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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 1701802

Naval Weapons Industrial Reserve Plant Calverton
Riverhead, New York

August 2019

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

January 18, 2018

Vista Work Order No. 1701802

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 November 29, 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,

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.

SDG Number WE05
Vista Work Order No. 1701802
Case Narrative

Sample Condition on Receipt:

Eight groundwater samples and one QC Water sample were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology.

Analytical Notes:

Modified EPA Method 537

The following samples contained particulate and were centrifuged prior to extraction:

Laboratory ID	Sample Name
1701802-01	FC-MW02SR1-NP-20171128
1701802-02	FC-MW02SR1-P1-20171128
1701802-03	FC-MW02SR1-P2-20171128
1701802-04	FC-MW02SR1-P3-20171128
1701802-06	FC-MW02IR1-NP-20171128

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. The LCS was mis-spiked in the original extraction and the samples were re-extracted. The second extractions were performed outside of the hold time.

The following narrative describes the Quality Control associated with the re-extractions. As requested, the original data are also included in the report.

Quality Control

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

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 of the LOQ concentrations. The LCS/LCSD recoveries were within the acceptance criteria.

The extracts were re-injected because one or more Injection Internal Standard Analyte response areas were outside of criteria. The results were similar in the second injections. The results from the re-injections have been reported.

The labeled standard recoveries outside the acceptance criteria are listed in the table below.

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
1701802-04	FC-MW02SR1-P3-20171128	Modified EPA Method 537	13C2-PFTeDA	H	153
1701802-06	FC-MW02IR1-NP-20171128	Modified EPA Method 537	d5-EtFOSAA	H	154
1701802-07	FC-MW02IR1-P1-20171128	Modified EPA Method 537	13C2-PFTeDA	H	163
1701802-08	FC-MW02IR1-P2-20171128	Modified EPA Method 537	13C2-PFTeDA	H	157
1701802-09	FC-MW02IR1-P3-20171128	Modified EPA Method 537	13C2-PFDA	H	161
1701802-09	FC-MW02IR1-P3-20171128	Modified EPA Method 537	13C2-PFTeDA	H	157
B7L0125-BLK1	B7L0125-BLK1	Modified EPA Method 537	13C2-PFDA	H	161

H = Recovery was outside laboratory acceptance criteria.

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 Martha Maier for, 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: Martha Maier Title: Laboratory Director Date: 1/19/16

Revision 9
ISG
08/18/16

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1701802-01	FC-MW02SR1-NP-20171128	28-Nov-17 08:03	29-Nov-17 09:37	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701802-02	FC-MW02SR1-P1-20171128	28-Nov-17 08:40	29-Nov-17 09:37	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701802-03	FC-MW02SR1-P2-20171128	28-Nov-17 08:54	29-Nov-17 09:37	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701802-04	FC-MW02SR1-P3-20171128	28-Nov-17 09:10	29-Nov-17 09:37	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701802-05	FC-MW02SR1-FRB-20171128	28-Nov-17 09:00	29-Nov-17 09:37	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701802-06	FC-MW02IR1-NP-20171128	28-Nov-17 09:50	29-Nov-17 09:37	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701802-07	FC-MW02IR1-P1-20171128	28-Nov-17 10:17	29-Nov-17 09:37	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701802-08	FC-MW02IR1-P2-20171128	28-Nov-17 10:45	29-Nov-17 09:37	HDPE Bottle, 250 mL
				HDPE Bottle, 250 mL
1701802-09	FC-MW02IR1-P3-20171128	28-Nov-17 10:57	29-Nov-17 09:37	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: B7L0125-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		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
PFHxA	ND	1.09	2.50	4.00		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
PFHpA	ND	0.296	2.50	4.00		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
PFHxS	ND	0.474	2.50	4.00		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
PFOA	ND	0.326	2.50	4.00		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
PFOS	ND	0.404	2.50	4.00		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
PFNA	ND	0.405	2.50	4.00		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
PFDA	ND	0.745	2.50	4.00		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
MeFOSAA	ND	0.825	2.50	4.00		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
PFUnA	ND	0.525	2.50	4.00		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
EtFOSAA	ND	0.685	2.50	4.00		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
PFDoA	ND	0.396	2.50	4.00		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
PFTrDA	ND	0.247	2.50	4.00		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
PFTeDA	ND	0.378	2.50	4.00		B7L0125	18-Dec-17	0.250 L	29-Dec-17 16:43	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	137	50 - 150		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
13C2-PFHxA	IS	121	50 - 150		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
13C4-PFHpA	IS	126	50 - 150		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
18O2-PFHxS	IS	126	50 - 150		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
13C2-PFOA	IS	109	50 - 150		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
13C8-PFOS	IS	125	50 - 150		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
13C5-PFNA	IS	117	50 - 150		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
13C2-PFDA	IS	161	50 - 150	H	B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
d3-MeFOSAA	IS	141	50 - 150		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
13C2-PFUnA	IS	102	50 - 150		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
d5-EtFOSAA	IS	150	50 - 150		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
13C2-PFDoA	IS	110	50 - 150		B7L0125	18-Dec-17	0.250 L	05-Jan-18 09:27	1
13C2-PFTeDA	IS	140	50 - 150		B7L0125	18-Dec-17	0.250 L	29-Dec-17 16:43	1

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

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

Name:	Tetra Tech	Lab Sample:	B7L0125-BS1/B7L0125-BSD1	Date Extracted:	18-Dec-17
Project:	112G08005-WE05	QC Batch:	B7L0125	Column:	BEH C18
Matrix:	Aqueous	Samp Size:	0.250/0.250 L		

Analyte	LCS (ng/L)	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBS	32.3	40.0	80.7		35.0	40.0	87.5	8.16		70-130		05-Jan-18 09:04	1	05-Jan-18 09:16	1
PFHxA	36.8	40.0	92.0		34.9	40.0	87.2	5.39		70-130		05-Jan-18 09:04	1	05-Jan-18 09:16	1
PFHpA	36.0	40.0	90.0		33.0	40.0	82.5	8.67		70-130		05-Jan-18 09:04	1	05-Jan-18 09:16	1
PFHxS	37.3	40.0	93.2		29.6	40.0	74.0	22.9		70-130		05-Jan-18 09:04	1	05-Jan-18 09:16	1
PFOA	33.9	40.0	84.7		30.0	40.0	75.0	12.2		70-130		05-Jan-18 09:04	1	05-Jan-18 09:16	1
PFOS	41.6	40.0	104		48.8	40.0	122	15.8		70-130		05-Jan-18 09:04	1	05-Jan-18 09:16	1
PFNA	29.4	40.0	73.5		31.0	40.0	77.5	5.31		70-130		05-Jan-18 09:04	1	05-Jan-18 09:16	1
PFDA	33.7	40.0	84.2		37.4	40.0	93.4	10.4		70-130		05-Jan-18 09:04	1	05-Jan-18 09:16	1
MeFOSAA	29.9	40.0	74.6		28.1	40.0	70.1	6.24		70-130		05-Jan-18 09:04	1	05-Jan-18 09:16	1
PFUnA	35.8	40.0	89.6		36.2	40.0	90.5	1.02		70-130		05-Jan-18 09:04	1	05-Jan-18 09:16	1
EtFOSAA	35.2	40.0	88.0		31.0	40.0	77.4	12.8		70-130		05-Jan-18 09:04	1	05-Jan-18 09:16	1
PFDoA	43.6	40.0	109		36.4	40.0	90.9	18.2		70-130		05-Jan-18 09:04	1	05-Jan-18 09:16	1
PFTrDA	39.1	40.0	97.6		25.6	40.0	64.1	41.5		60-130		05-Jan-18 09:04	1	05-Jan-18 09:16	1
PFTeDA	29.8	40.0	74.5		38.4	40.0	95.9	25.2		70-130		29-Dec-17 16:20	1	29-Dec-17 16:31	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBS	IS	122		139		50-150	05-Jan-18 09:04	1	05-Jan-18 09:16	1
13C2-PFHxA	IS	113		132		50-150	05-Jan-18 09:04	1	05-Jan-18 09:16	1
13C4-PFHpA	IS	95.5		134		50-150	05-Jan-18 09:04	1	05-Jan-18 09:16	1
18O2-PFHxS	IS	114		121		50-150	05-Jan-18 09:04	1	05-Jan-18 09:16	1
13C2-PFOA	IS	104		113		50-150	05-Jan-18 09:04	1	05-Jan-18 09:16	1
13C8-PFOS	IS	132		105		50-150	05-Jan-18 09:04	1	05-Jan-18 09:16	1
13C5-PFNA	IS	118		138		50-150	05-Jan-18 09:04	1	05-Jan-18 09:16	1
13C2-PFDA	IS	121		101		50-150	05-Jan-18 09:04	1	05-Jan-18 09:16	1
d3-MeFOSAA	IS	150		107		50-150	05-Jan-18 09:04	1	05-Jan-18 09:16	1
13C2-PFUnA	IS	118		87.3		50-150	05-Jan-18 09:04	1	05-Jan-18 09:16	1
d5-EtFOSAA	IS	128		113		50-150	05-Jan-18 09:04	1	05-Jan-18 09:16	1
13C2-PFDoA	IS	108		91.2		50-150	05-Jan-18 09:04	1	05-Jan-18 09:16	1
13C2-PFTeDA	IS	149		91.3		50-150	29-Dec-17 16:20	1	29-Dec-17 16:31	1

Sample ID: FC-MW02SR1-NP-20171128

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 08:03

Laboratory Data

Lab Sample: 1701802-01
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.90	0.835	2.33	3.73	J	B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
PFHxA	14.1	1.02	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
PFHpA	6.30	0.276	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
PFHxS	1.14	0.442	2.33	3.73	J	B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
PFOA	17.4	0.304	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
PFOS	6.38	0.376	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
PFNA	150	0.378	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
PFDA	44.8	0.695	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
MeFOSAA	ND	0.769	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
PFUnA	1340	2.45	11.7	18.6	D	B7L0125	18-Dec-17	0.268 L	12-Jan-18 07:22	5
EtFOSAA	ND	0.639	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
PFDoA	2.25	0.369	2.33	3.73	J	B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
PFTrDA	5.42	0.230	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
PFTeDA	ND	0.352	2.33	3.73		B7L0125	18-Dec-17	0.268 L	29-Dec-17 20:26	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	123	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
13C2-PFHxA	IS	117	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
13C4-PFHpA	IS	117	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
18O2-PFHxS	IS	124	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
13C2-PFOA	IS	96.8	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
13C8-PFOS	IS	145	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
13C5-PFNA	IS	122	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
13C2-PFDA	IS	138	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
d3-MeFOSAA	IS	138	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
13C2-PFUnA	IS	89.4	50 - 150	D	B7L0125	18-Dec-17	0.268 L	12-Jan-18 07:22	5
d5-EtFOSAA	IS	147	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
13C2-PFDoA	IS	131	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 09:42	1
13C2-PFTeDA	IS	150	50 - 150		B7L0125	18-Dec-17	0.268 L	29-Dec-17 20:26	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: FC-MW02SR1-P1-20171128 **Modified EPA Method 537**

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 08:40

Laboratory Data

Lab Sample: 1701802-02
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.15	0.852	2.38	3.81	J	B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
PFHxA	19.2	1.04	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
PFHpA	8.47	0.281	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
PFHxS	1.12	0.451	2.38	3.81	J	B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
PFOA	25.6	0.310	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
PFOS	9.21	0.384	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
PFNA	196	1.93	11.9	19.0	D	B7L0125	18-Dec-17	0.263 L	12-Jan-18 07:33	5
PFDA	49.5	0.709	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
MeFOSAA	ND	0.786	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
PFUnA	1640	2.50	11.9	19.0	D	B7L0125	18-Dec-17	0.263 L	12-Jan-18 07:33	5
EtFOSAA	ND	0.652	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
PFDoA	2.21	0.377	2.38	3.81	J	B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
PFTrDA	4.38	0.235	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
PFTeDA	ND	0.359	2.38	3.81		B7L0125	18-Dec-17	0.263 L	29-Dec-17 20:38	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	129	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
13C2-PFHxA	IS	114	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
13C4-PFHpA	IS	115	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
18O2-PFHxS	IS	113	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
13C2-PFOA	IS	98.8	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
13C8-PFOS	IS	113	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
13C5-PFNA	IS	136	50 - 150	D	B7L0125	18-Dec-17	0.263 L	12-Jan-18 07:33	5
13C2-PFDA	IS	125	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
d3-MeFOSAA	IS	140	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
13C2-PFUnA	IS	97.6	50 - 150	D	B7L0125	18-Dec-17	0.263 L	12-Jan-18 07:33	5
d5-EtFOSAA	IS	137	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
13C2-PFDoA	IS	115	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 09:54	1
13C2-PFTeDA	IS	119	50 - 150		B7L0125	18-Dec-17	0.263 L	29-Dec-17 20:38	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: FC-MW02SR1-P2-20171128 **Modified EPA Method 537**

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 08:54

Laboratory Data

Lab Sample: 1701802-03
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.825	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
PFHxA	21.5	1.01	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
PFHpA	9.70	0.272	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
PFHxS	1.13	0.437	2.31	3.69	J	B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
PFOA	28.1	0.300	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
PFOS	8.20	0.372	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
PFNA	211	1.87	11.5	18.4	D	B7L0125	18-Dec-17	0.271 L	12-Jan-18 07:44	5
PFDA	49.4	0.687	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
MeFOSAA	ND	0.761	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
PFUnA	1410	2.42	11.5	18.4	D	B7L0125	18-Dec-17	0.271 L	12-Jan-18 07:44	5
EtFOSAA	ND	0.632	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
PFDoA	2.47	0.365	2.31	3.69	J	B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
PFTrDA	3.75	0.228	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
PFTeDA	ND	0.348	2.31	3.69		B7L0125	18-Dec-17	0.271 L	29-Dec-17 20:49	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	124	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
13C2-PFHxA	IS	115	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
13C4-PFHpA	IS	113	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
18O2-PFHxS	IS	110	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
13C2-PFOA	IS	97.7	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
13C8-PFOS	IS	121	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
13C5-PFNA	IS	116	50 - 150	D	B7L0125	18-Dec-17	0.271 L	12-Jan-18 07:44	5
13C2-PFDA	IS	133	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
d3-MeFOSAA	IS	127	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
13C2-PFUnA	IS	101	50 - 150	D	B7L0125	18-Dec-17	0.271 L	12-Jan-18 07:44	5
d5-EtFOSAA	IS	121	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
13C2-PFDoA	IS	102	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:05	1
13C2-PFTeDA	IS	133	50 - 150		B7L0125	18-Dec-17	0.271 L	29-Dec-17 20:49	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: FC-MW02SR1-P3-20171128 **Modified EPA Method 537**

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 09:10

Laboratory Data

Lab Sample: 1701802-04
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.834	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
PFHxA	21.7	1.02	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
PFHpA	8.92	0.275	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
PFHxS	0.950	0.441	2.33	3.73	J	B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
PFOA	25.1	0.303	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
PFOS	7.53	0.376	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
PFNA	251	1.89	11.7	18.6	D	B7L0125	18-Dec-17	0.268 L	12-Jan-18 07:56	5
PFDA	55.2	0.694	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
MeFOSAA	ND	0.769	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
PFUnA	1330	2.45	11.7	18.6	D	B7L0125	18-Dec-17	0.268 L	12-Jan-18 07:56	5
EtFOSAA	ND	0.638	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
PFDoA	2.02	0.369	2.33	3.73	J	B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
PFTrDA	2.74	0.230	2.33	3.73	J	B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
PFTeDA	ND	0.352	2.33	3.73		B7L0125	18-Dec-17	0.268 L	29-Dec-17 21:00	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	117	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
13C2-PFHxA	IS	105	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
13C4-PFHpA	IS	113	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
18O2-PFHxS	IS	117	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
13C2-PFOA	IS	102	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
13C8-PFOS	IS	129	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
13C5-PFNA	IS	91.4	50 - 150	D	B7L0125	18-Dec-17	0.268 L	12-Jan-18 07:56	5
13C2-PFDA	IS	145	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
d3-MeFOSAA	IS	142	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
13C2-PFUnA	IS	83.9	50 - 150	D	B7L0125	18-Dec-17	0.268 L	12-Jan-18 07:56	5
d5-EtFOSAA	IS	131	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
13C2-PFDoA	IS	109	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:17	1
13C2-PFTeDA	IS	153	50 - 150	H	B7L0125	18-Dec-17	0.268 L	29-Dec-17 21:00	1

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

Sample ID: FC-MW02SR1-FRB-20171128 **Modified EPA Method 537**

Client Data

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

Matrix: QC Water
Date Collected: 28-Nov-17 09:00

Laboratory Data

Lab Sample: 1701802-05
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.826	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
PFHxA	ND	1.01	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
PFHpA	ND	0.273	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
PFHxS	ND	0.437	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
PFOA	ND	0.300	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
PFOS	ND	0.373	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
PFNA	ND	0.374	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
PFDA	ND	0.688	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
MeFOSAA	ND	0.762	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
PFUnA	ND	0.485	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
EtFOSAA	ND	0.632	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
PFDoA	ND	0.366	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
PFTrDA	ND	0.228	2.31	3.69		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
PFTeDA	ND	0.349	2.31	3.69		B7L0125	18-Dec-17	0.271 L	29-Dec-17 21:11	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	130	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
13C2-PFHxA	IS	122	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
13C4-PFHpA	IS	119	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
18O2-PFHxS	IS	115	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
13C2-PFOA	IS	90.2	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
13C8-PFOS	IS	98.5	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
13C5-PFNA	IS	110	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
13C2-PFDA	IS	105	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
d3-MeFOSAA	IS	89.1	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
13C2-PFUnA	IS	80.5	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
d5-EtFOSAA	IS	106	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
13C2-PFDoA	IS	86.6	50 - 150		B7L0125	18-Dec-17	0.271 L	05-Jan-18 10:28	1
13C2-PFTeDA	IS	136	50 - 150		B7L0125	18-Dec-17	0.271 L	29-Dec-17 21:11	1

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

Sample ID: FC-MW02IR1-NP-20171128 **Modified EPA Method 537**

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 09:50

Laboratory Data

Lab Sample: 1701802-06
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.834	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
PFHxA	4.53	1.02	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
PFHpA	3.41	0.275	2.33	3.73	J	B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
PFHxS	1.33	0.441	2.33	3.73	J	B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
PFOA	8.02	0.303	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
PFOS	30.3	0.376	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
PFNA	30.8	0.377	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
PFDA	0.951	0.694	2.33	3.73	J	B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
MeFOSAA	ND	0.768	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
PFUnA	6.13	0.489	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
EtFOSAA	ND	0.638	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
PFDoA	ND	0.369	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
PFTrDA	ND	0.230	2.33	3.73		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
PFTeDA	ND	0.352	2.33	3.73		B7L0125	18-Dec-17	0.268 L	29-Dec-17 21:22	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	115	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
13C2-PFHxA	IS	104	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
13C4-PFHpA	IS	121	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
18O2-PFHxS	IS	96.0	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
13C2-PFOA	IS	101	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
13C8-PFOS	IS	111	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
13C5-PFNA	IS	115	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
13C2-PFDA	IS	124	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
d3-MeFOSAA	IS	144	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
13C2-PFUnA	IS	125	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
d5-EtFOSAA	IS	154	50 - 150	H	B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
13C2-PFDoA	IS	109	50 - 150		B7L0125	18-Dec-17	0.268 L	05-Jan-18 10:39	1
13C2-PFTeDA	IS	133	50 - 150		B7L0125	18-Dec-17	0.268 L	29-Dec-17 21:22	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: FC-MW02IR1-P1-20171128 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05
Matrix: Groundwater
Date Collected: 28-Nov-17 10:17

Laboratory Data

Lab Sample: 1701802-07
Date Received: 29-Nov-17 09:37
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.15	0.831	2.32	3.71	J	B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
PFHxA	6.24	1.01	2.32	3.71		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
PFHpA	4.58	0.274	2.32	3.71		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
PFHxS	0.548	0.439	2.32	3.71	J	B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
PFOA	8.91	0.302	2.32	3.71		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
PFOS	21.8	0.374	2.32	3.71		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
PFNA	82.1	0.376	2.32	3.71		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
PFDA	2.05	0.691	2.32	3.71	J	B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
MeFOSAA	ND	0.766	2.32	3.71		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
PFUnA	20.6	0.487	2.32	3.71		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
EtFOSAA	ND	0.636	2.32	3.71		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
PFDoA	ND	0.368	2.32	3.71		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
PFTrDA	2.15	0.229	2.32	3.71	J	B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
PFTeDA	ND	0.350	2.32	3.71		B7L0125	18-Dec-17	0.269 L	29-Dec-17 21:33	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	136	50 - 150		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
13C2-PFHxA	IS	112	50 - 150		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
13C4-PFHpA	IS	114	50 - 150		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
18O2-PFHxS	IS	116	50 - 150		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
13C2-PFOA	IS	91.5	50 - 150		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
13C8-PFOS	IS	127	50 - 150		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
13C5-PFNA	IS	107	50 - 150		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
13C2-PFDA	IS	117	50 - 150		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
d3-MeFOSAA	IS	139	50 - 150		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
13C2-PFUnA	IS	110	50 - 150		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
d5-EtFOSAA	IS	114	50 - 150		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
13C2-PFDoA	IS	86.7	50 - 150		B7L0125	18-Dec-17	0.269 L	05-Jan-18 10:50	1
13C2-PFTeDA	IS	163	50 - 150	H	B7L0125	18-Dec-17	0.269 L	29-Dec-17 21:33	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: FC-MW02IR1-P2-20171128

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 10:45

Laboratory Data

Lab Sample: 1701802-08
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.812	2.26	3.63		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
PFHxA	4.37	0.989	2.26	3.63		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
PFHpA	3.17	0.268	2.26	3.63	J	B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
PFHxS	1.25	0.430	2.26	3.63	J	B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
PFOA	7.98	0.295	2.26	3.63		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
PFOS	32.0	0.366	2.26	3.63		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
PFNA	28.5	0.368	2.26	3.63		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
PFDA	ND	0.676	2.26	3.63		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
MeFOSAA	ND	0.749	2.26	3.63		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
PFUnA	5.42	0.476	2.26	3.63		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
EtFOSAA	ND	0.622	2.26	3.63		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
PFDoA	ND	0.359	2.26	3.63		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
PFTrDA	ND	0.224	2.26	3.63		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
PFTeDA	ND	0.343	2.26	3.63		B7L0125	18-Dec-17	0.276 L	29-Dec-17 22:18	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	142	50 - 150		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
13C2-PFHxA	IS	115	50 - 150		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
13C4-PFHpA	IS	114	50 - 150		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
18O2-PFHxS	IS	104	50 - 150		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
13C2-PFOA	IS	95.2	50 - 150		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
13C8-PFOS	IS	118	50 - 150		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
13C5-PFNA	IS	112	50 - 150		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
13C2-PFDA	IS	130	50 - 150		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
d3-MeFOSAA	IS	103	50 - 150		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
13C2-PFUnA	IS	99.3	50 - 150		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
d5-EtFOSAA	IS	119	50 - 150		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
13C2-PFDoA	IS	78.2	50 - 150		B7L0125	18-Dec-17	0.276 L	05-Jan-18 11:02	1
13C2-PFTeDA	IS	157	50 - 150	H	B7L0125	18-Dec-17	0.276 L	29-Dec-17 22:18	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: FC-MW02IR1-P3-20171128 **Modified EPA Method 537**

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 10:57

Laboratory Data

Lab Sample: 1701802-09
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.852	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
PFHxA	4.66	1.04	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
PFHpA	3.48	0.281	2.38	3.81	J	B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
PFHxS	1.30	0.451	2.38	3.81	J	B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
PFOA	8.04	0.310	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
PFOS	33.0	0.384	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
PFNA	27.8	0.386	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
PFDA	ND	0.709	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
MeFOSAA	ND	0.786	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
PFUnA	6.66	0.500	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
EtFOSAA	ND	0.652	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
PFDoA	ND	0.377	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
PFTrDA	ND	0.235	2.38	3.81		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
PFTeDA	ND	0.359	2.38	3.81		B7L0125	18-Dec-17	0.263 L	29-Dec-17 22:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	121	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
13C2-PFHxA	IS	118	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
13C4-PFHpA	IS	114	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
18O2-PFHxS	IS	115	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
13C2-PFOA	IS	103	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
13C8-PFOS	IS	138	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
13C5-PFNA	IS	105	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
13C2-PFDA	IS	161	50 - 150	H	B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
d3-MeFOSAA	IS	102	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
13C2-PFUnA	IS	95.6	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
d5-EtFOSAA	IS	132	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
13C2-PFDoA	IS	78.3	50 - 150		B7L0125	18-Dec-17	0.263 L	05-Jan-18 11:13	1
13C2-PFTeDA	IS	157	50 - 150	H	B7L0125	18-Dec-17	0.263 L	29-Dec-17 22:30	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: Method Blank **Modified EPA Method 537**

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

Laboratory Data
Lab Sample: B7L0027-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		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
PFHxA	ND	1.09	2.50	4.00		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
PFHpA	ND	0.296	2.50	4.00		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
PFHxS	ND	0.474	2.50	4.00		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
PFOA	ND	0.326	2.50	4.00		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
PFOS	ND	0.404	2.50	4.00		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
PFNA	ND	0.405	2.50	4.00		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
PFDA	ND	0.745	2.50	4.00		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
MeFOSAA	ND	0.825	2.50	4.00		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
PFUnA	ND	0.525	2.50	4.00		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
EtFOSAA	ND	0.685	2.50	4.00		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
PFDoA	ND	0.396	2.50	4.00		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
PFTrDA	ND	0.247	2.50	4.00		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
PFTeDA	ND	0.378	2.50	4.00		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	82.3	50 - 150		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
13C2-PFHxA	IS	83.5	50 - 150		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
13C4-PFHpA	IS	77.7	50 - 150		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
18O2-PFHxS	IS	68.3	50 - 150		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
13C2-PFOA	IS	66.5	50 - 150		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
13C8-PFOS	IS	80.1	50 - 150		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
13C5-PFNA	IS	58.5	50 - 150		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
13C2-PFDA	IS	61.5	50 - 150		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
d3-MeFOSAA	IS	58.0	50 - 150		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
13C2-PFUnA	IS	66.3	50 - 150		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
d5-EtFOSAA	IS	61.5	50 - 150		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
13C2-PFDoA	IS	52.7	50 - 150		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	1
13C2-PFTeDA	IS	54.6	50 - 150		B7L0027	06-Dec-17	0.250 L	15-Dec-17 17:51	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: LCSD **Modified EPA Method 537**

Name:	Tetra Tech	Lab Sample:	B7L0027-BS1/B7L0027-BSD1
Project:	112G08005-WE05	QC Batch:	B7L0027
Matrix:	Aqueous	Samp Size:	0.250/0.250 L
		Date Extracted:	06-Dec-17
		Column:	BEH C18

Analyte	LCS (ng/L)	LCS Spike Amt	LCS % Rec	LCS Quals	LCSD (ng/L)	LCSD Spike Amt	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBS	60.8	40.0	152	H	40.8	40.0	102	39.3		70-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1
PFHxA	61.5	40.0	154	H	43.1	40.0	108	35.2		70-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1
PFHpA	54.6	40.0	136	H	43.0	40.0	107	23.7		70-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1
PFHxS	64.3	40.0	161	H	43.4	40.0	109	38.8		70-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1
PFOA	63.7	40.0	159	H	46.0	40.0	115	32.2		70-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1
PFOS	48.0	40.0	120		37.5	40.0	93.7	24.5		70-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1
PFNA	46.1	40.0	115		45.8	40.0	115	0.613		70-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1
PFDA	66.2	40.0	165	H	46.0	40.0	115	35.9		70-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1
MeFOSAA	68.0	40.0	170	H	48.4	40.0	121	33.8		70-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1
PFUnA	66.0	40.0	165	H	51.8	40.0	130	24.1		70-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1
EtFOSAA	54.6	40.0	137	H	43.3	40.0	108	23.2		70-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1
PFDoA	58.7	40.0	147	H	40.8	40.0	102	36.0		70-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1
PFTrDA	55.4	40.0	138	H	30.9	40.0	77.2	56.8		60-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1
PFTeDA	55.6	40.0	139	H	33.3	40.0	83.2	50.2		70-130		15-Dec-17 17:17	1	15-Dec-17 17:29	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBS	IS	59.3		80.0		50-150	15-Dec-17 17:17	1	15-Dec-17 17:29	1
13C2-PFHxA	IS	52.7		76.2		50-150	15-Dec-17 17:17	1	15-Dec-17 17:29	1
13C4-PFHpA	IS	56.0		76.1		50-150	15-Dec-17 17:17	1	15-Dec-17 17:29	1
18O2-PFHxS	IS	56.7		74.9		50-150	15-Dec-17 17:17	1	15-Dec-17 17:29	1
13C2-PFOA	IS	54.5		79.6		50-150	15-Dec-17 17:17	1	15-Dec-17 17:29	1
13C8-PFOS	IS	61.1		76.7		50-150	15-Dec-17 17:17	1	15-Dec-17 17:29	1
13C5-PFNA	IS	46.4	H	77.5		50-150	15-Dec-17 17:17	1	15-Dec-17 17:29	1
13C2-PFDA	IS	46.4	H	56.2		50-150	15-Dec-17 17:17	1	15-Dec-17 17:29	1
d3-MeFOSAA	IS	37.1	H	51.5		50-150	15-Dec-17 17:17	1	15-Dec-17 17:29	1
13C2-PFUnA	IS	38.0	H	47.3	H	50-150	15-Dec-17 17:17	1	15-Dec-17 17:29	1
d5-EtFOSAA	IS	41.8	H	53.1		50-150	15-Dec-17 17:17	1	15-Dec-17 17:29	1
13C2-PFDoA	IS	43.4	H	64.3		50-150	15-Dec-17 17:17	1	15-Dec-17 17:29	1
13C2-PFTeDA	IS	37.5	H	68.5		50-150	15-Dec-17 17:17	1	15-Dec-17 17:29	1

Sample ID: FC-MW02SR1-NP-20171128 **Modified EPA Method 537**

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 08:03

Laboratory Data

Lab Sample: 1701802-01
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	2.35	0.863	2.41	3.86	J	B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
PFHxA	16.5	1.05	2.41	3.86		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
PFHpA	7.63	0.285	2.41	3.86		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
PFHxS	ND	0.456	2.41	3.86		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
PFOA	29.7	0.314	2.41	3.86		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
PFOS	4.41	0.389	2.41	3.86		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
PFNA	181	0.390	2.41	3.86		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
PFDA	56.9	0.718	2.41	3.86		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
MeFOSAA	ND	0.795	2.41	3.86		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
PFUnA	1330	0.506	2.41	3.86	E	B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
EtFOSAA	ND	0.660	2.41	3.86		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
PFDoA	2.40	0.382	2.41	3.86	J	B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
PFTrDA	5.26	0.238	2.41	3.86		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
PFTeDA	ND	0.364	2.41	3.86		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	69.5	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
13C2-PFHxA	IS	75.3	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
13C4-PFHpA	IS	79.4	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
18O2-PFHxS	IS	71.6	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
13C2-PFOA	IS	72.7	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
13C8-PFOS	IS	76.8	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
13C5-PFNA	IS	64.2	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
13C2-PFDA	IS	70.8	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
d3-MeFOSAA	IS	58.6	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
13C2-PFUnA	IS	60.3	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
d5-EtFOSAA	IS	51.9	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
13C2-PFDoA	IS	63.2	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	1
13C2-PFTeDA	IS	62.7	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 19:32	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: FC-MW02SR1-P1-20171128 **Modified EPA Method 537**

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 08:40

Laboratory Data

Lab Sample: 1701802-02
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.39	0.857	2.39	3.83	J	B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
PFHxA	19.7	1.04	2.39	3.83		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
PFHpA	10.8	0.283	2.39	3.83		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
PFHxS	1.90	0.453	2.39	3.83	J	B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
PFOA	36.6	0.312	2.39	3.83		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
PFOS	7.96	0.386	2.39	3.83		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
PFNA	314	0.388	2.39	3.83		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
PFDA	63.7	0.713	2.39	3.83		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
MeFOSAA	ND	0.790	2.39	3.83		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
PFUnA	1280	0.503	2.39	3.83	E	B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
EtFOSAA	ND	0.656	2.39	3.83		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
PFDoA	2.14	0.379	2.39	3.83	J	B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
PFTrDA	3.46	0.237	2.39	3.83	J	B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
PFTeDA	ND	0.361	2.39	3.83		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	85.4	50 - 150		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
13C2-PFHxA	IS	81.2	50 - 150		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
13C4-PFHpA	IS	81.2	50 - 150		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
18O2-PFHxS	IS	77.6	50 - 150		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
13C2-PFOA	IS	84.5	50 - 150		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
13C8-PFOS	IS	95.9	50 - 150		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
13C5-PFNA	IS	78.3	50 - 150		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
13C2-PFDA	IS	58.9	50 - 150		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
d3-MeFOSAA	IS	68.4	50 - 150		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
13C2-PFUnA	IS	71.7	50 - 150		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
d5-EtFOSAA	IS	73.9	50 - 150		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
13C2-PFDoA	IS	78.1	50 - 150		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1
13C2-PFTeDA	IS	80.6	50 - 150		B7L0027	06-Dec-17	0.261 L	15-Dec-17 19:43	1

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

Sample ID: FC-MW02SR1-P2-20171128 **Modified EPA Method 537**

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 08:54

Laboratory Data

Lab Sample: 1701802-03
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.845	2.36	3.78		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
PFHxA	22.8	1.03	2.36	3.78		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
PFHpA	10.3	0.279	2.36	3.78		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
PFHxS	1.63	0.447	2.36	3.78	J	B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
PFOA	36.9	0.307	2.36	3.78		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
PFOS	11.2	0.381	2.36	3.78		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
PFNA	316	0.382	2.36	3.78		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
PFDA	70.8	0.703	2.36	3.78		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
MeFOSAA	ND	0.779	2.36	3.78		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
PFUnA	1520	0.496	2.36	3.78	E	B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
EtFOSAA	ND	0.647	2.36	3.78		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
PFDoA	ND	0.374	2.36	3.78		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
PFTrDA	ND	0.233	2.36	3.78		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
PFTeDA	ND	0.356	2.36	3.78		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	74.3	50 - 150		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
13C2-PFHxA	IS	71.6	50 - 150		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
13C4-PFHpA	IS	79.6	50 - 150		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
18O2-PFHxS	IS	81.1	50 - 150		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
13C2-PFOA	IS	70.9	50 - 150		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
13C8-PFOS	IS	71.0	50 - 150		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
13C5-PFNA	IS	69.1	50 - 150		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
13C2-PFDA	IS	62.4	50 - 150		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
d3-MeFOSAA	IS	54.8	50 - 150		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
13C2-PFUnA	IS	65.0	50 - 150		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
d5-EtFOSAA	IS	59.1	50 - 150		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
13C2-PFDoA	IS	64.7	50 - 150		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	1
13C2-PFTeDA	IS	77.2	50 - 150		B7L0027	06-Dec-17	0.265 L	15-Dec-17 20:27	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: FC-MW02SR1-P3-20171128 **Modified EPA Method 537**

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 09:10

Laboratory Data

Lab Sample: 1701802-04
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.866	2.41	3.87		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
PFHxA	26.7	1.05	2.41	3.87		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
PFHpA	13.2	0.286	2.41	3.87		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
PFHxS	1.73	0.458	2.41	3.87	J	B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
PFOA	39.6	0.315	2.41	3.87		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
PFOS	11.3	0.390	2.41	3.87		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
PFNA	346	0.392	2.41	3.87		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
PFDA	80.7	0.720	2.41	3.87		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
MeFOSAA	ND	0.798	2.41	3.87		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
PFUnA	1790	0.508	2.41	3.87	E	B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
EtFOSAA	ND	0.662	2.41	3.87		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
PFDoA	1.83	0.383	2.41	3.87	J	B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
PFTrDA	ND	0.239	2.41	3.87		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
PFTeDA	ND	0.365	2.41	3.87		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	77.7	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
13C2-PFHxA	IS	69.2	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
13C4-PFHpA	IS	74.1	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
18O2-PFHxS	IS	68.6	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
13C2-PFOA	IS	69.1	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
13C8-PFOS	IS	69.0	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
13C5-PFNA	IS	65.4	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
13C2-PFDA	IS	52.4	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
d3-MeFOSAA	IS	56.5	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
13C2-PFUnA	IS	68.8	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
d5-EtFOSAA	IS	59.4	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
13C2-PFDoA	IS	62.9	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	1
13C2-PFTeDA	IS	68.9	50 - 150		B7L0027	06-Dec-17	0.259 L	15-Dec-17 20:39	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: FC-MW02SR1-FRB-20171128

Modified EPA Method 537

Client Data

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

Matrix: QC Water
Date Collected: 28-Nov-17 09:00

Laboratory Data

Lab Sample: 1701802-05
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.856	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
PFHxA	ND	1.04	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
PFHpA	ND	0.283	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
PFHxS	ND	0.453	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
PFOA	ND	0.311	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
PFOS	ND	0.386	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
PFNA	ND	0.387	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
PFDA	ND	0.712	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
MeFOSAA	ND	0.789	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
PFUnA	ND	0.502	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
EtFOSAA	ND	0.655	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
PFDoA	ND	0.379	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
PFTrDA	ND	0.236	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
PFTeDA	ND	0.361	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	82.8	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
13C2-PFHxA	IS	77.3	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
13C4-PFHpA	IS	80.2	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
18O2-PFHxS	IS	75.0	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
13C2-PFOA	IS	73.5	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
13C8-PFOS	IS	81.7	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
13C5-PFNA	IS	73.2	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
13C2-PFDA	IS	58.2	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
d3-MeFOSAA	IS	45.4	50 - 150	H	B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
13C2-PFUnA	IS	66.6	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
d5-EtFOSAA	IS	50.0	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
13C2-PFDoA	IS	54.4	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	1
13C2-PFTeDA	IS	47.2	50 - 150	H	B7L0027	06-Dec-17	0.262 L	15-Dec-17 20:50	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: FC-MW02IR1-NP-20171128

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 09:50

Laboratory Data

Lab Sample: 1701802-06
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.880	2.46	3.93		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
PFHxA	4.95	1.07	2.46	3.93		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
PFHpA	4.40	0.291	2.46	3.93		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
PFHxS	1.74	0.466	2.46	3.93	J	B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
PFOA	10.8	0.320	2.46	3.93		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
PFOS	26.3	0.397	2.46	3.93		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
PFNA	43.1	0.398	2.46	3.93		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
PFDA	ND	0.732	2.46	3.93		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
MeFOSAA	ND	0.811	2.46	3.93		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
PFUnA	7.35	0.516	2.46	3.93		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
EtFOSAA	ND	0.673	2.46	3.93		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
PFDoA	ND	0.389	2.46	3.93		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
PFTrDA	ND	0.243	2.46	3.93		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
PFTeDA	ND	0.371	2.46	3.93		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	79.8	50 - 150		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
13C2-PFHxA	IS	75.9	50 - 150		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
13C4-PFHpA	IS	73.3	50 - 150		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
18O2-PFHxS	IS	67.3	50 - 150		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
13C2-PFOA	IS	75.2	50 - 150		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
13C8-PFOS	IS	69.0	50 - 150		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
13C5-PFNA	IS	63.2	50 - 150		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
13C2-PFDA	IS	54.9	50 - 150		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
d3-MeFOSAA	IS	50.3	50 - 150		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
13C2-PFUnA	IS	63.5	50 - 150		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
d5-EtFOSAA	IS	55.7	50 - 150		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
13C2-PFDoA	IS	65.0	50 - 150		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	1
13C2-PFTeDA	IS	62.4	50 - 150		B7L0027	06-Dec-17	0.254 L	15-Dec-17 21:01	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: FC-MW02IR1-P1-20171128

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 10:17

Laboratory Data

Lab Sample: 1701802-07
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.13	0.854	2.39	3.82	J	B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
PFHxA	6.93	1.04	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
PFHpA	6.18	0.282	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
PFHxS	1.50	0.452	2.39	3.82	J	B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
PFOA	12.7	0.311	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
PFOS	14.7	0.385	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
PFNA	124	0.386	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
PFDA	2.24	0.711	2.39	3.82	J	B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
MeFOSAA	ND	0.787	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
PFUnA	24.4	0.501	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
EtFOSAA	ND	0.654	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
PFDoA	ND	0.378	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
PFTrDA	ND	0.236	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
PFTeDA	ND	0.360	2.39	3.82		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	107	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
13C2-PFHxA	IS	87.3	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
13C4-PFHpA	IS	86.2	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
18O2-PFHxS	IS	78.3	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
13C2-PFOA	IS	67.4	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
13C8-PFOS	IS	81.1	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
13C5-PFNA	IS	70.1	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
13C2-PFDA	IS	61.4	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
d3-MeFOSAA	IS	54.0	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
13C2-PFUnA	IS	55.4	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
d5-EtFOSAA	IS	44.6	50 - 150	H	B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
13C2-PFDoA	IS	54.7	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	1
13C2-PFTeDA	IS	57.5	50 - 150		B7L0027	06-Dec-17	0.262 L	15-Dec-17 21:12	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: FC-MW02IR1-P2-20171128 **Modified EPA Method 537**

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 10:45

Laboratory Data

Lab Sample: 1701802-08
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.839	2.34	3.75		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
PFHxA	ND	1.02	2.34	3.75		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
PFHpA	3.90	0.277	2.34	3.75		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
PFHxS	1.32	0.444	2.34	3.75	J	B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
PFOA	9.37	0.305	2.34	3.75		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
PFOS	31.7	0.378	2.34	3.75		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
PFNA	44.0	0.380	2.34	3.75		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
PFDA	1.02	0.698	2.34	3.75	J	B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
MeFOSAA	ND	0.773	2.34	3.75		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
PFUnA	5.95	0.492	2.34	3.75		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
EtFOSAA	ND	0.642	2.34	3.75		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
PFDoA	ND	0.371	2.34	3.75		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
PFTrDA	ND	0.232	2.34	3.75		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
PFTeDA	ND	0.354	2.34	3.75		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	89.9	50 - 150		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
13C2-PFHxA	IS	77.5	50 - 150		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
13C4-PFHpA	IS	74.2	50 - 150		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
18O2-PFHxS	IS	81.0	50 - 150		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
13C2-PFOA	IS	72.0	50 - 150		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
13C8-PFOS	IS	81.8	50 - 150		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
13C5-PFNA	IS	67.0	50 - 150		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
13C2-PFDA	IS	60.6	50 - 150		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
d3-MeFOSAA	IS	57.5	50 - 150		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
13C2-PFUnA	IS	65.4	50 - 150		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
d5-EtFOSAA	IS	56.3	50 - 150		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
13C2-PFDoA	IS	59.9	50 - 150		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1
13C2-PFTeDA	IS	55.9	50 - 150		B7L0027	06-Dec-17	0.267 L	15-Dec-17 21:23	1

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

Sample ID: FC-MW02IR1-P3-20171128

Modified EPA Method 537

Client Data

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

Matrix: Groundwater
Date Collected: 28-Nov-17 10:57

Laboratory Data

Lab Sample: 1701802-09
Date Received: 29-Nov-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.870	2.43	3.89		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
PFHxA	5.30	1.06	2.43	3.89		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
PFHpA	4.12	0.287	2.43	3.89		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
PFHxS	1.39	0.460	2.43	3.89	J	B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
PFOA	11.7	0.316	2.43	3.89		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
PFOS	26.7	0.392	2.43	3.89		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
PFNA	40.4	0.394	2.43	3.89		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
PFDA	ND	0.724	2.43	3.89		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
MeFOSAA	ND	0.802	2.43	3.89		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
PFUnA	6.72	0.510	2.43	3.89		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
EtFOSAA	ND	0.666	2.43	3.89		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
PFDoA	ND	0.385	2.43	3.89		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
PFTrDA	ND	0.240	2.43	3.89		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
PFTeDA	ND	0.367	2.43	3.89		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	73.8	50 - 150		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
13C2-PFHxA	IS	69.0	50 - 150		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
13C4-PFHpA	IS	66.2	50 - 150		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
18O2-PFHxS	IS	65.0	50 - 150		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
13C2-PFOA	IS	72.9	50 - 150		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
13C8-PFOS	IS	86.7	50 - 150		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
13C5-PFNA	IS	67.9	50 - 150		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
13C2-PFDA	IS	42.0	50 - 150	H	B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
d3-MeFOSAA	IS	50.7	50 - 150		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
13C2-PFUnA	IS	51.8	50 - 150		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
d5-EtFOSAA	IS	50.0	50 - 150		B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
13C2-PFDoA	IS	42.7	50 - 150	H	B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	1
13C2-PFTeDA	IS	45.8	50 - 150	H	B7L0027	06-Dec-17	0.257 L	15-Dec-17 21:35	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.

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1701802 Temp: 0.7 °C
Storage ID: WR-2 Storage Secured: Yes ☑ No ☐

Project ID: 112G08005-WE05 PO#: _____ Sampler: Lauren Donston (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		

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Lauren Donston ~~Lauren Donston~~	11/28/17	1545	Jacob Birkett	11-28-17	1545
FedEx	11/29/17	0937	~~Bob Benedict~~ B Benedict	11/29/17	1015

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
FC-MW02SR1-NP-20171128	11/28	0803	uncertainty	2	P	GW			X						
FC-MW02SR1-P1-20171128	11/28/17	0840	analysis												
FC-MW02SR1-P2-20171128		0854													
FC-MW02SR1-P3-20171128		0910													
FC-MW02SR1-FRB-20171128		0900				QA									FRB
FC-MW02IR1-NP-20171128		0950				GW									
FC-MW02IR1-P1-20171128		1017													
FC-MW02IR1-P2-20171128		1045													
FC-MW02IR1-P3-20171128		1057													

Special Instructions/Comments: Extract FRB but only run sample if there is a positive detect in parent sample

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: _____
GW-Groundwater QA-Quality Assurance

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1701802 **TAT** Std

Samples Arrival:	**Date/Time** 11/29/17 0937	**Initials:** [illegible]	**Location:** WR-2 **Shelf/Rack:** NA
Logged In:	**Date/Time** 11/29/17 1719	**Initials:** [illegible]	**Location:** WR-2 **Shelf/Rack:** E7

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

Temp °C: 0.7 (uncorrected)	**Time:** 1027	**Thermometer ID:** ~~IR-1~~ DT3 [illegible]
Temp °C: 0.7 (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 0422	✓		
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

RX

Process Sheet

Workorder: 1701802

Prep Expiration: 2017-Dec-12
Client: Tetra Tech

Workorder Due: 20-Dec-17 00:00

TAT: 21

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

Prep Batch: B710125

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

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

Initial Sequence: STL0095

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1701802-01	B	☑	☑	FC-MW02SR1-NP-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-02		☑	☑	FC-MW02SR1-P1-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-03		☑	☑	FC-MW02SR1-P2-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-04		☑	☑	FC-MW02SR1-P3-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-05		☑	☑	FC-MW02SR1-FRB-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-06		☑	☑	FC-MW02IR1-NP-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-07		☑	☑	FC-MW02IR1-P1-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-08		☑	☑	FC-MW02IR1-P2-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-09		☑	☑	FC-MW02IR1-P3-20171128		WR-2 E-7	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: AC 12-18-17
Pre-Prep Check In: NA

Prep Check Out: NA
Prep Check In: NA

Prep Reconciled Initals/Date: AC 12-18-17
Spike Reconciled Initals/Date: GRB 12-18-17
VialBoxID: CHRIL

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

B7L0125

Chemist: JTC

Prep Date/Time: 18-Dec-17 11:04 / 1715 JTC

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: HB 12/18/17 | BalanceID: HRMT-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
☐	B7L0125-BLK1	5	2	0	3	NA	NA	(0.250) ✓	JTC GRB 12-18-17	GRB 12.18.17	JTC GRB 12-18-17
☐	B7L0125-BS1	5	2	0	3	↓	↓	(0.250) ✓	↓	↓	↓
☐	B7L0125-BSD1	5	2	0	3	↓	↓	(0.250) ✓	↓	↓	↓
☑	1701802-01RE1	6	2	0	4	295.66	27.55	0.26811 ✓	↓	↓	↓
☑	1701802-02RE1	6	2	0	3	289.97	27.45	0.26252 ✓	↓	↓	↓
☑	1701802-03RE1	6	2	0	4	298.07	26.96	0.27111 ✓	↓	↓	↓
☑	1701802-04RE1	6	2	0	3	296.00	27.67	0.26833 ✓	↓	↓	↓
☐	1701802-05RE1	4	2	0	3	298.29	27.49	0.27080 ✓	↓	↓	↓
☑	1701802-06RE1	4	2	0	3	296.08	27.70	0.26838 ✓	↓	↓	↓
☐	1701802-07RE1	4	2	0	3	297.05	27.67	0.26938 ✓	↓	↓	↓
☐	1701802-08RE1	6	2	6	3	303.12	27.62	0.27550 ✓	↓	↓	↓
☐	1701802-09RE1	5	2	0	3	290.19	27.67	0.26252 ✓	↓	↓	↓

IS: 17L0402, 10µL (V4)

IS SUP: NA

NS: 17J1820, 10µL (V1)

RS: 17K2502, 10µL (V2)

SPE Chem: STRATA X-AW 33µm 200mg 6mL

Ele SOLV: 0.5% NH4OH in MeOH / MeOH

Final Volume(s) 1mL

Notes:

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

Batch: B7L0125

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1701802-01RE1	0.26811			1000	18-Dec-17 17:15	HAC			Groundwater	537M PFAS DOD (LOQ as
1701802-02RE1	0.26252			1000	18-Dec-17 17:15	HAC			Groundwater	537M PFAS DOD (LOQ as
1701802-03RE1	0.27111			1000	18-Dec-17 17:15	HAC			Groundwater	537M PFAS DOD (LOQ as
1701802-04RE1	0.26833			1000	18-Dec-17 17:15	HAC			Groundwater	537M PFAS DOD (LOQ as
1701802-05RE1	0.2708			1000	18-Dec-17 17:15	HAC			QC Water	537M PFAS DOD (LOQ as
1701802-06RE1	0.26838			1000	18-Dec-17 17:15	HAC			Groundwater	537M PFAS DOD (LOQ as
1701802-07RE1	0.26938			1000	18-Dec-17 17:15	HAC			Groundwater	537M PFAS DOD (LOQ as
1701802-08RE1	0.2755			1000	18-Dec-17 17:15	HAC			Groundwater	537M PFAS DOD (LOQ as
1701802-09RE1	0.26252			1000	18-Dec-17 17:15	HAC			Groundwater	537M PFAS DOD (LOQ as
B7L0125-BLK1	0.25			1000	18-Dec-17 17:15	HAC				QC
B7L0125-BS1	0.25			1000	18-Dec-17 17:15	HAC	17J1820	10		QC
B7L0125-BSD1	0.25			1000	18-Dec-17 17:15	HAC	17J1820	10		QC

GRB 12/19/17

Printed: 12/19/2017 10:33:54AM

Process Sheet

Workorder: 1701802

Prep Expiration: 2017-Dec-12
Client: Tetra Tech

Workorder Due: 20-Dec-17 00:00

TAT: 21

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

Prep Batch: B7L0027

Prep Data Entered: 12.7.17 HC
Date and Initials

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

Initial Sequence: 57LC052

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1701802-01	A	☑	☑	FC-MW02SR1-NP-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-02		☑	☑	FC-MW02SR1-P1-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-03		☑	☑	FC-MW02SR1-P2-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-04		☑	☑	FC-MW02SR1-P3-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-05		☑	☑	FC-MW02SR1-FRB-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-06		☑	☑	FC-MW02IR1-NP-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-07		☑	☑	FC-MW02IR1-P1-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-08		☑	☑	FC-MW02IR1-P2-20171128		WR-2 E-7	HDPE Bottle, 250 mL
1701802-09		☑	☑	FC-MW02IR1-P3-20171128		WR-2 E-7	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: 12/6/17 ST
Pre-Prep Check In: NA

Prep Check Out: NA
Prep Check In: NA

Prep Reconciled Initals/Date: 12/6/17 ST
Spike Reconciled Initals/Date: KC 12/6/17
VialBoxID: Garfield

Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

PREPARATION BENCH SHEET

B7L0027

Chemist: KC

Prep Date/Time: ~~06~~-Dec-17 ~~18~~:27 6 1520

KC 12/6/17

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: 12/6/17 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
☐	B7L0027-BLK1	5	2	0	2	N/A	N/A	(0.250)	KC HN 12/6/17	KC 12/6/17	KC HN 12/6/17
☐	B7L0027-BS1	5	2	0	2	"	"	(0.250)			
☐	B7L0027-BSD1	5	2	0	2	"	"	(0.250)			
☒	1701802-01 (A)	6	2	0	6	287.12	27.76	0.25936			
☒	1701802-02	6	2	0	6	288.03	26.94	0.26109			
☒	1701802-03	6	2	0	6	291.69	26.94	0.26475			
☒	1701802-04	6	2	0	6	286.20	27.68	0.25852			
☐	1701802-05	5	2	0	2	289.22	27.72	0.26150			
☒	1701802-06	5	2	0	2	282.01	27.72	0.25429			
☐	1701802-07	5	2	0	2	289.39	27.42	0.26197			
☒	1701802-08	5	2	0	2	293.56	26.88	0.26668			
☒	1701802-09	5	2	0	2	284.89	27.63	~~0.25769~~ 0.25726	0.25726		
☒	1701823-01	5	2	0	2	147.02	26.72	0.12030			
☒	1701823-02	6	2	0	3	148.92	26.85	0.12207			
☒	1701823-03	6	2	0	3	142.10	26.79	0.11531			
☒	1701823-04	5	2	0	2	141.52	26.81	0.11471			

IS: 17K0822, 10µL (V1)

IS SUP: NA

NS: 17J1820, 10µL (V2)

RS: 17K2502, 10µL (V5)

SPE Chem: Strata-X-AW 33µm 200mg 6mL

Ele SOLV: MeOH/.5%NH4OH in MeOH

Final Volume(s) 1mL

Notes: (A) 2x centrifuged 12/6/17 ST

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

B7L0027

Chemist: KC

Prep Date/Time: ~~05~~-Dec-17 ~~18:27~~ 1520

KC 12/6/17

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: 12/6/17 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
☒	1701823-05	6	2	0	3	137.72	26.73	0.11099	KC HN 12/6/17	KC 12/6/17	KC HN 12/6/17
☐	1701823-06	5	2	0	2	144.42	26.90	0.11752	"	"	"
☐	1701823-07	5	2	0	2	143.33	26.77	0.11656	"	"	"
☐	1701823-08	5	2	0	2	143.73	26.83	0.11690	"	"	"

IS: 17K0822, 10µL (V1)

IS SUP: NA

NS: 17J1820, 10µL (V2)

RS: 17K2502, 10µL (V5)

SPE Chem: Strata-X-AW 33µm 200mg 6mL

Ele SOLV: MeOH/.5%NH4OH in MeOH

Final Volume(s) 1mL

Notes:

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

Batch: B7L0027

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1701802-01	0.25936	NA	NA	1000	06-Dec-17 15:20	KC			Groundwater	537M PFAS DOD (LOQ as
1701802-02	0.26109			1000	06-Dec-17 15:20	KC			Groundwater	537M PFAS DOD (LOQ as
1701802-03	0.26475			1000	06-Dec-17 15:20	KC			Groundwater	537M PFAS DOD (LOQ as
1701802-04	0.25852			1000	06-Dec-17 15:20	KC			Groundwater	537M PFAS DOD (LOQ as
1701802-05	0.2615			1000	06-Dec-17 15:20	KC			QC Water	537M PFAS DOD (LOQ as
1701802-06	0.25429			1000	06-Dec-17 15:20	KC			Groundwater	537M PFAS DOD (LOQ as
1701802-07	0.26197			1000	06-Dec-17 15:20	KC			Groundwater	537M PFAS DOD (LOQ as
1701802-08	0.26668			1000	06-Dec-17 15:20	KC			Groundwater	537M PFAS DOD (LOQ as
1701802-09	0.25726			1000	06-Dec-17 15:20	KC			Groundwater	537M PFAS DOD (LOQ as
1701823-01	0.1203			1000	06-Dec-17 15:20	KC			Aqueous	537M PFAS DOD (LOQ as
1701823-02	0.12207			1000	06-Dec-17 15:20	KC			Aqueous	537M PFAS DOD (LOQ as
1701823-03	0.11531			1000	06-Dec-17 15:20	KC			Aqueous	537M PFAS DOD (LOQ as
1701823-04	0.11471			1000	06-Dec-17 15:20	KC			Aqueous	537M PFAS DOD (LOQ as
1701823-05	0.11099			1000	06-Dec-17 15:20	KC			Aqueous	537M PFAS DOD (LOQ as
1701823-06	0.11752			1000	06-Dec-17 15:20	KC			Aqueous	537M PFAS DOD (LOQ as
1701823-07	0.11656			1000	06-Dec-17 15:20	KC			Aqueous	537M PFAS DOD (LOQ as
1701823-08	0.1169			1000	06-Dec-17 15:20	KC			Aqueous	537M PFAS DOD (LOQ as
B7L0027-BLK1	0.25			1000	06-Dec-17 15:20	KC				QC
B7L0027-BS1	0.25			1000	06-Dec-17 15:20	KC	17J1820	10		QC
B7L0027-BSD1	0.25			1000	06-Dec-17 15:20	KC	17J1820	10		QC

12
12.7.17

SAMPLE DATA – MODIFIED EPA METHOD 537

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-47.qld

Last Altered: Friday, January 05, 2018 13:47:17 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:40:24 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_47, Date: 05-Jan-2018, Time: 09:27:26, ID: B7L0125-BLK1 Method Blank 0.25, 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		8.61e2	0.250		2.70				
2	4	PFHxA	313.2 > 268.9		1.80e3	0.250		3.12				
3	5	PFHpA	363.0 > 318.9		4.77e3	0.250		3.75				
4	6	L-PFHxS	398.9 > 79.6	3.15e0	6.84e2	0.250		3.92	3.85	0.0576	0.1787	
5	9	L-PFOA	413 > 368.7		5.99e3	0.250		4.25				
6	12	PFNA	463.0 > 418.8		5.74e3	0.250		4.70				
7	14	L-PFOS	499 > 79.9		1.70e3	0.250		4.83				
8	16	PFDA	513 > 468.8		4.68e3	0.250		5.05				
9	18	N-MeFOSAA	570.1 > 419		2.44e3	0.250		5.20				
10	19	N-EtFOSAA	584.2 > 419		3.06e3	0.250		5.42				
11	20	PFUdA	563.0 > 518.9		4.17e3	0.250		5.35				
12	22	PFDoA	612.9 > 569.0		2.76e3	0.250		5.70				

GM for AC 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-47.qld

Last Altered: Friday, January 05, 2018 13:47:17 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:40:34 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_47, Date: 05-Jan-2018, Time: 09:27:26, ID: B7L0125-BLK1 Method Blank 0.25, 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		1.05e3	0.250		5.95					
2	33	13C3-PFBS	302. > 98.8	8.61e2	5.90e3	0.250	0.106	2.70	2.59	1.82	68.7192	137.4	
3	34	13C2-PFHxA	315 > 269.8	1.80e3	5.90e3	0.250	0.633	3.20	3.08	3.82	24.1303	120.7	
4	35	13C4-PFHpA	367.2 > 321.8	4.77e3	5.90e3	0.250	0.641	3.80	3.69	10.1	63.1048	126.2	
5	36	18O2-PFHxS	403.0 > 102.6	6.84e2	1.62e3	0.250	0.334	3.95	3.84	5.27	63.0997	126.2	
6	37	13C2-6:2 FTS	429.1 > 408.9	1.45e3	5.73e3	0.250	0.228	4.26	4.16	3.17	55.6326	111.3	
7	38	13C2-PFOA	414.9 > 369.7	5.99e3	5.73e3	0.250	0.959	4.32	4.21	13.1	54.5107	109.0	
8	39	13C5-PFNA	468.2 > 422.9	5.74e3	5.89e3	0.250	0.830	4.75	4.64	12.2	58.6723	117.3	
9	40	13C8-PFOSA	506.1 > 77.7	1.29e3	4.61e3	0.250	0.262	4.81	4.71	3.48	53.1354	106.3	
10	41	13C8-PFOS	507.0 > 79.9	1.70e3	1.55e3	0.250	0.880	4.83	4.73	13.7	62.4110	124.8	
11	42	13C2-PFDA	515.1 > 469.9	4.68e3	2.93e3	0.250	0.995	5.11	5.02	20.0	80.2720	160.5	H
12	43	13C2-8:2 FTS	529.1 > 508.7	9.21e2	5.90e3	0.250	0.142	5.09	4.99	1.95	54.8865	109.8	
13	44	d3-N-MeFOSAA	573.3 > 419	2.44e3	4.61e3	0.250	0.376	5.26	5.17	6.61	70.4081	140.8	
14	45	d5-N-EtFOSAA	589.3 > 419	3.06e3	4.61e3	0.250	0.444	5.42	5.32	8.29	74.7866	149.6	
15	46	13C2-PFUdA	565 > 519.8	4.17e3	4.61e3	0.250	0.889	5.43	5.34	11.3	50.8816	101.8	
16	47	13C2-PFDoA	615.0 > 569.7	2.76e3	4.61e3	0.250	0.542	5.70	5.63	7.48	55.1597	110.3	
17	55	13C5-PFHxA	318 > 272.9	5.90e3	5.90e3	0.250	1.000	3.20	3.08	12.5	50.0000	100.0	
18	56	13C3-PFHxS	401.9 > 79.9	1.62e3	1.62e3	0.250	1.000	3.95	3.84	12.5	50.0000	100.0	
19	57	13C8-PFOA	421.3 > 376	5.73e3	5.73e3	0.250	1.000	4.32	4.21	12.5	50.0000	100.0	
20	58	13C9-PFNA	472.2 > 426.9	5.89e3	5.89e3	0.250	1.000	4.75	4.64	12.5	50.0000	100.0	
21	59	13C4-PFOS	503 > 79.9	1.55e3	1.55e3	0.250	1.000	4.83	4.73	12.5	50.0000	100.0	
22	60	13C6-PFDA	519.1 > 473.7	2.93e3	2.93e3	0.250	1.000	5.11	5.02	12.5	50.0000	100.0	
23	61	13C7-PFUdA	570.1 > 524.8	4.61e3	4.61e3	0.250	1.000	5.43	5.34	12.5	50.0000	100.0	
24	62	Total PFHxS	398.9 > 79.6	3.15e0	6.84e2	0.250		4.00		0.0576	0.1787		
25	63	Total PFOA	413 > 368.7	0.00e0	5.99e3	0.250		4.30		0.000			
26	64	Total PFOS	499 > 79.9	0.00e0	1.70e3	0.250		4.80		0.000			
27	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.44e3	0.250		5.20		0.000			
28	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.06e3	0.250		5.40		0.000			

GM for AC 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-47.qld

Last Altered: Friday, January 05, 2018 13:47:17 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:40:34 Pacific Standard Time

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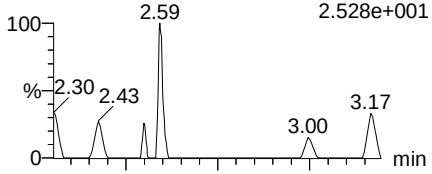
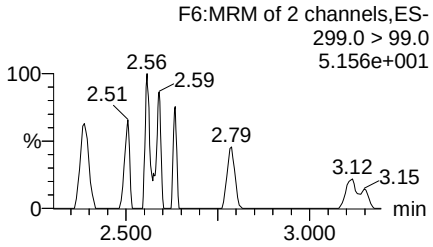
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

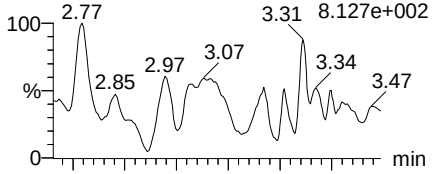
Name: 180104M1_47, Date: 05-Jan-2018, Time: 09:27:26, ID: B7L0125-BLK1 Method Blank 0.25, Description: Method Blank

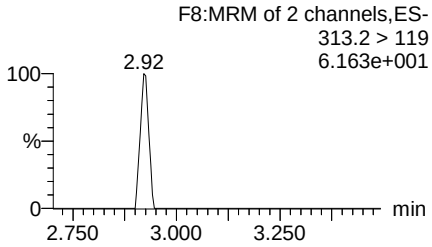
PFBS





PFHxA





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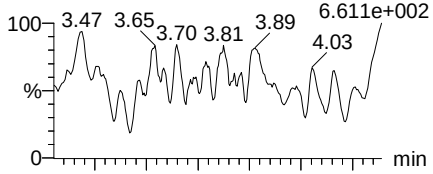

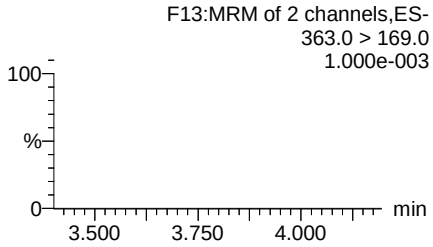

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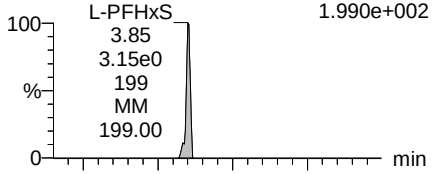

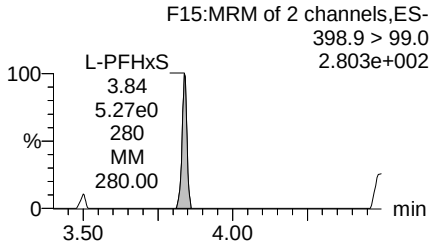

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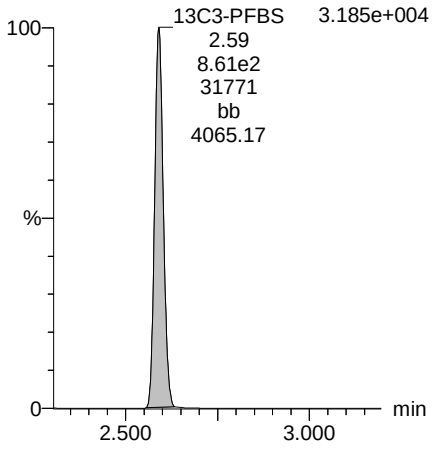

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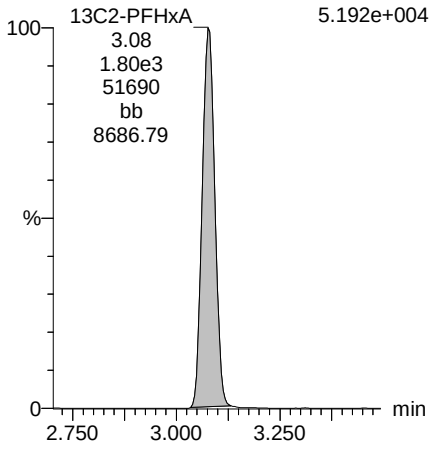

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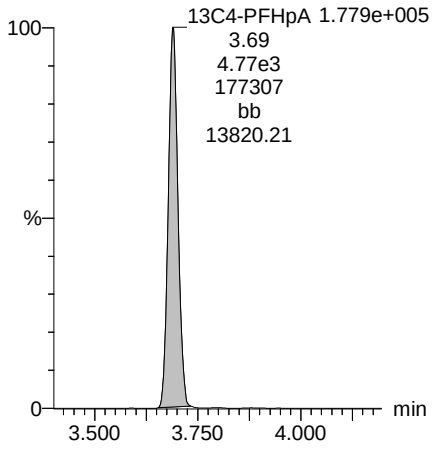

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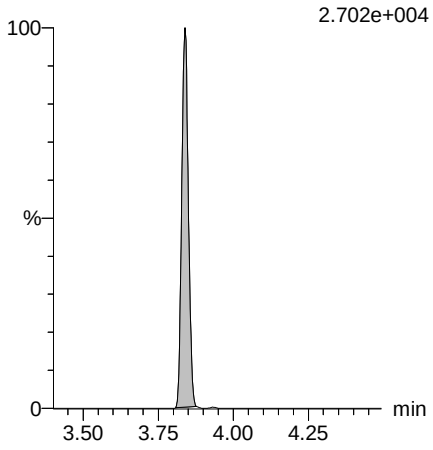

GM for AC 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-47.qld

Last Altered: Friday, January 05, 2018 13:47:17 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:40:34 Pacific Standard Time

Name: 180104M1_47, Date: 05-Jan-2018, Time: 09:27:26, ID: B7L0125-BLK1 Method Blank 0.25, Description: Method Blank

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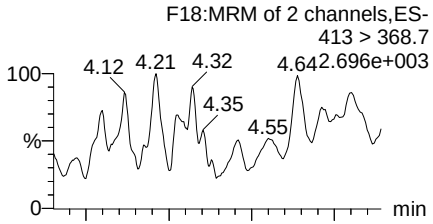

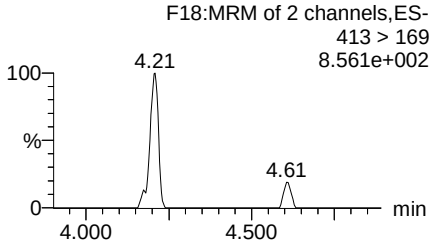

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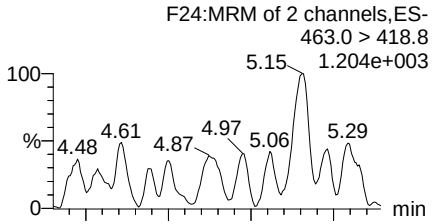
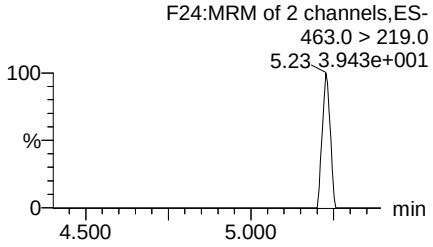
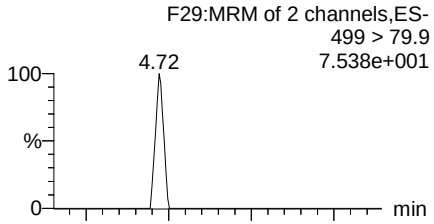
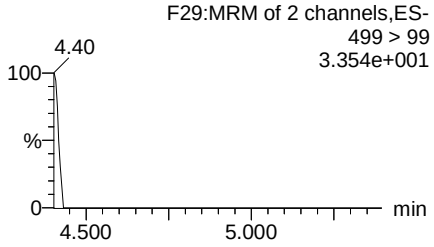


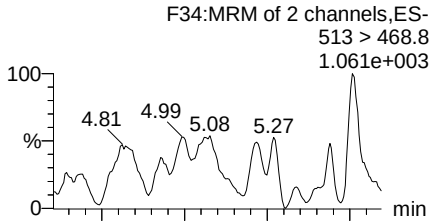


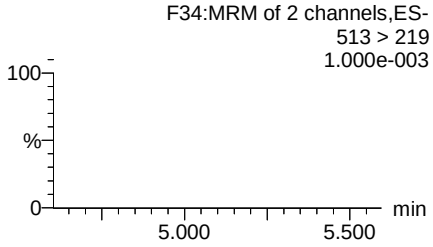
Total PFOS



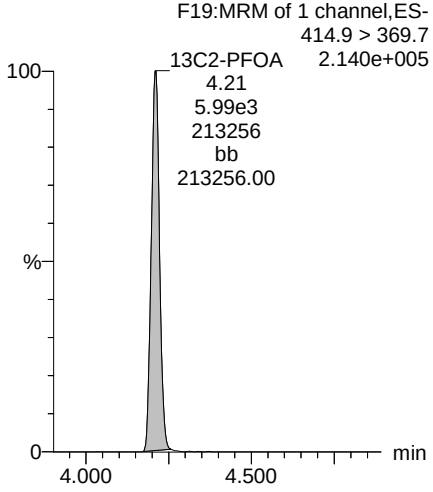


PFDA

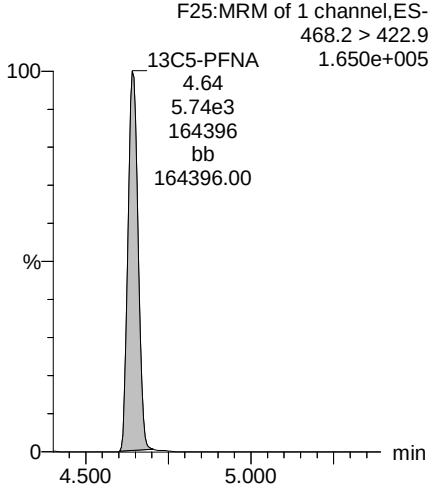




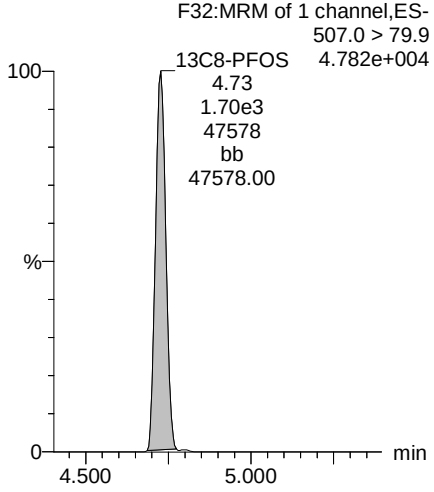
13C2-PFOA



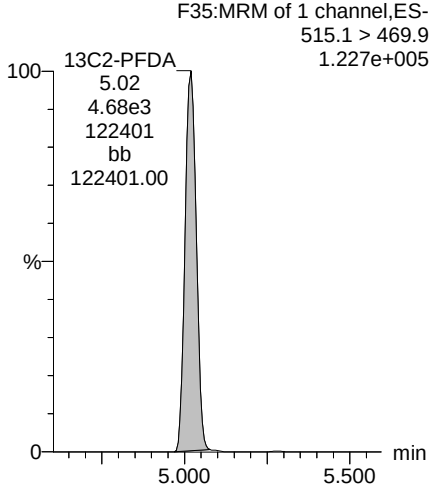
13C5-PFNA



13C8-PFOS



13C2-PFDA



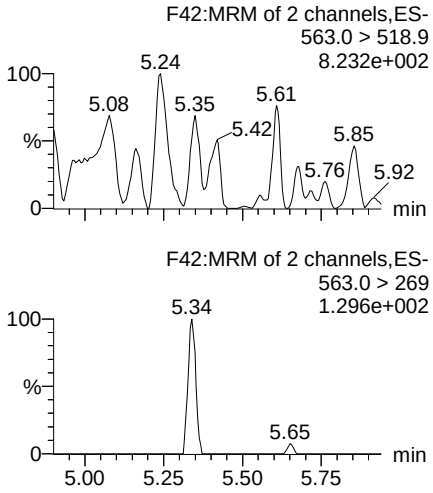
GM for AC 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-47.qld

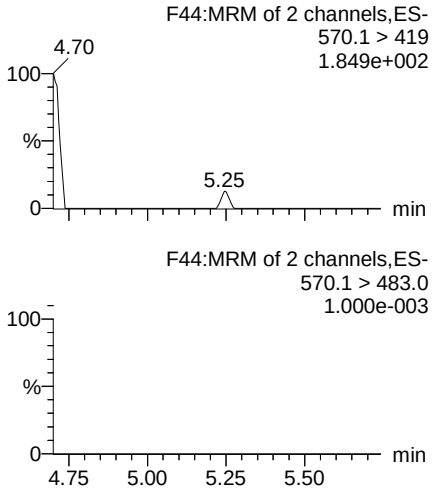
Last Altered: Friday, January 05, 2018 13:47:17 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:40:34 Pacific Standard Time

Name: 180104M1_47, Date: 05-Jan-2018, Time: 09:27:26, ID: B7L0125-BLK1 Method Blank 0.25, Description: Method Blank

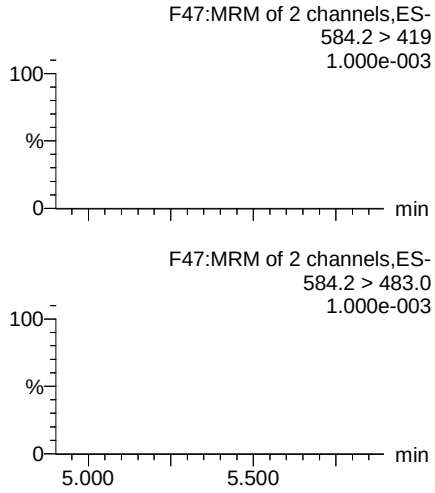
PFUdA



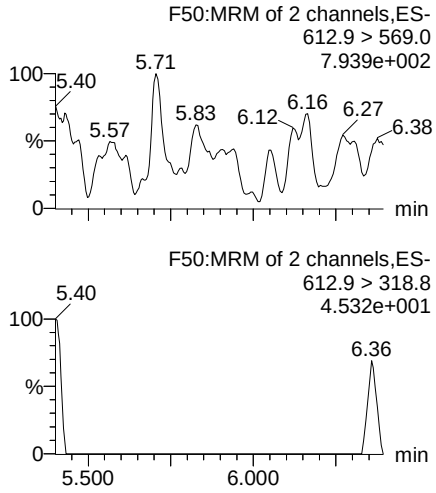
N-MeFOSAA



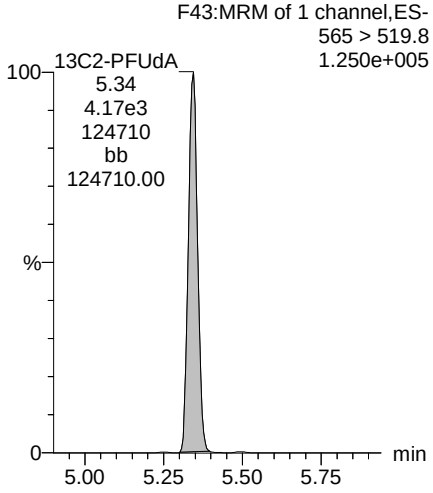
N-EtFOSAA



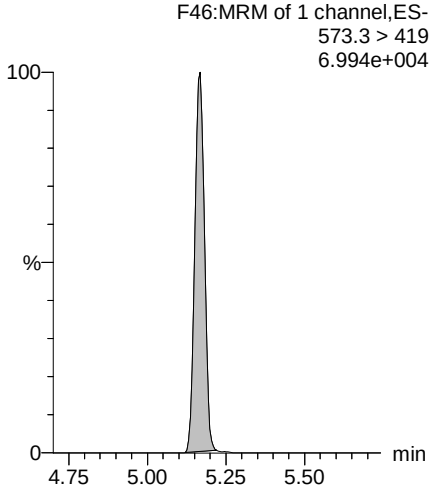
PFDoA



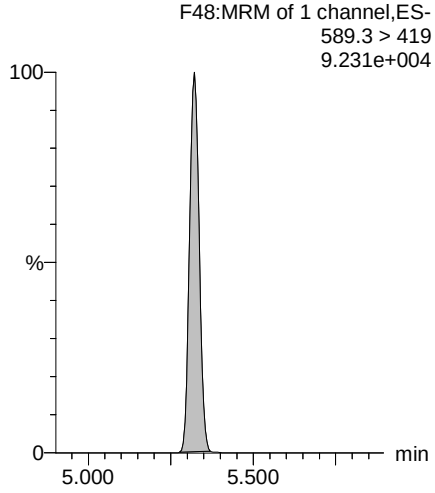
13C2-PFUdA



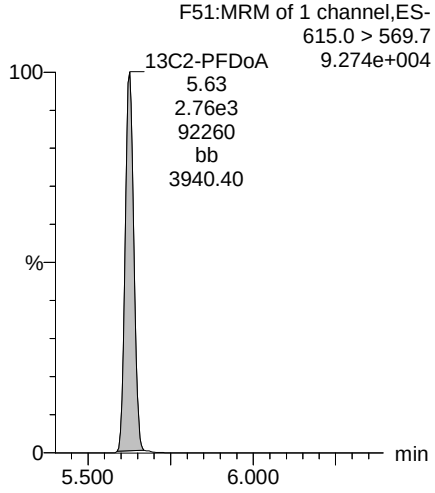
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



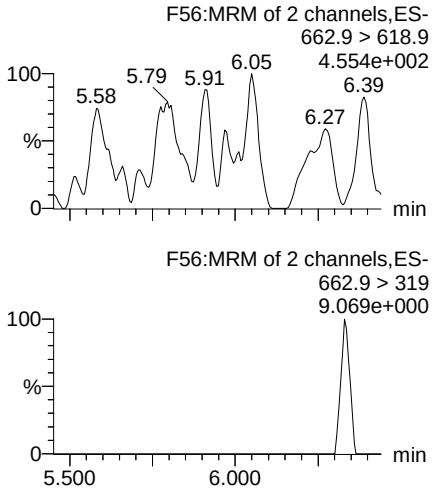
GM for AC 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-47.qld

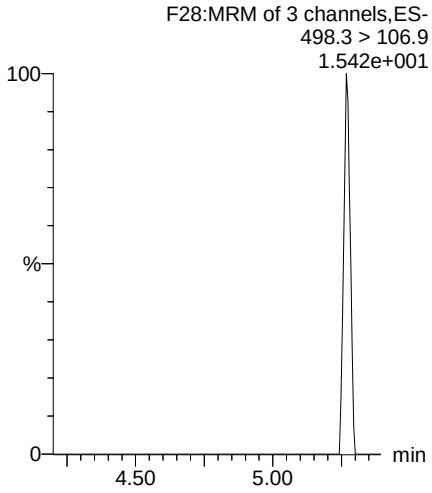
Last Altered: Friday, January 05, 2018 13:47:17 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:40:34 Pacific Standard Time

Name: 180104M1_47, Date: 05-Jan-2018, Time: 09:27:26, ID: B7L0125-BLK1 Method Blank 0.25, Description: Method Blank

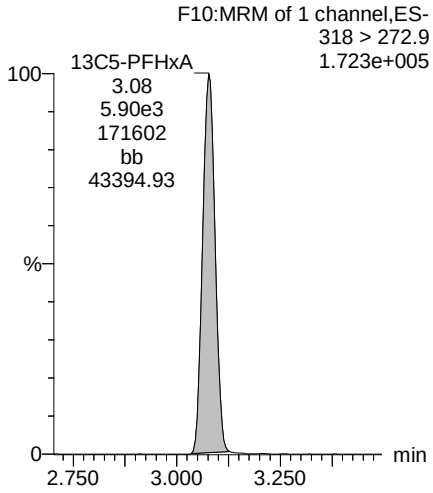
PFTrDA



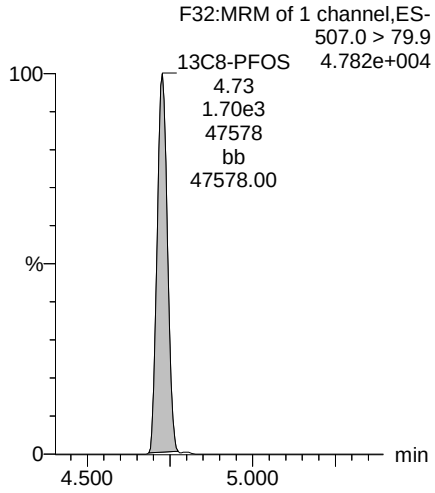
TCDA



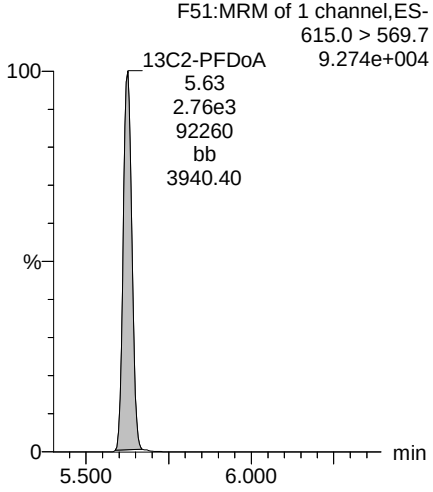
13C5-PFHxA



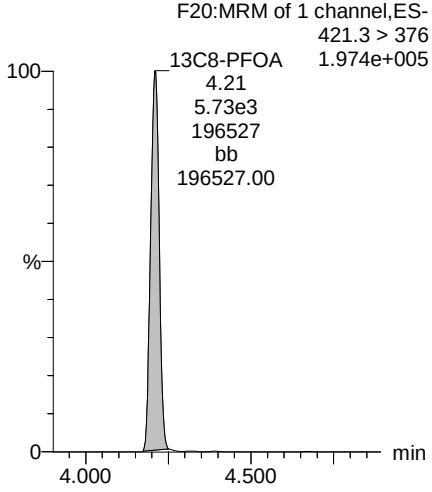
13C8-PFOS



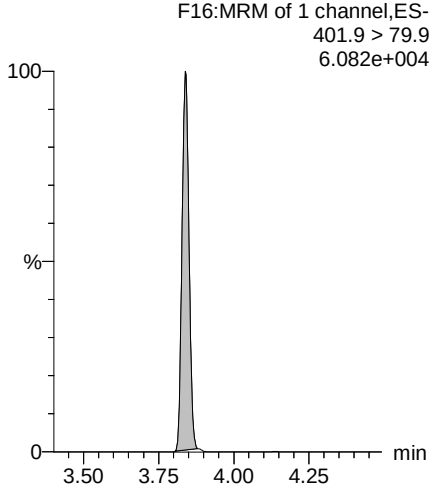
13C2-PFDoA



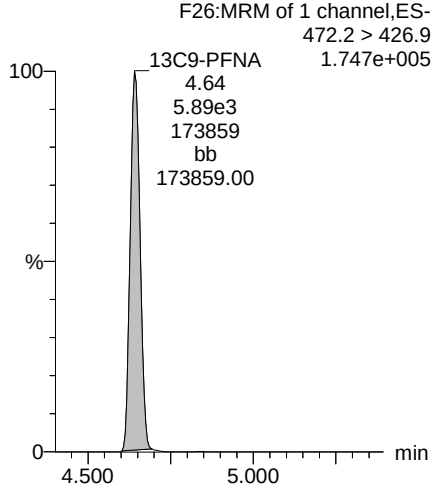
13C8-PFOA



13C3-PFHxS



13C9-PFNA



GM for AC 1/9/2018

Vista Analytical Laboratory

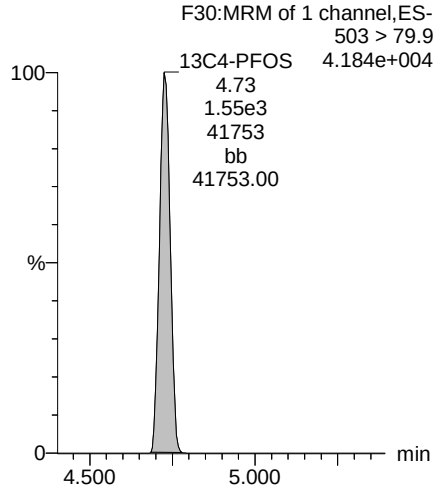
Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-47.qld

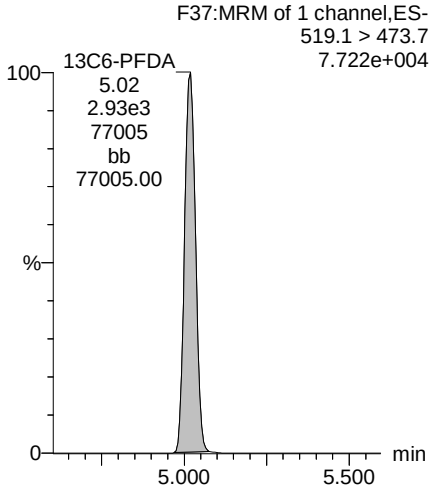
Last Altered: Friday, January 05, 2018 13:47:17 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:40:34 Pacific Standard Time

Name: 180104M1_47, Date: 05-Jan-2018, Time: 09:27:26, ID: B7L0125-BLK1 Method Blank 0.25, Description: Method Blank

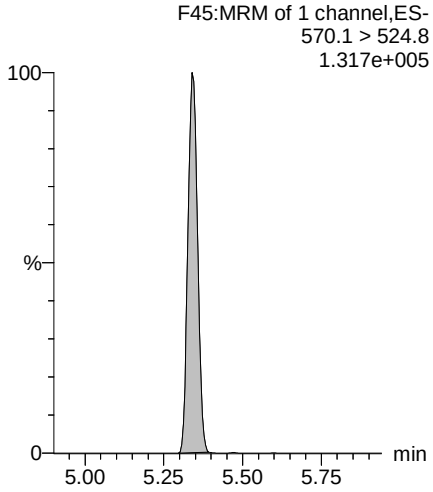
13C4-PFOS



13C6-PFDA



13C7-PFUdA



GM for AC 1/9/2018

Vista Analytical Laboratory

Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-18.qld

Last Altered: Tuesday, January 09, 2018 15:19:40 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:21:42 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_18, Date: 29-Dec-2017, Time: 16:43:08, ID: B7L0125-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	25	PFTeDA	712.9 > 668.8		2.46e3		0.2500	6.16				
2	49	13C2-PFTeDA	714.8 > 669.6	2.46e3	8.97e3	0.196	0.2500	6.16	6.11	3.43	70.0	140.0
3	61	13C7-PFUdA	570.1 > 524.8	8.97e3	8.97e3	1.000	0.2500	5.43	5.37	12.5	50.0	100.0

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Vista Analytical Laboratory

Rev'd: MM 1/17/18

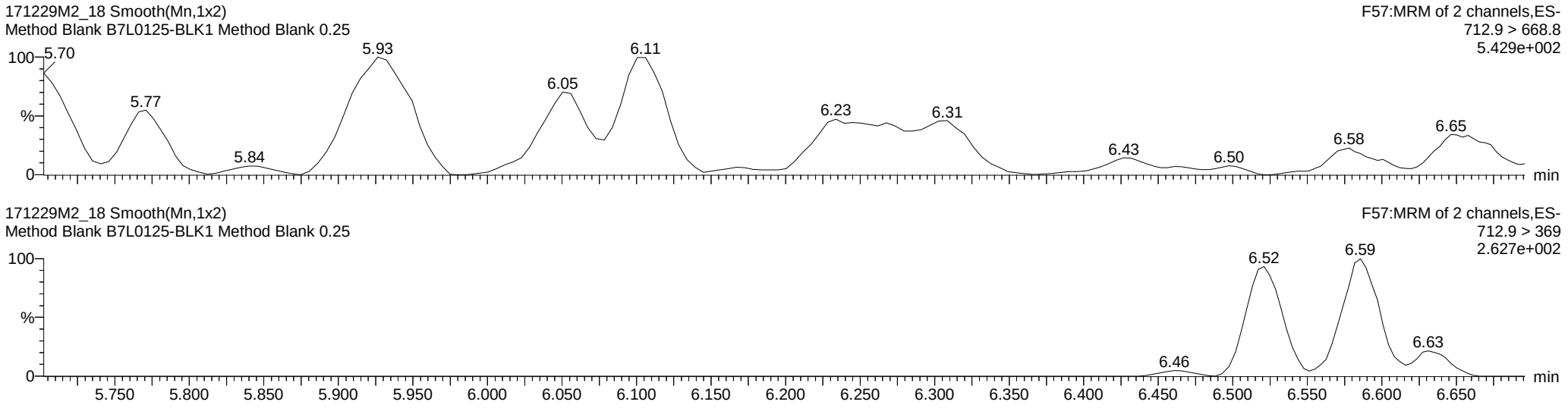
Dataset: U:\Q4.PRO\results\171229M2\171229M2-18.qld

Last Altered: Tuesday, January 09, 2018 15:19:40 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:21:42 Pacific Standard Time

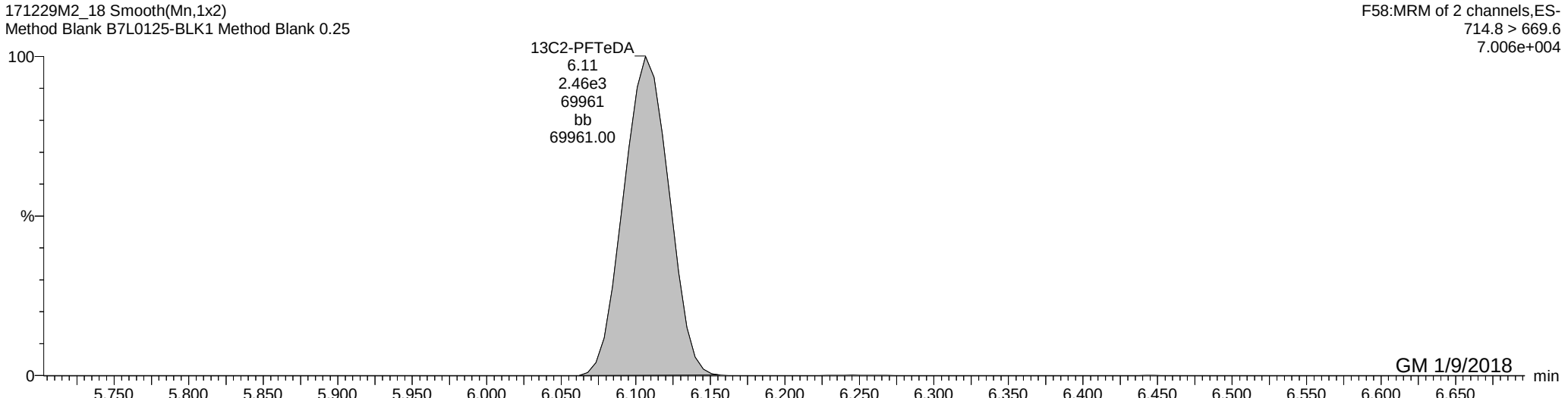
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_18, Date: 29-Dec-2017, Time: 16:43:08, ID: B7L0125-BLK1 Method Blank 0.25, Description: Method Blank

PFTeDA



13C2-PFTeDA



GM 1/9/2018

Vista Analytical Laboratory

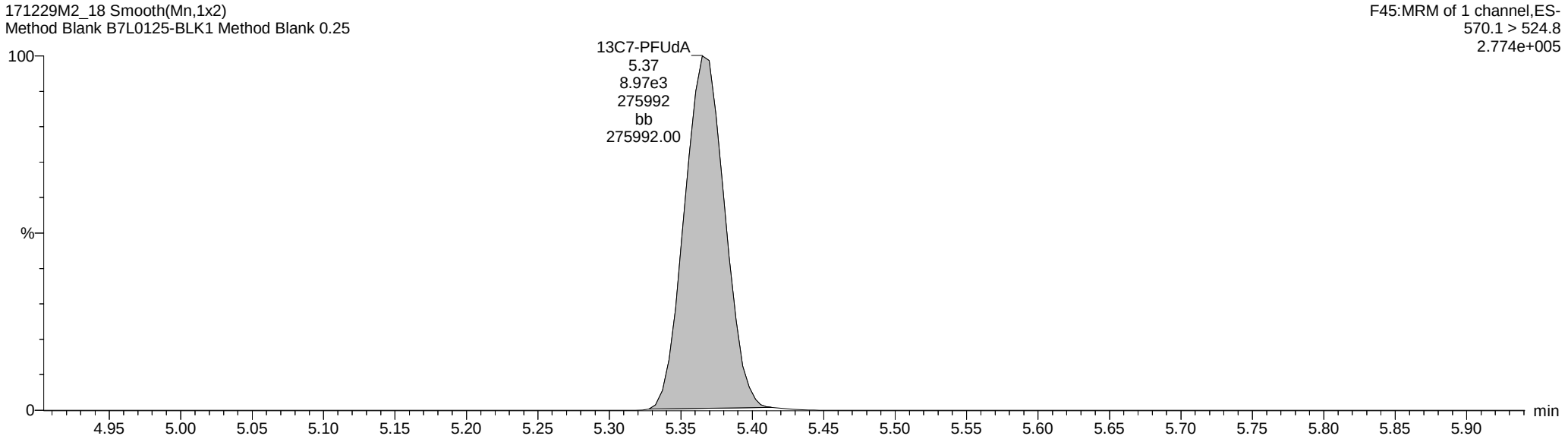
Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-18.qld

Last Altered: Tuesday, January 09, 2018 15:19:40 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:21:42 Pacific Standard Time

Name: 171229M2_18, Date: 29-Dec-2017, Time: 16:43:08, ID: B7L0125-BLK1 Method Blank 0.25, Description: Method Blank

13C7-PFUdA



GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-45.qld

Last Altered: Tuesday, January 09, 2018 14:35:45 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:36:15 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_45, Date: 05-Jan-2018, Time: 09:04:59, ID: B7L0125-BS1 OPR 0.25, 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	1.55e3	1.10e3	0.250		2.70	2.59	17.7	32.2659	80.7
2	4	PFHxA	313.2 > 268.9	8.35e3	2.43e3	0.250		3.12	3.08	17.2	36.8097	92.0
3	5	PFHpA	363.0 > 318.9	5.97e3	5.20e3	0.250		3.75	3.69	14.3	35.9860	90.0
4	6	L-PFHxS	398.9 > 79.6	1.30e3	8.77e2	0.250		3.92	3.84	18.6	37.2804	93.2
5	9	L-PFOA	413 > 368.7	6.61e3	7.64e3	0.250		4.25	4.21	10.8	33.8793	84.7
6	12	PFNA	463.0 > 418.8	6.66e3	7.85e3	0.250		4.70	4.64	10.6	29.4062	73.5
7	14	L-PFOS	499 > 79.9	1.87e3	2.19e3	0.250		4.83	4.73	10.7	41.6164	104.0
8	16	PFDA	513 > 468.8	6.38e3	5.81e3	0.250		5.05	5.02	13.7	33.6811	84.2
9	18	N-MeFOSAA	570.1 > 419	3.82e3	3.30e3	0.250		5.20	5.17	14.5	29.8581	74.6
10	19	N-EtFOSAA	584.2 > 419	3.09e3	3.33e3	0.250		5.42	5.33	11.6	35.2053	88.0
11	20	PFUdA	563.0 > 518.9	5.60e3	6.14e3	0.250		5.35	5.34	11.4	35.8326	89.6
12	22	PFDoA	612.9 > 569.0	7.29e3	3.41e3	0.250		5.70	5.62	26.7	43.6250	109.1

GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-45.qld

Last Altered: Tuesday, January 09, 2018 14:35:45 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:36:26 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_45, Date: 05-Jan-2018, Time: 09:04:59, ID: B7L0125-BS1 OPR 0.25, 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	6.95e3	1.58e3	0.250		5.95	5.87	54.8	39.0571	97.6	
2	33	13C3-PFBS	302. > 98.8	1.10e3	8.50e3	0.250	0.106	2.70	2.59	1.62	60.9147	121.8	
3	34	13C2-PFHxA	315 > 269.8	2.43e3	8.50e3	0.250	0.633	3.20	3.08	3.57	22.5462	112.7	
4	35	13C4-PFHpA	367.2 > 321.8	5.20e3	8.50e3	0.250	0.641	3.80	3.69	7.65	47.7455	95.5	
5	36	18O2-PFHxS	403.0 > 102.6	8.77e2	2.30e3	0.250	0.334	3.95	3.84	4.76	57.0101	114.0	
6	37	13C2-6:2 FTS	429.1 > 408.9	2.32e3	7.66e3	0.250	0.228	4.26	4.15	3.79	66.3501	132.7	
7	38	13C2-PFOA	414.9 > 369.7	7.64e3	7.66e3	0.250	0.959	4.32	4.21	12.5	52.0189	104.0	
8	39	13C5-PFNA	468.2 > 422.9	7.85e3	7.99e3	0.250	0.830	4.75	4.65	12.3	59.1559	118.3	
9	40	13C8-PFOSA	506.1 > 77.7	1.64e3	5.84e3	0.250	0.262	4.81	4.71	3.50	53.3629	106.7	
10	41	13C8-PFOS	507.0 > 79.9	2.19e3	1.89e3	0.250	0.880	4.83	4.73	14.5	65.8508	131.7	
11	42	13C2-PFDA	515.1 > 469.9	5.81e3	4.83e3	0.250	0.995	5.11	5.02	15.0	60.4664	120.9	
12	43	13C2-8:2 FTS	529.1 > 508.7	8.83e2	8.50e3	0.250	0.142	5.09	4.99	1.30	36.5202	73.0	
13	44	d3-N-MeFOSAA	573.3 > 419	3.30e3	5.84e3	0.250	0.376	5.26	5.17	7.06	75.1863	150.4	H
14	45	d5-N-EtFOSAA	589.3 > 419	3.33e3	5.84e3	0.250	0.444	5.42	5.32	7.12	64.1828	128.4	
15	46	13C2-PFUdA	565 > 519.8	6.14e3	5.84e3	0.250	0.889	5.43	5.34	13.1	59.1332	118.3	
16	47	13C2-PFDoA	615.0 > 569.7	3.41e3	5.84e3	0.250	0.542	5.70	5.63	7.30	53.8481	107.7	
17	55	13C5-PFHxA	318 > 272.9	8.50e3	8.50e3	0.250	1.000	3.20	3.08	12.5	50.0000	100.0	
18	56	13C3-PFHxS	401.9 > 79.9	2.30e3	2.30e3	0.250	1.000	3.95	3.84	12.5	50.0000	100.0	
19	57	13C8-PFOA	421.3 > 376	7.66e3	7.66e3	0.250	1.000	4.32	4.21	12.5	50.0000	100.0	
20	58	13C9-PFNA	472.2 > 426.9	7.99e3	7.99e3	0.250	1.000	4.75	4.64	12.5	50.0000	100.0	
21	59	13C4-PFOS	503 > 79.9	1.89e3	1.89e3	0.250	1.000	4.83	4.73	12.5	50.0000	100.0	
22	60	13C6-PFDA	519.1 > 473.7	4.83e3	4.83e3	0.250	1.000	5.11	5.01	12.5	50.0000	100.0	
23	61	13C7-PFUdA	570.1 > 524.8	5.84e3	5.84e3	0.250	1.000	5.43	5.34	12.5	50.0000	100.0	
24	62	Total PFHxS	398.9 > 79.6	1.30e3	8.77e2	0.250		4.00		18.6	37.2804		
25	63	Total PFOA	413 > 368.7	6.61e3	7.64e3	0.250		4.30		10.8	33.8793		
26	64	Total PFOS	499 > 79.9	1.87e3	2.19e3	0.250		4.80		10.7	41.6164		
27	65	Total N-MeFOSAA	570.1 > 419	3.82e3	3.30e3	0.250		5.20		14.5	29.8581		
28	66	Total N-EtFOSAA	584.2 > 419	3.09e3	3.33e3	0.250		5.40		11.6	35.2053		

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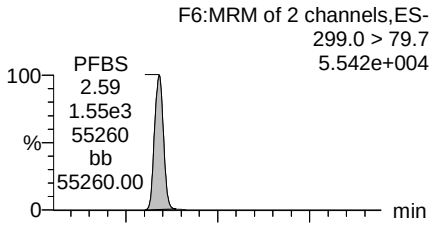
Dataset: U:\Q4.PRO\results\180104M1\180104M1-45.qld

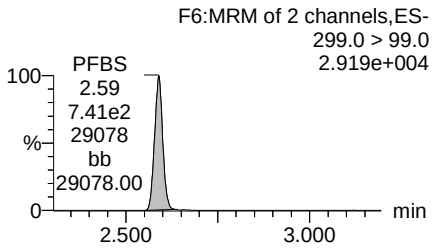
Last Altered: Tuesday, January 09, 2018 14:35:45 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:36:26 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

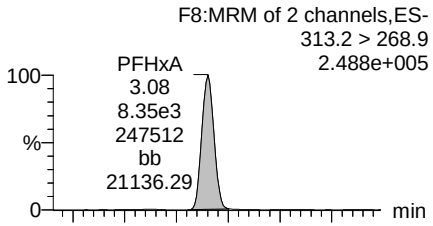
Name: 180104M1_45, Date: 05-Jan-2018, Time: 09:04:59, ID: B7L0125-BS1 OPR 0.25, Description: OPR

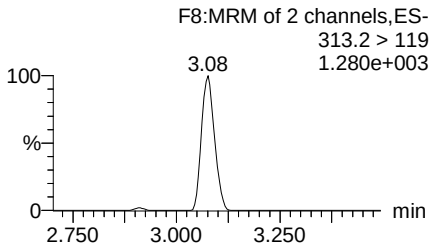
PFBS



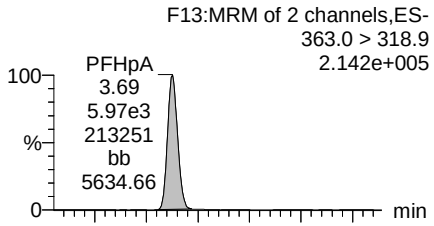


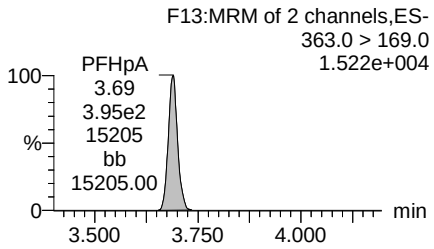
PFHxA



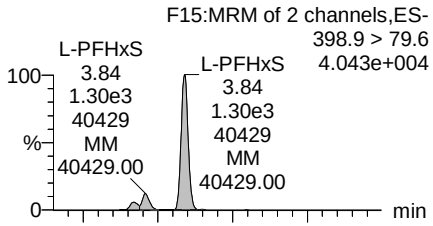


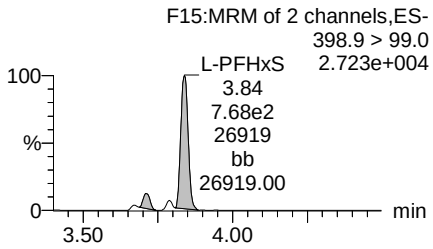
PFHpA



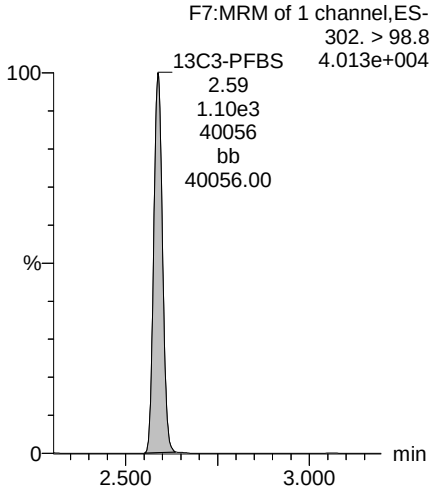


Total PFHxS

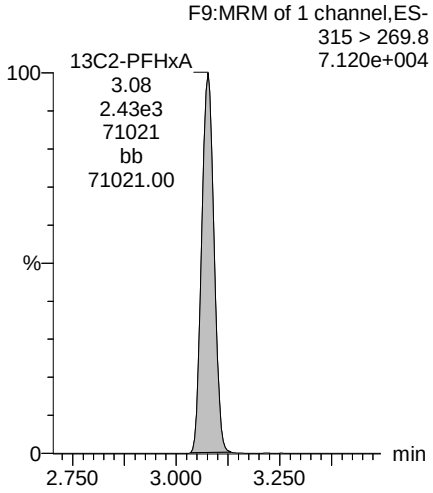




13C3-PFBS



13C2-PFHxA



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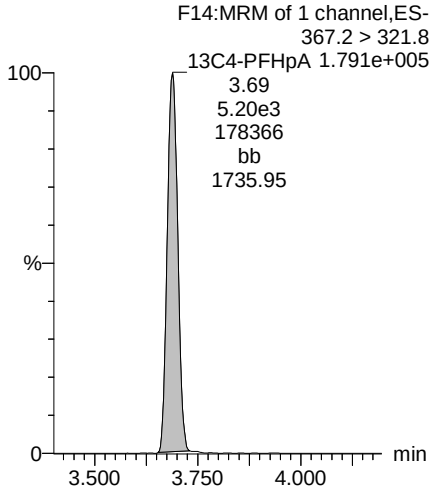

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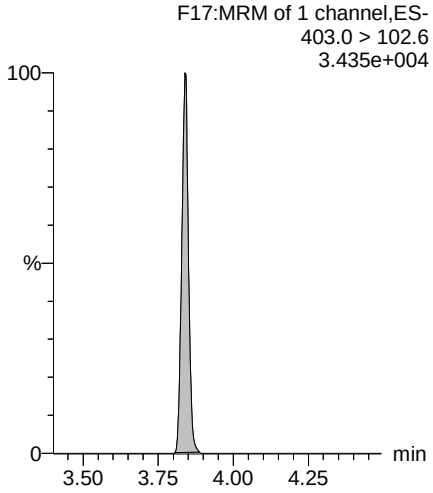

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Dataset: U:\Q4.PRO\results\180104M1\180104M1-45.qld

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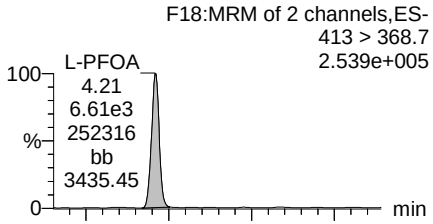
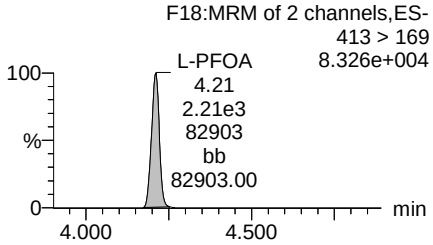
Printed: Tuesday, January 09, 2018 14:36:26 Pacific Standard Time

Name: 180104M1_45, Date: 05-Jan-2018, Time: 09:04:59, ID: B7L0125-BS1 OPR 0.25, Description: OPR

Total PFOA





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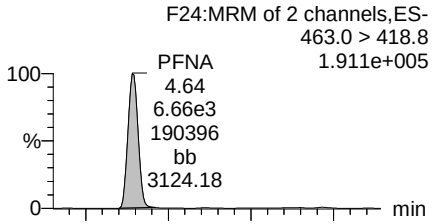
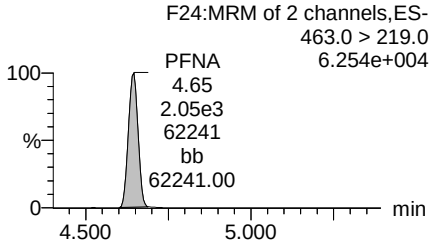
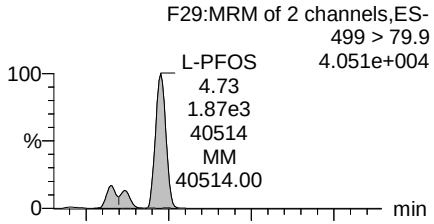
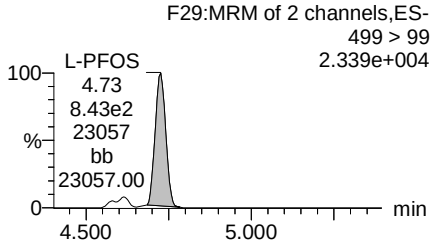




Total PFOS





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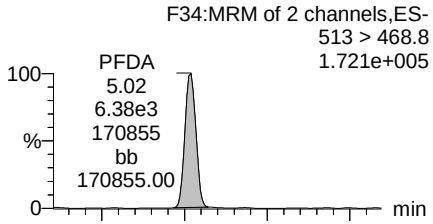
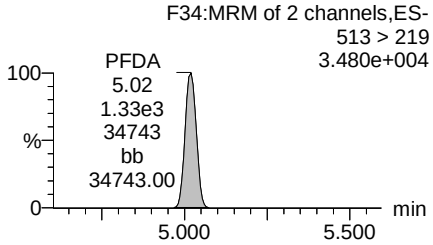
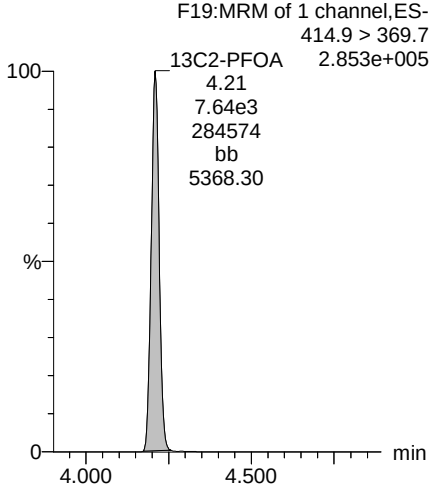
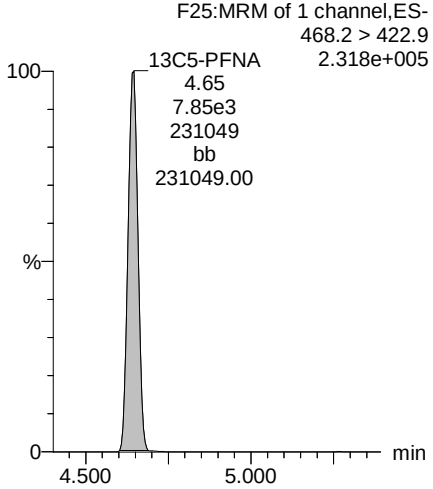




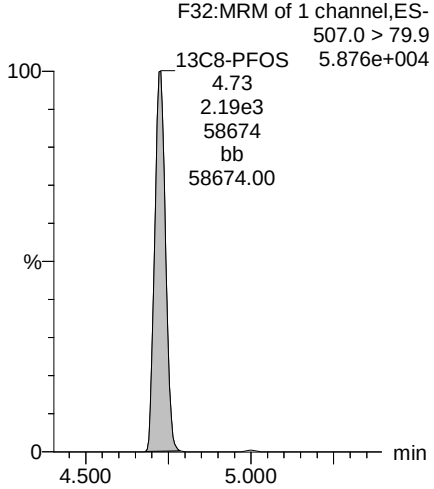
13C2-PFOA



13C5-PFNA



13C8-PFOS



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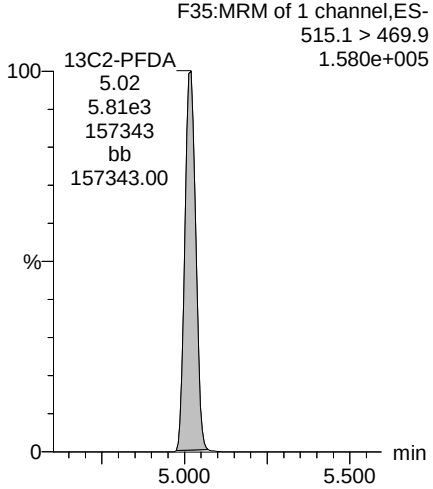

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Dataset: U:\Q4.PRO\results\180104M1\180104M1-45.qld

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Printed: Tuesday, January 09, 2018 14:36:26 Pacific Standard Time

Name: 180104M1_45, Date: 05-Jan-2018, Time: 09:04:59, ID: B7L0125-BS1 OPR 0.25, Description: OPR

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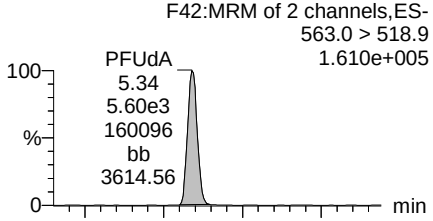

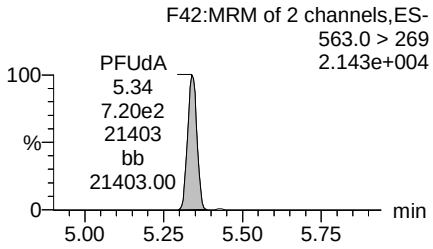

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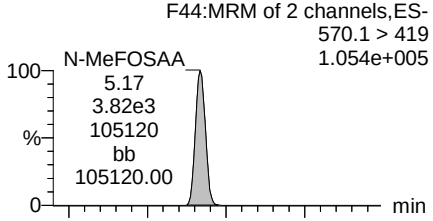

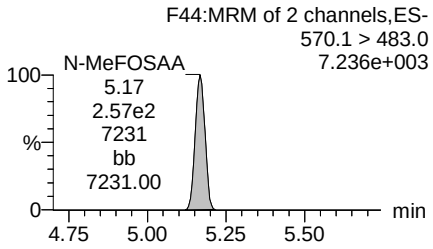

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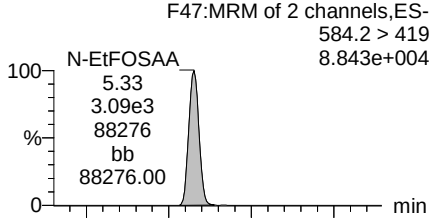
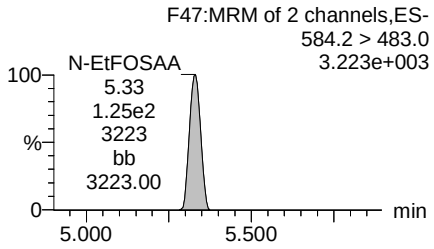
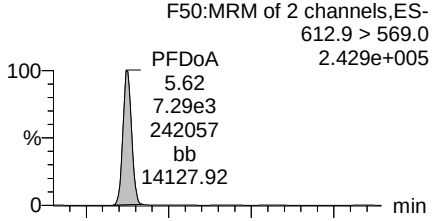
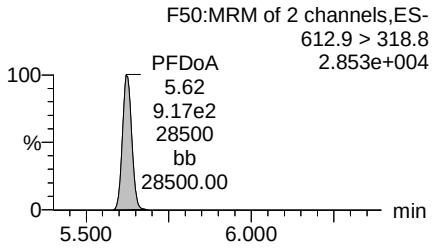




PFDoA





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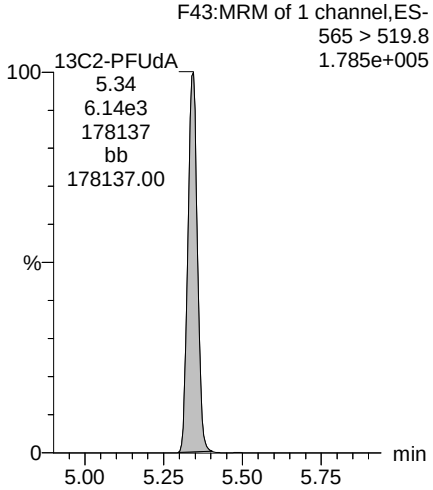

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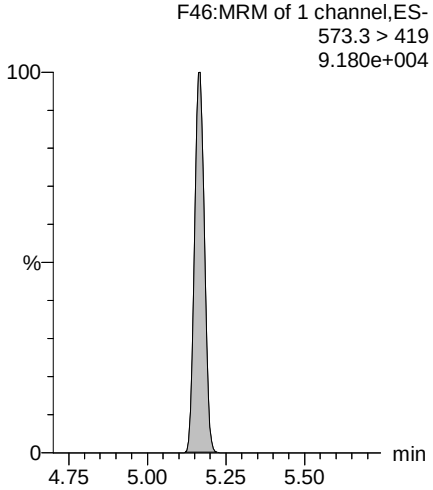

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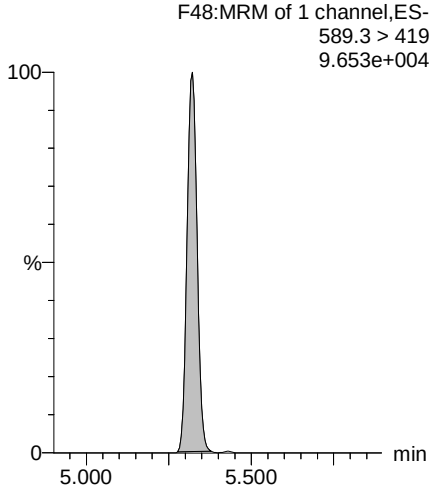
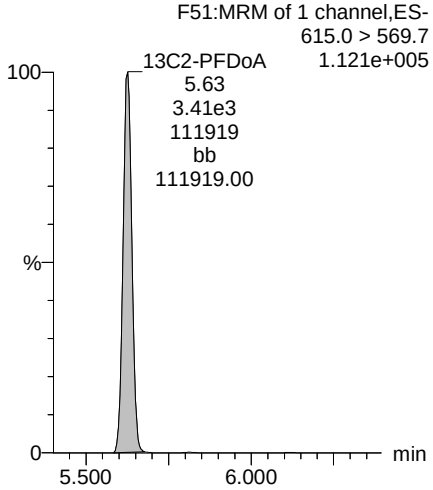


13C2-PFDoA



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Last Altered: Tuesday, January 09, 2018 14:35:45 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:36:26 Pacific Standard Time

Name: 180104M1_45, Date: 05-Jan-2018, Time: 09:04:59, ID: B7L0125-BS1 OPR 0.25, Description: OPR

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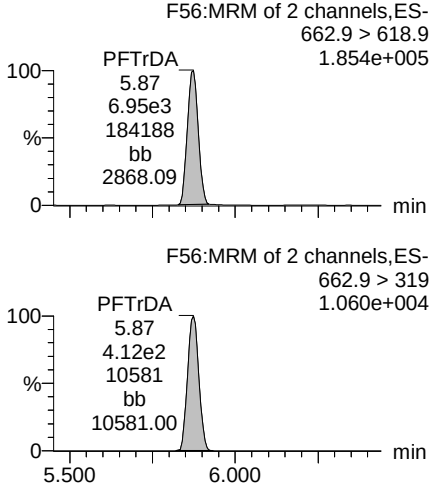

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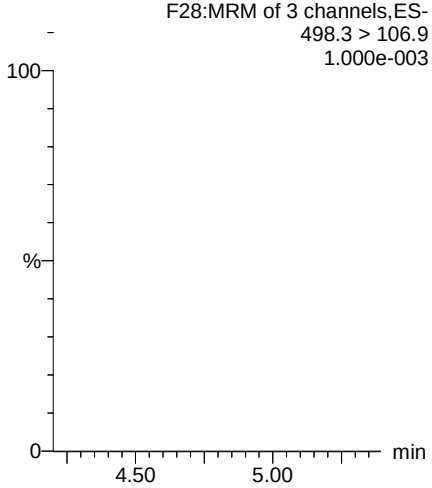
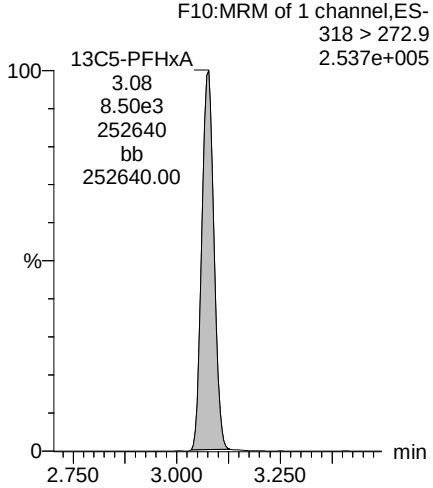
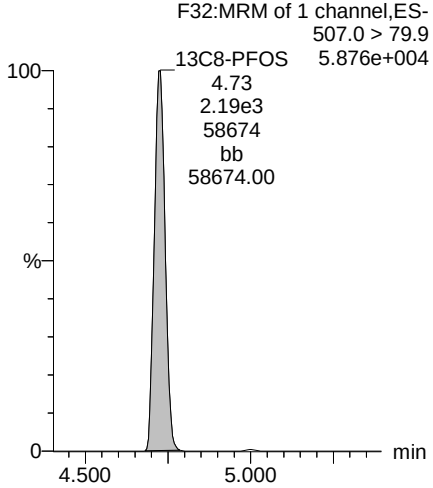


13C5-PFHxA



13C8-PFOS



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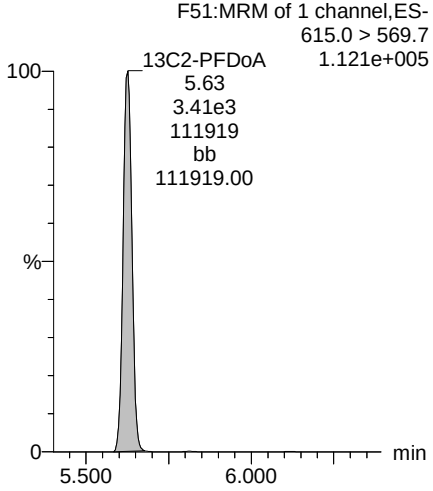
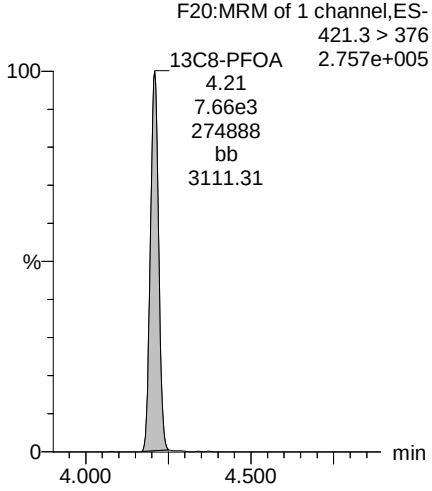


13C8-PFOA



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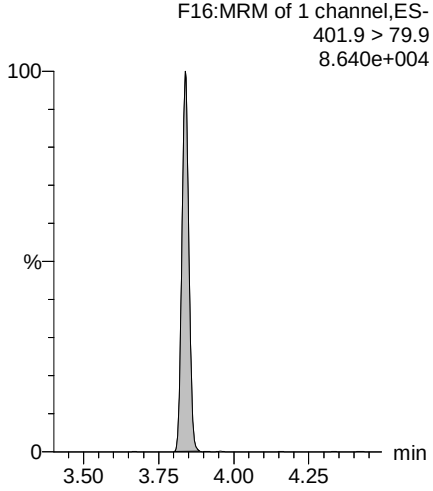

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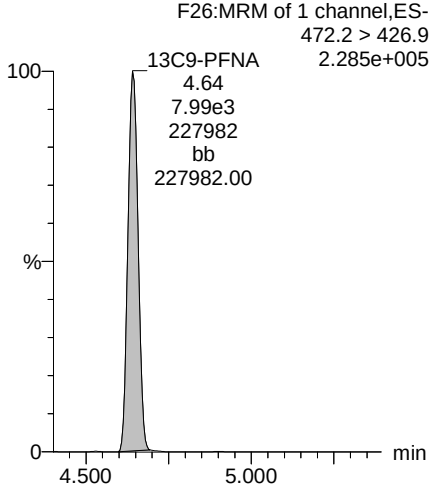

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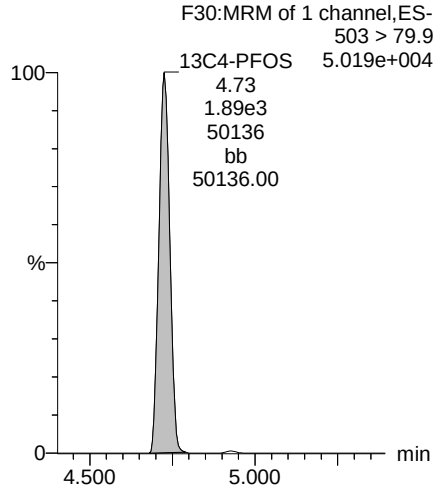
Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-45.qld

Last Altered: Tuesday, January 09, 2018 14:35:45 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:36:26 Pacific Standard Time

Name: 180104M1_45, Date: 05-Jan-2018, Time: 09:04:59, ID: B7L0125-BS1 OPR 0.25, Description: OPR

13C4-PFOS



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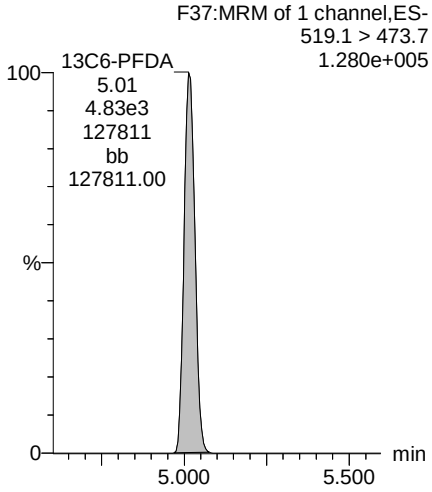
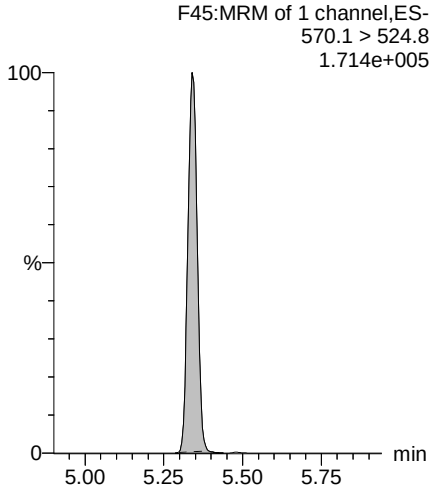


13C7-PFUdA



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Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-16_B.qld

Last Altered: Tuesday, January 09, 2018 15:17:29 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:17:38 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_16, Date: 29-Dec-2017, Time: 16:20:48, ID: B7L0125-BS1 OPR 0.25, Description: OPR

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2	49	13C2-PFTeDA	714.8 > 669.6	3.51e3	1.21e4	0.196	0.2500	6.16	6.11	3.64	74.3	148.7
3	61	13C7-PFUdA	570.1 > 524.8	1.21e4	1.21e4	1.000	0.2500	5.43	5.36	12.5	50.0	100.0

GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

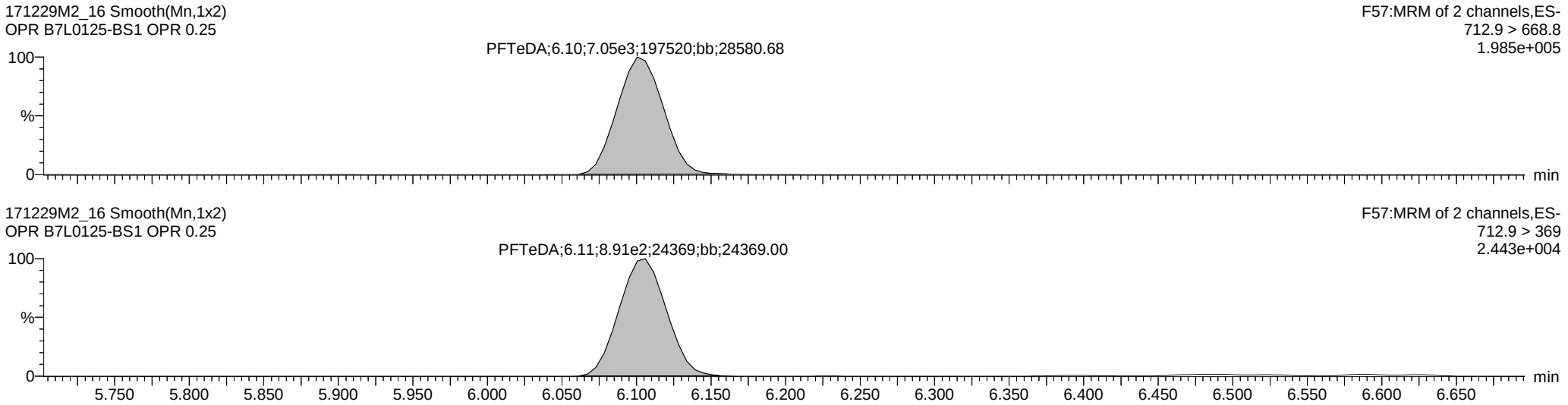
Dataset: U:\Q4.PRO\results\171229M2\171229M2-16_B.qld

Last Altered: Tuesday, January 09, 2018 15:17:29 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:17:38 Pacific Standard Time

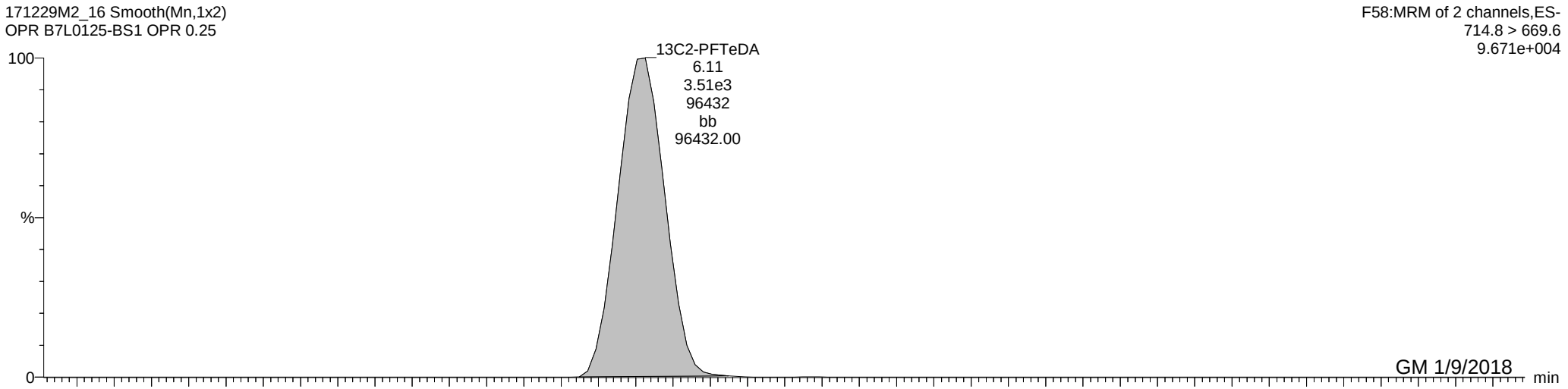
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_16, Date: 29-Dec-2017, Time: 16:20:48, ID: B7L0125-BS1 OPR 0.25, Description: OPR

PFTeDA



13C2-PFTeDA



GM 1/9/2018

Vista Analytical Laboratory

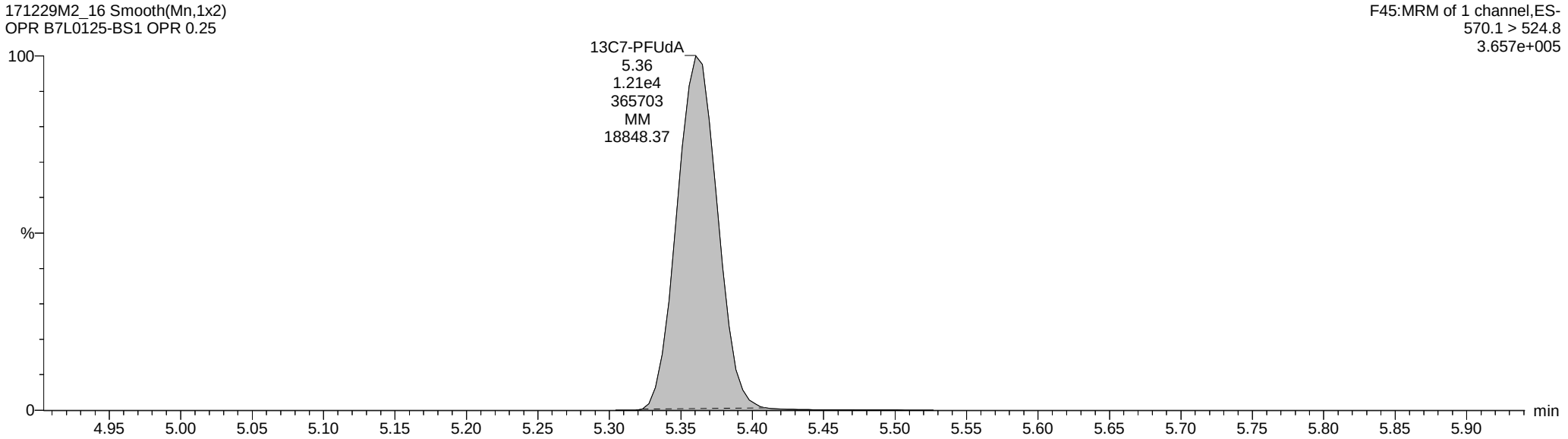
Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-16_B.qld

Last Altered: Tuesday, January 09, 2018 15:17:29 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:17:38 Pacific Standard Time

Name: 171229M2_16, Date: 29-Dec-2017, Time: 16:20:48, ID: B7L0125-BS1 OPR 0.25, Description: OPR

13C7-PFUdA



GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-46.qld

Last Altered: Friday, January 05, 2018 13:44:19 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:42:05 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_46, Date: 05-Jan-2018, Time: 09:16:14, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	1.39e3	9.07e2	0.250		2.70	2.59	19.2	35.0096	87.5
2	4	PFHxA	313.2 > 268.9	6.67e3	2.05e3	0.250		3.12	3.08	16.3	34.8784	87.2
3	5	PFHpA	363.0 > 318.9	5.55e3	5.28e3	0.250		3.75	3.69	13.1	32.9953	82.5
4	6	L-PFHxS	398.9 > 79.6	9.59e2	8.12e2	0.250		3.92	3.84	14.8	29.6132	74.0
5	9	L-PFOA	413 > 368.7	5.06e3	6.58e3	0.250		4.25	4.21	9.60	29.9868	75.0
6	12	PFNA	463.0 > 418.8	5.81e3	6.49e3	0.250		4.70	4.65	11.2	31.0096	77.5
7	14	L-PFOS	499 > 79.9	1.70e3	1.70e3	0.250		4.83	4.73	12.5	48.7560	121.9
8	16	PFDA	513 > 468.8	5.32e3	4.37e3	0.250		5.05	5.02	15.2	37.3758	93.4
9	18	N-MeFOSAA	570.1 > 419	3.07e3	2.83e3	0.250		5.20	5.17	13.6	28.0521	70.1
10	19	N-EtFOSAA	584.2 > 419	2.86e3	3.50e3	0.250		5.42	5.33	10.2	30.9767	77.4
11	20	PFUdA	563.0 > 518.9	5.01e3	5.44e3	0.250		5.35	5.34	11.5	36.2017	90.5
12	22	PFDoA	612.9 > 569.0	6.17e3	3.47e3	0.250		5.70	5.63	22.2	36.3601	90.9

GM for AC 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-46.qld

Last Altered: Friday, January 05, 2018 13:44:19 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:42:14 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_46, Date: 05-Jan-2018, Time: 09:16:14, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	4.16e3	1.45e3	0.250		5.95	5.87	35.8	25.6461	64.1
2	33	13C3-PFBS	302. > 98.8	9.07e2	6.13e3	0.250	0.106	2.70	2.59	1.85	69.6743	139.3
3	34	13C2-PFHxA	315 > 269.8	2.05e3	6.13e3	0.250	0.633	3.20	3.08	4.17	26.3787	131.9
4	35	13C4-PFHpA	367.2 > 321.8	5.28e3	6.13e3	0.250	0.641	3.80	3.69	10.8	67.1591	134.3
5	36	18O2-PFHxS	403.0 > 102.6	8.12e2	2.01e3	0.250	0.334	3.95	3.84	5.06	60.5897	121.2
6	37	13C2-6:2 FTS	429.1 > 408.9	2.00e3	6.07e3	0.250	0.228	4.26	4.16	4.13	72.3265	144.7
7	38	13C2-PFOA	414.9 > 369.7	6.58e3	6.07e3	0.250	0.959	4.32	4.21	13.6	56.5455	113.1
8	39	13C5-PFNA	468.2 > 422.9	6.49e3	5.66e3	0.250	0.830	4.75	4.65	14.4	69.1357	138.3
9	40	13C8-PFOSA	506.1 > 77.7	1.14e3	7.02e3	0.250	0.262	4.81	4.71	2.03	30.9661	61.9
10	41	13C8-PFOS	507.0 > 79.9	1.70e3	1.85e3	0.250	0.880	4.83	4.73	11.5	52.2282	104.5
11	42	13C2-PFDA	515.1 > 469.9	4.37e3	4.35e3	0.250	0.995	5.11	5.02	12.6	50.4675	100.9
12	43	13C2-8:2 FTS	529.1 > 508.7	8.82e2	6.13e3	0.250	0.142	5.09	4.99	1.80	50.5749	101.1
13	44	d3-N-MeFOSAA	573.3 > 419	2.83e3	7.02e3	0.250	0.376	5.26	5.17	5.04	53.6380	107.3
14	45	d5-N-EtFOSAA	589.3 > 419	3.50e3	7.02e3	0.250	0.444	5.42	5.33	6.24	56.2534	112.5
15	46	13C2-PFUdA	565 > 519.8	5.44e3	7.02e3	0.250	0.889	5.43	5.34	9.70	43.6585	87.3
16	47	13C2-PFDoA	615.0 > 569.7	3.47e3	7.02e3	0.250	0.542	5.70	5.63	6.18	45.6039	91.2
17	55	13C5-PFHxA	318 > 272.9	6.13e3	6.13e3	0.250	1.000	3.20	3.08	12.5	50.0000	100.0
18	56	13C3-PFHxS	401.9 > 79.9	2.01e3	2.01e3	0.250	1.000	3.95	3.84	12.5	50.0000	100.0
19	57	13C8-PFOA	421.3 > 376	6.07e3	6.07e3	0.250	1.000	4.32	4.21	12.5	50.0000	100.0
20	58	13C9-PFNA	472.2 > 426.9	5.66e3	5.66e3	0.250	1.000	4.75	4.65	12.5	50.0000	100.0
21	59	13C4-PFOS	503 > 79.9	1.85e3	1.85e3	0.250	1.000	4.83	4.73	12.5	50.0000	100.0
22	60	13C6-PFDA	519.1 > 473.7	4.35e3	4.35e3	0.250	1.000	5.11	5.02	12.5	50.0000	100.0
23	61	13C7-PFUdA	570.1 > 524.8	7.02e3	7.02e3	0.250	1.000	5.43	5.34	12.5	50.0000	100.0
24	62	Total PFHxS	398.9 > 79.6	9.59e2	8.12e2	0.250		4.00		14.8	29.6132	
25	63	Total PFOA	413 > 368.7	5.06e3	6.58e3	0.250		4.30		9.60	29.9868	
26	64	Total PFOS	499 > 79.9	1.70e3	1.70e3	0.250		4.80		12.5	48.7560	
27	65	Total N-MeFOSAA	570.1 > 419	3.07e3	2.83e3	0.250		5.20		13.6	28.0521	
28	66	Total N-EtFOSAA	584.2 > 419	2.86e3	3.50e3	0.250		5.40		10.2	30.9767	

GM for AC 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-46.qld

Last Altered: Friday, January 05, 2018 13:44:19 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:42:14 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_46, Date: 05-Jan-2018, Time: 09:16:14, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

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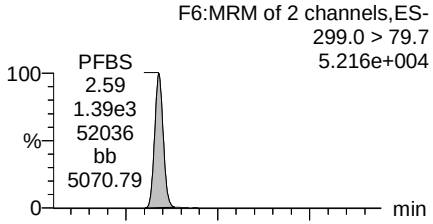

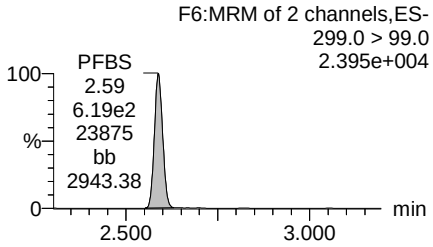

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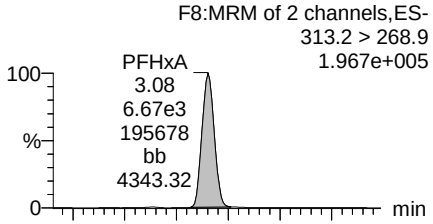

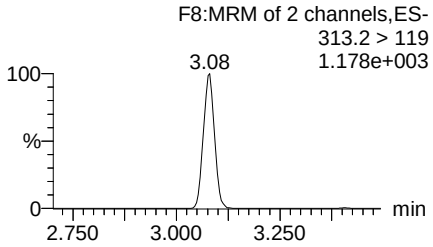

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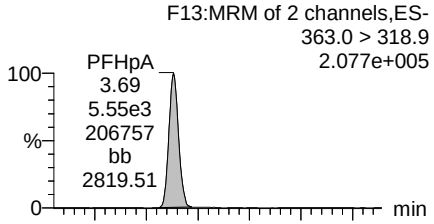

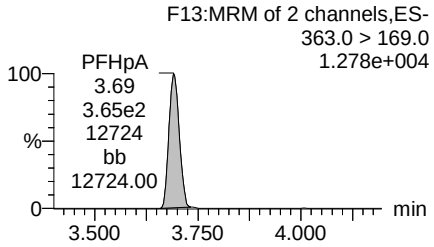

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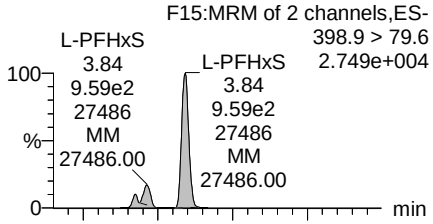

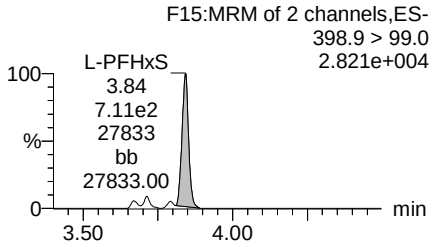

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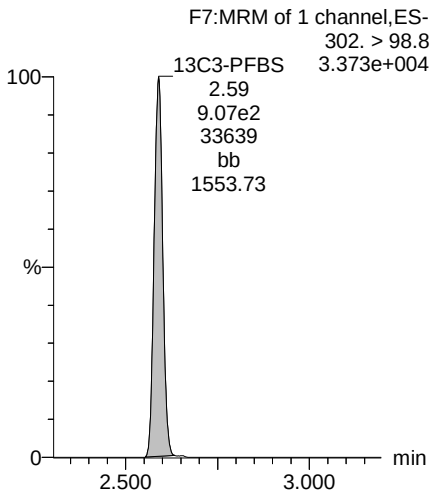

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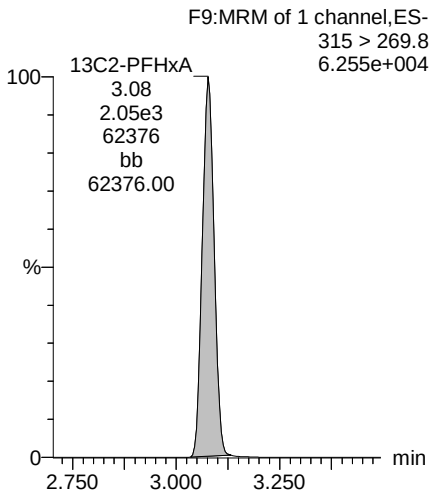

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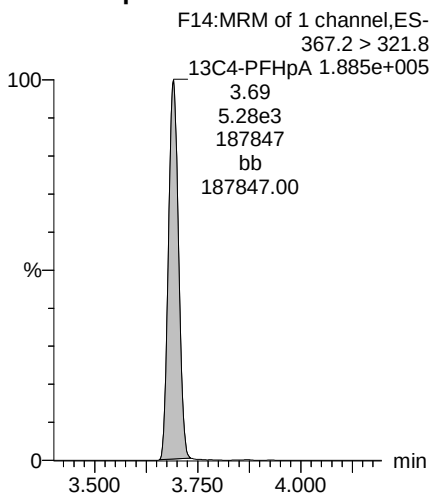

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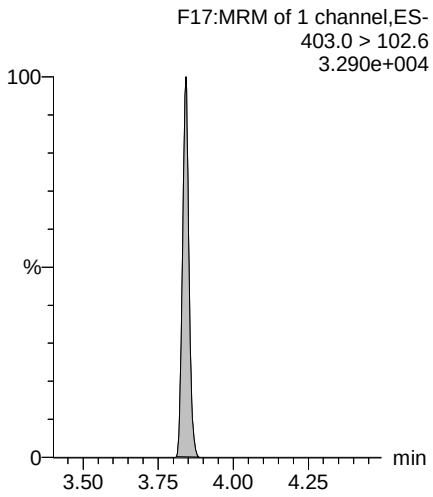

GM for AC 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-46.qld

Last Altered: Friday, January 05, 2018 13:44:19 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:42:14 Pacific Standard Time

Name: 180104M1_46, Date: 05-Jan-2018, Time: 09:16:14, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

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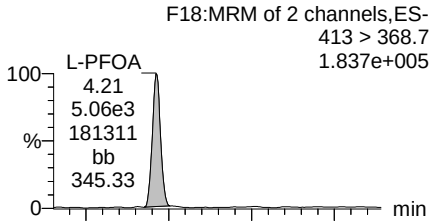

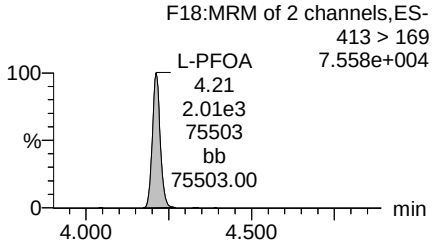

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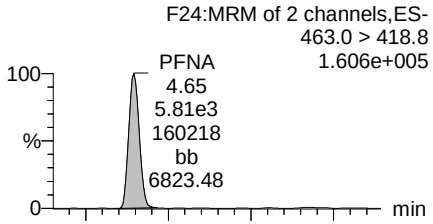
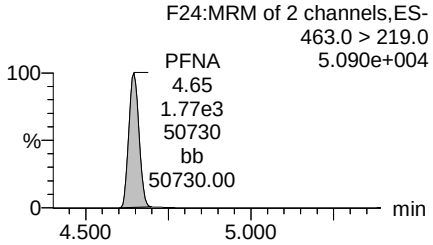
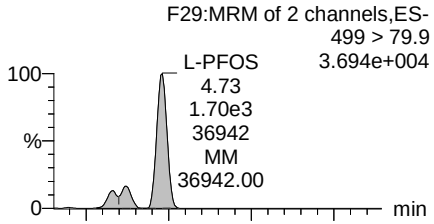
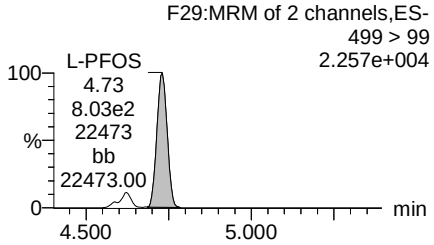




Total PFOS





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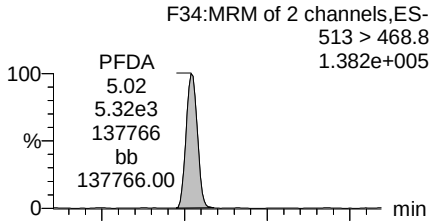

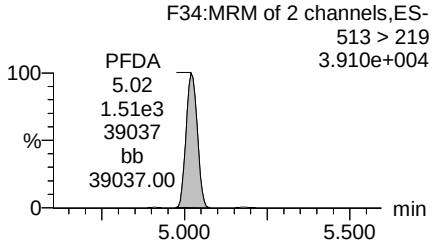

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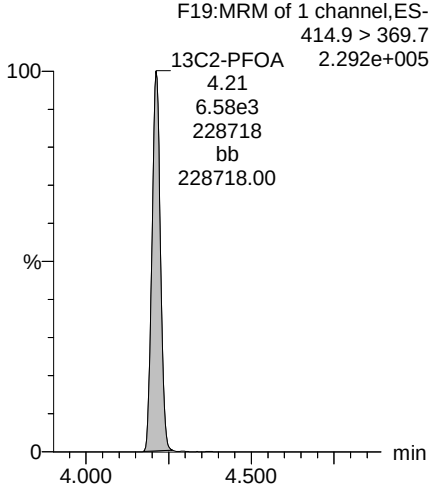

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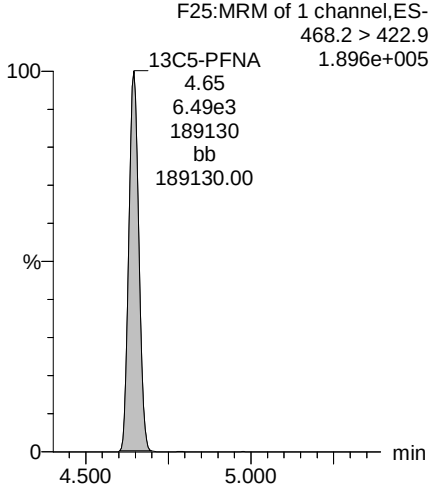

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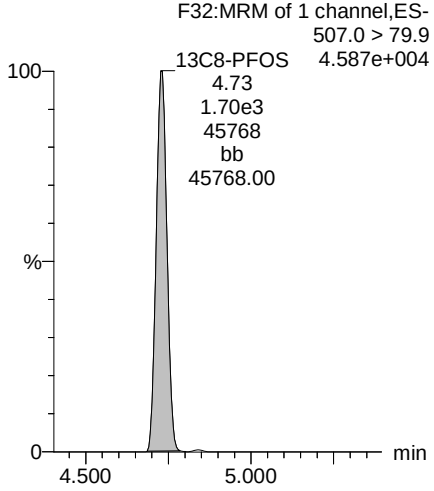

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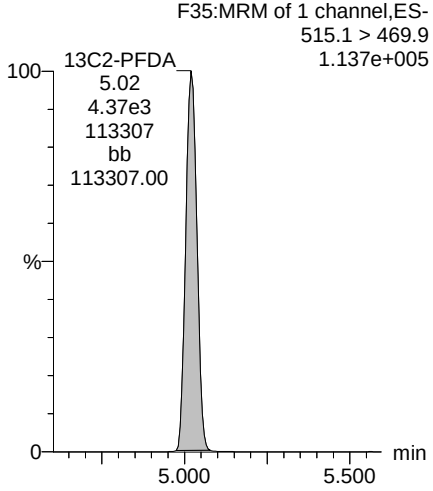


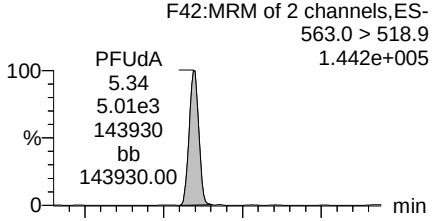
GM for AC 1/9/2018

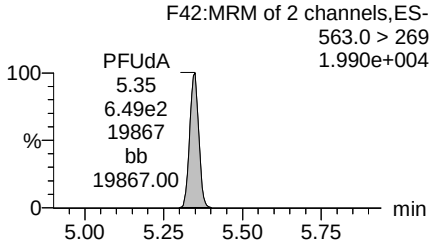
Dataset: U:\Q4.PRO\results\180104M1\180104M1-46.qld

Last Altered: Friday, January 05, 2018 13:44:19 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:42:14 Pacific Standard Time

Name: 180104M1_46, Date: 05-Jan-2018, Time: 09:16:14, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

PFUdA





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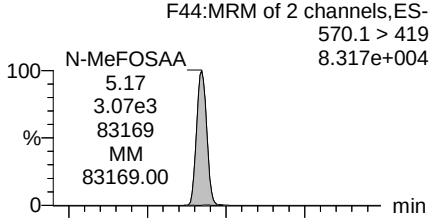
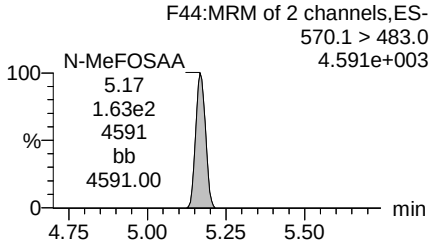
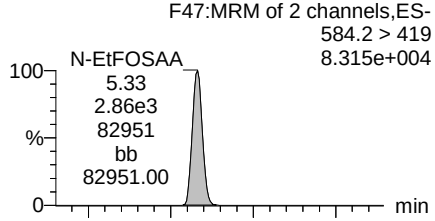
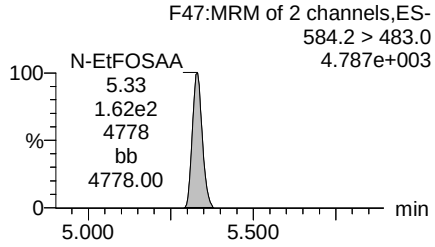


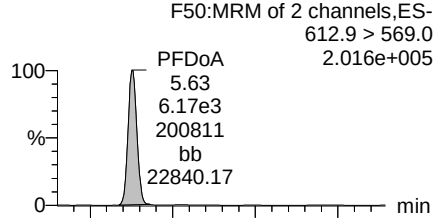


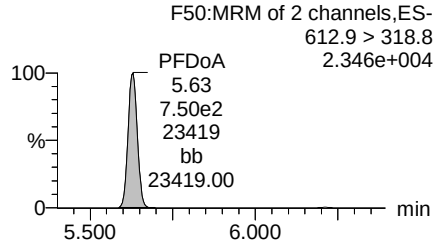
N-EtFOSAA



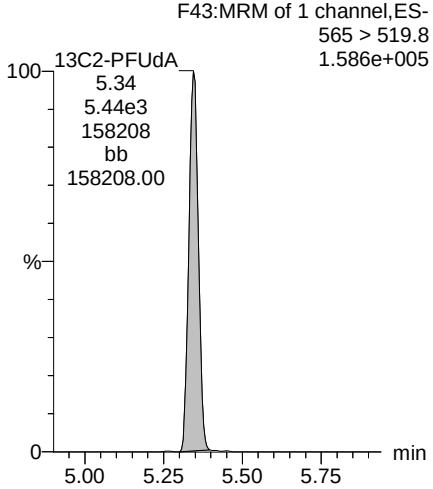


PFDoA

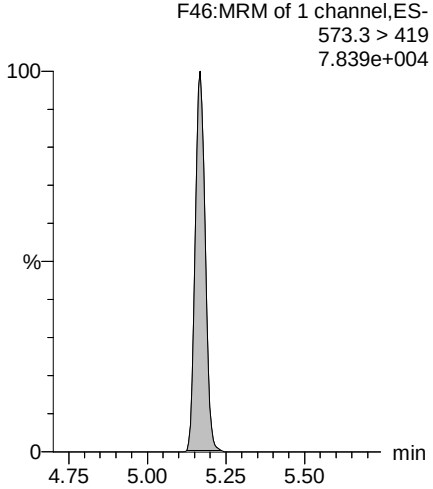




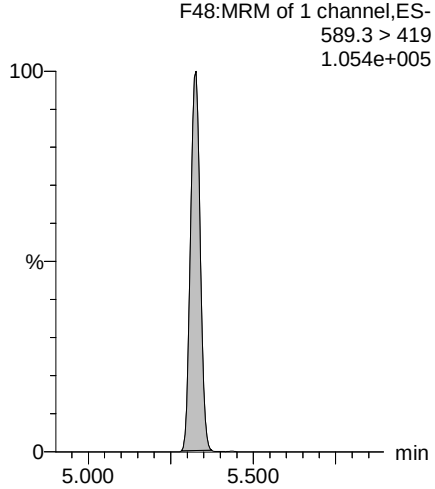
13C2-PFUdA



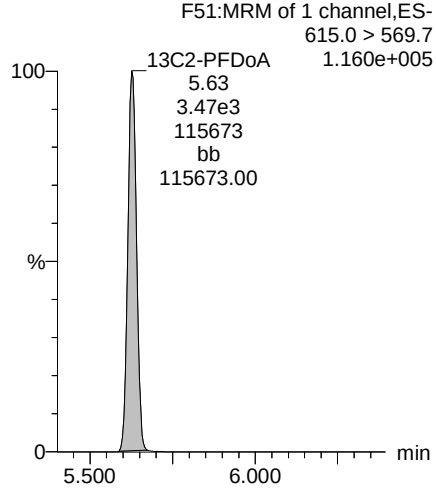
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



GM for AC 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-46.qld

Last Altered: Friday, January 05, 2018 13:44:19 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:42:14 Pacific Standard Time

Name: 180104M1_46, Date: 05-Jan-2018, Time: 09:16:14, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

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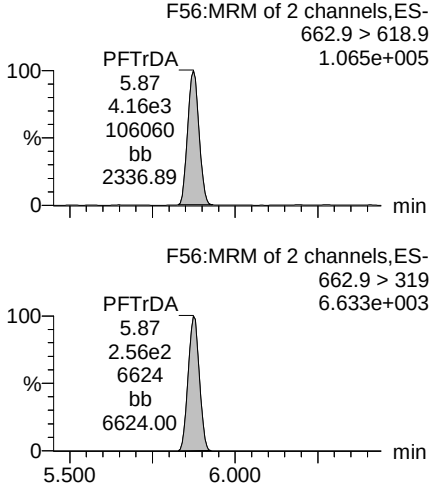

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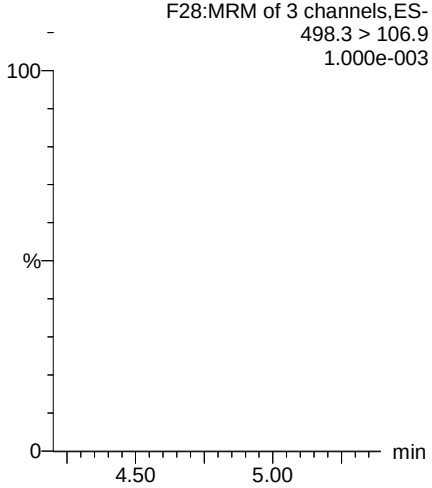
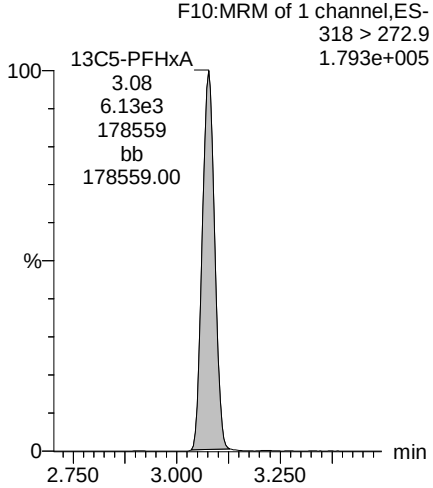
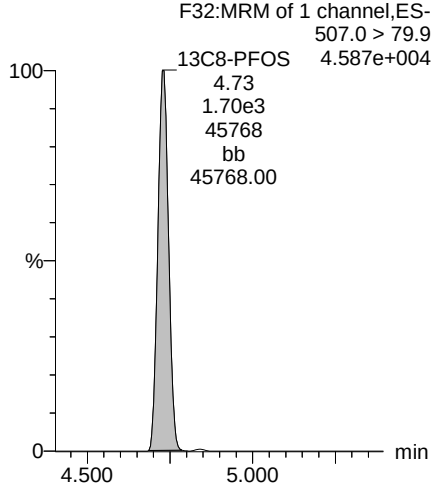


13C5-PFHxA



13C8-PFOS



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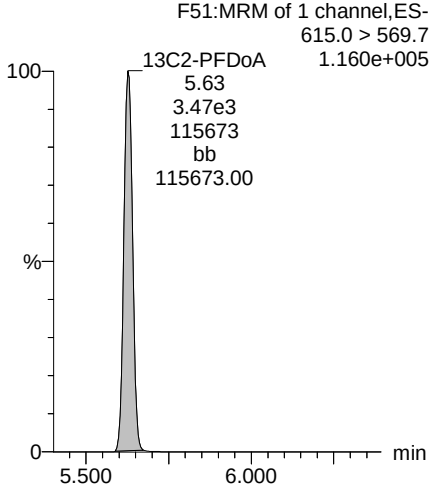

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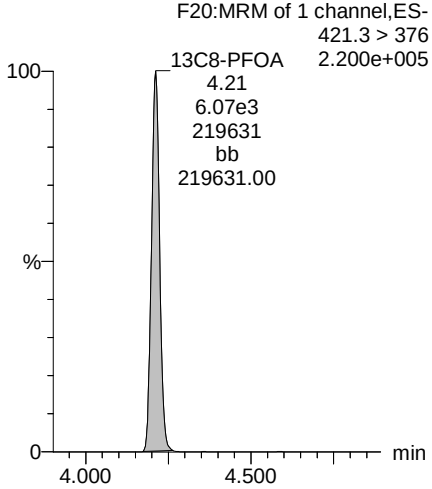

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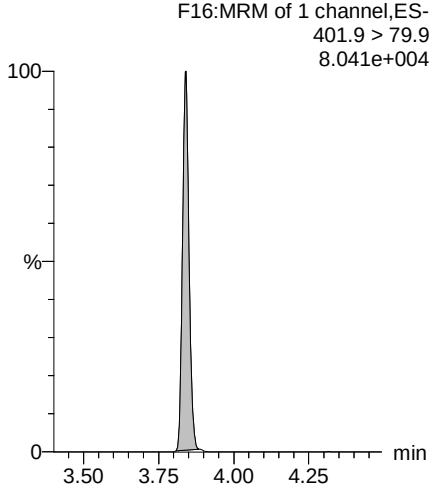
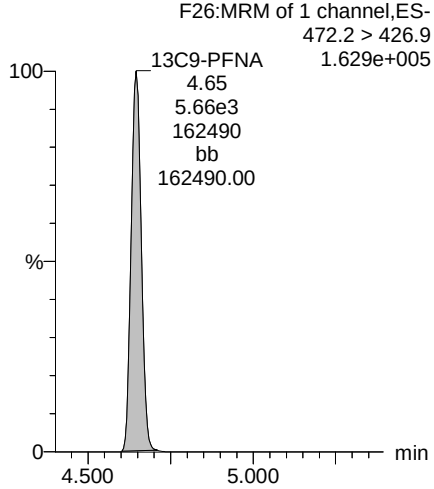


13C9-PFNA



GM for AC 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-46.qld

Last Altered: Friday, January 05, 2018 13:44:19 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:42:14 Pacific Standard Time

Name: 180104M1_46, Date: 05-Jan-2018, Time: 09:16:14, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

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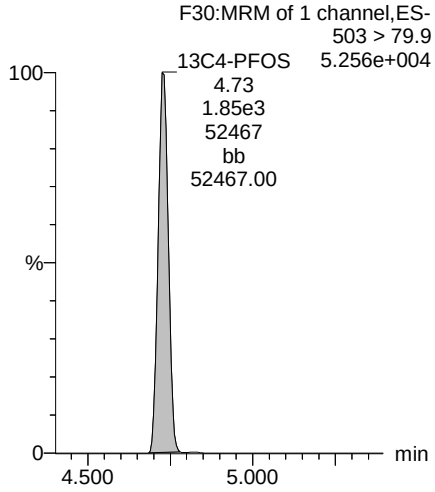

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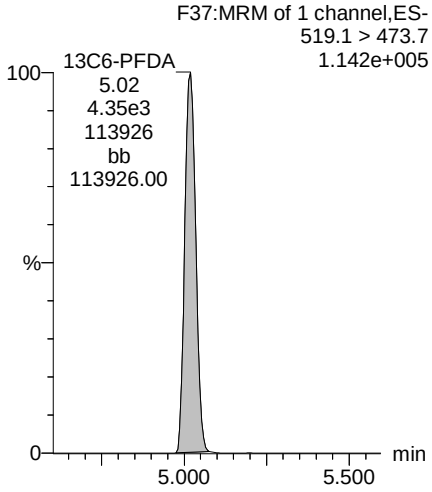
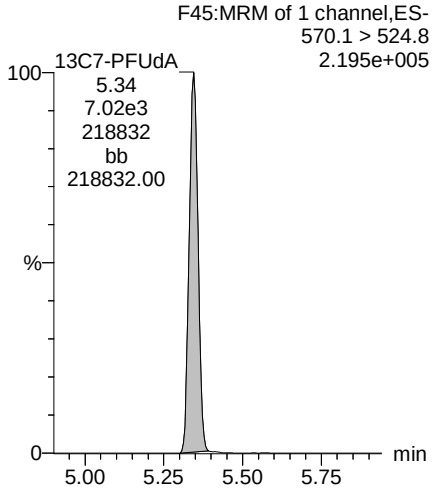


13C7-PFUdA



GM for AC 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-17.qld

Last Altered: Tuesday, January 09, 2018 15:18:11 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:19:09 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_17, Date: 29-Dec-2017, Time: 16:31:57, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

	#	Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	25	PFTeDA	712.9 > 668.8	4.77e3	1.85e3		0.2500	6.16	6.11	32.2	38.4	95.9
2	49	13C2-PFTeDA	714.8 > 669.6	1.85e3	1.04e4	0.196	0.2500	6.16	6.11	2.23	45.6	91.3
3	61	13C7-PFUdA	570.1 > 524.8	1.04e4	1.04e4	1.000	0.2500	5.43	5.37	12.5	50.0	100.0

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Vista Analytical Laboratory

Revd: MM 1/11/18

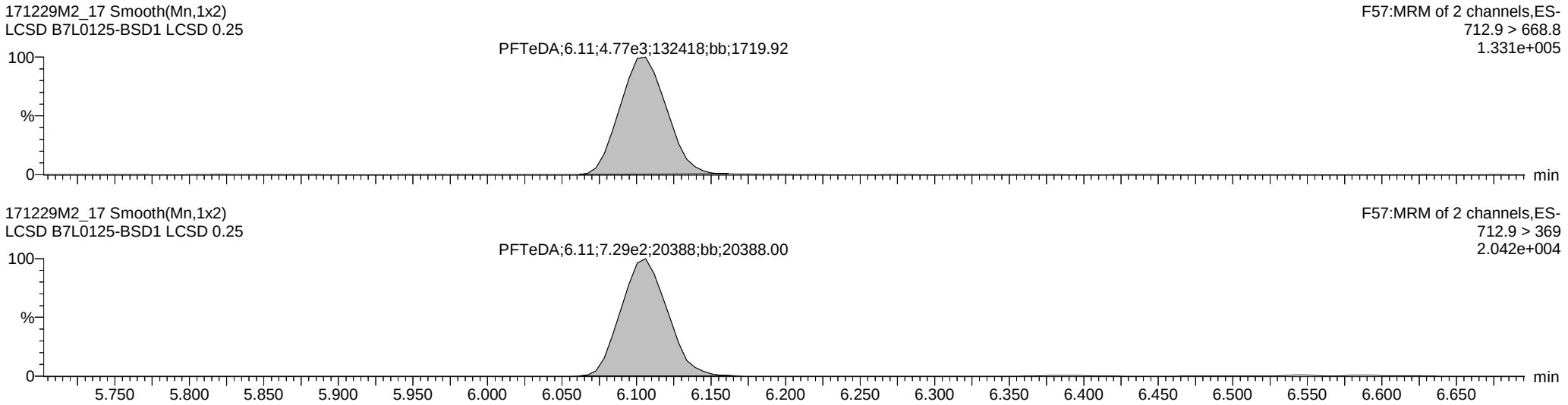
Dataset: U:\Q4.PRO\results\171229M2\171229M2-17.qld

Last Altered: Tuesday, January 09, 2018 15:18:11 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:19:09 Pacific Standard Time

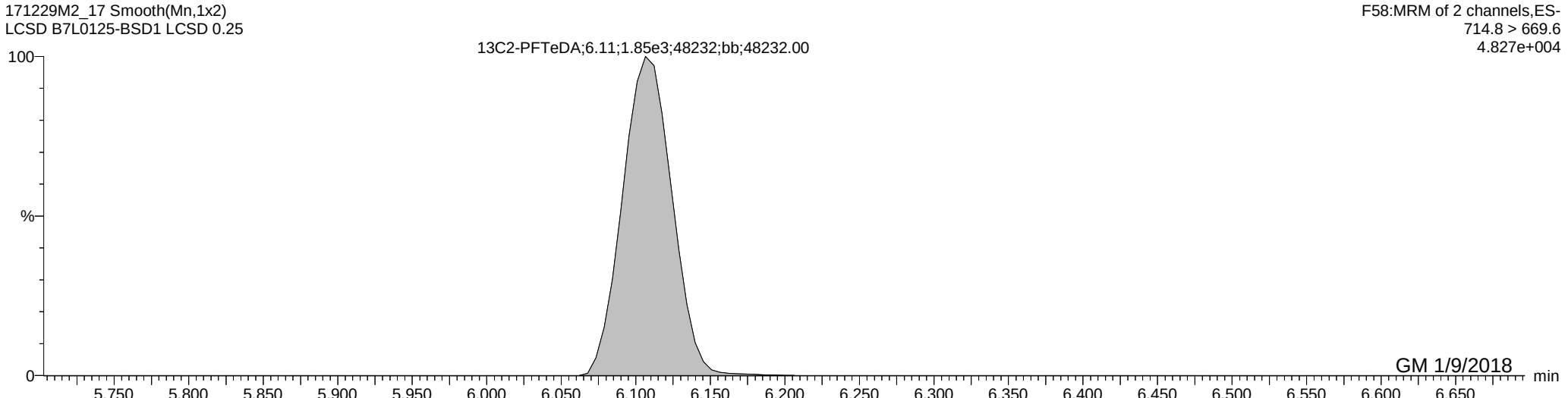
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_17, Date: 29-Dec-2017, Time: 16:31:57, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

PFTeDA



13C2-PFTeDA



GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

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Last Altered: Tuesday, January 09, 2018 15:18:11 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:19:09 Pacific Standard Time

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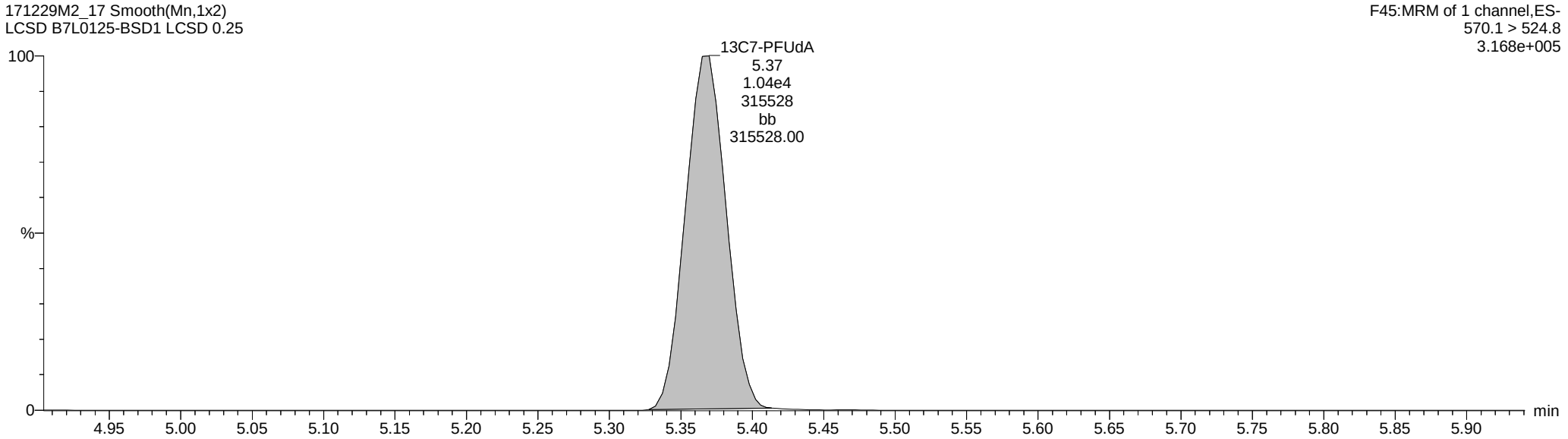
13C7-PFUdA



GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-48.qld

Last Altered: Tuesday, January 09, 2018 14:43:42 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:44:28 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

*See dilution.

Name: 180104M1_48, Date: 05-Jan-2018, Time: 09:42:44, ID: 1701802-01RE1 FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	3	PFBS	299.0 > 79.7	7.12e1	9.37e2	0.268		2.70	2.58	0.950	1.9028		
2	4	PFHxA	313.2 > 268.9	3.00e3	2.12e3	0.268		3.12	3.07	7.07	14.1092		
3	5	PFHpA	363.0 > 318.9	1.13e3	5.39e3	0.268		3.75	3.68	2.62	6.2991		
4	6	L-PFHxS	398.9 > 79.6	3.25e1	7.03e2	0.268		3.92	3.84	0.578	1.1379		
5	9	L-PFOA	413 > 368.7	3.20e3	6.61e3	0.268		4.25	4.20	6.04	17.3619		
6	12	PFNA	463.0 > 418.8	2.90e4	6.61e3	0.268		4.70	4.64	54.9	150.3591		
7	14	L-PFOS	499 > 79.9	2.94e2	2.08e3	0.268		4.83	4.72	1.76	6.3785		
8	16	PFDA	513 > 468.8	8.13e3	5.21e3	0.268		5.05	5.01	19.5	44.8293		
9	18	N-MeFOSAA	570.1 > 419		2.57e3	0.268		5.20					
10	19	N-EtFOSAA	584.2 > 419		3.24e3	0.268		5.42					
11	20	PFUdA	563.0 > 518.9	1.60e5	5.05e3	0.268		5.35	5.34	396	903.8862	E	*
12	22	PFDoA	612.9 > 569.0	3.58e2	3.52e3	0.268		5.70	5.62	1.27	2.2496		

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Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-48.qld

Last Altered: Tuesday, January 09, 2018 14:43:42 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:44:38 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_48, Date: 05-Jan-2018, Time: 09:42:44, ID: 1701802-01RE1 FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	9.39e2	1.51e3	0.268		5.95	5.87	7.77	5.4250	
2	33	13C3-PFBS	302. > 98.8	9.37e2	7.19e3	0.268	0.106	2.70	2.58	1.63	57.2471	122.8
3	34	13C2-PFHxA	315 > 269.8	2.12e3	7.19e3	0.268	0.633	3.20	3.07	3.69	21.7330	116.5
4	35	13C4-PFHpA	367.2 > 321.8	5.39e3	7.19e3	0.268	0.641	3.80	3.68	9.38	54.6126	117.1
5	36	18O2-PFHxS	403.0 > 102.6	7.03e2	1.70e3	0.268	0.334	3.95	3.83	5.18	57.7916	124.0
6	37	13C2-6:2 FTS	429.1 > 408.9	1.69e3	7.12e3	0.268	0.228	4.26	4.15	2.97	48.5269	104.1
7	38	13C2-PFOA	414.9 > 369.7	6.61e3	7.12e3	0.268	0.959	4.32	4.20	11.6	45.1425	96.8
8	39	13C5-PFNA	468.2 > 422.9	6.61e3	6.53e3	0.268	0.830	4.75	4.64	12.7	56.8686	122.0
9	40	13C8-PFOSA	506.1 > 77.7	1.42e3	4.96e3	0.268	0.262	4.81	4.70	3.57	50.8085	109.0
10	41	13C8-PFOS	507.0 > 79.9	2.08e3	1.63e3	0.268	0.880	4.83	4.72	15.9	67.5311	144.8
11	42	13C2-PFDA	515.1 > 469.9	5.21e3	3.79e3	0.268	0.995	5.11	5.01	17.2	64.5363	138.4
12	43	13C2-8:2 FTS	529.1 > 508.7	1.09e3	7.19e3	0.268	0.142	5.09	4.98	1.90	49.7377	106.7
13	44	d3-N-MeFOSAA	573.3 > 419	2.57e3	4.96e3	0.268	0.376	5.26	5.16	6.47	64.2937	137.9
14	45	d5-N-EtFOSAA	589.3 > 419	3.24e3	4.96e3	0.268	0.444	5.42	5.32	8.17	68.6966	147.3
15	46	13C2-PFUdA	565 > 519.8	5.05e3	4.96e3	0.268	0.889	5.43	5.33	12.7	53.3733	114.5
16	47	13C2-PFDoA	615.0 > 569.7	3.52e3	4.96e3	0.268	0.542	5.70	5.62	8.87	61.0001	130.8
17	55	13C5-PFHxA	318 > 272.9	7.19e3	7.19e3	0.268	1.000	3.20	3.07	12.5	46.6227	100.0
18	56	13C3-PFHxS	401.9 > 79.9	1.70e3	1.70e3	0.268	1.000	3.95	3.83	12.5	46.6227	100.0
19	57	13C8-PFOA	421.3 > 376	7.12e3	7.12e3	0.268	1.000	4.32	4.20	12.5	46.6227	100.0
20	58	13C9-PFNA	472.2 > 426.9	6.53e3	6.53e3	0.268	1.000	4.75	4.63	12.5	46.6227	100.0
21	59	13C4-PFOS	503 > 79.9	1.63e3	1.63e3	0.268	1.000	4.83	4.72	12.5	46.6227	100.0
22	60	13C6-PFDA	519.1 > 473.7	3.79e3	3.79e3	0.268	1.000	5.11	5.01	12.5	46.6227	100.0
23	61	13C7-PFUdA	570.1 > 524.8	4.96e3	4.96e3	0.268	1.000	5.43	5.34	12.5	46.6227	100.0
24	62	Total PFHxS	398.9 > 79.6	3.25e1	7.03e2	0.268		4.00		0.578	1.1379	
25	63	Total PFOA	413 > 368.7	3.29e3	6.61e3	0.268		4.30		6.04	17.3619	
26	64	Total PFOS	499 > 79.9	2.94e2	2.08e3	0.268		4.80		1.76	6.3785	
27	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.57e3	0.268		5.20		0.000		
28	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.24e3	0.268		5.40		0.000		

GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-48.qld

Last Altered: Tuesday, January 09, 2018 14:43:42 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:44:38 Pacific Standard Time

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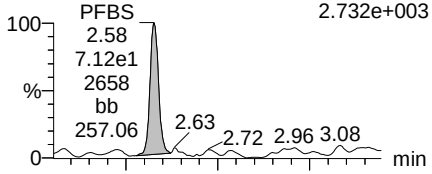
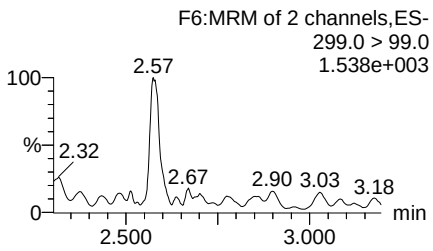
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_48, Date: 05-Jan-2018, Time: 09:42:44, ID: 1701802-01RE1 FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

PFBS





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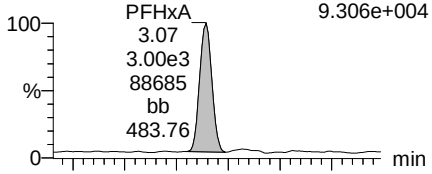
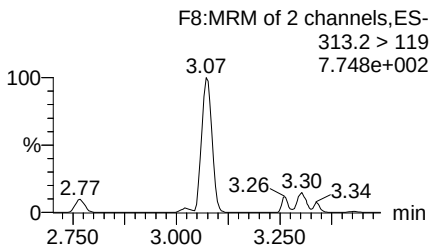
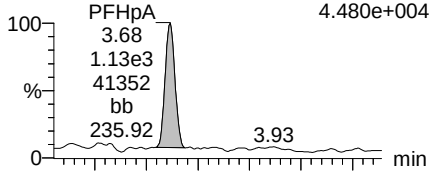
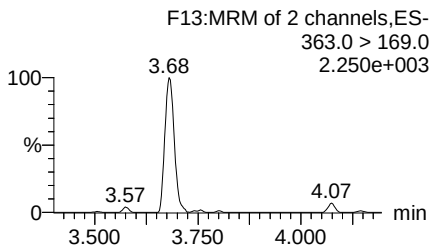




PFHpA





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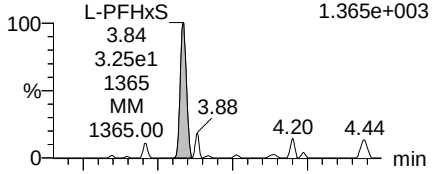
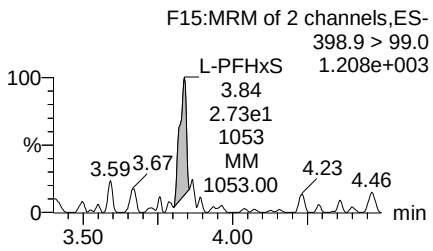
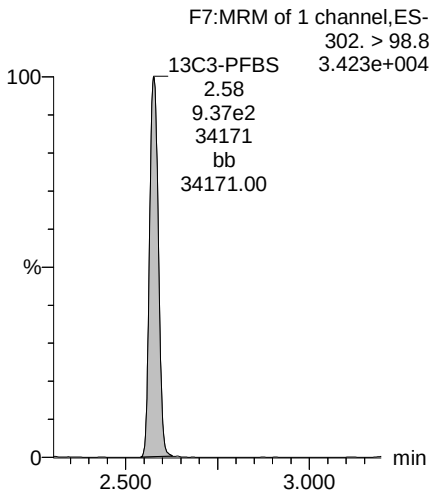
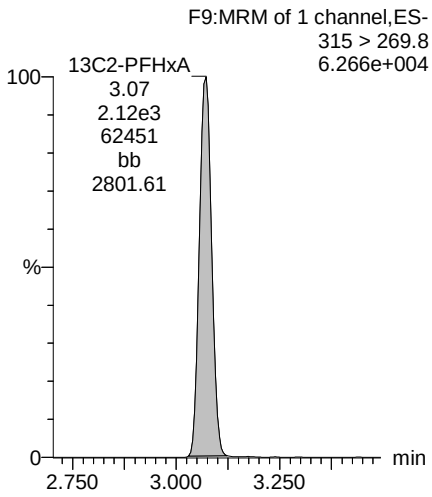




13C3-PFBS



13C2-PFHxA



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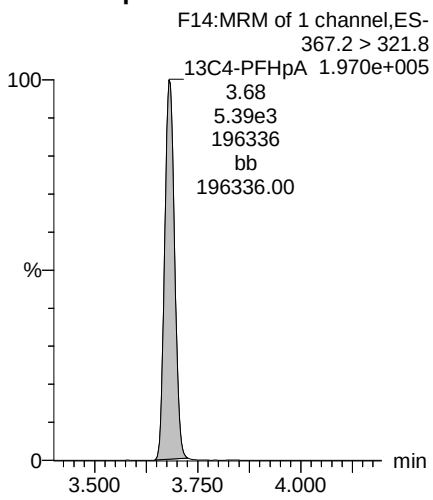

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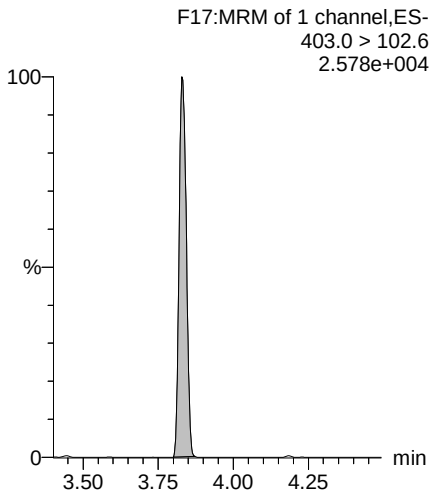

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Dataset: U:\Q4.PRO\results\180104M1\180104M1-48.qld

Last Altered: Tuesday, January 09, 2018 14:43:42 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:44:38 Pacific Standard Time

Name: 180104M1_48, Date: 05-Jan-2018, Time: 09:42:44, ID: 1701802-01RE1 FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

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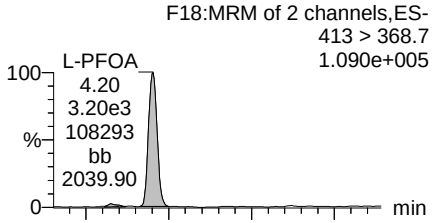

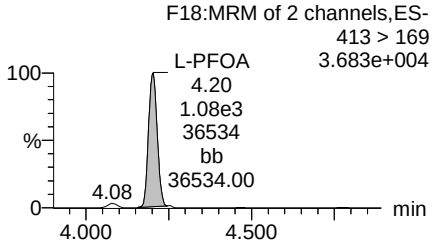

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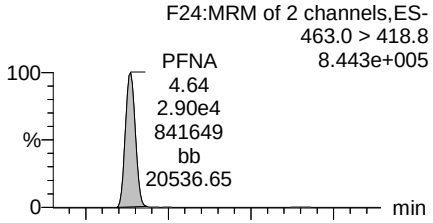

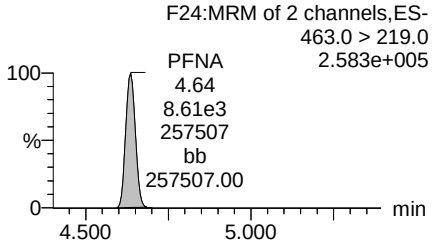

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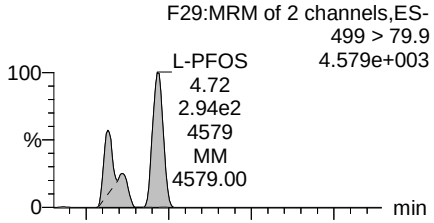

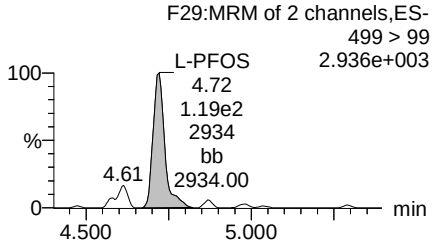

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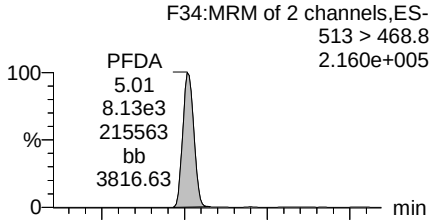
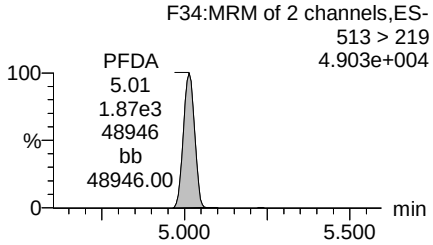
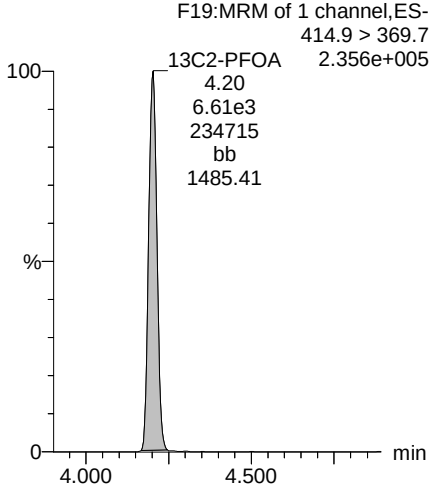




13C2-PFOA



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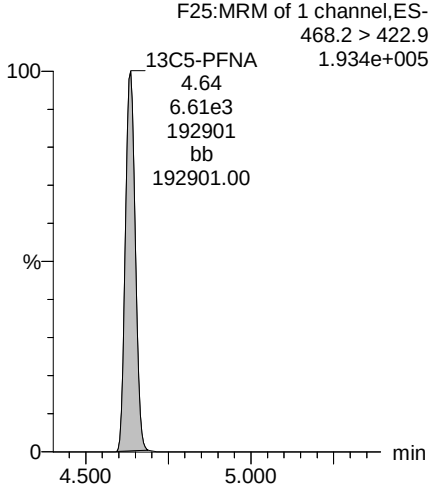
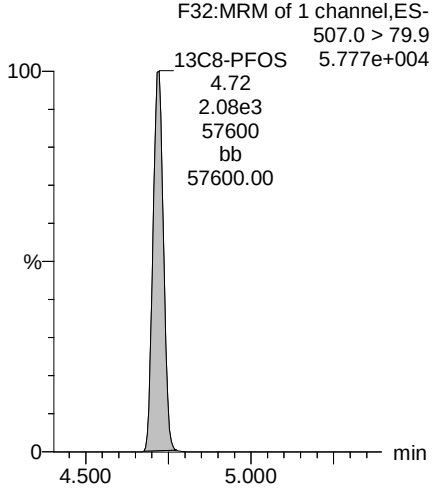


13C8-PFOS



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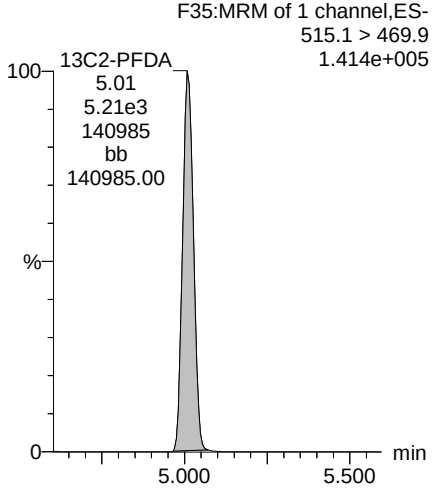

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Revd: MM 1/11/18

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Last Altered: Tuesday, January 09, 2018 14:43:42 Pacific Standard Time
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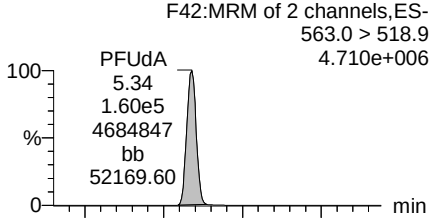
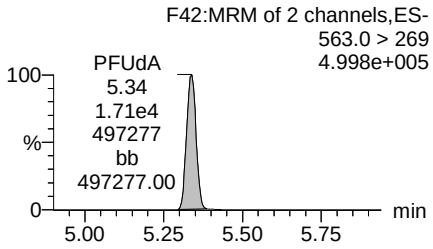
Name: 180104M1_48, Date: 05-Jan-2018, Time: 09:42:44, ID: 1701802-01RE1 FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

PFUdA





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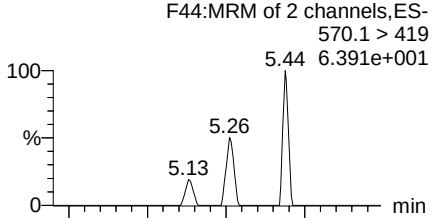

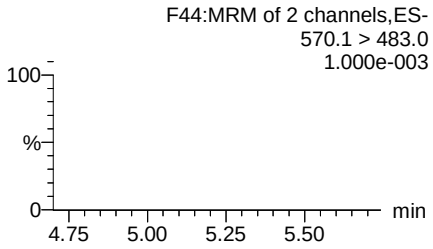

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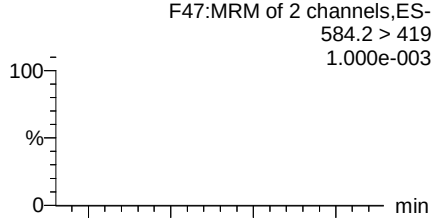

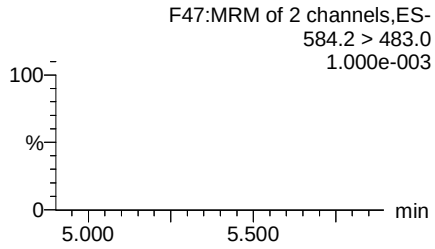

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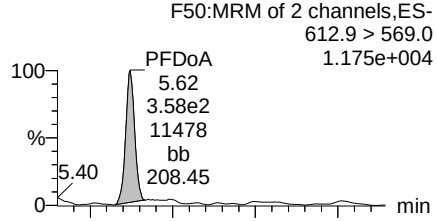

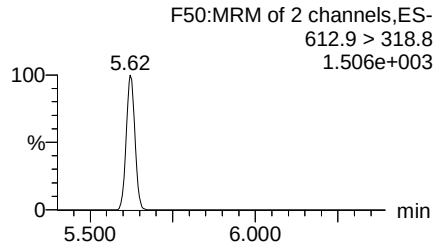

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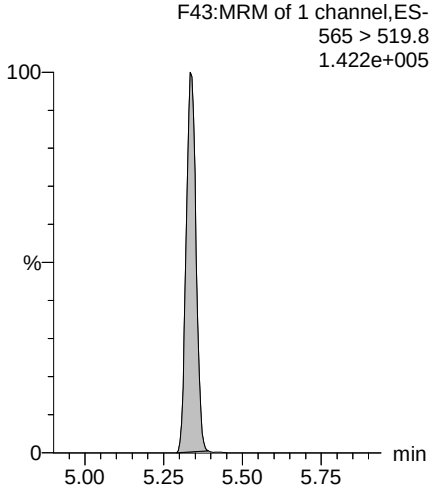

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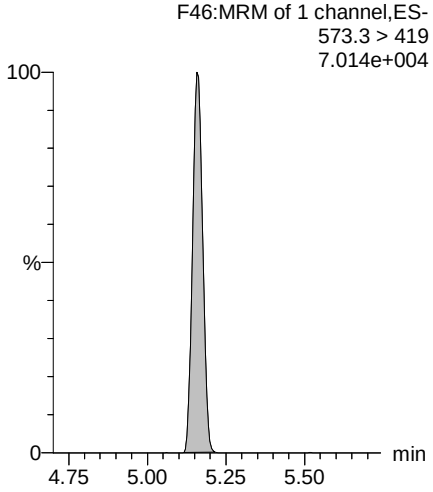

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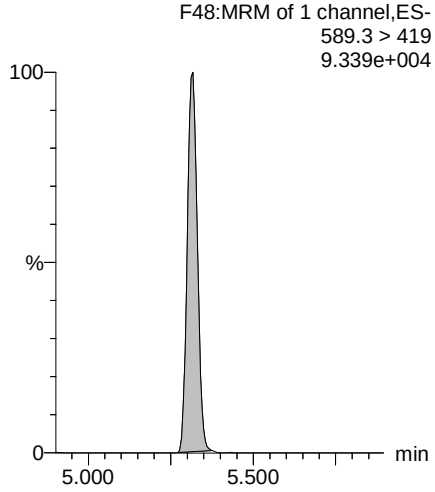

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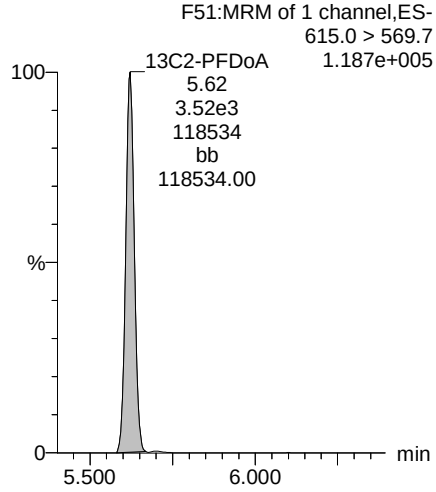

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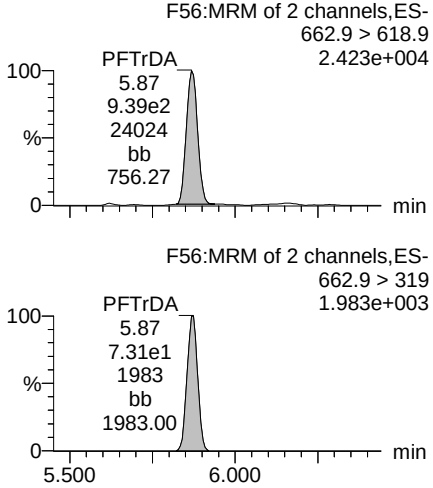
Printed: Tuesday, January 09, 2018 14:44:38 Pacific Standard Time

Name: 180104M1_48, Date: 05-Jan-2018, Time: 09:42:44, ID: 1701802-01RE1 FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

PFTrDA



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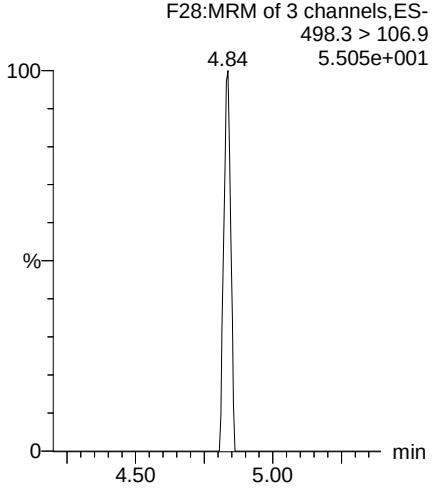

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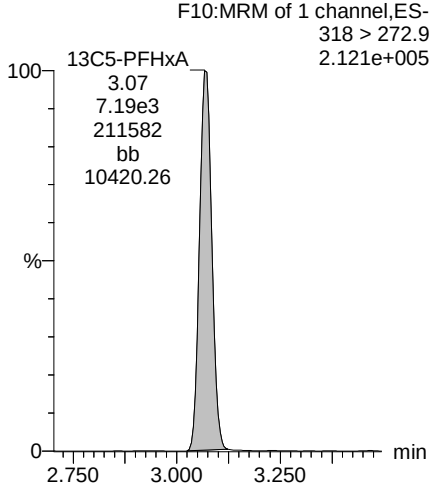

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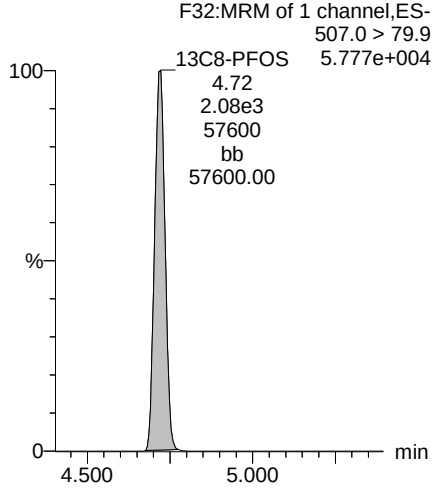
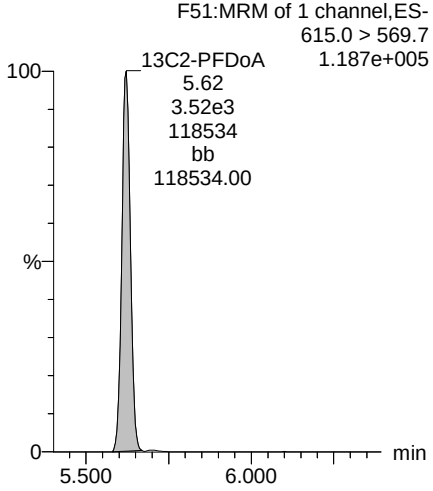


13C2-PFDoA



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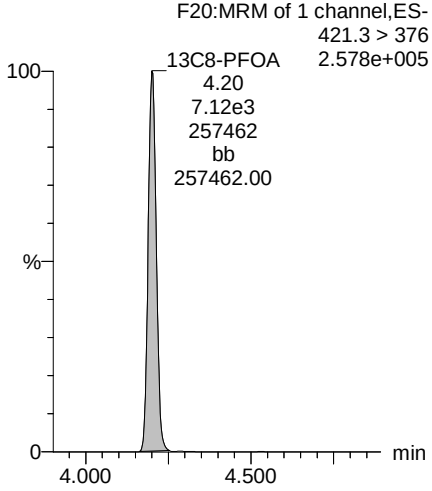

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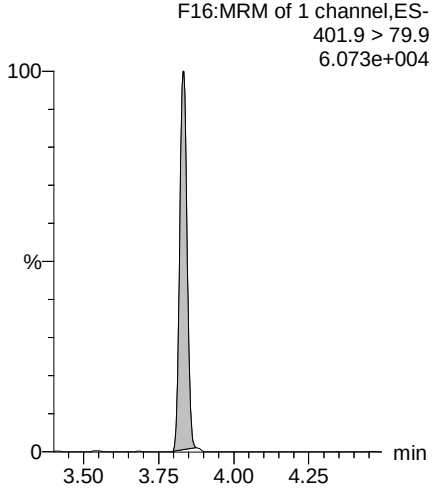

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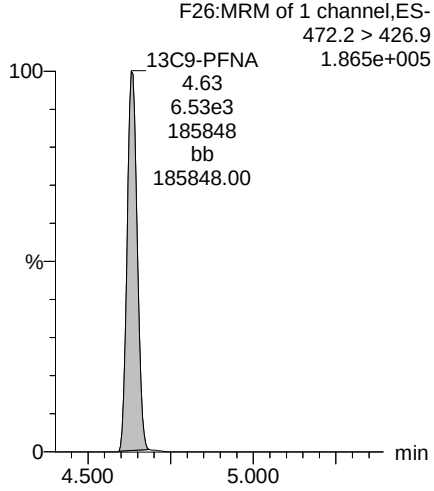

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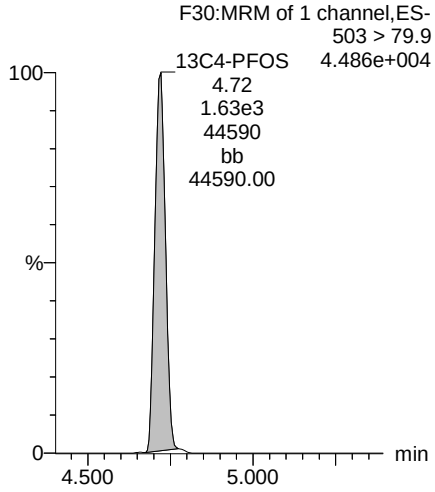
Printed: Tuesday, January 09, 2018 14:44:38 Pacific Standard Time

Name: 180104M1_48, Date: 05-Jan-2018, Time: 09:42:44, ID: 1701802-01RE1 FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

13C4-PFOS



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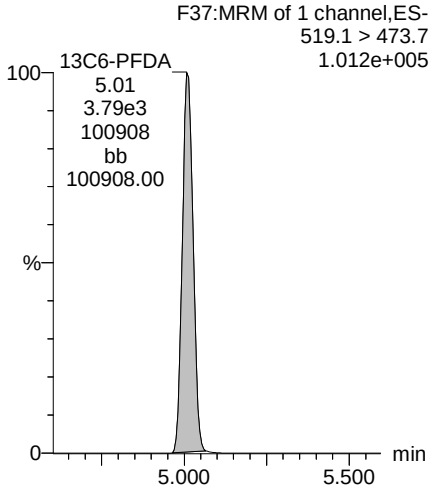

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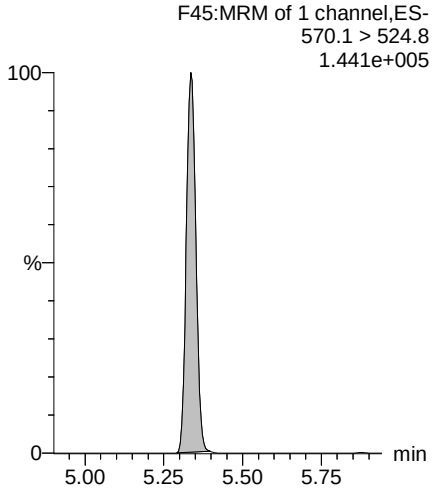

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Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-38.qld

Last Altered: Tuesday, January 09, 2018 15:23:47 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:23:58 Pacific Standard Time

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

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	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	25	PFTeDA	712.9 > 668.8		2.68e3		0.2681	6.16				
2	49	13C2-PFTeDA	714.8 > 669.6	2.68e3	9.16e3	0.196	0.2681	6.16	6.11	3.66	69.7	149.5
3	61	13C7-PFUdA	570.1 > 524.8	9.16e3	9.16e3	1.000	0.2681	5.43	5.37	12.5	46.6	100.0

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Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-38.qld

Last Altered: Tuesday, January 09, 2018 15:23:47 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:23:58 Pacific Standard Time

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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

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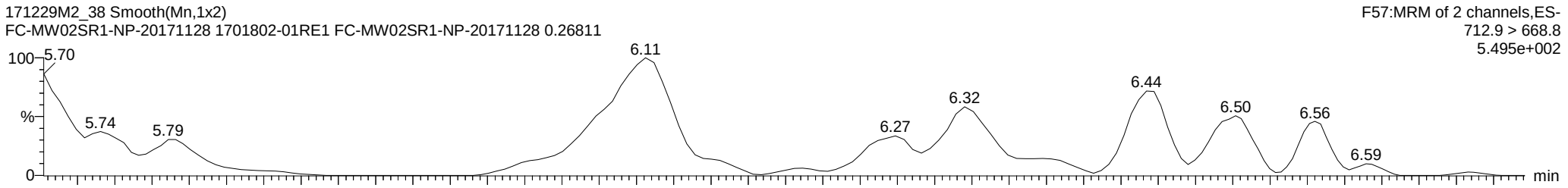

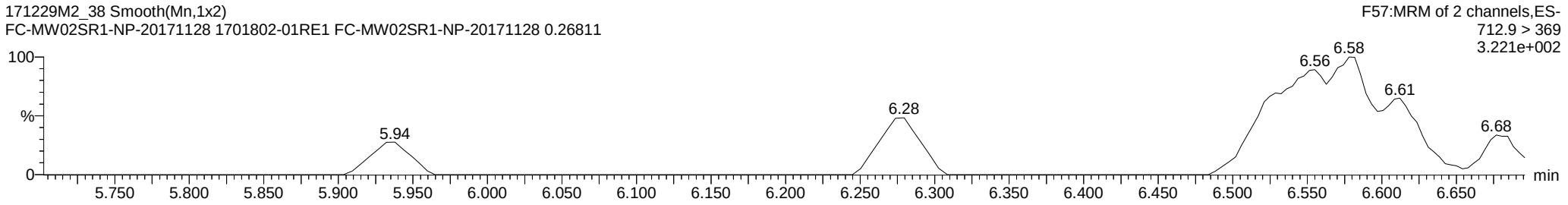

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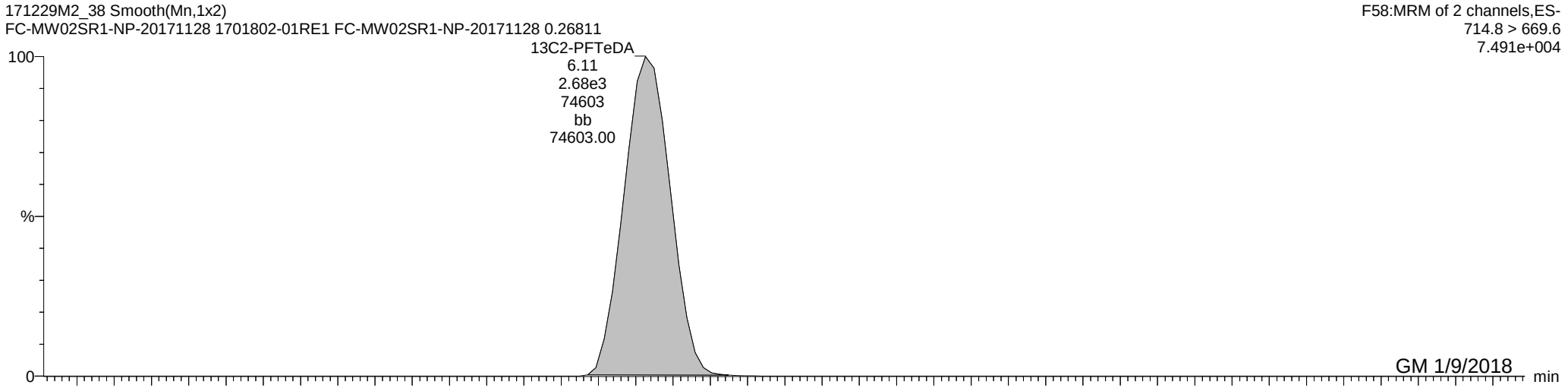

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Revd: MM 1/11/18

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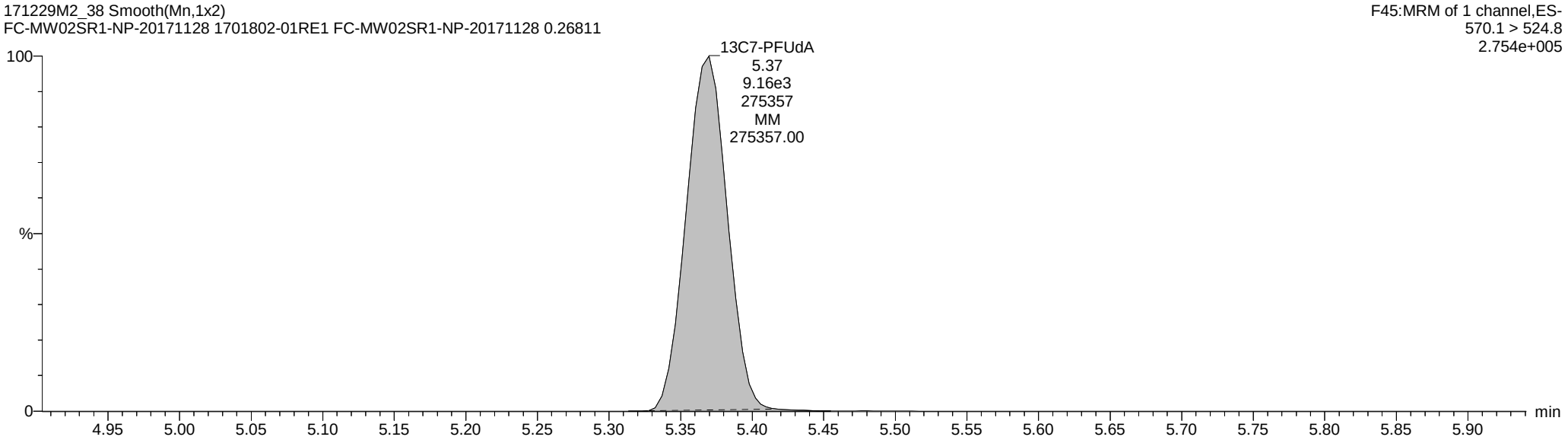
Last Altered: Tuesday, January 09, 2018 15:23:47 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:23:58 Pacific Standard Time

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

13C7-PFUdA



GM 1/9/2018

Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-21.qld

Last Altered: Tuesday, January 16, 2018 09:36:10 Pacific Standard Time
Printed: Tuesday, January 16, 2018 09:39:06 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 15 Jan 2018 11:34:14
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180111M2_21, Date: 12-Jan-2018, Time: 07:22:31, ID: 1701802-01RE1@5X FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	20	PFUdA	563.0 > 518.9	4.05e4	1.17e3	0.26811		5.50	5.36	432	1337.033	
2	46	13C2-PFUdA	565 > 519.8	1.17e3	1.37e3	0.26811	0.958	5.49	5.36	10.7	41.663	89.4
3	61	13C7-PFUdA	570.1 > 524.8	1.37e3	1.37e3	0.26811	1.000	5.49	5.36	12.5	46.623	100.0

ANP 1/16/2018

Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-21.qld

Last Altered: Tuesday, January 16, 2018 09:36:10 Pacific Standard Time
Printed: Tuesday, January 16, 2018 09:39:06 Pacific Standard Time

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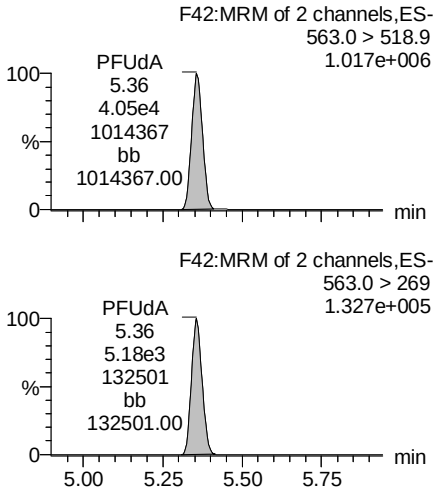
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180111M2_21, Date: 12-Jan-2018, Time: 07:22:31, ID: 1701802-01RE1@5X FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

PFUdA



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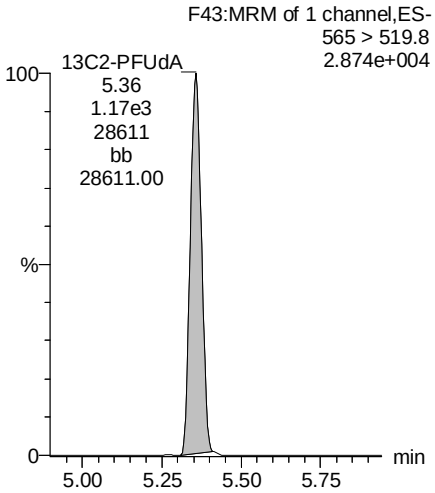

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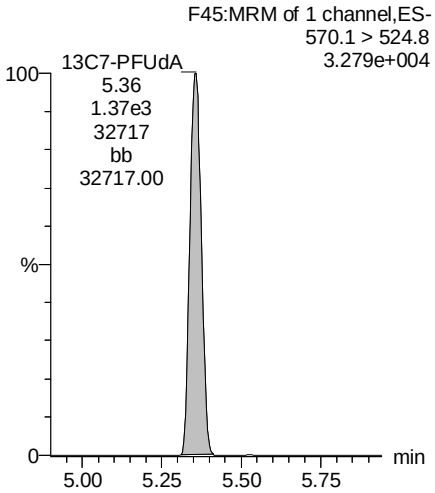

ANP 1/16/2018

Vista Analytical Laboratory

Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-49.qld

Last Altered: Wednesday, January 17, 2018 12:13:58 Pacific Standard Time
Printed: Wednesday, January 17, 2018 12:24:48 Pacific Standard Time

*See dilution.

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_49, Date: 05-Jan-2018, Time: 09:54:44, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	3.50e1	8.99e2	0.263		2.70	2.58	0.487	1.1460	
2	4	PFHxA	313.2 > 268.9	3.55e3	1.89e3	0.263		3.12	3.07	9.42	19.1943	
3	5	PFHpA	363.0 > 318.9	1.34e3	4.82e3	0.263		3.75	3.69	3.48	8.4731	
4	6	L-PFHxS	398.9 > 79.6	2.90e1	6.50e2	0.263		3.92	3.84	0.558	1.1242	
5	9	L-PFOA	413 > 368.7	4.59e3	6.66e3	0.263		4.25	4.21	8.63	25.5986	
6	12	PFNA	463.0 > 418.8	3.49e4	5.79e3	0.263		4.70	4.65	75.5	218.2741	*
7	14	L-PFOS	499 > 79.9	3.24e2	1.64e3	0.263		4.83	4.73	2.47	9.2100	
8	16	PFDA	513 > 468.8	8.27e3	4.92e3	0.263		5.05	5.01	21.0	49.4507	
9	18	N-MeFOSAA	570.1 > 419		2.73e3	0.263		5.20				
10	19	N-EtFOSAA	584.2 > 419		3.14e3	0.263		5.42				
11	20	PFUdA	563.0 > 518.9	1.72e5	5.29e3	0.263		5.35	5.34	405	940.4527	*
12	22	PFDoA	612.9 > 569.0	3.13e2	3.22e3	0.263		5.70	5.62	1.21	2.2130	

GM 1/17/2018

Vista Analytical Laboratory

Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-49.qld

Last Altered: Wednesday, January 17, 2018 12:13:58 Pacific Standard Time
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Name: 180104M1_49, Date: 05-Jan-2018, Time: 09:54:44, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	6.97e2	1.44e3	0.263		5.95	5.87	6.04	4.3761	
2	33	13C3-PFBS	302. > 98.8	8.99e2	6.56e3	0.263	0.106	2.70	2.58	1.71	61.4368	129.0
3	34	13C2-PFHxA	315 > 269.8	1.89e3	6.56e3	0.263	0.633	3.20	3.07	3.59	21.6283	113.5
4	35	13C4-PFHpA	367.2 > 321.8	4.82e3	6.56e3	0.263	0.641	3.80	3.69	9.17	54.5420	114.5
5	36	18O2-PFHxS	403.0 > 102.6	6.50e2	1.71e3	0.263	0.334	3.95	3.84	4.74	54.0147	113.4
6	37	13C2-6:2 FTS	429.1 > 408.9	1.61e3	7.02e3	0.263	0.228	4.26	4.15	2.86	47.7286	100.2
7	38	13C2-PFOA	414.9 > 369.7	6.66e3	7.02e3	0.263	0.959	4.32	4.21	11.8	47.0611	98.8
8	39	13C5-PFNA	468.2 > 422.9	5.79e3	6.35e3	0.263	0.830	4.75	4.64	11.4	52.2545	109.7
9	40	13C8-PFOSA	506.1 > 77.7	1.27e3	5.18e3	0.263	0.262	4.81	4.71	3.07	44.5827	93.6
10	41	13C8-PFOS	507.0 > 79.9	1.64e3	1.65e3	0.263	0.880	4.83	4.73	12.4	53.5959	112.6
11	42	13C2-PFDA	515.1 > 469.9	4.92e3	3.94e3	0.263	0.995	5.11	5.01	15.6	59.6895	125.3
12	43	13C2-8:2 FTS	529.1 > 508.7	8.35e2	6.56e3	0.263	0.142	5.09	4.99	1.59	42.5885	89.4
13	44	d3-N-MeFOSAA	573.3 > 419	2.73e3	5.18e3	0.263	0.376	5.26	5.16	6.59	66.7962	140.3
14	45	d5-N-EtFOSAA	589.3 > 419	3.14e3	5.18e3	0.263	0.444	5.42	5.32	7.59	65.1990	136.9
15	46	13C2-PFUdA	565 > 519.8	5.29e3	5.18e3	0.263	0.889	5.43	5.34	12.8	54.7311	114.9
16	47	13C2-PFDoA	615.0 > 569.7	3.22e3	5.18e3	0.263	0.542	5.70	5.62	7.77	54.5703	114.6
17	49	13C2-PFTeDA	714.8 > 669.6	1.44e3	5.18e3	0.263	0.230	6.16	6.09	3.49	57.6705	121.1
18	55	13C5-PFHxA	318 > 272.9	6.56e3	6.56e3	0.263	1.000	3.20	3.07	12.5	47.6190	100.0
19	56	13C3-PFHxS	401.9 > 79.9	1.71e3	1.71e3	0.263	1.000	3.95	3.84	12.5	47.6190	100.0
20	57	13C8-PFOA	421.3 > 376	7.02e3	7.02e3	0.263	1.000	4.32	4.21	12.5	47.6190	100.0
21	58	13C9-PFNA	472.2 > 426.9	6.35e3	6.35e3	0.263	1.000	4.75	4.64	12.5	47.6190	100.0
22	59	13C4-PFOS	503 > 79.9	1.65e3	1.65e3	0.263	1.000	4.83	4.73	12.5	47.6190	100.0
23	60	13C6-PFDA	519.1 > 473.7	3.94e3	3.94e3	0.263	1.000	5.11	5.01	12.5	47.6190	100.0
24	61	13C7-PFUdA	570.1 > 524.8	5.18e3	5.18e3	0.263	1.000	5.43	5.34	12.5	47.6190	100.0
25	62	Total PFHxS	398.9 > 79.6	2.90e1	6.50e2	0.263		4.00		0.558	1.1242	
26	63	Total PFOA	413 > 368.7	4.59e3	6.66e3	0.263		4.30		8.63	25.5986	
27	64	Total PFOS	499 > 79.9	3.24e2	1.64e3	0.263		4.80		2.47	9.2100	
28	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.73e3	0.263		5.20		0.000		
29	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.14e3	0.263		5.40		0.000		

GM 1/17/2018

Vista Analytical Laboratory

Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-49.qld

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Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_49, Date: 05-Jan-2018, Time: 09:54:44, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

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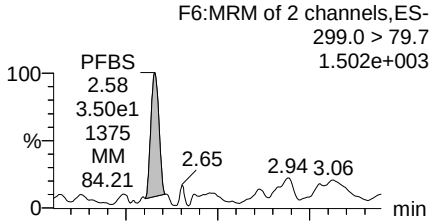

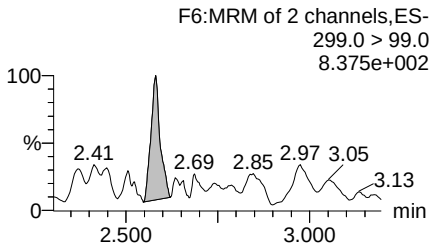

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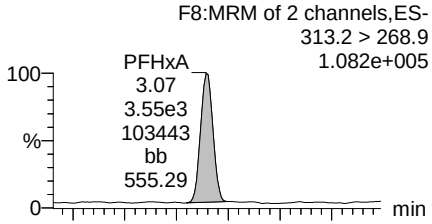

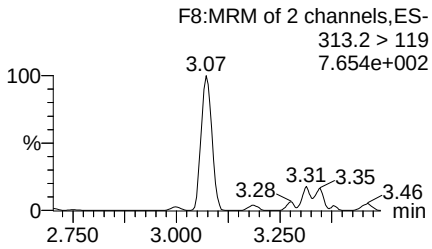

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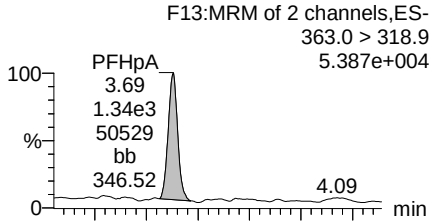

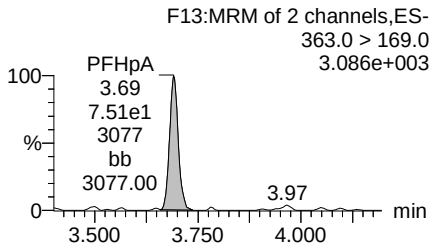

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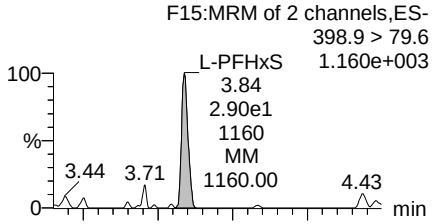

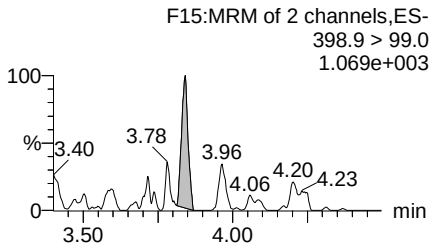

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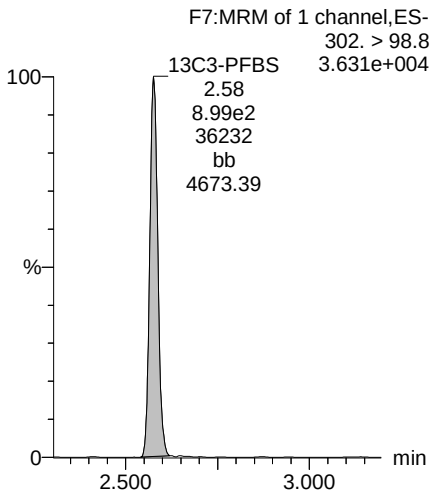

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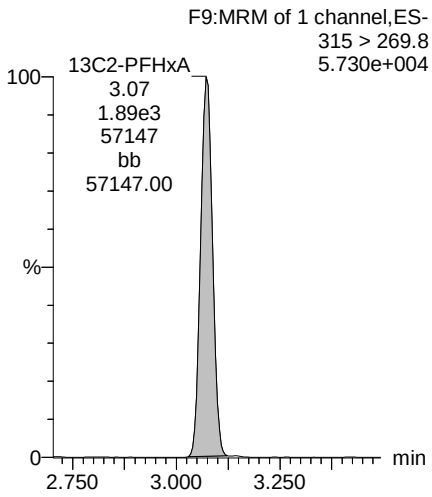

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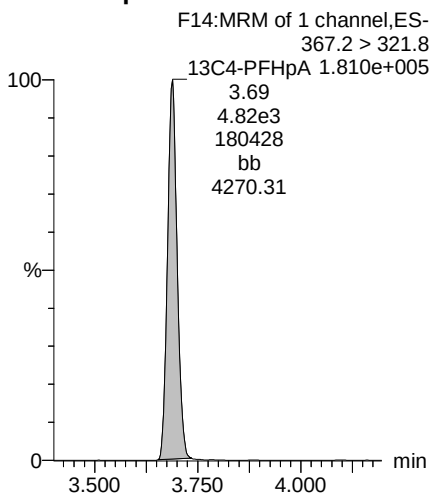

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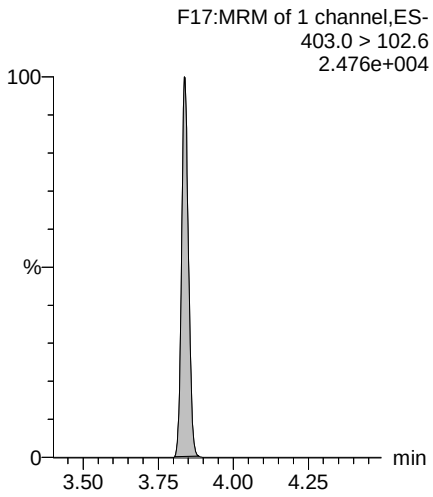

GM 1/17/2018

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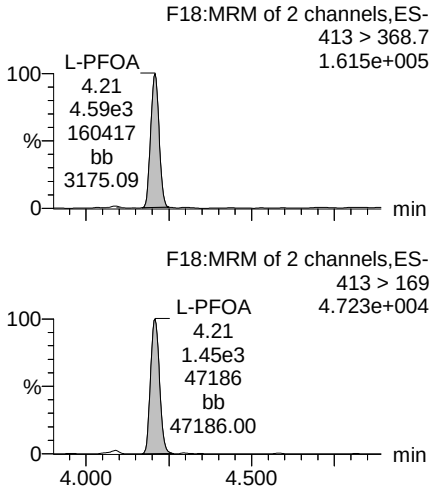
Name: 180104M1_49, Date: 05-Jan-2018, Time: 09:54:44, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

Total PFOA



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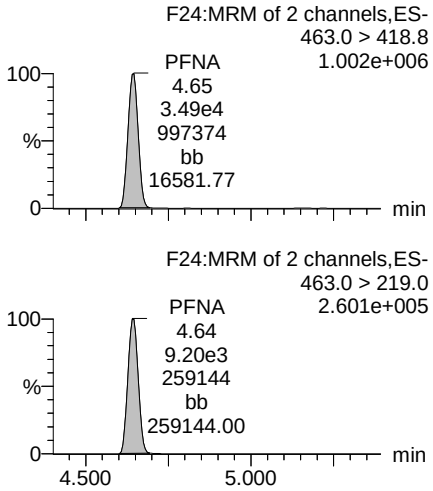

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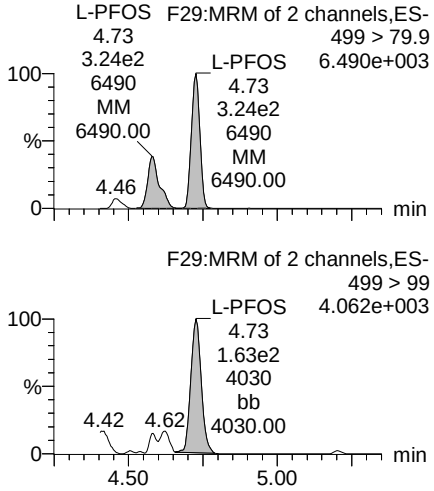

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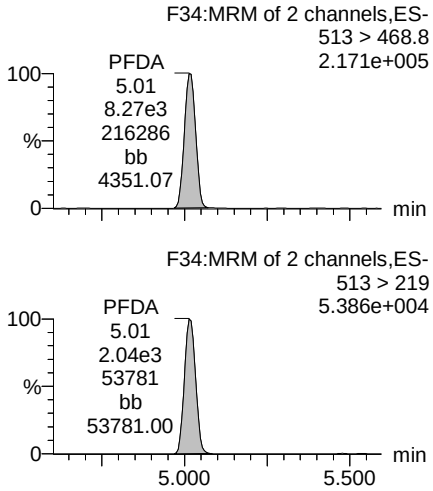

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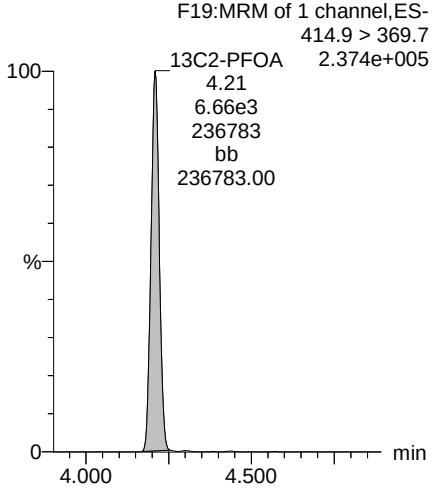

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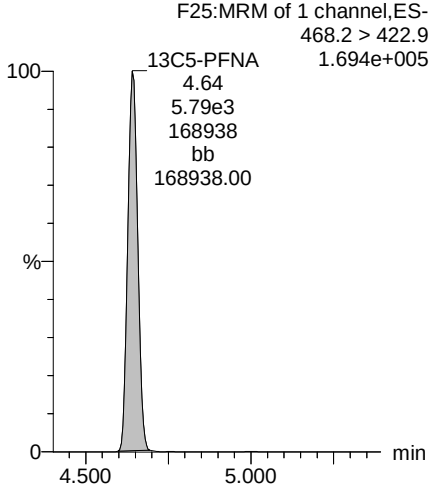

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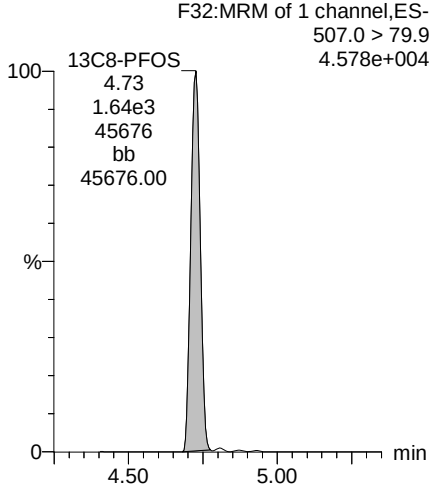

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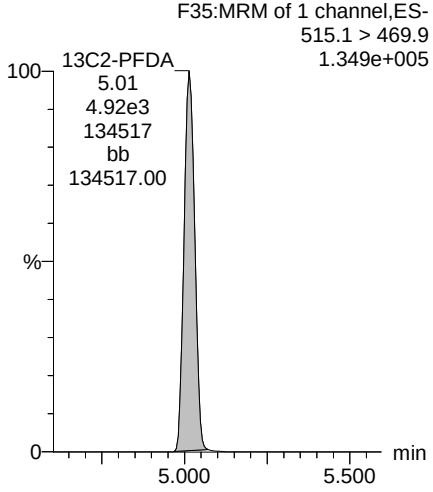

GM 1/17/2018

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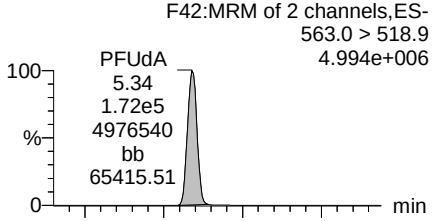
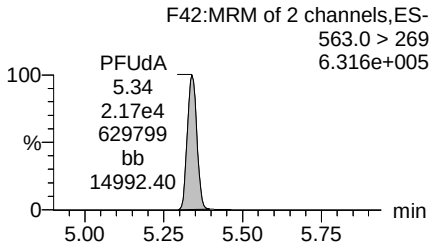
Name: 180104M1_49, Date: 05-Jan-2018, Time: 09:54:44, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

PFUdA





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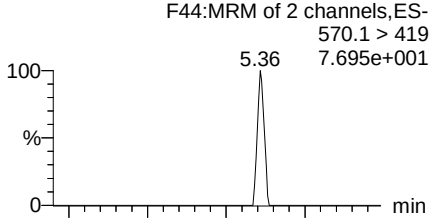
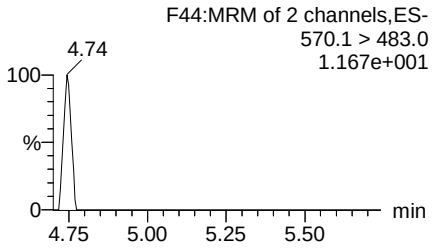
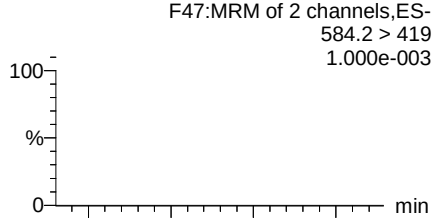
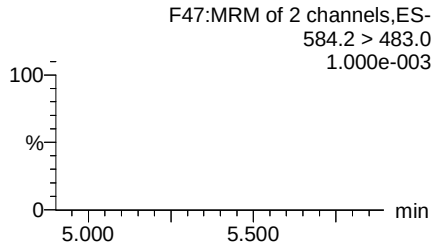


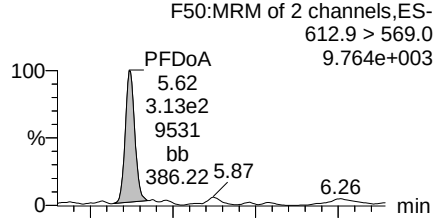


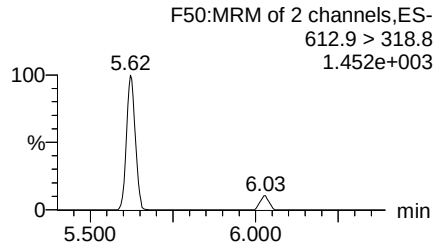
N-EtFOSAA



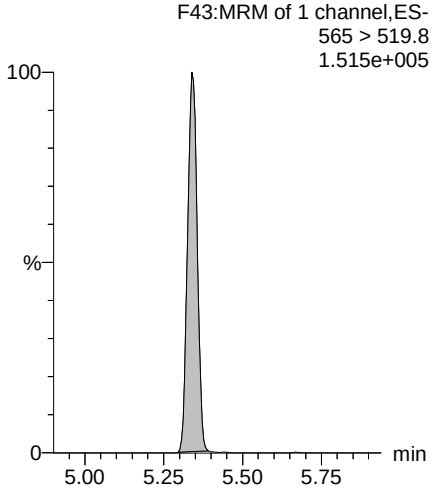


PFDoA

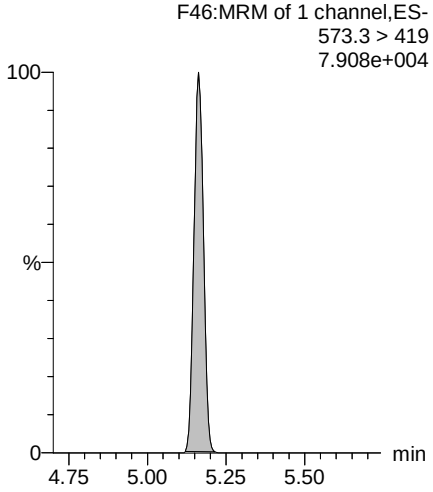




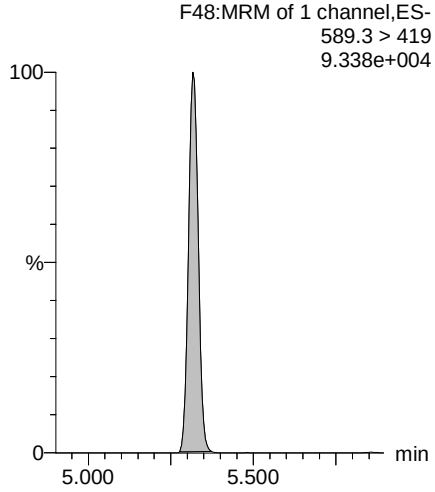
13C2-PFUdA



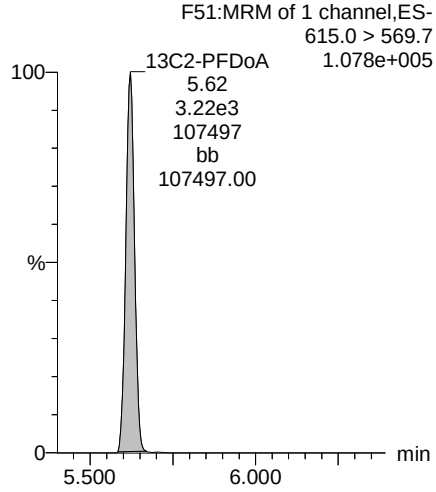
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



GM 1/17/2018

Vista Analytical Laboratory

Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-49.qld

Last Altered: Wednesday, January 17, 2018 12:13:58 Pacific Standard Time
Printed: Wednesday, January 17, 2018 12:25:14 Pacific Standard Time

Name: 180104M1_49, Date: 05-Jan-2018, Time: 09:54:44, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

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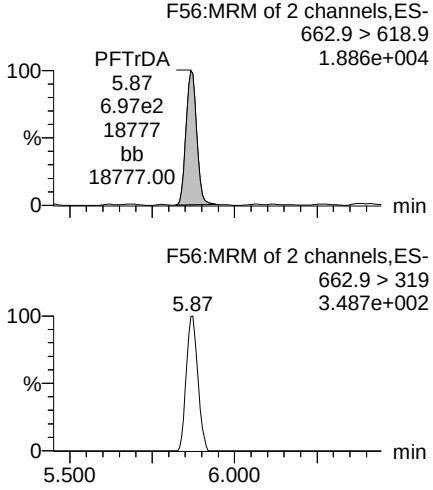

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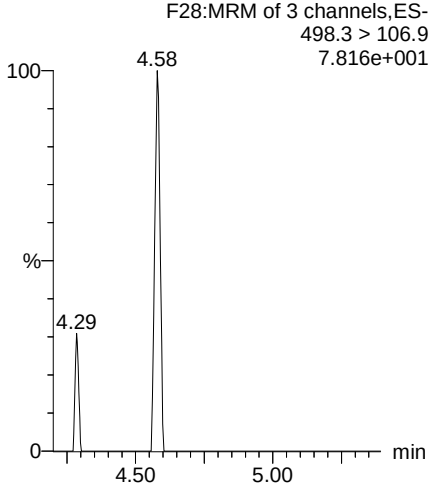
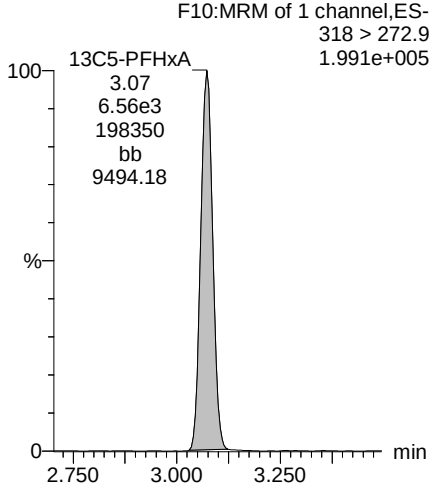
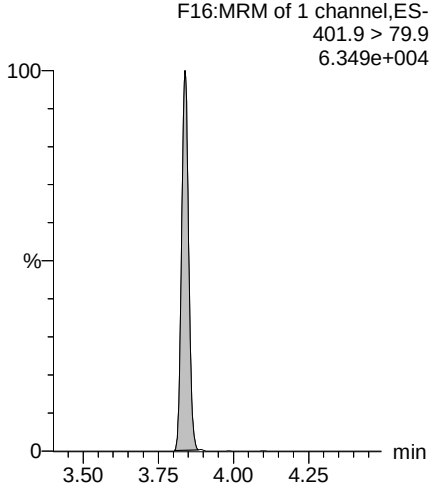


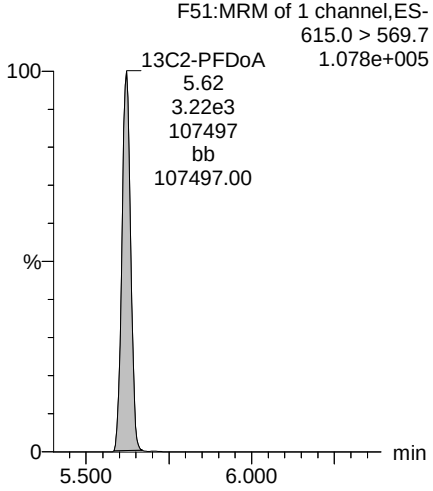
13C5-PFHxA



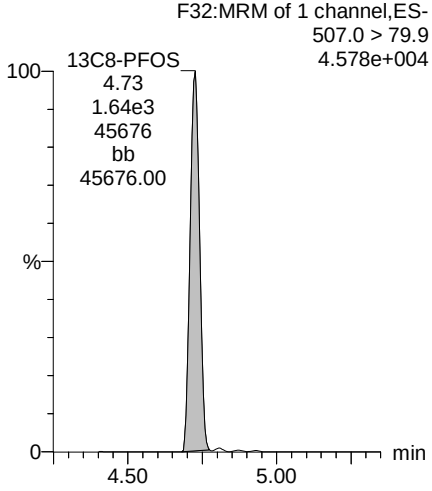
13C3-PFHxS



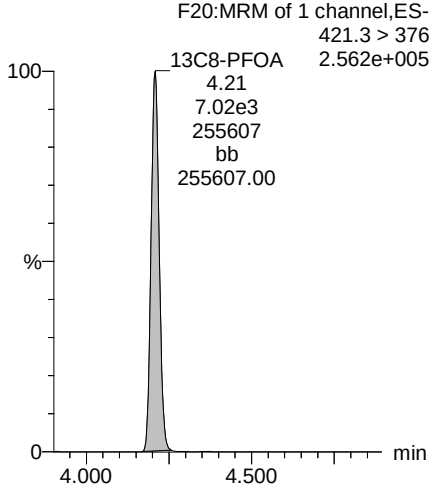
13C2-PFDoA



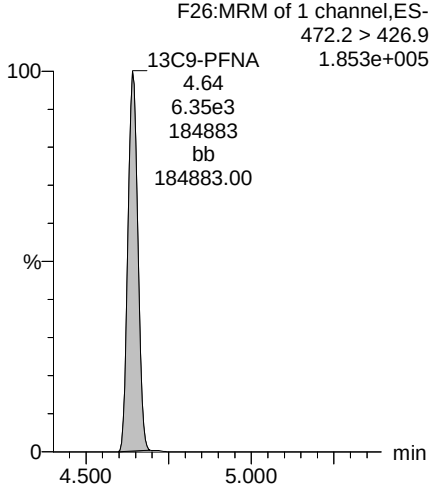
13C8-PFOS



13C8-PFOA



13C9-PFNA



GM 1/17/2018

Vista Analytical Laboratory

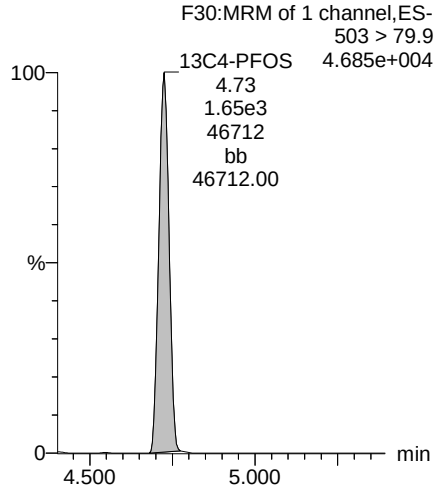
Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-49.qld

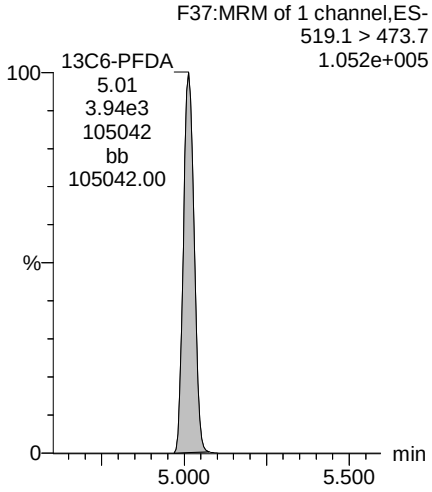
Last Altered: Wednesday, January 17, 2018 12:13:58 Pacific Standard Time
Printed: Wednesday, January 17, 2018 12:25:14 Pacific Standard Time

Name: 180104M1_49, Date: 05-Jan-2018, Time: 09:54:44, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

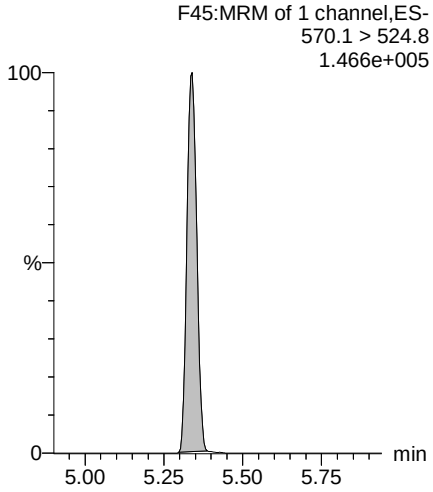
13C4-PFOS



13C6-PFDA



13C7-PFUdA



GM 1/17/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-39.qld

Last Altered: Tuesday, January 09, 2018 15:24:28 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:24:54 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_39, Date: 29-Dec-2017, Time: 20:38:04, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

	#	Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	25	PFTeDA	712.9 > 668.8		2.10e3		0.2625	6.16				
2	49	13C2-PFTeDA	714.8 > 669.6	2.10e3	9.02e3	0.196	0.2625	6.16	6.11	2.91	56.5	118.8
3	61	13C7-PFUdA	570.1 > 524.8	9.02e3	9.02e3	1.000	0.2625	5.43	5.37	12.5	47.6	100.0

GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

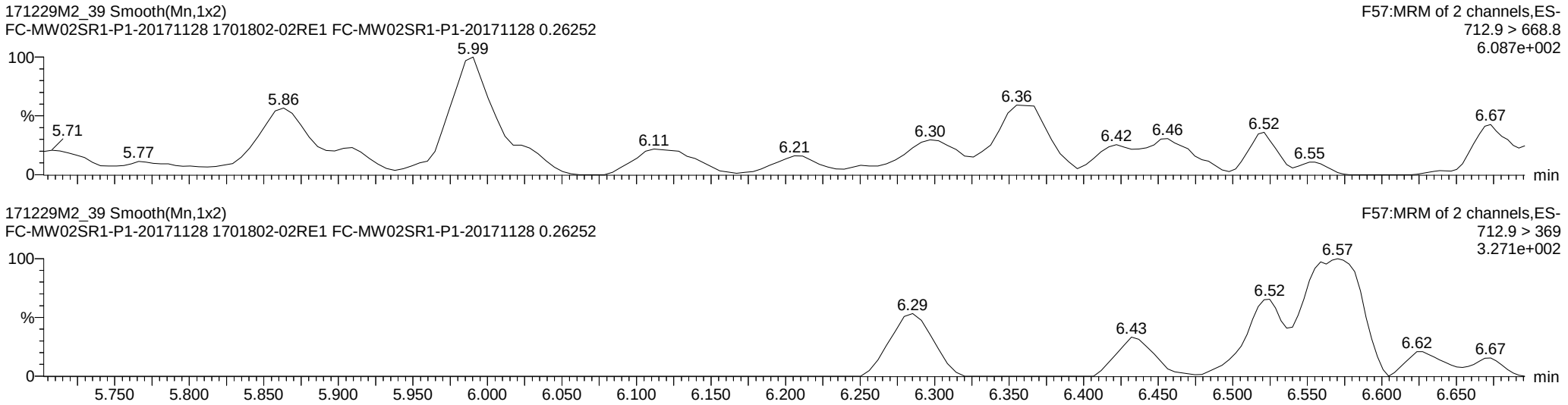
Dataset: U:\Q4.PRO\results\171229M2\171229M2-39.qld

Last Altered: Tuesday, January 09, 2018 15:24:28 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:24:54 Pacific Standard Time

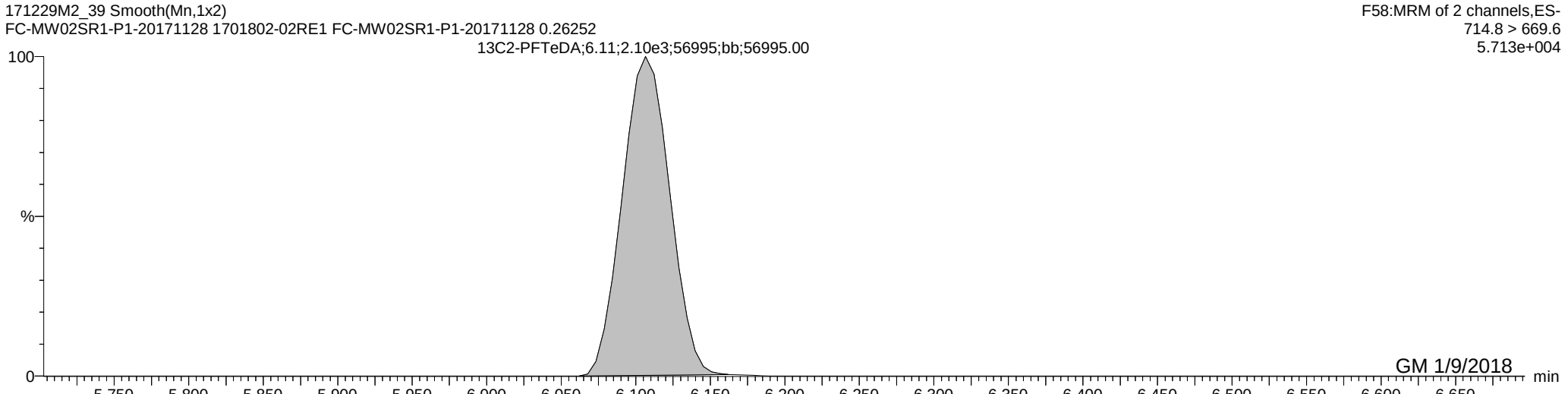
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_39, Date: 29-Dec-2017, Time: 20:38:04, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

PFTeDA



13C2-PFTeDA



GM 1/9/2018

Vista Analytical Laboratory

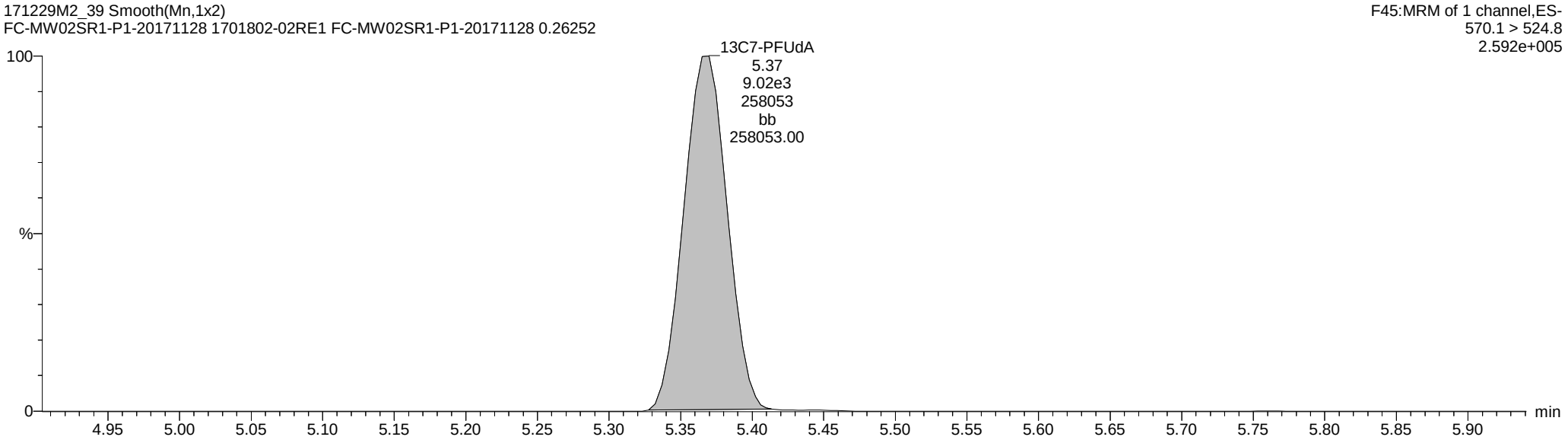
Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-39.qld

Last Altered: Tuesday, January 09, 2018 15:24:28 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:24:54 Pacific Standard Time

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

13C7-PFUdA



GM 1/9/2018

Vista Analytical Laboratory

Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-22.qld

Last Altered: Tuesday, January 16, 2018 09:35:38 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:33:26 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 15 Jan 2018 11:34:14
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180111M2_22, Date: 12-Jan-2018, Time: 07:33:43, ID: 1701802-02RE1@5X FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	12	PFNA	463.0 > 418.8	7.81e3	1.31e3	0.263		4.81	4.66	74.3	195.8845	
2	20	PFUdA	563.0 > 518.9	5.09e4	1.25e3	0.263		5.50	5.36	508	1642.7817	
3	39	13C5-PFNA	468.2 > 422.9	1.31e3	1.18e3	0.263	0.817	4.81	4.66	13.9	64.6818	135.8
4	46	13C2-PFUdA	565 > 519.8	1.25e3	1.34e3	0.263	0.958	5.49	5.36	11.7	46.4867	97.6
5	58	13C9-PFNA	472.2 > 426.9	1.18e3	1.18e3	0.263	1.000	4.81	4.66	12.5	47.6190	100.0
6	61	13C7-PFUdA	570.1 > 524.8	1.34e3	1.34e3	0.263	1.000	5.49	5.36	12.5	47.6190	100.0

ANP 1/16/2018

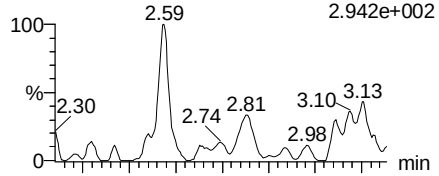
Dataset: U:\Q4.PRO\results\180111M2\1801111M2-22.qld

Last Altered: Tuesday, January 16, 2018 09:35:38 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:33:26 Pacific Standard Time

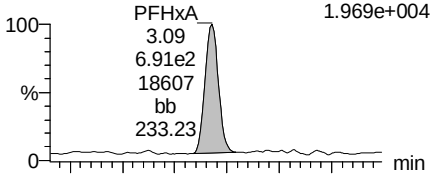
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 15 Jan 2018 11:34:14
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180111M2_22, Date: 12-Jan-2018, Time: 07:33:43, ID: 1701802-02RE1@5X FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

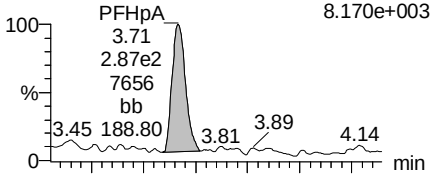
PFBS



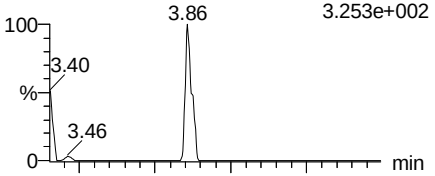
PFHxA



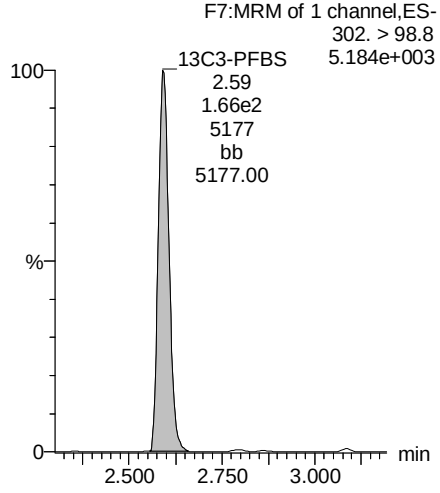
PFHpA



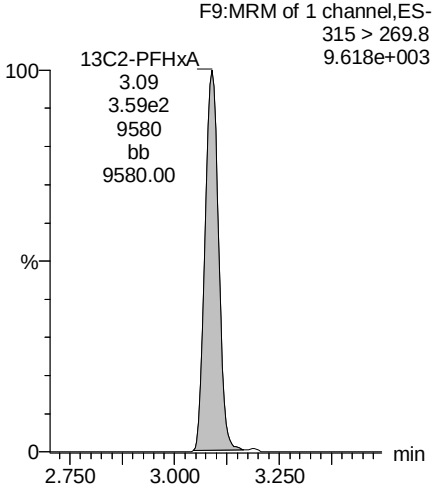
Total PFHxS



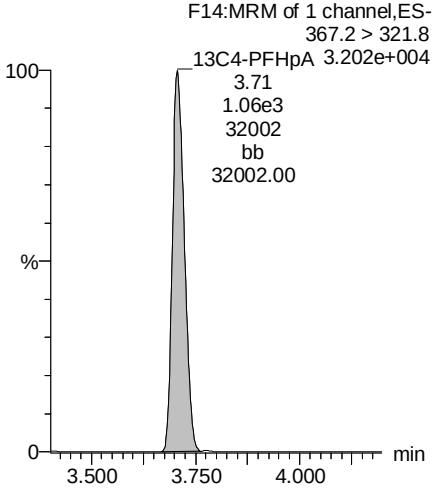
13C3-PFBS



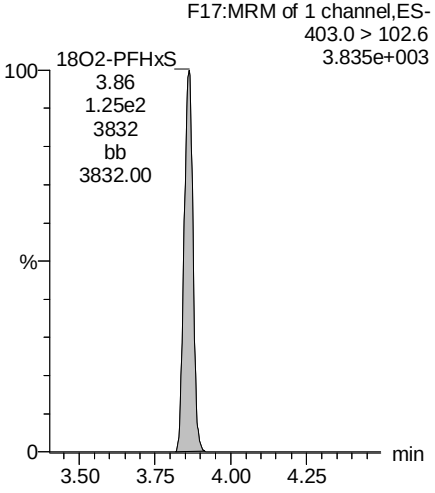
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



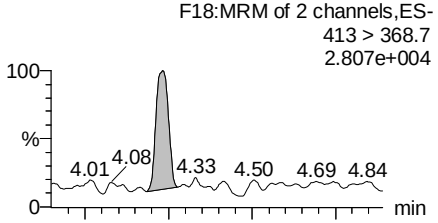
ANP 1/16/2018

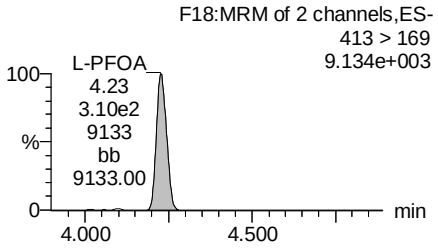
Dataset: U:\Q4.PRO\results\180111M2\1801111M2-22.qld

Last Altered: Tuesday, January 16, 2018 09:35:38 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:33:26 Pacific Standard Time

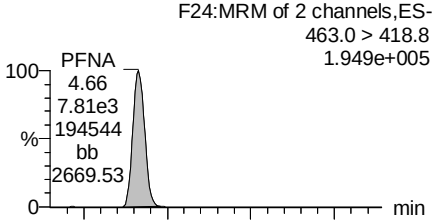
Name: 180111M2_22, Date: 12-Jan-2018, Time: 07:33:43, ID: 1701802-02RE1@5X FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

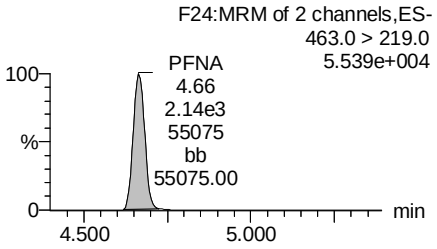
Total PFOA



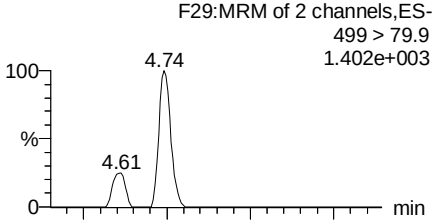


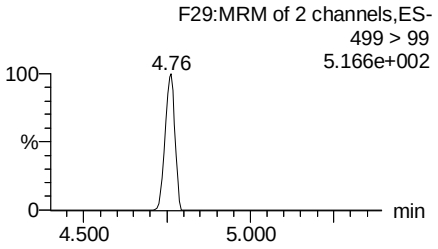
PFNA



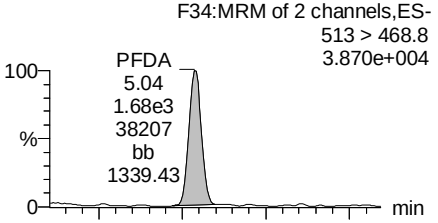


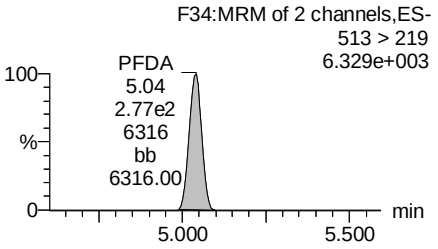
Total PFOS



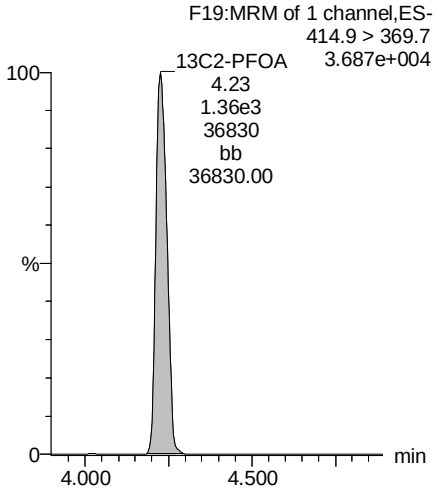


PFDA

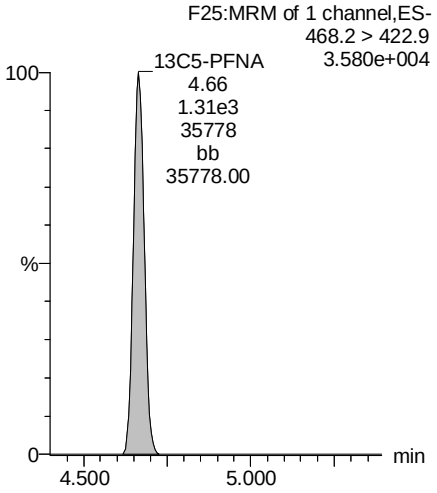




13C2-PFOA



13C5-PFNA



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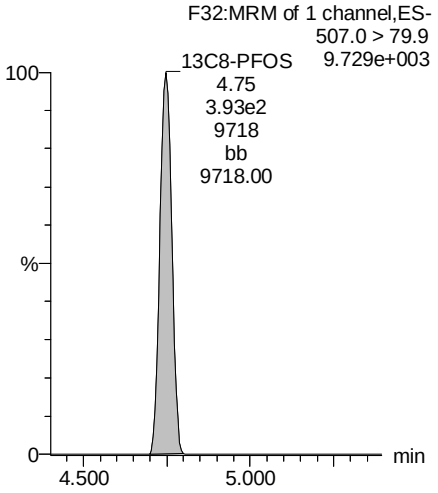
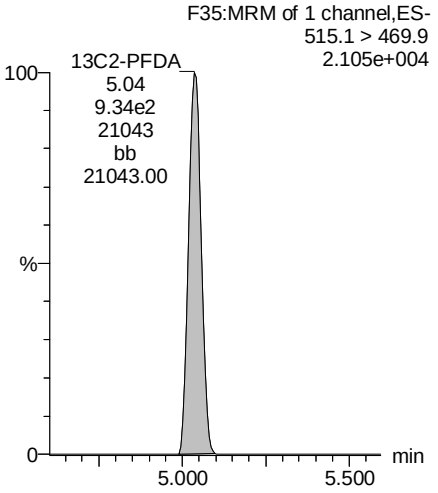


13C2-PFDA



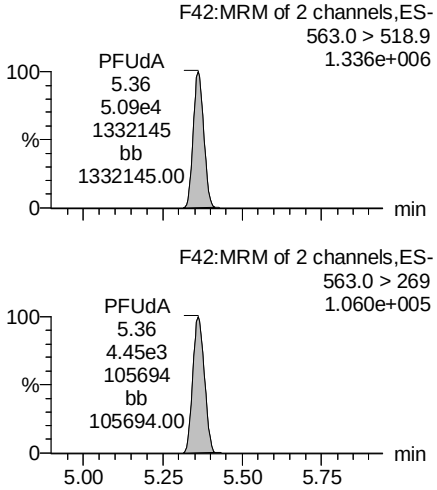
ANP 1/16/2018

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-22.qld

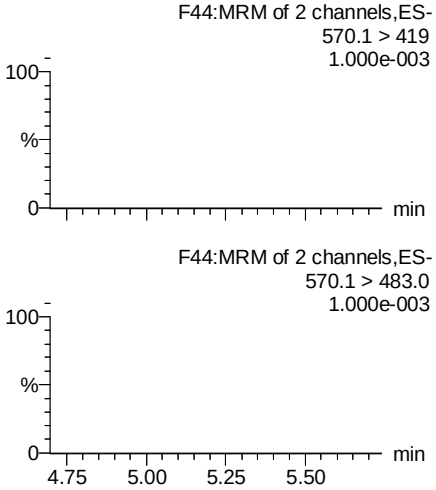
Last Altered: Tuesday, January 16, 2018 09:35:38 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:33:26 Pacific Standard Time

Name: 180111M2_22, Date: 12-Jan-2018, Time: 07:33:43, ID: 1701802-02RE1@5X FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

PFUdA



N-MeFOSAA



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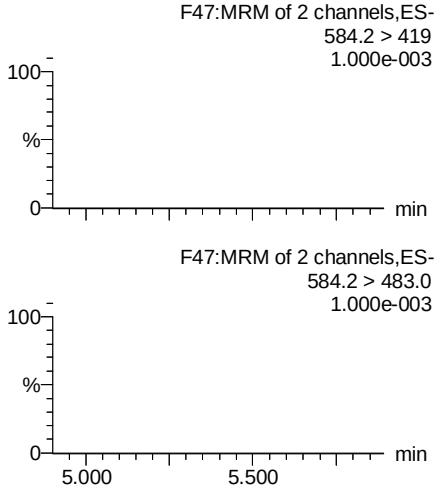
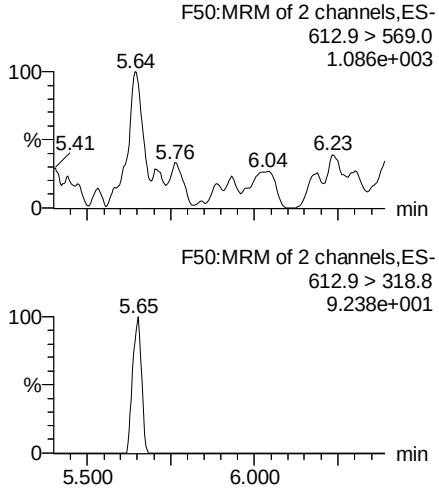


PFDoA



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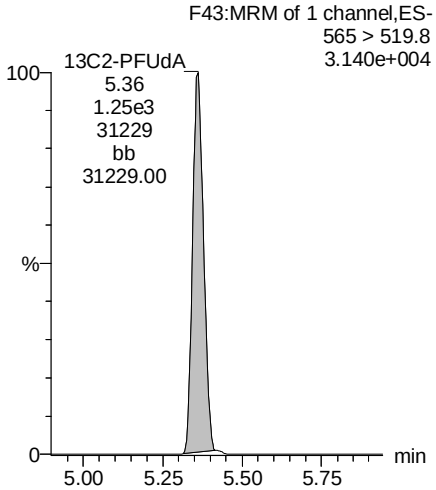
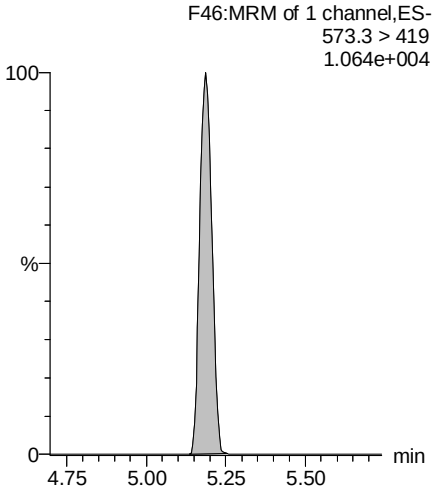
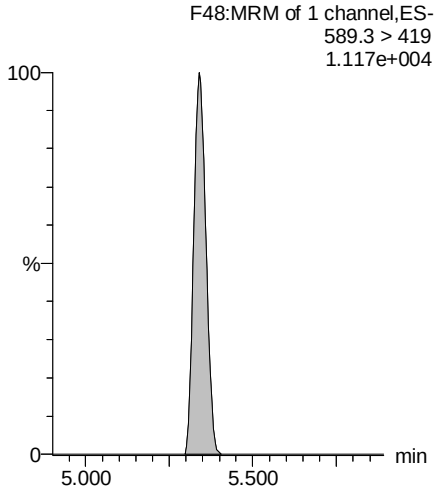


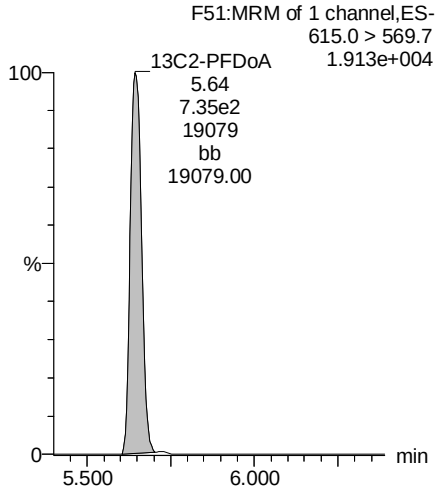
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



ANP 1/16/2018

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-22.qld

Last Altered: Tuesday, January 16, 2018 09:35:38 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:33:26 Pacific Standard Time

Name: 180111M2_22, Date: 12-Jan-2018, Time: 07:33:43, ID: 1701802-02RE1@5X FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

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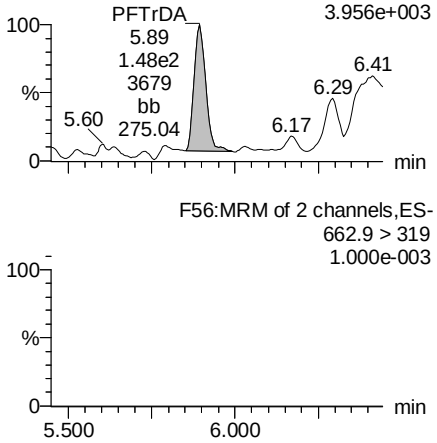

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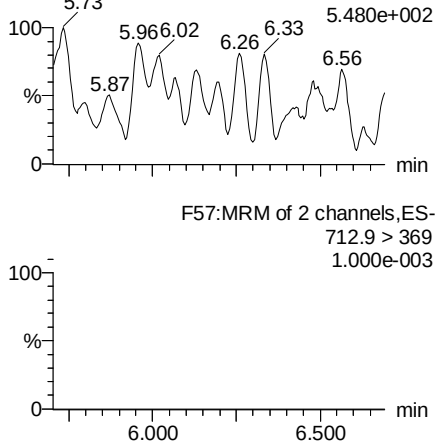
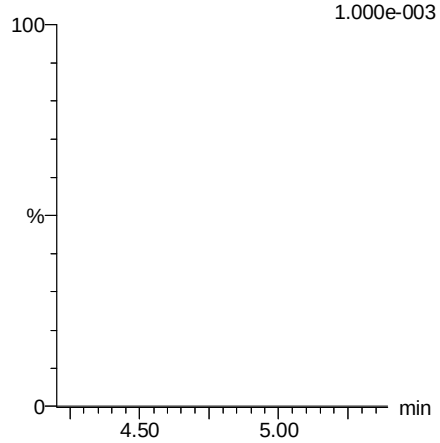
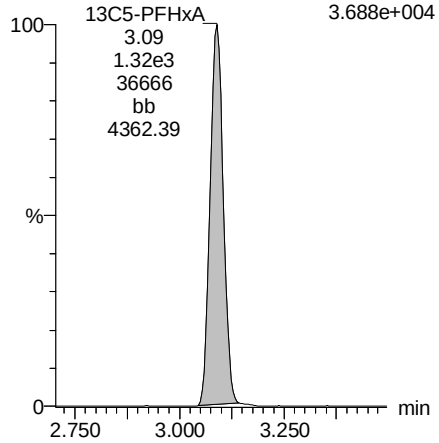


TCDA



13C5-PFHxA



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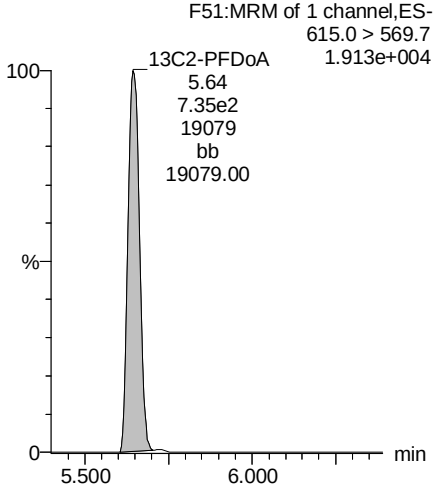

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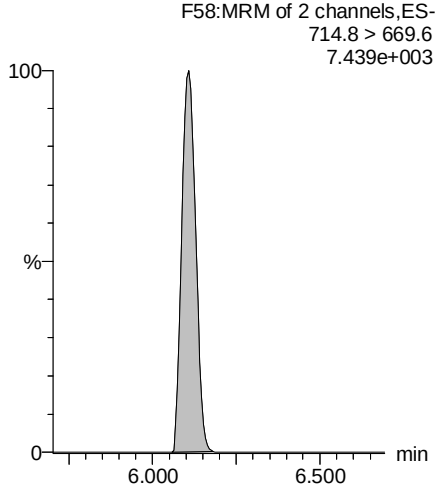

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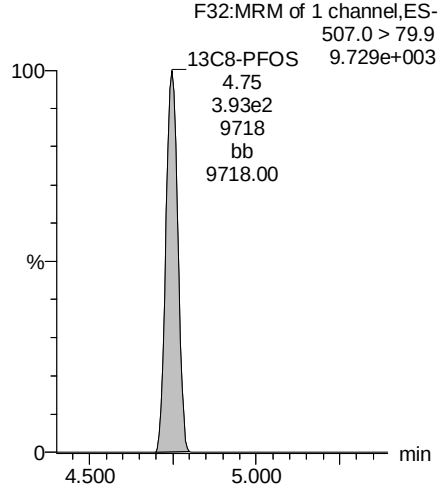
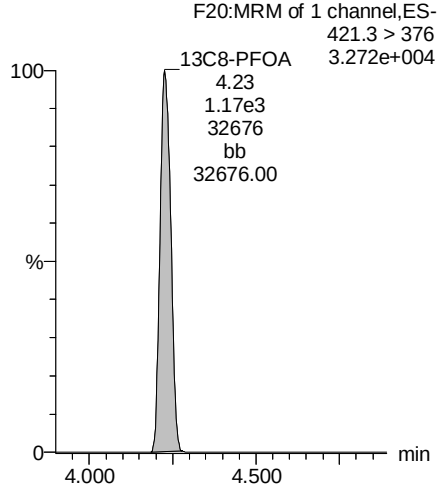


13C8-PFOA



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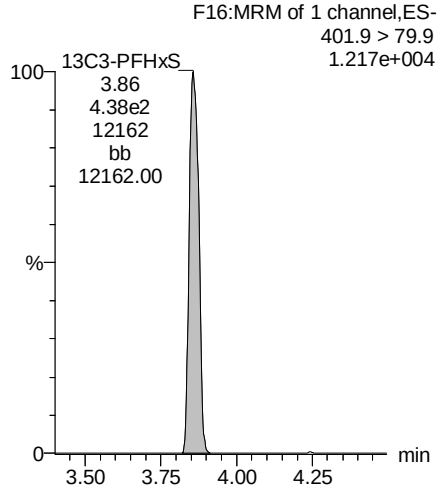
Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-22.qld

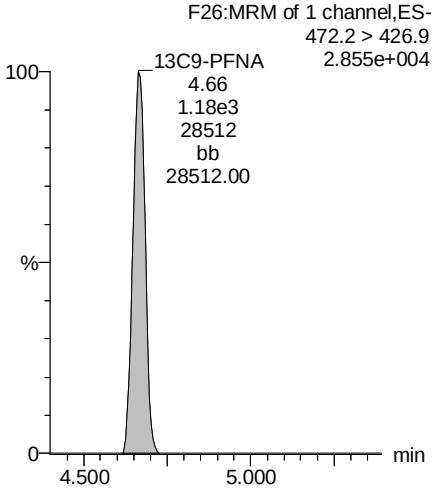
Last Altered: Tuesday, January 16, 2018 09:35:38 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:33:26 Pacific Standard Time

Name: 180111M2_22, Date: 12-Jan-2018, Time: 07:33:43, ID: 1701802-02RE1@5X FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

13C3-PFHxS



13C9-PFNA



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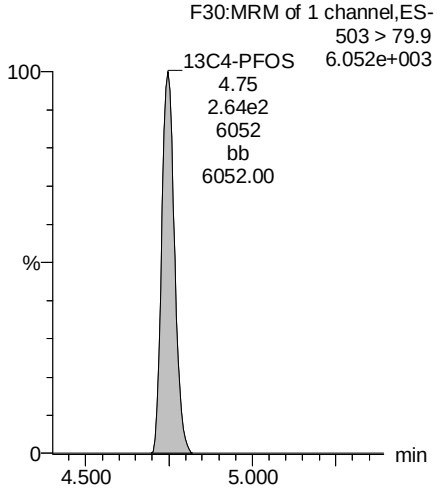
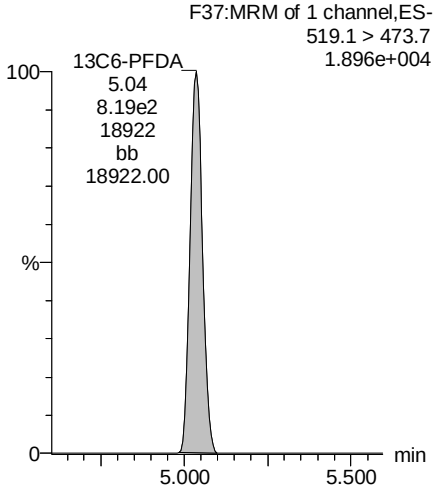
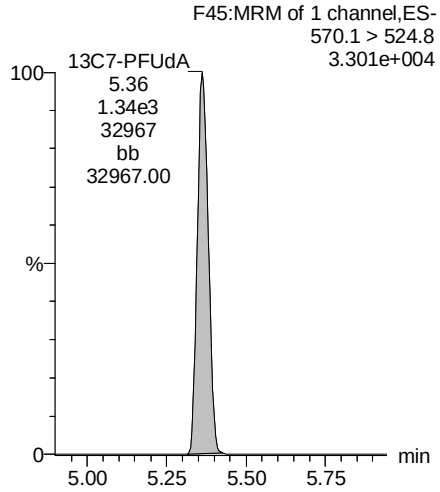


13C6-PFDA



13C7-PFUdA



ANP 1/16/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-50.qld

Last Altered: Tuesday, January 09, 2018 14:53:13 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:53:42 Pacific Standard Time

*See dilution.

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_50, Date: 05-Jan-2018, Time: 10:05:56, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		8.72e2	0.271		2.70				
2	4	PFHxA	313.2 > 268.9	4.22e3	1.93e3	0.271		3.12	3.08	10.9	21.5348	
3	5	PFHpA	363.0 > 318.9	1.59e3	4.82e3	0.271		3.75	3.69	4.13	9.7048	
4	6	L-PFHxS	398.9 > 79.6	3.16e1	6.81e2	0.271		3.92	3.84	0.580	1.1296	
5	9	L-PFOA	413 > 368.7	5.31e3	6.80e3	0.271		4.25	4.21	9.75	28.1141	
6	12	PFNA	463.0 > 418.8	3.57e4	6.20e3	0.271		4.70	4.65	71.9	200.1881	*
7	14	L-PFOS	499 > 79.9	3.46e2	1.90e3	0.271		4.83	4.73	2.28	8.2007	
8	16	PFDA	513 > 468.8	7.79e3	4.50e3	0.271		5.05	5.02	21.7	49.3591	
9	18	N-MeFOSAA	570.1 > 419		2.58e3	0.271		5.20				
10	19	N-EtFOSAA	584.2 > 419		2.92e3	0.271		5.42				
11	20	PFUdA	563.0 > 518.9	1.92e5	4.95e3	0.271		5.35	5.34	486	1052.8693	E*
12	22	PFDoA	612.9 > 569.0	3.43e2	2.99e3	0.271		5.70	5.63	1.44	2.4720	

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Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-50.qld

Last Altered: Tuesday, January 09, 2018 14:53:13 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:53:52 Pacific Standard Time

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Name: 180104M1_50, Date: 05-Jan-2018, Time: 10:05:56, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	4.62e2	1.09e3	0.271		5.95	5.88	5.28	3.7461	
2	33	13C3-PFBS	302. > 98.8	8.72e2	6.64e3	0.271	0.106	2.70	2.58	1.64	57.0820	123.8
3	34	13C2-PFHxA	315 > 269.8	1.93e3	6.64e3	0.271	0.633	3.20	3.08	3.64	21.2430	115.2
4	35	13C4-PFHpA	367.2 > 321.8	4.82e3	6.64e3	0.271	0.641	3.80	3.69	9.07	52.2423	113.3
5	36	18O2-PFHxS	403.0 > 102.6	6.81e2	1.85e3	0.271	0.334	3.95	3.84	4.60	50.7638	110.1
6	37	13C2-6:2 FTS	429.1 > 408.9	1.52e3	7.26e3	0.271	0.228	4.26	4.16	2.61	42.2432	91.6
7	38	13C2-PFOA	414.9 > 369.7	6.80e3	7.26e3	0.271	0.959	4.32	4.21	11.7	45.0541	97.7
8	39	13C5-PFNA	468.2 > 422.9	6.20e3	5.74e3	0.271	0.830	4.75	4.65	13.5	59.9635	130.0
9	40	13C8-PFOSA	506.1 > 77.7	1.26e3	5.43e3	0.271	0.262	4.81	4.71	2.89	40.6680	88.2
10	41	13C8-PFOS	507.0 > 79.9	1.90e3	1.78e3	0.271	0.880	4.83	4.73	13.3	55.8730	121.2
11	42	13C2-PFDA	515.1 > 469.9	4.50e3	3.39e3	0.271	0.995	5.11	5.02	16.6	61.4909	133.4
12	43	13C2-8:2 FTS	529.1 > 508.7	9.99e2	6.64e3	0.271	0.142	5.09	4.99	1.88	48.7947	105.8
13	44	d3-N-MeFOSAA	573.3 > 419	2.58e3	5.43e3	0.271	0.376	5.26	5.17	5.95	58.4693	126.8
14	45	d5-N-EtFOSAA	589.3 > 419	2.92e3	5.43e3	0.271	0.444	5.42	5.33	6.72	55.8625	121.2
15	46	13C2-PFUdA	565 > 519.8	4.95e3	5.43e3	0.271	0.889	5.43	5.34	11.4	47.3416	102.7
16	47	13C2-PFDoA	615.0 > 569.7	2.99e3	5.43e3	0.271	0.542	5.70	5.63	6.88	46.7967	101.5
17	55	13C5-PFHxA	318 > 272.9	6.64e3	6.64e3	0.271	1.000	3.20	3.07	12.5	46.1084	100.0
18	56	13C3-PFHxS	401.9 > 79.9	1.85e3	1.85e3	0.271	1.000	3.95	3.84	12.5	46.1084	100.0
19	57	13C8-PFOA	421.3 > 376	7.26e3	7.26e3	0.271	1.000	4.32	4.21	12.5	46.1084	100.0
20	58	13C9-PFNA	472.2 > 426.9	5.74e3	5.74e3	0.271	1.000	4.75	4.65	12.5	46.1084	100.0
21	59	13C4-PFOS	503 > 79.9	1.78e3	1.78e3	0.271	1.000	4.83	4.73	12.5	46.1084	100.0
22	60	13C6-PFDA	519.1 > 473.7	3.39e3	3.39e3	0.271	1.000	5.11	5.02	12.5	46.1084	100.0
23	61	13C7-PFUdA	570.1 > 524.8	5.43e3	5.43e3	0.271	1.000	5.43	5.34	12.5	46.1084	100.0
24	62	Total PFHxS	398.9 > 79.6	3.16e1	6.81e2	0.271		4.00		0.580	1.1296	
25	63	Total PFOA	413 > 368.7	5.31e3	6.80e3	0.271		4.30		9.75	28.1141	
26	64	Total PFOS	499 > 79.9	3.46e2	1.90e3	0.271		4.80		2.28	8.2007	
27	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.58e3	0.271		5.20		0.000		
28	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.92e3	0.271		5.40		0.000		

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Revd: MM 1/11/18

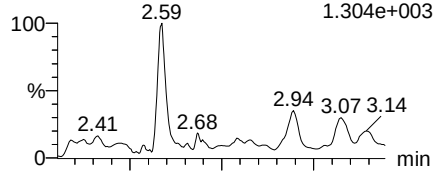
Dataset: U:\Q4.PRO\results\180104M1\180104M1-50.qld

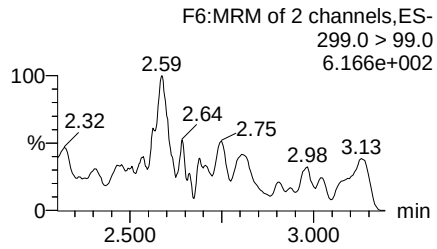
Last Altered: Tuesday, January 09, 2018 14:53:13 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:53:52 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

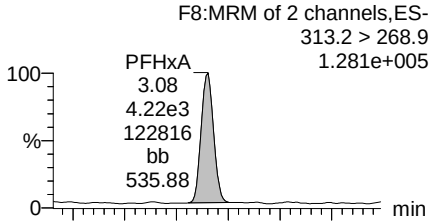
Name: 180104M1_50, Date: 05-Jan-2018, Time: 10:05:56, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

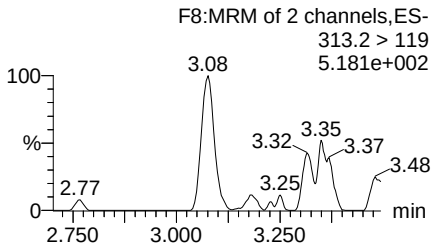
PFBS





PFHxA





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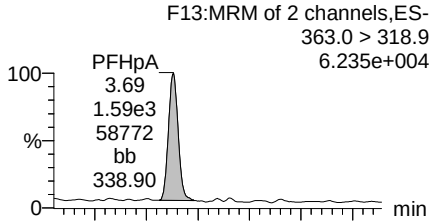
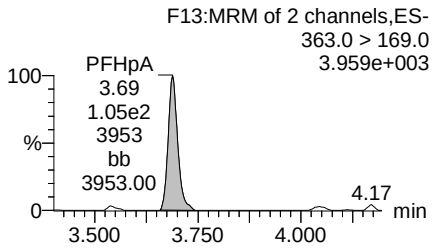
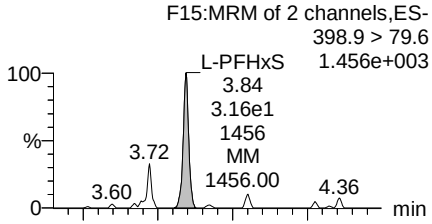
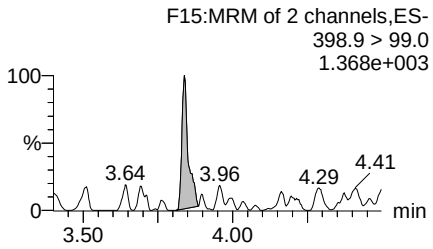


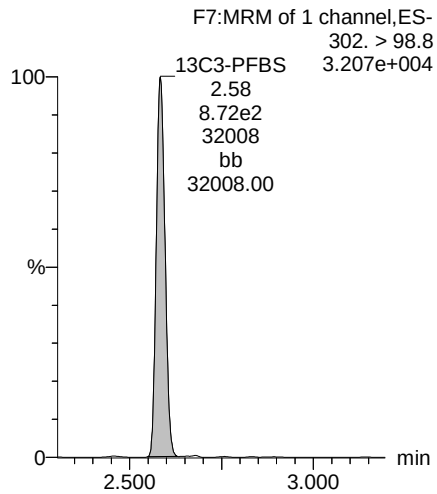


Total PFHxS

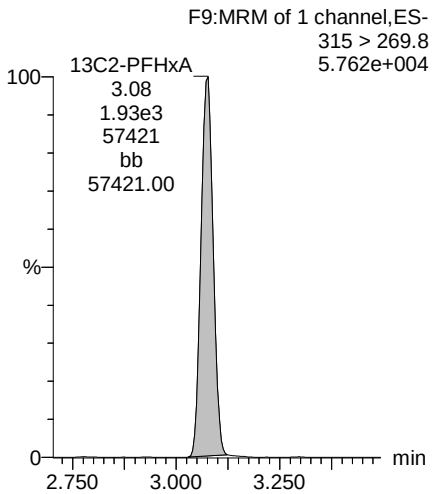




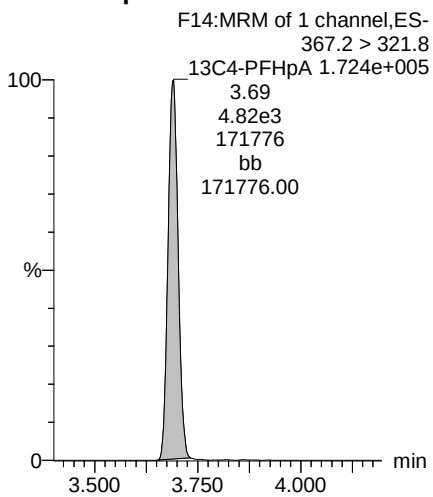
13C3-PFBS



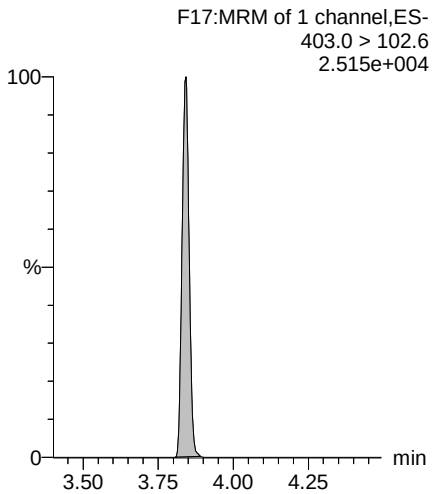
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



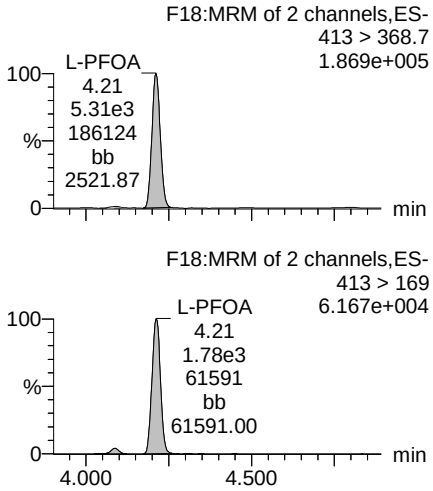
GM 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-50.qld

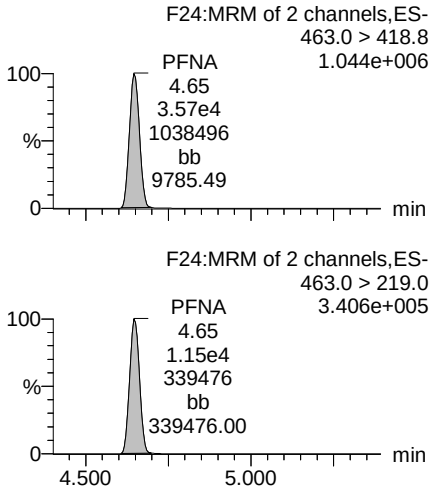
Last Altered: Tuesday, January 09, 2018 14:53:13 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:53:52 Pacific Standard Time

Name: 180104M1_50, Date: 05-Jan-2018, Time: 10:05:56, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

Total PFOA



PFNA



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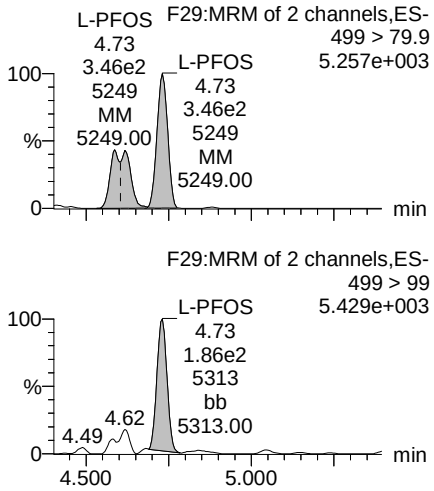
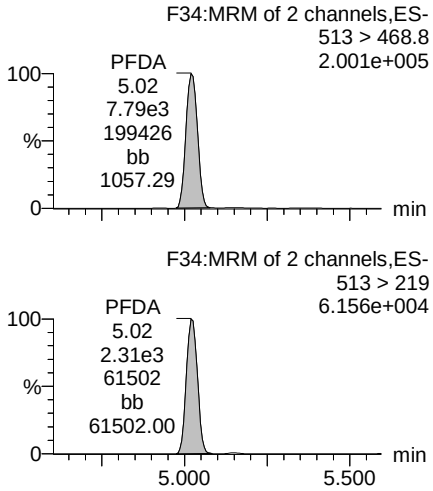
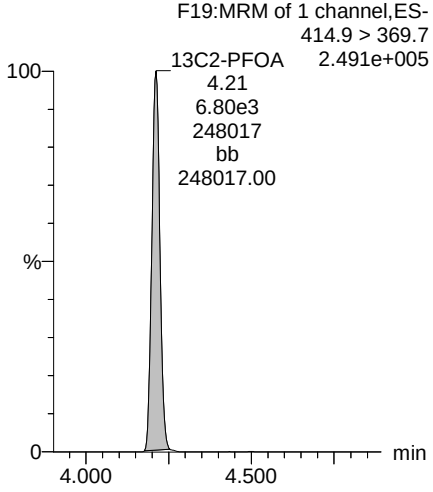


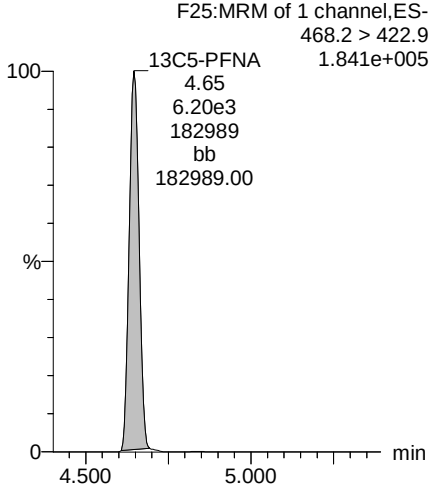
PFDA



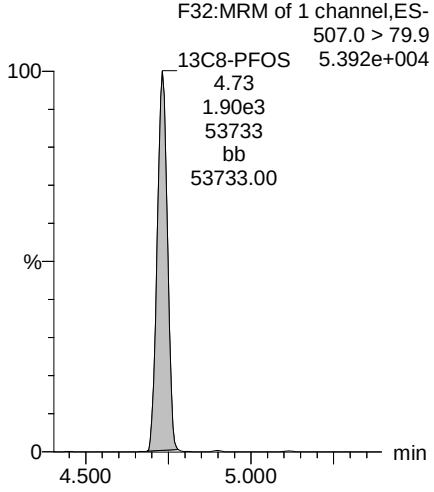
13C2-PFOA



13C5-PFNA



13C8-PFOS



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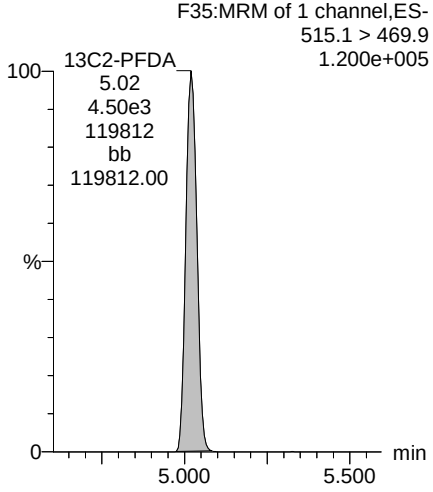


GM 1/9/2018

Vista Analytical Laboratory

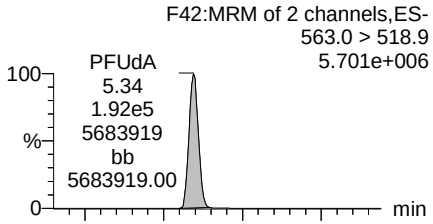
Revd: MM 1/11/18

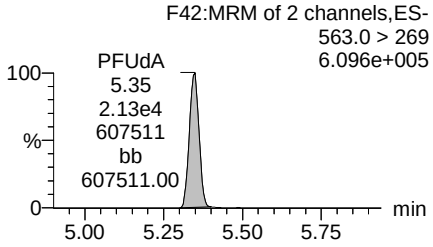
Dataset: U:\Q4.PRO\results\180104M1\180104M1-50.qld

Last Altered: Tuesday, January 09, 2018 14:53:13 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:53:52 Pacific Standard Time

Name: 180104M1_50, Date: 05-Jan-2018, Time: 10:05:56, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

PFUdA





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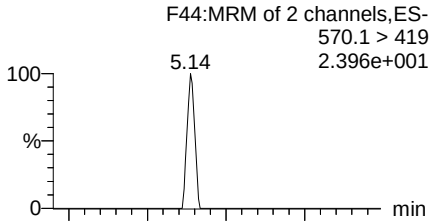

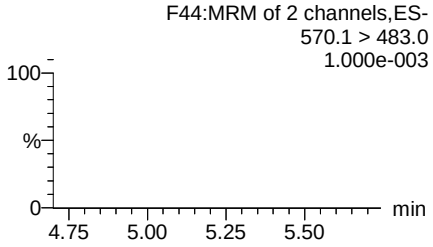

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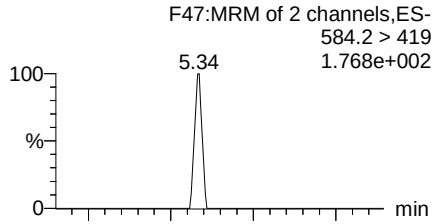
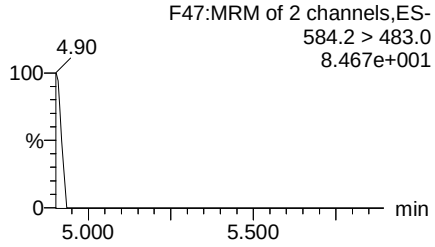
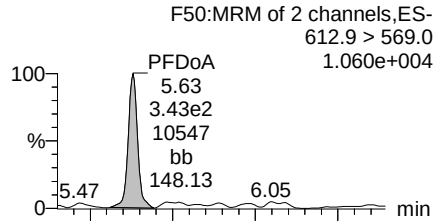
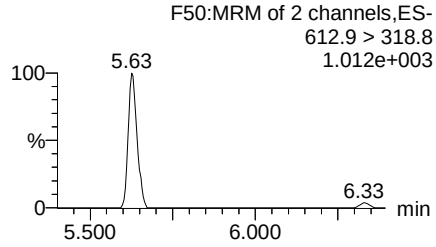


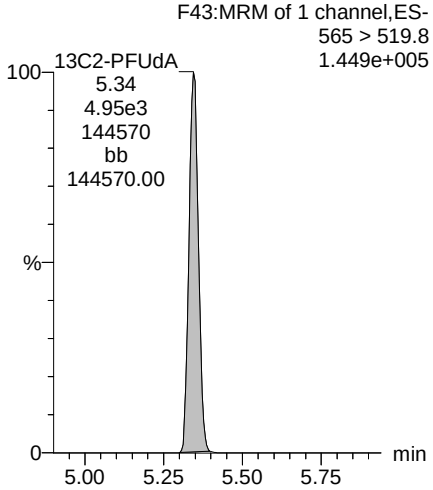


PFDoA

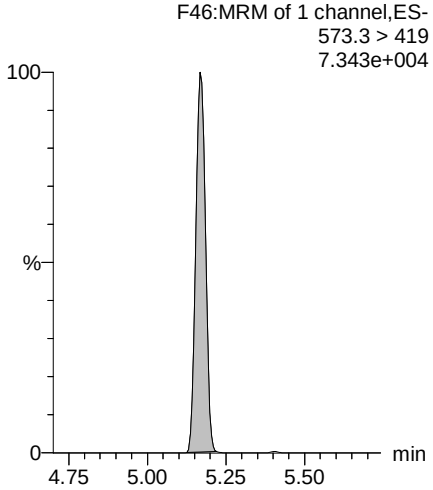




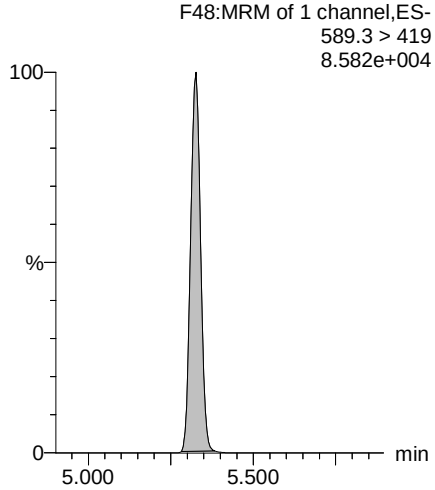
13C2-PFUdA



d3-N-MeFOSAA



d5-N-EtFOSAA



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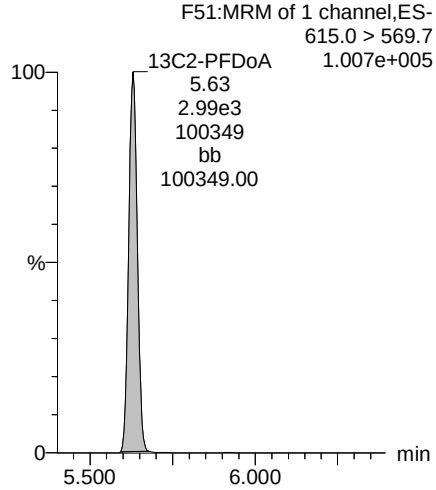


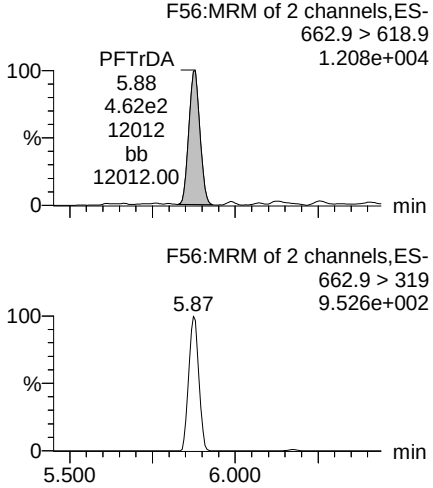
GM 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-50.qld

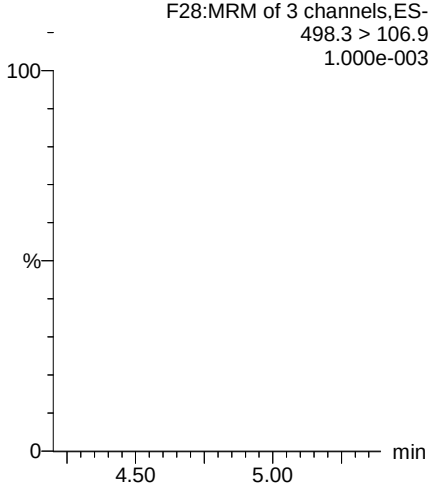
Last Altered: Tuesday, January 09, 2018 14:53:13 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:53:52 Pacific Standard Time

Name: 180104M1_50, Date: 05-Jan-2018, Time: 10:05:56, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

PFTrDA



TCDA



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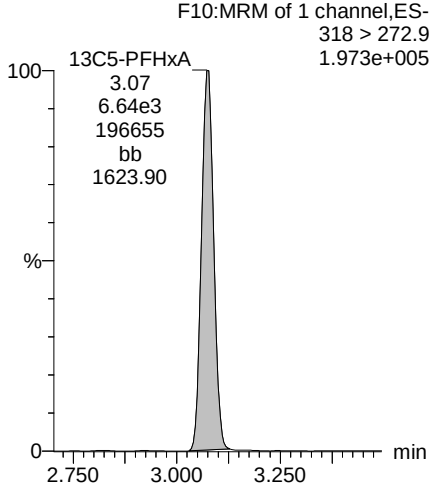
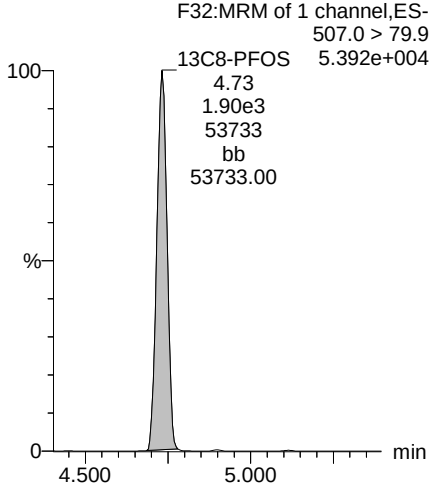
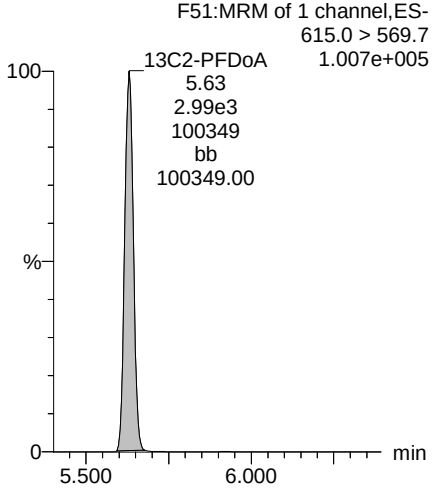


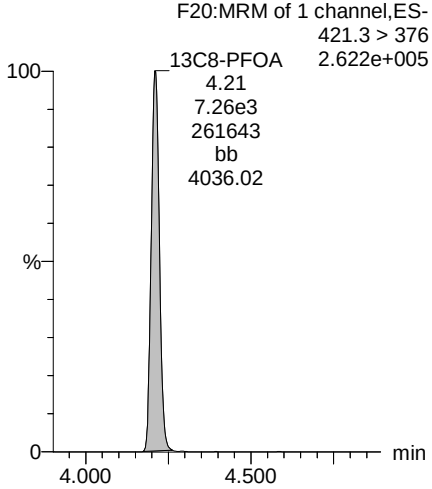
13C8-PFOS



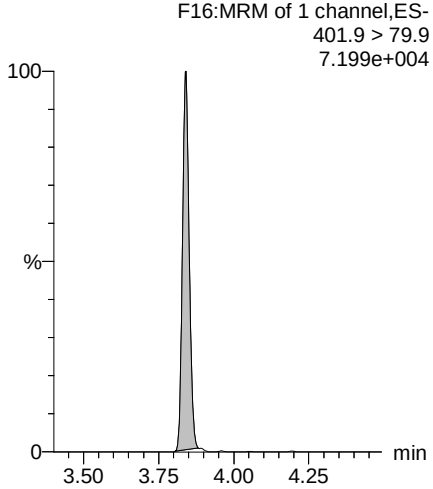
13C2-PFDoA



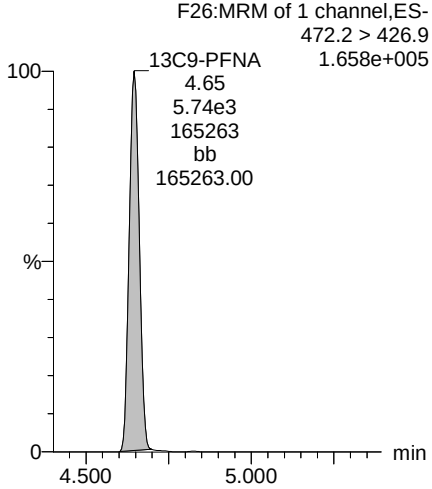
13C8-PFOA



13C3-PFHxS



13C9-PFNA



GM 1/9/2018

Vista Analytical Laboratory

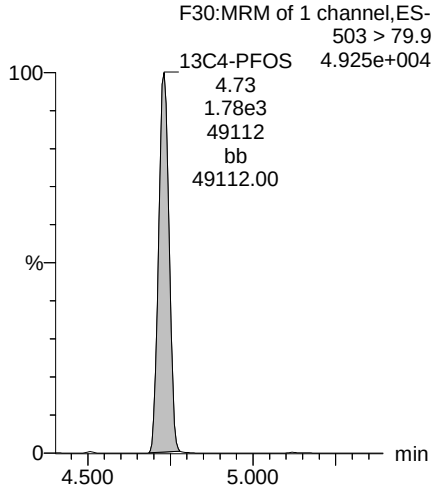
Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-50.qld

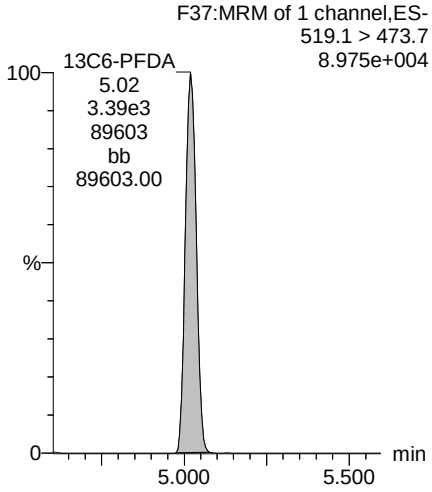
Last Altered: Tuesday, January 09, 2018 14:53:13 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:53:52 Pacific Standard Time

Name: 180104M1_50, Date: 05-Jan-2018, Time: 10:05:56, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

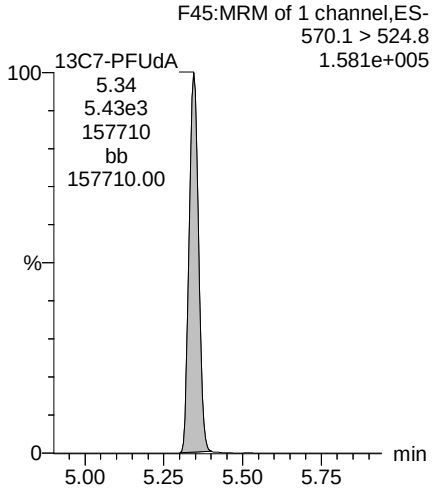
13C4-PFOS



13C6-PFDA



13C7-PFUdA



GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-40.qld

Last Altered: Tuesday, January 09, 2018 15:25:23 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:25:57 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_40, Date: 29-Dec-2017, Time: 20:49:15, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

	#	Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	25	PFTeDA	712.9 > 668.8		2.29e3		0.2711	6.16				
2	49	13C2-PFTeDA	714.8 > 669.6	2.29e3	8.80e3	0.196	0.2711	6.16	6.11	3.26	61.3	133.0
3	61	13C7-PFUdA	570.1 > 524.8	8.80e3	8.80e3	1.000	0.2711	5.43	5.37	12.5	46.1	100.0

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Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-40.qld

Last Altered: Tuesday, January 09, 2018 15:25:23 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:25:57 Pacific Standard Time

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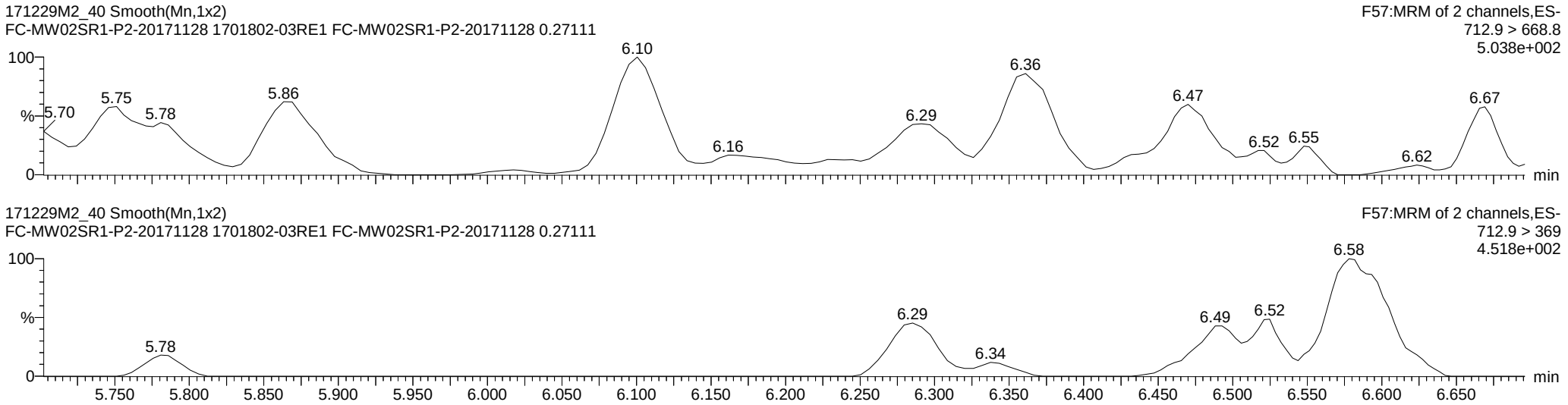
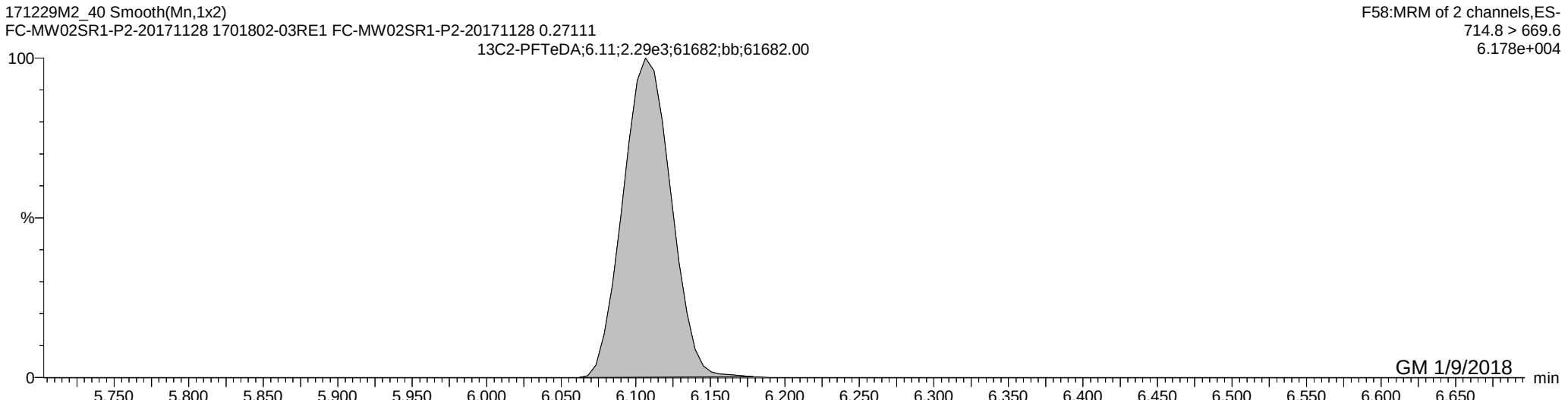
Name: 171229M2_40, Date: 29-Dec-2017, Time: 20:49:15, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

PFTeDA



13C2-PFTeDA



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Vista Analytical Laboratory

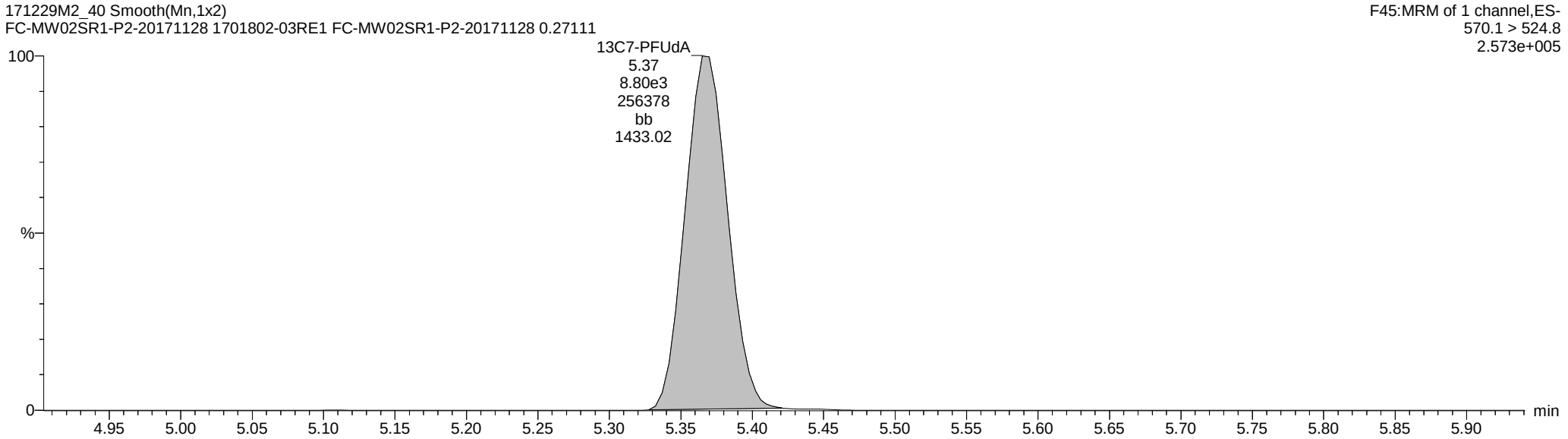
Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-40.qld

Last Altered: Tuesday, January 09, 2018 15:25:23 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:25:57 Pacific Standard Time

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

13C7-PFUdA



GM 1/9/2018

Vista Analytical Laboratory

Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-23.qld

Last Altered: Tuesday, January 16, 2018 09:42:08 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:34:23 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 15 Jan 2018 11:34:14
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180111M2_23, Date: 12-Jan-2018, Time: 07:44:53, ID: 1701802-03RE1@5X FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	12	PFNA	463.0 > 418.8	7.39e3	1.11e3	0.271		4.81	4.66	82.9	211.1005	
2	20	PFUdA	563.0 > 518.9	3.99e4	1.09e3	0.271		5.50	5.36	458	1414.1775	
3	39	13C5-PFNA	468.2 > 422.9	1.11e3	1.17e3	0.271	0.817	4.81	4.66	11.9	53.6086	116.3
4	46	13C2-PFUdA	565 > 519.8	1.09e3	1.12e3	0.271	0.958	5.49	5.36	12.1	46.7508	101.4
5	58	13C9-PFNA	472.2 > 426.9	1.17e3	1.17e3	0.271	1.000	4.81	4.66	12.5	46.1084	100.0
6	61	13C7-PFUdA	570.1 > 524.8	1.12e3	1.12e3	0.271	1.000	5.49	5.36	12.5	46.1084	100.0

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Vista Analytical Laboratory

Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-23.qld

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Printed: Tuesday, January 16, 2018 12:34:23 Pacific Standard Time

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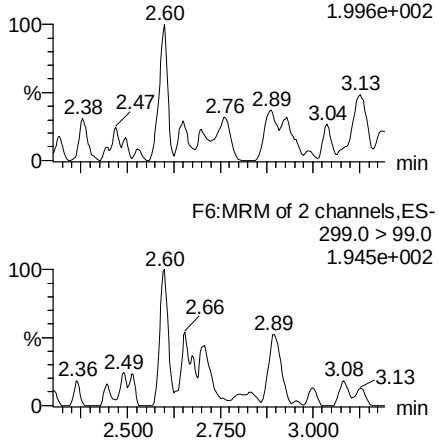
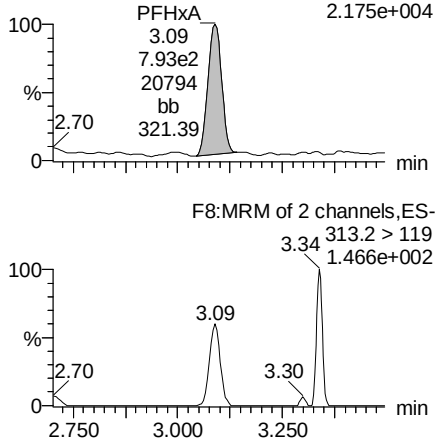
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180111M2_23, Date: 12-Jan-2018, Time: 07:44:53, ID: 1701802-03RE1@5X FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

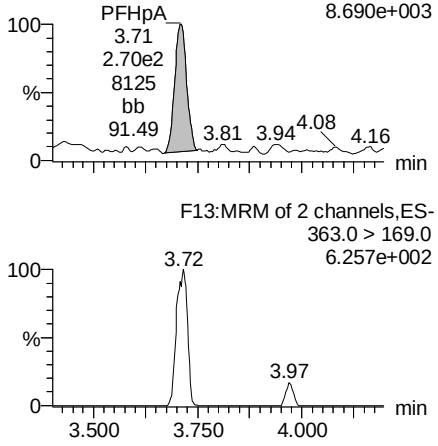
PFBS



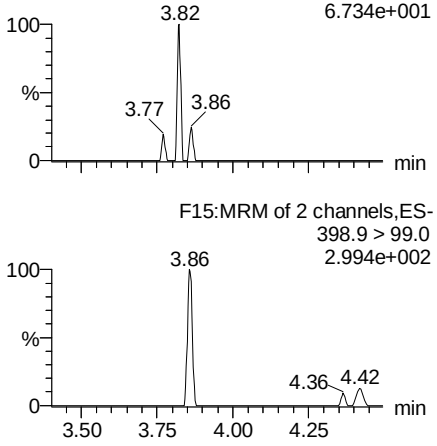
PFHxA



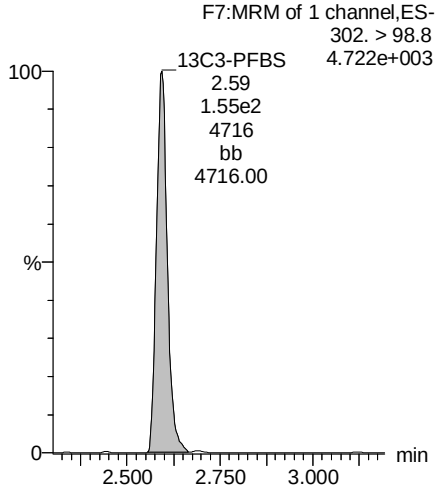
PFHpA



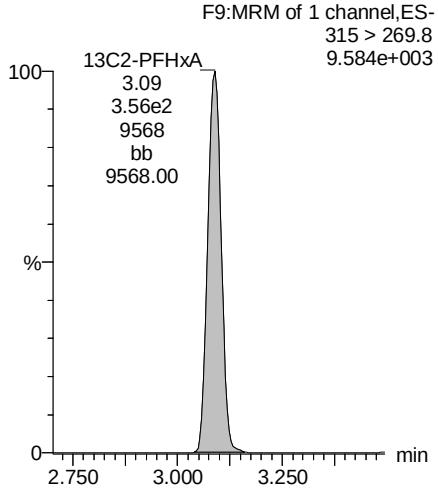
Total PFHxS



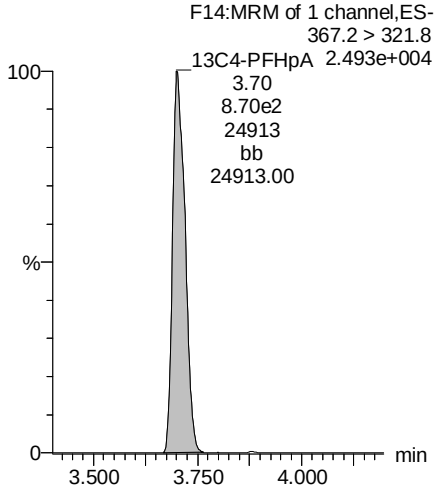
13C3-PFBS



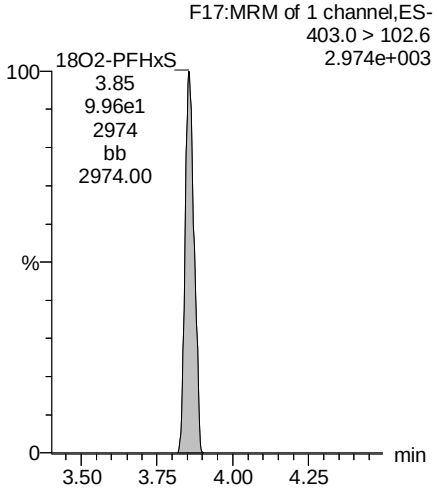
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



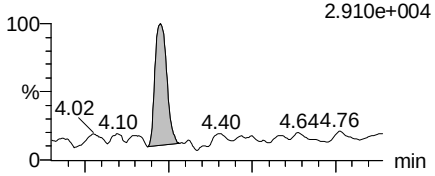
ANP 1/16/2018

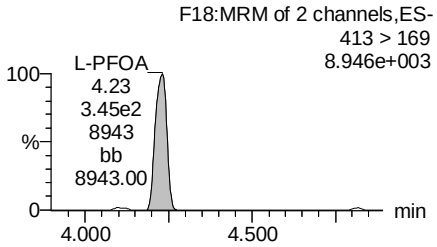
Dataset: U:\Q4.PRO\results\180111M2\1801111M2-23.qld

Last Altered: Tuesday, January 16, 2018 09:42:08 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:34:23 Pacific Standard Time

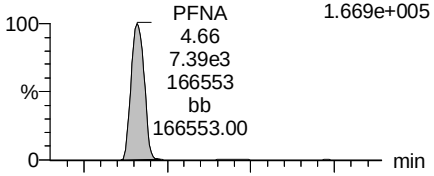
Name: 180111M2_23, Date: 12-Jan-2018, Time: 07:44:53, ID: 1701802-03RE1@5X FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

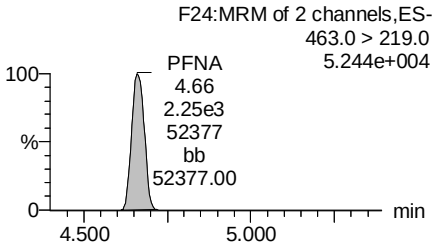
Total PFOA



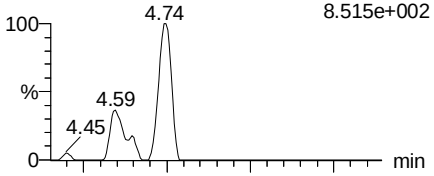


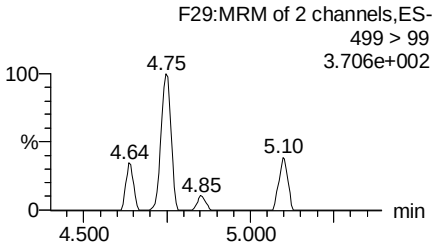
PFNA



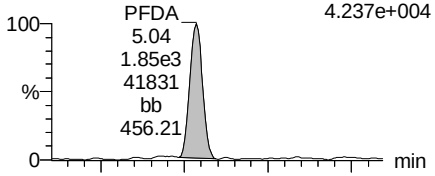


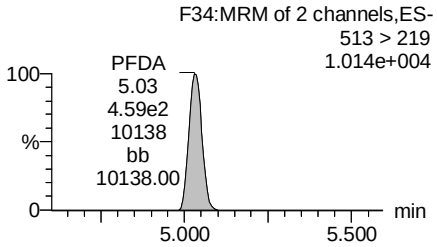
Total PFOS



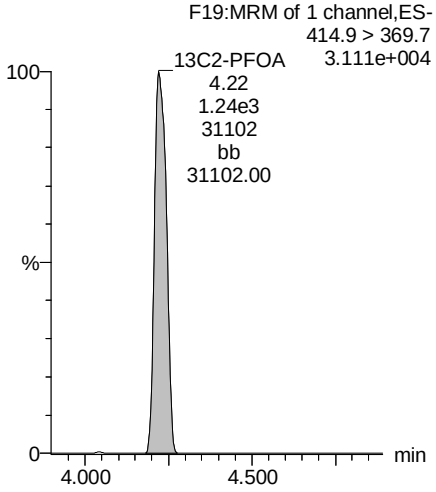


PFDA

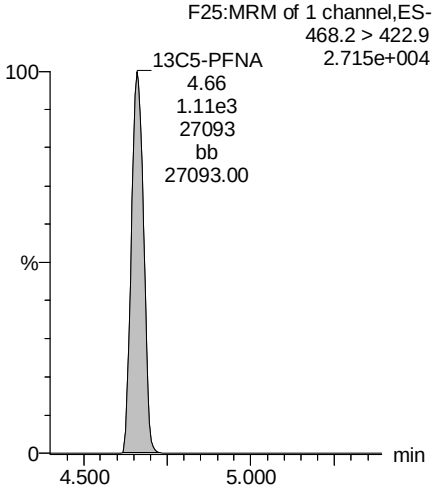




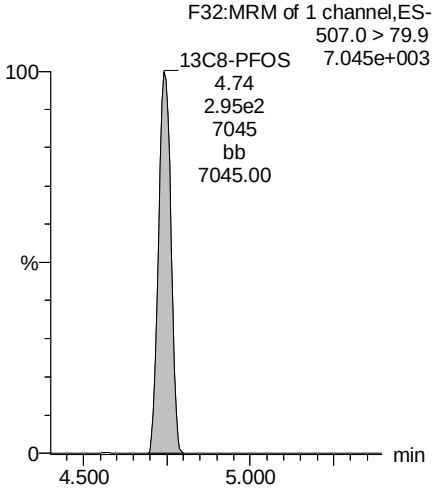
13C2-PFOA



13C5-PFNA



13C8-PFOS



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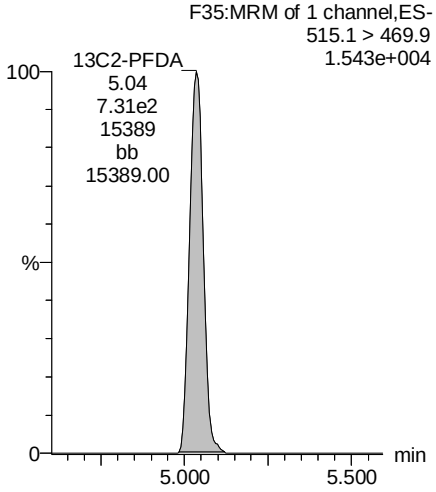

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Vista Analytical Laboratory

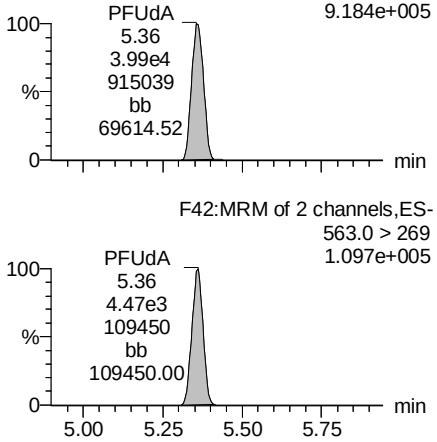
Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-23.qld

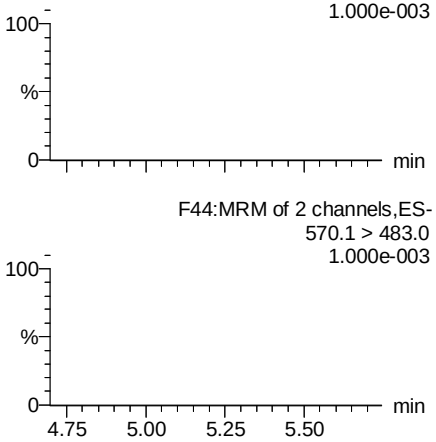
Last Altered: Tuesday, January 16, 2018 09:42:08 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:34:23 Pacific Standard Time

Name: 180111M2_23, Date: 12-Jan-2018, Time: 07:44:53, ID: 1701802-03RE1@5X FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

PFUdA



N-MeFOSAA



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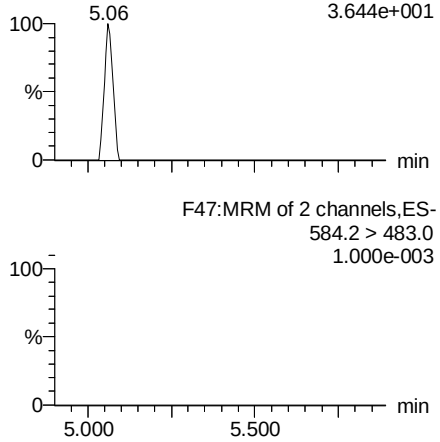
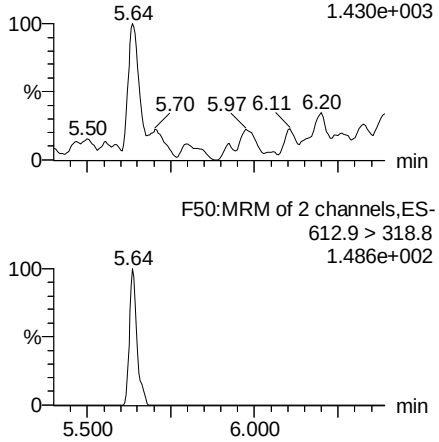
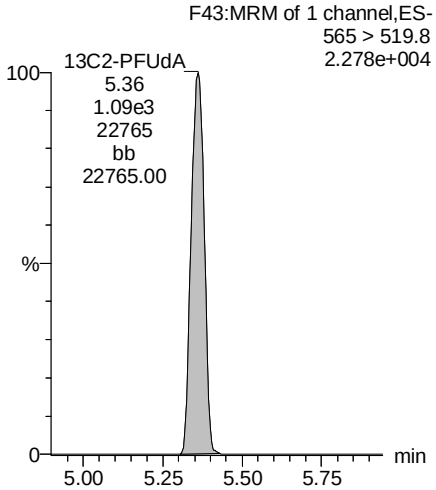


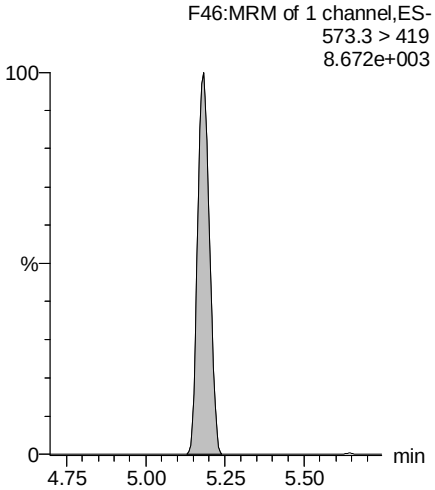
PFDoA



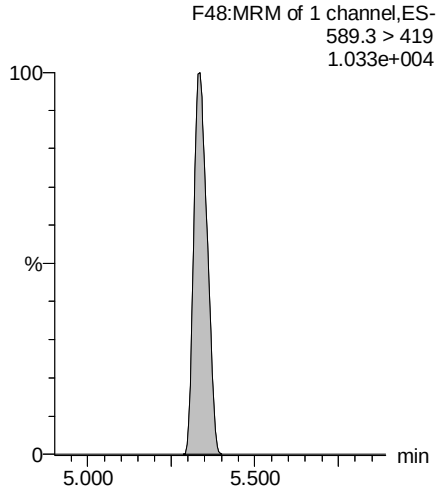
13C2-PFUdA



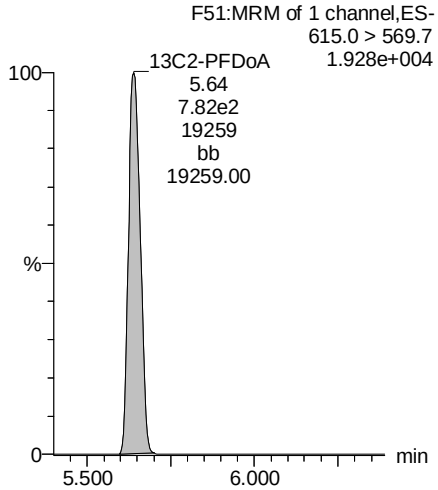
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



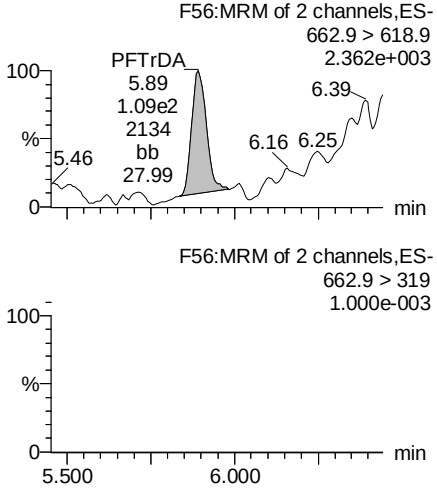
ANP 1/16/2018

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-23.qld

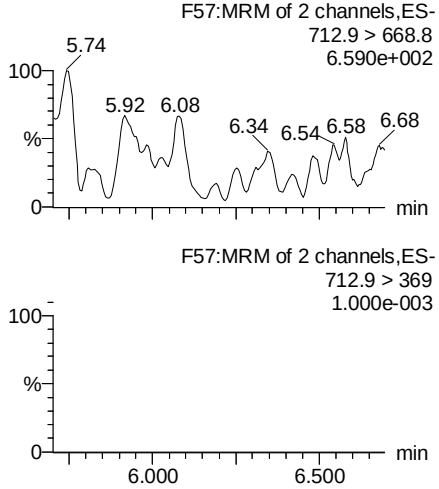
Last Altered: Tuesday, January 16, 2018 09:42:08 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:34:23 Pacific Standard Time

Name: 180111M2_23, Date: 12-Jan-2018, Time: 07:44:53, ID: 1701802-03RE1@5X FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

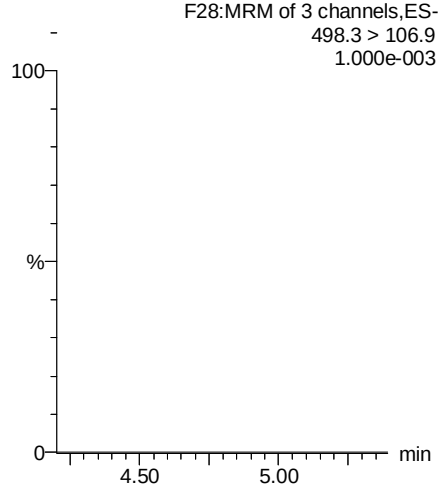
PFTrDA



PFTeDA



TCDA



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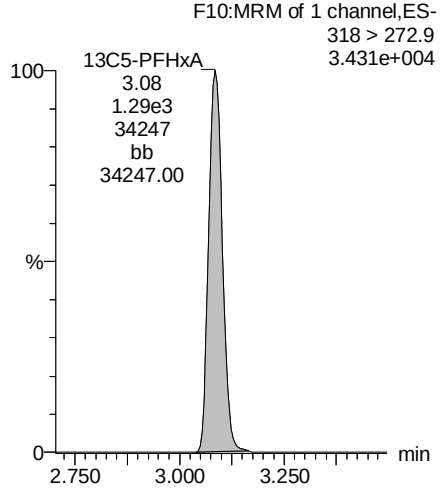
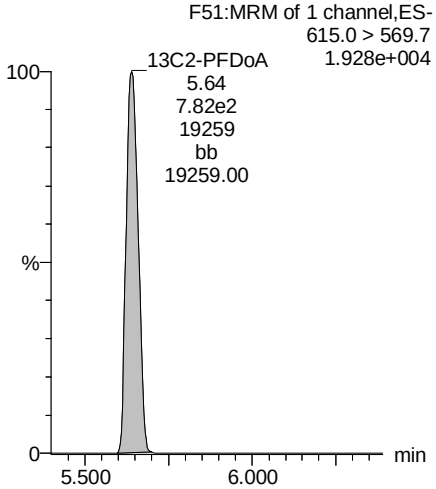
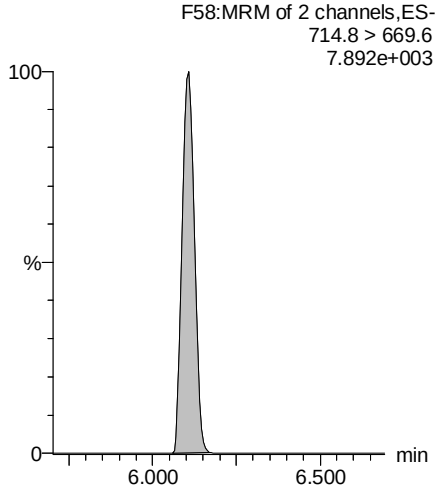


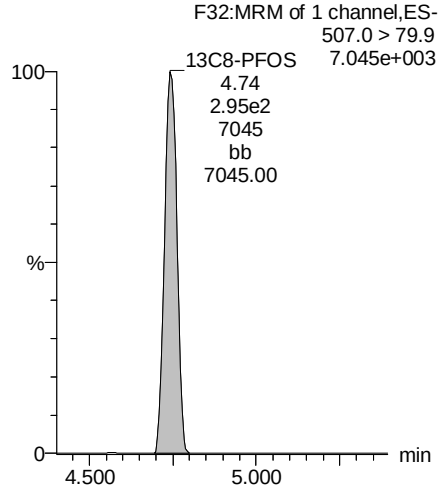
13C2-PFDoA



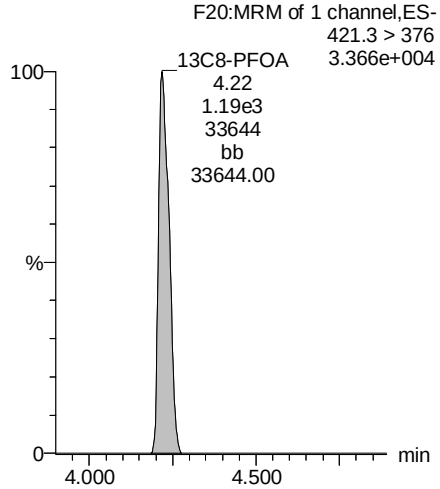
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



ANP 1/16/2018

Vista Analytical Laboratory

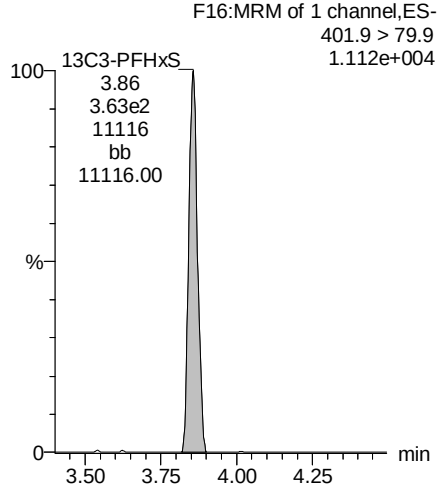
Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-23.qld

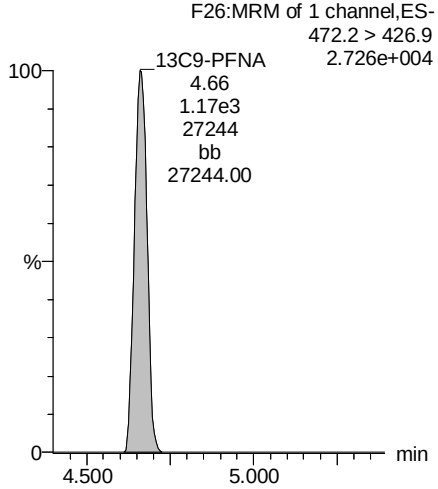
Last Altered: Tuesday, January 16, 2018 09:42:08 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:34:23 Pacific Standard Time

Name: 180111M2_23, Date: 12-Jan-2018, Time: 07:44:53, ID: 1701802-03RE1@5X FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

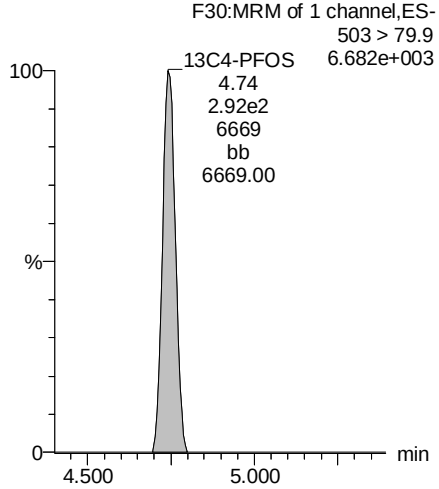
13C3-PFHxS



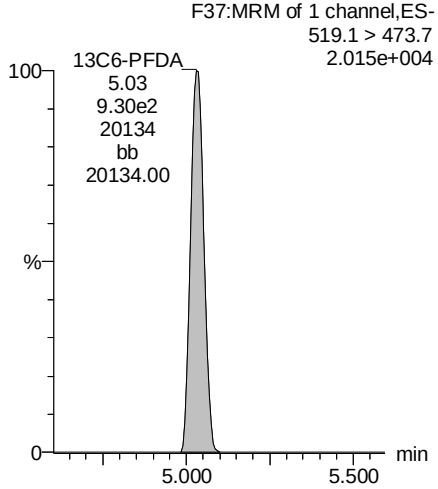
13C9-PFNA



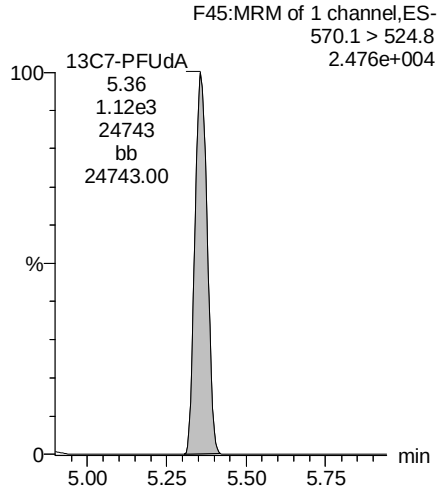
13C4-PFOS



13C6-PFDA



13C7-PFUdA



ANP 1/16/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-51.qld

Last Altered: Tuesday, January 09, 2018 14:56:10 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:56:48 Pacific Standard Time

*See dilution.

