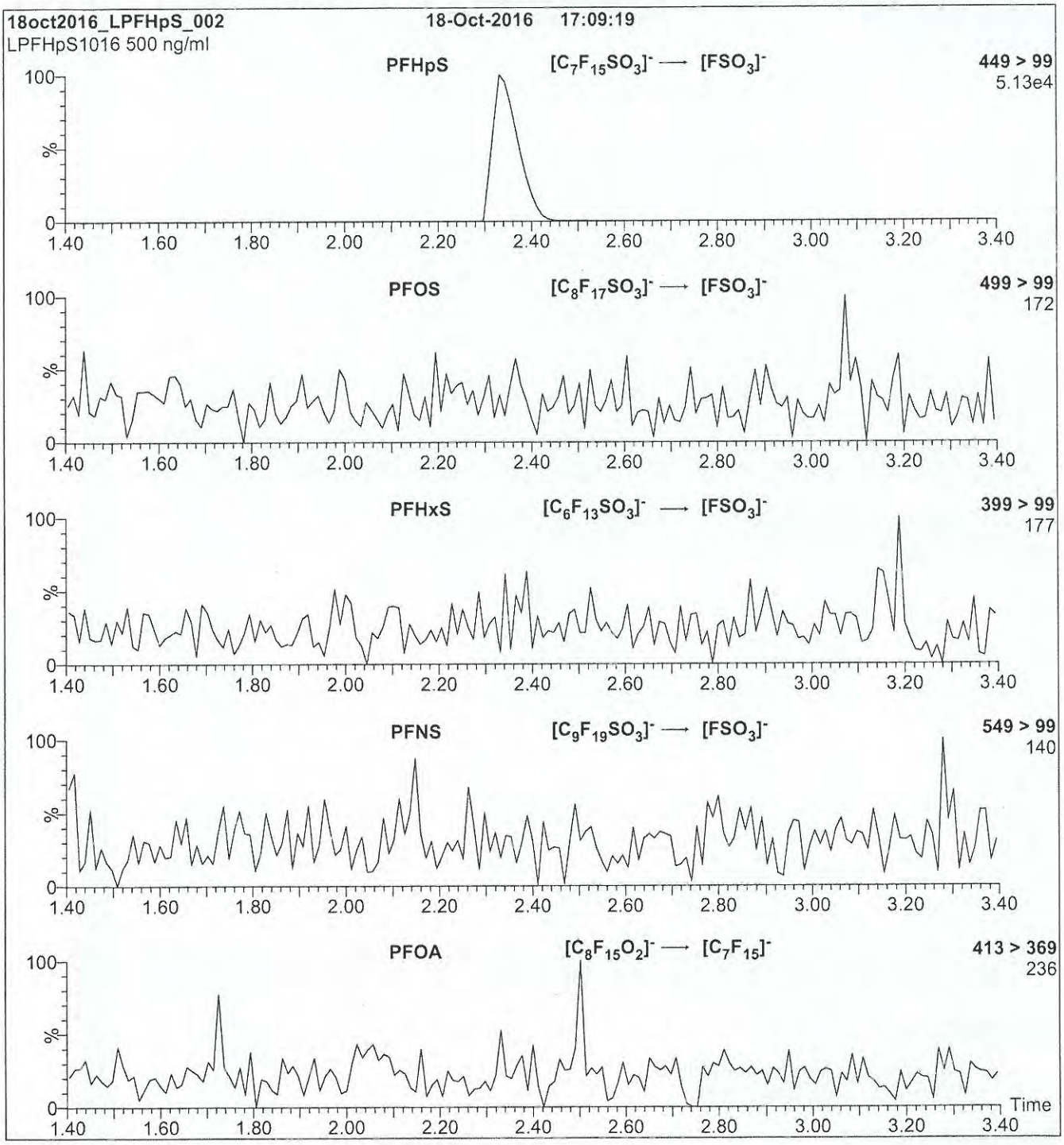
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17G1326

Figure 2: **L-PFHpS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFHpS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 35

17G1805

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFDA	**LOT NUMBER:**	PFDA0516
COMPOUND:	Perfluoro-n-decanoic acid		
STRUCTURE:		**CAS #:**	335-76-2



MOLECULAR FORMULA:	$C_{10}HF_{19}O_2$	**MOLECULAR WEIGHT:**	514.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/31/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/31/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of Perfluoro-n-nonanoic acid (PFNA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 06/13/2016 (mm/dd/yyyy)
B.G. Chittim

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1805

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

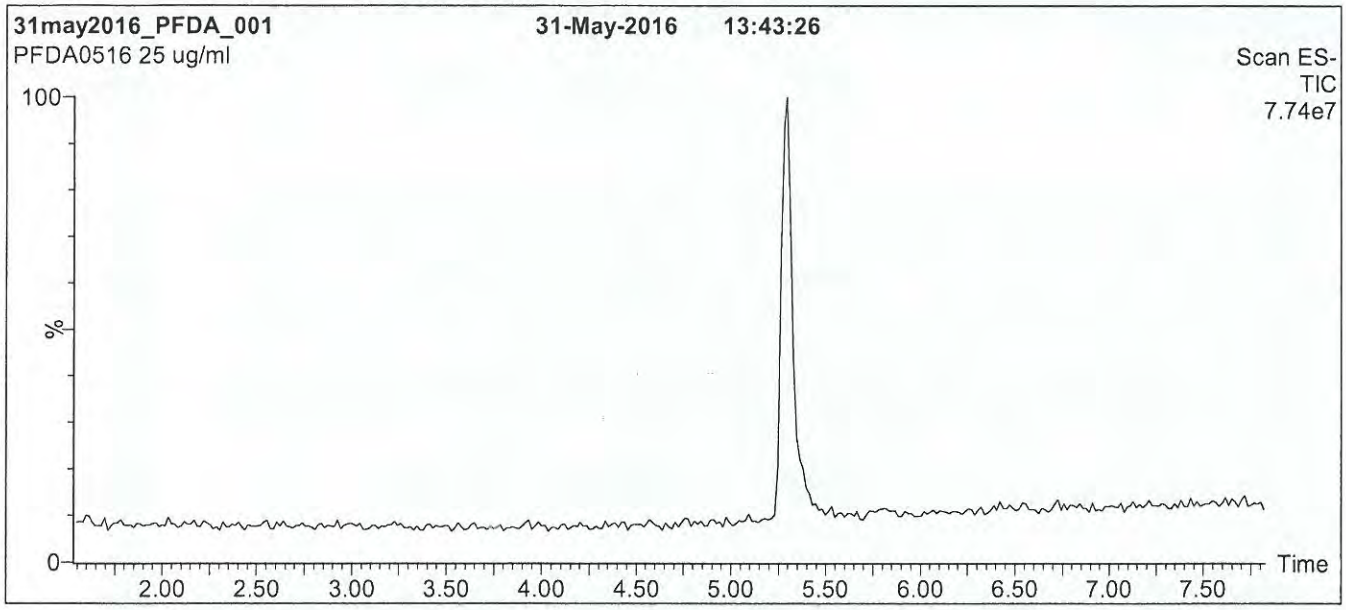
CALA

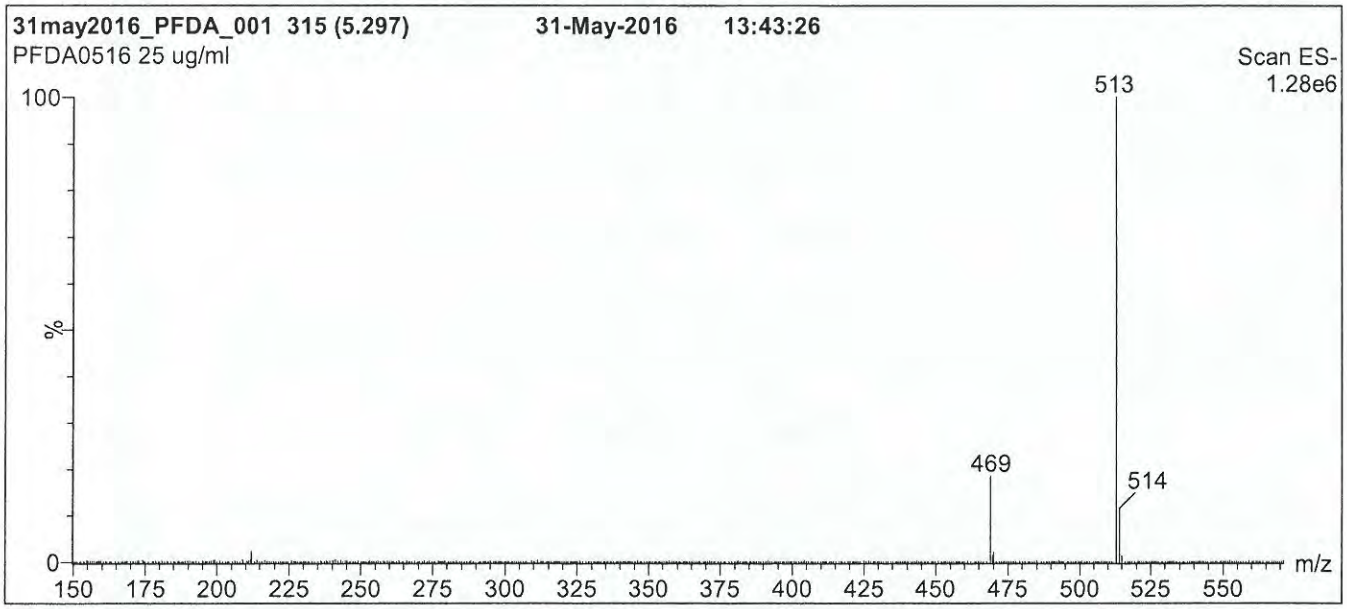
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17G1805

Figure 1: **PFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

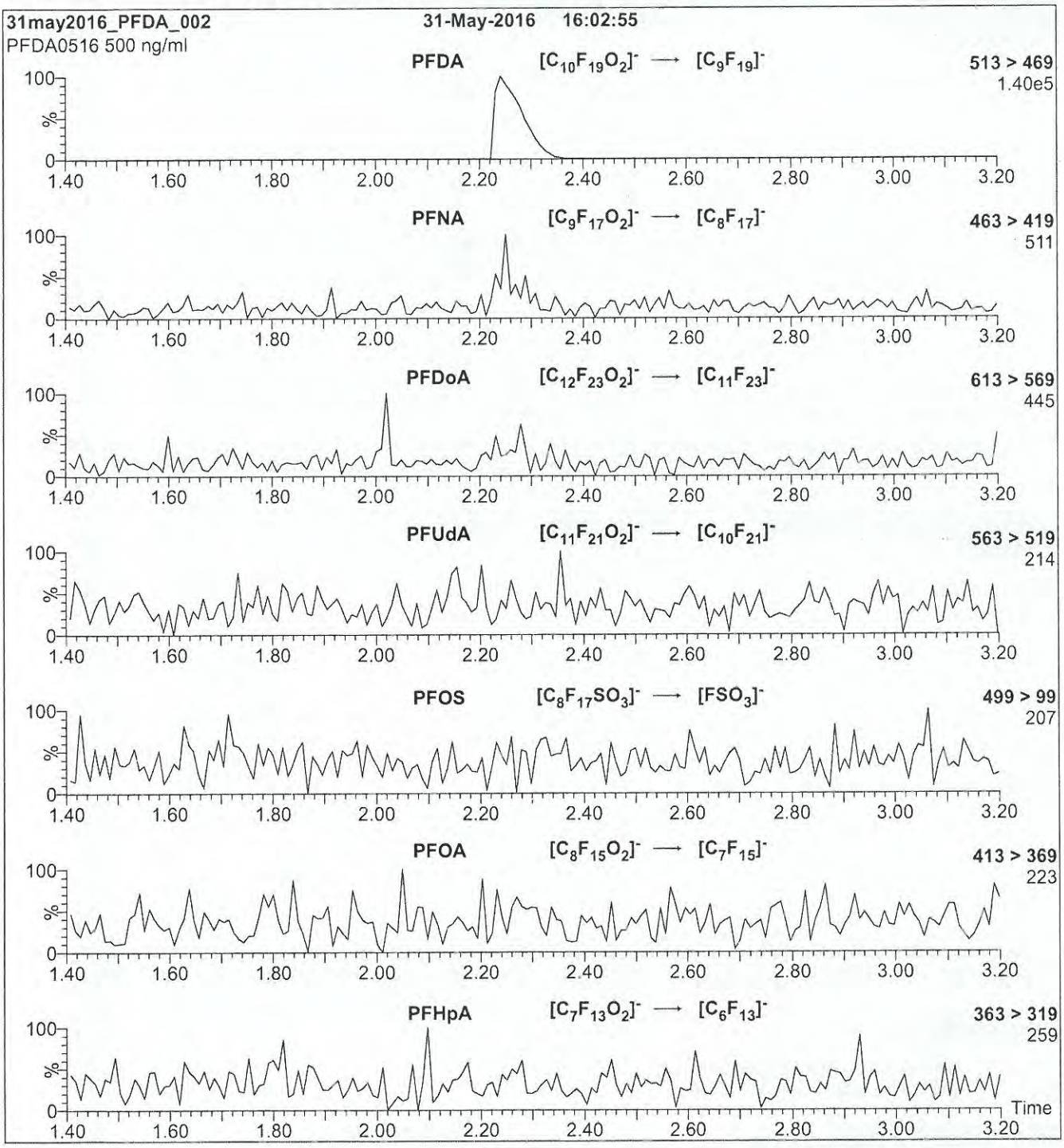
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1805

Figure 2: **PFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 13

17G1806

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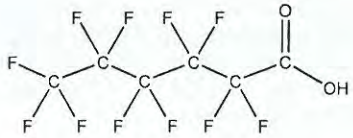
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHxA
COMPOUND: Perfluoro-n-hexanoic acid

LOT NUMBER: PFHxA1216

STRUCTURE:

CAS #: 307-24-4



MOLECULAR FORMULA: $C_6HF_{11}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 314.05
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/02/2016
EXPIRY DATE: (mm/dd/yyyy) 12/02/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 1.0% of branched isomers.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/07/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1806

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

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Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

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Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

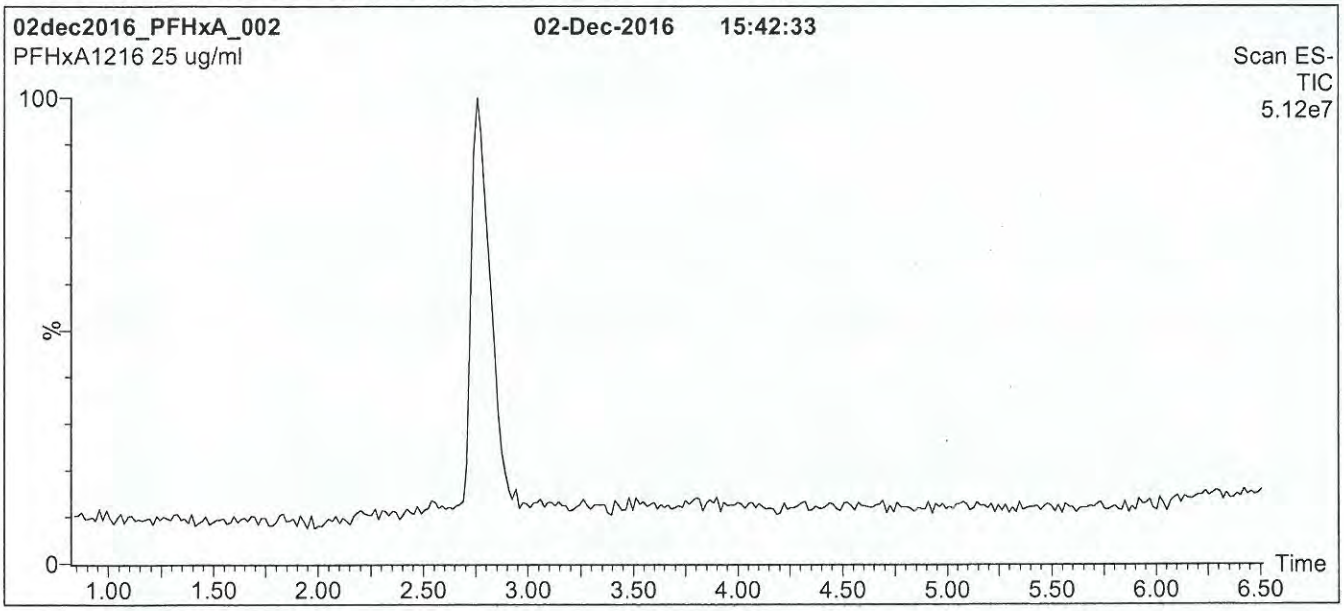
CALA Testing

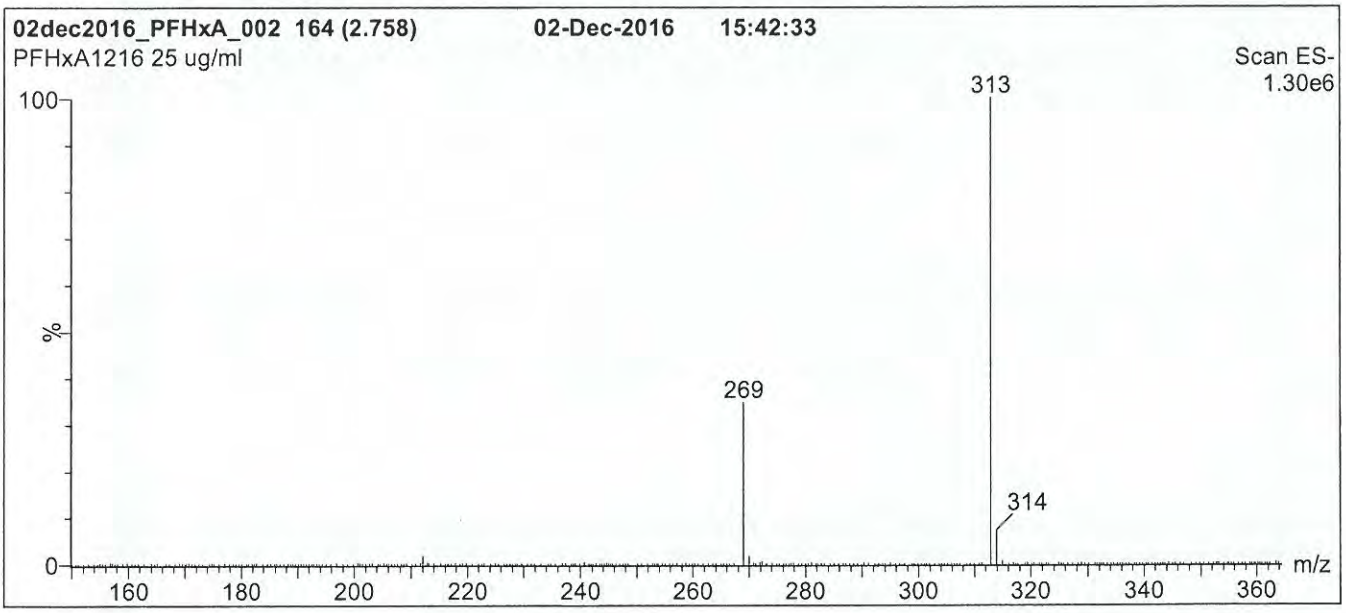
ANAB ACCREDITED Reference Material Producer

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17G1806

Figure 1: **PFHxA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

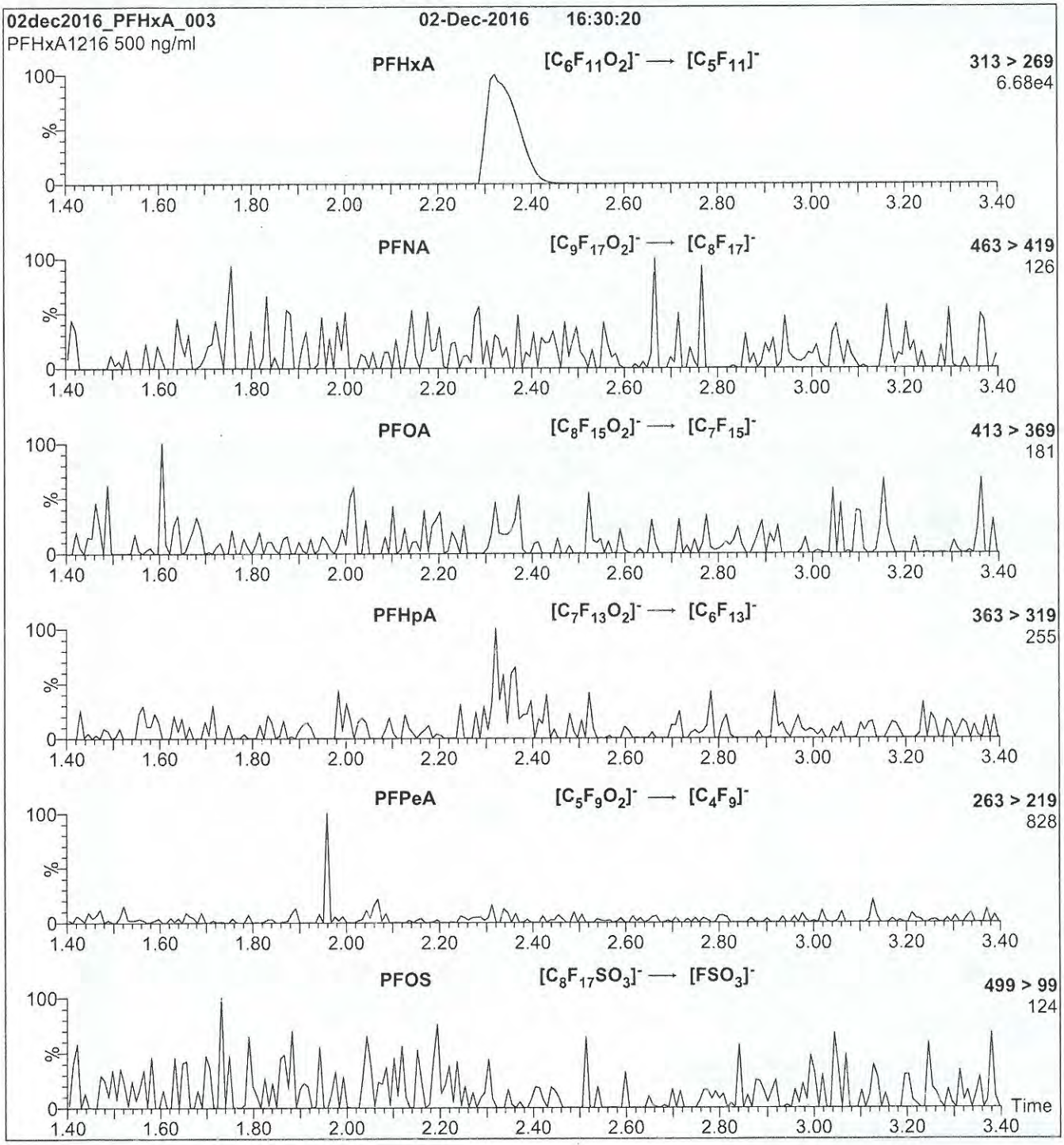
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17G1806

Figure 2: **PFHxA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFHxA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 10

17G1807

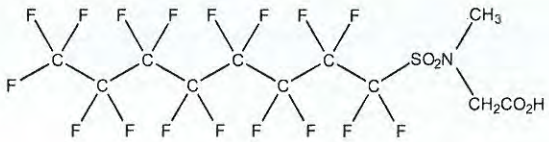
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSAA
LOT NUMBER: NMeFOSAA0117
COMPOUND: N-methylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE:

CAS #: 2355-31-9



MOLECULAR FORMULA: $C_{11}H_6F_{17}NO_4S$
MOLECULAR WEIGHT: 571.21
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 01/11/2017
EXPIRY DATE: (mm/dd/yyyy) 01/11/2022
RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 01/12/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1867

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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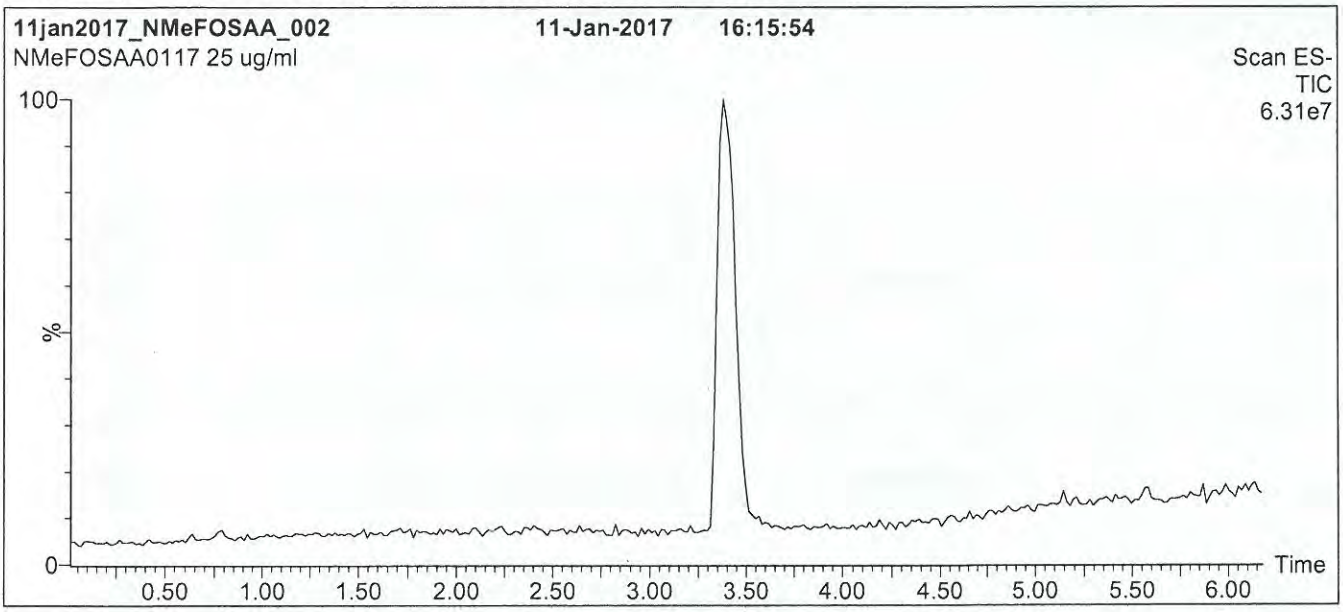
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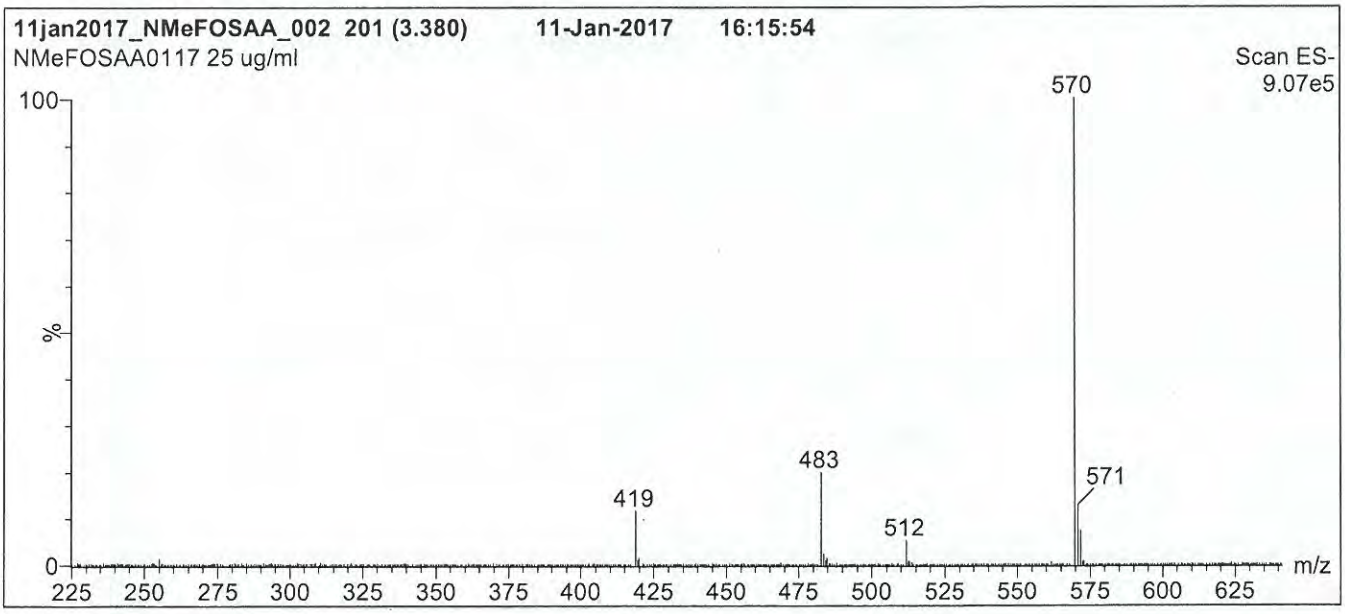
ANAB ACCREDITED

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17G1807

Figure 1: **N-MeFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

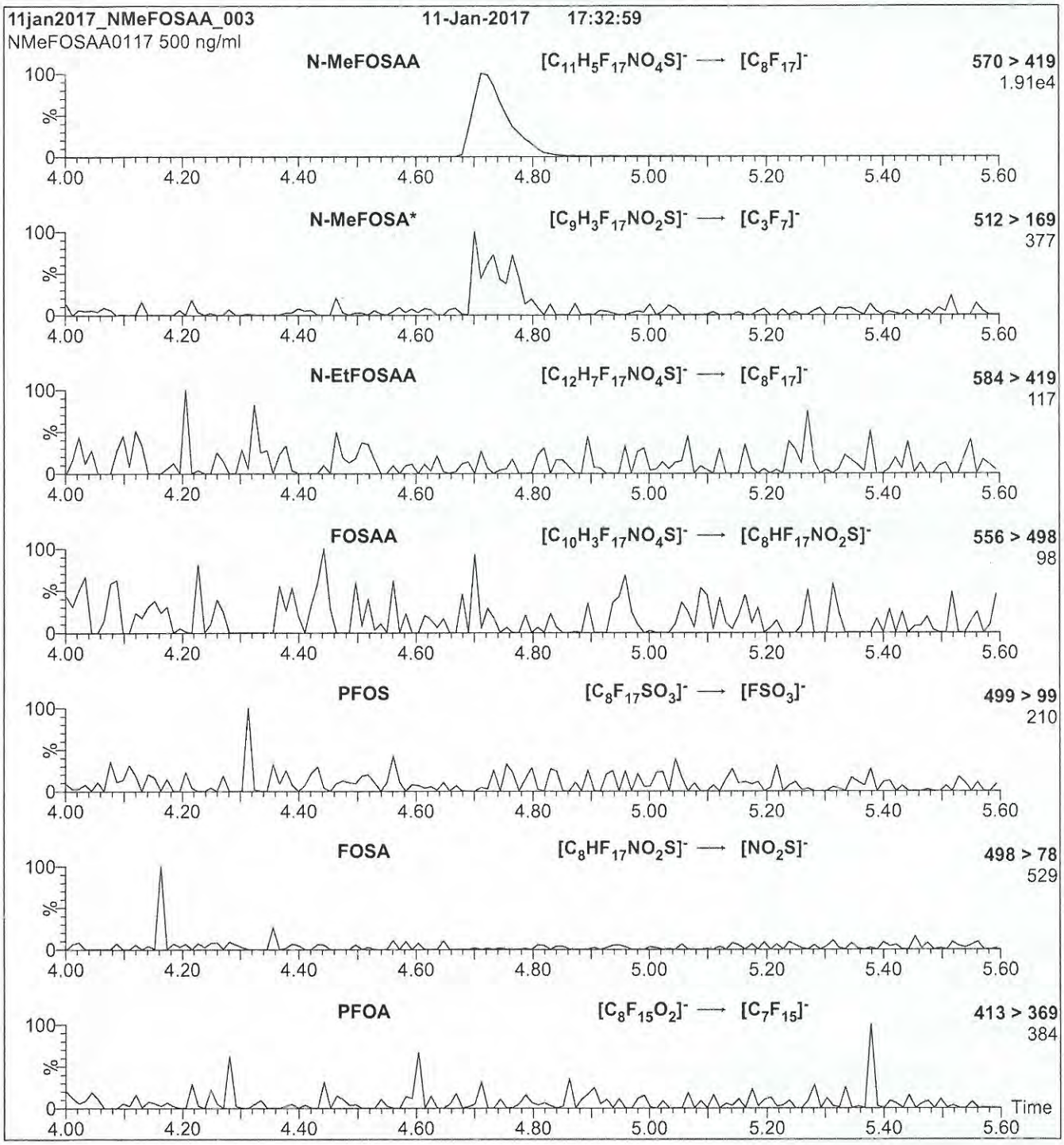
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1807

Figure 2: **N-MeFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



*__Note__: N-MeFOSA is formed by in-source fragmentation.

Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-MeFOSAA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 20

17G1808

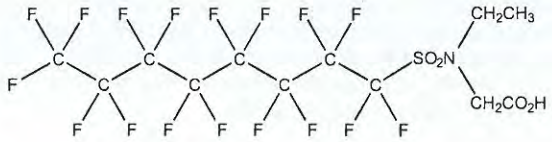
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-EtFOSAA **LOT NUMBER:** NEtFOSAA0117

COMPOUND: N-ethylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 2991-50-6



MOLECULAR FORMULA: $C_{12}H_8F_{17}NO_4S$ **MOLECULAR WEIGHT:** 585.23

CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 01/11/2017

EXPIRY DATE: (mm/dd/yyyy) 01/11/2022

RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 01/12/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1808

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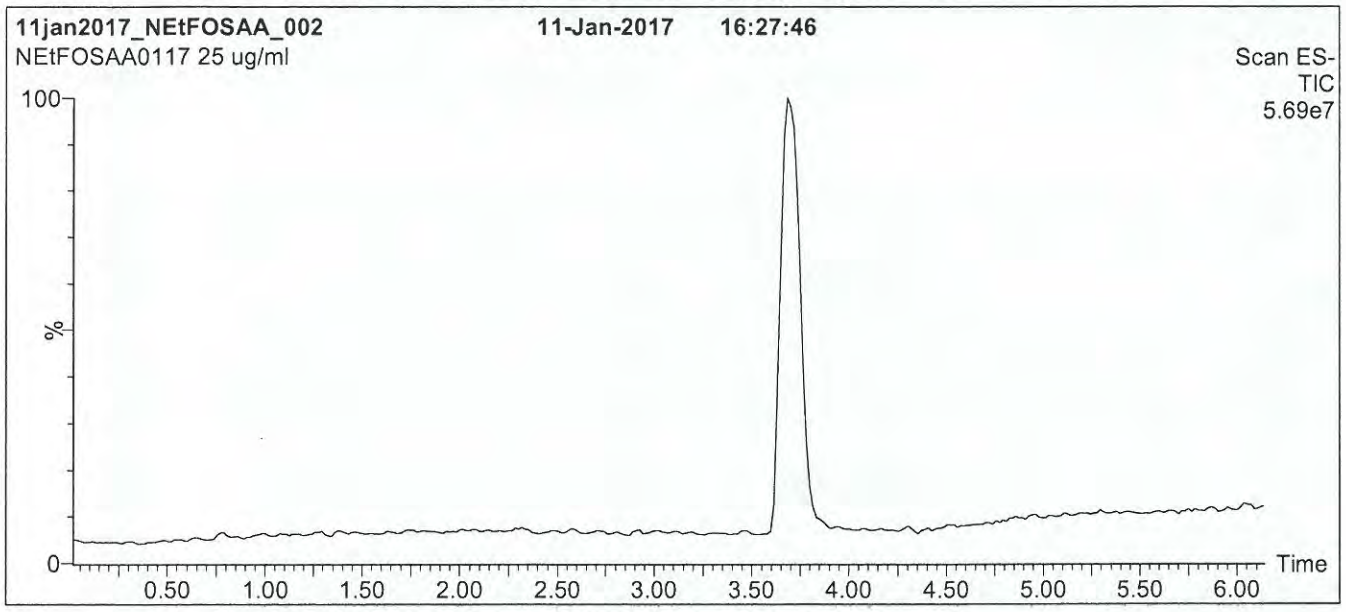
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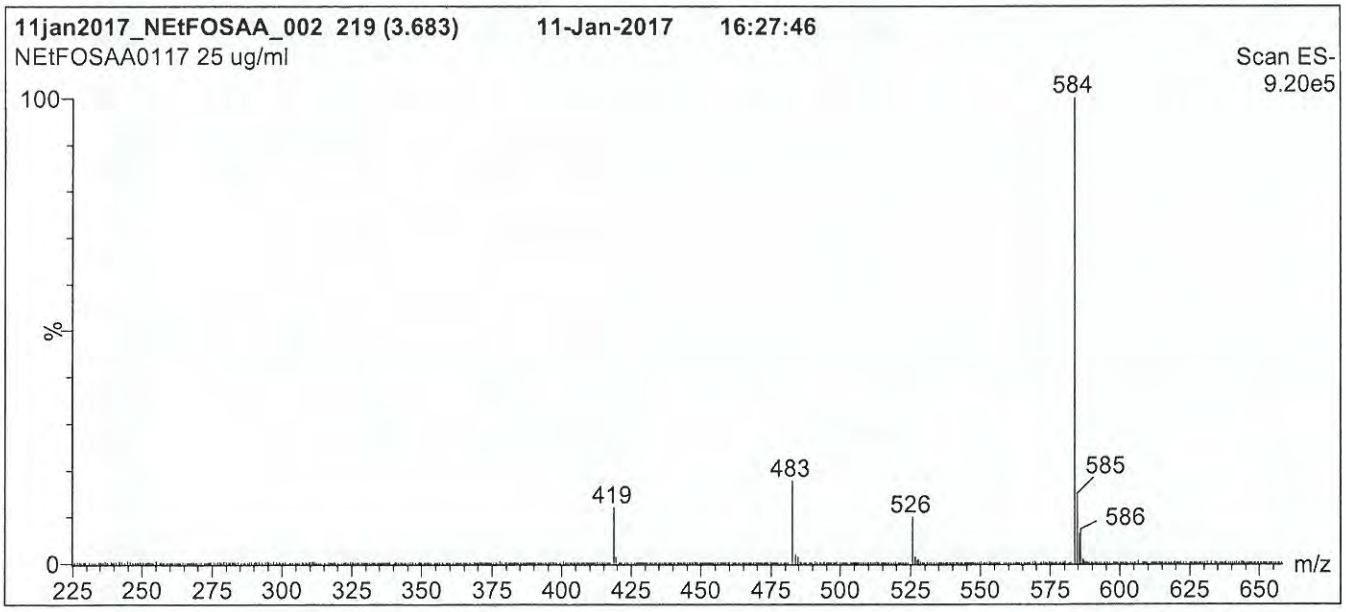
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17G1808

Figure 1: **N-EtFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

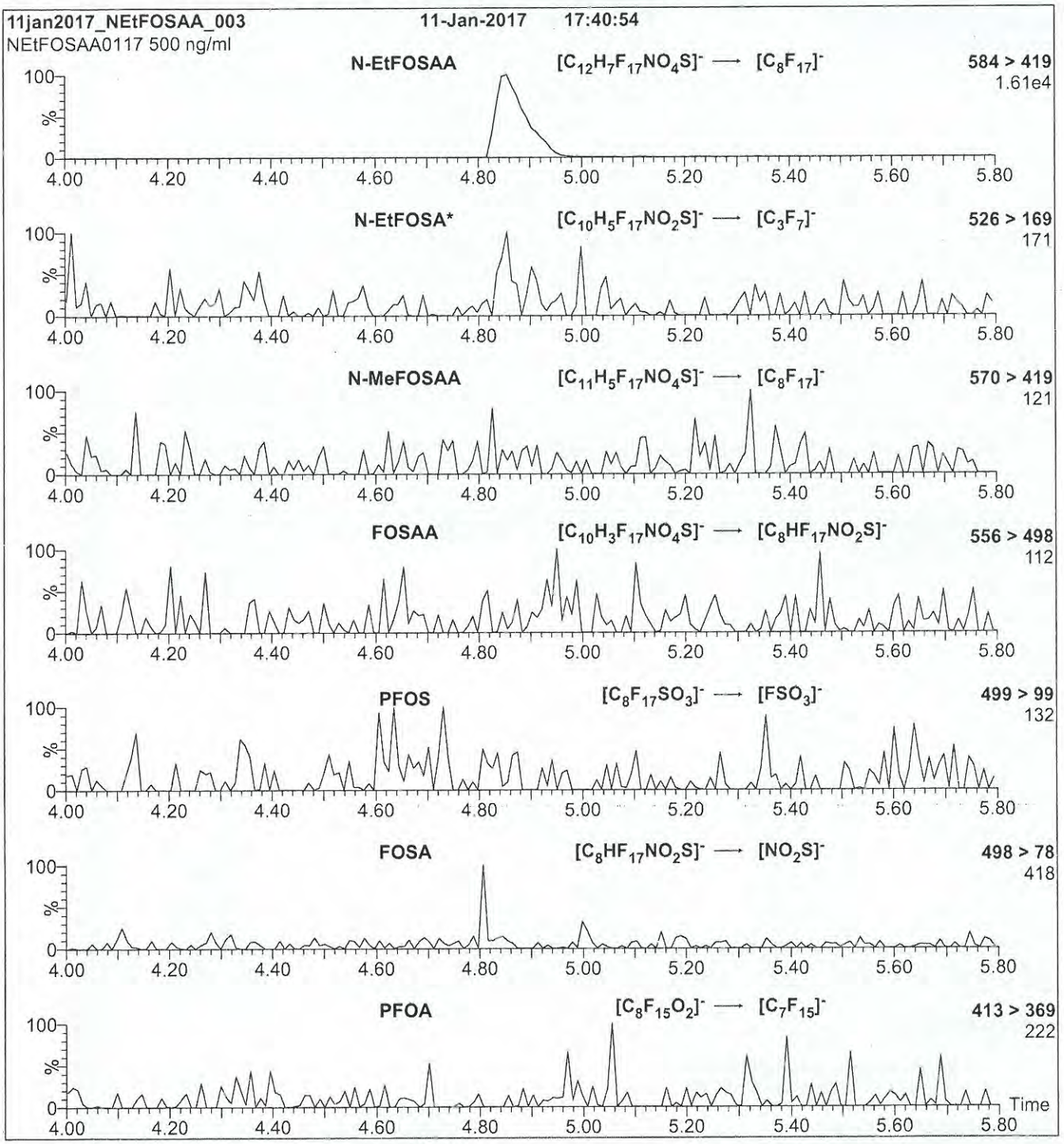
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1808

Figure 2: **N-EtFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Note: N-EtFOSA is formed by fragmentation of N-EtFOSAA.

Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-EtFOSAA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 20

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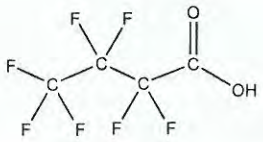
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA0517

STRUCTURE:

CAS #: 375-22-4



MOLECULAR FORMULA: $C_4HF_7O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/29/2017
EXPIRY DATE: (mm/dd/yyyy) 05/29/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/30/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

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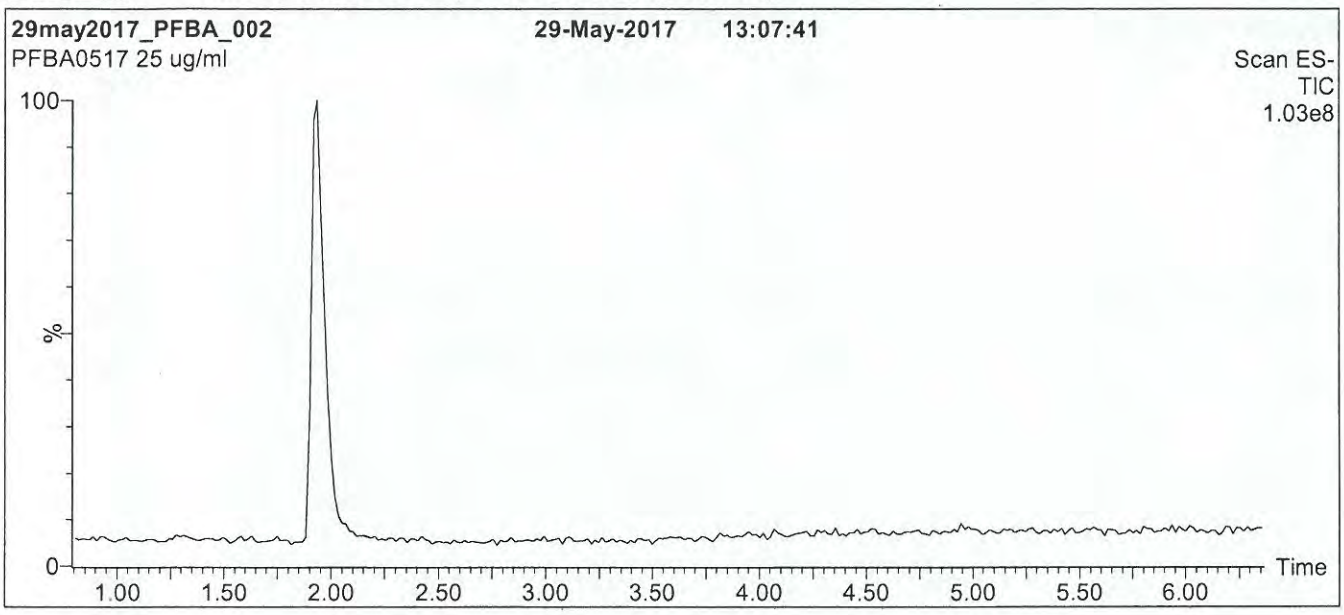
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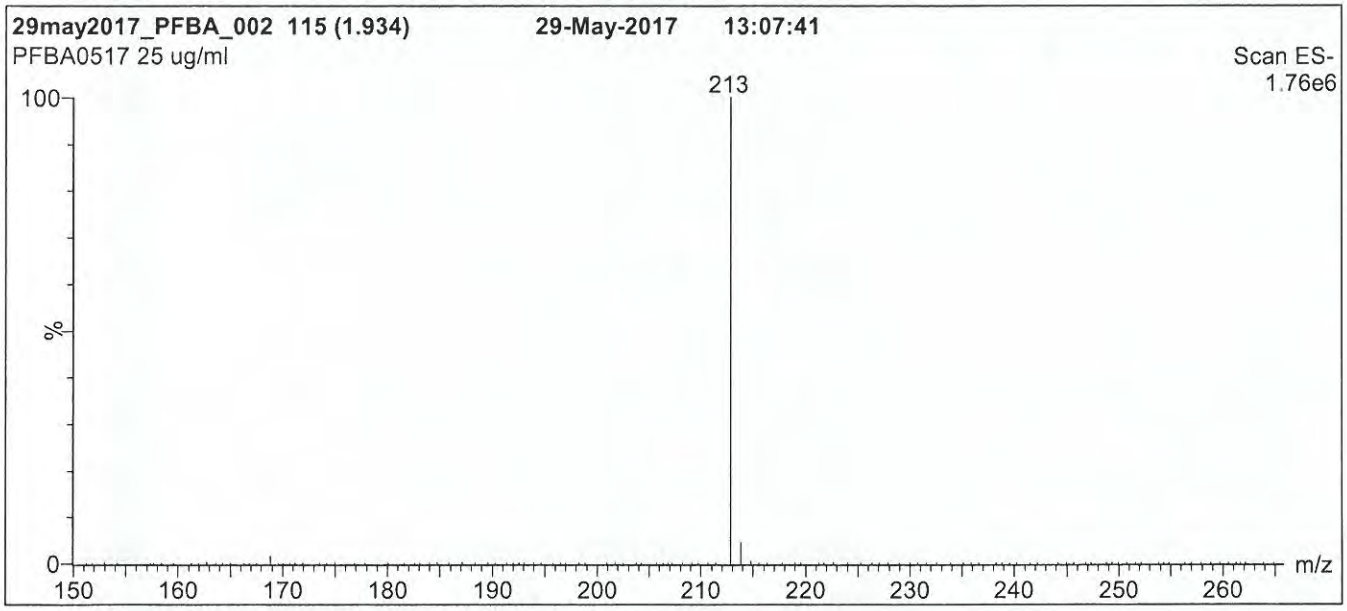
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17G1809

Figure 1: **PFBA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

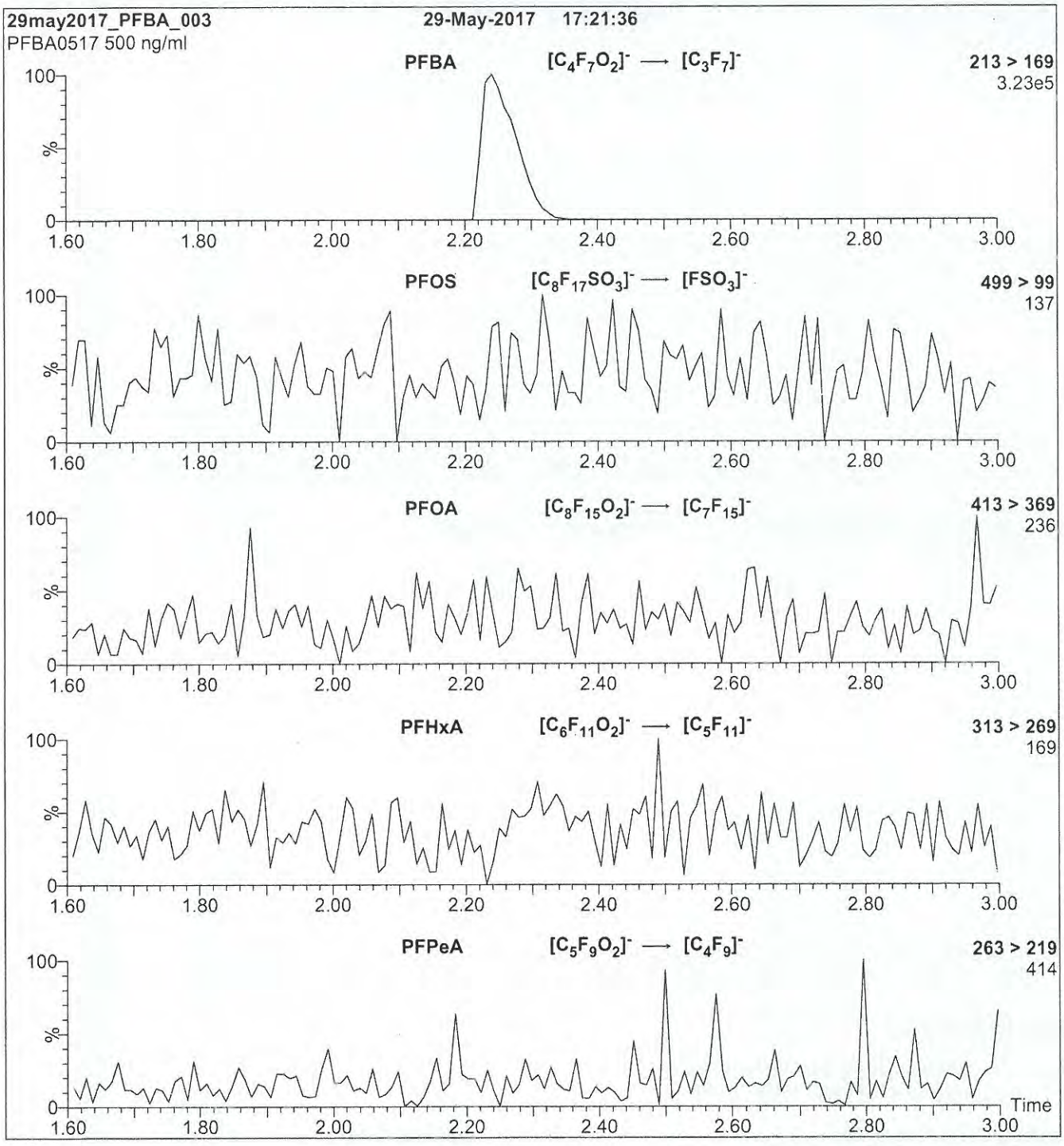
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17G1809

Figure 2: **PFBA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFBA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 10

17G1810

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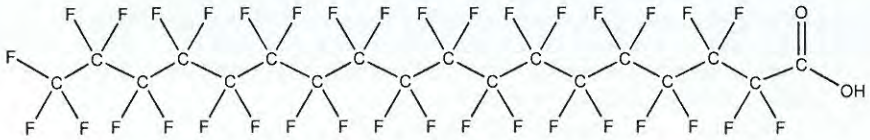
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFODA
COMPOUND: Perfluoro-n-octadecanoic acid

LOT NUMBER: PFODA0416

STRUCTURE:

CAS #: 16517-11-6



MOLECULAR FORMULA: $C_{18}HF_{35}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 914.14
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 04/29/2016
EXPIRY DATE: (mm/dd/yyyy) 04/29/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
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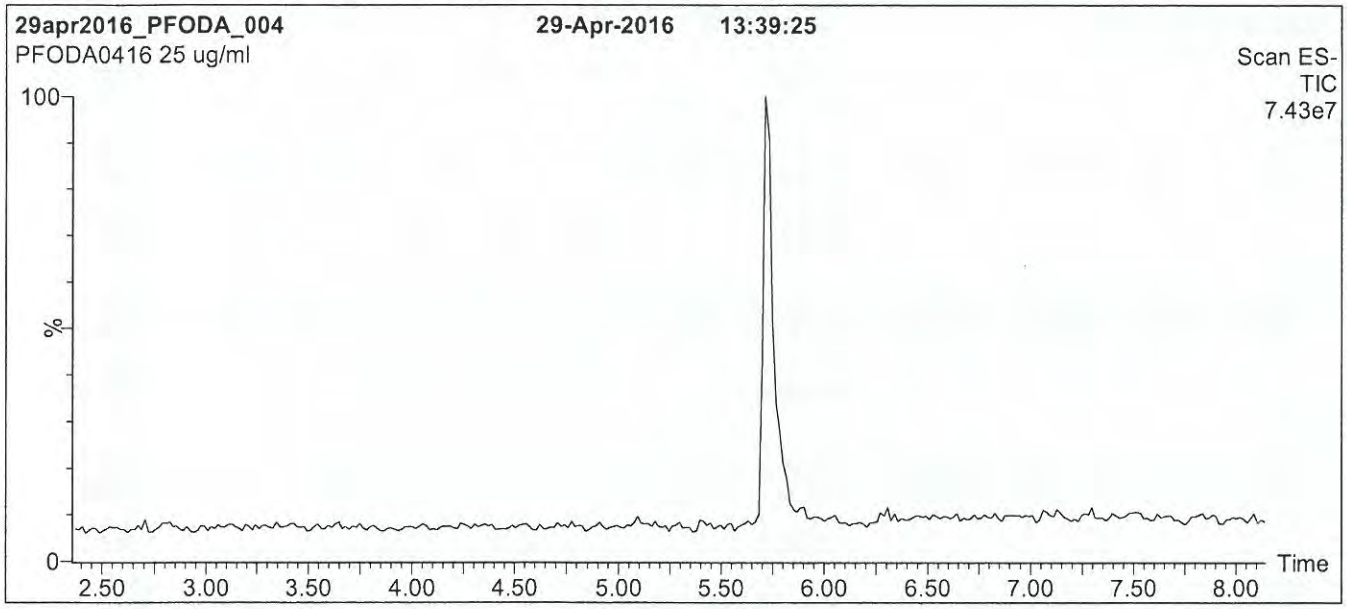
CALA Testing

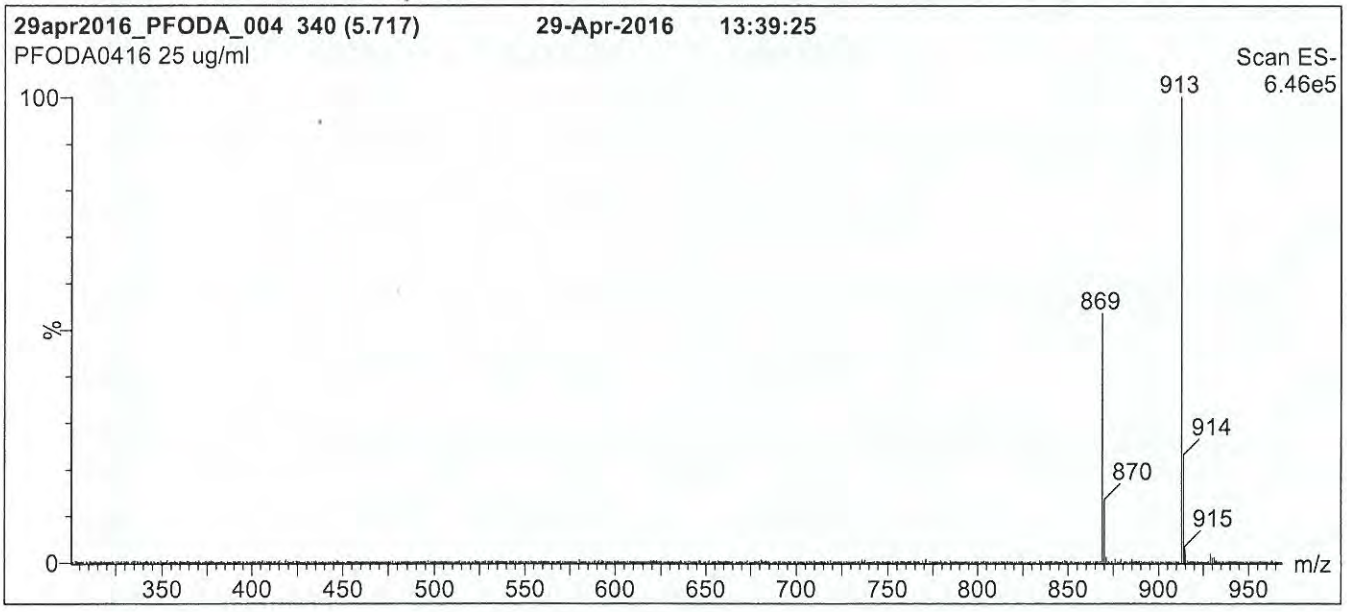
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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1701810

Figure 1: **PFODA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 70% (80:20 MeOH:ACN) / 30% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 95% organic over 6 min and hold for
2.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