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_51, Date: 05-Jan-2018, Time: 10:17:07, ID: 1701802-04RE1 FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		8.79e2	0.268		2.70				
2	4	PFHxA	313.2 > 268.9	4.07e3	1.87e3	0.268		3.12	3.08	10.9	21.6992	
3	5	PFHpA	363.0 > 318.9	1.54e3	5.13e3	0.268		3.75	3.69	3.75	8.9195	
4	6	L-PFHxS	398.9 > 79.6	2.72e1	7.12e2	0.268		3.92	3.84	0.478	0.9500	
5	9	L-PFOA	413 > 368.7	4.93e3	7.15e3	0.268		4.25	4.21	8.63	25.0516	
6	12	PFNA	463.0 > 418.8	3.76e4	5.99e3	0.268		4.70	4.65	78.4	223.0996	*
7	14	L-PFOS	499 > 79.9	3.54e2	2.13e3	0.268		4.83	4.73	2.07	7.5307	
8	16	PFDA	513 > 468.8	1.06e4	5.53e3	0.268		5.05	5.02	23.9	55.1751	
9	18	N-MeFOSAA	570.1 > 419		2.74e3	0.268		5.20				
10	19	N-EtFOSAA	584.2 > 419		2.99e3	0.268		5.42				
11	20	PFUdA	563.0 > 518.9	1.89e5	5.02e3	0.268		5.35	5.34	471	1038.7719	E*
12	22	PFDoA	612.9 > 569.0	2.72e2	3.04e3	0.268		5.70	5.63	1.12	2.0229	

GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-51.qld

Last Altered: Tuesday, January 09, 2018 14:56:10 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:57:00 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_51, Date: 05-Jan-2018, Time: 10:17:07, ID: 1701802-04RE1 FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	3.66e2	1.24e3	0.268		5.95	5.87	3.69	2.7371	
2	33	13C3-PFBS	302. > 98.8	8.79e2	7.07e3	0.268	0.106	2.70	2.59	1.55	54.5742	117.1
3	34	13C2-PFHxA	315 > 269.8	1.87e3	7.07e3	0.268	0.633	3.20	3.08	3.30	19.4652	104.5
4	35	13C4-PFHpA	367.2 > 321.8	5.13e3	7.07e3	0.268	0.641	3.80	3.69	9.07	52.7450	113.2
5	36	18O2-PFHxS	403.0 > 102.6	7.12e2	1.82e3	0.268	0.334	3.95	3.84	4.89	54.6021	117.2
6	37	13C2-6:2 FTS	429.1 > 408.9	1.53e3	7.28e3	0.268	0.228	4.26	4.16	2.63	43.0151	92.3
7	38	13C2-PFOA	414.9 > 369.7	7.15e3	7.28e3	0.268	0.959	4.32	4.21	12.3	47.6613	102.3
8	39	13C5-PFNA	468.2 > 422.9	5.99e3	5.72e3	0.268	0.830	4.75	4.65	13.1	58.7416	126.1
9	40	13C8-PFOSA	506.1 > 77.7	1.28e3	5.16e3	0.268	0.262	4.81	4.71	3.09	43.8905	94.2
10	41	13C8-PFOS	507.0 > 79.9	2.13e3	1.87e3	0.268	0.880	4.83	4.73	14.2	60.1984	129.2
11	42	13C2-PFDA	515.1 > 469.9	5.53e3	3.85e3	0.268	0.995	5.11	5.02	18.0	67.3487	144.6
12	43	13C2-8:2 FTS	529.1 > 508.7	5.99e2	7.07e3	0.268	0.142	5.09	4.99	1.06	27.7336	59.5
13	44	d3-N-MeFOSAA	573.3 > 419	2.74e3	5.16e3	0.268	0.376	5.26	5.17	6.65	65.9456	141.5
14	45	d5-N-EtFOSAA	589.3 > 419	2.99e3	5.16e3	0.268	0.444	5.42	5.32	7.25	60.8997	130.7
15	46	13C2-PFUdA	565 > 519.8	5.02e3	5.16e3	0.268	0.889	5.43	5.34	12.2	51.0378	109.5
16	47	13C2-PFDoA	615.0 > 569.7	3.04e3	5.16e3	0.268	0.542	5.70	5.63	7.37	50.6281	108.7
17	55	13C5-PFHxA	318 > 272.9	7.07e3	7.07e3	0.268	1.000	3.20	3.08	12.5	46.5896	100.0
18	56	13C3-PFHxS	401.9 > 79.9	1.82e3	1.82e3	0.268	1.000	3.95	3.84	12.5	46.5896	100.0
19	57	13C8-PFOA	421.3 > 376	7.28e3	7.28e3	0.268	1.000	4.32	4.21	12.5	46.5896	100.0
20	58	13C9-PFNA	472.2 > 426.9	5.72e3	5.72e3	0.268	1.000	4.75	4.65	12.5	46.5896	100.0
21	59	13C4-PFOS	503 > 79.9	1.87e3	1.87e3	0.268	1.000	4.83	4.73	12.5	46.5896	100.0
22	60	13C6-PFDA	519.1 > 473.7	3.85e3	3.85e3	0.268	1.000	5.11	5.02	12.5	46.5896	100.0
23	61	13C7-PFUdA	570.1 > 524.8	5.16e3	5.16e3	0.268	1.000	5.43	5.34	12.5	46.5896	100.0
24	62	Total PFHxS	398.9 > 79.6	2.72e1	7.12e2	0.268		4.00		0.478	0.9500	
25	63	Total PFOA	413 > 368.7	5.00e3	7.15e3	0.268		4.30		8.63	25.0516	
26	64	Total PFOS	499 > 79.9	3.54e2	2.13e3	0.268		4.80		2.07	7.5307	
27	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.74e3	0.268		5.20		0.000		
28	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.99e3	0.268		5.40		0.000		

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Dataset: U:\Q4.PRO\results\180104M1\180104M1-51.qld

Last Altered: Tuesday, January 09, 2018 14:56:10 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:57:00 Pacific Standard Time

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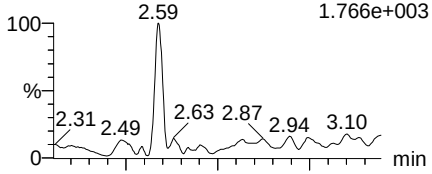

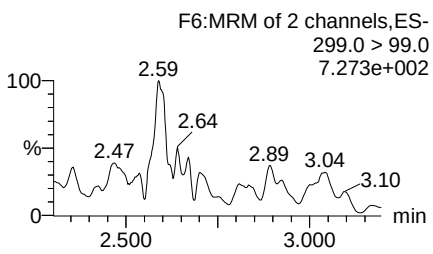

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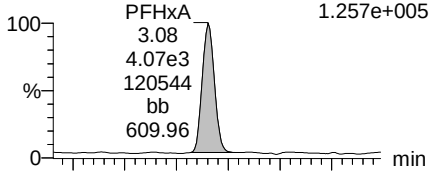

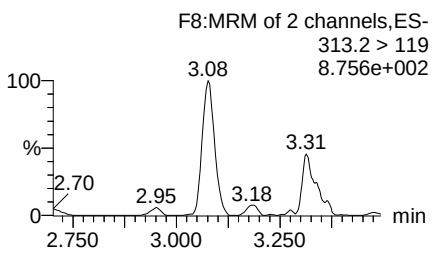

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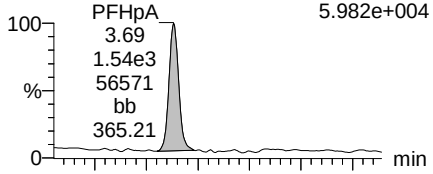

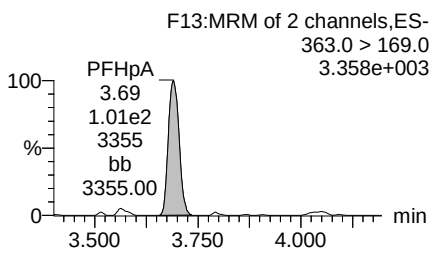

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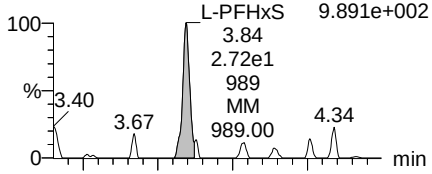

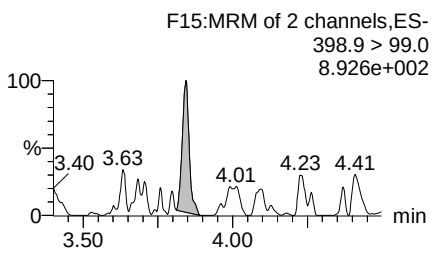

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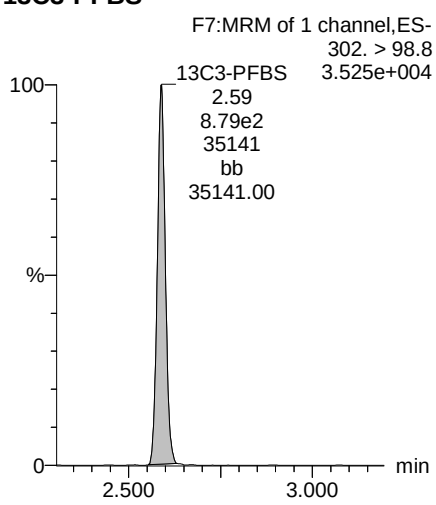

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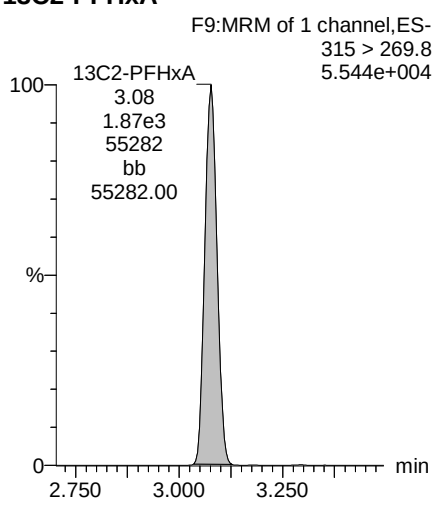

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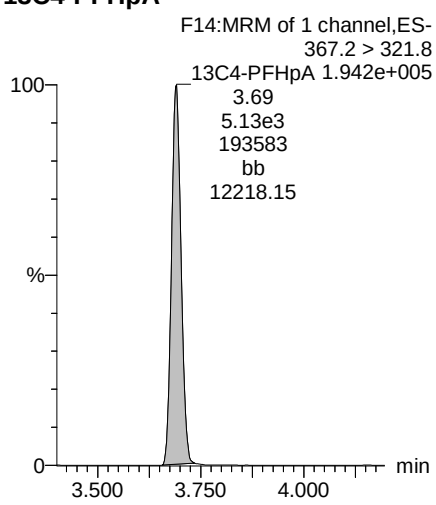

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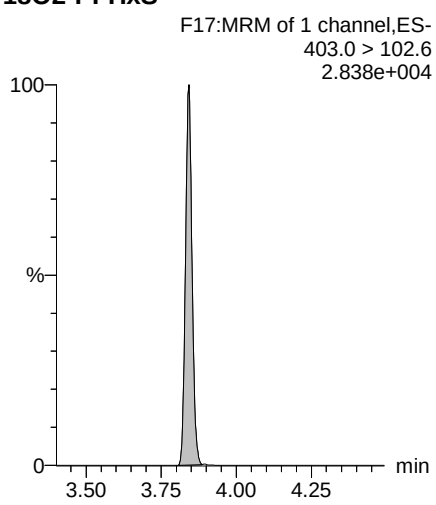

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Name: 180104M1_51, Date: 05-Jan-2018, Time: 10:17:07, ID: 1701802-04RE1 FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

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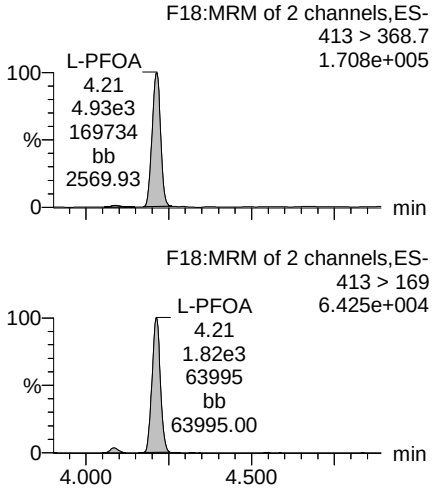

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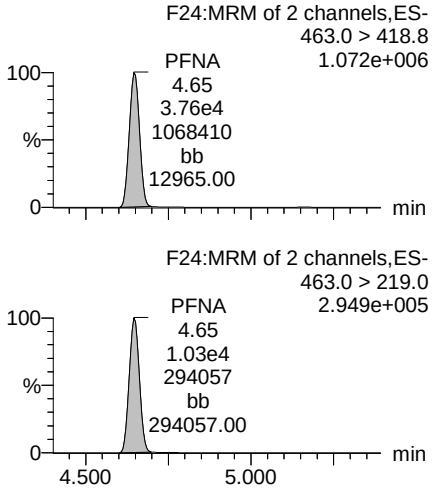

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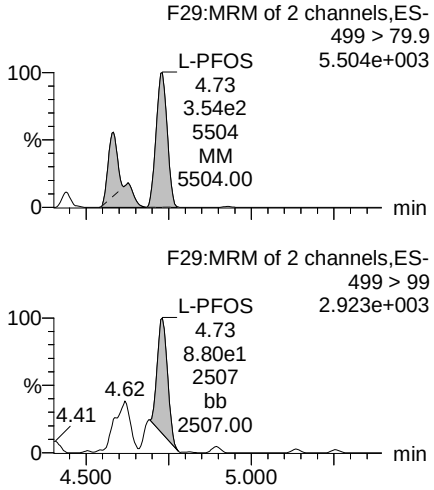

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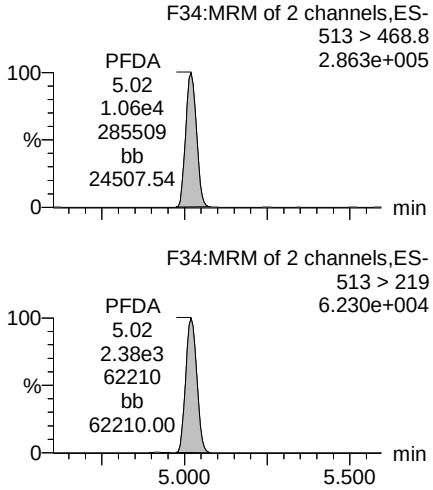

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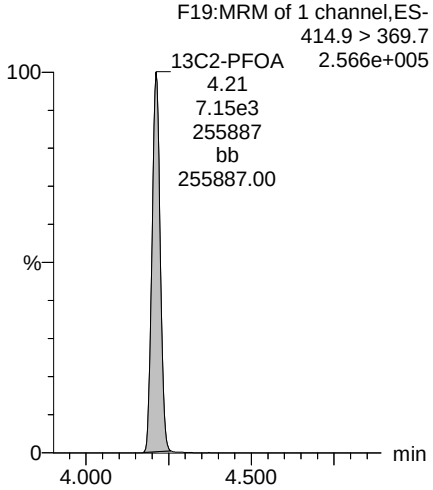

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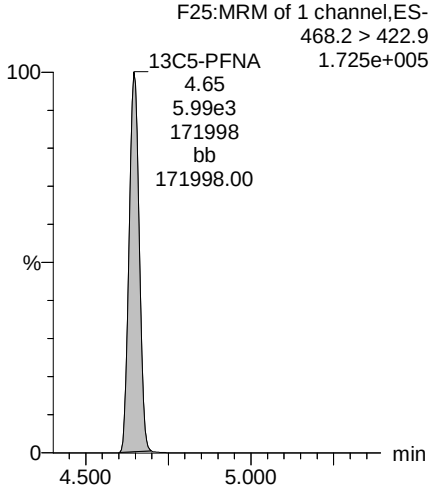

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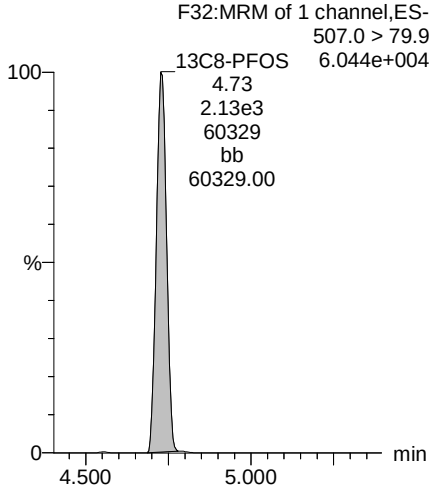

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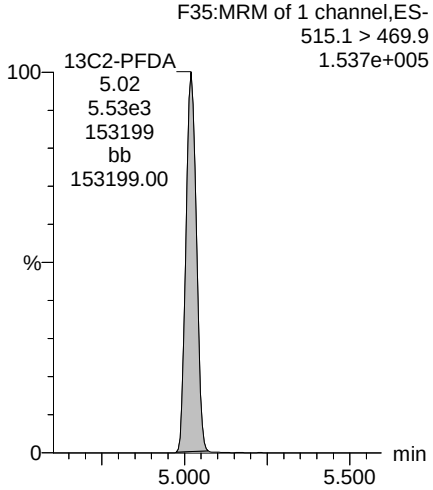

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Printed: Tuesday, January 09, 2018 14:57:00 Pacific Standard Time

Name: 180104M1_51, Date: 05-Jan-2018, Time: 10:17:07, ID: 1701802-04RE1 FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

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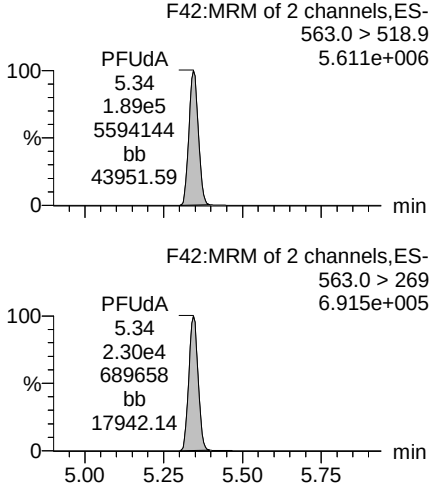

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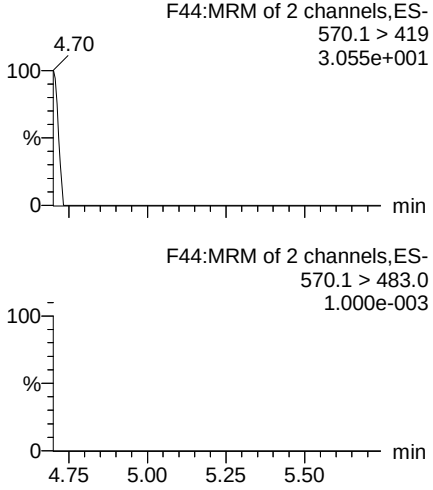

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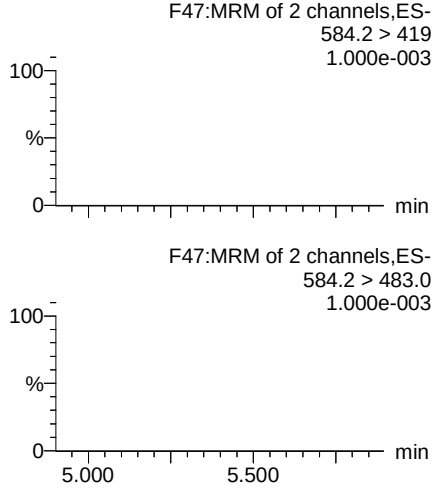

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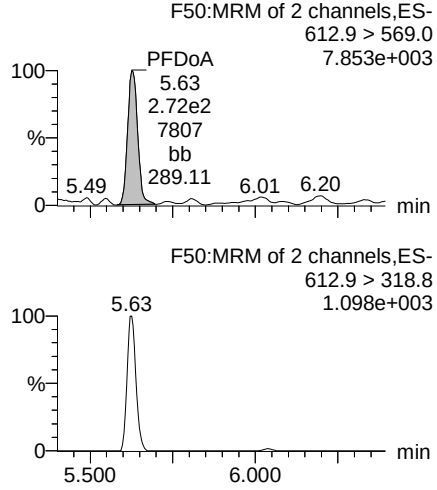

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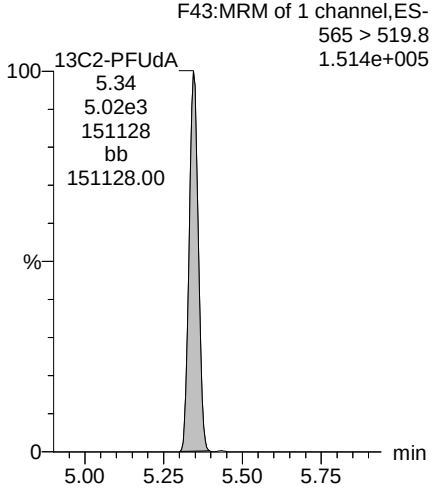

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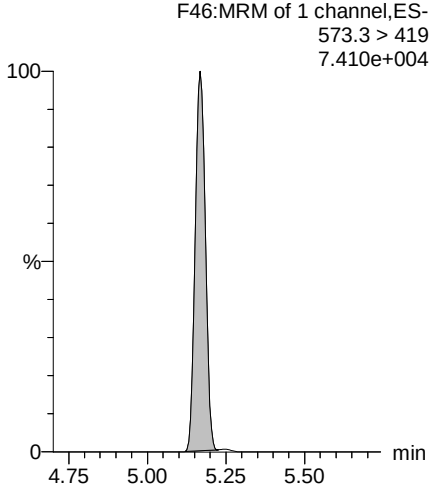

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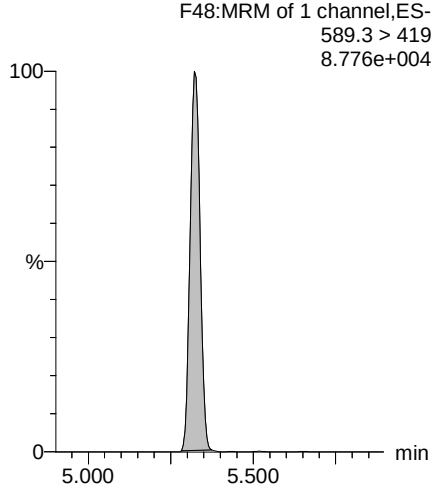

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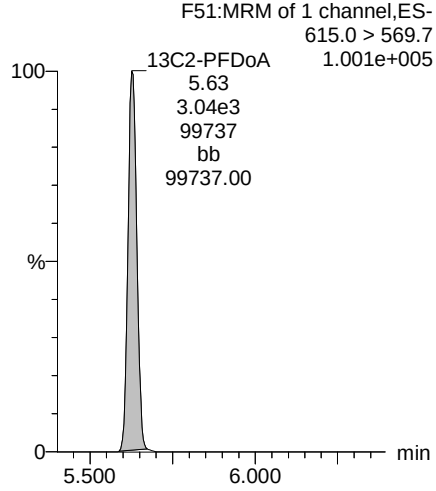

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Name: 180104M1_51, Date: 05-Jan-2018, Time: 10:17:07, ID: 1701802-04RE1 FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

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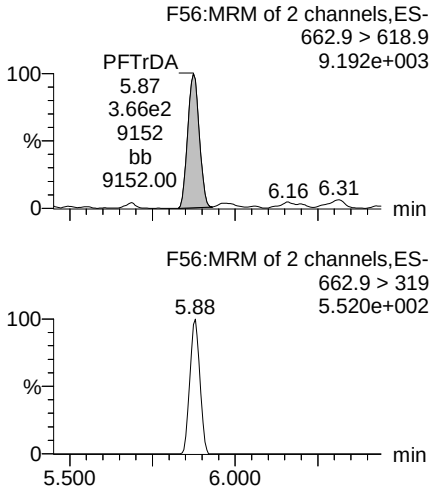

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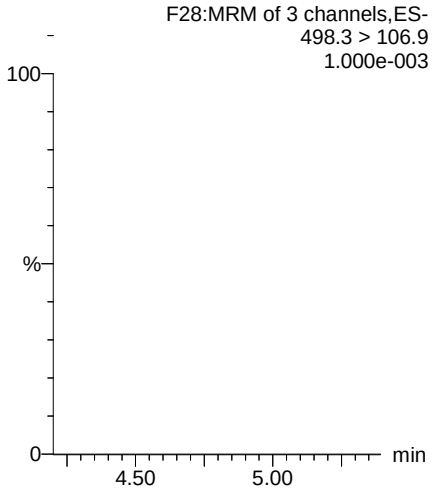

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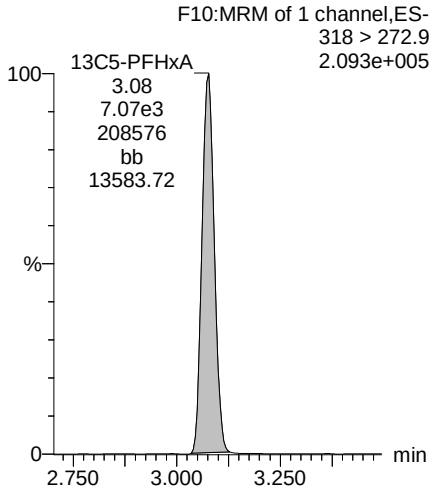

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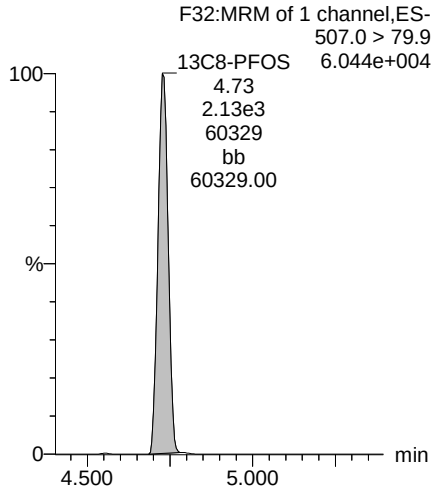

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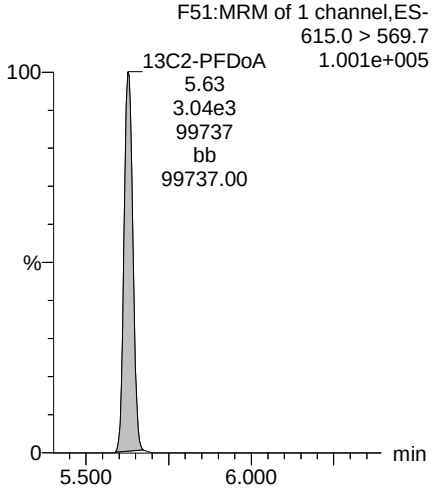

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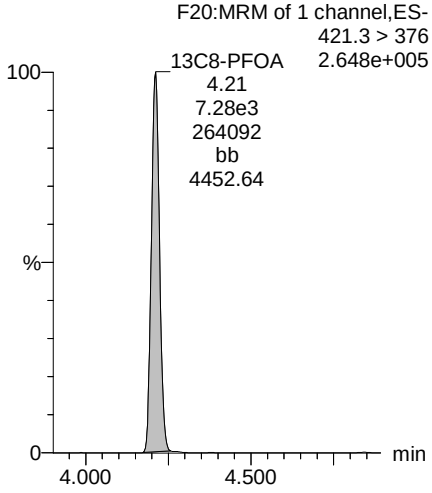

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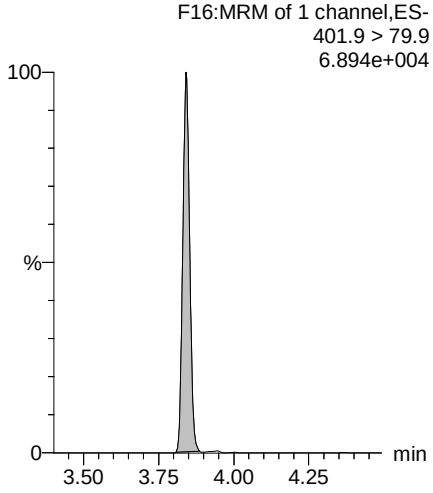

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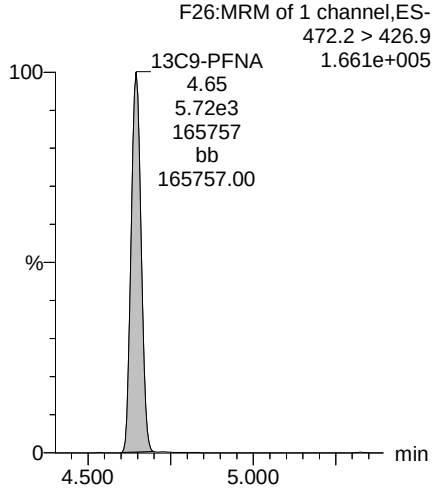

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Revd: MM 1/11/18

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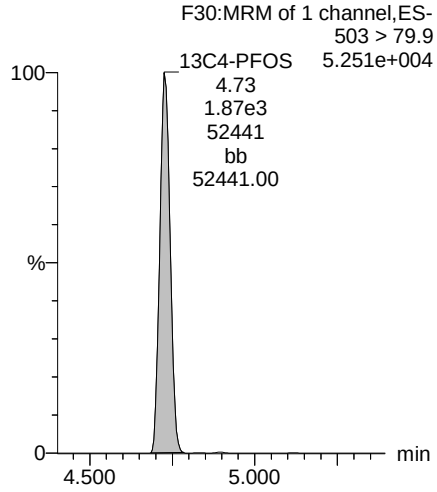

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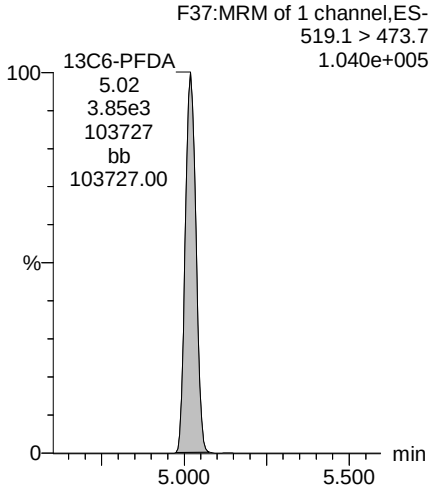

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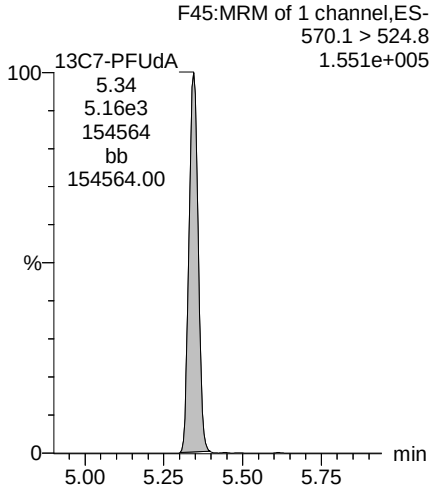

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Rev'd: MM 1/17/18

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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	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	25	PFTeDA	712.9 > 668.8		2.68e3		0.2683	6.16					
2	49	13C2-PFTeDA	714.8 > 669.6	2.68e3	8.92e3	0.196	0.2683	6.16	6.11	3.75	71.4	153.2	H
3	61	13C7-PFUdA	570.1 > 524.8	8.92e3	8.92e3	1.000	0.2683	5.43	5.37	12.5	46.6	100.0	

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Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-41.qld

Last Altered: Tuesday, January 09, 2018 15:27:20 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:27:31 Pacific Standard Time

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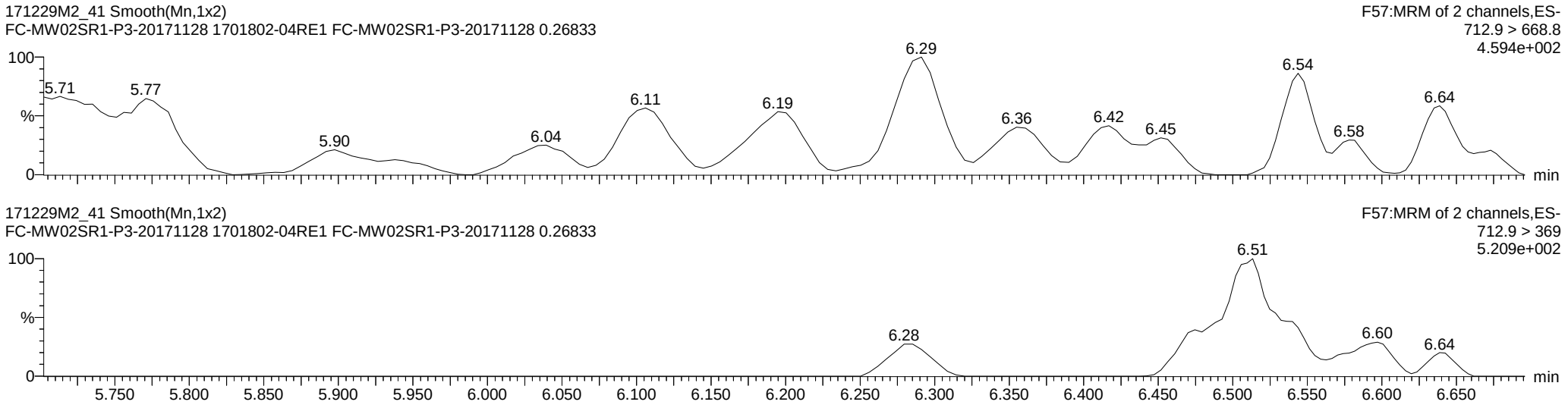
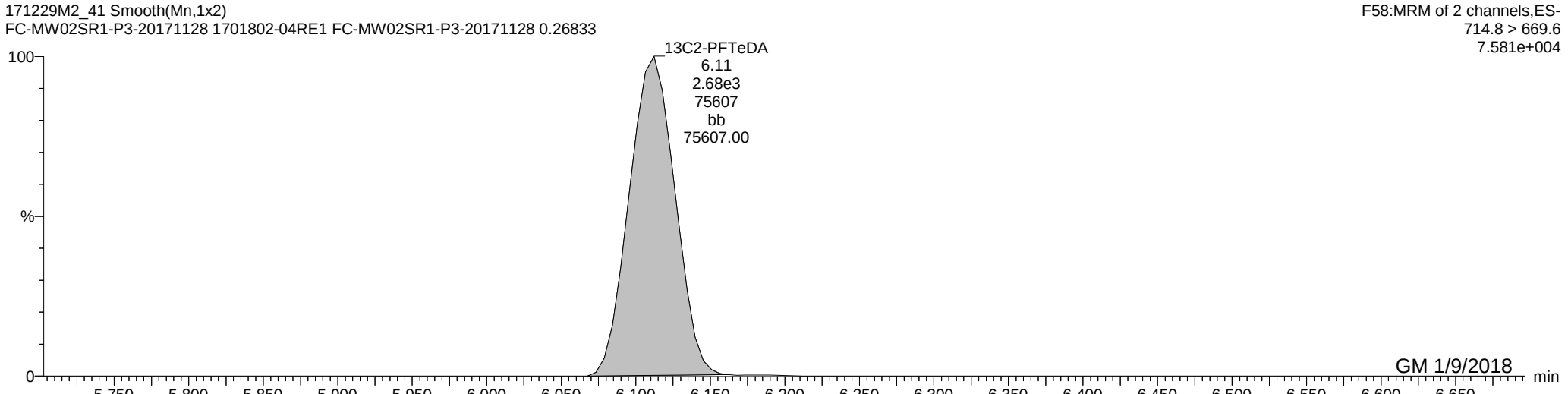
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

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

PFTeDA



13C2-PFTeDA



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Vista Analytical Laboratory

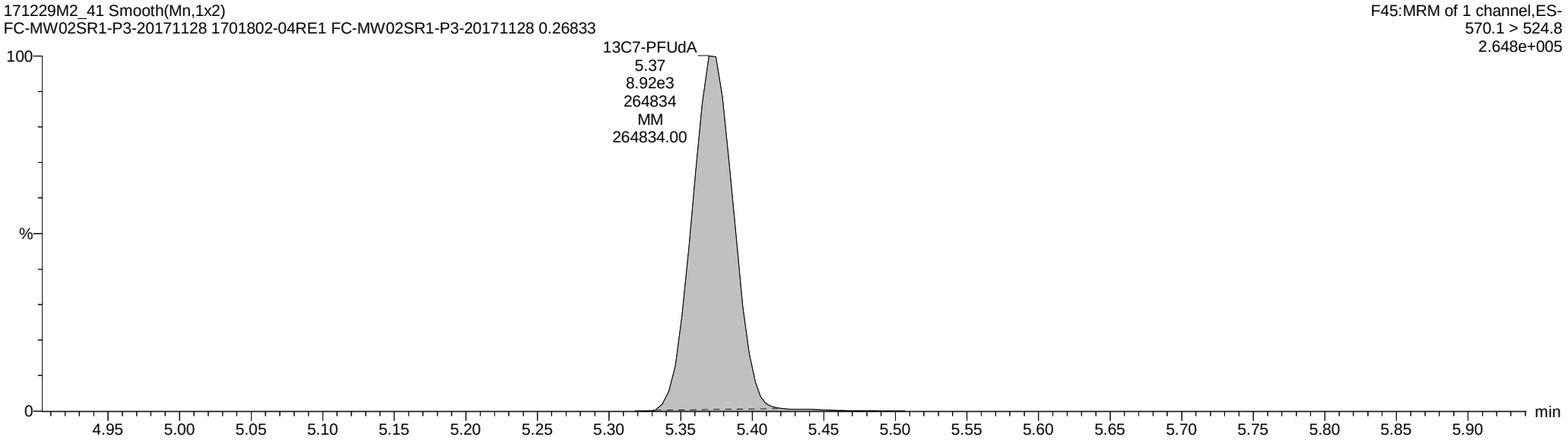
Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-41.qld

Last Altered: Tuesday, January 09, 2018 15:27:20 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:27:31 Pacific Standard Time

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

13C7-PFUdA



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Vista Analytical Laboratory

Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-24.qld

Last Altered: Tuesday, January 16, 2018 09:43:37 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:35:00 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 15 Jan 2018 11:34:14
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180111M2_24, Date: 12-Jan-2018, Time: 07:56:04, ID: 1701802-04RE1@5X FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	12	PFNA	463.0 > 418.8	7.39e3	9.41e2	0.268		4.81	4.66	98.1	251.0918	
2	20	PFUdA	563.0 > 518.9	3.58e4	1.04e3	0.268		5.50	5.36	430	1331.2207	
3	39	13C5-PFNA	468.2 > 422.9	9.41e2	1.26e3	0.268	0.817	4.81	4.66	9.34	42.5928	91.4
4	46	13C2-PFUdA	565 > 519.8	1.04e3	1.29e3	0.268	0.958	5.49	5.36	10.1	39.1112	83.9
5	58	13C9-PFNA	472.2 > 426.9	1.26e3	1.26e3	0.268	1.000	4.81	4.66	12.5	46.5896	100.0
6	61	13C7-PFUdA	570.1 > 524.8	1.29e3	1.29e3	0.268	1.000	5.49	5.36	12.5	46.5896	100.0

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Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-24.qld

Last Altered: Tuesday, January 16, 2018 09:43:37 Pacific Standard Time
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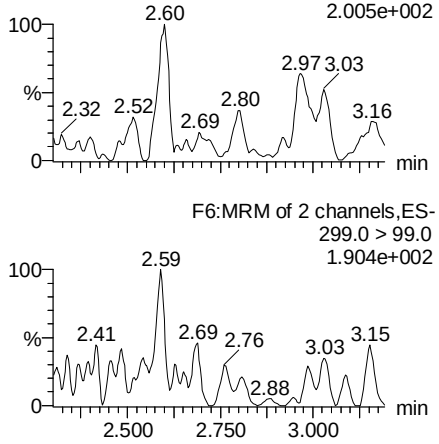
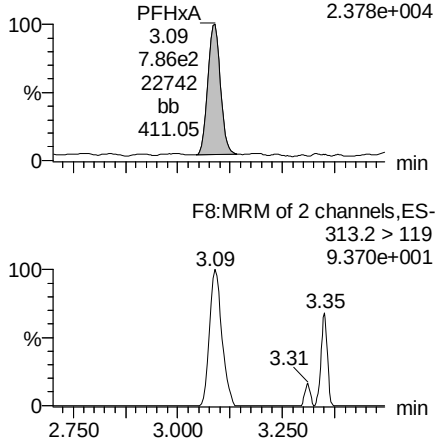
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 15 Jan 2018 11:34:14
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180111M2_24, Date: 12-Jan-2018, Time: 07:56:04, ID: 1701802-04RE1@5X FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

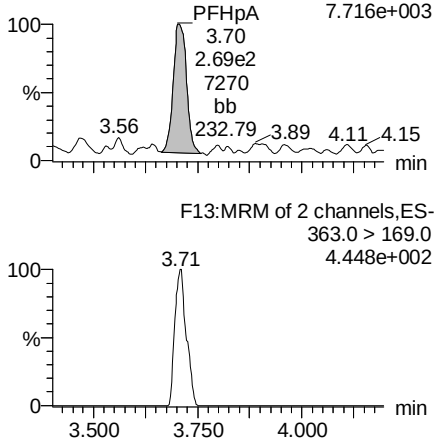
PFBS



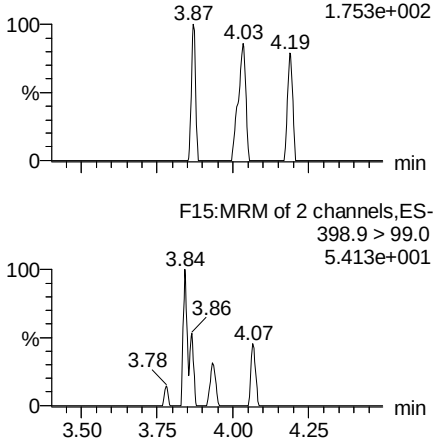
PFHxA



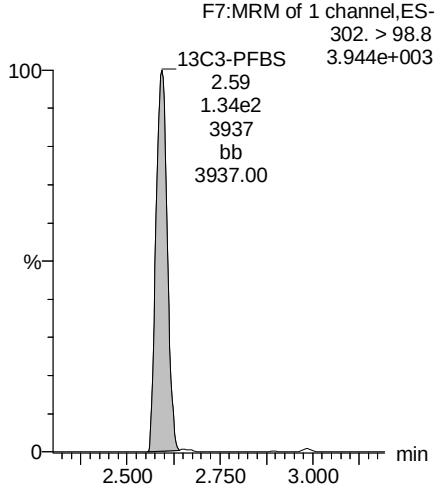
PFHpA



Total PFHxS



13C3-PFBS



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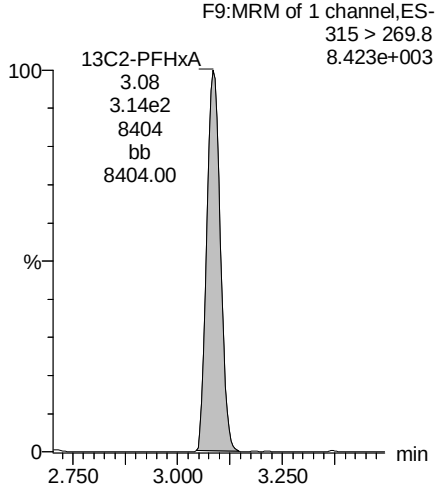
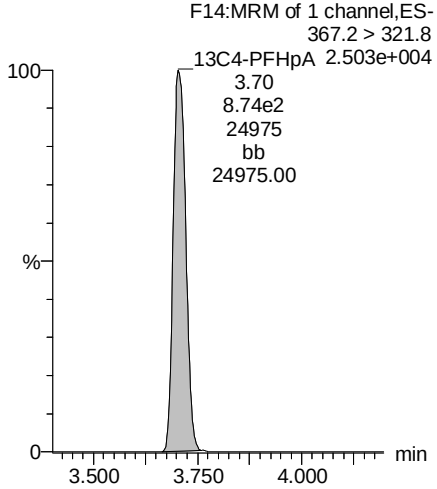


13C4-PFHpA



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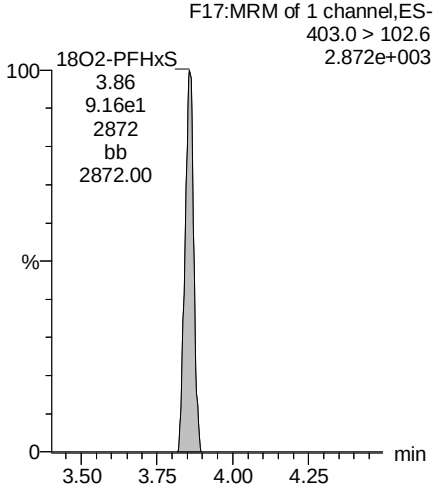

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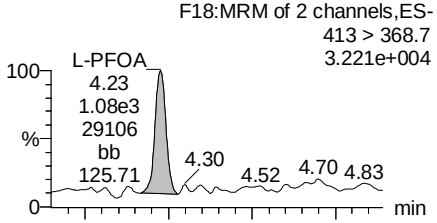
Rev'd: MM 1/17/18

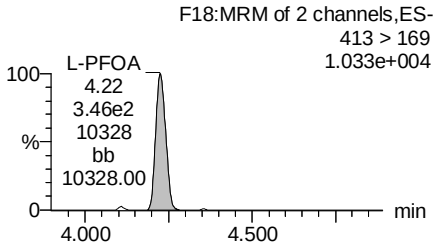
Dataset: U:\Q4.PRO\results\180111M2\1801111M2-24.qld

Last Altered: Tuesday, January 16, 2018 09:43:37 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:35:00 Pacific Standard Time

Name: 180111M2_24, Date: 12-Jan-2018, Time: 07:56:04, ID: 1701802-04RE1@5X FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

Total PFOA





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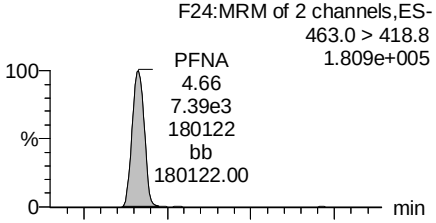
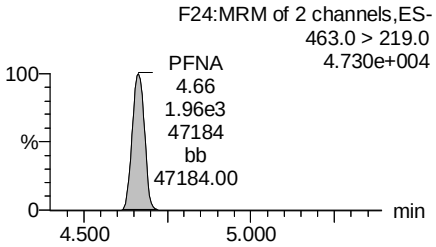
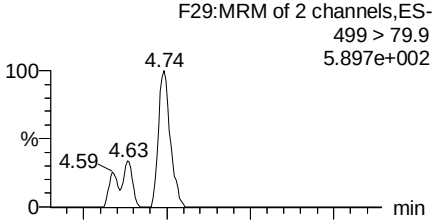
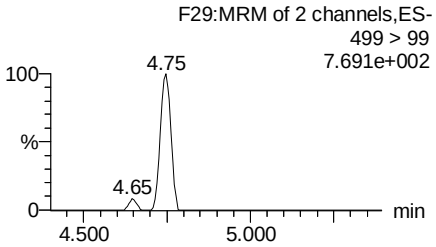


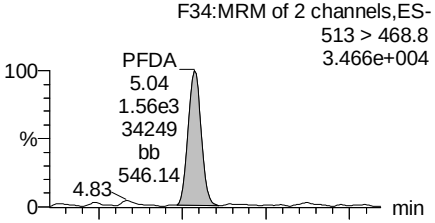


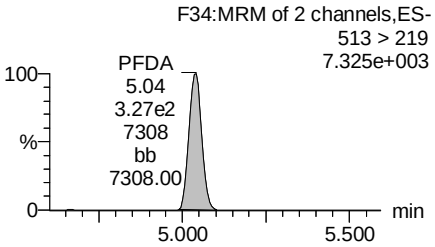
Total PFOS





PFDA





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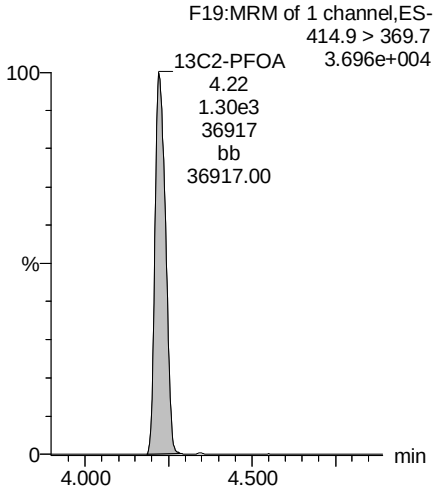
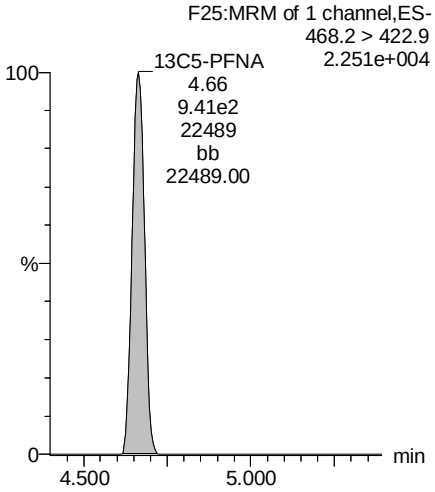


13C5-PFNA



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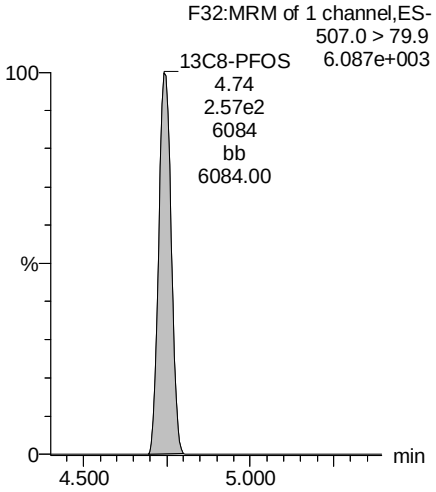

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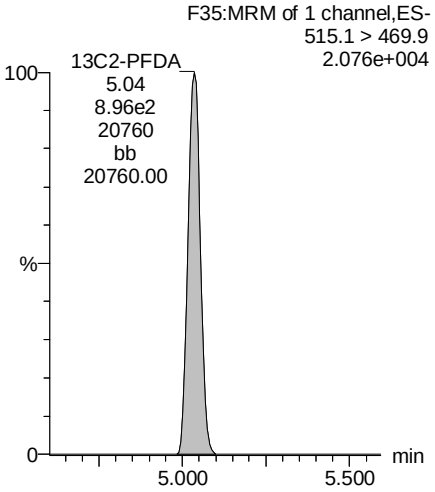

ANP 1/16/2018

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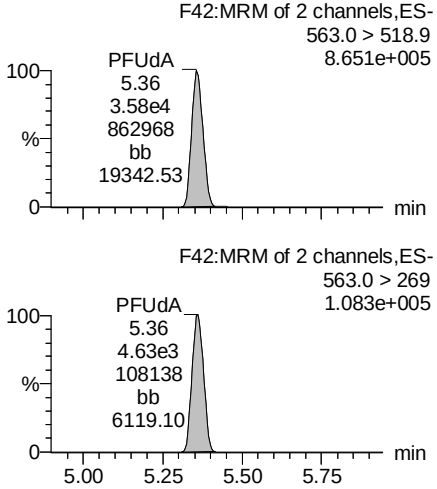
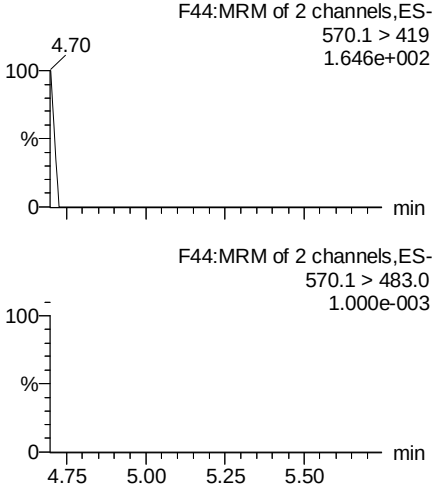
Last Altered: Tuesday, January 16, 2018 09:43:37 Pacific Standard Time
Printed: Tuesday, January 16, 2018 12:35:00 Pacific Standard Time

Name: 180111M2_24, Date: 12-Jan-2018, Time: 07:56:04, ID: 1701802-04RE1@5X FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

PFUdA



N-MeFOSAA



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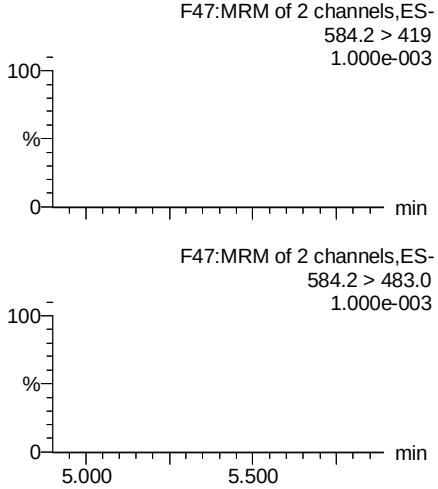
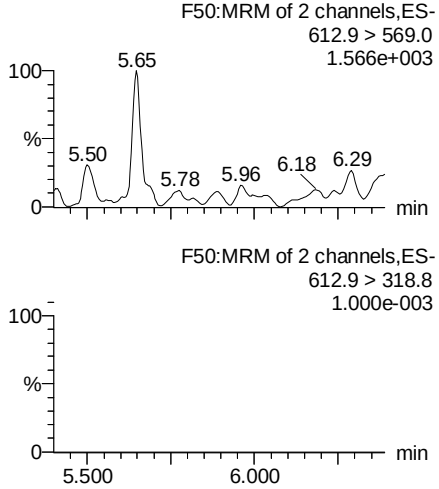


PFDoA



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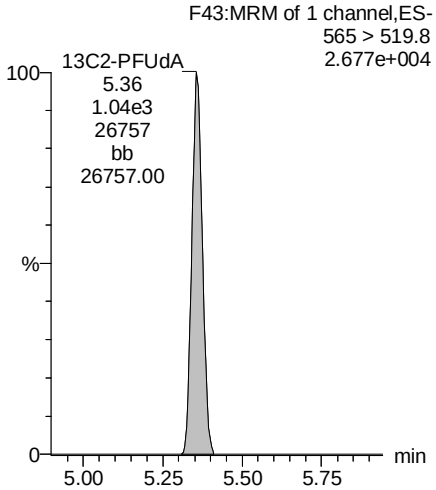

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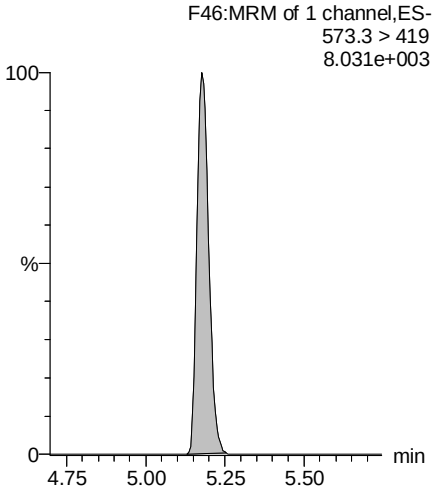
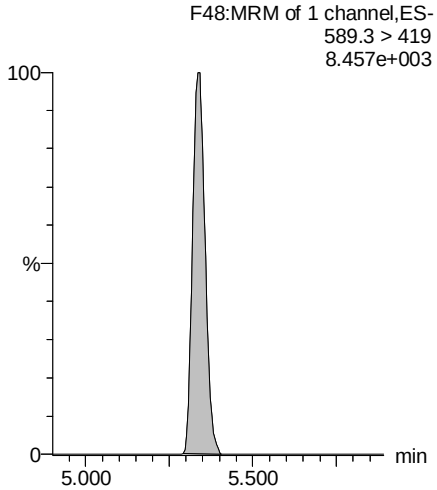


d5-N-EtFOSAA



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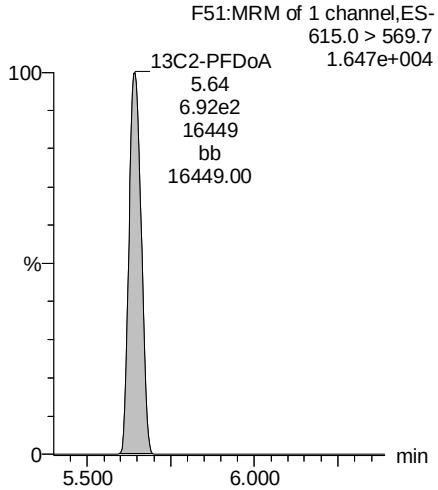

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Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-24.qld

Last Altered: Tuesday, January 16, 2018 09:43:37 Pacific Standard Time
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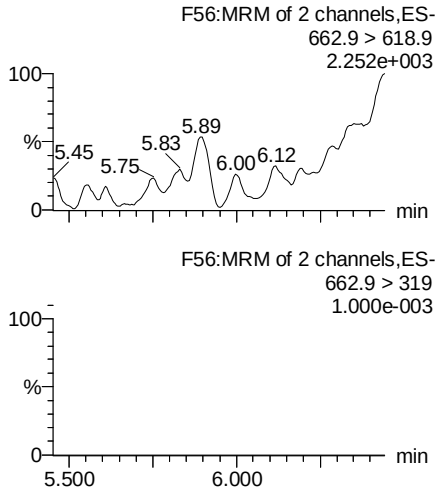
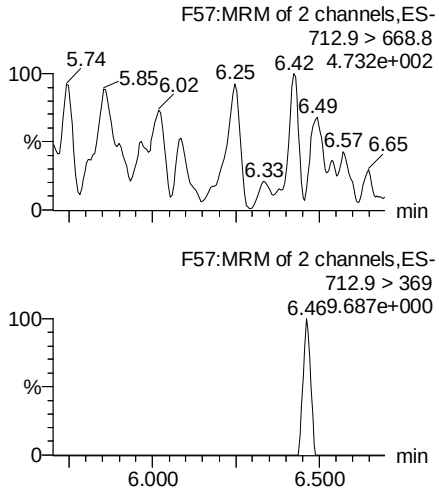
Name: 180111M2_24, Date: 12-Jan-2018, Time: 07:56:04, ID: 1701802-04RE1@5X FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

PFTrDA



PFTeDA



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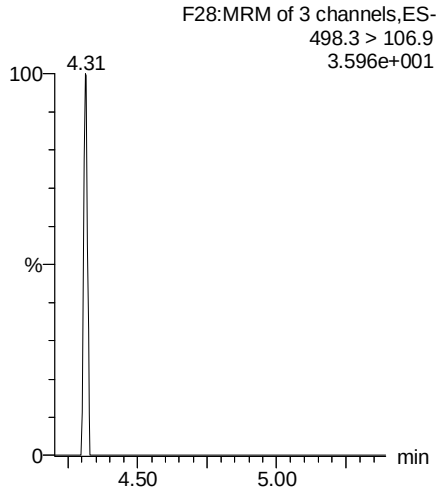

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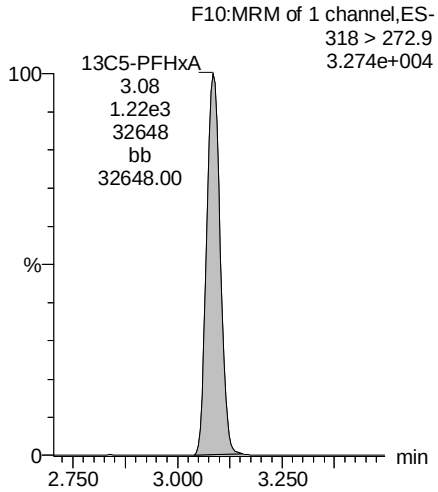

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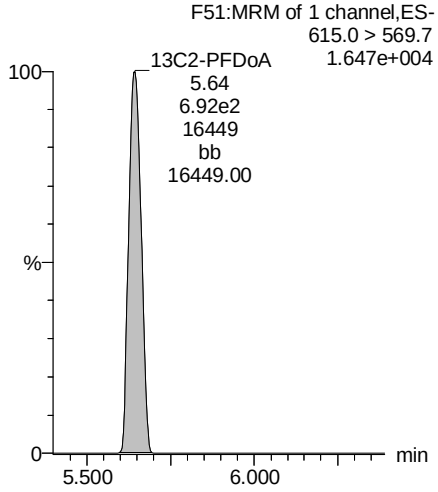

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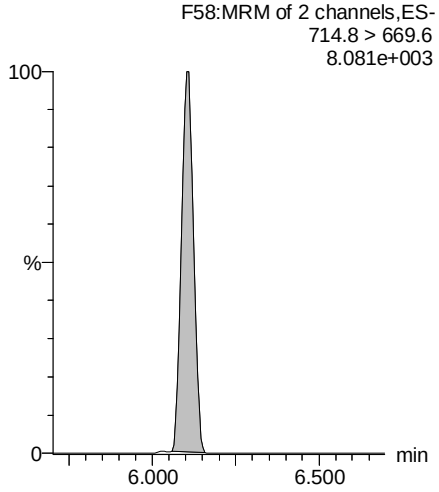
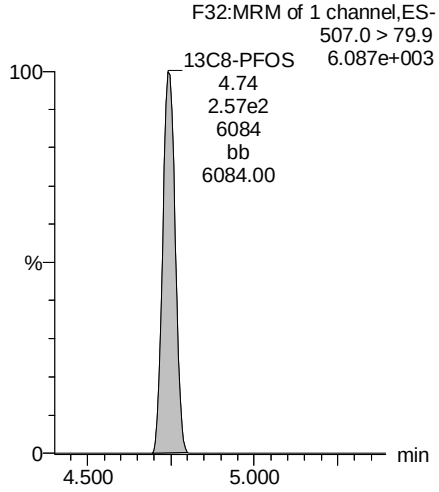


13C8-PFOS



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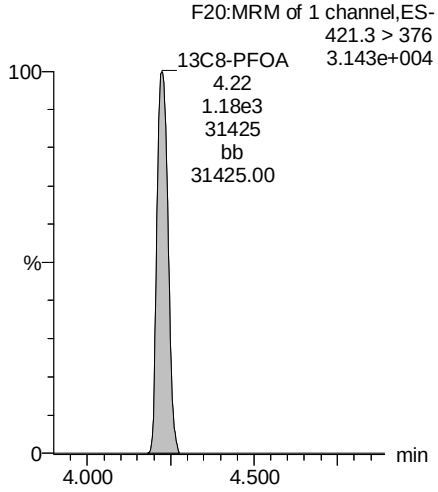

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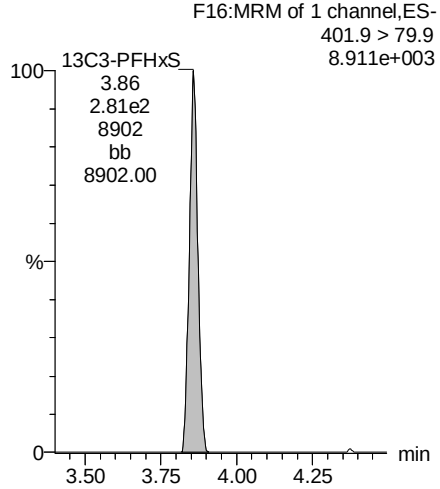
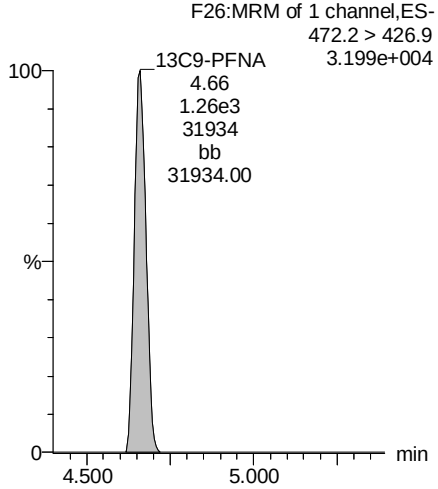
Name: 180111M2_24, Date: 12-Jan-2018, Time: 07:56:04, ID: 1701802-04RE1@5X FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

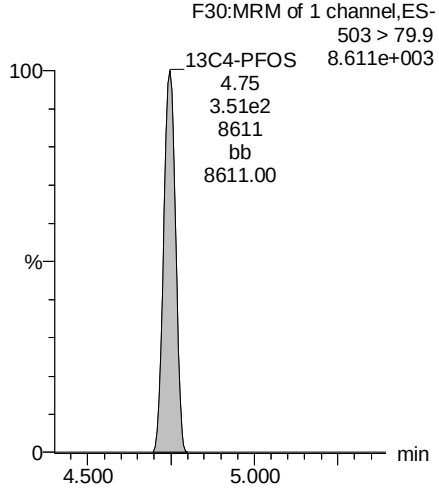
13C3-PFHxS



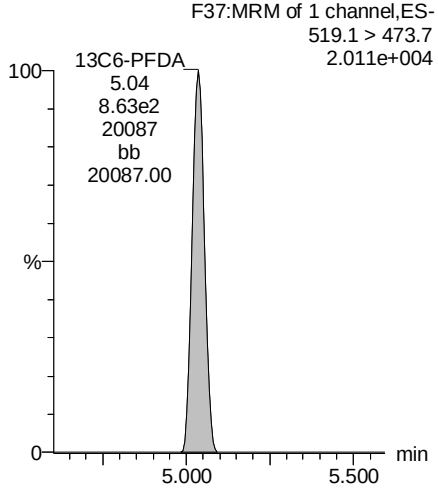
13C9-PFNA



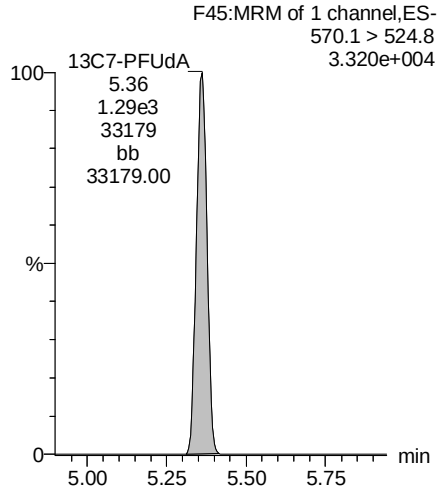
13C4-PFOS



13C6-PFDA



13C7-PFUdA



ANP 1/16/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-52.qld

Last Altered: Tuesday, January 09, 2018 14:59:11 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:59:49 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_52, Date: 05-Jan-2018, Time: 10:28:25, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		7.96e2	0.271		2.70				
2	4	PFHxA	313.2 > 268.9		1.77e3	0.271		3.12				
3	5	PFHpA	363.0 > 318.9		4.39e3	0.271		3.75				
4	6	L-PFHxS	398.9 > 79.6	6.78e-1	6.29e2	0.271		3.92	3.84	0.0135	0.0834	
5	9	L-PFOA	413 > 368.7	1.15e2	5.30e3	0.271		4.25	4.21	0.271	0.1527	
6	12	PFNA	463.0 > 418.8		5.28e3	0.271		4.70				
7	14	L-PFOS	499 > 79.9		1.53e3	0.271		4.83				
8	16	PFDA	513 > 468.8		3.84e3	0.271		5.05				
9	18	N-MeFOSAA	570.1 > 419		2.09e3	0.271		5.20				
10	19	N-EtFOSAA	584.2 > 419		2.95e3	0.271		5.42				
11	20	PFUdA	563.0 > 518.9		4.47e3	0.271		5.35				
12	22	PFDoA	612.9 > 569.0		2.94e3	0.271		5.70				

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Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-52.qld

Last Altered: Tuesday, January 09, 2018 14:59:11 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:59:58 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
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Name: 180104M1_52, Date: 05-Jan-2018, Time: 10:28:25, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		1.14e3	0.271		5.95				
2	33	13C3-PFBS	302. > 98.8	7.96e2	5.75e3	0.271	0.106	2.70	2.59	1.73	60.1630	130.3
3	34	13C2-PFHxA	315 > 269.8	1.77e3	5.75e3	0.271	0.633	3.20	3.08	3.85	22.4738	121.7
4	35	13C4-PFHpA	367.2 > 321.8	4.39e3	5.75e3	0.271	0.641	3.80	3.69	9.53	54.9355	119.0
5	36	18O2-PFHxS	403.0 > 102.6	6.29e2	1.64e3	0.271	0.334	3.95	3.84	4.79	52.9039	114.6
6	37	13C2-6:2 FTS	429.1 > 408.9	1.45e3	6.12e3	0.271	0.228	4.26	4.16	2.95	47.7271	103.4
7	38	13C2-PFOA	414.9 > 369.7	5.30e3	6.12e3	0.271	0.959	4.32	4.21	10.8	41.6222	90.2
8	39	13C5-PFNA	468.2 > 422.9	5.28e3	5.77e3	0.271	0.830	4.75	4.65	11.5	50.9275	110.3
9	40	13C8-PFOSA	506.1 > 77.7	1.15e3	6.25e3	0.271	0.262	4.81	4.71	2.29	32.2970	70.0
10	41	13C8-PFOS	507.0 > 79.9	1.53e3	1.76e3	0.271	0.880	4.83	4.73	10.8	45.4614	98.5
11	42	13C2-PFDA	515.1 > 469.9	3.84e3	3.68e3	0.271	0.995	5.11	5.02	13.0	48.3870	104.8
12	43	13C2-8:2 FTS	529.1 > 508.7	6.11e2	5.75e3	0.271	0.142	5.09	4.99	1.33	34.4751	74.7
13	44	d3-N-MeFOSAA	573.3 > 419	2.09e3	6.25e3	0.271	0.376	5.26	5.17	4.18	41.1357	89.1
14	45	d5-N-EtFOSAA	589.3 > 419	2.95e3	6.25e3	0.271	0.444	5.42	5.33	5.90	49.0825	106.3
15	46	13C2-PFUdA	565 > 519.8	4.47e3	6.25e3	0.271	0.889	5.43	5.34	8.94	37.1594	80.5
16	47	13C2-PFDoA	615.0 > 569.7	2.94e3	6.25e3	0.271	0.542	5.70	5.63	5.87	39.9847	86.6
17	55	13C5-PFHxA	318 > 272.9	5.75e3	5.75e3	0.271	1.000	3.20	3.08	12.5	46.1595	100.0
18	56	13C3-PFHxS	401.9 > 79.9	1.64e3	1.64e3	0.271	1.000	3.95	3.84	12.5	46.1595	100.0
19	57	13C8-PFOA	421.3 > 376	6.12e3	6.12e3	0.271	1.000	4.32	4.21	12.5	46.1595	100.0
20	58	13C9-PFNA	472.2 > 426.9	5.77e3	5.77e3	0.271	1.000	4.75	4.65	12.5	46.1595	100.0
21	59	13C4-PFOS	503 > 79.9	1.76e3	1.76e3	0.271	1.000	4.83	4.73	12.5	46.1595	100.0
22	60	13C6-PFDA	519.1 > 473.7	3.68e3	3.68e3	0.271	1.000	5.11	5.02	12.5	46.1595	100.0
23	61	13C7-PFUdA	570.1 > 524.8	6.25e3	6.25e3	0.271	1.000	5.43	5.34	12.5	46.1595	100.0
24	62	Total PFHxS	398.9 > 79.6	6.78e-1	6.29e2	0.271		4.00		0.0135	0.0834	
25	63	Total PFOA	413 > 368.7	1.15e2	5.30e3	0.271		4.30		0.271	0.1527	
26	64	Total PFOS	499 > 79.9	0.00e0	1.53e3	0.271		4.80		0.000		
27	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.09e3	0.271		5.20		0.000		
28	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.95e3	0.271		5.40		0.000		

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Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-52.qld

Last Altered: Tuesday, January 09, 2018 14:59:11 Pacific Standard Time
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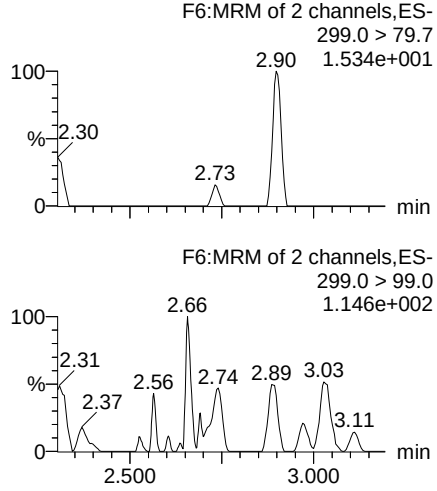
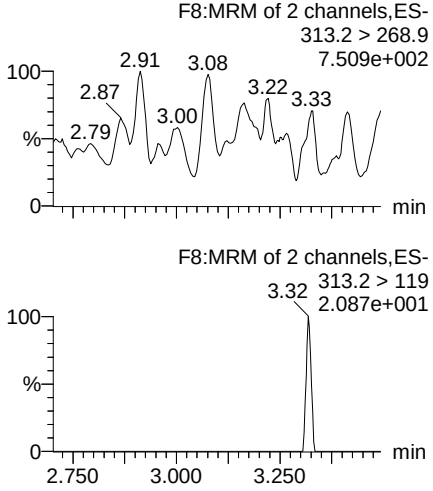
Name: 180104M1_52, Date: 05-Jan-2018, Time: 10:28:25, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

PFBS



PFHxA



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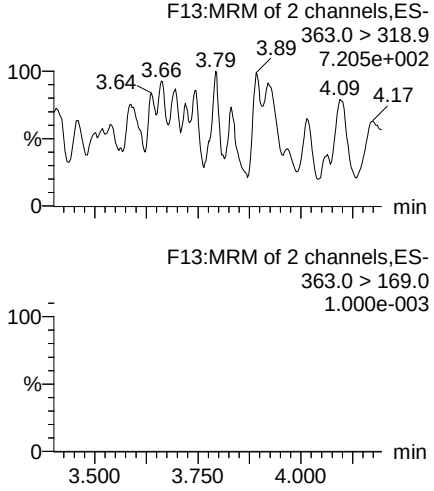

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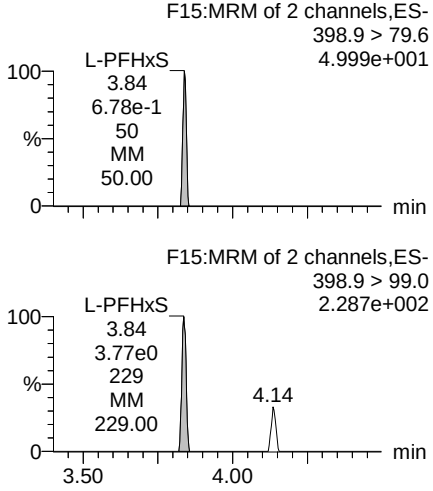

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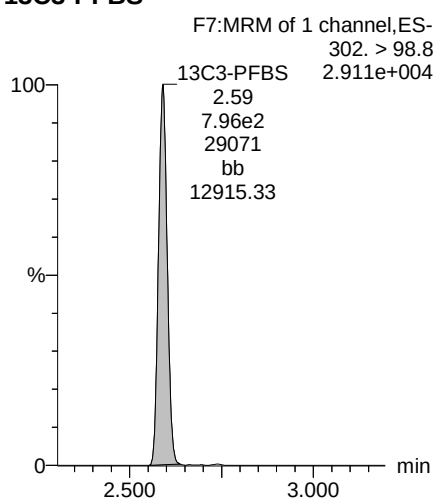

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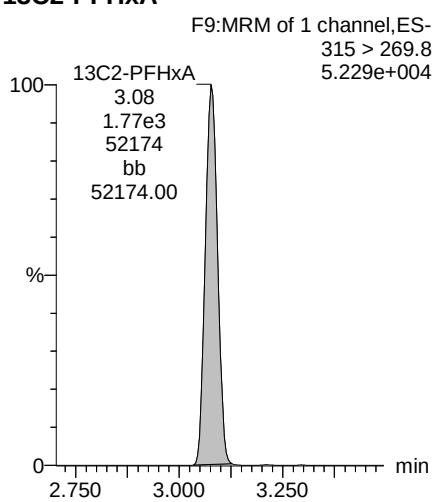

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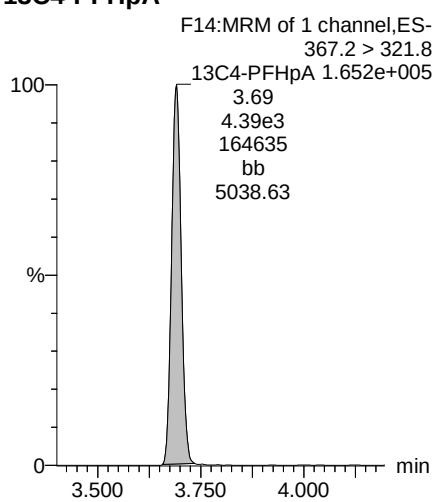

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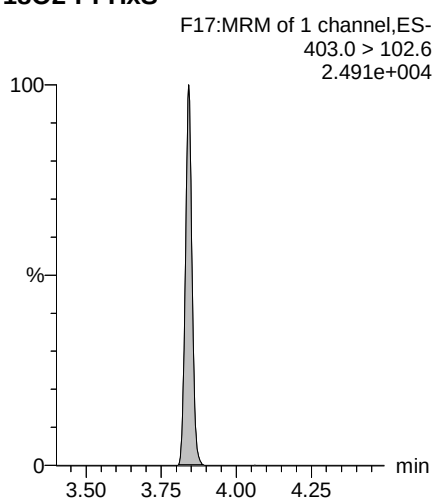

GM 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-52.qld

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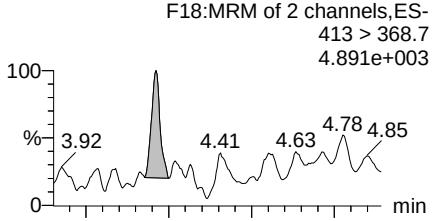
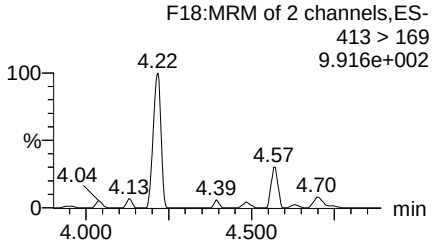
Printed: Tuesday, January 09, 2018 14:59:58 Pacific Standard Time

Name: 180104M1_52, Date: 05-Jan-2018, Time: 10:28:25, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

Total PFOA





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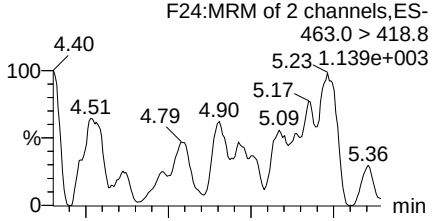

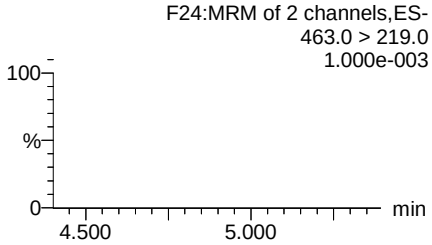

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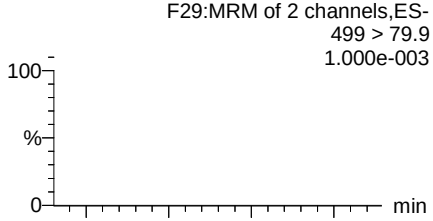

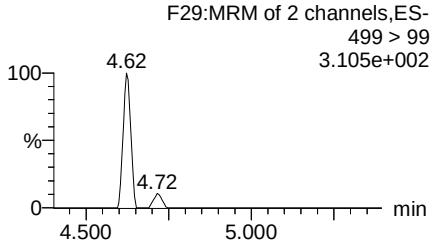

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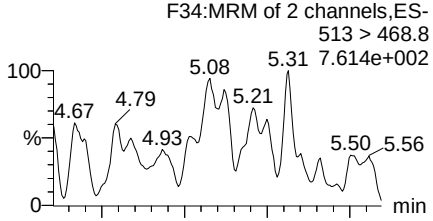

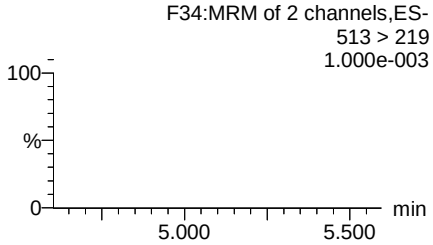

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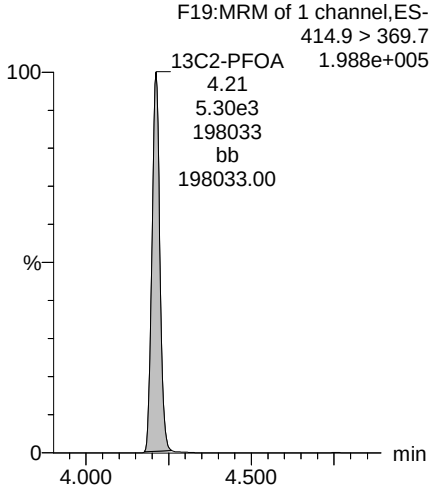

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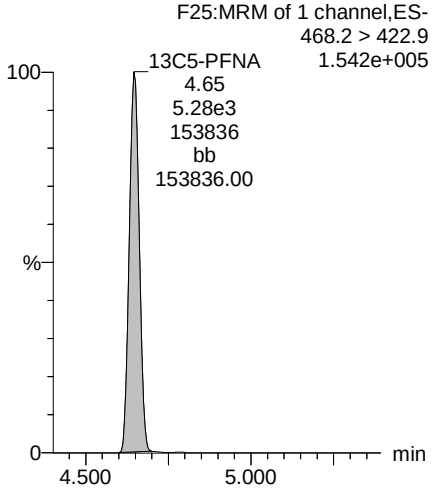

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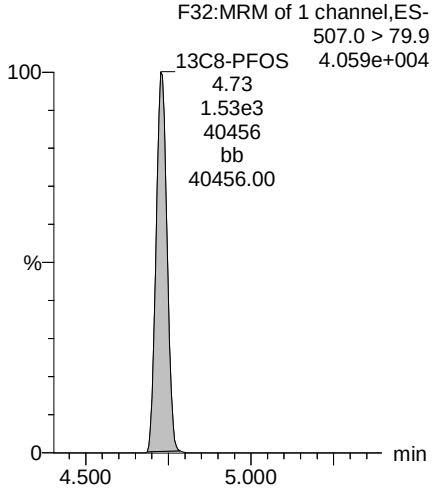

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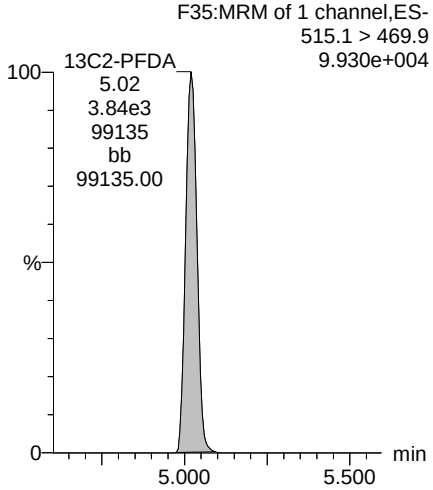

GM 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-52.qld

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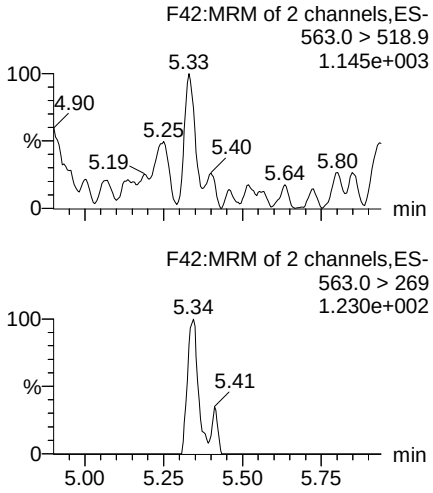
Printed: Tuesday, January 09, 2018 14:59:58 Pacific Standard Time

Name: 180104M1_52, Date: 05-Jan-2018, Time: 10:28:25, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

PFUdA



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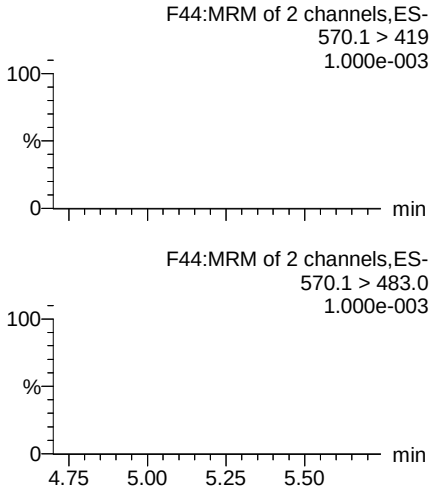

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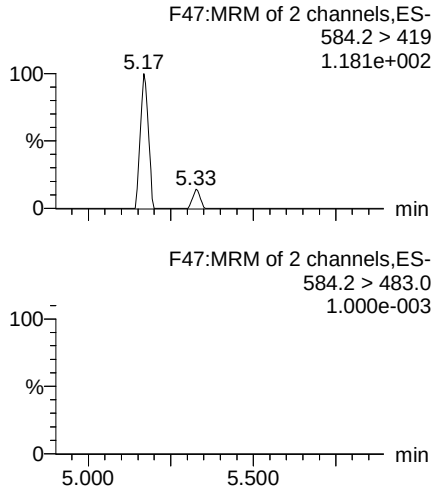

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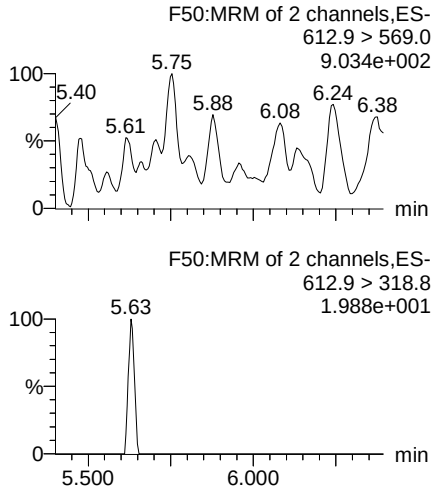

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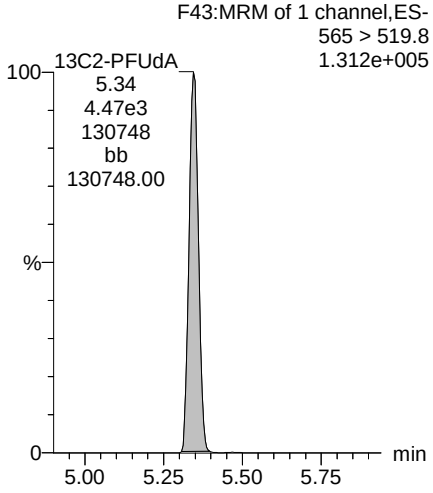

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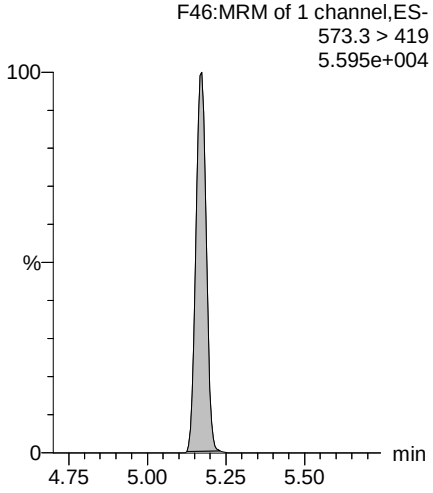

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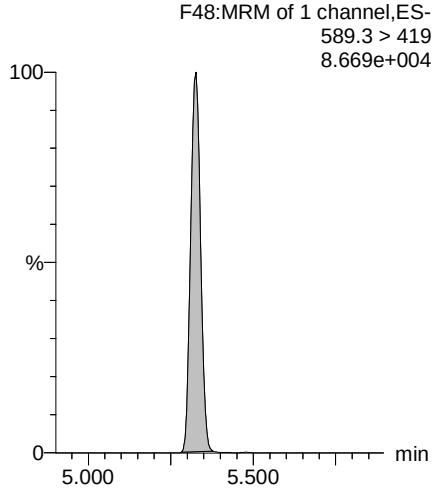

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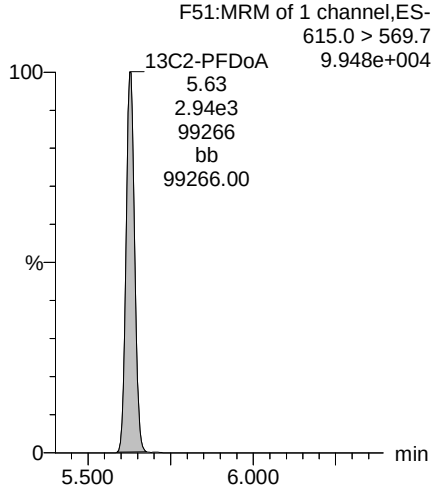

GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-52.qld

Last Altered: Tuesday, January 09, 2018 14:59:11 Pacific Standard Time
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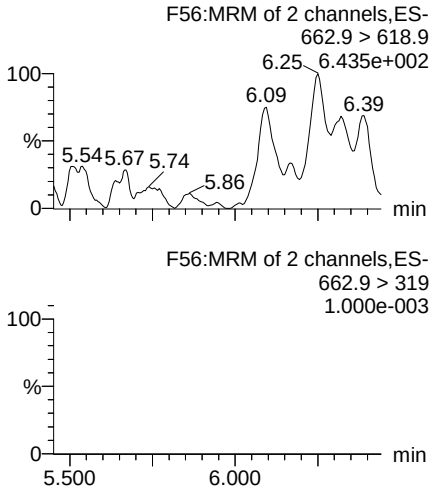
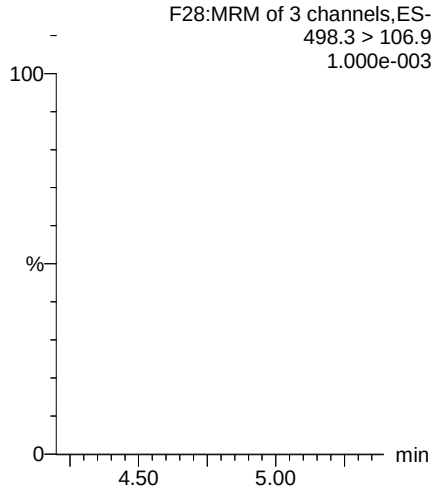
Name: 180104M1_52, Date: 05-Jan-2018, Time: 10:28:25, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

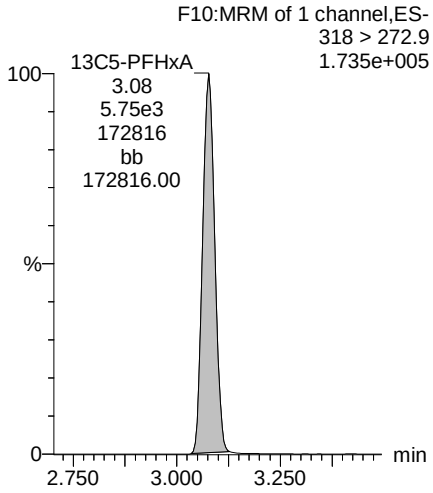
PFTrDA



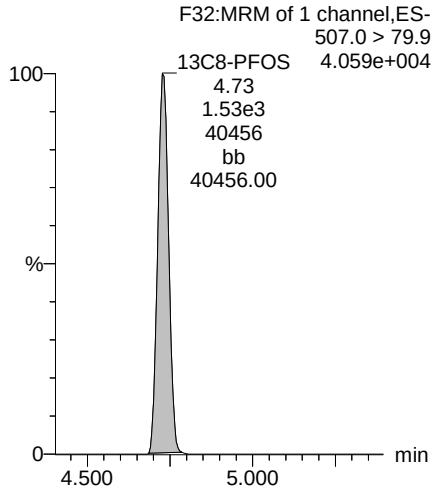
TCDA



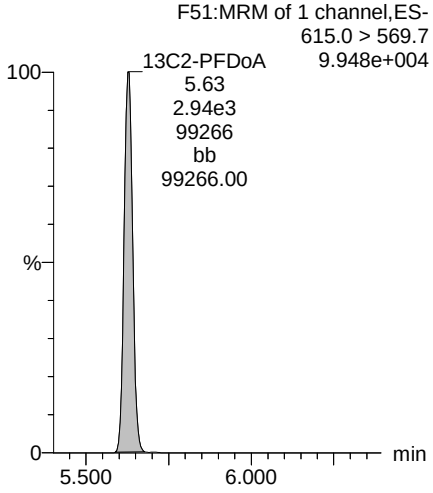
13C5-PFHxA



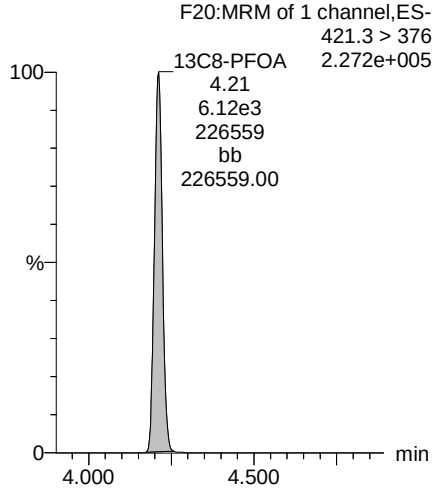
13C8-PFOS



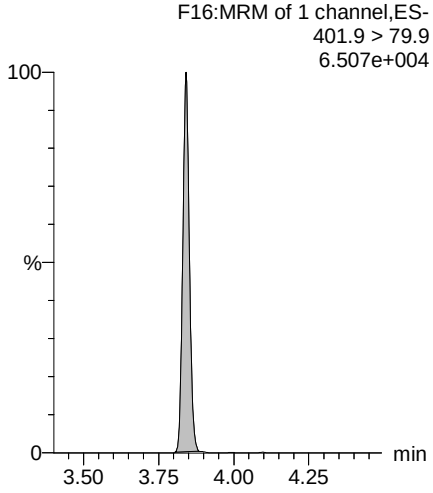
13C2-PFDoA



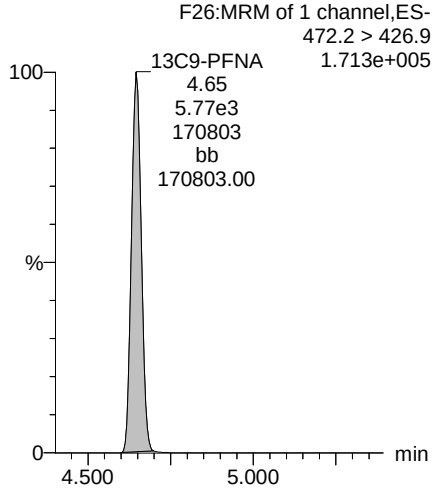
13C8-PFOA



13C3-PFHxS



13C9-PFNA



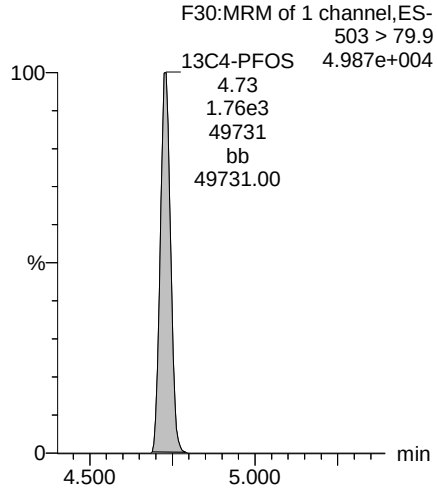
GM 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-52.qld

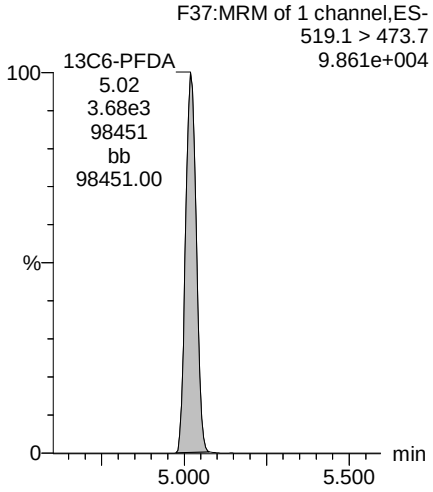
Last Altered: Tuesday, January 09, 2018 14:59:11 Pacific Standard Time
Printed: Tuesday, January 09, 2018 14:59:58 Pacific Standard Time

Name: 180104M1_52, Date: 05-Jan-2018, Time: 10:28:25, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

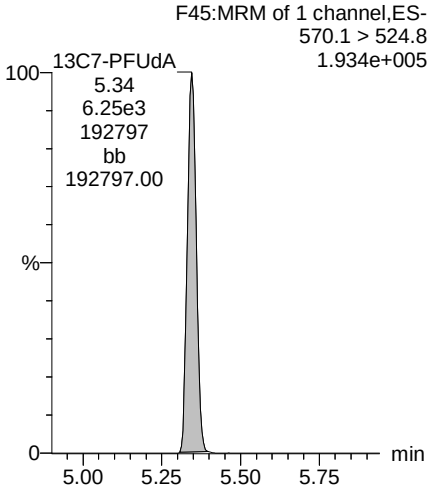
13C4-PFOS



13C6-PFDA



13C7-PFUdA



GM 1/9/2018

Vista Analytical Laboratory

Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-42.qld

Last Altered: Tuesday, January 09, 2018 15:28:08 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:28:50 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_42, Date: 29-Dec-2017, Time: 21:11:37, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

	#	Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	25	PFTeDA	712.9 > 668.8		2.44e3		0.2708	6.16				
2	49	13C2-PFTeDA	714.8 > 669.6	2.44e3	9.16e3	0.196	0.2708	6.16	6.11	3.33	62.7	135.8
3	61	13C7-PFUdA	570.1 > 524.8	9.16e3	9.16e3	1.000	0.2708	5.43	5.37	12.5	46.2	100.0

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Rev'd: MM 1/17/18

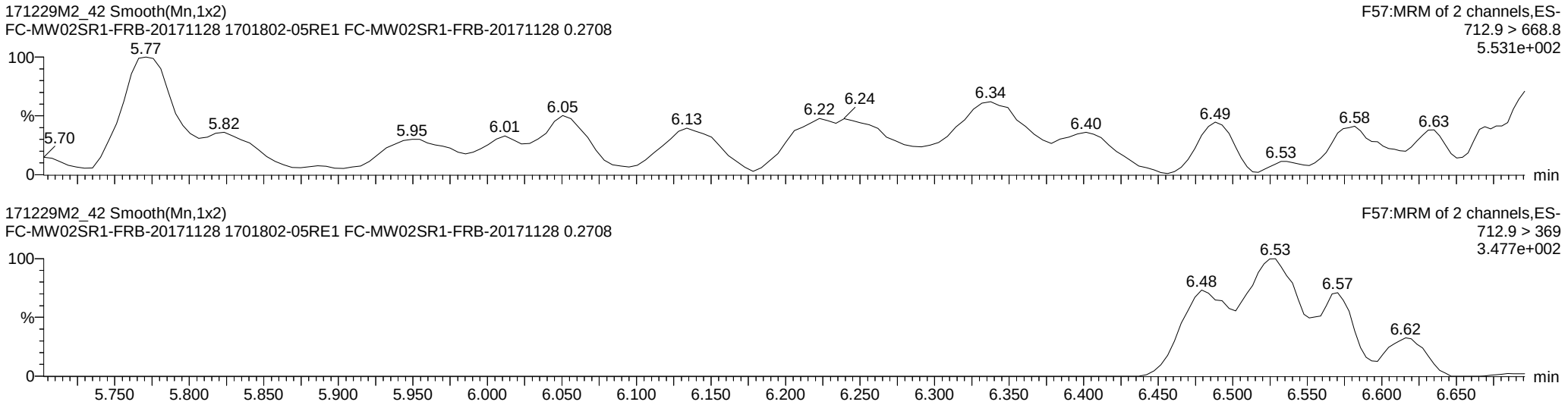
Dataset: U:\Q4.PRO\results\171229M2\171229M2-42.qld

Last Altered: Tuesday, January 09, 2018 15:28:08 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:28:50 Pacific Standard Time

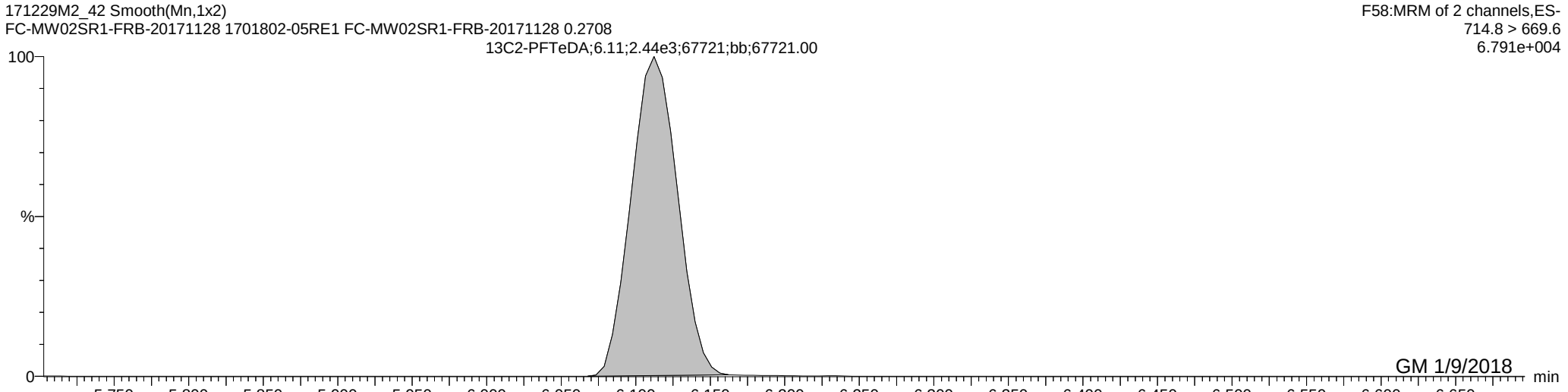
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_42, Date: 29-Dec-2017, Time: 21:11:37, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

PFTeDA



13C2-PFTeDA



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Vista Analytical Laboratory

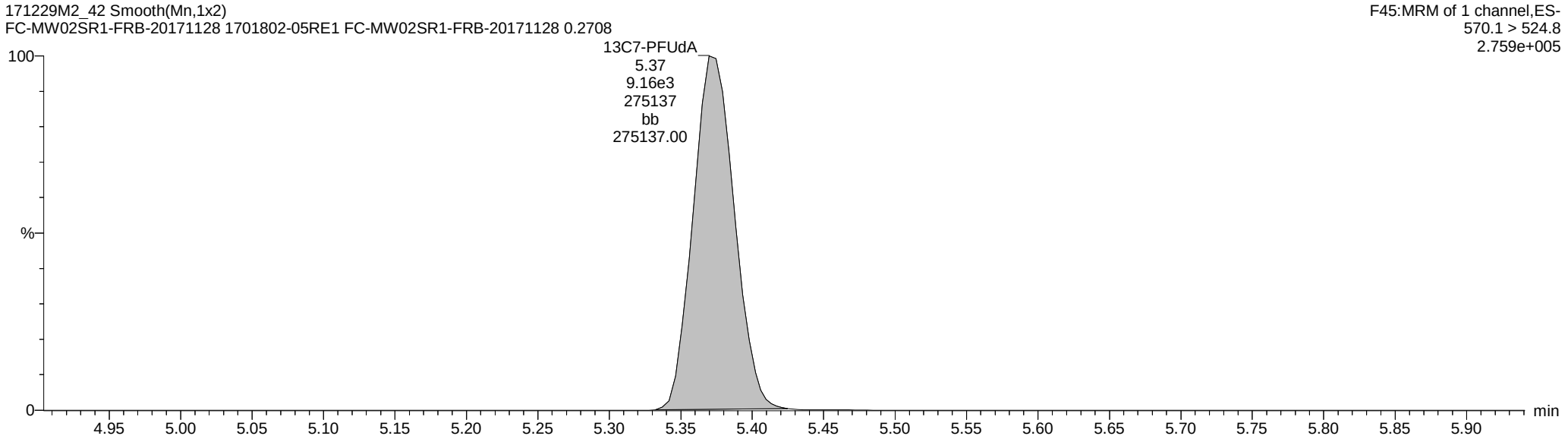
Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-42.qld

Last Altered: Tuesday, January 09, 2018 15:28:08 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:28:50 Pacific Standard Time

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

13C7-PFUdA



GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-53.qld

Last Altered: Tuesday, January 09, 2018 15:02:29 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:02:44 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_53, Date: 05-Jan-2018, Time: 10:39:36, ID: 1701802-06RE1 FC-MW02IR1-NP-20171128 0.26838, Description: FC-MW02IR1-NP-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	1.84e1	7.28e2	0.268		2.70	2.59	0.315	0.8317	
2	4	PFHxA	313.2 > 268.9	7.12e2	1.57e3	0.268		3.12	3.08	2.27	4.5320	
3	5	PFHpA	363.0 > 318.9	5.09e2	4.62e3	0.268		3.75	3.69	1.38	3.4147	
4	6	L-PFHxS	398.9 > 79.6	2.68e1	4.92e2	0.268		3.92	3.84	0.681	1.3292	
5	9	L-PFOA	413 > 368.7	1.32e3	5.68e3	0.268		4.25	4.21	2.91	8.0172	
6	12	PFNA	463.0 > 418.8	4.36e3	4.58e3	0.268		4.70	4.65	11.9	30.7623	
7	14	L-PFOS	499 > 79.9	1.14e3	1.71e3	0.268		4.83	4.73	8.29	30.2852	
8	16	PFDA	513 > 468.8	9.25e1	4.63e3	0.268		5.05	5.01	0.249	0.9508	
9	18	N-MeFOSAA	570.1 > 419		2.34e3	0.268		5.20				
10	19	N-EtFOSAA	584.2 > 419		2.96e3	0.268		5.42				
11	20	PFUdA	563.0 > 518.9	7.72e2	4.82e3	0.268		5.35	5.34	2.00	6.1333	
12	22	PFDoA	612.9 > 569.0		2.56e3	0.268		5.70				

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Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-53.qld

Last Altered: Tuesday, January 09, 2018 15:02:29 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:03:02 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_53, Date: 05-Jan-2018, Time: 10:39:36, ID: 1701802-06RE1 FC-MW02IR1-NP-20171128 0.26838, Description: FC-MW02IR1-NP-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	24	PFTrDA	662.9 > 618.9		1.16e3	0.268		5.95					
2	33	13C3-PFBS	302. > 98.8	7.28e2	5.94e3	0.268	0.106	2.70	2.59	1.53	53.7453	115.4	
3	34	13C2-PFHxA	315 > 269.8	1.57e3	5.94e3	0.268	0.633	3.20	3.08	3.30	19.4343	104.3	
4	35	13C4-PFHpA	367.2 > 321.8	4.62e3	5.94e3	0.268	0.641	3.80	3.69	9.73	56.5547	121.4	
5	36	18O2-PFHxS	403.0 > 102.6	4.92e2	1.54e3	0.268	0.334	3.95	3.84	4.01	44.6989	96.0	
6	37	13C2-6:2 FTS	429.1 > 408.9	1.44e3	5.86e3	0.268	0.228	4.26	4.15	3.08	50.3284	108.1	
7	38	13C2-PFOA	414.9 > 369.7	5.68e3	5.86e3	0.268	0.959	4.32	4.21	12.1	47.1090	101.2	
8	39	13C5-PFNA	468.2 > 422.9	4.58e3	4.82e3	0.268	0.830	4.75	4.64	11.9	53.3117	114.5	
9	40	13C8-PFOSA	506.1 > 77.7	1.44e3	4.35e3	0.268	0.262	4.81	4.71	4.13	58.6800	126.0	
10	41	13C8-PFOS	507.0 > 79.9	1.71e3	1.76e3	0.268	0.880	4.83	4.73	12.2	51.5674	110.7	
11	42	13C2-PFDA	515.1 > 469.9	4.63e3	3.75e3	0.268	0.995	5.11	5.01	15.4	57.8317	124.2	
12	43	13C2-8:2 FTS	529.1 > 508.7	7.65e2	5.94e3	0.268	0.142	5.09	4.99	1.61	42.1391	90.5	
13	44	d3-N-MeFOSAA	573.3 > 419	2.34e3	4.35e3	0.268	0.376	5.26	5.16	6.74	66.8298	143.5	
14	45	d5-N-EtFOSAA	589.3 > 419	2.96e3	4.35e3	0.268	0.444	5.42	5.32	8.51	71.4797	153.5	H
15	46	13C2-PFUdA	565 > 519.8	4.82e3	4.35e3	0.268	0.889	5.43	5.34	13.9	58.1121	124.8	
16	47	13C2-PFDoA	615.0 > 569.7	2.56e3	4.35e3	0.268	0.542	5.70	5.63	7.37	50.6685	108.8	
17	55	13C5-PFHxA	318 > 272.9	5.94e3	5.94e3	0.268	1.000	3.20	3.08	12.5	46.5723	100.0	
18	56	13C3-PFHxS	401.9 > 79.9	1.54e3	1.54e3	0.268	1.000	3.95	3.84	12.5	46.5723	100.0	
19	57	13C8-PFOA	421.3 > 376	5.86e3	5.86e3	0.268	1.000	4.32	4.21	12.5	46.5723	100.0	
20	58	13C9-PFNA	472.2 > 426.9	4.82e3	4.82e3	0.268	1.000	4.75	4.64	12.5	46.5723	100.0	
21	59	13C4-PFOS	503 > 79.9	1.76e3	1.76e3	0.268	1.000	4.83	4.73	12.5	46.5723	100.0	
22	60	13C6-PFDA	519.1 > 473.7	3.75e3	3.75e3	0.268	1.000	5.11	5.01	12.5	46.5723	100.0	
23	61	13C7-PFUdA	570.1 > 524.8	4.35e3	4.35e3	0.268	1.000	5.43	5.34	12.5	46.5723	100.0	
24	62	Total PFHxS	398.9 > 79.6	2.68e1	4.92e2	0.268		4.00		0.681	1.3292		
25	63	Total PFOA	413 > 368.7	1.32e3	5.68e3	0.268		4.30		2.91	8.0172		
26	64	Total PFOS	499 > 79.9	1.14e3	1.71e3	0.268		4.80		8.29	30.2852		
27	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.34e3	0.268		5.20		0.000			
28	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.96e3	0.268		5.40		0.000			

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Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-53.qld

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Printed: Tuesday, January 09, 2018 15:03:02 Pacific Standard Time

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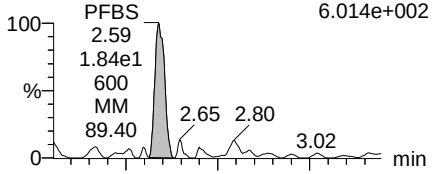
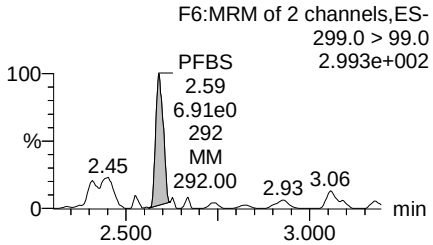
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

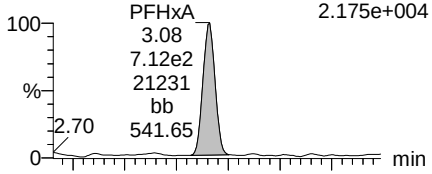
Name: 180104M1_53, Date: 05-Jan-2018, Time: 10:39:36, ID: 1701802-06RE1 FC-MW02IR1-NP-20171128 0.26838, Description: FC-MW02IR1-NP-20171128

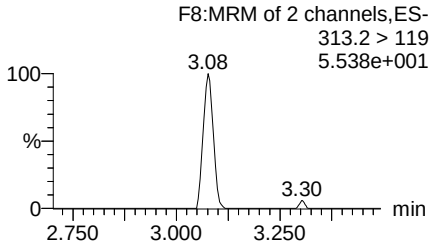
PFBS



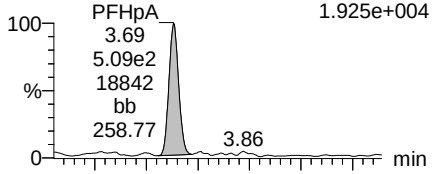


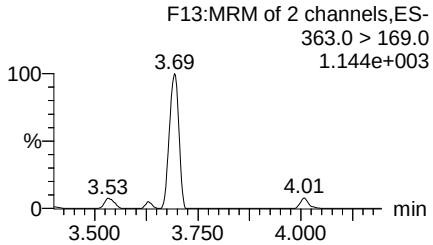
PFHxA





PFHpA





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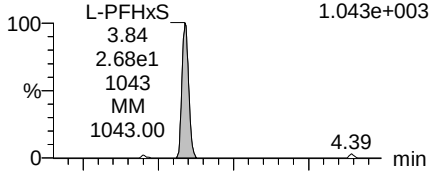

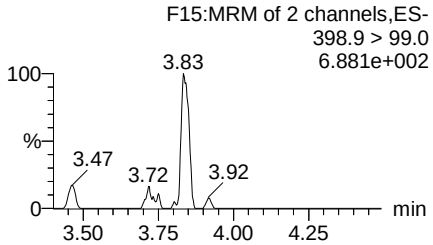

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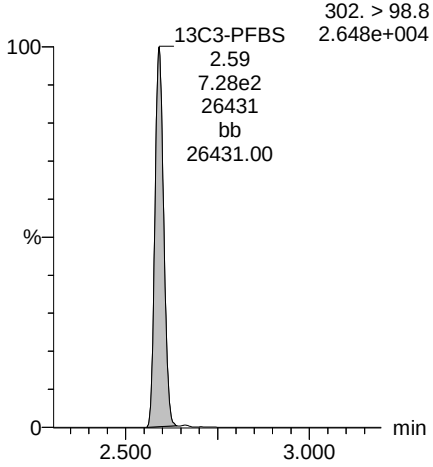

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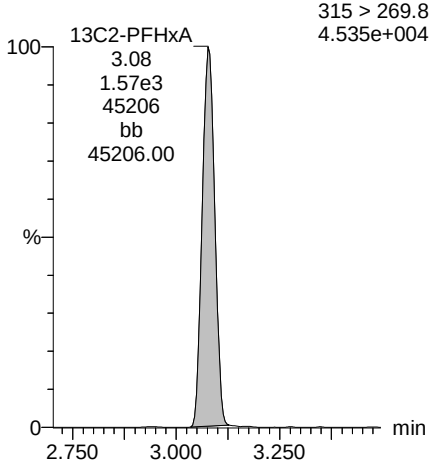

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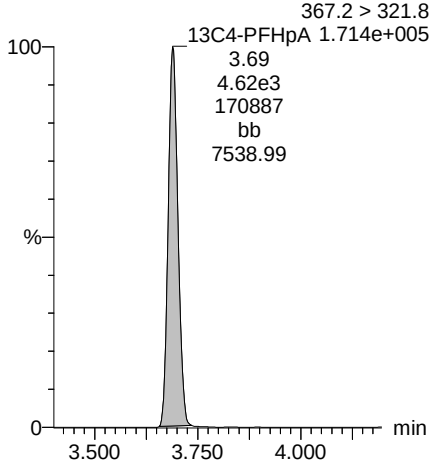

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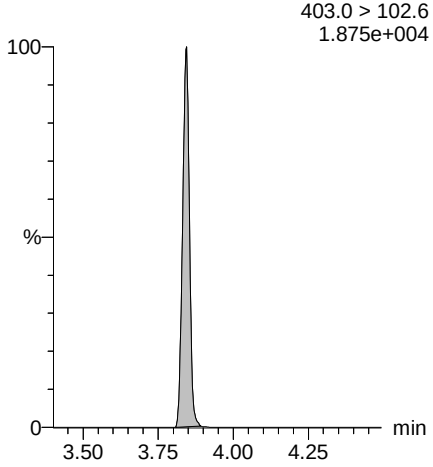


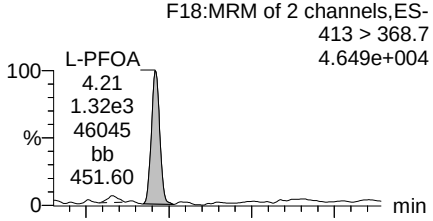
GM 1/9/2018

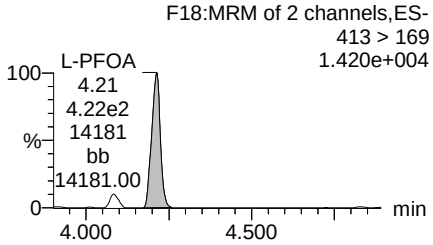
Dataset: U:\Q4.PRO\results\180104M1\180104M1-53.qld

Last Altered: Tuesday, January 09, 2018 15:02:29 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:03:02 Pacific Standard Time

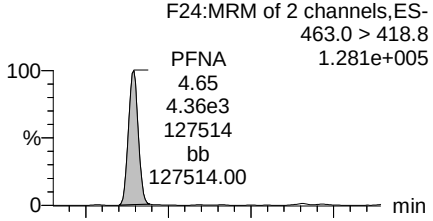
Name: 180104M1_53, Date: 05-Jan-2018, Time: 10:39:36, ID: 1701802-06RE1 FC-MW02IR1-NP-20171128 0.26838, Description: FC-MW02IR1-NP-20171128

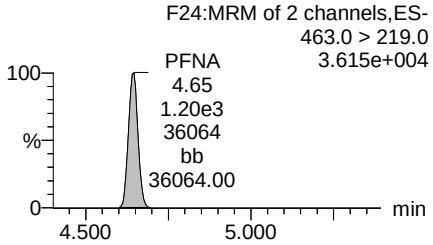
Total PFOA



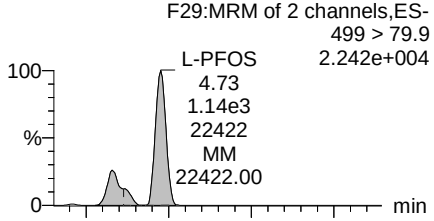


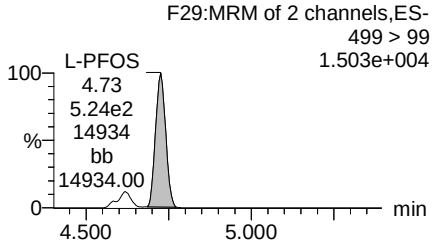
PFNA



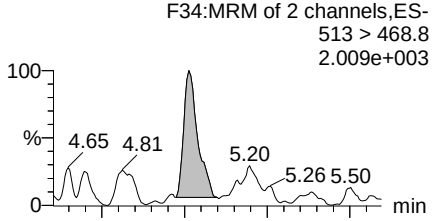


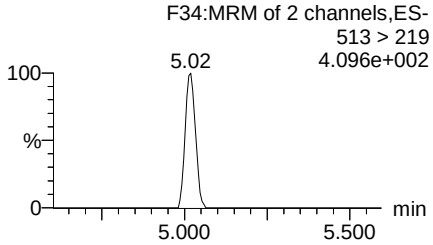
Total PFOS



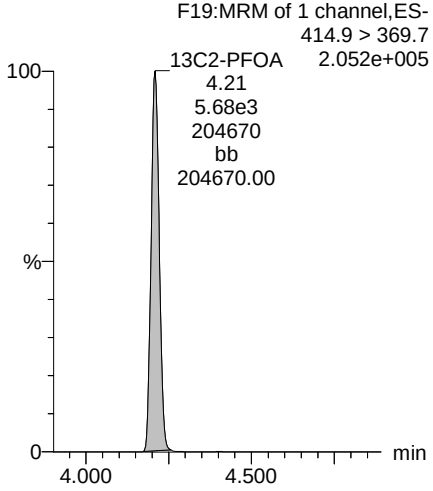


PFDA

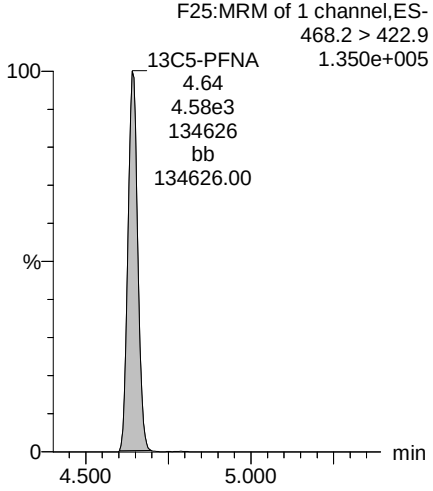




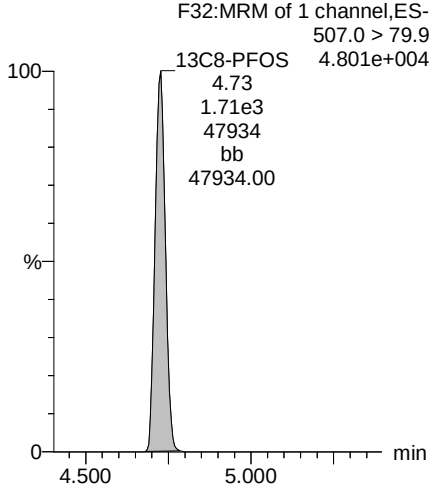
13C2-PFOA



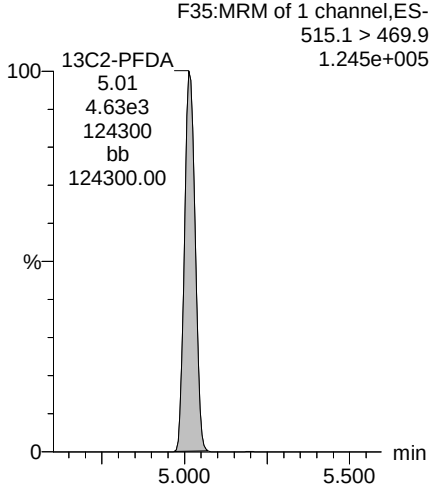
13C5-PFNA



13C8-PFOS



13C2-PFDA



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Vista Analytical Laboratory

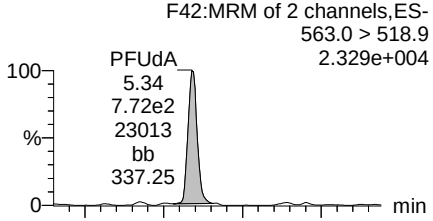
Revd: MM 1/11/18

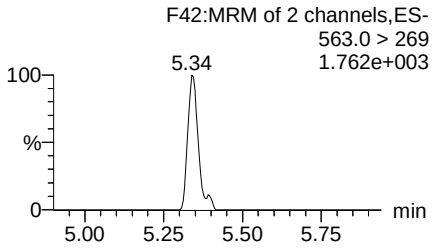
Dataset: U:\Q4.PRO\results\180104M1\180104M1-53.qld

Last Altered: Tuesday, January 09, 2018 15:02:29 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:03:02 Pacific Standard Time

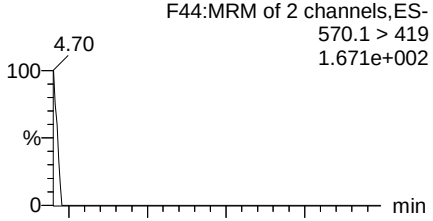
Name: 180104M1_53, Date: 05-Jan-2018, Time: 10:39:36, ID: 1701802-06RE1 FC-MW02IR1-NP-20171128 0.26838, Description: FC-MW02IR1-NP-20171128

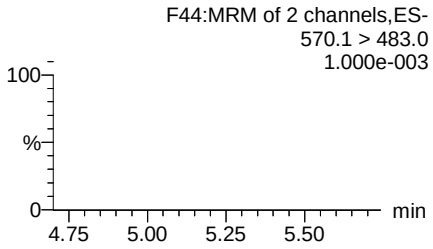
PFUdA



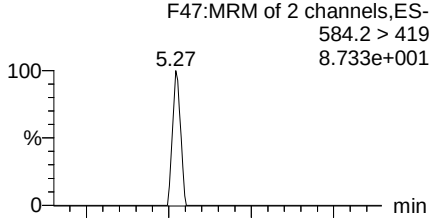


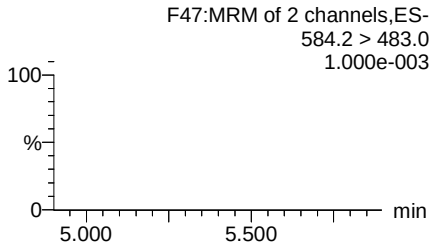
N-MeFOSAA



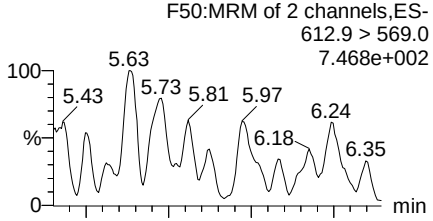


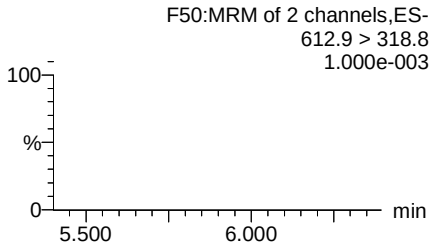
N-EtFOSAA



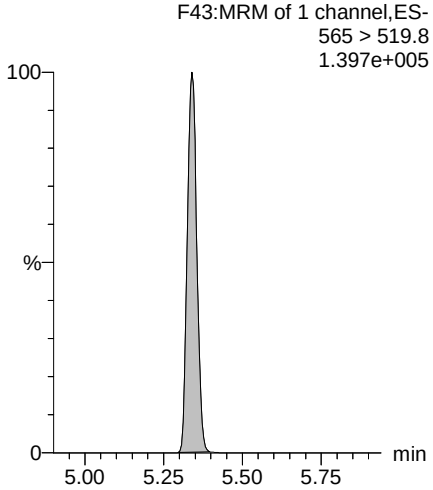


PFDoA

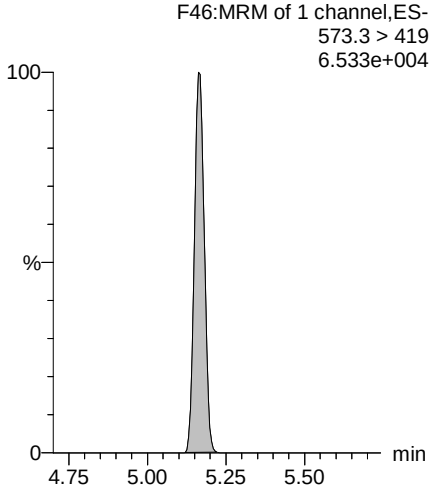




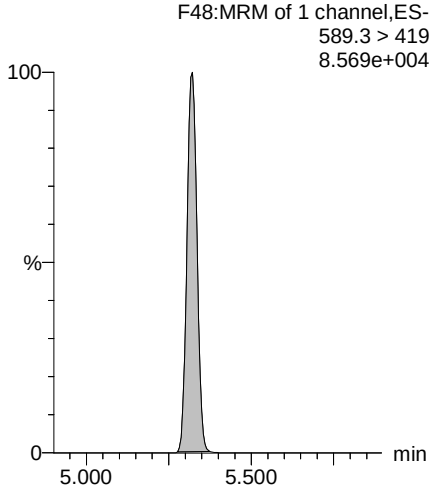
13C2-PFUdA



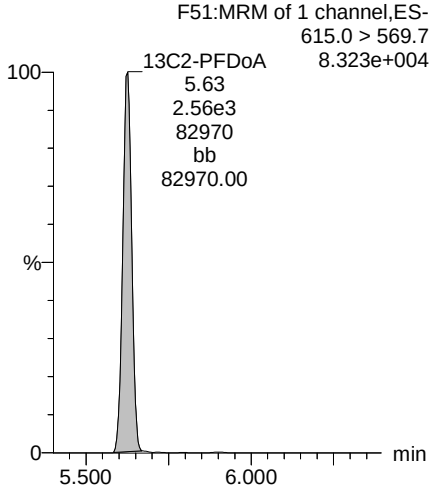
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



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Vista Analytical Laboratory

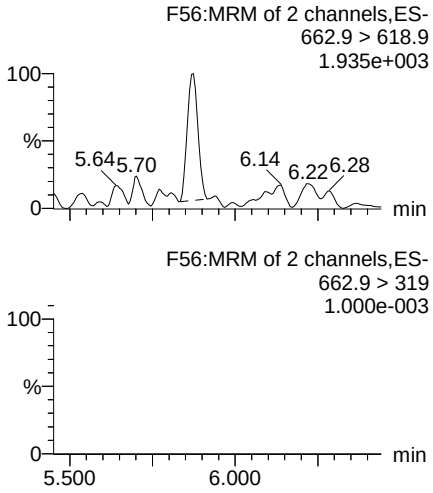
Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-53.qld

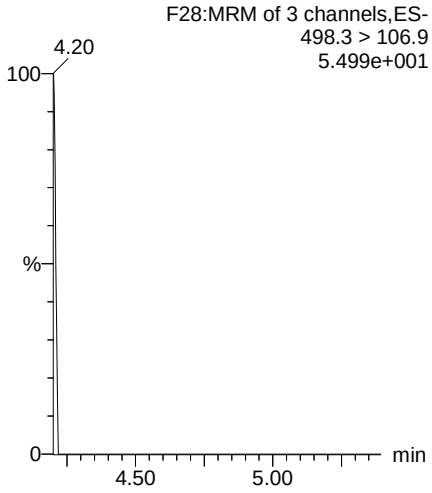
Last Altered: Tuesday, January 09, 2018 15:02:29 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:03:02 Pacific Standard Time

Name: 180104M1_53, Date: 05-Jan-2018, Time: 10:39:36, ID: 1701802-06RE1 FC-MW02IR1-NP-20171128 0.26838, Description: FC-MW02IR1-NP-20171128

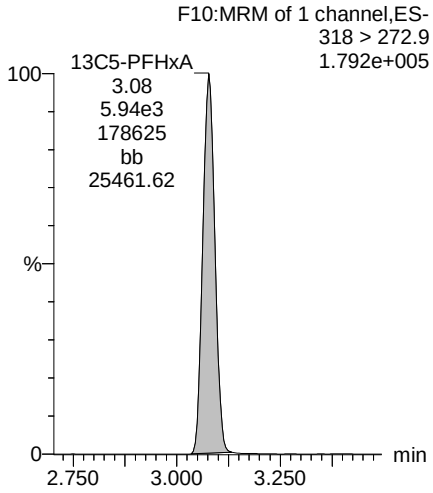
PFTrDA



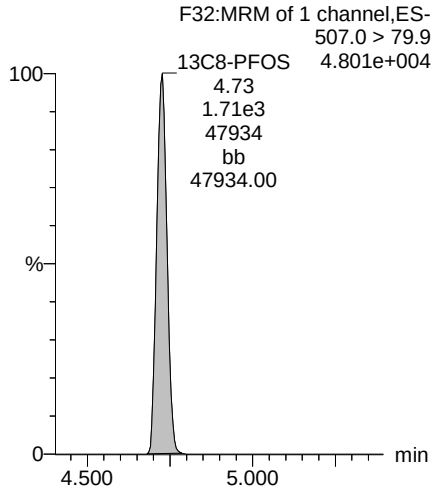
TCDA



13C5-PFHxA



13C8-PFOS



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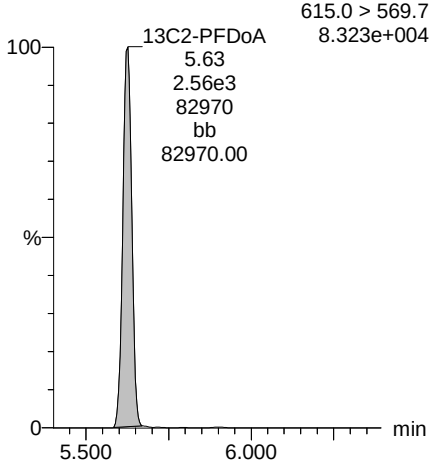
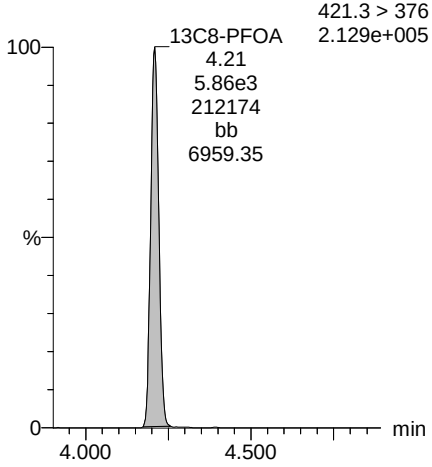
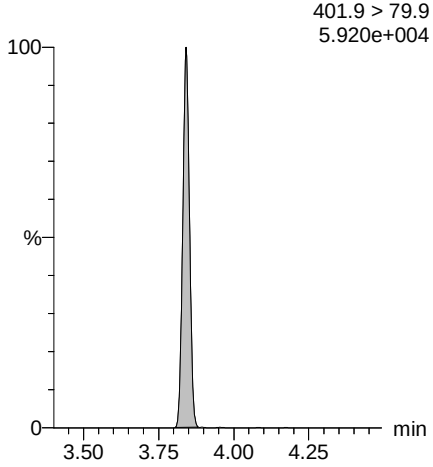


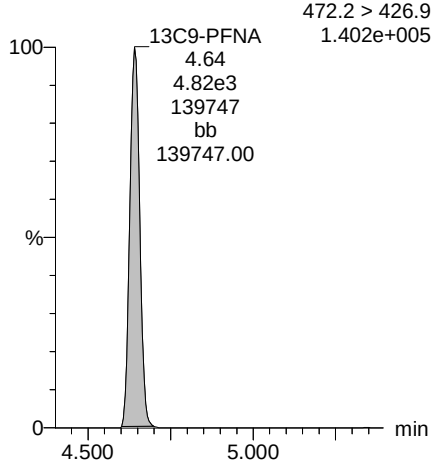
13C8-PFOA



13C3-PFHxS



13C9-PFNA



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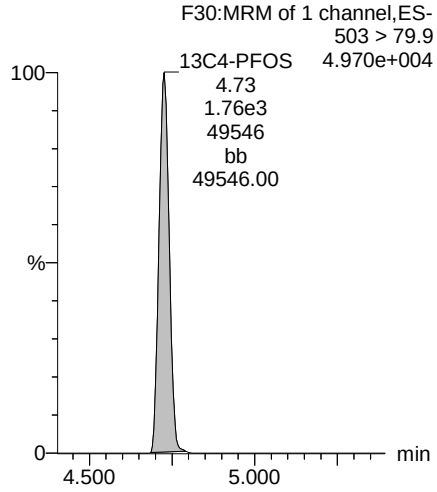
Dataset: U:\Q4.PRO\results\180104M1\180104M1-53.qld

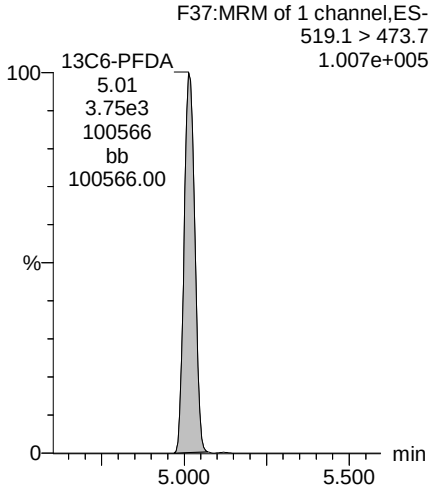
Last Altered: Tuesday, January 09, 2018 15:02:29 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:03:02 Pacific Standard Time

Name: 180104M1_53, Date: 05-Jan-2018, Time: 10:39:36, ID: 1701802-06RE1 FC-MW02IR1-NP-20171128 0.26838, Description: FC-MW02IR1-NP-20171128

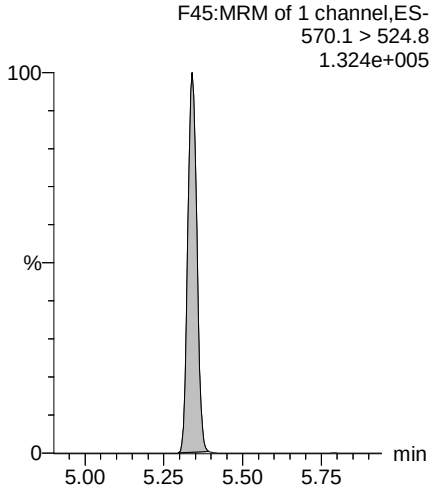
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-43.qld

Last Altered: Tuesday, January 09, 2018 15:29:16 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:29:43 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_43, Date: 29-Dec-2017, Time: 21:22:47, ID: 1701802-06RE1 FC-MW02IR1-NP-20171128 0.26838, Description: FC-MW02IR1-NP-20171128

	#	Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	25	PFTeDA	712.9 > 668.8		2.09e3		0.2684	6.16				
2	49	13C2-PFTeDA	714.8 > 669.6	2.09e3	8.01e3	0.196	0.2684	6.16	6.11	3.26	62.0	133.1
3	61	13C7-PFUdA	570.1 > 524.8	8.01e3	8.01e3	1.000	0.2684	5.43	5.37	12.5	46.6	100.0

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Rev'd: MM 1/17/18

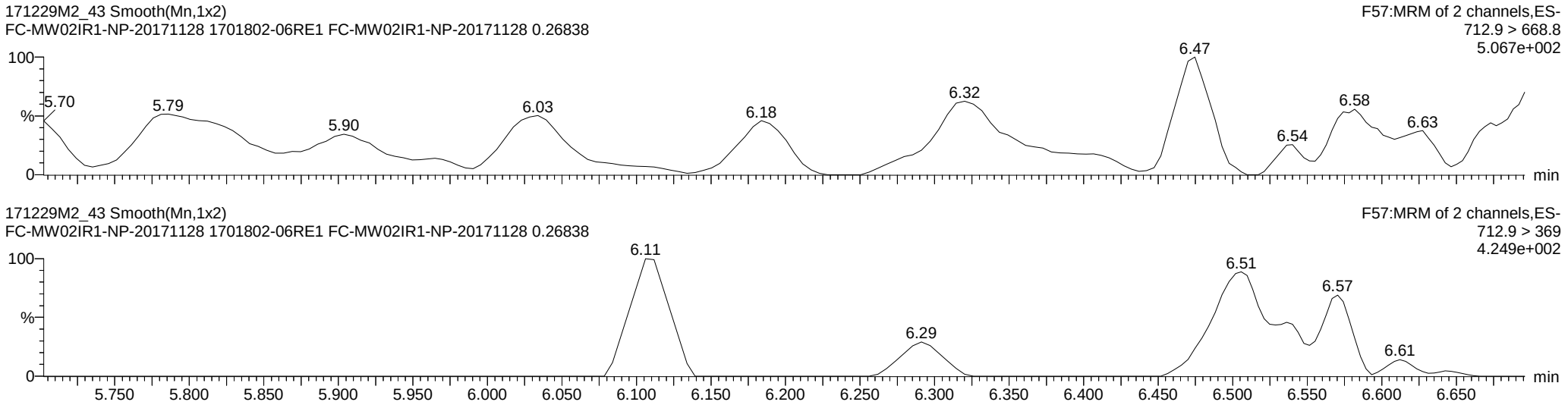
Dataset: U:\Q4.PRO\results\171229M2\171229M2-43.qld

Last Altered: Tuesday, January 09, 2018 15:29:16 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:29:43 Pacific Standard Time

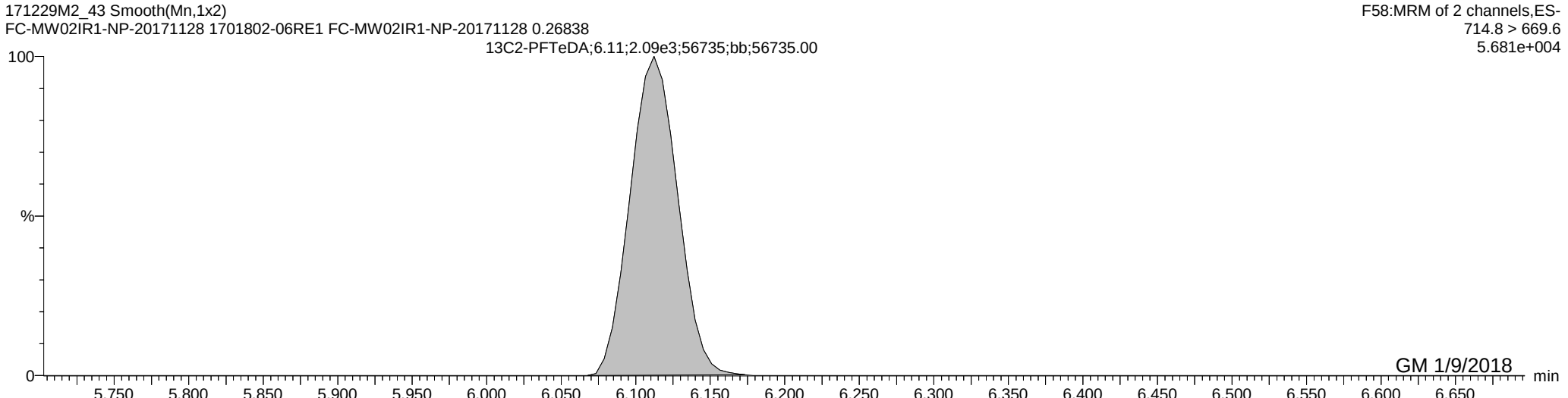
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_43, Date: 29-Dec-2017, Time: 21:22:47, ID: 1701802-06RE1 FC-MW02IR1-NP-20171128 0.26838, Description: FC-MW02IR1-NP-20171128

PFTeDA



13C2-PFTeDA



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Vista Analytical Laboratory

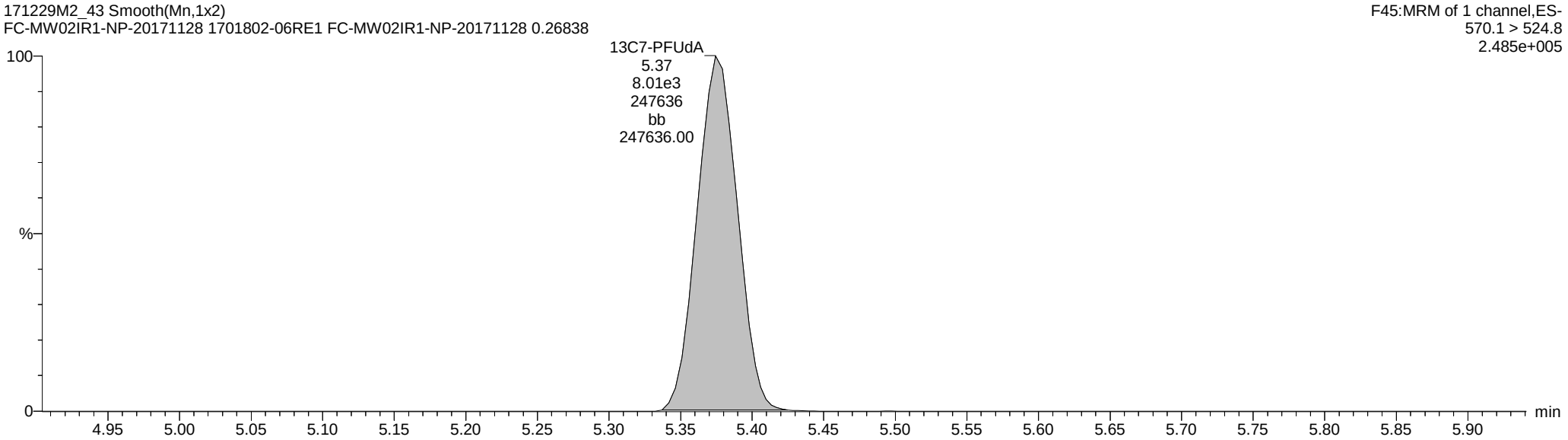
Rev'd: MM 1/17/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-43.qld

Last Altered: Tuesday, January 09, 2018 15:29:16 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:29:43 Pacific Standard Time

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

13C7-PFUdA



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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180104M1\180104M1-54.qld

Last Altered: Tuesday, January 09, 2018 15:04:40 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:05:11 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_54, Date: 05-Jan-2018, Time: 10:50:47, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	3.61e1	8.89e2	0.269		2.70	2.59	0.508	1.1517	
2	4	PFHxA	313.2 > 268.9	1.10e3	1.75e3	0.269		3.12	3.08	3.14	6.2374	
3	5	PFHpA	363.0 > 318.9	6.78e2	4.49e3	0.269		3.75	3.69	1.89	4.5776	
4	6	L-PFHxS	398.9 > 79.6	1.34e1	6.39e2	0.269		3.92	3.84	0.263	0.5476	
5	9	L-PFOA	413 > 368.7	1.34e3	5.18e3	0.269		4.25	4.21	3.22	8.9080	
6	12	PFNA	463.0 > 418.8	1.33e4	5.35e3	0.269		4.70	4.65	31.2	82.1056	
7	14	L-PFOS	499 > 79.9	6.50e2	1.36e3	0.269		4.83	4.73	5.97	21.7939	
8	16	PFDA	513 > 468.8	3.19e2	5.32e3	0.269		5.05	5.02	0.749	2.0521	
9	18	N-MeFOSAA	570.1 > 419		2.67e3	0.269		5.20				
10	19	N-EtFOSAA	584.2 > 419		2.59e3	0.269		5.42				
11	20	PFUdA	563.0 > 518.9	2.81e3	5.03e3	0.269		5.35	5.34	6.98	20.5716	
12	22	PFDoA	612.9 > 569.0		2.42e3	0.269		5.70				

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Dataset: U:\Q4.PRO\results\180104M1\180104M1-54.qld

Last Altered: Tuesday, January 09, 2018 15:04:40 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:05:21 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_54, Date: 05-Jan-2018, Time: 10:50:47, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	3.02e2	1.34e3	0.269		5.95	5.87	2.81	2.1480	
2	33	13C3-PFBS	302. > 98.8	8.89e2	6.17e3	0.269	0.106	2.70	2.59	1.80	63.0147	135.8
3	34	13C2-PFHxA	315 > 269.8	1.75e3	6.17e3	0.269	0.633	3.20	3.08	3.55	20.8174	112.2
4	35	13C4-PFHpA	367.2 > 321.8	4.49e3	6.17e3	0.269	0.641	3.80	3.69	9.11	52.7804	113.8
5	36	18O2-PFHxS	403.0 > 102.6	6.39e2	1.65e3	0.269	0.334	3.95	3.84	4.84	53.7619	115.9
6	37	13C2-6:2 FTS	429.1 > 408.9	1.56e3	5.90e3	0.269	0.228	4.26	4.15	3.30	53.7205	115.8
7	38	13C2-PFOA	414.9 > 369.7	5.18e3	5.90e3	0.269	0.959	4.32	4.21	11.0	42.4640	91.5
8	39	13C5-PFNA	468.2 > 422.9	5.35e3	6.00e3	0.269	0.830	4.75	4.65	11.1	49.8027	107.3
9	40	13C8-PFOSA	506.1 > 77.7	6.36e2	5.14e3	0.269	0.262	4.81	4.71	1.55	21.9104	47.2
10	41	13C8-PFOS	507.0 > 79.9	1.36e3	1.22e3	0.269	0.880	4.83	4.73	13.9	58.8052	126.7
11	42	13C2-PFDA	515.1 > 469.9	5.32e3	4.58e3	0.269	0.995	5.11	5.02	14.5	54.1934	116.8
12	43	13C2-8:2 FTS	529.1 > 508.7	8.83e2	6.17e3	0.269	0.142	5.09	4.99	1.79	46.7176	100.7
13	44	d3-N-MeFOSAA	573.3 > 419	2.67e3	5.14e3	0.269	0.376	5.26	5.17	6.50	64.2566	138.5
14	45	d5-N-EtFOSAA	589.3 > 419	2.59e3	5.14e3	0.269	0.444	5.42	5.32	6.29	52.6570	113.5
15	46	13C2-PFUdA	565 > 519.8	5.03e3	5.14e3	0.269	0.889	5.43	5.34	12.2	51.0869	110.1
16	47	13C2-PFDoA	615.0 > 569.7	2.42e3	5.14e3	0.269	0.542	5.70	5.63	5.88	40.2406	86.7
17	55	13C5-PFHxA	318 > 272.9	6.17e3	6.17e3	0.269	1.000	3.20	3.08	12.5	46.3994	100.0
18	56	13C3-PFHxS	401.9 > 79.9	1.65e3	1.65e3	0.269	1.000	3.95	3.84	12.5	46.3994	100.0
19	57	13C8-PFOA	421.3 > 376	5.90e3	5.90e3	0.269	1.000	4.32	4.21	12.5	46.3994	100.0
20	58	13C9-PFNA	472.2 > 426.9	6.00e3	6.00e3	0.269	1.000	4.75	4.65	12.5	46.3994	100.0
21	59	13C4-PFOS	503 > 79.9	1.22e3	1.22e3	0.269	1.000	4.83	4.73	12.5	46.3994	100.0
22	60	13C6-PFDA	519.1 > 473.7	4.58e3	4.58e3	0.269	1.000	5.11	5.02	12.5	46.3994	100.0
23	61	13C7-PFUdA	570.1 > 524.8	5.14e3	5.14e3	0.269	1.000	5.43	5.34	12.5	46.3994	100.0
24	62	Total PFHxS	398.9 > 79.6	1.34e1	6.39e2	0.269		4.00		0.263	0.5476	
25	63	Total PFOA	413 > 368.7	1.34e3	5.18e3	0.269		4.30		3.22	8.9080	
26	64	Total PFOS	499 > 79.9	6.50e2	1.36e3	0.269		4.80		5.97	21.7939	
27	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.67e3	0.269		5.20		0.000		
28	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.59e3	0.269		5.40		0.000		

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Dataset: U:\Q4.PRO\results\180104M1\180104M1-54.qld

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Printed: Tuesday, January 09, 2018 15:05:21 Pacific Standard Time

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Name: 180104M1_54, Date: 05-Jan-2018, Time: 10:50:47, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

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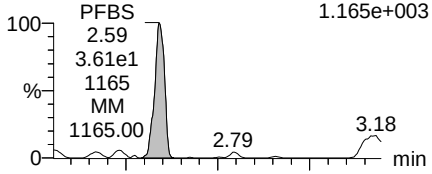

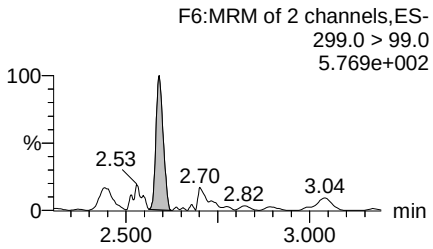

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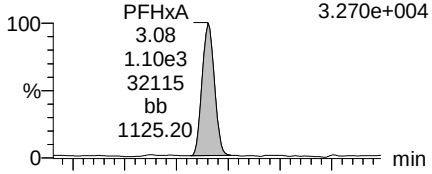

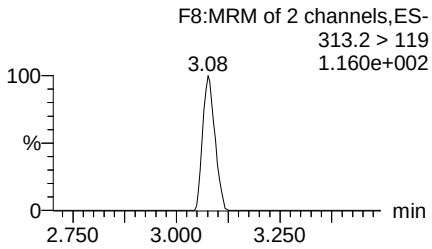

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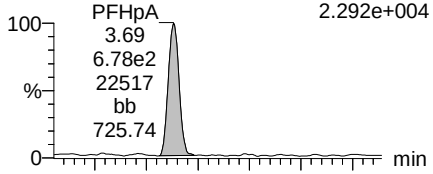

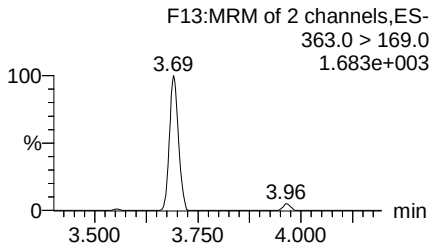

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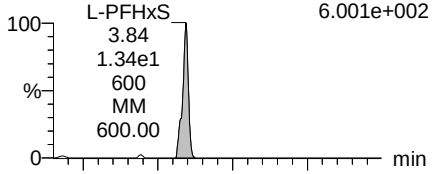

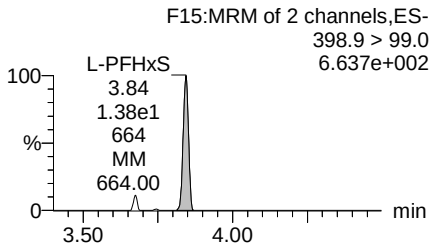

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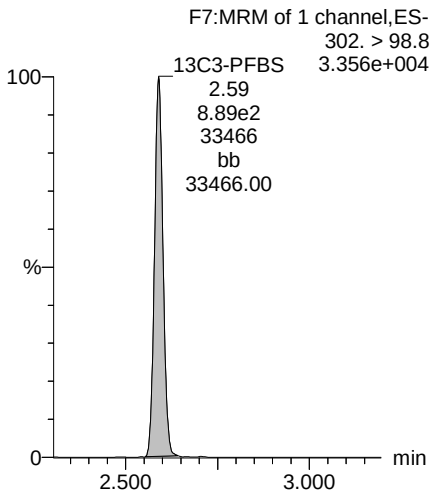

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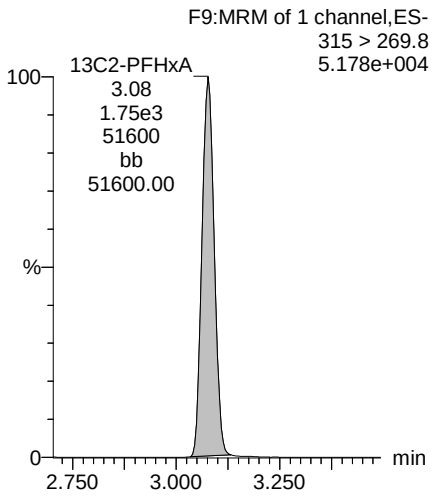

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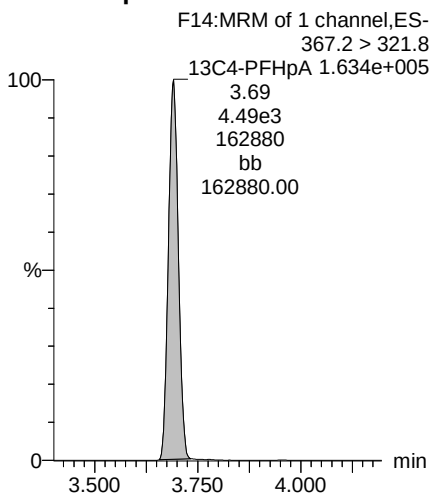

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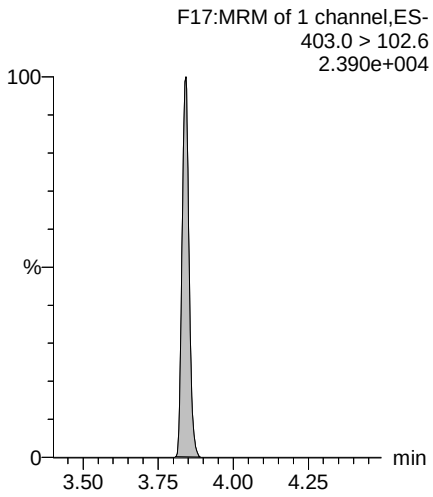

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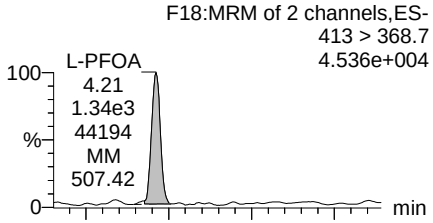

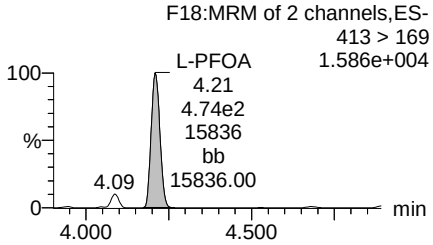

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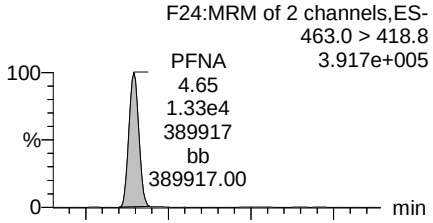

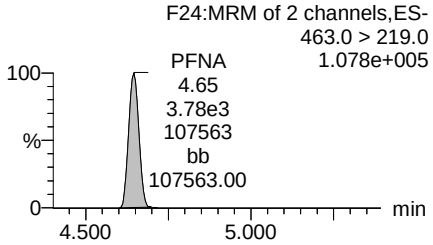

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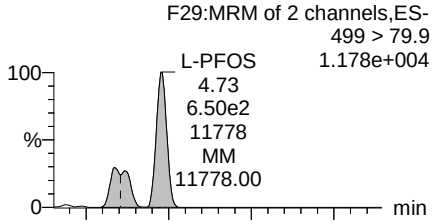

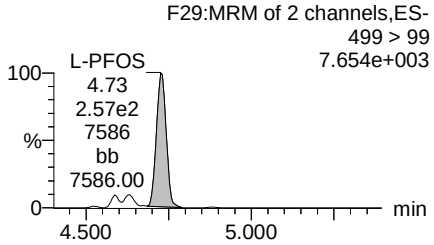

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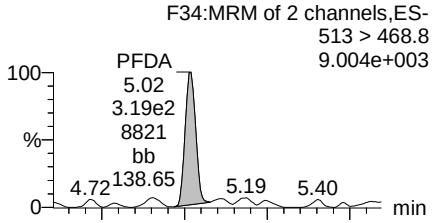

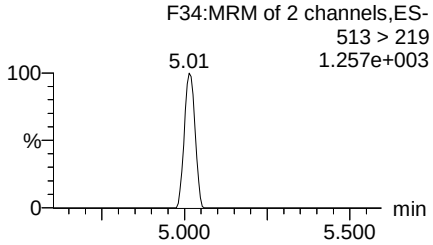

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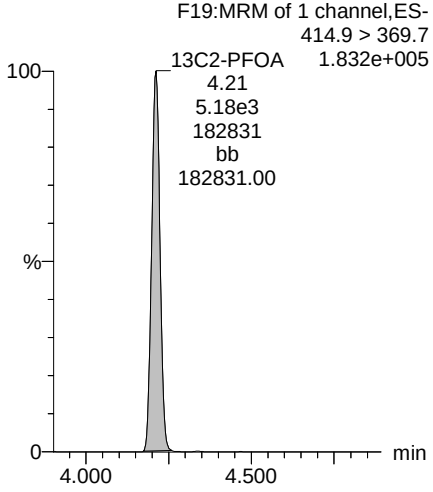

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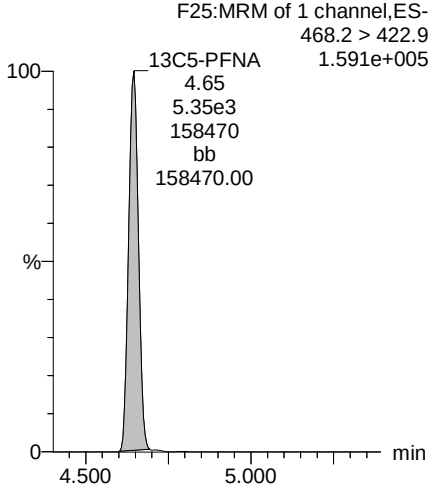

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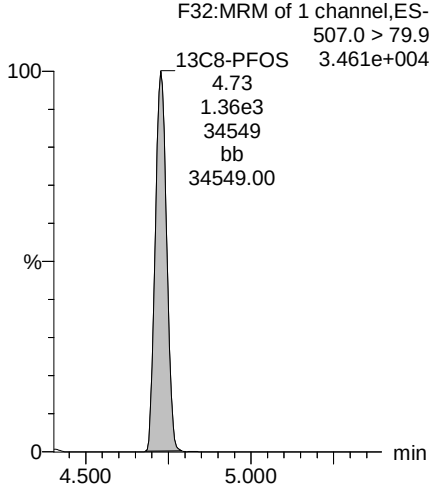

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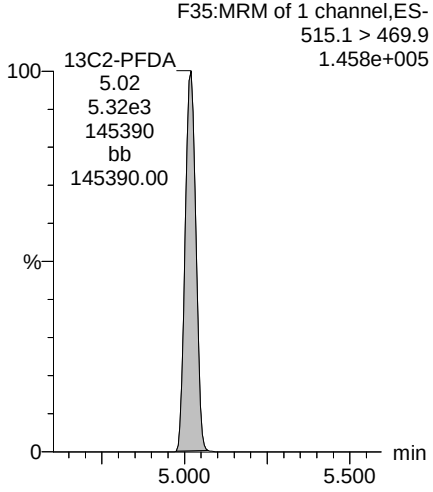

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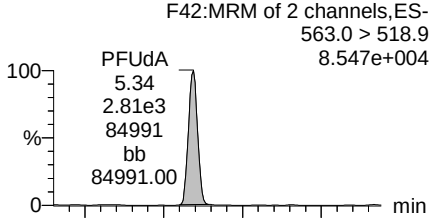

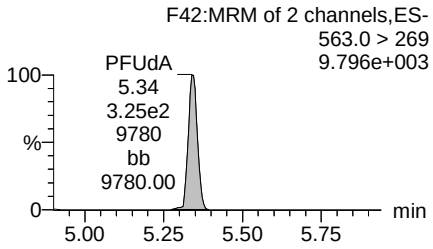

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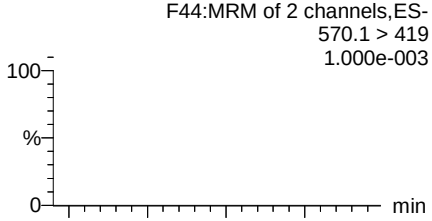

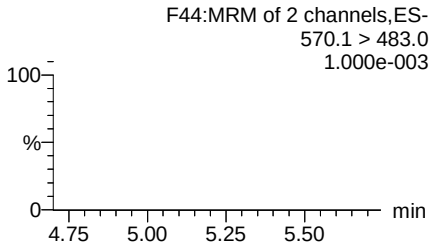

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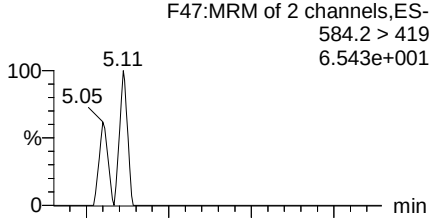

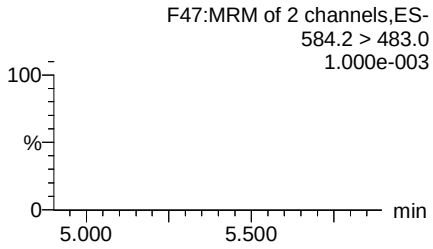

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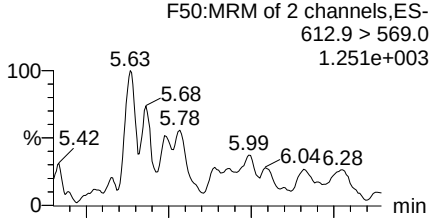

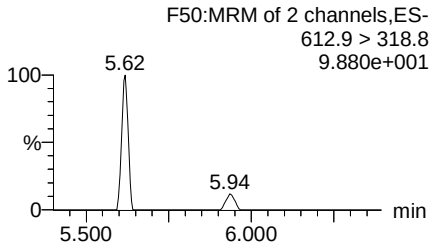

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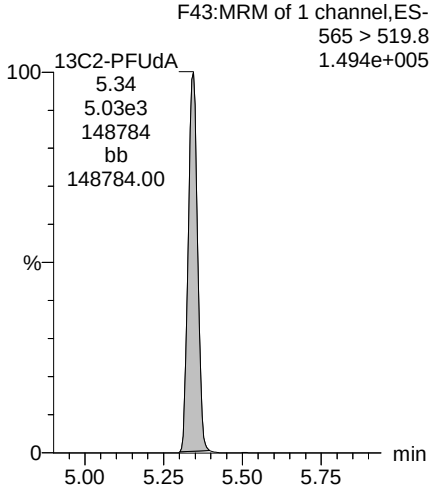

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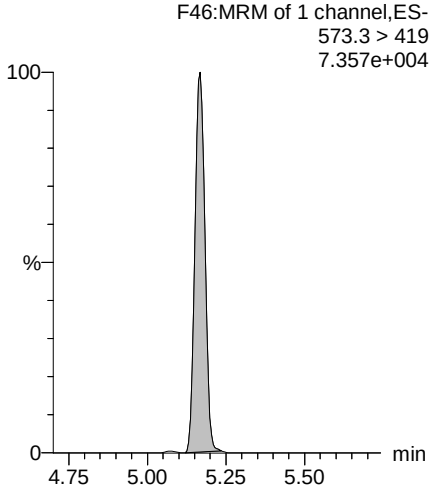

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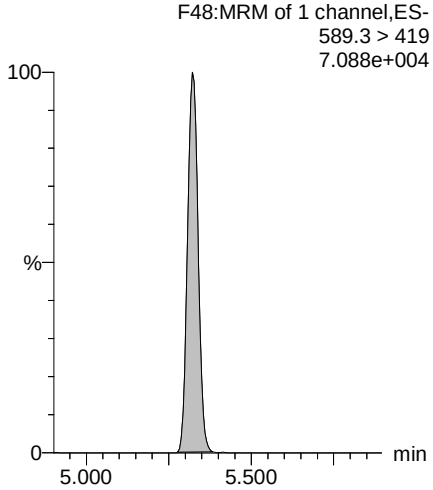

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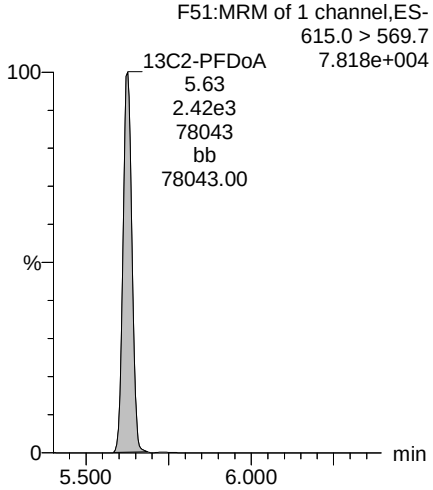

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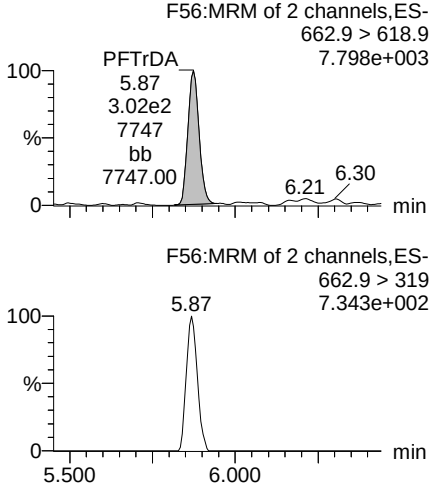
PFTrDA



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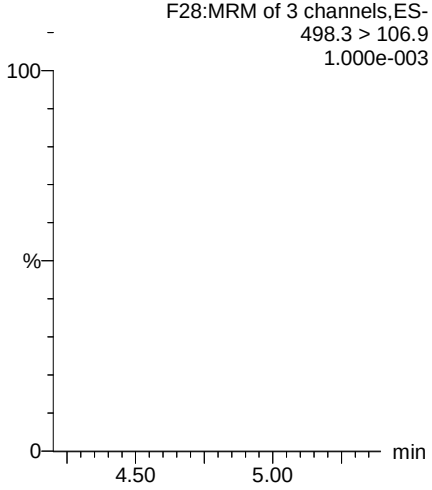

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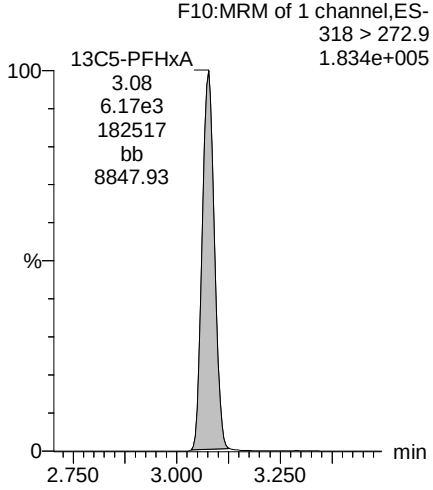

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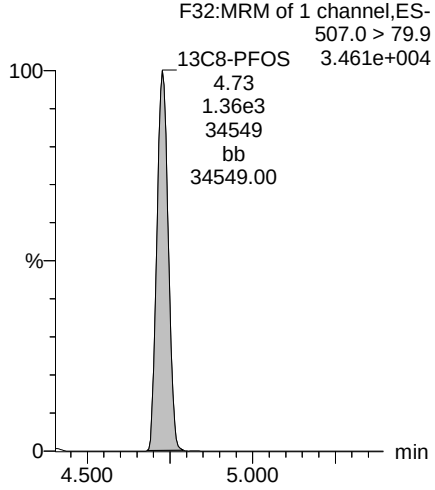

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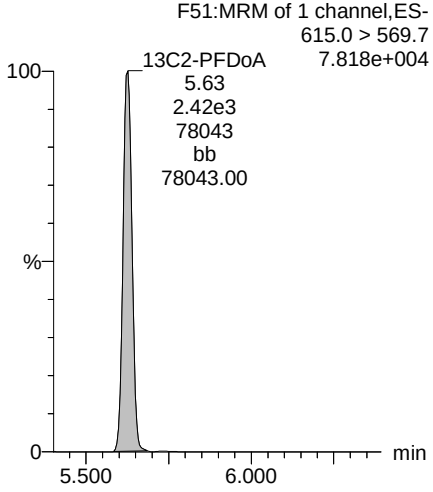
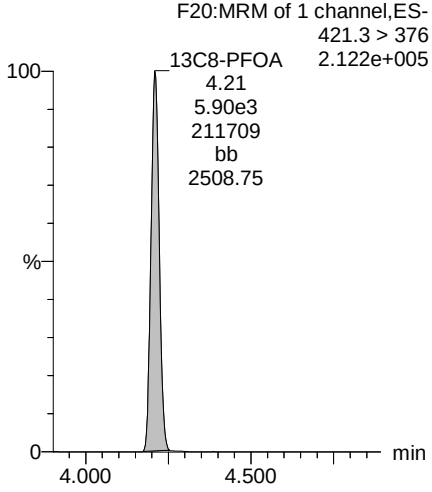
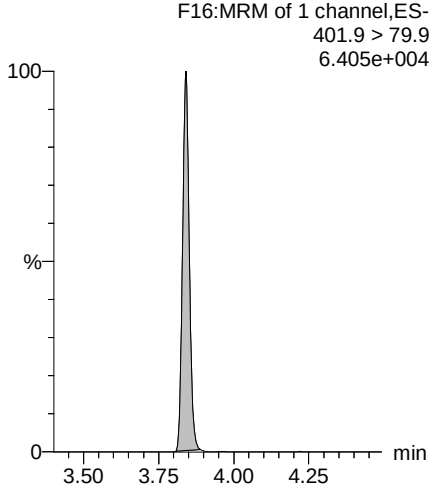


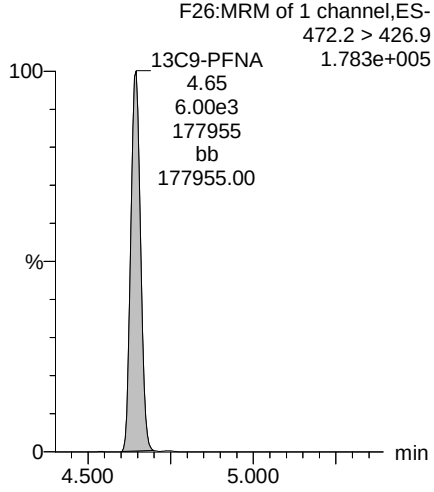
13C8-PFOA



13C3-PFHxS



13C9-PFNA



GM 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-54.qld

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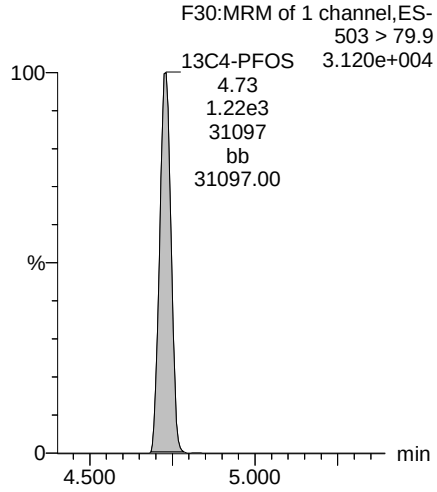
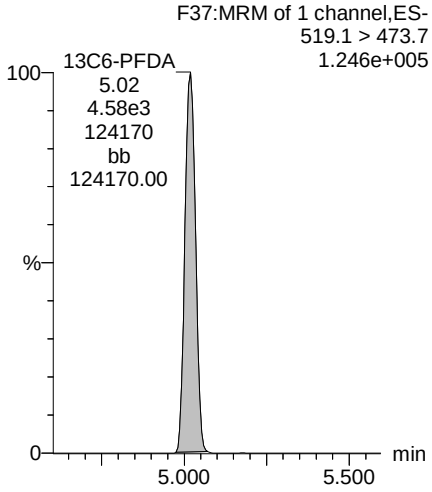
Printed: Tuesday, January 09, 2018 15:05:21 Pacific Standard Time

Name: 180104M1_54, Date: 05-Jan-2018, Time: 10:50:47, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

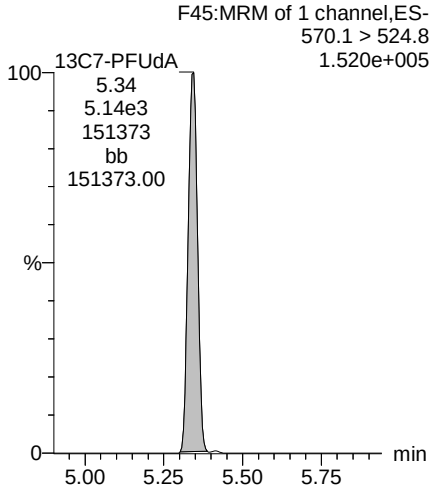
13C4-PFOS



13C6-PFDA



13C7-PFUdA



GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-44.qld

Last Altered: Tuesday, January 09, 2018 15:30:58 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:31:08 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_44, Date: 29-Dec-2017, Time: 21:33:58, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

	#	Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	25	PFTeDA	712.9 > 668.8		2.43e3		0.2694	6.16					
2	49	13C2-PFTeDA	714.8 > 669.6	2.43e3	7.64e3	0.196	0.2694	6.16	6.11	3.98	75.4	162.5	H
3	61	13C7-PFUdA	570.1 > 524.8	7.64e3	7.64e3	1.000	0.2694	5.43	5.37	12.5	46.4	100.0	

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Vista Analytical Laboratory

Revd: MM 1/11/18

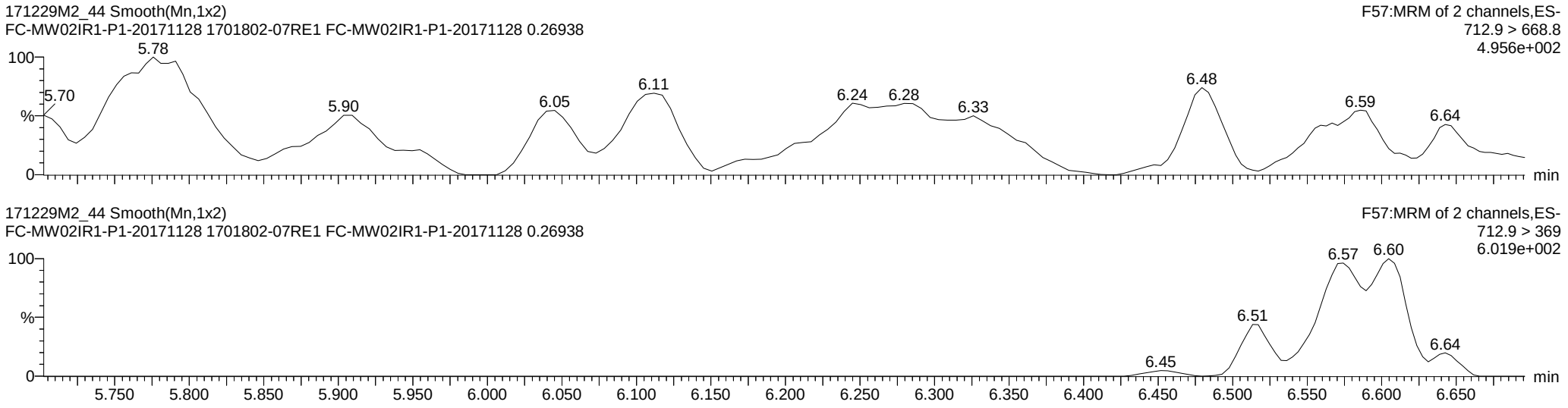
Dataset: U:\Q4.PRO\results\171229M2\171229M2-44.qld

Last Altered: Tuesday, January 09, 2018 15:30:58 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:31:08 Pacific Standard Time

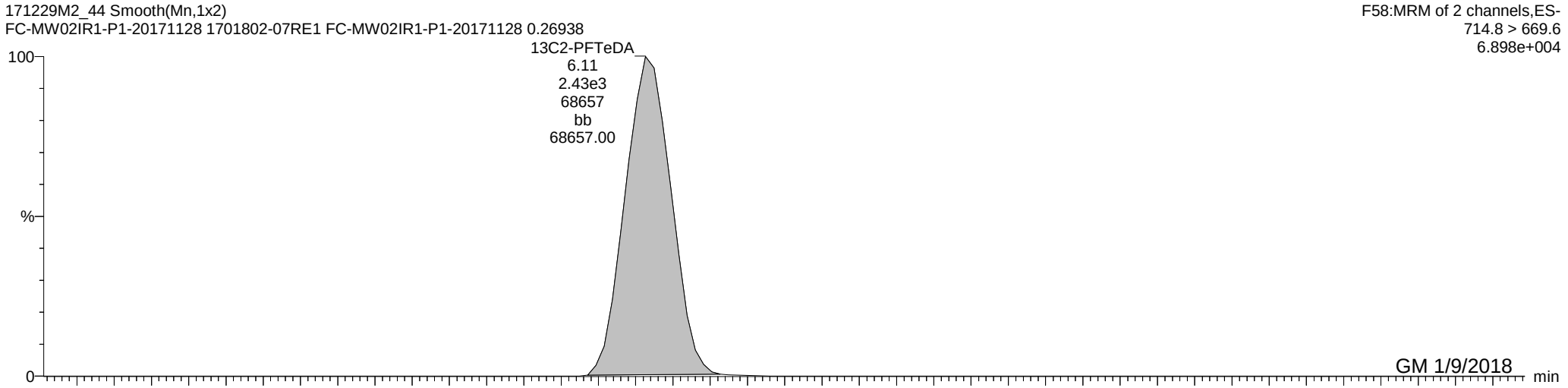
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_44, Date: 29-Dec-2017, Time: 21:33:58, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

PFTeDA



13C2-PFTeDA



GM 1/9/2018

Vista Analytical Laboratory

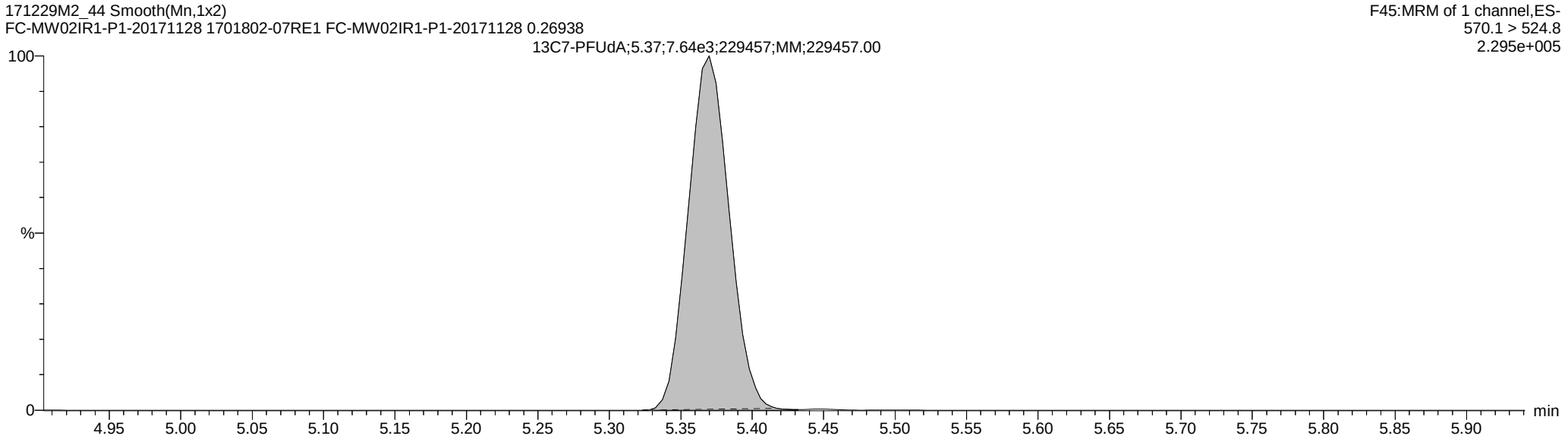
Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-44.qld

Last Altered: Tuesday, January 09, 2018 15:30:58 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:31:08 Pacific Standard Time

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

13C7-PFUdA



GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-55.qld

Last Altered: Tuesday, January 09, 2018 15:07:36 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:08:06 Pacific Standard Time

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Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_55, Date: 05-Jan-2018, Time: 11:02:01, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	1.82e1	8.89e2	0.276		2.70	2.59	0.256	0.7134	
2	4	PFHxA	313.2 > 268.9	7.67e2	1.71e3	0.276		3.12	3.08	2.24	4.3658	
3	5	PFHpA	363.0 > 318.9	4.48e2	4.28e3	0.276		3.75	3.69	1.31	3.1669	
4	6	L-PFHxS	398.9 > 79.6	3.32e1	6.35e2	0.276		3.92	3.84	0.655	1.2473	
5	9	L-PFOA	413 > 368.7	1.25e3	5.26e3	0.276		4.25	4.21	2.97	7.9820	
6	12	PFNA	463.0 > 418.8	4.93e3	5.43e3	0.276		4.70	4.65	11.3	28.5462	
7	14	L-PFOS	499 > 79.9	1.32e3	1.84e3	0.276		4.83	4.73	9.00	31.9816	
8	16	PFDA	513 > 468.8		4.52e3	0.276		5.05				
9	18	N-MeFOSAA	570.1 > 419		2.32e3	0.276		5.20				
10	19	N-EtFOSAA	584.2 > 419		3.15e3	0.276		5.42				
11	20	PFUdA	563.0 > 518.9	7.62e2	5.27e3	0.276		5.35	5.34	1.81	5.4202	
12	22	PFDoA	612.9 > 569.0		2.53e3	0.276		5.70				

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Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-55.qld

Last Altered: Tuesday, January 09, 2018 15:07:36 Pacific Standard Time
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Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_55, Date: 05-Jan-2018, Time: 11:02:01, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		1.25e3	0.276		5.95				
2	33	13C3-PFBS	302. > 98.8	8.89e2	5.88e3	0.276	0.106	2.70	2.59	1.89	64.5939	142.4
3	34	13C2-PFHxA	315 > 269.8	1.71e3	5.88e3	0.276	0.633	3.20	3.08	3.63	20.8232	114.7
4	35	13C4-PFHpA	367.2 > 321.8	4.28e3	5.88e3	0.276	0.641	3.80	3.69	9.09	51.5239	113.6
5	36	18O2-PFHxS	403.0 > 102.6	6.35e2	1.83e3	0.276	0.334	3.95	3.84	4.33	47.0841	103.8
6	37	13C2-6:2 FTS	429.1 > 408.9	1.75e3	5.76e3	0.276	0.228	4.26	4.15	3.79	60.3200	132.9
7	38	13C2-PFOA	414.9 > 369.7	5.26e3	5.76e3	0.276	0.959	4.32	4.21	11.4	43.1872	95.2
8	39	13C5-PFNA	468.2 > 422.9	5.43e3	5.84e3	0.276	0.830	4.75	4.64	11.6	50.8400	112.1
9	40	13C8-PFOSA	506.1 > 77.7	9.44e2	5.98e3	0.276	0.262	4.81	4.71	1.97	27.3153	60.2
10	41	13C8-PFOS	507.0 > 79.9	1.84e3	1.77e3	0.276	0.880	4.83	4.73	13.0	53.4932	117.9
11	42	13C2-PFDA	515.1 > 469.9	4.52e3	3.50e3	0.276	0.995	5.11	5.01	16.1	58.7823	129.6
12	43	13C2-8:2 FTS	529.1 > 508.7	8.69e2	5.88e3	0.276	0.142	5.09	4.99	1.85	47.1144	103.8
13	44	d3-N-MeFOSAA	573.3 > 419	2.32e3	5.98e3	0.276	0.376	5.26	5.16	4.85	46.9086	103.4
14	45	d5-N-EtFOSAA	589.3 > 419	3.15e3	5.98e3	0.276	0.444	5.42	5.32	6.58	53.8595	118.7
15	46	13C2-PFUdA	565 > 519.8	5.27e3	5.98e3	0.276	0.889	5.43	5.34	11.0	45.0502	99.3
16	47	13C2-PFDoA	615.0 > 569.7	2.53e3	5.98e3	0.276	0.542	5.70	5.62	5.30	35.4644	78.2
17	55	13C5-PFHxA	318 > 272.9	5.88e3	5.88e3	0.276	1.000	3.20	3.07	12.5	45.3721	100.0
18	56	13C3-PFHxS	401.9 > 79.9	1.83e3	1.83e3	0.276	1.000	3.95	3.84	12.5	45.3721	100.0
19	57	13C8-PFOA	421.3 > 376	5.76e3	5.76e3	0.276	1.000	4.32	4.21	12.5	45.3721	100.0
20	58	13C9-PFNA	472.2 > 426.9	5.84e3	5.84e3	0.276	1.000	4.75	4.65	12.5	45.3721	100.0
21	59	13C4-PFOS	503 > 79.9	1.77e3	1.77e3	0.276	1.000	4.83	4.73	12.5	45.3721	100.0
22	60	13C6-PFDA	519.1 > 473.7	3.50e3	3.50e3	0.276	1.000	5.11	5.01	12.5	45.3721	100.0
23	61	13C7-PFUdA	570.1 > 524.8	5.98e3	5.98e3	0.276	1.000	5.43	5.34	12.5	45.3721	100.0
24	62	Total PFHxS	398.9 > 79.6	3.32e1	6.35e2	0.276		4.00		0.655	1.2473	
25	63	Total PFOA	413 > 368.7	1.25e3	5.26e3	0.276		4.30		2.97	7.9820	
26	64	Total PFOS	499 > 79.9	1.32e3	1.84e3	0.276		4.80		9.00	31.9816	
27	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.32e3	0.276		5.20		0.000		
28	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.15e3	0.276		5.40		0.000		

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Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-55.qld

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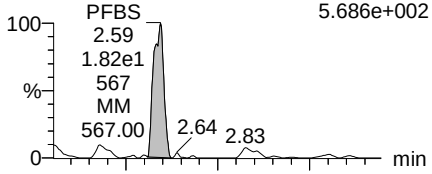
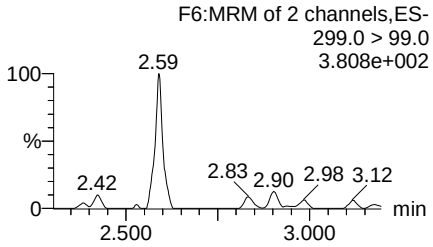
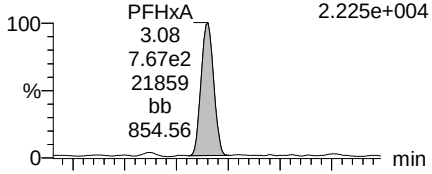
Name: 180104M1_55, Date: 05-Jan-2018, Time: 11:02:01, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

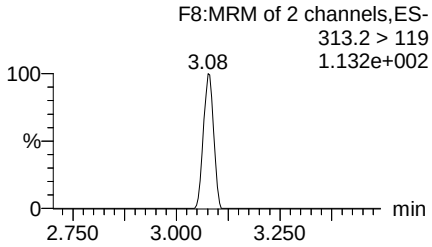
PFBS





PFHxA





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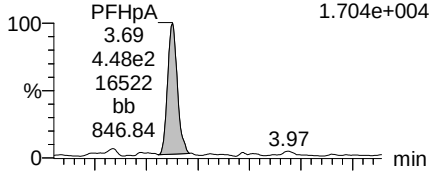

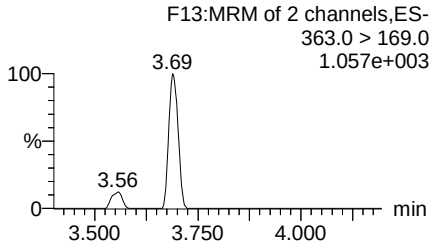

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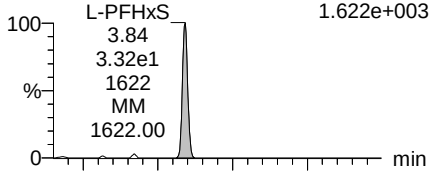

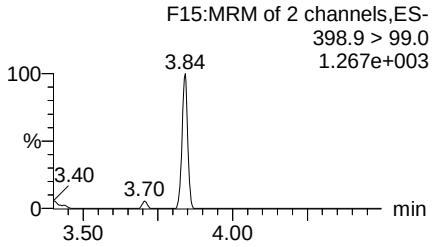

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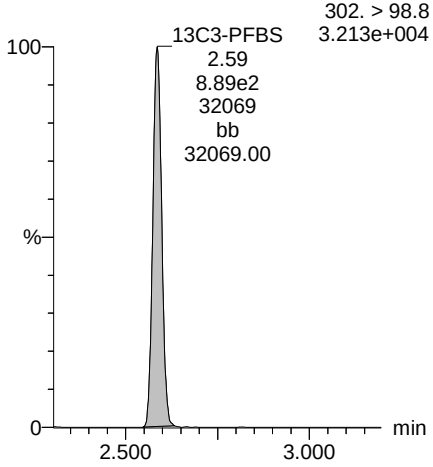
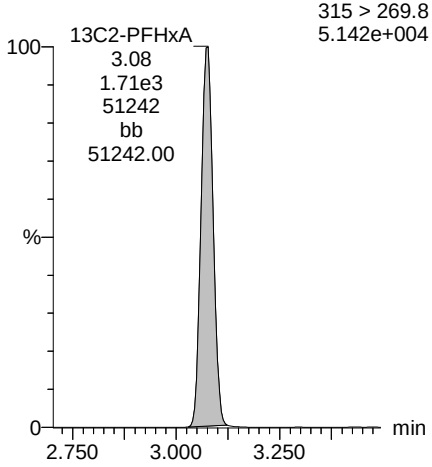


13C2-PFHxA



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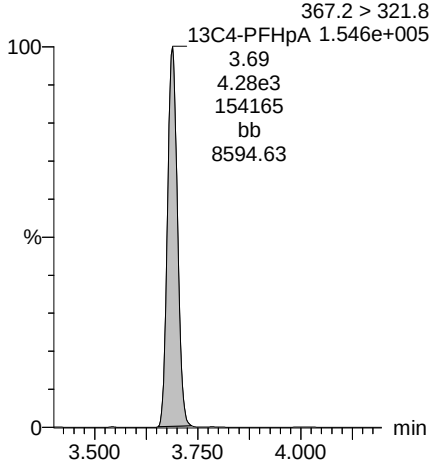
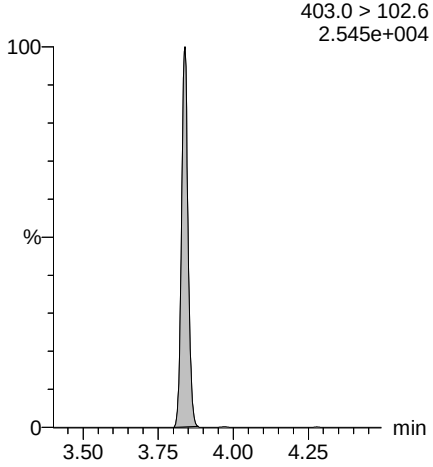


18O2-PFHxS



GM 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-55.qld

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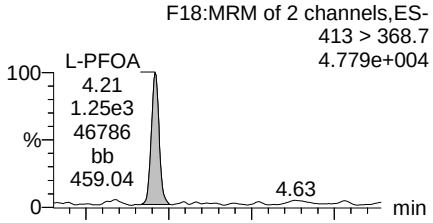
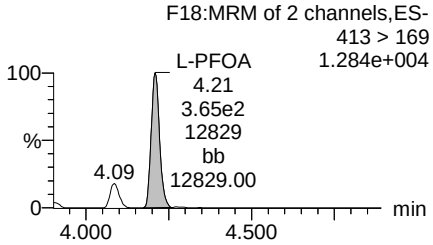
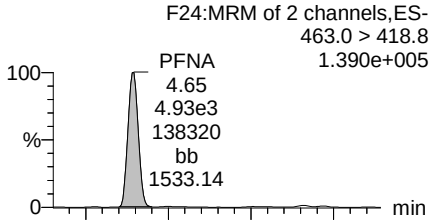
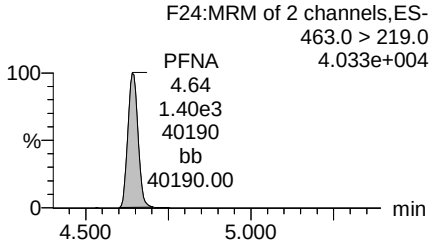
Total PFOA



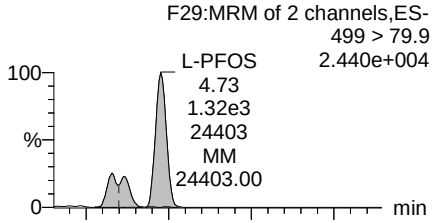


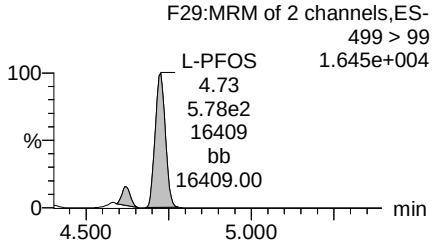
PFNA



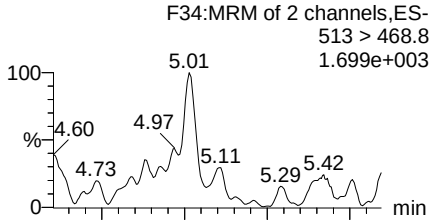


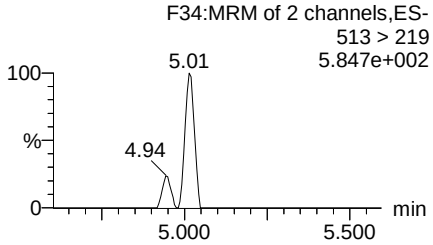
Total PFOS



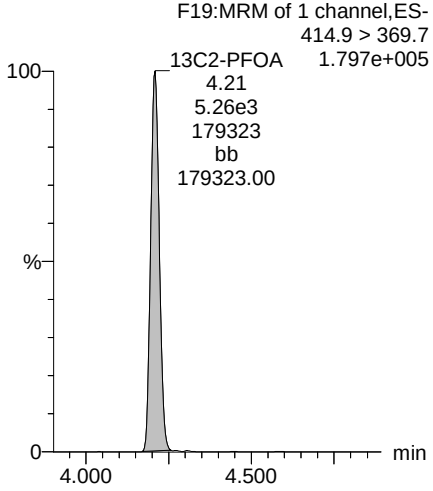


PFDA

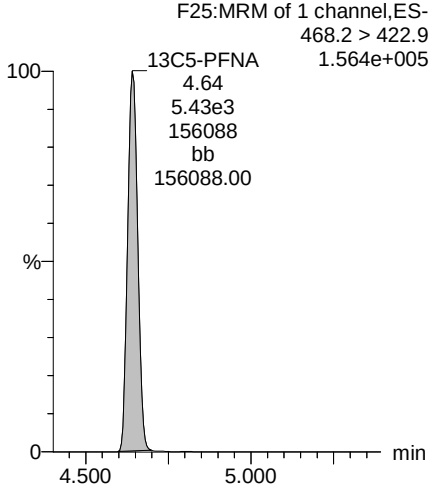




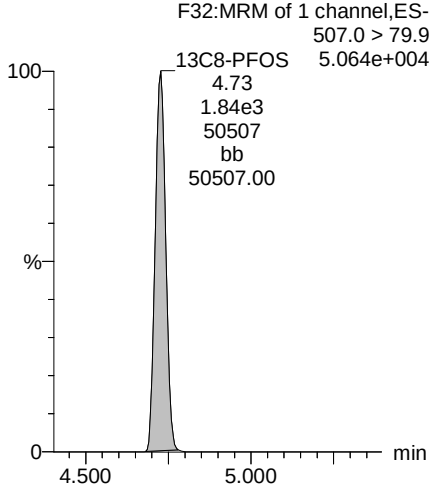
13C2-PFOA



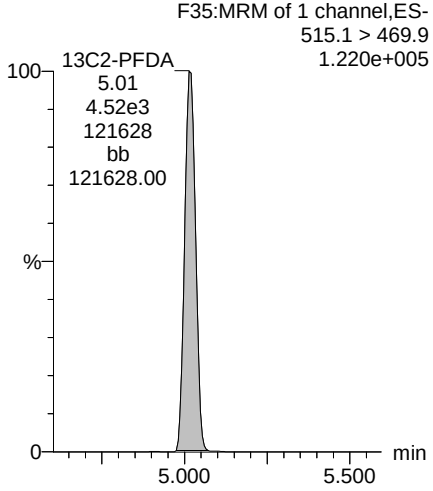
13C5-PFNA



13C8-PFOS



13C2-PFDA



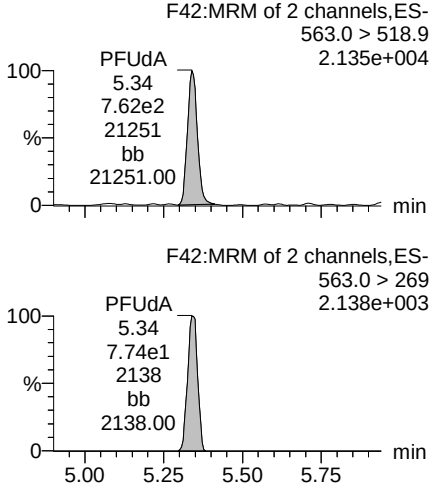
GM 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-55.qld

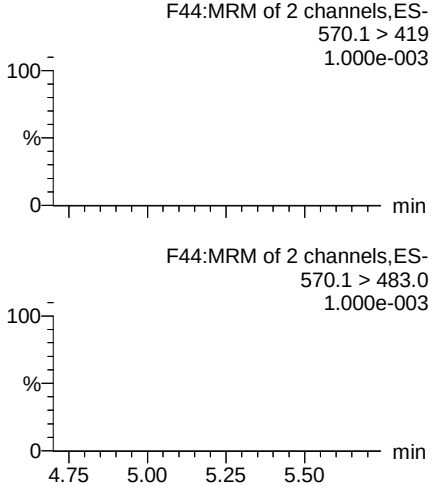
Last Altered: Tuesday, January 09, 2018 15:07:36 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:08:15 Pacific Standard Time

Name: 180104M1_55, Date: 05-Jan-2018, Time: 11:02:01, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

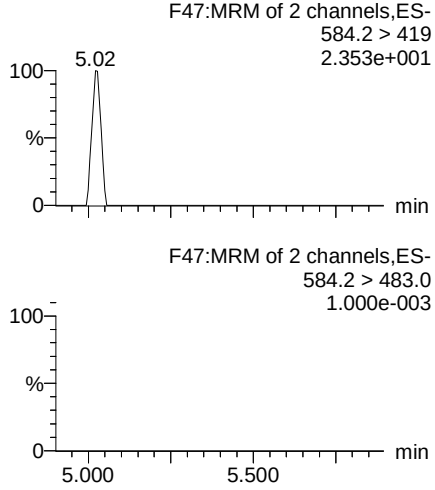
PFUdA



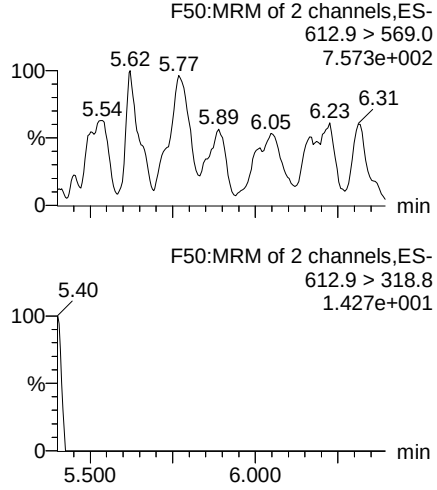
N-MeFOSAA



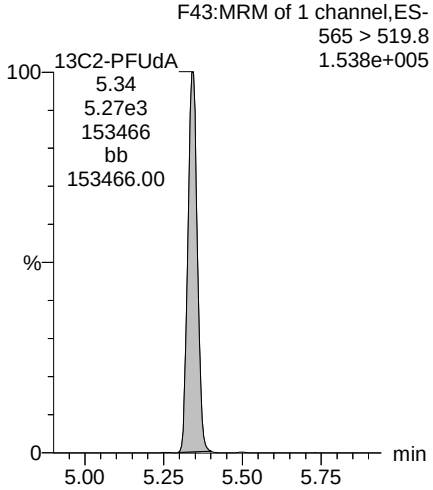
N-EtFOSAA



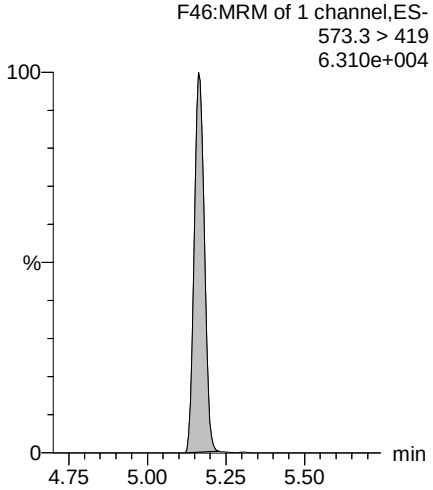
PFDoA



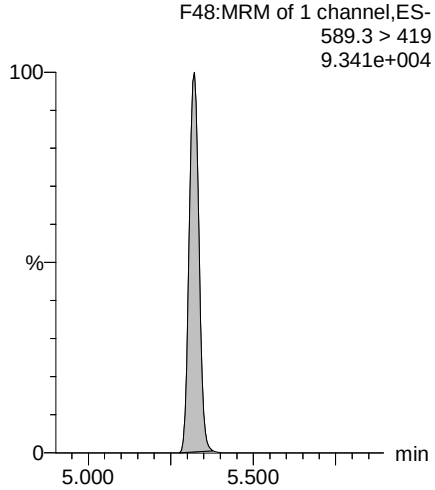
13C2-PFUdA



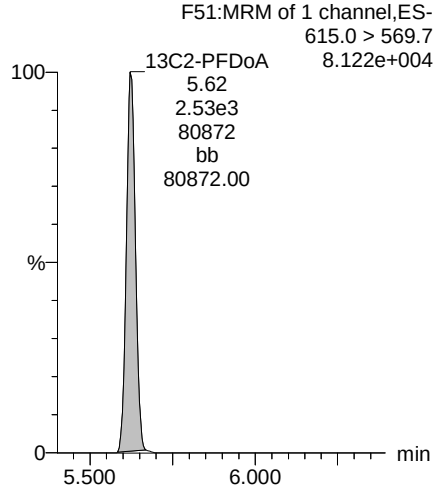
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



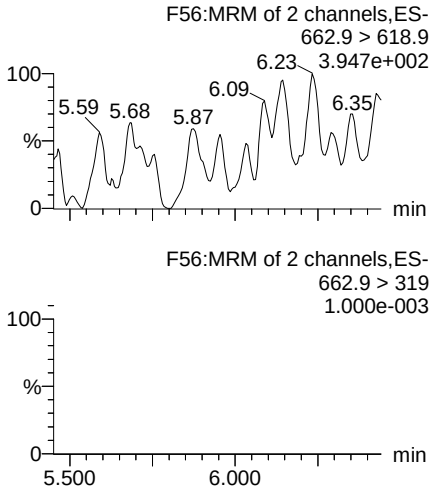
GM 1/9/2018

Dataset: U:\Q4.PRO\results\180104M1\180104M1-55.qld

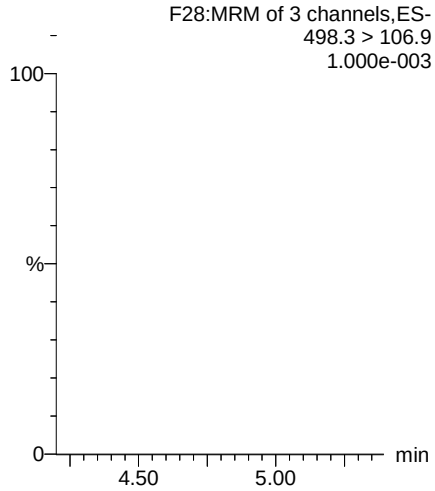
Last Altered: Tuesday, January 09, 2018 15:07:36 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:08:15 Pacific Standard Time

Name: 180104M1_55, Date: 05-Jan-2018, Time: 11:02:01, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

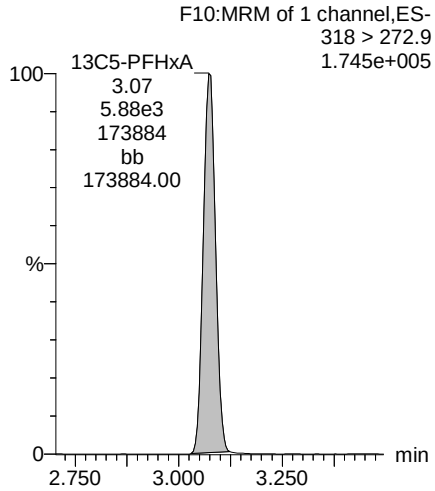
PFTrDA



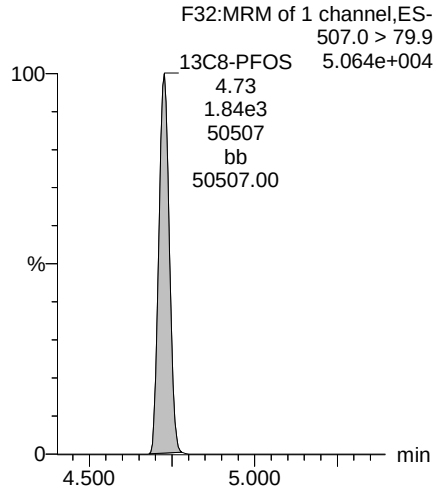
TCDA



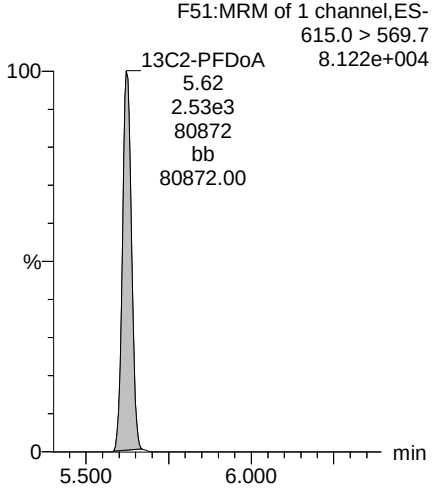
13C5-PFHxA



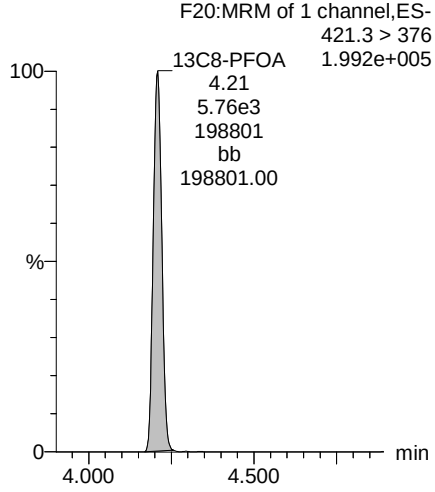
13C8-PFOS



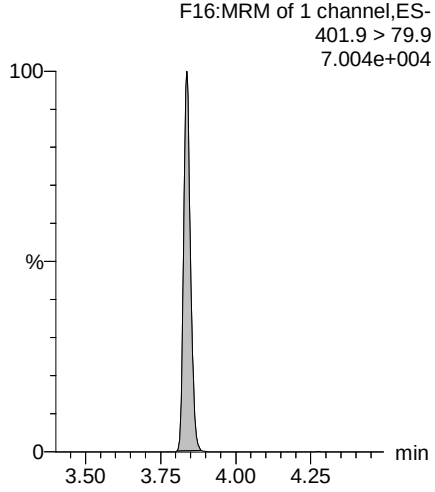
13C2-PFDoA



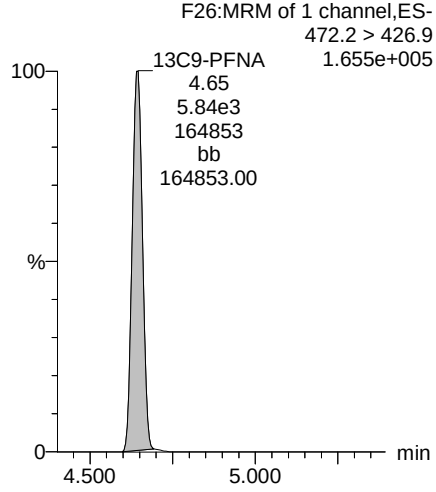
13C8-PFOA



13C3-PFHxS



13C9-PFNA



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Vista Analytical Laboratory

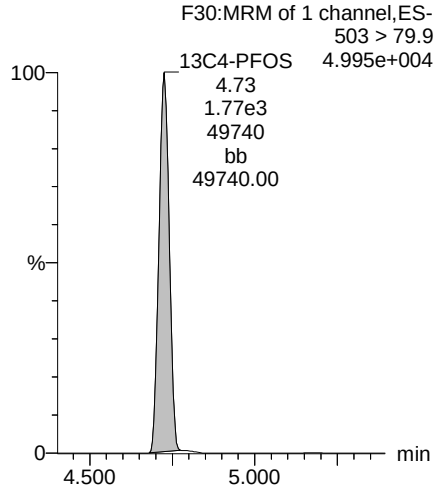
Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-55.qld

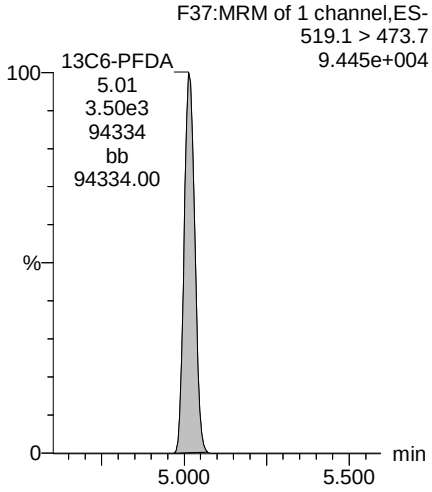
Last Altered: Tuesday, January 09, 2018 15:07:36 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:08:15 Pacific Standard Time

Name: 180104M1_55, Date: 05-Jan-2018, Time: 11:02:01, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

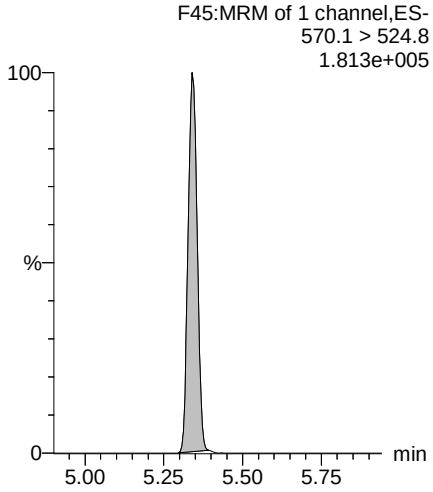
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-48..qld

Last Altered: Tuesday, January 09, 2018 15:32:13 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:32:32 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_48, Date: 29-Dec-2017, Time: 22:18:51, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

	#	Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	25	PFTeDA	712.9 > 668.8		2.48e3		0.2755	6.16					
2	49	13C2-PFTeDA	714.8 > 669.6	2.48e3	8.04e3	0.196	0.2755	6.16	6.11	3.85	71.4	157.3	H
3	61	13C7-PFUdA	570.1 > 524.8	8.04e3	8.04e3	1.000	0.2755	5.43	5.37	12.5	45.4	100.0	

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Revd: MM 1/11/18

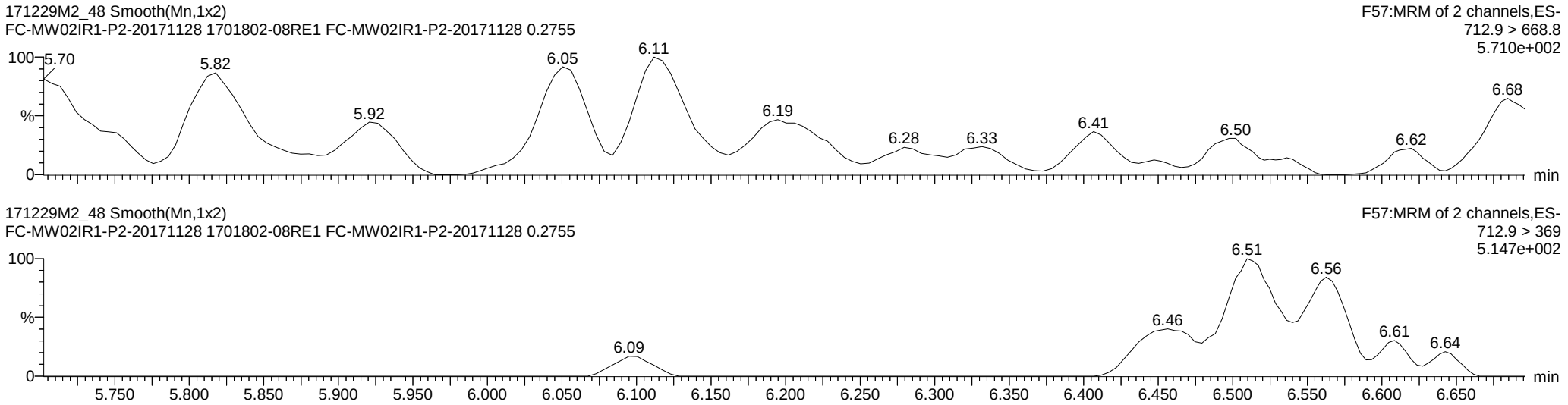
Dataset: U:\Q4.PRO\results\171229M2\171229M2-48..qld

Last Altered: Tuesday, January 09, 2018 15:32:13 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:32:32 Pacific Standard Time

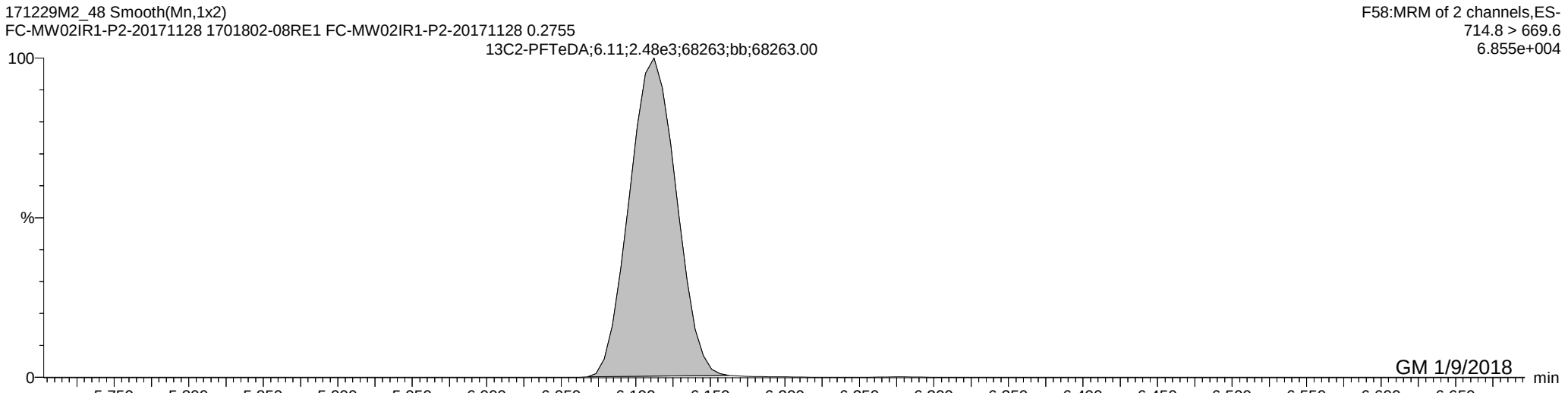
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_48, Date: 29-Dec-2017, Time: 22:18:51, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

PFTeDA



13C2-PFTeDA



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Vista Analytical Laboratory

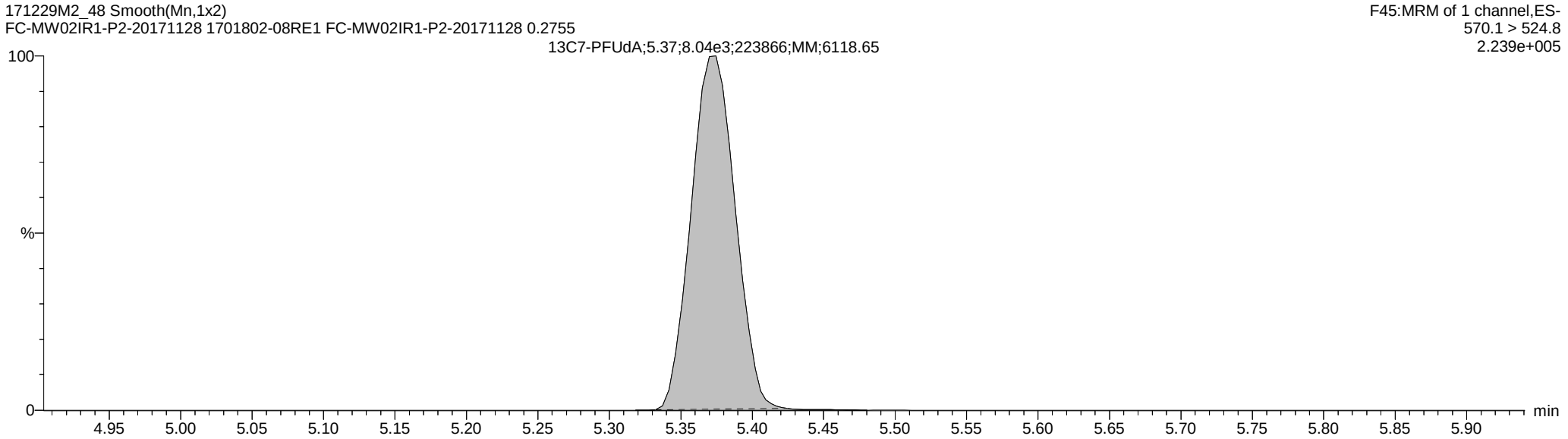
Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-48..qld

Last Altered: Tuesday, January 09, 2018 15:32:13 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:32:32 Pacific Standard Time

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

13C7-PFUdA



GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-56.qld

Last Altered: Tuesday, January 09, 2018 15:11:16 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:11:31 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_56, Date: 05-Jan-2018, Time: 11:13:10, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	1.81e1	7.96e2	0.263		2.70	2.59	0.285	0.7978	
2	4	PFHxA	313.2 > 268.9	8.41e2	1.84e3	0.263		3.12	3.08	2.28	4.6567	
3	5	PFHpA	363.0 > 318.9	4.96e2	4.51e3	0.263		3.75	3.69	1.37	3.4817	
4	6	L-PFHxS	398.9 > 79.6	3.24e1	6.21e2	0.263		3.92	3.84	0.652	1.3041	
5	9	L-PFOA	413 > 368.7	1.27e3	5.55e3	0.263		4.25	4.21	2.86	8.0354	
6	12	PFNA	463.0 > 418.8	4.78e3	5.68e3	0.263		4.70	4.64	10.5	27.8334	
7	14	L-PFOS	499 > 79.9	1.28e3	1.81e3	0.263		4.83	4.73	8.84	32.9987	
8	16	PFDA	513 > 468.8		4.90e3	0.263		5.05				
9	18	N-MeFOSAA	570.1 > 419		1.94e3	0.263		5.20				
10	19	N-EtFOSAA	584.2 > 419		2.98e3	0.263		5.42				
11	20	PFUdA	563.0 > 518.9	7.38e2	4.33e3	0.263		5.35	5.33	2.13	6.6632	
12	22	PFDoA	612.9 > 569.0		2.16e3	0.263		5.70				

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Vista Analytical Laboratory

Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\180104M1\180104M1-56.qld

Last Altered: Tuesday, January 09, 2018 15:11:16 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:11:42 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_56, Date: 05-Jan-2018, Time: 11:13:10, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	24	PFTrDA	662.9 > 618.9		1.17e3	0.263		5.95					
2	33	13C3-PFBS	302. > 98.8	7.96e2	6.18e3	0.263	0.106	2.70	2.59	1.61	57.7611	121.3	
3	34	13C2-PFHxA	315 > 269.8	1.84e3	6.18e3	0.263	0.633	3.20	3.08	3.73	22.4470	117.8	
4	35	13C4-PFHpA	367.2 > 321.8	4.51e3	6.18e3	0.263	0.641	3.80	3.69	9.13	54.2697	114.0	
5	36	18O2-PFHxS	403.0 > 102.6	6.21e2	1.62e3	0.263	0.334	3.95	3.84	4.78	54.5103	114.5	
6	37	13C2-6:2 FTS	429.1 > 408.9	1.32e3	5.60e3	0.263	0.228	4.26	4.15	2.94	49.1353	103.2	
7	38	13C2-PFOA	414.9 > 369.7	5.55e3	5.60e3	0.263	0.959	4.32	4.21	12.4	49.2337	103.4	
8	39	13C5-PFNA	468.2 > 422.9	5.68e3	6.53e3	0.263	0.830	4.75	4.64	10.9	49.8184	104.6	
9	40	13C8-PFOSA	506.1 > 77.7	1.12e3	5.09e3	0.263	0.262	4.81	4.70	2.75	39.8793	83.7	
10	41	13C8-PFOS	507.0 > 79.9	1.81e3	1.49e3	0.263	0.880	4.83	4.73	15.2	65.9083	138.4	
11	42	13C2-PFDA	515.1 > 469.9	4.90e3	3.05e3	0.263	0.995	5.11	5.01	20.1	76.8395	161.4	H
12	43	13C2-8:2 FTS	529.1 > 508.7	7.07e2	6.18e3	0.263	0.142	5.09	4.98	1.43	38.2786	80.4	
13	44	d3-N-MeFOSAA	573.3 > 419	1.94e3	5.09e3	0.263	0.376	5.26	5.16	4.77	48.3498	101.5	
14	45	d5-N-EtFOSAA	589.3 > 419	2.98e3	5.09e3	0.263	0.444	5.42	5.32	7.31	62.7843	131.8	
15	46	13C2-PFUdA	565 > 519.8	4.33e3	5.09e3	0.263	0.889	5.43	5.33	10.6	45.5127	95.6	
16	47	13C2-PFDoA	615.0 > 569.7	2.16e3	5.09e3	0.263	0.542	5.70	5.62	5.31	37.2929	78.3	
17	55	13C5-PFHxA	318 > 272.9	6.18e3	6.18e3	0.263	1.000	3.20	3.08	12.5	47.6190	100.0	
18	56	13C3-PFHxS	401.9 > 79.9	1.62e3	1.62e3	0.263	1.000	3.95	3.84	12.5	47.6190	100.0	
19	57	13C8-PFOA	421.3 > 376	5.60e3	5.60e3	0.263	1.000	4.32	4.21	12.5	47.6190	100.0	
20	58	13C9-PFNA	472.2 > 426.9	6.53e3	6.53e3	0.263	1.000	4.75	4.64	12.5	47.6190	100.0	
21	59	13C4-PFOS	503 > 79.9	1.49e3	1.49e3	0.263	1.000	4.83	4.72	12.5	47.6190	100.0	
22	60	13C6-PFDA	519.1 > 473.7	3.05e3	3.05e3	0.263	1.000	5.11	5.01	12.5	47.6190	100.0	
23	61	13C7-PFUdA	570.1 > 524.8	5.09e3	5.09e3	0.263	1.000	5.43	5.34	12.5	47.6190	100.0	
24	62	Total PFHxS	398.9 > 79.6	3.24e1	6.21e2	0.263		4.00		0.652	1.3041		
25	63	Total PFOA	413 > 368.7	1.27e3	5.55e3	0.263		4.30		2.86	8.0354		
26	64	Total PFOS	499 > 79.9	1.28e3	1.81e3	0.263		4.80		8.84	32.9987		
27	65	Total N-MeFOSAA	570.1 > 419	0.00e0	1.94e3	0.263		5.20		0.000			
28	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.98e3	0.263		5.40		0.000			

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Dataset: U:\Q4.PRO\results\180104M1\180104M1-56.qld

Last Altered: Tuesday, January 09, 2018 15:11:16 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:11:42 Pacific Standard Time

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Name: 180104M1_56, Date: 05-Jan-2018, Time: 11:13:10, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

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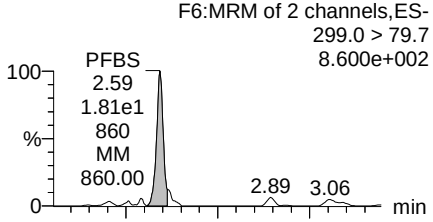

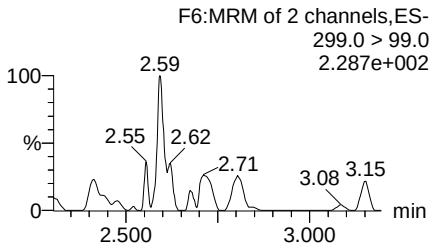

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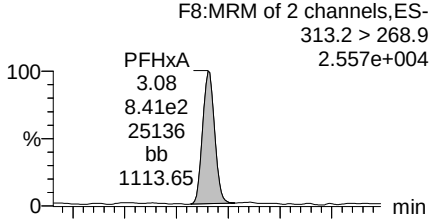

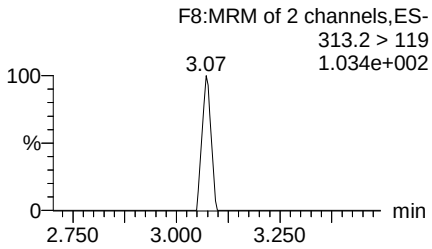

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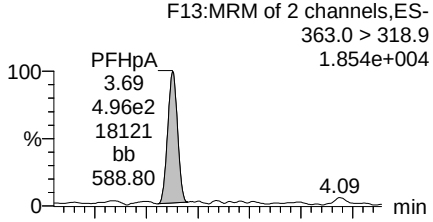

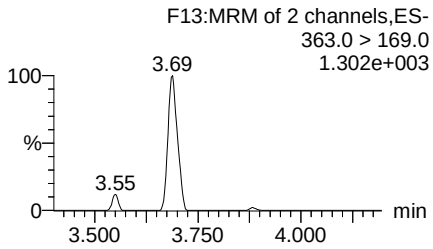

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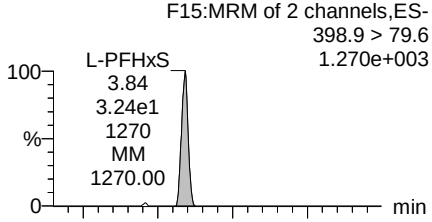

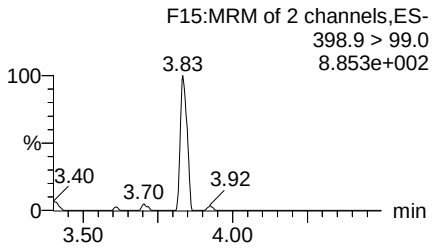

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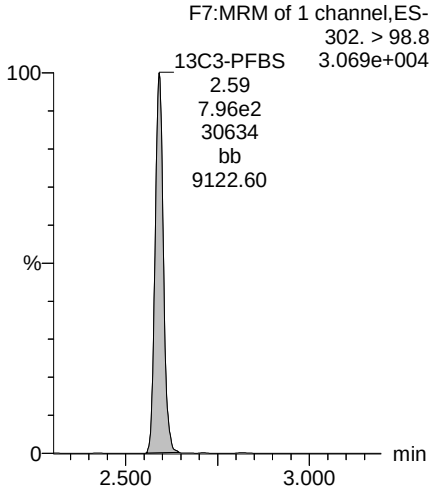

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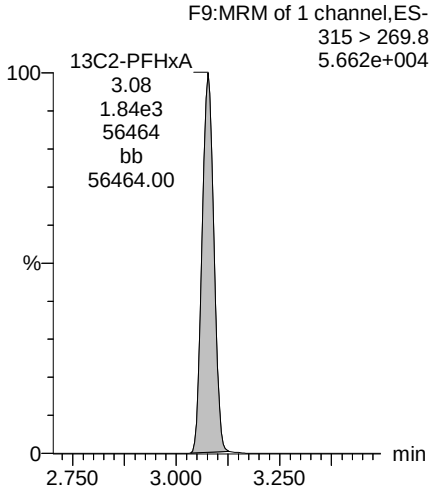

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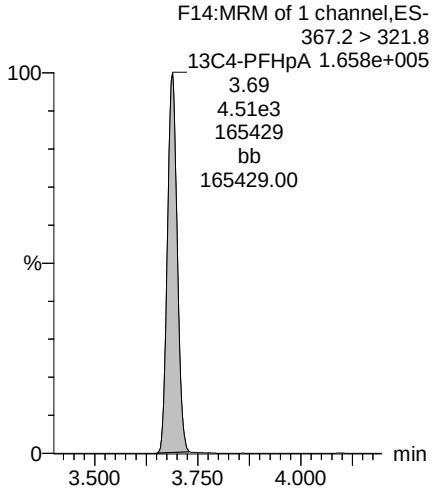

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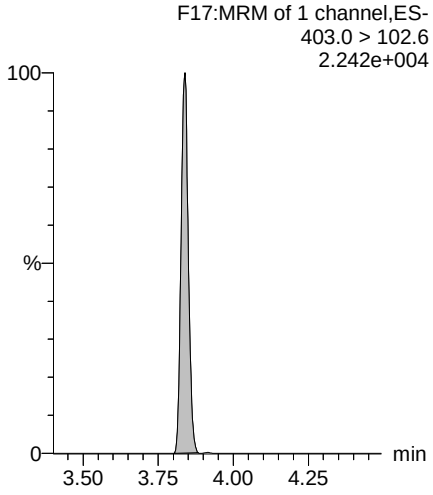

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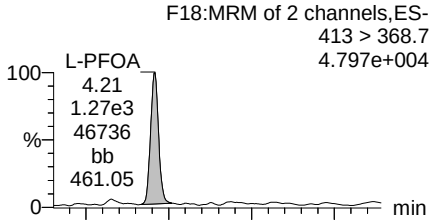
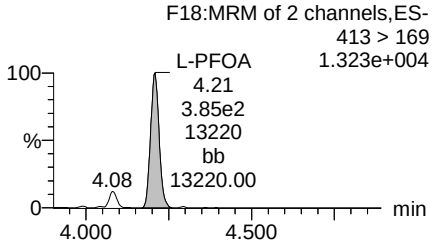
Name: 180104M1_56, Date: 05-Jan-2018, Time: 11:13:10, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

Total PFOA





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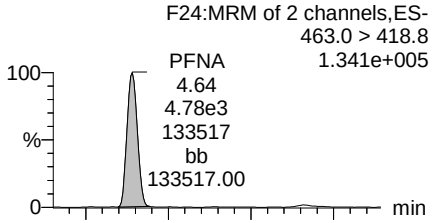

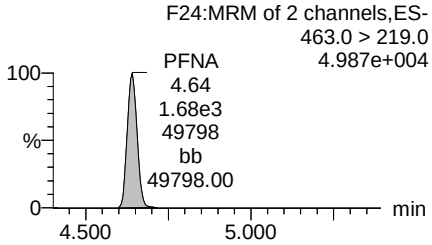

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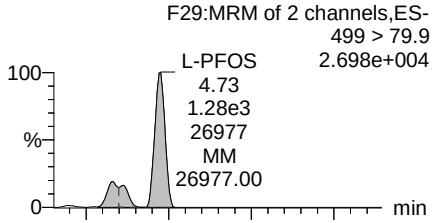

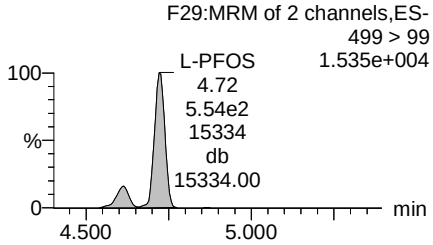

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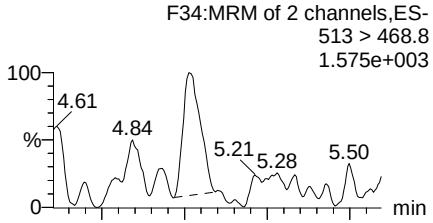

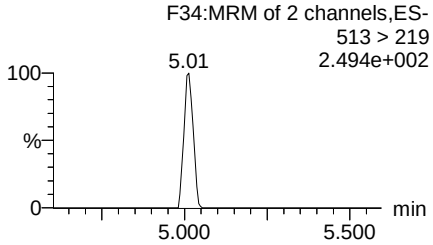

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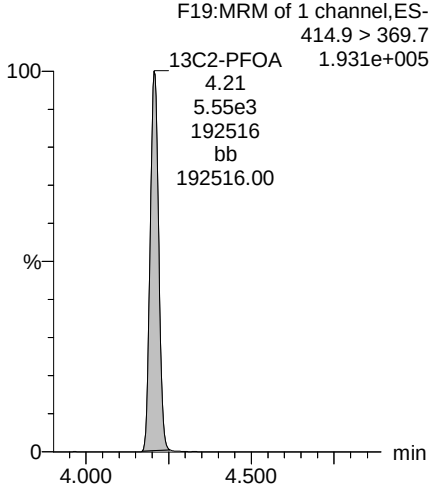

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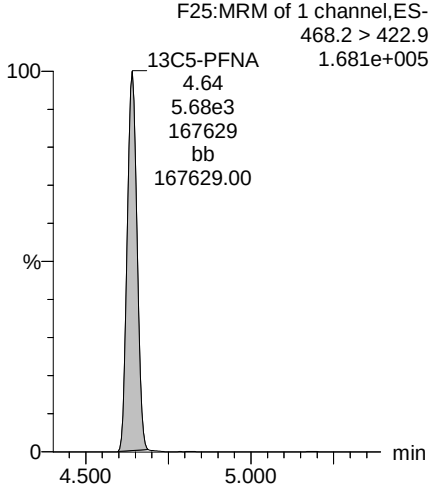

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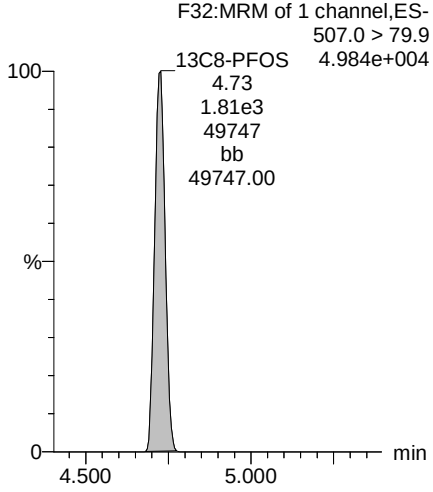

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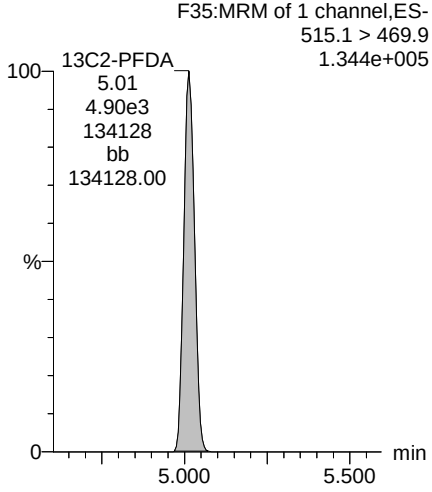

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Name: 180104M1_56, Date: 05-Jan-2018, Time: 11:13:10, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

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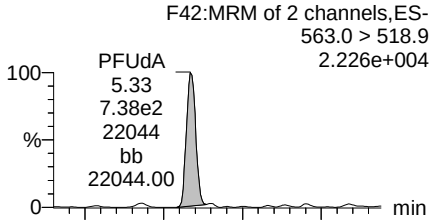

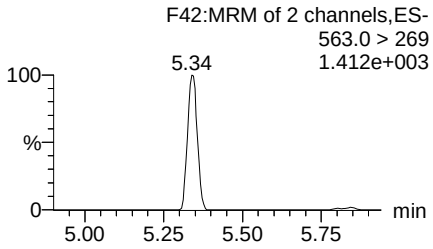

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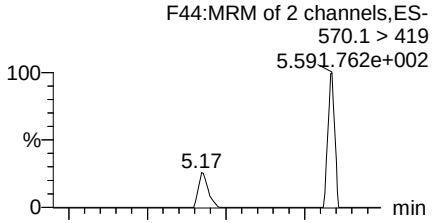

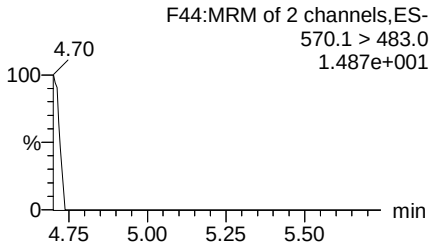

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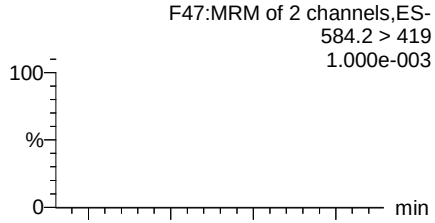
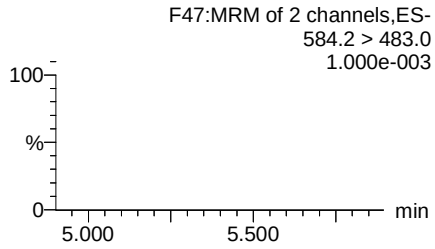
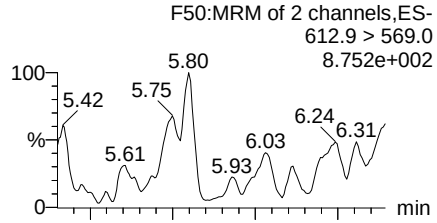
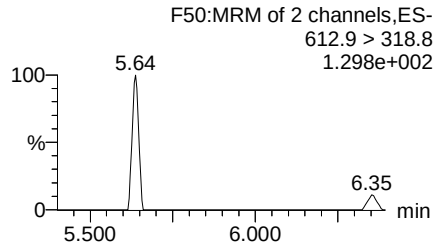




PFDoA





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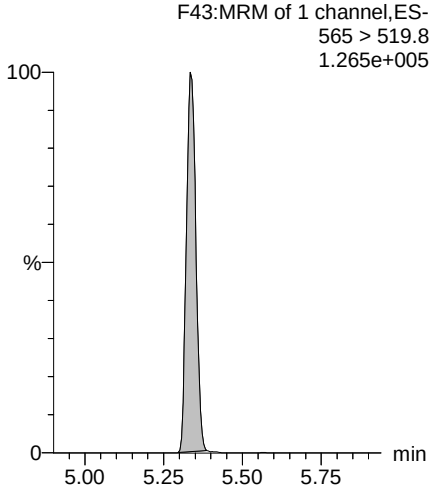

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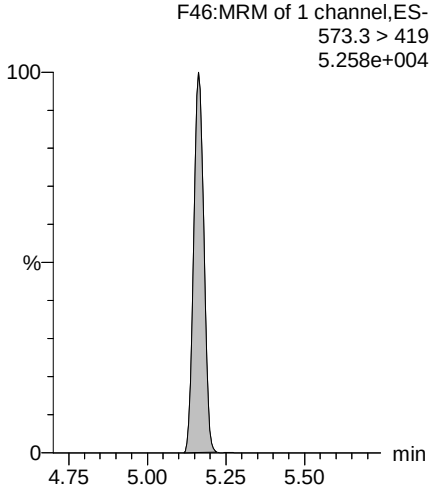

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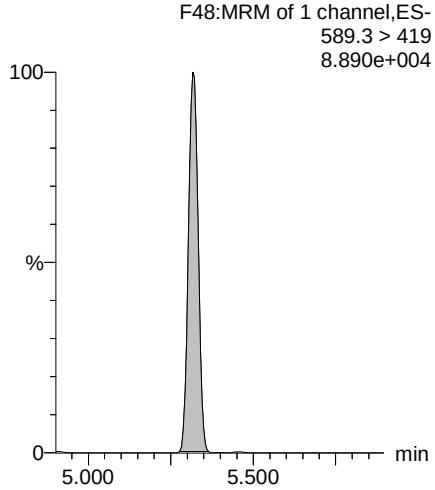

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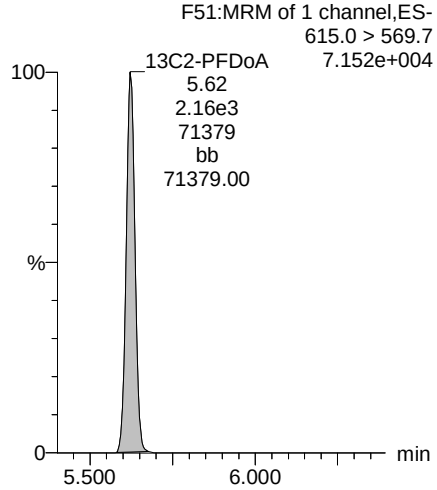

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Revd: MM 1/11/18

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Name: 180104M1_56, Date: 05-Jan-2018, Time: 11:13:10, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

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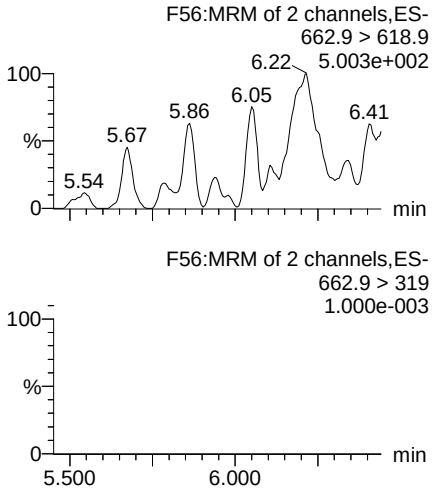

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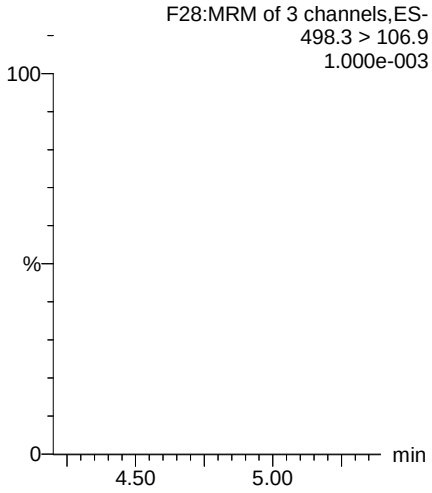

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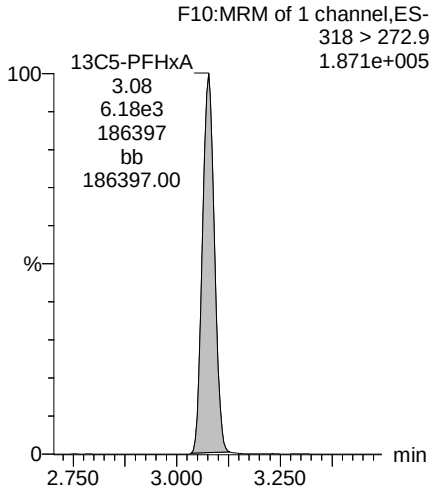

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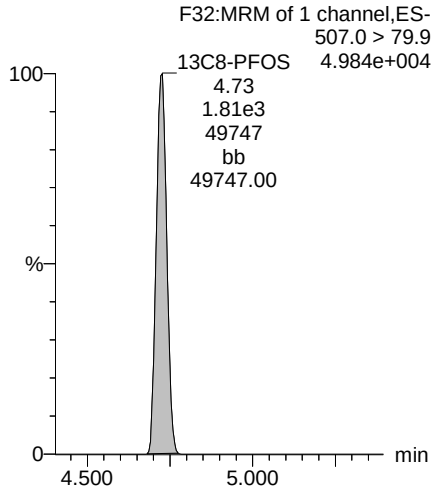

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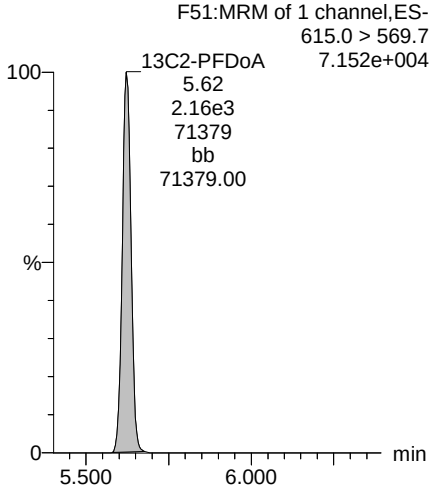

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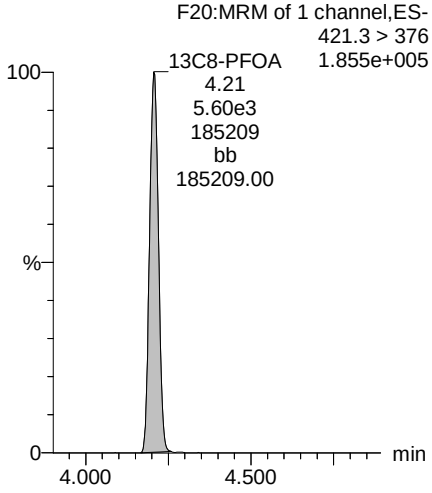

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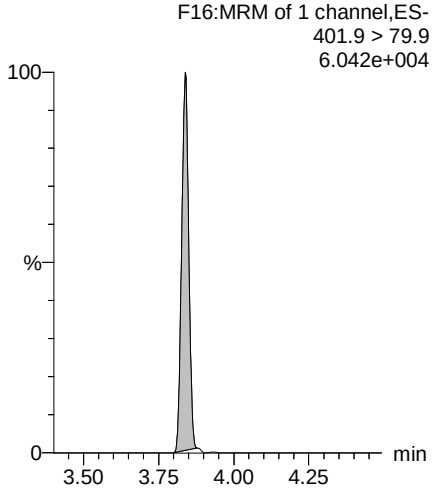

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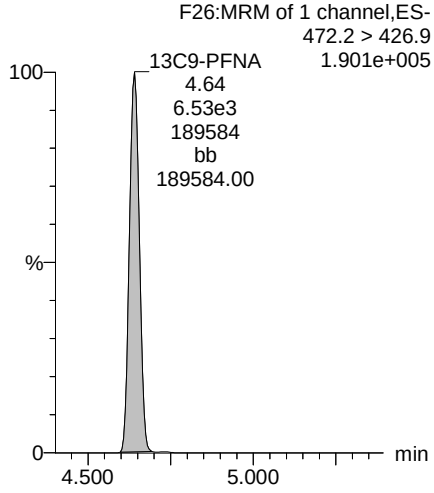

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Name: 180104M1_56, Date: 05-Jan-2018, Time: 11:13:10, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

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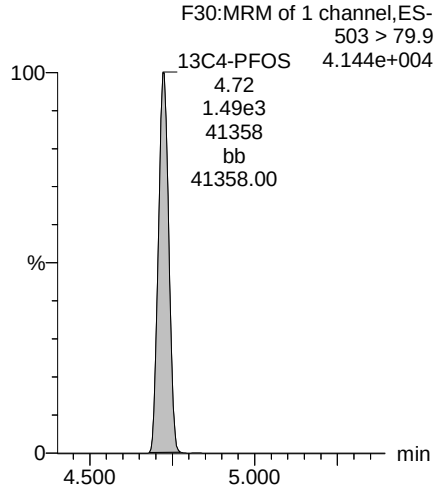

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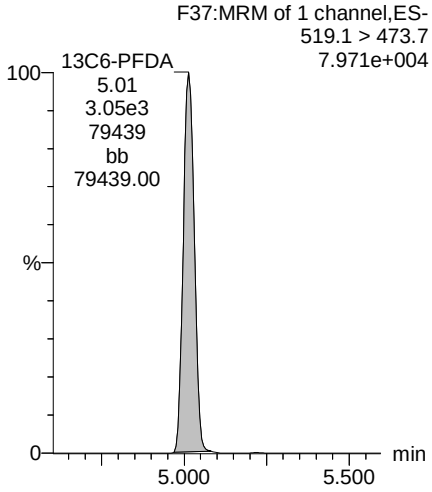

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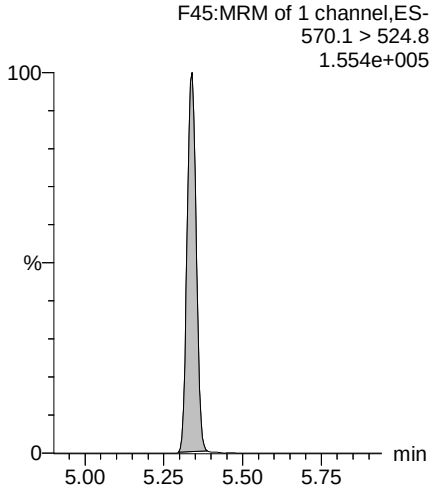

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Vista Analytical Laboratory

Revd: MM 1/11/18

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

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	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	25	PFTeDA	712.9 > 668.8		2.83e3		0.2625	6.16					
2	49	13C2-PFTeDA	714.8 > 669.6	2.83e3	9.20e3	0.196	0.2625	6.16	6.12	3.84	74.7	157.0	H
3	61	13C7-PFUdA	570.1 > 524.8	9.20e3	9.20e3	1.000	0.2625	5.43	5.38	12.5	47.6	100.0	

GM 1/9/2018

Vista Analytical Laboratory

Revd: MM 1/11/18

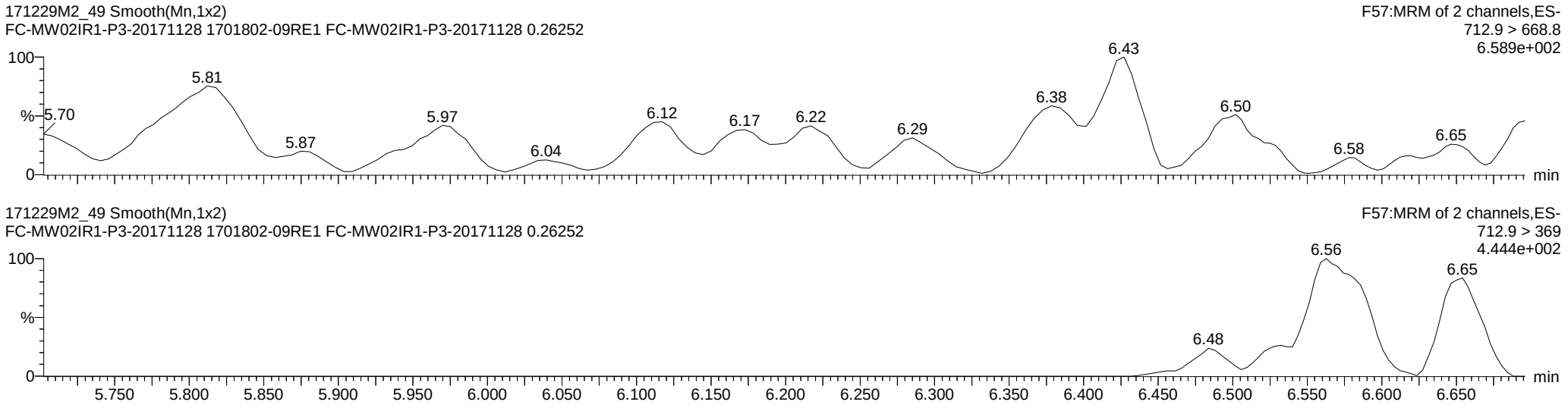
Dataset: U:\Q4.PRO\results\171229M2\171229M2-49.qld

Last Altered: Tuesday, January 09, 2018 15:33:40 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:33:58 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_49, Date: 29-Dec-2017, Time: 22:30:05, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

PFTeDA



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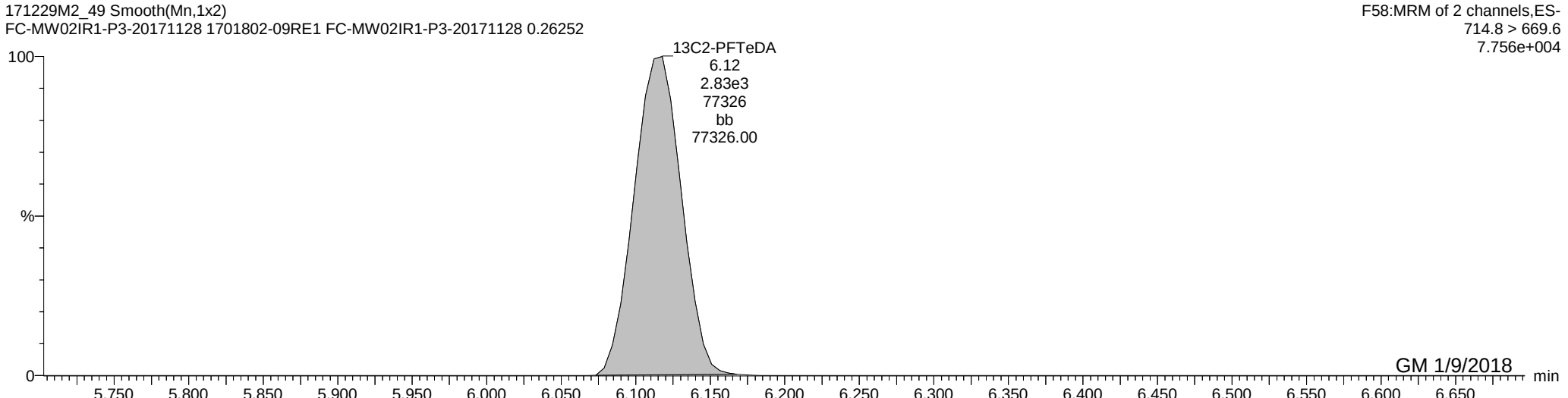


GM 1/9/2018

Vista Analytical Laboratory

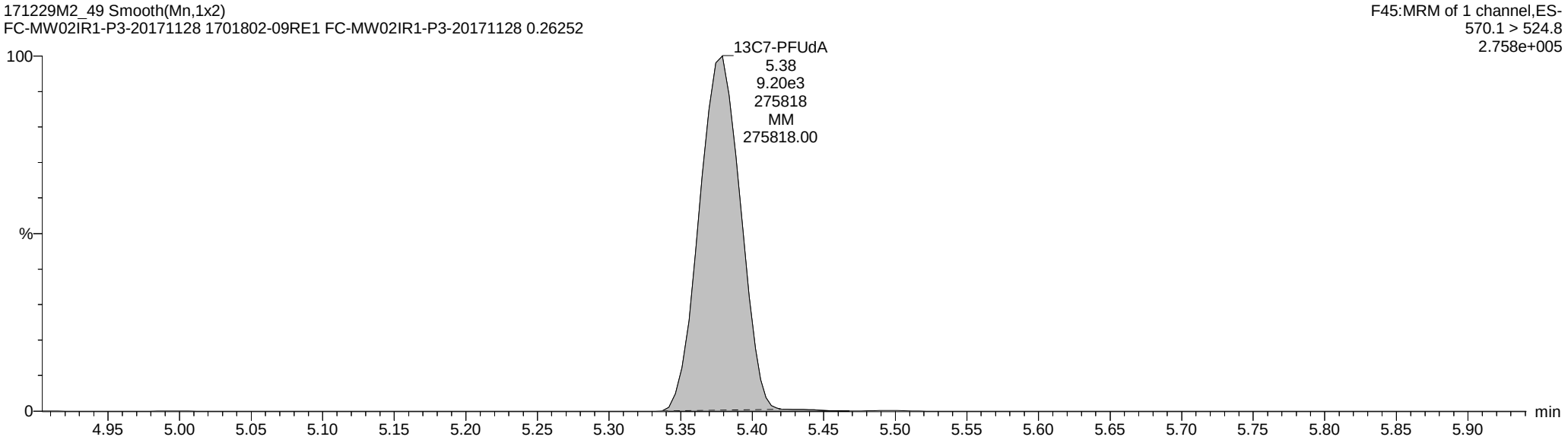
Revd: MM 1/11/18

Dataset: U:\Q4.PRO\results\171229M2\171229M2-49.qld

Last Altered: Tuesday, January 09, 2018 15:33:40 Pacific Standard Time
Printed: Tuesday, January 09, 2018 15:33:58 Pacific Standard Time

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

13C7-PFUdA



GM 1/9/2018

Vista Analytical Laboratory

Rev'd: MM 12/21/17

Dataset: U:\Q4.PRO\results\171215M2\171215M2-8.qld

Last Altered: Monday, December 18, 2017 14:37:13 Pacific Standard Time
Printed: Monday, December 18, 2017 15:06:54 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 17 Dec 2017 10:49:22
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_8, Date: 15-Dec-2017, Time: 17:51:28, ID: B7L0027-BLK1 Method Blank 0.25, 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		1.42e3	0.250		2.70				
2	4	PFHxA	313.2 > 268.9		4.17e3	0.250		3.18				
3	5	PFHpA	363.0 > 318.9		7.46e3	0.250		3.80				
4	6	L-PFHxS	398.9 > 79.6	9.31e0	1.08e3	0.250		4.00	3.89	0.108	0.431	
5	9	L-PFOA	413 > 368.7		9.92e3	0.250		4.33				
6	12	PFNA	463.0 > 418.8		8.75e3	0.250		4.78				
7	14	L-PFOS	499 > 79.9		3.39e3	0.250		4.83				
8	16	PFDA	513 > 468.8		8.35e3	0.250		5.12				
9	18	N-MeFOSAA	570.1 > 419		2.98e3	0.250		5.25				
10	19	N-EtFOSAA	584.2 > 419		3.22e3	0.250		5.45				
11	20	PFUdA	563.0 > 518.9		8.67e3	0.250		5.44				
12	22	PFDoA	612.9 > 569.0		3.90e3	0.250		5.75				

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Vista Analytical Laboratory

Rev'd: MM 12/21/17

Dataset: U:\Q4.PRO\results\171215M2\171215M2-8.qld

Last Altered: Monday, December 18, 2017 14:37:13 Pacific Standard Time
Printed: Monday, December 18, 2017 15:07:05 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_8, Date: 15-Dec-2017, Time: 17:51:28, ID: B7L0027-BLK1 Method Blank 0.25, 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		3.90e3	0.250		5.97				
2	25	PFTeDA	712.9 > 668.8		4.08e3	0.250		6.20				
3	33	13C3-PFBS	302. > 98.8	1.42e3	1.39e4	0.250	0.124	2.70	2.62	1.28	41.147	82.3
4	34	13C2-PFHxA	315 > 269.8	4.17e3	1.39e4	0.250	0.897	3.18	3.11	3.74	16.704	83.5
5	35	13C4-PFHpA	367.2 > 321.8	7.46e3	1.39e4	0.250	0.689	3.80	3.74	6.70	38.875	77.7
6	36	18O2-PFHxS	403.0 > 102.6	1.08e3	2.99e3	0.250	0.530	4.00	3.89	4.53	34.156	68.3
7	37	13C2-6:2 FTS	429.1 > 408.9	2.25e3	1.13e4	0.250	0.331	4.26	4.21	2.48	30.005	60.0
8	38	13C2-PFOA	414.9 > 369.7	9.92e3	1.13e4	0.250	1.316	4.32	4.26	10.9	33.255	66.5
9	39	13C5-PFNA	468.2 > 422.9	8.75e3	1.35e4	0.250	1.109	4.78	4.70	8.12	29.272	58.5
10	40	13C8-PFOSA	506.1 > 77.7	1.60e3	9.68e3	0.250	0.487	4.81	4.76	2.07	17.020	34.0
11	41	13C8-PFOS	507.0 > 79.9	3.39e3	3.64e3	0.250	1.163	4.83	4.78	11.6	40.059	80.1
12	42	13C2-PFDA	515.1 > 469.9	8.35e3	8.02e3	0.250	1.694	5.12	5.07	13.0	30.751	61.5
13	43	13C2-8:2 FTS	529.1 > 508.7	1.22e3	1.39e4	0.250	0.141	5.09	5.04	1.09	30.988	62.0
14	44	d3-N-MeFOSAA	573.3 > 419	2.98e3	9.68e3	0.250	0.530	5.25	5.22	3.84	29.013	58.0
15	45	d5-N-EtFOSAA	589.3 > 419	3.22e3	9.68e3	0.250	0.541	5.45	5.38	4.15	30.740	61.5
16	46	13C2-PFUdA	565 > 519.8	8.67e3	9.68e3	0.250	1.351	5.44	5.40	11.2	33.138	66.3
17	47	13C2-PFDoA	615.0 > 569.7	3.90e3	9.68e3	0.250	0.765	5.75	5.68	5.04	26.353	52.7
18	48	d3-N-MeFOSA	515.2 > 168.9		9.68e3	0.250	0.002	5.80				
19	49	13C2-PFTeDA	714.8 > 669.6	4.08e3	9.68e3	0.250	0.771	6.20	6.13	5.26	27.302	54.6
20	55	13C5-PFHxA	318 > 272.9	1.39e4	1.39e4	0.250	1.000	3.18	3.12	12.5	50.000	100.0
21	56	13C3-PFHxS	401.9 > 79.9	2.99e3	2.99e3	0.250	1.000	4.00	3.89	12.5	50.000	100.0
22	57	13C8-PFOA	421.3 > 376	1.13e4	1.13e4	0.250	1.000	4.32	4.26	12.5	50.000	100.0
23	58	13C9-PFNA	472.2 > 426.9	1.35e4	1.35e4	0.250	1.000	4.78	4.70	12.5	50.000	100.0
24	59	13C4-PFOS	503 > 79.9	3.64e3	3.64e3	0.250	1.000	4.83	4.78	12.5	50.000	100.0
25	60	13C6-PFDA	519.1 > 473.7	8.02e3	8.02e3	0.250	1.000	5.12	5.07	12.5	50.000	100.0
26	61	13C7-PFUdA	570.1 > 524.8	9.68e3	9.68e3	0.250	1.000	5.44	5.39	12.5	50.000	100.0
27	62	Total PFHxS	398.9 > 79.6	9.31e0	1.08e3	0.250		4.00		0.108	0.431	
28	63	Total PFOA	413 > 368.7	0.00e0	9.92e3	0.250		4.32		0.000		
29	64	Total PFOS	499 > 79.9	0.00e0	3.39e3	0.250		4.83		0.000		
30	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.98e3	0.250		5.25		0.000		
31	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.22e3	0.250		5.45		0.000		

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Vista Analytical Laboratory

Rev'd: MM 12/21/17

Dataset: U:\Q4.PRO\results\171215M2\171215M2-8.qld

Last Altered: Monday, December 18, 2017 14:37:13 Pacific Standard Time
Printed: Monday, December 18, 2017 15:07:05 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_8, Date: 15-Dec-2017, Time: 17:51:28, ID: B7L0027-BLK1 Method Blank 0.25, Description: Method Blank

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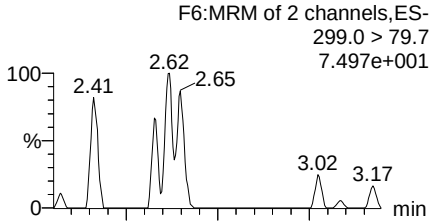

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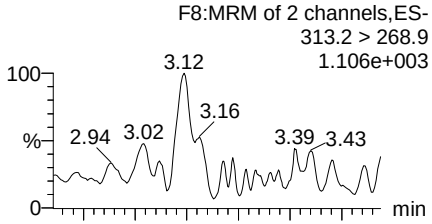

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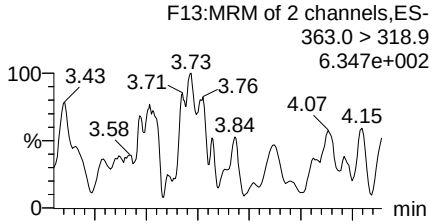

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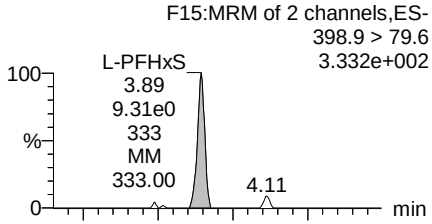

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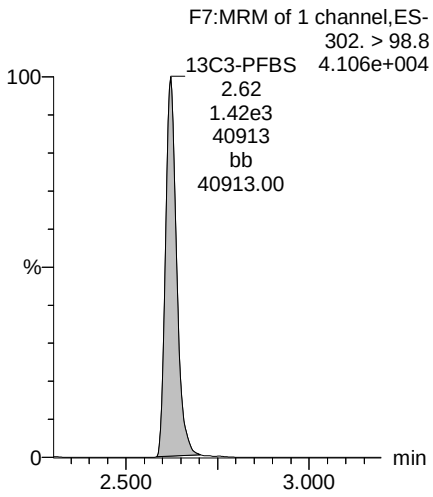

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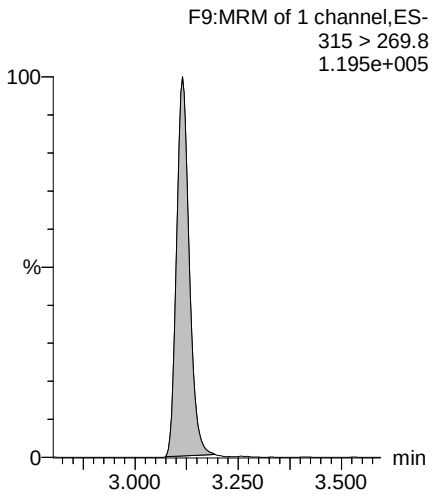

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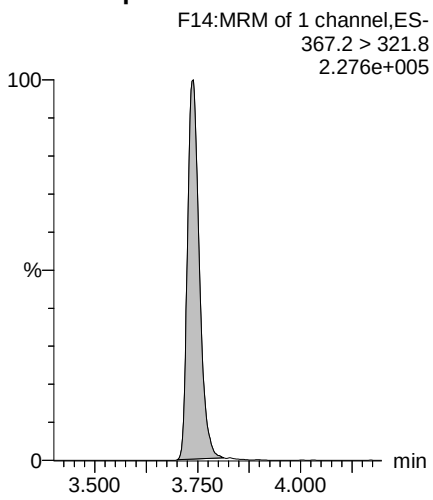

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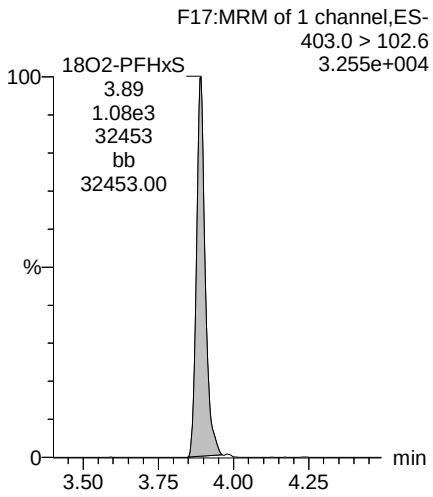

GM 12/18/17

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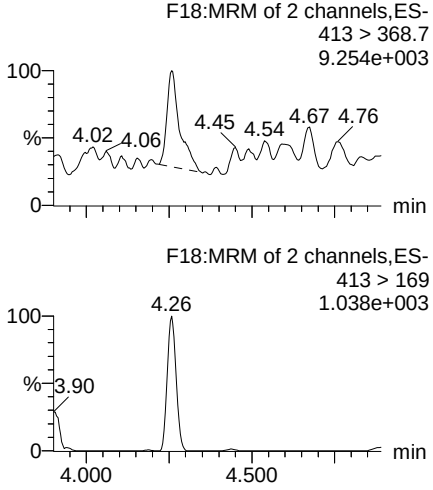

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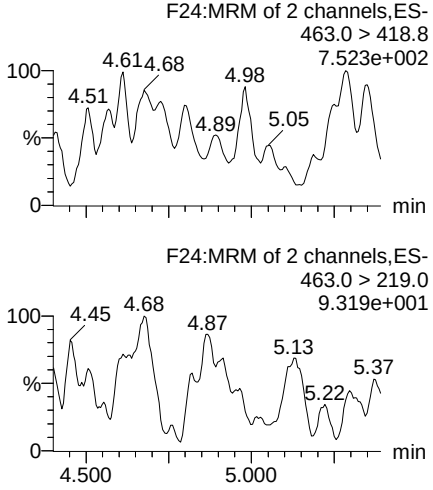

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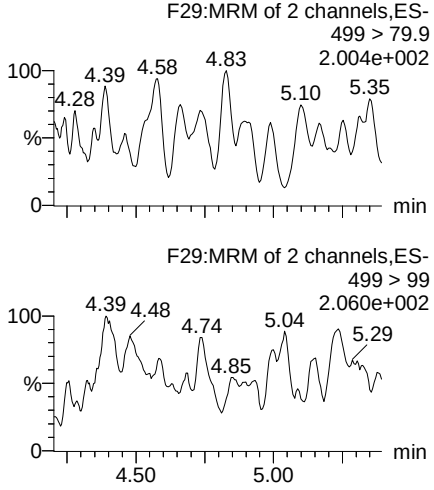

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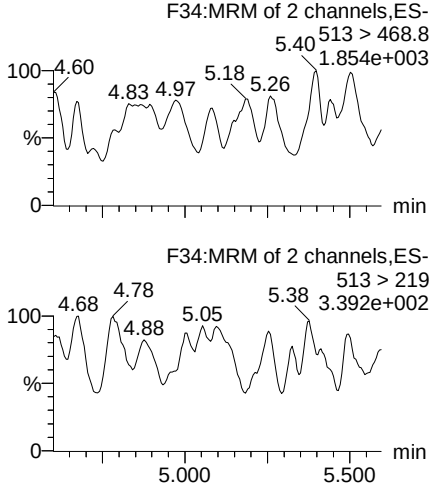

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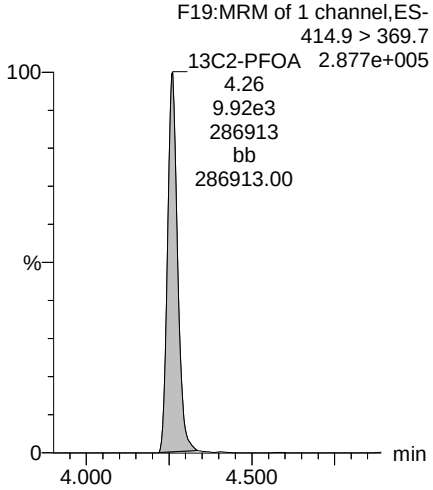

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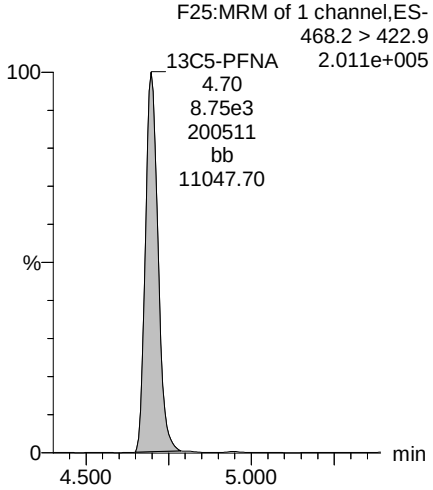

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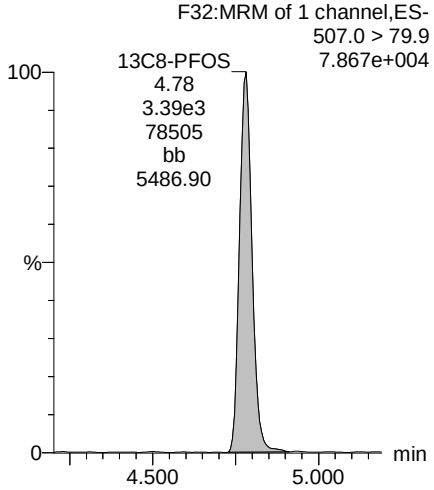

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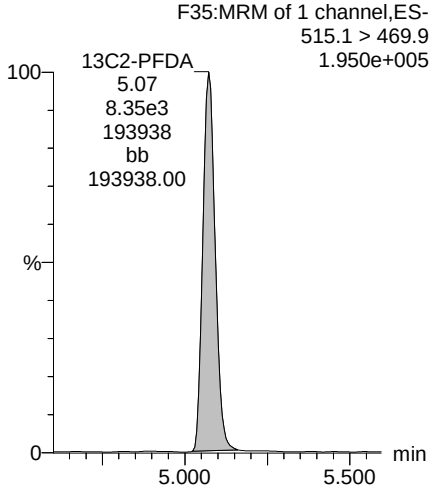

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Vista Analytical Laboratory

Rev'd: MM 12/21/17

Dataset: U:\Q4.PRO\results\171215M2\171215M2-8.qld

Last Altered: Monday, December 18, 2017 14:37:13 Pacific Standard Time
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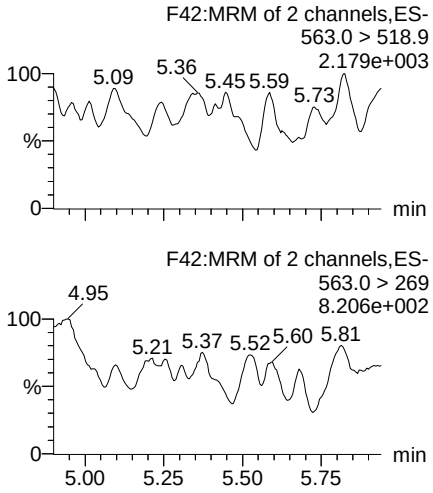

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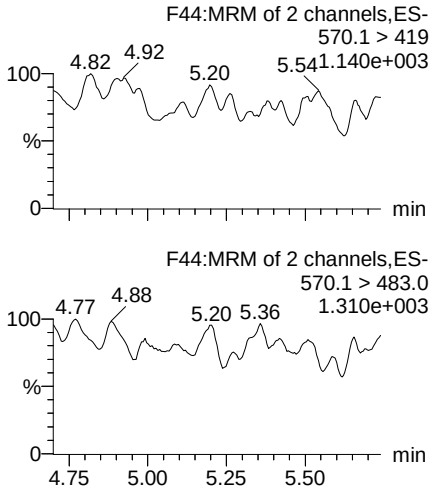

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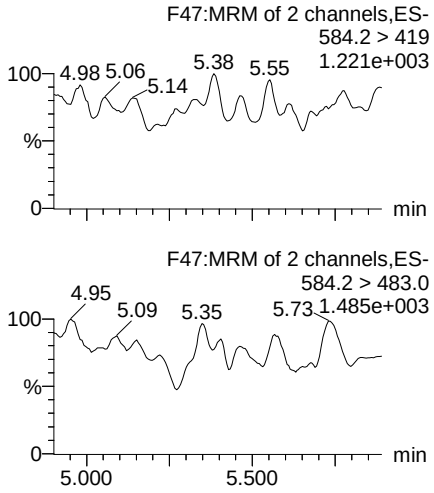

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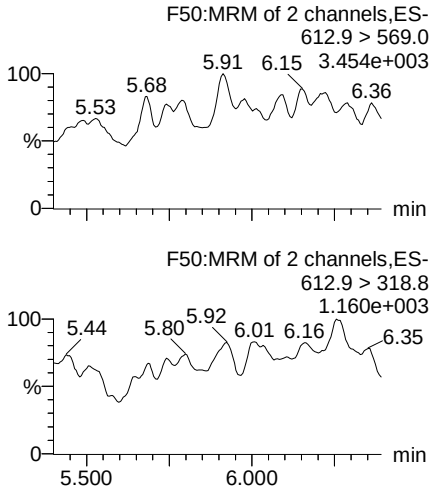

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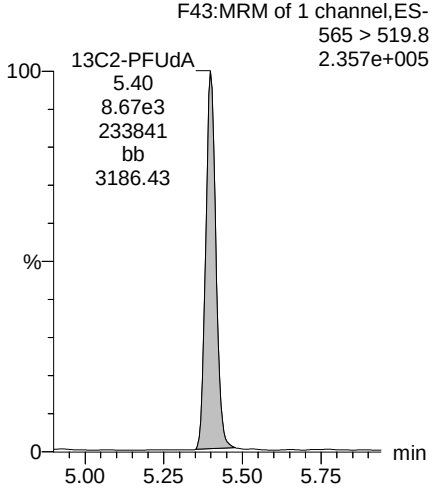

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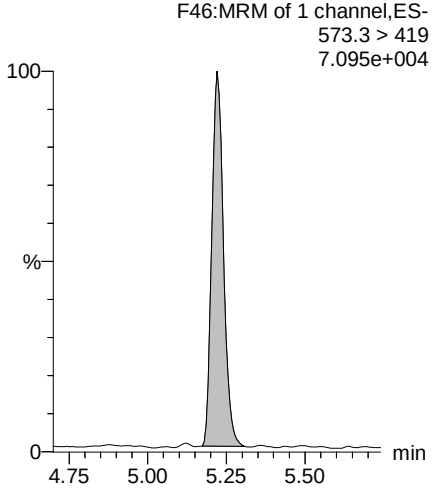

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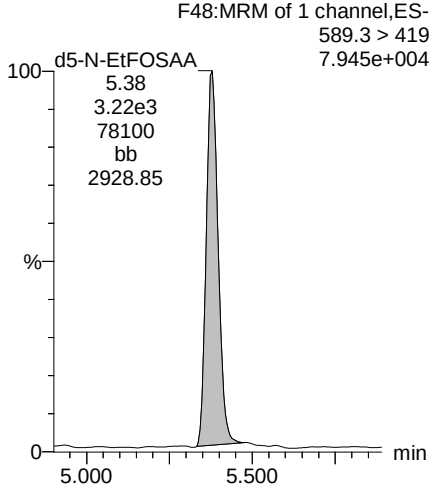

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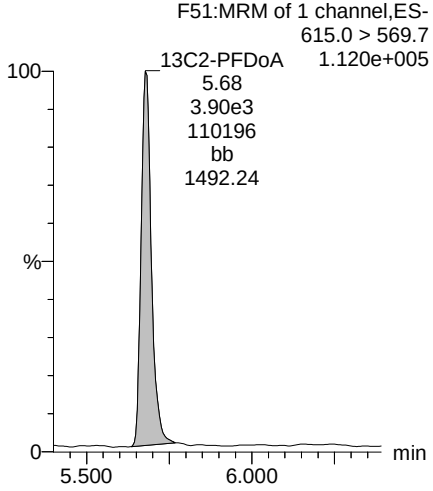

GM 12/18/17

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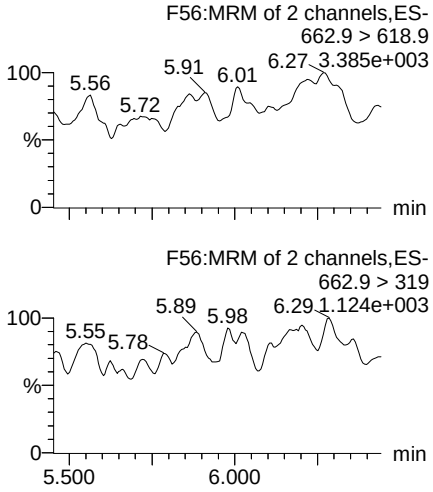
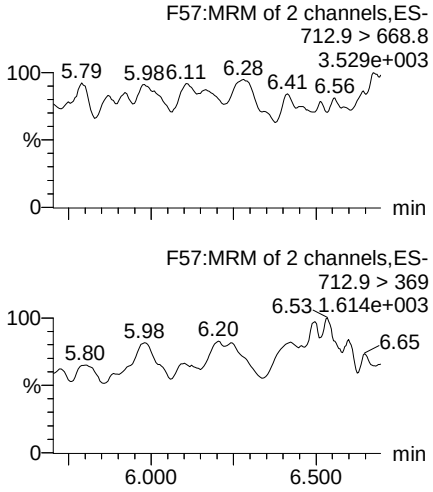
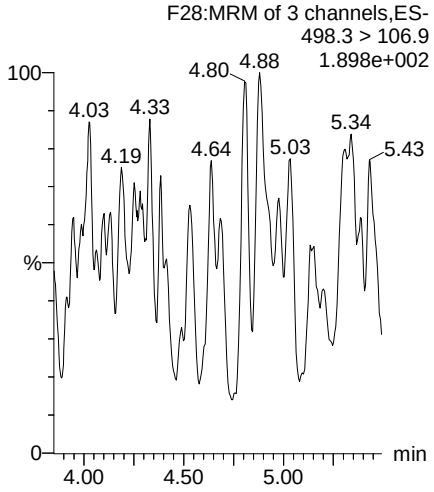


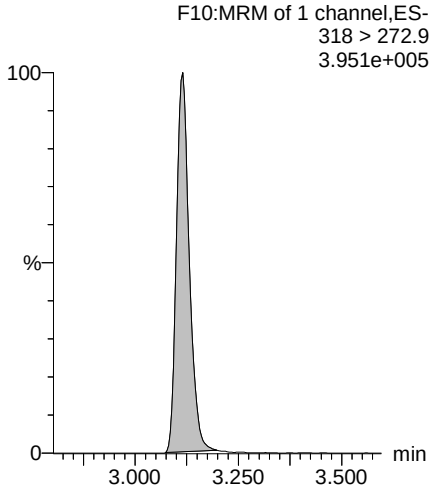
PFTeDA



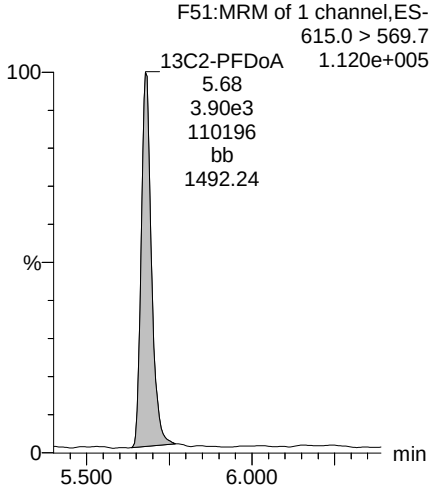
TCDA



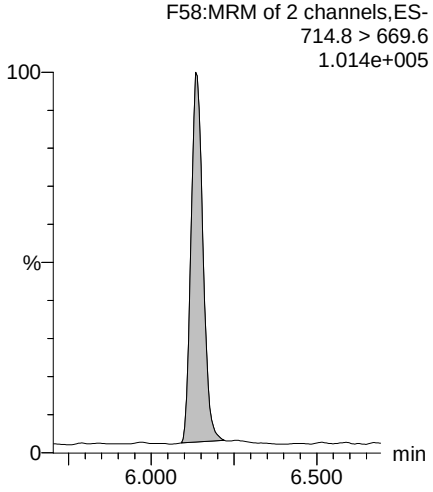
13C5-PFHxA



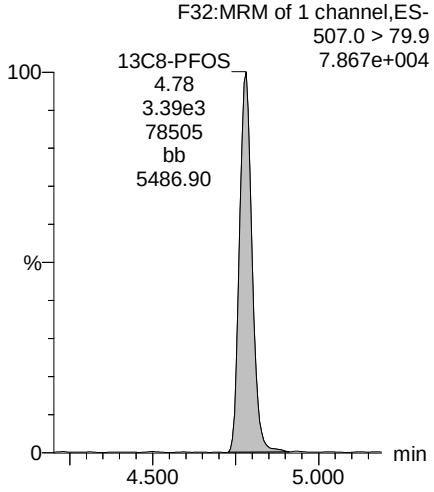
13C2-PFDoA



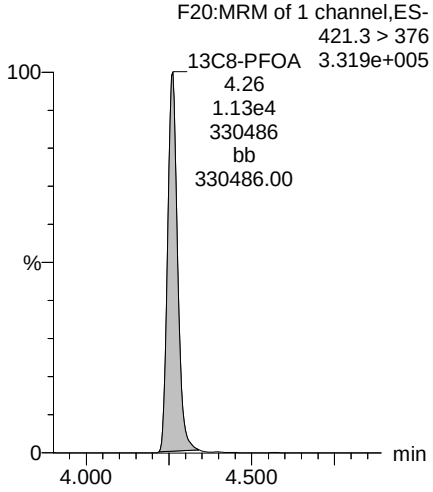
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



GM 12/18/17

Vista Analytical Laboratory

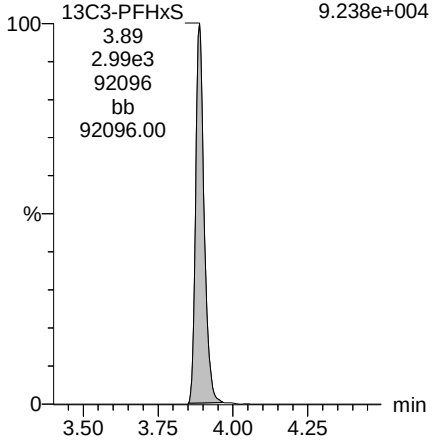
Rev'd: MM 12/21/17

Dataset: U:\Q4.PRO\results\171215M2\171215M2-8.qld

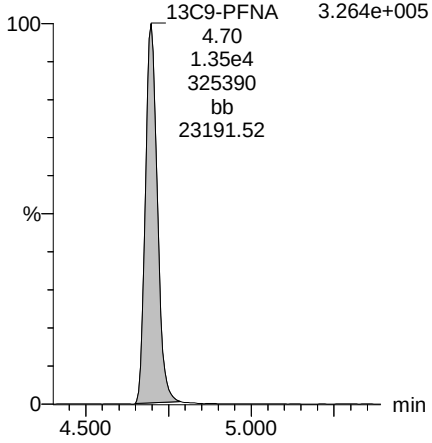
Last Altered: Monday, December 18, 2017 14:37:13 Pacific Standard Time
Printed: Monday, December 18, 2017 15:07:05 Pacific Standard Time

Name: 171215M2_8, Date: 15-Dec-2017, Time: 17:51:28, ID: B7L0027-BLK1 Method Blank 0.25, Description: Method Blank

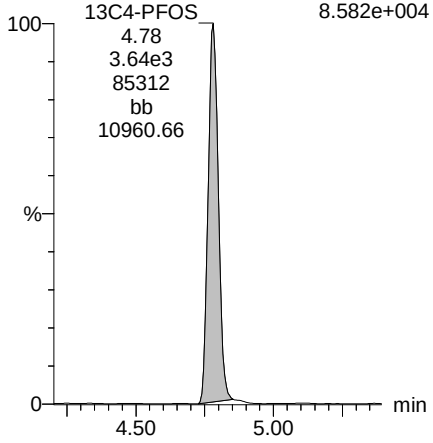
13C3-PFHxS



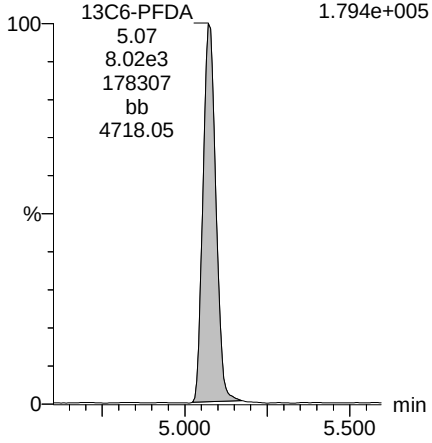
13C9-PFNA



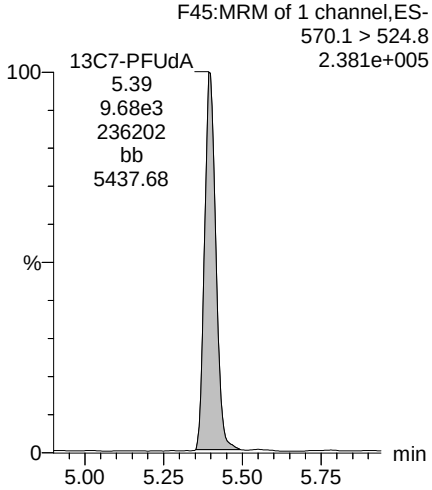
13C4-PFOS



13C6-PFDA



13C7-PFUdA



GM 12/18/17

Vista Analytical Laboratory

Rev'd:MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-5.qld

Last Altered: Tuesday, January 02, 2018 10:20:56 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:21:39 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 19 Dec 2017 14:18:19
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_5, Date: 15-Dec-2017, Time: 17:17:56, ID: B7L0027-BS1 OPR 0.25, 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	2.40e3	9.72e2	0.250		2.70	2.62	30.9	60.7509	151.9
2	4	PFHxA	313.2 > 268.9	1.11e4	2.49e3	0.250		3.18	3.11	22.4	61.4971	153.7
3	5	PFHpA	363.0 > 318.9	7.40e3	5.09e3	0.250		3.80	3.74	18.2	54.5692	136.4
4	6	L-PFHxS	398.9 > 79.6	2.01e3	8.10e2	0.250		4.00	3.89	31.1	64.2792	160.7
5	9	L-PFOA	413 > 368.7	7.91e3	6.74e3	0.250		4.33	4.26	14.7	63.6813	159.2
6	12	PFNA	463.0 > 418.8	7.07e3	6.14e3	0.250		4.78	4.70	14.4	46.1249	115.3
7	14	L-PFOS	499 > 79.9	2.30e3	2.12e3	0.250		4.83	4.78	13.5	47.9550	119.9
8	16	PFDA	513 > 468.8	7.79e3	5.30e3	0.250		5.12	5.07	18.3	66.1699	165.4
9	18	N-MeFOSAA	570.1 > 419	3.87e3	2.02e3	0.250		5.25	5.23	24.0	68.0278	170.1
10	19	N-EtFOSAA	584.2 > 419	2.69e3	2.32e3	0.250		5.45	5.39	14.5	54.6052	136.5
11	20	PFUdA	563.0 > 518.9	6.83e3	5.26e3	0.250		5.44	5.40	16.2	66.0499	165.1
12	22	PFDoA	612.9 > 569.0	8.41e3	3.40e3	0.250		5.75	5.68	30.9	58.7302	146.8

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Vista Analytical Laboratory

Rev'd:MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-5.qld

Last Altered: Tuesday, January 02, 2018 10:20:56 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:21:56 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 19 Dec 2017 14:18:19
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_5, Date: 15-Dec-2017, Time: 17:17:56, ID: B7L0027-BS1 OPR 0.25, 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	8.08e3	3.40e3	0.250		5.97	5.93	29.7	55.3627	138.4
2	25	PFTeDA	712.9 > 668.8	5.70e3	2.96e3	0.250		6.20	6.14	24.1	55.5649	138.9
3	33	13C3-PFBS	302. > 98.8	9.72e2	1.32e4	0.250	0.124	2.70	2.62	0.921	29.6456	59.3
4	34	13C2-PFHxA	315 > 269.8	2.49e3	1.32e4	0.250	0.897	3.18	3.11	2.36	10.5445	52.7
5	35	13C4-PFHpA	367.2 > 321.8	5.09e3	1.32e4	0.250	0.689	3.80	3.74	4.83	28.0064	56.0
6	36	18O2-PFHxS	403.0 > 102.6	8.10e2	2.70e3	0.250	0.530	4.00	3.89	3.76	28.3343	56.7
7	37	13C2-6:2 FTS	429.1 > 408.9	1.60e3	9.40e3	0.250	0.331	4.26	4.20	2.13	25.7794	51.6
8	38	13C2-PFOA	414.9 > 369.7	6.74e3	9.40e3	0.250	1.316	4.32	4.26	8.96	27.2409	54.5
9	39	13C5-PFNA	468.2 > 422.9	6.14e3	1.19e4	0.250	1.109	4.78	4.70	6.43	23.1923	46.4
10	40	13C8-PFOSA	506.1 > 77.7	1.26e3	1.03e4	0.250	0.487	4.81	4.76	1.53	12.6066	25.2
11	41	13C8-PFOS	507.0 > 79.9	2.12e3	2.99e3	0.250	1.163	4.83	4.78	8.88	30.5451	61.1
12	42	13C2-PFDA	515.1 > 469.9	5.30e3	6.75e3	0.250	1.694	5.12	5.07	9.82	23.1894	46.4
13	43	13C2-8:2 FTS	529.1 > 508.7	8.08e2	1.32e4	0.250	0.141	5.09	5.05	0.766	21.7278	43.5
14	44	d3-N-MeFOSAA	573.3 > 419	2.02e3	1.03e4	0.250	0.530	5.25	5.23	2.46	18.5708	37.1
15	45	d5-N-EtFOSAA	589.3 > 419	2.32e3	1.03e4	0.250	0.541	5.45	5.38	2.82	20.8924	41.8
16	46	13C2-PFUdA	565 > 519.8	5.26e3	1.03e4	0.250	1.351	5.44	5.40	6.41	18.9821	38.0
17	47	13C2-PFDoA	615.0 > 569.7	3.40e3	1.03e4	0.250	0.765	5.75	5.68	4.15	21.6946	43.4
18	49	13C2-PFTeDA	714.8 > 669.6	2.96e3	1.03e4	0.250	0.771	6.20	6.14	3.61	18.7405	37.5
19	55	13C5-PFHxA	318 > 272.9	1.32e4	1.32e4	0.250	1.000	3.18	3.11	12.5	50.0000	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.70e3	2.70e3	0.250	1.000	4.00	3.89	12.5	50.0000	100.0
21	57	13C8-PFOA	421.3 > 376	9.40e3	9.40e3	0.250	1.000	4.32	4.26	12.5	50.0000	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.19e4	1.19e4	0.250	1.000	4.78	4.70	12.5	50.0000	100.0
23	59	13C4-PFOS	503 > 79.9	2.99e3	2.99e3	0.250	1.000	4.83	4.78	12.5	50.0000	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.75e3	6.75e3	0.250	1.000	5.12	5.08	12.5	50.0000	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.03e4	1.03e4	0.250	1.000	5.44	5.40	12.5	50.0000	100.0
26	62	Total PFHxS	398.9 > 79.6	2.01e3	8.10e2	0.250		4.00		31.1	64.2792	
27	63	Total PFOA	413 > 368.7	7.91e3	6.74e3	0.250		4.32		14.7	63.6813	
28	64	Total PFOS	499 > 79.9	2.30e3	2.12e3	0.250		4.83		13.5	47.9550	
29	65	Total N-MeFOSAA	570.1 > 419	3.87e3	2.02e3	0.250		5.25		24.0	68.0278	
30	66	Total N-EtFOSAA	584.2 > 419	2.69e3	2.32e3	0.250		5.45		14.5	54.6052	

ANP 1/2/2018

Vista Analytical Laboratory

Rev'd:MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-5.qld

Last Altered: Tuesday, January 02, 2018 10:20:56 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:21:56 Pacific Standard Time

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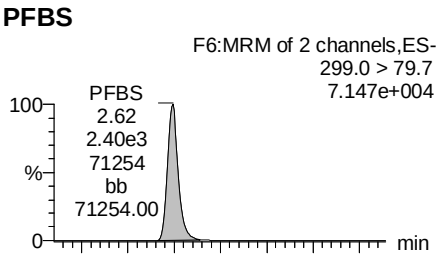
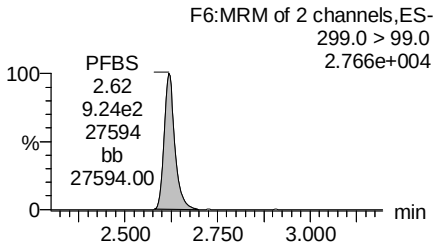
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_5, Date: 15-Dec-2017, Time: 17:17:56, ID: B7L0027-BS1 OPR 0.25, Description: OPR

PFBS





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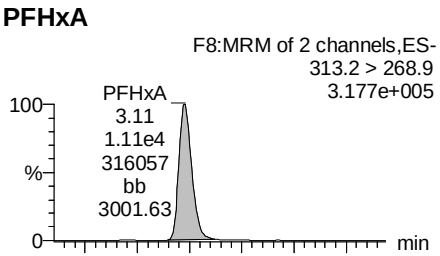

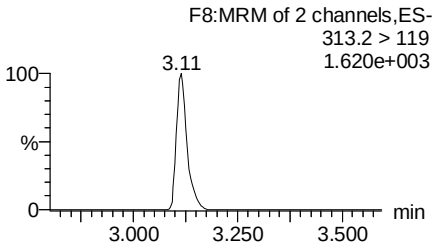

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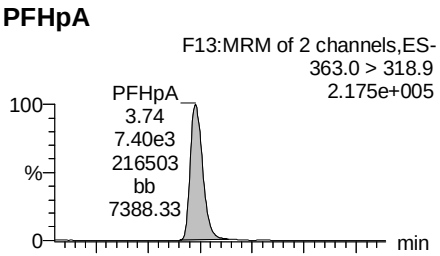

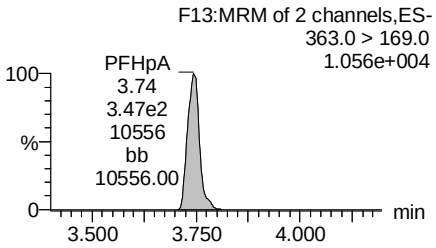

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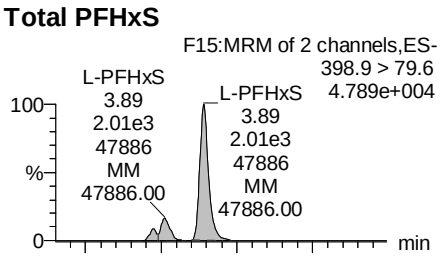

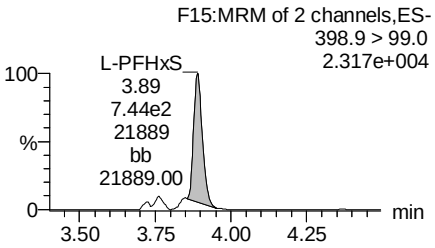

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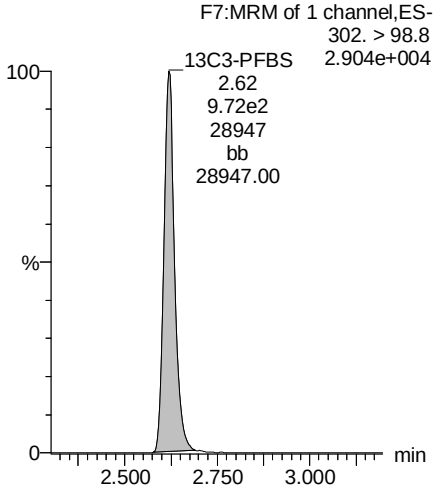

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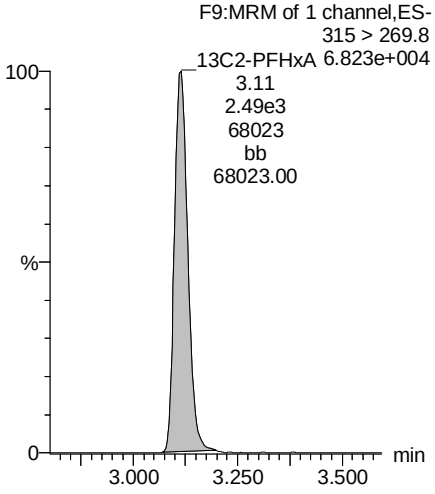

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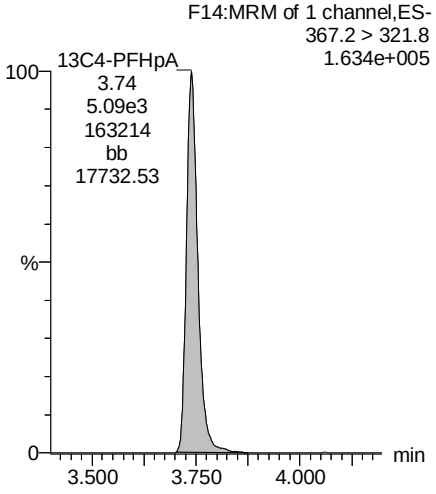
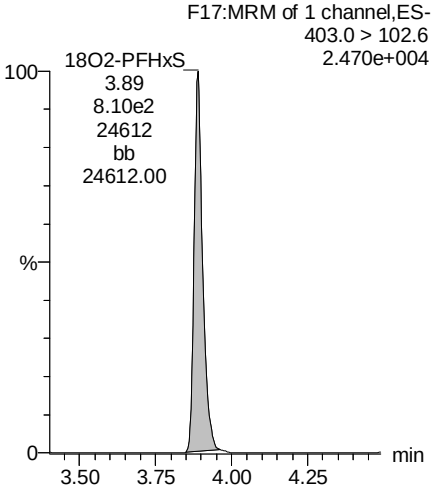


18O2-PFHxS



ANP 1/2/2018

Dataset: U:\Q4.PRO\results\171215M2\171215M2-5.qld

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Printed: Tuesday, January 02, 2018 10:21:56 Pacific Standard Time

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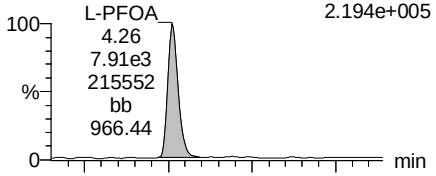

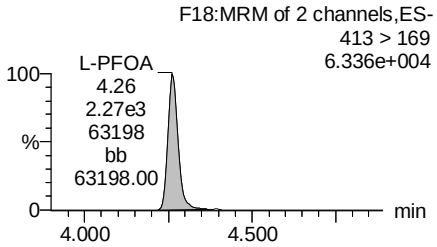

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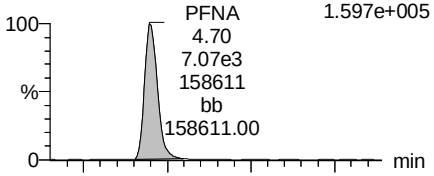
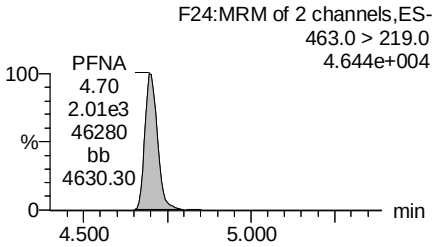
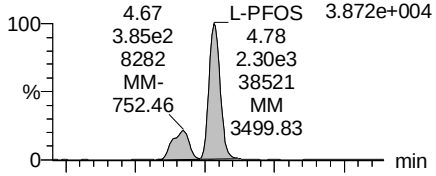
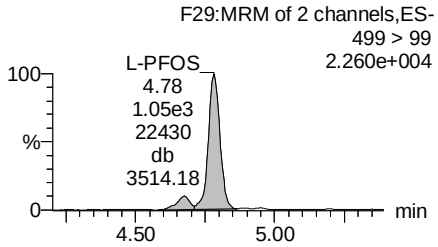




Total PFOS





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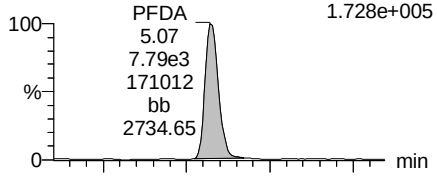
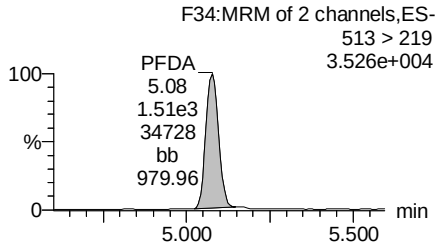
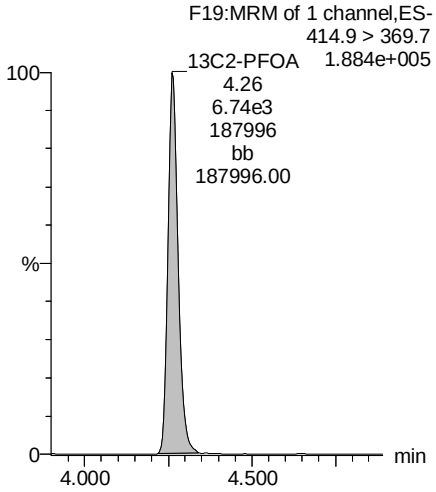
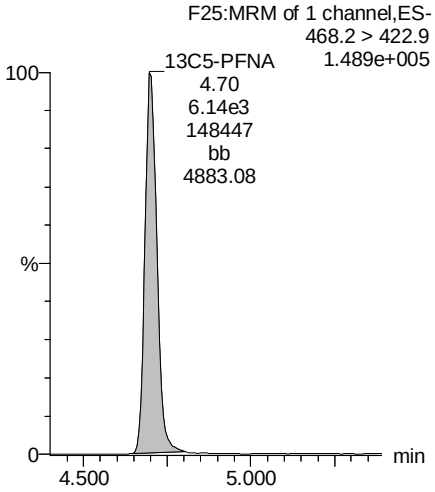




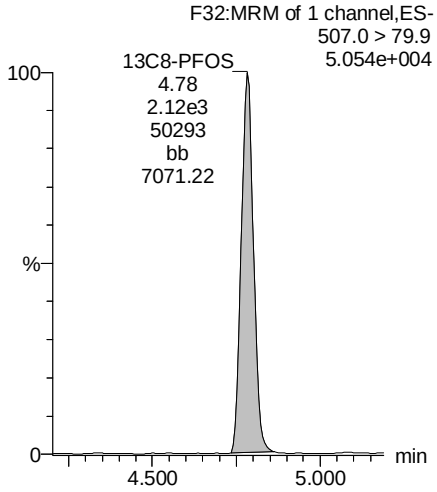
13C2-PFOA



13C5-PFNA



13C8-PFOS



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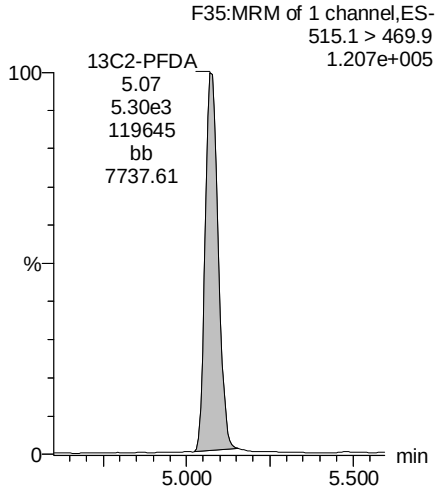


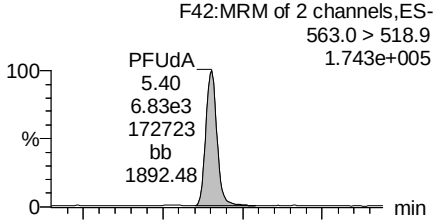
ANP 1/2/2018

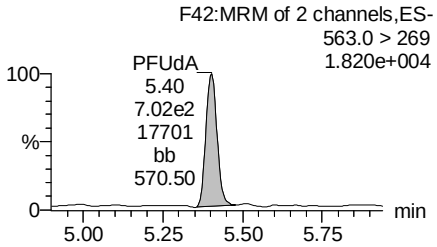
Dataset: U:\Q4.PRO\results\171215M2\171215M2-5.qld

Last Altered: Tuesday, January 02, 2018 10:20:56 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:21:56 Pacific Standard Time

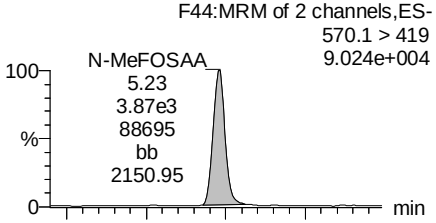
Name: 171215M2_5, Date: 15-Dec-2017, Time: 17:17:56, ID: B7L0027-BS1 OPR 0.25, Description: OPR

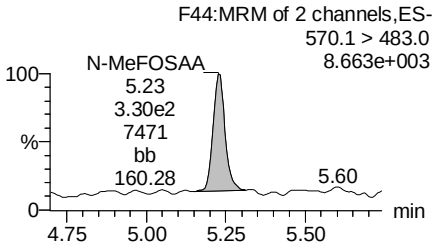
PFUdA





N-MeFOSAA





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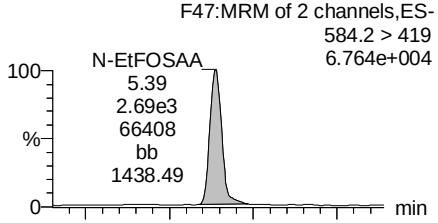
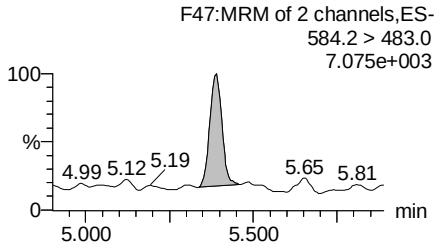
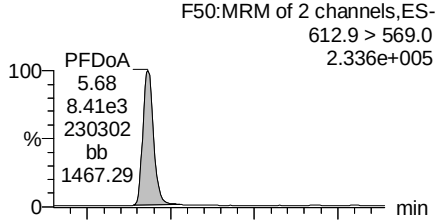
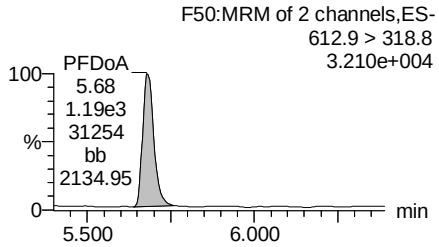




PFDoA





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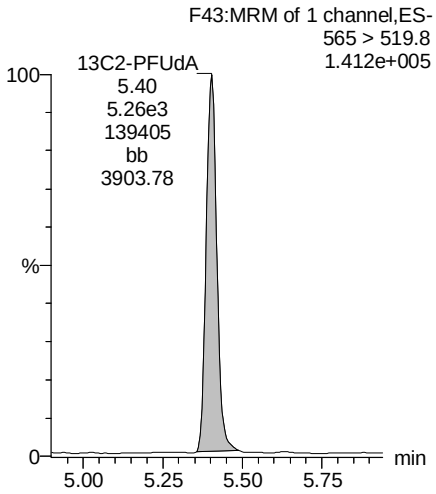
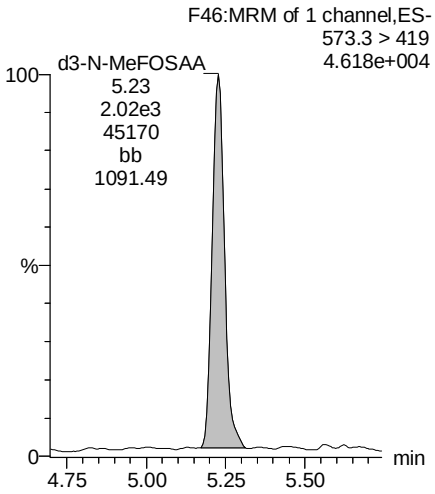
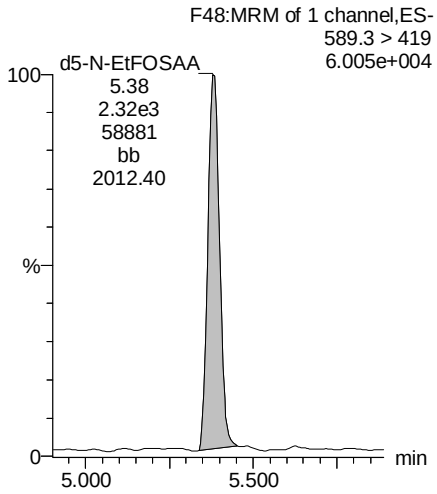


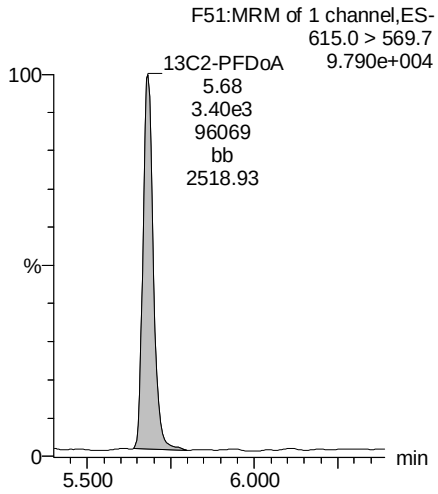
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



ANP 1/2/2018

Dataset: U:\Q4.PRO\results\171215M2\171215M2-5.qld

Last Altered: Tuesday, January 02, 2018 10:20:56 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:21:56 Pacific Standard Time

Name: 171215M2_5, Date: 15-Dec-2017, Time: 17:17:56, ID: B7L0027-BS1 OPR 0.25, Description: OPR

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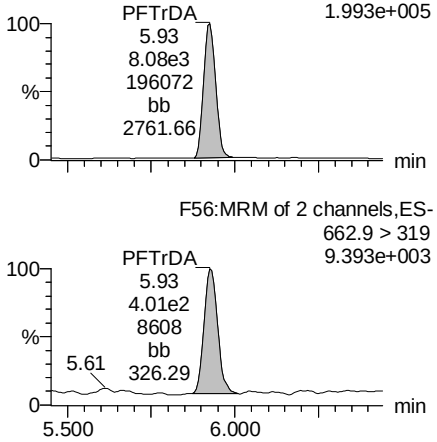

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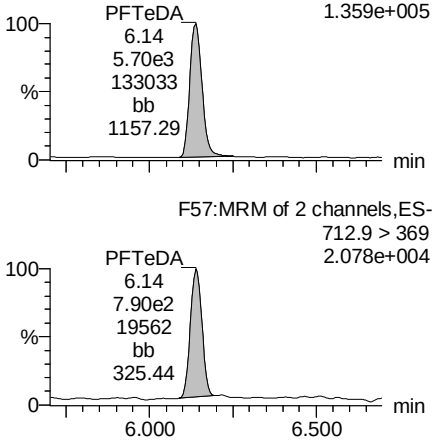
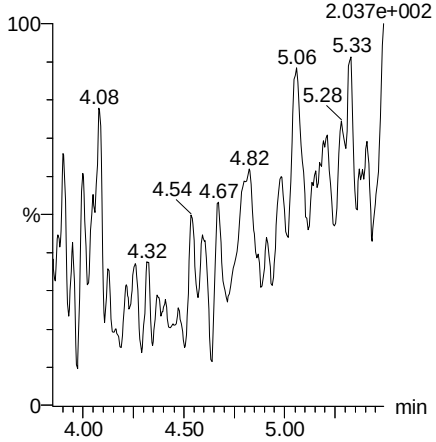
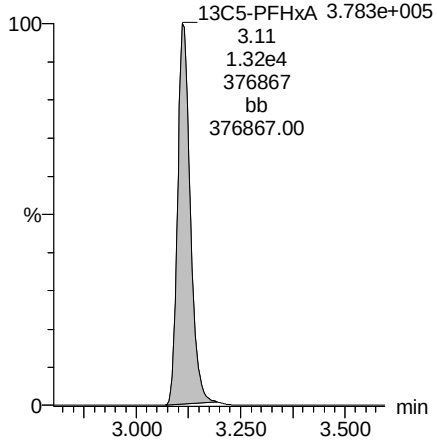


TCDA



13C5-PFHxA



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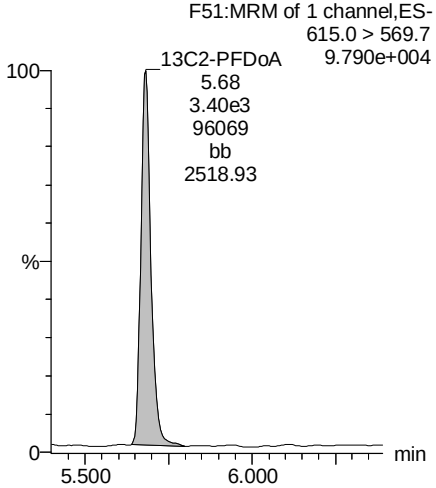
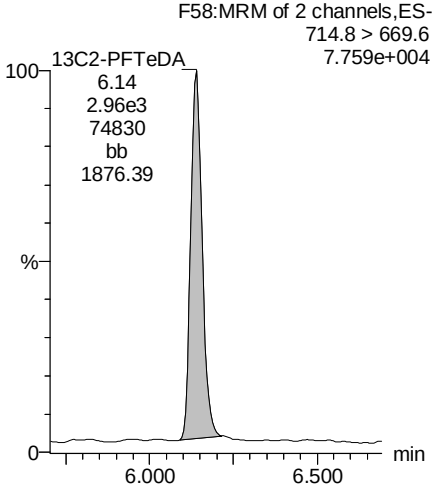
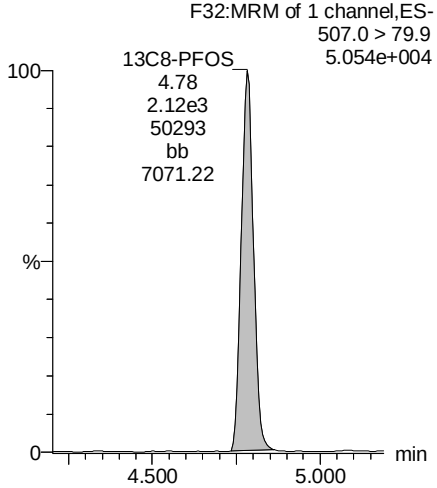


13C2-PFTeDA



13C8-PFOS



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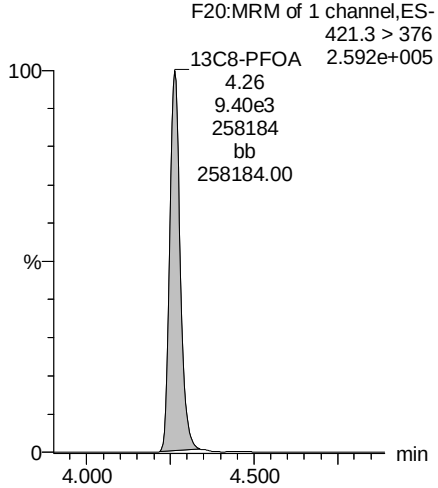


ANP 1/2/2018

Vista Analytical Laboratory

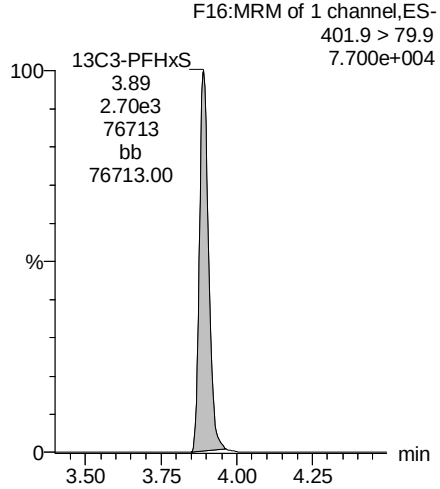
Rev'd:MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-5.qld

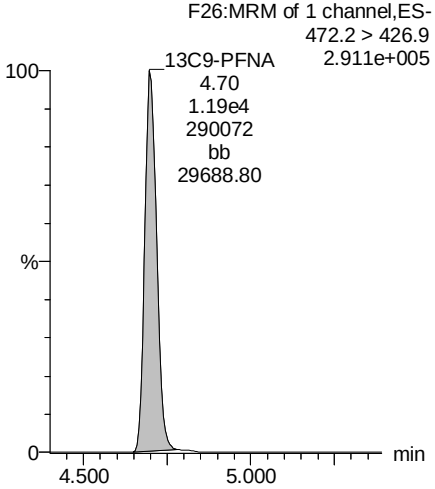
Last Altered: Tuesday, January 02, 2018 10:20:56 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:21:56 Pacific Standard Time

Name: 171215M2_5, Date: 15-Dec-2017, Time: 17:17:56, ID: B7L0027-BS1 OPR 0.25, Description: OPR

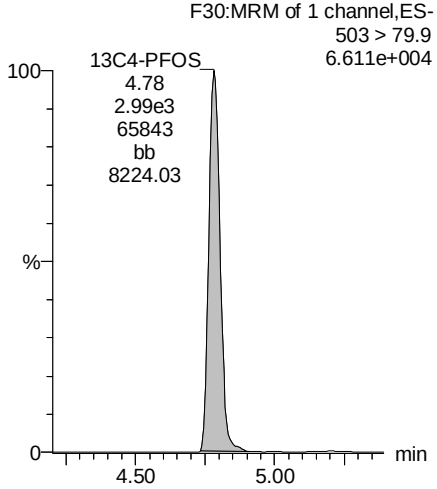
13C3-PFHxS



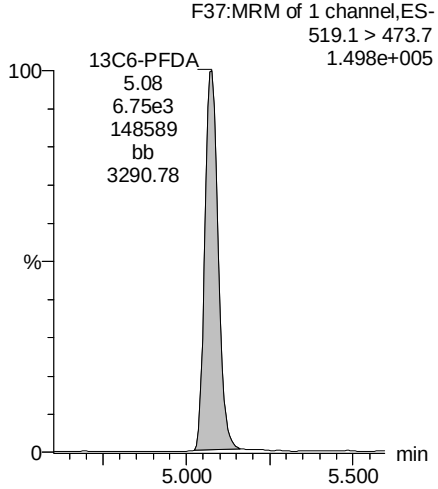
13C9-PFNA



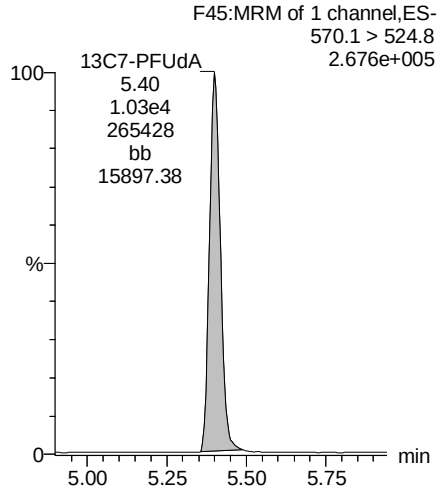
13C4-PFOS



13C6-PFDA



13C7-PFUdA



ANP 1/2/2018

Vista Analytical Laboratory

Rev'd: MM 12/21/17

Dataset: U:\Q4.PRO\results\171215M2\171215M2-6.qld

Last Altered: Monday, December 18, 2017 14:35:02 Pacific Standard Time
Printed: Monday, December 18, 2017 14:35:38 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 17 Dec 2017 10:49:22
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_6, Date: 15-Dec-2017, Time: 17:29:07, ID: B7L0027-BSD1 LCSD 0.25, Description: LCSD

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.43e3	1.46e3	0.250		2.70	2.63	20.7	40.800	102.0
2	4	PFHxA	313.2 > 268.9	1.26e4	4.02e3	0.250		3.18	3.12	15.7	43.098	107.7
3	5	PFHpA	363.0 > 318.9	8.85e3	7.72e3	0.250		3.80	3.74	14.3	42.995	107.5
4	6	L-PFHxS	398.9 > 79.6	1.97e3	1.17e3	0.250		4.00	3.89	21.0	43.402	108.5
5	9	L-PFOA	413 > 368.7	9.62e3	1.13e4	0.250		4.33	4.26	10.7	46.027	115.1
6	12	PFNA	463.0 > 418.8	1.20e4	1.05e4	0.250		4.78	4.70	14.3	45.843	114.6
7	14	L-PFOS	499 > 79.9	2.66e3	3.16e3	0.250		4.83	4.78	10.5	37.485	93.7
8	16	PFDA	513 > 468.8	8.81e3	8.61e3	0.250		5.12	5.08	12.8	46.028	115.1
9	18	N-MeFOSAA	570.1 > 419	3.99e3	2.93e3	0.250		5.25	5.23	17.1	48.377	120.9
10	19	N-EtFOSAA	584.2 > 419	2.83e3	3.08e3	0.250		5.45	5.39	11.5	43.252	108.1
11	20	PFUdA	563.0 > 518.9	6.99e3	6.85e3	0.250		5.44	5.40	12.8	51.836	129.6
12	22	PFDoA	612.9 > 569.0	8.89e3	5.27e3	0.250		5.75	5.69	21.1	40.817	102.0

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Vista Analytical Laboratory

Rev'd: MM 12/21/17

Dataset: U:\Q4.PRO\results\171215M2\171215M2-6.qld

Last Altered: Monday, December 18, 2017 14:35:02 Pacific Standard Time
Printed: Monday, December 18, 2017 14:35:48 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 17 Dec 2017 10:49:22
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_6, Date: 15-Dec-2017, Time: 17:29:07, ID: B7L0027-BSD1 LCSD 0.25, Description: LCSD

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	6.85e3	5.27e3	0.250		5.97	5.93	16.3	30.879	77.2
2	25	PFTeDA	712.9 > 668.8	6.50e3	5.65e3	0.250		6.20	6.14	14.4	33.274	83.2
3	33	13C3-PFBS	302. > 98.8	1.46e3	1.47e4	0.250	0.124	2.70	2.62	1.24	40.010	80.0
4	34	13C2-PFHxA	315 > 269.8	4.02e3	1.47e4	0.250	0.897	3.18	3.12	3.42	15.237	76.2
5	35	13C4-PFHpA	367.2 > 321.8	7.72e3	1.47e4	0.250	0.689	3.80	3.74	6.56	38.053	76.1
6	36	18O2-PFHxS	403.0 > 102.6	1.17e3	2.96e3	0.250	0.530	4.00	3.89	4.97	37.456	74.9
7	37	13C2-6:2 FTS	429.1 > 408.9	2.15e3	1.08e4	0.250	0.331	4.26	4.21	2.50	30.256	60.5
8	38	13C2-PFOA	414.9 > 369.7	1.13e4	1.08e4	0.250	1.316	4.32	4.26	13.1	39.779	79.6
9	39	13C5-PFNA	468.2 > 422.9	1.05e4	1.22e4	0.250	1.109	4.78	4.70	10.7	38.759	77.5
10	40	13C8-PFOSA	506.1 > 77.7	1.66e3	1.07e4	0.250	0.487	4.81	4.76	1.94	15.942	31.9
11	41	13C8-PFOS	507.0 > 79.9	3.16e3	3.54e3	0.250	1.163	4.83	4.78	11.2	38.357	76.7
12	42	13C2-PFDA	515.1 > 469.9	8.61e3	9.04e3	0.250	1.694	5.12	5.08	11.9	28.105	56.2
13	43	13C2-8:2 FTS	529.1 > 508.7	1.20e3	1.47e4	0.250	0.141	5.09	5.05	1.02	28.914	57.8
14	44	d3-N-MeFOSAA	573.3 > 419	2.93e3	1.07e4	0.250	0.530	5.25	5.23	3.41	25.768	51.5
15	45	d5-N-EtFOSAA	589.3 > 419	3.08e3	1.07e4	0.250	0.541	5.45	5.38	3.59	26.570	53.1
16	46	13C2-PFUdA	565 > 519.8	6.85e3	1.07e4	0.250	1.351	5.44	5.40	7.99	23.658	47.3
17	47	13C2-PFDoA	615.0 > 569.7	5.27e3	1.07e4	0.250	0.765	5.75	5.69	6.15	32.146	64.3
18	48	d3-N-MeFOSA	515.2 > 168.9		1.07e4	0.250	0.002	5.80				
19	49	13C2-PFTeDA	714.8 > 669.6	5.65e3	1.07e4	0.250	0.771	6.20	6.14	6.60	34.232	68.5
20	55	13C5-PFHxA	318 > 272.9	1.47e4	1.47e4	0.250	1.000	3.18	3.12	12.5	50.000	100.0
21	56	13C3-PFHxS	401.9 > 79.9	2.96e3	2.96e3	0.250	1.000	4.00	3.89	12.5	50.000	100.0
22	57	13C8-PFOA	421.3 > 376	1.08e4	1.08e4	0.250	1.000	4.32	4.26	12.5	50.000	100.0
23	58	13C9-PFNA	472.2 > 426.9	1.22e4	1.22e4	0.250	1.000	4.78	4.70	12.5	50.000	100.0
24	59	13C4-PFOS	503 > 79.9	3.54e3	3.54e3	0.250	1.000	4.83	4.79	12.5	50.000	100.0
25	60	13C6-PFDA	519.1 > 473.7	9.04e3	9.04e3	0.250	1.000	5.12	5.08	12.5	50.000	100.0
26	61	13C7-PFUdA	570.1 > 524.8	1.07e4	1.07e4	0.250	1.000	5.44	5.40	12.5	50.000	100.0
27	62	Total PFHxS	398.9 > 79.6	1.97e3	1.17e3	0.250		4.00		21.0	43.402	
28	63	Total PFOA	413 > 368.7	9.62e3	1.13e4	0.250		4.32		10.7	46.027	
29	64	Total PFOS	499 > 79.9	2.66e3	3.16e3	0.250		4.83		10.5	37.485	
30	65	Total N-MeFOSAA	570.1 > 419	3.99e3	2.93e3	0.250		5.25		17.1	48.377	
31	66	Total N-EtFOSAA	584.2 > 419	2.83e3	3.08e3	0.250		5.45		11.5	43.252	

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Vista Analytical Laboratory

Rev'd: MM 12/21/17

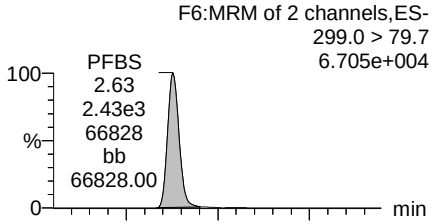
Dataset: U:\Q4.PRO\results\171215M2\171215M2-6.qld

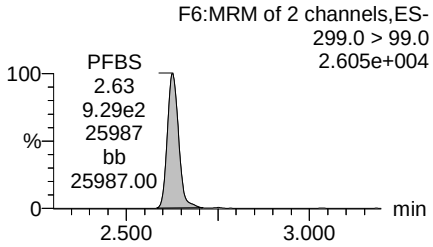
Last Altered: Monday, December 18, 2017 14:35:02 Pacific Standard Time
Printed: Monday, December 18, 2017 14:35:48 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 17 Dec 2017 10:49:22
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

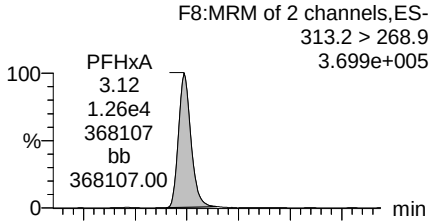
Name: 171215M2_6, Date: 15-Dec-2017, Time: 17:29:07, ID: B7L0027-BSD1 LCSD 0.25, Description: LCSD

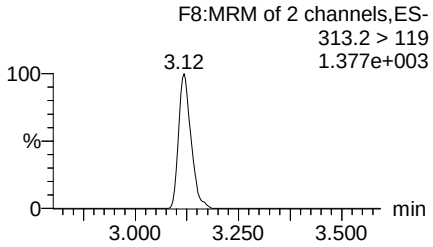
PFBS



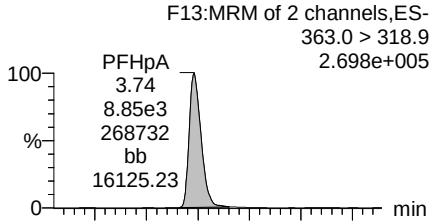


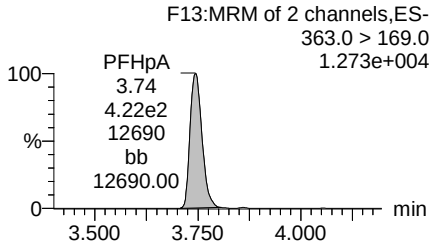
PFHxA



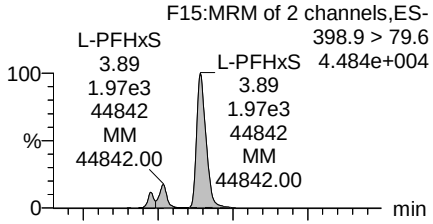


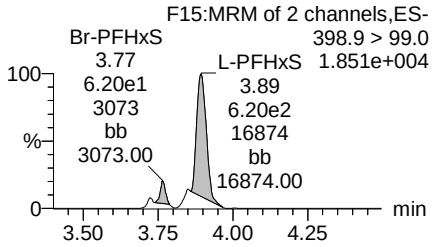
PFHpA



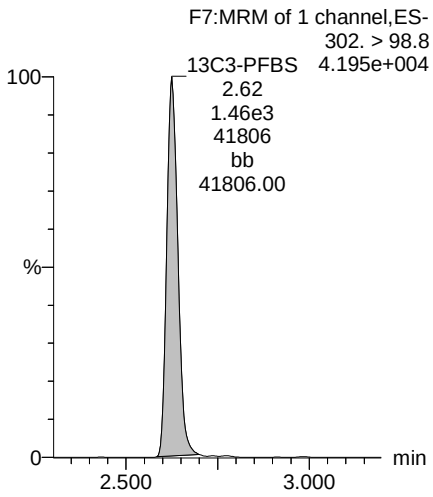


Total PFHxS

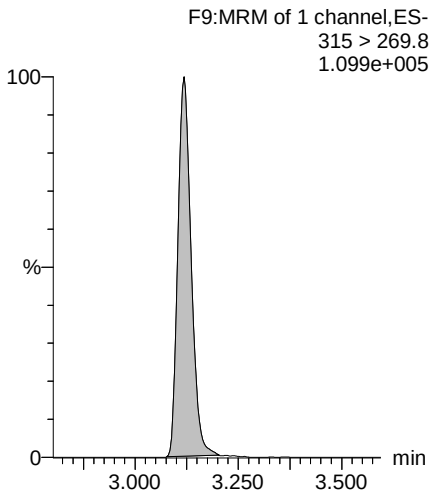




13C3-PFBS



13C2-PFHxA



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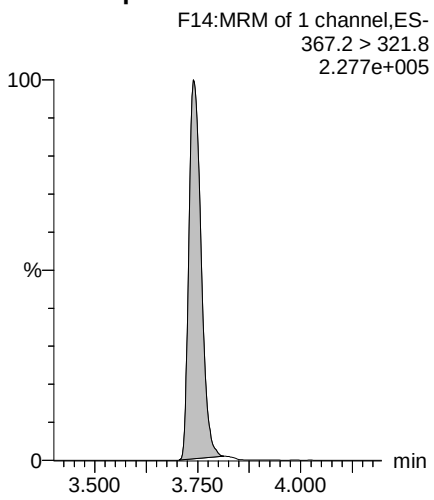
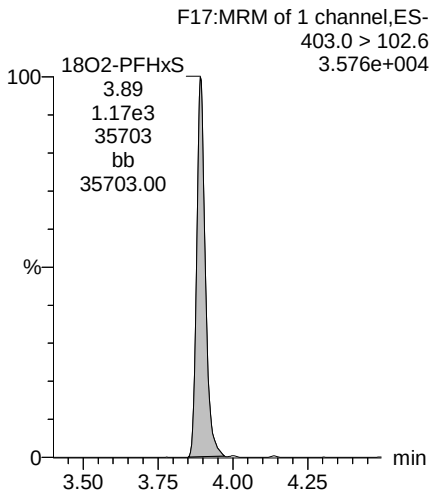


18O2-PFHxS



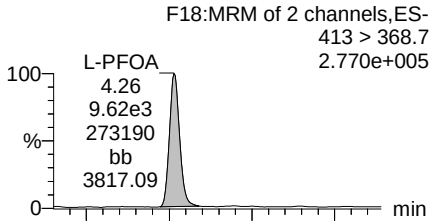
GM 12/18/17

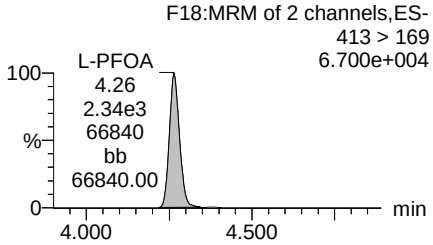
Dataset: U:\Q4.PRO\results\171215M2\171215M2-6.qld

Last Altered: Monday, December 18, 2017 14:35:02 Pacific Standard Time
Printed: Monday, December 18, 2017 14:35:48 Pacific Standard Time

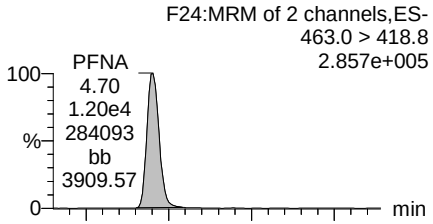
Name: 171215M2_6, Date: 15-Dec-2017, Time: 17:29:07, ID: B7L0027-BSD1 LCSD 0.25, Description: LCSD

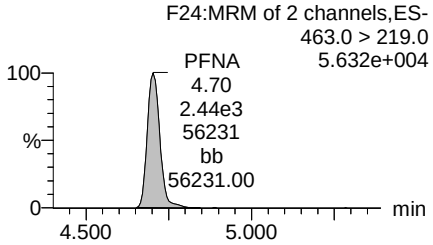
Total PFOA



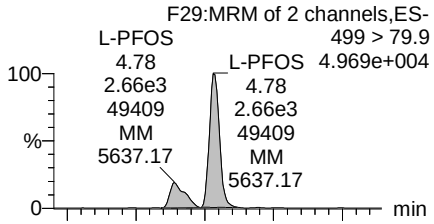


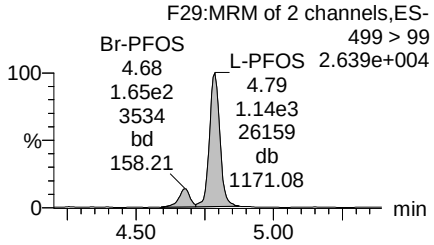
PFNA



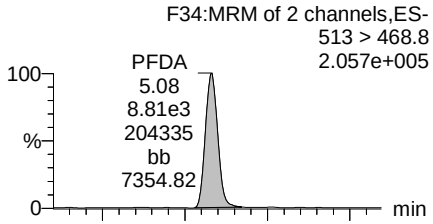


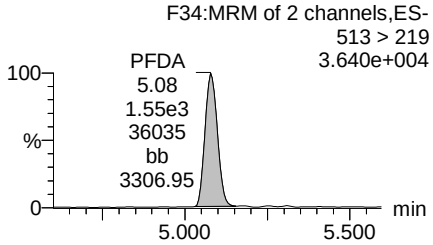
Total PFOS



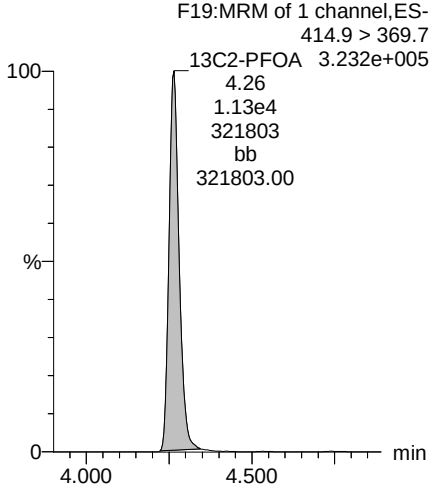


PFDA

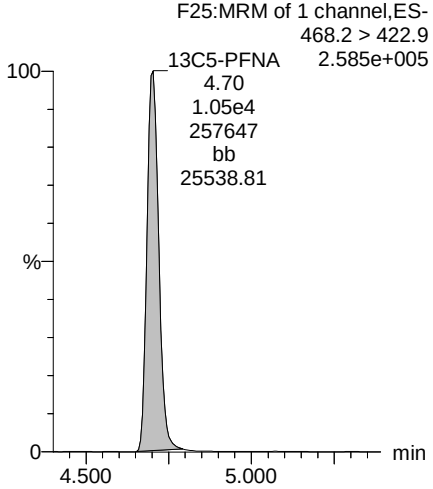




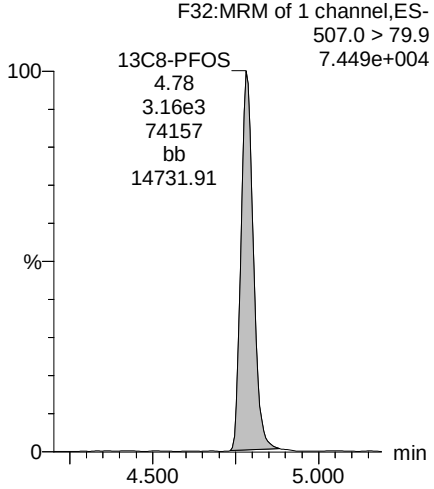
13C2-PFOA



13C5-PFNA



13C8-PFOS



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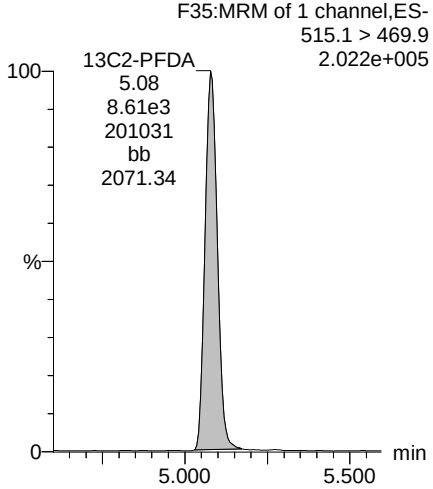


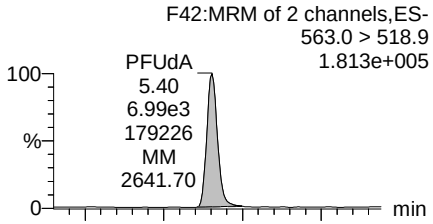
GM 12/18/17

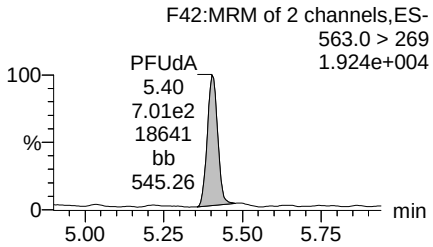
Dataset: U:\Q4.PRO\results\171215M2\171215M2-6.qld

Last Altered: Monday, December 18, 2017 14:35:02 Pacific Standard Time
Printed: Monday, December 18, 2017 14:35:48 Pacific Standard Time

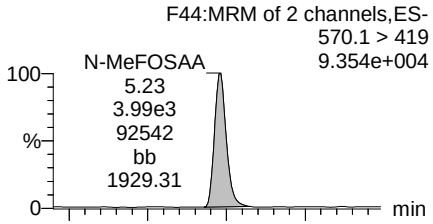
Name: 171215M2_6, Date: 15-Dec-2017, Time: 17:29:07, ID: B7L0027-BSD1 LCSD 0.25, Description: LCSD

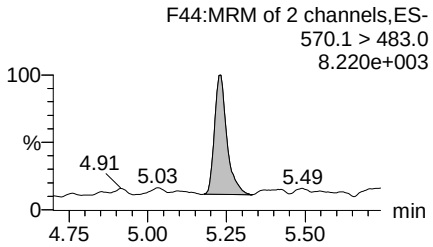
PFUdA



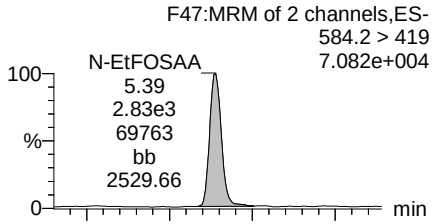


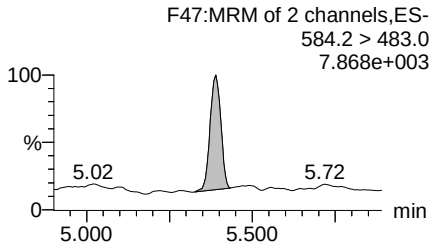
N-MeFOSAA



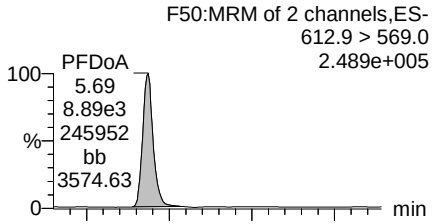


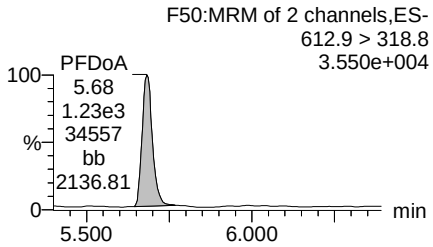
N-EtFOSAA



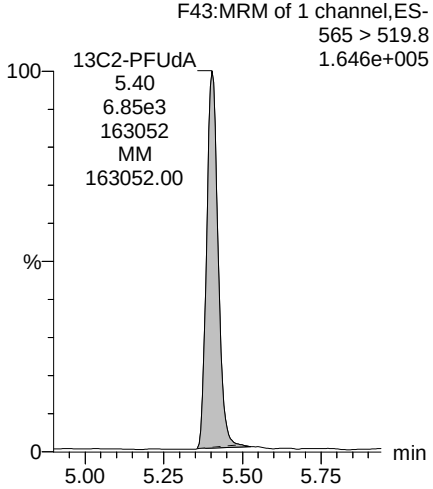


PFDoA

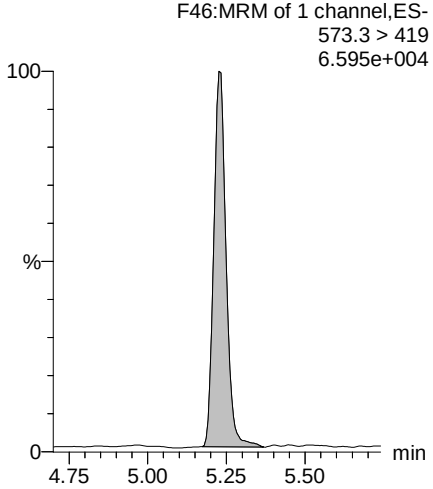




13C2-PFUdA



d3-N-MeFOSAA



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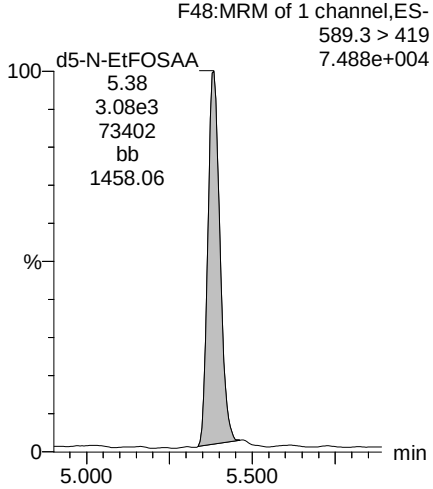
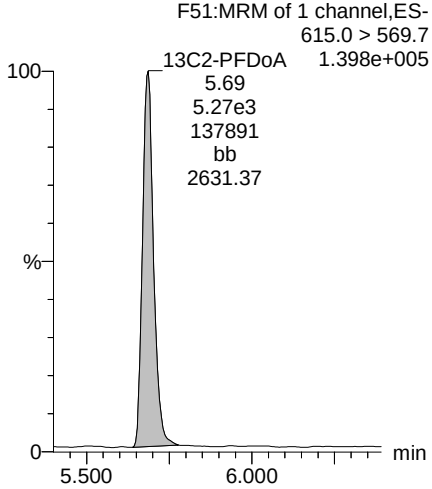


13C2-PFDoA



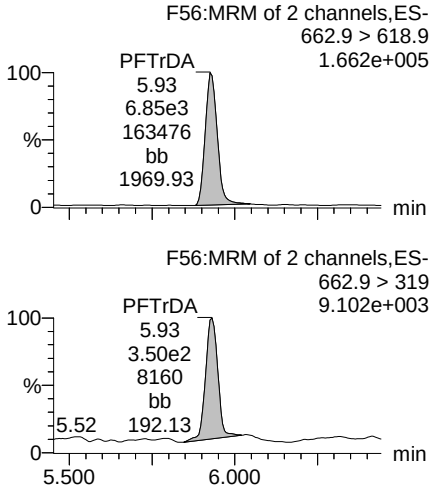
GM 12/18/17

Dataset: U:\Q4.PRO\results\171215M2\171215M2-6.qld

Last Altered: Monday, December 18, 2017 14:35:02 Pacific Standard Time
Printed: Monday, December 18, 2017 14:35:48 Pacific Standard Time

Name: 171215M2_6, Date: 15-Dec-2017, Time: 17:29:07, ID: B7L0027-BSD1 LCSD 0.25, Description: LCSD

PFTrDA



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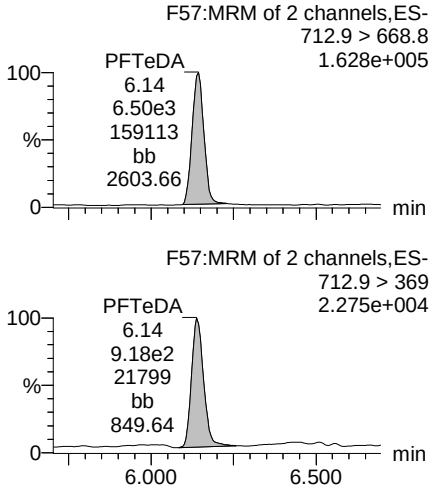
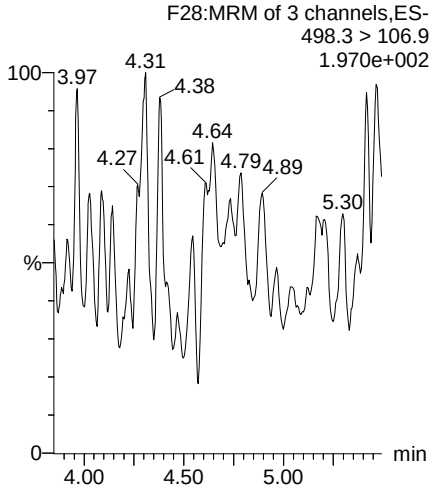
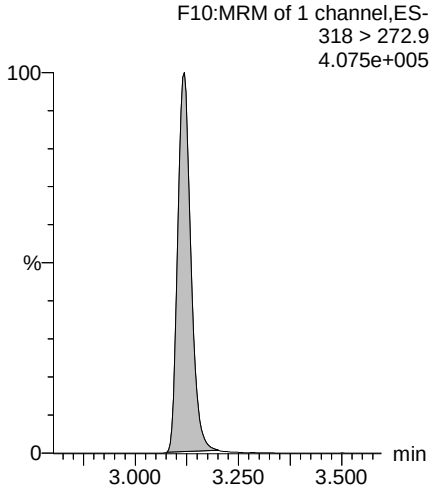


TCDA



13C5-PFHxA



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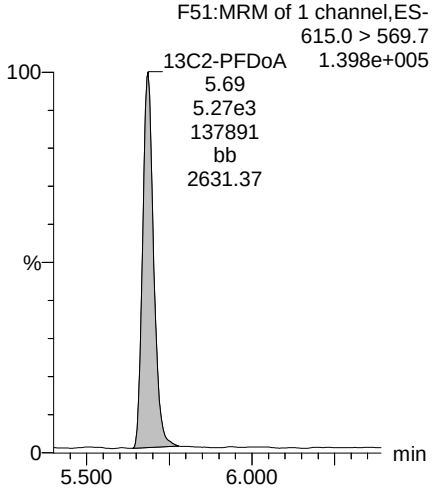
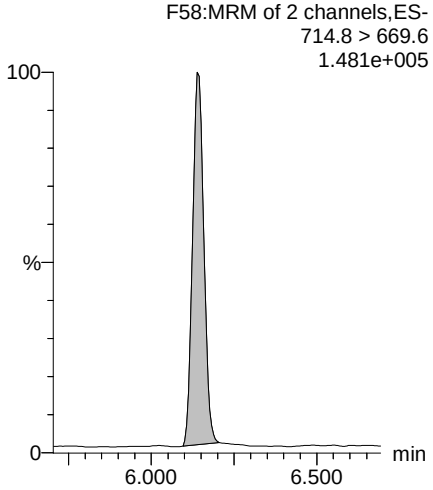
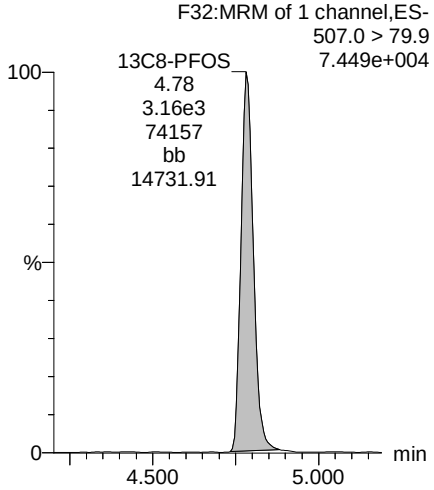


13C2-PFTeDA



13C8-PFOS



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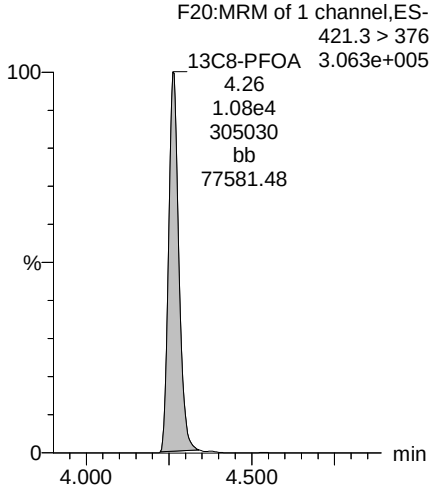


GM 12/18/17

Vista Analytical Laboratory

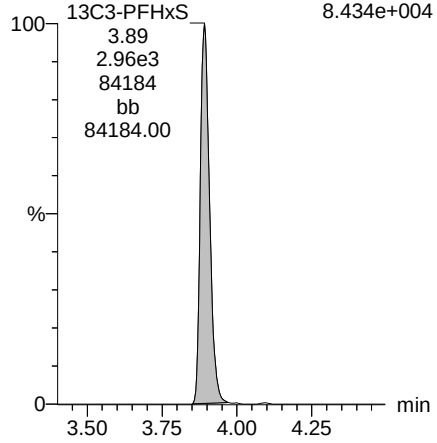
Rev'd: MM 12/21/17

Dataset: U:\Q4.PRO\results\171215M2\171215M2-6.qld

Last Altered: Monday, December 18, 2017 14:35:02 Pacific Standard Time
Printed: Monday, December 18, 2017 14:35:48 Pacific Standard Time

Name: 171215M2_6, Date: 15-Dec-2017, Time: 17:29:07, ID: B7L0027-BSD1 LCSD 0.25, Description: LCSD

13C3-PFHxS



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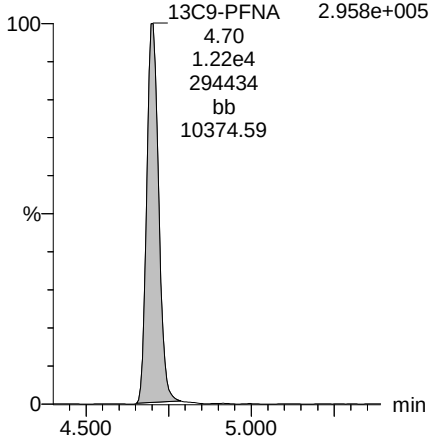

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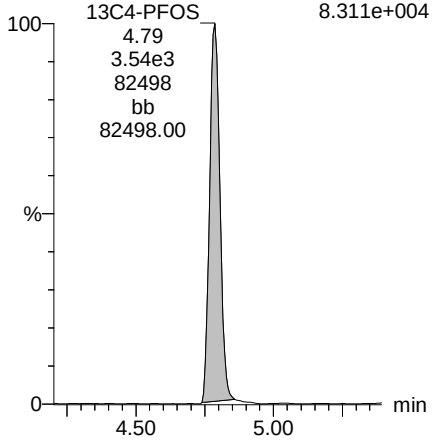
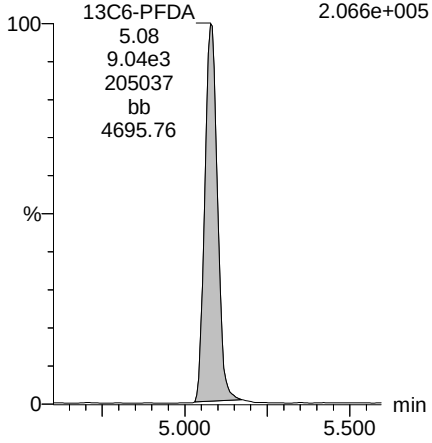
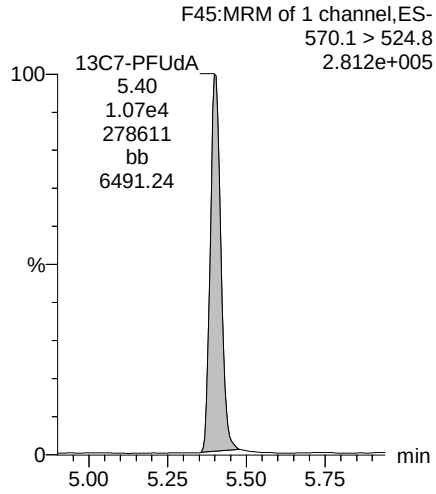


13C6-PFDA



13C7-PFUdA



GM 12/18/17

Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-17.qld

Last Altered: Tuesday, January 02, 2018 10:36:10 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:36:45 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 19 Dec 2017 14:18:19
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_17, Date: 15-Dec-2017, Time: 19:32:05, ID: 1701802-01 FC-MW02SR1-NP-20171128 0.25936, Description: FC-MW02SR1-NP-20171128

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1	3	PFBS	299.0 > 79.7	1.19e2	1.23e3	0.259		2.70	2.62	1.22	2.3487	
2	4	PFHxA	313.2 > 268.9	4.77e3	3.83e3	0.259		3.18	3.11	6.22	16.4797	
3	5	PFHpA	363.0 > 318.9	1.62e3	7.76e3	0.259		3.80	3.73	2.60	7.6258	
4	6	L-PFHxS	398.9 > 79.6		9.98e2	0.259		4.00				
5	9	L-PFOA	413 > 368.7	6.09e3	1.05e4	0.259		4.33	4.25	7.22	29.7266	
6	12	PFNA	463.0 > 418.8	3.93e4	8.53e3	0.259		4.78	4.69	57.6	180.6870	
7	14	L-PFOS	499 > 79.9	2.56e2	2.93e3	0.259		4.83	4.77	1.09	4.4116	
8	16	PFDA	513 > 468.8	1.35e4	1.03e4	0.259		5.12	5.06	16.4	56.9188	
9	18	N-MeFOSAA	570.1 > 419		3.05e3	0.259		5.25				
10	19	N-EtFOSAA	584.2 > 419		2.76e3	0.259		5.45				
11	20	PFUdA	563.0 > 518.9	2.08e5	8.00e3	0.259		5.44	5.39	325	1333.9102E	
12	22	PFDoA	612.9 > 569.0	4.73e2	4.75e3	0.259		5.75	5.67	1.25	2.4044	

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Dataset: U:\Q4.PRO\results\171215M2\171215M2-17.qld

Last Altered: Tuesday, January 02, 2018 10:36:10 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:37:48 Pacific Standard Time

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Name: 171215M2_17, Date: 15-Dec-2017, Time: 19:32:05, ID: 1701802-01 FC-MW02SR1-NP-20171128 0.25936, Description: FC-MW02SR1-NP-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	1.05e3	4.75e3	0.259		5.97	5.91	2.77	5.2613	
2	25	PFTeDA	712.9 > 668.8		4.75e3	0.259		6.20				
3	33	13C3-PFBS	302. > 98.8	1.23e3	1.42e4	0.259	0.124	2.70	2.61	1.08	33.5069	69.5
4	34	13C2-PFHxA	315 > 269.8	3.83e3	1.42e4	0.259	0.897	3.18	3.11	3.38	14.5137	75.3
5	35	13C4-PFHpA	367.2 > 321.8	7.76e3	1.42e4	0.259	0.689	3.80	3.73	6.84	38.2492	79.4
6	36	18O2-PFHxS	403.0 > 102.6	9.98e2	2.63e3	0.259	0.530	4.00	3.88	4.75	34.5151	71.6
7	37	13C2-6:2 FTS	429.1 > 408.9	2.66e3	1.10e4	0.259	0.331	4.26	4.20	3.01	35.1515	72.9
8	38	13C2-PFOA	414.9 > 369.7	1.05e4	1.10e4	0.259	1.316	4.32	4.25	12.0	35.0231	72.7
9	39	13C5-PFNA	468.2 > 422.9	8.53e3	1.20e4	0.259	1.109	4.78	4.69	8.90	30.9442	64.2
10	40	13C8-PFOSA	506.1 > 77.7	2.37e3	9.82e3	0.259	0.487	4.81	4.75	3.02	23.9197	49.6
11	41	13C8-PFOS	507.0 > 79.9	2.93e3	3.28e3	0.259	1.163	4.83	4.77	11.2	37.0016	76.8
12	42	13C2-PFDA	515.1 > 469.9	1.03e4	8.58e3	0.259	1.694	5.12	5.06	15.0	34.1447	70.8
13	43	13C2-8:2 FTS	529.1 > 508.7	1.13e3	1.42e4	0.259	0.141	5.09	5.04	0.995	27.2032	56.4
14	44	d3-N-MeFOSAA	573.3 > 419	3.05e3	9.82e3	0.259	0.530	5.25	5.21	3.88	28.2433	58.6
15	45	d5-N-EtFOSAA	589.3 > 419	2.76e3	9.82e3	0.259	0.541	5.45	5.37	3.51	25.0110	51.9
16	46	13C2-PFUdA	565 > 519.8	8.00e3	9.82e3	0.259	1.351	5.44	5.39	10.2	29.0607	60.3
17	47	13C2-PFDoA	615.0 > 569.7	4.75e3	9.82e3	0.259	0.765	5.75	5.67	6.04	30.4512	63.2
18	49	13C2-PFTeDA	714.8 > 669.6	4.75e3	9.82e3	0.259	0.771	6.20	6.12	6.04	30.2273	62.7
19	55	13C5-PFHxA	318 > 272.9	1.42e4	1.42e4	0.259	1.000	3.18	3.11	12.5	48.1956	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.63e3	2.63e3	0.259	1.000	4.00	3.88	12.5	48.1956	100.0
21	57	13C8-PFOA	421.3 > 376	1.10e4	1.10e4	0.259	1.000	4.32	4.25	12.5	48.1956	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.20e4	1.20e4	0.259	1.000	4.78	4.69	12.5	48.1956	100.0
23	59	13C4-PFOS	503 > 79.9	3.28e3	3.28e3	0.259	1.000	4.83	4.77	12.5	48.1956	100.0
24	60	13C6-PFDA	519.1 > 473.7	8.58e3	8.58e3	0.259	1.000	5.12	5.06	12.5	48.1956	100.0
25	61	13C7-PFUdA	570.1 > 524.8	9.82e3	9.82e3	0.259	1.000	5.44	5.39	12.5	48.1956	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	9.98e2	0.259		4.00		0.000		
27	63	Total PFOA	413 > 368.7	6.09e3	1.05e4	0.259		4.32		7.22	29.7266	
28	64	Total PFOS	499 > 79.9	2.56e2	2.93e3	0.259		4.83		1.09	4.4116	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.05e3	0.259		5.25		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.76e3	0.259		5.45		0.000		

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Dataset: U:\Q4.PRO\results\171215M2\171215M2-17.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_17, Date: 15-Dec-2017, Time: 19:32:05, ID: 1701802-01 FC-MW02SR1-NP-20171128 0.25936, Description: FC-MW02SR1-NP-20171128

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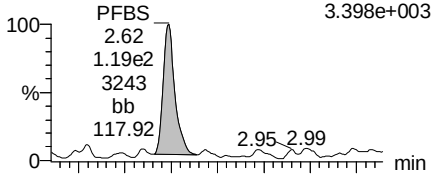

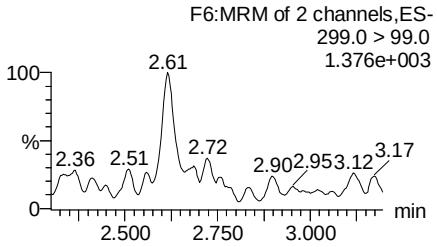

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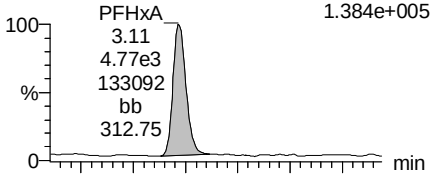

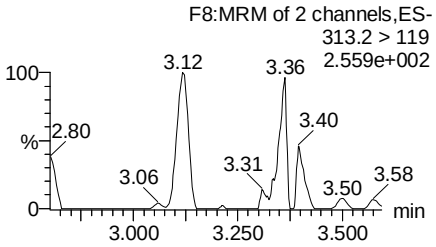

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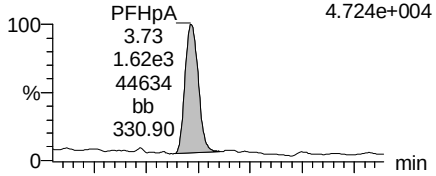

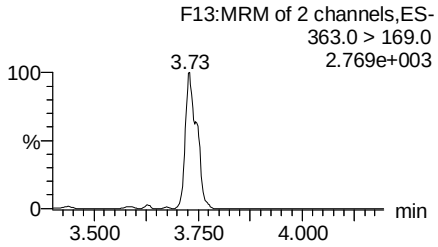

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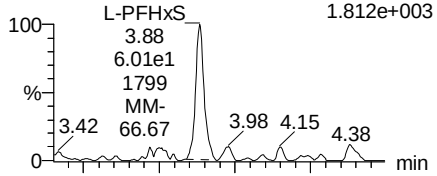

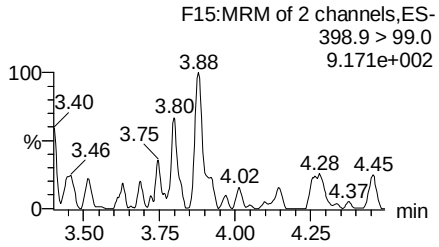

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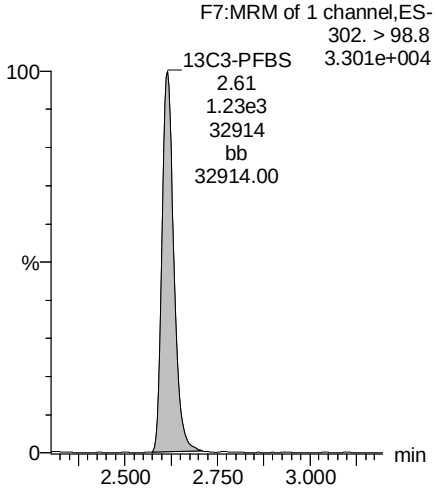

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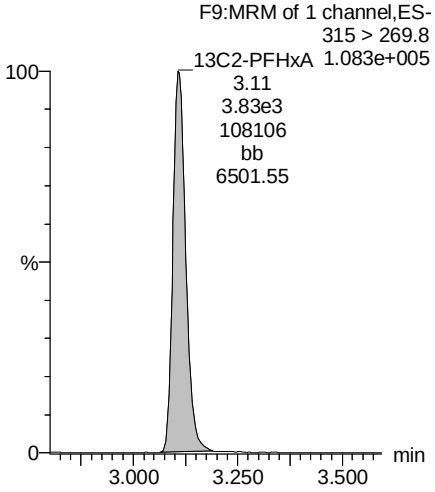

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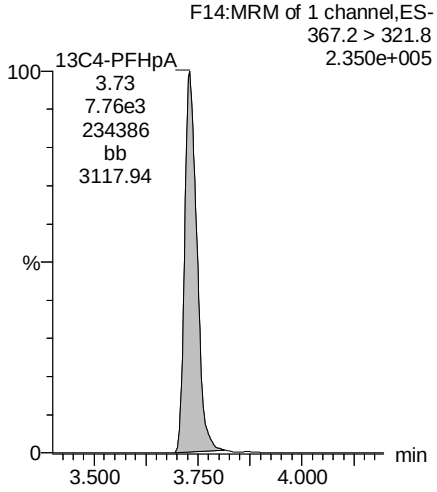

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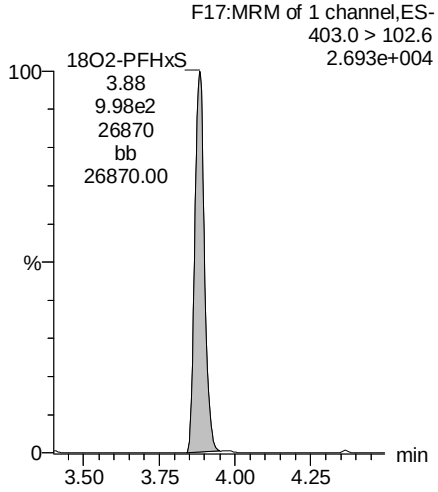

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Rev'd: MM 1/16/18

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Name: 171215M2_17, Date: 15-Dec-2017, Time: 19:32:05, ID: 1701802-01 FC-MW02SR1-NP-20171128 0.25936, Description: FC-MW02SR1-NP-20171128

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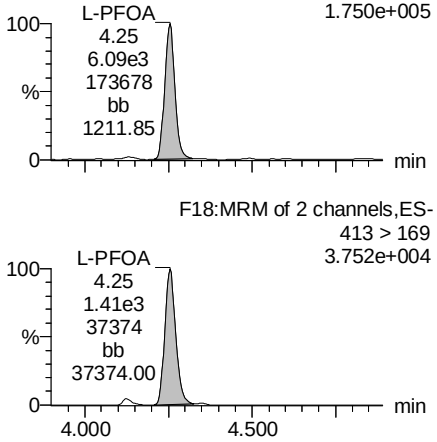

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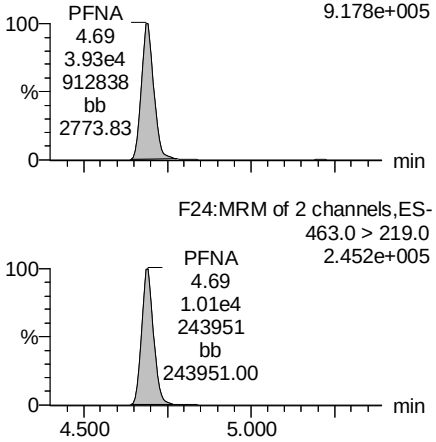
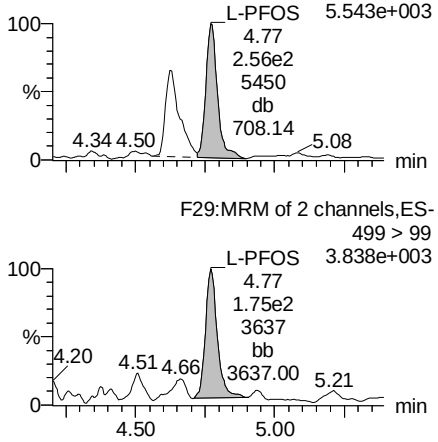


Total PFOS



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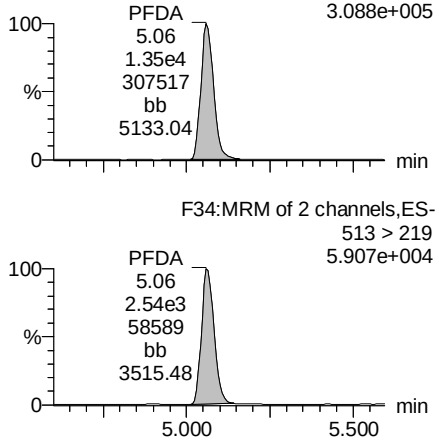

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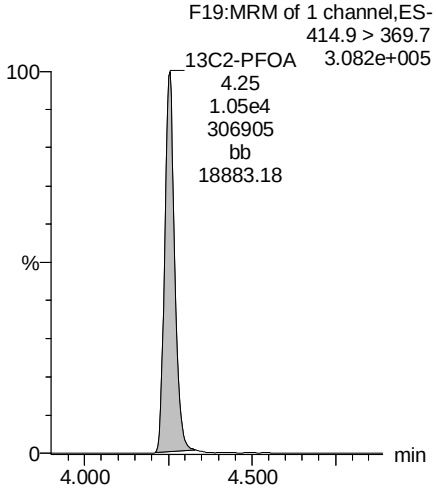

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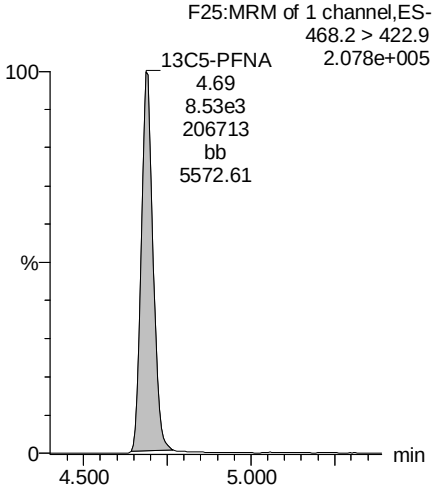

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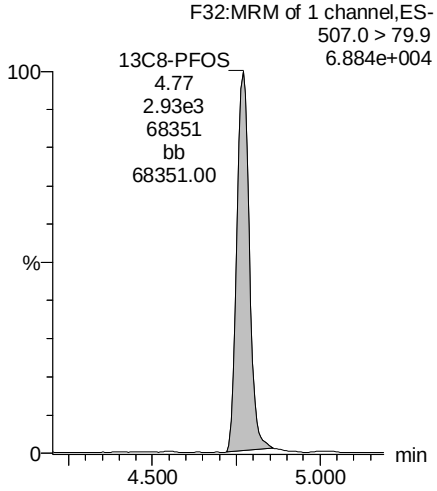

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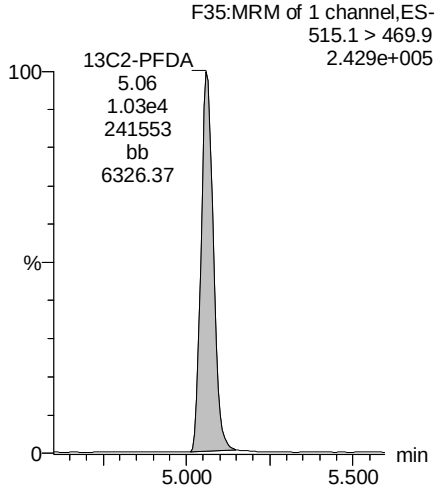

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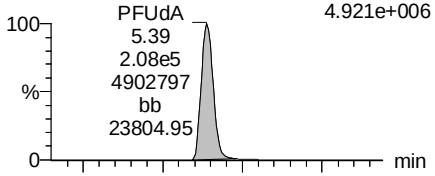
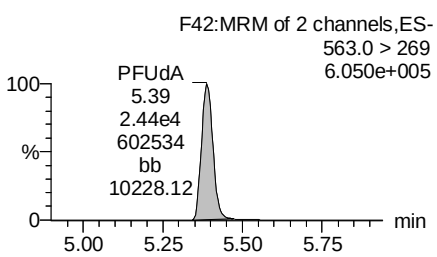
PFUdA





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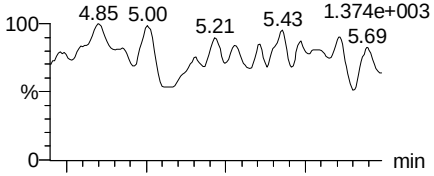

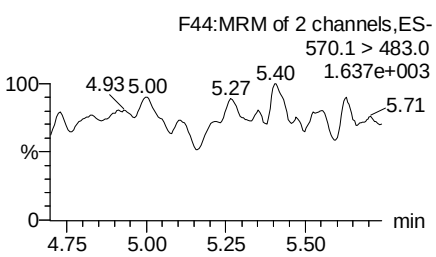

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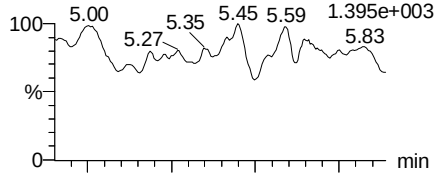

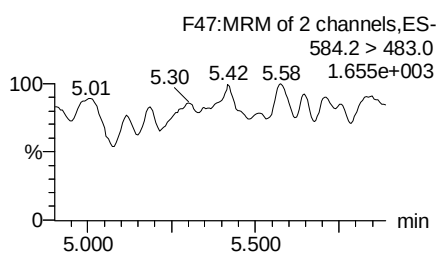

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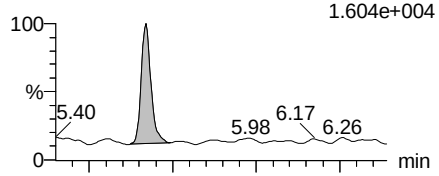

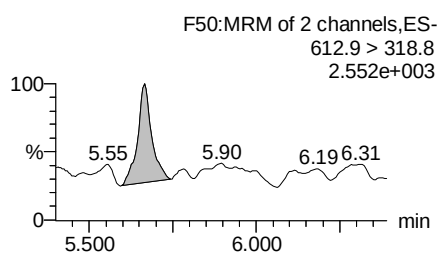

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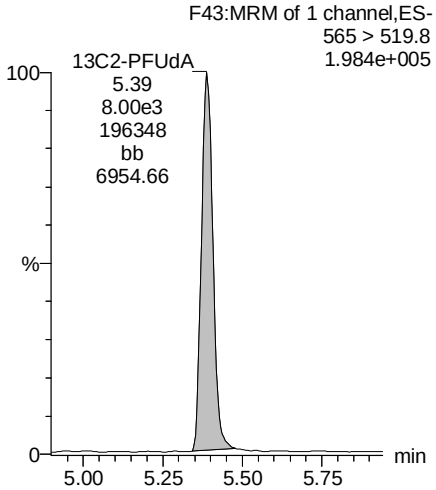

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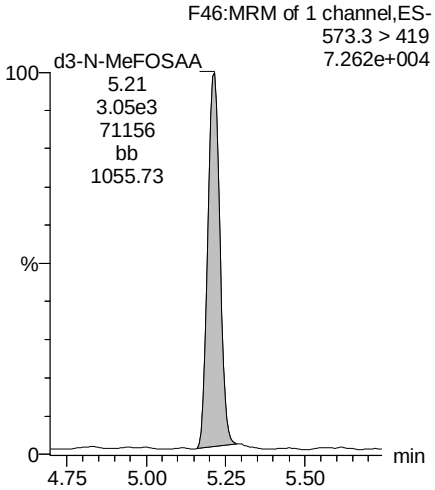

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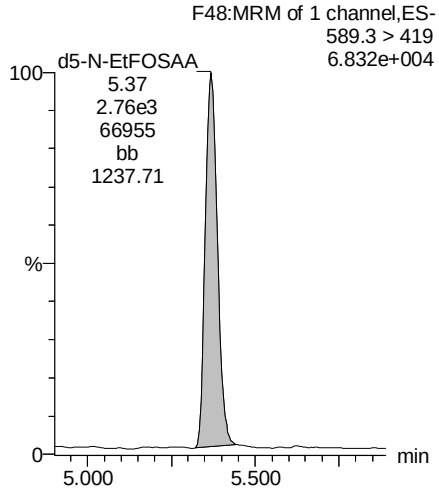

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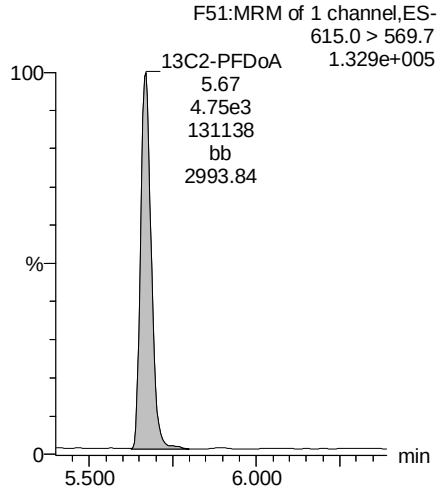

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Rev'd: MM 1/16/18

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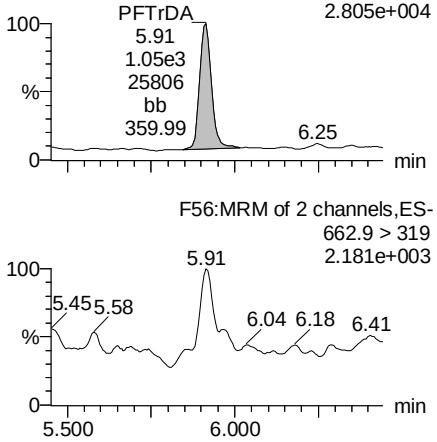
PFTrDA



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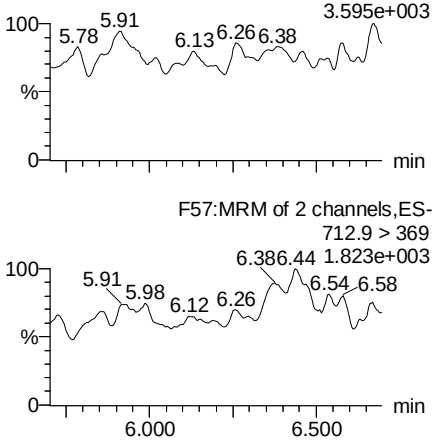

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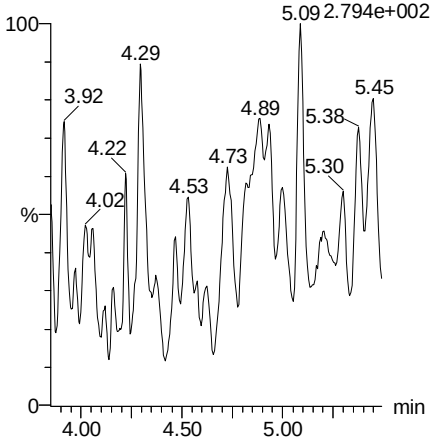
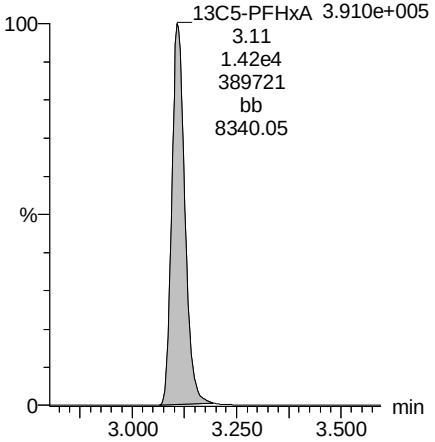
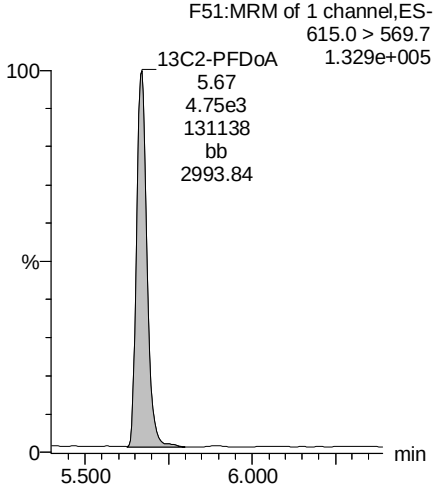


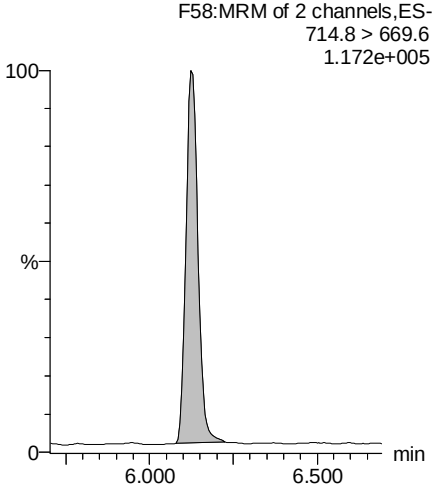
13C5-PFHxA



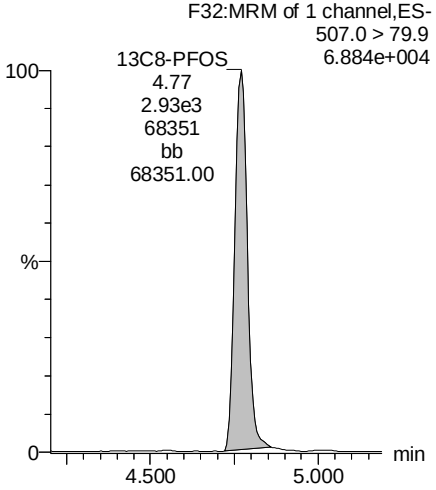
13C2-PFDoA



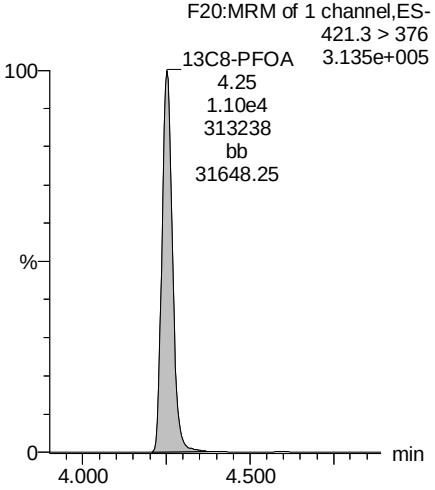
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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Vista Analytical Laboratory

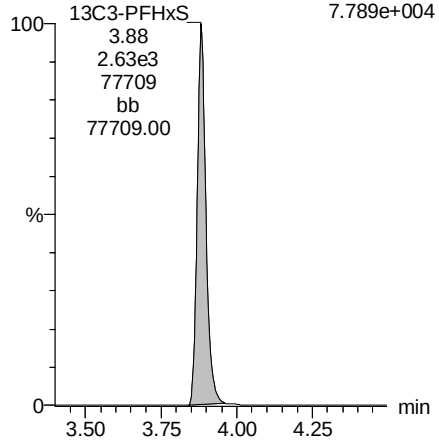
Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-17.qld

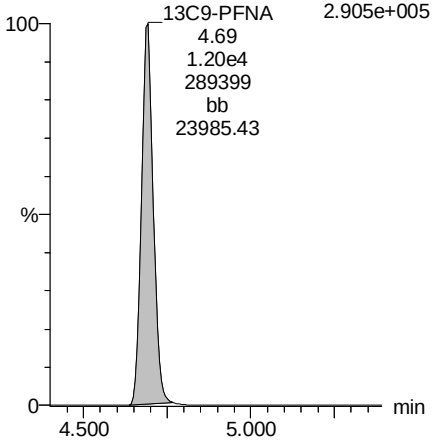
Last Altered: Tuesday, January 02, 2018 10:36:10 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:37:48 Pacific Standard Time

Name: 171215M2_17, Date: 15-Dec-2017, Time: 19:32:05, ID: 1701802-01 FC-MW02SR1-NP-20171128 0.25936, Description: FC-MW02SR1-NP-20171128

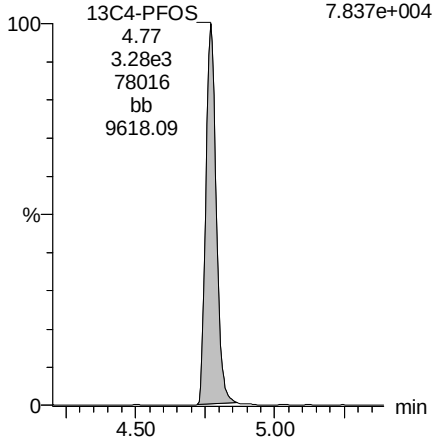
13C3-PFHxS



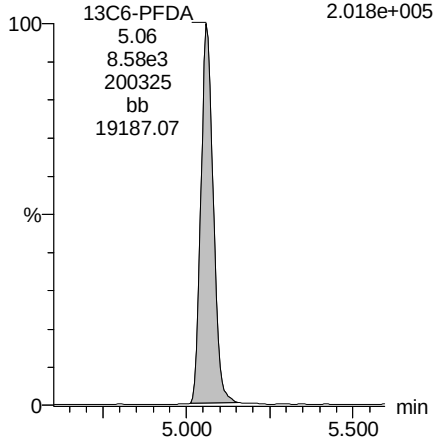
13C9-PFNA



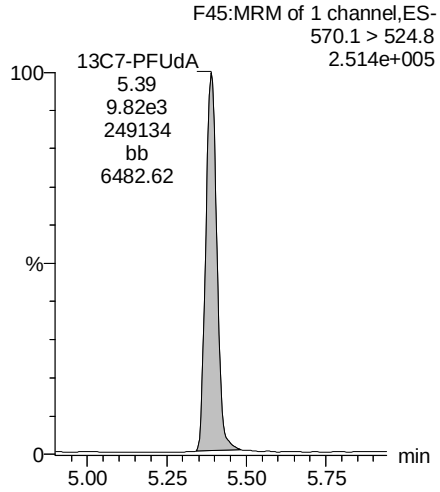
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-18.qld

Last Altered: Tuesday, January 02, 2018 10:41:48 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:42:44 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_18, Date: 15-Dec-2017, Time: 19:43:15, ID: 1701802-02 FC-MW02SR1-P1-20171128 0.26109, Description: FC-MW02SR1-P1-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	7.15e1	1.25e3	0.261		2.70	2.61	0.714	1.3864	
2	4	PFHxA	313.2 > 268.9	5.15e3	3.43e3	0.261		3.18	3.11	7.50	19.7394	
3	5	PFHpA	363.0 > 318.9	1.97e3	6.60e3	0.261		3.80	3.73	3.73	10.8116	
4	6	L-PFHxS	398.9 > 79.6	7.56e1	1.10e3	0.261		4.00	3.88	0.861	1.8989	
5	9	L-PFOA	413 > 368.7	6.86e3	9.65e3	0.261		4.33	4.25	8.89	36.5606	
6	12	PFNA	463.0 > 418.8	6.23e4	7.82e3	0.261		4.78	4.69	99.6	314.0918	
7	14	L-PFOS	499 > 79.9	5.29e2	3.05e3	0.261		4.83	4.78	2.17	7.9633	
8	16	PFDA	513 > 468.8	1.00e4	6.80e3	0.261		5.12	5.07	18.5	63.7457	
9	18	N-MeFOSAA	570.1 > 419		2.84e3	0.261		5.25				
10	19	N-EtFOSAA	584.2 > 419		3.12e3	0.261		5.45				
11	20	PFUdA	563.0 > 518.9	1.91e5	7.58e3	0.261		5.44	5.39	315	1280.2680E	
12	22	PFDoA	612.9 > 569.0	4.18e2	4.67e3	0.261		5.75	5.67	1.12	2.1416	

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Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-18.qld

Last Altered: Tuesday, January 02, 2018 10:41:48 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:42:53 Pacific Standard Time

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Name: 171215M2_18, Date: 15-Dec-2017, Time: 19:43:15, ID: 1701802-02 FC-MW02SR1-P1-20171128 0.26109, Description: FC-MW02SR1-P1-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	6.75e2	4.67e3	0.261		5.97	5.91	1.81	3.4613	
2	25	PFTeDA	712.9 > 668.8		4.86e3	0.261		6.20				
3	33	13C3-PFBS	302. > 98.8	1.25e3	1.18e4	0.261	0.124	2.70	2.61	1.33	40.8810	85.4
4	34	13C2-PFHxA	315 > 269.8	3.43e3	1.18e4	0.261	0.897	3.18	3.11	3.64	15.5530	81.2
5	35	13C4-PFHpA	367.2 > 321.8	6.60e3	1.18e4	0.261	0.689	3.80	3.73	7.00	38.8582	81.2
6	36	18O2-PFHxS	403.0 > 102.6	1.10e3	2.67e3	0.261	0.530	4.00	3.88	5.14	37.1388	77.6
7	37	13C2-6:2 FTS	429.1 > 408.9	1.95e3	8.68e3	0.261	0.331	4.26	4.20	2.80	32.4926	67.9
8	38	13C2-PFOA	414.9 > 369.7	9.65e3	8.68e3	0.261	1.316	4.32	4.25	13.9	40.4434	84.5
9	39	13C5-PFNA	468.2 > 422.9	7.82e3	9.01e3	0.261	1.109	4.78	4.69	10.9	37.4731	78.3
10	40	13C8-PFOSA	506.1 > 77.7	2.13e3	7.82e3	0.261	0.487	4.81	4.75	3.40	26.7397	55.9
11	41	13C8-PFOS	507.0 > 79.9	3.05e3	2.74e3	0.261	1.163	4.83	4.78	13.9	45.9323	95.9
12	42	13C2-PFDA	515.1 > 469.9	6.80e3	6.81e3	0.261	1.694	5.12	5.07	12.5	28.1927	58.9
13	43	13C2-8:2 FTS	529.1 > 508.7	1.03e3	1.18e4	0.261	0.141	5.09	5.04	1.09	29.5574	61.7
14	44	d3-N-MeFOSAA	573.3 > 419	2.84e3	7.82e3	0.261	0.530	5.25	5.21	4.53	32.7677	68.4
15	45	d5-N-EtFOSAA	589.3 > 419	3.12e3	7.82e3	0.261	0.541	5.45	5.37	4.99	35.3756	73.9
16	46	13C2-PFUdA	565 > 519.8	7.58e3	7.82e3	0.261	1.351	5.44	5.39	12.1	34.3206	71.7
17	47	13C2-PFDoA	615.0 > 569.7	4.67e3	7.82e3	0.261	0.765	5.75	5.67	7.46	37.3792	78.1
18	49	13C2-PFTeDA	714.8 > 669.6	4.86e3	7.82e3	0.261	0.771	6.20	6.13	7.76	38.5648	80.6
19	55	13C5-PFHxA	318 > 272.9	1.18e4	1.18e4	0.261	1.000	3.18	3.11	12.5	47.8762	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.67e3	2.67e3	0.261	1.000	4.00	3.88	12.5	47.8762	100.0
21	57	13C8-PFOA	421.3 > 376	8.68e3	8.68e3	0.261	1.000	4.32	4.25	12.5	47.8762	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.01e3	9.01e3	0.261	1.000	4.78	4.69	12.5	47.8762	100.0
23	59	13C4-PFOS	503 > 79.9	2.74e3	2.74e3	0.261	1.000	4.83	4.78	12.5	47.8762	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.81e3	6.81e3	0.261	1.000	5.12	5.07	12.5	47.8762	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.82e3	7.82e3	0.261	1.000	5.44	5.39	12.5	47.8762	100.0
26	62	Total PFHxS	398.9 > 79.6	7.56e1	1.10e3	0.261		4.00		0.861	1.8989	
27	63	Total PFOA	413 > 368.7	6.86e3	9.65e3	0.261		4.32		8.89	36.5606	
28	64	Total PFOS	499 > 79.9	5.29e2	3.05e3	0.261		4.83		2.17	7.9633	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.84e3	0.261		5.25		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.12e3	0.261		5.45		0.000		

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Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-18.qld

Last Altered: Tuesday, January 02, 2018 10:41:48 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:42:53 Pacific Standard Time

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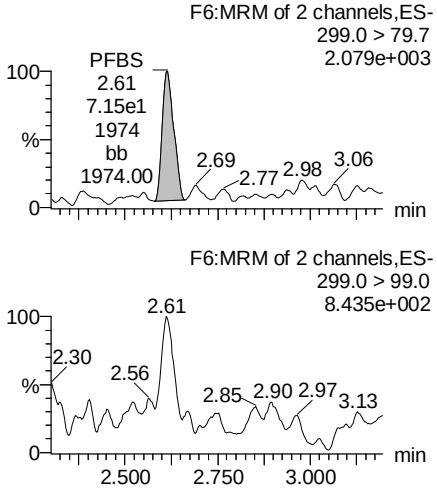
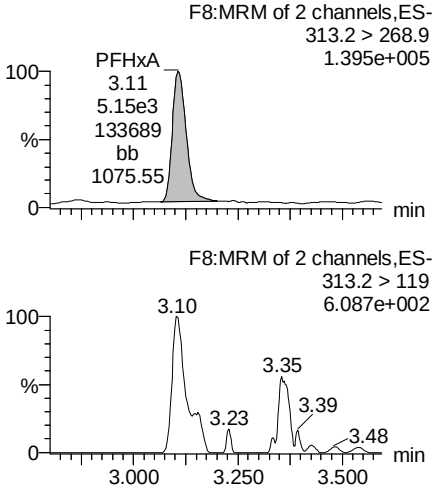
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_18, Date: 15-Dec-2017, Time: 19:43:15, ID: 1701802-02 FC-MW02SR1-P1-20171128 0.26109, Description: FC-MW02SR1-P1-20171128

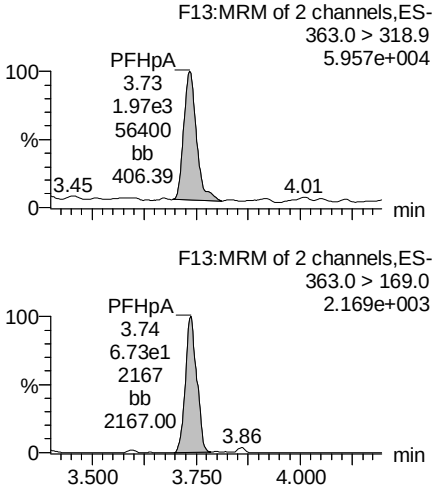
PFBS



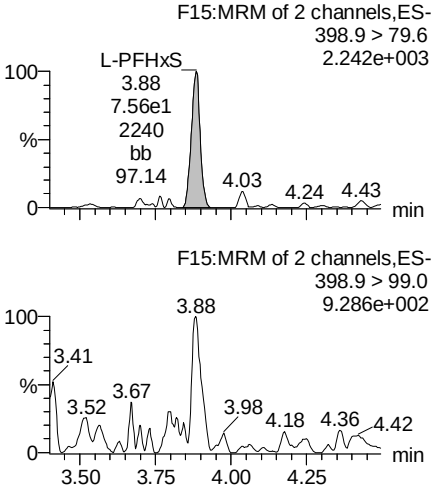
PFHxA



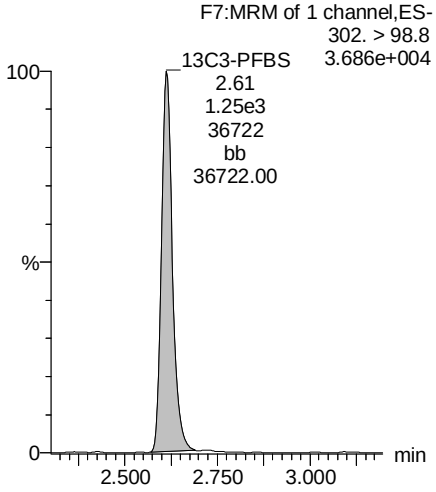
PFHpA



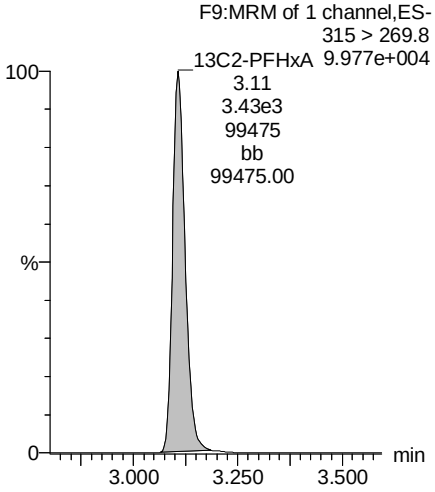
Total PFHxS



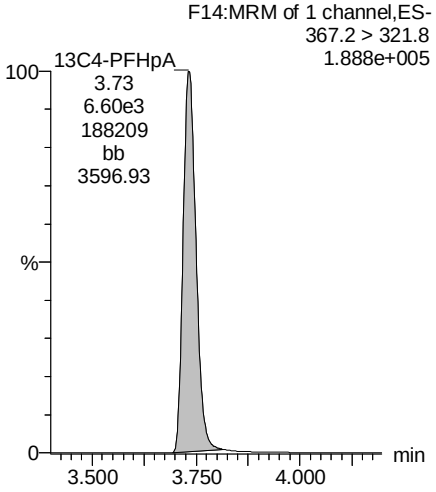
13C3-PFBS



13C2-PFHxA



13C4-PFHpA



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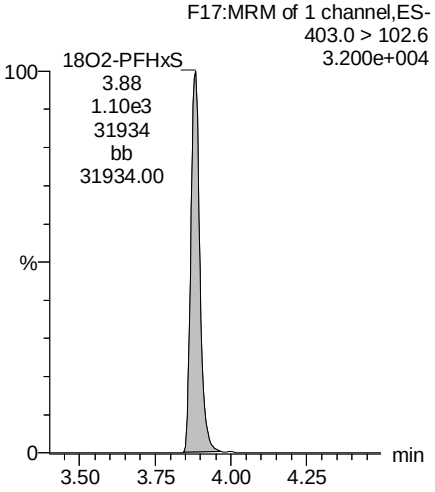

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Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-18.qld

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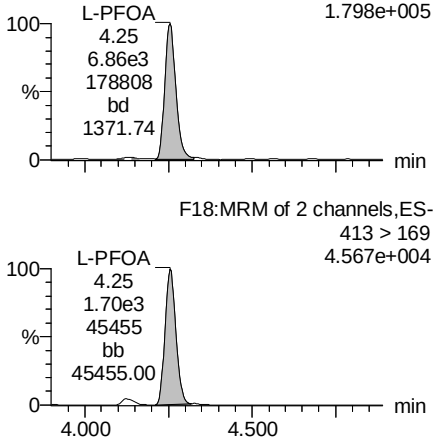
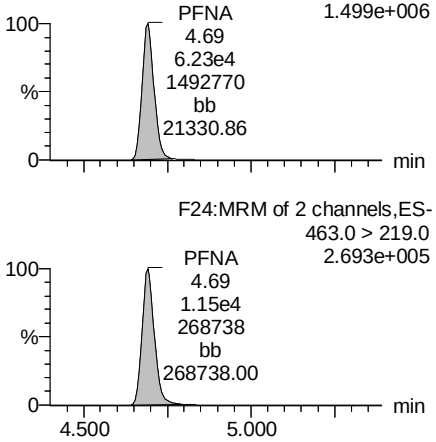
Printed: Tuesday, January 02, 2018 10:42:53 Pacific Standard Time

Name: 171215M2_18, Date: 15-Dec-2017, Time: 19:43:15, ID: 1701802-02 FC-MW02SR1-P1-20171128 0.26109, Description: FC-MW02SR1-P1-20171128

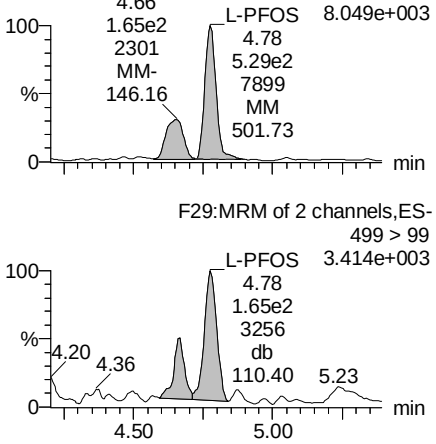
Total PFOA



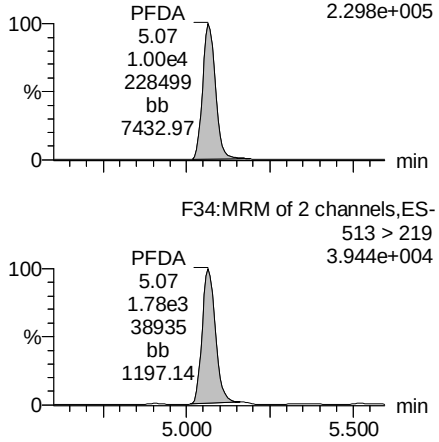
PFNA



Total PFOS



PFDA



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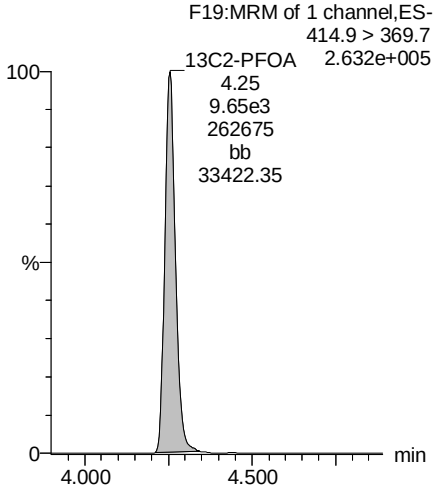
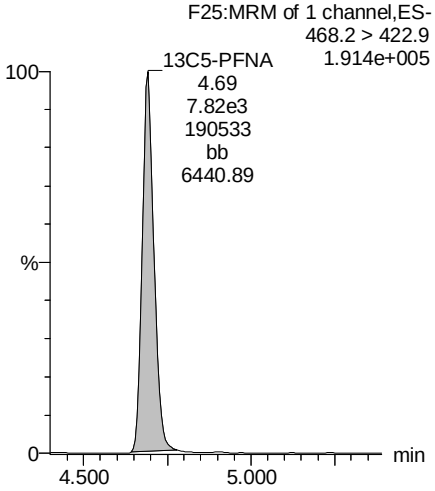
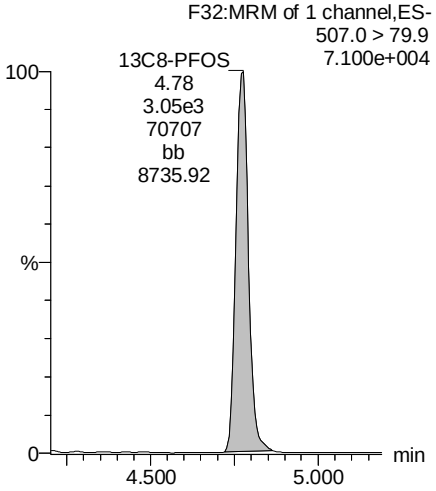


13C5-PFNA



13C8-PFOS



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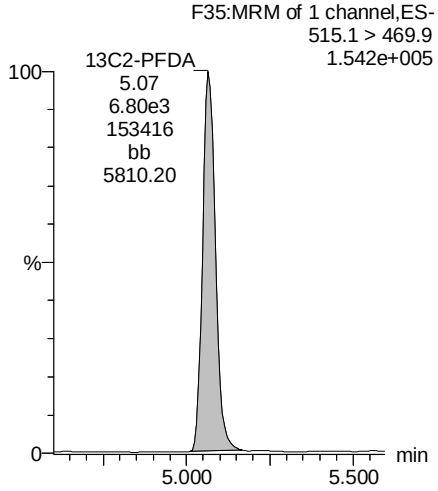

ANP 1/2/2018

Dataset: U:\Q4.PRO\results\171215M2\171215M2-18.qld

Last Altered: Tuesday, January 02, 2018 10:41:48 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:42:53 Pacific Standard Time

Name: 171215M2_18, Date: 15-Dec-2017, Time: 19:43:15, ID: 1701802-02 FC-MW02SR1-P1-20171128 0.26109, Description: FC-MW02SR1-P1-20171128

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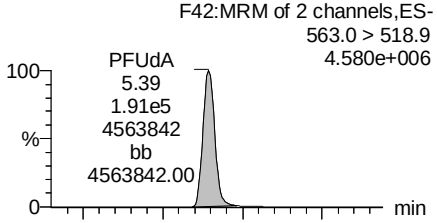
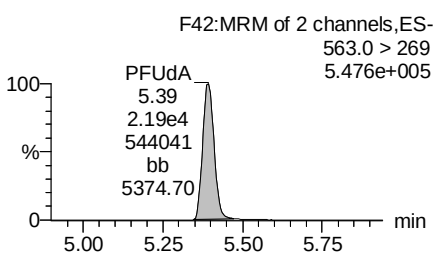
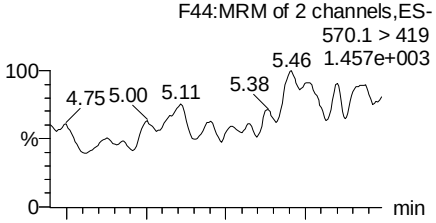
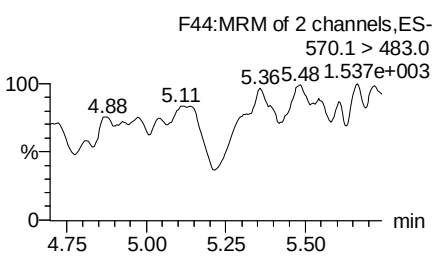


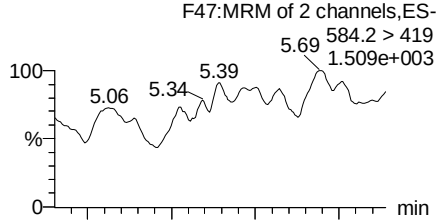


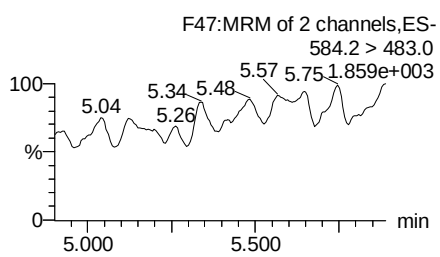
N-MeFOSAA



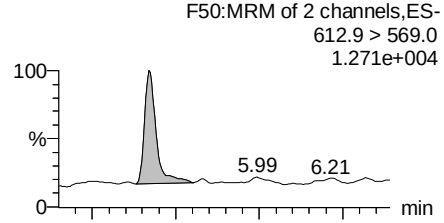


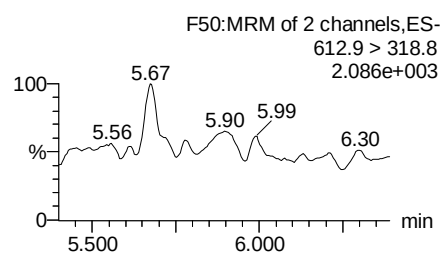
N-EtFOSAA





PFDoA





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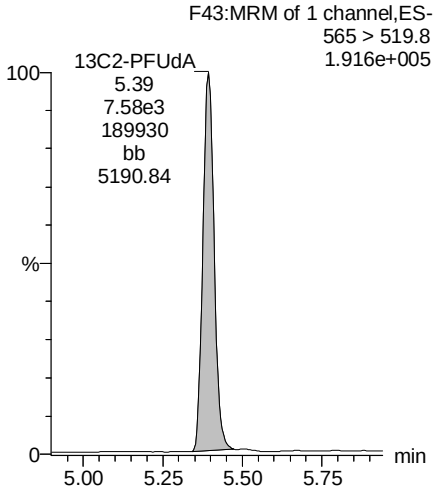

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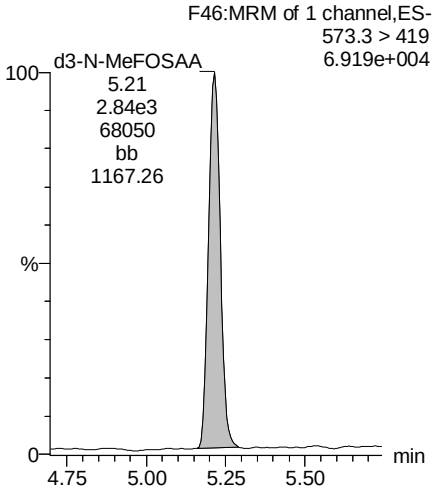

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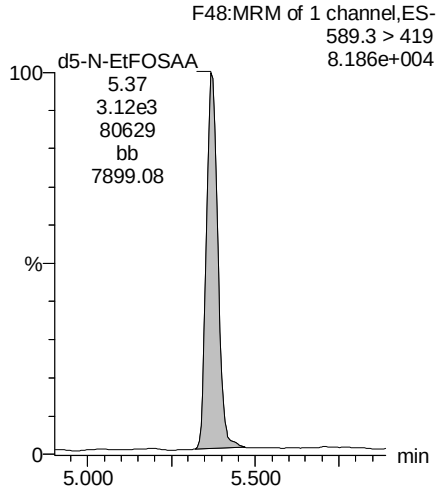

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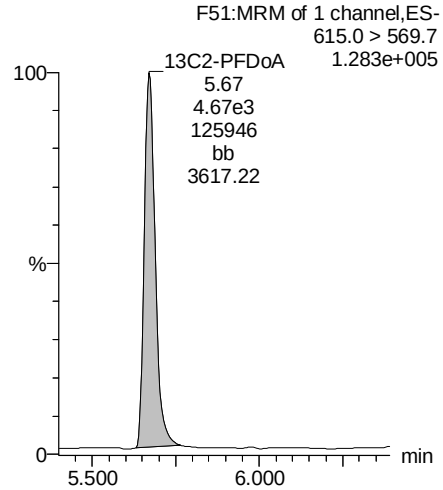

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Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-18.qld

Last Altered: Tuesday, January 02, 2018 10:41:48 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:42:53 Pacific Standard Time

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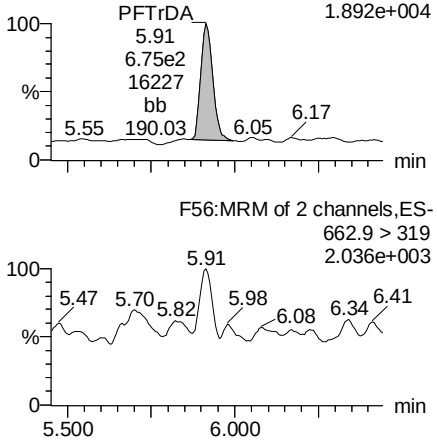

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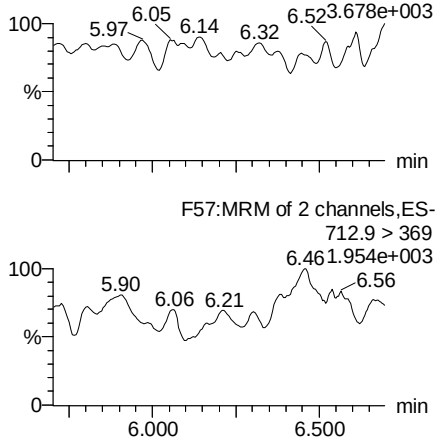

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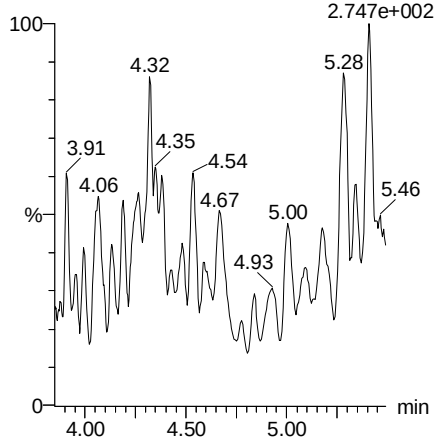
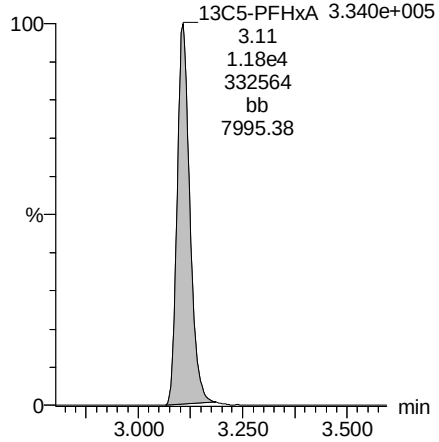


13C5-PFHxA



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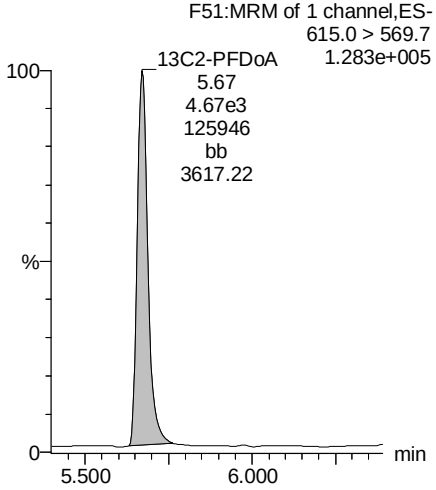

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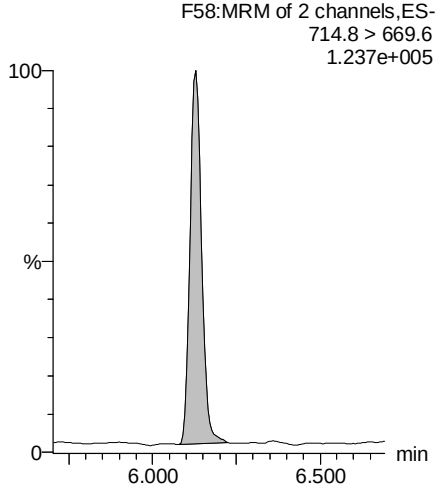

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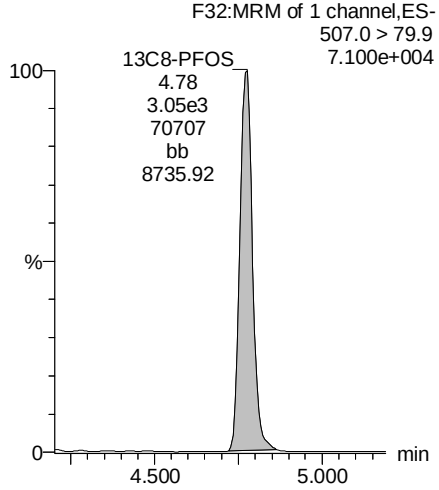

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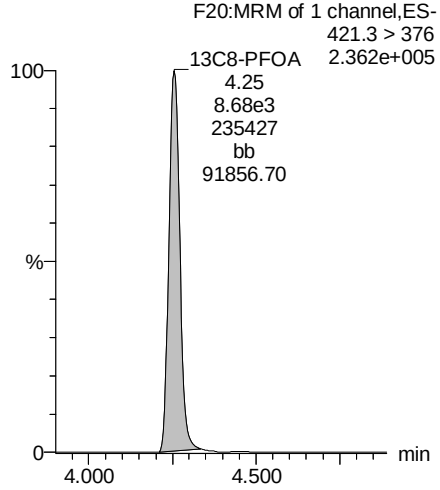

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Vista Analytical Laboratory

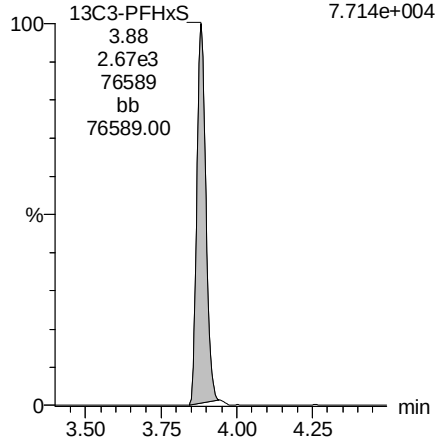
Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-18.qld

Last Altered: Tuesday, January 02, 2018 10:41:48 Pacific Standard Time
Printed: Tuesday, January 02, 2018 10:42:53 Pacific Standard Time

Name: 171215M2_18, Date: 15-Dec-2017, Time: 19:43:15, ID: 1701802-02 FC-MW02SR1-P1-20171128 0.26109, Description: FC-MW02SR1-P1-20171128

13C3-PFHxS



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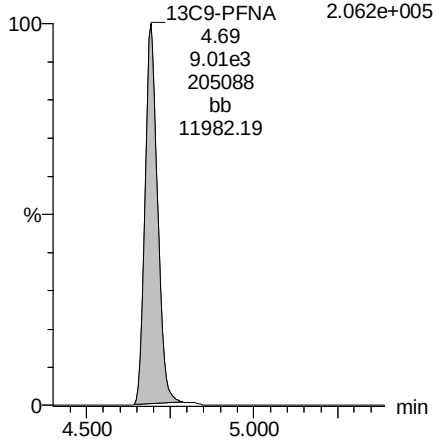

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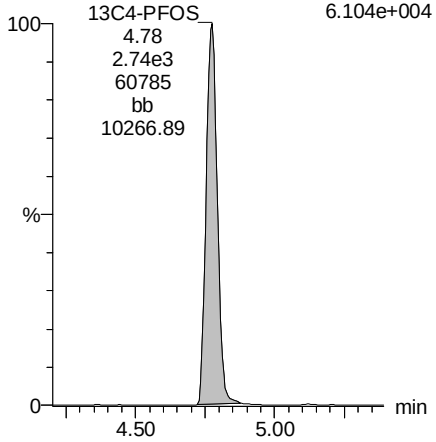

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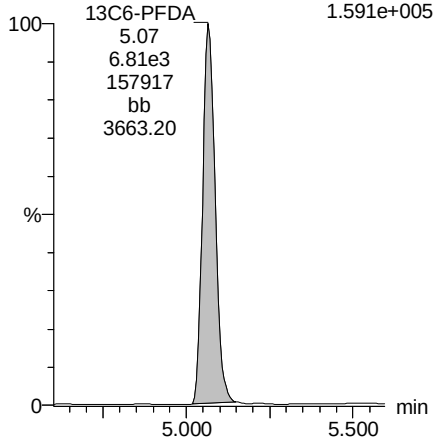
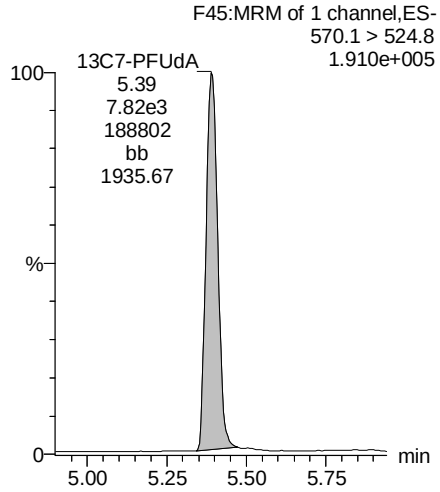


13C7-PFUdA



ANP 1/2/2018

Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-22.qld

Last Altered: Wednesday, January 03, 2018 07:02:17 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:03:54 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 19 Dec 2017 14:18:19
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_22, Date: 15-Dec-2017, Time: 20:27:58, ID: 1701802-03 FC-MW02SR1-P2-20171128 0.26475, Description: FC-MW02SR1-P2-20171128

	#	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	0.265		2.70				
2	4	PFHxA	313.2 > 268.9	6.01e3	3.41e3	0.265		3.18	3.11	8.80	22.8410	
3	5	PFHpA	363.0 > 318.9	2.11e3	7.29e3	0.265		3.80	3.73	3.61	10.3272	
4	6	L-PFHxS	398.9 > 79.6	6.32e1	1.07e3	0.265		4.00	3.88	0.738	1.6338	
5	9	L-PFOA	413 > 368.7	6.55e3	8.99e3	0.265		4.33	4.25	9.10	36.9245	
6	12	PFNA	463.0 > 418.8	6.14e4	7.57e3	0.265		4.78	4.69	101	315.6044	
7	14	L-PFOS	499 > 79.9	6.79e2	2.67e3	0.265		4.83	4.77	3.18	11.1912	
8	16	PFDA	513 > 468.8	1.49e4	8.99e3	0.265		5.12	5.07	20.8	70.7926	
9	18	N-MeFOSAA	570.1 > 419		2.53e3	0.265		5.25				
10	19	N-EtFOSAA	584.2 > 419		2.78e3	0.265		5.45				
11	20	PFUdA	563.0 > 518.9	2.28e5	7.63e3	0.265		5.44	5.39	374	1515.0115	E
12	22	PFDoA	612.9 > 569.0		4.30e3	0.265		5.75				

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Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-22.qld

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Printed: Wednesday, January 03, 2018 07:04:08 Pacific Standard Time

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Name: 171215M2_22, Date: 15-Dec-2017, Time: 20:27:58, ID: 1701802-03 FC-MW02SR1-P2-20171128 0.26475, Description: FC-MW02SR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.30e3	0.265		5.97				
2	25	PFTeDA	712.9 > 668.8		5.18e3	0.265		6.20				
3	33	13C3-PFBS	302. > 98.8	1.23e3	1.33e4	0.265	0.124	2.70	2.61	1.15	35.0741	74.3
4	34	13C2-PFHxA	315 > 269.8	3.41e3	1.33e4	0.265	0.897	3.18	3.11	3.21	13.5231	71.6
5	35	13C4-PFHpA	367.2 > 321.8	7.29e3	1.33e4	0.265	0.689	3.80	3.73	6.86	37.5730	79.6
6	36	18O2-PFHxS	403.0 > 102.6	1.07e3	2.49e3	0.265	0.530	4.00	3.88	5.38	38.3144	81.1
7	37	13C2-6:2 FTS	429.1 > 408.9	1.86e3	9.64e3	0.265	0.331	4.26	4.20	2.41	27.4935	58.2
8	38	13C2-PFOA	414.9 > 369.7	8.99e3	9.64e3	0.265	1.316	4.32	4.25	11.7	33.4616	70.9
9	39	13C5-PFNA	468.2 > 422.9	7.57e3	9.87e3	0.265	1.109	4.78	4.69	9.59	32.6368	69.1
10	40	13C8-PFOSA	506.1 > 77.7	2.30e3	8.69e3	0.265	0.487	4.81	4.75	3.30	25.6473	54.3
11	41	13C8-PFOS	507.0 > 79.9	2.67e3	3.23e3	0.265	1.163	4.83	4.77	10.3	33.5034	71.0
12	42	13C2-PFDA	515.1 > 469.9	8.99e3	8.51e3	0.265	1.694	5.12	5.07	13.2	29.4523	62.4
13	43	13C2-8:2 FTS	529.1 > 508.7	1.11e3	1.33e4	0.265	0.141	5.09	5.04	1.04	27.8730	59.0
14	44	d3-N-MeFOSAA	573.3 > 419	2.53e3	8.69e3	0.265	0.530	5.25	5.21	3.63	25.8950	54.8
15	45	d5-N-EtFOSAA	589.3 > 419	2.78e3	8.69e3	0.265	0.541	5.45	5.37	4.00	27.9249	59.1
16	46	13C2-PFUdA	565 > 519.8	7.63e3	8.69e3	0.265	1.351	5.44	5.39	11.0	30.6666	65.0
17	47	13C2-PFDoA	615.0 > 569.7	4.30e3	8.69e3	0.265	0.765	5.75	5.67	6.18	30.5299	64.7
18	49	13C2-PFTeDA	714.8 > 669.6	5.18e3	8.69e3	0.265	0.771	6.20	6.13	7.44	36.4697	77.2
19	55	13C5-PFHxA	318 > 272.9	1.33e4	1.33e4	0.265	1.000	3.18	3.11	12.5	47.2144	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.49e3	2.49e3	0.265	1.000	4.00	3.88	12.5	47.2144	100.0
21	57	13C8-PFOA	421.3 > 376	9.64e3	9.64e3	0.265	1.000	4.32	4.25	12.5	47.2144	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.87e3	9.87e3	0.265	1.000	4.78	4.69	12.5	47.2144	100.0
23	59	13C4-PFOS	503 > 79.9	3.23e3	3.23e3	0.265	1.000	4.83	4.77	12.5	47.2144	100.0
24	60	13C6-PFDA	519.1 > 473.7	8.51e3	8.51e3	0.265	1.000	5.12	5.07	12.5	47.2144	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.69e3	8.69e3	0.265	1.000	5.44	5.39	12.5	47.2144	100.0
26	62	Total PFHxS	398.9 > 79.6	6.32e1	1.07e3	0.265		4.00		0.738	1.6338	
27	63	Total PFOA	413 > 368.7	6.55e3	8.99e3	0.265		4.32		9.10	36.9245	
28	64	Total PFOS	499 > 79.9	6.79e2	2.67e3	0.265		4.83		3.18	11.1912	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.53e3	0.265		5.25		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.78e3	0.265		5.45		0.000		

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Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-22.qld

Last Altered: Wednesday, January 03, 2018 07:02:17 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:04:08 Pacific Standard Time

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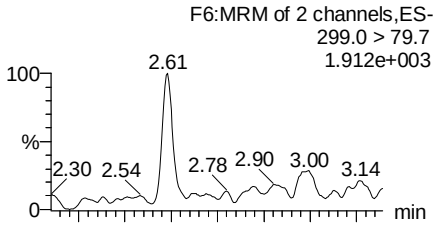
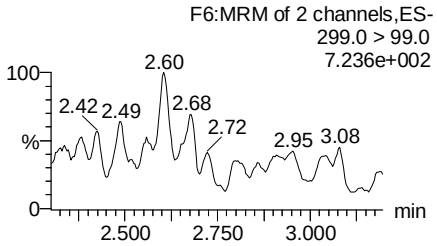
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_22, Date: 15-Dec-2017, Time: 20:27:58, ID: 1701802-03 FC-MW02SR1-P2-20171128 0.26475, Description: FC-MW02SR1-P2-20171128

PFBS





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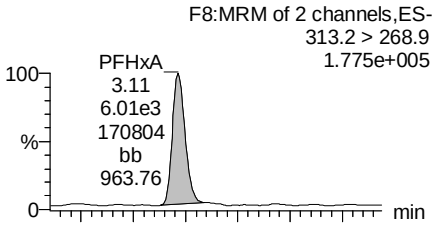

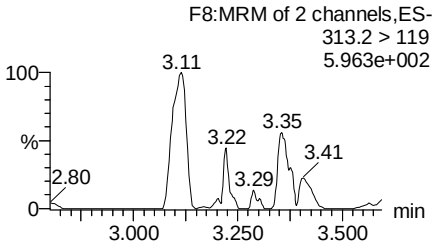

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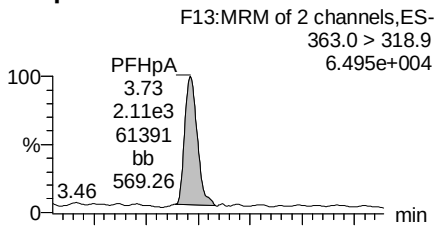

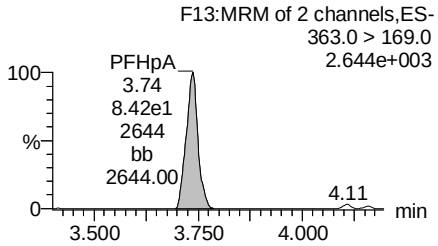

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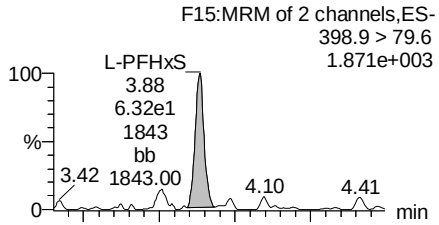

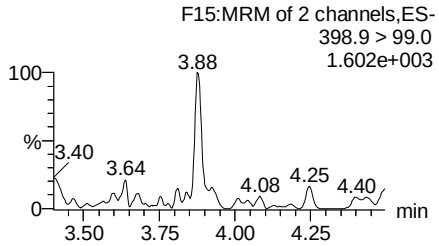

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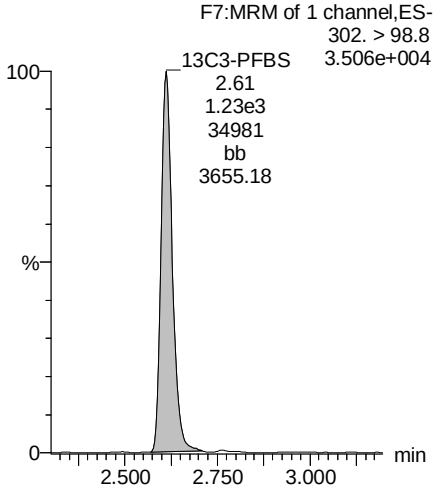

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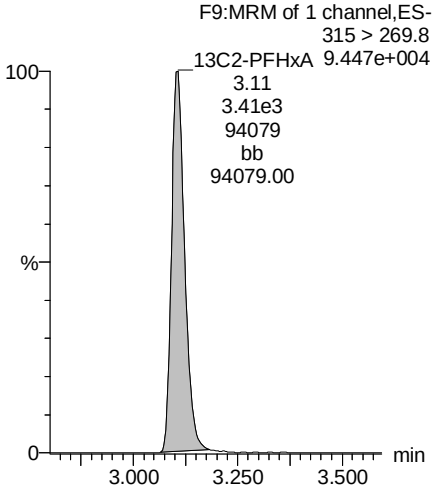
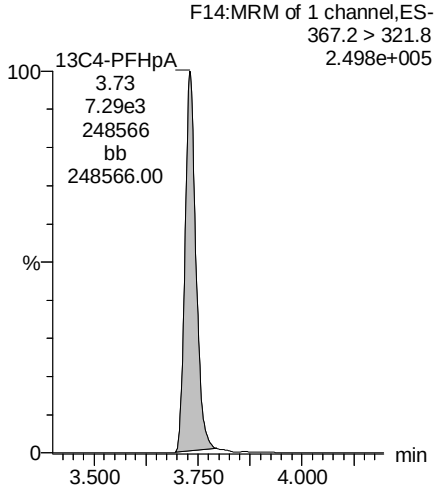
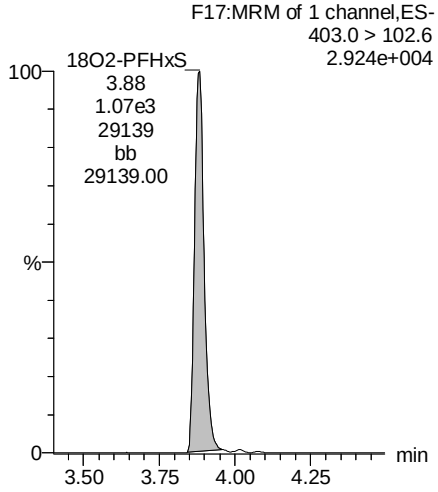


13C4-PFHpA



18O2-PFHxS



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Vista Analytical Laboratory

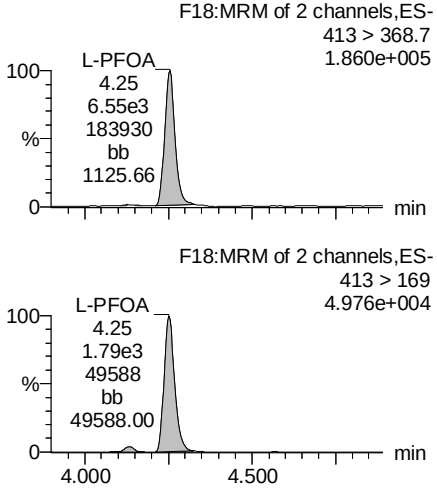
Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-22.qld

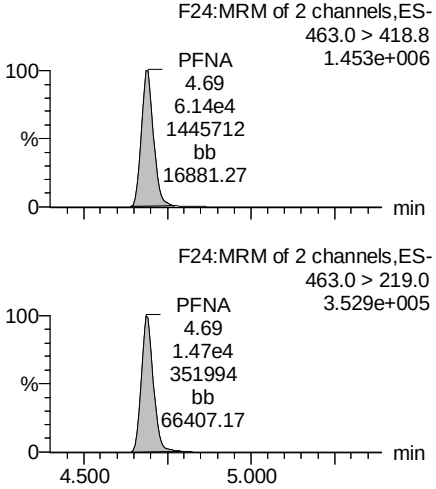
Last Altered: Wednesday, January 03, 2018 07:02:17 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:04:08 Pacific Standard Time

Name: 171215M2_22, Date: 15-Dec-2017, Time: 20:27:58, ID: 1701802-03 FC-MW02SR1-P2-20171128 0.26475, Description: FC-MW02SR1-P2-20171128

Total PFOA



PFNA



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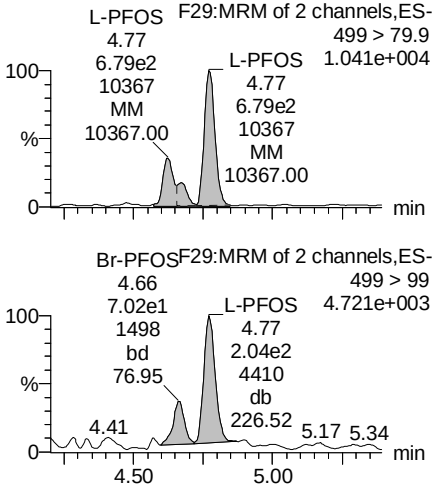
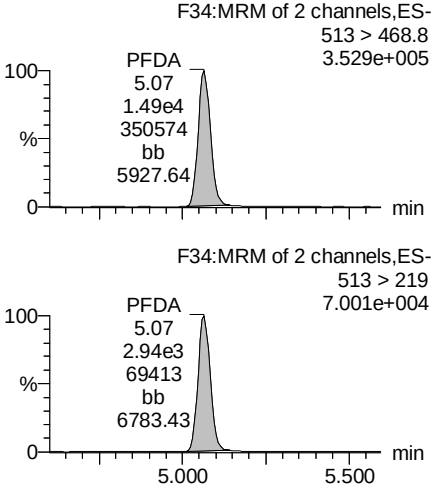
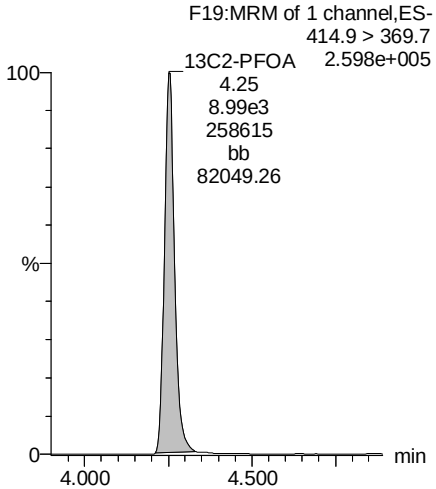


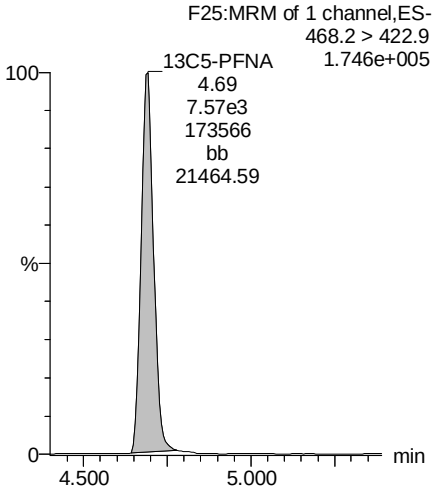
PFDA



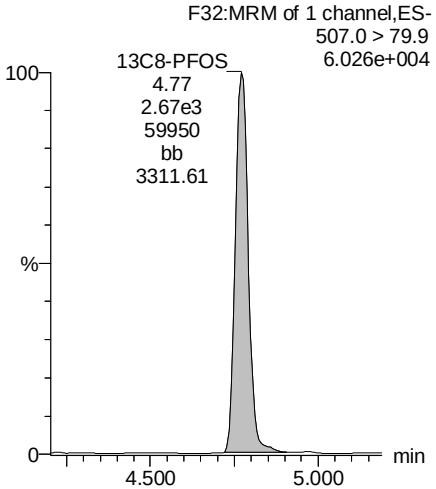
13C2-PFOA



13C5-PFNA



13C8-PFOS



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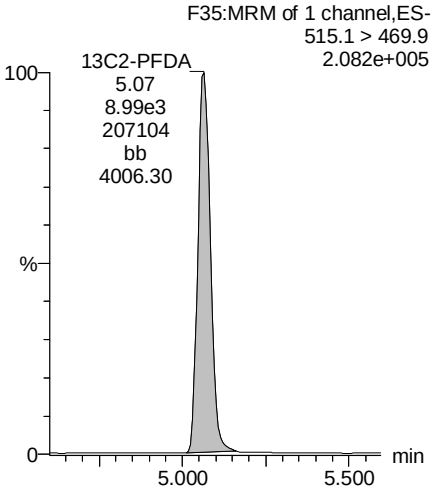

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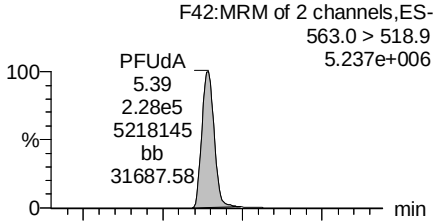
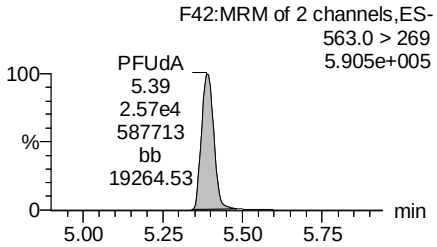
Dataset: U:\Q4.PRO\results\171215M2\171215M2-22.qld

Last Altered: Wednesday, January 03, 2018 07:02:17 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:04:08 Pacific Standard Time

Name: 171215M2_22, Date: 15-Dec-2017, Time: 20:27:58, ID: 1701802-03 FC-MW02SR1-P2-20171128 0.26475, Description: FC-MW02SR1-P2-20171128

PFUdA





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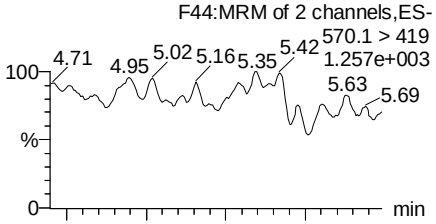
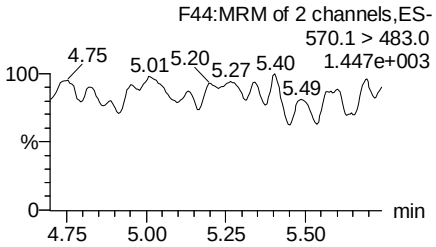
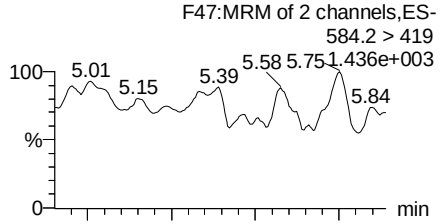
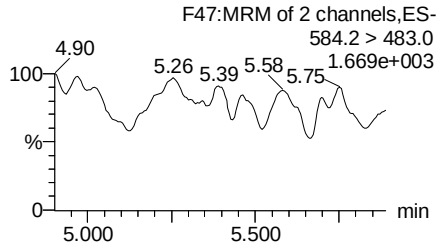


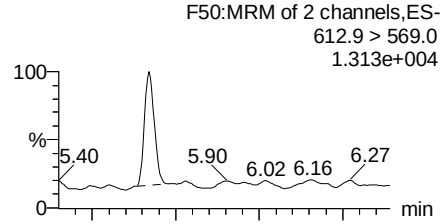


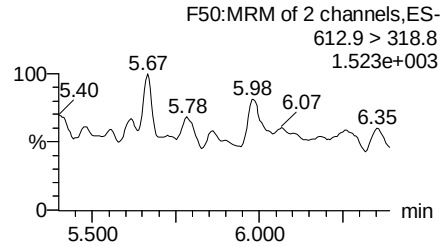
N-EtFOSAA



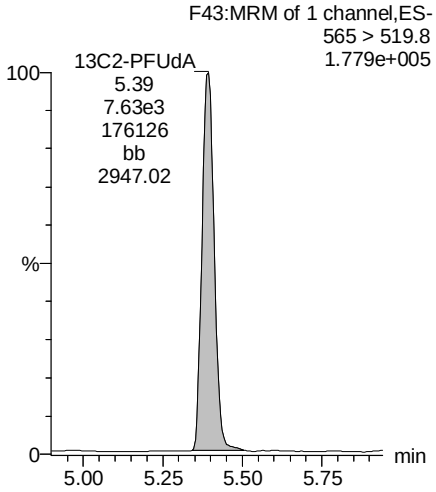


PFDoA

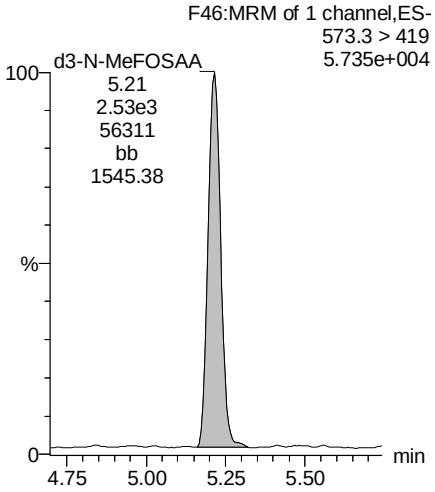




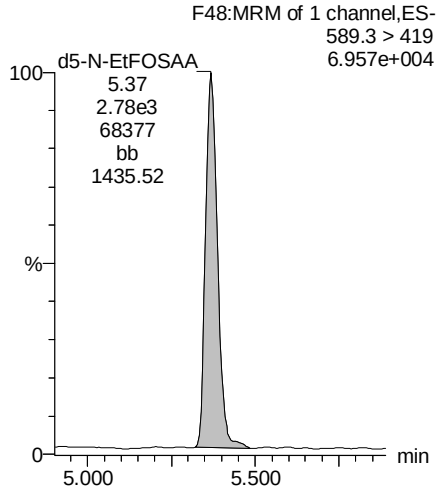
13C2-PFUdA



d3-N-MeFOSAA



d5-N-EtFOSAA



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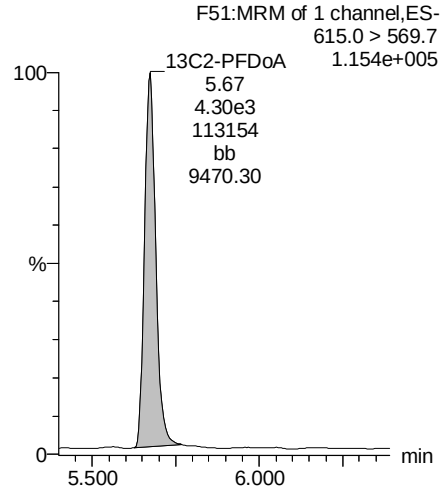

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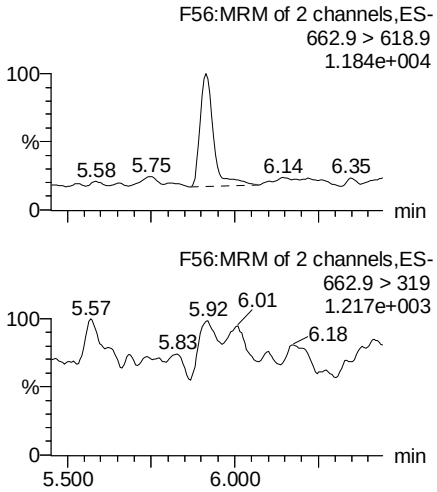
Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-22.qld

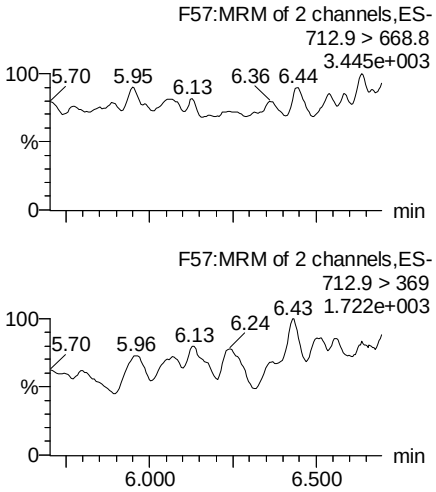
Last Altered: Wednesday, January 03, 2018 07:02:17 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:04:08 Pacific Standard Time

Name: 171215M2_22, Date: 15-Dec-2017, Time: 20:27:58, ID: 1701802-03 FC-MW02SR1-P2-20171128 0.26475, Description: FC-MW02SR1-P2-20171128

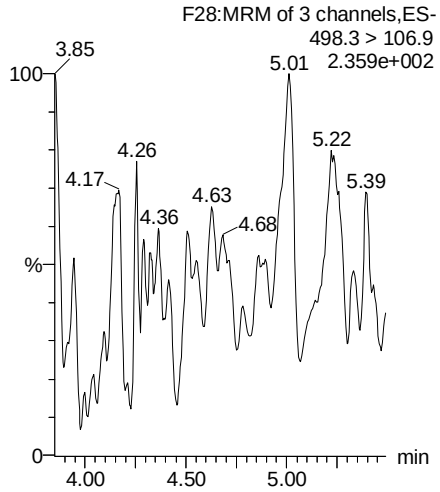
PFTrDA



PFTeDA



TCDA



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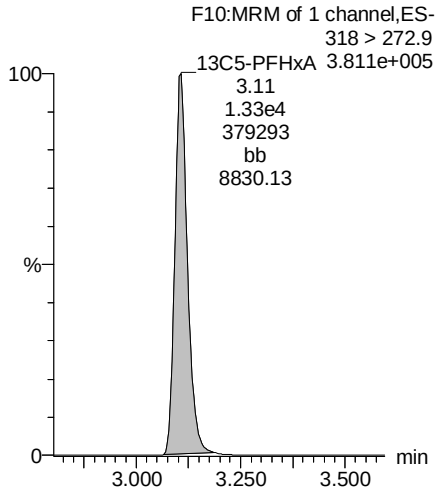

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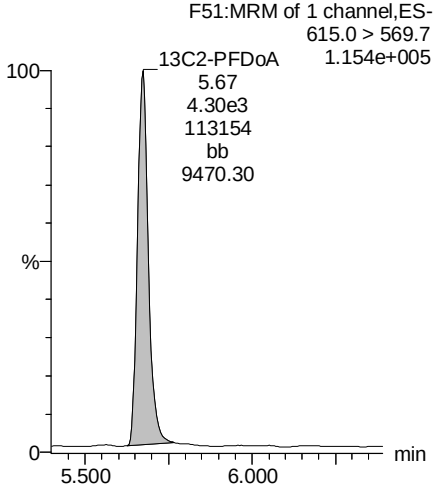

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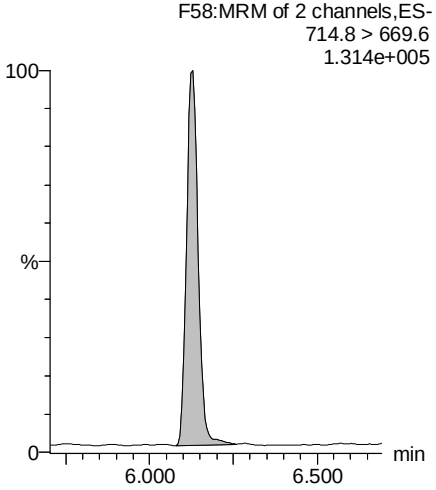
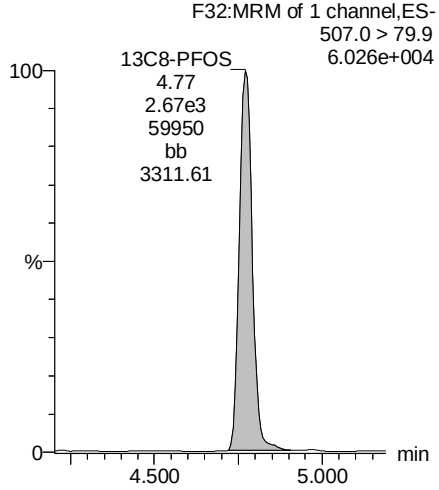
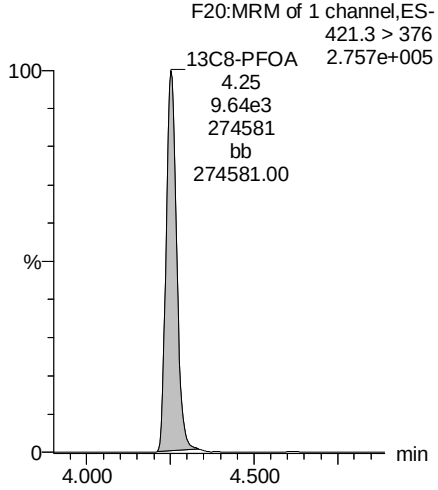


13C8-PFOS



13C8-PFOA



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Vista Analytical Laboratory

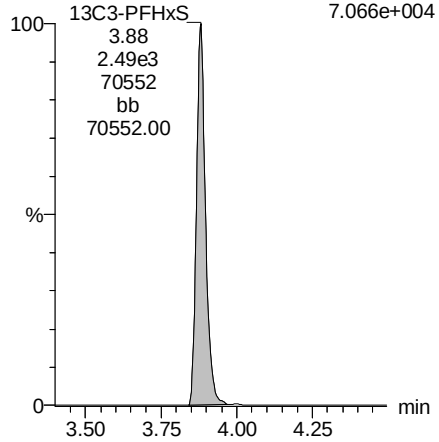
Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-22.qld

Last Altered: Wednesday, January 03, 2018 07:02:17 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:04:08 Pacific Standard Time

Name: 171215M2_22, Date: 15-Dec-2017, Time: 20:27:58, ID: 1701802-03 FC-MW02SR1-P2-20171128 0.26475, Description: FC-MW02SR1-P2-20171128

13C3-PFHxS



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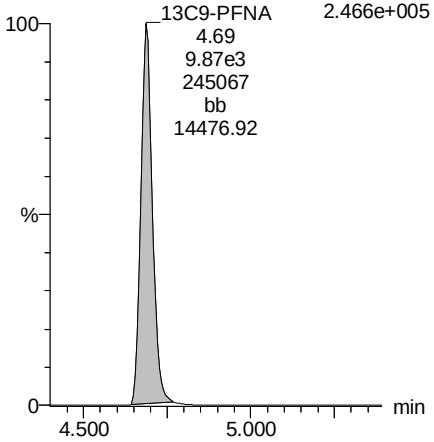
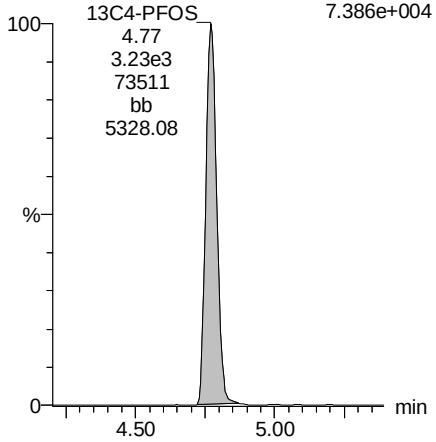
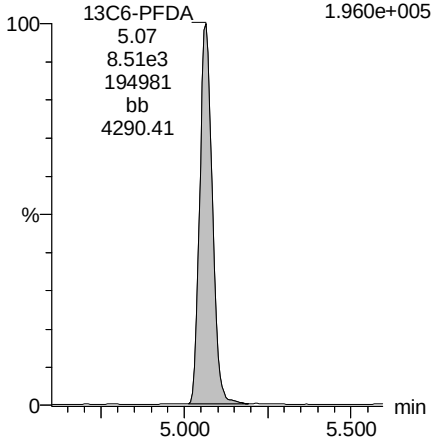


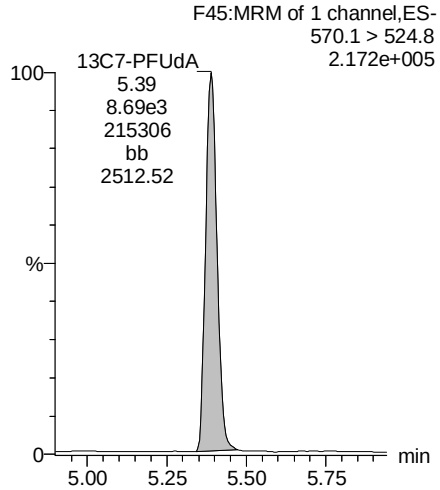
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-23.qld

Last Altered: Wednesday, January 03, 2018 07:07:45 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:08:01 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 19 Dec 2017 14:18:19
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_23, Date: 15-Dec-2017, Time: 20:39:09, ID: 1701802-04 FC-MW02SR1-P3-20171128 0.25852, Description: FC-MW02SR1-P3-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.29e3	0.259		2.70				
2	4	PFHxA	313.2 > 268.9	6.67e3	3.33e3	0.259		3.18	3.11	10.0	26.6702	
3	5	PFHpA	363.0 > 318.9	2.47e3	6.84e3	0.259		3.80	3.74	4.51	13.1697	
4	6	L-PFHxS	398.9 > 79.6	6.21e1	1.01e3	0.259		4.00	3.88	0.766	1.7292	
5	9	L-PFOA	413 > 368.7	6.63e3	8.70e3	0.259		4.33	4.26	9.52	39.6250	
6	12	PFNA	463.0 > 418.8	7.23e4	8.35e3	0.259		4.78	4.69	108	345.7363	
7	14	L-PFOS	499 > 79.9	6.83e2	2.72e3	0.259		4.83	4.78	3.14	11.2981	
8	16	PFDA	513 > 468.8	1.35e4	7.33e3	0.259		5.12	5.07	23.1	80.6864	
9	18	N-MeFOSAA	570.1 > 419		2.59e3	0.259		5.25				
10	19	N-EtFOSAA	584.2 > 419		2.77e3	0.259		5.45				
11	20	PFUdA	563.0 > 518.9	2.74e5	8.03e3	0.259		5.44	5.39	427	1785.8547E	
12	22	PFDoA	612.9 > 569.0	3.15e2	4.15e3	0.259		5.75	5.68	0.949	1.8340	

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Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-23.qld

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Printed: Wednesday, January 03, 2018 07:08:10 Pacific Standard Time

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Name: 171215M2_23, Date: 15-Dec-2017, Time: 20:39:09, ID: 1701802-04 FC-MW02SR1-P3-20171128 0.25852, Description: FC-MW02SR1-P3-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.15e3	0.259		5.97				
2	25	PFTeDA	712.9 > 668.8		4.59e3	0.259		6.20				
3	33	13C3-PFBS	302. > 98.8	1.29e3	1.34e4	0.259	0.124	2.70	2.61	1.21	37.5794	77.7
4	34	13C2-PFHxA	315 > 269.8	3.33e3	1.34e4	0.259	0.897	3.18	3.11	3.10	13.3887	69.2
5	35	13C4-PFHpA	367.2 > 321.8	6.84e3	1.34e4	0.259	0.689	3.80	3.73	6.39	35.8416	74.1
6	36	18O2-PFHxS	403.0 > 102.6	1.01e3	2.79e3	0.259	0.530	4.00	3.88	4.55	33.1516	68.6
7	37	13C2-6:2 FTS	429.1 > 408.9	1.97e3	9.57e3	0.259	0.331	4.26	4.20	2.58	30.1418	62.3
8	38	13C2-PFOA	414.9 > 369.7	8.70e3	9.57e3	0.259	1.316	4.32	4.26	11.4	33.4121	69.1
9	39	13C5-PFNA	468.2 > 422.9	8.35e3	1.15e4	0.259	1.109	4.78	4.69	9.07	31.6400	65.4
10	40	13C8-PFOSA	506.1 > 77.7	2.28e3	8.63e3	0.259	0.487	4.81	4.75	3.31	26.2949	54.4
11	41	13C8-PFOS	507.0 > 79.9	2.72e3	3.39e3	0.259	1.163	4.83	4.77	10.0	33.3476	69.0
12	42	13C2-PFDA	515.1 > 469.9	7.33e3	8.25e3	0.259	1.694	5.12	5.07	11.1	25.3558	52.4
13	43	13C2-8:2 FTS	529.1 > 508.7	1.24e3	1.34e4	0.259	0.141	5.09	5.04	1.15	31.6640	65.5
14	44	d3-N-MeFOSAA	573.3 > 419	2.59e3	8.63e3	0.259	0.530	5.25	5.21	3.75	27.3414	56.5
15	45	d5-N-EtFOSAA	589.3 > 419	2.77e3	8.63e3	0.259	0.541	5.45	5.37	4.01	28.7296	59.4
16	46	13C2-PFUdA	565 > 519.8	8.03e3	8.63e3	0.259	1.351	5.44	5.39	11.6	33.2878	68.8
17	47	13C2-PFDoA	615.0 > 569.7	4.15e3	8.63e3	0.259	0.765	5.75	5.67	6.01	30.3982	62.9
18	49	13C2-PFTeDA	714.8 > 669.6	4.59e3	8.63e3	0.259	0.771	6.20	6.13	6.64	33.3344	68.9
19	55	13C5-PFHxA	318 > 272.9	1.34e4	1.34e4	0.259	1.000	3.18	3.11	12.5	48.3522	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.79e3	2.79e3	0.259	1.000	4.00	3.88	12.5	48.3522	100.0
21	57	13C8-PFOA	421.3 > 376	9.57e3	9.57e3	0.259	1.000	4.32	4.26	12.5	48.3522	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.15e4	1.15e4	0.259	1.000	4.78	4.69	12.5	48.3522	100.0
23	59	13C4-PFOS	503 > 79.9	3.39e3	3.39e3	0.259	1.000	4.83	4.78	12.5	48.3522	100.0
24	60	13C6-PFDA	519.1 > 473.7	8.25e3	8.25e3	0.259	1.000	5.12	5.07	12.5	48.3522	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.63e3	8.63e3	0.259	1.000	5.44	5.39	12.5	48.3522	100.0
26	62	Total PFHxS	398.9 > 79.6	6.21e1	1.01e3	0.259		4.00		0.766	1.7292	
27	63	Total PFOA	413 > 368.7	6.63e3	8.70e3	0.259		4.32		9.52	39.6250	
28	64	Total PFOS	499 > 79.9	6.83e2	2.72e3	0.259		4.83		3.14	11.2981	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.59e3	0.259		5.25		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.77e3	0.259		5.45		0.000		

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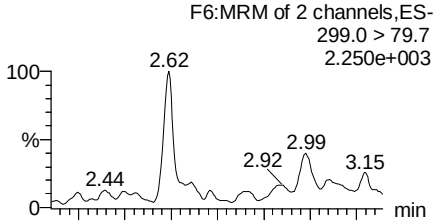

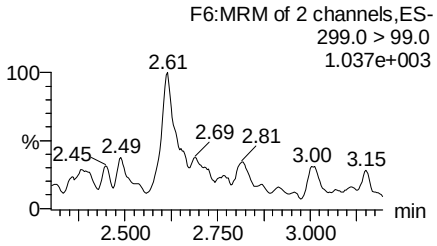

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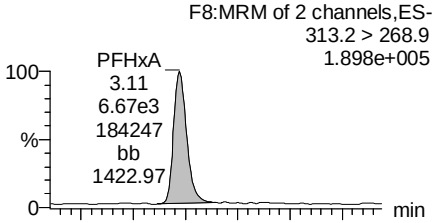

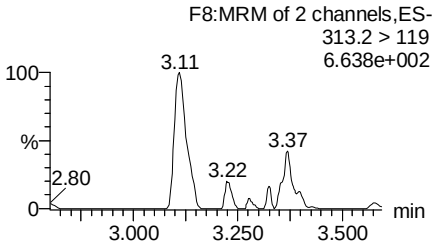

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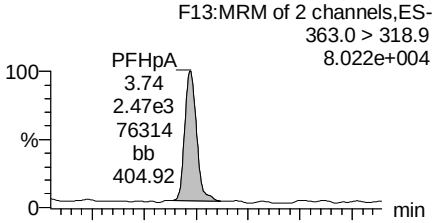

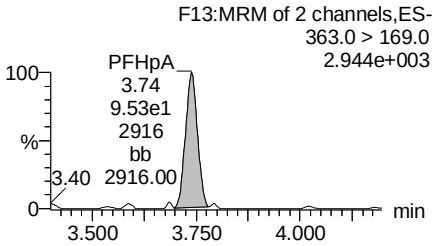

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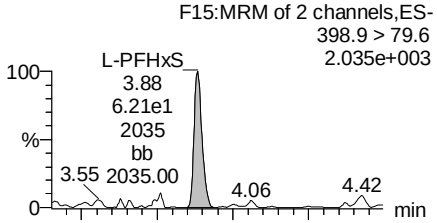

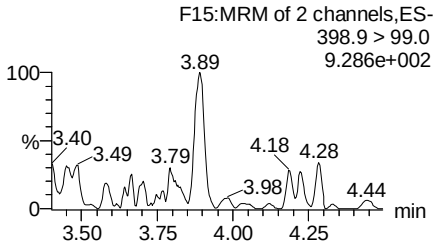

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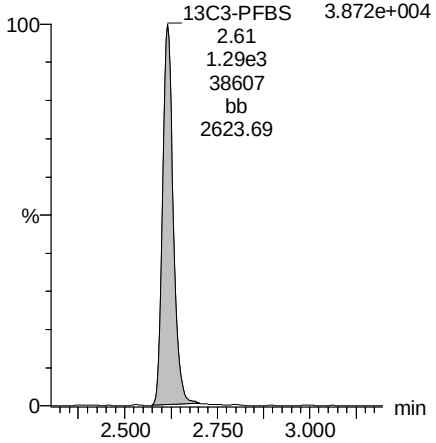

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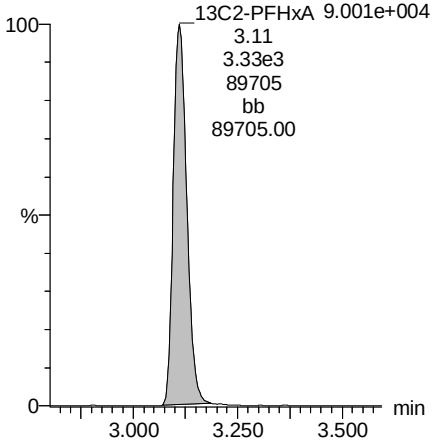

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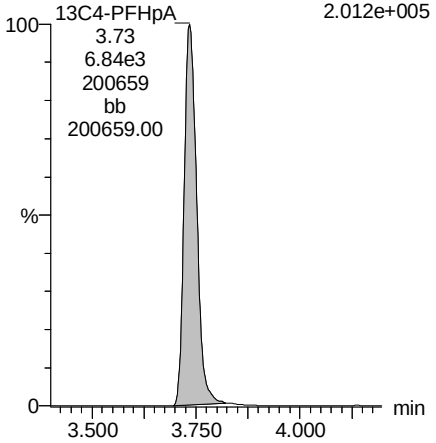

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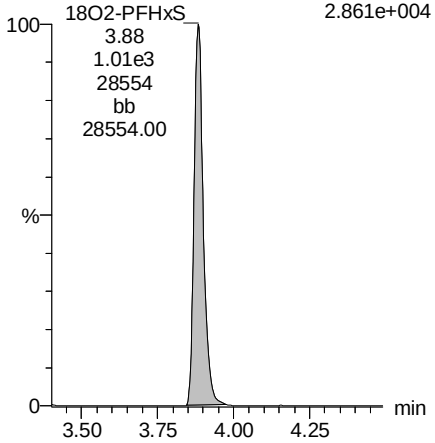

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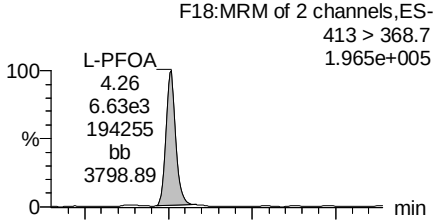

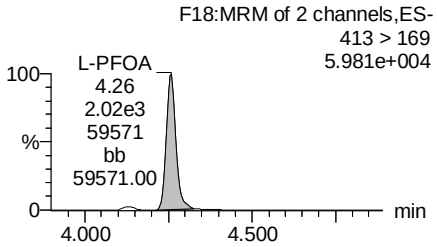

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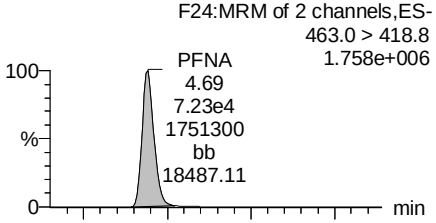

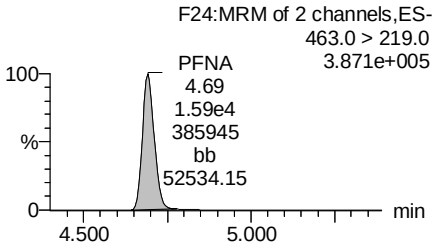

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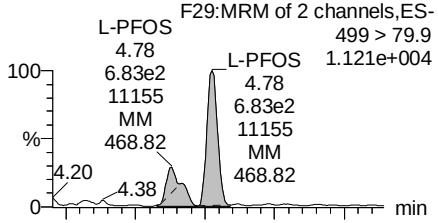

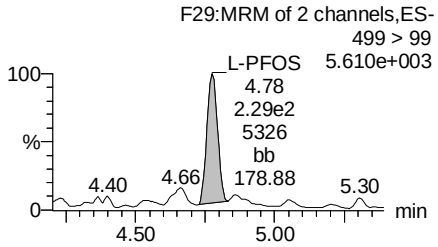

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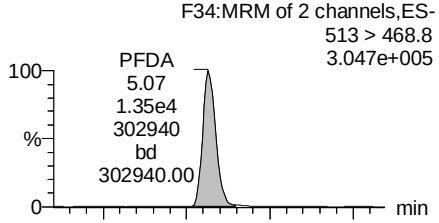

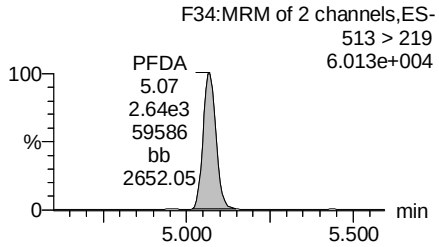

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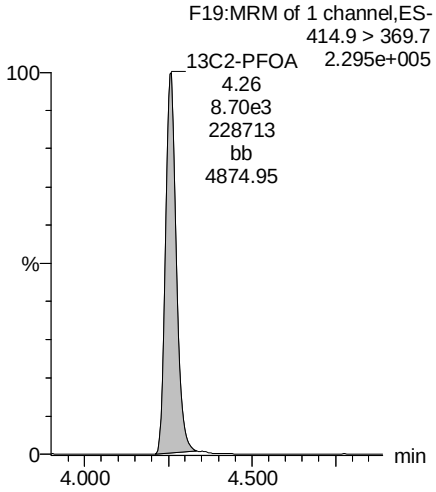

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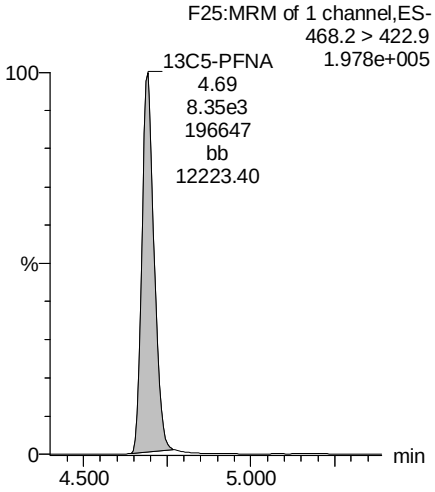

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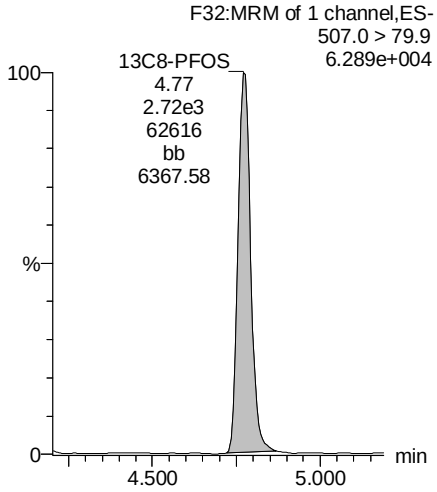

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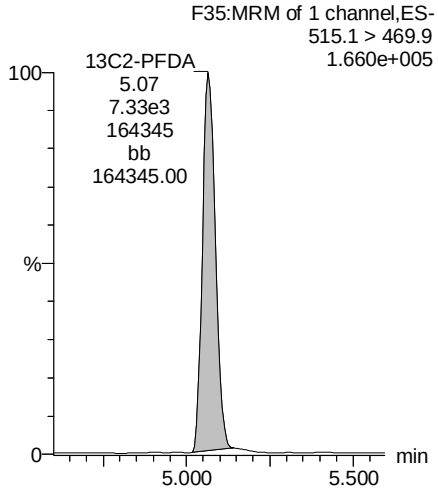

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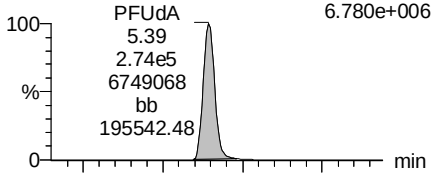

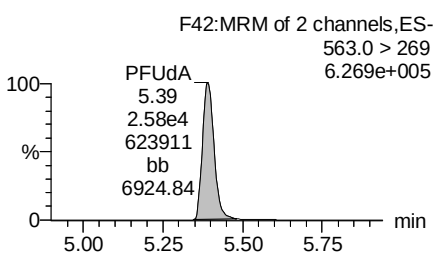

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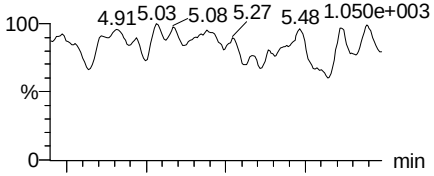

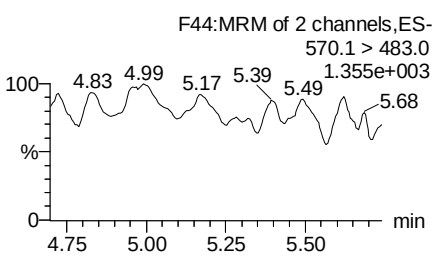

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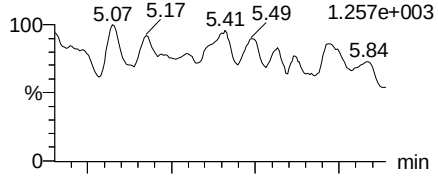

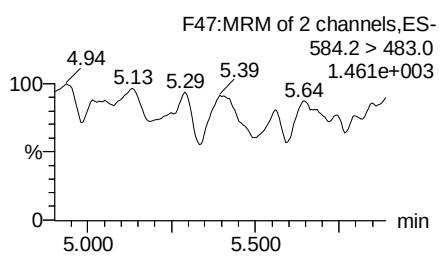

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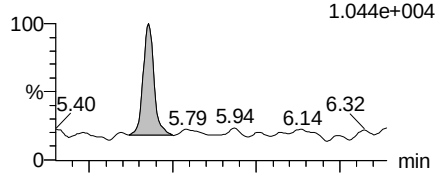

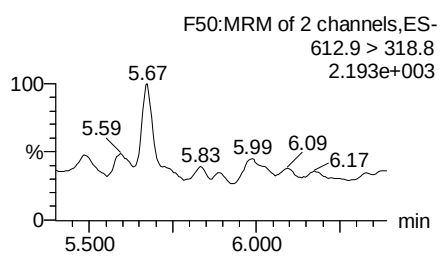

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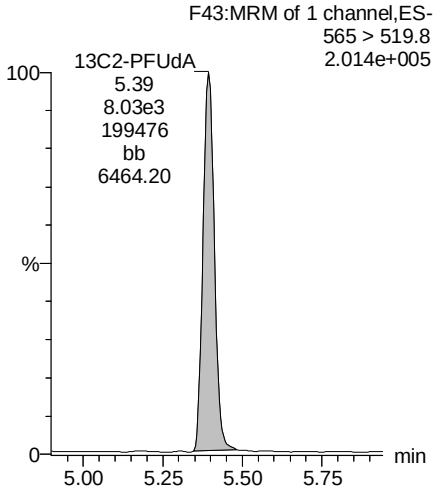

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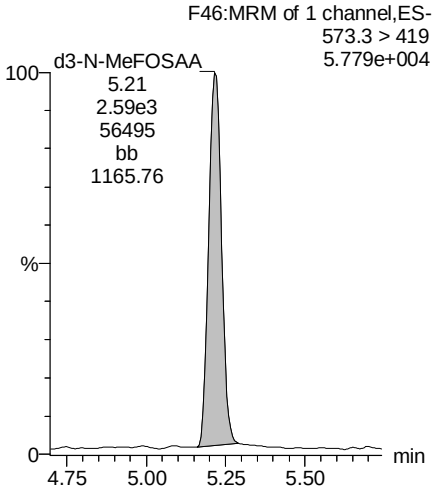

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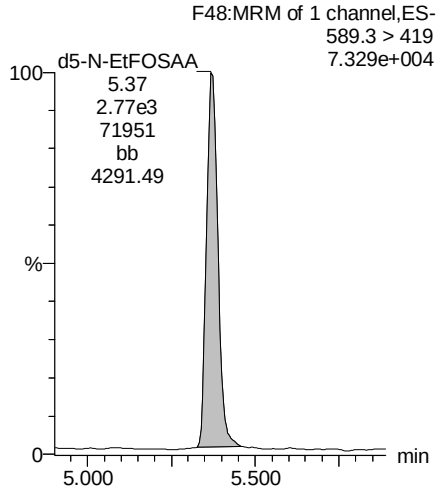

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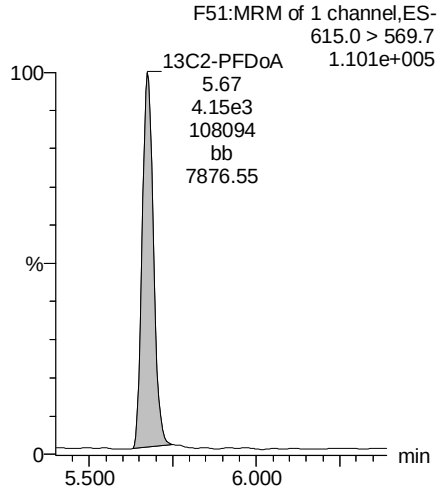

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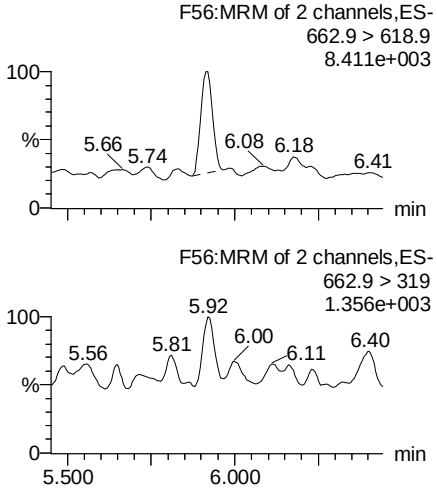

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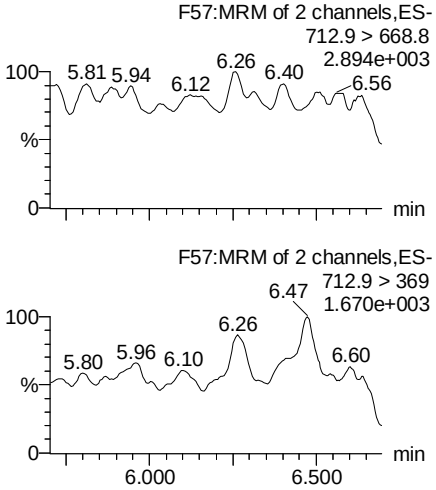

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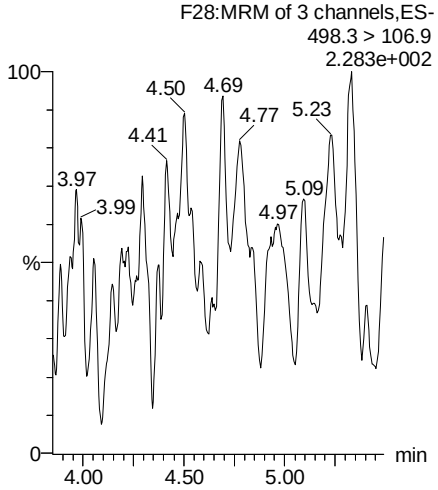

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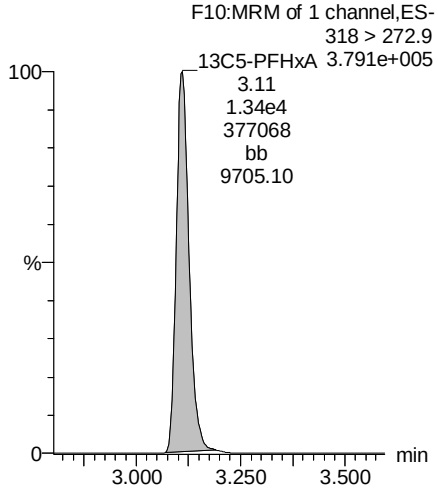

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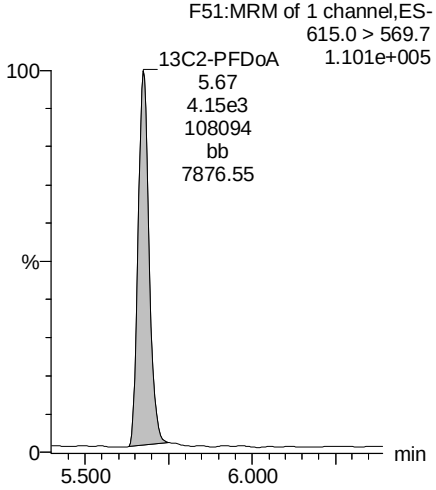

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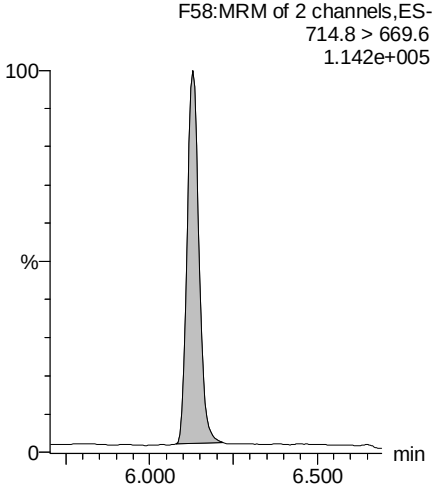

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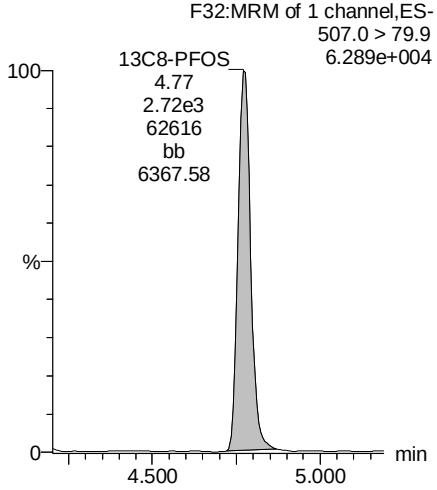

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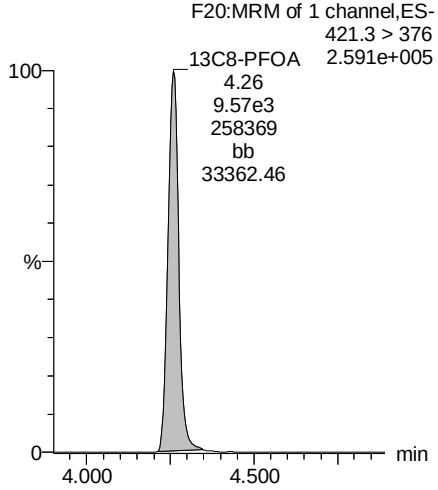

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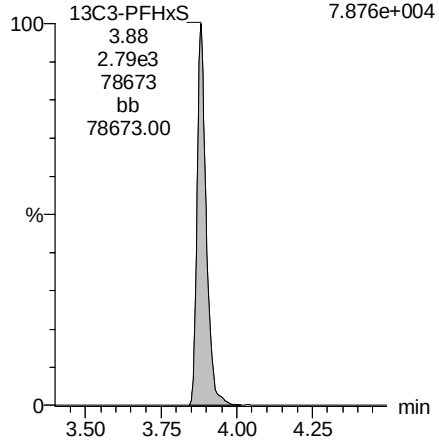

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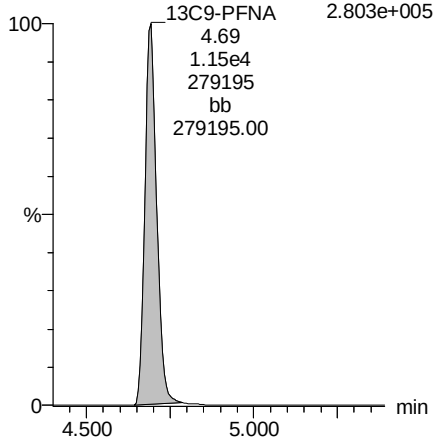

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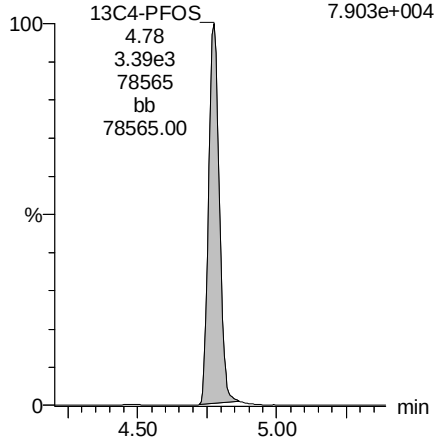
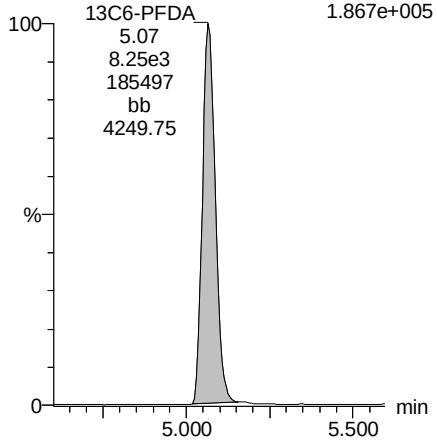
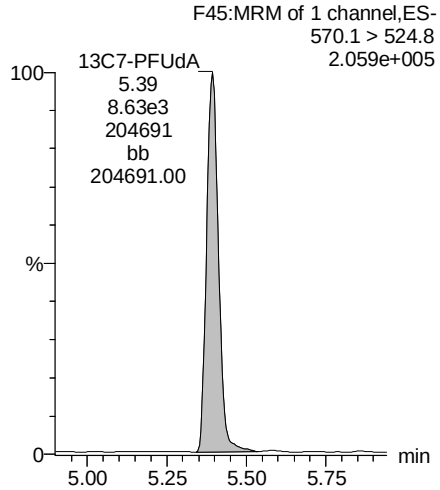


13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-24.qld

Last Altered: Wednesday, January 03, 2018 07:11:24 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:11:34 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 19 Dec 2017 14:18:19
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_24, Date: 15-Dec-2017, Time: 20:50:19, ID: 1701802-05 FC-MW02SR1-FRB-20171128 0.2615, Description: FC-MW02SR1-FRB-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.16e3	0.262		2.70				
2	4	PFHxA	313.2 > 268.9		3.13e3	0.262		3.18				
3	5	PFHpA	363.0 > 318.9		6.25e3	0.262		3.80				
4	6	L-PFHxS	398.9 > 79.6		9.44e2	0.262		4.00				
5	9	L-PFOA	413 > 368.7	1.59e2	8.05e3	0.262		4.33	4.26	0.248	0.0699	
6	12	PFNA	463.0 > 418.8		6.57e3	0.262		4.78				
7	14	L-PFOS	499 > 79.9		2.67e3	0.262		4.83				
8	16	PFDA	513 > 468.8		7.46e3	0.262		5.12				
9	18	N-MeFOSAA	570.1 > 419		2.17e3	0.262		5.25				
10	19	N-EtFOSAA	584.2 > 419		2.44e3	0.262		5.45				
11	20	PFUdA	563.0 > 518.9		8.13e3	0.262		5.44				
12	22	PFDoA	612.9 > 569.0		3.76e3	0.262		5.75				

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Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-24.qld

Last Altered: Wednesday, January 03, 2018 07:11:24 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:11:49 Pacific Standard Time

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Name: 171215M2_24, Date: 15-Dec-2017, Time: 20:50:19, ID: 1701802-05 FC-MW02SR1-FRB-20171128 0.2615, Description: FC-MW02SR1-FRB-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.76e3	0.262		5.97				
2	25	PFTeDA	712.9 > 668.8		3.29e3	0.262		6.20				
3	33	13C3-PFBS	302. > 98.8	1.16e3	1.13e4	0.262	0.124	2.70	2.62	1.29	39.5605	82.8
4	34	13C2-PFHxA	315 > 269.8	3.13e3	1.13e4	0.262	0.897	3.18	3.12	3.46	14.7732	77.3
5	35	13C4-PFHpA	367.2 > 321.8	6.25e3	1.13e4	0.262	0.689	3.80	3.74	6.91	38.3402	80.2
6	36	18O2-PFHxS	403.0 > 102.6	9.44e2	2.37e3	0.262	0.530	4.00	3.89	4.97	35.8318	75.0
7	37	13C2-6:2 FTS	429.1 > 408.9	2.02e3	8.32e3	0.262	0.331	4.26	4.21	3.03	35.0714	73.4
8	38	13C2-PFOA	414.9 > 369.7	8.05e3	8.32e3	0.262	1.316	4.32	4.26	12.1	35.1317	73.5
9	39	13C5-PFNA	468.2 > 422.9	6.57e3	8.08e3	0.262	1.109	4.78	4.69	10.2	34.9965	73.2
10	40	13C8-PFOSA	506.1 > 77.7	1.72e3	9.03e3	0.262	0.487	4.81	4.75	2.37	18.6621	39.0
11	41	13C8-PFOS	507.0 > 79.9	2.67e3	2.81e3	0.262	1.163	4.83	4.78	11.9	39.0525	81.7
12	42	13C2-PFDA	515.1 > 469.9	7.46e3	7.57e3	0.262	1.694	5.12	5.07	12.3	27.7976	58.2
13	43	13C2-8:2 FTS	529.1 > 508.7	1.11e3	1.13e4	0.262	0.141	5.09	5.04	1.23	33.4216	69.9
14	44	d3-N-MeFOSAA	573.3 > 419	2.17e3	9.03e3	0.262	0.530	5.25	5.22	3.01	21.6880	45.4
15	45	d5-N-EtFOSAA	589.3 > 419	2.44e3	9.03e3	0.262	0.541	5.45	5.37	3.38	23.8857	50.0
16	46	13C2-PFUdA	565 > 519.8	8.13e3	9.03e3	0.262	1.351	5.44	5.39	11.3	31.8517	66.6
17	47	13C2-PFDoA	615.0 > 569.7	3.76e3	9.03e3	0.262	0.765	5.75	5.67	5.20	25.9984	54.4
18	49	13C2-PFTeDA	714.8 > 669.6	3.29e3	9.03e3	0.262	0.771	6.20	6.13	4.55	22.5779	47.2
19	55	13C5-PFHxA	318 > 272.9	1.13e4	1.13e4	0.262	1.000	3.18	3.12	12.5	47.8011	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.37e3	2.37e3	0.262	1.000	4.00	3.89	12.5	47.8011	100.0
21	57	13C8-PFOA	421.3 > 376	8.32e3	8.32e3	0.262	1.000	4.32	4.26	12.5	47.8011	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.08e3	8.08e3	0.262	1.000	4.78	4.70	12.5	47.8011	100.0
23	59	13C4-PFOS	503 > 79.9	2.81e3	2.81e3	0.262	1.000	4.83	4.78	12.5	47.8011	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.57e3	7.57e3	0.262	1.000	5.12	5.07	12.5	47.8011	100.0
25	61	13C7-PFUdA	570.1 > 524.8	9.03e3	9.03e3	0.262	1.000	5.44	5.39	12.5	47.8011	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	9.44e2	0.262		4.00		0.000		
27	63	Total PFOA	413 > 368.7	1.59e2	8.05e3	0.262		4.32		0.248	0.0699	
28	64	Total PFOS	499 > 79.9	0.00e0	2.67e3	0.262		4.83		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.17e3	0.262		5.25		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.44e3	0.262		5.45		0.000		

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Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-24.qld

Last Altered: Wednesday, January 03, 2018 07:11:24 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:11:49 Pacific Standard Time

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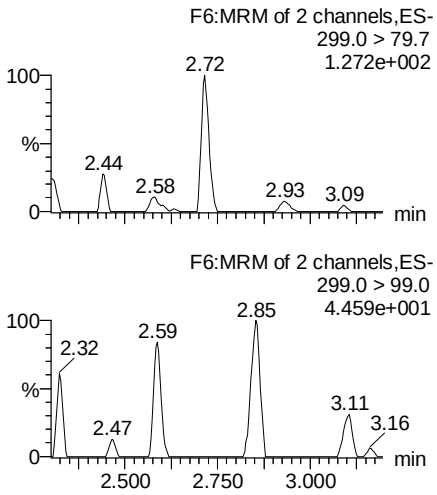
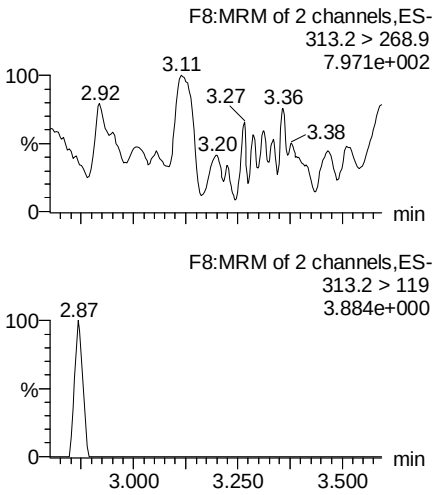
Name: 171215M2_24, Date: 15-Dec-2017, Time: 20:50:19, ID: 1701802-05 FC-MW02SR1-FRB-20171128 0.2615, Description: FC-MW02SR1-FRB-20171128

PFBS



PFHxA



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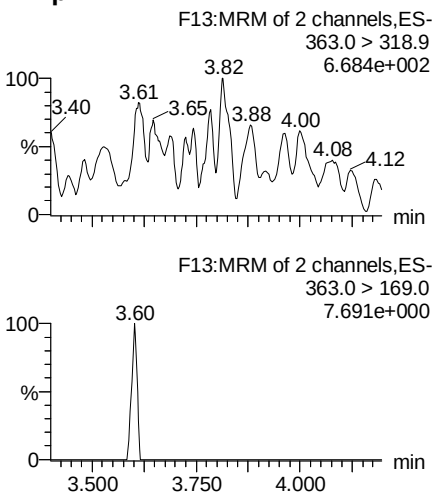

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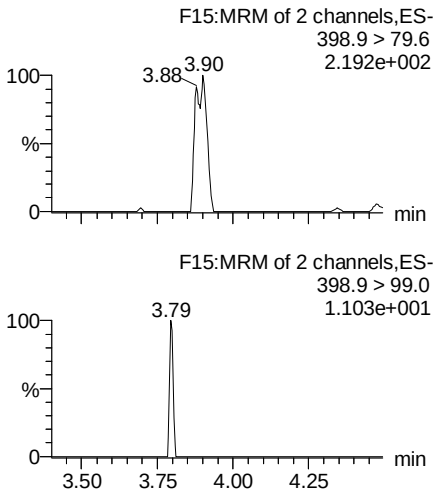

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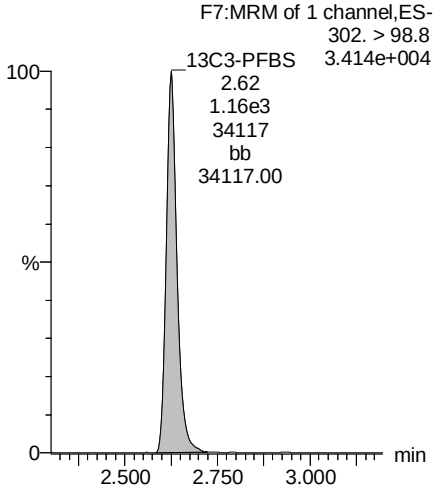

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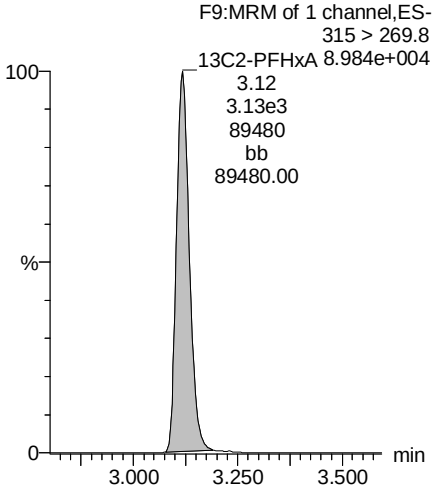

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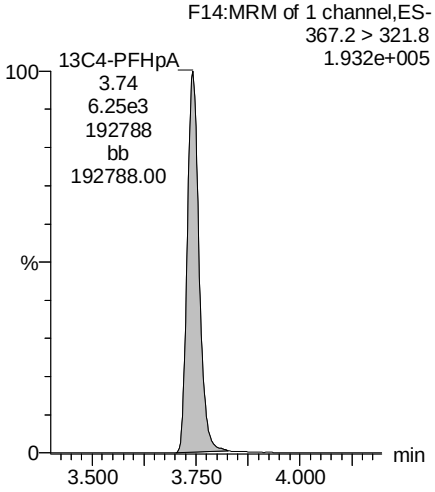

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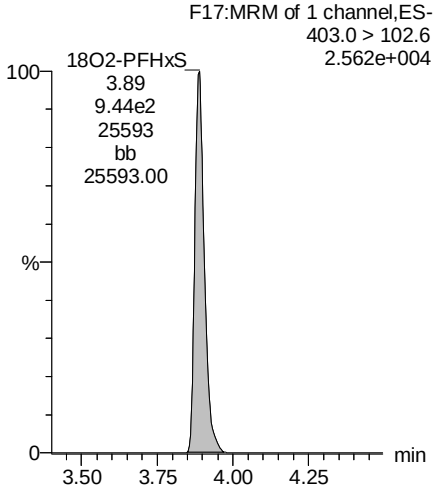

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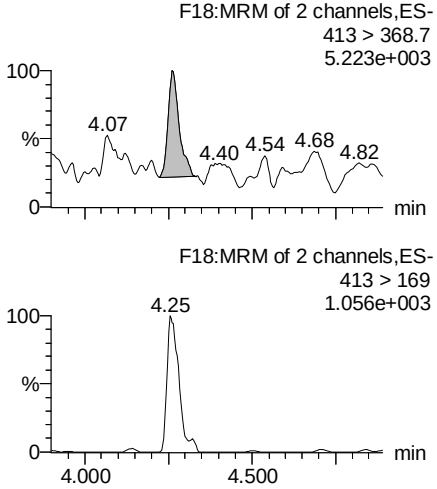
Dataset: U:\Q4.PRO\results\171215M2\171215M2-24.qld

Last Altered: Wednesday, January 03, 2018 07:11:24 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:11:49 Pacific Standard Time

Name: 171215M2_24, Date: 15-Dec-2017, Time: 20:50:19, ID: 1701802-05 FC-MW02SR1-FRB-20171128 0.2615, Description: FC-MW02SR1-FRB-20171128

Total PFOA



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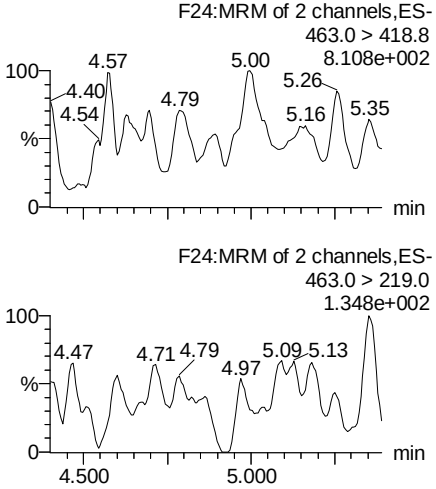
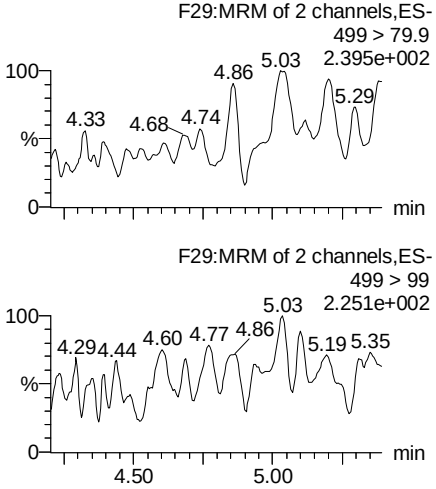


Total PFOS



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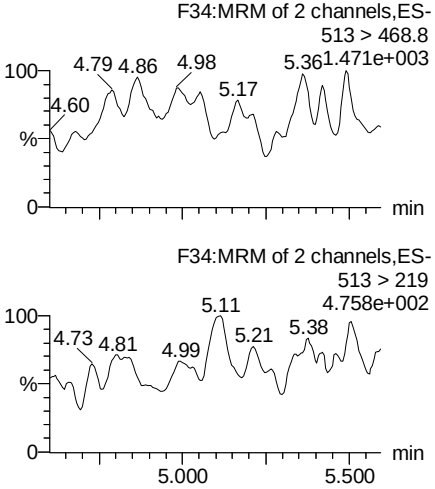

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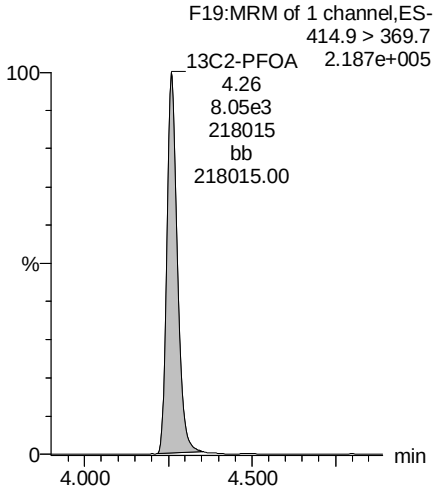

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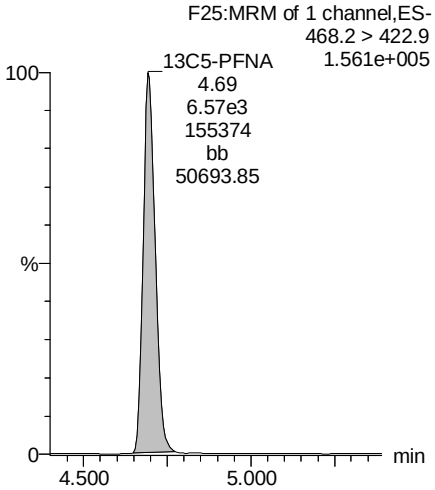

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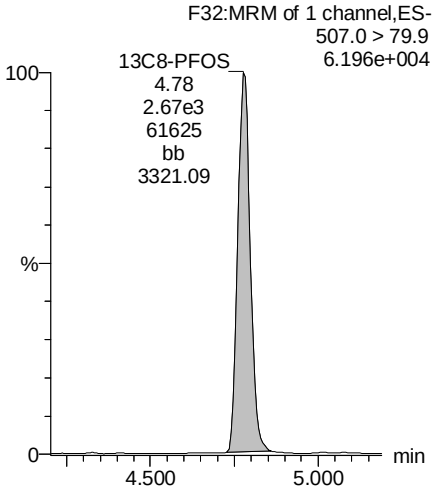

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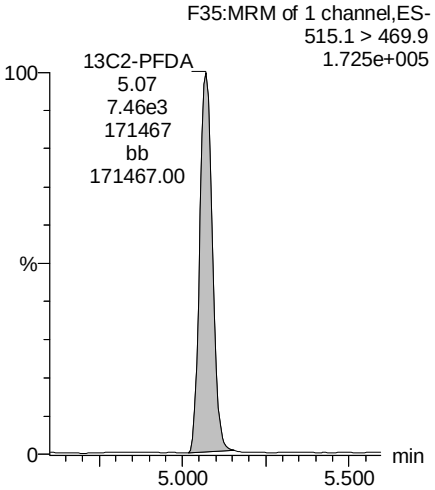


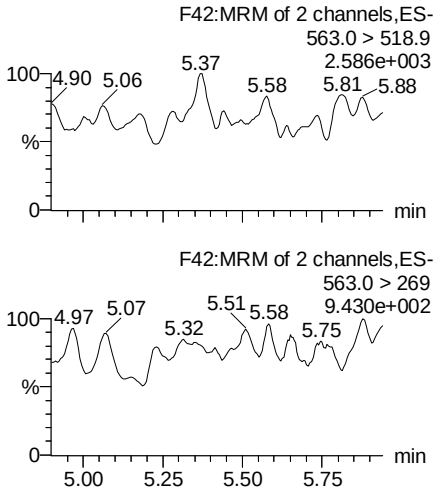
ANP 1/3/2018

Dataset: U:\Q4.PRO\results\171215M2\171215M2-24.qld

Last Altered: Wednesday, January 03, 2018 07:11:24 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:11:49 Pacific Standard Time

Name: 171215M2_24, Date: 15-Dec-2017, Time: 20:50:19, ID: 1701802-05 FC-MW02SR1-FRB-20171128 0.2615, Description: FC-MW02SR1-FRB-20171128

PFUdA



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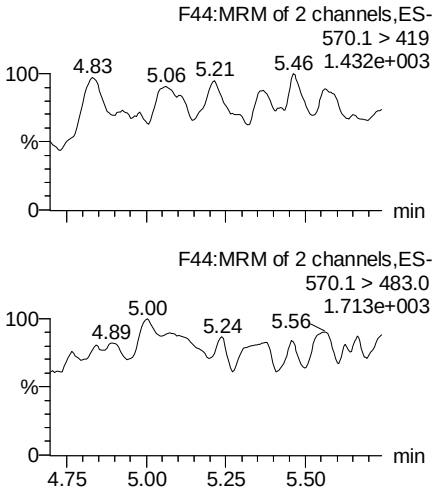

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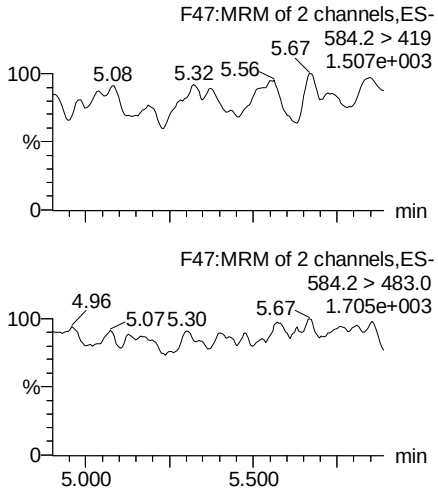
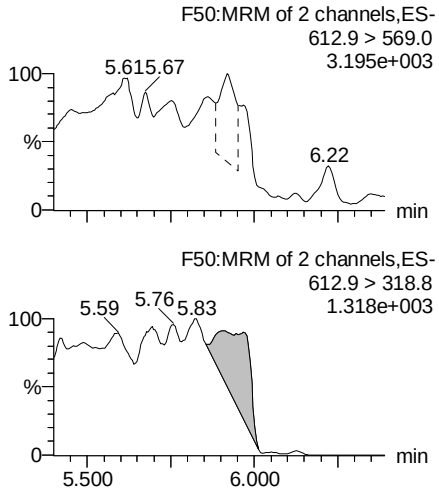


PFDoA



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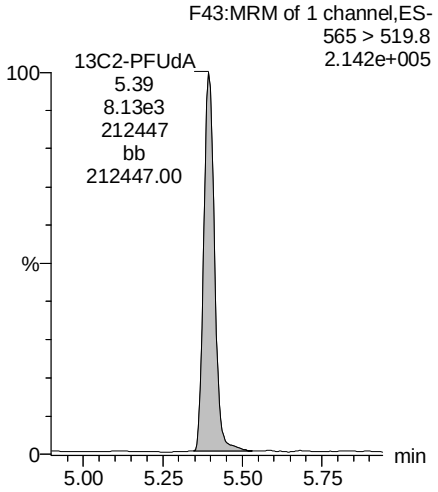

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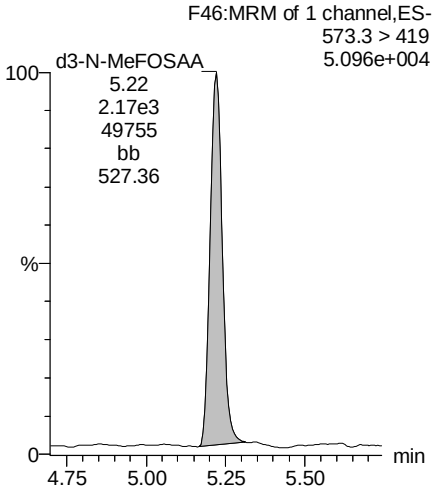

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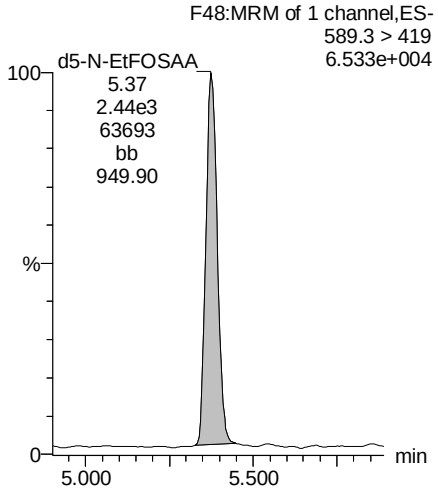

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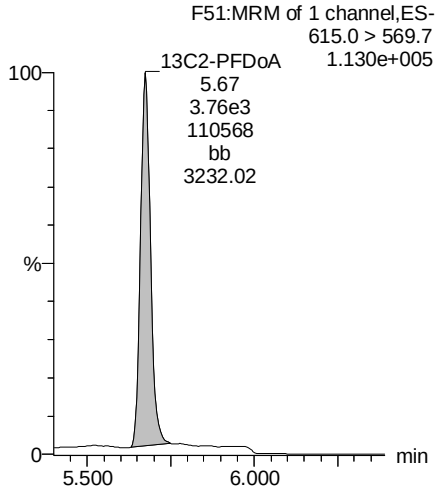

ANP 1/3/2018

Dataset: U:\Q4.PRO\results\171215M2\171215M2-24.qld

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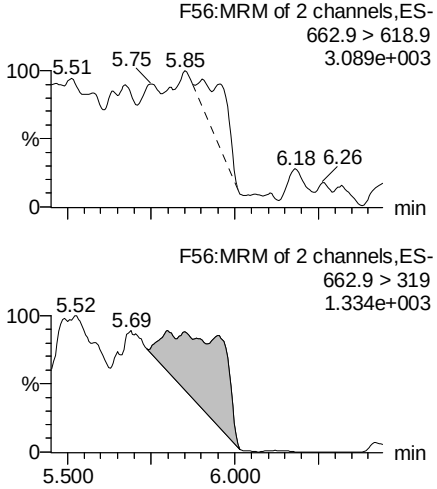
Name: 171215M2_24, Date: 15-Dec-2017, Time: 20:50:19, ID: 1701802-05 FC-MW02SR1-FRB-20171128 0.2615, Description: FC-MW02SR1-FRB-20171128

PFTrDA



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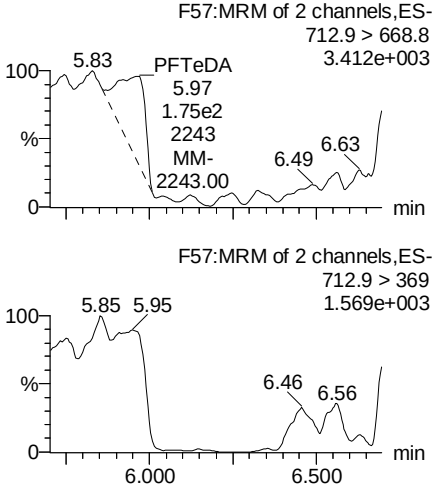

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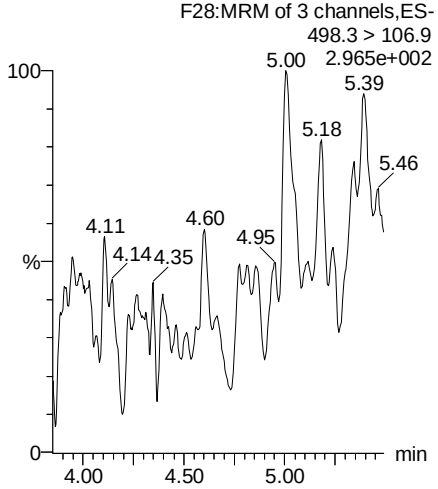

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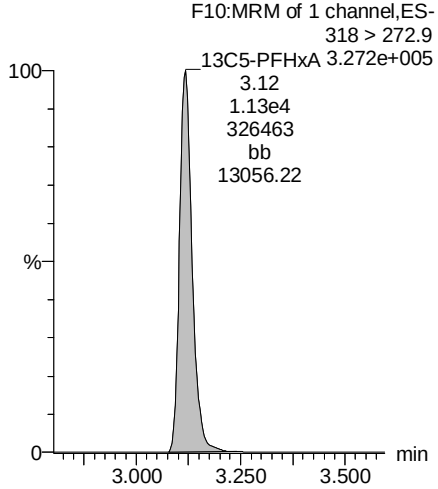

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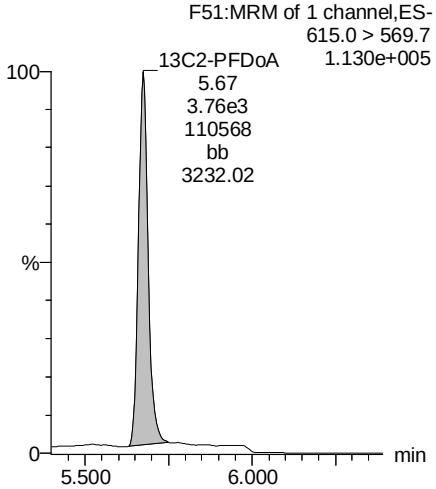
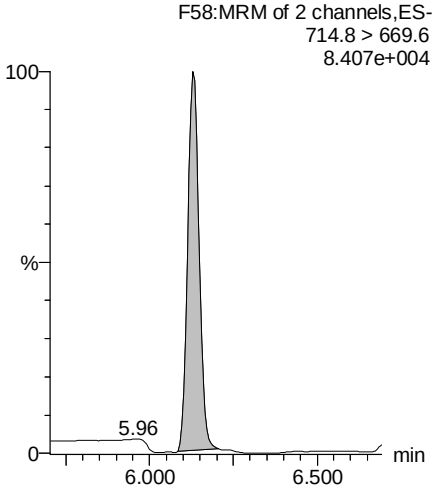
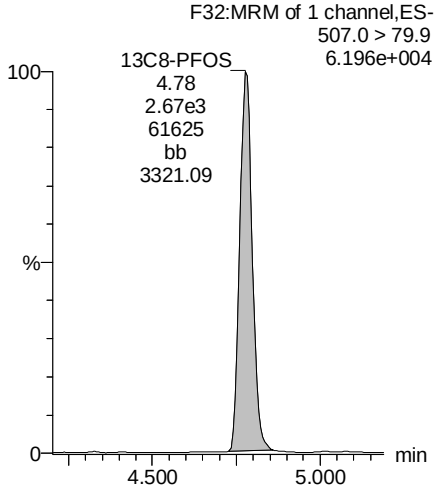


13C2-PFTeDA



13C8-PFOS



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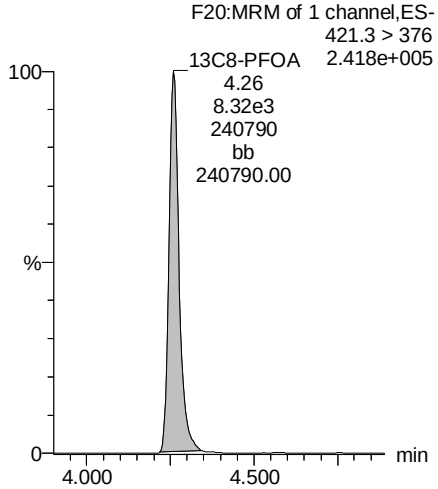

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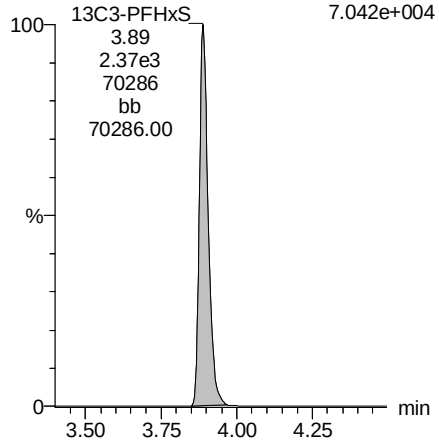
Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-24.qld

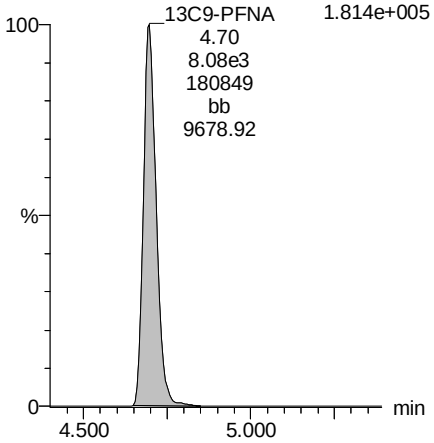
Last Altered: Wednesday, January 03, 2018 07:11:24 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:11:49 Pacific Standard Time

Name: 171215M2_24, Date: 15-Dec-2017, Time: 20:50:19, ID: 1701802-05 FC-MW02SR1-FRB-20171128 0.2615, Description: FC-MW02SR1-FRB-20171128

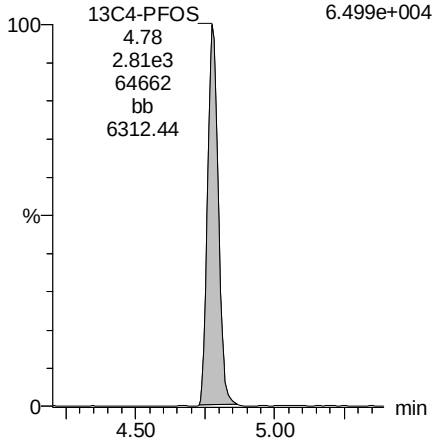
13C3-PFHxS



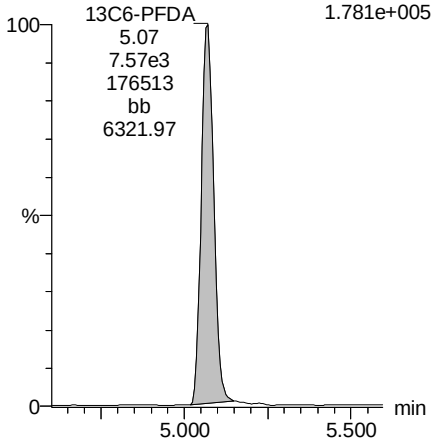
13C9-PFNA



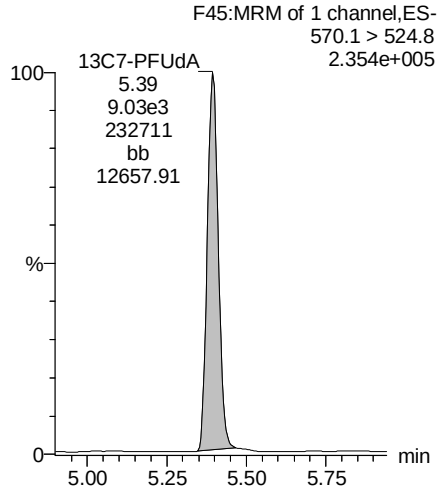
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-25.qld

Last Altered: Wednesday, January 03, 2018 07:17:11 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:17:21 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_25, Date: 15-Dec-2017, Time: 21:01:30, ID: 1701802-06 FC-MW02IR1-NP-20171128 0.25429, Description: FC-MW02IR1-NP-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.97e1	1.31e3	0.254		2.70	2.62	0.285	0.5936	
2	4	PFHxA	313.2 > 268.9	1.32e3	3.58e3	0.254		3.18	3.11	1.84	4.9546	
3	5	PFHpA	363.0 > 318.9	7.76e2	6.65e3	0.254		3.80	3.74	1.46	4.3991	
4	6	L-PFHxS	398.9 > 79.6	6.53e1	1.08e3	0.254		4.00	3.89	0.757	1.7402	
5	9	L-PFOA	413 > 368.7	2.03e3	9.34e3	0.254		4.33	4.25	2.72	10.7857	
6	12	PFNA	463.0 > 418.8	8.63e3	7.88e3	0.254		4.78	4.69	13.7	43.0612	
7	14	L-PFOS	499 > 79.9	1.66e3	2.79e3	0.254		4.83	4.77	7.44	26.2521	
8	16	PFDA	513 > 468.8		8.06e3	0.254		5.12				
9	18	N-MeFOSAA	570.1 > 419		2.93e3	0.254		5.25				
10	19	N-EtFOSAA	584.2 > 419		3.31e3	0.254		5.45				
11	20	PFUdA	563.0 > 518.9	1.42e3	9.43e3	0.254		5.44	5.39	1.88	7.3535	
12	22	PFDoA	612.9 > 569.0		5.46e3	0.254		5.75				

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Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-25.qld

Last Altered: Wednesday, January 03, 2018 07:17:11 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:17:30 Pacific Standard Time

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Name: 171215M2_25, Date: 15-Dec-2017, Time: 21:01:30, ID: 1701802-06 FC-MW02IR1-NP-20171128 0.25429, Description: FC-MW02IR1-NP-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		5.46e3	0.254		5.97				
2	25	PFTeDA	712.9 > 668.8		5.30e3	0.254		6.20				
3	33	13C3-PFBS	302. > 98.8	1.31e3	1.32e4	0.254	0.124	2.70	2.62	1.24	39.2192	79.8
4	34	13C2-PFHxA	315 > 269.8	3.58e3	1.32e4	0.254	0.897	3.18	3.11	3.40	14.9279	75.9
5	35	13C4-PFHpA	367.2 > 321.8	6.65e3	1.32e4	0.254	0.689	3.80	3.73	6.32	36.0400	73.3
6	36	18O2-PFHxS	403.0 > 102.6	1.08e3	3.02e3	0.254	0.530	4.00	3.89	4.46	33.0863	67.3
7	37	13C2-6:2 FTS	429.1 > 408.9	1.98e3	9.44e3	0.254	0.331	4.26	4.20	2.62	31.1703	63.4
8	38	13C2-PFOA	414.9 > 369.7	9.34e3	9.44e3	0.254	1.316	4.32	4.25	12.4	36.9633	75.2
9	39	13C5-PFNA	468.2 > 422.9	7.88e3	1.12e4	0.254	1.109	4.78	4.69	8.77	31.0870	63.2
10	40	13C8-PFOSA	506.1 > 77.7	2.24e3	1.10e4	0.254	0.487	4.81	4.75	2.55	20.6102	41.9
11	41	13C8-PFOS	507.0 > 79.9	2.79e3	3.48e3	0.254	1.163	4.83	4.77	10.0	33.9074	69.0
12	42	13C2-PFDA	515.1 > 469.9	8.06e3	8.67e3	0.254	1.694	5.12	5.07	11.6	26.9896	54.9
13	43	13C2-8:2 FTS	529.1 > 508.7	1.10e3	1.32e4	0.254	0.141	5.09	5.04	1.04	29.0881	59.2
14	44	d3-N-MeFOSAA	573.3 > 419	2.93e3	1.10e4	0.254	0.530	5.25	5.21	3.33	24.7269	50.3
15	45	d5-N-EtFOSAA	589.3 > 419	3.31e3	1.10e4	0.254	0.541	5.45	5.37	3.76	27.3915	55.7
16	46	13C2-PFUdA	565 > 519.8	9.43e3	1.10e4	0.254	1.351	5.44	5.39	10.7	31.1901	63.5
17	47	13C2-PFDoA	615.0 > 569.7	5.46e3	1.10e4	0.254	0.765	5.75	5.67	6.21	31.9319	65.0
18	49	13C2-PFTeDA	714.8 > 669.6	5.30e3	1.10e4	0.254	0.771	6.20	6.13	6.02	30.6884	62.4
19	55	13C5-PFHxA	318 > 272.9	1.32e4	1.32e4	0.254	1.000	3.18	3.11	12.5	49.1565	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.02e3	3.02e3	0.254	1.000	4.00	3.88	12.5	49.1565	100.0
21	57	13C8-PFOA	421.3 > 376	9.44e3	9.44e3	0.254	1.000	4.32	4.25	12.5	49.1565	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.12e4	1.12e4	0.254	1.000	4.78	4.69	12.5	49.1565	100.0
23	59	13C4-PFOS	503 > 79.9	3.48e3	3.48e3	0.254	1.000	4.83	4.78	12.5	49.1565	100.0
24	60	13C6-PFDA	519.1 > 473.7	8.67e3	8.67e3	0.254	1.000	5.12	5.07	12.5	49.1565	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.10e4	1.10e4	0.254	1.000	5.44	5.39	12.5	49.1565	100.0
26	62	Total PFHxS	398.9 > 79.6	6.53e1	1.08e3	0.254		4.00		0.757	1.7402	
27	63	Total PFOA	413 > 368.7	2.19e3	9.34e3	0.254		4.32		2.72	10.7857	
28	64	Total PFOS	499 > 79.9	1.66e3	2.79e3	0.254		4.83		7.44	26.2521	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.93e3	0.254		5.25		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.31e3	0.254		5.45		0.000		

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Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-25.qld

Last Altered: Wednesday, January 03, 2018 07:17:11 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:17:30 Pacific Standard Time

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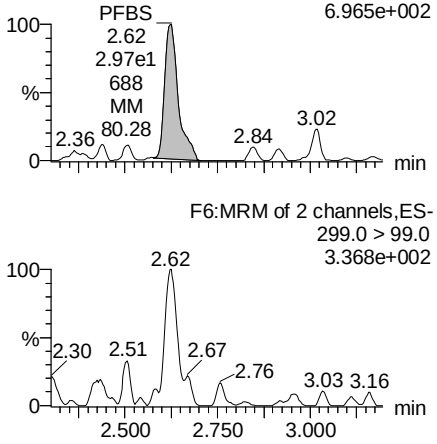
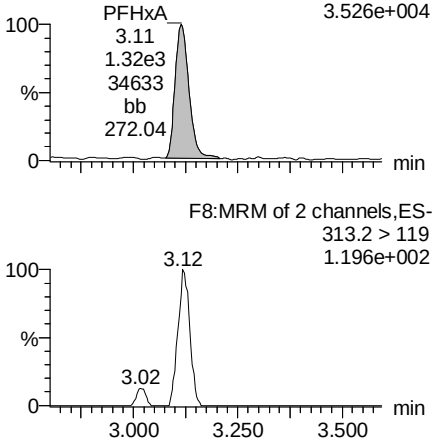
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_25, Date: 15-Dec-2017, Time: 21:01:30, ID: 1701802-06 FC-MW02IR1-NP-20171128 0.25429, Description: FC-MW02IR1-NP-20171128

PFBS



PFHxA



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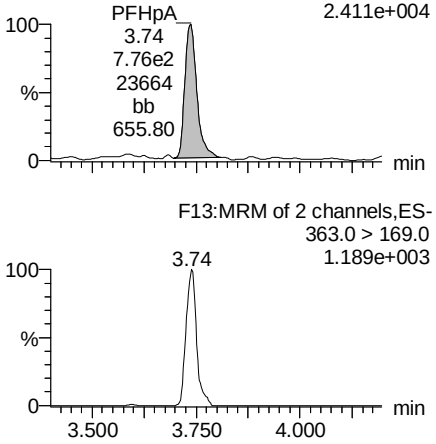
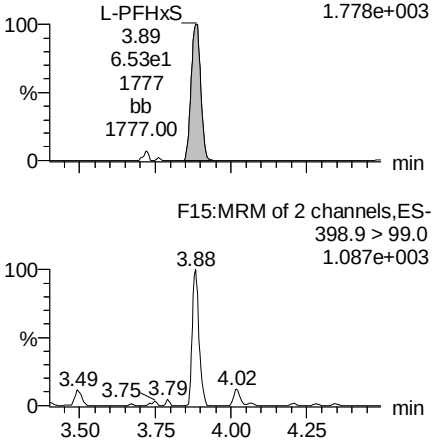


Total PFHxS



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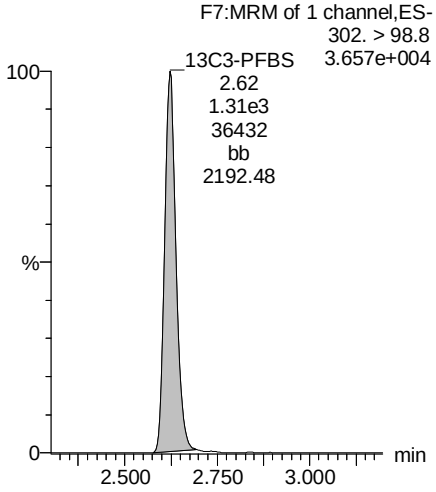

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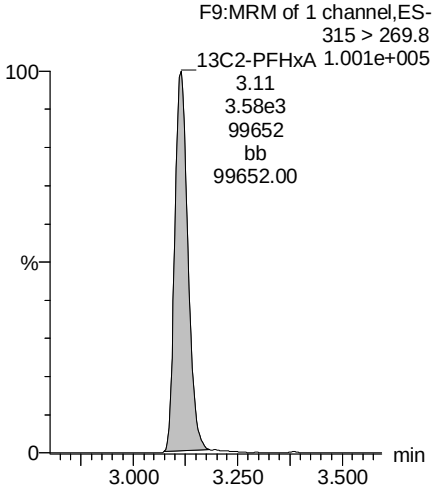

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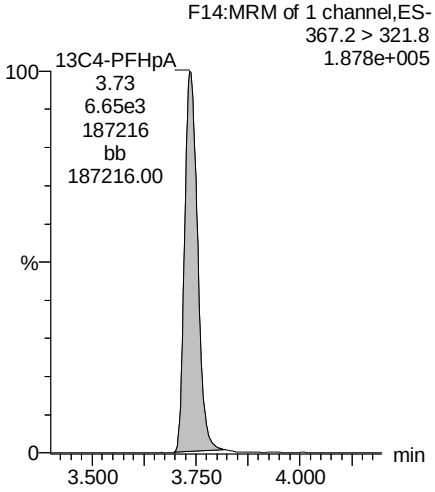
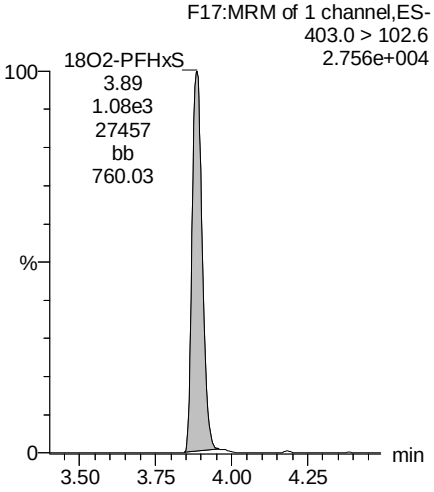


18O2-PFHxS



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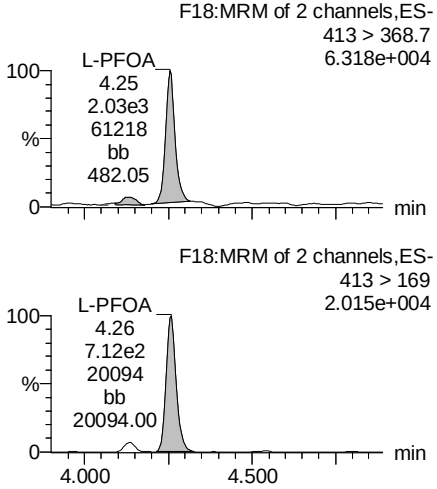
Printed: Wednesday, January 03, 2018 07:17:30 Pacific Standard Time

Name: 171215M2_25, Date: 15-Dec-2017, Time: 21:01:30, ID: 1701802-06 FC-MW02IR1-NP-20171128 0.25429, Description: FC-MW02IR1-NP-20171128

Total PFOA



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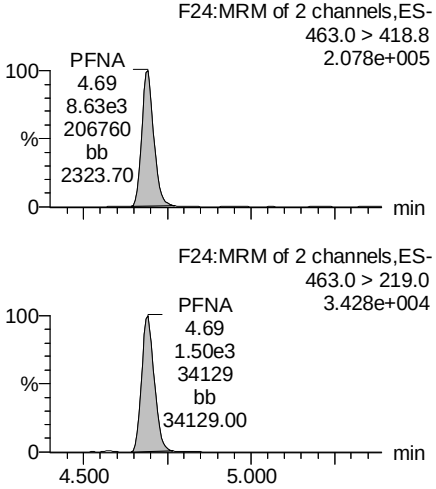
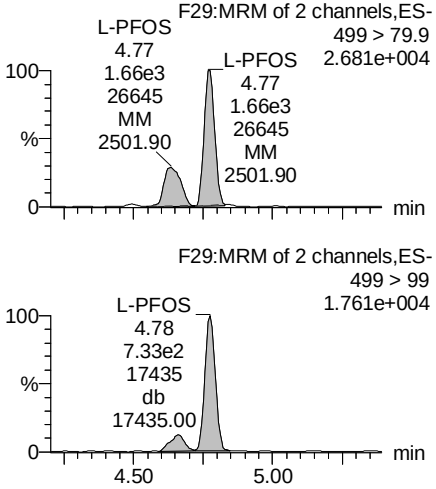
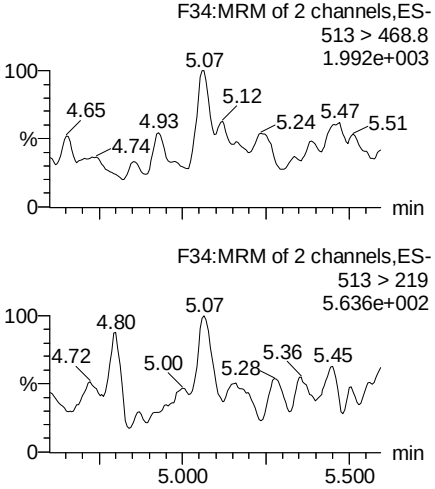


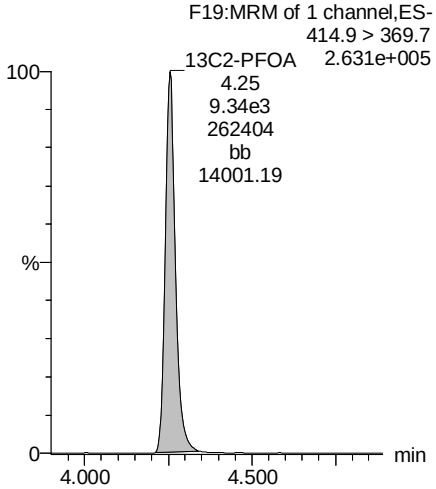
Total PFOS



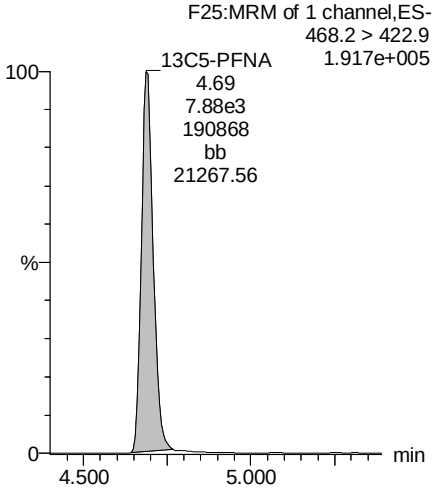
PFDA



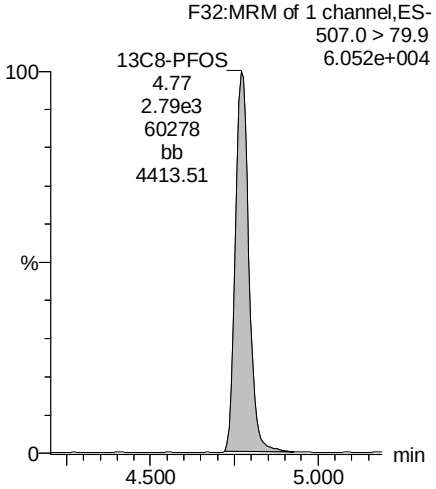
13C2-PFOA



13C5-PFNA



13C8-PFOS



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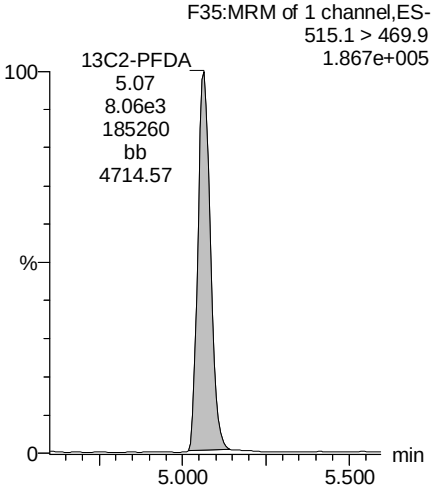

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Dataset: U:\Q4.PRO\results\171215M2\171215M2-25.qld

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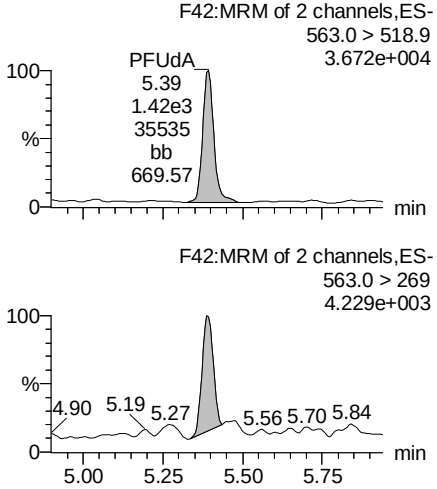
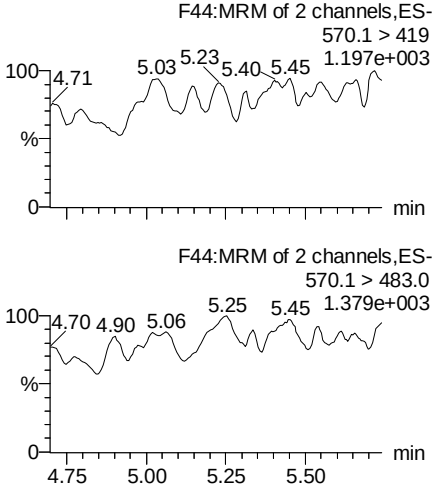
Name: 171215M2_25, Date: 15-Dec-2017, Time: 21:01:30, ID: 1701802-06 FC-MW02IR1-NP-20171128 0.25429, Description: FC-MW02IR1-NP-20171128

PFUdA



N-MeFOSAA



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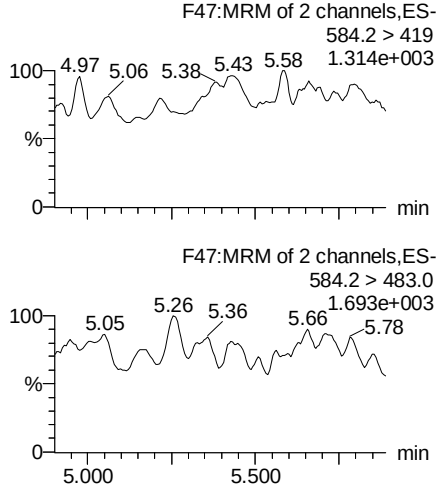

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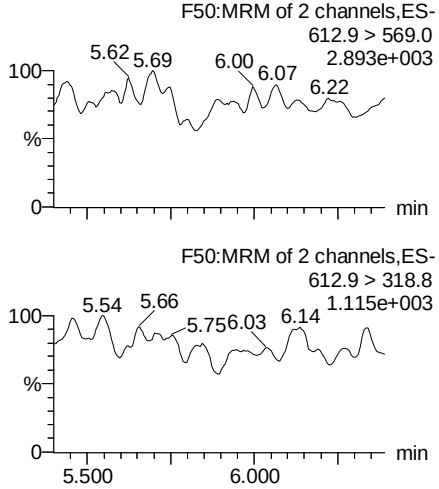

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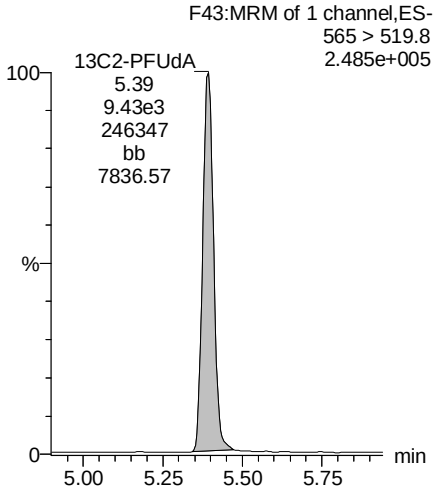

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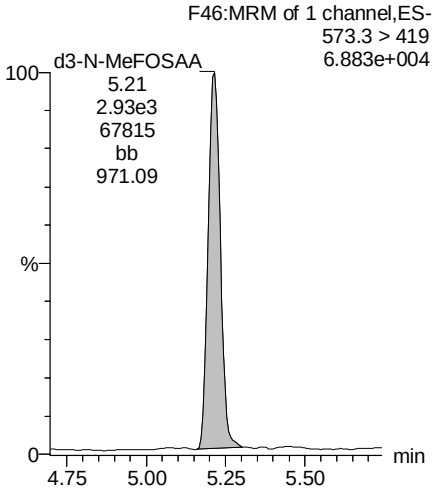

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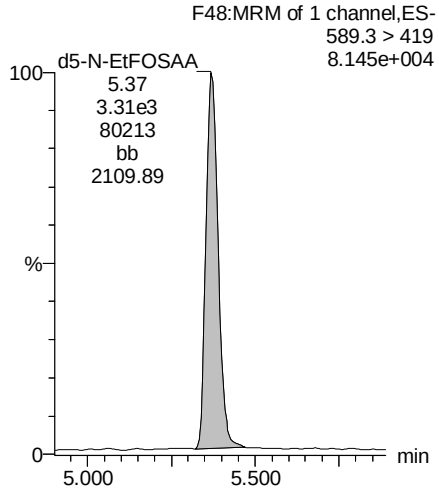
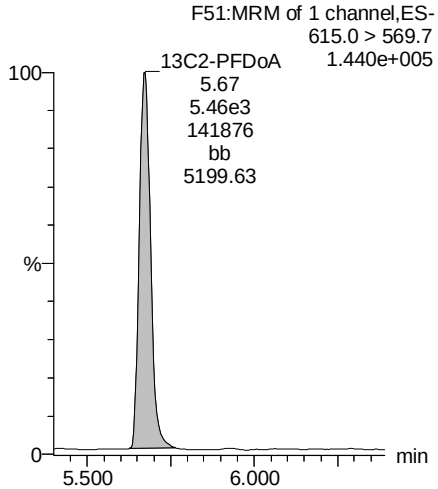


13C2-PFDoA



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Rev'd: MM 1/16/18

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Printed: Wednesday, January 03, 2018 07:17:30 Pacific Standard Time

Name: 171215M2_25, Date: 15-Dec-2017, Time: 21:01:30, ID: 1701802-06 FC-MW02IR1-NP-20171128 0.25429, Description: FC-MW02IR1-NP-20171128

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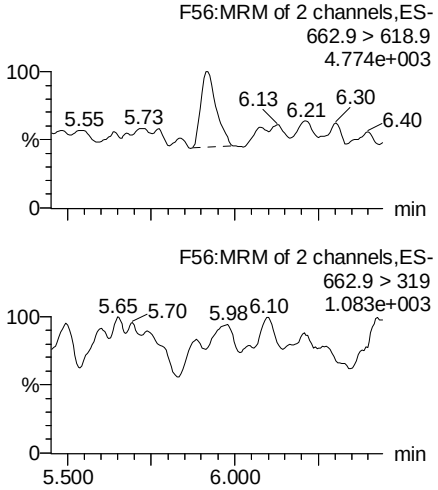

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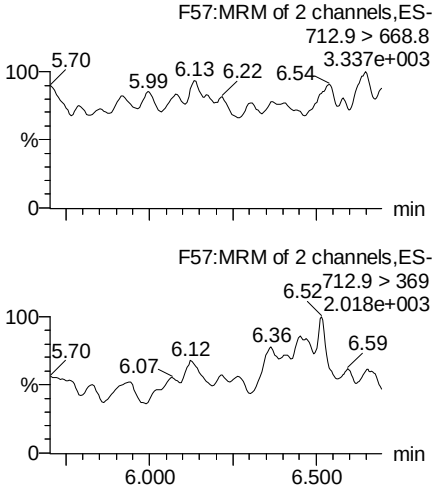

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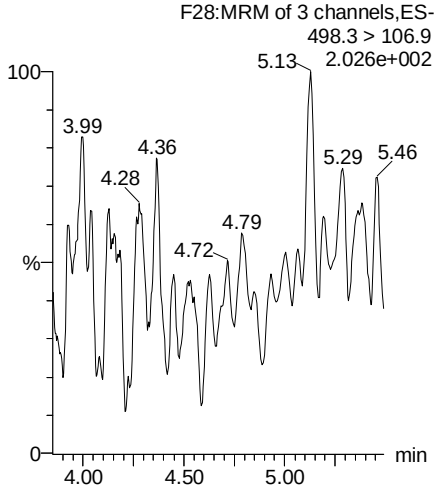

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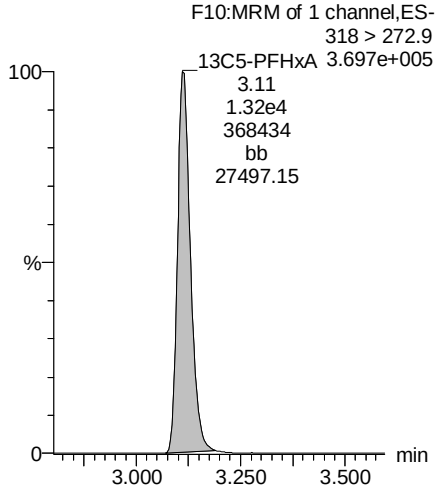

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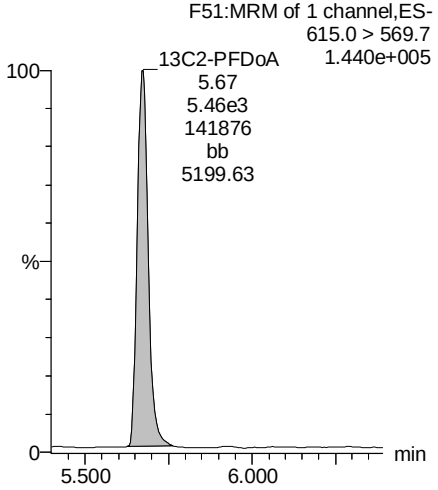

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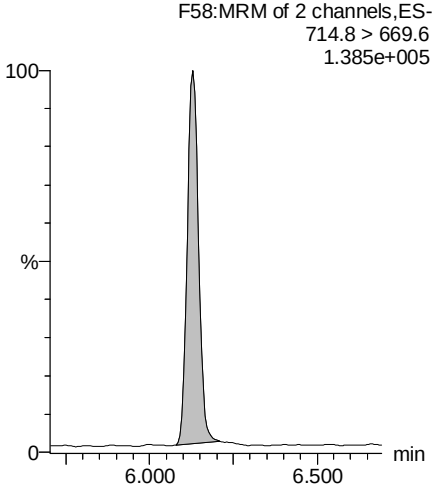

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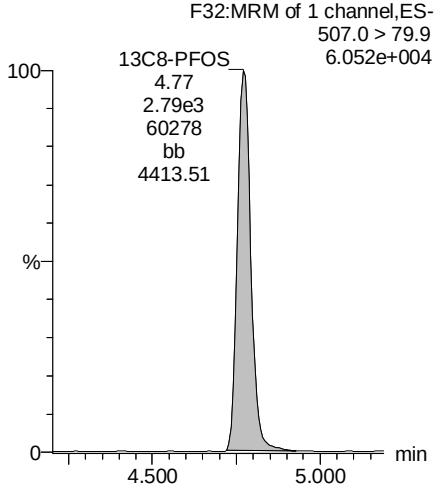

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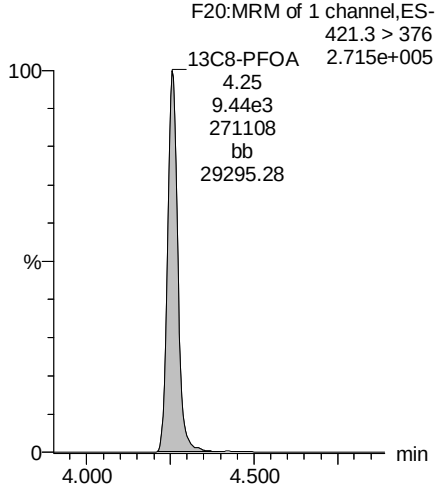

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Rev'd: MM 1/16/18

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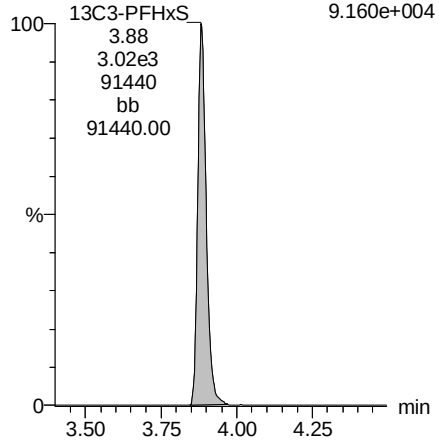
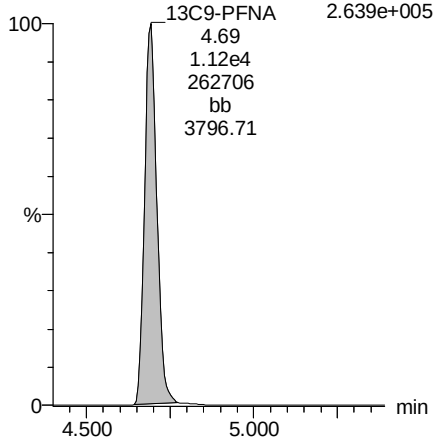
Name: 171215M2_25, Date: 15-Dec-2017, Time: 21:01:30, ID: 1701802-06 FC-MW02IR1-NP-20171128 0.25429, Description: FC-MW02IR1-NP-20171128

13C3-PFHxS



13C9-PFNA



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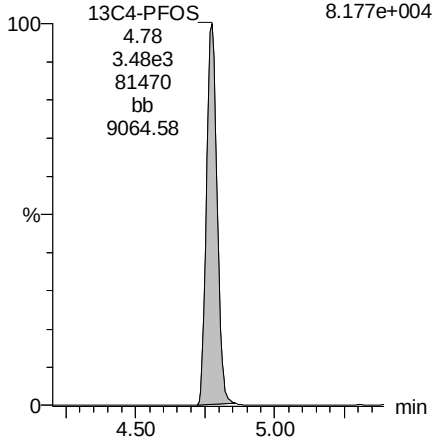
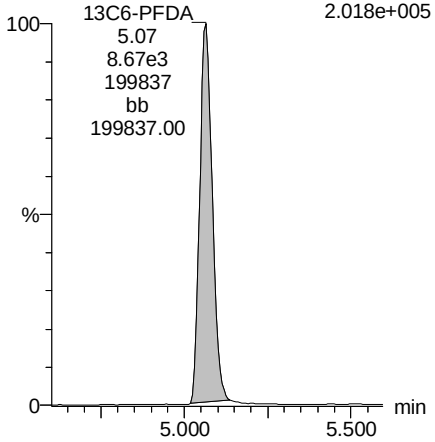
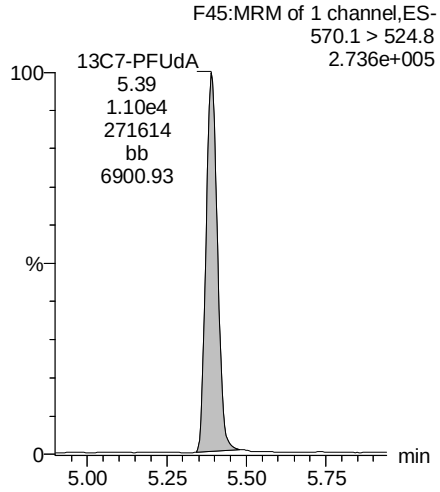


13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-26.qld

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Printed: Wednesday, January 03, 2018 07:27:23 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_26, Date: 15-Dec-2017, Time: 21:12:41, ID: 1701802-07 FC-MW02IR1-P1-20171128 0.26197, Description: FC-MW02IR1-P1-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	6.49e1	1.39e3	0.262		2.70	2.61	0.582	1.1348	
2	4	PFHxA	313.2 > 268.9	1.74e3	3.29e3	0.262		3.18	3.11	2.64	6.9278	
3	5	PFHpA	363.0 > 318.9	1.06e3	6.25e3	0.262		3.80	3.73	2.13	6.1841	
4	6	L-PFHxS	398.9 > 79.6	5.45e1	1.03e3	0.262		4.00	3.87	0.662	1.5024	
5	9	L-PFOA	413 > 368.7	2.29e3	8.80e3	0.262		4.33	4.25	3.25	12.7126	
6	12	PFNA	463.0 > 418.8	2.18e4	6.76e3	0.262		4.78	4.69	40.3	124.3821	
7	14	L-PFOS	499 > 79.9	9.92e2	2.94e3	0.262		4.83	4.77	4.22	14.7395	
8	16	PFDA	513 > 468.8	4.07e2	7.71e3	0.262		5.12	5.06	0.660	2.2397	
9	18	N-MeFOSAA	570.1 > 419		2.92e3	0.262		5.25				
10	19	N-EtFOSAA	584.2 > 419		2.47e3	0.262		5.45				
11	20	PFUdA	563.0 > 518.9	3.87e3	7.64e3	0.262		5.44	5.39	6.33	24.4313	
12	22	PFDoA	612.9 > 569.0		4.27e3	0.262		5.75				

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Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-26.qld

Last Altered: Wednesday, January 03, 2018 07:27:14 Pacific Standard Time
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Name: 171215M2_26, Date: 15-Dec-2017, Time: 21:12:41, ID: 1701802-07 FC-MW02IR1-P1-20171128 0.26197, Description: FC-MW02IR1-P1-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.27e3	0.262		5.97				
2	25	PFTeDA	712.9 > 668.8		4.53e3	0.262		6.20				
3	33	13C3-PFBS	302. > 98.8	1.39e3	1.05e4	0.262	0.124	2.70	2.62	1.66	50.8642	106.6
4	34	13C2-PFHxA	315 > 269.8	3.29e3	1.05e4	0.262	0.897	3.18	3.11	3.92	16.6693	87.3
5	35	13C4-PFHpA	367.2 > 321.8	6.25e3	1.05e4	0.262	0.689	3.80	3.73	7.43	41.1328	86.2
6	36	18O2-PFHxS	403.0 > 102.6	1.03e3	2.48e3	0.262	0.530	4.00	3.88	5.19	37.3689	78.3
7	37	13C2-6:2 FTS	429.1 > 408.9	2.08e3	9.92e3	0.262	0.331	4.26	4.20	2.61	30.1755	63.2
8	38	13C2-PFOA	414.9 > 369.7	8.80e3	9.92e3	0.262	1.316	4.32	4.25	11.1	32.1736	67.4
9	39	13C5-PFNA	468.2 > 422.9	6.76e3	8.70e3	0.262	1.109	4.78	4.69	9.72	33.4494	70.1
10	40	13C8-PFOSA	506.1 > 77.7	1.98e3	1.02e4	0.262	0.487	4.81	4.75	2.42	18.9776	39.8
11	41	13C8-PFOS	507.0 > 79.9	2.94e3	3.12e3	0.262	1.163	4.83	4.77	11.8	38.7040	81.1
12	42	13C2-PFDA	515.1 > 469.9	7.71e3	7.41e3	0.262	1.694	5.12	5.06	13.0	29.3009	61.4
13	43	13C2-8:2 FTS	529.1 > 508.7	9.86e2	1.05e4	0.262	0.141	5.09	5.04	1.17	31.7277	66.5
14	44	d3-N-MeFOSAA	573.3 > 419	2.92e3	1.02e4	0.262	0.530	5.25	5.21	3.58	25.7609	54.0
15	45	d5-N-EtFOSAA	589.3 > 419	2.47e3	1.02e4	0.262	0.541	5.45	5.37	3.02	21.2997	44.6
16	46	13C2-PFUdA	565 > 519.8	7.64e3	1.02e4	0.262	1.351	5.44	5.39	9.35	26.4113	55.4
17	47	13C2-PFDoA	615.0 > 569.7	4.27e3	1.02e4	0.262	0.765	5.75	5.67	5.22	26.0778	54.7
18	49	13C2-PFTeDA	714.8 > 669.6	4.53e3	1.02e4	0.262	0.771	6.20	6.12	5.54	27.4513	57.5
19	55	13C5-PFHxA	318 > 272.9	1.05e4	1.05e4	0.262	1.000	3.18	3.11	12.5	47.7154	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.48e3	2.48e3	0.262	1.000	4.00	3.88	12.5	47.7154	100.0
21	57	13C8-PFOA	421.3 > 376	9.92e3	9.92e3	0.262	1.000	4.32	4.25	12.5	47.7154	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.70e3	8.70e3	0.262	1.000	4.78	4.69	12.5	47.7154	100.0
23	59	13C4-PFOS	503 > 79.9	3.12e3	3.12e3	0.262	1.000	4.83	4.77	12.5	47.7154	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.41e3	7.41e3	0.262	1.000	5.12	5.06	12.5	47.7154	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.02e4	1.02e4	0.262	1.000	5.44	5.39	12.5	47.7154	100.0
26	62	Total PFHxS	398.9 > 79.6	5.45e1	1.03e3	0.262		4.00		0.662	1.5024	
27	63	Total PFOA	413 > 368.7	2.29e3	8.80e3	0.262		4.32		3.25	12.7126	
28	64	Total PFOS	499 > 79.9	9.92e2	2.94e3	0.262		4.83		4.22	14.7395	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.92e3	0.262		5.25		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.47e3	0.262		5.45		0.000		

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Dataset: U:\Q4.PRO\results\171215M2\171215M2-26.qld

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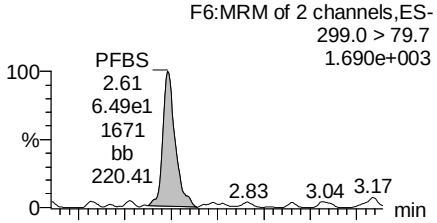
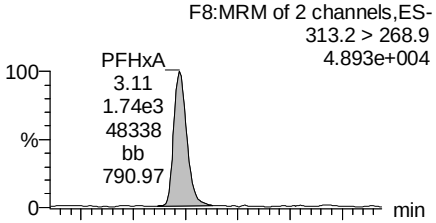
Name: 171215M2_26, Date: 15-Dec-2017, Time: 21:12:41, ID: 1701802-07 FC-MW02IR1-P1-20171128 0.26197, Description: FC-MW02IR1-P1-20171128

PFBS



PFHxA



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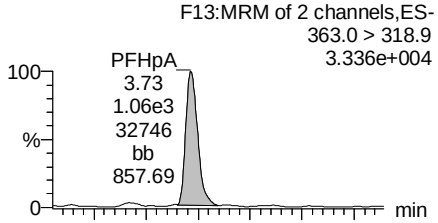

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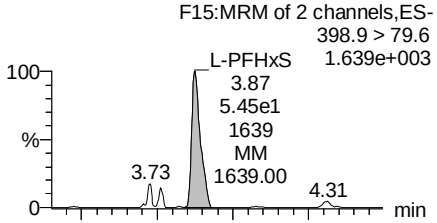

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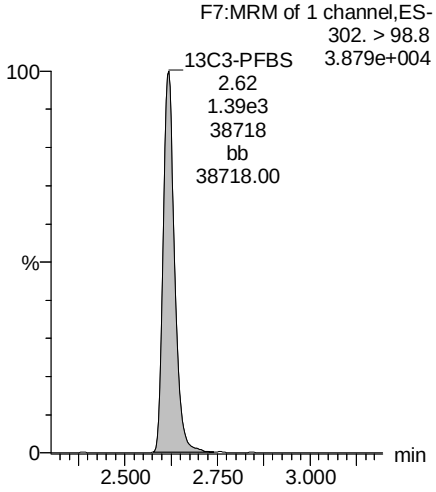

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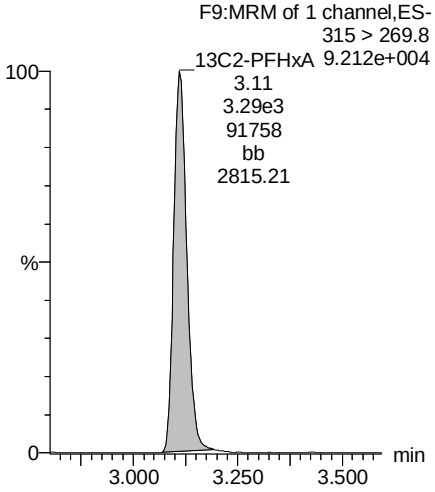

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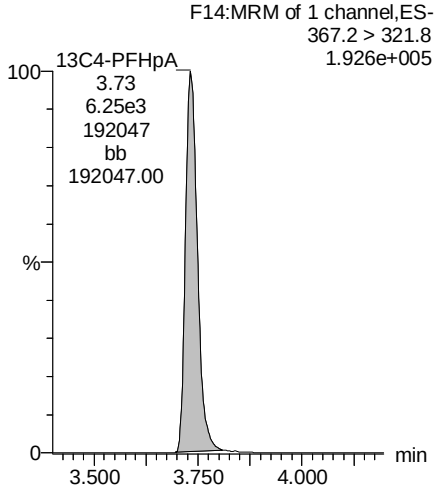
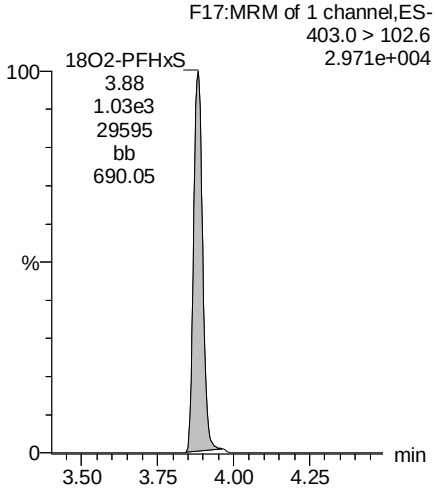


18O2-PFHxS



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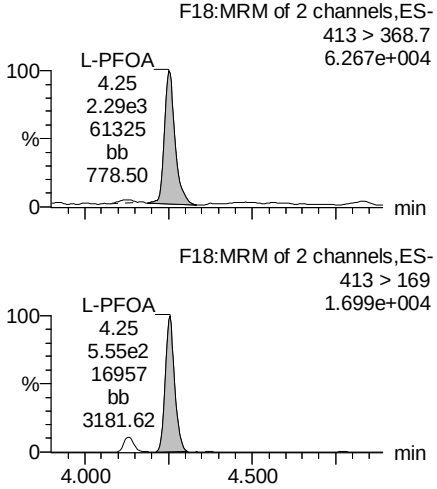

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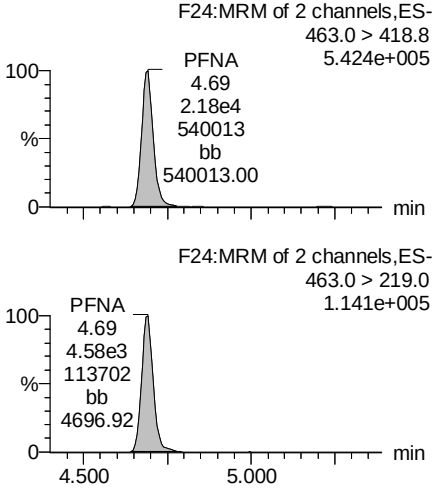
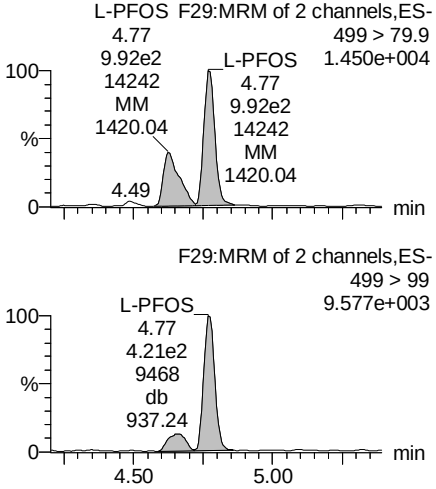


Total PFOS



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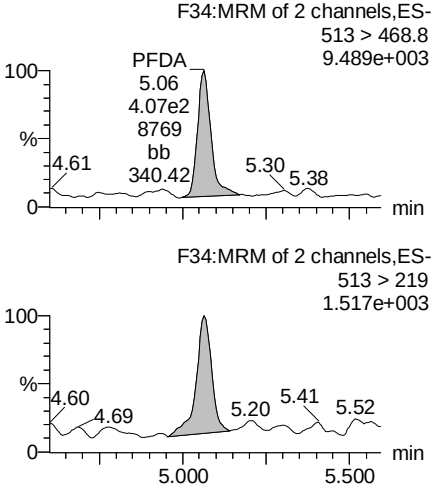

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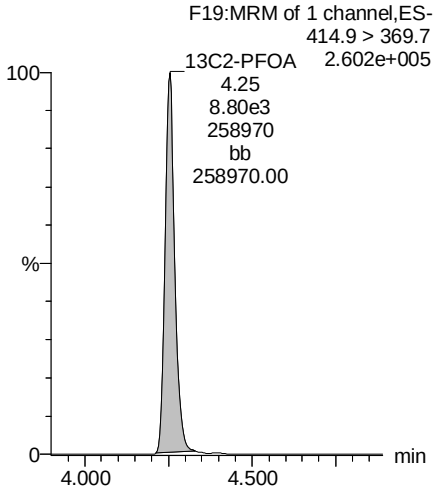
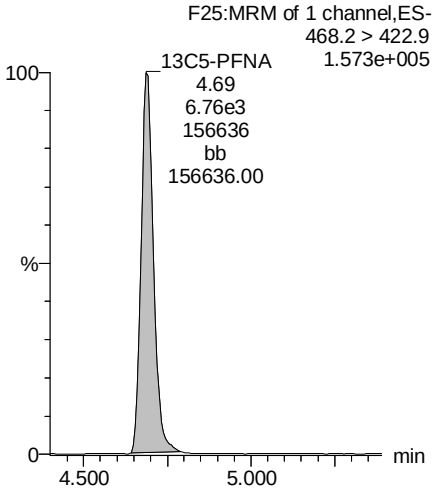


13C5-PFNA



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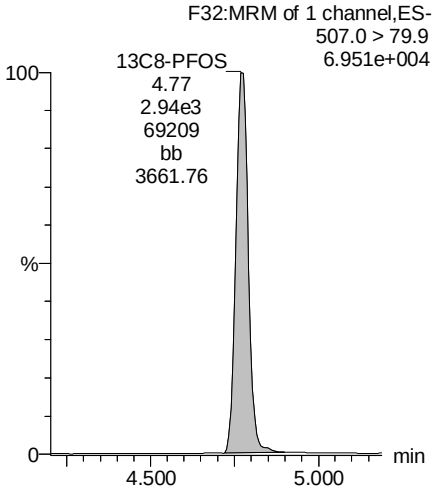

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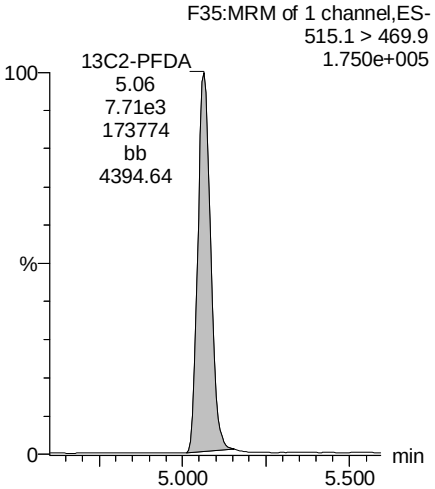

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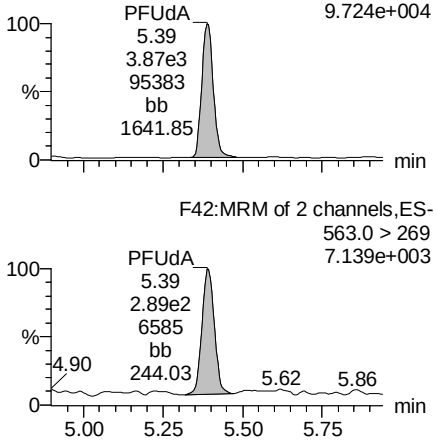
Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-26.qld

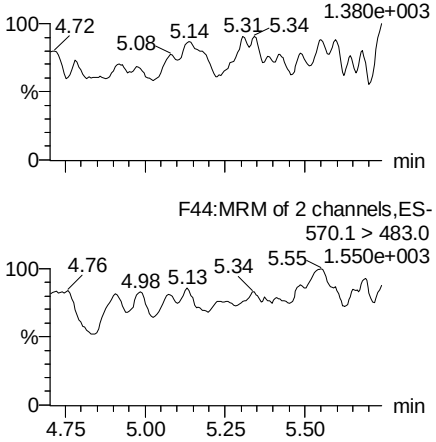
Last Altered: Wednesday, January 03, 2018 07:27:14 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:27:34 Pacific Standard Time

Name: 171215M2_26, Date: 15-Dec-2017, Time: 21:12:41, ID: 1701802-07 FC-MW02IR1-P1-20171128 0.26197, Description: FC-MW02IR1-P1-20171128

PFUdA



N-MeFOSAA



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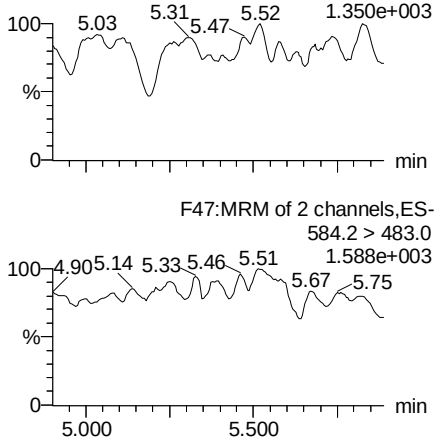
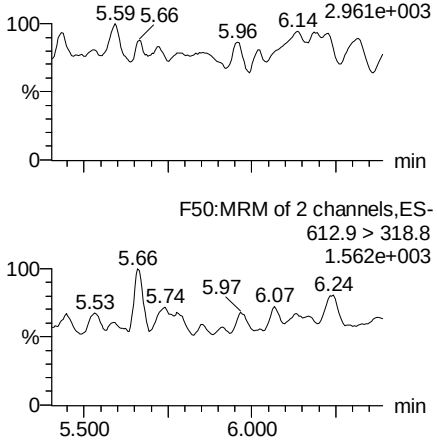
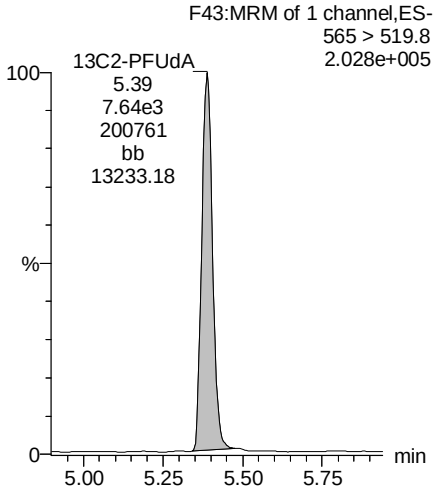


PFDoA



13C2-PFUdA



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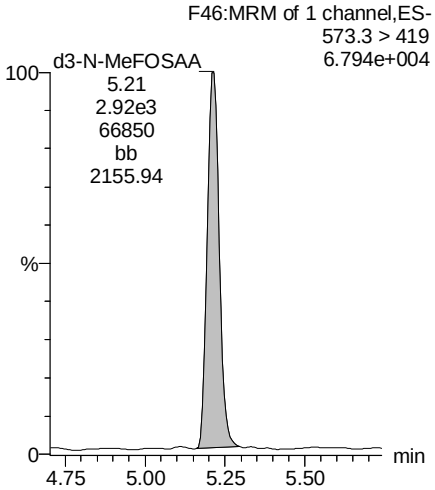

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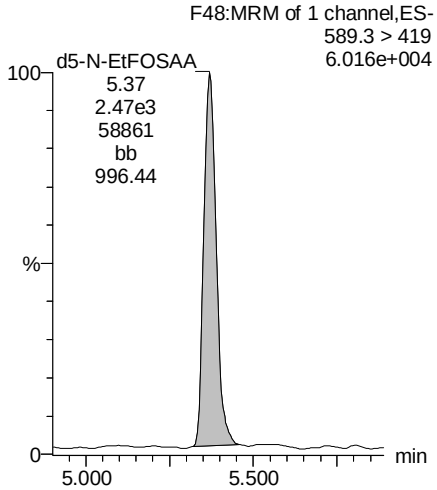

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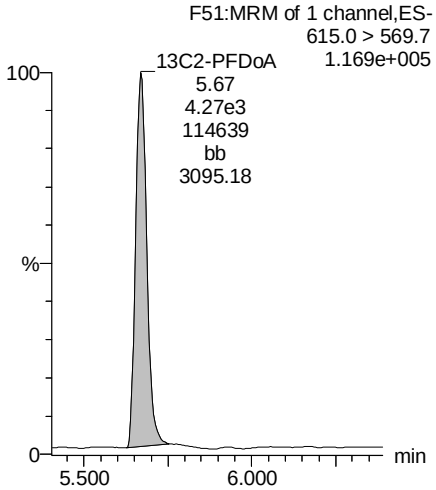

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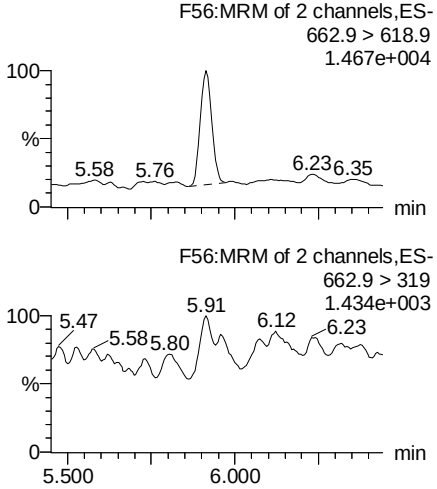
Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-26.qld

Last Altered: Wednesday, January 03, 2018 07:27:14 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:27:34 Pacific Standard Time

Name: 171215M2_26, Date: 15-Dec-2017, Time: 21:12:41, ID: 1701802-07 FC-MW02IR1-P1-20171128 0.26197, Description: FC-MW02IR1-P1-20171128

PFTrDA



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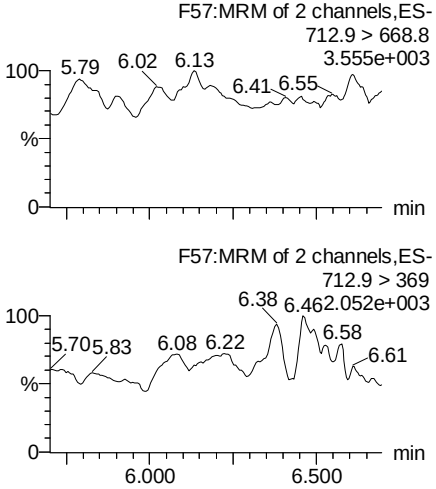

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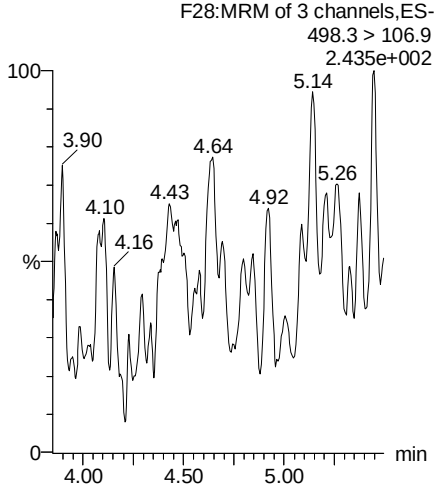
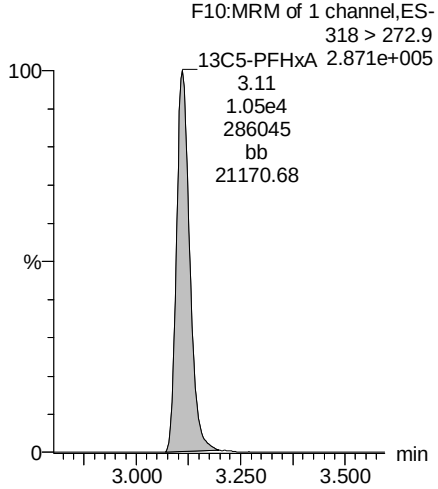


13C5-PFHxA



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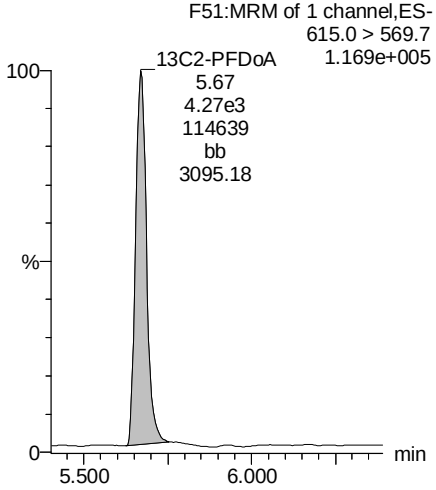

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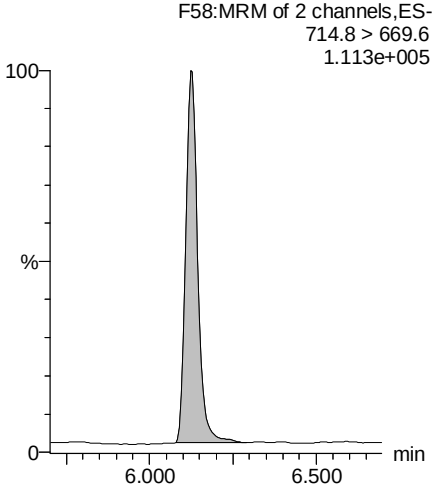

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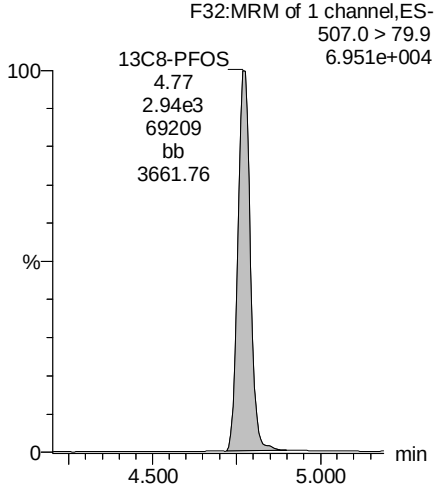
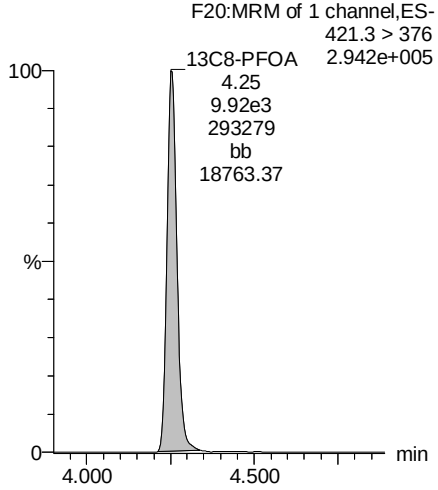


13C8-PFOA



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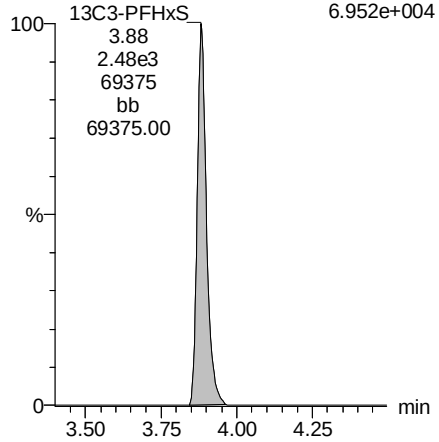
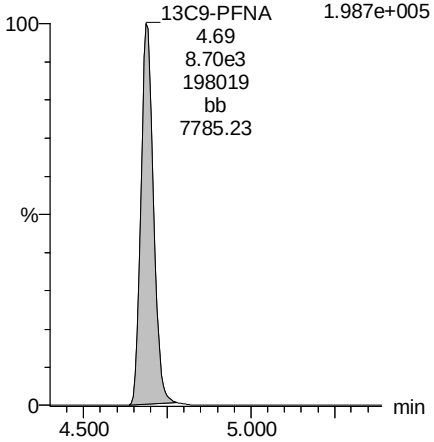
Last Altered: Wednesday, January 03, 2018 07:27:14 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:27:34 Pacific Standard Time

Name: 171215M2_26, Date: 15-Dec-2017, Time: 21:12:41, ID: 1701802-07 FC-MW02IR1-P1-20171128 0.26197, Description: FC-MW02IR1-P1-20171128

13C3-PFHxS



13C9-PFNA



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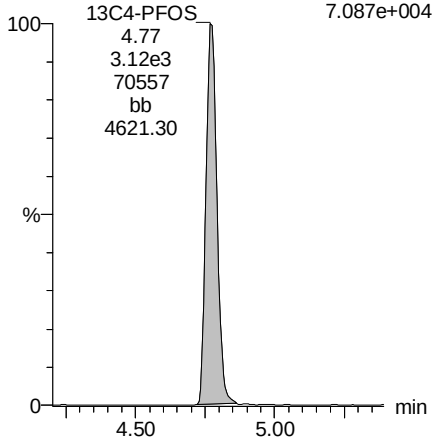

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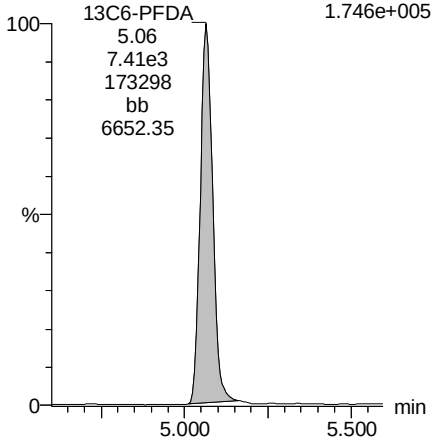
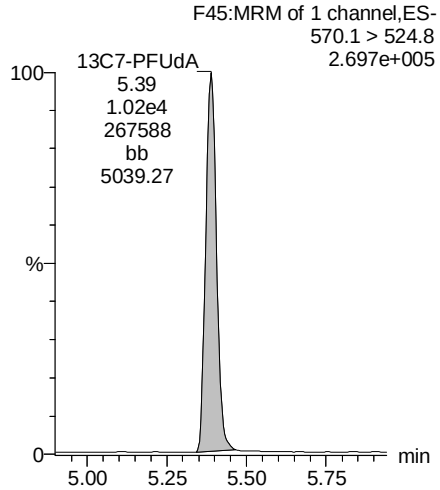


13C7-PFUdA



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Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-27.qld

Last Altered: Wednesday, January 03, 2018 07:30:42 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:30:53 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_27, Date: 15-Dec-2017, Time: 21:23:51, ID: 1701802-08 FC-MW02IR1-P2-20171128 0.26668, Description: FC-MW02IR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.70e1	1.16e3	0.267		2.70	2.62	0.291	0.5777	
2	4	PFHxA	313.2 > 268.9		2.89e3	0.267		3.18				
3	5	PFHpA	363.0 > 318.9	5.74e2	5.31e3	0.267		3.80	3.73	1.35	3.8997	
4	6	L-PFHxS	398.9 > 79.6	4.82e1	1.04e3	0.267		4.00	3.88	0.582	1.3199	
5	9	L-PFOA	413 > 368.7	1.53e3	7.78e3	0.267		4.33	4.25	2.46	9.2069	
6	12	PFNA	463.0 > 418.8	7.66e3	6.53e3	0.267		4.78	4.69	14.7	44.0297	
7	14	L-PFOS	499 > 79.9	1.94e3	2.55e3	0.267		4.83	4.77	9.48	31.7130	
8	16	PFDA	513 > 468.8	1.61e2	6.52e3	0.267		5.12	5.07	0.308	1.0152	
9	18	N-MeFOSAA	570.1 > 419		2.61e3	0.267		5.25				
10	19	N-EtFOSAA	584.2 > 419		2.61e3	0.267		5.45				
11	20	PFUdA	563.0 > 518.9	9.67e2	7.56e3	0.267		5.44	5.39	1.60	5.9473	
12	22	PFDoA	612.9 > 569.0		3.92e3	0.267		5.75				

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Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-27.qld

Last Altered: Wednesday, January 03, 2018 07:30:42 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:31:51 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 19 Dec 2017 14:18:19
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Name: 171215M2_27, Date: 15-Dec-2017, Time: 21:23:51, ID: 1701802-08 FC-MW02IR1-P2-20171128 0.26668, Description: FC-MW02IR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.92e3	0.267		5.97				
2	25	PFTeDA	712.9 > 668.8		3.69e3	0.267		6.20				
3	33	13C3-PFBS	302. > 98.8	1.16e3	1.04e4	0.267	0.124	2.70	2.61	1.40	42.1368	89.9
4	34	13C2-PFHxA	315 > 269.8	2.89e3	1.04e4	0.267	0.897	3.18	3.11	3.48	14.5365	77.5
5	35	13C4-PFHpA	367.2 > 321.8	5.31e3	1.04e4	0.267	0.689	3.80	3.73	6.39	34.7689	74.2
6	36	18O2-PFHxS	403.0 > 102.6	1.04e3	2.41e3	0.267	0.530	4.00	3.88	5.37	37.9796	81.0
7	37	13C2-6:2 FTS	429.1 > 408.9	1.72e3	8.22e3	0.267	0.331	4.26	4.20	2.61	29.6162	63.2
8	38	13C2-PFOA	414.9 > 369.7	7.78e3	8.22e3	0.267	1.316	4.32	4.25	11.8	33.7290	72.0
9	39	13C5-PFNA	468.2 > 422.9	6.53e3	8.79e3	0.267	1.109	4.78	4.69	9.29	31.3837	67.0
10	40	13C8-PFOSA	506.1 > 77.7	1.65e3	8.56e3	0.267	0.487	4.81	4.75	2.41	18.5968	39.7
11	41	13C8-PFOS	507.0 > 79.9	2.55e3	2.68e3	0.267	1.163	4.83	4.77	11.9	38.3640	81.8
12	42	13C2-PFDA	515.1 > 469.9	6.52e3	6.35e3	0.267	1.694	5.12	5.07	12.8	28.4056	60.6
13	43	13C2-8:2 FTS	529.1 > 508.7	1.14e3	1.04e4	0.267	0.141	5.09	5.04	1.37	36.3419	77.5
14	44	d3-N-MeFOSAA	573.3 > 419	2.61e3	8.56e3	0.267	0.530	5.25	5.21	3.81	26.9630	57.5
15	45	d5-N-EtFOSAA	589.3 > 419	2.61e3	8.56e3	0.267	0.541	5.45	5.37	3.81	26.4006	56.3
16	46	13C2-PFUdA	565 > 519.8	7.56e3	8.56e3	0.267	1.351	5.44	5.39	11.0	30.6348	65.4
17	47	13C2-PFDoA	615.0 > 569.7	3.92e3	8.56e3	0.267	0.765	5.75	5.67	5.72	28.0573	59.9
18	49	13C2-PFTeDA	714.8 > 669.6	3.69e3	8.56e3	0.267	0.771	6.20	6.12	5.39	26.2051	55.9
19	55	13C5-PFHxA	318 > 272.9	1.04e4	1.04e4	0.267	1.000	3.18	3.11	12.5	46.8727	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.41e3	2.41e3	0.267	1.000	4.00	3.88	12.5	46.8727	100.0
21	57	13C8-PFOA	421.3 > 376	8.22e3	8.22e3	0.267	1.000	4.32	4.25	12.5	46.8727	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.79e3	8.79e3	0.267	1.000	4.78	4.69	12.5	46.8727	100.0
23	59	13C4-PFOS	503 > 79.9	2.68e3	2.68e3	0.267	1.000	4.83	4.77	12.5	46.8727	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.35e3	6.35e3	0.267	1.000	5.12	5.07	12.5	46.8727	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.56e3	8.56e3	0.267	1.000	5.44	5.39	12.5	46.8727	100.0
26	62	Total PFHxS	398.9 > 79.6	4.82e1	1.04e3	0.267		4.00		0.582	1.3199	
27	63	Total PFOA	413 > 368.7	1.70e3	7.78e3	0.267		4.32		2.73	9.3694	
28	64	Total PFOS	499 > 79.9	1.94e3	2.55e3	0.267		4.83		9.48	31.7130	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.61e3	0.267		5.25		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.61e3	0.267		5.45		0.000		

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Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-27.qld

Last Altered: Wednesday, January 03, 2018 07:30:42 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:31:51 Pacific Standard Time

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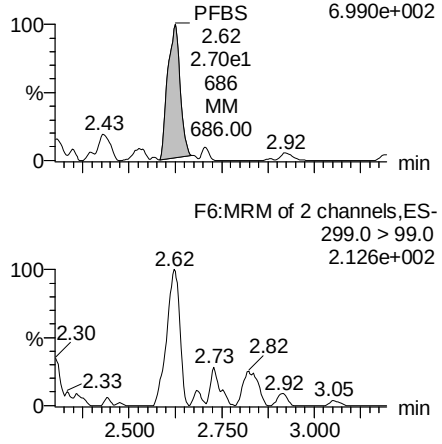
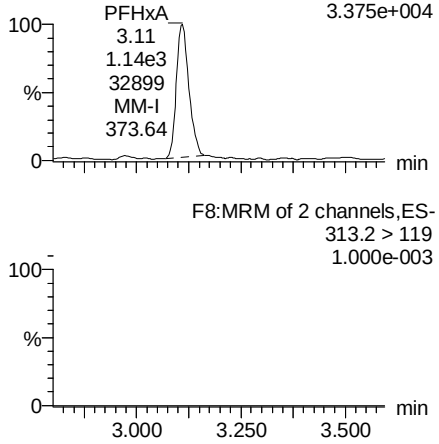
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_27, Date: 15-Dec-2017, Time: 21:23:51, ID: 1701802-08 FC-MW02IR1-P2-20171128 0.26668, Description: FC-MW02IR1-P2-20171128

PFBS



PFHxA



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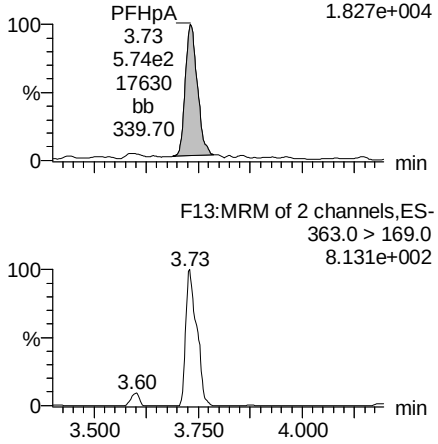
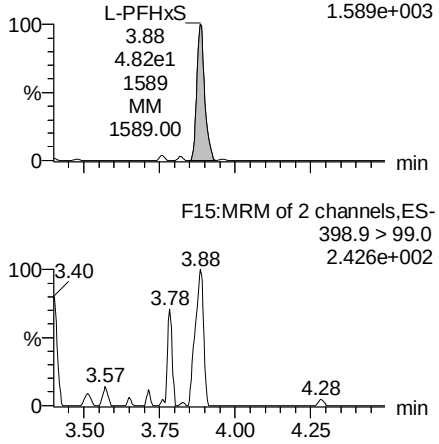


Total PFHxS



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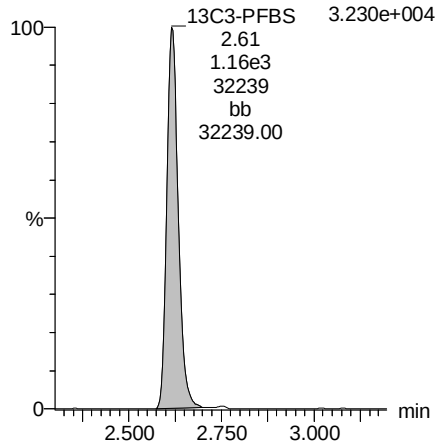
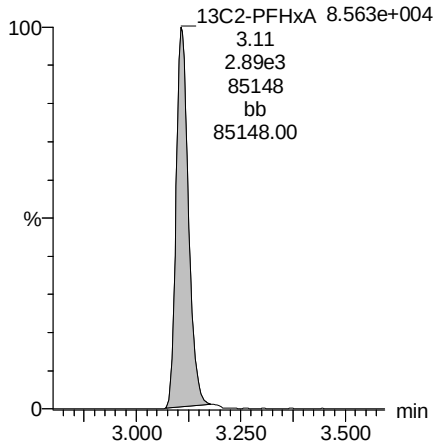


13C2-PFHxA



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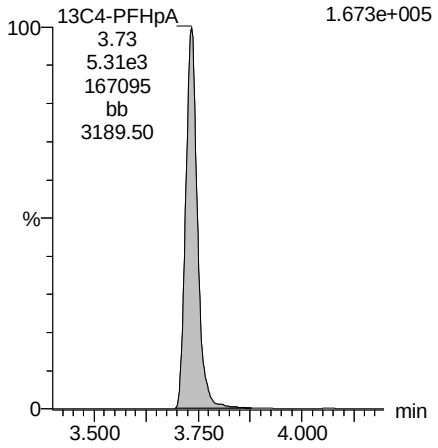
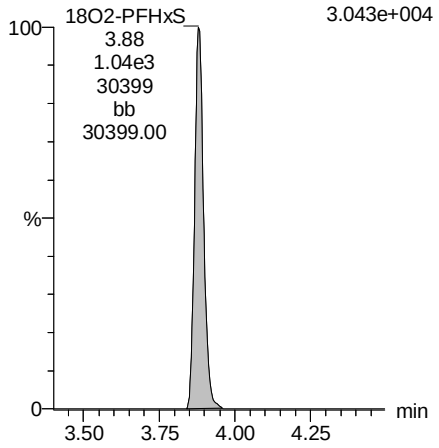


18O2-PFHxS



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Dataset: U:\Q4.PRO\results\171215M2\171215M2-27.qld

Last Altered: Wednesday, January 03, 2018 07:30:42 Pacific Standard Time
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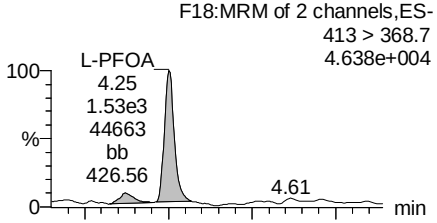
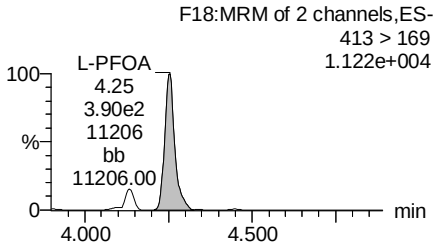
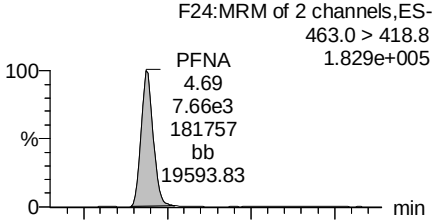
Name: 171215M2_27, Date: 15-Dec-2017, Time: 21:23:51, ID: 1701802-08 FC-MW02IR1-P2-20171128 0.26668, Description: FC-MW02IR1-P2-20171128

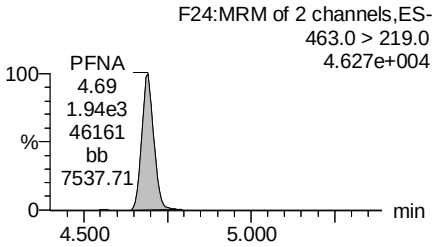
Total PFOA



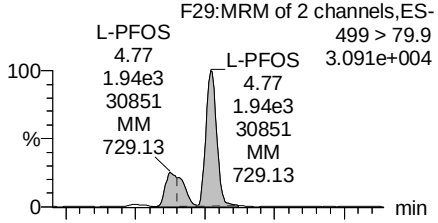


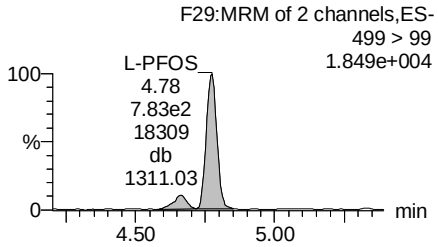
PFNA



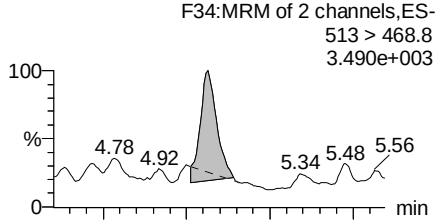


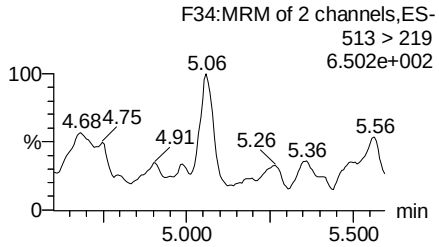
Total PFOS



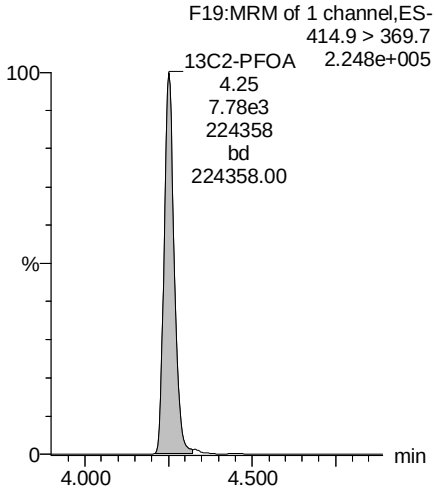


PFDA

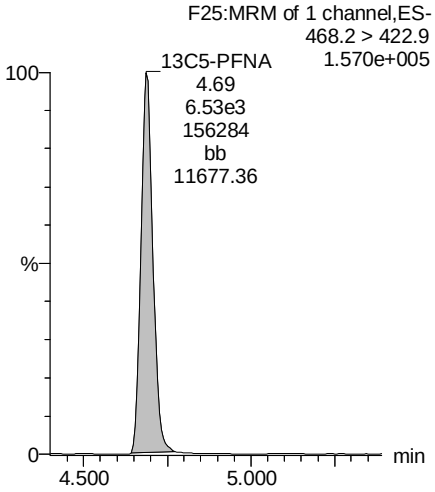




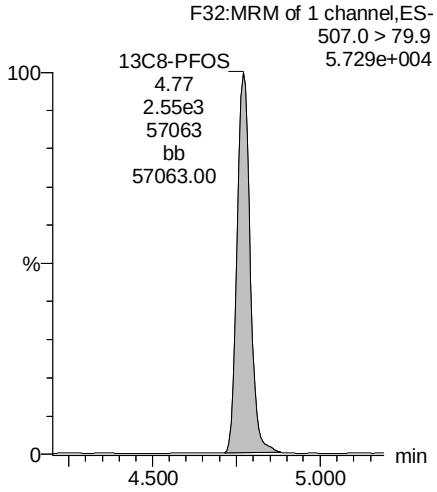
13C2-PFOA



13C5-PFNA



13C8-PFOS



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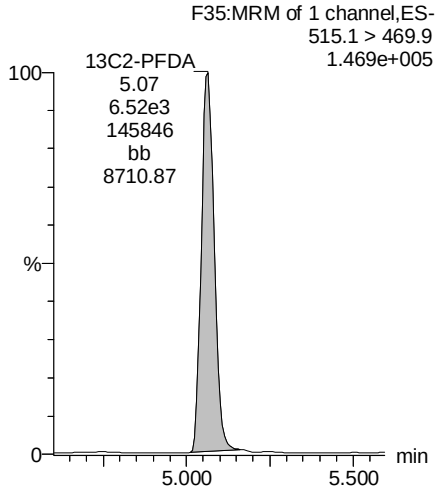

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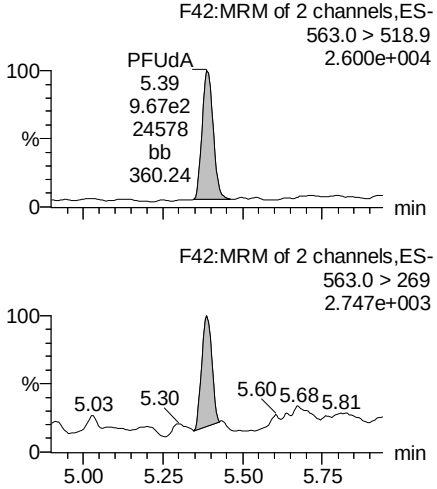
Dataset: U:\Q4.PRO\results\171215M2\171215M2-27.qld

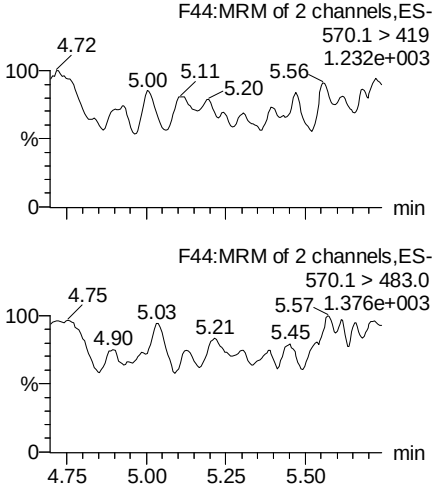
Last Altered: Wednesday, January 03, 2018 07:30:42 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:31:51 Pacific Standard Time

Name: 171215M2_27, Date: 15-Dec-2017, Time: 21:23:51, ID: 1701802-08 FC-MW02IR1-P2-20171128 0.26668, Description: FC-MW02IR1-P2-20171128

PFUdA



N-MeFOSAA



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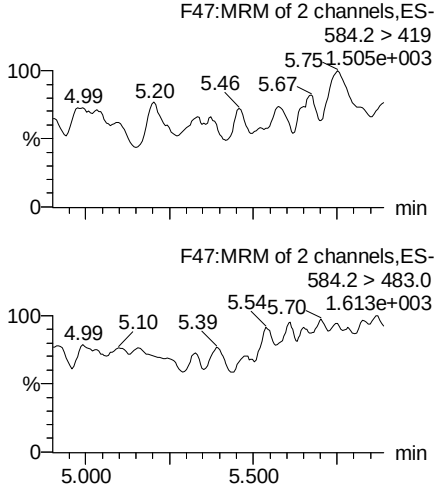

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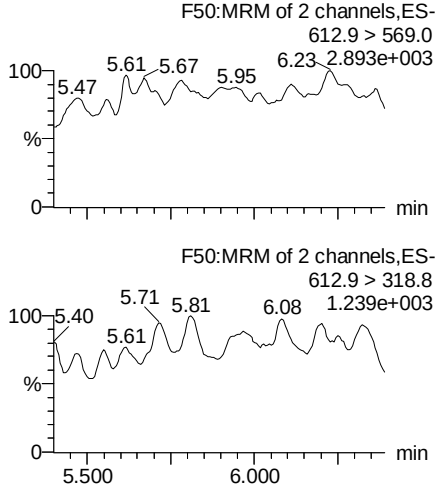

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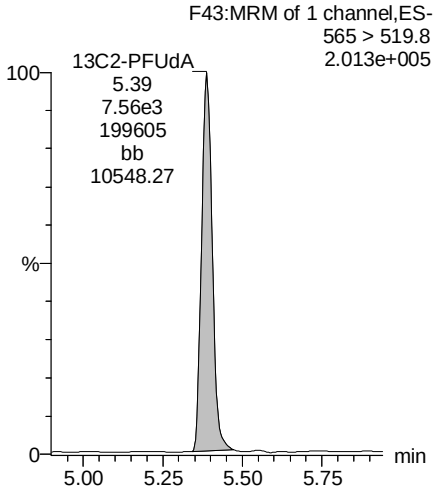
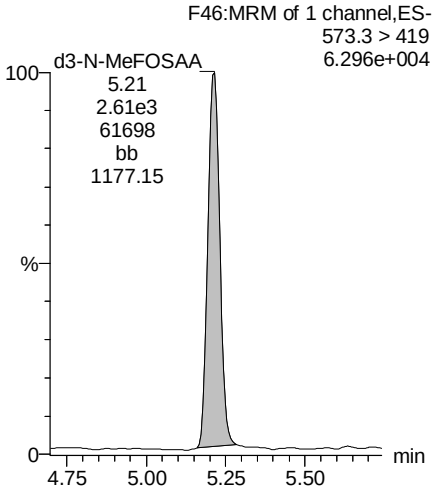
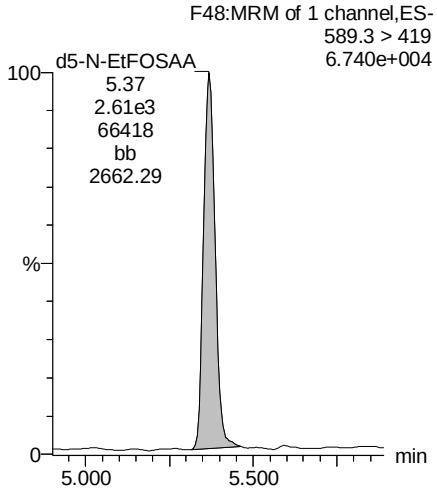


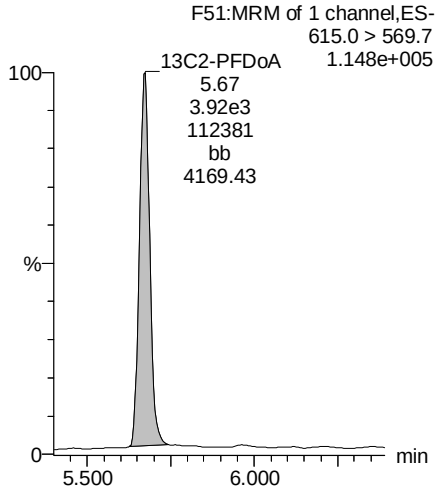
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



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Rev'd: MM 1/16/18

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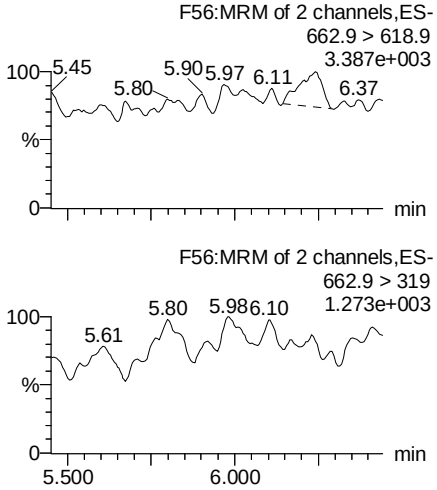
Last Altered: Wednesday, January 03, 2018 07:30:42 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:31:51 Pacific Standard Time

Name: 171215M2_27, Date: 15-Dec-2017, Time: 21:23:51, ID: 1701802-08 FC-MW02IR1-P2-20171128 0.26668, Description: FC-MW02IR1-P2-20171128

PFTrDA



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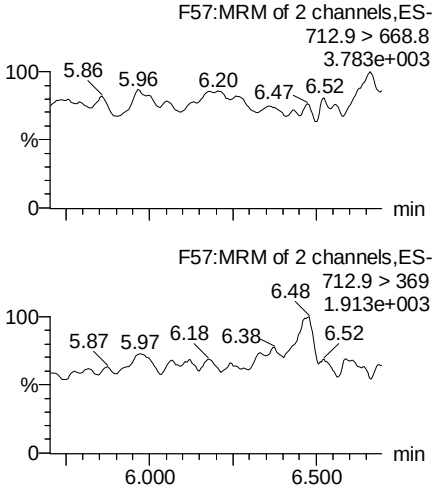

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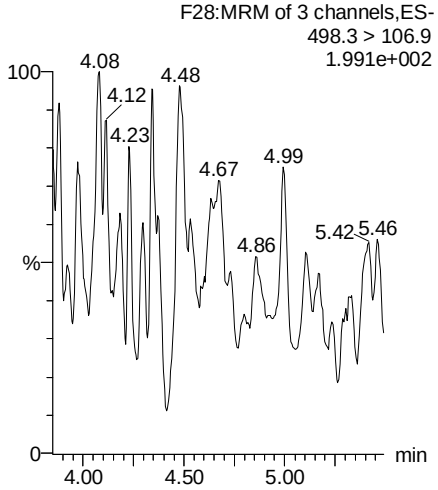
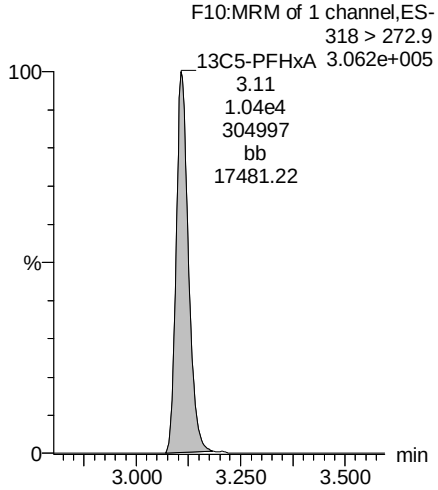


13C5-PFHxA



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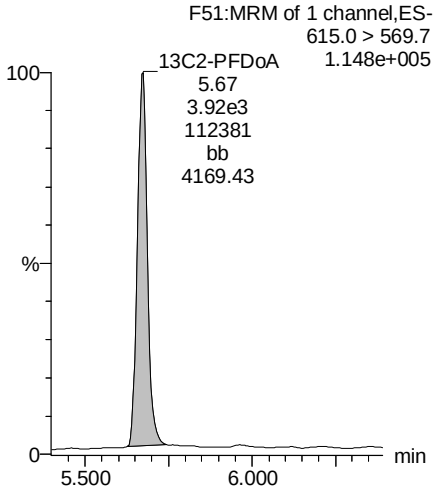

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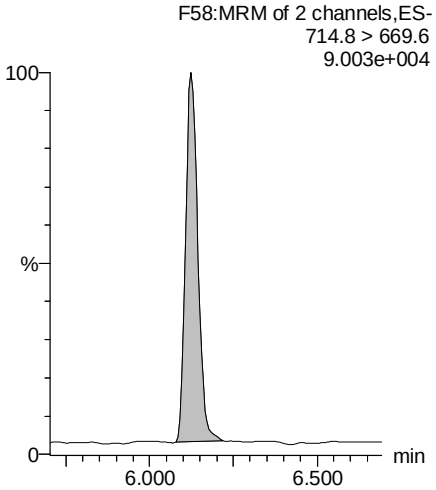
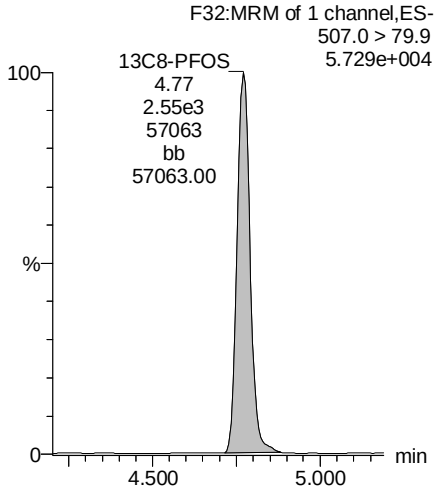
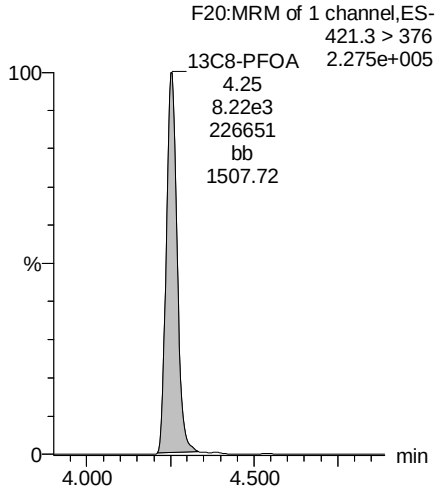


13C8-PFOS



13C8-PFOA



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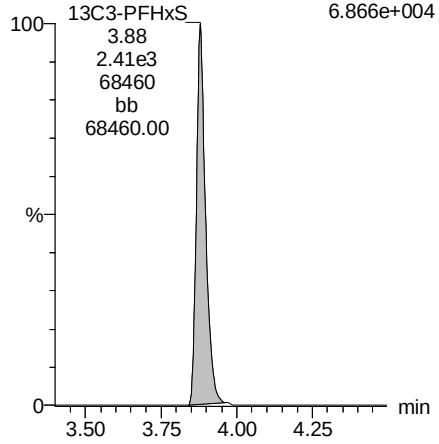
Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-27.qld

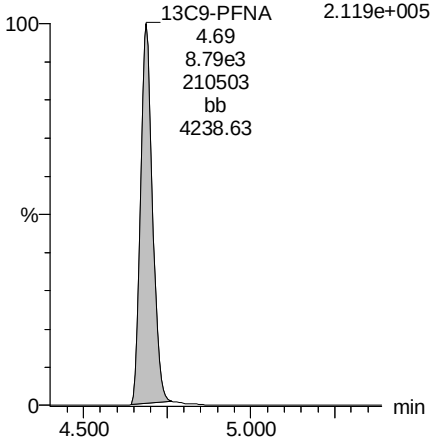
Last Altered: Wednesday, January 03, 2018 07:30:42 Pacific Standard Time
Printed: Wednesday, January 03, 2018 07:31:51 Pacific Standard Time

Name: 171215M2_27, Date: 15-Dec-2017, Time: 21:23:51, ID: 1701802-08 FC-MW02IR1-P2-20171128 0.26668, Description: FC-MW02IR1-P2-20171128

13C3-PFHxS



13C9-PFNA



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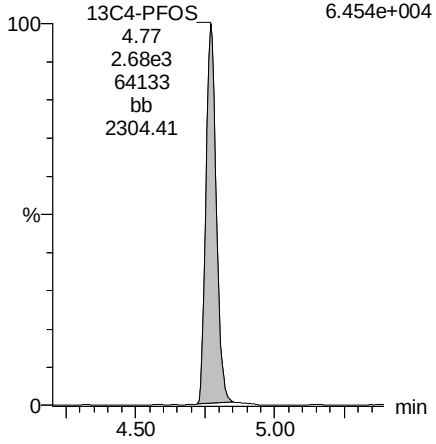
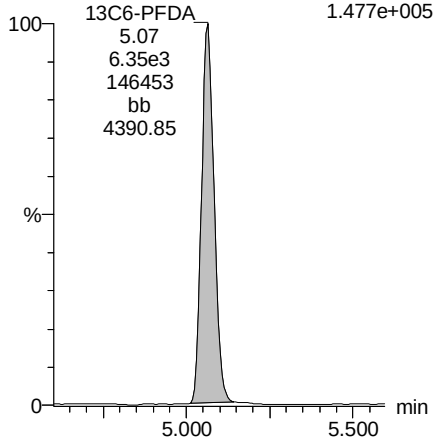
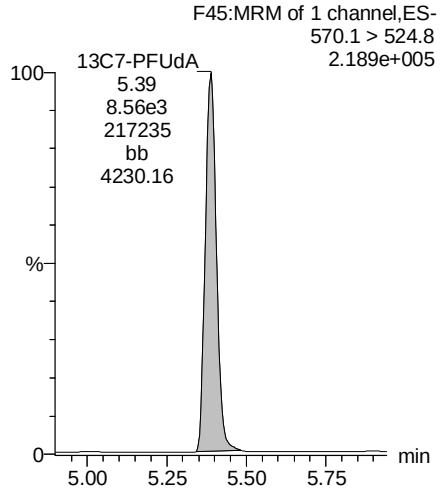


13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-28.qld

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Printed: Wednesday, January 03, 2018 07:33:50 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_28, Date: 15-Dec-2017, Time: 21:35:02, ID: 1701802-09 FC-MW02IR1-P3-20171128 0.25726, Description: FC-MW02IR1-P3-20171128

	#	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	0.257		2.70				
2	4	PFHxA	313.2 > 268.9	1.30e3	3.27e3	0.257		3.18	3.11	1.99	5.2975	
3	5	PFHpA	363.0 > 318.9	6.65e2	6.04e3	0.257		3.80	3.74	1.38	4.1159	
4	6	L-PFHxS	398.9 > 79.6	4.60e1	9.68e2	0.257		4.00	3.89	0.594	1.3936	
5	9	L-PFOA	413 > 368.7	1.85e3	7.80e3	0.257		4.33	4.26	2.96	11.7133	
6	12	PFNA	463.0 > 418.8	7.82e3	7.51e3	0.257		4.78	4.69	13.0	40.4326	
7	14	L-PFOS	499 > 79.9	1.98e3	3.23e3	0.257		4.83	4.78	7.66	26.6717	
8	16	PFDA	513 > 468.8		6.01e3	0.257		5.12				
9	18	N-MeFOSAA	570.1 > 419		2.80e3	0.257		5.25				
10	19	N-EtFOSAA	584.2 > 419		2.82e3	0.257		5.45				
11	20	PFUdA	563.0 > 518.9	1.02e3	7.30e3	0.257		5.44	5.39	1.74	6.7187	
12	22	PFDoA	612.9 > 569.0		3.41e3	0.257		5.75				

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Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-28.qld

Last Altered: Wednesday, January 03, 2018 07:33:34 Pacific Standard Time
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_28, Date: 15-Dec-2017, Time: 21:35:02, ID: 1701802-09 FC-MW02IR1-P3-20171128 0.25726, Description: FC-MW02IR1-P3-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.41e3	0.257		5.97				
2	25	PFTeDA	712.9 > 668.8		3.69e3	0.257		6.20				
3	33	13C3-PFBS	302. > 98.8	1.21e3	1.32e4	0.257	0.124	2.70	2.62	1.15	35.8644	73.8
4	34	13C2-PFHxA	315 > 269.8	3.27e3	1.32e4	0.257	0.897	3.18	3.11	3.09	13.4035	69.0
5	35	13C4-PFHpA	367.2 > 321.8	6.04e3	1.32e4	0.257	0.689	3.80	3.74	5.71	32.1891	66.2
6	36	18O2-PFHxS	403.0 > 102.6	9.68e2	2.81e3	0.257	0.530	4.00	3.88	4.31	31.5740	65.0
7	37	13C2-6:2 FTS	429.1 > 408.9	2.33e3	8.13e3	0.257	0.331	4.26	4.20	3.58	42.0619	86.6
8	38	13C2-PFOA	414.9 > 369.7	7.80e3	8.13e3	0.257	1.316	4.32	4.25	12.0	35.4447	72.9
9	39	13C5-PFNA	468.2 > 422.9	7.51e3	9.98e3	0.257	1.109	4.78	4.69	9.41	32.9718	67.9
10	40	13C8-PFOSA	506.1 > 77.7	1.83e3	1.04e4	0.257	0.487	4.81	4.75	2.19	17.5146	36.0
11	41	13C8-PFOS	507.0 > 79.9	3.23e3	3.20e3	0.257	1.163	4.83	4.78	12.6	42.1091	86.7
12	42	13C2-PFDA	515.1 > 469.9	6.01e3	8.46e3	0.257	1.694	5.12	5.07	8.89	20.3935	42.0
13	43	13C2-8:2 FTS	529.1 > 508.7	1.05e3	1.32e4	0.257	0.141	5.09	5.04	0.993	27.3663	56.3
14	44	d3-N-MeFOSAA	573.3 > 419	2.80e3	1.04e4	0.257	0.530	5.25	5.21	3.36	24.6405	50.7
15	45	d5-N-EtFOSAA	589.3 > 419	2.82e3	1.04e4	0.257	0.541	5.45	5.37	3.38	24.2964	50.0
16	46	13C2-PFUdA	565 > 519.8	7.30e3	1.04e4	0.257	1.351	5.44	5.39	8.74	25.1504	51.8
17	47	13C2-PFDoA	615.0 > 569.7	3.41e3	1.04e4	0.257	0.765	5.75	5.67	4.08	20.7545	42.7
18	49	13C2-PFTeDA	714.8 > 669.6	3.69e3	1.04e4	0.257	0.771	6.20	6.13	4.42	22.2699	45.8
19	55	13C5-PFHxA	318 > 272.9	1.32e4	1.32e4	0.257	1.000	3.18	3.11	12.5	48.5890	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.81e3	2.81e3	0.257	1.000	4.00	3.89	12.5	48.5890	100.0
21	57	13C8-PFOA	421.3 > 376	8.13e3	8.13e3	0.257	1.000	4.32	4.26	12.5	48.5890	100.0
22	58	13C9-PFNA	472.2 > 426.9	9.98e3	9.98e3	0.257	1.000	4.78	4.69	12.5	48.5890	100.0
23	59	13C4-PFOS	503 > 79.9	3.20e3	3.20e3	0.257	1.000	4.83	4.78	12.5	48.5890	100.0
24	60	13C6-PFDA	519.1 > 473.7	8.46e3	8.46e3	0.257	1.000	5.12	5.07	12.5	48.5890	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.04e4	1.04e4	0.257	1.000	5.44	5.39	12.5	48.5890	100.0
26	62	Total PFHxS	398.9 > 79.6	4.60e1	9.68e2	0.257		4.00		0.594	1.3936	
27	63	Total PFOA	413 > 368.7	1.94e3	7.80e3	0.257		4.32		2.96	11.7133	
28	64	Total PFOS	499 > 79.9	1.98e3	3.23e3	0.257		4.83		7.66	26.6717	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.80e3	0.257		5.25		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.82e3	0.257		5.45		0.000		

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Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-28.qld

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Printed: Wednesday, January 03, 2018 07:34:00 Pacific Standard Time

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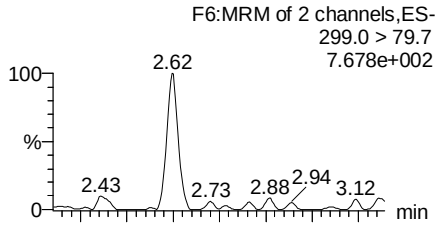
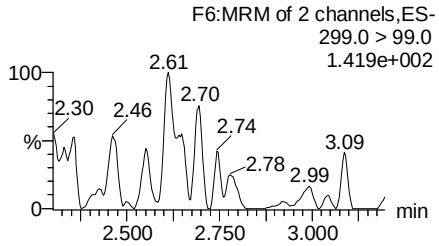
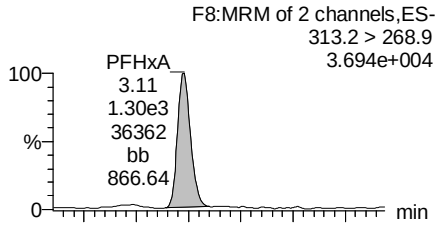
Name: 171215M2_28, Date: 15-Dec-2017, Time: 21:35:02, ID: 1701802-09 FC-MW02IR1-P3-20171128 0.25726, Description: FC-MW02IR1-P3-20171128

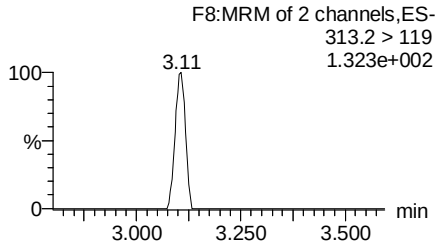
PFBS



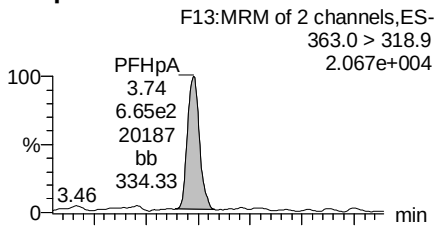


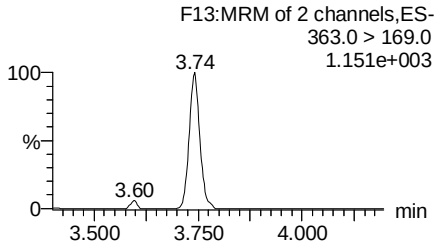
PFHxA



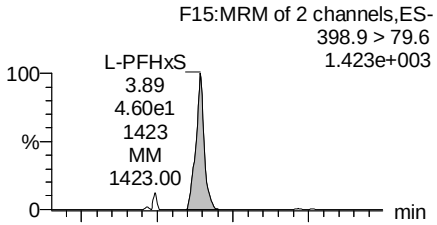


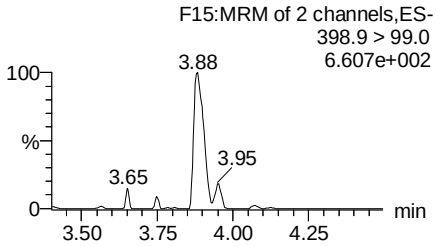
PFHpA



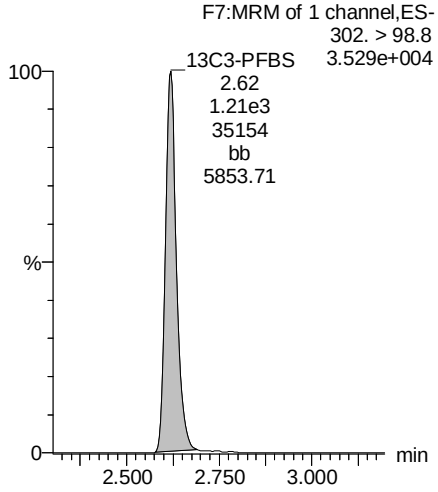


Total PFHxS

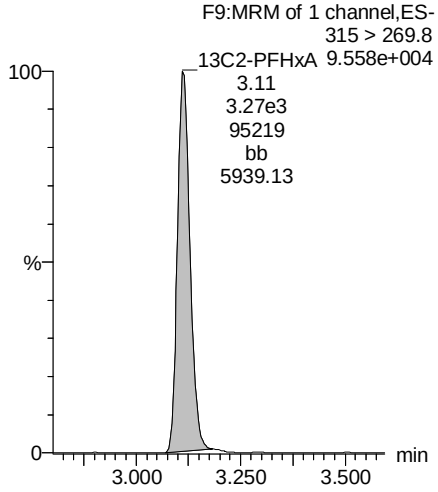




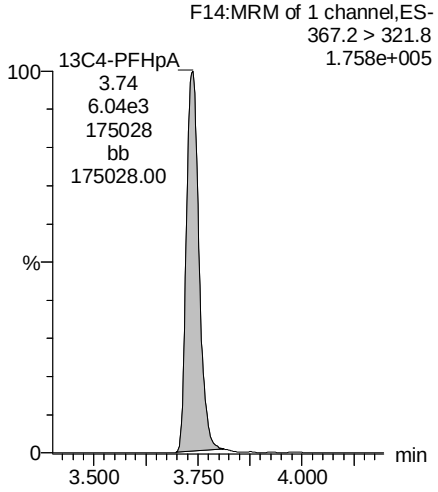
13C3-PFBS



13C2-PFHxA



13C4-PFHpA



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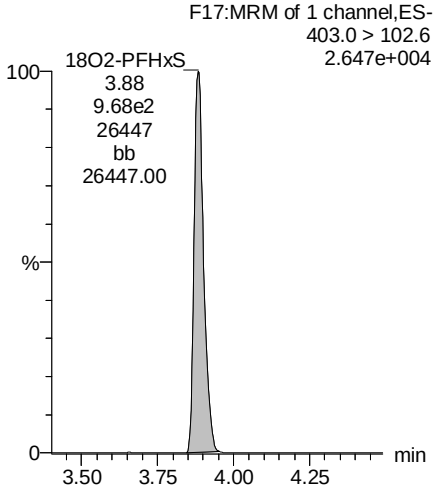

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Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-28.qld

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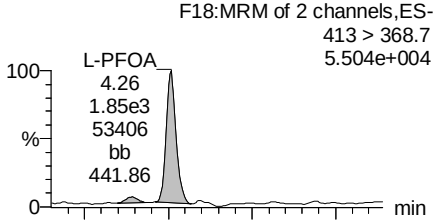
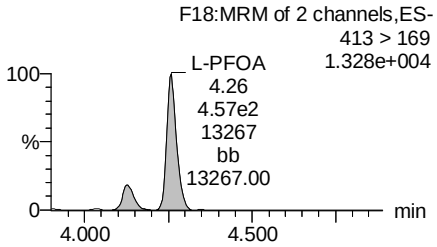
Printed: Wednesday, January 03, 2018 07:34:00 Pacific Standard Time

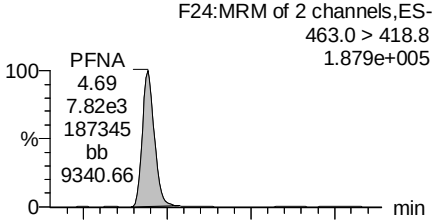
Name: 171215M2_28, Date: 15-Dec-2017, Time: 21:35:02, ID: 1701802-09 FC-MW02IR1-P3-20171128 0.25726, Description: FC-MW02IR1-P3-20171128

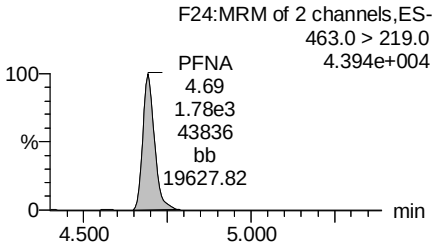
Total PFOA



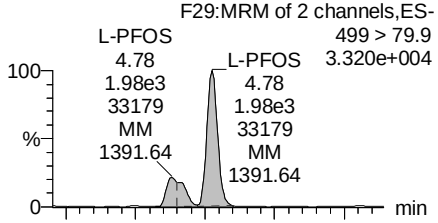


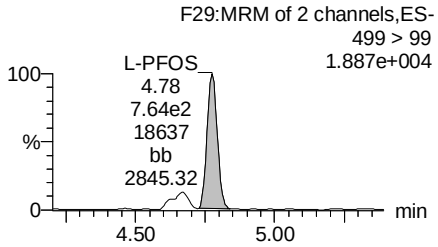
PFNA



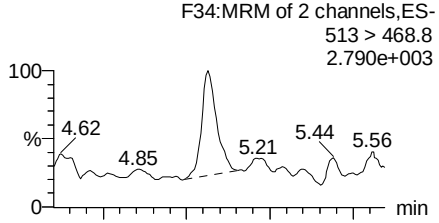


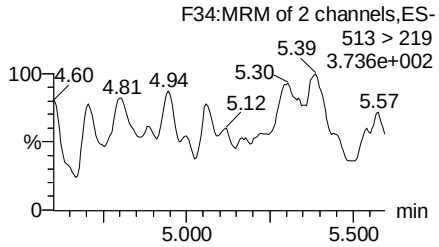
Total PFOS



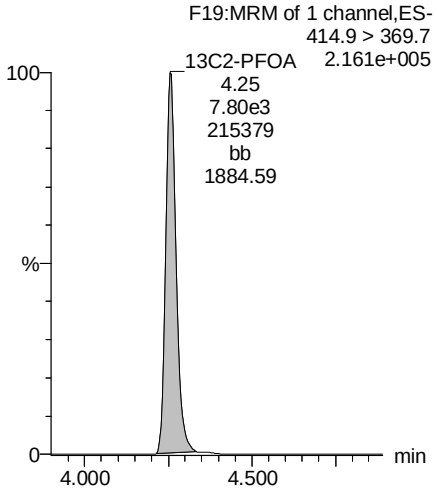


PFDA

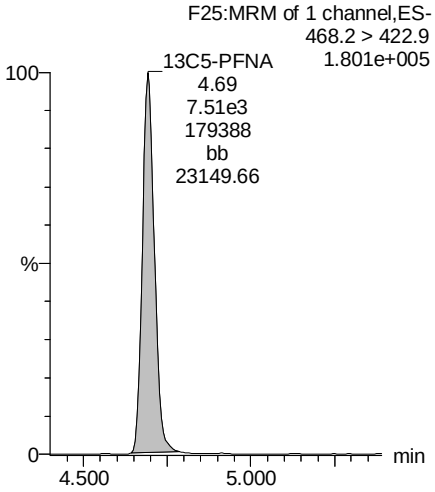




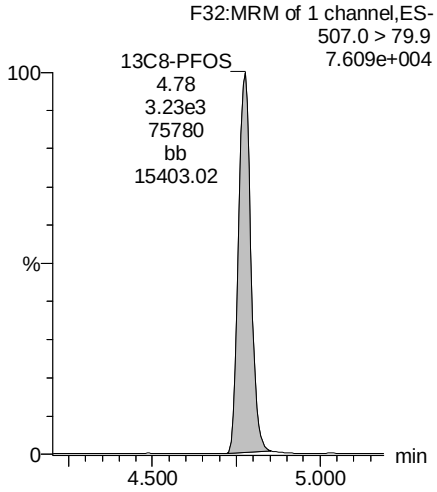
13C2-PFOA



13C5-PFNA



13C8-PFOS



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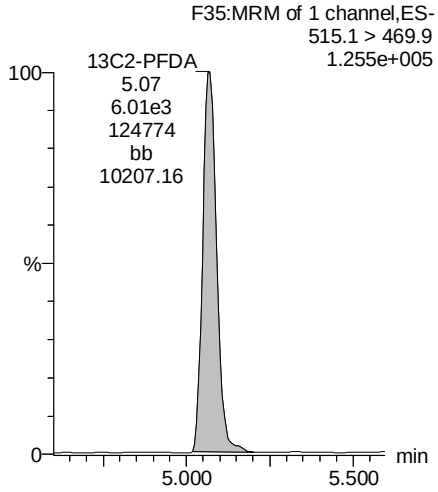

ANP 1/3/2018

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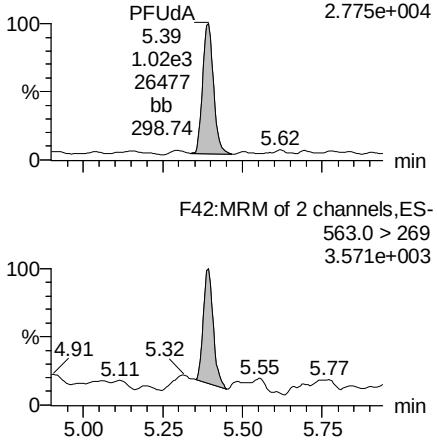
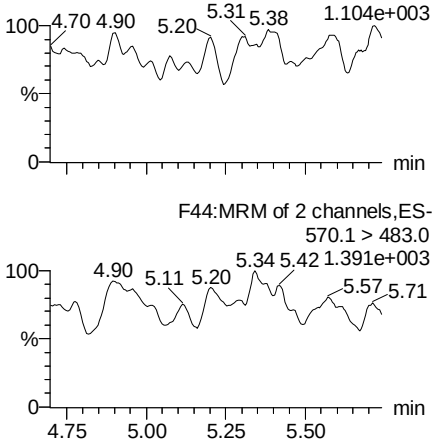
Printed: Wednesday, January 03, 2018 07:34:00 Pacific Standard Time

Name: 171215M2_28, Date: 15-Dec-2017, Time: 21:35:02, ID: 1701802-09 FC-MW02IR1-P3-20171128 0.25726, Description: FC-MW02IR1-P3-20171128

PFUdA



N-MeFOSAA



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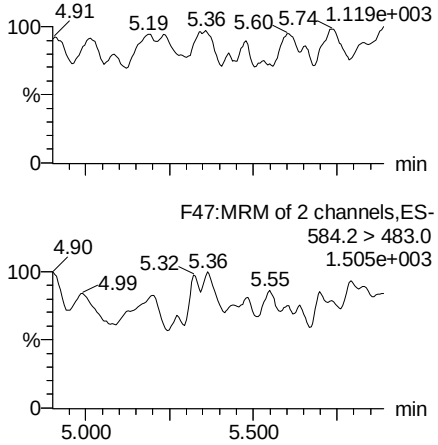
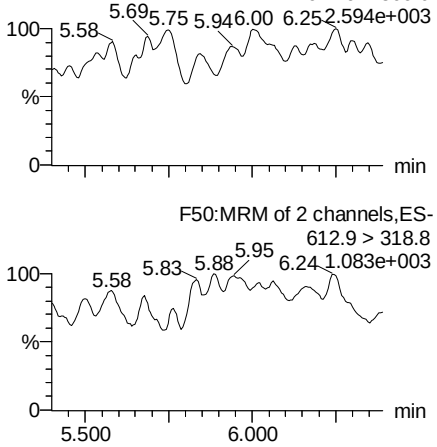


PFDoA



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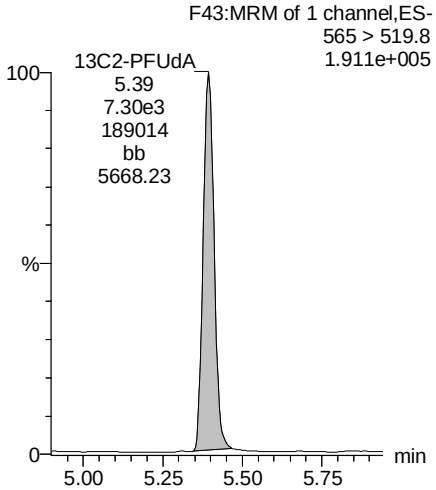
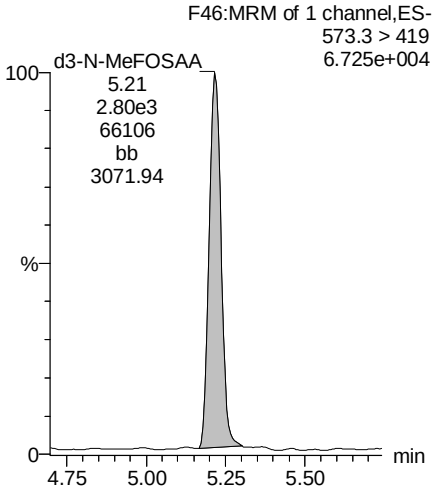
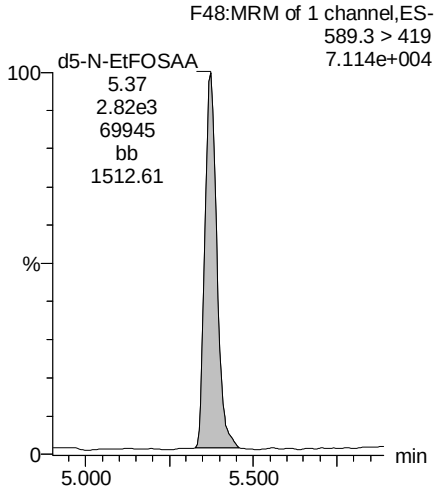


d3-N-MeFOSAA



d5-N-EtFOSAA



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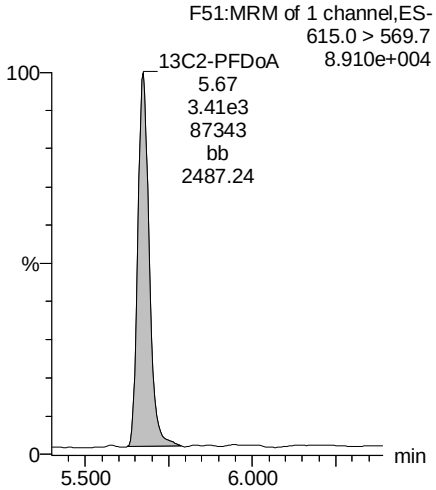

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Vista Analytical Laboratory

Rev'd: MM 1/16/18

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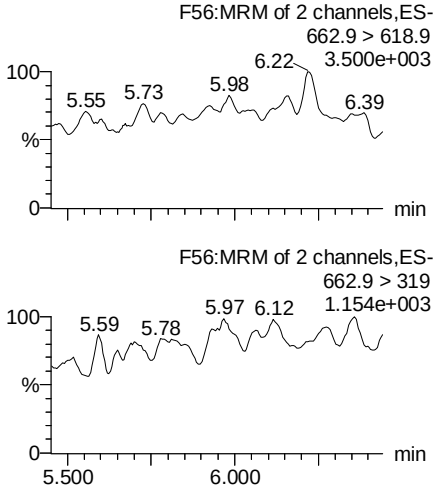
Printed: Wednesday, January 03, 2018 07:34:00 Pacific Standard Time

Name: 171215M2_28, Date: 15-Dec-2017, Time: 21:35:02, ID: 1701802-09 FC-MW02IR1-P3-20171128 0.25726, Description: FC-MW02IR1-P3-20171128

PFTrDA



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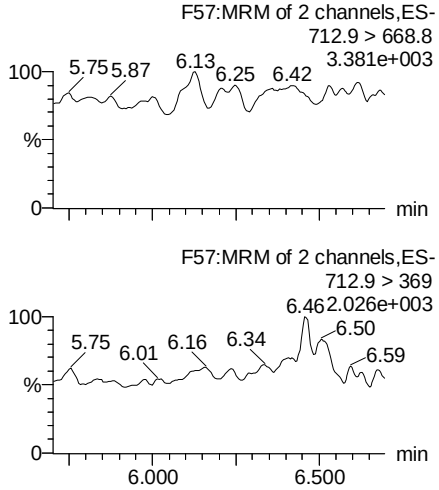

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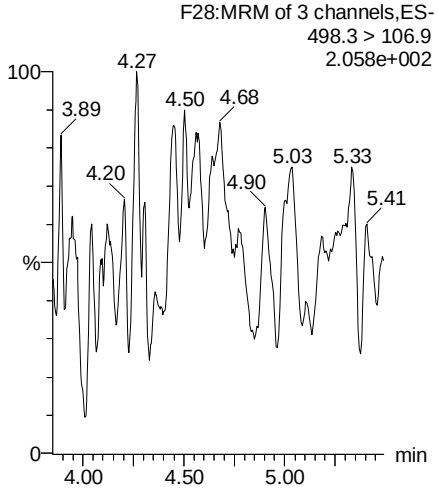
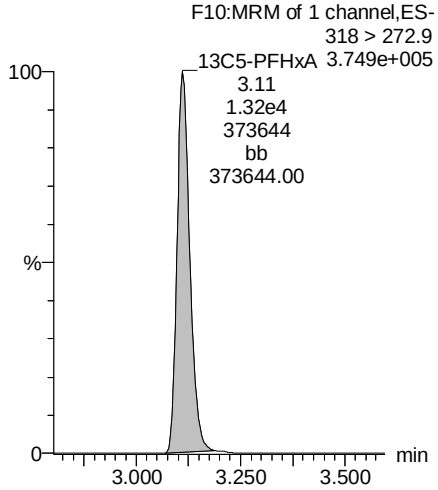
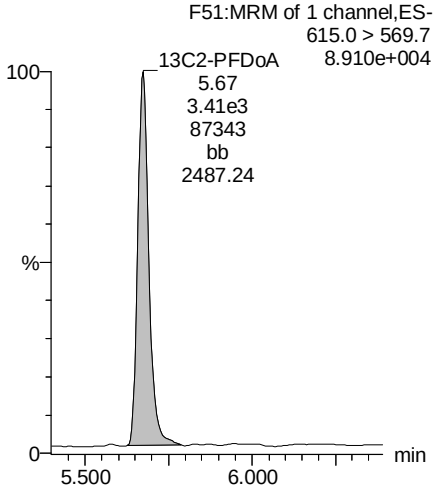


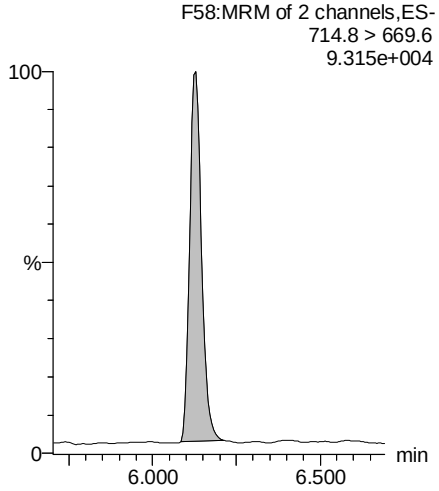
13C5-PFHxA



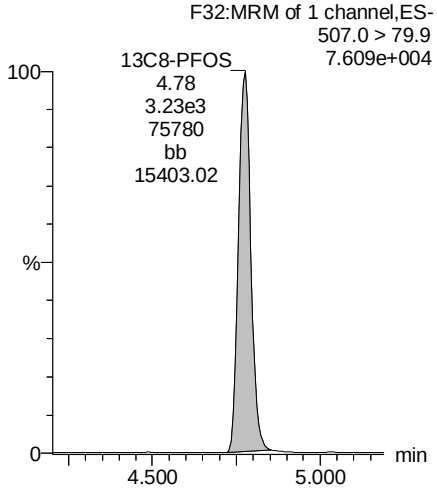
13C2-PFDoA



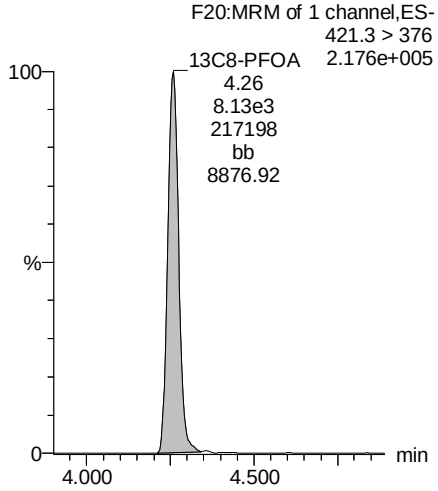
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\171215M2\171215M2-28.qld

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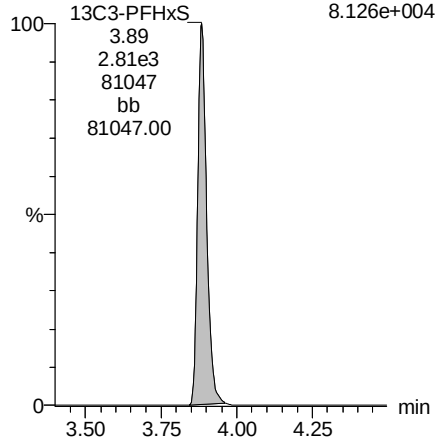
Name: 171215M2_28, Date: 15-Dec-2017, Time: 21:35:02, ID: 1701802-09 FC-MW02IR1-P3-20171128 0.25726, Description: FC-MW02IR1-P3-20171128

13C3-PFHxS



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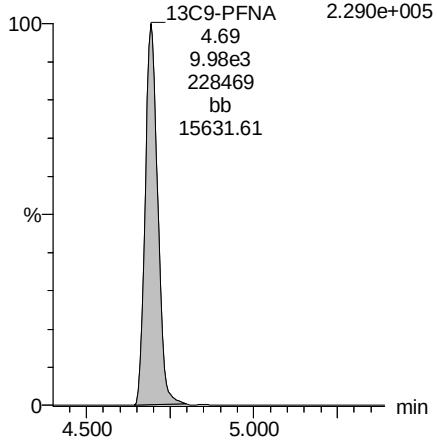

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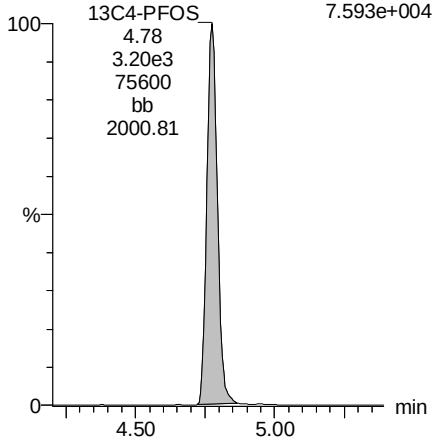

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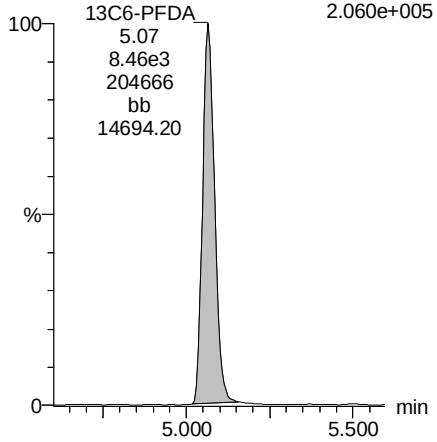
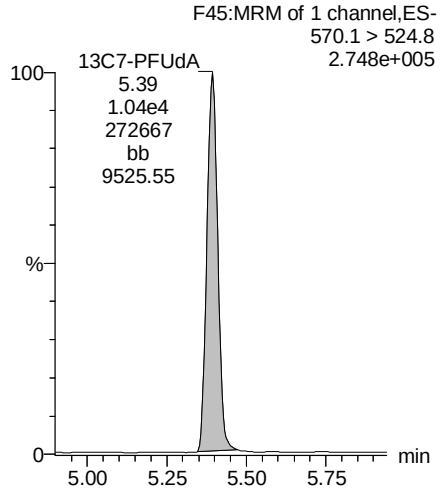


13C7-PFUdA



ANP 1/3/2018

UNREPORTED RUNS

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-20.qld

Last Altered: Thursday, January 18, 2018 14:52:05 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:52:25 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_20, Date: 28-Dec-2017, Time: 19:30:25, ID: B7L0125-BLK1 Method Blank 0.25, 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		1.02e3	0.250		2.70				
2	4	PFHxA	313.2 > 268.9		1.97e3	0.250		3.20				
3	5	PFHpA	363.0 > 318.9		4.62e3	0.250		3.80				
4	6	L-PFHxS	398.9 > 79.6		8.37e2	0.250		3.95				
5	9	L-PFOA	413 > 368.7	2.09e2	7.95e3	0.250		4.32	4.31	0.328	0.3849	
6	12	PFNA	463.0 > 418.8		6.13e3	0.250		4.75				
7	14	L-PFOS	499 > 79.9		2.23e3	0.250		4.83				
8	16	PFDA	513 > 468.8		5.02e3	0.250		5.11				
9	18	N-MeFOSAA	570.1 > 419		2.67e3	0.250		5.26				
10	19	N-EtFOSAA	584.2 > 419		3.31e3	0.250		5.42				
11	20	PFUdA	563.0 > 518.9		5.31e3	0.250		5.43				
12	22	PFDoA	612.9 > 569.0		3.80e3	0.250		5.70				

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-20.qld

Last Altered: Thursday, January 18, 2018 14:52:05 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:52:36 Pacific Standard Time

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Name: 171228M3_20, Date: 28-Dec-2017, Time: 19:30:25, ID: B7L0125-BLK1 Method Blank 0.25, 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		3.80e3	0.250		5.95				
2	25	PFTeDA	712.9 > 668.8		1.21e3	0.250		6.16				
3	33	13C3-PFBS	302. > 98.8	1.02e3	6.71e3	0.250	0.101	2.70	2.72	1.90	75.4200	150.8
4	34	13C2-PFHxA	315 > 269.8	1.97e3	6.71e3	0.250	0.629	3.20	3.21	3.67	23.3346	116.7
5	35	13C4-PFHpA	367.2 > 321.8	4.62e3	6.71e3	0.250	0.585	3.80	3.81	8.62	58.9931	118.0
6	36	18O2-PFHxS	403.0 > 102.6	8.37e2	2.00e3	0.250	0.341	3.95	3.95	5.22	61.2878	122.6
7	37	13C2-6:2 FTS	429.1 > 408.9	1.89e3	7.17e3	0.250	0.238	4.26	4.27	3.29	55.3855	110.8
8	38	13C2-PFOA	414.9 > 369.7	7.95e3	7.17e3	0.250	0.934	4.32	4.31	13.9	59.3587	118.7
9	39	13C5-PFNA	468.2 > 422.9	6.13e3	6.46e3	0.250	0.841	4.75	4.73	11.9	56.4618	112.9
10	40	13C8-PFOSA	506.1 > 77.7	8.21e2	6.33e3	0.250	0.202	4.81	4.81	1.62	32.0512	64.1
11	41	13C8-PFOS	507.0 > 79.9	2.23e3	1.53e3	0.250	0.906	4.83	4.81	18.2	80.0910	160.2
12	42	13C2-PFDA	515.1 > 469.9	5.02e3	4.28e3	0.250	1.050	5.11	5.10	14.7	55.8451	111.7
13	43	13C2-8:2 FTS	529.1 > 508.7	8.95e2	6.71e3	0.250	0.109	5.09	5.07	1.67	61.1917	122.4
14	44	d3-N-MeFOSAA	573.3 > 419	2.67e3	6.33e3	0.250	0.454	5.26	5.24	5.28	46.4568	92.9
15	45	d5-N-EtFOSAA	589.3 > 419	3.31e3	6.33e3	0.250	0.503	5.42	5.38	6.53	51.8787	103.8
16	46	13C2-PFUdA	565 > 519.8	5.31e3	6.33e3	0.250	0.904	5.43	5.41	10.5	46.3556	92.7
17	47	13C2-PFDoA	615.0 > 569.7	3.80e3	6.33e3	0.250	0.561	5.70	5.68	7.50	53.4849	107.0
18	49	13C2-PFTeDA	714.8 > 669.6	1.21e3	6.33e3	0.250	0.183	6.16	6.12	2.38	51.8832	103.8
19	55	13C5-PFHxA	318 > 272.9	6.71e3	6.71e3	0.250	1.000	3.20	3.21	12.5	50.0000	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.00e3	2.00e3	0.250	1.000	3.95	3.95	12.5	50.0000	100.0
21	57	13C8-PFOA	421.3 > 376	7.17e3	7.17e3	0.250	1.000	4.32	4.31	12.5	50.0000	100.0
22	58	13C9-PFNA	472.2 > 426.9	6.46e3	6.46e3	0.250	1.000	4.75	4.73	12.5	50.0000	100.0
23	59	13C4-PFOS	503 > 79.9	1.53e3	1.53e3	0.250	1.000	4.83	4.81	12.5	50.0000	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.28e3	4.28e3	0.250	1.000	5.11	5.10	12.5	50.0000	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.33e3	6.33e3	0.250	1.000	5.43	5.41	12.5	50.0000	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	8.37e2	0.250		4.00		0.000		
27	63	Total PFOA	413 > 368.7	2.75e2	7.95e3	0.250		4.30		0.328	0.3849	
28	64	Total PFOS	499 > 79.9	0.00e0	2.23e3	0.250		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.67e3	0.250		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.31e3	0.250		5.40		0.000		

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-20.qld

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Printed: Thursday, January 18, 2018 14:52:36 Pacific Standard Time

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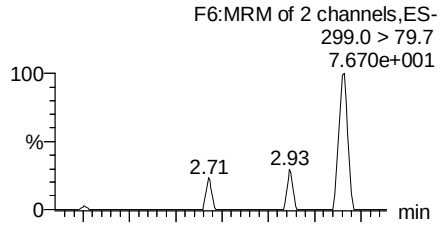
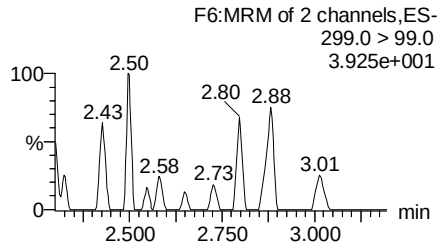
PFBS





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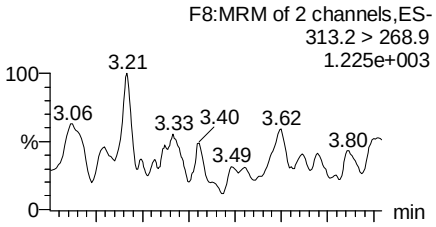

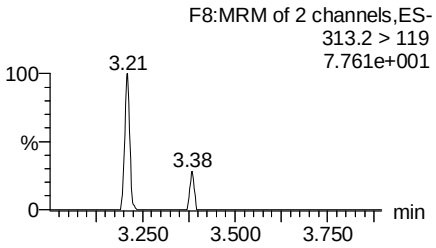

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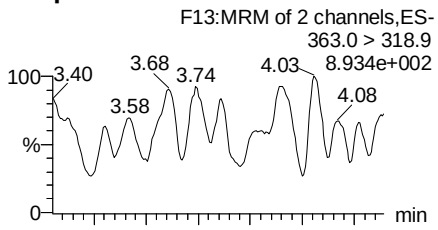

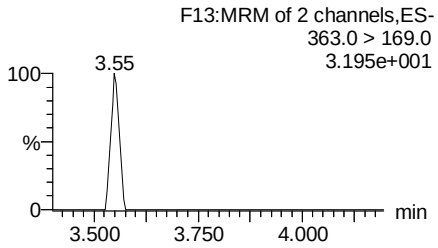

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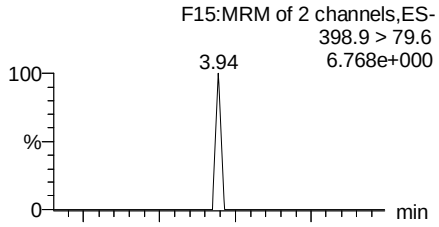

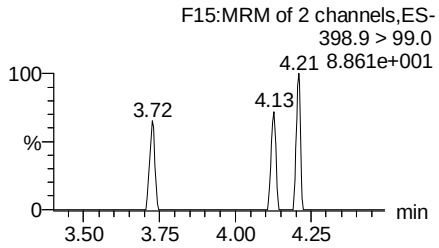

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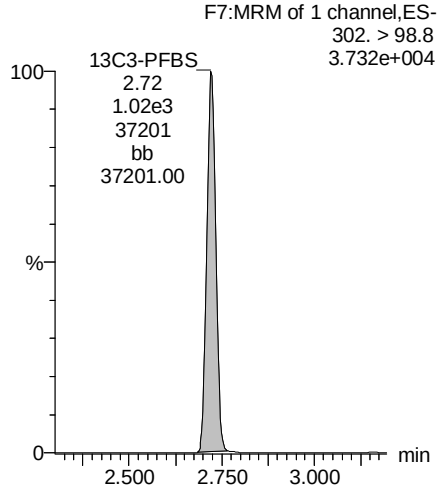

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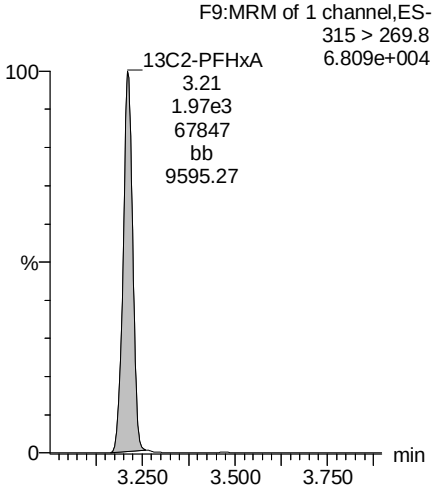

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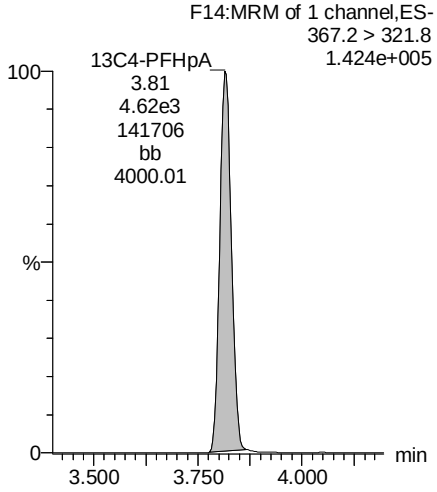

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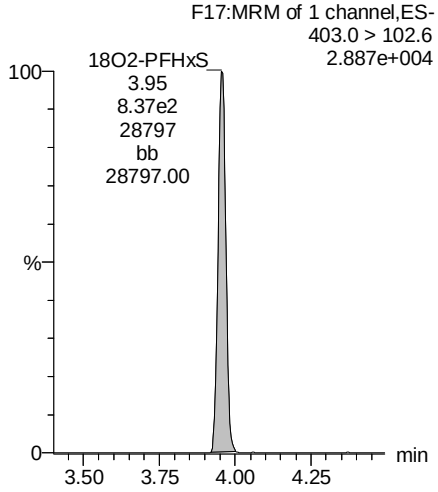

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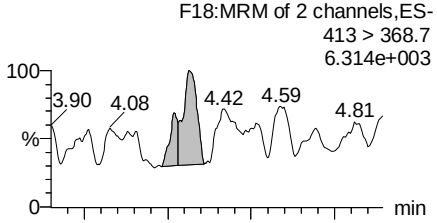

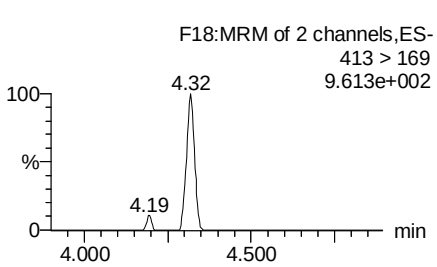

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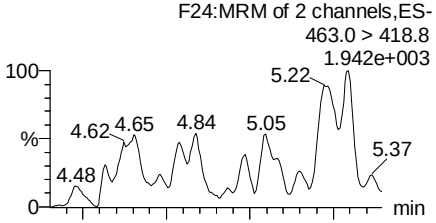

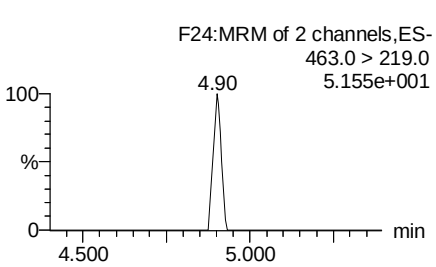

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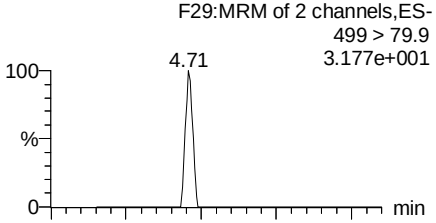

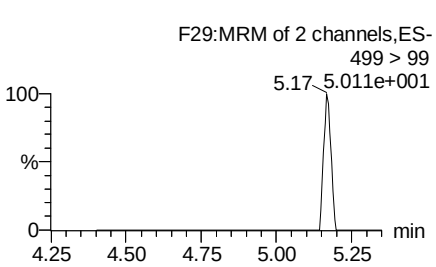

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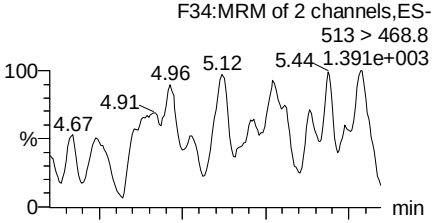
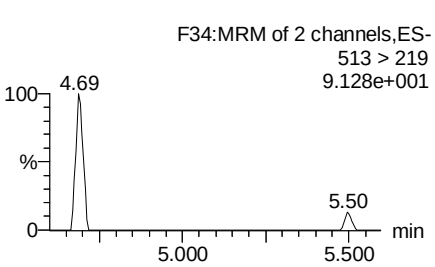
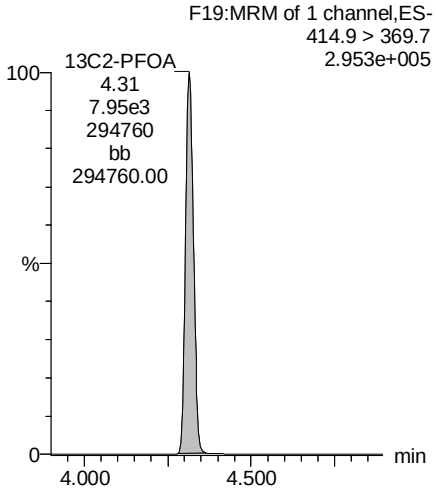




13C2-PFOA



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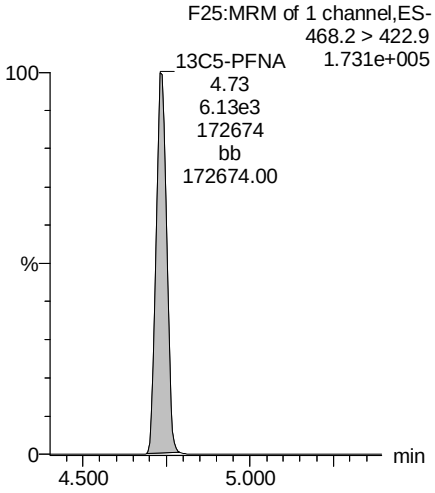

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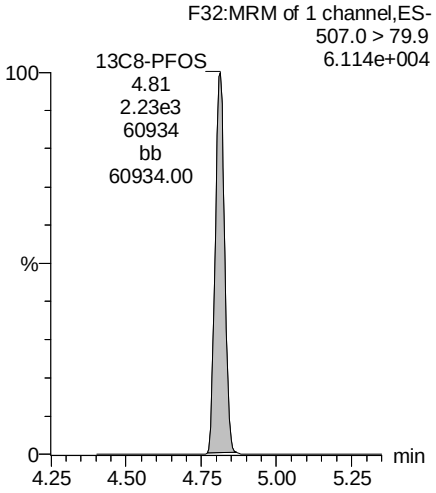

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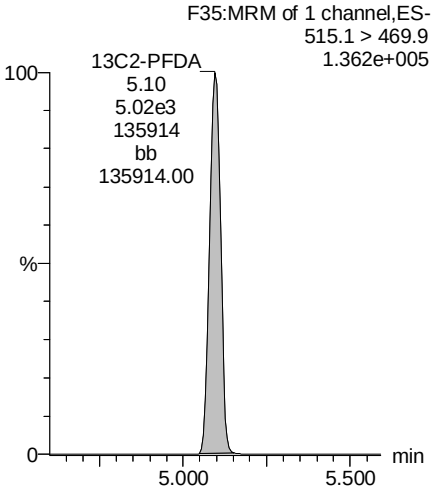

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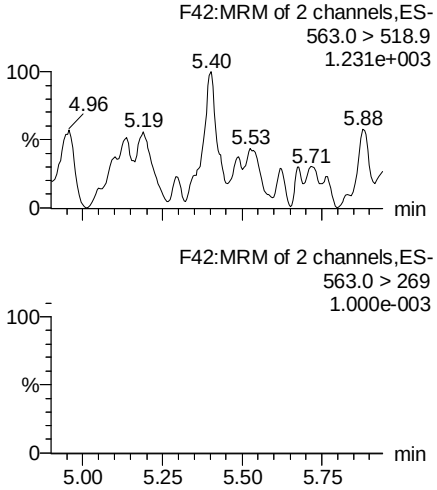
PFUdA



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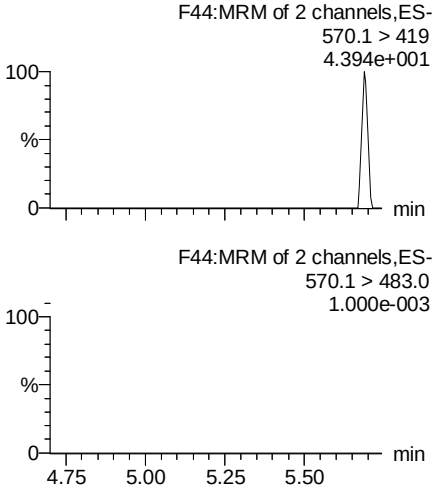

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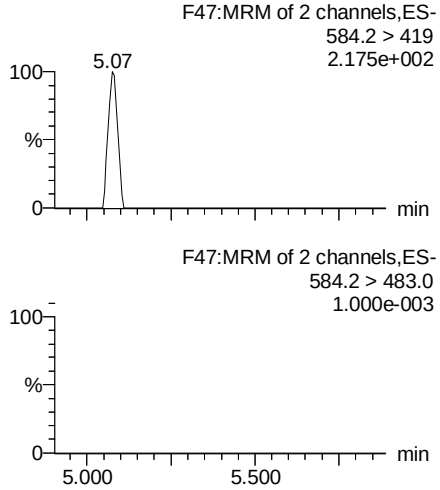

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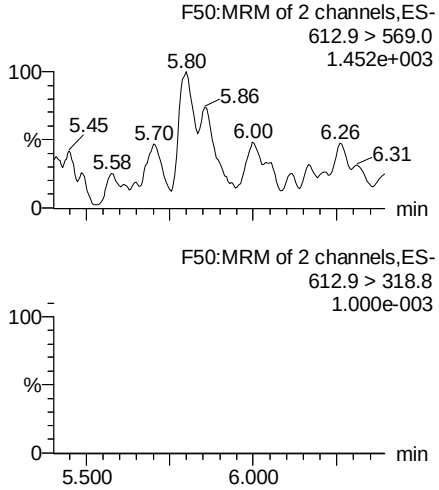

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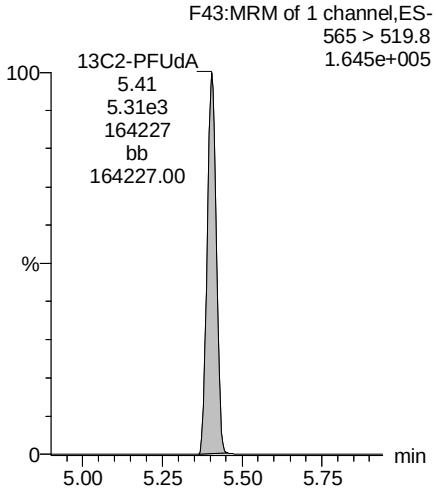

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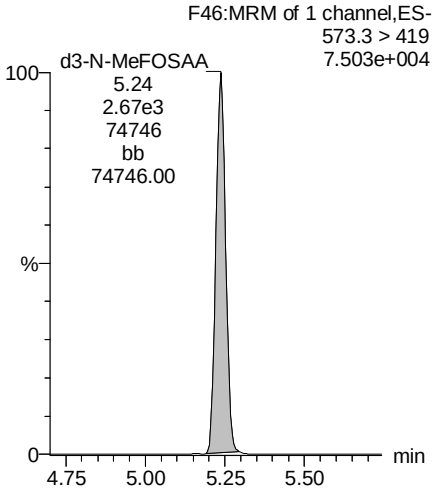
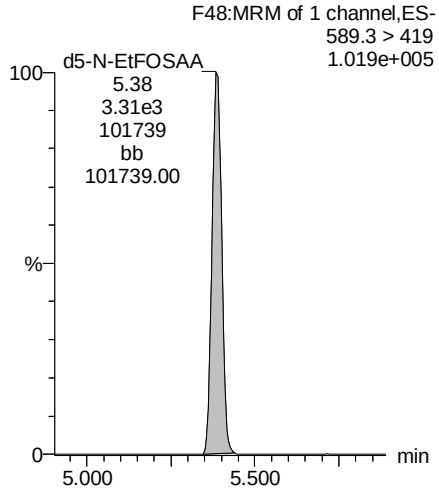


d5-N-EtFOSAA



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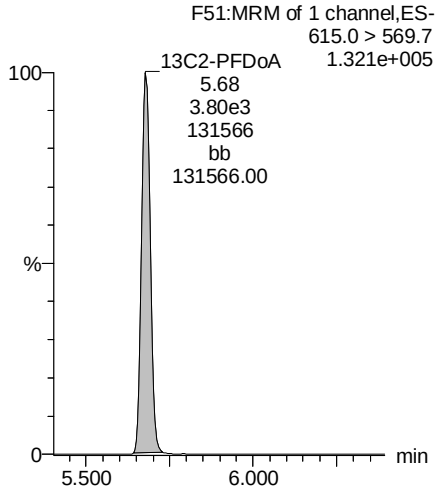

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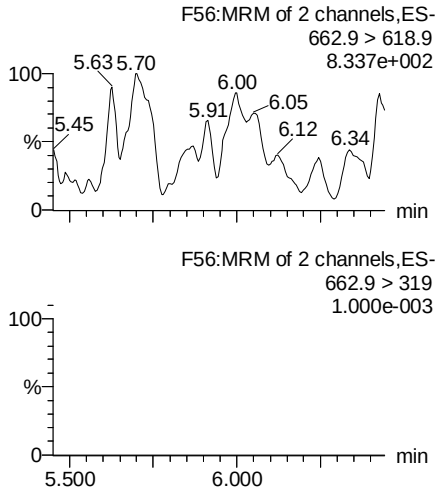

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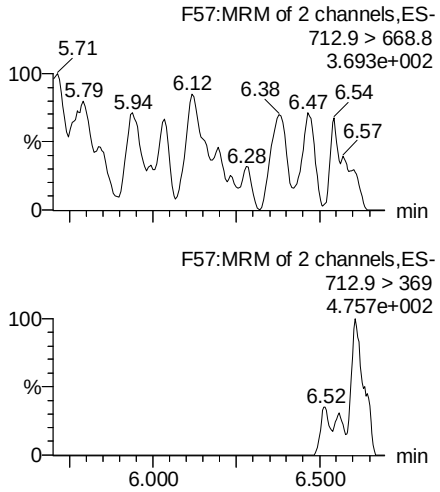

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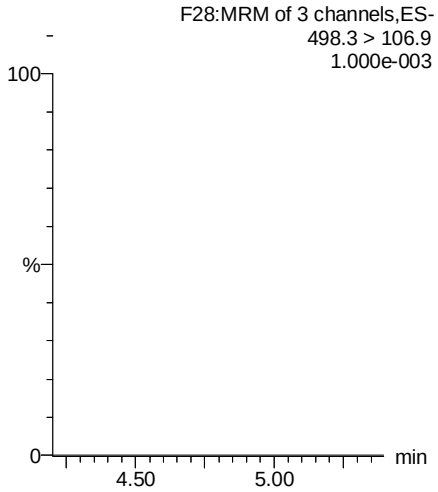

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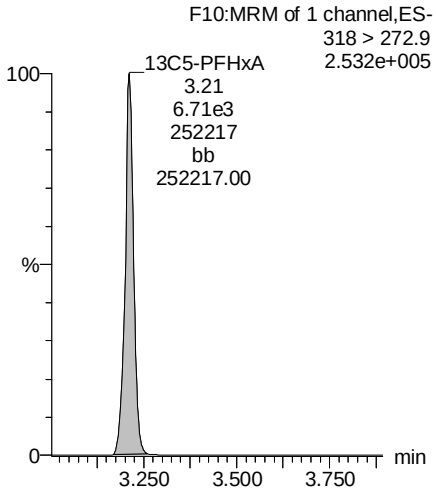

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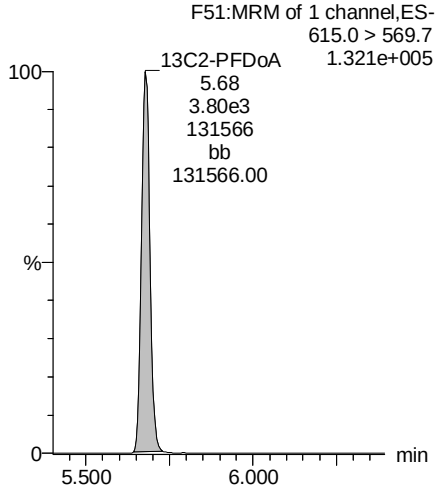

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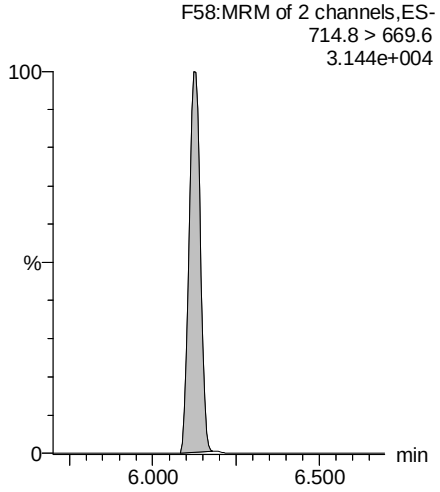

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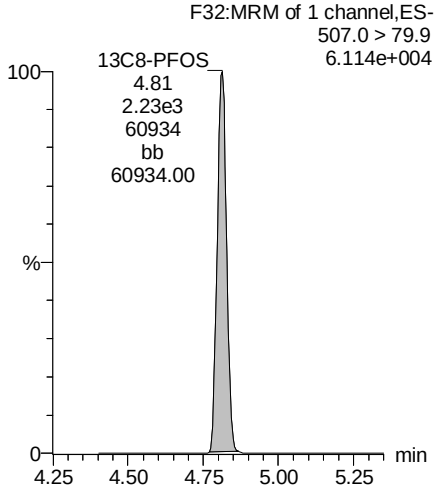

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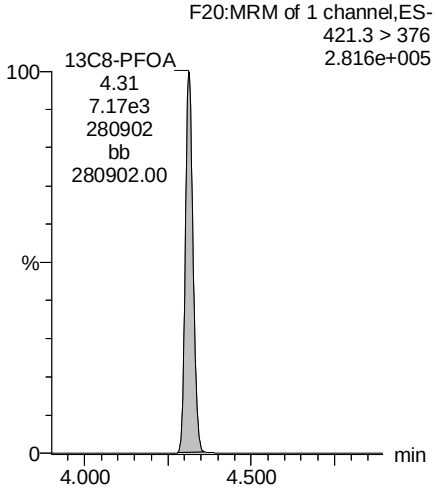

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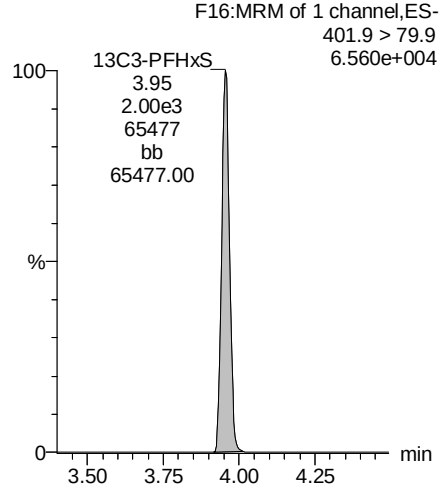
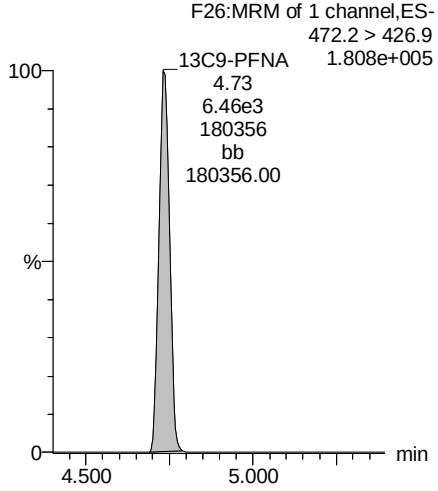
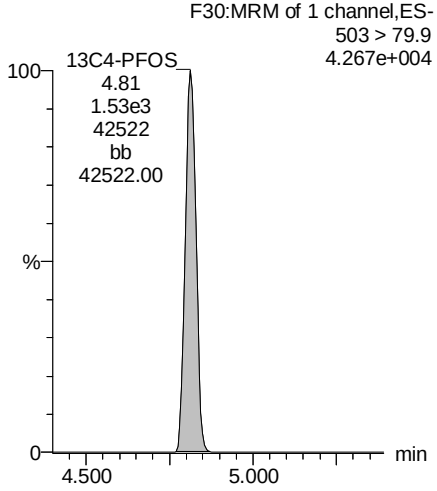
13C3-PFHxS



13C9-PFNA



13C4-PFOS



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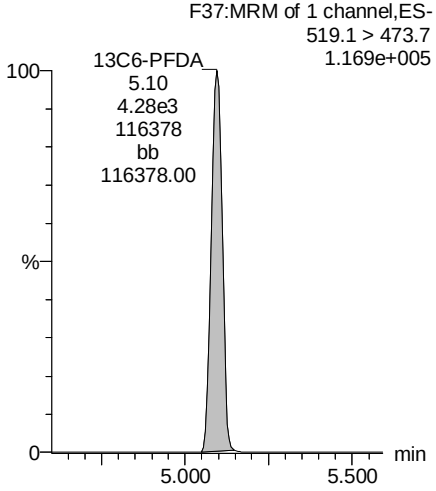
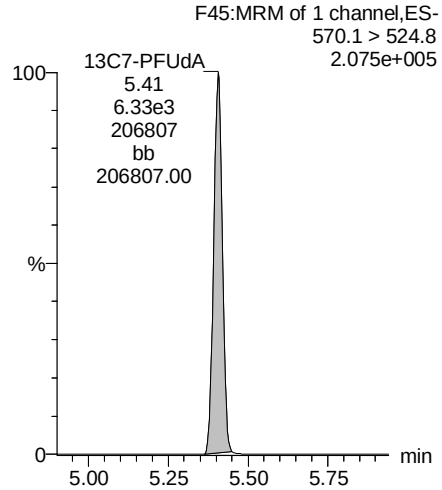


13C7-PFUdA



Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-17.qld

Last Altered: Thursday, January 18, 2018 14:48:47 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:49:19 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_17, Date: 28-Dec-2017, Time: 18:56:46, ID: B7L0125-BS1 OPR 0.25, 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	1.57e3	9.98e2	0.250		2.70	2.72	19.7	34.3223	85.8
2	4	PFHxA	313.2 > 268.9	7.35e3	2.03e3	0.250		3.20	3.21	18.1	41.9128	104.8
3	5	PFHpA	363.0 > 318.9	6.15e3	6.06e3	0.250		3.80	3.82	12.7	31.8257	79.6
4	6	L-PFHxS	398.9 > 79.6	9.09e2	7.56e2	0.250		3.95	3.96	15.0	30.4801	76.2
5	9	L-PFOA	413 > 368.7	7.03e3	8.41e3	0.250		4.32	4.32	10.4	34.4894	86.2
6	12	PFNA	463.0 > 418.8	5.36e3	6.82e3	0.250		4.75	4.74	9.83	26.1372	65.3
7	14	L-PFOS	499 > 79.9	1.68e3	1.89e3	0.250		4.83	4.81	11.1	34.8303	87.1
8	16	PFDA	513 > 468.8	5.19e3	5.23e3	0.250		5.11	5.10	12.4	40.9053	102.3
9	18	N-MeFOSAA	570.1 > 419	3.35e3	2.71e3	0.250		5.26	5.25	15.4	31.2909	78.2
10	19	N-EtFOSAA	584.2 > 419	2.87e3	3.26e3	0.250		5.42	5.39	11.0	30.8098	77.0
11	20	PFUdA	563.0 > 518.9	5.99e3	6.07e3	0.250		5.43	5.41	12.3	35.4393	88.6
12	22	PFDoA	612.9 > 569.0	6.31e3	4.42e3	0.250		5.70	5.68	17.8	35.4208	88.6

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-17.qld

Last Altered: Thursday, January 18, 2018 14:48:47 Pacific Standard Time
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Name: 171228M3_17, Date: 28-Dec-2017, Time: 18:56:46, ID: B7L0125-BS1 OPR 0.25, 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	4.47e3	4.42e3	0.250		5.95	5.92	12.6	28.5607	71.4
2	25	PFTeDA	712.9 > 668.8	3.11e3	1.43e3	0.250		6.16	6.13	27.2	32.9856	82.5
3	33	13C3-PFBS	302. > 98.8	9.98e2	7.26e3	0.250	0.101	2.70	2.72	1.72	68.3245	136.6
4	34	13C2-PFHxA	315 > 269.8	2.03e3	7.26e3	0.250	0.629	3.20	3.22	3.49	22.2064	111.0
5	35	13C4-PFHpA	367.2 > 321.8	6.06e3	7.26e3	0.250	0.585	3.80	3.82	10.4	71.4072	142.8
6	36	18O2-PFHxS	403.0 > 102.6	7.56e2	1.67e3	0.250	0.341	3.95	3.96	5.67	66.6094	133.2
7	37	13C2-6:2 FTS	429.1 > 408.9	1.93e3	7.81e3	0.250	0.238	4.26	4.27	3.09	51.8893	103.8
8	38	13C2-PFOA	414.9 > 369.7	8.41e3	7.81e3	0.250	0.934	4.32	4.32	13.5	57.6617	115.3
9	39	13C5-PFNA	468.2 > 422.9	6.82e3	8.27e3	0.250	0.841	4.75	4.74	10.3	49.0073	98.0
10	40	13C8-PFOSA	506.1 > 77.7	9.16e2	7.83e3	0.250	0.202	4.81	4.81	1.46	28.9193	57.8
11	41	13C8-PFOS	507.0 > 79.9	1.89e3	2.28e3	0.250	0.906	4.83	4.82	10.4	45.8701	91.7
12	42	13C2-PFDA	515.1 > 469.9	5.23e3	5.87e3	0.250	1.050	5.11	5.10	11.1	42.4489	84.9
13	43	13C2-8:2 FTS	529.1 > 508.7	9.20e2	7.26e3	0.250	0.109	5.09	5.07	1.58	58.0901	116.2
14	44	d3-N-MeFOSAA	573.3 > 419	2.71e3	7.83e3	0.250	0.454	5.26	5.24	4.32	38.0656	76.1
15	45	d5-N-EtFOSAA	589.3 > 419	3.26e3	7.83e3	0.250	0.503	5.42	5.39	5.19	41.2892	82.6
16	46	13C2-PFUdA	565 > 519.8	6.07e3	7.83e3	0.250	0.904	5.43	5.41	9.68	42.8454	85.7
17	47	13C2-PFDoA	615.0 > 569.7	4.42e3	7.83e3	0.250	0.561	5.70	5.68	7.05	50.2550	100.5
18	49	13C2-PFTeDA	714.8 > 669.6	1.43e3	7.83e3	0.250	0.183	6.16	6.13	2.28	49.6605	99.3
19	55	13C5-PFHxA	318 > 272.9	7.26e3	7.26e3	0.250	1.000	3.20	3.21	12.5	50.0000	100.0
20	56	13C3-PFHxS	401.9 > 79.9	1.67e3	1.67e3	0.250	1.000	3.95	3.96	12.5	50.0000	100.0
21	57	13C8-PFOA	421.3 > 376	7.81e3	7.81e3	0.250	1.000	4.32	4.32	12.5	50.0000	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.27e3	8.27e3	0.250	1.000	4.75	4.74	12.5	50.0000	100.0
23	59	13C4-PFOS	503 > 79.9	2.28e3	2.28e3	0.250	1.000	4.83	4.81	12.5	50.0000	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.87e3	5.87e3	0.250	1.000	5.11	5.10	12.5	50.0000	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.83e3	7.83e3	0.250	1.000	5.43	5.41	12.5	50.0000	100.0
26	62	Total PFHxS	398.9 > 79.6	1.02e3	7.56e2	0.250		4.00		16.9	34.4766	
27	63	Total PFOA	413 > 368.7	7.03e3	8.41e3	0.250		4.30		10.4	34.4894	
28	64	Total PFOS	499 > 79.9	1.91e3	1.89e3	0.250		4.80		12.6	39.9842	
29	65	Total N-MeFOSAA	570.1 > 419	3.35e3	2.71e3	0.250		5.20		15.4	31.2909	
30	66	Total N-EtFOSAA	584.2 > 419	2.87e3	3.26e3	0.250		5.40		11.0	30.8098	

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-17.qld

Last Altered: Thursday, January 18, 2018 14:48:47 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:49:38 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
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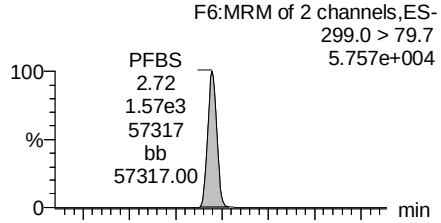
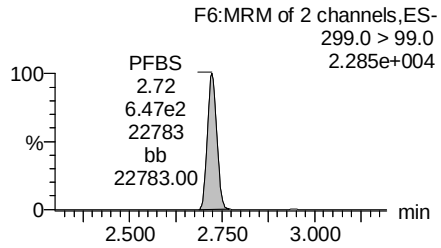
Name: 171228M3_17, Date: 28-Dec-2017, Time: 18:56:46, ID: B7L0125-BS1 OPR 0.25, Description: OPR

PFBS





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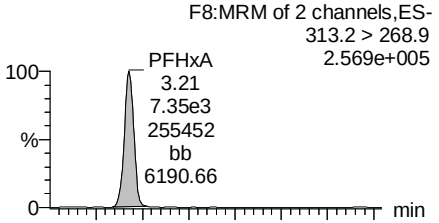

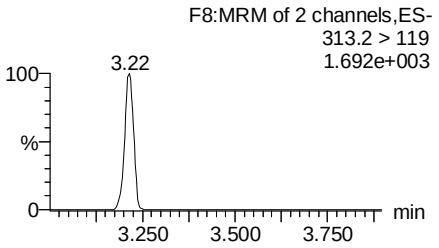

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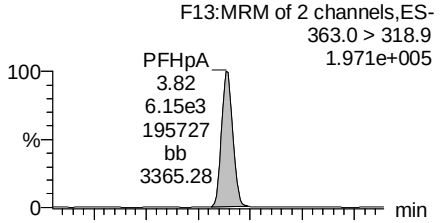

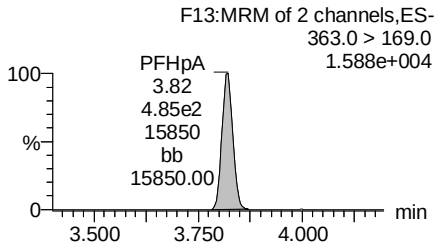

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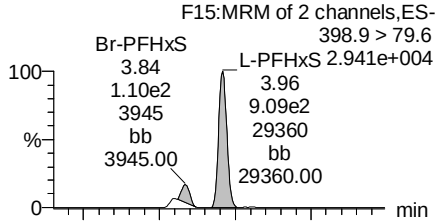

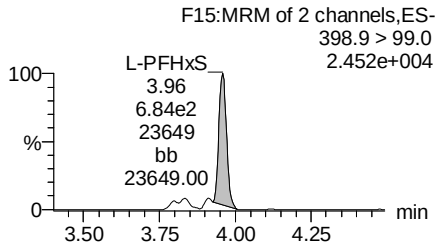

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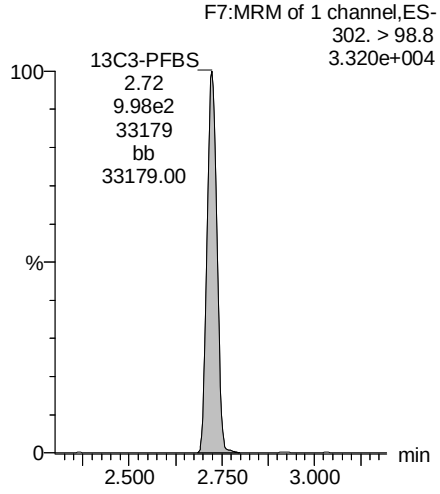

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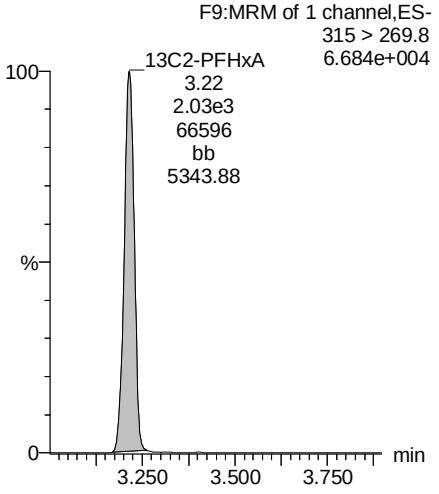

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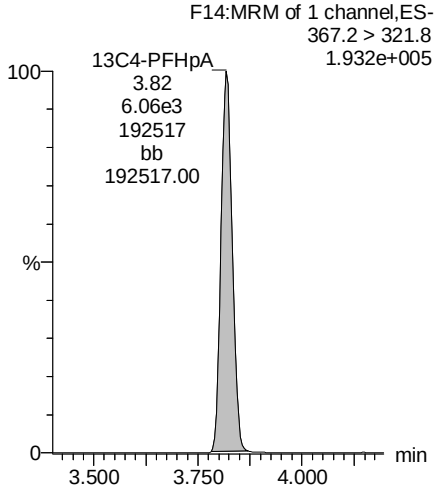

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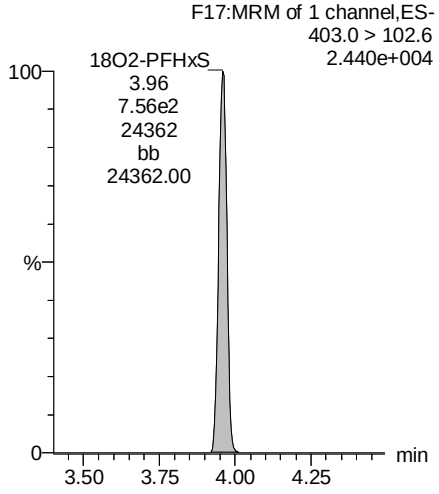

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Last Altered: Thursday, January 18, 2018 14:48:47 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:49:38 Pacific Standard Time

Name: 171228M3_17, Date: 28-Dec-2017, Time: 18:56:46, ID: B7L0125-BS1 OPR 0.25, Description: OPR

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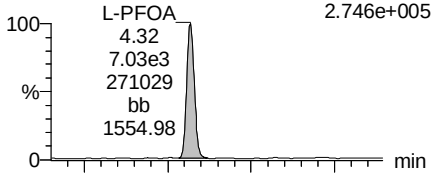

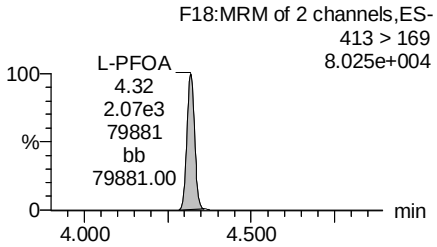

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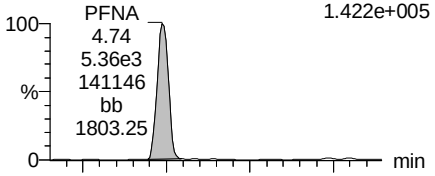
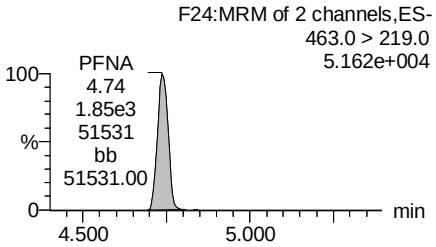
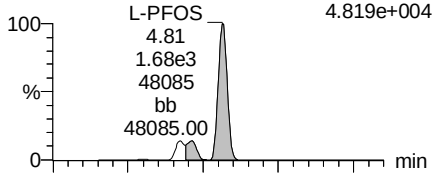
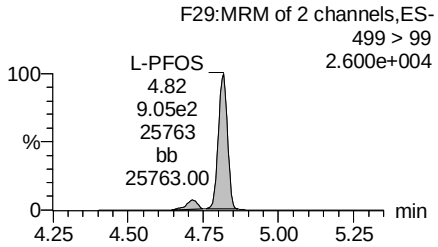




Total PFOS





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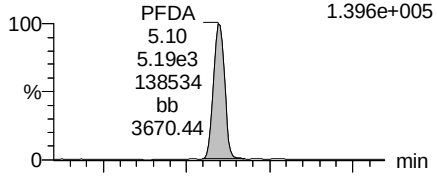

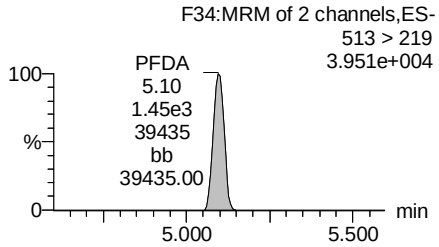

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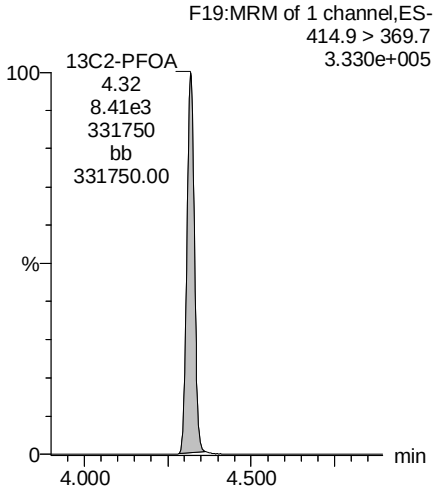
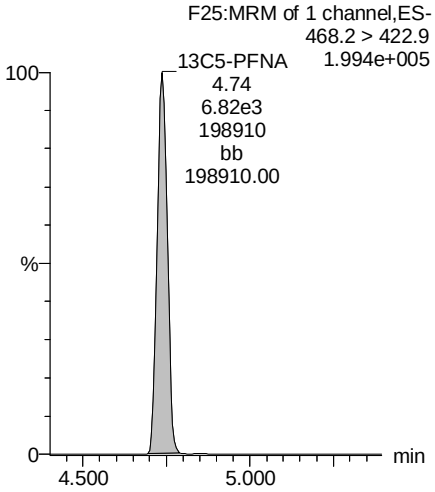


13C5-PFNA



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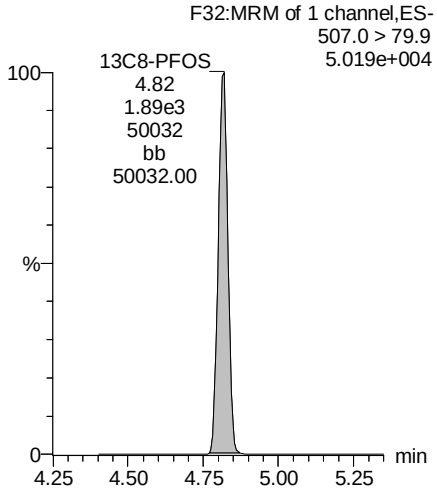

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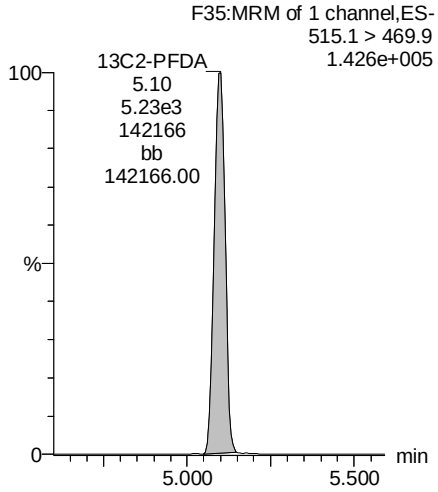

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Last Altered: Thursday, January 18, 2018 14:48:47 Pacific Standard Time
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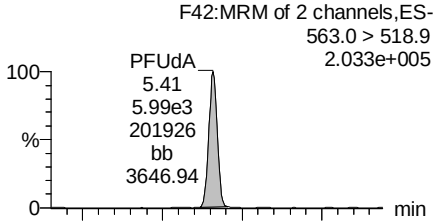
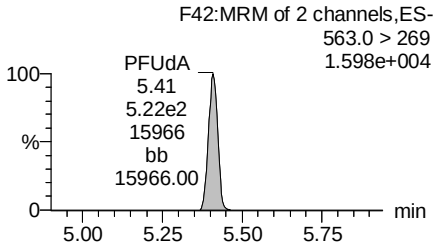
PFUdA





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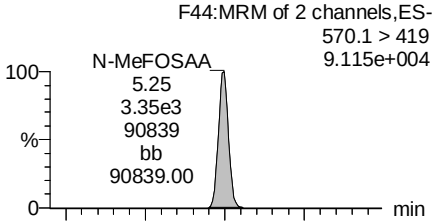
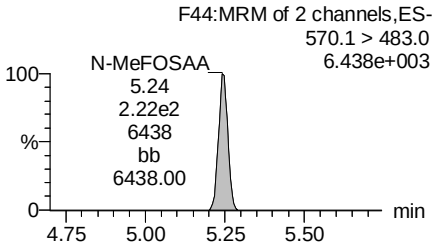
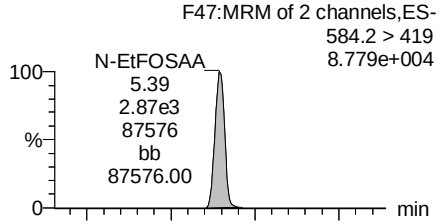
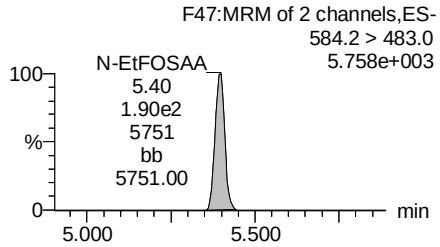


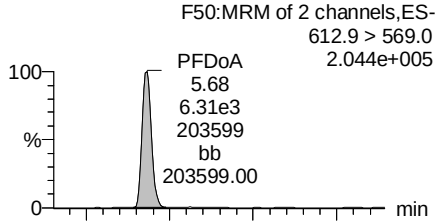


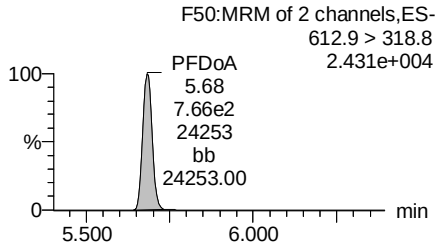
N-EtFOSAA



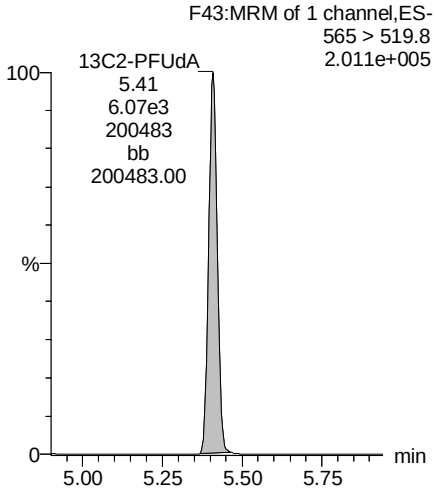


PFDoA

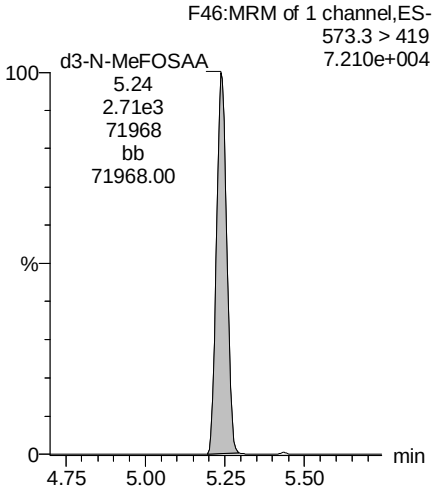




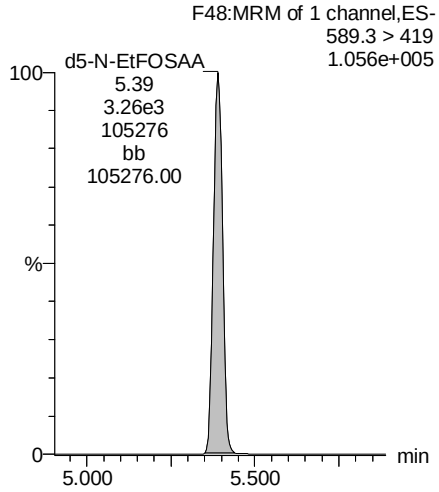
13C2-PFUdA



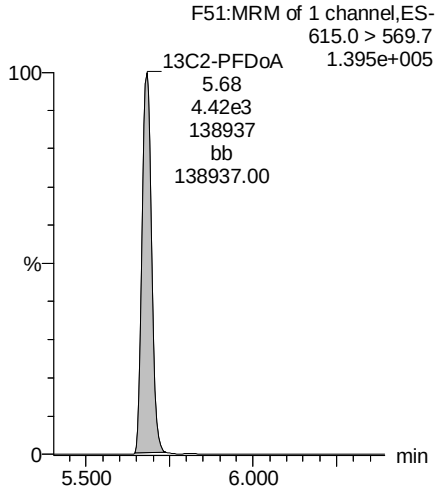
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



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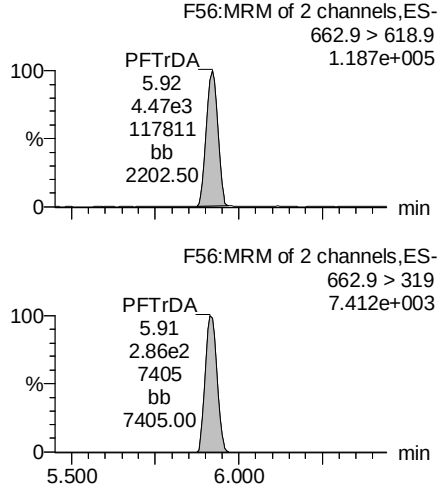
Dataset: Z:\Q4.PRO\results\171228M3\171228M3-17.qld

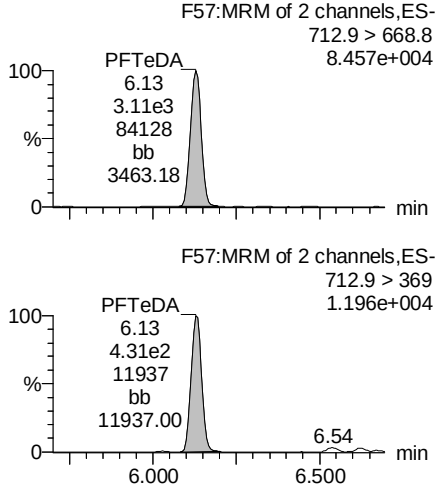
Last Altered: Thursday, January 18, 2018 14:48:47 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:49:38 Pacific Standard Time

Name: 171228M3_17, Date: 28-Dec-2017, Time: 18:56:46, ID: B7L0125-BS1 OPR 0.25, Description: OPR

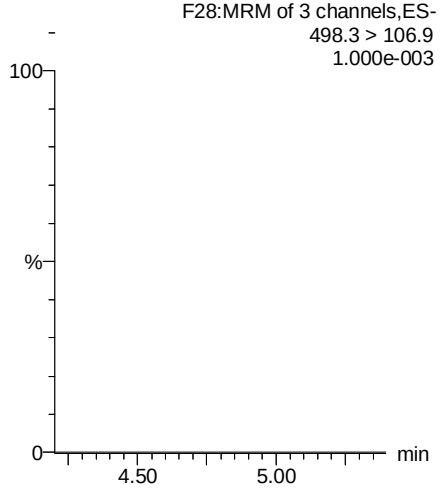
PFTrDA



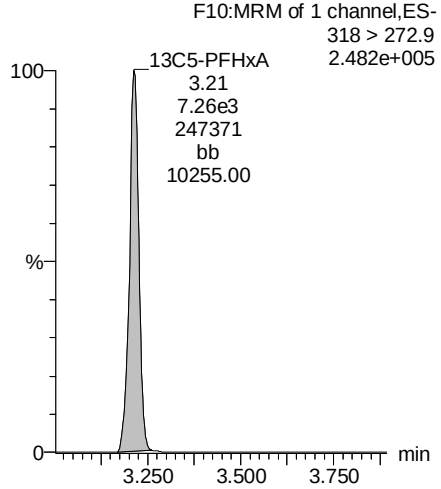
PFTeDA



TCDA



13C5-PFHxA



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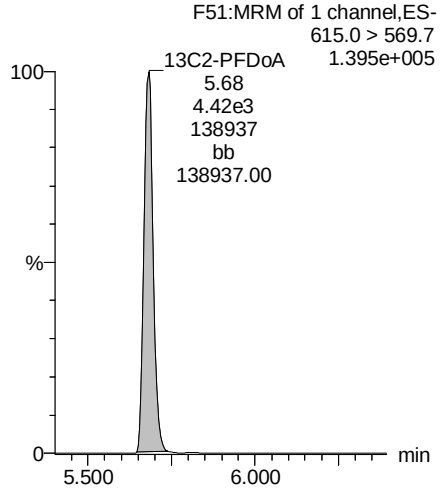
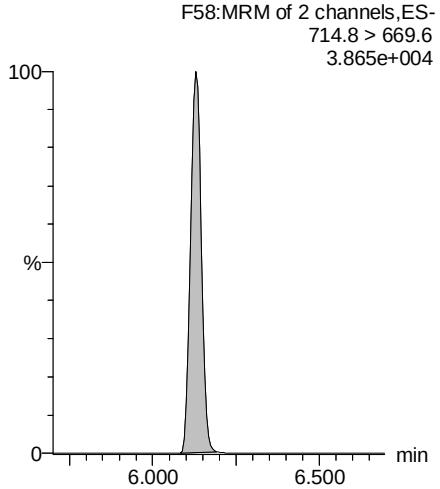


13C2-PFTeDA



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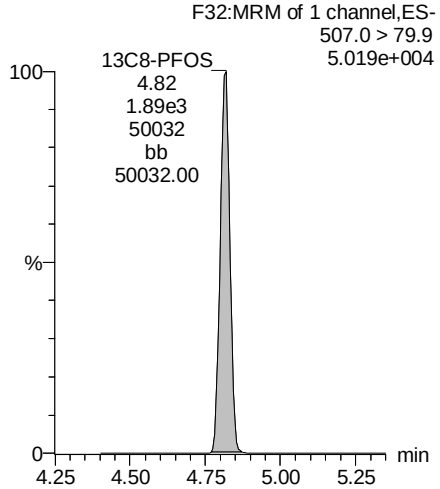

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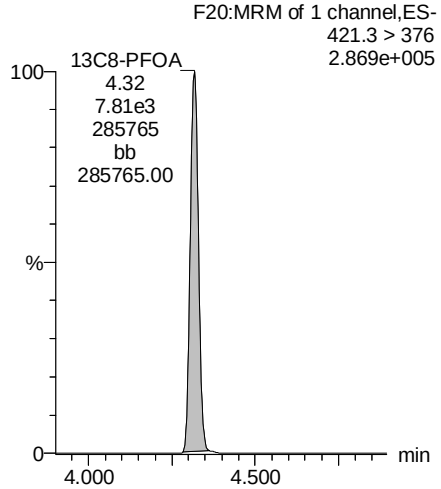

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Last Altered: Thursday, January 18, 2018 14:48:47 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:49:38 Pacific Standard Time

Name: 171228M3_17, Date: 28-Dec-2017, Time: 18:56:46, ID: B7L0125-BS1 OPR 0.25, Description: OPR

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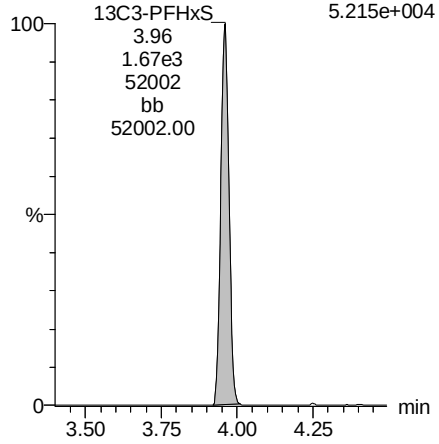
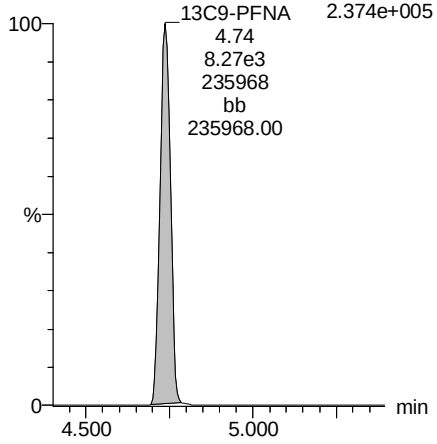
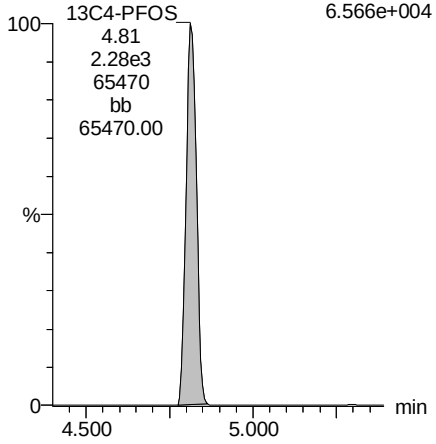


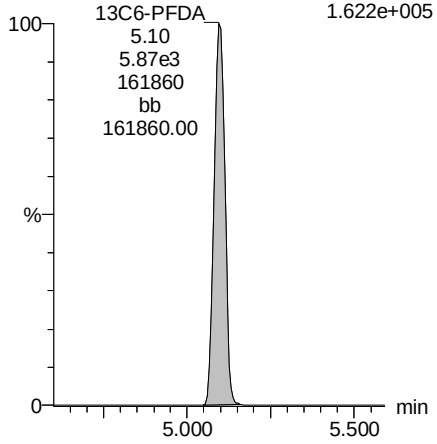
13C9-PFNA



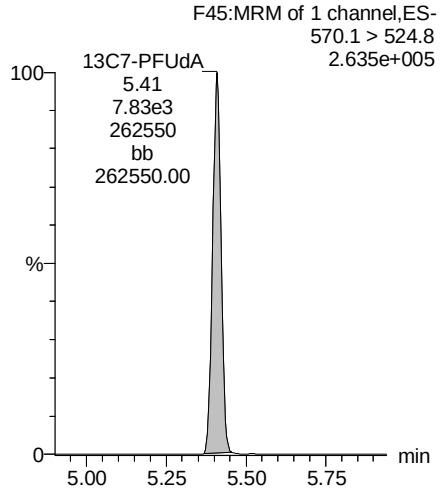
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-18.qld

Last Altered: Thursday, January 18, 2018 14:50:50 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:51:08 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_18, Date: 28-Dec-2017, Time: 19:08:04, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	1.35e3	1.06e3	0.250		2.70	2.73	15.9	27.7916	69.5
2	4	PFHxA	313.2 > 268.9	7.33e3	2.41e3	0.250		3.20	3.21	15.2	35.2348	88.1
3	5	PFHpA	363.0 > 318.9	6.45e3	5.84e3	0.250		3.80	3.82	13.8	34.6292	86.6
4	6	L-PFHxS	398.9 > 79.6	9.41e2	8.53e2	0.250		3.95	3.96	13.8	27.9916	70.0
5	9	L-PFOA	413 > 368.7	7.27e3	8.57e3	0.250		4.32	4.32	10.6	35.0277	87.6
6	12	PFNA	463.0 > 418.8	5.87e3	6.62e3	0.250		4.75	4.74	11.1	29.4197	73.5
7	14	L-PFOS	499 > 79.9	1.50e3	1.81e3	0.250		4.83	4.82	10.4	32.7034	81.8
8	16	PFDA	513 > 468.8	5.39e3	5.43e3	0.250		5.11	5.10	12.4	40.9925	102.5
9	18	N-MeFOSAA	570.1 > 419	3.26e3	3.19e3	0.250		5.26	5.24	12.8	26.2572	65.6
10	19	N-EtFOSAA	584.2 > 419	2.61e3	3.06e3	0.250		5.42	5.39	10.6	29.8201	74.6
11	20	PFUdA	563.0 > 518.9	5.43e3	6.62e3	0.250		5.43	5.41	10.3	29.4779	73.7
12	22	PFDoA	612.9 > 569.0	6.08e3	3.85e3	0.250		5.70	5.68	19.8	39.2138	98.0

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-18.qld

Last Altered: Thursday, January 18, 2018 14:50:50 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:51:17 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_18, Date: 28-Dec-2017, Time: 19:08:04, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	5.00e3	3.85e3	0.250		5.95	5.91	16.2	36.8319	92.1
2	25	PFTeDA	712.9 > 668.8	2.92e3	1.41e3	0.250		6.16	6.13	25.8	31.2757	78.2
3	33	13C3-PFBS	302. > 98.8	1.06e3	7.18e3	0.250	0.101	2.70	2.72	1.85	73.4446	146.9
4	34	13C2-PFHxA	315 > 269.8	2.41e3	7.18e3	0.250	0.629	3.20	3.22	4.19	26.6212	133.1
5	35	13C4-PFHpA	367.2 > 321.8	5.84e3	7.18e3	0.250	0.585	3.80	3.82	10.2	69.5665	139.1
6	36	18O2-PFHxS	403.0 > 102.6	8.53e2	1.99e3	0.250	0.341	3.95	3.96	5.36	63.0007	126.0
7	37	13C2-6:2 FTS	429.1 > 408.9	1.80e3	7.25e3	0.250	0.238	4.26	4.27	3.11	52.2138	104.4
8	38	13C2-PFOA	414.9 > 369.7	8.57e3	7.25e3	0.250	0.934	4.32	4.32	14.8	63.2736	126.5
9	39	13C5-PFNA	468.2 > 422.9	6.62e3	7.20e3	0.250	0.841	4.75	4.74	11.5	54.6230	109.2
10	40	13C8-PFOSA	506.1 > 77.7	7.16e2	6.88e3	0.250	0.202	4.81	4.81	1.30	25.7319	51.5
11	41	13C8-PFOS	507.0 > 79.9	1.81e3	1.93e3	0.250	0.906	4.83	4.81	11.7	51.6627	103.3
12	42	13C2-PFDA	515.1 > 469.9	5.43e3	5.48e3	0.250	1.050	5.11	5.10	12.4	47.1473	94.3
13	43	13C2-8:2 FTS	529.1 > 508.7	1.26e3	7.18e3	0.250	0.109	5.09	5.07	2.19	80.4541	160.9
14	44	d3-N-MeFOSAA	573.3 > 419	3.19e3	6.88e3	0.250	0.454	5.26	5.24	5.79	50.9993	102.0
15	45	d5-N-EtFOSAA	589.3 > 419	3.06e3	6.88e3	0.250	0.503	5.42	5.39	5.56	44.2059	88.4
16	46	13C2-PFUdA	565 > 519.8	6.62e3	6.88e3	0.250	0.904	5.43	5.41	12.0	53.2151	106.4
17	47	13C2-PFDoA	615.0 > 569.7	3.85e3	6.88e3	0.250	0.561	5.70	5.68	6.99	49.8458	99.7
18	49	13C2-PFTeDA	714.8 > 669.6	1.41e3	6.88e3	0.250	0.183	6.16	6.13	2.57	56.0496	112.1
19	55	13C5-PFHxA	318 > 272.9	7.18e3	7.18e3	0.250	1.000	3.20	3.22	12.5	50.0000	100.0
20	56	13C3-PFHxS	401.9 > 79.9	1.99e3	1.99e3	0.250	1.000	3.95	3.96	12.5	50.0000	100.0
21	57	13C8-PFOA	421.3 > 376	7.25e3	7.25e3	0.250	1.000	4.32	4.32	12.5	50.0000	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.20e3	7.20e3	0.250	1.000	4.75	4.74	12.5	50.0000	100.0
23	59	13C4-PFOS	503 > 79.9	1.93e3	1.93e3	0.250	1.000	4.83	4.82	12.5	50.0000	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.48e3	5.48e3	0.250	1.000	5.11	5.10	12.5	50.0000	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.88e3	6.88e3	0.250	1.000	5.43	5.41	12.5	50.0000	100.0
26	62	Total PFHxS	398.9 > 79.6	1.03e3	8.53e2	0.250		4.00		15.0	30.8184	
27	63	Total PFOA	413 > 368.7	7.27e3	8.57e3	0.250		4.30		10.6	35.0277	
28	64	Total PFOS	499 > 79.9	1.69e3	1.81e3	0.250		4.80		11.7	37.0868	
29	65	Total N-MeFOSAA	570.1 > 419	3.26e3	3.19e3	0.250		5.20		12.8	26.2572	
30	66	Total N-EtFOSAA	584.2 > 419	2.61e3	3.06e3	0.250		5.40		10.6	29.8201	

Vista Analytical Laboratory

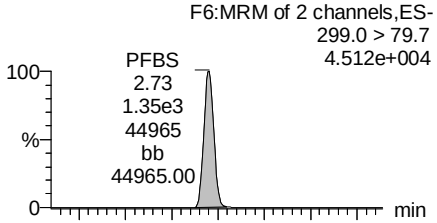
Dataset: Z:\Q4.PRO\results\171228M3\171228M3-18.qld

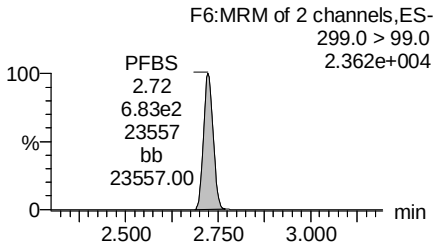
Last Altered: Thursday, January 18, 2018 14:50:50 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:51:17 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

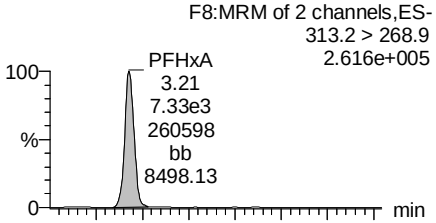
Name: 171228M3_18, Date: 28-Dec-2017, Time: 19:08:04, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

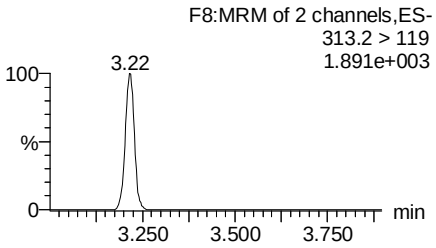
PFBS





PFHxA





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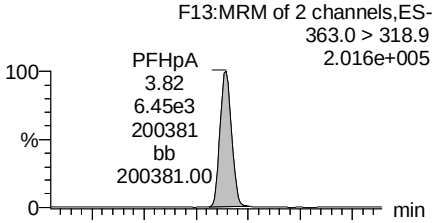
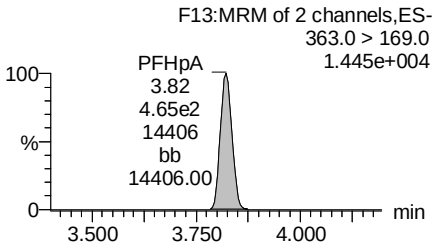
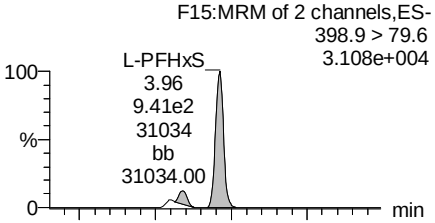
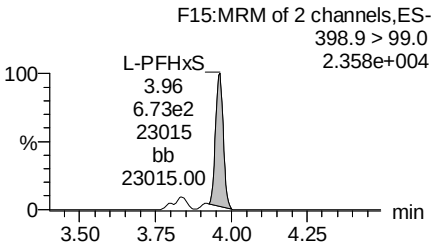