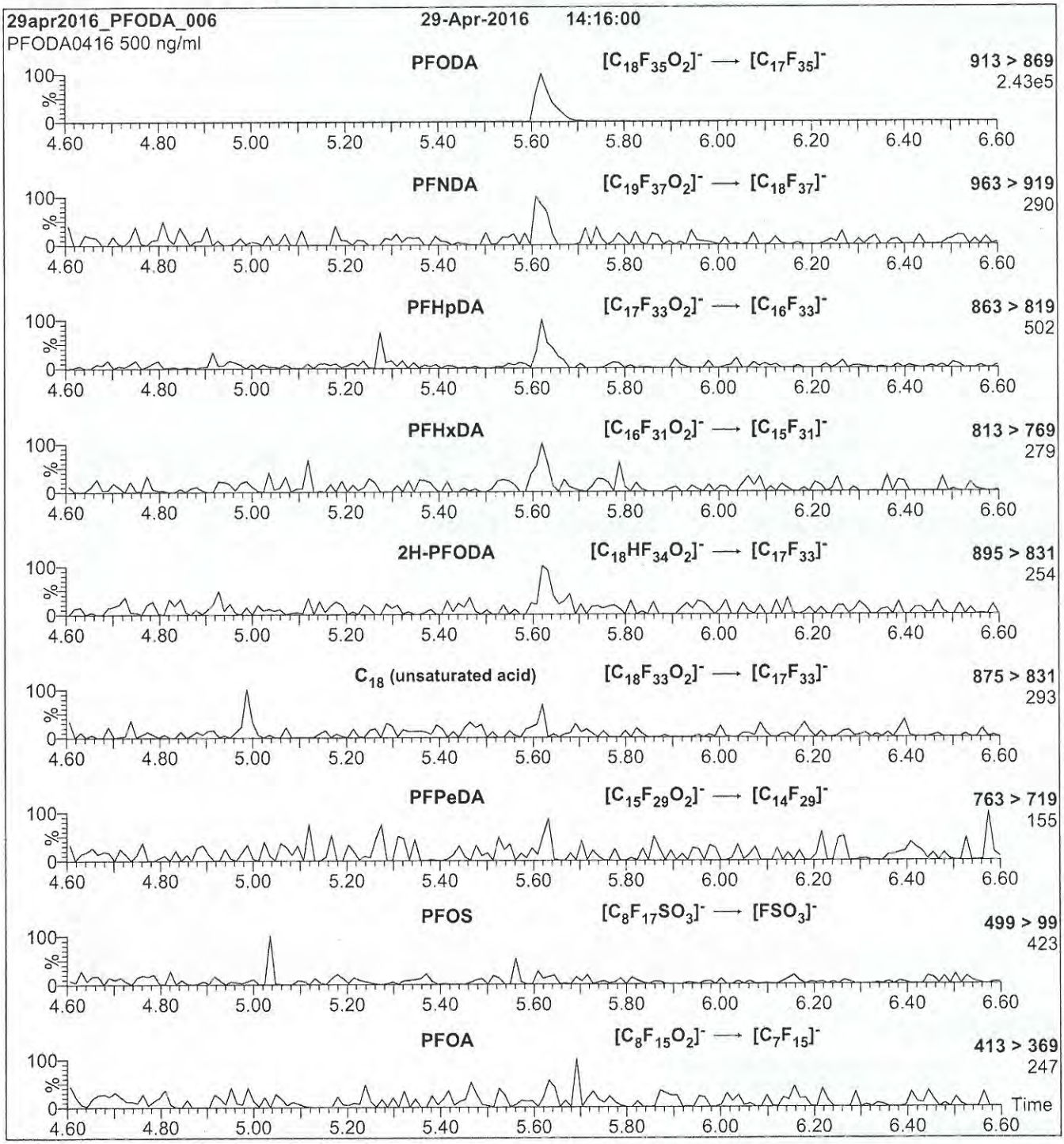
MS Parameters

Experiment: Full Scan (250 - 1000 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

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Figure 2: **PFODA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFODA)

Mobile phase: Isocratic 90% (80:20 MeOH:ACN) / 10% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 15

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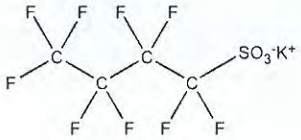
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFBS
COMPOUND: Potassium perfluoro-1-butanesulfonate
LOT NUMBER: LPFBS1116

STRUCTURE:

CAS #: 29420-49-3



MOLECULAR FORMULA:	$C_4F_9SO_3K$	**MOLECULAR WEIGHT:**	338.19
CONCENTRATION:	50.0 ± 2.5 µg/ml (K salt) 44.2 ± 2.2 µg/ml (PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	12/02/2016		
EXPIRY DATE: (mm/dd/yyyy)	12/02/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/05/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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INTENDED USE:

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HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

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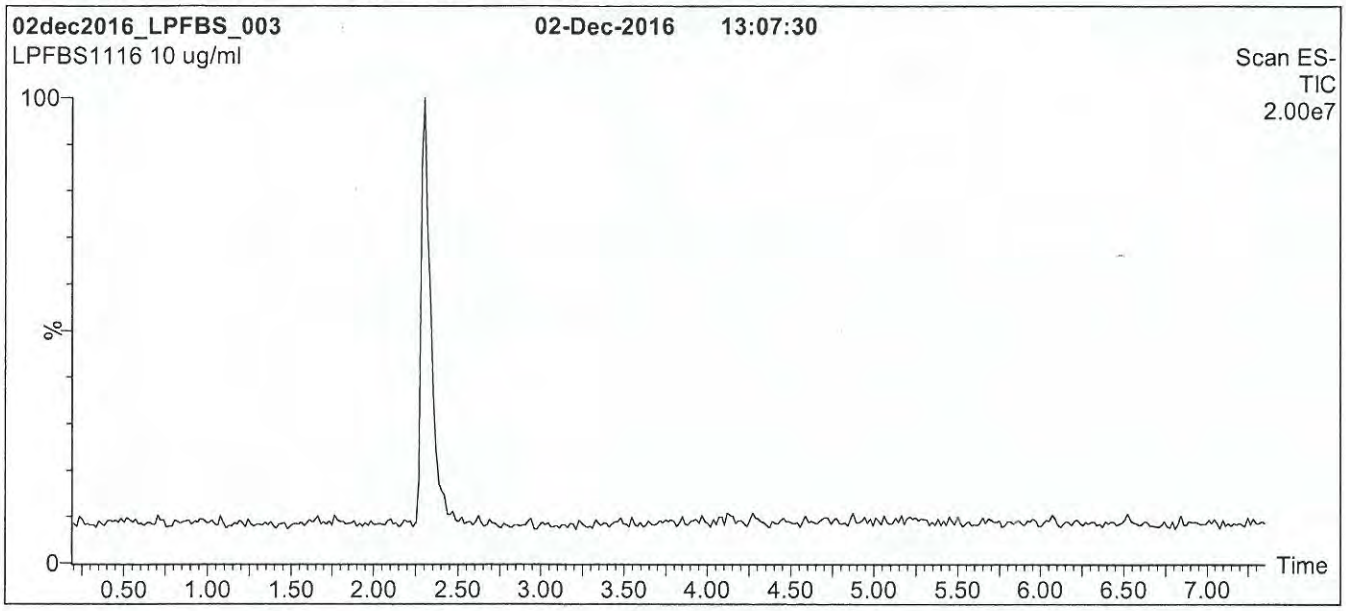
CALA Testing A 1226

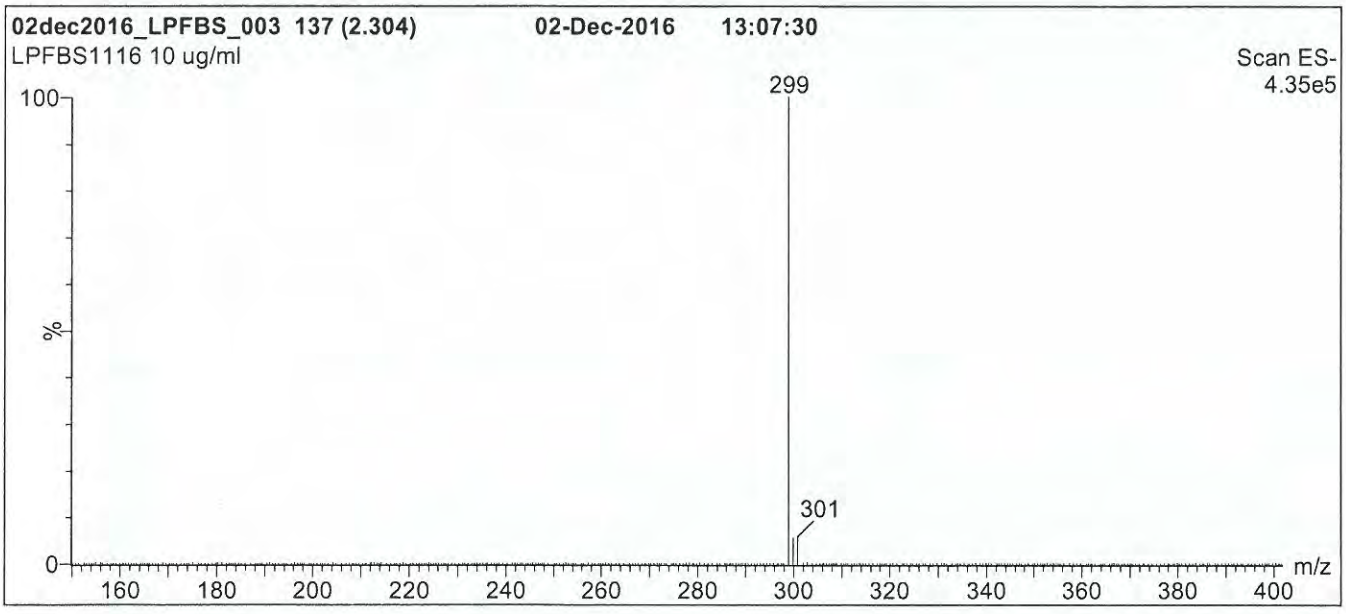
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17G1811

Figure 1: **L-PFBS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

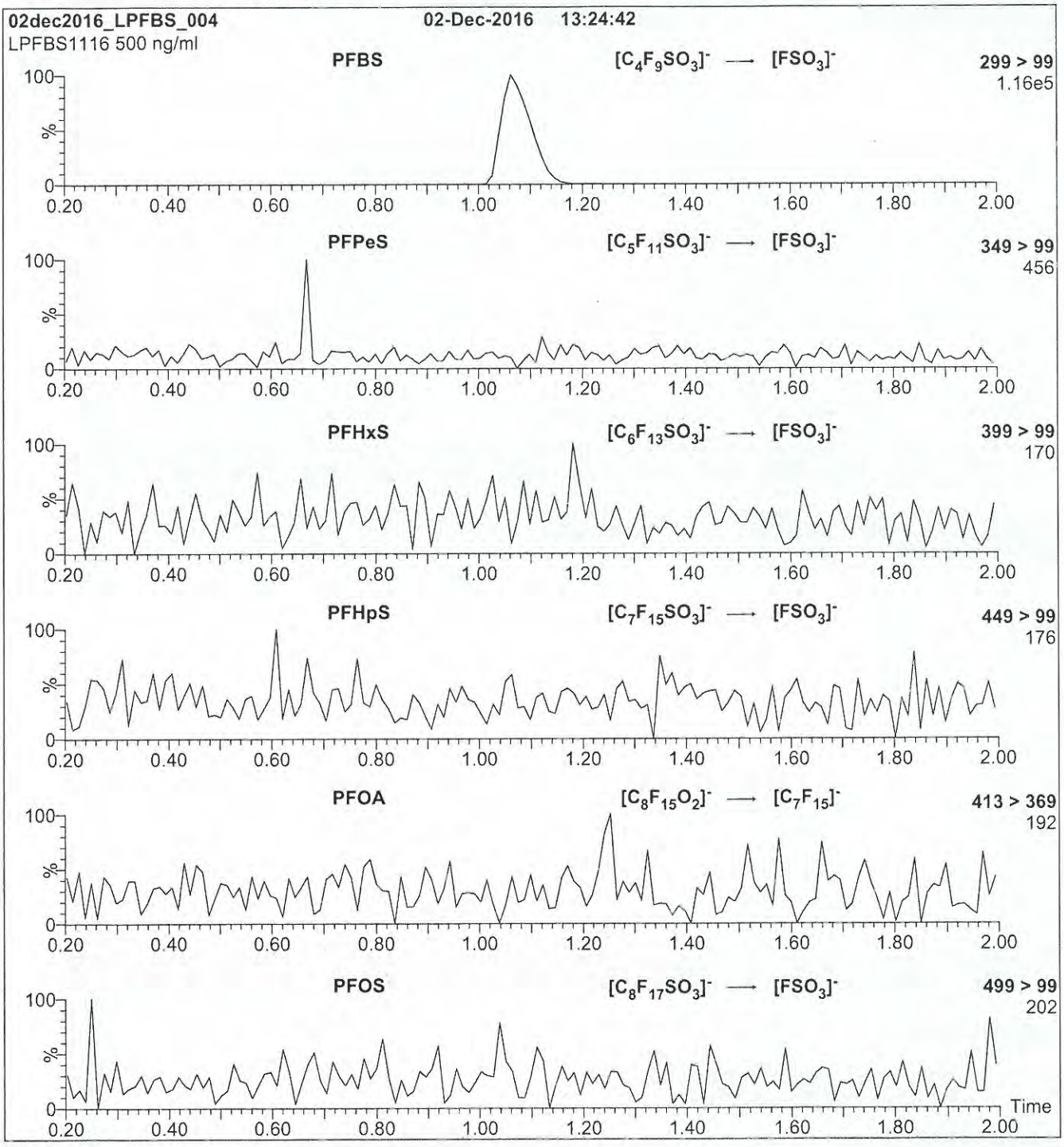
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1811

Figure 2: **L-PFBS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFBS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 25

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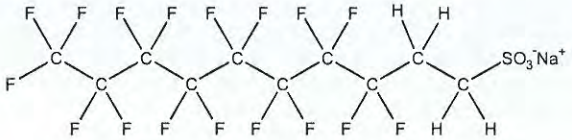
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 8:2FTS **LOT NUMBER:** 82FTS1216

COMPOUND: Sodium 1H,1H,2H,2H-perfluorodecane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{10}H_4F_{17}SO_3Na$		**MOLECULAR WEIGHT:**	550.16
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml	(8:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	12/12/2016			
EXPIRY DATE: (mm/dd/yyyy)	12/12/2021			
RECOMMENDED STORAGE:	Refrigerate ampoule			

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/21/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1812

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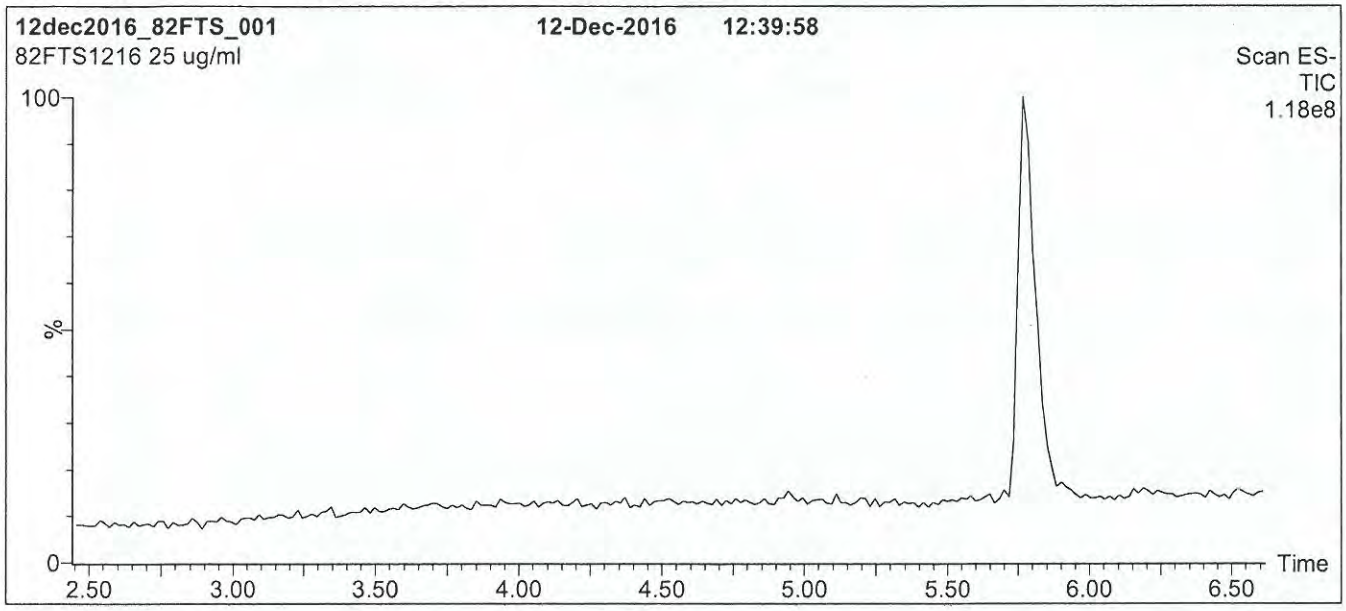
CALA

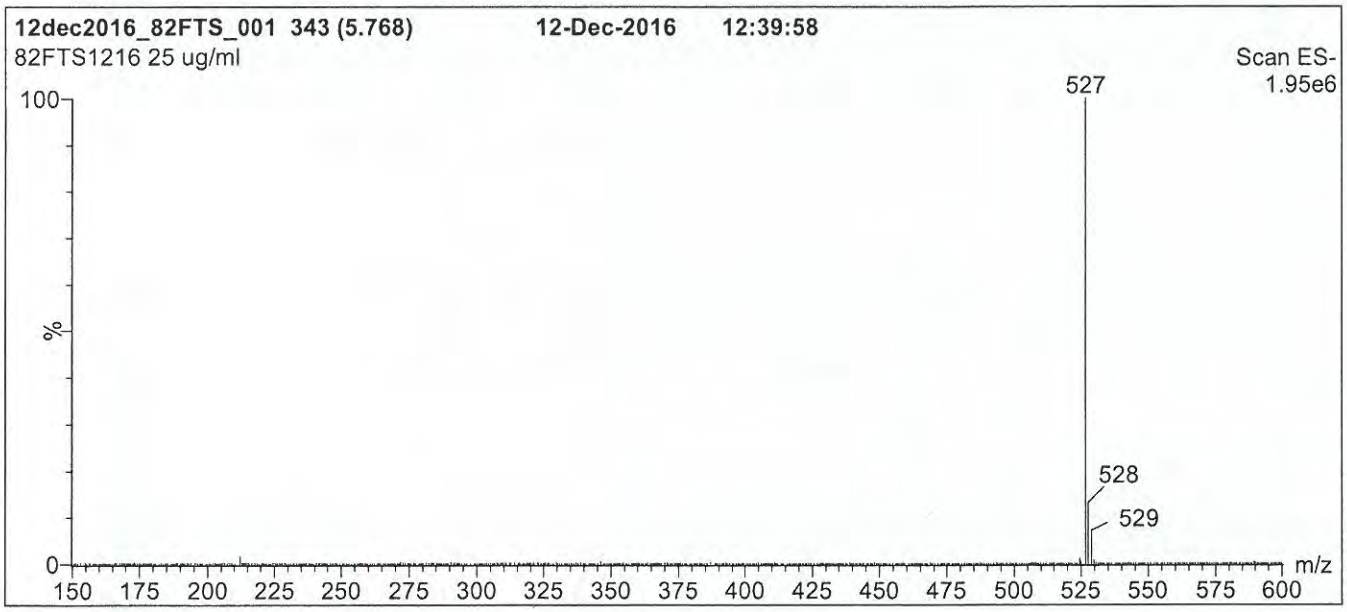
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17G1812

Figure 1: **8:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 85% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

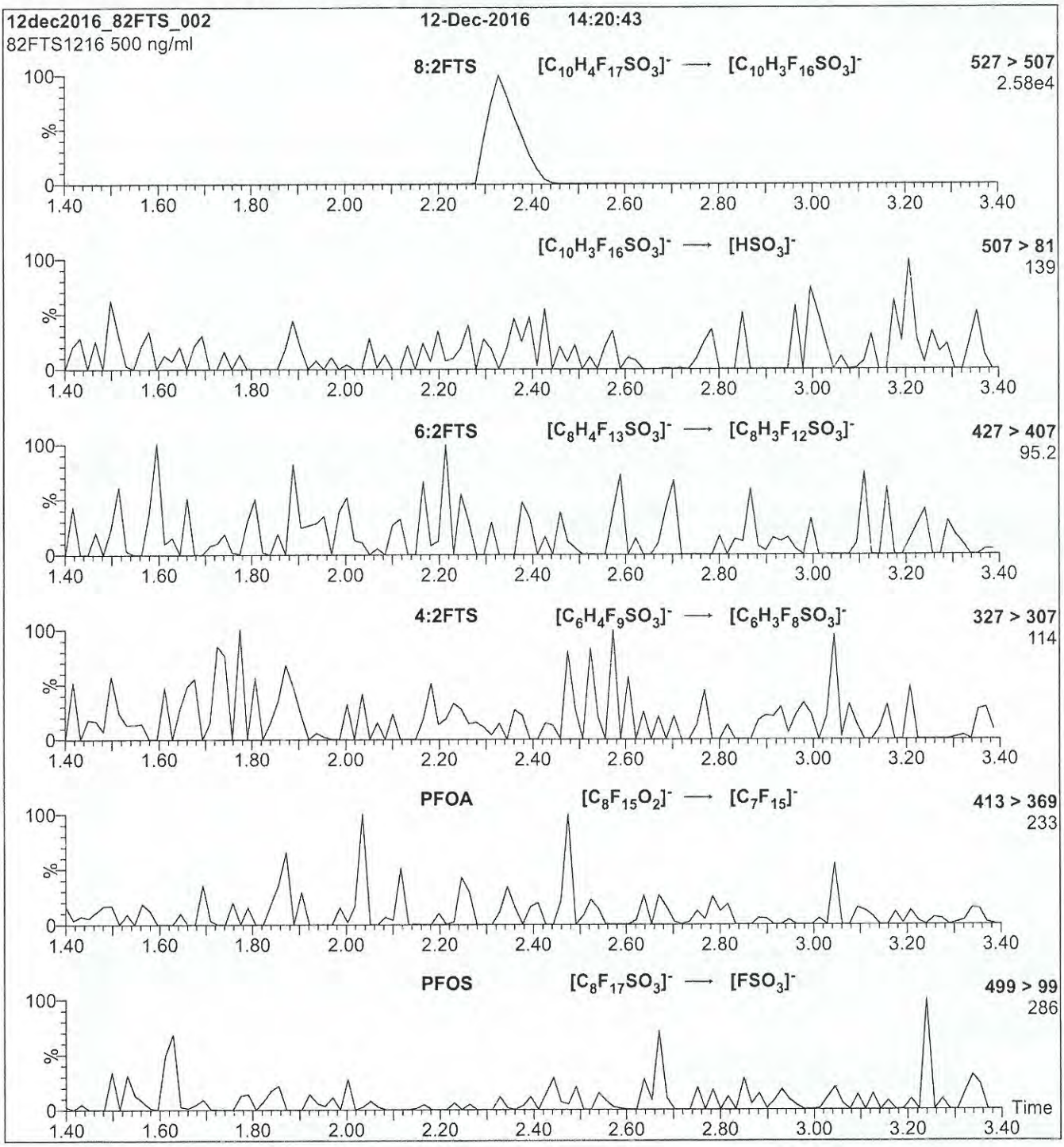
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17G1812

Figure 2: **8:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml 8:2FTS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 30

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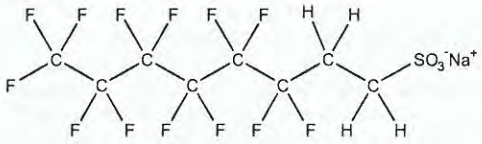
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 6:2FTS **LOT NUMBER:** 62FTS0417

COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_8H_4F_{13}SO_3Na$		**MOLECULAR WEIGHT:**	450.15
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	47.4 ± 2.4 µg/ml	(6:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	04/20/2017			
EXPIRY DATE: (mm/dd/yyyy)	04/20/2022			
RECOMMENDED STORAGE:	Refrigerate ampoule			

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/24/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1813

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

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TRACEABILITY:

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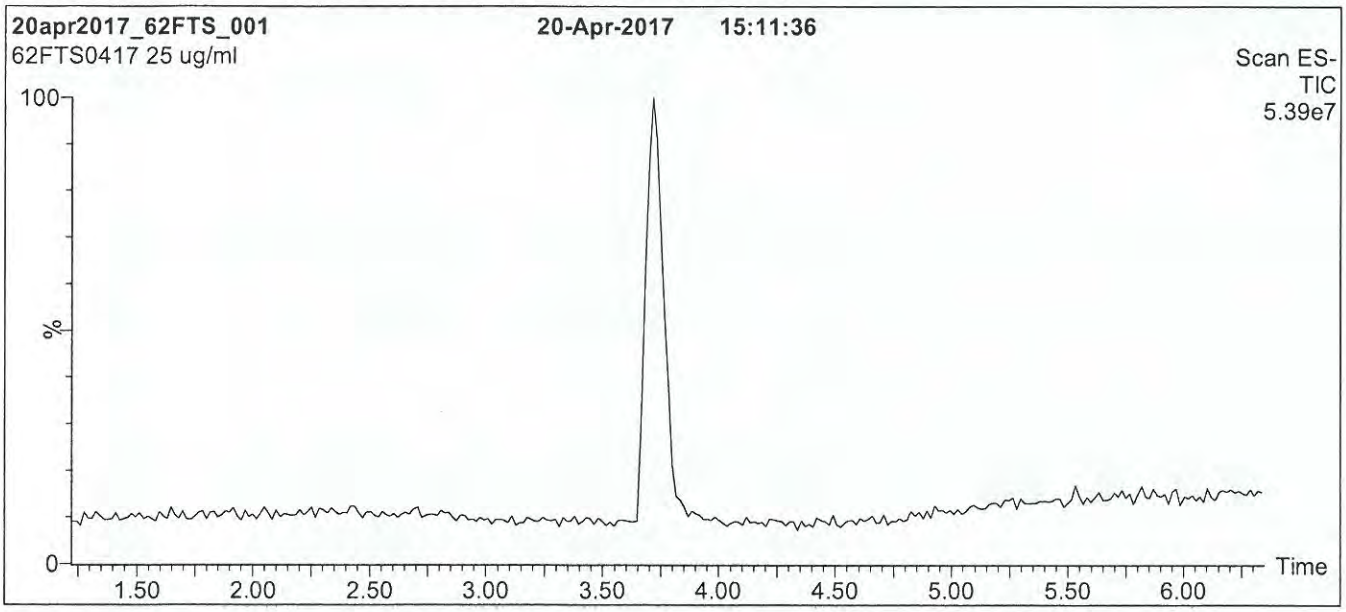
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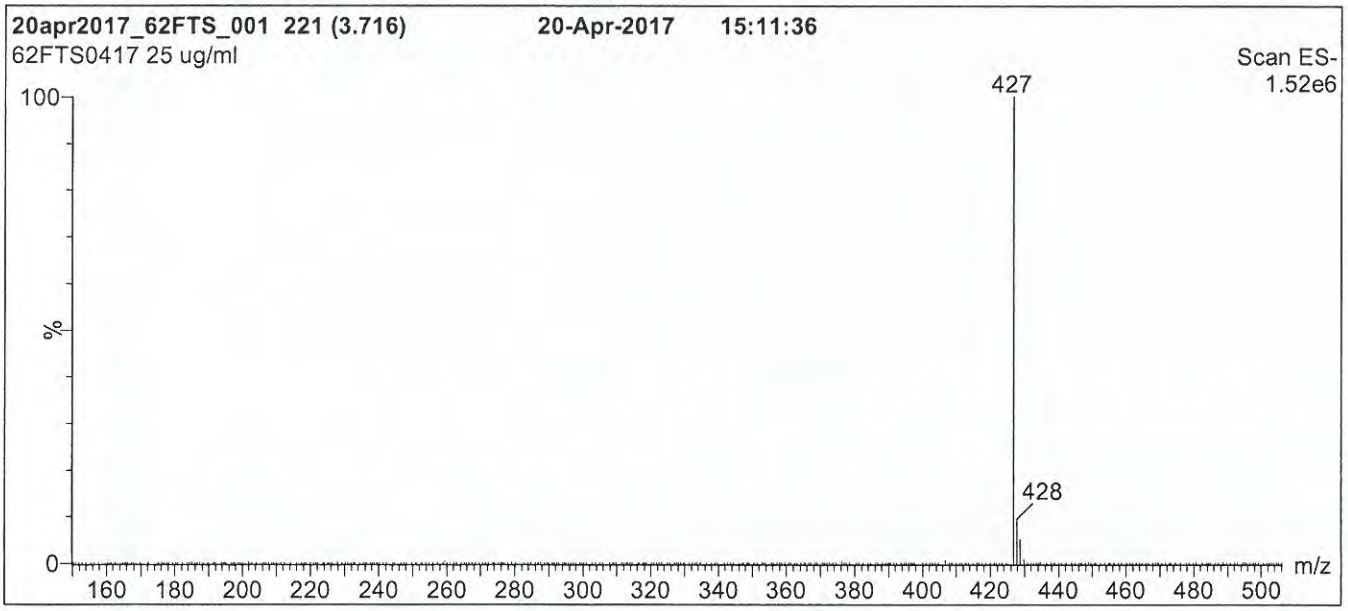
ANAB ACCREDITED

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17G1813

Figure 1: **6:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 85% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

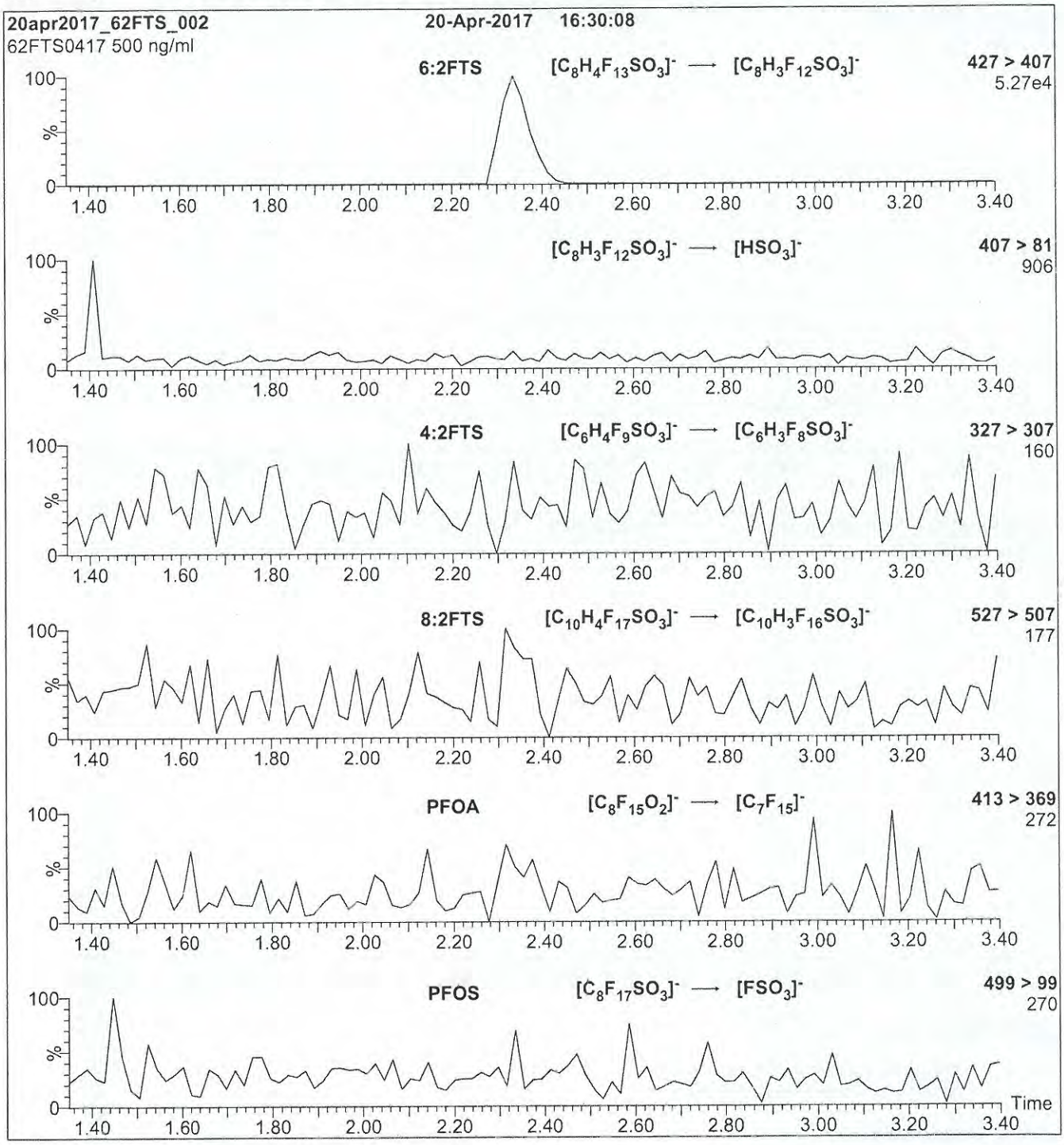
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1813

Figure 2: **6:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml 6:2FTS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 25

1710820

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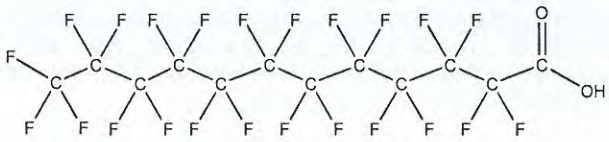
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFDoA
COMPOUND: Perfluoro-n-dodecanoic acid

LOT NUMBER: PFDoA0516

STRUCTURE:

CAS #: 307-55-1



MOLECULAR FORMULA: $C_{12}HF_{23}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 614.10
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/31/2016
EXPIRY DATE: (mm/dd/yyyy) 05/31/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 06/02/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

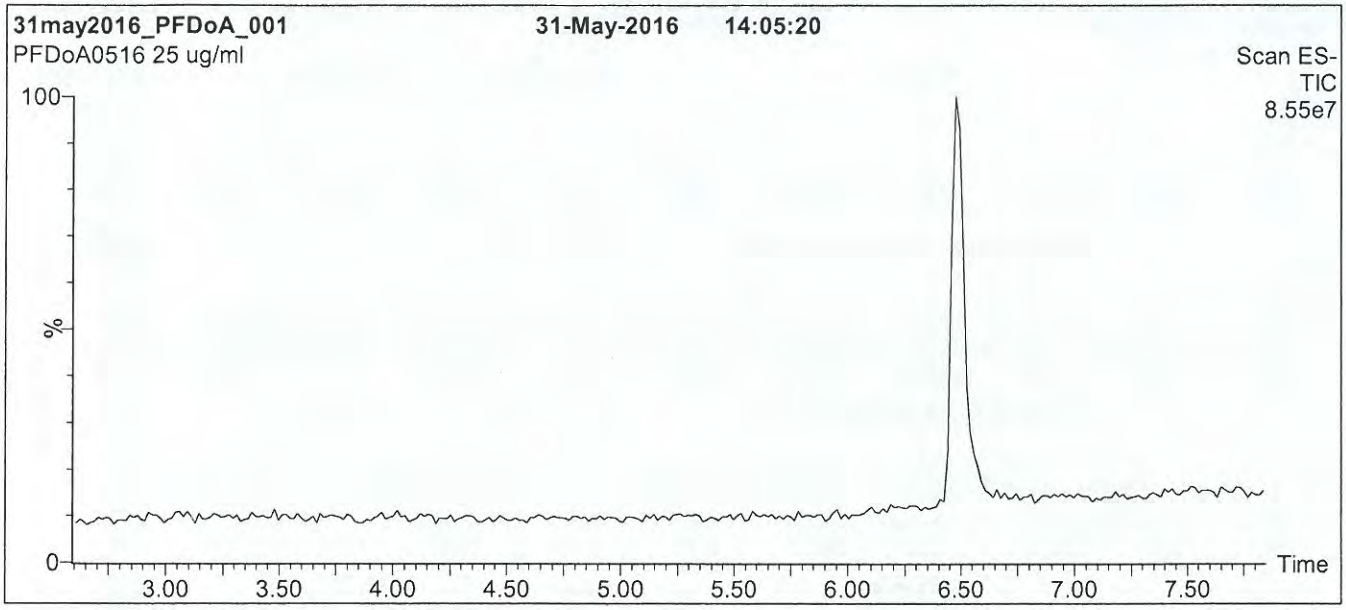
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

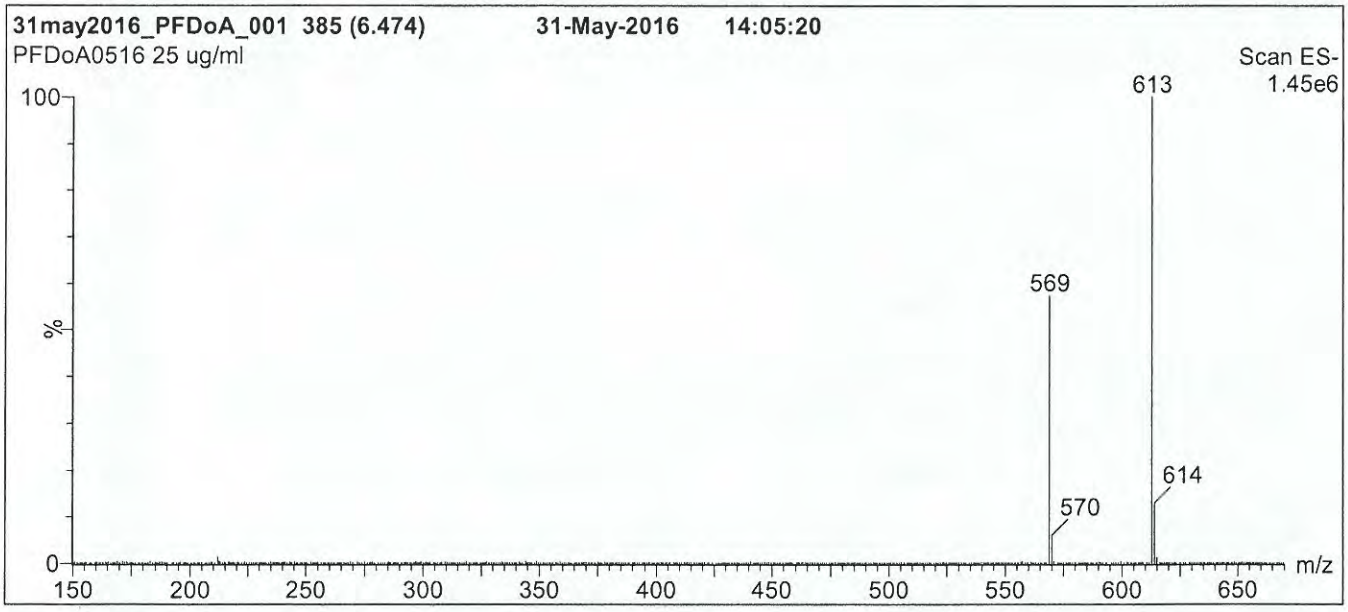
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For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **PFDoA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

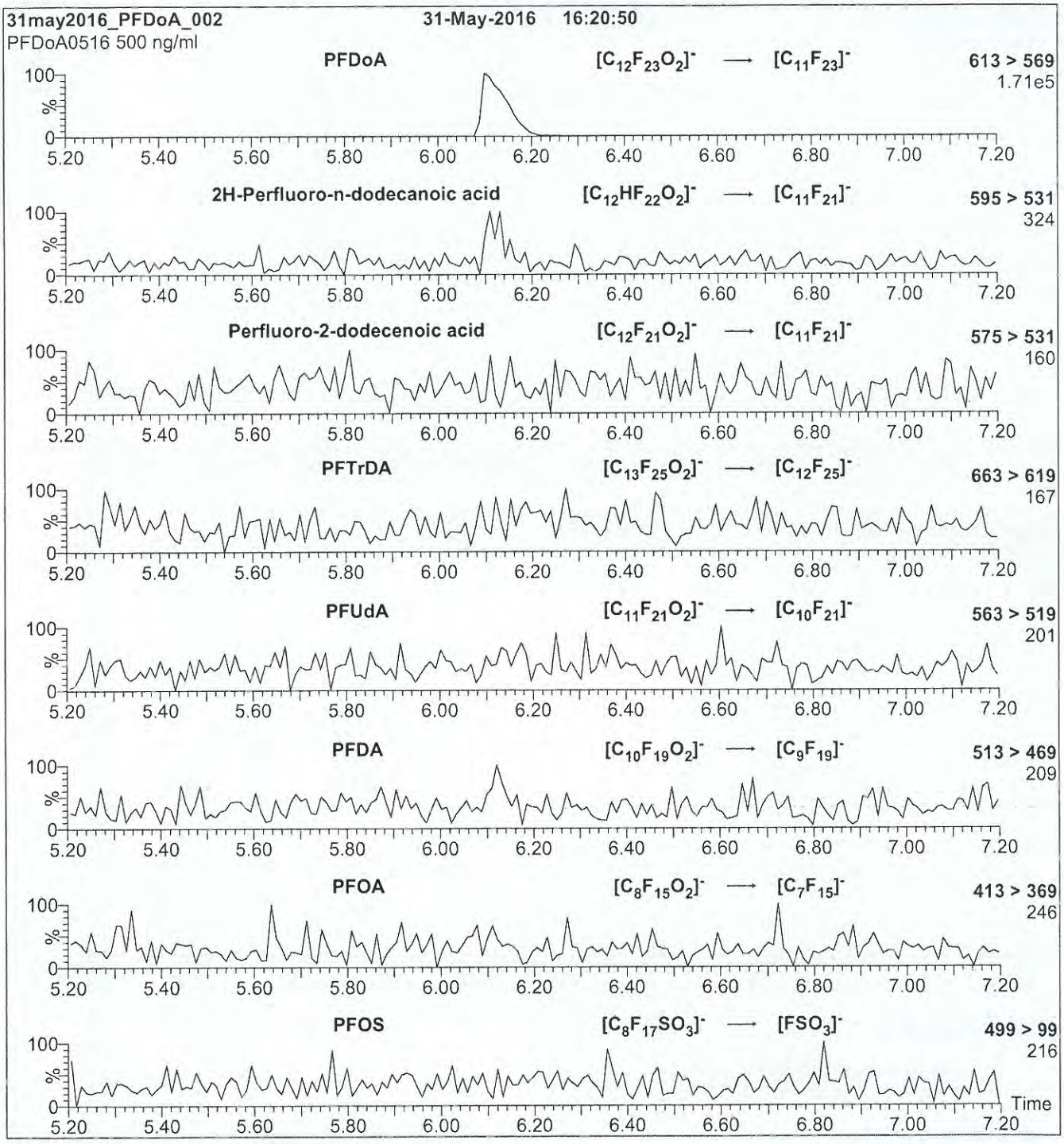
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFDoA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFDoA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 13

17H0821

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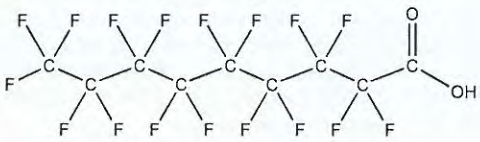
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFNA
COMPOUND: Perfluoro-n-nonanoic acid

LOT NUMBER: PFNA0916

STRUCTURE:

CAS #: 375-95-1



MOLECULAR FORMULA: $C_9HF_{17}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 464.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/30/2016
EXPIRY DATE: (mm/dd/yyyy) 09/30/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of perfluoro-n-octanoic acid (PFOA) and < 0.1% of perfluoro-n-heptanoic acid (PFHpA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/11/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

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SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

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where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

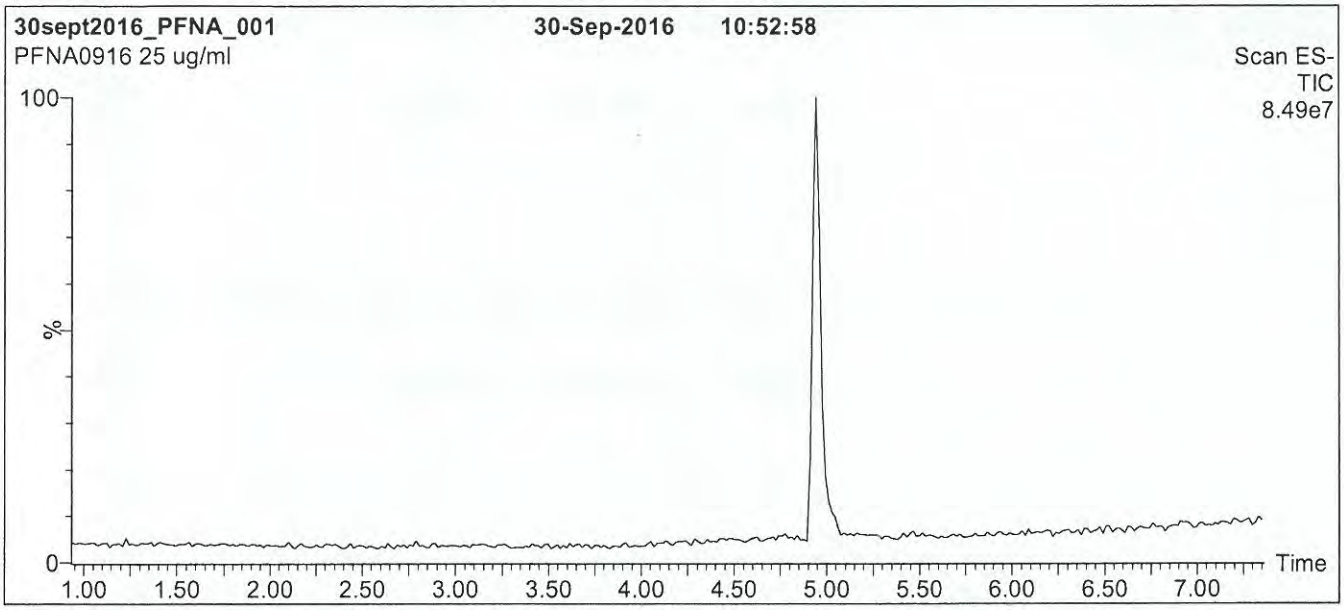
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

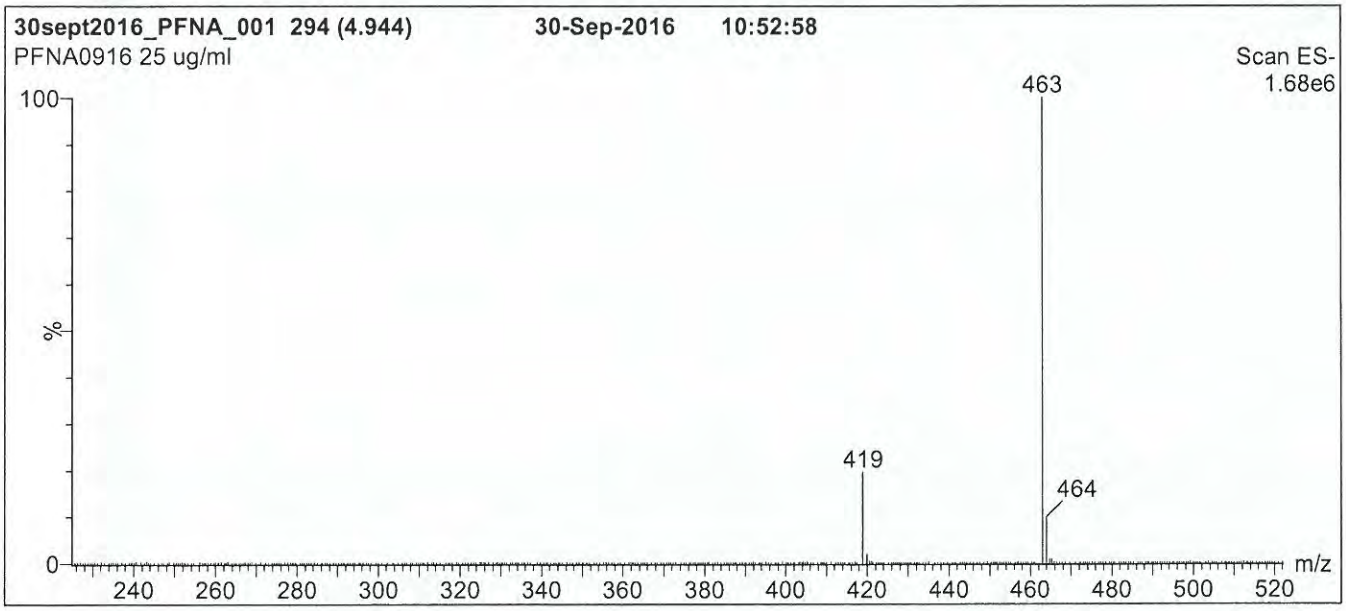
CALA

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For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **PFNA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

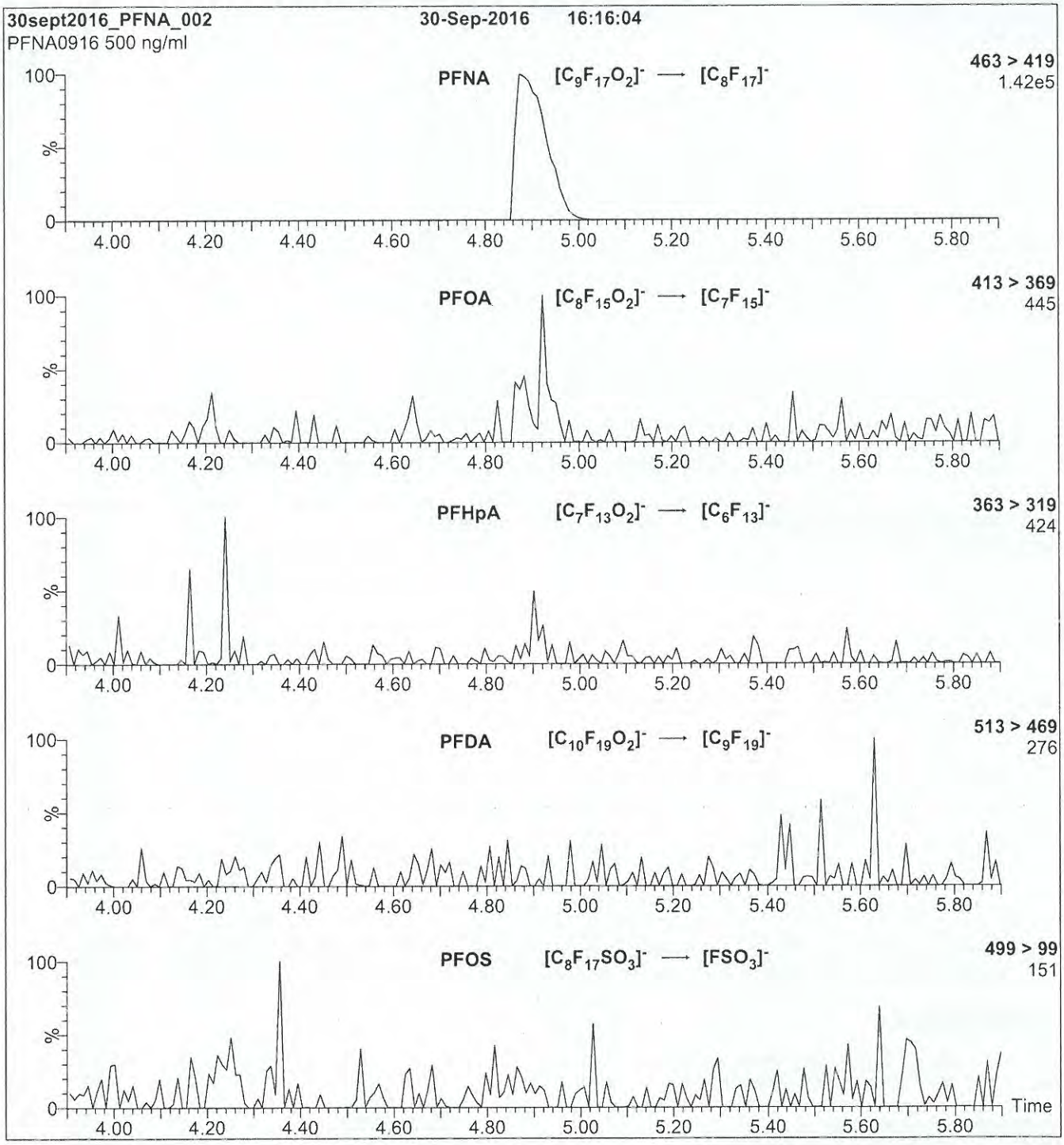
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFNA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFNA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.24e-3
Collision Energy (eV) = 11

17H0822

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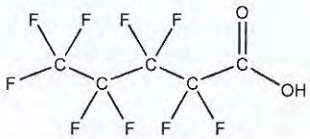
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFPeA
COMPOUND: Perfluoro-n-pentanoic acid

LOT NUMBER: PFPeA0617

STRUCTURE:

CAS #: 2706-90-3



MOLECULAR FORMULA: $C_5HF_9O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 264.05
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 06/14/2017
EXPIRY DATE: (mm/dd/yyyy) 06/14/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of Perfluoro-n-heptanoic acid (PFHpA) and ~ 0.2% of $C_5H_2F_8O_2$ (hydrido - derivative) as measured by ^{19}F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 06/16/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

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EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

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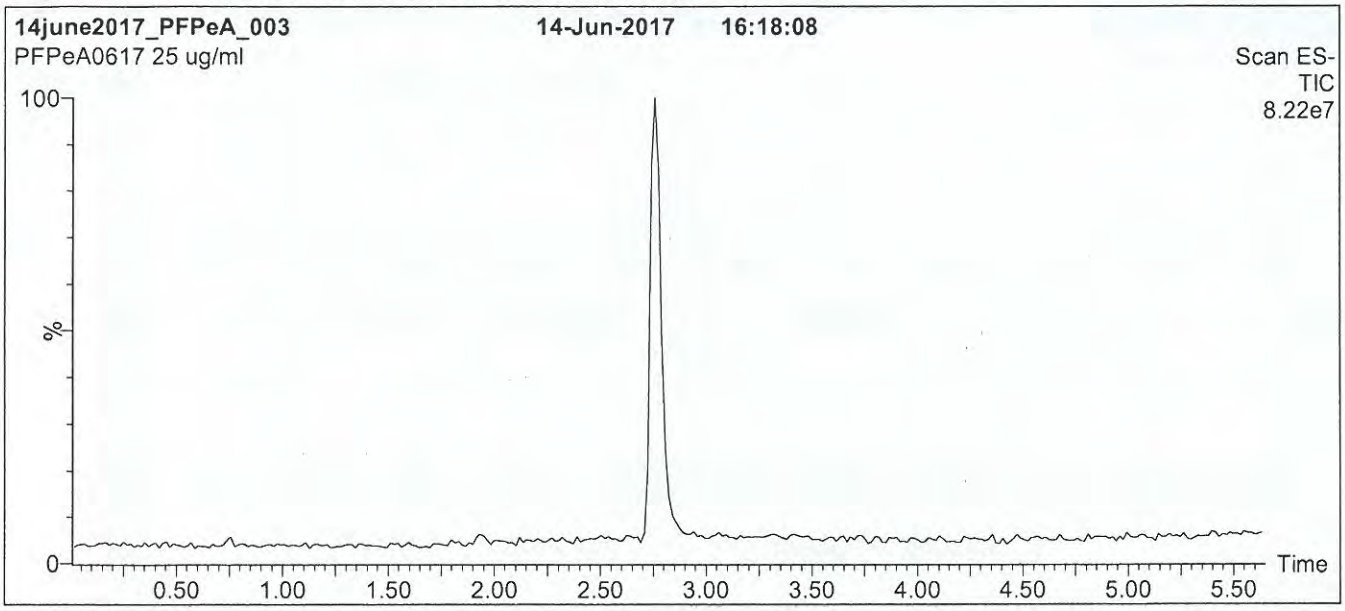
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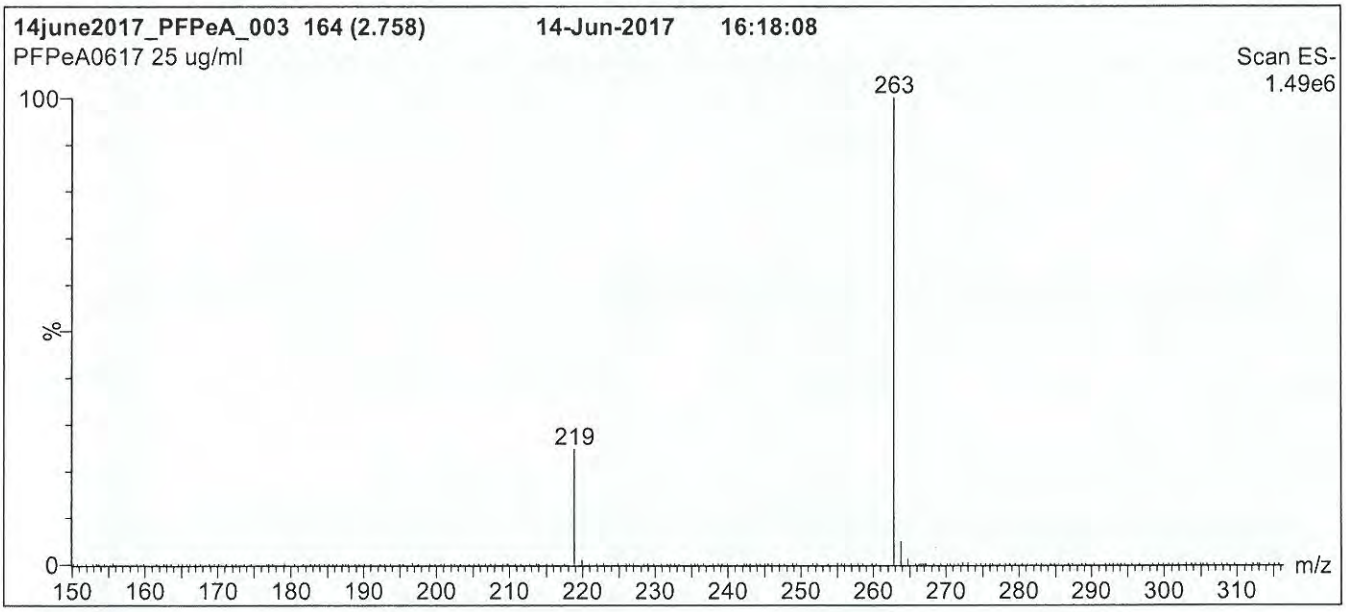
CALA

ANAB ACCREDITED

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Figure 1: **PFPeA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

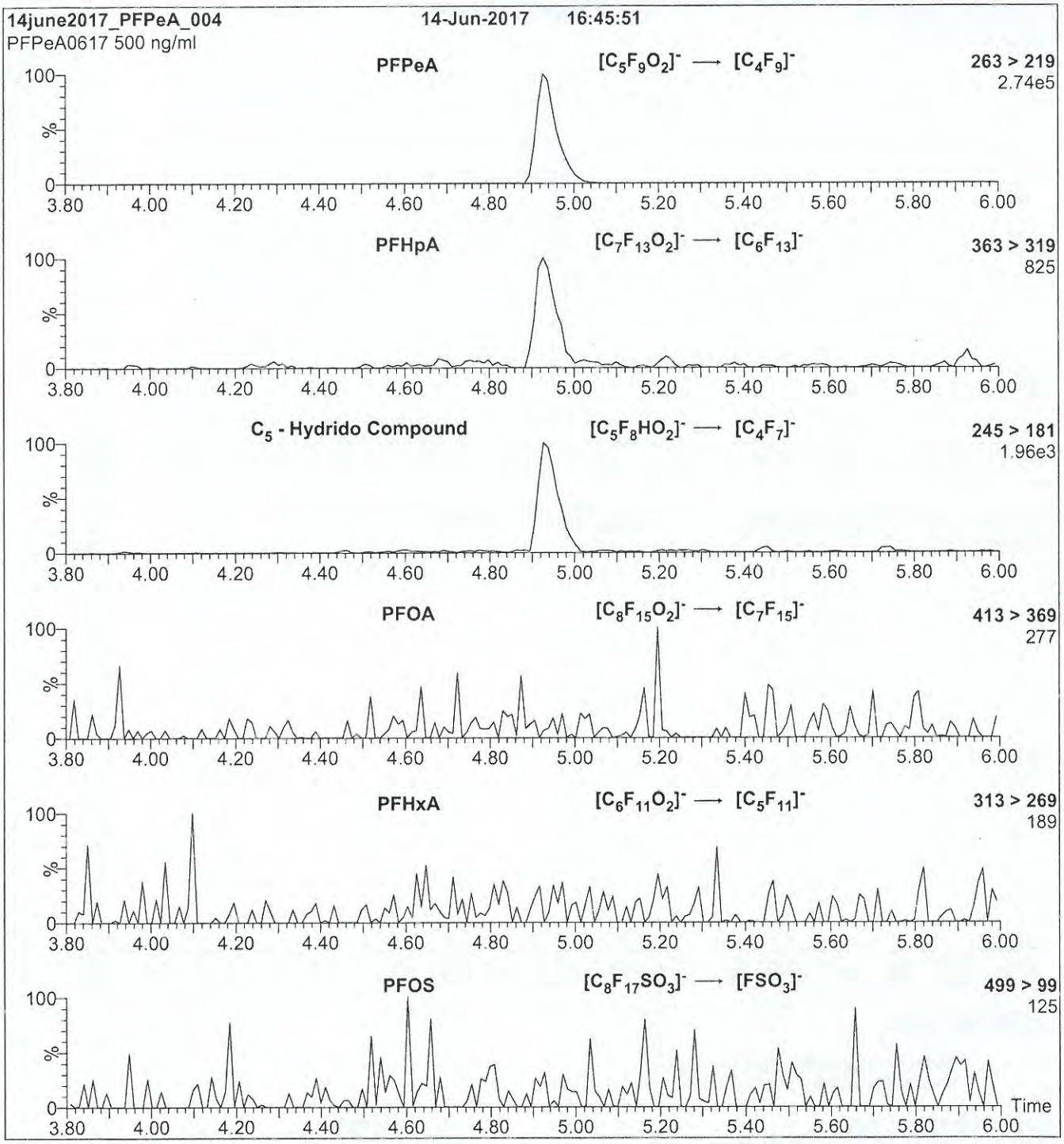
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFPeA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFPeA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.62e-3
Collision Energy (eV) = 9