Total PFHxS





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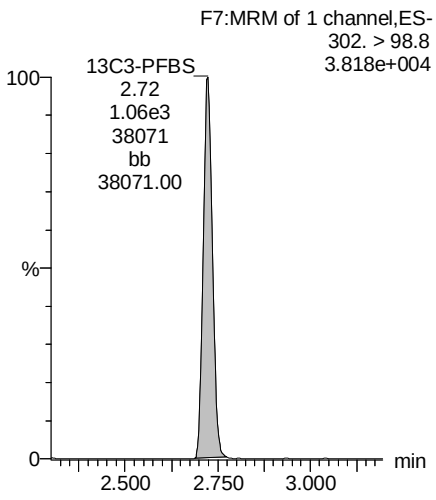

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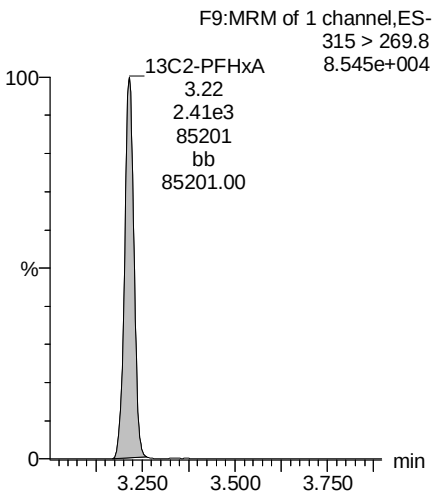

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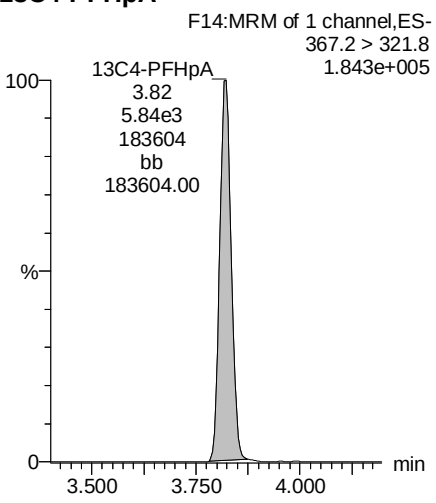
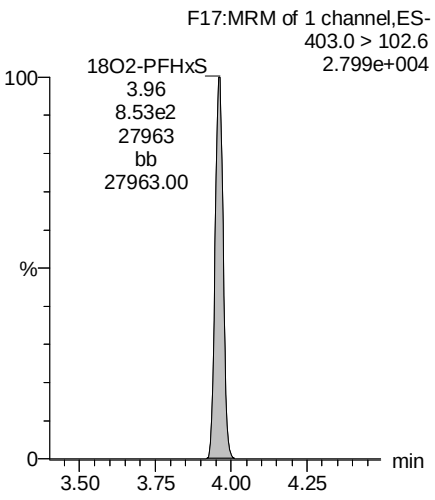


18O2-PFHxS



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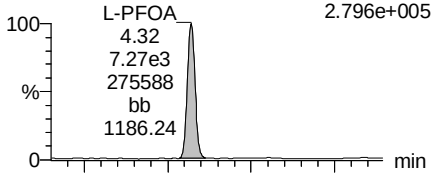
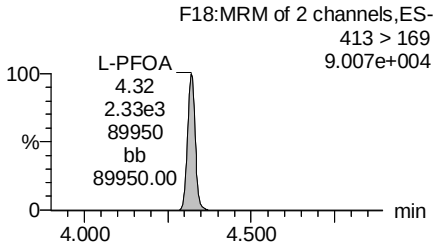
Last Altered: Thursday, January 18, 2018 14:50:50 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:51:17 Pacific Standard Time

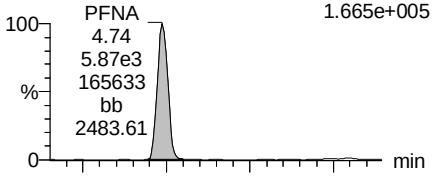
Name: 171228M3_18, Date: 28-Dec-2017, Time: 19:08:04, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

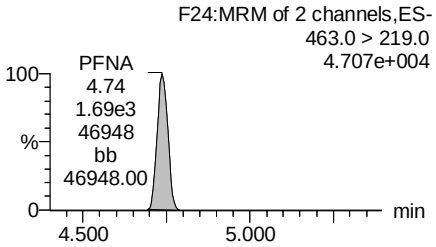
Total PFOA



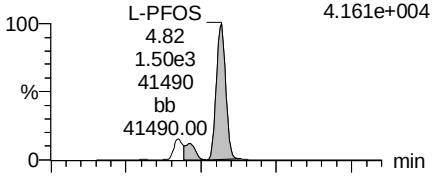


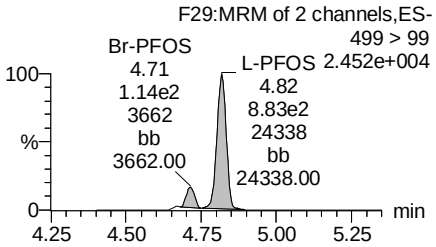
PFNA



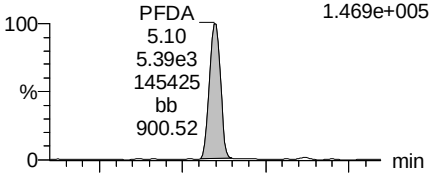


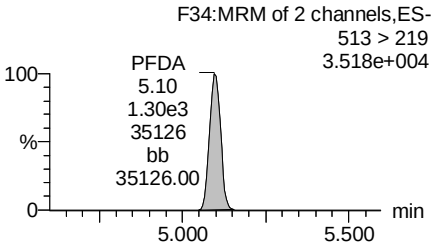
Total PFOS



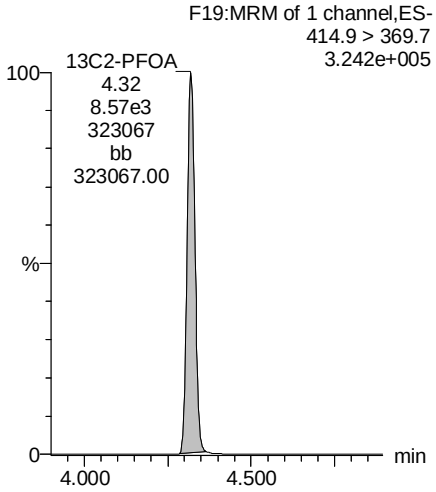


PFDA

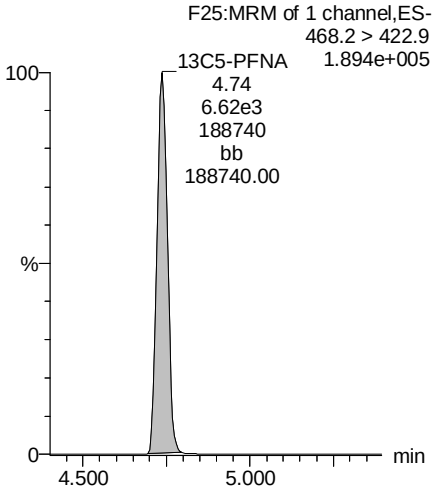




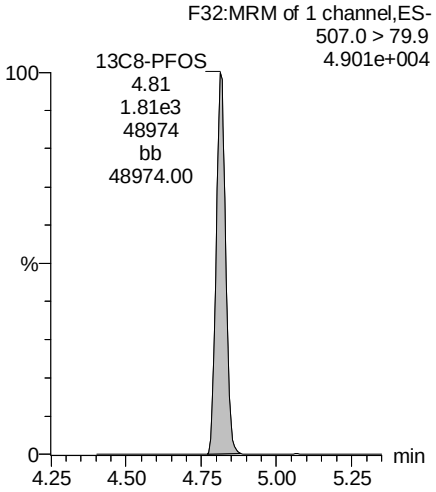
13C2-PFOA



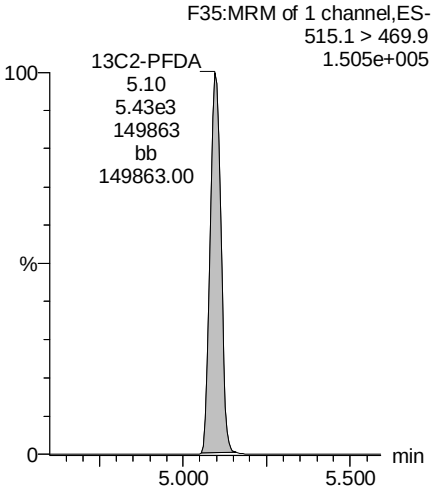
13C5-PFNA



13C8-PFOS



13C2-PFDA

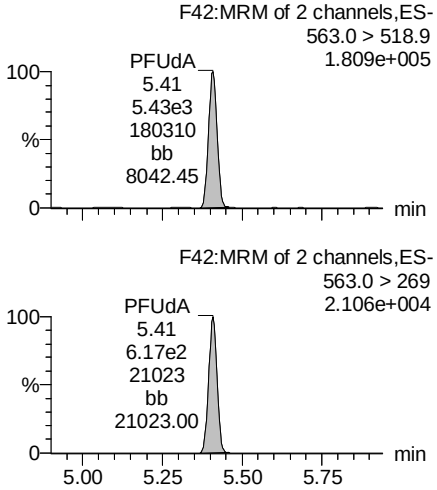


Dataset: Z:\Q4.PRO\results\171228M3\171228M3-18.qld

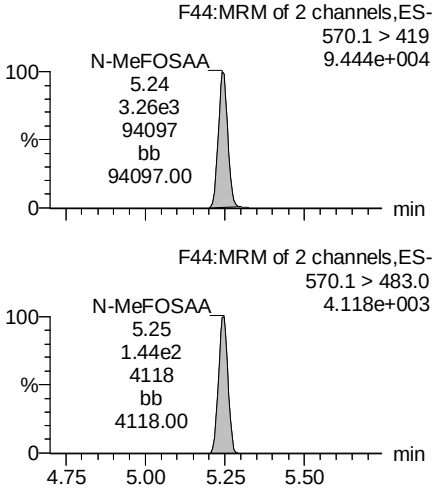
Last Altered: Thursday, January 18, 2018 14:50:50 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:51:17 Pacific Standard Time

Name: 171228M3_18, Date: 28-Dec-2017, Time: 19:08:04, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

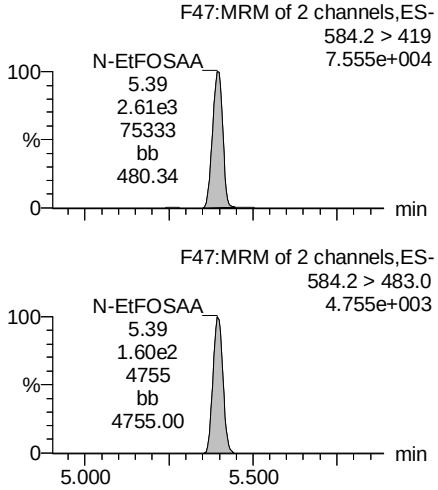
PFUdA



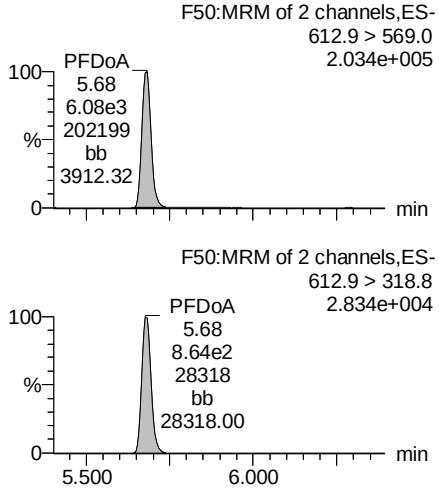
N-MeFOSAA



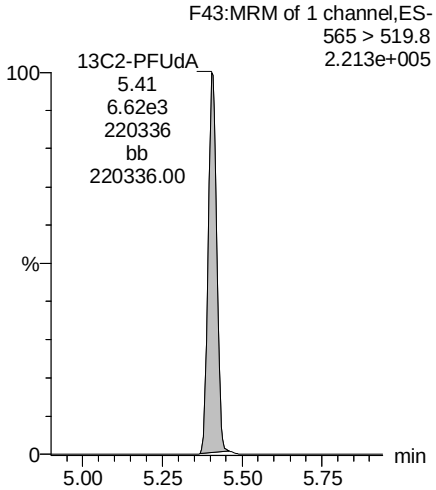
N-EtFOSAA



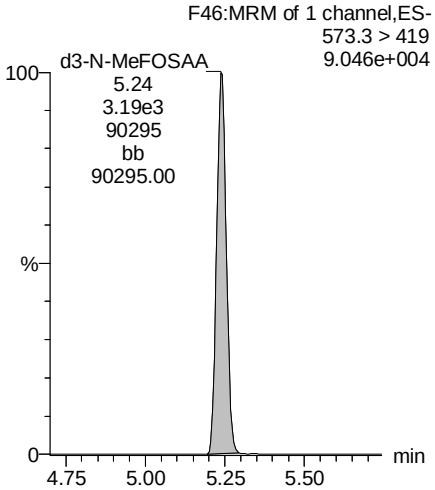
PFDoA



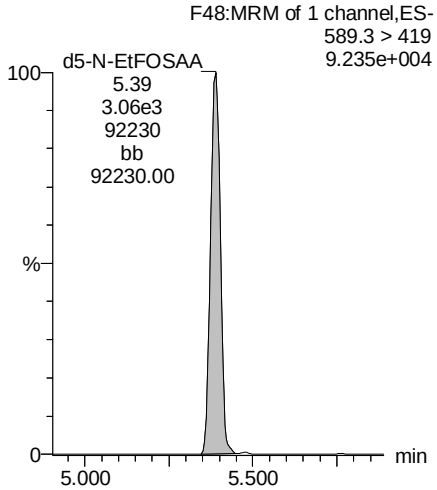
13C2-PFUdA



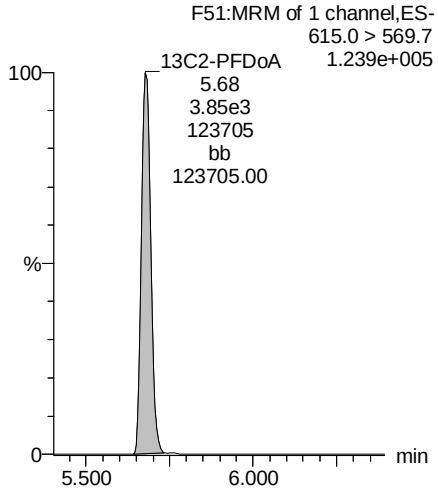
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



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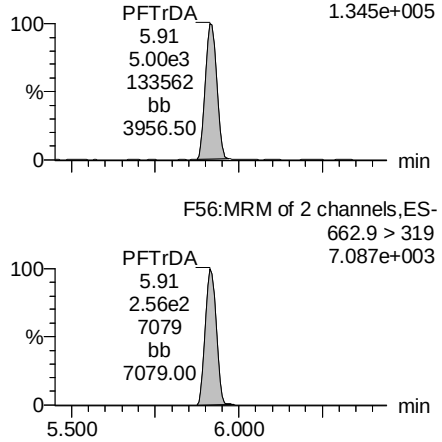
Dataset: Z:\Q4.PRO\results\171228M3\171228M3-18.qld

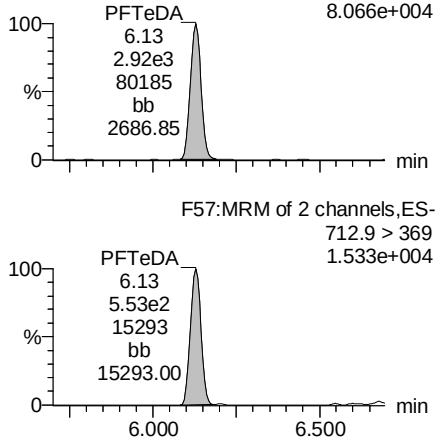
Last Altered: Thursday, January 18, 2018 14:50:50 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:51:17 Pacific Standard Time

Name: 171228M3_18, Date: 28-Dec-2017, Time: 19:08:04, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

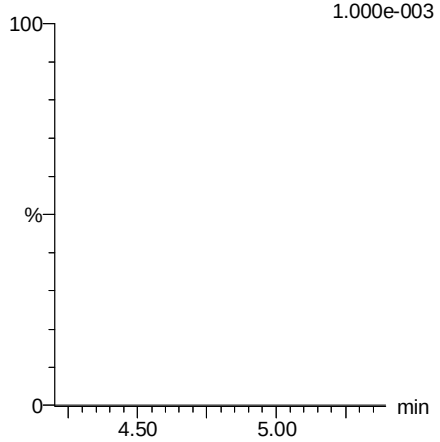
PFTrDA



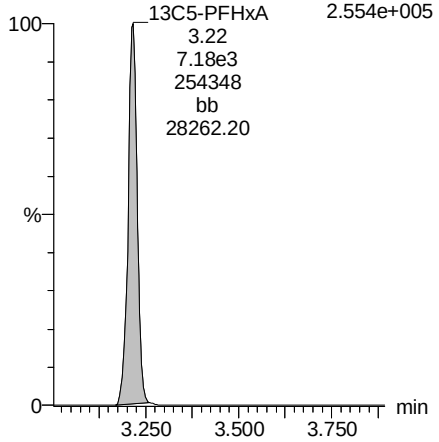
PFTeDA



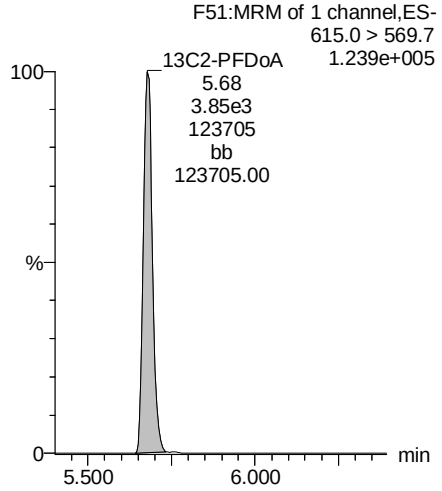
TCDA



13C5-PFHxA



13C2-PFDoA



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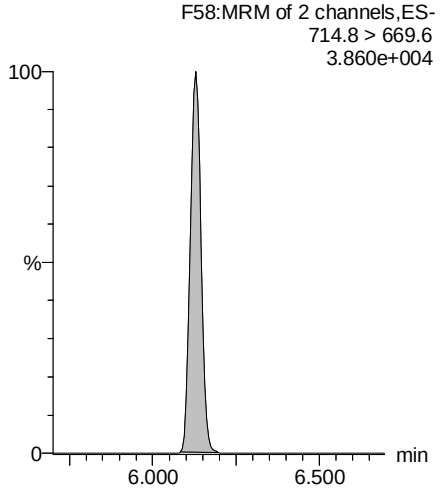
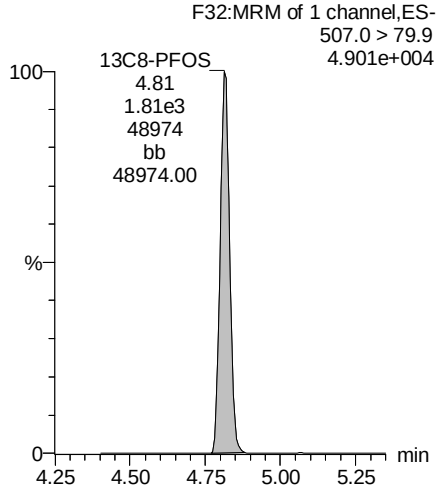
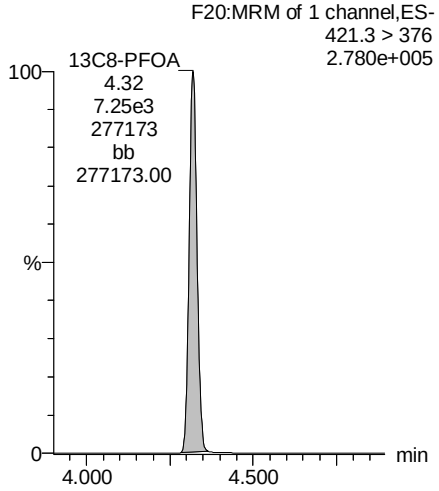


13C8-PFOS



13C8-PFOA

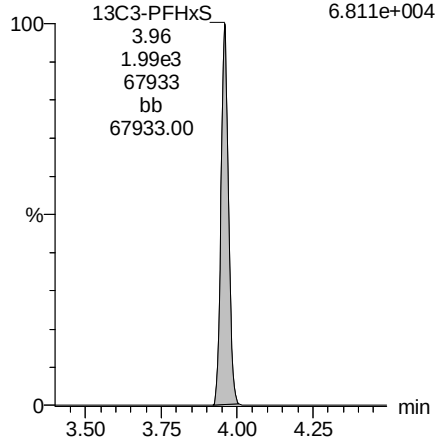


Dataset: Z:\Q4.PRO\results\171228M3\171228M3-18.qld

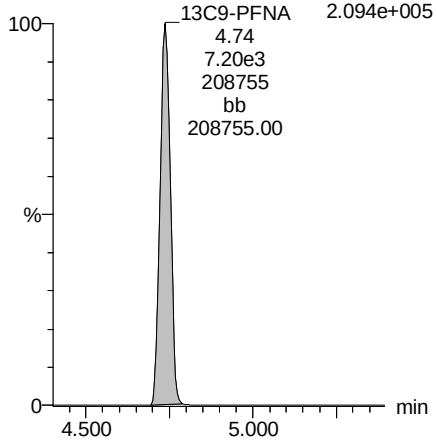
Last Altered: Thursday, January 18, 2018 14:50:50 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:51:17 Pacific Standard Time

Name: 171228M3_18, Date: 28-Dec-2017, Time: 19:08:04, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

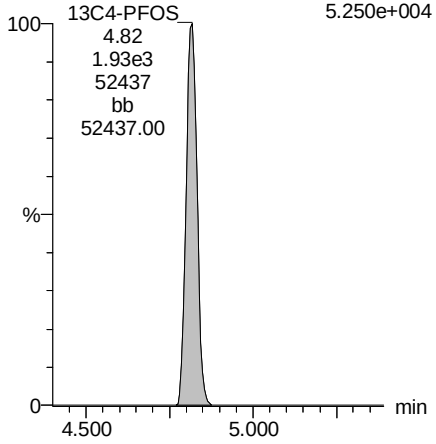
13C3-PFHxS



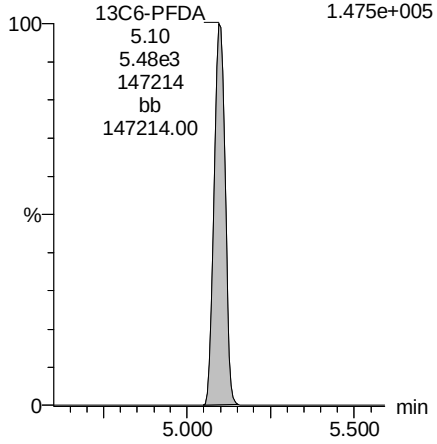
13C9-PFNA



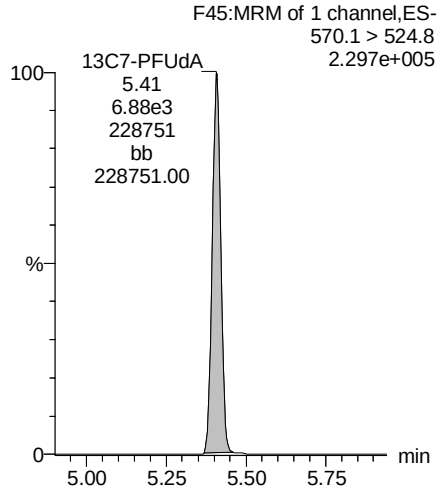
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: Z:\Q4.PRO\results\171228M3\171228M3-41.qld

Last Altered: Thursday, January 18, 2018 14:56:09 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:56:29 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_41, Date: 28-Dec-2017, Time: 23:25:11, ID: 1701802-01RE1 FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	9.29e1	9.00e2	0.268		2.70	2.73	1.29	2.4332	
2	4	PFHxA	313.2 > 268.9	2.79e3	2.36e3	0.268		3.20	3.22	5.90	12.7276	
3	5	PFHpA	363.0 > 318.9	1.08e3	6.19e3	0.268		3.80	3.82	2.18	4.9893	
4	6	L-PFHxS	398.9 > 79.6		7.82e2	0.268		3.95				
5	9	L-PFOA	413 > 368.7	3.88e3	7.65e3	0.268		4.32	4.32	6.35	19.2688	
6	12	PFNA	463.0 > 418.8	3.35e4	6.39e3	0.268		4.75	4.74	65.5	160.0239	
7	14	L-PFOS	499 > 79.9	2.05e2	2.19e3	0.268		4.83	4.82	1.17	3.6743	
8	16	PFDA	513 > 468.8	7.49e3	5.09e3	0.268		5.11	5.10	18.4	56.7742	
9	18	N-MeFOSAA	570.1 > 419		2.84e3	0.268		5.26				
10	19	N-EtFOSAA	584.2 > 419		3.51e3	0.268		5.42				
11	20	PFUdA	563.0 > 518.9	1.91e5	6.50e3	0.268		5.43	5.41	368		
12	22	PFDoA	612.9 > 569.0	3.27e2	5.36e3	0.268		5.70	5.68	0.763	1.1876	

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-41.qld

Last Altered: Thursday, January 18, 2018 14:56:09 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:56:40 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_41, Date: 28-Dec-2017, Time: 23:25:11, ID: 1701802-01RE1 FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	9.94e2	5.36e3	0.268		5.95	5.92	2.32	4.5037	
2	25	PFTeDA	712.9 > 668.8		1.84e3	0.268		6.16				
3	33	13C3-PFBS	302. > 98.8	9.00e2	6.94e3	0.268	0.101	2.70	2.72	1.62	60.1140	128.9
4	34	13C2-PFHxA	315 > 269.8	2.36e3	6.94e3	0.268	0.629	3.20	3.22	4.25	25.2118	135.2
5	35	13C4-PFHpA	367.2 > 321.8	6.19e3	6.94e3	0.268	0.585	3.80	3.82	11.2	71.1676	152.6
6	36	18O2-PFHxS	403.0 > 102.6	7.82e2	1.75e3	0.268	0.341	3.95	3.96	5.57	60.9704	130.8
7	37	13C2-6:2 FTS	429.1 > 408.9	1.53e3	6.62e3	0.268	0.238	4.26	4.27	2.89	45.2763	97.1
8	38	13C2-PFOA	414.9 > 369.7	7.65e3	6.62e3	0.268	0.934	4.32	4.32	14.4	57.6233	123.6
9	39	13C5-PFNA	468.2 > 422.9	6.39e3	5.79e3	0.268	0.841	4.75	4.74	13.8	61.1268	131.1
10	40	13C8-PFOSA	506.1 > 77.7	1.19e3	7.64e3	0.268	0.202	4.81	4.82	1.95	35.9430	77.1
11	41	13C8-PFOS	507.0 > 79.9	2.19e3	1.82e3	0.268	0.906	4.83	4.82	15.1	62.0912	133.2
12	42	13C2-PFDA	515.1 > 469.9	5.09e3	4.98e3	0.268	1.050	5.11	5.10	12.8	45.3556	97.3
13	43	13C2-8:2 FTS	529.1 > 508.7	8.89e2	6.94e3	0.268	0.109	5.09	5.07	1.60	54.7505	117.4
14	44	d3-N-MeFOSAA	573.3 > 419	2.84e3	7.64e3	0.268	0.454	5.26	5.24	4.65	38.1674	81.9
15	45	d5-N-EtFOSAA	589.3 > 419	3.51e3	7.64e3	0.268	0.503	5.42	5.39	5.75	42.5972	91.4
16	46	13C2-PFUdA	565 > 519.8	6.50e3	7.64e3	0.268	0.904	5.43	5.41	10.6	43.8814	94.1
17	47	13C2-PFDoA	615.0 > 569.7	5.36e3	7.64e3	0.268	0.561	5.70	5.69	8.77	58.2851	125.0
18	49	13C2-PFTeDA	714.8 > 669.6	1.84e3	7.64e3	0.268	0.183	6.16	6.13	3.00	61.0953	131.0
19	55	13C5-PFHxA	318 > 272.9	6.94e3	6.94e3	0.268	1.000	3.20	3.22	12.5	46.6227	100.0
20	56	13C3-PFHxS	401.9 > 79.9	1.75e3	1.75e3	0.268	1.000	3.95	3.96	12.5	46.6227	100.0
21	57	13C8-PFOA	421.3 > 376	6.62e3	6.62e3	0.268	1.000	4.32	4.32	12.5	46.6227	100.0
22	58	13C9-PFNA	472.2 > 426.9	5.79e3	5.79e3	0.268	1.000	4.75	4.74	12.5	46.6227	100.0
23	59	13C4-PFOS	503 > 79.9	1.82e3	1.82e3	0.268	1.000	4.83	4.82	12.5	46.6227	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.98e3	4.98e3	0.268	1.000	5.11	5.10	12.5	46.6227	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.64e3	7.64e3	0.268	1.000	5.43	5.41	12.5	46.6227	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	7.82e2	0.268		4.00		0.000		
27	63	Total PFOA	413 > 368.7	3.97e3	7.65e3	0.268		4.30		6.35	19.2688	
28	64	Total PFOS	499 > 79.9	3.46e2	2.19e3	0.268		4.80		1.97	6.3035	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.84e3	0.268		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.51e3	0.268		5.40		0.000		

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Dataset: Z:\Q4.PRO\results\171228M3\171228M3-41.qld

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Printed: Thursday, January 18, 2018 14:56:40 Pacific Standard Time

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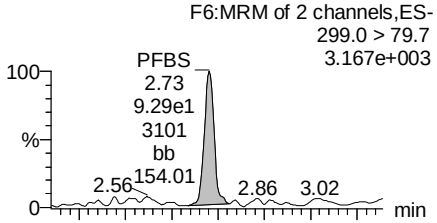
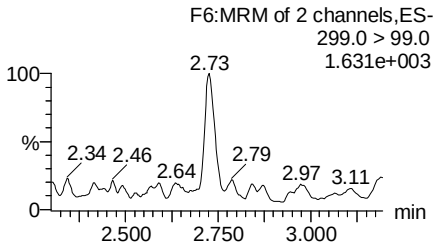
PFBS





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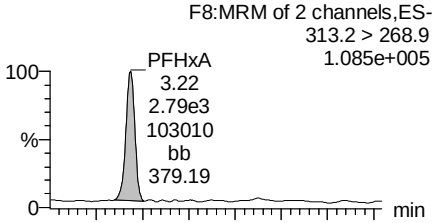

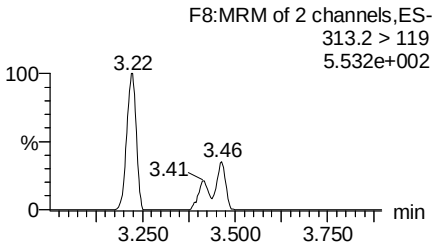

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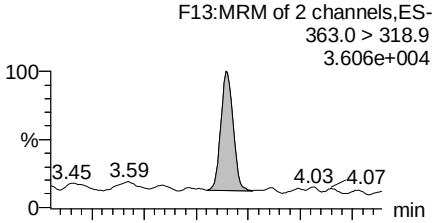

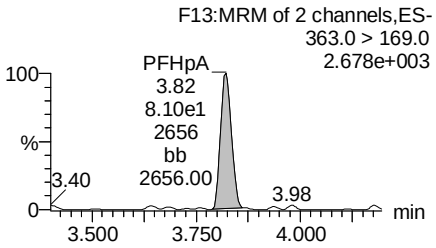

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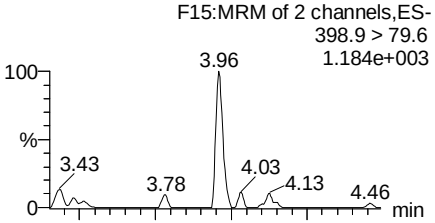

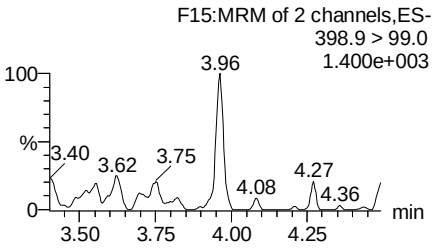

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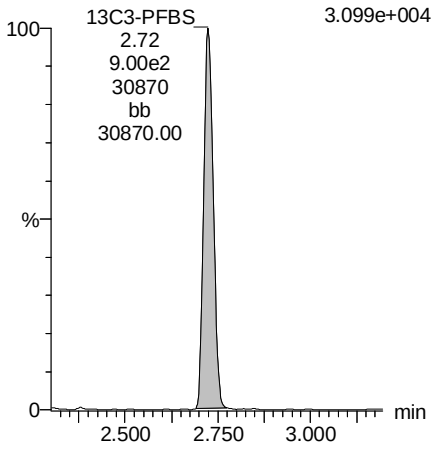

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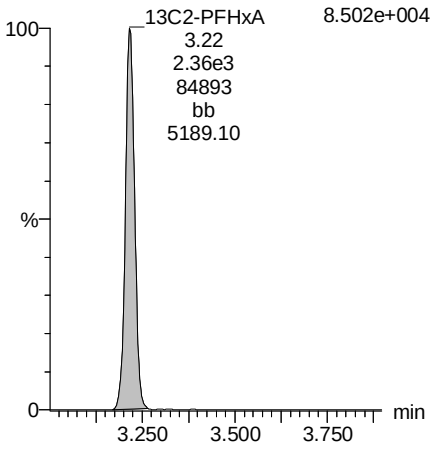

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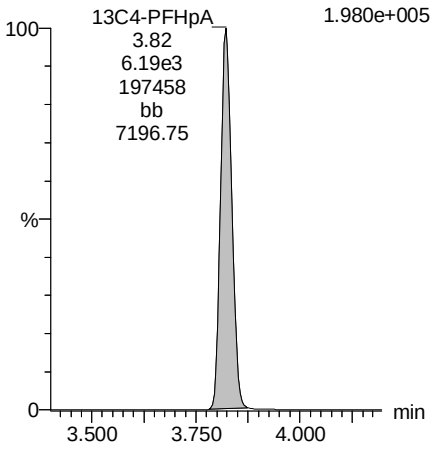

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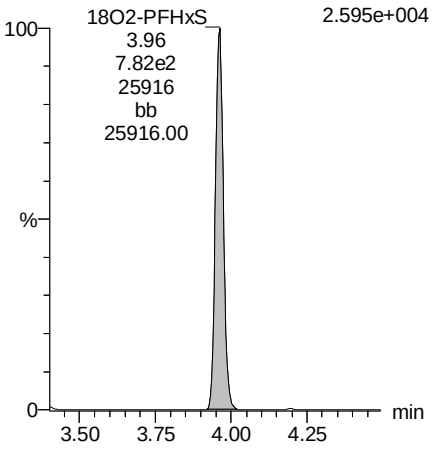

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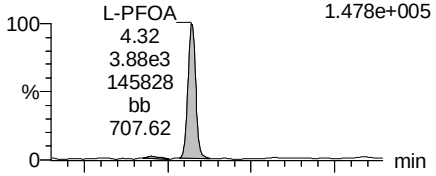
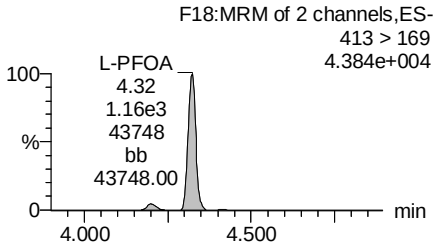
Name: 171228M3_41, Date: 28-Dec-2017, Time: 23:25:11, ID: 1701802-01RE1 FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

Total PFOA





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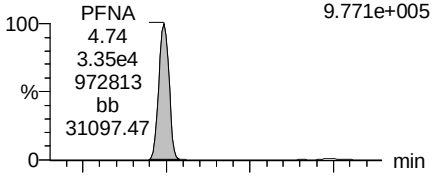

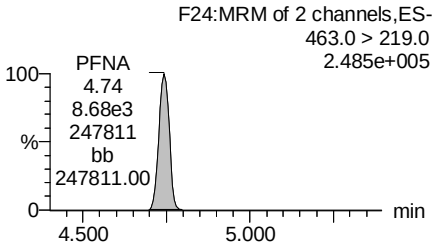

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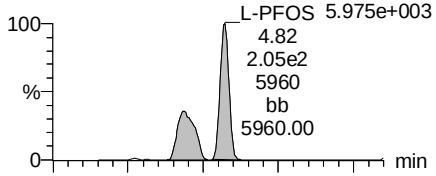

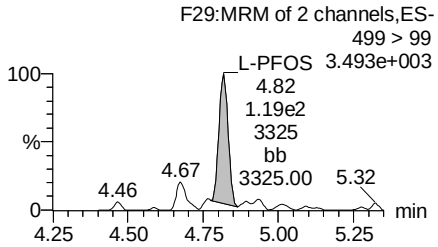

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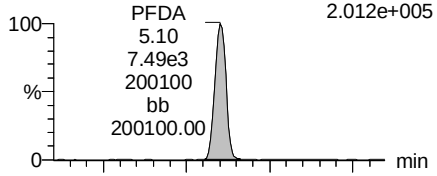

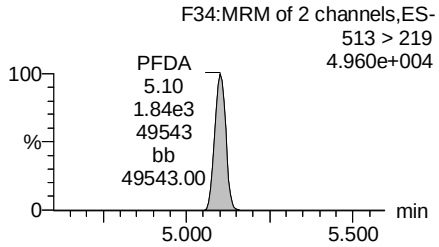

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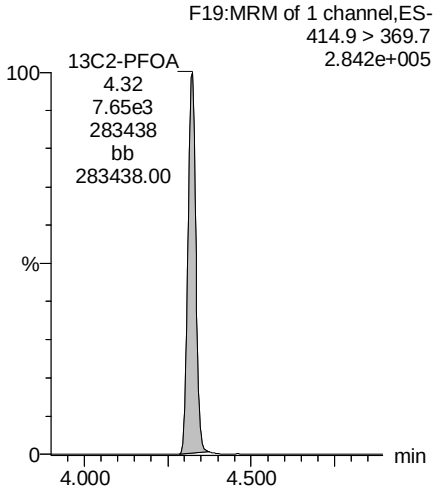

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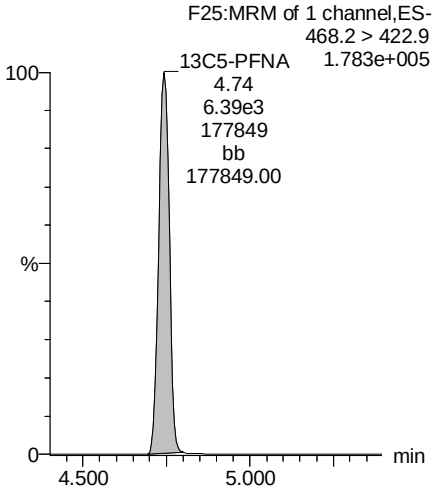

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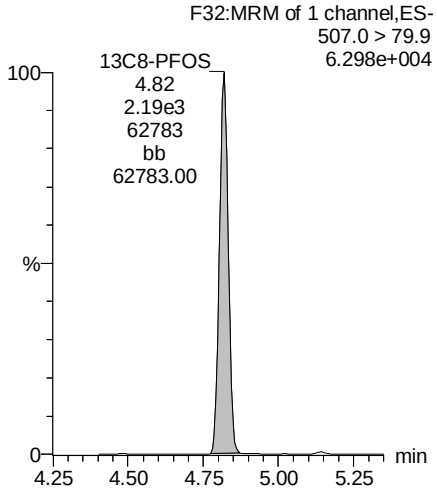

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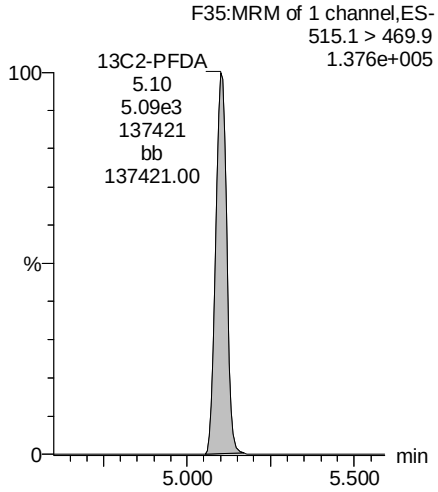

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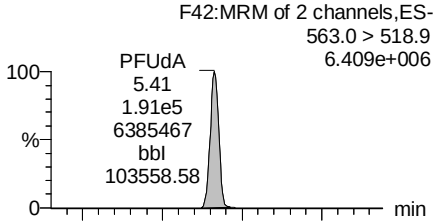
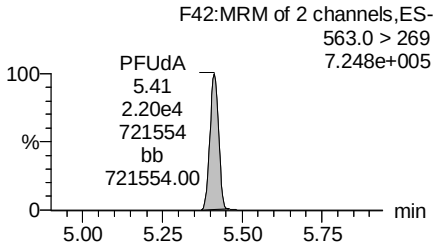
PFUdA





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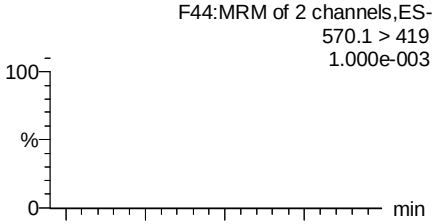

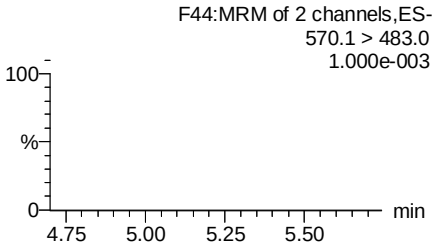

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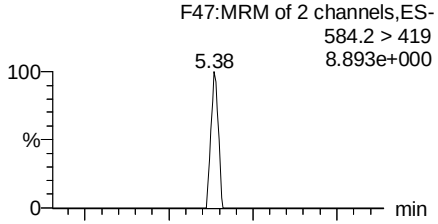

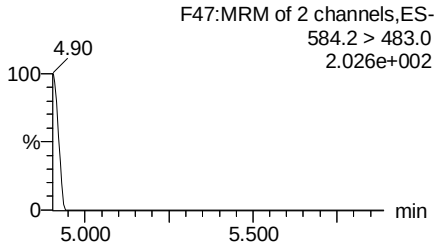

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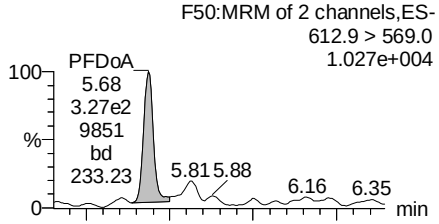

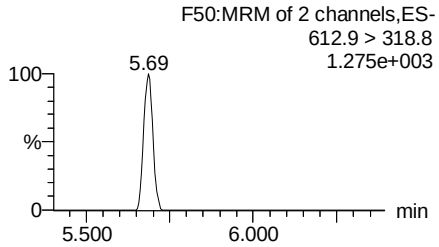

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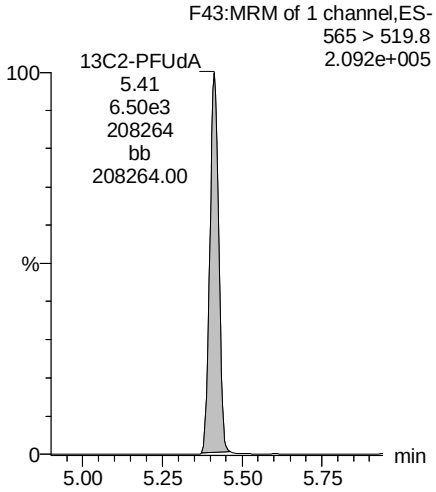

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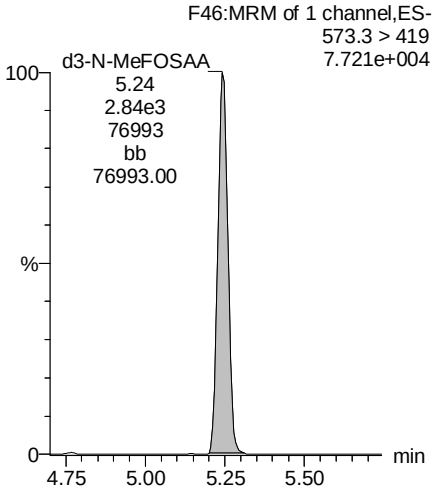

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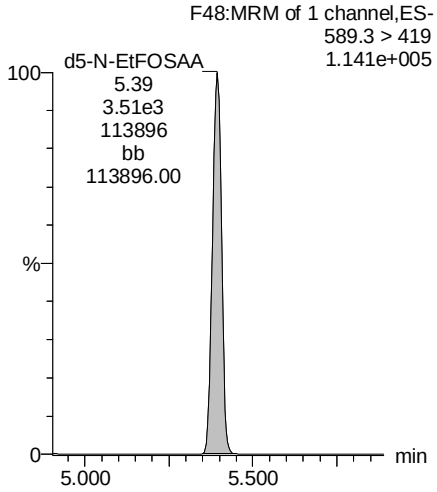

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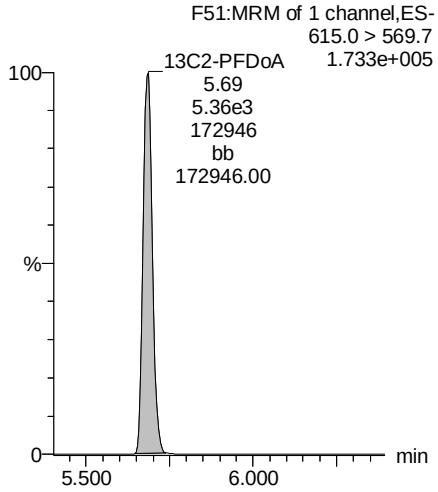

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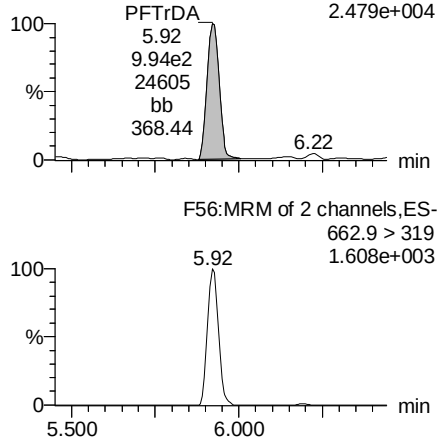

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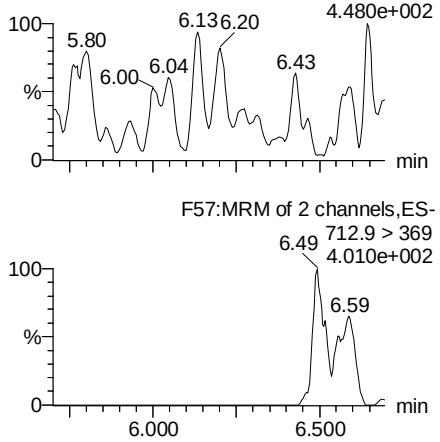

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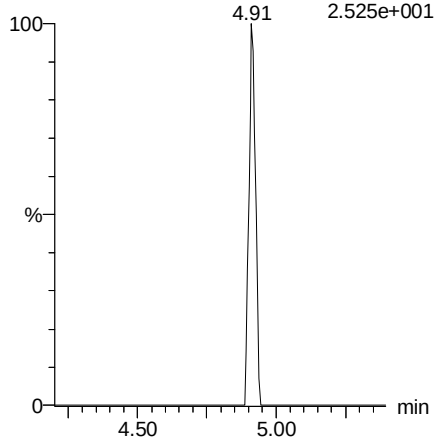

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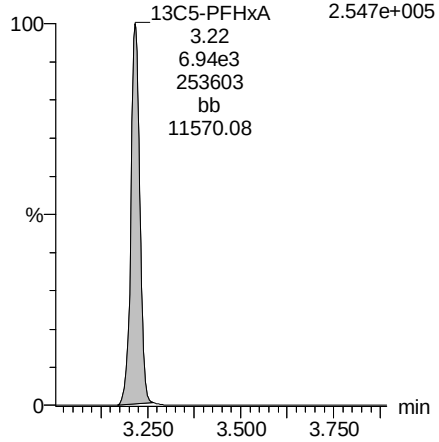

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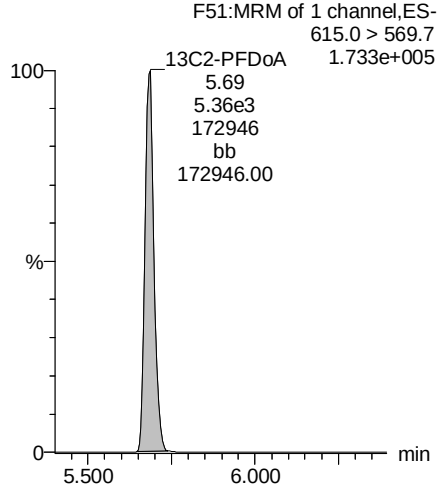

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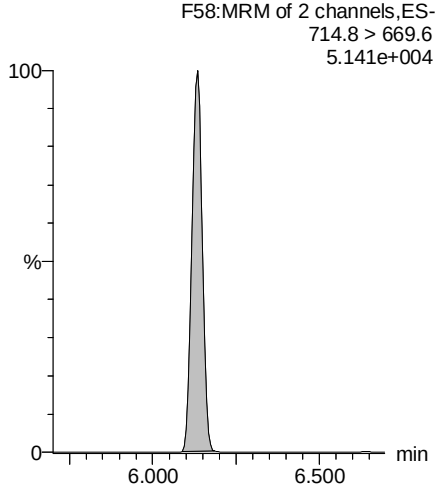

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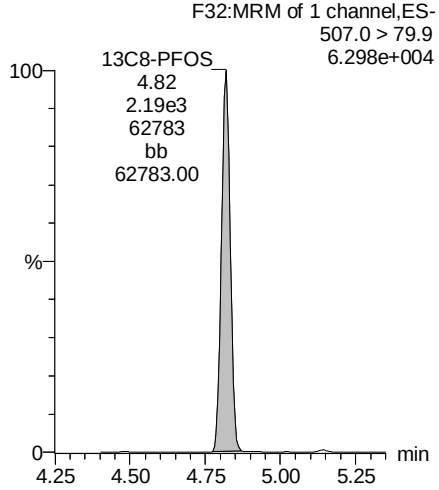

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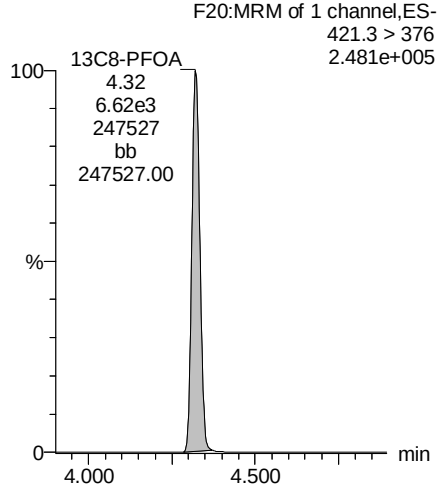

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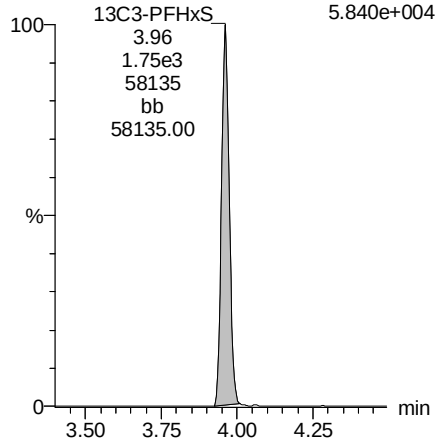
Name: 171228M3_41, Date: 28-Dec-2017, Time: 23:25:11, ID: 1701802-01RE1 FC-MW02SR1-NP-20171128 0.26811, Description: FC-MW02SR1-NP-20171128

13C3-PFHxS



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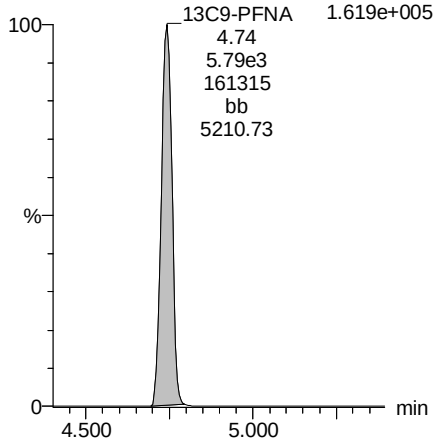

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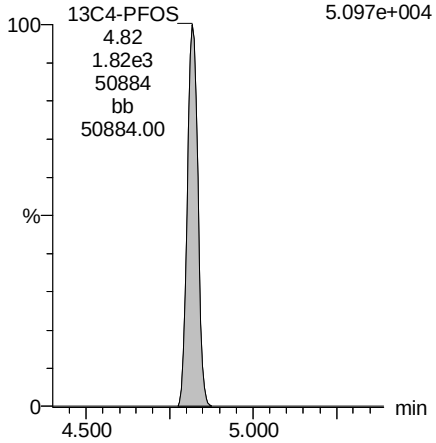

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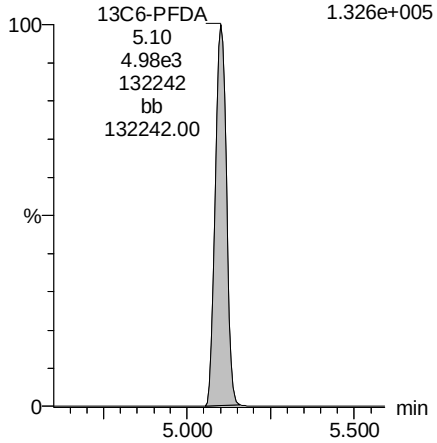

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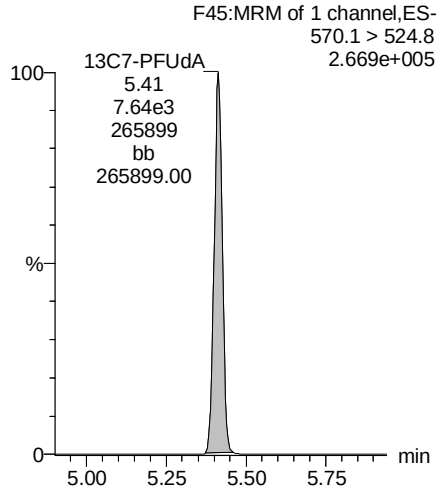

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Dataset: Z:\Q4.PRO\results\171228M3\171228M3-42.qld

Last Altered: Thursday, January 18, 2018 14:57:45 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:58:19 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_42, Date: 28-Dec-2017, Time: 23:36:22, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		8.35e2	0.263		2.70				
2	4	PFHxA	313.2 > 268.9	3.64e3	2.19e3	0.263		3.20	3.22	8.32	18.3186	
3	5	PFHpA	363.0 > 318.9	1.48e3	4.71e3	0.263		3.80	3.82	3.93	9.3077	
4	6	L-PFHxS	398.9 > 79.6		6.97e2	0.263		3.95				
5	9	L-PFOA	413 > 368.7	5.40e3	7.31e3	0.263		4.32	4.32	9.23	28.9281	
6	12	PFNA	463.0 > 418.8	3.75e4	4.64e3	0.263		4.75	4.74	101	250.8755	
7	14	L-PFOS	499 > 79.9	2.55e2	2.07e3	0.263		4.83	4.82	1.54	4.8680	
8	16	PFDA	513 > 468.8	8.59e3	5.65e3	0.263		5.11	5.10	19.0	59.7567	
9	18	N-MeFOSAA	570.1 > 419		3.04e3	0.263		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.61e3	0.263		5.42				
11	20	PFUdA	563.0 > 518.9	2.25e5	6.58e3	0.263		5.43	5.41	427		
12	22	PFDoA	612.9 > 569.0	3.13e2	4.28e3	0.263		5.70	5.68	0.915	1.5050	

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Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_42, Date: 28-Dec-2017, Time: 23:36:22, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	4.70e2	4.28e3	0.263		5.95	5.92	1.37	2.5350	
2	25	PFTeDA	712.9 > 668.8		1.65e3	0.263		6.16				
3	33	13C3-PFBS	302. > 98.8	8.35e2	7.42e3	0.263	0.101	2.70	2.72	1.41	53.3263	112.0
4	34	13C2-PFHxA	315 > 269.8	2.19e3	7.42e3	0.263	0.629	3.20	3.22	3.69	22.3290	117.2
5	35	13C4-PFHpA	367.2 > 321.8	4.71e3	7.42e3	0.263	0.585	3.80	3.82	7.94	51.7436	108.7
6	36	18O2-PFHxS	403.0 > 102.6	6.97e2	1.91e3	0.263	0.341	3.95	3.96	4.56	50.9780	107.1
7	37	13C2-6:2 FTS	429.1 > 408.9	1.48e3	6.68e3	0.263	0.238	4.26	4.27	2.76	44.2230	92.9
8	38	13C2-PFOA	414.9 > 369.7	7.31e3	6.68e3	0.263	0.934	4.32	4.32	13.7	55.7581	117.1
9	39	13C5-PFNA	468.2 > 422.9	4.64e3	6.54e3	0.263	0.841	4.75	4.74	8.86	40.1189	84.3
10	40	13C8-PFOSA	506.1 > 77.7	1.14e3	6.55e3	0.263	0.202	4.81	4.81	2.18	41.0154	86.1
11	41	13C8-PFOS	507.0 > 79.9	2.07e3	2.11e3	0.263	0.906	4.83	4.81	12.3	51.4866	108.1
12	42	13C2-PFDA	515.1 > 469.9	5.65e3	4.74e3	0.263	1.050	5.11	5.10	14.9	54.0609	113.5
13	43	13C2-8:2 FTS	529.1 > 508.7	1.10e3	7.42e3	0.263	0.109	5.09	5.07	1.85	64.6442	135.8
14	44	d3-N-MeFOSAA	573.3 > 419	3.04e3	6.55e3	0.263	0.454	5.26	5.24	5.80	48.6370	102.1
15	45	d5-N-EtFOSAA	589.3 > 419	2.61e3	6.55e3	0.263	0.503	5.42	5.39	4.98	37.6953	79.2
16	46	13C2-PFUdA	565 > 519.8	6.58e3	6.55e3	0.263	0.904	5.43	5.41	12.6	52.9340	111.2
17	47	13C2-PFDoA	615.0 > 569.7	4.28e3	6.55e3	0.263	0.561	5.70	5.68	8.16	55.3975	116.3
18	49	13C2-PFTeDA	714.8 > 669.6	1.65e3	6.55e3	0.263	0.183	6.16	6.13	3.14	65.1712	136.9
19	55	13C5-PFHxA	318 > 272.9	7.42e3	7.42e3	0.263	1.000	3.20	3.21	12.5	47.6154	100.0
20	56	13C3-PFHxS	401.9 > 79.9	1.91e3	1.91e3	0.263	1.000	3.95	3.96	12.5	47.6154	100.0
21	57	13C8-PFOA	421.3 > 376	6.68e3	6.68e3	0.263	1.000	4.32	4.32	12.5	47.6154	100.0
22	58	13C9-PFNA	472.2 > 426.9	6.54e3	6.54e3	0.263	1.000	4.75	4.74	12.5	47.6154	100.0
23	59	13C4-PFOS	503 > 79.9	2.11e3	2.11e3	0.263	1.000	4.83	4.81	12.5	47.6154	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.74e3	4.74e3	0.263	1.000	5.11	5.10	12.5	47.6154	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.55e3	6.55e3	0.263	1.000	5.43	5.41	12.5	47.6154	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	6.97e2	0.263		4.00		0.000		
27	63	Total PFOA	413 > 368.7	5.40e3	7.31e3	0.263		4.30		9.23	28.9281	
28	64	Total PFOS	499 > 79.9	2.55e2	2.07e3	0.263		4.80		1.54	4.8680	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.04e3	0.263		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.61e3	0.263		5.40		0.000		

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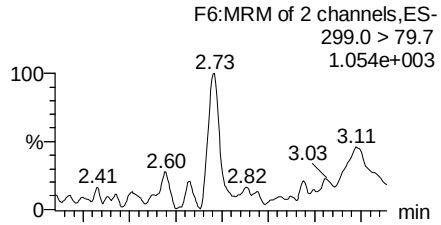
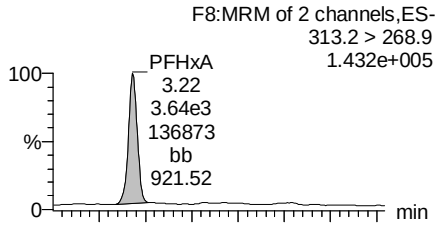
Name: 171228M3_42, Date: 28-Dec-2017, Time: 23:36:22, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

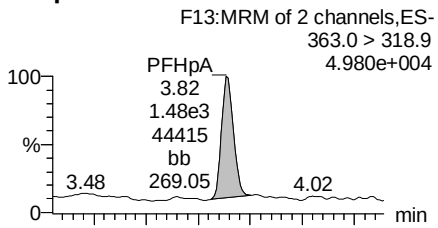
PFBS



PFHxA



PFHpA



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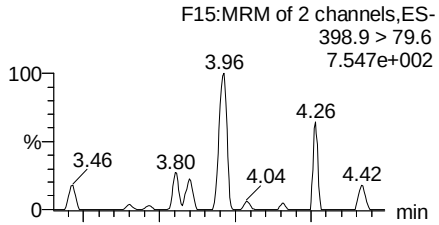

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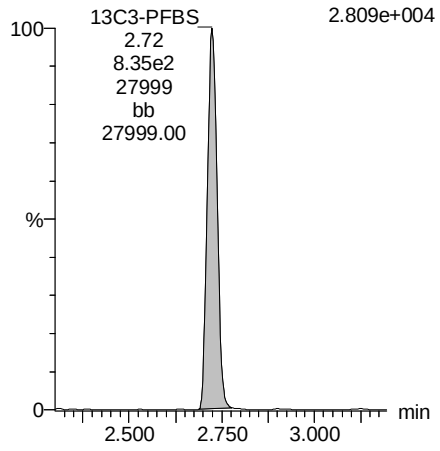

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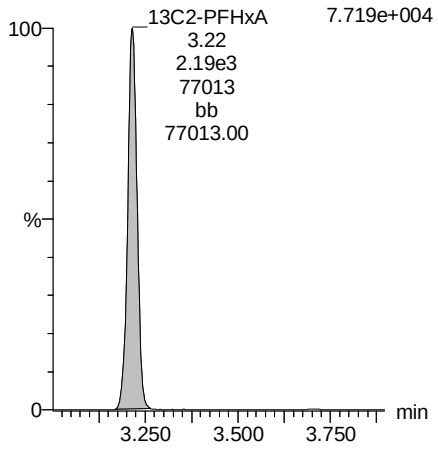

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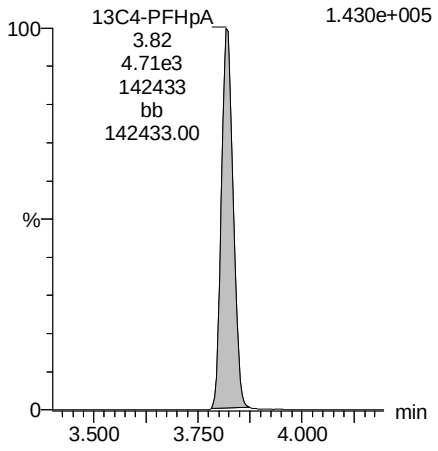

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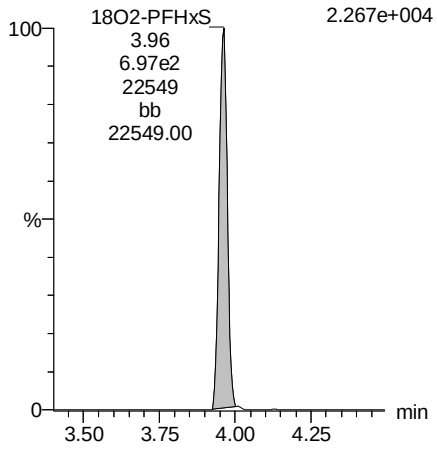

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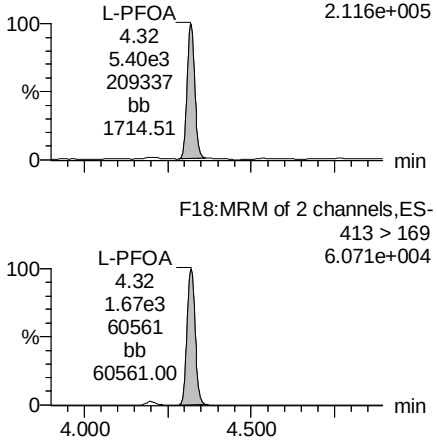
Name: 171228M3_42, Date: 28-Dec-2017, Time: 23:36:22, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

Total PFOA



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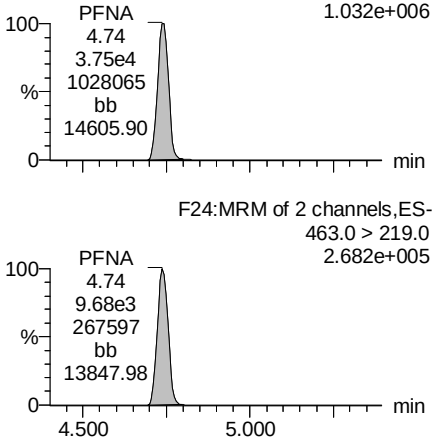
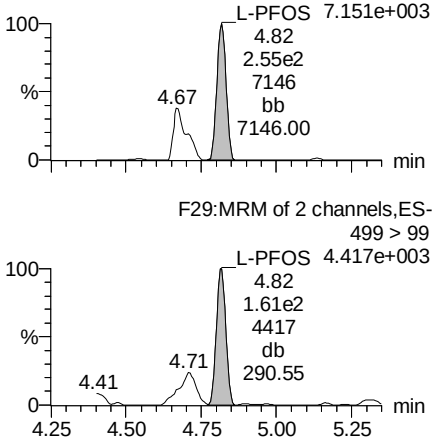


Total PFOS



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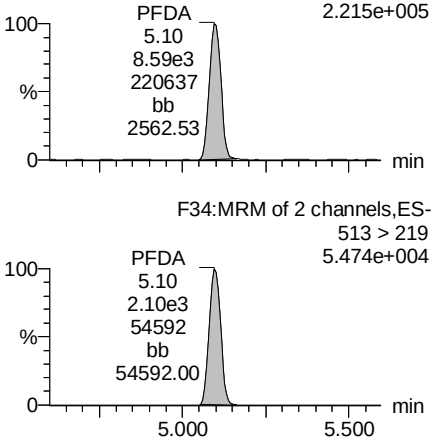

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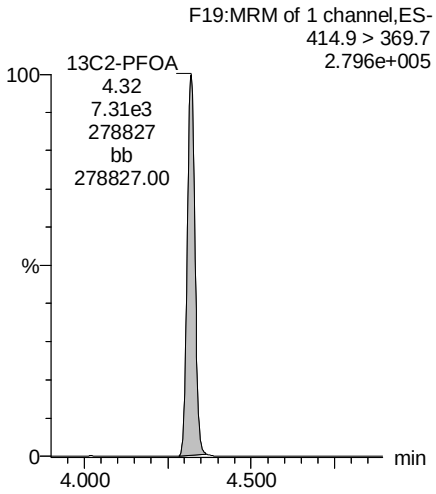

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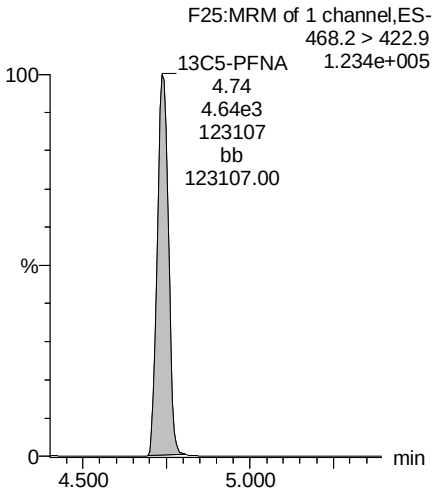

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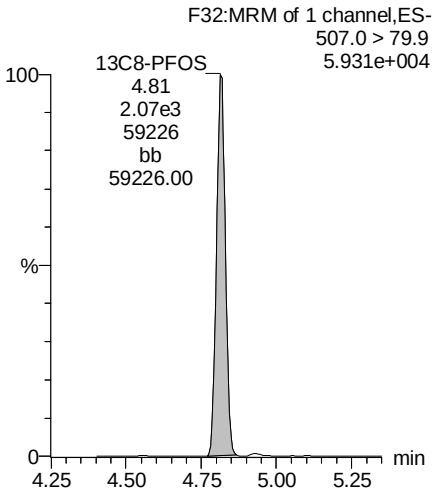

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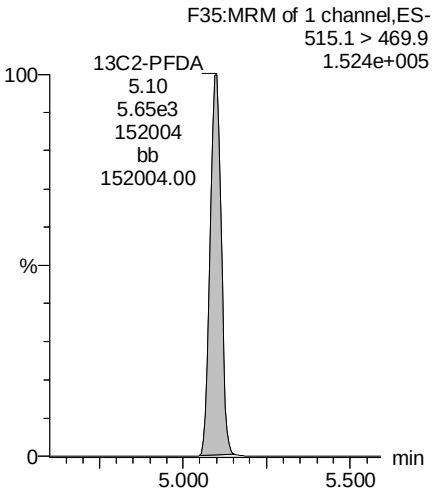

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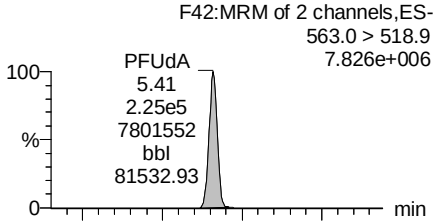
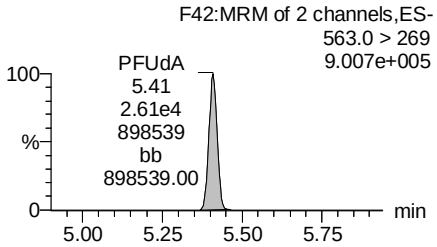
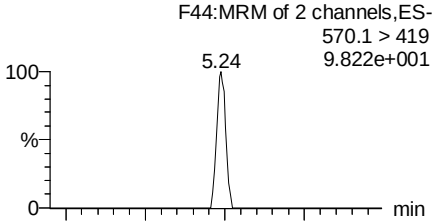
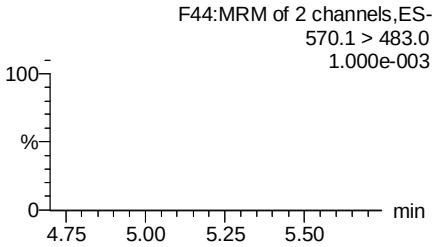
PFUdA





N-MeFOSAA





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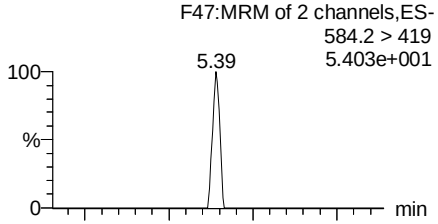

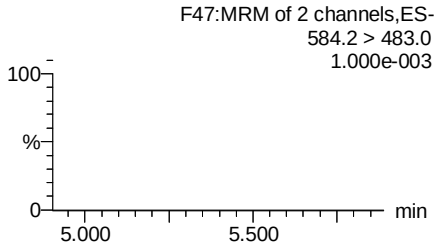

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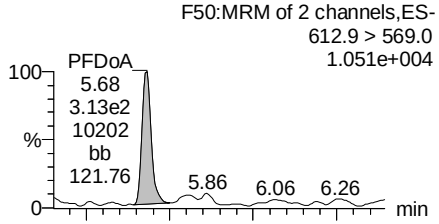

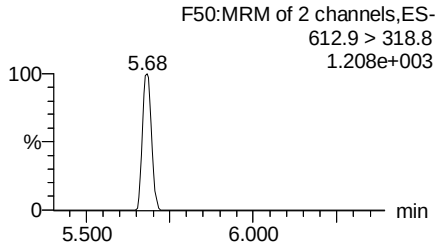

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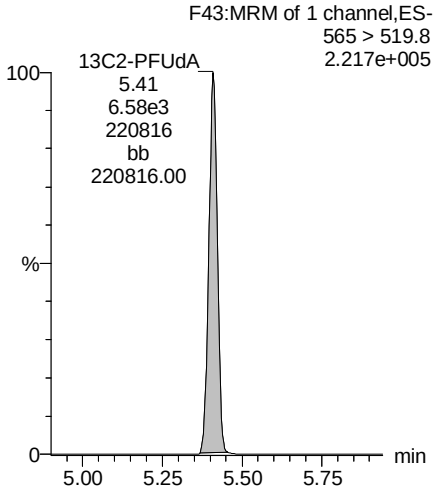

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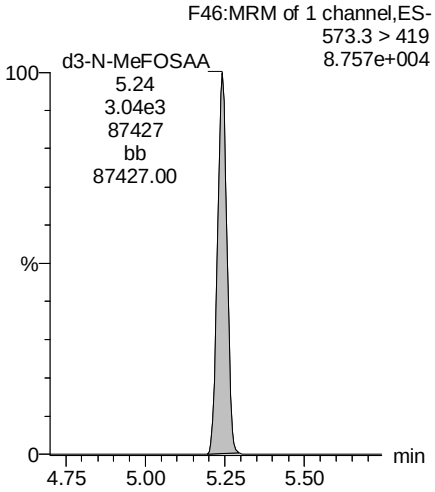

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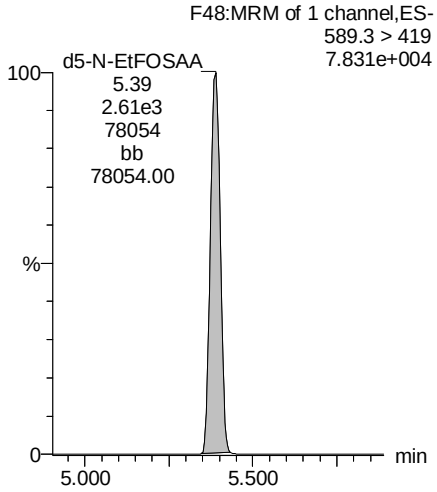

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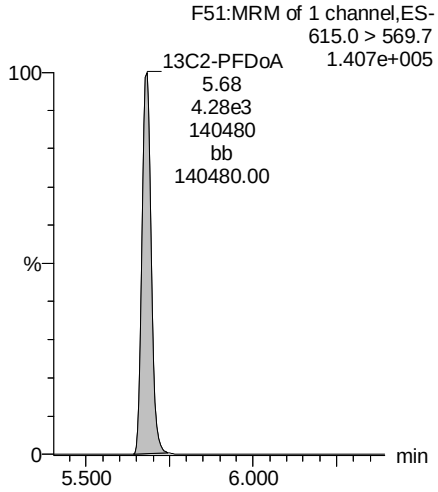

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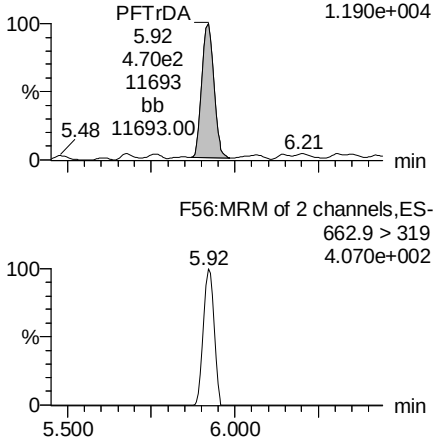
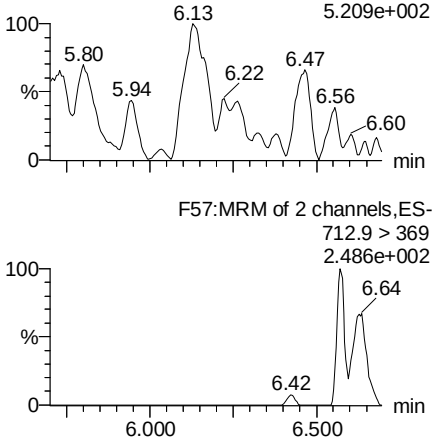


PFTeDA



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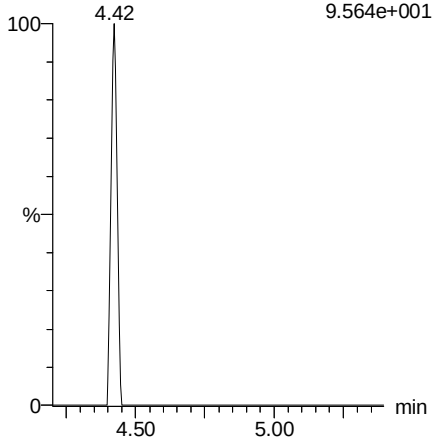
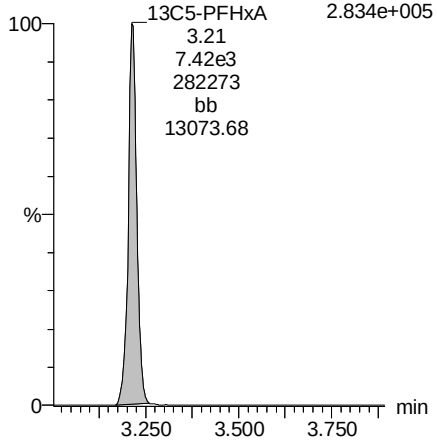
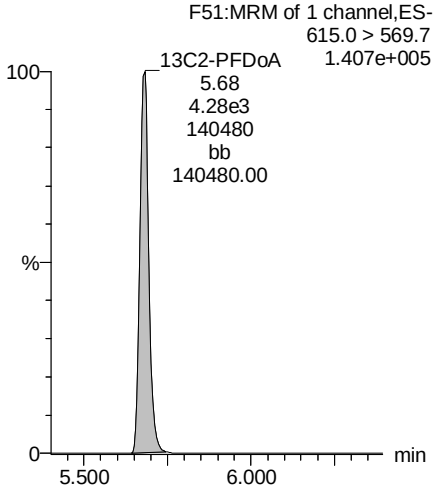


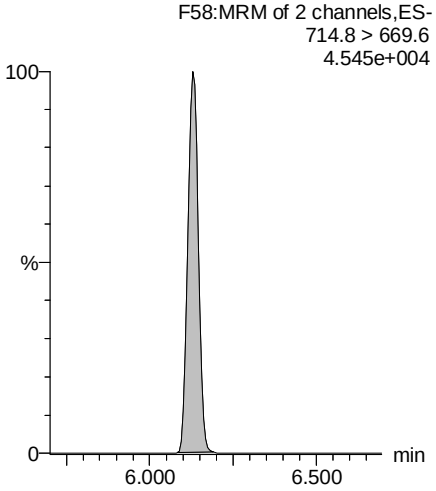
13C5-PFHxA



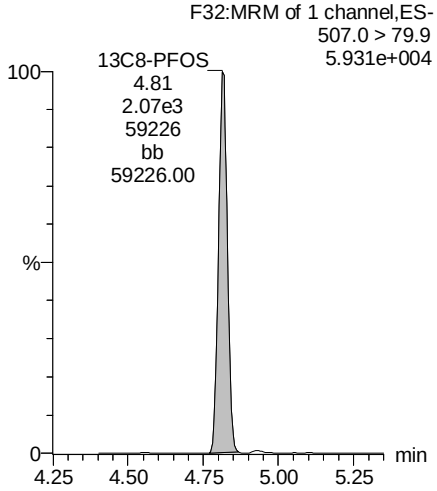
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS



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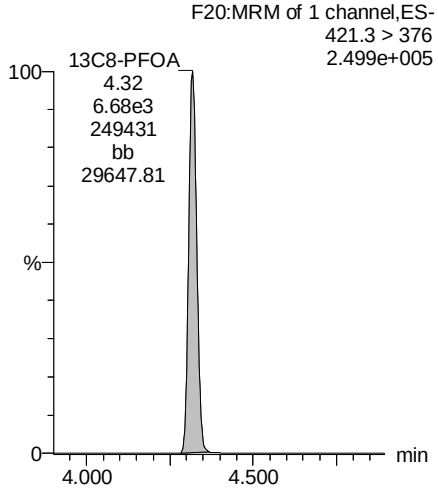

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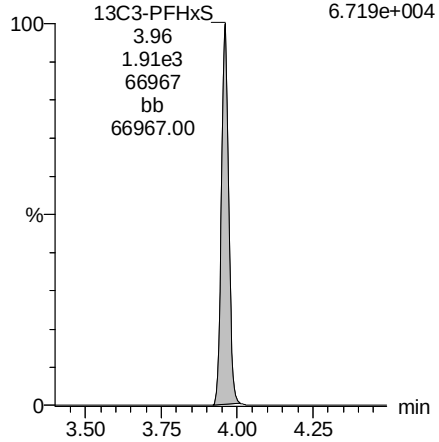
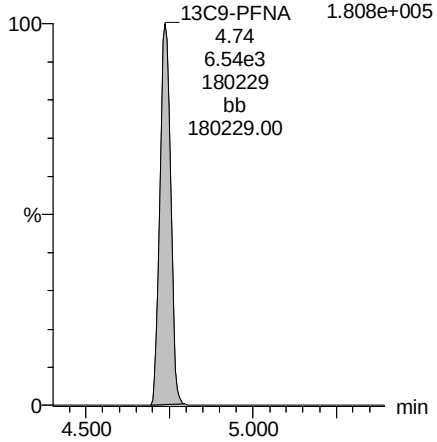
Last Altered: Thursday, January 18, 2018 14:57:45 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:58:29 Pacific Standard Time

Name: 171228M3_42, Date: 28-Dec-2017, Time: 23:36:22, ID: 1701802-02RE1 FC-MW02SR1-P1-20171128 0.26252, Description: FC-MW02SR1-P1-20171128

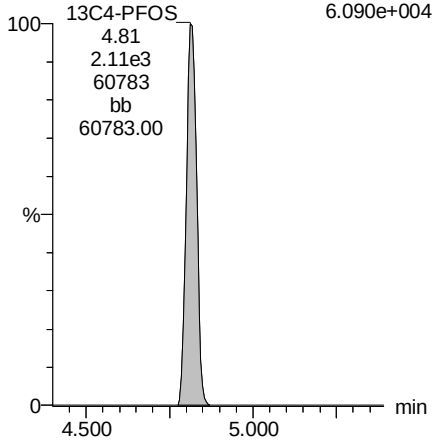
13C3-PFHxS



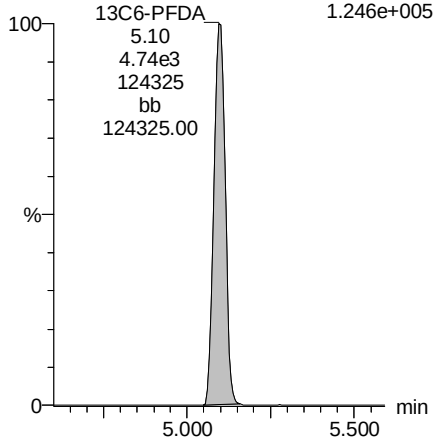
13C9-PFNA



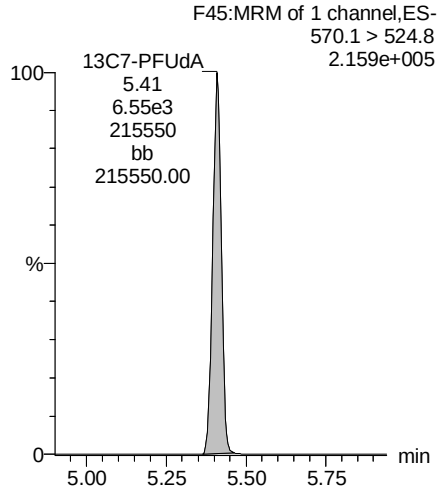
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-43.qld

Last Altered: Thursday, January 18, 2018 14:59:56 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:00:17 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_43, Date: 28-Dec-2017, Time: 23:47:34, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.01e3	0.271		2.70				
2	4	PFHxA	313.2 > 268.9	4.50e3	2.31e3	0.271		3.20	3.21	9.76	20.8193	
3	5	PFHpA	363.0 > 318.9	1.62e3	5.43e3	0.271		3.80	3.82	3.72	8.5161	
4	6	L-PFHxS	398.9 > 79.6		8.25e2	0.271		3.95				
5	9	L-PFOA	413 > 368.7	4.67e3	6.82e3	0.271		4.32	4.31	8.56	25.9294	
6	12	PFNA	463.0 > 418.8	3.97e4	5.05e3	0.271		4.75	4.74	98.3	236.4005	
7	14	L-PFOS	499 > 79.9	2.91e2	2.01e3	0.271		4.83	4.81	1.81	5.4762	
8	16	PFDA	513 > 468.8	8.51e3	5.09e3	0.271		5.11	5.10	20.9	63.7379	
9	18	N-MeFOSAA	570.1 > 419		3.13e3	0.271		5.26				
10	19	N-EtFOSAA	584.2 > 419		3.10e3	0.271		5.42				
11	20	PFUdA	563.0 > 518.9	2.26e5	5.82e3	0.271		5.43	5.41	486		
12	22	PFDoA	612.9 > 569.0	2.61e2	4.21e3	0.271		5.70	5.68	0.775	1.1969	

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-43.qld

Last Altered: Thursday, January 18, 2018 14:59:56 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:00:27 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_43, Date: 28-Dec-2017, Time: 23:47:34, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	5.09e2	4.21e3	0.271		5.95	5.91	1.51	2.7435	
2	25	PFTeDA	712.9 > 668.8		1.45e3	0.271		6.16				
3	33	13C3-PFBS	302. > 98.8	1.01e3	7.72e3	0.271	0.101	2.70	2.72	1.64	60.2433	130.7
4	34	13C2-PFHxA	315 > 269.8	2.31e3	7.72e3	0.271	0.629	3.20	3.21	3.74	21.9047	118.8
5	35	13C4-PFHpA	367.2 > 321.8	5.43e3	7.72e3	0.271	0.585	3.80	3.82	8.79	55.4686	120.3
6	36	18O2-PFHxS	403.0 > 102.6	8.25e2	2.09e3	0.271	0.341	3.95	3.96	4.92	53.3354	115.7
7	37	13C2-6:2 FTS	429.1 > 408.9	1.47e3	5.44e3	0.271	0.238	4.26	4.27	3.38	52.3766	113.6
8	38	13C2-PFOA	414.9 > 369.7	6.82e3	5.44e3	0.271	0.934	4.32	4.31	15.7	61.8683	134.2
9	39	13C5-PFNA	468.2 > 422.9	5.05e3	5.88e3	0.271	0.841	4.75	4.73	10.7	47.1173	102.2
10	40	13C8-PFOSA	506.1 > 77.7	1.11e3	6.06e3	0.271	0.202	4.81	4.81	2.28	41.5923	90.2
11	41	13C8-PFOS	507.0 > 79.9	2.01e3	2.11e3	0.271	0.906	4.83	4.81	11.9	48.4701	105.1
12	42	13C2-PFDA	515.1 > 469.9	5.09e3	5.43e3	0.271	1.050	5.11	5.10	11.7	41.1312	89.2
13	43	13C2-8:2 FTS	529.1 > 508.7	7.97e2	7.72e3	0.271	0.109	5.09	5.07	1.29	43.6576	94.7
14	44	d3-N-MeFOSAA	573.3 > 419	3.13e3	6.06e3	0.271	0.454	5.26	5.24	6.44	52.3056	113.4
15	45	d5-N-EtFOSAA	589.3 > 419	3.10e3	6.06e3	0.271	0.503	5.42	5.39	6.38	46.7814	101.5
16	46	13C2-PFUdA	565 > 519.8	5.82e3	6.06e3	0.271	0.904	5.43	5.41	12.0	48.9045	106.1
17	47	13C2-PFDoA	615.0 > 569.7	4.21e3	6.06e3	0.271	0.561	5.70	5.68	8.68	57.0288	123.7
18	49	13C2-PFTeDA	714.8 > 669.6	1.45e3	6.06e3	0.271	0.183	6.16	6.13	3.00	60.2538	130.7
19	55	13C5-PFHxA	318 > 272.9	7.72e3	7.72e3	0.271	1.000	3.20	3.21	12.5	46.1067	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.09e3	2.09e3	0.271	1.000	3.95	3.95	12.5	46.1067	100.0
21	57	13C8-PFOA	421.3 > 376	5.44e3	5.44e3	0.271	1.000	4.32	4.32	12.5	46.1067	100.0
22	58	13C9-PFNA	472.2 > 426.9	5.88e3	5.88e3	0.271	1.000	4.75	4.74	12.5	46.1067	100.0
23	59	13C4-PFOS	503 > 79.9	2.11e3	2.11e3	0.271	1.000	4.83	4.81	12.5	46.1067	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.43e3	5.43e3	0.271	1.000	5.11	5.10	12.5	46.1067	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.06e3	6.06e3	0.271	1.000	5.43	5.41	12.5	46.1067	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	8.25e2	0.271		4.00		0.000		
27	63	Total PFOA	413 > 368.7	4.79e3	6.82e3	0.271		4.30		8.78	25.9583	
28	64	Total PFOS	499 > 79.9	4.93e2	2.01e3	0.271		4.80		3.06	9.3734	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.13e3	0.271		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.10e3	0.271		5.40		0.000		

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Dataset: Z:\Q4.PRO\results\171228M3\171228M3-43.qld

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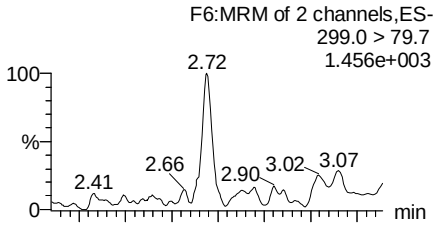
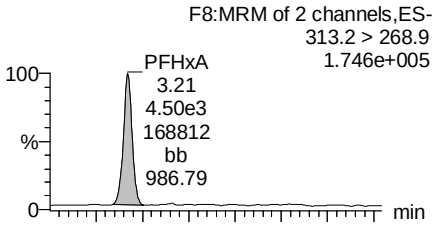
Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_43, Date: 28-Dec-2017, Time: 23:47:34, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

PFBS



PFHxA



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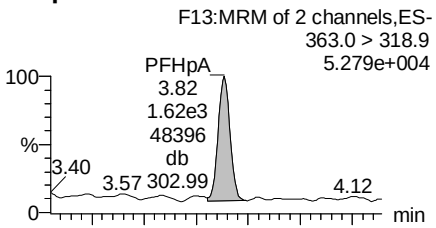

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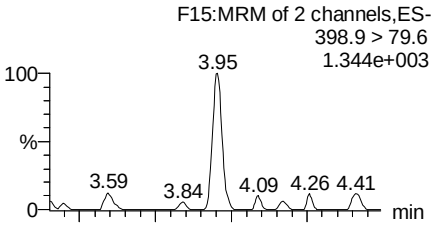

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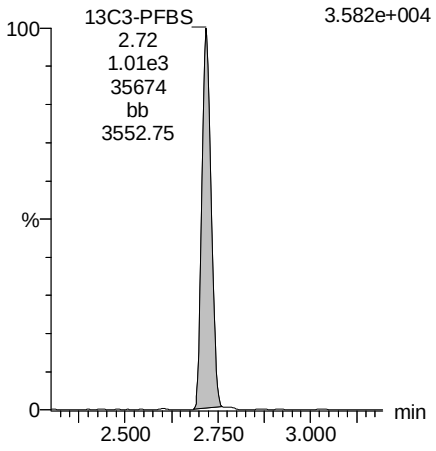
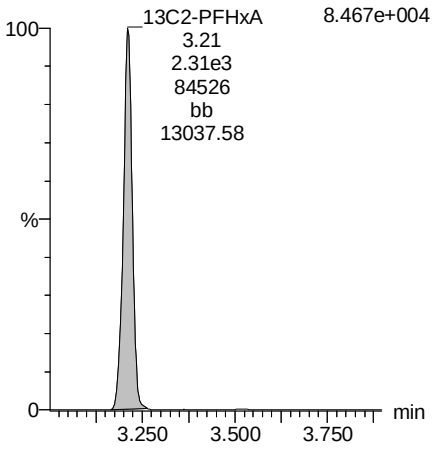


13C2-PFHxA



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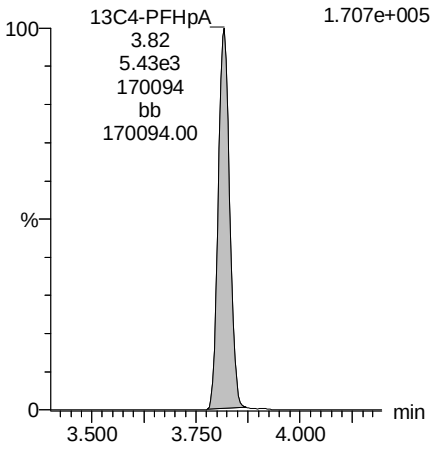
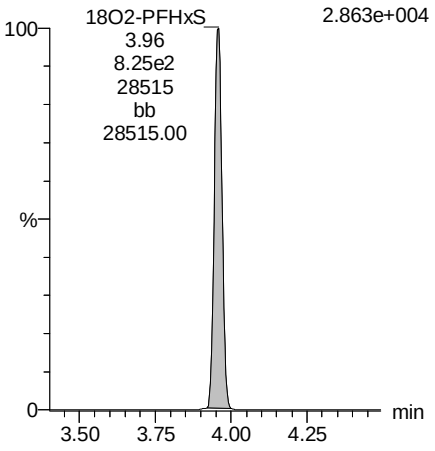


18O2-PFHxS



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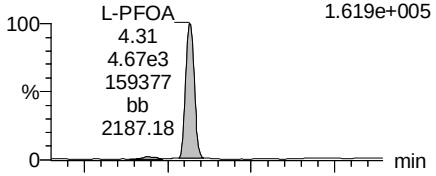
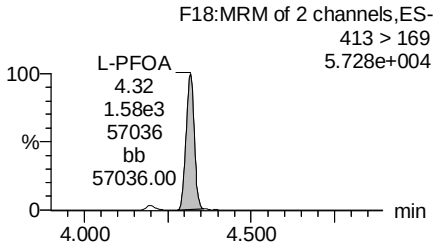
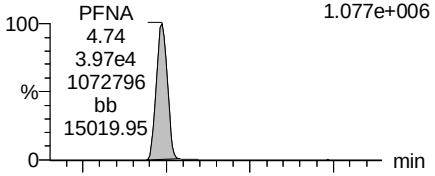
Name: 171228M3_43, Date: 28-Dec-2017, Time: 23:47:34, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

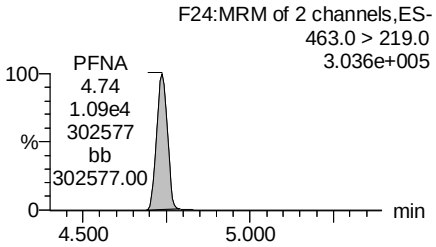
Total PFOA



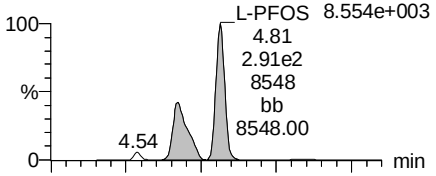


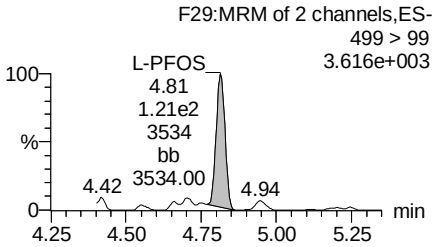
PFNA





Total PFOS





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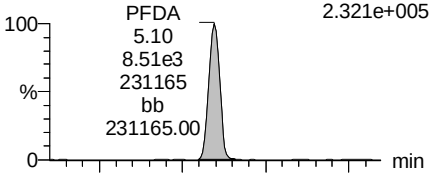
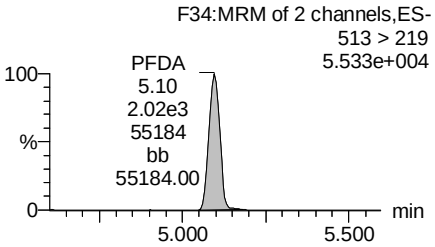
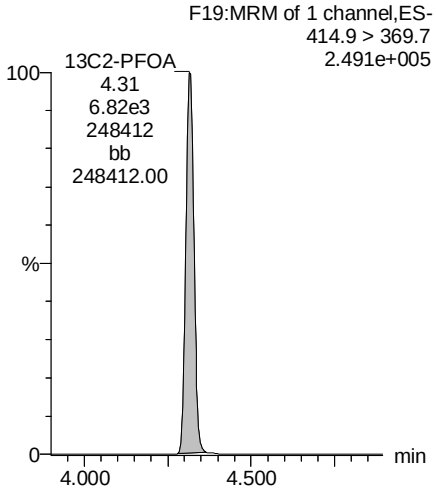
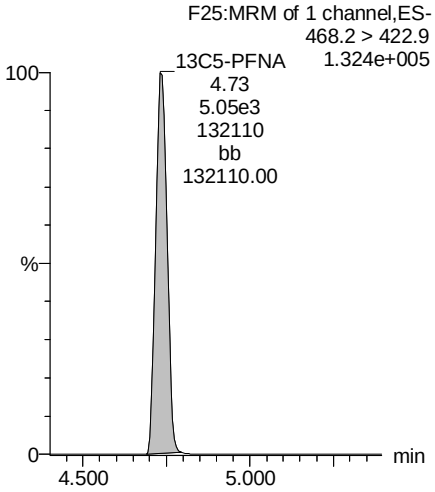




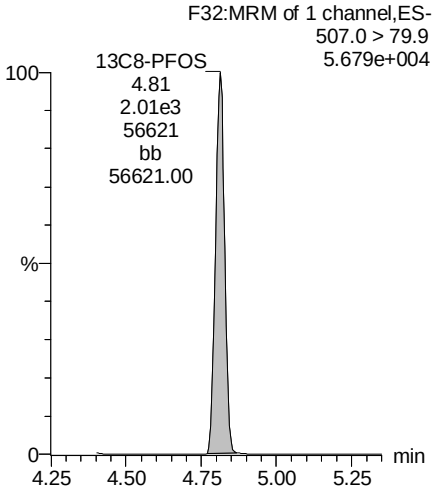
13C2-PFOA



13C5-PFNA



13C8-PFOS



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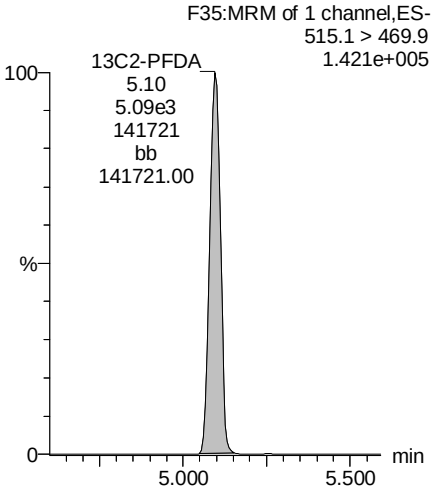

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Last Altered: Thursday, January 18, 2018 14:59:56 Pacific Standard Time
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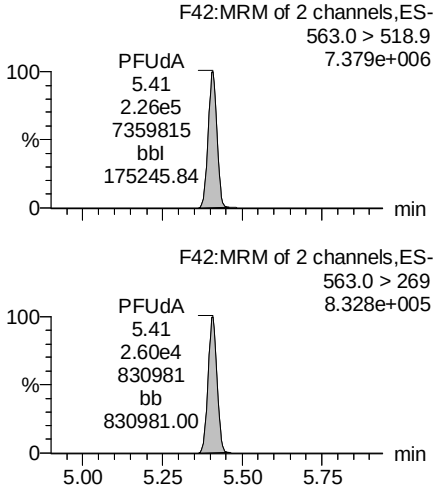
Name: 171228M3_43, Date: 28-Dec-2017, Time: 23:47:34, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

PFUdA



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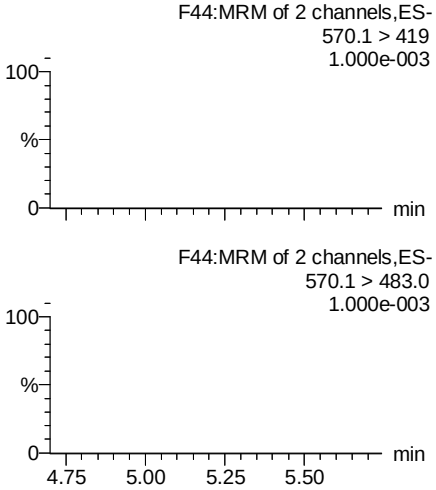
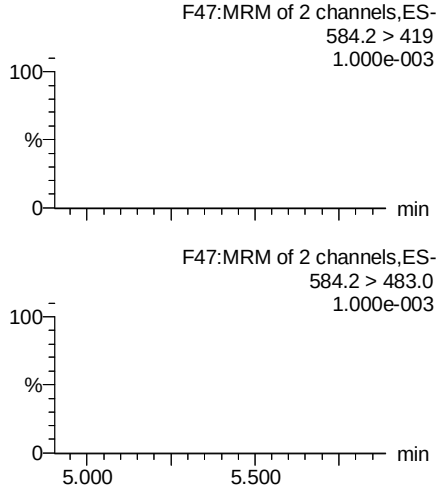
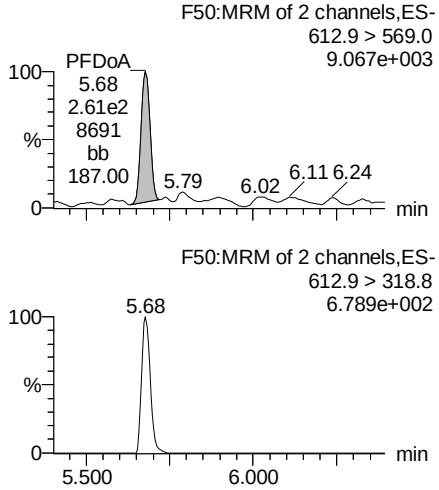


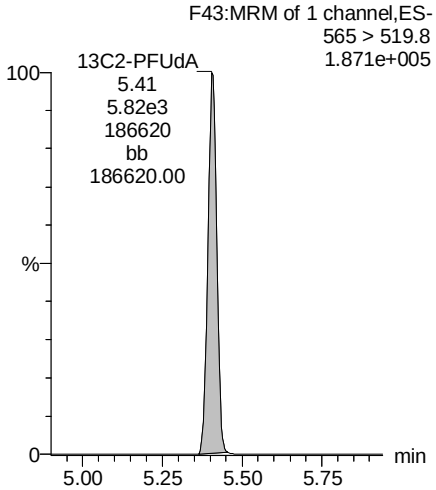
N-EtFOSAA



PFDoA



13C2-PFUdA



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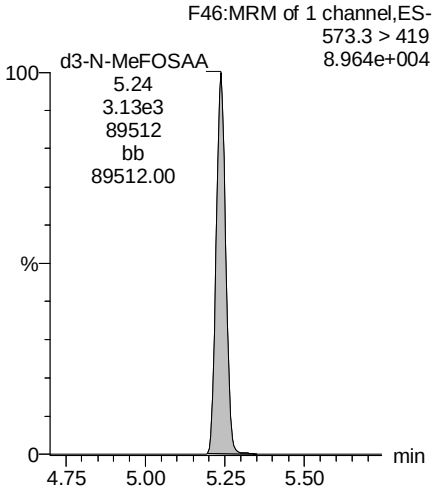

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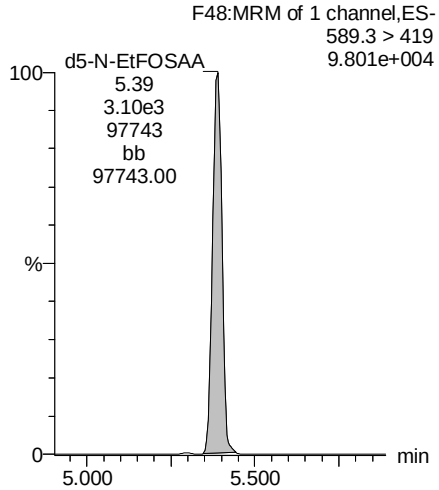

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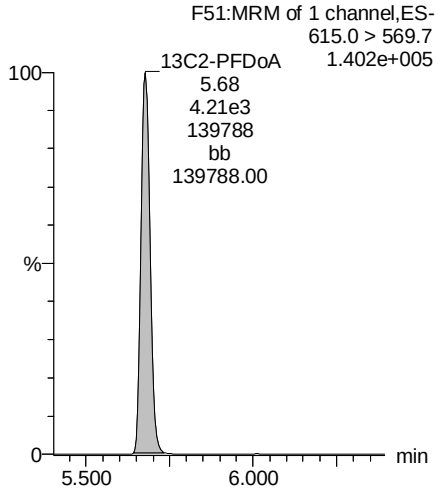

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Dataset: Z:\Q4.PRO\results\171228M3\171228M3-43.qld

Last Altered: Thursday, January 18, 2018 14:59:56 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:00:27 Pacific Standard Time

Name: 171228M3_43, Date: 28-Dec-2017, Time: 23:47:34, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

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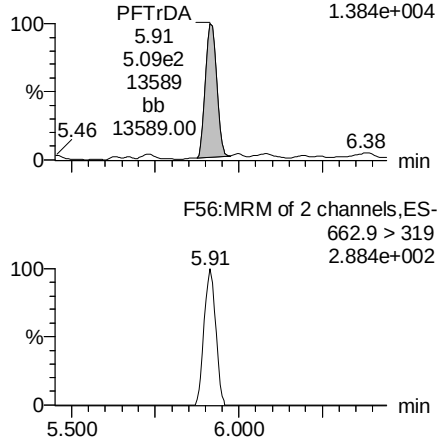
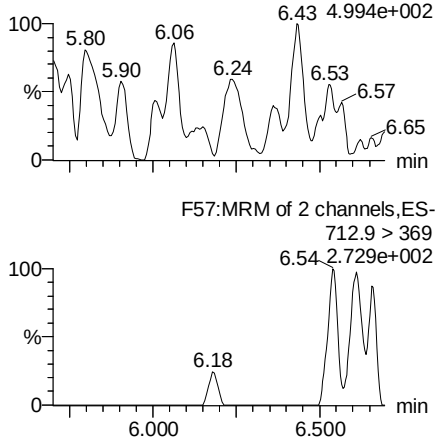
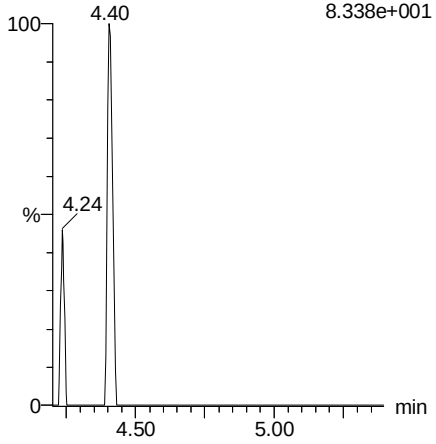


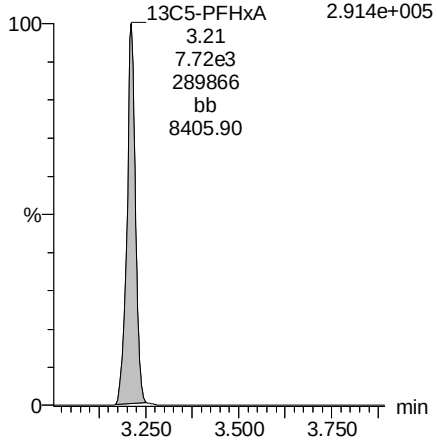
PFTeDA



TCDA



13C5-PFHxA



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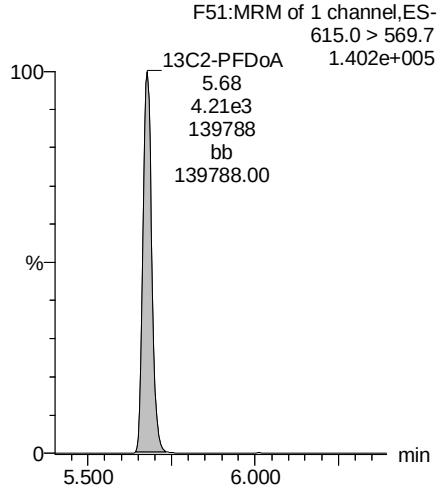

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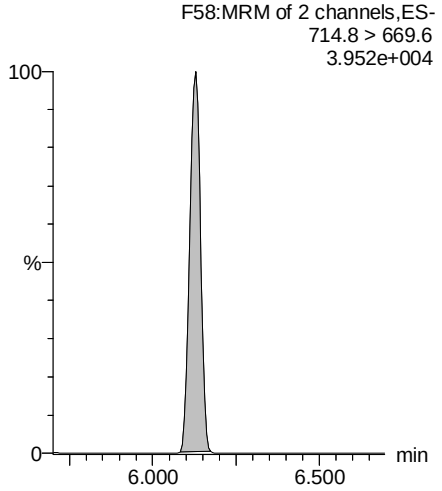

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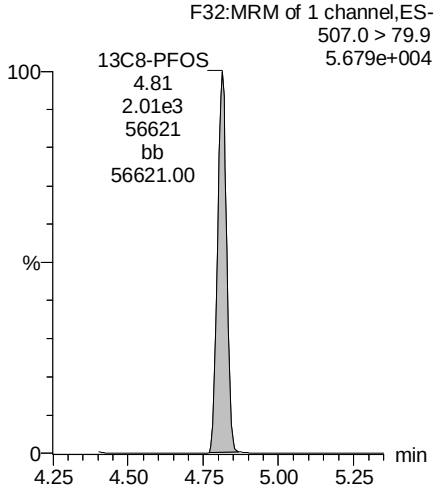

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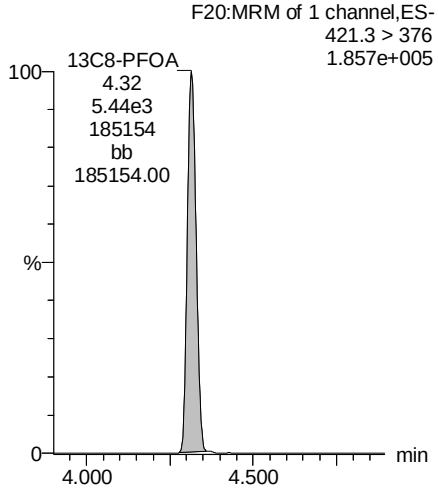

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Last Altered: Thursday, January 18, 2018 14:59:56 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:00:27 Pacific Standard Time

Name: 171228M3_43, Date: 28-Dec-2017, Time: 23:47:34, ID: 1701802-03RE1 FC-MW02SR1-P2-20171128 0.27111, Description: FC-MW02SR1-P2-20171128

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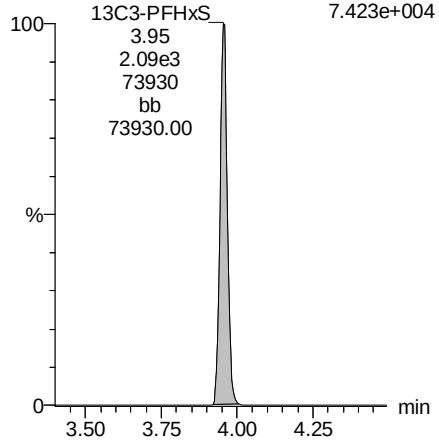

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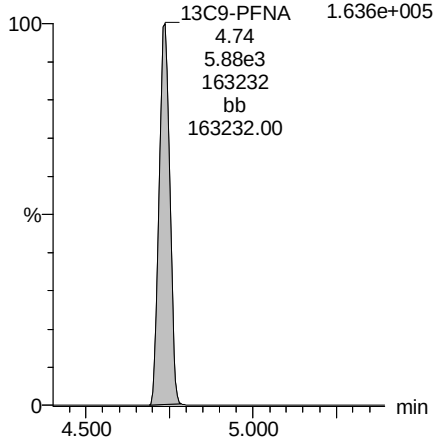

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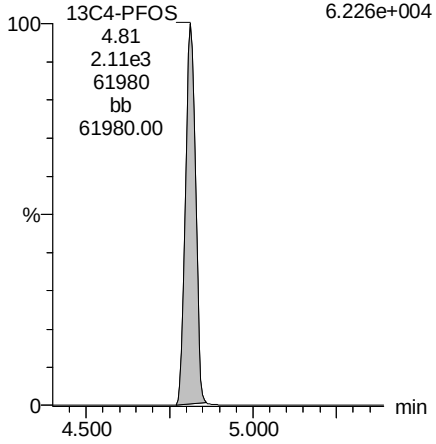

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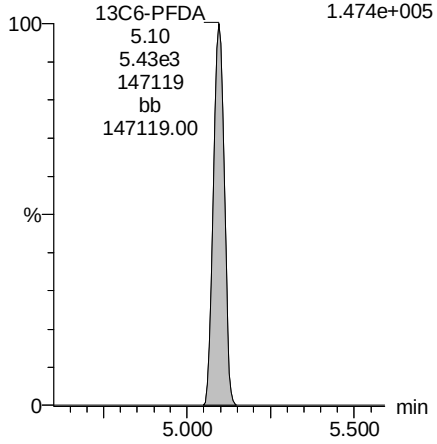

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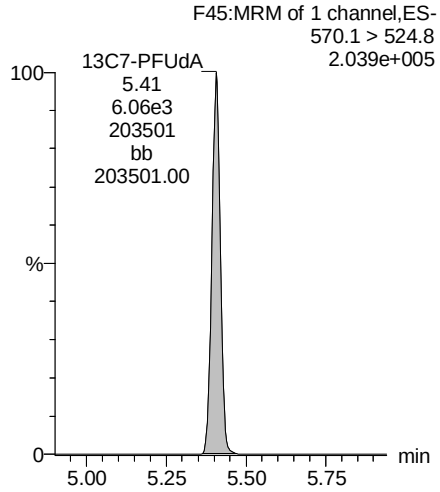

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-44.qld

Last Altered: Thursday, January 18, 2018 15:01:03 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:01:28 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_44, Date: 28-Dec-2017, Time: 23:58:44, ID: 1701802-04RE1 FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		9.48e2	0.268		2.70				
2	4	PFHxA	313.2 > 268.9	4.00e3	2.12e3	0.268		3.20	3.21	9.44	20.3419	
3	5	PFHpA	363.0 > 318.9	1.66e3	5.41e3	0.268		3.80	3.82	3.84	8.8881	
4	6	L-PFHxS	398.9 > 79.6		8.25e2	0.268		3.95				
5	9	L-PFOA	413 > 368.7	5.71e3	7.76e3	0.268		4.32	4.32	9.20	28.2259	
6	12	PFNA	463.0 > 418.8	3.36e4	5.79e3	0.268		4.75	4.74	72.5	176.9337	
7	14	L-PFOS	499 > 79.9	2.04e2	2.28e3	0.268		4.83	4.81	1.12	3.5457	
8	16	PFDA	513 > 468.8	9.08e3	3.75e3	0.268		5.11	5.10	30.3	92.5420	
9	18	N-MeFOSAA	570.1 > 419		2.69e3	0.268		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.98e3	0.268		5.42				
11	20	PFUdA	563.0 > 518.9	2.41e5	6.70e3	0.268		5.43	5.41	450		
12	22	PFDoA	612.9 > 569.0	1.75e2	4.01e3	0.268		5.70	5.68	0.546	0.7791	

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-44.qld

Last Altered: Thursday, January 18, 2018 15:01:03 Pacific Standard Time
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Name: 171228M3_44, Date: 28-Dec-2017, Time: 23:58:44, ID: 1701802-04RE1 FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	2.92e2	4.01e3	0.268		5.95	5.92	0.910	1.4858	
2	25	PFTeDA	712.9 > 668.8		1.46e3	0.268		6.16				
3	33	13C3-PFBS	302. > 98.8	9.48e2	7.76e3	0.268	0.101	2.70	2.72	1.53	56.6034	121.5
4	34	13C2-PFHxA	315 > 269.8	2.12e3	7.76e3	0.268	0.629	3.20	3.21	3.42	20.2284	108.6
5	35	13C4-PFHpA	367.2 > 321.8	5.41e3	7.76e3	0.268	0.585	3.80	3.81	8.72	55.5829	119.3
6	36	18O2-PFHxS	403.0 > 102.6	8.25e2	1.86e3	0.268	0.341	3.95	3.95	5.54	60.6646	130.2
7	37	13C2-6:2 FTS	429.1 > 408.9	1.56e3	6.89e3	0.268	0.238	4.26	4.26	2.82	44.2201	94.9
8	38	13C2-PFOA	414.9 > 369.7	7.76e3	6.89e3	0.268	0.934	4.32	4.32	14.1	56.1256	120.5
9	39	13C5-PFNA	468.2 > 422.9	5.79e3	5.33e3	0.268	0.841	4.75	4.74	13.6	60.1626	129.1
10	40	13C8-PFOSA	506.1 > 77.7	1.10e3	6.01e3	0.268	0.202	4.81	4.81	2.28	42.0117	90.2
11	41	13C8-PFOS	507.0 > 79.9	2.28e3	2.07e3	0.268	0.906	4.83	4.81	13.7	56.3964	121.1
12	42	13C2-PFDA	515.1 > 469.9	3.75e3	4.49e3	0.268	1.050	5.11	5.10	10.4	37.0396	79.5
13	43	13C2-8:2 FTS	529.1 > 508.7	1.03e3	7.76e3	0.268	0.109	5.09	5.07	1.67	56.9238	122.2
14	44	d3-N-MeFOSAA	573.3 > 419	2.69e3	6.01e3	0.268	0.454	5.26	5.24	5.60	45.9244	98.6
15	45	d5-N-EtFOSAA	589.3 > 419	2.98e3	6.01e3	0.268	0.503	5.42	5.38	6.19	45.8710	98.5
16	46	13C2-PFUdA	565 > 519.8	6.70e3	6.01e3	0.268	0.904	5.43	5.41	13.9	57.4123	123.2
17	47	13C2-PFDoA	615.0 > 569.7	4.01e3	6.01e3	0.268	0.561	5.70	5.68	8.33	55.3240	118.8
18	49	13C2-PFTeDA	714.8 > 669.6	1.46e3	6.01e3	0.268	0.183	6.16	6.13	3.04	61.8109	132.7
19	55	13C5-PFHxA	318 > 272.9	7.76e3	7.76e3	0.268	1.000	3.20	3.21	12.5	46.5844	100.0
20	56	13C3-PFHxS	401.9 > 79.9	1.86e3	1.86e3	0.268	1.000	3.95	3.95	12.5	46.5844	100.0
21	57	13C8-PFOA	421.3 > 376	6.89e3	6.89e3	0.268	1.000	4.32	4.32	12.5	46.5844	100.0
22	58	13C9-PFNA	472.2 > 426.9	5.33e3	5.33e3	0.268	1.000	4.75	4.74	12.5	46.5844	100.0
23	59	13C4-PFOS	503 > 79.9	2.07e3	2.07e3	0.268	1.000	4.83	4.81	12.5	46.5844	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.49e3	4.49e3	0.268	1.000	5.11	5.10	12.5	46.5844	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.01e3	6.01e3	0.268	1.000	5.43	5.41	12.5	46.5844	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	8.25e2	0.268		4.00		0.000		
27	63	Total PFOA	413 > 368.7	5.79e3	7.76e3	0.268		4.30		9.20	28.2259	
28	64	Total PFOS	499 > 79.9	2.04e2	2.28e3	0.268		4.80		1.12	3.5457	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.69e3	0.268		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.98e3	0.268		5.40		0.000		

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Dataset: Z:\Q4.PRO\results\171228M3\171228M3-44.qld

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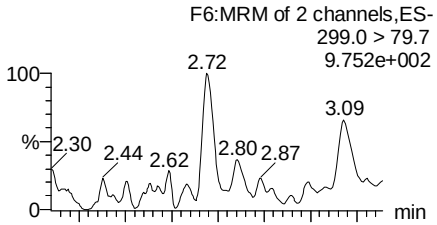
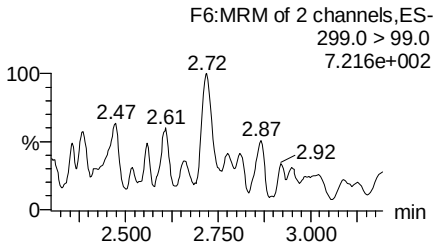
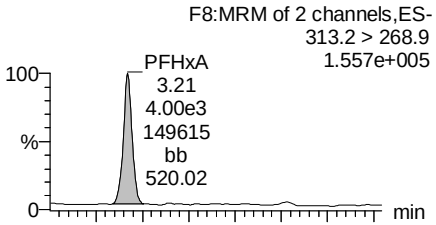
Name: 171228M3_44, Date: 28-Dec-2017, Time: 23:58:44, ID: 1701802-04RE1 FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

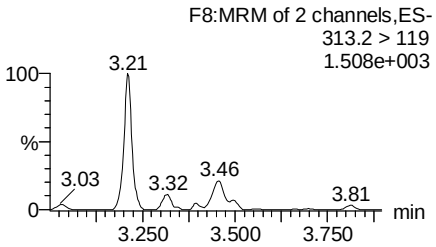
PFBS





PFHxA





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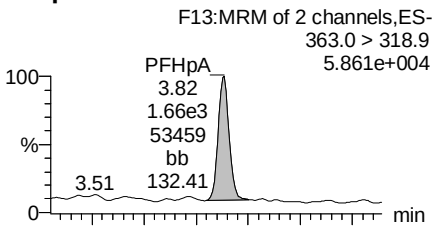

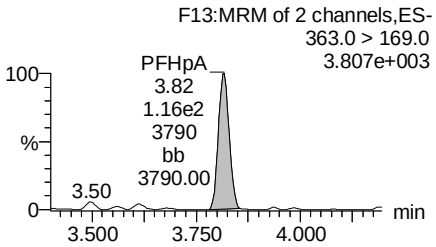

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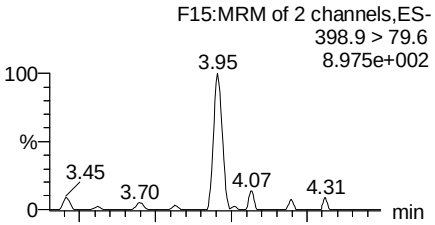

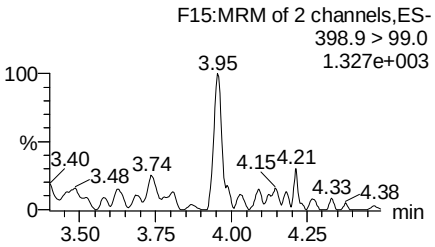

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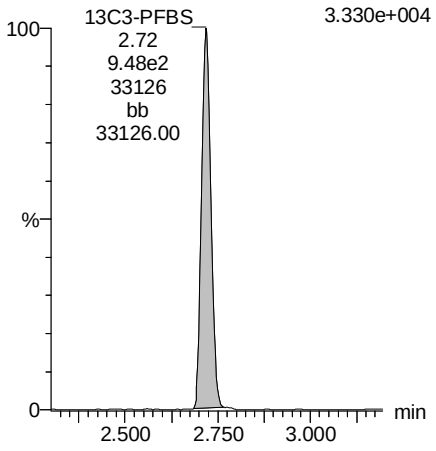

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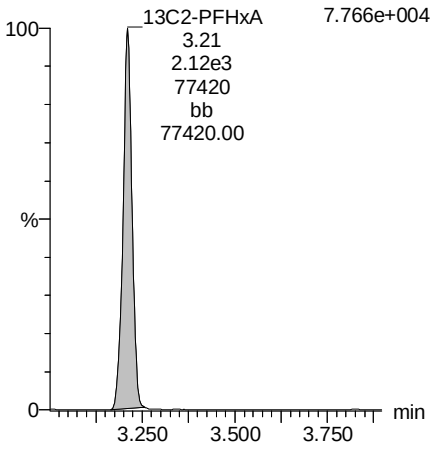

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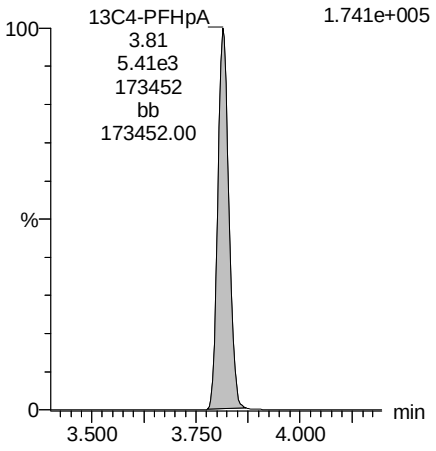
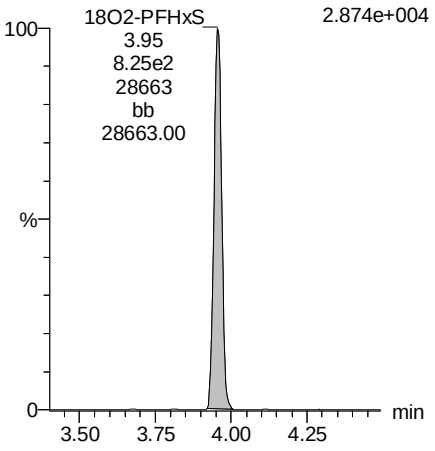


18O2-PFHxS



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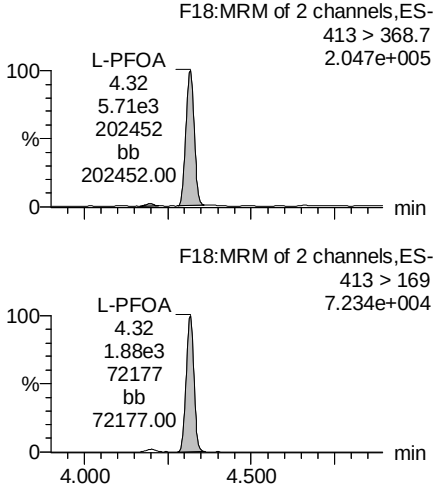
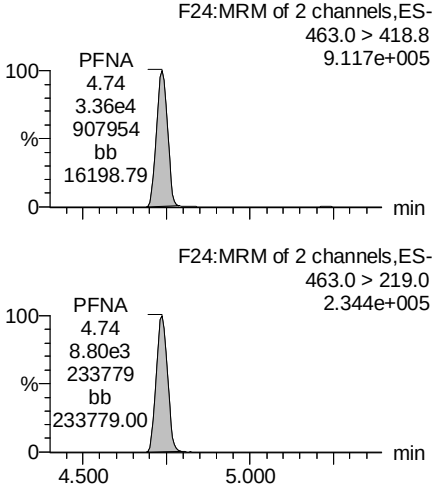
Name: 171228M3_44, Date: 28-Dec-2017, Time: 23:58:44, ID: 1701802-04RE1 FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

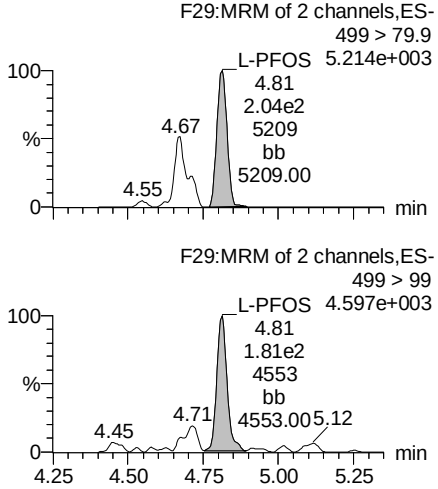
Total PFOA



PFNA



Total PFOS



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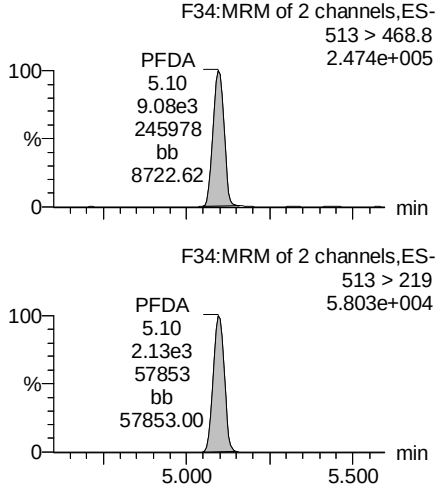
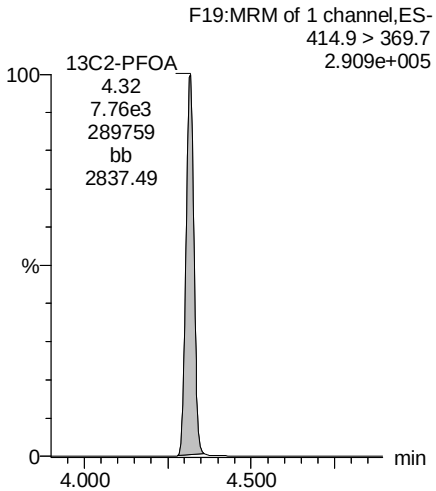


13C2-PFOA



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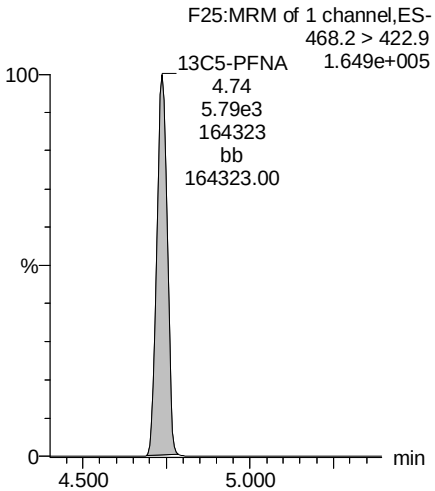

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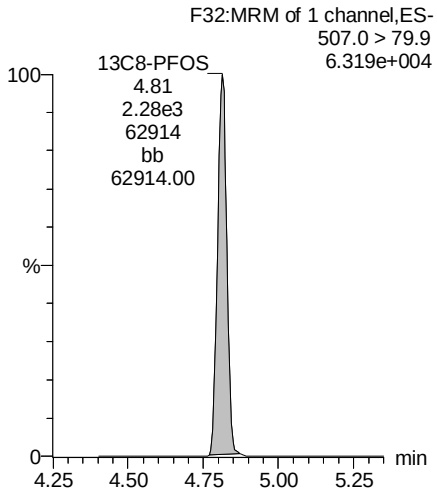

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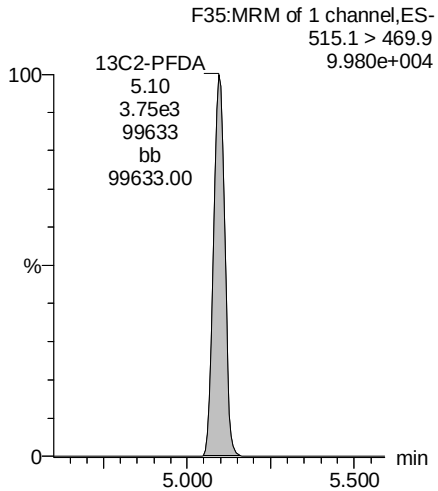

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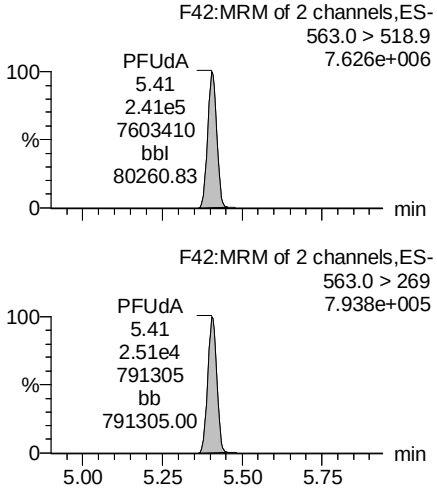
Last Altered: Thursday, January 18, 2018 15:01:03 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:01:37 Pacific Standard Time

Name: 171228M3_44, Date: 28-Dec-2017, Time: 23:58:44, ID: 1701802-04RE1 FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

PFUdA



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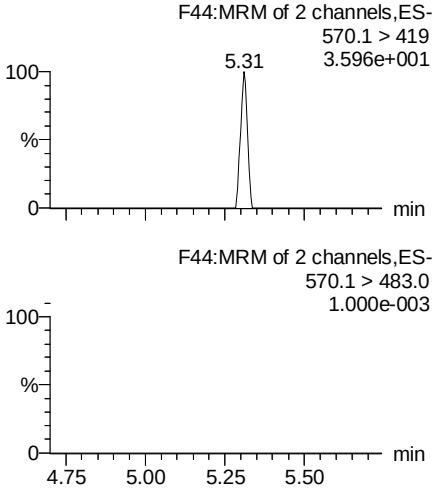

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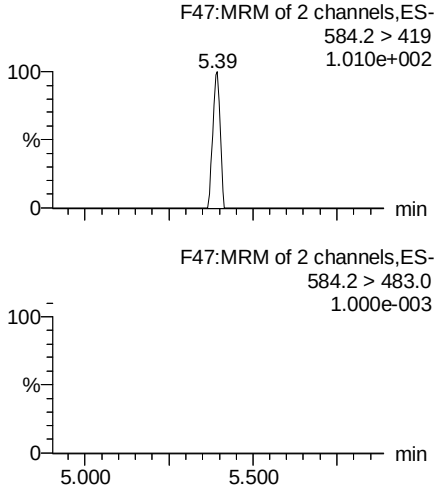
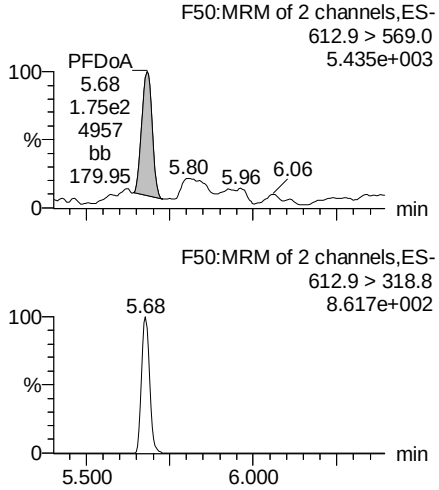


PFDoA



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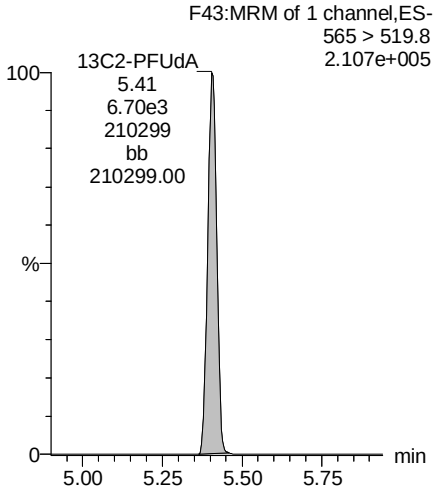
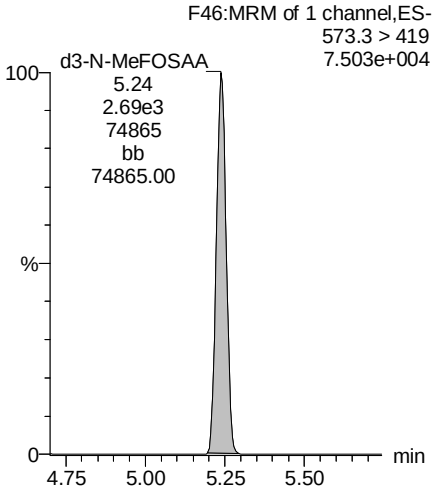


d3-N-MeFOSAA



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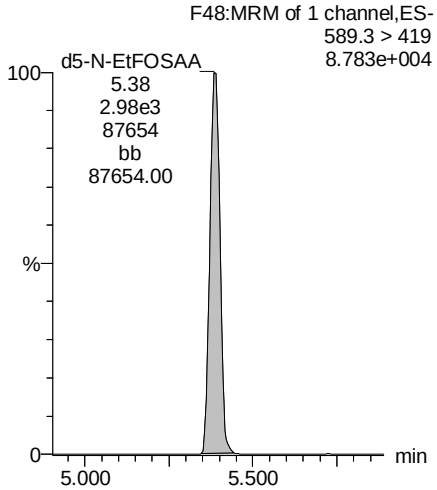
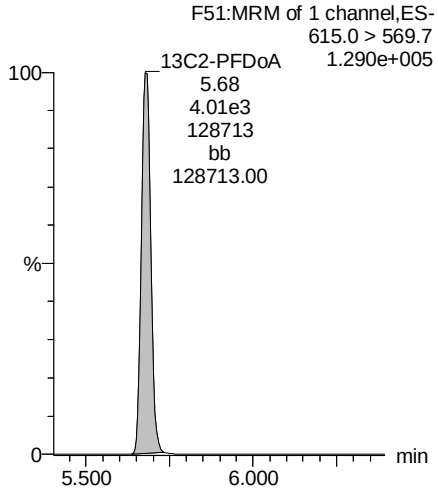


13C2-PFDoA



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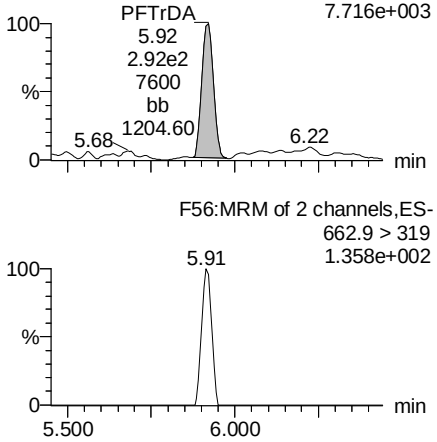
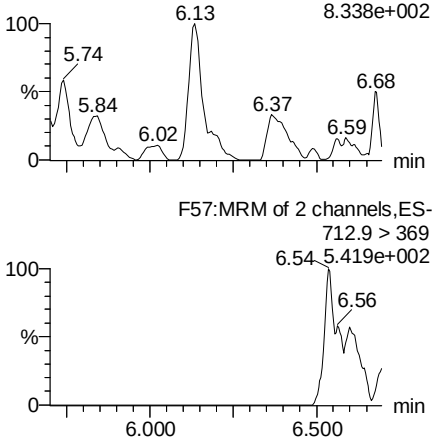
Printed: Thursday, January 18, 2018 15:01:37 Pacific Standard Time

Name: 171228M3_44, Date: 28-Dec-2017, Time: 23:58:44, ID: 1701802-04RE1 FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

PFTrDA



PFTeDA



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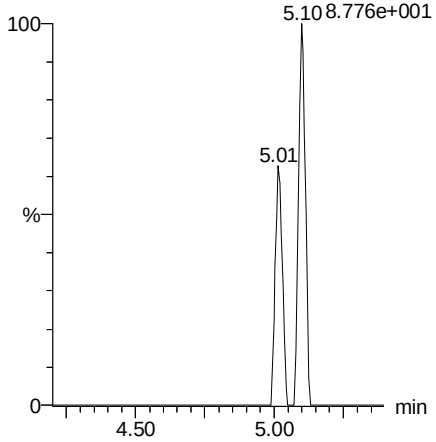

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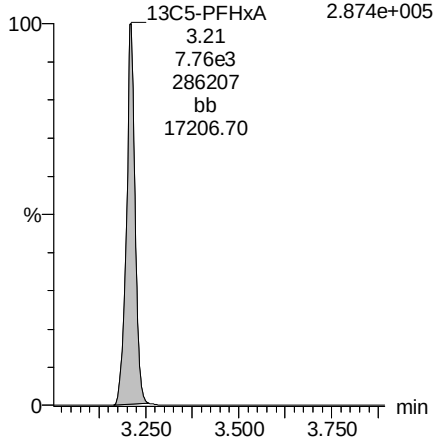

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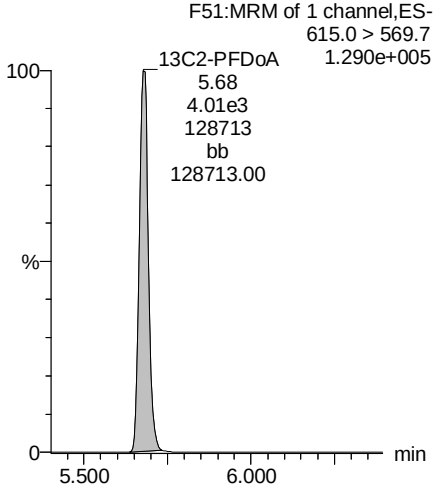

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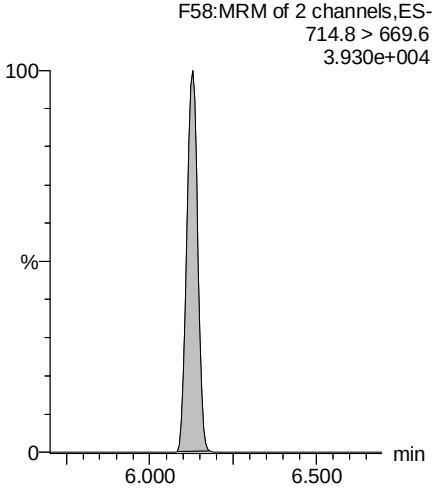

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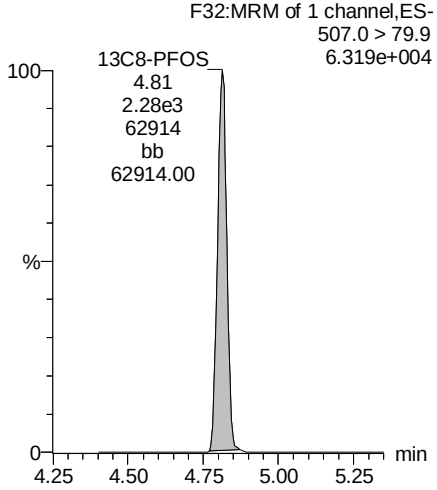
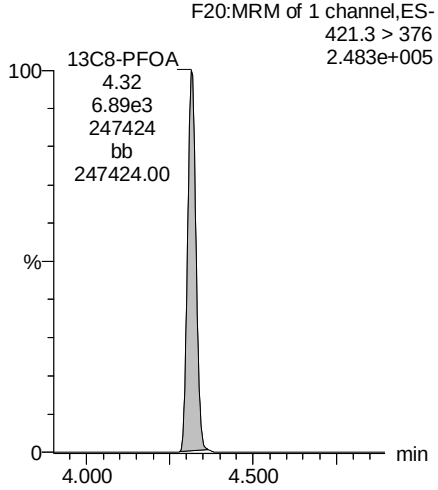


13C8-PFOA



Vista Analytical Laboratory

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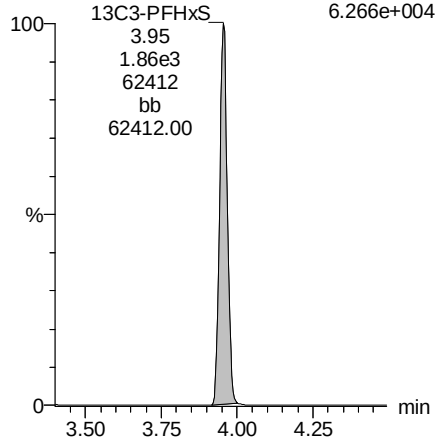
Last Altered: Thursday, January 18, 2018 15:01:03 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:01:37 Pacific Standard Time

Name: 171228M3_44, Date: 28-Dec-2017, Time: 23:58:44, ID: 1701802-04RE1 FC-MW02SR1-P3-20171128 0.26833, Description: FC-MW02SR1-P3-20171128

13C3-PFHxS



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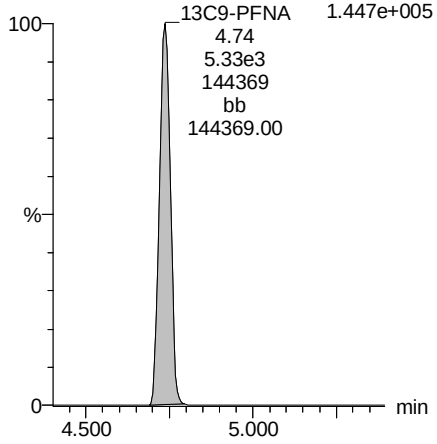
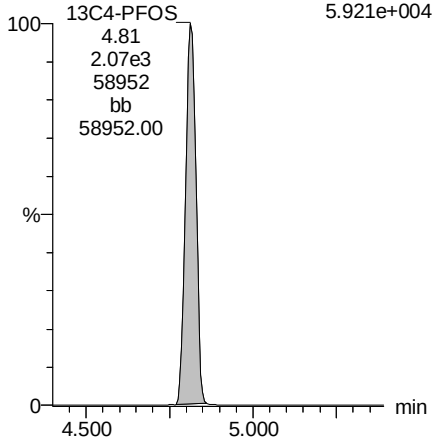


13C4-PFOS



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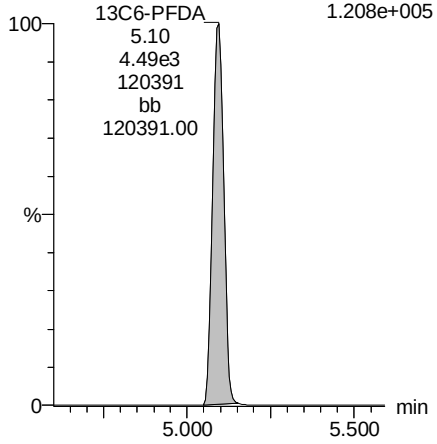
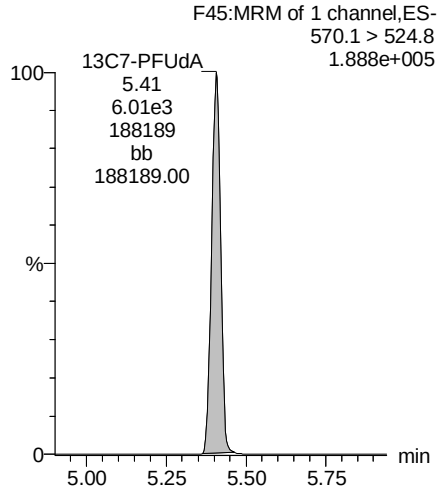


13C7-PFUdA



Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-45.qld

Last Altered: Thursday, January 18, 2018 15:02:17 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:04:51 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_45, Date: 29-Dec-2017, Time: 00:09:54, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		8.91e2	0.271		2.70				
2	4	PFHxA	313.2 > 268.9		2.27e3	0.271		3.20				
3	5	PFHpA	363.0 > 318.9		6.20e3	0.271		3.80				
4	6	L-PFHxS	398.9 > 79.6		7.52e2	0.271		3.95				
5	9	L-PFOA	413 > 368.7	8.61e1	8.16e3	0.271		4.32	4.32	0.132		
6	12	PFNA	463.0 > 418.8		5.04e3	0.271		4.75				
7	14	L-PFOS	499 > 79.9		2.23e3	0.271		4.83				
8	16	PFDA	513 > 468.8		4.48e3	0.271		5.11				
9	18	N-MeFOSAA	570.1 > 419		2.91e3	0.271		5.26				
10	19	N-EtFOSAA	584.2 > 419		3.50e3	0.271		5.42				
11	20	PFUdA	563.0 > 518.9		7.16e3	0.271		5.43				
12	22	PFDoA	612.9 > 569.0		4.14e3	0.271		5.70				

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-45.qld

Last Altered: Thursday, January 18, 2018 15:02:17 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:05:02 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_45, Date: 29-Dec-2017, Time: 00:09:54, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.14e3	0.271		5.95				
2	25	PFTeDA	712.9 > 668.8		1.44e3	0.271		6.16				
3	33	13C3-PFBS	302. > 98.8	8.91e2	7.50e3	0.271	0.101	2.70	2.72	1.49	54.5698	118.2
4	34	13C2-PFHxA	315 > 269.8	2.27e3	7.50e3	0.271	0.629	3.20	3.21	3.79	22.2127	120.3
5	35	13C4-PFHpA	367.2 > 321.8	6.20e3	7.50e3	0.271	0.585	3.80	3.82	10.3	65.2833	141.4
6	36	18O2-PFHxS	403.0 > 102.6	7.52e2	1.84e3	0.271	0.341	3.95	3.96	5.10	55.2952	119.8
7	37	13C2-6:2 FTS	429.1 > 408.9	1.70e3	7.08e3	0.271	0.238	4.26	4.27	3.00	46.4912	100.7
8	38	13C2-PFOA	414.9 > 369.7	8.16e3	7.08e3	0.271	0.934	4.32	4.32	14.4	56.9583	123.4
9	39	13C5-PFNA	468.2 > 422.9	5.04e3	5.75e3	0.271	0.841	4.75	4.74	11.0	48.0828	104.2
10	40	13C8-PFOSA	506.1 > 77.7	9.06e2	7.02e3	0.271	0.202	4.81	4.81	1.61	29.4535	63.8
11	41	13C8-PFOS	507.0 > 79.9	2.23e3	2.19e3	0.271	0.906	4.83	4.81	12.7	51.7839	112.2
12	42	13C2-PFDA	515.1 > 469.9	4.48e3	5.82e3	0.271	1.050	5.11	5.10	9.62	33.8067	73.2
13	43	13C2-8:2 FTS	529.1 > 508.7	1.10e3	7.50e3	0.271	0.109	5.09	5.07	1.84	62.3515	135.1
14	44	d3-N-MeFOSAA	573.3 > 419	2.91e3	7.02e3	0.271	0.454	5.26	5.24	5.19	42.1545	91.3
15	45	d5-N-EtFOSAA	589.3 > 419	3.50e3	7.02e3	0.271	0.503	5.42	5.39	6.22	45.6721	98.9
16	46	13C2-PFUdA	565 > 519.8	7.16e3	7.02e3	0.271	0.904	5.43	5.41	12.7	52.0700	112.8
17	47	13C2-PFDoA	615.0 > 569.7	4.14e3	7.02e3	0.271	0.561	5.70	5.68	7.36	48.4470	105.0
18	49	13C2-PFTeDA	714.8 > 669.6	1.44e3	7.02e3	0.271	0.183	6.16	6.13	2.56	51.5824	111.7
19	55	13C5-PFHxA	318 > 272.9	7.50e3	7.50e3	0.271	1.000	3.20	3.21	12.5	46.1595	100.0
20	56	13C3-PFHxS	401.9 > 79.9	1.84e3	1.84e3	0.271	1.000	3.95	3.96	12.5	46.1595	100.0
21	57	13C8-PFOA	421.3 > 376	7.08e3	7.08e3	0.271	1.000	4.32	4.32	12.5	46.1595	100.0
22	58	13C9-PFNA	472.2 > 426.9	5.75e3	5.75e3	0.271	1.000	4.75	4.74	12.5	46.1595	100.0
23	59	13C4-PFOS	503 > 79.9	2.19e3	2.19e3	0.271	1.000	4.83	4.82	12.5	46.1595	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.82e3	5.82e3	0.271	1.000	5.11	5.10	12.5	46.1595	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.02e3	7.02e3	0.271	1.000	5.43	5.41	12.5	46.1595	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	7.52e2	0.271		4.00		0.000		
27	63	Total PFOA	413 > 368.7	8.61e1	8.16e3	0.271		4.30		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	2.23e3	0.271		4.80		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.91e3	0.271		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.50e3	0.271		5.40		0.000		

Vista Analytical Laboratory

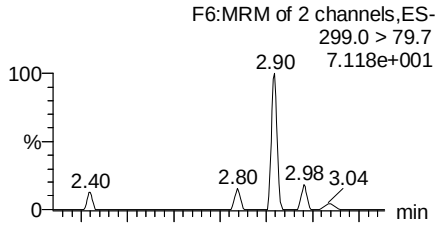
Dataset: Z:\Q4.PRO\results\171228M3\171228M3-45.qld

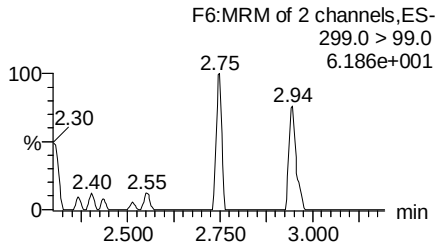
Last Altered: Thursday, January 18, 2018 15:02:17 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:05:02 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

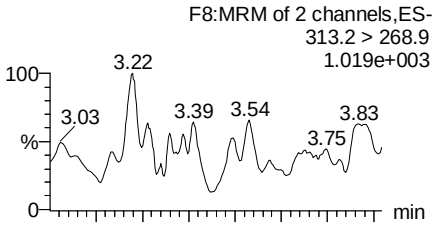
Name: 171228M3_45, Date: 29-Dec-2017, Time: 00:09:54, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

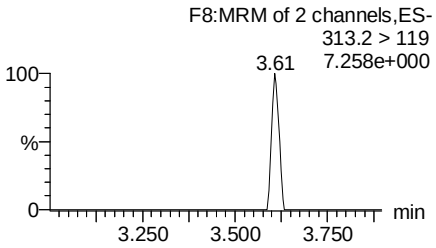
PFBS



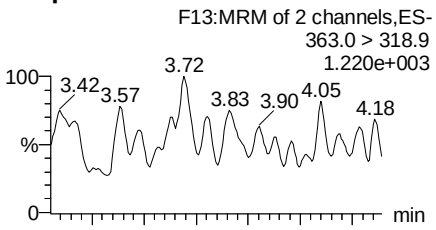


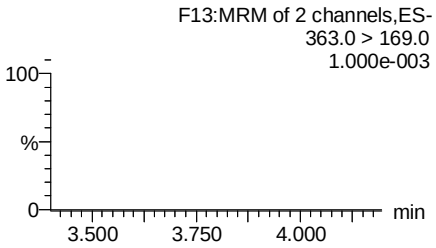
PFHxA





PFHpA





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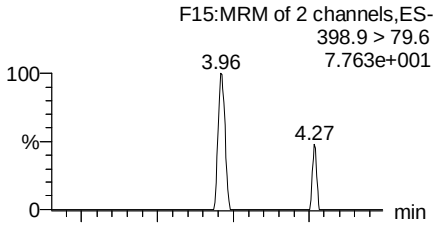

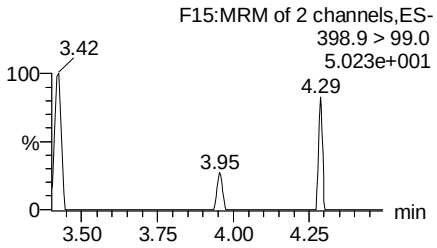

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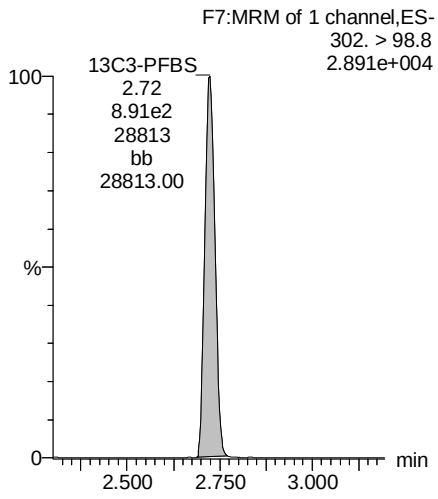
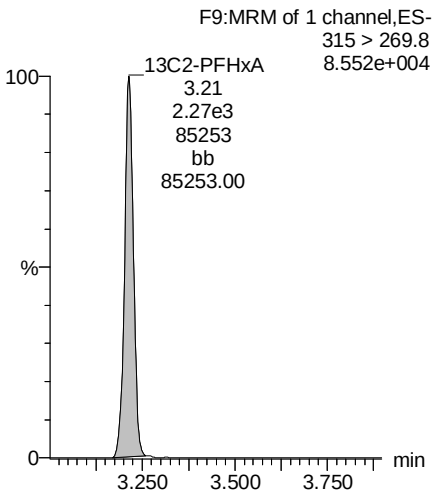


13C2-PFHxA



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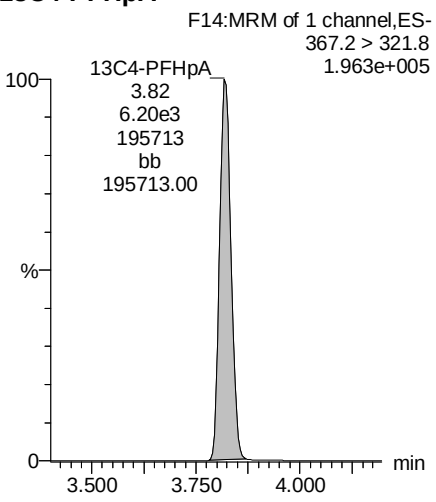
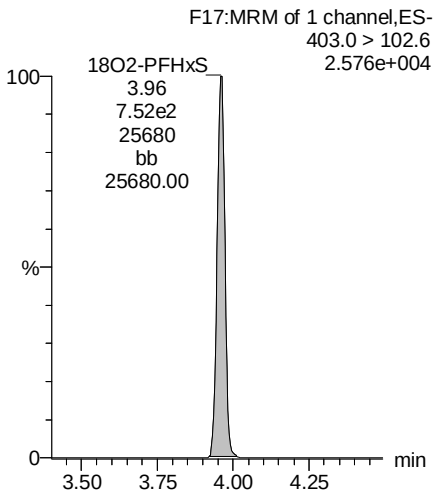


18O2-PFHxS

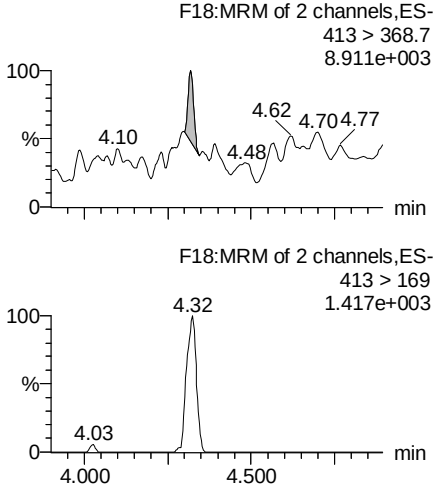


Dataset: Z:\Q4.PRO\results\171228M3\171228M3-45.qld

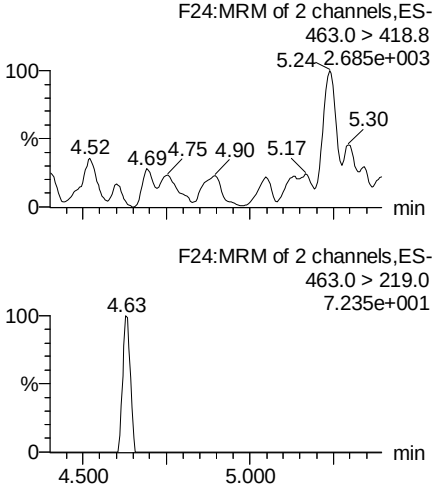
Last Altered: Thursday, January 18, 2018 15:02:17 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:05:02 Pacific Standard Time

Name: 171228M3_45, Date: 29-Dec-2017, Time: 00:09:54, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

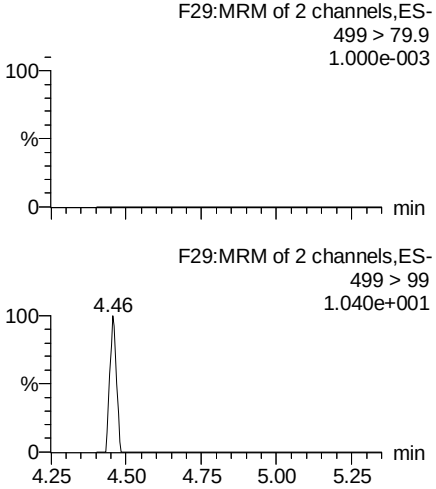
Total PFOA



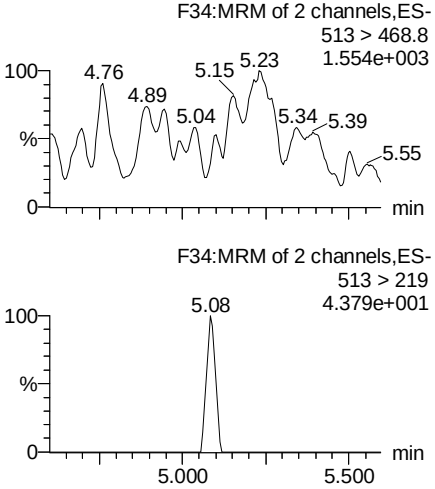
PFNA



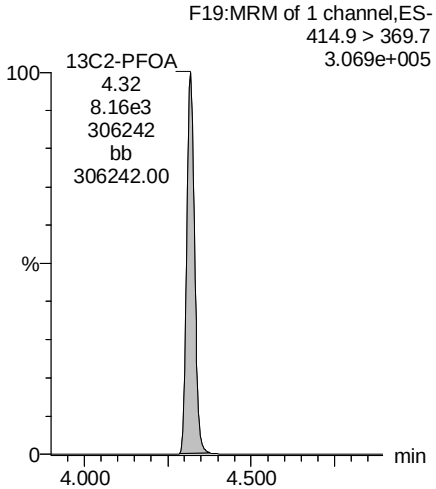
Total PFOS



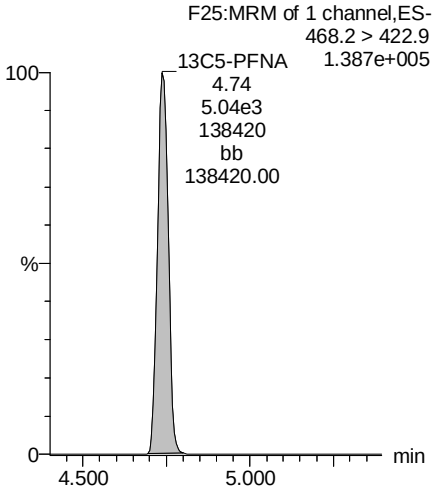
PFDA



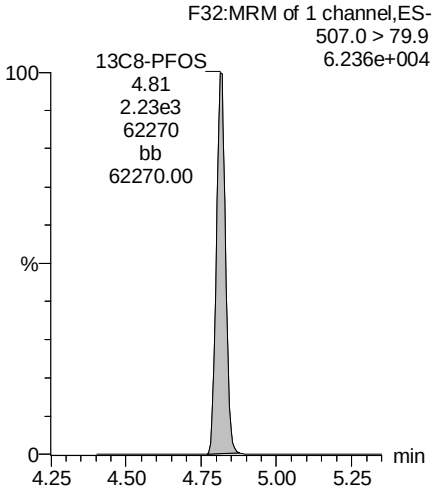
13C2-PFOA



13C5-PFNA



13C8-PFOS



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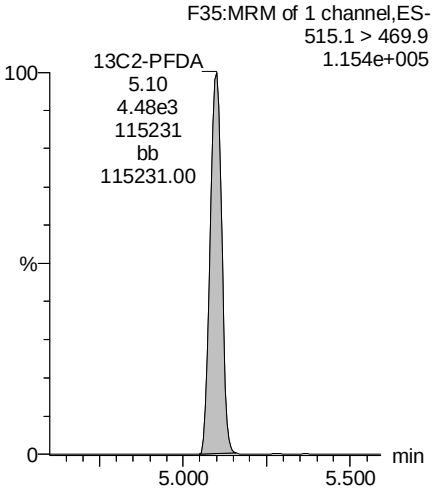

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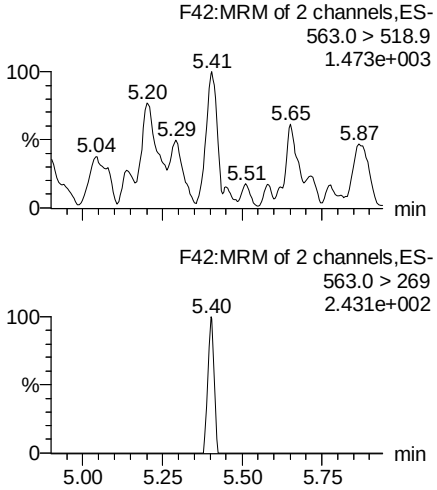
Last Altered: Thursday, January 18, 2018 15:02:17 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:05:02 Pacific Standard Time

Name: 171228M3_45, Date: 29-Dec-2017, Time: 00:09:54, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

PFUdA



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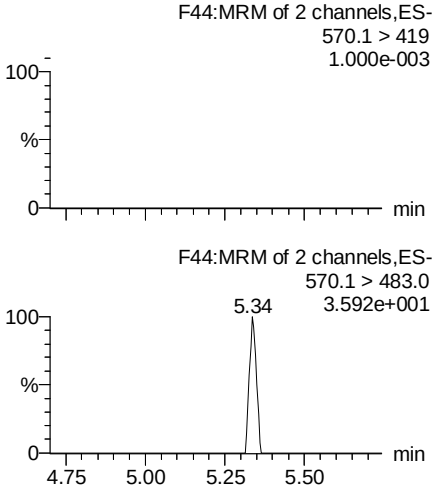

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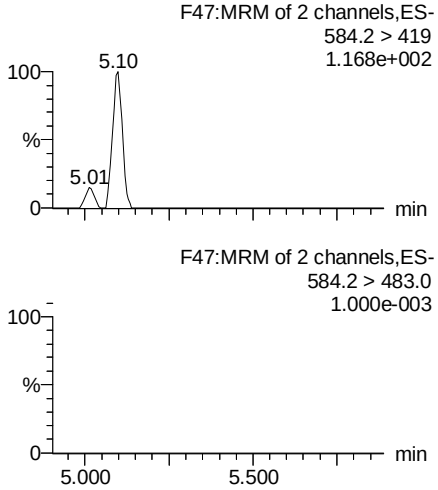
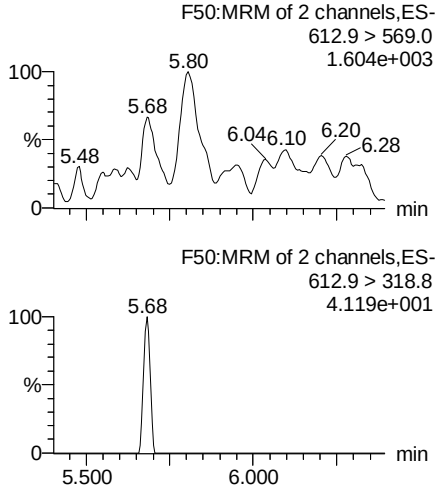


PFDoA



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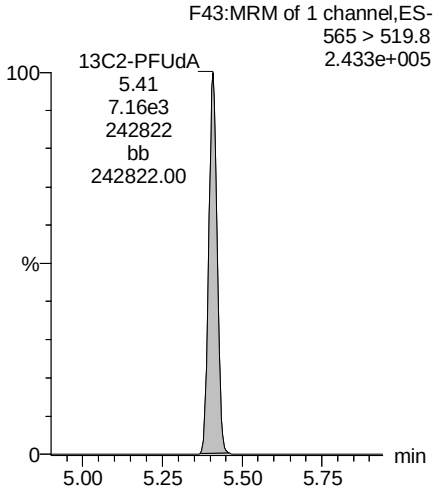
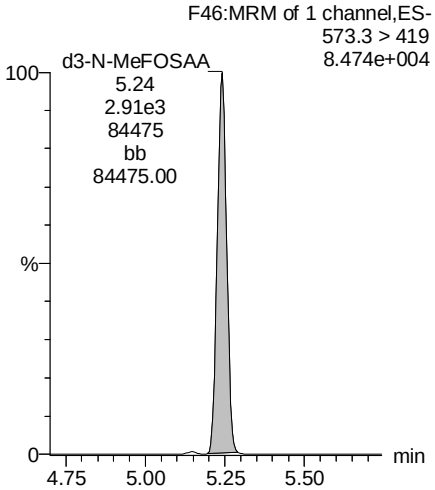
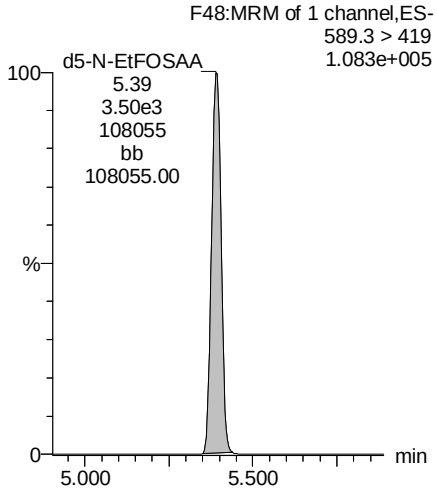


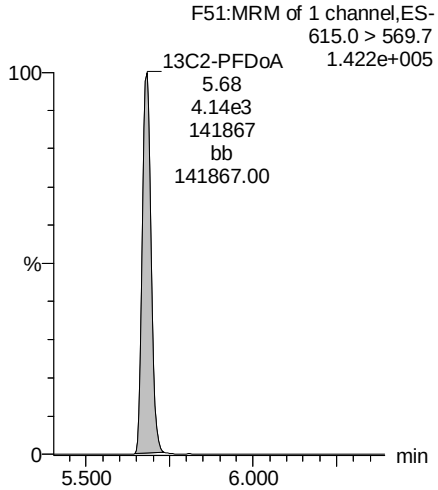
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



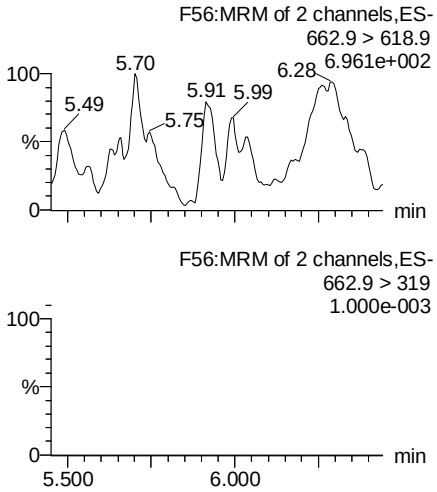
Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-45.qld

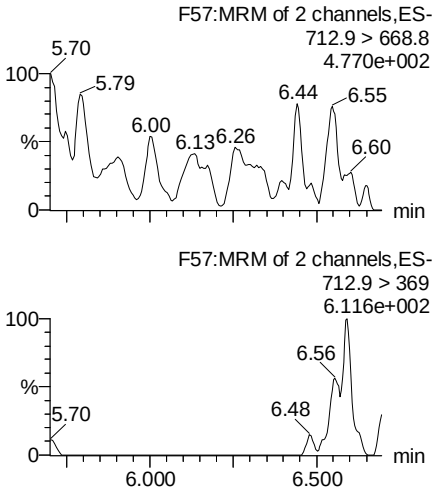
Last Altered: Thursday, January 18, 2018 15:02:17 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:05:02 Pacific Standard Time

Name: 171228M3_45, Date: 29-Dec-2017, Time: 00:09:54, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

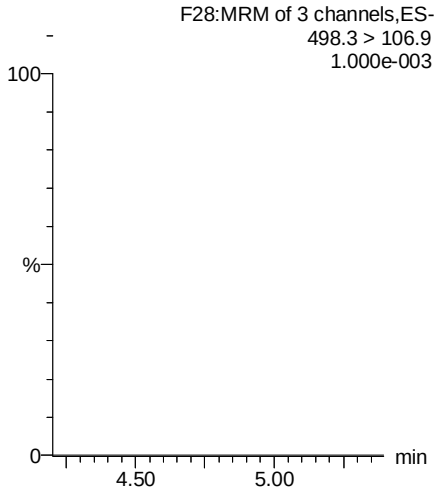
PFTrDA



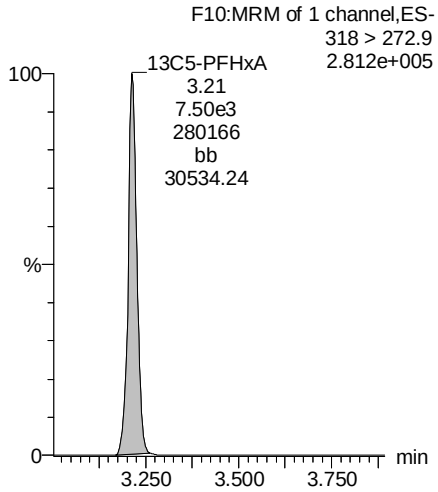
PFTeDA



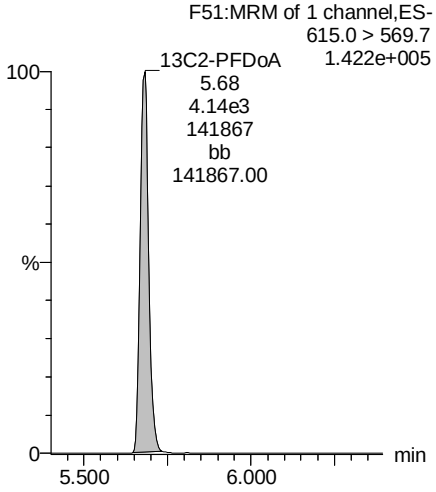
TCDA



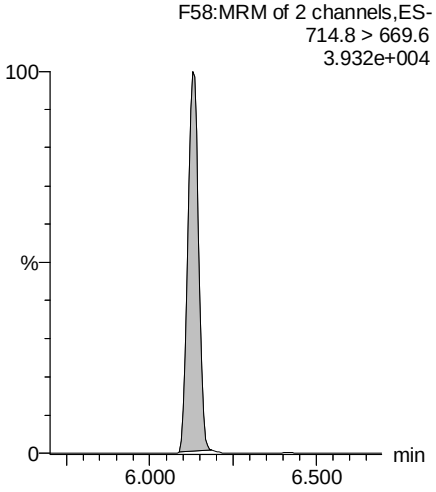
13C5-PFHxA



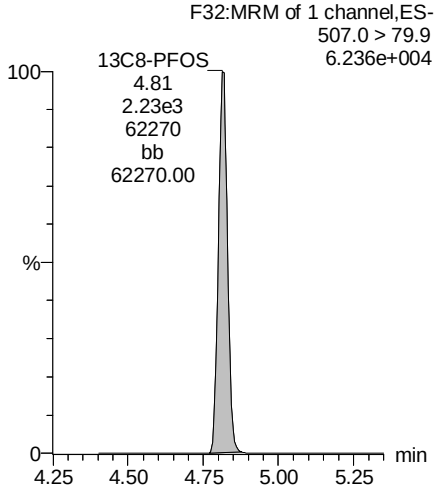
13C2-PFDoA



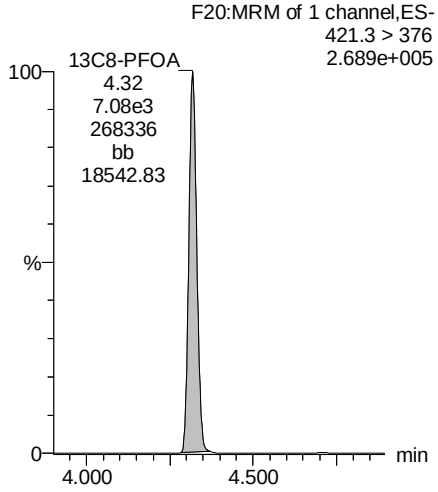
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



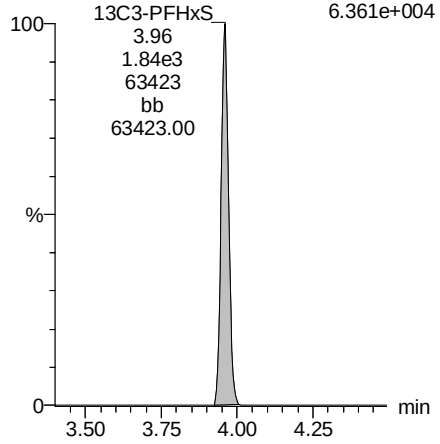
Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-45.qld

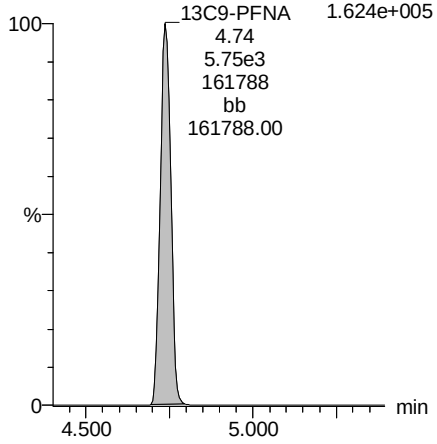
Last Altered: Thursday, January 18, 2018 15:02:17 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:05:02 Pacific Standard Time

Name: 171228M3_45, Date: 29-Dec-2017, Time: 00:09:54, ID: 1701802-05RE1 FC-MW02SR1-FRB-20171128 0.2708, Description: FC-MW02SR1-FRB-20171128

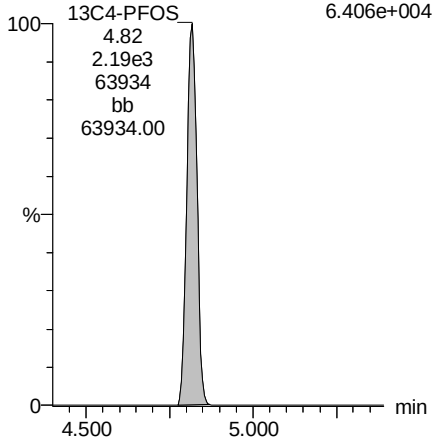
13C3-PFHxS



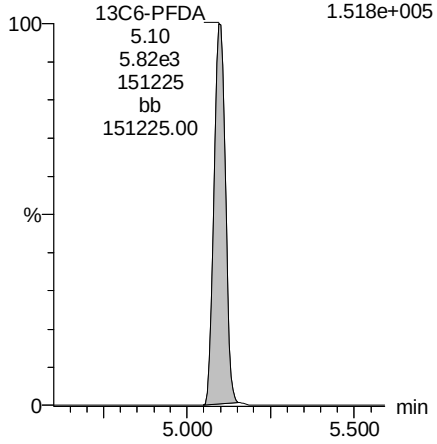
13C9-PFNA



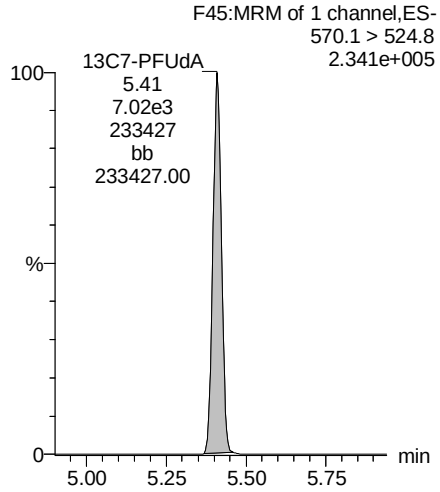
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-46.qld

Last Altered: Thursday, January 18, 2018 15:05:54 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:06:17 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_46, Date: 29-Dec-2017, Time: 00:21:05, ID: 1701802-06RE1 FC-MW02IR1-NP-20171128 0.26838, Description: FC-MW02IR1-NP-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.03e3	0.268		2.70				
2	4	PFHxA	313.2 > 268.9	9.35e2	2.35e3	0.268		3.20	3.22	1.99	4.2787	
3	5	PFHpA	363.0 > 318.9	6.25e2	5.56e3	0.268		3.80	3.82	1.40	3.1678	
4	6	L-PFHxS	398.9 > 79.6		7.81e2	0.268		3.95				
5	9	L-PFOA	413 > 368.7	1.78e3	8.03e3	0.268		4.32	4.32	2.76	8.0073	
6	12	PFNA	463.0 > 418.8	6.04e3	5.65e3	0.268		4.75	4.74	13.4	33.0060	
7	14	L-PFOS	499 > 79.9	9.45e2	1.91e3	0.268		4.83	4.82	6.17	18.2359	
8	16	PFDA	513 > 468.8		4.75e3	0.268		5.11				
9	18	N-MeFOSAA	570.1 > 419		2.45e3	0.268		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.96e3	0.268		5.42				
11	20	PFUdA	563.0 > 518.9	8.67e2	6.49e3	0.268		5.43	5.41	1.67	4.6244	
12	22	PFDoA	612.9 > 569.0		4.79e3	0.268		5.70				

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-46.qld

Last Altered: Thursday, January 18, 2018 15:05:54 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:06:26 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_46, Date: 29-Dec-2017, Time: 00:21:05, ID: 1701802-06RE1 FC-MW02IR1-NP-20171128 0.26838, Description: FC-MW02IR1-NP-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	1.03e2	4.79e3	0.268		5.95	5.93	0.270	0.1147	
2	25	PFTeDA	712.9 > 668.8		1.52e3	0.268		6.16				
3	33	13C3-PFBS	302. > 98.8	1.03e3	7.45e3	0.268	0.101	2.70	2.73	1.72	63.7705	136.9
4	34	13C2-PFHxA	315 > 269.8	2.35e3	7.45e3	0.268	0.629	3.20	3.22	3.95	23.3697	125.4
5	35	13C4-PFHpA	367.2 > 321.8	5.56e3	7.45e3	0.268	0.585	3.80	3.82	9.33	59.4576	127.7
6	36	18O2-PFHxS	403.0 > 102.6	7.81e2	1.90e3	0.268	0.341	3.95	3.96	5.14	56.2372	120.7
7	37	13C2-6:2 FTS	429.1 > 408.9	1.73e3	7.37e3	0.268	0.238	4.26	4.27	2.93	45.8119	98.4
8	38	13C2-PFOA	414.9 > 369.7	8.03e3	7.37e3	0.268	0.934	4.32	4.32	13.6	54.2963	116.6
9	39	13C5-PFNA	468.2 > 422.9	5.65e3	6.11e3	0.268	0.841	4.75	4.74	11.6	51.1709	109.9
10	40	13C8-PFOSA	506.1 > 77.7	9.54e2	7.03e3	0.268	0.202	4.81	4.82	1.70	31.2583	67.1
11	41	13C8-PFOS	507.0 > 79.9	1.91e3	1.76e3	0.268	0.906	4.83	4.82	13.6	55.8171	119.8
12	42	13C2-PFDA	515.1 > 469.9	4.75e3	5.94e3	0.268	1.050	5.11	5.10	10.0	35.4662	76.1
13	43	13C2-8:2 FTS	529.1 > 508.7	1.09e3	7.45e3	0.268	0.109	5.09	5.08	1.82	62.1886	133.5
14	44	d3-N-MeFOSAA	573.3 > 419	2.45e3	7.03e3	0.268	0.454	5.26	5.24	4.36	35.7693	76.8
15	45	d5-N-EtFOSAA	589.3 > 419	2.96e3	7.03e3	0.268	0.503	5.42	5.39	5.27	39.0169	83.8
16	46	13C2-PFUdA	565 > 519.8	6.49e3	7.03e3	0.268	0.904	5.43	5.41	11.5	47.5642	102.1
17	47	13C2-PFDoA	615.0 > 569.7	4.79e3	7.03e3	0.268	0.561	5.70	5.68	8.52	56.6019	121.5
18	49	13C2-PFTeDA	714.8 > 669.6	1.52e3	7.03e3	0.268	0.183	6.16	6.13	2.71	55.0766	118.3
19	55	13C5-PFHxA	318 > 272.9	7.45e3	7.45e3	0.268	1.000	3.20	3.22	12.5	46.5758	100.0
20	56	13C3-PFHxS	401.9 > 79.9	1.90e3	1.90e3	0.268	1.000	3.95	3.96	12.5	46.5758	100.0
21	57	13C8-PFOA	421.3 > 376	7.37e3	7.37e3	0.268	1.000	4.32	4.32	12.5	46.5758	100.0
22	58	13C9-PFNA	472.2 > 426.9	6.11e3	6.11e3	0.268	1.000	4.75	4.74	12.5	46.5758	100.0
23	59	13C4-PFOS	503 > 79.9	1.76e3	1.76e3	0.268	1.000	4.83	4.82	12.5	46.5758	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.94e3	5.94e3	0.268	1.000	5.11	5.10	12.5	46.5758	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.03e3	7.03e3	0.268	1.000	5.43	5.41	12.5	46.5758	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	7.81e2	0.268		4.00		0.000		
27	63	Total PFOA	413 > 368.7	1.88e3	8.03e3	0.268		4.30		2.76	8.0073	
28	64	Total PFOS	499 > 79.9	1.07e3	1.91e3	0.268		4.80		7.01	20.9375	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.45e3	0.268		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.96e3	0.268		5.40		0.000		

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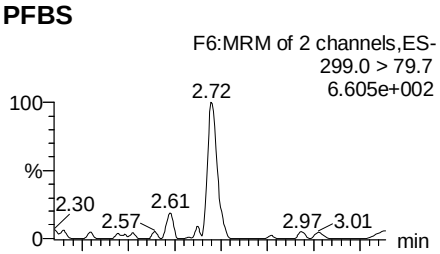

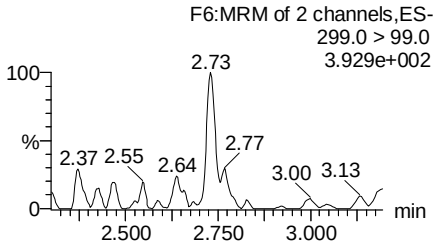

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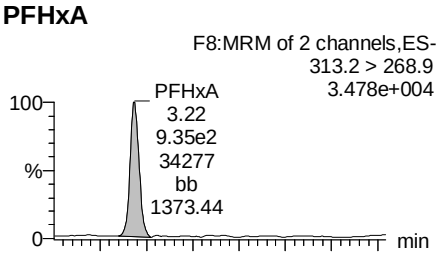

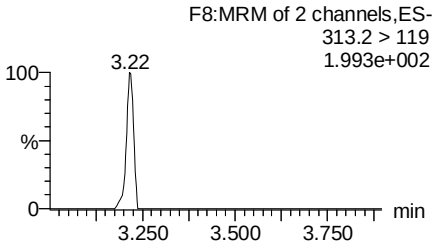

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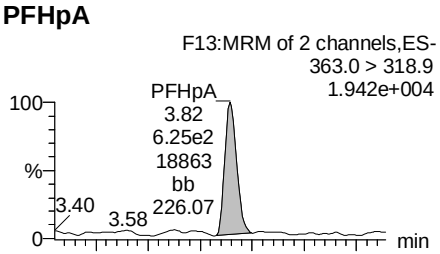

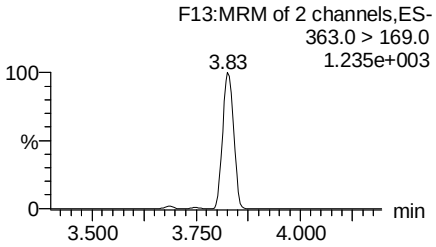

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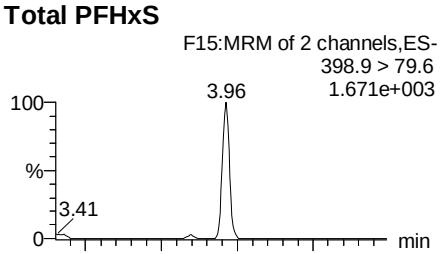

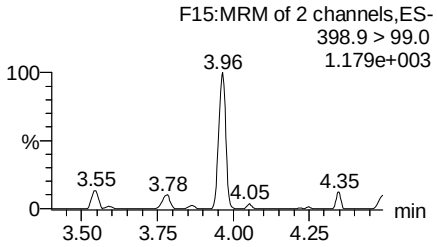

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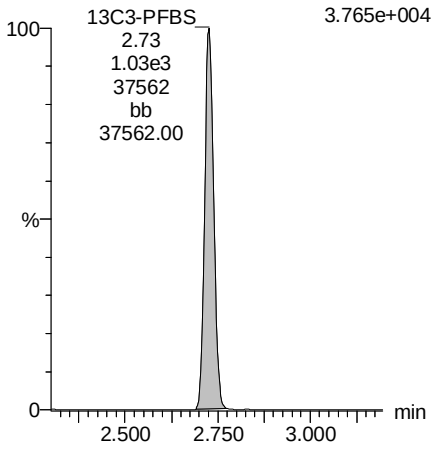

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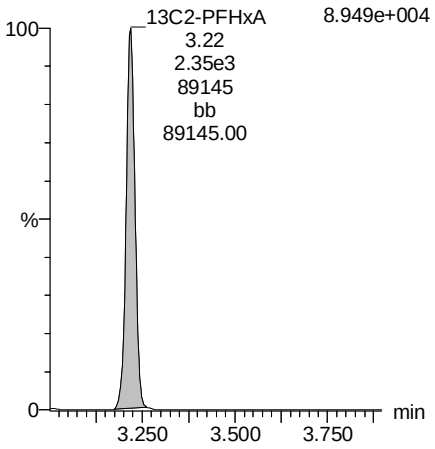

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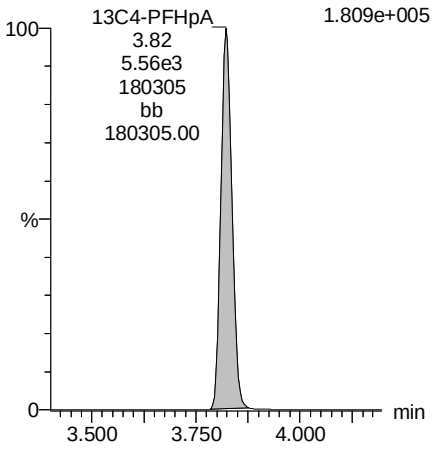

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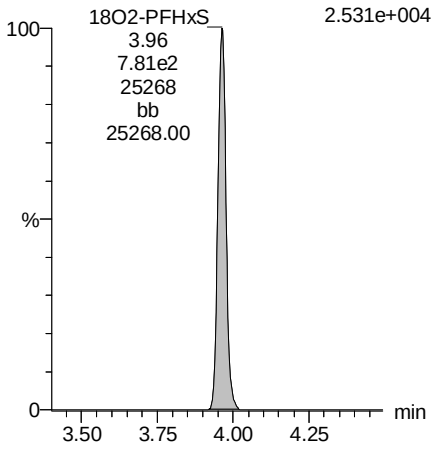

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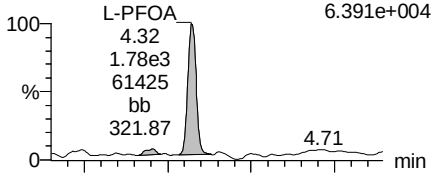

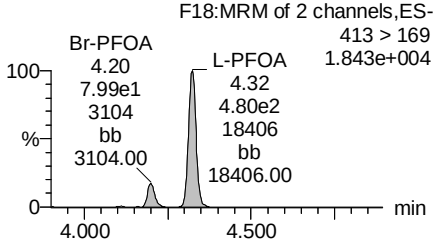

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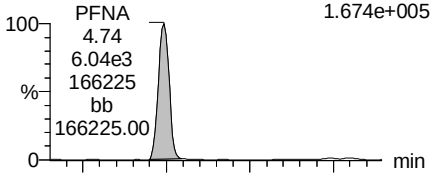

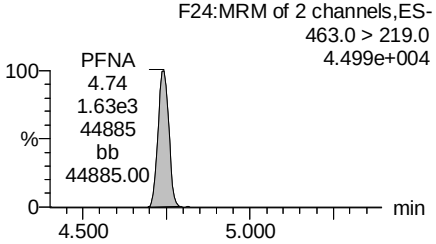

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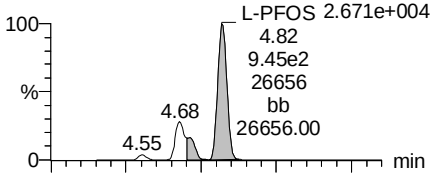

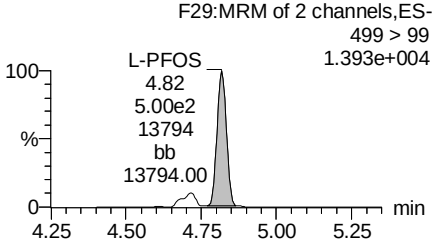

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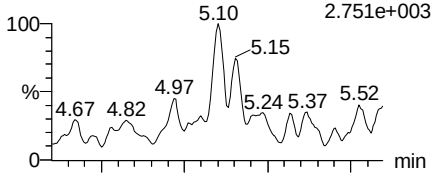

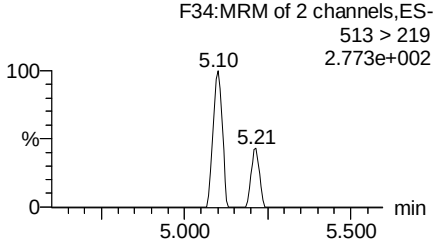

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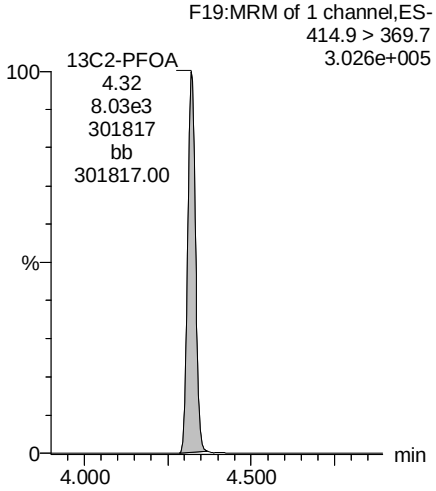

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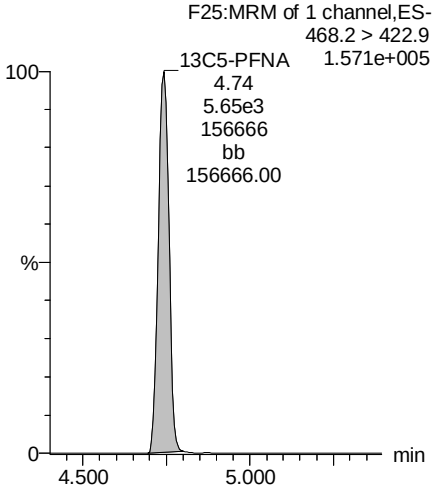

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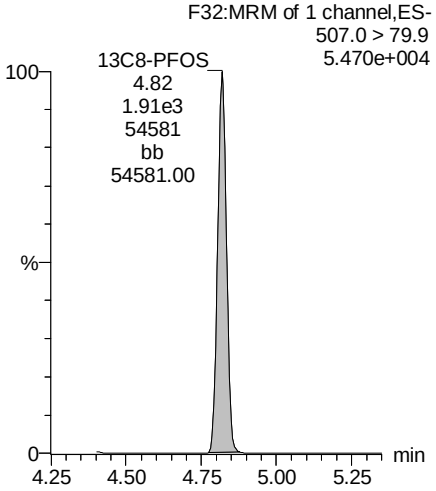

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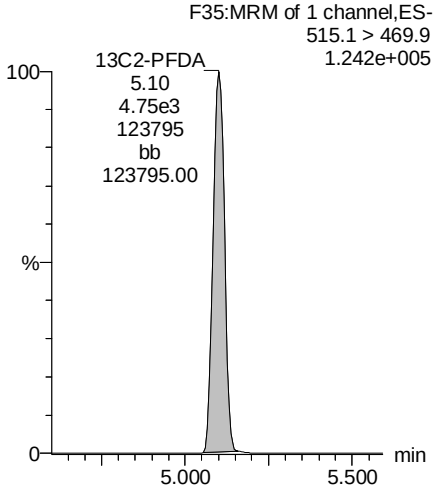

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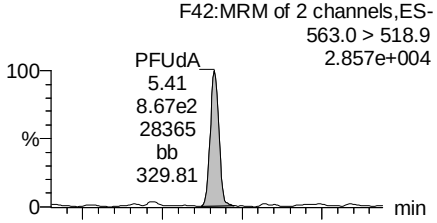

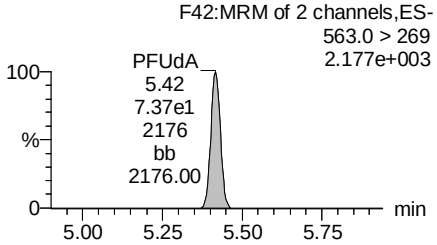

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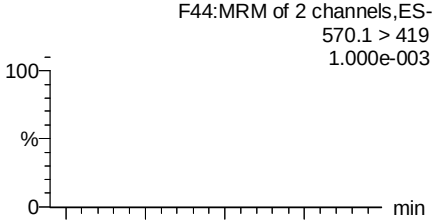

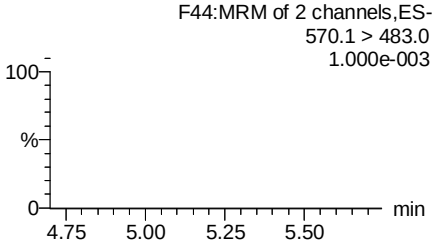

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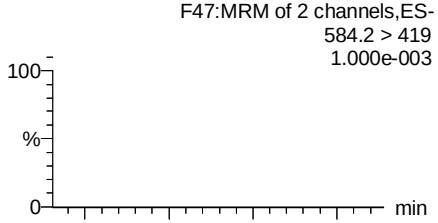

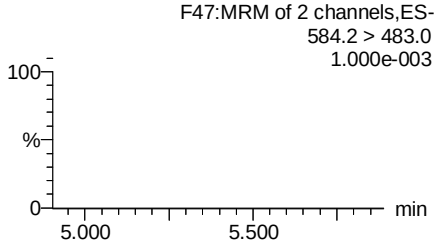

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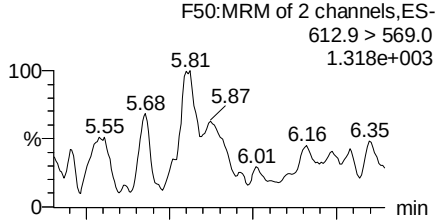

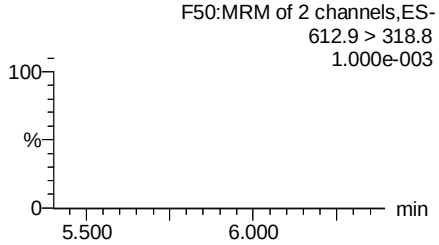

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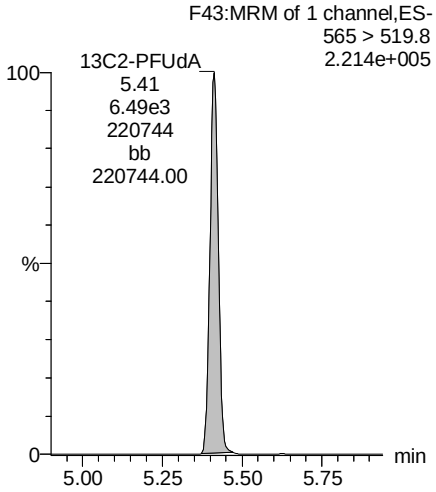

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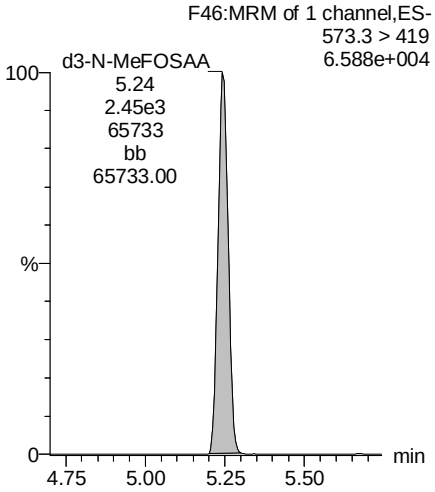

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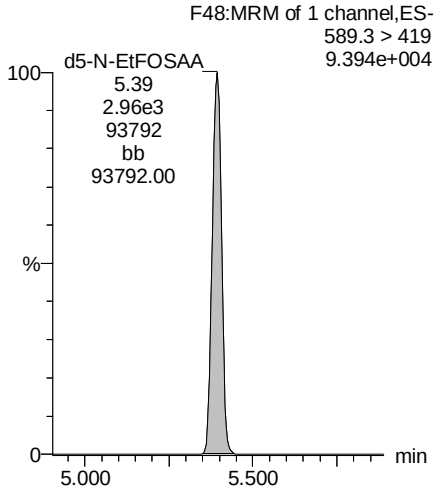

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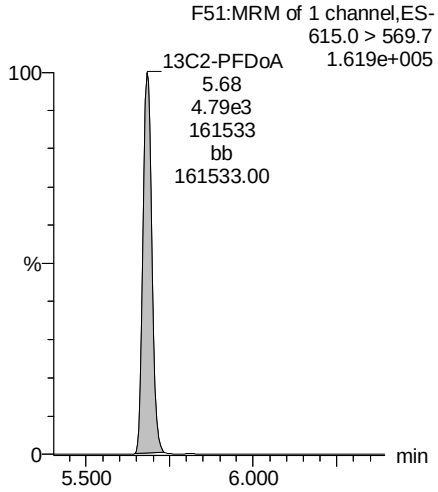

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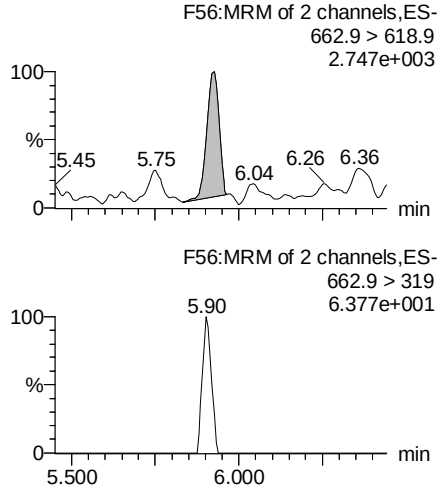

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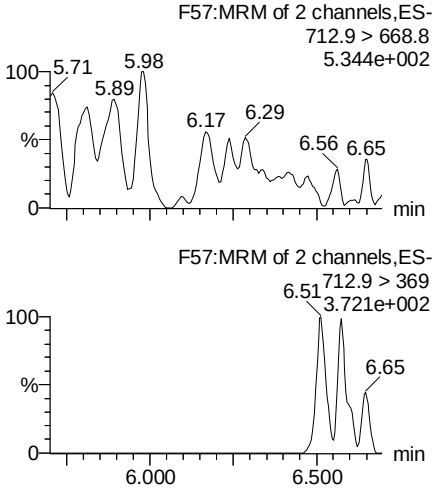

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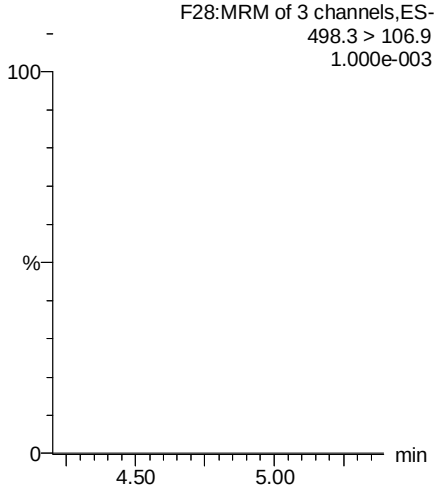

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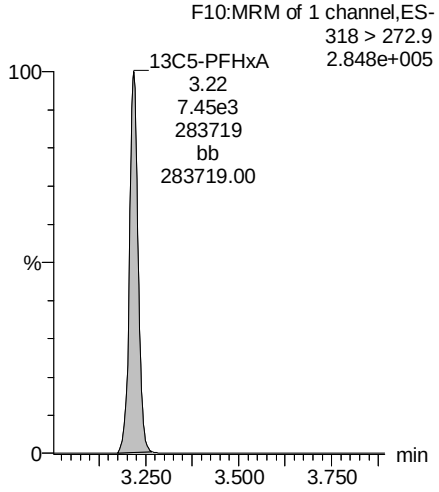

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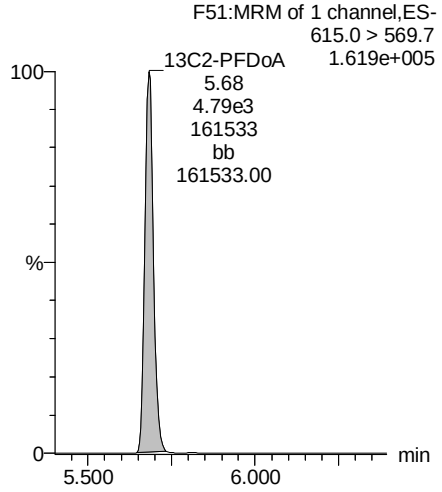

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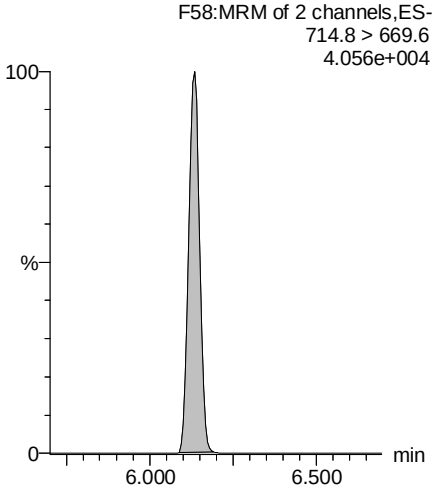

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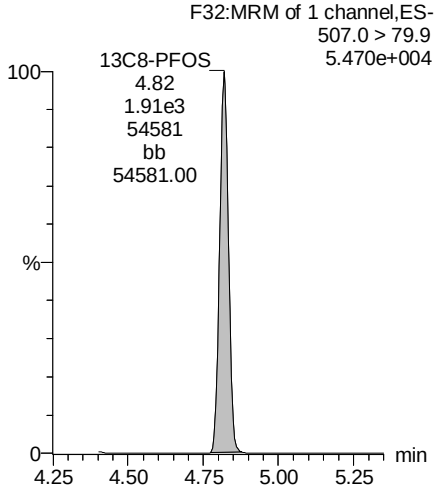

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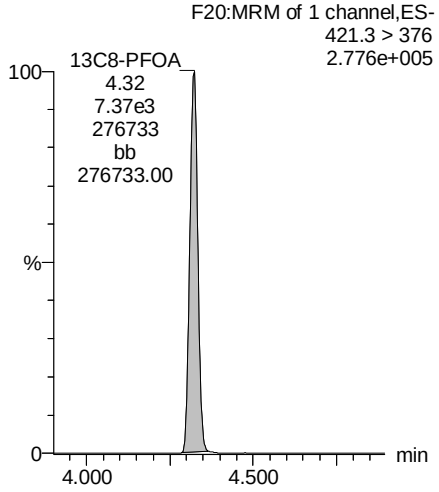

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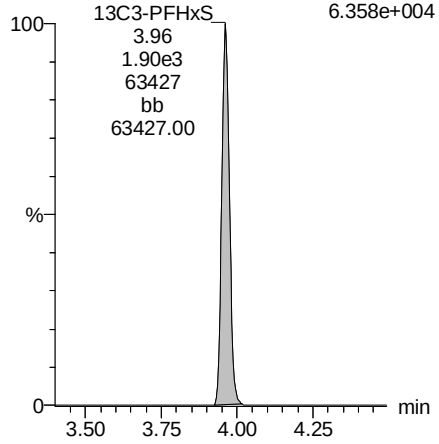
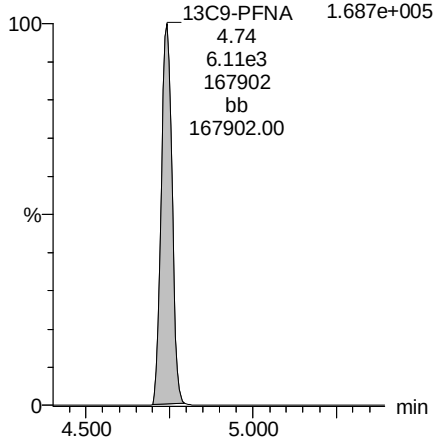
Name: 171228M3_46, Date: 29-Dec-2017, Time: 00:21:05, ID: 1701802-06RE1 FC-MW02IR1-NP-20171128 0.26838, Description: FC-MW02IR1-NP-20171128

13C3-PFHxS



13C9-PFNA



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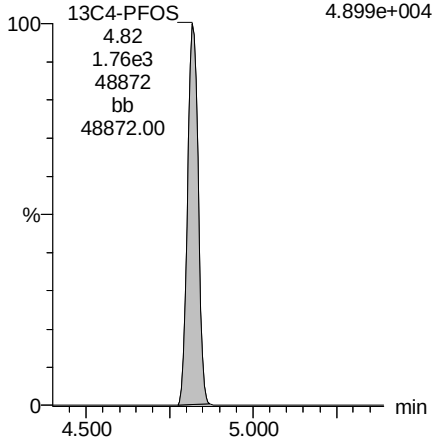
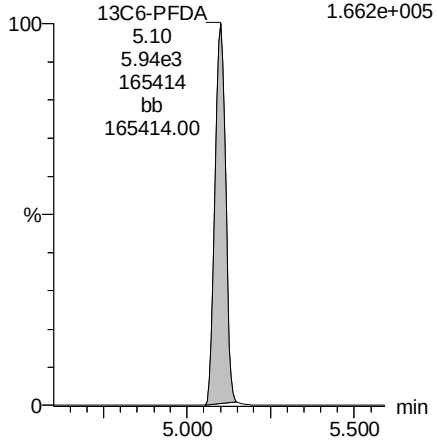
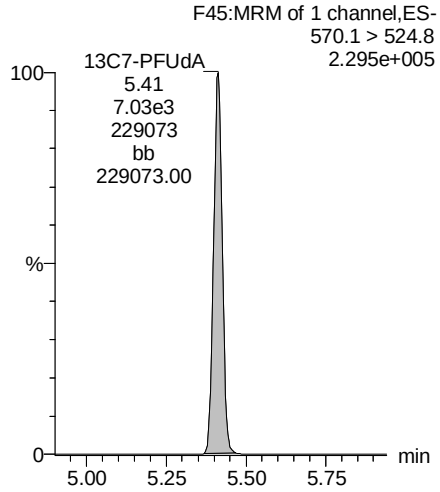


13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-47.qld

Last Altered: Thursday, January 18, 2018 15:07:05 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:07:32 Pacific Standard Time

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Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_47, Date: 29-Dec-2017, Time: 00:32:16, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		9.28e2	0.269		2.70				
2	4	PFHxA	313.2 > 268.9	1.14e3	1.85e3	0.269		3.20	3.22	3.08	6.6092	
3	5	PFHpA	363.0 > 318.9	7.96e2	4.94e3	0.269		3.80	3.83	2.01	4.5821	
4	6	L-PFHxS	398.9 > 79.6		6.39e2	0.269		3.95				
5	9	L-PFOA	413 > 368.7	1.64e3	6.98e3	0.269		4.32	4.32	2.93	8.4875	
6	12	PFNA	463.0 > 418.8	1.33e4	4.71e3	0.269		4.75	4.74	35.2	86.0980	
7	14	L-PFOS	499 > 79.9	3.57e2	1.85e3	0.269		4.83	4.82	2.42	7.2866	
8	16	PFDA	513 > 468.8	2.22e2	4.76e3	0.269		5.11	5.11	0.585	0.7016	
9	18	N-MeFOSAA	570.1 > 419		2.54e3	0.269		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.21e3	0.269		5.42				
11	20	PFUdA	563.0 > 518.9	3.25e3	6.45e3	0.269		5.43	5.41	6.31	16.8612	
12	22	PFDoA	612.9 > 569.0		4.93e3	0.269		5.70				

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-47.qld

Last Altered: Thursday, January 18, 2018 15:07:05 Pacific Standard Time
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Name: 171228M3_47, Date: 29-Dec-2017, Time: 00:32:16, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	3.15e2	4.93e3	0.269		5.95	5.92	0.799	1.2441	
2	25	PFTeDA	712.9 > 668.8		1.44e3	0.269		6.16				
3	33	13C3-PFBS	302. > 98.8	9.28e2	6.78e3	0.269	0.101	2.70	2.73	1.71	63.0747	135.9
4	34	13C2-PFHxA	315 > 269.8	1.85e3	6.78e3	0.269	0.629	3.20	3.22	3.42	20.1517	108.6
5	35	13C4-PFHpA	367.2 > 321.8	4.94e3	6.78e3	0.269	0.585	3.80	3.83	9.09	57.7554	124.5
6	36	18O2-PFHxS	403.0 > 102.6	6.39e2	1.83e3	0.269	0.341	3.95	3.96	4.37	47.6781	102.7
7	37	13C2-6:2 FTS	429.1 > 408.9	1.62e3	6.59e3	0.269	0.238	4.26	4.27	3.07	47.8946	103.2
8	38	13C2-PFOA	414.9 > 369.7	6.98e3	6.59e3	0.269	0.934	4.32	4.33	13.2	52.6307	113.4
9	39	13C5-PFNA	468.2 > 422.9	4.71e3	5.17e3	0.269	0.841	4.75	4.74	11.4	50.2555	108.3
10	40	13C8-PFOSA	506.1 > 77.7	5.44e2	6.97e3	0.269	0.202	4.81	4.82	0.975	17.8922	38.6
11	41	13C8-PFOS	507.0 > 79.9	1.85e3	2.09e3	0.269	0.906	4.83	4.82	11.1	45.2779	97.6
12	42	13C2-PFDA	515.1 > 469.9	4.76e3	4.74e3	0.269	1.050	5.11	5.10	12.5	44.3179	95.5
13	43	13C2-8:2 FTS	529.1 > 508.7	8.31e2	6.78e3	0.269	0.109	5.09	5.07	1.53	52.1163	112.3
14	44	d3-N-MeFOSAA	573.3 > 419	2.54e3	6.97e3	0.269	0.454	5.26	5.24	4.55	37.1757	80.1
15	45	d5-N-EtFOSAA	589.3 > 419	2.21e3	6.97e3	0.269	0.503	5.42	5.40	3.97	29.2681	63.1
16	46	13C2-PFUdA	565 > 519.8	6.45e3	6.97e3	0.269	0.904	5.43	5.41	11.6	47.4481	102.3
17	47	13C2-PFDoA	615.0 > 569.7	4.93e3	6.97e3	0.269	0.561	5.70	5.69	8.83	58.4256	125.9
18	49	13C2-PFTeDA	714.8 > 669.6	1.44e3	6.97e3	0.269	0.183	6.16	6.13	2.57	52.0915	112.3
19	55	13C5-PFHxA	318 > 272.9	6.78e3	6.78e3	0.269	1.000	3.20	3.22	12.5	46.4029	100.0
20	56	13C3-PFHxS	401.9 > 79.9	1.83e3	1.83e3	0.269	1.000	3.95	3.96	12.5	46.4029	100.0
21	57	13C8-PFOA	421.3 > 376	6.59e3	6.59e3	0.269	1.000	4.32	4.32	12.5	46.4029	100.0
22	58	13C9-PFNA	472.2 > 426.9	5.17e3	5.17e3	0.269	1.000	4.75	4.74	12.5	46.4029	100.0
23	59	13C4-PFOS	503 > 79.9	2.09e3	2.09e3	0.269	1.000	4.83	4.82	12.5	46.4029	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.74e3	4.74e3	0.269	1.000	5.11	5.10	12.5	46.4029	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.97e3	6.97e3	0.269	1.000	5.43	5.41	12.5	46.4029	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	6.39e2	0.269		4.00		0.000		
27	63	Total PFOA	413 > 368.7	1.64e3	6.98e3	0.269		4.30		2.93	8.4875	
28	64	Total PFOS	499 > 79.9	4.86e2	1.85e3	0.269		4.80		3.29	10.0893	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.54e3	0.269		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.21e3	0.269		5.40		0.000		

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-47.qld

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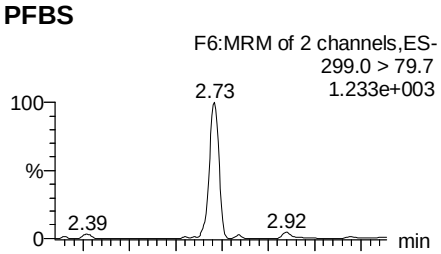
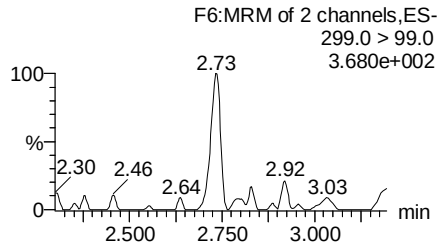
Name: 171228M3_47, Date: 29-Dec-2017, Time: 00:32:16, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

PFBS





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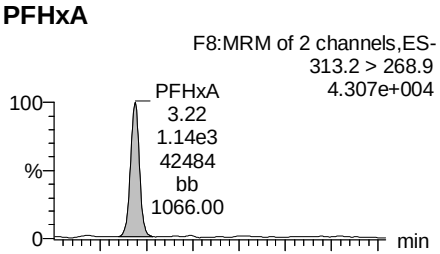

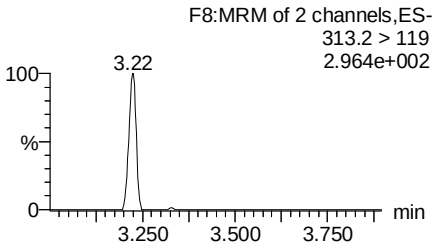

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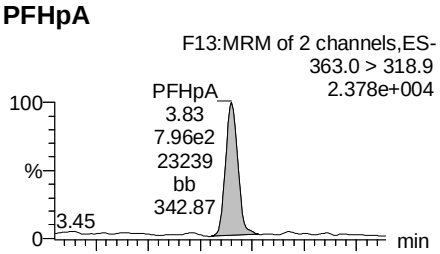

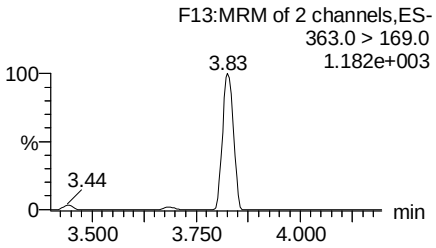

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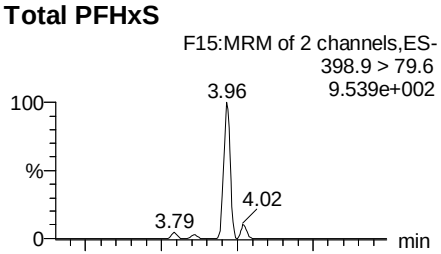

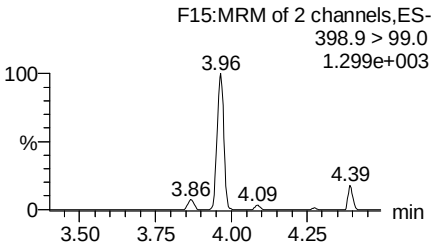

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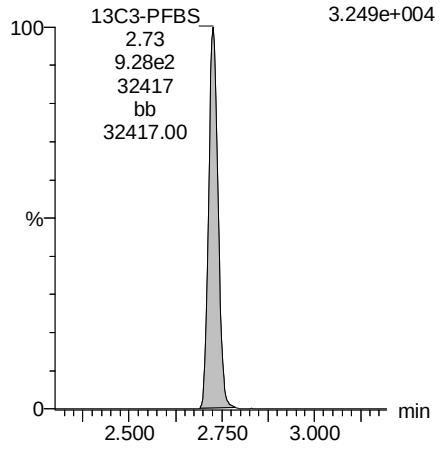

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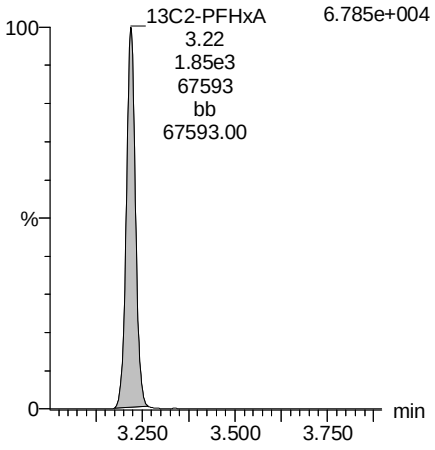

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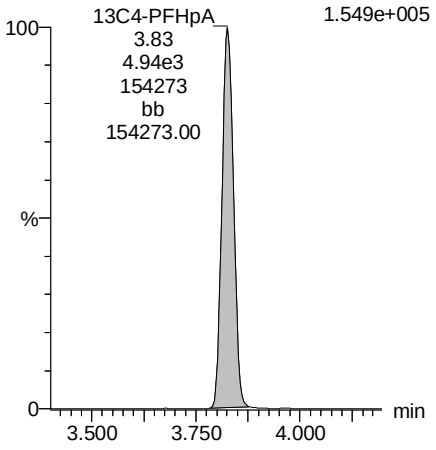

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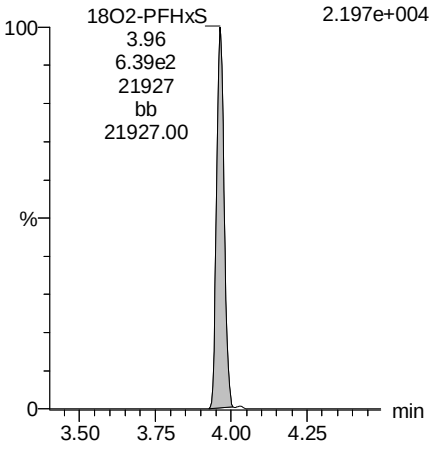

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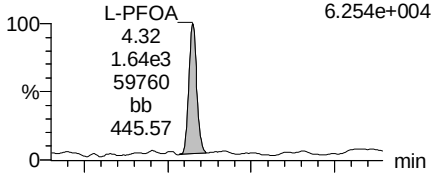
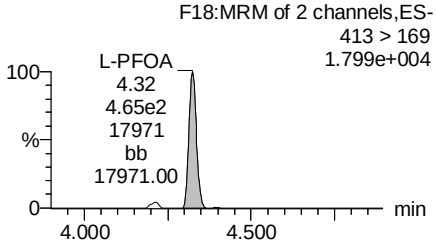
Name: 171228M3_47, Date: 29-Dec-2017, Time: 00:32:16, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

Total PFOA





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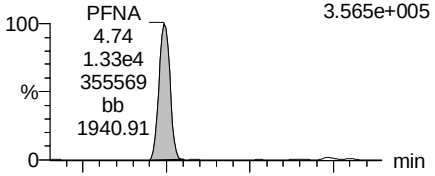
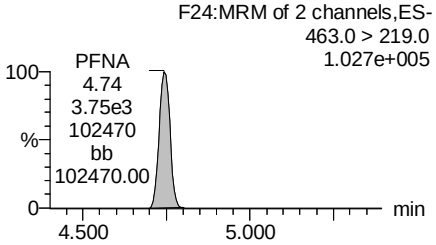
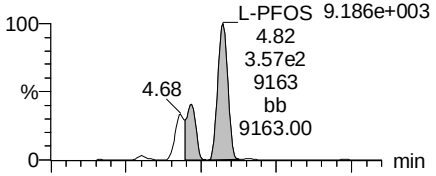
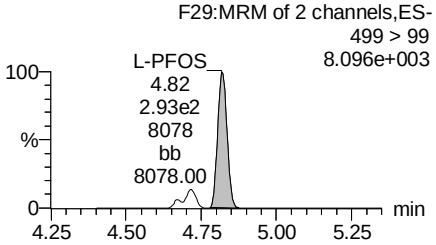




Total PFOS





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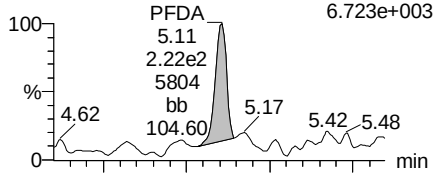
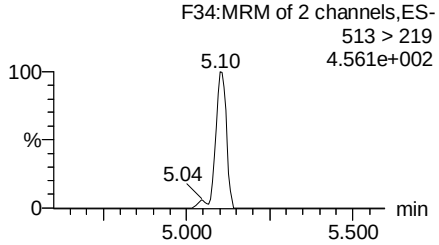
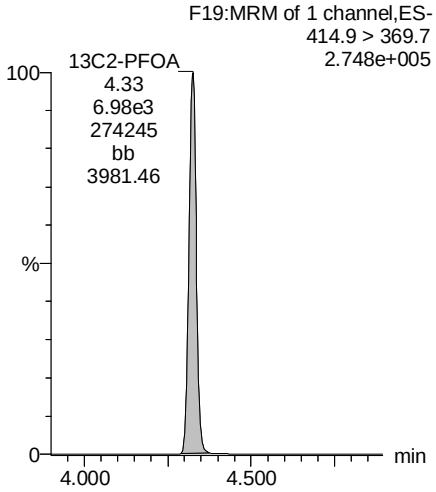




13C2-PFOA



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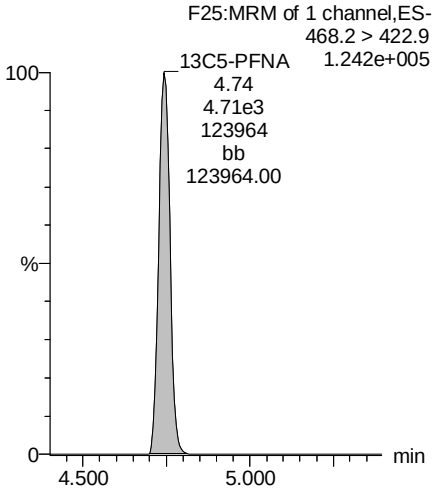
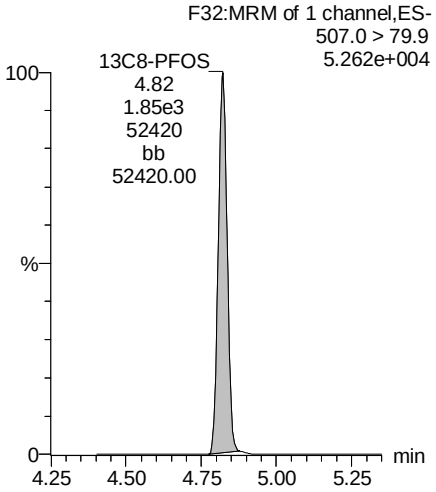


13C8-PFOS



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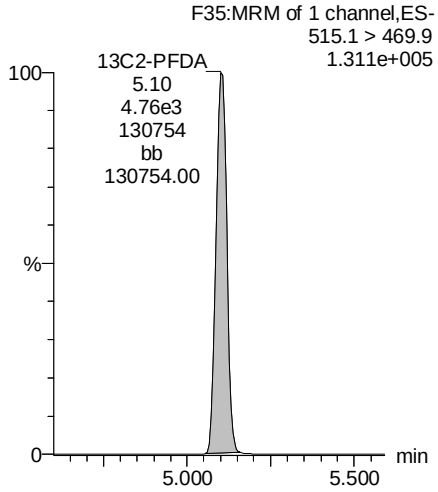

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Name: 171228M3_47, Date: 29-Dec-2017, Time: 00:32:16, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

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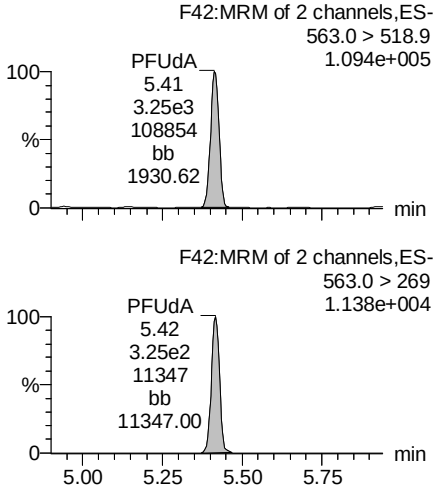

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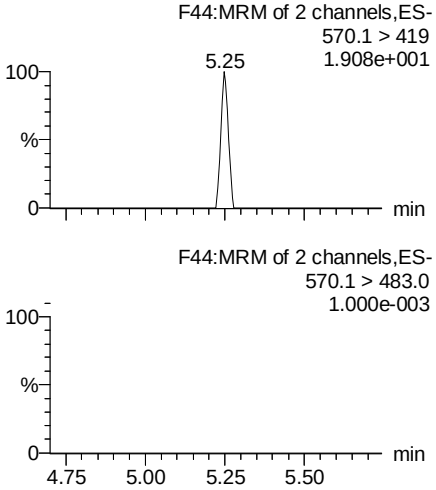

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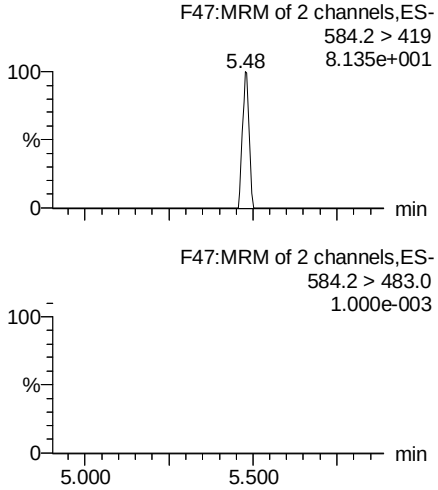

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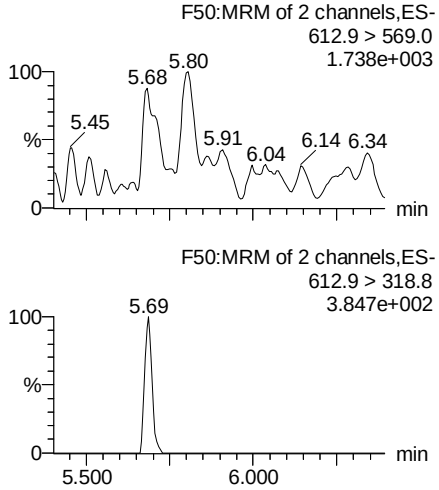
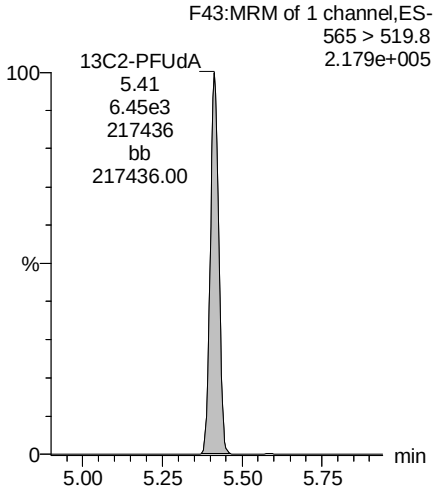


13C2-PFUdA



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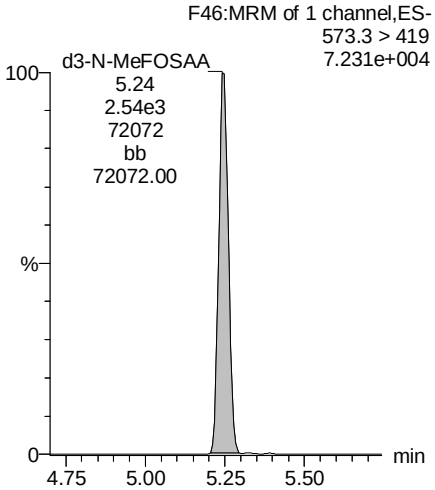

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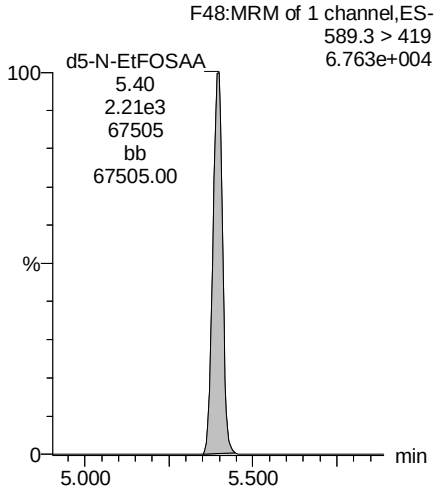

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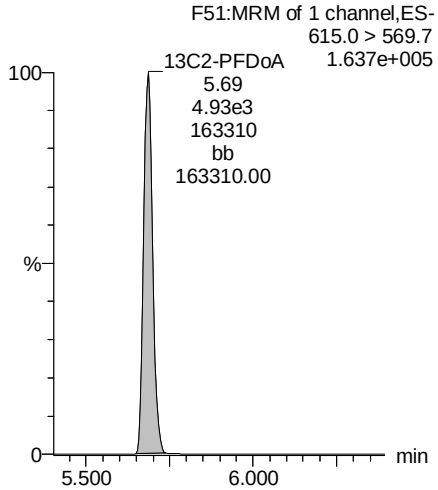


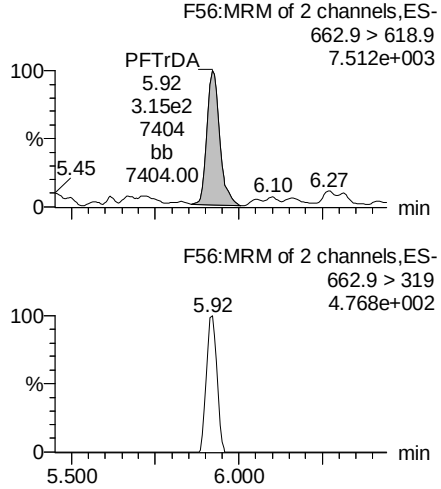
Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-47.qld

Last Altered: Thursday, January 18, 2018 15:07:05 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:07:41 Pacific Standard Time

Name: 171228M3_47, Date: 29-Dec-2017, Time: 00:32:16, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

PFTrDA



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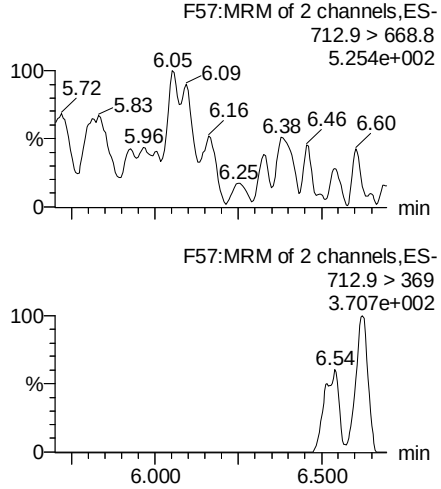

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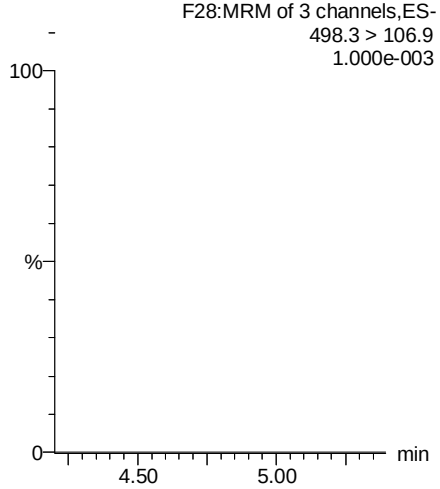
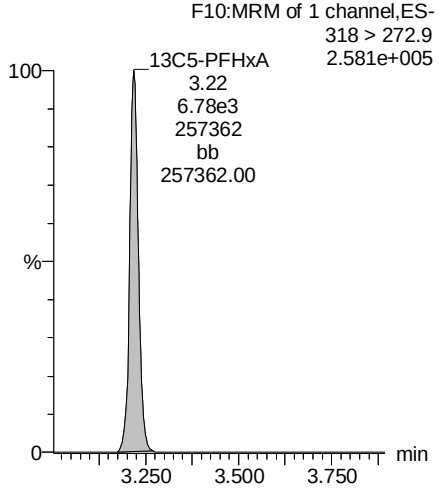


13C5-PFHxA



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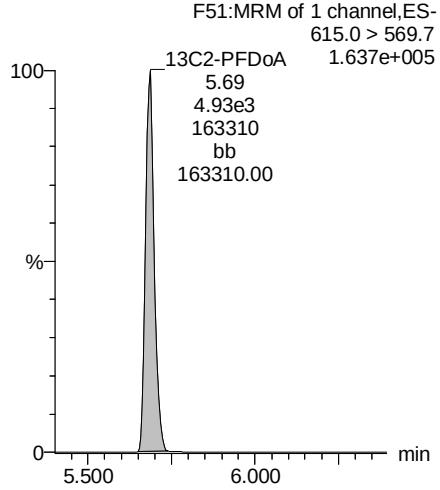

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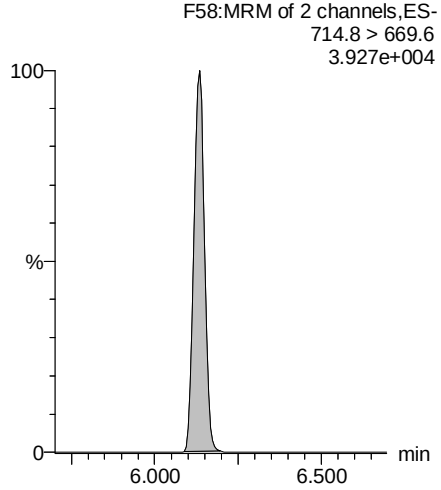

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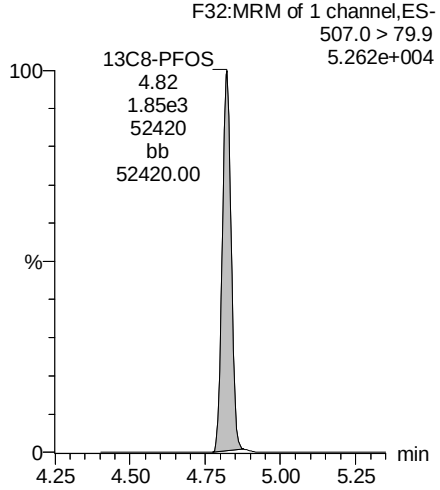

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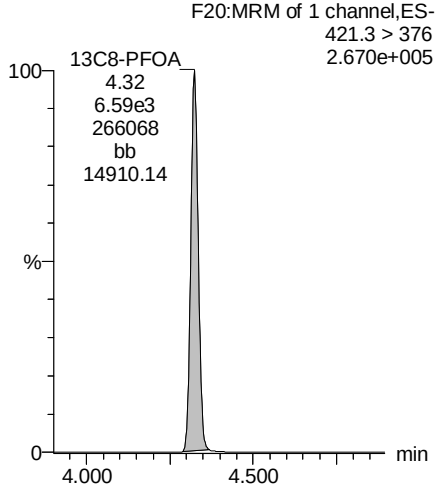

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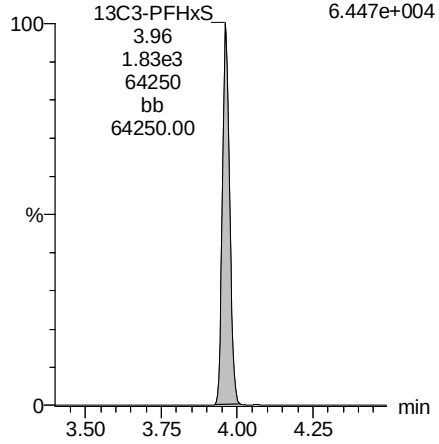
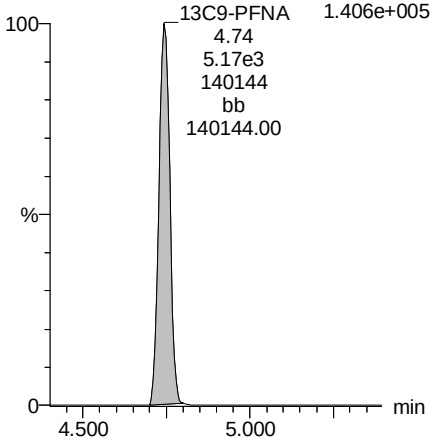
Last Altered: Thursday, January 18, 2018 15:07:05 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:07:41 Pacific Standard Time

Name: 171228M3_47, Date: 29-Dec-2017, Time: 00:32:16, ID: 1701802-07RE1 FC-MW02IR1-P1-20171128 0.26938, Description: FC-MW02IR1-P1-20171128

13C3-PFHxS



13C9-PFNA



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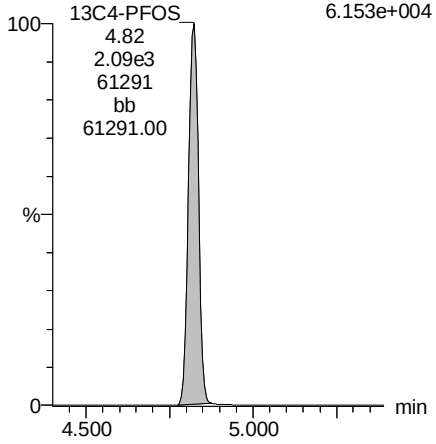

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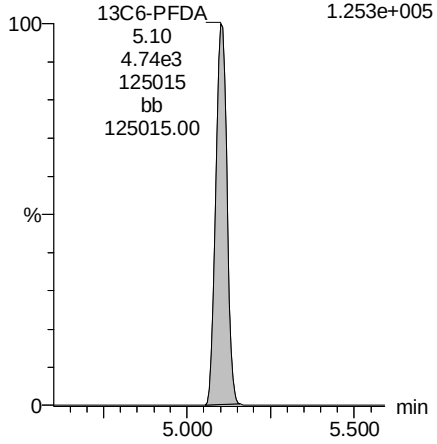
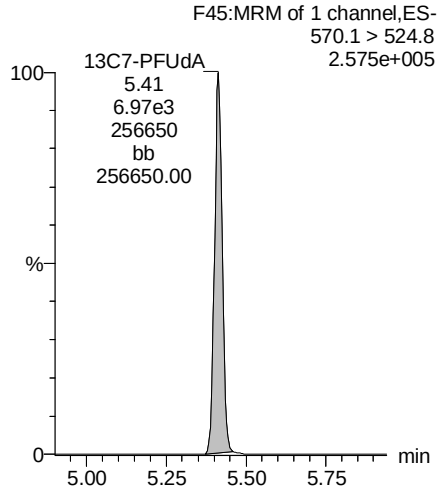


13C7-PFUdA



Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-51.qld

Last Altered: Thursday, January 18, 2018 15:08:27 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:08:45 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_51, Date: 29-Dec-2017, Time: 01:16:59, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		9.47e2	0.276		2.70				
2	4	PFHxA	313.2 > 268.9	7.33e2	1.97e3	0.276		3.20	3.22	1.86	3.9059	
3	5	PFHpA	363.0 > 318.9	5.17e2	4.79e3	0.276		3.80	3.82	1.35	2.9590	
4	6	L-PFHxS	398.9 > 79.6		8.81e2	0.276		3.95				
5	9	L-PFOA	413 > 368.7	1.41e3	6.74e3	0.276		4.32	4.32	2.61	7.3242	
6	12	PFNA	463.0 > 418.8	4.98e3	4.90e3	0.276		4.75	4.74	12.7	30.5543	
7	14	L-PFOS	499 > 79.9	1.11e3	2.08e3	0.276		4.83	4.82	6.64	19.0757	
8	16	PFDA	513 > 468.8	1.37e2	5.40e3	0.276		5.11	5.10	0.317		
9	18	N-MeFOSAA	570.1 > 419		2.57e3	0.276		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.47e3	0.276		5.42				
11	20	PFUdA	563.0 > 518.9	8.01e2	6.73e3	0.276		5.43	5.41	1.49	4.0315	
12	22	PFDoA	612.9 > 569.0		4.40e3	0.276		5.70				

Vista Analytical Laboratory

Dataset: Z:\Q4.PRO\results\171228M3\171228M3-51.qld

Last Altered: Thursday, January 18, 2018 15:08:27 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:08:56 Pacific Standard Time

Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_51, Date: 29-Dec-2017, Time: 01:16:59, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.40e3	0.276		5.95				
2	25	PFTeDA	712.9 > 668.8		1.26e3	0.276		6.16				
3	33	13C3-PFBS	302. > 98.8	9.47e2	6.43e3	0.276	0.101	2.70	2.72	1.84	66.3709	146.3
4	34	13C2-PFHxA	315 > 269.8	1.97e3	6.43e3	0.276	0.629	3.20	3.22	3.82	22.0514	121.5
5	35	13C4-PFHpA	367.2 > 321.8	4.79e3	6.43e3	0.276	0.585	3.80	3.82	9.31	57.8187	127.4
6	36	18O2-PFHxS	403.0 > 102.6	8.81e2	1.93e3	0.276	0.341	3.95	3.96	5.69	60.6539	133.7
7	37	13C2-6:2 FTS	429.1 > 408.9	1.82e3	5.89e3	0.276	0.238	4.26	4.27	3.87	59.0839	130.2
8	38	13C2-PFOA	414.9 > 369.7	6.74e3	5.89e3	0.276	0.934	4.32	4.32	14.3	55.5793	122.5
9	39	13C5-PFNA	468.2 > 422.9	4.90e3	5.66e3	0.276	0.841	4.75	4.74	10.8	46.7148	103.0
10	40	13C8-PFOSA	506.1 > 77.7	8.65e2	6.10e3	0.276	0.202	4.81	4.81	1.77	31.7975	70.1
11	41	13C8-PFOS	507.0 > 79.9	2.08e3	1.71e3	0.276	0.906	4.83	4.82	15.2	60.8977	134.2
12	42	13C2-PFDA	515.1 > 469.9	5.40e3	4.32e3	0.276	1.050	5.11	5.10	15.6	53.9915	119.0
13	43	13C2-8:2 FTS	529.1 > 508.7	1.36e3	6.43e3	0.276	0.109	5.09	5.07	2.64	87.9101	193.8
14	44	d3-N-MeFOSAA	573.3 > 419	2.57e3	6.10e3	0.276	0.454	5.26	5.24	5.27	42.1115	92.8
15	45	d5-N-EtFOSAA	589.3 > 419	2.47e3	6.10e3	0.276	0.503	5.42	5.39	5.05	36.4112	80.3
16	46	13C2-PFUdA	565 > 519.8	6.73e3	6.10e3	0.276	0.904	5.43	5.41	13.8	55.3597	122.0
17	47	13C2-PFDoA	615.0 > 569.7	4.40e3	6.10e3	0.276	0.561	5.70	5.68	9.02	58.3430	128.6
18	49	13C2-PFTeDA	714.8 > 669.6	1.26e3	6.10e3	0.276	0.183	6.16	6.13	2.58	51.0977	112.6
19	55	13C5-PFHxA	318 > 272.9	6.43e3	6.43e3	0.276	1.000	3.20	3.22	12.5	45.3721	100.0
20	56	13C3-PFHxS	401.9 > 79.9	1.93e3	1.93e3	0.276	1.000	3.95	3.96	12.5	45.3721	100.0
21	57	13C8-PFOA	421.3 > 376	5.89e3	5.89e3	0.276	1.000	4.32	4.32	12.5	45.3721	100.0
22	58	13C9-PFNA	472.2 > 426.9	5.66e3	5.66e3	0.276	1.000	4.75	4.74	12.5	45.3721	100.0
23	59	13C4-PFOS	503 > 79.9	1.71e3	1.71e3	0.276	1.000	4.83	4.82	12.5	45.3721	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.32e3	4.32e3	0.276	1.000	5.11	5.10	12.5	45.3721	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.10e3	6.10e3	0.276	1.000	5.43	5.41	12.5	45.3721	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	8.81e2	0.276		4.00		0.000		
27	63	Total PFOA	413 > 368.7	1.48e3	6.74e3	0.276		4.30		2.61	7.3242	
28	64	Total PFOS	499 > 79.9	1.29e3	2.08e3	0.276		4.80		7.72	22.4203	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.57e3	0.276		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.47e3	0.276		5.40		0.000		

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Dataset: Z:\Q4.PRO\results\171228M3\171228M3-51.qld

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Printed: Thursday, January 18, 2018 15:08:56 Pacific Standard Time

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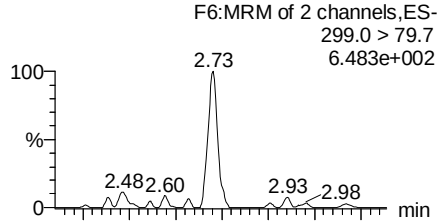
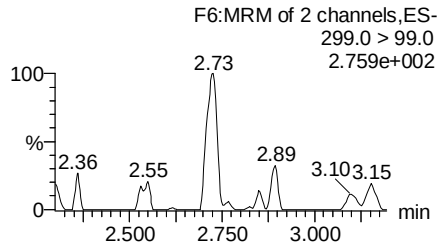
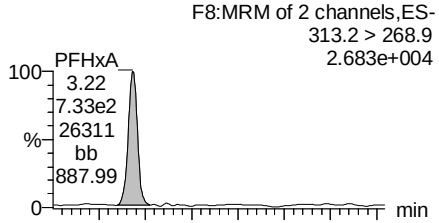
Name: 171228M3_51, Date: 29-Dec-2017, Time: 01:16:59, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

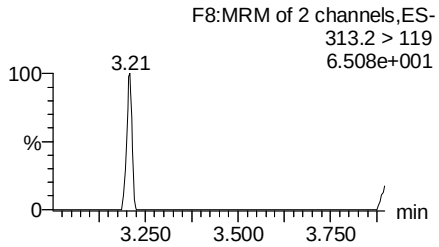
PFBS





PFHxA





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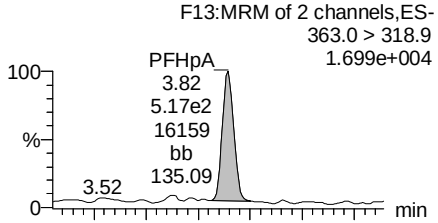

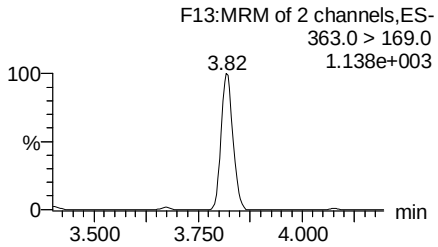

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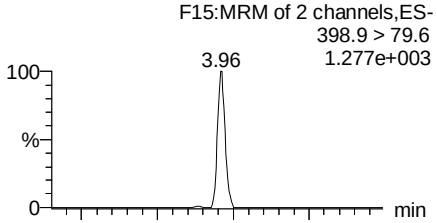

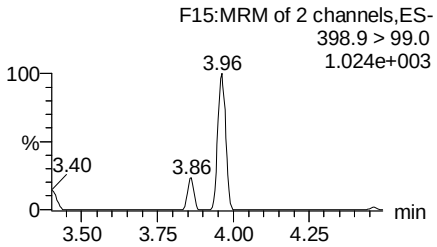

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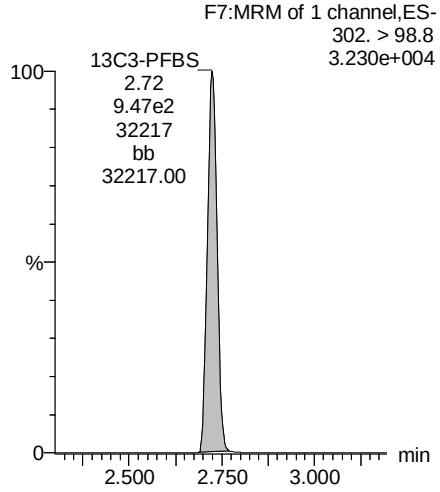

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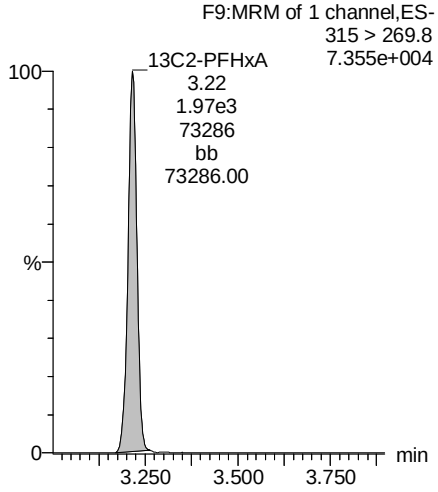
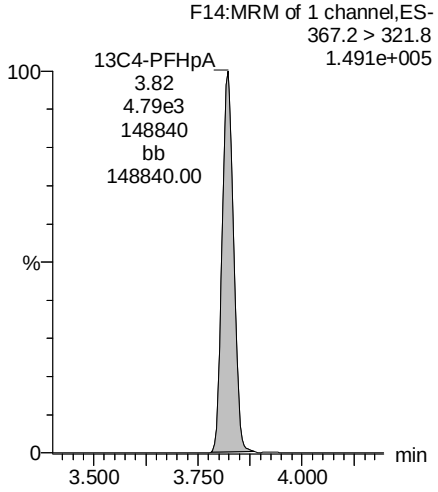
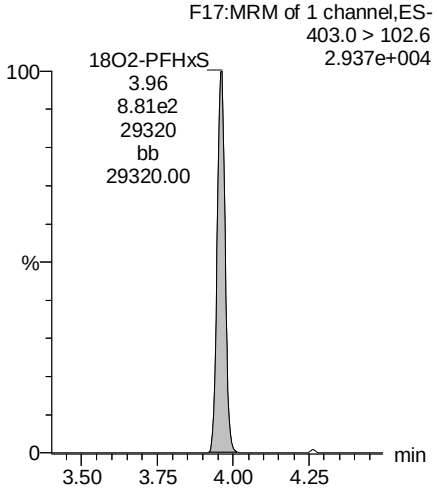


13C4-PFHpA



18O2-PFHxS



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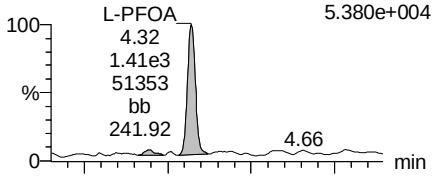
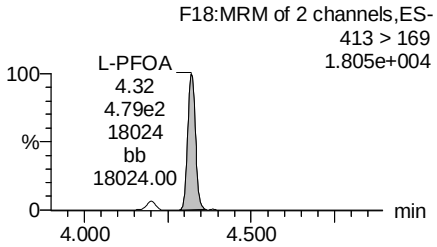
Printed: Thursday, January 18, 2018 15:08:56 Pacific Standard Time

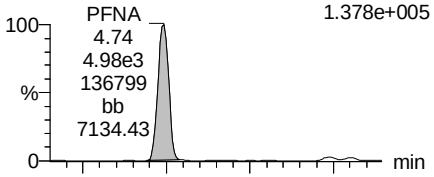
Name: 171228M3_51, Date: 29-Dec-2017, Time: 01:16:59, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

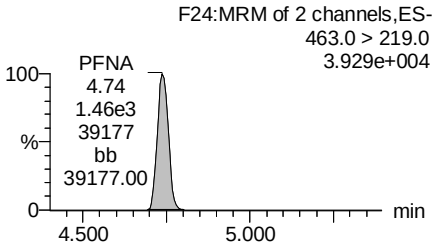
Total PFOA



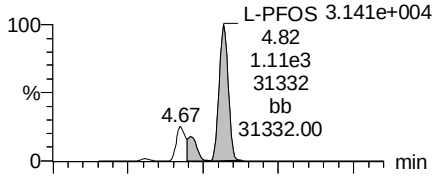


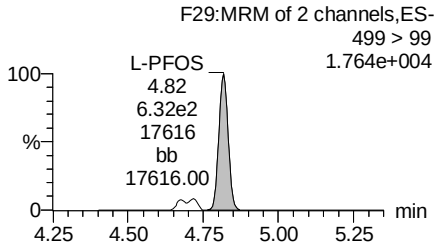
PFNA



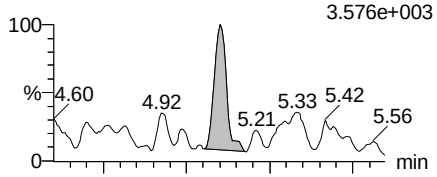


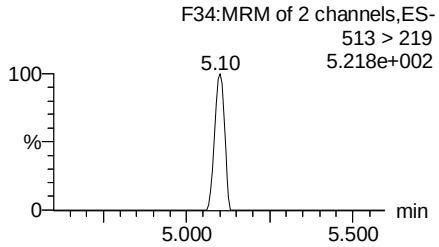
Total PFOS



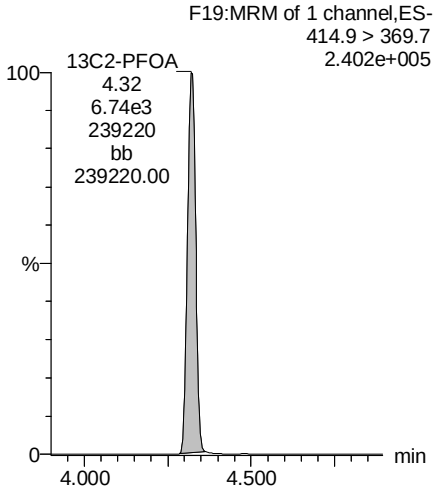


PFDA

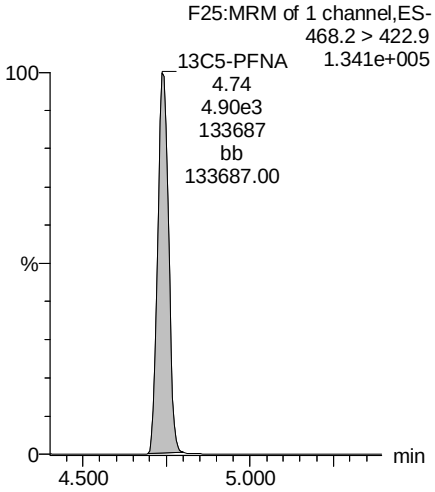




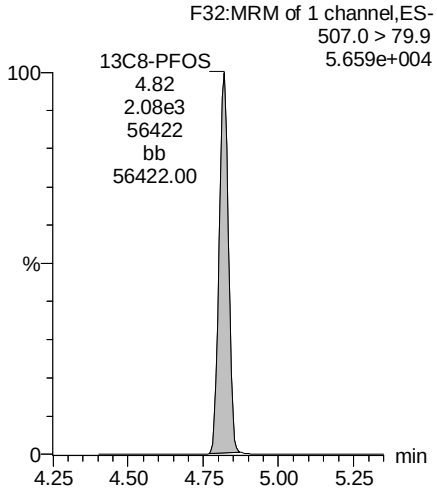
13C2-PFOA



13C5-PFNA



13C8-PFOS



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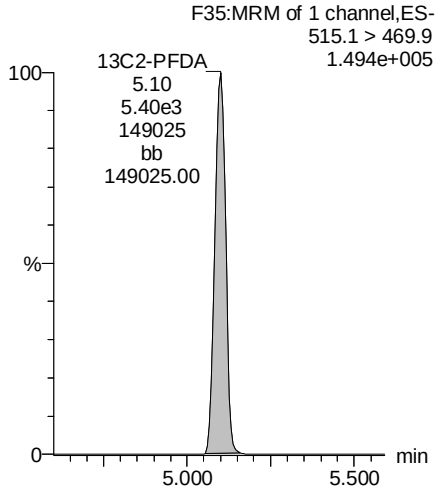
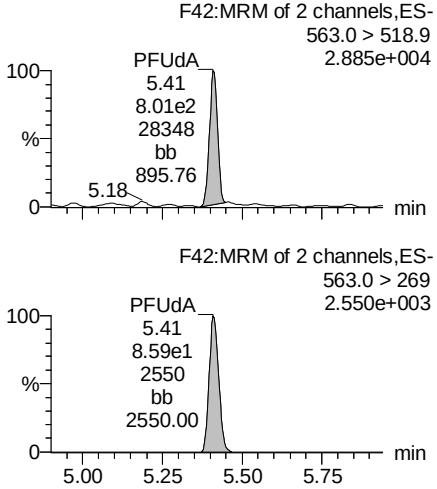


Dataset: Z:\Q4.PRO\results\171228M3\171228M3-51.qld

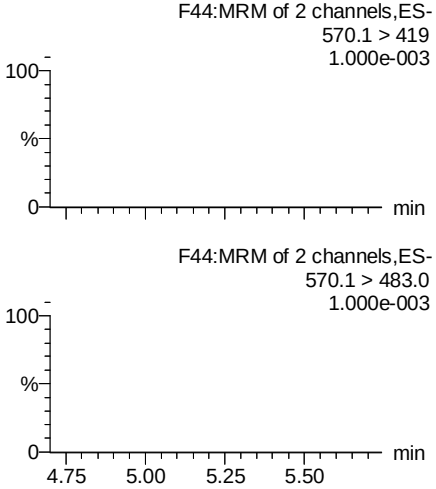
Last Altered: Thursday, January 18, 2018 15:08:27 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:08:56 Pacific Standard Time

Name: 171228M3_51, Date: 29-Dec-2017, Time: 01:16:59, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

PFUdA



N-MeFOSAA



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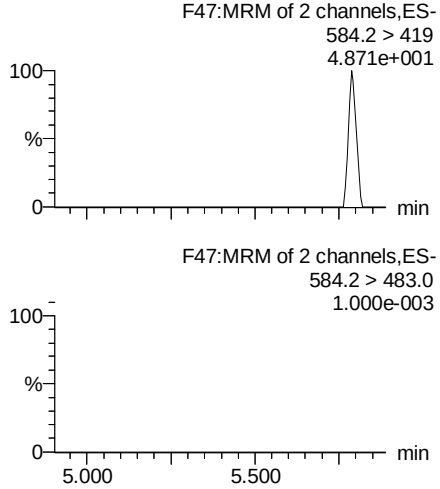
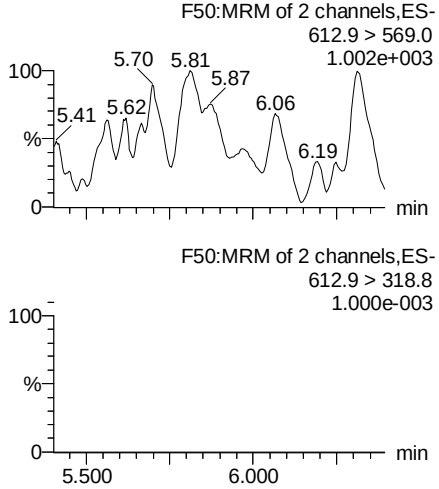


PFDoA



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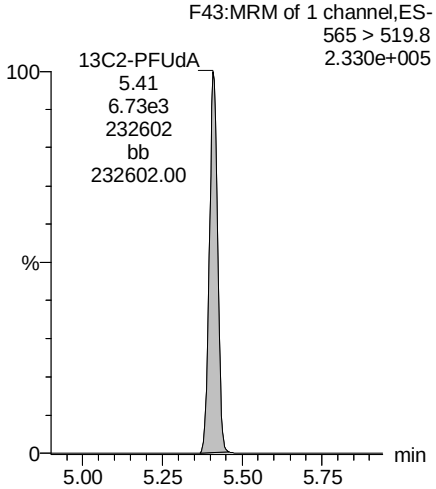
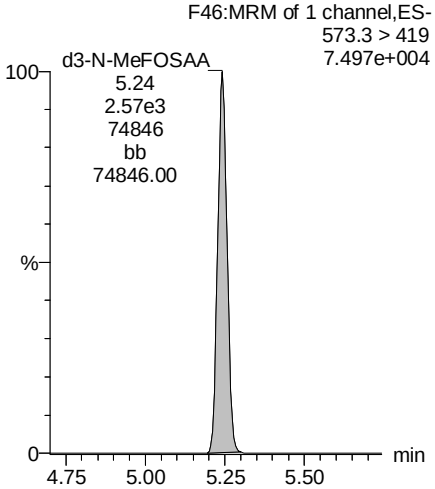
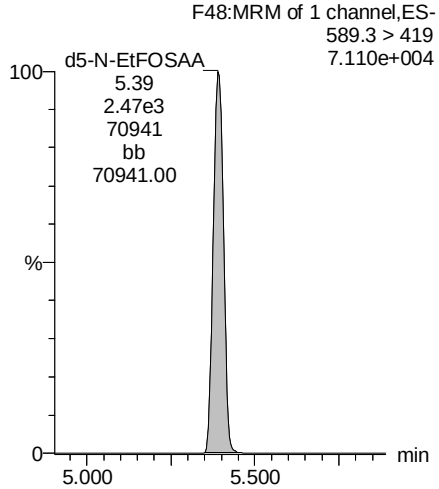


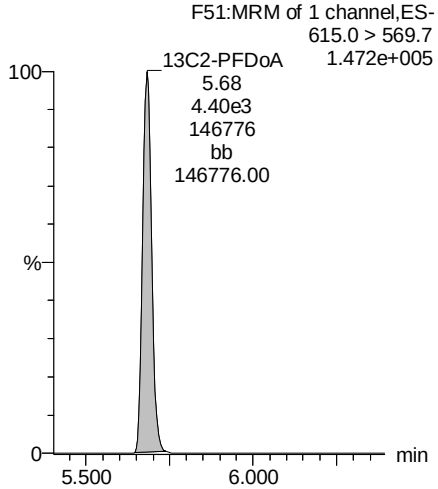
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



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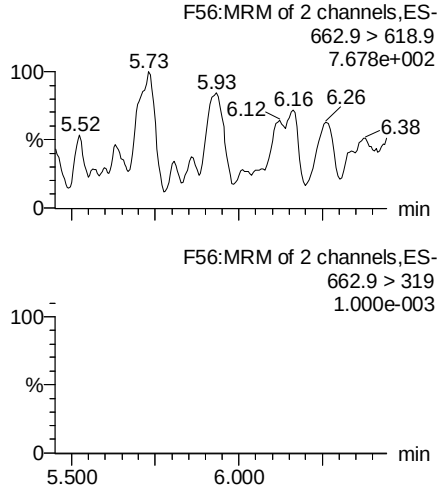
Dataset: Z:\Q4.PRO\results\171228M3\171228M3-51.qld

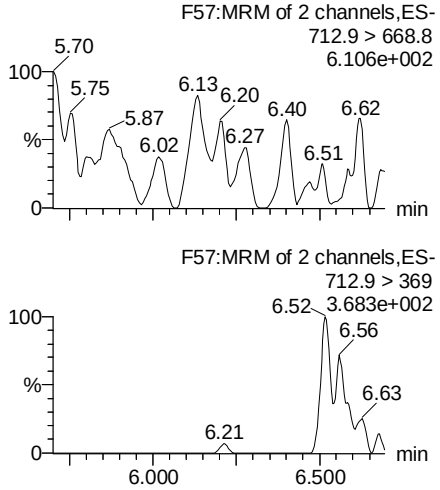
Last Altered: Thursday, January 18, 2018 15:08:27 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:08:56 Pacific Standard Time

Name: 171228M3_51, Date: 29-Dec-2017, Time: 01:16:59, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

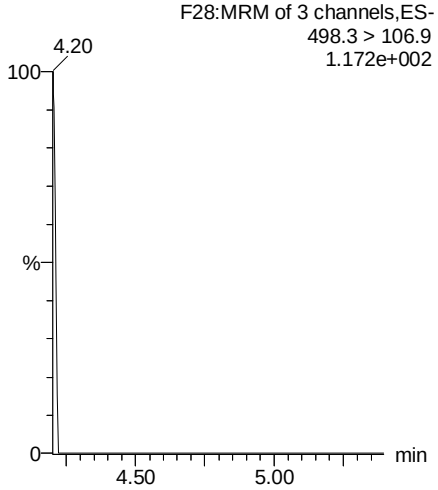
PFTrDA



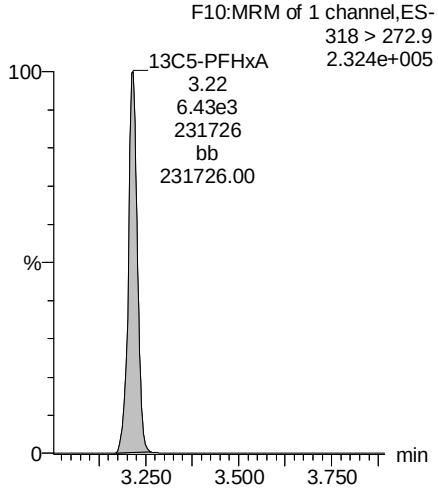
PFTeDA



TCDA



13C5-PFHxA



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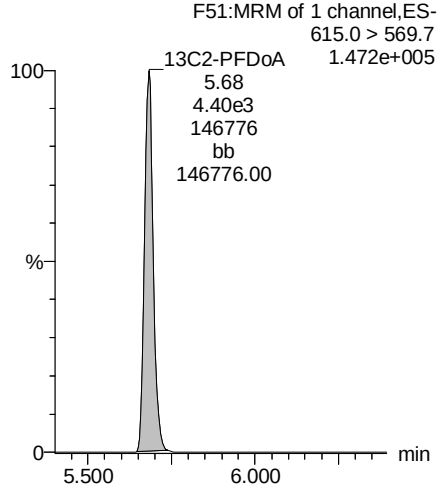

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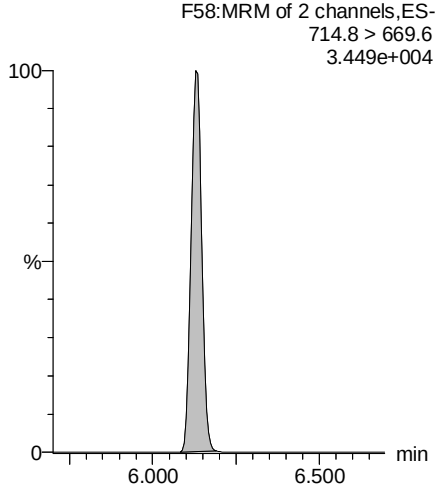
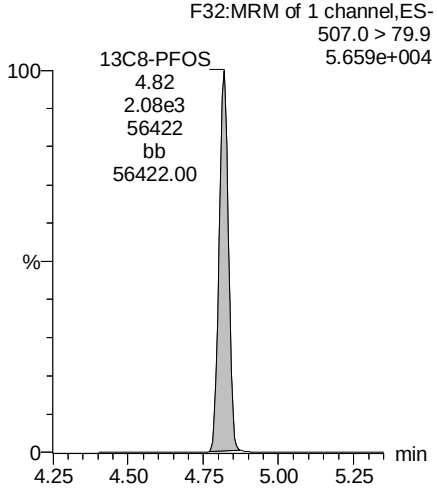
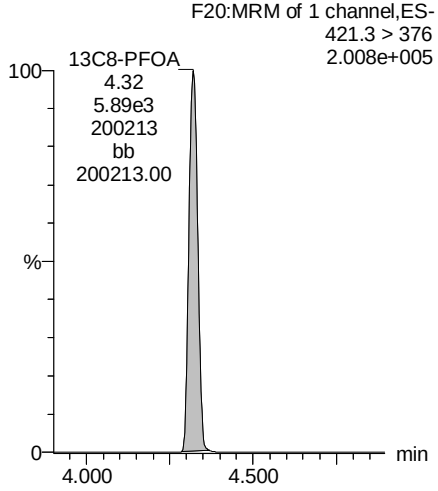


13C8-PFOS



13C8-PFOA



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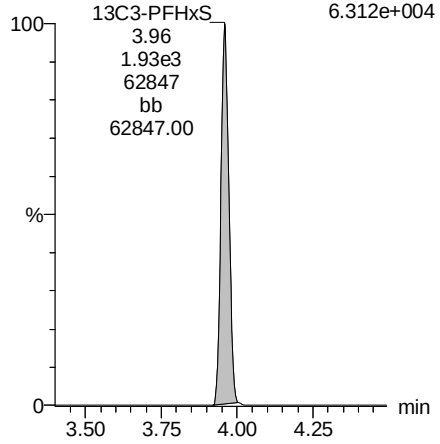
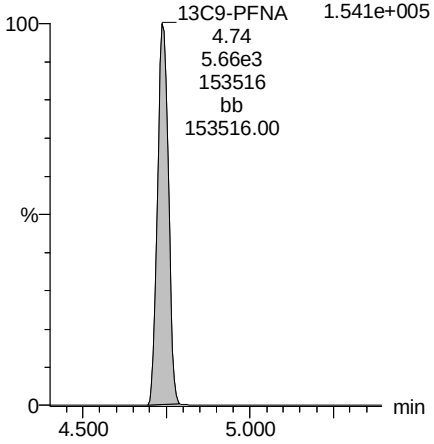
Last Altered: Thursday, January 18, 2018 15:08:27 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:08:56 Pacific Standard Time

Name: 171228M3_51, Date: 29-Dec-2017, Time: 01:16:59, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

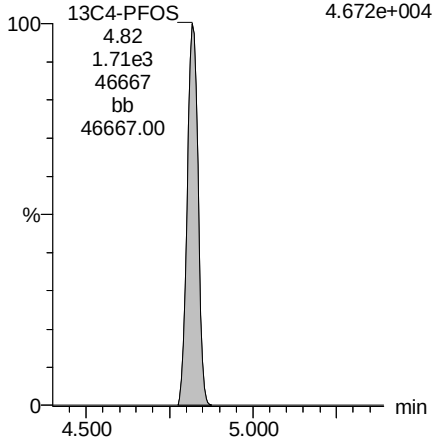
13C3-PFHxS



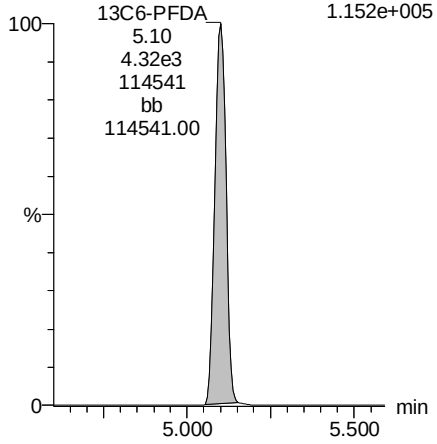
13C9-PFNA



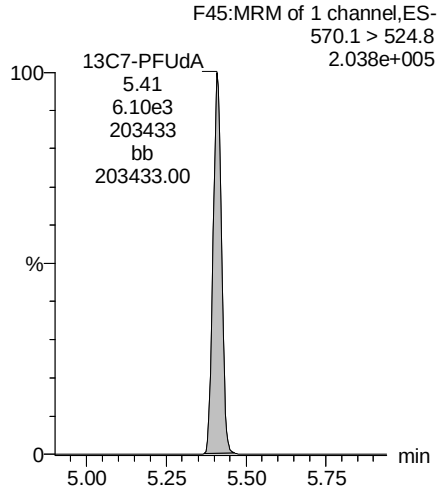
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171230M2\171230M2-4.qld

Last Altered: Thursday, January 18, 2018 14:37:44 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:38:58 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: 171230M2_4, Date: 30-Dec-2017, Time: 11:44:23, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.20e3	0.276		2.70				
2	4	PFHxA	313.2 > 268.9	9.67e2	2.42e3	0.276		3.12	3.13	2.00	3.9461	
3	5	PFHpA	363.0 > 318.9	6.95e2	6.29e3	0.276		3.75	3.74	1.38	3.3843	
4	6	L-PFHxS	398.9 > 79.6		9.20e2	0.276		3.85				
5	9	L-PFOA	413 > 368.7	1.65e3	8.28e3	0.276		4.25	4.25	2.49	6.8747	
6	12	PFNA	463.0 > 418.8	7.26e3	6.14e3	0.276		4.70	4.68	14.8	34.5005	
7	14	L-PFOS	499 > 79.9	1.22e3	1.87e3	0.276		4.75	4.76	8.16	22.2346	
8	16	PFDA	513 > 468.8		5.60e3	0.276		5.05				
9	18	N-MeFOSAA	570.1 > 419		2.99e3	0.276		5.20				
10	19	N-EtFOSAA	584.2 > 419		3.35e3	0.276		5.42				
11	20	PFUdA	563.0 > 518.9	9.97e2	6.16e3	0.276		5.35	5.37	2.02	6.0823	
12	22	PFDoA	612.9 > 569.0		5.96e3	0.276		5.70				

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Dataset: U:\Q4.PRO\results\171230M2\171230M2-4.qld

Last Altered: Thursday, January 18, 2018 14:37:44 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:39:07 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: 171230M2_4, Date: 30-Dec-2017, Time: 11:44:23, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	7.59e1	5.96e3	0.276		5.95	5.89	0.159	0.1354	
2	25	PFTeDA	712.9 > 668.8		1.94e3	0.276		6.16				
3	33	13C3-PFBS	302. > 98.8	1.20e3	7.99e3	0.276	0.108	2.70	2.64	1.88	63.2695	139.4
4	34	13C2-PFHxA	315 > 269.8	2.42e3	7.99e3	0.276	0.636	3.20	3.13	3.78	21.5840	118.9
5	35	13C4-PFHpA	367.2 > 321.8	6.29e3	7.99e3	0.276	0.652	3.80	3.74	9.84	54.7773	120.7
6	36	18O2-PFHxS	403.0 > 102.6	9.20e2	2.02e3	0.276	0.321	3.95	3.89	5.69	64.4571	142.1
7	37	13C2-6:2 FTS	429.1 > 408.9	1.55e3	6.70e3	0.276	0.192	4.26	4.20	2.90	54.7659	120.7
8	38	13C2-PFOA	414.9 > 369.7	8.28e3	6.70e3	0.276	0.945	4.32	4.25	15.5	59.4169	131.0
9	39	13C5-PFNA	468.2 > 422.9	6.14e3	7.55e3	0.276	0.832	4.75	4.69	10.2	44.3480	97.7
10	40	13C8-PFOSA	506.1 > 77.7	9.95e2	9.67e3	0.276	0.204	4.81	4.75	1.29	22.8978	50.5
11	41	13C8-PFOS	507.0 > 79.9	1.87e3	2.47e3	0.276	0.948	4.83	4.77	9.48	36.2939	80.0
12	42	13C2-PFDA	515.1 > 469.9	5.60e3	6.83e3	0.276	0.986	5.11	5.05	10.3	37.7229	83.1
13	43	13C2-8:2 FTS	529.1 > 508.7	1.37e3	7.99e3	0.276	0.124	5.09	5.02	2.15	62.6241	138.0
14	44	d3-N-MeFOSAA	573.3 > 419	2.99e3	9.67e3	0.276	0.391	5.26	5.20	3.86	35.8262	79.0
15	45	d5-N-EtFOSAA	589.3 > 419	3.35e3	9.67e3	0.276	0.451	5.42	5.35	4.33	34.8423	76.8
16	46	13C2-PFUdA	565 > 519.8	6.16e3	9.67e3	0.276	0.900	5.43	5.37	7.96	32.0787	70.7
17	47	13C2-PFDoA	615.0 > 569.7	5.96e3	9.67e3	0.276	0.617	5.70	5.65	7.70	45.3207	99.9
18	49	13C2-PFTeDA	714.8 > 669.6	1.94e3	9.67e3	0.276	0.196	6.16	6.11	2.51	46.5785	102.7
19	55	13C5-PFHxA	318 > 272.9	7.99e3	7.99e3	0.276	1.000	3.20	3.13	12.5	45.3721	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.02e3	2.02e3	0.276	1.000	3.95	3.89	12.5	45.3721	100.0
21	57	13C8-PFOA	421.3 > 376	6.70e3	6.70e3	0.276	1.000	4.32	4.25	12.5	45.3721	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.55e3	7.55e3	0.276	1.000	4.75	4.68	12.5	45.3721	100.0
23	59	13C4-PFOS	503 > 79.9	2.47e3	2.47e3	0.276	1.000	4.83	4.76	12.5	45.3721	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.83e3	6.83e3	0.276	1.000	5.11	5.05	12.5	45.3721	100.0
25	61	13C7-PFUdA	570.1 > 524.8	9.67e3	9.67e3	0.276	1.000	5.43	5.37	12.5	45.3721	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	9.20e2	0.276		4.00		0.000		
27	63	Total PFOA	413 > 368.7	1.78e3	8.28e3	0.276		4.30		2.49	6.8747	
28	64	Total PFOS	499 > 79.9	1.45e3	1.87e3	0.276		4.80		9.69	26.6666	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.99e3	0.276		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.35e3	0.276		5.40		0.000		

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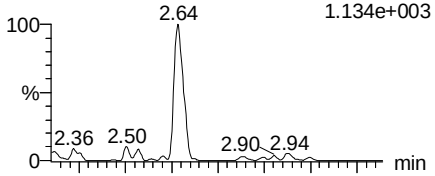
Dataset: U:\Q4.PRO\results\171230M2\171230M2-4.qld

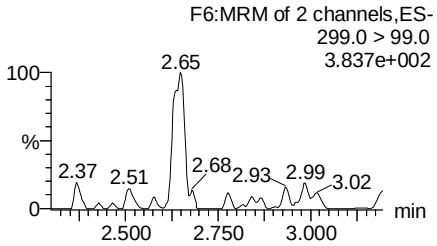
Last Altered: Thursday, January 18, 2018 14:37:44 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:39:07 Pacific Standard Time

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

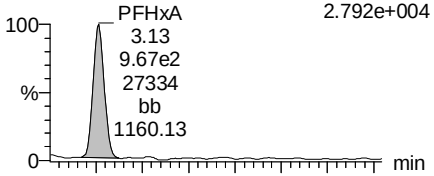
Name: 171230M2_4, Date: 30-Dec-2017, Time: 11:44:23, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

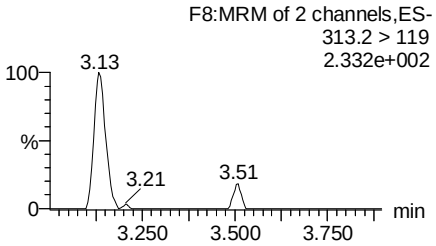
PFBS



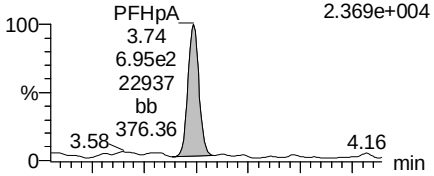


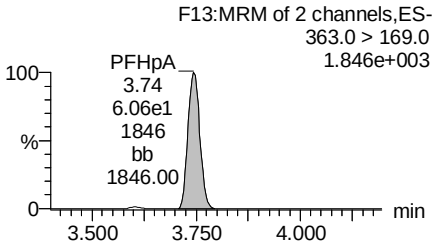
PFHxA





PFHpA





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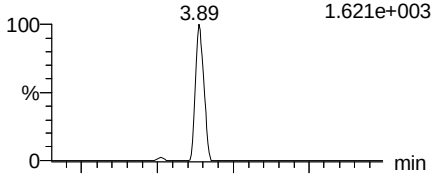

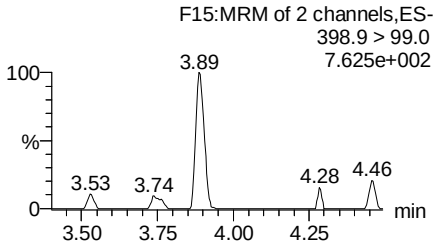

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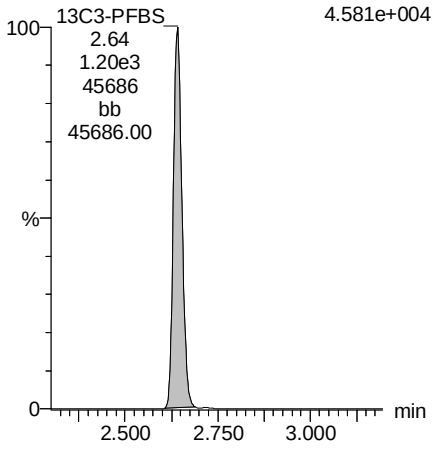

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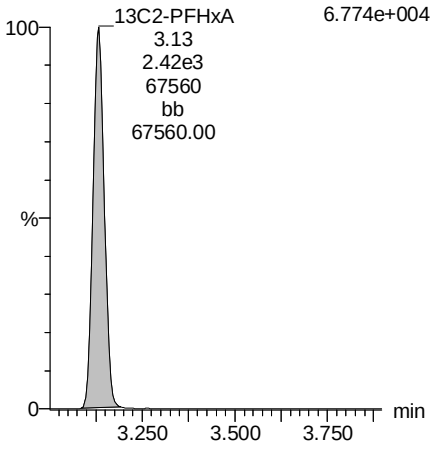

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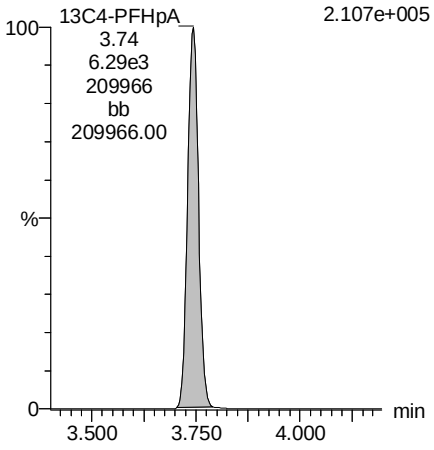
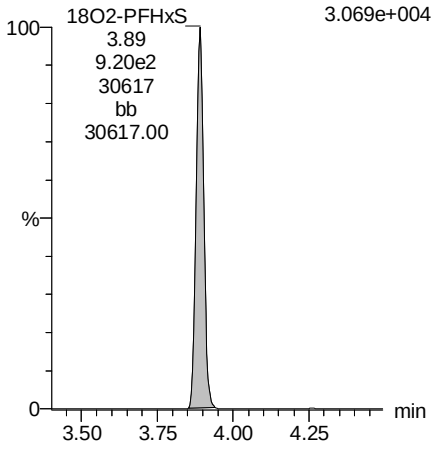


18O2-PFHxS



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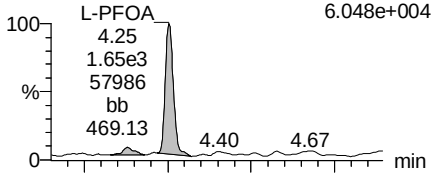
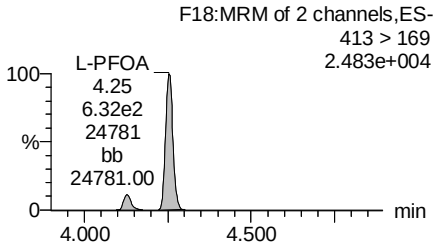
Last Altered: Thursday, January 18, 2018 14:37:44 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:39:07 Pacific Standard Time

Name: 171230M2_4, Date: 30-Dec-2017, Time: 11:44:23, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

Total PFOA





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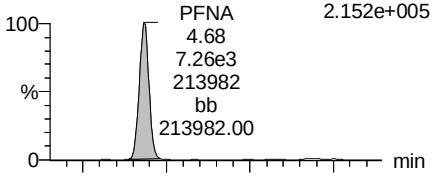
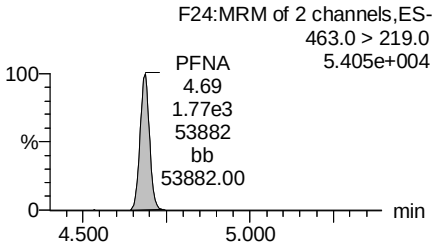
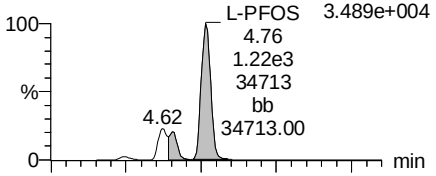
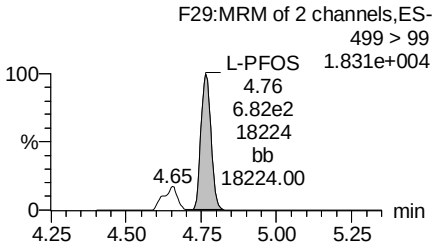




Total PFOS





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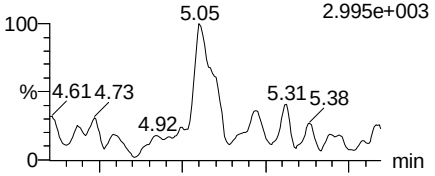
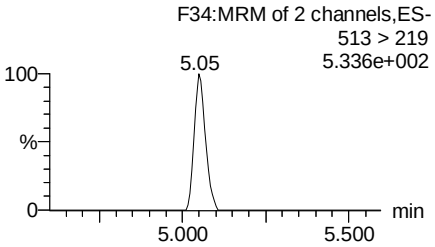
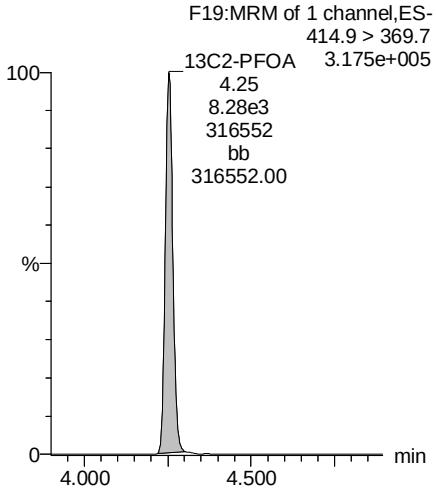




13C2-PFOA



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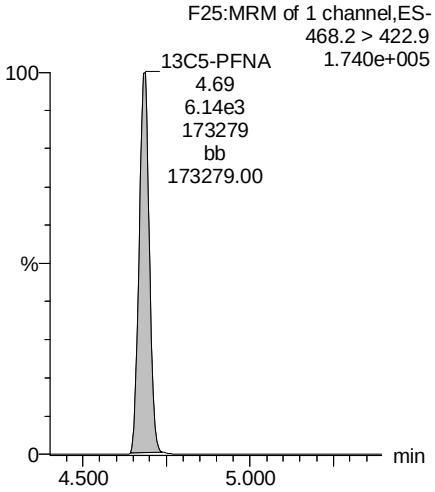
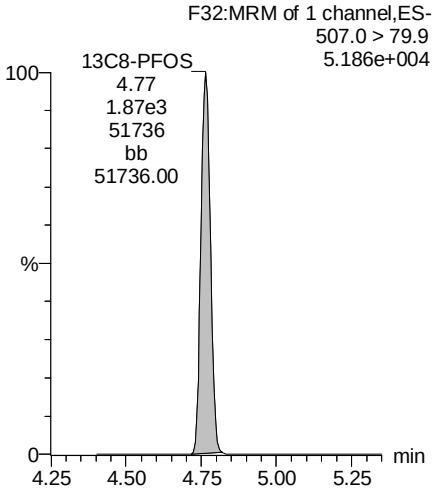


13C8-PFOS



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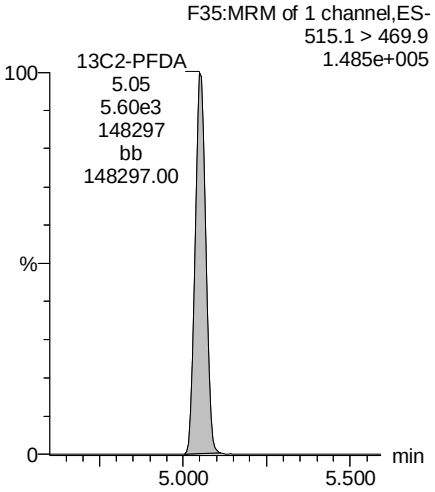

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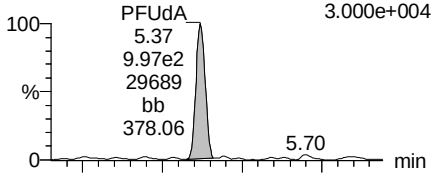
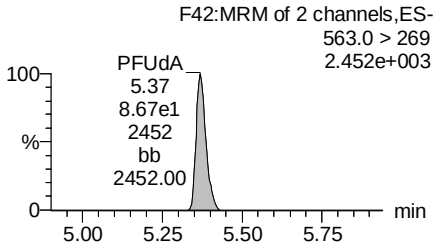
Printed: Thursday, January 18, 2018 14:39:07 Pacific Standard Time

Name: 171230M2_4, Date: 30-Dec-2017, Time: 11:44:23, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

PFUdA





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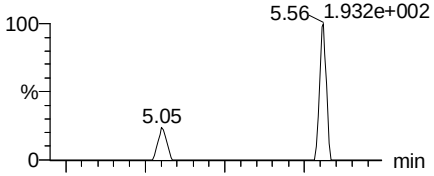

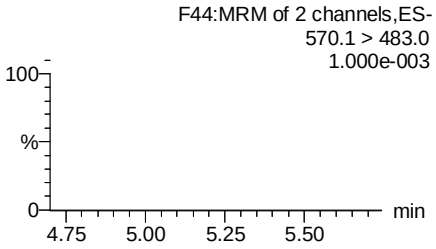

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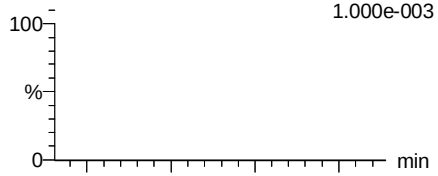
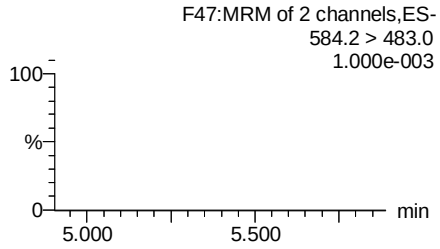
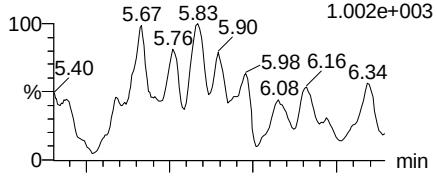
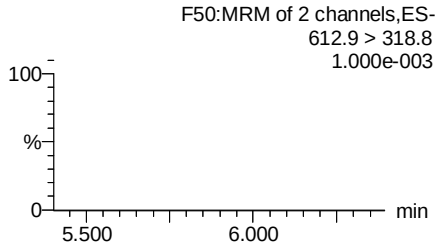




PFDoA





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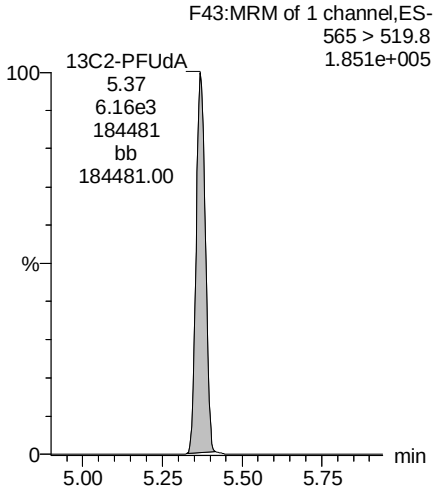

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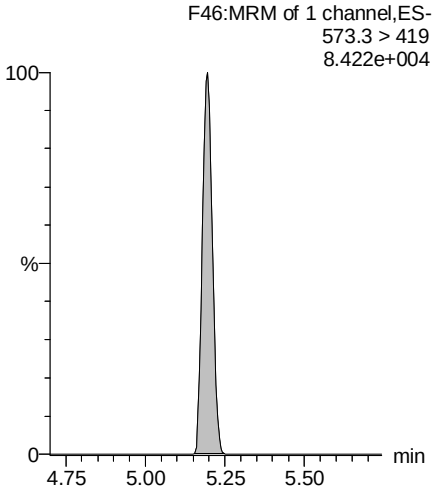

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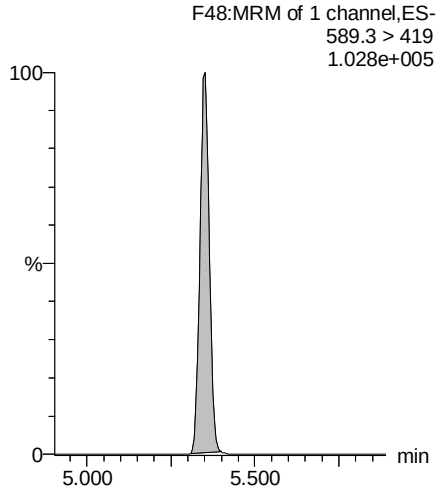

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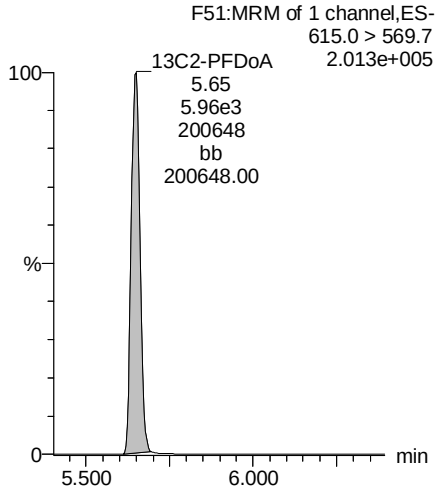

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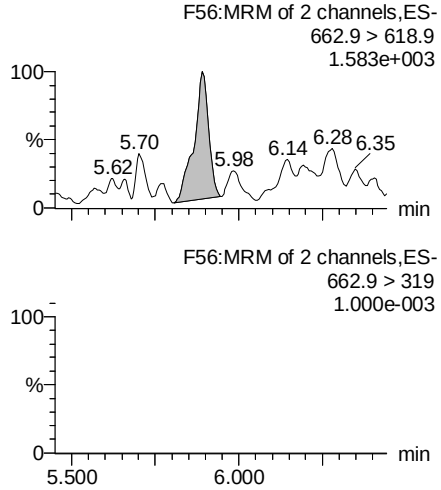
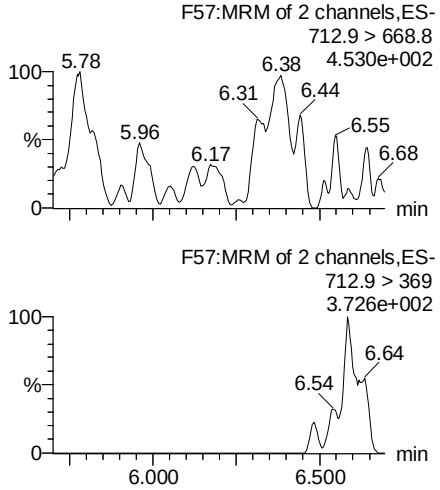
Name: 171230M2_4, Date: 30-Dec-2017, Time: 11:44:23, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

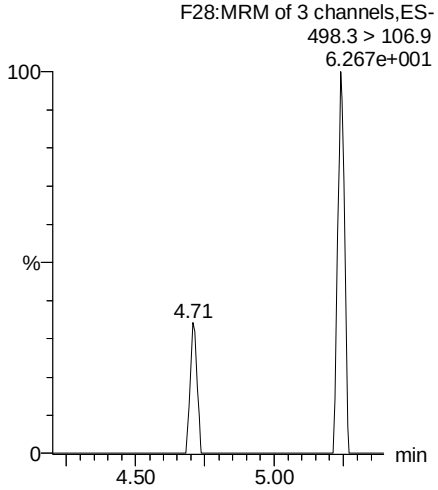
PFTrDA



PFTeDA



TCDA



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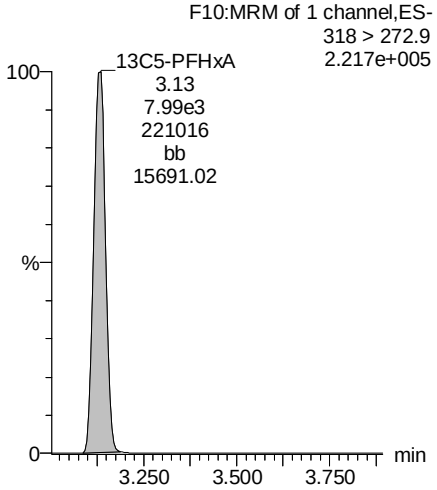

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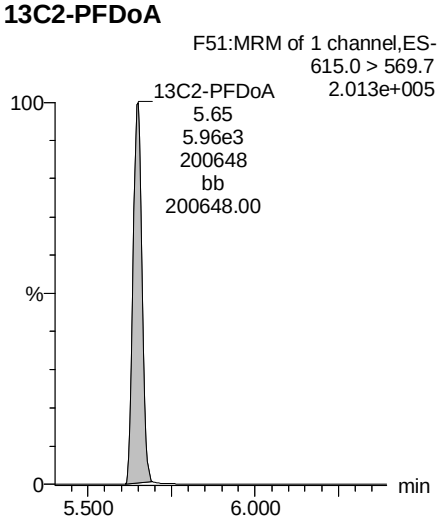

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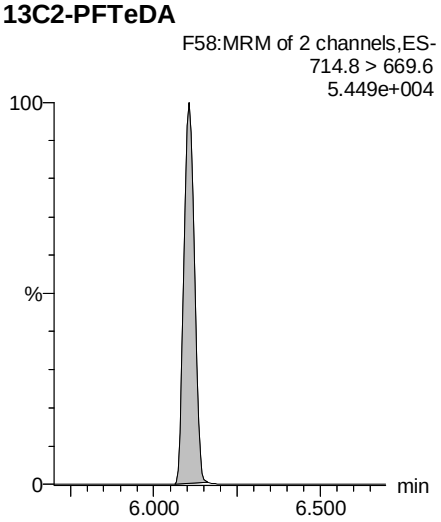
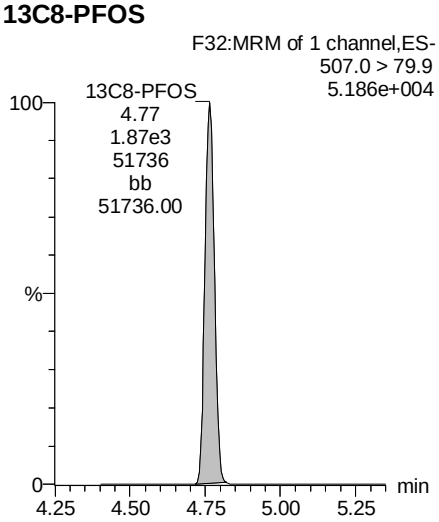


13C8-PFOS



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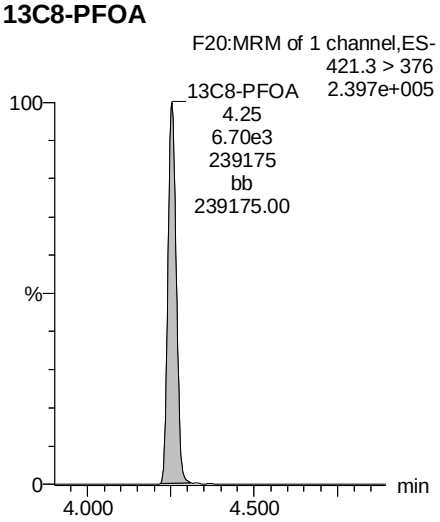

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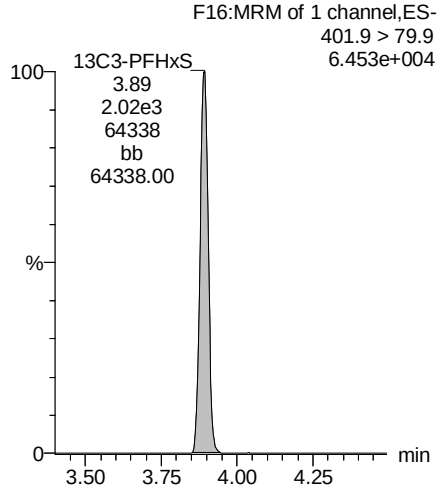
Name: 171230M2_4, Date: 30-Dec-2017, Time: 11:44:23, ID: 1701802-08RE1 FC-MW02IR1-P2-20171128 0.2755, Description: FC-MW02IR1-P2-20171128

13C3-PFHxS



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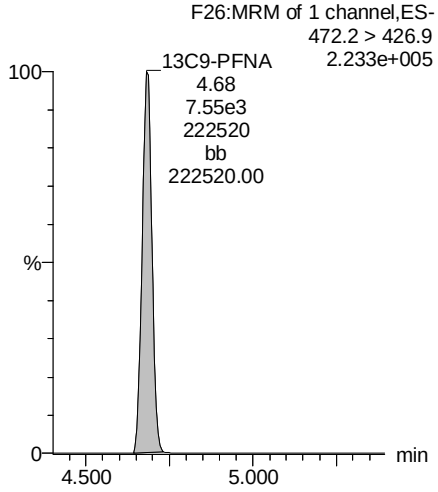

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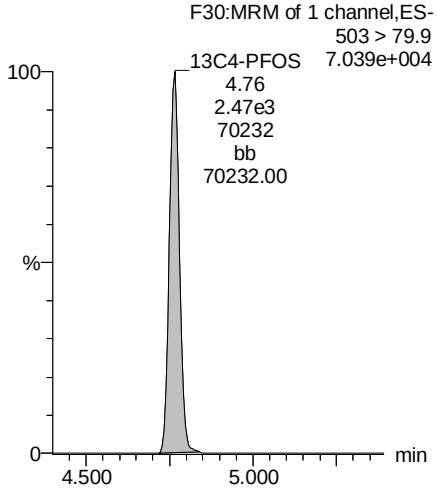

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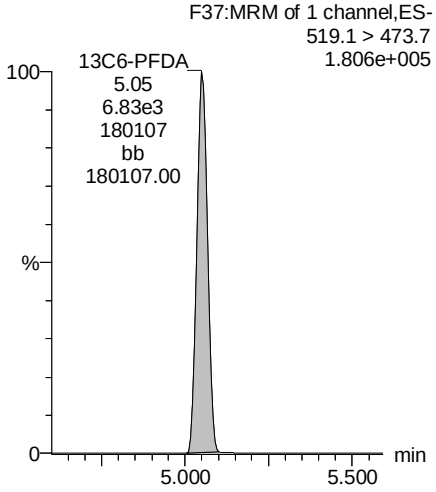
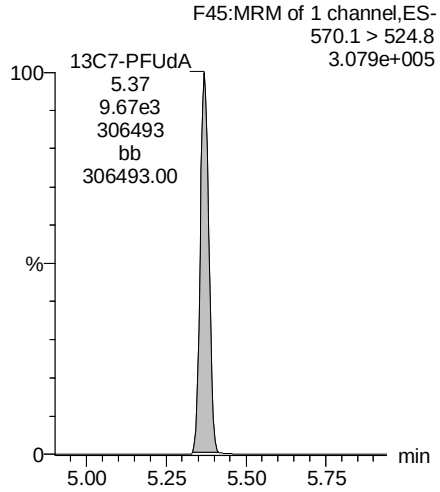


13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171230M2\171230M2-5.qld

Last Altered: Thursday, January 18, 2018 14:40:35 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:41:35 Pacific Standard Time

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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	0.263		2.70				
2	4	PFHxA	313.2 > 268.9	8.57e2	2.62e3	0.263		3.12	3.13	1.64	3.3983	
3	5	PFHpA	363.0 > 318.9	7.07e2	6.32e3	0.263		3.75	3.74	1.40	3.5961	
4	6	L-PFHxS	398.9 > 79.6		9.11e2	0.263		3.85				
5	9	L-PFOA	413 > 368.7	1.86e3	7.74e3	0.263		4.25	4.26	3.00	8.8343	
6	12	PFNA	463.0 > 418.8	8.22e3	6.64e3	0.263		4.70	4.68	15.5	37.9324	
7	14	L-PFOS	499 > 79.9	1.04e3	2.42e3	0.263		4.75	4.76	5.38	15.4832	
8	16	PFDA	513 > 468.8	1.51e2	6.46e3	0.263		5.05	5.06	0.293	0.8568	
9	18	N-MeFOSAA	570.1 > 419		2.96e3	0.263		5.20				
10	19	N-EtFOSAA	584.2 > 419		3.31e3	0.263		5.42				
11	20	PFUdA	563.0 > 518.9	1.18e3	8.16e3	0.263		5.35	5.37	1.81	5.6987	
12	22	PFDoA	612.9 > 569.0		6.01e3	0.263		5.70				

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Dataset: U:\Q4.PRO\results\171230M2\171230M2-5.qld

Last Altered: Thursday, January 18, 2018 14:40:35 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:41:50 Pacific Standard Time

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Name: 171230M2_5, Date: 30-Dec-2017, Time: 11:55:33, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		6.01e3	0.263		5.95				
2	25	PFTeDA	712.9 > 668.8		1.61e3	0.263		6.16				
3	33	13C3-PFBS	302. > 98.8	1.17e3	9.25e3	0.263	0.108	2.70	2.64	1.57	55.5573	116.7
4	34	13C2-PFHxA	315 > 269.8	2.62e3	9.25e3	0.263	0.636	3.20	3.13	3.54	21.2154	111.4
5	35	13C4-PFHpA	367.2 > 321.8	6.32e3	9.25e3	0.263	0.652	3.80	3.74	8.54	49.8656	104.7
6	36	18O2-PFHxS	403.0 > 102.6	9.11e2	2.13e3	0.263	0.321	3.95	3.89	5.35	63.5095	133.4
7	37	13C2-6:2 FTS	429.1 > 408.9	1.88e3	6.93e3	0.263	0.192	4.26	4.20	3.40	67.3617	141.5
8	38	13C2-PFOA	414.9 > 369.7	7.74e3	6.93e3	0.263	0.945	4.32	4.25	14.0	56.2751	118.2
9	39	13C5-PFNA	468.2 > 422.9	6.64e3	8.60e3	0.263	0.832	4.75	4.68	9.66	44.2049	92.8
10	40	13C8-PFOSA	506.1 > 77.7	1.44e3	7.66e3	0.263	0.204	4.81	4.75	2.35	43.8725	92.1
11	41	13C8-PFOS	507.0 > 79.9	2.42e3	2.18e3	0.263	0.948	4.83	4.77	13.9	55.7313	117.0
12	42	13C2-PFDA	515.1 > 469.9	6.46e3	8.16e3	0.263	0.986	5.11	5.05	9.91	38.2500	80.3
13	43	13C2-8:2 FTS	529.1 > 508.7	1.32e3	9.25e3	0.263	0.124	5.09	5.02	1.79	54.7978	115.1
14	44	d3-N-MeFOSAA	573.3 > 419	2.96e3	7.66e3	0.263	0.391	5.26	5.20	4.83	47.0458	98.8
15	45	d5-N-EtFOSAA	589.3 > 419	3.31e3	7.66e3	0.263	0.451	5.42	5.35	5.40	45.6234	95.8
16	46	13C2-PFUdA	565 > 519.8	8.16e3	7.66e3	0.263	0.900	5.43	5.37	13.3	56.3581	118.4
17	47	13C2-PFDoA	615.0 > 569.7	6.01e3	7.66e3	0.263	0.617	5.70	5.65	9.81	60.5836	127.2
18	49	13C2-PFTeDA	714.8 > 669.6	1.61e3	7.66e3	0.263	0.196	6.16	6.11	2.62	51.0214	107.2
19	55	13C5-PFHxA	318 > 272.9	9.25e3	9.25e3	0.263	1.000	3.20	3.13	12.5	47.6154	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.13e3	2.13e3	0.263	1.000	3.95	3.89	12.5	47.6154	100.0
21	57	13C8-PFOA	421.3 > 376	6.93e3	6.93e3	0.263	1.000	4.32	4.25	12.5	47.6154	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.60e3	8.60e3	0.263	1.000	4.75	4.68	12.5	47.6154	100.0
23	59	13C4-PFOS	503 > 79.9	2.18e3	2.18e3	0.263	1.000	4.83	4.76	12.5	47.6154	100.0
24	60	13C6-PFDA	519.1 > 473.7	8.16e3	8.16e3	0.263	1.000	5.11	5.05	12.5	47.6154	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.66e3	7.66e3	0.263	1.000	5.43	5.37	12.5	47.6154	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	9.11e2	0.263		4.00		0.000		
27	63	Total PFOA	413 > 368.7	1.86e3	7.74e3	0.263		4.30		3.00	8.8343	
28	64	Total PFOS	499 > 79.9	1.59e3	2.42e3	0.263		4.80		8.19	23.7495	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.96e3	0.263		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.31e3	0.263		5.40		0.000		

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Dataset: U:\Q4.PRO\results\171230M2\171230M2-5.qld

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Name: 171230M2_5, Date: 30-Dec-2017, Time: 11:55:33, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

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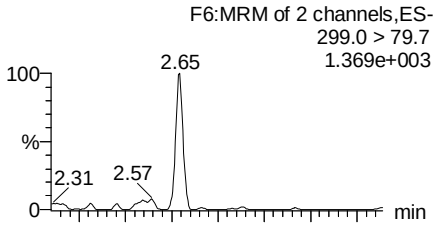
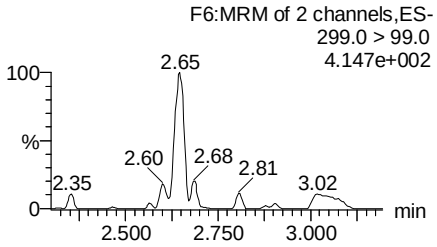
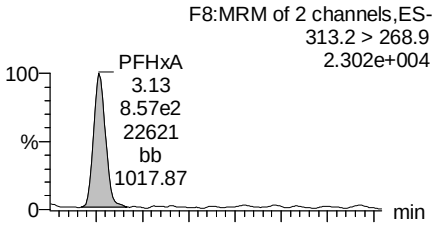
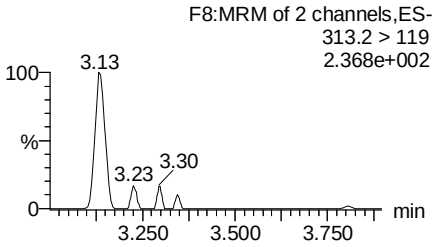




PFHxA





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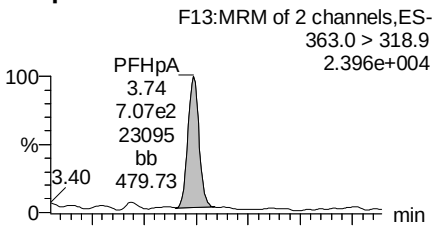

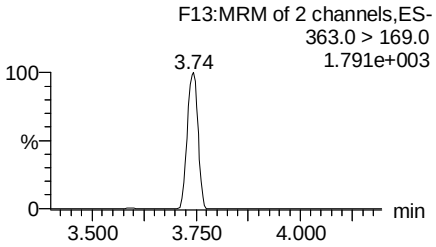

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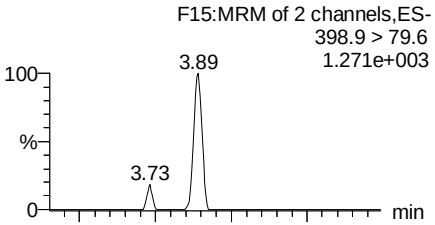

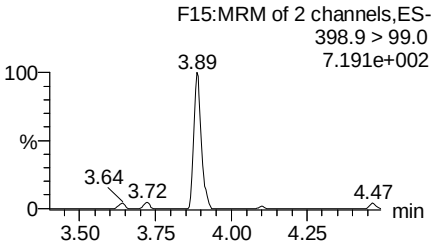

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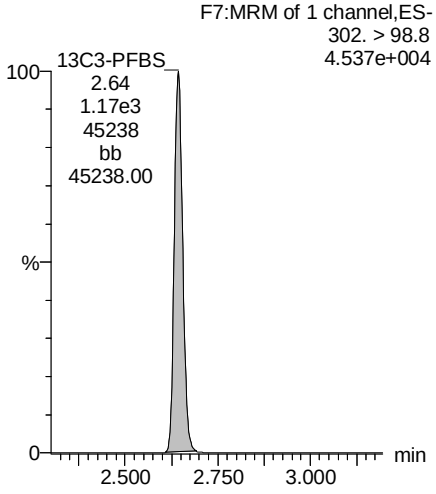

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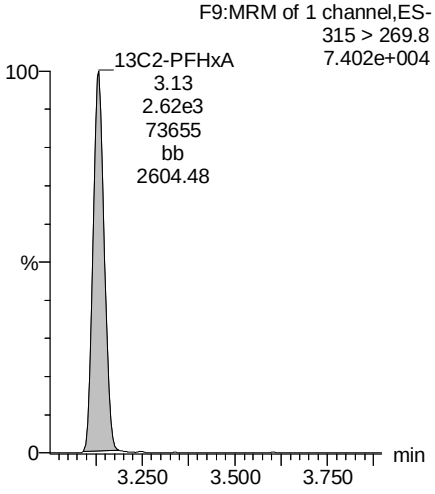

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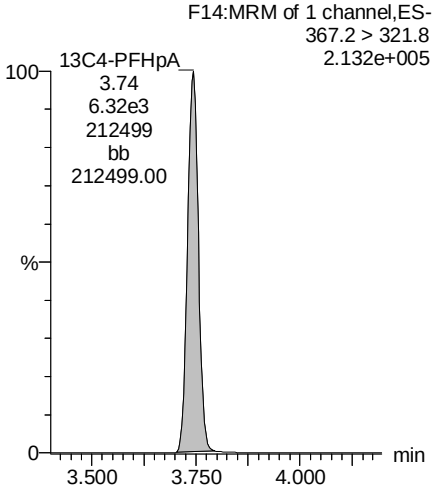

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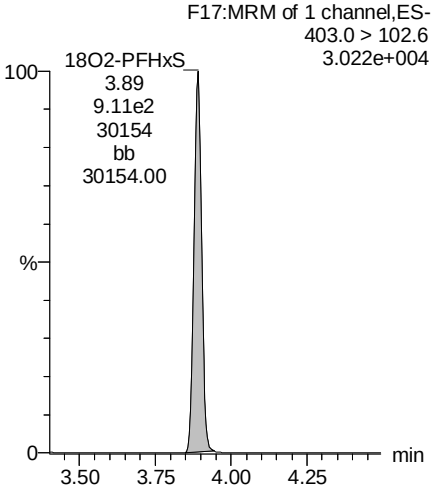

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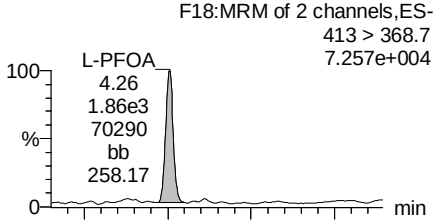
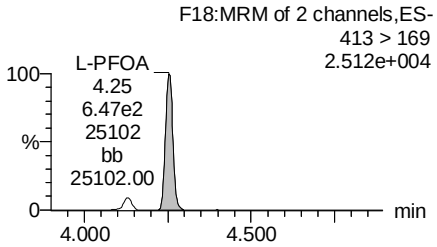
Printed: Thursday, January 18, 2018 14:41:50 Pacific Standard Time

Name: 171230M2_5, Date: 30-Dec-2017, Time: 11:55:33, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

Total PFOA





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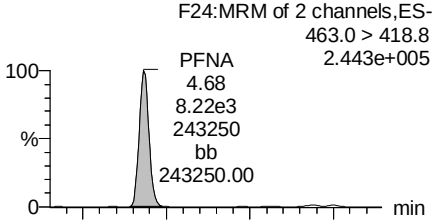
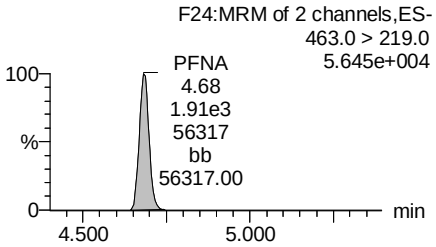
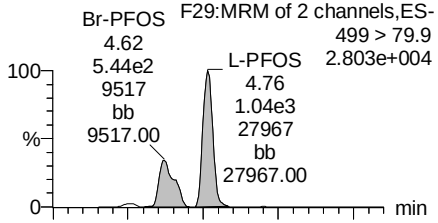
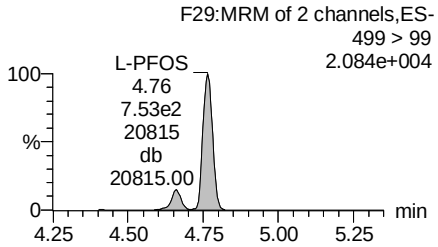




Total PFOS





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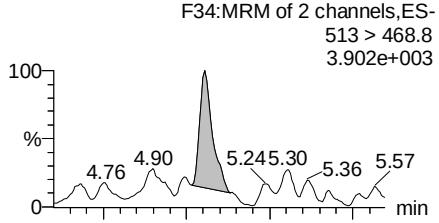

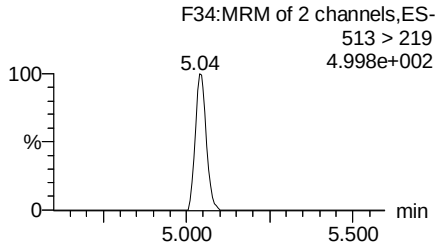

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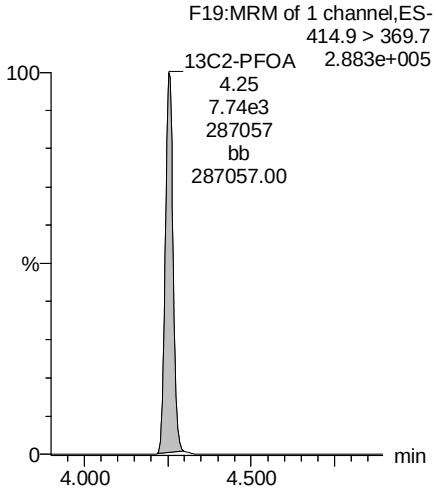
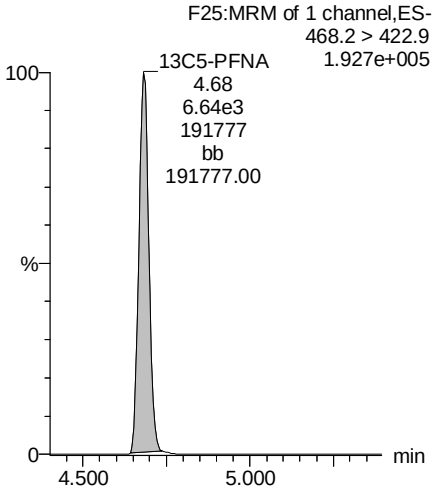


13C5-PFNA



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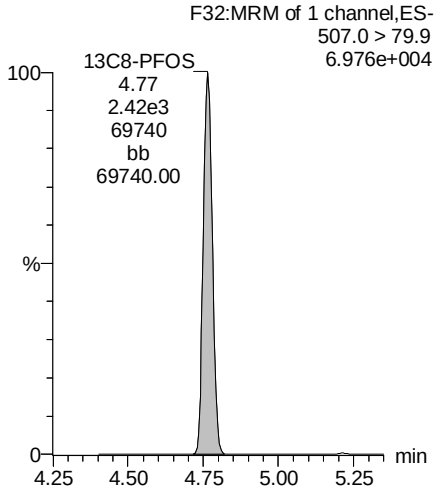

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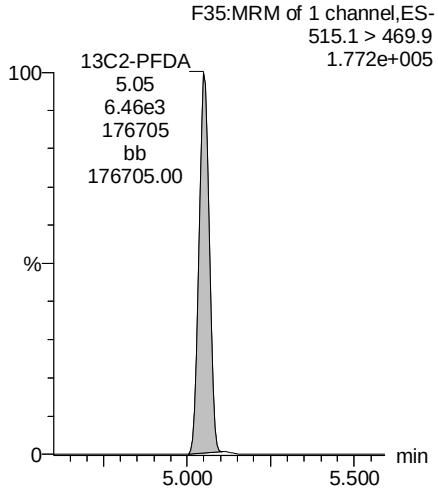

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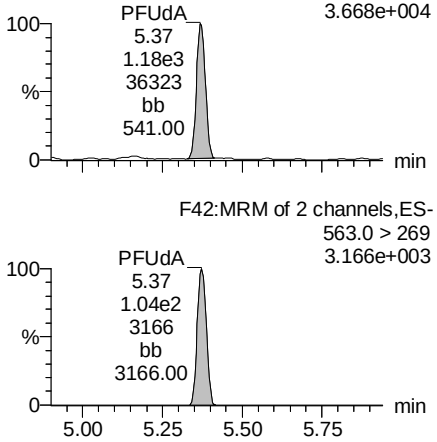
Name: 171230M2_5, Date: 30-Dec-2017, Time: 11:55:33, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

PFUdA



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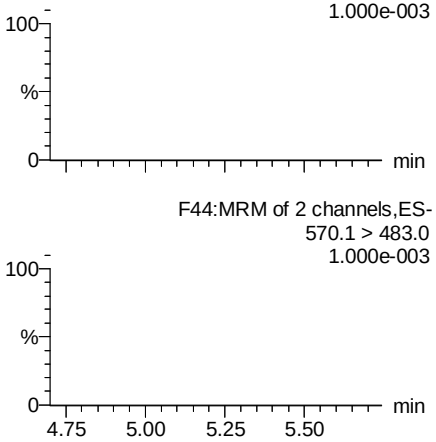

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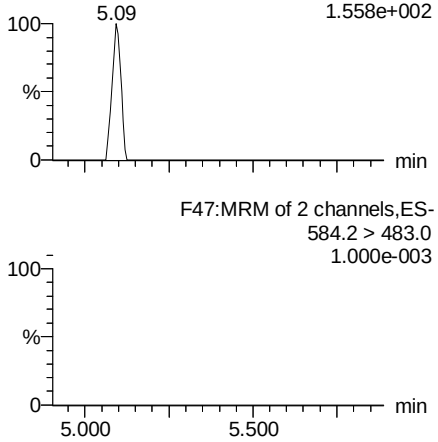

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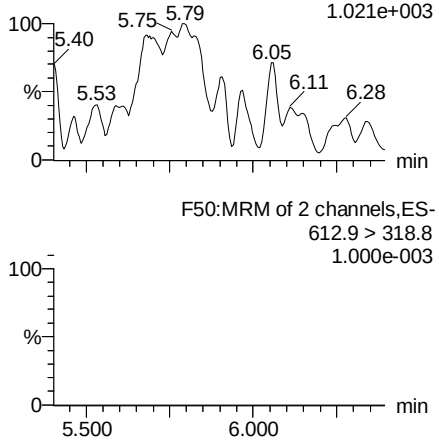

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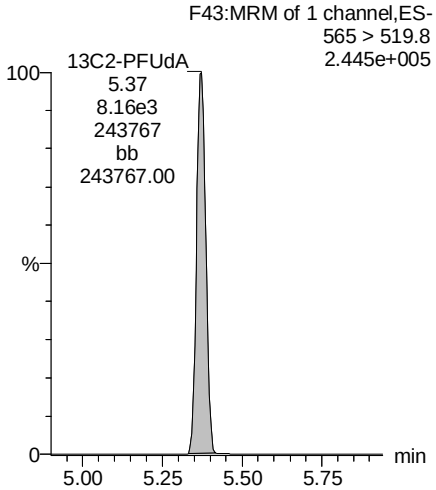

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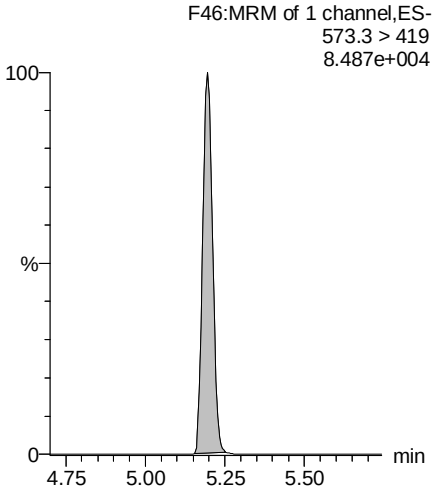

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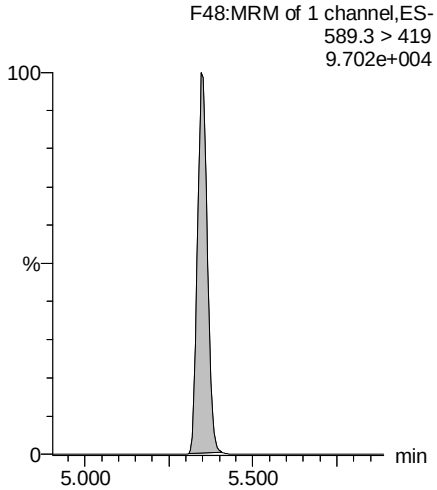

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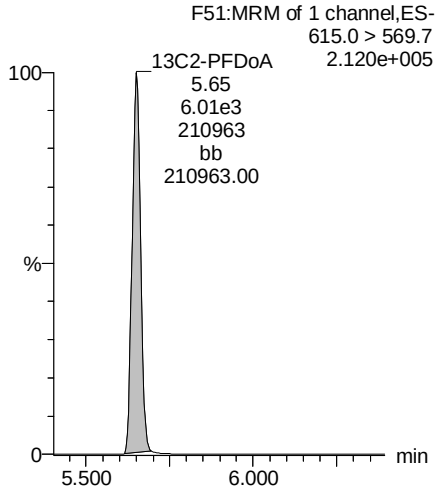

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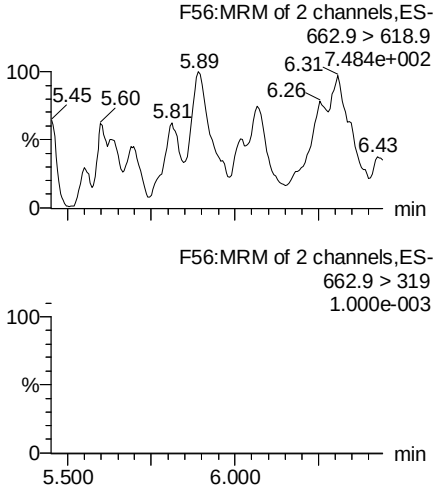
Name: 171230M2_5, Date: 30-Dec-2017, Time: 11:55:33, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

PFTrDA



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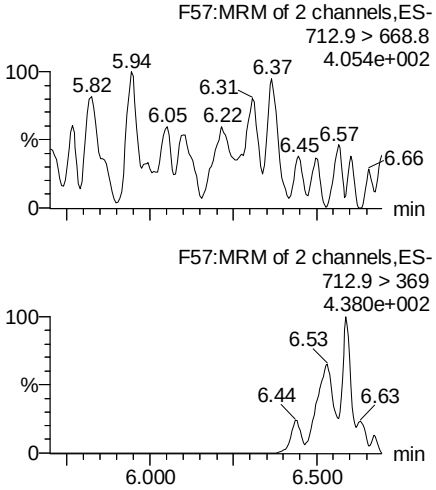

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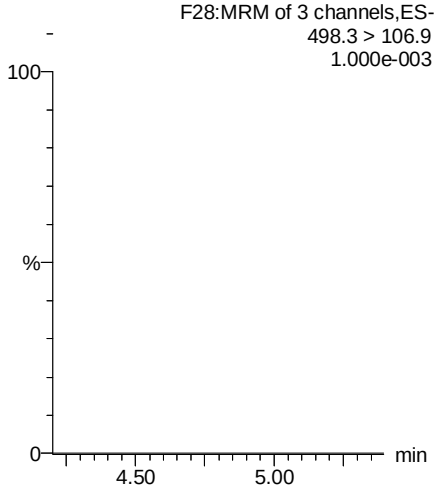
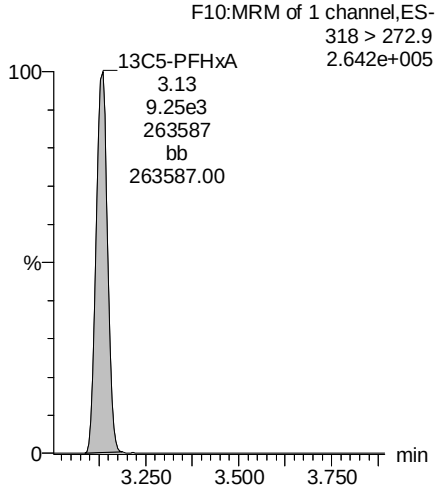
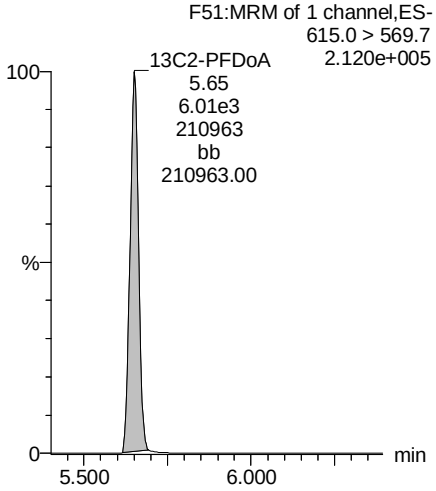


13C5-PFHxA



13C2-PFDoA



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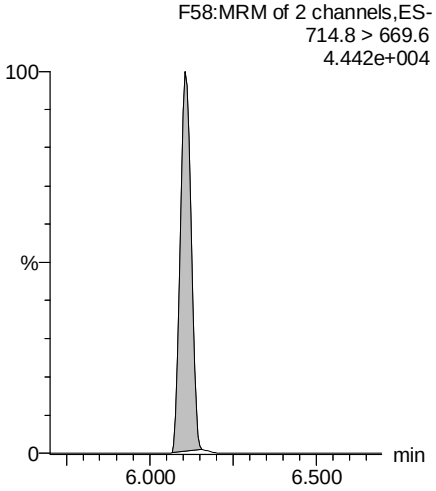

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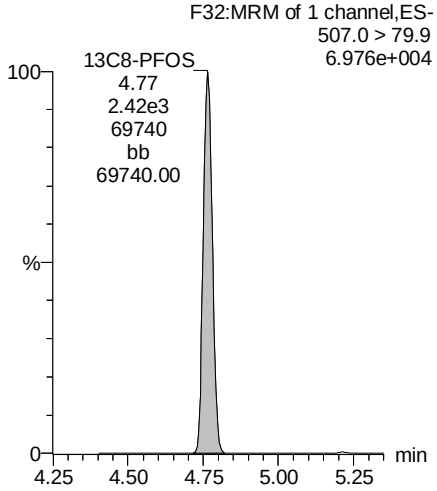
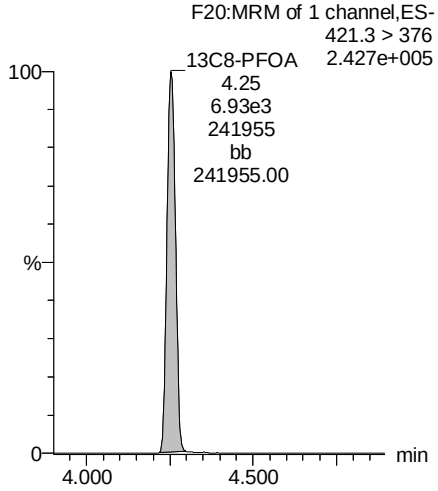


13C8-PFOA



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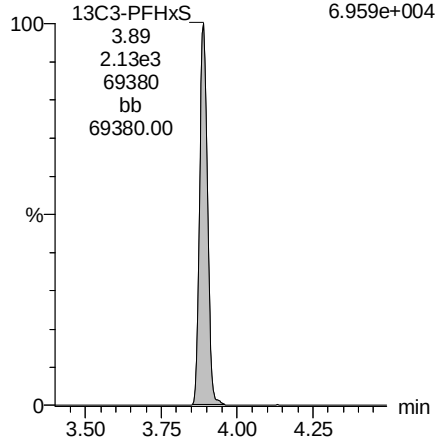
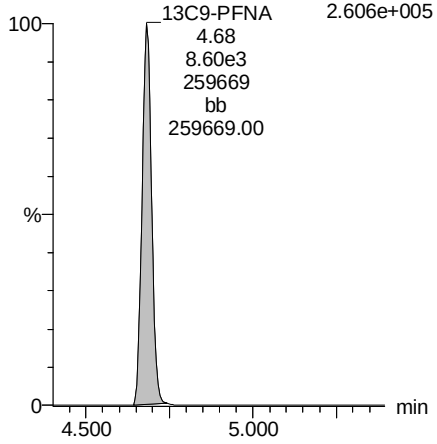
Name: 171230M2_5, Date: 30-Dec-2017, Time: 11:55:33, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

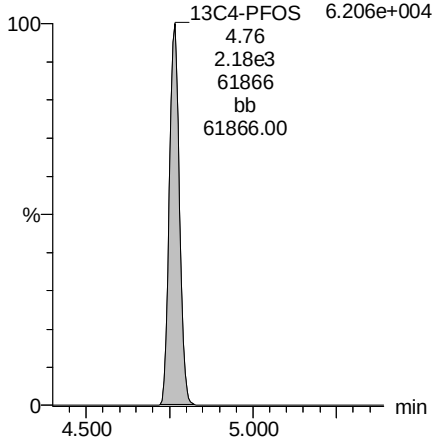
13C3-PFHxS



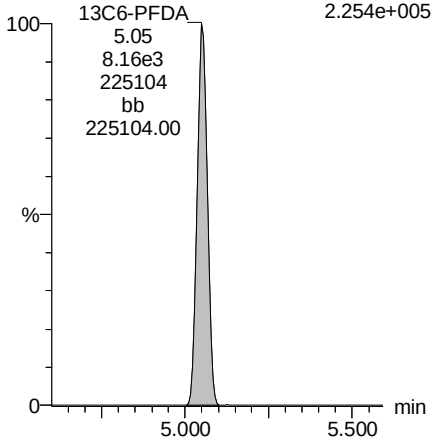
13C9-PFNA



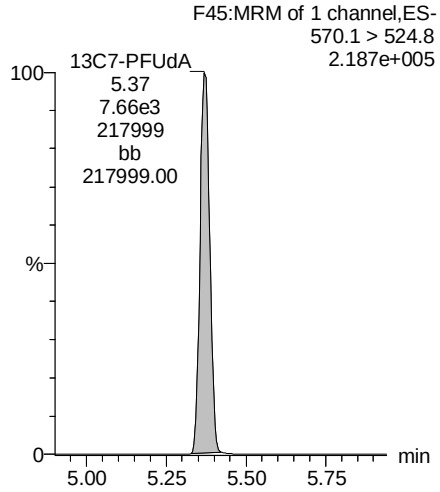
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

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Method: Z:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: Z:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-28-17_FULL.cdb 29 Dec 2017 11:25:37

Name: 171228M3_52, Date: 29-Dec-2017, Time: 01:28:09, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		7.94e2	0.263		2.70				
2	4	PFHxA	313.2 > 268.9	7.81e2	2.04e3	0.263		3.20	3.22	1.91	4.2110	
3	5	PFHpA	363.0 > 318.9	6.14e2	5.22e3	0.263		3.80	3.82	1.47	3.3932	
4	6	L-PFHxS	398.9 > 79.6		5.89e2	0.263		3.95				
5	9	L-PFOA	413 > 368.7	1.62e3	6.95e3	0.263		4.32	4.32	2.91	8.6474	
6	12	PFNA	463.0 > 418.8	4.33e3	5.68e3	0.263		4.75	4.74	9.53	24.1434	
7	14	L-PFOS	499 > 79.9	7.00e2	1.75e3	0.263		4.83	4.82	5.00	15.1454	
8	16	PFDA	513 > 468.8		3.73e3	0.263		5.11				
9	18	N-MeFOSAA	570.1 > 419		2.46e3	0.263		5.26				
10	19	N-EtFOSAA	584.2 > 419		2.31e3	0.263		5.42				
11	20	PFUdA	563.0 > 518.9	5.41e2	6.26e3	0.263		5.43	5.41	1.08	3.1330	
12	22	PFDoA	612.9 > 569.0		4.52e3	0.263		5.70				

Vista Analytical Laboratory

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Last Altered: Thursday, January 18, 2018 15:09:35 Pacific Standard Time
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Name: 171228M3_52, Date: 29-Dec-2017, Time: 01:28:09, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

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1	24	PFTrDA	662.9 > 618.9		4.52e3	0.263		5.95				
2	25	PFTeDA	712.9 > 668.8		1.41e3	0.263		6.16				
3	33	13C3-PFBS	302. > 98.8	7.94e2	6.86e3	0.263	0.101	2.70	2.73	1.45	54.7382	115.0
4	34	13C2-PFHxA	315 > 269.8	2.04e3	6.86e3	0.263	0.629	3.20	3.22	3.71	22.4810	118.0
5	35	13C4-PFHpA	367.2 > 321.8	5.22e3	6.86e3	0.263	0.585	3.80	3.82	9.51	61.9873	130.2
6	36	18O2-PFHxS	403.0 > 102.6	5.89e2	1.63e3	0.263	0.341	3.95	3.96	4.52	50.5281	106.1
7	37	13C2-6:2 FTS	429.1 > 408.9	1.63e3	6.46e3	0.263	0.238	4.26	4.27	3.15	50.4188	105.9
8	38	13C2-PFOA	414.9 > 369.7	6.95e3	6.46e3	0.263	0.934	4.32	4.32	13.4	54.8045	115.1
9	39	13C5-PFNA	468.2 > 422.9	5.68e3	5.84e3	0.263	0.841	4.75	4.74	12.2	55.1067	115.7
10	40	13C8-PFOSA	506.1 > 77.7	6.45e2	6.43e3	0.263	0.202	4.81	4.82	1.25	23.6357	49.6
11	41	13C8-PFOS	507.0 > 79.9	1.75e3	1.52e3	0.263	0.906	4.83	4.82	14.4	60.5227	127.1
12	42	13C2-PFDA	515.1 > 469.9	3.73e3	4.89e3	0.263	1.050	5.11	5.10	9.52	34.5277	72.5
13	43	13C2-8:2 FTS	529.1 > 508.7	8.92e2	6.86e3	0.263	0.109	5.09	5.07	1.62	56.6910	119.1
14	44	d3-N-MeFOSAA	573.3 > 419	2.46e3	6.43e3	0.263	0.454	5.26	5.24	4.78	40.0431	84.1
15	45	d5-N-EtFOSAA	589.3 > 419	2.31e3	6.43e3	0.263	0.503	5.42	5.39	4.49	33.9829	71.4
16	46	13C2-PFUdA	565 > 519.8	6.26e3	6.43e3	0.263	0.904	5.43	5.41	12.2	51.3161	107.8
17	47	13C2-PFDoA	615.0 > 569.7	4.52e3	6.43e3	0.263	0.561	5.70	5.69	8.79	59.6808	125.3
18	49	13C2-PFTeDA	714.8 > 669.6	1.41e3	6.43e3	0.263	0.183	6.16	6.13	2.74	56.8897	119.5
19	55	13C5-PFHxA	318 > 272.9	6.86e3	6.86e3	0.263	1.000	3.20	3.22	12.5	47.6154	100.0
20	56	13C3-PFHxS	401.9 > 79.9	1.63e3	1.63e3	0.263	1.000	3.95	3.96	12.5	47.6154	100.0
21	57	13C8-PFOA	421.3 > 376	6.46e3	6.46e3	0.263	1.000	4.32	4.32	12.5	47.6154	100.0
22	58	13C9-PFNA	472.2 > 426.9	5.84e3	5.84e3	0.263	1.000	4.75	4.74	12.5	47.6154	100.0
23	59	13C4-PFOS	503 > 79.9	1.52e3	1.52e3	0.263	1.000	4.83	4.82	12.5	47.6154	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.89e3	4.89e3	0.263	1.000	5.11	5.10	12.5	47.6154	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.43e3	6.43e3	0.263	1.000	5.43	5.41	12.5	47.6154	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	5.89e2	0.263		4.00		0.000		
27	63	Total PFOA	413 > 368.7	1.75e3	6.95e3	0.263		4.30		3.14	8.7045	
28	64	Total PFOS	499 > 79.9	8.40e2	1.75e3	0.263		4.80		6.00	18.3981	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.46e3	0.263		5.20		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.31e3	0.263		5.40		0.000		

Vista Analytical Laboratory

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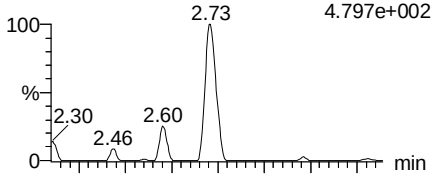
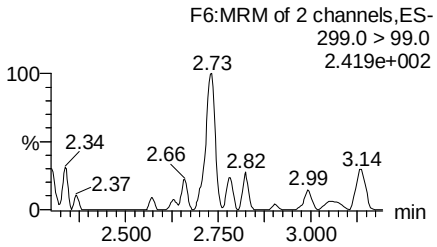
Name: 171228M3_52, Date: 29-Dec-2017, Time: 01:28:09, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

PFBS





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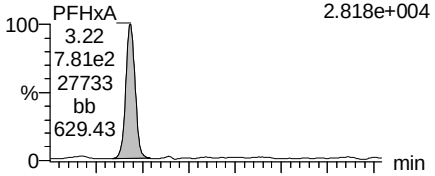
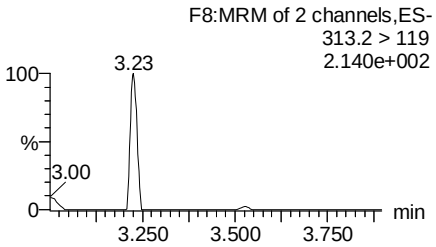
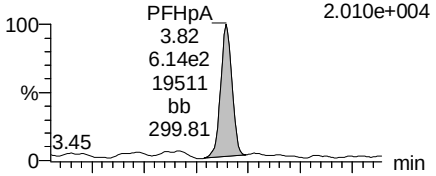
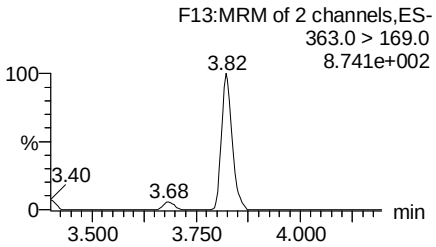




PFHpA





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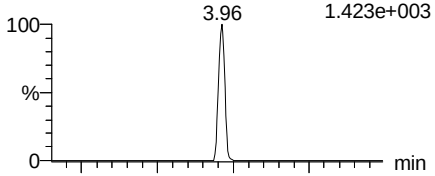
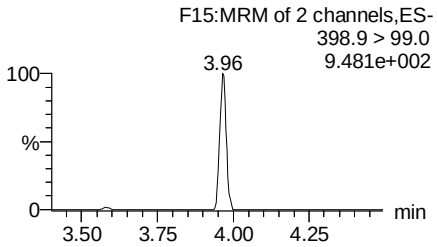
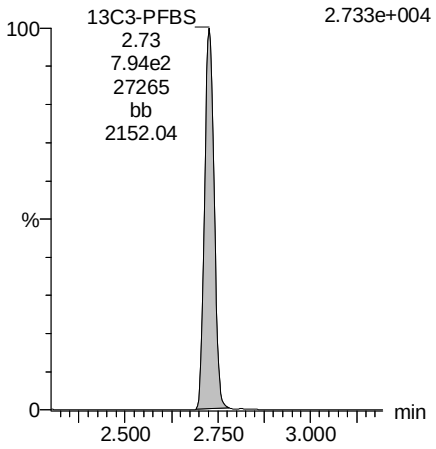




13C3-PFBS



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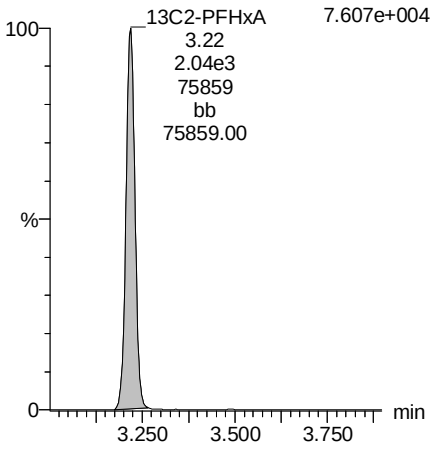
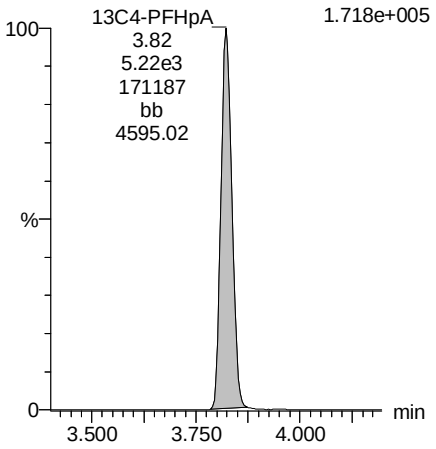


13C4-PFHpA



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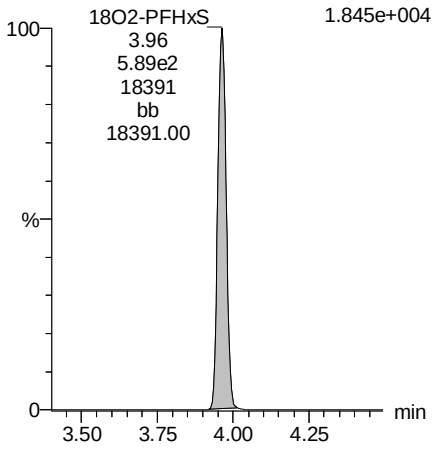

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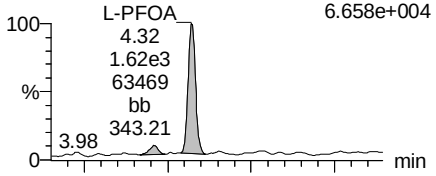
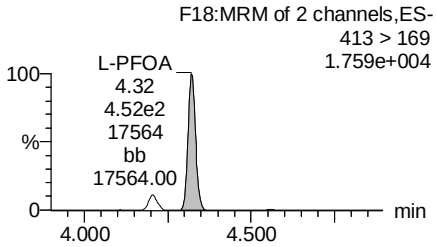
Total PFOA





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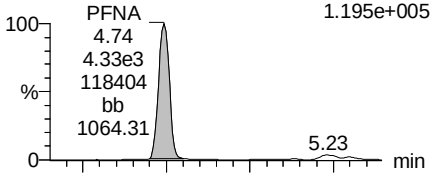

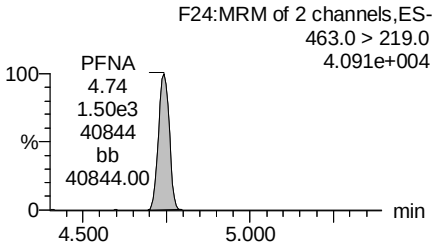

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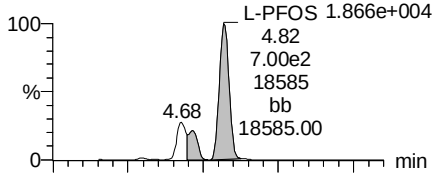

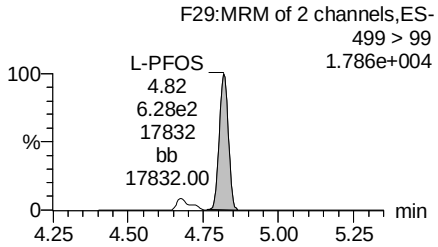

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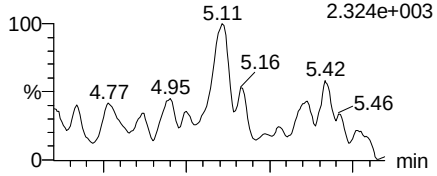

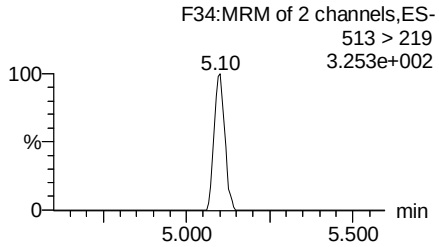

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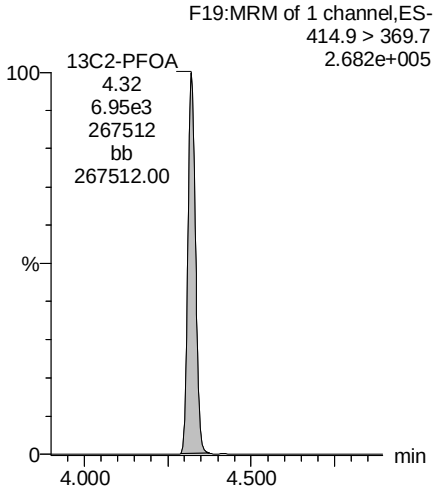
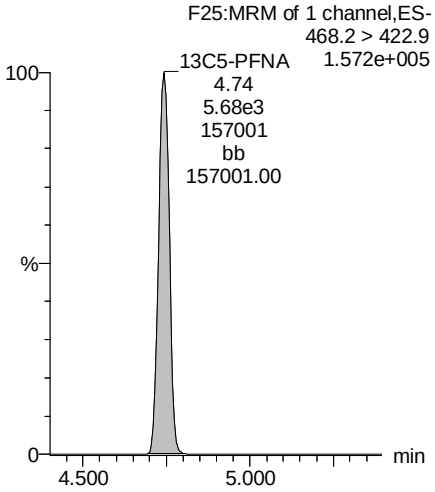
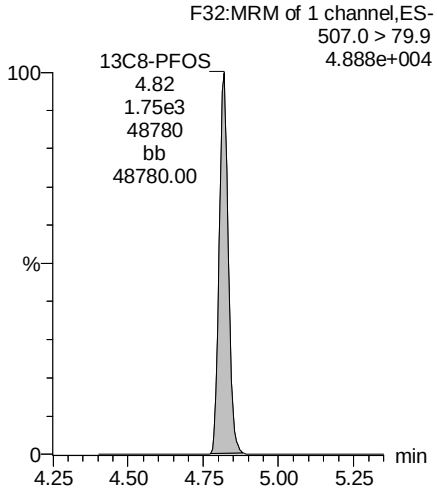


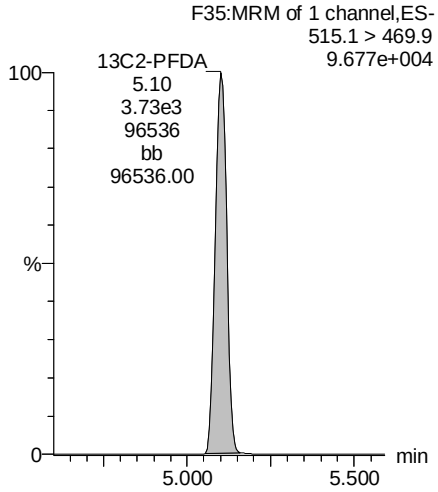
13C5-PFNA



13C8-PFOS



13C2-PFDA



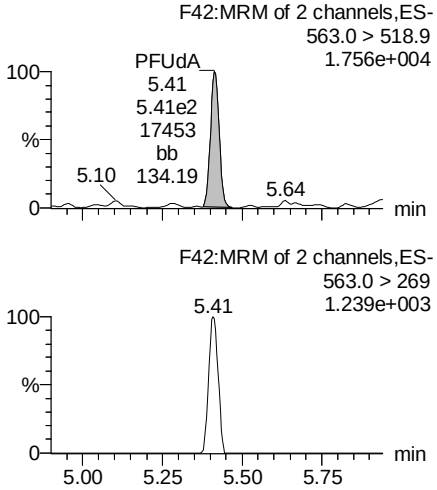
Vista Analytical Laboratory

Dataset: Untitled

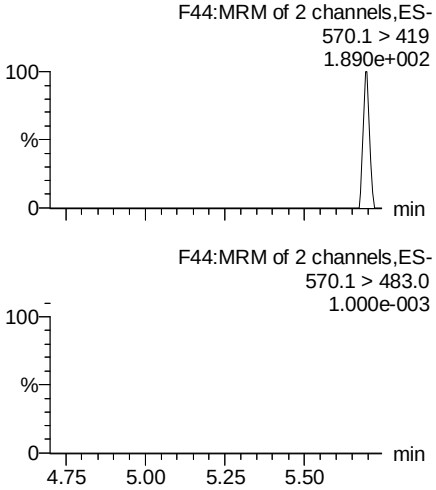
Last Altered: Thursday, January 18, 2018 15:09:35 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:10:08 Pacific Standard Time

Name: 171228M3_52, Date: 29-Dec-2017, Time: 01:28:09, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