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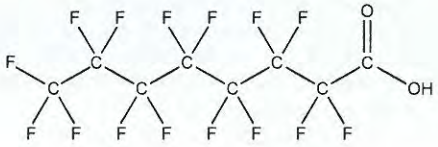
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFOA
COMPOUND: Perfluoro-n-octanoic acid

LOT NUMBER: PFOA0217

STRUCTURE:

CAS #: 335-67-1



MOLECULAR FORMULA: $C_8HF_{15}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 414.07
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 02/17/2017
EXPIRY DATE: (mm/dd/yyyy) 02/17/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 02/22/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c\left(y(x_1, x_2, \ldots x_n)\right) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

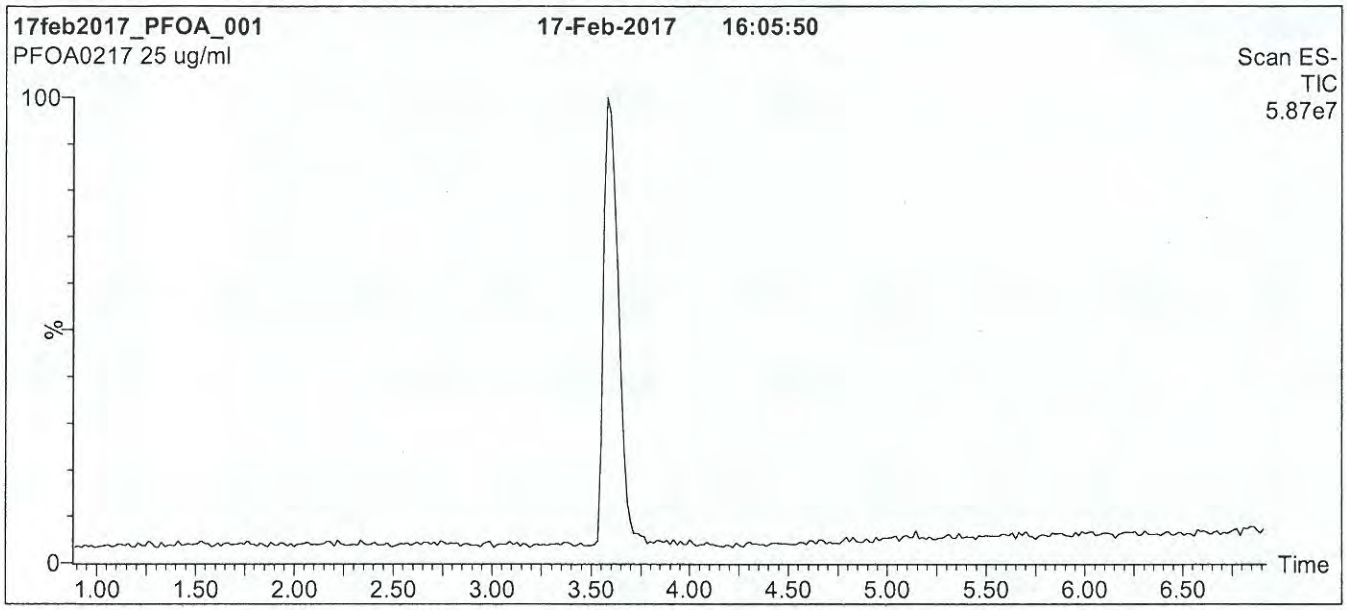
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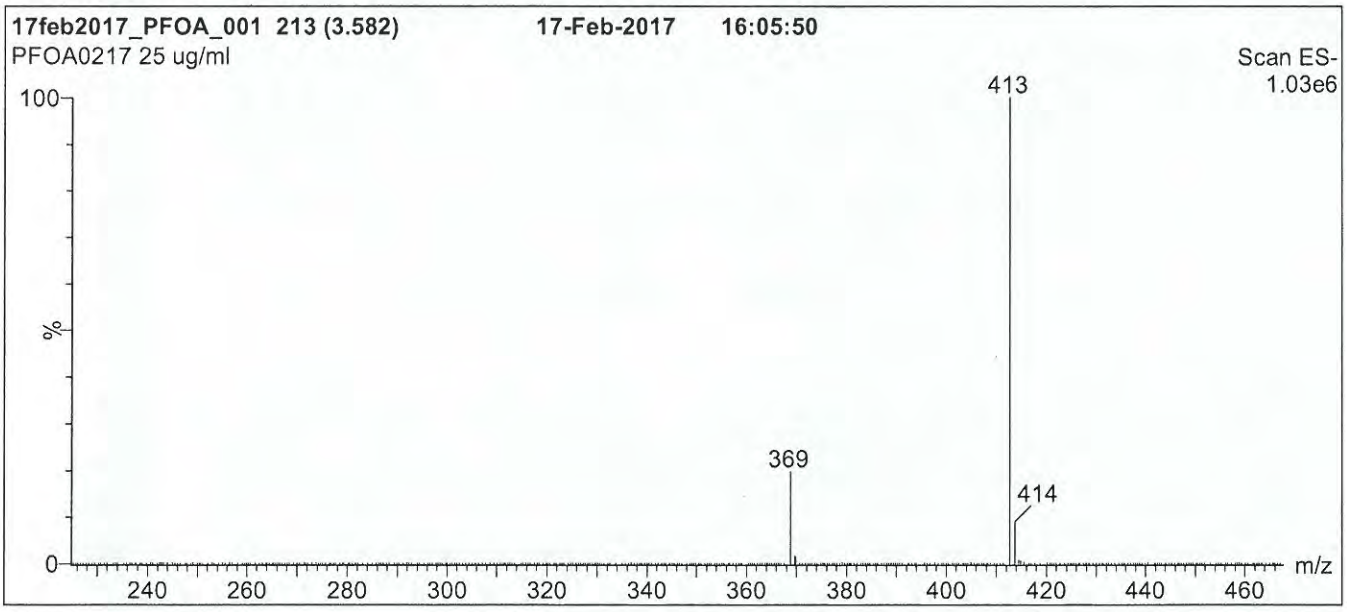
CALA

ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
1 min before returning to initial conditions in 0.5 min.
Time: 10 min

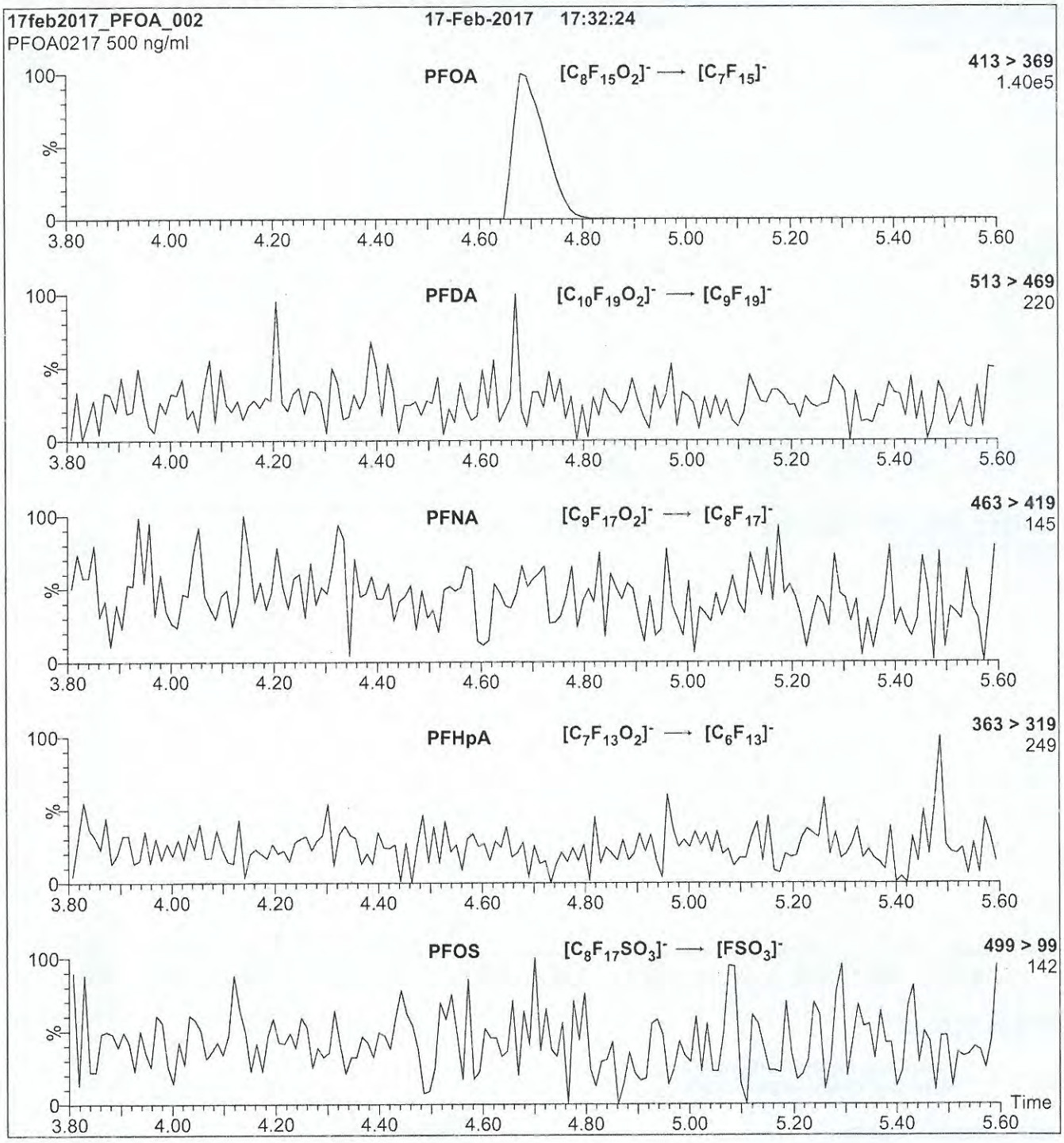
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFOA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 10

1701829

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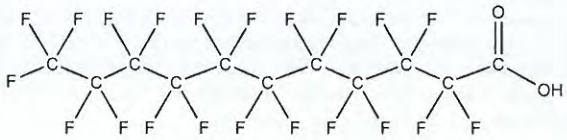
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFUdA
COMPOUND: Perfluoro-n-undecanoic acid

LOT NUMBER: PFUdA1016

STRUCTURE:

CAS #: 2058-94-8



MOLECULAR FORMULA:	$C_{11}HF_{21}O_2$	**MOLECULAR WEIGHT:**	564.09
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	10/18/2016		
EXPIRY DATE: (mm/dd/yyyy)	10/18/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/19/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

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LIMITED WARRANTY:

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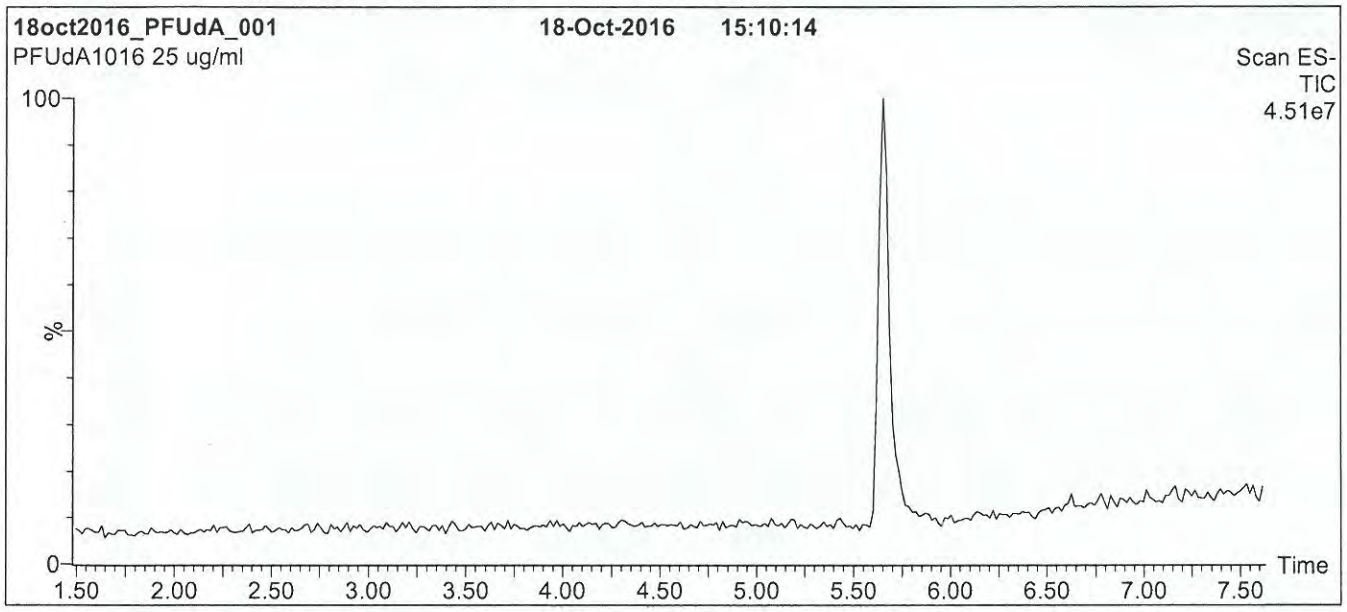
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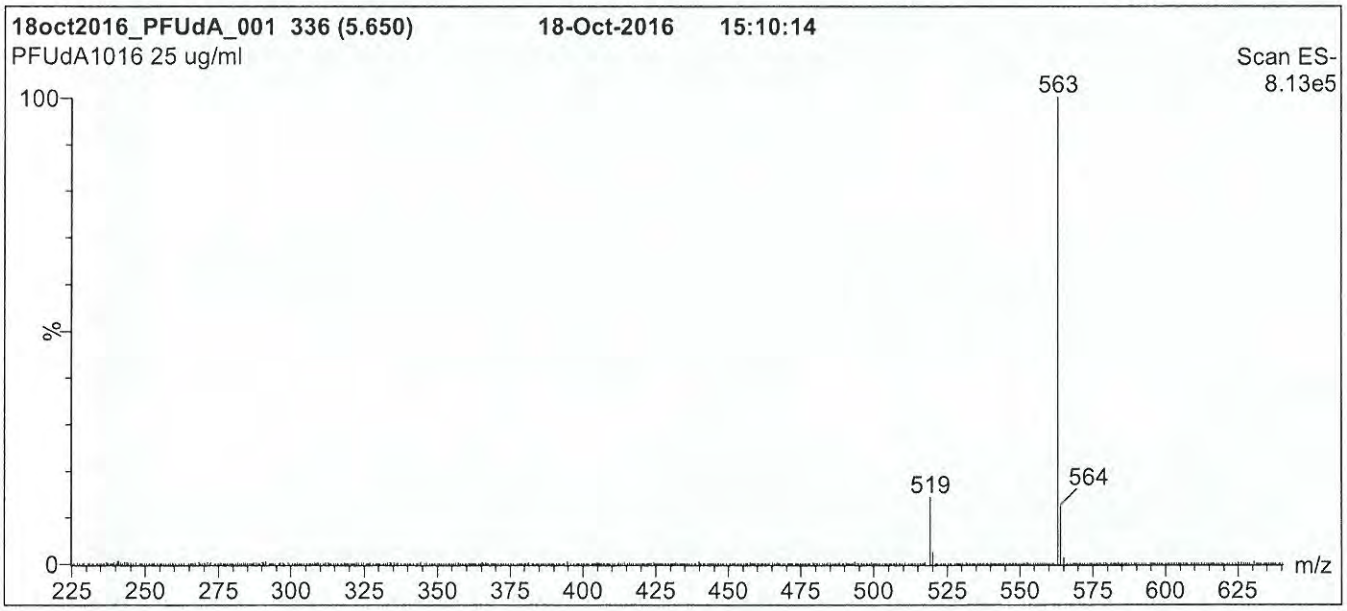
CALA

ANAB ACCREDITED

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Figure 1: **PFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

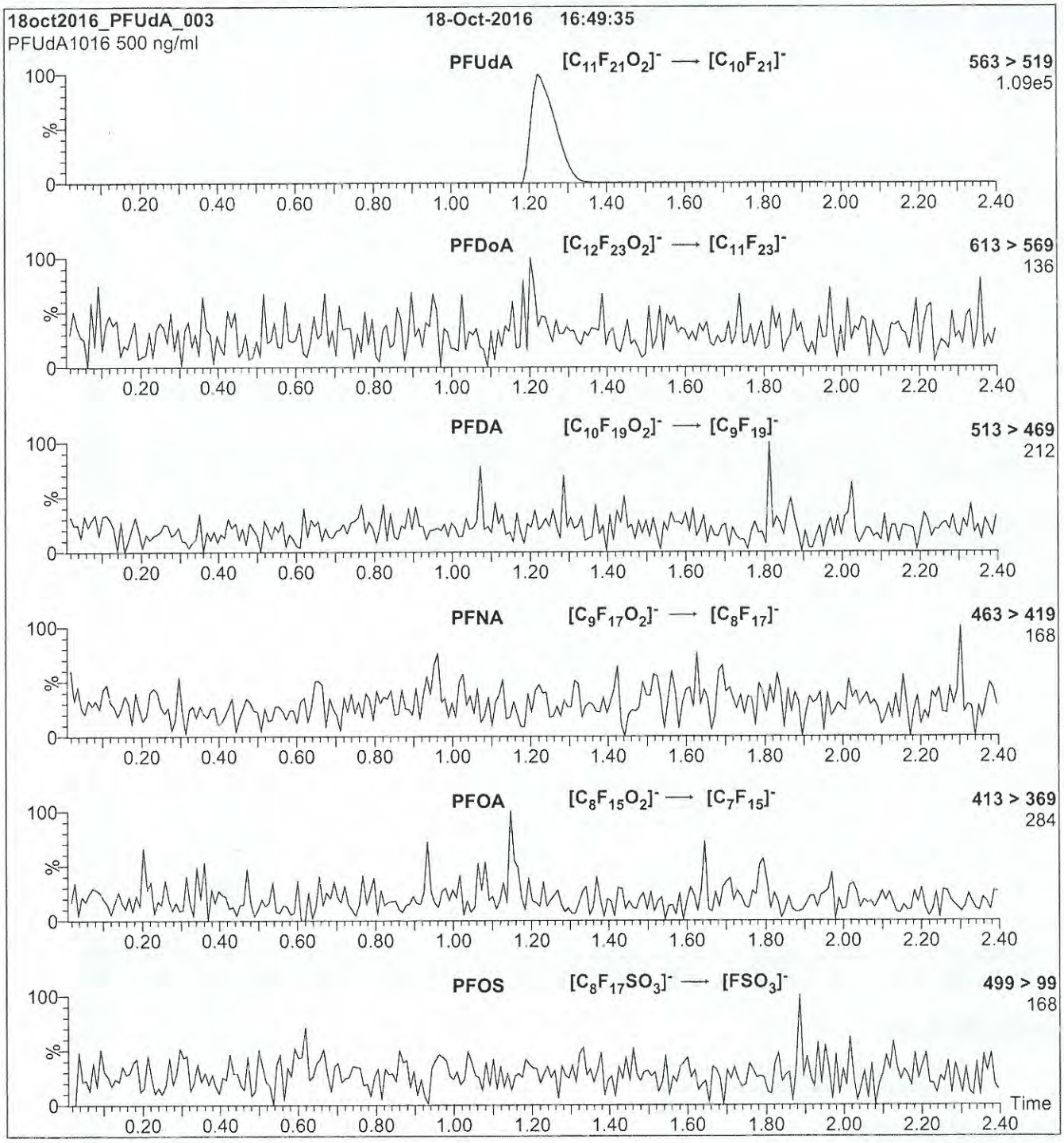
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 65
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFUdA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.24e-3
Collision Energy (eV) = 11

17H0825

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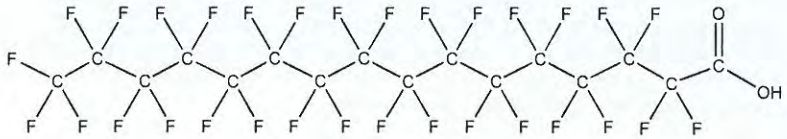
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFHxDA ✓
COMPOUND: Perfluoro-n-hexadecanoic acid

LOT NUMBER: PFHxDA0516

STRUCTURE:

CAS #: 67905-19-5



MOLECULAR FORMULA: $C_{16}HF_{31}O_2$
MOLECULAR WEIGHT: 814.13
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/25/2016
EXPIRY DATE: (mm/dd/yyyy) 05/25/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.4% of PFODA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 05/27/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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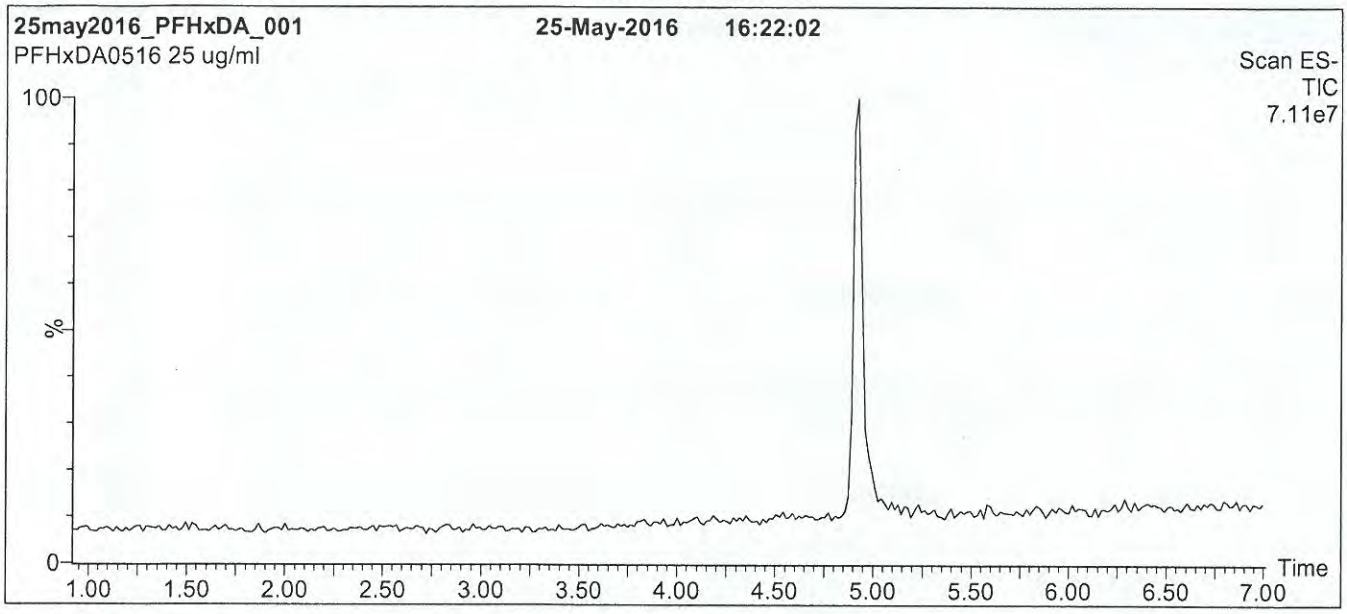
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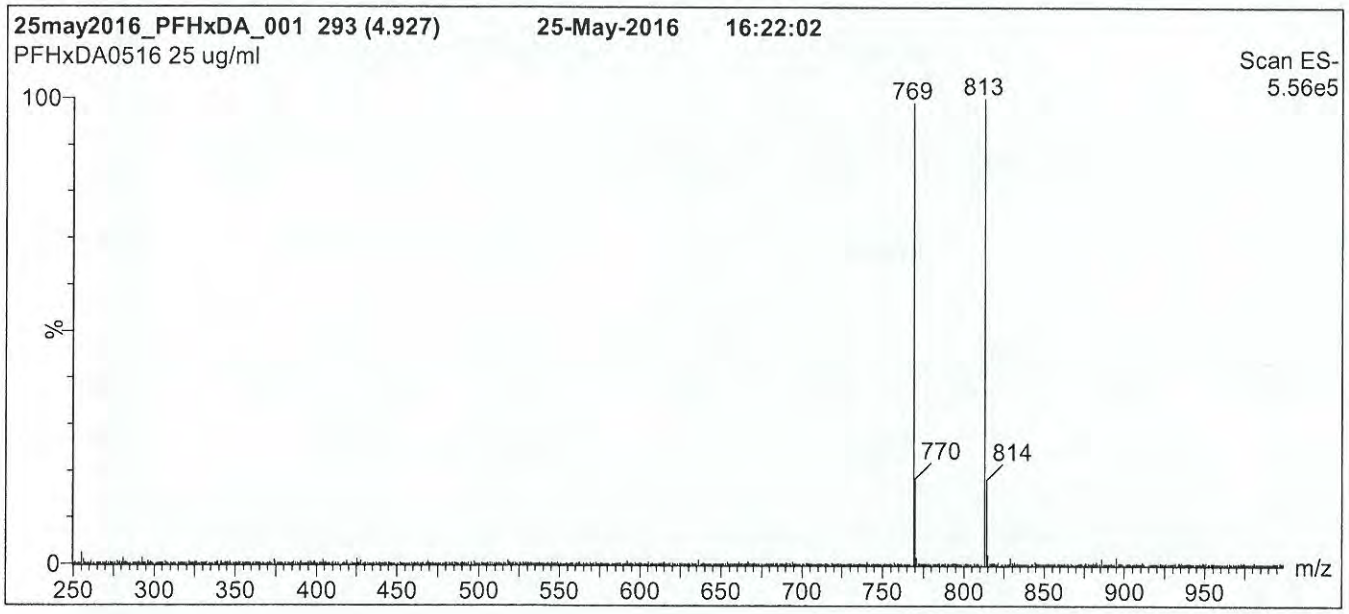
CALA Testing Accreditation No. A1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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Figure 1: **PFHxDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 70% (80:20 MeOH:ACN) / 30% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 95% organic over 6 min and hold for 2.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

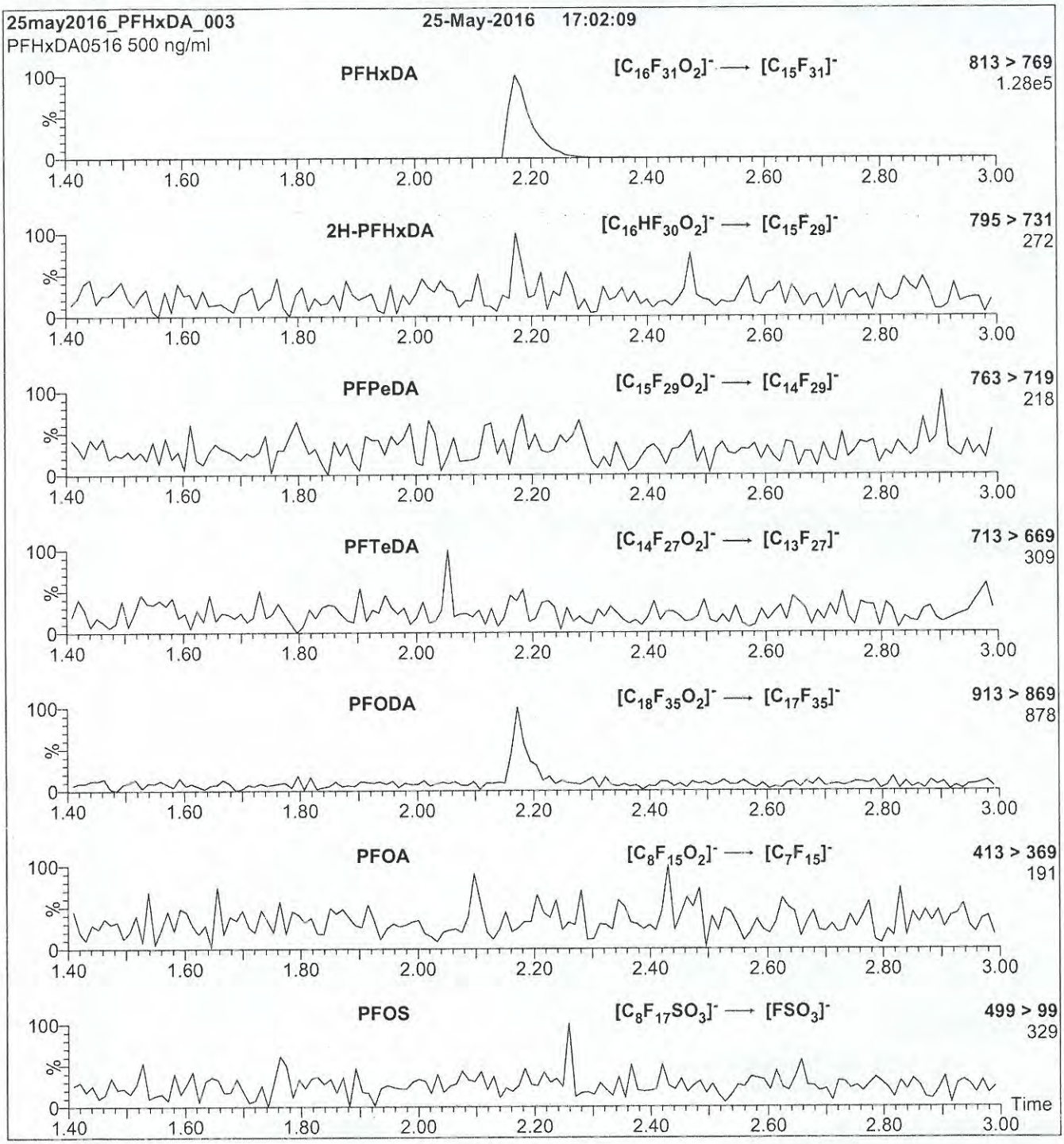
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 1250 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFHxDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFHxDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.66e-3
Collision Energy (eV) = 15

17H0826

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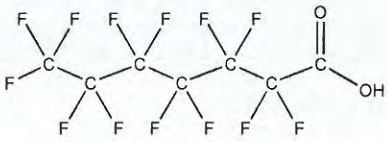
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFHpA ✓
COMPOUND: Perfluoro-n-heptanoic acid

LOT NUMBER: PFHpA1216

STRUCTURE:

CAS #: 375-85-9



MOLECULAR FORMULA: $C_7HF_{13}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 364.06
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/02/2016
EXPIRY DATE: (mm/dd/yyyy) 12/02/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
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Certified By: B.G. Chittim **Date:** 12/12/2016 (mm/dd/yyyy)

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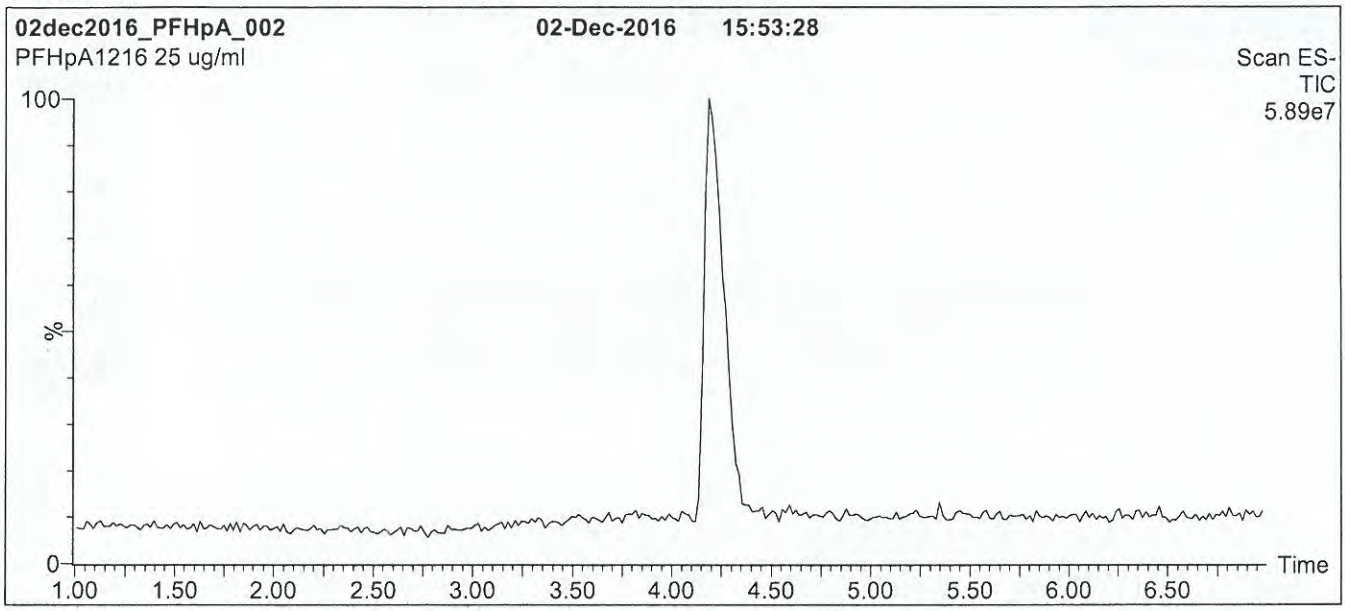
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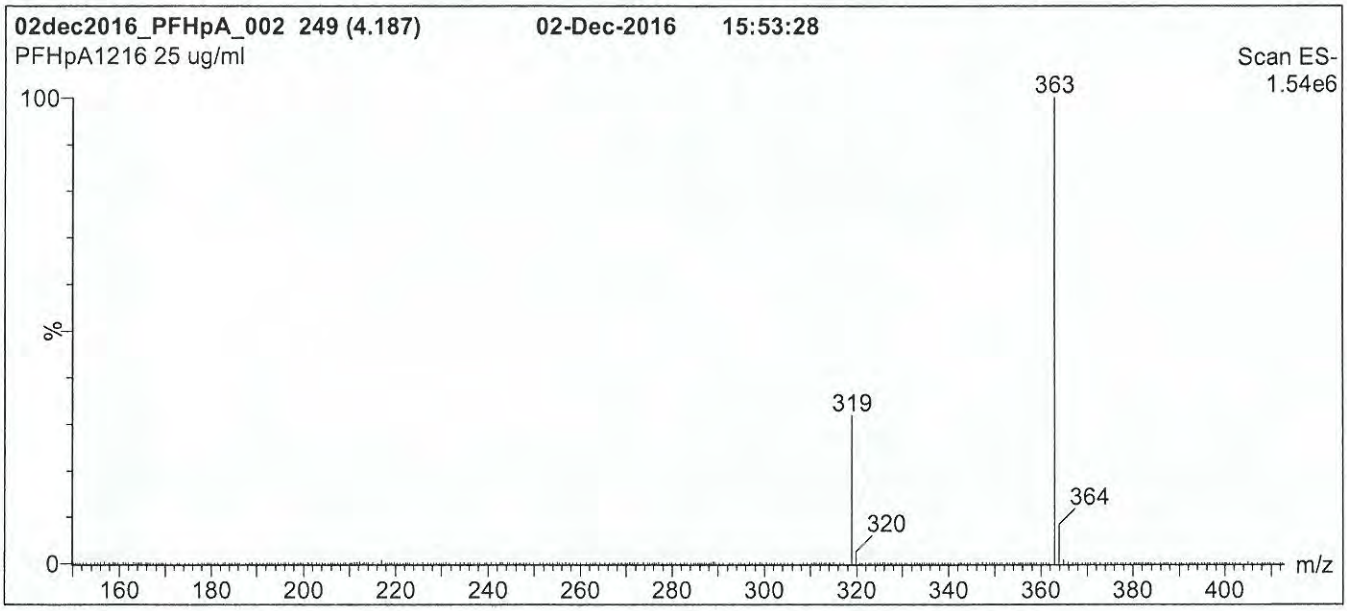
CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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Figure 1: **PFHpA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

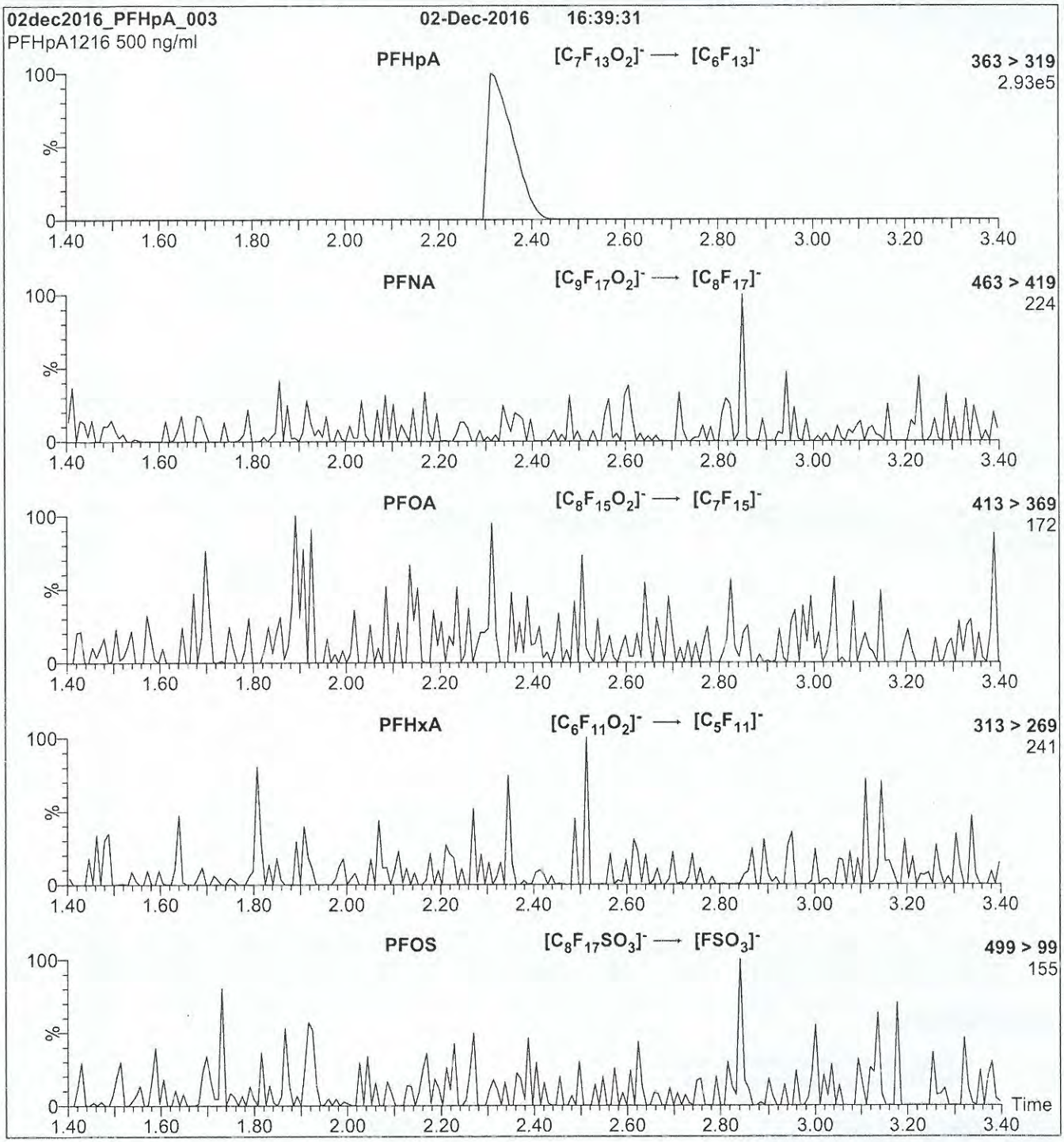
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFHpA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFHpA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.50e-3
Collision Energy (eV) = 11

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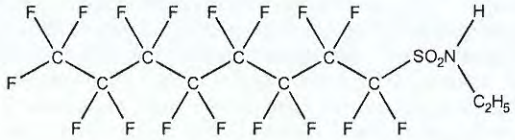
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSA-M
COMPOUND: N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEtFOSA0717M

STRUCTURE:

CAS #: 4151-50-2



MOLECULAR FORMULA:	$C_{10}H_6F_{17}NO_2S$	**MOLECULAR WEIGHT:**	527.20
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/05/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/05/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/18/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

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HAZARDS:

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HOMOGENEITY:

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

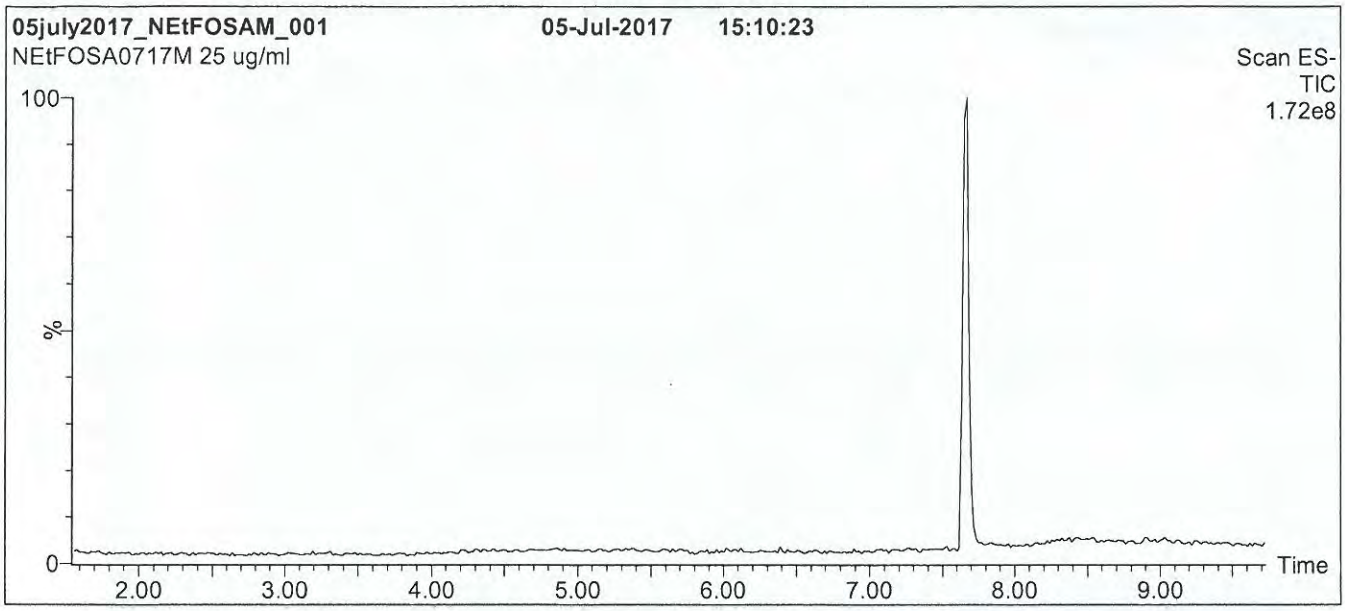
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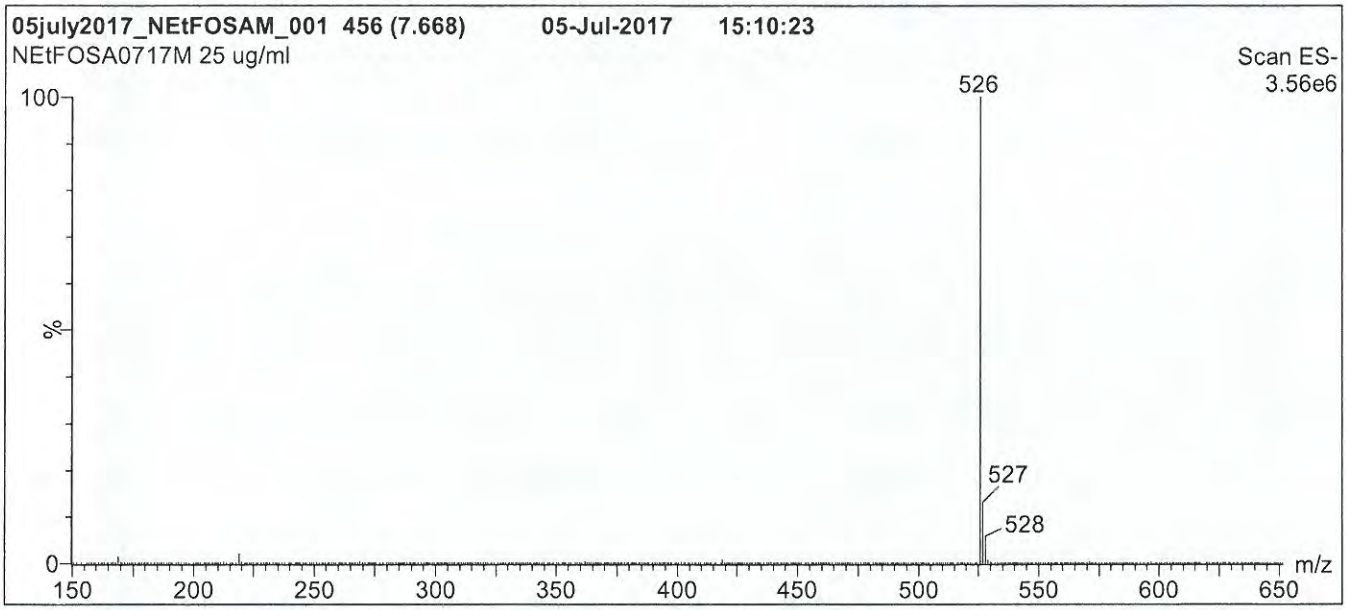
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Figure 1: **N-EtFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 45% H_2O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

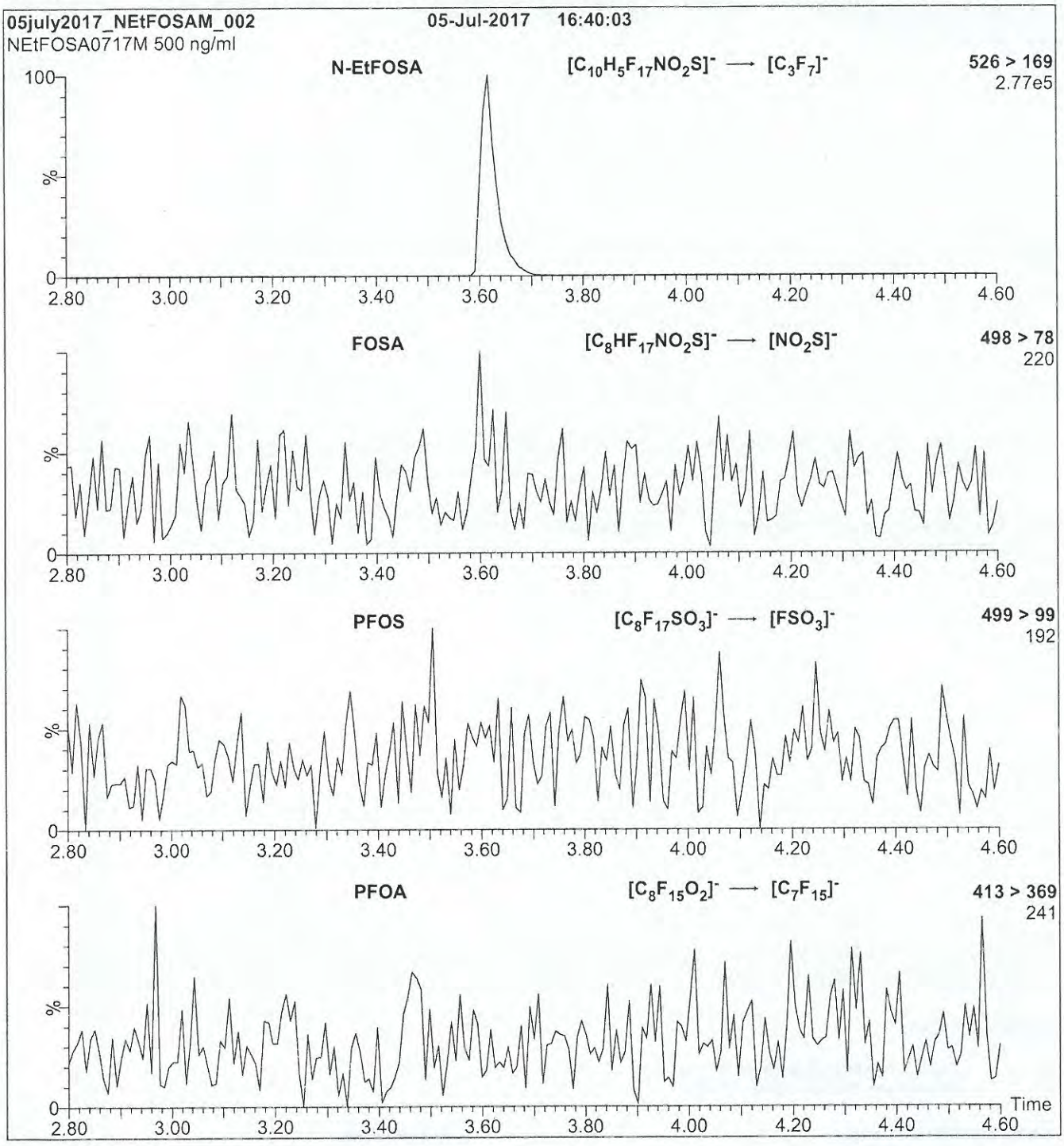
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **N-EtFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-EtFOSA-M)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 30

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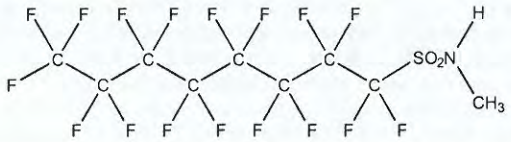
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M ✓
COMPOUND: N-methylperfluoro-1-octanesulfonamide

LOT NUMBER: NMeFOSA0717M

STRUCTURE:

CAS #: 31506-32-8



MOLECULAR FORMULA:	$C_9H_4F_{17}NO_2S$	**MOLECULAR WEIGHT:**	513.17
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/05/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/05/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/10/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

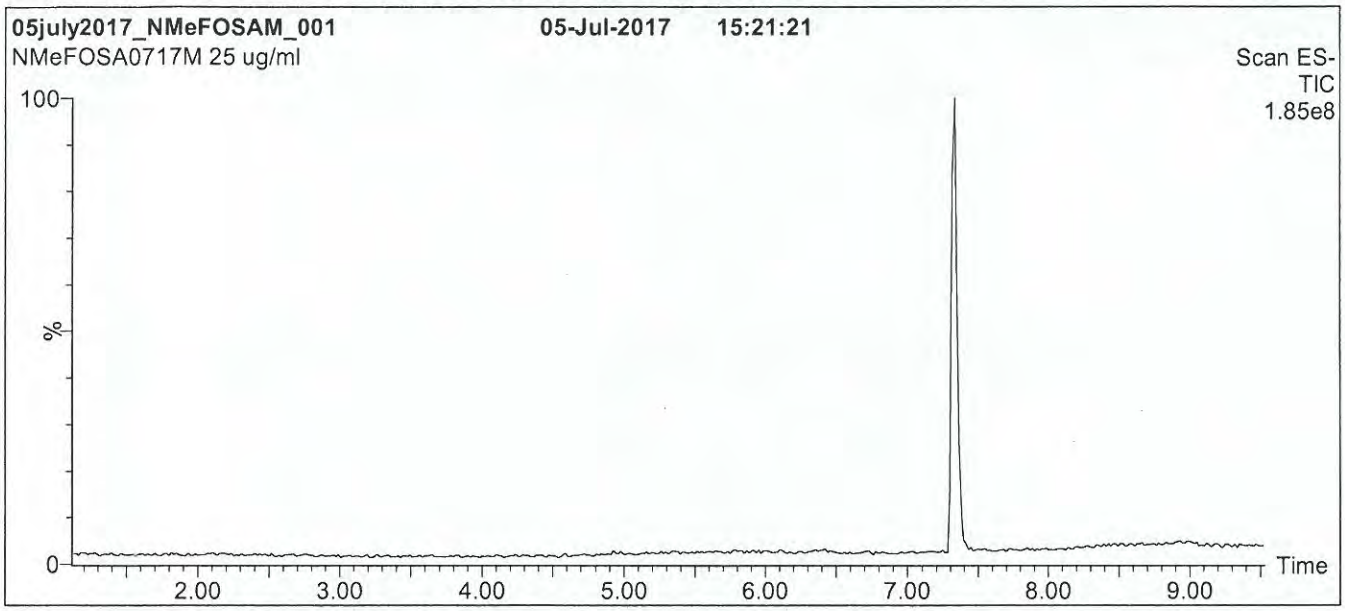
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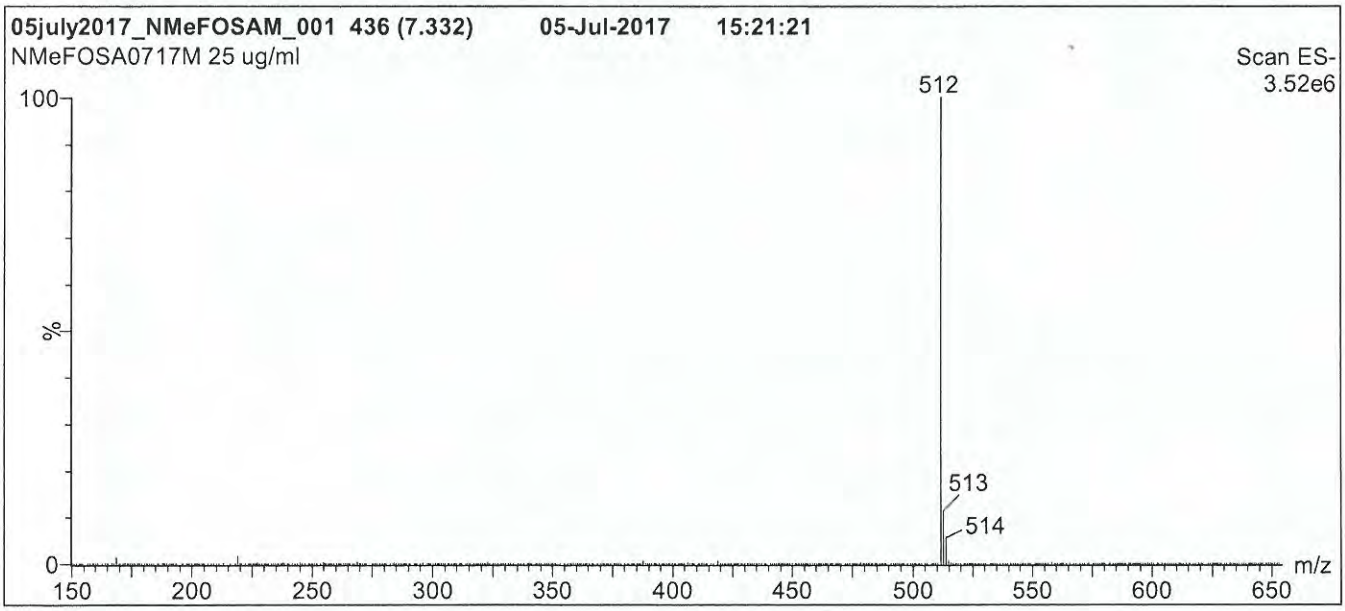
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Figure 1: **N-MeFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 45% H_2O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

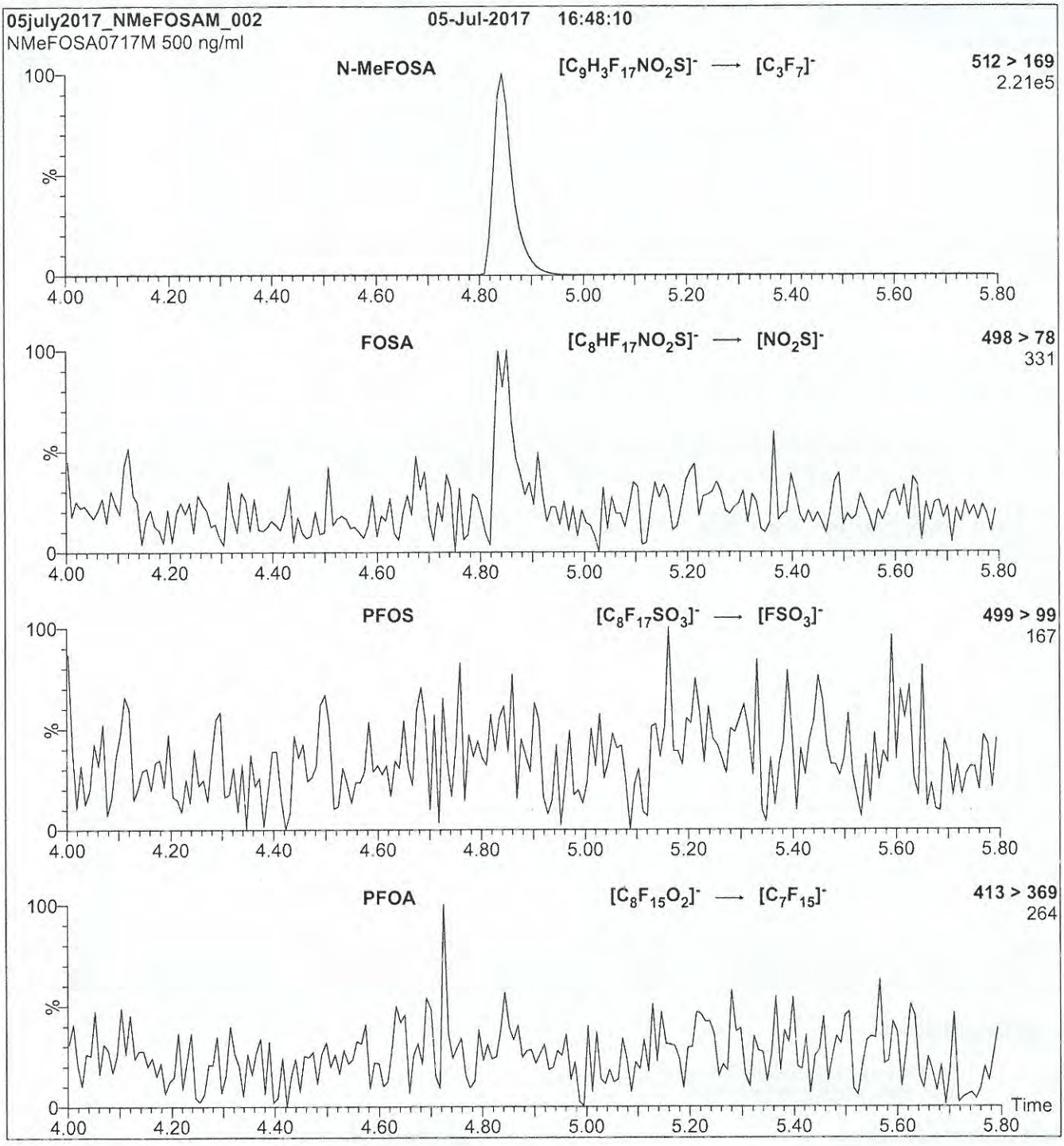
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **N-MeFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-MeFOSA-M)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 30

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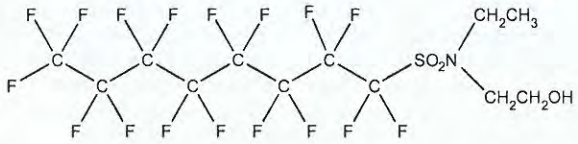
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CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-EtFOSE-M ✓ **LOT NUMBER:** NEtFOSE0417M

COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 1691-99-2



MOLECULAR FORMULA:	$C_{12}H_{10}F_{17}NO_3S$	**MOLECULAR WEIGHT:**	571.25
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/24/2017 (HRGC/LRMS) 04/21/2017 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	04/24/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/26/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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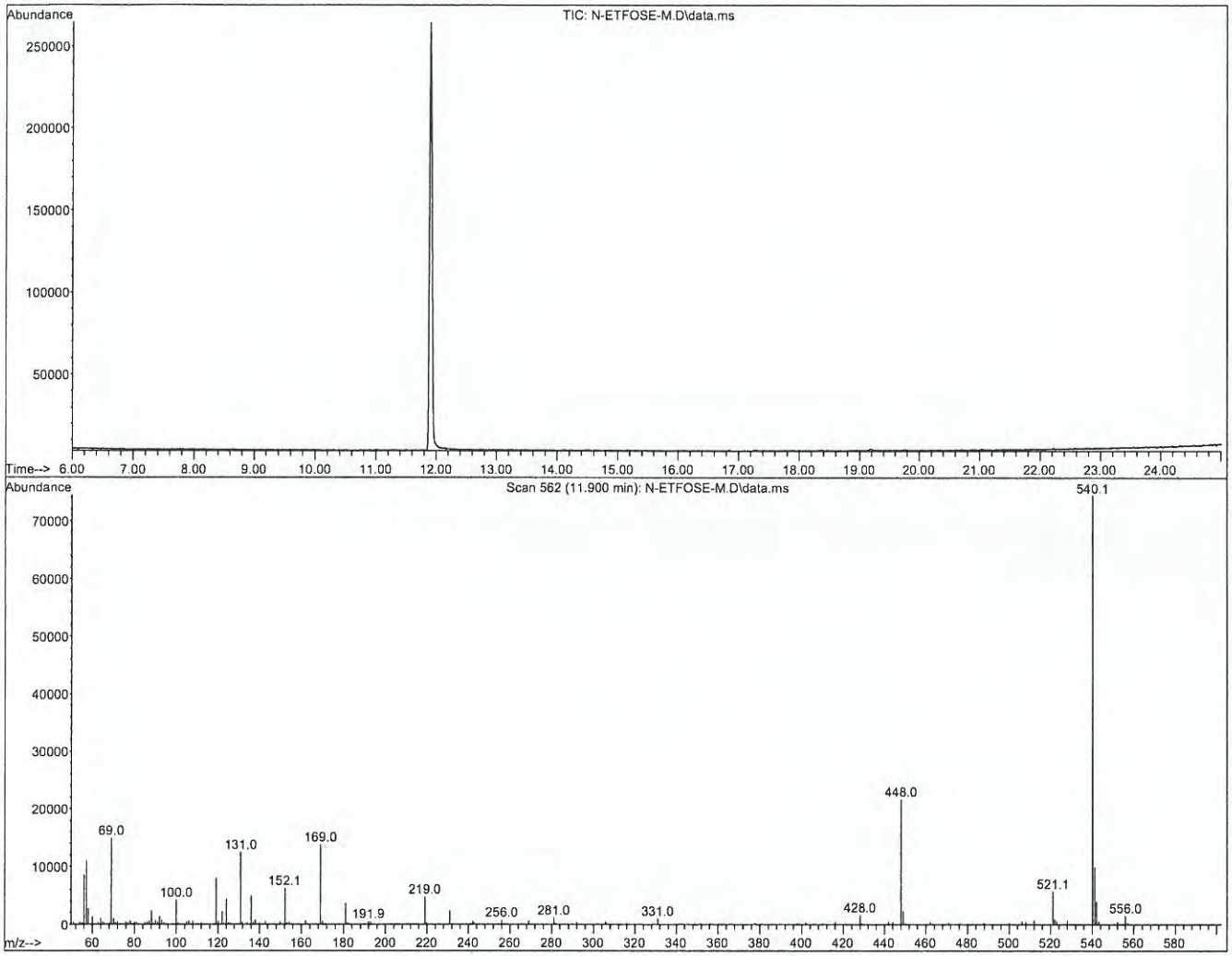
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Figure 1: **N-EtFOSE-M; HRGC/LRMS Data (TIC and Mass Spectrum)**



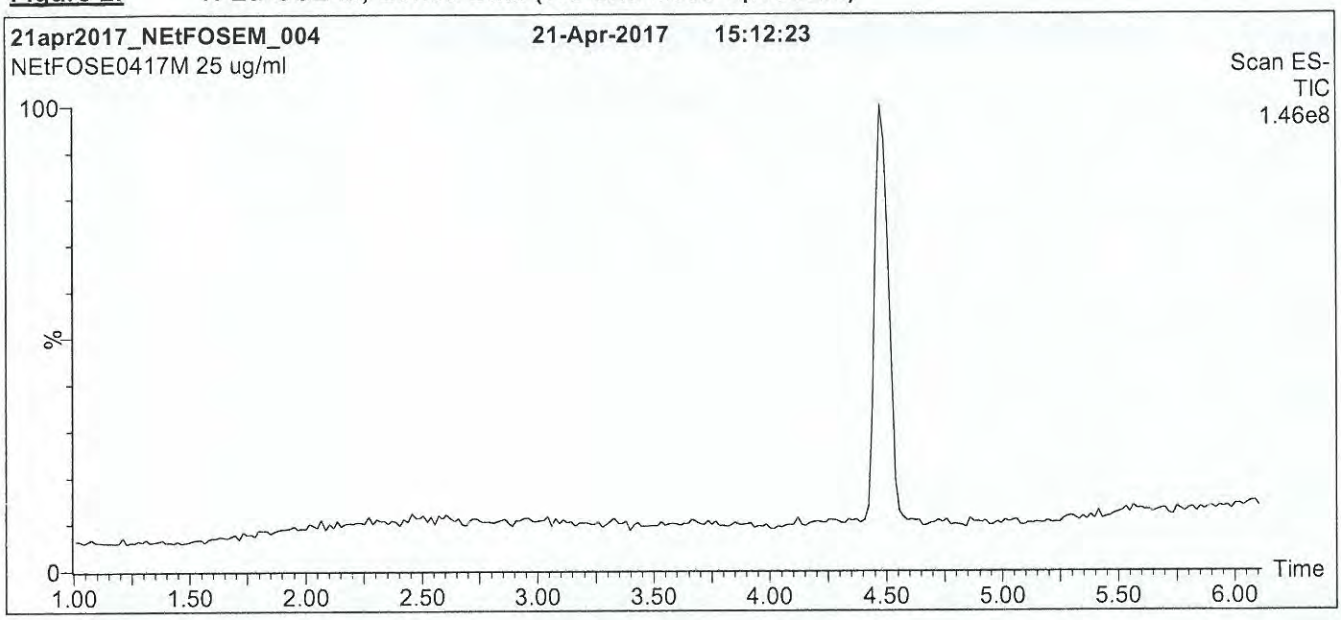
HRGC/LRMS:

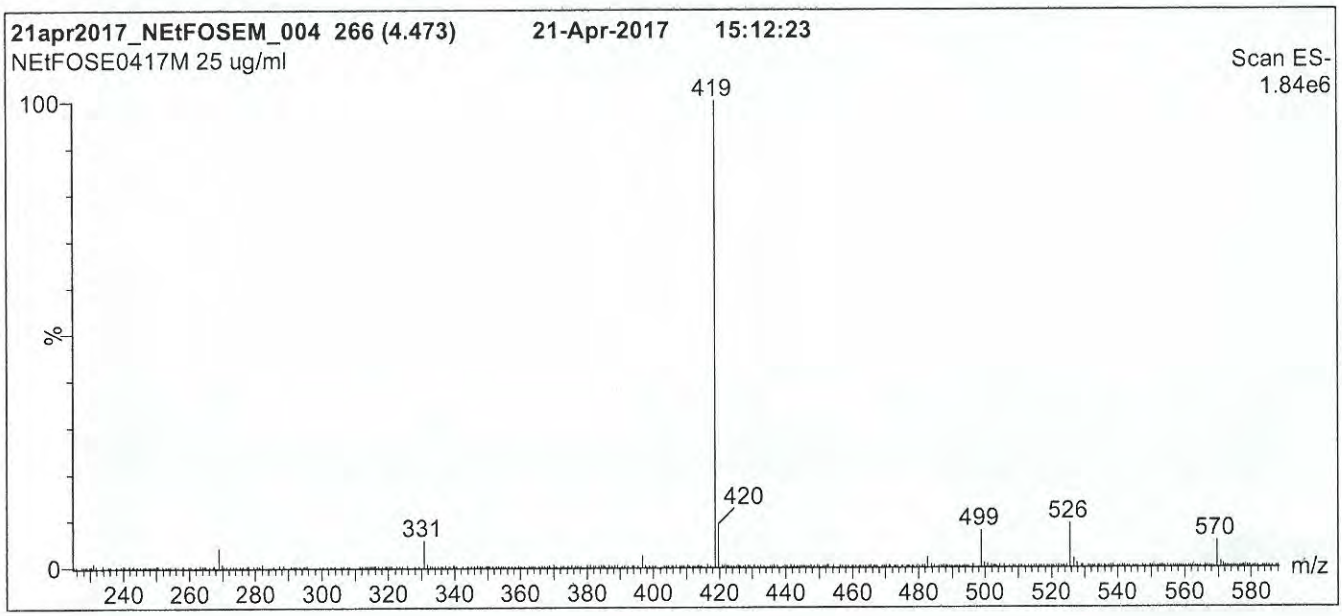
Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

Chromatographic Conditions:

Column:	30 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W
Injector:	250 °C (Splitless Injection)
Oven:	100 °C (5 min)
	10 °C/min to 325 °C
	325 °C (20 min)
Ionization:	EI+
Detector:	250 °C
	Full Scan (50-1000 amu)

Figure 2: **N-EtFOSE-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% MeOH / 40% H_2O
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

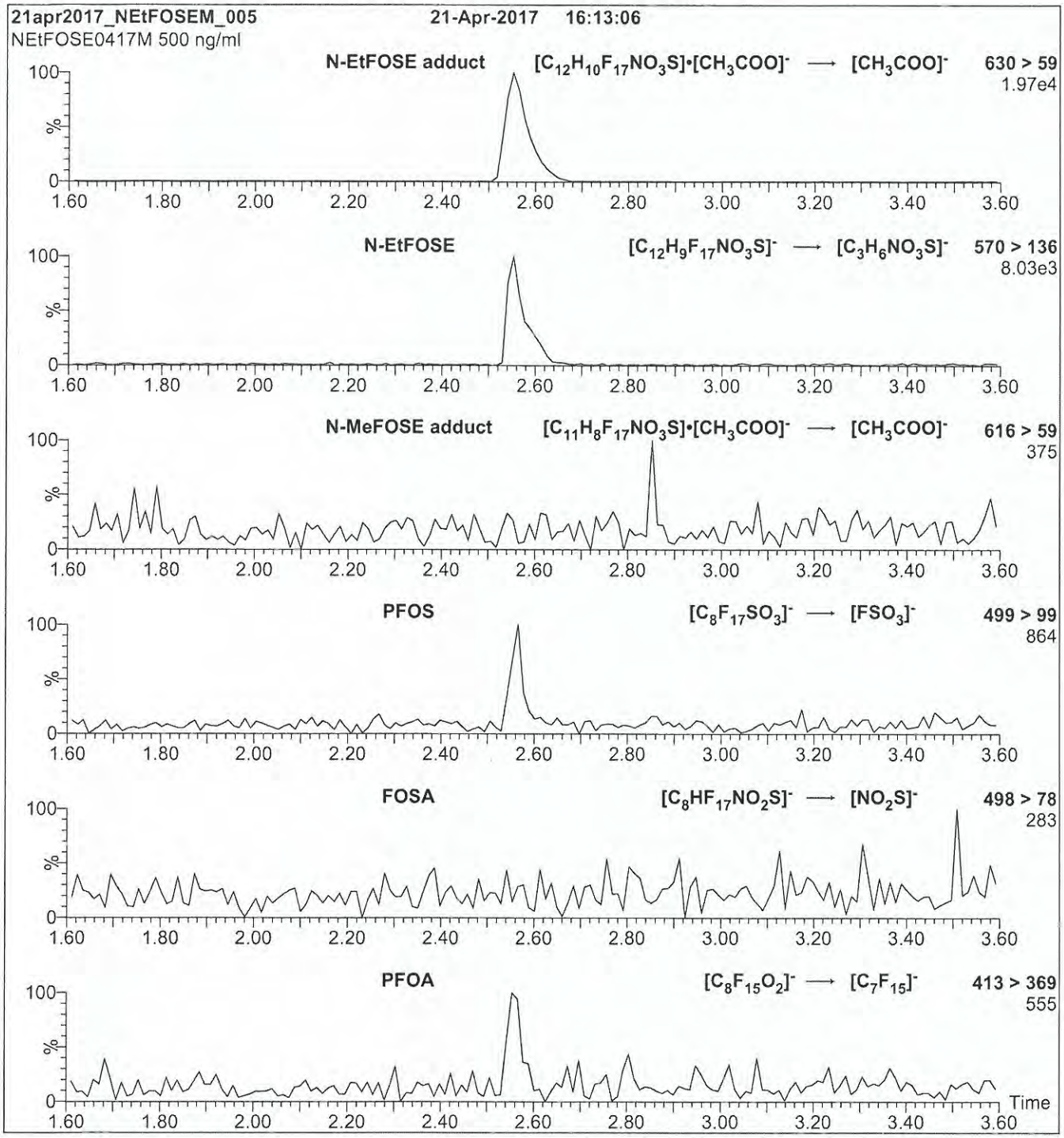
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 3: **N-EtFOSE-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: Direct loop injection
10 µl (500 ng/ml N-EtFOSE-M)

Mobile phase: Isocratic 80% MeOH / 20% H_2O

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 33

17H0830

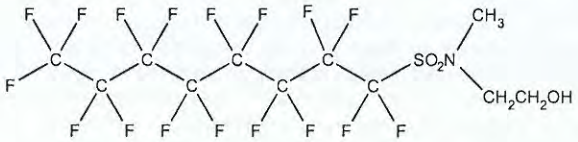
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSE-M **LOT NUMBER:** NMeFOSE0417M

COMPOUND: 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 24448-09-7



MOLECULAR FORMULA:	$C_{11}H_8F_{17}NO_3S$	**MOLECULAR WEIGHT:**	557.22
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/24/2017 (HRGC/LRMS) 04/21/2017 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	04/24/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/05/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

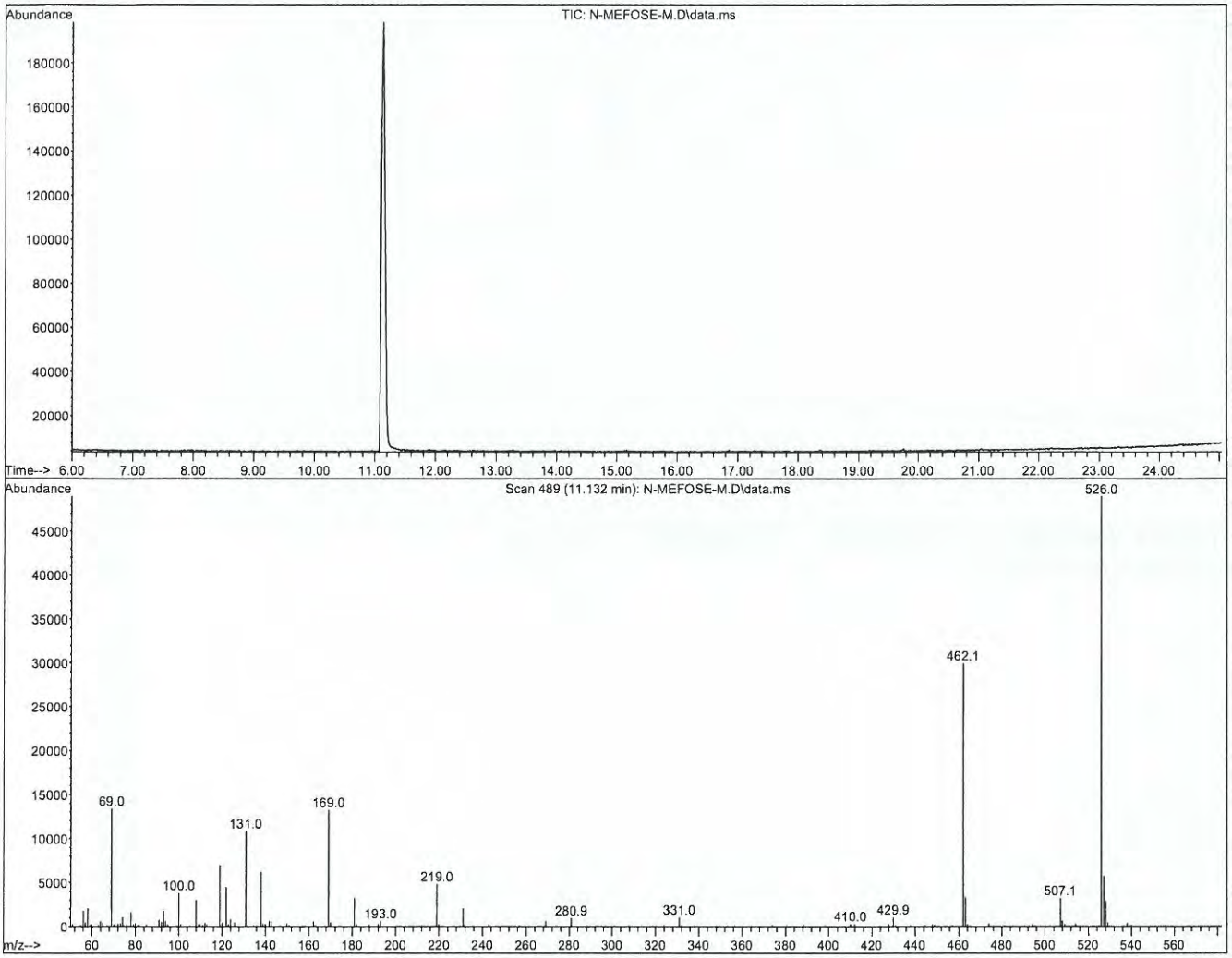
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing

ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **N-MeFOSE-M; HRGC/LRMS Data (TIC and Mass Spectrum)**



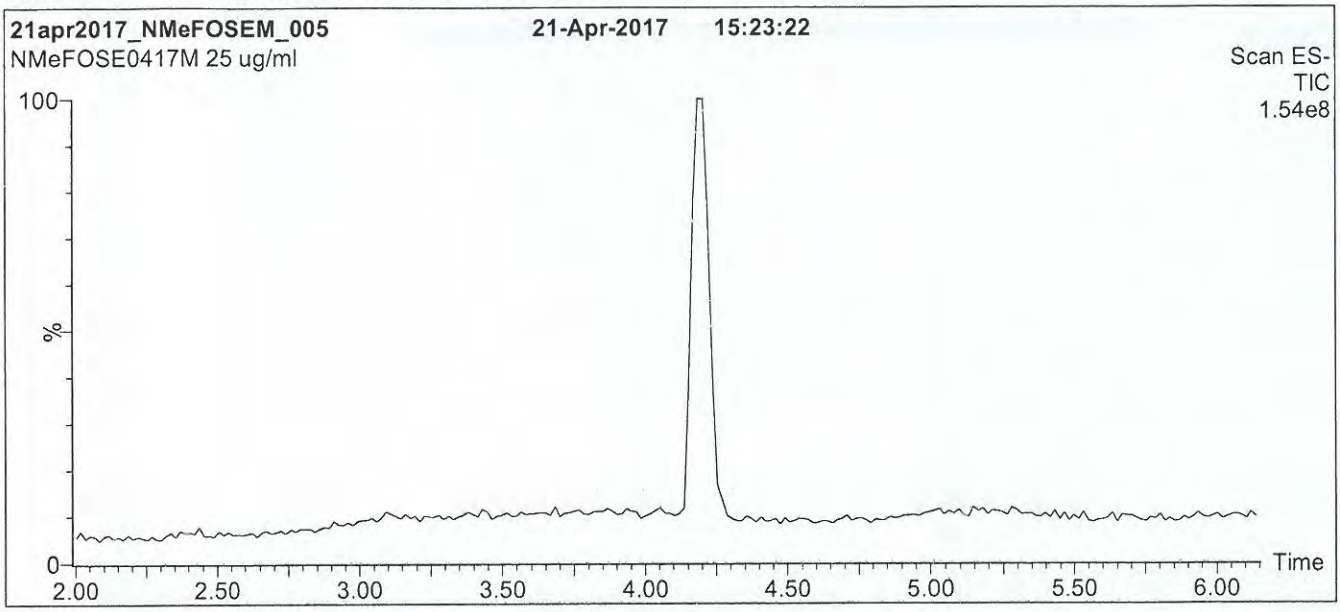
HRGC/LRMS:

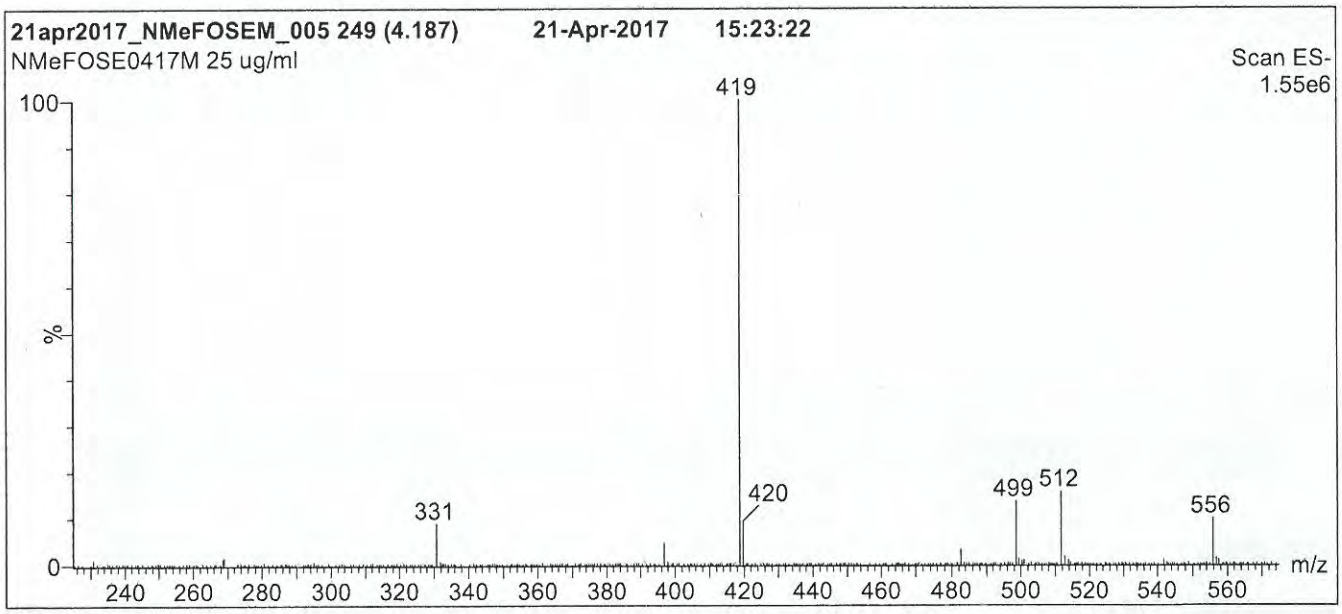
Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

Chromatographic Conditions:

Column:	30 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W
Injector:	250 °C (Splitless Injection)
Oven:	100 °C (5 min)
	10 °C/min to 325 °C
	325 °C (20 min)
Ionization:	EI+
Detector:	250 °C
	Full Scan (50-1000 amu)

Figure 2: **N-MeFOSE-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% MeOH / 40% H_2O
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

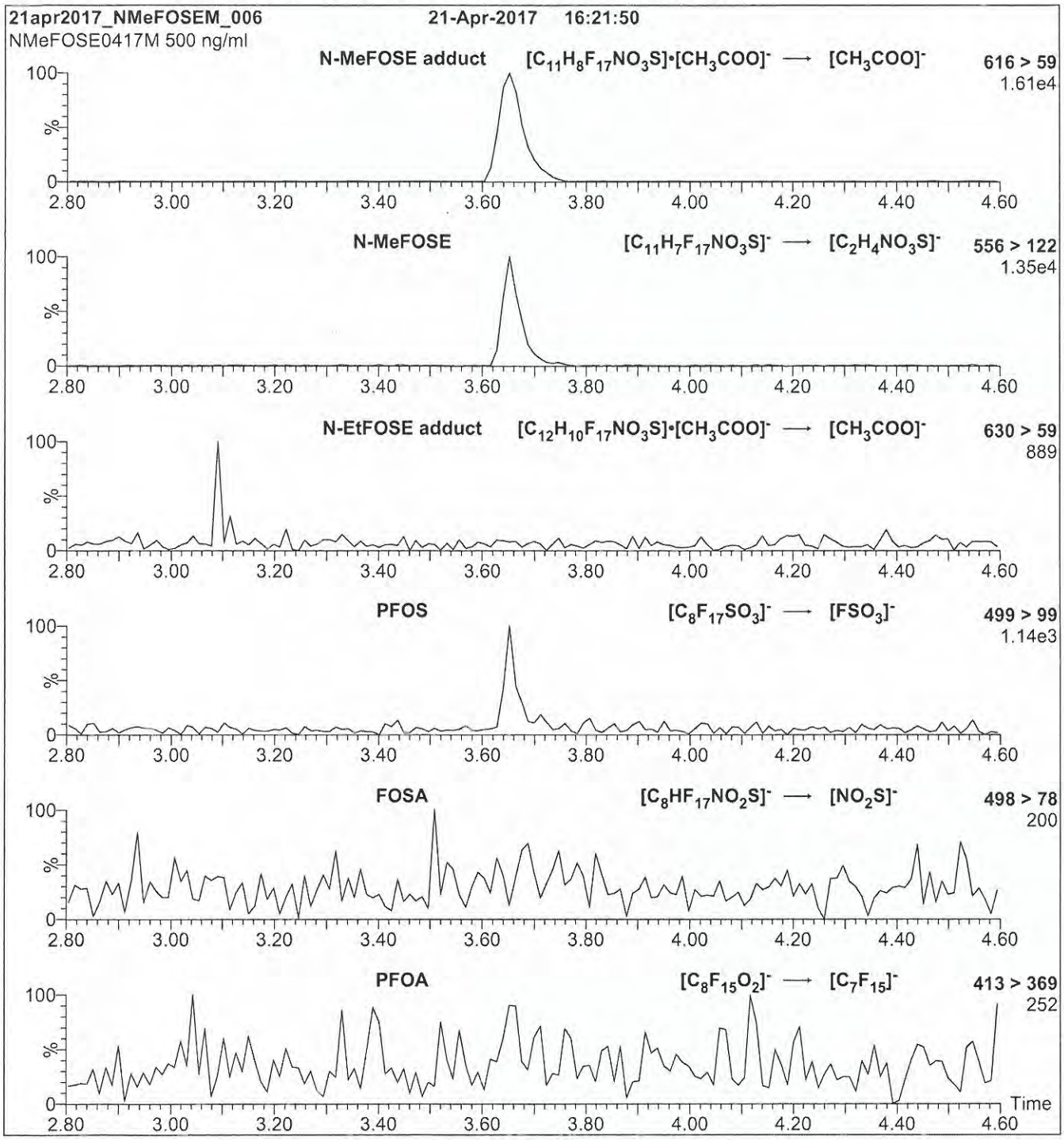
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 3: **N-MeFOSE-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: Direct loop injection
10 µl (500 ng/ml N-MeFOSE-M)

Mobile phase: Isocratic 80% MeOH / 20% H_2O

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 35

Analytical Standard Record

Vista Analytical Laboratory

17L0402

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	(mls)
17E1716	13C2-PFHxA	17-May-17	** Vendor **	22-Nov-21	0.2
17H0801	13C2-PFHxDA	08-Aug-17	** Vendor **	07-Jan-21	0.2
17K0802	d3-N-Me-FOSAA	08-Nov-17	** Vendor **	19-May-22	0.5
17K0803	d5-N-EtFOSAA	08-Nov-17	** Vendor **	22-Nov-21	0.5
17K0804	13C3-PFBA	08-Nov-17	** Vendor **	27-May-21	0.5
17K0805	13C2-8:2 FTS	08-Nov-17	** Vendor **	05-Jul-22	0.522
17K0807	13C2-6:2 FTS	08-Nov-17	** Vendor **	17-Feb-22	0.526
17K0810	13C5-PFNA	08-Nov-17	** Vendor **	30-Sep-21	0.5
17K0812	13C2-PFTeDA	08-Nov-17	** Vendor **	01-Mar-22	0.5
17K0813	13C2-PFUdA	08-Nov-17	** Vendor **	22-Nov-21	0.5
17K0814	13C4-PFHpA	08-Nov-17	** Vendor **	03-May-22	0.5
17K0816	13C2-PFDoA	08-Nov-17	** Vendor **	23-May-22	0.5
17K0818	18O2-PFHxS	08-Nov-17	** Vendor **	17-Feb-22	0.529
17K0819	13C8-PFOS	08-Nov-17	** Vendor **	30-Sep-21	0.539
17K0821	13C3-PFBS	08-Nov-17	** Vendor **	24-May-22	0.538
17K3038	13C8-FOSA-I	30-Nov-17	** Vendor **	11-Oct-22	0.5
17K3039	13C2-PFDA	30-Nov-17	** Vendor **	13-Jul-22	0.5
17K3040	13C2-PFOA	30-Nov-17	** Vendor **	26-Oct-22	0.5
17K3041	13C3-PFPeA	30-Nov-17	** Vendor **	20-Apr-22	0.5

Description:	PFC - IS	Expires:	04-Dec-18
Standard Type:	Reagent	Prepared:	04-Dec-17
Solvent:	MeOH	Prepared By:	Kyle Byrd-Fisher
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	12-Dec-17 09:51 by AEW

Analyte	CAS Number	Concentration	Units
13C3-PFBS		1.25	ug/mL
13C2-8:2 FTS		1.25	ug/mL
13C2-PFDA		1.25	ug/mL
13C2-PFDoA		1.25	ug/mL
13C2-PFHxA		0.5	ug/mL
13C2-PFHxDA		0.5	ug/mL
13C2-PFOA		1.25	ug/mL
13C2-PFTeDA		1.25	ug/mL
13C2-6:2 FTS		1.25	ug/mL
13C3-PFBA		1.25	ug/mL
d5-EtFOSAA		1.25	ug/mL
13C3-PFPeA		1.25	ug/mL
13C4-PFHpA		1.25	ug/mL
13C5-PFNA		1.25	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

17L0402

Description:	PFC - IS	Expires:	04-Dec-18
Standard Type:	Reagent	Prepared:	04-Dec-17
Solvent:	MeOH	Prepared By:	Kyle Byrd-Fisher
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	12-Dec-17 09:51 by AEW

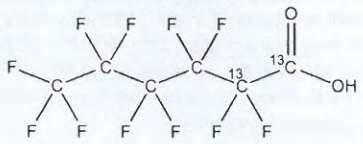
Analyte	CAS Number	Concentration	Units
13C8-PFOS		1.25	ug/mL
13C8-PFOSA		1.25	ug/mL
18O2-PFHxS		1.25	ug/mL
d3-MeFOSAA		1.25	ug/mL
13C2-PFUnA		1.25	ug/mL

17E1716

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFHxA	**LOT NUMBER:**	MPFHxA1116
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_4HF_{11}O_2$	**MOLECULAR WEIGHT:**	316.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2-$^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	11/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	11/22/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-hexanoic acid and ~ 0.3% of perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/13/2016 (mm/dd/yyyy)
B.G. Chittim

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17H0801

WELLINGTON LABORATORIES

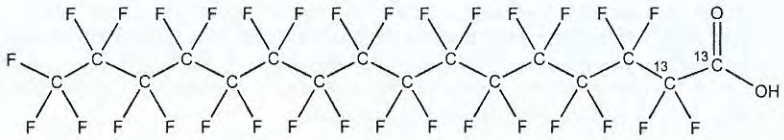
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2PFHxDA ✓
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexadecanoic acid

LOT NUMBER: M2PFHxDA1112

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{14}HF_{31}O_2$	**MOLECULAR WEIGHT:**	816.11
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	01/07/2016		
EXPIRY DATE: (mm/dd/yyyy)	01/07/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of native perfluoro-n-hexadecanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 01/11/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

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HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

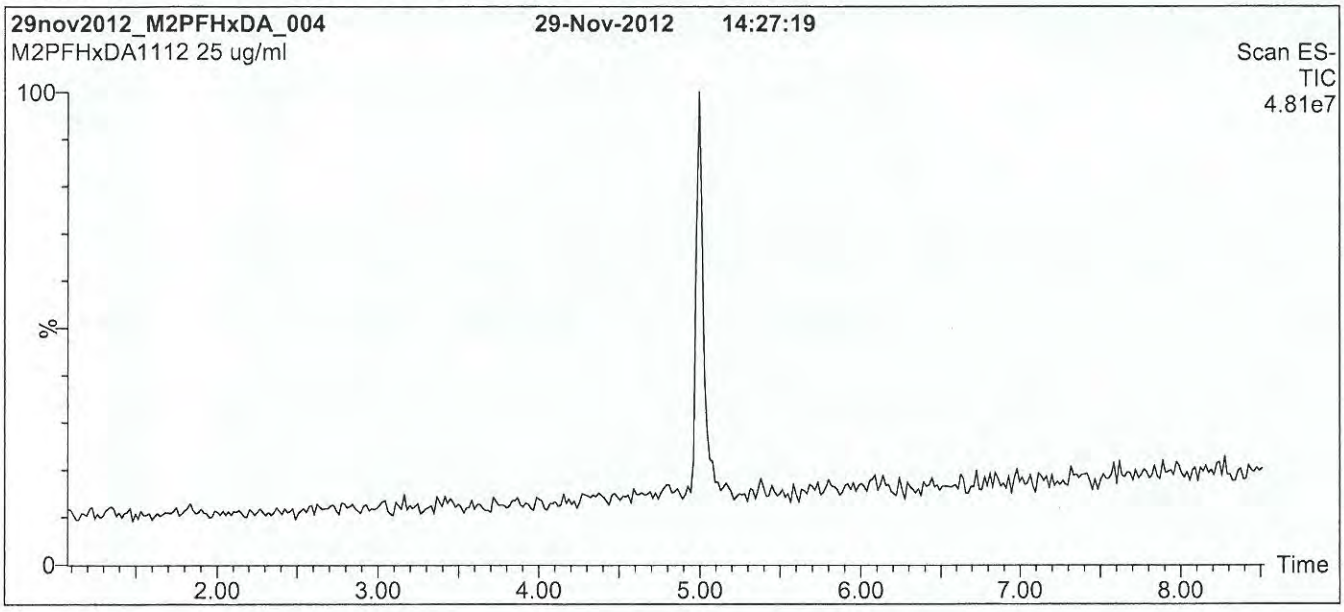
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

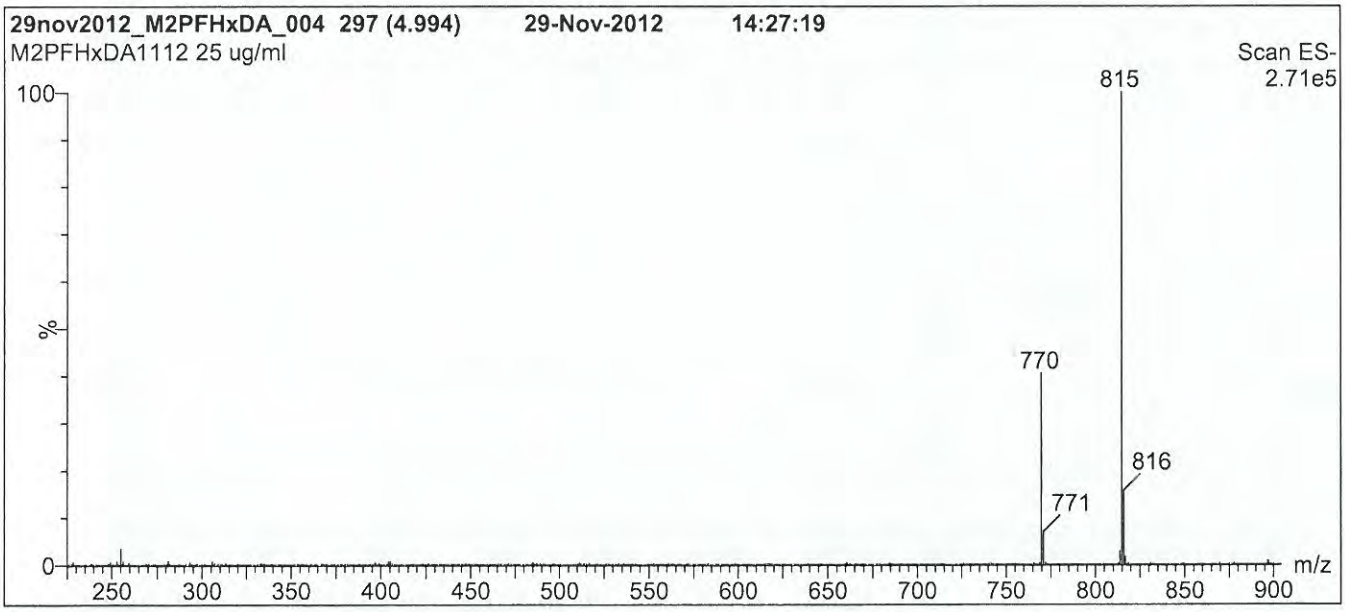
CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **M2PFHxDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 100% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

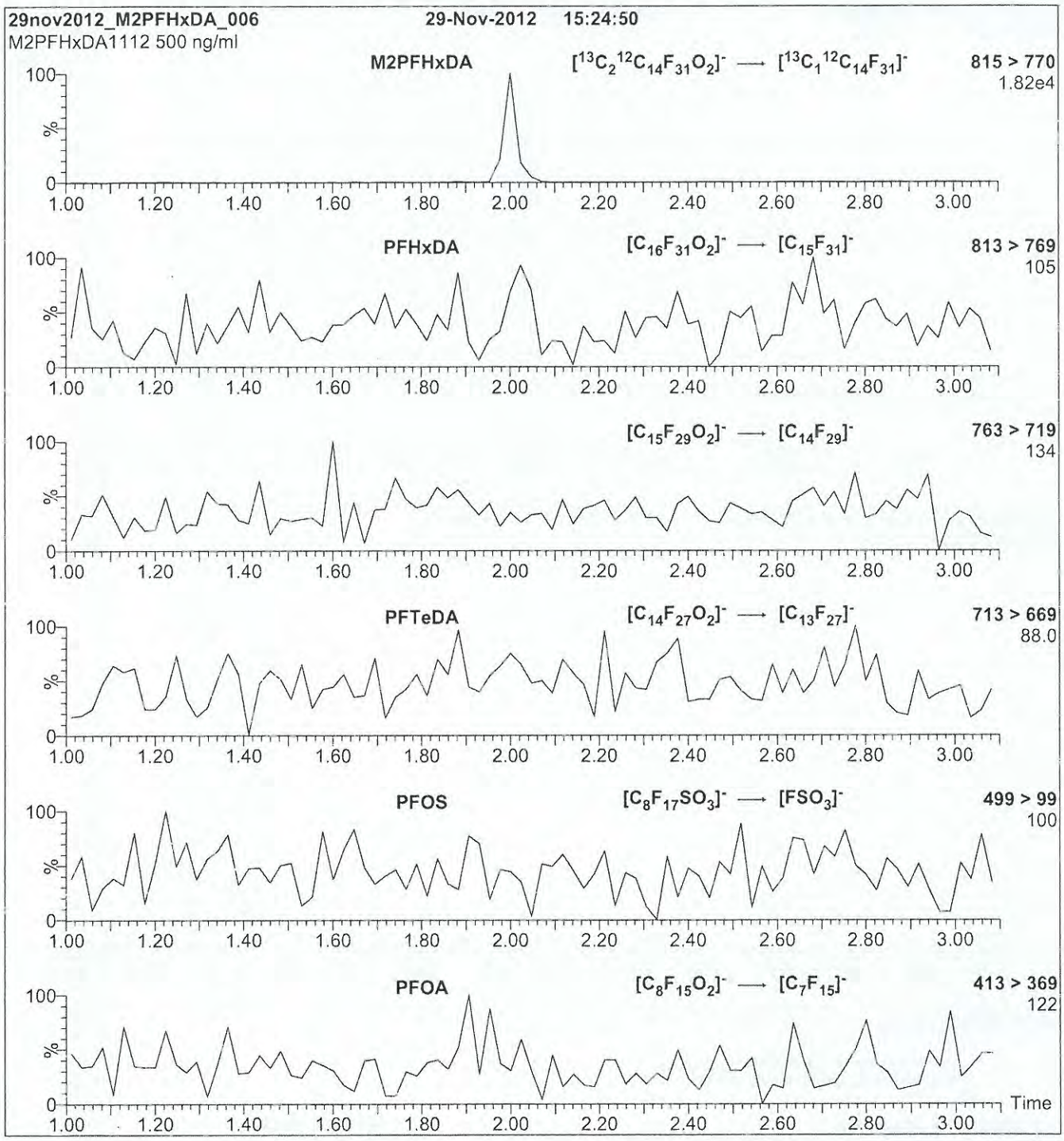
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 1200 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **M2PFHxDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2PFHxDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 15

17K0802

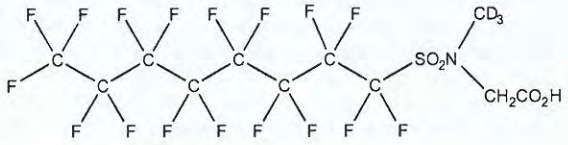
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMeFOSAA0517

COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{11}D_3H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	574.23
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	05/19/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/19/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/31/2017 (mm/dd/yyyy)

B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0802

INTENDED USE:

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HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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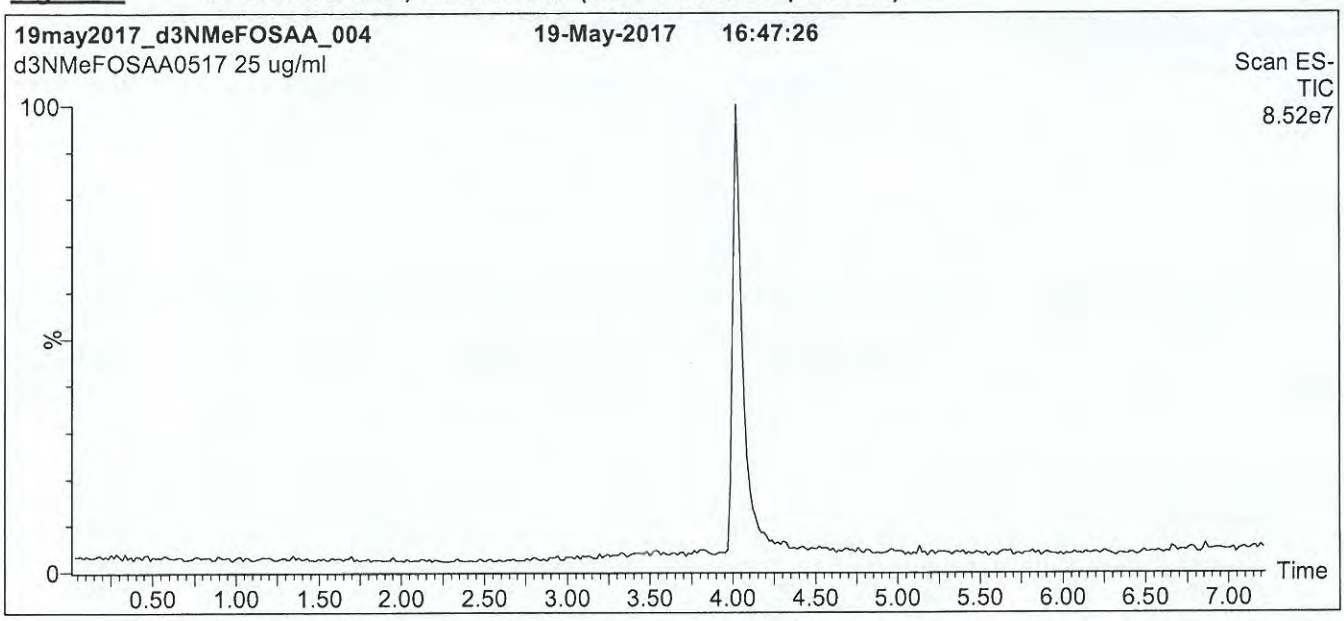
CALA Testing

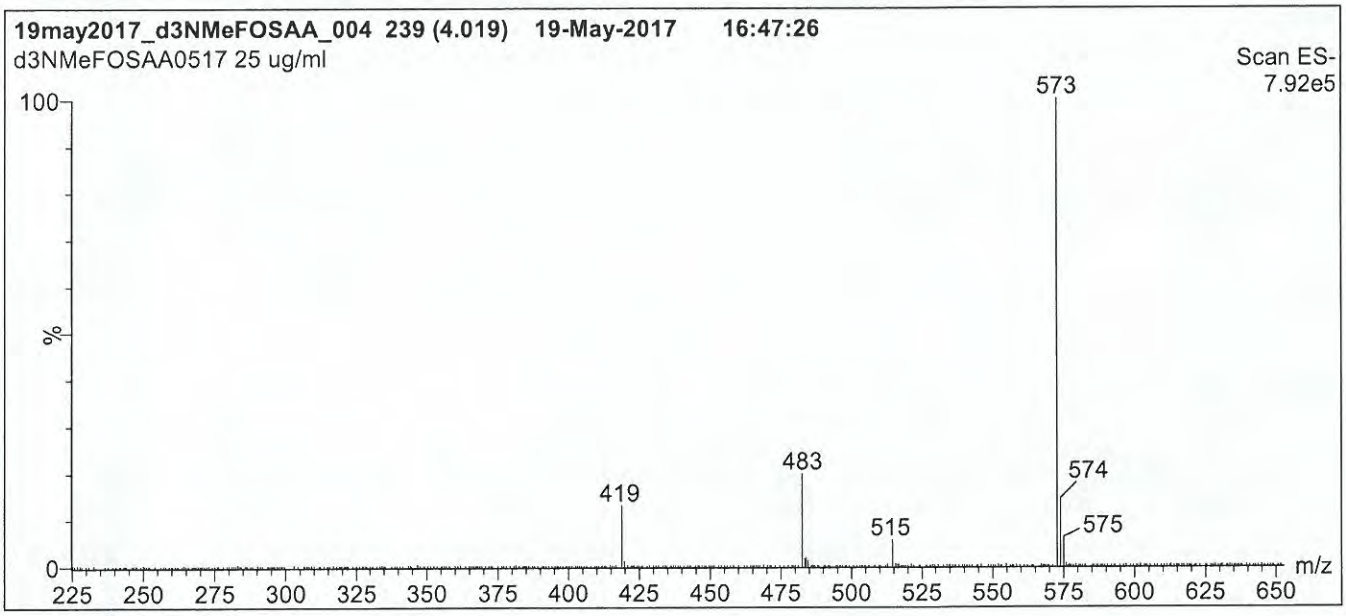
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K0802

Figure 1: **d3-N-MeFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

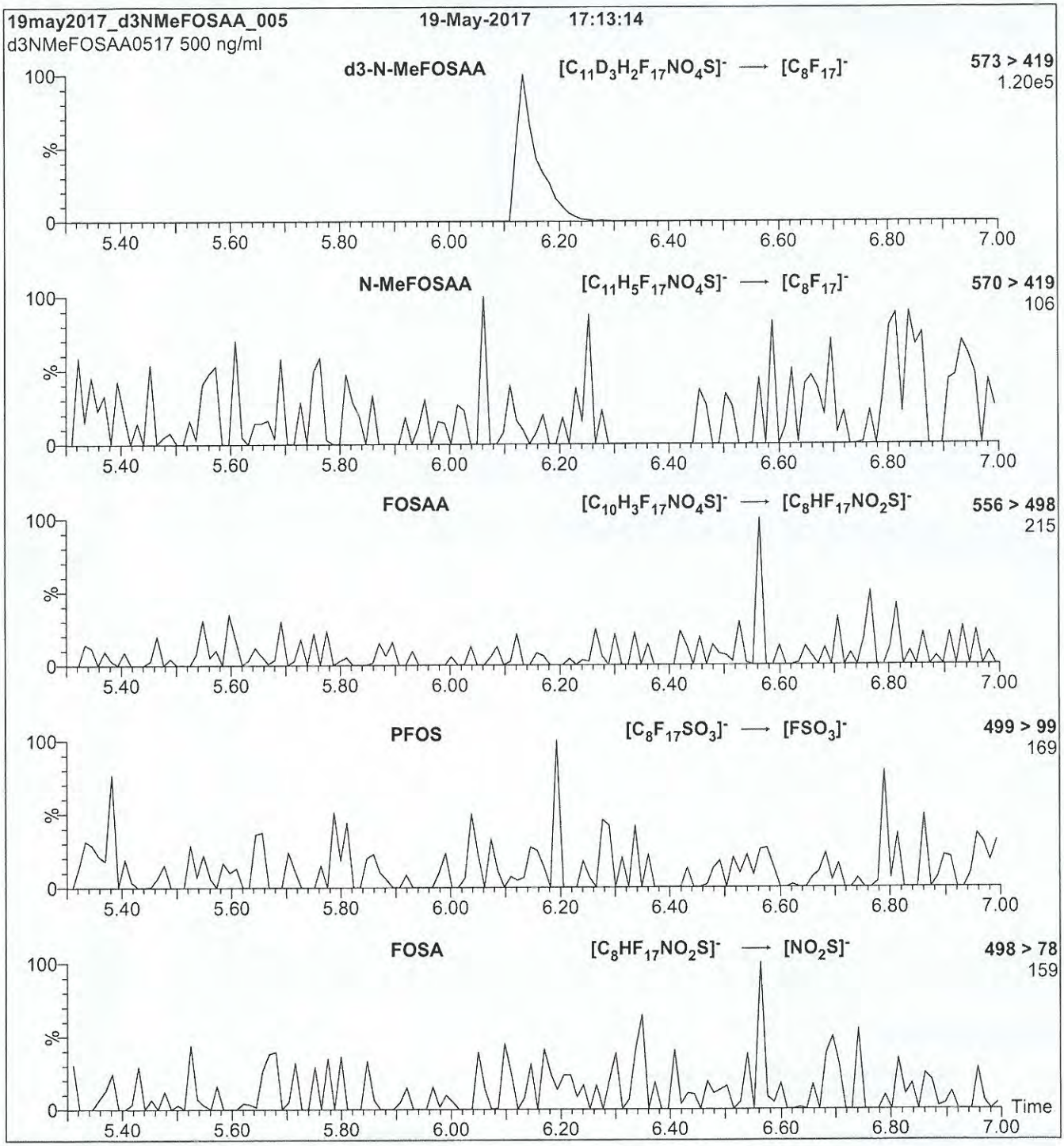
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0802

Figure 2: **d3-N-MeFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml d3-N-MeFOSAA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 20

17K0803

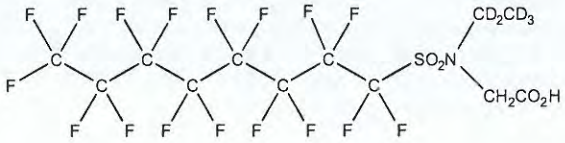
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d5-N-EtFOSAA **LOT NUMBER:** d5NEtFOSAA1116

COMPOUND: N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{12}D_5H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	590.26
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_5$
LAST TESTED: (mm/dd/yyyy)	11/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	11/22/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/01/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0803

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

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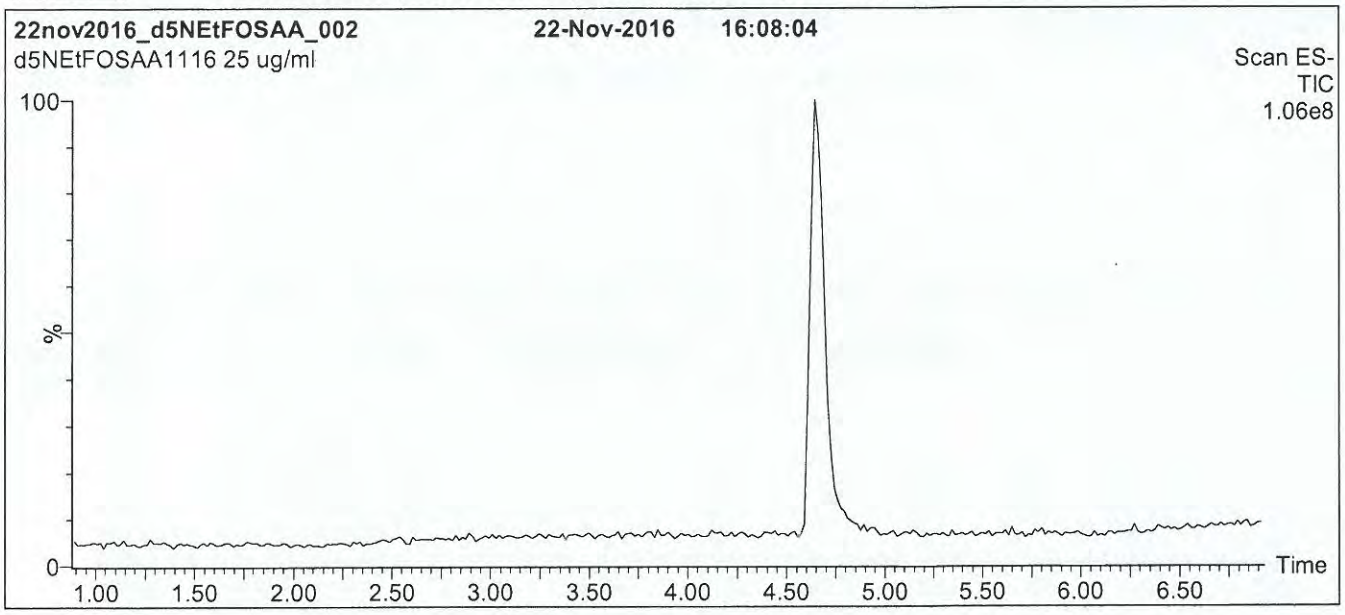
CALA Testing Accreditation No. A1226

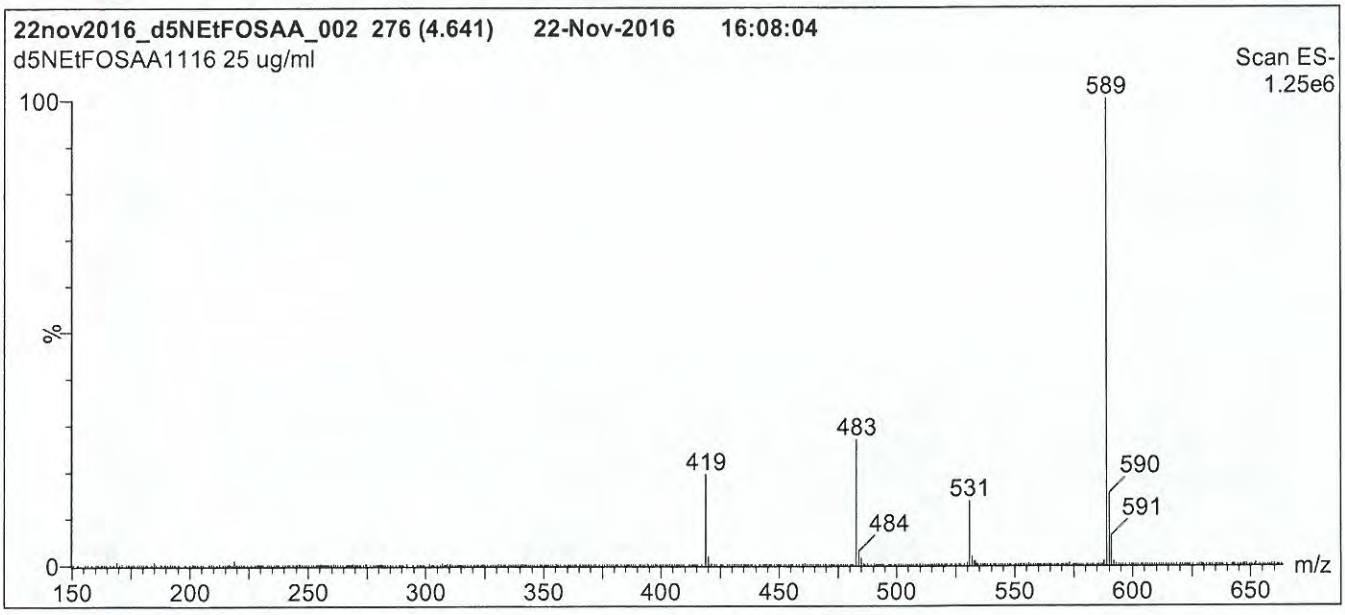
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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17K0803

Figure 1: **d5-N-EtFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

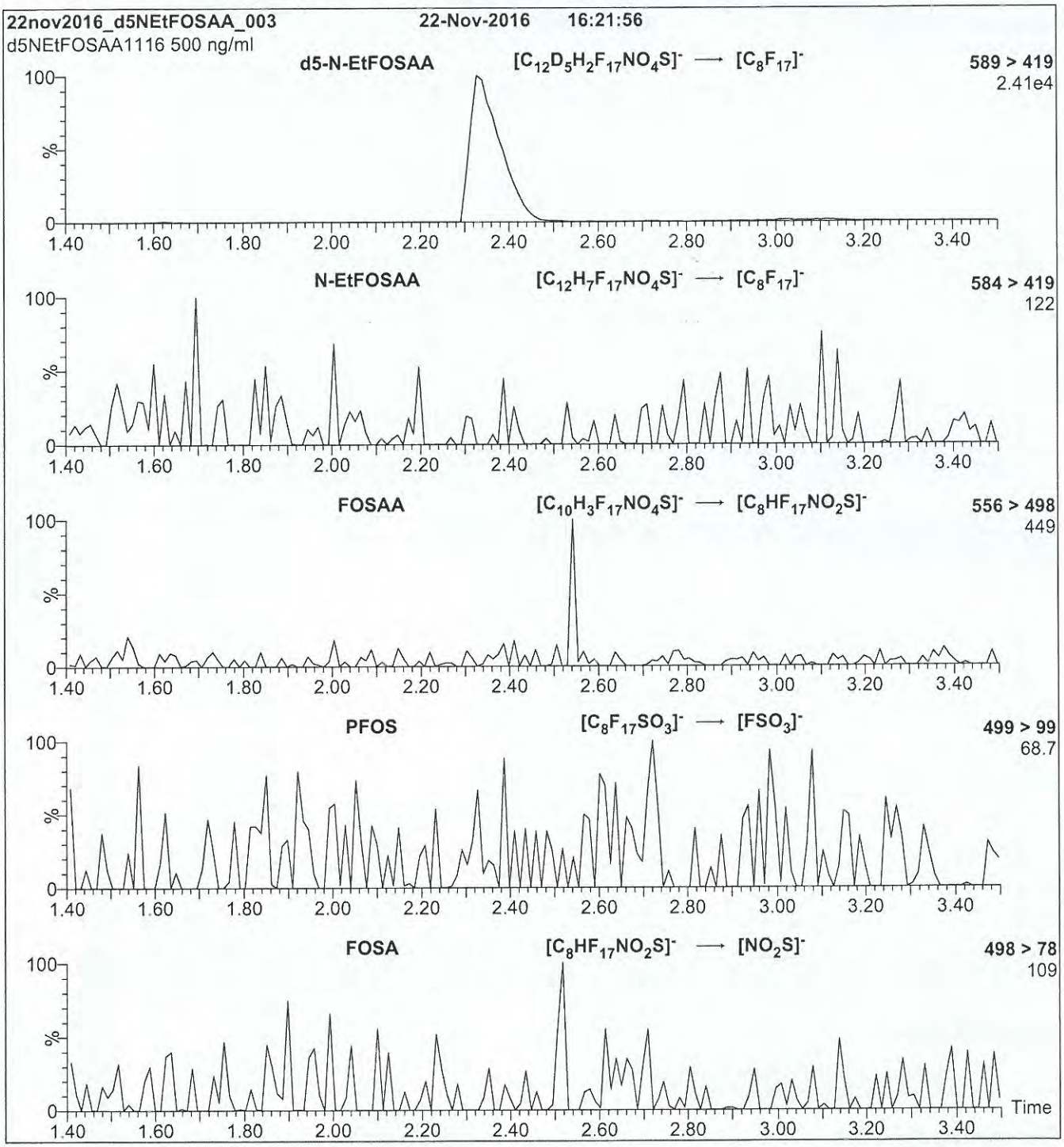
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0803