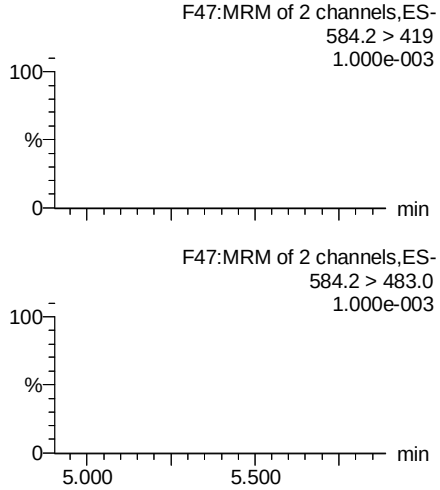
PFUdA



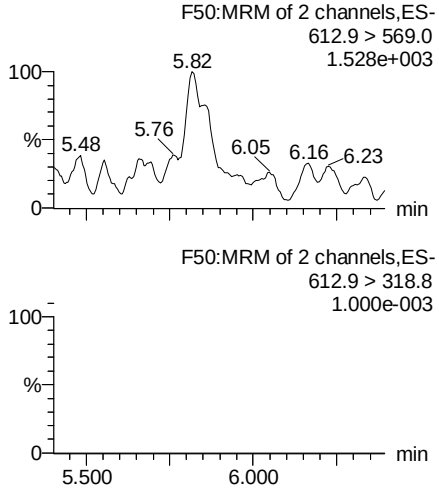
N-MeFOSAA



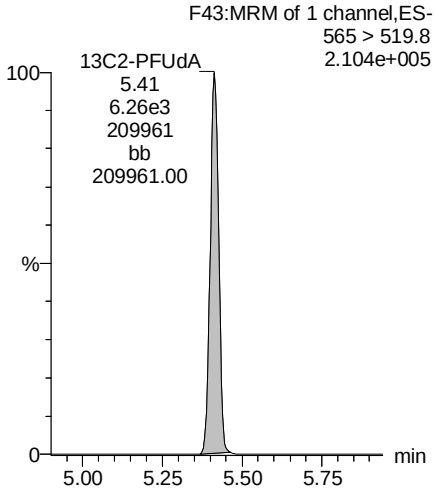
N-EtFOSAA



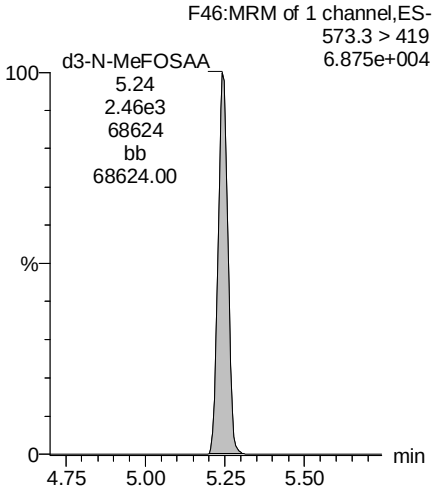
PFDoA



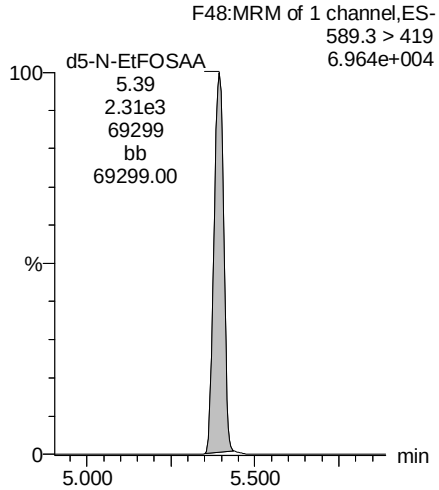
13C2-PFUdA



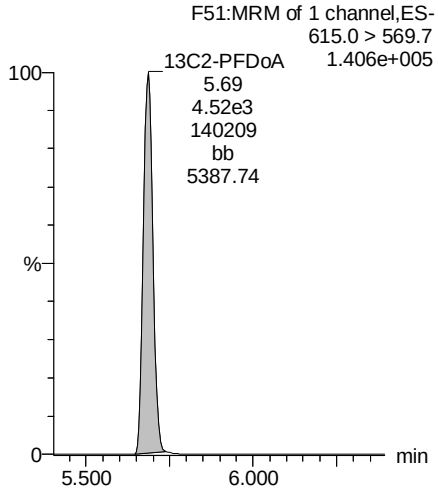
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



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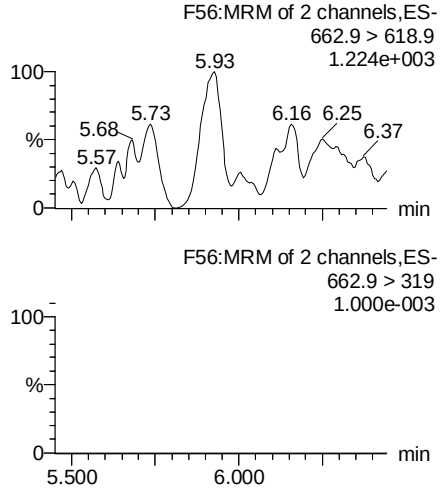
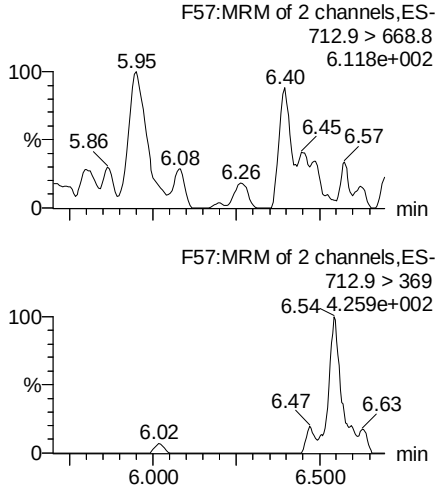
Last Altered: Thursday, January 18, 2018 15:09:35 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:10:08 Pacific Standard Time

Name: 171228M3_52, Date: 29-Dec-2017, Time: 01:28:09, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

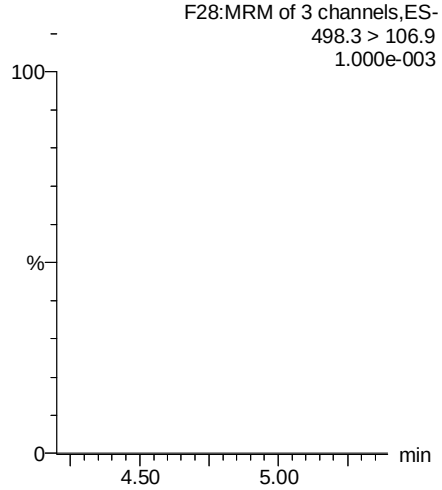
PFTrDA



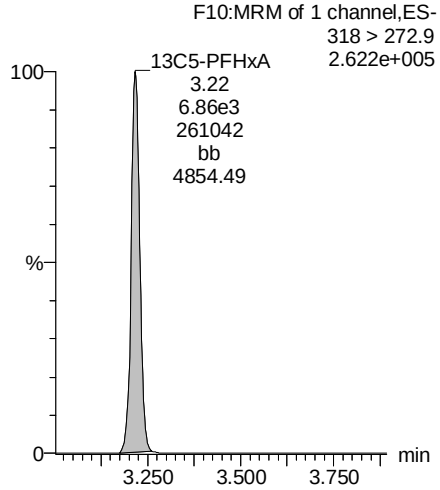
PFTeDA



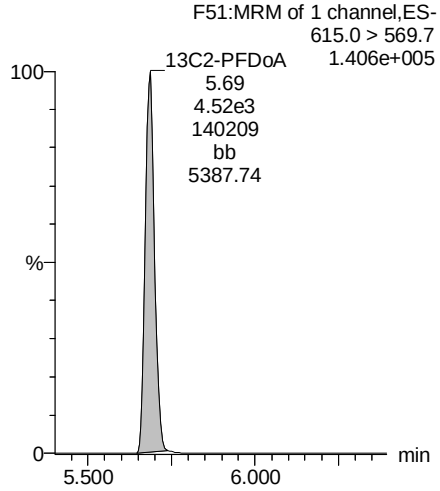
TCDA



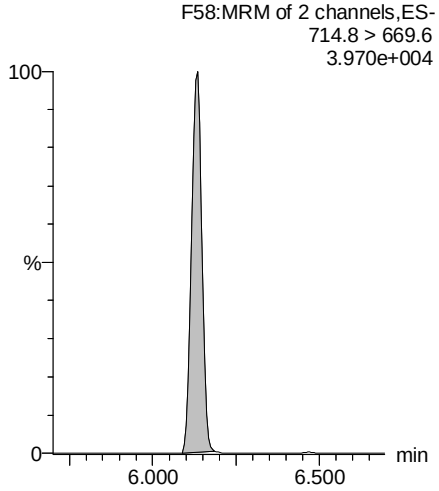
13C5-PFHxA



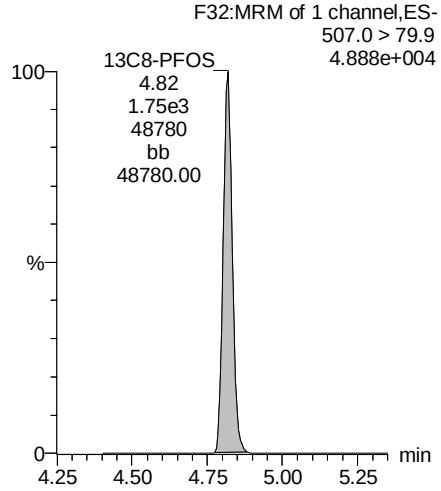
13C2-PFDoA



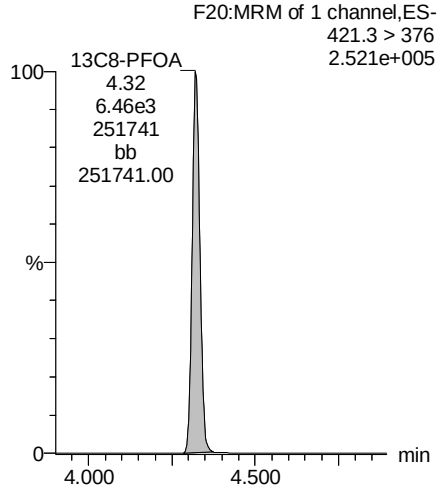
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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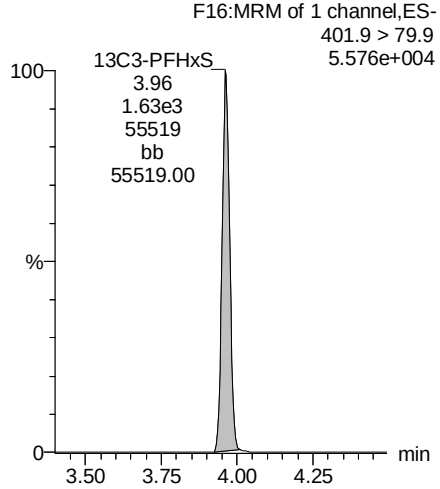
Last Altered: Thursday, January 18, 2018 15:09:35 Pacific Standard Time
Printed: Thursday, January 18, 2018 15:10:08 Pacific Standard Time

Name: 171228M3_52, Date: 29-Dec-2017, Time: 01:28:09, ID: 1701802-09RE1 FC-MW02IR1-P3-20171128 0.26252, Description: FC-MW02IR1-P3-20171128

13C3-PFHxS



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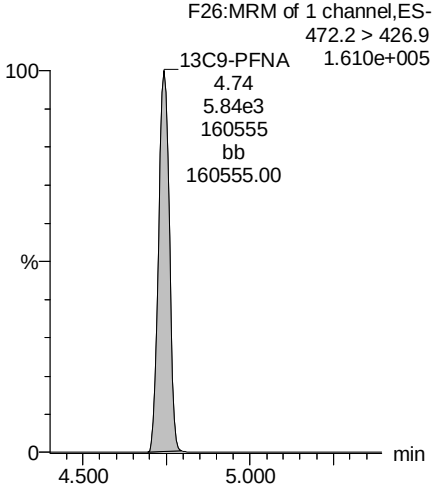
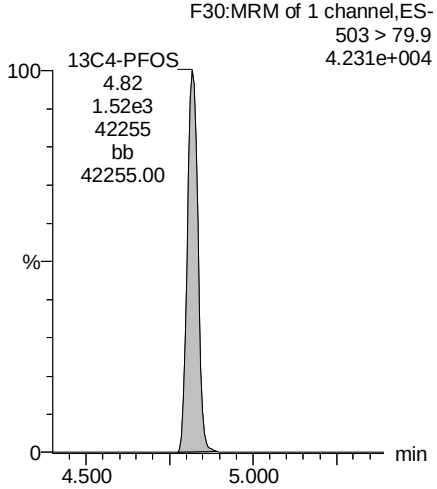
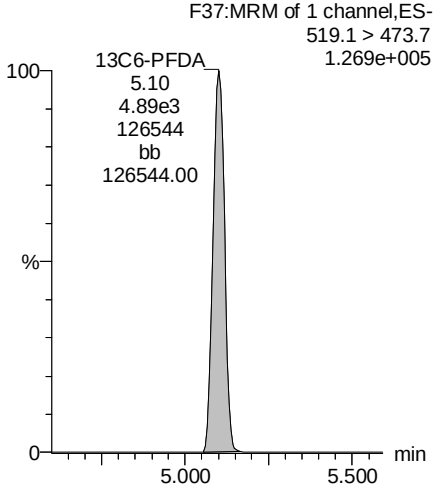


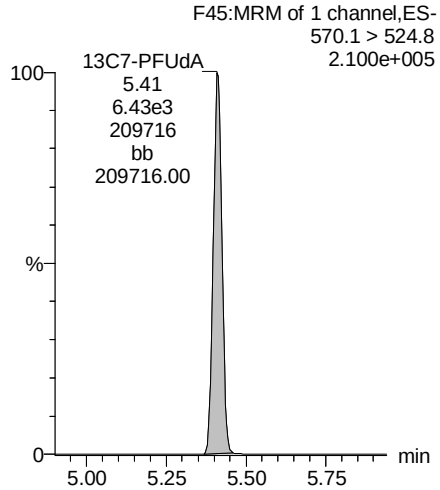
13C4-PFOS



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\171215M2\IIS.qld

Last Altered: Saturday, December 16, 2017 14:45:30 Pacific Standard Time
Printed: Saturday, December 16, 2017 15:13:15 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-12-5-17_L9.mdb 06 Dec 2017 12:28:39
Calibration: 16 Dec 2017 14:45:30

Name: 171215M2_3, Date: 15-Dec-2017, Time: 16:55:37, ID: ST171215M2-1 PFC CS0 17L1406, Description: PFC CS0 17L1406

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171215M2-1 PFC CS0 17L1406	1.09e4	100.0	NO
2	2	13C5-PFHxA	ST171215M2-1 PFC CS0 17L1406	1.50e4	100.0	NO
3	3	13C3-PFHxS	ST171215M2-1 PFC CS0 17L1406	3.21e3	100.0	NO
4	4	13C8-PFOA	ST171215M2-1 PFC CS0 17L1406	1.06e4	100.0	NO
5	5	13C9-PFNA	ST171215M2-1 PFC CS0 17L1406	1.10e4	100.0	NO
6	6	13C4-PFOS	ST171215M2-1 PFC CS0 17L1406	3.55e3	100.0	NO

Name: 171215M2_4, Date: 15-Dec-2017, Time: 17:06:46, 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	8.39e0	0.1	YES
6	6	13C4-PFOS	IPA			NO

Name: 171215M2_5, Date: 15-Dec-2017, Time: 17:17:56, ID: B7L0027-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0027-BS1 OPR 0.25	8.77e3	80.1	NO
2	2	13C5-PFHxA	B7L0027-BS1 OPR 0.25	1.32e4	87.9	NO
3	3	13C3-PFHxS	B7L0027-BS1 OPR 0.25	2.69e3	83.8	NO
4	4	13C8-PFOA	B7L0027-BS1 OPR 0.25	9.40e3	88.4	NO
5	5	13C9-PFNA	B7L0027-BS1 OPR 0.25	1.19e4	108.0	NO
6	6	13C4-PFOS	B7L0027-BS1 OPR 0.25	2.99e3	84.3	NO

Name: 171215M2_6, Date: 15-Dec-2017, Time: 17:29:07, ID: B7L0027-BSD1 LCSD 0.25, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0027-BSD1 LCSD 0.25	1.02e4	93.3	NO
2	2	13C5-PFHxA	B7L0027-BSD1 LCSD 0.25	1.47e4	98.2	NO
3	3	13C3-PFHxS	B7L0027-BSD1 LCSD 0.25	2.96e3	92.2	NO
4	4	13C8-PFOA	B7L0027-BSD1 LCSD 0.25	1.08e4	101.3	NO
5	5	13C9-PFNA	B7L0027-BSD1 LCSD 0.25	1.22e4	110.1	NO
6	6	13C4-PFOS	B7L0027-BSD1 LCSD 0.25	3.54e3	99.8	NO

Name: 171215M2_7, Date: 15-Dec-2017, Time: 17:40:18, 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

Dataset: U:\Q4.PRO\results\171215M2\IIS.qld

Last Altered: Saturday, December 16, 2017 14:45:30 Pacific Standard Time
Printed: Saturday, December 16, 2017 15:13:15 Pacific Standard Time

Name: 171215M2_7, Date: 15-Dec-2017, Time: 17:40:18, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA	6.49e0	0.2	NO

Name: 171215M2_8, Date: 15-Dec-2017, Time: 17:51:28, ID: B7L0027-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0027-BLK1 Method Blank 0.25	9.70e3	88.6	NO
2	2	13C5-PFHxA	B7L0027-BLK1 Method Blank 0.25	1.39e4	92.8	NO
3	3	13C3-PFHxS	B7L0027-BLK1 Method Blank 0.25	2.99e3	93.1	NO
4	4	13C8-PFOA	B7L0027-BLK1 Method Blank 0.25	1.13e4	106.7	NO
5	5	13C9-PFNA	B7L0027-BLK1 Method Blank 0.25	1.35e4	122.0	NO
6	6	13C4-PFOS	B7L0027-BLK1 Method Blank 0.25	3.64e3	102.7	NO

Name: 171215M2_9, Date: 15-Dec-2017, Time: 18:02:39, ID: 1701823-08 OF-WT-FB01-113017 0.1169, Description: OF-WT-FB01-113017

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701823-08 OF-WT-FB01-113017 0.1169	8.67e3	79.3	NO
2	2	13C5-PFHxA	1701823-08 OF-WT-FB01-113017 0.1169	1.22e4	81.2	NO
3	3	13C3-PFHxS	1701823-08 OF-WT-FB01-113017 0.1169	2.50e3	78.1	NO
4	4	13C8-PFOA	1701823-08 OF-WT-FB01-113017 0.1169	9.18e3	86.4	NO
5	5	13C9-PFNA	1701823-08 OF-WT-FB01-113017 0.1169	9.22e3	83.4	NO
6	6	13C4-PFOS	1701823-08 OF-WT-FB01-113017 0.1169	3.05e3	86.0	NO

Name: 171215M2_10, Date: 15-Dec-2017, Time: 18:13:50, ID: 1701823-01 OF-INF01-113017 0.1203, Description: OF-INF01-113017

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701823-01 OF-INF01-113017 0.1203	1.05e4	95.6	NO
2	2	13C5-PFHxA	1701823-01 OF-INF01-113017 0.1203	1.36e4	90.7	NO
3	3	13C3-PFHxS	1701823-01 OF-INF01-113017 0.1203	2.78e3	86.6	NO
4	4	13C8-PFOA	1701823-01 OF-INF01-113017 0.1203	9.79e3	92.0	NO
5	5	13C9-PFNA	1701823-01 OF-INF01-113017 0.1203	1.04e4	93.7	NO
6	6	13C4-PFOS	1701823-01 OF-INF01-113017 0.1203	2.78e3	78.3	NO

Name: 171215M2_11, Date: 15-Dec-2017, Time: 18:25:00, ID: 1701823-02 OF-MID01-113017 0.12207, Description: OF-MID01-113017

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701823-02 OF-MID01-113017 0.12207	9.00e3	82.2	NO
2	2	13C5-PFHxA	1701823-02 OF-MID01-113017 0.12207	1.27e4	84.4	NO
3	3	13C3-PFHxS	1701823-02 OF-MID01-113017 0.12207	2.51e3	78.2	NO
4	4	13C8-PFOA	1701823-02 OF-MID01-113017 0.12207	9.72e3	91.4	NO
5	5	13C9-PFNA	1701823-02 OF-MID01-113017 0.12207	9.66e3	87.4	NO
6	6	13C4-PFOS	1701823-02 OF-MID01-113017 0.12207	3.26e3	92.0	NO

Dataset: U:\Q4.PRO\results\171215M2\IIS.qld

Last Altered: Saturday, December 16, 2017 14:45:30 Pacific Standard Time
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Name: 171215M2_12, Date: 15-Dec-2017, Time: 18:36:11, ID: 1701823-03 OF-EFF01-113017 0.11531, Description: OF-EFF01-113017

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701823-03 OF-EFF01-113017 0.11531	8.65e3	79.0	NO
2	2	13C5-PFHxA	1701823-03 OF-EFF01-113017 0.11531	1.23e4	82.3	NO
3	3	13C3-PFHxS	1701823-03 OF-EFF01-113017 0.11531	2.70e3	84.1	NO
4	4	13C8-PFOA	1701823-03 OF-EFF01-113017 0.11531	8.33e3	78.4	NO
5	5	13C9-PFNA	1701823-03 OF-EFF01-113017 0.11531	1.05e4	95.2	NO
6	6	13C4-PFOS	1701823-03 OF-EFF01-113017 0.11531	2.90e3	81.7	NO

Name: 171215M2_13, Date: 15-Dec-2017, Time: 18:47:22, ID: 1701823-04 OF-WT-INF01-113017 0.11471, Description: OF-WT-INF01-113017

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701823-04 OF-WT-INF01-113017 0.11...	8.29e3	75.8	NO
2	2	13C5-PFHxA	1701823-04 OF-WT-INF01-113017 0.11...	1.21e4	80.8	NO
3	3	13C3-PFHxS	1701823-04 OF-WT-INF01-113017 0.11...	2.30e3	71.8	NO
4	4	13C8-PFOA	1701823-04 OF-WT-INF01-113017 0.11...	9.11e3	85.7	NO
5	5	13C9-PFNA	1701823-04 OF-WT-INF01-113017 0.11...	8.88e3	80.4	NO
6	6	13C4-PFOS	1701823-04 OF-WT-INF01-113017 0.11...	2.79e3	78.6	NO

Name: 171215M2_14, Date: 15-Dec-2017, Time: 18:58:33, ID: 1701823-05 OF-WT-MID01-113017 0.11099, Description: OF-WT-MID01-113017

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701823-05 OF-WT-MID01-113017 0.1...	8.88e3	81.2	NO
2	2	13C5-PFHxA	1701823-05 OF-WT-MID01-113017 0.1...	1.30e4	86.7	NO
3	3	13C3-PFHxS	1701823-05 OF-WT-MID01-113017 0.1...	2.51e3	78.3	NO
4	4	13C8-PFOA	1701823-05 OF-WT-MID01-113017 0.1...	1.00e4	94.1	NO
5	5	13C9-PFNA	1701823-05 OF-WT-MID01-113017 0.1...	9.99e3	90.4	NO
6	6	13C4-PFOS	1701823-05 OF-WT-MID01-113017 0.1...	3.22e3	90.6	NO

Name: 171215M2_15, Date: 15-Dec-2017, Time: 19:09:43, ID: 1701823-06 OF-WT-EFF01-113017 0.11752, Description: OF-WT-EFF01-113017

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701823-06 OF-WT-EFF01-113017 0.1...	8.88e3	81.1	NO
2	2	13C5-PFHxA	1701823-06 OF-WT-EFF01-113017 0.1...	1.26e4	83.9	NO
3	3	13C3-PFHxS	1701823-06 OF-WT-EFF01-113017 0.1...	2.49e3	77.6	NO
4	4	13C8-PFOA	1701823-06 OF-WT-EFF01-113017 0.1...	9.24e3	86.9	NO
5	5	13C9-PFNA	1701823-06 OF-WT-EFF01-113017 0.1...	1.01e4	91.5	NO
6	6	13C4-PFOS	1701823-06 OF-WT-EFF01-113017 0.1...	2.95e3	83.1	NO

Name: 171215M2_16, Date: 15-Dec-2017, Time: 19:20:54, ID: 1701823-07 OF-WT-EFF01P-113017 0.11656, Description: OF-WT-EFF01P-113017

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701823-07 OF-WT-EFF01P-113017 0....	8.82e3	80.5	NO
2	2	13C5-PFHxA	1701823-07 OF-WT-EFF01P-113017 0....	1.33e4	88.9	NO
3	3	13C3-PFHxS	1701823-07 OF-WT-EFF01P-113017 0....	2.65e3	82.6	NO
4	4	13C8-PFOA	1701823-07 OF-WT-EFF01P-113017 0....	9.40e3	88.4	NO

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Name: 171215M2_16, Date: 15-Dec-2017, Time: 19:20:54, ID: 1701823-07 OF-WT-EFF01P-113017 0.11656, Description: OF-WT-EFF01P-113017

	#	Name	ID	Area	%Rec	Area Out
5	5	13C9-PFNA	1701823-07 OF-WT-EFF01P-113017 0....	9.85e3	89.1	NO
6	6	13C4-PFOS	1701823-07 OF-WT-EFF01P-113017 0....	2.92e3	82.5	NO

Name: 171215M2_17, Date: 15-Dec-2017, Time: 19:32:05, ID: 1701802-01 FC-MW02SR1-NP-20171128 0.25936, Description: FC-MW02SR1-NP-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-01 FC-MW02SR1-NP-201711...	9.24e3	84.5	NO
2	2	13C5-PFHxA	1701802-01 FC-MW02SR1-NP-201711...	1.42e4	94.6	NO
3	3	13C3-PFHxS	1701802-01 FC-MW02SR1-NP-201711...	2.63e3	81.9	NO
4	4	13C8-PFOA	1701802-01 FC-MW02SR1-NP-201711...	1.10e4	103.9	NO
5	5	13C9-PFNA	1701802-01 FC-MW02SR1-NP-201711...	1.20e4	108.4	NO
6	6	13C4-PFOS	1701802-01 FC-MW02SR1-NP-201711...	3.28e3	92.4	NO

Name: 171215M2_18, Date: 15-Dec-2017, Time: 19:43:15, ID: 1701802-02 FC-MW02SR1-P1-20171128 0.26109, Description: FC-MW02SR1-P1-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-02 FC-MW02SR1-P1-201711...	8.30e3	75.8	NO
2	2	13C5-PFHxA	1701802-02 FC-MW02SR1-P1-201711...	1.18e4	78.8	NO
3	3	13C3-PFHxS	1701802-02 FC-MW02SR1-P1-201711...	2.75e3	85.8	NO
4	4	13C8-PFOA	1701802-02 FC-MW02SR1-P1-201711...	8.68e3	81.7	NO
5	5	13C9-PFNA	1701802-02 FC-MW02SR1-P1-201711...	9.01e3	81.5	NO
6	6	13C4-PFOS	1701802-02 FC-MW02SR1-P1-201711...	2.74e3	77.1	NO

Name: 171215M2_19, Date: 15-Dec-2017, Time: 19:54:26, 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

Name: 171215M2_20, Date: 15-Dec-2017, Time: 20:05:37, ID: ST171215M2-2 PFC CS3 17L0509, Description: PFC CS3 17L0509

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171215M2-2 PFC CS3 17L0509	1.18e4	108.0	NO
2	2	13C5-PFHxA	ST171215M2-2 PFC CS3 17L0509	1.55e4	103.5	NO
3	3	13C3-PFHxS	ST171215M2-2 PFC CS3 17L0509	3.44e3	107.2	NO
4	4	13C8-PFOA	ST171215M2-2 PFC CS3 17L0509	1.18e4	111.3	NO
5	5	13C9-PFNA	ST171215M2-2 PFC CS3 17L0509	1.43e4	129.4	NO
6	6	13C4-PFOS	ST171215M2-2 PFC CS3 17L0509	3.48e3	98.2	NO

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Name: 171215M2_21, Date: 15-Dec-2017, Time: 20:16:47, 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	8.11e0	0.1	NO
6	6	13C4-PFOS	IPA			NO

Name: 171215M2_22, Date: 15-Dec-2017, Time: 20:27:58, ID: 1701802-03 FC-MW02SR1-P2-20171128 0.26475, Description: FC-MW02SR1-P2-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-03 FC-MW02SR1-P2-201711...	8.72e3	79.7	NO
2	2	13C5-PFHxA	1701802-03 FC-MW02SR1-P2-201711...	1.33e4	88.6	NO
3	3	13C3-PFHxS	1701802-03 FC-MW02SR1-P2-201711...	2.49e3	77.5	NO
4	4	13C8-PFOA	1701802-03 FC-MW02SR1-P2-201711...	9.64e3	90.7	NO
5	5	13C9-PFNA	1701802-03 FC-MW02SR1-P2-201711...	9.87e3	89.3	NO
6	6	13C4-PFOS	1701802-03 FC-MW02SR1-P2-201711...	3.23e3	91.1	NO

Name: 171215M2_23, Date: 15-Dec-2017, Time: 20:39:09, ID: 1701802-04 FC-MW02SR1-P3-20171128 0.25852, Description: FC-MW02SR1-P3-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-04 FC-MW02SR1-P3-201711...	8.76e3	80.0	NO
2	2	13C5-PFHxA	1701802-04 FC-MW02SR1-P3-201711...	1.34e4	89.3	NO
3	3	13C3-PFHxS	1701802-04 FC-MW02SR1-P3-201711...	2.76e3	86.2	NO
4	4	13C8-PFOA	1701802-04 FC-MW02SR1-P3-201711...	9.57e3	90.0	NO
5	5	13C9-PFNA	1701802-04 FC-MW02SR1-P3-201711...	1.15e4	104.1	NO
6	6	13C4-PFOS	1701802-04 FC-MW02SR1-P3-201711...	3.39e3	95.7	NO

Name: 171215M2_24, Date: 15-Dec-2017, Time: 20:50:19, ID: 1701802-05 FC-MW02SR1-FRB-20171128 0.2615, Description: FC-MW02SR1-FRB-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-05 FC-MW02SR1-FRB-20171...	7.99e3	73.0	NO
2	2	13C5-PFHxA	1701802-05 FC-MW02SR1-FRB-20171...	1.13e4	75.6	NO
3	3	13C3-PFHxS	1701802-05 FC-MW02SR1-FRB-20171...	2.37e3	74.0	NO
4	4	13C8-PFOA	1701802-05 FC-MW02SR1-FRB-20171...	8.32e3	78.3	NO
5	5	13C9-PFNA	1701802-05 FC-MW02SR1-FRB-20171...	8.09e3	73.2	NO
6	6	13C4-PFOS	1701802-05 FC-MW02SR1-FRB-20171...	2.81e3	79.1	NO

Name: 171215M2_25, Date: 15-Dec-2017, Time: 21:01:30, ID: 1701802-06 FC-MW02IR1-NP-20171128 0.25429, Description: FC-MW02IR1-NP-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-06 FC-MW02IR1-NP-2017112...	9.02e3	82.4	NO
2	2	13C5-PFHxA	1701802-06 FC-MW02IR1-NP-2017112...	1.32e4	87.8	NO
3	3	13C3-PFHxS	1701802-06 FC-MW02IR1-NP-2017112...	3.02e3	94.1	NO
4	4	13C8-PFOA	1701802-06 FC-MW02IR1-NP-2017112...	9.45e3	88.9	NO

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Name: 171215M2_25, Date: 15-Dec-2017, Time: 21:01:30, ID: 1701802-06 FC-MW02IR1-NP-20171128 0.25429, Description: FC-MW02IR1-NP-20171128

	#	Name	ID	Area	%Rec	Area Out
5	5	13C9-PFNA	1701802-06 FC-MW02IR1-NP-2017112...	1.12e4	101.7	NO
6	6	13C4-PFOS	1701802-06 FC-MW02IR1-NP-2017112...	3.48e3	98.2	NO

Name: 171215M2_26, Date: 15-Dec-2017, Time: 21:12:41, ID: 1701802-07 FC-MW02IR1-P1-20171128 0.26197, Description: FC-MW02IR1-P1-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-07 FC-MW02IR1-P1-2017112...	7.95e3	72.6	NO
2	2	13C5-PFHxA	1701802-07 FC-MW02IR1-P1-2017112...	1.05e4	70.1	NO
3	3	13C3-PFHxS	1701802-07 FC-MW02IR1-P1-2017112...	2.48e3	77.3	NO
4	4	13C8-PFOA	1701802-07 FC-MW02IR1-P1-2017112...	9.92e3	93.3	NO
5	5	13C9-PFNA	1701802-07 FC-MW02IR1-P1-2017112...	8.70e3	78.7	NO
6	6	13C4-PFOS	1701802-07 FC-MW02IR1-P1-2017112...	3.12e3	87.9	NO

Name: 171215M2_27, Date: 15-Dec-2017, Time: 21:23:51, ID: 1701802-08 FC-MW02IR1-P2-20171128 0.26668, Description: FC-MW02IR1-P2-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-08 FC-MW02IR1-P2-2017112...	6.74e3	61.6	NO
2	2	13C5-PFHxA	1701802-08 FC-MW02IR1-P2-2017112...	1.04e4	69.3	NO
3	3	13C3-PFHxS	1701802-08 FC-MW02IR1-P2-2017112...	2.44e3	76.2	NO
4	4	13C8-PFOA	1701802-08 FC-MW02IR1-P2-2017112...	8.22e3	77.3	NO
5	5	13C9-PFNA	1701802-08 FC-MW02IR1-P2-2017112...	8.79e3	79.6	NO
6	6	13C4-PFOS	1701802-08 FC-MW02IR1-P2-2017112...	2.68e3	75.6	NO

Name: 171215M2_28, Date: 15-Dec-2017, Time: 21:35:02, ID: 1701802-09 FC-MW02IR1-P3-20171128 0.25726, Description: FC-MW02IR1-P3-20171128

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701802-09 FC-MW02IR1-P3-2017112...	8.96e3	81.8	NO
2	2	13C5-PFHxA	1701802-09 FC-MW02IR1-P3-2017112...	1.32e4	88.2	NO
3	3	13C3-PFHxS	1701802-09 FC-MW02IR1-P3-2017112...	2.81e3	87.5	NO
4	4	13C8-PFOA	1701802-09 FC-MW02IR1-P3-2017112...	8.18e3	76.9	NO
5	5	13C9-PFNA	1701802-09 FC-MW02IR1-P3-2017112...	9.98e3	90.3	NO
6	6	13C4-PFOS	1701802-09 FC-MW02IR1-P3-2017112...	3.20e3	90.2	NO

Name: 171215M2_29, Date: 15-Dec-2017, Time: 21:46:13, ID: 1701724-10@5X GENBM-08-SB01-0.5-1-111617 1.29, Description: GENBM-08-SB01-0.5-1-111617

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701724-10@5X GENBM-08-SB01-0.5...	1.77e3	16.2	YES
2	2	13C5-PFHxA	1701724-10@5X GENBM-08-SB01-0.5...	2.57e3	17.1	YES
3	3	13C3-PFHxS	1701724-10@5X GENBM-08-SB01-0.5...	5.05e2	15.8	YES
4	4	13C8-PFOA	1701724-10@5X GENBM-08-SB01-0.5...	1.68e3	15.8	YES
5	5	13C9-PFNA	1701724-10@5X GENBM-08-SB01-0.5...	1.80e3	16.3	YES
6	6	13C4-PFOS	1701724-10@5X GENBM-08-SB01-0.5...	3.64e2	10.3	YES

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Name: 171215M2_30, Date: 15-Dec-2017, Time: 21:57:24, ID: 1701724-12@5X GENBM-11SD-01-111617 1.35, Description: GENBM-11SD-01-111617

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701724-12@5X GENBM-11SD-01-111...	1.51e3	13.8	YES
2	2	13C5-PFHxA	1701724-12@5X GENBM-11SD-01-111...	2.09e3	14.0	YES
3	3	13C3-PFHxS	1701724-12@5X GENBM-11SD-01-111...	4.56e2	14.2	YES
4	4	13C8-PFOA	1701724-12@5X GENBM-11SD-01-111...	1.57e3	14.7	YES
5	5	13C9-PFNA	1701724-12@5X GENBM-11SD-01-111...	1.60e3	14.4	YES
6	6	13C4-PFOS	1701724-12@5X GENBM-11SD-01-111...	3.98e2	11.2	YES

Name: 171215M2_31, Date: 15-Dec-2017, Time: 22:08:34, ID: 1701724-13@10X GENBM-11SD-02-111617 1.32, Description: GENBM-11SD-02-111617

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701724-13@10X GENBM-11SD-02-11...	8.37e2	7.6	YES
2	2	13C5-PFHxA	1701724-13@10X GENBM-11SD-02-11...	1.23e3	8.2	YES
3	3	13C3-PFHxS	1701724-13@10X GENBM-11SD-02-11...	2.41e2	7.5	YES
4	4	13C8-PFOA	1701724-13@10X GENBM-11SD-02-11...	7.43e2	7.0	YES
5	5	13C9-PFNA	1701724-13@10X GENBM-11SD-02-11...	7.75e2	7.0	YES
6	6	13C4-PFOS	1701724-13@10X GENBM-11SD-02-11...	1.61e2	4.5	YES

Name: 171215M2_32, Date: 15-Dec-2017, Time: 22:19:45, ID: 1701724-15@5X GENBM-11SD-03-111617 1.5, Description: GENBM-11SD-03-111617

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701724-15@5X GENBM-11SD-03-111...	1.62e3	14.8	YES
2	2	13C5-PFHxA	1701724-15@5X GENBM-11SD-03-111...	2.41e3	16.1	YES
3	3	13C3-PFHxS	1701724-15@5X GENBM-11SD-03-111...	4.38e2	13.7	YES
4	4	13C8-PFOA	1701724-15@5X GENBM-11SD-03-111...	1.54e3	14.4	YES
5	5	13C9-PFNA	1701724-15@5X GENBM-11SD-03-111...	1.20e3	10.8	YES
6	6	13C4-PFOS	1701724-15@5X GENBM-11SD-03-111...	3.92e2	11.0	YES

Name: 171215M2_33, Date: 15-Dec-2017, Time: 22:30:56, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA	6.18e0	0.0	NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA	1.21e1	0.1	NO
6	6	13C4-PFOS	IPA			NO

Name: 171215M2_34, Date: 15-Dec-2017, Time: 22:42:06, ID: ST171215M2-3 PFC CS3 17L0509, Description: PFC CS3 17L0509

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171215M2-3 PFC CS3 17L0509	1.20e4	109.4	NO
2	2	13C5-PFHxA	ST171215M2-3 PFC CS3 17L0509	1.44e4	96.3	NO
3	3	13C3-PFHxS	ST171215M2-3 PFC CS3 17L0509	3.65e3	113.9	NO
4	4	13C8-PFOA	ST171215M2-3 PFC CS3 17L0509	1.35e4	127.1	NO
5	5	13C9-PFNA	ST171215M2-3 PFC CS3 17L0509	1.17e4	105.6	NO

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Name: 171215M2_34, Date: 15-Dec-2017, Time: 22:42:06, ID: ST171215M2-3 PFC CS3 17L0509, Description: PFC CS3 17L0509

	#	Name	ID	Area	%Rec	Area Out
6	6	13C4-PFOS	ST171215M2-3 PFC CS3 17L0509	4.17e3	117.5	NO

Name: 171215M2_35, Date: 15-Dec-2017, Time: 22:53:17, 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	7.13e0	0.1	NO
6	6	13C4-PFOS	IPA			NO

Name: 171215M2_36, Date: 15-Dec-2017, Time: 23:04:28, ID: 1701724-14 GENBM-11SD-04-111617 1.44, Description: GENBM-11SD-04-111617

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701724-14 GENBM-11SD-04-111617 ...	7.90e3	72.2	NO
2	2	13C5-PFHxA	1701724-14 GENBM-11SD-04-111617 ...	1.16e4	77.6	NO
3	3	13C3-PFHxS	1701724-14 GENBM-11SD-04-111617 ...	2.37e3	74.0	NO
4	4	13C8-PFOA	1701724-14 GENBM-11SD-04-111617 ...	9.65e3	90.7	NO
5	5	13C9-PFNA	1701724-14 GENBM-11SD-04-111617 ...	1.08e4	97.8	NO
6	6	13C4-PFOS	1701724-14 GENBM-11SD-04-111617 ...	1.96e3	55.4	NO

Name: 171215M2_37, Date: 15-Dec-2017, Time: 23:15:38, ID: 1701758-15@40X IR54-GW16-17D 0.11876, Description: IR54-GW16-17D

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701758-15@40X IR54-GW16-17D 0.1...	3.87e2	3.5	YES
2	2	13C5-PFHxA	1701758-15@40X IR54-GW16-17D 0.1...	5.03e2	3351.6	YES
3	3	13C3-PFHxS	1701758-15@40X IR54-GW16-17D 0.1...	9.71e1	3026.2	YES
4	4	13C8-PFOA	1701758-15@40X IR54-GW16-17D 0.1...	3.42e2	3212.9	YES
5	5	13C9-PFNA	1701758-15@40X IR54-GW16-17D 0.1...	4.63e2	4188.7	YES
6	6	13C4-PFOS	1701758-15@40X IR54-GW16-17D 0.1...	1.75e2	4937.4	YES

Name: 171215M2_38, Date: 15-Dec-2017, Time: 23:26:49, ID: 1701758-16 IR54-FB-111917 0.11819, Description: IR54-FB-111917

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701758-16 IR54-FB-111917 0.11819	1.49e4	135.9	NO
2	2	13C5-PFHxA	1701758-16 IR54-FB-111917 0.11819	2.01e4	134.0	NO
3	3	13C3-PFHxS	1701758-16 IR54-FB-111917 0.11819	3.96e3	123.5	NO
4	4	13C8-PFOA	1701758-16 IR54-FB-111917 0.11819	1.48e4	138.9	NO
5	5	13C9-PFNA	1701758-16 IR54-FB-111917 0.11819	1.50e4	136.1	NO
6	6	13C4-PFOS	1701758-16 IR54-FB-111917 0.11819	4.58e3	129.0	NO

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Name: 171215M2_39, Date: 15-Dec-2017, Time: 23:38:00, ID: 1701721-02@5X GENBM-SO-Duplicate-02-111417 1.2, Description: GENBM-SO-Duplicate-02-111417

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701721-02@5X GENBM-SO-Duplicat...	1.77e3	16.2	YES
2	2	13C5-PFHxA	1701721-02@5X GENBM-SO-Duplicat...	2.58e3	17.2	YES
3	3	13C3-PFHxS	1701721-02@5X GENBM-SO-Duplicat...	4.89e2	15.2	YES
4	4	13C8-PFOA	1701721-02@5X GENBM-SO-Duplicat...	1.87e3	17.6	YES
5	5	13C9-PFNA	1701721-02@5X GENBM-SO-Duplicat...	1.81e3	16.4	YES
6	6	13C4-PFOS	1701721-02@5X GENBM-SO-Duplicat...	4.68e2	13.2	YES

Name: 171215M2_40, Date: 15-Dec-2017, Time: 23:49:11, 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	1.03e1	0.1	NO
6	6	13C4-PFOS	IPA	5.45e0	0.2	NO

Name: 171215M2_41, Date: 16-Dec-2017, Time: 00:00:22, ID: ST171215M2-2 PFC CS3 17L0509, Description: PFC CS3 17L0509

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171215M2-2 PFC CS3 17L0509	1.19e4	108.5	NO
2	2	13C5-PFHxA	ST171215M2-2 PFC CS3 17L0509	1.59e4	106.3	NO
3	3	13C3-PFHxS	ST171215M2-2 PFC CS3 17L0509	3.20e3	99.6	NO
4	4	13C8-PFOA	ST171215M2-2 PFC CS3 17L0509	1.22e4	114.3	NO
5	5	13C9-PFNA	ST171215M2-2 PFC CS3 17L0509	1.23e4	111.2	NO
6	6	13C4-PFOS	ST171215M2-2 PFC CS3 17L0509	2.80e3	79.0	NO

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Last Altered: Saturday, December 16, 2017 15:29:38 Pacific Standard Time
Printed: Saturday, December 16, 2017 15:29:52 Pacific Standard Time

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Name: 171215M2_4, Date: 15-Dec-2017, Time: 17:06:46, ID: IPA, Description: IPA

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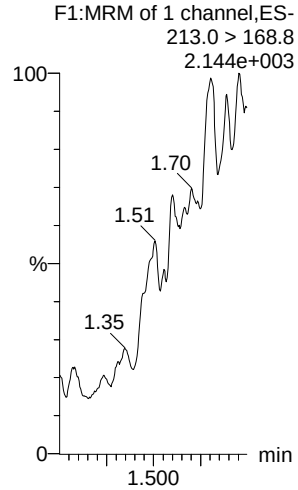
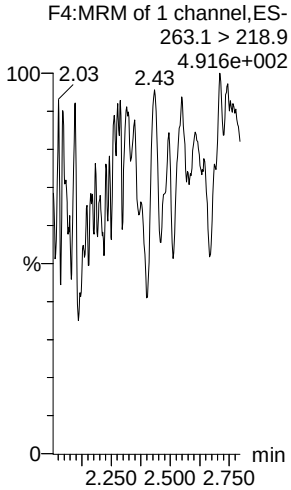


PFPeA



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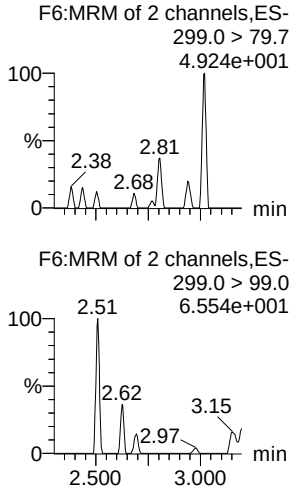

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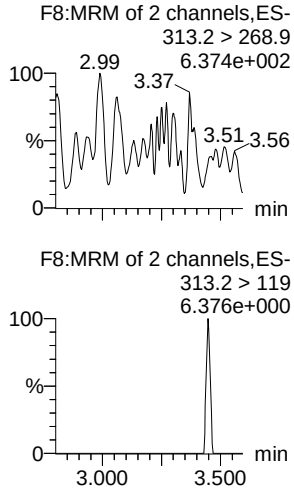

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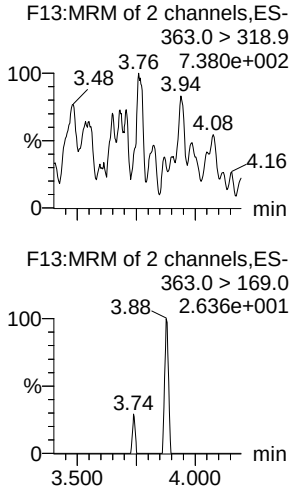

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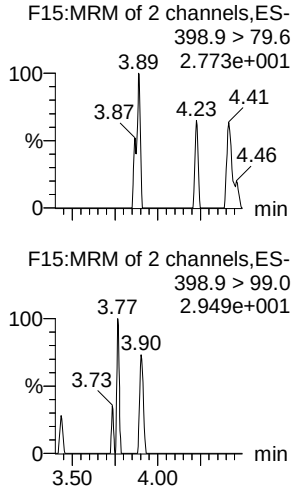
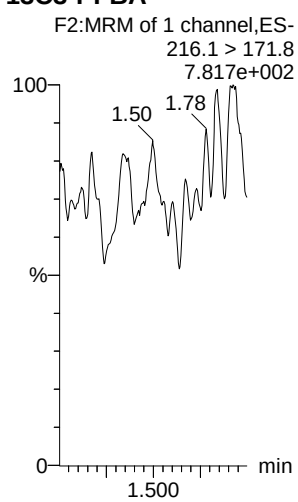


13C3-PFBA



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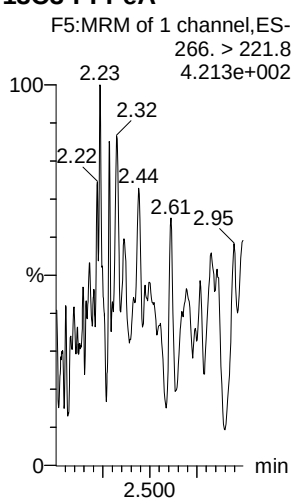

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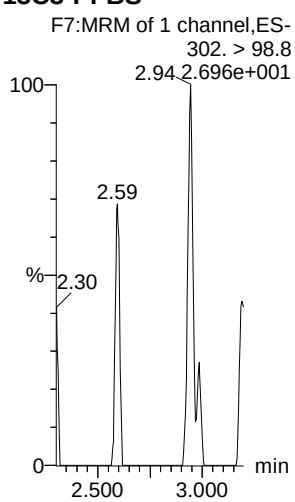

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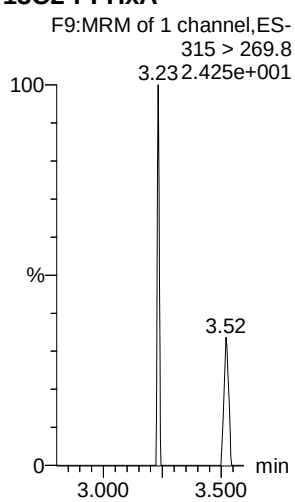

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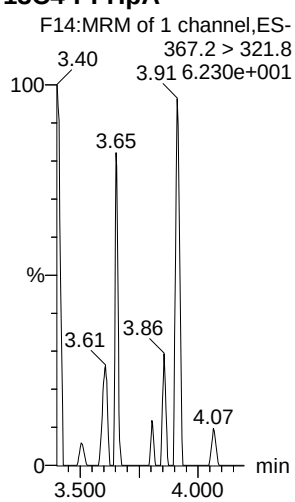

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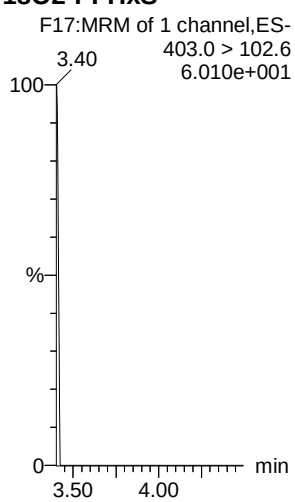

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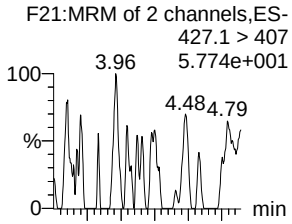
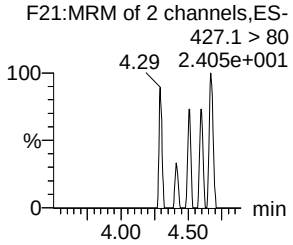
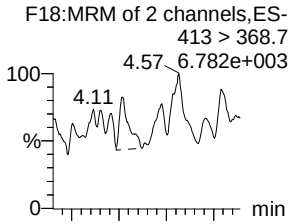
Name: 171215M2_4, Date: 15-Dec-2017, Time: 17:06:46, ID: IPA, Description: IPA

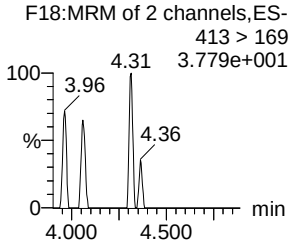
6:2 FTS





L-PFOA





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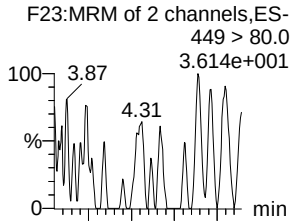

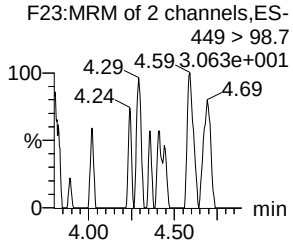

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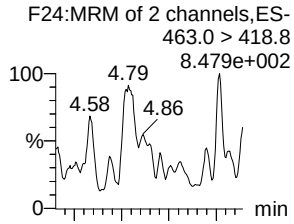
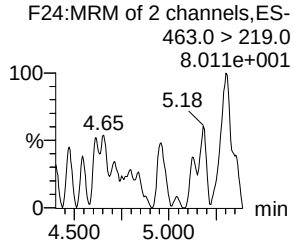
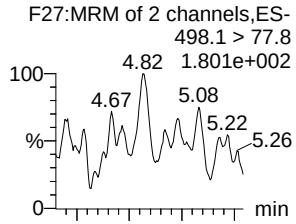
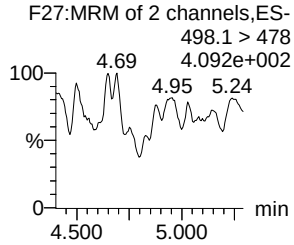




PFOSA





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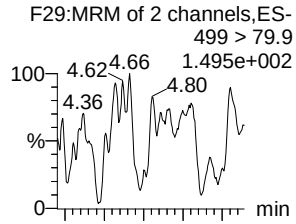
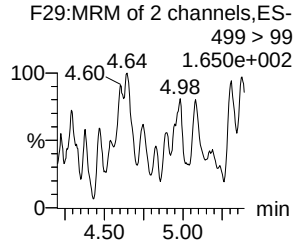
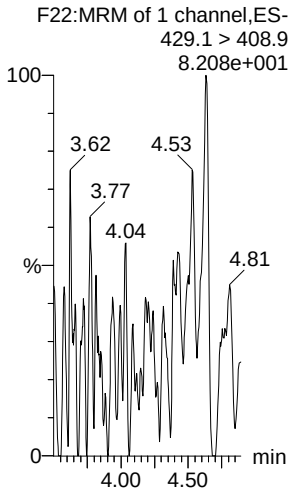
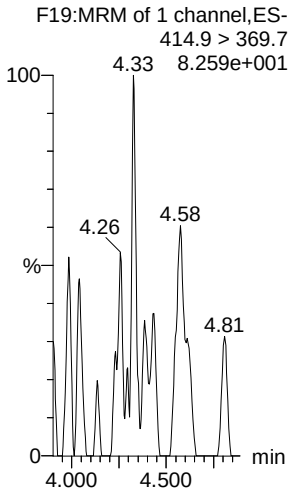




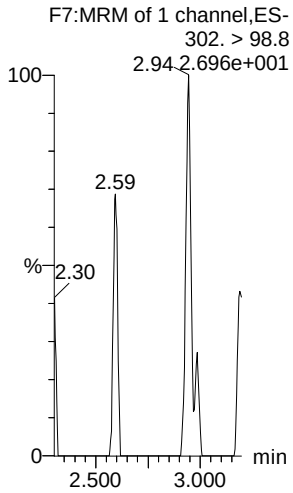
13C2-6:2 FTS



13C2-PFOA



13C3-PFBS



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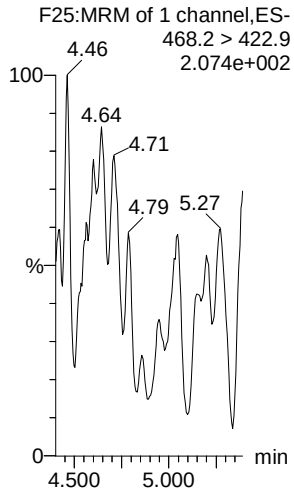

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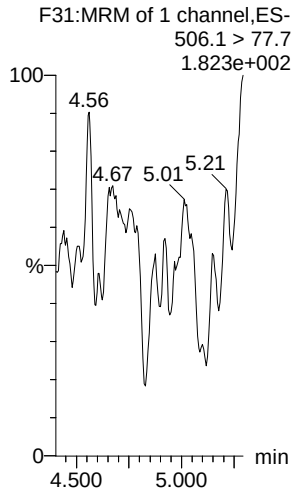

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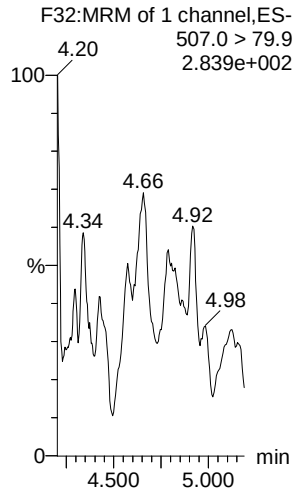

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Printed: Saturday, December 16, 2017 15:29:52 Pacific Standard Time

Name: 171215M2_4, Date: 15-Dec-2017, Time: 17:06:46, ID: IPA, Description: IPA

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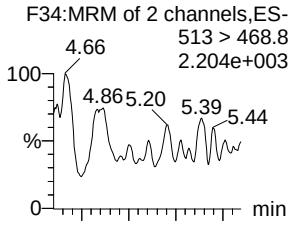
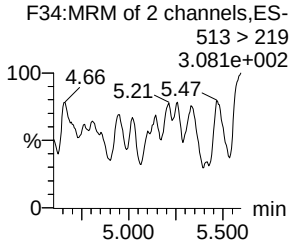
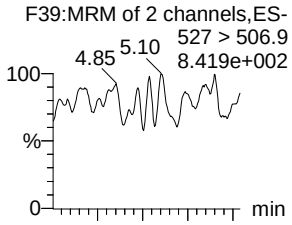
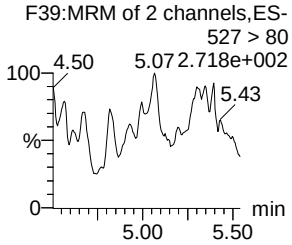


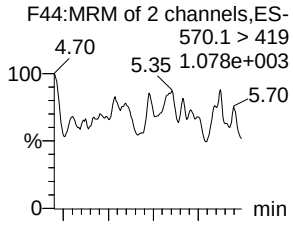


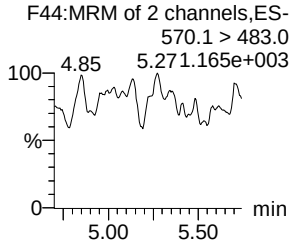
8:2 FTS





N-MeFOSAA





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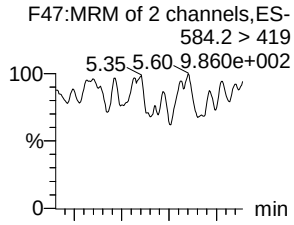

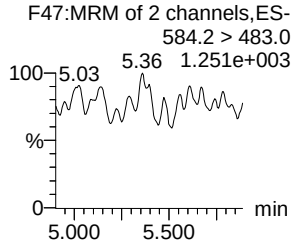

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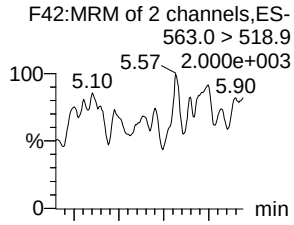

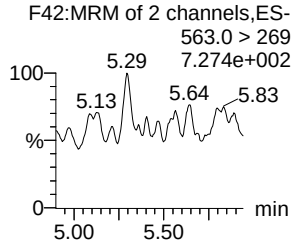

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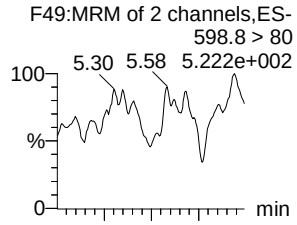

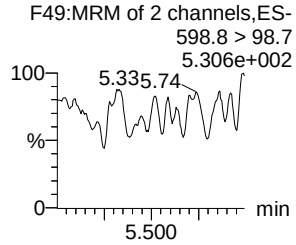

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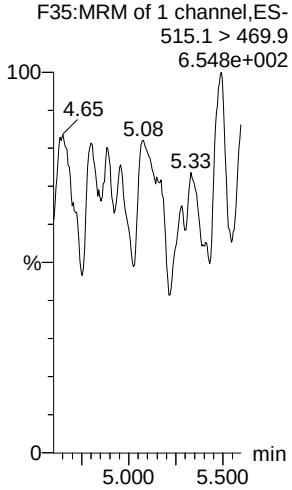

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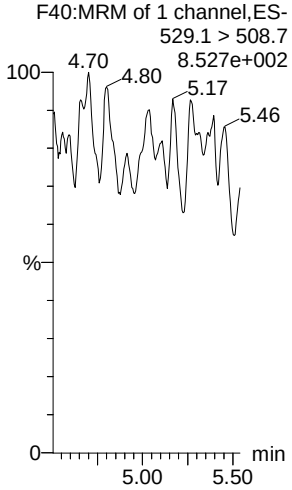

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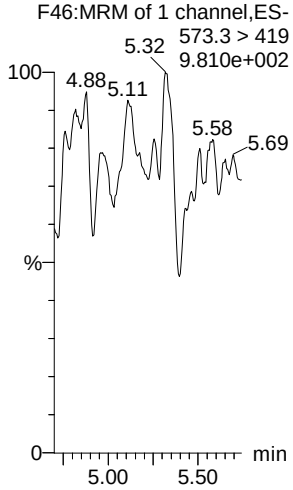
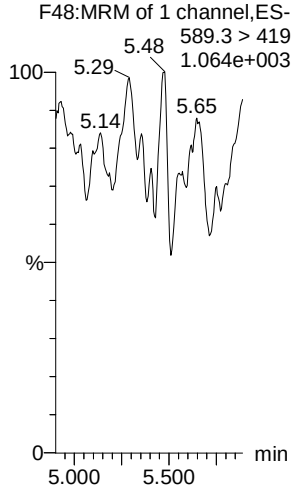


d5-N-EtFOSAA



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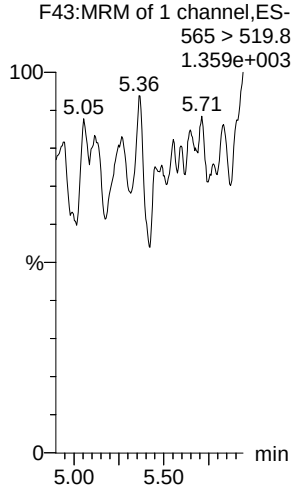

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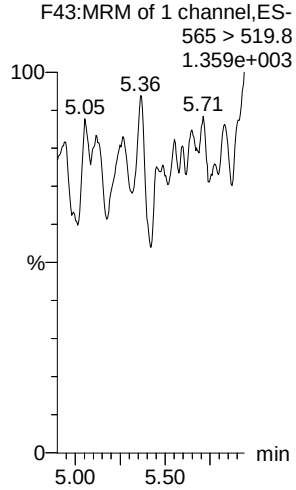

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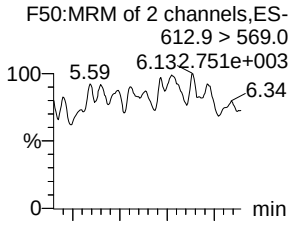
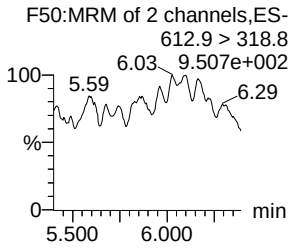
PFDoA





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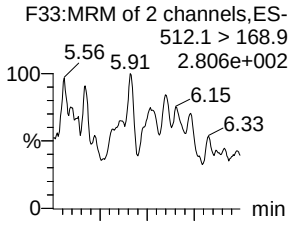

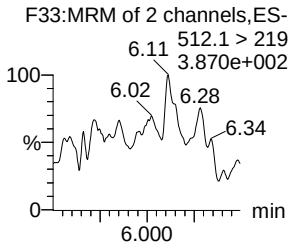

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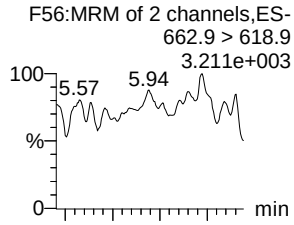
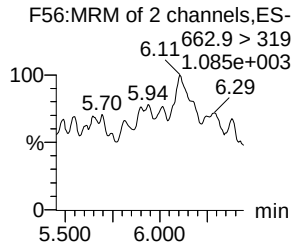
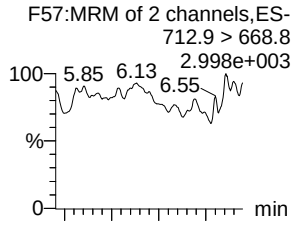
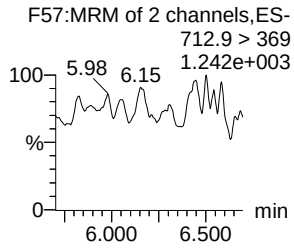




PFTeDA





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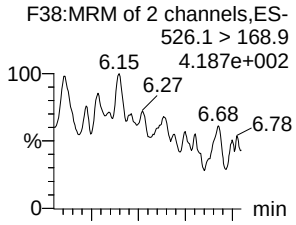

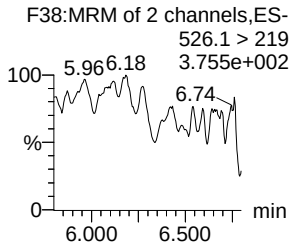

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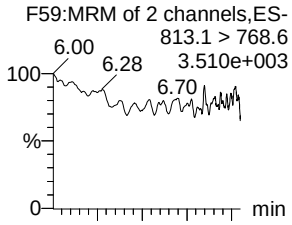
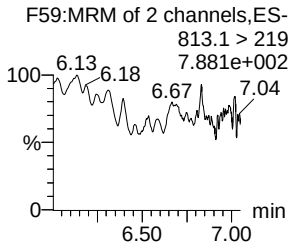
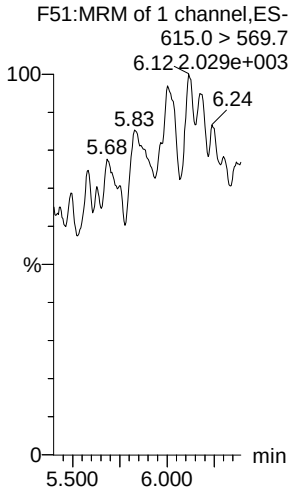
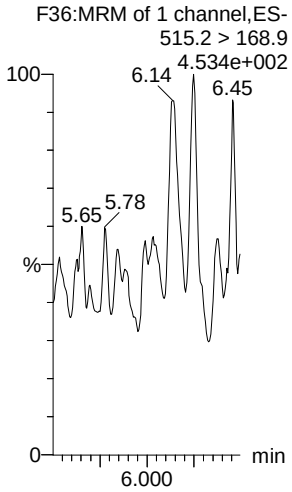




13C2-PFDoA



d3-N-MeFOSA



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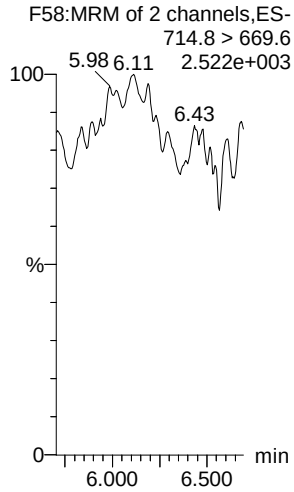

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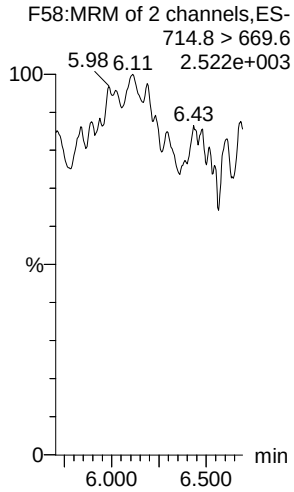

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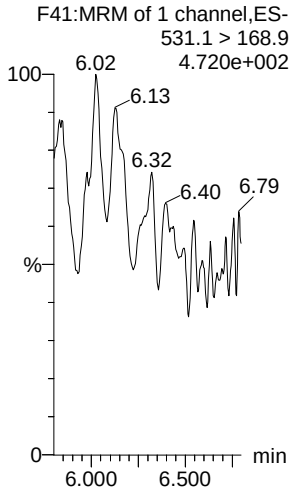
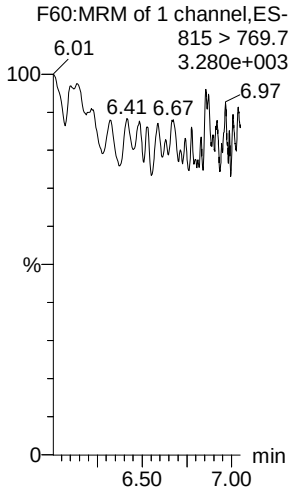


13C2-PFHxDA



GM 12/16/17

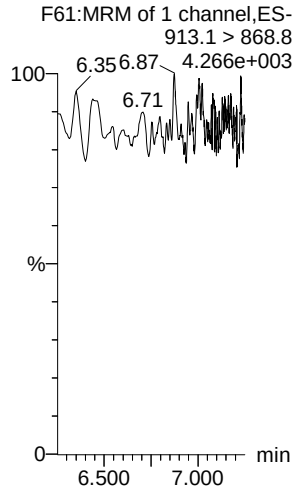
Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Saturday, December 16, 2017 15:29:38 Pacific Standard Time
Printed: Saturday, December 16, 2017 15:29:52 Pacific Standard Time

Name: 171215M2_4, Date: 15-Dec-2017, Time: 17:06:46, ID: IPA, Description: IPA

PFODA



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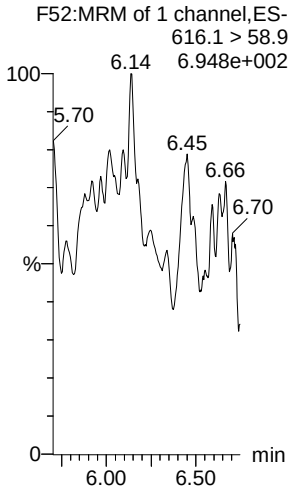

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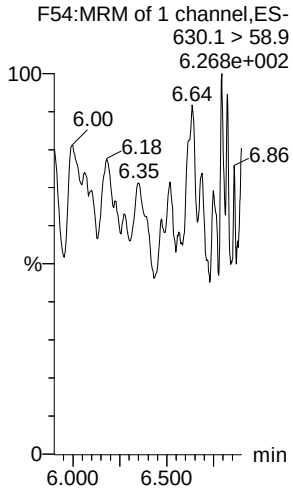

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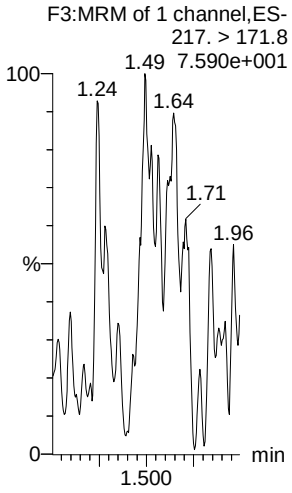
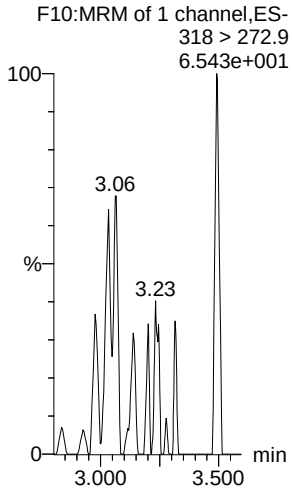


13C5-PFHxA



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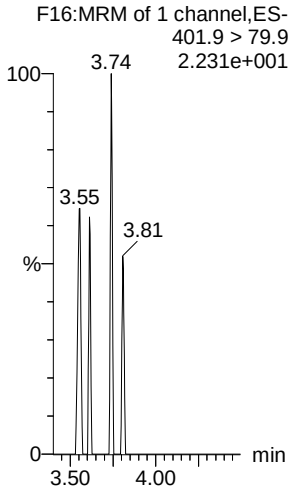

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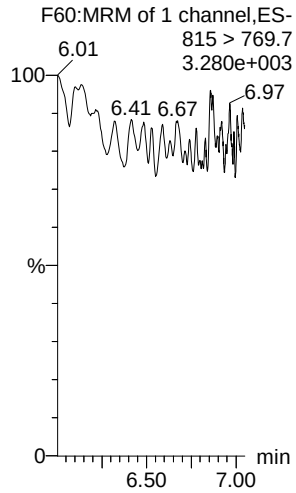
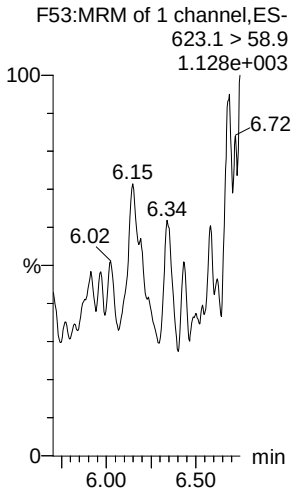
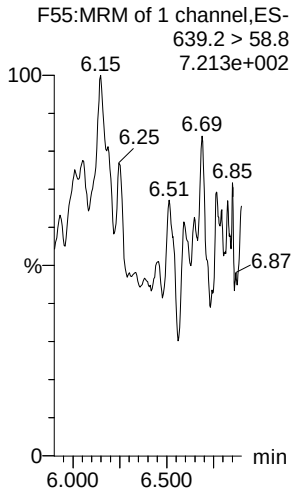


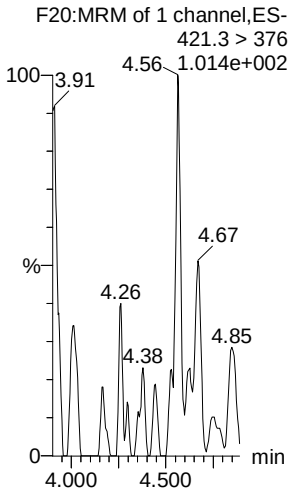
d7-N-MeFOSE



d9-N-EtFOSE



13C8-PFOA



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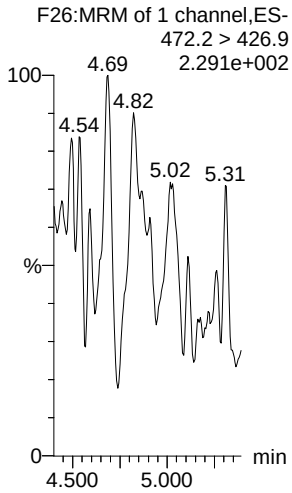
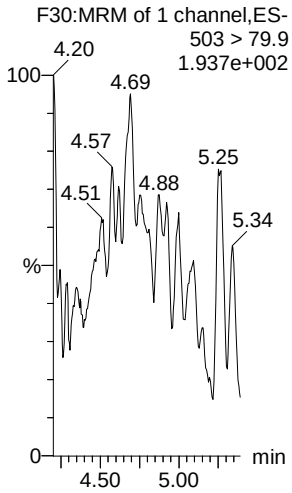


13C4-PFOS



GM 12/16/17

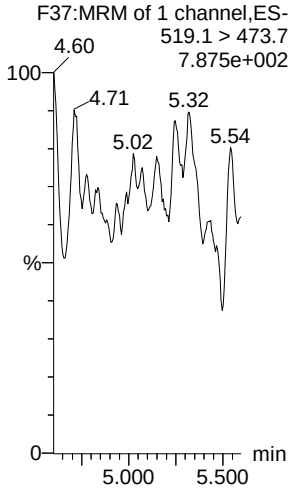
Vista Analytical Laboratory

Dataset: Untitled

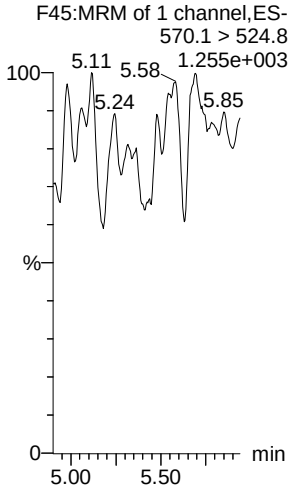
Last Altered: Saturday, December 16, 2017 15:29:38 Pacific Standard Time
Printed: Saturday, December 16, 2017 15:29:52 Pacific Standard Time

Name: 171215M2_4, Date: 15-Dec-2017, Time: 17:06:46, ID: IPA, Description: IPA

13C6-PFDA



13C7-PFUdA



GM 12/16/17

Dataset: U:\Q4.PRO\results\171215M2\171215M2-3.qld

Last Altered: Friday, December 15, 2017 17:04:23 Pacific Standard Time
Printed: Friday, December 15, 2017 17:07:55 Pacific Standard Time

@ Not used.

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 15 Dec 2017 11:10:11
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_3, Date: 15-Dec-2017, Time: 16:55:37, ID: ST171215M2-1 PFC CS0 17L1406, Description: PFC CS0 17L1406

	#	Name	Trace	Area	IS Area	RRF	Pred RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	9.83e2	1.20e4		1.46	1.40	1.02	1.02	102.2
2	2	PFPeA	263.1 > 218.9	1.20e3	1.58e4		2.41	2.34	0.948	1.03	102.8
3	3	PFBS	299.0 > 79.7	3.11e2	1.88e3		2.70	2.61	2.07	1.03	102.7
4	4	PFHxA	313.2 > 268.9	1.57e3	5.48e3		3.18	3.11	1.43	0.983	98.3
5	5	PFHpA	363.0 > 318.9	1.12e3	1.07e4		3.80	3.74	1.31	1.01	100.6
6	6	L-PFHxS	398.9 > 79.6	2.20e2	1.70e3		4.00	3.89	1.62	0.888	88.8
7	8	6:2 FTS	427.1 > 407	2.63e2	3.30e3		4.26	4.20	0.997	0.943	94.3
8	9	L-PFOA	413 > 368.7	1.43e3	1.48e4		4.32	4.26	1.21	1.08	107.7
9	11	PFHpS	449 > 80.0	2.93e2	1.48e4		4.43	4.37	0.248	1.11	110.7
10	12	PFNA	463.0 > 418.8	1.28e3	1.14e4		4.78	4.70	1.40	1.06	105.5
11	13	PFOSA	498.1 > 77.8	4.35e2	5.22e3		4.81	4.76	1.04	1.30	129.7
12	14	L-PFOS	499 > 79.9	3.02e2	4.24e3		4.83	4.78	0.892	0.970	97.0
13	16	PFDA	513 > 468.8	1.17e3	1.65e4		5.12	5.07	0.888	0.791	79.1
14	17	8:2 FTS	527 > 506.9	2.14e2	1.46e3		5.09	5.05	1.83	0.909	90.9
15	18	N-MeFOSAA	570.1 > 419	7.53e2	6.21e3		5.25	5.23	1.52	1.05	105.4
16	19	N-EtFOSAA	584.2 > 419	3.93e2	5.27e3		5.45	5.38	0.931	0.907	90.7
17	20	PFUdA	563.0 > 518.9	1.15e3	1.14e4		5.44	5.40	1.25	1.23	123.4
18	21	PFDS	598.8 > 80	3.10e2	1.14e4		5.49	5.44	0.339	1.24	123.7
19	22	PFDoA	612.9 > 569.0	1.22e3	6.89e3		5.75	5.68	2.22	1.11	111.1
20	23	N-MeFOSA	512.1 > 168.9	7.34e2			5.80	5.73			
21	24	PFTrDA	662.9 > 618.9	1.16e3	6.89e3		5.97	5.92	2.10	1.04	104.5
22	25	PFTeDA	712.9 > 668.8	9.76e2	7.32e3		6.20	6.13	1.67	1.17	117.2
23	26	N-EtFOSA	526.1 > 168.9	9.37e2			6.16	6.12			
24	27	PFHxDA	813.1 > 768.6	4.04e2	4.15e3		6.50	6.46	0.486	0.844	84.4
25	28	PFODA	913.1 > 868.8	5.97e2	4.15e3		6.75	6.68	0.719	1.06	106.3
26	29	N-MeFOSE	616.1 > 58.9	8.72e2			6.30	6.28			
27	30	N-EtFOSE	630.1 > 58.9	9.97e2			6.42	6.43			
28	31	13C3-PFBA	216.1 > 171.8	1.20e4	1.09e4	1.056	1.46	1.40	13.7	13.0	104.0
29	32	13C3-PFPeA	266. > 221.8	1.58e4	1.50e4	1.044	2.41	2.34	13.1	12.6	100.8
30	33	13C3-PFBS	302. > 98.8	1.88e3	1.50e4	0.124	2.70	2.61	1.57	12.6	100.8
31	34	13C2-PFHxA	315 > 269.8	5.48e3	1.50e4	0.897	3.18	3.11	4.57	5.09	101.9

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DM 12/15/17

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VJH. 12/16/2017

Dataset: U:\Q4.PRO\results\171215M2\171215M2-3.qld

Last Altered: Friday, December 15, 2017 17:04:23 Pacific Standard Time
Printed: Friday, December 15, 2017 17:07:55 Pacific Standard Time

Name: 171215M2_3, Date: 15-Dec-2017, Time: 16:55:37, ID: ST171215M2-1 PFC CS0 17L1406, Description: PFC CS0 17L1406

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.07e4	1.50e4	0.689	3.80	3.73	8.91	12.9	103.4
33	36	18O2-PFHxS	403.0 > 102.6	1.70e3	3.21e3	0.530	4.00	3.89	6.61	12.5	99.7
34	37	13C2-6:2 FTS	429.1 > 408.9	3.30e3	1.06e4	0.331	4.26	4.21	3.88	11.7	93.8
35	38	13C2-PFOA	414.9 > 369.7	1.48e4	1.06e4	1.316	4.32	4.26	17.4	13.2	105.6
36	39	13C5-PFNA	468.2 > 422.9	1.14e4	1.10e4	1.109	4.78	4.70	12.9	11.6	92.7
37	40	13C8-PFOSA	506.1 > 77.7	5.22e3	1.06e4	0.487	4.81	4.75	6.17	12.7	101.5
38	41	13C8-PFOS	507.0 > 79.9	4.24e3	3.55e3	1.163	4.83	4.78	14.9	12.8	102.7
39	42	13C2-PFDA	515.1 > 469.9	1.65e4	8.25e3	1.694	5.12	5.07	25.0	14.8	118.1
40	43	13C2-8:2 FTS	529.1 > 508.7	1.46e3	1.50e4	0.141	5.09	5.04	1.22	8.64	69.1
41	44	d3-N-MeFOSAA	573.3 > 419	6.21e3	1.06e4	0.530	5.25	5.22	7.34	13.9	110.9
42	45	d5-N-EtFOSAA	589.3 > 419	5.27e3	1.06e4	0.541	5.45	5.37	6.24	11.5	92.3
43	46	13C2-PFUdA	565 > 519.8	1.14e4	1.06e4	1.351	5.44	5.40	13.5	10.0	80.1
44	47	13C2-PFDoA	615.0 > 569.7	6.89e3	1.06e4	0.765	5.75	5.68	8.15	10.7	85.2
45	48	d3-N-MeFOSA	515.2 > 168.9		1.06e4	0.002	5.80				
46	49	13C2-PFTeDA	714.8 > 669.6	7.32e3	1.06e4	0.771	6.20	6.13	8.66	11.2	89.9
47	50	d5-N-ETFOSA	531.1 > 168.9		1.06e4		6.16				
48	51	13C2-PFHxDA	815 > 769.7	4.15e3	1.06e4	0.978	6.50	6.45	4.91	5.03	100.5
49	52	d7-N-MeFOSE	623.1 > 58.9		1.06e4	0.000	6.30				
50	53	d9-N-EtFOSE	639.2 > 58.8		1.06e4		6.42				
51	54	13C4-PFBA	217. > 171.8	1.09e4	1.09e4	1.000	1.46	1.40	12.5	12.5	100.0
52	55	13C5-PFHxA	318 > 272.9	1.50e4	1.50e4	1.000	3.18	3.11	12.5	12.5	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.21e3	3.21e3	1.000	4.00	3.88	12.5	12.5	100.0
54	57	13C8-PFOA	421.3 > 376	1.06e4	1.06e4	1.000	4.32	4.26	12.5	12.5	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.10e4	1.10e4	1.000	4.78	4.70	12.5	12.5	100.0
56	59	13C4-PFOS	503 > 79.9	3.55e3	3.55e3	1.000	4.83	4.78	12.5	12.5	100.0
57	60	13C6-PFDA	519.1 > 473.7	8.25e3	8.25e3	1.000	5.12	5.07	12.5	12.5	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.06e4	1.06e4	1.000	5.44	5.39	12.5	12.5	100.0

50-150

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Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Saturday, December 16, 2017 13:37:51 Pacific Standard Time
Printed: Saturday, December 16, 2017 13:38:31 Pacific Standard Time

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Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171215M2_3	ST171215M2-1 PFC CS0 17L1406	15-Dec-17	16:55:37
2	171215M2_4	IPA	15-Dec-17	17:06:46
3	171215M2_5	B7L0027-BS1 OPR 0.25	15-Dec-17	17:17:56
4	171215M2_6	B7L0027-BSD1 LCSD 0.25	15-Dec-17	17:29:07
5	171215M2_7	IPA	15-Dec-17	17:40:18
6	171215M2_8	B7L0027-BLK1 Method Blank 0.25	15-Dec-17	17:51:28
7	171215M2_9	1701823-08 OF-WT-FB01-113017 0.1169	15-Dec-17	18:02:39
8	171215M2_10	1701823-01 OF-INF01-113017 0.1203	15-Dec-17	18:13:50
9	171215M2_11	1701823-02 OF-MID01-113017 0.12207	15-Dec-17	18:25:00
10	171215M2_12	1701823-03 OF-EFF01-113017 0.11531	15-Dec-17	18:36:11
11	171215M2_13	1701823-04 OF-WT-INF01-113017 0.11471	15-Dec-17	18:47:22
12	171215M2_14	1701823-05 OF-WT-MID01-113017 0.11099	15-Dec-17	18:58:33
13	171215M2_15	1701823-06 OF-WT-EFF01-113017 0.11752	15-Dec-17	19:09:43
14	171215M2_16	1701823-07 OF-WT-EFF01P-113017 0.11656	15-Dec-17	19:20:54
15	171215M2_17	1701802-01 FC-MW02SR1-NP-20171128 0.2...	15-Dec-17	19:32:05
16	171215M2_18	1701802-02 FC-MW02SR1-P1-20171128 0.26...	15-Dec-17	19:43:15
17	171215M2_19	IPA	15-Dec-17	19:54:26
18	171215M2_20	ST171215M2-2 PFC CS3 17L0509	15-Dec-17	20:05:37
19	171215M2_21	IPA	15-Dec-17	20:16:47
20	171215M2_22	1701802-03 FC-MW02SR1-P2-20171128 0.26...	15-Dec-17	20:27:58
21	171215M2_23	1701802-04 FC-MW02SR1-P3-20171128 0.25...	15-Dec-17	20:39:09
22	171215M2_24	1701802-05 FC-MW02SR1-FRB-20171128 0....	15-Dec-17	20:50:19
23	171215M2_25	1701802-06 FC-MW02IR1-NP-20171128 0.25...	15-Dec-17	21:01:30
24	171215M2_26	1701802-07 FC-MW02IR1-P1-20171128 0.26...	15-Dec-17	21:12:41
25	171215M2_27	1701802-08 FC-MW02IR1-P2-20171128 0.26...	15-Dec-17	21:23:51
26	171215M2_28	1701802-09 FC-MW02IR1-P3-20171128 0.25...	15-Dec-17	21:35:02
27	171215M2_29	1701724-10@5X GENBM-08-SB01-0.5-1-111...	15-Dec-17	21:46:13
28	171215M2_30	1701724-12@5X GENBM-11SD-01-111617 1.3	15-Dec-17	21:57:24
29	171215M2_31	1701724-13@10X GENBM-11SD-02-111617 1..	15-Dec-17	22:08:34
30	171215M2_32	1701724-15@5X GENBM-11SD-03-111617 1.5	15-Dec-17	22:19:45
31	171215M2_33	IPA	15-Dec-17	22:30:56

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Compound name: PFBA

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32	171215M2_34	ST171215M2-3 PFC CS3 17L0509	15-Dec-17	22:42:06
33	171215M2_35	IPA	15-Dec-17	22:53:17
34	171215M2_36	1701724-14 GENBM-11SD-04-111617 1.44	15-Dec-17	23:04:28
35	171215M2_37	1701758-15@40X IR54-GW16-17D 0.11876	15-Dec-17	23:15:38
36	171215M2_38	1701758-16 IR54-FB-111917 0.11819	15-Dec-17	23:26:49
37	171215M2_39	1701721-02@5X GENBM-SO-Duplicate-02-11...	15-Dec-17	23:38:00
38	171215M2_40	IPA 4	15-Dec-17	23:49:11
39	171215M2_41	ST171215M2-2 PFC CS3 17L0509	16-Dec-17	00:00:22
40	171215M2_42	IPA 12/16/17	16-Dec-17	00:11:32

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Last Altered: Friday, December 15, 2017 17:04:23 Pacific Standard Time
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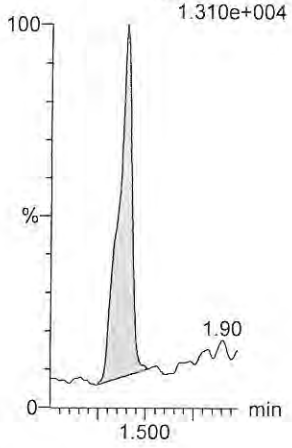

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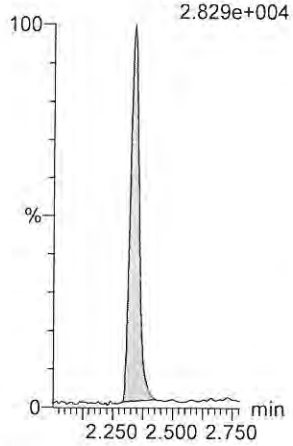

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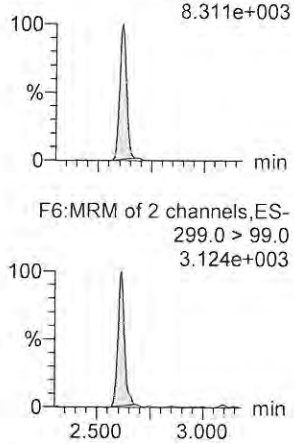

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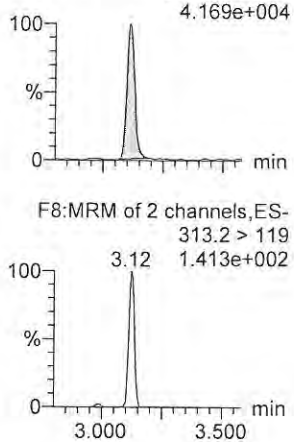

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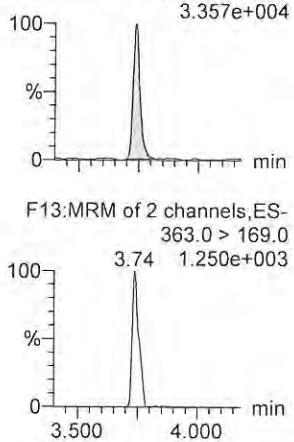

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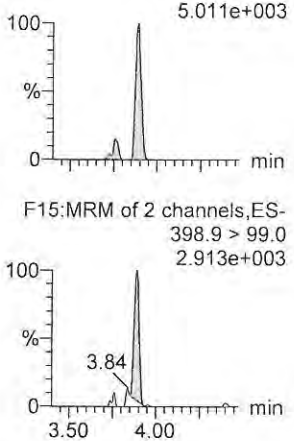

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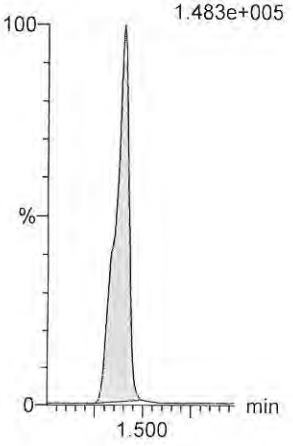

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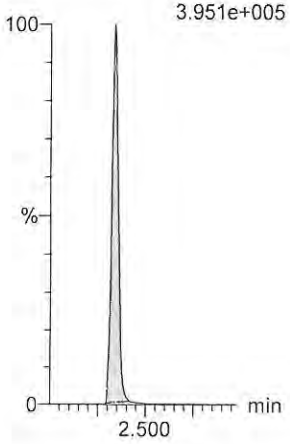

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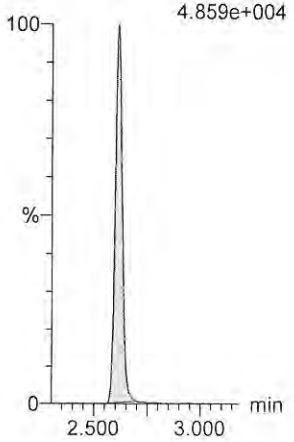

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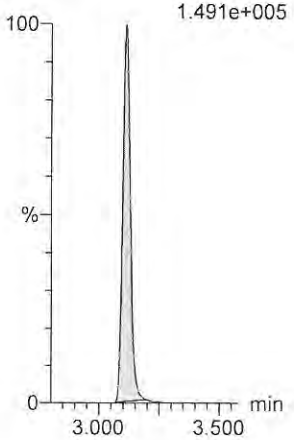

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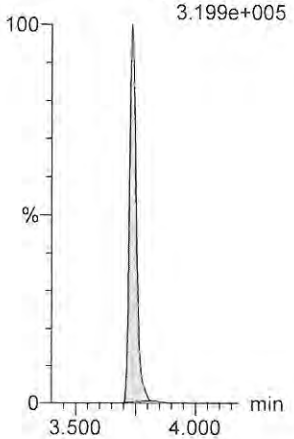

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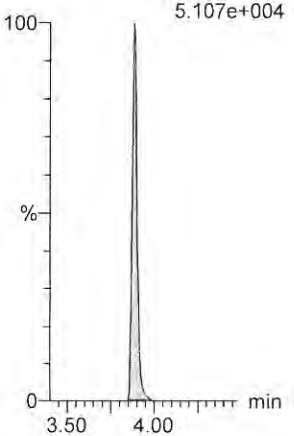

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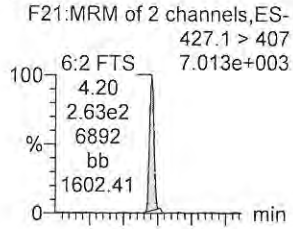
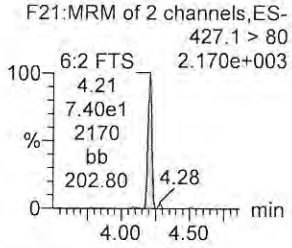
Printed: Friday, December 15, 2017 17:07:55 Pacific Standard Time

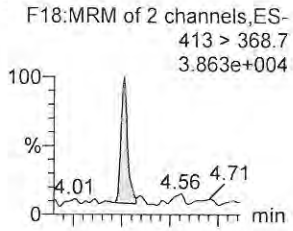
Name: 171215M2_3, Date: 15-Dec-2017, Time: 16:55:37, ID: ST171215M2-1 PFC CS0 17L1406, Description: PFC CS0 17L1406

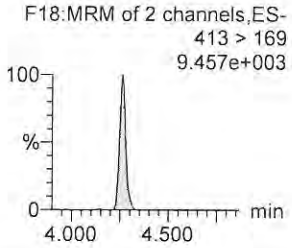
6:2 FTS





L-PFOA





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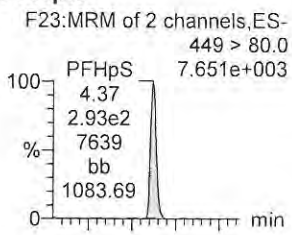

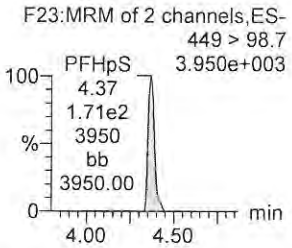

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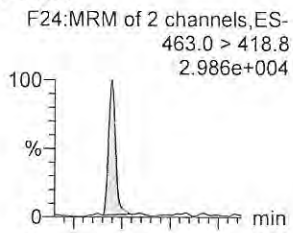

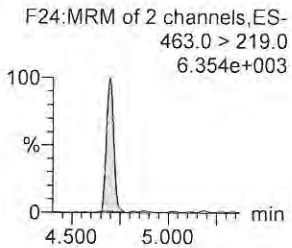

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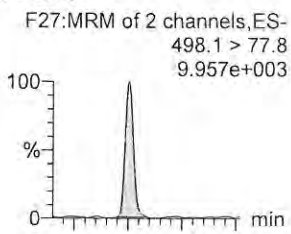

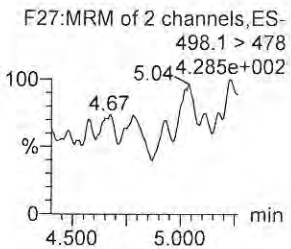

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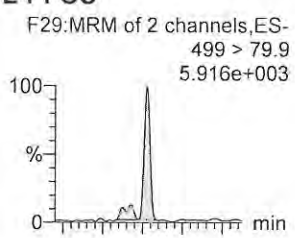

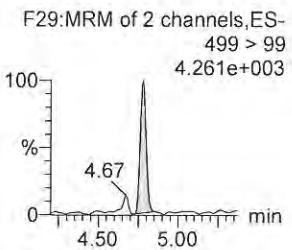

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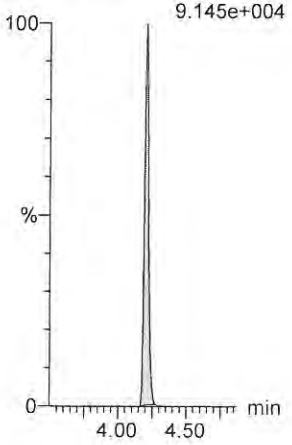

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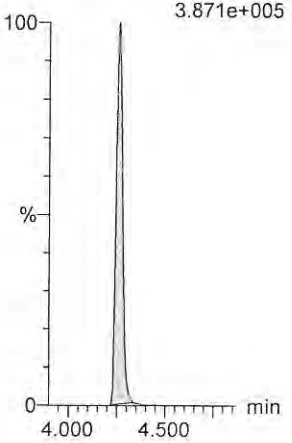

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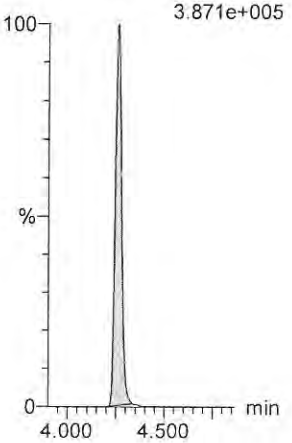

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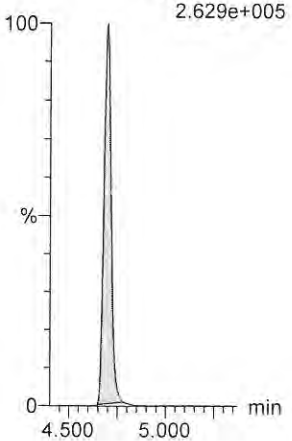

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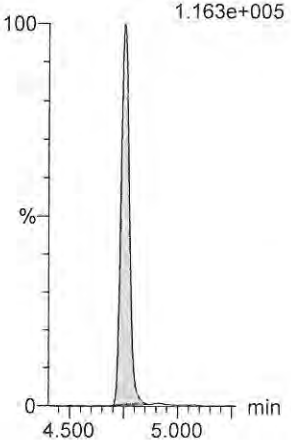

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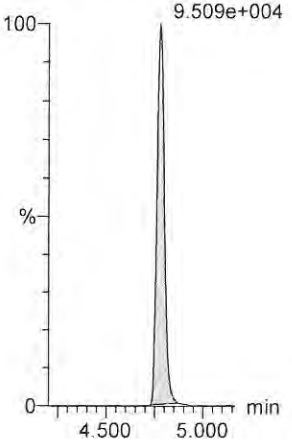

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Last Altered: Friday, December 15, 2017 17:04:23 Pacific Standard Time
Printed: Friday, December 15, 2017 17:07:55 Pacific Standard Time

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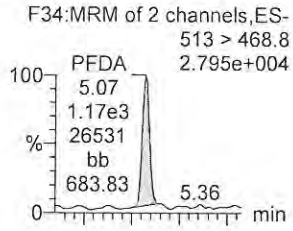
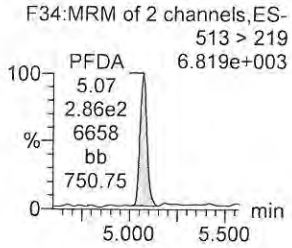
PFDA





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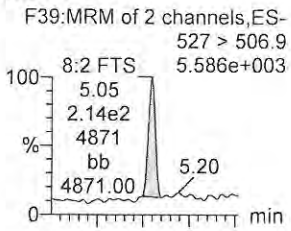

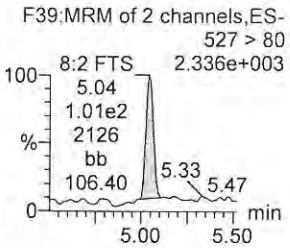

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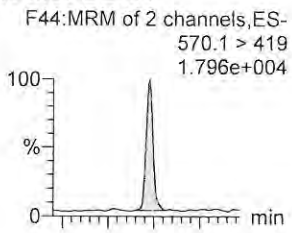

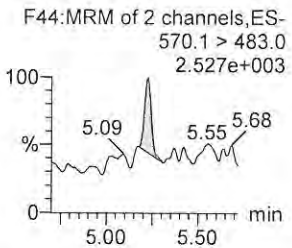

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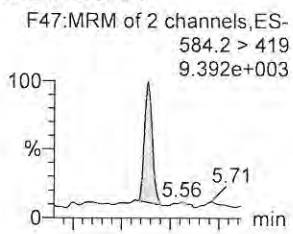

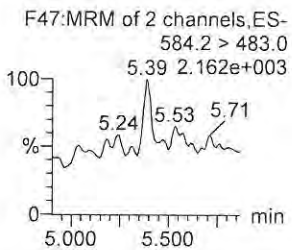

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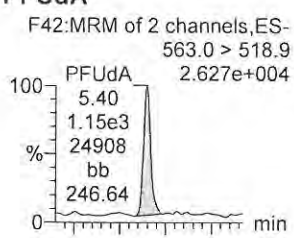

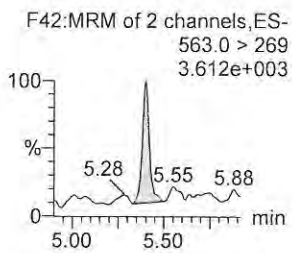

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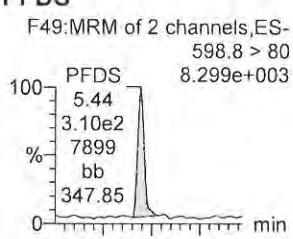
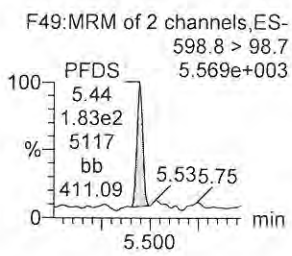
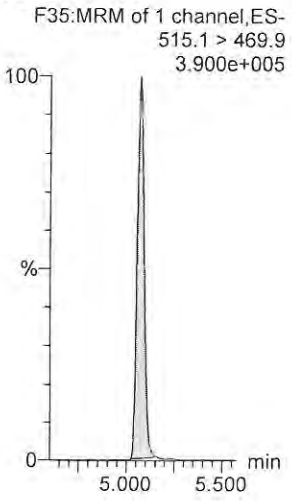
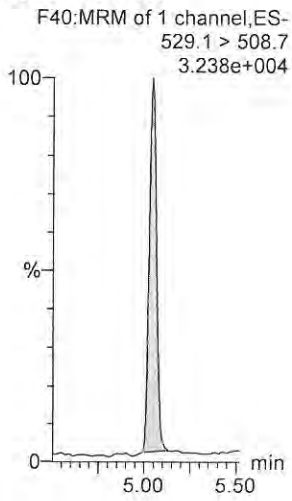




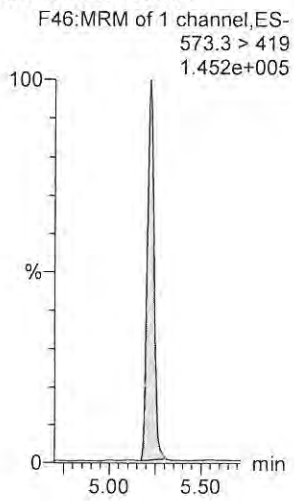
13C2-PFDA



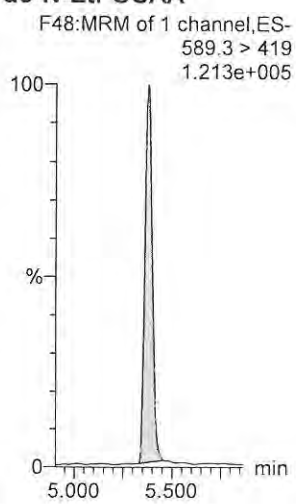
13C2-8:2 FTS



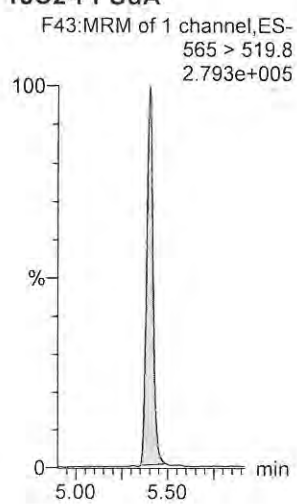
d3-N-MeFOSAA



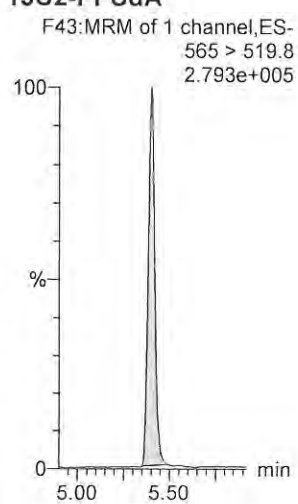
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

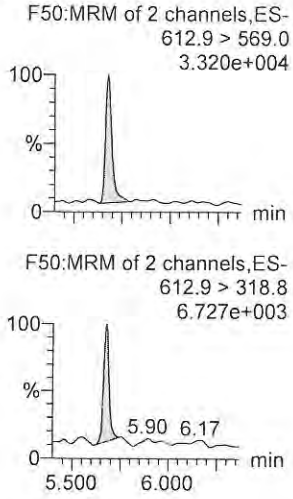


Dataset: U:\Q4.PRO\results\171215M2\171215M2-3.qld

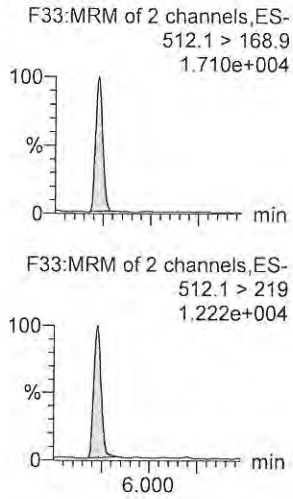
Last Altered: Friday, December 15, 2017 17:04:23 Pacific Standard Time
Printed: Friday, December 15, 2017 17:07:55 Pacific Standard Time

Name: 171215M2_3, Date: 15-Dec-2017, Time: 16:55:37, ID: ST171215M2-1 PFC CS0 17L1406, Description: PFC CS0 17L1406

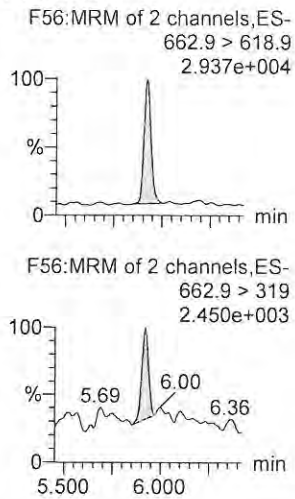
PFDoA



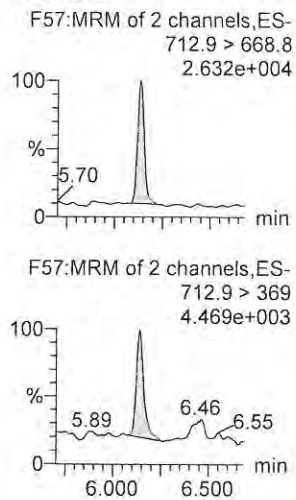
N-MeFOSA



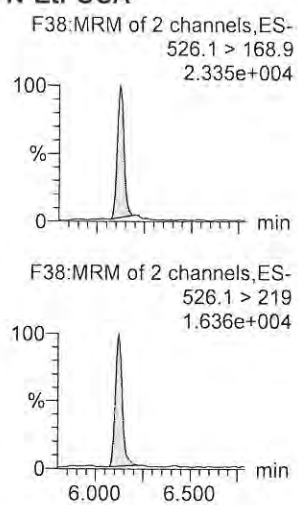
PFTrDA



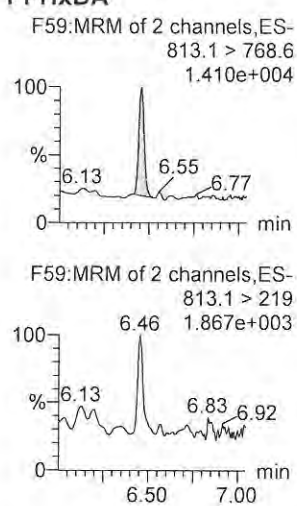
PFTeDA



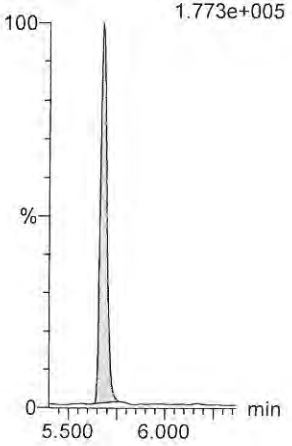
N-EtFOSA



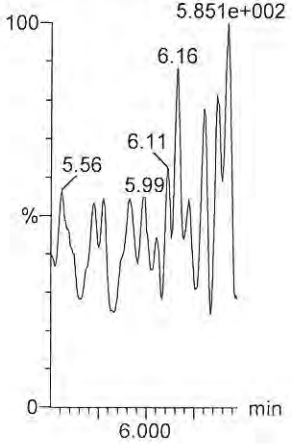
PFHxDA



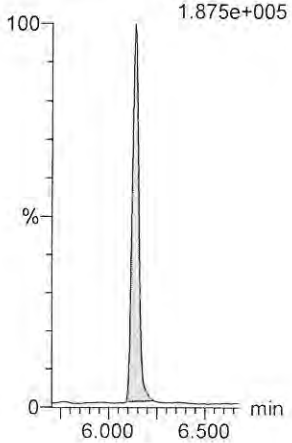
13C2-PFDoA



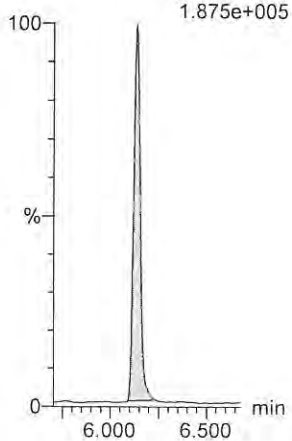
d3-N-MeFOSA



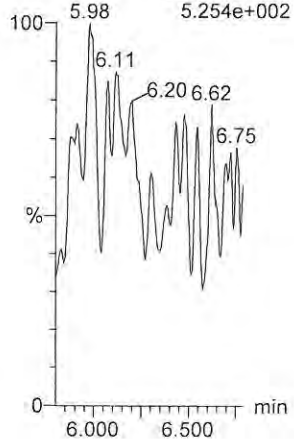
13C2-PFTeDA



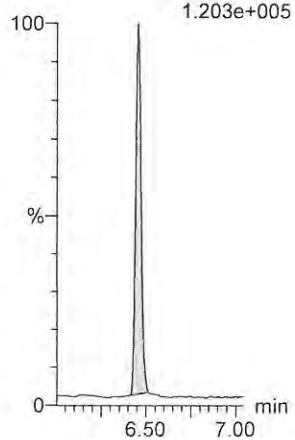
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

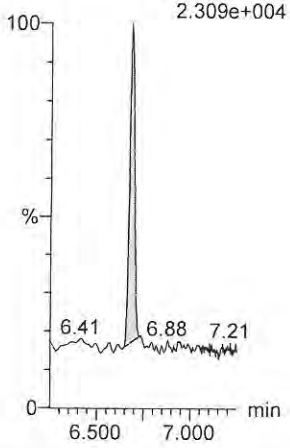


Dataset: U:\Q4.PRO\results\171215M2\171215M2-3.qld

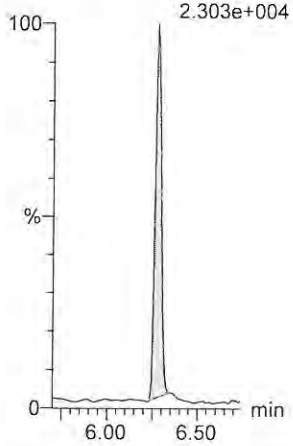
Last Altered: Friday, December 15, 2017 17:04:23 Pacific Standard Time
Printed: Friday, December 15, 2017 17:07:55 Pacific Standard Time

Name: 171215M2_3, Date: 15-Dec-2017, Time: 16:55:37, ID: ST171215M2-1 PFC CS0 17L1406, Description: PFC CS0 17L1406

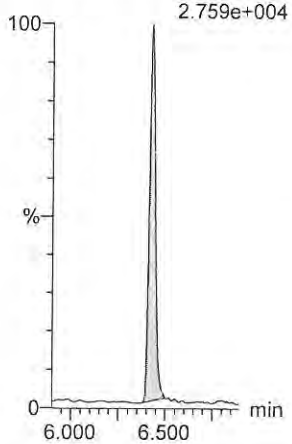
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.309e+004



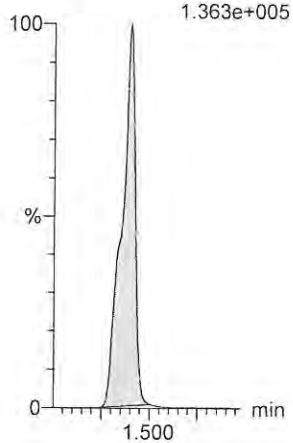
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.303e+004



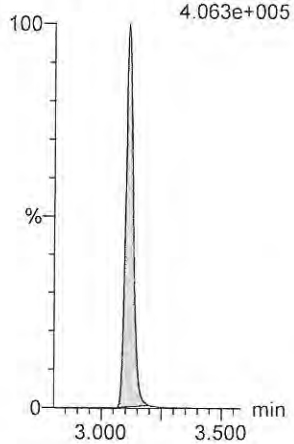
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.759e+004



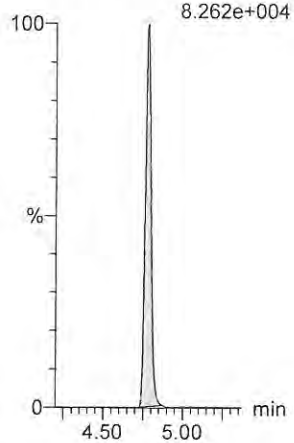
13C4-PFBA
F3:MRM of 1 channel,ES-
217, > 171.8
1.363e+005



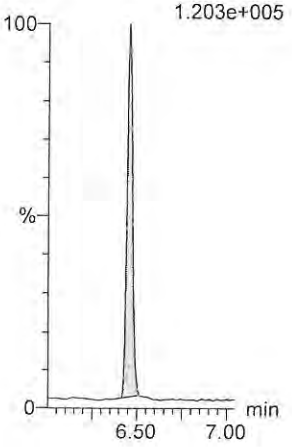
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.063e+005



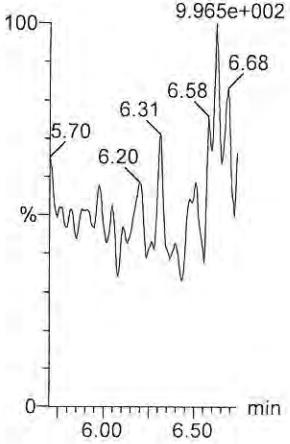
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.262e+004



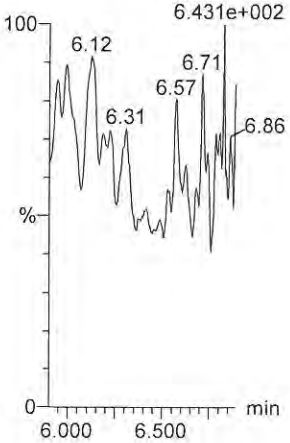
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.203e+005



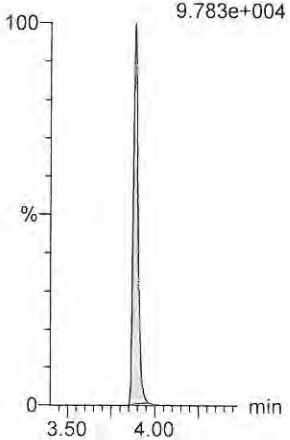
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
9.965e+002



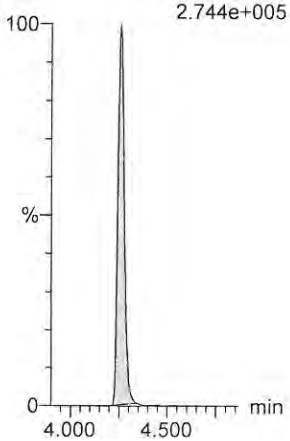
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.431e+002



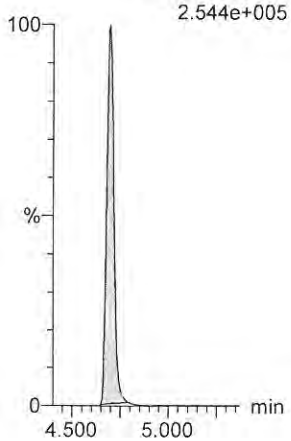
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.783e+004



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
2.744e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.544e+005

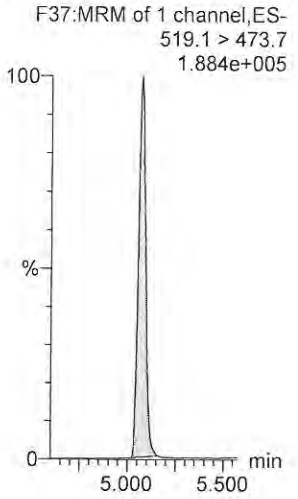


Dataset: U:\Q4.PRO\results\171215M2\171215M2-3.qld

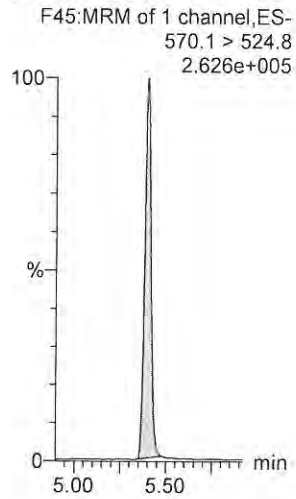
Last Altered: Friday, December 15, 2017 17:04:23 Pacific Standard Time
Printed: Friday, December 15, 2017 17:07:55 Pacific Standard Time

Name: 171215M2_3, Date: 15-Dec-2017, Time: 16:55:37, ID: ST171215M2-1 PFC CS0 17L1406, Description: PFC CS0 17L1406

13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171215M2\171215M2-20.qld

Last Altered: Saturday, December 16, 2017 13:28:49 Pacific Standard Time
Printed: Saturday, December 16, 2017 13:29:20 Pacific Standard Time

(A) Not used.

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 15 Dec 2017 11:10:11
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_20, Date: 15-Dec-2017, Time: 20:05:37, ID: ST171215M2-2 PFC CS3 17L0509, Description: PFC CS3 17L0509

	#	Name	Trace	Area	IS Area	RRF	Pred RT	RT	y Axis Resp	Conc	%Rec
1	1	PFBA	213.0 > 168.8	1.06e4	1.22e4		1.46	1.39	10.8	10.1	100.7
2	2	PFPeA	263.1 > 218.9	1.22e4	1.68e4		2.41	2.34	9.08	9.92	99.2
3	3	PFBS	299.0 > 79.7	3.33e3	1.97e3		2.70	2.62	21.1	10.4	103.8
4	4	PFHxA	313.2 > 268.9	1.67e4	5.75e3		3.18	3.11	14.5	9.97	99.7
5	5	PFHpA	363.0 > 318.9	1.26e4	1.12e4		3.80	3.74	14.0	10.5	105.0
6	6	L-PFHxS	398.9 > 79.6	2.67e3	1.79e3		4.00	3.88	18.7	9.69	96.9
7	8	6:2 FTS	427.1 > 407	2.43e3	3.09e3		4.26	4.21	9.85	9.38	93.8
8	9	L-PFOA	413 > 368.7	1.21e4	1.65e4		4.32	4.26	9.19	9.87	98.7
9	11	PFHpS	449 > 80.0	3.21e3	1.65e4		4.43	4.37	2.43	9.75	97.5
10	12	PFNA	463.0 > 418.8	1.44e4	1.58e4		4.78	4.69	11.4	9.11	91.1
11	13	PFOSA	498.1 > 77.8	3.67e3	4.58e3		4.81	4.75	10.0	10.5	105.0
12	14	L-PFOS	499 > 79.9	3.63e3	3.86e3		4.83	4.78	11.8	10.5	104.6
13	16	PFDA	513 > 468.8	1.55e4	1.64e4		5.12	5.07	11.8	10.6	106.3
14	17	8:2 FTS	527 > 506.9	2.32e3	1.85e3		5.09	5.04	15.7	7.58	75.8
15	18	N-MeFOSAA	570.1 > 419	7.65e3	5.92e3		5.25	5.22	16.2	11.5	114.6
16	19	N-EtFOSAA	584.2 > 419	4.92e3	5.98e3		5.45	5.37	10.3	9.68	96.8
17	20	PFUdA	563.0 > 518.9	1.23e4	1.79e4		5.44	5.39	8.60	8.72	87.2
18	21	PFDS	598.8 > 80	3.46e3	1.79e4		5.49	5.44	2.41	8.49	84.9
19	22	PFDoA	612.9 > 569.0	1.60e4	8.50e3		5.75	5.67	23.6	11.4	113.6
20	23	N-MeFOSA	512.1 > 168.9	7.16e3			5.80	5.73			(A)
21	24	PFTrDA	662.9 > 618.9	1.56e4	8.50e3		5.97	5.91	22.9	10.8	107.9
22	25	PFTeDA	712.9 > 668.8	1.14e4	8.50e3		6.20	6.13	16.7	9.66	96.6
23	26	N-EtFOSA	526.1 > 168.9	9.80e3			6.16	6.12			(A)
24	27	PFHxDA	813.1 > 768.6	5.69e3	4.46e3		6.50	6.45	6.39	11.0	110.3
25	28	PFODA	913.1 > 868.8	6.55e3	4.46e3		6.75	6.68	7.35	11.0	110.1
26	29	N-MeFOSE	616.1 > 58.9	8.48e3			6.30	6.28			(A)
27	30	N-EtFOSE	630.1 > 58.9	1.13e4			6.42	6.43			
28	31	13C3-PFBA	216.1 > 171.8	1.22e4	1.18e4	1.056	1.46	1.39	12.9	12.2	97.7
29	32	13C3-PFPeA	266. > 221.8	1.68e4	1.55e4	1.044	2.41	2.34	13.5	13.0	103.6
30	33	13C3-PFBS	302. > 98.8	1.97e3	1.55e4	0.124	2.70	2.62	1.59	12.8	102.3
31	34	13C2-PFHxA	315 > 269.8	5.75e3	1.55e4	0.897	3.18	3.11	4.63	5.17	103.4

70-120

50-150

CM 12/16/17

JJA 12/16/2017

Dataset: U:\Q4.PRO\results\171215M2\171215M2-20.qld

Last Altered: Saturday, December 16, 2017 13:28:49 Pacific Standard Time
Printed: Saturday, December 16, 2017 13:29:20 Pacific Standard Time

Name: 171215M2_20, Date: 15-Dec-2017, Time: 20:05:37, ID: ST171215M2-2 PFC CS3 17L0509, Description: PFC CS3 17L0509

	#	Name	Trace	Area	IS Area	RRF	Pred RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.12e4	1.55e4	0.689	3.80	3.73	9.05	13.1	105.0
33	36	18O2-PFHxS	403.0 > 102.6	1.79e3	3.44e3	0.530	4.00	3.89	6.49	12.2	97.9
34	37	13C2-6:2 FTS	429.1 > 408.9	3.09e3	1.18e4	0.331	4.26	4.21	3.26	9.86	78.8
35	38	13C2-PFOA	414.9 > 369.7	1.65e4	1.18e4	1.316	4.32	4.26	17.4	13.2	106.0
36	39	13C5-PFNA	468.2 > 422.9	1.58e4	1.43e4	1.109	4.78	4.69	13.8	12.4	99.3
37	40	13C8-PFOSA	506.1 > 77.7	4.58e3	1.31e4	0.487	4.81	4.75	4.38	9.00	72.0
38	41	13C8-PFOS	507.0 > 79.9	3.86e3	3.48e3	1.163	4.83	4.78	13.9	11.9	95.3
39	42	13C2-PFDA	515.1 > 469.9	1.64e4	9.96e3	1.694	5.12	5.07	20.6	12.1	97.1
40	43	13C2-8:2 FTS	529.1 > 508.7	1.85e3	1.55e4	0.141	5.09	5.04	1.49	10.6	84.7
41	44	d3-N-MeFOSAA	573.3 > 419	5.92e3	1.31e4	0.530	5.25	5.21	5.65	10.7	85.3
42	45	d5-N-EtFOSAA	589.3 > 419	5.98e3	1.31e4	0.541	5.45	5.37	5.71	10.6	84.6
43	46	13C2-PFUdA	565 > 519.8	1.79e4	1.31e4	1.351	5.44	5.39	17.1	12.7	101.5
44	47	13C2-PFDoA	615.0 > 569.7	8.50e3	1.31e4	0.765	5.75	5.67	8.12	10.6	85.0
45	48	d3-N-MeFOSA	515.2 > 168.9		1.31e4	0.002	5.80				
46	49	13C2-PFTeDA	714.8 > 669.6	8.50e3	1.31e4	0.771	6.20	6.13	8.13	10.5	84.3
47	50	d5-N-ETFOSA	531.1 > 168.9		1.31e4		6.16				
48	51	13C2-PFHxDA	815 > 769.7	4.46e3	1.31e4	0.978	6.50	6.45	4.26	4.36	87.1
49	52	d7-N-MeFOSE	623.1 > 58.9		1.31e4	0.000	6.30				
50	53	d9-N-EtFOSE	639.2 > 58.8		1.31e4		6.42				
51	54	13C4-PFBA	217. > 171.8	1.18e4	1.18e4	1.000	1.46	1.39	12.5	12.5	100.0
52	55	13C5-PFHxA	318 > 272.9	1.55e4	1.55e4	1.000	3.18	3.12	12.5	12.5	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.44e3	3.44e3	1.000	4.00	3.89	12.5	12.5	100.0
54	57	13C8-PFOA	421.3 > 376	1.18e4	1.18e4	1.000	4.32	4.26	12.5	12.5	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.43e4	1.43e4	1.000	4.78	4.69	12.5	12.5	100.0
56	59	13C4-PFOS	503 > 79.9	3.48e3	3.48e3	1.000	4.83	4.78	12.5	12.5	100.0
57	60	13C6-PFDA	519.1 > 473.7	9.96e3	9.96e3	1.000	5.12	5.07	12.5	12.5	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.31e4	1.31e4	1.000	5.44	5.39	12.5	12.5	100.0

50-150

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Saturday, December 16, 2017 13:37:51 Pacific Standard Time
Printed: Saturday, December 16, 2017 13:38:31 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 15 Dec 2017 11:10:11
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Compound name: PFBA

	Name	ID	Acq Date	Acq Time
1	171215M2_3	ST171215M2-1 PFC CS0 17L1406	15-Dec-17	16:55:37
2	171215M2_4	IPA	15-Dec-17	17:06:46
3	171215M2_5	B7L0027-BS1 OPR 0.25	15-Dec-17	17:17:56
4	171215M2_6	B7L0027-BSD1 LCSD 0.25	15-Dec-17	17:29:07
5	171215M2_7	IPA	15-Dec-17	17:40:18
6	171215M2_8	B7L0027-BLK1 Method Blank 0.25	15-Dec-17	17:51:28
7	171215M2_9	1701823-08 OF-WT-FB01-113017 0.1169	15-Dec-17	18:02:39
8	171215M2_10	1701823-01 OF-INF01-113017 0.1203	15-Dec-17	18:13:50
9	171215M2_11	1701823-02 OF-MID01-113017 0.12207	15-Dec-17	18:25:00
10	171215M2_12	1701823-03 OF-EFF01-113017 0.11531	15-Dec-17	18:36:11
11	171215M2_13	1701823-04 OF-WT-INF01-113017 0.11471	15-Dec-17	18:47:22
12	171215M2_14	1701823-05 OF-WT-MID01-113017 0.11099	15-Dec-17	18:58:33
13	171215M2_15	1701823-06 OF-WT-EFF01-113017 0.11752	15-Dec-17	19:09:43
14	171215M2_16	1701823-07 OF-WT-EFF01P-113017 0.11656	15-Dec-17	19:20:54
15	171215M2_17	1701802-01 FC-MW02SR1-NP-20171128 0.2...	15-Dec-17	19:32:05
16	171215M2_18	1701802-02 FC-MW02SR1-P1-20171128 0.26...	15-Dec-17	19:43:15
17	171215M2_19	IPA	15-Dec-17	19:54:26
18	171215M2_20	ST171215M2-2 PFC CS3 17L0509	15-Dec-17	20:05:37
19	171215M2_21	IPA	15-Dec-17	20:16:47
20	171215M2_22	1701802-03 FC-MW02SR1-P2-20171128 0.26...	15-Dec-17	20:27:58
21	171215M2_23	1701802-04 FC-MW02SR1-P3-20171128 0.25...	15-Dec-17	20:39:09
22	171215M2_24	1701802-05 FC-MW02SR1-FRB-20171128 0....	15-Dec-17	20:50:19
23	171215M2_25	1701802-06 FC-MW02IR1-NP-20171128 0.25...	15-Dec-17	21:01:30
24	171215M2_26	1701802-07 FC-MW02IR1-P1-20171128 0.26...	15-Dec-17	21:12:41
25	171215M2_27	1701802-08 FC-MW02IR1-P2-20171128 0.26...	15-Dec-17	21:23:51
26	171215M2_28	1701802-09 FC-MW02IR1-P3-20171128 0.25...	15-Dec-17	21:35:02
27	171215M2_29	1701724-10@5X GENBM-08-SB01-0.5-1-111...	15-Dec-17	21:46:13
28	171215M2_30	1701724-12@5X GENBM-11SD-01-111617 1.3	15-Dec-17	21:57:24
29	171215M2_31	1701724-13@10X GENBM-11SD-02-111617 1..	15-Dec-17	22:08:34
30	171215M2_32	1701724-15@5X GENBM-11SD-03-111617 1.5	15-Dec-17	22:19:45
31	171215M2_33	IPA	15-Dec-17	22:30:56

Dataset: Untitled

Last Altered: Saturday, December 16, 2017 13:37:51 Pacific Standard Time
Printed: Saturday, December 16, 2017 13:38:31 Pacific Standard Time

Compound name: PFBA

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32	171215M2_34	ST171215M2-3 PFC CS3 17L0509	15-Dec-17	22:42:06
33	171215M2_35	IPA	15-Dec-17	22:53:17
34	171215M2_36	1701724-14 GENBM-11SD-04-111617 1.44	15-Dec-17	23:04:28
35	171215M2_37	1701758-15@40X IR54-GW16-17D 0.11876	15-Dec-17	23:15:38
36	171215M2_38	1701758-16 IR54-FB-111917 0.11819	15-Dec-17	23:26:49
37	171215M2_39	1701721-02@5X GENBM-SO-Duplicate-02-11...	15-Dec-17	23:38:00
38	171215M2_40	IPA	15-Dec-17	23:49:11
39	171215M2_41	ST171215M2-2 PFC CS3 17L0509	16-Dec-17	00:00:22
40	171215M2_42	IPA am 12/16/17	16-Dec-17	00:11:32

Dataset: U:\Q4.PRO\results\171215M2\171215M2-20.qld

Last Altered: Saturday, December 16, 2017 13:28:49 Pacific Standard Time
Printed: Saturday, December 16, 2017 13:29:20 Pacific Standard Time

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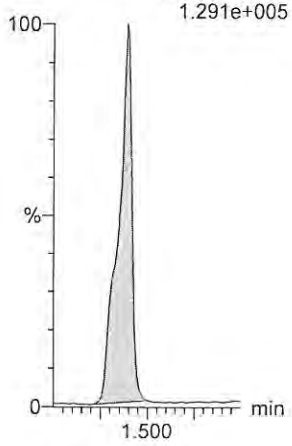
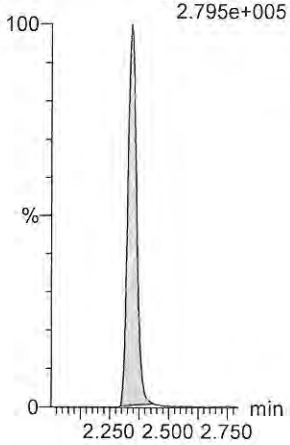
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_20, Date: 15-Dec-2017, Time: 20:05:37, ID: ST171215M2-2 PFC CS3 17L0509, Description: PFC CS3 17L0509

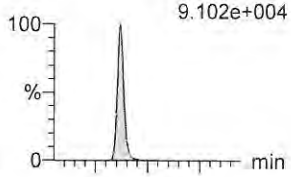
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.291e+005



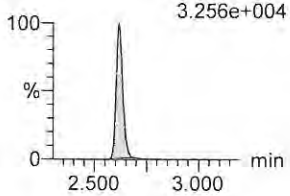
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
2.795e+005



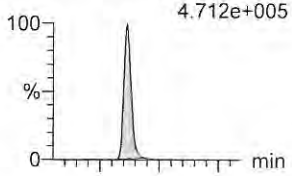
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
9.102e+004



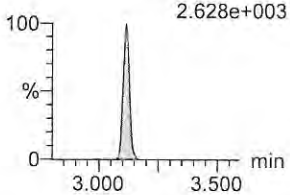
F6:MRM of 2 channels,ES-
299.0 > 99.0
3.256e+004



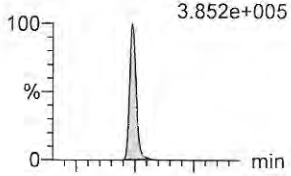
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
4.712e+005



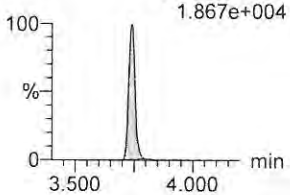
F8:MRM of 2 channels,ES-
313.2 > 119
2.628e+003



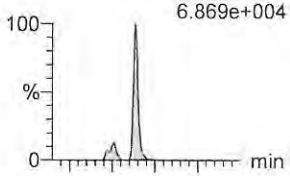
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
3.852e+005



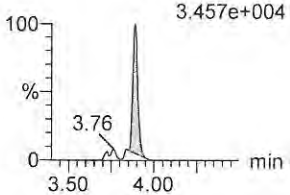
F13:MRM of 2 channels,ES-
363.0 > 169.0
1.867e+004



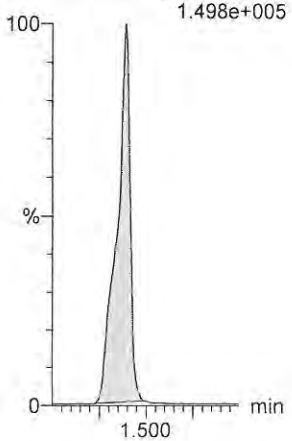
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
6.869e+004



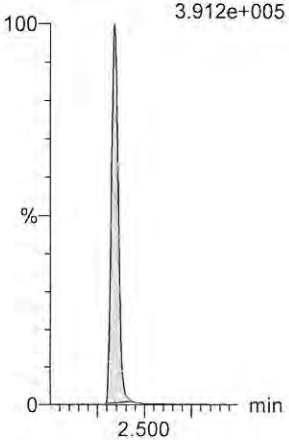
F15:MRM of 2 channels,ES-
398.9 > 99.0
3.457e+004



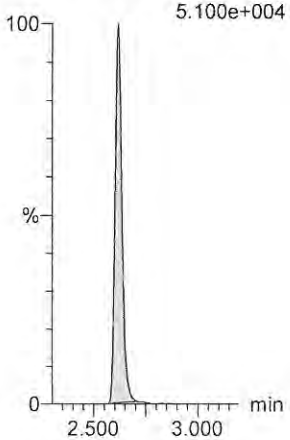
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.498e+005



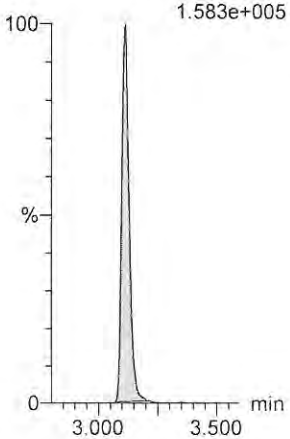
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.912e+005



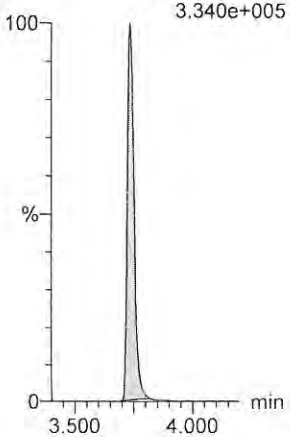
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
5.100e+004



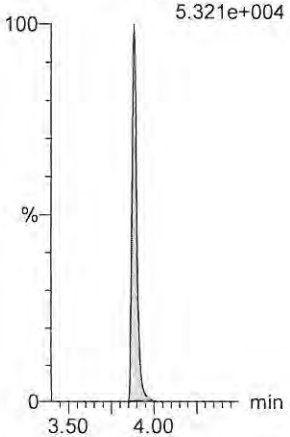
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.583e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
3.340e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
5.321e+004



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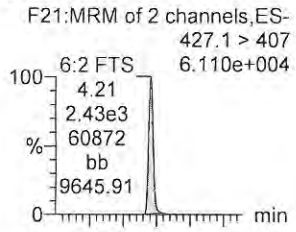
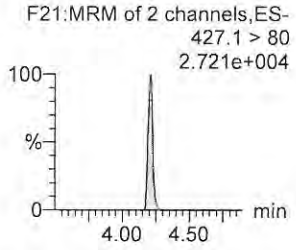
Last Altered: Saturday, December 16, 2017 13:28:49 Pacific Standard Time
Printed: Saturday, December 16, 2017 13:29:20 Pacific Standard Time

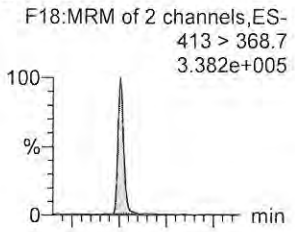
Name: 171215M2_20, Date: 15-Dec-2017, Time: 20:05:37, ID: ST171215M2-2 PFC CS3 17L0509, Description: PFC CS3 17L0509

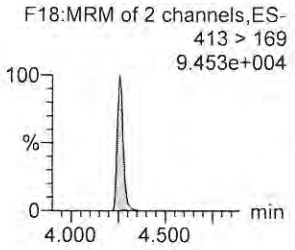
6:2 FTS



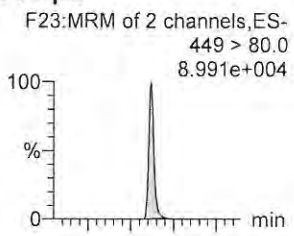


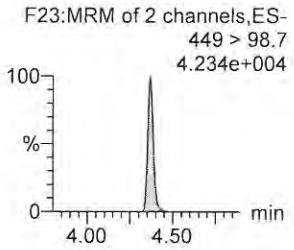
L-PFOA



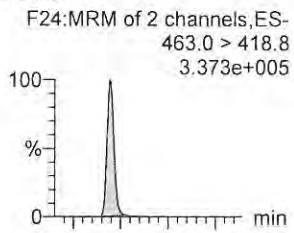


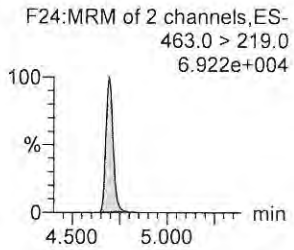
PFHpS



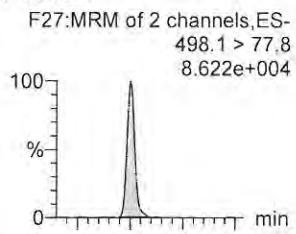


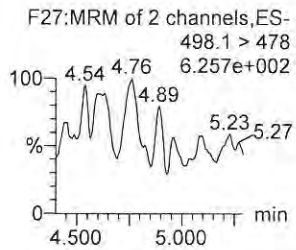
PFNA



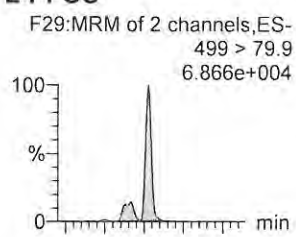


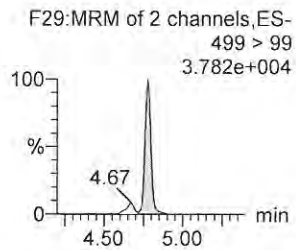
PFOSA





L-PFOS





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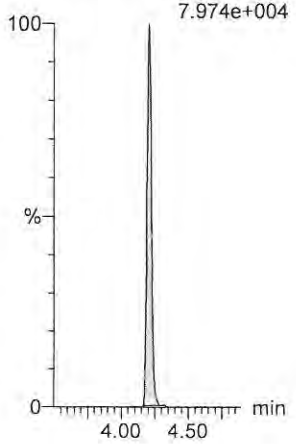
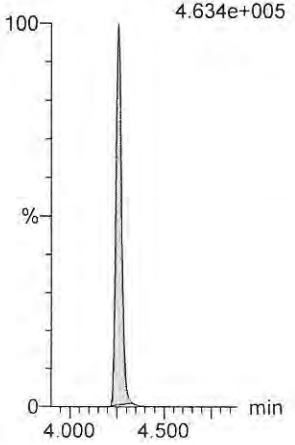
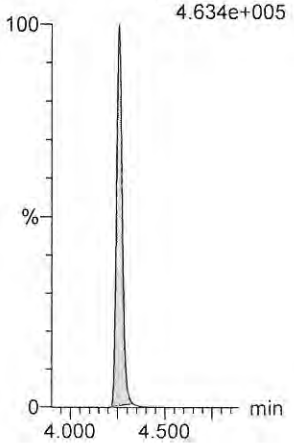


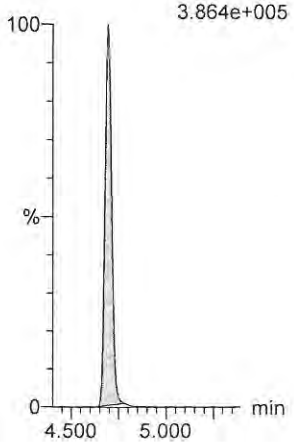
13C2-PFOA



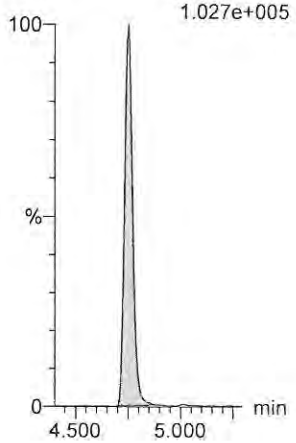
13C2-PFOA



13C5-PFNA



13C8-PFOSA



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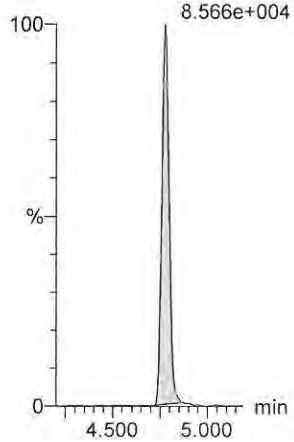

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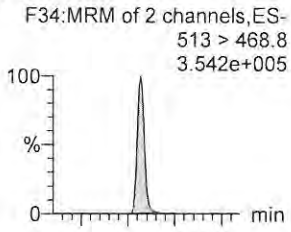
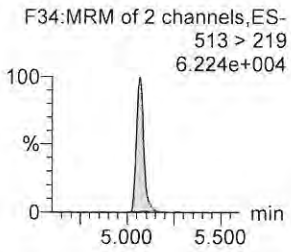
Printed: Saturday, December 16, 2017 13:29:20 Pacific Standard Time

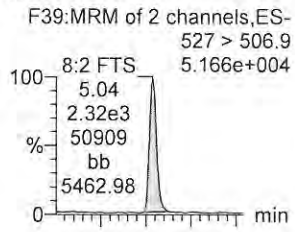
Name: 171215M2_20, Date: 15-Dec-2017, Time: 20:05:37, ID: ST171215M2-2 PFC CS3 17L0509, Description: PFC CS3 17L0509

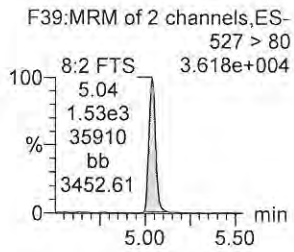
PFDA





8:2 FTS





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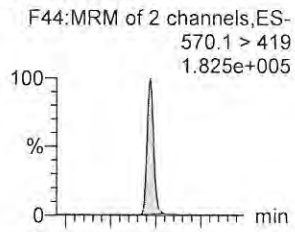

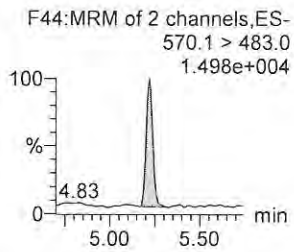

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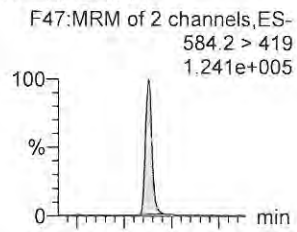
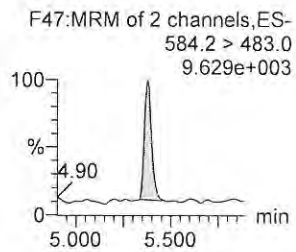
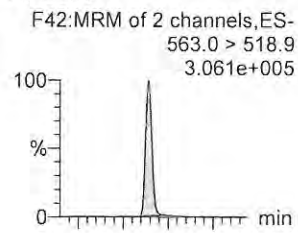
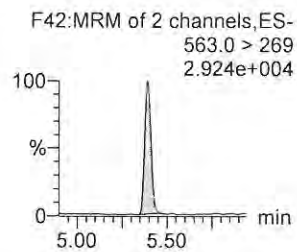




PFUdA





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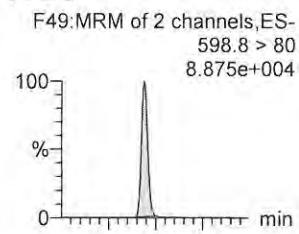

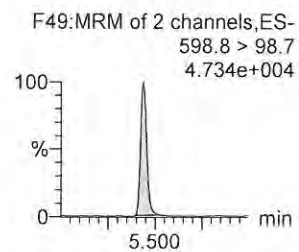

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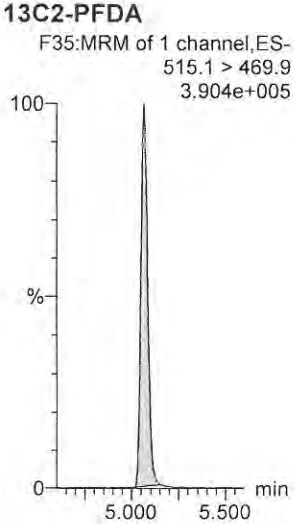
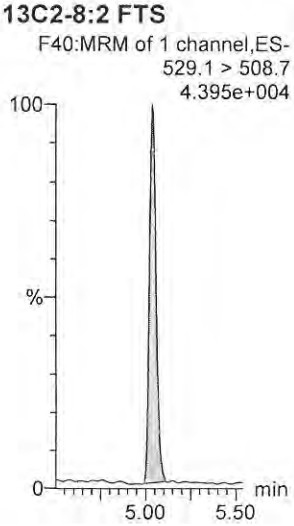
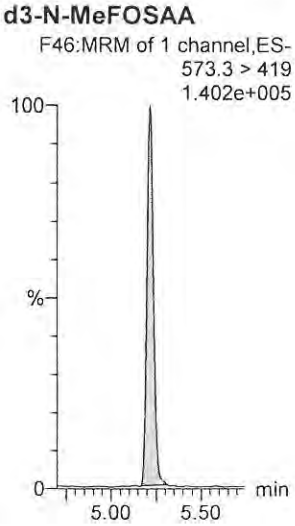


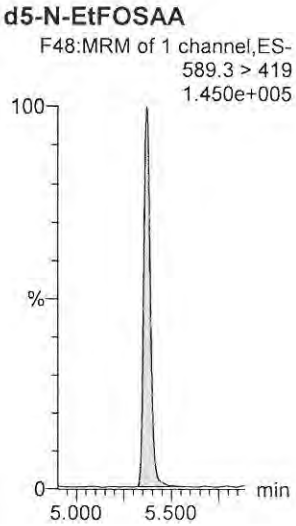
13C2-8:2 FTS



d3-N-MeFOSAA



d5-N-EtFOSAA



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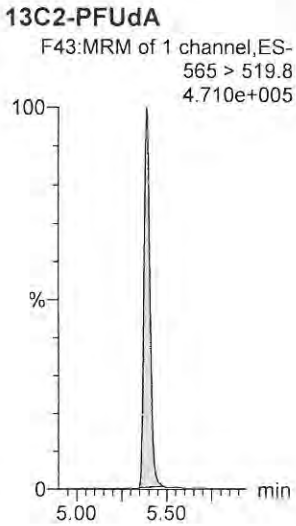

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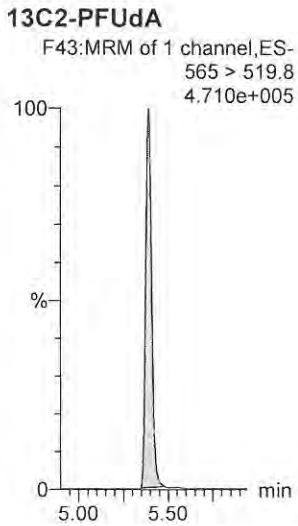

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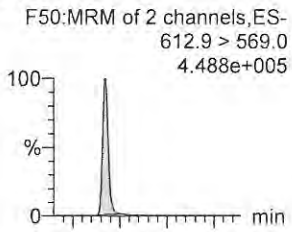
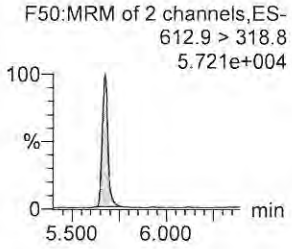
PFDoA





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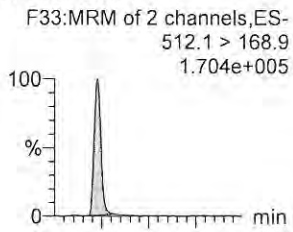

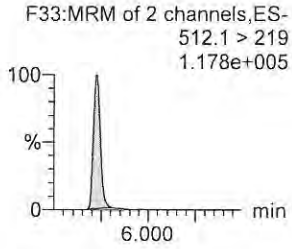

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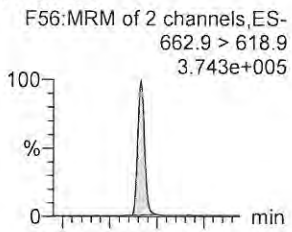

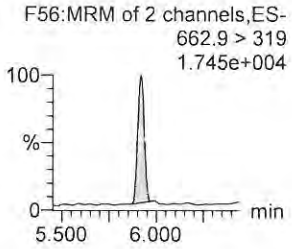

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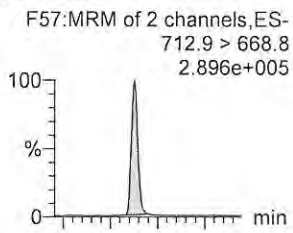

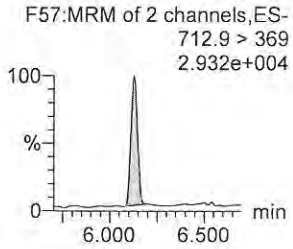

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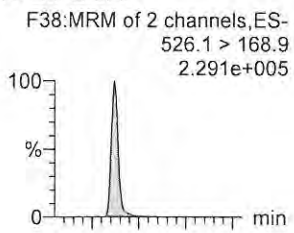
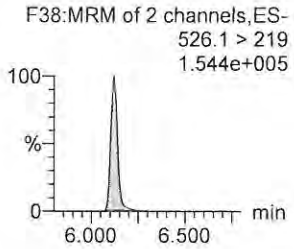
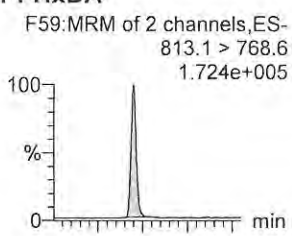
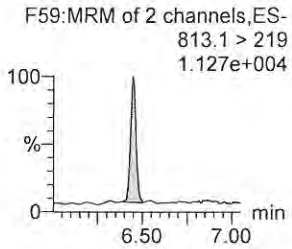




PFHxDA





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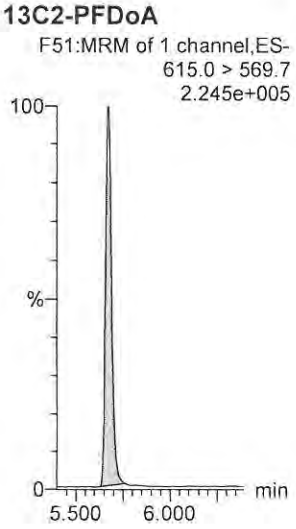
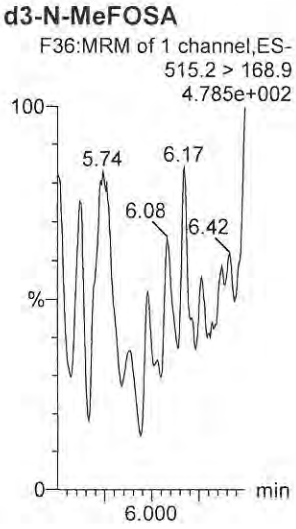


d3-N-MeFOSA



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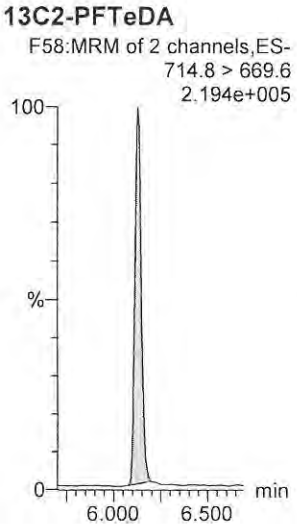

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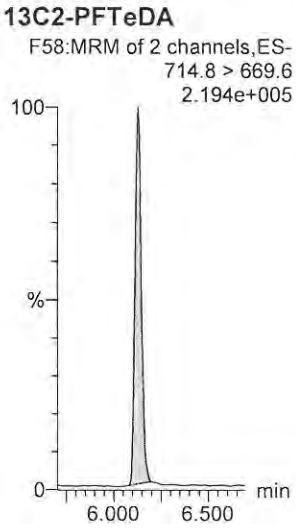
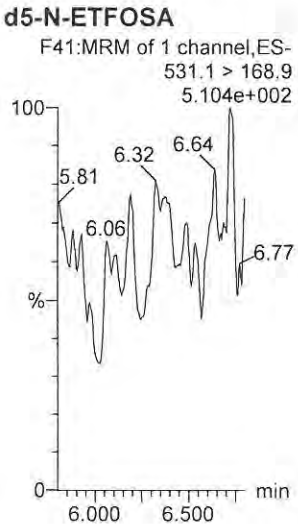
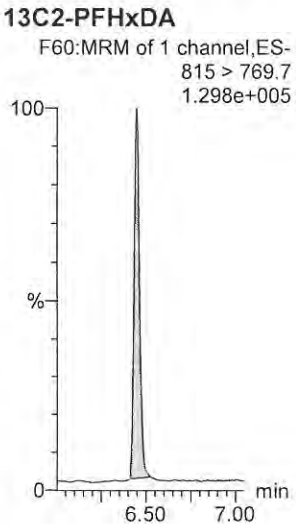


d5-N-ETFOSA



13C2-PFHxDA



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Name: 171215M2_20, Date: 15-Dec-2017, Time: 20:05:37, ID: ST171215M2-2 PFC CS3 17L0509, Description: PFC CS3 17L0509

PFODA
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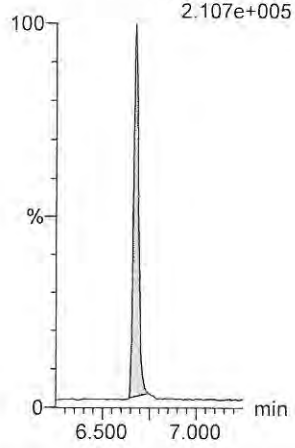
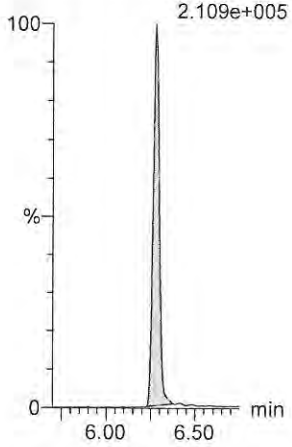
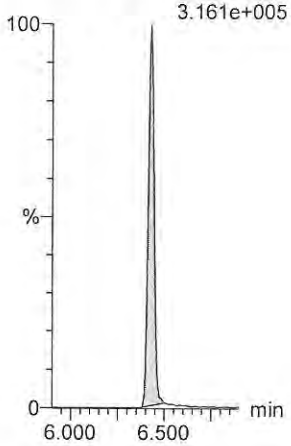
913.1 > 868.8
2.107e+005



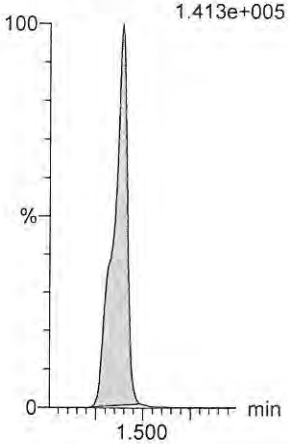
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.109e+005



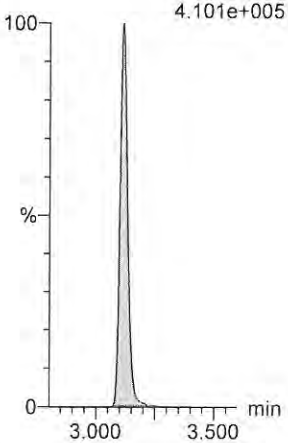
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.161e+005



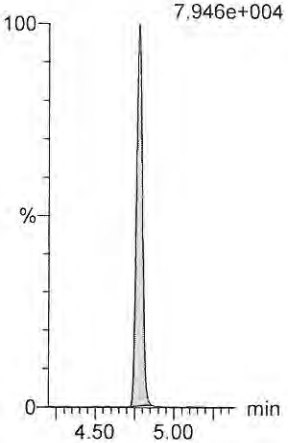
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.413e+005



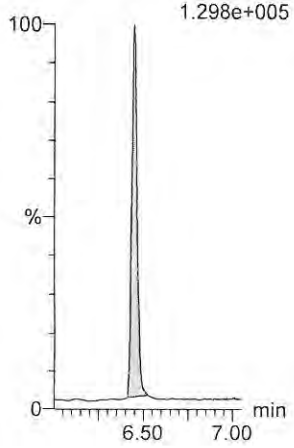
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.101e+005



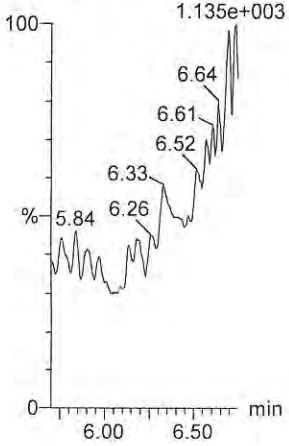
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.946e+004



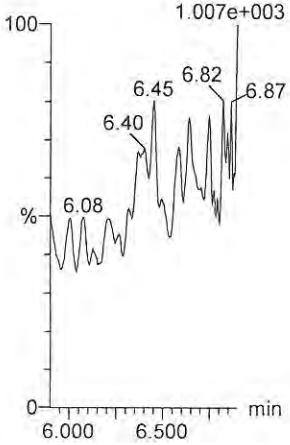
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.298e+005



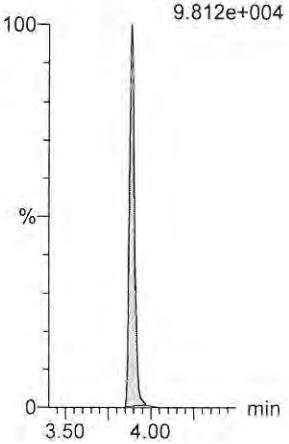
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
1.135e+003



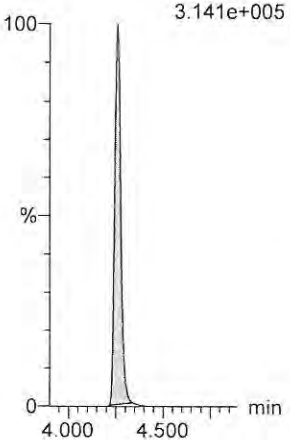
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
1.007e+003



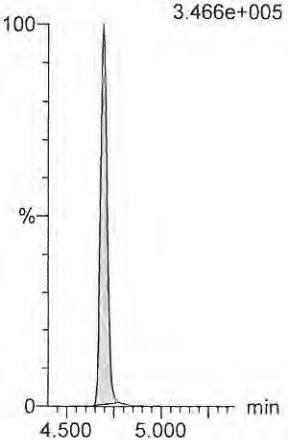
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.812e+004



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.141e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.466e+005



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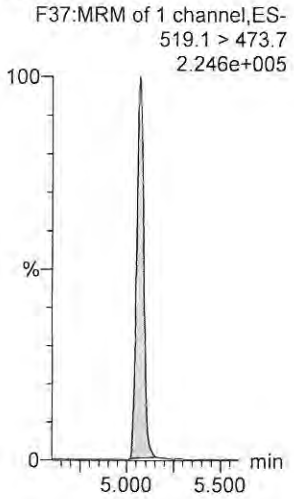
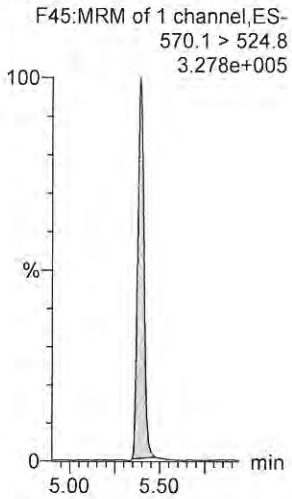
Last Altered: Saturday, December 16, 2017 13:28:49 Pacific Standard Time
Printed: Saturday, December 16, 2017 13:29:20 Pacific Standard Time

Name: 171215M2_20, Date: 15-Dec-2017, Time: 20:05:37, ID: ST171215M2-2 PFC CS3 17L0509, Description: PFC CS3 17L0509

13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171215M2\171215M2-34.qld

Last Altered: Saturday, December 16, 2017 13:32:13 Pacific Standard Time
Printed: Saturday, December 16, 2017 13:32:39 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 15 Dec 2017 11:10:11
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

(A) Not used.

Name: 171215M2_34, Date: 15-Dec-2017, Time: 22:42:06, ID: ST171215M2-3 PFC CS3 17L0509, Description: PFC CS3 17L0509

	#	Name	Trace	Area	IS Area	RRF	Pred RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	1.08e4	1.24e4		1.46	1.38	10.9	10.2	101.5
2	2	PFPeA	263.1 > 218.9	1.27e4	1.75e4		2.41	2.34	9.10	9.94	99.4
3	3	PFBS	299.0 > 79.7	3.35e3	2.10e3		2.70	2.62	19.9	9.80	98.0
4	4	PFHxA	313.2 > 268.9	1.64e4	5.69e3		3.18	3.11	14.4	9.88	98.8
5	5	PFHpA	363.0 > 318.9	1.23e4	1.23e4		3.80	3.74	12.6	9.45	94.5
6	6	L-PFHxS	398.9 > 79.6	2.68e3	1.62e3		4.00	3.89	20.7	10.7	107.2
7	8	6:2 FTS	427.1 > 407	2.79e3	3.79e3		4.26	4.21	9.20	8.74	87.4
8	9	L-PFOA	413 > 368.7	1.29e4	1.74e4		4.32	4.26	9.29	9.99	99.9
9	11	PFHpS	449 > 80.0	2.95e3	1.74e4		4.43	4.37	2.12	8.54	85.4
10	12	PFNA	463.0 > 418.8	1.44e4	1.21e4		4.78	4.70	14.8	11.9	118.9
11	13	PFOSA	498.1 > 77.8	3.34e3	4.90e3		4.81	4.75	8.54	9.00	90.0
12	14	L-PFOS	499 > 79.9	3.47e3	4.69e3		4.83	4.78	9.27	8.27	82.7
13	16	PFDA	513 > 468.8	1.55e4	1.54e4		5.12	5.07	12.6	11.3	113.4
14	17	8:2 FTS	527 > 506.9	2.70e3	2.25e3		5.09	5.04	15.0	7.26	72.6
15	18	N-MeFOSAA	570.1 > 419	8.24e3	6.54e3		5.25	5.22	15.8	11.2	111.6
16	19	N-EtFOSAA	584.2 > 419	5.16e3	5.85e3		5.45	5.38	11.0	10.4	103.5
17	20	PFUdA	563.0 > 518.9	1.34e4	1.61e4		5.44	5.39	10.4	10.6	105.7
18	21	PFDS	598.8 > 80	3.36e3	1.61e4		5.49	5.44	2.61	9.18	91.8
19	22	PFDoA	612.9 > 569.0	1.56e4	1.01e4		5.75	5.67	19.3	9.35	93.5
20	23	N-MeFOSA	512.1 > 168.9	7.13e3			5.80	5.73			(A)
21	24	PFTrDA	662.9 > 618.9	1.48e4	1.01e4		5.97	5.91	18.3	8.66	86.6
22	25	PFTeDA	712.9 > 668.8	1.08e4	8.62e3		6.20	6.13	15.6	9.03	90.3
23	26	N-EtFOSA	526.1 > 168.9	9.90e3			6.16	6.12			(A)
24	27	PFHxDA	813.1 > 768.6	5.09e3	5.17e3		6.50	6.45	4.93	8.50	85.0
25	28	PFODA	913.1 > 868.8	7.72e3	5.17e3		6.75	6.67	7.47	11.2	111.9
26	29	N-MeFOSE	616.1 > 58.9	8.65e3			6.30	6.28			(A)
27	30	N-EtFOSE	630.1 > 58.9	9.46e3			6.42	6.43			
28	31	13C3-PFBA	216.1 > 171.8	1.24e4	1.20e4	1.056	1.46	1.38	13.0	12.3	98.3
29	32	13C3-PFPeA	266. > 221.8	1.75e4	1.44e4	1.044	2.41	2.34	15.1	14.5	115.8
30	33	13C3-PFBS	302. > 98.8	2.10e3	1.44e4	0.124	2.70	2.62	1.82	14.6	116.9
31	34	13C2-PFHxA	315 > 269.8	5.69e3	1.44e4	0.897	3.18	3.11	4.93	5.49	109.9

70-130

50-150

QA 12/14/17

12/16/2017

Dataset: U:\Q4.PRO\results\171215M2\171215M2-34.qld

Last Altered: Saturday, December 16, 2017 13:32:13 Pacific Standard Time
Printed: Saturday, December 16, 2017 13:32:39 Pacific Standard Time

Name: 171215M2_34, Date: 15-Dec-2017, Time: 22:42:06, ID: ST171215M2-3 PFC CS3 17L0509, Description: PFC CS3 17L0509

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.23e4	1.44e4	0.689	3.80	3.74	10.6	15.4	123.1
33	36	18O2-PFHxS	403.0 > 102.6	1.62e3	3.65e3	0.530	4.00	3.89	5.54	10.5	83.6
34	37	13C2-6:2 FTS	429.1 > 408.9	3.79e3	1.35e4	0.331	4.26	4.21	3.51	10.6	84.9
35	38	13C2-PFOA	414.9 > 369.7	1.74e4	1.35e4	1.316	4.32	4.26	16.1	12.2	97.8
36	39	13C5-PFNA	468.2 > 422.9	1.21e4	1.17e4	1.109	4.78	4.69	13.0	11.7	93.5
37	40	13C8-PFOSA	506.1 > 77.7	4.90e3	1.12e4	0.487	4.81	4.75	5.45	11.2	89.6
38	41	13C8-PFOS	507.0 > 79.9	4.69e3	4.17e3	1.163	4.83	4.78	14.1	12.1	96.7
39	42	13C2-PFDA	515.1 > 469.9	1.54e4	1.10e4	1.694	5.12	5.07	17.6	10.4	83.0
40	43	13C2-8:2 FTS	529.1 > 508.7	2.25e3	1.44e4	0.141	5.09	5.04	1.95	13.8	110.5
41	44	d3-N-MeFOSAA	573.3 > 419	6.54e3	1.12e4	0.530	5.25	5.21	7.28	13.7	109.9
42	45	d5-N-EtFOSAA	589.3 > 419	5.85e3	1.12e4	0.541	5.45	5.37	6.52	12.1	96.5
43	46	13C2-PFUdA	565 > 519.8	1.61e4	1.12e4	1.351	5.44	5.39	17.9	13.2	106.0
44	47	13C2-PFDoA	615.0 > 569.7	1.01e4	1.12e4	0.765	5.75	5.67	11.3	14.7	117.9
45	48	d3-N-MeFOSA	515.2 > 168.9		1.12e4	0.002	5.80				
46	49	13C2-PFTeDA	714.8 > 669.6	8.62e3	1.12e4	0.771	6.20	6.13	9.60	12.4	99.6
47	50	d5-N-ETFOSA	531.1 > 168.9		1.12e4		6.16				
48	51	13C2-PFHxDA	815 > 769.7	5.17e3	1.12e4	0.978	6.50	6.45	5.75	5.88	117.6
49	52	d7-N-MeFOSE	623.1 > 58.9		1.12e4	0.000	6.30				
50	53	d9-N-EtFOSE	639.2 > 58.8		1.12e4		6.42				
51	54	13C4-PFBA	217. > 171.8	1.20e4	1.20e4	1.000	1.46	1.38	12.5	12.5	100.0
52	55	13C5-PFHxA	318 > 272.9	1.44e4	1.44e4	1.000	3.18	3.12	12.5	12.5	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.65e3	3.65e3	1.000	4.00	3.89	12.5	12.5	100.0
54	57	13C8-PFOA	421.3 > 376	1.35e4	1.35e4	1.000	4.32	4.25	12.5	12.5	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.17e4	1.17e4	1.000	4.78	4.69	12.5	12.5	100.0
56	59	13C4-PFOS	503 > 79.9	4.17e3	4.17e3	1.000	4.83	4.78	12.5	12.5	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.10e4	1.10e4	1.000	5.12	5.07	12.5	12.5	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.12e4	1.12e4	1.000	5.44	5.39	12.5	12.5	100.0

50-150

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Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Saturday, December 16, 2017 13:37:51 Pacific Standard Time
Printed: Saturday, December 16, 2017 13:38:31 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 15 Dec 2017 11:10:11
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Compound name: PFBA

	Name	ID	Acq Date	Acq Time
1	171215M2_3	ST171215M2-1 PFC CS0 17L1406	15-Dec-17	16:55:37
2	171215M2_4	IPA	15-Dec-17	17:06:46
3	171215M2_5	B7L0027-BS1 OPR 0.25	15-Dec-17	17:17:56
4	171215M2_6	B7L0027-BSD1 LCSD 0.25	15-Dec-17	17:29:07
5	171215M2_7	IPA	15-Dec-17	17:40:18
6	171215M2_8	B7L0027-BLK1 Method Blank 0.25	15-Dec-17	17:51:28
7	171215M2_9	1701823-08 OF-WT-FB01-113017 0.1169	15-Dec-17	18:02:39
8	171215M2_10	1701823-01 OF-INF01-113017 0.1203	15-Dec-17	18:13:50
9	171215M2_11	1701823-02 OF-MID01-113017 0.12207	15-Dec-17	18:25:00
10	171215M2_12	1701823-03 OF-EFF01-113017 0.11531	15-Dec-17	18:36:11
11	171215M2_13	1701823-04 OF-WT-INF01-113017 0.11471	15-Dec-17	18:47:22
12	171215M2_14	1701823-05 OF-WT-MID01-113017 0.11099	15-Dec-17	18:58:33
13	171215M2_15	1701823-06 OF-WT-EFF01-113017 0.11752	15-Dec-17	19:09:43
14	171215M2_16	1701823-07 OF-WT-EFF01P-113017 0.11656	15-Dec-17	19:20:54
15	171215M2_17	1701802-01 FC-MW02SR1-NP-20171128 0.2...	15-Dec-17	19:32:05
16	171215M2_18	1701802-02 FC-MW02SR1-P1-20171128 0.26...	15-Dec-17	19:43:15
17	171215M2_19	IPA	15-Dec-17	19:54:26
18	171215M2_20	ST171215M2-2 PFC CS3 17L0509	15-Dec-17	20:05:37
19	171215M2_21	IPA	15-Dec-17	20:16:47
20	171215M2_22	1701802-03 FC-MW02SR1-P2-20171128 0.26...	15-Dec-17	20:27:58
21	171215M2_23	1701802-04 FC-MW02SR1-P3-20171128 0.25...	15-Dec-17	20:39:09
22	171215M2_24	1701802-05 FC-MW02SR1-FRB-20171128 0....	15-Dec-17	20:50:19
23	171215M2_25	1701802-06 FC-MW02IR1-NP-20171128 0.25...	15-Dec-17	21:01:30
24	171215M2_26	1701802-07 FC-MW02IR1-P1-20171128 0.26...	15-Dec-17	21:12:41
25	171215M2_27	1701802-08 FC-MW02IR1-P2-20171128 0.26...	15-Dec-17	21:23:51
26	171215M2_28	1701802-09 FC-MW02IR1-P3-20171128 0.25...	15-Dec-17	21:35:02
27	171215M2_29	1701724-10@5X GENBM-08-SB01-0.5-1-111...	15-Dec-17	21:46:13
28	171215M2_30	1701724-12@5X GENBM-11SD-01-111617 1.3	15-Dec-17	21:57:24
29	171215M2_31	1701724-13@10X GENBM-11SD-02-111617 1..	15-Dec-17	22:08:34
30	171215M2_32	1701724-15@5X GENBM-11SD-03-111617 1.5	15-Dec-17	22:19:45
31	171215M2_33	IPA	15-Dec-17	22:30:56

Dataset: Untitled

Last Altered: Saturday, December 16, 2017 13:37:51 Pacific Standard Time
Printed: Saturday, December 16, 2017 13:38:31 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	171215M2_34	ST171215M2-3 PFC CS3 17L0509	15-Dec-17	22:42:06
33	171215M2_35	IPA	15-Dec-17	22:53:17
34	171215M2_36	1701724-14 GENBM-11SD-04-111617 1.44	15-Dec-17	23:04:28
35	171215M2_37	1701758-15@40X IR54-GW16-17D 0.11876	15-Dec-17	23:15:38
36	171215M2_38	1701758-16 IR54-FB-111917 0.11819	15-Dec-17	23:26:49
37	171215M2_39	1701721-02@5X GENBM-SO-Duplicate-02-11...	15-Dec-17	23:38:00
38	171215M2_40	IPA	15-Dec-17	23:49:11
39	171215M2_41	ST171215M2-4 PFC CS3 17L0509	16-Dec-17	00:00:22
40	171215M2_42	IPA am 12/16/17	16-Dec-17	00:11:32

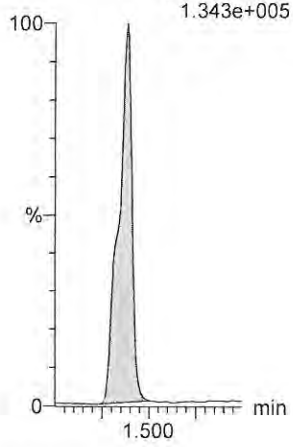
Dataset: U:\Q4.PRO\results\171215M2\171215M2-34.qld

Last Altered: Saturday, December 16, 2017 13:32:13 Pacific Standard Time
Printed: Saturday, December 16, 2017 13:32:39 Pacific Standard Time

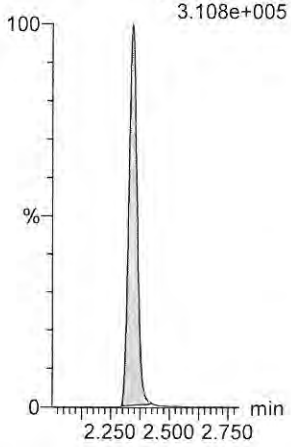
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 15 Dec 2017 11:10:11
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171215M2_34, Date: 15-Dec-2017, Time: 22:42:06, ID: ST171215M2-3 PFC CS3 17L0509, Description: PFC CS3 17L0509

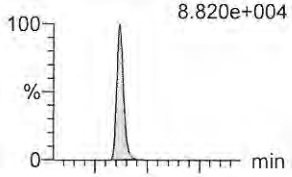
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.343e+005



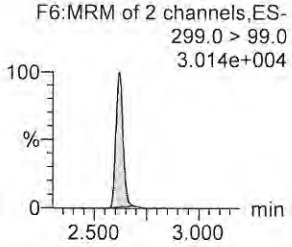
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
3.108e+005



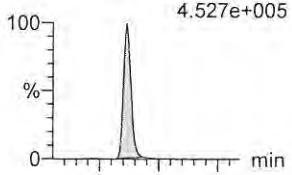
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
8.820e+004



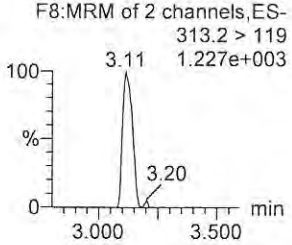
F6:MRM of 2 channels,ES-
299.0 > 99.0
3.014e+004



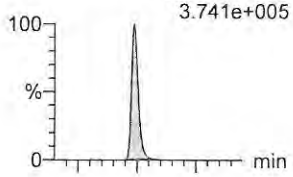
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
4.527e+005



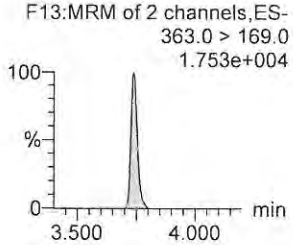
F8:MRM of 2 channels,ES-
313.2 > 119
3.11 1.227e+003



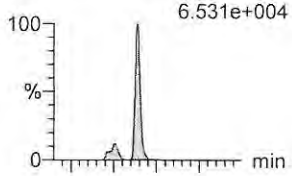
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
3.741e+005



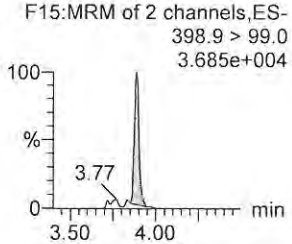
F13:MRM of 2 channels,ES-
363.0 > 169.0
1.753e+004



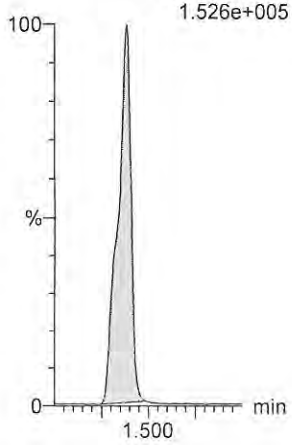
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
6.531e+004



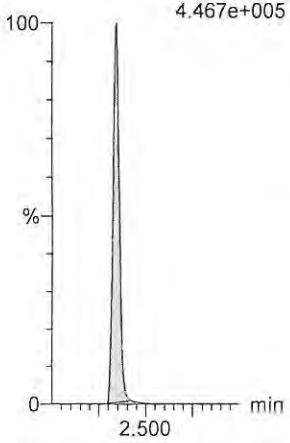
F15:MRM of 2 channels,ES-
398.9 > 99.0
3.685e+004



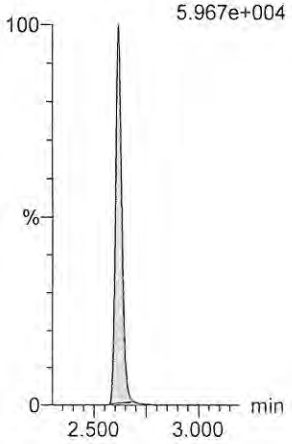
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.526e+005



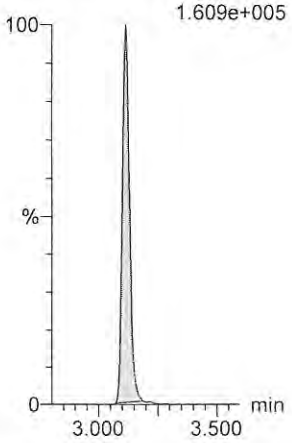
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
4.467e+005



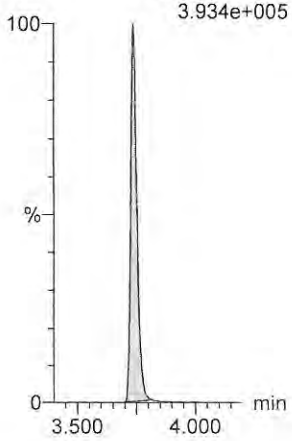
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
5.967e+004



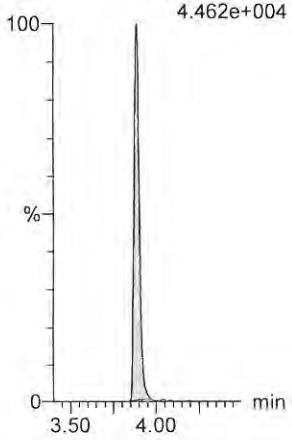
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.609e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
3.934e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
4.462e+004



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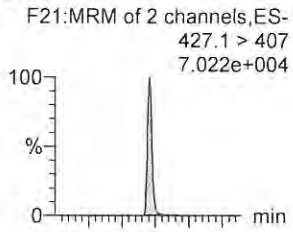
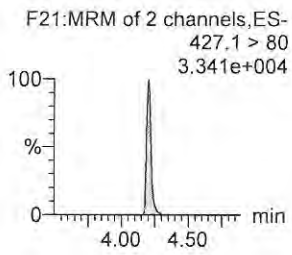
Printed: Saturday, December 16, 2017 13:32:39 Pacific Standard Time

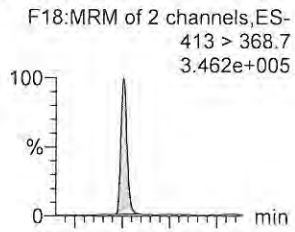
Name: 171215M2_34, Date: 15-Dec-2017, Time: 22:42:06, ID: ST171215M2-3 PFC CS3 17L0509, Description: PFC CS3 17L0509

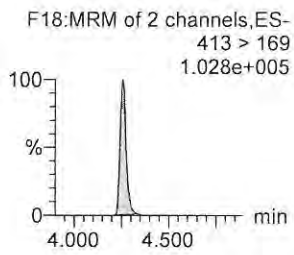
6:2 FTS



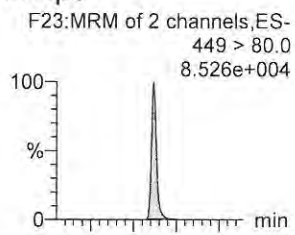


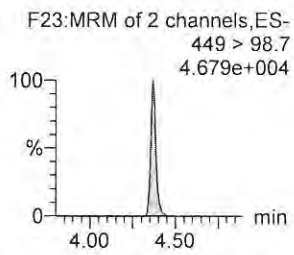
L-PFOA





PFHpS





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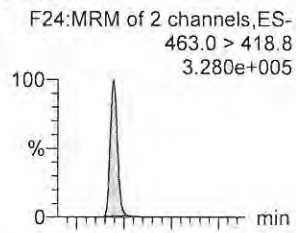

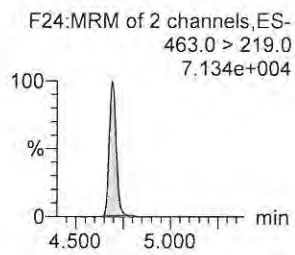

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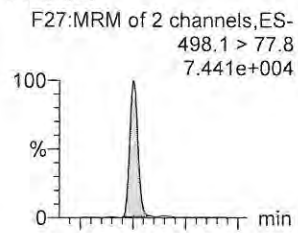

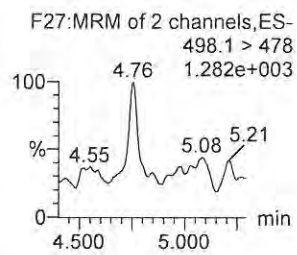

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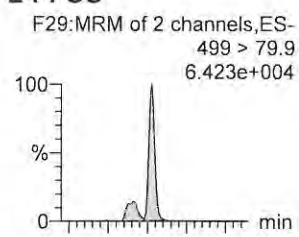
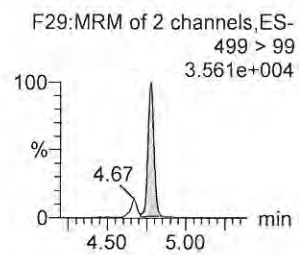
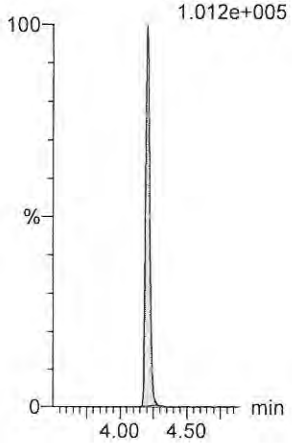
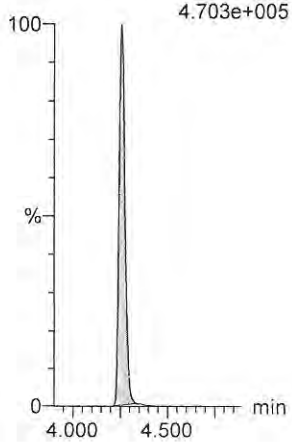




13C2-6:2 FTS



13C2-PFOA



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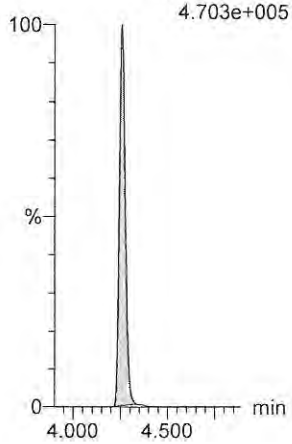
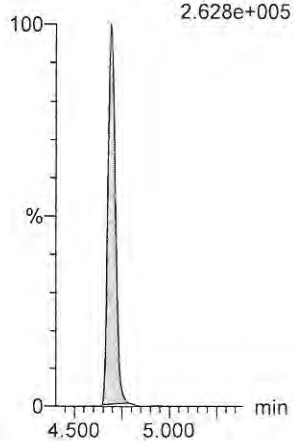
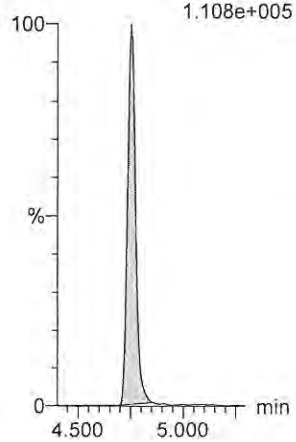


13C5-PFNA



13C8-PFOSA



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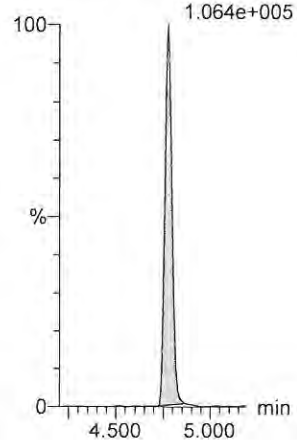

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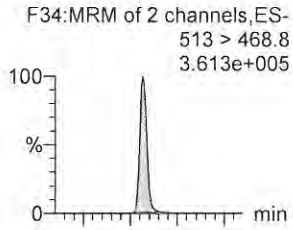
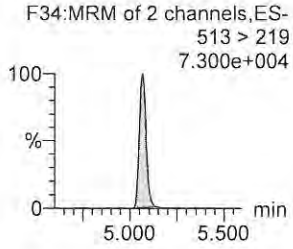
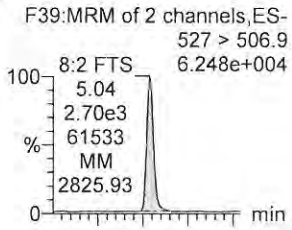
Name: 171215M2_34, Date: 15-Dec-2017, Time: 22:42:06, ID: ST171215M2-3 PFC CS3 17L0509, Description: PFC CS3 17L0509

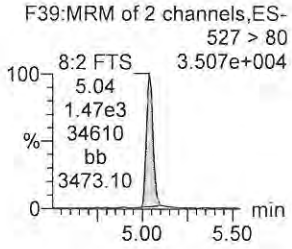
PFDA





8:2 FTS





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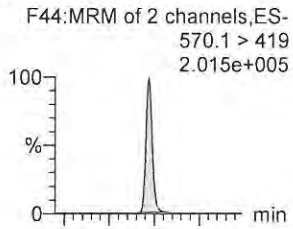

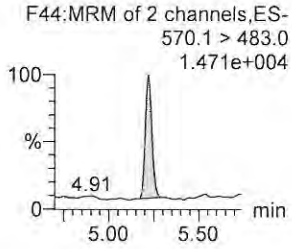

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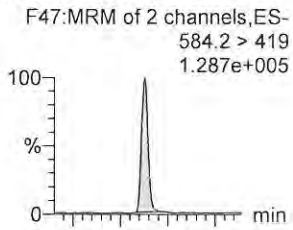

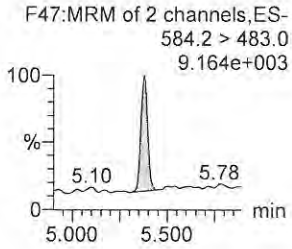

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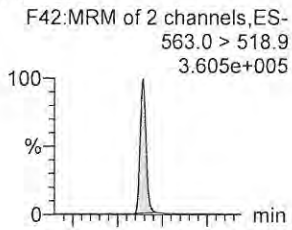

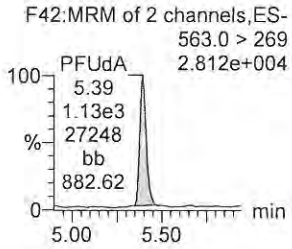

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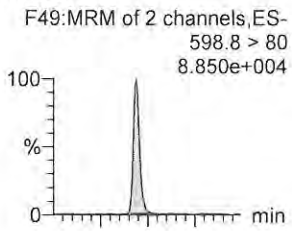

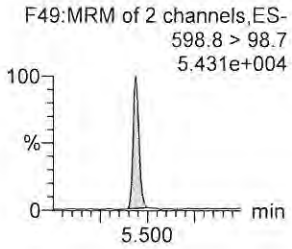

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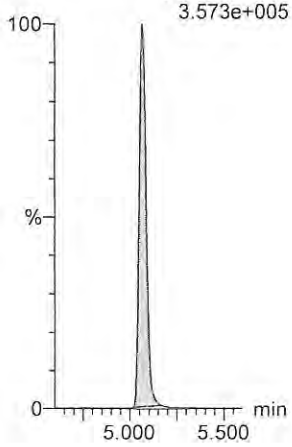
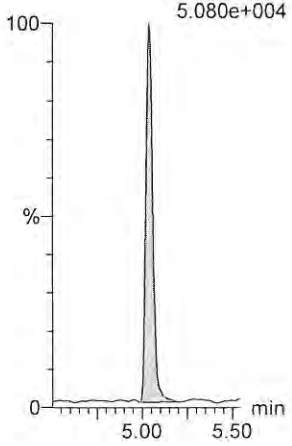


13C2-8:2 FTS



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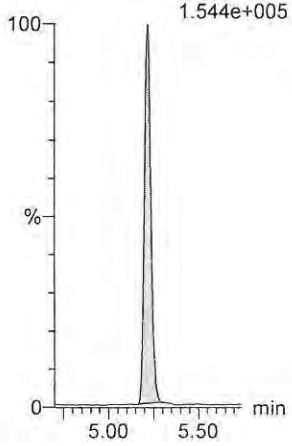
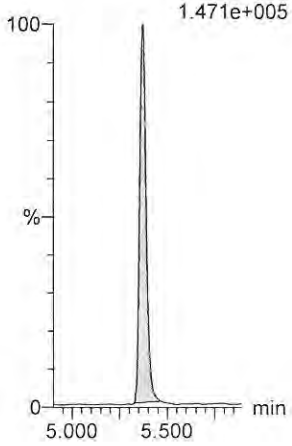


d5-N-EtFOSAA



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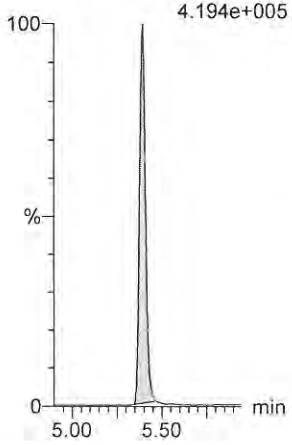

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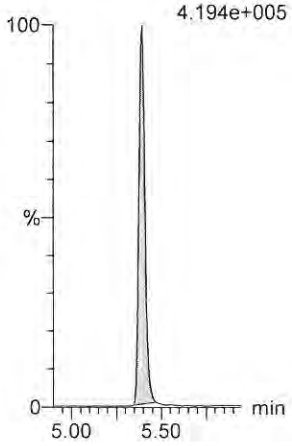

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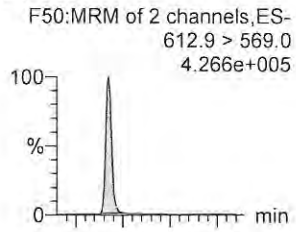
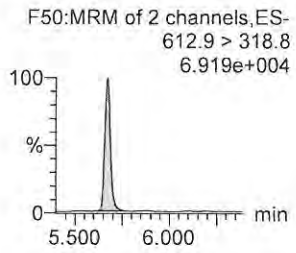
PFDoA





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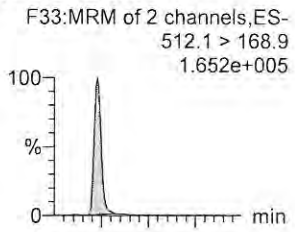

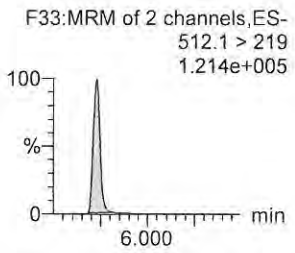

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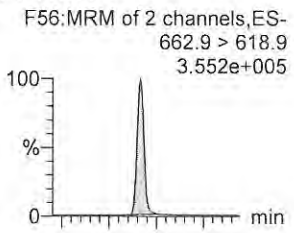

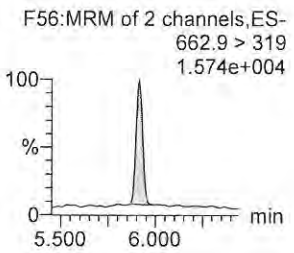

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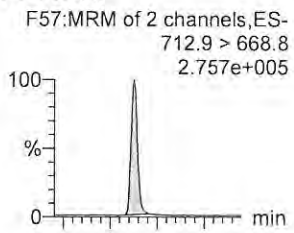
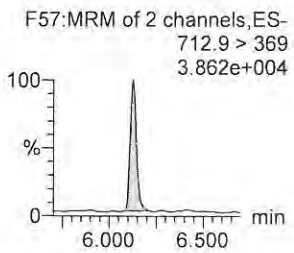
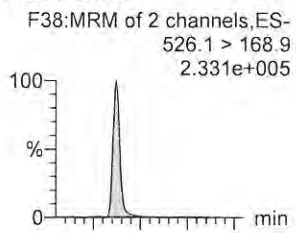
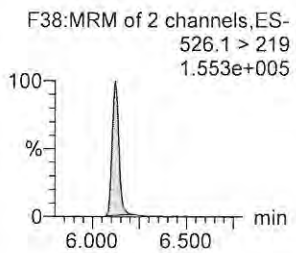




N-EtFOSA





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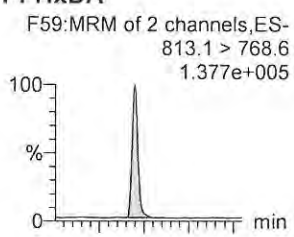
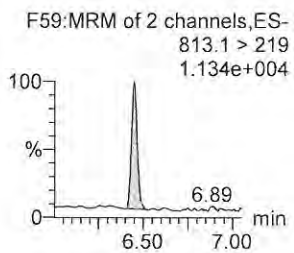
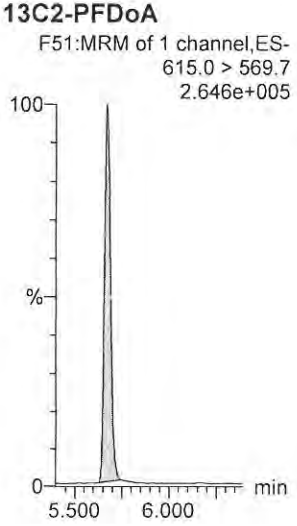
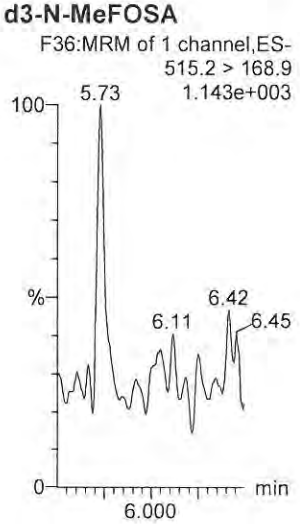




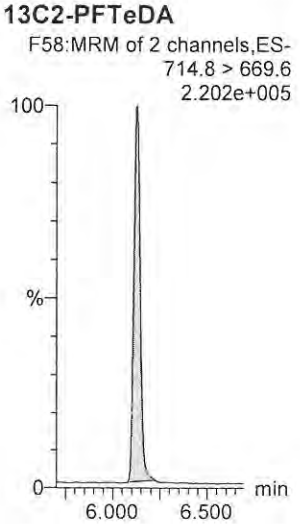
13C2-PFDoA



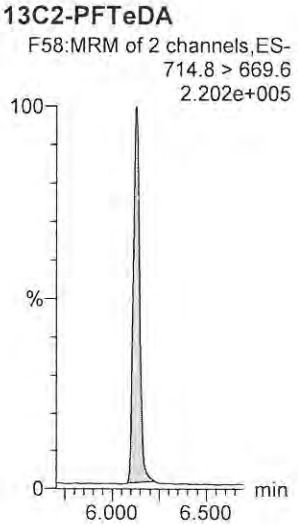
d3-N-MeFOSA



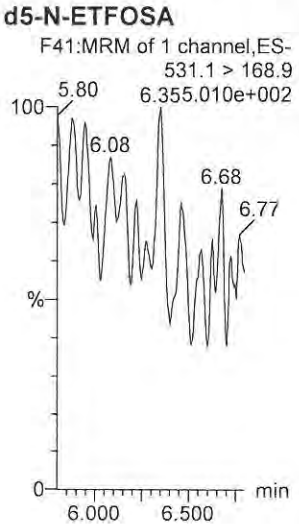
13C2-PFTeDA



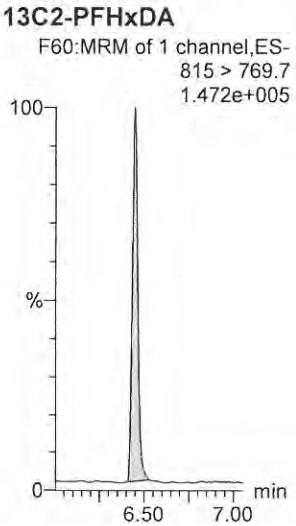
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



Dataset: U:\Q4.PRO\results\171215M2\171215M2-34.qld

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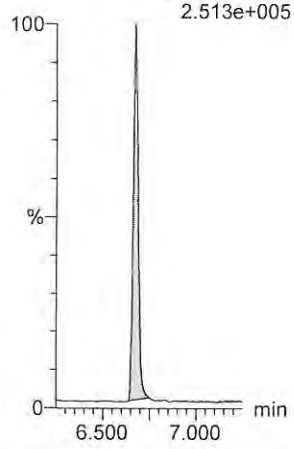
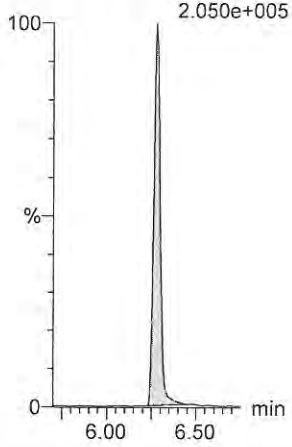
Name: 171215M2_34, Date: 15-Dec-2017, Time: 22:42:06, ID: ST171215M2-3 PFC CS3 17L0509, Description: PFC CS3 17L0509

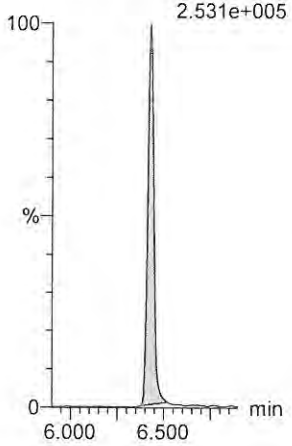
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.513e+005



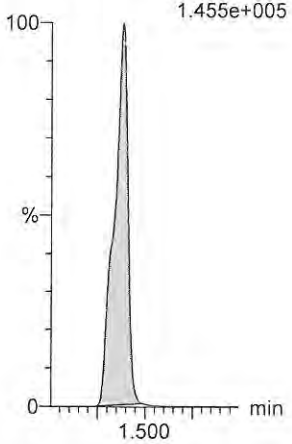
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.050e+005



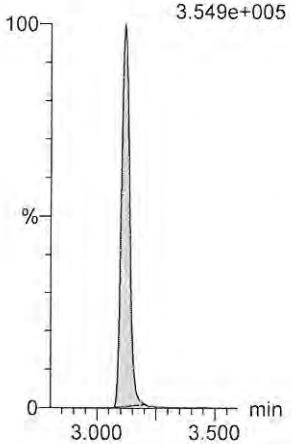
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.531e+005



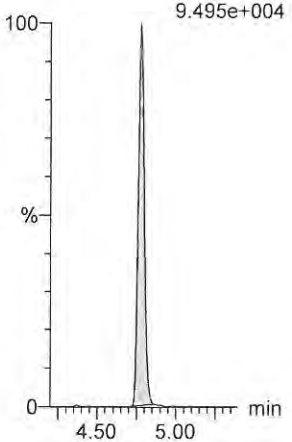
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.455e+005



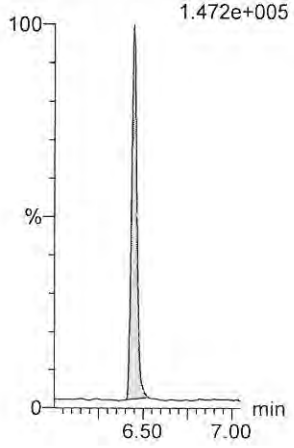
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.549e+005



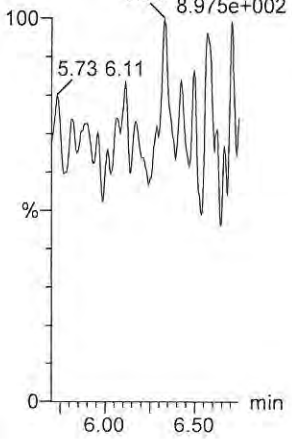
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.495e+004



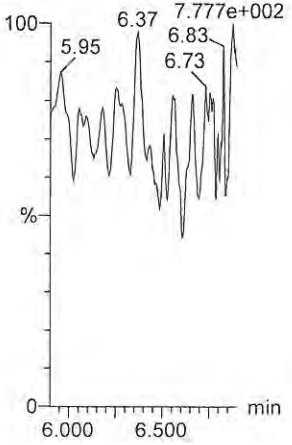
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.472e+005



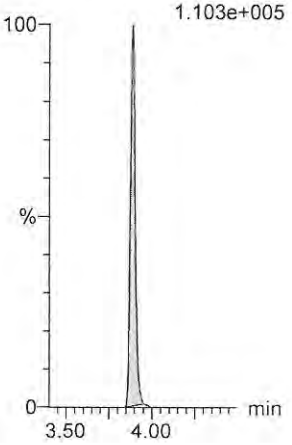
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
8.975e+002



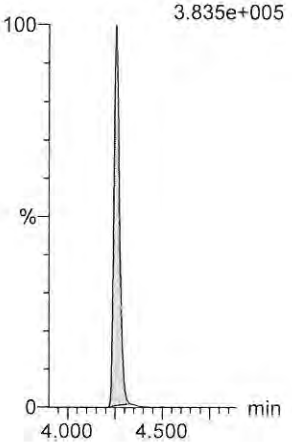
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.777e+002



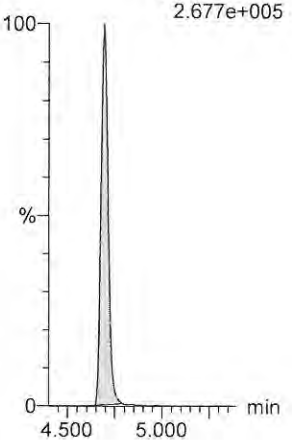
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.103e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.835e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.677e+005



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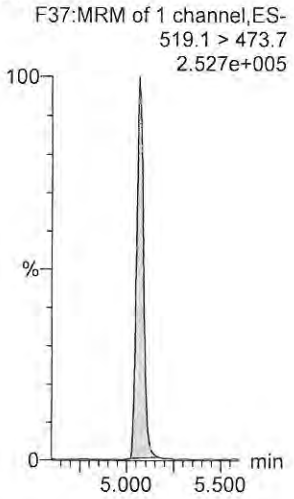
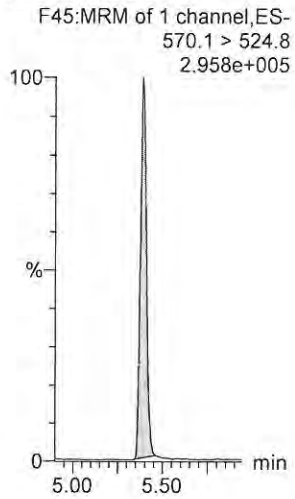
Name: 171215M2_34, Date: 15-Dec-2017, Time: 22:42:06, ID: ST171215M2-3 PFC CS3 17L0509, Description: PFC CS3 17L0509

13C6-PFDA



13C7-PFUdA



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

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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: , Date: , Time: , ID: , Description:

	#	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: 171229M2_91, Date: 30-Dec-2017, Time: 06:20:09, 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_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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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

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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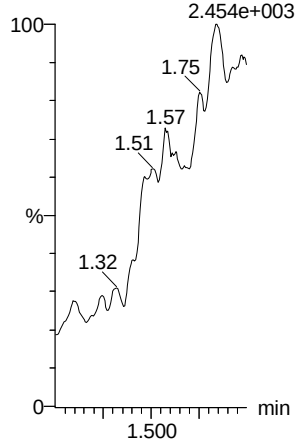
Dataset: U:\Q4.PRO\results\171229M2\171229M2-12.qld

Last Altered: Saturday, December 30, 2017 10:26:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 10:27:32 Pacific Standard Time

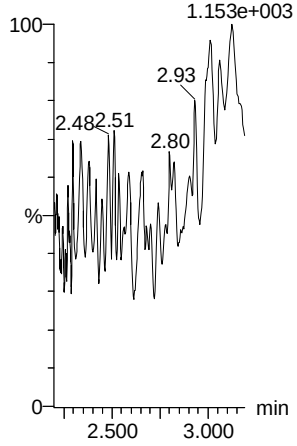
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

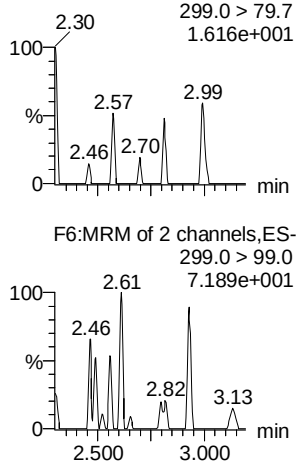
PFBA



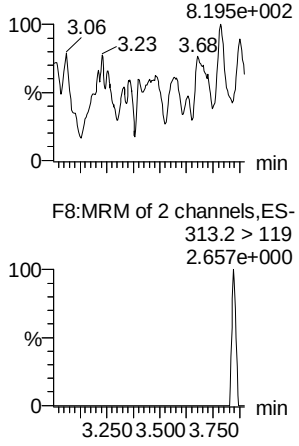
PFPeA



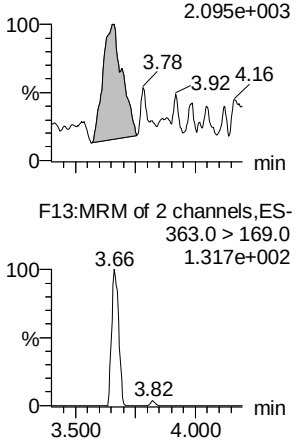
PFBS



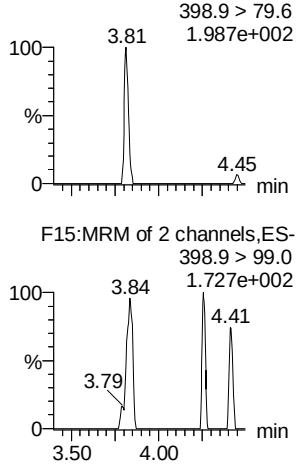
PFHxA



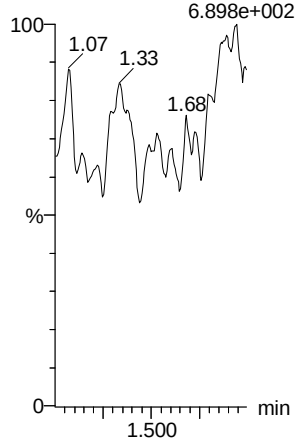
PFHpA



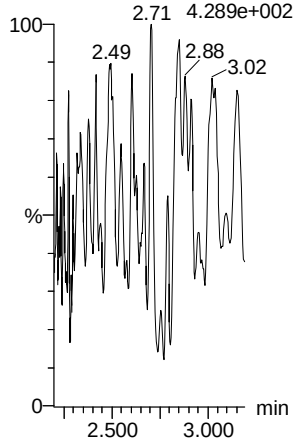
L-PFHxS



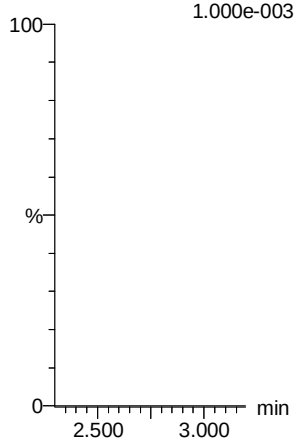
13C3-PFBA



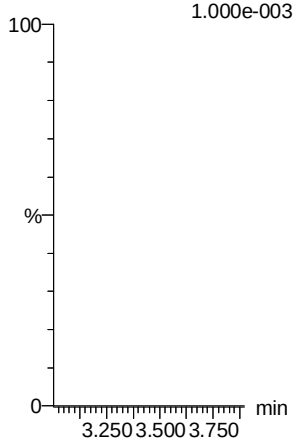
13C3-PFPeA



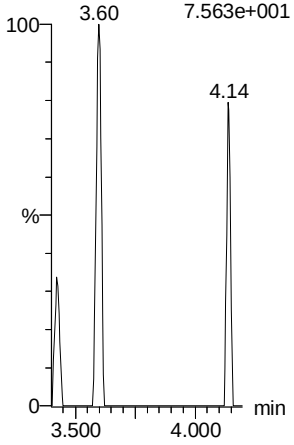
13C3-PFBS



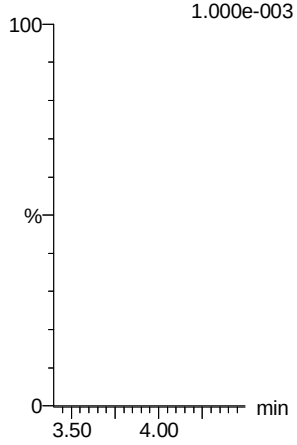
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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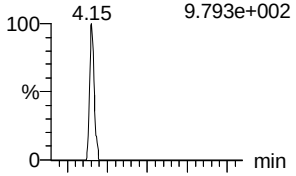
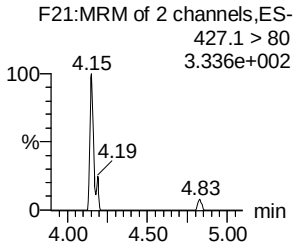
Dataset: U:\Q4.PRO\results\171229M2\171229M2-12.qld

Last Altered: Saturday, December 30, 2017 10:26:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 10:27:32 Pacific Standard Time

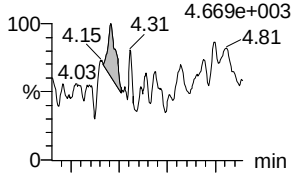
Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

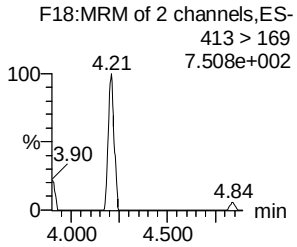
6:2 FTS



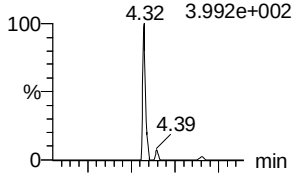


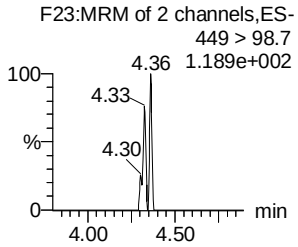
L-PFOA



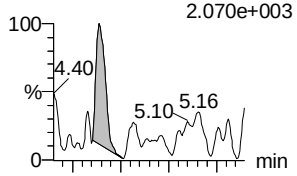


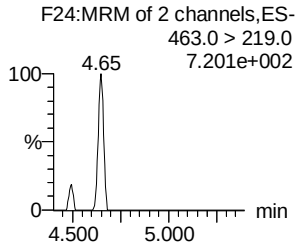
PFHpS



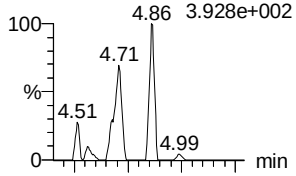


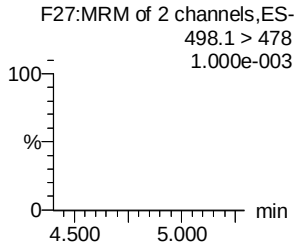
PFNA



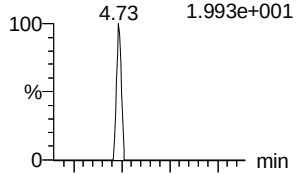


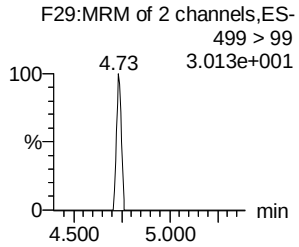
PFOSA



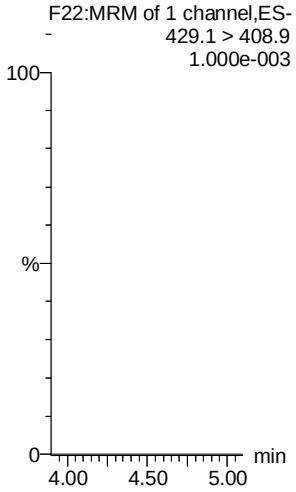


L-PFOS

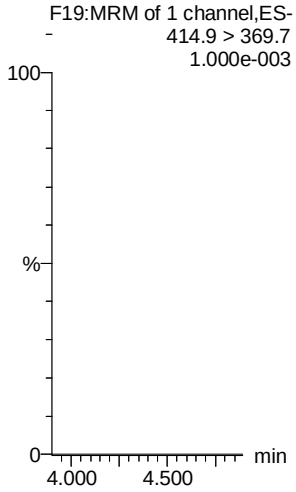




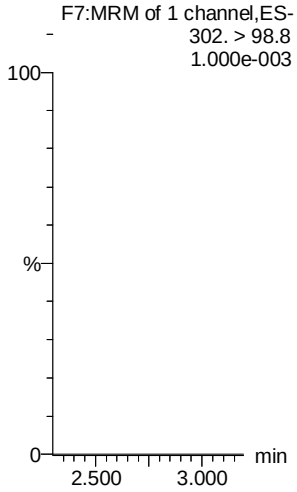
13C2-6:2 FTS



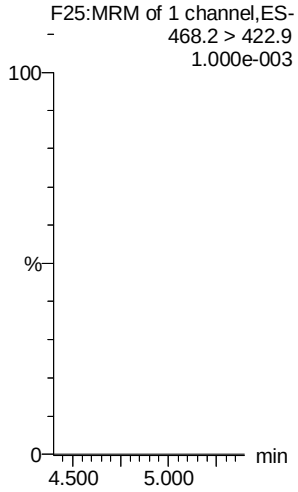
13C2-PFOA



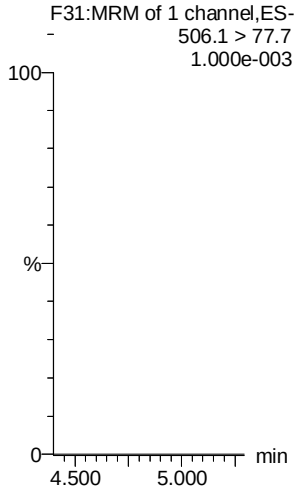
13C3-PFBS



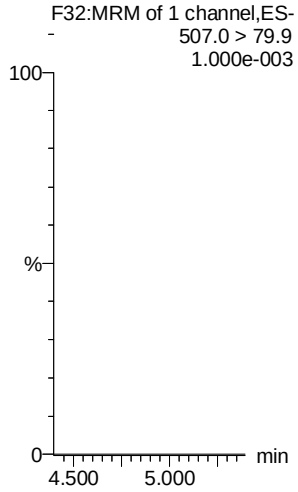
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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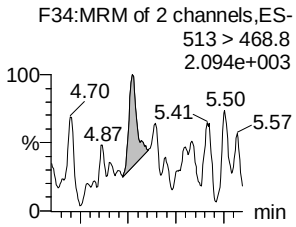
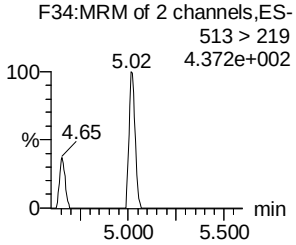
Dataset: U:\Q4.PRO\results\171229M2\171229M2-12.qld

Last Altered: Saturday, December 30, 2017 10:26:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 10:27:32 Pacific Standard Time

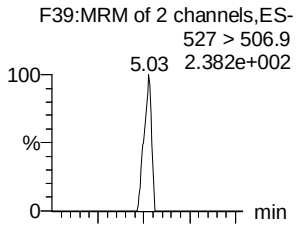
Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

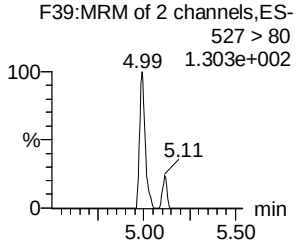
PFDA



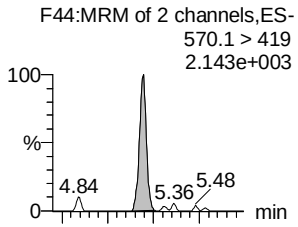


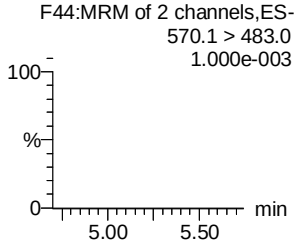
8:2 FTS



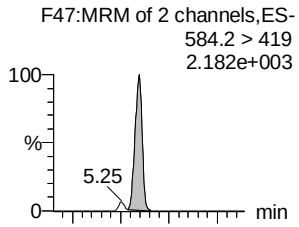


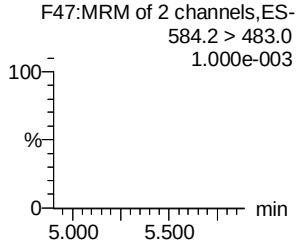
N-MeFOSAA



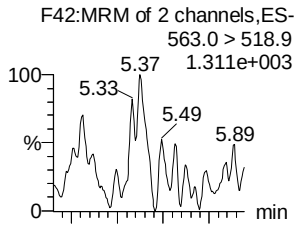


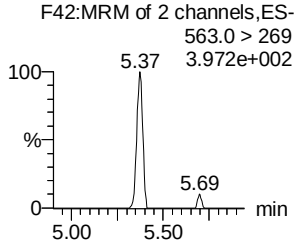
N-EtFOSAA



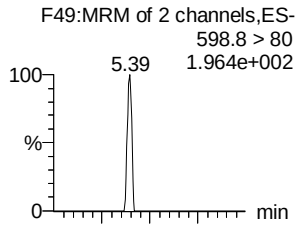


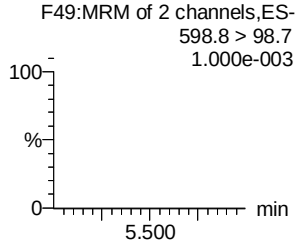
PFUdA



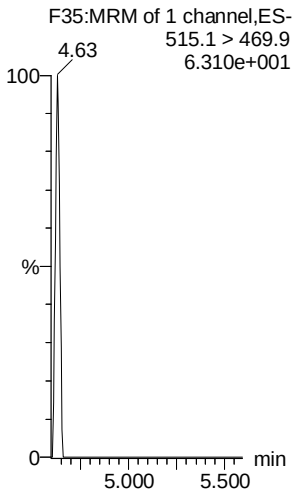


PFDS

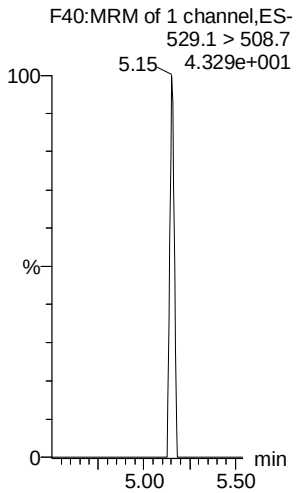




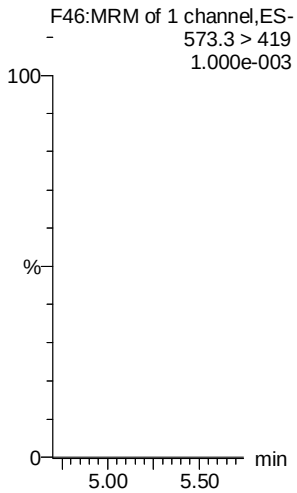
13C2-PFDA



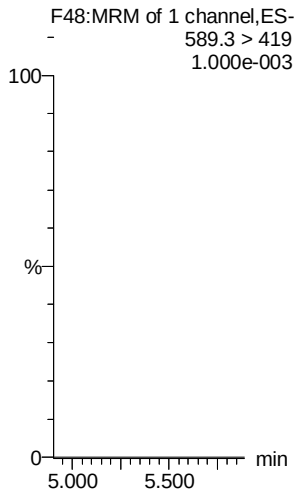
13C2-8:2 FTS



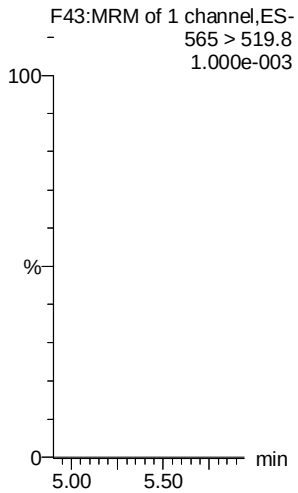
d3-N-MeFOSAA



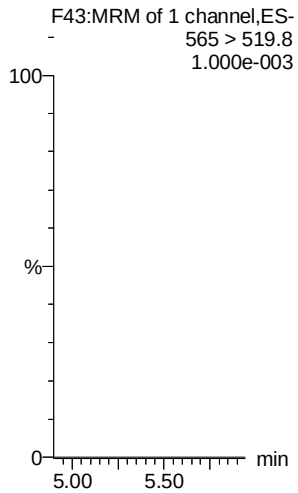
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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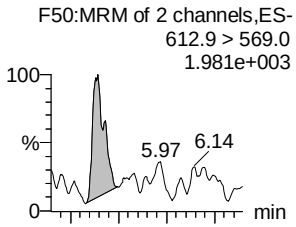
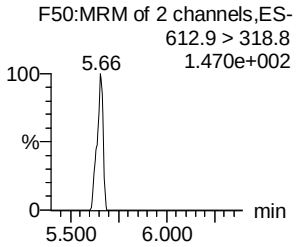
Dataset: U:\Q4.PRO\results\171229M2\171229M2-12.qld

Last Altered: Saturday, December 30, 2017 10:26:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 10:27:32 Pacific Standard Time

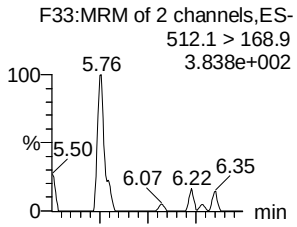
Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

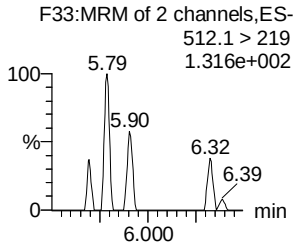
PFDoA



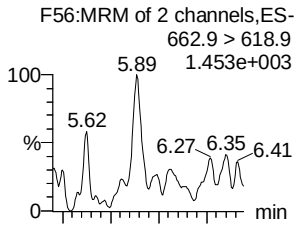


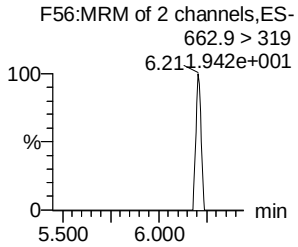
N-MeFOSA



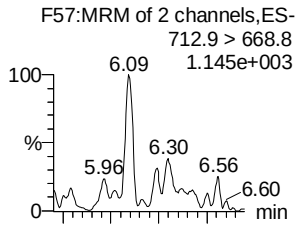


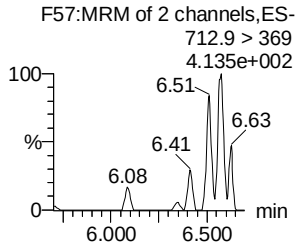
PFTrDA



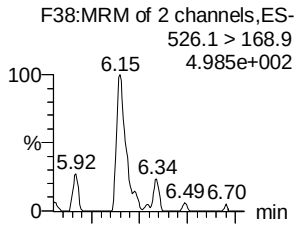


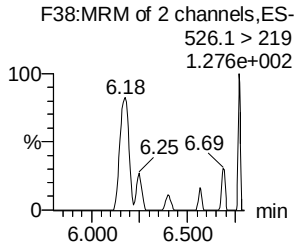
PFTeDA



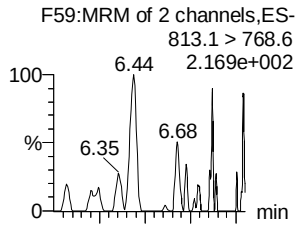


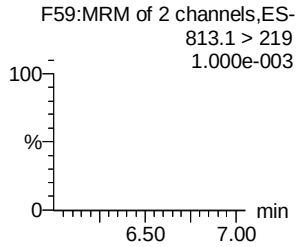
N-EtFOSA



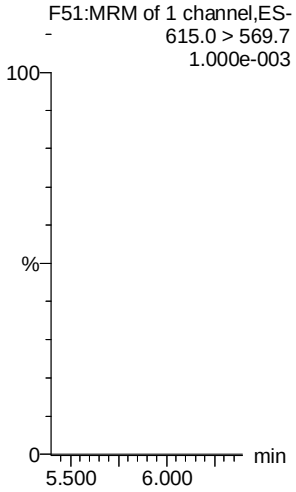


PFHxDA

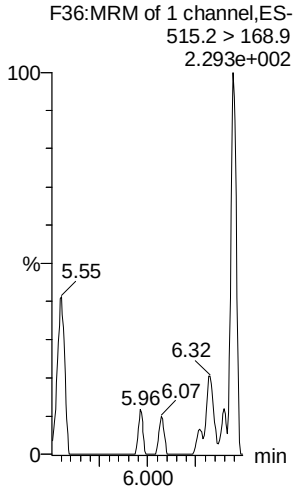




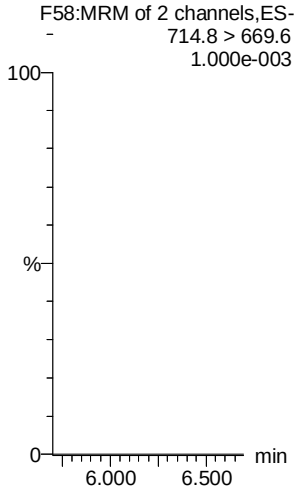
13C2-PFDoA



d3-N-MeFOSA



13C2-PFTeDA



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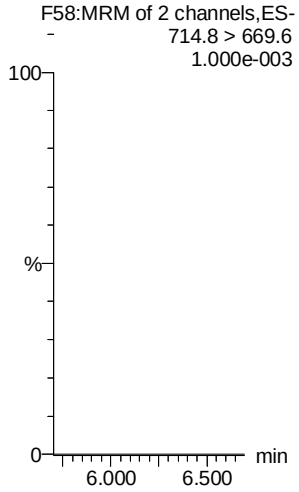
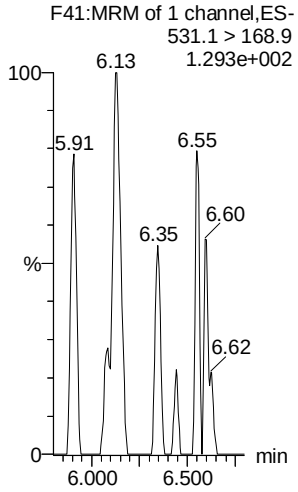
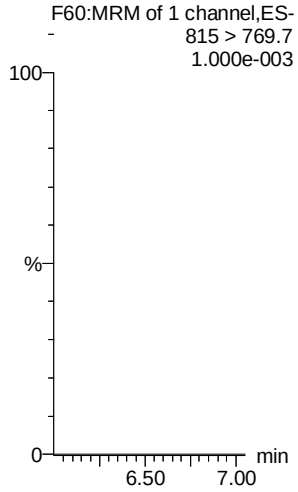


d5-N-ETFOSA



13C2-PFHxDA



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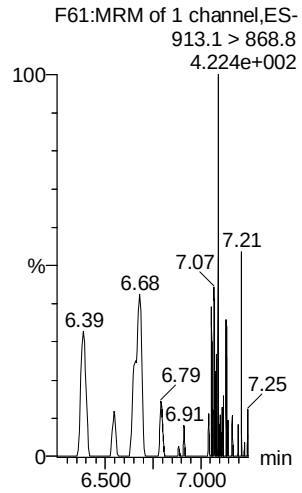
Dataset: U:\Q4.PRO\results\171229M2\171229M2-12.qld

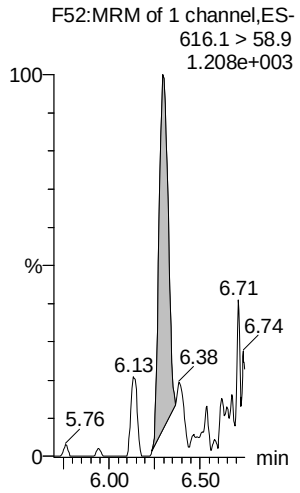
Last Altered: Saturday, December 30, 2017 10:26:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 10:27:32 Pacific Standard Time

Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

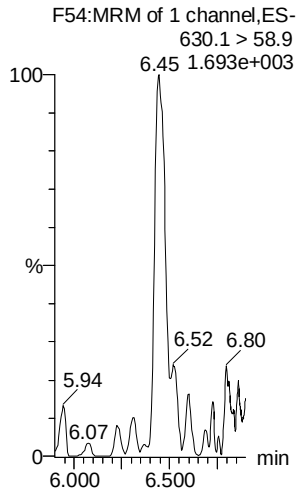
PFODA



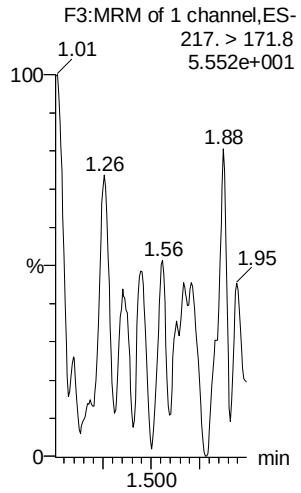
N-MeFOSE



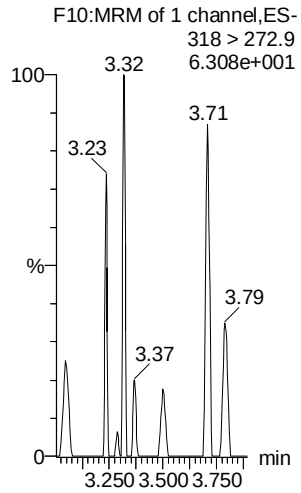
N-EtFOSE



13C4-PFBA



13C5-PFHxA



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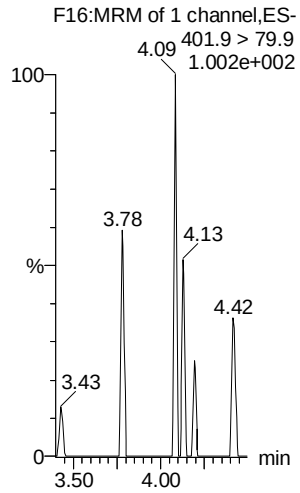

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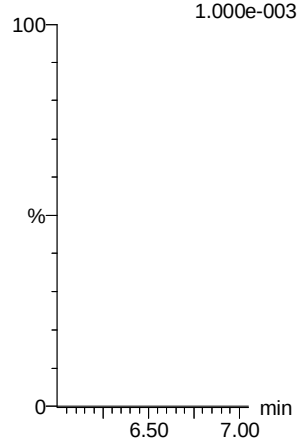
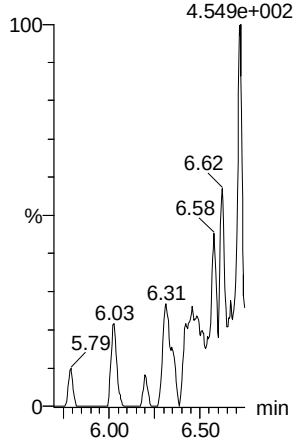
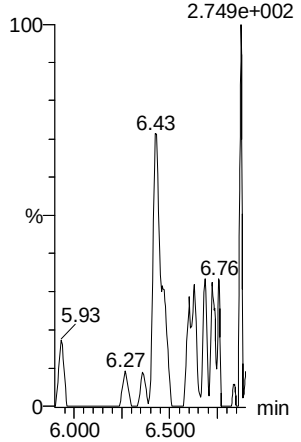


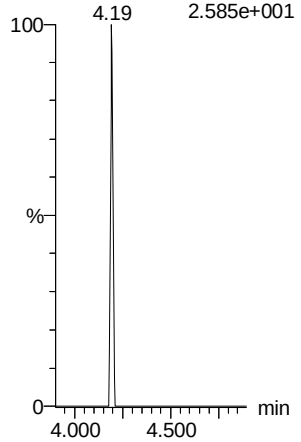
d7-N-MeFOSE



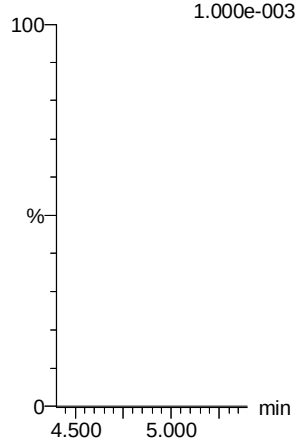
d9-N-EtFOSE



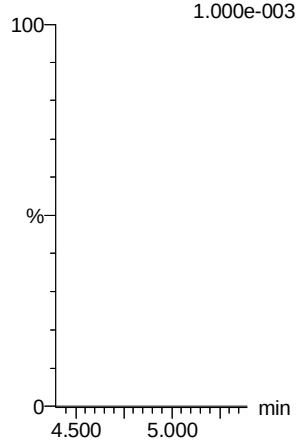
13C8-PFOA



13C9-PFNA



13C4-PFOS



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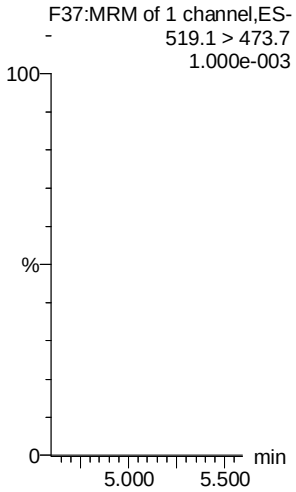
Dataset: U:\Q4.PRO\results\171229M2\171229M2-12.qld

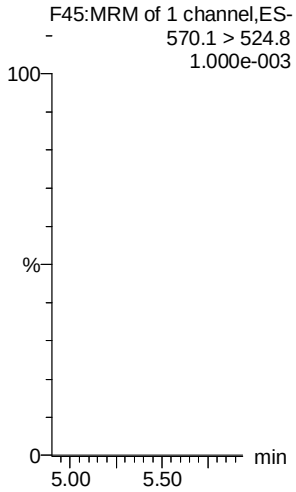
Last Altered: Saturday, December 30, 2017 10:26:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 10:27:32 Pacific Standard Time

Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171229M2\171229M2-29.qld

Last Altered: Friday, December 29, 2017 20:29:47 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:16:05 Pacific Standard Time

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_29, Date: 29-Dec-2017, Time: 18:46:14, ID: ST171229M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

AC 12/30/17
YA 12/30/2017

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	1.21e4	1.06e4	1.0000		1.47	1.41	14.3	10.461	104.6
2	2	PFPeA	263.1 > 218.9	1.25e4	1.28e4	1.0000		2.35	2.36	12.2	10.239	102.4
3	3	PFBS	299.0 > 79.7	2.94e3	1.74e3	1.0000		2.70	2.64	21.1	9.780	97.8
4	4	PFHxA	313.2 > 268.9	1.49e4	3.85e3	1.0000		3.12	3.12	19.4	10.362	103.6
5	5	PFHpA	363.0 > 318.9	1.30e4	1.08e4	1.0000		3.75	3.74	15.0	9.540	95.4
6	6	L-PFHxS	398.9 > 79.6	2.37e3	1.17e3	1.0000		3.85	3.89	25.4	11.965	119.6
7	8	6:2 FTS	427.1 > 407	3.13e3	1.52e4	1.0000		4.20	4.19	2.58	10.412	104.1
8	9	L-PFOA	413 > 368.7	1.39e4	1.52e4	1.0000		4.25	4.25	11.4	9.381	93.8
9	11	PFHpS	449 > 80.0	3.36e3	1.52e4	1.0000		4.35	4.36	2.77	11.032	110.3
10	12	PFNA	463.0 > 418.8	1.44e4	1.11e4	1.0000		4.70	4.68	16.2	10.427	104.3
11	13	PFOSA	498.1 > 77.8	3.39e3	2.93e3	1.0000		4.81	4.75	14.5	10.843	108.4
12	14	L-PFOS	499 > 79.9	3.08e3	3.26e3	1.0000		4.75	4.76	11.8	8.841	88.4
13	16	PFDA	513 > 468.8	1.16e4	9.13e3	1.0000		5.05	5.05	15.8	10.525	105.2
14	17	8:2 FTS	527 > 506.9	2.90e3	9.13e3	1.0000		5.02	5.02	3.97	12.690	126.9
15	18	N-MeFOSAA	570.1 > 419	7.65e3	5.57e3	1.0000		5.20	5.20	17.2	10.317	103.2
16	19	N-EtFOSAA	584.2 > 419	7.40e3	6.98e3	1.0000		5.42	5.35	13.3	9.947	99.5
17	20	PFUdA	563.0 > 518.9	1.50e4	1.41e4	1.0000		5.35	5.37	13.4	10.791	107.9
18	21	PFDS	598.8 > 80	4.02e3	1.41e4	1.0000		5.50	5.42	3.57	10.037	100.4
19	22	PFDoA	612.9 > 569.0	1.59e4	1.03e4	1.0000		5.70	5.65	19.3	9.042	90.4
20	23	N-MeFOSA	512.1 > 168.9	6.95e3	1.69e4	1.0000		5.77	5.80	61.8	55.529	111.1
21	24	PFTrDA	662.9 > 618.9	1.65e4	1.03e4	1.0000		5.95	5.89	19.9	11.419	114.2
22	25	PFTeDA	712.9 > 668.8	7.71e3	2.60e3	1.0000		6.16	6.11	37.1	11.090	110.9
23	26	N-EtFOSA	526.1 > 168.9	9.10e3	2.58e4	1.0000		6.15	6.19	52.9	52.987	106.0
24	27	PFHxDA	813.1 > 768.6	4.83e3	2.73e3	1.0000		6.48	6.44	8.84	9.074	90.7
25	28	PFODA	913.1 > 868.8	6.75e3	2.73e3	1.0000		6.70	6.67	12.3	9.014	90.1
26	29	N-MeFOSE	616.1 > 58.9	7.39e3	1.84e4	1.0000		6.30	6.31	60.1	47.063	94.1
27	30	N-EtFOSE	630.1 > 58.9	1.07e4	2.13e4	1.0000		6.42	6.46	75.4	61.474	122.9
28	31	13C3-PFBA	216.1 > 171.8	1.06e4	1.33e4	1.0000	0.783	1.47	1.40	9.95	12.707	101.7
29	32	13C3-PFPeA	266. > 221.8	1.28e4	1.62e4	1.0000	0.807	2.44	2.36	9.87	12.233	97.9
30	33	13C3-PFBS	302. > 98.8	1.74e3	1.62e4	1.0000	0.108	2.70	2.63	1.34	12.405	99.2
31	34	13C2-PFHxA	315 > 269.8	3.85e3	1.62e4	1.0000	0.636	3.20	3.12	2.96	4.663	93.3

70-130

50-150

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Dataset: U:\Q4.PRO\results\171229M2\171229M2-29.qld

Last Altered: Friday, December 29, 2017 20:29:47 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:16:05 Pacific Standard Time

Name: 171229M2_29, Date: 29-Dec-2017, Time: 18:46:14, ID: ST171229M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

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32	35	13C4-PFHpA	367.2 > 321.8	1.08e4	1.62e4	1.0000	0.652	3.80	3.74	8.33	12.768	102.1
33	36	18O2-PFHxS	403.0 > 102.6	1.17e3	3.96e3	1.0000	0.321	3.95	3.89	3.69	11.503	92.0
34	37	13C2-6:2 FTS	429.1 > 408.9	3.21e3	1.59e4	1.0000	0.192	4.26	4.19	2.52	13.106	104.8
35	38	13C2-PFOA	414.9 > 369.7	1.52e4	1.59e4	1.0000	0.945	4.32	4.25	11.9	12.600	100.8
36	39	13C5-PFNA	468.2 > 422.9	1.11e4	1.45e4	1.0000	0.832	4.75	4.68	9.57	11.496	92.0
37	40	13C8-PFOSA	506.1 > 77.7	2.93e3	1.45e4	1.0000	0.204	4.81	4.74	2.52	12.350	98.8
38	41	13C8-PFOS	507.0 > 79.9	3.26e3	4.11e3	1.0000	0.948	4.83	4.76	9.92	10.461	83.7
39	42	13C2-PFDA	515.1 > 469.9	9.13e3	9.46e3	1.0000	0.986	5.11	5.05	12.1	12.236	97.9
40	43	13C2-8:2 FTS	529.1 > 508.7	1.90e3	1.62e4	1.0000	0.124	5.09	5.02	1.46	11.762	94.1
41	44	d3-N-MeFOSAA	573.3 > 419	5.57e3	1.45e4	1.0000	0.391	5.26	5.20	4.78	12.227	97.8
42	45	d5-N-EtFOSAA	589.3 > 419	6.98e3	1.45e4	1.0000	0.451	5.42	5.35	5.99	13.283	106.3
43	46	13C2-PFUdA	565 > 519.8	1.41e4	1.45e4	1.0000	0.900	5.43	5.37	12.1	13.424	107.4
44	47	13C2-PFDoA	615.0 > 569.7	1.03e4	1.45e4	1.0000	0.617	5.70	5.65	8.89	14.417	115.3
45	48	d3-N-MeFOSA	515.2 > 168.9	1.69e4	1.45e4	1.0000	0.097	5.80	5.82	14.5	148.654	99.1
46	49	13C2-PFTeDA	714.8 > 669.6	2.60e3	1.45e4	1.0000	0.196	6.16	6.11	2.23	11.398	91.2
47	50	d5-N-ETFOSA	531.1 > 168.9	2.58e4	1.45e4	1.0000	0.147	6.16	6.20	22.2	151.263	100.8
48	51	13C2-PFHxDA	815 > 769.7	2.73e3	1.45e4	1.0000	0.435	6.48	6.44	2.35	5.402	108.0
49	52	d7-N-MeFOSE	623.1 > 58.9	1.84e4	1.45e4	1.0000	0.108	6.30	6.31	15.8	146.542	97.7
50	53	d9-N-EtFOSE	639.2 > 58.8	2.13e4	1.45e4	1.0000	0.116	6.42	6.46	18.3	158.363	105.6
51	54	13C4-PFBA	217. > 171.8	1.33e4	1.33e4	1.0000	1.000	1.47	1.40	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.62e4	1.62e4	1.0000	1.000	3.20	3.12	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.96e3	3.96e3	1.0000	1.000	3.95	3.89	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.59e4	1.59e4	1.0000	1.000	4.32	4.25	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.45e4	1.45e4	1.0000	1.000	4.75	4.68	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	4.11e3	4.11e3	1.0000	1.000	4.83	4.76	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	9.46e3	9.46e3	1.0000	1.000	5.11	5.05	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.45e4	1.45e4	1.0000	1.000	5.43	5.37	12.5	12.500	100.0

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Dataset: Untitled

Last Altered: Saturday, December 30, 2017 14:34:40 Pacific Standard Time
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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

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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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Last Altered: Saturday, December 30, 2017 14:34:40 Pacific Standard Time
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Compound name: PFBA

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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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Last Altered: Friday, December 29, 2017 20:29:47 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:16:05 Pacific Standard Time

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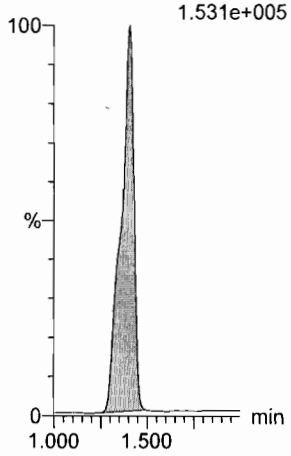
PFBA



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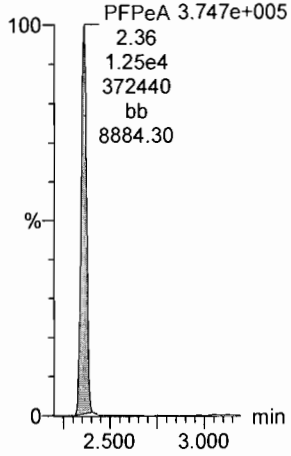

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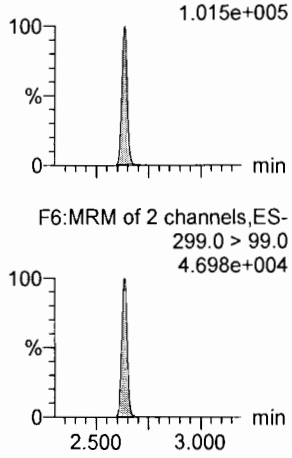

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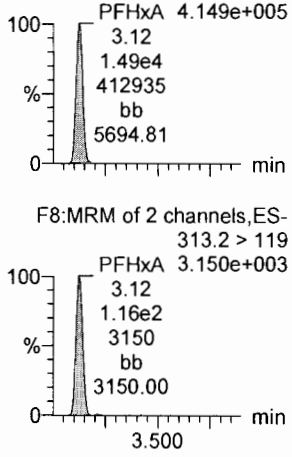

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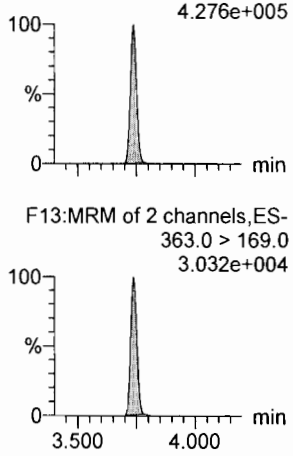

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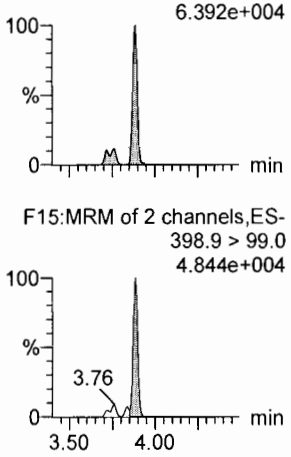

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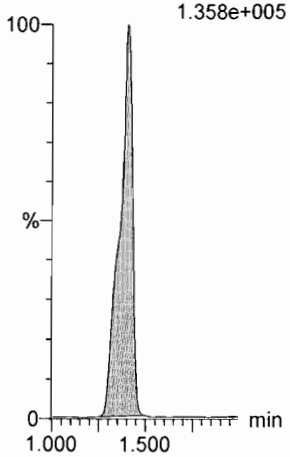

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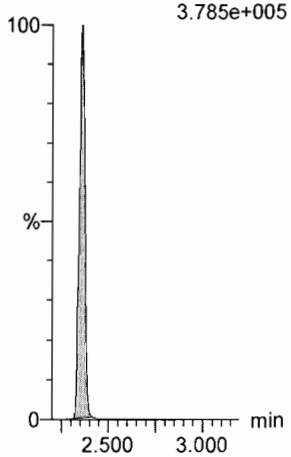

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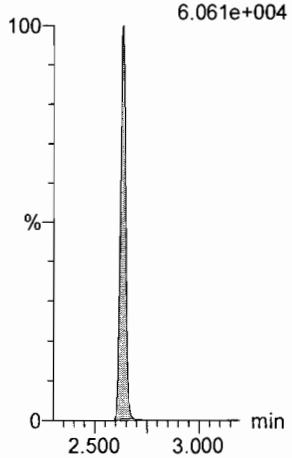

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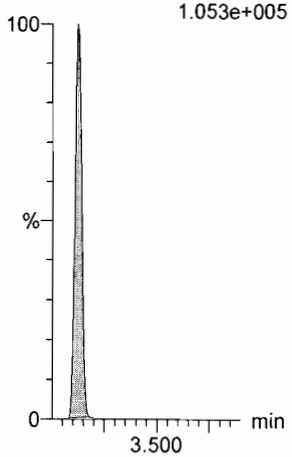

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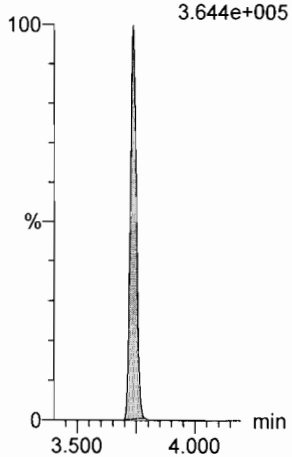

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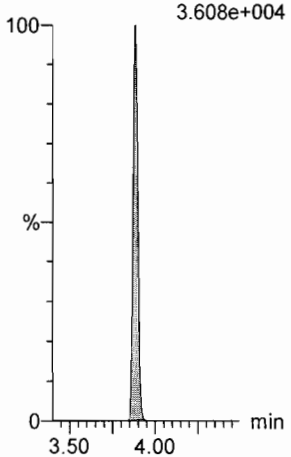

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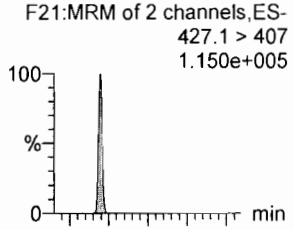
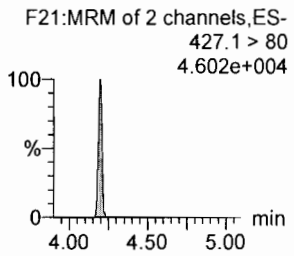
Last Altered: Friday, December 29, 2017 20:29:47 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:16:05 Pacific Standard Time

Name: 171229M2_29, Date: 29-Dec-2017, Time: 18:46:14, ID: ST171229M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

6:2 FTS





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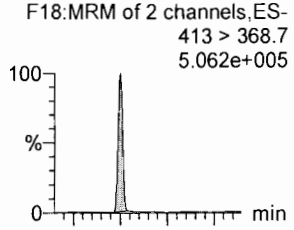

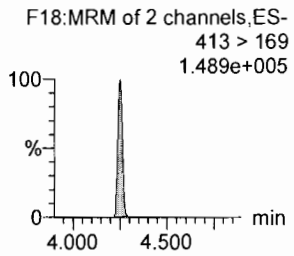

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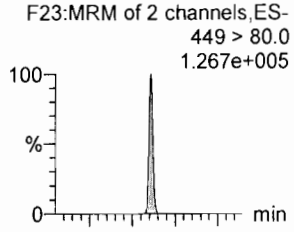

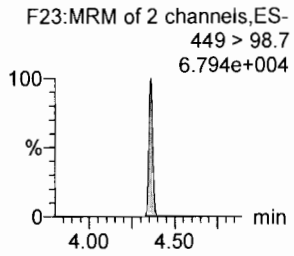

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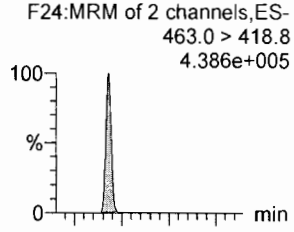

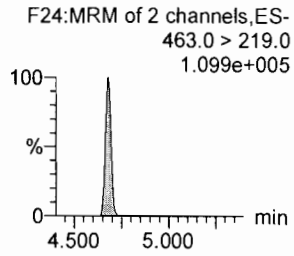

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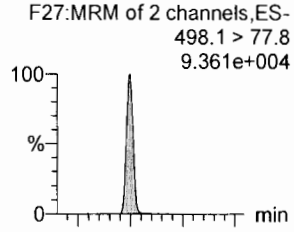

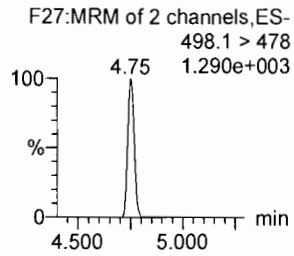

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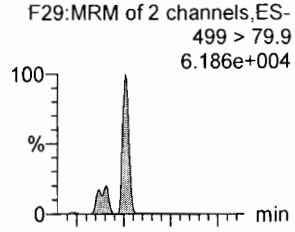

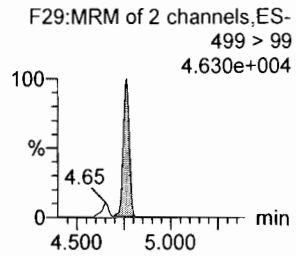

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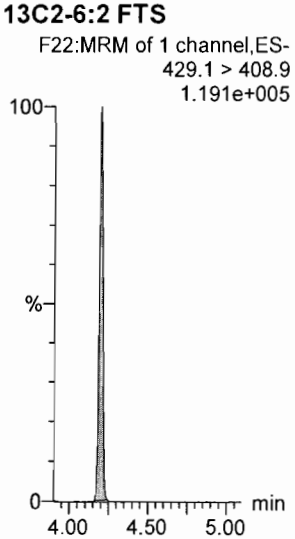

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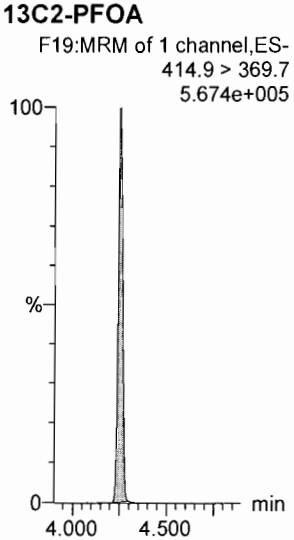

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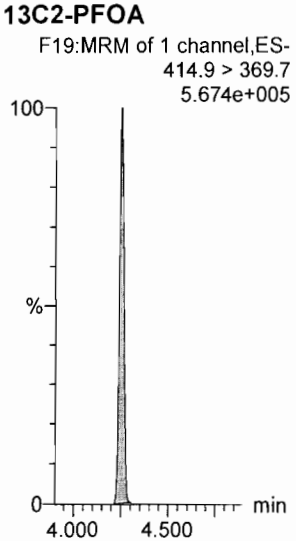

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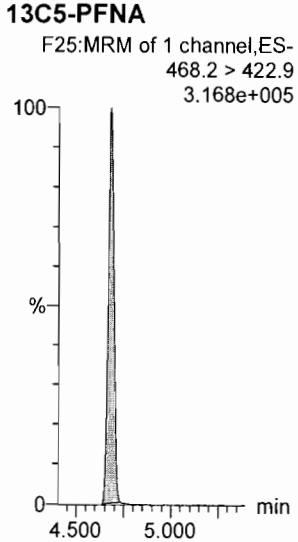

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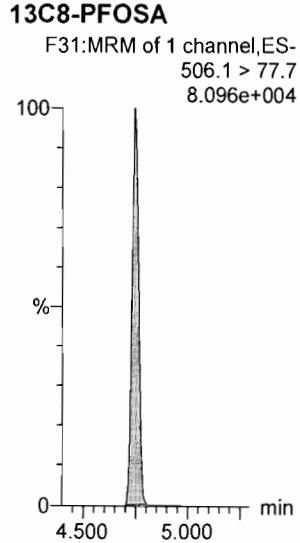

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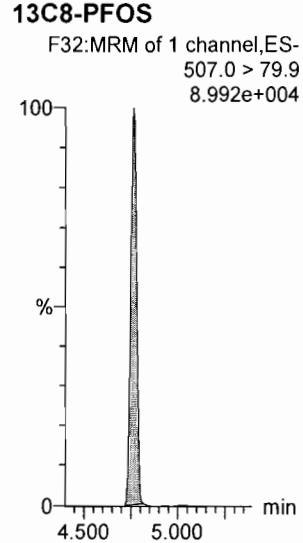

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Name: 171229M2_29, Date: 29-Dec-2017, Time: 18:46:14, ID: ST171229M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

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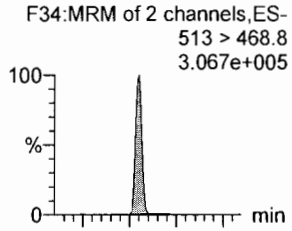
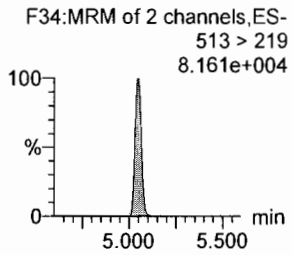
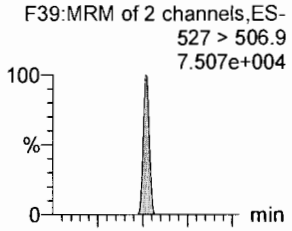
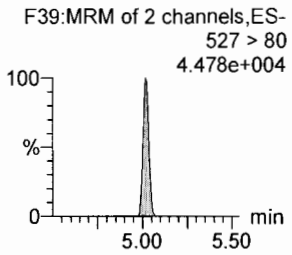




8:2 FTS





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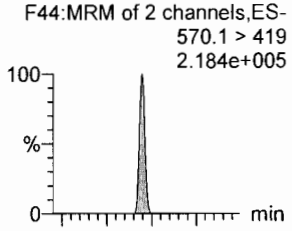

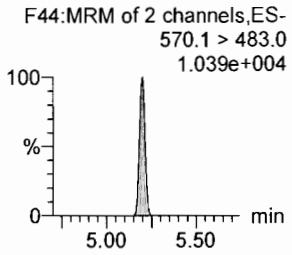

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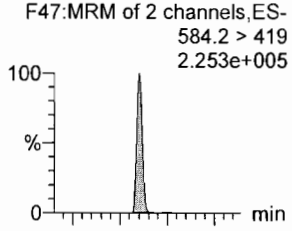

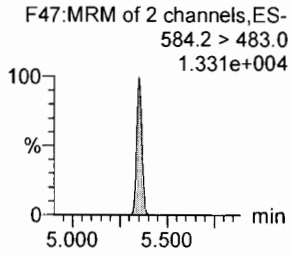

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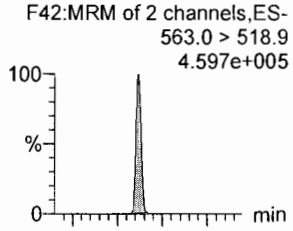

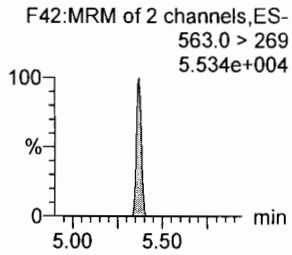

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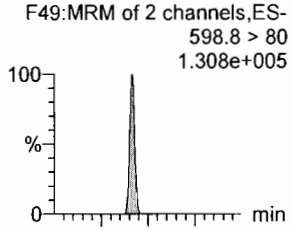

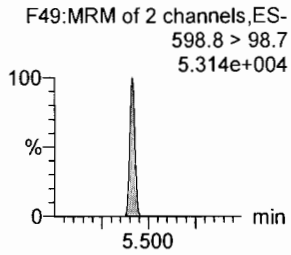

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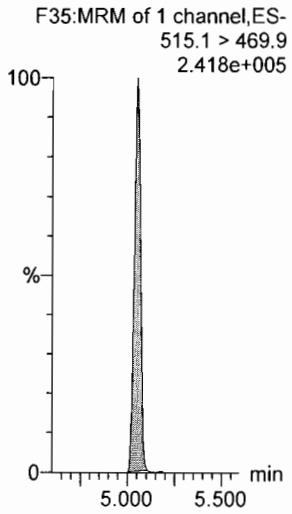

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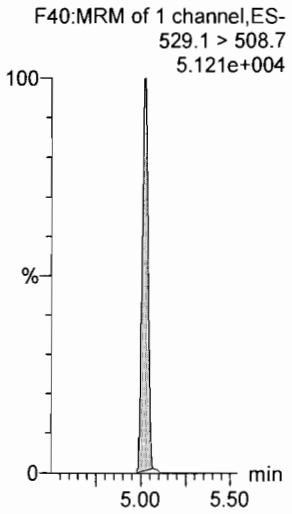

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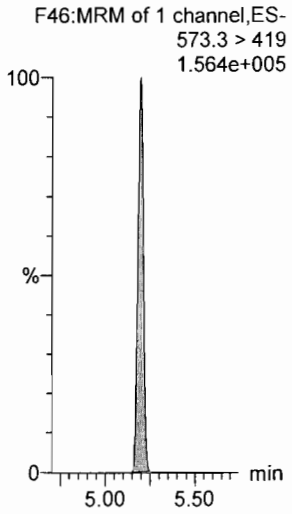

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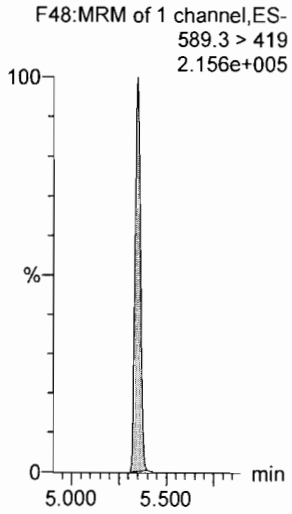

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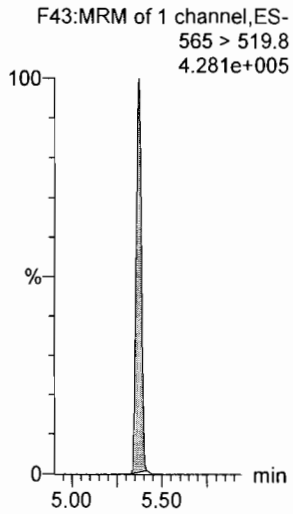

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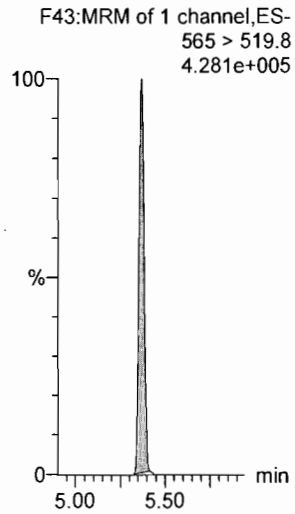

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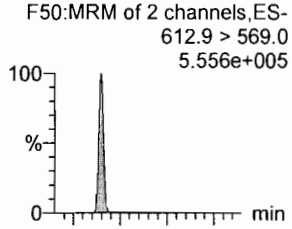

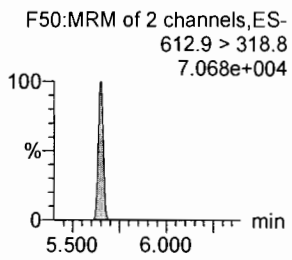

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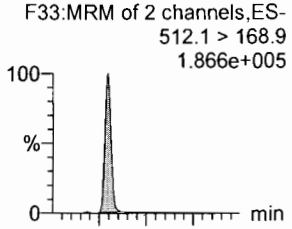

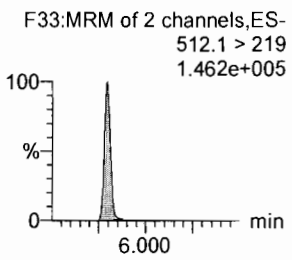

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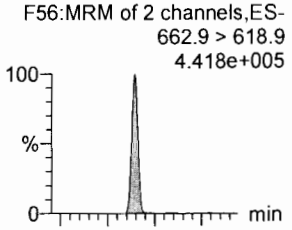

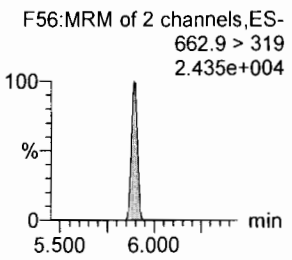

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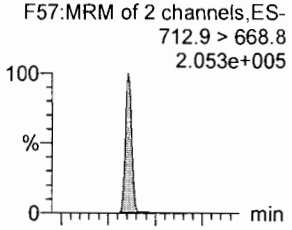

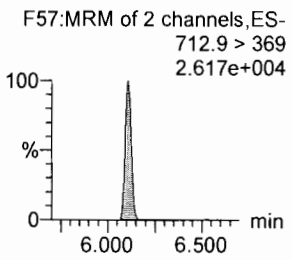

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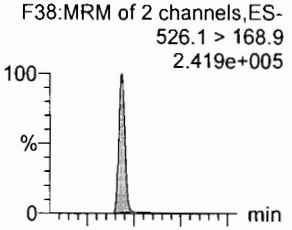

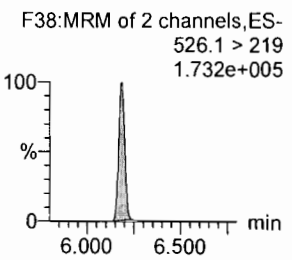

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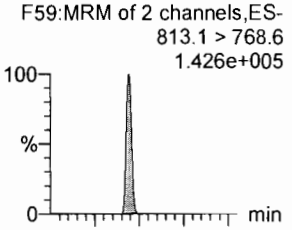

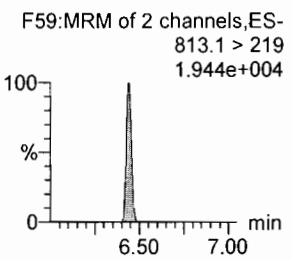

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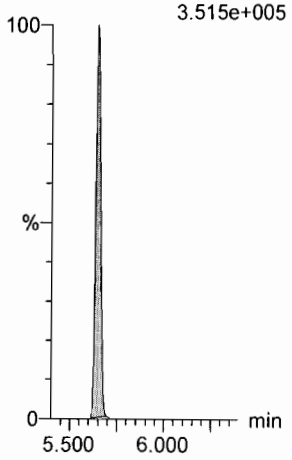

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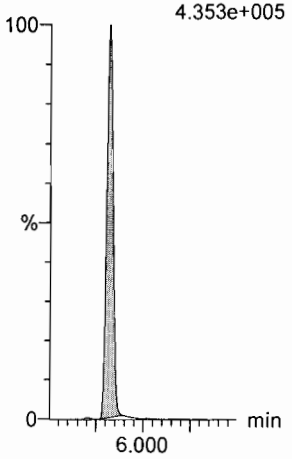

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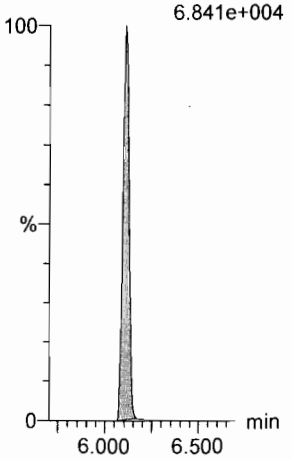

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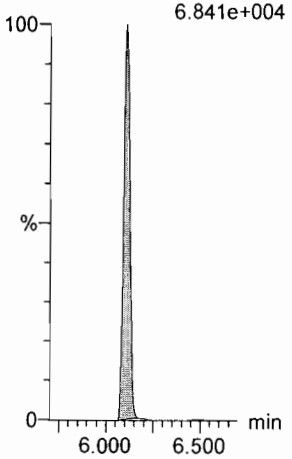
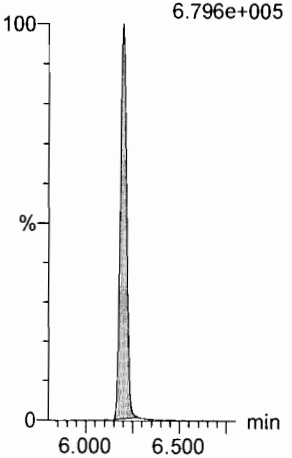


d5-N-ETFOSA



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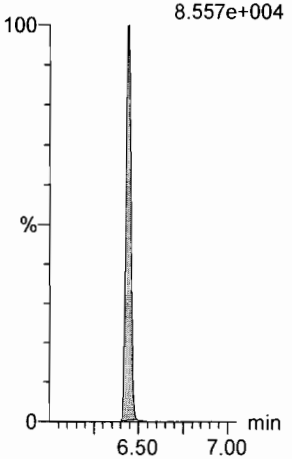

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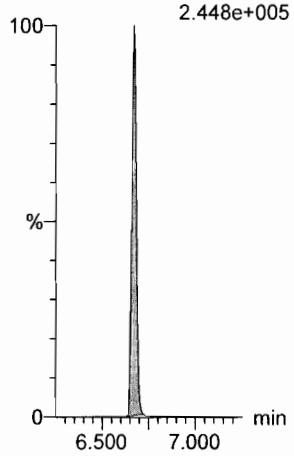
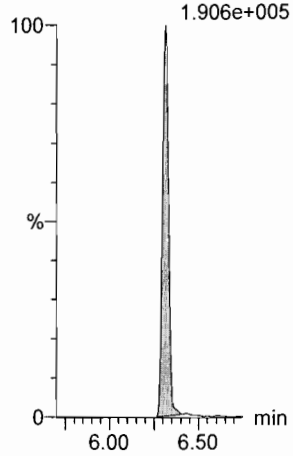
Last Altered: Friday, December 29, 2017 20:29:47 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:16:05 Pacific Standard Time

Name: 171229M2_29, Date: 29-Dec-2017, Time: 18:46:14, ID: ST171229M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

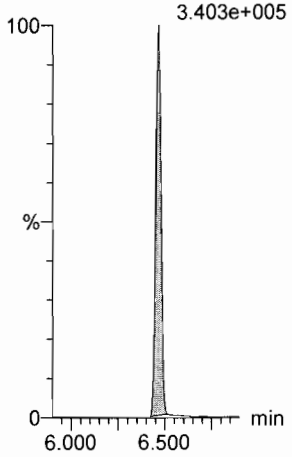
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.448e+005



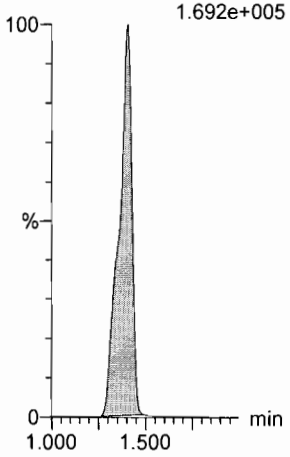
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.906e+005



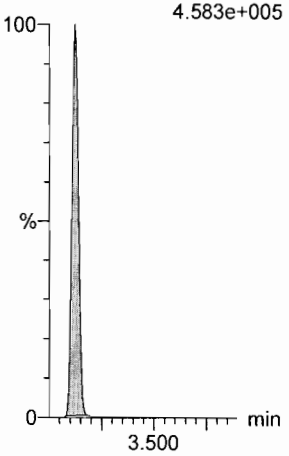
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.403e+005



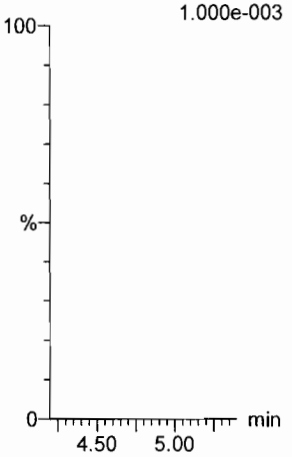
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.692e+005



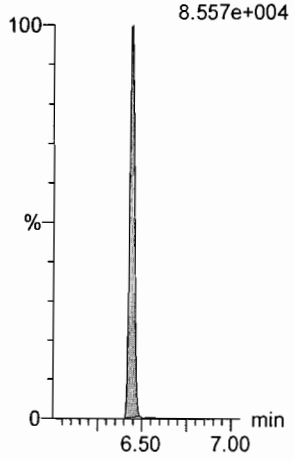
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.583e+005



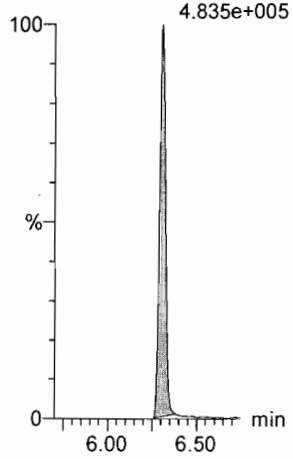
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



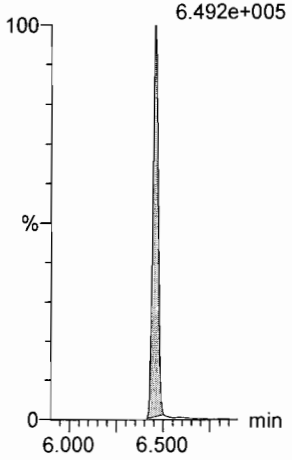
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.557e+004



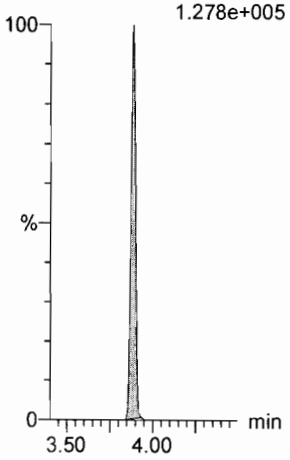
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.835e+005



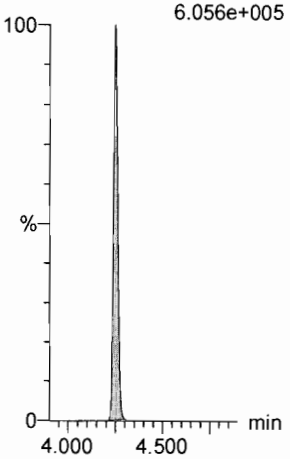
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.492e+005



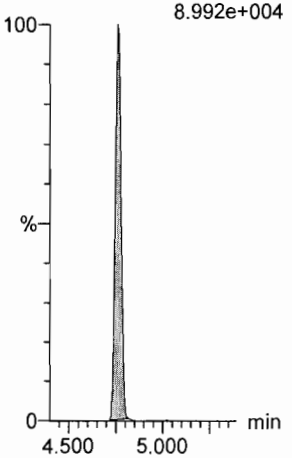
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.278e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
6.056e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
8.992e+004

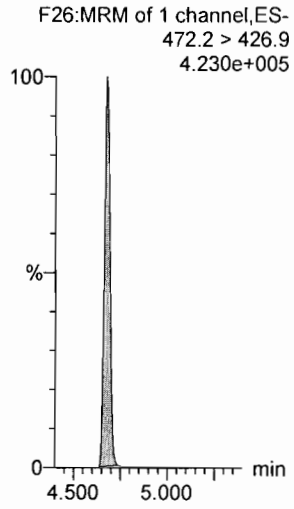


Dataset: U:\Q4.PRO\results\171229M2\171229M2-29.qld

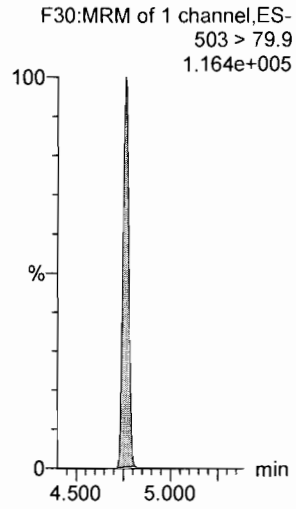
Last Altered: Friday, December 29, 2017 20:29:47 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:16:05 Pacific Standard Time

Name: 171229M2_29, Date: 29-Dec-2017, Time: 18:46:14, ID: ST171229M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

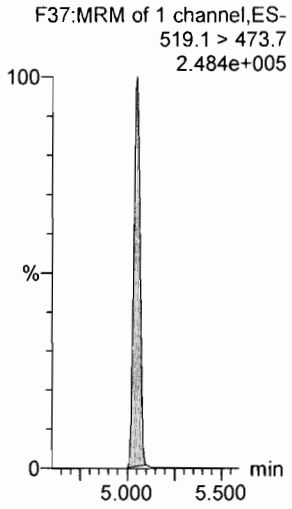
13C9-PFNA



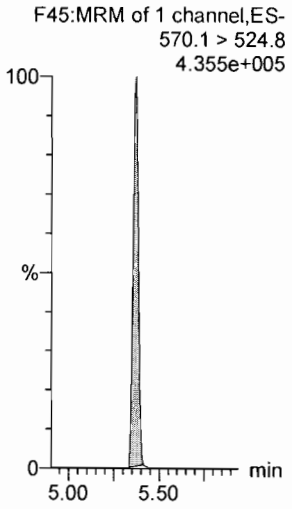
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171229M2\171229M2-46.qld

Last Altered: Saturday, December 30, 2017 09:38:50 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:17:20 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_46, Date: 29-Dec-2017, Time: 21:56:19, ID: ST171229M2-12 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	1.07e3	1.06e4	1.0000		1.47	1.41	1.26	0.970	97.0
2	2	PFPeA	263.1 > 218.9	1.15e3	1.28e4	1.0000		2.35	2.36	1.12	0.974	97.4
3	3	PFBS	299.0 > 79.7	2.77e2	1.80e3	1.0000		2.70	2.63	1.93	0.918	91.8
4	4	PFHxA	313.2 > 268.9	1.41e3	4.05e3	1.0000		3.12	3.12	1.74	0.948	94.8
5	5	PFHpA	363.0 > 318.9	1.09e3	1.07e4	1.0000		3.75	3.74	1.27	0.861	86.1
6	6	L-PFHxS	398.9 > 79.6	1.73e2	1.47e3	1.0000		3.85	3.89	1.47	0.722	72.2
7	8	6:2 FTS	427.1 > 407	3.53e2	1.39e4	1.0000		4.20	4.19	0.319	1.248	124.8
8	9	L-PFOA	413 > 368.7	1.64e3	1.39e4	1.0000		4.25	4.25	1.48	1.043	104.3
9	11	PFHpS	449 > 80.0	3.32e2	1.39e4	1.0000		4.35	4.36	0.299	1.149	114.9
10	12	PFNA	463.0 > 418.8	1.38e3	1.47e4	1.0000		4.70	4.68	1.18	0.753	75.3
11	13	PFOSA	498.1 > 77.8	2.43e2	3.12e3	1.0000		4.81	4.74	0.976	0.793	79.3
12	14	L-PFOS	499 > 79.9	3.16e2	3.37e3	1.0000		4.75	4.76	1.17	0.961	96.1
13	16	PFDA	513 > 468.8	1.41e3	1.20e4	1.0000		5.05	5.05	1.47	1.015	101.5
14	17	8:2 FTS	527 > 506.9	2.60e2	1.20e4	1.0000		5.02	5.02	0.271	0.986	98.6
15	18	N-MeFOSAA	570.1 > 419	6.27e2	4.69e3	1.0000		5.20	5.20	1.67	1.038	103.8
16	19	N-EtFOSAA	584.2 > 419	6.37e2	7.04e3	1.0000		5.42	5.35	1.13	0.907	90.7
17	20	PFUdA	563.0 > 518.9	1.35e3	1.56e4	1.0000		5.35	5.37	1.08	0.889	88.9
18	21	PFDS	598.8 > 80	3.20e2	1.56e4	1.0000		5.50	5.42	0.256	0.710	71.0
19	22	PFDoA	612.9 > 569.0	1.40e3	1.10e4	1.0000		5.70	5.65	1.60	0.766	76.6
20	23	N-MeFOSA	512.1 > 168.9	6.03e2	1.72e4	1.0000		5.77	5.80	5.27	4.771	95.4
21	24	PFTrDA	662.9 > 618.9	1.22e3	1.10e4	1.0000		5.95	5.89	1.39	0.748	74.8
22	25	PFTeDA	712.9 > 668.8	8.92e2	3.75e3	1.0000		6.16	6.11	2.97	1.032	103.2
23	26	N-EtFOSA	526.1 > 168.9	7.35e2	2.63e4	1.0000		6.15	6.19	4.20	4.507	90.1
24	27	PFHxDA	813.1 > 768.6	4.96e2	2.99e3	1.0000		6.48	6.44	0.828	0.820	82.0
25	28	PFODA	913.1 > 868.8	5.32e2	2.99e3	1.0000		6.70	6.67	0.889	0.903	90.3
26	29	N-MeFOSE	616.1 > 58.9	8.49e2	2.03e4	1.0000		6.30	6.31	6.27	5.325	106.5
27	30	N-EtFOSE	630.1 > 58.9	7.55e2	1.99e4	1.0000		6.42	6.46	5.70	4.572	91.4
28	31	13C3-PFBA	216.1 > 171.8	1.06e4	1.33e4	1.0000	0.783	1.47	1.40	9.94	12.689	101.5
29	32	13C3-PFPeA	266. > 221.8	1.28e4	1.65e4	1.0000	0.807	2.44	2.36	9.69	12.017	96.1
30	33	13C3-PFBS	302. > 98.8	1.80e3	1.65e4	1.0000	0.108	2.70	2.63	1.36	12.622	101.0
31	34	13C2-PFHxA	315 > 269.8	4.05e3	1.65e4	1.0000	0.636	3.20	3.12	3.07	4.825	96.5

70-130

50-150

Dataset: U:\Q4.PRO\results\171229M2\171229M2-46.qld

Last Altered: Saturday, December 30, 2017 09:38:50 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:17:20 Pacific Standard Time

Name: 171229M2_46, Date: 29-Dec-2017, Time: 21:56:19, ID: ST171229M2-12 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	1.07e4	1.65e4	1.0000	0.652	3.80	3.74	8.14	12.477	99.8
33	36	18O2-PFHxS	403.0 > 102.6	1.47e3	4.35e3	1.0000	0.321	3.95	3.89	4.23	13.176	105.4
34	37	13C2-6:2 FTS	429.1 > 408.9	2.93e3	1.31e4	1.0000	0.192	4.26	4.20	2.78	14.497	116.0
35	38	13C2-PFOA	414.9 > 369.7	1.39e4	1.31e4	1.0000	0.945	4.32	4.25	13.2	13.957	111.7
36	39	13C5-PFNA	468.2 > 422.9	1.47e4	1.70e4	1.0000	0.832	4.75	4.68	10.8	12.972	103.8
37	40	13C8-PFOSA	506.1 > 77.7	3.12e3	1.61e4	1.0000	0.204	4.81	4.74	2.41	11.840	94.7
38	41	13C8-PFOS	507.0 > 79.9	3.37e3	3.99e3	1.0000	0.948	4.83	4.76	10.5	11.130	89.0
39	42	13C2-PFDA	515.1 > 469.9	1.20e4	1.24e4	1.0000	0.986	5.11	5.05	12.1	12.238	97.9
40	43	13C2-8:2 FTS	529.1 > 508.7	1.82e3	1.65e4	1.0000	0.124	5.09	5.02	1.38	11.096	88.8
41	44	d3-N-MeFOSAA	573.3 > 419	4.69e3	1.61e4	1.0000	0.391	5.26	5.20	3.63	9.293	74.3
42	45	d5-N-EtFOSAA	589.3 > 419	7.04e3	1.61e4	1.0000	0.451	5.42	5.35	5.45	12.086	96.7
43	46	13C2-PFUdA	565 > 519.8	1.56e4	1.61e4	1.0000	0.900	5.43	5.37	12.1	13.430	107.4
44	47	13C2-PFDoA	615.0 > 569.7	1.10e4	1.61e4	1.0000	0.617	5.70	5.65	8.49	13.764	110.1
45	48	d3-N-MeFOSA	515.2 > 168.9	1.72e4	1.61e4	1.0000	0.097	5.80	5.82	13.3	136.415	90.9
46	49	13C2-PFTeDA	714.8 > 669.6	3.75e3	1.61e4	1.0000	0.196	6.16	6.11	2.91	14.834	118.7
47	50	d5-N-ETFOSA	531.1 > 168.9	2.63e4	1.61e4	1.0000	0.147	6.16	6.20	20.4	138.790	92.5
48	51	13C2-PFHxDA	815 > 769.7	2.99e3	1.61e4	1.0000	0.435	6.48	6.44	2.32	5.332	106.6
49	52	d7-N-MeFOSE	623.1 > 58.9	2.03e4	1.61e4	1.0000	0.108	6.30	6.31	15.7	145.567	97.0
50	53	d9-N-EtFOSE	639.2 > 58.8	1.99e4	1.61e4	1.0000	0.116	6.42	6.46	15.4	133.203	88.8
51	54	13C4-PFBA	217. > 171.8	1.33e4	1.33e4	1.0000	1.000	1.47	1.40	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.65e4	1.65e4	1.0000	1.000	3.20	3.12	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	4.35e3	4.35e3	1.0000	1.000	3.95	3.89	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.31e4	1.31e4	1.0000	1.000	4.32	4.25	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.70e4	1.70e4	1.0000	1.000	4.75	4.68	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	3.99e3	3.99e3	1.0000	1.000	4.83	4.76	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.24e4	1.24e4	1.0000	1.000	5.11	5.05	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.61e4	1.61e4	1.0000	1.000	5.43	5.37	12.5	12.500	100.0

50-150

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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

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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
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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

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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
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Compound name: PFBA

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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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Dataset: U:\Q4.PRO\results\171229M2\171229M2-46.qld

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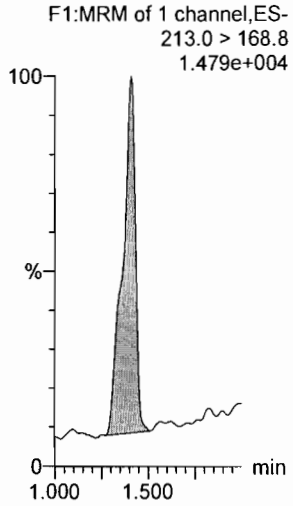

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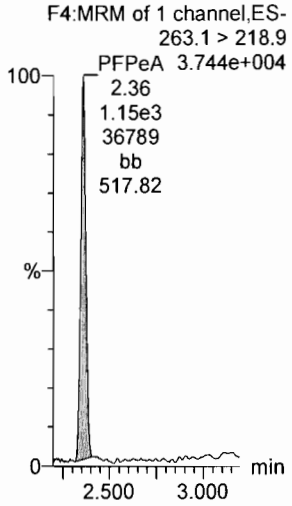

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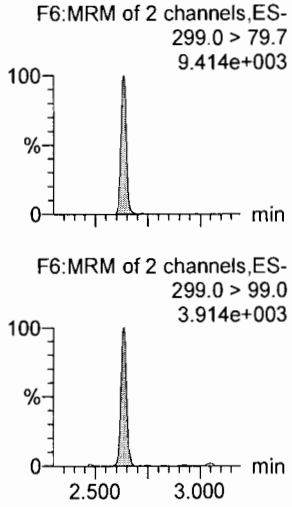

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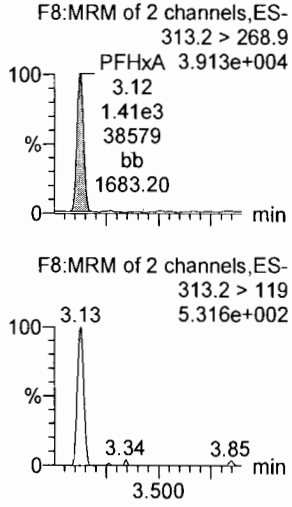

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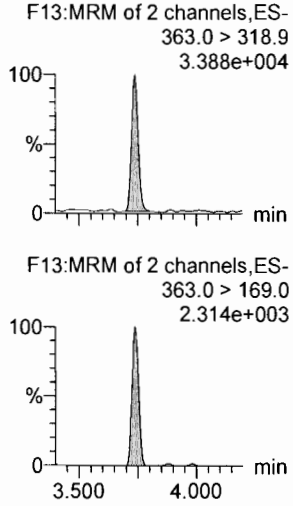

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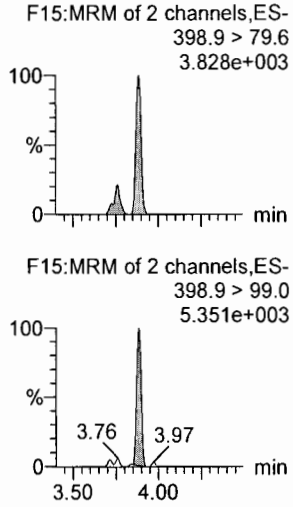

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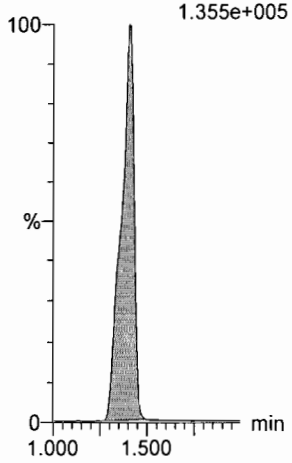

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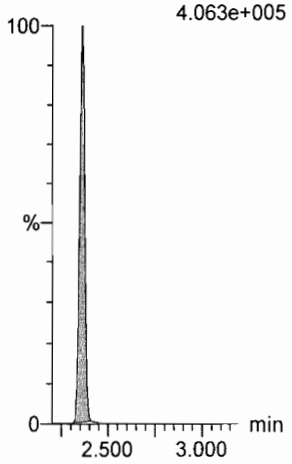

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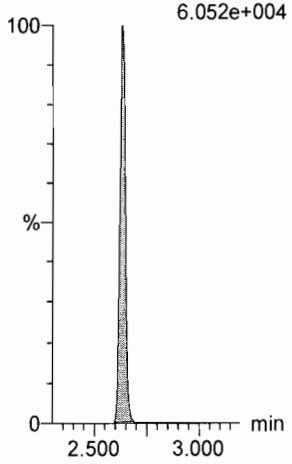

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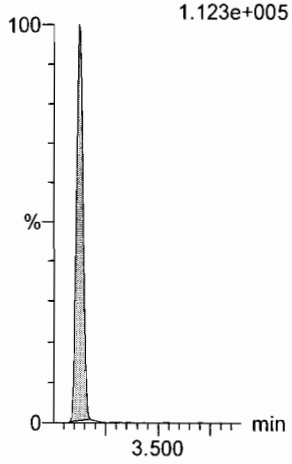

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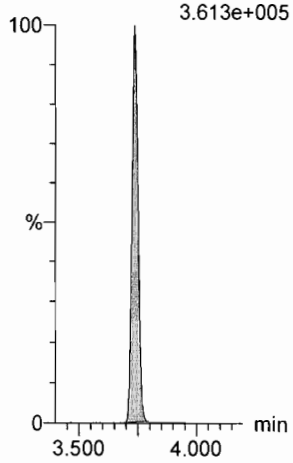

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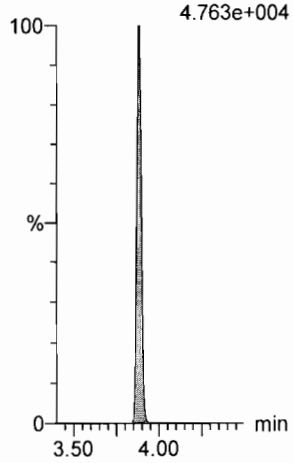

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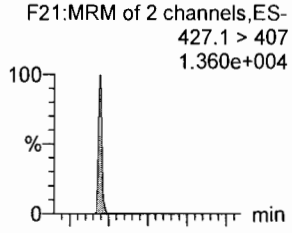
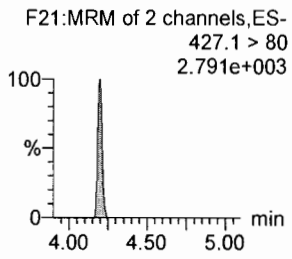
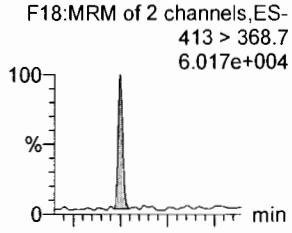
Name: 171229M2_46, Date: 29-Dec-2017, Time: 21:56:19, ID: ST171229M2-12 PFC CS0 17L2608, Description: PFC CS0 17L2608

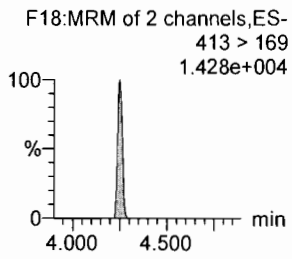
6:2 FTS





L-PFOA





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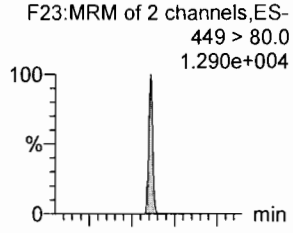

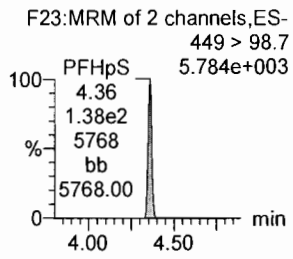

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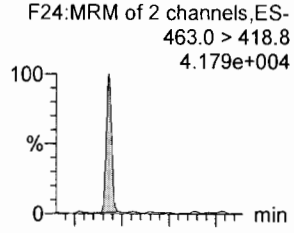

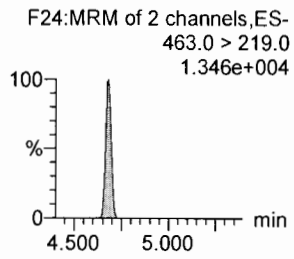

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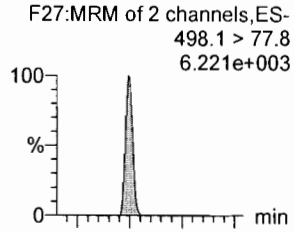

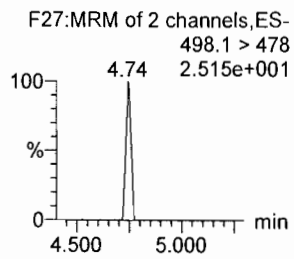

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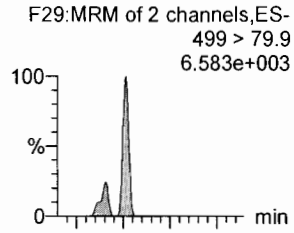

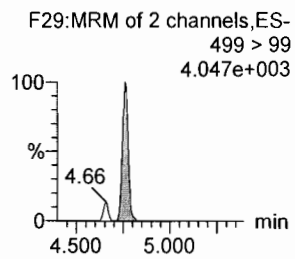

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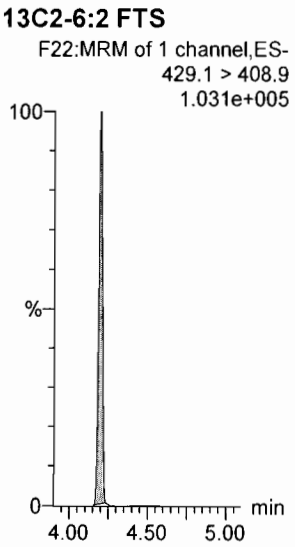

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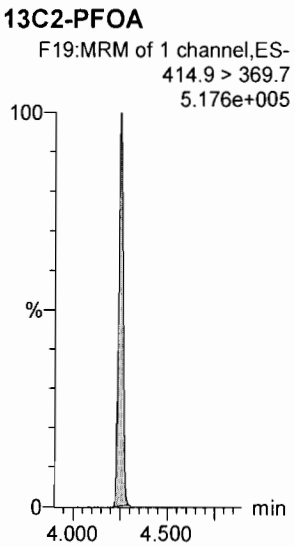

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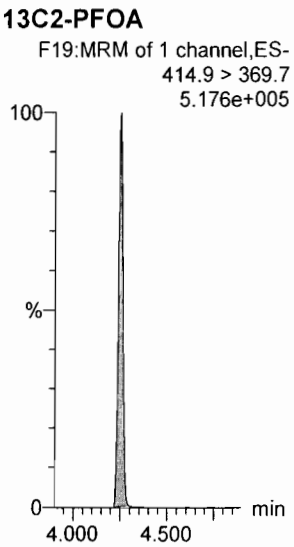

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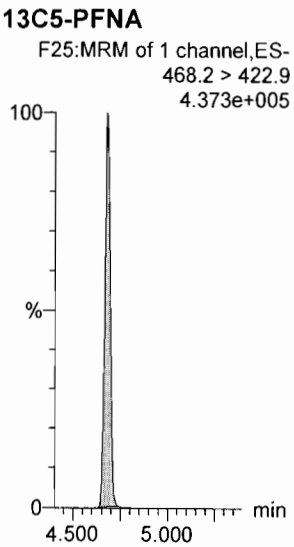

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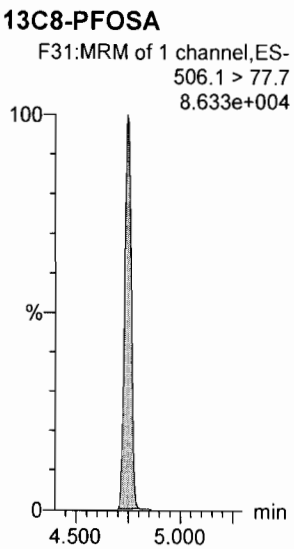

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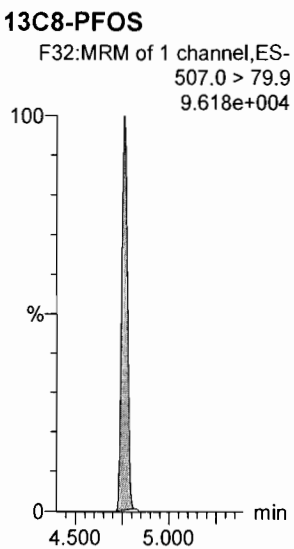

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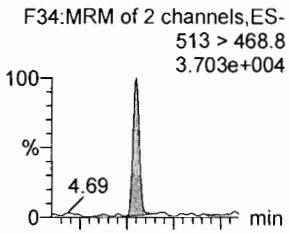
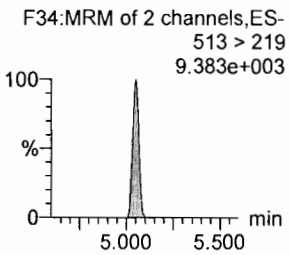
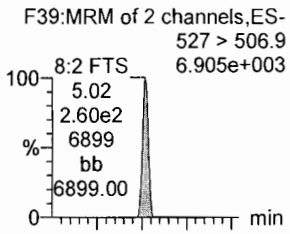
Name: 171229M2_46, Date: 29-Dec-2017, Time: 21:56:19, ID: ST171229M2-12 PFC CS0 17L2608, Description: PFC CS0 17L2608

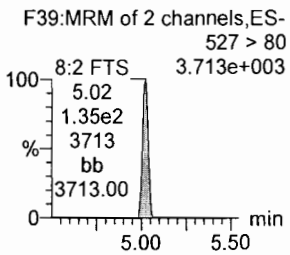
PFDA





8:2 FTS





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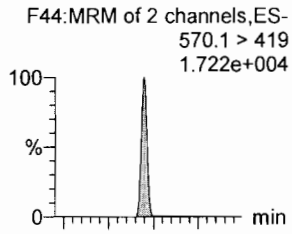

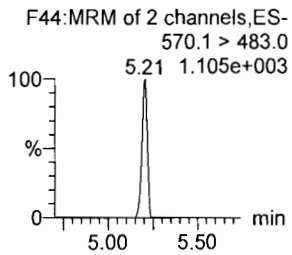

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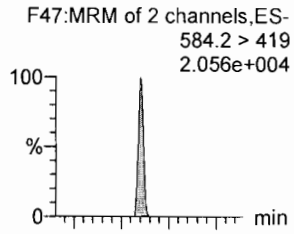
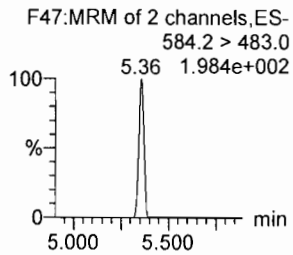
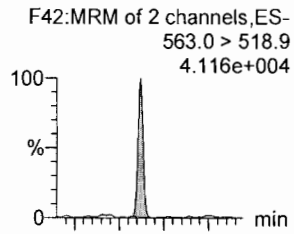
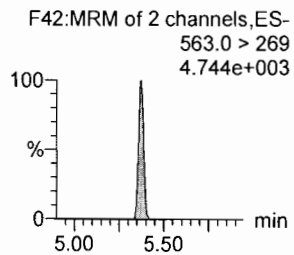


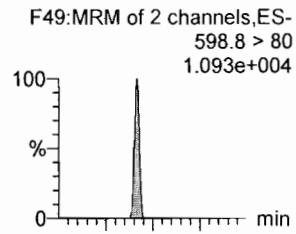


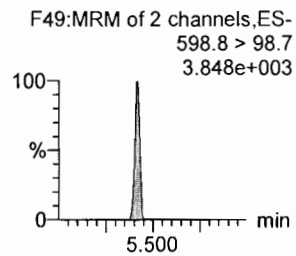
PFUdA



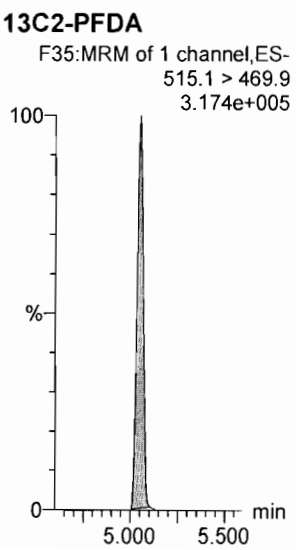


PFDS

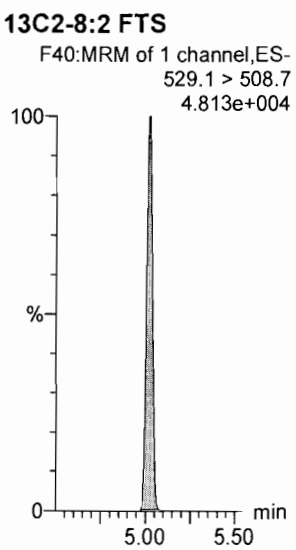




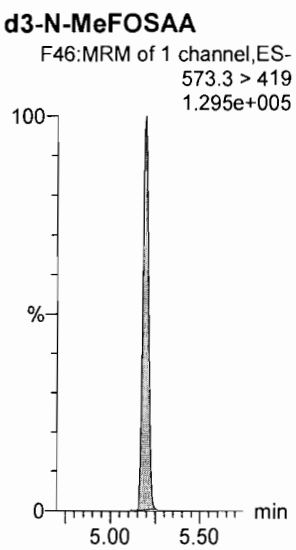
13C2-PFDA



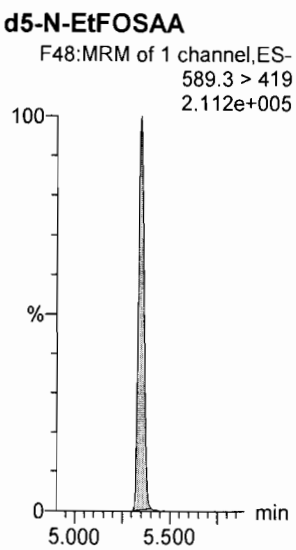
13C2-8:2 FTS



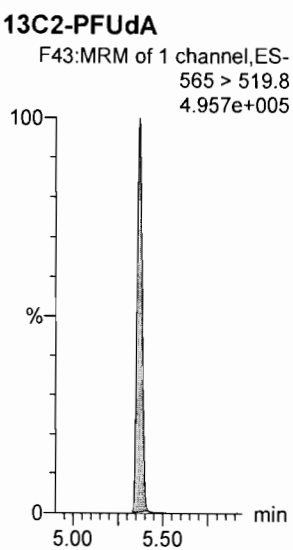
d3-N-MeFOSAA



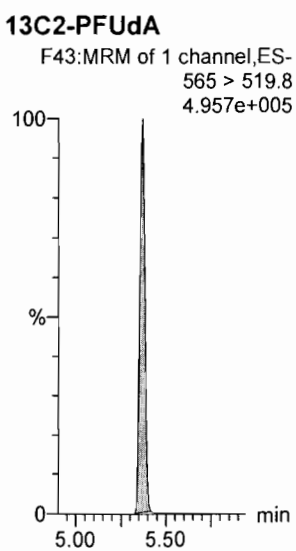
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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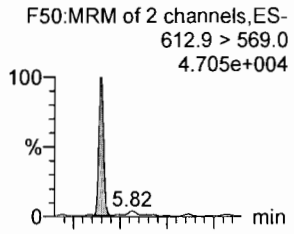
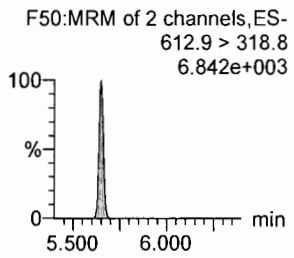
Printed: Saturday, December 30, 2017 14:17:20 Pacific Standard Time

Name: 171229M2_46, Date: 29-Dec-2017, Time: 21:56:19, ID: ST171229M2-12 PFC CS0 17L2608, Description: PFC CS0 17L2608

PFDoA





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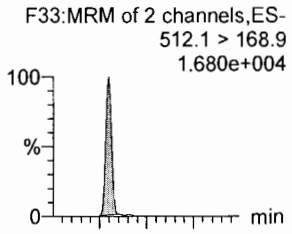
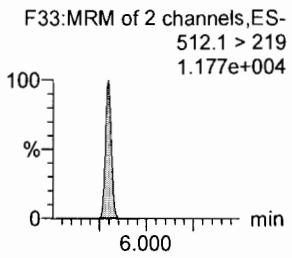
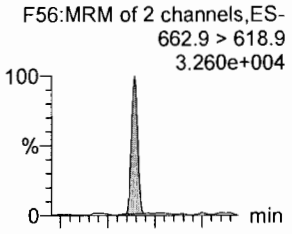
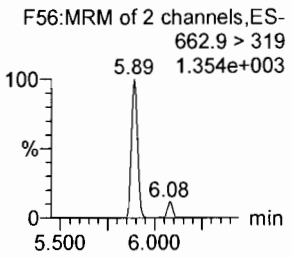




PFTrDA





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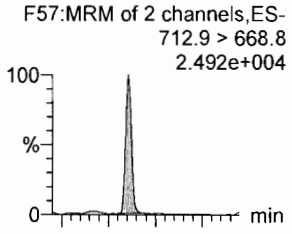

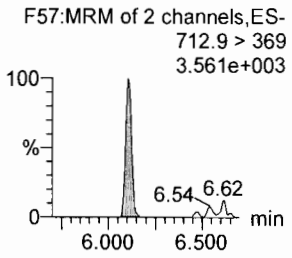

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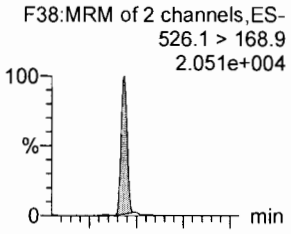

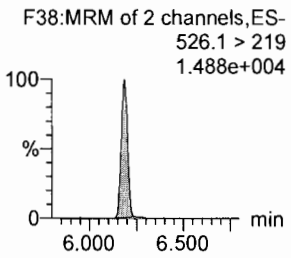

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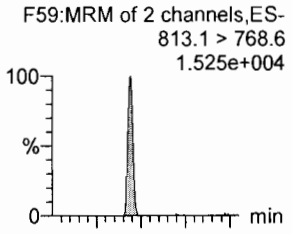
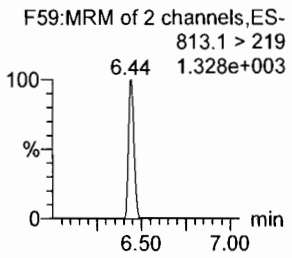
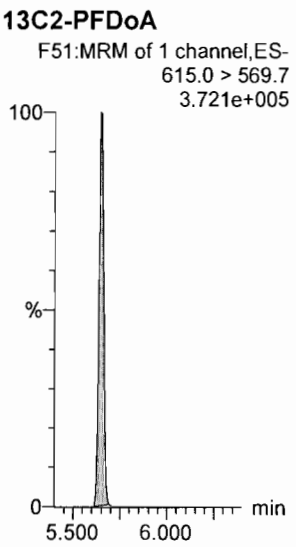
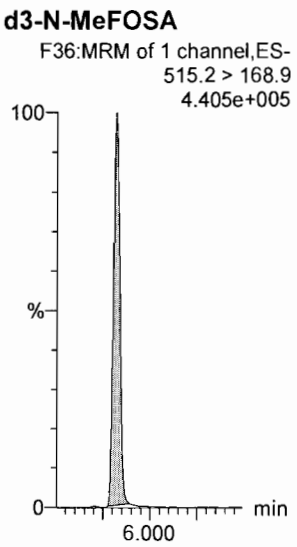




13C2-PFDoA



d3-N-MeFOSA



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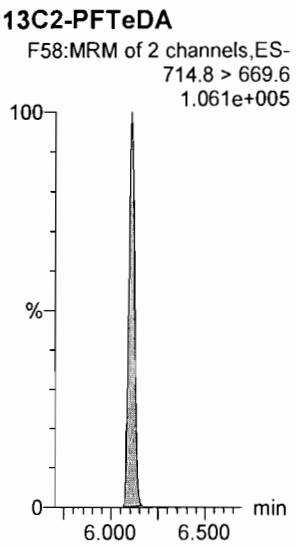

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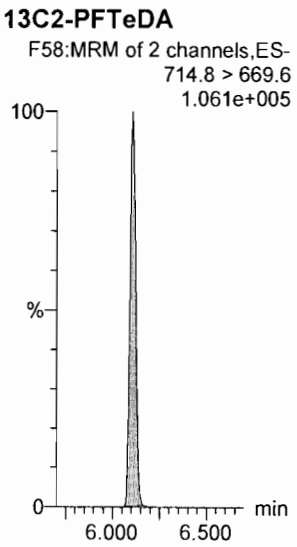
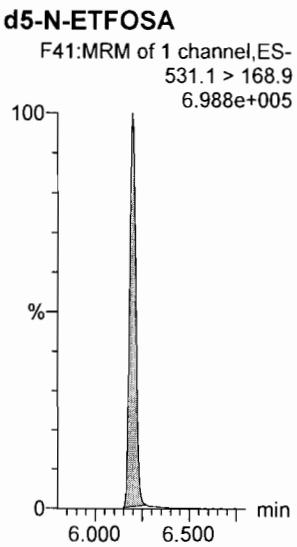
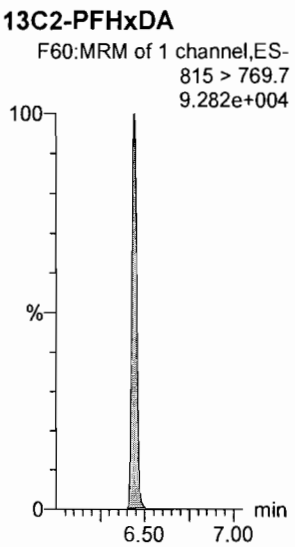


d5-N-ETFOSA



13C2-PFHxDA



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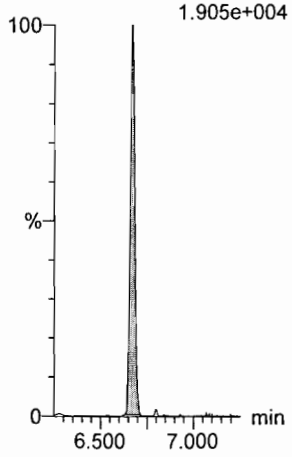
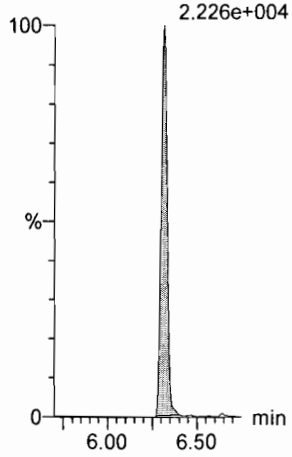
Name: 171229M2_46, Date: 29-Dec-2017, Time: 21:56:19, ID: ST171229M2-12 PFC CS0 17L2608, Description: PFC CS0 17L2608

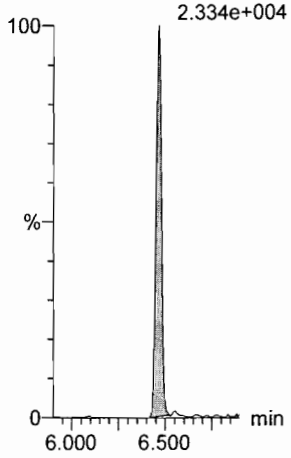
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.905e+004



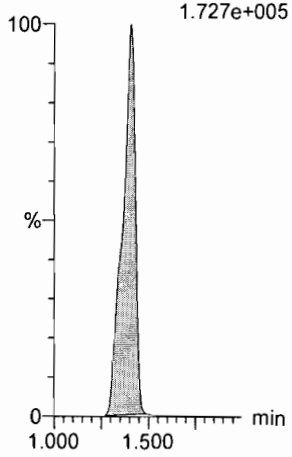
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.226e+004



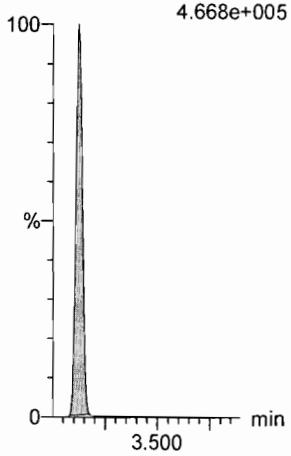
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.334e+004



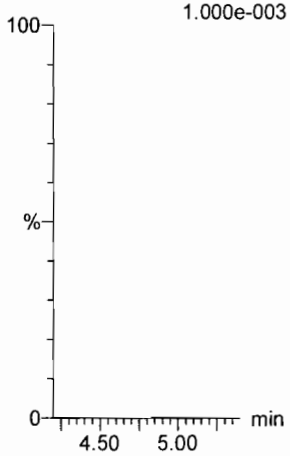
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.727e+005



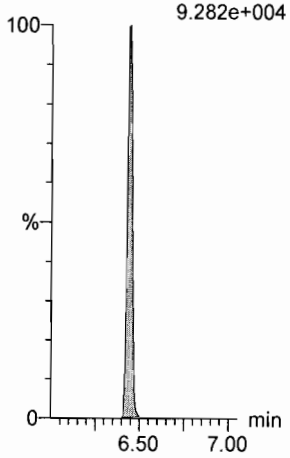
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.668e+005



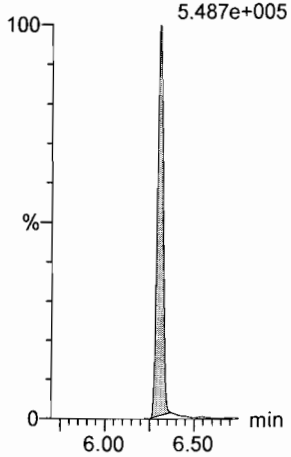
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



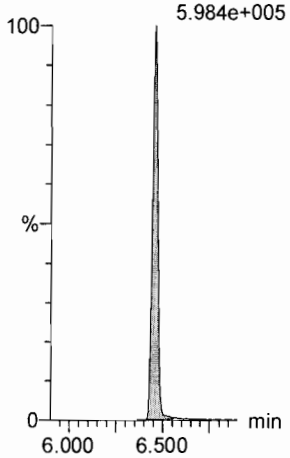
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
9.282e+004



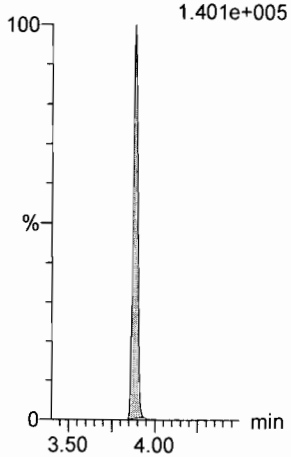
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.487e+005



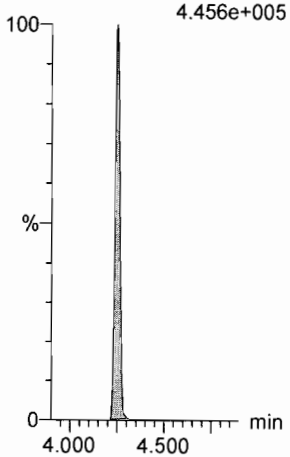
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.984e+005



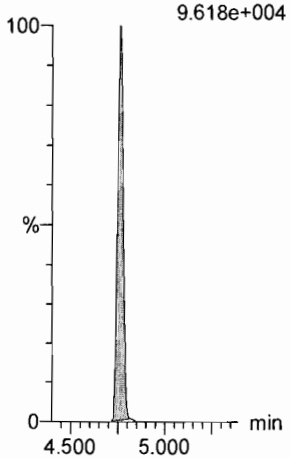
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.401e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.456e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
9.618e+004



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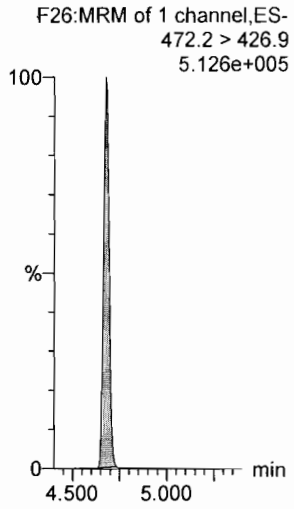
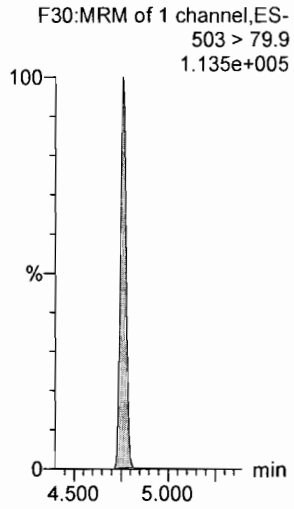
Last Altered: Saturday, December 30, 2017 09:38:50 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:17:20 Pacific Standard Time

Name: 171229M2_46, Date: 29-Dec-2017, Time: 21:56:19, ID: ST171229M2-12 PFC CS0 17L2608, Description: PFC CS0 17L2608

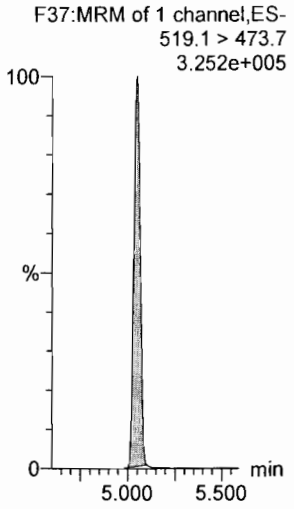
13C9-PFNA



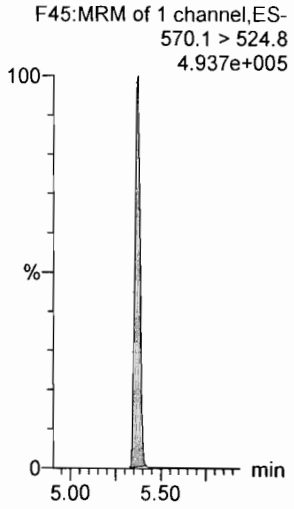
13C4-PFOS



13C6-PFDA



13C7-PFUdA



(A) PFDoA < 70%; not used

Dataset: U:\Q4.PRO\results\171229M2\171229M2-66.qld

Last Altered: Saturday, December 30, 2017 09:40:54 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:18:33 Pacific Standard Time

AC 12/30/17

JA 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_66, Date: 30-Dec-2017, Time: 01:40:17, ID: ST171229M2-13 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	1.21e4	1.09e4	1.0000		1.47	1.41	13.9	10.184	101.8
2	2	PFPeA	263.1 > 218.9	1.17e4	1.28e4	1.0000		2.35	2.37	11.4	9.577	95.8
3	3	PFBS	299.0 > 79.7	3.10e3	1.76e3	1.0000		2.70	2.64	22.1	10.225	102.3
4	4	PFHxA	313.2 > 268.9	1.44e4	4.01e3	1.0000		3.12	3.13	18.0	9.613	96.1
5	5	PFHpA	363.0 > 318.9	1.37e4	1.06e4	1.0000		3.75	3.74	16.1	10.252	102.5
6	6	L-PFHxS	398.9 > 79.6	2.10e3	1.26e3	1.0000		3.85	3.89	20.8	9.833	98.3
7	8	6:2 FTS	427.1 > 407	3.55e3	1.70e4	1.0000		4.20	4.20	2.61	10.540	105.4
8	9	L-PFOA	413 > 368.7	1.62e4	1.70e4	1.0000		4.25	4.26	11.9	9.796	98.0
9	11	PFHpS	449 > 80.0	3.91e3	1.70e4	1.0000		4.35	4.36	2.88	11.476	114.8
10	12	PFNA	463.0 > 418.8	1.64e4	1.32e4	1.0000		4.70	4.69	15.5	9.965	99.7
11	13	PFOSA	498.1 > 77.8	3.21e3	3.06e3	1.0000		4.81	4.75	13.1	9.831	98.3
12	14	L-PFOS	499 > 79.9	3.63e3	3.53e3	1.0000		4.75	4.76	12.8	9.602	96.0
13	16	PFDA	513 > 468.8	1.47e4	1.12e4	1.0000		5.05	5.06	16.4	10.910	109.1
14	17	8:2 FTS	527 > 506.9	3.16e3	1.12e4	1.0000		5.02	5.02	3.52	11.325	113.2
15	18	N-MeFOSAA	570.1 > 419	8.43e3	6.28e3	1.0000		5.20	5.20	16.8	10.082	100.8
16	19	N-EtFOSAA	584.2 > 419	6.42e3	5.04e3	1.0000		5.42	5.36	15.9	11.933	119.3
17	20	PFUdA	563.0 > 518.9	1.75e4	1.69e4	1.0000		5.35	5.37	12.9	10.453	104.5
18	21	PFDS	598.8 > 80	4.38e3	1.69e4	1.0000		5.50	5.42	3.23	9.115	91.1
19	22	PFDoA	612.9 > 569.0	1.21e4	1.31e4	1.0000		5.70	5.65	11.5	5.447	(A) 54.5
20	23	N-MeFOSA	512.1 > 168.9	7.06e3	1.76e4	1.0000		5.77	5.80	60.1	54.032	108.1
21	24	PFTrDA	662.9 > 618.9	1.33e4	1.31e4	1.0000		5.95	5.90	12.6	7.241	72.4
22	25	PFTeDA	712.9 > 668.8	8.90e3	3.65e3	1.0000		6.16	6.11	30.5	9.071	90.7
23	26	N-EtFOSA	526.1 > 168.9	9.04e3	2.55e4	1.0000		6.15	6.19	53.2	53.307	106.6
24	27	PFHxDA	813.1 > 768.6	6.16e3	3.19e3	1.0000		6.48	6.44	9.67	9.948	99.5
25	28	PFODA	913.1 > 868.8	9.12e3	3.19e3	1.0000		6.70	6.67	14.3	10.027	100.3
26	29	N-MeFOSE	616.1 > 58.9	7.68e3	1.84e4	1.0000		6.30	6.32	62.6	48.951	97.9
27	30	N-EtFOSE	630.1 > 58.9	9.10e3	2.11e4	1.0000		6.42	6.47	64.7	52.778	105.6
28	31	13C3-PFBA	216.1 > 171.8	1.09e4	1.39e4	1.0000	0.783	1.47	1.41	9.75	12.444	99.6
29	32	13C3-PFPeA	266. > 221.8	1.28e4	1.60e4	1.0000	0.807	2.44	2.36	10.0	12.397	99.2
30	33	13C3-PFBS	302. > 98.8	1.76e3	1.60e4	1.0000	0.108	2.70	2.64	1.38	12.753	102.0
31	34	13C2-PFHxA	315 > 269.8	4.01e3	1.60e4	1.0000	0.636	3.20	3.13	3.14	4.934	98.7

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Dataset: U:\Q4.PRO\results\171229M2\171229M2-66.qld

Last Altered: Saturday, December 30, 2017 09:40:54 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:18:33 Pacific Standard Time

Name: 171229M2_66, Date: 30-Dec-2017, Time: 01:40:17, ID: ST171229M2-13 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	1.06e4	1.60e4	1.0000	0.652	3.80	3.74	8.33	12.769	102.2
33	36	18O2-PFHxS	403.0 > 102.6	1.26e3	3.20e3	1.0000	0.321	3.95	3.89	4.93	15.362	122.9
34	37	13C2-6:2 FTS	429.1 > 408.9	3.30e3	1.62e4	1.0000	0.192	4.26	4.20	2.55	13.277	106.2
35	38	13C2-PFOA	414.9 > 369.7	1.70e4	1.62e4	1.0000	0.945	4.32	4.25	13.1	13.859	110.9
36	39	13C5-PFNA	468.2 > 422.9	1.32e4	1.58e4	1.0000	0.832	4.75	4.69	10.5	12.587	100.7
37	40	13C8-PFOSA	506.1 > 77.7	3.06e3	1.63e4	1.0000	0.204	4.81	4.75	2.35	11.508	92.1
38	41	13C8-PFOS	507.0 > 79.9	3.53e3	4.23e3	1.0000	0.948	4.83	4.77	10.5	11.030	88.2
39	42	13C2-PFDA	515.1 > 469.9	1.12e4	1.13e4	1.0000	0.986	5.11	5.06	12.4	12.586	100.7
40	43	13C2-8:2 FTS	529.1 > 508.7	2.10e3	1.60e4	1.0000	0.124	5.09	5.03	1.64	13.195	105.6
41	44	d3-N-MeFOSAA	573.3 > 419	6.28e3	1.63e4	1.0000	0.391	5.26	5.20	4.81	12.302	98.4
42	45	d5-N-EtFOSAA	589.3 > 419	5.04e3	1.63e4	1.0000	0.451	5.42	5.35	3.86	8.552	68.4
43	46	13C2-PFUdA	565 > 519.8	1.69e4	1.63e4	1.0000	0.900	5.43	5.37	12.9	14.378	115.0
44	47	13C2-PFDoA	615.0 > 569.7	1.31e4	1.63e4	1.0000	0.617	5.70	5.65	10.0	16.280	130.2
45	48	d3-N-MeFOSA	515.2 > 168.9	1.76e4	1.63e4	1.0000	0.097	5.80	5.83	13.5	138.377	92.3
46	49	13C2-PFTeDA	714.8 > 669.6	3.65e3	1.63e4	1.0000	0.196	6.16	6.11	2.80	14.272	114.2
47	50	d5-N-ETFOSA	531.1 > 168.9	2.55e4	1.63e4	1.0000	0.147	6.16	6.20	19.5	133.087	88.7
48	51	13C2-PFHxDA	815 > 769.7	3.19e3	1.63e4	1.0000	0.435	6.48	6.44	2.44	5.610	112.2
49	52	d7-N-MeFOSE	623.1 > 58.9	1.84e4	1.63e4	1.0000	0.108	6.30	6.31	14.1	130.389	86.9
50	53	d9-N-EtFOSE	639.2 > 58.8	2.11e4	1.63e4	1.0000	0.116	6.42	6.46	16.1	139.702	93.1
51	54	13C4-PFBA	217. > 171.8	1.39e4	1.39e4	1.0000	1.000	1.47	1.41	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.60e4	1.60e4	1.0000	1.000	3.20	3.13	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.20e3	3.20e3	1.0000	1.000	3.95	3.89	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.62e4	1.62e4	1.0000	1.000	4.32	4.25	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.58e4	1.58e4	1.0000	1.000	4.75	4.69	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	4.23e3	4.23e3	1.0000	1.000	4.83	4.76	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.13e4	1.13e4	1.0000	1.000	5.11	5.06	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.63e4	1.63e4	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
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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

	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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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
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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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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

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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

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171229M2\171229M2-66.qld

Last Altered: Saturday, December 30, 2017 09:40:54 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:18:33 Pacific Standard Time

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Name: 171229M2_66, Date: 30-Dec-2017, Time: 01:40:17, ID: ST171229M2-13 PFC CS3 17L2611, Description: PFC CS3 17L2611

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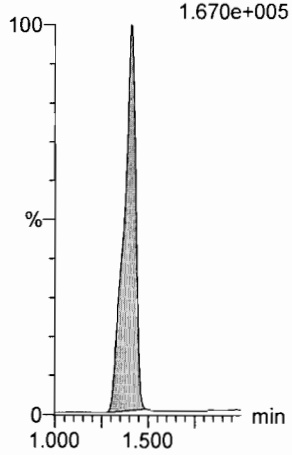

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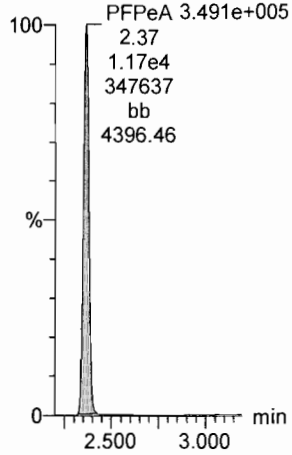

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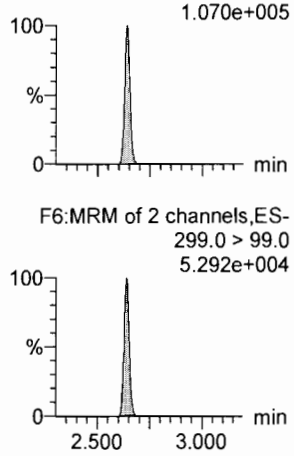

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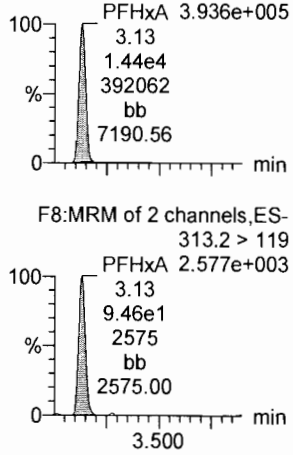

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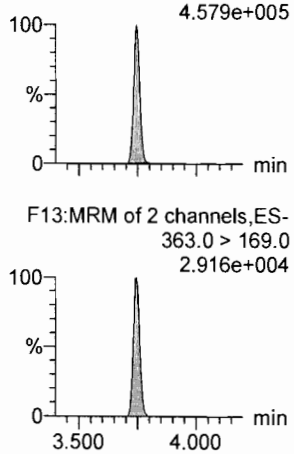

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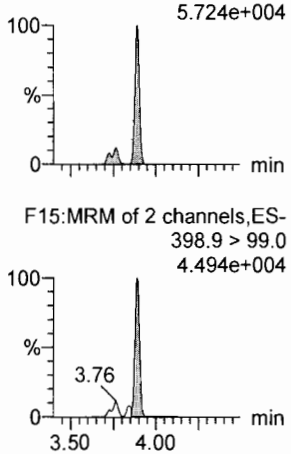

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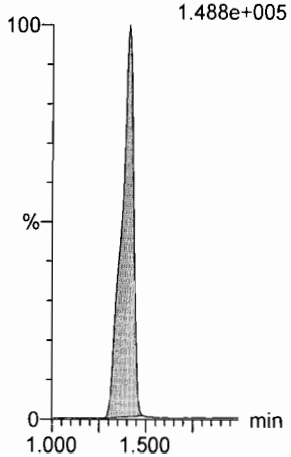

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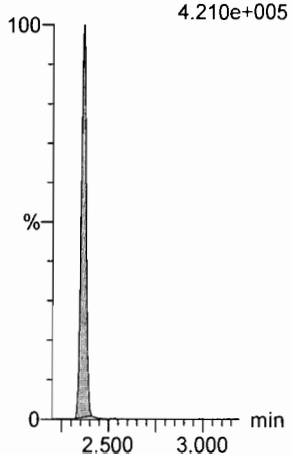

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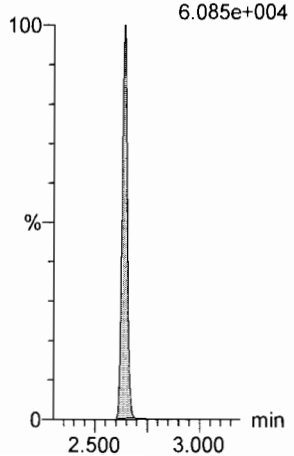

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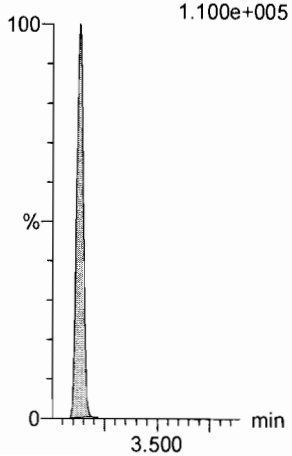

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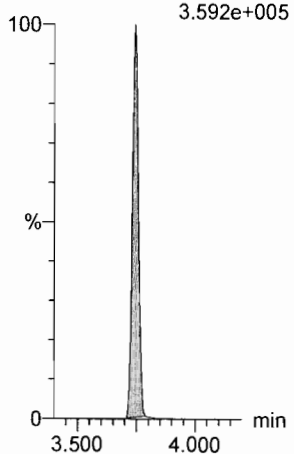

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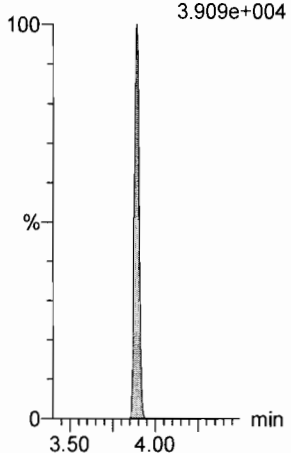

Vista Analytical Laboratory

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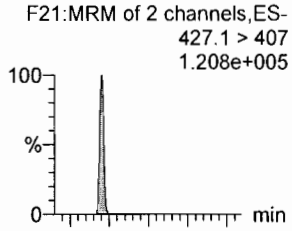
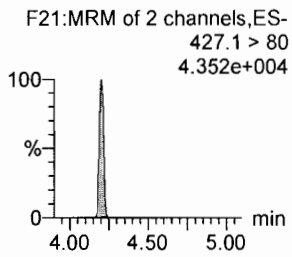
Last Altered: Saturday, December 30, 2017 09:40:54 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:18:33 Pacific Standard Time

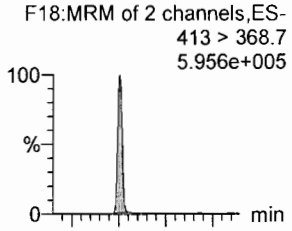
Name: 171229M2_66, Date: 30-Dec-2017, Time: 01:40:17, ID: ST171229M2-13 PFC CS3 17L2611, Description: PFC CS3 17L2611

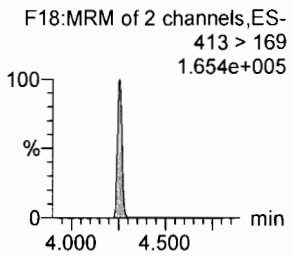
6:2 FTS





L-PFOA





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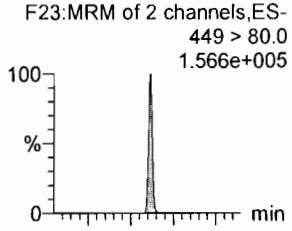

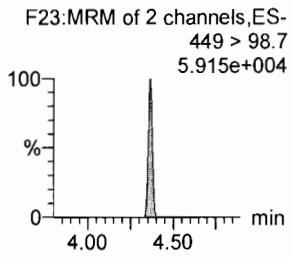

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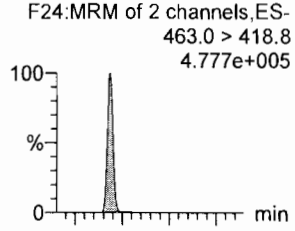

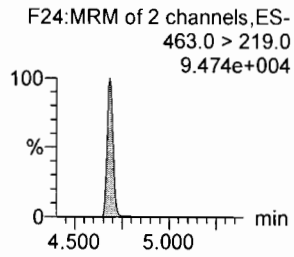

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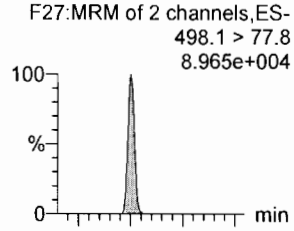
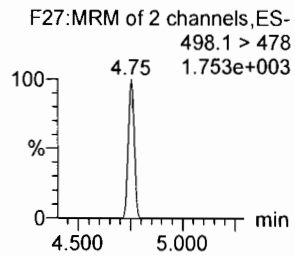
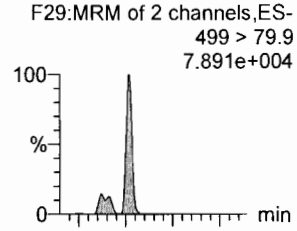
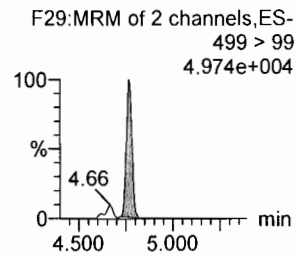




L-PFOS





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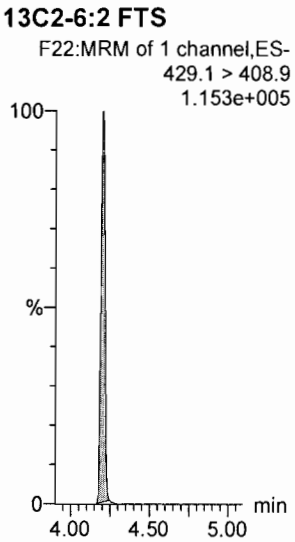
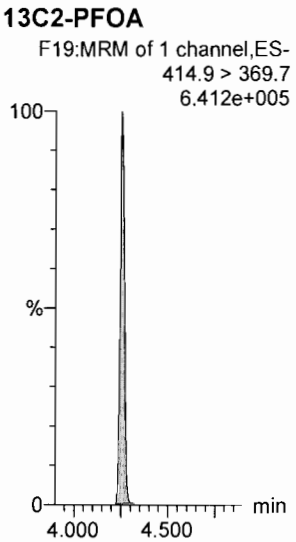


13C2-PFOA



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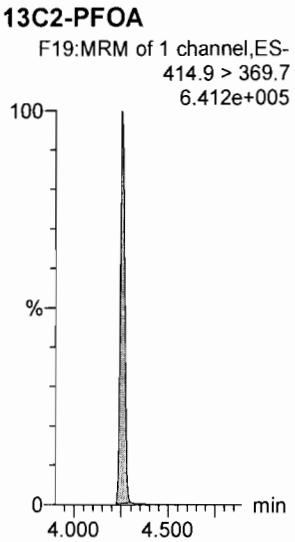

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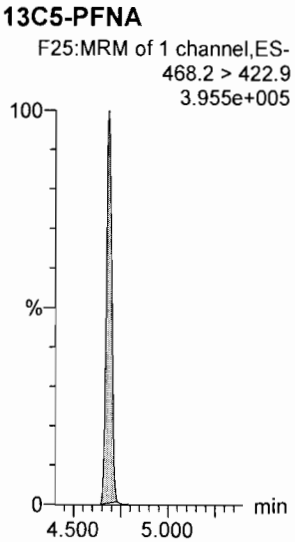

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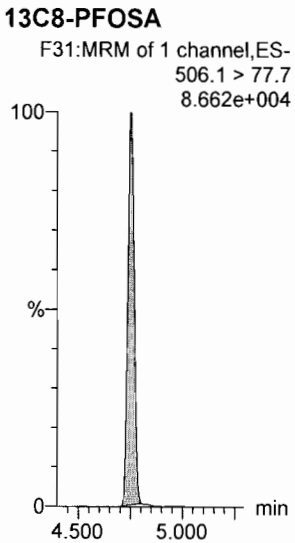

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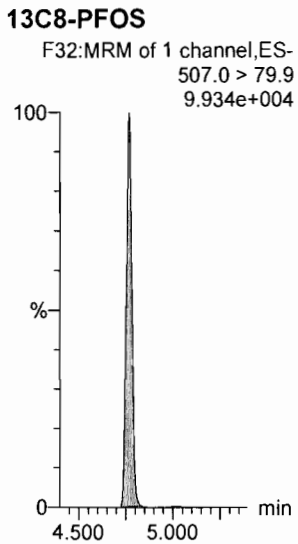

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Printed: Saturday, December 30, 2017 14:18:33 Pacific Standard Time

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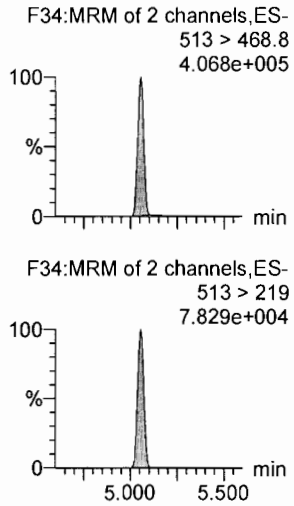
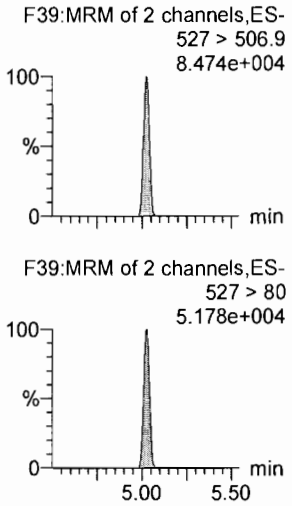


8:2 FTS



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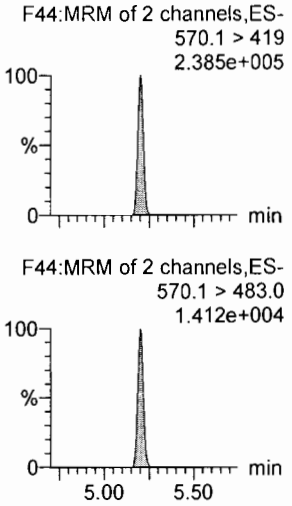

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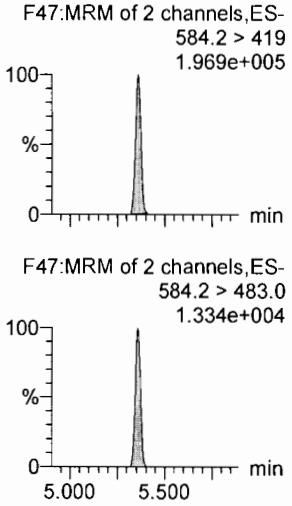

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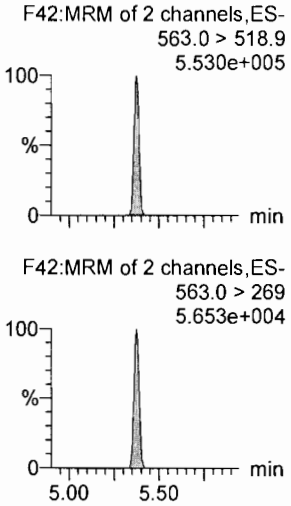

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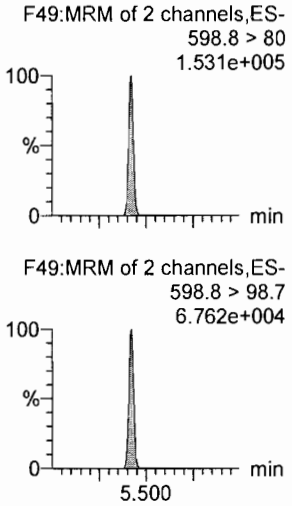

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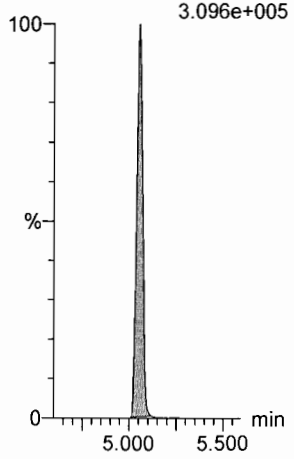

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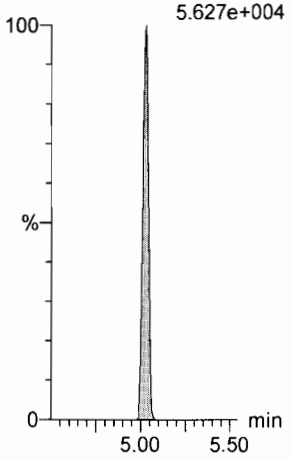

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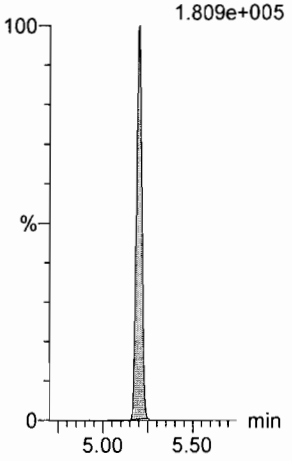

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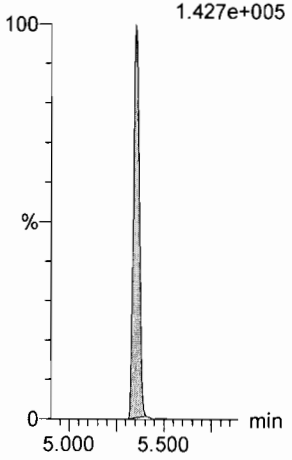

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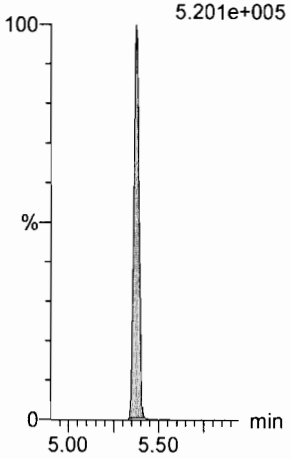

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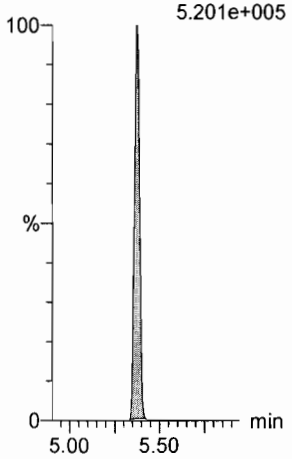

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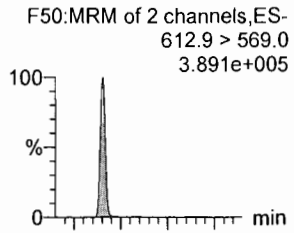

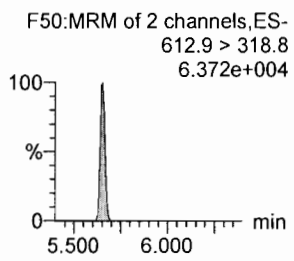

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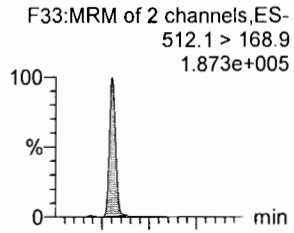
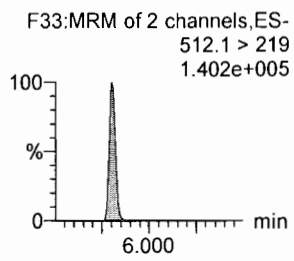
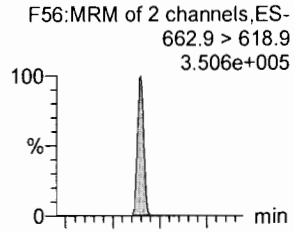
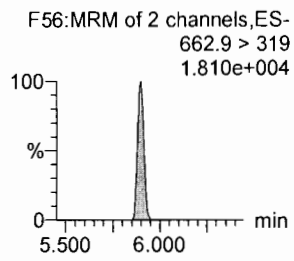


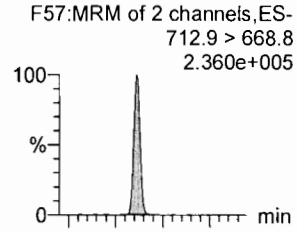


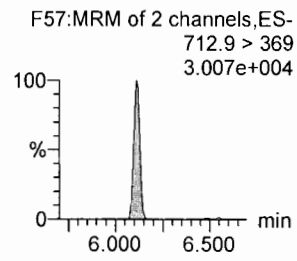
PFTrDA



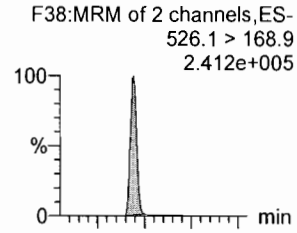


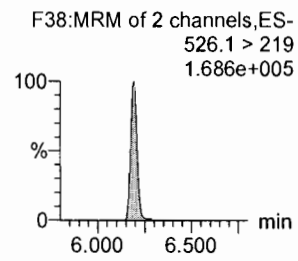
PFTeDA



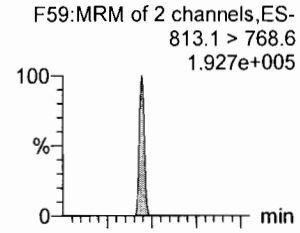


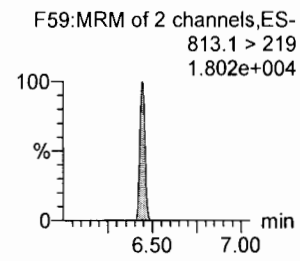
N-EtFOSA



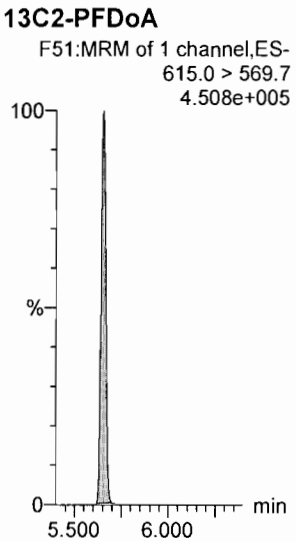


PFHxDA

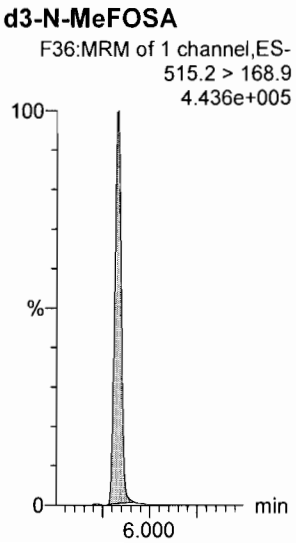




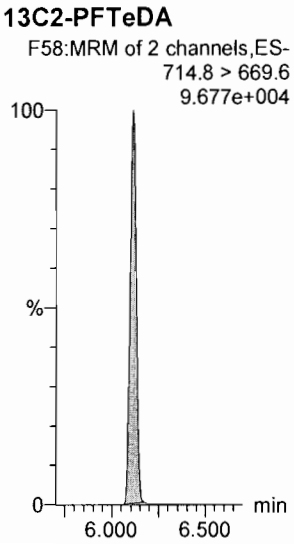
13C2-PFDoA



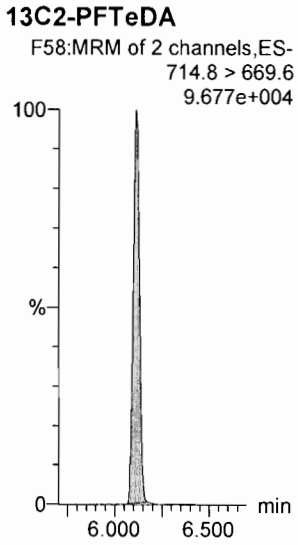
d3-N-MeFOSA



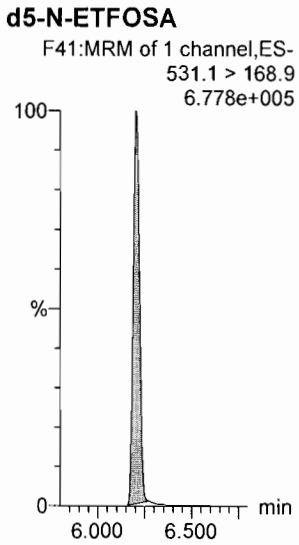
13C2-PFTeDA



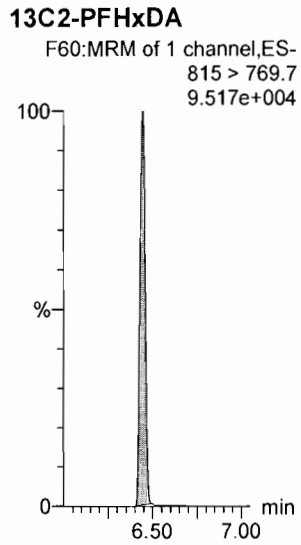
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

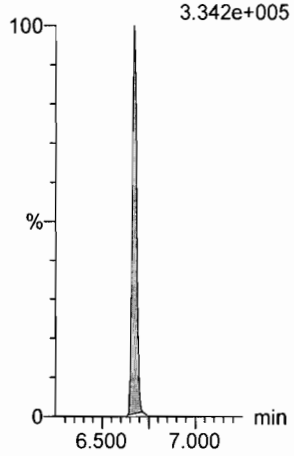


Dataset: U:\Q4.PRO\results\171229M2\171229M2-66.qld

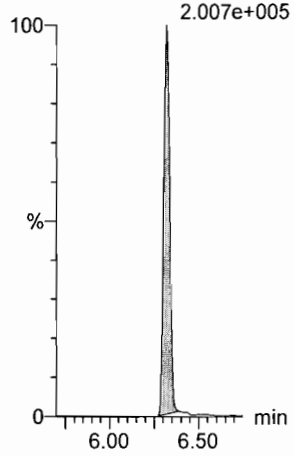
Last Altered: Saturday, December 30, 2017 09:40:54 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:18:33 Pacific Standard Time

Name: 171229M2_66, Date: 30-Dec-2017, Time: 01:40:17, ID: ST171229M2-13 PFC CS3 17L2611, Description: PFC CS3 17L2611

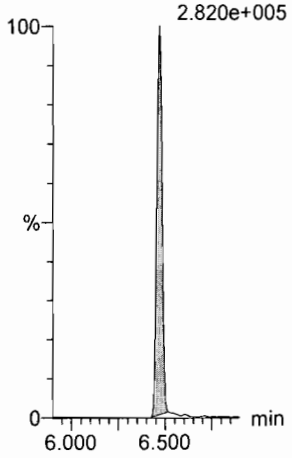
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.342e+005



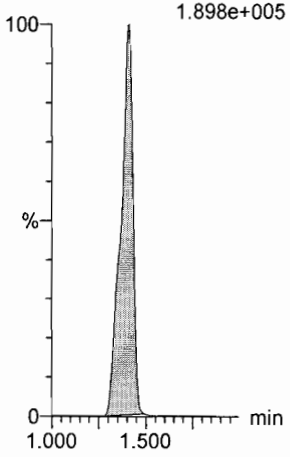
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.007e+005



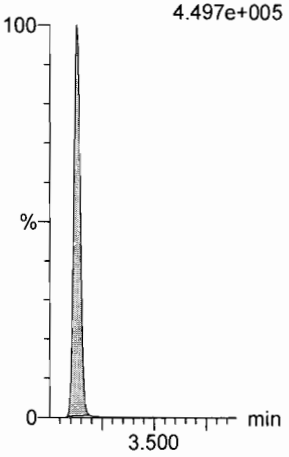
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.820e+005



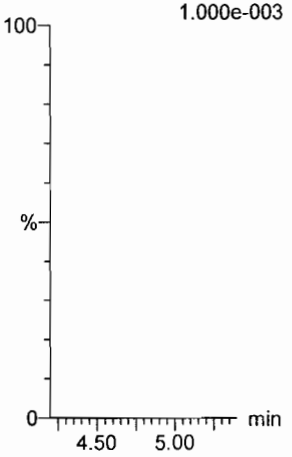
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.898e+005



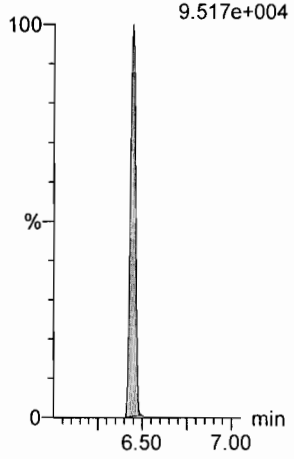
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.497e+005



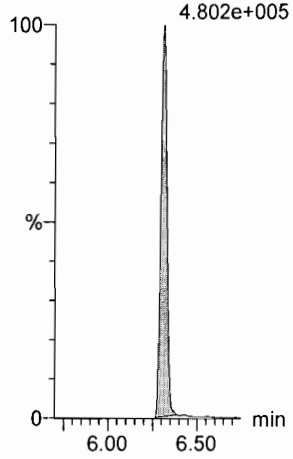
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



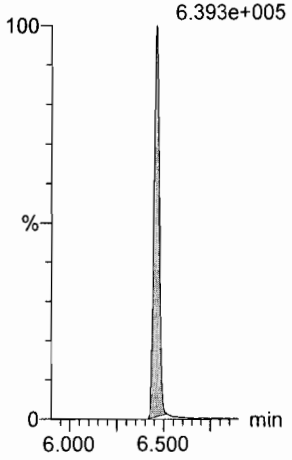
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
9.517e+004



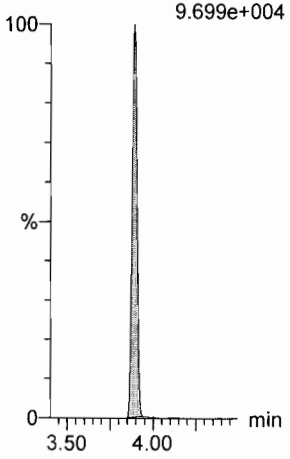
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.802e+005



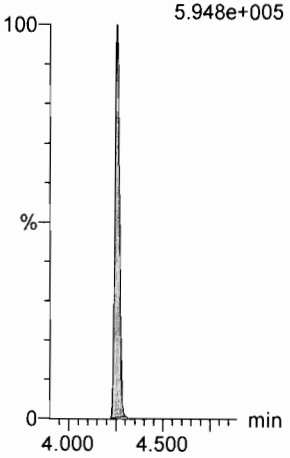
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.393e+005



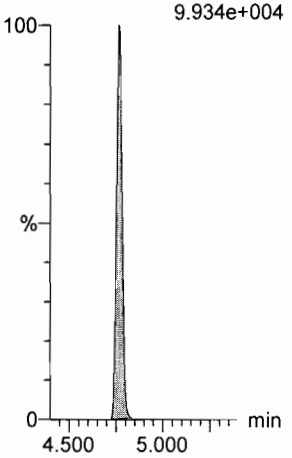
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.699e+004



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.948e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
9.934e+004

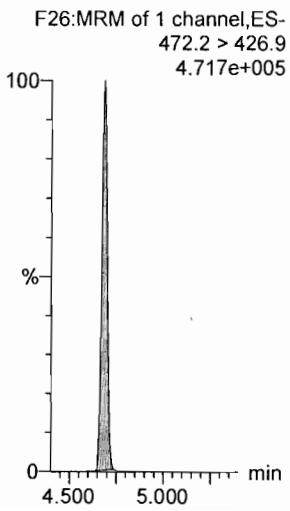


Dataset: U:\Q4.PRO\results\171229M2\171229M2-66.qld

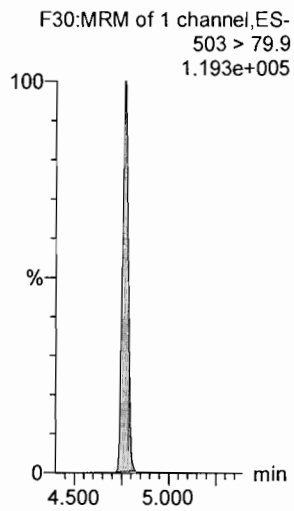
Last Altered: Saturday, December 30, 2017 09:40:54 Pacific Standard Time
Printed: Saturday, December 30, 2017 14:18:33 Pacific Standard Time

Name: 171229M2_66, Date: 30-Dec-2017, Time: 01:40:17, ID: ST171229M2-13 PFC CS3 17L2611, Description: PFC CS3 17L2611

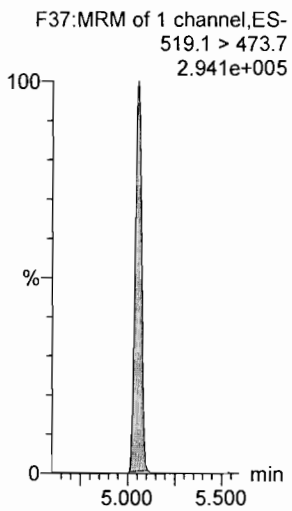
13C9-PFNA



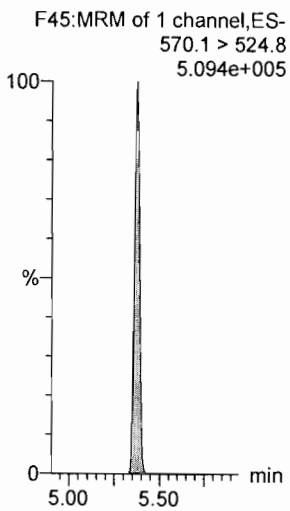
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Dataset: U:\Q4.PRO\results\180104M1\180104M1-IIS_AREA.qld

Last Altered: Saturday, January 06, 2018 17:41:00 Pacific Standard Time
Printed: Saturday, January 06, 2018 17:43:22 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-12-29-17.mdb 30 Dec 2017 10:03:31
Calibration: 06 Jan 2018 17:41:00

Name: 180104M1_01, Date: 05-Jan-2018, Time: 00:52:35, ID: ST180104M1-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180104M1-1 PFC CS0 17L2608	1.50e4	100.0	NO
2	2	13C5-PFHxA	ST180104M1-1 PFC CS0 17L2608	1.74e4	100.0	NO
3	3	13C3-PFHxS	ST180104M1-1 PFC CS0 17L2608	4.49e3	100.0	NO
4	4	13C8-PFOA	ST180104M1-1 PFC CS0 17L2608	1.78e4	100.0	NO
5	5	13C9-PFNA	ST180104M1-1 PFC CS0 17L2608	1.67e4	100.0	NO
6	6	13C4-PFOS	ST180104M1-1 PFC CS0 17L2608	4.70e3	100.0	NO
7	7	13C6-PFDA	ST180104M1-1 PFC CS0 17L2608	1.17e4	100.0	NO
8	8	13C7-PFUdA	ST180104M1-1 PFC CS0 17L2608	1.71e4	100.0	NO

Name: 180104M1_02, Date: 05-Jan-2018, Time: 01:04:00, 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: 180104M1_03, Date: 05-Jan-2018, Time: 01:15:17, ID: B7L0185-BS1 OPR 0.125, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0185-BS1 OPR 0.125	6.21e3	41.3	YES
2	2	13C5-PFHxA	B7L0185-BS1 OPR 0.125	8.01e3	46.1	YES
3	3	13C3-PFHxS	B7L0185-BS1 OPR 0.125	1.98e3	44.1	YES
4	4	13C8-PFOA	B7L0185-BS1 OPR 0.125	6.94e3	39.0	YES
5	5	13C9-PFNA	B7L0185-BS1 OPR 0.125	8.17e3	48.9	YES
6	6	13C4-PFOS	B7L0185-BS1 OPR 0.125	1.89e3	40.3	YES
7	7	13C6-PFDA	B7L0185-BS1 OPR 0.125	6.13e3	52.2	NO
8	8	13C7-PFUdA	B7L0185-BS1 OPR 0.125	7.81e3	45.6	YES

Name: 180104M1_04, Date: 05-Jan-2018, Time: 01:26:28, ID: B7L0185-BSD1 LCSD 0.125, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0185-BSD1 LCSD 0.125	7.21e3	48.0	YES
2	2	13C5-PFHxA	B7L0185-BSD1 LCSD 0.125	7.96e3	45.8	YES
3	3	13C3-PFHxS	B7L0185-BSD1 LCSD 0.125	2.26e3	50.3	NO
4	4	13C8-PFOA	B7L0185-BSD1 LCSD 0.125	7.08e3	39.7	YES
5	5	13C9-PFNA	B7L0185-BSD1 LCSD 0.125	8.70e3	52.1	NO
6	6	13C4-PFOS	B7L0185-BSD1 LCSD 0.125	1.96e3	41.7	YES
7	7	13C6-PFDA	B7L0185-BSD1 LCSD 0.125	5.56e3	47.4	YES
8	8	13C7-PFUdA	B7L0185-BSD1 LCSD 0.125	8.85e3	51.6	NO

Dataset: U:\Q4.PRO\results\180104M1\180104M1-IIS_AREA.qld

Last Altered: Saturday, January 06, 2018 17:41:00 Pacific Standard Time
Printed: Saturday, January 06, 2018 17:43:22 Pacific Standard Time

Name: 180104M1_05, Date: 05-Jan-2018, Time: 01:37:38, 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: 180104M1_06, Date: 05-Jan-2018, Time: 01:48:48, ID: B7L0185-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0185-BLK1 Method Blank 0.125	6.66e3	44.3	YES
2	2	13C5-PFHxA	B7L0185-BLK1 Method Blank 0.125	8.22e3	47.3	YES
3	3	13C3-PFHxS	B7L0185-BLK1 Method Blank 0.125	1.92e3	42.7	YES
4	4	13C8-PFOA	B7L0185-BLK1 Method Blank 0.125	8.45e3	47.4	YES
5	5	13C9-PFNA	B7L0185-BLK1 Method Blank 0.125	8.90e3	53.2	NO
6	6	13C4-PFOS	B7L0185-BLK1 Method Blank 0.125	2.42e3	51.4	NO
7	7	13C6-PFDA	B7L0185-BLK1 Method Blank 0.125	6.17e3	52.6	NO
8	8	13C7-PFUdA	B7L0185-BLK1 Method Blank 0.125	9.60e3	56.0	NO

Name: 180104M1_07, Date: 05-Jan-2018, Time: 01:59:59, ID: 1701949-01 REEPDW043 0.11929, Description: REEPDW043

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701949-01 REEPDW043 0.11929	5.89e3	39.2	YES
2	2	13C5-PFHxA	1701949-01 REEPDW043 0.11929	7.25e3	41.8	YES
3	3	13C3-PFHxS	1701949-01 REEPDW043 0.11929	2.02e3	44.9	YES
4	4	13C8-PFOA	1701949-01 REEPDW043 0.11929	7.96e3	44.7	YES
5	5	13C9-PFNA	1701949-01 REEPDW043 0.11929	6.41e3	38.4	YES
6	6	13C4-PFOS	1701949-01 REEPDW043 0.11929	2.18e3	46.5	YES
7	7	13C6-PFDA	1701949-01 REEPDW043 0.11929	4.74e3	40.4	YES
8	8	13C7-PFUdA	1701949-01 REEPDW043 0.11929	7.61e3	44.4	YES

Name: 180104M1_08, Date: 05-Jan-2018, Time: 02:11:10, ID: 1701949-02 REEPDW044 0.10936, Description: REEPDW044

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701949-02 REEPDW044 0.10936	6.84e3	45.5	YES
2	2	13C5-PFHxA	1701949-02 REEPDW044 0.10936	8.57e3	49.4	YES
3	3	13C3-PFHxS	1701949-02 REEPDW044 0.10936	2.41e3	53.8	NO
4	4	13C8-PFOA	1701949-02 REEPDW044 0.10936	7.44e3	41.7	YES
5	5	13C9-PFNA	1701949-02 REEPDW044 0.10936	7.82e3	46.8	YES
6	6	13C4-PFOS	1701949-02 REEPDW044 0.10936	2.21e3	47.1	YES
7	7	13C6-PFDA	1701949-02 REEPDW044 0.10936	5.26e3	44.8	YES
8	8	13C7-PFUdA	1701949-02 REEPDW044 0.10936	8.04e3	46.9	YES

Dataset: U:\Q4.PRO\results\180104M1\180104M1-IIS_AREA.qld

Last Altered: Saturday, January 06, 2018 17:41:00 Pacific Standard Time
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Name: 180104M1_09, Date: 05-Jan-2018, Time: 02:22:21, ID: 1701949-03 REEPDW046 0.12057, Description: REEPDW046

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701949-03 REEPDW046 0.12057	6.62e3	44.1	YES
2	2	13C5-PFHxA	1701949-03 REEPDW046 0.12057	7.84e3	45.1	YES
3	3	13C3-PFHxS	1701949-03 REEPDW046 0.12057	2.30e3	51.1	NO
4	4	13C8-PFOA	1701949-03 REEPDW046 0.12057	7.17e3	40.2	YES
5	5	13C9-PFNA	1701949-03 REEPDW046 0.12057	7.60e3	45.5	YES
6	6	13C4-PFOS	1701949-03 REEPDW046 0.12057	2.47e3	52.5	NO
7	7	13C6-PFDA	1701949-03 REEPDW046 0.12057	6.41e3	54.6	NO
8	8	13C7-PFUdA	1701949-03 REEPDW046 0.12057	7.12e3	41.5	YES

Name: 180104M1_10, Date: 05-Jan-2018, Time: 02:33:32, ID: 1701949-04 REEPDW047 0.1216, Description: REEPDW047

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701949-04 REEPDW047 0.1216	6.78e3	45.1	YES
2	2	13C5-PFHxA	1701949-04 REEPDW047 0.1216	7.55e3	43.5	YES
3	3	13C3-PFHxS	1701949-04 REEPDW047 0.1216	2.29e3	51.0	NO
4	4	13C8-PFOA	1701949-04 REEPDW047 0.1216	7.17e3	40.2	YES
5	5	13C9-PFNA	1701949-04 REEPDW047 0.1216	7.86e3	47.0	YES
6	6	13C4-PFOS	1701949-04 REEPDW047 0.1216	2.26e3	48.1	YES
7	7	13C6-PFDA	1701949-04 REEPDW047 0.1216	5.43e3	46.3	YES
8	8	13C7-PFUdA	1701949-04 REEPDW047 0.1216	7.22e3	42.1	YES

Name: 180104M1_11, Date: 05-Jan-2018, Time: 02:44:42, ID: 1701949-05 REEPDW048 0.1211, Description: REEPDW048

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701949-05 REEPDW048 0.1211	6.98e3	46.5	YES
2	2	13C5-PFHxA	1701949-05 REEPDW048 0.1211	8.27e3	47.6	YES
3	3	13C3-PFHxS	1701949-05 REEPDW048 0.1211	1.92e3	42.7	YES
4	4	13C8-PFOA	1701949-05 REEPDW048 0.1211	7.86e3	44.1	YES
5	5	13C9-PFNA	1701949-05 REEPDW048 0.1211	7.54e3	45.1	YES
6	6	13C4-PFOS	1701949-05 REEPDW048 0.1211	1.62e3	34.4	YES
7	7	13C6-PFDA	1701949-05 REEPDW048 0.1211	6.36e3	54.2	NO
8	8	13C7-PFUdA	1701949-05 REEPDW048 0.1211	8.13e3	47.4	YES

Name: 180104M1_12, Date: 05-Jan-2018, Time: 02:55:53, ID: 1701950-01 REEPDW043FRB 0.11883, Description: REEPDW043FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701950-01 REEPDW043FRB 0.11883	6.89e3	45.8	YES
2	2	13C5-PFHxA	1701950-01 REEPDW043FRB 0.11883	8.64e3	49.7	YES
3	3	13C3-PFHxS	1701950-01 REEPDW043FRB 0.11883	2.19e3	48.8	YES
4	4	13C8-PFOA	1701950-01 REEPDW043FRB 0.11883	8.95e3	50.2	NO
5	5	13C9-PFNA	1701950-01 REEPDW043FRB 0.11883	8.27e3	49.5	YES
6	6	13C4-PFOS	1701950-01 REEPDW043FRB 0.11883	2.40e3	51.1	NO
7	7	13C6-PFDA	1701950-01 REEPDW043FRB 0.11883	4.47e3	38.1	YES
8	8	13C7-PFUdA	1701950-01 REEPDW043FRB 0.11883	8.29e3	48.4	YES

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Name: 180104M1_13, Date: 05-Jan-2018, Time: 03:07:04, ID: 1701950-02 REEPDW044FRB 0.12043, Description: REEPDW044FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701950-02 REEPDW044FRB 0.12043	7.68e3	51.1	NO
2	2	13C5-PFHxA	1701950-02 REEPDW044FRB 0.12043	9.34e3	53.8	NO
3	3	13C3-PFHxS	1701950-02 REEPDW044FRB 0.12043	2.38e3	53.0	NO
4	4	13C8-PFOA	1701950-02 REEPDW044FRB 0.12043	9.37e3	52.6	NO
5	5	13C9-PFNA	1701950-02 REEPDW044FRB 0.12043	8.91e3	53.3	NO
6	6	13C4-PFOS	1701950-02 REEPDW044FRB 0.12043	2.71e3	57.7	NO
7	7	13C6-PFDA	1701950-02 REEPDW044FRB 0.12043	5.54e3	47.2	YES
8	8	13C7-PFUdA	1701950-02 REEPDW044FRB 0.12043	7.99e3	46.6	YES

Name: 180104M1_14, Date: 05-Jan-2018, Time: 03:18:14, ID: 1701950-03 REEPDW046FRB 0.12167, Description: REEPDW046FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701950-03 REEPDW046FRB 0.12167	6.45e3	42.9	YES
2	2	13C5-PFHxA	1701950-03 REEPDW046FRB 0.12167	7.97e3	45.9	YES
3	3	13C3-PFHxS	1701950-03 REEPDW046FRB 0.12167	2.05e3	45.6	YES
4	4	13C8-PFOA	1701950-03 REEPDW046FRB 0.12167	7.48e3	42.0	YES
5	5	13C9-PFNA	1701950-03 REEPDW046FRB 0.12167	7.84e3	46.9	YES
6	6	13C4-PFOS	1701950-03 REEPDW046FRB 0.12167	2.12e3	45.1	YES
7	7	13C6-PFDA	1701950-03 REEPDW046FRB 0.12167	5.16e3	44.0	YES
8	8	13C7-PFUdA	1701950-03 REEPDW046FRB 0.12167	6.95e3	40.6	YES

Name: 180104M1_15, Date: 05-Jan-2018, Time: 03:29:25, ID: 1701950-04 REEPDW047FRB 0.11765, Description: REEPDW047FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701950-04 REEPDW047FRB 0.11765	7.02e3	46.7	YES
2	2	13C5-PFHxA	1701950-04 REEPDW047FRB 0.11765	8.18e3	47.1	YES
3	3	13C3-PFHxS	1701950-04 REEPDW047FRB 0.11765	2.27e3	50.6	NO
4	4	13C8-PFOA	1701950-04 REEPDW047FRB 0.11765	8.15e3	45.7	YES
5	5	13C9-PFNA	1701950-04 REEPDW047FRB 0.11765	8.58e3	51.3	NO
6	6	13C4-PFOS	1701950-04 REEPDW047FRB 0.11765	2.06e3	43.9	YES
7	7	13C6-PFDA	1701950-04 REEPDW047FRB 0.11765	5.65e3	48.1	YES
8	8	13C7-PFUdA	1701950-04 REEPDW047FRB 0.11765	7.75e3	45.2	YES

Name: 180104M1_16, Date: 05-Jan-2018, Time: 03:40:36, ID: 1701950-05 REEPDW048FRB 0.11608, Description: REEPDW048FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701950-05 REEPDW048FRB 0.11608	7.81e3	51.9	NO
2	2	13C5-PFHxA	1701950-05 REEPDW048FRB 0.11608	9.96e3	57.3	NO
3	3	13C3-PFHxS	1701950-05 REEPDW048FRB 0.11608	2.61e3	58.1	NO
4	4	13C8-PFOA	1701950-05 REEPDW048FRB 0.11608	9.54e3	53.5	NO
5	5	13C9-PFNA	1701950-05 REEPDW048FRB 0.11608	9.58e3	57.3	NO
6	6	13C4-PFOS	1701950-05 REEPDW048FRB 0.11608	2.39e3	50.9	NO
7	7	13C6-PFDA	1701950-05 REEPDW048FRB 0.11608	5.78e3	49.3	YES
8	8	13C7-PFUdA	1701950-05 REEPDW048FRB 0.11608	9.52e3	55.5	NO

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Name: 180104M1_17, Date: 05-Jan-2018, Time: 03:51:46, ID: 1701957-01 REEPDW049 0.11865, Description: REEPDW049

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-01 REEPDW049 0.11865	9.67e3	64.3	NO
2	2	13C5-PFHxA	1701957-01 REEPDW049 0.11865	1.18e4	67.7	NO
3	3	13C3-PFHxS	1701957-01 REEPDW049 0.11865	3.18e3	70.8	NO
4	4	13C8-PFOA	1701957-01 REEPDW049 0.11865	1.09e4	61.3	NO
5	5	13C9-PFNA	1701957-01 REEPDW049 0.11865	1.17e4	69.7	NO
6	6	13C4-PFOS	1701957-01 REEPDW049 0.11865	3.53e3	75.2	NO
7	7	13C6-PFDA	1701957-01 REEPDW049 0.11865	8.18e3	69.8	NO
8	8	13C7-PFUdA	1701957-01 REEPDW049 0.11865	1.06e4	62.1	NO

Name: 180104M1_18, Date: 05-Jan-2018, Time: 04:02:57, ID: 1701957-02 REEPDW050 0.12041, Description: REEPDW050

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-02 REEPDW050 0.12041	6.87e3	45.7	YES
2	2	13C5-PFHxA	1701957-02 REEPDW050 0.12041	8.36e3	48.2	YES
3	3	13C3-PFHxS	1701957-02 REEPDW050 0.12041	2.11e3	47.0	YES
4	4	13C8-PFOA	1701957-02 REEPDW050 0.12041	8.20e3	46.0	YES
5	5	13C9-PFNA	1701957-02 REEPDW050 0.12041	8.24e3	49.3	YES
6	6	13C4-PFOS	1701957-02 REEPDW050 0.12041	2.34e3	49.9	YES
7	7	13C6-PFDA	1701957-02 REEPDW050 0.12041	5.77e3	49.1	YES
8	8	13C7-PFUdA	1701957-02 REEPDW050 0.12041	6.85e3	40.0	YES

Name: 180104M1_19, Date: 05-Jan-2018, Time: 04:14:08, ID: 1701957-03 REEPDW0504 0.12011, Description: REEPDW0504

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-03 REEPDW0504 0.12011	7.23e3	48.1	YES
2	2	13C5-PFHxA	1701957-03 REEPDW0504 0.12011	8.43e3	48.5	YES
3	3	13C3-PFHxS	1701957-03 REEPDW0504 0.12011	2.35e3	52.3	NO
4	4	13C8-PFOA	1701957-03 REEPDW0504 0.12011	8.07e3	45.3	YES
5	5	13C9-PFNA	1701957-03 REEPDW0504 0.12011	7.88e3	47.2	YES
6	6	13C4-PFOS	1701957-03 REEPDW0504 0.12011	2.54e3	54.0	NO
7	7	13C6-PFDA	1701957-03 REEPDW0504 0.12011	6.04e3	51.4	NO
8	8	13C7-PFUdA	1701957-03 REEPDW0504 0.12011	9.42e3	55.0	NO

Name: 180104M1_20, Date: 05-Jan-2018, Time: 04:25:18, ID: 1701957-04 REEPDW051 0.11849, Description: REEPDW051

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-04 REEPDW051 0.11849	7.00e3	46.6	YES
2	2	13C5-PFHxA	1701957-04 REEPDW051 0.11849	8.54e3	49.2	YES
3	3	13C3-PFHxS	1701957-04 REEPDW051 0.11849	2.47e3	55.0	NO
4	4	13C8-PFOA	1701957-04 REEPDW051 0.11849	8.38e3	47.0	YES
5	5	13C9-PFNA	1701957-04 REEPDW051 0.11849	8.85e3	52.9	NO
6	6	13C4-PFOS	1701957-04 REEPDW051 0.11849	2.22e3	47.4	YES
7	7	13C6-PFDA	1701957-04 REEPDW051 0.11849	5.21e3	44.4	YES
8	8	13C7-PFUdA	1701957-04 REEPDW051 0.11849	7.59e3	44.3	YES

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Name: 180104M1_21, Date: 05-Jan-2018, Time: 04:36:30, ID: 1701957-05 REEPDW052 0.11161, Description: REEPDW052

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-05 REEPDW052 0.11161	6.99e3	46.5	YES
2	2	13C5-PFHxA	1701957-05 REEPDW052 0.11161	8.26e3	47.6	YES
3	3	13C3-PFHxS	1701957-05 REEPDW052 0.11161	2.69e3	59.9	NO
4	4	13C8-PFOA	1701957-05 REEPDW052 0.11161	7.89e3	44.3	YES
5	5	13C9-PFNA	1701957-05 REEPDW052 0.11161	8.78e3	52.5	NO
6	6	13C4-PFOS	1701957-05 REEPDW052 0.11161	2.58e3	54.8	NO
7	7	13C6-PFDA	1701957-05 REEPDW052 0.11161	5.11e3	43.6	YES
8	8	13C7-PFUdA	1701957-05 REEPDW052 0.11161	7.07e3	41.2	YES

Name: 180104M1_22, Date: 05-Jan-2018, Time: 04:47:40, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA	6.51e0	0.0	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: 180104M1_23, Date: 05-Jan-2018, Time: 04:58:51, ID: ST180104M1-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180104M1-2 PFC CS3 17L2611	1.43e4	95.2	NO
2	2	13C5-PFHxA	ST180104M1-2 PFC CS3 17L2611	1.84e4	105.6	NO
3	3	13C3-PFHxS	ST180104M1-2 PFC CS3 17L2611	4.39e3	97.7	NO
4	4	13C8-PFOA	ST180104M1-2 PFC CS3 17L2611	1.58e4	88.8	NO
5	5	13C9-PFNA	ST180104M1-2 PFC CS3 17L2611	1.54e4	92.3	NO
6	6	13C4-PFOS	ST180104M1-2 PFC CS3 17L2611	3.95e3	84.0	NO
7	7	13C6-PFDA	ST180104M1-2 PFC CS3 17L2611	1.18e4	100.6	NO
8	8	13C7-PFUdA	ST180104M1-2 PFC CS3 17L2611	1.63e4	95.3	NO

Name: 180104M1_24, Date: 05-Jan-2018, Time: 05:10:02, 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: 180104M1_25, Date: 05-Jan-2018, Time: 05:21:13, ID: 1701957-06 REEPDW053 0.11648, Description: REEPDW053

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-06 REEPDW053 0.11648	7.17e3	47.7	YES
2	2	13C5-PFHxA	1701957-06 REEPDW053 0.11648	7.99e3	46.0	YES
3	3	13C3-PFHxS	1701957-06 REEPDW053 0.11648	2.38e3	53.0	NO
4	4	13C8-PFOA	1701957-06 REEPDW053 0.11648	7.49e3	42.0	YES
5	5	13C9-PFNA	1701957-06 REEPDW053 0.11648	8.48e3	50.8	NO
6	6	13C4-PFOS	1701957-06 REEPDW053 0.11648	2.29e3	48.8	YES
7	7	13C6-PFDA	1701957-06 REEPDW053 0.11648	5.03e3	42.9	YES
8	8	13C7-PFUdA	1701957-06 REEPDW053 0.11648	8.27e3	48.2	YES

Name: 180104M1_26, Date: 05-Jan-2018, Time: 05:32:24, ID: 1701957-07 REEPDW054 0.1179, Description: REEPDW054

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-07 REEPDW054 0.1179	7.34e3	48.8	YES
2	2	13C5-PFHxA	1701957-07 REEPDW054 0.1179	8.54e3	49.2	YES
3	3	13C3-PFHxS	1701957-07 REEPDW054 0.1179	2.49e3	55.5	NO
4	4	13C8-PFOA	1701957-07 REEPDW054 0.1179	8.73e3	49.0	YES
5	5	13C9-PFNA	1701957-07 REEPDW054 0.1179	7.58e3	45.4	YES
6	6	13C4-PFOS	1701957-07 REEPDW054 0.1179	2.18e3	46.4	YES
7	7	13C6-PFDA	1701957-07 REEPDW054 0.1179	5.87e3	50.0	NO
8	8	13C7-PFUdA	1701957-07 REEPDW054 0.1179	8.57e3	50.0	NO

Name: 180104M1_27, Date: 05-Jan-2018, Time: 05:43:34, ID: 1701957-08 REEPDW045 0.12116, Description: REEPDW045

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-08 REEPDW045 0.12116	6.91e3	46.0	YES
2	2	13C5-PFHxA	1701957-08 REEPDW045 0.12116	8.17e3	47.1	YES
3	3	13C3-PFHxS	1701957-08 REEPDW045 0.12116	2.45e3	54.5	NO
4	4	13C8-PFOA	1701957-08 REEPDW045 0.12116	7.87e3	44.2	YES
5	5	13C9-PFNA	1701957-08 REEPDW045 0.12116	7.56e3	45.2	YES
6	6	13C4-PFOS	1701957-08 REEPDW045 0.12116	2.24e3	47.7	YES
7	7	13C6-PFDA	1701957-08 REEPDW045 0.12116	4.70e3	40.1	YES
8	8	13C7-PFUdA	1701957-08 REEPDW045 0.12116	6.84e3	39.9	YES

Name: 180104M1_28, Date: 05-Jan-2018, Time: 05:54:45, ID: 1701862-10 WT1712041545MK 0.25348, Description: WT1712041545MK

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701862-10 WT1712041545MK 0.25348	8.33e3	55.4	NO
2	2	13C5-PFHxA	1701862-10 WT1712041545MK 0.25348	9.60e3	55.3	NO
3	3	13C3-PFHxS	1701862-10 WT1712041545MK 0.25348	2.31e3	51.4	NO
4	4	13C8-PFOA	1701862-10 WT1712041545MK 0.25348	8.84e3	49.6	YES
5	5	13C9-PFNA	1701862-10 WT1712041545MK 0.25348	9.30e3	55.7	NO
6	6	13C4-PFOS	1701862-10 WT1712041545MK 0.25348	3.02e3	64.3	NO
7	7	13C6-PFDA	1701862-10 WT1712041545MK 0.25348	7.39e3	63.0	NO
8	8	13C7-PFUdA	1701862-10 WT1712041545MK 0.25348	8.70e3	50.8	NO

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Name: 180104M1_29, Date: 05-Jan-2018, Time: 06:05:56, ID: 1701862-14 WR1712051625JNR 0.26032, Description: WR1712051625JNR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701862-14 WR1712051625JNR 0.260...	8.83e3	58.8	NO
2	2	13C5-PFHxA	1701862-14 WR1712051625JNR 0.260...	1.15e4	66.3	NO
3	3	13C3-PFHxS	1701862-14 WR1712051625JNR 0.260...	2.64e3	58.9	NO
4	4	13C8-PFOA	1701862-14 WR1712051625JNR 0.260...	1.04e4	58.5	NO
5	5	13C9-PFNA	1701862-14 WR1712051625JNR 0.260...	9.93e3	59.4	NO
6	6	13C4-PFOS	1701862-14 WR1712051625JNR 0.260...	2.87e3	61.2	NO
7	7	13C6-PFDA	1701862-14 WR1712051625JNR 0.260...	7.69e3	65.6	NO
8	8	13C7-PFUdA	1701862-14 WR1712051625JNR 0.260...	1.13e4	65.7	NO

Name: 180104M1_30, Date: 05-Jan-2018, Time: 06:17:06, ID: 1701862-16 WR1712051610JNR 0.2624, Description: WR1712051610JNR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701862-16 WR1712051610JNR 0.2624	8.05e3	53.6	NO
2	2	13C5-PFHxA	1701862-16 WR1712051610JNR 0.2624	9.94e3	57.2	NO
3	3	13C3-PFHxS	1701862-16 WR1712051610JNR 0.2624	2.52e3	56.0	NO
4	4	13C8-PFOA	1701862-16 WR1712051610JNR 0.2624	9.50e3	53.3	NO
5	5	13C9-PFNA	1701862-16 WR1712051610JNR 0.2624	9.46e3	56.6	NO
6	6	13C4-PFOS	1701862-16 WR1712051610JNR 0.2624	2.72e3	57.8	NO
7	7	13C6-PFDA	1701862-16 WR1712051610JNR 0.2624	6.54e3	55.7	NO
8	8	13C7-PFUdA	1701862-16 WR1712051610JNR 0.2624	8.70e3	50.7	NO

Name: 180104M1_31, Date: 05-Jan-2018, Time: 06:28:17, ID: 1701902-08RE1 WT1712071425JM 0.2598, Description: WT1712071425JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701902-08RE1 WT1712071425JM 0....	6.17e3	41.0	YES
2	2	13C5-PFHxA	1701902-08RE1 WT1712071425JM 0....	7.66e3	44.1	YES
3	3	13C3-PFHxS	1701902-08RE1 WT1712071425JM 0....	2.17e3	48.3	YES
4	4	13C8-PFOA	1701902-08RE1 WT1712071425JM 0....	7.02e3	39.4	YES
5	5	13C9-PFNA	1701902-08RE1 WT1712071425JM 0....	7.77e3	46.5	YES
6	6	13C4-PFOS	1701902-08RE1 WT1712071425JM 0....	2.19e3	46.6	YES
7	7	13C6-PFDA	1701902-08RE1 WT1712071425JM 0....	4.23e3	36.1	YES
8	8	13C7-PFUdA	1701902-08RE1 WT1712071425JM 0....	7.78e3	45.4	YES

Name: 180104M1_32, Date: 05-Jan-2018, Time: 06:39:27, ID: 1701902-10RE1 WT1712071500JM 0.26089, Description: WT1712071500JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701902-10RE1 WT1712071500JM 0....	6.46e3	43.0	YES
2	2	13C5-PFHxA	1701902-10RE1 WT1712071500JM 0....	7.50e3	43.1	YES
3	3	13C3-PFHxS	1701902-10RE1 WT1712071500JM 0....	2.09e3	46.5	YES
4	4	13C8-PFOA	1701902-10RE1 WT1712071500JM 0....	7.21e3	40.5	YES
5	5	13C9-PFNA	1701902-10RE1 WT1712071500JM 0....	7.64e3	45.7	YES
6	6	13C4-PFOS	1701902-10RE1 WT1712071500JM 0....	2.12e3	45.2	YES
7	7	13C6-PFDA	1701902-10RE1 WT1712071500JM 0....	4.74e3	40.4	YES
8	8	13C7-PFUdA	1701902-10RE1 WT1712071500JM 0....	6.33e3	36.9	YES

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Name: 180104M1_33, Date: 05-Jan-2018, Time: 06:50:38, ID: 1701932-01RE1 GW1721171207RAP 0.26011, Description: GW1721171207RAP

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701932-01RE1 GW1721171207RAP 0...	6.46e3	43.0	YES
2	2	13C5-PFHxA	1701932-01RE1 GW1721171207RAP 0...	8.10e3	46.6	YES
3	3	13C3-PFHxS	1701932-01RE1 GW1721171207RAP 0...	1.73e3	38.6	YES
4	4	13C8-PFOA	1701932-01RE1 GW1721171207RAP 0...	7.37e3	41.4	YES
5	5	13C9-PFNA	1701932-01RE1 GW1721171207RAP 0...	6.78e3	40.6	YES
6	6	13C4-PFOS	1701932-01RE1 GW1721171207RAP 0...	1.93e3	41.0	YES
7	7	13C6-PFDA	1701932-01RE1 GW1721171207RAP 0...	5.77e3	49.2	YES
8	8	13C7-PFUdA	1701932-01RE1 GW1721171207RAP 0...	7.55e3	44.1	YES

Name: 180104M1_34, Date: 05-Jan-2018, Time: 07:01:49, ID: 1701932-02RE1 GW2731171208RAP 0.25947, Description: GW2731171208RAP

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701932-02RE1 GW2731171208RAP 0...	6.88e3	45.8	YES
2	2	13C5-PFHxA	1701932-02RE1 GW2731171208RAP 0...	7.67e3	44.2	YES
3	3	13C3-PFHxS	1701932-02RE1 GW2731171208RAP 0...	1.87e3	41.7	YES
4	4	13C8-PFOA	1701932-02RE1 GW2731171208RAP 0...	8.03e3	45.0	YES
5	5	13C9-PFNA	1701932-02RE1 GW2731171208RAP 0...	7.41e3	44.4	YES
6	6	13C4-PFOS	1701932-02RE1 GW2731171208RAP 0...	2.32e3	49.4	YES
7	7	13C6-PFDA	1701932-02RE1 GW2731171208RAP 0...	5.81e3	49.5	YES
8	8	13C7-PFUdA	1701932-02RE1 GW2731171208RAP 0...	6.91e3	40.3	YES

Name: 180104M1_35, Date: 05-Jan-2018, Time: 07:13:00, 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: 180104M1_36, Date: 05-Jan-2018, Time: 07:24:10, ID: ST180104M1-3 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180104M1-3 PFC CS3 17L2611	1.50e4	99.9	NO
2	2	13C5-PFHxA	ST180104M1-3 PFC CS3 17L2611	1.76e4	101.1	NO
3	3	13C3-PFHxS	ST180104M1-3 PFC CS3 17L2611	4.28e3	95.3	NO
4	4	13C8-PFOA	ST180104M1-3 PFC CS3 17L2611	1.85e4	104.1	NO
5	5	13C9-PFNA	ST180104M1-3 PFC CS3 17L2611	1.73e4	103.6	NO
6	6	13C4-PFOS	ST180104M1-3 PFC CS3 17L2611	4.60e3	98.0	NO
7	7	13C6-PFDA	ST180104M1-3 PFC CS3 17L2611	1.17e4	100.0	NO
8	8	13C7-PFUdA	ST180104M1-3 PFC CS3 17L2611	1.54e4	90.0	NO

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Name: 180104M1_37, Date: 05-Jan-2018, Time: 07:35:21, 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: 180104M1_38, Date: 05-Jan-2018, Time: 07:46:32, ID: 1701900-09 WT1712061120JM 0.26297, Description: WT1712061120JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701900-09 WT1712061120JM 0.26297	6.14e3	40.8	YES
2	2	13C5-PFHxA	1701900-09 WT1712061120JM 0.26297	7.24e3	41.7	YES
3	3	13C3-PFHxS	1701900-09 WT1712061120JM 0.26297	1.95e3	43.5	YES
4	4	13C8-PFOA	1701900-09 WT1712061120JM 0.26297	7.26e3	40.7	YES
5	5	13C9-PFNA	1701900-09 WT1712061120JM 0.26297	7.50e3	44.9	YES
6	6	13C4-PFOS	1701900-09 WT1712061120JM 0.26297	1.96e3	41.6	YES
7	7	13C6-PFDA	1701900-09 WT1712061120JM 0.26297	4.15e3	35.4	YES
8	8	13C7-PFUdA	1701900-09 WT1712061120JM 0.26297	6.90e3	40.3	YES

Name: 180104M1_39, Date: 05-Jan-2018, Time: 07:57:42, 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: 180104M1_40, Date: 05-Jan-2018, Time: 08:08:53, ID: B8A0004-BLK1 Method Blank 5, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B8A0004-BLK1 Method Blank 5	7.04e3	46.8	YES
2	2	13C5-PFHxA	B8A0004-BLK1 Method Blank 5	8.89e3	51.2	NO
3	3	13C3-PFHxS	B8A0004-BLK1 Method Blank 5	2.15e3	47.8	YES
4	4	13C8-PFOA	B8A0004-BLK1 Method Blank 5	7.88e3	44.2	YES
5	5	13C9-PFNA	B8A0004-BLK1 Method Blank 5	7.65e3	45.8	YES
6	6	13C4-PFOS	B8A0004-BLK1 Method Blank 5	2.23e3	47.6	YES
7	7	13C6-PFDA	B8A0004-BLK1 Method Blank 5	5.07e3	43.2	YES
8	8	13C7-PFUdA	B8A0004-BLK1 Method Blank 5	8.03e3	46.8	YES

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Name: 180104M1_41, Date: 05-Jan-2018, Time: 08:20:11, ID: B8A0004-BS1 OPR 5, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B8A0004-BS1 OPR 5	6.89e3	45.9	YES
2	2	13C5-PFHxA	B8A0004-BS1 OPR 5	8.18e3	47.1	YES
3	3	13C3-PFHxS	B8A0004-BS1 OPR 5	2.04e3	45.4	YES
4	4	13C8-PFOA	B8A0004-BS1 OPR 5	7.65e3	43.0	YES
5	5	13C9-PFNA	B8A0004-BS1 OPR 5	9.21e3	55.1	NO
6	6	13C4-PFOS	B8A0004-BS1 OPR 5	1.99e3	42.5	YES
7	7	13C6-PFDA	B8A0004-BS1 OPR 5	5.10e3	43.5	YES
8	8	13C7-PFUdA	B8A0004-BS1 OPR 5	7.32e3	42.7	YES

Name: 180104M1_42, Date: 05-Jan-2018, Time: 08:31:24, ID: B8A0004-BS2 OPR 5, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B8A0004-BS2 OPR 5	6.07e3	40.4	YES
2	2	13C5-PFHxA	B8A0004-BS2 OPR 5	8.04e3	46.3	YES
3	3	13C3-PFHxS	B8A0004-BS2 OPR 5	1.99e3	44.4	YES
4	4	13C8-PFOA	B8A0004-BS2 OPR 5	7.28e3	40.9	YES
5	5	13C9-PFNA	B8A0004-BS2 OPR 5	7.34e3	44.0	YES
6	6	13C4-PFOS	B8A0004-BS2 OPR 5	1.50e3	32.0	YES
7	7	13C6-PFDA	B8A0004-BS2 OPR 5	5.73e3	48.9	YES
8	8	13C7-PFUdA	B8A0004-BS2 OPR 5	6.96e3	40.6	YES

Name: 180104M1_43, Date: 05-Jan-2018, Time: 08:42:34, ID: B8A0004-BS3 OPR 5, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B8A0004-BS3 OPR 5	6.64e3	44.2	YES
2	2	13C5-PFHxA	B8A0004-BS3 OPR 5	7.69e3	44.2	YES
3	3	13C3-PFHxS	B8A0004-BS3 OPR 5	2.07e3	46.0	YES
4	4	13C8-PFOA	B8A0004-BS3 OPR 5	7.69e3	43.2	YES
5	5	13C9-PFNA	B8A0004-BS3 OPR 5	7.69e3	46.1	YES
6	6	13C4-PFOS	B8A0004-BS3 OPR 5	2.07e3	44.1	YES
7	7	13C6-PFDA	B8A0004-BS3 OPR 5	4.73e3	40.4	YES
8	8	13C7-PFUdA	B8A0004-BS3 OPR 5	6.92e3	40.4	YES

Name: 180104M1_44, Date: 05-Jan-2018, Time: 08:53:45, ID: B8A0004-BS4 OPR 5, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B8A0004-BS4 OPR 5	6.33e3	42.1	YES
2	2	13C5-PFHxA	B8A0004-BS4 OPR 5	7.53e3	43.4	YES
3	3	13C3-PFHxS	B8A0004-BS4 OPR 5	2.12e3	47.2	YES
4	4	13C8-PFOA	B8A0004-BS4 OPR 5	8.51e3	47.8	YES
5	5	13C9-PFNA	B8A0004-BS4 OPR 5	7.12e3	42.6	YES
6	6	13C4-PFOS	B8A0004-BS4 OPR 5	1.76e3	37.4	YES
7	7	13C6-PFDA	B8A0004-BS4 OPR 5	5.05e3	43.0	YES
8	8	13C7-PFUdA	B8A0004-BS4 OPR 5	7.97e3	46.5	YES

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Name: 180104M1_45, Date: 05-Jan-2018, Time: 09:04:59, ID: B7L0125-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0125-BS1 OPR 0.25	6.74e3	44.8	YES
2	2	13C5-PFHxA	B7L0125-BS1 OPR 0.25	8.50e3	48.9	YES
3	3	13C3-PFHxS	B7L0125-BS1 OPR 0.25	2.30e3	51.2	NO
4	4	13C8-PFOA	B7L0125-BS1 OPR 0.25	7.66e3	43.0	YES
5	5	13C9-PFNA	B7L0125-BS1 OPR 0.25	7.99e3	47.8	YES
6	6	13C4-PFOS	B7L0125-BS1 OPR 0.25	1.89e3	40.3	YES
7	7	13C6-PFDA	B7L0125-BS1 OPR 0.25	4.83e3	41.2	YES
8	8	13C7-PFUdA	B7L0125-BS1 OPR 0.25	5.77e3	33.7	YES

Name: 180104M1_46, Date: 05-Jan-2018, Time: 09:16:14, ID: B7L0125-BSD1 LCSD 0.25, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0125-BSD1 LCSD 0.25	5.52e3	36.7	YES
2	2	13C5-PFHxA	B7L0125-BSD1 LCSD 0.25	6.13e3	35.3	YES
3	3	13C3-PFHxS	B7L0125-BSD1 LCSD 0.25	2.03e3	45.2	YES
4	4	13C8-PFOA	B7L0125-BSD1 LCSD 0.25	6.07e3	34.1	YES
5	5	13C9-PFNA	B7L0125-BSD1 LCSD 0.25	5.66e3	33.9	YES
6	6	13C4-PFOS	B7L0125-BSD1 LCSD 0.25	1.85e3	39.3	YES
7	7	13C6-PFDA	B7L0125-BSD1 LCSD 0.25	4.35e3	37.1	YES
8	8	13C7-PFUdA	B7L0125-BSD1 LCSD 0.25	7.02e3	40.9	YES

Name: 180104M1_47, Date: 05-Jan-2018, Time: 09:27:26, 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	5.19e3	34.5	YES
2	2	13C5-PFHxA	B7L0125-BLK1 Method Blank 0.25	5.90e3	34.0	YES
3	3	13C3-PFHxS	B7L0125-BLK1 Method Blank 0.25	1.62e3	36.1	YES
4	4	13C8-PFOA	B7L0125-BLK1 Method Blank 0.25	5.73e3	32.1	YES
5	5	13C9-PFNA	B7L0125-BLK1 Method Blank 0.25	5.89e3	35.2	YES
6	6	13C4-PFOS	B7L0125-BLK1 Method Blank 0.25	1.55e3	32.9	YES
7	7	13C6-PFDA	B7L0125-BLK1 Method Blank 0.25	2.93e3	25.0	YES
8	8	13C7-PFUdA	B7L0125-BLK1 Method Blank 0.25	4.61e3	26.9	YES

Name: 180104M1_48, Date: 05-Jan-2018, Time: 09:42:44, 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...	5.60e3	37.3	YES
2	2	13C5-PFHxA	1701802-01RE1 FC-MW02SR1-NP-20...	7.19e3	41.4	YES
3	3	13C3-PFHxS	1701802-01RE1 FC-MW02SR1-NP-20...	1.70e3	37.8	YES
4	4	13C8-PFOA	1701802-01RE1 FC-MW02SR1-NP-20...	7.12e3	39.9	YES
5	5	13C9-PFNA	1701802-01RE1 FC-MW02SR1-NP-20...	6.53e3	39.1	YES
6	6	13C4-PFOS	1701802-01RE1 FC-MW02SR1-NP-20...	1.63e3	34.7	YES
7	7	13C6-PFDA	1701802-01RE1 FC-MW02SR1-NP-20...	3.79e3	32.3	YES
8	8	13C7-PFUdA	1701802-01RE1 FC-MW02SR1-NP-20...	4.98e3	29.0	YES

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Name: 180104M1_49, Date: 05-Jan-2018, Time: 09:54:44, 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...	5.49e3	36.5	YES
2	2	13C5-PFHxA	1701802-02RE1 FC-MW02SR1-P1-201...	6.56e3	37.8	YES
3	3	13C3-PFHxS	1701802-02RE1 FC-MW02SR1-P1-201...	1.71e3	38.2	YES
4	4	13C8-PFOA	1701802-02RE1 FC-MW02SR1-P1-201...	7.02e3	39.4	YES
5	5	13C9-PFNA	1701802-02RE1 FC-MW02SR1-P1-201...	6.35e3	38.0	YES
6	6	13C4-PFOS	1701802-02RE1 FC-MW02SR1-P1-201...	1.65e3	35.2	YES
7	7	13C6-PFDA	1701802-02RE1 FC-MW02SR1-P1-201...	3.94e3	33.6	YES
8	8	13C7-PFUdA	1701802-02RE1 FC-MW02SR1-P1-201...	5.18e3	30.2	YES

Name: 180104M1_50, Date: 05-Jan-2018, Time: 10:05:56, 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...	5.67e3	37.7	YES
2	2	13C5-PFHxA	1701802-03RE1 FC-MW02SR1-P2-201...	6.64e3	38.2	YES
3	3	13C3-PFHxS	1701802-03RE1 FC-MW02SR1-P2-201...	1.85e3	41.2	YES
4	4	13C8-PFOA	1701802-03RE1 FC-MW02SR1-P2-201...	7.26e3	40.7	YES
5	5	13C9-PFNA	1701802-03RE1 FC-MW02SR1-P2-201...	5.74e3	34.4	YES
6	6	13C4-PFOS	1701802-03RE1 FC-MW02SR1-P2-201...	1.78e3	37.9	YES
7	7	13C6-PFDA	1701802-03RE1 FC-MW02SR1-P2-201...	3.39e3	28.9	YES
8	8	13C7-PFUdA	1701802-03RE1 FC-MW02SR1-P2-201...	5.43e3	31.7	YES

Name: 180104M1_51, Date: 05-Jan-2018, Time: 10:17:07, 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...	5.47e3	36.4	YES
2	2	13C5-PFHxA	1701802-04RE1 FC-MW02SR1-P3-201...	7.07e3	40.7	YES
3	3	13C3-PFHxS	1701802-04RE1 FC-MW02SR1-P3-201...	1.82e3	40.5	YES
4	4	13C8-PFOA	1701802-04RE1 FC-MW02SR1-P3-201...	7.28e3	40.9	YES
5	5	13C9-PFNA	1701802-04RE1 FC-MW02SR1-P3-201...	5.72e3	34.2	YES
6	6	13C4-PFOS	1701802-04RE1 FC-MW02SR1-P3-201...	1.87e3	39.9	YES
7	7	13C6-PFDA	1701802-04RE1 FC-MW02SR1-P3-201...	3.85e3	32.8	YES
8	8	13C7-PFUdA	1701802-04RE1 FC-MW02SR1-P3-201...	5.16e3	30.1	YES

Name: 180104M1_52, Date: 05-Jan-2018, Time: 10:28:25, 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...	5.25e3	34.9	YES
2	2	13C5-PFHxA	1701802-05RE1 FC-MW02SR1-FRB-2...	5.75e3	33.1	YES
3	3	13C3-PFHxS	1701802-05RE1 FC-MW02SR1-FRB-2...	1.64e3	36.6	YES
4	4	13C8-PFOA	1701802-05RE1 FC-MW02SR1-FRB-2...	6.12e3	34.4	YES
5	5	13C9-PFNA	1701802-05RE1 FC-MW02SR1-FRB-2...	5.77e3	34.5	YES
6	6	13C4-PFOS	1701802-05RE1 FC-MW02SR1-FRB-2...	1.76e3	37.5	YES
7	7	13C6-PFDA	1701802-05RE1 FC-MW02SR1-FRB-2...	3.68e3	31.3	YES
8	8	13C7-PFUdA	1701802-05RE1 FC-MW02SR1-FRB-2...	6.25e3	36.5	YES

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Name: 180104M1_53, Date: 05-Jan-2018, Time: 10:39:36, 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...	5.21e3	34.7	YES
2	2	13C5-PFHxA	1701802-06RE1 FC-MW02IR1-NP-201...	5.94e3	34.2	YES
3	3	13C3-PFHxS	1701802-06RE1 FC-MW02IR1-NP-201...	1.54e3	34.2	YES
4	4	13C8-PFOA	1701802-06RE1 FC-MW02IR1-NP-201...	5.86e3	32.9	YES
5	5	13C9-PFNA	1701802-06RE1 FC-MW02IR1-NP-201...	4.82e3	28.9	YES
6	6	13C4-PFOS	1701802-06RE1 FC-MW02IR1-NP-201...	1.76e3	37.4	YES
7	7	13C6-PFDA	1701802-06RE1 FC-MW02IR1-NP-201...	3.75e3	32.0	YES
8	8	13C7-PFUdA	1701802-06RE1 FC-MW02IR1-NP-201...	4.35e3	25.4	YES

Name: 180104M1_54, Date: 05-Jan-2018, Time: 10:50:47, 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...	5.10e3	34.0	YES
2	2	13C5-PFHxA	1701802-07RE1 FC-MW02IR1-P1-201...	6.17e3	35.5	YES
3	3	13C3-PFHxS	1701802-07RE1 FC-MW02IR1-P1-201...	1.65e3	36.7	YES
4	4	13C8-PFOA	1701802-07RE1 FC-MW02IR1-P1-201...	5.90e3	33.1	YES
5	5	13C9-PFNA	1701802-07RE1 FC-MW02IR1-P1-201...	6.00e3	35.9	YES
6	6	13C4-PFOS	1701802-07RE1 FC-MW02IR1-P1-201...	1.22e3	26.0	YES
7	7	13C6-PFDA	1701802-07RE1 FC-MW02IR1-P1-201...	4.58e3	39.0	YES
8	8	13C7-PFUdA	1701802-07RE1 FC-MW02IR1-P1-201...	5.14e3	30.0	YES

Name: 180104M1_55, Date: 05-Jan-2018, Time: 11:02:01, 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...	4.82e3	32.1	YES
2	2	13C5-PFHxA	1701802-08RE1 FC-MW02IR1-P2-201...	5.88e3	33.9	YES
3	3	13C3-PFHxS	1701802-08RE1 FC-MW02IR1-P2-201...	1.83e3	40.8	YES
4	4	13C8-PFOA	1701802-08RE1 FC-MW02IR1-P2-201...	5.76e3	32.3	YES
5	5	13C9-PFNA	1701802-08RE1 FC-MW02IR1-P2-201...	5.84e3	34.9	YES
6	6	13C4-PFOS	1701802-08RE1 FC-MW02IR1-P2-201...	1.77e3	37.7	YES
7	7	13C6-PFDA	1701802-08RE1 FC-MW02IR1-P2-201...	3.50e3	29.9	YES
8	8	13C7-PFUdA	1701802-08RE1 FC-MW02IR1-P2-201...	5.98e3	34.9	YES

Name: 180104M1_56, Date: 05-Jan-2018, Time: 11:13:10, 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...	4.98e3	33.2	YES
2	2	13C5-PFHxA	1701802-09RE1 FC-MW02IR1-P3-201...	6.18e3	35.6	YES
3	3	13C3-PFHxS	1701802-09RE1 FC-MW02IR1-P3-201...	1.62e3	36.1	YES
4	4	13C8-PFOA	1701802-09RE1 FC-MW02IR1-P3-201...	5.56e3	31.2	YES
5	5	13C9-PFNA	1701802-09RE1 FC-MW02IR1-P3-201...	6.53e3	39.1	YES
6	6	13C4-PFOS	1701802-09RE1 FC-MW02IR1-P3-201...	1.49e3	31.6	YES
7	7	13C6-PFDA	1701802-09RE1 FC-MW02IR1-P3-201...	3.05e3	26.0	YES
8	8	13C7-PFUdA	1701802-09RE1 FC-MW02IR1-P3-201...	5.09e3	29.7	YES

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Name: 180104M1_57, Date: 05-Jan-2018, Time: 11:24:21, 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: 180104M1_58, Date: 05-Jan-2018, Time: 11:35:31, ID: ST180104M1-4 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180104M1-4 PFC CS0 17L2608	1.73e4	114.9	NO
2	2	13C5-PFHxA	ST180104M1-4 PFC CS0 17L2608	2.10e4	120.8	NO
3	3	13C3-PFHxS	ST180104M1-4 PFC CS0 17L2608	5.42e3	120.8	NO
4	4	13C8-PFOA	ST180104M1-4 PFC CS0 17L2608	1.83e4	102.5	NO
5	5	13C9-PFNA	ST180104M1-4 PFC CS0 17L2608	2.05e4	122.5	NO
6	6	13C4-PFOS	ST180104M1-4 PFC CS0 17L2608	5.33e3	113.5	NO
7	7	13C6-PFDA	ST180104M1-4 PFC CS0 17L2608	9.73e3	82.9	NO
8	8	13C7-PFUdA	ST180104M1-4 PFC CS0 17L2608	1.62e4	94.5	NO

Name: 180104M1_59, Date: 05-Jan-2018, Time: 11:46:42, 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: 180104M1_60, Date: 05-Jan-2018, Time: 11:57:53, ID: B7L0185-BS1 OPR 0.125, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0185-BS1 OPR 0.125	6.03e3	40.1	YES
2	2	13C5-PFHxA	B7L0185-BS1 OPR 0.125	7.75e3	44.6	YES
3	3	13C3-PFHxS	B7L0185-BS1 OPR 0.125	2.28e3	50.8	NO
4	4	13C8-PFOA	B7L0185-BS1 OPR 0.125	8.30e3	46.6	YES
5	5	13C9-PFNA	B7L0185-BS1 OPR 0.125	7.31e3	43.7	YES
6	6	13C4-PFOS	B7L0185-BS1 OPR 0.125	1.98e3	42.2	YES
7	7	13C6-PFDA	B7L0185-BS1 OPR 0.125	5.10e3	43.5	YES
8	8	13C7-PFUdA	B7L0185-BS1 OPR 0.125	6.83e3	39.8	YES

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Name: 180104M1_61, Date: 05-Jan-2018, Time: 12:09:04, ID: B7L0185-BSD1 LCSD 0.125, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0185-BSD1 LCSD 0.125	7.32e3	48.7	YES
2	2	13C5-PFHxA	B7L0185-BSD1 LCSD 0.125	8.62e3	49.6	YES
3	3	13C3-PFHxS	B7L0185-BSD1 LCSD 0.125	2.14e3	47.7	YES
4	4	13C8-PFOA	B7L0185-BSD1 LCSD 0.125	7.88e3	44.2	YES
5	5	13C9-PFNA	B7L0185-BSD1 LCSD 0.125	8.45e3	50.5	NO
6	6	13C4-PFOS	B7L0185-BSD1 LCSD 0.125	2.21e3	47.1	YES
7	7	13C6-PFDA	B7L0185-BSD1 LCSD 0.125	5.61e3	47.8	YES
8	8	13C7-PFUdA	B7L0185-BSD1 LCSD 0.125	7.43e3	43.3	YES

Name: 180104M1_62, Date: 05-Jan-2018, Time: 12:20:14, 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: 180104M1_63, Date: 05-Jan-2018, Time: 12:31:25, ID: B7L0185-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0185-BLK1 Method Blank 0.125	6.75e3	44.9	YES
2	2	13C5-PFHxA	B7L0185-BLK1 Method Blank 0.125	7.98e3	45.9	YES
3	3	13C3-PFHxS	B7L0185-BLK1 Method Blank 0.125	2.21e3	49.2	YES
4	4	13C8-PFOA	B7L0185-BLK1 Method Blank 0.125	8.60e3	48.3	YES
5	5	13C9-PFNA	B7L0185-BLK1 Method Blank 0.125	8.34e3	49.9	NO
6	6	13C4-PFOS	B7L0185-BLK1 Method Blank 0.125	2.28e3	48.5	YES
7	7	13C6-PFDA	B7L0185-BLK1 Method Blank 0.125	5.36e3	45.7	YES
8	8	13C7-PFUdA	B7L0185-BLK1 Method Blank 0.125	6.84e3	39.9	YES

Name: 180104M1_64, Date: 05-Jan-2018, Time: 12:42:36, ID: 1701949-01 REEPDW043 0.11929, Description: REEPDW043

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701949-01 REEPDW043 0.11929	5.70e3	37.9	YES
2	2	13C5-PFHxA	1701949-01 REEPDW043 0.11929	7.56e3	43.5	YES
3	3	13C3-PFHxS	1701949-01 REEPDW043 0.11929	2.19e3	48.8	YES
4	4	13C8-PFOA	1701949-01 REEPDW043 0.11929	6.49e3	36.4	YES
5	5	13C9-PFNA	1701949-01 REEPDW043 0.11929	7.34e3	43.9	YES
6	6	13C4-PFOS	1701949-01 REEPDW043 0.11929	2.14e3	45.5	YES
7	7	13C6-PFDA	1701949-01 REEPDW043 0.11929	4.01e3	34.2	YES
8	8	13C7-PFUdA	1701949-01 REEPDW043 0.11929	6.60e3	38.5	YES

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Name: 180104M1_65, Date: 05-Jan-2018, Time: 12:53:46, ID: 1701949-02 REEPDW044 0.10936, Description: REEPDW044

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701949-02 REEPDW044 0.10936	6.83e3	45.5	YES
2	2	13C5-PFHxA	1701949-02 REEPDW044 0.10936	8.50e3	48.9	YES
3	3	13C3-PFHxS	1701949-02 REEPDW044 0.10936	2.47e3	55.1	NO
4	4	13C8-PFOA	1701949-02 REEPDW044 0.10936	7.33e3	41.1	YES
5	5	13C9-PFNA	1701949-02 REEPDW044 0.10936	6.39e3	38.2	YES
6	6	13C4-PFOS	1701949-02 REEPDW044 0.10936	2.71e3	57.7	NO
7	7	13C6-PFDA	1701949-02 REEPDW044 0.10936	4.05e3	34.5	YES
8	8	13C7-PFUdA	1701949-02 REEPDW044 0.10936	6.63e3	38.7	YES

Name: 180104M1_66, Date: 05-Jan-2018, Time: 13:04:57, ID: 1701949-03 REEPDW046 0.12057, Description: REEPDW046

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701949-03 REEPDW046 0.12057	6.88e3	45.8	YES
2	2	13C5-PFHxA	1701949-03 REEPDW046 0.12057	8.10e3	46.6	YES
3	3	13C3-PFHxS	1701949-03 REEPDW046 0.12057	2.46e3	54.8	NO
4	4	13C8-PFOA	1701949-03 REEPDW046 0.12057	7.87e3	44.2	YES
5	5	13C9-PFNA	1701949-03 REEPDW046 0.12057	7.80e3	46.7	YES
6	6	13C4-PFOS	1701949-03 REEPDW046 0.12057	2.33e3	49.7	YES
7	7	13C6-PFDA	1701949-03 REEPDW046 0.12057	5.24e3	44.7	YES
8	8	13C7-PFUdA	1701949-03 REEPDW046 0.12057	6.48e3	37.8	YES

Name: 180104M1_67, Date: 05-Jan-2018, Time: 13:16:07, ID: 1701949-04 REEPDW047 0.1216, Description: REEPDW047

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701949-04 REEPDW047 0.1216	6.59e3	43.8	YES
2	2	13C5-PFHxA	1701949-04 REEPDW047 0.1216	8.51e3	49.0	YES
3	3	13C3-PFHxS	1701949-04 REEPDW047 0.1216	2.33e3	51.8	NO
4	4	13C8-PFOA	1701949-04 REEPDW047 0.1216	8.15e3	45.7	YES
5	5	13C9-PFNA	1701949-04 REEPDW047 0.1216	8.02e3	48.0	YES
6	6	13C4-PFOS	1701949-04 REEPDW047 0.1216	2.27e3	48.3	YES
7	7	13C6-PFDA	1701949-04 REEPDW047 0.1216	5.31e3	45.3	YES
8	8	13C7-PFUdA	1701949-04 REEPDW047 0.1216	7.05e3	41.1	YES

Name: 180104M1_68, Date: 05-Jan-2018, Time: 13:27:18, ID: 1701949-05 REEPDW048 0.1211, Description: REEPDW048

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701949-05 REEPDW048 0.1211	7.20e3	47.9	YES
2	2	13C5-PFHxA	1701949-05 REEPDW048 0.1211	9.19e3	52.9	NO
3	3	13C3-PFHxS	1701949-05 REEPDW048 0.1211	1.96e3	43.7	YES
4	4	13C8-PFOA	1701949-05 REEPDW048 0.1211	7.75e3	43.5	YES
5	5	13C9-PFNA	1701949-05 REEPDW048 0.1211	7.65e3	45.8	YES
6	6	13C4-PFOS	1701949-05 REEPDW048 0.1211	2.29e3	48.7	YES
7	7	13C6-PFDA	1701949-05 REEPDW048 0.1211	4.37e3	37.3	YES
8	8	13C7-PFUdA	1701949-05 REEPDW048 0.1211	7.34e3	42.8	YES

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Name: 180104M1_69, Date: 05-Jan-2018, Time: 13:38:30, ID: 1701950-01 REEPDW043FRB 0.11883, Description: REEPDW043FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701950-01 REEPDW043FRB 0.11883	6.80e3	45.2	YES
2	2	13C5-PFHxA	1701950-01 REEPDW043FRB 0.11883	8.12e3	46.7	YES
3	3	13C3-PFHxS	1701950-01 REEPDW043FRB 0.11883	2.33e3	51.8	NO
4	4	13C8-PFOA	1701950-01 REEPDW043FRB 0.11883	8.56e3	48.0	YES
5	5	13C9-PFNA	1701950-01 REEPDW043FRB 0.11883	8.61e3	51.6	NO
6	6	13C4-PFOS	1701950-01 REEPDW043FRB 0.11883	2.07e3	44.0	YES
7	7	13C6-PFDA	1701950-01 REEPDW043FRB 0.11883	5.25e3	44.7	YES
8	8	13C7-PFUdA	1701950-01 REEPDW043FRB 0.11883	7.18e3	41.9	YES

Name: 180104M1_70, Date: 05-Jan-2018, Time: 13:49:40, ID: 1701950-02 REEPDW044FRB 0.12043, Description: REEPDW044FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701950-02 REEPDW044FRB 0.12043	7.78e3	51.8	NO
2	2	13C5-PFHxA	1701950-02 REEPDW044FRB 0.12043	9.16e3	52.7	NO
3	3	13C3-PFHxS	1701950-02 REEPDW044FRB 0.12043	2.66e3	59.2	NO
4	4	13C8-PFOA	1701950-02 REEPDW044FRB 0.12043	9.77e3	54.8	NO
5	5	13C9-PFNA	1701950-02 REEPDW044FRB 0.12043	9.90e3	59.3	NO
6	6	13C4-PFOS	1701950-02 REEPDW044FRB 0.12043	2.65e3	56.4	NO
7	7	13C6-PFDA	1701950-02 REEPDW044FRB 0.12043	6.32e3	53.9	NO
8	8	13C7-PFUdA	1701950-02 REEPDW044FRB 0.12043	9.75e3	56.9	NO

Name: 180104M1_71, Date: 05-Jan-2018, Time: 14:00:50, ID: 1701950-03 REEPDW046FRB 0.12167, Description: REEPDW046FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701950-03 REEPDW046FRB 0.12167	6.32e3	42.1	YES
2	2	13C5-PFHxA	1701950-03 REEPDW046FRB 0.12167	7.71e3	44.4	YES
3	3	13C3-PFHxS	1701950-03 REEPDW046FRB 0.12167	1.94e3	43.2	YES
4	4	13C8-PFOA	1701950-03 REEPDW046FRB 0.12167	7.99e3	44.9	YES
5	5	13C9-PFNA	1701950-03 REEPDW046FRB 0.12167	9.06e3	54.2	NO
6	6	13C4-PFOS	1701950-03 REEPDW046FRB 0.12167	1.71e3	36.5	YES
7	7	13C6-PFDA	1701950-03 REEPDW046FRB 0.12167	4.98e3	42.5	YES
8	8	13C7-PFUdA	1701950-03 REEPDW046FRB 0.12167	7.36e3	42.9	YES

Name: 180104M1_72, Date: 05-Jan-2018, Time: 14:12:02, ID: 1701950-04 REEPDW047FRB 0.11765, Description: REEPDW047FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701950-04 REEPDW047FRB 0.11765	7.23e3	48.1	YES
2	2	13C5-PFHxA	1701950-04 REEPDW047FRB 0.11765	8.19e3	47.1	YES
3	3	13C3-PFHxS	1701950-04 REEPDW047FRB 0.11765	2.20e3	49.0	YES
4	4	13C8-PFOA	1701950-04 REEPDW047FRB 0.11765	8.69e3	48.8	YES
5	5	13C9-PFNA	1701950-04 REEPDW047FRB 0.11765	8.55e3	51.2	NO
6	6	13C4-PFOS	1701950-04 REEPDW047FRB 0.11765	2.39e3	50.9	NO
7	7	13C6-PFDA	1701950-04 REEPDW047FRB 0.11765	4.05e3	34.5	YES
8	8	13C7-PFUdA	1701950-04 REEPDW047FRB 0.11765	6.75e3	39.4	YES

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Name: 180104M1_73, Date: 05-Jan-2018, Time: 14:23:12, ID: 1701957-02 REEPDW050 0.12041, Description: REEPDW050

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-02 REEPDW050 0.12041	6.89e3	45.8	YES
2	2	13C5-PFHxA	1701957-02 REEPDW050 0.12041	7.11e3	40.9	YES
3	3	13C3-PFHxS	1701957-02 REEPDW050 0.12041	2.26e3	50.4	NO
4	4	13C8-PFOA	1701957-02 REEPDW050 0.12041	8.12e3	45.6	YES
5	5	13C9-PFNA	1701957-02 REEPDW050 0.12041	7.76e3	46.5	YES
6	6	13C4-PFOS	1701957-02 REEPDW050 0.12041	2.36e3	50.2	NO
7	7	13C6-PFDA	1701957-02 REEPDW050 0.12041	4.32e3	36.9	YES
8	8	13C7-PFUdA	1701957-02 REEPDW050 0.12041	5.75e3	33.5	YES

Name: 180104M1_74, Date: 05-Jan-2018, Time: 14:34:22, ID: 1701957-03 REEPDW0504 0.12011, Description: REEPDW0504

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-03 REEPDW0504 0.12011	6.98e3	46.5	YES
2	2	13C5-PFHxA	1701957-03 REEPDW0504 0.12011	8.30e3	47.8	YES
3	3	13C3-PFHxS	1701957-03 REEPDW0504 0.12011	2.31e3	51.4	NO
4	4	13C8-PFOA	1701957-03 REEPDW0504 0.12011	9.05e3	50.8	NO
5	5	13C9-PFNA	1701957-03 REEPDW0504 0.12011	8.02e3	48.0	YES
6	6	13C4-PFOS	1701957-03 REEPDW0504 0.12011	2.27e3	48.3	YES
7	7	13C6-PFDA	1701957-03 REEPDW0504 0.12011	3.89e3	33.1	YES
8	8	13C7-PFUdA	1701957-03 REEPDW0504 0.12011	7.82e3	45.6	YES

Name: 180104M1_75, Date: 05-Jan-2018, Time: 14:45:33, ID: 1701957-04 REEPDW051 0.11849, Description: REEPDW051

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-04 REEPDW051 0.11849	6.87e3	45.7	YES
2	2	13C5-PFHxA	1701957-04 REEPDW051 0.11849	8.61e3	49.6	YES
3	3	13C3-PFHxS	1701957-04 REEPDW051 0.11849	2.27e3	50.5	NO
4	4	13C8-PFOA	1701957-04 REEPDW051 0.11849	8.83e3	49.5	YES
5	5	13C9-PFNA	1701957-04 REEPDW051 0.11849	8.59e3	51.4	NO
6	6	13C4-PFOS	1701957-04 REEPDW051 0.11849	2.74e3	58.3	NO
7	7	13C6-PFDA	1701957-04 REEPDW051 0.11849	5.24e3	44.6	YES
8	8	13C7-PFUdA	1701957-04 REEPDW051 0.11849	9.32e3	54.4	NO

Name: 180104M1_76, Date: 05-Jan-2018, Time: 14:56:44, ID: 1701957-05 REEPDW052 0.11161, Description: REEPDW052

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-05 REEPDW052 0.11161	7.13e3	47.5	YES
2	2	13C5-PFHxA	1701957-05 REEPDW052 0.11161	9.33e3	53.7	NO
3	3	13C3-PFHxS	1701957-05 REEPDW052 0.11161	2.67e3	59.5	NO
4	4	13C8-PFOA	1701957-05 REEPDW052 0.11161	8.58e3	48.1	YES
5	5	13C9-PFNA	1701957-05 REEPDW052 0.11161	7.39e3	44.2	YES
6	6	13C4-PFOS	1701957-05 REEPDW052 0.11161	2.44e3	52.0	NO
7	7	13C6-PFDA	1701957-05 REEPDW052 0.11161	5.55e3	47.3	YES
8	8	13C7-PFUdA	1701957-05 REEPDW052 0.11161	8.11e3	47.3	YES

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Name: 180104M1_77, Date: 05-Jan-2018, Time: 15:07:55, ID: 1701957-06 REEPDW053 0.11648, Description: REEPDW053

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-06 REEPDW053 0.11648	6.85e3	45.6	YES
2	2	13C5-PFHxA	1701957-06 REEPDW053 0.11648	8.62e3	49.6	YES
3	3	13C3-PFHxS	1701957-06 REEPDW053 0.11648	2.49e3	55.5	NO
4	4	13C8-PFOA	1701957-06 REEPDW053 0.11648	8.19e3	46.0	YES
5	5	13C9-PFNA	1701957-06 REEPDW053 0.11648	7.76e3	46.4	YES
6	6	13C4-PFOS	1701957-06 REEPDW053 0.11648	1.93e3	41.1	YES
7	7	13C6-PFDA	1701957-06 REEPDW053 0.11648	5.13e3	43.8	YES
8	8	13C7-PFUdA	1701957-06 REEPDW053 0.11648	8.91e3	52.0	NO

Name: 180104M1_78, Date: 05-Jan-2018, Time: 15:19:05, 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: 180104M1_79, Date: 05-Jan-2018, Time: 15:30:16, ID: ST180104M1-5 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180104M1-5 PFC CS3 17L2611	1.39e4	92.2	NO
2	2	13C5-PFHxA	ST180104M1-5 PFC CS3 17L2611	1.64e4	94.2	NO
3	3	13C3-PFHxS	ST180104M1-5 PFC CS3 17L2611	3.85e3	85.7	NO
4	4	13C8-PFOA	ST180104M1-5 PFC CS3 17L2611	1.74e4	97.5	NO
5	5	13C9-PFNA	ST180104M1-5 PFC CS3 17L2611	1.80e4	107.5	NO
6	6	13C4-PFOS	ST180104M1-5 PFC CS3 17L2611	3.92e3	83.4	NO
7	7	13C6-PFDA	ST180104M1-5 PFC CS3 17L2611	8.85e3	75.4	NO
8	8	13C7-PFUdA	ST180104M1-5 PFC CS3 17L2611	1.46e4	85.3	NO

Name: 180104M1_80, Date: 05-Jan-2018, Time: 15:41:27, 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

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Name: 180104M1_81, Date: 05-Jan-2018, Time: 15:52:38, ID: 1701957-07 REEPDW054 0.1179, Description: REEPDW054

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-07 REEPDW054 0.1179	7.06e3	47.0	YES
2	2	13C5-PFHxA	1701957-07 REEPDW054 0.1179	8.97e3	51.6	NO
3	3	13C3-PFHxS	1701957-07 REEPDW054 0.1179	2.75e3	61.2	NO
4	4	13C8-PFOA	1701957-07 REEPDW054 0.1179	8.65e3	48.6	YES
5	5	13C9-PFNA	1701957-07 REEPDW054 0.1179	7.50e3	44.9	YES
6	6	13C4-PFOS	1701957-07 REEPDW054 0.1179	2.16e3	46.0	YES
7	7	13C6-PFDA	1701957-07 REEPDW054 0.1179	5.33e3	45.4	YES
8	8	13C7-PFUdA	1701957-07 REEPDW054 0.1179	8.02e3	46.8	YES

Name: 180104M1_82, Date: 05-Jan-2018, Time: 16:03:48, ID: 1701957-08 REEPDW045 0.12116, Description: REEPDW045

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701957-08 REEPDW045 0.12116	6.45e3	42.9	YES
2	2	13C5-PFHxA	1701957-08 REEPDW045 0.12116	7.84e3	45.2	YES
3	3	13C3-PFHxS	1701957-08 REEPDW045 0.12116	2.03e3	45.3	YES
4	4	13C8-PFOA	1701957-08 REEPDW045 0.12116	7.17e3	40.3	YES
5	5	13C9-PFNA	1701957-08 REEPDW045 0.12116	7.13e3	42.6	YES
6	6	13C4-PFOS	1701957-08 REEPDW045 0.12116	1.89e3	40.3	YES
7	7	13C6-PFDA	1701957-08 REEPDW045 0.12116	3.59e3	30.6	YES
8	8	13C7-PFUdA	1701957-08 REEPDW045 0.12116	5.87e3	34.3	YES

Name: 180104M1_83, Date: 05-Jan-2018, Time: 16:14:59, 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: 180104M1_84, Date: 05-Jan-2018, Time: 16:26:10, ID: ST180104M1-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180104M1-6 PFC CS3 17L2611	1.48e4	98.2	NO
2	2	13C5-PFHxA	ST180104M1-6 PFC CS3 17L2611	1.77e4	101.7	NO
3	3	13C3-PFHxS	ST180104M1-6 PFC CS3 17L2611	4.30e3	95.8	NO
4	4	13C8-PFOA	ST180104M1-6 PFC CS3 17L2611	1.71e4	96.1	NO
5	5	13C9-PFNA	ST180104M1-6 PFC CS3 17L2611	1.48e4	88.7	NO
6	6	13C4-PFOS	ST180104M1-6 PFC CS3 17L2611	4.22e3	89.9	NO
7	7	13C6-PFDA	ST180104M1-6 PFC CS3 17L2611	9.17e3	78.2	NO
8	8	13C7-PFUdA	ST180104M1-6 PFC CS3 17L2611	1.31e4	76.6	NO

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Name: 180104M1_85, Date: 05-Jan-2018, Time: 16:37:20, 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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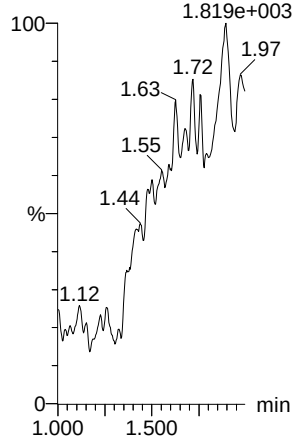

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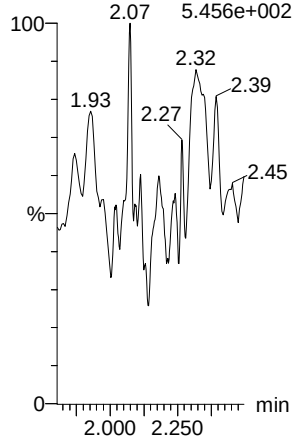

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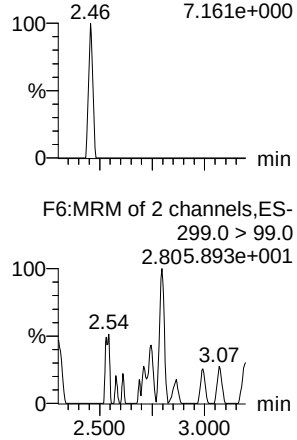

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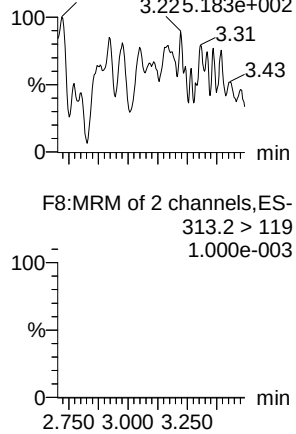

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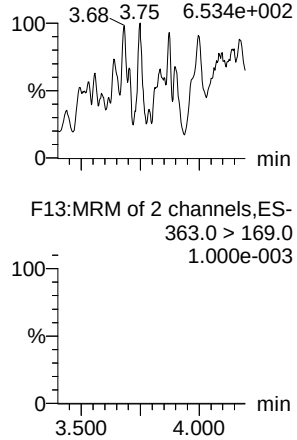
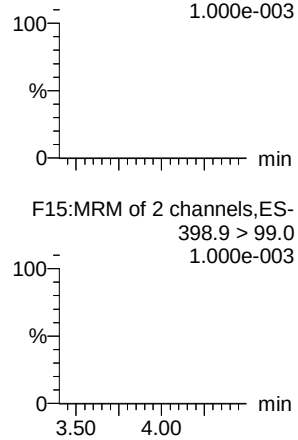


L-PFHxS



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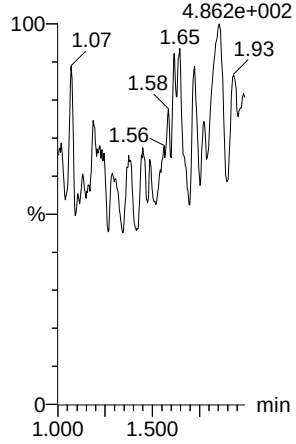

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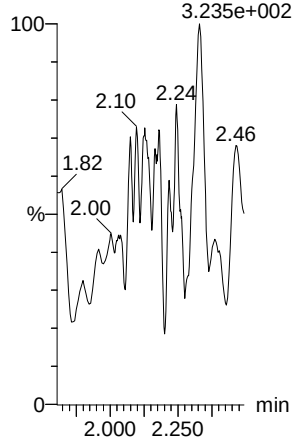
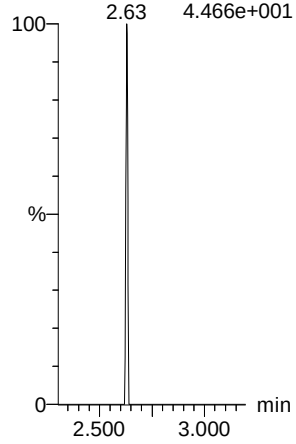


13C3-PFBS



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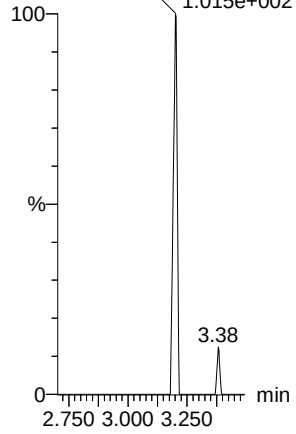

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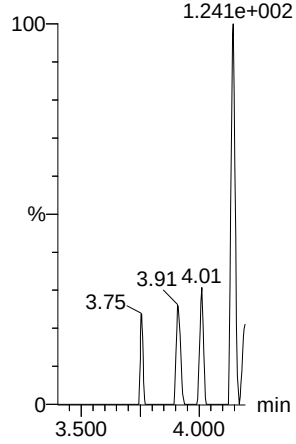

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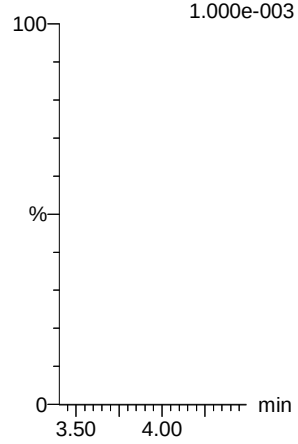

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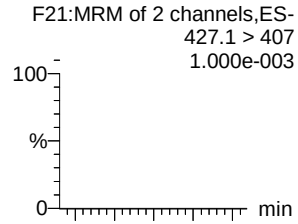
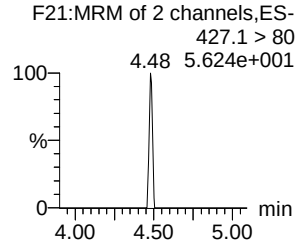
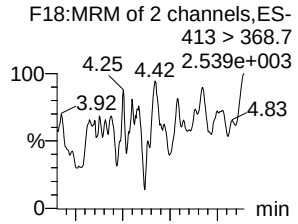
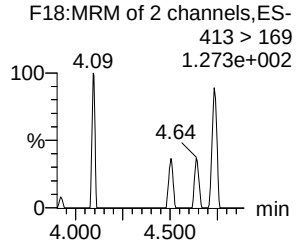
6:2 FTS



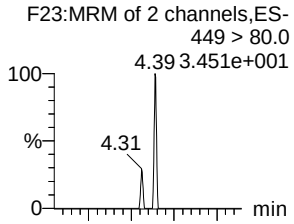


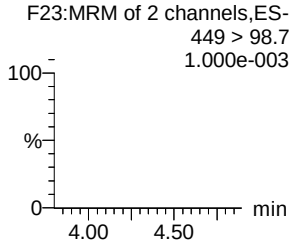
L-PFOA



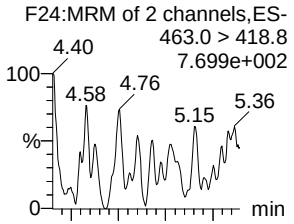


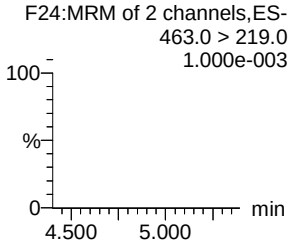
PFHpS





PFNA





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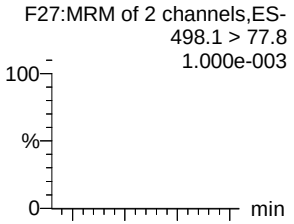

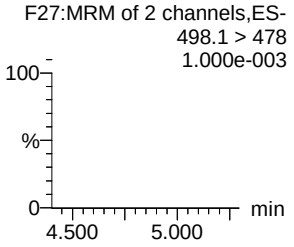

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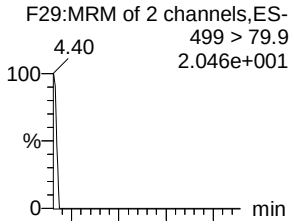
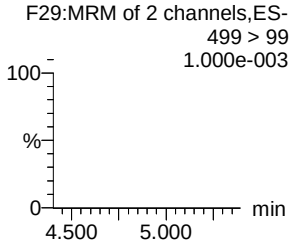
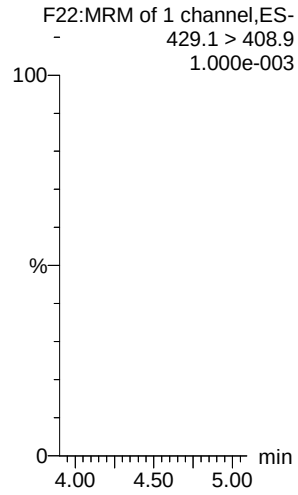
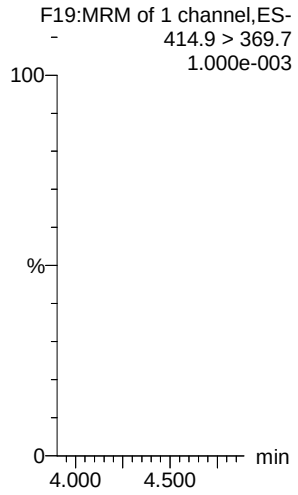




13C2-6:2 FTS



13C2-PFOA



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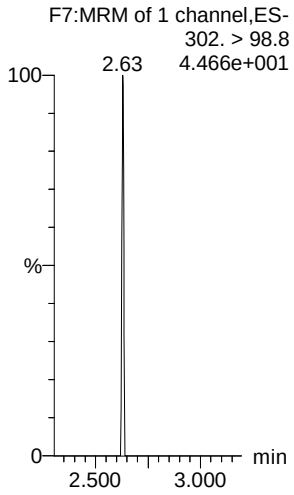

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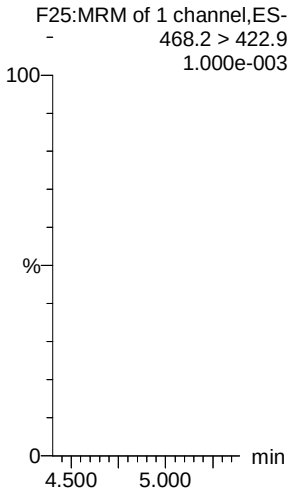

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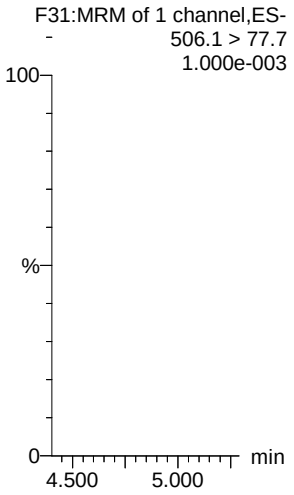

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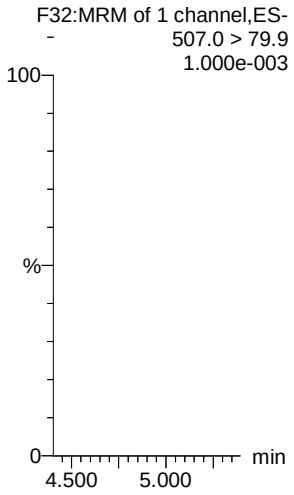

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Name: 180104M1_02, Date: 05-Jan-2018, Time: 01:04:00, ID: IPA, Description: IPA

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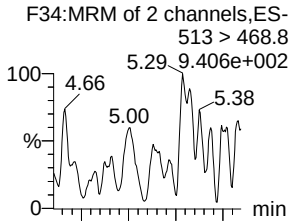

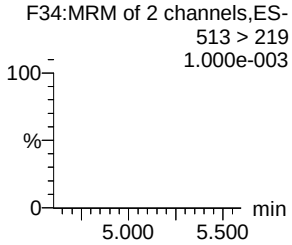

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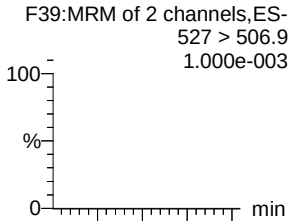

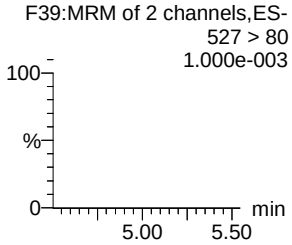

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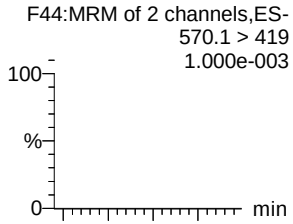

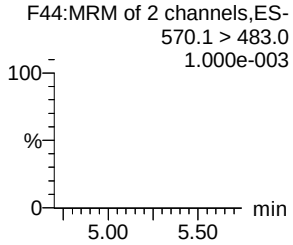

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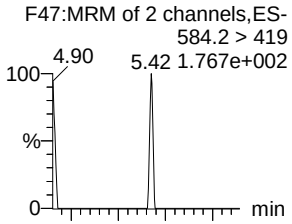

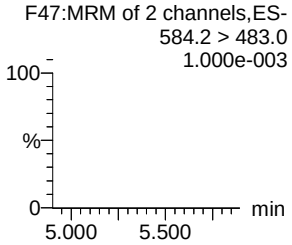

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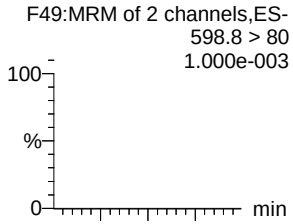

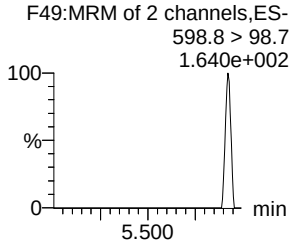

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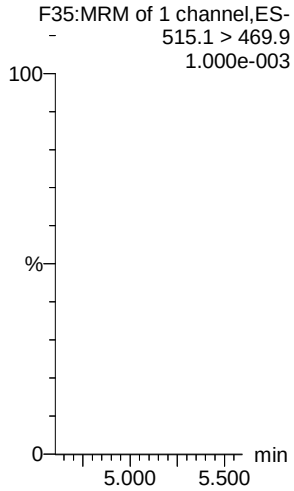
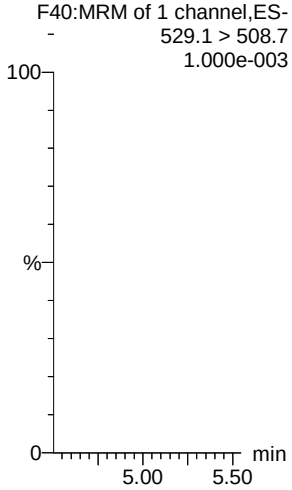


13C2-8:2 FTS



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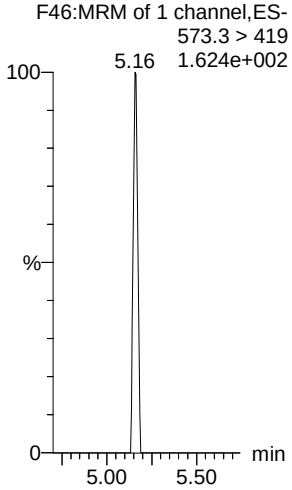

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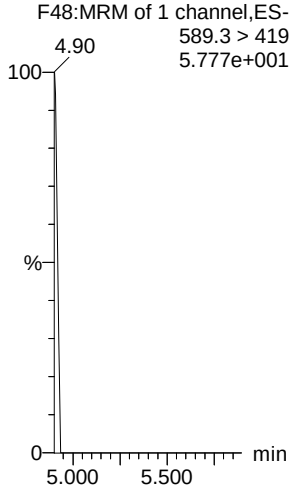

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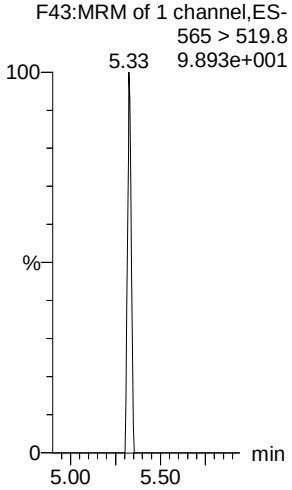

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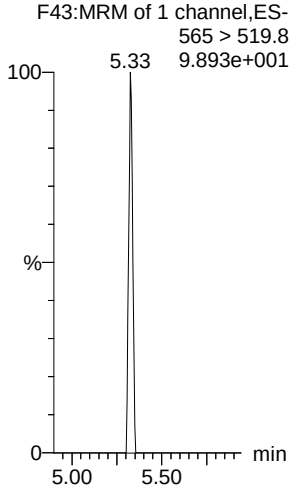

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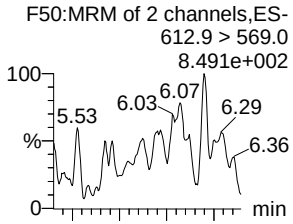

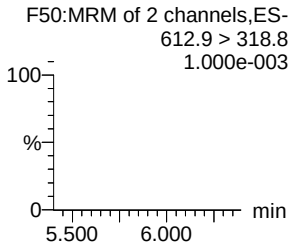

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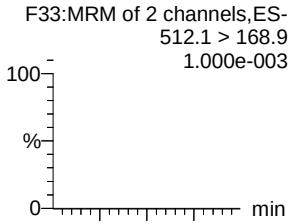

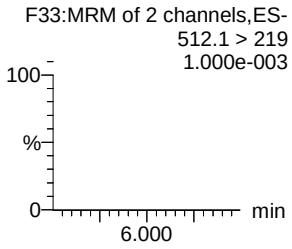

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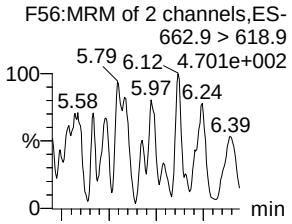

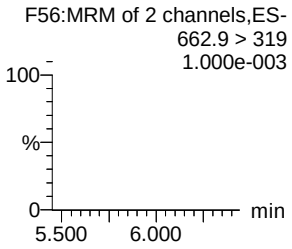

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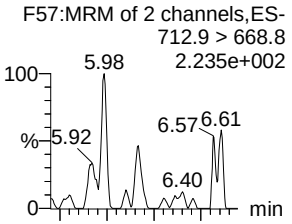

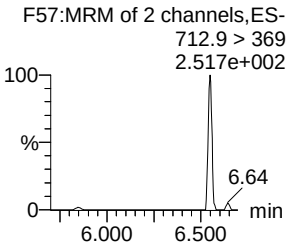

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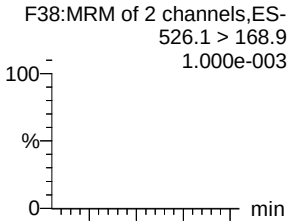

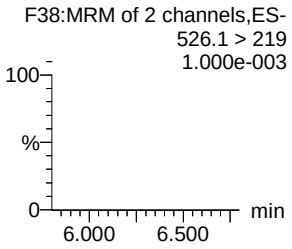

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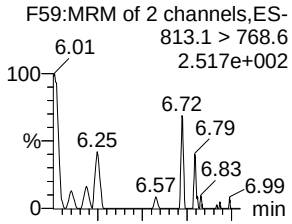

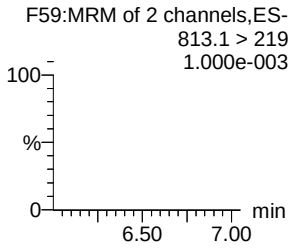

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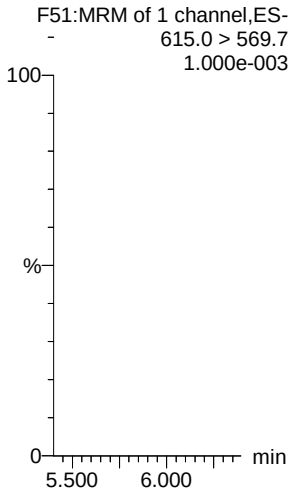
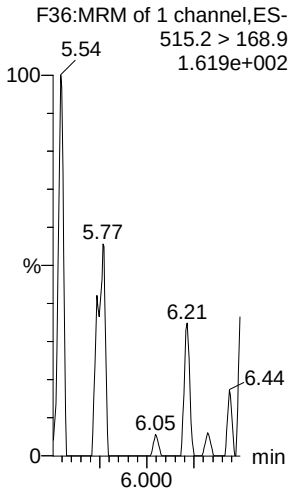


d3-N-MeFOSA



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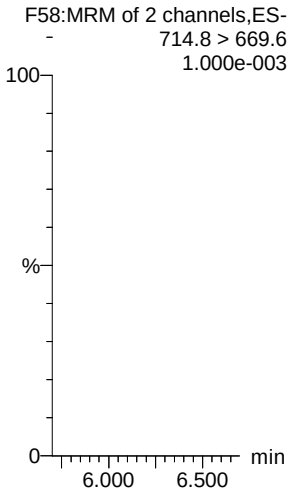

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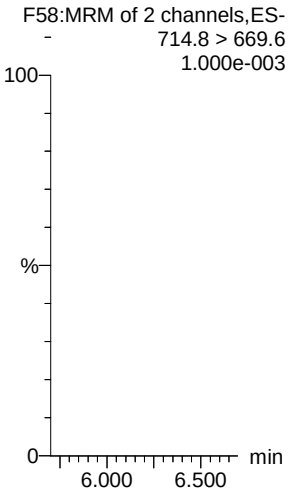

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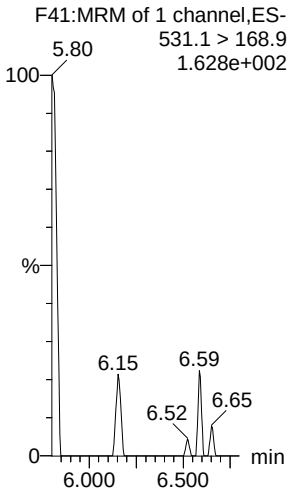

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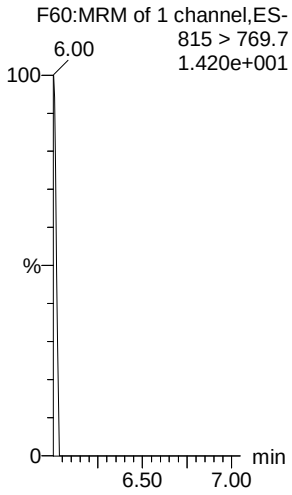

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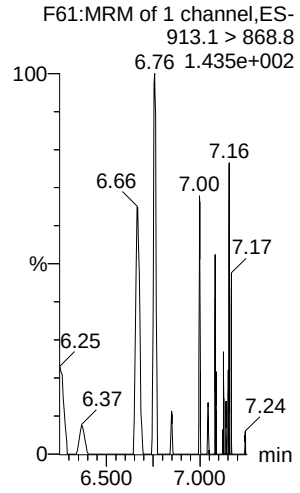
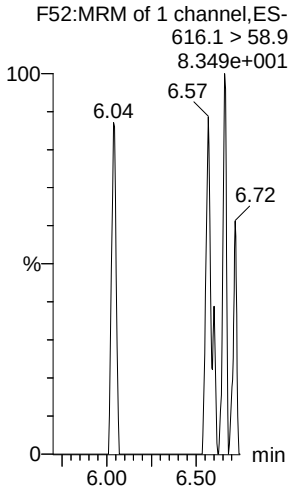


N-MeFOSE



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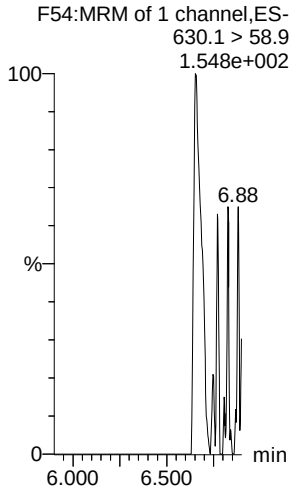

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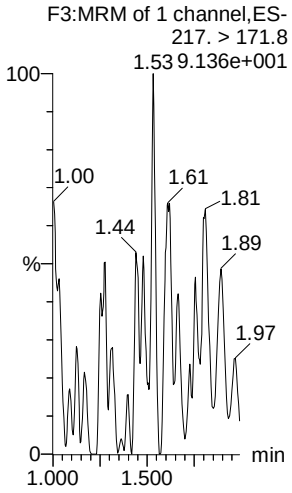

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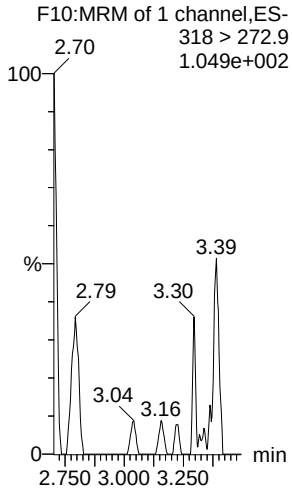

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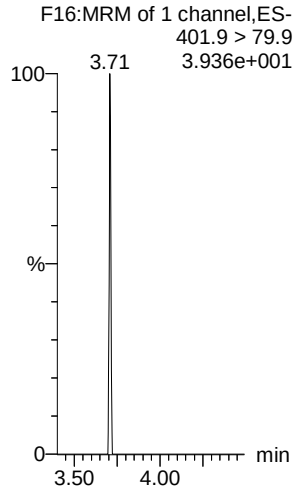

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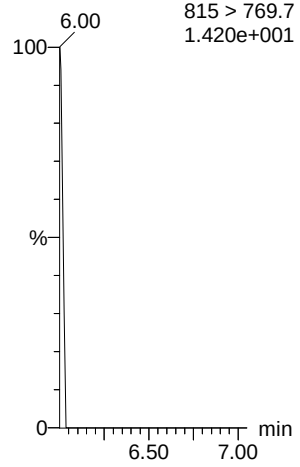
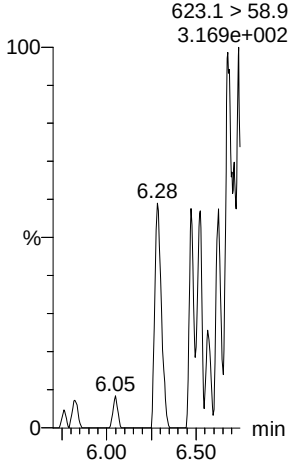


d7-N-MeFOSE



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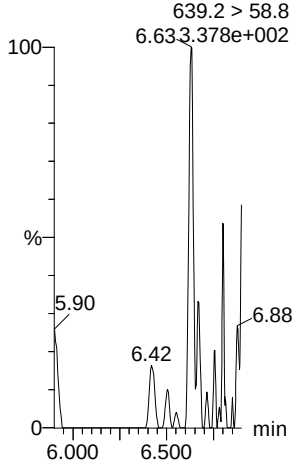
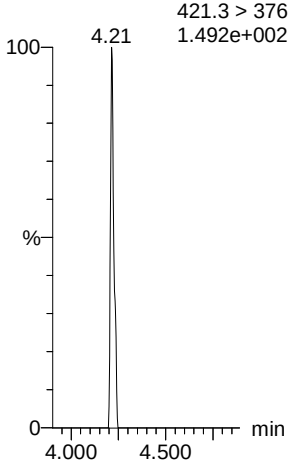


13C8-PFOA



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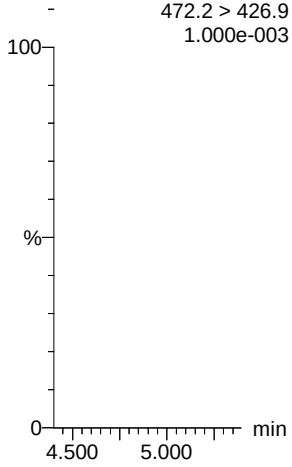
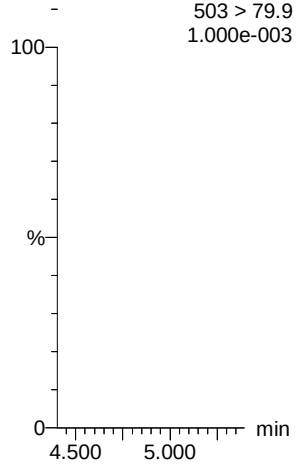


13C4-PFOS



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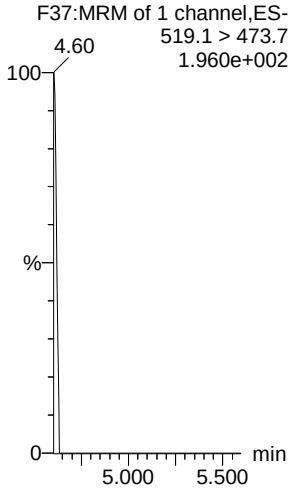
Last Altered: Saturday, January 06, 2018 17:36:05 Pacific Standard Time
Printed: Saturday, January 06, 2018 17:37:16 Pacific Standard Time

Name: 180104M1_02, Date: 05-Jan-2018, Time: 01:04:00, ID: IPA, Description: IPA

13C6-PFDA



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Dataset: U:\Q4.PRO\results\180104M1\180104M1-01.qld

Last Altered: Friday, January 05, 2018 08:39:00 Pacific Standard Time
Printed: Friday, January 05, 2018 08:57:11 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 03 Jan 2018 12:34:09
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

AC 1/5/18
RJA-01/05/2018

Name: 180104M1_01, Date: 05-Jan-2018, Time: 00:52:35, ID: ST180104M1-1 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	1.20e3	1.17e4	1.0000		1.47	1.34	1.28	0.981	98.1
2	2	PFPeA	263.1 > 218.9	1.23e3	1.40e4	1.0000		2.40	2.30	1.10	0.923	92.3
3	3	PFBS	299.0 > 79.7	2.74e2	1.71e3	1.0000		2.70	2.58	2.00	0.986	98.6
4	4	PFHxA	313.2 > 268.9	1.57e3	4.27e3	1.0000		3.12	3.07	1.84	0.986	98.6
5	5	PFHpA	363.0 > 318.9	1.22e3	1.08e4	1.0000		3.75	3.69	1.41	0.939	93.9
6	6	L-PFHxS	398.9 > 79.6	1.82e2	1.49e3	1.0000		3.92	3.84	1.52	0.778	77.8
7	8	6:2 FTS	427.1 > 407	3.25e2	1.52e4	1.0000		4.20	4.15	0.267	0.986	98.6
8	9	L-PFOA	413 > 368.7	1.60e3	1.52e4	1.0000		4.25	4.21	1.31	0.872	87.2
9	11	PFHpS	449 > 80.0	2.78e2	1.52e4	1.0000		4.35	4.32	0.228	0.998	99.8
10	12	PFNA	463.0 > 418.8	1.52e3	1.43e4	1.0000		4.70	4.65	1.33	0.947	94.7
11	13	PFOSA	498.1 > 77.8	4.91e2	4.25e3	1.0000		4.81	4.71	1.44	1.077	107.7
12	14	L-PFOS	499 > 79.9	3.84e2	4.15e3	1.0000		4.83	4.73	1.16	1.103	110.3
13	16	PFDA	513 > 468.8	1.46e3	1.31e4	1.0000		5.05	5.02	1.39	0.934	93.4
14	17	8:2 FTS	527 > 506.9	4.06e2	4.15e3	1.0000		5.02	4.99	1.22	0.985	98.5
15	18	N-MeFOSAA	570.1 > 419	7.25e2	6.30e3	1.0000		5.20	5.17	1.44	0.951	95.1
16	19	N-EtFOSAA	584.2 > 419	6.20e2	7.61e3	1.0000		5.42	5.33	1.02	0.830	83.0
17	20	PFUdA	563.0 > 518.9	1.48e3	1.50e4	1.0000		5.35	5.35	1.23	1.041	104.1
18	21	PFDS	598.8 > 80	3.79e2	1.50e4	1.0000		5.50	5.40	0.316	0.995	99.5
19	22	PFDoA	612.9 > 569.0	1.69e3	8.99e3	1.0000		5.70	5.63	2.35	1.040	104.0
20	23	N-MeFOSA	512.1 > 168.9	7.74e2	2.26e4	1.0000		5.77	5.75	5.14	4.669	93.4
21	24	PFTrDA	662.9 > 618.9	1.24e3	3.79e3	1.0000		5.95	5.88	4.10	0.807	80.7
22	25	PFTeDA	712.9 > 668.8	7.29e2	3.79e3	1.0000		6.16	6.09	2.41	0.772	77.2
23	26	N-EtFOSA	526.1 > 168.9	1.03e3	3.25e4	1.0000		6.15	6.16	4.74	4.689	93.8
24	27	PFHxDA	813.1 > 768.6	6.08e2	2.85e3	1.0000		6.48	6.43	1.07	0.992	99.2
25	28	PFODA	913.1 > 868.8	6.55e2	2.85e3	1.0000		6.70	6.66	1.15	1.035	103.5
26	29	N-MeFOSE	616.1 > 58.9	9.47e2	3.28e4	1.0000		6.30	6.31	4.33	3.905	78.1
27	30	N-EtFOSE	630.1 > 58.9	1.47e3	3.13e4	1.0000		6.42	6.46	7.06	5.387	107.7
28	31	13C3-PFBA	216.1 > 171.8	1.17e4	1.50e4	1.0000	0.775	1.47	1.34	9.77	12.615	100.9
29	32	13C3-PFPeA	266. > 221.8	1.40e4	1.74e4	1.0000	0.805	2.44	2.30	10.1	12.544	100.4
30	33	13C3-PFBS	302. > 98.8	1.71e3	1.74e4	1.0000	0.106	2.70	2.58	1.23	11.576	92.6
31	34	13C2-PFHxA	315 > 269.8	4.27e3	1.74e4	1.0000	0.633	3.20	3.07	3.07	4.857	97

70-130

50-150

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Dataset: U:\Q4.PRO\results\180104M1\180104M1-01.qld

Last Altered: Friday, January 05, 2018 08:39:00 Pacific Standard Time
Printed: Friday, January 05, 2018 08:57:11 Pacific Standard Time

Name: 180104M1_01, Date: 05-Jan-2018, Time: 00:52:35, ID: ST180104M1-1 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	1.08e4	1.74e4	1.0000	0.641	3.80	3.69	7.78	12.136	97.1
33	36	18O2-PFHxS	403.0 > 102.6	1.49e3	4.49e3	1.0000	0.334	3.95	3.84	4.15	12.409	99.3
34	37	13C2-6:2 FTS	429.1 > 408.9	3.57e3	1.78e4	1.0000	0.228	4.26	4.15	2.50	10.971	87.8
35	38	13C2-PFOA	414.9 > 369.7	1.52e4	1.78e4	1.0000	0.959	4.32	4.21	10.7	11.128	89.0
36	39	13C5-PFNA	468.2 > 422.9	1.43e4	1.67e4	1.0000	0.830	4.75	4.65	10.7	12.846	102.8
37	40	13C8-PFOSA	506.1 > 77.7	4.25e3	1.71e4	1.0000	0.262	4.81	4.71	3.10	11.821	94.6
38	41	13C8-PFOS	507.0 > 79.9	4.15e3	4.70e3	1.0000	0.880	4.83	4.73	11.0	12.548	100.4
39	42	13C2-PFDA	515.1 > 469.9	1.31e4	1.17e4	1.0000	0.995	5.11	5.02	14.0	14.048	112.4
40	43	13C2-8:2 FTS	529.1 > 508.7	1.48e3	1.74e4	1.0000	0.142	5.09	4.99	1.06	7.485	59.9
41	44	d3-N-MeFOSAA	573.3 > 419	6.30e3	1.71e4	1.0000	0.376	5.26	5.17	4.60	12.238	97.9
42	45	d5-N-EtFOSAA	589.3 > 419	7.61e3	1.71e4	1.0000	0.444	5.42	5.33	5.55	12.520	100.2
43	46	13C2-PFUdA	565 > 519.8	1.50e4	1.71e4	1.0000	0.889	5.43	5.35	10.9	12.316	98.5
44	47	13C2-PFDoA	615.0 > 569.7	8.99e3	1.71e4	1.0000	0.542	5.70	5.63	6.56	12.097	96.8
45	48	d3-N-MeFOSA	515.2 > 168.9	2.26e4	1.71e4	1.0000	0.117	5.80	5.78	16.5	141.349	94.2
46	49	13C2-PFTeDA	714.8 > 669.6	3.79e3	1.71e4	1.0000	0.230	6.16	6.10	2.76	11.998	96.0
47	50	d5-N-ETFOSA	531.1 > 168.9	3.25e4	1.71e4	1.0000	0.170	6.16	6.17	23.7	139.590	93.1
48	51	13C2-PFHxDA	815 > 769.7	2.85e3	1.71e4	1.0000	0.432	6.48	6.43	2.08	4.804	96.1
49	52	d7-N-MeFOSE	623.1 > 58.9	3.28e4	1.71e4	1.0000	0.161	6.30	6.30	23.9	148.464	99.0
50	53	d9-N-EtFOSE	639.2 > 58.8	3.13e4	1.71e4	1.0000	0.158	6.42	6.45	22.8	144.955	96.6
51	54	13C4-PFBA	217. > 171.8	1.50e4	1.50e4	1.0000	1.000	1.47	1.34	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.74e4	1.74e4	1.0000	1.000	3.20	3.07	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	4.49e3	4.49e3	1.0000	1.000	3.95	3.84	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.78e4	1.78e4	1.0000	1.000	4.32	4.21	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.67e4	1.67e4	1.0000	1.000	4.75	4.65	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	4.70e3	4.70e3	1.0000	1.000	4.83	4.73	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.17e4	1.17e4	1.0000	1.000	5.11	5.02	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.71e4	1.71e4	1.0000	1.000	5.43	5.34	12.5	12.500	100.0

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Dataset: Untitled

Last Altered: Friday, January 05, 2018 14:45:39 Pacific Standard Time
Printed: Friday, January 05, 2018 14:49:49 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Compound name: PFBA

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2	180104M1_02	IPA	05-Jan-18	01:04:00
3	180104M1_03	B7L0185-BS1 OPR 0.125	05-Jan-18	01:15:17
4	180104M1_04	B7L0185-BSD1 LCSD 0.125	05-Jan-18	01:26:28
5	180104M1_05	IPA	05-Jan-18	01:37:38
6	180104M1_06	B7L0185-BLK1 Method Blank 0.125	05-Jan-18	01:48:48
7	180104M1_07	1701949-01 REEPDW043 0.11929	05-Jan-18	01:59:59
8	180104M1_08	1701949-02 REEPDW044 0.10936	05-Jan-18	02:11:10
9	180104M1_09	1701949-03 REEPDW046 0.12057	05-Jan-18	02:22:21
10	180104M1_10	1701949-04 REEPDW047 0.1216	05-Jan-18	02:33:32
11	180104M1_11	1701949-05 REEPDW048 0.1211	05-Jan-18	02:44:42
12	180104M1_12	1701950-01 REEPDW043FRB 0.11883	05-Jan-18	02:55:53
13	180104M1_13	1701950-02 REEPDW044FRB 0.12043	05-Jan-18	03:07:04
14	180104M1_14	1701950-03 REEPDW046FRB 0.12167	05-Jan-18	03:18:14
15	180104M1_15	1701950-04 REEPDW047FRB 0.11765	05-Jan-18	03:29:25
16	180104M1_16	1701950-05 REEPDW048FRB 0.11608	05-Jan-18	03:40:36
17	180104M1_17	1701957-01 REEPDW049 0.11865	05-Jan-18	03:51:46
18	180104M1_18	1701957-02 REEPDW050 0.12041	05-Jan-18	04:02:57
19	180104M1_19	1701957-03 REEPDW0504 0.12011	05-Jan-18	04:14:08
20	180104M1_20	1701957-04 REEPDW051 0.11849	05-Jan-18	04:25:18
21	180104M1_21	1701957-05 REEPDW052 0.11161	05-Jan-18	04:36:30
22	180104M1_22	IPA	05-Jan-18	04:47:40
23	180104M1_23	ST180104M1-2 PFC CS3 17L2611	05-Jan-18	04:58:51
24	180104M1_24	IPA	05-Jan-18	05:10:02
25	180104M1_25	1701957-06 REEPDW053 0.11648	05-Jan-18	05:21:13
26	180104M1_26	1701957-07 REEPDW054 0.1179	05-Jan-18	05:32:24
27	180104M1_27	1701957-08 REEPDW045 0.12116	05-Jan-18	05:43:34
28	180104M1_28	1701862-10 WT1712041545MK 0.25348	05-Jan-18	05:54:45
29	180104M1_29	1701862-14 WR1712051625JNR 0.26032	05-Jan-18	06:05:56
30	180104M1_30	1701862-16 WR1712051610JNR 0.2624	05-Jan-18	06:17:06
31	180104M1_31	1701902-08RE1 WT1712071425JM 0.2598	05-Jan-18	06:28:17

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Dataset: Untitled

Last Altered: Friday, January 05, 2018 14:45:39 Pacific Standard Time
Printed: Friday, January 05, 2018 14:49:49 Pacific Standard Time

Compound name: PFBA

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33	180104M1_33	1701932-01RE1 GW1721171207RAP 0.26011	05-Jan-18	06:50:38
34	180104M1_34	1701932-02RE1 GW2731171208RAP 0.25947	05-Jan-18	07:01:49
35	180104M1_35	IPA	05-Jan-18	07:13:00
36	180104M1_36	ST180104M1-3 PFC CS3 17L2611	05-Jan-18	07:24:10
37	180104M1_37	IPA	05-Jan-18	07:35:21
38	180104M1_38	1701900-09 WT1712061120JM 0.26297	05-Jan-18	07:46:32
39	180104M1_39	IPA	05-Jan-18	07:57:42
40	180104M1_40	B8A0004-BLK1 Method Blank 5	05-Jan-18	08:08:53
41	180104M1_41	B8A0004-BS1 OPR 5	05-Jan-18	08:20:11
42	180104M1_42	B8A0004-BS2 OPR 5	05-Jan-18	08:31:24
43	180104M1_43	B8A0004-BS3 OPR 5	05-Jan-18	08:42:34
44	180104M1_44	B8A0004-BS4 OPR 5	05-Jan-18	08:53:45
45	180104M1_45	B7L0125-BS1 OPR 0.25	05-Jan-18	09:04:59
46	180104M1_46	B7L0125-BSD1 LCSD 0.25	05-Jan-18	09:16:14
47	180104M1_47	B7L0125-BLK1 Method Blank 0.25	05-Jan-18	09:27:26
48	180104M1_48	1701802-01RE1 FC-MW02SR1-NP-20171128...	05-Jan-18	09:42:44
49	180104M1_49	1701802-02RE1 FC-MW02SR1-P1-20171128 ...	05-Jan-18	09:54:44
50	180104M1_50	1701802-03RE1 FC-MW02SR1-P2-20171128 ...	05-Jan-18	10:05:56
51	180104M1_51	1701802-04RE1 FC-MW02SR1-P3-20171128 ...	05-Jan-18	10:17:07
52	180104M1_52	1701802-05RE1 FC-MW02SR1-FRB-2017112...	05-Jan-18	10:28:25
53	180104M1_53	1701802-06RE1 FC-MW02IR1-NP-20171128 ...	05-Jan-18	10:39:36
54	180104M1_54	1701802-07RE1 FC-MW02IR1-P1-20171128 ...	05-Jan-18	10:50:47
55	180104M1_55	1701802-08RE1 FC-MW02IR1-P2-20171128 ...	05-Jan-18	11:02:01
56	180104M1_56	1701802-09RE1 FC-MW02IR1-P3-20171128 ...	05-Jan-18	11:13:10
57	180104M1_57	IPA	05-Jan-18	11:24:21
58	180104M1_58	ST180104M1-4 PFC CS0 17L2608	05-Jan-18	11:35:31

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Dataset: U:\Q4.PRO\results\180104M1\180104M1-01.qld

Last Altered: Friday, January 05, 2018 08:39:00 Pacific Standard Time
Printed: Friday, January 05, 2018 08:57:11 Pacific Standard Time

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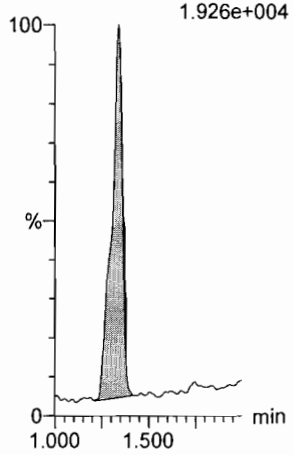
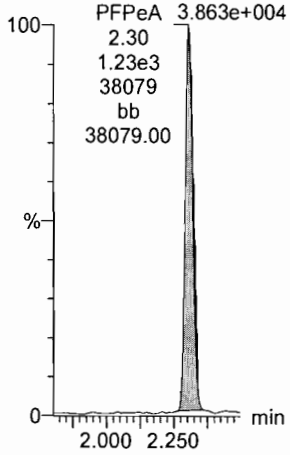
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_01, Date: 05-Jan-2018, Time: 00:52:35, ID: ST180104M1-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

PFBA



PFPeA



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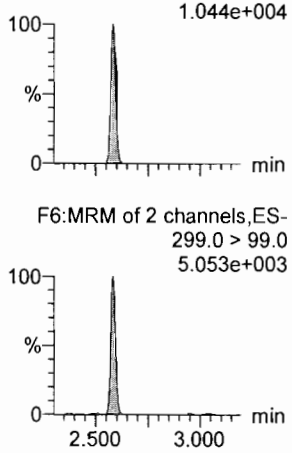
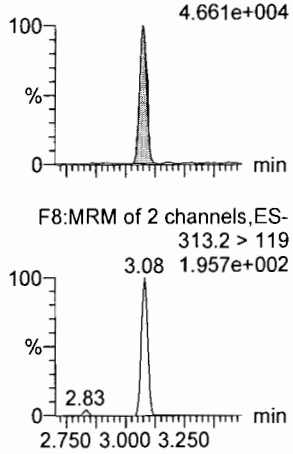
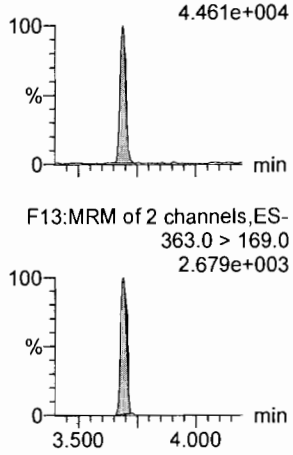


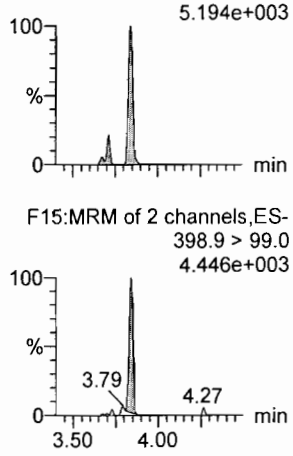
PFHxA



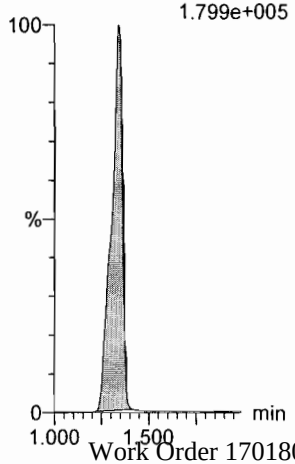
PFHpA



L-PFHxS



13C3-PFBA



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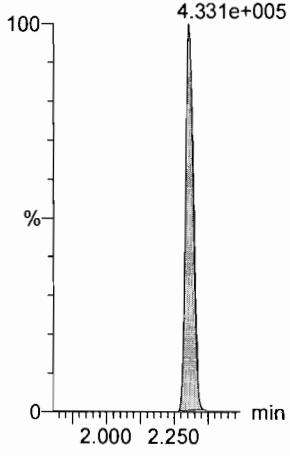
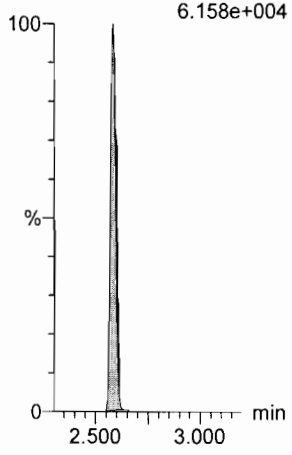


13C3-PFBS



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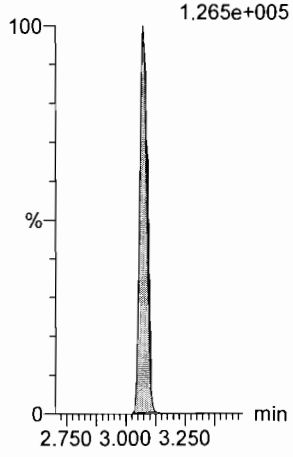

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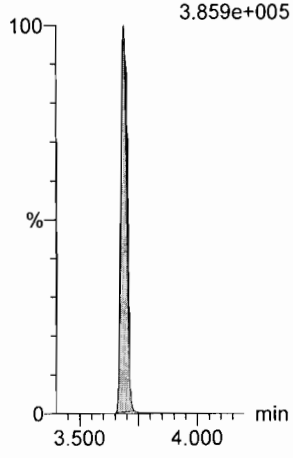
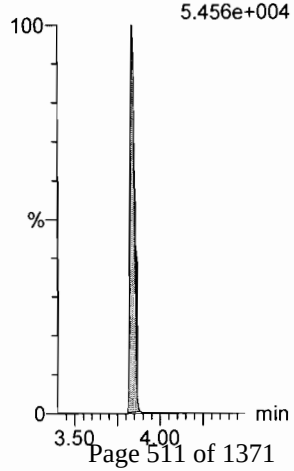


18O2-PFHxS



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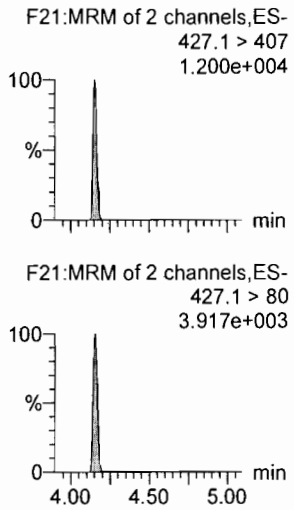
Name: 180104M1_01, Date: 05-Jan-2018, Time: 00:52:35, ID: ST180104M1-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

6:2 FTS



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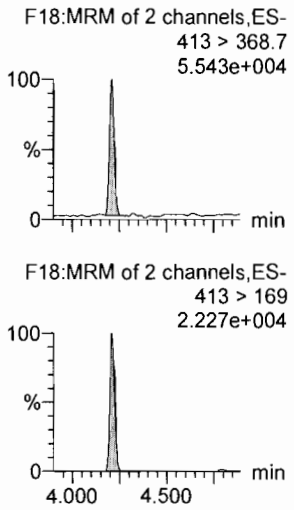
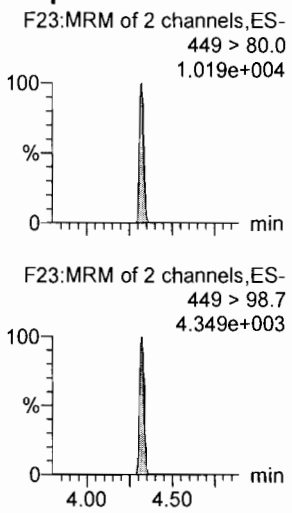


PFHpS



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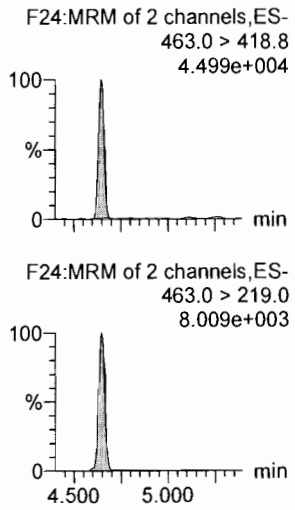

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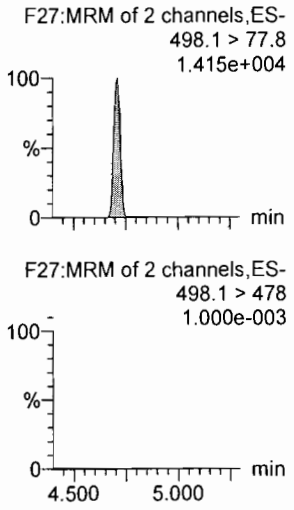
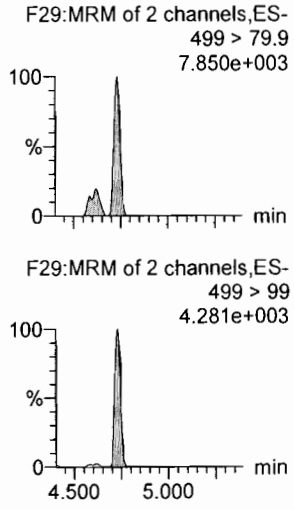
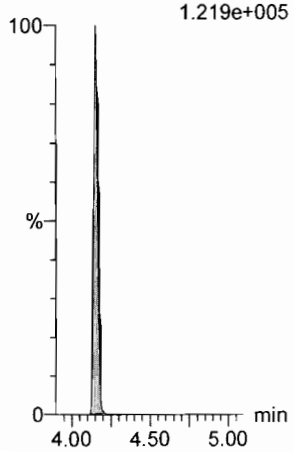


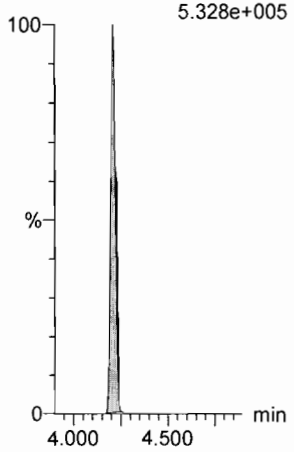
L-PFOS



13C2-6:2 FTS



13C2-PFOA



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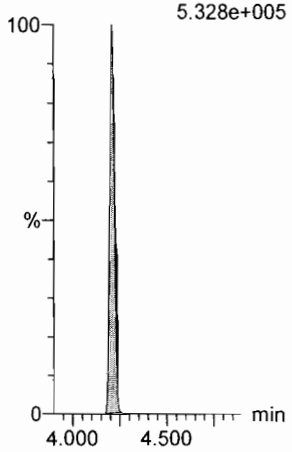

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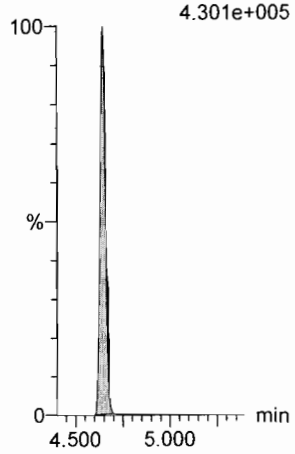
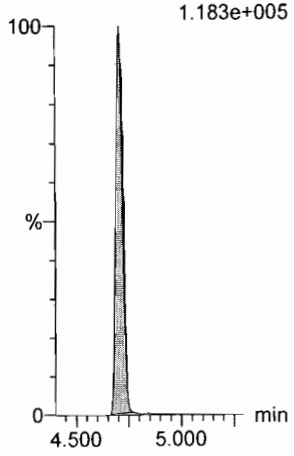


13C8-PFOSA



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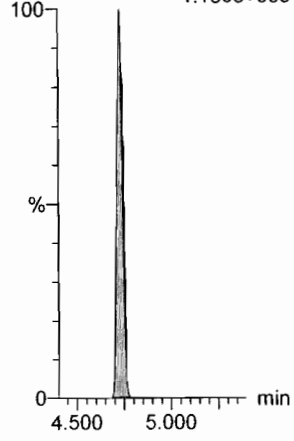

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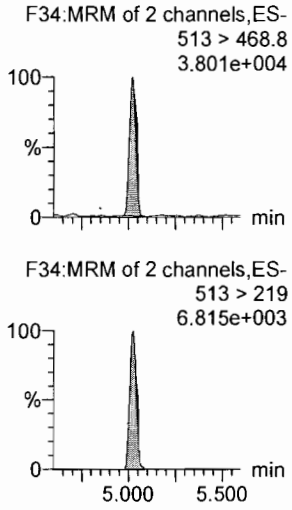
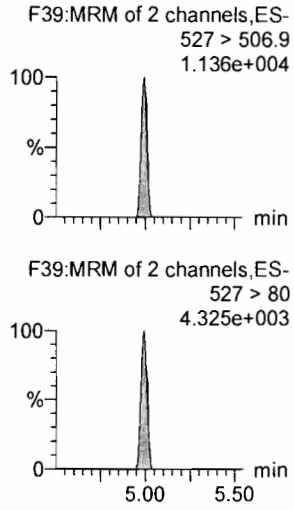
Name: 180104M1_01, Date: 05-Jan-2018, Time: 00:52:35, ID: ST180104M1-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

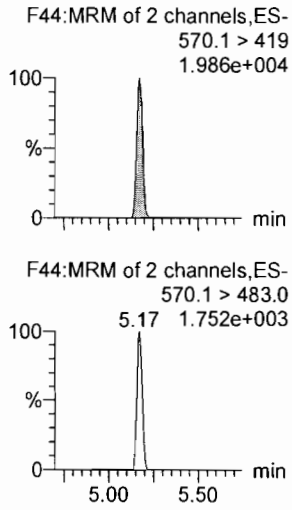
PFDA



8:2 FTS



N-MeFOSAA



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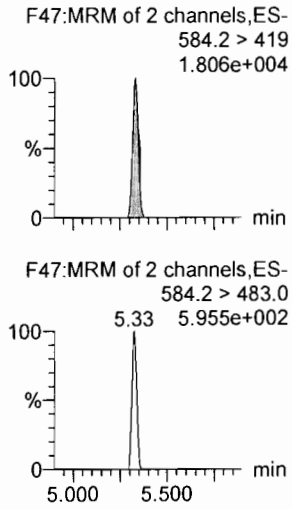
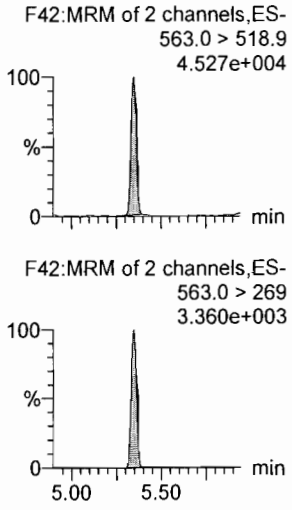
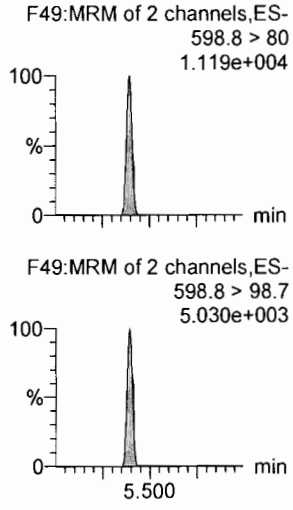


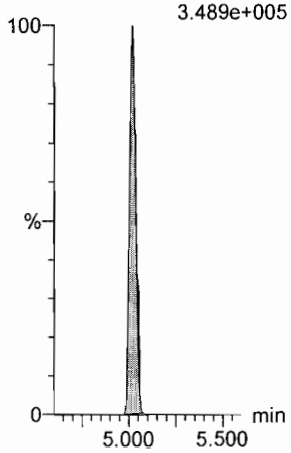
PFUdA



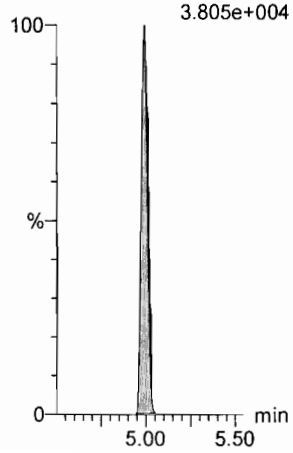
PFDS



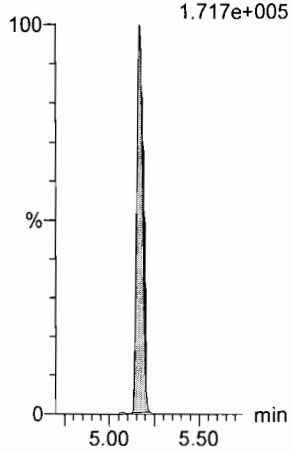
13C2-PFDA



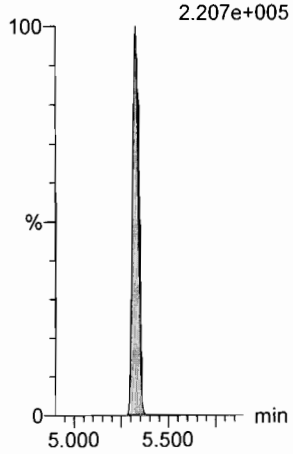
13C2-8:2 FTS



d3-N-MeFOSAA



d5-N-EtFOSAA



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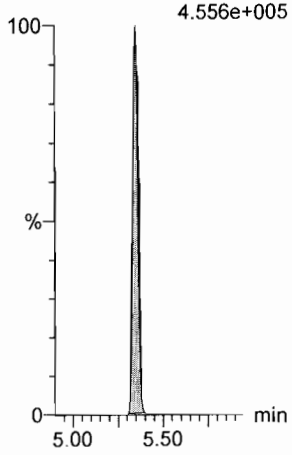

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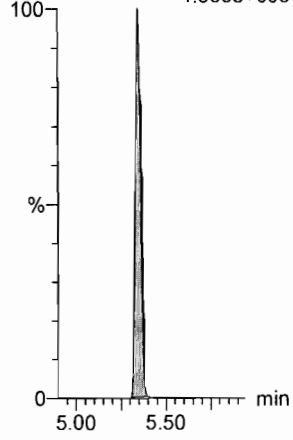

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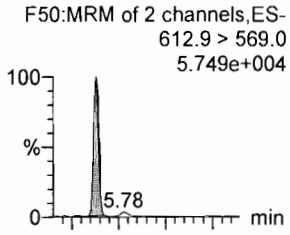
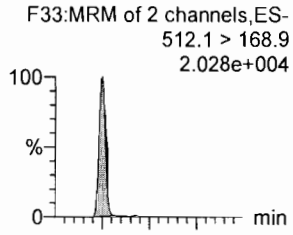
PFDoA



N-MeFOSA



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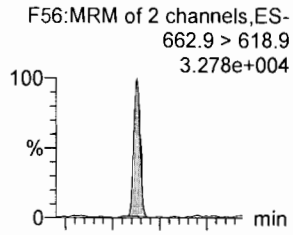
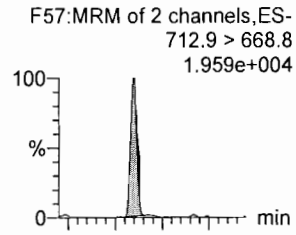


PFTeDA



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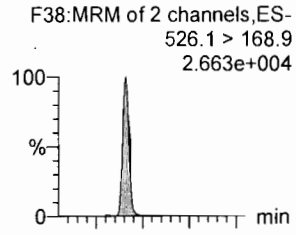

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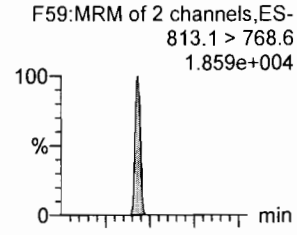

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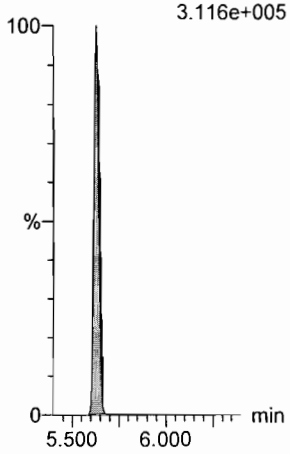
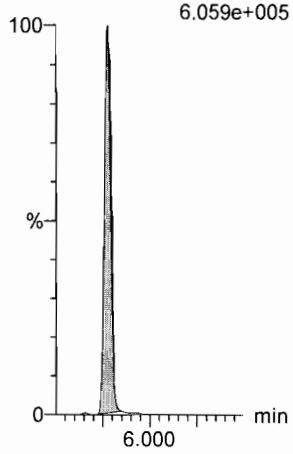


d3-N-MeFOSA



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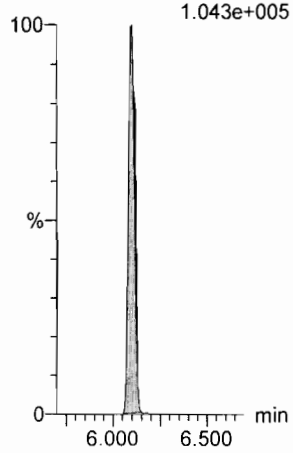

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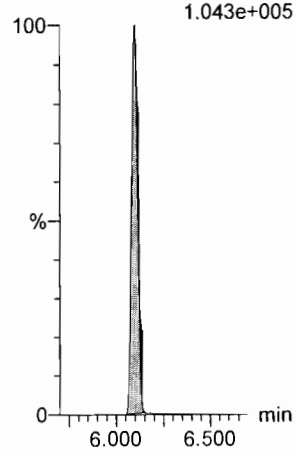

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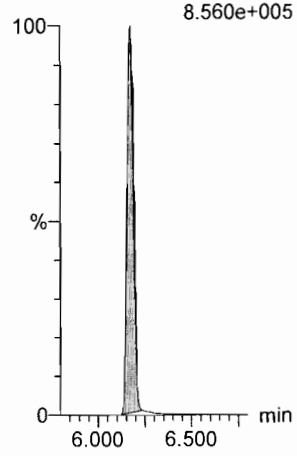

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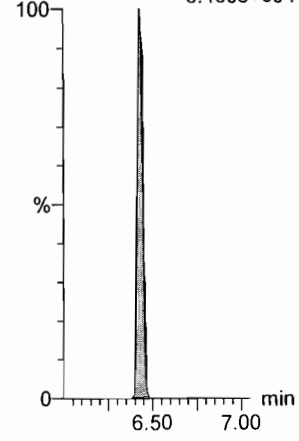

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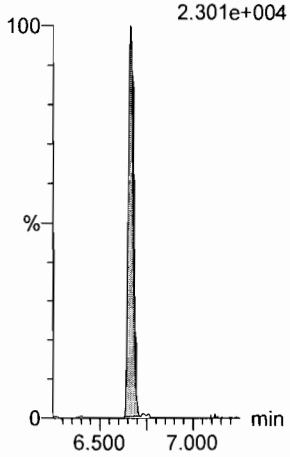
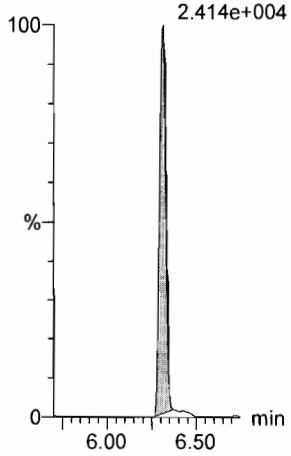
Name: 180104M1_01, Date: 05-Jan-2018, Time: 00:52:35, ID: ST180104M1-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

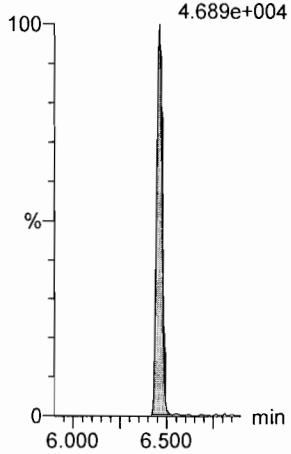
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.301e+004



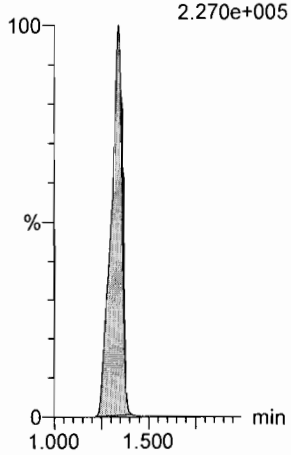
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.414e+004



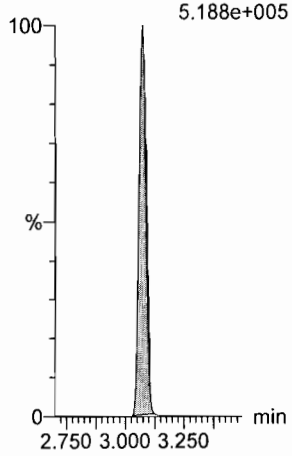
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
4.689e+004



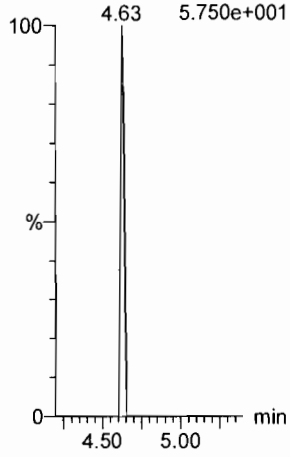
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
2.270e+005



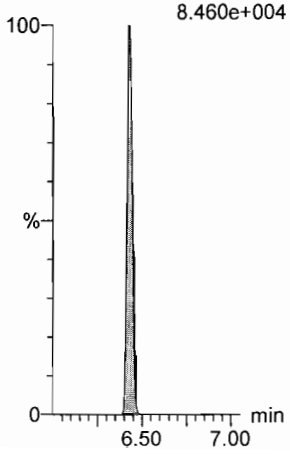
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.188e+005



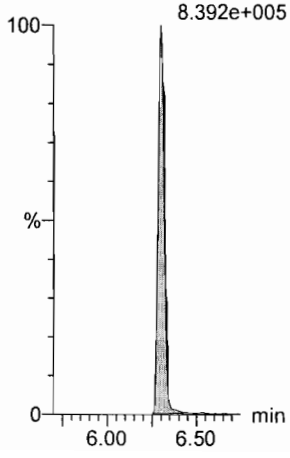
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
4.63 5.750e+001



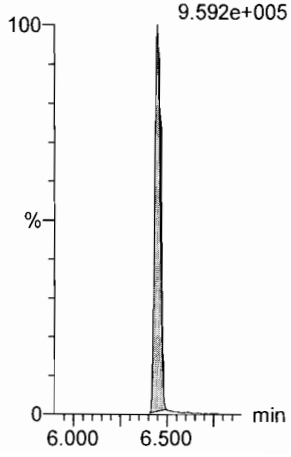
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.460e+004



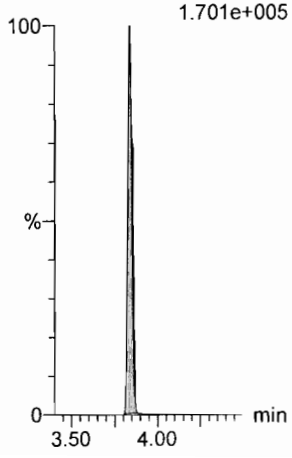
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
8.392e+005



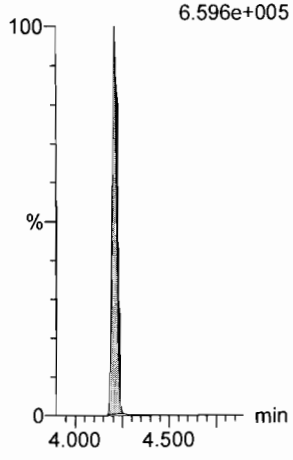
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
9.592e+005



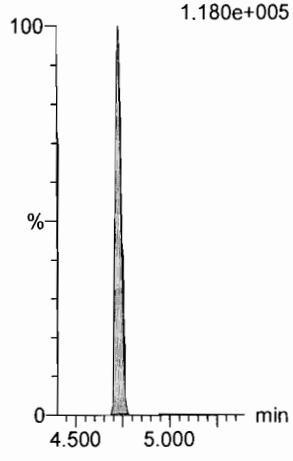
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.701e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
6.596e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
1.180e+005



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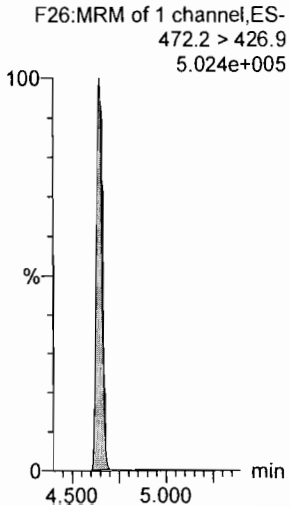
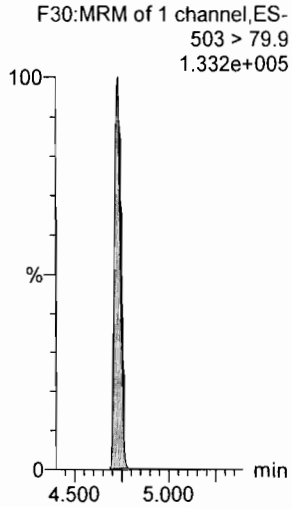
Last Altered: Friday, January 05, 2018 08:39:00 Pacific Standard Time
Printed: Friday, January 05, 2018 08:57:11 Pacific Standard Time

Name: 180104M1_01, Date: 05-Jan-2018, Time: 00:52:35, ID: ST180104M1-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

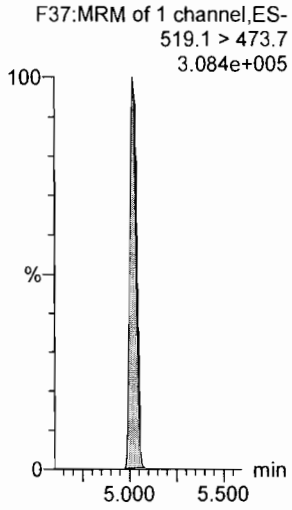
13C9-PFNA



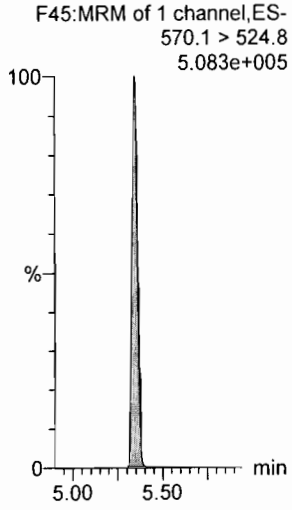
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\180104M1\180104M1-36.qld

Last Altered: Friday, January 05, 2018 09:07:01 Pacific Standard Time
Printed: Friday, January 05, 2018 09:07:24 Pacific Standard Time

AC 1/5/18

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 03 Jan 2018 12:34:09
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

✓ JA. 01/05/2018

Name: 180104M1_36, Date: 05-Jan-2018, Time: 07:24:10, ID: ST180104M1-3 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	1.34e4	1.18e4	1.0000		1.47	1.34	14.1	10.083	100.8
2	2	PFPeA	263.1 > 218.9	1.40e4	1.35e4	1.0000		2.40	2.30	12.9	10.387	103.9
3	3	PFBS	299.0 > 79.7	3.26e3	1.77e3	1.0000		2.70	2.59	23.0	10.495	105.0
4	4	PFHxA	313.2 > 268.9	1.72e4	4.40e3	1.0000		3.12	3.07	19.5	10.429	104.3
5	5	PFHpA	363.0 > 318.9	1.35e4	1.04e4	1.0000		3.75	3.69	16.1	10.093	100.9
6	6	L-PFHxS	398.9 > 79.6	2.29e3	1.31e3	1.0000		3.92	3.84	21.8	10.906	109.1
7	8	6:2 FTS	427.1 > 407	3.66e3	1.47e4	1.0000		4.20	4.15	3.11	10.182	101.8
8	9	L-PFOA	413 > 368.7	1.47e4	1.47e4	1.0000		4.25	4.21	12.5	9.794	97.9
9	11	PFHpS	449 > 80.0	4.01e3	1.47e4	1.0000		4.35	4.32	3.40	11.328	113.3
10	12	PFNA	463.0 > 418.8	1.71e4	1.37e4	1.0000		4.70	4.65	15.5	10.823	108.2
11	13	PFOSA	498.1 > 77.8	4.55e3	4.58e3	1.0000		4.81	4.70	12.4	9.170	91.7
12	14	L-PFOS	499 > 79.9	3.67e3	3.78e3	1.0000		4.83	4.73	12.2	11.837	118.4
13	16	PFDA	513 > 468.8	1.43e4	1.26e4	1.0000		5.05	5.02	14.1	8.669	86.7
14	17	8:2 FTS	527 > 506.9	3.39e3	3.78e3	1.0000		5.02	4.99	11.2	9.037	90.4
15	18	N-MeFOSAA	570.1 > 419	1.01e4	6.43e3	1.0000		5.20	5.17	19.6	10.052	100.5
16	19	N-EtFOSAA	584.2 > 419	7.51e3	7.19e3	1.0000		5.42	5.33	13.1	9.881	98.8
17	20	PFUdA	563.0 > 518.9	1.58e4	1.46e4	1.0000		5.35	5.34	13.6	10.626	106.3
18	21	PFDS	598.8 > 80	4.25e3	1.46e4	1.0000		5.50	5.39	3.65	10.357	103.6
19	22	PFDoA	612.9 > 569.0	1.77e4	8.04e3	1.0000		5.70	5.63	27.5	11.235	112.4
20	23	N-MeFOSA	512.1 > 168.9	9.06e3	2.26e4	1.0000		5.77	5.75	60.2	53.620	107.2
21	24	PFTrDA	662.9 > 618.9	1.45e4	3.22e3	1.0000		5.95	5.87	56.5	10.066	100.7
22	25	PFTeDA	712.9 > 668.8	7.10e3	3.22e3	1.0000		6.16	6.09	27.6	8.426	84.3
23	26	N-EtFOSA	526.1 > 168.9	1.16e4	3.29e4	1.0000		6.15	6.15	53.0	51.960	103.9
24	27	PFHxDA	813.1 > 768.6	5.57e3	2.69e3	1.0000		6.48	6.43	10.4	9.840	98.4
25	28	PFODA	913.1 > 868.8	7.45e3	2.69e3	1.0000		6.70	6.66	13.9	12.215	122.2
26	29	N-MeFOSE	616.1 > 58.9	1.32e4	3.32e4	1.0000		6.30	6.31	59.9	50.897	101.8
27	30	N-EtFOSE	630.1 > 58.9	1.36e4	3.41e4	1.0000		6.42	6.45	59.9	47.932	95.9
28	31	13C3-PFBA	216.1 > 171.8	1.18e4	1.50e4	1.0000	0.775	1.47	1.33	9.83	12.686	101.5
29	32	13C3-PFPeA	266. > 221.8	1.35e4	1.76e4	1.0000	0.805	2.44	2.30	9.62	11.947	95.6
30	33	13C3-PFBS	302. > 98.8	1.77e3	1.76e4	1.0000	0.106	2.70	2.59	1.26	11.863	94.9
31	34	13C2-PFHxA	315 > 269.8	4.40e3	1.76e4	1.0000	0.633	3.20	3.07	3.13	4.950	99.0

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Dataset: U:\Q4.PRO\results\180104M1\180104M1-36.qld

Last Altered: Friday, January 05, 2018 09:07:01 Pacific Standard Time
Printed: Friday, January 05, 2018 09:07:24 Pacific Standard Time

Name: 180104M1_36, Date: 05-Jan-2018, Time: 07:24:10, ID: ST180104M1-3 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	1.04e4	1.76e4	1.0000	0.641	3.80	3.69	7.43	11.594	92.8
33	36	18O2-PFHxS	403.0 > 102.6	1.31e3	4.28e3	1.0000	0.334	3.95	3.84	3.83	11.475	91.8
34	37	13C2-6:2 FTS	429.1 > 408.9	3.58e3	1.85e4	1.0000	0.228	4.26	4.15	2.41	10.579	84.6
35	38	13C2-PFOA	414.9 > 369.7	1.47e4	1.85e4	1.0000	0.959	4.32	4.21	9.93	10.349	82.8
36	39	13C5-PFNA	468.2 > 422.9	1.37e4	1.73e4	1.0000	0.830	4.75	4.65	9.92	11.952	95.6
37	40	13C8-PFOSA	506.1 > 77.7	4.58e3	1.54e4	1.0000	0.262	4.81	4.71	3.71	14.135	113.1
38	41	13C8-PFOS	507.0 > 79.9	3.78e3	4.60e3	1.0000	0.880	4.83	4.73	10.3	11.656	93.2
39	42	13C2-PFDA	515.1 > 469.9	1.26e4	1.17e4	1.0000	0.995	5.11	5.01	13.5	13.545	108.4
40	43	13C2-8:2 FTS	529.1 > 508.7	1.98e3	1.76e4	1.0000	0.142	5.09	4.99	1.41	9.929	79.4
41	44	d3-N-MeFOSAA	573.3 > 419	6.43e3	1.54e4	1.0000	0.376	5.26	5.17	5.21	13.865	110.9
42	45	d5-N-EtFOSAA	589.3 > 419	7.19e3	1.54e4	1.0000	0.444	5.42	5.32	5.82	13.131	105.0
43	46	13C2-PFUdA	565 > 519.8	1.46e4	1.54e4	1.0000	0.889	5.43	5.34	11.8	13.269	106.2
44	47	13C2-PFDoA	615.0 > 569.7	8.04e3	1.54e4	1.0000	0.542	5.70	5.63	6.51	12.007	96.1
45	48	d3-N-MeFOSA	515.2 > 168.9	2.26e4	1.54e4	1.0000	0.117	5.80	5.77	18.3	157.060	104.7
46	49	13C2-PFTeDA	714.8 > 669.6	3.22e3	1.54e4	1.0000	0.230	6.16	6.09	2.61	11.314	90.5
47	50	d5-N-ETFOSA	531.1 > 168.9	3.29e4	1.54e4	1.0000	0.170	6.16	6.17	26.7	157.066	104.7
48	51	13C2-PFHxDA	815 > 769.7	2.69e3	1.54e4	1.0000	0.432	6.48	6.43	2.18	5.043	100.9
49	52	d7-N-MeFOSE	623.1 > 58.9	3.32e4	1.54e4	1.0000	0.161	6.30	6.30	26.9	166.568	111.0
50	53	d9-N-EtFOSE	639.2 > 58.8	3.41e4	1.54e4	1.0000	0.158	6.42	6.45	27.6	175.171	116.8
51	54	13C4-PFBA	217. > 171.8	1.50e4	1.50e4	1.0000	1.000	1.47	1.33	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.76e4	1.76e4	1.0000	1.000	3.20	3.07	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	4.28e3	4.28e3	1.0000	1.000	3.95	3.84	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.85e4	1.85e4	1.0000	1.000	4.32	4.21	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.73e4	1.73e4	1.0000	1.000	4.75	4.64	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	4.60e3	4.60e3	1.0000	1.000	4.83	4.73	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.17e4	1.17e4	1.0000	1.000	5.11	5.01	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.54e4	1.54e4	1.0000	1.000	5.43	5.34	12.5	12.500	100.0

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Dataset: Untitled

Last Altered: Friday, January 05, 2018 14:45:39 Pacific Standard Time
Printed: Friday, January 05, 2018 14:49:49 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Compound name: PFBA

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1	180104M1_01	ST180104M1-1 PFC CS0 17L2608	05-Jan-18	00:52:35
2	180104M1_02	IPA	05-Jan-18	01:04:00
3	180104M1_03	B7L0185-BS1 OPR 0.125	05-Jan-18	01:15:17
4	180104M1_04	B7L0185-BSD1 LCSD 0.125	05-Jan-18	01:26:28
5	180104M1_05	IPA	05-Jan-18	01:37:38
6	180104M1_06	B7L0185-BLK1 Method Blank 0.125	05-Jan-18	01:48:48
7	180104M1_07	1701949-01 REEPDW043 0.11929	05-Jan-18	01:59:59
8	180104M1_08	1701949-02 REEPDW044 0.10936	05-Jan-18	02:11:10
9	180104M1_09	1701949-03 REEPDW046 0.12057	05-Jan-18	02:22:21
10	180104M1_10	1701949-04 REEPDW047 0.1216	05-Jan-18	02:33:32
11	180104M1_11	1701949-05 REEPDW048 0.1211	05-Jan-18	02:44:42
12	180104M1_12	1701950-01 REEPDW043FRB 0.11883	05-Jan-18	02:55:53
13	180104M1_13	1701950-02 REEPDW044FRB 0.12043	05-Jan-18	03:07:04
14	180104M1_14	1701950-03 REEPDW046FRB 0.12167	05-Jan-18	03:18:14
15	180104M1_15	1701950-04 REEPDW047FRB 0.11765	05-Jan-18	03:29:25
16	180104M1_16	1701950-05 REEPDW048FRB 0.11608	05-Jan-18	03:40:36
17	180104M1_17	1701957-01 REEPDW049 0.11865	05-Jan-18	03:51:46
18	180104M1_18	1701957-02 REEPDW050 0.12041	05-Jan-18	04:02:57
19	180104M1_19	1701957-03 REEPDW0504 0.12011	05-Jan-18	04:14:08
20	180104M1_20	1701957-04 REEPDW051 0.11849	05-Jan-18	04:25:18
21	180104M1_21	1701957-05 REEPDW052 0.11161	05-Jan-18	04:36:30
22	180104M1_22	IPA	05-Jan-18	04:47:40
23	180104M1_23	ST180104M1-2 PFC CS3 17L2611	05-Jan-18	04:58:51
24	180104M1_24	IPA	05-Jan-18	05:10:02
25	180104M1_25	1701957-06 REEPDW053 0.11648	05-Jan-18	05:21:13
26	180104M1_26	1701957-07 REEPDW054 0.1179	05-Jan-18	05:32:24
27	180104M1_27	1701957-08 REEPDW045 0.12116	05-Jan-18	05:43:34
28	180104M1_28	1701862-10 WT1712041545MK 0.25348	05-Jan-18	05:54:45
29	180104M1_29	1701862-14 WR1712051625JNR 0.26032	05-Jan-18	06:05:56
30	180104M1_30	1701862-16 WR1712051610JNR 0.2624	05-Jan-18	06:17:06
31	180104M1_31	1701902-08RE1 WT1712071425JM 0.2598	05-Jan-18	06:28:17

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Dataset: Untitled

Last Altered: Friday, January 05, 2018 14:45:39 Pacific Standard Time
Printed: Friday, January 05, 2018 14:49:49 Pacific Standard Time

Compound name: PFBA

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33	180104M1_33	1701932-01RE1 GW1721171207RAP 0.26011	05-Jan-18	06:50:38
34	180104M1_34	1701932-02RE1 GW2731171208RAP 0.25947	05-Jan-18	07:01:49
35	180104M1_35	IPA	05-Jan-18	07:13:00
36	180104M1_36	ST180104M1-3 PFC CS3 17L2611	05-Jan-18	07:24:10
37	180104M1_37	IPA	05-Jan-18	07:35:21
38	180104M1_38	1701900-09 WT1712061120JM 0.26297	05-Jan-18	07:46:32
39	180104M1_39	IPA	05-Jan-18	07:57:42
40	180104M1_40	B8A0004-BLK1 Method Blank 5	05-Jan-18	08:08:53
41	180104M1_41	B8A0004-BS1 OPR 5	05-Jan-18	08:20:11
42	180104M1_42	B8A0004-BS2 OPR 5	05-Jan-18	08:31:24
43	180104M1_43	B8A0004-BS3 OPR 5	05-Jan-18	08:42:34
44	180104M1_44	B8A0004-BS4 OPR 5	05-Jan-18	08:53:45
45	180104M1_45	B7L0125-BS1 OPR 0.25	05-Jan-18	09:04:59
46	180104M1_46	B7L0125-BSD1 LCSD 0.25	05-Jan-18	09:16:14
47	180104M1_47	B7L0125-BLK1 Method Blank 0.25	05-Jan-18	09:27:26
48	180104M1_48	1701802-01RE1 FC-MW02SR1-NP-20171128...	05-Jan-18	09:42:44
49	180104M1_49	1701802-02RE1 FC-MW02SR1-P1-20171128 ...	05-Jan-18	09:54:44
50	180104M1_50	1701802-03RE1 FC-MW02SR1-P2-20171128 ...	05-Jan-18	10:05:56
51	180104M1_51	1701802-04RE1 FC-MW02SR1-P3-20171128 ...	05-Jan-18	10:17:07
52	180104M1_52	1701802-05RE1 FC-MW02SR1-FRB-2017112...	05-Jan-18	10:28:25
53	180104M1_53	1701802-06RE1 FC-MW02IR1-NP-20171128 ...	05-Jan-18	10:39:36
54	180104M1_54	1701802-07RE1 FC-MW02IR1-P1-20171128 ...	05-Jan-18	10:50:47
55	180104M1_55	1701802-08RE1 FC-MW02IR1-P2-20171128 ...	05-Jan-18	11:02:01
56	180104M1_56	1701802-09RE1 FC-MW02IR1-P3-20171128 ...	05-Jan-18	11:13:10
57	180104M1_57	IPA	05-Jan-18	11:24:21
58	180104M1_58	ST180104M1-4 PFC CS0 17L2608	05-Jan-18	11:35:31

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Dataset: U:\Q4.PRO\results\180104M1\180104M1-36.qld

Last Altered: Friday, January 05, 2018 09:07:01 Pacific Standard Time
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Name: 180104M1_36, Date: 05-Jan-2018, Time: 07:24:10, ID: ST180104M1-3 PFC CS3 17L2611, Description: PFC CS3 17L2611

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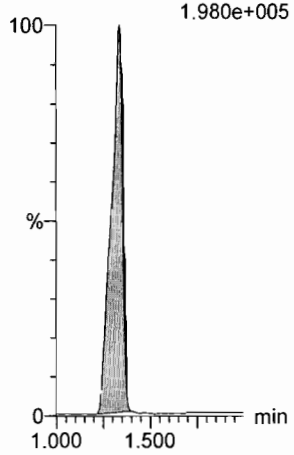

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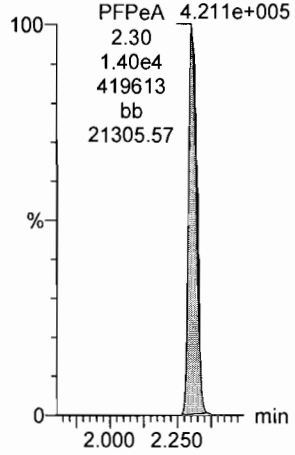

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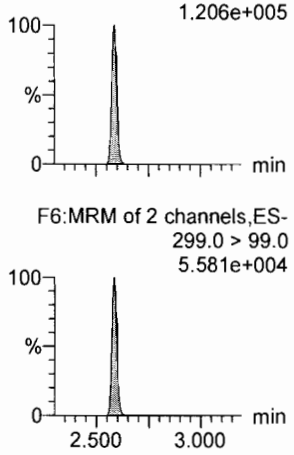

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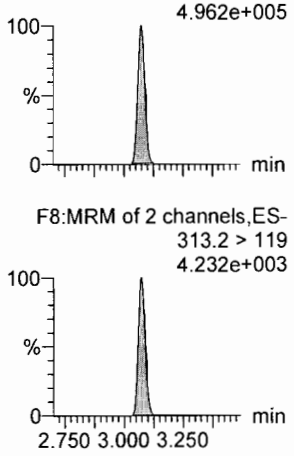

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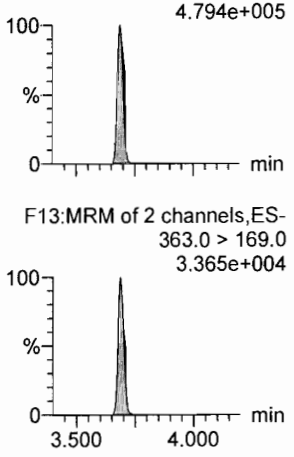
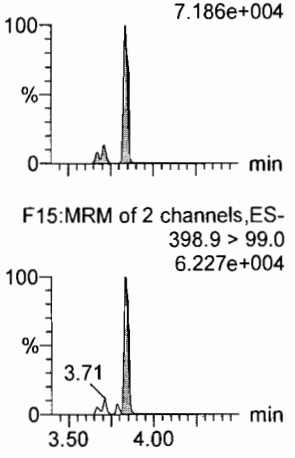
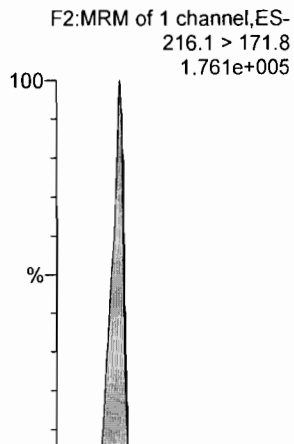


L-PFHxS



13C3-PFBA



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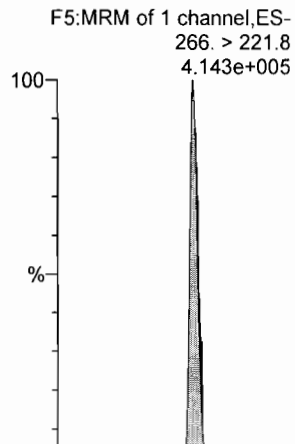

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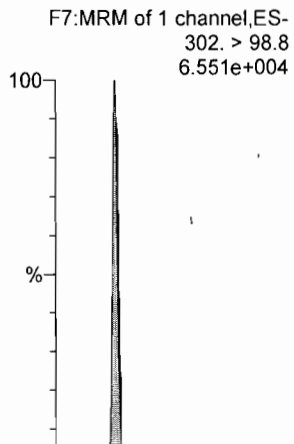
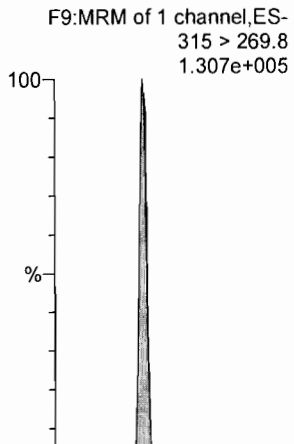
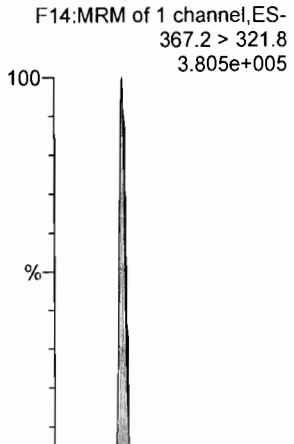


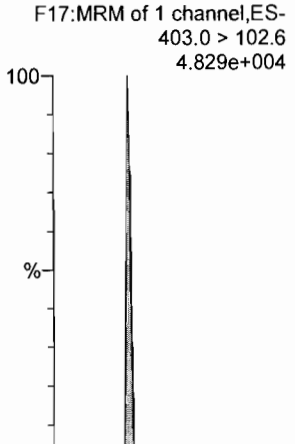
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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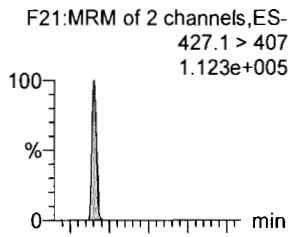
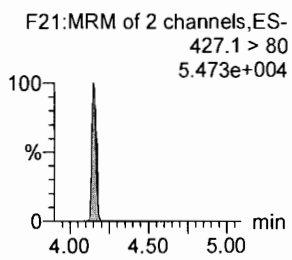
Printed: Friday, January 05, 2018 09:07:24 Pacific Standard Time

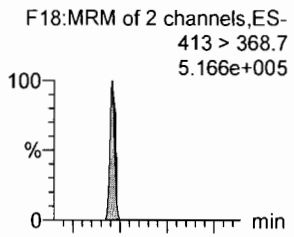
Name: 180104M1_36, Date: 05-Jan-2018, Time: 07:24:10, ID: ST180104M1-3 PFC CS3 17L2611, Description: PFC CS3 17L2611

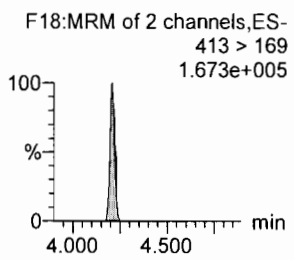
6:2 FTS





L-PFOA





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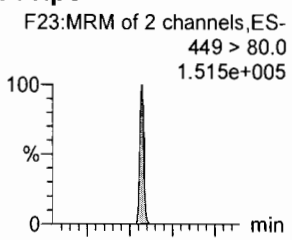

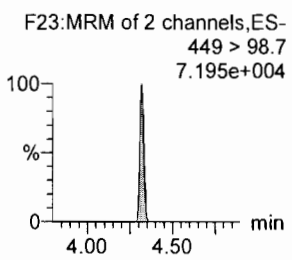

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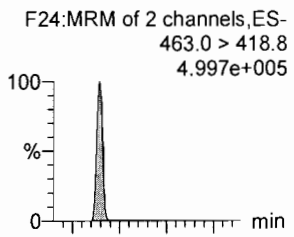
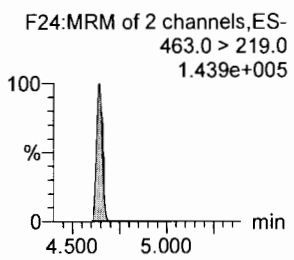
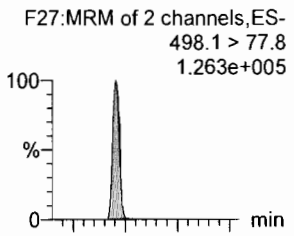
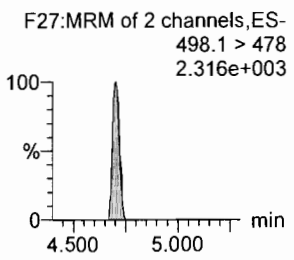




PFOSA





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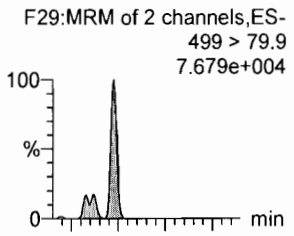
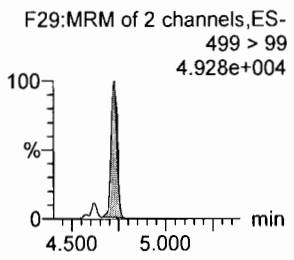
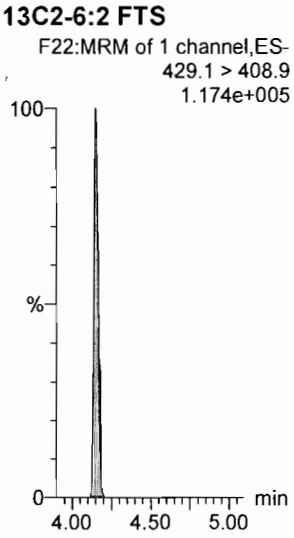
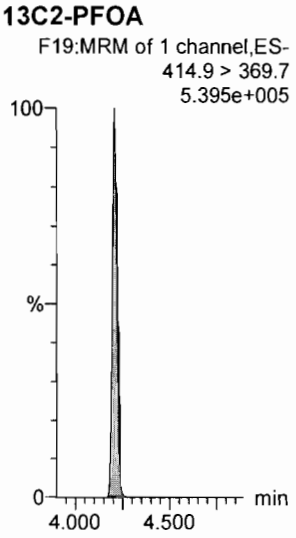




13C2-6:2 FTS



13C2-PFOA



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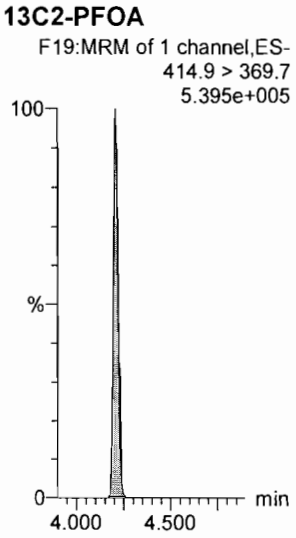
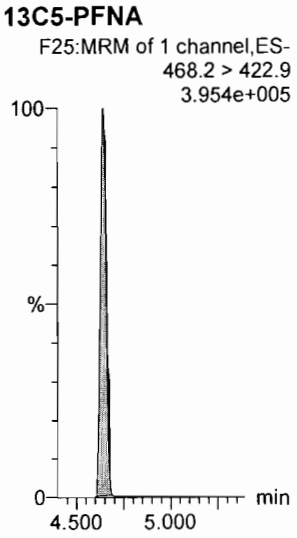
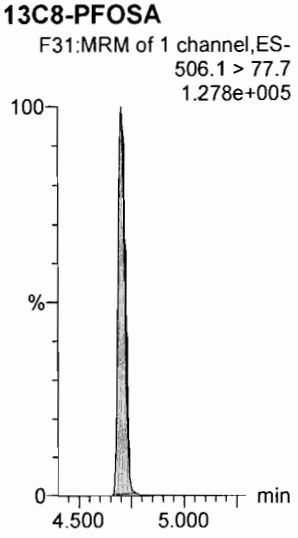


13C5-PFNA



13C8-PFOSA



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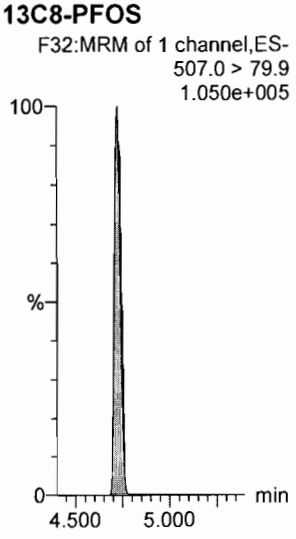

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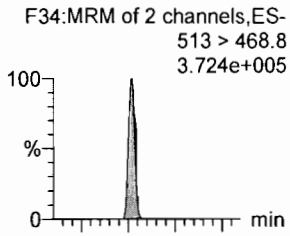
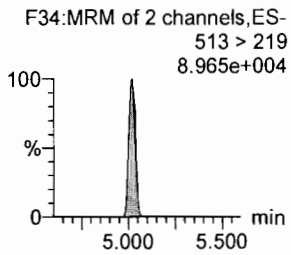
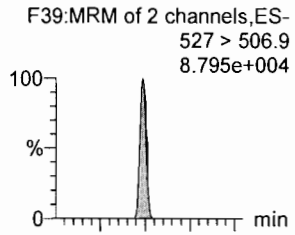
Name: 180104M1_36, Date: 05-Jan-2018, Time: 07:24:10, ID: ST180104M1-3 PFC CS3 17L2611, Description: PFC CS3 17L2611

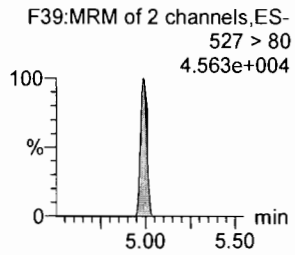
PFDA



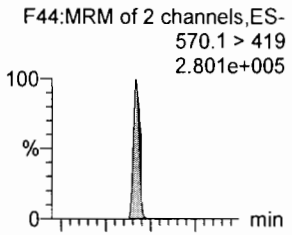


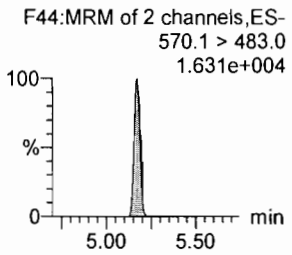
8:2 FTS





N-MeFOSAA





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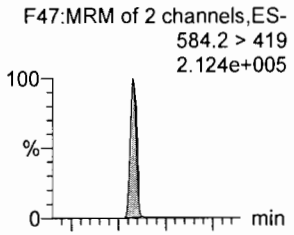
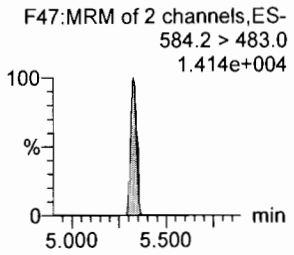
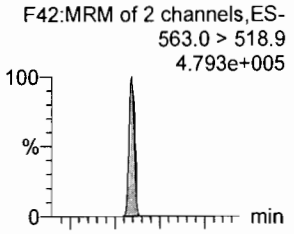
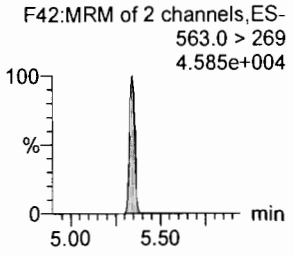




PFUdA





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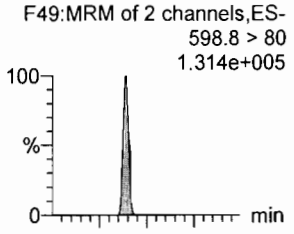
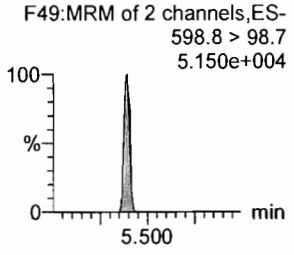
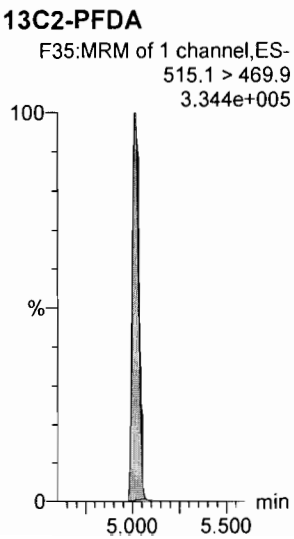
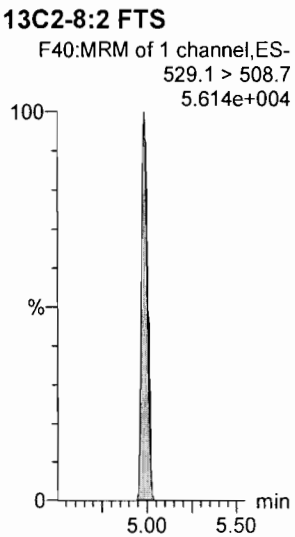




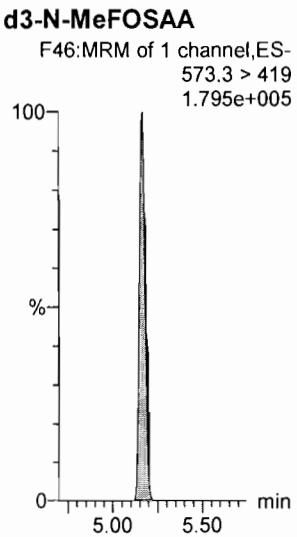
13C2-PFDA



13C2-8:2 FTS



d3-N-MeFOSAA



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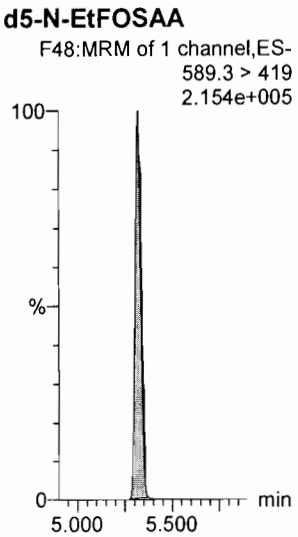
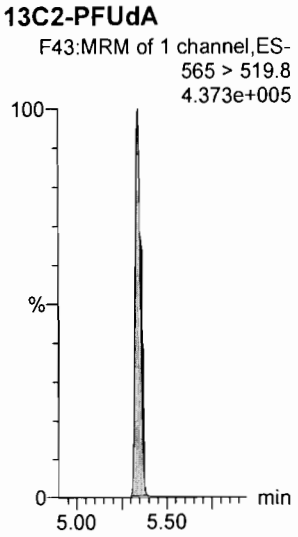


13C2-PFUdA



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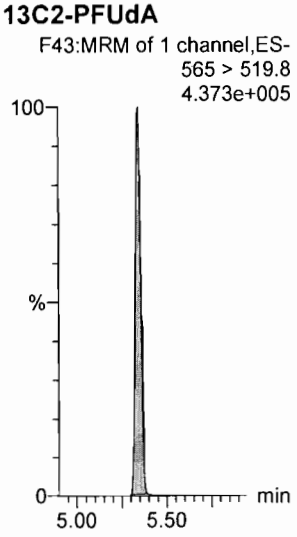

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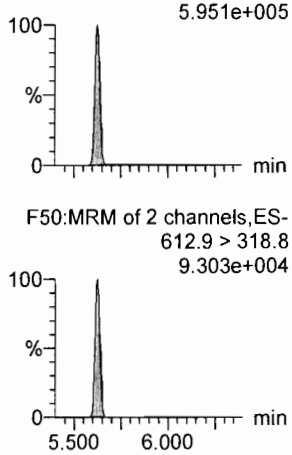
Last Altered: Friday, January 05, 2018 09:07:01 Pacific Standard Time
Printed: Friday, January 05, 2018 09:07:24 Pacific Standard Time

Name: 180104M1_36, Date: 05-Jan-2018, Time: 07:24:10, ID: ST180104M1-3 PFC CS3 17L2611, Description: PFC CS3 17L2611

PFDoA



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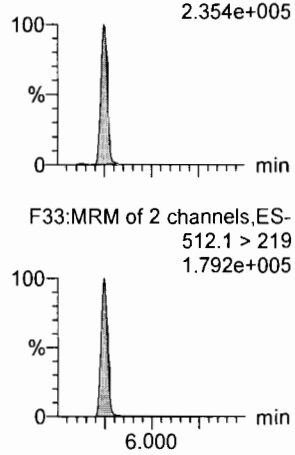

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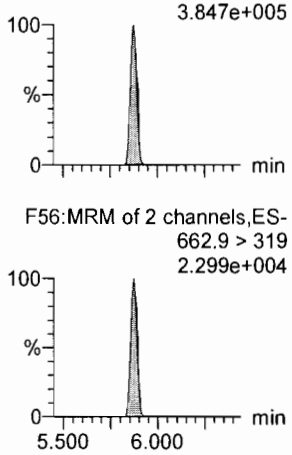

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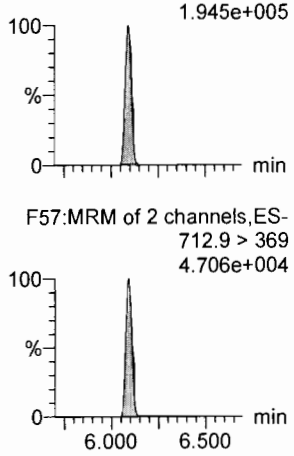
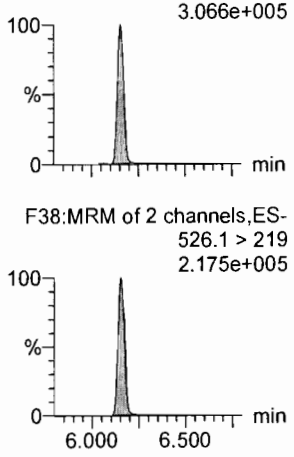
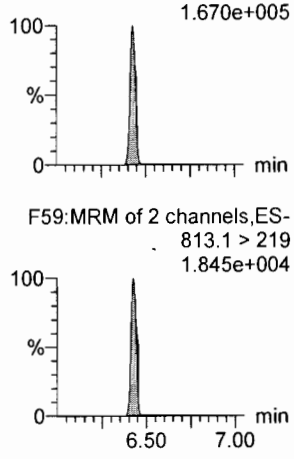


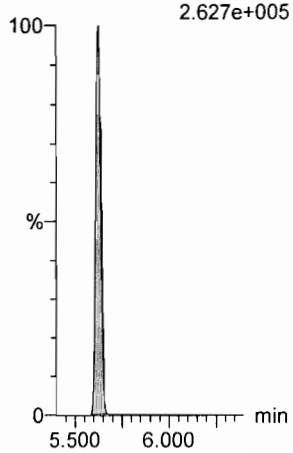
N-EtFOSA



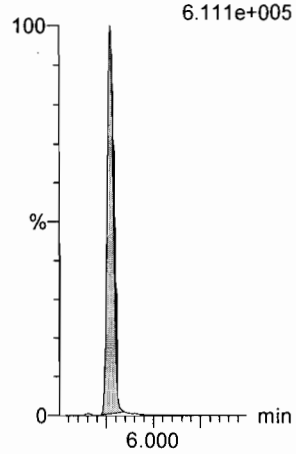
PFHxDA



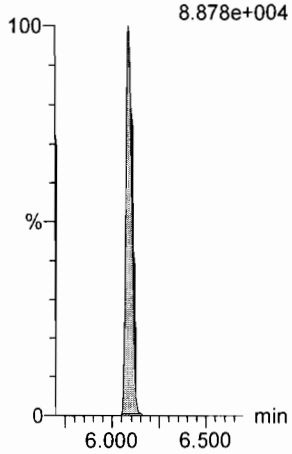
13C2-PFDoA



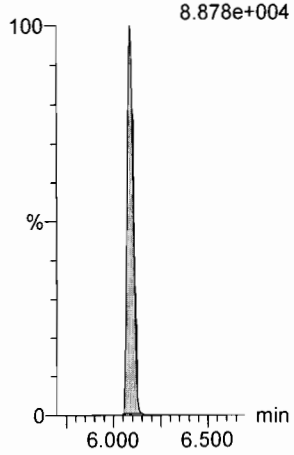
d3-N-MeFOSA



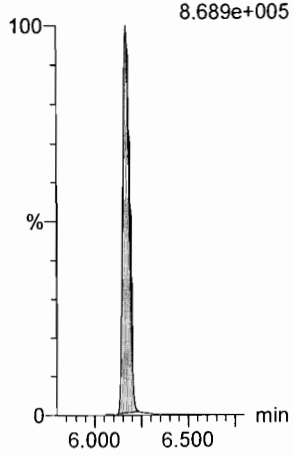
13C2-PFTeDA



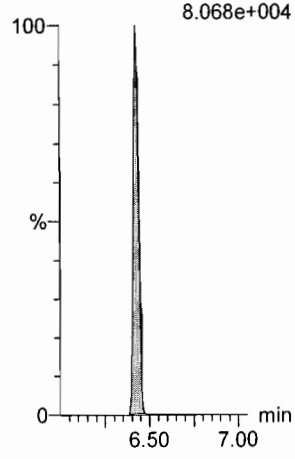
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

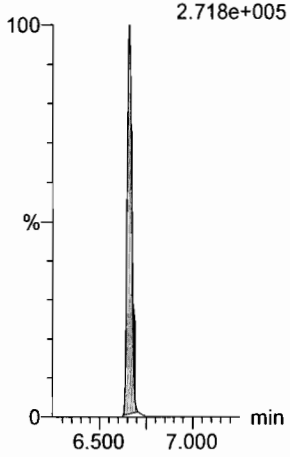


Dataset: U:\Q4.PRO\results\180104M1\180104M1-36.qld

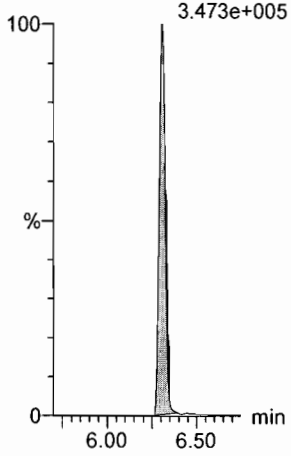
Last Altered: Friday, January 05, 2018 09:07:01 Pacific Standard Time
Printed: Friday, January 05, 2018 09:07:24 Pacific Standard Time

Name: 180104M1_36, Date: 05-Jan-2018, Time: 07:24:10, ID: ST180104M1-3 PFC CS3 17L2611, Description: PFC CS3 17L2611

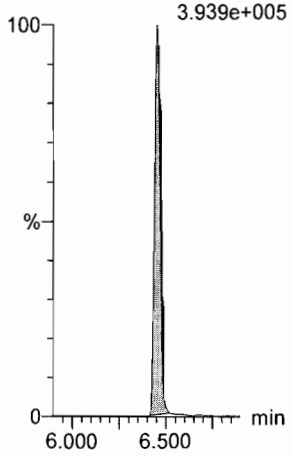
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.718e+005



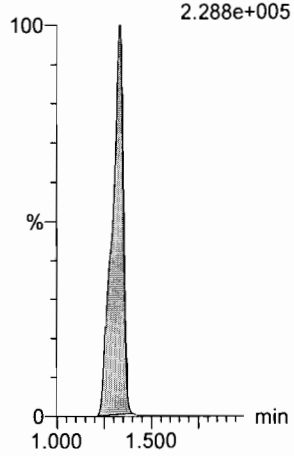
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.473e+005



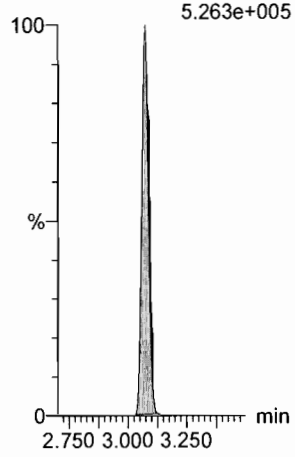
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.939e+005



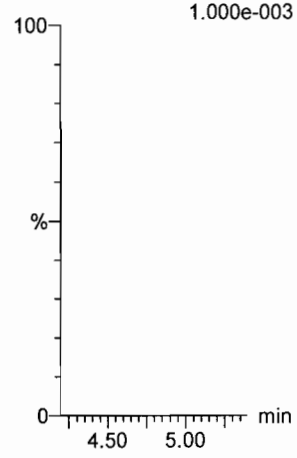
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
2.288e+005



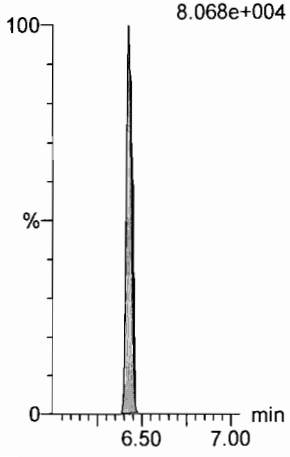
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.263e+005



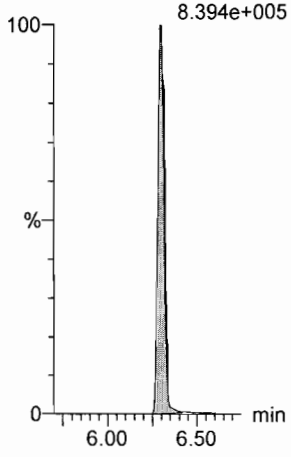
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



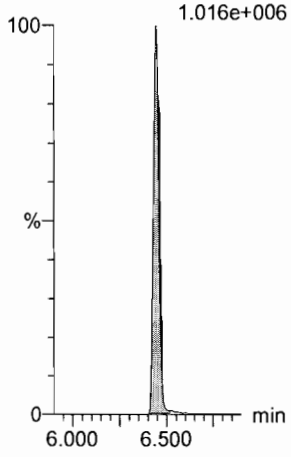
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.068e+004



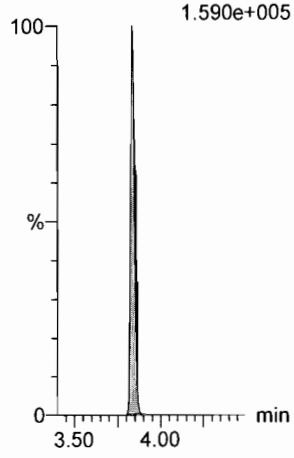
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
8.394e+005



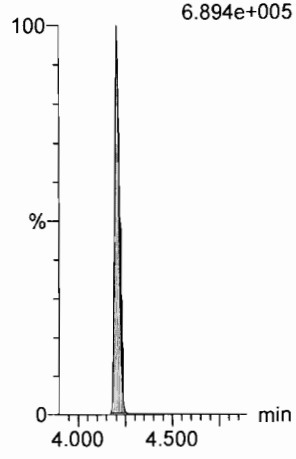
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
1.016e+006



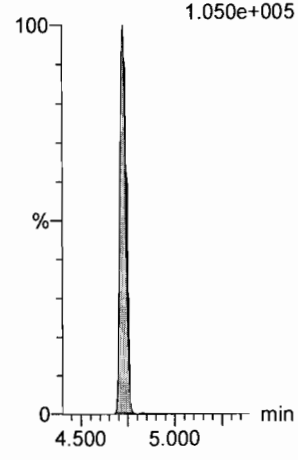
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.590e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
6.894e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
1.050e+005

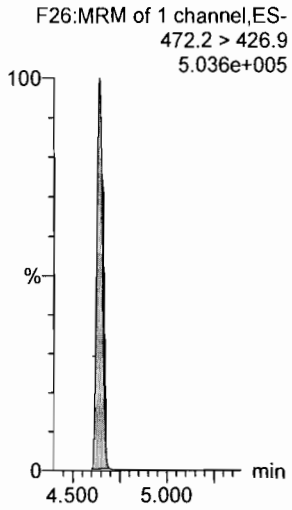


Dataset: U:\Q4.PRO\results\180104M1\180104M1-36.qld

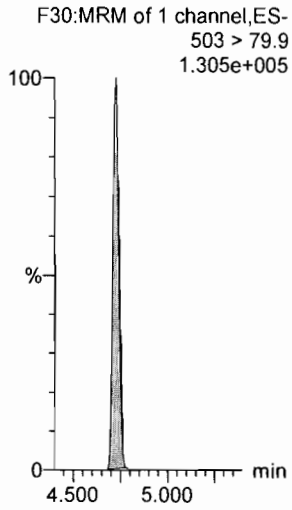
Last Altered: Friday, January 05, 2018 09:07:01 Pacific Standard Time
Printed: Friday, January 05, 2018 09:07:24 Pacific Standard Time

Name: 180104M1_36, Date: 05-Jan-2018, Time: 07:24:10, ID: ST180104M1-3 PFC CS3 17L2611, Description: PFC CS3 17L2611

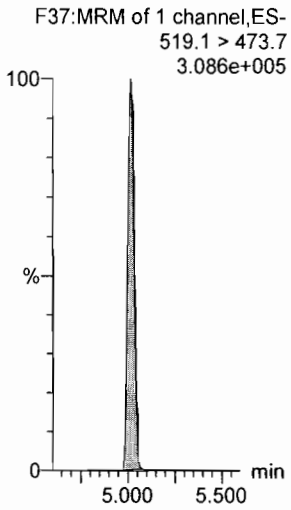
13C9-PFNA



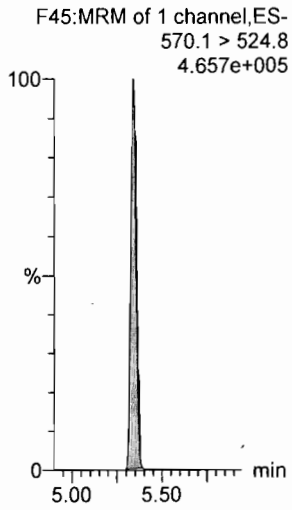
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

Ⓐ 8:2FTS < 70%; not used.

Dataset: U:\Q4.PRO\results\180104M1\180104M1-58.qld

Last Altered: Friday, January 05, 2018 12:59:49 Pacific Standard Time
Printed: Friday, January 05, 2018 13:01:20 Pacific Standard Time

AC 1/5/18
JA 01/05/2018

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_58, Date: 05-Jan-2018, Time: 11:35:31, ID: ST180104M1-4 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	1.35e3	1.33e4	1.0000		1.47	1.34	1.27	0.978	97.8
2	2	PFPeA	263.1 > 218.9	1.45e3	1.58e4	1.0000		2.40	2.31	1.15	0.963	96.3
3	3	PFBS	299.0 > 79.7	3.31e2	2.24e3	1.0000		2.70	2.59	1.85	0.915	91.5
4	4	PFHxA	313.2 > 268.9	1.79e3	4.85e3	1.0000		3.12	3.08	1.85	0.991	99.1
5	5	PFHpA	363.0 > 318.9	1.33e3	1.20e4	1.0000		3.75	3.69	1.39	0.923	92.3
6	6	L-PFHxS	398.9 > 79.6	1.64e2	1.50e3	1.0000		3.92	3.84	1.37	0.701	70.1
7	8	6:2 FTS	427.1 > 407	3.00e2	1.61e4	1.0000		4.20	4.16	0.233	0.876	87.6
8	9	L-PFOA	413 > 368.7	1.53e3	1.61e4	1.0000		4.25	4.21	1.19	0.778	77.8
9	11	PFHpS	449 > 80.0	4.09e2	1.61e4	1.0000		4.35	4.32	0.319	1.288	128.8
10	12	PFNA	463.0 > 418.8	1.55e3	1.60e4	1.0000		4.70	4.65	1.21	0.868	86.8
11	13	PFOSA	498.1 > 77.8	5.41e2	4.59e3	1.0000		4.81	4.70	1.47	1.099	109.9
12	14	L-PFOS	499 > 79.9	4.13e2	4.86e3	1.0000		4.83	4.73	1.06	1.010	101.0
13	16	PFDA	513 > 468.8	1.26e3	1.34e4	1.0000		5.05	5.02	1.18	0.808	80.8
14	17	8:2 FTS	527 > 506.9	2.89e2	4.86e3	1.0000		5.02	4.99	0.744	0.592	Ⓐ 59.2
15	18	N-MeFOSAA	570.1 > 419	8.73e2	7.41e3	1.0000		5.20	5.17	1.47	0.968	96.8
16	19	N-EtFOSAA	584.2 > 419	8.55e2	8.45e3	1.0000		5.42	5.33	1.26	1.016	101.6
17	20	PFUdA	563.0 > 518.9	1.37e3	1.45e4	1.0000		5.35	5.34	1.18	0.999	99.9
18	21	PFDS	598.8 > 80	3.62e2	1.45e4	1.0000		5.50	5.39	0.312	0.984	98.4
19	22	PFDoA	612.9 > 569.0	1.68e3	7.27e3	1.0000		5.70	5.63	2.89	1.254	125.4
20	23	N-MeFOSA	512.1 > 168.9	8.44e2	2.56e4	1.0000		5.77	5.75	4.95	4.502	90.0
21	24	PFTrDA	662.9 > 618.9	1.43e3	3.29e3	1.0000		5.95	5.87	5.44	1.043	104.3
22	25	PFTeDA	712.9 > 668.8	6.03e2	3.29e3	1.0000		6.16	6.09	2.29	0.738	73.8
23	26	N-EtFOSA	526.1 > 168.9	1.07e3	3.53e4	1.0000		6.15	6.15	4.55	4.501	90.0
24	27	PFHxDA	813.1 > 768.6	6.93e2	3.14e3	1.0000		6.48	6.43	1.10	1.023	102.3
25	28	PFODA	913.1 > 868.8	7.65e2	3.14e3	1.0000		6.70	6.66	1.22	1.093	109.3
26	29	N-MeFOSE	616.1 > 58.9	1.38e3	4.05e4	1.0000		6.30	6.31	5.11	4.568	91.4
27	30	N-EtFOSE	630.1 > 58.9	1.34e3	3.10e4	1.0000		6.42	6.45	6.45	4.897	97.9
28	31	13C3-PFBA	216.1 > 171.8	1.33e4	1.73e4	1.0000	0.775	1.47	1.34	9.62	12.414	99.3
29	32	13C3-PFPeA	266. > 221.8	1.58e4	2.10e4	1.0000	0.805	2.44	2.31	9.44	11.727	93.8
30	33	13C3-PFBS	302. > 98.8	2.24e3	2.10e4	1.0000	0.106	2.70	2.59	1.34	12.589	100.7
31	34	13C2-PFHxA	315 > 269.8	4.85e3	2.10e4	1.0000	0.633	3.20	3.08	2.89	4.564	91.3

70-130

50-150

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Dataset: U:\Q4.PRO\results\180104M1\180104M1-58.qld

Last Altered: Friday, January 05, 2018 12:59:49 Pacific Standard Time
Printed: Friday, January 05, 2018 13:01:20 Pacific Standard Time

Name: 180104M1_58, Date: 05-Jan-2018, Time: 11:35:31, ID: ST180104M1-4 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	1.20e4	2.10e4	1.0000	0.641	3.80	3.69	7.15	11.167	89.3
33	36	18O2-PFHxS	403.0 > 102.6	1.50e3	5.42e3	1.0000	0.334	3.95	3.84	3.45	10.320	82.6
34	37	13C2-6:2 FTS	429.1 > 408.9	4.23e3	1.83e4	1.0000	0.228	4.26	4.15	2.89	12.673	101.4
35	38	13C2-PFOA	414.9 > 369.7	1.61e4	1.83e4	1.0000	0.959	4.32	4.21	11.0	11.451	91.6
36	39	13C5-PFNA	468.2 > 422.9	1.60e4	2.05e4	1.0000	0.830	4.75	4.64	9.74	11.734	93.9
37	40	13C8-PFOSA	506.1 > 77.7	4.59e3	1.62e4	1.0000	0.262	4.81	4.71	3.54	13.510	108.1
38	41	13C8-PFOS	507.0 > 79.9	4.86e3	5.33e3	1.0000	0.880	4.83	4.73	11.4	12.945	103.6
39	42	13C2-PFDA	515.1 > 469.9	1.34e4	9.73e3	1.0000	0.995	5.11	5.02	17.2	17.312	138.5
40	43	13C2-8:2 FTS	529.1 > 508.7	2.22e3	2.10e4	1.0000	0.142	5.09	4.99	1.32	9.283	74.3
41	44	d3-N-MeFOSAA	573.3 > 419	7.41e3	1.62e4	1.0000	0.376	5.26	5.17	5.72	15.229	121.8
42	45	d5-N-EtFOSAA	589.3 > 419	8.45e3	1.62e4	1.0000	0.444	5.42	5.32	6.52	14.703	117.6
43	46	13C2-PFUdA	565 > 519.8	1.45e4	1.62e4	1.0000	0.889	5.43	5.34	11.2	12.615	100.9
44	47	13C2-PFDoA	615.0 > 569.7	7.27e3	1.62e4	1.0000	0.542	5.70	5.63	5.61	10.350	82.8
45	48	d3-N-MeFOSA	515.2 > 168.9	2.56e4	1.62e4	1.0000	0.117	5.80	5.78	19.7	169.299	112.9
46	49	13C2-PFTeDA	714.8 > 669.6	3.29e3	1.62e4	1.0000	0.230	6.16	6.09	2.54	11.028	88.2
47	50	d5-N-ETFOSA	531.1 > 168.9	3.53e4	1.62e4	1.0000	0.170	6.16	6.17	27.3	160.467	107.0
48	51	13C2-PFHxDA	815 > 769.7	3.14e3	1.62e4	1.0000	0.432	6.48	6.42	2.43	5.615	112.3
49	52	d7-N-MeFOSE	623.1 > 58.9	4.05e4	1.62e4	1.0000	0.161	6.30	6.29	31.2	193.552	129.0
50	53	d9-N-EtFOSE	639.2 > 58.8	3.10e4	1.62e4	1.0000	0.158	6.42	6.45	24.0	152.040	101.4
51	54	13C4-PFBA	217. > 171.8	1.73e4	1.73e4	1.0000	1.000	1.47	1.34	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	2.10e4	2.10e4	1.0000	1.000	3.20	3.08	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	5.42e3	5.42e3	1.0000	1.000	3.95	3.84	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.83e4	1.83e4	1.0000	1.000	4.32	4.21	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	2.05e4	2.05e4	1.0000	1.000	4.75	4.64	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	5.33e3	5.33e3	1.0000	1.000	4.83	4.73	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	9.73e3	9.73e3	1.0000	1.000	5.11	5.01	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.62e4	1.62e4	1.0000	1.000	5.43	5.34	12.5	12.500	100.0

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Dataset: Untitled

Last Altered: Friday, January 05, 2018 14:45:39 Pacific Standard Time
Printed: Friday, January 05, 2018 14:49:49 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 05 Jan 2018 10:33:24
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180104M1_01	ST180104M1-1 PFC CS0 17L2608	05-Jan-18	00:52:35
2	180104M1_02	IPA	05-Jan-18	01:04:00
3	180104M1_03	B7L0185-BS1 OPR 0.125	05-Jan-18	01:15:17
4	180104M1_04	B7L0185-BSD1 LCSD 0.125	05-Jan-18	01:26:28
5	180104M1_05	IPA	05-Jan-18	01:37:38
6	180104M1_06	B7L0185-BLK1 Method Blank 0.125	05-Jan-18	01:48:48
7	180104M1_07	1701949-01 REEPDW043 0.11929	05-Jan-18	01:59:59
8	180104M1_08	1701949-02 REEPDW044 0.10936	05-Jan-18	02:11:10
9	180104M1_09	1701949-03 REEPDW046 0.12057	05-Jan-18	02:22:21
10	180104M1_10	1701949-04 REEPDW047 0.1216	05-Jan-18	02:33:32
11	180104M1_11	1701949-05 REEPDW048 0.1211	05-Jan-18	02:44:42
12	180104M1_12	1701950-01 REEPDW043FRB 0.11883	05-Jan-18	02:55:53
13	180104M1_13	1701950-02 REEPDW044FRB 0.12043	05-Jan-18	03:07:04
14	180104M1_14	1701950-03 REEPDW046FRB 0.12167	05-Jan-18	03:18:14
15	180104M1_15	1701950-04 REEPDW047FRB 0.11765	05-Jan-18	03:29:25
16	180104M1_16	1701950-05 REEPDW048FRB 0.11608	05-Jan-18	03:40:36
17	180104M1_17	1701957-01 REEPDW049 0.11865	05-Jan-18	03:51:46
18	180104M1_18	1701957-02 REEPDW050 0.12041	05-Jan-18	04:02:57
19	180104M1_19	1701957-03 REEPDW0504 0.12011	05-Jan-18	04:14:08
20	180104M1_20	1701957-04 REEPDW051 0.11849	05-Jan-18	04:25:18
21	180104M1_21	1701957-05 REEPDW052 0.11161	05-Jan-18	04:36:30
22	180104M1_22	IPA	05-Jan-18	04:47:40
23	180104M1_23	ST180104M1-2 PFC CS3 17L2611	05-Jan-18	04:58:51
24	180104M1_24	IPA	05-Jan-18	05:10:02
25	180104M1_25	1701957-06 REEPDW053 0.11648	05-Jan-18	05:21:13
26	180104M1_26	1701957-07 REEPDW054 0.1179	05-Jan-18	05:32:24
27	180104M1_27	1701957-08 REEPDW045 0.12116	05-Jan-18	05:43:34
28	180104M1_28	1701862-10 WT1712041545MK 0.25348	05-Jan-18	05:54:45
29	180104M1_29	1701862-14 WR1712051625JNR 0.26032	05-Jan-18	06:05:56
30	180104M1_30	1701862-16 WR1712051610JNR 0.2624	05-Jan-18	06:17:06
31	180104M1_31	1701902-08RE1 WT1712071425JM 0.2598	05-Jan-18	06:28:17

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, January 05, 2018 14:45:39 Pacific Standard Time
Printed: Friday, January 05, 2018 14:49:49 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	180104M1_32	1701902-10RE1 WT1712071500JM 0.26089	05-Jan-18	06:39:27
33	180104M1_33	1701932-01RE1 GW1721171207RAP 0.26011	05-Jan-18	06:50:38
34	180104M1_34	1701932-02RE1 GW2731171208RAP 0.25947	05-Jan-18	07:01:49
35	180104M1_35	IPA	05-Jan-18	07:13:00
36	180104M1_36	ST180104M1-3 PFC CS3 17L2611	05-Jan-18	07:24:10
37	180104M1_37	IPA	05-Jan-18	07:35:21
38	180104M1_38	1701900-09 WT1712061120JM 0.26297	05-Jan-18	07:46:32
39	180104M1_39	IPA	05-Jan-18	07:57:42
40	180104M1_40	B8A0004-BLK1 Method Blank 5	05-Jan-18	08:08:53
41	180104M1_41	B8A0004-BS1 OPR 5	05-Jan-18	08:20:11
42	180104M1_42	B8A0004-BS2 OPR 5	05-Jan-18	08:31:24
43	180104M1_43	B8A0004-BS3 OPR 5	05-Jan-18	08:42:34
44	180104M1_44	B8A0004-BS4 OPR 5	05-Jan-18	08:53:45
45	180104M1_45	B7L0125-BS1 OPR 0.25	05-Jan-18	09:04:59
46	180104M1_46	B7L0125-BSD1 LCSD 0.25	05-Jan-18	09:16:14
47	180104M1_47	B7L0125-BLK1 Method Blank 0.25	05-Jan-18	09:27:26
48	180104M1_48	1701802-01RE1 FC-MW02SR1-NP-20171128...	05-Jan-18	09:42:44
49	180104M1_49	1701802-02RE1 FC-MW02SR1-P1-20171128 ...	05-Jan-18	09:54:44
50	180104M1_50	1701802-03RE1 FC-MW02SR1-P2-20171128 ...	05-Jan-18	10:05:56
51	180104M1_51	1701802-04RE1 FC-MW02SR1-P3-20171128 ...	05-Jan-18	10:17:07
52	180104M1_52	1701802-05RE1 FC-MW02SR1-FRB-2017112...	05-Jan-18	10:28:25
53	180104M1_53	1701802-06RE1 FC-MW02IR1-NP-20171128 ...	05-Jan-18	10:39:36
54	180104M1_54	1701802-07RE1 FC-MW02IR1-P1-20171128 ...	05-Jan-18	10:50:47
55	180104M1_55	1701802-08RE1 FC-MW02IR1-P2-20171128 ...	05-Jan-18	11:02:01
56	180104M1_56	1701802-09RE1 FC-MW02IR1-P3-20171128 ...	05-Jan-18	11:13:10
57	180104M1_57	IPA	05-Jan-18	11:24:21
58	180104M1_58	ST180104M1-4 PFC CS0 17L2608	05-Jan-18	11:35:31

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Last Altered: Friday, January 05, 2018 12:59:49 Pacific Standard Time
Printed: Friday, January 05, 2018 13:01:20 Pacific Standard Time

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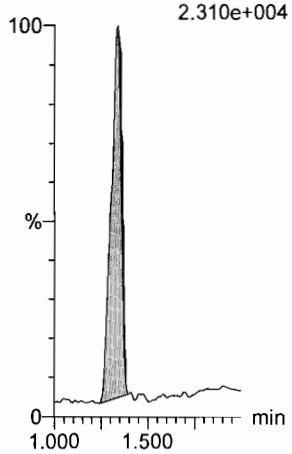
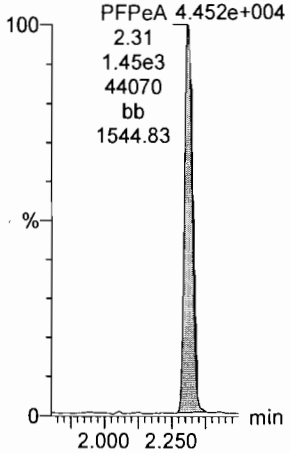
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180104M1_58, Date: 05-Jan-2018, Time: 11:35:31, ID: ST180104M1-4 PFC CS0 17L2608, Description: PFC CS0 17L2608

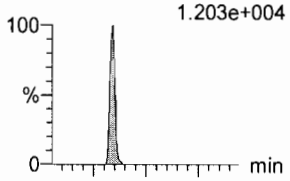
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
2.310e+004



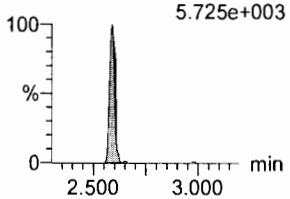
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
PFPeA 4.452e+004
2.31
1.45e3
44070
bb
1544.83



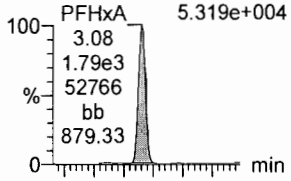
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
1.203e+004



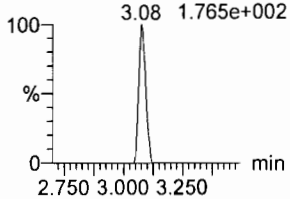
F6:MRM of 2 channels,ES-
299.0 > 99.0
5.725e+003



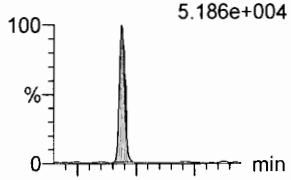
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
5.319e+004
PFHxA
3.08
1.79e3
52766
bb
879.33



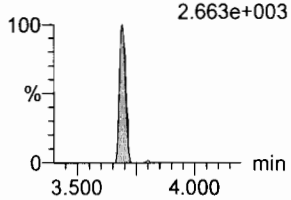
F8:MRM of 2 channels,ES-
313.2 > 119
3.08 1.765e+002



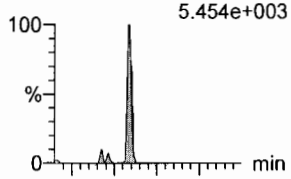
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
5.186e+004



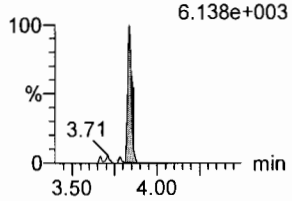
F13:MRM of 2 channels,ES-
363.0 > 169.0
2.663e+003



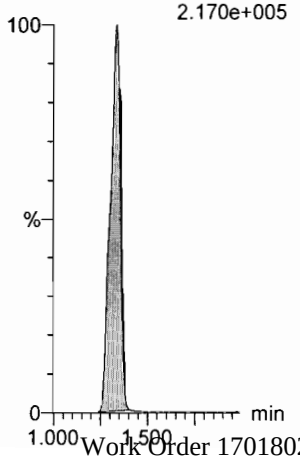
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
5.454e+003



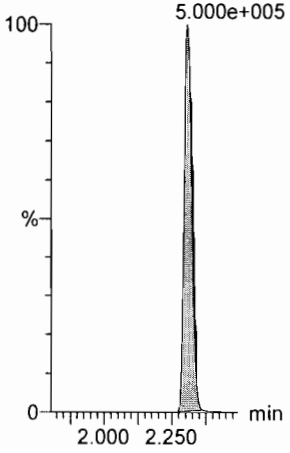
F15:MRM of 2 channels,ES-
398.9 > 99.0
6.138e+003



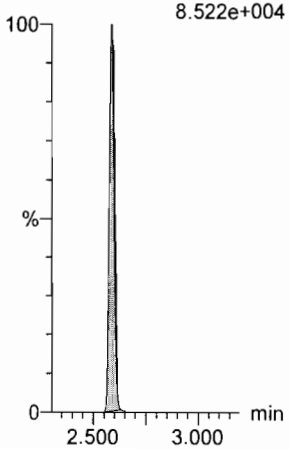
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
2.170e+005



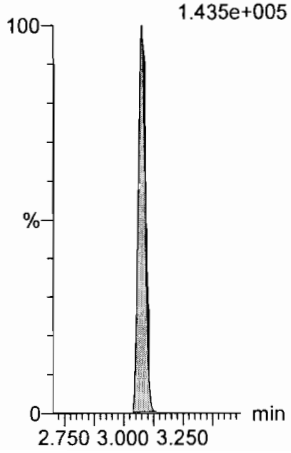
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
5.000e+005



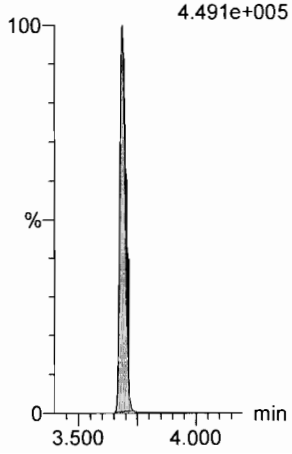
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
8.522e+004



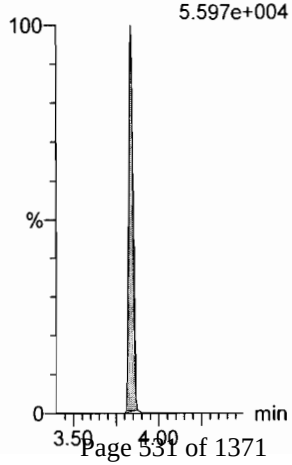
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.435e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
4.491e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
5.597e+004



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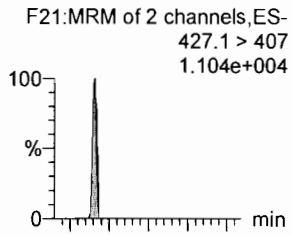
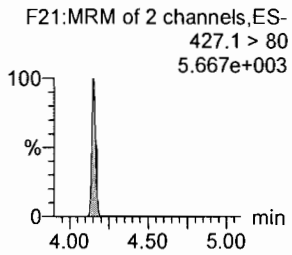
Printed: Friday, January 05, 2018 13:01:20 Pacific Standard Time

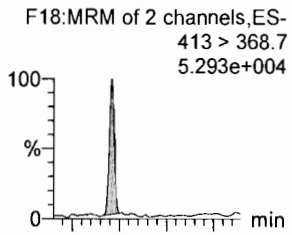
Name: 180104M1_58, Date: 05-Jan-2018, Time: 11:35:31, ID: ST180104M1-4 PFC CS0 17L2608, Description: PFC CS0 17L2608

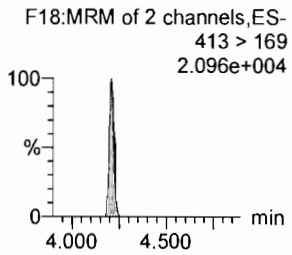
6:2 FTS



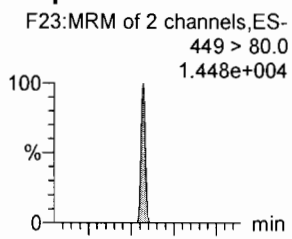


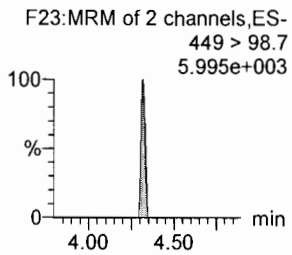
L-PFOA



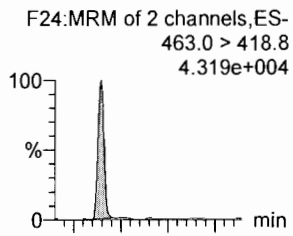


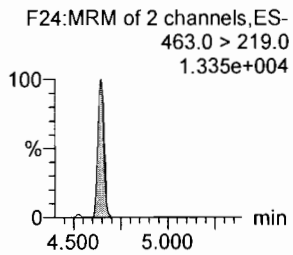
PFHpS



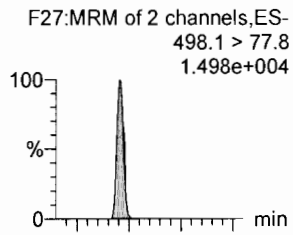


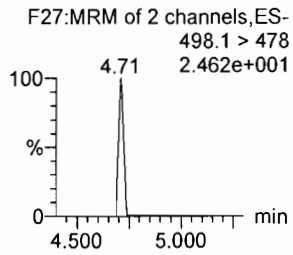
PFNA



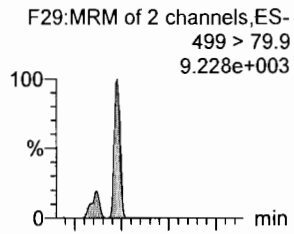


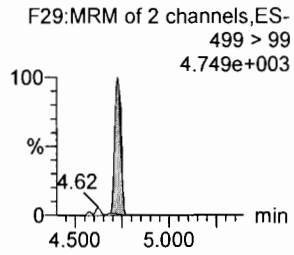
PFOSA



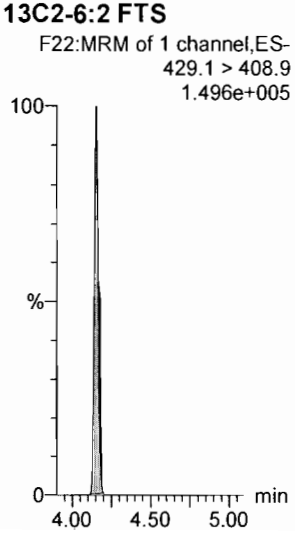


L-PFOS





13C2-6:2 FTS



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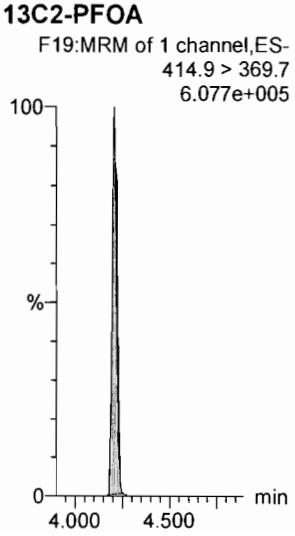
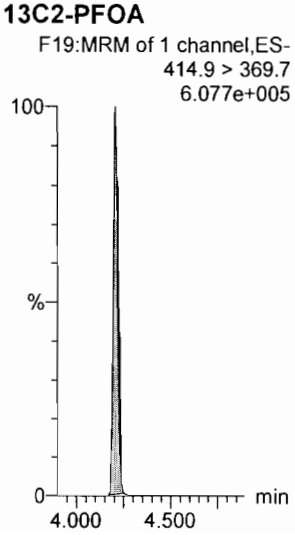


13C2-PFOA



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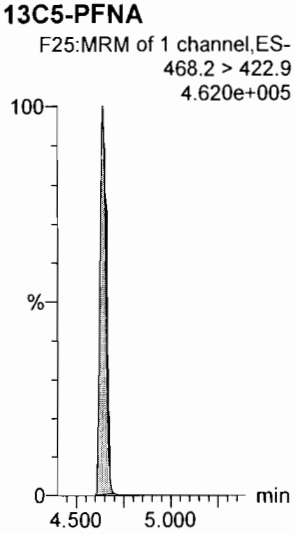

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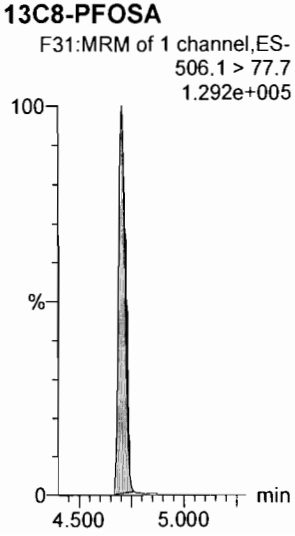

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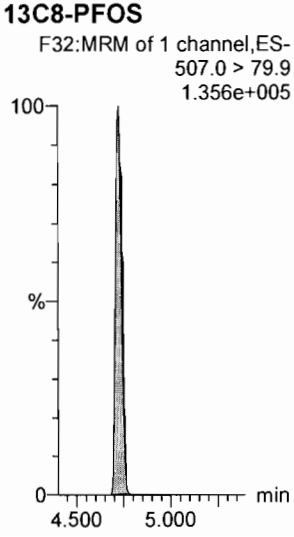

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Last Altered: Friday, January 05, 2018 12:59:49 Pacific Standard Time
Printed: Friday, January 05, 2018 13:01:20 Pacific Standard Time

Name: 180104M1_58, Date: 05-Jan-2018, Time: 11:35:31, ID: ST180104M1-4 PFC CS0 17L2608, Description: PFC CS0 17L2608

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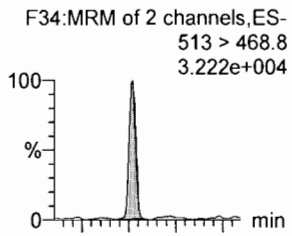
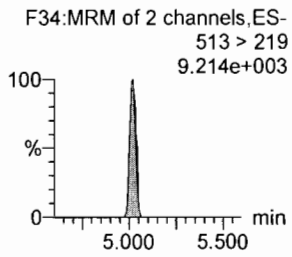
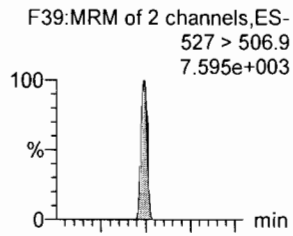
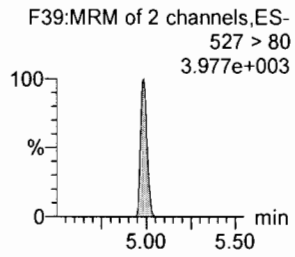




8:2 FTS





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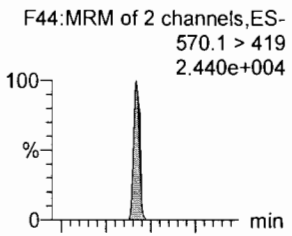

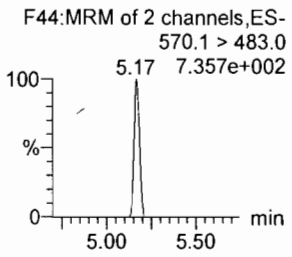

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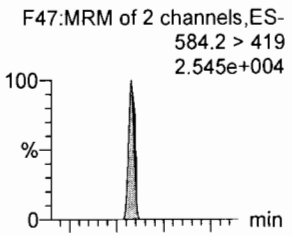
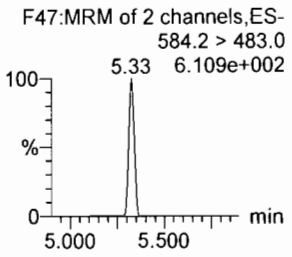
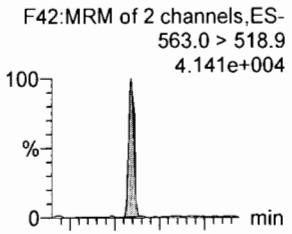
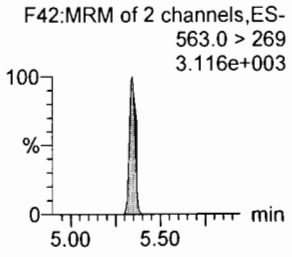




PFUdA





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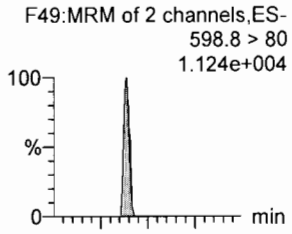
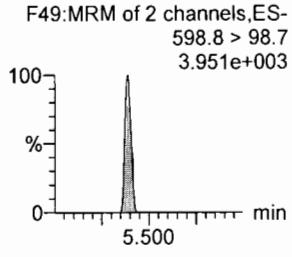
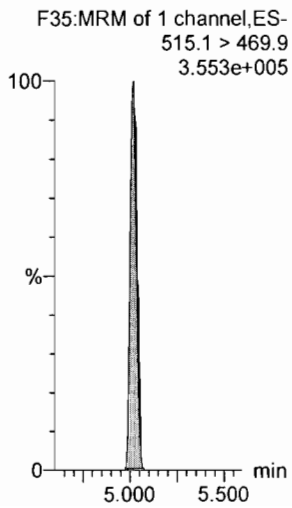
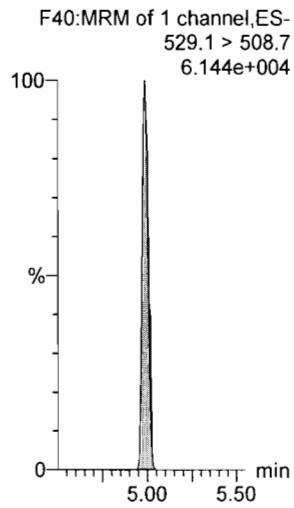




13C2-PFDA



13C2-8:2 FTS



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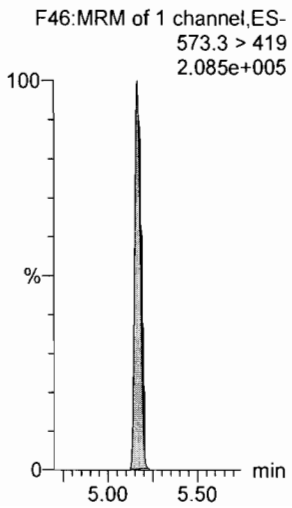
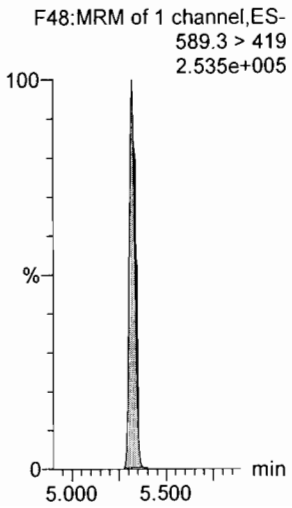
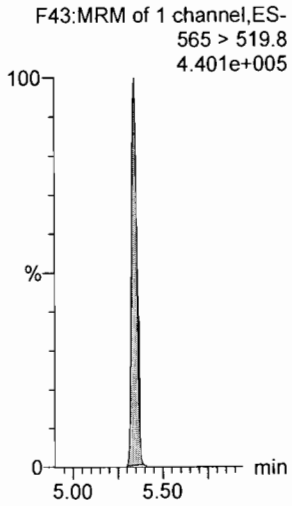


d5-N-EtFOSAA



13C2-PFUdA



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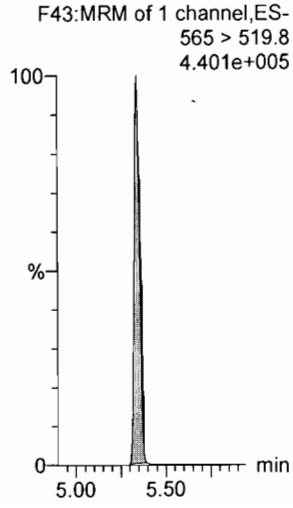

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Last Altered: Friday, January 05, 2018 12:59:49 Pacific Standard Time
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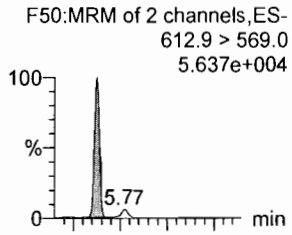
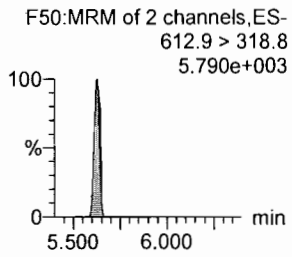
Name: 180104M1_58, Date: 05-Jan-2018, Time: 11:35:31, ID: ST180104M1-4 PFC CS0 17L2608, Description: PFC CS0 17L2608

PFDoA





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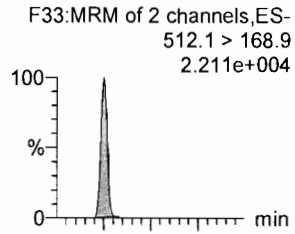
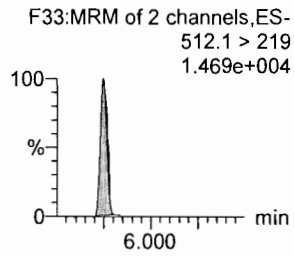
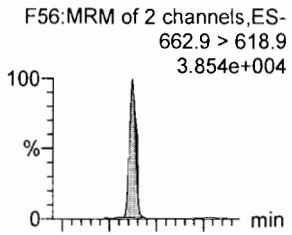
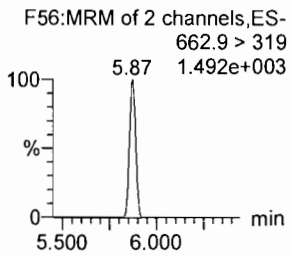


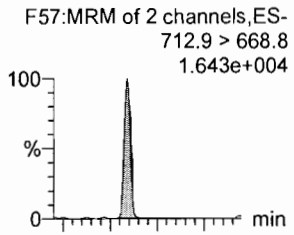


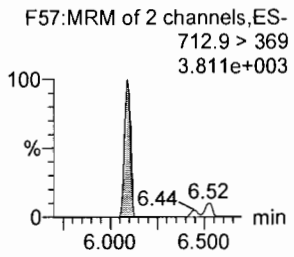
PFTrDA





PFTeDA





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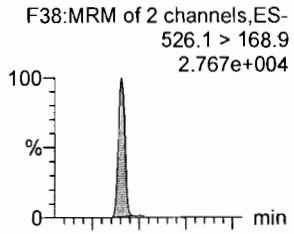

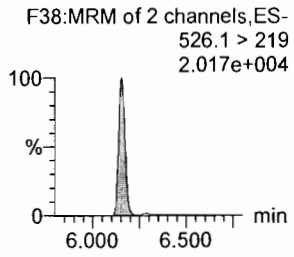

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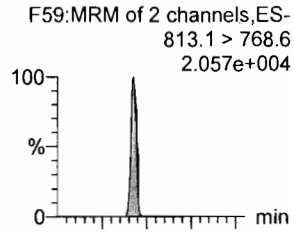

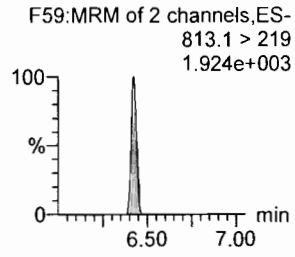

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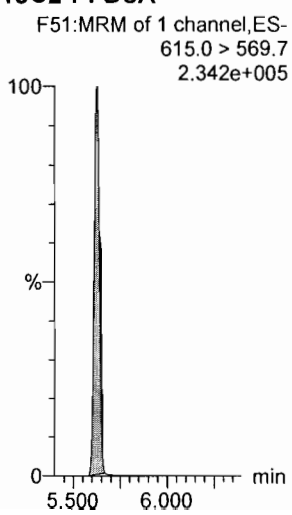
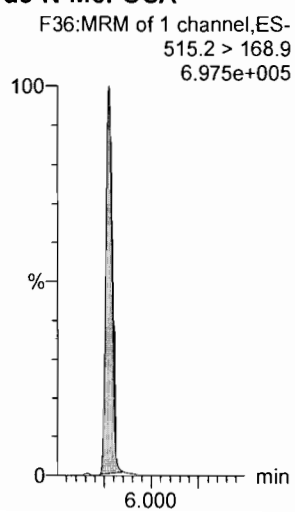


d3-N-MeFOSA



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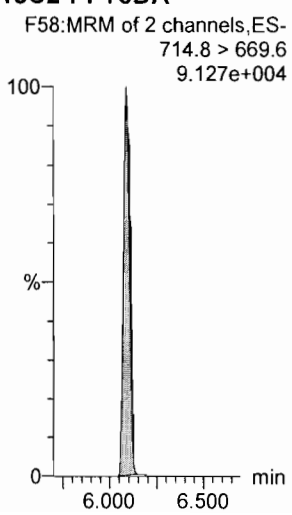

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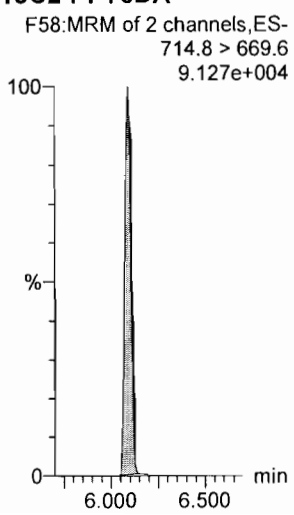
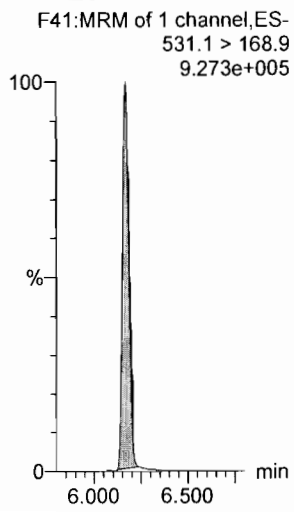
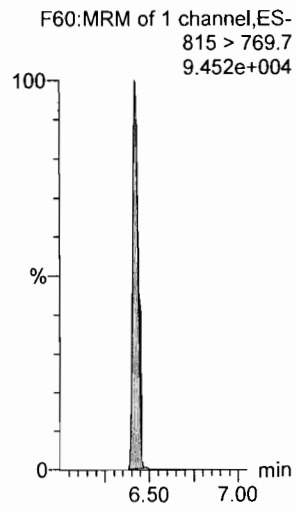


d5-N-ETFOSA



13C2-PFHxDA



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PFODA
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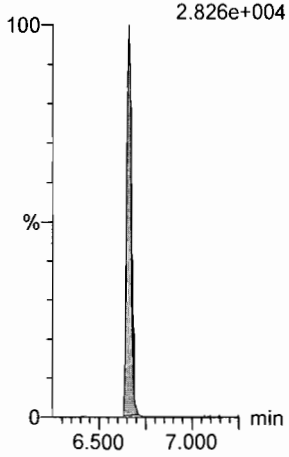
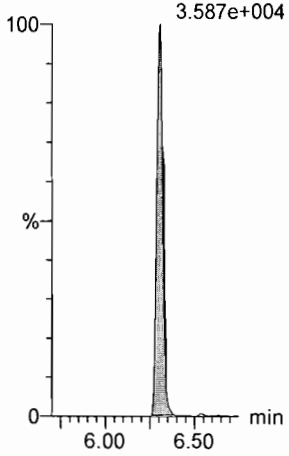
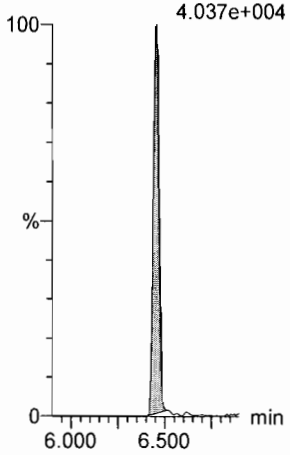
913.1 > 868.8
2.826e+004



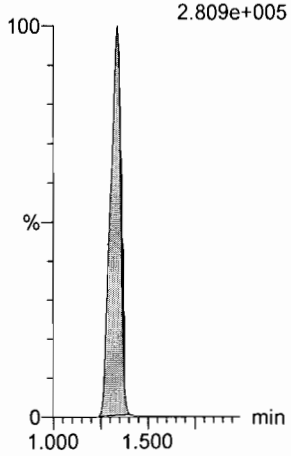
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.587e+004



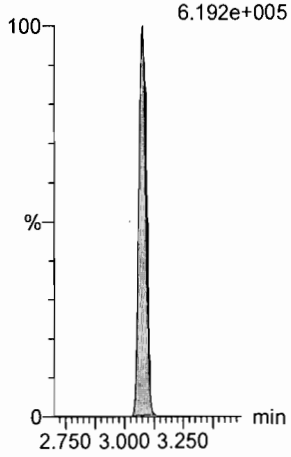
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
4.037e+004



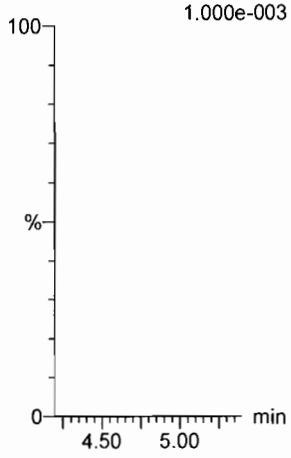
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
2.809e+005



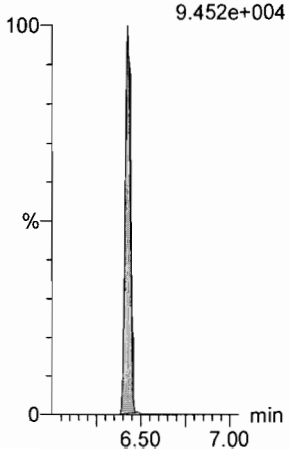
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
6.192e+005



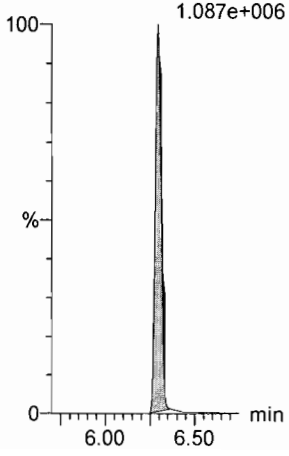
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



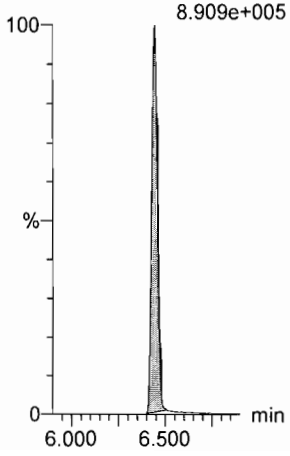
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
9.452e+004



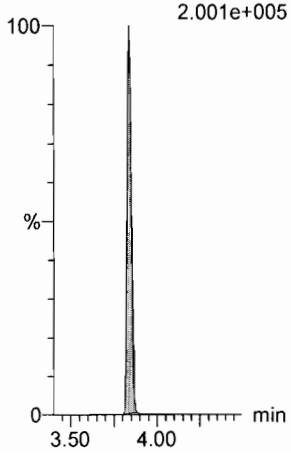
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
1.087e+006



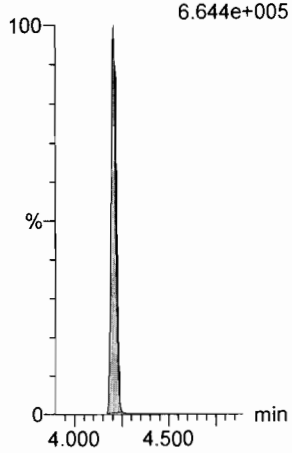
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
8.909e+005



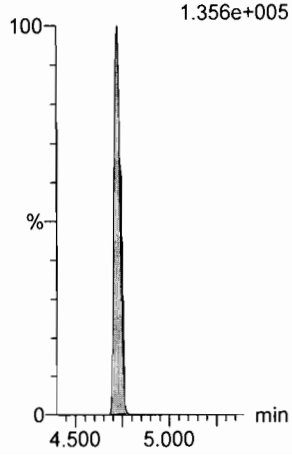
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
2.001e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
6.644e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
1.356e+005



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Name: 180104M1_58, Date: 05-Jan-2018, Time: 11:35:31, ID: ST180104M1-4 PFC CS0 17L2608, Description: PFC CS0 17L2608

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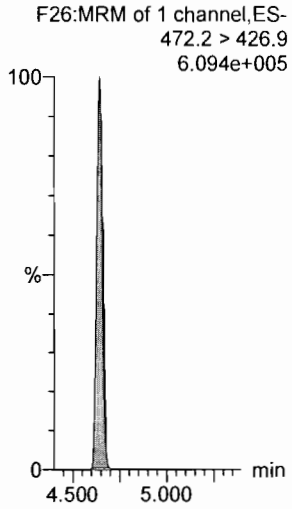
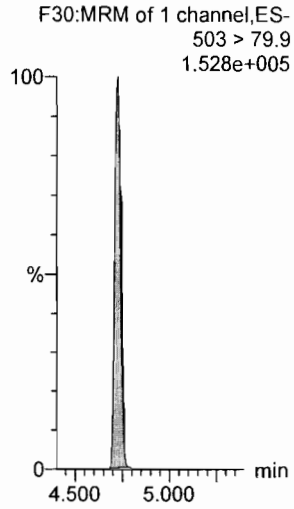
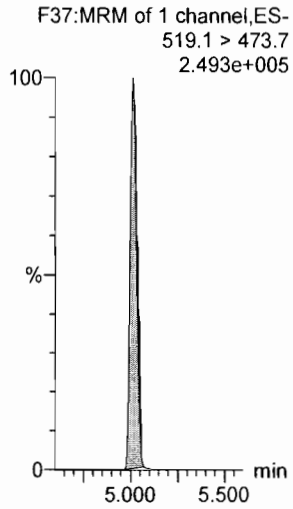


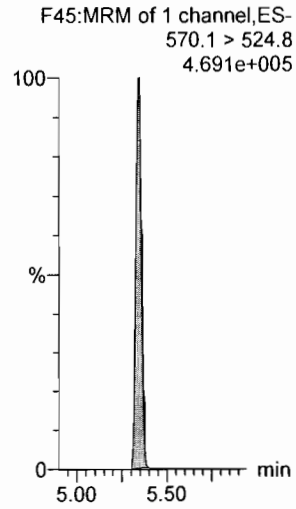
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Method: U:\Q4.PRO\MethDB\PFAS_RS-12-29-17.mdb 30 Dec 2017 10:03:31
Calibration: 13 Jan 2018 11:01:13

Name: 180111M2_1, Date: 12-Jan-2018, Time: 03:38:50, ID: ST180111M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180111M2-1 PFC CS0 17L2608	1.04e4	100.0	NO
2	2	13C5-PFHxA	ST180111M2-1 PFC CS0 17L2608	1.27e4	100.0	NO
3	3	13C3-PFHxS	ST180111M2-1 PFC CS0 17L2608	2.97e3	100.0	NO
4	4	13C8-PFOA	ST180111M2-1 PFC CS0 17L2608	1.13e4	100.0	NO
5	5	13C9-PFNA	ST180111M2-1 PFC CS0 17L2608	1.27e4	100.0	NO
6	6	13C4-PFOS	ST180111M2-1 PFC CS0 17L2608	2.84e3	100.0	NO
7	7	13C6-PFDA	ST180111M2-1 PFC CS0 17L2608	8.17e3	100.0	NO
8	8	13C7-PFUdA	ST180111M2-1 PFC CS0 17L2608	9.56e3	100.0	NO

Name: 180111M2_2, Date: 12-Jan-2018, Time: 03:49:59, 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: 180111M2_3, Date: 12-Jan-2018, Time: 04:01:09, ID: B7L0101-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0101-BS1 OPR 0.25	5.14e3	49.5	YES
2	2	13C5-PFHxA	B7L0101-BS1 OPR 0.25	6.19e3	48.7	YES
3	3	13C3-PFHxS	B7L0101-BS1 OPR 0.25	1.69e3	56.9	NO
4	4	13C8-PFOA	B7L0101-BS1 OPR 0.25	5.63e3	49.7	YES
5	5	13C9-PFNA	B7L0101-BS1 OPR 0.25	5.94e3	46.9	YES
6	6	13C4-PFOS	B7L0101-BS1 OPR 0.25	1.48e3	52.2	NO
7	7	13C6-PFDA	B7L0101-BS1 OPR 0.25	3.98e3	48.7	YES
8	8	13C7-PFUdA	B7L0101-BS1 OPR 0.25	6.30e3	65.9	NO

Name: 180111M2_4, Date: 12-Jan-2018, Time: 04:12:24, ID: B7L0101-BSD1 LCSD 0.25, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0101-BSD1 LCSD 0.25	6.14e3	59.1	NO
2	2	13C5-PFHxA	B7L0101-BSD1 LCSD 0.25	7.42e3	58.4	NO
3	3	13C3-PFHxS	B7L0101-BSD1 LCSD 0.25	1.87e3	62.8	NO
4	4	13C8-PFOA	B7L0101-BSD1 LCSD 0.25	7.36e3	65.0	NO
5	5	13C9-PFNA	B7L0101-BSD1 LCSD 0.25	6.93e3	54.8	NO
6	6	13C4-PFOS	B7L0101-BSD1 LCSD 0.25	1.67e3	58.8	NO
7	7	13C6-PFDA	B7L0101-BSD1 LCSD 0.25	5.88e3	71.9	NO
8	8	13C7-PFUdA	B7L0101-BSD1 LCSD 0.25	7.08e3	74.0	NO

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Name: 180111M2_5, Date: 12-Jan-2018, Time: 04:23:34, ID: B7L0101-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0101-BLK1 Method Blank 0.25	5.02e3	48.3	YES
2	2	13C5-PFHxA	B7L0101-BLK1 Method Blank 0.25	6.74e3	53.0	NO
3	3	13C3-PFHxS	B7L0101-BLK1 Method Blank 0.25	1.63e3	54.8	NO
4	4	13C8-PFOA	B7L0101-BLK1 Method Blank 0.25	6.15e3	54.3	NO
5	5	13C9-PFNA	B7L0101-BLK1 Method Blank 0.25	6.40e3	50.6	NO
6	6	13C4-PFOS	B7L0101-BLK1 Method Blank 0.25	1.85e3	65.3	NO
7	7	13C6-PFDA	B7L0101-BLK1 Method Blank 0.25	3.56e3	43.6	YES
8	8	13C7-PFUdA	B7L0101-BLK1 Method Blank 0.25	4.86e3	50.9	NO

Name: 180111M2_6, Date: 12-Jan-2018, Time: 04:34:44, ID: 1701840-04 YS22-GW16-1217 0.1211, Description: YS22-GW16-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701840-04 YS22-GW16-1217 0.1211	4.90e3	47.2	YES
2	2	13C5-PFHxA	1701840-04 YS22-GW16-1217 0.1211	5.98e3	47.1	YES
3	3	13C3-PFHxS	1701840-04 YS22-GW16-1217 0.1211	1.63e3	54.7	NO
4	4	13C8-PFOA	1701840-04 YS22-GW16-1217 0.1211	5.52e3	48.8	YES
5	5	13C9-PFNA	1701840-04 YS22-GW16-1217 0.1211	5.68e3	44.8	YES
6	6	13C4-PFOS	1701840-04 YS22-GW16-1217 0.1211	1.69e3	59.7	NO
7	7	13C6-PFDA	1701840-04 YS22-GW16-1217 0.1211	3.89e3	47.6	YES
8	8	13C7-PFUdA	1701840-04 YS22-GW16-1217 0.1211	5.62e3	58.8	NO

Name: 180111M2_7, Date: 12-Jan-2018, Time: 04:45:56, ID: 1701840-05 YS22-GW10-1217 0.11512, Description: YS22-GW10-1217

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701840-05 YS22-GW10-1217 0.11512	6.25e3	60.2	NO
2	2	13C5-PFHxA	1701840-05 YS22-GW10-1217 0.11512	6.21e3	48.8	YES
3	3	13C3-PFHxS	1701840-05 YS22-GW10-1217 0.11512	1.87e3	62.9	NO
4	4	13C8-PFOA	1701840-05 YS22-GW10-1217 0.11512	6.84e3	60.4	NO
5	5	13C9-PFNA	1701840-05 YS22-GW10-1217 0.11512	5.62e3	44.4	YES
6	6	13C4-PFOS	1701840-05 YS22-GW10-1217 0.11512	1.63e3	57.3	NO
7	7	13C6-PFDA	1701840-05 YS22-GW10-1217 0.11512	5.05e3	61.8	NO
8	8	13C7-PFUdA	1701840-05 YS22-GW10-1217 0.11512	5.66e3	59.2	NO

Name: 180111M2_8, Date: 12-Jan-2018, Time: 04:57:07, ID: 1701840-10 YS22-GW18-1117 0.1082, Description: YS22-GW18-1117

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701840-10 YS22-GW18-1117 0.1082	5.50e3	53.0	NO
2	2	13C5-PFHxA	1701840-10 YS22-GW18-1117 0.1082	6.58e3	51.8	NO
3	3	13C3-PFHxS	1701840-10 YS22-GW18-1117 0.1082	1.70e3	57.2	NO
4	4	13C8-PFOA	1701840-10 YS22-GW18-1117 0.1082	6.32e3	55.8	NO
5	5	13C9-PFNA	1701840-10 YS22-GW18-1117 0.1082	6.38e3	50.4	NO
6	6	13C4-PFOS	1701840-10 YS22-GW18-1117 0.1082	1.74e3	61.3	NO
7	7	13C6-PFDA	1701840-10 YS22-GW18-1117 0.1082	4.21e3	51.6	NO
8	8	13C7-PFUdA	1701840-10 YS22-GW18-1117 0.1082	5.68e3	59.4	NO

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Name: 180111M2_9, Date: 12-Jan-2018, Time: 05:08:18, ID: 1701851-01 FT-PZ-462S-20171202 0.22334, Description: FT-PZ-462S-20171202

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701851-01 FT-PZ-462S-20171202 0.2...	5.41e3	52.1	NO
2	2	13C5-PFHxA	1701851-01 FT-PZ-462S-20171202 0.2...	7.13e3	56.1	NO
3	3	13C3-PFHxS	1701851-01 FT-PZ-462S-20171202 0.2...	1.68e3	56.4	NO
4	4	13C8-PFOA	1701851-01 FT-PZ-462S-20171202 0.2...	6.43e3	56.8	NO
5	5	13C9-PFNA	1701851-01 FT-PZ-462S-20171202 0.2...	6.18e3	48.8	YES
6	6	13C4-PFOS	1701851-01 FT-PZ-462S-20171202 0.2...	1.67e3	59.0	NO
7	7	13C6-PFDA	1701851-01 FT-PZ-462S-20171202 0.2...	4.21e3	51.5	NO
8	8	13C7-PFUdA	1701851-01 FT-PZ-462S-20171202 0.2...	6.44e3	67.3	NO

Name: 180111M2_10, Date: 12-Jan-2018, Time: 05:19:28, ID: 1701851-02 FT-PZ-462I-20171202 0.25131, Description: FT-PZ-462I-20171202

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701851-02 FT-PZ-462I-20171202 0.25...	5.86e3	56.4	NO
2	2	13C5-PFHxA	1701851-02 FT-PZ-462I-20171202 0.25...	7.24e3	56.9	NO
3	3	13C3-PFHxS	1701851-02 FT-PZ-462I-20171202 0.25...	2.05e3	69.0	NO
4	4	13C8-PFOA	1701851-02 FT-PZ-462I-20171202 0.25...	6.94e3	61.3	NO
5	5	13C9-PFNA	1701851-02 FT-PZ-462I-20171202 0.25...	6.87e3	54.2	NO
6	6	13C4-PFOS	1701851-02 FT-PZ-462I-20171202 0.25...	1.77e3	62.4	NO
7	7	13C6-PFDA	1701851-02 FT-PZ-462I-20171202 0.25...	4.99e3	61.1	NO
8	8	13C7-PFUdA	1701851-02 FT-PZ-462I-20171202 0.25...	7.35e3	76.9	NO

Name: 180111M2_11, Date: 12-Jan-2018, Time: 05:30:39, ID: 1701851-03 FT-PZ-455S-20171202 0.2638, Description: FT-PZ-455S-20171202

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701851-03 FT-PZ-455S-20171202 0.2...	5.29e3	51.0	NO
2	2	13C5-PFHxA	1701851-03 FT-PZ-455S-20171202 0.2...	6.09e3	47.9	YES
3	3	13C3-PFHxS	1701851-03 FT-PZ-455S-20171202 0.2...	1.80e3	60.6	NO
4	4	13C8-PFOA	1701851-03 FT-PZ-455S-20171202 0.2...	5.55e3	49.0	YES
5	5	13C9-PFNA	1701851-03 FT-PZ-455S-20171202 0.2...	6.61e3	52.2	NO
6	6	13C4-PFOS	1701851-03 FT-PZ-455S-20171202 0.2...	1.70e3	59.9	NO
7	7	13C6-PFDA	1701851-03 FT-PZ-455S-20171202 0.2...	4.95e3	60.5	NO
8	8	13C7-PFUdA	1701851-03 FT-PZ-455S-20171202 0.2...	7.24e3	75.7	NO

Name: 180111M2_12, Date: 12-Jan-2018, Time: 05:41:50, ID: 1701851-04 FT-PZ-455I-20171202 0.25637, Description: FT-PZ-455I-20171202

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701851-04 FT-PZ-455I-20171202 0.25...	5.08e3	48.9	YES
2	2	13C5-PFHxA	1701851-04 FT-PZ-455I-20171202 0.25...	6.59e3	51.8	NO
3	3	13C3-PFHxS	1701851-04 FT-PZ-455I-20171202 0.25...	1.78e3	59.9	NO
4	4	13C8-PFOA	1701851-04 FT-PZ-455I-20171202 0.25...	6.17e3	54.5	NO
5	5	13C9-PFNA	1701851-04 FT-PZ-455I-20171202 0.25...	6.89e3	54.4	NO
6	6	13C4-PFOS	1701851-04 FT-PZ-455I-20171202 0.25...	1.64e3	57.7	NO
7	7	13C6-PFDA	1701851-04 FT-PZ-455I-20171202 0.25...	4.76e3	58.3	NO
8	8	13C7-PFUdA	1701851-04 FT-PZ-455I-20171202 0.25...	6.17e3	64.6	NO

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Name: 180111M2_13, Date: 12-Jan-2018, Time: 05:53:01, ID: 1701851-05 FT-PZ-453S-20171202 0.23285, Description: FT-PZ-453S-20171202

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701851-05 FT-PZ-453S-20171202 0.2...	5.26e3	50.7	NO
2	2	13C5-PFHxA	1701851-05 FT-PZ-453S-20171202 0.2...	6.01e3	47.3	YES
3	3	13C3-PFHxS	1701851-05 FT-PZ-453S-20171202 0.2...	1.83e3	61.5	NO
4	4	13C8-PFOA	1701851-05 FT-PZ-453S-20171202 0.2...	5.62e3	49.7	YES
5	5	13C9-PFNA	1701851-05 FT-PZ-453S-20171202 0.2...	6.24e3	49.3	YES
6	6	13C4-PFOS	1701851-05 FT-PZ-453S-20171202 0.2...	1.61e3	56.6	NO
7	7	13C6-PFDA	1701851-05 FT-PZ-453S-20171202 0.2...	4.03e3	49.3	YES
8	8	13C7-PFUdA	1701851-05 FT-PZ-453S-20171202 0.2...	4.58e3	47.9	YES

Name: 180111M2_14, Date: 12-Jan-2018, Time: 06:04:12, ID: 1701851-06 FT-PZ-453S-FRB-20171202 0.26159, Description: FT-PZ-453S-FRB-20171202

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701851-06 FT-PZ-453S-FRB-2017120...	5.87e3	56.5	NO
2	2	13C5-PFHxA	1701851-06 FT-PZ-453S-FRB-2017120...	6.18e3	48.6	YES
3	3	13C3-PFHxS	1701851-06 FT-PZ-453S-FRB-2017120...	2.01e3	67.7	NO
4	4	13C8-PFOA	1701851-06 FT-PZ-453S-FRB-2017120...	6.66e3	58.9	NO
5	5	13C9-PFNA	1701851-06 FT-PZ-453S-FRB-2017120...	6.07e3	47.9	YES
6	6	13C4-PFOS	1701851-06 FT-PZ-453S-FRB-2017120...	1.62e3	57.0	NO
7	7	13C6-PFDA	1701851-06 FT-PZ-453S-FRB-2017120...	4.40e3	53.9	NO
8	8	13C7-PFUdA	1701851-06 FT-PZ-453S-FRB-2017120...	6.34e3	66.3	NO

Name: 180111M2_15, Date: 12-Jan-2018, Time: 06:15:23, ID: 1701851-07 FT-PZ-456I-FRB-20171204 0.2536, Description: FT-PZ-456I-FRB-20171204

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701851-07 FT-PZ-456I-FRB-2017120...	4.55e3	43.8	YES
2	2	13C5-PFHxA	1701851-07 FT-PZ-456I-FRB-2017120...	5.30e3	41.7	YES
3	3	13C3-PFHxS	1701851-07 FT-PZ-456I-FRB-2017120...	1.34e3	45.1	YES
4	4	13C8-PFOA	1701851-07 FT-PZ-456I-FRB-2017120...	5.40e3	47.7	YES
5	5	13C9-PFNA	1701851-07 FT-PZ-456I-FRB-2017120...	6.05e3	47.8	YES
6	6	13C4-PFOS	1701851-07 FT-PZ-456I-FRB-2017120...	1.36e3	48.1	YES
7	7	13C6-PFDA	1701851-07 FT-PZ-456I-FRB-2017120...	3.61e3	44.2	YES
8	8	13C7-PFUdA	1701851-07 FT-PZ-456I-FRB-2017120...	6.06e3	63.4	NO

Name: 180111M2_16, Date: 12-Jan-2018, Time: 06:26:36, ID: 1701851-08 FT-PZ-456I-20171204 0.26041, Description: FT-PZ-456I-20171204

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701851-08 FT-PZ-456I-20171204 0.26...	6.02e3	57.9	NO
2	2	13C5-PFHxA	1701851-08 FT-PZ-456I-20171204 0.26...	7.06e3	55.6	NO
3	3	13C3-PFHxS	1701851-08 FT-PZ-456I-20171204 0.26...	1.77e3	59.5	NO
4	4	13C8-PFOA	1701851-08 FT-PZ-456I-20171204 0.26...	6.34e3	56.0	NO
5	5	13C9-PFNA	1701851-08 FT-PZ-456I-20171204 0.26...	7.21e3	57.0	NO
6	6	13C4-PFOS	1701851-08 FT-PZ-456I-20171204 0.26...	2.12e3	74.9	NO
7	7	13C6-PFDA	1701851-08 FT-PZ-456I-20171204 0.26...	3.92e3	48.0	YES
8	8	13C7-PFUdA	1701851-08 FT-PZ-456I-20171204 0.26...	6.90e3	72.2	NO

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Name: 180111M2_17, Date: 12-Jan-2018, Time: 06:37:48, ID: 1701851-09 FT-PZ-456S-20171204 0.25898, Description: FT-PZ-456S-20171204

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701851-09 FT-PZ-456S-20171204 0.2...	5.12e3	49.3	YES
2	2	13C5-PFHxA	1701851-09 FT-PZ-456S-20171204 0.2...	5.71e3	44.9	YES
3	3	13C3-PFHxS	1701851-09 FT-PZ-456S-20171204 0.2...	1.58e3	53.2	NO
4	4	13C8-PFOA	1701851-09 FT-PZ-456S-20171204 0.2...	5.63e3	49.7	YES
5	5	13C9-PFNA	1701851-09 FT-PZ-456S-20171204 0.2...	5.63e3	44.5	YES
6	6	13C4-PFOS	1701851-09 FT-PZ-456S-20171204 0.2...	1.29e3	45.4	YES
7	7	13C6-PFDA	1701851-09 FT-PZ-456S-20171204 0.2...	4.23e3	51.8	NO
8	8	13C7-PFUdA	1701851-09 FT-PZ-456S-20171204 0.2...	6.85e3	71.7	NO

Name: 180111M2_18, Date: 12-Jan-2018, Time: 06:48:59, 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: 180111M2_19, Date: 12-Jan-2018, Time: 07:00:09, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180111M2-2 PFC CS3 17L2611	1.40e4	134.8	NO
2	2	13C5-PFHxA	ST180111M2-2 PFC CS3 17L2611	1.63e4	128.5	NO
3	3	13C3-PFHxS	ST180111M2-2 PFC CS3 17L2611	4.06e3	136.6	NO
4	4	13C8-PFOA	ST180111M2-2 PFC CS3 17L2611	1.47e4	130.0	NO
5	5	13C9-PFNA	ST180111M2-2 PFC CS3 17L2611	1.39e4	109.5	NO
6	6	13C4-PFOS	ST180111M2-2 PFC CS3 17L2611	3.47e3	122.1	NO
7	7	13C6-PFDA	ST180111M2-2 PFC CS3 17L2611	1.14e4	139.1	NO
8	8	13C7-PFUdA	ST180111M2-2 PFC CS3 17L2611	1.34e4	140.5	NO

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Dataset: U:\Q4.PRO\results\180111M2\1801111M2-2.qld

Last Altered: Saturday, January 13, 2018 11:17:02 Pacific Standard Time
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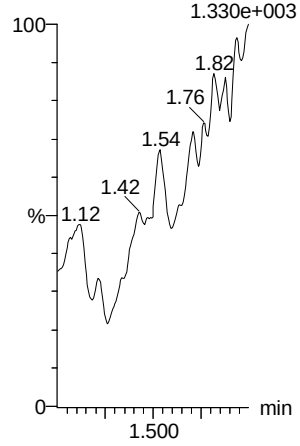
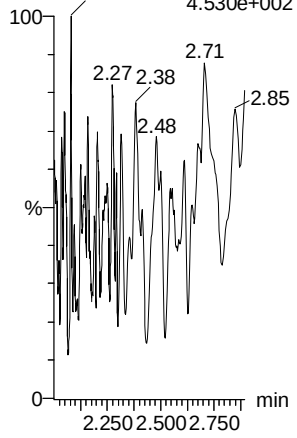
Name: 180111M2_2, Date: 12-Jan-2018, Time: 03:49:59, ID: IPA, Description: IPA

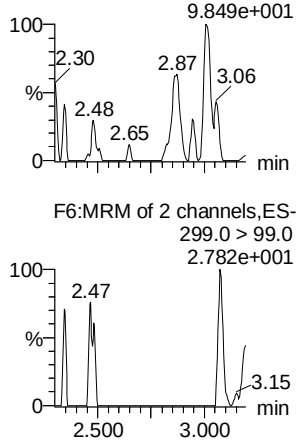
PFBA



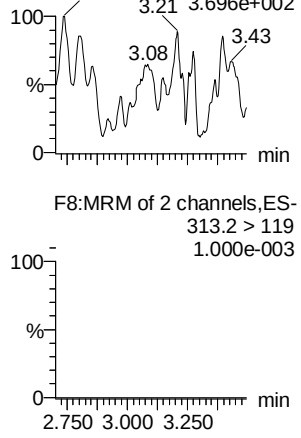
PFPeA



PFBS



PFHxA



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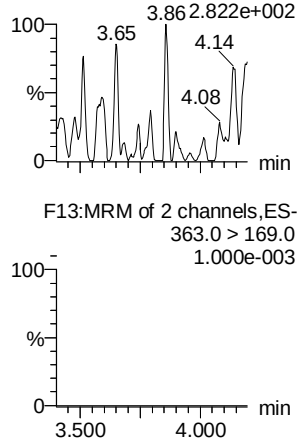

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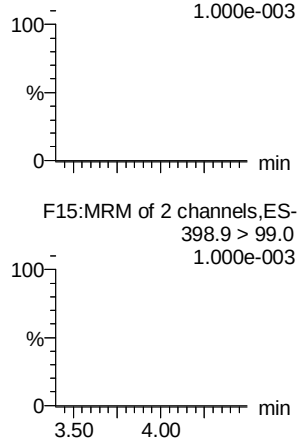
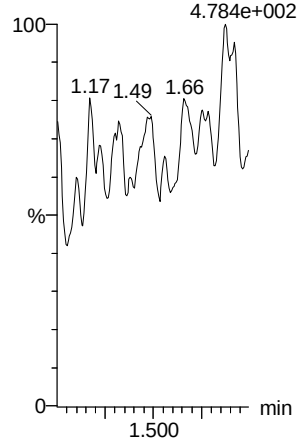


13C3-PFBA



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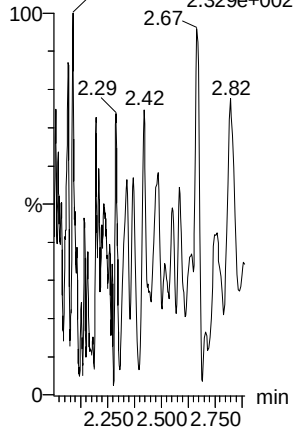

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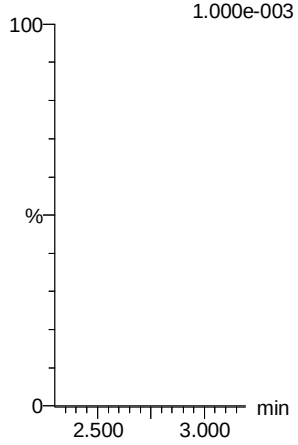
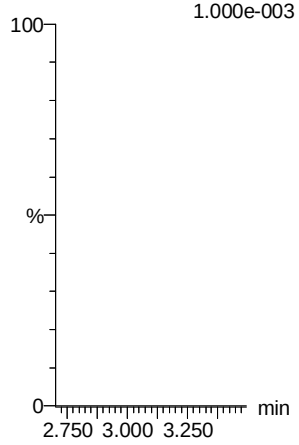


13C2-PFHxA



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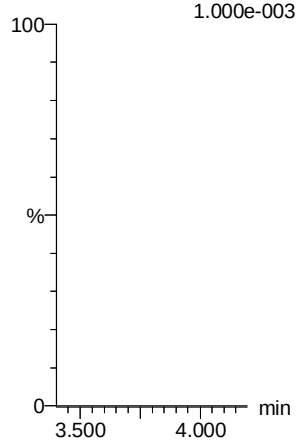

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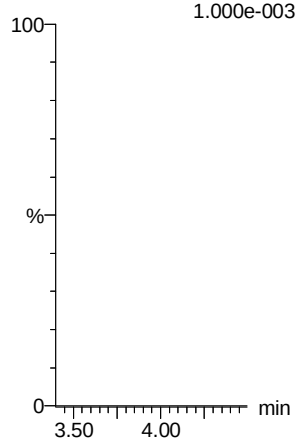

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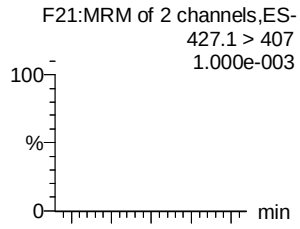
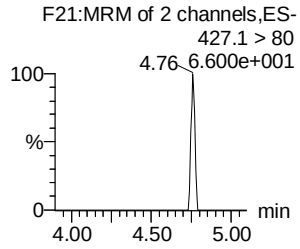
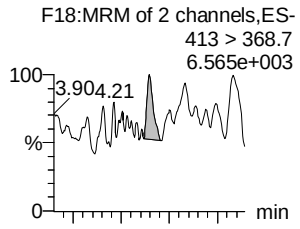
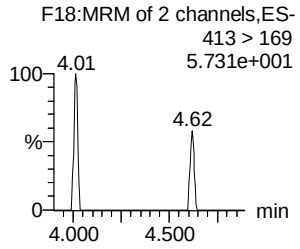


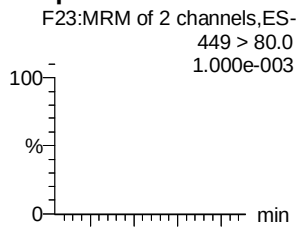


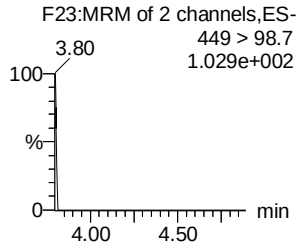
L-PFOA





PFHpS





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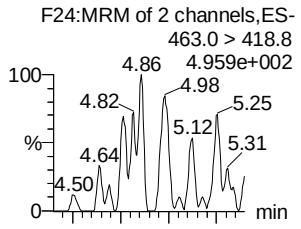
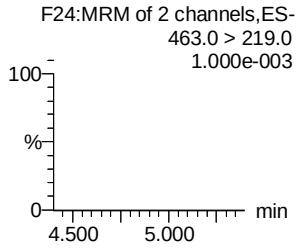
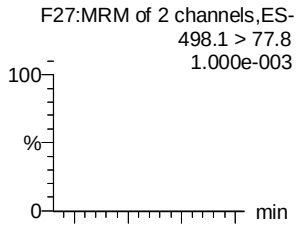
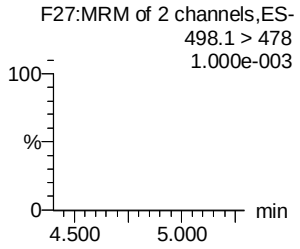




PFOSA





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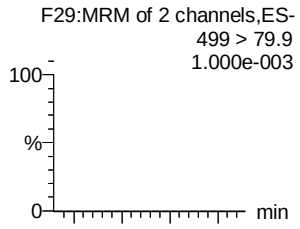
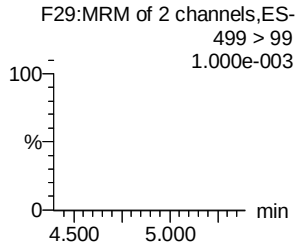
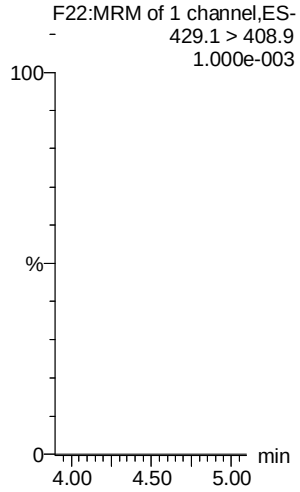
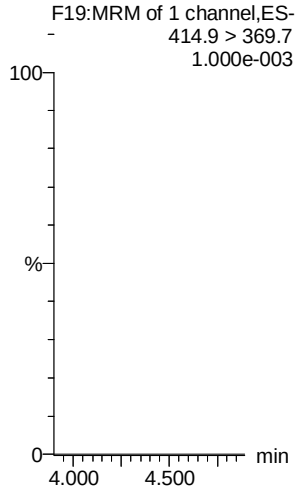




13C2-6:2 FTS



13C2-PFOA



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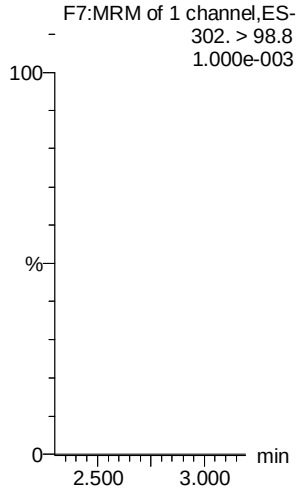

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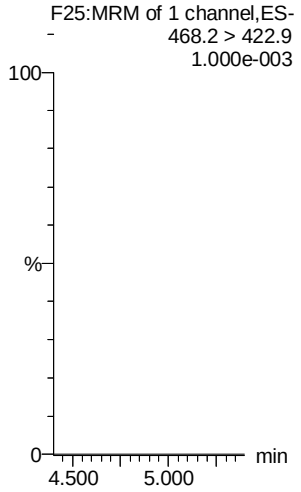

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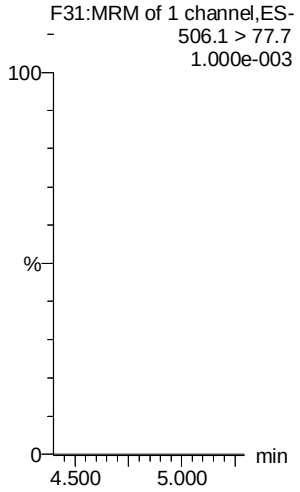

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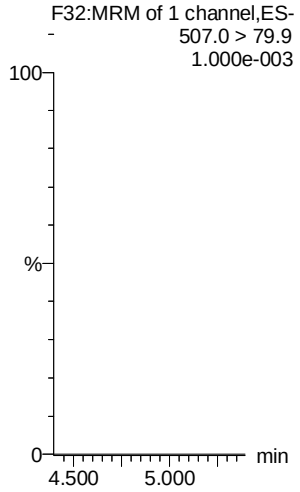

ANP 1/13/2018

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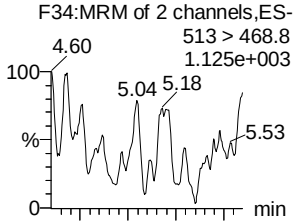
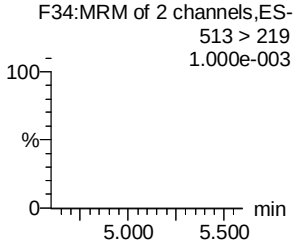
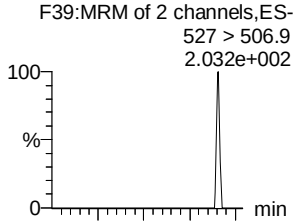
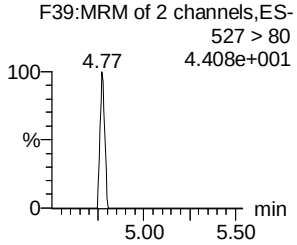




8:2 FTS





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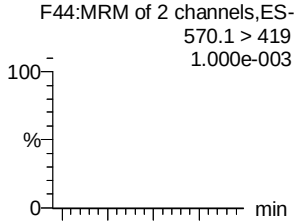

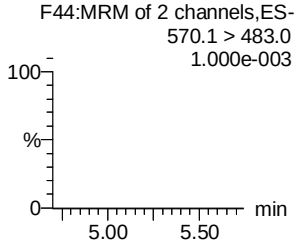

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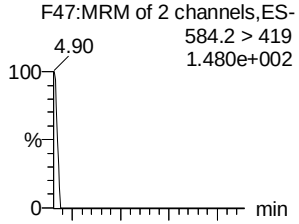
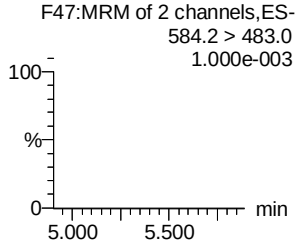
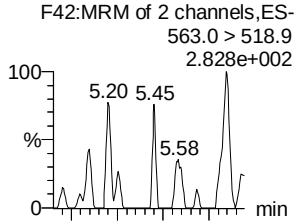
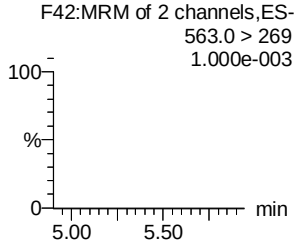




PFUdA





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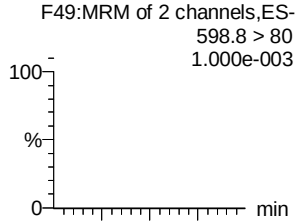
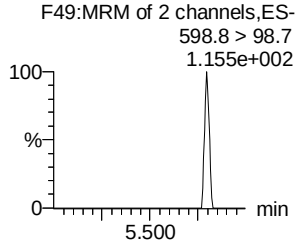
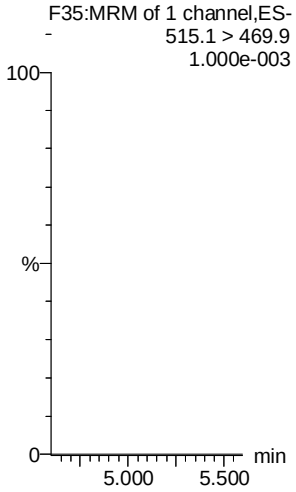
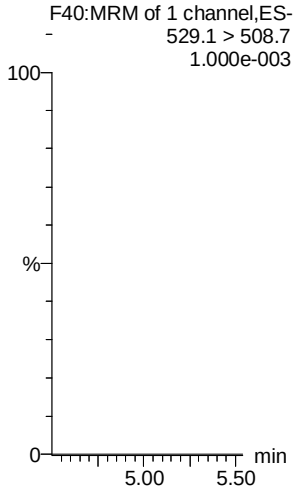




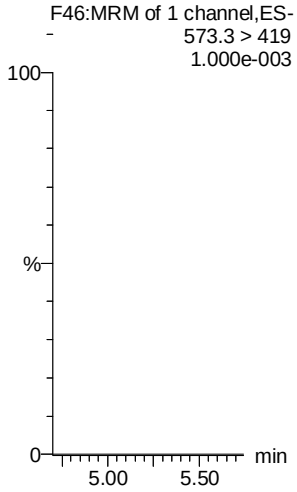
13C2-PFDA



13C2-8:2 FTS



d3-N-MeFOSAA



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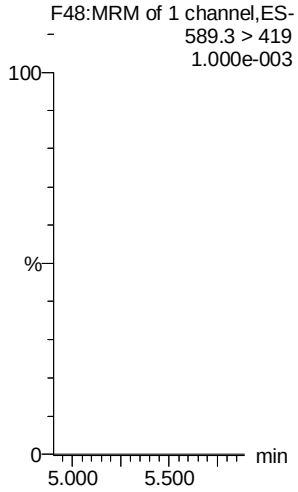

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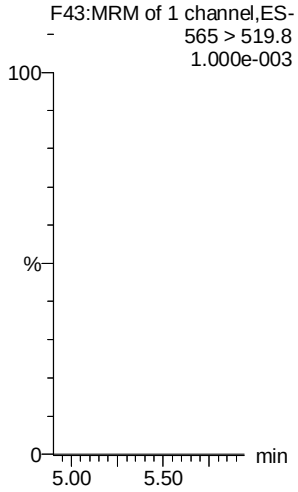

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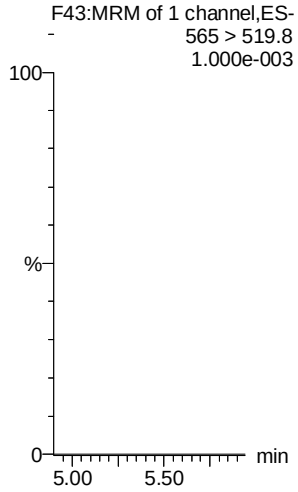

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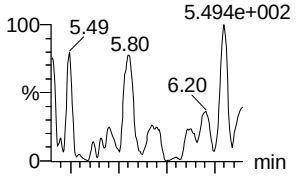
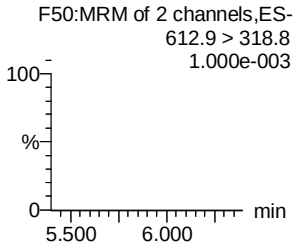
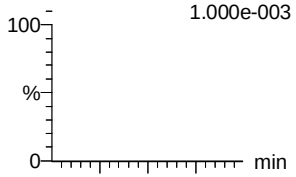
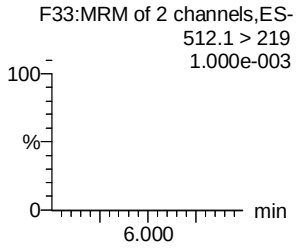


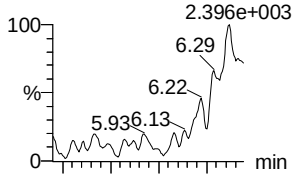


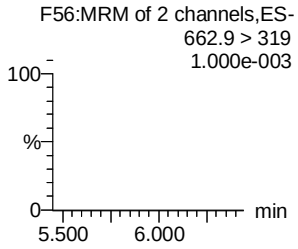
N-MeFOSA



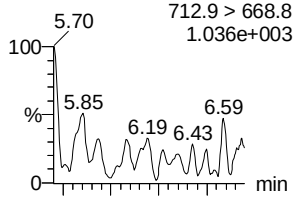


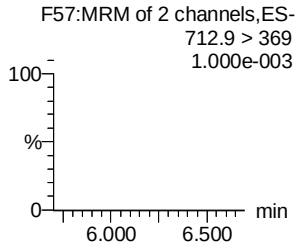
PFTrDA



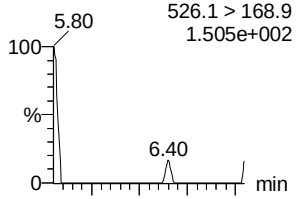


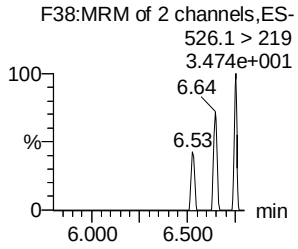
PFTeDA



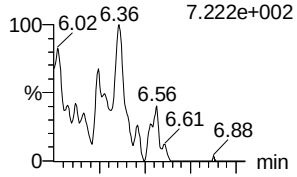


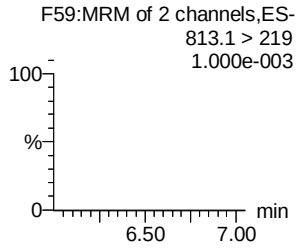
N-EtFOSA



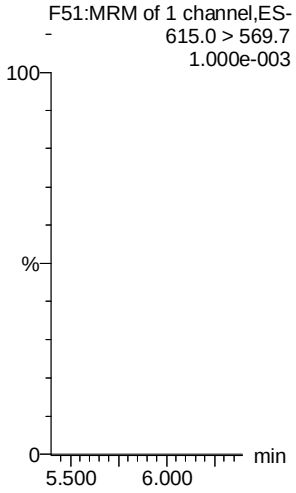


PFHxDA

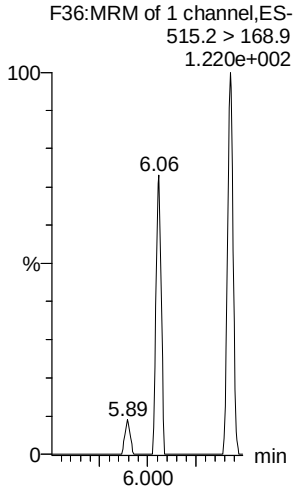




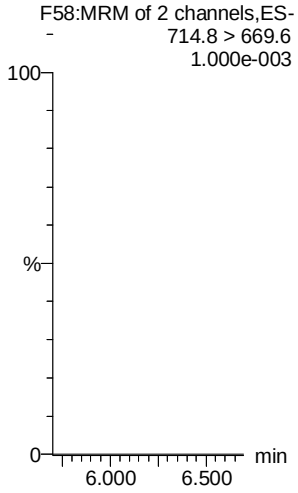
13C2-PFDoA



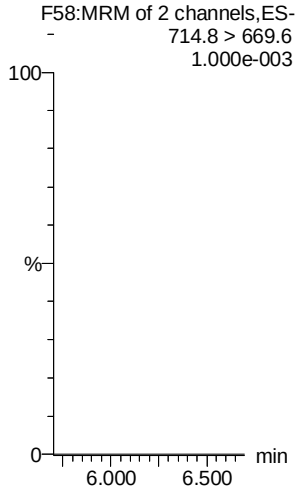
d3-N-MeFOSA



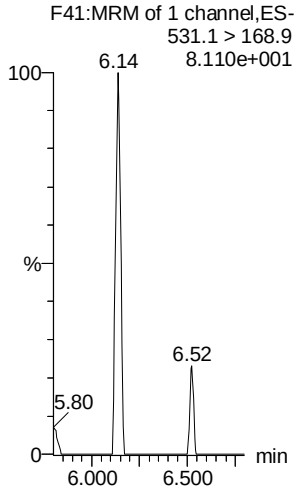
13C2-PFTeDA



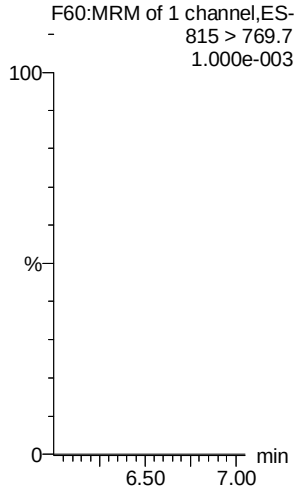
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



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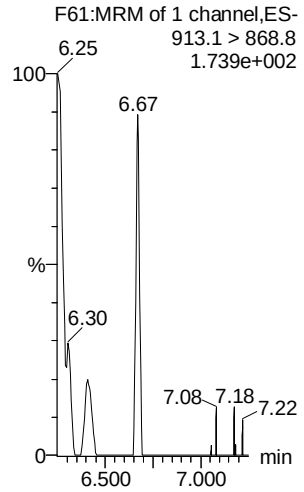
Dataset: U:\Q4.PRO\results\180111M2\1801111M2-2.qld

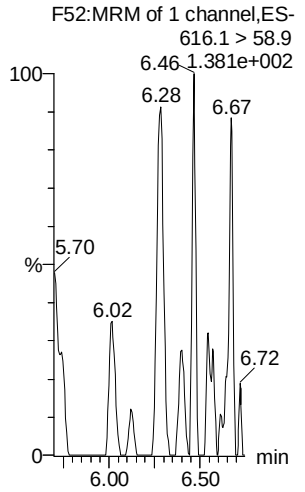
Last Altered: Saturday, January 13, 2018 11:17:02 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:17:57 Pacific Standard Time

Name: 180111M2_2, Date: 12-Jan-2018, Time: 03:49:59, ID: IPA, Description: IPA

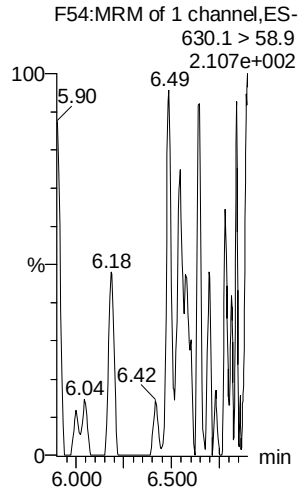
PFODA



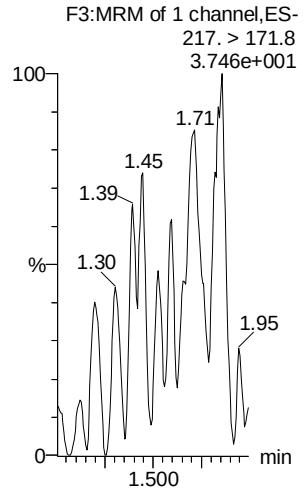
N-MeFOSE



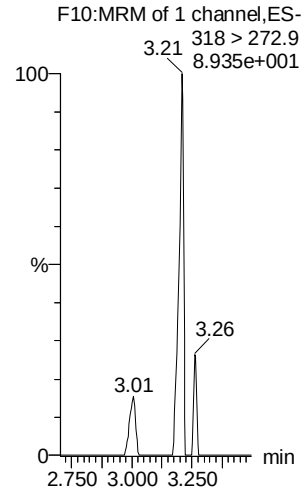
N-EtFOSE



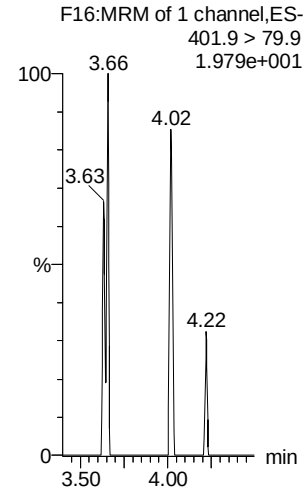
13C4-PFBA



13C5-PFHxA



13C3-PFHxS



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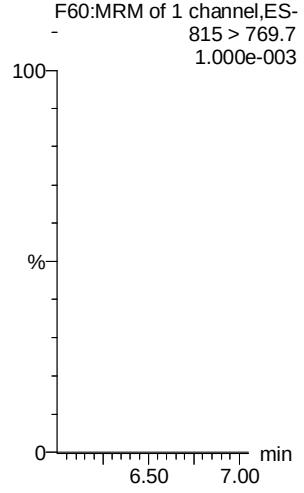
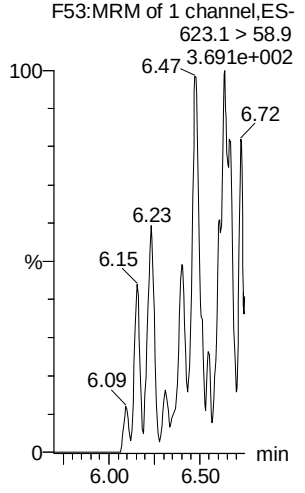
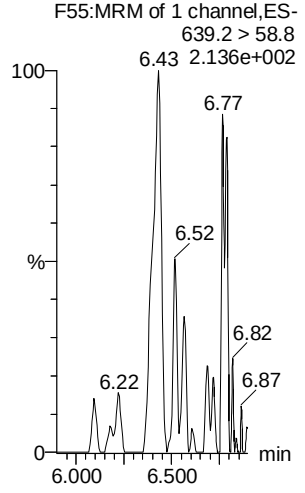


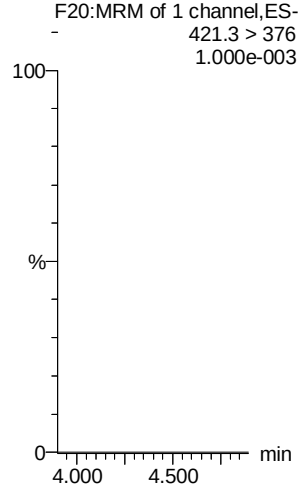
d7-N-MeFOSE



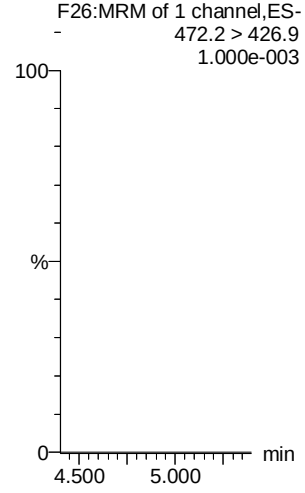
d9-N-EtFOSE



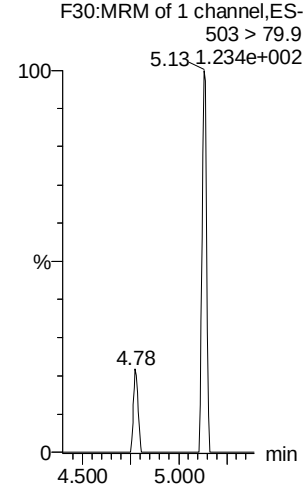
13C8-PFOA



13C9-PFNA



13C4-PFOS



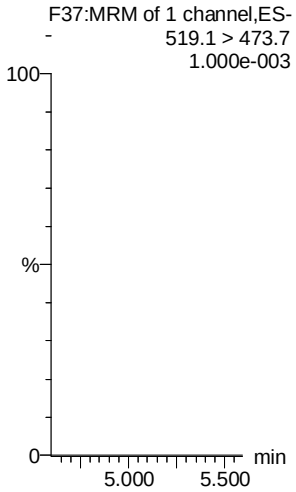
ANP 1/13/2018

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-2.qld

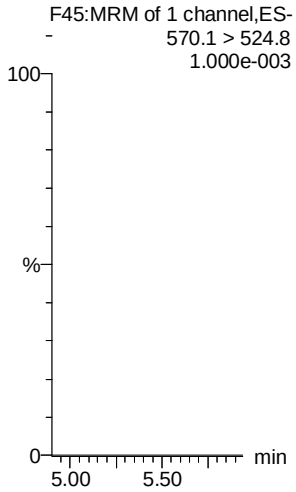
Last Altered: Saturday, January 13, 2018 11:17:02 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:17:57 Pacific Standard Time

Name: 180111M2_2, Date: 12-Jan-2018, Time: 03:49:59, ID: IPA, Description: IPA

13C6-PFDA



13C7-PFUdA



ANP 1/13/2018

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-1.qld

Last Altered: Saturday, January 13, 2018 11:12:24 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:12:37 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

1/15/18 VJA 01/15/2018

Name: 180111M2_1, Date: 12-Jan-2018, Time: 03:38:50, ID: ST180111M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1	PFBA	213.0 > 168.8	8.03e2	7.85e3		1.38	1.32	1.28	0.901	90.1	NO
2	2	PFPeA	263.1 > 218.9	8.52e2	9.81e3		2.37	2.30	1.09	0.908	90.8	NO
3	3	PFBS	299.0 > 79.7	1.83e2	1.20e3		2.66	2.59	1.90	0.892	89.2	NO
4	4	PFHxA	313.2 > 268.9	1.11e3	3.02e3		3.15	3.08	1.84	0.960	96.0	NO
5	5	PFHpA	363.0 > 318.9	8.83e2	8.02e3		3.78	3.70	1.38	0.904	90.4	NO
6	6	L-PFHxS	398.9 > 79.6	1.13e2	9.65e2		3.94	3.85	1.46	0.789	78.9	NO
7	8	6:2 FTS	427.1 > 407	2.34e2	9.65e2		4.25	4.17	3.03	1.06	106.2	NO
8	9	L-PFOA	413 > 368.7	1.28e3	9.97e3		4.31	4.23	1.60	1.12	112.4	NO
9	11	PFHpS	449 > 80.0	1.24e2	9.97e3		4.42	4.34	0.155	0.611	61.1	YES
10	12	PFNA	463.0 > 418.8	9.29e2	9.51e3		4.81	4.66	1.22	0.861	86.1	NO
11	13	PFOSA	498.1 > 77.8	2.44e2	2.47e3		4.87	4.72	1.24	0.919	91.9	NO
12	14	L-PFOS	499 > 79.9	2.36e2	2.51e3		4.75	4.74	1.18	0.974	97.4	NO
13	16	PFDA	513 > 468.8	1.06e3	8.44e3		5.18	5.03	1.57	1.13	112.6	NO
14	17	8:2 FTS	527 > 506.9	1.29e2	8.44e3		5.15	5.01	0.191	0.720	72.0	NO
15	18	N-MeFOSAA	570.1 > 419	4.48e2	3.69e3		5.32	5.19	1.52	0.895	89.5	NO
16	19	N-EtFOSAA	584.2 > 419	4.04e2	3.94e3		5.48	5.34	1.28	1.06	106.4	NO
17	20	PFUdA	563.0 > 518.9	9.73e2	9.41e3		5.50	5.36	1.29	1.04	104.2	NO
18	21	PFDS	598.8 > 80	2.53e2	9.41e3		5.54	5.40	0.337	0.929	92.9	NO
19	22	PFDoA	612.9 > 569.0	1.16e3	6.69e3		5.77	5.64	2.16	0.957	95.7	NO
20	23	N-MeFOSA	512.1 > 168.9	4.85e2	1.55e4		5.80	5.72	4.70	4.40	88.0	NO
21	24	PFTrDA	662.9 > 618.9	9.91e2	6.69e3		6.00	5.89	1.85	0.773	77.3	NO
22	25	PFTeDA	712.9 > 668.8	5.68e2	2.44e3		6.22	6.11	2.91	1.05	104.5	NO
23	26	N-EtFOSA	526.1 > 168.9	7.41e2	2.30e4		6.17	6.12	4.84	4.92	98.5	NO
24	27	PFHxDA	813.1 > 768.6	4.24e2	1.93e3		6.53	6.44	1.10	1.05	104.7	NO
25	28	PFODA	913.1 > 868.8	4.81e2	1.93e3		6.74	6.67	1.25	1.10	109.9	NO
26	29	N-MeFOSE	616.1 > 58.9	7.84e2	2.31e4		6.27	6.27	5.09	4.97	99.5	NO
27	30	N-EtFOSE	630.1 > 58.9	8.25e2	2.17e4		6.43	6.42	5.71	4.22	84.4	NO
28	31	13C3-PFBA	216.1 > 171.8	7.85e3	1.04e4	0.764	1.38	1.32	9.45	12.4	99.1	NO
29	32	13C3-PFPeA	266. > 221.8	9.81e3	1.27e4	0.730	2.37	2.30	9.64	13.2	105.7	NO
30	33	13C3-PFBS	302. > 98.8	1.20e3	1.27e4	0.095	2.77	2.58	1.18	12.4	99.1	NO
31	34	13C2-PFHxA	315 > 269.8	3.02e3	1.27e4	0.597	3.15	3.08	2.97	4.98	99.5	NO

70-130

50-150

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-1.qld

Last Altered: Saturday, January 13, 2018 11:12:24 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:12:37 Pacific Standard Time

Name: 180111M2_1, Date: 12-Jan-2018, Time: 03:38:50, ID: ST180111M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35	13C4-PFHpA	367.2 > 321.8	8.02e3	1.27e4	0.604	3.78	3.70	7.89	13.1	104.4	NO
33	36	18O2-PFHxS	403.0 > 102.6	9.65e2	2.97e3	0.293	3.94	3.85	4.06	13.8	110.7	NO
34	37	13C2-6:2 FTS	429.1 > 408.9	2.04e3	1.13e4	0.215	4.25	4.17	2.26	10.5	83.8	NO
35	38	13C2-PFOA	414.9 > 369.7	9.97e3	1.13e4	0.916	4.31	4.22	11.0	12.0	96.2	NO
36	39	13C5-PFNA	468.2 > 422.9	9.51e3	1.27e4	0.817	4.81	4.66	9.39	11.5	91.9	NO
37	40	13C8-PFOSA	506.1 > 77.7	2.47e3	9.56e3	0.223	4.87	4.72	3.22	14.5	115.7	NO
38	41	13C8-PFOS	507.0 > 79.9	2.51e3	2.84e3	0.875	4.89	4.74	11.1	12.6	101.1	NO
39	42	13C2-PFDA	515.1 > 469.9	8.44e3	8.17e3	1.105	5.18	5.03	12.9	11.7	93.5	NO
40	43	13C2-8:2 FTS	529.1 > 508.7	8.64e2	1.27e4	0.101	5.15	5.01	0.850	8.42	67.4	NO
41	44	d3-N-MeFOSAA	573.3 > 419	3.69e3	9.56e3	0.345	5.32	5.18	4.83	14.0	111.9	NO
42	45	d5-N-EtFOSAA	589.3 > 419	3.94e3	9.56e3	0.390	5.47	5.34	5.15	13.2	105.5	NO
43	46	13C2-PFUdA	565 > 519.8	9.41e3	9.56e3	0.958	5.49	5.36	12.3	12.8	102.7	NO
44	47	13C2-PFDoA	615.0 > 569.7	6.69e3	9.56e3	0.599	5.77	5.64	8.75	14.6	116.9	NO
45	48	d3-N-MeFOSA	515.2 > 168.9	1.55e4	9.56e3	0.124	5.83	5.75	20.2	163	108.7	NO
46	49	13C2-PFTeDA	714.8 > 669.6	2.44e3	9.56e3	0.282	6.22	6.11	3.18	11.3	90.4	NO
47	50	d5-N-ETFOSA	531.1 > 168.9	2.30e4	9.56e3	0.184	6.18	6.13	30.0	163	108.6	NO
48	51	13C2-PFHxDA	815 > 769.7	1.93e3	9.56e3	0.540	6.53	6.44	2.52	4.67	93.5	NO
49	52	d7-N-MeFOSE	623.1 > 58.9	2.31e4	9.56e3	0.182	6.27	6.26	30.2	166	110.4	NO
50	53	d9-N-EtFOSE	639.2 > 58.8	2.17e4	9.56e3	0.173	6.42	6.42	28.4	164	109.6	NO
51	54	13C4-PFBA	217. > 171.8	1.04e4	1.04e4	1.000	1.38	1.32	12.5	12.5	100.0	NO
52	55	13C5-PFHxA	318 > 272.9	1.27e4	1.27e4	1.000	3.15	3.08	12.5	12.5	100.0	NO
53	56	13C3-PFHxS	401.9 > 79.9	2.97e3	2.97e3	1.000	4.02	3.85	12.5	12.5	100.0	NO
54	57	13C8-PFOA	421.3 > 376	1.13e4	1.13e4	1.000	4.38	4.23	12.5	12.5	100.0	NO
55	58	13C9-PFNA	472.2 > 426.9	1.27e4	1.27e4	1.000	4.81	4.66	12.5	12.5	100.0	NO
56	59	13C4-PFOS	503 > 79.9	2.84e3	2.84e3	1.000	4.89	4.74	12.5	12.5	100.0	NO
57	60	13C6-PFDA	519.1 > 473.7	8.17e3	8.17e3	1.000	5.18	5.03	12.5	12.5	100.0	NO
58	61	13C7-PFUdA	570.1 > 524.8	9.56e3	9.56e3	1.000	5.49	5.36	12.5	12.5	100.0	NO

50-150

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Saturday, January 13, 2018 11:19:22 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:21:12 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: 13 Jan 2018 11:19:22

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180111M2_1	ST180111M2-1 PFC CS0 17L2608	12-Jan-18	03:38:50
2	180111M2_2	IPA	12-Jan-18	03:49:59
3	180111M2_3	B7L0101-BS1 OPR 0.25	12-Jan-18	04:01:09
4	180111M2_4	B7L0101-BSD1 LCSD 0.25	12-Jan-18	04:12:24
5	180111M2_5	B7L0101-BLK1 Method Blank 0.25	12-Jan-18	04:23:34
6	180111M2_6	1701840-04 YS22-GW16-1217 0.1211	12-Jan-18	04:34:44
7	180111M2_7	1701840-05 YS22-GW10-1217 0.11512	12-Jan-18	04:45:56
8	180111M2_8	1701840-10 YS22-GW18-1117 0.1082	12-Jan-18	04:57:07
9	180111M2_9	1701851-01 FT-PZ-462S-20171202 0.22334	12-Jan-18	05:08:18
10	180111M2_10	1701851-02 FT-PZ-462I-20171202 0.25131	12-Jan-18	05:19:28
11	180111M2_11	1701851-03 FT-PZ-455S-20171202 0.2638	12-Jan-18	05:30:39
12	180111M2_12	1701851-04 FT-PZ-455I-20171202 0.25637	12-Jan-18	05:41:50
13	180111M2_13	1701851-05 FT-PZ-453S-20171202 0.23285	12-Jan-18	05:53:01
14	180111M2_14	1701851-06 FT-PZ-453S-FRB-20171202 0.26...	12-Jan-18	06:04:12
15	180111M2_15	1701851-07 FT-PZ-456I-FRB-20171204 0.2536	12-Jan-18	06:15:23
16	180111M2_16	1701851-08 FT-PZ-456I-20171204 0.26041	12-Jan-18	06:26:36
17	180111M2_17	1701851-09 FT-PZ-456S-20171204 0.25898	12-Jan-18	06:37:48
18	180111M2_18	IPA	12-Jan-18	06:48:59
19	180111M2_19	ST180111M2-2 PFC CS3 17L2611	12-Jan-18	07:00:09
20	180111M2_20	IPA	12-Jan-18	07:11:21
21	180111M2_21	1701802-01RE1@5X FC-MW02SR1-NP-2017...	12-Jan-18	07:22:31
22	180111M2_22	1701802-02RE1@5X FC-MW02SR1-P1-2017...	12-Jan-18	07:33:43
23	180111M2_23	1701802-03RE1@5X FC-MW02SR1-P2-2017...	12-Jan-18	07:44:53
24	180111M2_24	1701802-04RE1@5X FC-MW02SR1-P3-2017...	12-Jan-18	07:56:04
25	180111M2_25	IPA	12-Jan-18	08:07:15
26	180111M2_26	ST180111M2-3 PFC CS3 17L2611	12-Jan-18	08:18:25
27	180111M2_27	IPA	12-Jan-18	08:29:37

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-1.qld

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Name: 180111M2_1, Date: 12-Jan-2018, Time: 03:38:50, ID: ST180111M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

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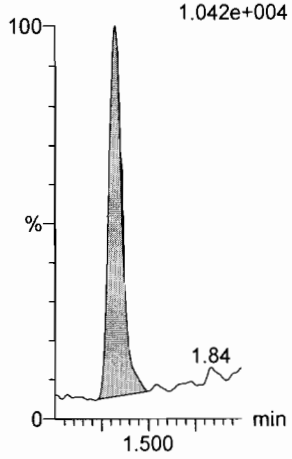
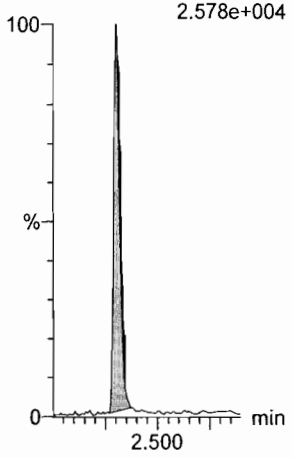
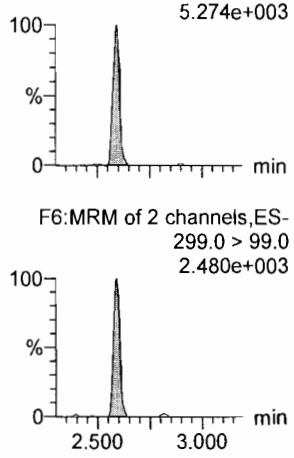


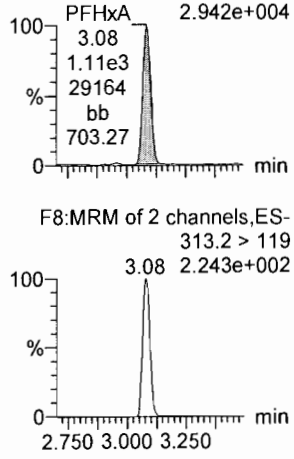
PFPeA



PFBS



PFHxA



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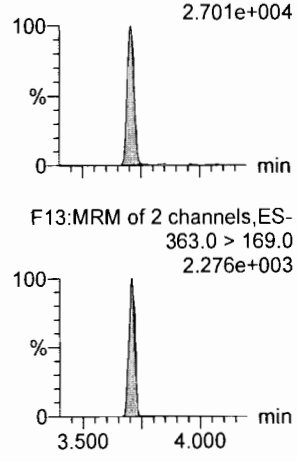
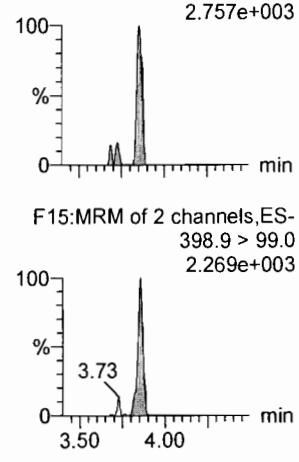
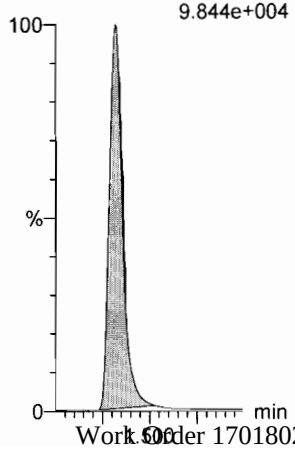


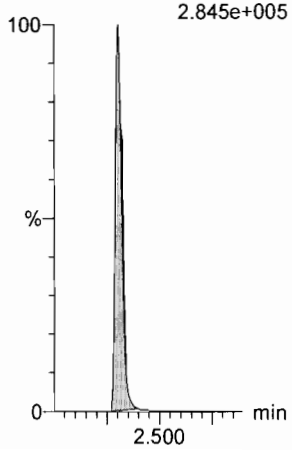
L-PFHxS



13C3-PFBA



13C3-PFPeA



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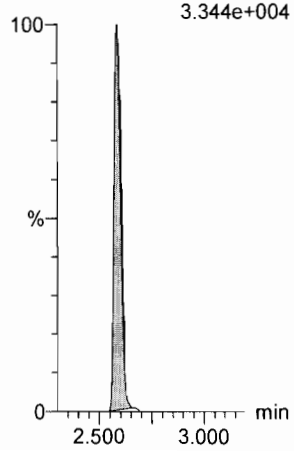
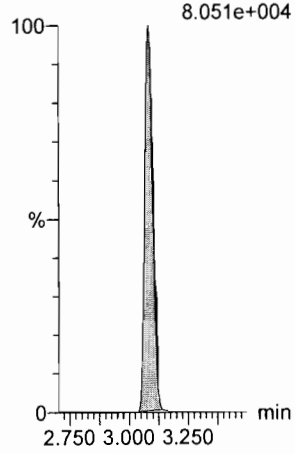
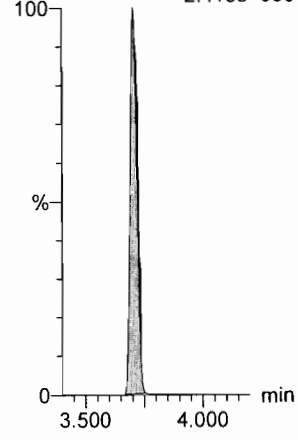


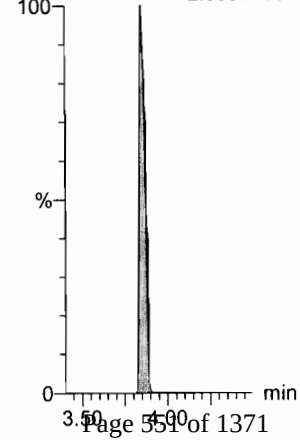
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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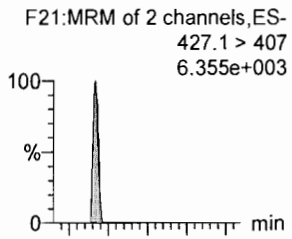
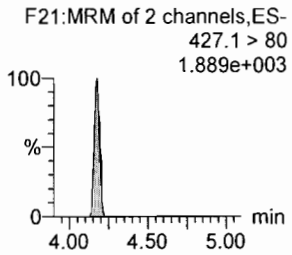
Last Altered: Saturday, January 13, 2018 11:12:24 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:12:37 Pacific Standard Time

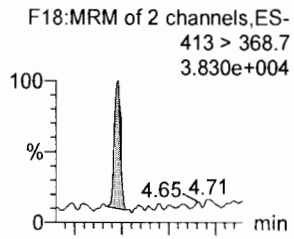
Name: 180111M2_1, Date: 12-Jan-2018, Time: 03:38:50, ID: ST180111M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

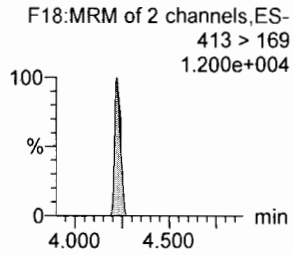
6:2 FTS



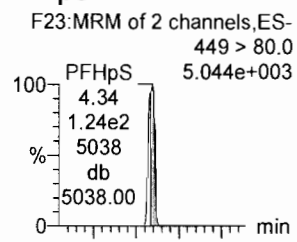


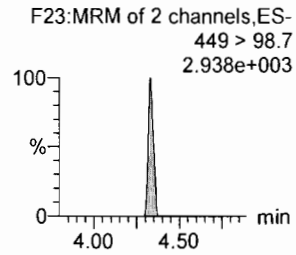
L-PFOA





PFHpS





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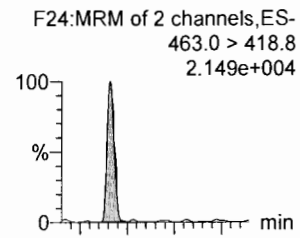
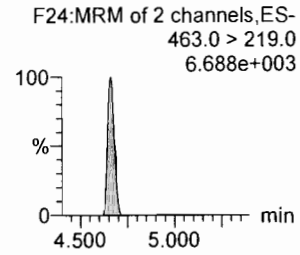
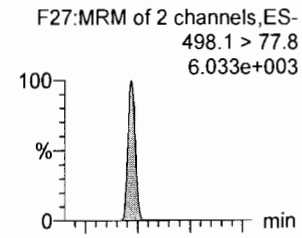
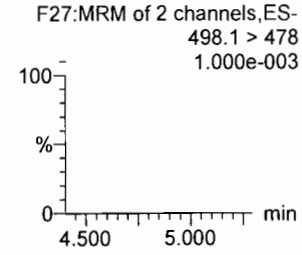


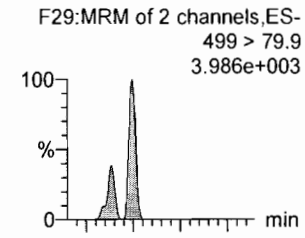


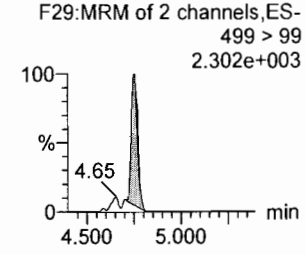
PFOSA



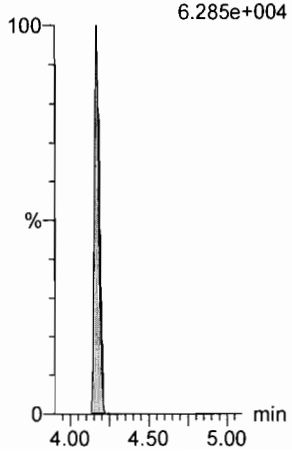


L-PFOS

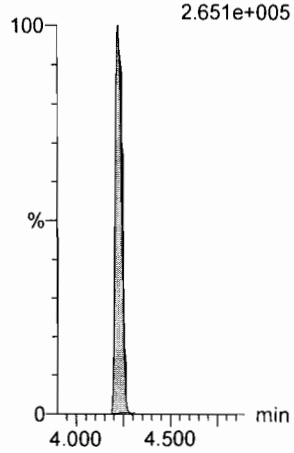




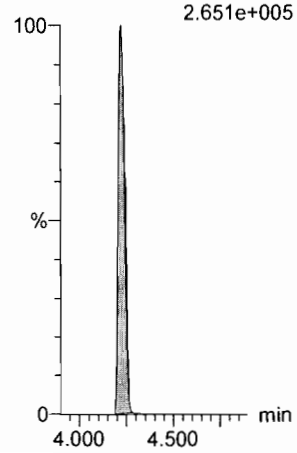
13C2-6:2 FTS



13C2-PFOA



13C2-PFOA



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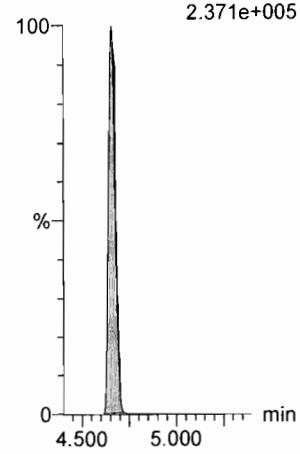
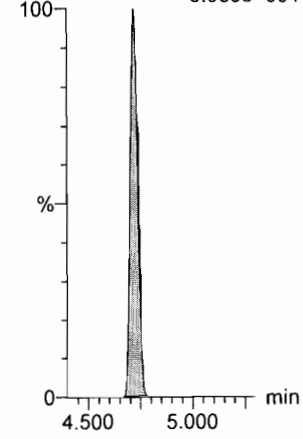


13C8-PFOSA



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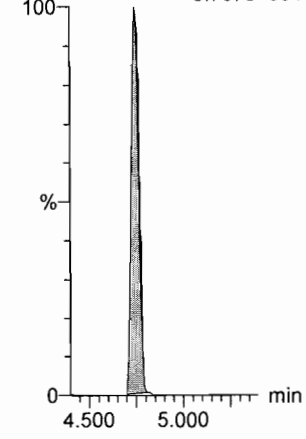

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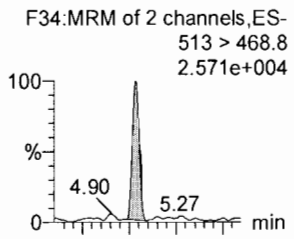
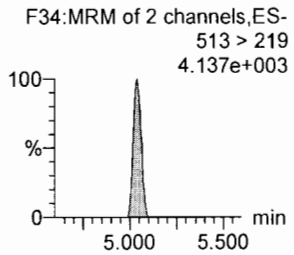
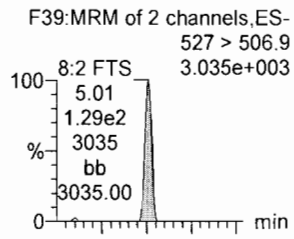
Name: 180111M2_1, Date: 12-Jan-2018, Time: 03:38:50, ID: ST180111M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

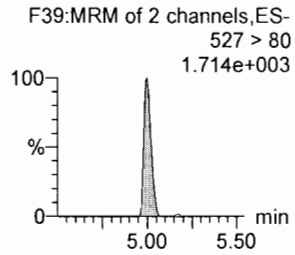
PFDA



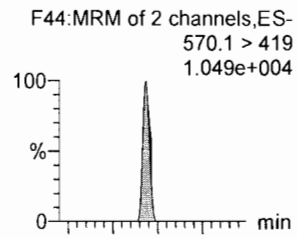


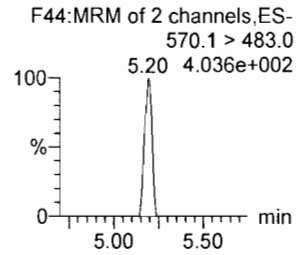
8:2 FTS





N-MeFOSAA





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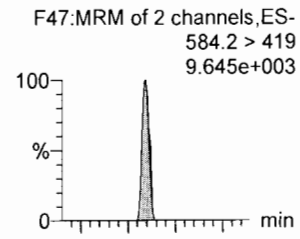
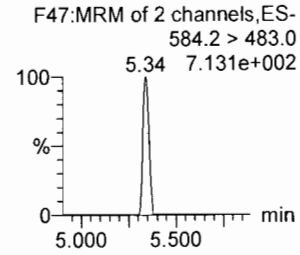
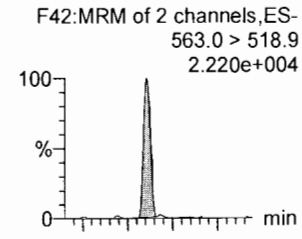
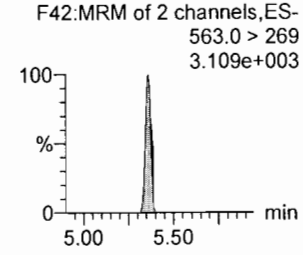


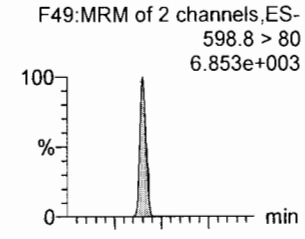


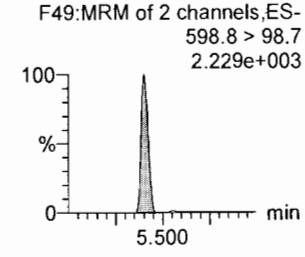
PFUdA





PFDS





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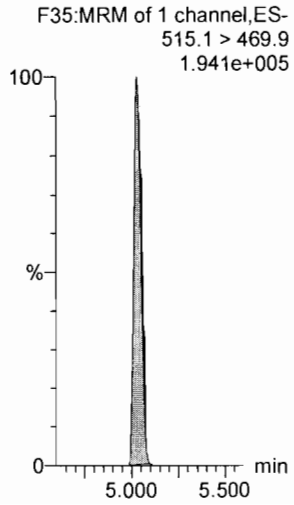
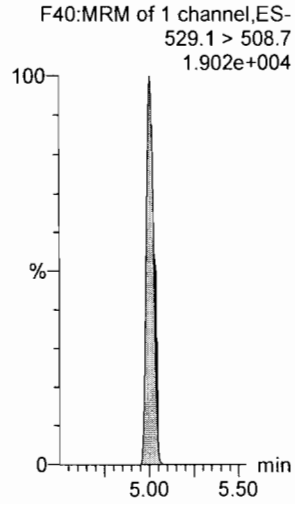
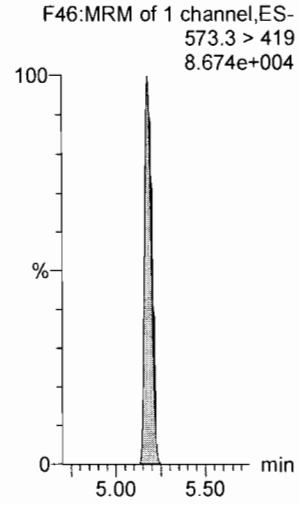


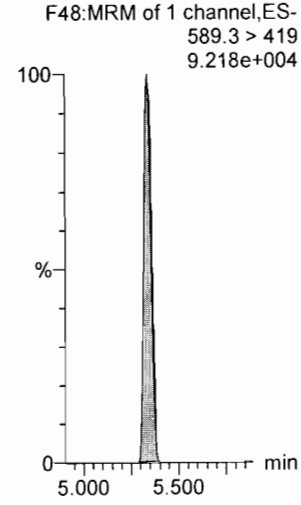
13C2-8:2 FTS



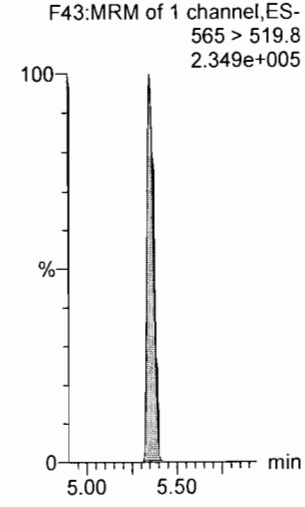
d3-N-MeFOSAA



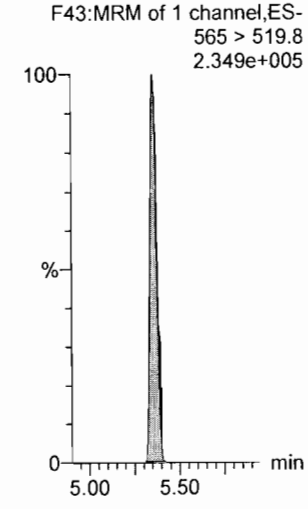
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

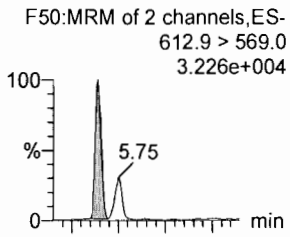


Dataset: U:\Q4.PRO\results\180111M2\1801111M2-1.qld

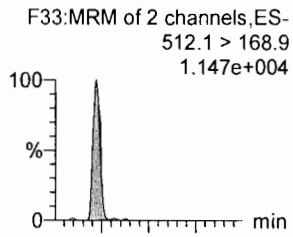
Last Altered: Saturday, January 13, 2018 11:12:24 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:12:37 Pacific Standard Time

Name: 180111M2_1, Date: 12-Jan-2018, Time: 03:38:50, ID: ST180111M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

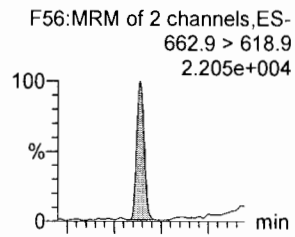
PFDoA



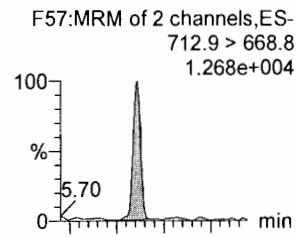
N-MeFOSA



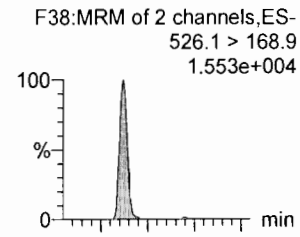
PFTrDA



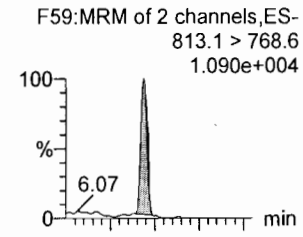
PFTeDA



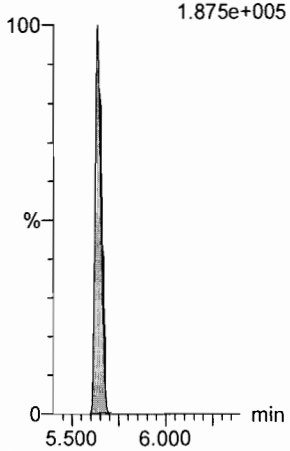
N-EtFOSA



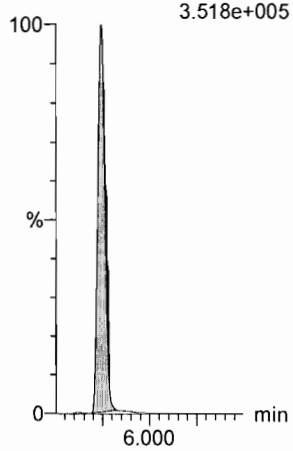
PFHxDA



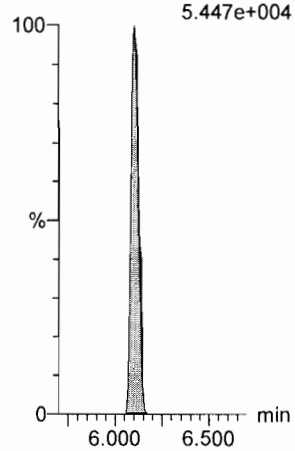
13C2-PFDoA



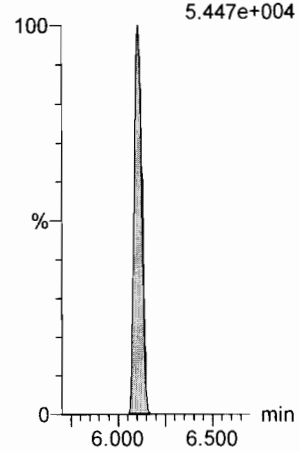
d3-N-MeFOSA



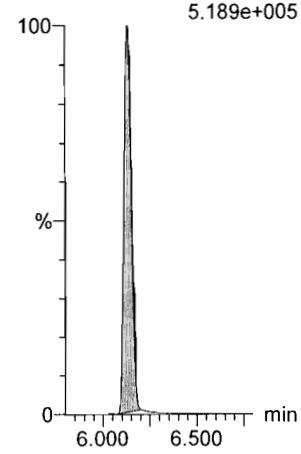
13C2-PFTeDA



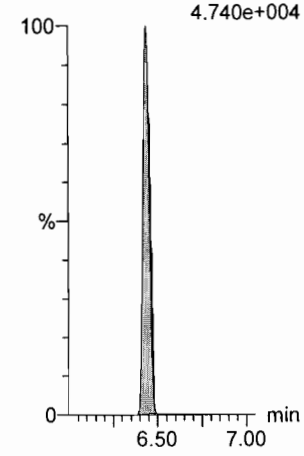
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

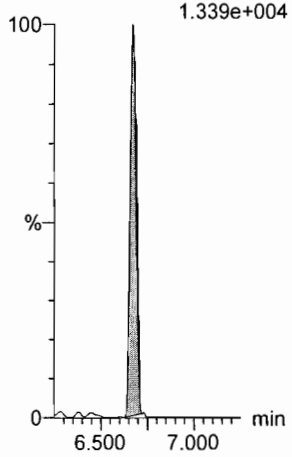


Dataset: U:\Q4.PRO\results\180111M2\1801111M2-1.qld

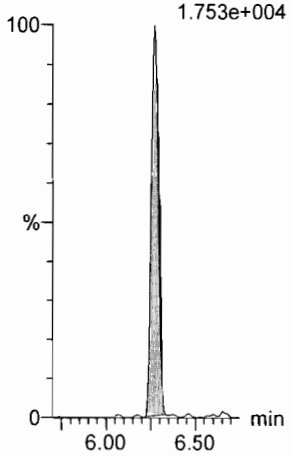
Last Altered: Saturday, January 13, 2018 11:12:24 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:12:37 Pacific Standard Time

Name: 180111M2_1, Date: 12-Jan-2018, Time: 03:38:50, ID: ST180111M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

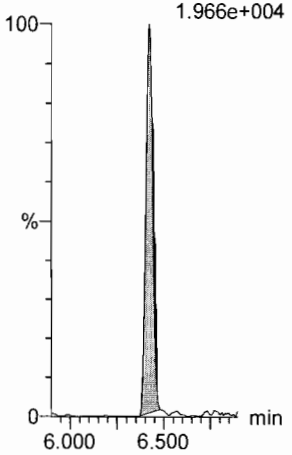
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.339e+004



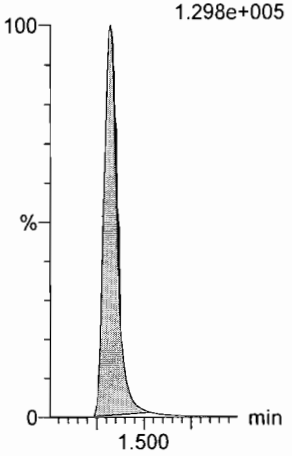
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.753e+004



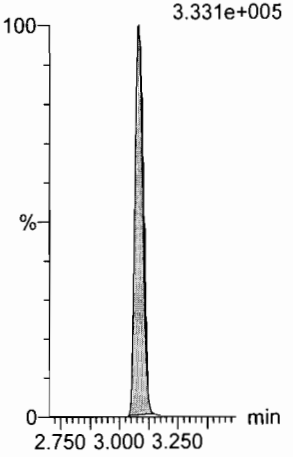
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.966e+004



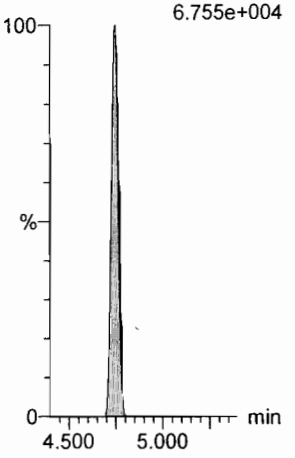
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.298e+005



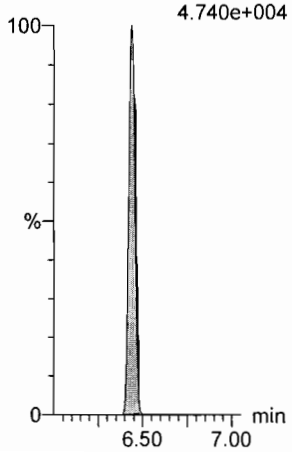
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.331e+005



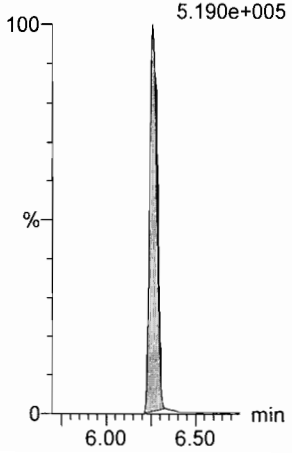
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
6.755e+004



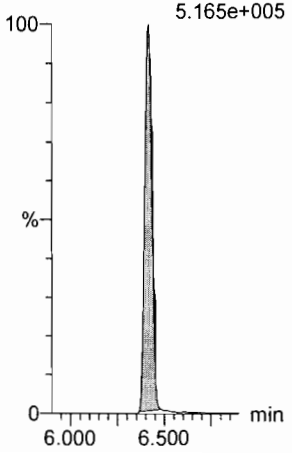
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
4.740e+004



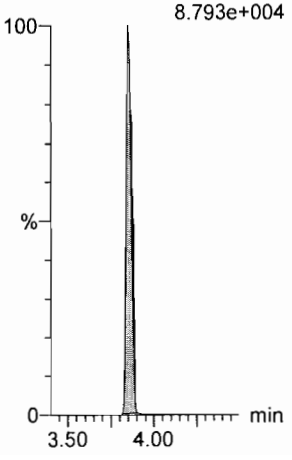
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.190e+005



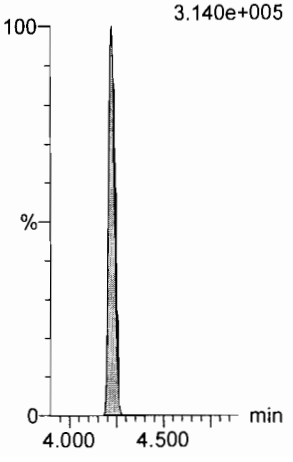
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.165e+005



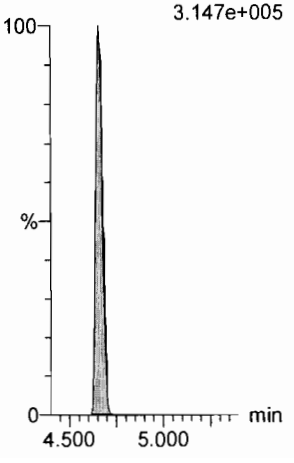
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
8.793e+004



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.140e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.147e+005

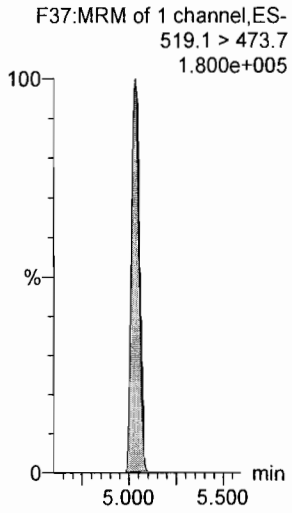


Dataset: U:\Q4.PRO\results\180111M2\1801111M2-1.qld

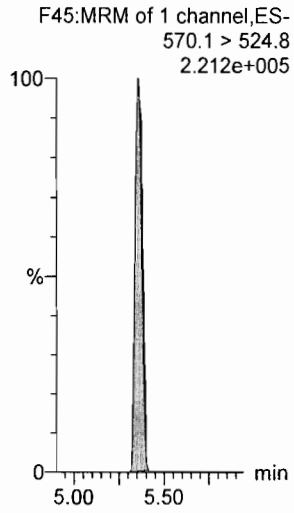
Last Altered: Saturday, January 13, 2018 11:12:24 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:12:37 Pacific Standard Time

Name: 180111M2_1, Date: 12-Jan-2018, Time: 03:38:50, ID: ST180111M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-19.qld

Last Altered: Saturday, January 13, 2018 11:14:12 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:14:27 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

CP 1/13/18

JA 01/15/2018

Name: 180111M2_19, Date: 12-Jan-2018, Time: 07:00:09, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1	PFBA	213.0 > 168.8	1.24e4	1.08e4		1.38	1.32	14.4	9.80	98.0	NO
2	2	PFPeA	263.1 > 218.9	1.25e4	1.21e4		2.37	2.30	12.9	10.3	102.6	NO
3	3	PFBS	299.0 > 79.7	2.85e3	1.65e3		2.66	2.59	21.6	10.2	101.5	NO
4	4	PFHxA	313.2 > 268.9	1.69e4	4.30e3		3.15	3.08	19.6	10.1	101.3	NO
5	5	PFHpA	363.0 > 318.9	1.29e4	9.83e3		3.78	3.70	16.5	10.0	100.2	NO
6	6	L-PFHxS	398.9 > 79.6	2.06e3	1.24e3		3.94	3.85	20.8	9.92	99.2	NO
7	8	6:2 FTS	427.1 > 407	2.92e3	1.24e3		4.25	4.17	29.5	9.67	96.7	NO
8	9	L-PFOA	413 > 368.7	1.42e4	1.50e4		4.31	4.22	11.8	9.20	92.0	NO
9	11	PFHpS	449 > 80.0	3.15e3	1.50e4		4.42	4.33	2.62	8.96	89.6	NO
10	12	PFNA	463.0 > 418.8	1.42e4	1.25e4		4.81	4.66	14.3	10.1	100.8	NO
11	13	PFOSA	498.1 > 77.8	3.51e3	2.75e3		4.87	4.72	15.9	12.2	121.5	NO
12	14	L-PFOS	499 > 79.9	3.38e3	3.64e3		4.75	4.75	11.6	9.86	98.6	NO
13	16	PFDA	513 > 468.8	1.32e4	9.53e3		5.18	5.04	17.4	10.6	106.0	NO
14	17	8:2 FTS	527 > 506.9	2.15e3	9.53e3		5.15	5.01	2.82	8.94	89.4	NO
15	18	N-MeFOSAA	570.1 > 419	6.69e3	4.90e3		5.32	5.19	17.1	8.58	85.8	NO
16	19	N-EtFOSAA	584.2 > 419	5.92e3	5.26e3		5.48	5.34	14.1	9.18	91.8	NO
17	20	PFUdA	563.0 > 518.9	1.32e4	1.18e4		5.50	5.36	13.9	10.5	105.3	NO
18	21	PFDS	598.8 > 80	3.50e3	1.18e4		5.54	5.41	3.69	9.90	99.0	NO
19	22	PFDoA	612.9 > 569.0	1.49e4	8.70e3		5.77	5.64	21.4	10.0	100.4	NO
20	23	N-MeFOSA	512.1 > 168.9	7.56e3	1.94e4		5.80	5.72	58.3	52.9	105.8	NO
21	24	PFTrDA	662.9 > 618.9	1.70e4	8.70e3		6.00	5.89	24.3	10.2	101.8	NO
22	25	PFTeDA	712.9 > 668.8	8.87e3	3.38e3		6.22	6.10	32.8	11.1	110.9	NO
23	26	N-EtFOSA	526.1 > 168.9	1.04e4	2.99e4		6.17	6.12	52.3	51.4	102.7	NO
24	27	PFHxDA	813.1 > 768.6	5.03e3	2.44e3		6.53	6.44	10.3	10.5	105.2	NO
25	28	PFODA	913.1 > 868.8	6.54e3	2.44e3		6.74	6.67	13.4	10.5	104.5	NO
26	29	N-MeFOSE	616.1 > 58.9	1.11e4	3.07e4		6.27	6.27	54.2	46.8	93.6	NO
27	30	N-EtFOSE	630.1 > 58.9	1.33e4	2.89e4		6.43	6.42	68.9	49.3	98.6	NO
28	31	13C3-PFBA	216.1 > 171.8	1.08e4	1.40e4	0.764	1.38	1.33	9.63	12.6	100.9	NO
29	32	13C3-PFPeA	266. > 221.8	1.21e4	1.63e4	0.730	2.37	2.31	9.25	12.7	101.3	NO
30	33	13C3-PFBS	302. > 98.8	1.65e3	1.63e4	0.095	2.77	2.59	1.26	13.2	105.6	NO
31	34	13C2-PFHxA	315 > 269.8	4.30e3	1.63e4	0.597	3.15	3.08	3.29	5.51	110.2	NO

70-130

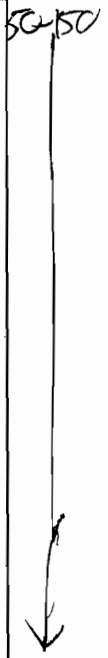
50-150

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-19.qld

Last Altered: Saturday, January 13, 2018 11:14:12 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:14:27 Pacific Standard Time

Name: 180111M2_19, Date: 12-Jan-2018, Time: 07:00:09, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35	13C4-PFHpA	367.2 > 321.8	9.83e3	1.63e4	0.604	3.78	3.71	7.52	12.4	99.5	NO
33	36	18O2-PFHxS	403.0 > 102.6	1.24e3	4.06e3	0.293	3.94	3.85	3.81	13.0	103.9	NO
34	37	13C2-6:2 FTS	429.1 > 408.9	3.01e3	1.47e4	0.215	4.25	4.17	2.56	11.9	95.1	NO
35	38	13C2-PFOA	414.9 > 369.7	1.50e4	1.47e4	0.916	4.31	4.22	12.8	14.0	111.6	NO
36	39	13C5-PFNA	468.2 > 422.9	1.25e4	1.39e4	0.817	4.81	4.66	11.2	13.8	110.0	NO
37	40	13C8-PFOSA	506.1 > 77.7	2.75e3	1.34e4	0.223	4.87	4.72	2.56	11.5	92.0	NO
38	41	13C8-PFOS	507.0 > 79.9	3.64e3	3.47e3	0.875	4.89	4.74	13.1	15.0	120.0	NO
39	42	13C2-PFDA	515.1 > 469.9	9.53e3	1.14e4	1.105	5.18	5.03	10.5	9.48	75.8	NO
40	43	13C2-8:2 FTS	529.1 > 508.7	1.26e3	1.63e4	0.101	5.15	5.00	0.964	9.56	76.4	NO
41	44	d3-N-MeFOSAA	573.3 > 419	4.90e3	1.34e4	0.345	5.32	5.18	4.56	13.2	105.7	NO
42	45	d5-N-EtFOSAA	589.3 > 419	5.26e3	1.34e4	0.390	5.47	5.34	4.90	12.5	100.4	NO
43	46	13C2-PFUdA	565 > 519.8	1.18e4	1.34e4	0.958	5.49	5.36	11.0	11.5	92.0	NO
44	47	13C2-PFDoA	615.0 > 569.7	8.70e3	1.34e4	0.599	5.77	5.64	8.10	13.5	108.2	NO
45	48	d3-N-MeFOSA	515.2 > 168.9	1.94e4	1.34e4	0.124	5.83	5.75	18.1	146	97.2	NO
46	49	13C2-PFTeDA	714.8 > 669.6	3.38e3	1.34e4	0.282	6.22	6.10	3.15	11.2	89.3	NO
47	50	d5-N-ETFOSA	531.1 > 168.9	2.99e4	1.34e4	0.184	6.18	6.14	27.8	151	100.7	NO
48	51	13C2-PFHxDA	815 > 769.7	2.44e3	1.34e4	0.540	6.53	6.44	2.27	4.21	84.2	NO
49	52	d7-N-MeFOSE	623.1 > 58.9	3.07e4	1.34e4	0.182	6.27	6.26	28.6	157	104.6	NO
50	53	d9-N-EtFOSE	639.2 > 58.8	2.89e4	1.34e4	0.173	6.42	6.41	26.9	156	103.8	NO
51	54	13C4-PFBA	217. > 171.8	1.40e4	1.40e4	1.000	1.38	1.33	12.5	12.5	100.0	NO
52	55	13C5-PFHxA	318 > 272.9	1.63e4	1.63e4	1.000	3.15	3.08	12.5	12.5	100.0	NO
53	56	13C3-PFHxS	401.9 > 79.9	4.06e3	4.06e3	1.000	4.02	3.85	12.5	12.5	100.0	NO
54	57	13C8-PFOA	421.3 > 376	1.47e4	1.47e4	1.000	4.38	4.22	12.5	12.5	100.0	NO
55	58	13C9-PFNA	472.2 > 426.9	1.39e4	1.39e4	1.000	4.81	4.66	12.5	12.5	100.0	NO
56	59	13C4-PFOS	503 > 79.9	3.47e3	3.47e3	1.000	4.89	4.74	12.5	12.5	100.0	NO
57	60	13C6-PFDA	519.1 > 473.7	1.14e4	1.14e4	1.000	5.18	5.03	12.5	12.5	100.0	NO
58	61	13C7-PFUdA	570.1 > 524.8	1.34e4	1.34e4	1.000	5.49	5.36	12.5	12.5	100.0	NO



Vista Analytical Laboratory

Dataset: Untitled

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Printed: Saturday, January 13, 2018 11:21:12 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: 13 Jan 2018 11:19:22

Compound name: PFBA

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1	180111M2_1	ST180111M2-1 PFC CS0 17L2608	12-Jan-18	03:38:50
2	180111M2_2	IPA	12-Jan-18	03:49:59
3	180111M2_3	B7L0101-BS1 OPR 0.25	12-Jan-18	04:01:09
4	180111M2_4	B7L0101-BSD1 LCSD 0.25	12-Jan-18	04:12:24
5	180111M2_5	B7L0101-BLK1 Method Blank 0.25	12-Jan-18	04:23:34
6	180111M2_6	1701840-04 YS22-GW16-1217 0.1211	12-Jan-18	04:34:44
7	180111M2_7	1701840-05 YS22-GW10-1217 0.11512	12-Jan-18	04:45:56
8	180111M2_8	1701840-10 YS22-GW18-1117 0.1082	12-Jan-18	04:57:07
9	180111M2_9	1701851-01 FT-PZ-462S-20171202 0.22334	12-Jan-18	05:08:18
10	180111M2_10	1701851-02 FT-PZ-462I-20171202 0.25131	12-Jan-18	05:19:28
11	180111M2_11	1701851-03 FT-PZ-455S-20171202 0.2638	12-Jan-18	05:30:39
12	180111M2_12	1701851-04 FT-PZ-455I-20171202 0.25637	12-Jan-18	05:41:50
13	180111M2_13	1701851-05 FT-PZ-453S-20171202 0.23285	12-Jan-18	05:53:01
14	180111M2_14	1701851-06 FT-PZ-453S-FRB-20171202 0.26...	12-Jan-18	06:04:12
15	180111M2_15	1701851-07 FT-PZ-456I-FRB-20171204 0.2536	12-Jan-18	06:15:23
16	180111M2_16	1701851-08 FT-PZ-456I-20171204 0.26041	12-Jan-18	06:26:36
17	180111M2_17	1701851-09 FT-PZ-456S-20171204 0.25898	12-Jan-18	06:37:48
18	180111M2_18	IPA	12-Jan-18	06:48:59
19	180111M2_19	ST180111M2-2 PFC CS3 17L2611	12-Jan-18	07:00:09
20	180111M2_20	IPA	12-Jan-18	07:11:21
21	180111M2_21	1701802-01RE1@5X FC-MW02SR1-NP-2017...	12-Jan-18	07:22:31
22	180111M2_22	1701802-02RE1@5X FC-MW02SR1-P1-2017...	12-Jan-18	07:33:43
23	180111M2_23	1701802-03RE1@5X FC-MW02SR1-P2-2017...	12-Jan-18	07:44:53
24	180111M2_24	1701802-04RE1@5X FC-MW02SR1-P3-2017...	12-Jan-18	07:56:04
25	180111M2_25	IPA	12-Jan-18	08:07:15
26	180111M2_26	ST180111M2-3 PFC CS3 17L2611	12-Jan-18	08:18:25
27	180111M2_27	IPA	12-Jan-18	08:29:37

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-19.qld

Last Altered: Saturday, January 13, 2018 11:14:12 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:14:27 Pacific Standard Time

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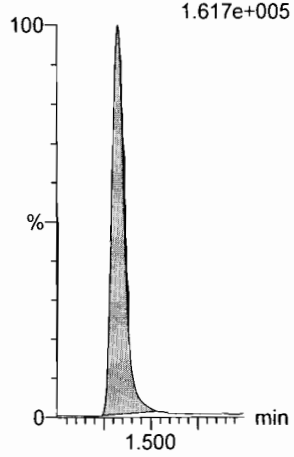
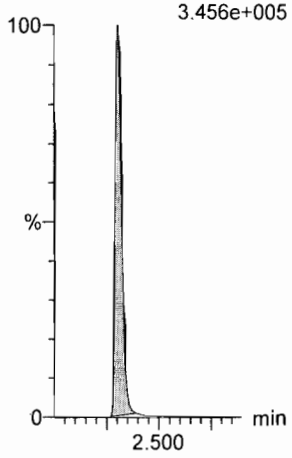
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180111M2_19, Date: 12-Jan-2018, Time: 07:00:09, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

PFBA



PFPeA



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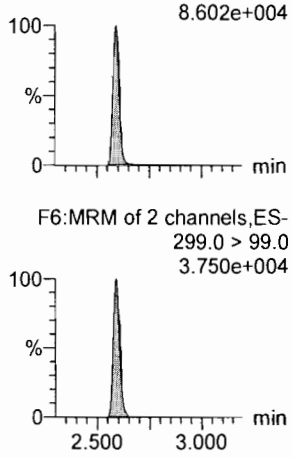

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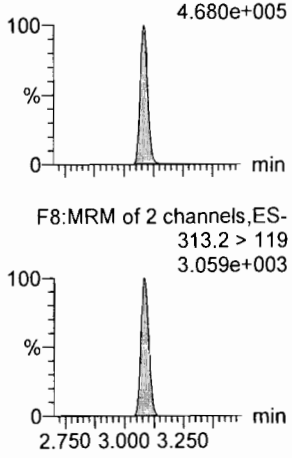
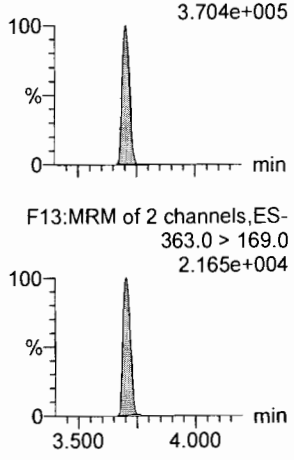
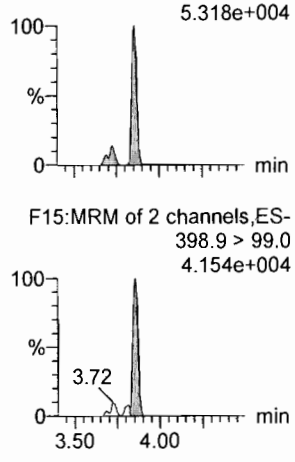


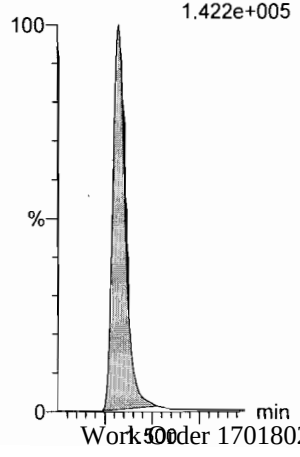
PFHpA



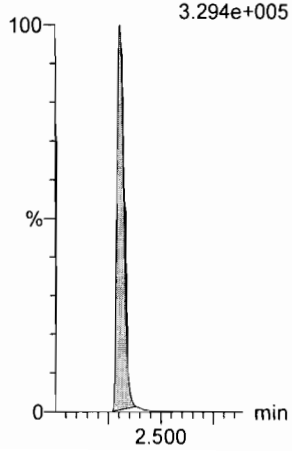
L-PFHxS



13C3-PFBA



13C3-PFPeA



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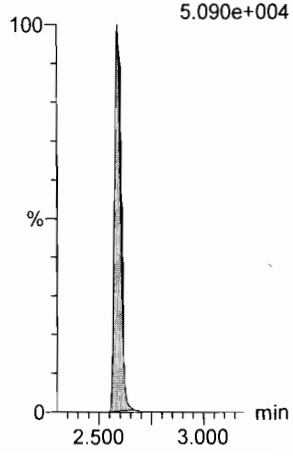

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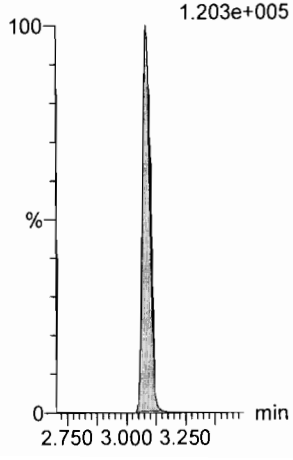
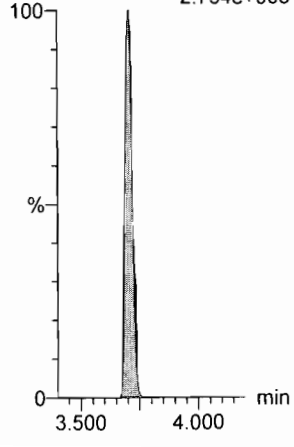
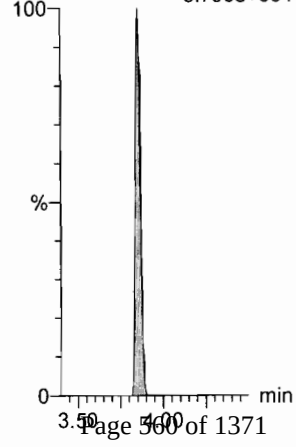