Figure 2: **d5-N-EtFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml d5-N-EtFOSAA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

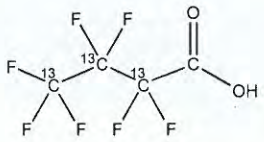
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 20

17K0804

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M3PFBA	**LOT NUMBER:**	M3PFBA0516
COMPOUND:	Perfluoro-n-[2,3,4-$^{13}C_3$]butanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}CHF_7O_2$	**MOLECULAR WEIGHT:**	217.02
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($2,3,4\text{-}^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	05/27/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/27/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-[$^{13}C_3$]propanoic acid and also contains ~ 1.0% of perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid due to the naturally occurring isotopic abundance of ^{13}C in the unlabelled carbon atom.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/08/2016 (mm/dd/yyyy)
B.G. Chittim

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0804

INTENDED USE:

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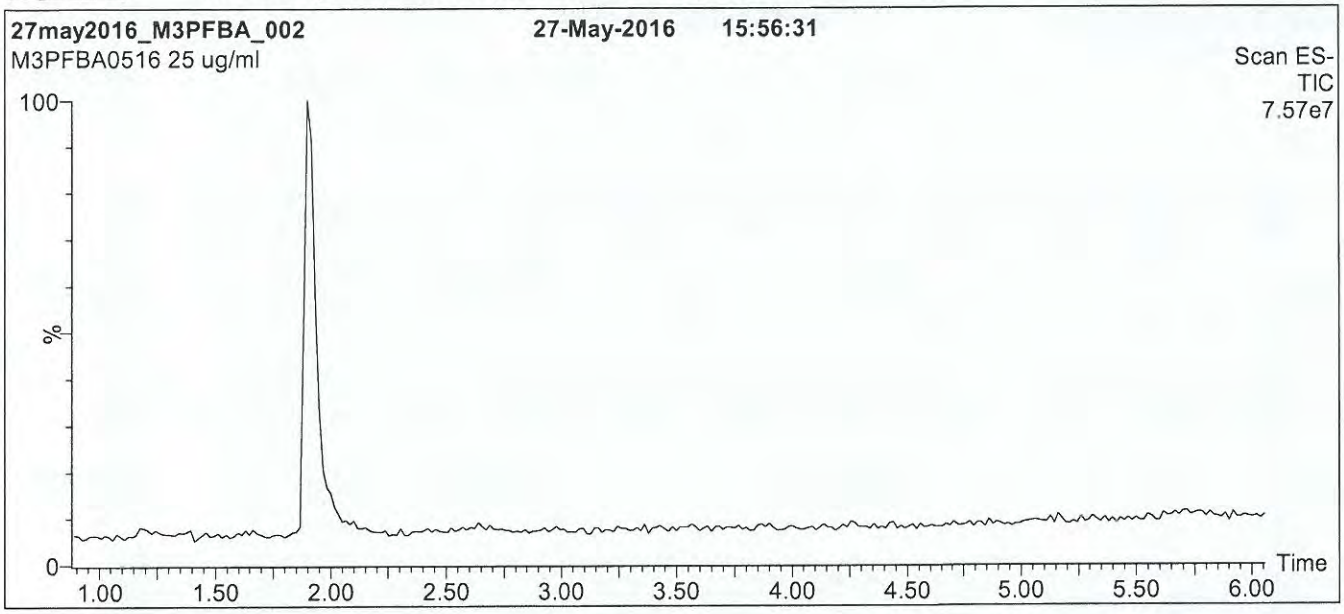
CALA

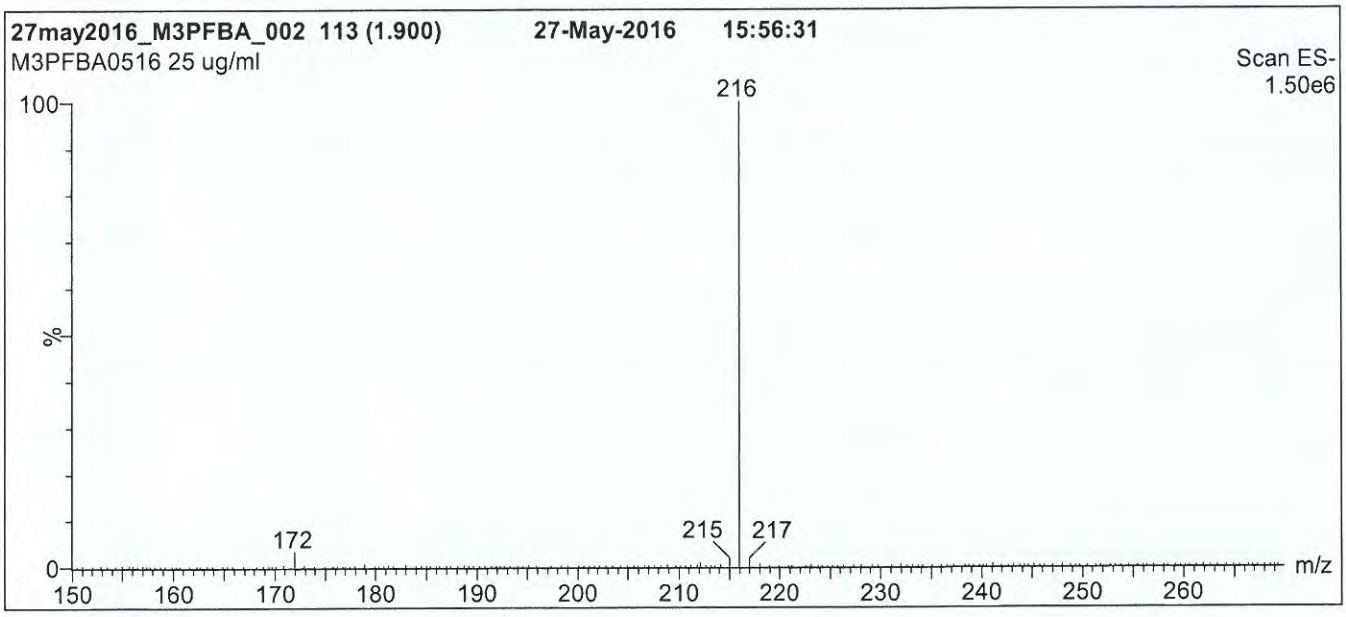
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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17K0804

Figure 1: **M3PFBA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

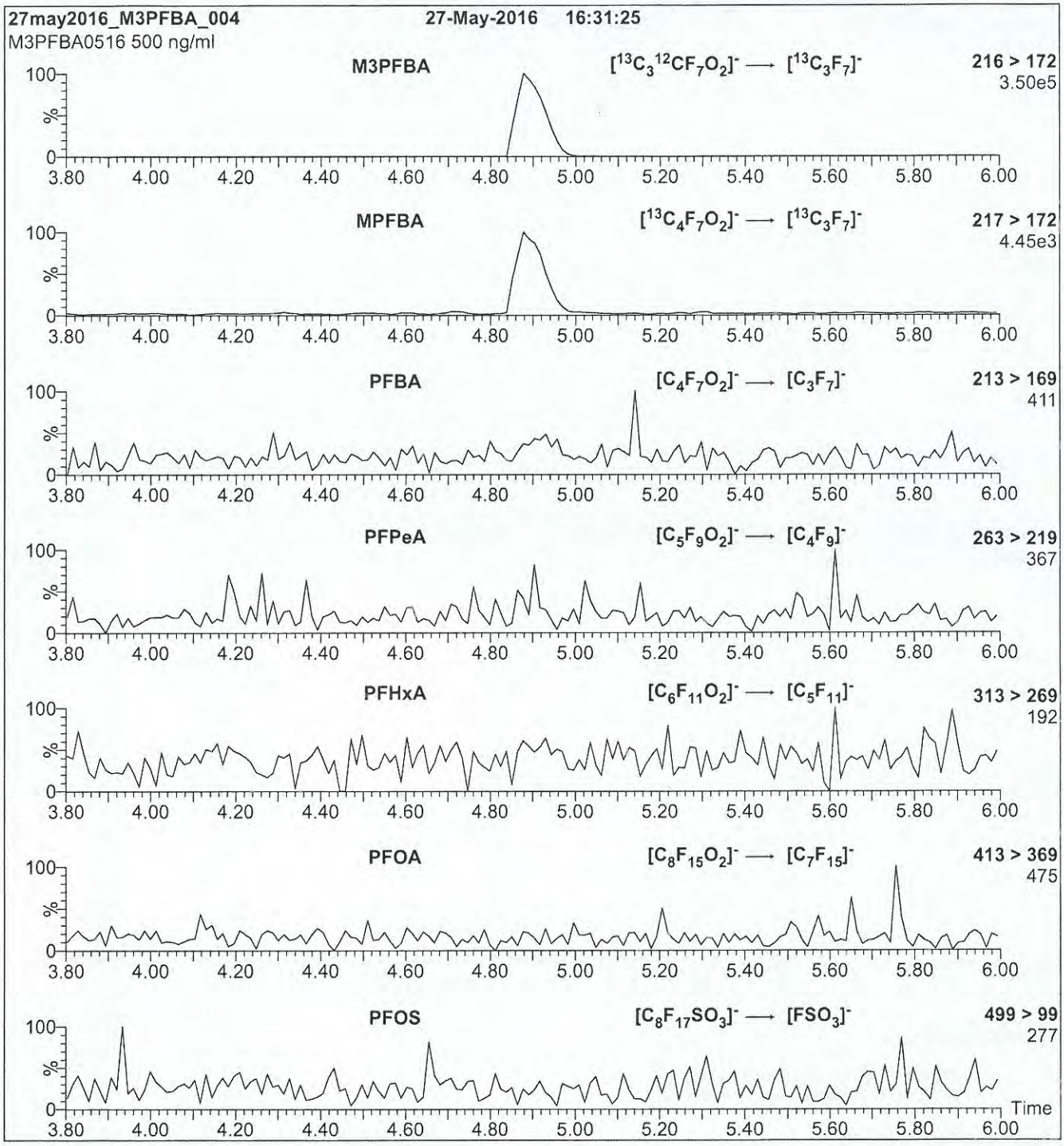
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17K0804

Figure 2: **M3PFBA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M3PFBA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.62e-3
Collision Energy (eV) = 10

17K0805

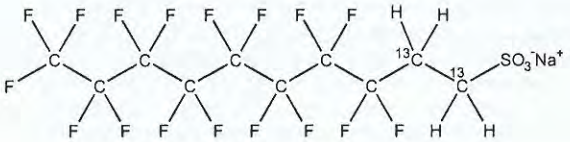
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2-8:2FTS **LOT NUMBER:** M282FTS0717

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]decane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	552.15
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml (M2-8:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	07/05/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/05/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 8:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/07/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0805

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All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

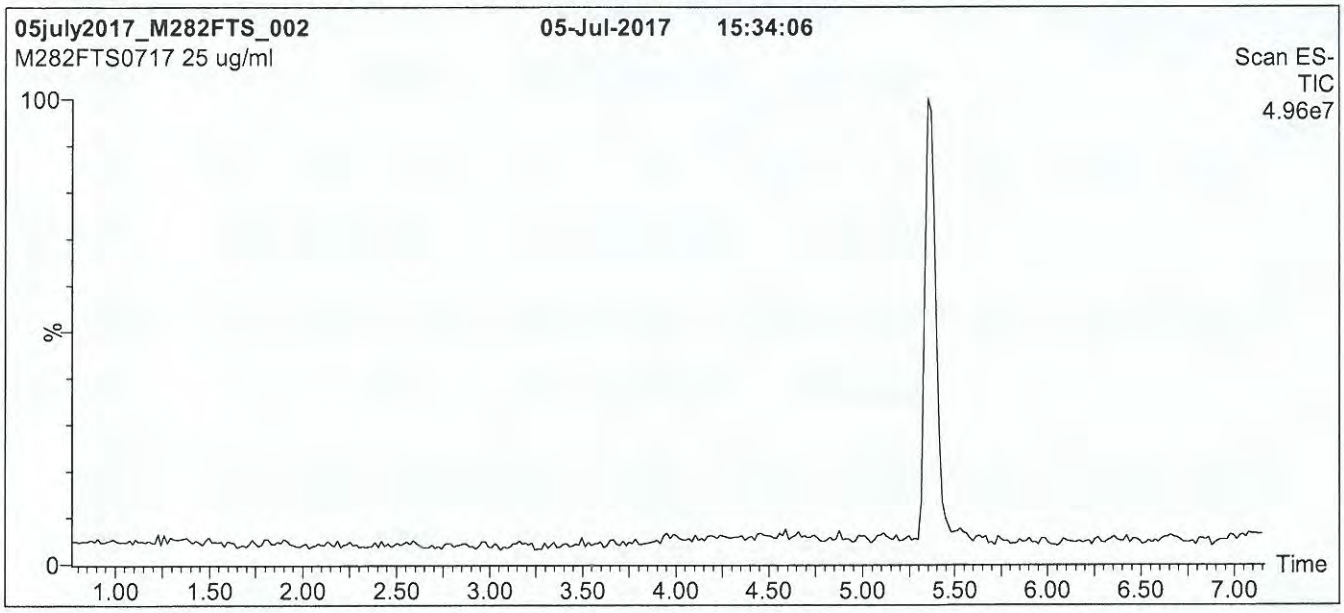
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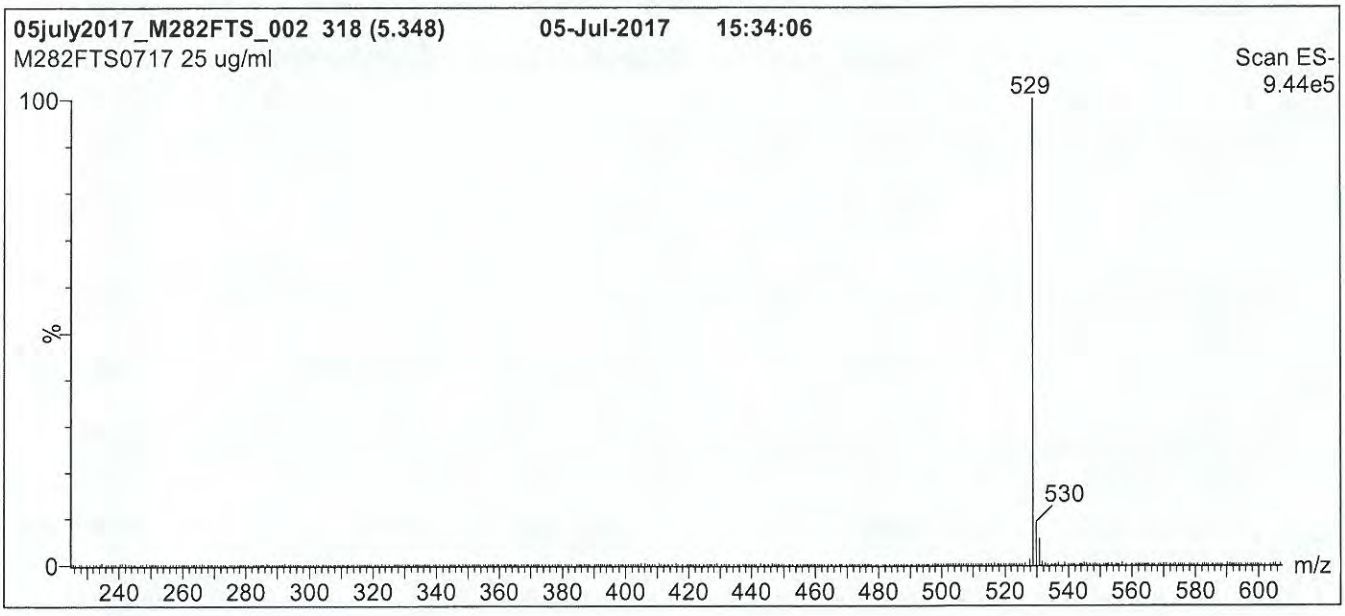
ANAB ACCREDITED Reference Material Producer

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K0805

Figure 1: **M2-8:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

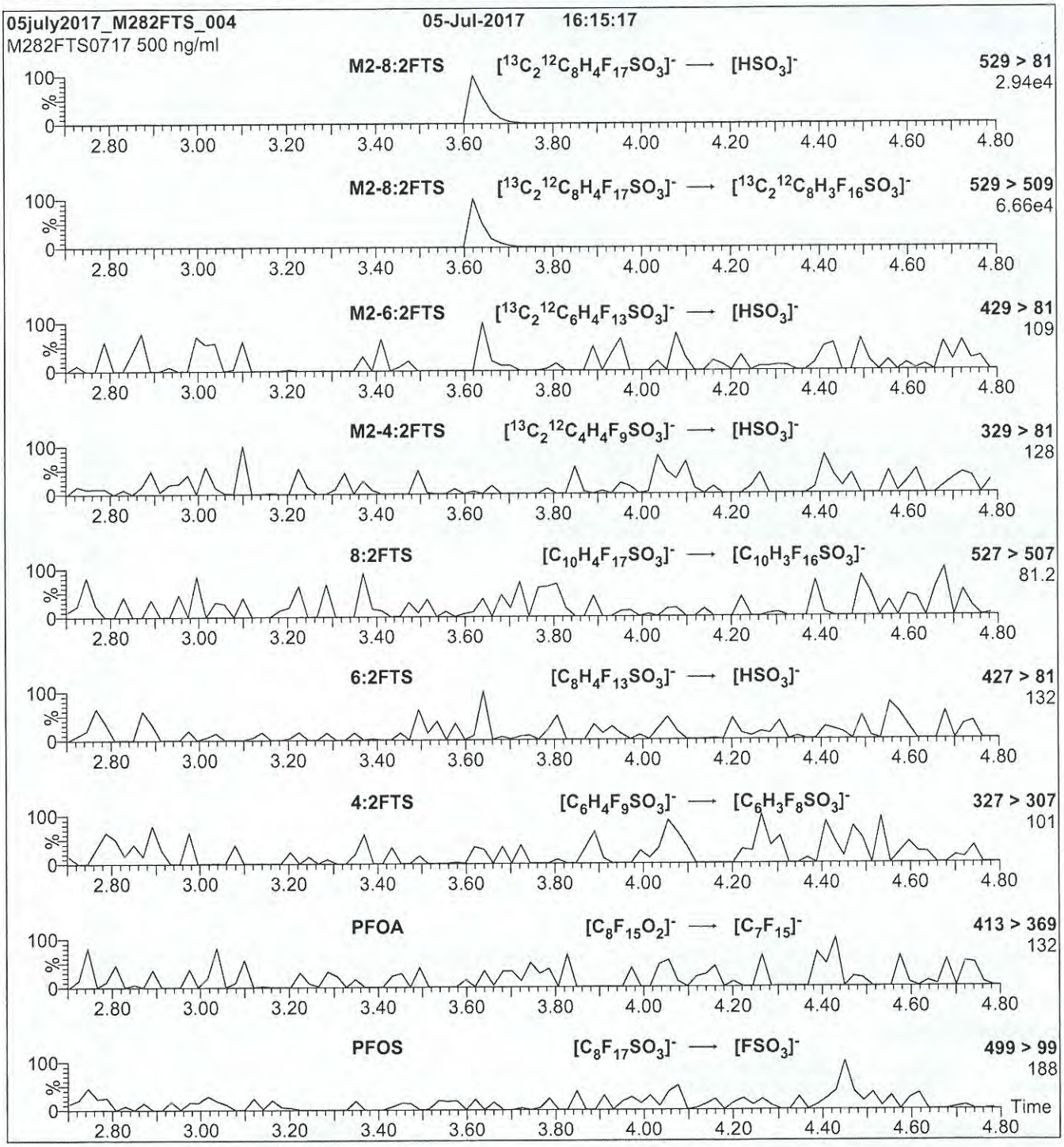
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source:Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17K0805

Figure 2: **M2-8:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2-8:2FTS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.50e-3
Collision Energy (eV) = 30

17K0807

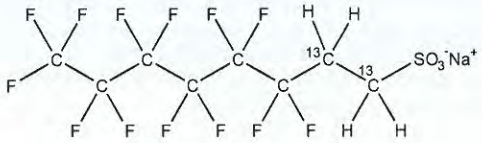
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2-6:2FTS **LOT NUMBER:** M262FTS0217

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]octane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6H_4F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	452.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.5 ± 2.4 µg/ml (M2-6:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	02/17/2017		
EXPIRY DATE: (mm/dd/yyyy)	02/17/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 6:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 6:2FTS and M2-6:2FTS will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 02/24/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0807

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2,...x_n$ on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

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QUALITY MANAGEMENT:

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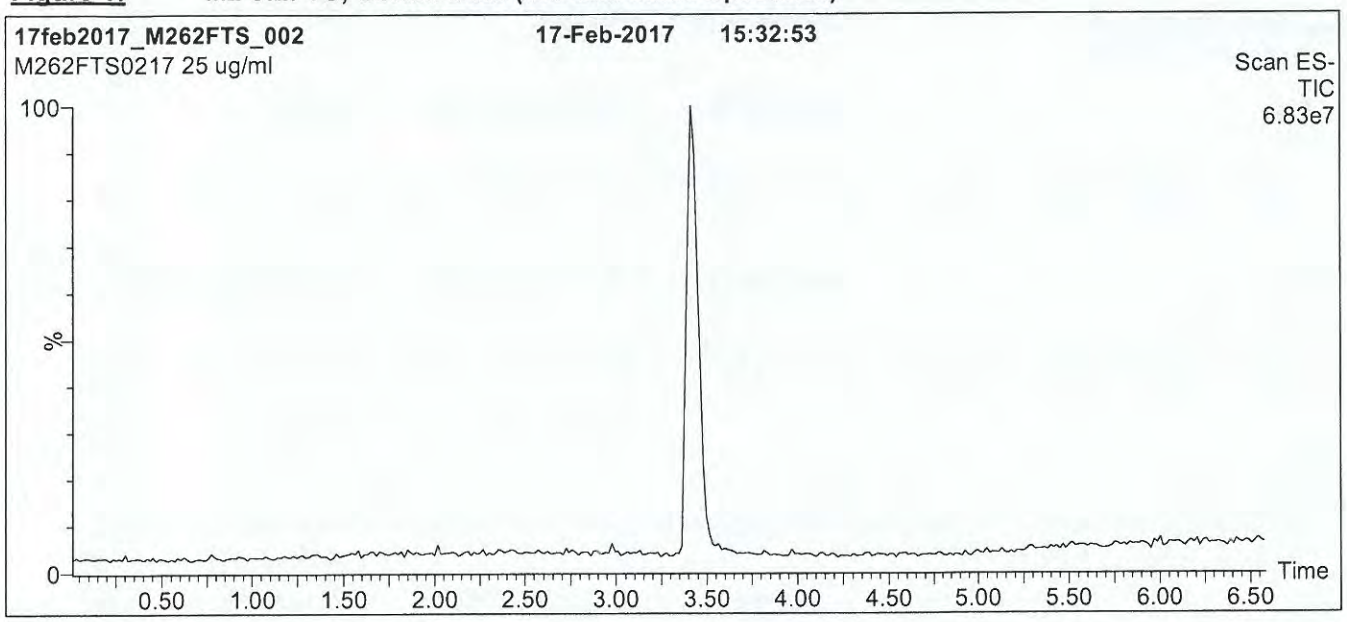
CALA Testing Accreditation No. A 1226

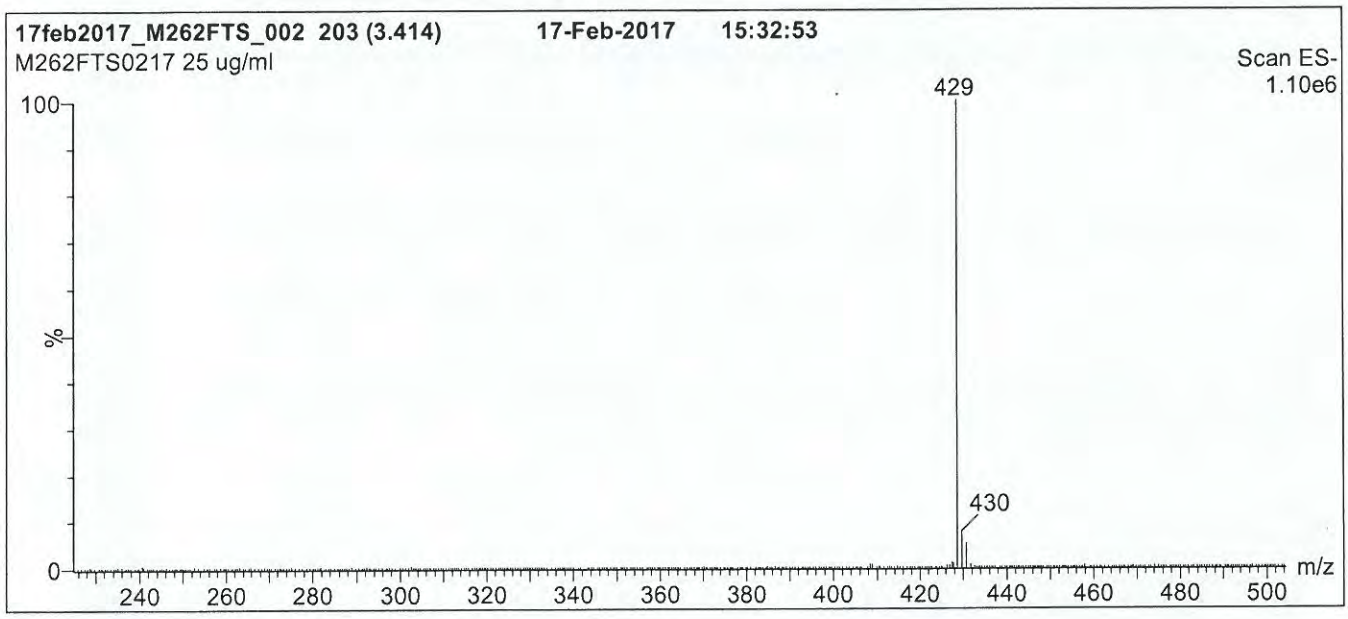
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K0807

Figure 1: **M2-6:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 1 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

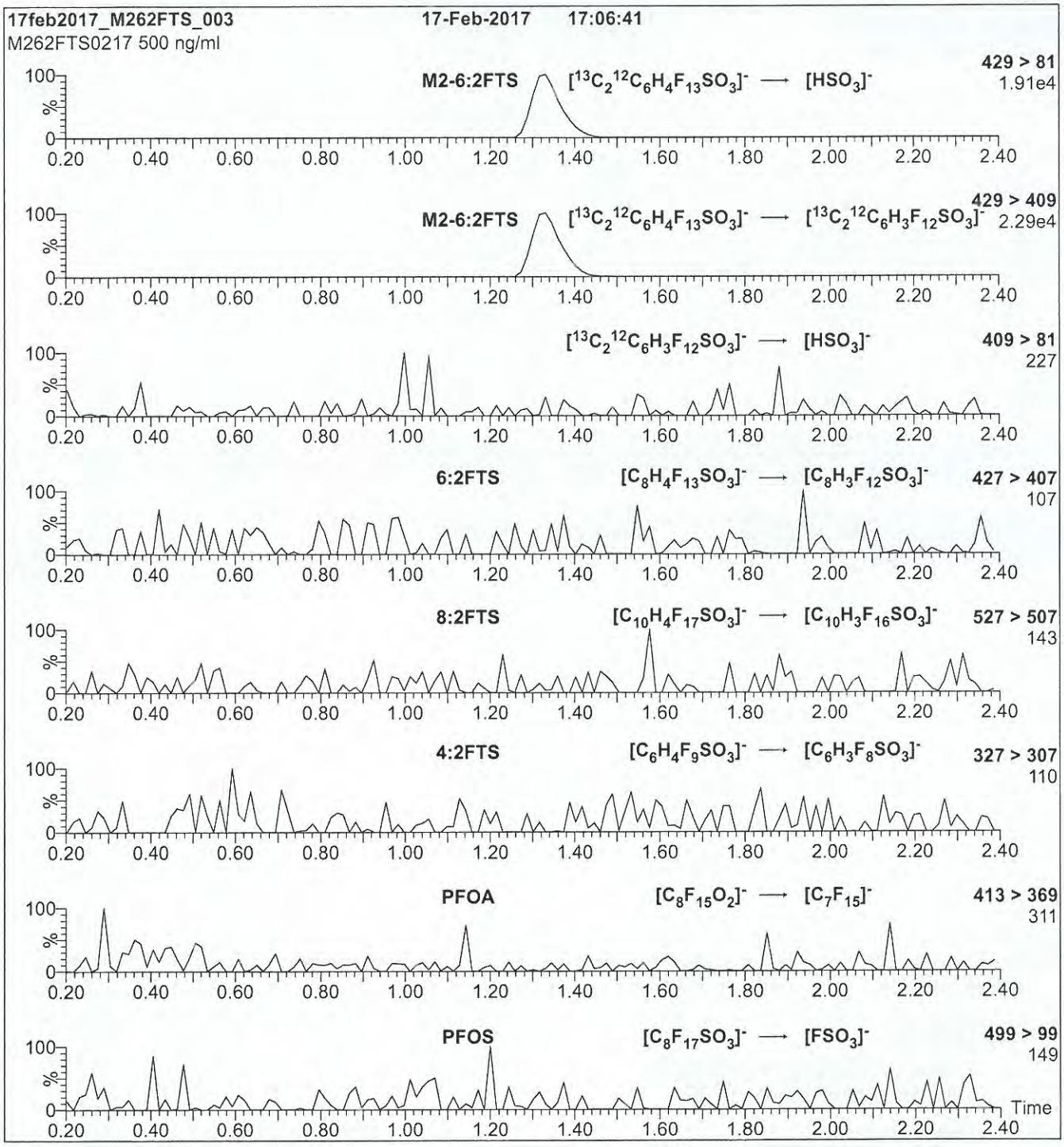
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source:Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0807

Figure 2: **M2-6:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2-6:2FTS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 25

17K0810

WELLINGTON LABORATORIES

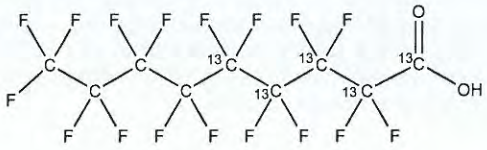
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFNA
COMPOUND: Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid

LOT NUMBER: MPFNA0916

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_5{}^{12}C_4HF_{17}O_2$	**MOLECULAR WEIGHT:**	469.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4,5$-$^{13}C_5$)
LAST TESTED: (mm/dd/yyyy)	09/30/2016		
EXPIRY DATE: (mm/dd/yyyy)	09/30/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/11/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0810

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

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where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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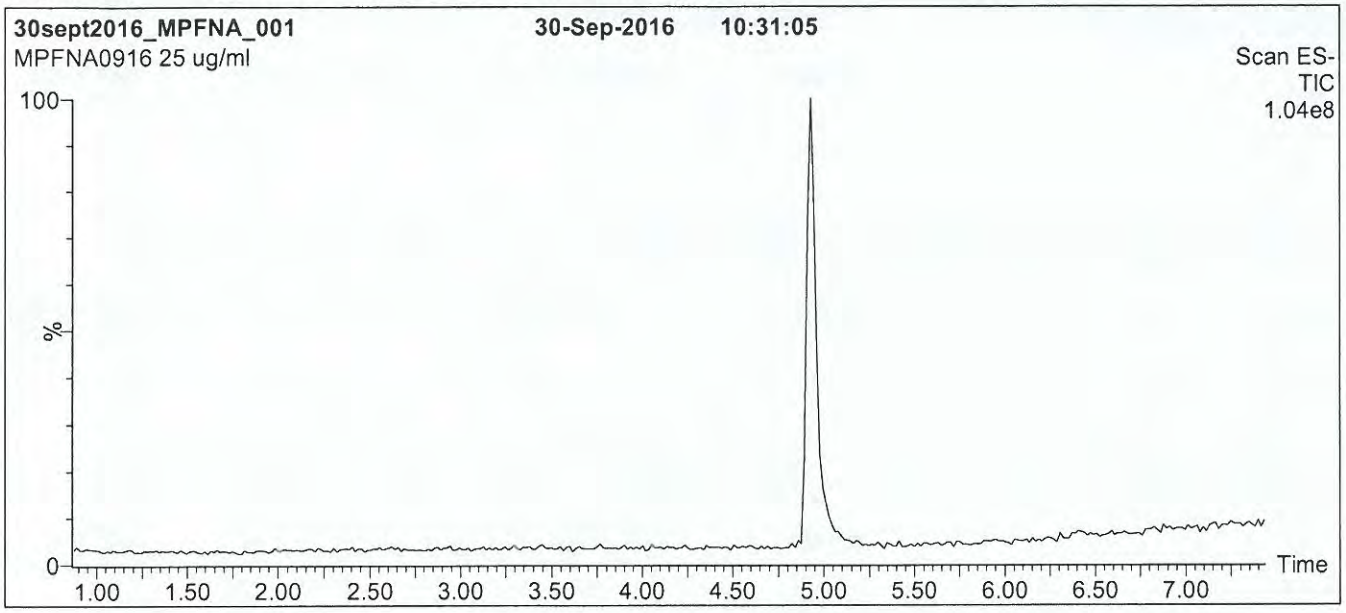
CALA Testing

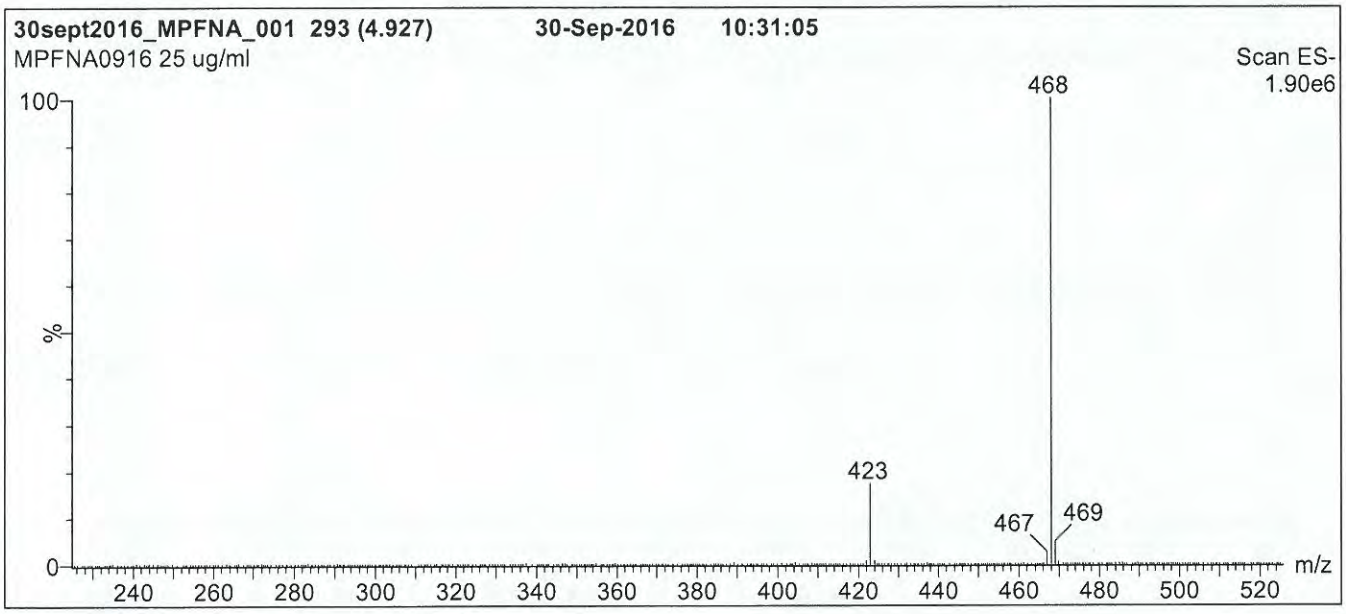
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K0810

Figure 1: **MPFNA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

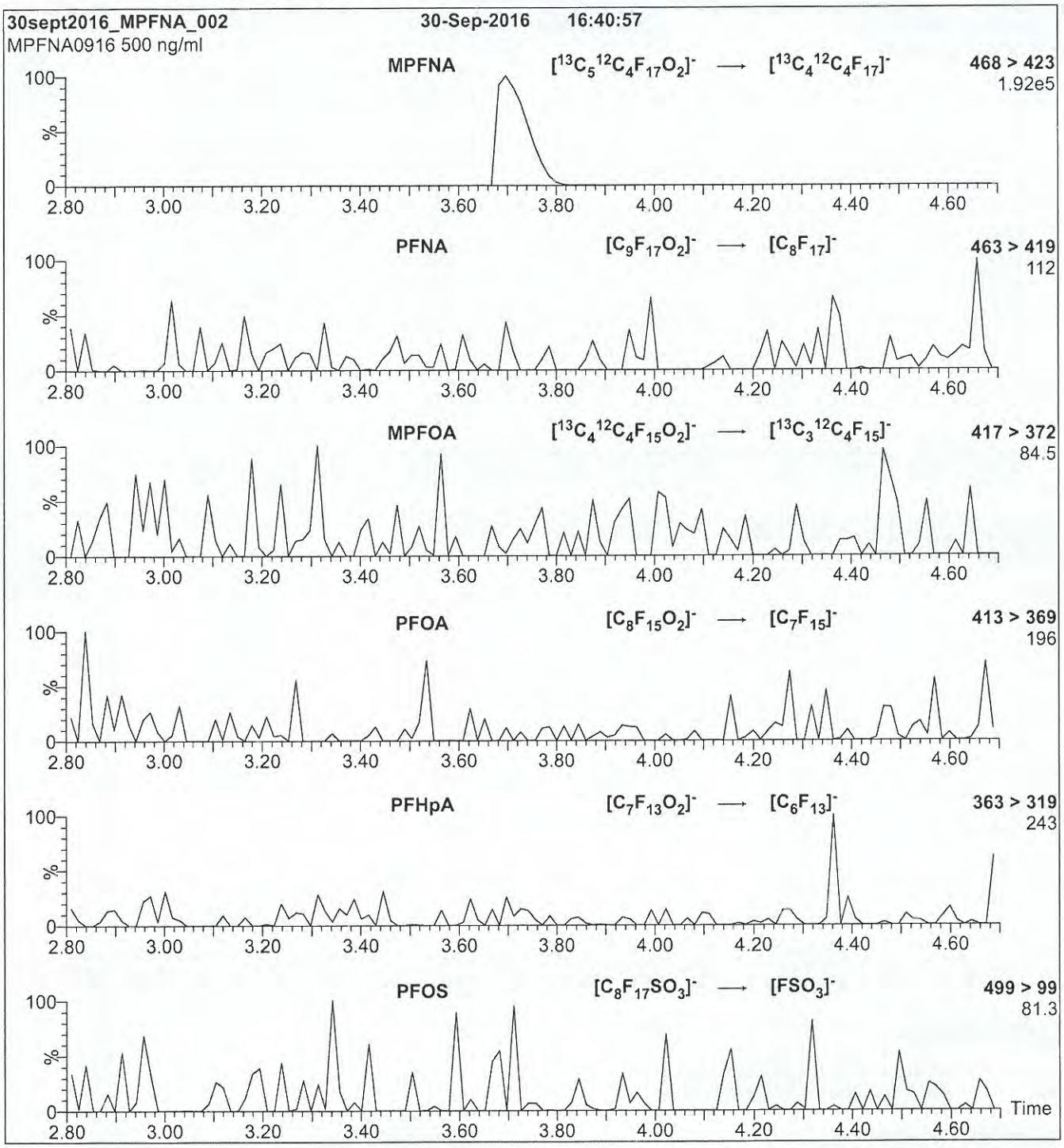
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0810

Figure 2: **MPFNA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFNA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 11

17K0812

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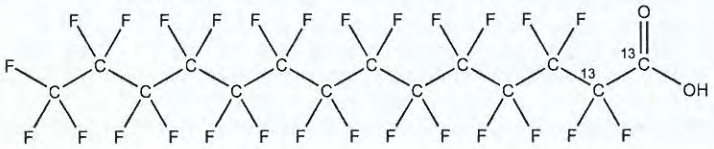
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2PFTeDA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid

LOT NUMBER: M2PFTeDA0217

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_{12}HF_{27}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 716.10
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 03/01/2017
EXPIRY DATE: (mm/dd/yyyy) 03/01/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/07/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0812

INTENDED USE:

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HAZARDS:

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

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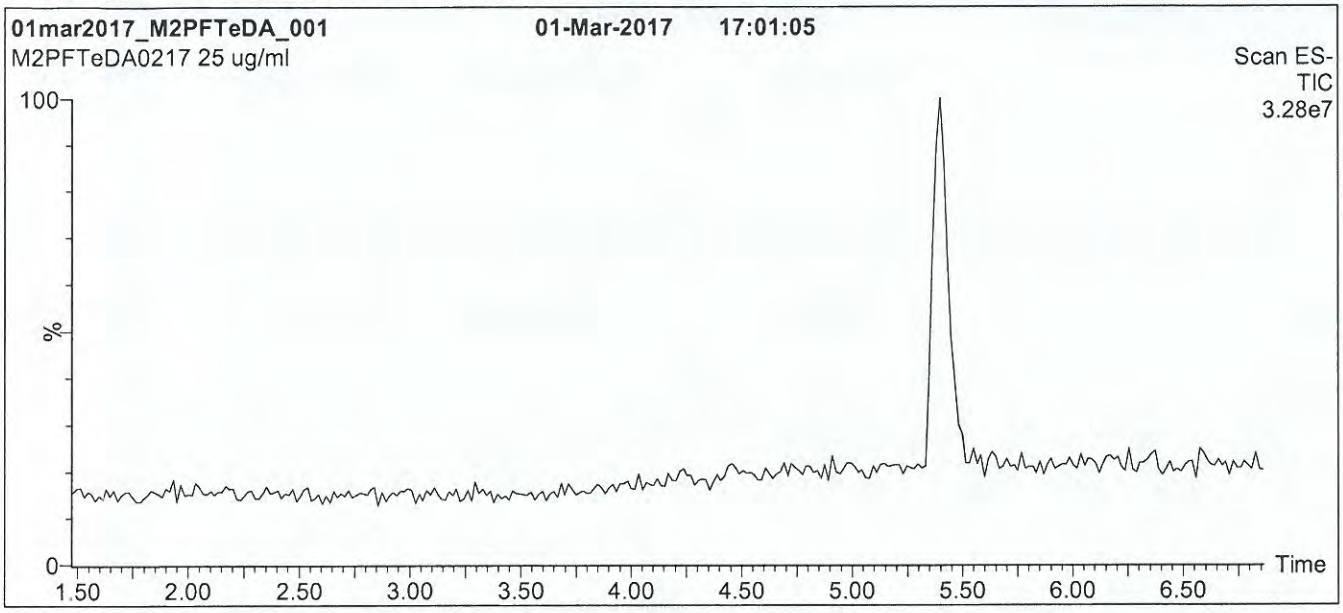
CALA Testing

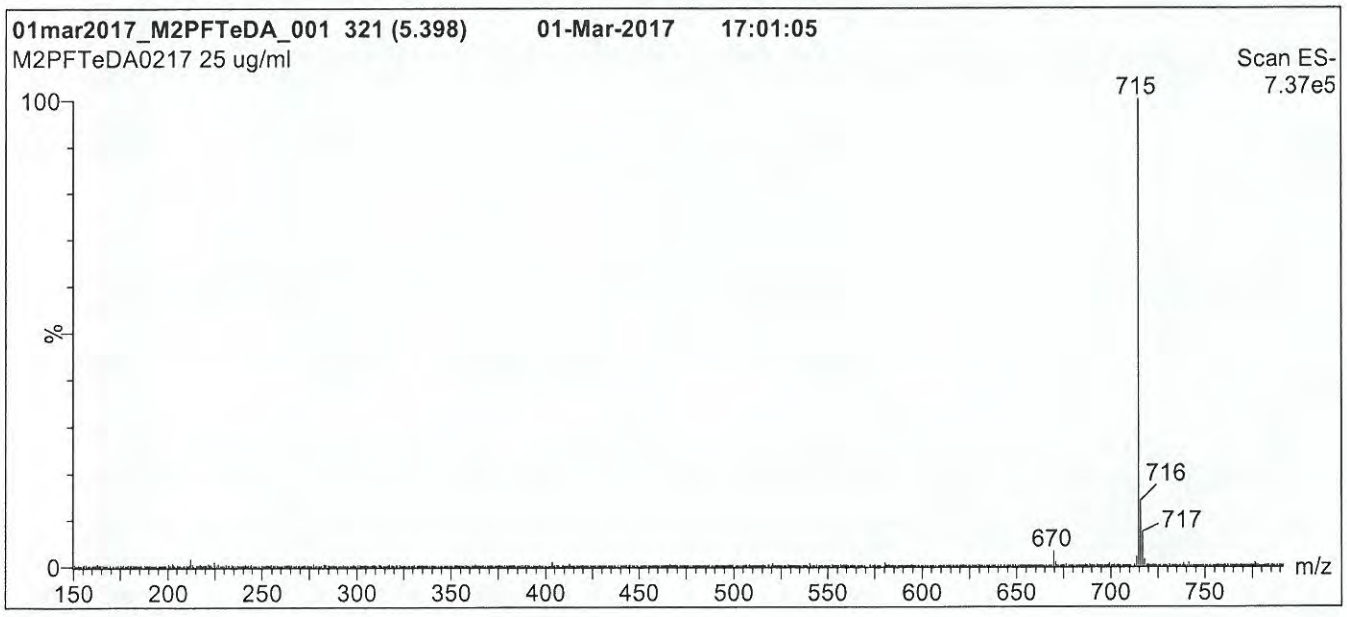
ANAB ACCREDITED Reference Material Producer

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17K0812

Figure 1: **M2PFTeDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

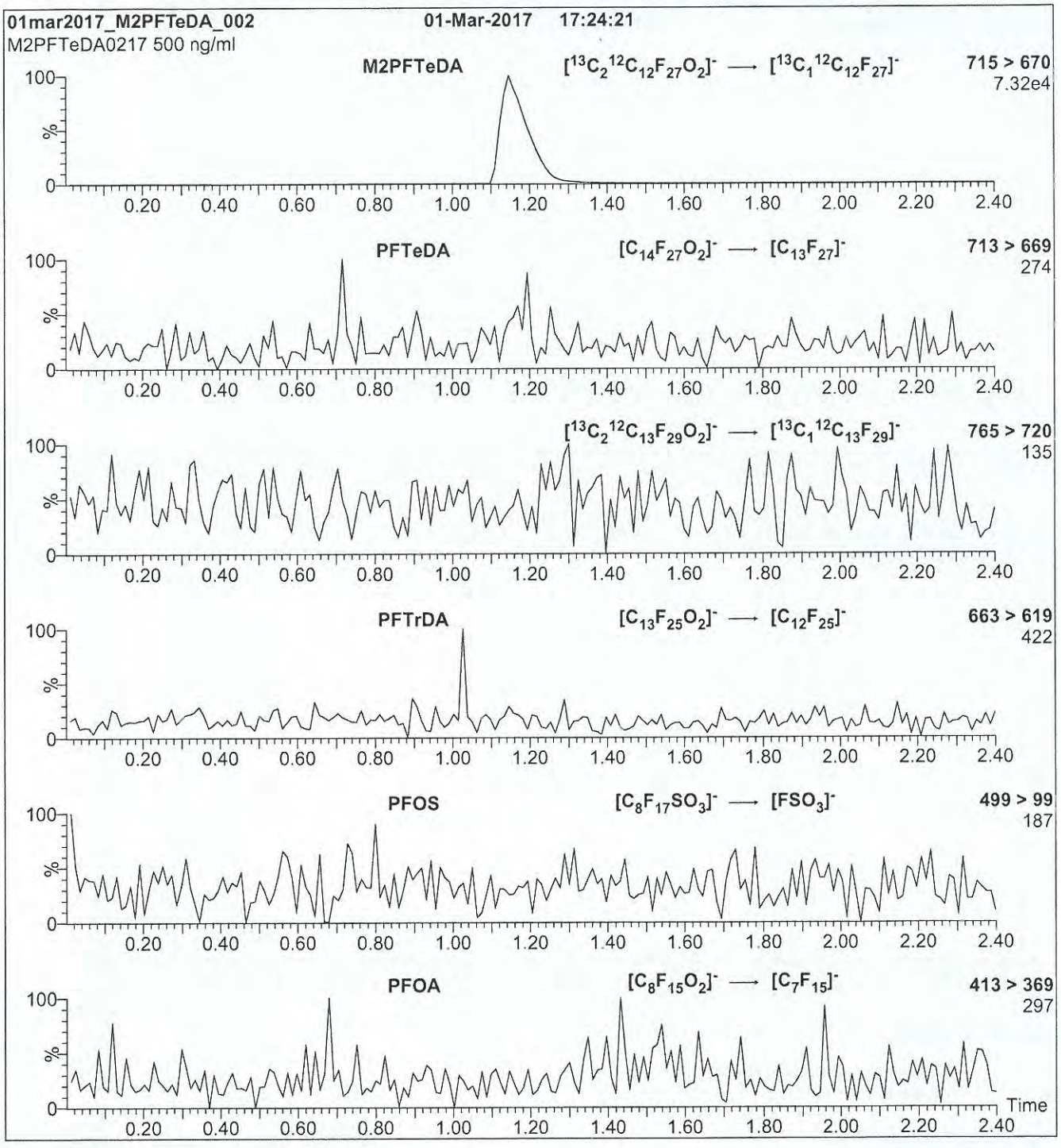
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17K0812

Figure 2: **M2PFTeDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2PFTeDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 14

17K0813

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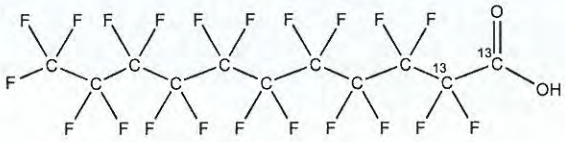
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFUdA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]undecanoic acid

LOT NUMBER: MPFUdA1116

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_9HF_{21}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 566.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 11/22/2016
EXPIRY DATE: (mm/dd/yyyy) 11/22/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C ($1,2\text{-}^{13}C_2$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Presence of 1-$^{13}C_1$-PFUdA (~1%; see Figure 2), 2-$^{13}C_1$-PFUdA (~1%), and PFUdA (~0.2%; see Figure 2) are due to the isotopic purity of the ^{13}C-precursor.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/07/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

1714-0813

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

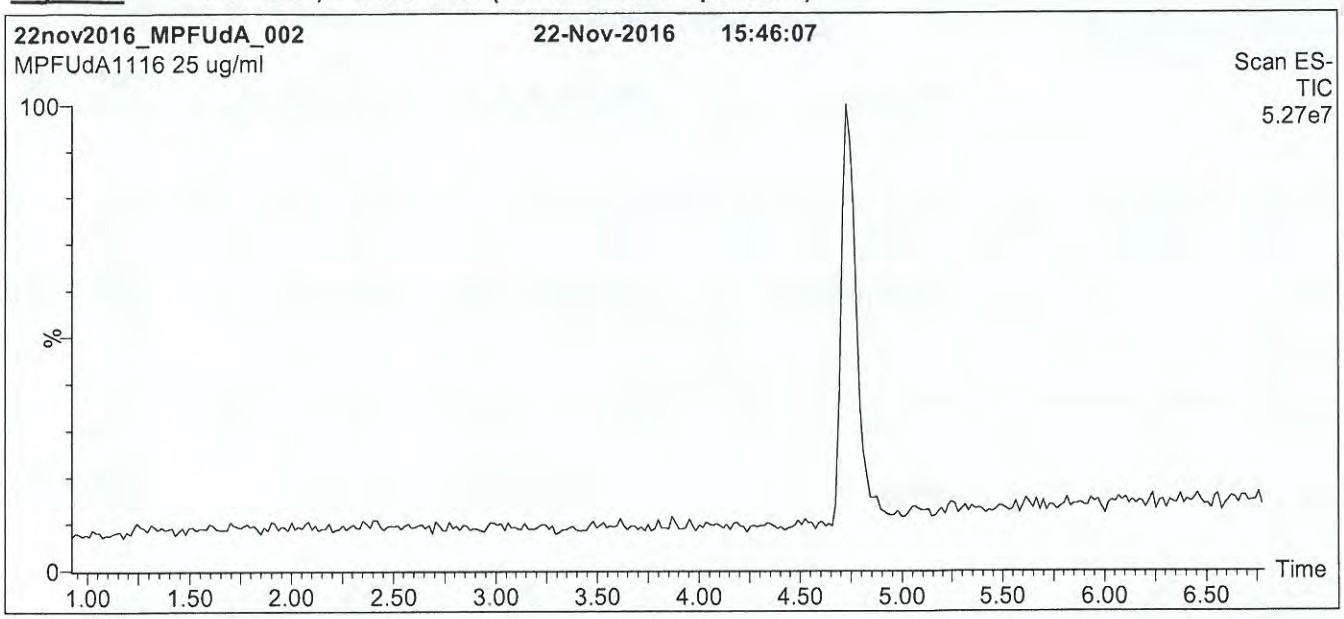
CALA Testing Accreditation No. A 1226

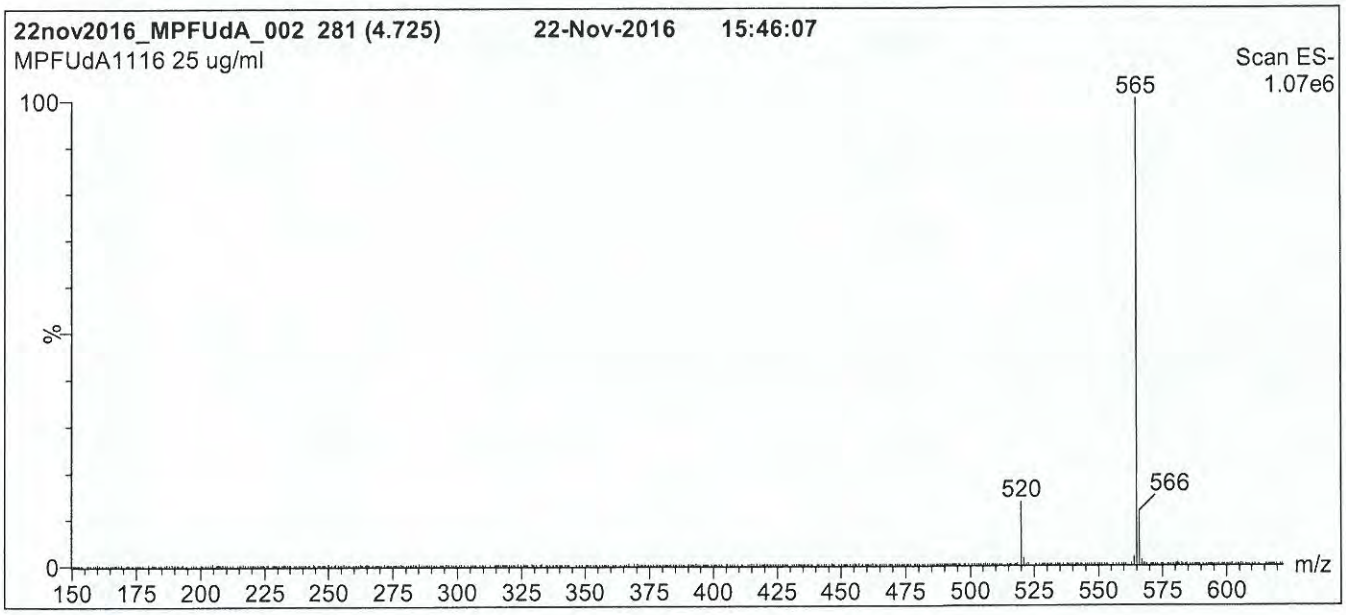
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K0813

Figure 1: **MPFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

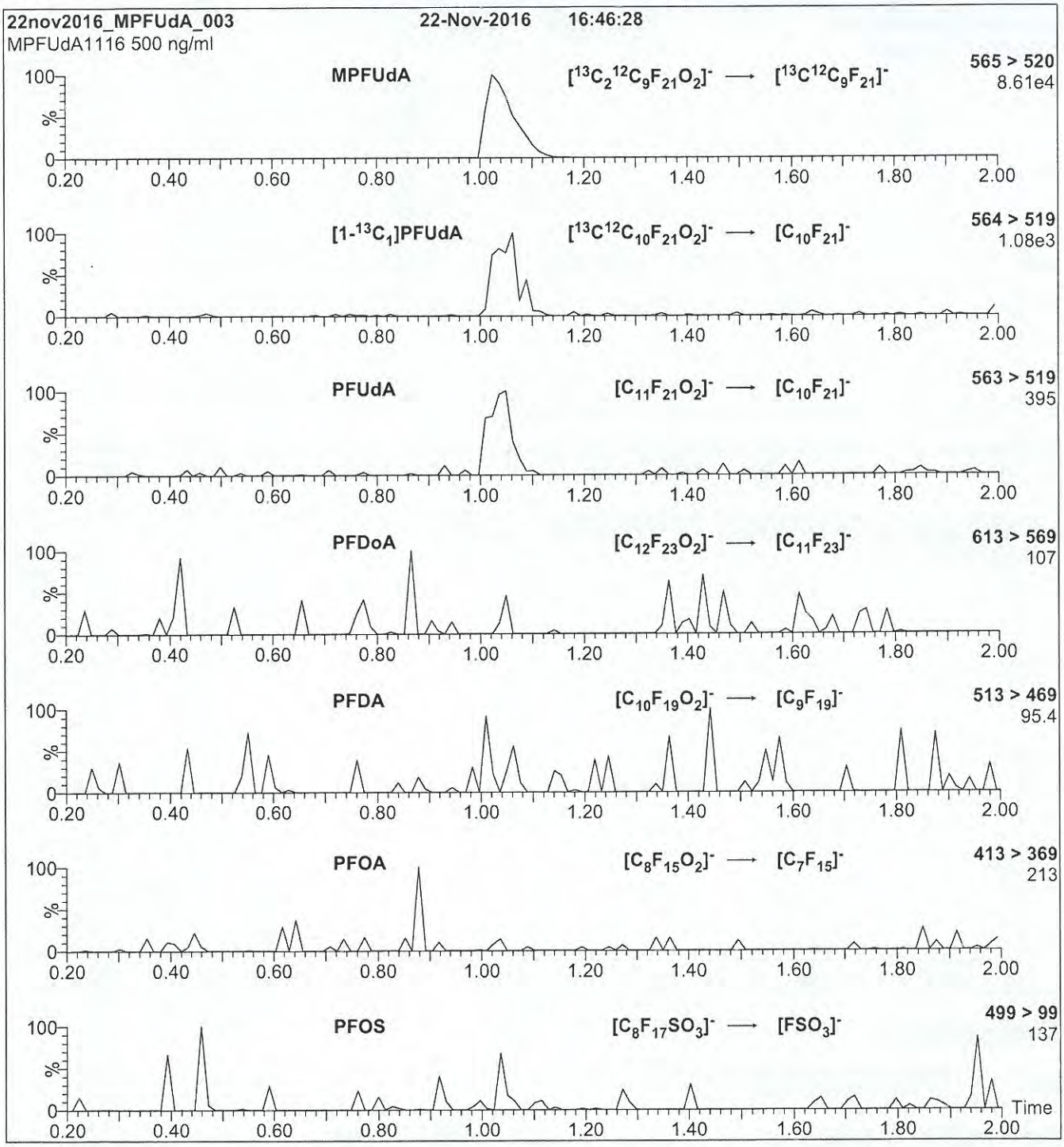
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 65
Desolvation Gas Flow (l/hr) = 750

17K0813

Figure 2: **MPFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFUdA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 11

17K0814

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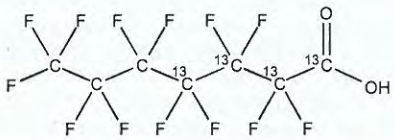
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M4PFHpA
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid

LOT NUMBER: M4PFHpA0517

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_4{}^{12}C_3HF_{13}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/03/2017
EXPIRY DATE: (mm/dd/yyyy) 05/03/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 368.03
SOLVENT(S): Methanol
Water (<1%)
ISOTOPIC PURITY: ≥99%^{13}C ($1,2,3,4$-$^{13}C_4$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/11/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0814

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

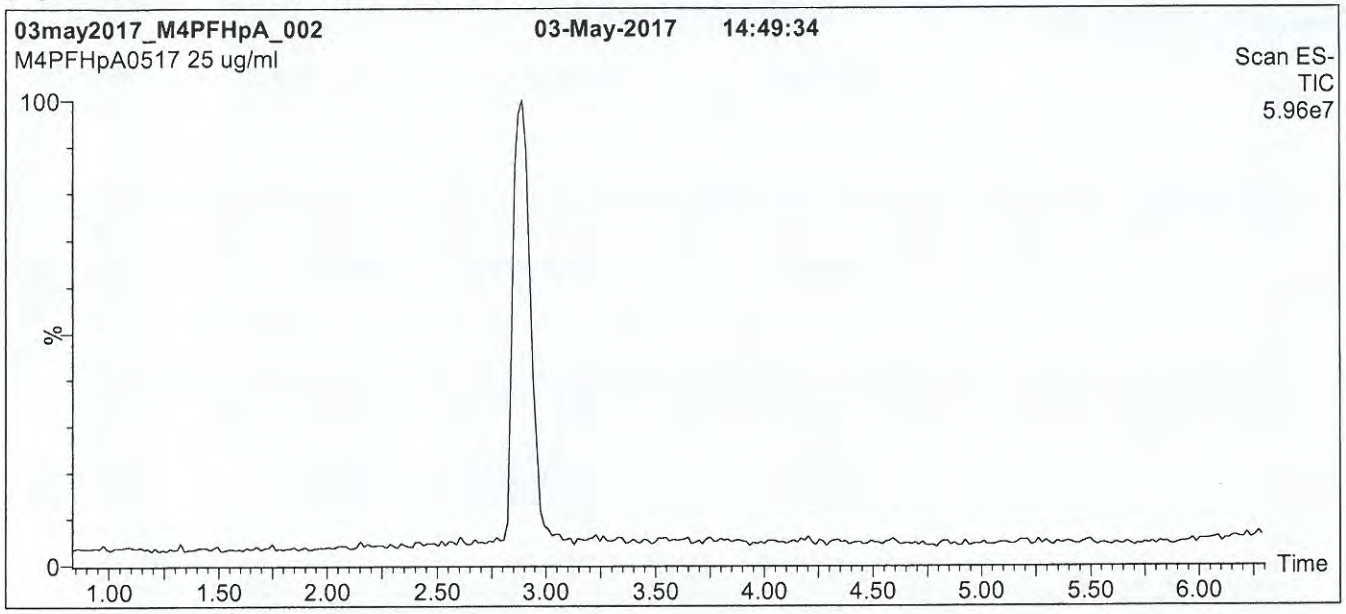
CALA Testing

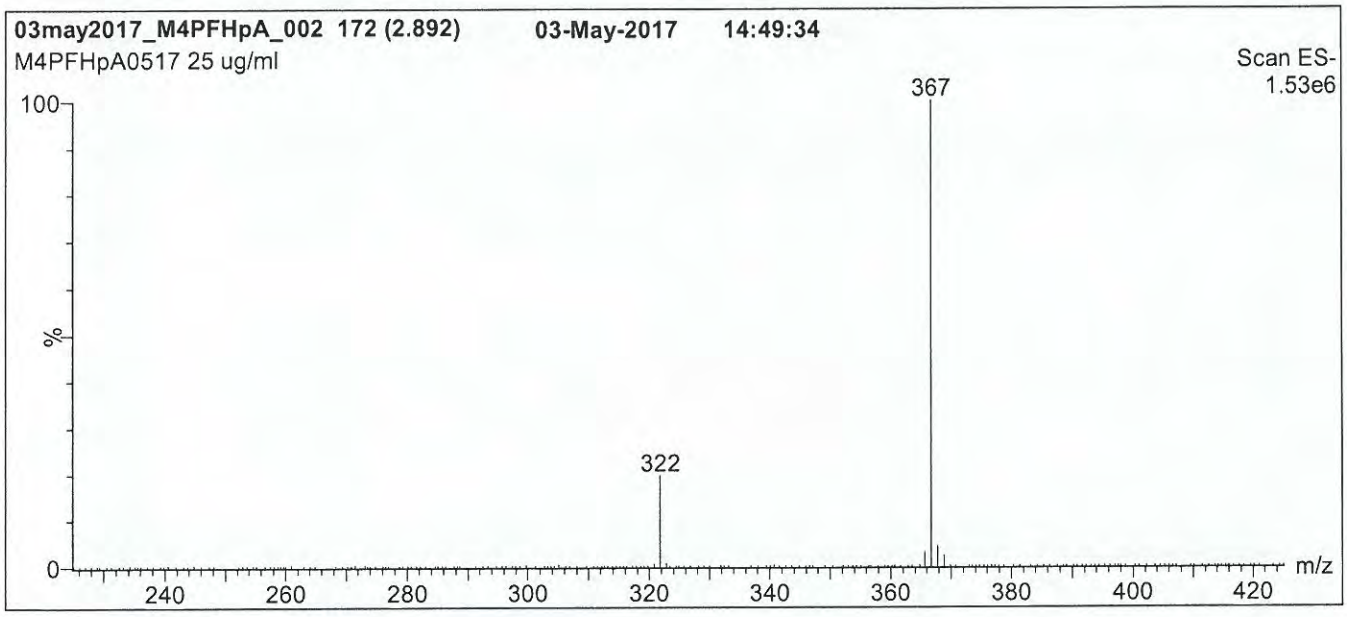
ANAB ACCREDITED

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17K0814

Figure 1: **M4PFHpA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 1 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

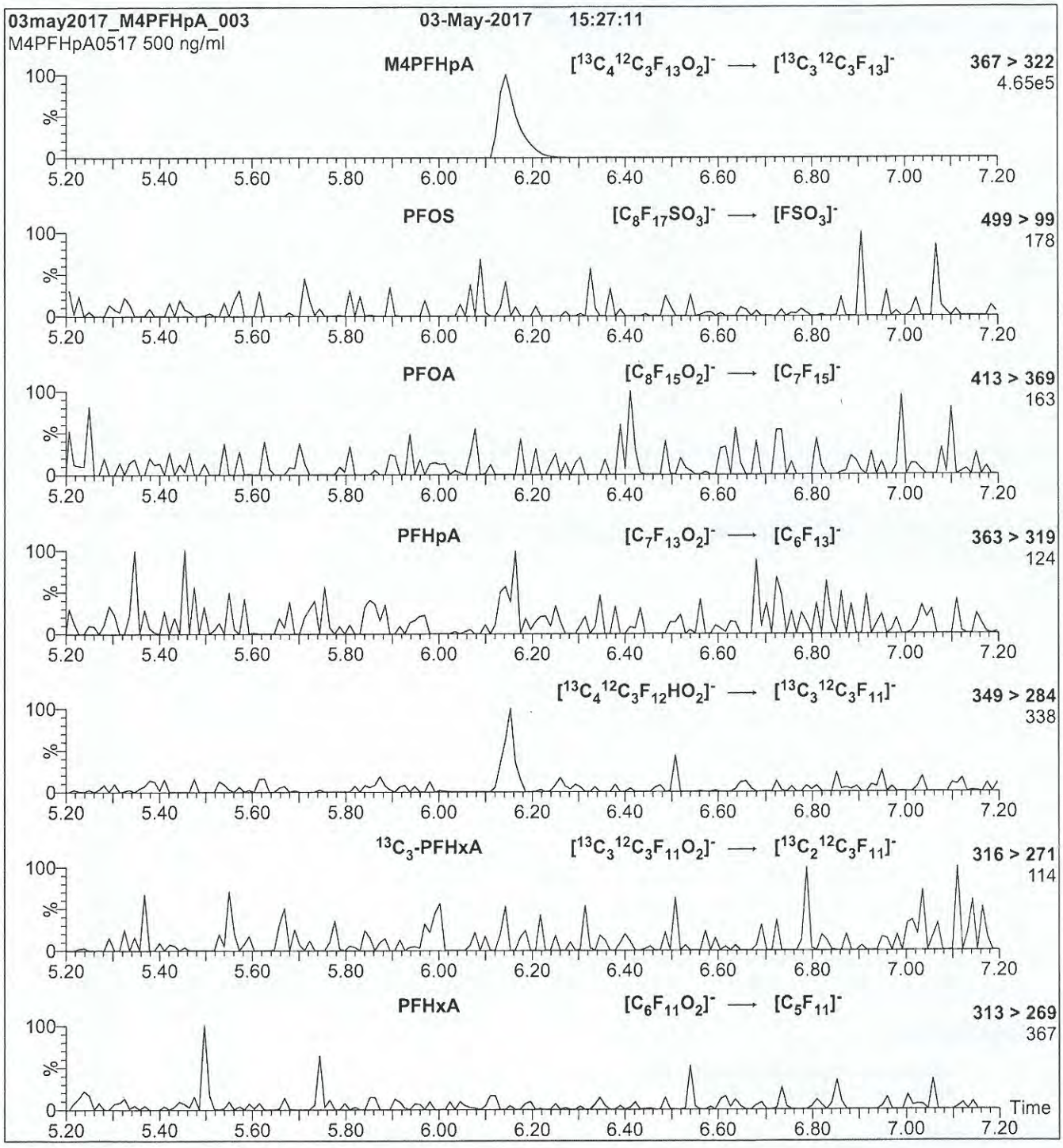
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0814

Figure 2: **M4PFHpA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M4PFHpA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 9

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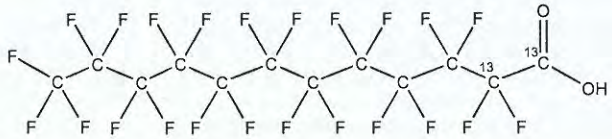
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFDoA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid

LOT NUMBER: MPFDoA0517

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{10}HF_{23}O_2$	**MOLECULAR WEIGHT:**	616.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	05/23/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/23/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/26/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0816

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TRACEABILITY:

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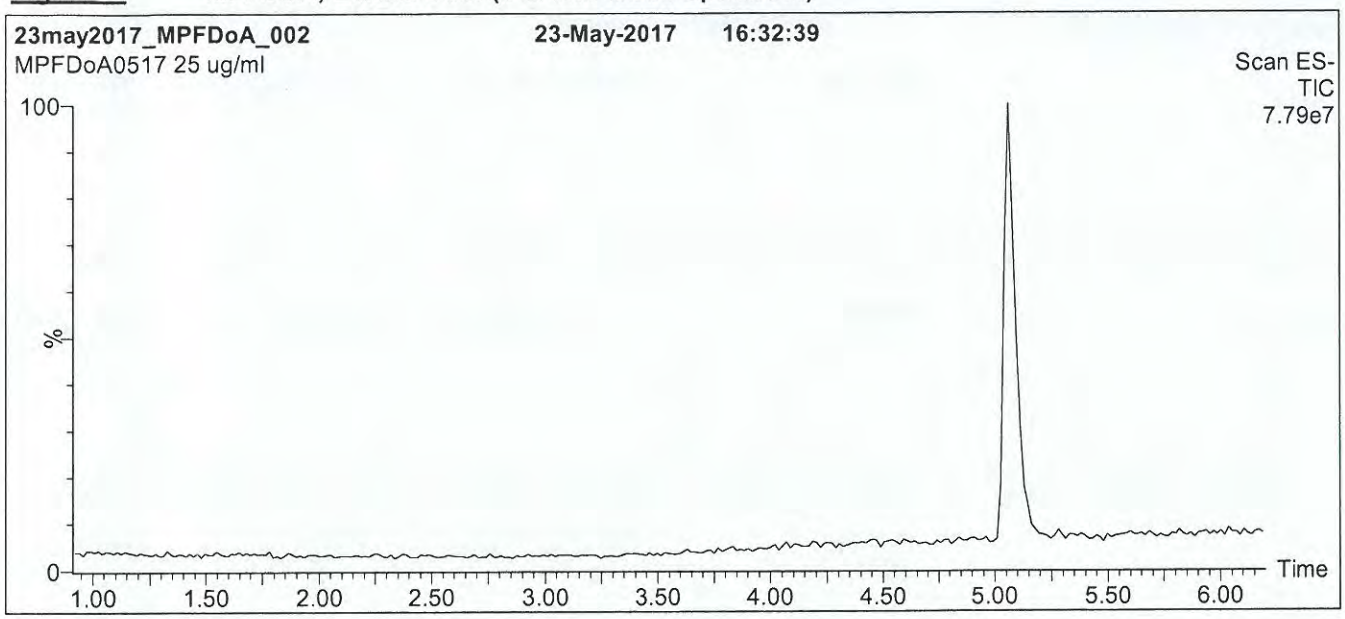
CALA Testing Accreditation No. A 1226

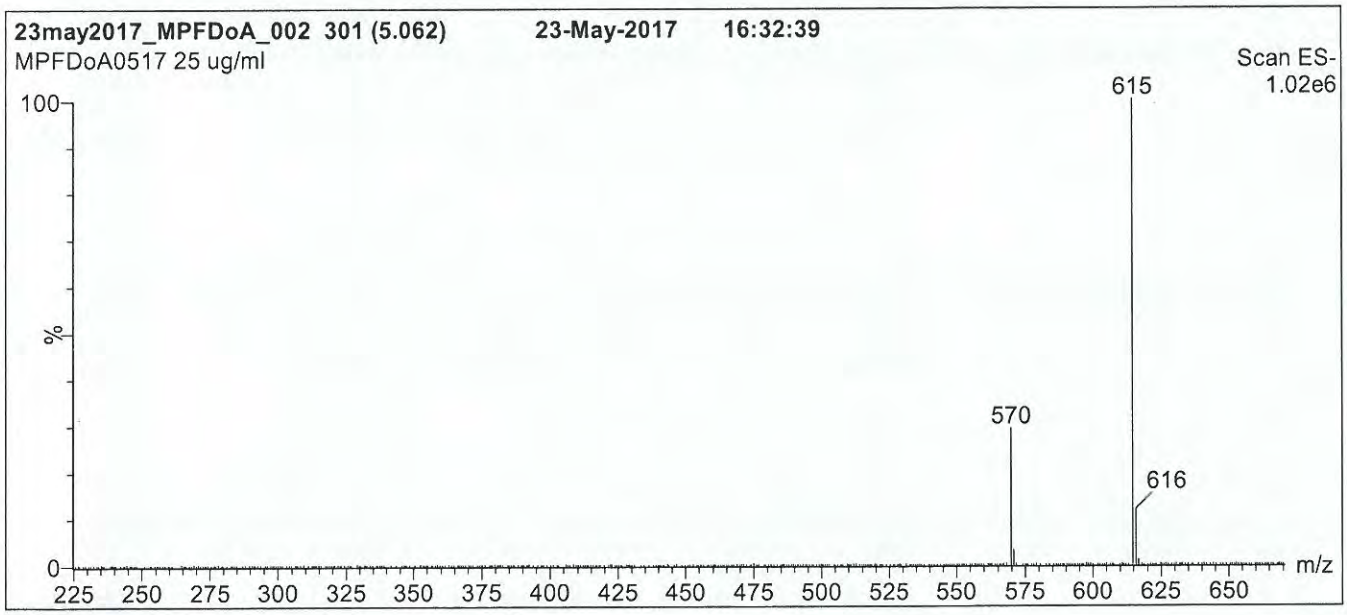
ANAB ACCREDITED Reference Material Producer

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17K0816

Figure 1: **MPFDoA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

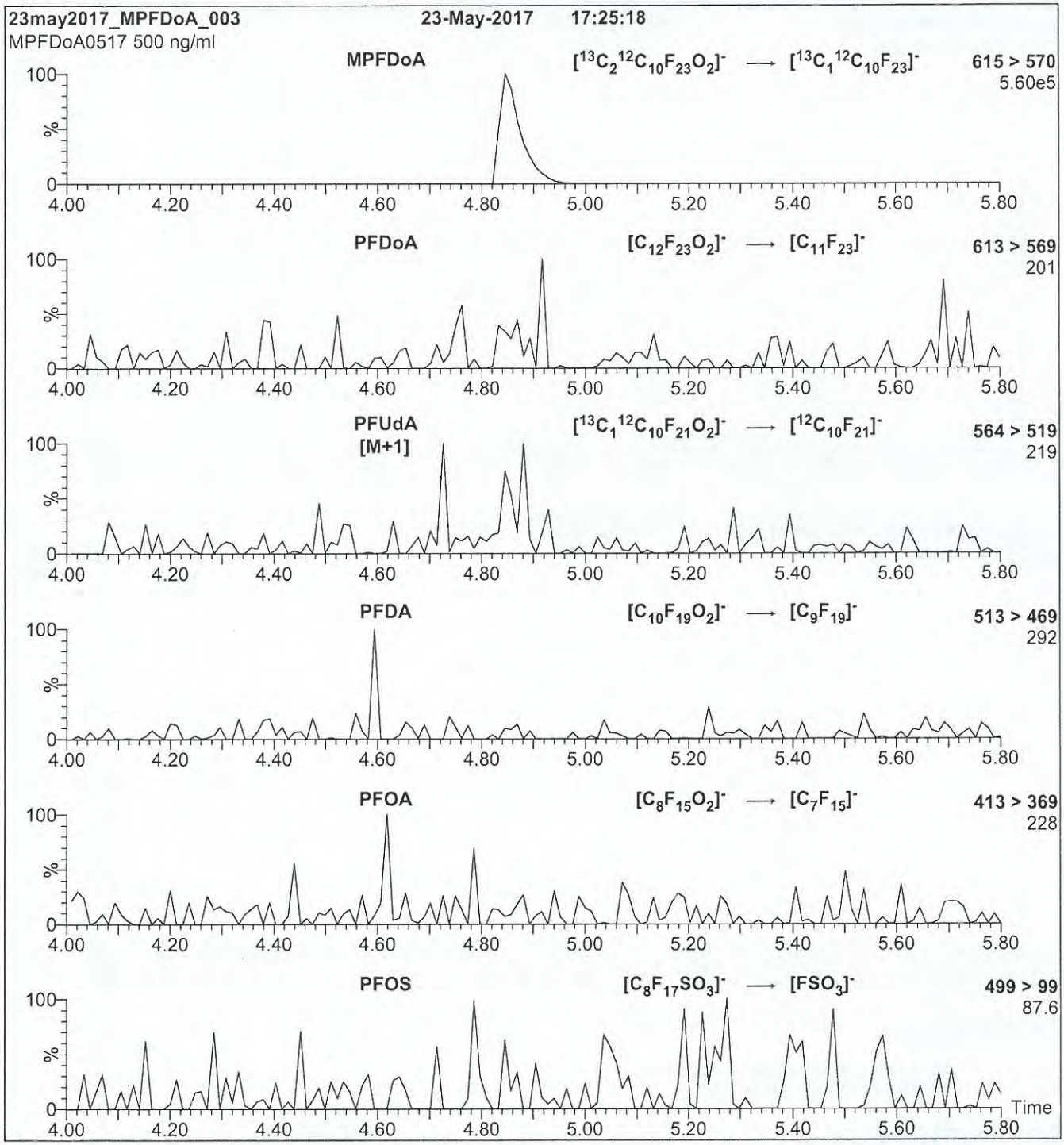
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17K0816

Figure 2: **MPFDoA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFDoA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

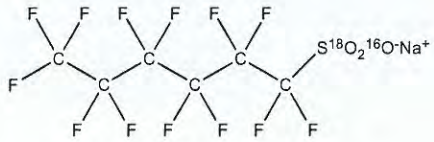
Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 13

17K0818

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFHxS	**LOT NUMBER:**	MPFHxS0217
COMPOUND:	Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_6F_{13}S^{18}O_2{}^{16}ONa$	**MOLECULAR WEIGHT:**	426.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.3 ± 2.4 µg/ml (MPFHxS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	>94% ($^{18}O_2$)
LAST TESTED: (mm/dd/yyyy)	02/17/2017		
EXPIRY DATE: (mm/dd/yyyy)	02/17/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The response factor for MPFHxS ($C_6F_{13}S^{18}O_2{}^{16}O^-$) has been observed to be up to 10% lower than for PFHxS ($C_6F_{13}S^{16}O_3^-$) when both compounds are injected together. This difference may vary between instruments.
- Contains ~ 1.0% of sodium perfluoro-1-octane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFOS).
- Due to the isotopic purity of the starting material ($^{18}O_2$ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 03/02/2017
B.G. Chittim (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0818

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

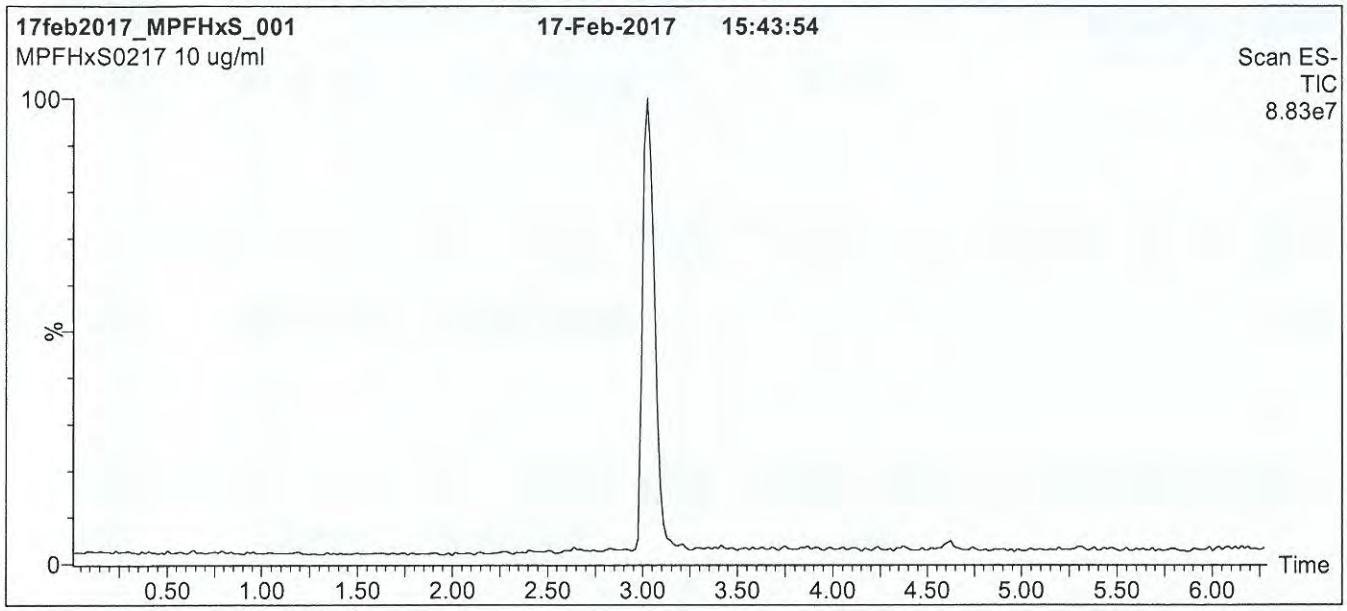
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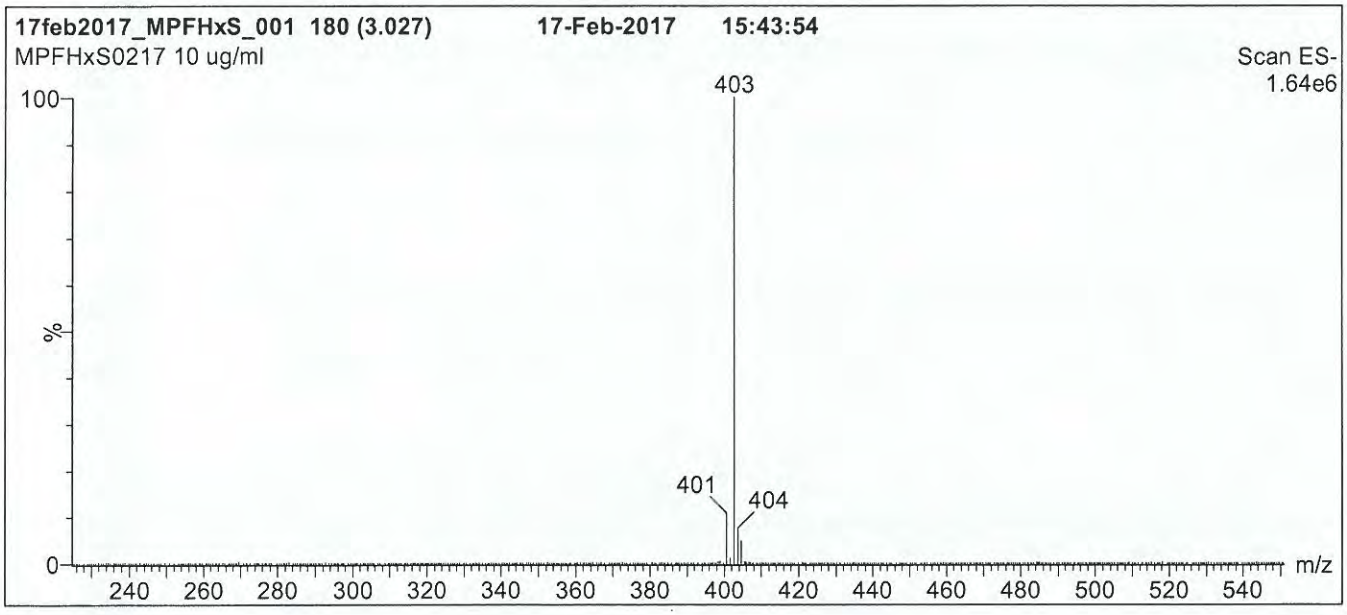
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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17KO818

Figure 1: **MPFHxS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 1 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

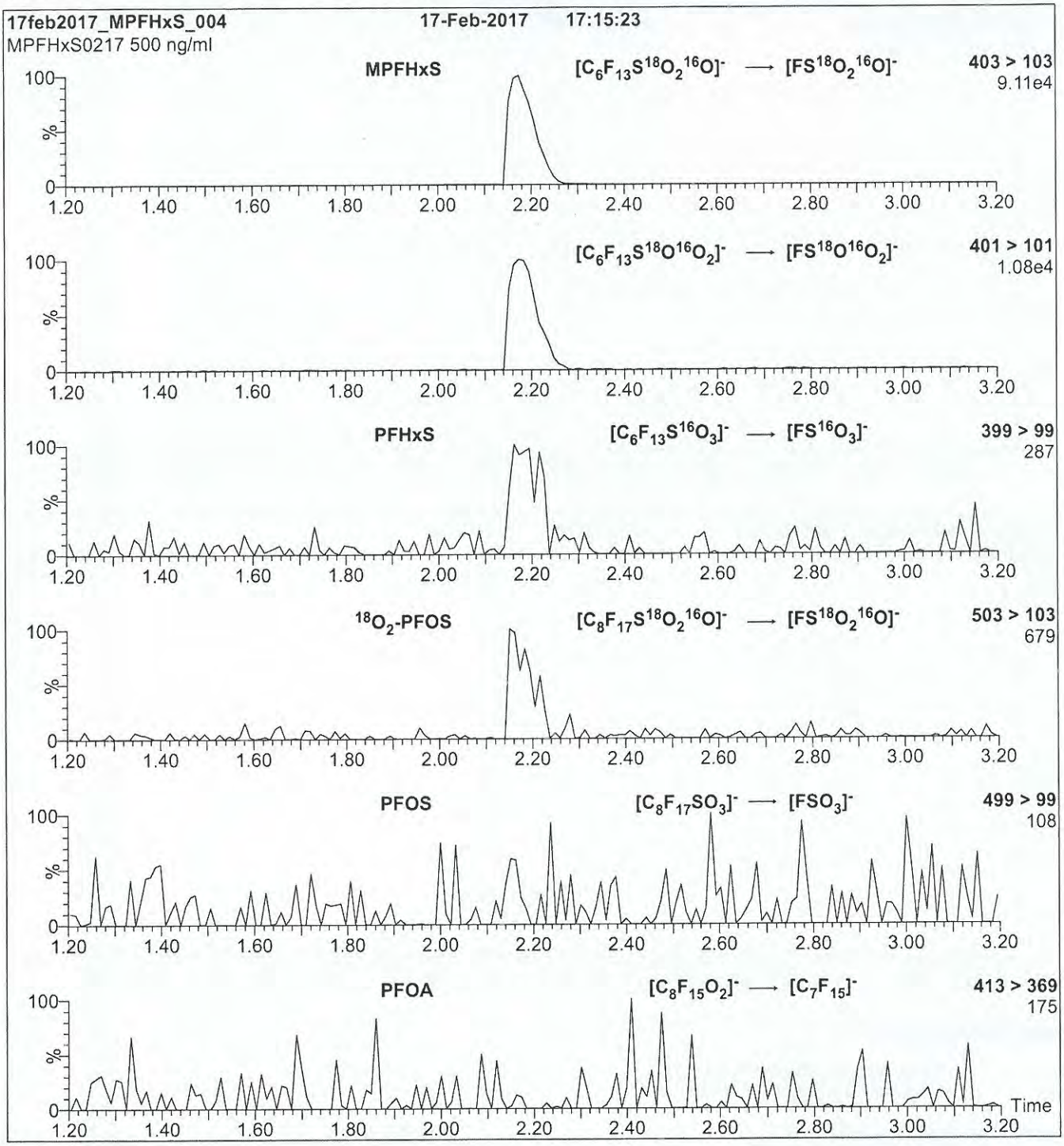
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17K0818

Figure 2: **MPFHxS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFHxS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

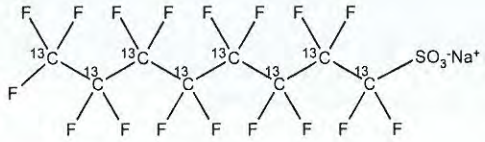
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 30

17K0819

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M8PFOS	**LOT NUMBER:**	M8PFOS0916
COMPOUND:	Sodium perfluoro-1-[$^{13}C_8$]octanesulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_8F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	530.05
CONCENTRATION:	48.5 ± 2.4 µg/ml (Na salt) 46.4 ± 2.3 µg/ml (M8PFOS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>97%	**ISOTOPIC PURITY:**	>99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	09/30/2016		
EXPIRY DATE: (mm/dd/yyyy)	09/30/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.6% of sodium perfluoro-1-[$^{13}C_7$]heptanesulfonate ($^{13}C_7$-PFHpS), ~ 1.0% of chlorohexadecafluoro-1-[$^{13}C_8$]octanesulfonate, and ~ 1.5% of sodium perfluoro-1-[$^{13}C_4$]octanesulfonate (MPFOS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/11/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0819

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

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where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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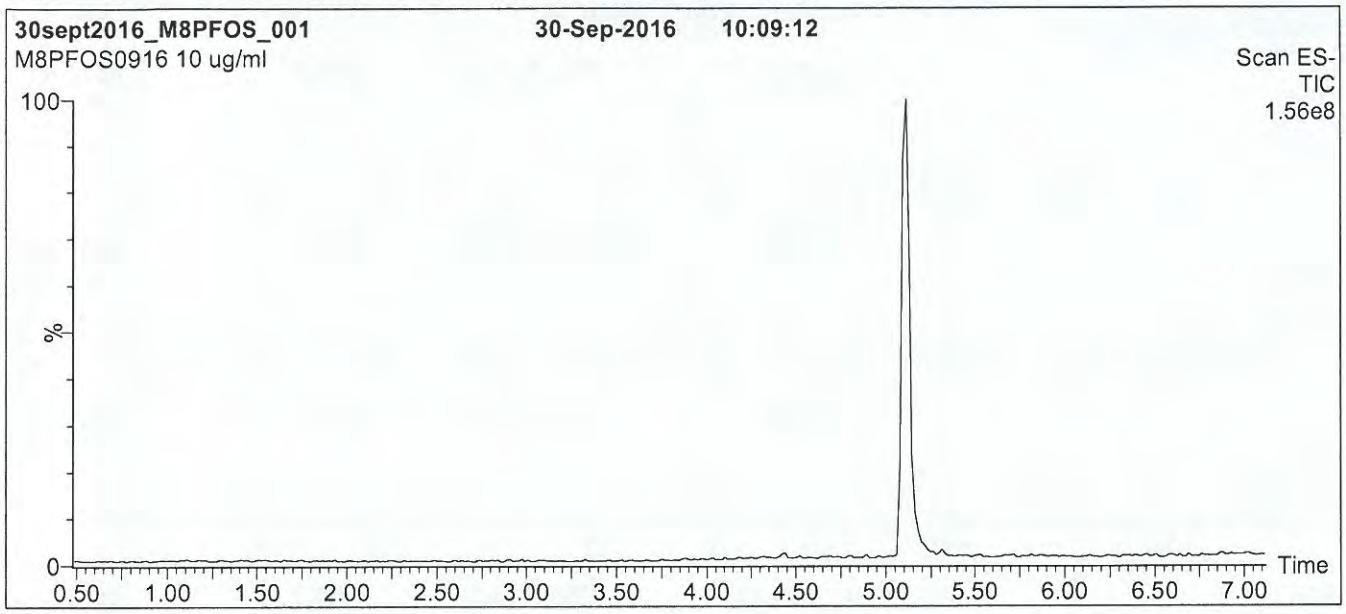
CALA Testing Accreditation No. A 1226

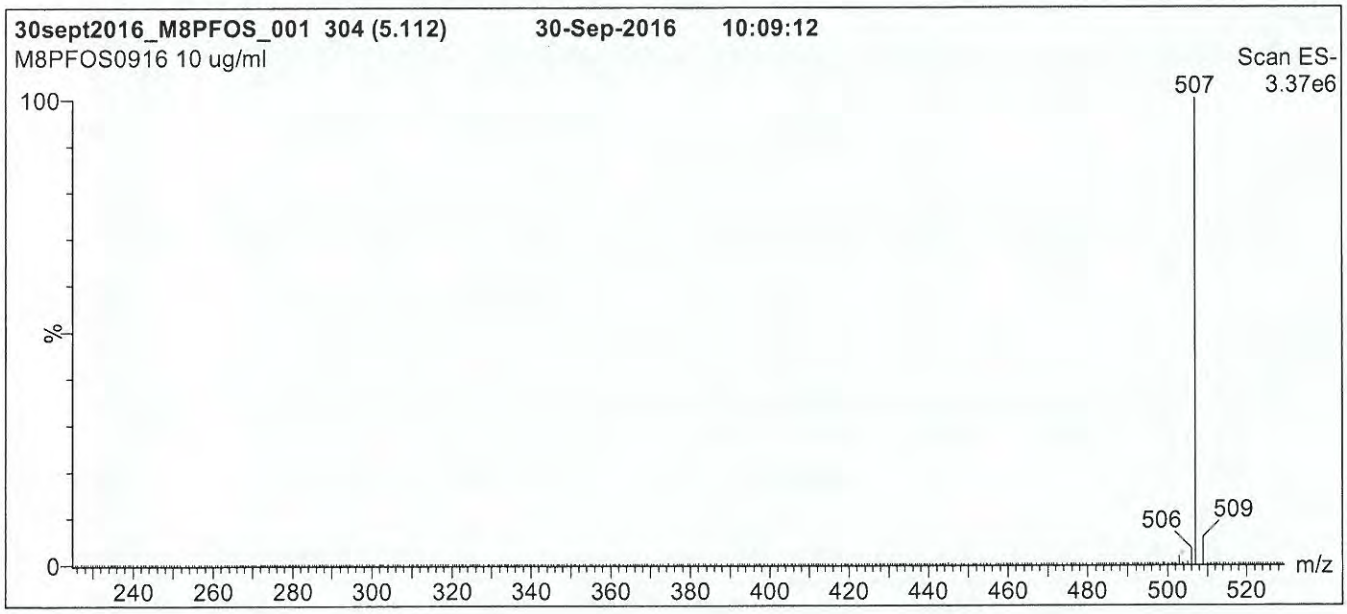
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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17K0819

Figure 1: **M8PFOS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

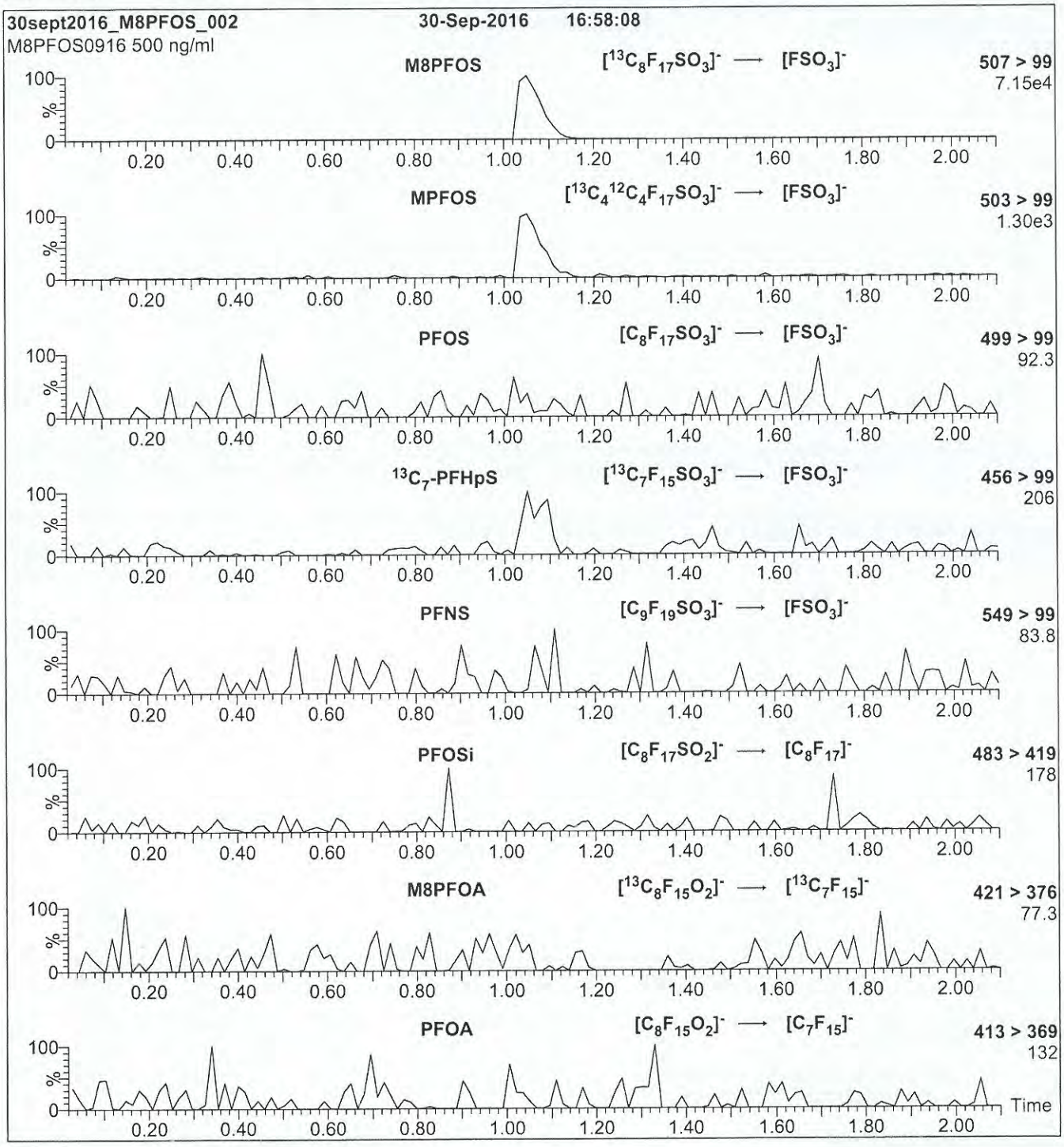
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0819

Figure 2: **M8PFOS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M8PFOS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 40

17K0821

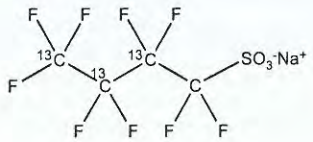
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFBS **LOT NUMBER:** M3PFBS0815

COMPOUND: Sodium perfluoro-1-[2,3,4-$^{13}C_3$]butanesulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}CF_9SO_3Na$	**MOLECULAR WEIGHT:**	325.06
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 46.5 ± 2.3 µg/ml (M3PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($2,3,4\text{-}^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	05/24/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/24/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/25/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

1714-0821

INTENDED USE:

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

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QUALITY MANAGEMENT:

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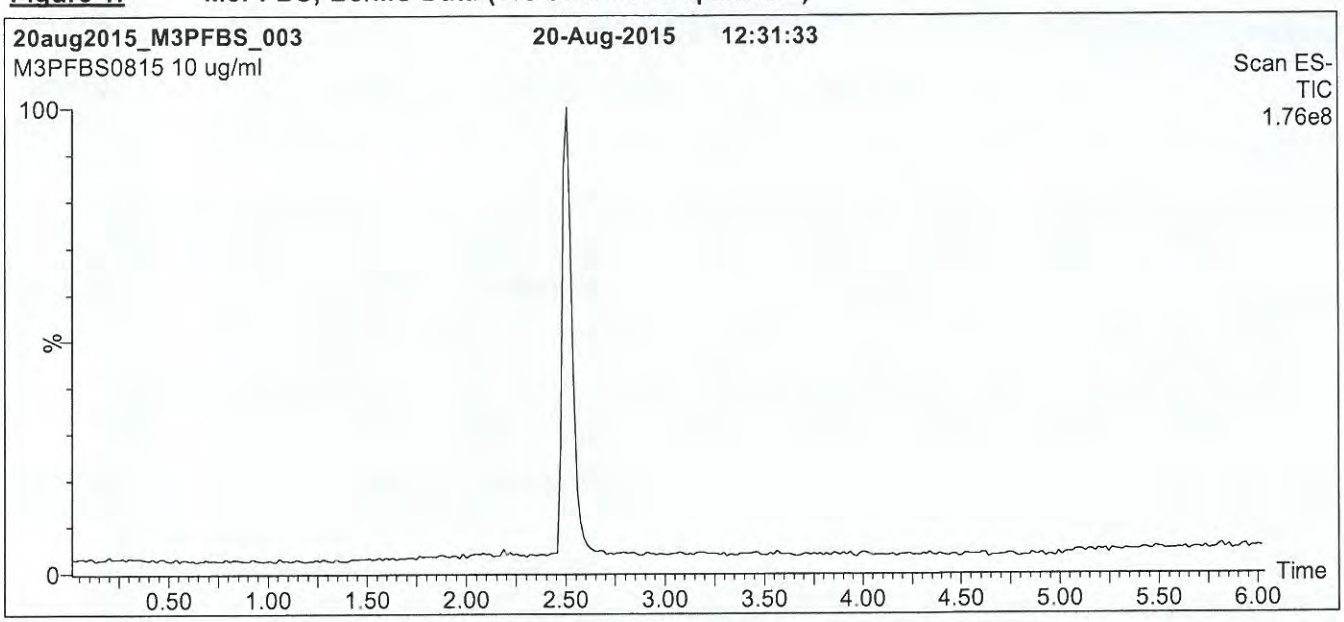
CALA Testing Accreditation No. A1226

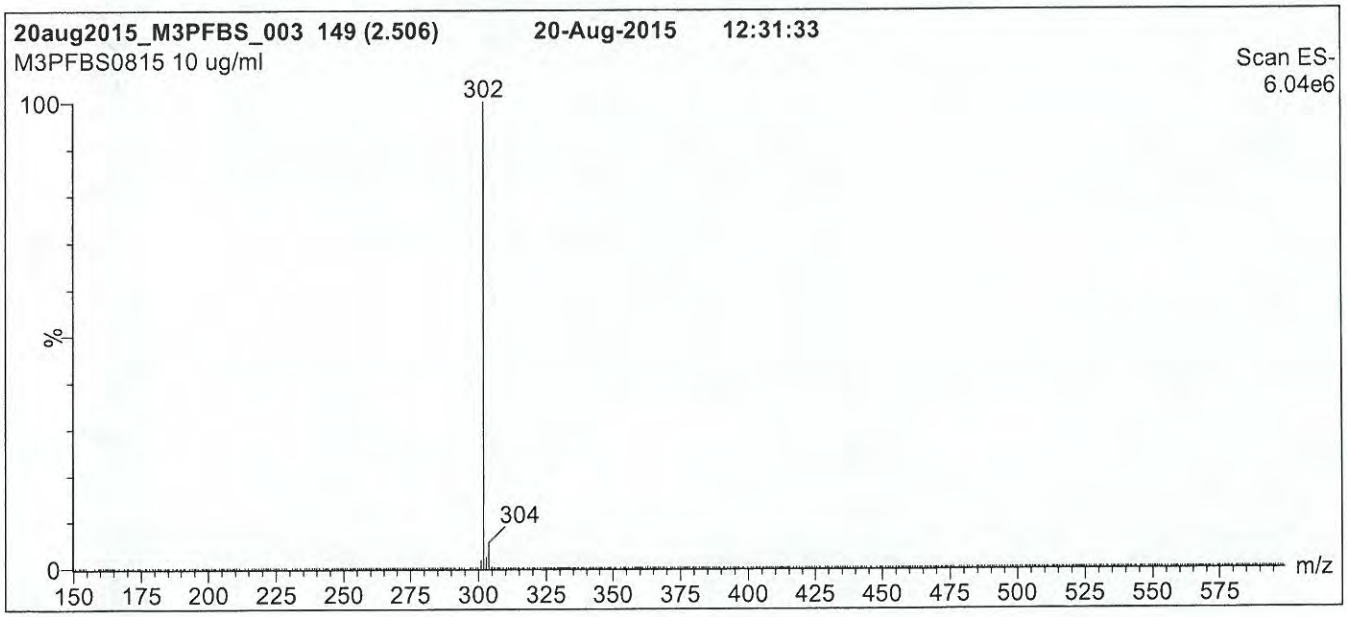
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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17K0821

Figure 1: **M3PFBS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

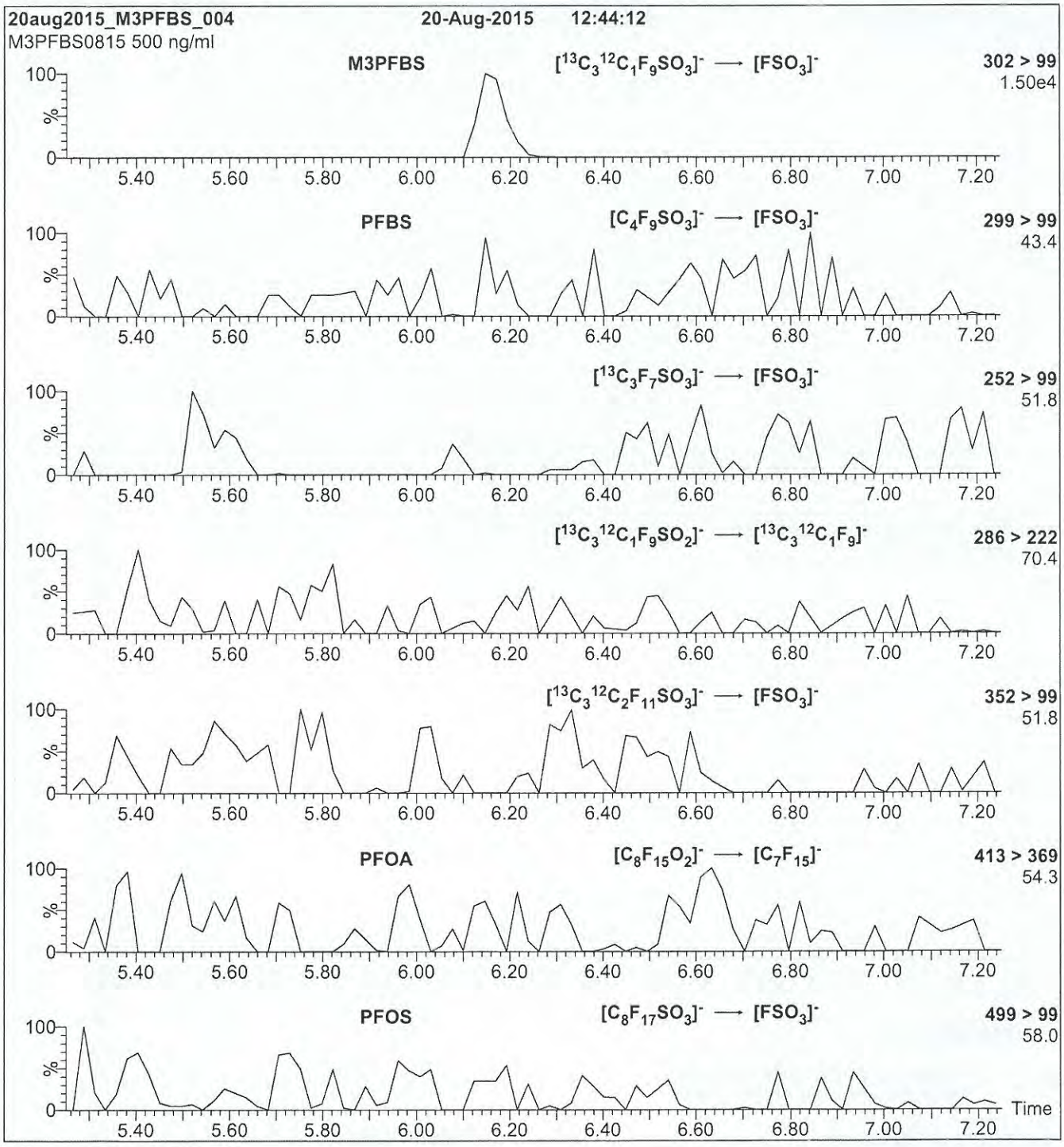
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0821

Figure 2: **M3PFBS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M3PFBS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 25

17K3038

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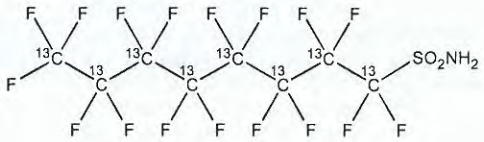
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M8FOSA-I
COMPOUND: Perfluoro-1-[$^{13}C_8$]octanesulfonamide

LOT NUMBER: M8FOSA1017I

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	507.09
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Isopropanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	10/11/2017		
EXPIRY DATE: (mm/dd/yyyy)	10/11/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.1% of perfluoro-1-[$^{13}C_4$]octanesulfonamide and ~ 0.01% of perfluoro-1-[$^{13}C_7$]heptanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/20/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K3038

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

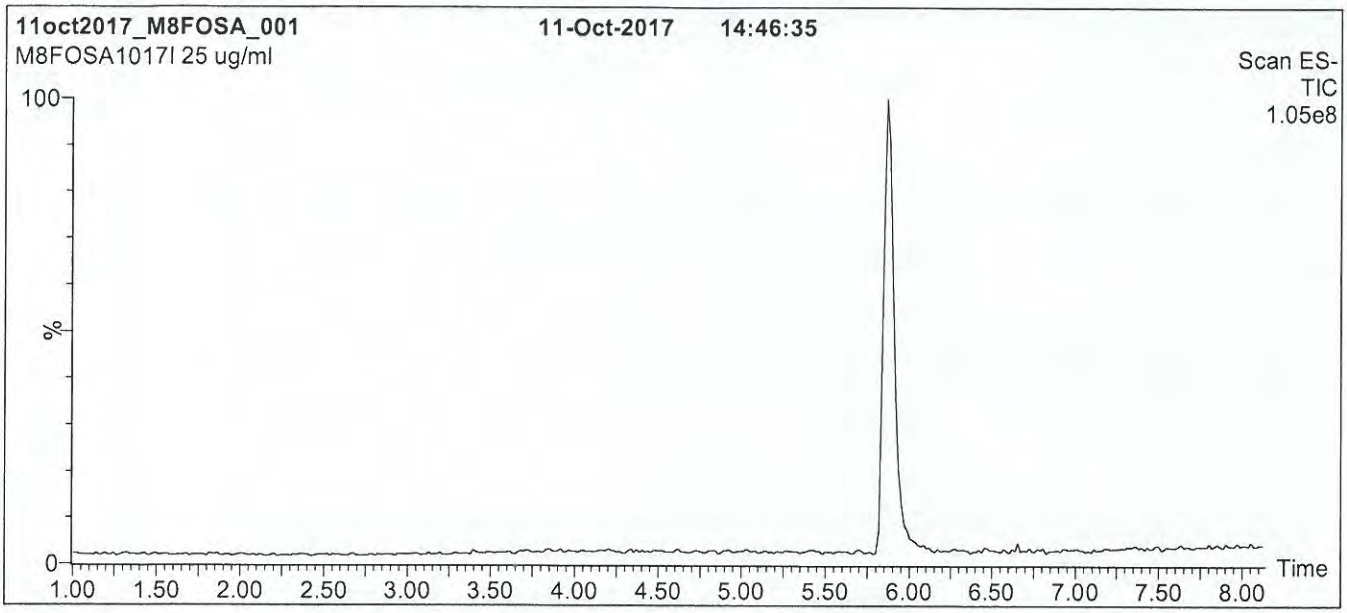
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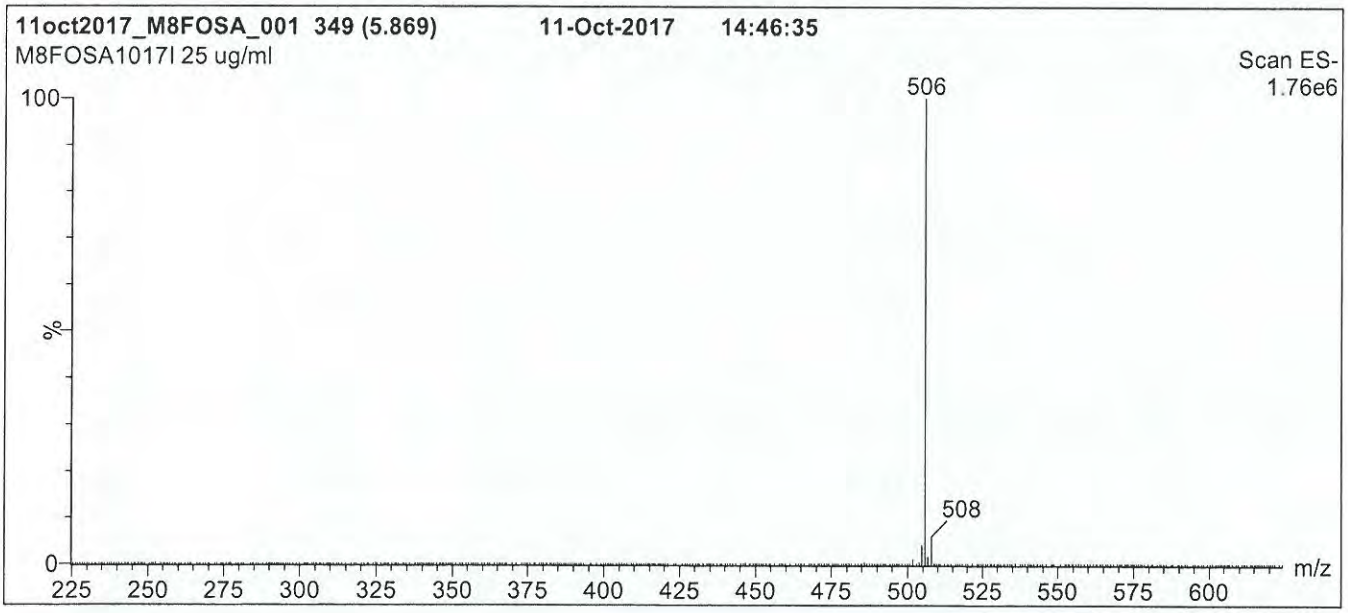
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K3038

Figure 1: **M8FOSA-I; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 85% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

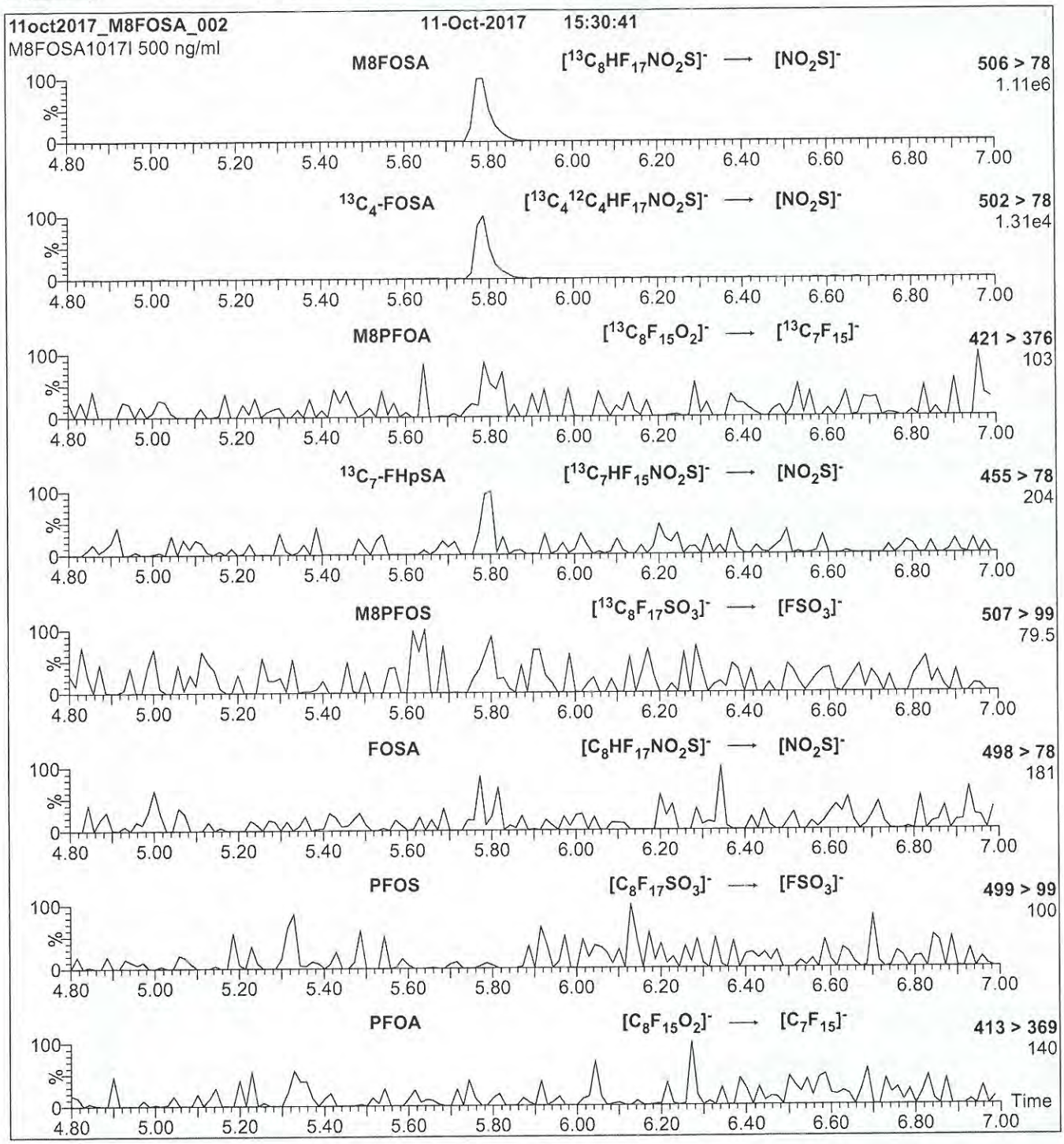
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K3038