13C4-PFHpA



18O2-PFHxS



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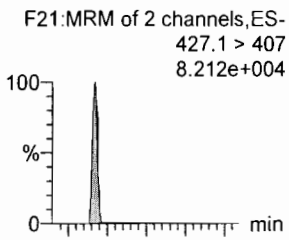
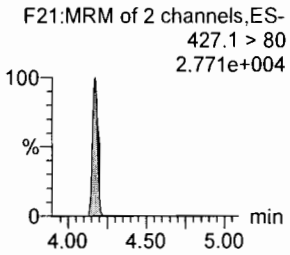
Last Altered: Saturday, January 13, 2018 11:14:12 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:14:27 Pacific Standard Time

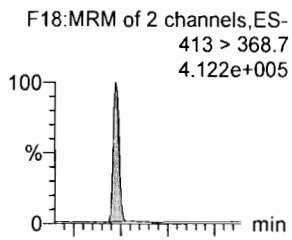
Name: 180111M2_19, Date: 12-Jan-2018, Time: 07:00:09, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

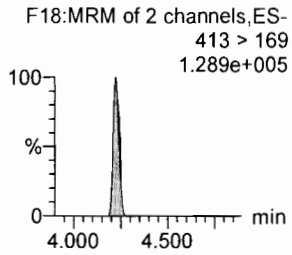
6:2 FTS



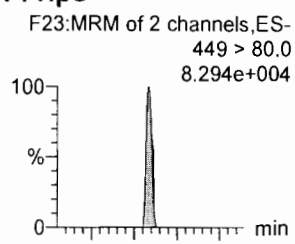


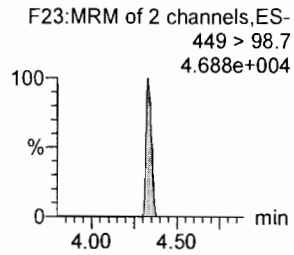
L-PFOA





PFHpS





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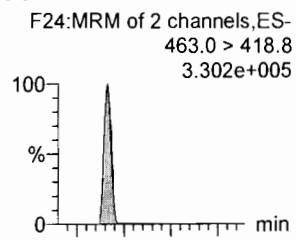
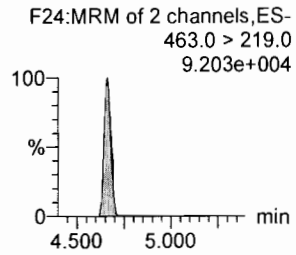
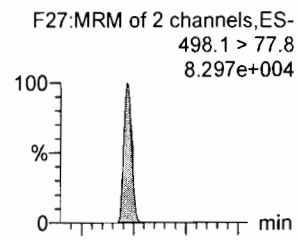
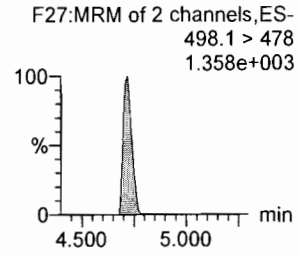


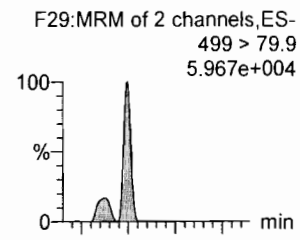


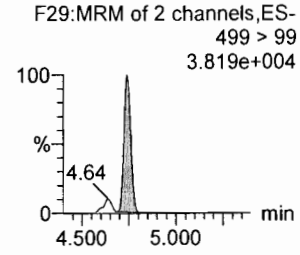
PFOSA





L-PFOS





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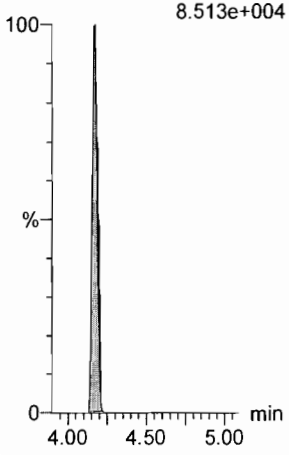

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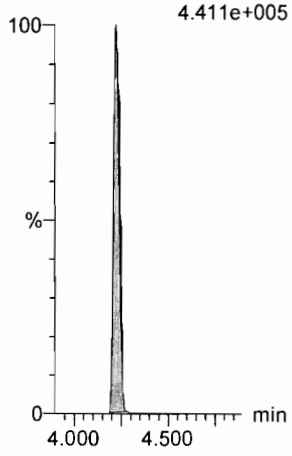

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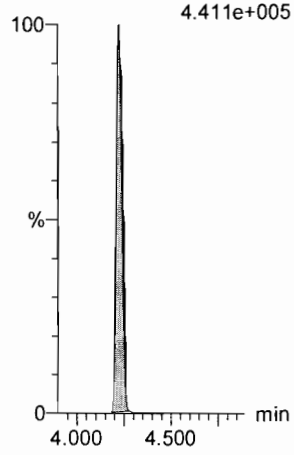
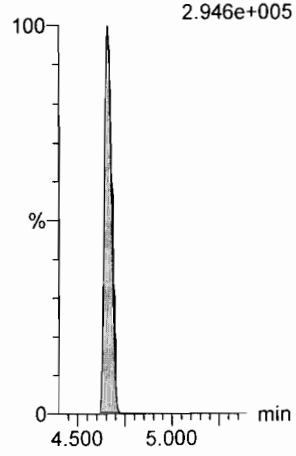


13C5-PFNA



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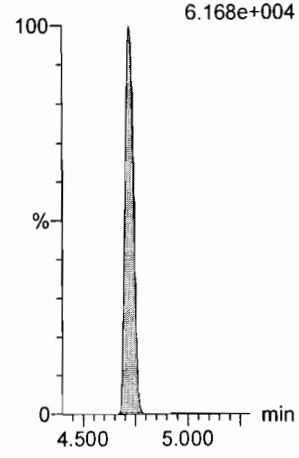

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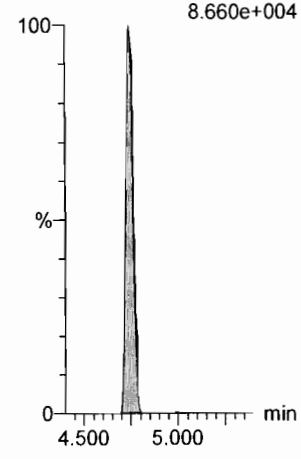

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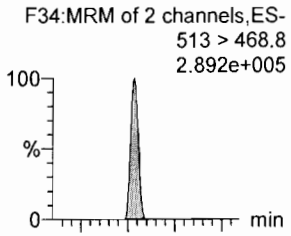
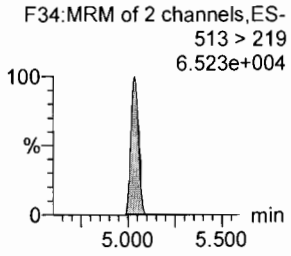
Last Altered: Saturday, January 13, 2018 11:14:12 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:14:27 Pacific Standard Time

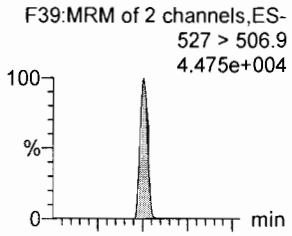
Name: 180111M2_19, Date: 12-Jan-2018, Time: 07:00:09, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

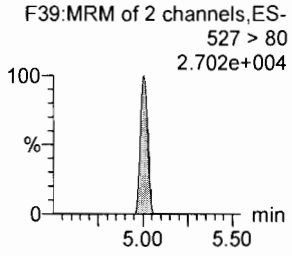
PFDA



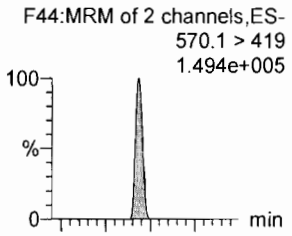


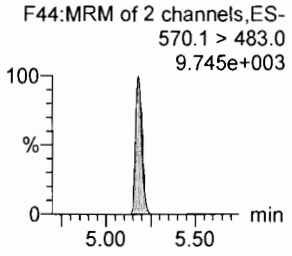
8:2 FTS



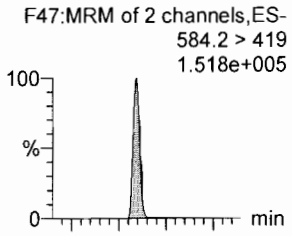


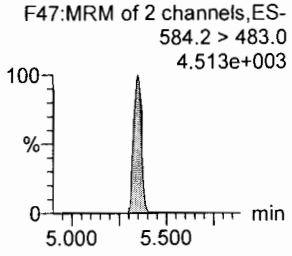
N-MeFOSAA



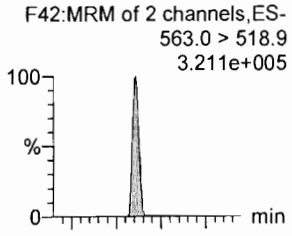


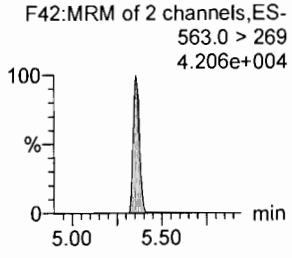
N-EtFOSAA



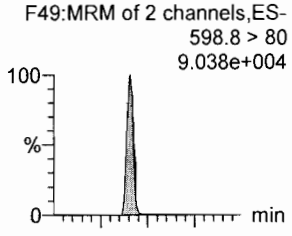


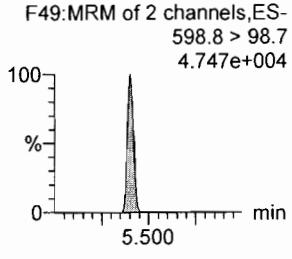
PFUdA



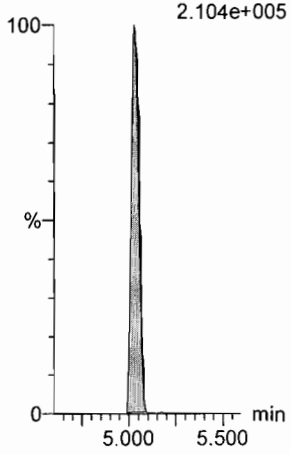


PFDS

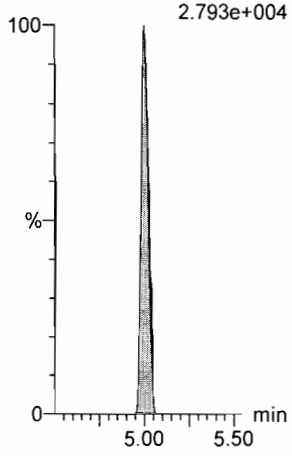




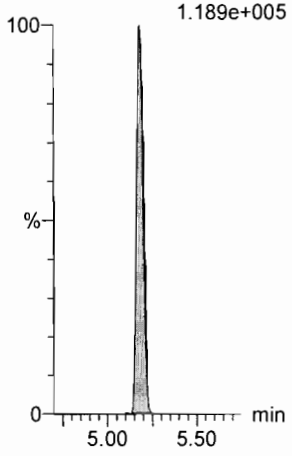
13C2-PFDA



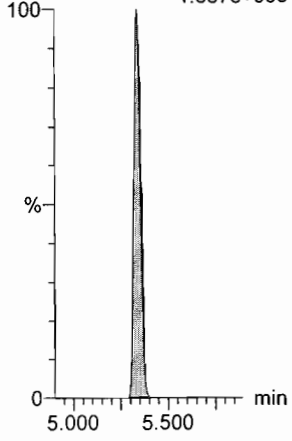
13C2-8:2 FTS



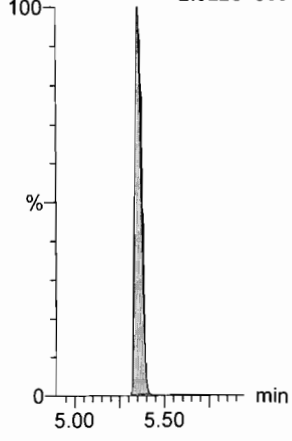
d3-N-MeFOSAA



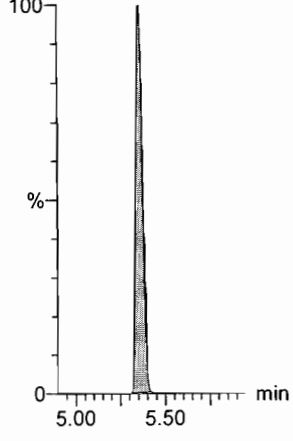
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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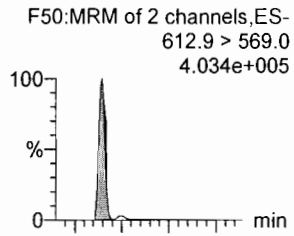
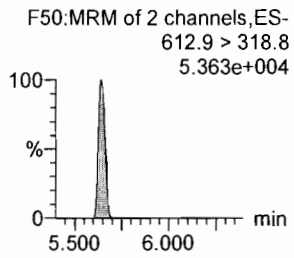
Last Altered: Saturday, January 13, 2018 11:14:12 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:14:27 Pacific Standard Time

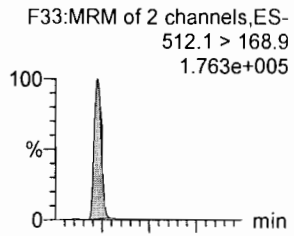
Name: 180111M2_19, Date: 12-Jan-2018, Time: 07:00:09, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

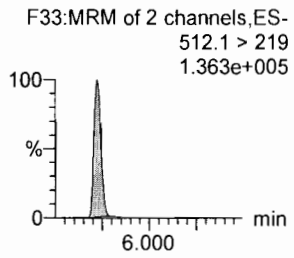
PFDoA



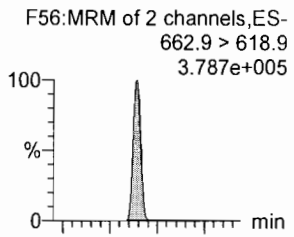


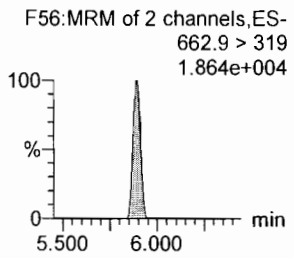
N-MeFOSA



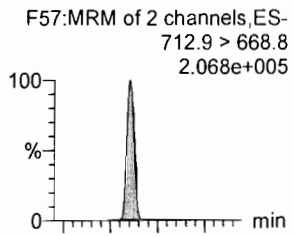


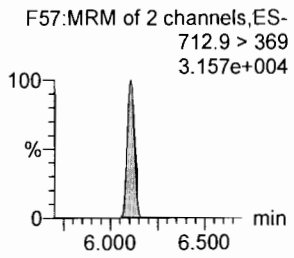
PFTrDA



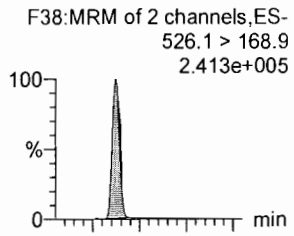


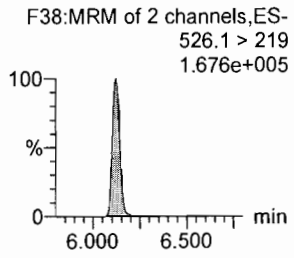
PFTeDA



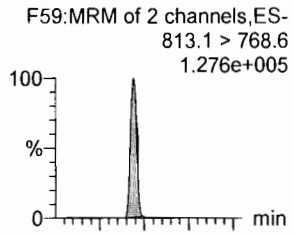


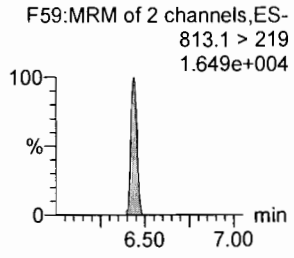
N-EtFOSA



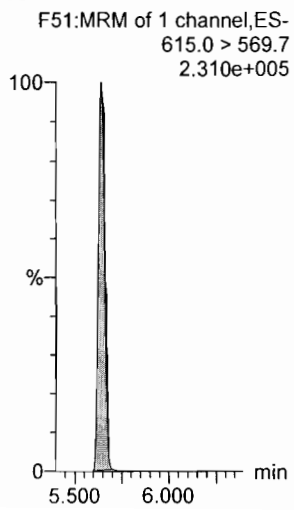


PFHxDA

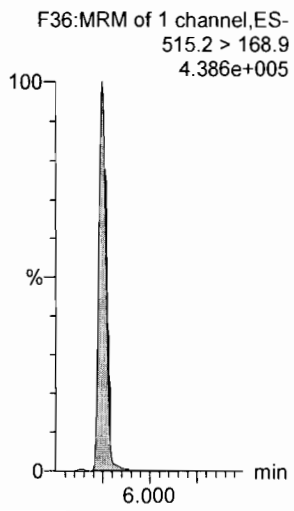




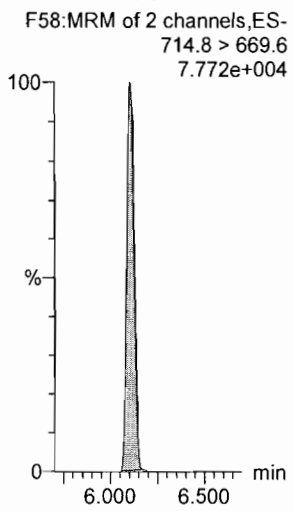
13C2-PFDoA



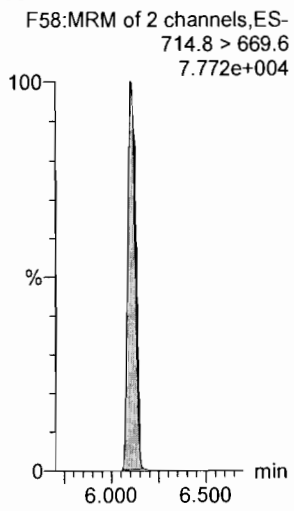
d3-N-MeFOSA



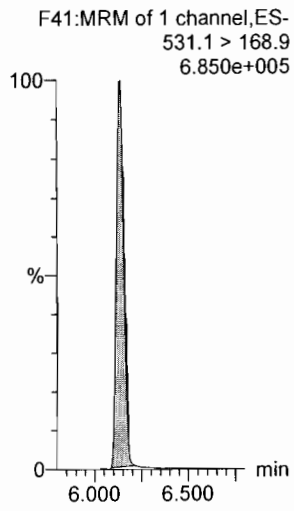
13C2-PFTeDA



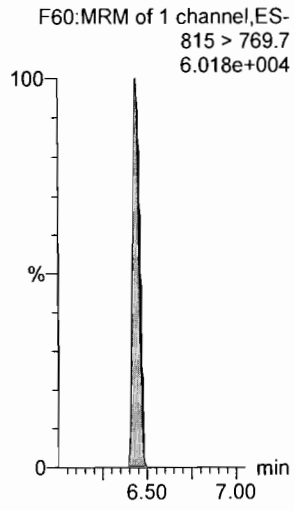
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



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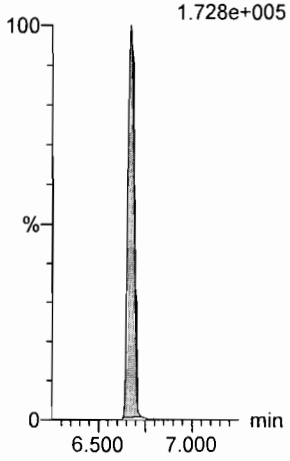
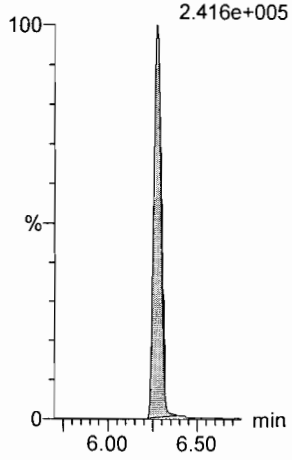
Last Altered: Saturday, January 13, 2018 11:14:12 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:14:27 Pacific Standard Time

Name: 180111M2_19, Date: 12-Jan-2018, Time: 07:00:09, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

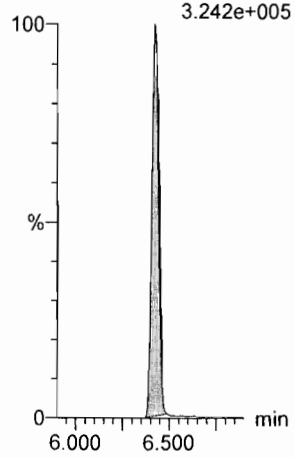
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.728e+005



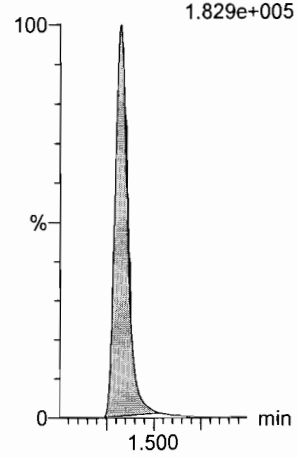
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.416e+005



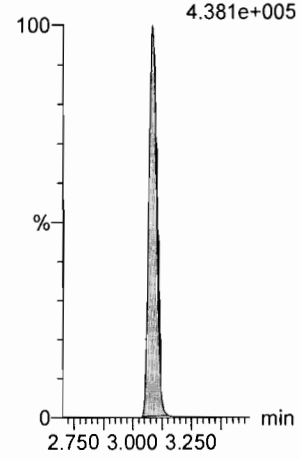
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.242e+005



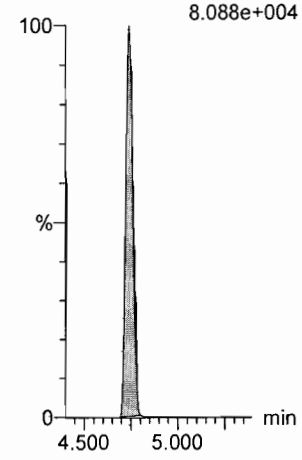
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.829e+005



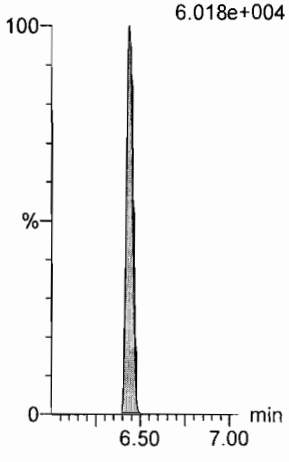
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.381e+005



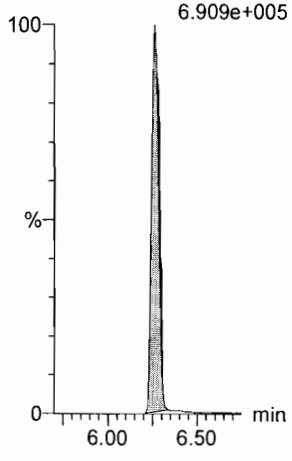
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.088e+004



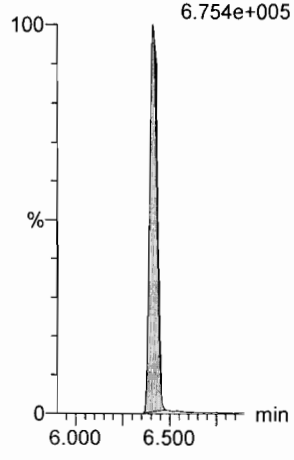
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.018e+004



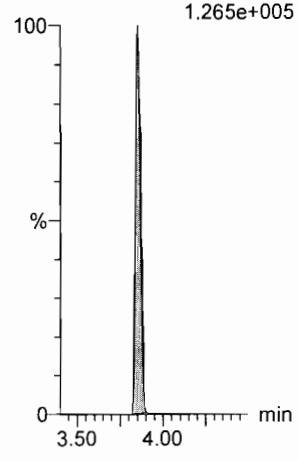
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.909e+005



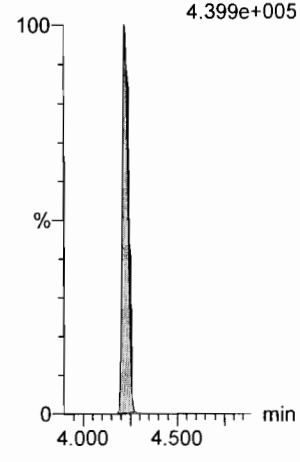
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.754e+005



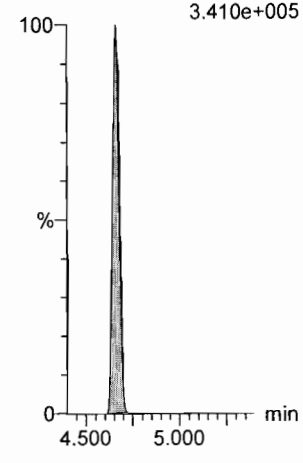
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.265e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.399e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.410e+005

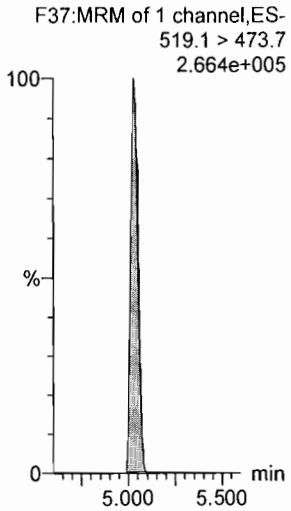


Dataset: U:\Q4.PRO\results\180111M2\1801111M2-19.qld

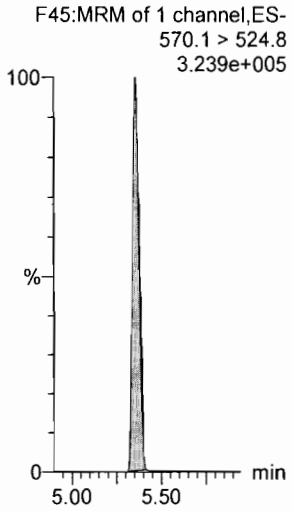
Last Altered: Saturday, January 13, 2018 11:14:12 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:14:27 Pacific Standard Time

Name: 180111M2_19, Date: 12-Jan-2018, Time: 07:00:09, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-26.qld

Last Altered: Saturday, January 13, 2018 11:14:57 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:15:05 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

CP 1/13/18

Name: 180111M2_26, Date: 12-Jan-2018, Time: 08:18:25, ID: ST180111M2-3 PFC CS3 17L2611, Description: PFC CS3 17L2611

✓ JA 01/15/2018

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out	
1	1	PFBA	213.0 > 168.8	1.20e4	1.06e4		1.38	1.32	14.1	9.64	96.4	NO	70-130
2	2	PFPeA	263.1 > 218.9	1.25e4	1.26e4		2.37	2.31	12.4	9.87	98.7	NO	
3	3	PFBS	299.0 > 79.7	2.97e3	1.72e3		2.66	2.59	21.6	10.1	101.2	NO	
4	4	PFHxA	313.2 > 268.9	1.53e4	4.11e3		3.15	3.08	18.6	9.60	96.0	NO	
5	5	PFHpA	363.0 > 318.9	1.26e4	9.05e3		3.78	3.70	17.4	10.6	105.8	NO	
6	6	L-PFHxS	398.9 > 79.6	2.07e3	1.37e3		3.94	3.85	18.9	9.00	90.0	NO	
7	8	6:2 FTS	427.1 > 407	3.45e3	1.37e3		4.25	4.17	31.4	10.3	102.6	NO	
8	9	L-PFOA	413 > 368.7	1.40e4	1.44e4		4.31	4.22	12.2	9.51	95.1	NO	
9	11	PFHpS	449 > 80.0	3.32e3	1.44e4		4.42	4.34	2.88	9.81	98.1	NO	
10	12	PFNA	463.0 > 418.8	1.44e4	1.14e4		4.81	4.66	15.7	11.1	111.0	NO	
11	13	PFOSA	498.1 > 77.8	3.13e3	3.20e3		4.87	4.72	12.2	9.33	93.3	NO	
12	14	L-PFOS	499 > 79.9	3.02e3	2.98e3		4.75	4.75	12.7	10.8	107.7	NO	
13	16	PFDA	513 > 468.8	1.37e4	8.83e3		5.18	5.04	19.3	11.7	117.5	NO	
14	17	8:2 FTS	527 > 506.9	2.63e3	8.83e3		5.15	5.01	3.73	11.7	116.8	NO	
15	18	N-MeFOSAA	570.1 > 419	6.84e3	4.80e3		5.32	5.18	17.8	8.94	89.4	NO	
16	19	N-EtFOSAA	584.2 > 419	5.45e3	4.51e3		5.48	5.34	15.1	9.85	98.5	NO	
17	20	PFUdA	563.0 > 518.9	1.48e4	1.37e4		5.50	5.36	13.5	10.2	102.3	NO	
18	21	PFDS	598.8 > 80	4.04e3	1.37e4		5.54	5.40	3.69	9.88	98.8	NO	
19	22	PFDoA	612.9 > 569.0	1.33e4	7.41e3		5.77	5.64	22.5	10.6	105.8	NO	
20	23	N-MeFOSA	512.1 > 168.9	7.46e3	1.98e4		5.80	5.72	56.5	51.2	102.5	NO	
21	24	PFTrDA	662.9 > 618.9	1.62e4	7.41e3		6.00	5.89	27.3	11.4	114.0	NO	
22	25	PFTeDA	712.9 > 668.8	8.56e3	3.06e3		6.22	6.11	35.0	11.8	118.1	NO	
23	26	N-EtFOSA	526.1 > 168.9	1.03e4	2.94e4		6.17	6.12	52.7	51.7	103.4	NO	
24	27	PFHxDA	813.1 > 768.6	5.02e3	2.48e3		6.53	6.44	10.1	10.4	103.6	NO	
25	28	PFODA	913.1 > 868.8	6.41e3	2.48e3		6.74	6.67	12.9	10.1	100.9	NO	
26	29	N-MeFOSE	616.1 > 58.9	1.06e4	3.08e4		6.27	6.27	51.4	44.5	89.0	NO	
27	30	N-EtFOSE	630.1 > 58.9	1.41e4	2.91e4		6.43	6.43	72.5	51.9	103.8	NO	
28	31	13C3-PFBA	216.1 > 171.8	1.06e4	1.39e4	0.764	1.38	1.33	9.58	12.5	100.3	NO	80-120
29	32	13C3-PFPeA	266. > 221.8	1.26e4	1.53e4	0.730	2.37	2.30	10.3	14.2	113.3	NO	
30	33	13C3-PFBS	302. > 98.8	1.72e3	1.53e4	0.095	2.77	2.59	1.41	14.8	118.4	NO	
31	34	13C2-PFHxA	315 > 269.8	4.11e3	1.53e4	0.597	3.15	3.08	3.36	5.64	112.7	NO	

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Dataset: U:\Q4.PRO\results\180111M2\1801111M2-26.qld

Last Altered: Saturday, January 13, 2018 11:14:57 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:15:05 Pacific Standard Time

Name: 180111M2_26, Date: 12-Jan-2018, Time: 08:18:25, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35	13C4-PFHpA	367.2 > 321.8	9.05e3	1.53e4	0.604	3.78	3.71	7.41	12.3	98.2	NO
33	36	18O2-PFHxS	403.0 > 102.6	1.37e3	3.90e3	0.293	3.94	3.85	4.39	15.0	119.8	NO
34	37	13C2-6:2 FTS	429.1 > 408.9	2.62e3	1.50e4	0.215	4.25	4.17	2.18	10.1	81.1	NO
35	38	13C2-PFOA	414.9 > 369.7	1.44e4	1.50e4	0.916	4.31	4.22	12.0	13.1	104.5	NO
36	39	13C5-PFNA	468.2 > 422.9	1.14e4	1.43e4	0.817	4.81	4.66	9.97	12.2	97.6	NO
37	40	13C8-PFOSA	506.1 > 77.7	3.20e3	1.40e4	0.223	4.87	4.72	2.85	12.8	102.1	NO
38	41	13C8-PFOS	507.0 > 79.9	2.98e3	3.96e3	0.875	4.89	4.74	9.40	10.8	86.0	NO
39	42	13C2-PFDA	515.1 > 469.9	8.83e3	8.30e3	1.105	5.18	5.04	13.3	12.0	96.2	NO
40	43	13C2-8:2 FTS	529.1 > 508.7	1.35e3	1.53e4	0.101	5.15	5.01	1.11	11.0	87.7	NO
41	44	d3-N-MeFOSAA	573.3 > 419	4.80e3	1.40e4	0.345	5.32	5.18	4.27	12.4	99.1	NO
42	45	d5-N-EtFOSAA	589.3 > 419	4.51e3	1.40e4	0.390	5.47	5.34	4.01	10.3	82.2	NO
43	46	13C2-PFUdA	565 > 519.8	1.37e4	1.40e4	0.958	5.49	5.36	12.2	12.7	101.8	NO
44	47	13C2-PFDoA	615.0 > 569.7	7.41e3	1.40e4	0.599	5.77	5.64	6.59	11.0	88.0	NO
45	48	d3-N-MeFOSA	515.2 > 168.9	1.98e4	1.40e4	0.124	5.83	5.75	17.6	142	94.6	NO
46	49	13C2-PFTeDA	714.8 > 669.6	3.06e3	1.40e4	0.282	6.22	6.10	2.72	9.66	77.3	NO
47	50	d5-N-ETFOSA	531.1 > 168.9	2.94e4	1.40e4	0.184	6.18	6.14	26.1	142	94.6	NO
48	51	13C2-PFHxDA	815 > 769.7	2.48e3	1.40e4	0.540	6.53	6.44	2.20	4.08	81.7	NO
49	52	d7-N-MeFOSE	623.1 > 58.9	3.08e4	1.40e4	0.182	6.27	6.26	27.4	150	100.2	NO
50	53	d9-N-EtFOSE	639.2 > 58.8	2.91e4	1.40e4	0.173	6.42	6.41	25.9	150	99.9	NO
51	54	13C4-PFBA	217. > 171.8	1.39e4	1.39e4	1.000	1.38	1.32	12.5	12.5	100.0	NO
52	55	13C5-PFHxA	318 > 272.9	1.53e4	1.53e4	1.000	3.15	3.08	12.5	12.5	100.0	NO
53	56	13C3-PFHxS	401.9 > 79.9	3.90e3	3.90e3	1.000	4.02	3.85	12.5	12.5	100.0	NO
54	57	13C8-PFOA	421.3 > 376	1.50e4	1.50e4	1.000	4.38	4.22	12.5	12.5	100.0	NO
55	58	13C9-PFNA	472.2 > 426.9	1.43e4	1.43e4	1.000	4.81	4.66	12.5	12.5	100.0	NO
56	59	13C4-PFOS	503 > 79.9	3.96e3	3.96e3	1.000	4.89	4.74	12.5	12.5	100.0	NO
57	60	13C6-PFDA	519.1 > 473.7	8.30e3	8.30e3	1.000	5.18	5.04	12.5	12.5	100.0	NO
58	61	13C7-PFUdA	570.1 > 524.8	1.40e4	1.40e4	1.000	5.49	5.36	12.5	12.5	100.0	NO

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Dataset: Untitled

Last Altered: Saturday, January 13, 2018 11:19:22 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:21:12 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: 13 Jan 2018 11:19:22

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180111M2_1	ST180111M2-1 PFC CS0 17L2608	12-Jan-18	03:38:50
2	180111M2_2	IPA	12-Jan-18	03:49:59
3	180111M2_3	B7L0101-BS1 OPR 0.25	12-Jan-18	04:01:09
4	180111M2_4	B7L0101-BSD1 LCSD 0.25	12-Jan-18	04:12:24
5	180111M2_5	B7L0101-BLK1 Method Blank 0.25	12-Jan-18	04:23:34
6	180111M2_6	1701840-04 YS22-GW16-1217 0.1211	12-Jan-18	04:34:44
7	180111M2_7	1701840-05 YS22-GW10-1217 0.11512	12-Jan-18	04:45:56
8	180111M2_8	1701840-10 YS22-GW18-1117 0.1082	12-Jan-18	04:57:07
9	180111M2_9	1701851-01 FT-PZ-462S-20171202 0.22334	12-Jan-18	05:08:18
10	180111M2_10	1701851-02 FT-PZ-462I-20171202 0.25131	12-Jan-18	05:19:28
11	180111M2_11	1701851-03 FT-PZ-455S-20171202 0.2638	12-Jan-18	05:30:39
12	180111M2_12	1701851-04 FT-PZ-455I-20171202 0.25637	12-Jan-18	05:41:50
13	180111M2_13	1701851-05 FT-PZ-453S-20171202 0.23285	12-Jan-18	05:53:01
14	180111M2_14	1701851-06 FT-PZ-453S-FRB-20171202 0.26...	12-Jan-18	06:04:12
15	180111M2_15	1701851-07 FT-PZ-456I-FRB-20171204 0.2536	12-Jan-18	06:15:23
16	180111M2_16	1701851-08 FT-PZ-456I-20171204 0.26041	12-Jan-18	06:26:36
17	180111M2_17	1701851-09 FT-PZ-456S-20171204 0.25898	12-Jan-18	06:37:48
18	180111M2_18	IPA	12-Jan-18	06:48:59
19	180111M2_19	ST180111M2-2 PFC CS3 17L2611	12-Jan-18	07:00:09
20	180111M2_20	IPA	12-Jan-18	07:11:21
21	180111M2_21	1701802-01RE1@5X FC-MW02SR1-NP-2017...	12-Jan-18	07:22:31
22	180111M2_22	1701802-02RE1@5X FC-MW02SR1-P1-2017...	12-Jan-18	07:33:43
23	180111M2_23	1701802-03RE1@5X FC-MW02SR1-P2-2017...	12-Jan-18	07:44:53
24	180111M2_24	1701802-04RE1@5X FC-MW02SR1-P3-2017...	12-Jan-18	07:56:04
25	180111M2_25	IPA	12-Jan-18	08:07:15
26	180111M2_26	ST180111M2-2 PFC CS3 17L2611	12-Jan-18	08:18:25
27	180111M2_27	IPA	12-Jan-18	08:29:37

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180111M2\1801111M2-26.qld

Last Altered: Saturday, January 13, 2018 11:14:57 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:15:05 Pacific Standard Time

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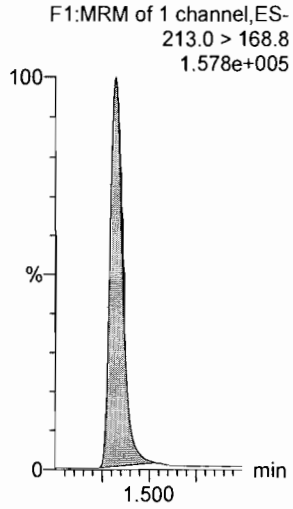
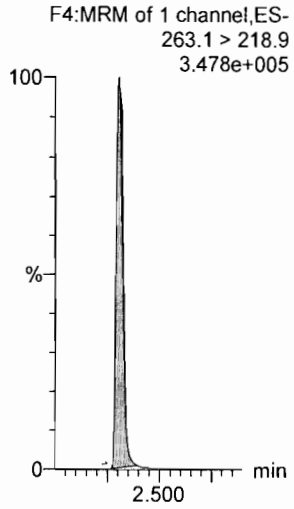
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180111M2_26, Date: 12-Jan-2018, Time: 08:18:25, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

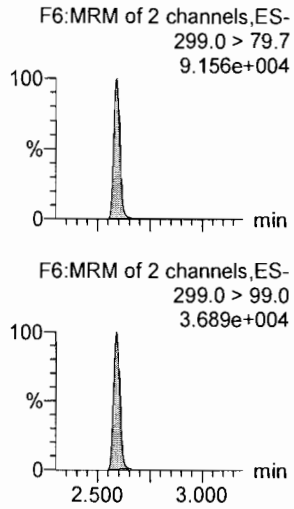
PFBA



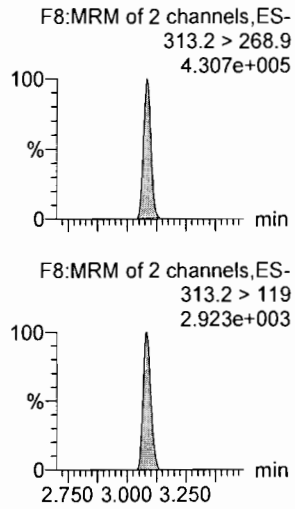
PFPeA



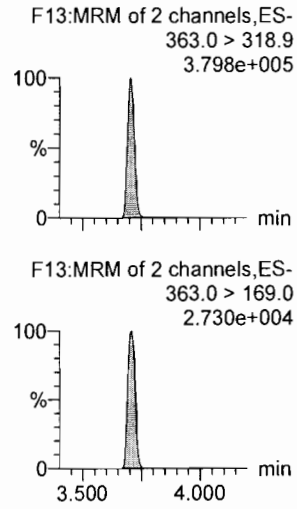
PFBS



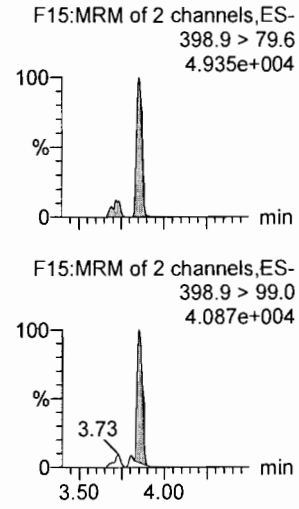
PFHxA



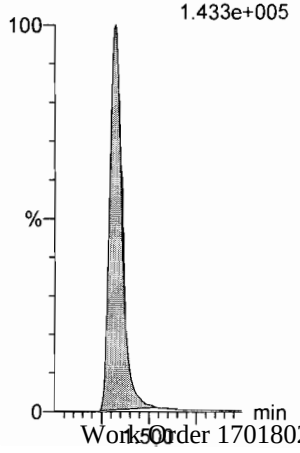
PFHpA



L-PFHxS



13C3-PFBA



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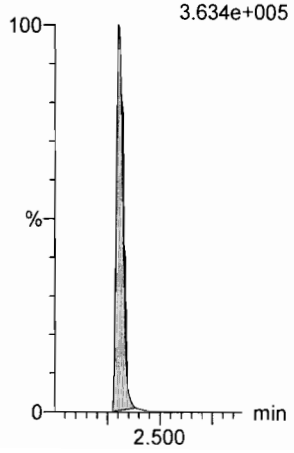

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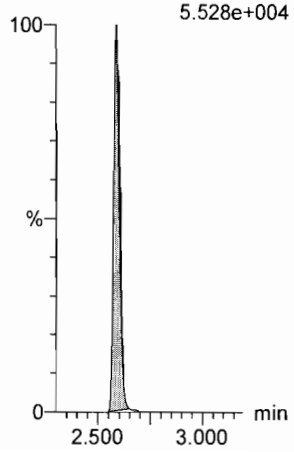
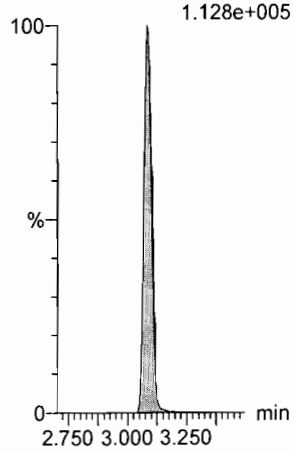
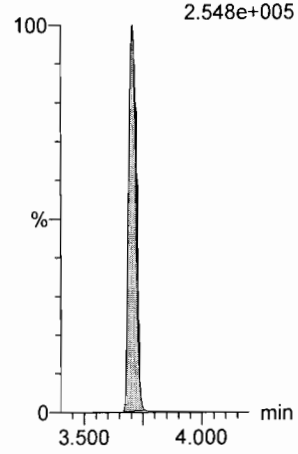


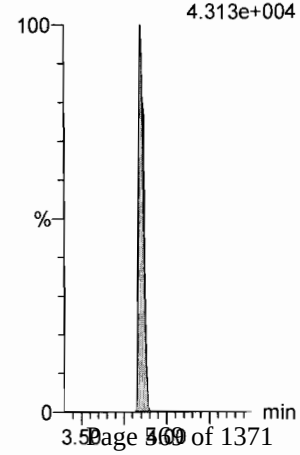
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

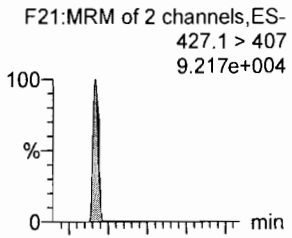


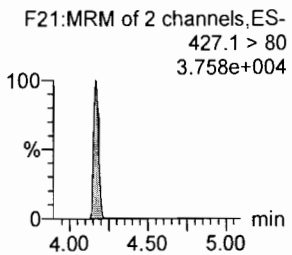
Dataset: U:\Q4.PRO\results\180111M2\1801111M2-26.qld

Last Altered: Saturday, January 13, 2018 11:14:57 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:15:05 Pacific Standard Time

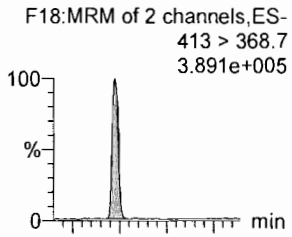
Name: 180111M2_26, Date: 12-Jan-2018, Time: 08:18:25, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

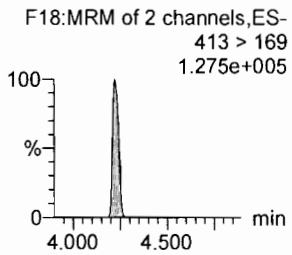
6:2 FTS



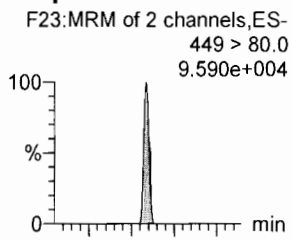


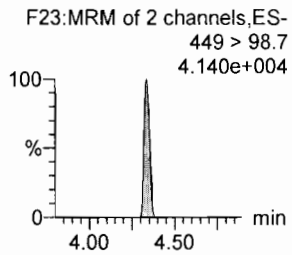
L-PFOA





PFHpS





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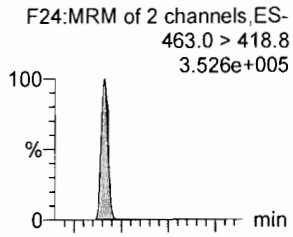
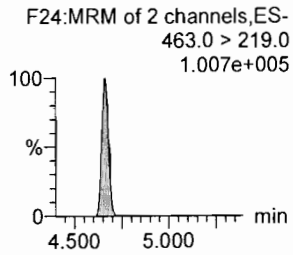
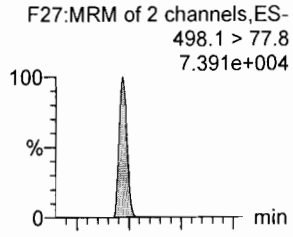
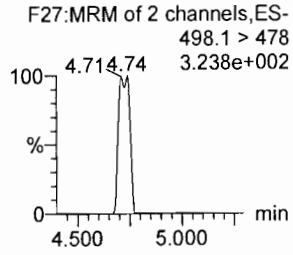


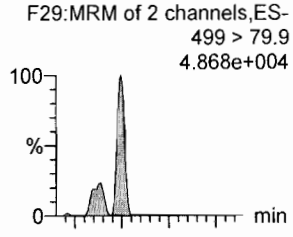


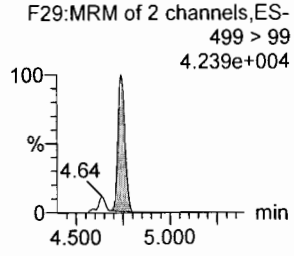
PFOSA



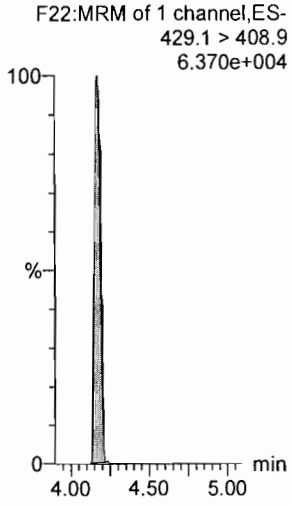


L-PFOS

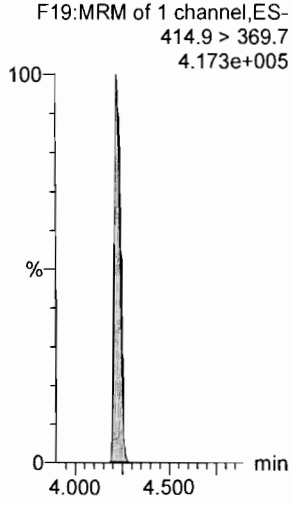




13C2-6:2 FTS



13C2-PFOA



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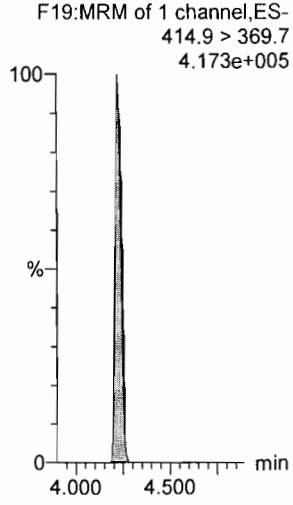
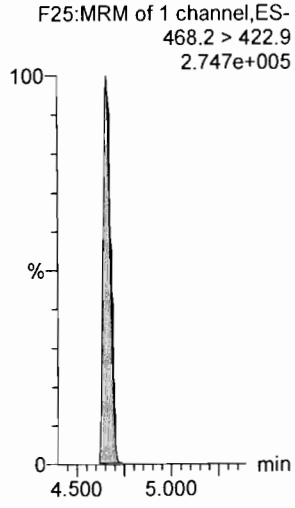
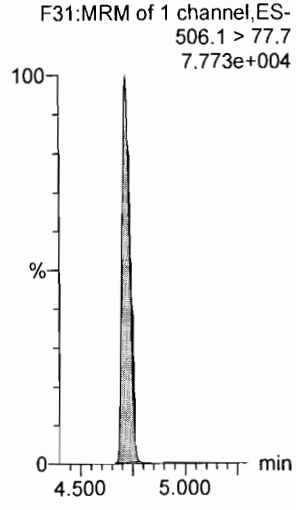


13C5-PFNA



13C8-PFOSA



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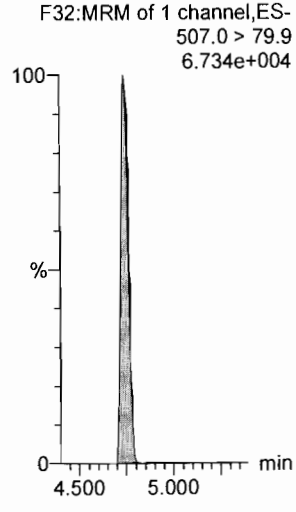

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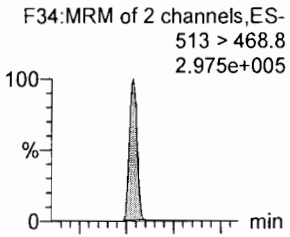
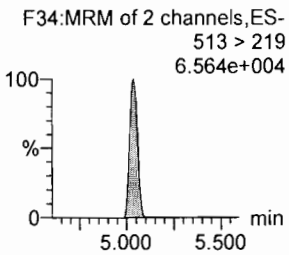
Last Altered: Saturday, January 13, 2018 11:14:57 Pacific Standard Time
Printed: Saturday, January 13, 2018 11:15:05 Pacific Standard Time

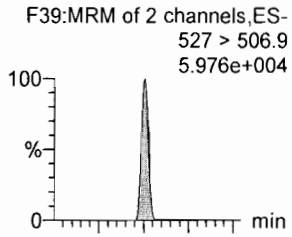
Name: 180111M2_26, Date: 12-Jan-2018, Time: 08:18:25, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

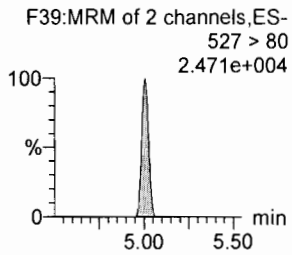
PFDA



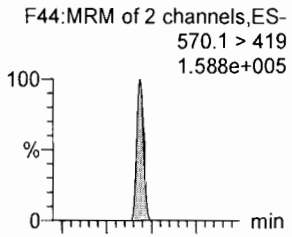


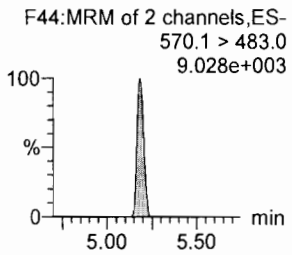
8:2 FTS



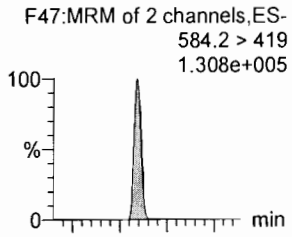


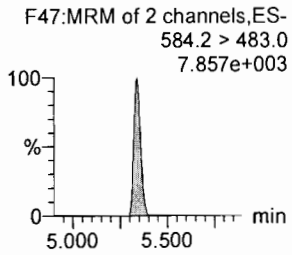
N-MeFOSAA



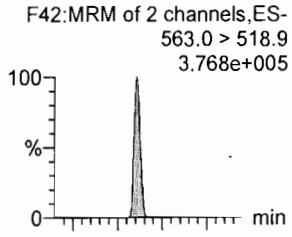


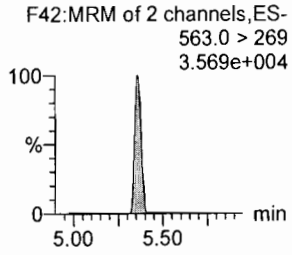
N-EtFOSAA



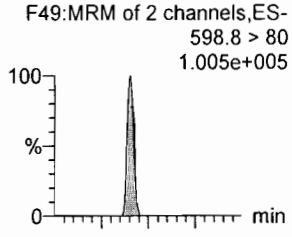


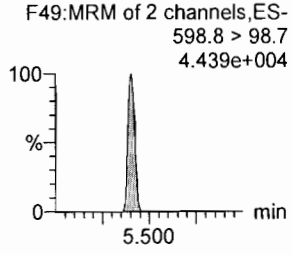
PFUdA



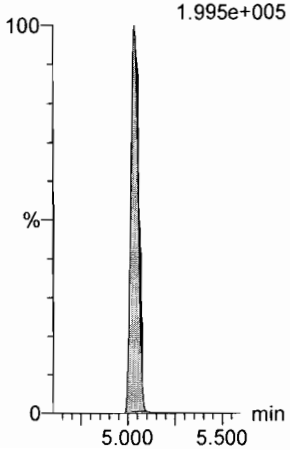


PFDS

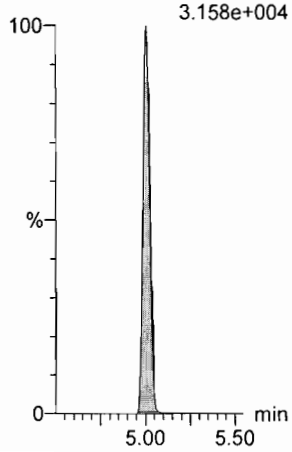




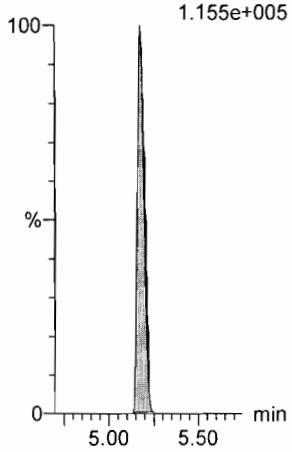
13C2-PFDA



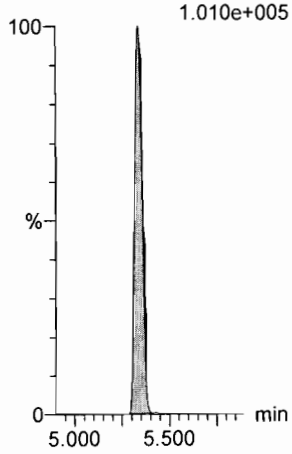
13C2-8:2 FTS



d3-N-MeFOSAA



d5-N-EtFOSAA



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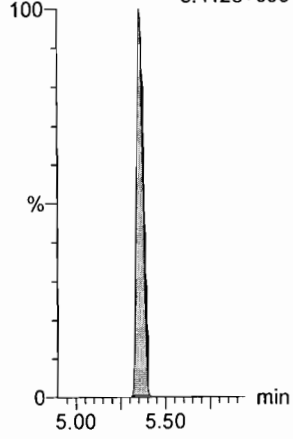
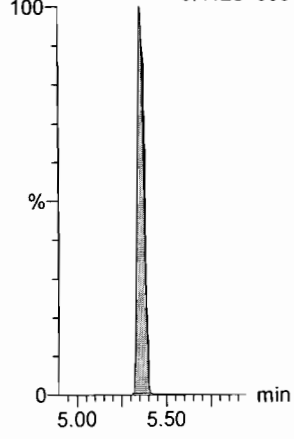


13C2-PFUdA



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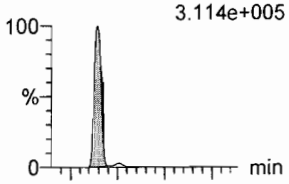
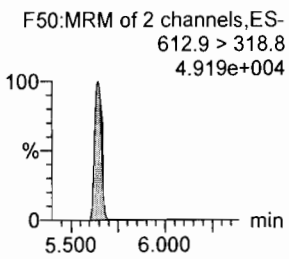
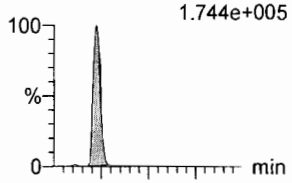
Name: 180111M2_26, Date: 12-Jan-2018, Time: 08:18:25, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

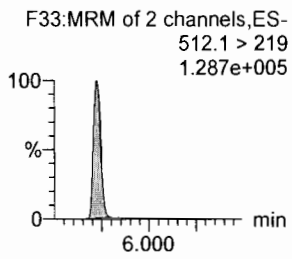
PFDoA



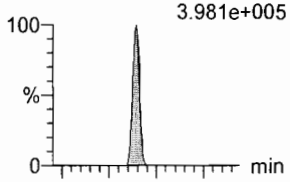


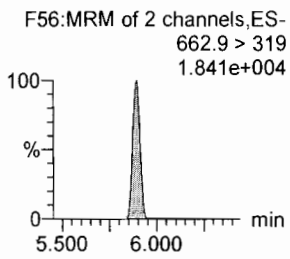
N-MeFOSA





PFTrDA





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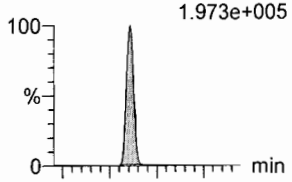
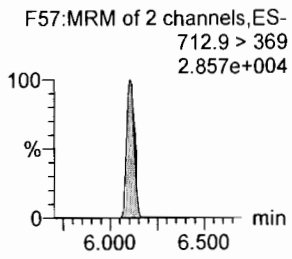
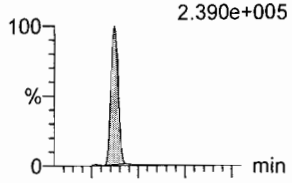
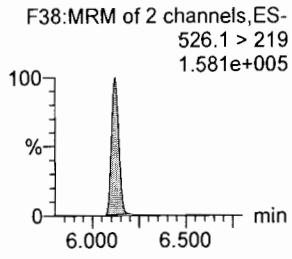


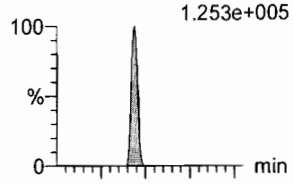


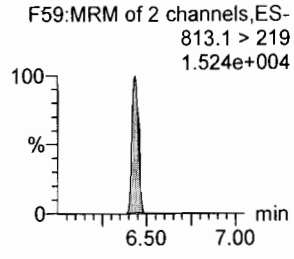
N-EtFOSA





PFHxDA





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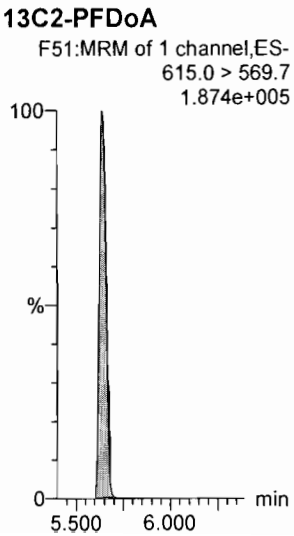
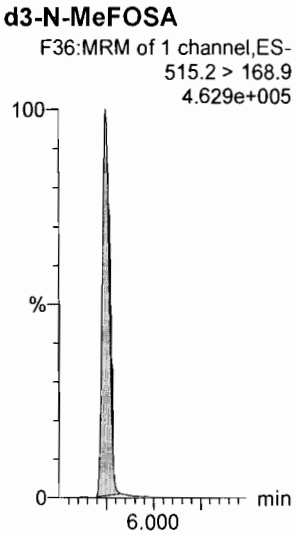


d3-N-MeFOSA



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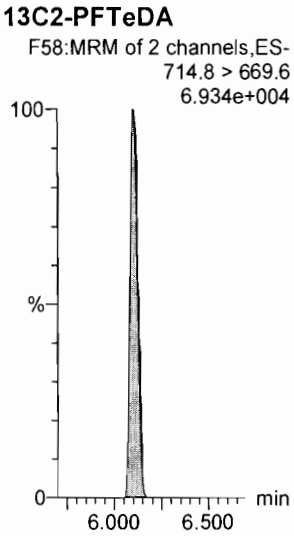

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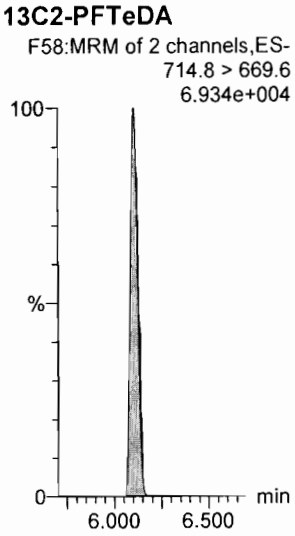
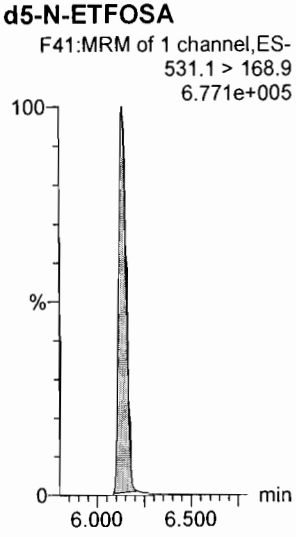
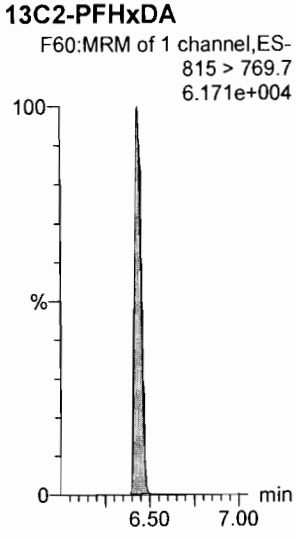


d5-N-ETFOSA



13C2-PFHxDA



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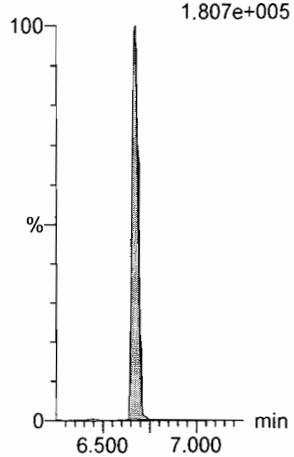
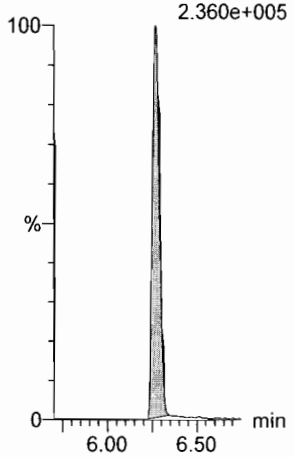
Name: 180111M2_26, Date: 12-Jan-2018, Time: 08:18:25, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

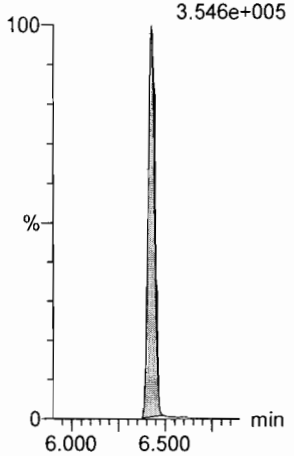
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.807e+005



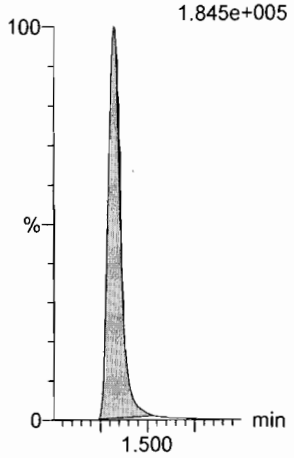
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.360e+005



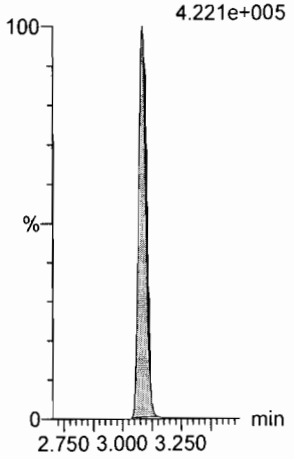
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.546e+005



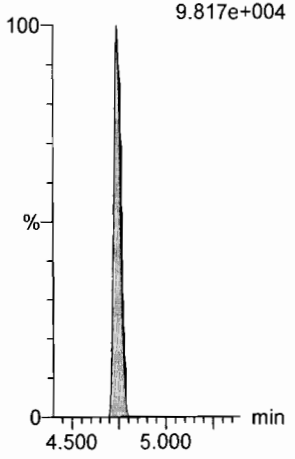
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.845e+005



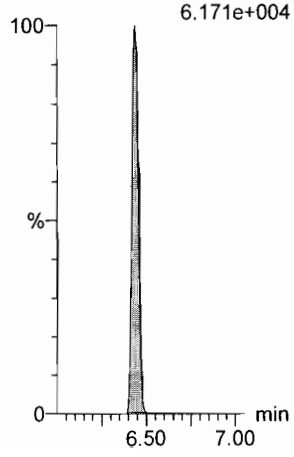
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.221e+005



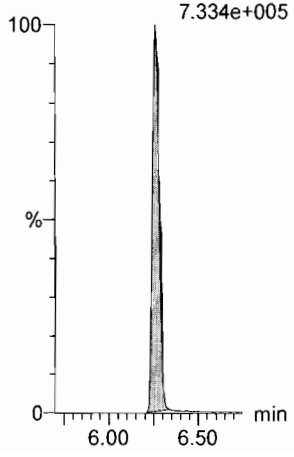
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.817e+004



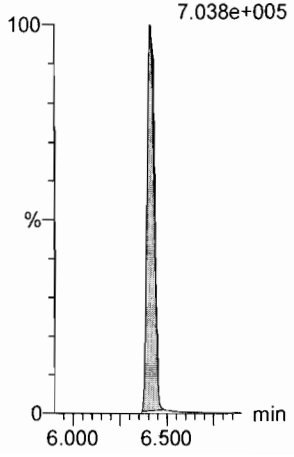
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.171e+004



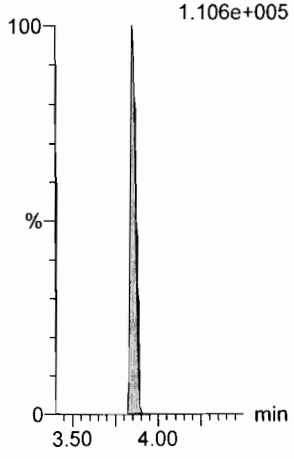
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
7.334e+005



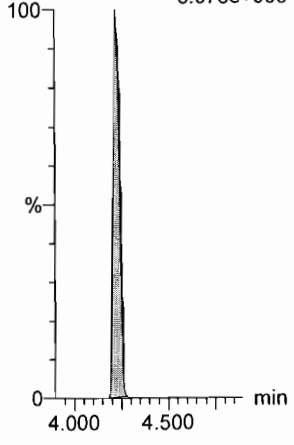
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.038e+005



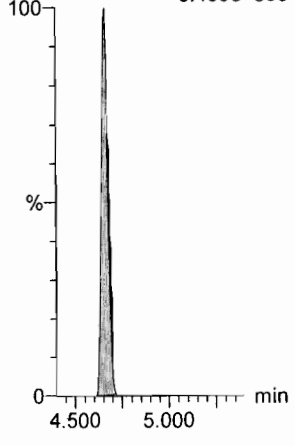
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.106e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.978e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.450e+005



Dataset: U:\Q4.PRO\results\180111M2\1801111M2-26.qld

Last Altered: Saturday, January 13, 2018 11:14:57 Pacific Standard Time
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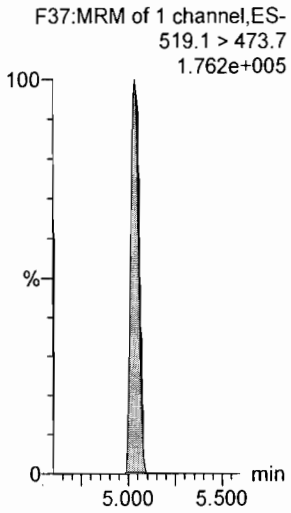
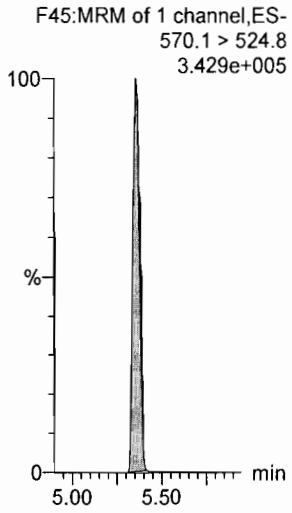
Name: 180111M2_26, Date: 12-Jan-2018, Time: 08:18:25, ID: ST180111M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

13C6-PFDA



13C7-PFUdA



INITIAL CALIBRATION (ICAL)

INCLUDING ASSOCIATED

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

Vista Analytical Laboratory

Ⓐ NO Me-FOSA/E, Et FOSA/E.

Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:19:36 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 14 Dec 2017 08:34:51
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

AC 12/15/17

rJA 12/15/2017

Compound name: PFBA
Correlation coefficient: r = 0.999759, r^2 = 0.999518
Calibration curve: 1.0818 * x + -0.0828057
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	171214M1_2	Standard	0.250	1.39	104.864	10350.293	0.127	0.2	-22.6	NO	1.000	NO	bb
2	2	171214M1_3	Standard	0.500	1.39	361.395	12139.206	0.372	0.4	-15.9	NO	1.000	NO	MM
3	3	171214M1_4	Standard	1.000	1.40	905.405	10945.042	1.034	1.0	3.2	NO	1.000	NO	bb
4	4	171214M1_5	Standard	2.000	1.39	1876.567	10899.879	2.152	2.1	3.3	NO	1.000	NO	bb
5	5	171214M1_6	Standard	5.000	1.39	4612.751	10705.287	5.386	5.1	1.1	NO	1.000	NO	bb
6	6	171214M1_7	Standard	10.000	1.38	9336.264	10881.714	10.725	10.0	-0.1	NO	1.000	NO	bb
7	7	171214M1_8	Standard	50.000	1.39	48653.594	10964.734	55.466	51.3	2.7	NO	1.000	NO	bb
8	8	171214M1_9	Standard	100.000	1.37	93346.219	11141.793	104.725	96.9	-3.1	NO	1.000	NO	bb
9	9	171214M1_10	Standard	250.000	1.37	235729.516	10822.411	272.270	251.8	0.7	NO	1.000	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.999581, r^2 = 0.999163
Calibration curve: 0.914829 * x + 0.00697971
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	171214M1_2	Standard	0.250	2.33	285.999	14965.871	0.239	0.3	1.4	NO	0.999	NO	bb
2	2	171214M1_3	Standard	0.500	2.34	551.839	16483.803	0.418	0.4	-10.0	NO	0.999	NO	bb
3	3	171214M1_4	Standard	1.000	2.35	1135.147	14992.419	0.946	1.0	2.7	NO	0.999	NO	bb
4	4	171214M1_5	Standard	2.000	2.34	2194.702	15135.859	1.813	2.0	-1.3	NO	0.999	NO	bb
5	5	171214M1_6	Standard	5.000	2.34	5446.351	14451.099	4.711	5.1	2.8	NO	0.999	NO	bb
6	6	171214M1_7	Standard	10.000	2.33	11234.518	15576.157	9.016	9.8	-1.5	NO	0.999	NO	bb
7	7	171214M1_8	Standard	50.000	2.34	56545.012	14379.886	49.153	53.7	7.4	NO	0.999	NO	bb
8	8	171214M1_9	Standard	100.000	2.33	109313.688	14940.075	91.460	100.0	-0.0	NO	0.999	NO	bb
9	9	171214M1_10	Standard	250.000	2.34	266348.031	14771.427	225.391	246.4	-1.5	NO	0.999	NO	bb

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Compound name: PFBS
Correlation coefficient: r = 0.999502, r^2 = 0.999004
Calibration curve: 2.03588 * x + -0.0227612
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	171214M1_2	Standard	0.250	2.62	81.286	1732.369	0.587	0.3	19.7	NO	0.999	NO	bb
2	2	171214M1_3	Standard	0.500	2.61	120.973	2001.570	0.755	0.4	-23.5	NO	0.999	NO	bb
3	3	171214M1_4	Standard	1.000	2.62	298.013	1806.731	2.062	1.0	2.4	NO	0.999	NO	bb
4	4	171214M1_5	Standard	2.000	2.61	620.308	1789.857	4.332	2.1	7.0	NO	0.999	NO	bb
5	5	171214M1_6	Standard	5.000	2.62	1421.801	1672.444	10.627	5.2	4.6	NO	0.999	NO	bb
6	6	171214M1_7	Standard	10.000	2.61	2840.545	1865.707	19.031	9.4	-6.4	NO	0.999	NO	bb
7	7	171214M1_8	Standard	50.000	2.61	14409.229	1799.017	100.119	49.2	-1.6	NO	0.999	NO	bb
8	8	171214M1_9	Standard	100.000	2.61	28156.928	1805.515	194.937	95.8	-4.2	NO	0.999	NO	bb
9	9	171214M1_10	Standard	250.000	2.62	70667.727	1699.162	519.872	255.4	2.1	NO	0.999	NO	bb

Compound name: PFHxA
Correlation coefficient: r = 0.999800, r^2 = 0.999600
Calibration curve: 1.45431 * x + 0.00389471
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	171214M1_2	Standard	0.250	3.11	442.770	5801.274	0.382	0.3	3.9	NO	1.000	NO	bb
2	2	171214M1_3	Standard	0.500	3.11	755.803	5516.994	0.685	0.5	-6.3	NO	1.000	NO	bb
3	3	171214M1_4	Standard	1.000	3.11	1551.089	5454.500	1.422	1.0	-2.5	NO	1.000	NO	bb
4	4	171214M1_5	Standard	2.000	3.11	3138.781	5244.799	2.992	2.1	2.7	NO	1.000	NO	bb
5	5	171214M1_6	Standard	5.000	3.12	7663.084	5137.172	7.458	5.1	2.5	NO	1.000	NO	bb
6	6	171214M1_7	Standard	10.000	3.11	15308.898	5067.938	15.104	10.4	3.8	NO	1.000	NO	bb
7	7	171214M1_8	Standard	50.000	3.11	70604.703	5112.571	69.050	47.5	-5.0	NO	1.000	NO	bb
8	8	171214M1_9	Standard	100.000	3.11	137968.703	4735.036	145.689	100.2	0.2	NO	1.000	NO	bb
9	9	171214M1_10	Standard	250.000	3.11	340284.188	4645.557	366.247	251.8	0.7	NO	1.000	NO	bb

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Compound name: PFHpA
Correlation coefficient: r = 0.999493, r^2 = 0.998987
Calibration curve: 1.33555 * x + -0.0368737
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	171214M1_2	Standard	0.250	3.73	310.816	10477.311	0.371	0.3	22.1	NO	0.999	NO	bb
2	2	171214M1_3	Standard	0.500	3.74	483.395	10821.061	0.558	0.4	-10.9	NO	0.999	NO	bb
3	3	171214M1_4	Standard	1.000	3.74	1069.417	10946.202	1.221	0.9	-5.8	NO	0.999	NO	bb
4	4	171214M1_5	Standard	2.000	3.74	2195.849	10007.636	2.743	2.1	4.1	NO	0.999	NO	bb
5	5	171214M1_6	Standard	5.000	3.74	4853.828	8800.215	6.894	5.2	3.8	NO	0.999	NO	bb
6	6	171214M1_7	Standard	10.000	3.74	9495.143	10480.673	11.325	8.5	-14.9	NO	0.999	NO	bb
7	7	171214M1_8	Standard	50.000	3.74	54108.770	9793.917	69.059	51.7	3.5	NO	0.999	NO	bd
8	8	171214M1_9	Standard	100.000	3.74	99432.148	9575.192	129.804	97.2	-2.8	NO	0.999	NO	bb
9	9	171214M1_10	Standard	250.000	3.74	239847.609	8897.692	336.952	252.3	0.9	NO	0.999	NO	bb

Compound name: L-PFHxS
Correlation coefficient: r = 0.998563, r^2 = 0.997129
Calibration curve: 1.94134 * x + -0.101735
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	171214M1_2	Standard	0.250	3.89	58.510	1566.445	0.467	0.3	17.2	NO	0.997	NO	MM
2	2	171214M1_3	Standard	0.500	3.89	99.971	1661.361	0.752	0.4	-12.0	NO	0.997	NO	MM
3	3	171214M1_4	Standard	1.000	3.89	223.786	1507.433	1.856	1.0	0.8	NO	0.997	NO	MM
4	4	171214M1_5	Standard	2.000	3.89	415.340	1606.780	3.231	1.7	-14.2	NO	0.997	NO	MM
5	5	171214M1_6	Standard	5.000	3.89	1168.852	1340.292	10.901	5.7	13.4	NO	0.997	NO	MM
6	6	171214M1_7	Standard	10.000	3.89	2364.383	1620.044	18.243	9.4	-5.5	NO	0.997	NO	MM
7	7	171214M1_8	Standard	50.000	3.89	12119.610	1466.417	103.310	53.3	6.5	NO	0.997	NO	MM
8	8	171214M1_9	Standard	100.000	3.89	22327.389	1567.889	178.005	91.7	-8.3	NO	0.997	NO	MM
9	9	171214M1_10	Standard	250.000	3.89	57975.898	1463.289	495.253	255.2	2.1	NO	0.997	NO	MM

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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.997496
Calibration curve: -0.00479909 * x^2 + 1.09855 * x + -0.0351405
Response type: Internal Std (Ref 37), 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	171214M1_2	Standard	0.250	4.21	61.261	3044.412	0.252	0.3	4.5	NO	0.997	NO	MM
2	2	171214M1_3	Standard	0.500	4.21	126.927	3901.505	0.407	0.4	-19.4	NO	0.997	NO	bb
3	3	171214M1_4	Standard	1.000	4.21	313.580	3585.504	1.093	1.0	3.2	NO	0.997	NO	bb
4	4	171214M1_5	Standard	2.000	4.21	567.194	3382.968	2.096	2.0	-2.2	NO	0.997	NO	bb
5	5	171214M1_6	Standard	5.000	4.21	1381.420	2879.917	5.996	5.6	12.6	NO	0.997	NO	bb
6	6	171214M1_7	Standard	10.000	4.21	2748.355	3130.159	10.975	10.5	5.0	NO	0.997	NO	bb
7	7	171214M1_8	Standard	50.000	4.21	13202.732	4030.594	40.945	46.9	-6.2	NO	0.997	NO	bb
8	8	171214M1_9	Standard	100.000	4.21	24227.453	4828.424	62.721	109.7	9.7	NO	0.997	NO	bb
9	9	171214M1_10	Standard	250.000	4.21	52099.918	5546.584	117.414			NO	0.997	NO	bbXI

Compound name: L-PFOA
Correlation coefficient: r = 0.999648, r^2 = 0.999296
Calibration curve: 0.907083 * x + 0.230983
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	171214M1_2	Standard	0.250	4.26	473.111	14986.196	0.395	0.2	-27.8	NO	0.999	NO	bb
2	2	171214M1_3	Standard	0.500	4.27	820.298	15402.777	0.666	0.5	-4.1	NO	0.999	NO	bb
3	3	171214M1_4	Standard	1.000	4.26	1506.979	14995.602	1.256	1.1	13.0	NO	0.999	NO	bb
4	4	171214M1_5	Standard	2.000	4.26	2373.688	15261.349	1.944	1.9	-5.6	NO	0.999	NO	bb
5	5	171214M1_6	Standard	5.000	4.26	5304.995	12066.109	5.496	5.8	16.1	NO	0.999	NO	bb
6	6	171214M1_7	Standard	10.000	4.26	11416.535	14377.668	9.926	10.7	6.9	NO	0.999	NO	bb
7	7	171214M1_8	Standard	50.000	4.26	49870.926	13305.151	46.853	51.4	2.8	NO	0.999	NO	bb
8	8	171214M1_9	Standard	100.000	4.26	105274.922	14493.521	90.795	99.8	-0.2	NO	0.999	NO	bb
9	9	171214M1_10	Standard	250.000	4.26	239423.672	13325.603	224.590	247.3	-1.1	NO	0.999	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999578
Calibration curve: -8.32594e-005 * x^2 + 0.253188 * x + -0.0324331
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	171214M1_2	Standard	0.250	4.37	42.365	14986.196	0.035	0.3	7.1	NO	1.000	NO	MM
2	2	171214M1_3	Standard	0.500	4.38	98.341	15402.777	0.080	0.4	-11.3	NO	1.000	NO	bb
3	3	171214M1_4	Standard	1.000	4.38	264.847	14995.602	0.221	1.0	0.0	NO	1.000	NO	bb
4	4	171214M1_5	Standard	2.000	4.37	562.826	15261.349	0.461	2.0	-2.5	NO	1.000	NO	bb
5	5	171214M1_6	Standard	5.000	4.38	1355.382	12066.109	1.404	5.7	13.7	NO	1.000	NO	bb
6	6	171214M1_7	Standard	10.000	4.37	2665.442	14377.668	2.317	9.3	-6.9	NO	1.000	NO	bb
7	7	171214M1_8	Standard	50.000	4.38	13153.925	13305.151	12.358	49.8	-0.5	NO	1.000	NO	bb
8	8	171214M1_9	Standard	100.000	4.38	28486.270	14493.521	24.568	100.5	0.5	NO	1.000	NO	bb
9	9	171214M1_10	Standard	250.000	4.38	61863.902	13325.603	58.031	249.9	-0.1	NO	1.000	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.999488
Calibration curve: -0.000394103 * x^2 + 1.24572 * x + 0.0902825
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	171214M1_2	Standard	0.250	4.70	367.565	11793.092	0.390	0.2	-3.9	NO	0.999	NO	bb
2	2	171214M1_3	Standard	0.500	4.70	616.766	13213.367	0.583	0.4	-20.8	NO	0.999	NO	bb
3	3	171214M1_4	Standard	1.000	4.70	1359.018	11998.833	1.416	1.1	6.4	NO	0.999	NO	bb
4	4	171214M1_5	Standard	2.000	4.70	2822.215	13621.118	2.590	2.0	0.4	NO	0.999	NO	bb
5	5	171214M1_6	Standard	5.000	4.70	6234.993	10857.693	7.178	5.7	14.0	NO	0.999	NO	bb
6	6	171214M1_7	Standard	10.000	4.70	11774.295	11081.860	13.281	10.6	6.2	NO	0.999	NO	bb
7	7	171214M1_8	Standard	50.000	4.70	61860.273	12774.957	60.529	49.3	-1.4	NO	0.999	NO	bb
8	8	171214M1_9	Standard	100.000	4.70	130627.828	13686.861	119.300	98.8	-1.2	NO	0.999	NO	bb
9	9	171214M1_10	Standard	250.000	4.70	279893.188	12165.873	287.580	250.7	0.3	NO	0.999	NO	bb

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Compound name: PFOSA
Correlation coefficient: r = 0.999877, r^2 = 0.999754
Calibration curve: 0.973756 * x + -0.220598
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	171214M1_2	Standard	0.250	4.76	100.037	5569.955	0.225	0.5	82.8	NO	1.000	NO	bbX
2	2	171214M1_3	Standard	0.500	4.76	131.942	5358.861	0.308	0.5	8.5	NO	1.000	NO	bb
3	3	171214M1_4	Standard	1.000	4.76	375.114	5329.179	0.880	1.1	13.0	NO	1.000	NO	bb
4	4	171214M1_5	Standard	2.000	4.76	652.904	5726.573	1.425	1.7	-15.5	NO	1.000	NO	bb
5	5	171214M1_6	Standard	5.000	4.76	1805.602	4991.189	4.522	4.9	-2.6	NO	1.000	NO	bb
6	6	171214M1_7	Standard	10.000	4.76	4101.357	5517.671	9.291	9.8	-2.3	NO	1.000	NO	bb
7	7	171214M1_8	Standard	50.000	4.76	19851.156	5185.822	47.850	49.4	-1.3	NO	1.000	NO	bb
8	8	171214M1_9	Standard	100.000	4.76	34691.250	4486.936	96.645	99.5	-0.5	NO	1.000	NO	bb
9	9	171214M1_10	Standard	250.000	4.76	84405.141	4309.351	244.831	251.7	0.7	NO	1.000	NO	bb

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.998216
Calibration curve: -0.000533556 * x^2 + 1.15251 * x + -0.226229
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	171214M1_2	Standard	0.250	4.78	104.925	3961.886	0.331	0.5	93.5	NO	0.998	NO	MMX
2	2	171214M1_3	Standard	0.500	4.78	112.787	4202.965	0.335	0.5	-2.5	NO	0.998	NO	MM
3	3	171214M1_4	Standard	1.000	4.79	285.935	3824.074	0.935	1.0	0.8	NO	0.998	NO	MM
4	4	171214M1_5	Standard	2.000	4.79	629.908	4171.431	1.888	1.8	-8.2	NO	0.998	NO	MM
5	5	171214M1_6	Standard	5.000	4.79	1373.364	3971.090	4.323	4.0	-20.9	NO	0.998	NO	MM
6	6	171214M1_7	Standard	10.000	4.78	3244.143	4199.015	9.657	8.6	-13.9	NO	0.998	NO	MM
7	7	171214M1_8	Standard	50.000	4.78	15669.080	3344.345	58.566	52.3	4.6	NO	0.998	NO	MM
8	8	171214M1_9	Standard	100.000	4.79	33190.766	3731.729	111.178	101.4	1.4	NO	0.998	NO	MM
9	9	171214M1_10	Standard	250.000	4.79	79677.297	3928.141	253.546	248.9	-0.5	NO	0.998	NO	MM

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.998825
Calibration curve: -0.000357197 * x^2 + 1.11476 * x + 0.00619633
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	171214M1_2	Standard	0.250	5.08	279.918	13277.271	0.264	0.2	-7.7	NO	0.999	NO	bb
2	2	171214M1_3	Standard	0.500	5.08	712.803	13755.711	0.648	0.6	15.1	NO	0.999	NO	MM
3	3	171214M1_4	Standard	1.000	5.08	1340.316	13960.345	1.200	1.1	7.1	NO	0.999	NO	bb
4	4	171214M1_5	Standard	2.000	5.08	2588.029	16462.906	1.965	1.8	-12.1	NO	0.999	NO	bb
5	5	171214M1_6	Standard	5.000	5.08	5368.772	12586.205	5.332	4.8	-4.3	NO	0.999	NO	bb
6	6	171214M1_7	Standard	10.000	5.07	12604.423	14401.109	10.940	9.8	-1.6	NO	0.999	NO	bb
7	7	171214M1_8	Standard	50.000	5.07	65092.859	13882.683	58.610	53.5	7.0	NO	0.999	NO	bb
8	8	171214M1_9	Standard	100.000	5.08	115285.211	13885.411	103.783	96.0	-4.0	NO	0.999	NO	bb
9	9	171214M1_10	Standard	250.000	5.08	290101.375	14094.339	257.285	251.0	0.4	NO	0.999	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.991317
Calibration curve: -0.00821804 * x^2 + 2.14324 * x + -0.115977
Response type: Internal Std (Ref 43), 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	171214M1_2	Standard	0.250	5.05	101.624	2556.902	0.497	0.3	14.5	NO	0.991	NO	MM
2	2	171214M1_3	Standard	0.500	5.05	133.216	1847.024	0.902	0.5	-4.9	NO	0.991	NO	MM
3	3	171214M1_4	Standard	1.000	5.05	316.901	1938.918	2.043	1.0	1.1	NO	0.991	NO	bb
4	4	171214M1_5	Standard	2.000	5.05	577.311	1981.295	3.642	1.8	-11.7	NO	0.991	NO	bb
5	5	171214M1_6	Standard	5.000	5.05	1377.649	1909.692	9.017	4.3	-13.3	NO	0.991	NO	bb
6	6	171214M1_7	Standard	10.000	5.05	2599.767	1869.104	17.386	8.4	-15.6	NO	0.991	NO	bb
7	7	171214M1_8	Standard	50.000	5.05	14428.277	1886.844	95.585	57.2	14.4	NO	0.991	NO	bb
8	8	171214M1_9	Standard	100.000	5.05	25832.215	2525.145	127.875	92.6	-7.4	NO	0.991	NO	bb
9	9	171214M1_10	Standard	250.000	5.05	55506.691	3228.416	214.915			NO	0.991	NO	bbXI

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Compound name: N-MeFOSAA
Correlation coefficient: r = 0.998470, r^2 = 0.996942
Calibration curve: 1.40841 * x + 0.0325504
Response type: Internal Std (Ref 44), 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	171214M1_2	Standard	0.250	5.23	154.140	5837.595	0.330	0.2	-15.5	NO	0.997	NO	bb
2	2	171214M1_3	Standard	0.500	5.23	318.216	5713.971	0.696	0.5	-5.8	NO	0.997	NO	bb
3	3	171214M1_4	Standard	1.000	5.23	580.630	5041.176	1.440	1.0	-0.1	NO	0.997	NO	bb
4	4	171214M1_5	Standard	2.000	5.23	1365.717	6137.867	2.781	2.0	-2.4	NO	0.997	NO	bb
5	5	171214M1_6	Standard	5.000	5.23	3378.281	5912.463	7.142	5.0	1.0	NO	0.997	NO	bb
6	6	171214M1_7	Standard	10.000	5.23	7136.570	5614.341	15.889	11.3	12.6	NO	0.997	NO	bb
7	7	171214M1_8	Standard	50.000	5.23	32967.500	5253.872	78.436	55.7	11.3	NO	0.997	NO	bb
8	8	171214M1_9	Standard	100.000	5.23	64139.754	5539.945	144.721	102.7	2.7	NO	0.997	NO	bb
9	9	171214M1_10	Standard	250.000	5.23	145714.766	5378.832	338.630	240.4	-3.8	NO	0.997	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.996594
Calibration curve: -0.000405922 * x^2 + 1.0721 * x + -0.0405007
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	171214M1_2	Standard	0.250	5.39	91.989	5927.860	0.194	0.2	-12.5	NO	0.997	NO	bb
2	2	171214M1_3	Standard	0.500	5.39	231.590	5663.546	0.511	0.5	2.9	NO	0.997	NO	bb
3	3	171214M1_4	Standard	1.000	5.38	508.056	5358.711	1.185	1.1	14.4	NO	0.997	NO	bb
4	4	171214M1_5	Standard	2.000	5.39	1023.663	6340.133	2.018	1.9	-3.9	NO	0.997	NO	bb
5	5	171214M1_6	Standard	5.000	5.38	2237.589	5721.131	4.889	4.6	-7.9	NO	0.997	NO	bb
6	6	171214M1_7	Standard	10.000	5.38	4733.854	5883.145	10.058	9.5	-5.5	NO	0.997	NO	bb
7	7	171214M1_8	Standard	50.000	5.38	23357.893	6171.674	47.309	44.9	-10.1	NO	0.997	NO	bb
8	8	171214M1_9	Standard	100.000	5.38	45693.789	5116.703	111.629	108.6	8.6	NO	0.997	NO	bb
9	9	171214M1_10	Standard	250.000	5.38	100013.133	5202.822	240.286	247.3	-1.1	NO	0.997	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.997973
Calibration curve: -0.00012509 * x^2 + 0.982717 * x + 0.0408293
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	171214M1_2	Standard	0.250	5.40	346.806	14485.014	0.299	0.3	5.2	NO	0.998	NO	bd
2	2	171214M1_3	Standard	0.500	5.40	759.266	17026.895	0.557	0.5	5.1	NO	0.998	NO	bb
3	3	171214M1_4	Standard	1.000	5.40	1146.214	15036.768	0.953	0.9	-7.2	NO	0.998	NO	bb
4	4	171214M1_5	Standard	2.000	5.40	2741.548	15867.293	2.160	2.2	7.8	NO	0.998	NO	bb
5	5	171214M1_6	Standard	5.000	5.40	5060.304	12981.421	4.873	4.9	-1.6	NO	0.998	NO	bb
6	6	171214M1_7	Standard	10.000	5.40	10756.592	14691.471	9.152	9.3	-7.2	NO	0.998	NO	bb
7	7	171214M1_8	Standard	50.000	5.40	48044.609	13345.833	45.000	46.0	-8.0	NO	0.998	NO	bb
8	8	171214M1_9	Standard	100.000	5.40	112940.250	13670.872	103.267	106.5	6.5	NO	0.998	NO	bb
9	9	171214M1_10	Standard	250.000	5.40	236089.188	12493.014	236.221	248.2	-0.7	NO	0.998	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.997280
Calibration curve: 1.98239e-005 * x^2 + 0.285574 * x + -0.0145816
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	171214M1_2	Standard	0.250	5.45	68.457	14485.014	0.059	0.3	3.2	NO	0.997	NO	bb
2	2	171214M1_3	Standard	0.500	5.45	171.294	17026.895	0.126	0.5	-1.7	NO	0.997	NO	bb
3	3	171214M1_4	Standard	1.000	5.45	339.336	15036.768	0.282	1.0	3.9	NO	0.997	NO	bb
4	4	171214M1_5	Standard	2.000	5.45	647.915	15867.293	0.510	1.8	-8.1	NO	0.997	NO	bb
5	5	171214M1_6	Standard	5.000	5.45	1352.900	12981.421	1.303	4.6	-7.8	NO	0.997	NO	bb
6	6	171214M1_7	Standard	10.000	5.45	3563.003	14691.471	3.032	10.7	6.6	NO	0.997	NO	bb
7	7	171214M1_8	Standard	50.000	5.45	16859.236	13345.833	15.791	55.1	10.3	NO	0.997	NO	bb
8	8	171214M1_9	Standard	100.000	5.45	29212.006	13670.872	26.710	93.0	-7.0	NO	0.997	NO	bb
9	9	171214M1_10	Standard	250.000	5.45	73089.156	12493.014	73.130	251.7	0.7	NO	0.997	NO	bb

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.993353
Calibration curve: 0.00833553 * x^2 + 1.98243 * x + 0.00705013
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 171214M1_2	Standard	0.250	5.69	350.853	9386.053	0.467	0.2	-7.2	NO	0.993	NO	MM
2	2 171214M1_3	Standard	0.500	5.69	748.632	10756.433	0.870	0.4	-13.1	NO	0.993	NO	MM
3	3 171214M1_4	Standard	1.000	5.69	1432.992	9407.077	1.904	1.0	-4.7	NO	0.993	NO	MM
4	4 171214M1_5	Standard	2.000	5.69	2506.573	8348.009	3.753	1.9	-6.3	NO	0.993	NO	MM
5	5 171214M1_6	Standard	5.000	5.69	7436.000	8440.795	11.012	5.4	8.5	NO	0.993	NO	bb
6	6 171214M1_7	Standard	10.000	5.68	15357.814	7104.466	27.021	12.9	29.2	NO	0.993	NO	MM
7	7 171214M1_8	Standard	50.000	5.69	60493.723	7010.936	107.856	45.6	-8.7	NO	0.993	NO	MM
8	8 171214M1_9	Standard	100.000	5.69	143430.391	6247.226	286.988	101.5	1.5	NO	0.993	NO	bb
9	9 171214M1_10	Standard	250.000	5.69	288928.781	6963.103	518.678	157.4	-37.0	NO	0.993	NO	bbX

Compound name: N-MeFOSA not used.
Correlation coefficient: r = 0.795002, r^2 = 0.632029
Calibration curve: 75.9226 * x + -137.491
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 171214M1_2	Standard	1.250	5.72	173.273					NO	0.632	NO	bb
2	2 171214M1_3	Standard	2.500	5.72	330.225					NO	0.632	NO	bb
3	3 171214M1_4	Standard	5.000	5.71	714.678					NO	0.632	NO	bb
4	4 171214M1_5	Standard	10.000	5.72	1507.211					NO	0.632	NO	bb
5	5 171214M1_6	Standard	25.000	5.71	3627.543					NO	0.632	NO	bb
6	6 171214M1_7	Standard	50.000	5.71	7387.397					NO	0.632	NO	bb
7	7 171214M1_8	Standard	250.000	5.71	34742.844	98.442	52939.057	699.1	179.6	NO	0.632	NO	bb
8	8 171214M1_9	Standard	500.000	5.72	64267.086	185.671	51920.132	685.7	37.1	NO	0.632	NO	bb
9	9 171214M1_10	Standard	1250.000	5.71	156788.172	444.862	52866.340	698.1	-44.1	NO	0.632	NO	bb

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999614
Calibration curve: 0.00572446 * x^2 + 2.07144 * x + -0.0691835
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	171214M1_2	Standard	0.250	5.93	407.075	9386.053	0.542	0.3	17.9	NO	1.000	NO	MM
2	2	171214M1_3	Standard	0.500	5.94	687.485	10756.433	0.799	0.4	-16.3	NO	1.000	NO	MM
3	3	171214M1_4	Standard	1.000	5.93	1453.494	9407.077	1.931	1.0	-3.7	NO	1.000	NO	MM
4	4	171214M1_5	Standard	2.000	5.94	2697.203	8348.009	4.039	2.0	-1.4	NO	1.000	NO	bb
5	5	171214M1_6	Standard	5.000	5.94	6883.704	8440.795	10.194	4.9	-2.2	NO	1.000	NO	MM
6	6	171214M1_7	Standard	10.000	5.93	12892.164	7104.466	22.683	10.7	6.7	NO	1.000	NO	bb
7	7	171214M1_8	Standard	50.000	5.93	65085.020	7010.936	116.042	49.3	-1.3	NO	1.000	NO	bb
8	8	171214M1_9	Standard	100.000	5.94	132477.656	6247.226	265.073	100.2	0.2	NO	1.000	NO	bb
9	9	171214M1_10	Standard	250.000	5.93	263695.531	6963.103	473.380	158.8	-36.5	NO	1.000	NO	bbX

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.994454
Calibration curve: -0.00286076 * x^2 + 1.80315 * x + -0.442322
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	171214M1_2	Standard	0.250	6.14	358.059	10504.209	0.426	0.5	92.8	NO	0.994	NO	bbX
2	2	171214M1_3	Standard	0.500	6.15	567.233	9892.584	0.717	0.6	28.7	NO	0.994	NO	MM
3	3	171214M1_4	Standard	1.000	6.14	1035.600	9116.818	1.420	1.0	3.4	NO	0.994	NO	bb
4	4	171214M1_5	Standard	2.000	6.14	1979.843	7596.246	3.258	2.1	2.9	NO	0.994	NO	bb
5	5	171214M1_6	Standard	5.000	6.14	4174.723	7139.130	7.310	4.3	-13.4	NO	0.994	NO	bb
6	6	171214M1_7	Standard	10.000	6.14	8655.139	8442.626	12.815	7.4	-25.6	NO	0.994	NO	bb
7	7	171214M1_8	Standard	50.000	6.15	42576.813	6598.706	80.654	48.7	-2.5	NO	0.994	NO	bb
8	8	171214M1_9	Standard	100.000	6.14	79532.320	6127.906	162.234	109.1	9.1	NO	0.994	NO	bb
9	9	171214M1_10	Standard	250.000	6.14	176012.906	8217.399	267.744	240.5	-3.8	NO	0.994	NO	bb

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.000000
Calibration curve:
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

not used.

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	171214M1_2	Standard	1.250	6.11	160.487					NO	0.000	NO	bb
2	2	171214M1_3	Standard	2.500	6.12	385.281					NO	0.000	NO	bb
3	3	171214M1_4	Standard	5.000	6.11	906.825					NO	0.000	NO	MM
4	4	171214M1_5	Standard	10.000	6.11	1921.830					NO	0.000	NO	bb
5	5	171214M1_6	Standard	25.000	6.11	4850.345					NO	0.000	NO	bb
6	6	171214M1_7	Standard	50.000	6.11	9812.187					NO	0.000	NO	bb
7	7	171214M1_8	Standard	250.000	6.11	46294.246					NO	0.000	NO	bb
8	8	171214M1_9	Standard	500.000	6.11	86959.375					NO	0.000	NO	bb
9	9	171214M1_10	Standard	1250.000	6.11	198718.734					NO	0.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.999758
Calibration curve: -0.000328251 * x^2 + 0.583585 * x + -0.00620174
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	171214M1_2	Standard	0.250	6.47	111.012	4884.689	0.114	0.2	-17.9	NO	1.000	NO	bb
2	2	171214M1_3	Standard	0.500	6.47	340.680	5206.968	0.327	0.6	14.3	NO	1.000	NO	bb
3	3	171214M1_4	Standard	1.000	6.47	489.654	4266.891	0.574	1.0	-0.6	NO	1.000	NO	bb
4	4	171214M1_5	Standard	2.000	6.47	1027.597	4046.595	1.270	2.2	9.5	NO	1.000	NO	bb
5	5	171214M1_6	Standard	5.000	6.47	2177.393	3772.003	2.886	5.0	-0.6	NO	1.000	NO	bb
6	6	171214M1_7	Standard	10.000	6.47	4657.435	4211.861	5.529	9.5	-4.6	NO	1.000	NO	bb
7	7	171214M1_8	Standard	50.000	6.47	22125.328	3950.334	28.004	49.4	-1.3	NO	1.000	NO	bb
8	8	171214M1_9	Standard	100.000	6.47	41381.285	3708.780	55.788	101.4	1.4	NO	1.000	NO	bb
9	9	171214M1_10	Standard	250.000	6.47	86552.758	3457.497	125.167	249.5	-0.2	NO	1.000	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.999680
Calibration curve: 0.000275188 * x^2 + 0.663331 * x + 0.0131101
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	171214M1_2	Standard	0.250	6.69	176.120	4884.689	0.180	0.3	0.8	NO	1.000	NO	MM
2	2	171214M1_3	Standard	0.500	6.70	350.387	5206.968	0.336	0.5	-2.5	NO	1.000	NO	bb
3	3	171214M1_4	Standard	1.000	6.69	568.260	4266.891	0.666	1.0	-1.6	NO	1.000	NO	bb
4	4	171214M1_5	Standard	2.000	6.69	1243.865	4046.595	1.537	2.3	14.8	NO	1.000	NO	bb
5	5	171214M1_6	Standard	5.000	6.69	2554.130	3772.003	3.386	5.1	1.5	NO	1.000	NO	bb
6	6	171214M1_7	Standard	10.000	6.69	5409.431	4211.861	6.422	9.6	-3.8	NO	1.000	NO	bb
7	7	171214M1_8	Standard	50.000	6.70	25956.525	3950.334	32.854	48.5	-2.9	NO	1.000	NO	bb
8	8	171214M1_9	Standard	100.000	6.69	52278.496	3708.780	70.479	101.9	1.9	NO	1.000	NO	bb
9	9	171214M1_10	Standard	250.000	6.69	126339.063	3457.497	182.703	249.6	-0.2	NO	1.000	NO	bb

Compound name: N-MeFOSE
Correlation coefficient: r = 0.127154, r^2 = 0.016168
Calibration curve: -0.909065 * x + 268.853
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

not used.

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	171214M1_2	Standard	1.250	6.28	213.826	62.120	516.322			NO	0.016	NO	bbl
2	2	171214M1_3	Standard	2.500	6.28	431.489					NO	0.016	NO	bb
3	3	171214M1_4	Standard	5.000	6.28	738.462					NO	0.016	NO	bb
4	4	171214M1_5	Standard	10.000	6.28	1602.436					NO	0.016	NO	bb
5	5	171214M1_6	Standard	25.000	6.28	4236.398					NO	0.016	NO	bb
6	6	171214M1_7	Standard	50.000	6.28	8993.535					NO	0.016	NO	bb
7	7	171214M1_8	Standard	250.000	6.28	39151.840					NO	0.016	NO	bb
8	8	171214M1_9	Standard	500.000	6.28	76912.531					NO	0.016	NO	bb
9	9	171214M1_10	Standard	1250.000	6.28	211040.656					NO	0.016	NO	bb

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.000000, r^2 = 0.000000
Calibration curve:
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

not used.

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	171214M1_2	Standard	1.250	6.43	247.562					NO	0.000	NO	bb
2	2	171214M1_3	Standard	2.500	6.44	423.626					NO	0.000	NO	bb
3	3	171214M1_4	Standard	5.000	6.43	1060.968					NO	0.000	NO	bb
4	4	171214M1_5	Standard	10.000	6.43	2059.781					NO	0.000	NO	bb
5	5	171214M1_6	Standard	25.000	6.43	4293.327					NO	0.000	NO	bb
6	6	171214M1_7	Standard	50.000	6.43	9840.150					NO	0.000	NO	bb
7	7	171214M1_8	Standard	250.000	6.43	46574.273					NO	0.000	NO	bb
8	8	171214M1_9	Standard	500.000	6.43	93304.094					NO	0.000	NO	bd
9	9	171214M1_10	Standard	1250.000	6.43	202034.609					NO	0.000	NO	bb

Compound name: 13C3-PFBA
Response Factor: 1.05608
RRF SD: 0.0233108, Relative SD: 2.2073
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	171214M1_2	Standard	12.500	1.39	10350.293	9805.063	13.195	12.5	-0.0	NO		NO	MM
2	2	171214M1_3	Standard	12.500	1.38	12139.206	11972.704	12.674	12.0	-4.0	NO		NO	bb
3	3	171214M1_4	Standard	12.500	1.40	10945.042	10277.052	13.312	12.6	0.8	NO		NO	bb
4	4	171214M1_5	Standard	12.500	1.39	10899.879	10268.646	13.268	12.6	0.5	NO		NO	bb
5	5	171214M1_6	Standard	12.500	1.39	10705.287	9828.214	13.616	12.9	3.1	NO		NO	bb
6	6	171214M1_7	Standard	12.500	1.38	10881.714	10600.053	12.832	12.2	-2.8	NO		NO	bb
7	7	171214M1_8	Standard	12.500	1.39	10964.734	10278.941	13.334	12.6	1.0	NO		NO	bb
8	8	171214M1_9	Standard	12.500	1.37	11141.793	10597.973	13.141	12.4	-0.5	NO		NO	bb
9	9	171214M1_10	Standard	12.500	1.37	10822.411	10068.471	13.436	12.7	1.8	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 1.04369
RRF SD: 0.066313, Relative SD: 6.35369
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 171214M1_2	Standard	12.500	2.34	14965.871	14728.407	12.702	12.2	-2.6	NO		NO	bb
2	2 171214M1_3	Standard	12.500	2.34	16483.803	17274.086	11.928	11.4	-8.6	NO		NO	bb
3	3 171214M1_4	Standard	12.500	2.35	14992.419	15017.057	12.479	12.0	-4.3	NO		NO	bb
4	4 171214M1_5	Standard	12.500	2.34	15135.859	14394.754	13.144	12.6	0.7	NO		NO	bb
5	5 171214M1_6	Standard	12.500	2.34	14451.099	14670.499	12.313	11.8	-5.6	NO		NO	bb
6	6 171214M1_7	Standard	12.500	2.34	15576.157	14344.272	13.573	13.0	4.0	NO		NO	bb
7	7 171214M1_8	Standard	12.500	2.34	14379.886	13846.278	12.982	12.4	-0.5	NO		NO	bb
8	8 171214M1_9	Standard	12.500	2.34	14940.075	13710.247	13.621	13.1	4.4	NO		NO	bb
9	9 171214M1_10	Standard	12.500	2.34	14771.427	12583.750	14.673	14.1	12.5	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.124318
RRF SD: 0.00768344, Relative SD: 6.18049
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 171214M1_2	Standard	12.500	2.61	1732.369	14728.407	1.470	11.8	-5.4	NO		NO	bb
2	2 171214M1_3	Standard	12.500	2.62	2001.570	17274.086	1.448	11.7	-6.8	NO		NO	bb
3	3 171214M1_4	Standard	12.500	2.62	1806.731	15017.057	1.504	12.1	-3.2	NO		NO	bb
4	4 171214M1_5	Standard	12.500	2.61	1789.857	14394.754	1.554	12.5	0.0	NO		NO	bb
5	5 171214M1_6	Standard	12.500	2.62	1672.444	14670.499	1.425	11.5	-8.3	NO		NO	bb
6	6 171214M1_7	Standard	12.500	2.61	1865.707	14344.272	1.626	13.1	4.6	NO		NO	bb
7	7 171214M1_8	Standard	12.500	2.62	1799.017	13846.278	1.624	13.1	4.5	NO		NO	bb
8	8 171214M1_9	Standard	12.500	2.61	1805.515	13710.247	1.646	13.2	5.9	NO		NO	bb
9	9 171214M1_10	Standard	12.500	2.61	1699.162	12583.750	1.688	13.6	8.6	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.896692
RRF SD: 0.0510569, Relative SD: 5.69392
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	171214M1_2	Standard	5.000	3.11	5801.274	14728.407	4.924	5.5	9.8	NO		NO	bb
2	2	171214M1_3	Standard	5.000	3.11	5516.994	17274.086	3.992	4.5	-11.0	NO		NO	bb
3	3	171214M1_4	Standard	5.000	3.11	5454.500	15017.057	4.540	5.1	1.3	NO		NO	bb
4	4	171214M1_5	Standard	5.000	3.11	5244.799	14394.754	4.554	5.1	1.6	NO		NO	bb
5	5	171214M1_6	Standard	5.000	3.11	5137.172	14670.499	4.377	4.9	-2.4	NO		NO	bb
6	6	171214M1_7	Standard	5.000	3.11	5067.938	14344.272	4.416	4.9	-1.5	NO		NO	bb
7	7	171214M1_8	Standard	5.000	3.11	5112.571	13846.278	4.615	5.1	2.9	NO		NO	bb
8	8	171214M1_9	Standard	5.000	3.11	4735.036	13710.247	4.317	4.8	-3.7	NO		NO	bb
9	9	171214M1_10	Standard	5.000	3.11	4645.557	12583.750	4.615	5.1	2.9	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.689474
RRF SD: 0.0453838, Relative SD: 6.58238
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	171214M1_2	Standard	12.500	3.74	10477.311	14728.407	8.892	12.9	3.2	NO		NO	bb
2	2	171214M1_3	Standard	12.500	3.74	10821.061	17274.086	7.830	11.4	-9.1	NO		NO	bb
3	3	171214M1_4	Standard	12.500	3.74	10946.202	15017.057	9.111	13.2	5.7	NO		NO	bb
4	4	171214M1_5	Standard	12.500	3.74	10007.636	14394.754	8.690	12.6	0.8	NO		NO	bb
5	5	171214M1_6	Standard	12.500	3.74	8800.215	14670.499	7.498	10.9	-13.0	NO		NO	bb
6	6	171214M1_7	Standard	12.500	3.74	10480.673	14344.272	9.133	13.2	6.0	NO		NO	bb
7	7	171214M1_8	Standard	12.500	3.74	9793.917	13846.278	8.842	12.8	2.6	NO		NO	bb
8	8	171214M1_9	Standard	12.500	3.74	9575.192	13710.247	8.730	12.7	1.3	NO		NO	bb
9	9	171214M1_10	Standard	12.500	3.74	8897.692	12583.750	8.838	12.8	2.6	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.530346
RRF SD: 0.0361403, Relative SD: 6.81448
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 171214M1_2	Standard	12.500	3.89	1566.445	3056.209	6.407	12.1	-3.4	NO		NO	bb
2	2 171214M1_3	Standard	12.500	3.90	1661.361	3209.532	6.470	12.2	-2.4	NO		NO	bb
3	3 171214M1_4	Standard	12.500	3.89	1507.433	2695.082	6.992	13.2	5.5	NO		NO	bb
4	4 171214M1_5	Standard	12.500	3.89	1606.780	3252.028	6.176	11.6	-6.8	NO		NO	bb
5	5 171214M1_6	Standard	12.500	3.90	1340.292	2834.188	5.911	11.1	-10.8	NO		NO	bb
6	6 171214M1_7	Standard	12.500	3.89	1620.044	2796.386	7.242	13.7	9.2	NO		NO	bb
7	7 171214M1_8	Standard	12.500	3.89	1466.417	2840.536	6.453	12.2	-2.7	NO		NO	bb
8	8 171214M1_9	Standard	12.500	3.89	1567.889	2832.290	6.920	13.0	4.4	NO		NO	bb
9	9 171214M1_10	Standard	12.500	3.89	1463.289	2578.660	7.093	13.4	7.0	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.330603
RRF SD: 0.0639368, Relative SD: 19.3394
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 171214M1_2	Standard	12.500	4.21	3044.412	10455.541	3.640	11.0	-11.9	NO		NO	bb
2	2 171214M1_3	Standard	12.500	4.21	3901.505	11401.075	4.278	12.9	3.5	NO		NO	bb
3	3 171214M1_4	Standard	12.500	4.21	3585.504	11289.436	3.970	12.0	-3.9	NO		NO	bb
4	4 171214M1_5	Standard	12.500	4.21	3382.968	11037.333	3.831	11.6	-7.3	NO		NO	bb
5	5 171214M1_6	Standard	12.500	4.21	2879.917	10950.517	3.287	9.9	-20.5	NO		NO	bb
6	6 171214M1_7	Standard	12.500	4.21	3130.159	11485.484	3.407	10.3	-17.6	NO		NO	bb
7	7 171214M1_8	Standard	12.500	4.21	4030.594	9336.800	5.396	16.3	30.6	NO		NO	bb
8	8 171214M1_9	Standard	12.500	4.21	4828.424	11492.746	5.252	15.9	27.1	NO		NO	bb
9	9 171214M1_10	Standard	12.500	4.21	5546.584	10207.450	6.792	20.5	64.4	NO		NO	bbX

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Compound name: 13C2-PFOA
Response Factor: 1.31562
RRF SD: 0.102816, Relative SD: 7.81499
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	171214M1_2	Standard	12.500	4.26	14986.196	10455.541	17.917	13.6	8.9	NO		NO	bb
2	2	171214M1_3	Standard	12.500	4.27	15402.777	11401.075	16.887	12.8	2.7	NO		NO	bb
3	3	171214M1_4	Standard	12.500	4.27	14995.602	11289.436	16.604	12.6	1.0	NO		NO	bb
4	4	171214M1_5	Standard	12.500	4.26	15261.349	11037.333	17.284	13.1	5.1	NO		NO	bb
5	5	171214M1_6	Standard	12.500	4.27	12066.109	10950.517	13.773	10.5	-16.2	NO		NO	bb
6	6	171214M1_7	Standard	12.500	4.26	14377.668	11485.484	15.648	11.9	-4.9	NO		NO	bb
7	7	171214M1_8	Standard	12.500	4.26	13305.151	9336.800	17.813	13.5	8.3	NO		NO	bb
8	8	171214M1_9	Standard	12.500	4.26	14493.521	11492.746	15.764	12.0	-4.1	NO		NO	bb
9	9	171214M1_10	Standard	12.500	4.27	13325.603	10207.450	16.318	12.4	-0.8	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 1.10941
RRF SD: 0.0864275, Relative SD: 7.79042
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	171214M1_2	Standard	12.500	4.70	11793.092	9298.485	15.854	14.3	14.3	NO		NO	bb
2	2	171214M1_3	Standard	12.500	4.70	13213.367	13757.303	12.006	10.8	-13.4	NO		NO	bb
3	3	171214M1_4	Standard	12.500	4.70	11998.833	11126.140	13.480	12.2	-2.8	NO		NO	bb
4	4	171214M1_5	Standard	12.500	4.70	13621.118	12010.803	14.176	12.8	2.2	NO		NO	bb
5	5	171214M1_6	Standard	12.500	4.70	10857.693	9983.889	13.594	12.3	-2.0	NO		NO	bb
6	6	171214M1_7	Standard	12.500	4.70	11081.860	9933.942	13.944	12.6	0.6	NO		NO	bb
7	7	171214M1_8	Standard	12.500	4.70	12774.957	11944.970	13.369	12.1	-3.6	NO		NO	bb
8	8	171214M1_9	Standard	12.500	4.70	13686.861	11445.361	14.948	13.5	7.8	NO		NO	bb
9	9	171214M1_10	Standard	12.500	4.70	12165.873	11316.916	13.438	12.1	-3.1	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.486659
RRF SD: 0.0551505, Relative SD: 11.3325
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	171214M1_2	Standard	12.500	4.76	5569.955	10490.892	6.637	13.6	9.1	NO		NO	bb
2	2	171214M1_3	Standard	12.500	4.76	5358.861	13835.190	4.842	9.9	-20.4	NO		NO	bb
3	3	171214M1_4	Standard	12.500	4.76	5329.179	10860.360	6.134	12.6	0.8	NO		NO	bb
4	4	171214M1_5	Standard	12.500	4.76	5726.573	12737.067	5.620	11.5	-7.6	NO		NO	bb
5	5	171214M1_6	Standard	12.500	4.76	4991.189	10331.521	6.039	12.4	-0.7	NO		NO	bb
6	6	171214M1_7	Standard	12.500	4.76	5517.671	10115.299	6.818	14.0	12.1	NO		NO	bb
7	7	171214M1_8	Standard	12.500	4.76	5185.822	9385.699	6.907	14.2	13.5	NO		NO	bb
8	8	171214M1_9	Standard	12.500	4.76	4486.936	10362.999	5.412	11.1	-11.0	NO		NO	bb
9	9	171214M1_10	Standard	12.500	4.76	4309.351	8495.001	6.341	13.0	4.2	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 1.16307
RRF SD: 0.118825, Relative SD: 10.2165
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	171214M1_2	Standard	12.500	4.78	3961.886	3627.601	13.652	11.7	-6.1	NO		NO	bb
2	2	171214M1_3	Standard	12.500	4.79	4202.965	3759.025	13.976	12.0	-3.9	NO		NO	bb
3	3	171214M1_4	Standard	12.500	4.79	3824.074	3418.211	13.984	12.0	-3.8	NO		NO	bb
4	4	171214M1_5	Standard	12.500	4.78	4171.431	3550.670	14.685	12.6	1.0	NO		NO	bb
5	5	171214M1_6	Standard	12.500	4.79	3971.090	2930.164	16.941	14.6	16.5	NO		NO	bb
6	6	171214M1_7	Standard	12.500	4.78	4199.015	3675.778	14.279	12.3	-1.8	NO		NO	bb
7	7	171214M1_8	Standard	12.500	4.78	3344.345	3278.602	12.751	11.0	-12.3	NO		NO	bb
8	8	171214M1_9	Standard	12.500	4.79	3731.729	3443.077	13.548	11.6	-6.8	NO		NO	bb
9	9	171214M1_10	Standard	12.500	4.78	3928.141	2883.384	17.029	14.6	17.1	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 1.69417
RRF SD: 0.243389, Relative SD: 14.3663
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	171214M1_2	Standard	12.500	5.08	13277.271	8531.790	19.453	11.5	-8.1	NO		NO	bb
2	2	171214M1_3	Standard	12.500	5.08	13755.711	10867.503	15.822	9.3	-25.3	NO		NO	bb
3	3	171214M1_4	Standard	12.500	5.08	13960.345	7753.667	22.506	13.3	6.3	NO		NO	bb
4	4	171214M1_5	Standard	12.500	5.08	16462.906	9993.380	20.592	12.2	-2.8	NO		NO	bb
5	5	171214M1_6	Standard	12.500	5.08	12586.205	7944.206	19.804	11.7	-6.5	NO		NO	bb
6	6	171214M1_7	Standard	12.500	5.07	14401.109	8647.792	20.816	12.3	-1.7	NO		NO	bb
7	7	171214M1_8	Standard	12.500	5.08	13882.683	8317.349	20.864	12.3	-1.5	NO		NO	bb
8	8	171214M1_9	Standard	12.500	5.08	13885.411	7191.844	24.134	14.2	14.0	NO		NO	bb
9	9	171214M1_10	Standard	12.500	5.08	14094.339	6622.696	26.602	15.7	25.6	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.141026
RRF SD: 0.025341, Relative SD: 17.969
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	171214M1_2	Standard	12.500	5.05	2556.902	14728.407	2.170	15.4	23.1	NO		NO	bb
2	2	171214M1_3	Standard	12.500	5.05	1847.024	17274.086	1.337	9.5	-24.2	NO		NO	bb
3	3	171214M1_4	Standard	12.500	5.05	1938.918	15017.057	1.614	11.4	-8.4	NO		NO	bb
4	4	171214M1_5	Standard	12.500	5.05	1981.295	14394.754	1.721	12.2	-2.4	NO		NO	bb
5	5	171214M1_6	Standard	12.500	5.05	1909.692	14670.499	1.627	11.5	-7.7	NO		NO	bb
6	6	171214M1_7	Standard	12.500	5.05	1869.104	14344.272	1.629	11.5	-7.6	NO		NO	bb
7	7	171214M1_8	Standard	12.500	5.05	1886.844	13846.278	1.703	12.1	-3.4	NO		NO	bb
8	8	171214M1_9	Standard	12.500	5.05	2525.145	13710.247	2.302	16.3	30.6	NO		NO	bb
9	9	171214M1_10	Standard	12.500	5.05	3228.416	12583.750	3.207	22.7	81.9	NO		NO	bbX

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Compound name: d3-N-MeFOSAA
Response Factor: 0.530041
RRF SD: 0.0661447, Relative SD: 12.4792
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	171214M1_2	Standard	12.500	5.22	5837.595	10490.892	6.956	13.1	5.0	NO		NO	bb
2	2	171214M1_3	Standard	12.500	5.23	5713.971	13835.190	5.163	9.7	-22.1	NO		NO	bb
3	3	171214M1_4	Standard	12.500	5.23	5041.176	10860.360	5.802	10.9	-12.4	NO		NO	bb
4	4	171214M1_5	Standard	12.500	5.23	6137.867	12737.067	6.024	11.4	-9.1	NO		NO	bb
5	5	171214M1_6	Standard	12.500	5.23	5912.463	10331.521	7.153	13.5	8.0	NO		NO	bb
6	6	171214M1_7	Standard	12.500	5.22	5614.341	10115.299	6.938	13.1	4.7	NO		NO	bb
7	7	171214M1_8	Standard	12.500	5.23	5253.872	9385.699	6.997	13.2	5.6	NO		NO	bb
8	8	171214M1_9	Standard	12.500	5.23	5539.945	10362.999	6.682	12.6	0.9	NO		NO	bb
9	9	171214M1_10	Standard	12.500	5.22	5378.832	8495.001	7.915	14.9	19.5	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.540525
RRF SD: 0.074813, Relative SD: 13.8408
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	171214M1_2	Standard	12.500	5.38	5927.860	10490.892	7.063	13.1	4.5	NO		NO	bb
2	2	171214M1_3	Standard	12.500	5.38	5663.546	13835.190	5.117	9.5	-24.3	NO		NO	bb
3	3	171214M1_4	Standard	12.500	5.38	5358.711	10860.360	6.168	11.4	-8.7	NO		NO	bb
4	4	171214M1_5	Standard	12.500	5.38	6340.133	12737.067	6.222	11.5	-7.9	NO		NO	bb
5	5	171214M1_6	Standard	12.500	5.38	5721.131	10331.521	6.922	12.8	2.4	NO		NO	bb
6	6	171214M1_7	Standard	12.500	5.38	5883.145	10115.299	7.270	13.5	7.6	NO		NO	bb
7	7	171214M1_8	Standard	12.500	5.38	6171.674	9385.699	8.220	15.2	21.7	NO		NO	bb
8	8	171214M1_9	Standard	12.500	5.38	5116.703	10362.999	6.172	11.4	-8.7	NO		NO	bb
9	9	171214M1_10	Standard	12.500	5.38	5202.822	8495.001	7.656	14.2	13.3	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 1.35138
RRF SD: 0.0916015, Relative SD: 6.77839
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 171214M1_2	Standard	12.500	5.40	14485.014	10490.892	17.259	12.8	2.2	NO		NO	bb
2	2 171214M1_3	Standard	12.500	5.40	17026.895	13835.190	15.384	11.4	-8.9	NO		NO	bb
3	3 171214M1_4	Standard	12.500	5.40	15036.768	10860.360	17.307	12.8	2.5	NO		NO	bb
4	4 171214M1_5	Standard	12.500	5.40	15867.293	12737.067	15.572	11.5	-7.8	NO		NO	bb
5	5 171214M1_6	Standard	12.500	5.40	12981.421	10331.521	15.706	11.6	-7.0	NO		NO	bb
6	6 171214M1_7	Standard	12.500	5.40	14691.471	10115.299	18.155	13.4	7.5	NO		NO	bb
7	7 171214M1_8	Standard	12.500	5.40	13345.833	9385.699	17.774	13.2	5.2	NO		NO	bb
8	8 171214M1_9	Standard	12.500	5.40	13670.872	10362.999	16.490	12.2	-2.4	NO		NO	bb
9	9 171214M1_10	Standard	12.500	5.40	12493.014	8495.001	18.383	13.6	8.8	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.764732
RRF SD: 0.0971208, Relative SD: 12.7
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 171214M1_2	Standard	12.500	5.69	9386.053	10490.892	11.184	14.6	17.0	NO		NO	bb
2	2 171214M1_3	Standard	12.500	5.69	10756.433	13835.190	9.718	12.7	1.7	NO		NO	MM
3	3 171214M1_4	Standard	12.500	5.69	9407.077	10860.360	10.827	14.2	13.3	NO		NO	MM
4	4 171214M1_5	Standard	12.500	5.69	8348.009	12737.067	8.193	10.7	-14.3	NO		NO	bb
5	5 171214M1_6	Standard	12.500	5.69	8440.795	10331.521	10.212	13.4	6.8	NO		NO	bb
6	6 171214M1_7	Standard	12.500	5.69	7104.466	10115.299	8.779	11.5	-8.2	NO		NO	MM
7	7 171214M1_8	Standard	12.500	5.69	7010.936	9385.699	9.337	12.2	-2.3	NO		NO	bb
8	8 171214M1_9	Standard	12.500	5.69	6247.226	10362.999	7.535	9.9	-21.2	NO		NO	bb
9	9 171214M1_10	Standard	12.500	5.69	6963.103	8495.001	10.246	13.4	7.2	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.00224369
RRF SD: 0.00186211, Relative SD: 82.9934
Response type: Internal Std (Ref 61), 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	171214M1_2	Standard	150.000			10490.892				NO		NO	
2	2	171214M1_3	Standard	150.000			13835.190				NO		NO	
3	3	171214M1_4	Standard	150.000			10860.360				NO		NO	
4	4	171214M1_5	Standard	150.000			12737.067				NO		NO	
5	5	171214M1_6	Standard	150.000			10331.521				NO		NO	
6	6	171214M1_7	Standard	150.000			10115.299				NO		NO	
7	7	171214M1_8	Standard	150.000	5.72	98.442	9385.699	0.131	58.4	-61.0	NO		NO	bb
8	8	171214M1_9	Standard	150.000	5.72	185.671	10362.999	0.224	99.8	-33.5	NO		NO	bb
9	9	171214M1_10	Standard	150.000	5.71	444.862	8495.001	0.655	291.7	94.5	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.771055
RRF SD: 0.148838, Relative SD: 19.3032
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	171214M1_2	Standard	12.500	6.14	10504.209	10490.892	12.516	16.2	29.9	NO		NO	bb
2	2	171214M1_3	Standard	12.500	6.15	9892.584	13835.190	8.938	11.6	-7.3	NO		NO	bb
3	3	171214M1_4	Standard	12.500	6.14	9116.818	10860.360	10.493	13.6	8.9	NO		NO	bb
4	4	171214M1_5	Standard	12.500	6.14	7596.246	12737.067	7.455	9.7	-22.7	NO		NO	bb
5	5	171214M1_6	Standard	12.500	6.14	7139.130	10331.521	8.638	11.2	-10.4	NO		NO	bb
6	6	171214M1_7	Standard	12.500	6.14	8442.626	10115.299	10.433	13.5	8.2	NO		NO	bb
7	7	171214M1_8	Standard	12.500	6.15	6598.706	9385.699	8.788	11.4	-8.8	NO		NO	bb
8	8	171214M1_9	Standard	12.500	6.14	6127.906	10362.999	7.392	9.6	-23.3	NO		NO	bb
9	9	171214M1_10	Standard	12.500	6.14	8217.399	8495.001	12.092	15.7	25.5	NO		NO	bb

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Compound name: d5-N-ETFOSA
No Calibration
Response type: Internal Std (Ref 61), 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	171214M1_2	Standard	150.000			10490.892				NO		NO	
2	2	171214M1_3	Standard	150.000			13835.190				NO		NO	
3	3	171214M1_4	Standard	150.000			10860.360				NO		NO	
4	4	171214M1_5	Standard	150.000			12737.067				NO		NO	
5	5	171214M1_6	Standard	150.000			10331.521				NO		NO	
6	6	171214M1_7	Standard	150.000			10115.299				NO		NO	
7	7	171214M1_8	Standard	150.000			9385.699				NO		NO	
8	8	171214M1_9	Standard	150.000			10362.999				NO		NO	
9	9	171214M1_10	Standard	150.000			8495.001				NO		NO	

Compound name: 13C2-PFHxDA
Response Factor: 0.977728
RRF SD: 0.107234, Relative SD: 10.9676
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	171214M1_2	Standard	5.000	6.47	4884.689	10490.892	5.820	6.0	19.1	NO		NO	bb
2	2	171214M1_3	Standard	5.000	6.47	5206.968	13835.190	4.704	4.8	-3.8	NO		NO	bb
3	3	171214M1_4	Standard	5.000	6.47	4266.891	10860.360	4.911	5.0	0.5	NO		NO	bb
4	4	171214M1_5	Standard	5.000	6.47	4046.595	12737.067	3.971	4.1	-18.8	NO		NO	bb
5	5	171214M1_6	Standard	5.000	6.47	3772.003	10331.521	4.564	4.7	-6.6	NO		NO	bb
6	6	171214M1_7	Standard	5.000	6.47	4211.861	10115.299	5.205	5.3	6.5	NO		NO	bb
7	7	171214M1_8	Standard	5.000	6.47	3950.334	9385.699	5.261	5.4	7.6	NO		NO	bb
8	8	171214M1_9	Standard	5.000	6.47	3708.780	10362.999	4.474	4.6	-8.5	NO		NO	bb
9	9	171214M1_10	Standard	5.000	6.47	3457.497	8495.001	5.088	5.2	4.1	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.000493444
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 61), 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	171214M1_2	Standard	150.000	6.46	62.120	10490.892	0.074	150.0	0.0	NO		NO	bb
2	2	171214M1_3	Standard	150.000			13835.190				NO		NO	
3	3	171214M1_4	Standard	150.000			10860.360				NO		NO	
4	4	171214M1_5	Standard	150.000			12737.067				NO		NO	
5	5	171214M1_6	Standard	150.000			10331.521				NO		NO	
6	6	171214M1_7	Standard	150.000			10115.299				NO		NO	
7	7	171214M1_8	Standard	150.000			9385.699				NO		NO	
8	8	171214M1_9	Standard	150.000			10362.999				NO		NO	
9	9	171214M1_10	Standard	150.000			8495.001				NO		NO	

Compound name: d9-N-EtFOSE
No Calibration
Response type: Internal Std (Ref 61), 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	171214M1_2	Standard	150.000			10490.892				NO		NO	
2	2	171214M1_3	Standard	150.000			13835.190				NO		NO	
3	3	171214M1_4	Standard	150.000			10860.360				NO		NO	
4	4	171214M1_5	Standard	150.000			12737.067				NO		NO	
5	5	171214M1_6	Standard	150.000			10331.521				NO		NO	
6	6	171214M1_7	Standard	150.000			10115.299				NO		NO	
7	7	171214M1_8	Standard	150.000			9385.699				NO		NO	
8	8	171214M1_9	Standard	150.000			10362.999				NO		NO	
9	9	171214M1_10	Standard	150.000			8495.001				NO		NO	

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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	171214M1_2	Standard	12.500	1.39	9805.063	9805.063	12.500	12.5	0.0	NO		NO	MM
2	2	171214M1_3	Standard	12.500	1.38	11972.704	11972.704	12.500	12.5	0.0	NO		NO	bb
3	3	171214M1_4	Standard	12.500	1.40	10277.052	10277.052	12.500	12.5	0.0	NO		NO	bb
4	4	171214M1_5	Standard	12.500	1.39	10268.646	10268.646	12.500	12.5	0.0	NO		NO	bb
5	5	171214M1_6	Standard	12.500	1.39	9828.214	9828.214	12.500	12.5	0.0	NO		NO	bb
6	6	171214M1_7	Standard	12.500	1.38	10600.053	10600.053	12.500	12.5	0.0	NO		NO	bb
7	7	171214M1_8	Standard	12.500	1.39	10278.941	10278.941	12.500	12.5	0.0	NO		NO	bb
8	8	171214M1_9	Standard	12.500	1.37	10597.973	10597.973	12.500	12.5	0.0	NO		NO	bb
9	9	171214M1_10	Standard	12.500	1.37	10068.471	10068.471	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	171214M1_2	Standard	12.500	3.11	14728.407	14728.407	12.500	12.5	0.0	NO		NO	bb
2	2	171214M1_3	Standard	12.500	3.12	17274.086	17274.086	12.500	12.5	0.0	NO		NO	bb
3	3	171214M1_4	Standard	12.500	3.12	15017.057	15017.057	12.500	12.5	0.0	NO		NO	bb
4	4	171214M1_5	Standard	12.500	3.11	14394.754	14394.754	12.500	12.5	0.0	NO		NO	bb
5	5	171214M1_6	Standard	12.500	3.12	14670.499	14670.499	12.500	12.5	0.0	NO		NO	bb
6	6	171214M1_7	Standard	12.500	3.11	14344.272	14344.272	12.500	12.5	0.0	NO		NO	bb
7	7	171214M1_8	Standard	12.500	3.11	13846.278	13846.278	12.500	12.5	0.0	NO		NO	bb
8	8	171214M1_9	Standard	12.500	3.11	13710.247	13710.247	12.500	12.5	0.0	NO		NO	bb
9	9	171214M1_10	Standard	12.500	3.11	12583.750	12583.750	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	171214M1_2	Standard	12.500	3.89	3056.209	3056.209	12.500	12.5	0.0	NO		NO	bb
2	2	171214M1_3	Standard	12.500	3.89	3209.532	3209.532	12.500	12.5	0.0	NO		NO	bb
3	3	171214M1_4	Standard	12.500	3.89	2695.082	2695.082	12.500	12.5	0.0	NO		NO	bb
4	4	171214M1_5	Standard	12.500	3.89	3252.028	3252.028	12.500	12.5	0.0	NO		NO	bb
5	5	171214M1_6	Standard	12.500	3.89	2834.188	2834.188	12.500	12.5	0.0	NO		NO	bb
6	6	171214M1_7	Standard	12.500	3.89	2796.386	2796.386	12.500	12.5	0.0	NO		NO	bb
7	7	171214M1_8	Standard	12.500	3.89	2840.536	2840.536	12.500	12.5	0.0	NO		NO	bb
8	8	171214M1_9	Standard	12.500	3.89	2832.290	2832.290	12.500	12.5	0.0	NO		NO	bb
9	9	171214M1_10	Standard	12.500	3.89	2578.660	2578.660	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	171214M1_2	Standard	12.500	4.26	10455.541	10455.541	12.500	12.5	0.0	NO		NO	bb
2	2	171214M1_3	Standard	12.500	4.27	11401.075	11401.075	12.500	12.5	0.0	NO		NO	bb
3	3	171214M1_4	Standard	12.500	4.26	11289.436	11289.436	12.500	12.5	0.0	NO		NO	bb
4	4	171214M1_5	Standard	12.500	4.26	11037.333	11037.333	12.500	12.5	0.0	NO		NO	bb
5	5	171214M1_6	Standard	12.500	4.26	10950.517	10950.517	12.500	12.5	0.0	NO		NO	bb
6	6	171214M1_7	Standard	12.500	4.26	11485.484	11485.484	12.500	12.5	0.0	NO		NO	bb
7	7	171214M1_8	Standard	12.500	4.26	9336.800	9336.800	12.500	12.5	0.0	NO		NO	bb
8	8	171214M1_9	Standard	12.500	4.26	11492.746	11492.746	12.500	12.5	0.0	NO		NO	bb
9	9	171214M1_10	Standard	12.500	4.26	10207.450	10207.450	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
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	171214M1_2	Standard	12.500	4.70	9298.485	9298.485	12.500	12.5	0.0	NO		NO	bb
2	2	171214M1_3	Standard	12.500	4.70	13757.303	13757.303	12.500	12.5	0.0	NO		NO	bb
3	3	171214M1_4	Standard	12.500	4.70	11126.140	11126.140	12.500	12.5	0.0	NO		NO	bb
4	4	171214M1_5	Standard	12.500	4.70	12010.803	12010.803	12.500	12.5	0.0	NO		NO	bb
5	5	171214M1_6	Standard	12.500	4.70	9983.889	9983.889	12.500	12.5	0.0	NO		NO	bb
6	6	171214M1_7	Standard	12.500	4.70	9933.942	9933.942	12.500	12.5	0.0	NO		NO	bb
7	7	171214M1_8	Standard	12.500	4.70	11944.970	11944.970	12.500	12.5	0.0	NO		NO	bb
8	8	171214M1_9	Standard	12.500	4.70	11445.361	11445.361	12.500	12.5	0.0	NO		NO	bb
9	9	171214M1_10	Standard	12.500	4.70	11316.916	11316.916	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
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	171214M1_2	Standard	12.500	4.78	3627.601	3627.601	12.500	12.5	0.0	NO		NO	bb
2	2	171214M1_3	Standard	12.500	4.79	3759.025	3759.025	12.500	12.5	0.0	NO		NO	bb
3	3	171214M1_4	Standard	12.500	4.79	3418.211	3418.211	12.500	12.5	0.0	NO		NO	bb
4	4	171214M1_5	Standard	12.500	4.78	3550.670	3550.670	12.500	12.5	0.0	NO		NO	bb
5	5	171214M1_6	Standard	12.500	4.79	2930.164	2930.164	12.500	12.5	0.0	NO		NO	bb
6	6	171214M1_7	Standard	12.500	4.78	3675.778	3675.778	12.500	12.5	0.0	NO		NO	bb
7	7	171214M1_8	Standard	12.500	4.78	3278.602	3278.602	12.500	12.5	0.0	NO		NO	bb
8	8	171214M1_9	Standard	12.500	4.79	3443.077	3443.077	12.500	12.5	0.0	NO		NO	bb
9	9	171214M1_10	Standard	12.500	4.78	2883.384	2883.384	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	171214M1_2	Standard	12.500	5.08	8531.790	8531.790	12.500	12.5	0.0	NO		NO	bb
2	2	171214M1_3	Standard	12.500	5.08	10867.503	10867.503	12.500	12.5	0.0	NO		NO	bb
3	3	171214M1_4	Standard	12.500	5.08	7753.667	7753.667	12.500	12.5	0.0	NO		NO	bb
4	4	171214M1_5	Standard	12.500	5.08	9993.380	9993.380	12.500	12.5	0.0	NO		NO	bb
5	5	171214M1_6	Standard	12.500	5.08	7944.206	7944.206	12.500	12.5	0.0	NO		NO	bb
6	6	171214M1_7	Standard	12.500	5.07	8647.792	8647.792	12.500	12.5	0.0	NO		NO	bb
7	7	171214M1_8	Standard	12.500	5.08	8317.349	8317.349	12.500	12.5	0.0	NO		NO	bb
8	8	171214M1_9	Standard	12.500	5.08	7191.844	7191.844	12.500	12.5	0.0	NO		NO	bb
9	9	171214M1_10	Standard	12.500	5.08	6622.696	6622.696	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	171214M1_2	Standard	12.500	5.40	10490.892	10490.892	12.500	12.5	0.0	NO		NO	bb
2	2	171214M1_3	Standard	12.500	5.40	13835.190	13835.190	12.500	12.5	0.0	NO		NO	bb
3	3	171214M1_4	Standard	12.500	5.40	10860.360	10860.360	12.500	12.5	0.0	NO		NO	bb
4	4	171214M1_5	Standard	12.500	5.40	12737.067	12737.067	12.500	12.5	0.0	NO		NO	bb
5	5	171214M1_6	Standard	12.500	5.40	10331.521	10331.521	12.500	12.5	0.0	NO		NO	bb
6	6	171214M1_7	Standard	12.500	5.40	10115.299	10115.299	12.500	12.5	0.0	NO		NO	bb
7	7	171214M1_8	Standard	12.500	5.40	9385.699	9385.699	12.500	12.5	0.0	NO		NO	bb
8	8	171214M1_9	Standard	12.500	5.40	10362.999	10362.999	12.500	12.5	0.0	NO		NO	bb
9	9	171214M1_10	Standard	12.500	5.40	8495.001	8495.001	12.500	12.5	0.0	NO		NO	bb

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, December 15, 2017 10:40:44 Pacific Standard Time
Printed: Friday, December 15, 2017 10:42:20 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 14 Dec 2017 08:34:51
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171214M1_2	ST171214M1-1 PFC CS-2 17L1404	14-Dec-17	18:54:16
2	171214M1_3	ST171214M1-2 PFC CS-1 17L1405	14-Dec-17	19:05:27
3	171214M1_4	ST171214M1-3 PFC CS0 17L1406	14-Dec-17	19:16:41
4	171214M1_5	ST171214M1-4 PFC CS1 17L1407	14-Dec-17	19:27:58
5	171214M1_6	ST171214M1-5 PFC CS2 17L1408	14-Dec-17	19:39:10
6	171214M1_7	ST171214M1-6 PFC CS3 17L1409	14-Dec-17	19:50:20
7	171214M1_8	ST171214M1-7 PFC CS4 17L1410	14-Dec-17	20:01:31
8	171214M1_9	ST171214M1-8 PFC CS5 17L1411	14-Dec-17	20:12:42
9	171214M1_10	ST171214M1-9 PFC CS6 17L1412	14-Dec-17	20:23:53
10	171214M1_11	ST171214M1-10 PFC CS7 17L1413	14-Dec-17	20:35:03
11	171214M1_12	IPA	14-Dec-17	20:46:15
12	171214M1_13	ICV171214M1-1 PFC ICV 17L1403	14-Dec-17	20:57:25
13	171214M1_14	IPA	14-Dec-17	21:08:36

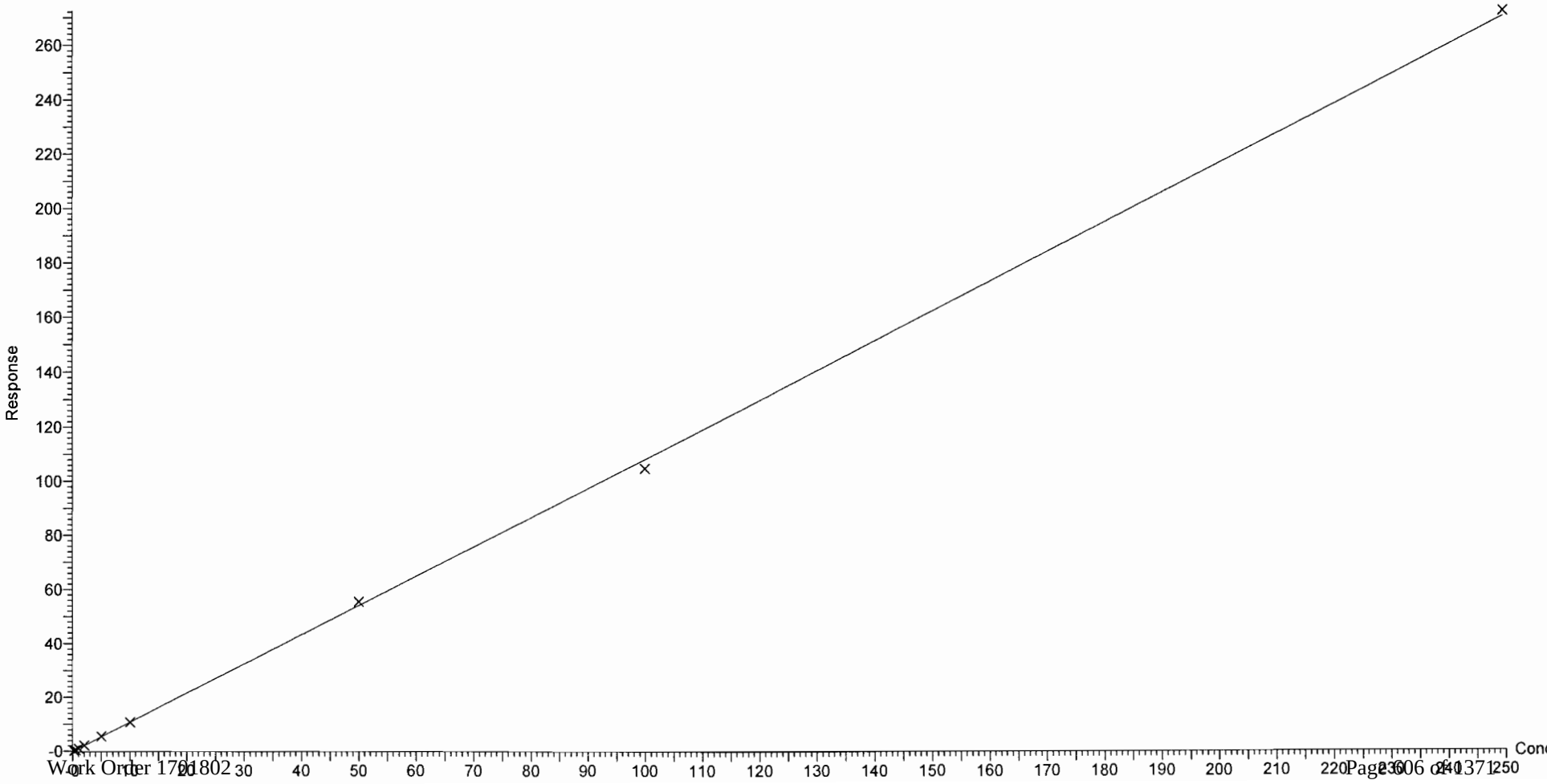
Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 14 Dec 2017 08:34:51
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Compound name: PFBA
Correlation coefficient: r = 0.999759, r^2 = 0.999518
Calibration curve: 1.0818 * x + -0.0828057
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\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
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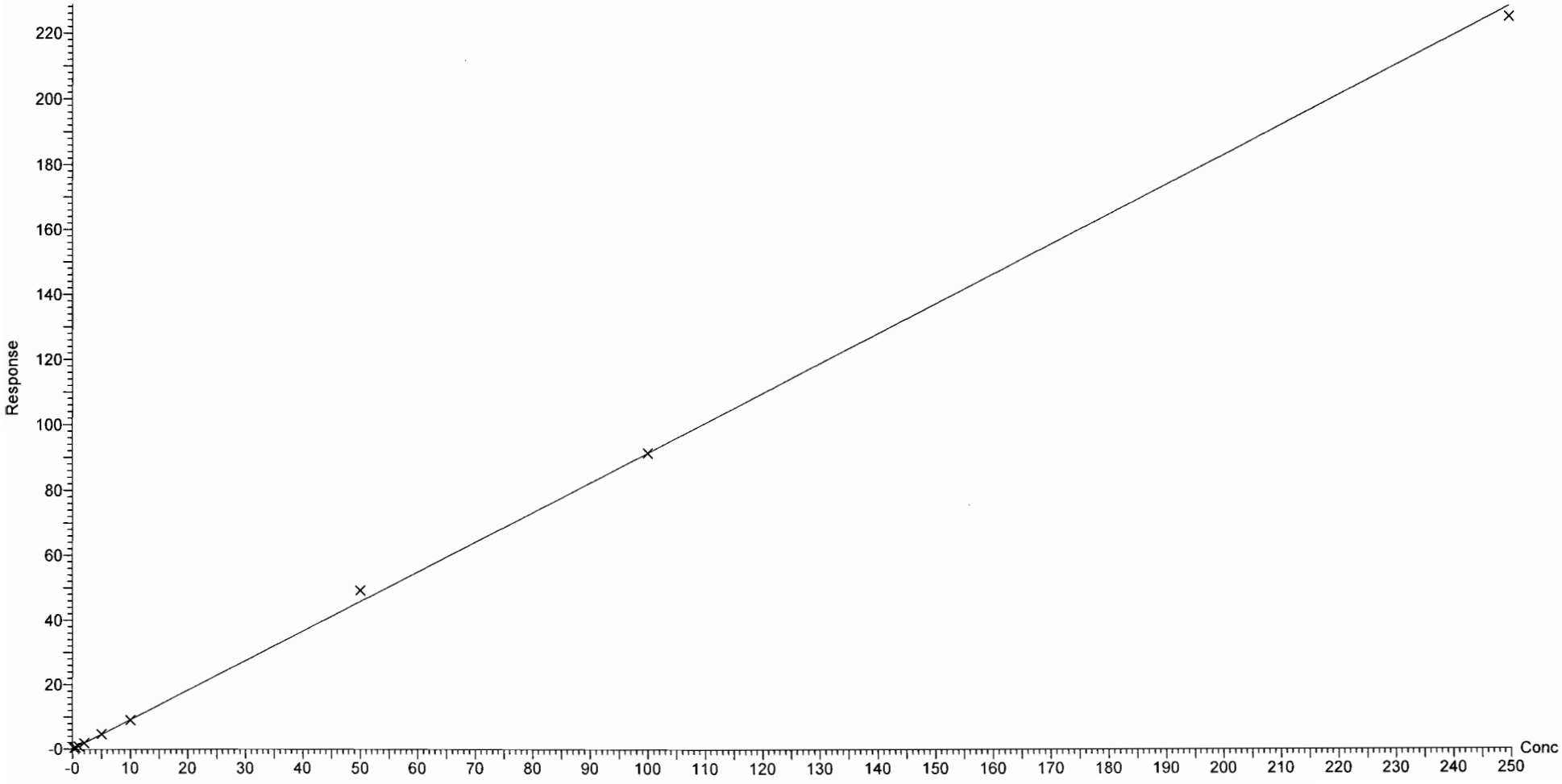
Compound name: PFPeA
Correlation coefficient: r = 0.999581, r^2 = 0.999163
Calibration curve: 0.914829 * x + 0.00697971
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
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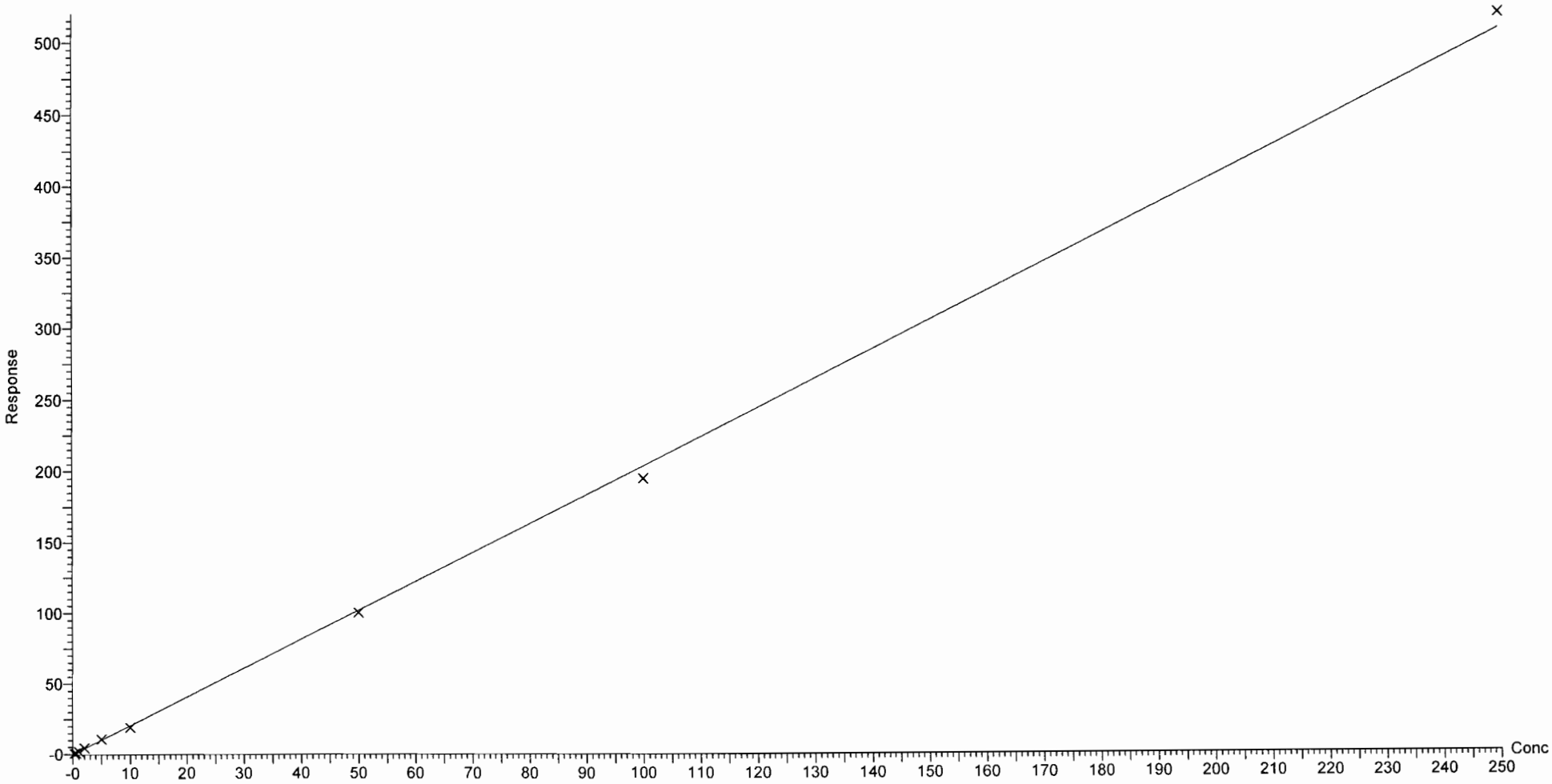
Compound name: PFBS
Correlation coefficient: r = 0.999502, r^2 = 0.999004
Calibration curve: 2.03588 * x + -0.0227612
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
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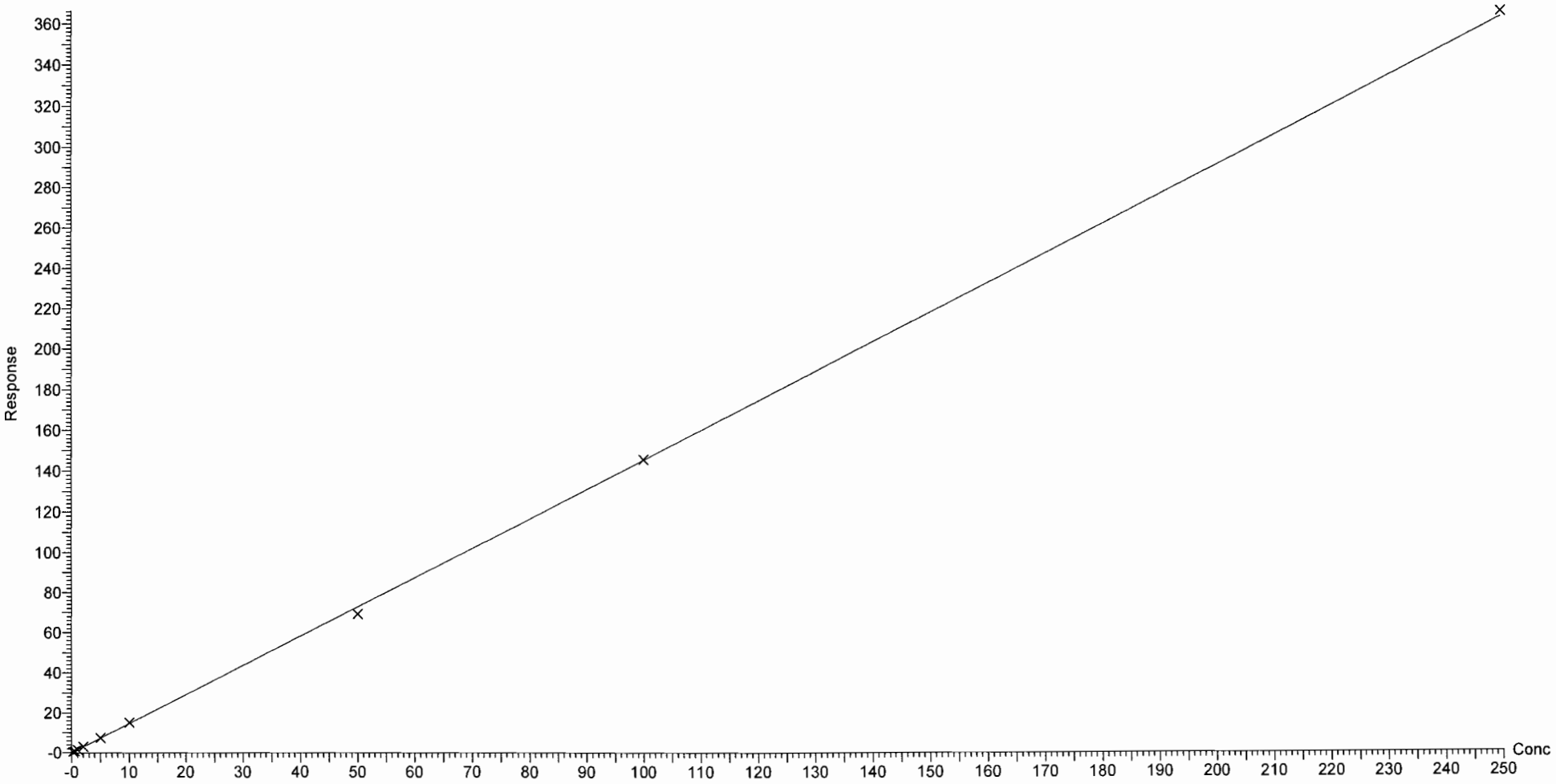
Compound name: PFHxA
Correlation coefficient: r = 0.999800, r^2 = 0.999600
Calibration curve: 1.45431 * x + 0.00389471
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

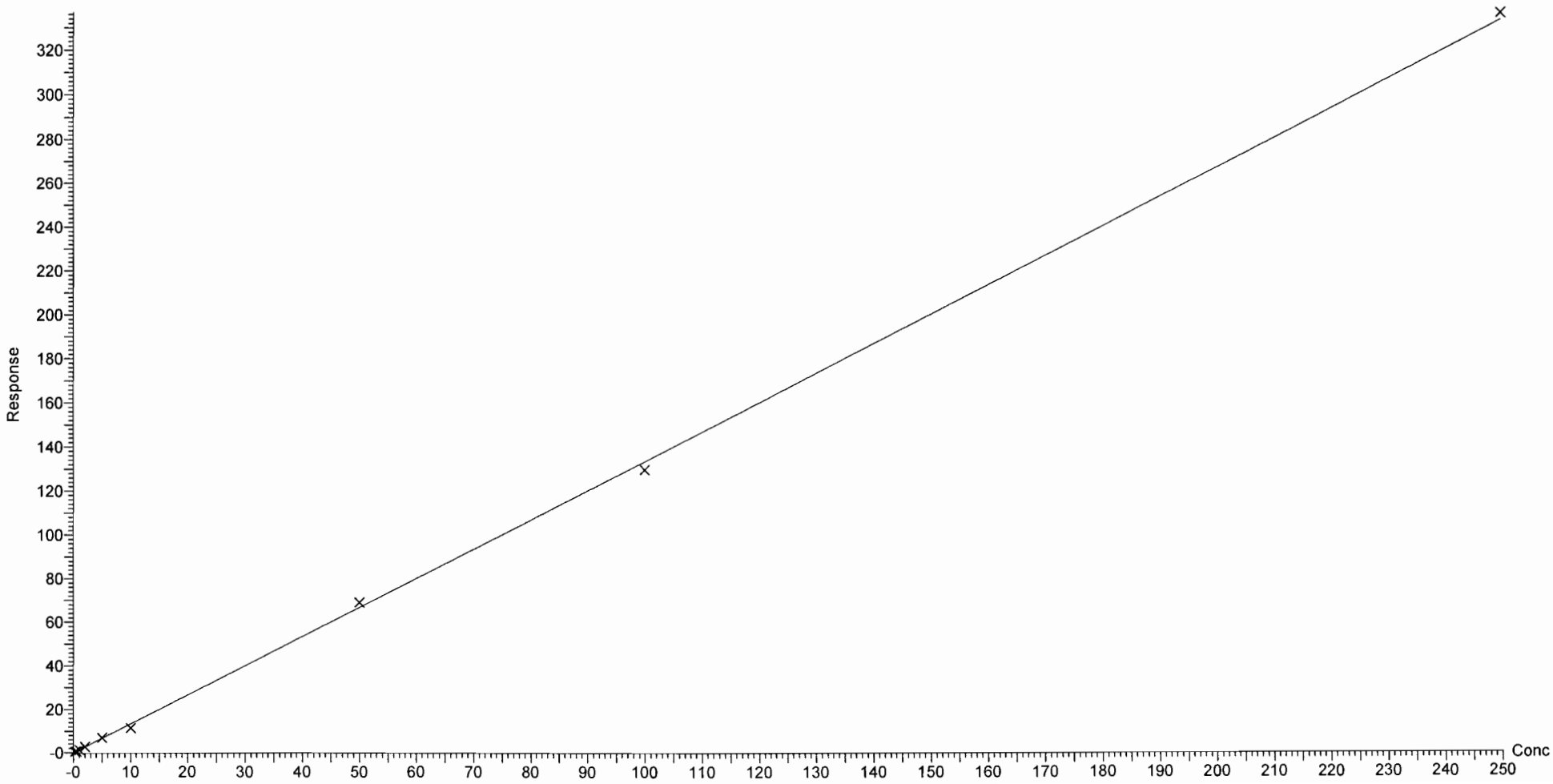


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

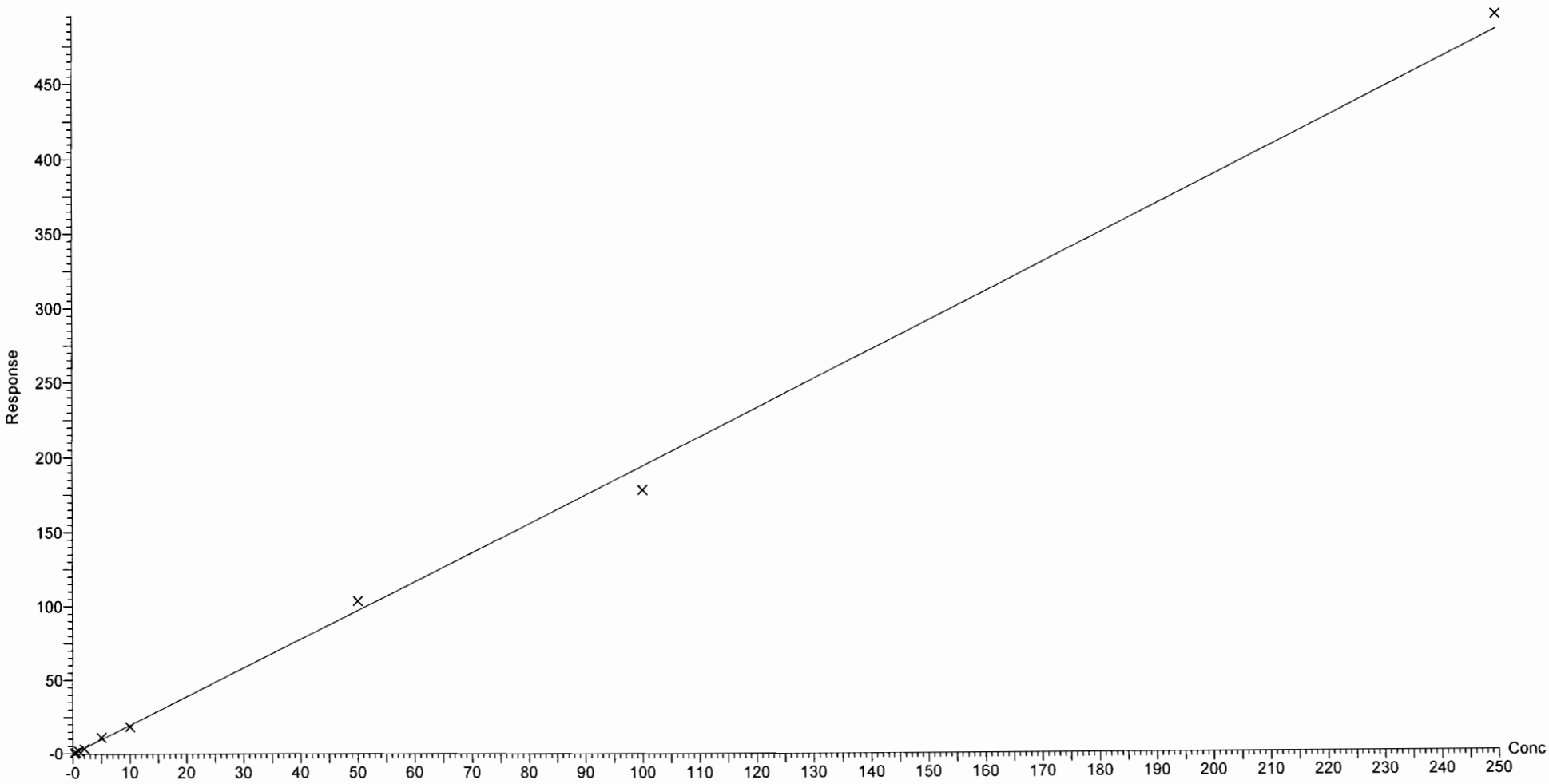
Compound name: PFHpA
Correlation coefficient: r = 0.999493, r^2 = 0.998987
Calibration curve: 1.33555 * x + -0.0368737
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

Compound name: L-PFHxS
Correlation coefficient: r = 0.998563, r^2 = 0.997129
Calibration curve: 1.94134 * x + -0.101735
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\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
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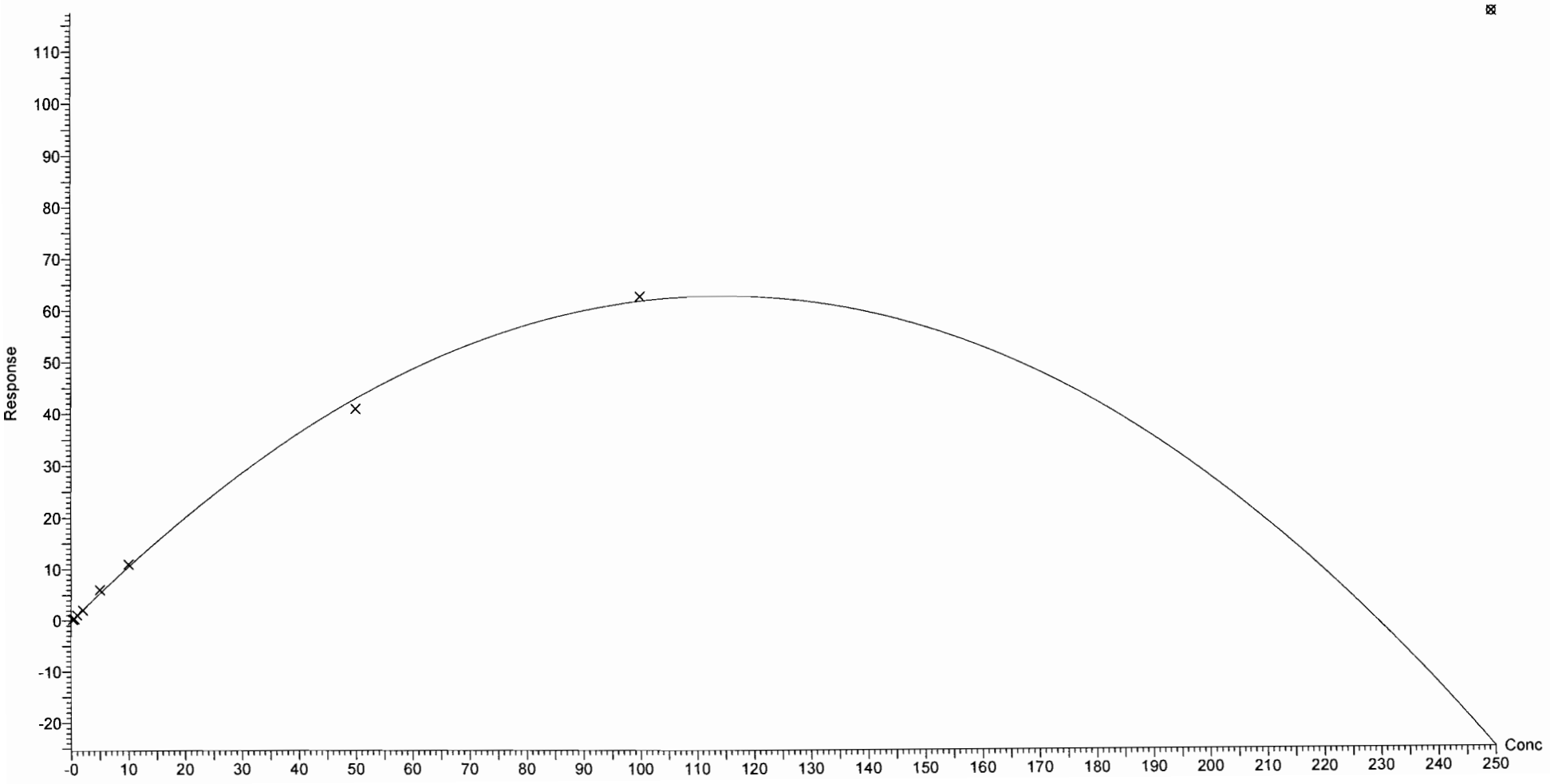
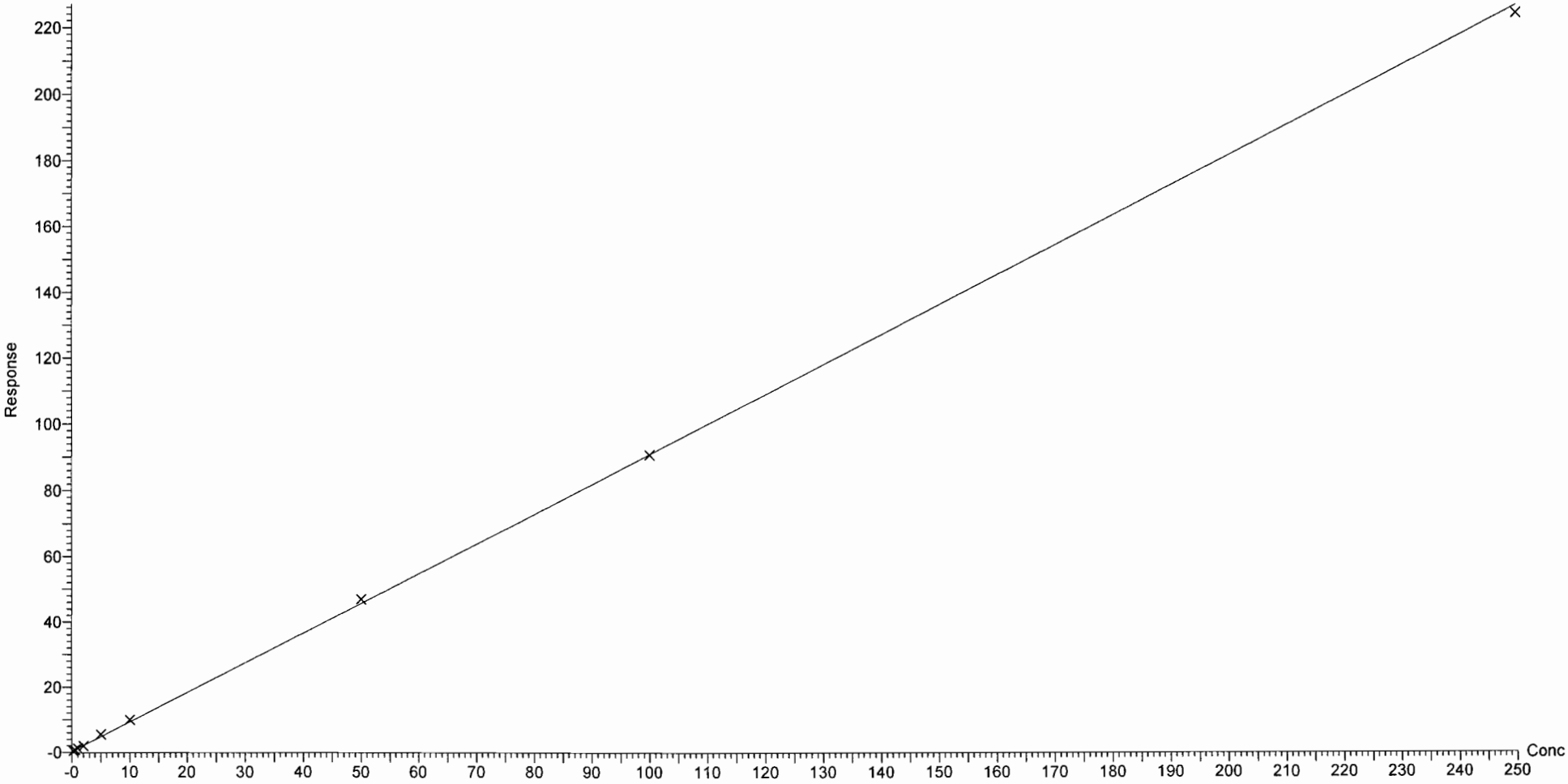
Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.997496
Calibration curve: -0.00479909 * x^2 + 1.09855 * x + -0.0351405
Response type: Internal Std (Ref 37), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

Compound name: L-PFOA
Correlation coefficient: r = 0.999648, r^2 = 0.999296
Calibration curve: 0.907083 * x + 0.230983
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\171214M1\171214M1-CRV.qld

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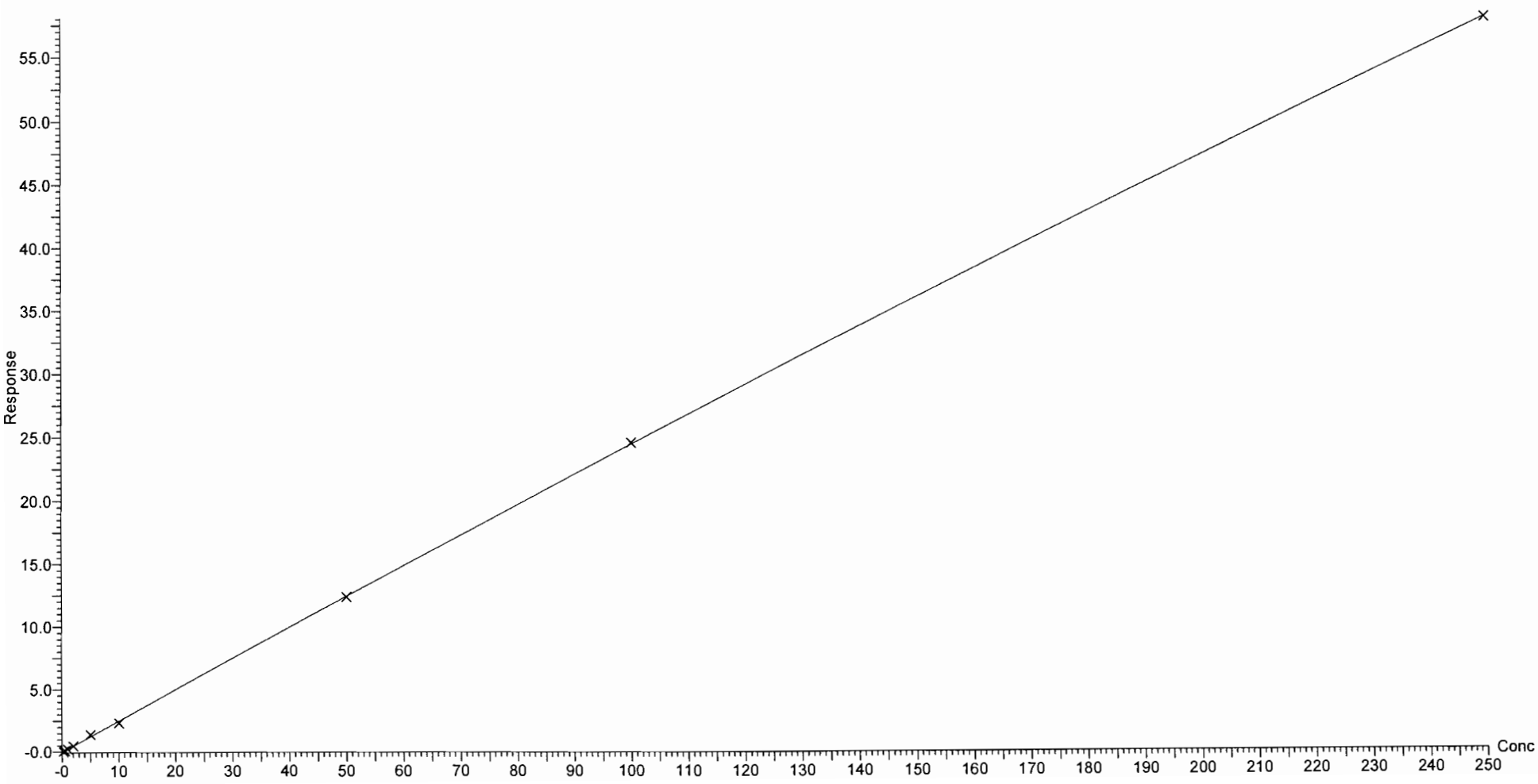
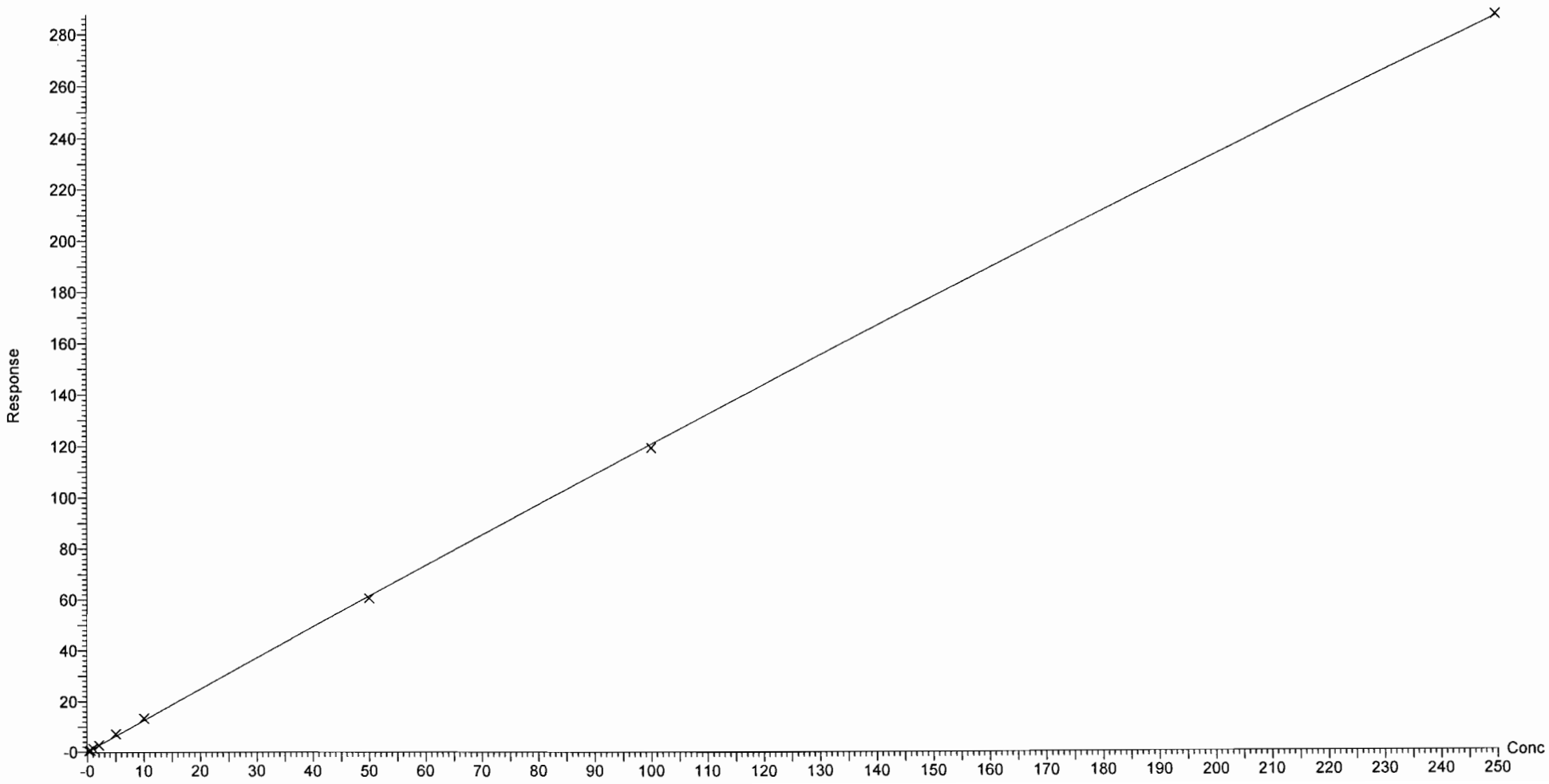
Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999578
Calibration curve: -8.32594e-005 * x^2 + 0.253188 * x + -0.0324331
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

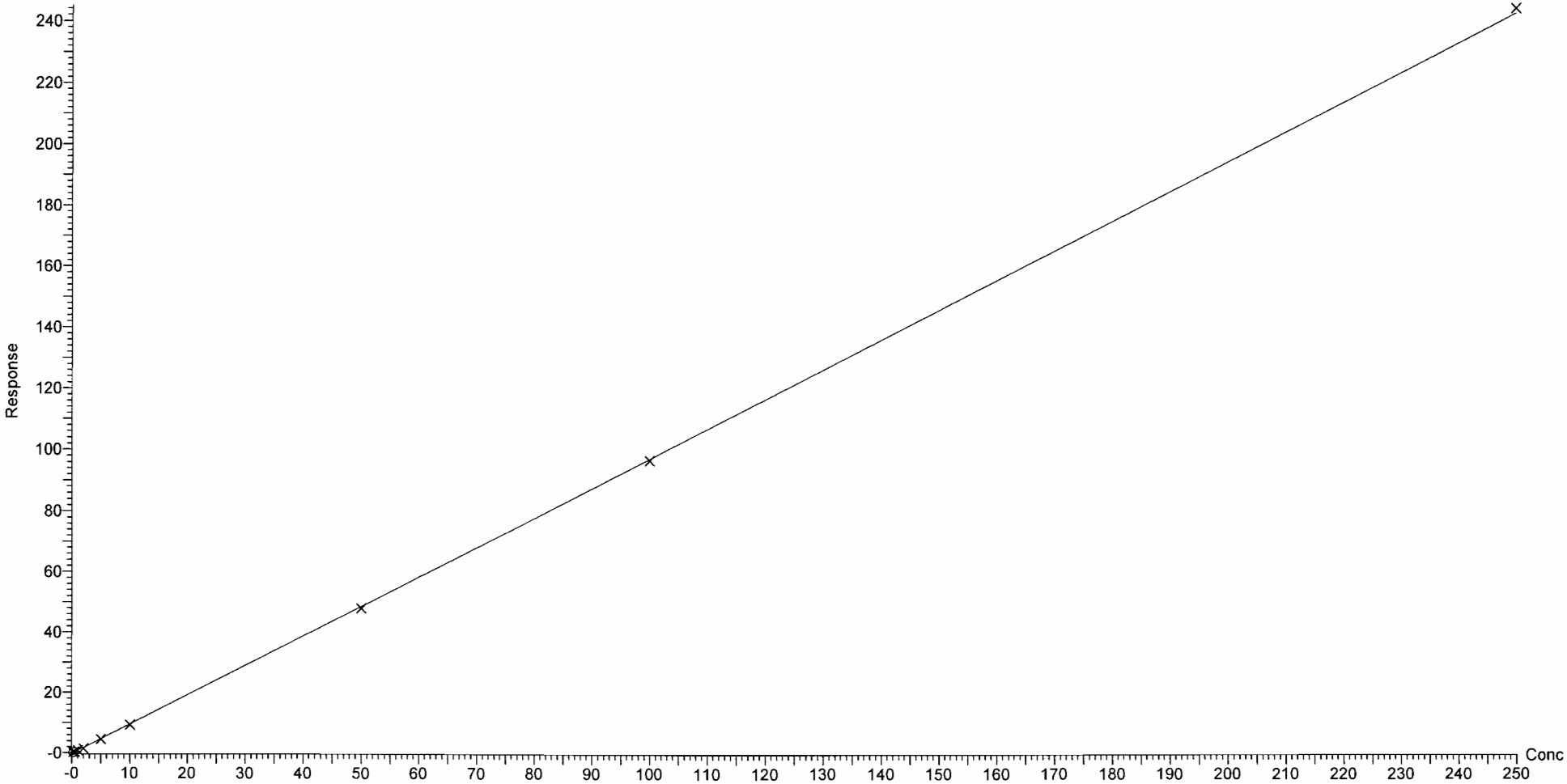
Compound name: PFNA
Coefficient of Determination: R^2 = 0.999488
Calibration curve: -0.000394103 * x^2 + 1.24572 * x + 0.0902825
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

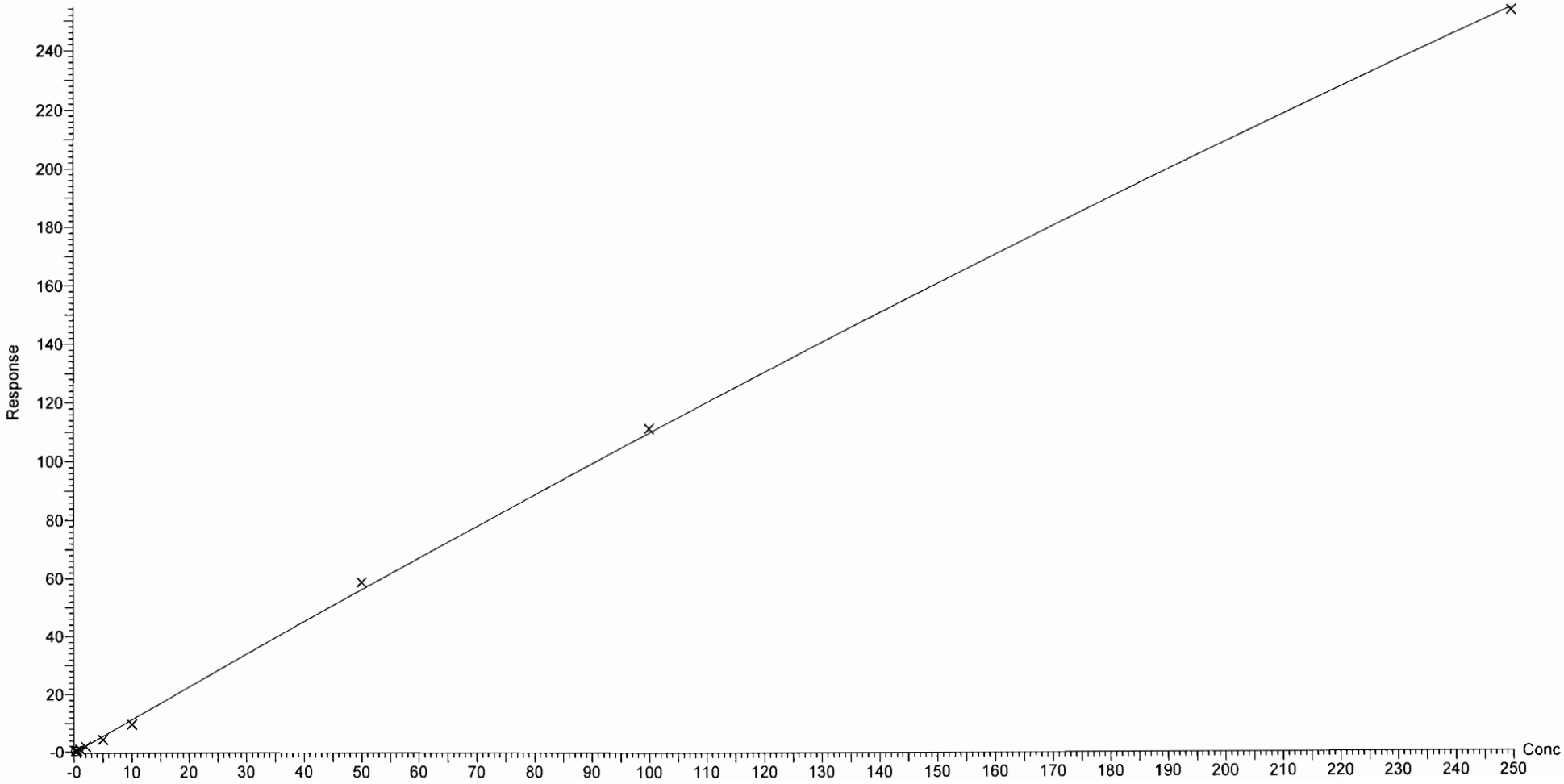
Compound name: PFOSA
Correlation coefficient: r = 0.999877, r^2 = 0.999754
Calibration curve: 0.973756 * x + -0.220598
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

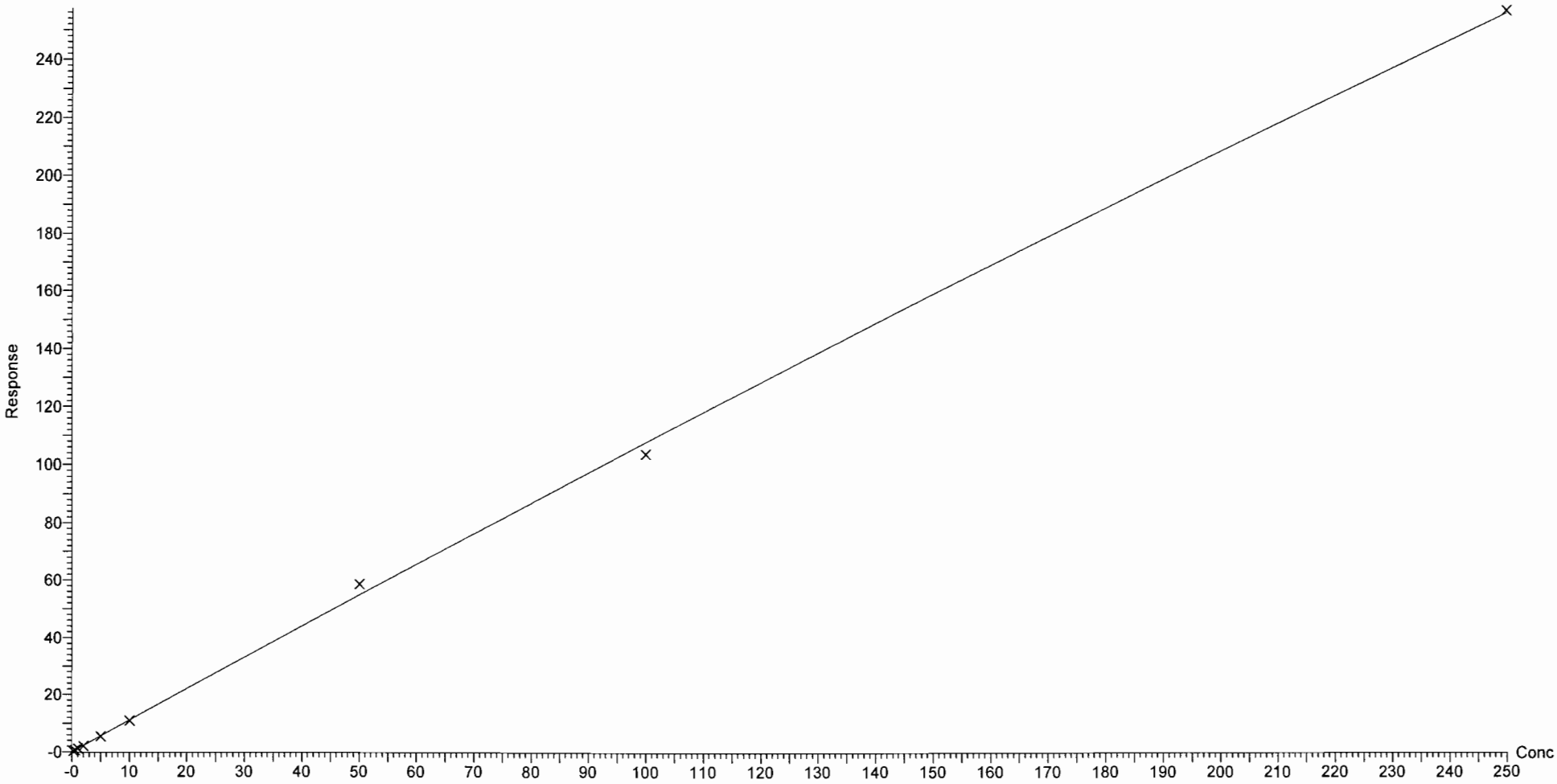
Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.998216
Calibration curve: -0.000533556 * x^2 + 1.15251 * x + -0.226229
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

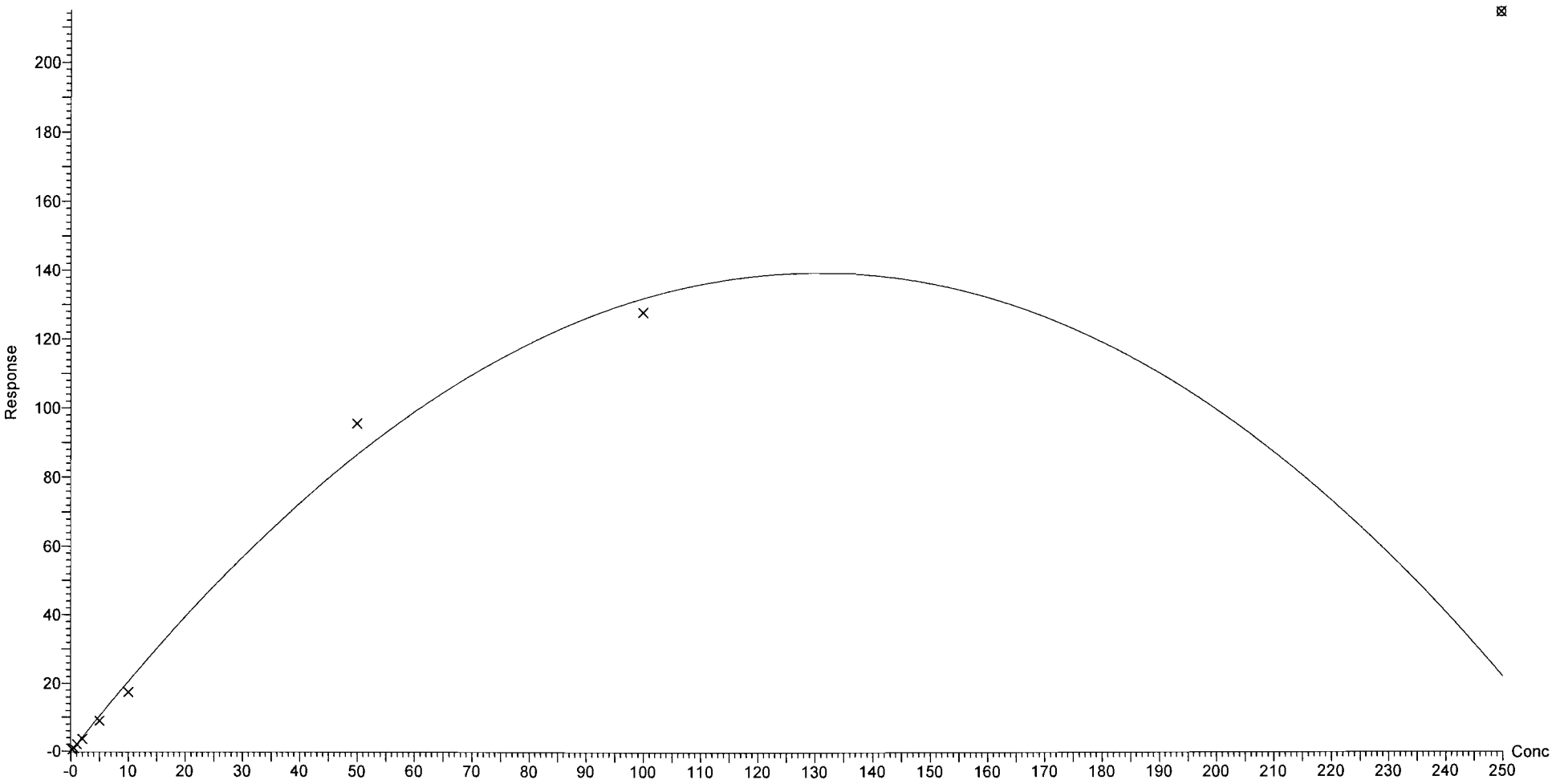
Compound name: PFDA
Coefficient of Determination: R^2 = 0.998825
Calibration curve: -0.000357197 * x^2 + 1.11476 * x + 0.00619633
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

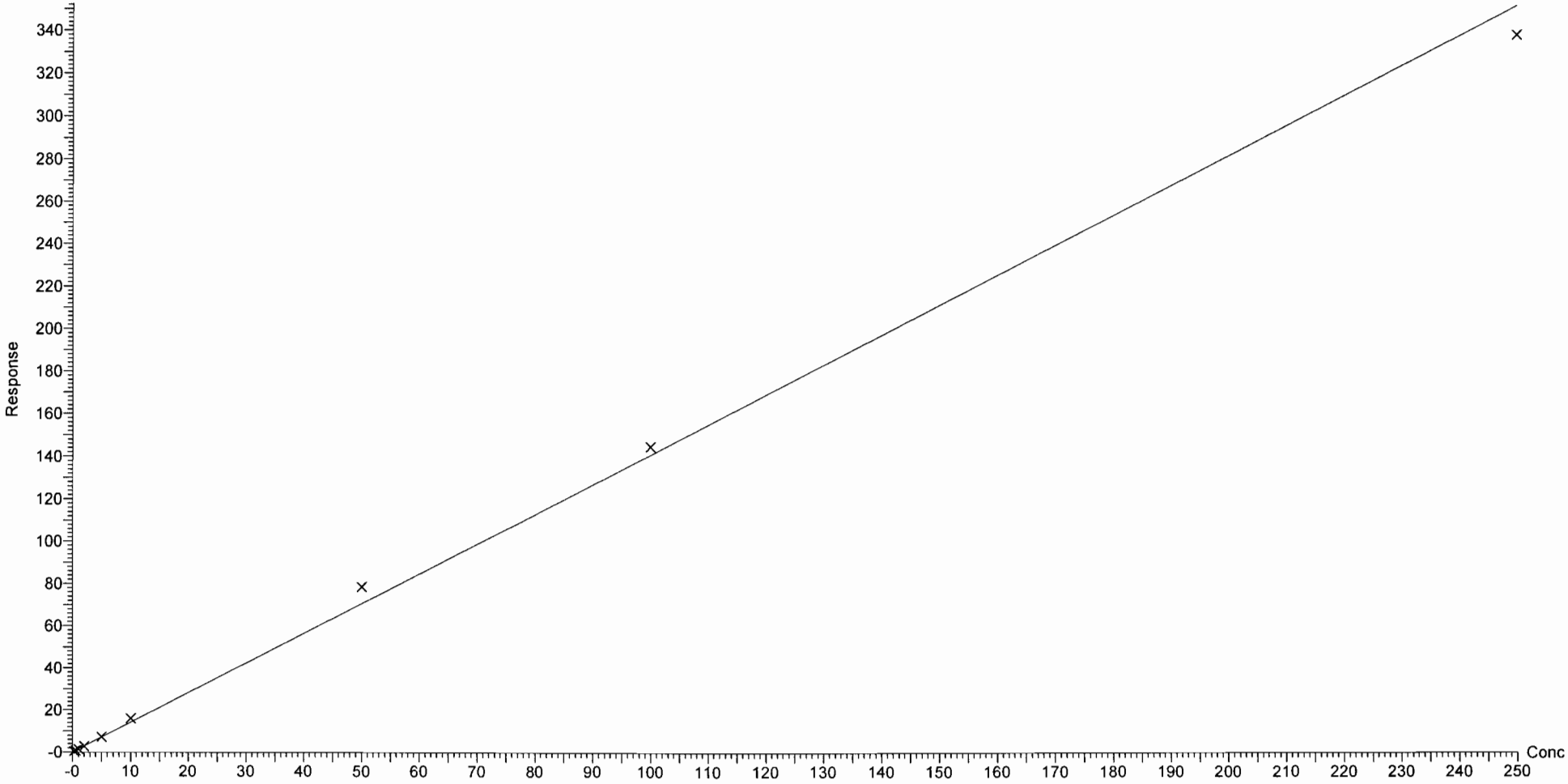
Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.991317
Calibration curve: -0.00821804 * x^2 + 2.14324 * x + -0.115977
Response type: Internal Std (Ref 43), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

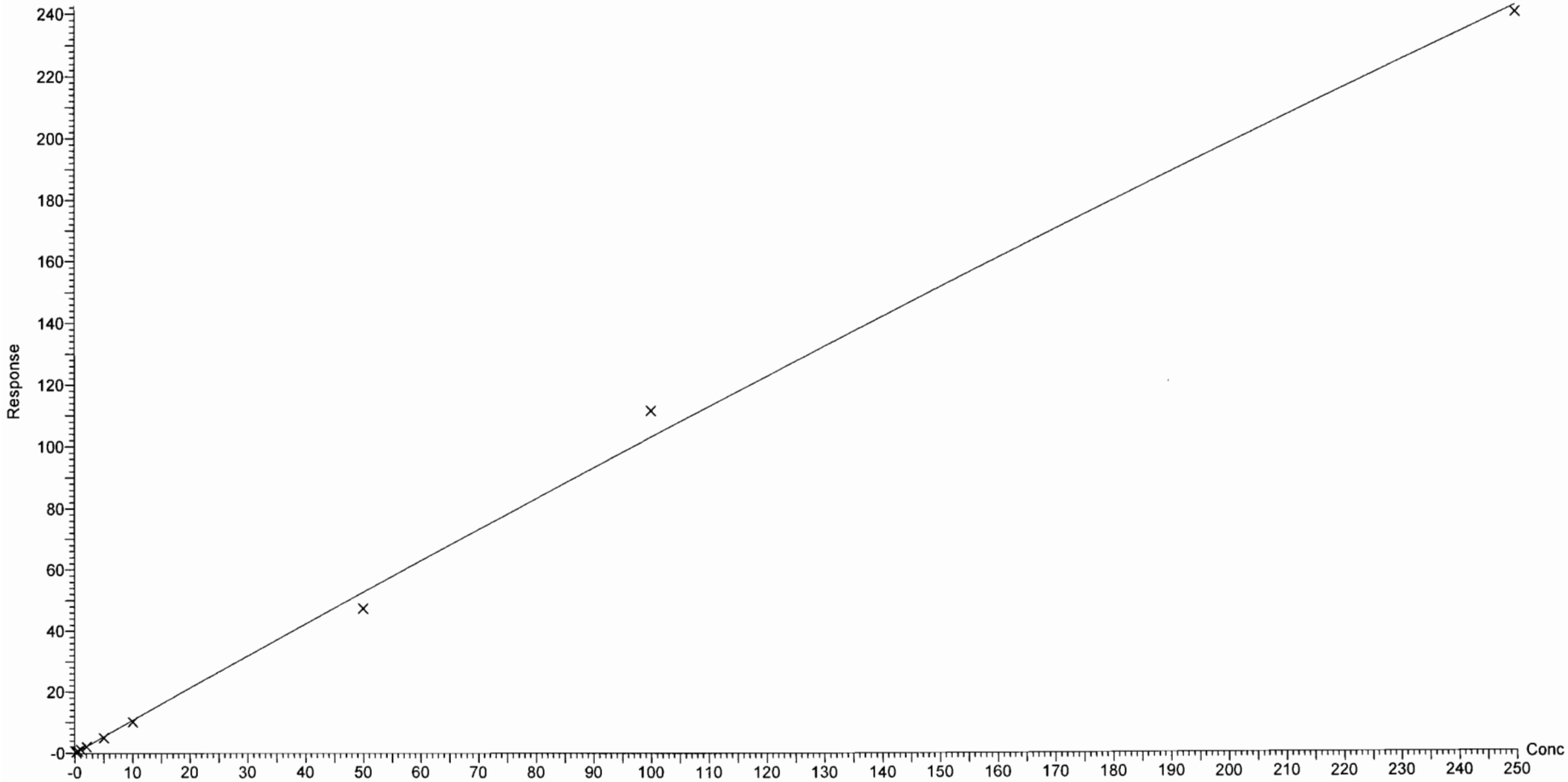
Compound name: N-MeFOSAA
Correlation coefficient: r = 0.998470, r^2 = 0.996942
Calibration curve: 1.40841 * x + 0.0325504
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

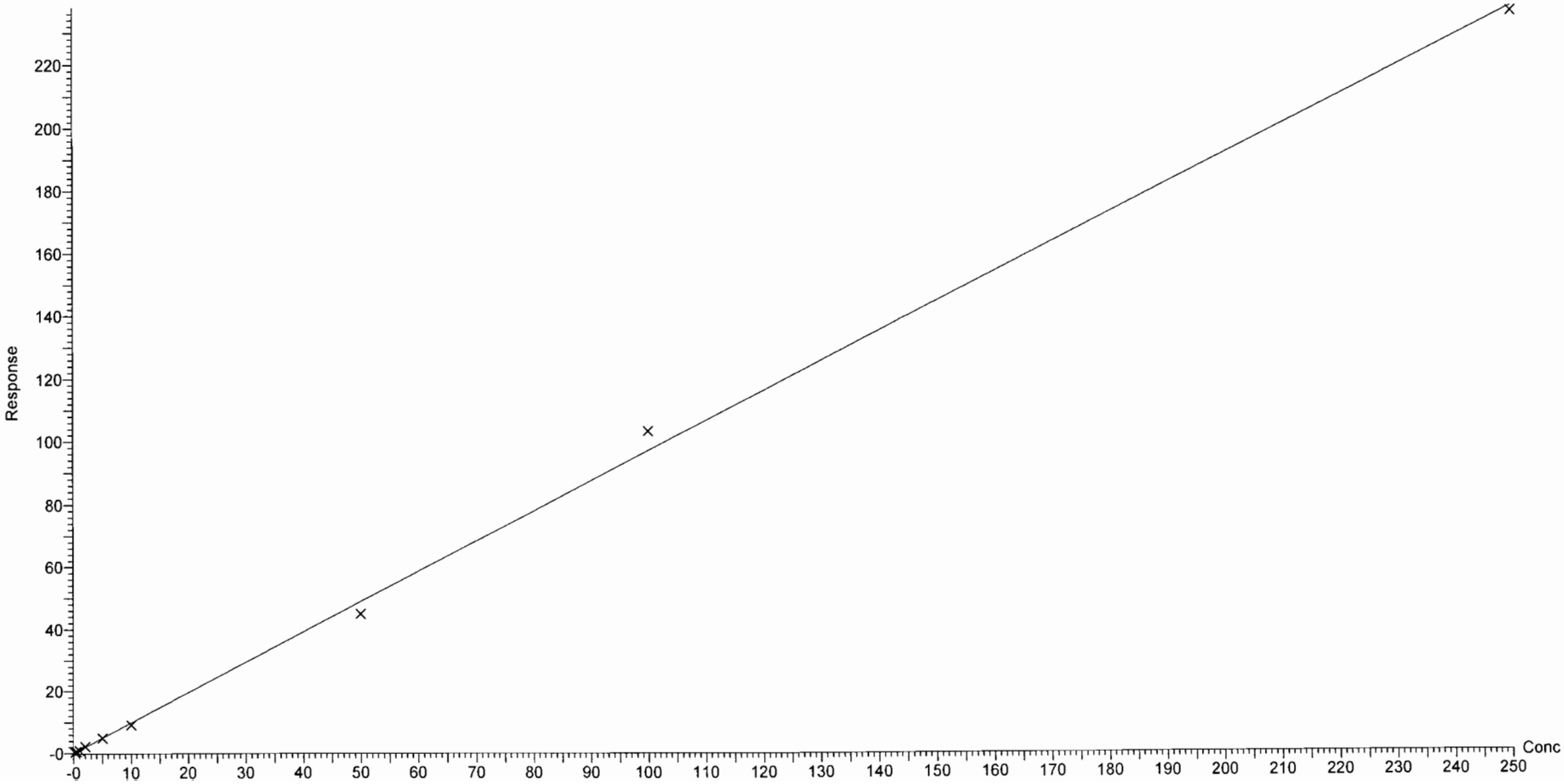
Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.996594
Calibration curve: -0.000405922 * x^2 + 1.0721 * x + -0.0405007
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

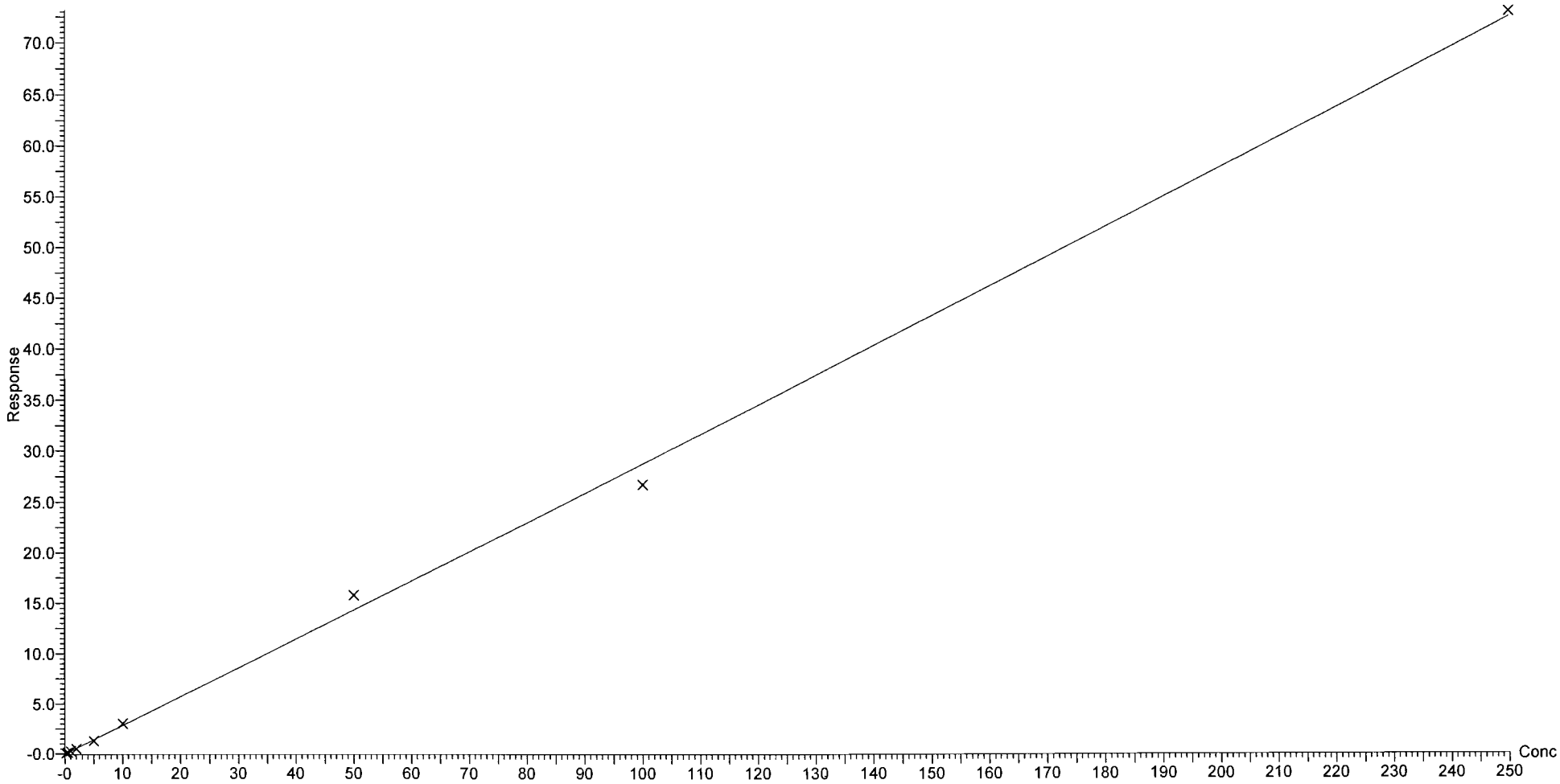
Compound name: PFUdA
Coefficient of Determination: R^2 = 0.997973
Calibration curve: -0.00012509 * x^2 + 0.982717 * x + 0.0408293
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

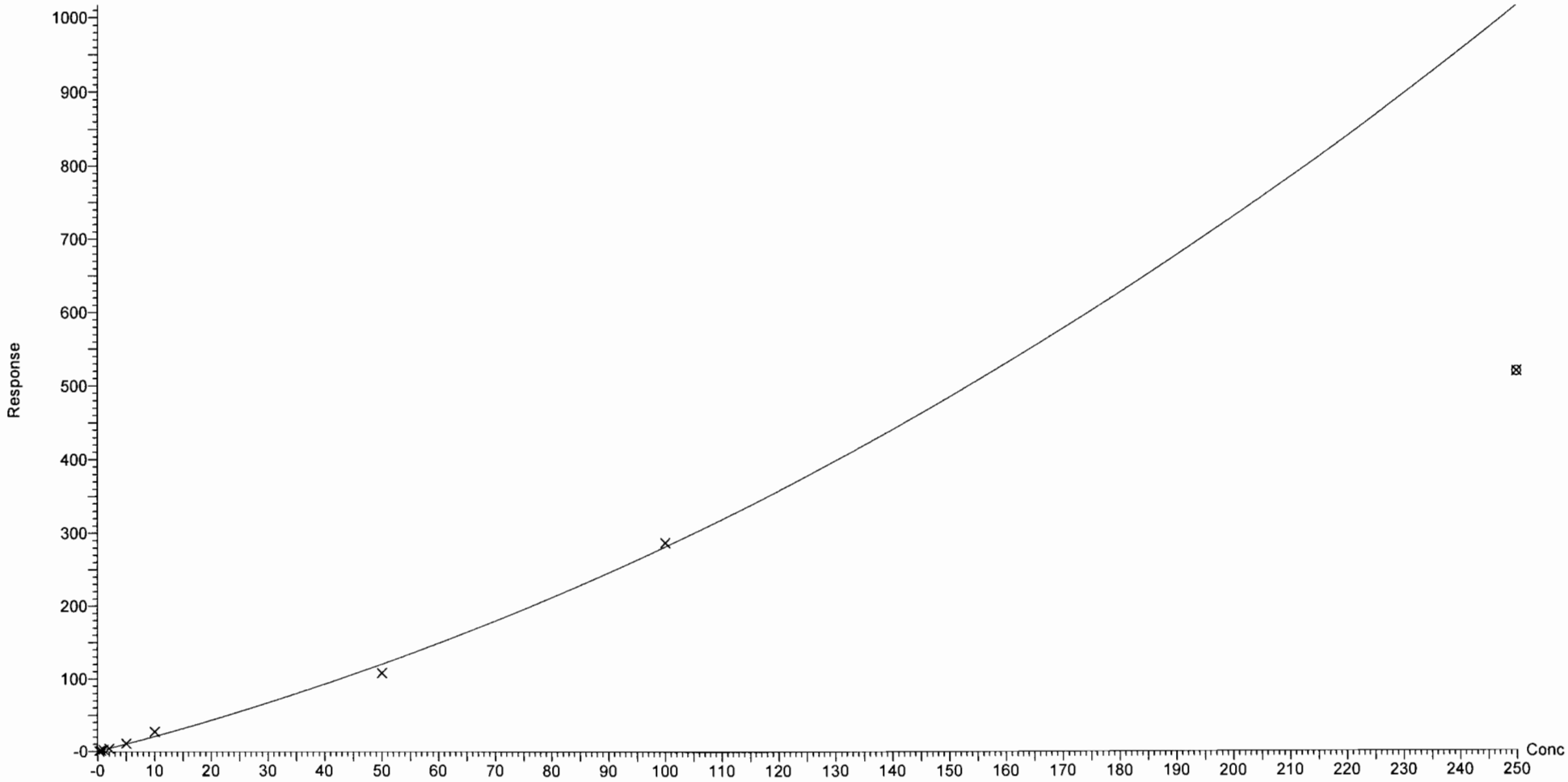
Compound name: PFDS
Coefficient of Determination: R^2 = 0.997280
Calibration curve: 1.98239e-005 * x^2 + 0.285574 * x + -0.0145816
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

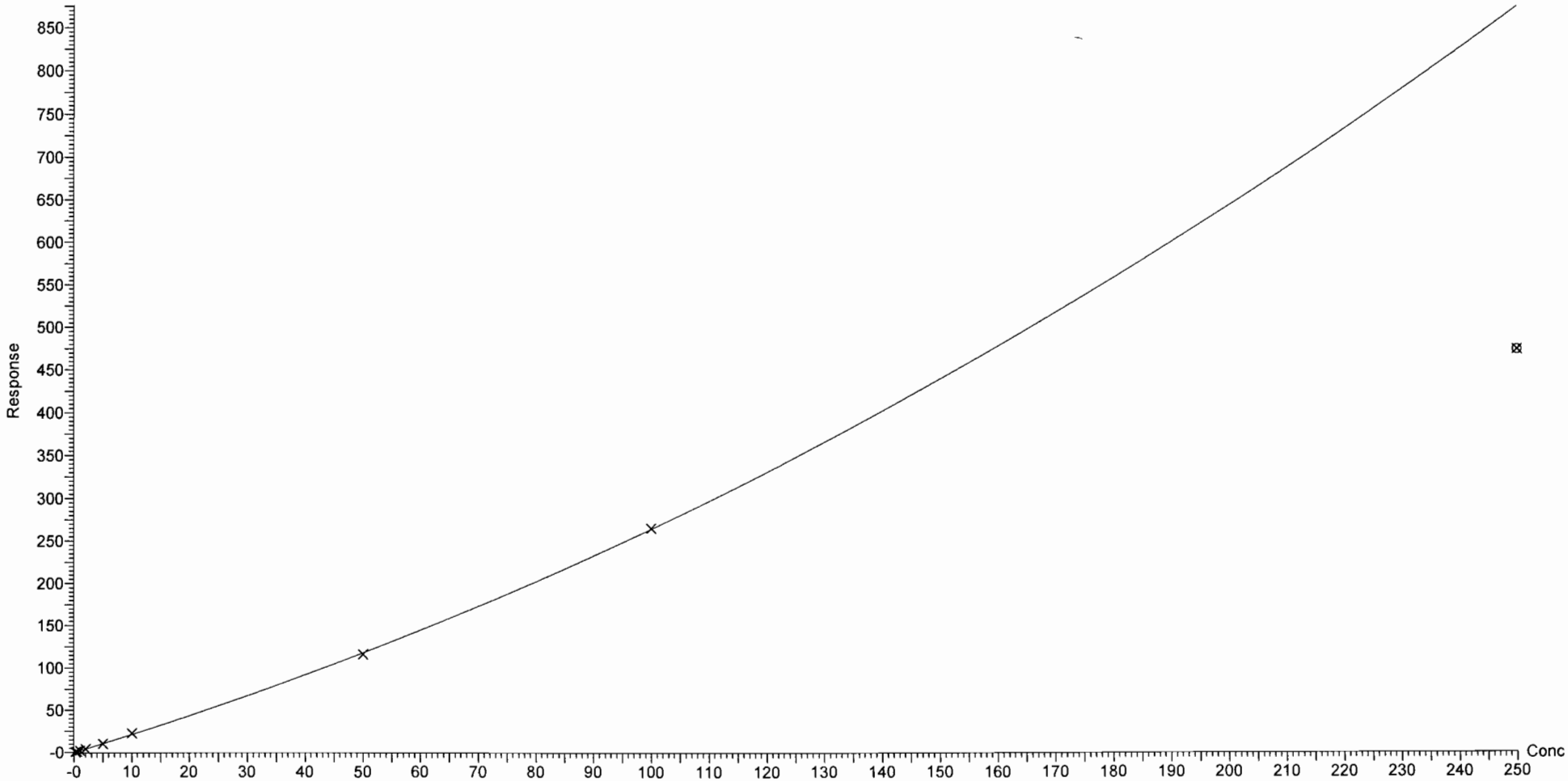
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.993353
Calibration curve: 0.00833553 * x^2 + 1.98243 * x + 0.00705013
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

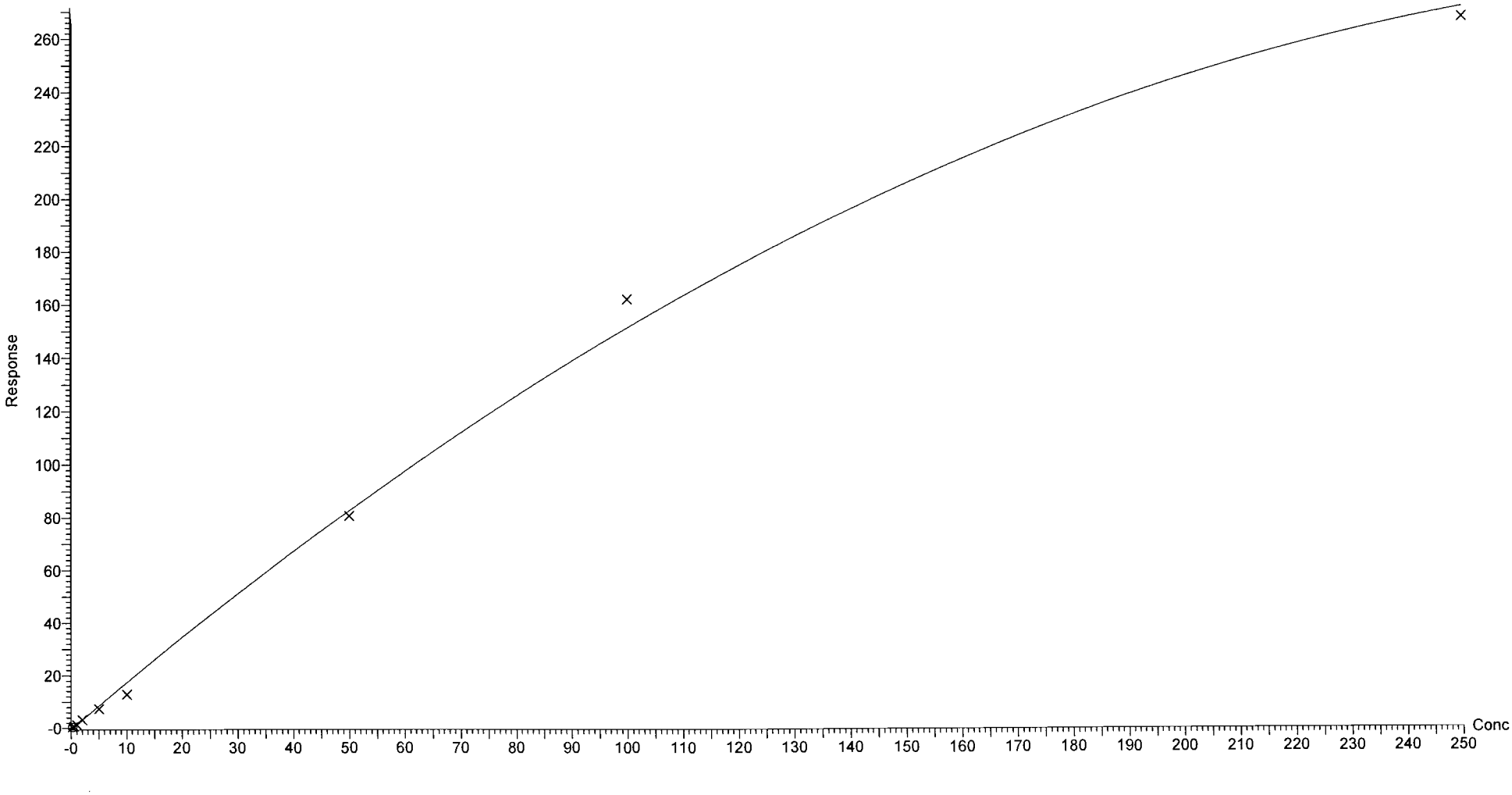
Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999614
Calibration curve: 0.00572446 * x^2 + 2.07144 * x + -0.0691835
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

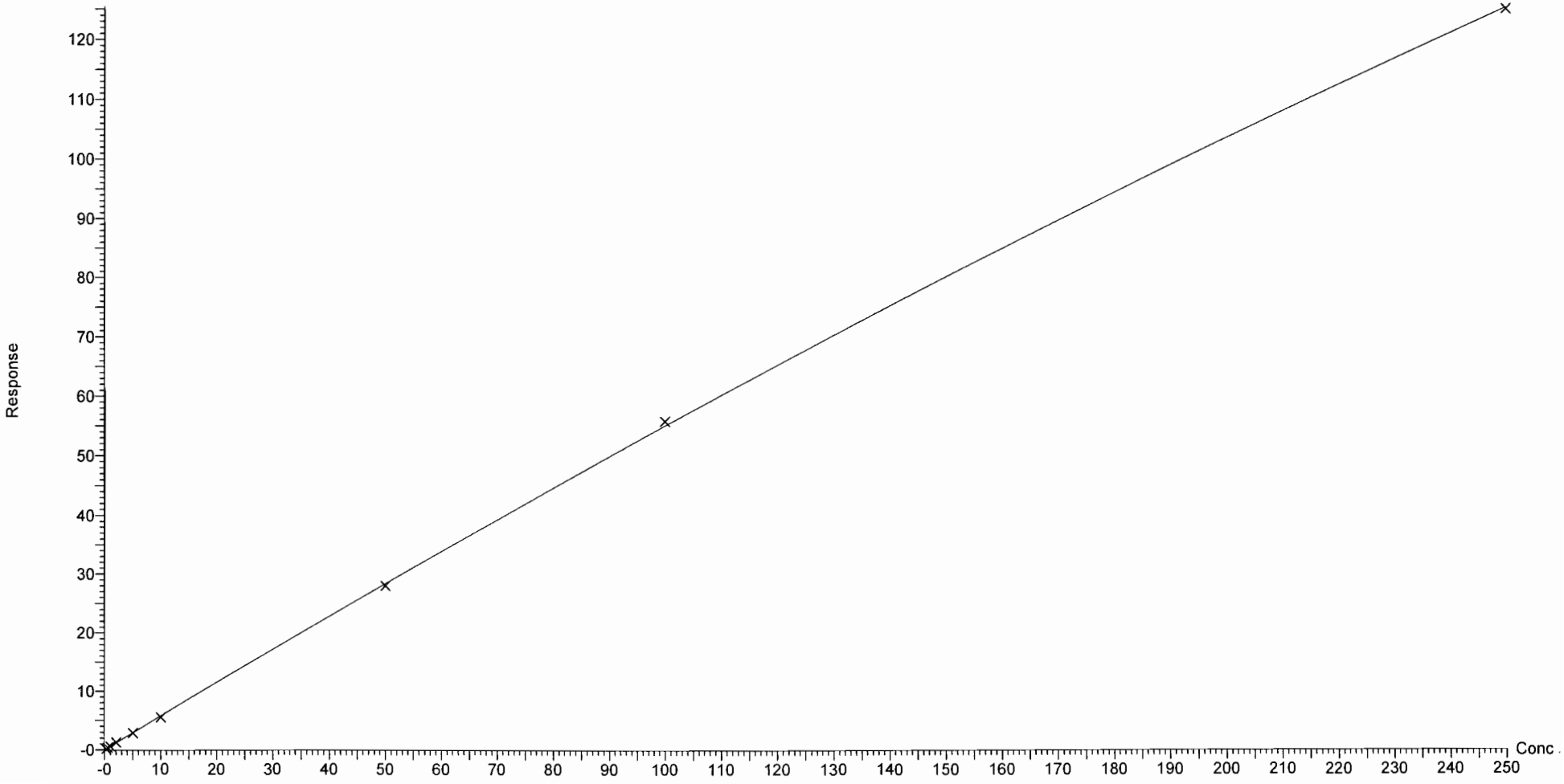
Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.994454
Calibration curve: -0.00286076 * x^2 + 1.80315 * x + -0.442322
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

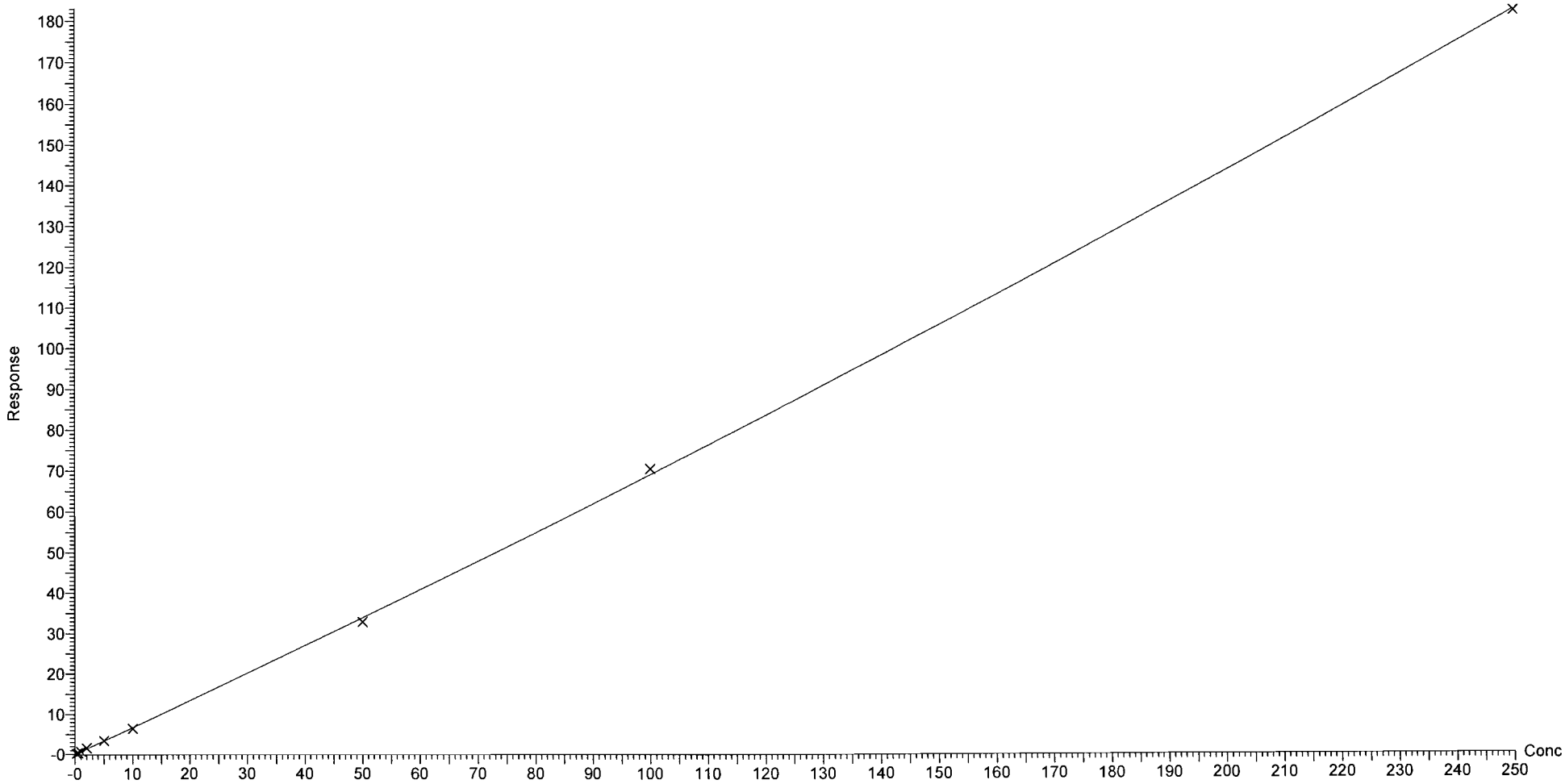
Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.999758
Calibration curve: -0.000328251 * x^2 + 0.583585 * x + -0.00620174
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 10:09:26 Pacific Standard Time
Printed: Friday, December 15, 2017 10:14:11 Pacific Standard Time

Compound name: PFODA
Coefficient of Determination: R^2 = 0.999680
Calibration curve: 0.000275188 * x^2 + 0.663331 * x + 0.0131101
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

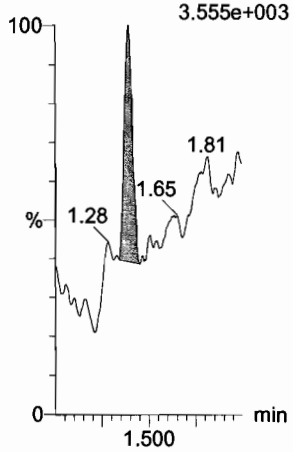
Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

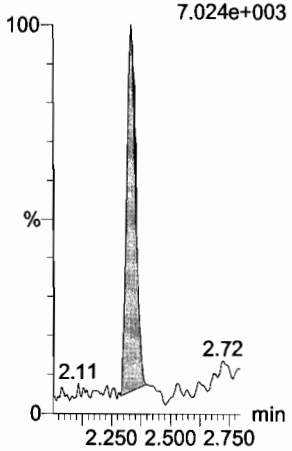
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 14 Dec 2017 08:34:51
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 09:17:26

Name: 171214M1_2, Date: 14-Dec-2017, Time: 18:54:16, ID: ST171214M1-1 PFC CS-2 17L1404, Description: PFC CS-2 17L1404

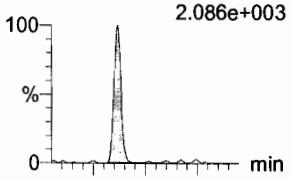
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
3.555e+003



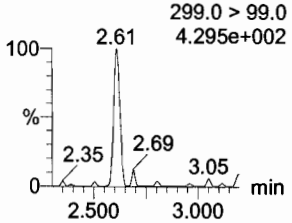
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
7.024e+003



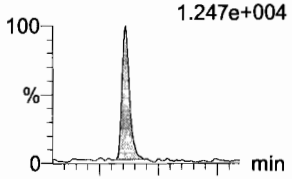
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
2.086e+003



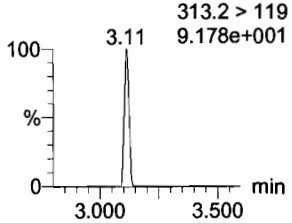
F6:MRM of 2 channels,ES-
299.0 > 99.0
4.295e+002



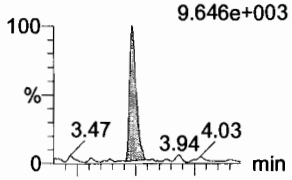
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
1.247e+004



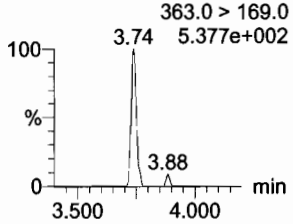
F8:MRM of 2 channels,ES-
313.2 > 119
9.178e+001



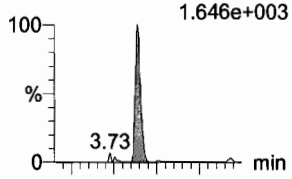
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
9.646e+003



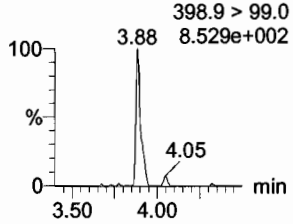
F13:MRM of 2 channels,ES-
363.0 > 169.0
5.377e+002



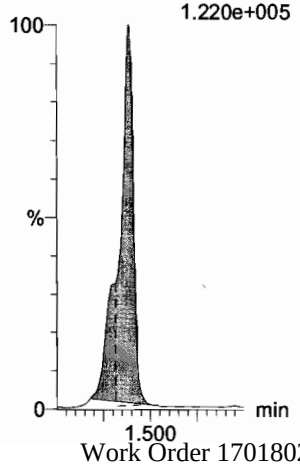
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
1.646e+003



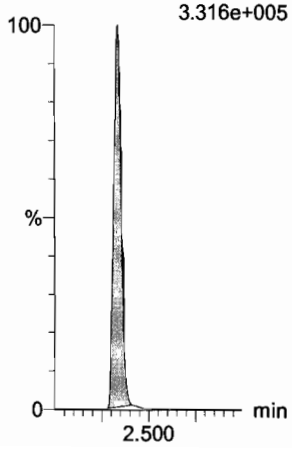
F15:MRM of 2 channels,ES-
398.9 > 99.0
8.529e+002



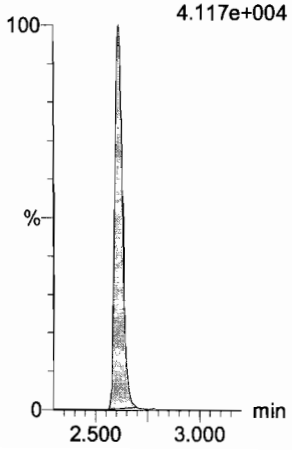
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.220e+005



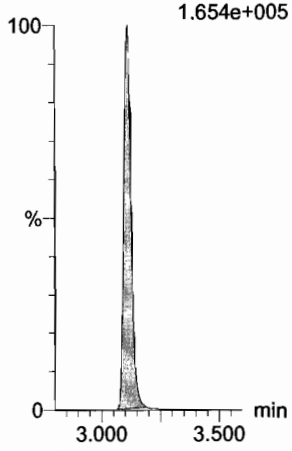
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.316e+005



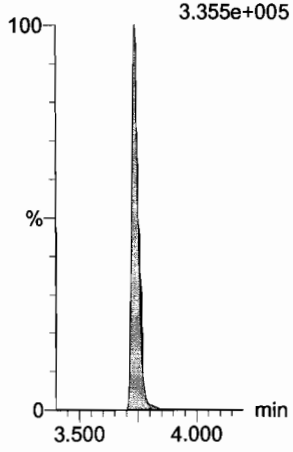
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
4.117e+004



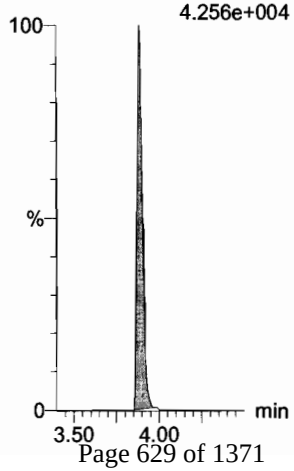
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.654e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
3.355e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
4.256e+004

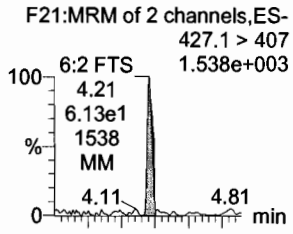


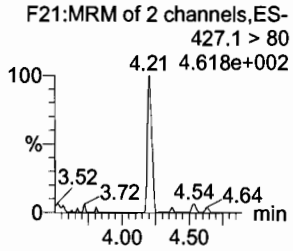
Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

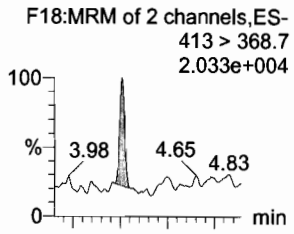
Name: 171214M1_2, Date: 14-Dec-2017, Time: 18:54:16, ID: ST171214M1-1 PFC CS-2 17L1404, Description: PFC CS-2 17L1404

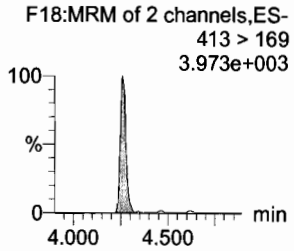
6:2 FTS





L-PFOA





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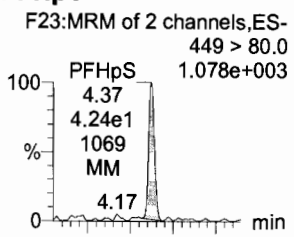

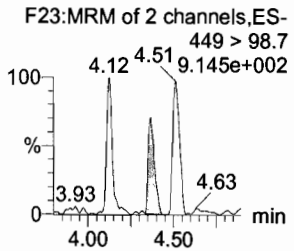

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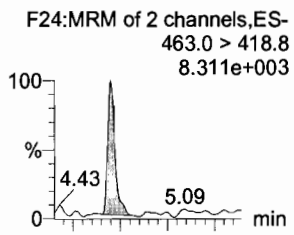

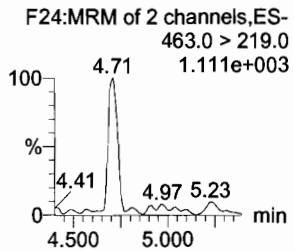

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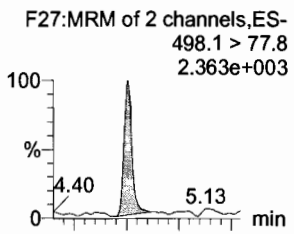

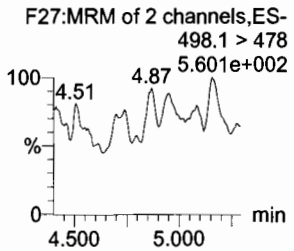

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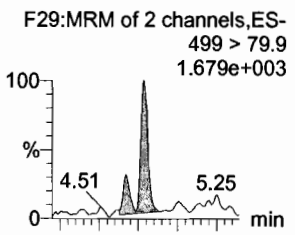

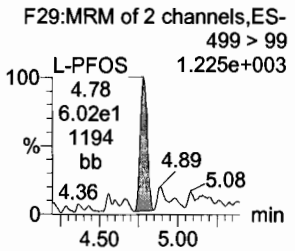

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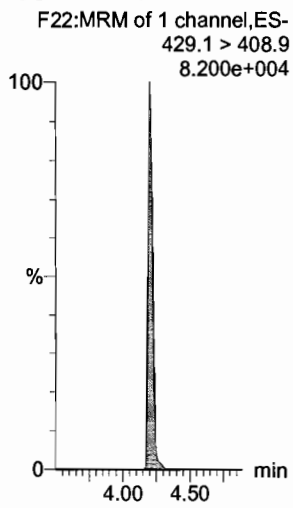

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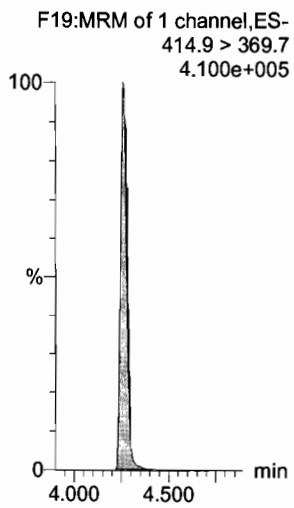

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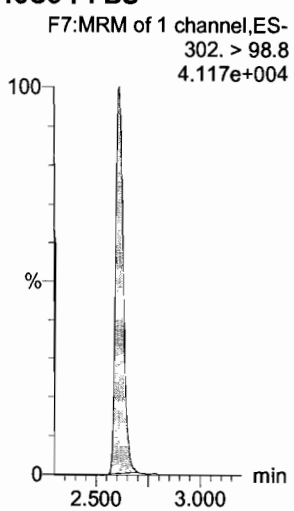

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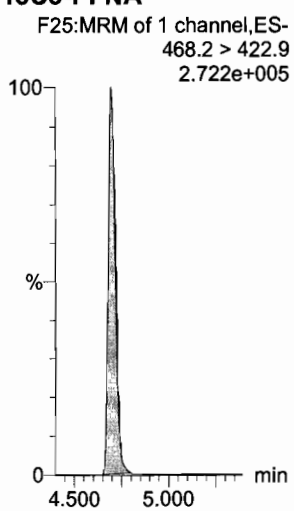

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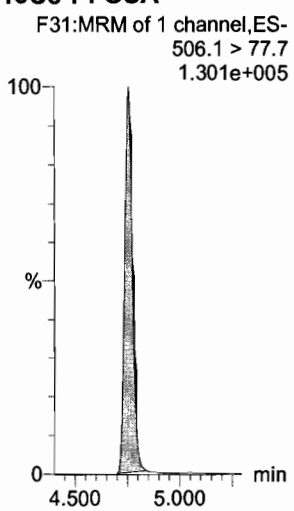

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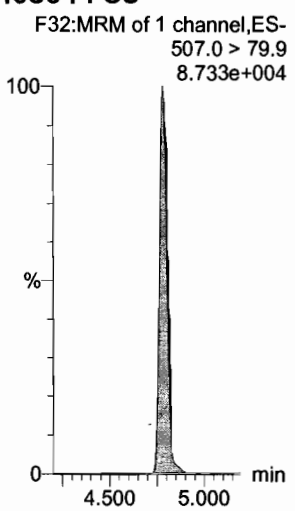

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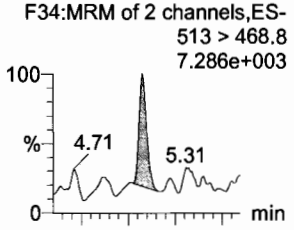
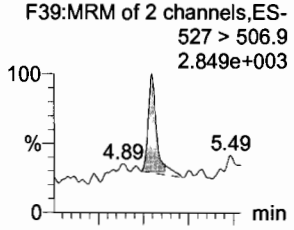
Name: 171214M1_2, Date: 14-Dec-2017, Time: 18:54:16, ID: ST171214M1-1 PFC CS-2 17L1404, Description: PFC CS-2 17L1404

PFDA



8:2 FTS



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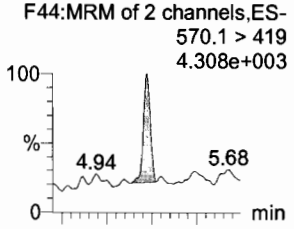

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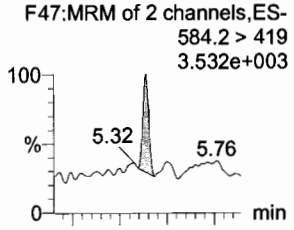

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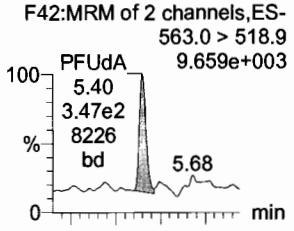

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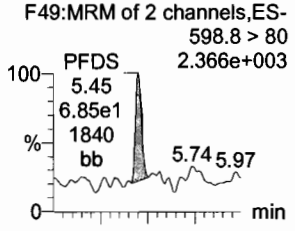

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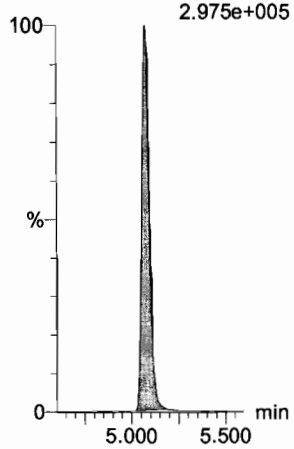
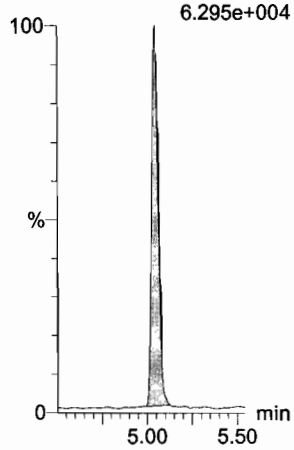


13C2-8:2 FTS



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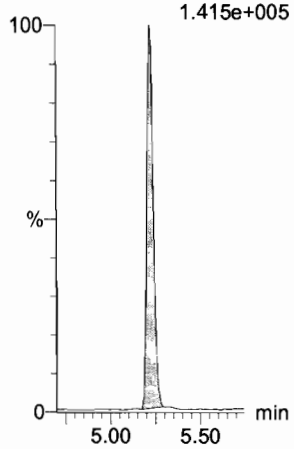

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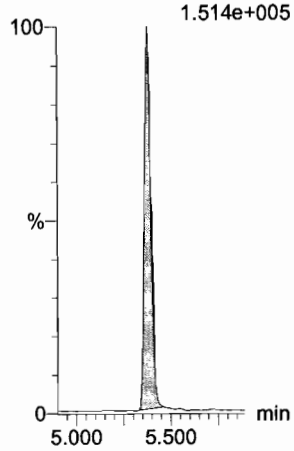

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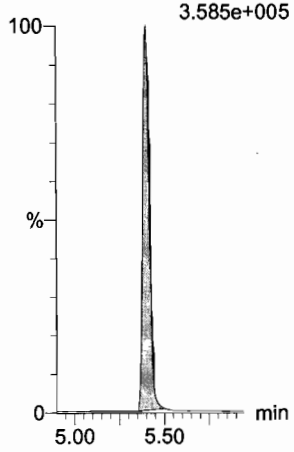

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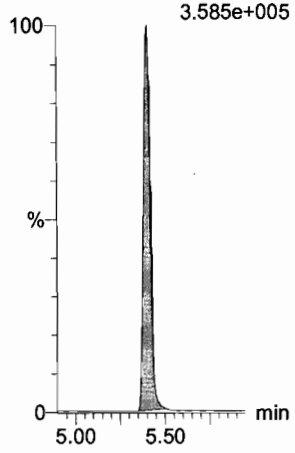

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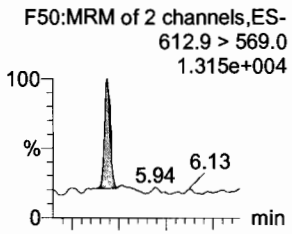

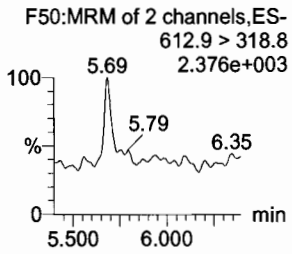

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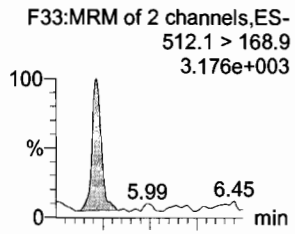

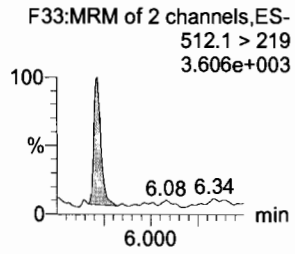

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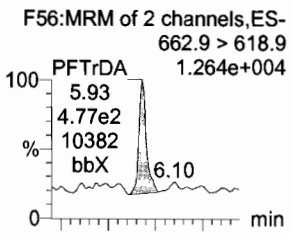

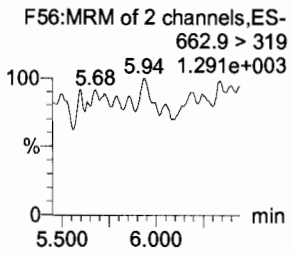

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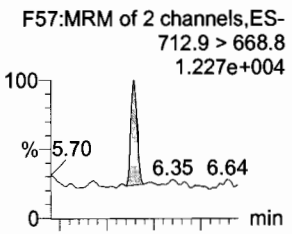

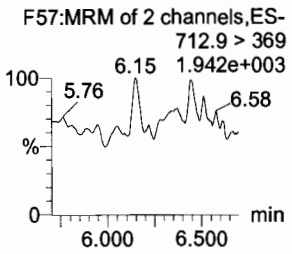

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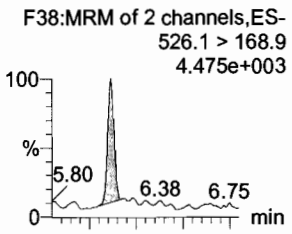

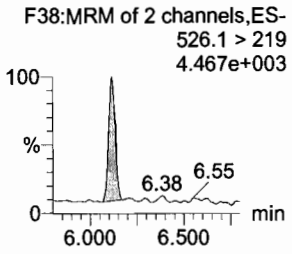

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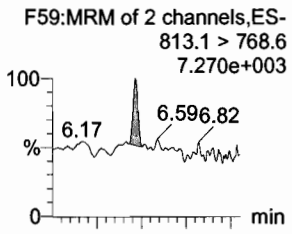

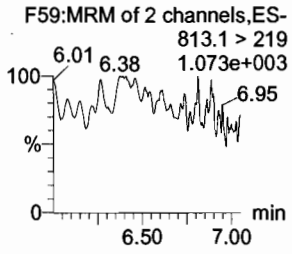

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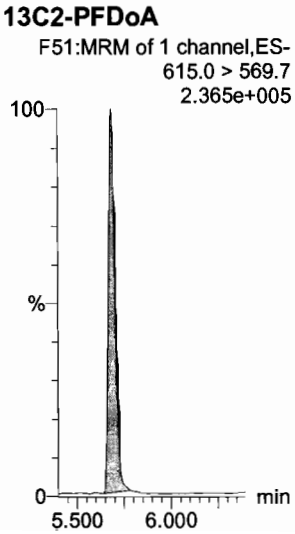
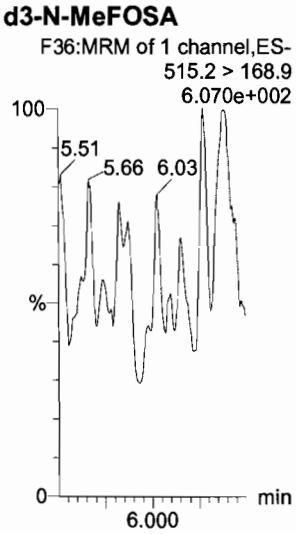


d3-N-MeFOSA



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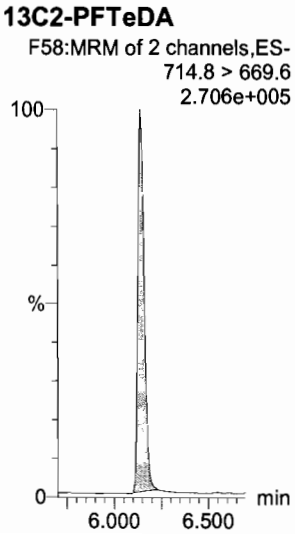

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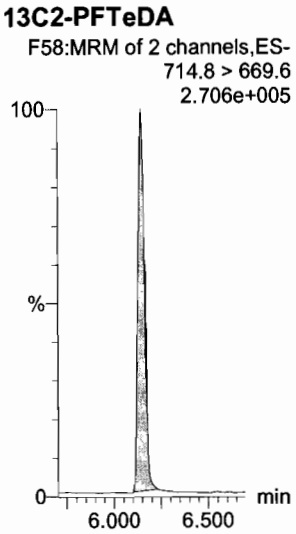

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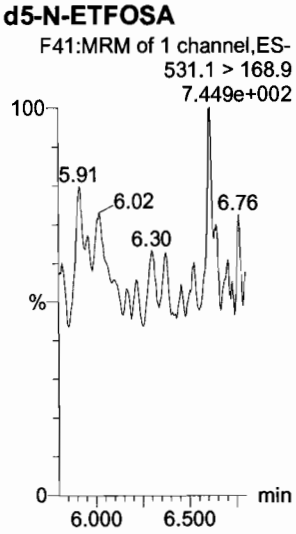

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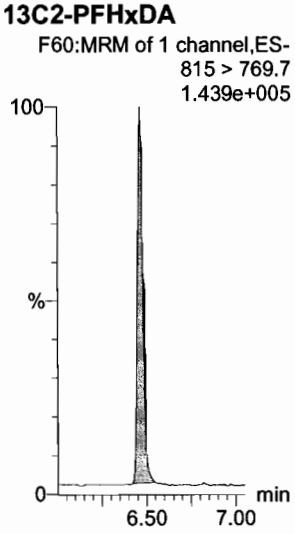

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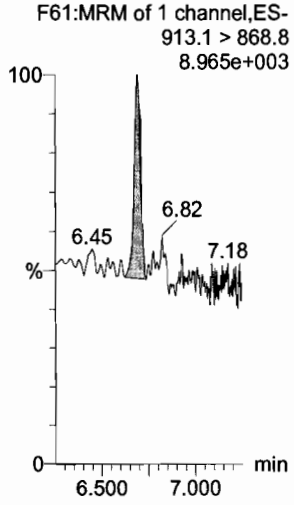
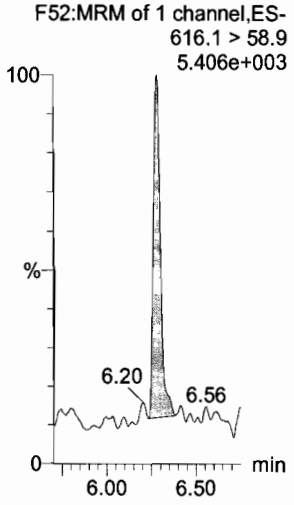
PFODA



N-MeFOSE



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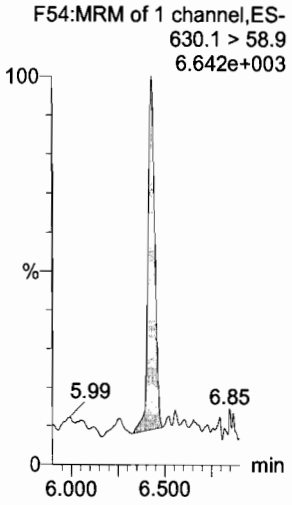

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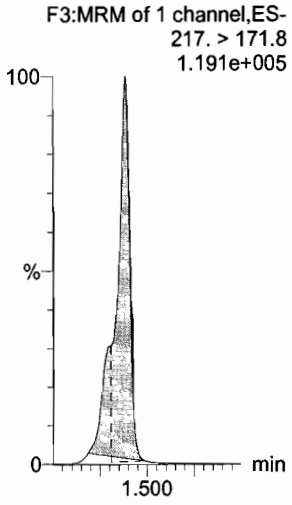

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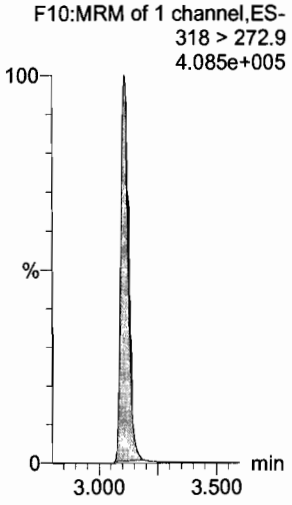

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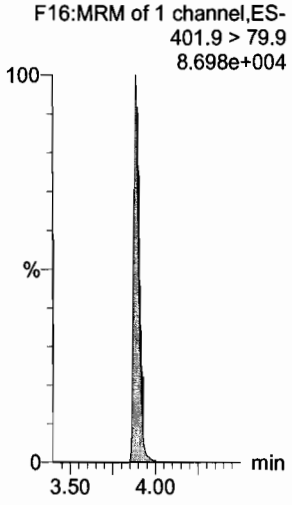

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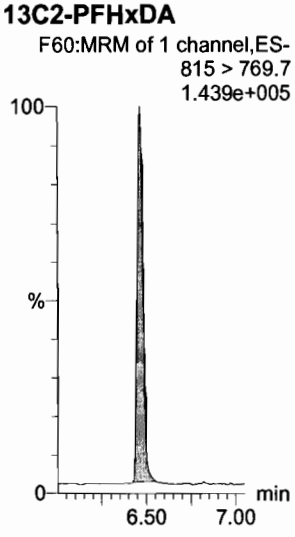
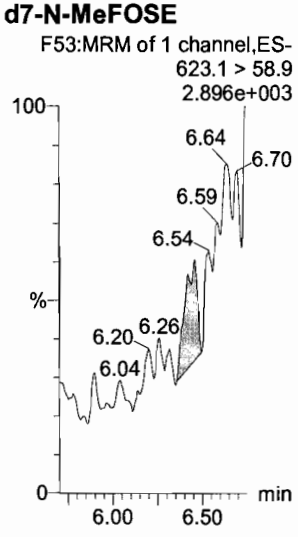
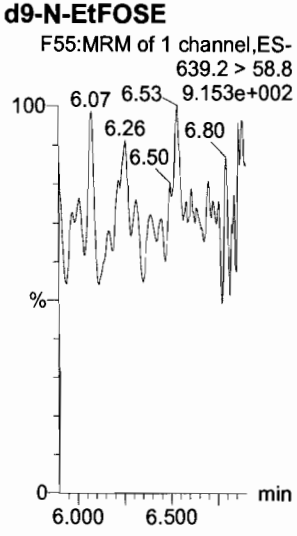


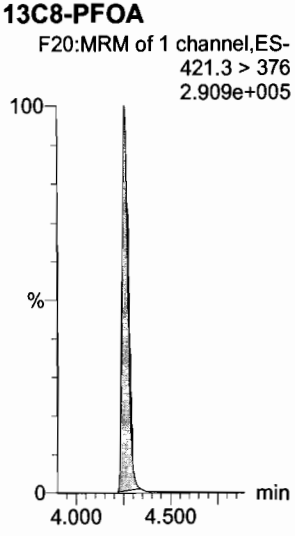
d7-N-MeFOSE



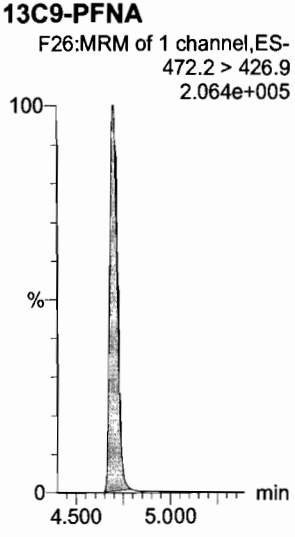
d9-N-EtFOSE



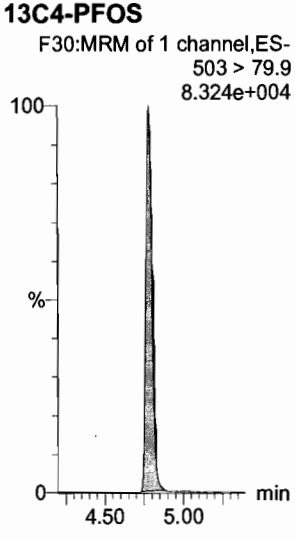
13C8-PFOA



13C9-PFNA



13C4-PFOS



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Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

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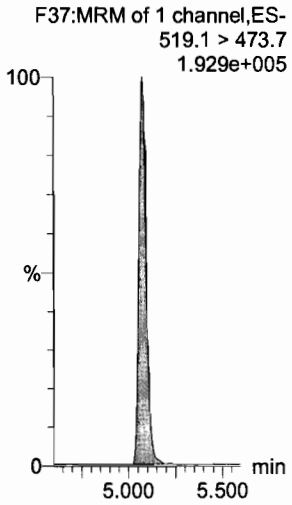
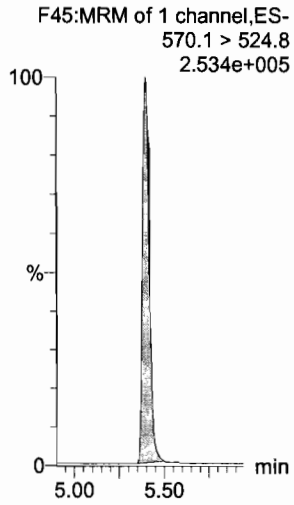
13C6-PFDA



13C7-PFUdA



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Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
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Name: 171214M1_3, Date: 14-Dec-2017, Time: 19:05:27, ID: ST171214M1-2 PFC CS-1 17L1405, Description: PFC CS-1 17L1405

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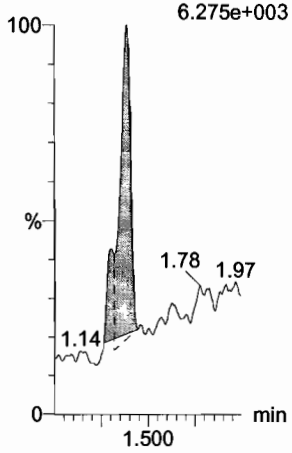

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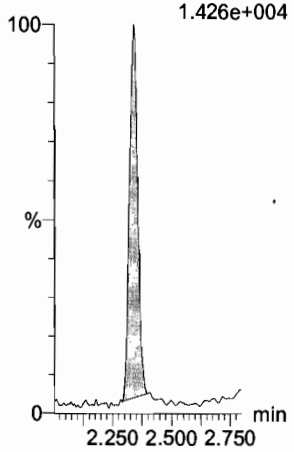

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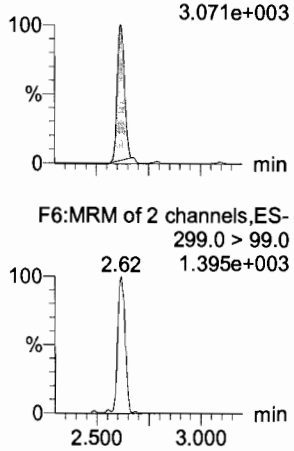

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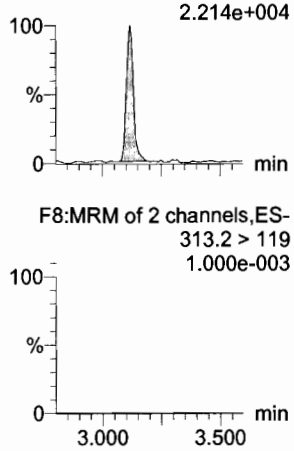

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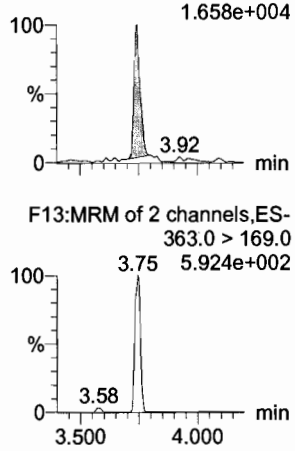

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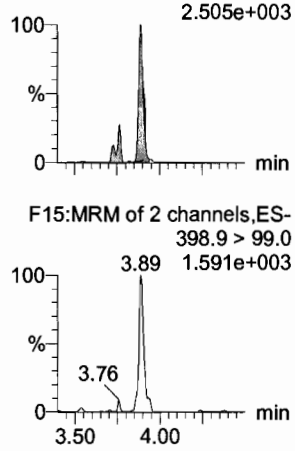

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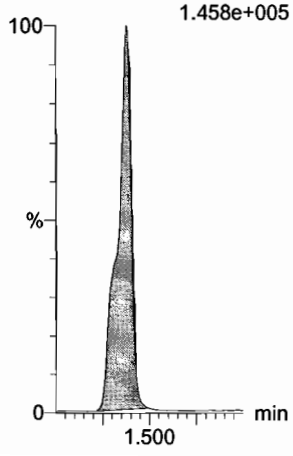

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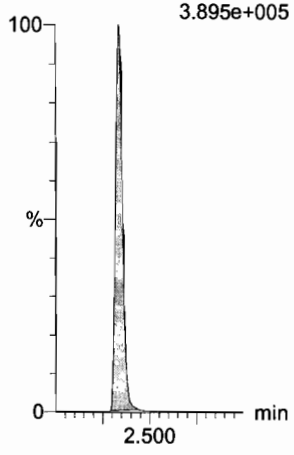

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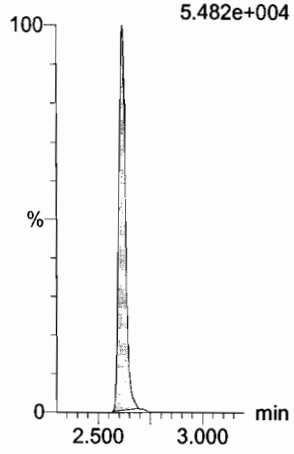

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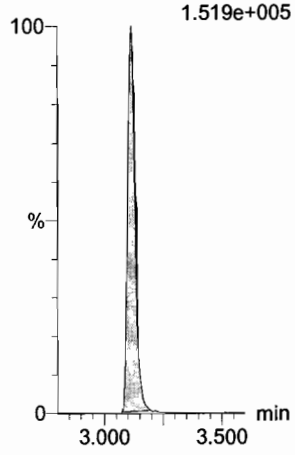

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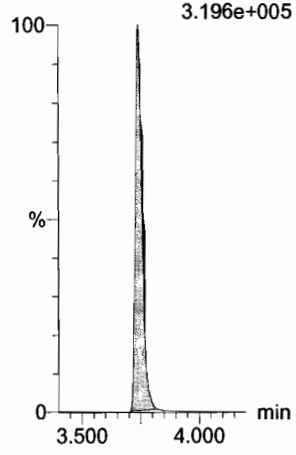

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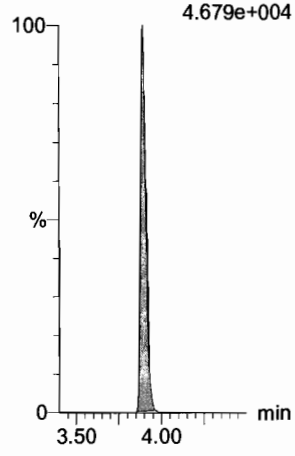

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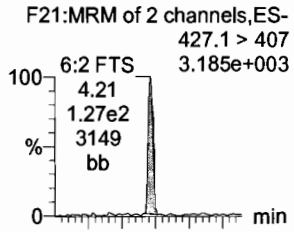
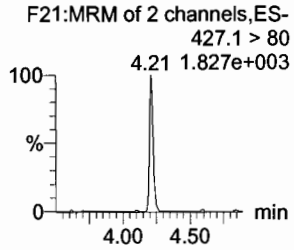
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

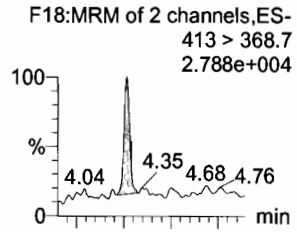
Name: 171214M1_3, Date: 14-Dec-2017, Time: 19:05:27, ID: ST171214M1-2 PFC CS-1 17L1405, Description: PFC CS-1 17L1405

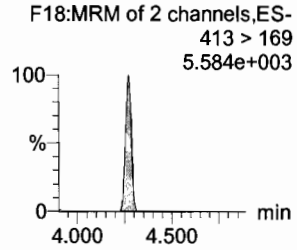
6:2 FTS





L-PFOA





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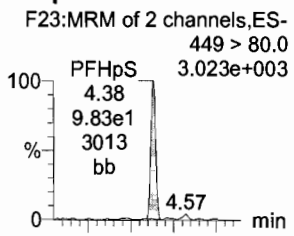

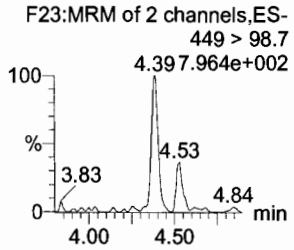

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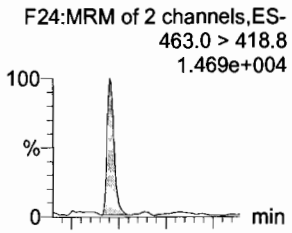

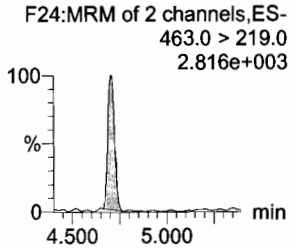

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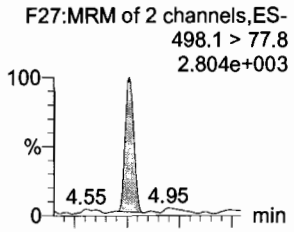
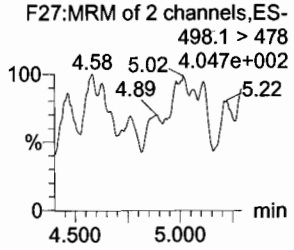
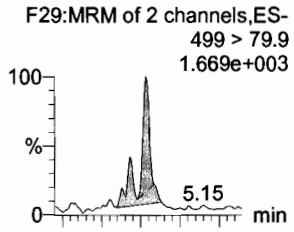
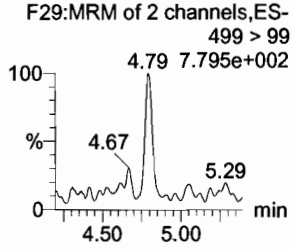


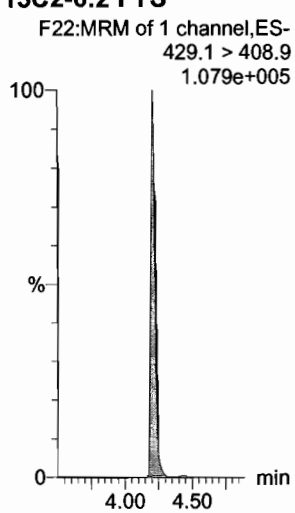


L-PFOS

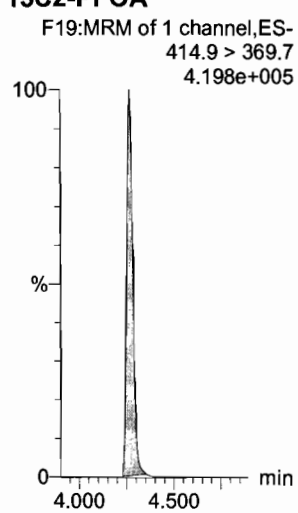




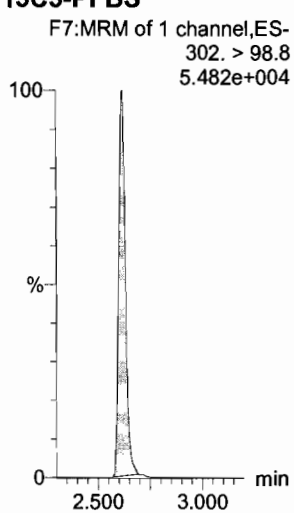
13C2-6:2 FTS



13C2-PFOA



13C3-PFBS



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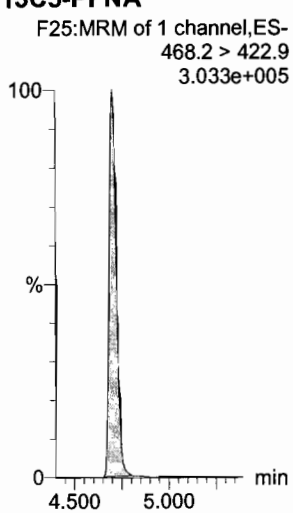

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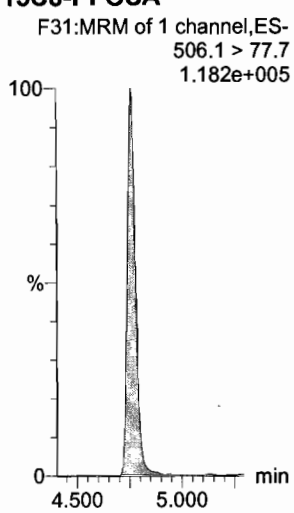

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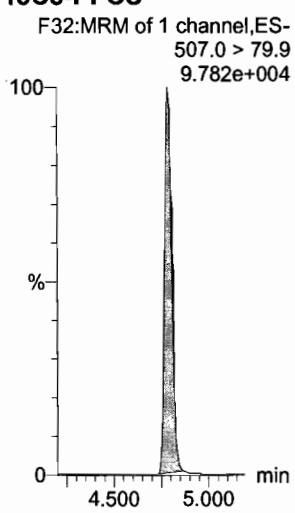

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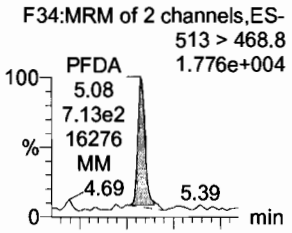
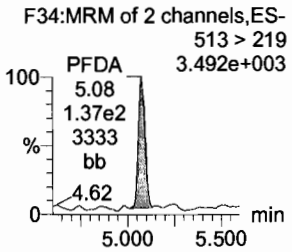
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

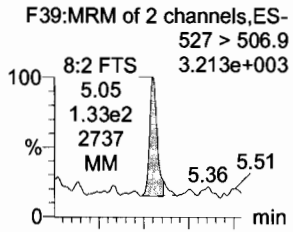
Name: 171214M1_3, Date: 14-Dec-2017, Time: 19:05:27, ID: ST171214M1-2 PFC CS-1 17L1405, Description: PFC CS-1 17L1405

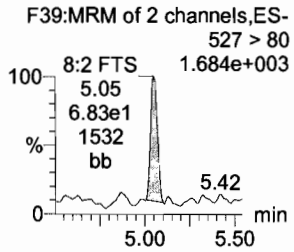
PFDA



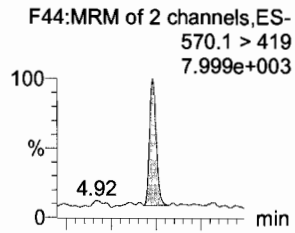


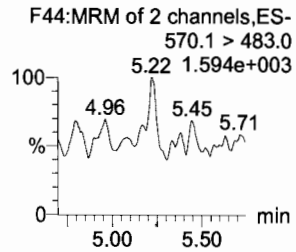
8:2 FTS





N-MeFOSAA





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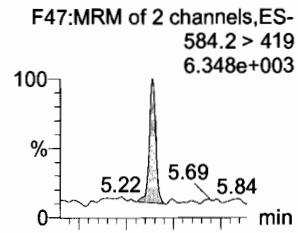
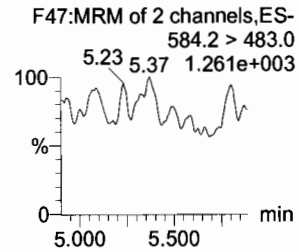
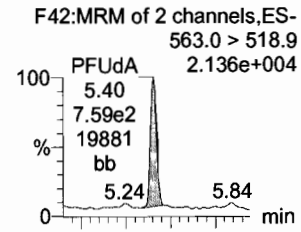
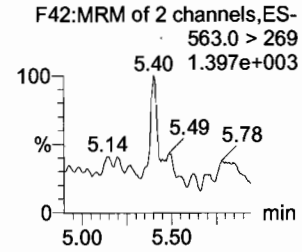




PFUdA





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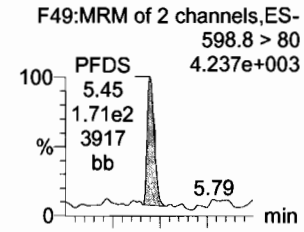

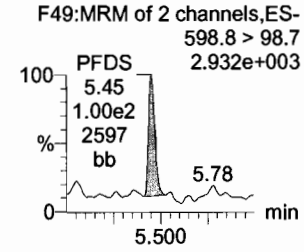

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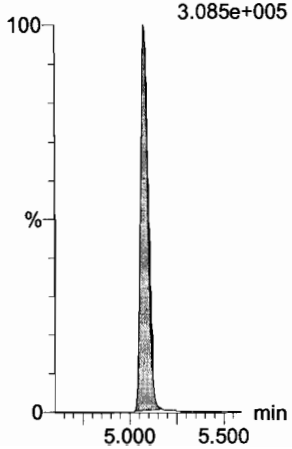
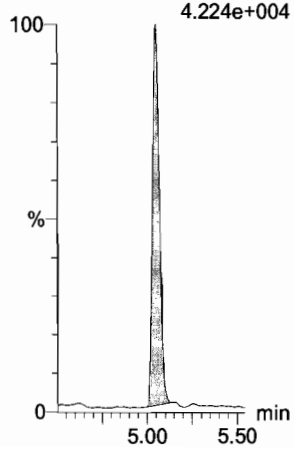


13C2-8:2 FTS



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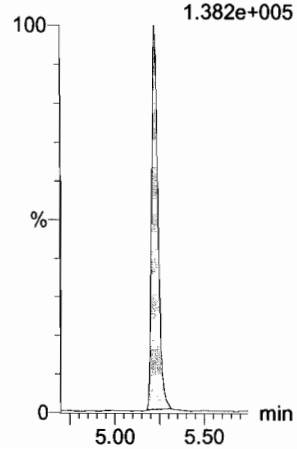

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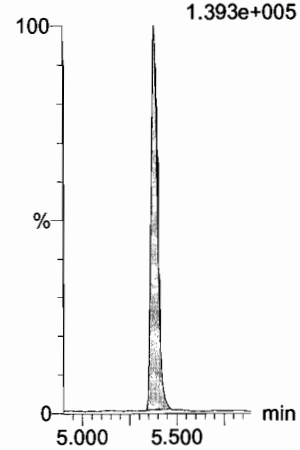
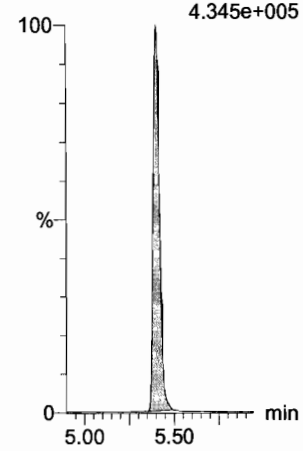


13C2-PFUdA



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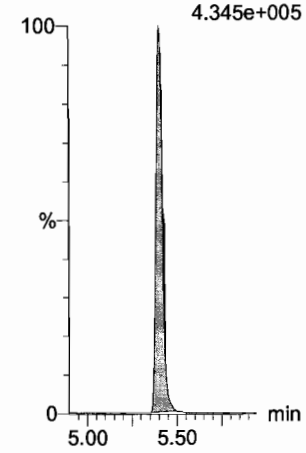

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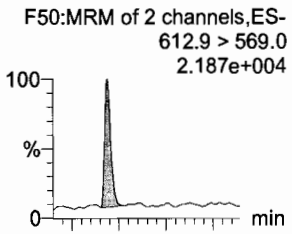
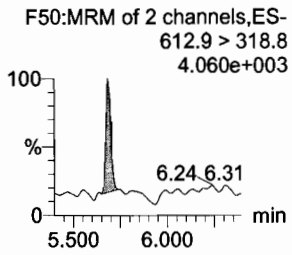
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

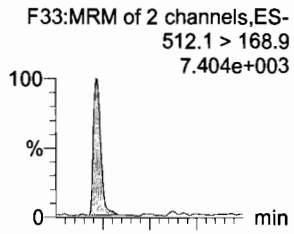
Name: 171214M1_3, Date: 14-Dec-2017, Time: 19:05:27, ID: ST171214M1-2 PFC CS-1 17L1405, Description: PFC CS-1 17L1405

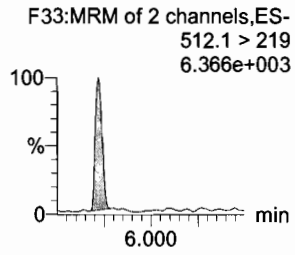
PFDoA



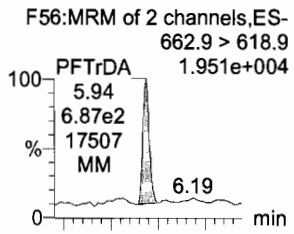


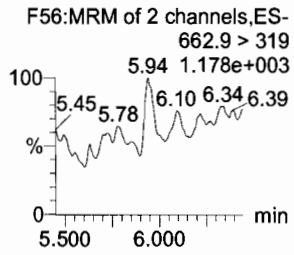
N-MeFOSA



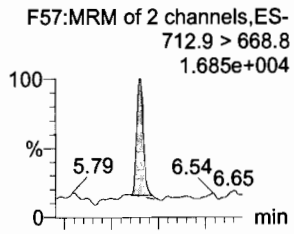


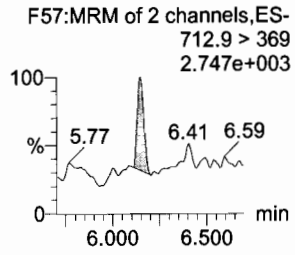
PFTrDA



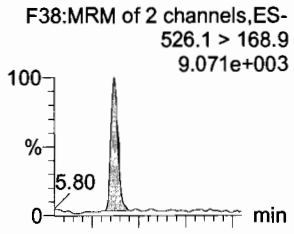


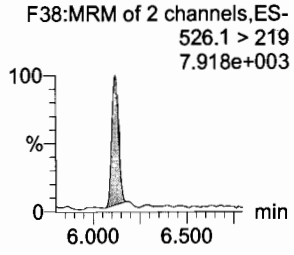
PFTeDA



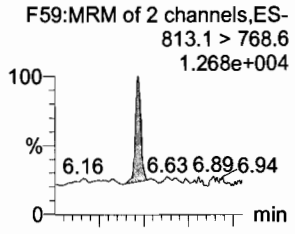


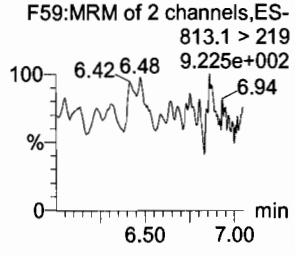
N-EtFOSA



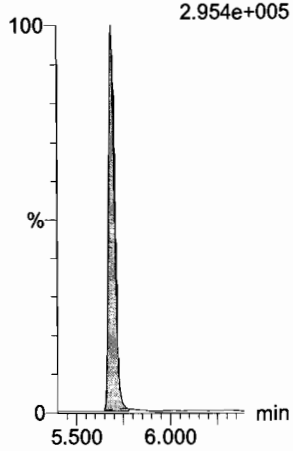


PFHxDA

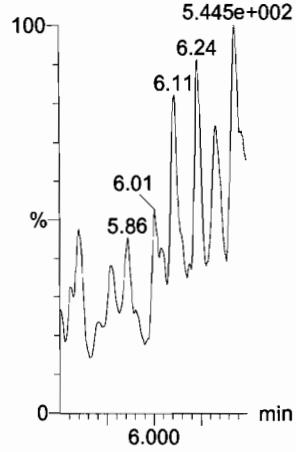




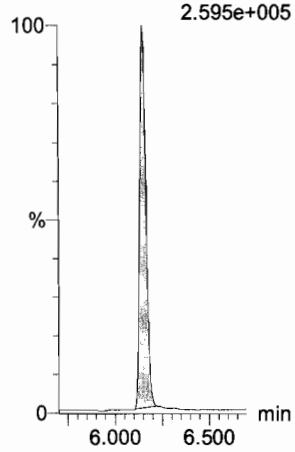
13C2-PFDoA



d3-N-MeFOSA



13C2-PFTeDA



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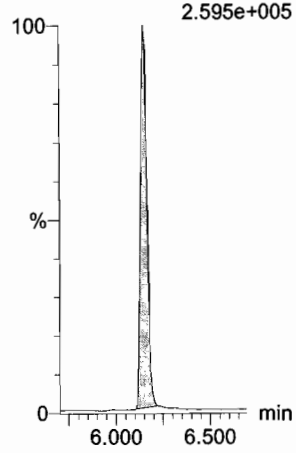
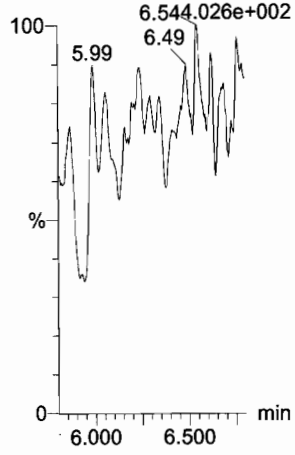
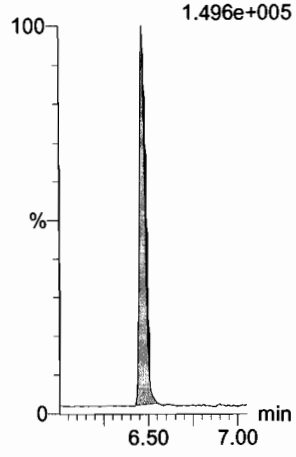


d5-N-ETFOSA



13C2-PFHxDA



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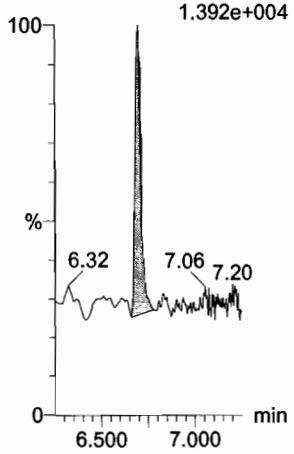
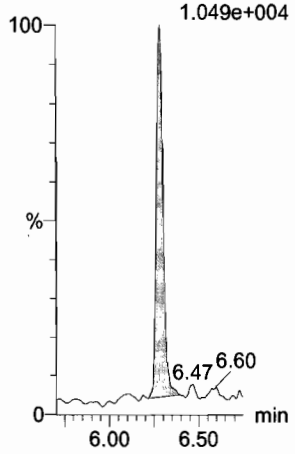
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_3, Date: 14-Dec-2017, Time: 19:05:27, ID: ST171214M1-2 PFC CS-1 17L1405, Description: PFC CS-1 17L1405

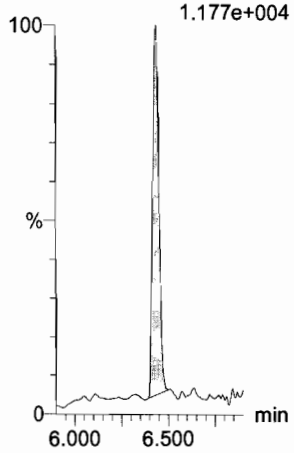
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.392e+004



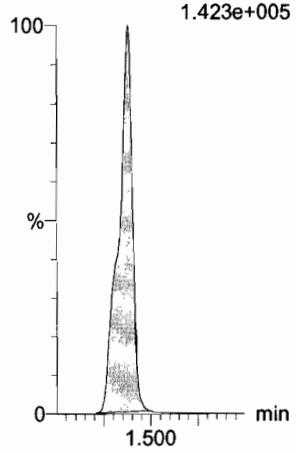
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.049e+004



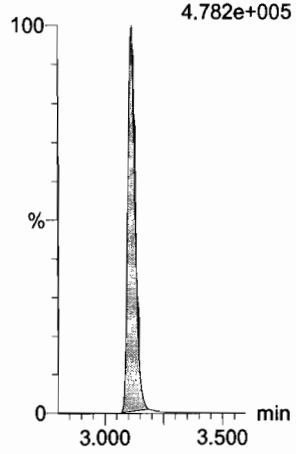
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.177e+004



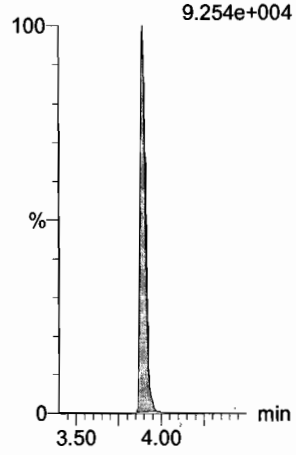
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.423e+005



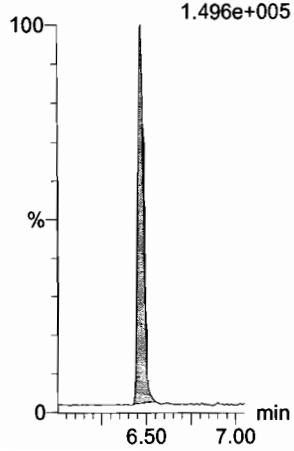
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.782e+005



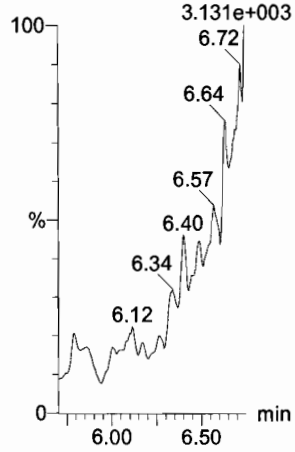
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.254e+004



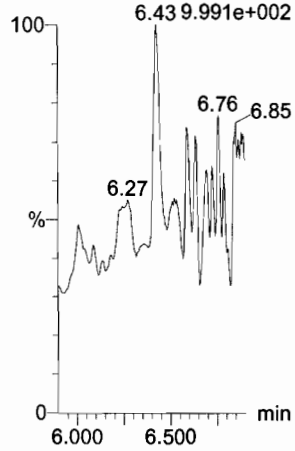
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.496e+005



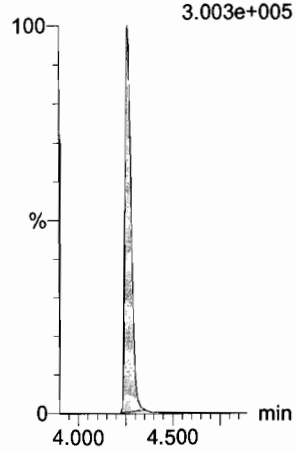
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
3.131e+003



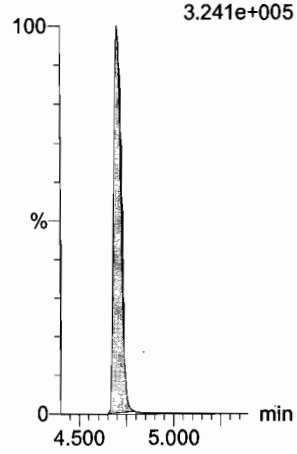
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.43 9.991e+002



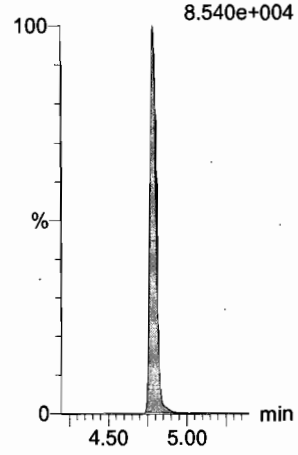
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.003e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.241e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.540e+004



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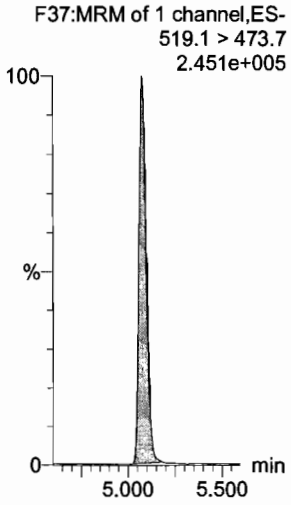
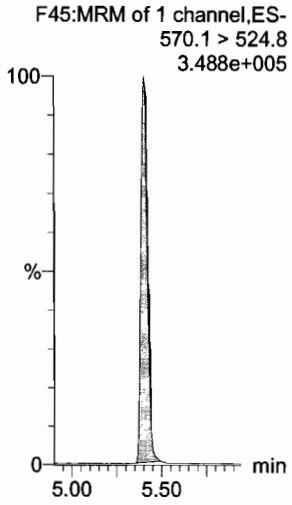
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_3, Date: 14-Dec-2017, Time: 19:05:27, ID: ST171214M1-2 PFC CS-1 17L1405, Description: PFC CS-1 17L1405

13C6-PFDA



13C7-PFUdA



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Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

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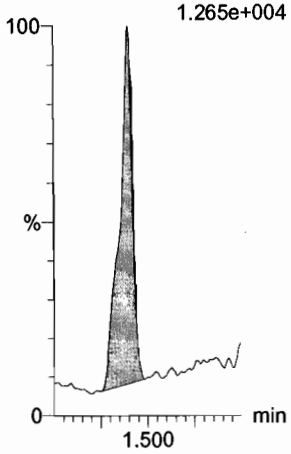
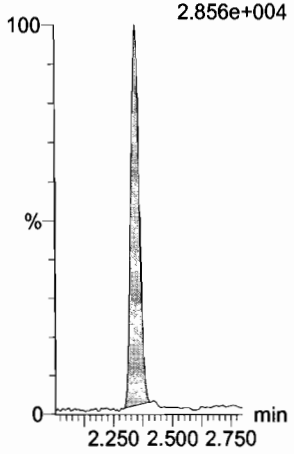
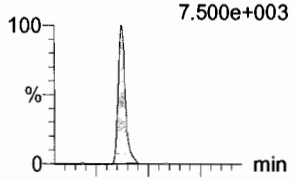
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.265e+004



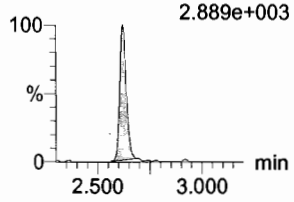
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
2.856e+004



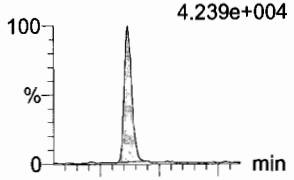
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
7.500e+003



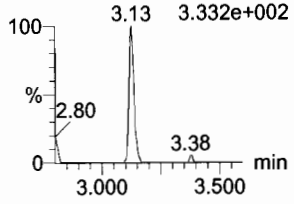
F6:MRM of 2 channels,ES-
299.0 > 99.0
2.889e+003



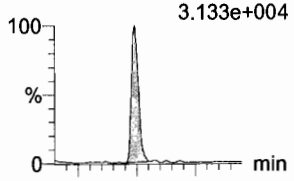
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
4.239e+004



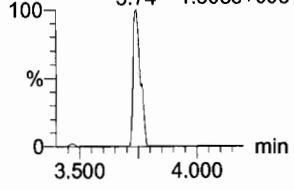
F8:MRM of 2 channels,ES-
313.2 > 119
3.332e+002



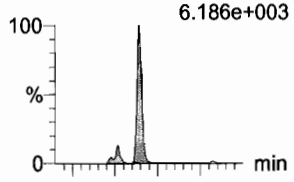
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
3.133e+004



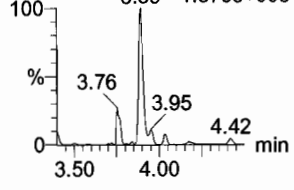
F13:MRM of 2 channels,ES-
363.0 > 169.0
1.308e+003



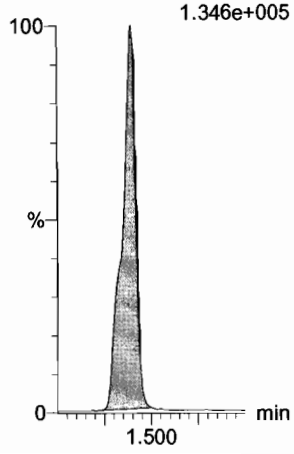
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
6.186e+003



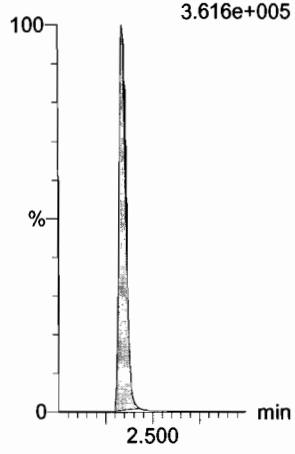
F15:MRM of 2 channels,ES-
398.9 > 99.0
1.875e+003



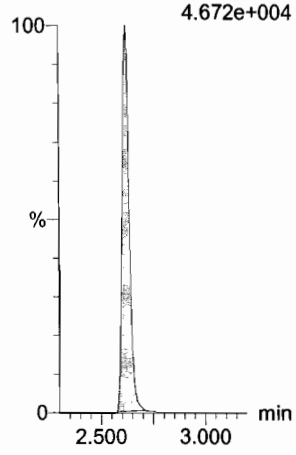
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.346e+005



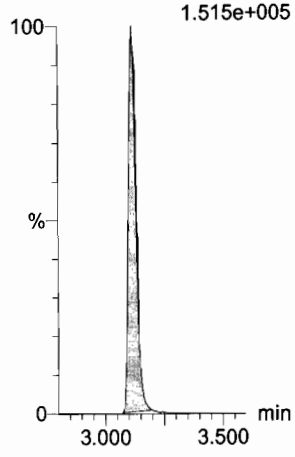
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.616e+005



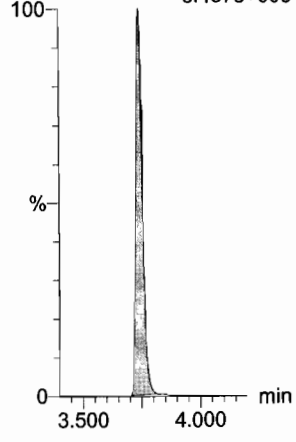
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
4.672e+004



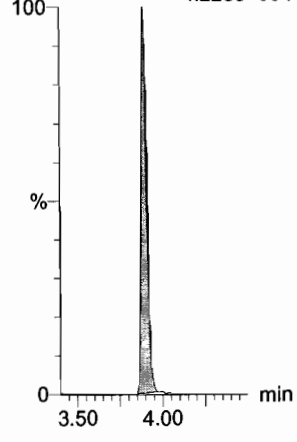
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.515e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
3.487e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
4.228e+004



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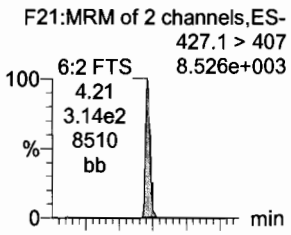
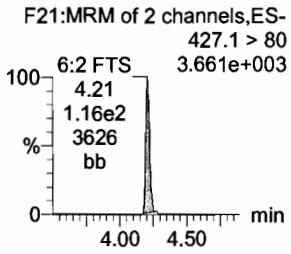
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

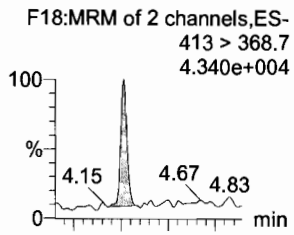
Name: 171214M1_4, Date: 14-Dec-2017, Time: 19:16:41, ID: ST171214M1-3 PFC CS0 17L1406, Description: PFC CS0 17L1406

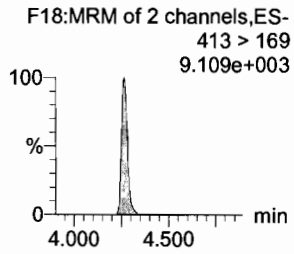
6:2 FTS



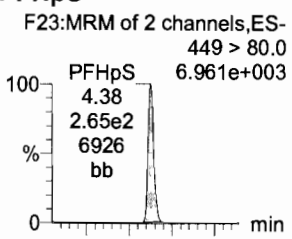


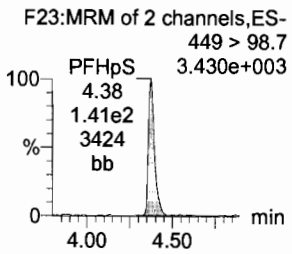
L-PFOA





PFHpS





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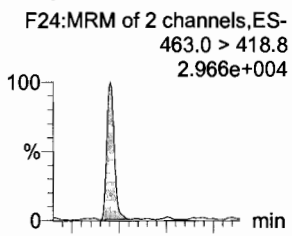

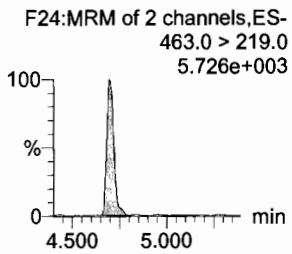

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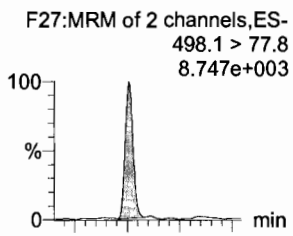

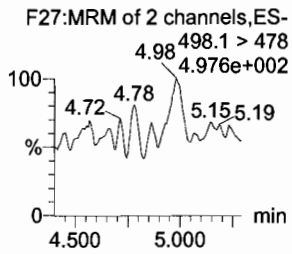

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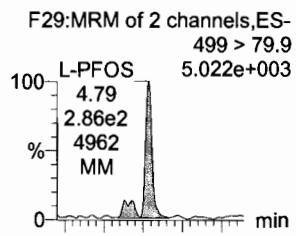
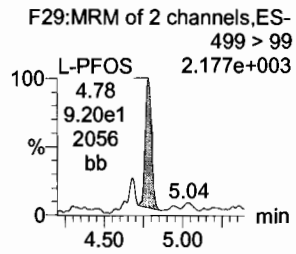
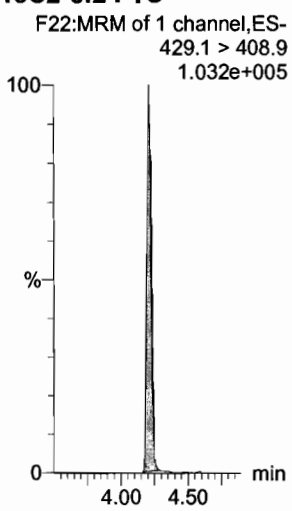
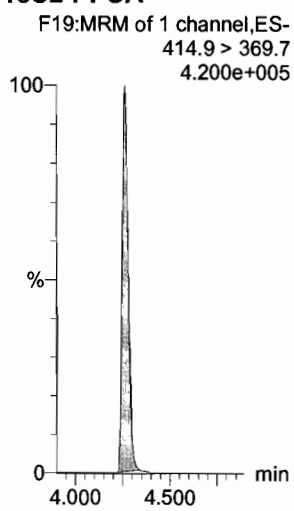




13C2-6:2 FTS



13C2-PFOA



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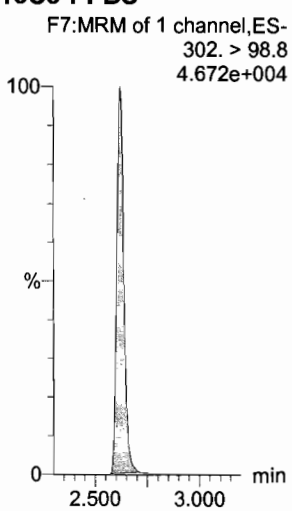

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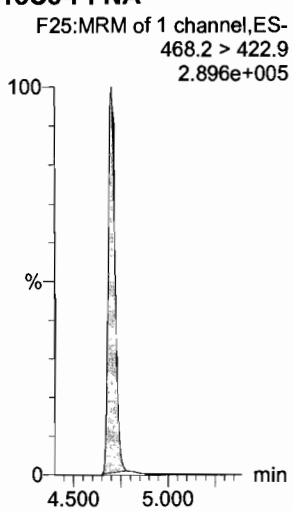

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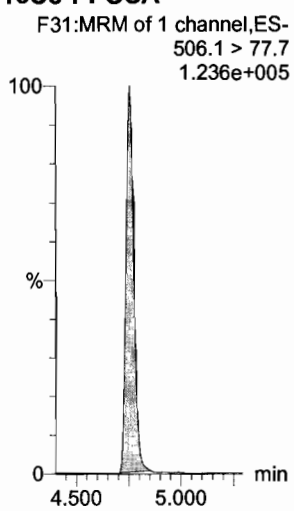

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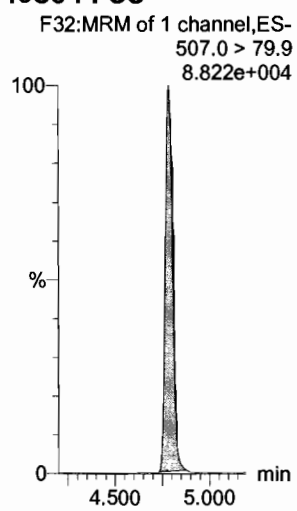

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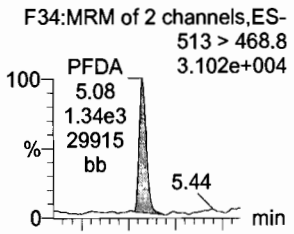
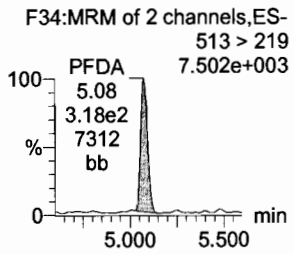
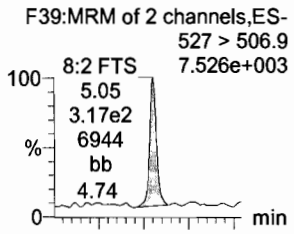
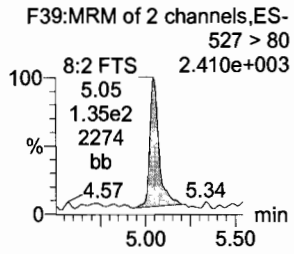




8:2 FTS





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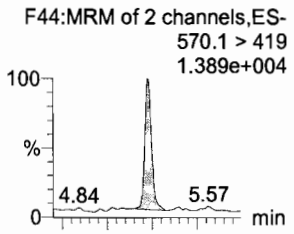

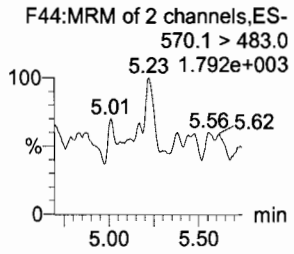

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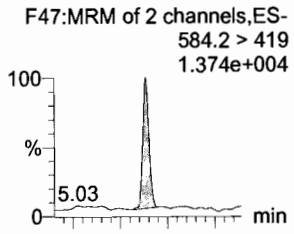

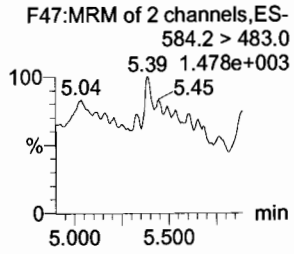

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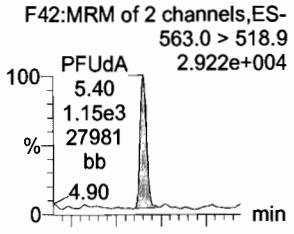

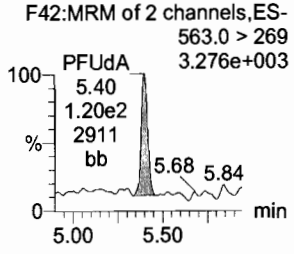

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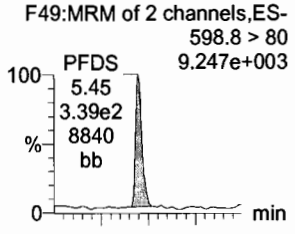

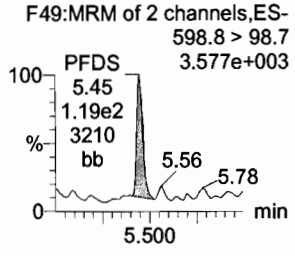

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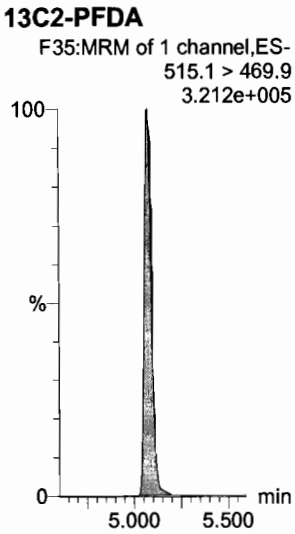
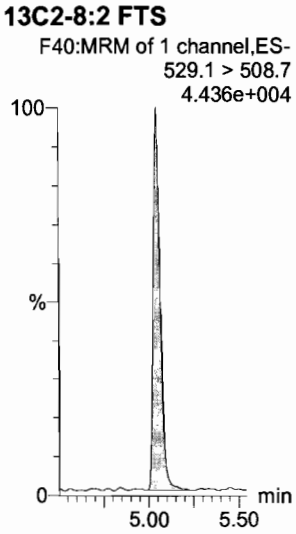


13C2-8:2 FTS



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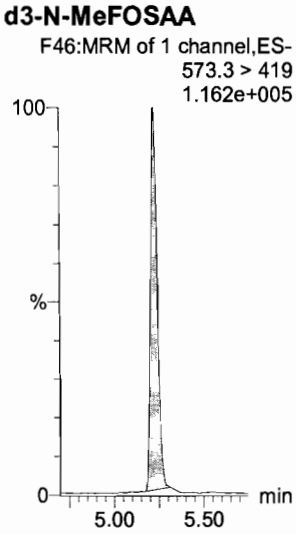
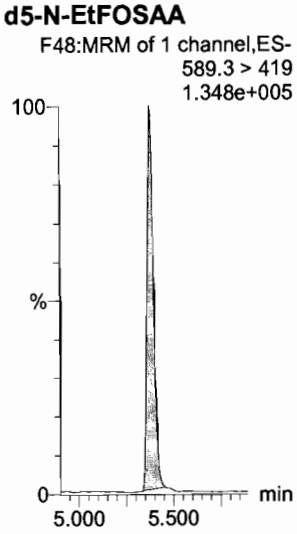


d5-N-EtFOSAA



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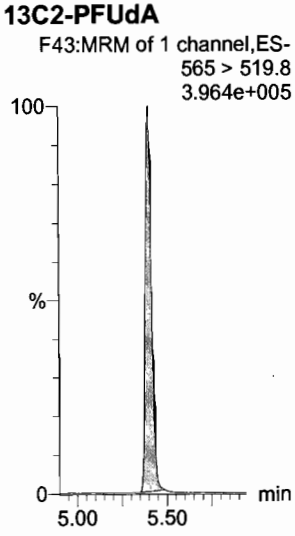

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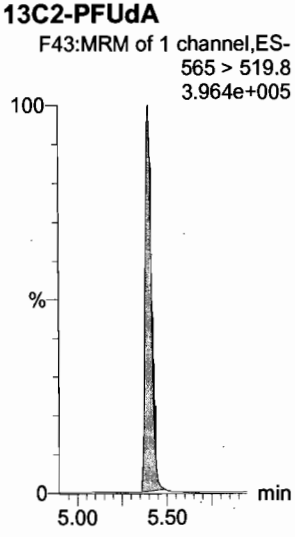

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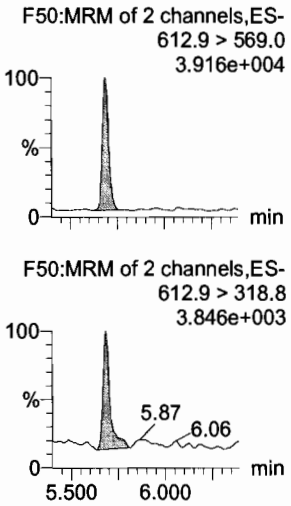

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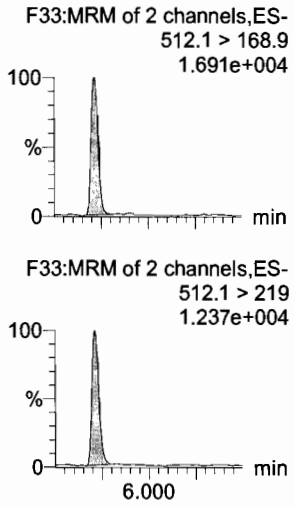

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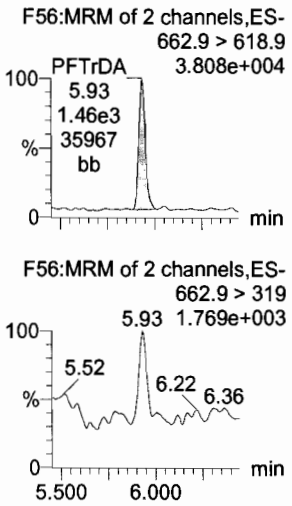

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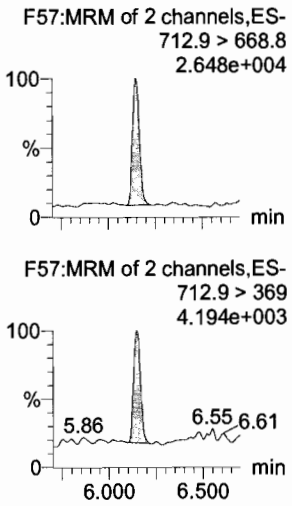

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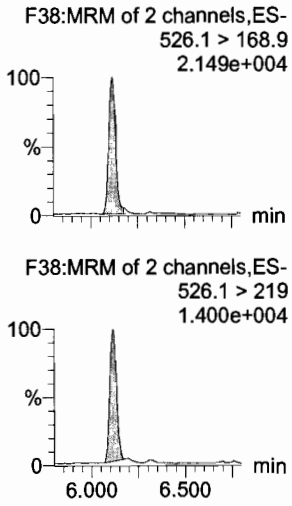
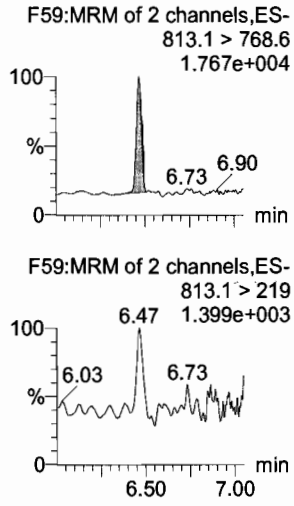


PFHxDA



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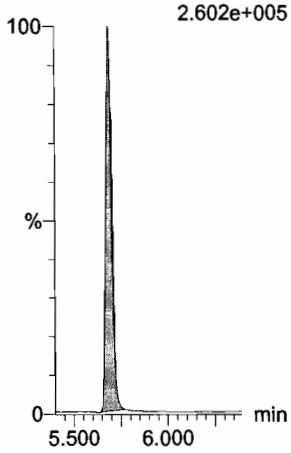
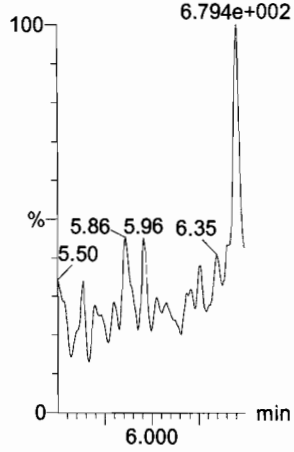


d3-N-MeFOSA



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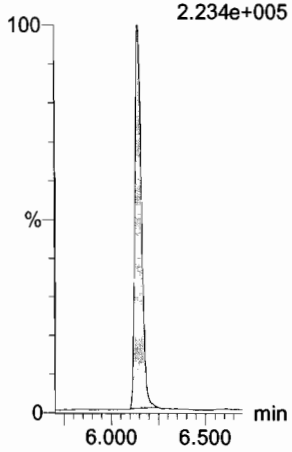

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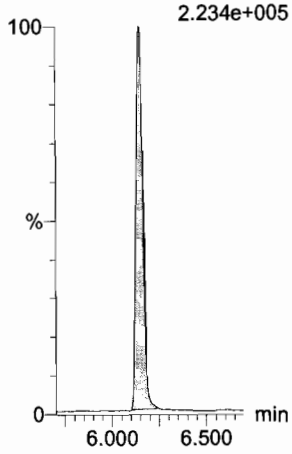

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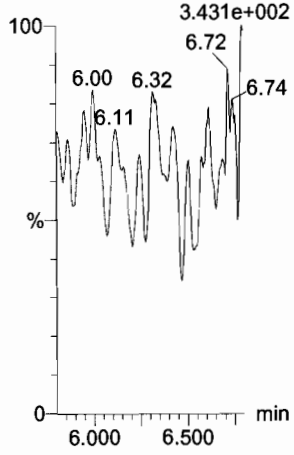

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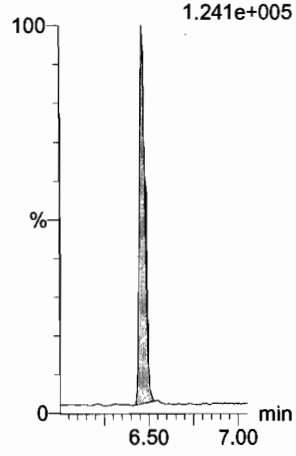

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PFODA
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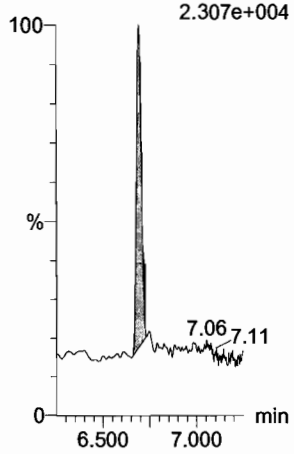
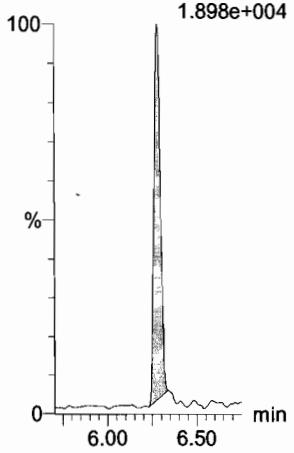
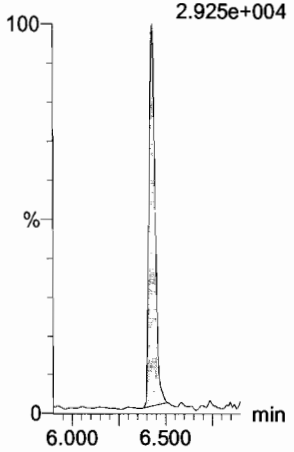
913.1 > 868.8
2.307e+004



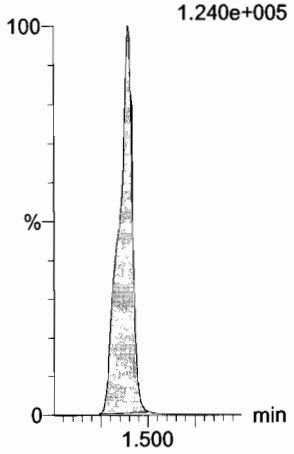
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.898e+004



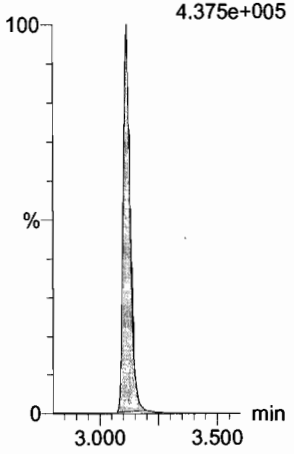
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.925e+004



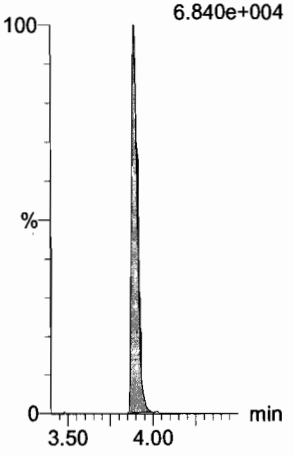
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.240e+005



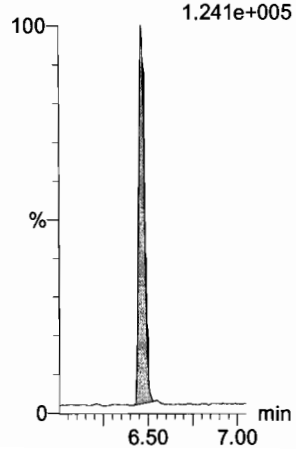
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.375e+005



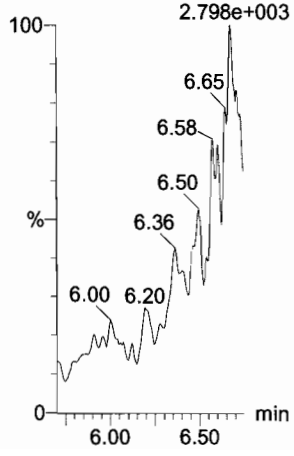
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
6.840e+004



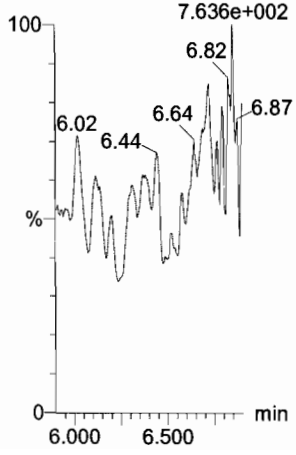
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.241e+005



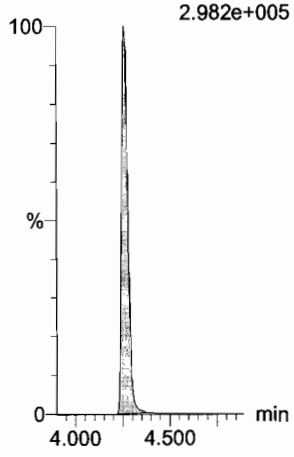
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
2.798e+003



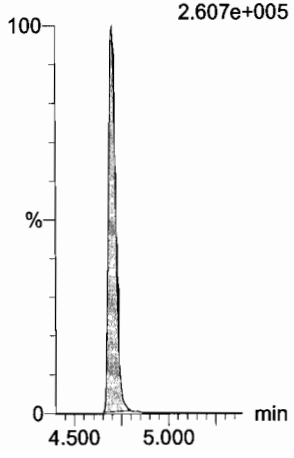
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.636e+002



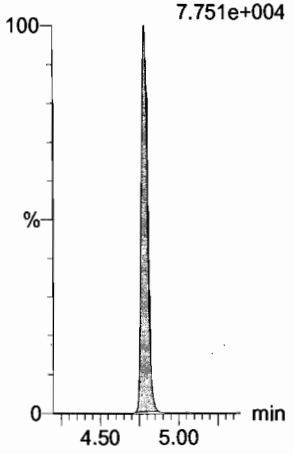
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
2.982e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.607e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.751e+004

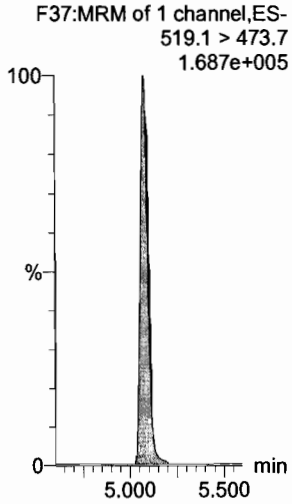


Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

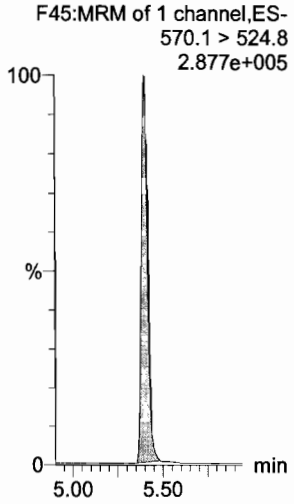
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_4, Date: 14-Dec-2017, Time: 19:16:41, ID: ST171214M1-3 PFC CS0 17L1406, Description: PFC CS0 17L1406

13C6-PFDA



13C7-PFUdA



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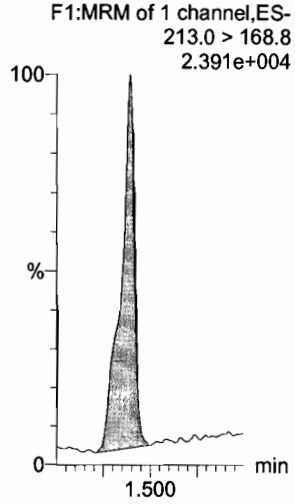
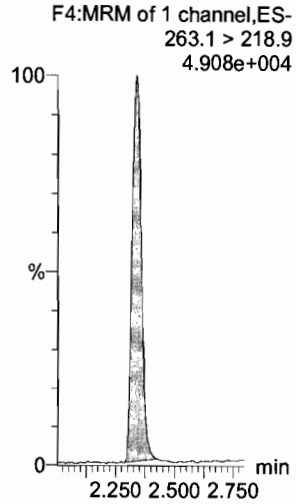
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_5, Date: 14-Dec-2017, Time: 19:27:58, ID: ST171214M1-4 PFC CS1 17L1407, Description: PFC CS1 17L1407

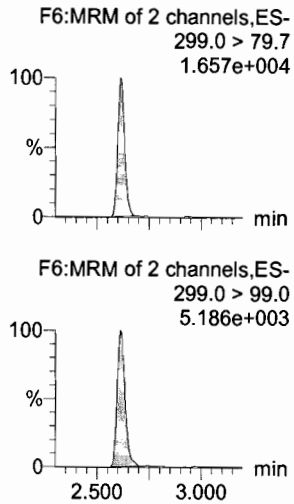
PFBA



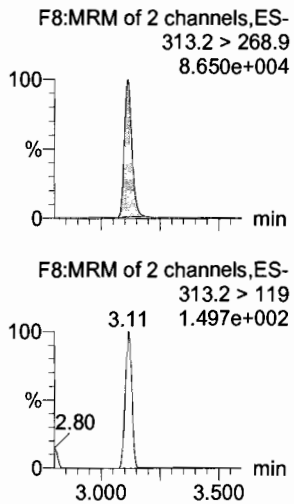
PFPeA



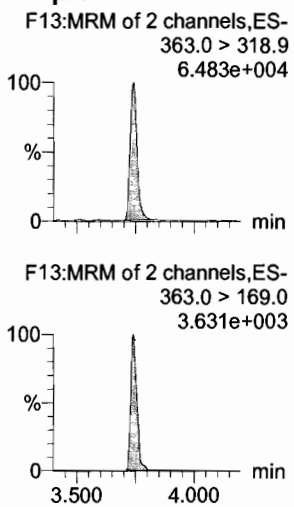
PFBS



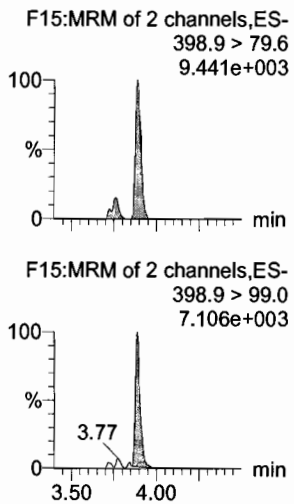
PFHxA



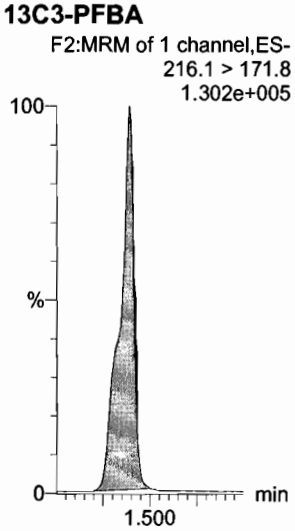
PFHpA



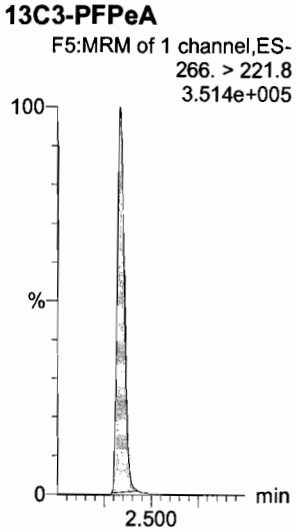
L-PFHxS



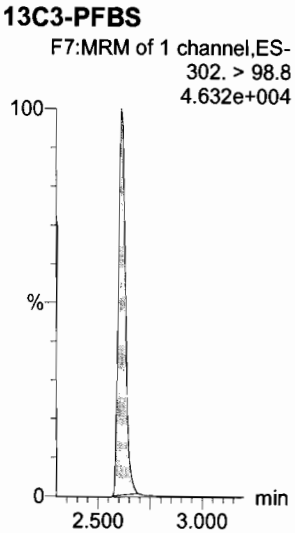
13C3-PFBA



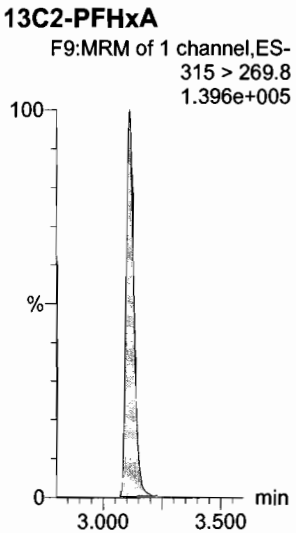
13C3-PFPeA



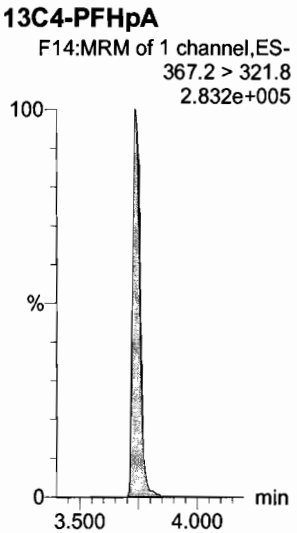
13C3-PFBS



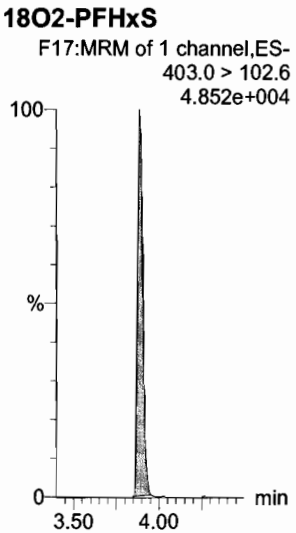
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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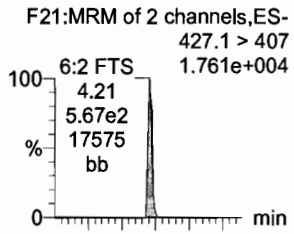
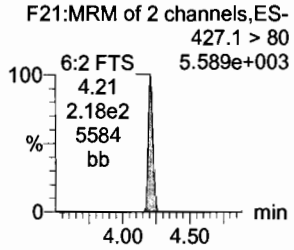
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

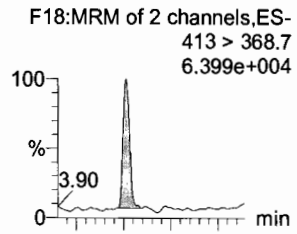
Name: 171214M1_5, Date: 14-Dec-2017, Time: 19:27:58, ID: ST171214M1-4 PFC CS1 17L1407, Description: PFC CS1 17L1407

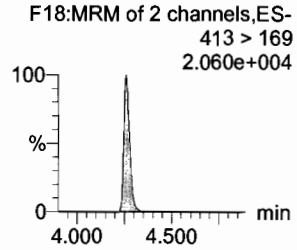
6:2 FTS



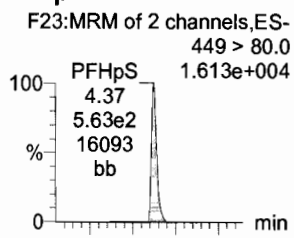


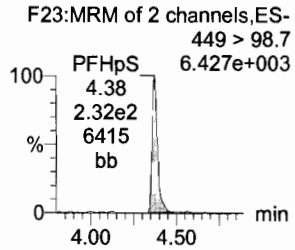
L-PFOA



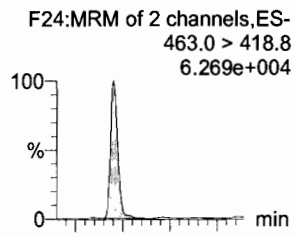


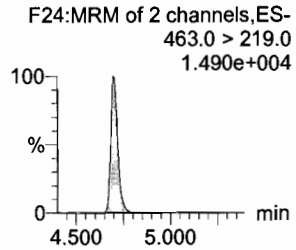
PFHpS



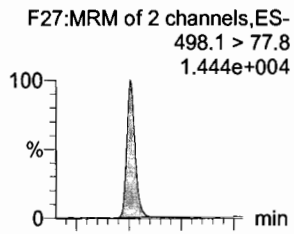


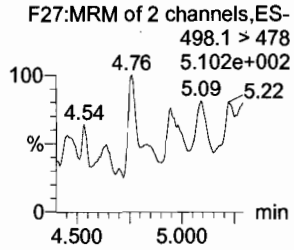
PFNA



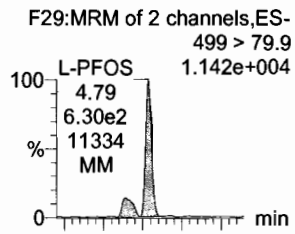


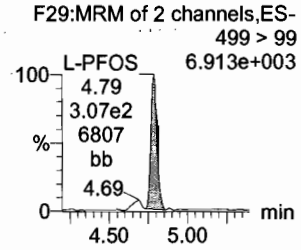
PFOSA



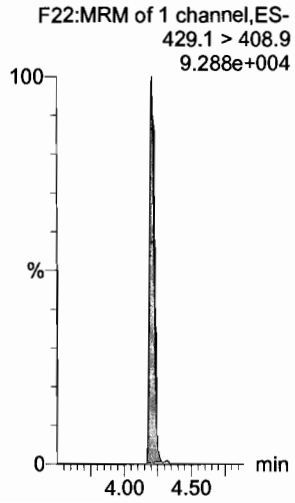


L-PFOS

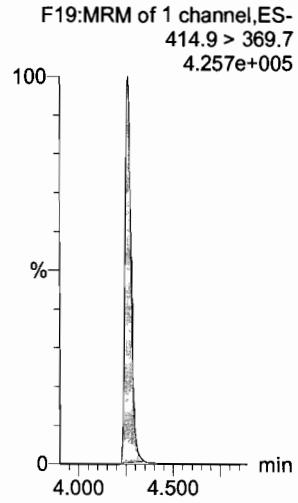




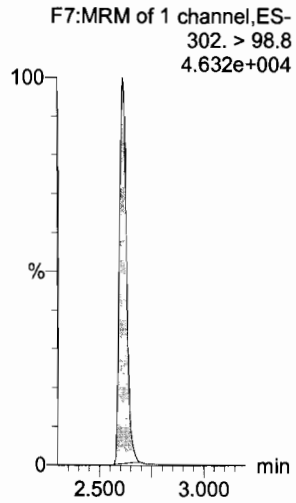
13C2-6:2 FTS



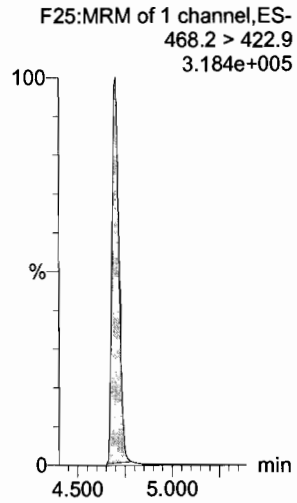
13C2-PFOA



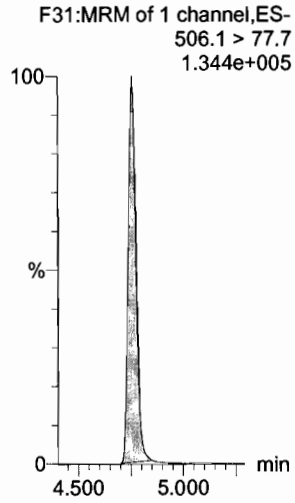
13C3-PFBS



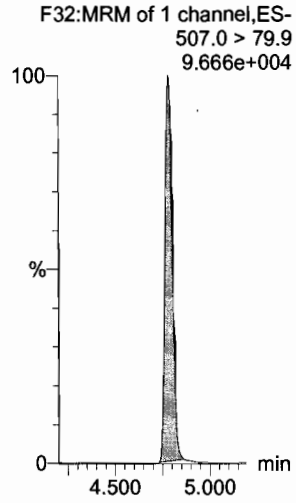
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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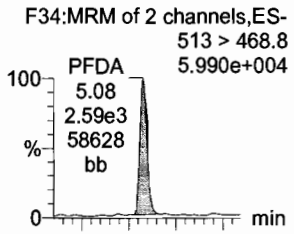
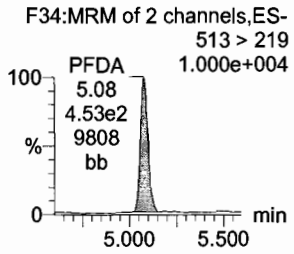
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

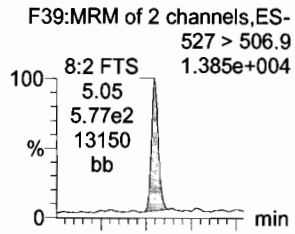
Name: 171214M1_5, Date: 14-Dec-2017, Time: 19:27:58, ID: ST171214M1-4 PFC CS1 17L1407, Description: PFC CS1 17L1407

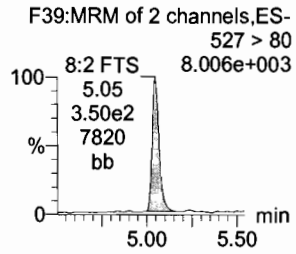
PFDA



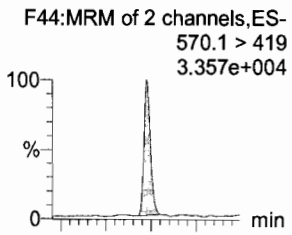


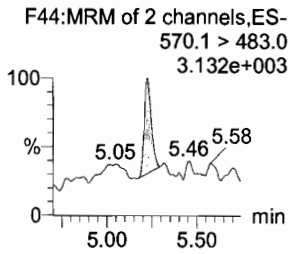
8:2 FTS



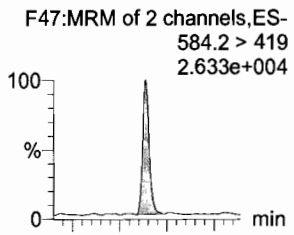


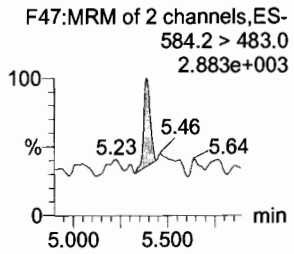
N-MeFOSAA



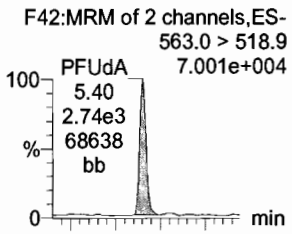


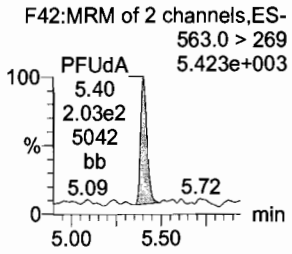
N-EtFOSAA



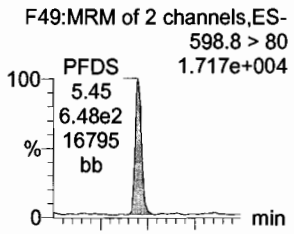


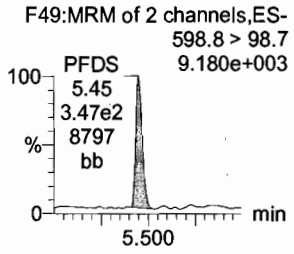
PFUdA



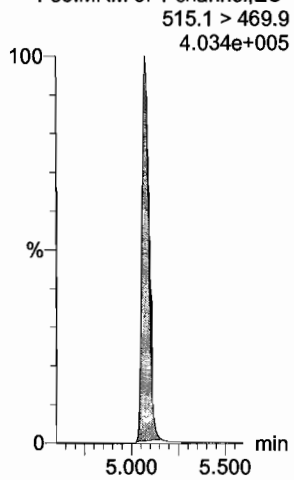


PFDS

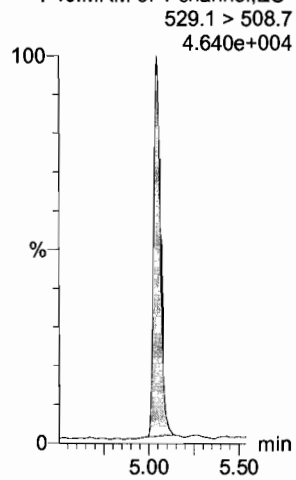




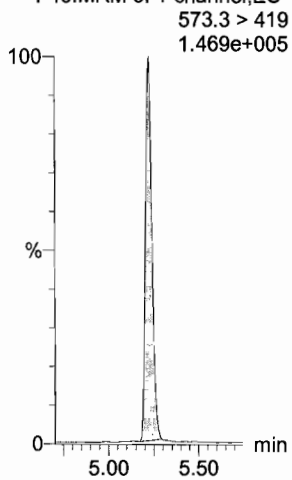
13C2-PFDA



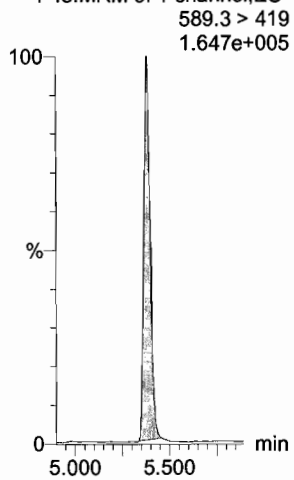
13C2-8:2 FTS



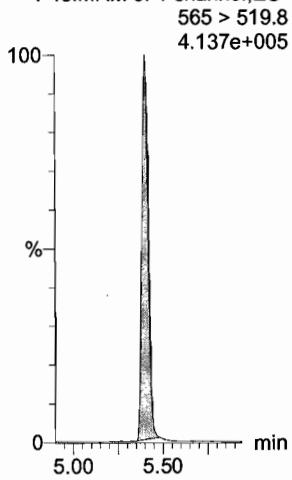
d3-N-MeFOSAA



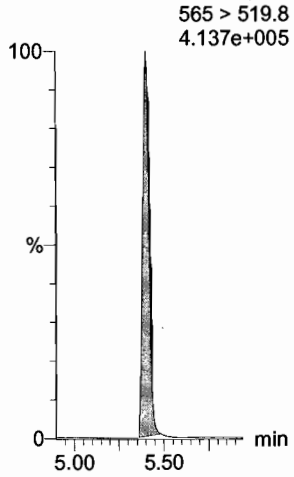
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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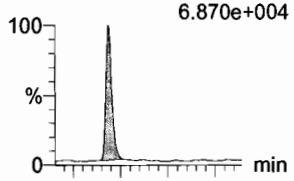
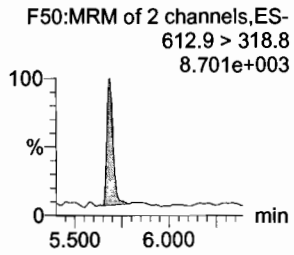
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

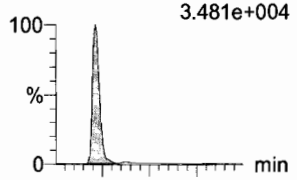
Name: 171214M1_5, Date: 14-Dec-2017, Time: 19:27:58, ID: ST171214M1-4 PFC CS1 17L1407, Description: PFC CS1 17L1407

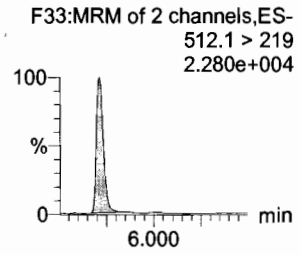
PFDoA



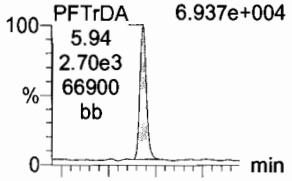


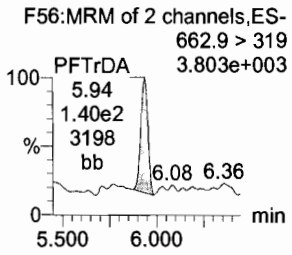
N-MeFOSA



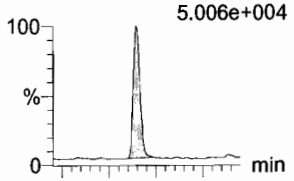


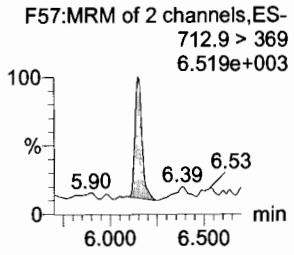
PFTrDA



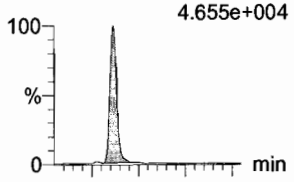


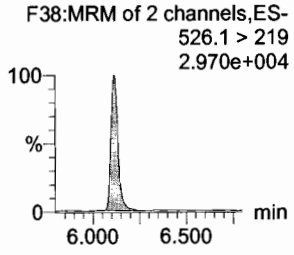
PFTeDA



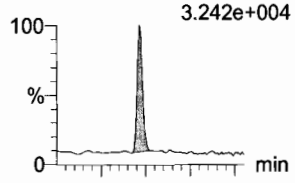


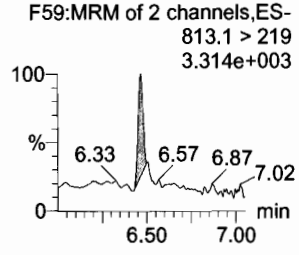
N-EtFOSA



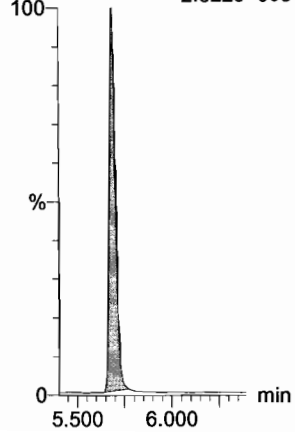


PFHxDA

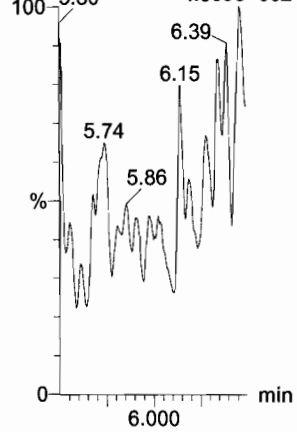




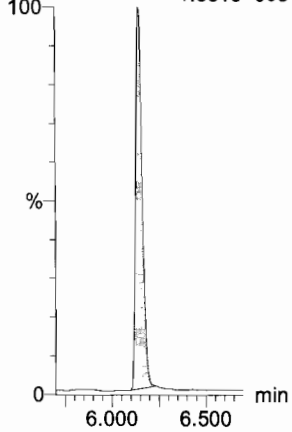
13C2-PFDoA



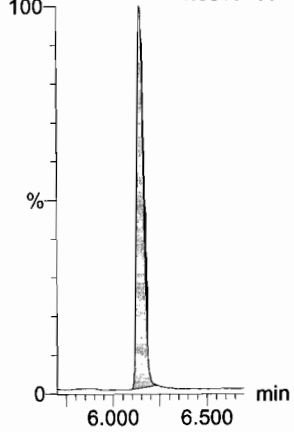
d3-N-MeFOSA



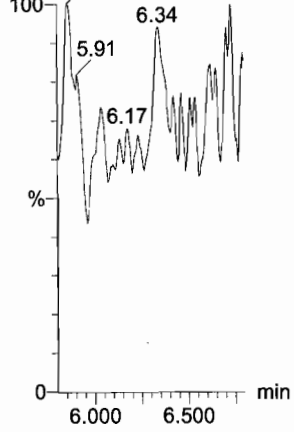
13C2-PFTeDA



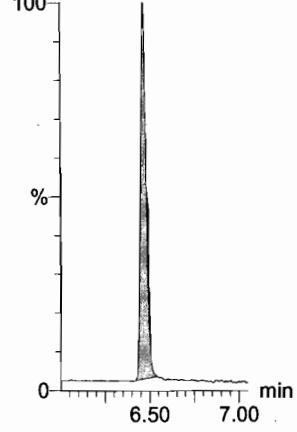
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



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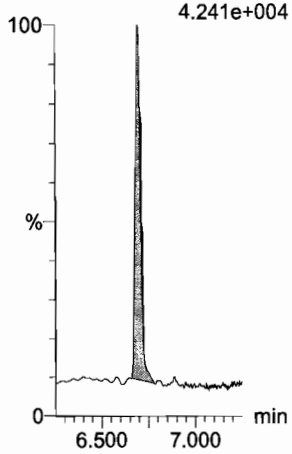
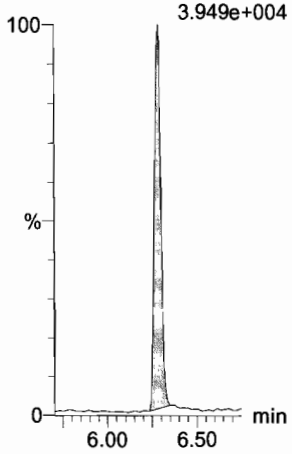
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_5, Date: 14-Dec-2017, Time: 19:27:58, ID: ST171214M1-4 PFC CS1 17L1407, Description: PFC CS1 17L1407

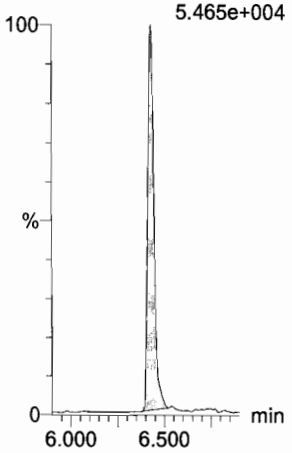
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
4.241e+004



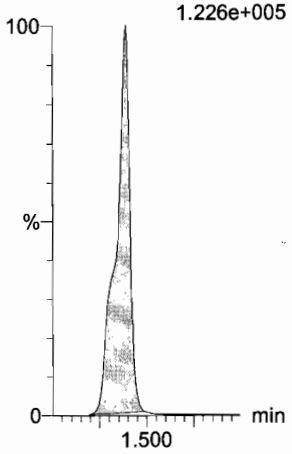
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.949e+004



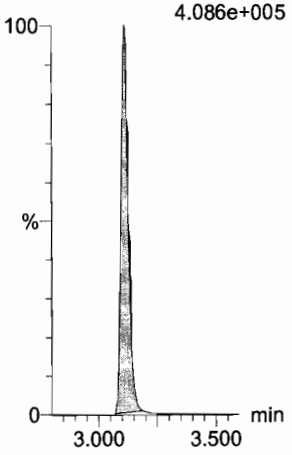
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
5.465e+004



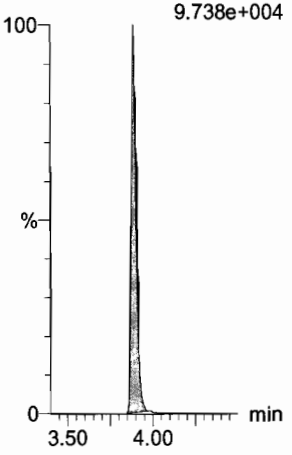
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.226e+005



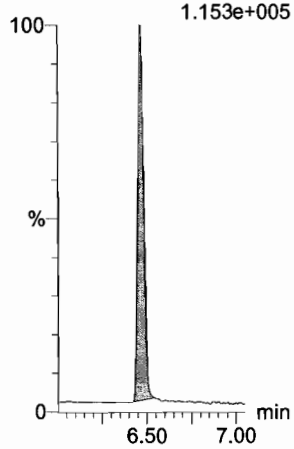
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.086e+005



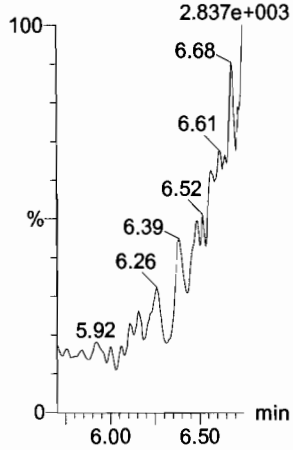
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.738e+004



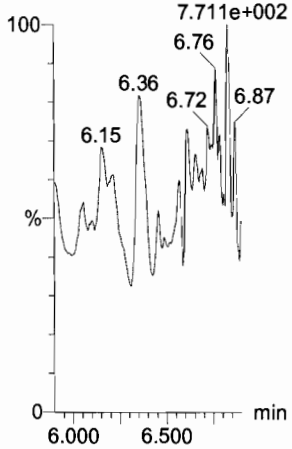
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.153e+005



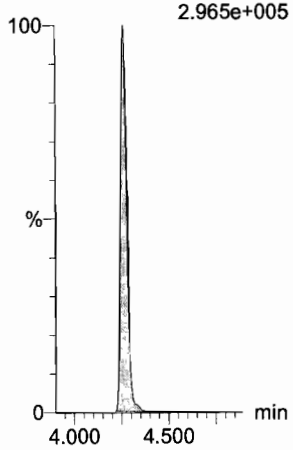
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
2.837e+003



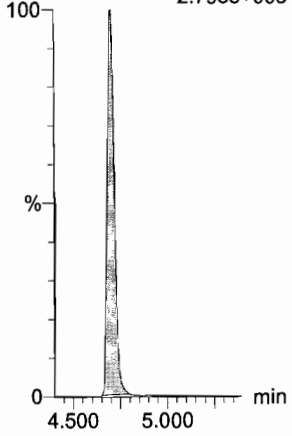
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.711e+002



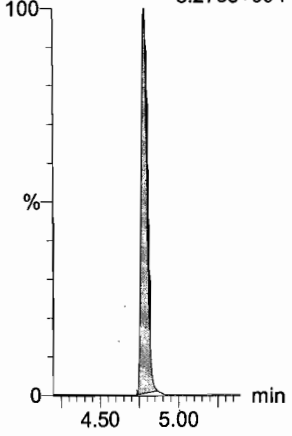
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
2.965e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.798e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.275e+004