Figure 2: **M8FOSA-I; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M8FOSA-I)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 30

17K3039

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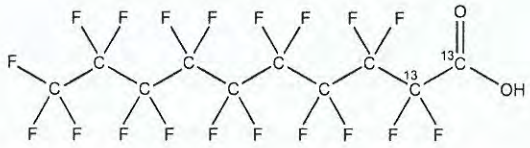
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFDA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid

LOT NUMBER: MPFDA0717

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8HF_{19}O_2$	**MOLECULAR WEIGHT:**	516.07
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	07/13/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/13/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of $^{13}C_1$-PFNA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/14/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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INTENDED USE:

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HAZARDS:

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SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

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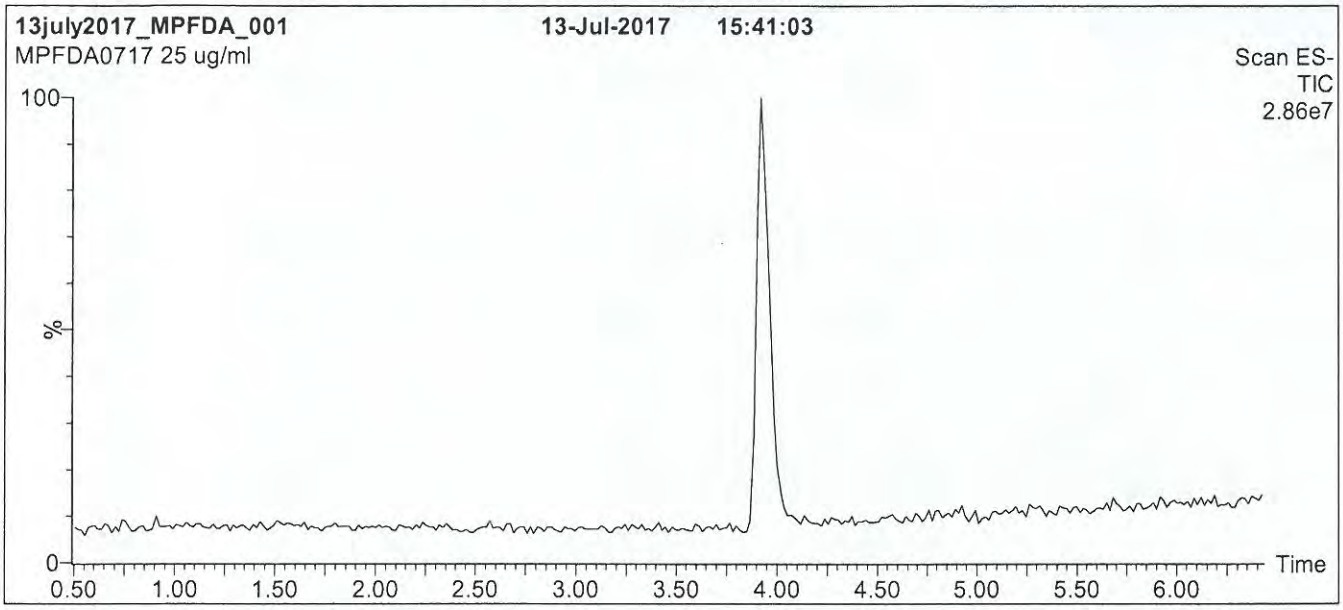
CALA

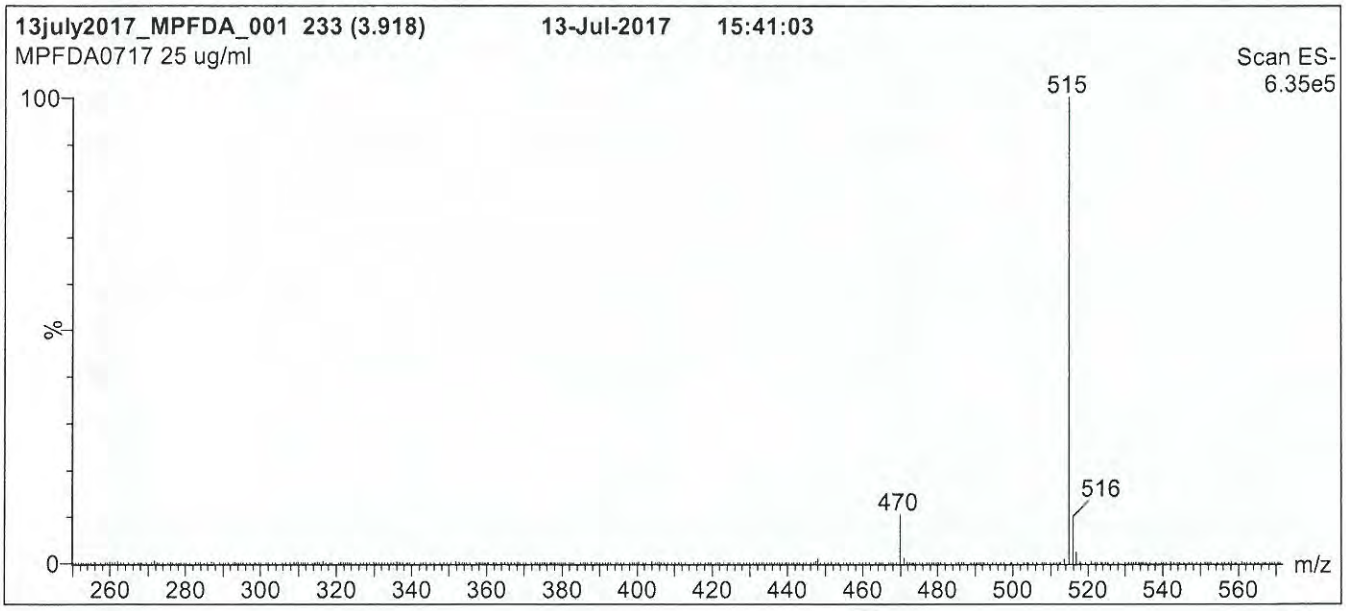
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17K3039

Figure 1: **MPFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

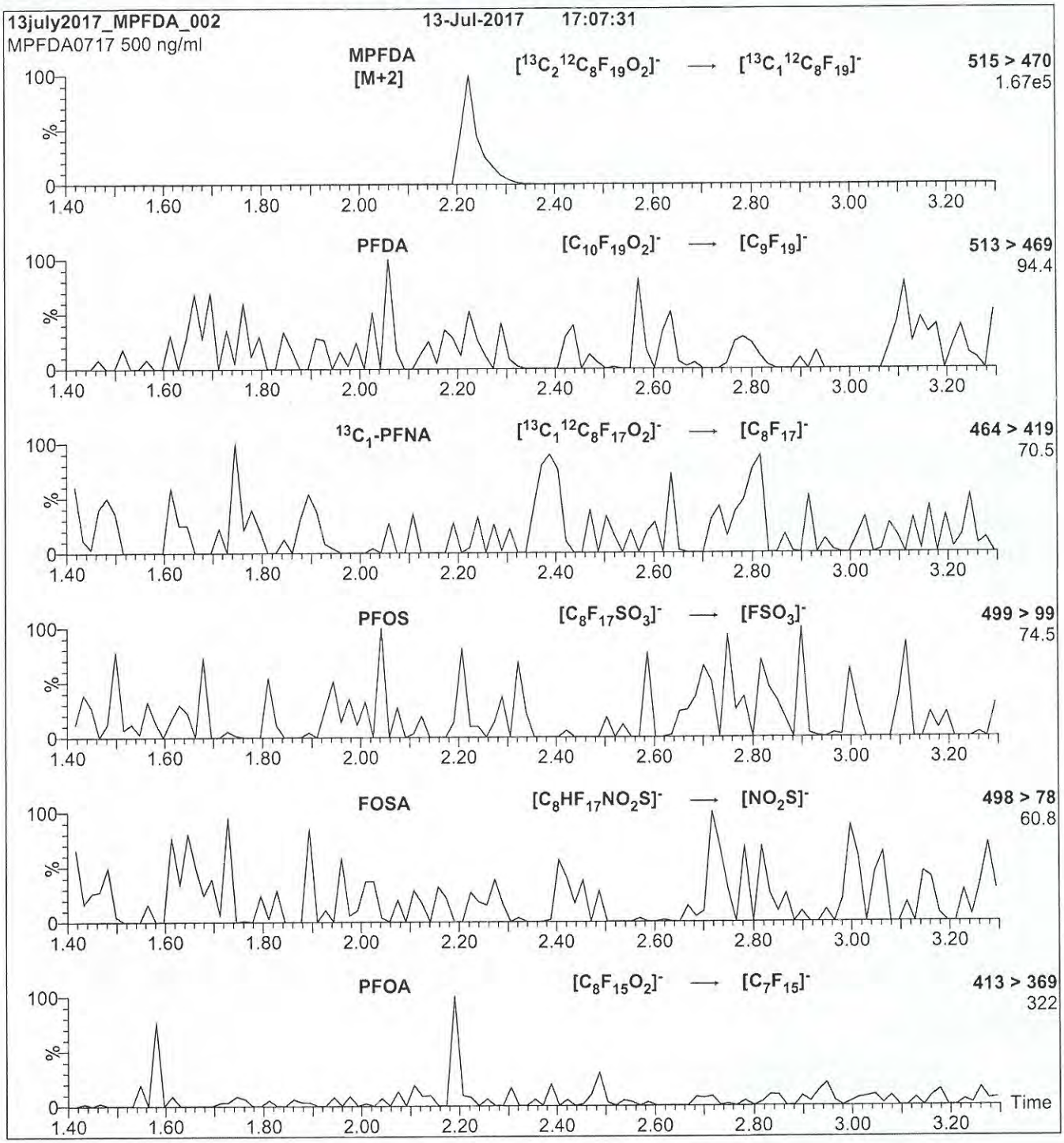
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K3039

Figure 2: **MPFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.17e-3
Collision Energy (eV) = 13

17K3040

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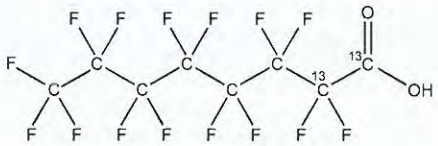
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2PFOA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]octanoic acid

LOT NUMBER: M2PFOA1017

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6HF_{15}O_2$	**MOLECULAR WEIGHT:**	416.05
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	10/26/2017		
EXPIRY DATE: (mm/dd/yyyy)	10/26/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/30/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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EXPIRY DATE / PERIOD OF VALIDITY:

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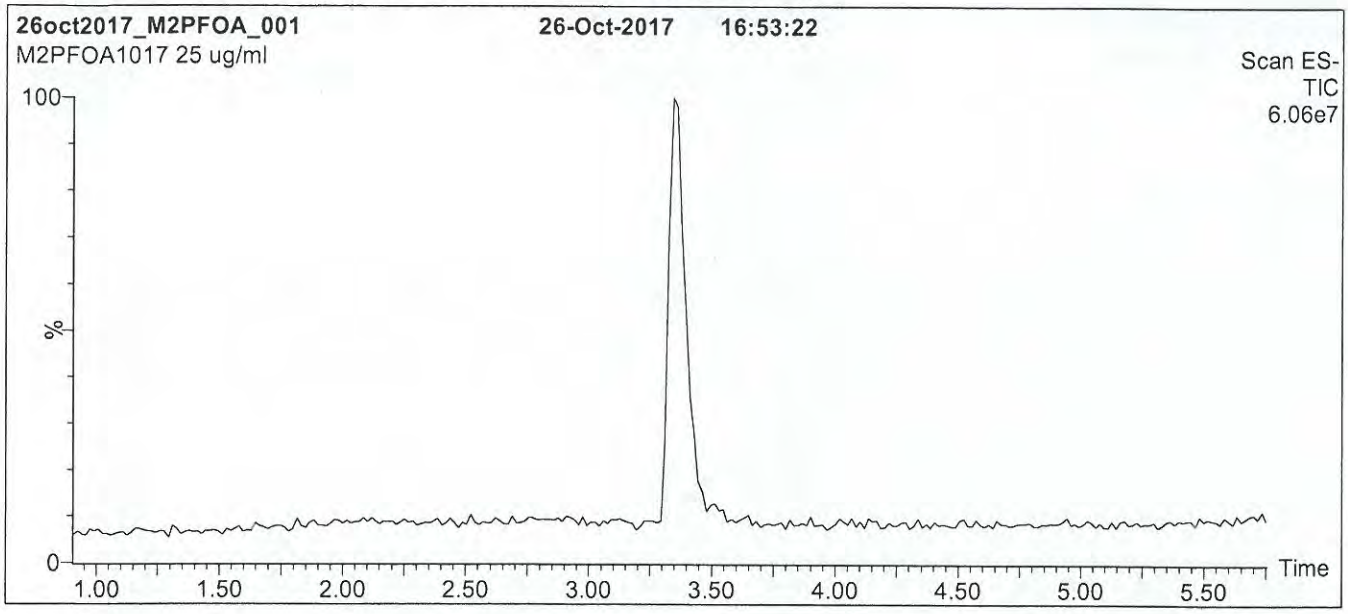
CALA Testing Accreditation No. A 1226

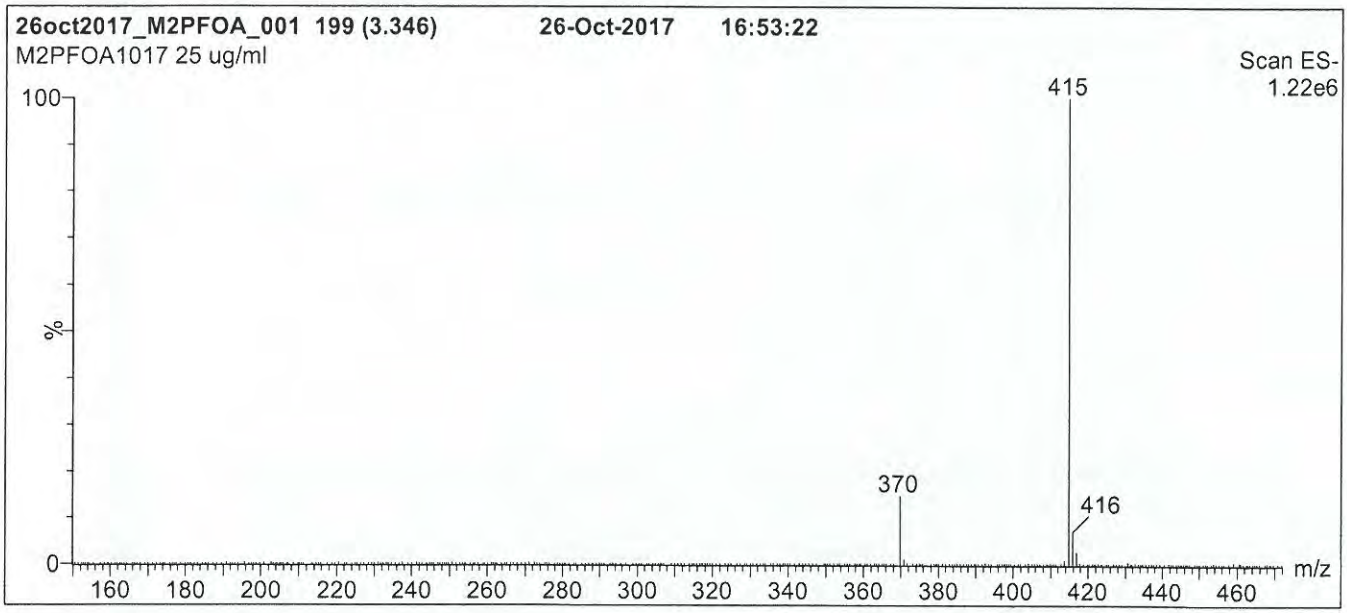
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K3040

Figure 1: **M2PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

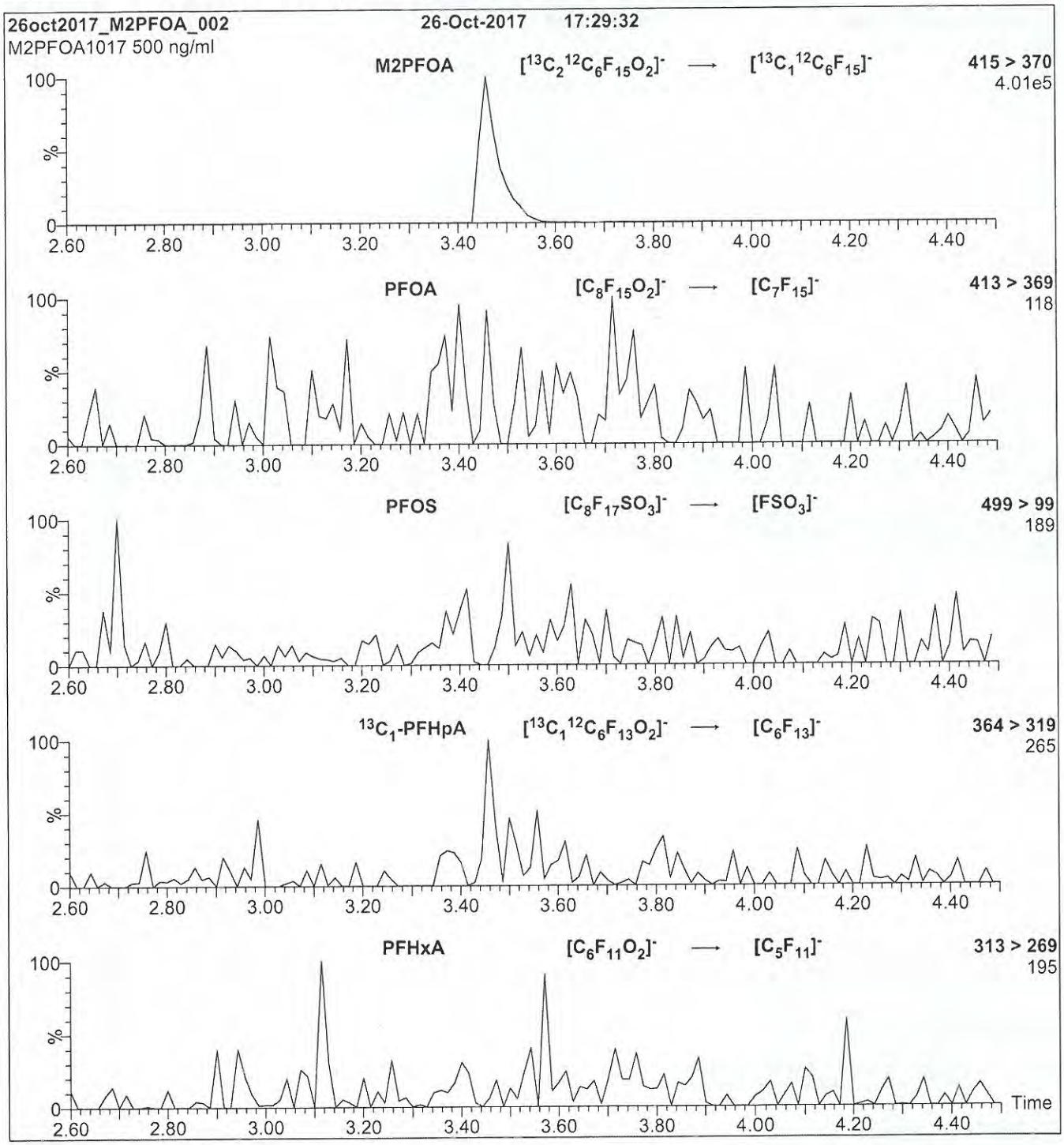
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17K3040

Figure 2: **M2PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2PFOA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 10

17K3041

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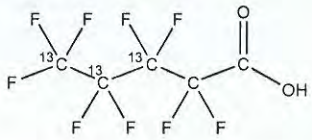
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFPeA
COMPOUND: Perfluoro-n-[3,4,5-$^{13}C_3$]pentanoic acid

LOT NUMBER: M3PFPeA0417

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}C_2HF_9O_2$	**MOLECULAR WEIGHT:**	267.02
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($3,4,5$-$^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	04/20/2017		
EXPIRY DATE: (mm/dd/yyyy)	04/20/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.95% of perfluoro-n-[$^{13}C_3$]butanoic acid and 0.05% of perfluoro-1-pentanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/24/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K3041

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SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

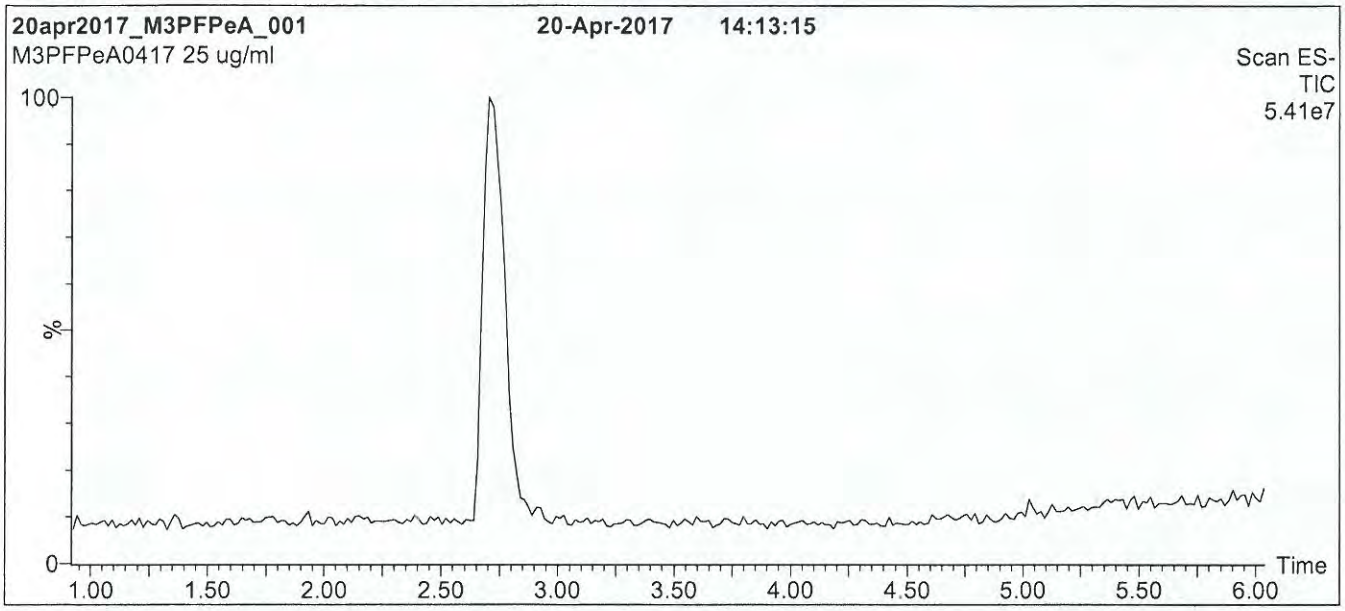
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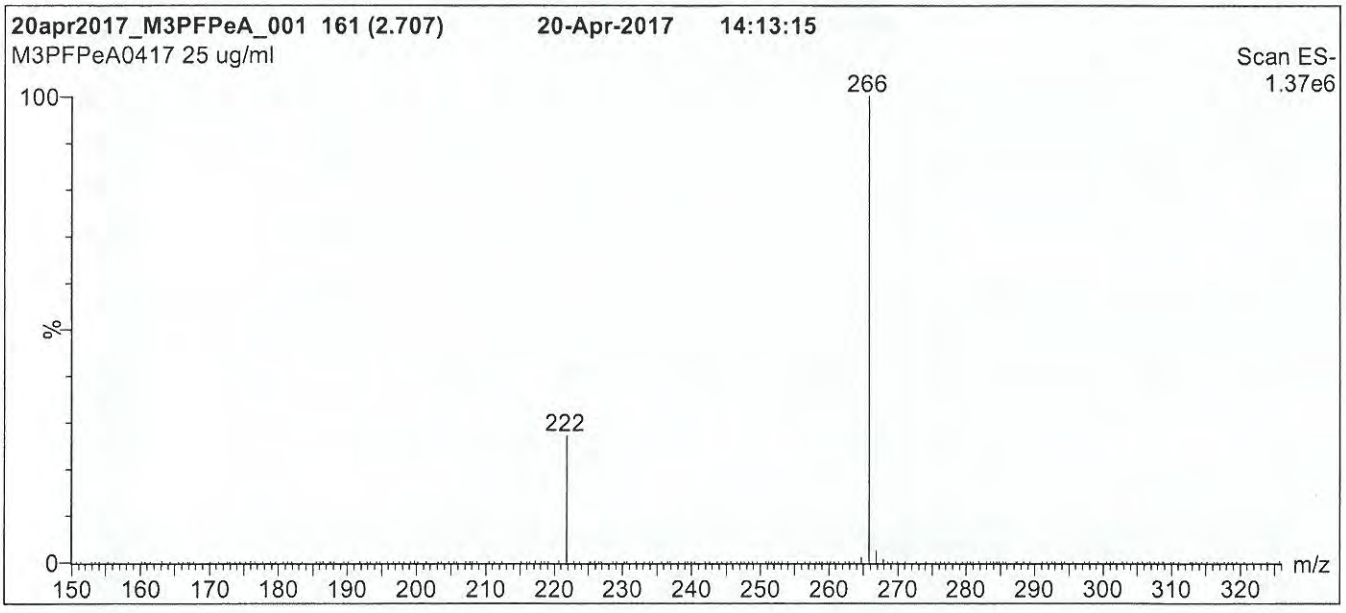
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K3041

Figure 1: **M3PFPeA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

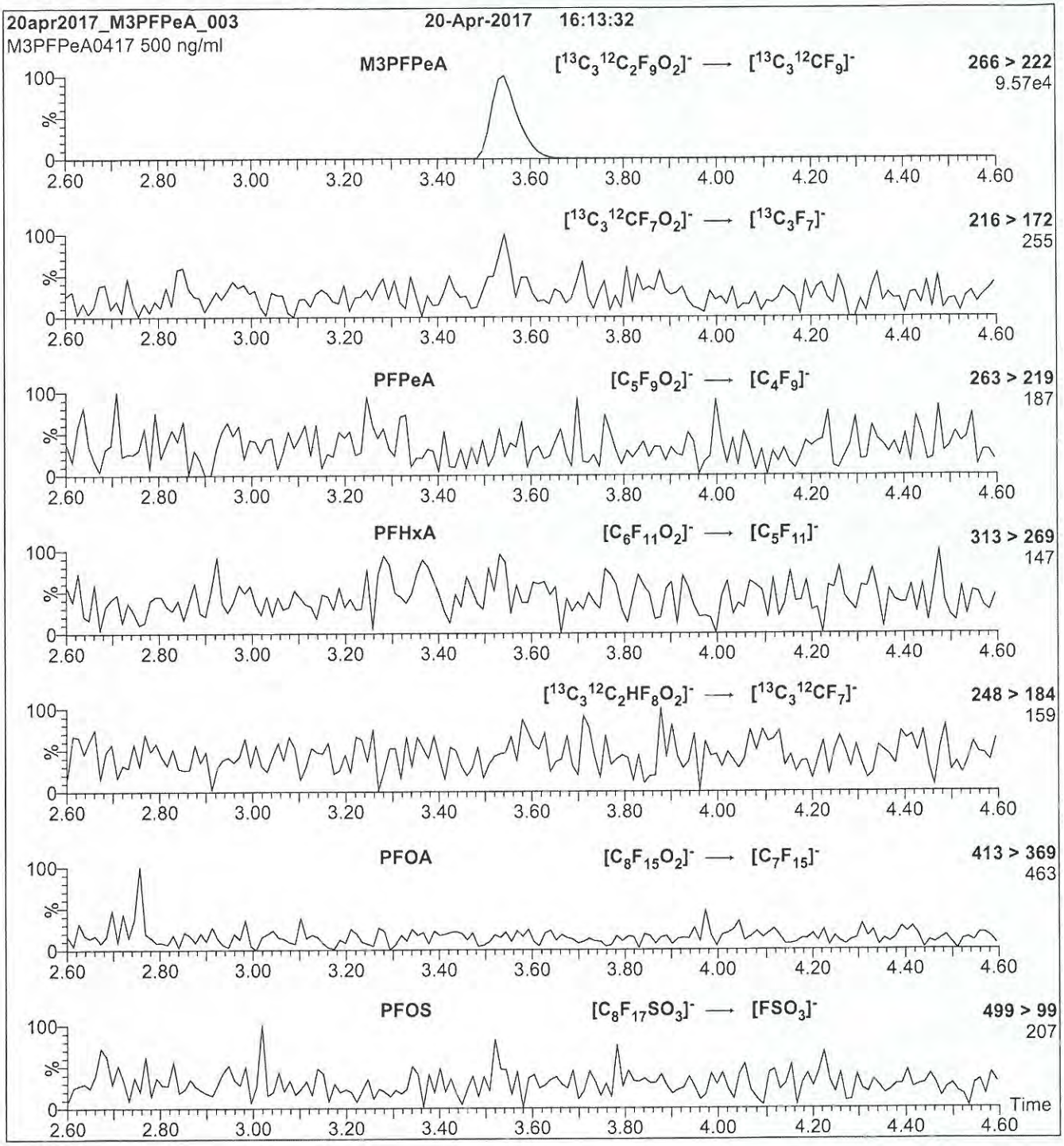
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17K3041

Figure 2: **M3PFPeA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M3PFPeA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 9

Analytical Standard Record

Vista Analytical Laboratory

17K2502

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	(mls)
17J0526	13C6-PFDA	05-Oct-17	** Vendor **	31-May-21	0.5
17J0527	13C8-PFOA	05-Oct-17	** Vendor **	05-Jul-22	0.51
17J1018	13C4-PFBA	10-Oct-17	** Vendor **	12-Apr-22	0.5
17J1019	13C5-PFHxA	10-Oct-17	** Vendor **	27-Aug-19	0.5
17J1020	13C9-PFNA	10-Oct-17	** Vendor **	23-May-22	0.5
17J1021	13C7-PFUdA	10-Oct-17	** Vendor **	13-Jul-22	0.5
17J1022	13C3-PFHxS	10-Oct-17	** Vendor **	05-Jul-22	0.53
17J1023	13C4-PFOS	10-Oct-17	** Vendor **	19-May-22	0.525
17J1024	13C2-FOUEA	10-Oct-17	** Vendor **	02-Aug-18	0.5

Description:	PFC-RS	Expires:	25-Nov-19
Standard Type:	Reagent	Prepared:	25-Nov-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	25-Nov-17 10:25 by INJ

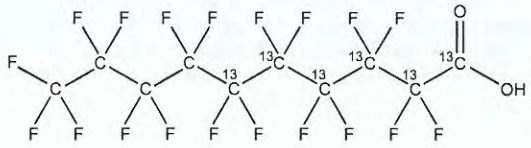
Analyte	CAS Number	Concentration	Units
13C9-PFNA		1.25	ug/mL
13C8-PFOA		1.25	ug/mL
13C7-PFUnA		1.25	ug/mL
13C6-PFDA		1.25	ug/mL
13C5-PFHxA		1.25	ug/mL
13C4-PFOS		1.25	ug/mL
13C4-PFBA		1.25	ug/mL
13C3-PFHxS		1.25	ug/mL
13C2-FOUEA		1.25	ug/mL

17J0526

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M6PFDA	**LOT NUMBER:**	M6PFDA0516
COMPOUND:	Perfluoro-n-[1,2,3,4,5,6-$^{13}C_6$]decanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_6{}^{12}C_4HF_{19}O_2$	**MOLECULAR WEIGHT:**	520.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4,5,6-$^{13}C_6$)
LAST TESTED: (mm/dd/yyyy)	05/31/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/31/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 06/13/2016 (mm/dd/yyyy)
B.G. Chittim

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J0526

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

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UNCERTAINTY:

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

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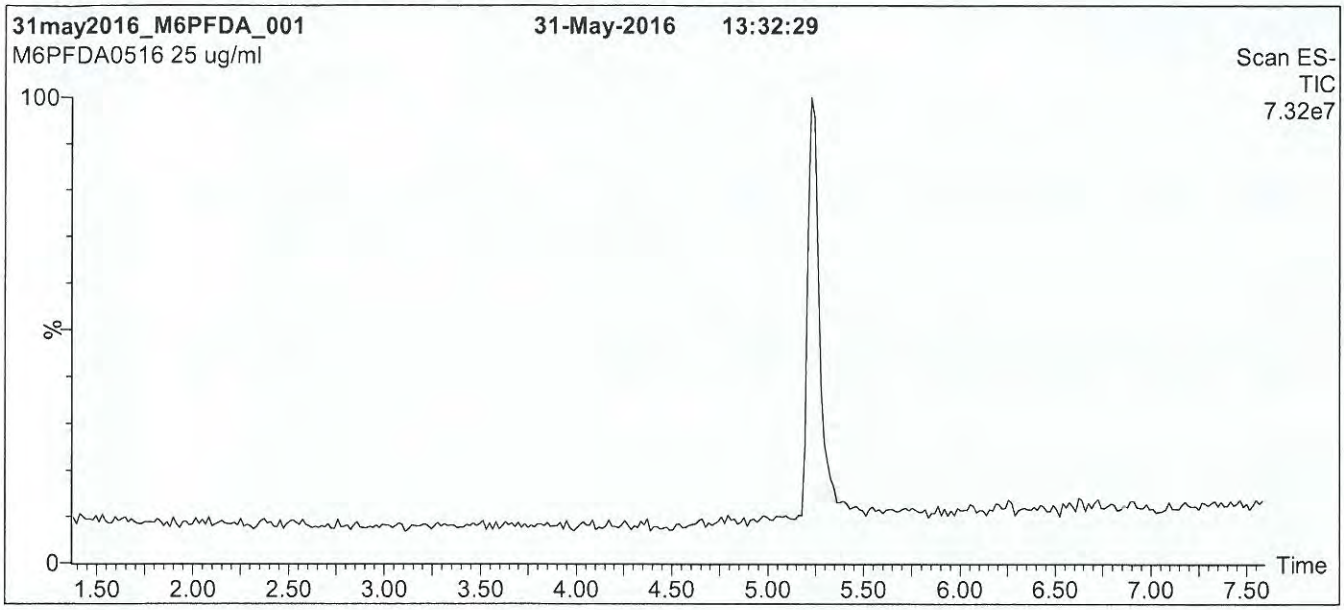
CALA Testing Accreditation No. A 1226

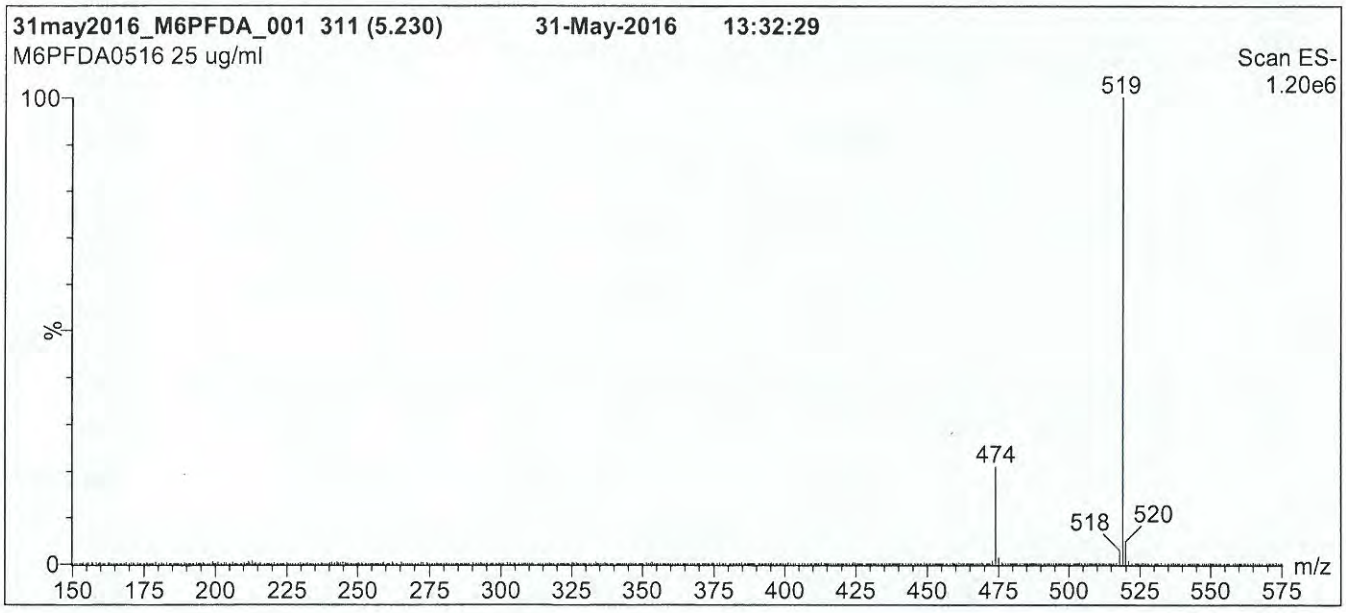
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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17J0526

Figure 1: **M6PFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

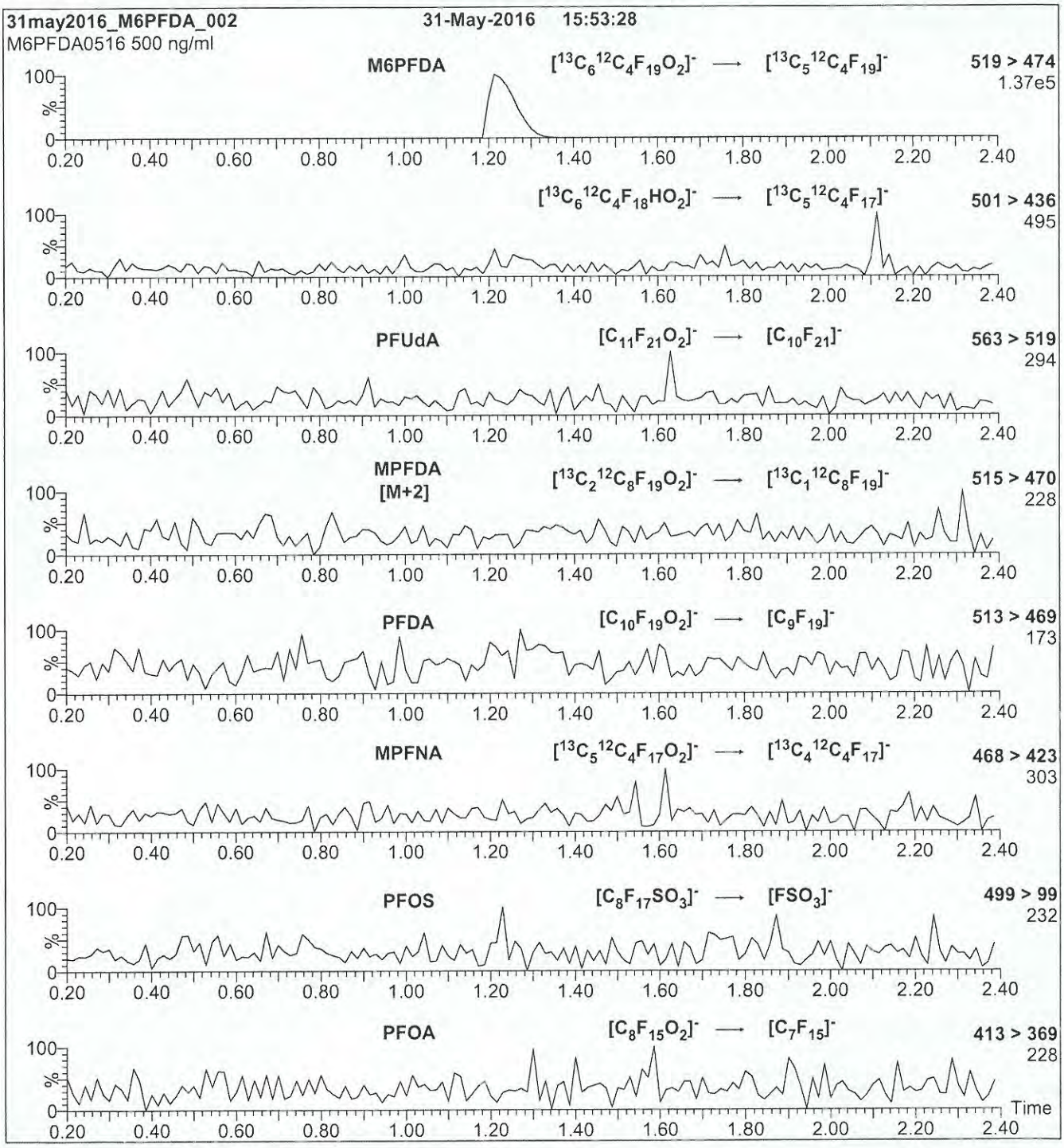
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17J0526

Figure 2: **M6PFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M6PFDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

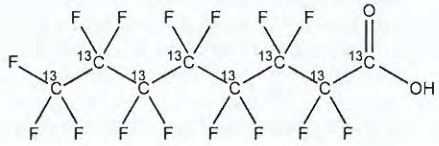
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 13

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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M8PFOA	**LOT NUMBER:**	M8PFOA0717
COMPOUND:	Perfluoro-n-[$^{13}C_8$]octanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_8HF_{15}O_2$	**MOLECULAR WEIGHT:**	422.01
CONCENTRATION:	49 ± 2.45 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	97.9% (M8PFOA) 2.1% (MPFOA [M+4])	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	07/05/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/05/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of native perfluoro-n-octanoic acid (PFOA) and ~ 2.1% of [M+4] perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/14/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J0527

INTENDED USE:

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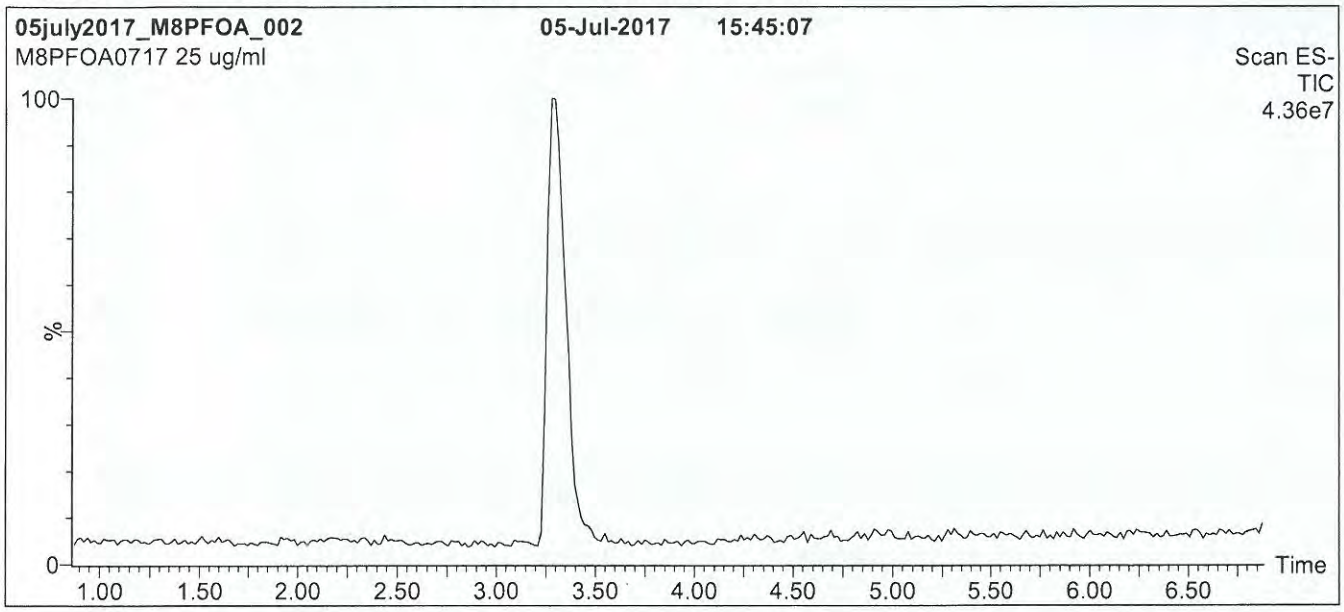
CALA

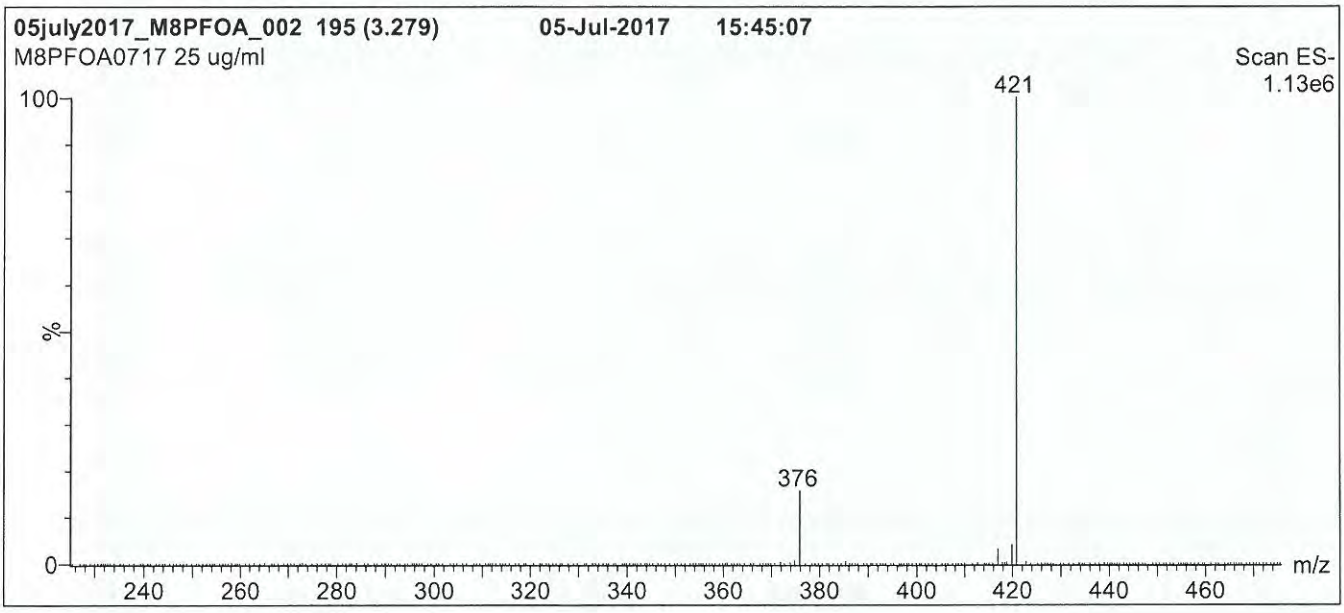
ANAB ACCREDITED

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17J0527

Figure 1: **M8PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

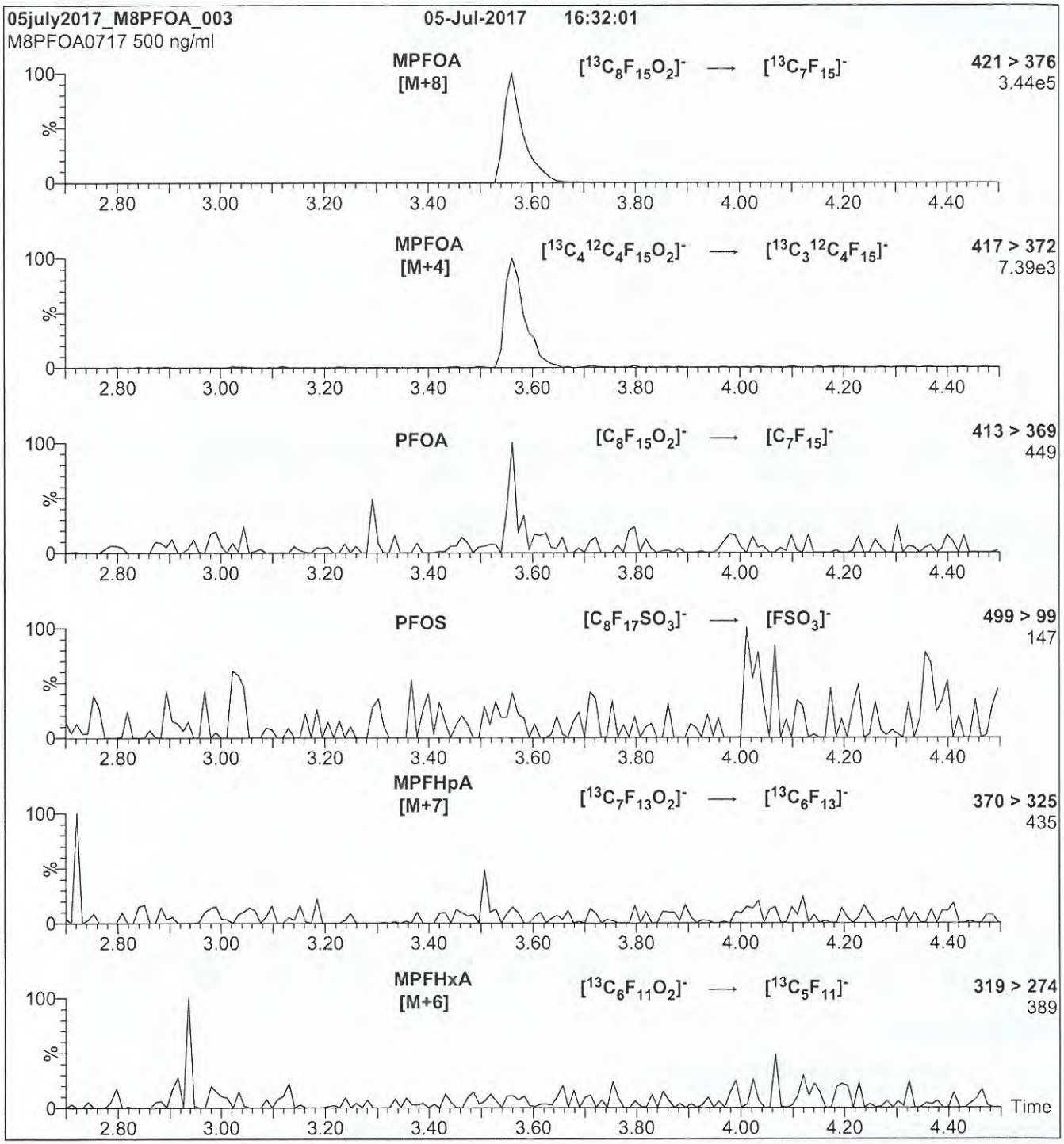
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17J0527

Figure 2: **M8PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M8PFOA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

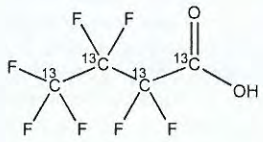
Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 10

17J1018

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFBA	**LOT NUMBER:**	MPFBA0417
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_4HF_7O_2$	**MOLECULAR WEIGHT:**	218.01
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4$-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	04/12/2017		
EXPIRY DATE: (mm/dd/yyyy)	04/12/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/20/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1018

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HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

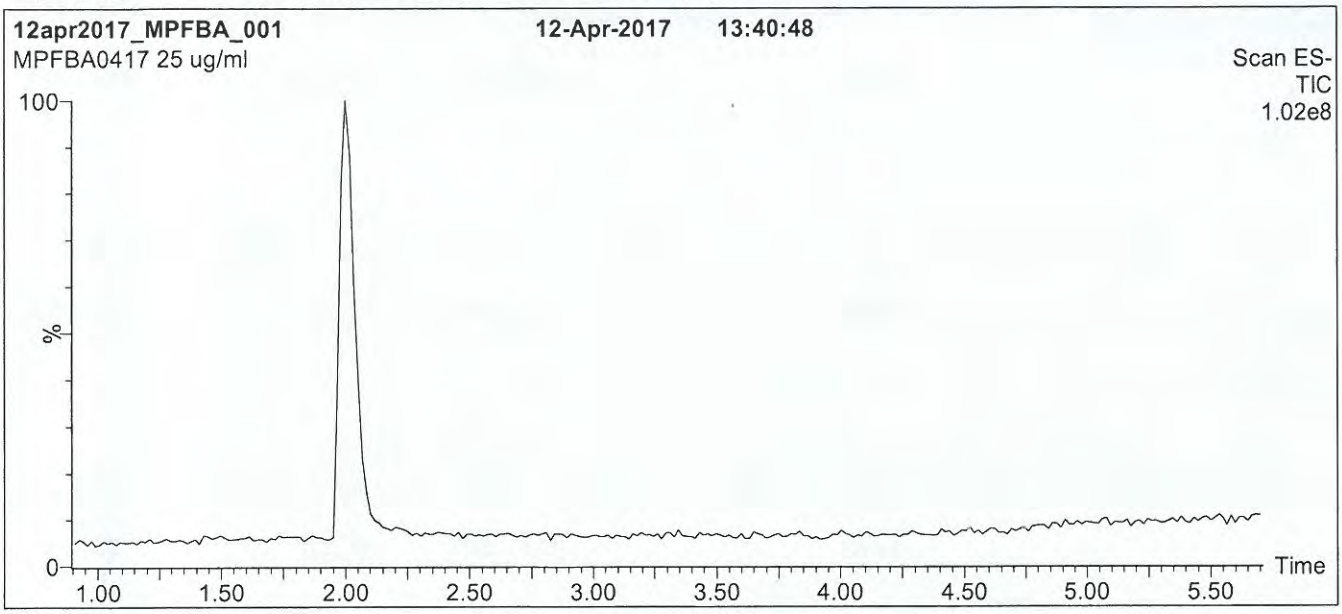
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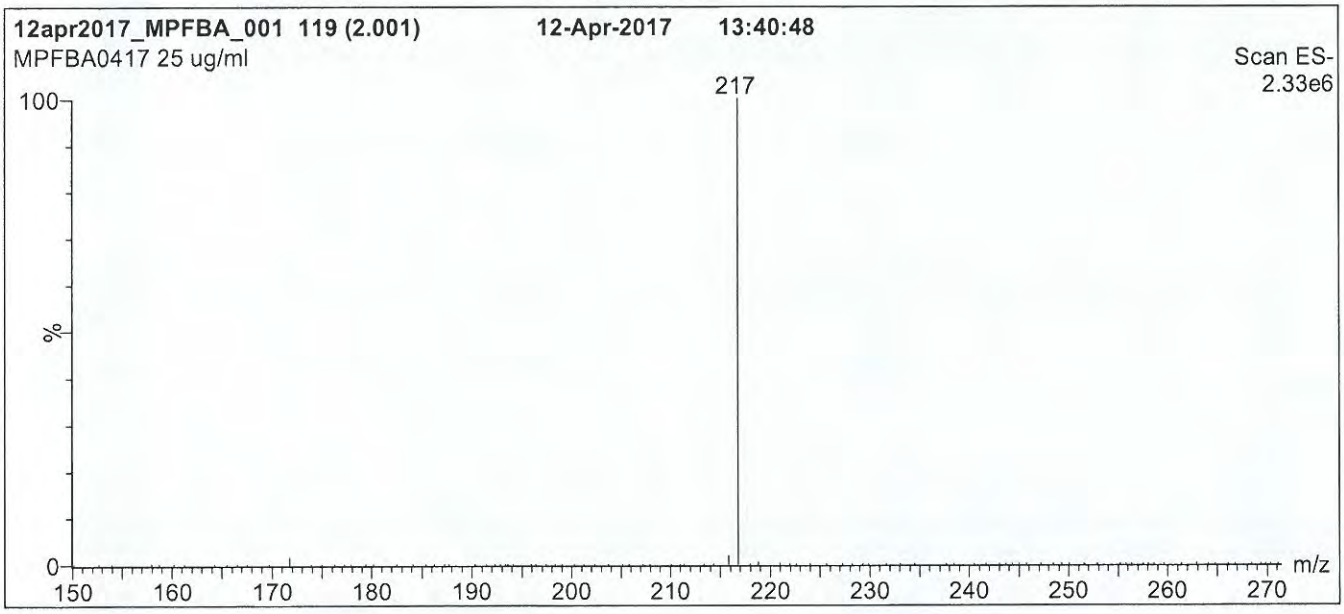
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17J1018

Figure 1: **MPFBA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

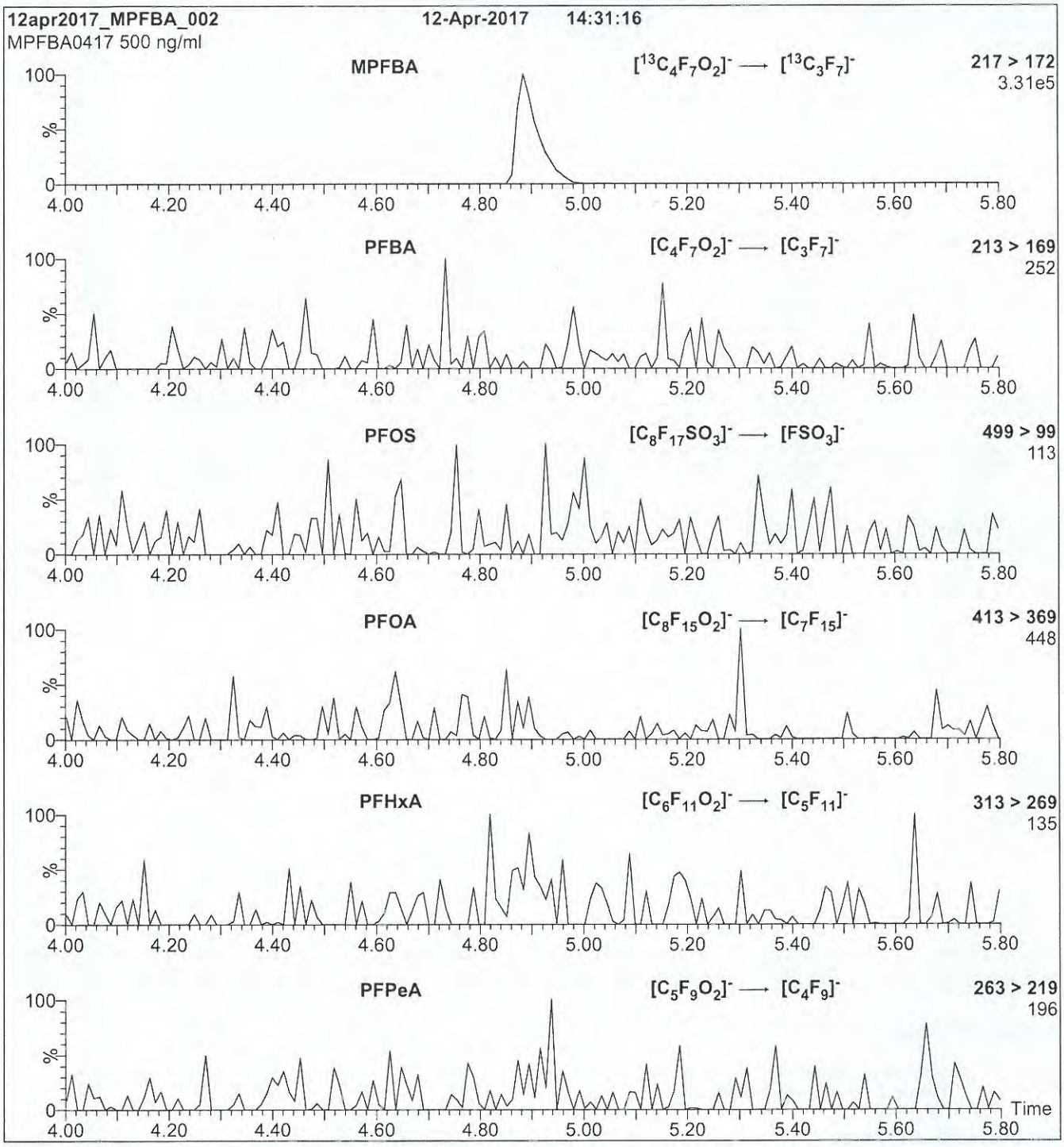
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17J1018

Figure 2: **MPFBA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFBA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 10

17J1019

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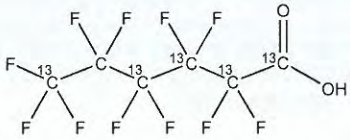
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M5PFHxA
COMPOUND: Perfluoro-n-[1,2,3,4,6-$^{13}C_5$]hexanoic acid

LOT NUMBER: M5PFHxA0814

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_5{}^{12}C_1HF_{11}O_2$	**MOLECULAR WEIGHT:**	319.02
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4,6\text{-}^{13}C_5$)
LAST TESTED: (mm/dd/yyyy)	08/27/2014		
EXPIRY DATE: (mm/dd/yyyy)	08/27/2019		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 03/31/2015 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1019

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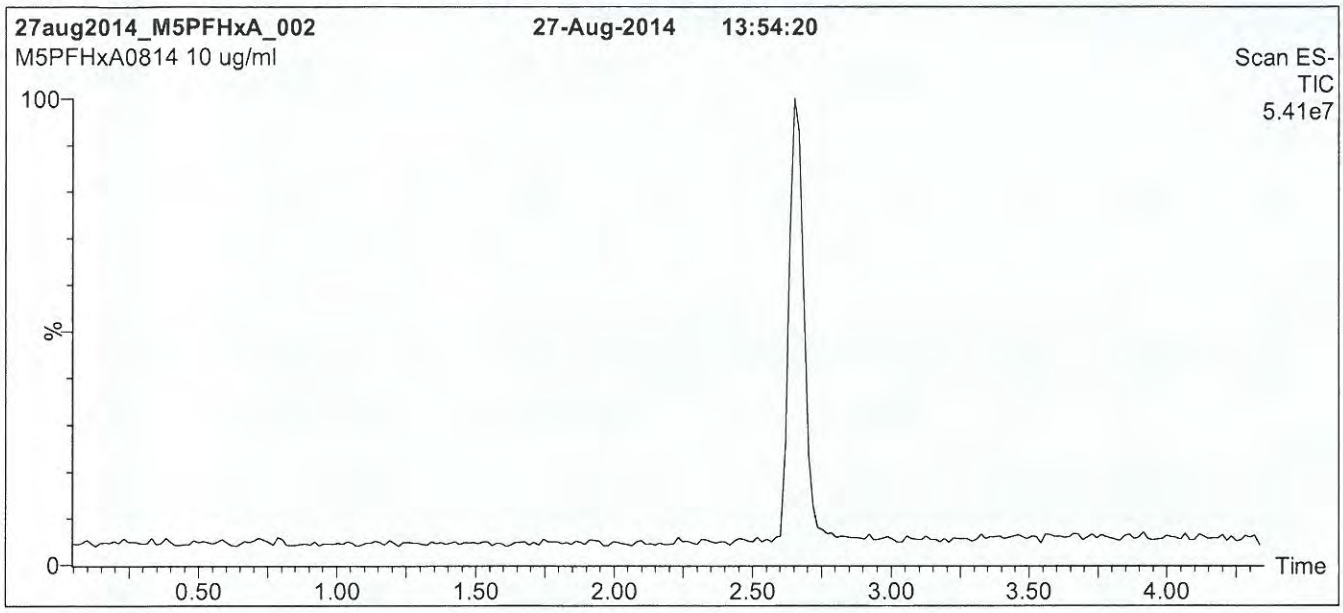
CALA Testing Accreditation No. A 1226

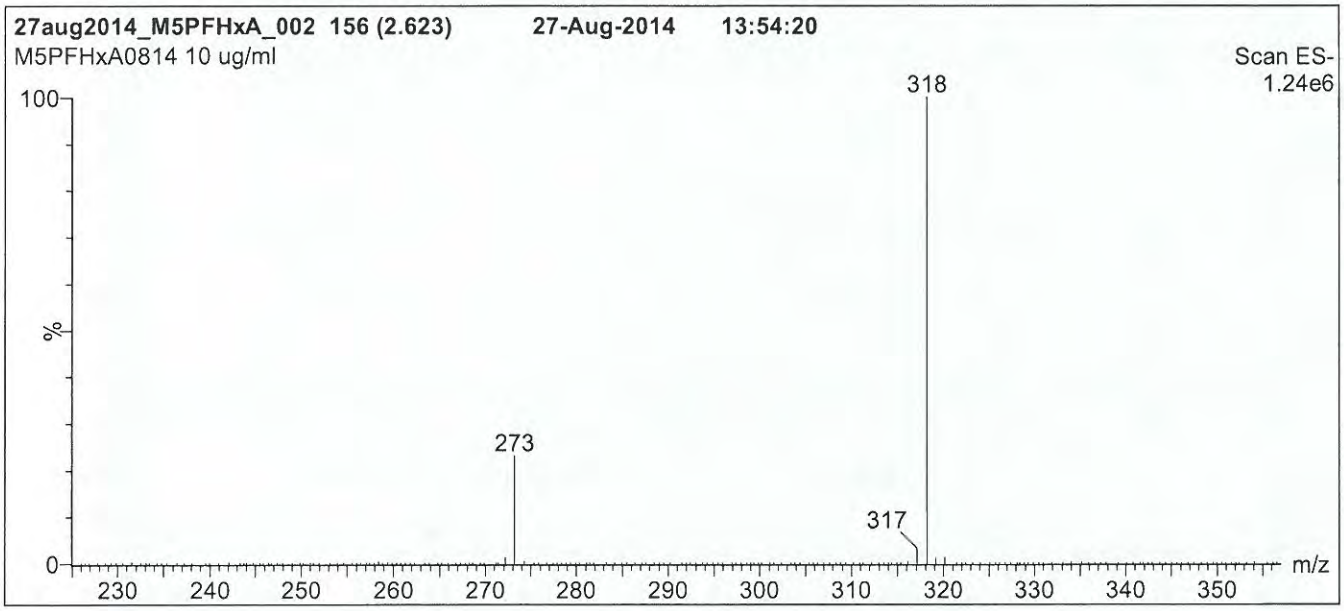
ANAB ACCREDITED Reference Material Producer

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17J1019

Figure 1: **M5PFHxA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

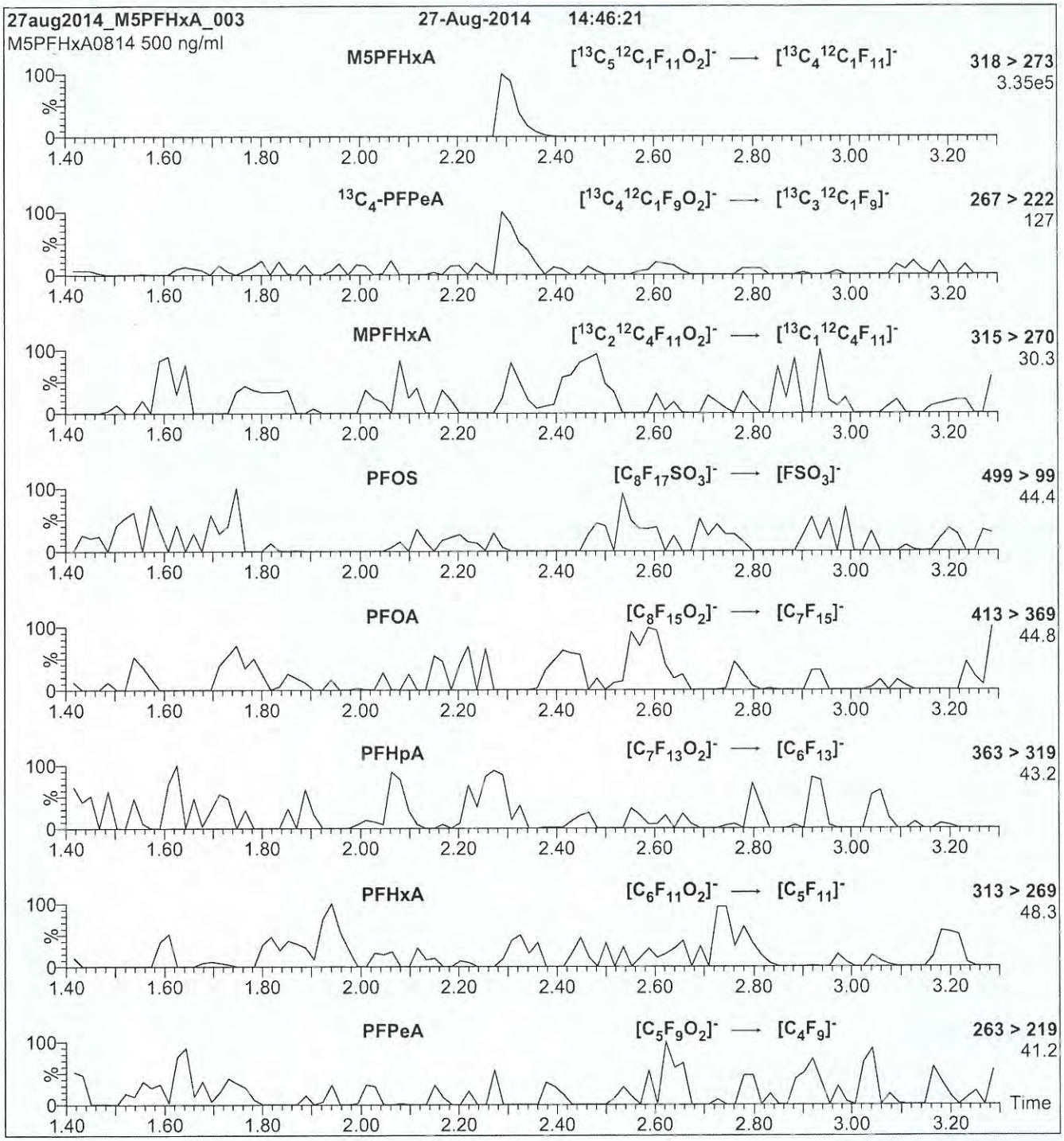
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

175 1019

Figure 2: **M5PFHxA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M5PFHxA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.54e-3
Collision Energy (eV) = 10

17J1020

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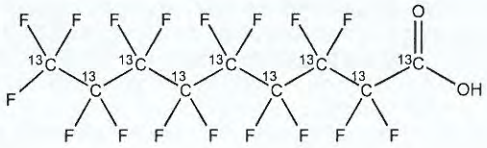
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M9PFNA
COMPOUND: Perfluoro-n-[$^{13}C_9$]nonanoic acid

LOT NUMBER: M9PFNA0517

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_9HF_{17}O_2$	**MOLECULAR WEIGHT:**	473.01
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_9$)
LAST TESTED: (mm/dd/yyyy)	05/23/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/23/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.9% of $^{13}C_5{}^{12}C_4HF_{17}O_2$ (MPFNA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/25/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1020

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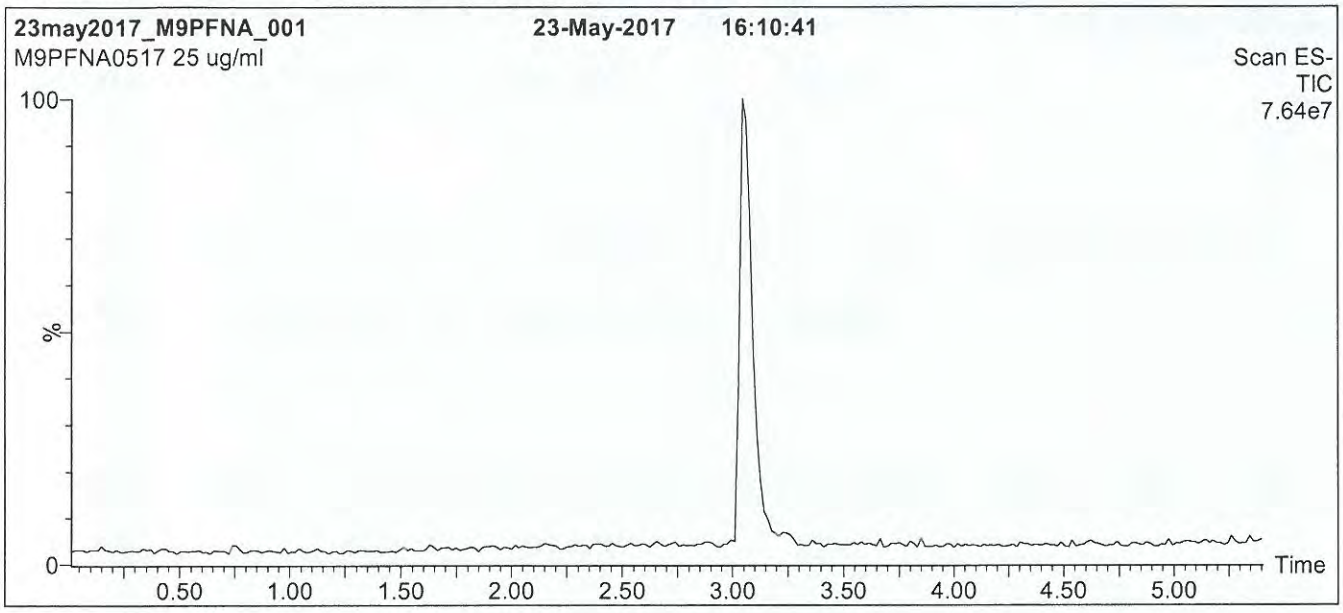
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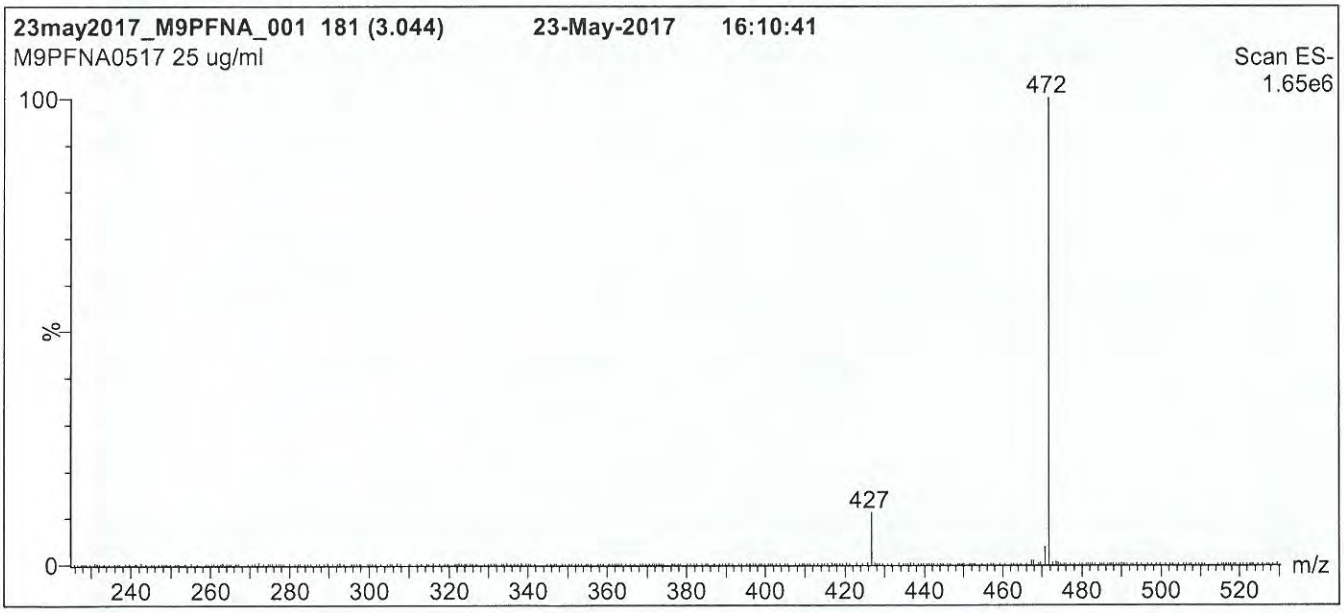
ANAB ACCREDITED

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17J1020

Figure 1: **M9PFNA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

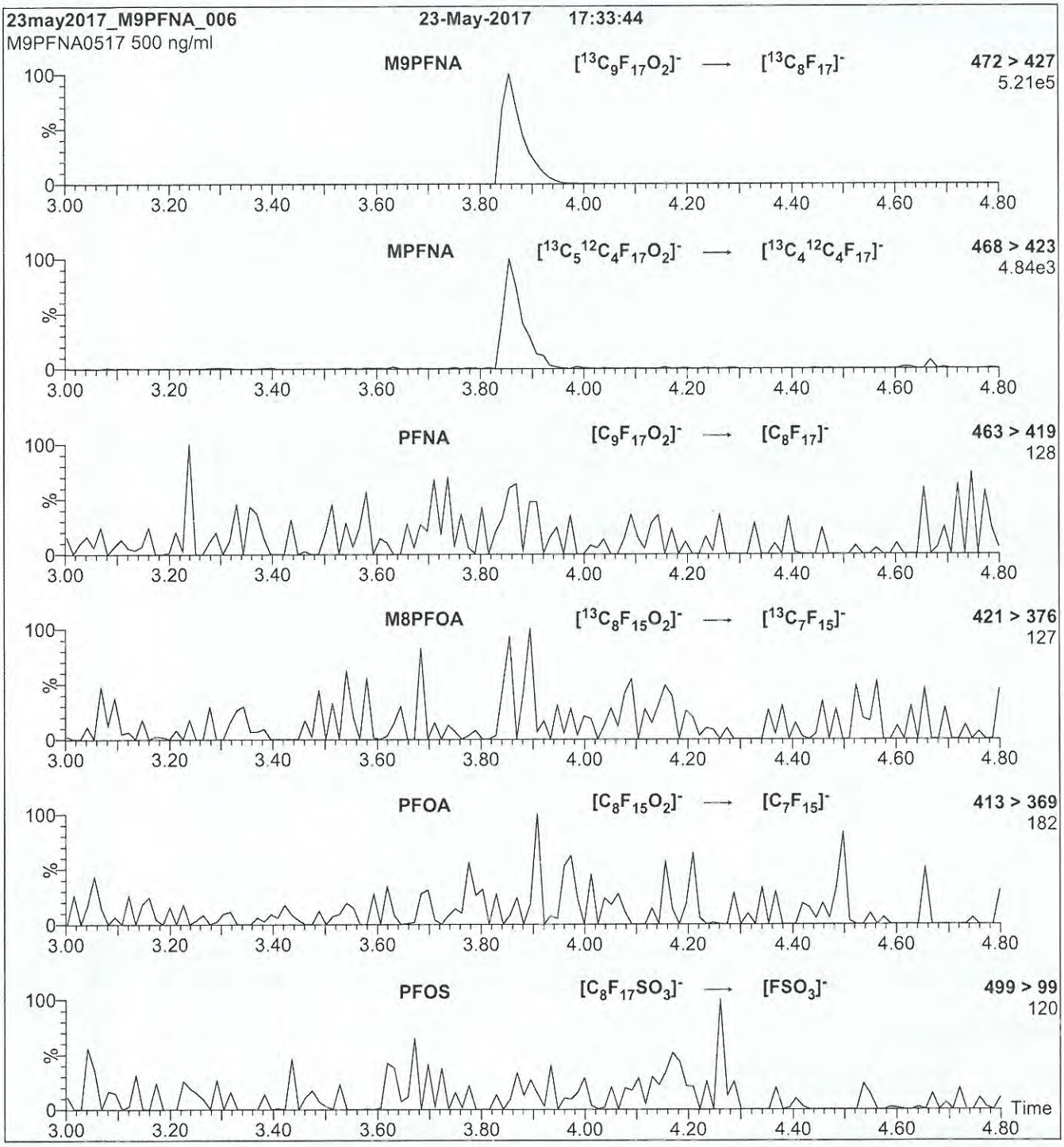
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17J1020

Figure 2: **M9PFNA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M9PFNA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

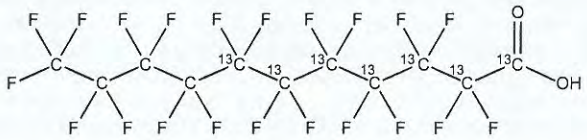
Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 11

17J1021

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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M7PFUdA	**LOT NUMBER:**	M7PFUdA0717
COMPOUND:	Perfluoro-n-[1,2,3,4,5,6,7-$^{13}C_7$]undecanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_7{}^{12}C_4HF_{21}O_2$	**MOLECULAR WEIGHT:**	571.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C
LAST TESTED: (mm/dd/yyyy)	07/13/2017		(1,2,3,4,5,6,7-$^{13}C_7$)
EXPIRY DATE: (mm/dd/yyyy)	07/13/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/14/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1021

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All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

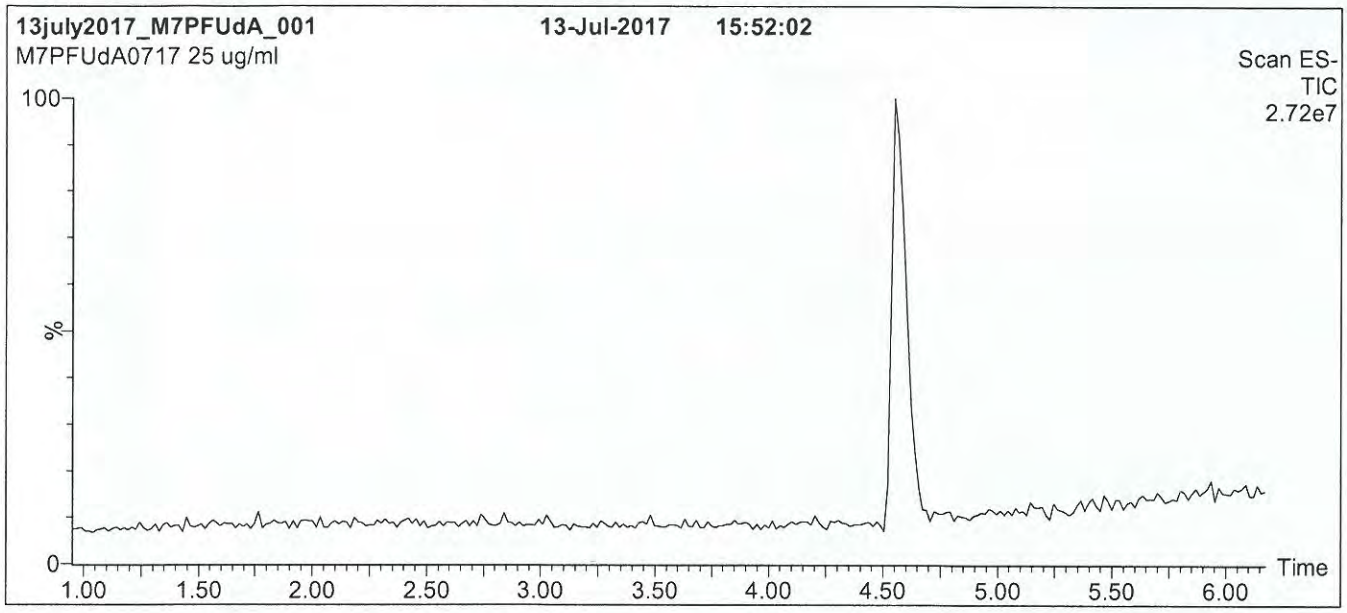
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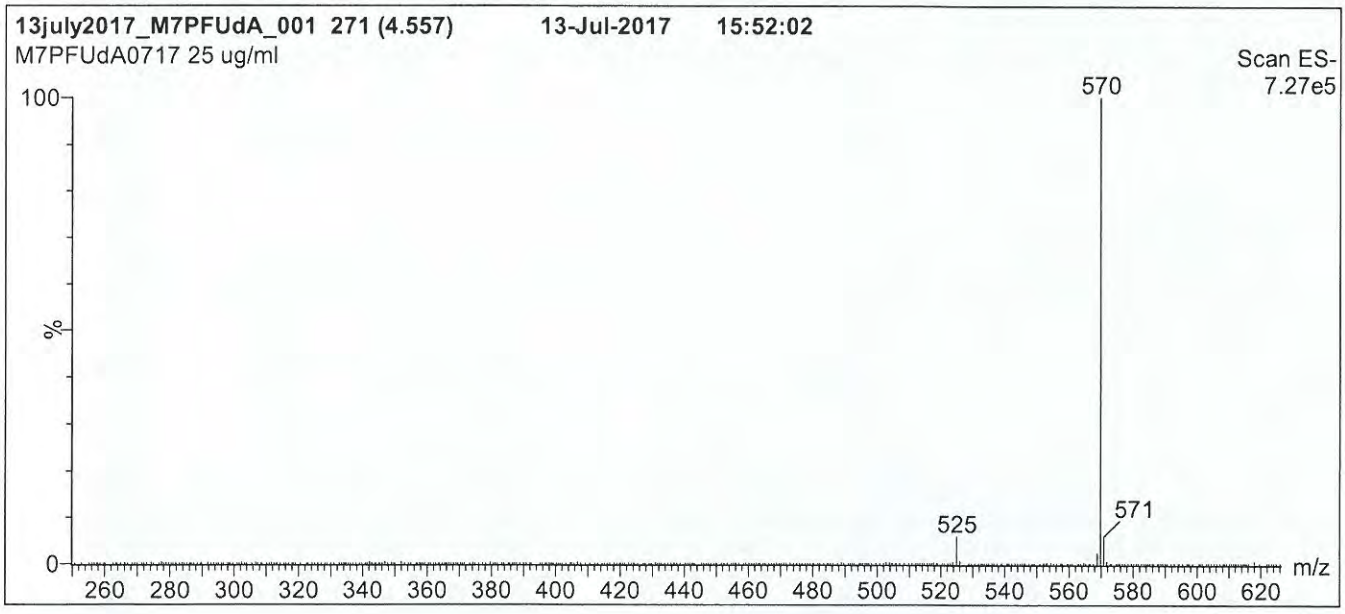
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17J1021

Figure 1: **M7PFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

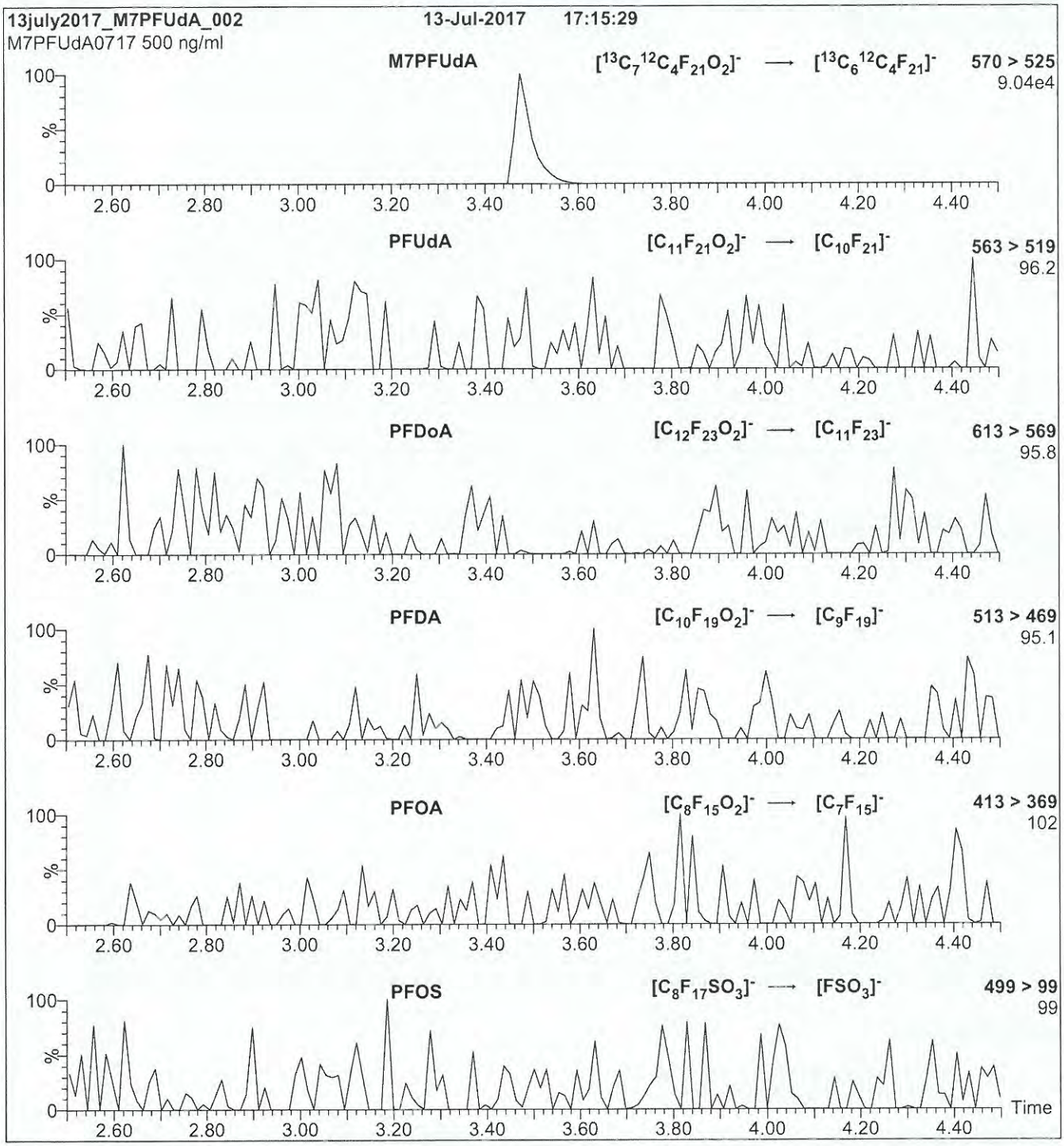
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 65
Desolvation Gas Flow (l/hr) = 750

17J1021

Figure 2: **M7PFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M7PFUdA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

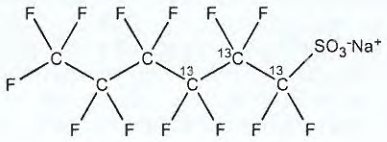
Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 11

17J1022

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M3PFHxS	**LOT NUMBER:**	M3PFHxS0717
COMPOUND:	Sodium perfluoro-1-[1,2,3-$^{13}C_3$]hexanesulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}C_3F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	425.07
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.3 ± 2.4 µg/ml (M3PFHxS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3\text{-}^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	07/05/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/05/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/14/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1022

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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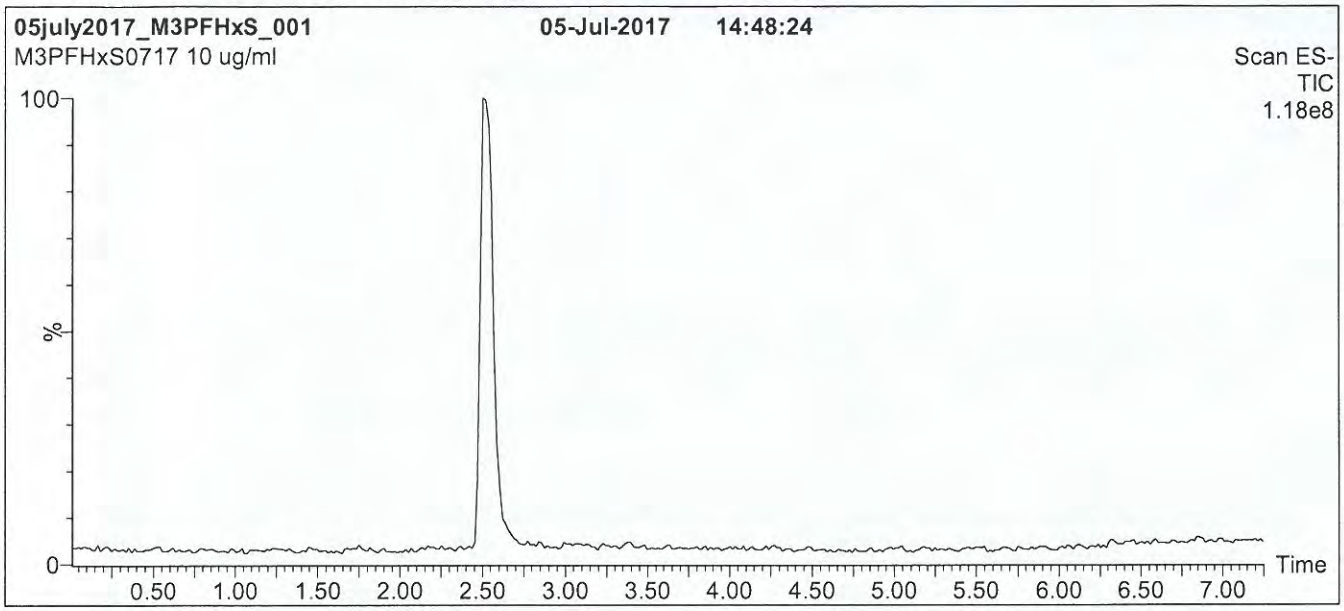
CALA

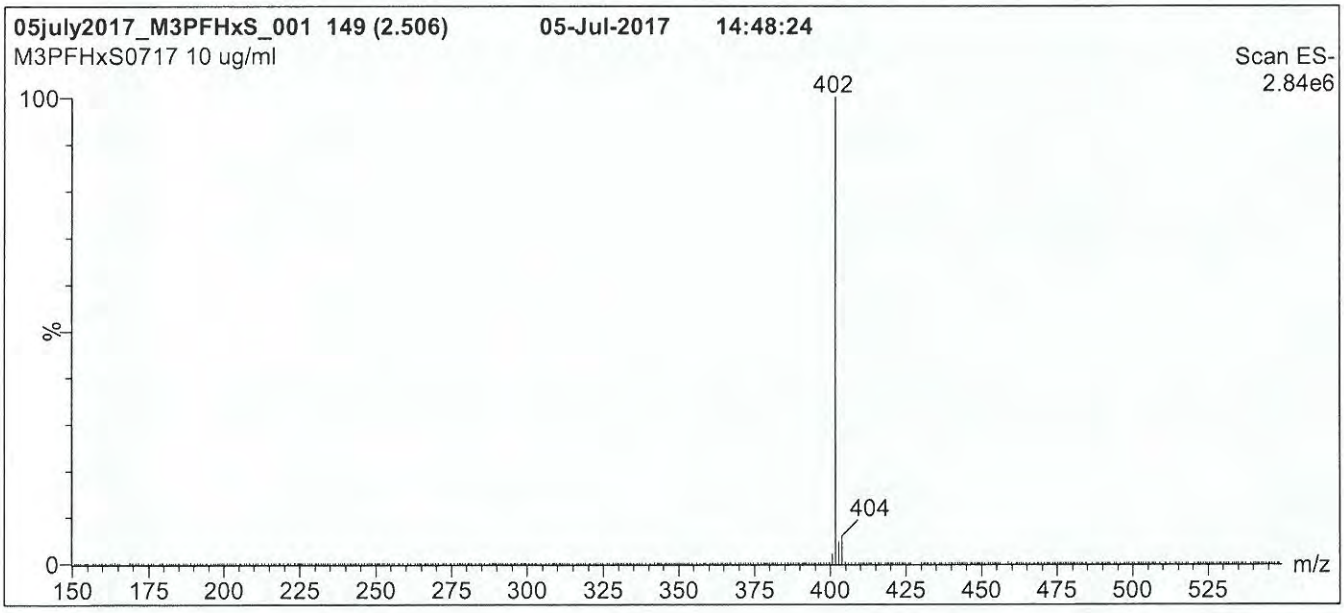
ANAB ACCREDITED

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17J1022

Figure 1: **M3PFHxS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

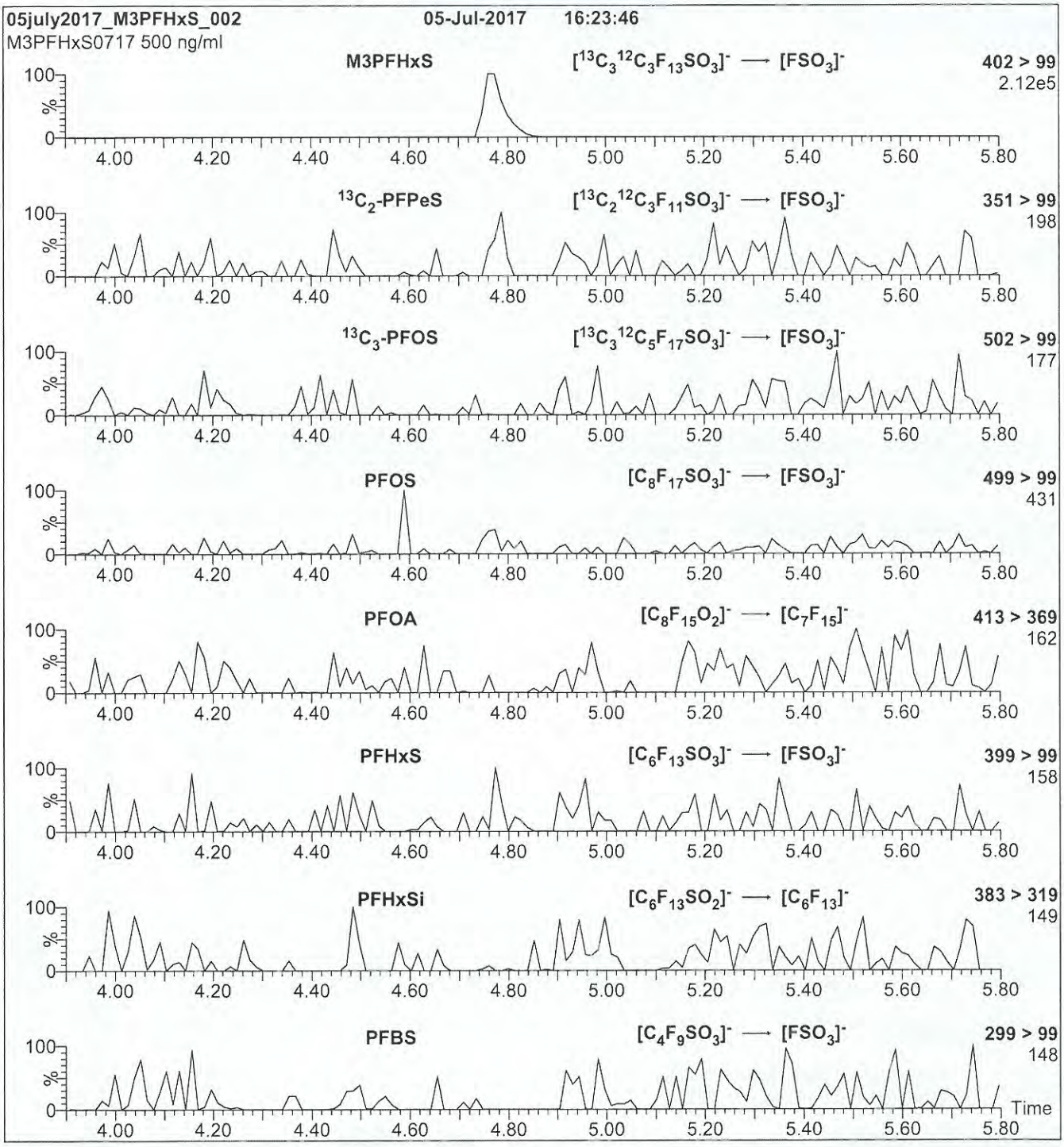
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17J1022

Figure 2: **M3PFHxS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M3PFHxS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

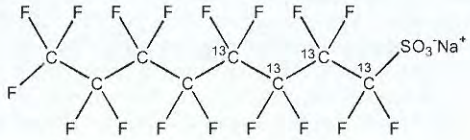
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 30

1701023

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFOS	**LOT NUMBER:**	MPFOS0517
COMPOUND:	Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	526.08
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.8 ± 2.4 µg/ml (MPFOS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C
LAST TESTED: (mm/dd/yyyy)	05/19/2017		(1,2,3,4-$^{13}C_4$)
EXPIRY DATE: (mm/dd/yyyy)	05/19/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.8% Sodium perfluoro-1-[1,2,3-$^{13}C_3$]heptanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/30/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1023

INTENDED USE:

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EXPIRY DATE / PERIOD OF VALIDITY:

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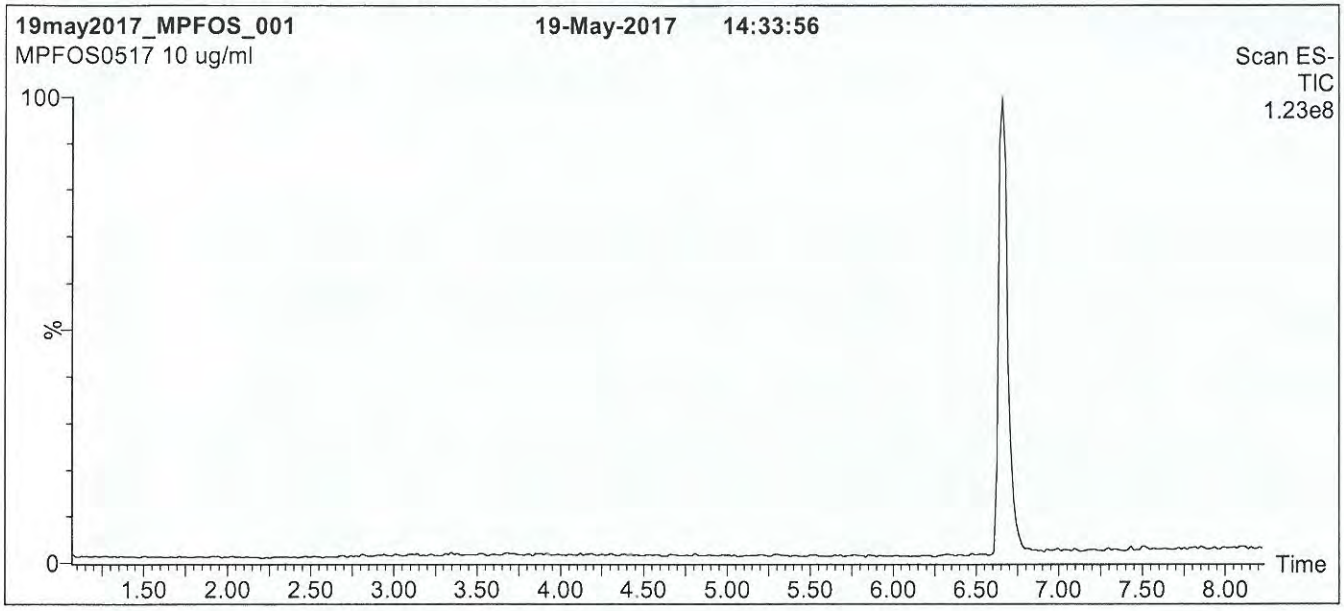
CALA

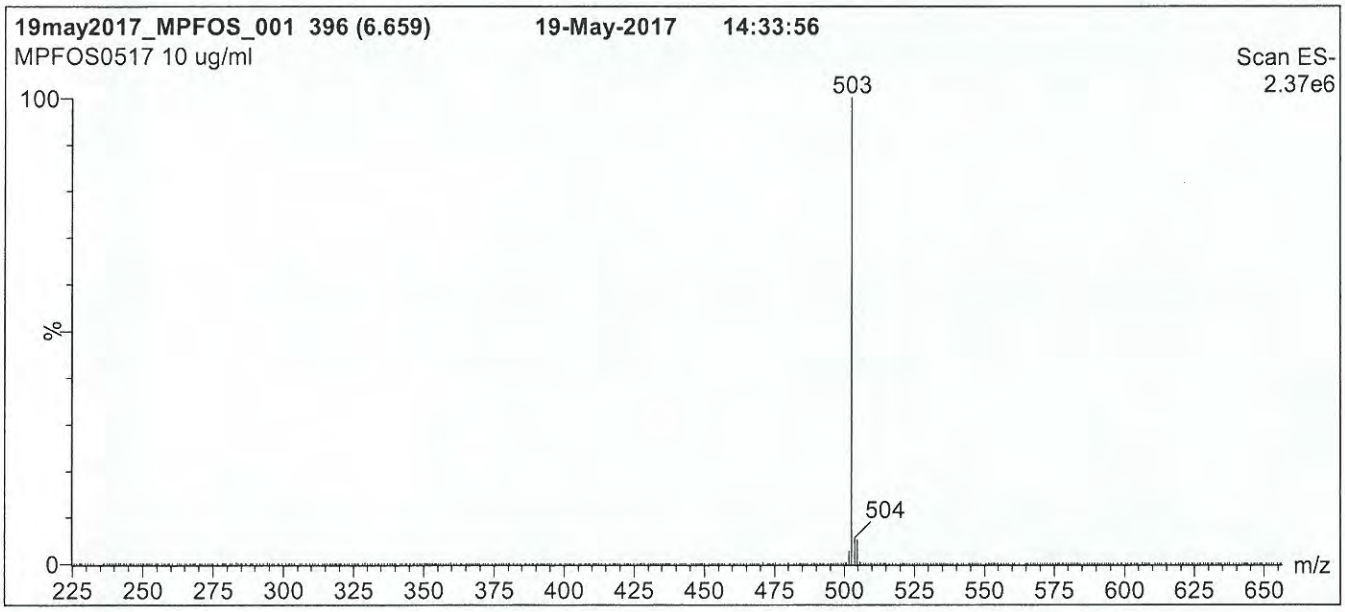
ANAB ACCREDITED

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17J1023

Figure 1: **MPFOS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 1 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

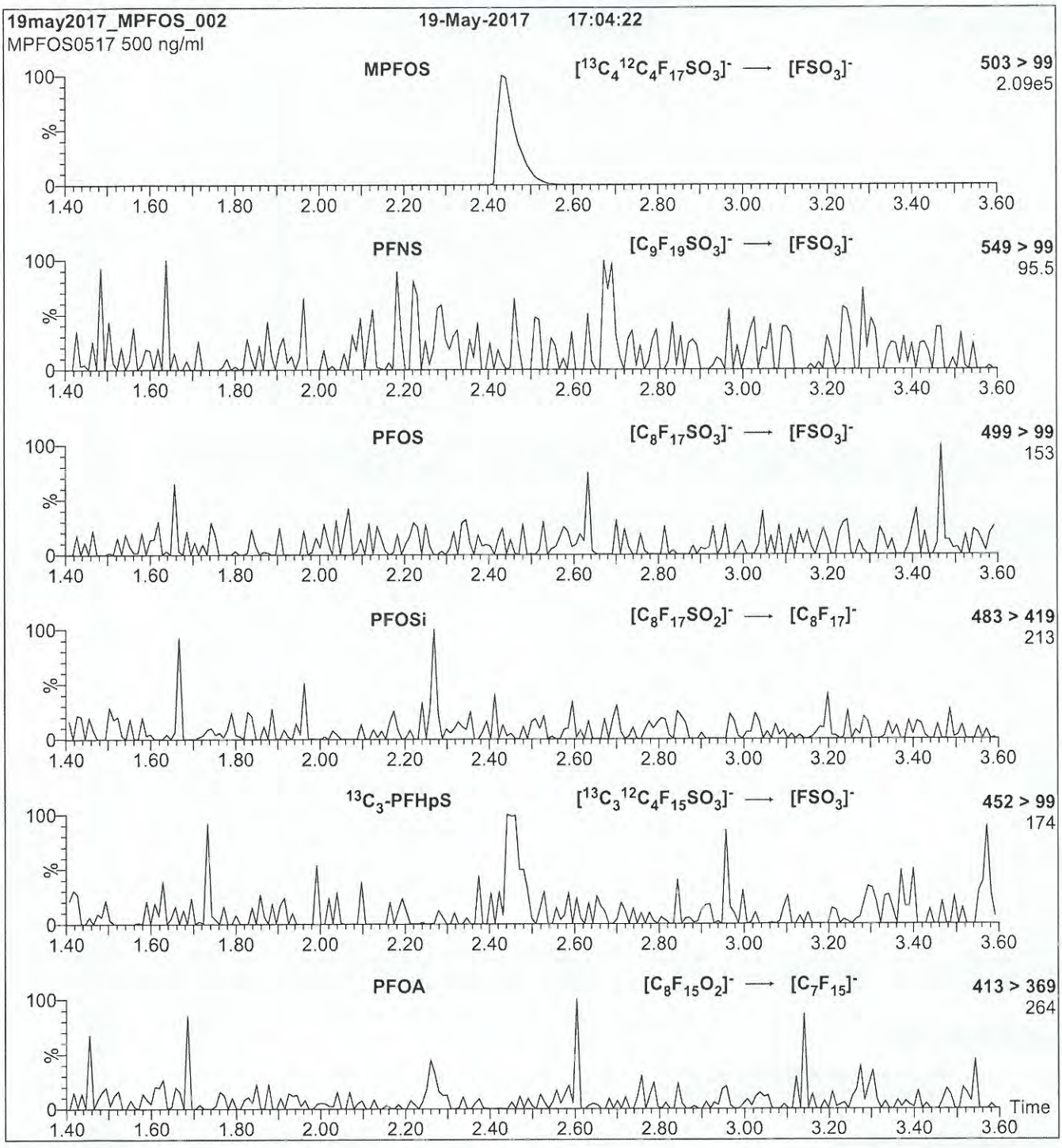
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17J1023

Figure 2: **MPFOS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFOS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 40

17J1024

WELLINGTON LABORATORIES

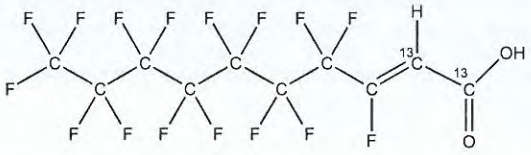
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MFOUEA
COMPOUND: 2H-Perfluoro-[1,2-$^{13}C_2$]-2-decenoic acid

LOT NUMBER: MFOUEA0716

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_2F_{16}O_2$	**MOLECULAR WEIGHT:**	460.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Anhydrous Isopropanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	08/02/2016		
EXPIRY DATE: (mm/dd/yyyy)	08/02/2018		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Dilution of this standard in methanol may lead to the formation of 2H-3-methoxy-perfluoro-[1,2-$^{13}C_2$]-2-decenoic acid. This reaction can be catalyzed by the presence of acid or base. All dilutions should be routinely checked for degradation.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 08/19/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1024

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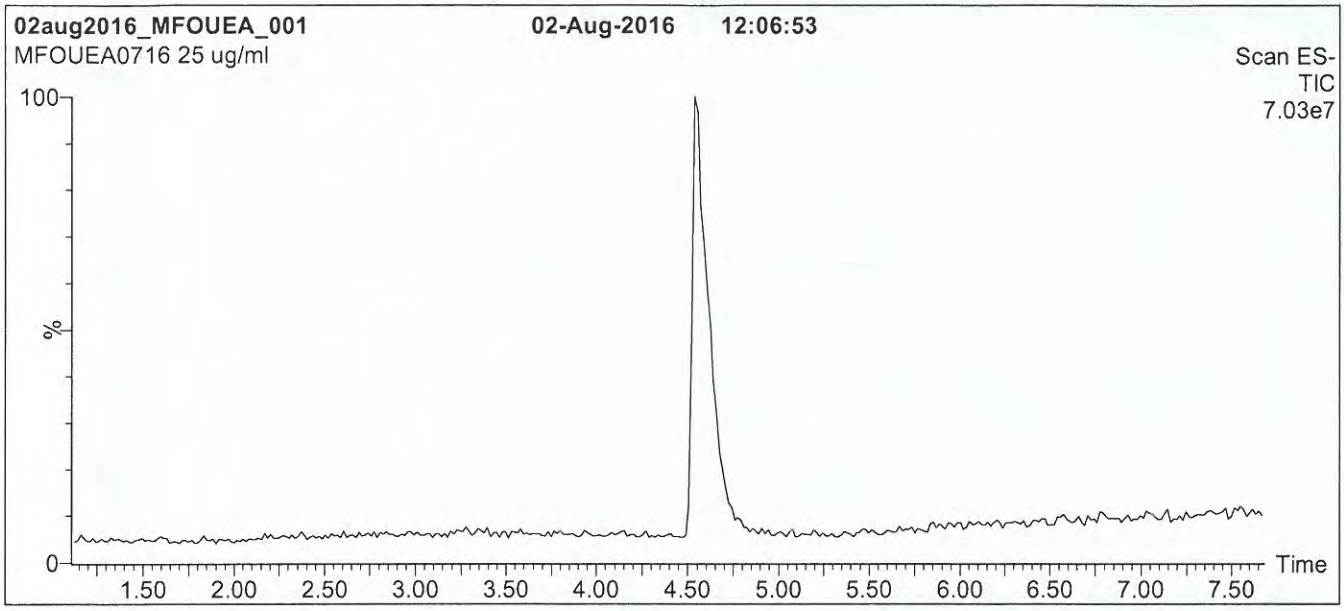
CALA Testing Accreditation No. A 1226

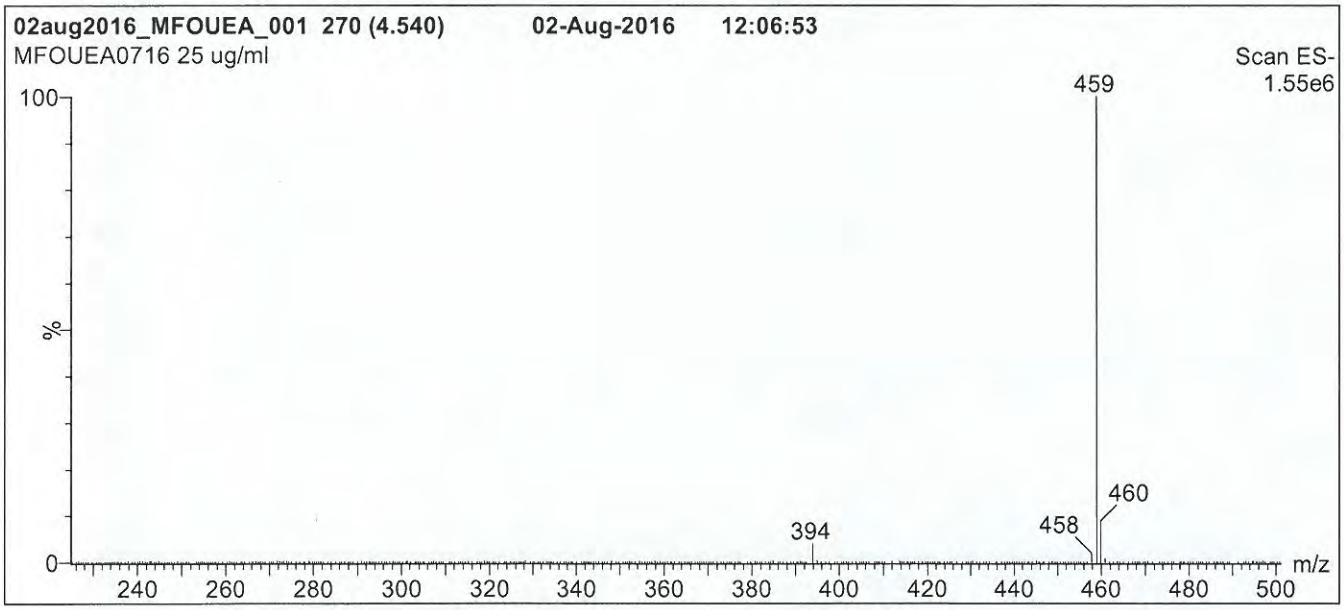
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Figure 1: **MFOUEA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold
for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

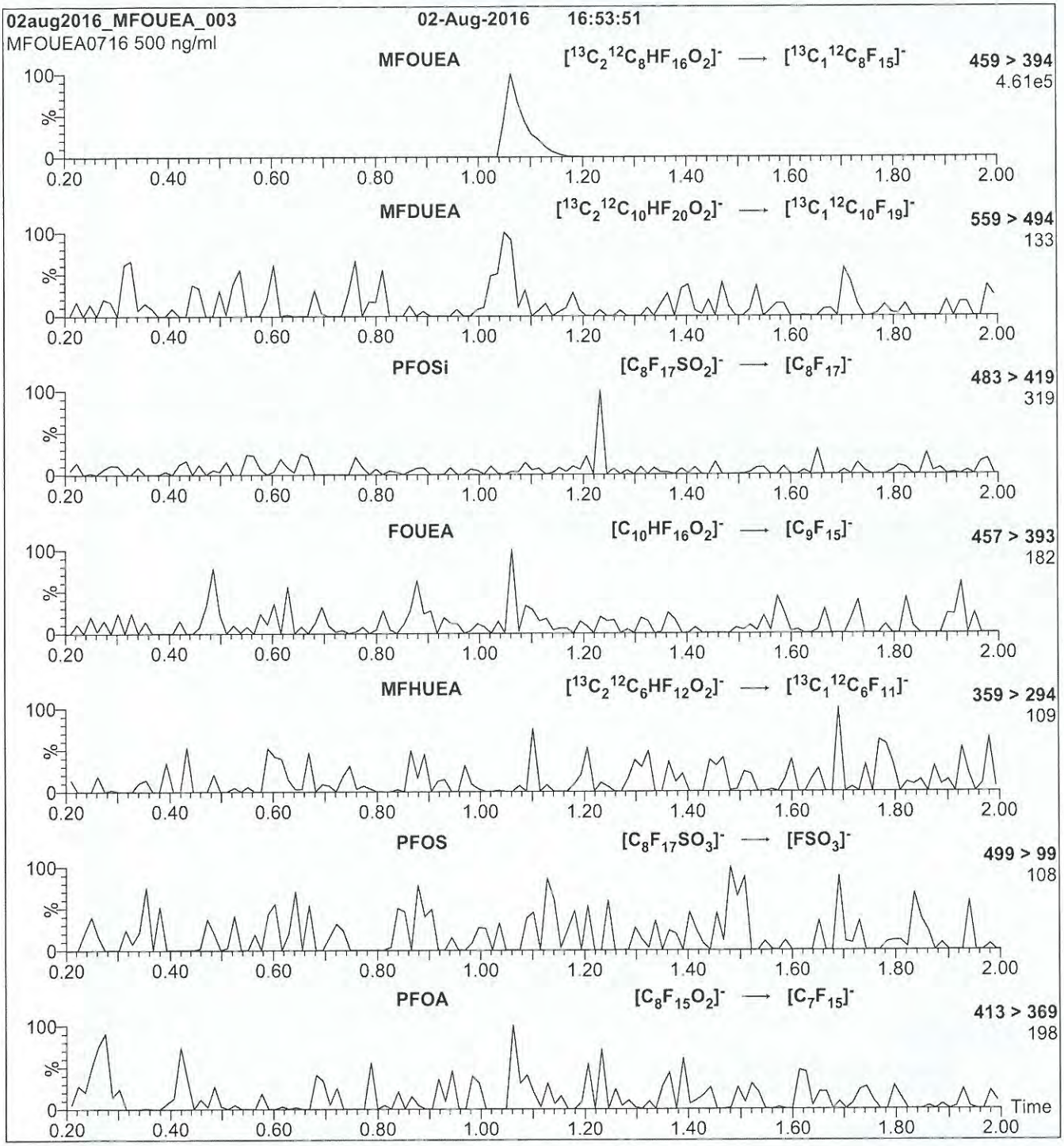
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 14.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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Figure 2: **MFOUEA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MFOUEA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 21