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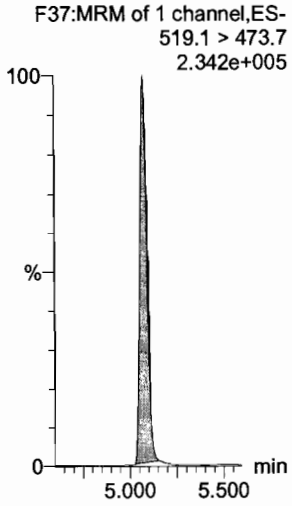
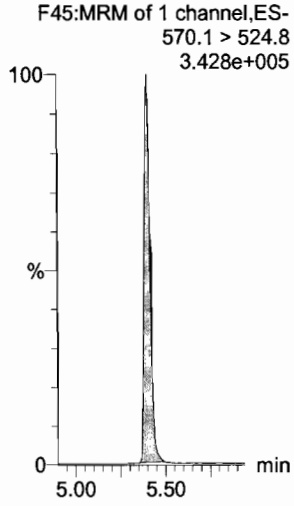
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_5, Date: 14-Dec-2017, Time: 19:27:58, ID: ST171214M1-4 PFC CS1 17L1407, Description: PFC CS1 17L1407

13C6-PFDA



13C7-PFUdA



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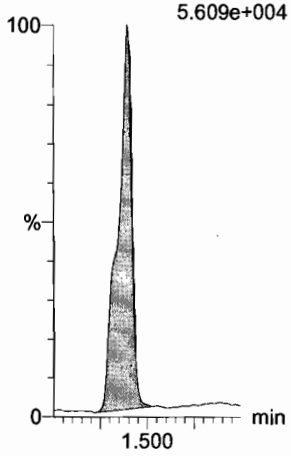
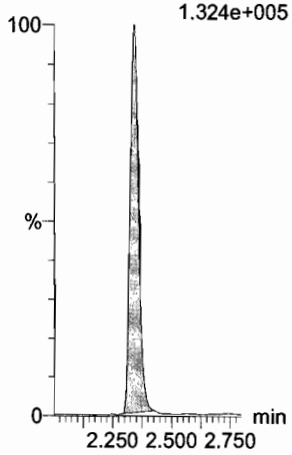
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_6, Date: 14-Dec-2017, Time: 19:39:10, ID: ST171214M1-5 PFC CS2 17L1408, Description: PFC CS2 17L1408

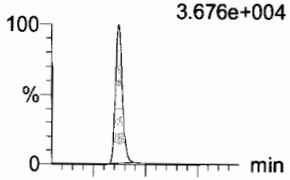
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
5.609e+004



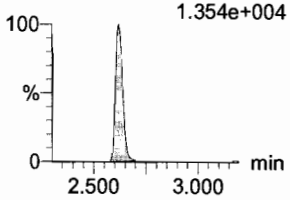
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
1.324e+005



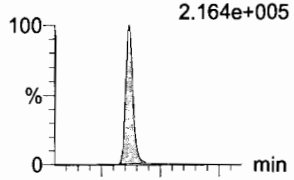
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
3.676e+004



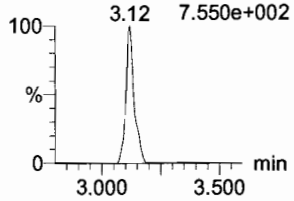
F6:MRM of 2 channels,ES-
299.0 > 99.0
1.354e+004



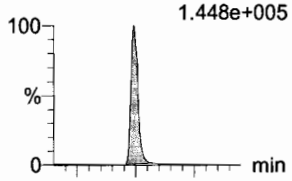
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
2.164e+005



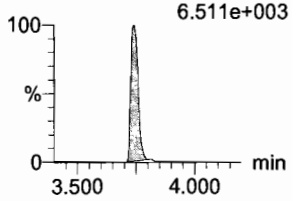
F8:MRM of 2 channels,ES-
313.2 > 119
3.12 7.550e+002



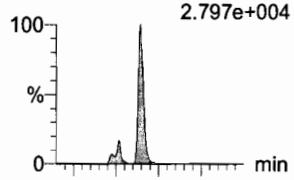
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
1.448e+005



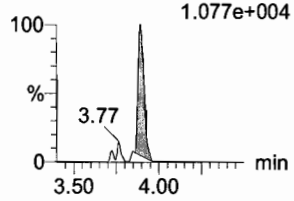
F13:MRM of 2 channels,ES-
363.0 > 169.0
6.511e+003



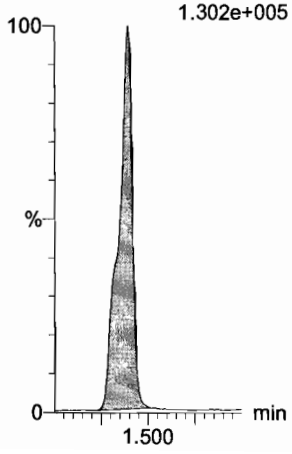
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
2.797e+004



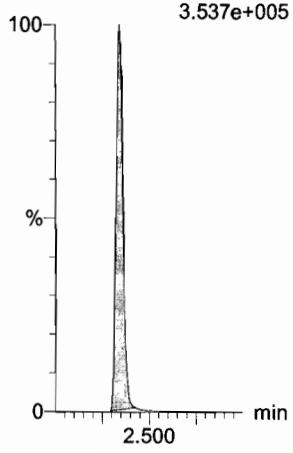
F15:MRM of 2 channels,ES-
398.9 > 99.0
1.077e+004



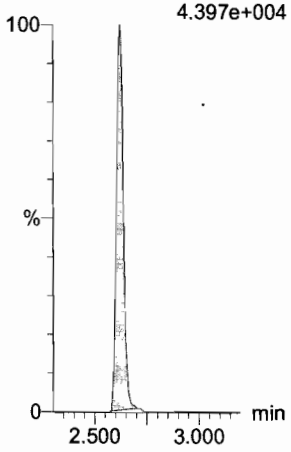
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.302e+005



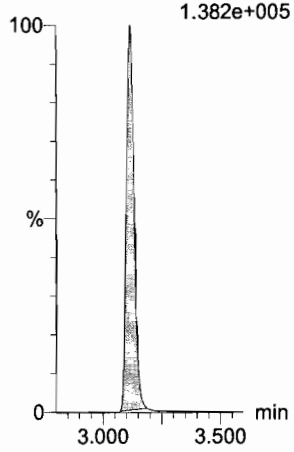
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.537e+005



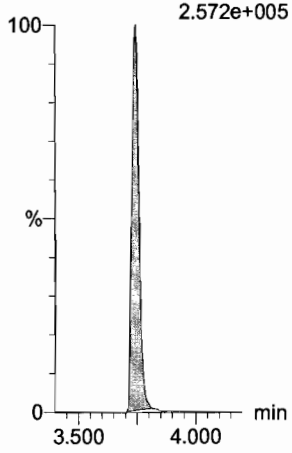
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
4.397e+004



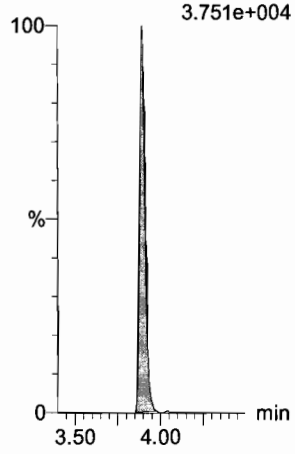
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.382e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
2.572e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
3.751e+004



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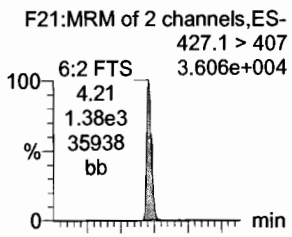
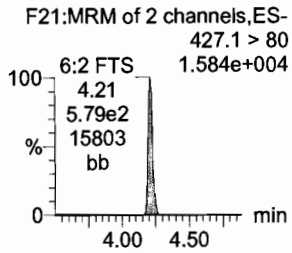
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

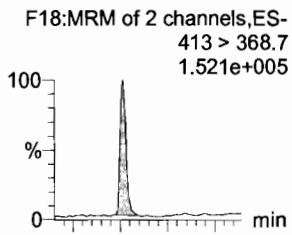
Name: 171214M1_6, Date: 14-Dec-2017, Time: 19:39:10, ID: ST171214M1-5 PFC CS2 17L1408, Description: PFC CS2 17L1408

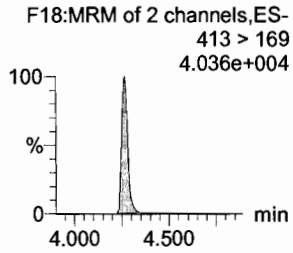
6:2 FTS



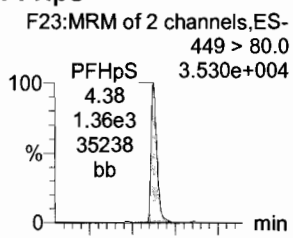


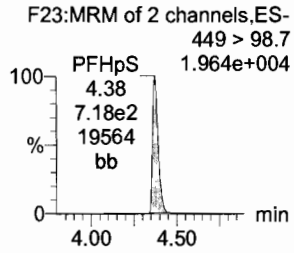
L-PFOA



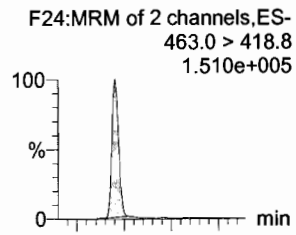


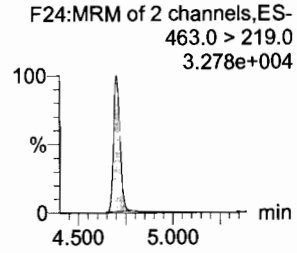
PFHpS





PFNA





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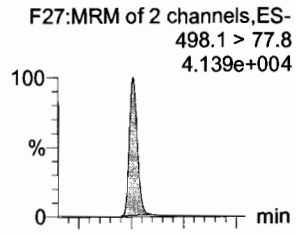
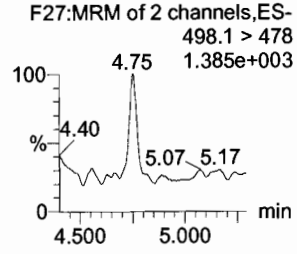
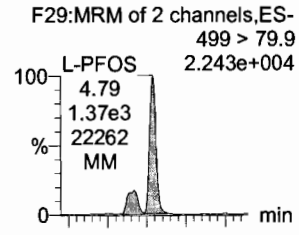
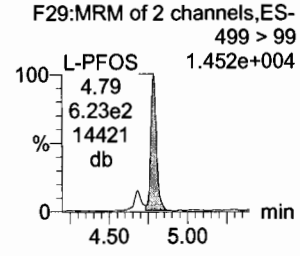


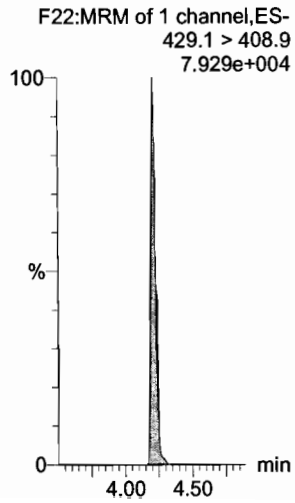


L-PFOS

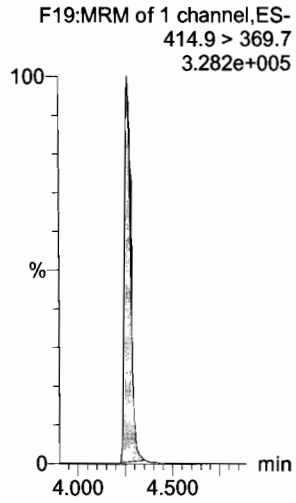




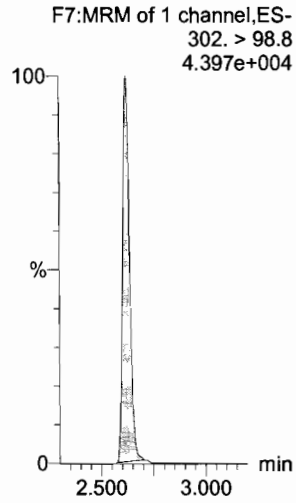
13C2-6:2 FTS



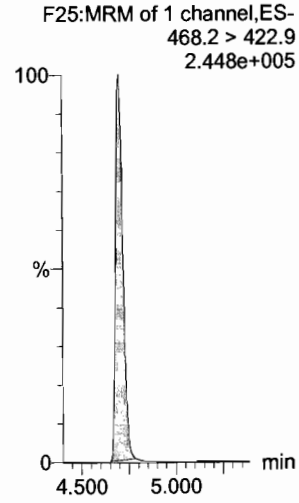
13C2-PFOA



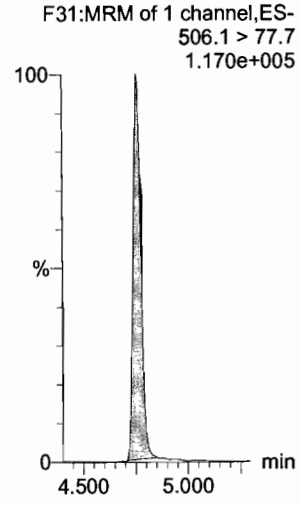
13C3-PFBS



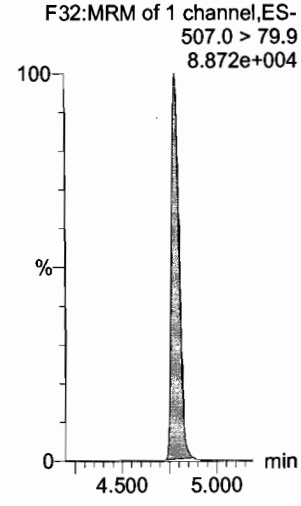
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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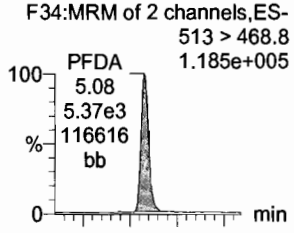
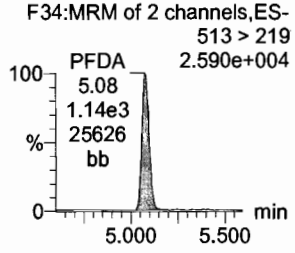
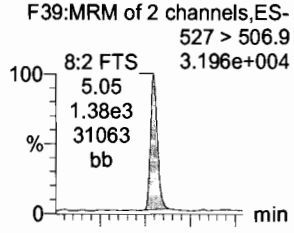
Name: 171214M1_6, Date: 14-Dec-2017, Time: 19:39:10, ID: ST171214M1-5 PFC CS2 17L1408, Description: PFC CS2 17L1408

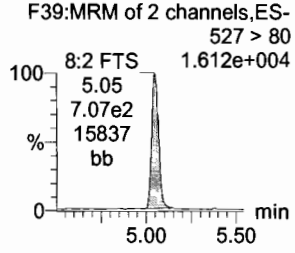
PFDA



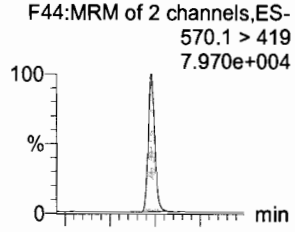


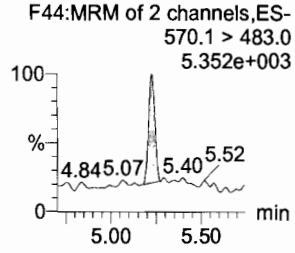
8:2 FTS





N-MeFOSAA





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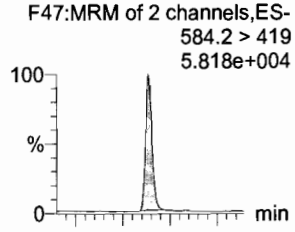
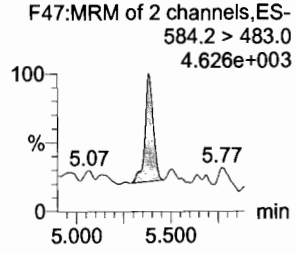
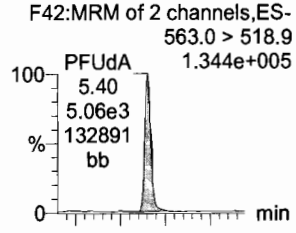
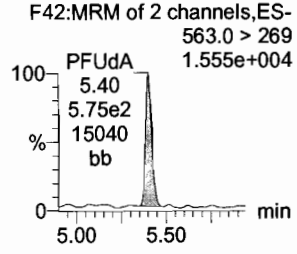


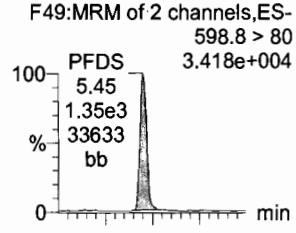


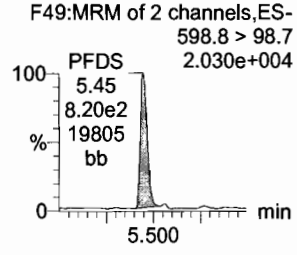
PFUdA



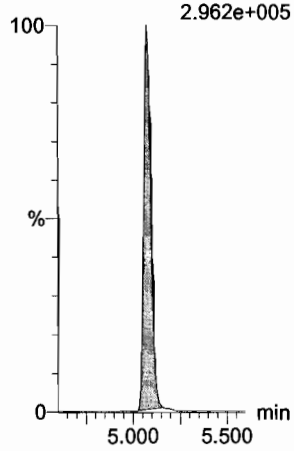


PFDS

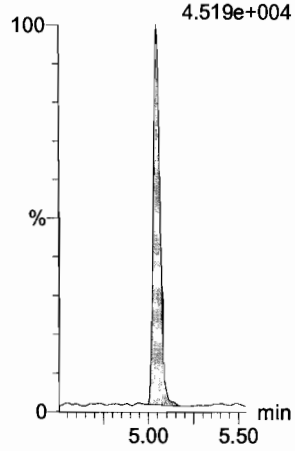




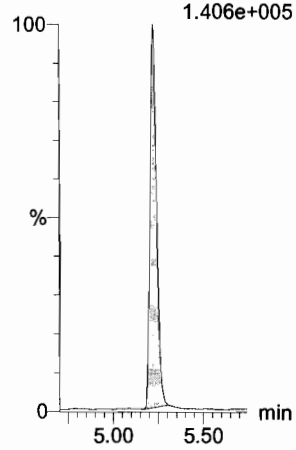
13C2-PFDA



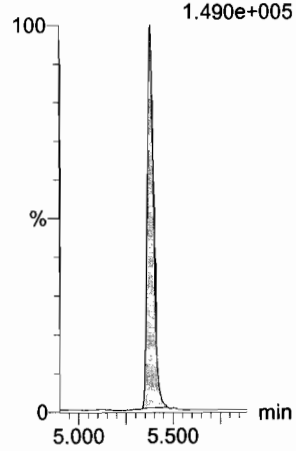
13C2-8:2 FTS



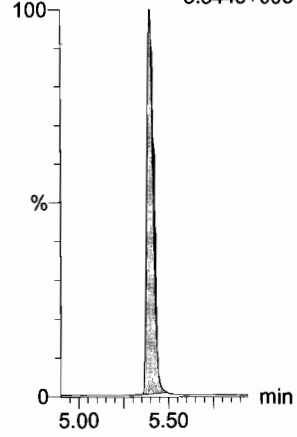
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFUdA



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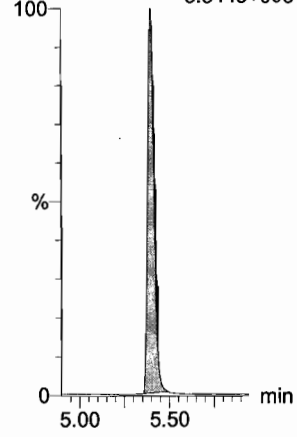

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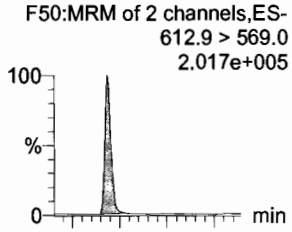
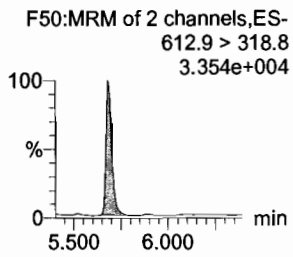
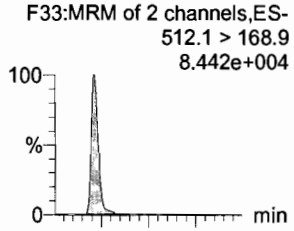
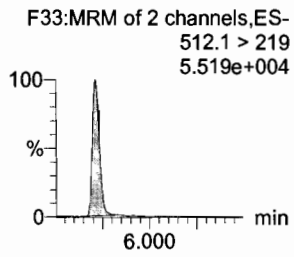
PFDoA



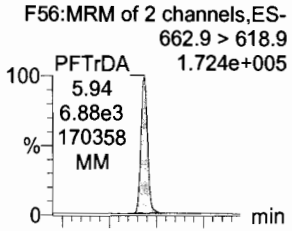


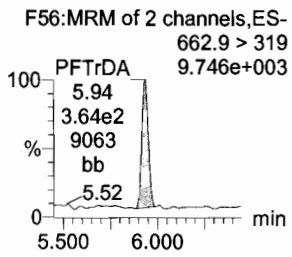
N-MeFOSA



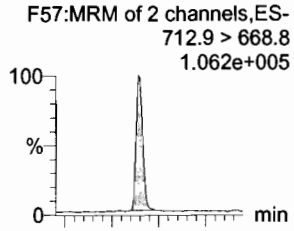


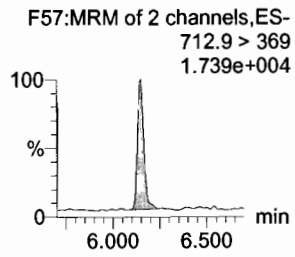
PFTrDA



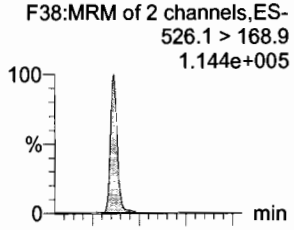


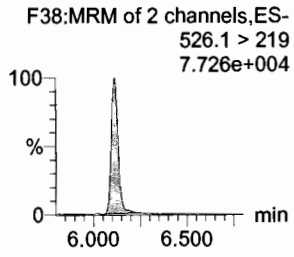
PFTeDA



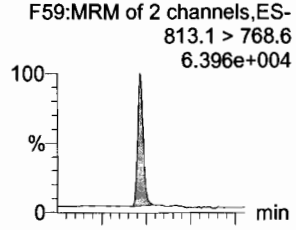


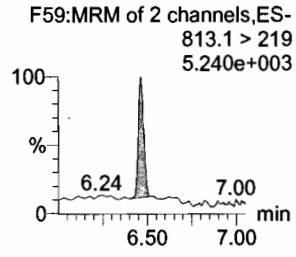
N-EtFOSA



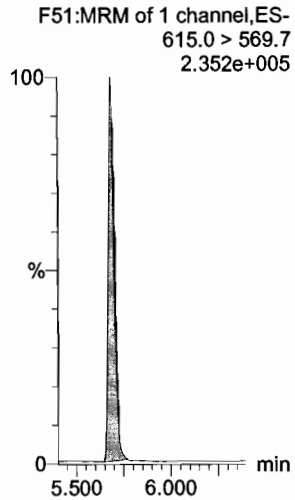


PFHxDA

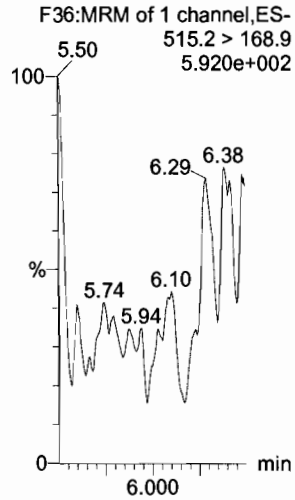




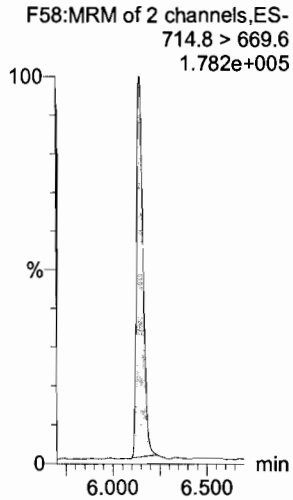
13C2-PFDoA



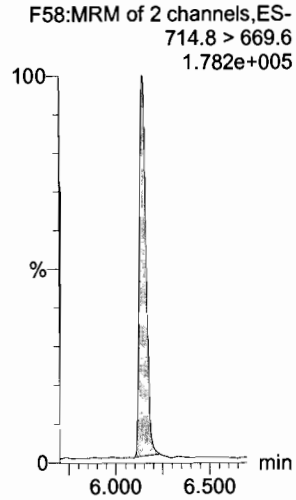
d3-N-MeFOSA



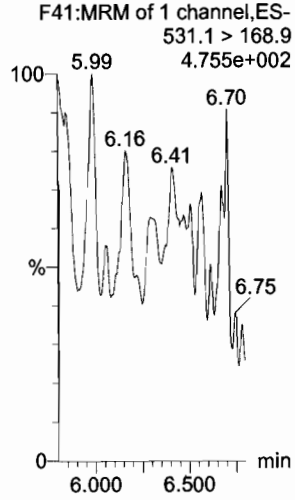
13C2-PFTeDA



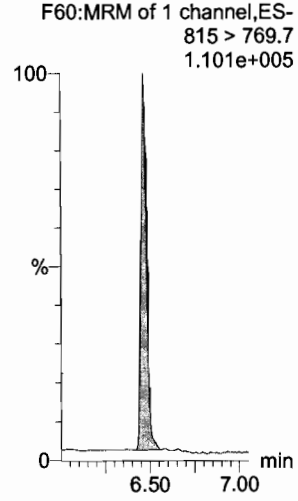
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

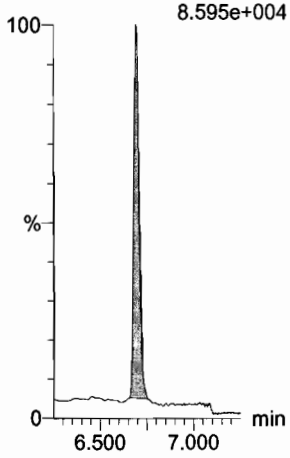


Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

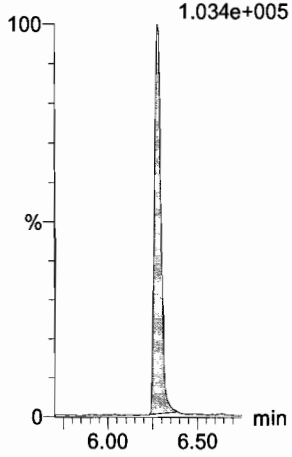
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_6, Date: 14-Dec-2017, Time: 19:39:10, ID: ST171214M1-5 PFC CS2 17L1408, Description: PFC CS2 17L1408

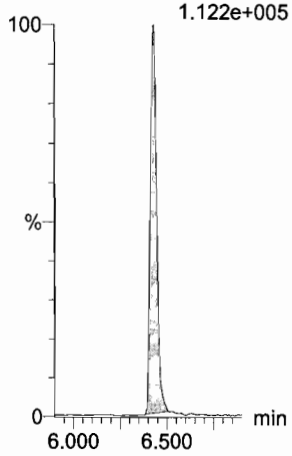
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
8.595e+004



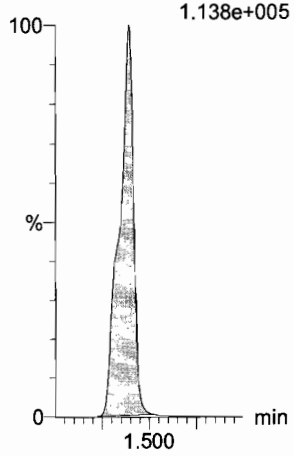
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.034e+005



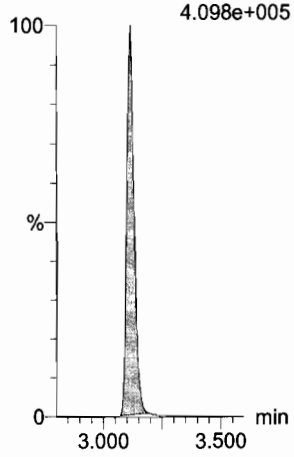
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.122e+005



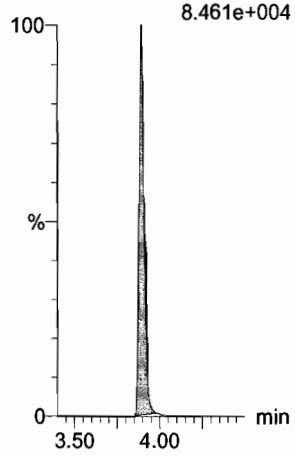
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.138e+005



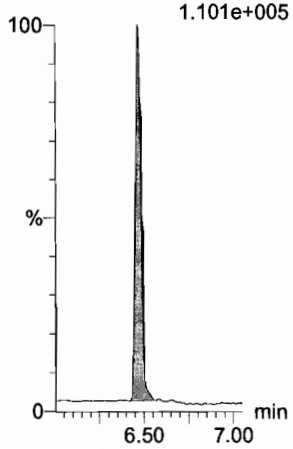
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.098e+005



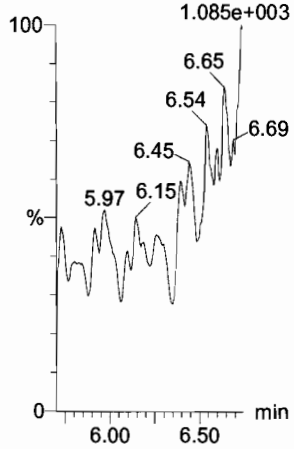
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
8.461e+004



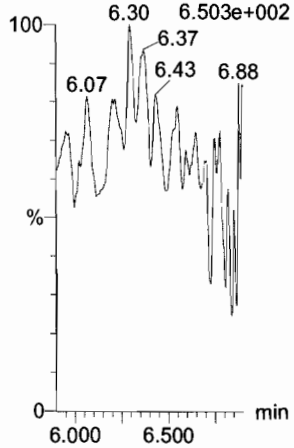
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.101e+005



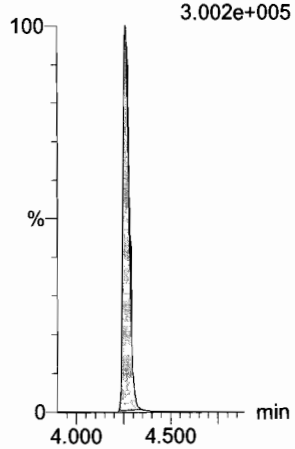
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
1.085e+003



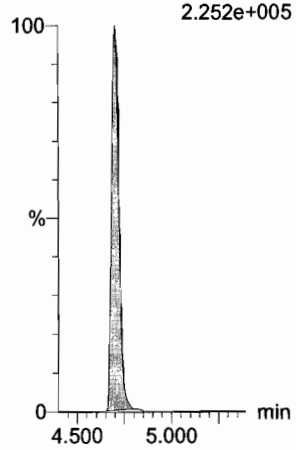
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.503e+002



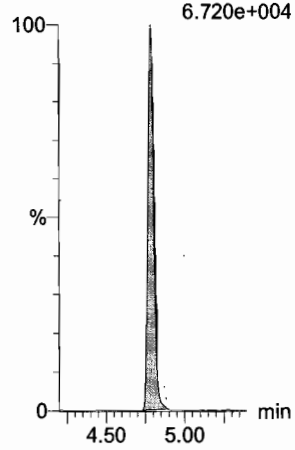
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.002e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.252e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
6.720e+004

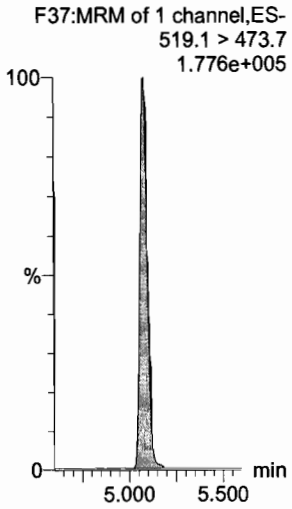


Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

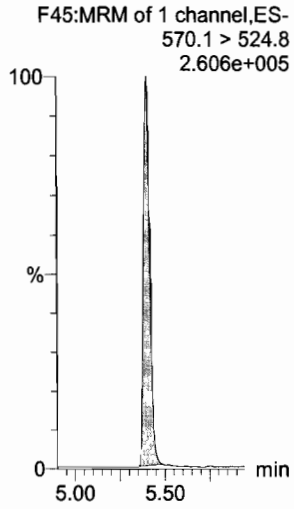
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_6, Date: 14-Dec-2017, Time: 19:39:10, ID: ST171214M1-5 PFC CS2 17L1408, Description: PFC CS2 17L1408

13C6-PFDA



13C7-PFUdA



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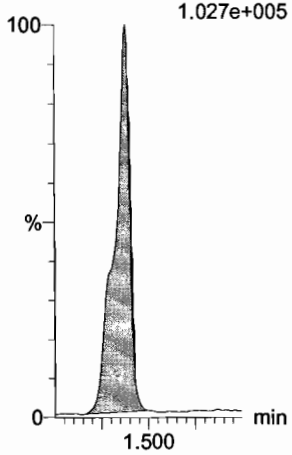
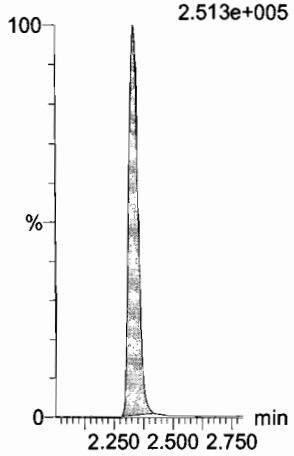
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_7, Date: 14-Dec-2017, Time: 19:50:20, ID: ST171214M1-6 PFC CS3 17L1409, Description: PFC CS3 17L1409

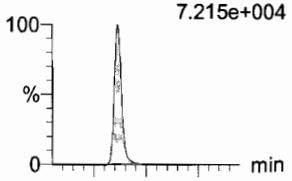
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.027e+005



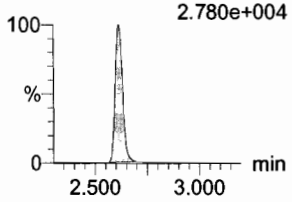
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
2.513e+005



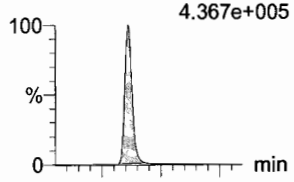
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
7.215e+004



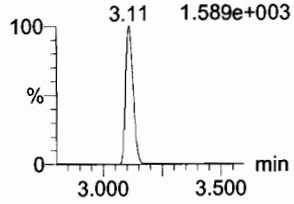
F6:MRM of 2 channels,ES-
299.0 > 99.0
2.780e+004



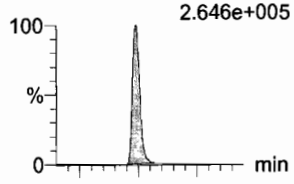
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
4.367e+005



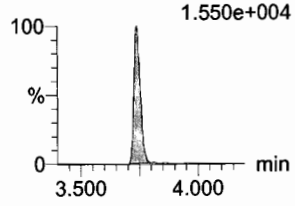
F8:MRM of 2 channels,ES-
313.2 > 119
3.11 1.589e+003



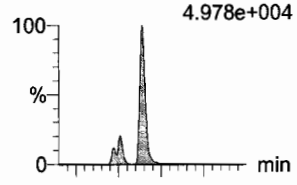
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
2.646e+005



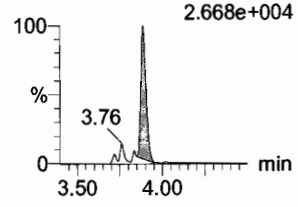
F13:MRM of 2 channels,ES-
363.0 > 169.0
1.550e+004



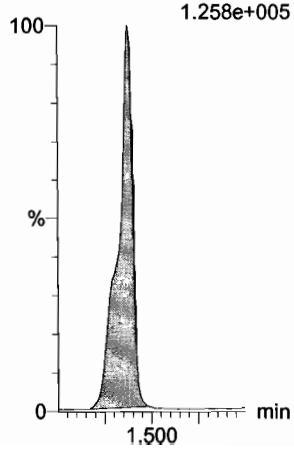
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
4.978e+004



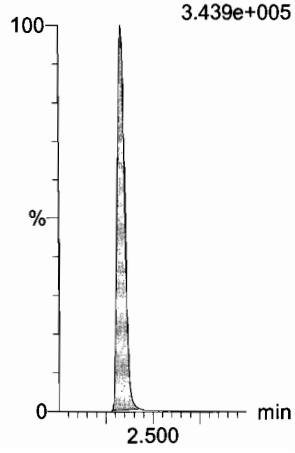
F15:MRM of 2 channels,ES-
398.9 > 99.0
2.668e+004



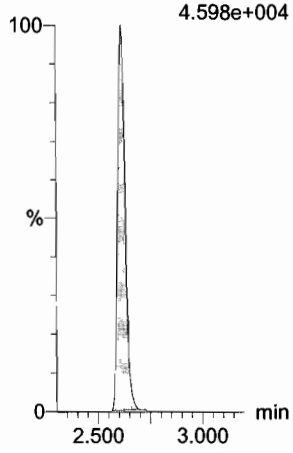
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.258e+005



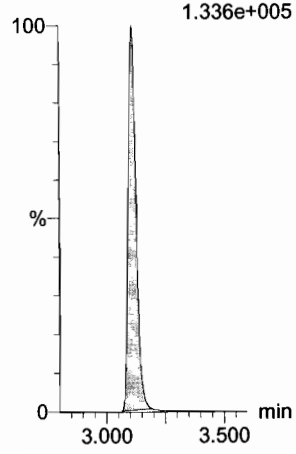
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.439e+005



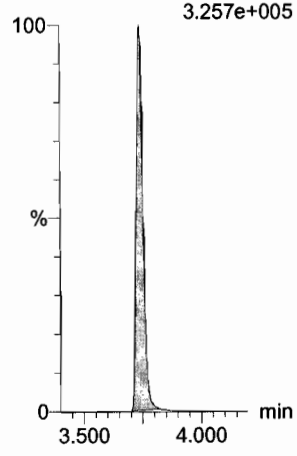
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
4.598e+004



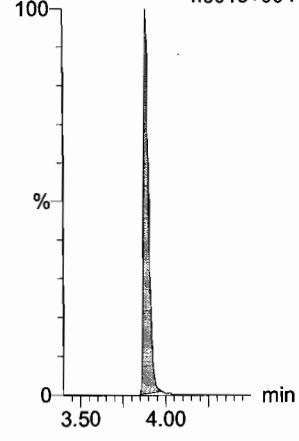
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.336e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
3.257e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
4.901e+004

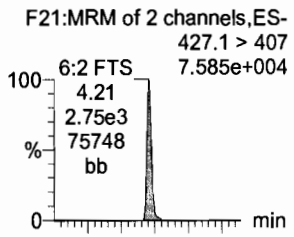


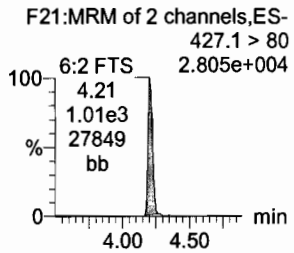
Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_7, Date: 14-Dec-2017, Time: 19:50:20, ID: ST171214M1-6 PFC CS3 17L1409, Description: PFC CS3 17L1409

6:2 FTS





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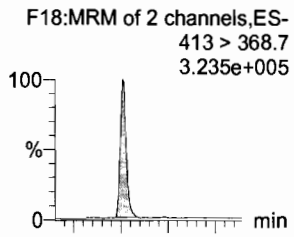

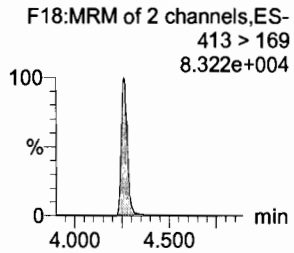

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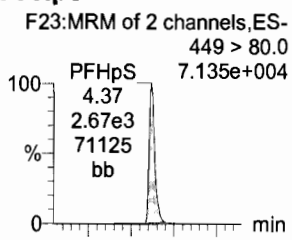

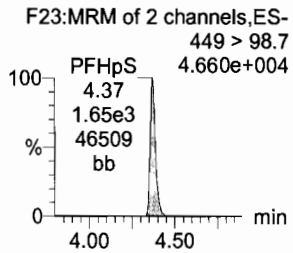

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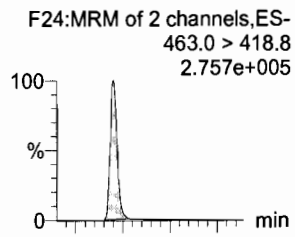

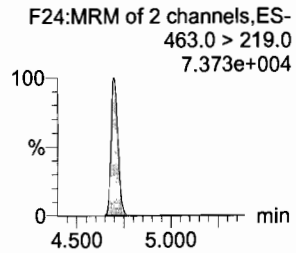

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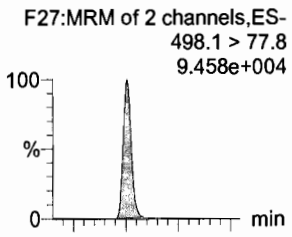

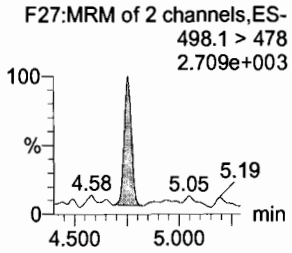

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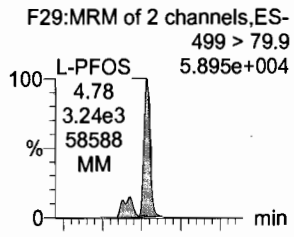
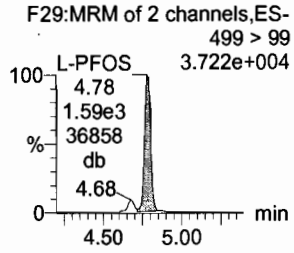
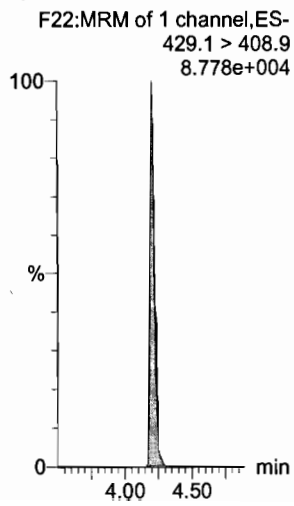




13C2-6:2 FTS



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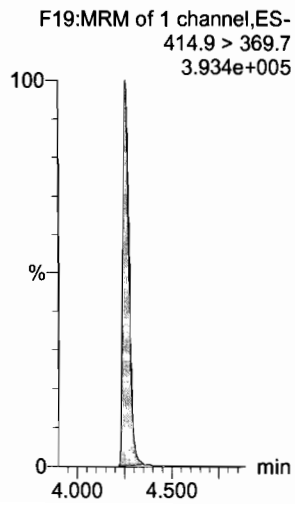

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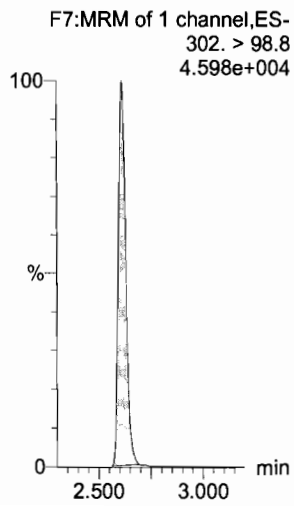

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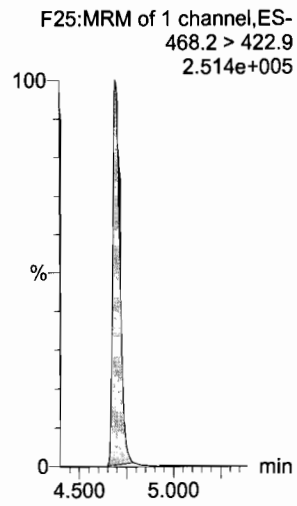

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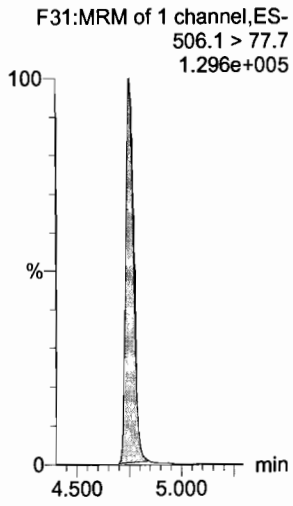

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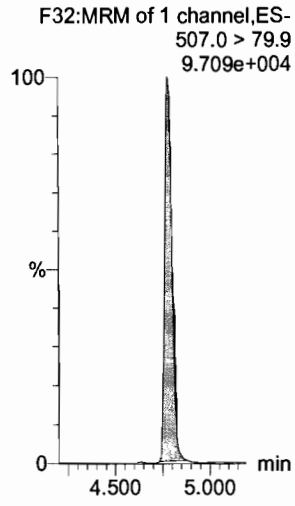

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Name: 171214M1_7, Date: 14-Dec-2017, Time: 19:50:20, ID: ST171214M1-6 PFC CS3 17L1409, Description: PFC CS3 17L1409

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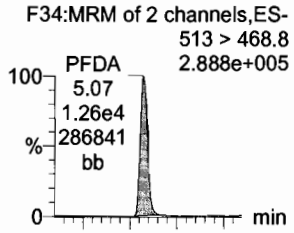
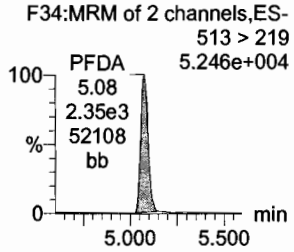
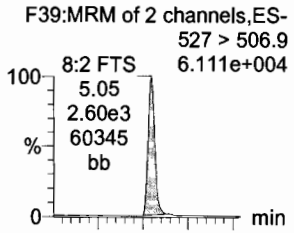
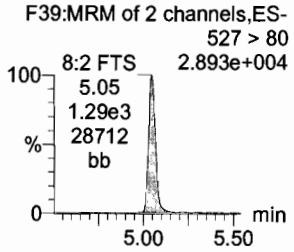




8:2 FTS





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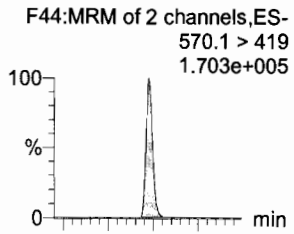

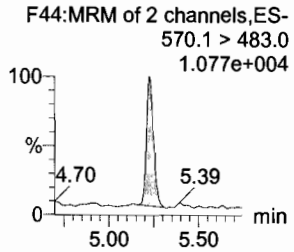

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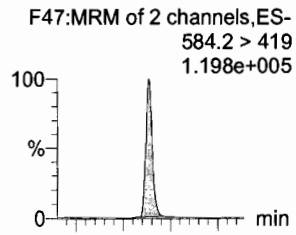

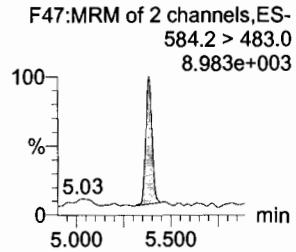

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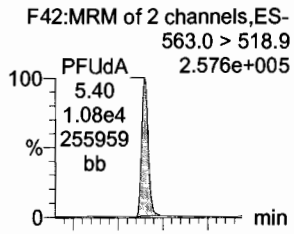

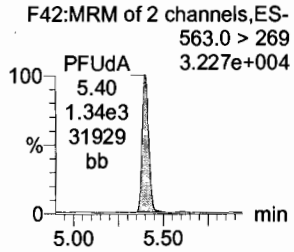

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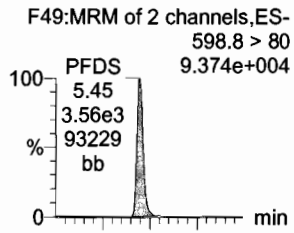

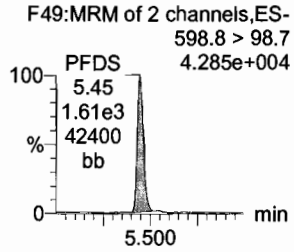

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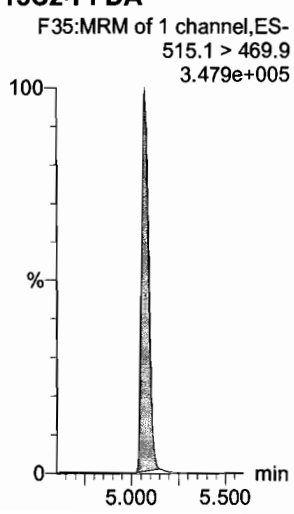
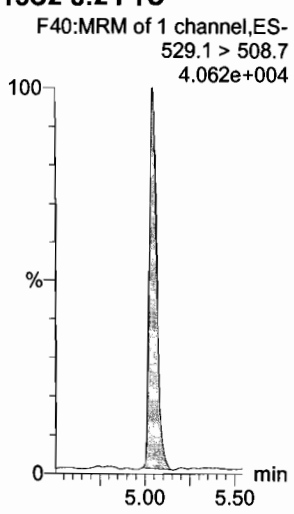


13C2-8:2 FTS



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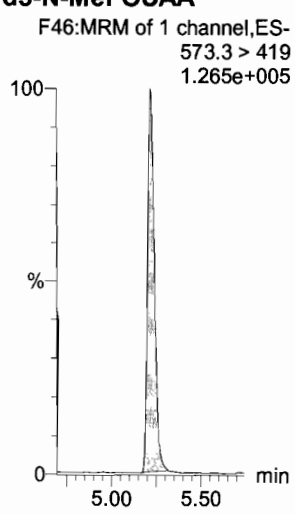

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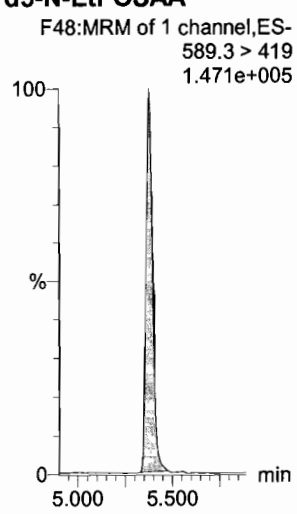

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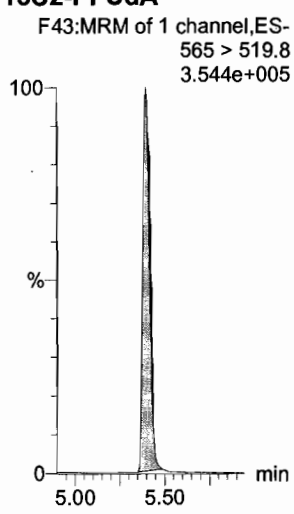

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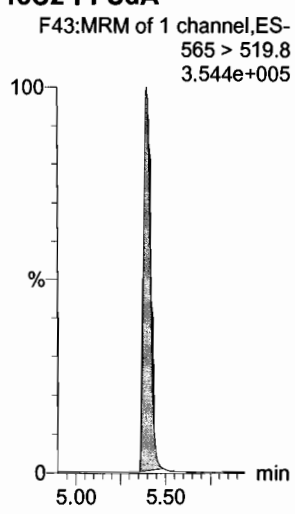

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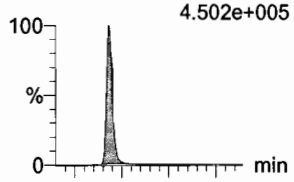

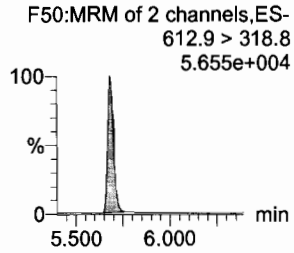

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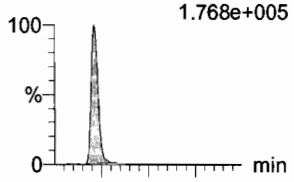

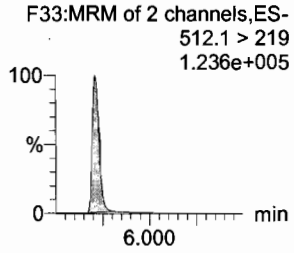

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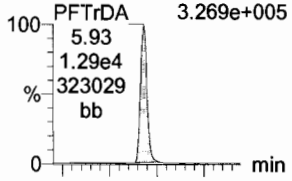

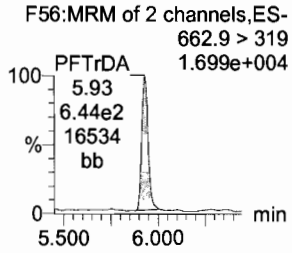

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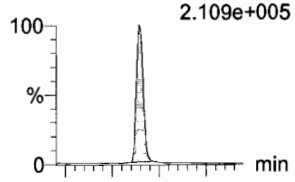

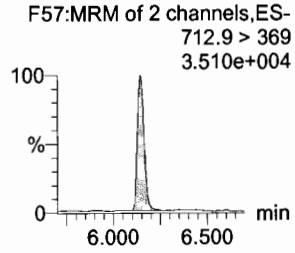

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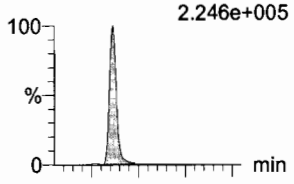

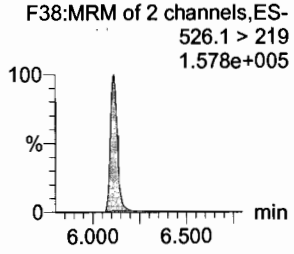

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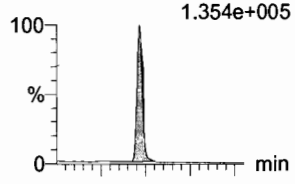

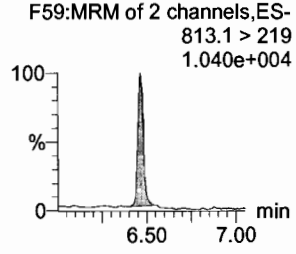

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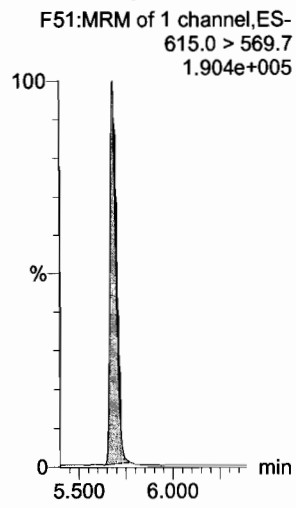
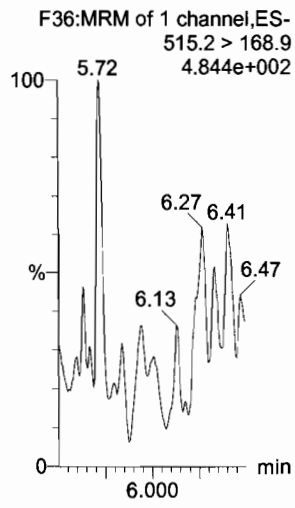


d3-N-MeFOSA



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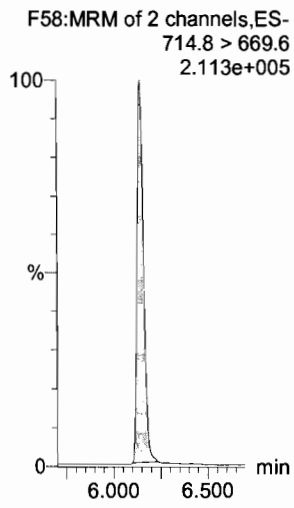

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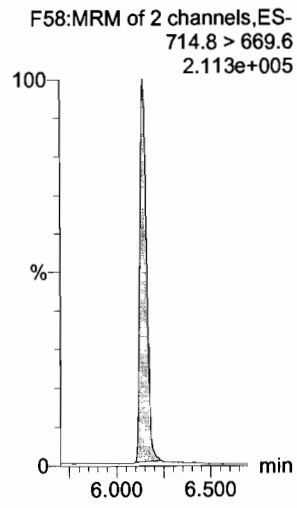

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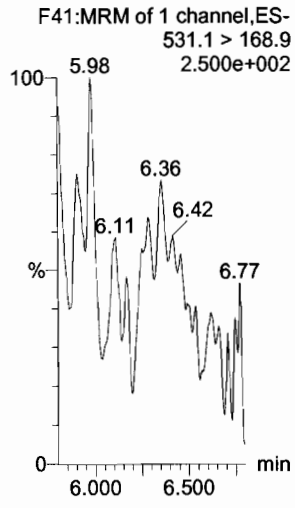

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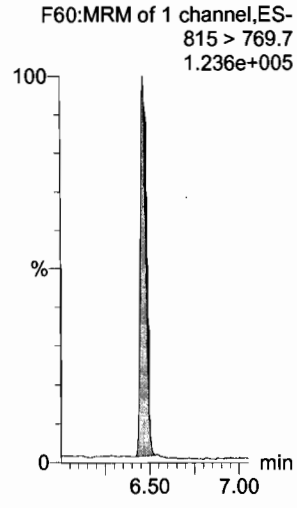

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Name: 171214M1_7, Date: 14-Dec-2017, Time: 19:50:20, ID: ST171214M1-6 PFC CS3 17L1409, Description: PFC CS3 17L1409

PFODA
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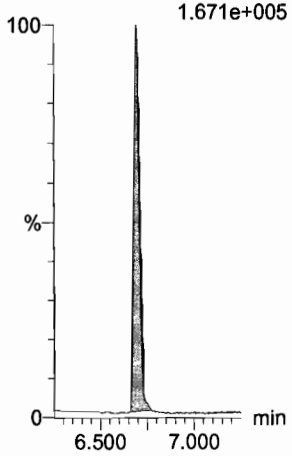
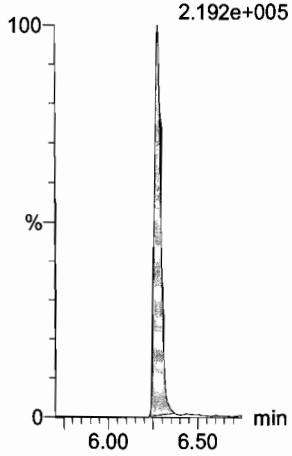
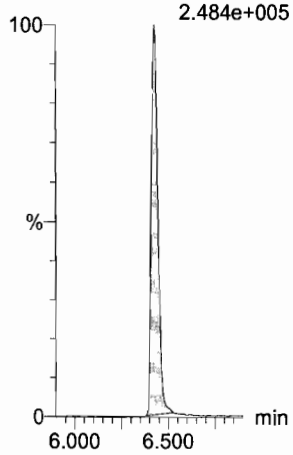
913.1 > 868.8
1.671e+005



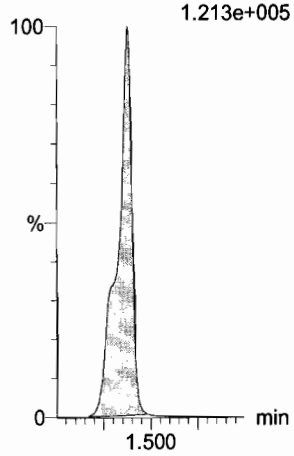
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.192e+005



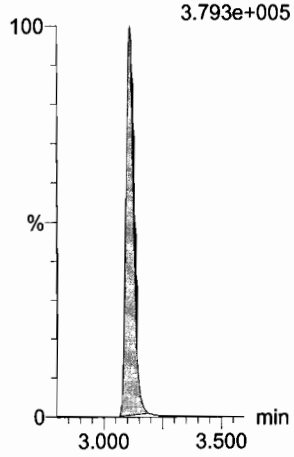
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.484e+005



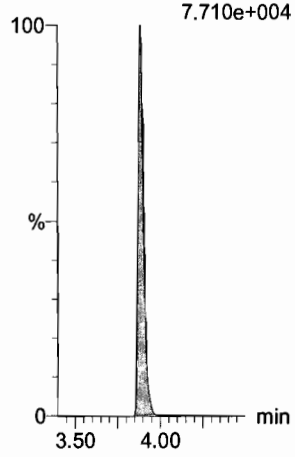
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.213e+005



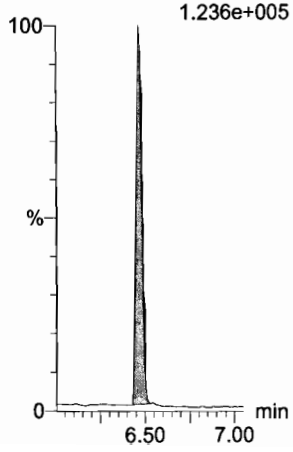
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.793e+005



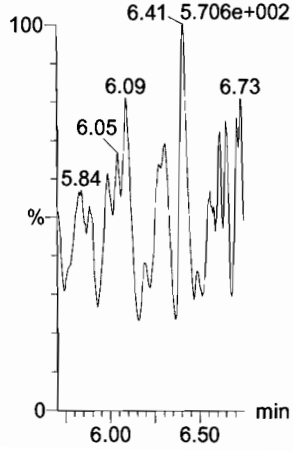
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
7.710e+004



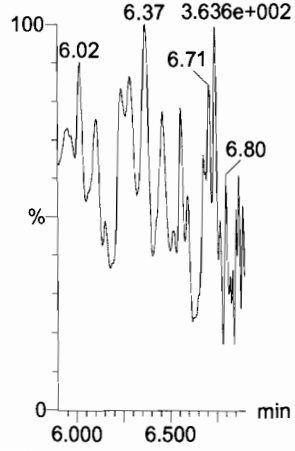
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.236e+005



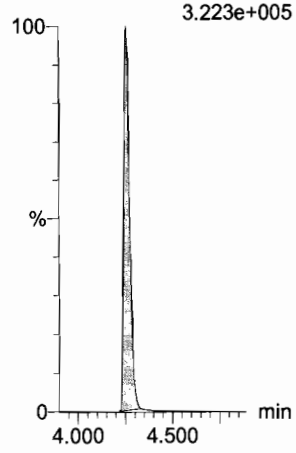
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.41 5.706e+002



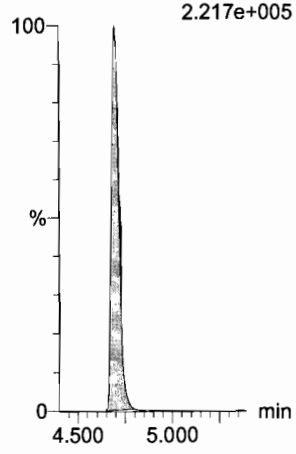
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.37 3.636e+002



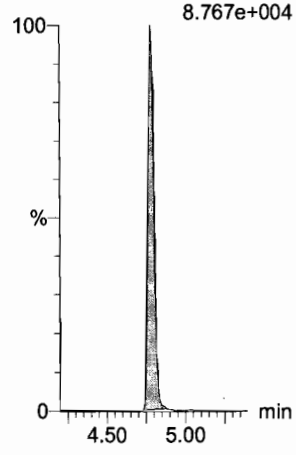
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.223e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.217e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.767e+004



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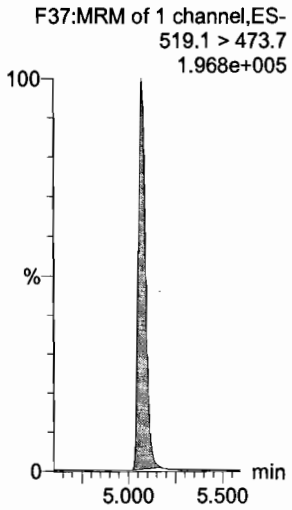
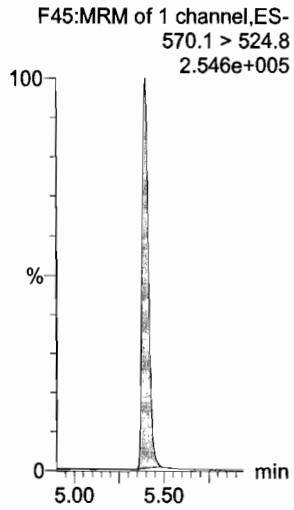
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_7, Date: 14-Dec-2017, Time: 19:50:20, ID: ST171214M1-6 PFC CS3 17L1409, Description: PFC CS3 17L1409

13C6-PFDA



13C7-PFUdA



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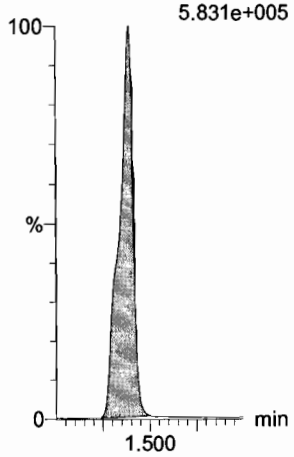
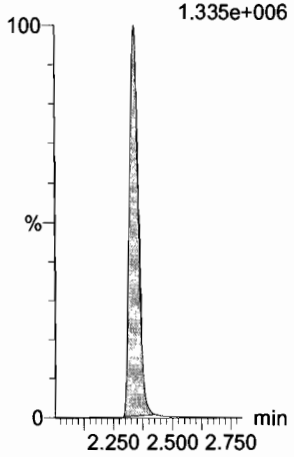
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_8, Date: 14-Dec-2017, Time: 20:01:31, ID: ST171214M1-7 PFC CS4 17L1410, Description: PFC CS4 17L1410

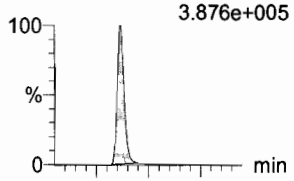
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
5.831e+005



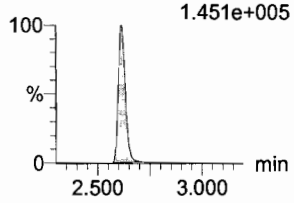
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
1.335e+006



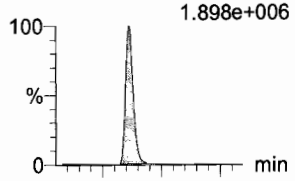
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
3.876e+005



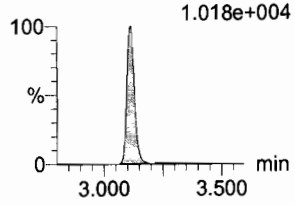
F6:MRM of 2 channels,ES-
299.0 > 99.0
1.451e+005



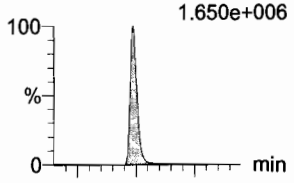
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
1.898e+006



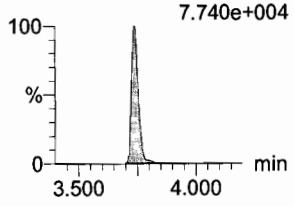
F8:MRM of 2 channels,ES-
313.2 > 119
1.018e+004



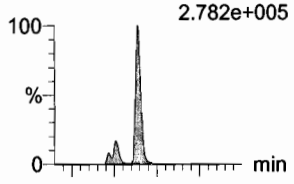
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
1.650e+006



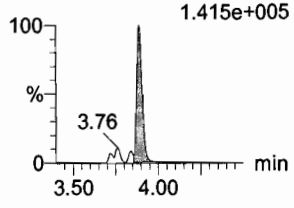
F13:MRM of 2 channels,ES-
363.0 > 169.0
7.740e+004



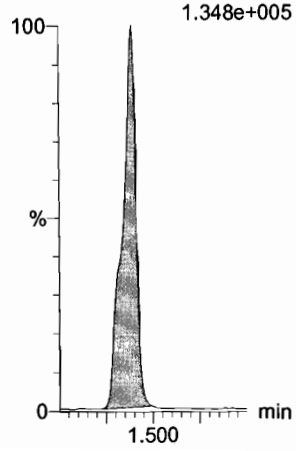
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
2.782e+005



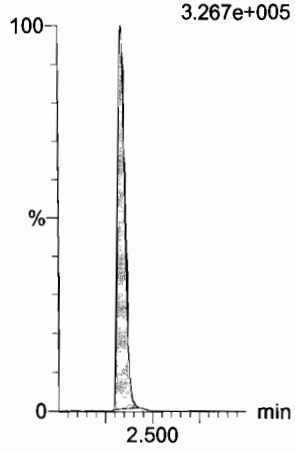
F15:MRM of 2 channels,ES-
398.9 > 99.0
1.415e+005



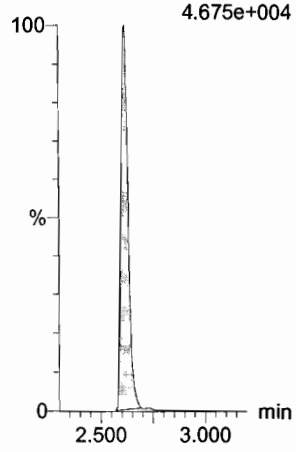
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.348e+005



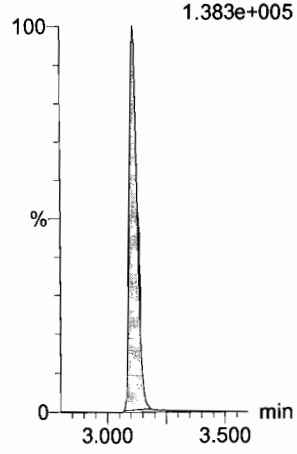
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.267e+005



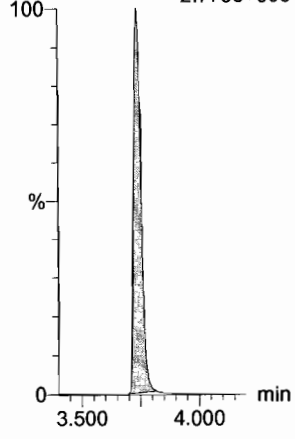
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
4.675e+004



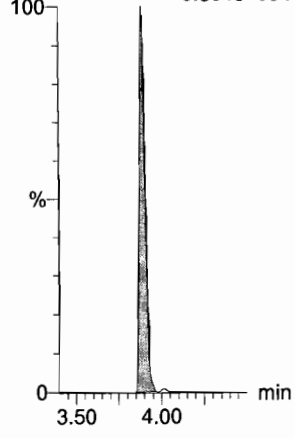
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.383e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
2.773e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
3.864e+004



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Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
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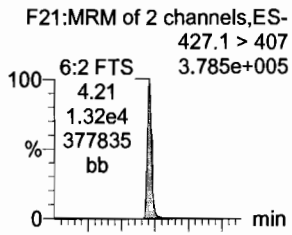
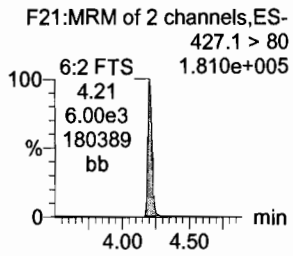
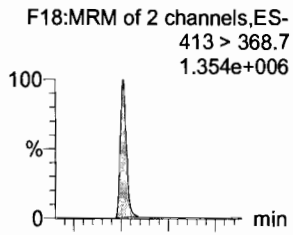
Name: 171214M1_8, Date: 14-Dec-2017, Time: 20:01:31, ID: ST171214M1-7 PFC CS4 17L1410, Description: PFC CS4 17L1410

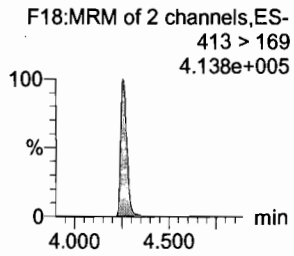
6:2 FTS



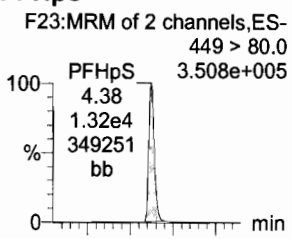


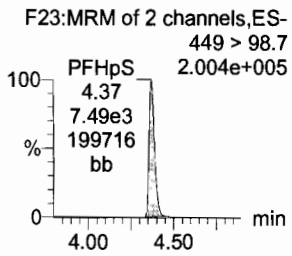
L-PFOA



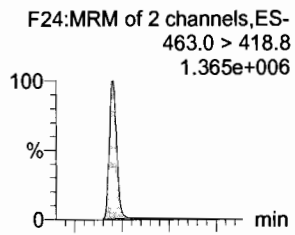


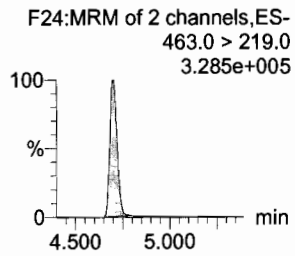
PFHpS



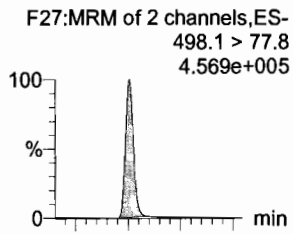


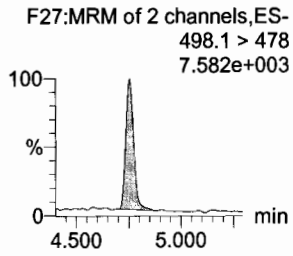
PFNA



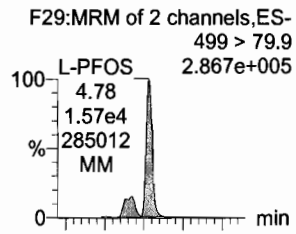


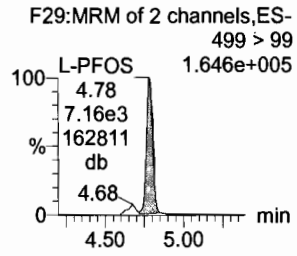
PFOSA



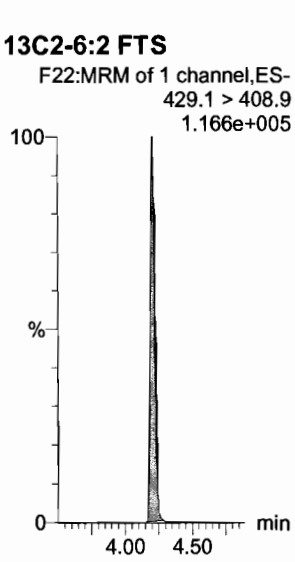


L-PFOS

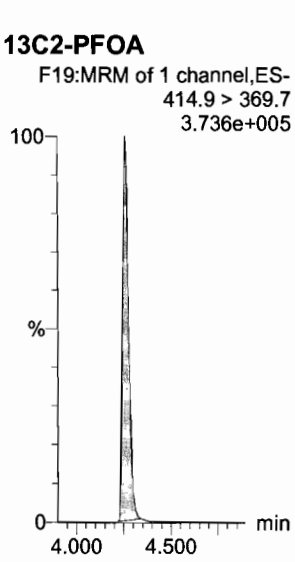




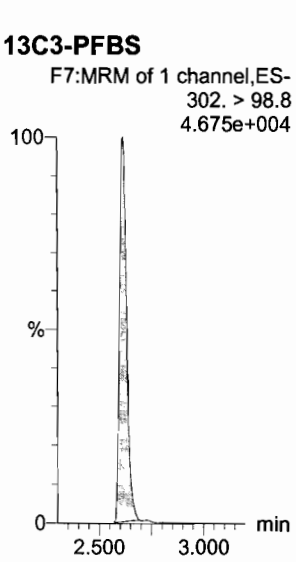
13C2-6:2 FTS



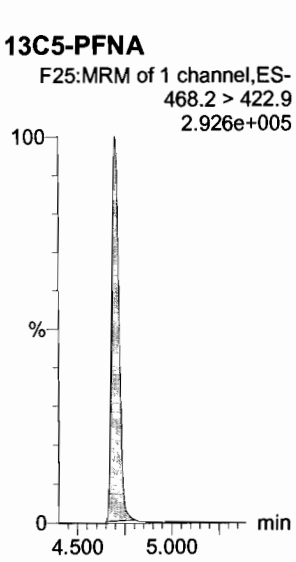
13C2-PFOA



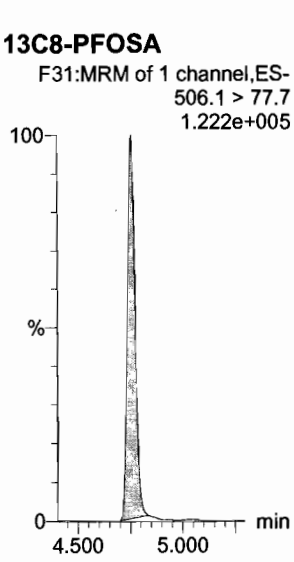
13C3-PFBS



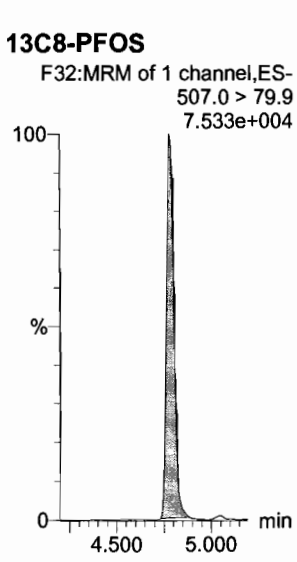
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
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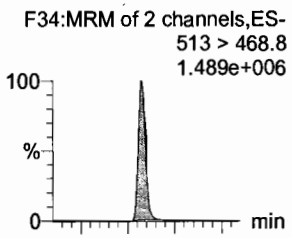
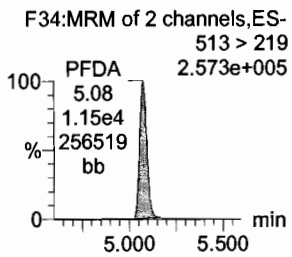
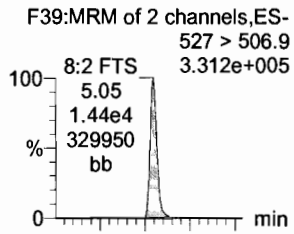
Name: 171214M1_8, Date: 14-Dec-2017, Time: 20:01:31, ID: ST171214M1-7 PFC CS4 17L1410, Description: PFC CS4 17L1410

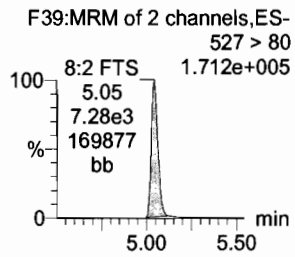
PFDA





8:2 FTS





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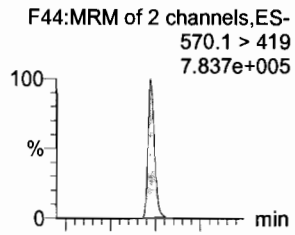

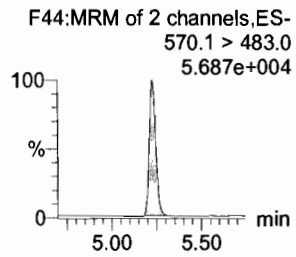

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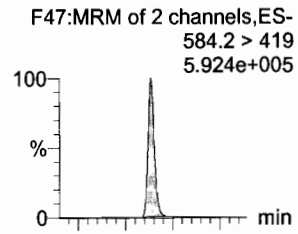
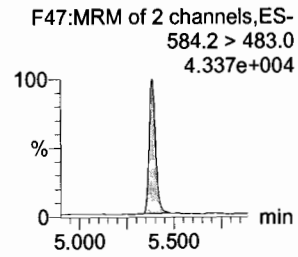
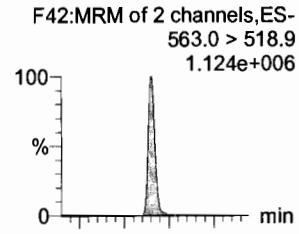
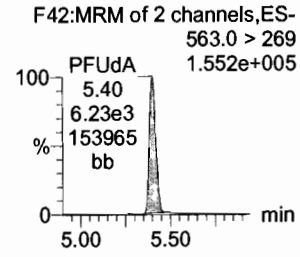


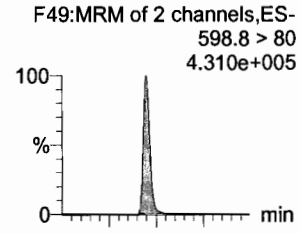


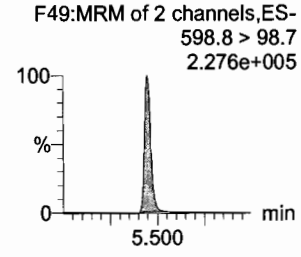
PFUdA



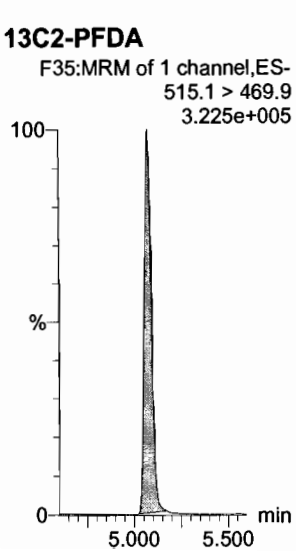


PFDS

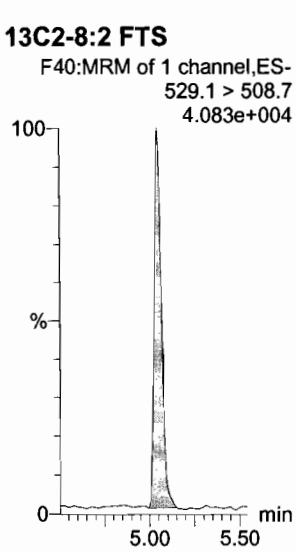




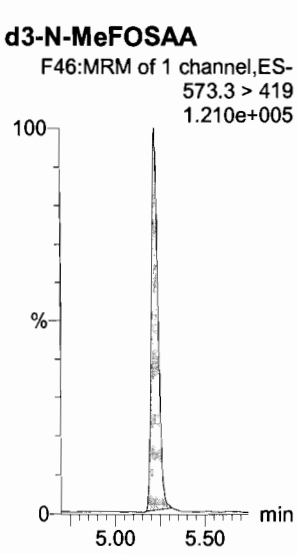
13C2-PFDA



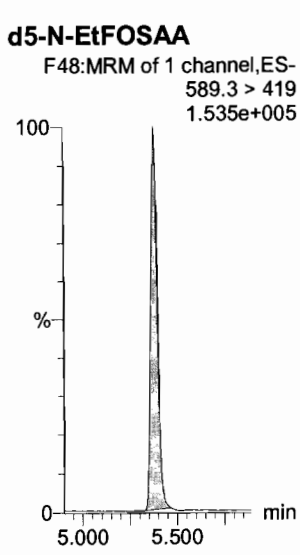
13C2-8:2 FTS



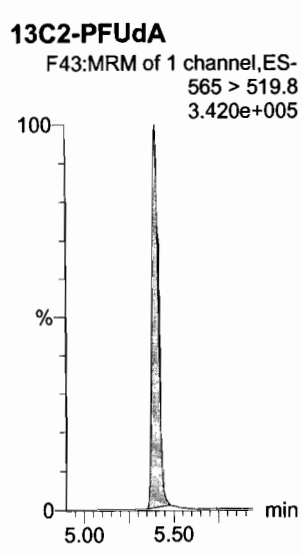
d3-N-MeFOSAA



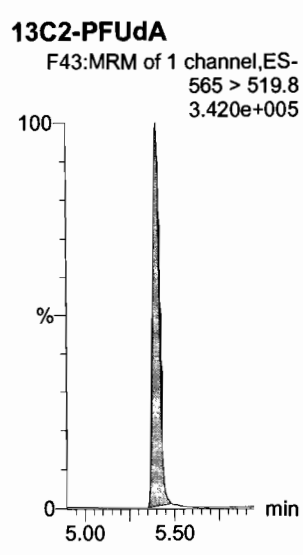
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
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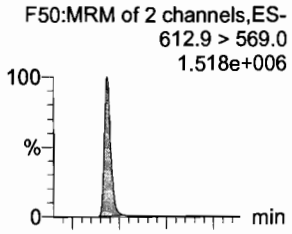
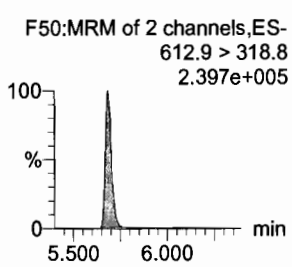
Name: 171214M1_8, Date: 14-Dec-2017, Time: 20:01:31, ID: ST171214M1-7 PFC CS4 17L1410, Description: PFC CS4 17L1410

PFDoA





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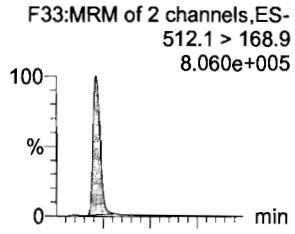
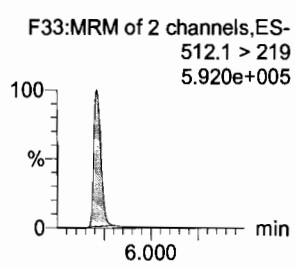
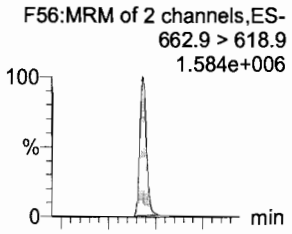
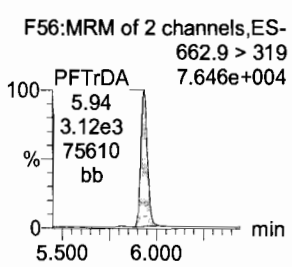


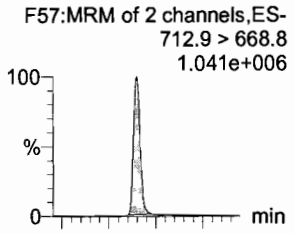


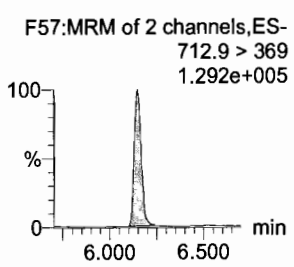
PFTrDA





PFTeDA





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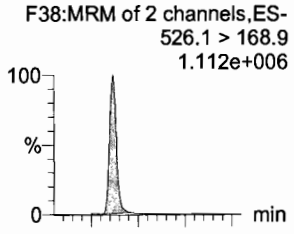

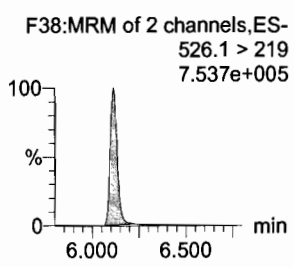

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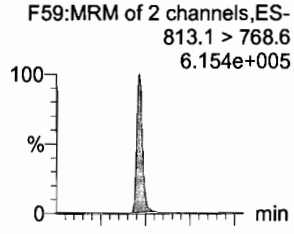
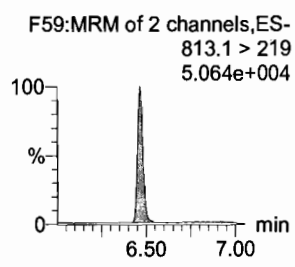
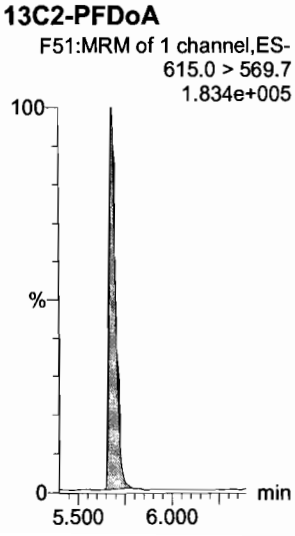
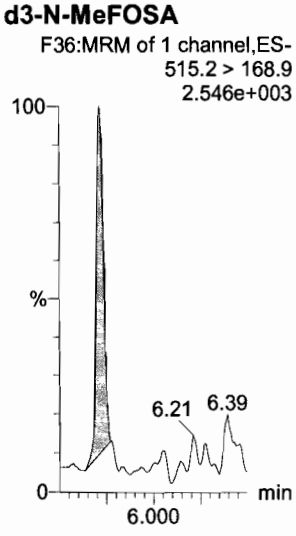




13C2-PFDoA



d3-N-MeFOSA



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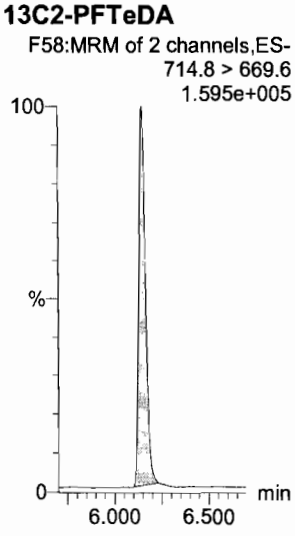

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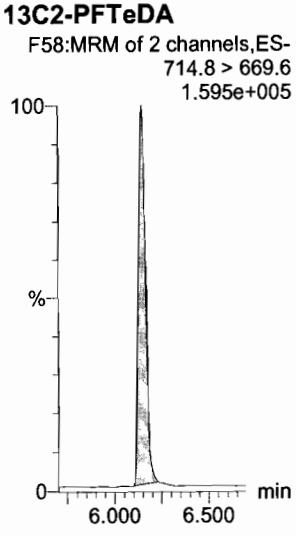
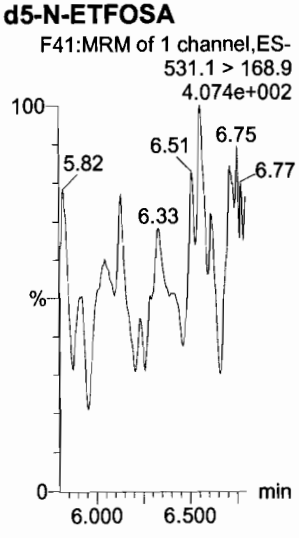
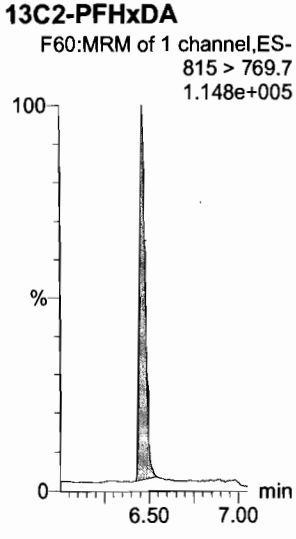


d5-N-ETFOSA



13C2-PFHxDA



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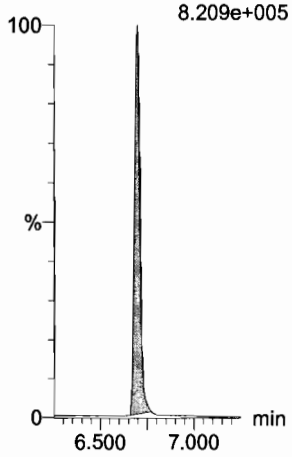
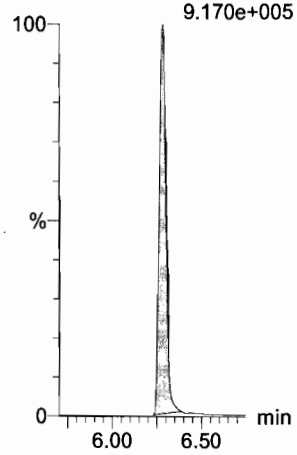
Name: 171214M1_8, Date: 14-Dec-2017, Time: 20:01:31, ID: ST171214M1-7 PFC CS4 17L1410, Description: PFC CS4 17L1410

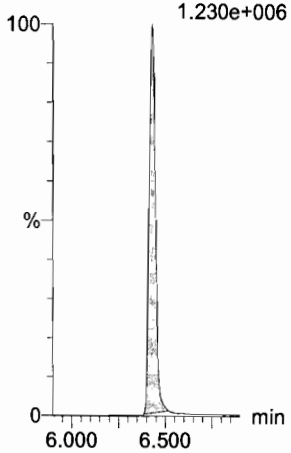
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
8.209e+005



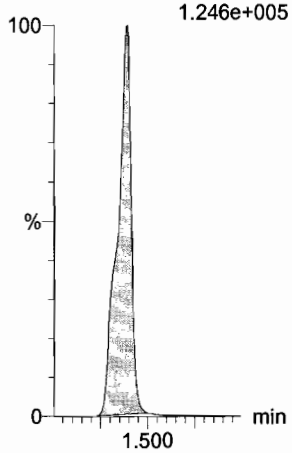
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
9.170e+005



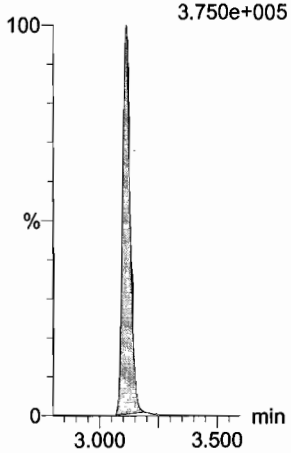
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.230e+006



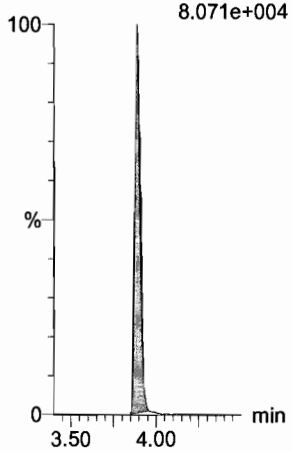
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.246e+005



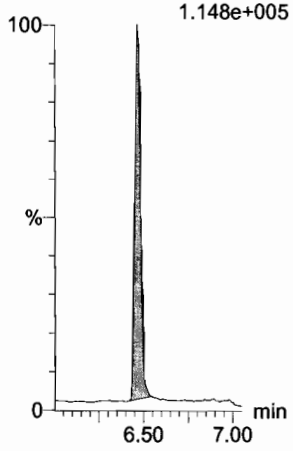
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.750e+005



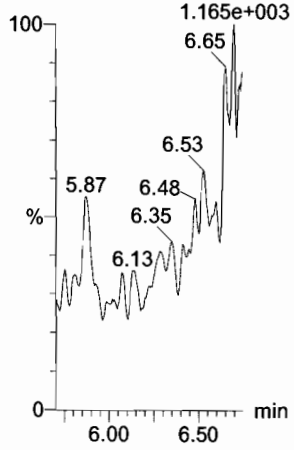
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
8.071e+004



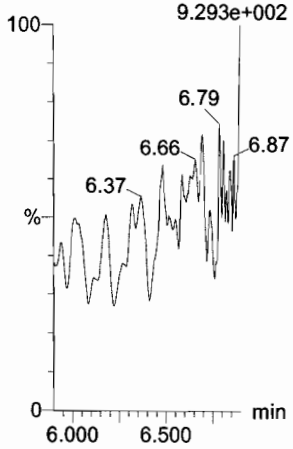
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.148e+005



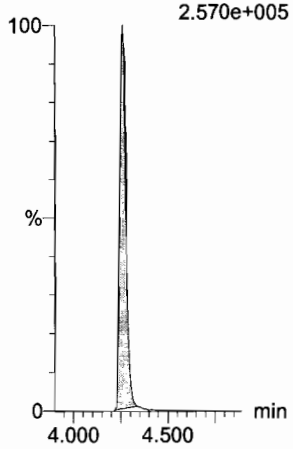
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
1.165e+003



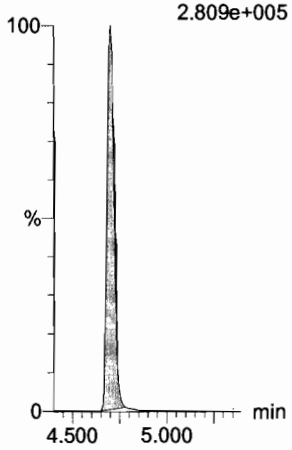
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
9.293e+002



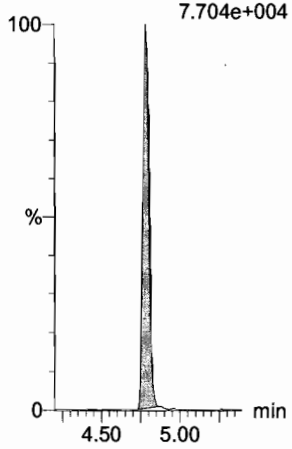
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
2.570e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.809e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.704e+004



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Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
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Name: 171214M1_8, Date: 14-Dec-2017, Time: 20:01:31, ID: ST171214M1-7 PFC CS4 17L1410, Description: PFC CS4 17L1410

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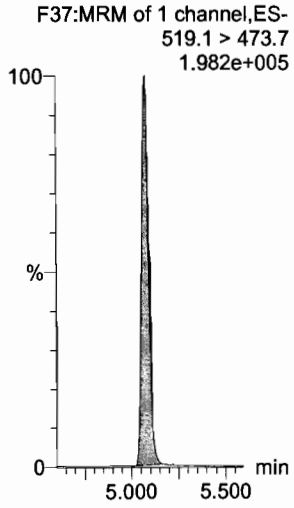
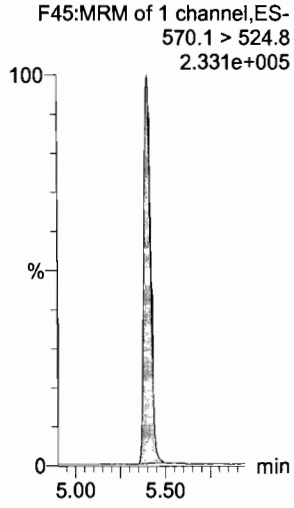


13C7-PFUdA



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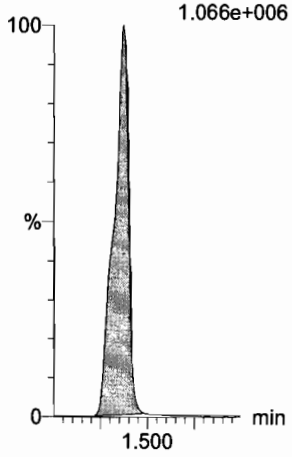
PFBA



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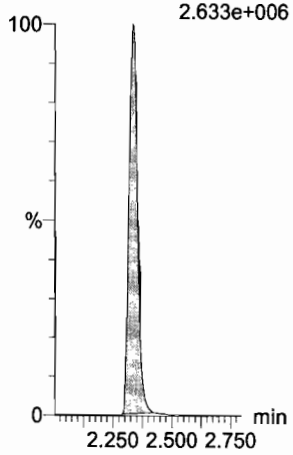

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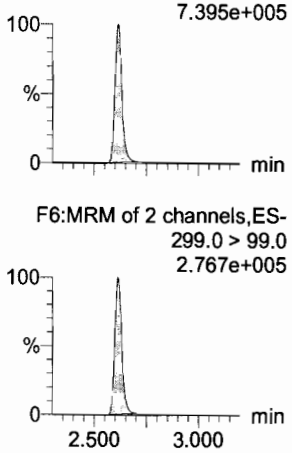

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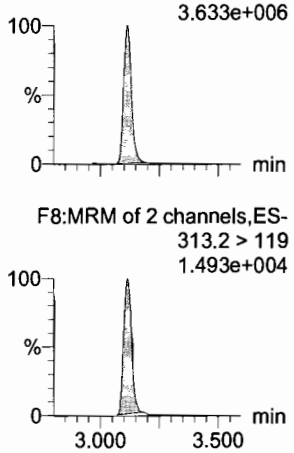

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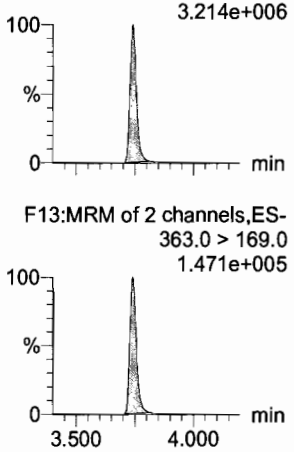

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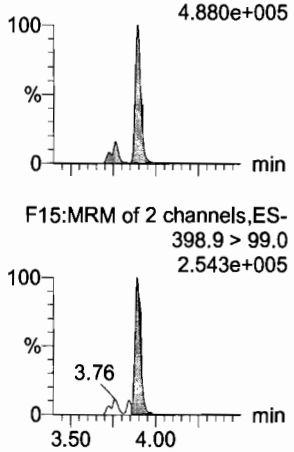

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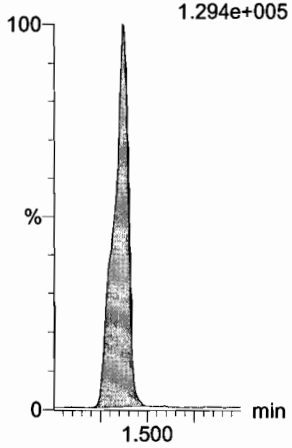

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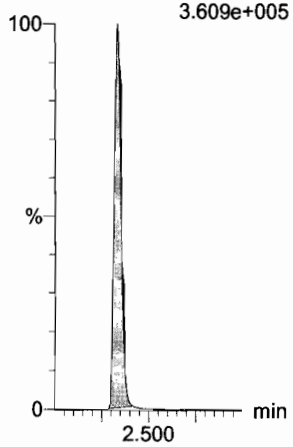

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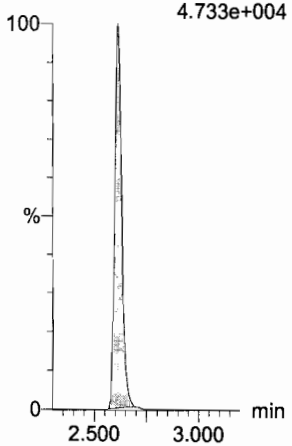

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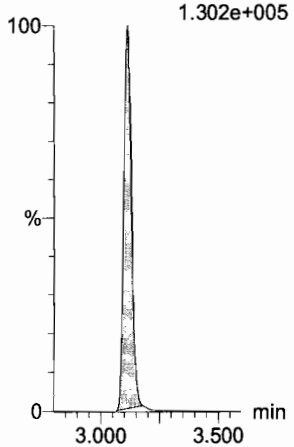

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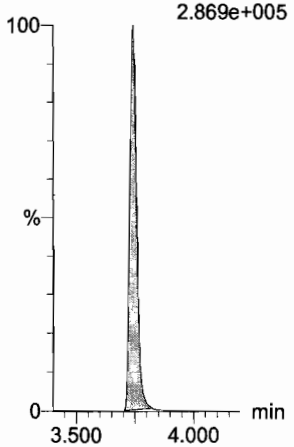

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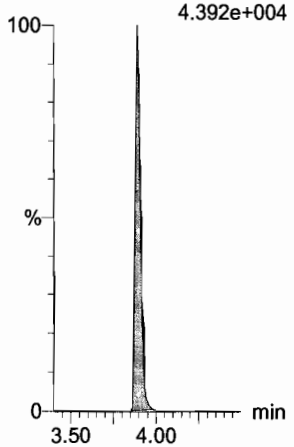

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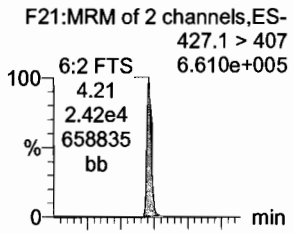
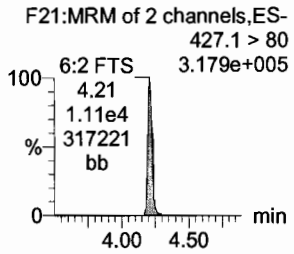
Name: 171214M1_9, Date: 14-Dec-2017, Time: 20:12:42, ID: ST171214M1-8 PFC CS5 17L1411, Description: PFC CS5 17L1411

6:2 FTS





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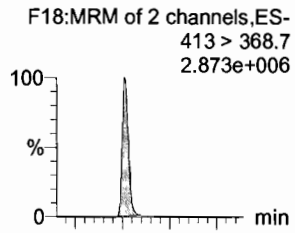

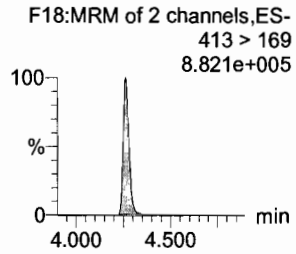

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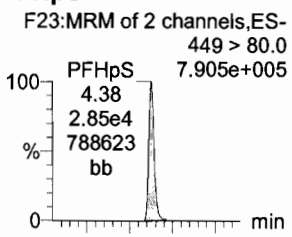

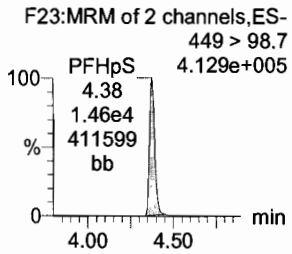

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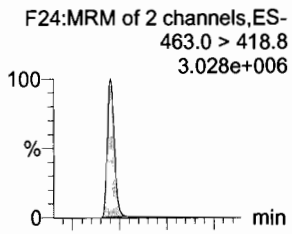

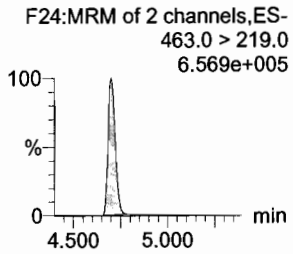

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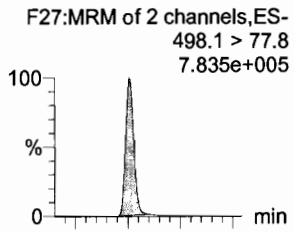

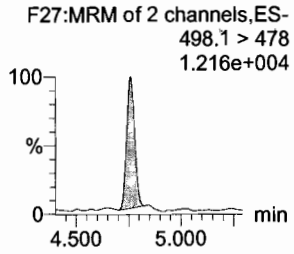

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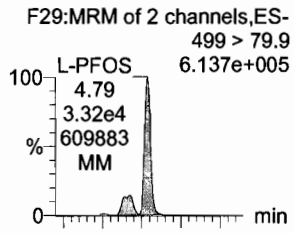

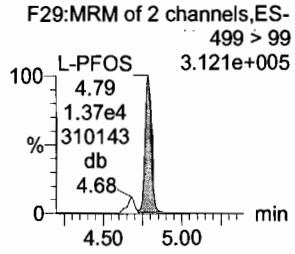

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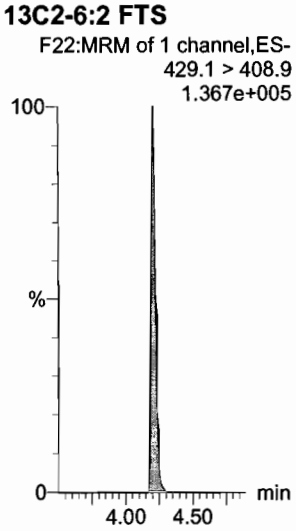
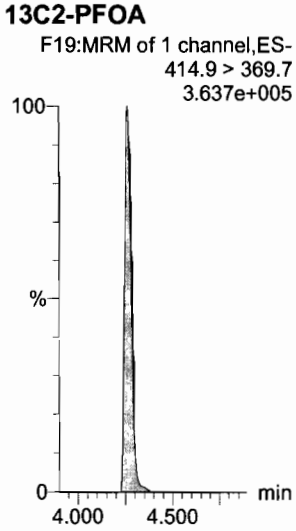


13C2-PFOA



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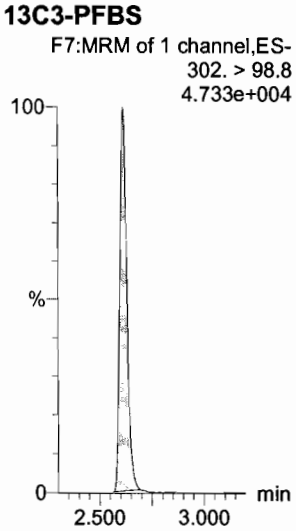

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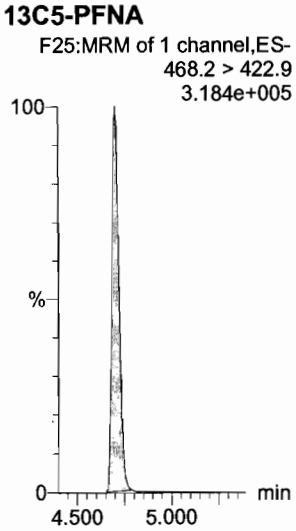

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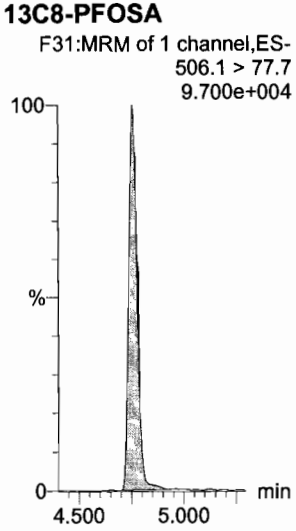

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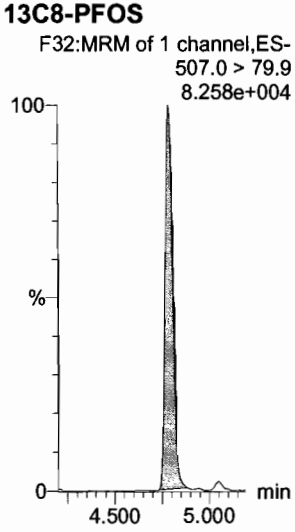

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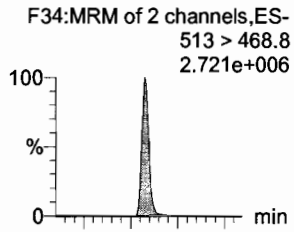
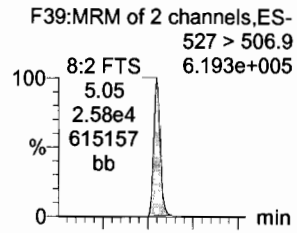


8:2 FTS



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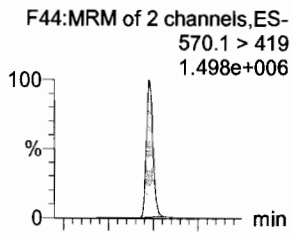

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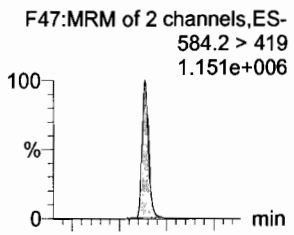

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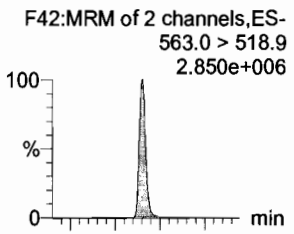

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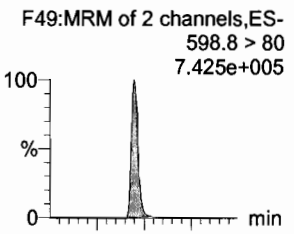

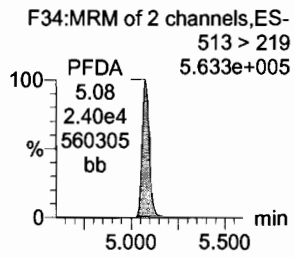

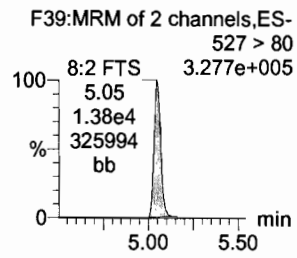

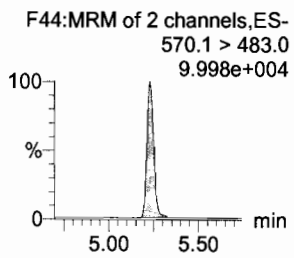

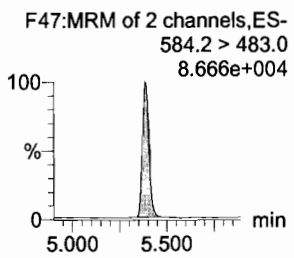

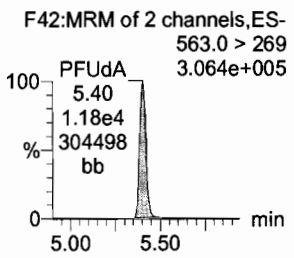

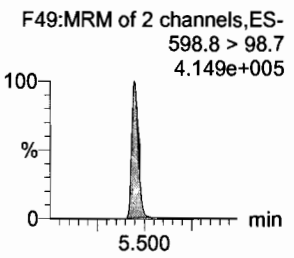

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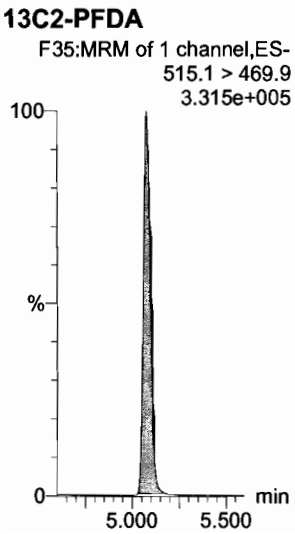
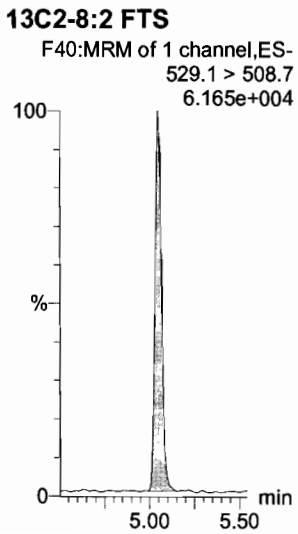


13C2-8:2 FTS



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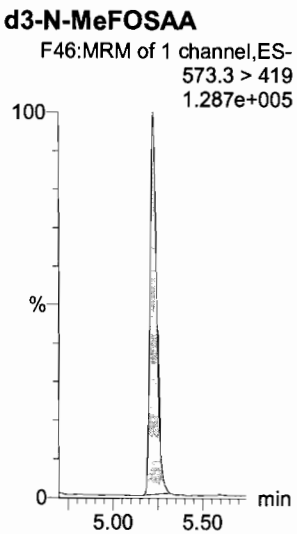

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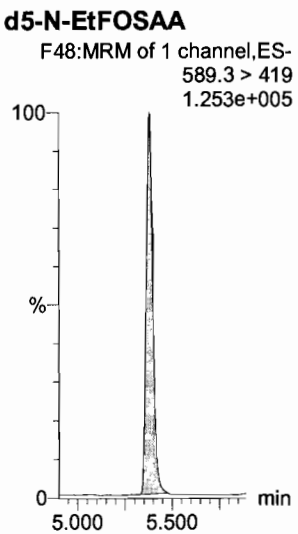

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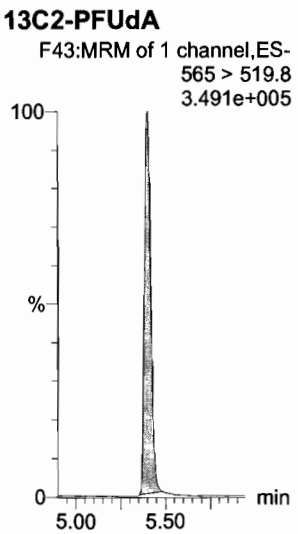

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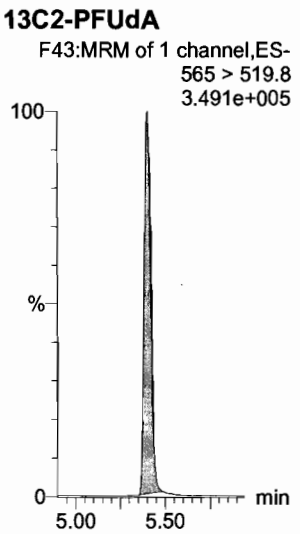

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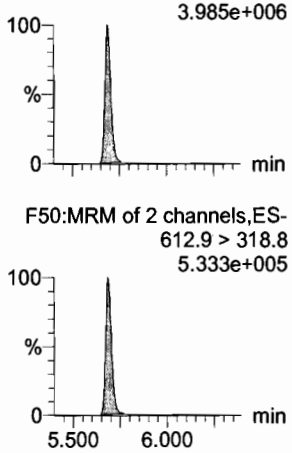

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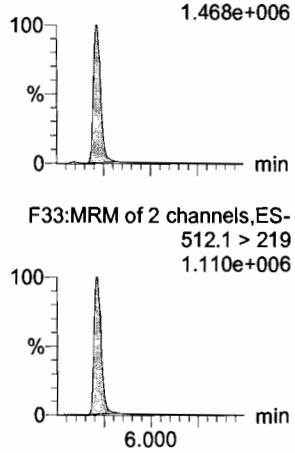

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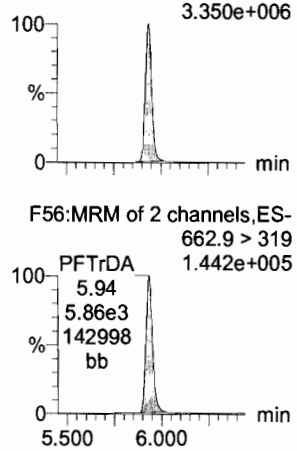

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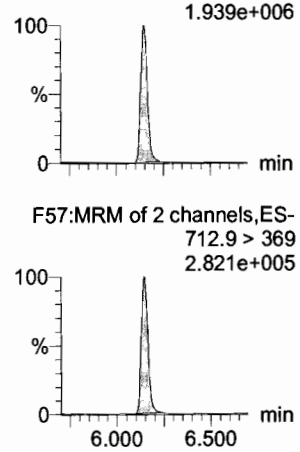

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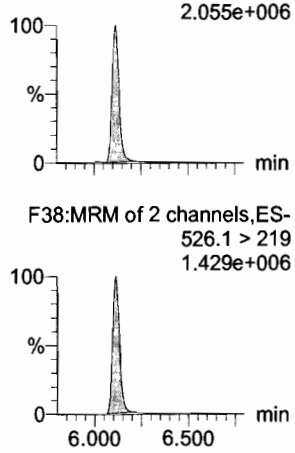
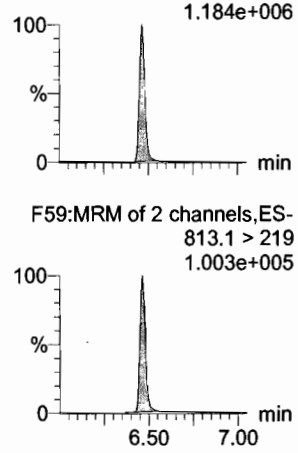
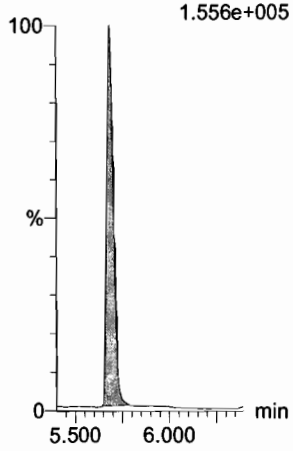


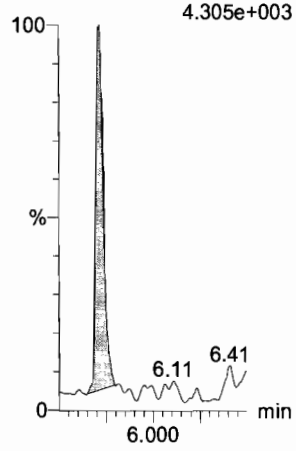
PFHxDA



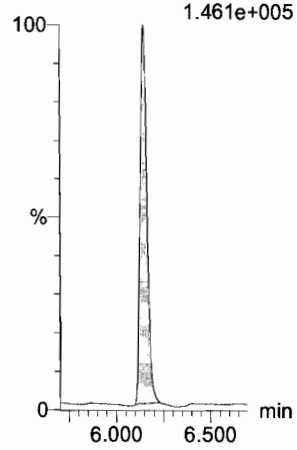
13C2-PFDoA



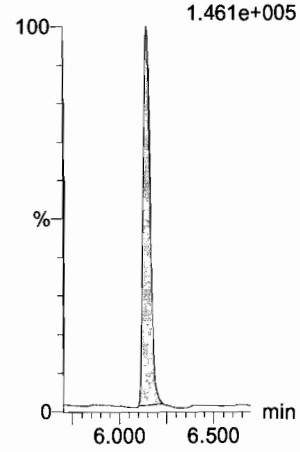
d3-N-MeFOSA



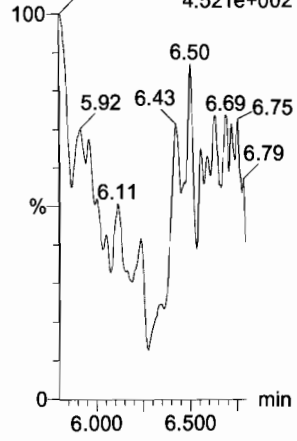
13C2-PFTeDA



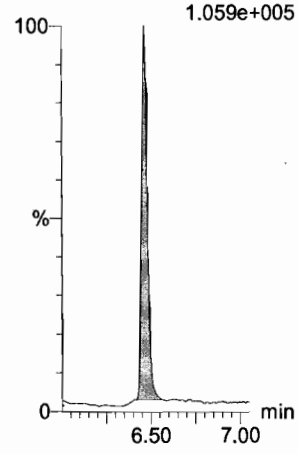
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

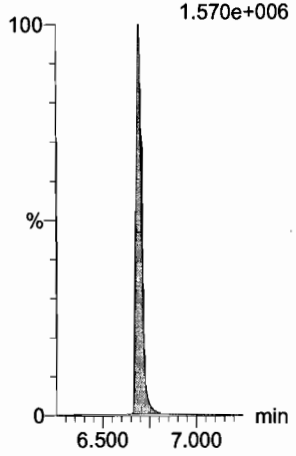


Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

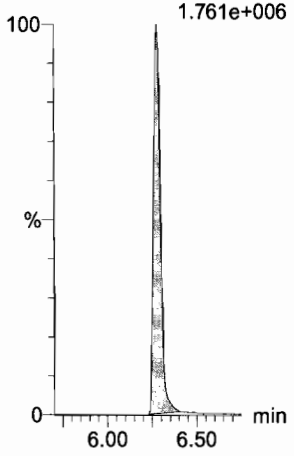
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_9, Date: 14-Dec-2017, Time: 20:12:42, ID: ST171214M1-8 PFC CS5 17L1411, Description: PFC CS5 17L1411

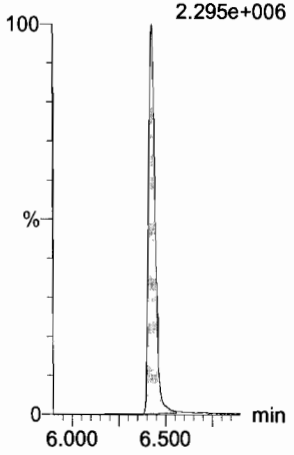
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.570e+006



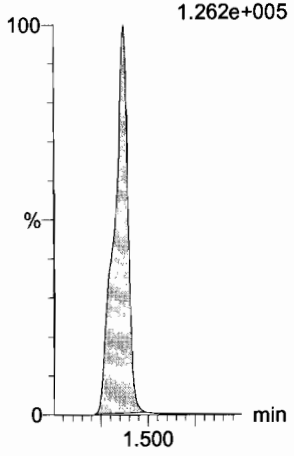
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.761e+006



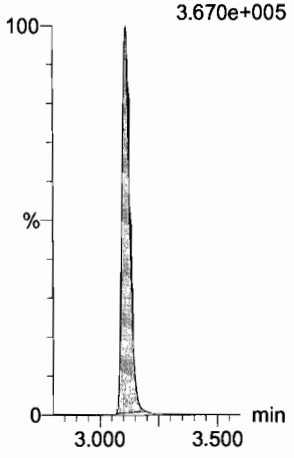
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.295e+006



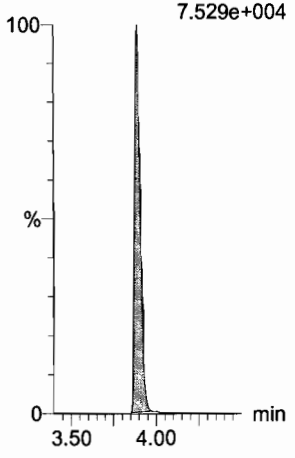
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.262e+005



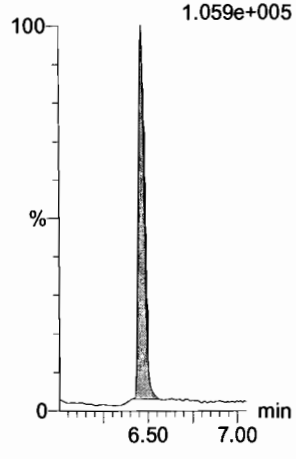
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.670e+005



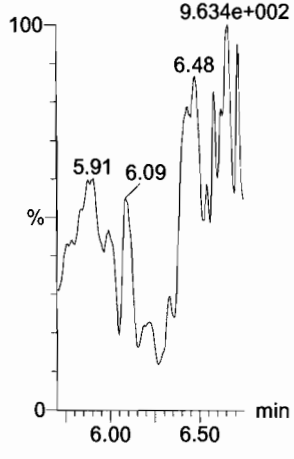
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
7.529e+004



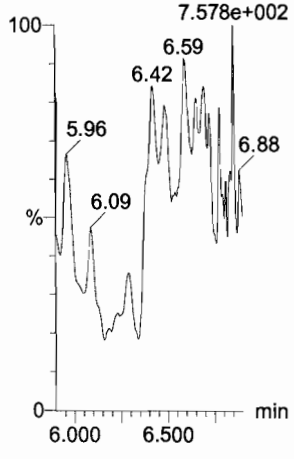
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.059e+005



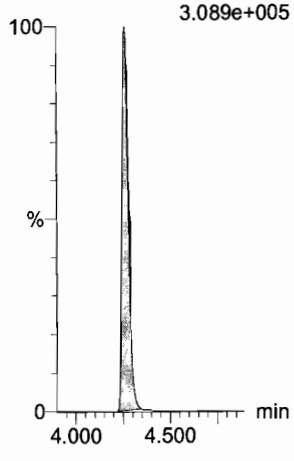
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
9.634e+002



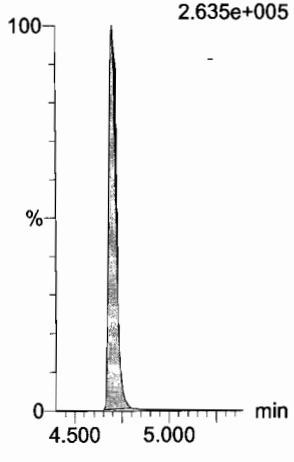
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.578e+002



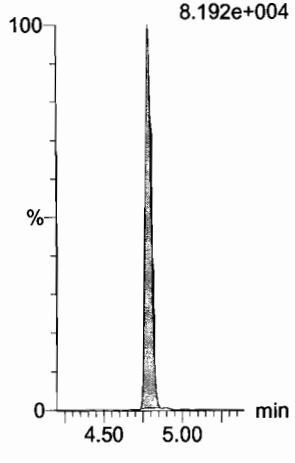
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.089e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.635e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.192e+004

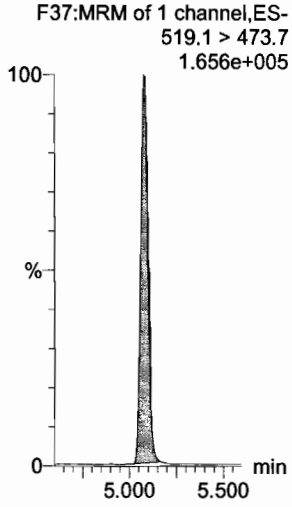


Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

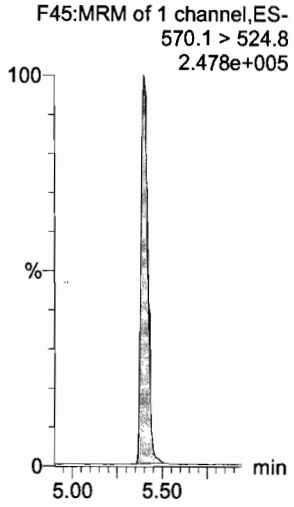
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_9, Date: 14-Dec-2017, Time: 20:12:42, ID: ST171214M1-8 PFC CS5 17L1411, Description: PFC CS5 17L1411

13C6-PFDA



13C7-PFUdA

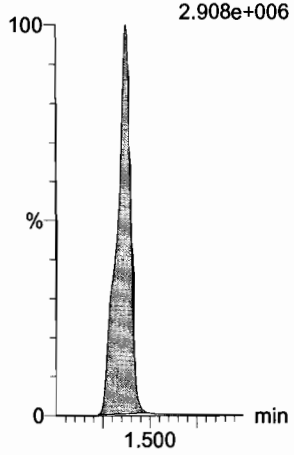


Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

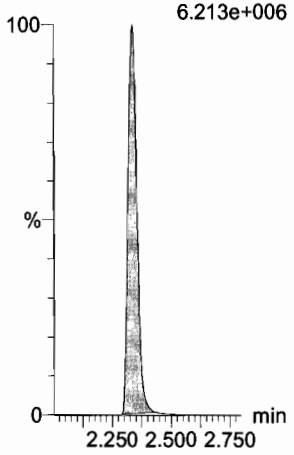
Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_10, Date: 14-Dec-2017, Time: 20:23:53, ID: ST171214M1-9 PFC CS6 17L1412, Description: PFC CS6 17L1412

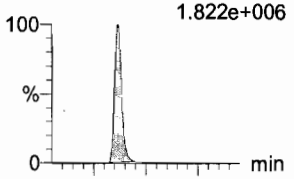
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
2.908e+006



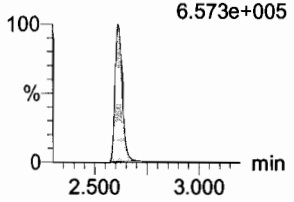
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
6.213e+006



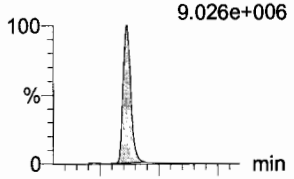
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
1.822e+006



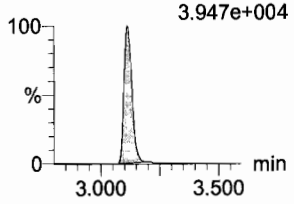
F6:MRM of 2 channels,ES-
299.0 > 99.0
6.573e+005



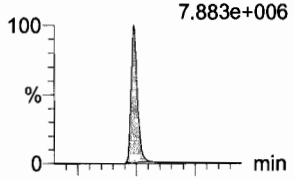
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
9.026e+006



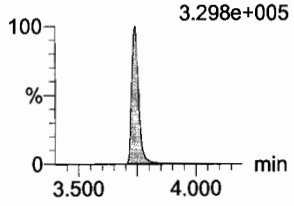
F8:MRM of 2 channels,ES-
313.2 > 119
3.947e+004



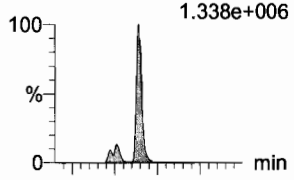
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
7.883e+006



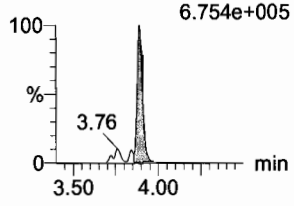
F13:MRM of 2 channels,ES-
363.0 > 169.0
3.298e+005



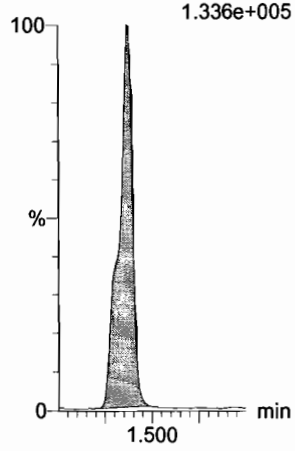
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
1.338e+006



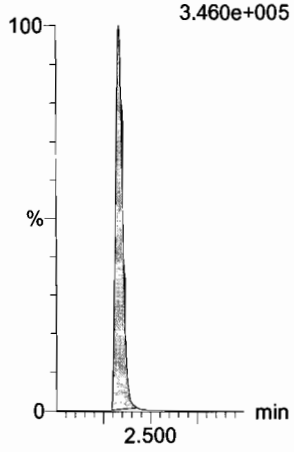
F15:MRM of 2 channels,ES-
398.9 > 99.0
6.754e+005



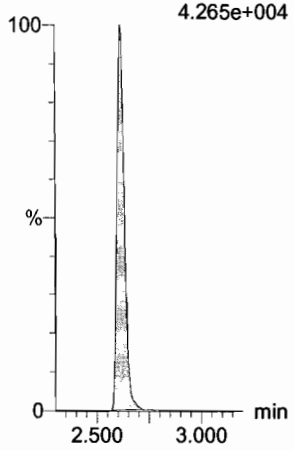
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.336e+005



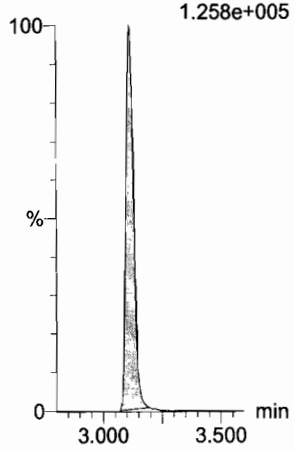
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.460e+005



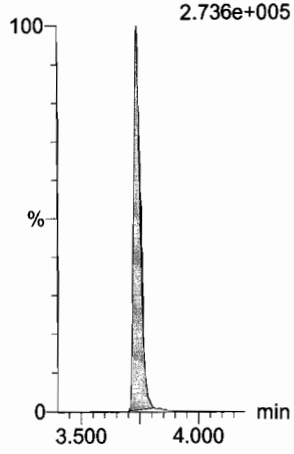
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
4.265e+004



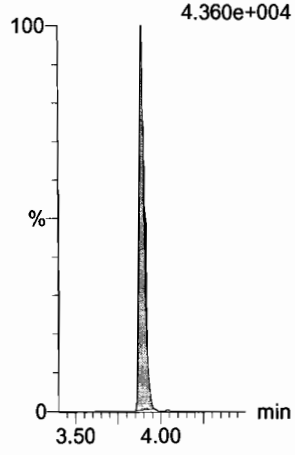
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.258e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
2.736e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
4.360e+004

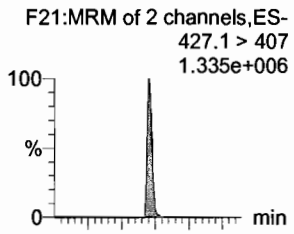


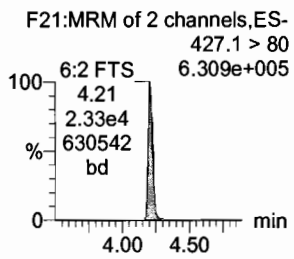
Dataset: U:\Q4.PRO\results\171214M1\171214M1-CRV.qld

Last Altered: Friday, December 15, 2017 09:17:26 Pacific Standard Time
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

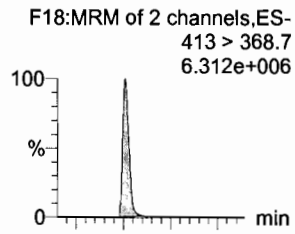
Name: 171214M1_10, Date: 14-Dec-2017, Time: 20:23:53, ID: ST171214M1-9 PFC CS6 17L1412, Description: PFC CS6 17L1412

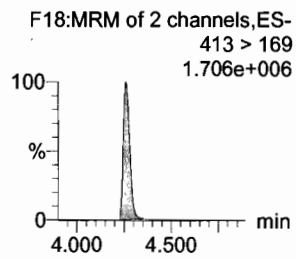
6:2 FTS



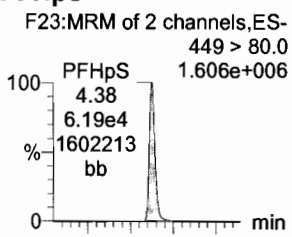


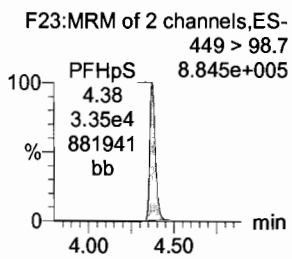
L-PFOA



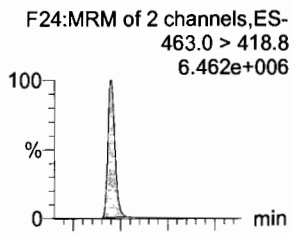


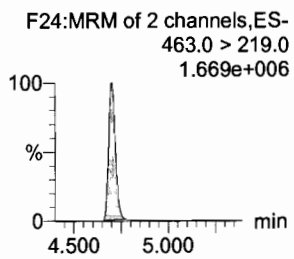
PFHpS



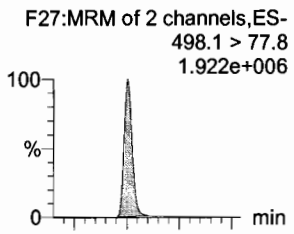


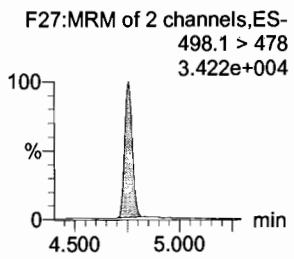
PFNA



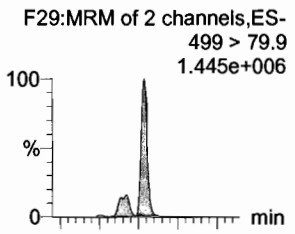


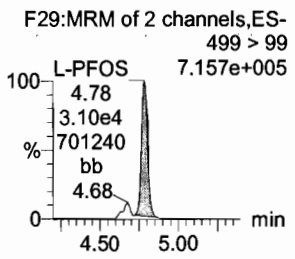
PFOSA



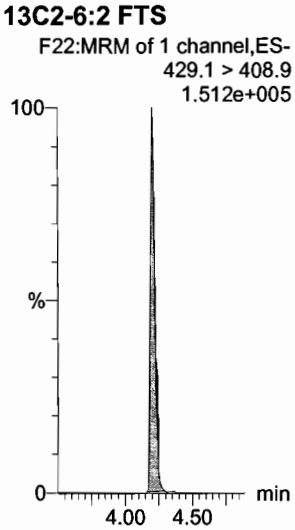


L-PFOS

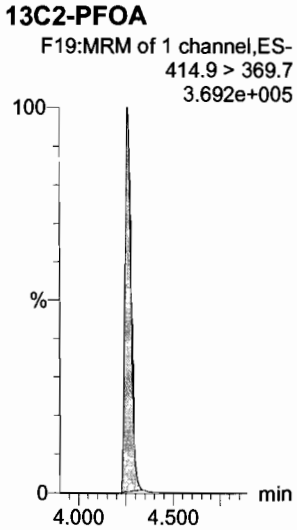




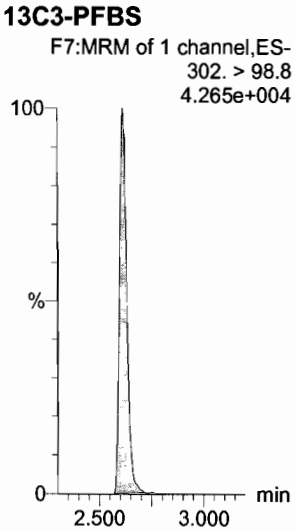
13C2-6:2 FTS



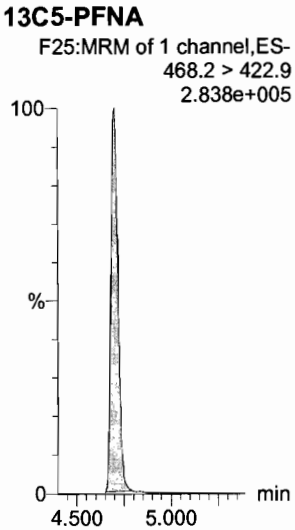
13C2-PFOA



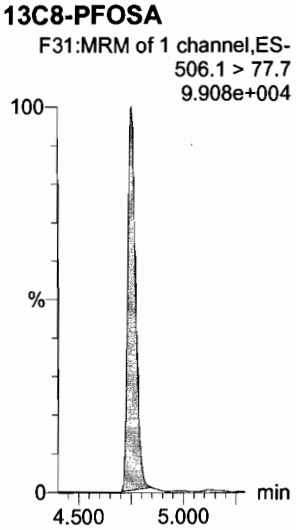
13C3-PFBS



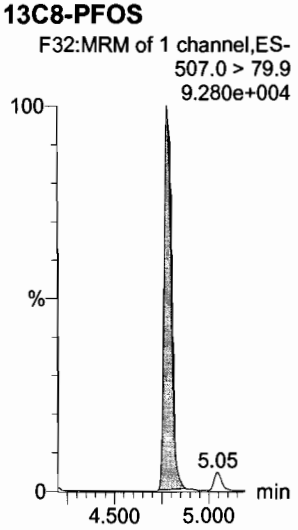
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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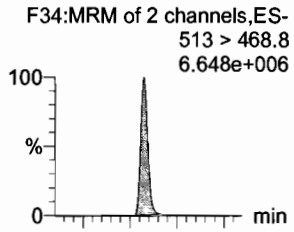
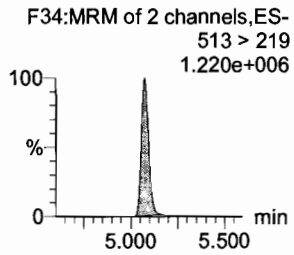
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

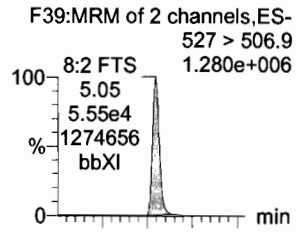
Name: 171214M1_10, Date: 14-Dec-2017, Time: 20:23:53, ID: ST171214M1-9 PFC CS6 17L1412, Description: PFC CS6 17L1412

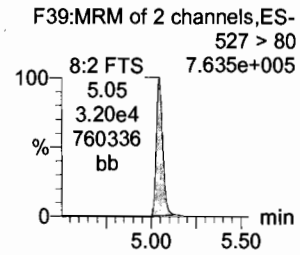
PFDA



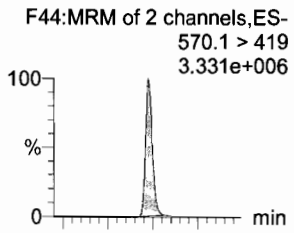


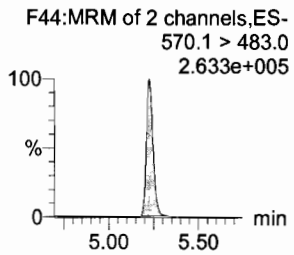
8:2 FTS



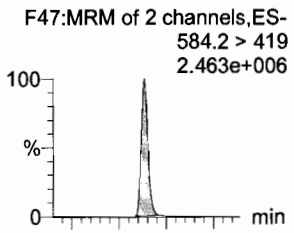


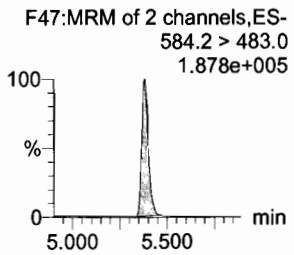
N-MeFOSAA



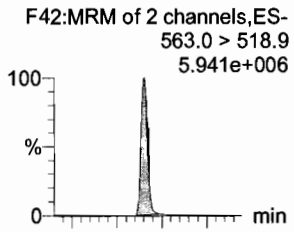


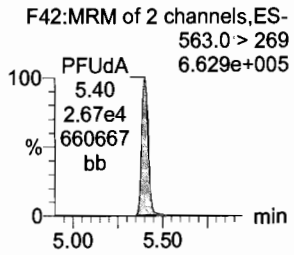
N-EtFOSAA



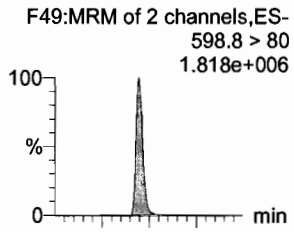


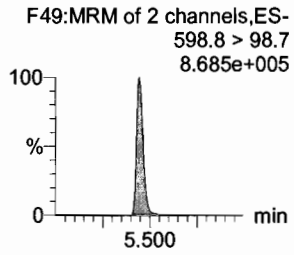
PFUdA



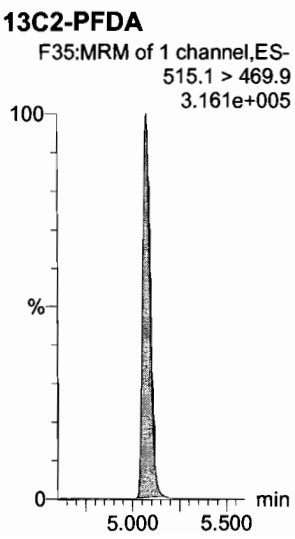


PFDS

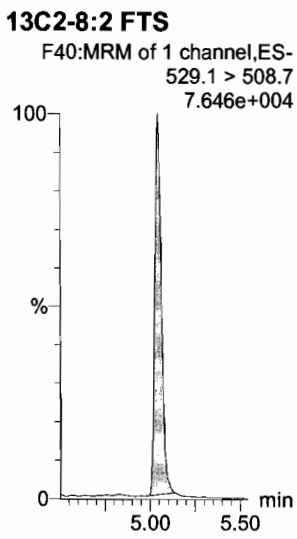




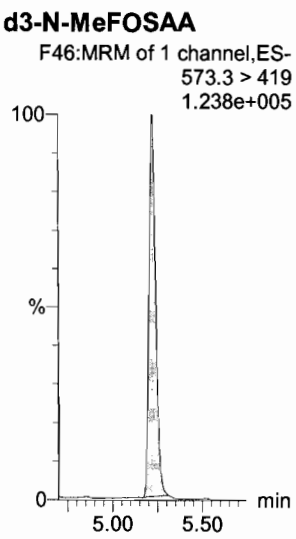
13C2-PFDA



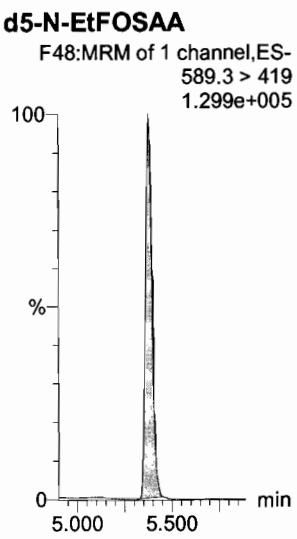
13C2-8:2 FTS



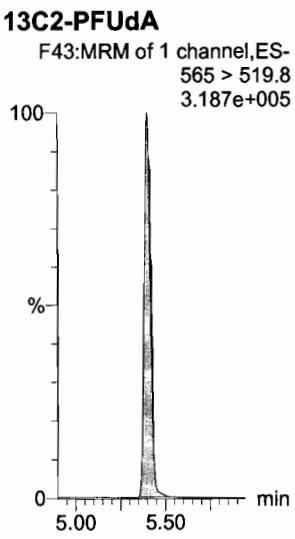
d3-N-MeFOSAA



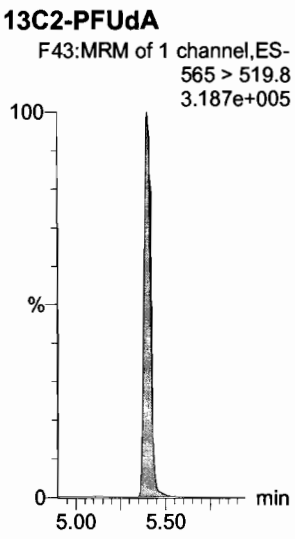
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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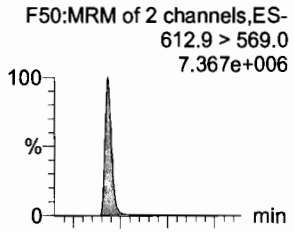
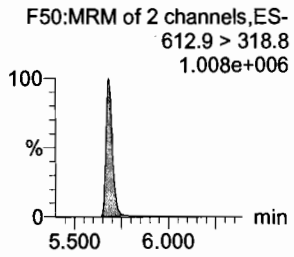
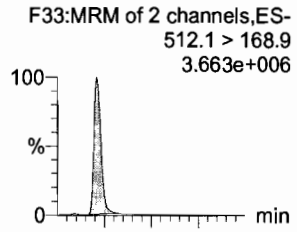
Name: 171214M1_10, Date: 14-Dec-2017, Time: 20:23:53, ID: ST171214M1-9 PFC CS6 17L1412, Description: PFC CS6 17L1412

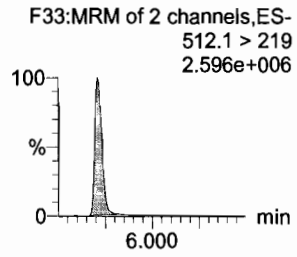
PFDoA



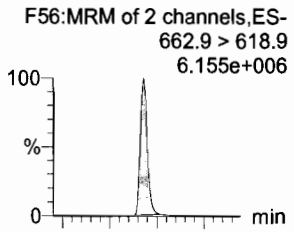


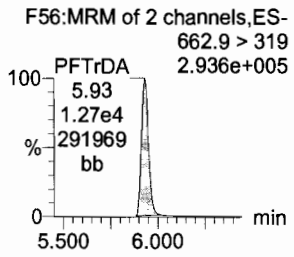
N-MeFOSA



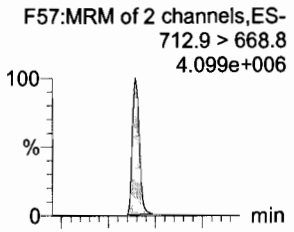


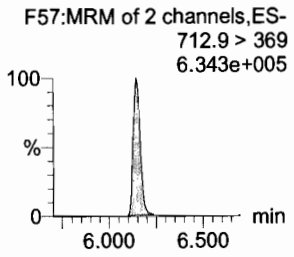
PFTrDA





PFTeDA





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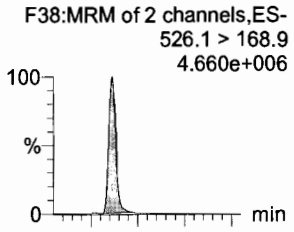
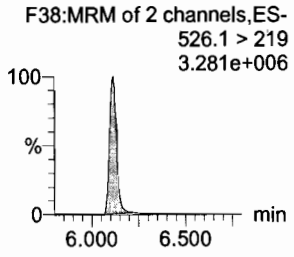
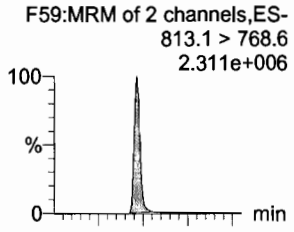
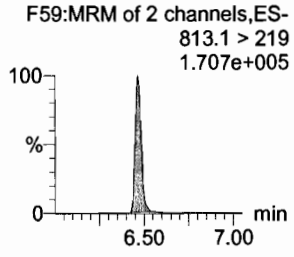




PFHxDA





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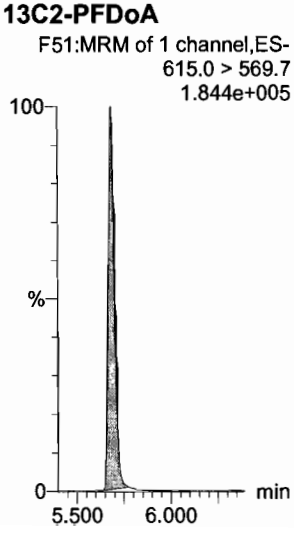
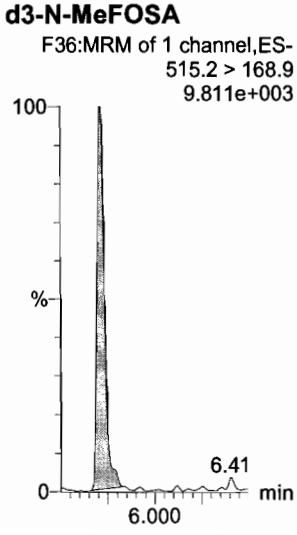


d3-N-MeFOSA



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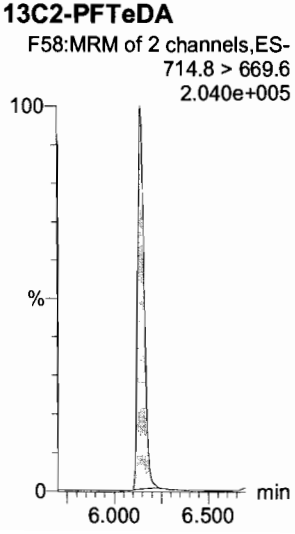

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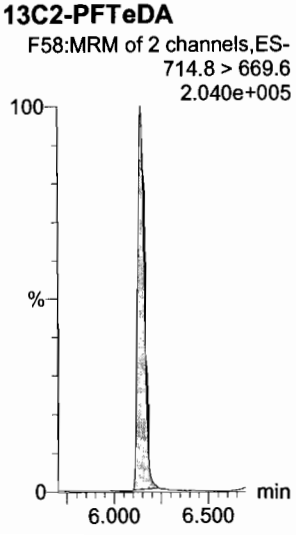
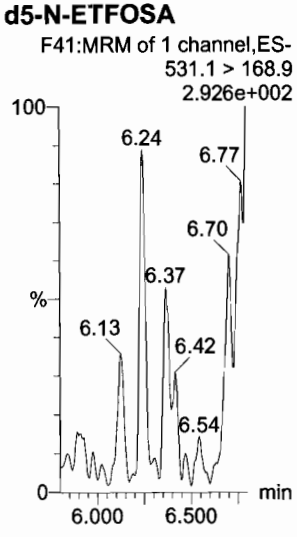
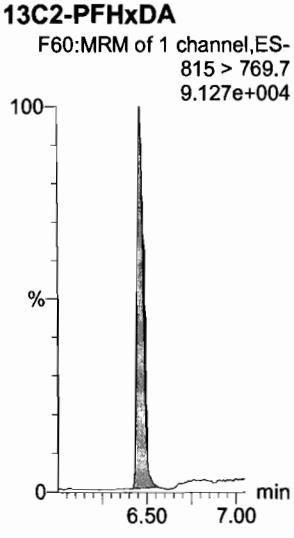


d5-N-ETFOSA



13C2-PFHxDA



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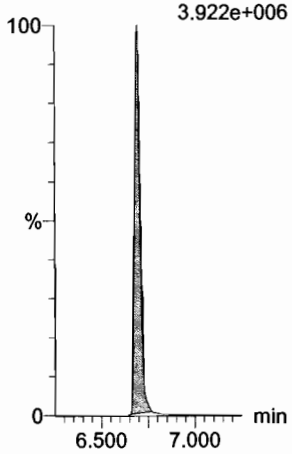
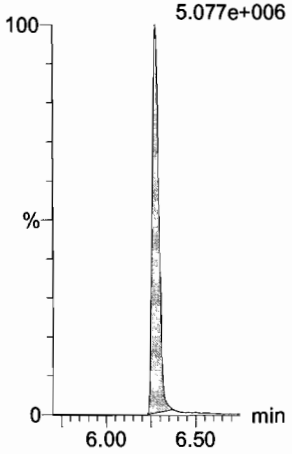
Name: 171214M1_10, Date: 14-Dec-2017, Time: 20:23:53, ID: ST171214M1-9 PFC CS6 17L1412, Description: PFC CS6 17L1412

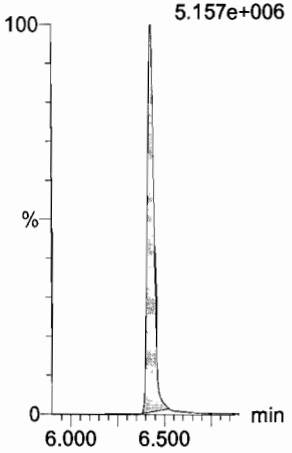
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.922e+006



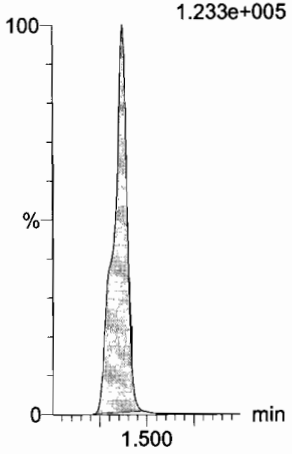
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
5.077e+006



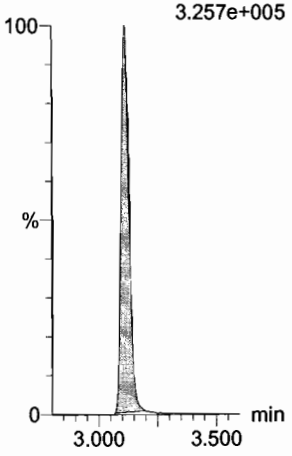
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
5.157e+006



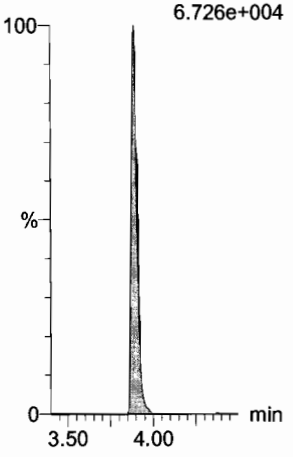
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.233e+005



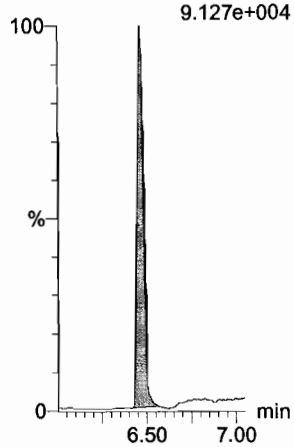
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.257e+005



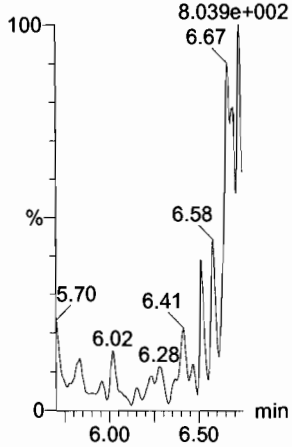
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
6.726e+004



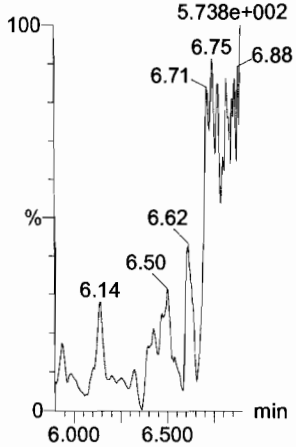
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
9.127e+004



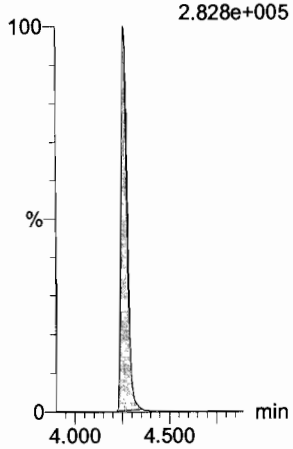
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
8.039e+002



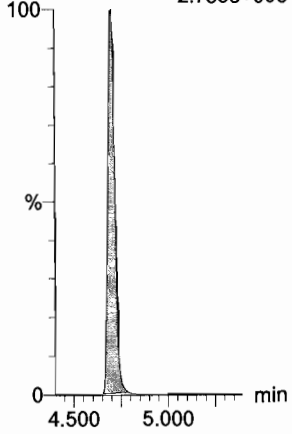
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.738e+002



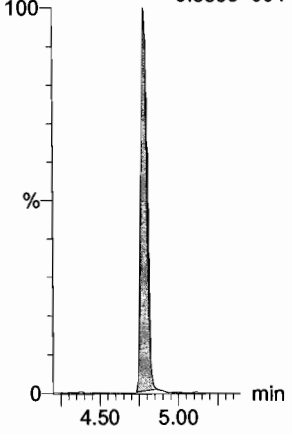
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
2.828e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.733e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
6.885e+004



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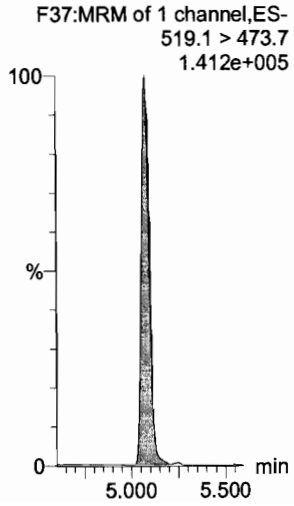
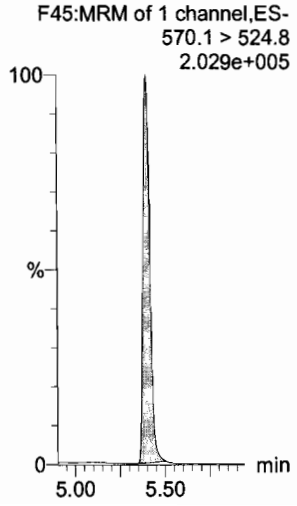
Printed: Friday, December 15, 2017 09:19:01 Pacific Standard Time

Name: 171214M1_10, Date: 14-Dec-2017, Time: 20:23:53, ID: ST171214M1-9 PFC CS6 17L1412, Description: PFC CS6 17L1412

13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171214M1\171214M1-13.qld

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Last Altered: Friday, December 15, 2017 10:24:46 Pacific Standard Time
Printed: Friday, December 15, 2017 10:25:04 Pacific Standard Time

AC 12/15/17

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 14 Dec 2017 08:34:51
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

JA. 12/15/2017

Name: 171214M1_13, Date: 14-Dec-2017, Time: 20:57:25, ID: ICV171214M1-1 PFC ICV 17L1403, Description: PFC ICV 17L1403

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	8.46e3	1.01e4	1.0000		1.46	1.40	10.4	9.733	97.3
2	2	PFPeA	263.1 > 218.9	1.09e4	1.39e4	1.0000		2.41	2.35	9.77	10.674	106.7
3	3	PFBS	299.0 > 79.7	2.36e3	1.70e3	1.0000		2.70	2.62	17.3	8.520	85.2
4	4	PFHxA	313.2 > 268.9	1.26e4	4.83e3	1.0000		3.18	3.12	13.0	8.966	89.7
5	5	PFHpA	363.0 > 318.9	1.01e4	9.82e3	1.0000		3.80	3.75	12.8	9.647	96.5
6	6	L-PFHxS	398.9 > 79.6	2.01e3	1.53e3	1.0000		4.00	3.90	16.4	8.490	84.9
7	8	6:2 FTS	427.1 > 407	2.50e3	3.29e3	1.0000		4.26	4.21	9.49	9.027	90.3
8	9	L-PFOA	413 > 368.7	1.04e4	1.37e4	1.0000		4.32	4.27	9.50	10.219	102.2
9	11	PFHpS	449 > 80.0	2.66e3	1.37e4	1.0000		4.43	4.38	2.43	9.763	97.6
10	12	PFNA	463.0 > 418.8	1.22e4	1.28e4	1.0000		4.78	4.71	11.9	9.478	94.8
11	13	PFOSA	498.1 > 77.8	3.37e3	4.84e3	1.0000		4.81	4.76	8.72	9.177	91.8
12	14	L-PFOS	499 > 79.9	2.50e3	3.26e3	1.0000		4.83	4.79	9.58	8.539	85.4
13	16	PFDA	513 > 468.8	1.26e4	1.47e4	1.0000		5.12	5.08	10.7	9.621	96.2
14	17	8:2 FTS	527 > 506.9	2.92e3	2.00e3	1.0000		5.09	5.05	18.3	8.878	88.8
15	18	N-MeFOSAA	570.1 > 419	6.76e3	4.79e3	1.0000		5.25	5.24	17.6	12.508	125.1
16	19	N-EtFOSAA	584.2 > 419	4.28e3	5.56e3	1.0000		5.45	5.39	9.60	9.027	90.3
17	20	PFUdA	563.0 > 518.9	1.15e4	1.52e4	1.0000		5.44	5.41	9.46	9.601	96.0
18	21	PFDS	598.8 > 80	2.61e3	1.52e4	1.0000		5.49	5.46	2.15	7.559	75.6
19	22	PFDoA	612.9 > 569.0	1.19e4	8.85e3	1.0000		5.75	5.69	16.8	8.167	81.7
20	23	N-MeFOSA	512.1 > 168.9			1.0000		5.80				Ⓐ
21	24	PFTrDA	662.9 > 618.9	1.19e4	8.85e3	1.0000		5.97	5.94	16.9	8.003	80.0
22	25	PFTeDA	712.9 > 668.8	1.01e4	8.06e3	1.0000		6.20	6.15	15.7	9.094	90.9
23	26	N-EtFOSA	526.1 > 168.9			1.0000		6.16				Ⓐ
24	27	PFHxDA	813.1 > 768.6		4.48e3	1.0000		6.50				
25	28	PFODA	913.1 > 868.8		4.48e3	1.0000		6.75				
26	29	N-MeFOSE	616.1 > 58.9			1.0000		6.30				
27	30	N-EtFOSE	630.1 > 58.9			1.0000		6.42				
28	31	13C3-PFBA	216.1 > 171.8	1.01e4	9.82e3	1.0000	1.056	1.46	1.39	12.9	12.197	97.6
29	32	13C3-PFPeA	266. > 221.8	1.39e4	1.26e4	1.0000	1.044	2.41	2.35	13.8	13.184	105.5
30	33	13C3-PFBS	302. > 98.8	1.70e3	1.26e4	1.0000	0.124	2.70	2.62	1.68	13.540	108.3
31	34	13C2-PFHxA	315 > 269.8	4.83e3	1.26e4	1.0000	0.897	3.18	3.12	4.77	5.322	106.4

70-130

Dataset: U:\Q4.PRO\results\171214M1\171214M1-13.qld

Last Altered: Friday, December 15, 2017 10:24:46 Pacific Standard Time
Printed: Friday, December 15, 2017 10:25:04 Pacific Standard Time

Name: 171214M1_13, Date: 14-Dec-2017, Time: 20:57:25, ID: ICV171214M1-1 PFC ICV 17L1403, Description: PFC ICV 17L1403

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	9.82e3	1.26e4	1.0000	0.689	3.80	3.75	9.71	14.089	112.7
33	36	18O2-PFHxS	403.0 > 102.6	1.53e3	2.98e3	1.0000	0.530	4.00	3.90	6.45	12.158	97.3
34	37	13C2-6:2 FTS	429.1 > 408.9	3.29e3	9.69e3	1.0000	0.331	4.26	4.21	4.25	12.846	102.8
35	38	13C2-PFOA	414.9 > 369.7	1.37e4	9.69e3	1.0000	1.316	4.32	4.27	17.6	13.403	107.2
36	39	13C5-PFNA	468.2 > 422.9	1.28e4	9.88e3	1.0000	1.109	4.78	4.71	16.2	14.632	117.1
37	40	13C8-PFOSA	506.1 > 77.7	4.84e3	9.89e3	1.0000	0.487	4.81	4.76	6.11	12.560	100.5
38	41	13C8-PFOS	507.0 > 79.9	3.26e3	3.07e3	1.0000	1.163	4.83	4.79	13.3	11.415	91.3
39	42	13C2-PFDA	515.1 > 469.9	1.47e4	8.92e3	1.0000	1.694	5.12	5.08	20.6	12.141	97.1
40	43	13C2-8:2 FTS	529.1 > 508.7	2.00e3	1.26e4	1.0000	0.141	5.09	5.05	1.97	14.004	112.0
41	44	d3-N-MeFOSAA	573.3 > 419	4.79e3	9.89e3	1.0000	0.530	5.25	5.23	6.05	11.420	91.4
42	45	d5-N-EtFOSAA	589.3 > 419	5.56e3	9.89e3	1.0000	0.541	5.45	5.38	7.03	13.007	104.1
43	46	13C2-PFUdA	565 > 519.8	1.52e4	9.89e3	1.0000	1.351	5.44	5.41	19.2	14.219	113.8
44	47	13C2-PFDoA	615.0 > 569.7	8.85e3	9.89e3	1.0000	0.765	5.75	5.69	11.2	14.620	117.0
45	48	d3-N-MeFOSA	515.2 > 168.9		9.89e3	1.0000	0.002	5.80				
46	49	13C2-PFTeDA	714.8 > 669.6	8.06e3	9.89e3	1.0000	0.771	6.20	6.15	10.2	13.200	105.6
47	50	d5-N-ETFOSA	531.1 > 168.9		9.89e3	1.0000		6.16				
48	51	13C2-PFHxDA	815 > 769.7	4.48e3	9.89e3	1.0000	0.978	6.50	6.47	5.66	5.792	115.8
49	52	d7-N-MeFOSE	623.1 > 58.9		9.89e3	1.0000	0.000	6.30				
50	53	d9-N-EtFOSE	639.2 > 58.8		9.89e3	1.0000		6.42				
51	54	13C4-PFBA	217. > 171.8	9.82e3	9.82e3	1.0000	1.000	1.46	1.40	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.26e4	1.26e4	1.0000	1.000	3.18	3.12	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	2.98e3	2.98e3	1.0000	1.000	4.00	3.89	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	9.69e3	9.69e3	1.0000	1.000	4.32	4.27	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	9.88e3	9.88e3	1.0000	1.000	4.78	4.71	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	3.07e3	3.07e3	1.0000	1.000	4.83	4.79	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	8.92e3	8.92e3	1.0000	1.000	5.12	5.08	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	9.89e3	9.89e3	1.0000	1.000	5.44	5.41	12.5	12.500	100.0

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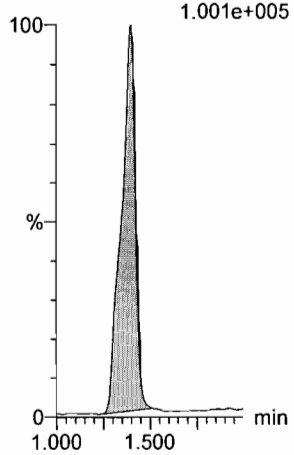
Last Altered: Friday, December 15, 2017 10:24:46 Pacific Standard Time
Printed: Friday, December 15, 2017 10:25:04 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_121317.mdb 14 Dec 2017 08:34:51
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-14-17_NEWRS.cdb 15 Dec 2017 10:09:26

Name: 171214M1_13, Date: 14-Dec-2017, Time: 20:57:25, ID: ICV171214M1-1 PFC ICV 17L1403, Description: PFC ICV 17L1403

PFBA



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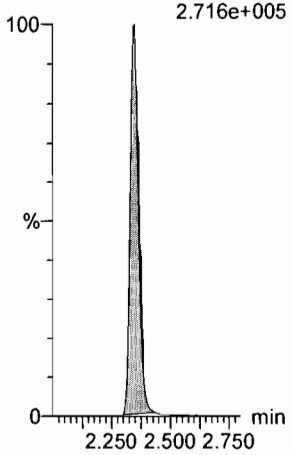

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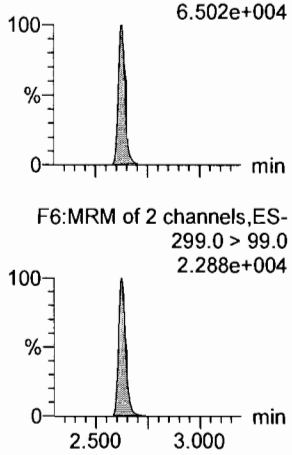

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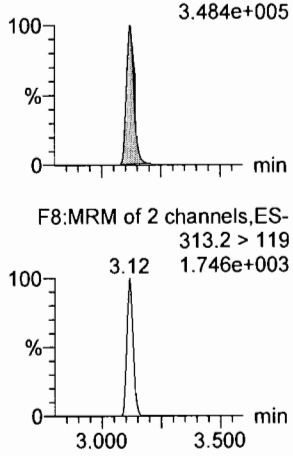

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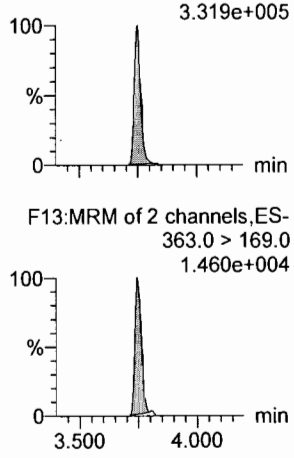

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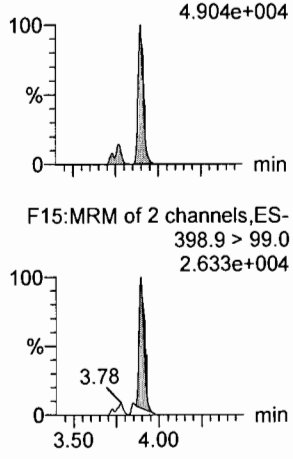

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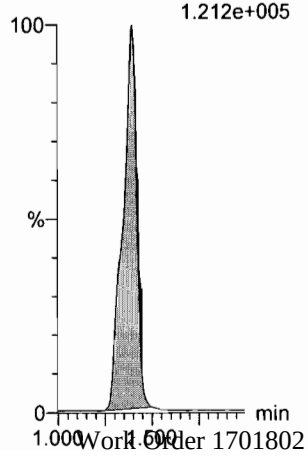
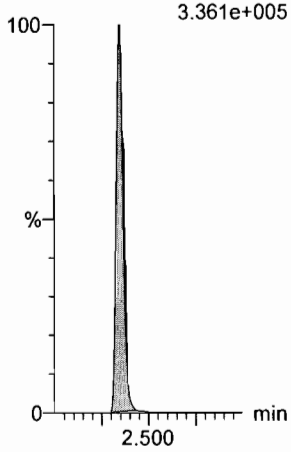


13C3-PFPeA



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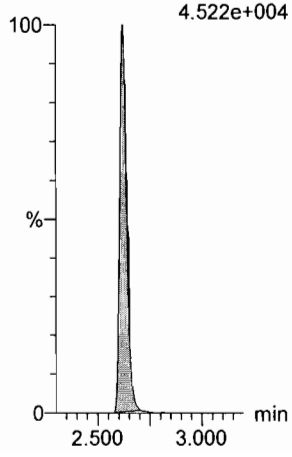
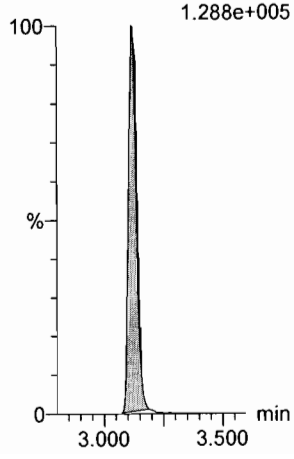


13C2-PFHxA



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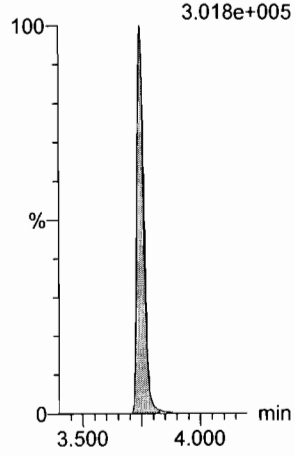
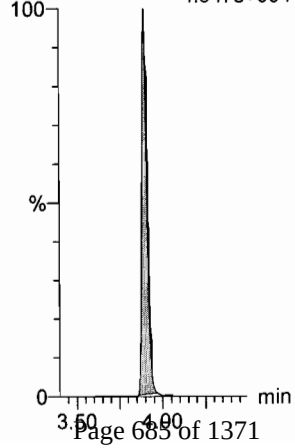


18O2-PFHxS



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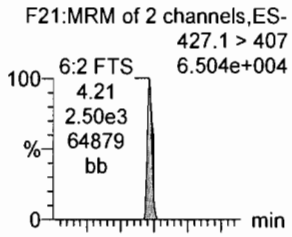
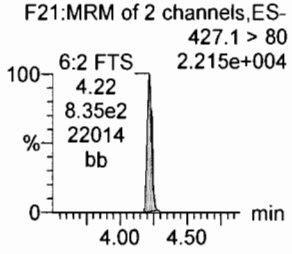
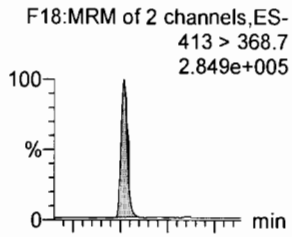
Name: 171214M1_13, Date: 14-Dec-2017, Time: 20:57:25, ID: ICV171214M1-1 PFC ICV 17L1403, Description: PFC ICV 17L1403

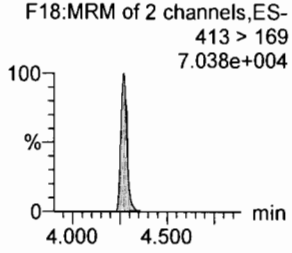
6:2 FTS



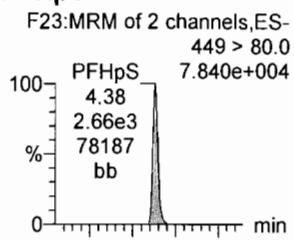


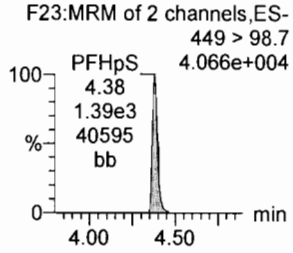
L-PFOA





PFHpS





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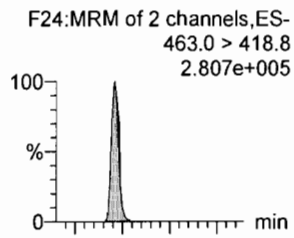

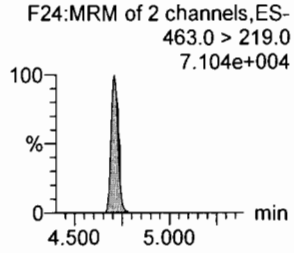

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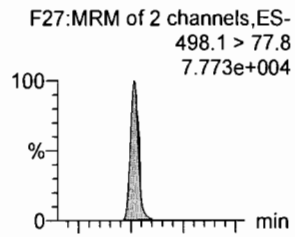
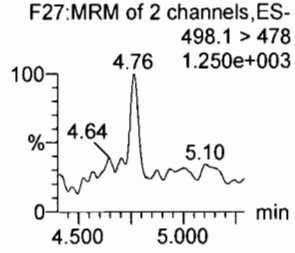
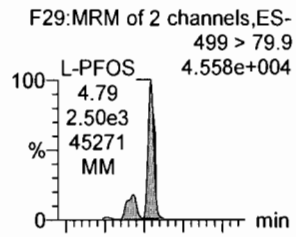
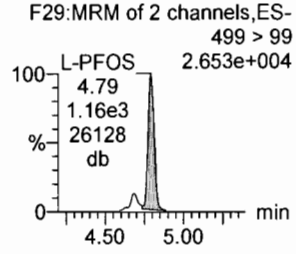


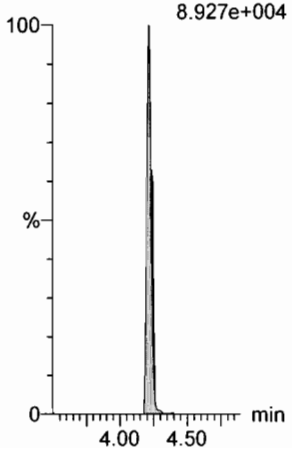


L-PFOS





13C2-6:2 FTS



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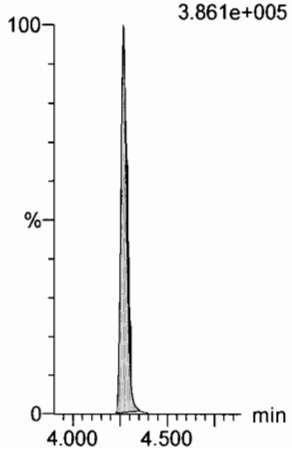

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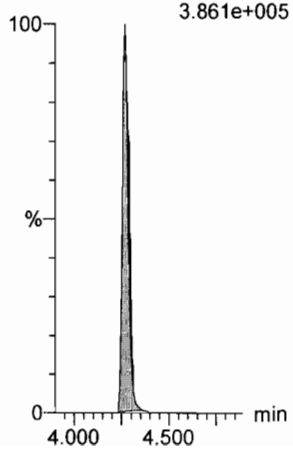

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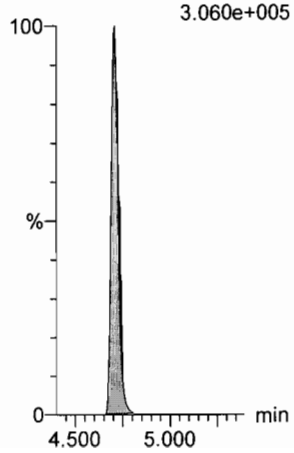

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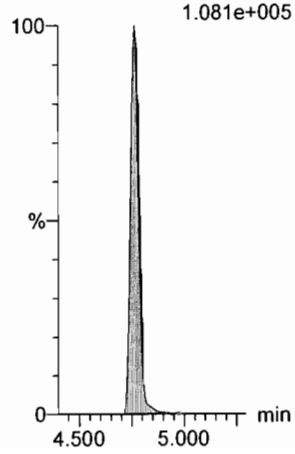

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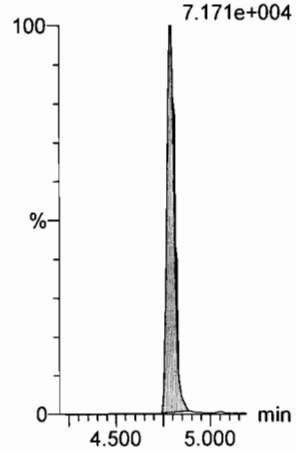

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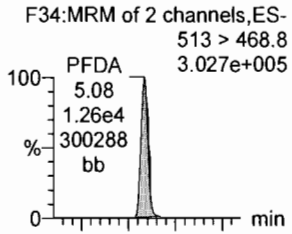
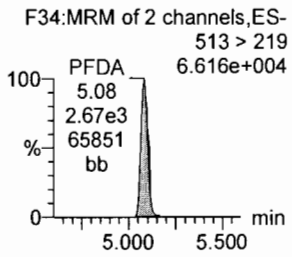
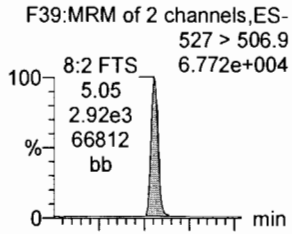
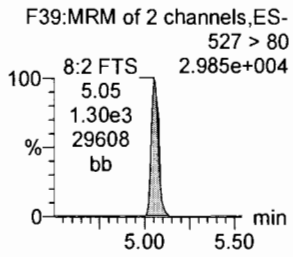


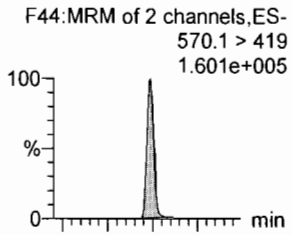


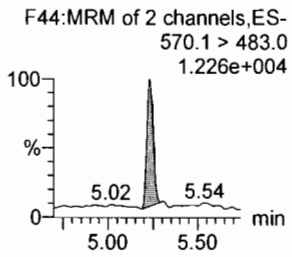
8:2 FTS





N-MeFOSAA





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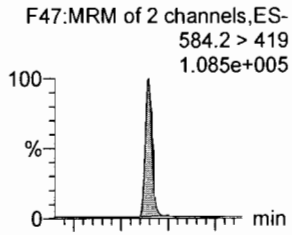

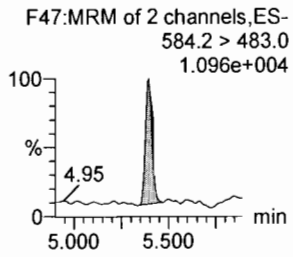

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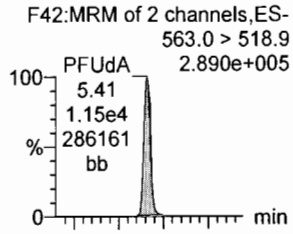

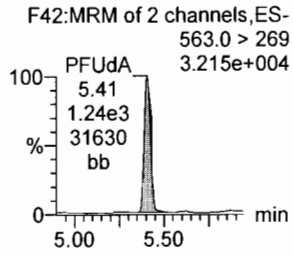

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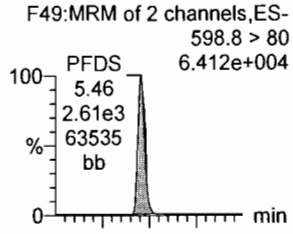

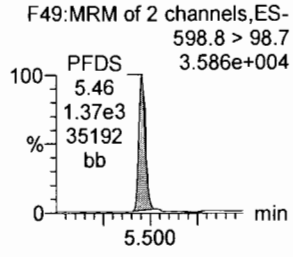

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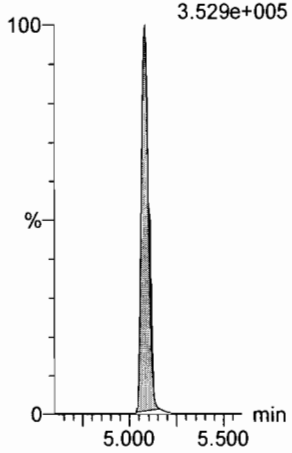
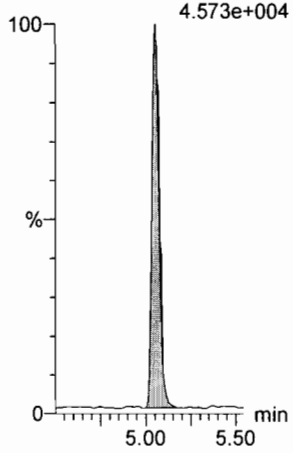


13C2-8:2 FTS



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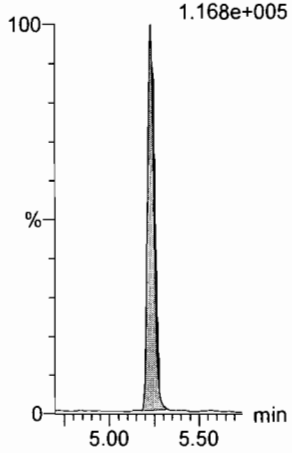
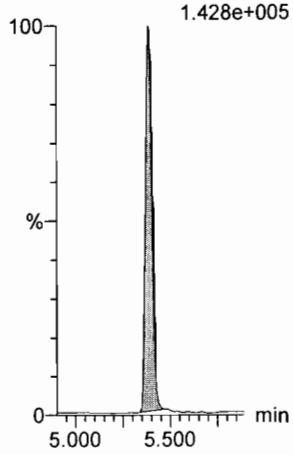


d5-N-EtFOSAA



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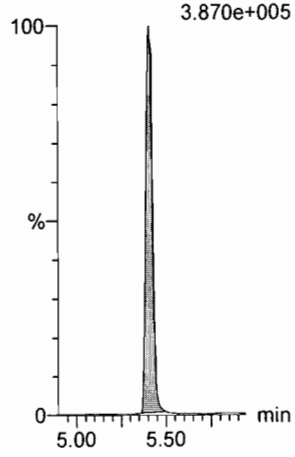

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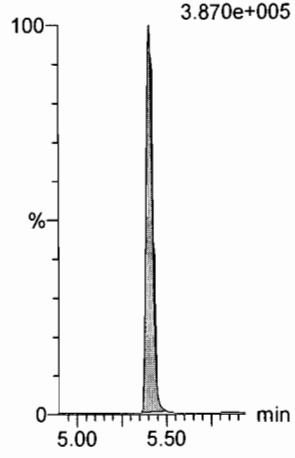

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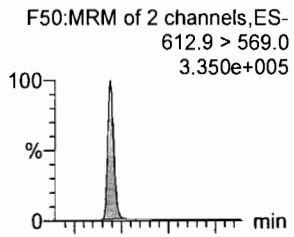

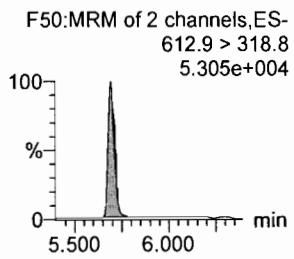

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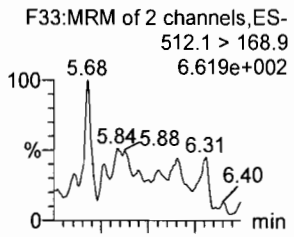

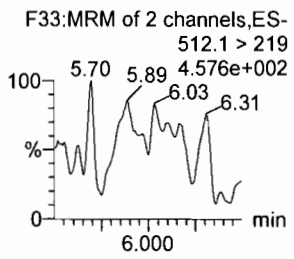

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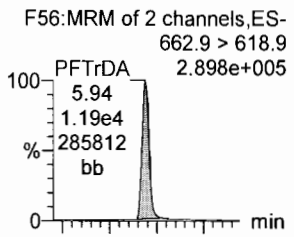

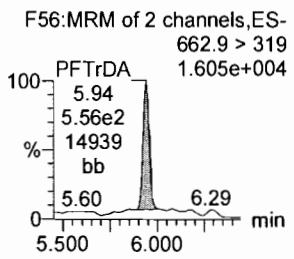

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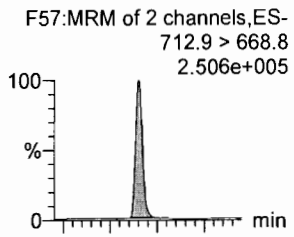

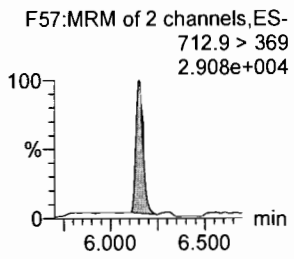

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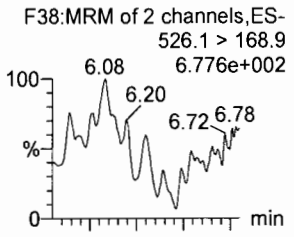
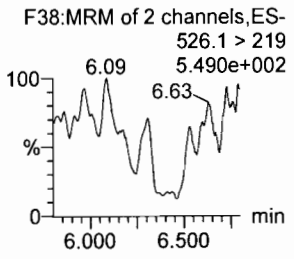
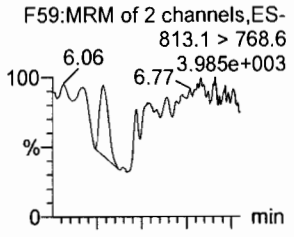
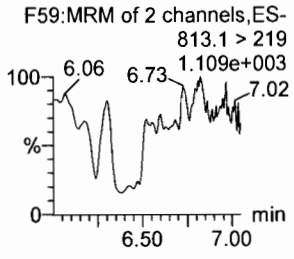




PFHxDA





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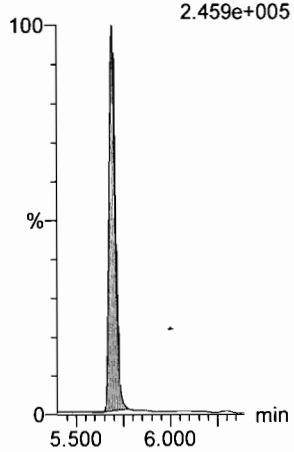
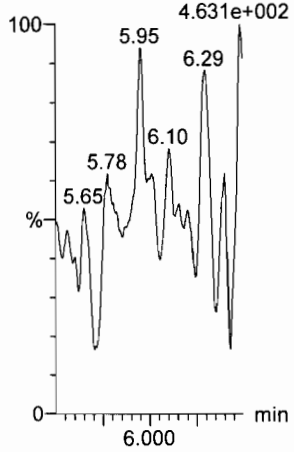


d3-N-MeFOSA



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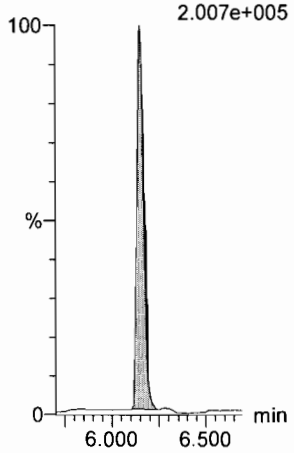

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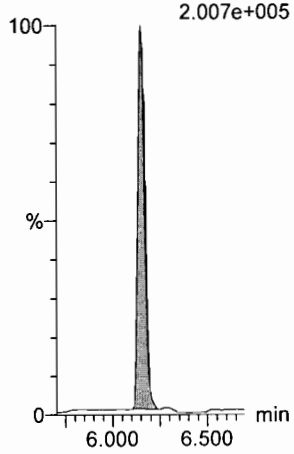

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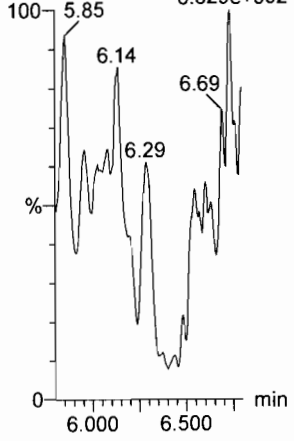

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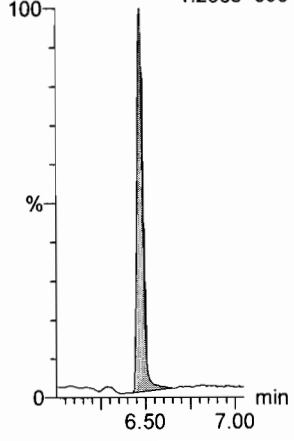

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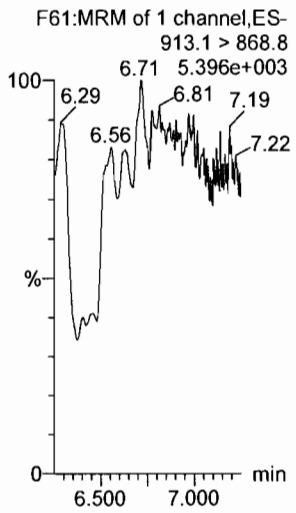

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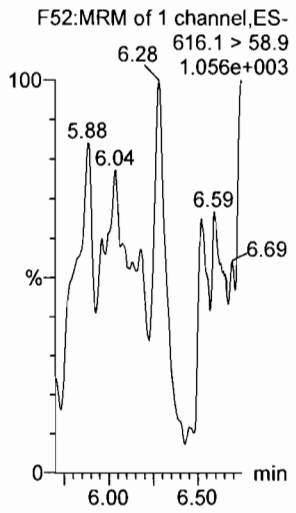

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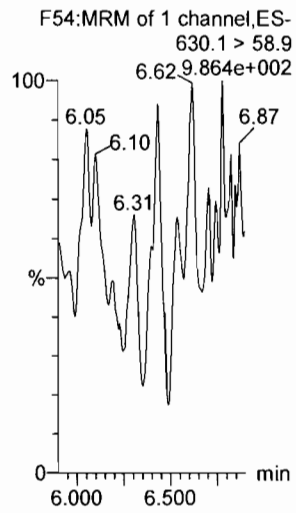

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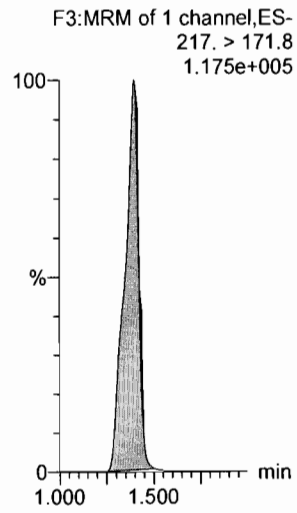

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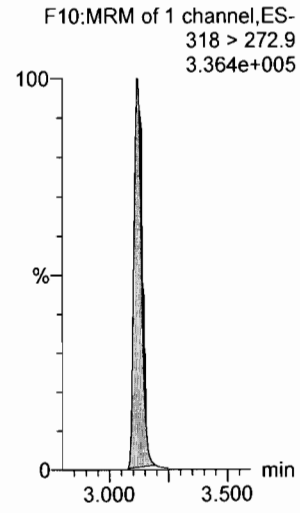

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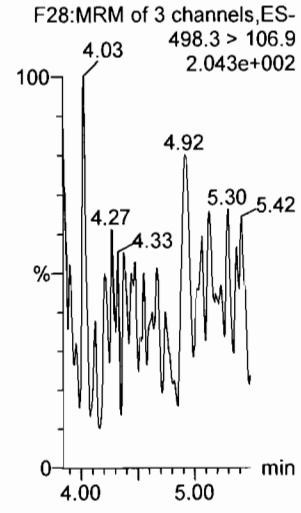
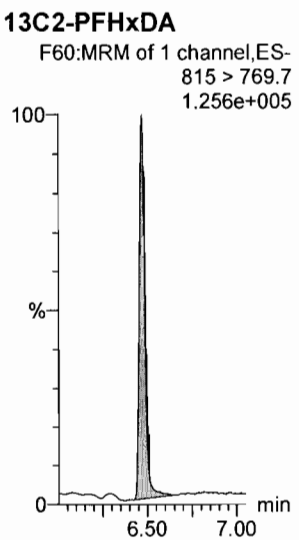
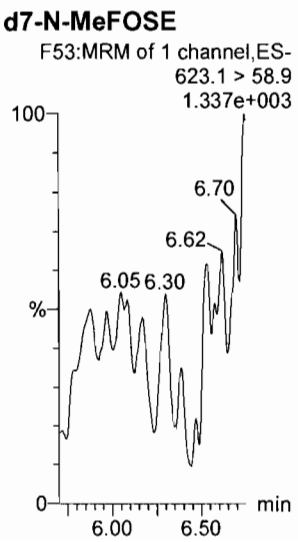


13C2-PFHxDA



d7-N-MeFOSE



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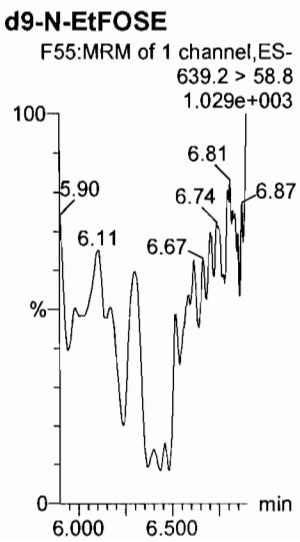
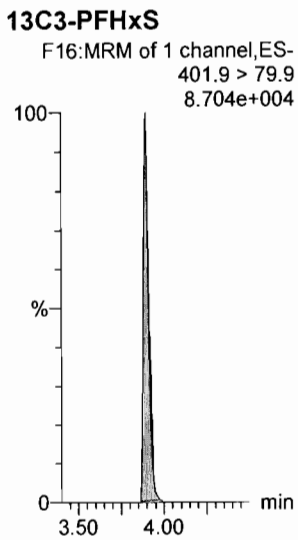
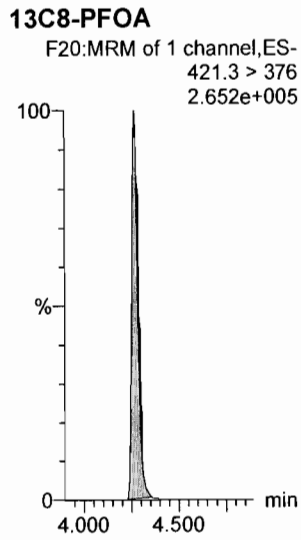


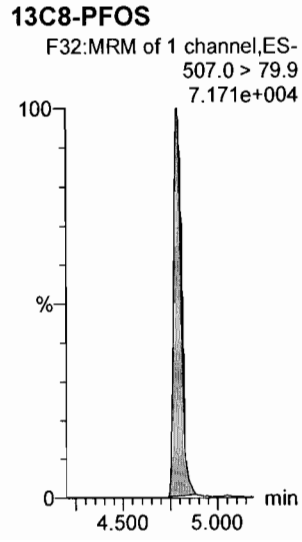
13C3-PFHxS



13C8-PFOA



13C8-PFOS



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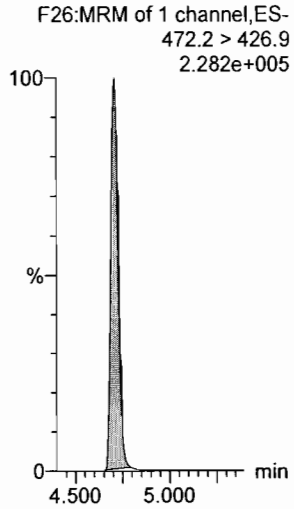
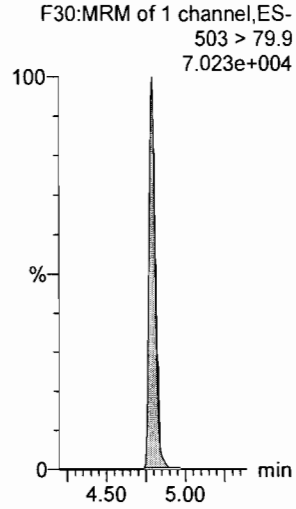
Last Altered: Friday, December 15, 2017 10:24:46 Pacific Standard Time
Printed: Friday, December 15, 2017 10:25:04 Pacific Standard Time

Name: 171214M1_13, Date: 14-Dec-2017, Time: 20:57:25, ID: ICV171214M1-1 PFC ICV 17L1403, Description: PFC ICV 17L1403

13C9-PFNA



13C4-PFOS



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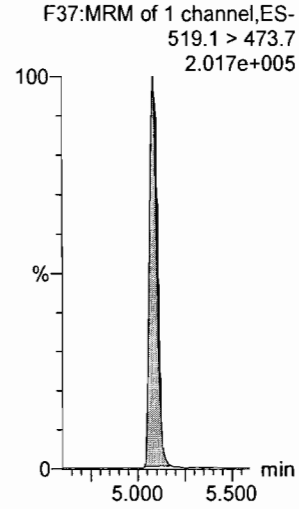
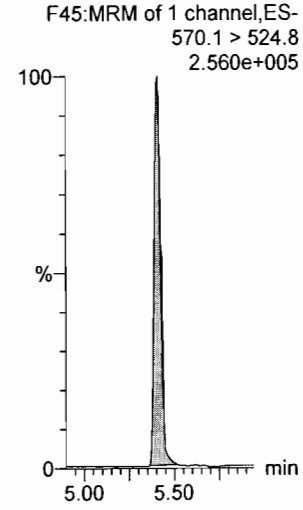


13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171214M1\171214M1-12.qld

Last Altered: Friday, December 15, 2017 15:20:31 Pacific Standard Time
Printed: Friday, December 15, 2017 15:22:04 Pacific Standard Time

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Name: 171214M1_12, Date: 14-Dec-2017, Time: 20:46:15, ID: IPA, Description: IPA

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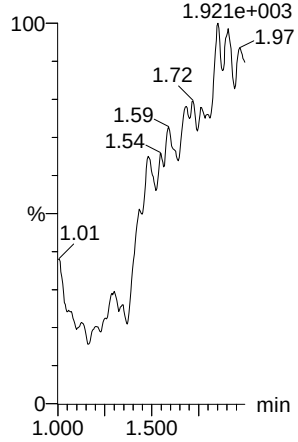

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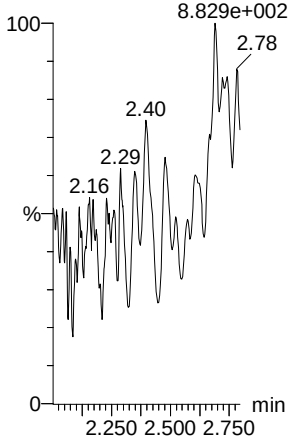

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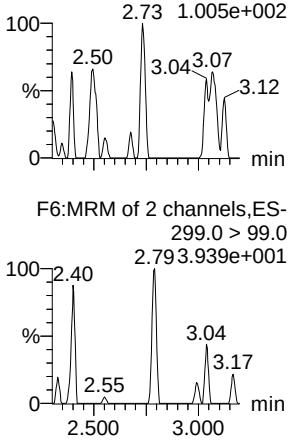
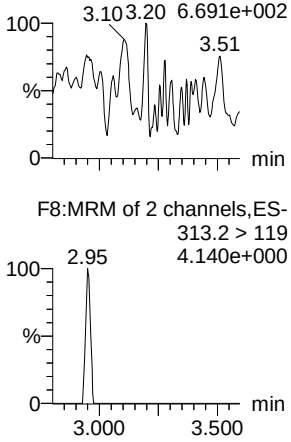


PFHxA



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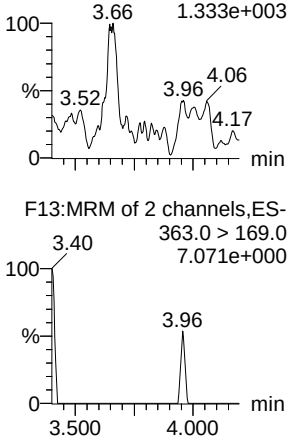

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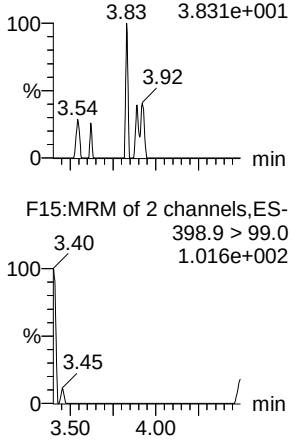

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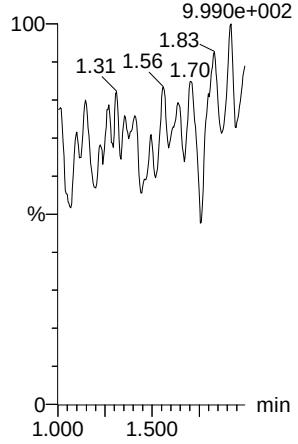

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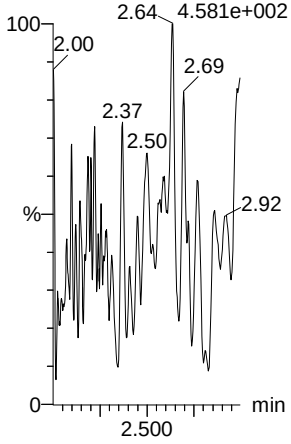

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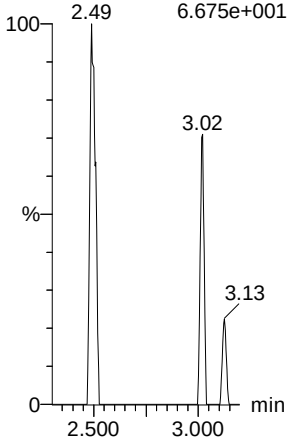

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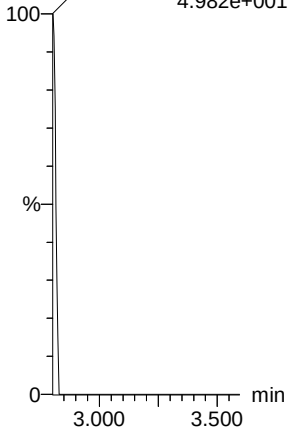

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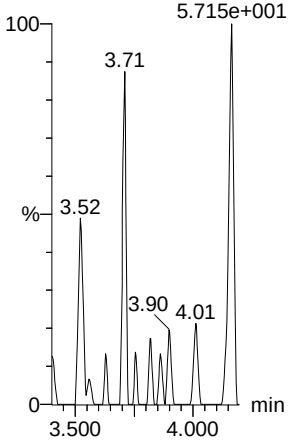

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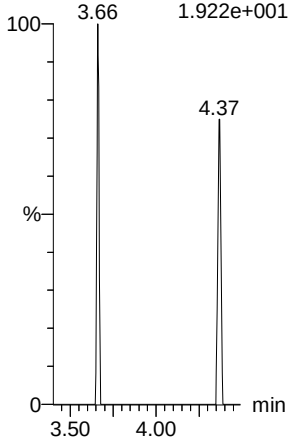

MJT12/15/2017

Dataset: U:\Q4.PRO\results\171214M1\171214M1-12.qld

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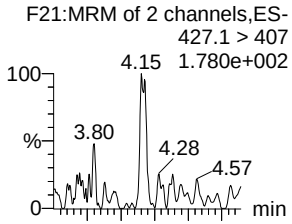
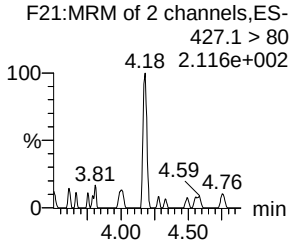
Printed: Friday, December 15, 2017 15:22:04 Pacific Standard Time

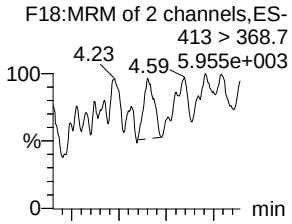
Name: 171214M1_12, Date: 14-Dec-2017, Time: 20:46:15, ID: IPA, Description: IPA

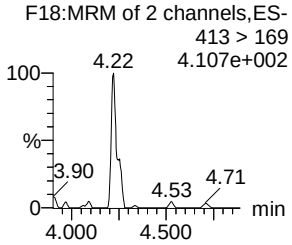
6:2 FTS





L-PFOA





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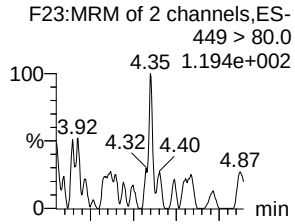

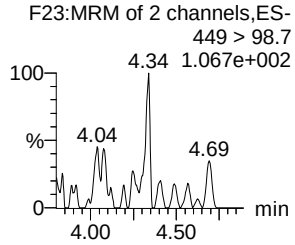

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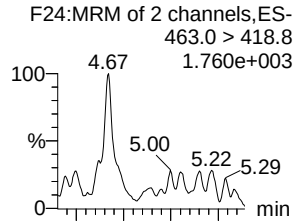
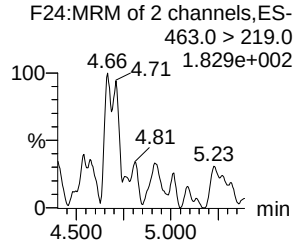
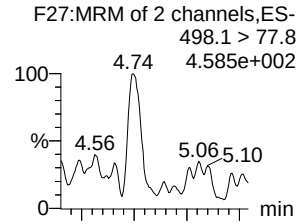
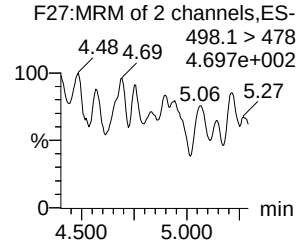


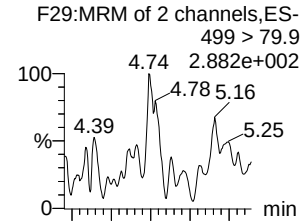


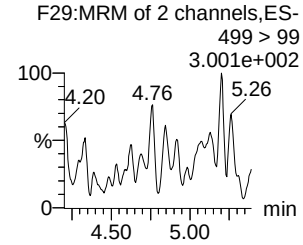
PFOSA



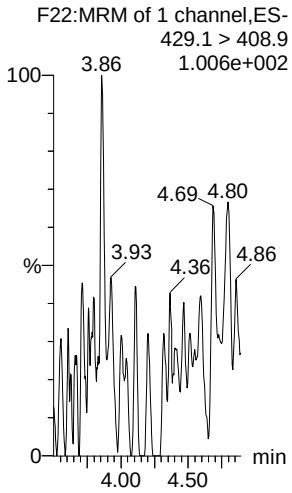


L-PFOS

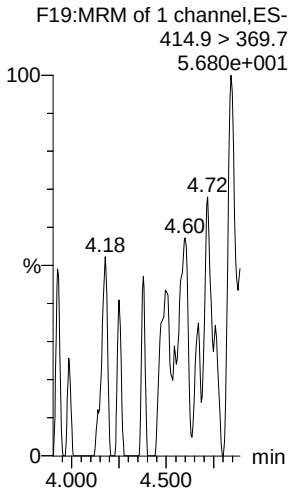




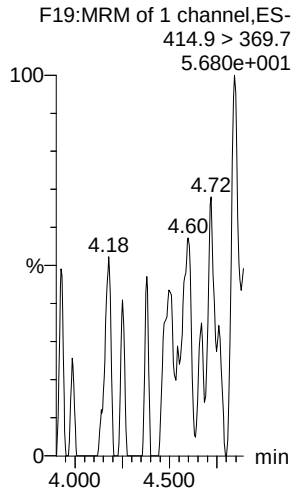
13C2-6:2 FTS



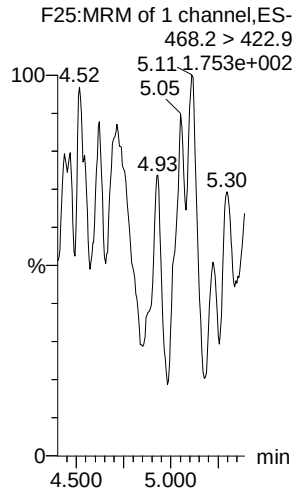
13C2-PFOA



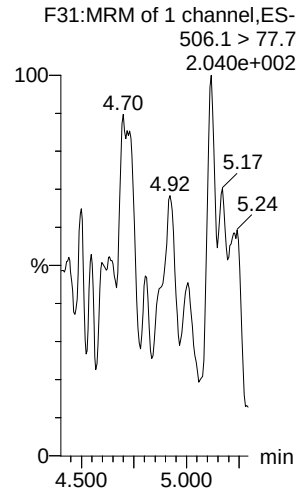
13C2-PFOA



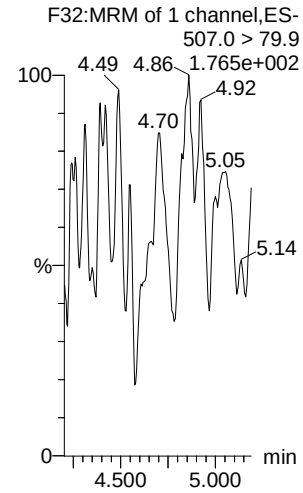
13C5-PFNA



13C8-PFOSA



13C8-PFOS



MJT12/15/2017

Dataset: U:\Q4.PRO\results\171214M1\171214M1-12.qld

Last Altered: Friday, December 15, 2017 15:20:31 Pacific Standard Time
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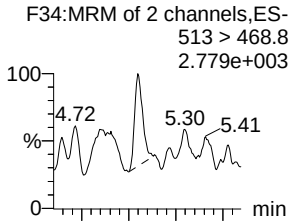
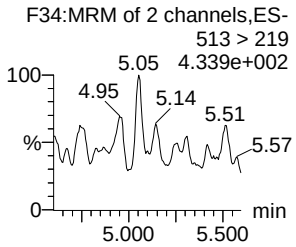
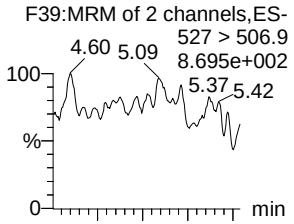
Name: 171214M1_12, Date: 14-Dec-2017, Time: 20:46:15, ID: IPA, Description: IPA

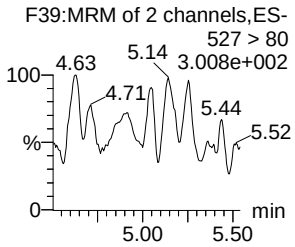
PFDA



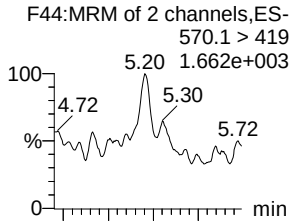


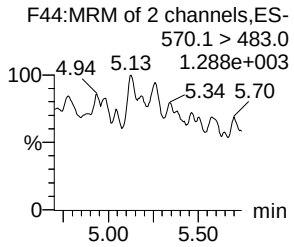
8:2 FTS



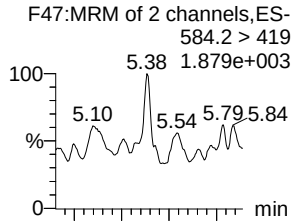


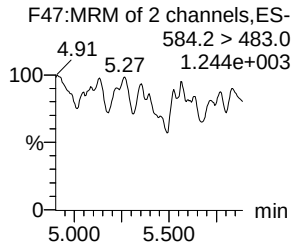
N-MeFOSAA



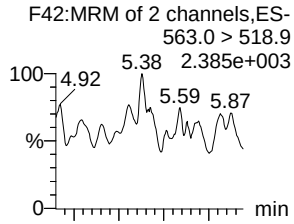


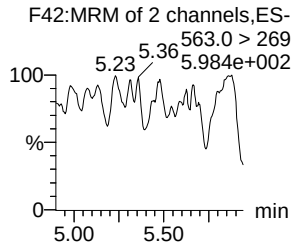
N-EtFOSAA





PFUdA





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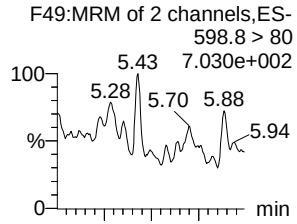
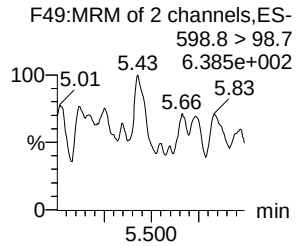
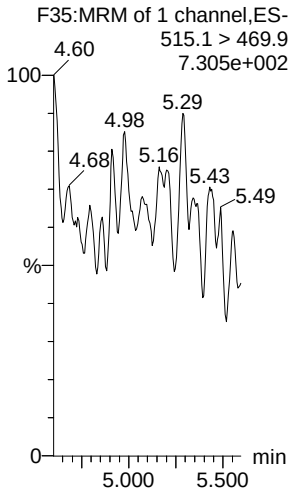
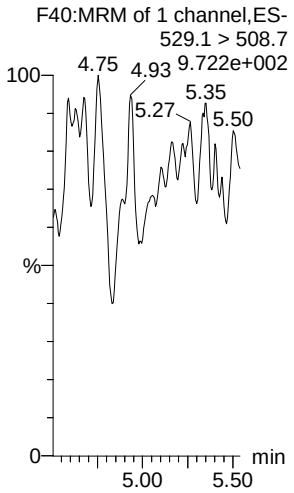




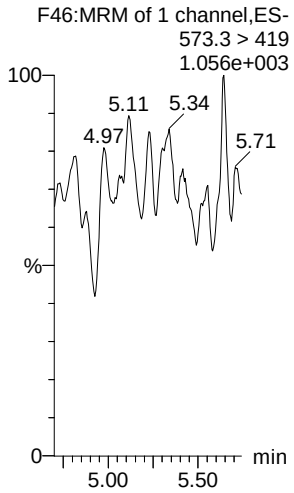
13C2-PFDA



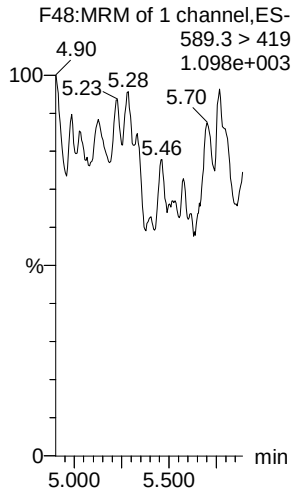
13C2-8:2 FTS



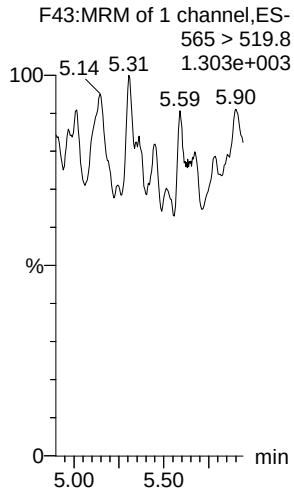
d3-N-MeFOSAA



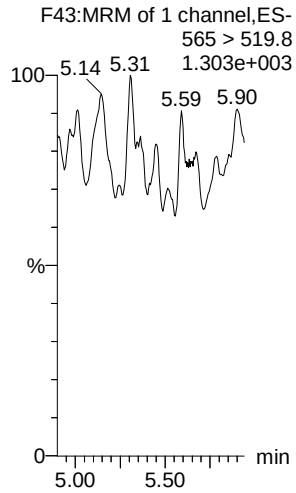
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



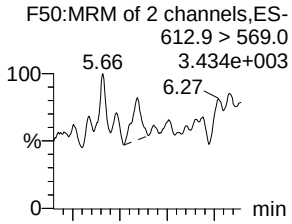
MJT12/15/2017

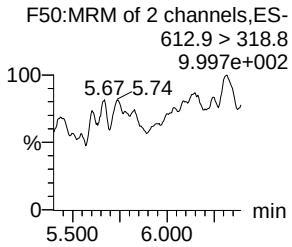
Dataset: U:\Q4.PRO\results\171214M1\171214M1-12.qld

Last Altered: Friday, December 15, 2017 15:20:31 Pacific Standard Time
Printed: Friday, December 15, 2017 15:22:04 Pacific Standard Time

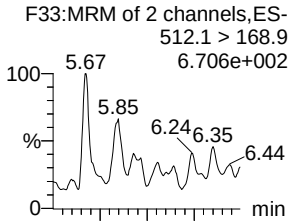
Name: 171214M1_12, Date: 14-Dec-2017, Time: 20:46:15, ID: IPA, Description: IPA

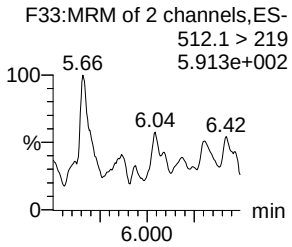
PFDoA



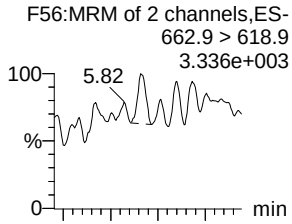


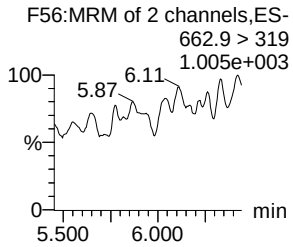
N-MeFOSA



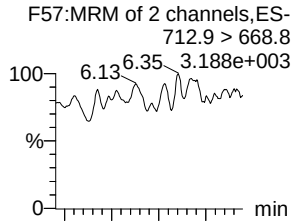


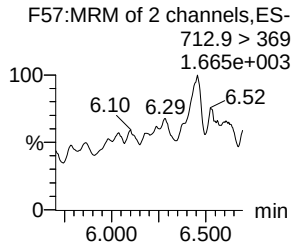
PFTrDA



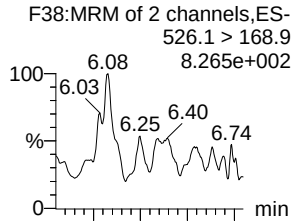


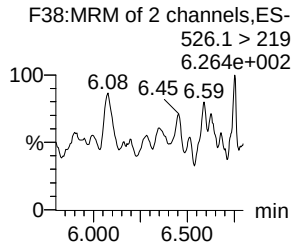
PFTeDA



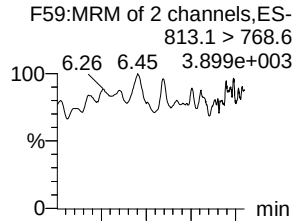


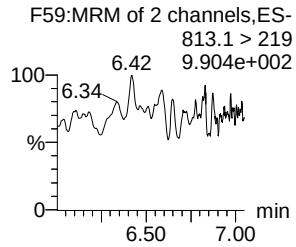
N-EtFOSA



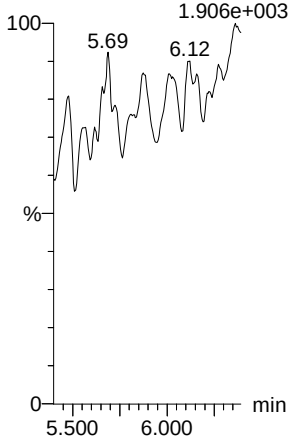


PFHxDA

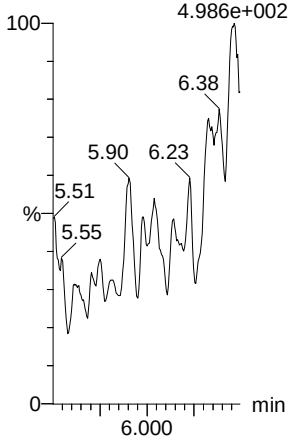




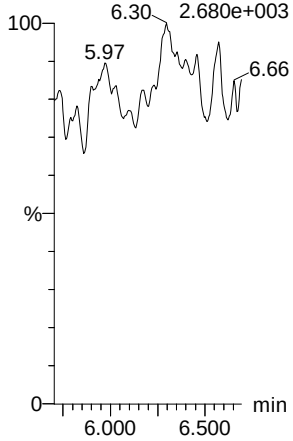
13C2-PFDoA



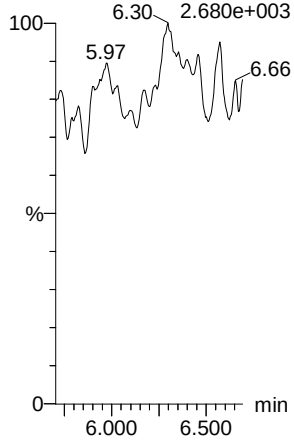
d3-N-MeFOSA



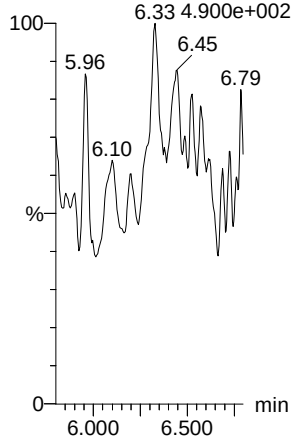
13C2-PFTeDA



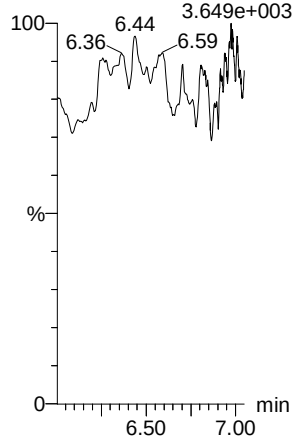
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



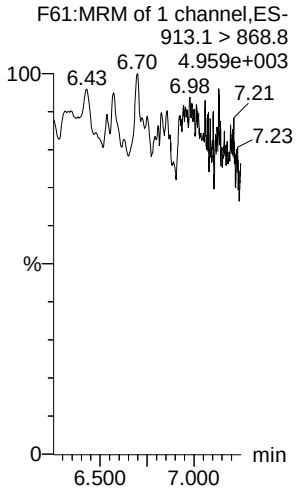
MJT12/15/2017

Dataset: U:\Q4.PRO\results\171214M1\171214M1-12.qld

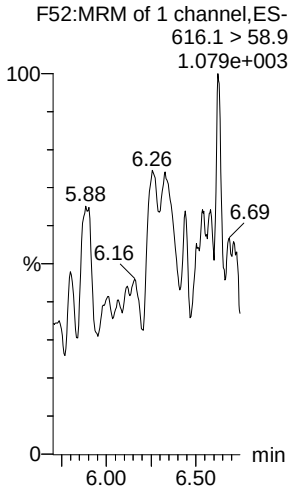
Last Altered: Friday, December 15, 2017 15:20:31 Pacific Standard Time
Printed: Friday, December 15, 2017 15:22:04 Pacific Standard Time

Name: 171214M1_12, Date: 14-Dec-2017, Time: 20:46:15, ID: IPA, Description: IPA

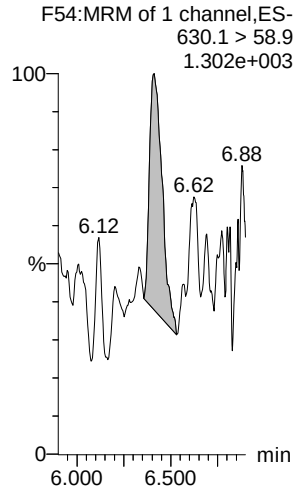
PFODA



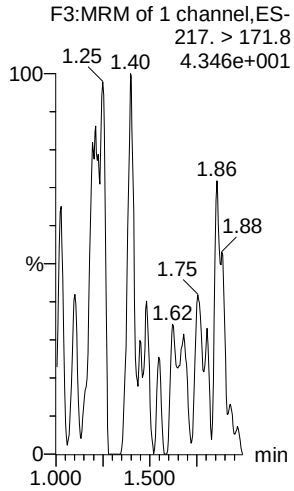
N-MeFOSE



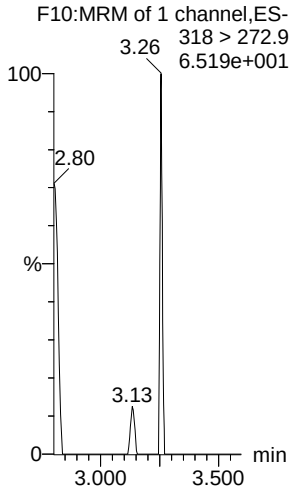
N-EtFOSE



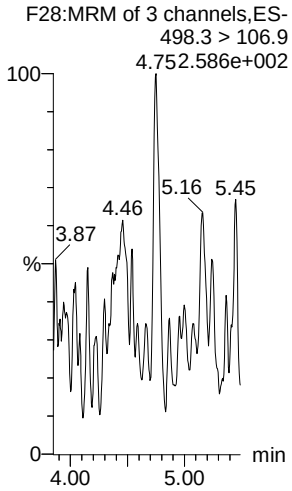
13C4-PFBA



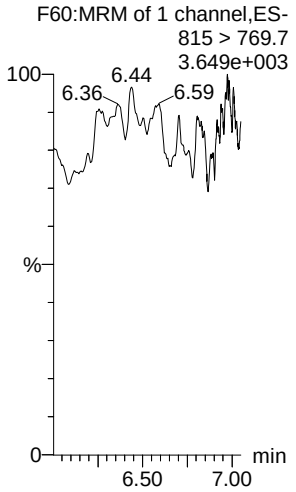
13C5-PFHxA



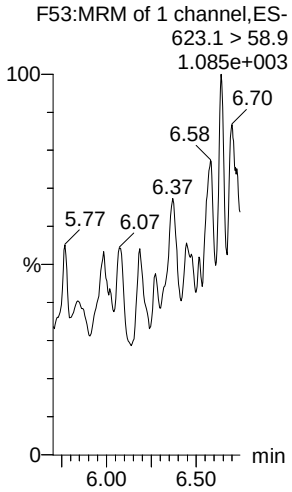
TCDA



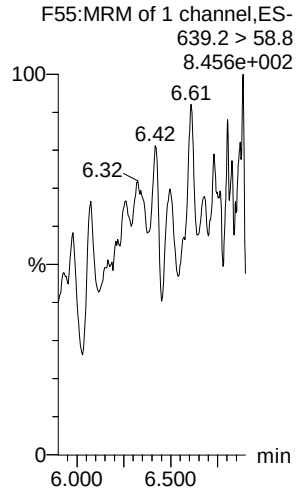
13C2-PFHxDA



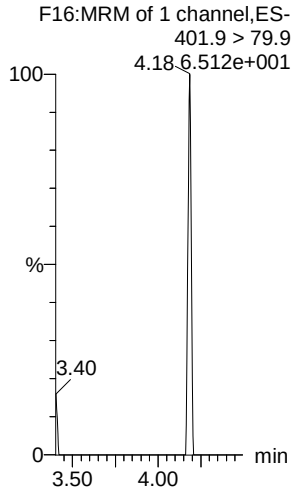
d7-N-MeFOSE



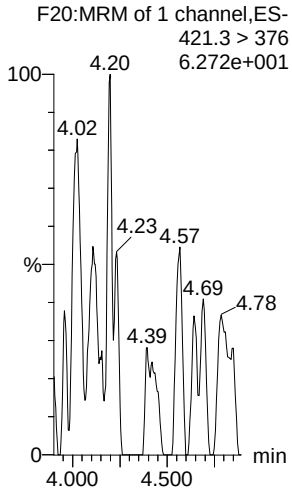
d9-N-EtFOSE



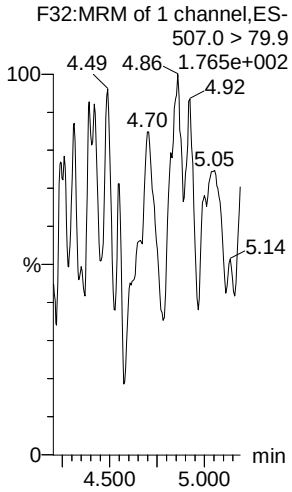
13C3-PFHxS



13C8-PFOA



13C8-PFOS



MJT12/15/2017

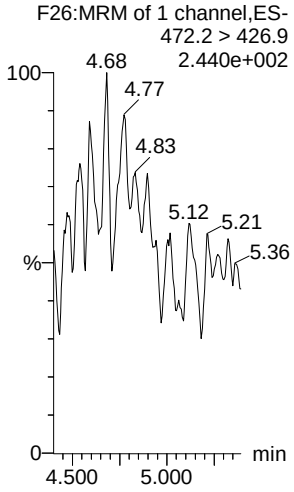
Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171214M1\171214M1-12.qld

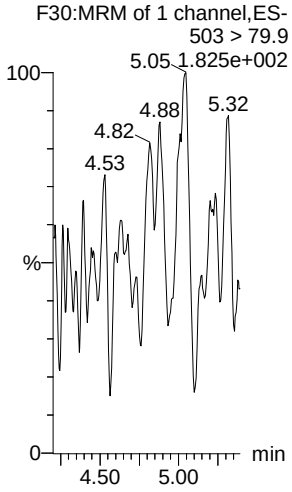
Last Altered: Friday, December 15, 2017 15:20:31 Pacific Standard Time
Printed: Friday, December 15, 2017 15:22:04 Pacific Standard Time

Name: 171214M1_12, Date: 14-Dec-2017, Time: 20:46:15, ID: IPA, Description: IPA

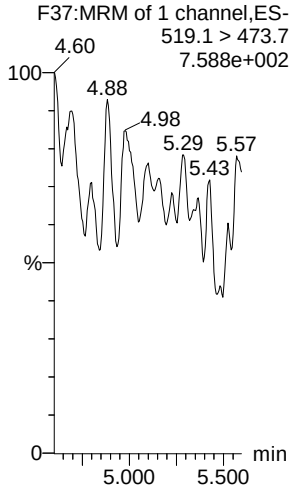
13C9-PFNA



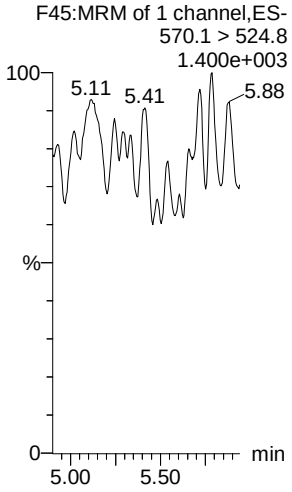
13C4-PFOS



13C6-PFDA



13C7-PFUdA



MJT12/15/2017

Vista Analytical Laboratory

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

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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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

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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

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

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

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

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

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, December 29, 2017 16:11:21 Pacific Standard Time
Printed: Friday, December 29, 2017 16:14:12 Pacific Standard Time

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

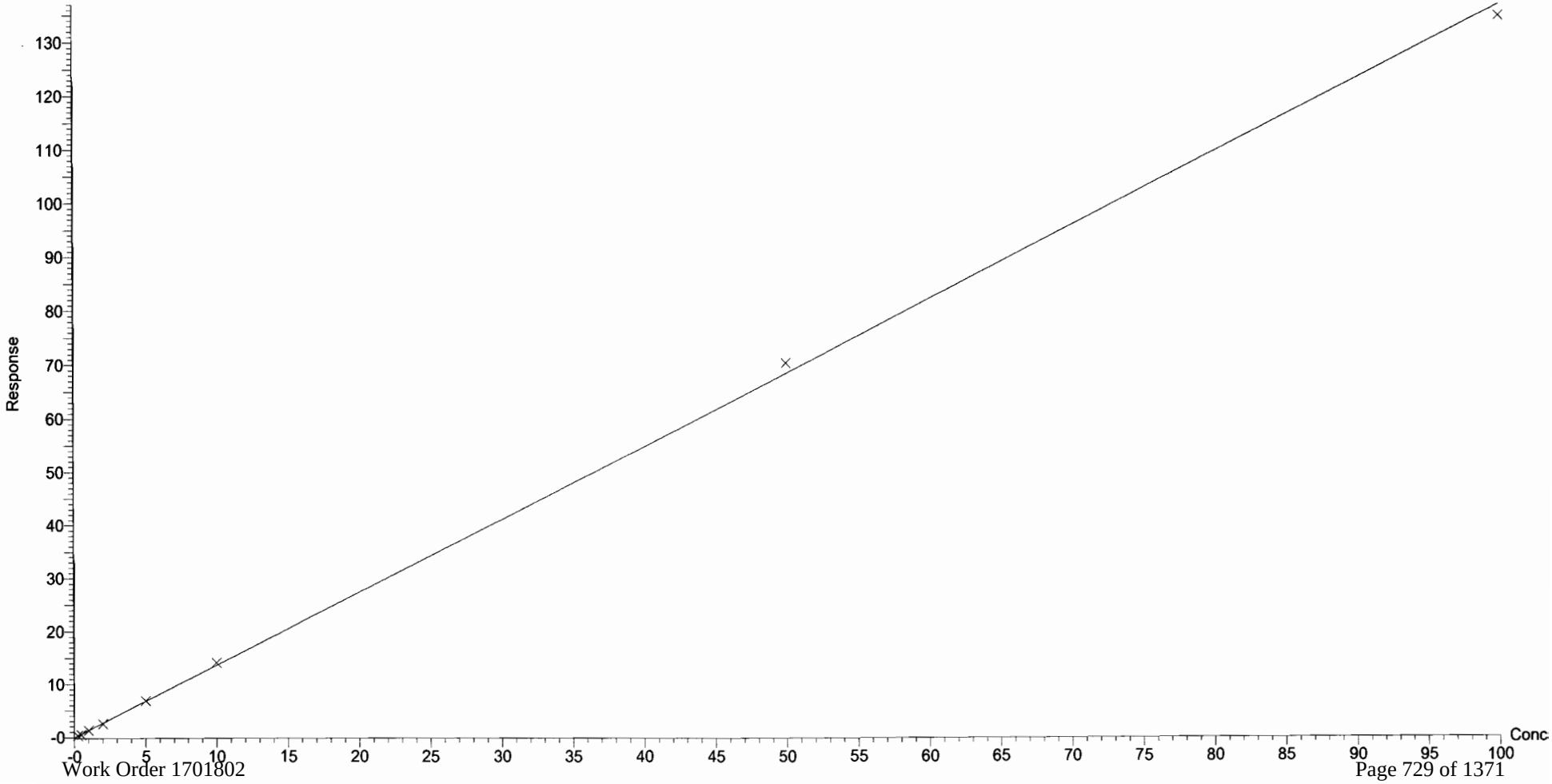
Vista Analytical Laboratory Q1

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

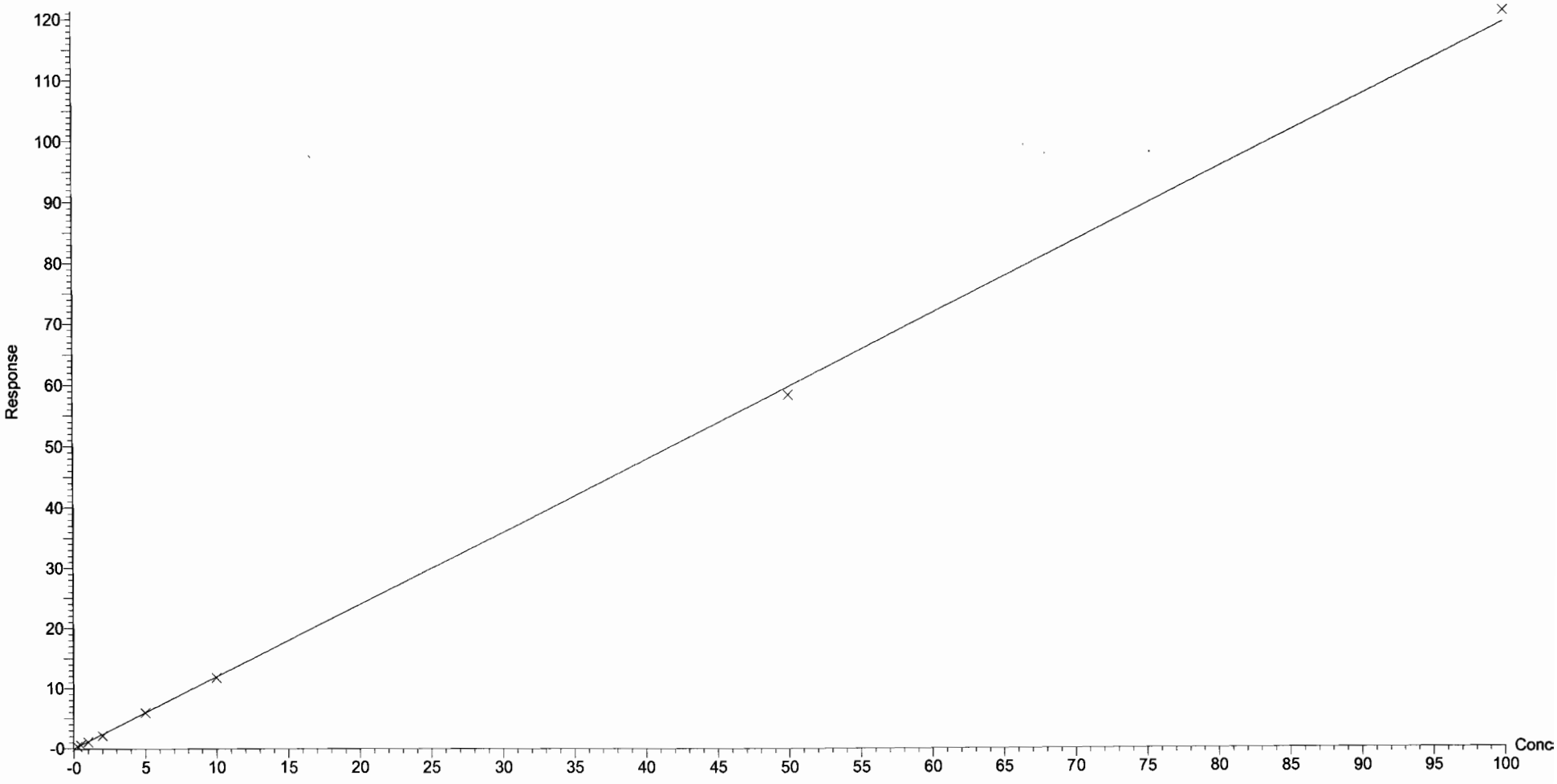


Vista Analytical Laboratory Q1

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

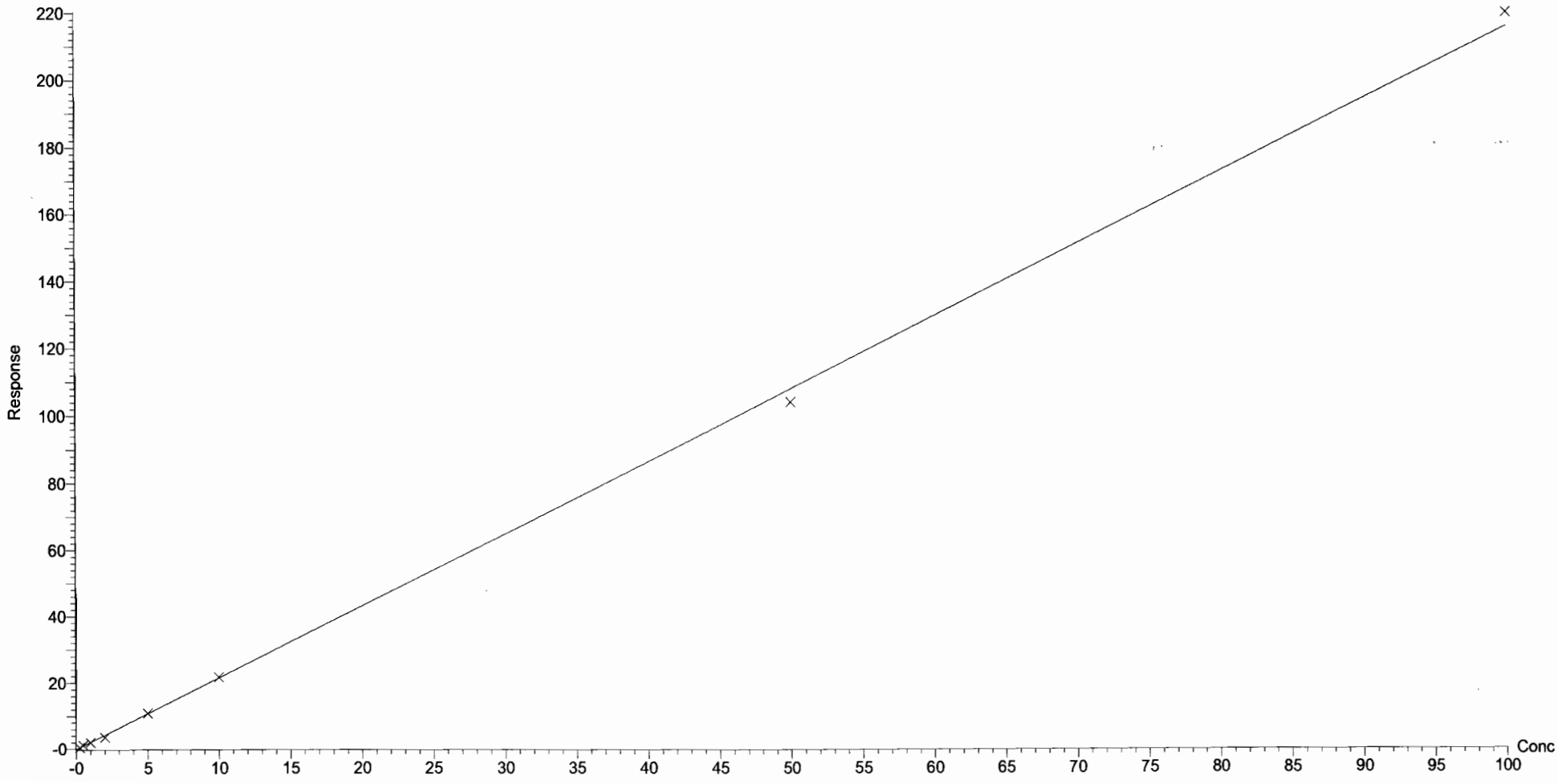


Vista Analytical Laboratory Q1

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

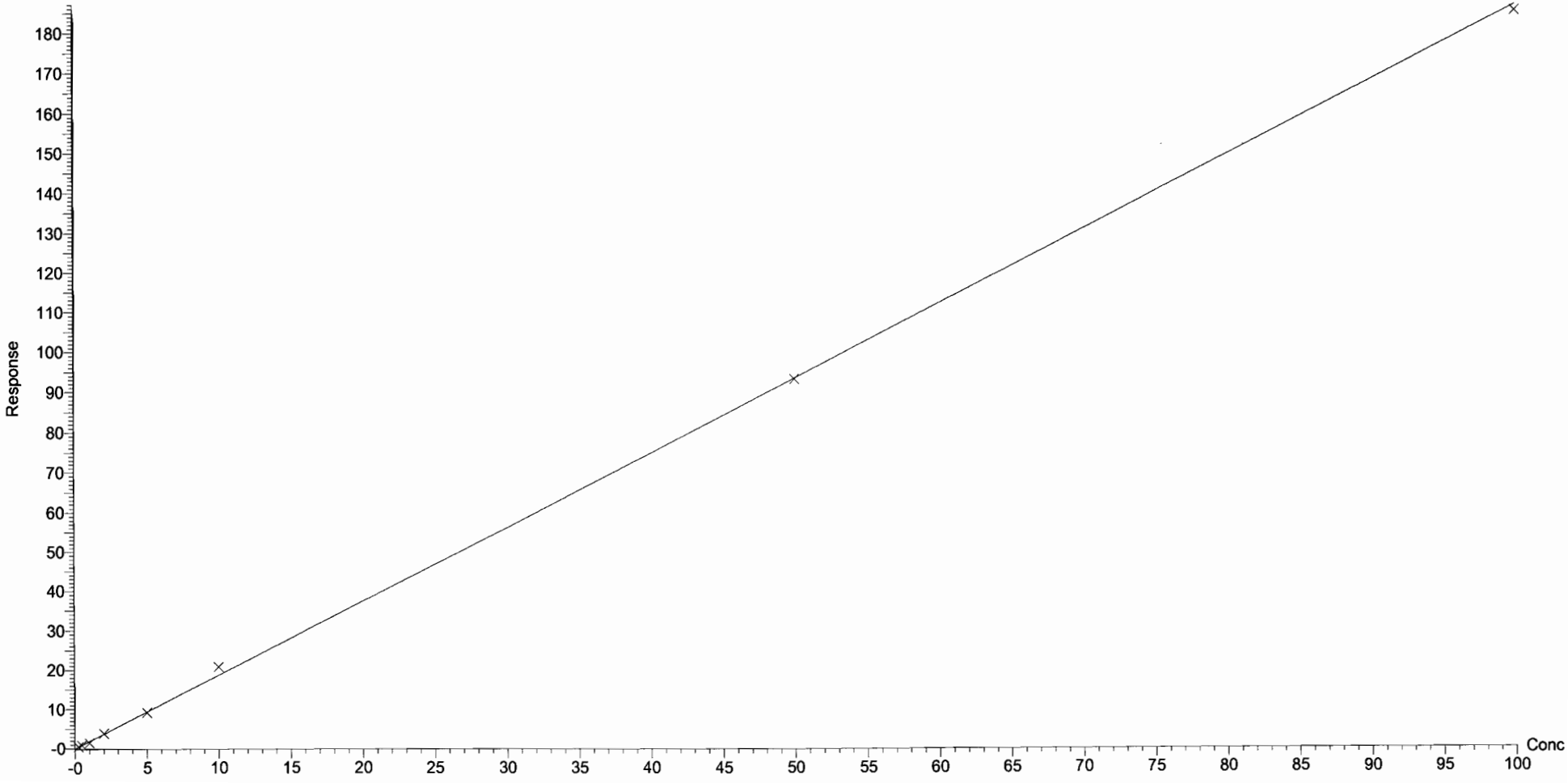


Vista Analytical Laboratory Q1

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

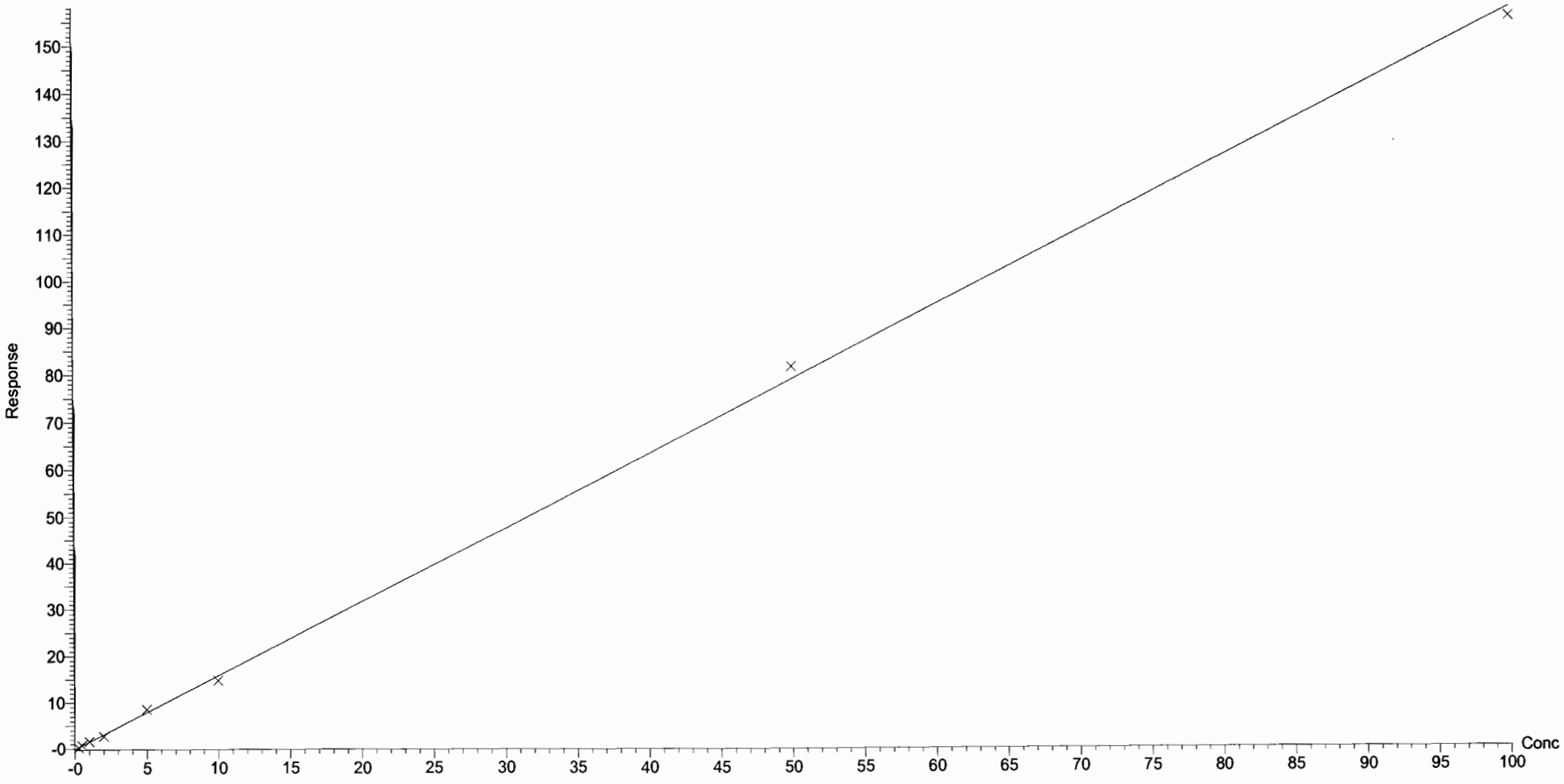
Compound name: PFHxA
Correlation coefficient: r = 0.999421, r^2 = 0.998842
Calibration curve: 1.87128 * x + -0.0343505
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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

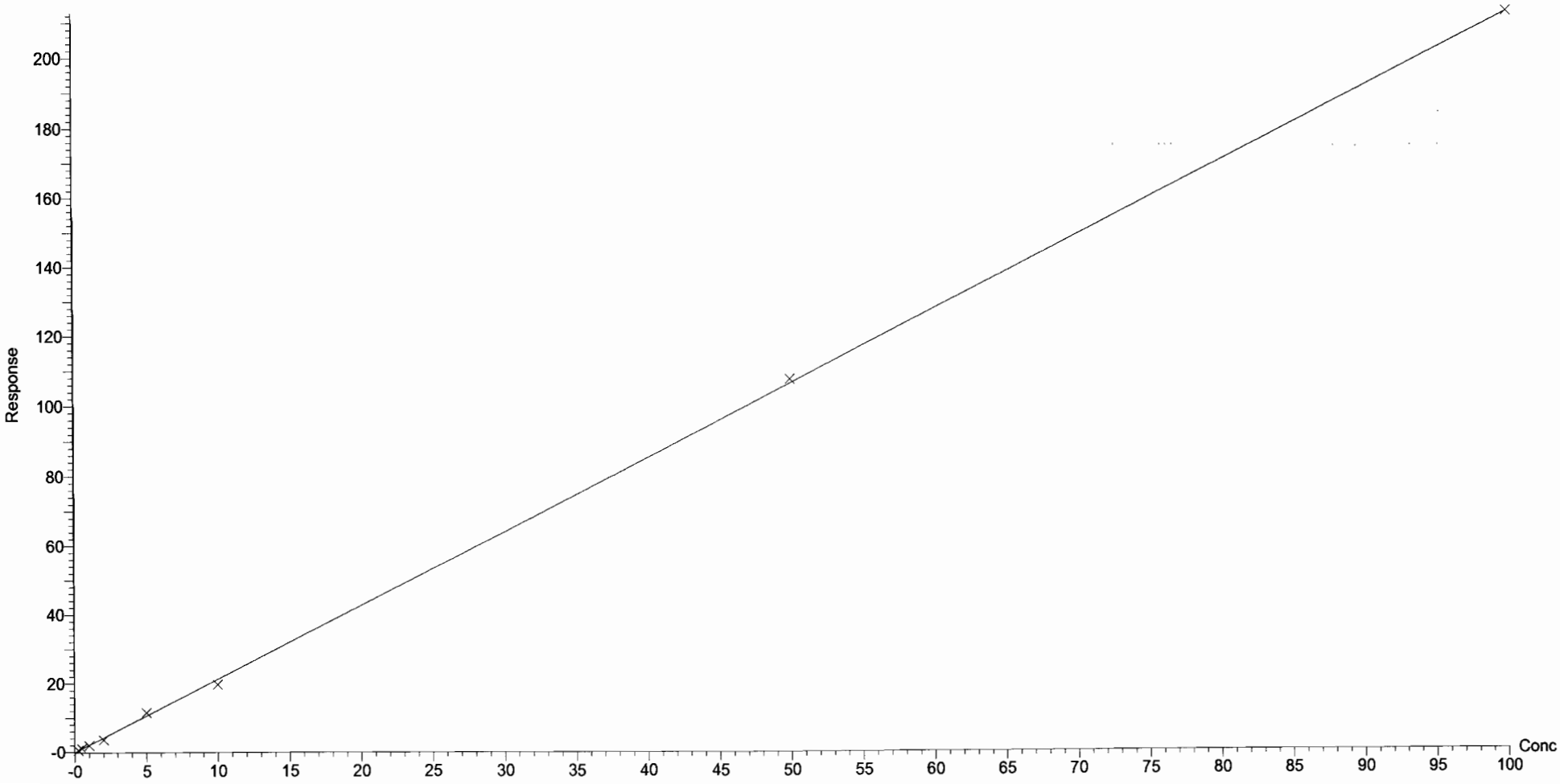


Vista Analytical Laboratory Q1

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

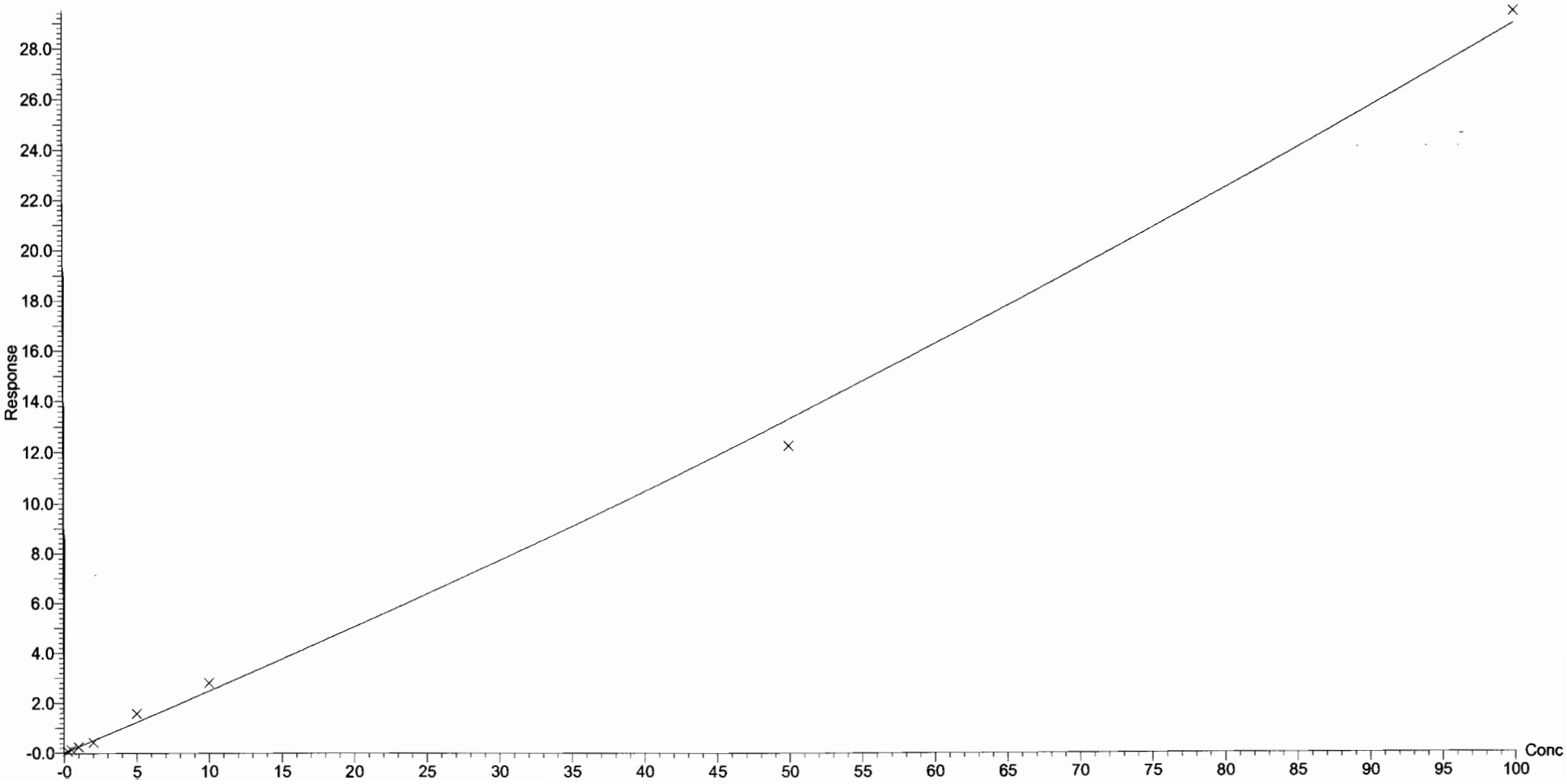


Vista Analytical Laboratory Q1

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

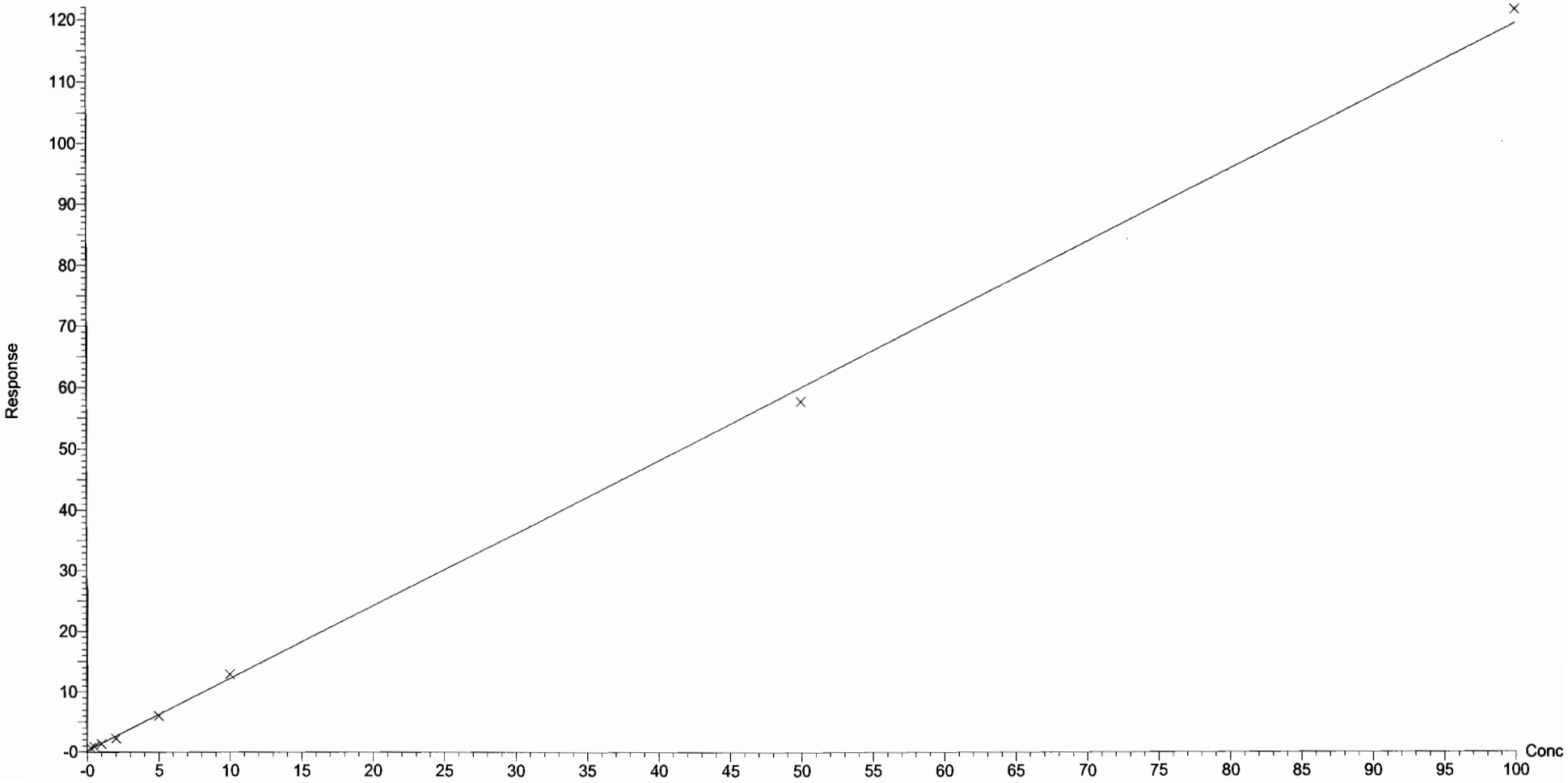
Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.995124
Calibration curve: 0.000489747 * x^2 + 0.24128 * x + 0.0169506
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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

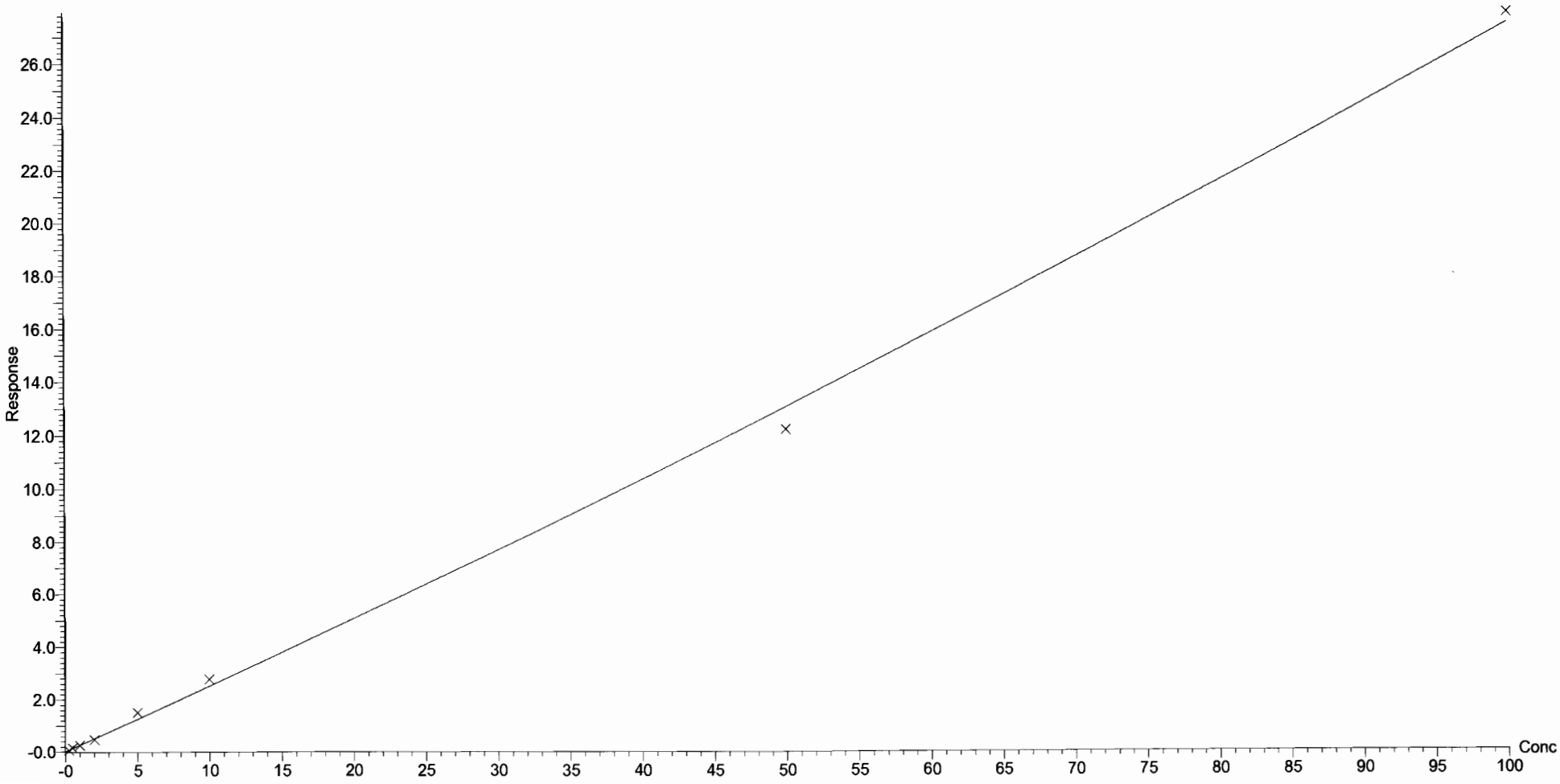
Compound name: L-PFOA
Correlation coefficient: r = 0.999271, r^2 = 0.998543
Calibration curve: 1.19548 * x + 0.228921
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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

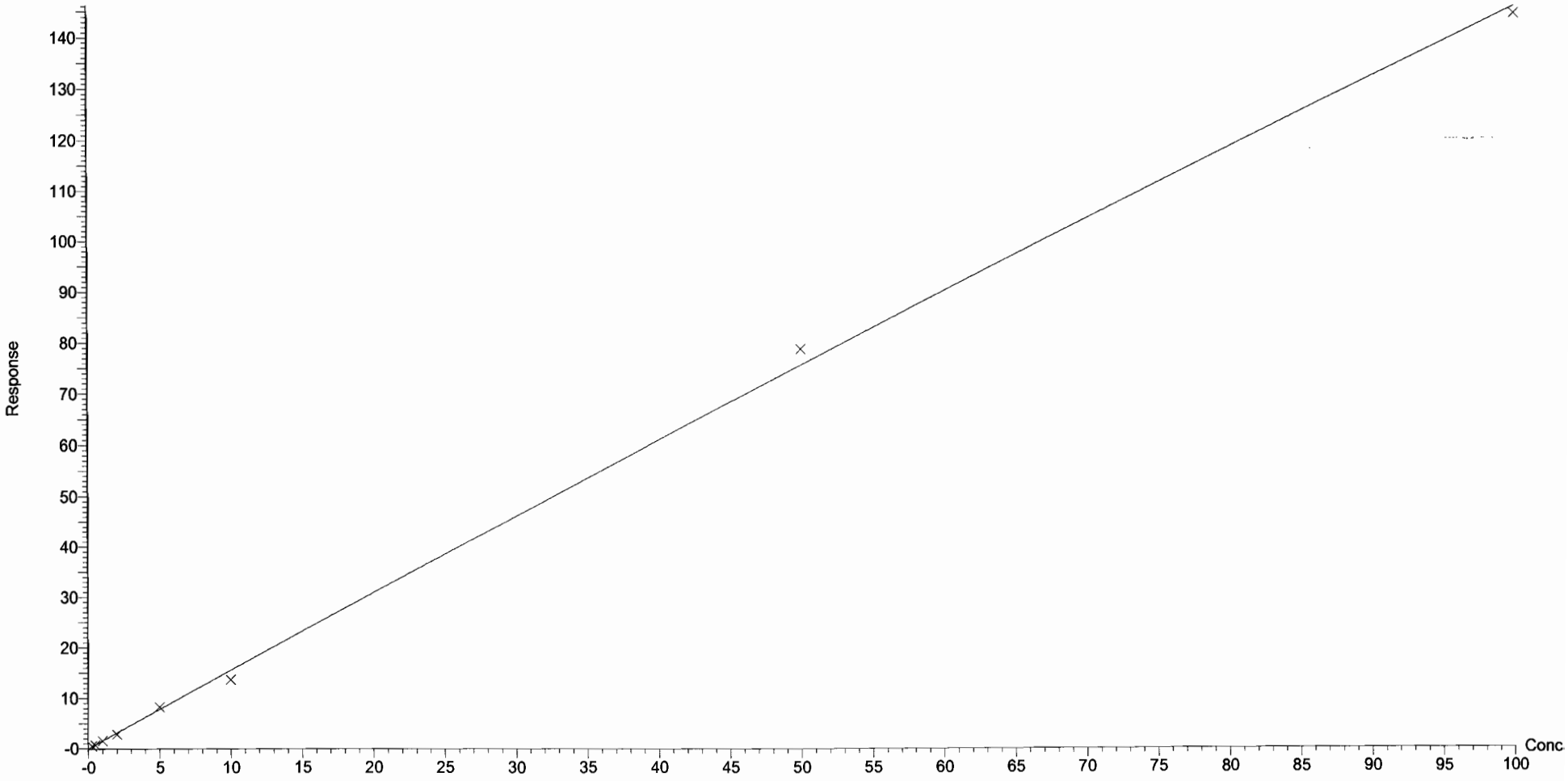
Compound name: PFHpS
Coefficient of Determination: R^2 = 0.996923
Calibration curve: 0.000286563 * x^2 + 0.246658 * x + 0.015286
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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

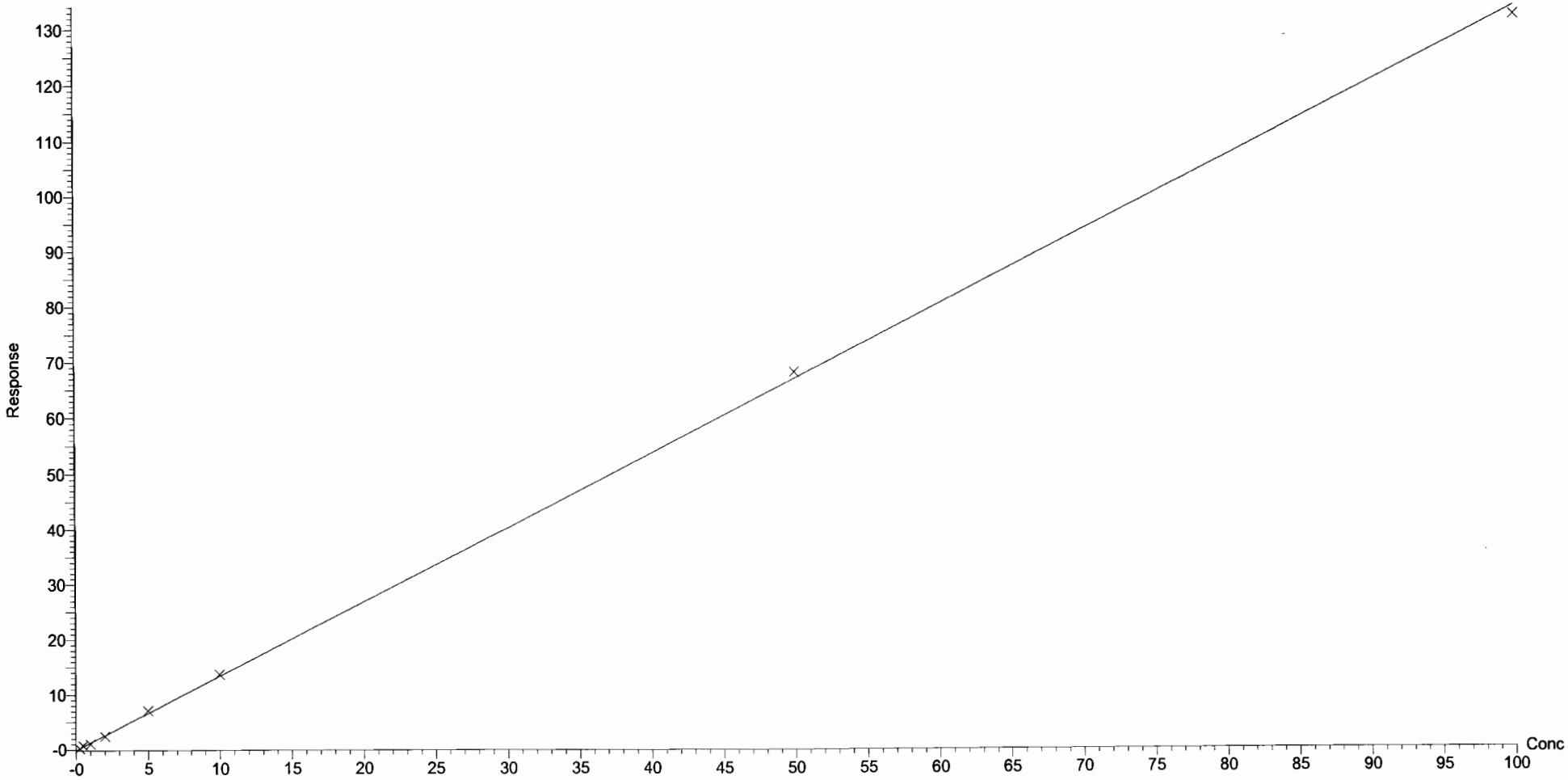
Compound name: PFNA
Coefficient of Determination: R^2 = 0.997989
Calibration curve: -0.00101357 * x^2 + 1.56335 * x + -0.000922713
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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

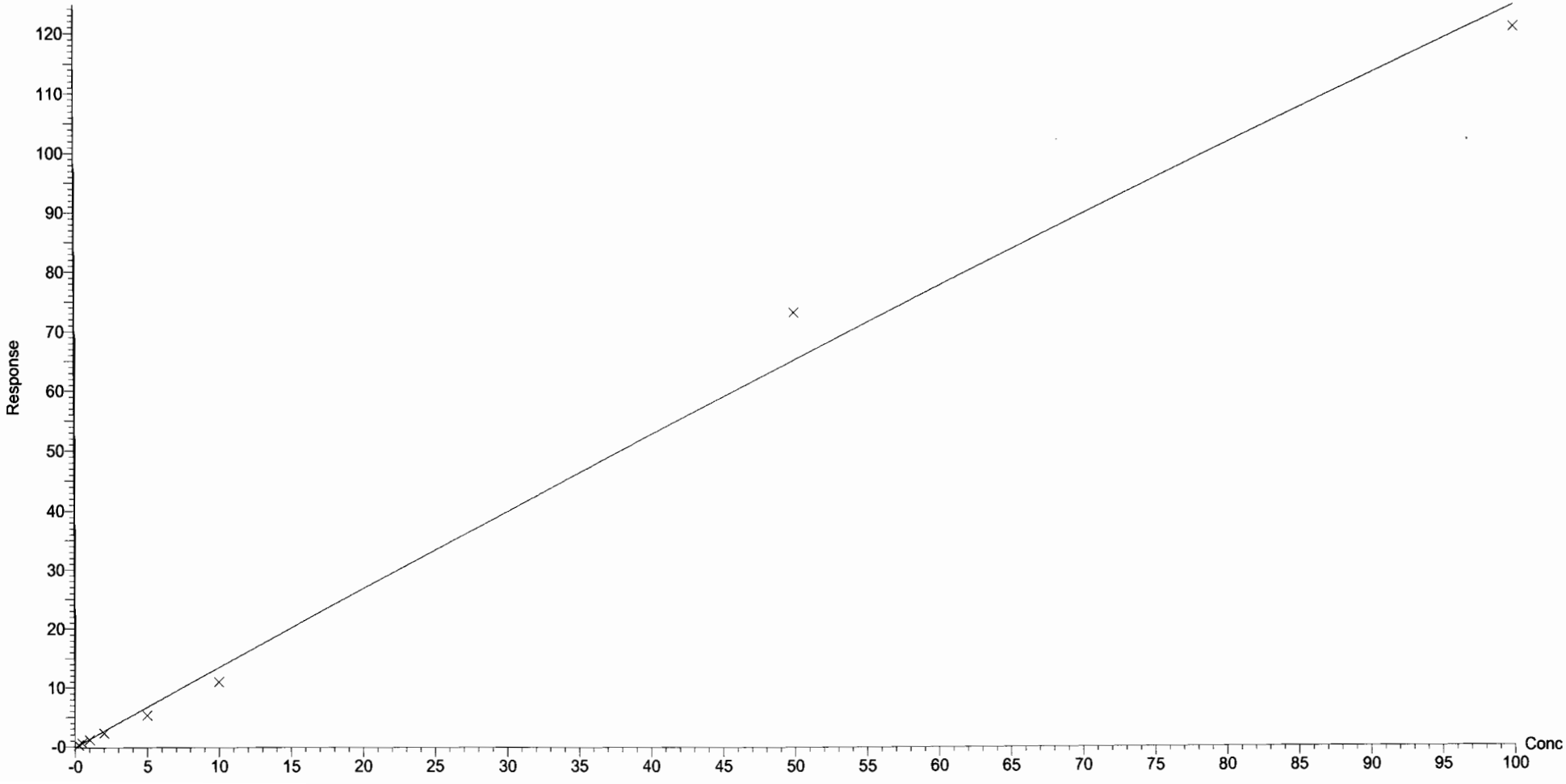
Compound name: PFOSA
Correlation coefficient: r = 0.999632, r^2 = 0.999264
Calibration curve: 1.34133 * x + -0.0872836
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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

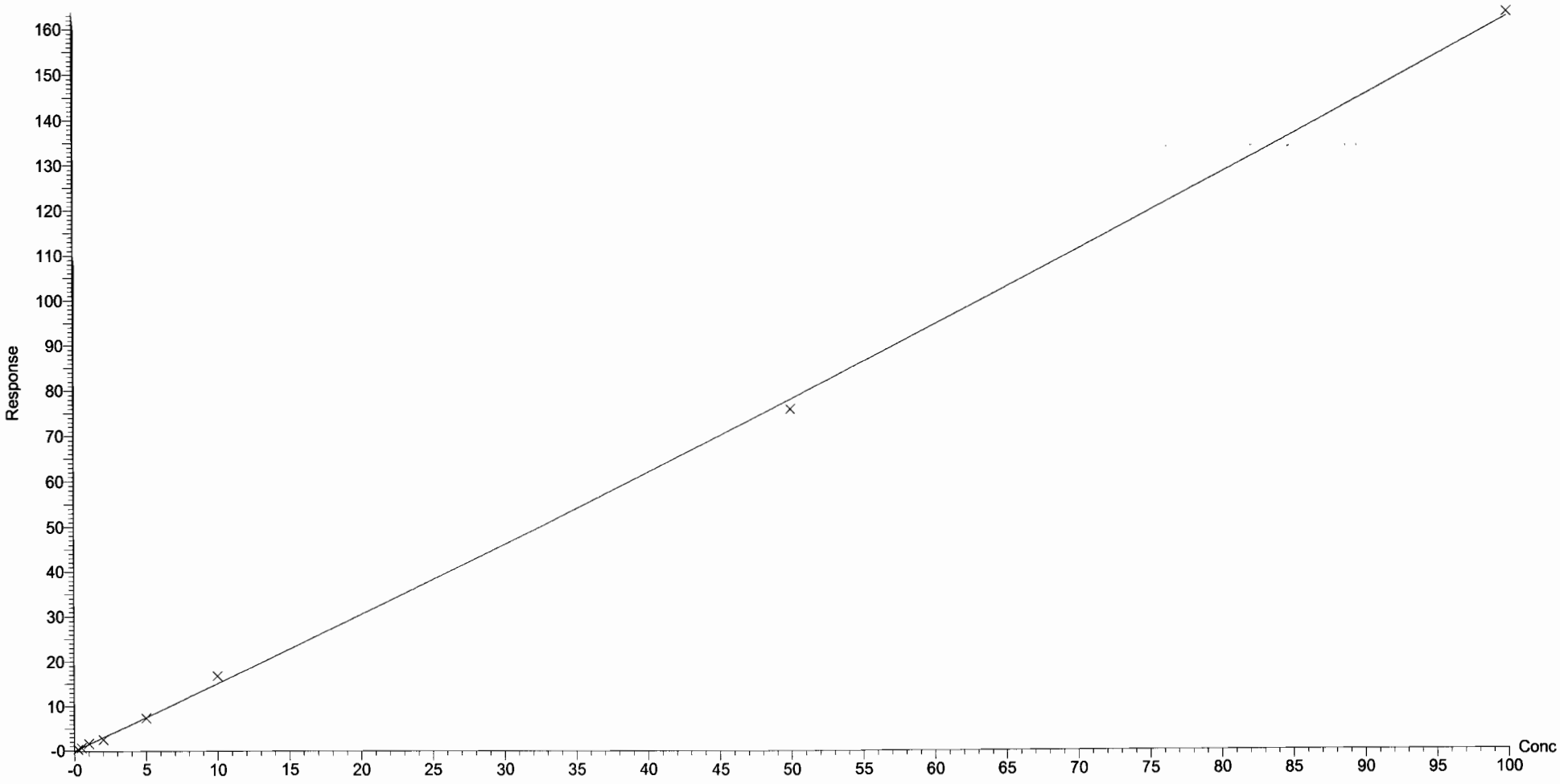


Vista Analytical Laboratory Q1

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

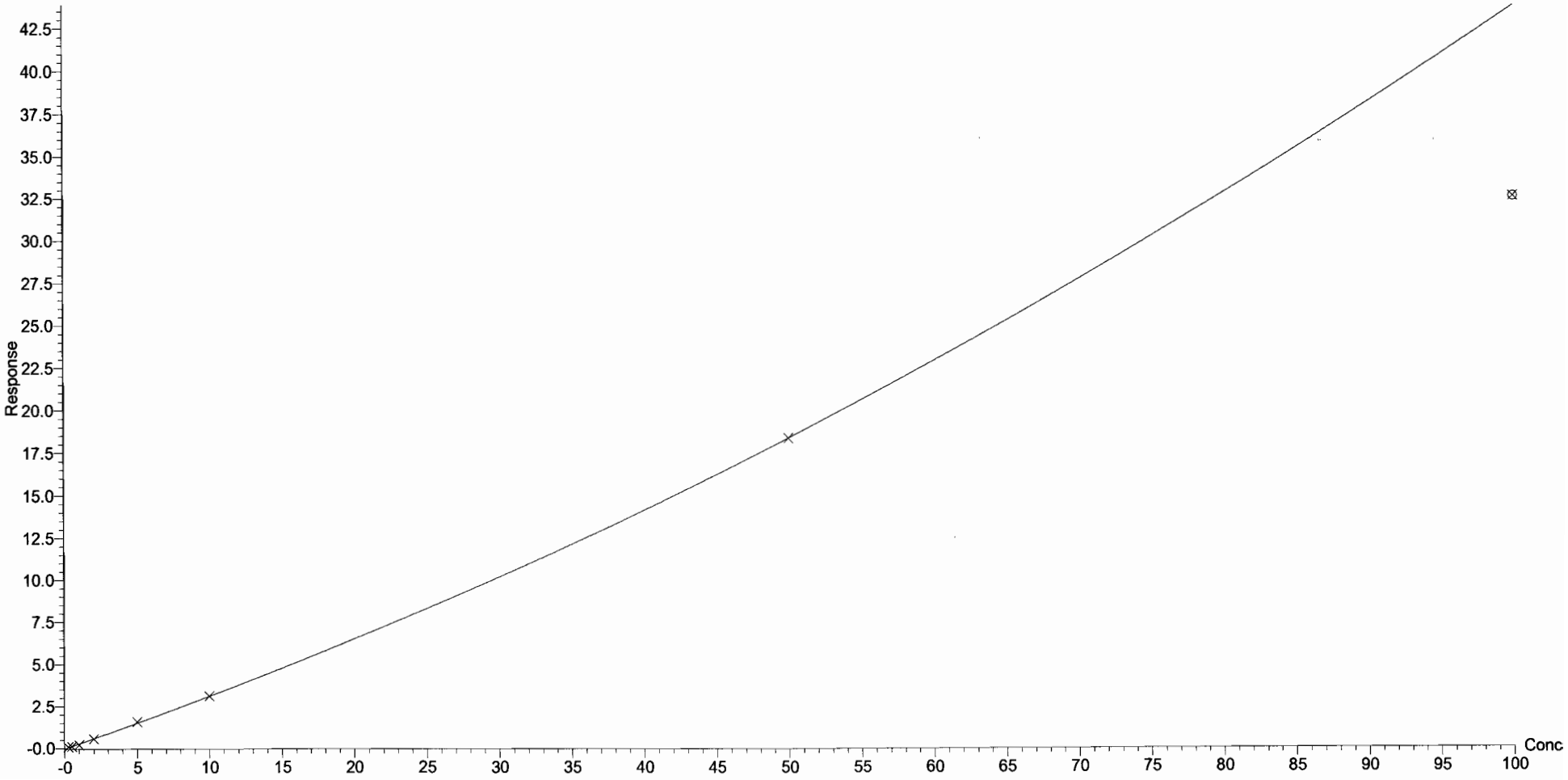


Vista Analytical Laboratory Q1

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

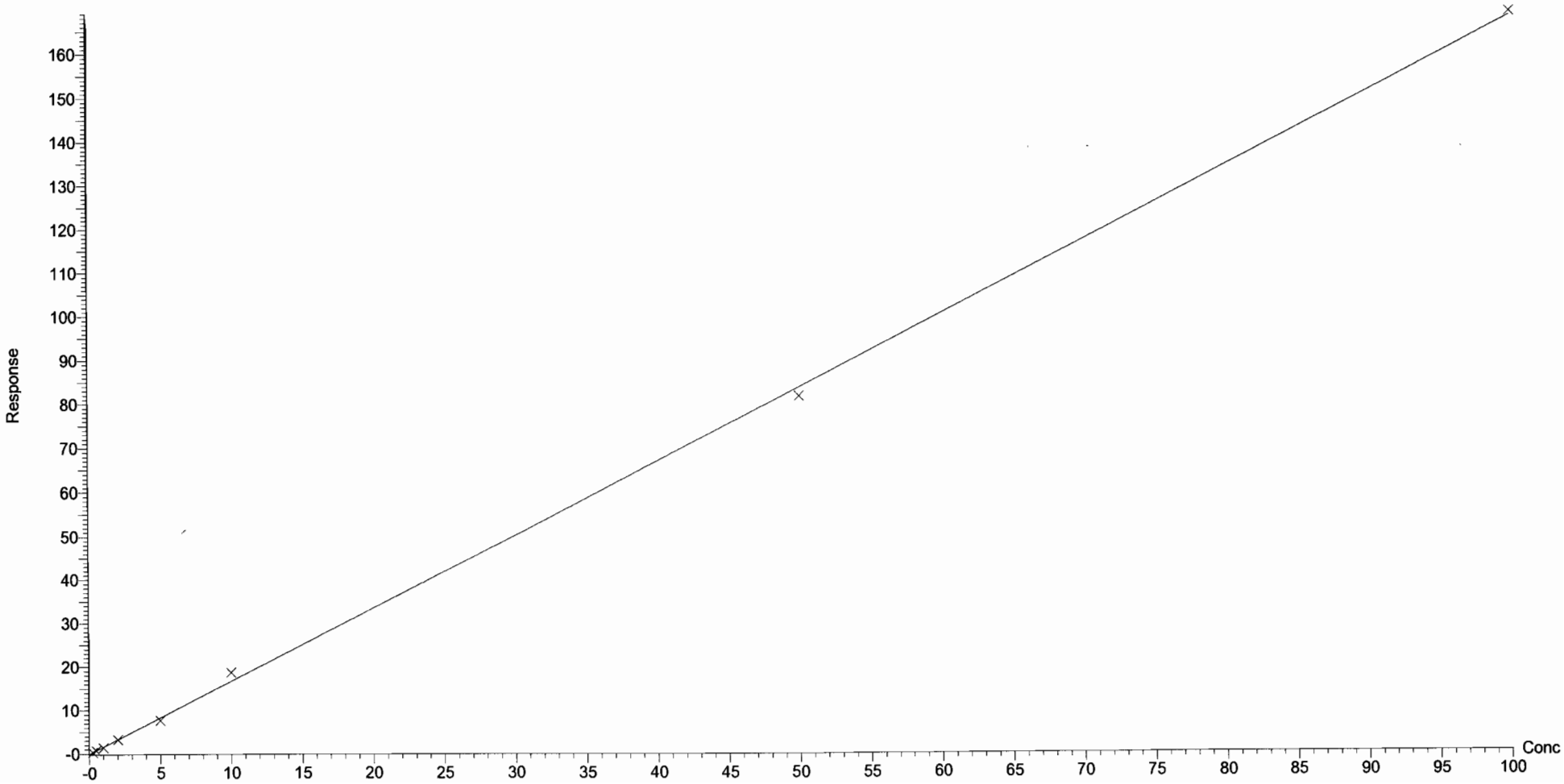
Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.998718
Calibration curve: 0.00142024 * x^2 + 0.296775 * x + -0.0229517
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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

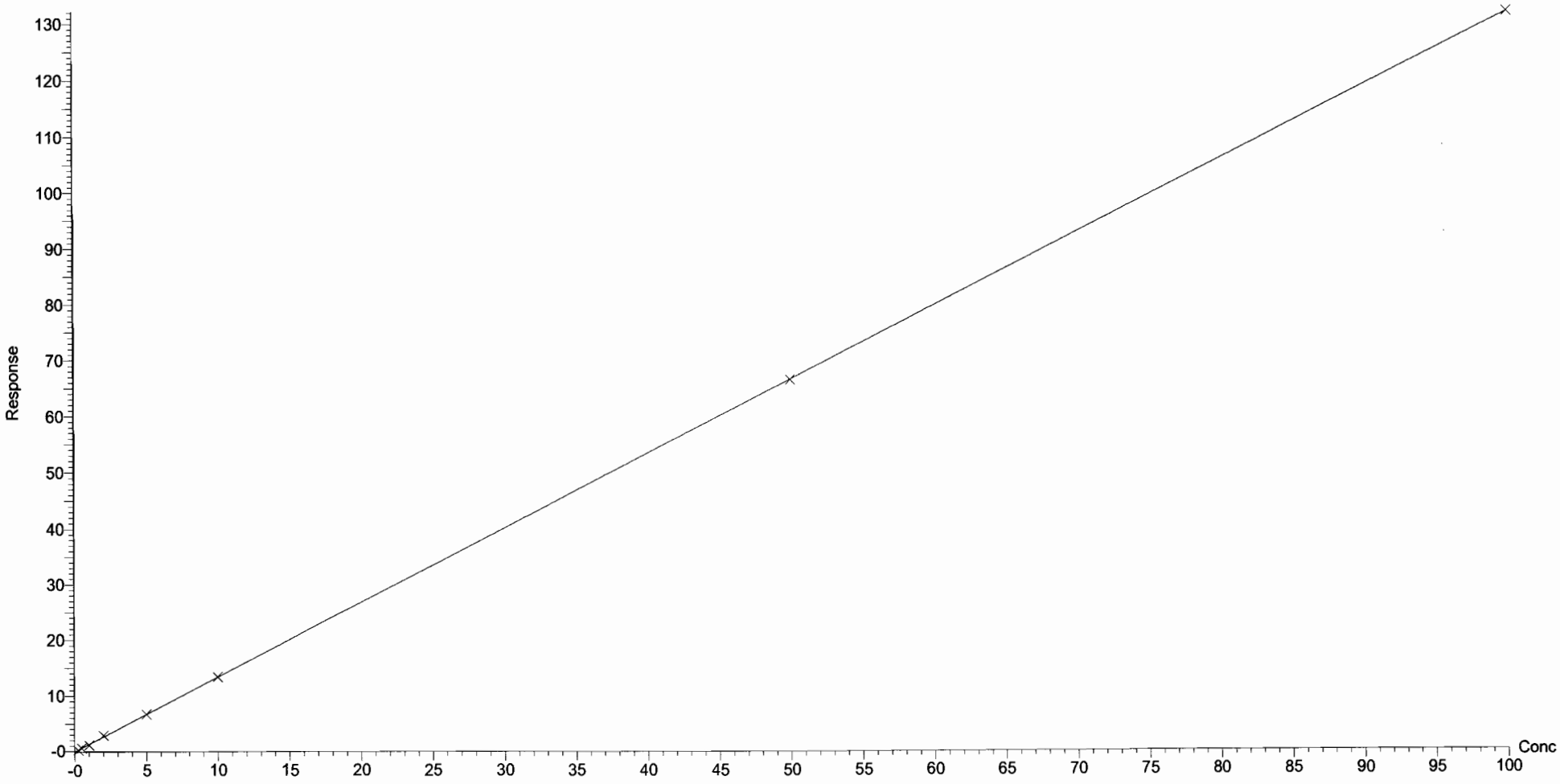


Vista Analytical Laboratory Q1

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

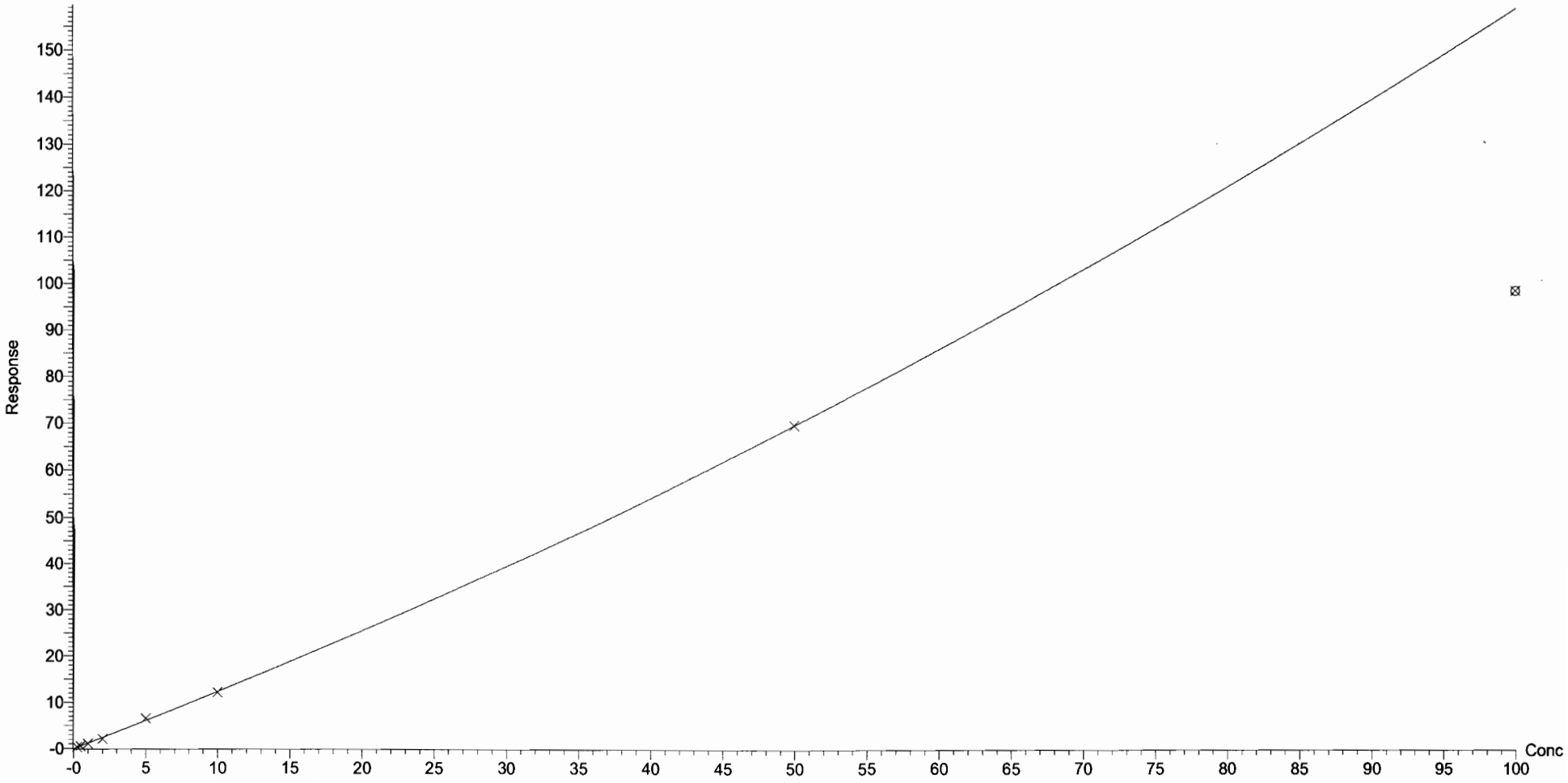


Vista Analytical Laboratory Q1

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



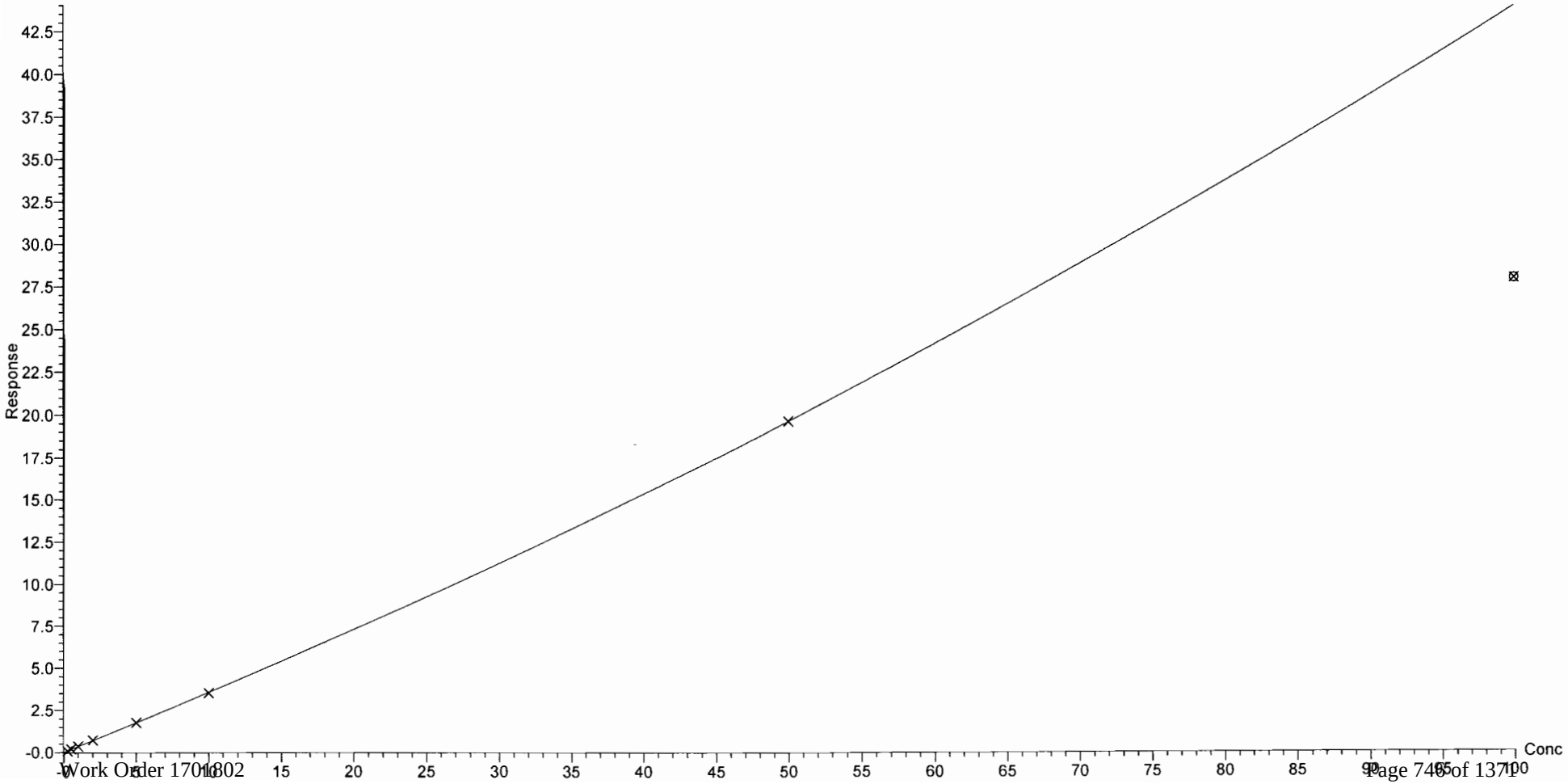
Vista Analytical Laboratory Q1

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

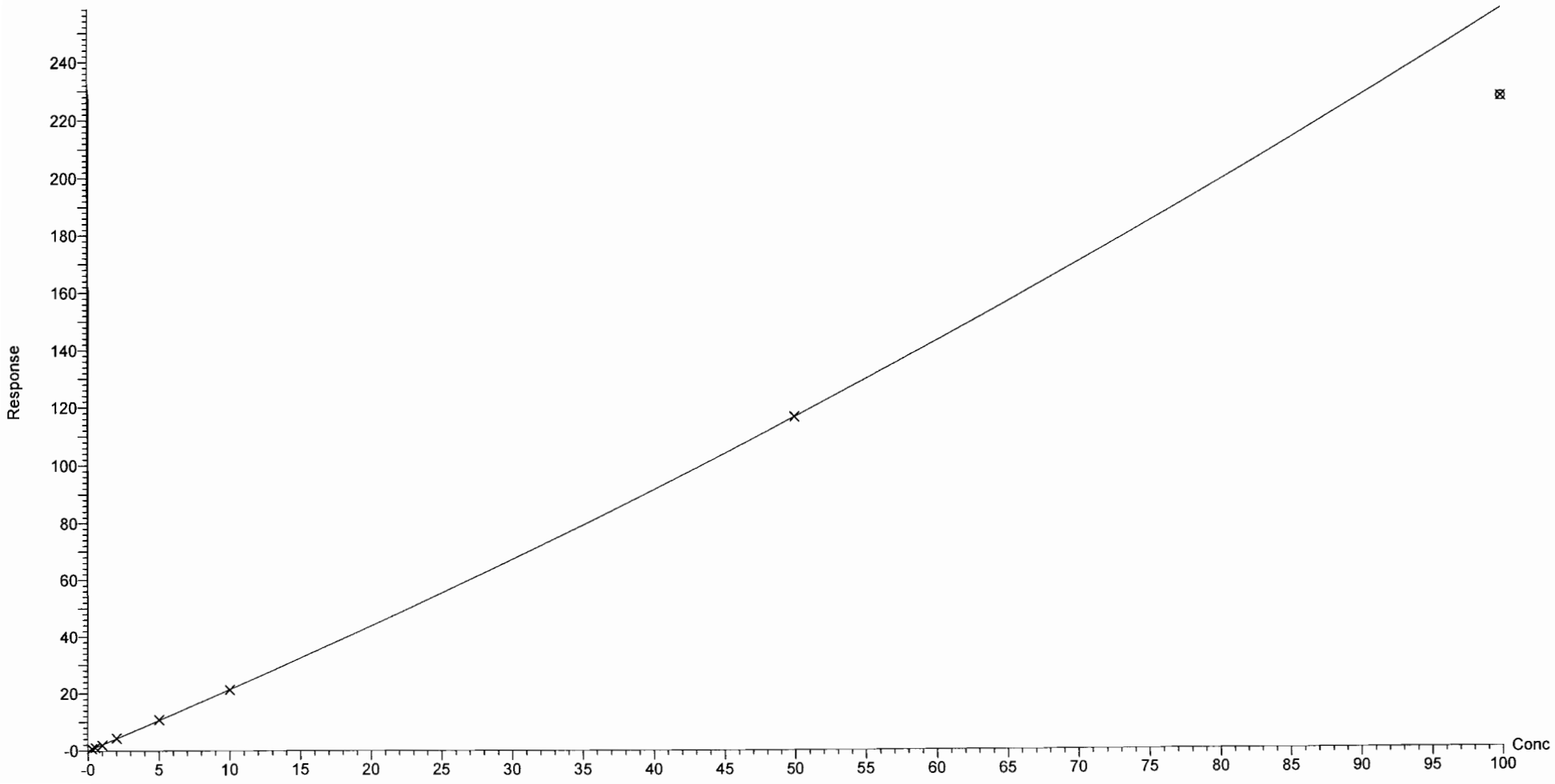


Vista Analytical Laboratory Q1

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

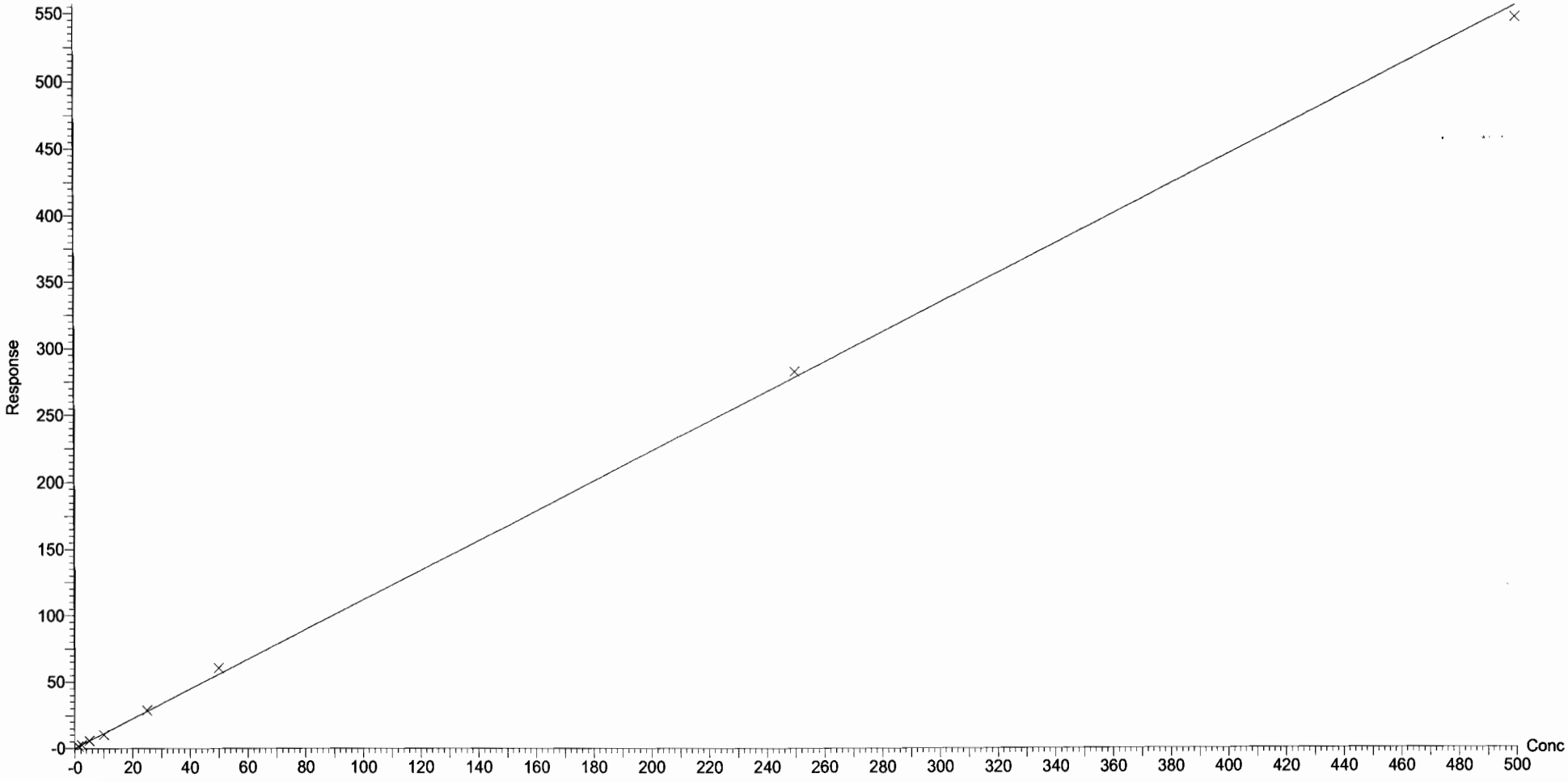


Vista Analytical Laboratory Q1

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

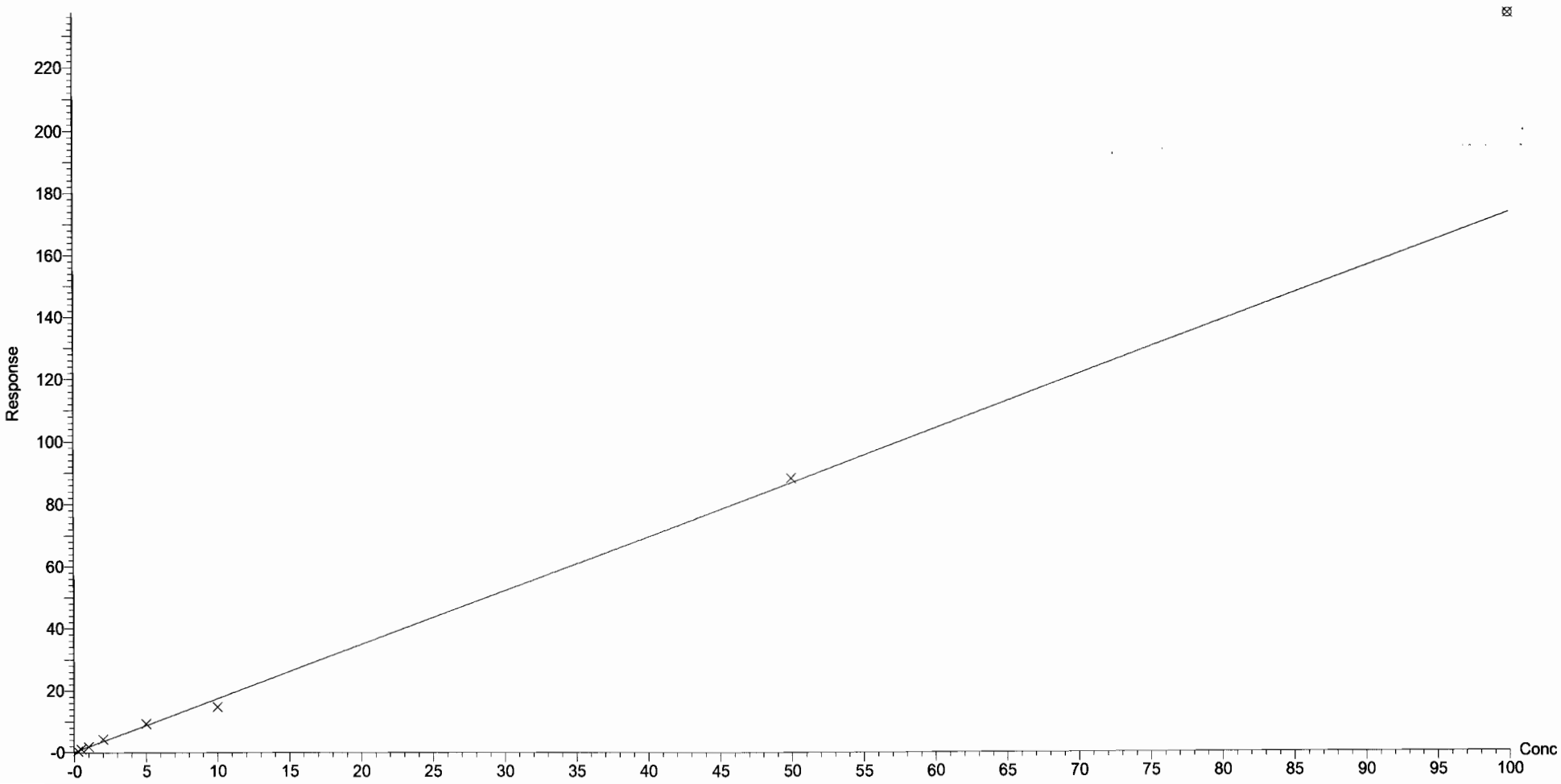
Compound name: N-MeFOSA
Correlation coefficient: r = 0.999575, r^2 = 0.999151
Calibration curve: 1.1137 * x + -0.0420228
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



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

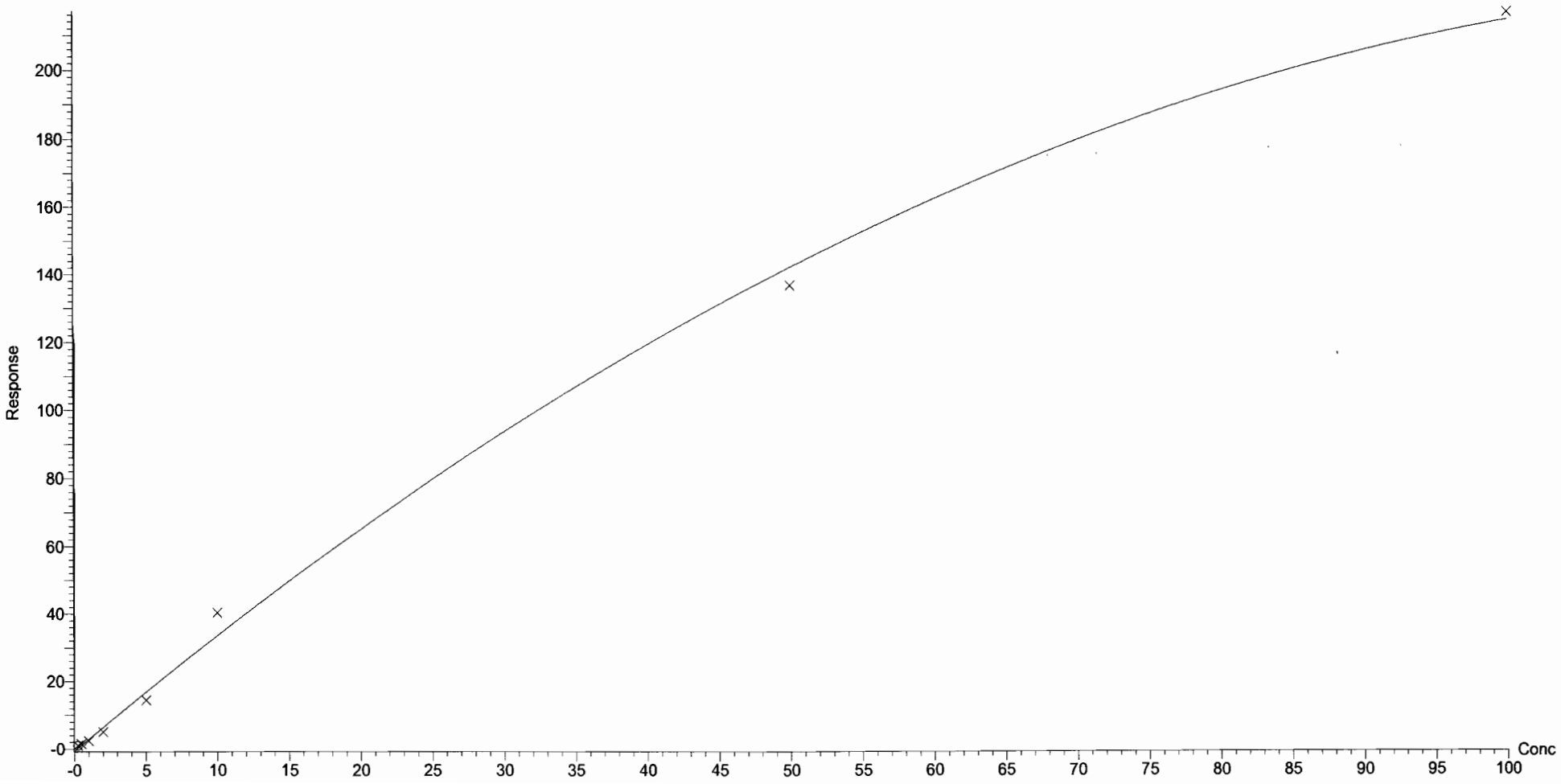
Compound name: PFTrDA
Correlation coefficient: r = 0.997052, r^2 = 0.994114
Calibration curve: 1.7339 * x + 0.0945455
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



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

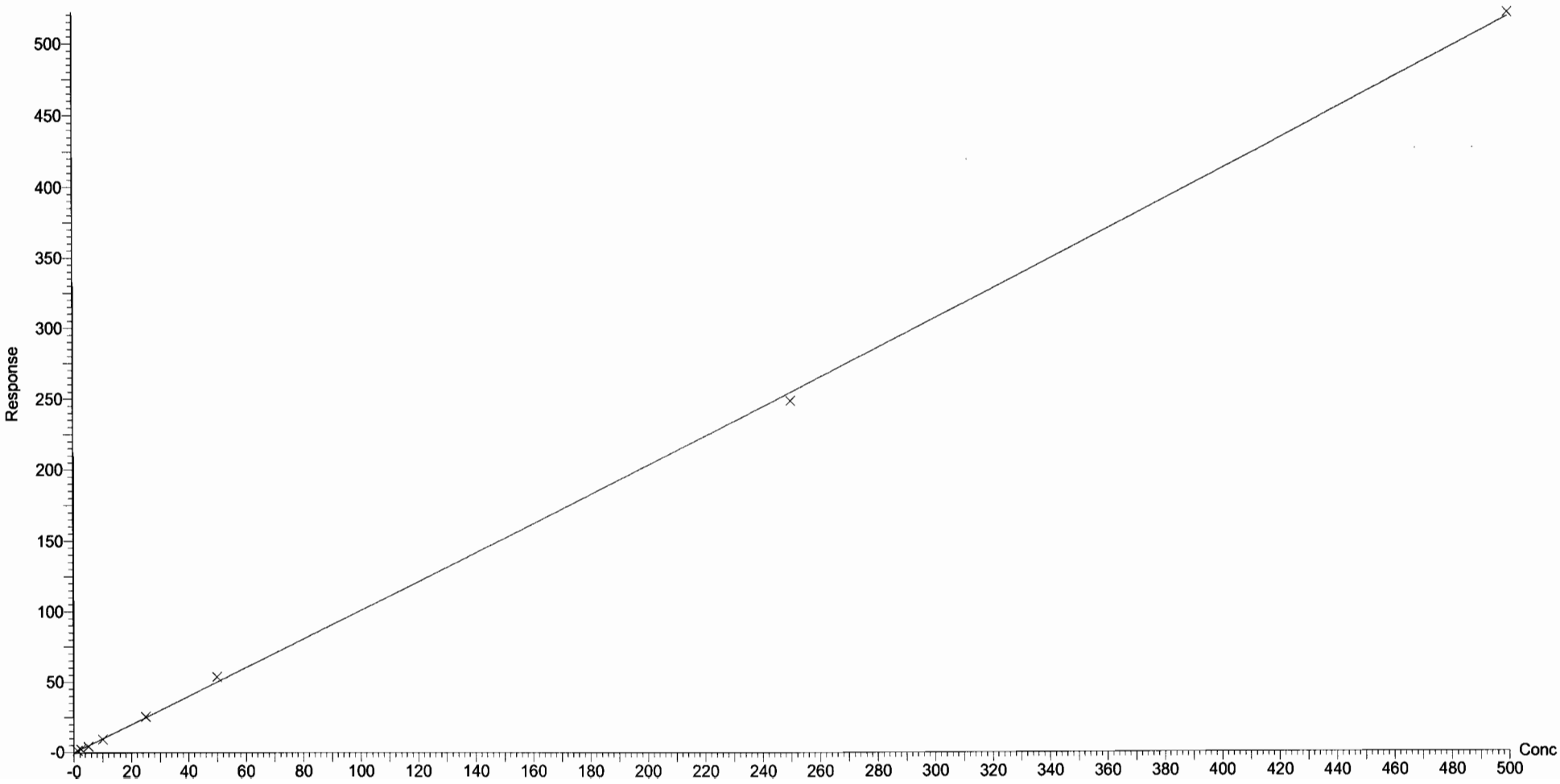
Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.992136
Calibration curve: -0.0140955 * x^2 + 3.56538 * x + -0.690853
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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

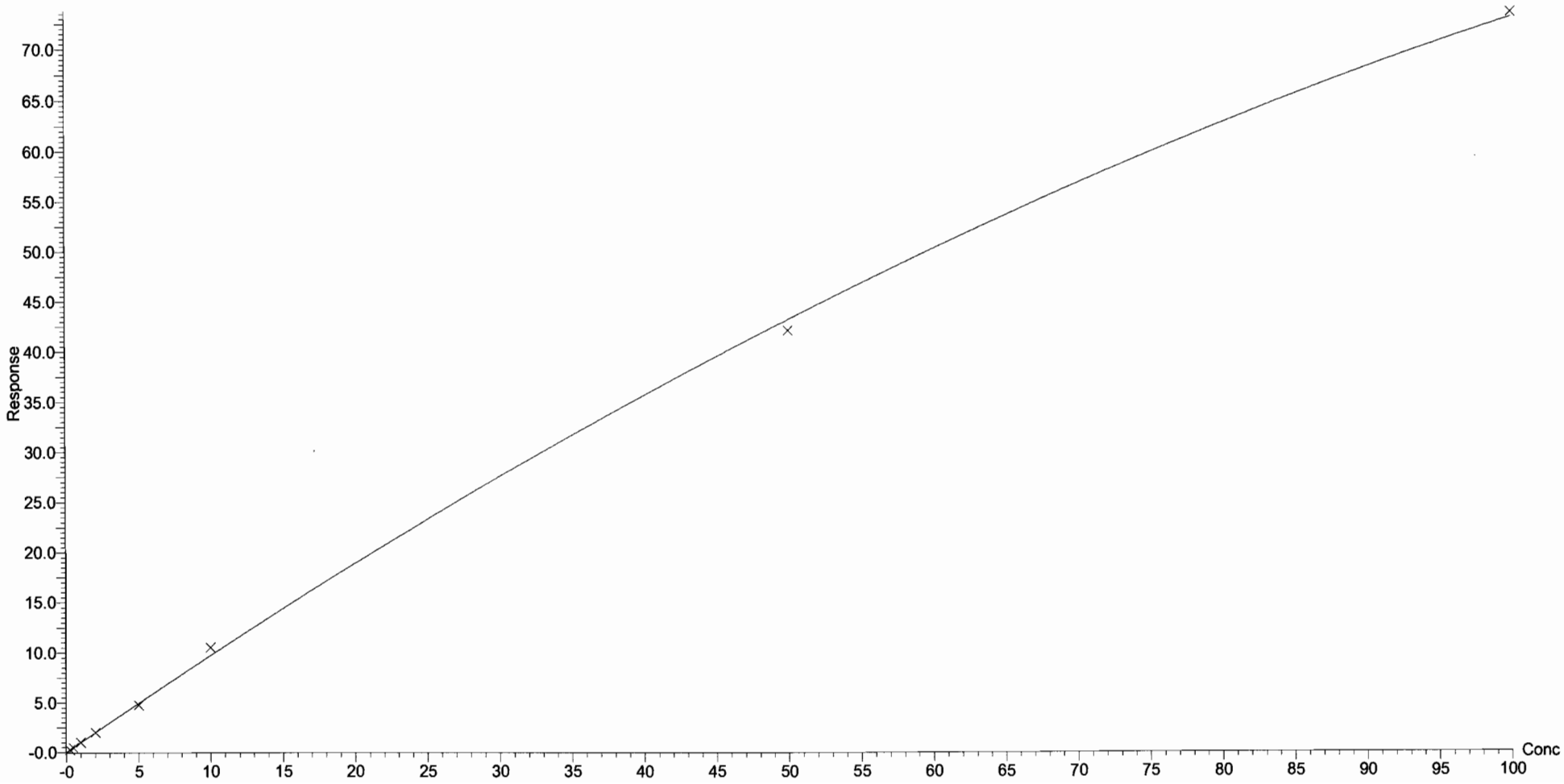
Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999388
Calibration curve: 7.91091e-005 * x^2 + 0.999512 * x + -0.30824
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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

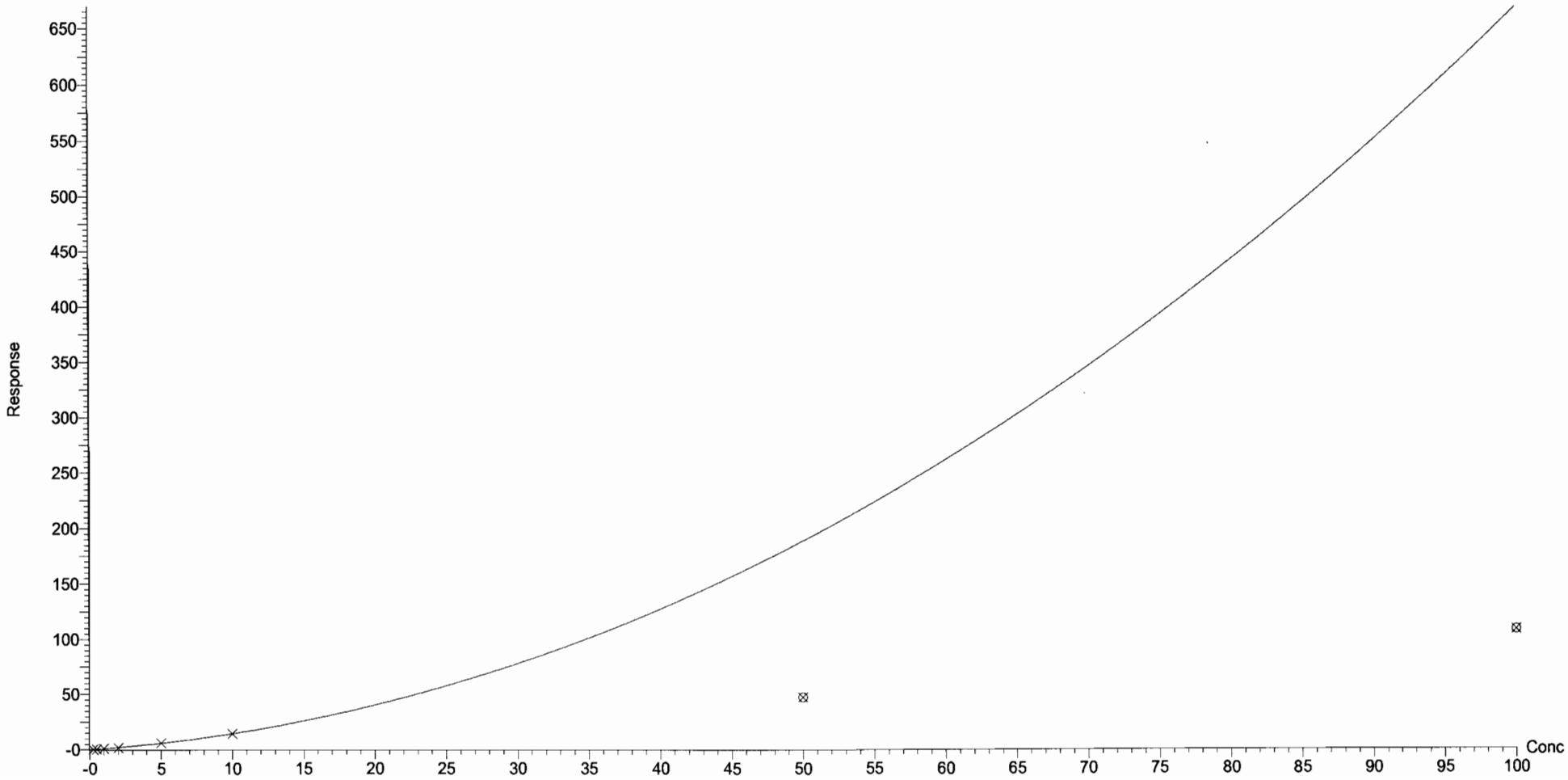


Vista Analytical Laboratory Q1

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

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: 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

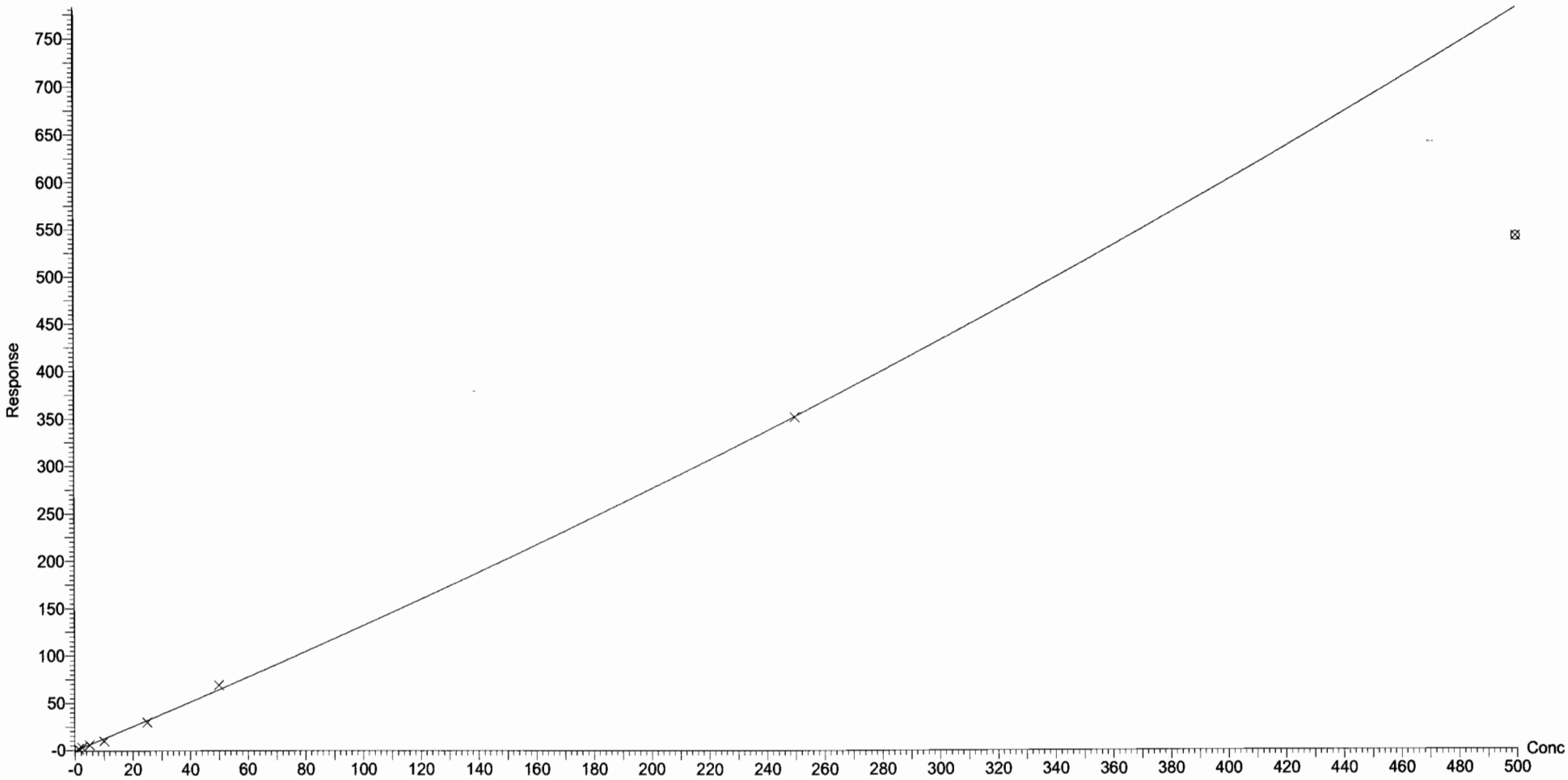


Vista Analytical Laboratory Q1

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-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

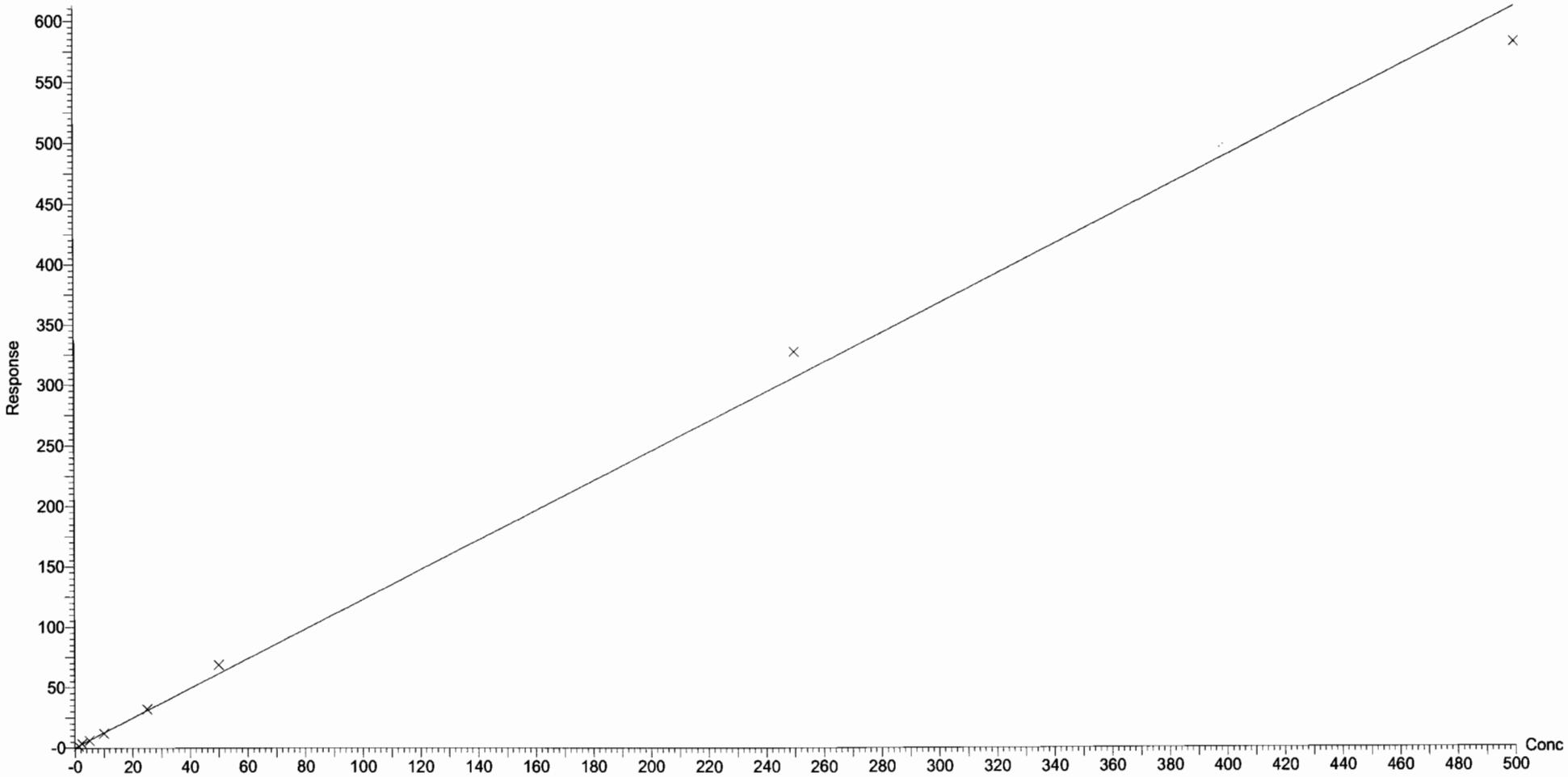


Vista Analytical Laboratory Q1

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



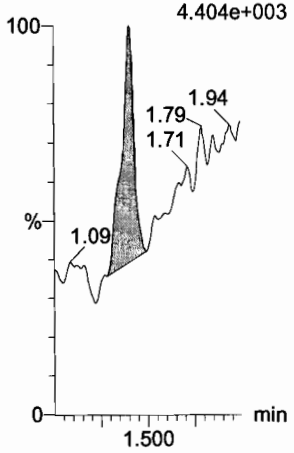
Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

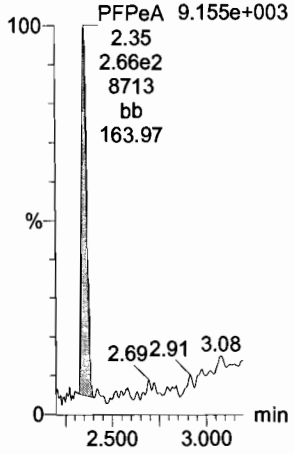
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122717.mdb 29 Dec 2017 11:28:58
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 15:29:28

Name: 171229M2_2, Date: 29-Dec-2017, Time: 13:31:42, ID: ST171229M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

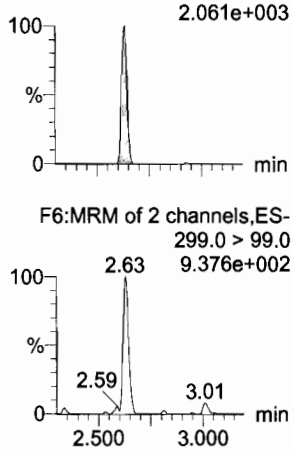
PFBA



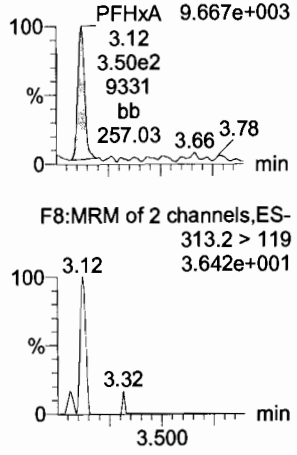
PFPeA



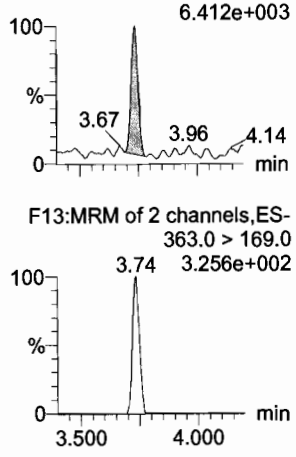
PFBS



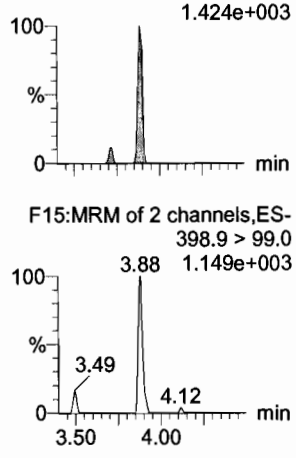
PFHxA



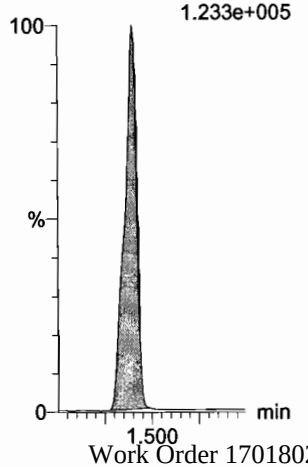
PFHpA



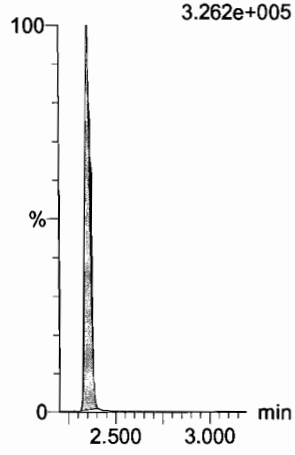
L-PFHxS



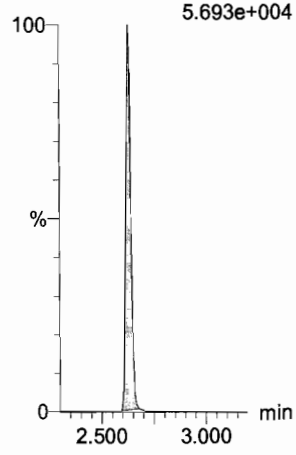
13C3-PFBA



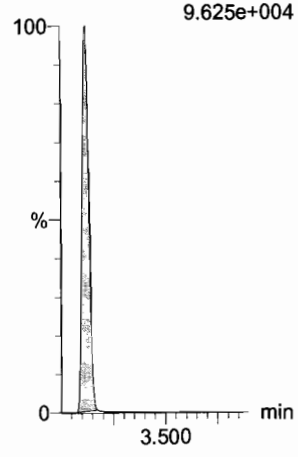
13C3-PFPeA



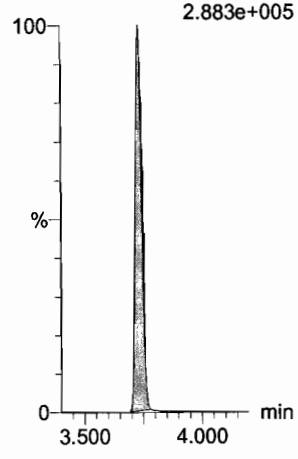
13C3-PFBS



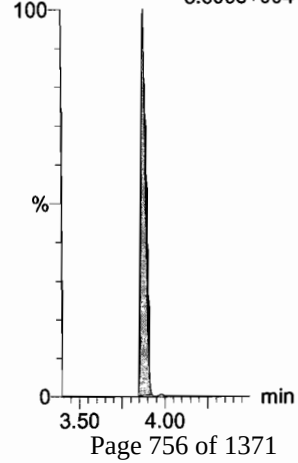
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

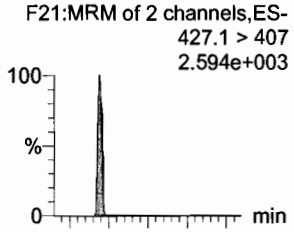


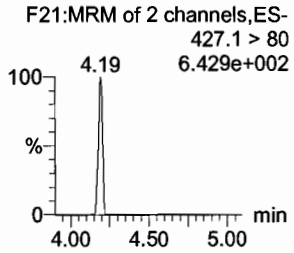
Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

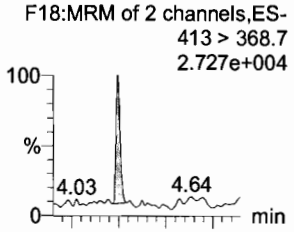
Name: 171229M2_2, Date: 29-Dec-2017, Time: 13:31:42, ID: ST171229M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

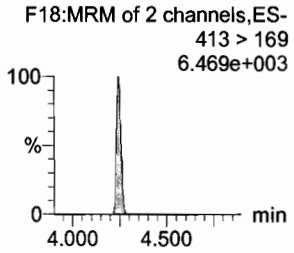
6:2 FTS



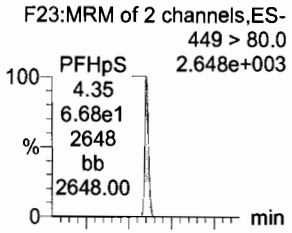


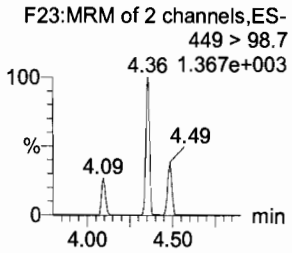
L-PFOA



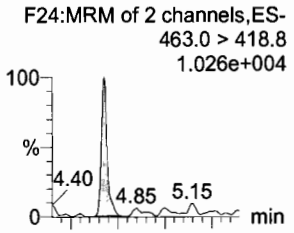


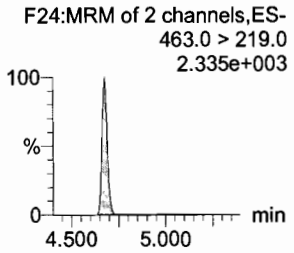
PFHpS



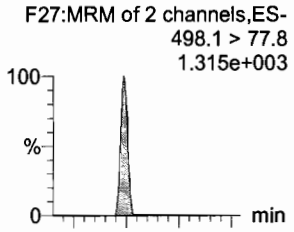


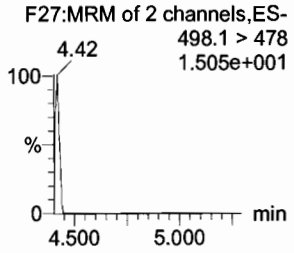
PFNA



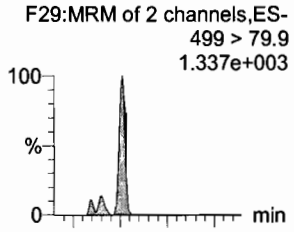


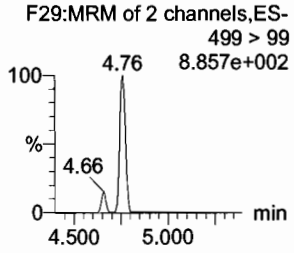
PFOSA



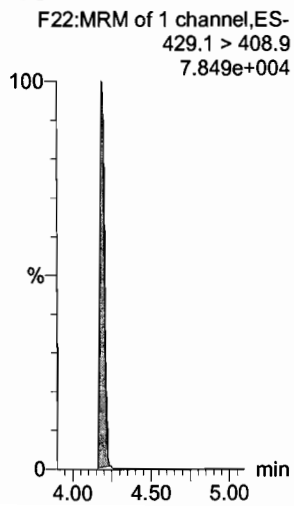


L-PFOS

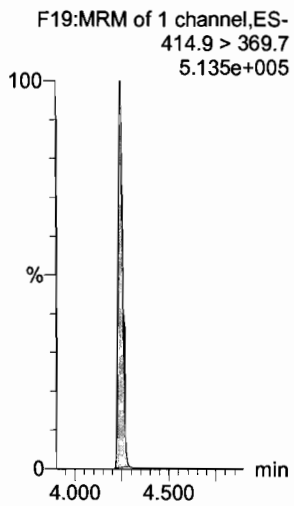




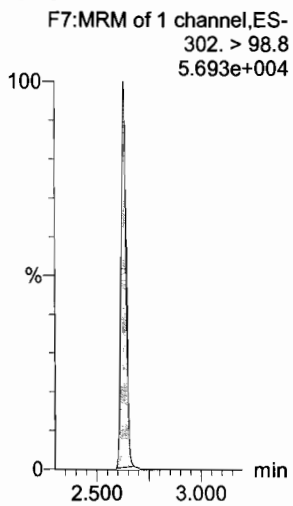
13C2-6:2 FTS



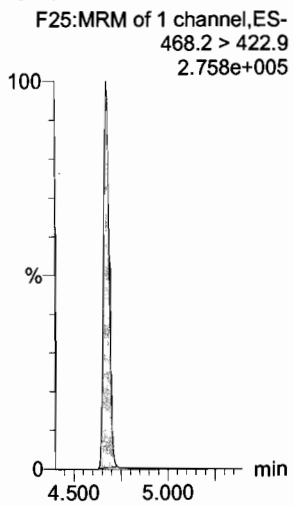
13C2-PFOA



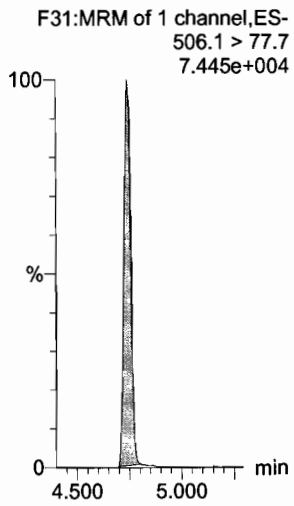
13C3-PFBS



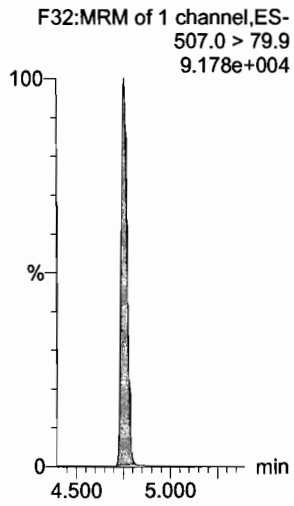
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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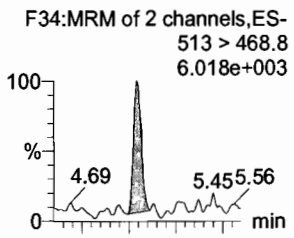
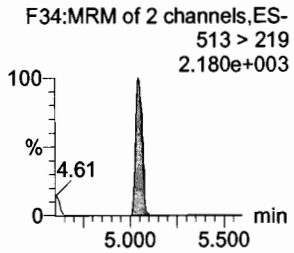
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

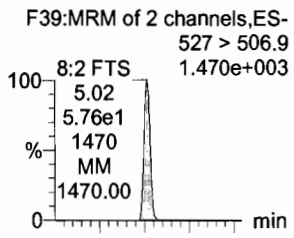
Name: 171229M2_2, Date: 29-Dec-2017, Time: 13:31:42, ID: ST171229M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

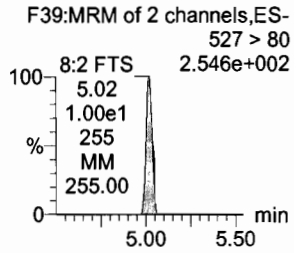
PFDA



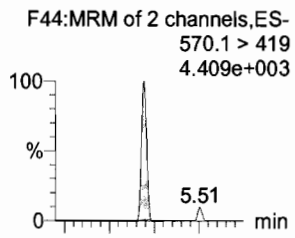


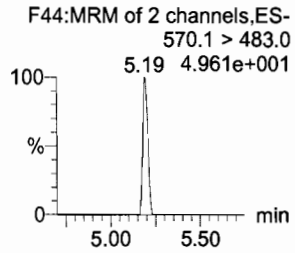
8:2 FTS





N-MeFOSAA





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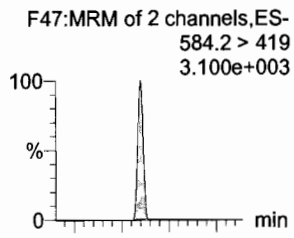
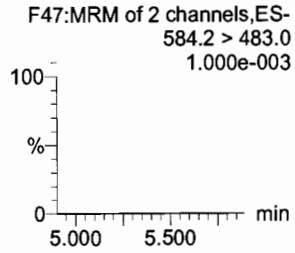
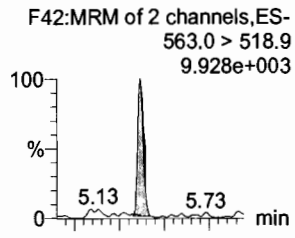
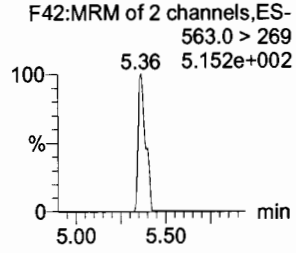


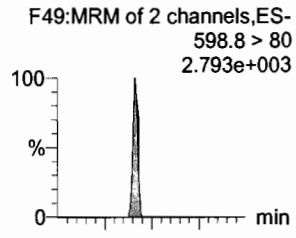


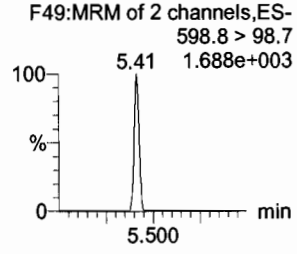
PFUdA



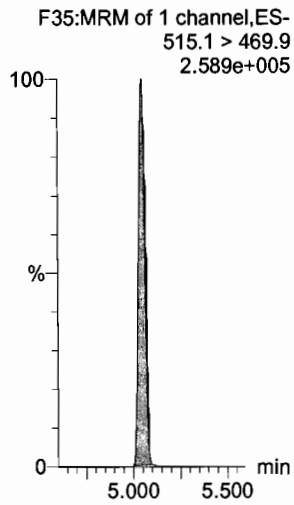


PFDS

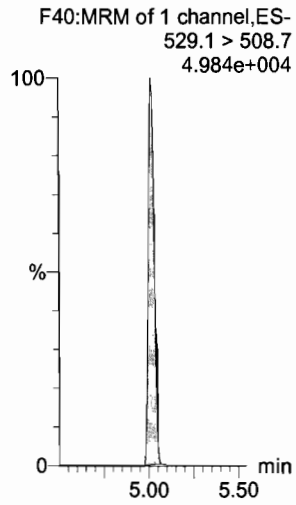




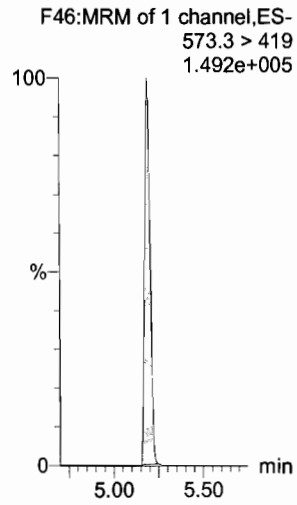
13C2-PFDA



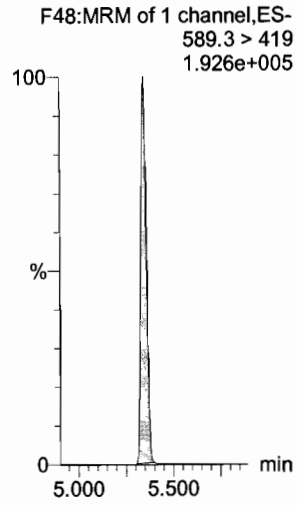
13C2-8:2 FTS



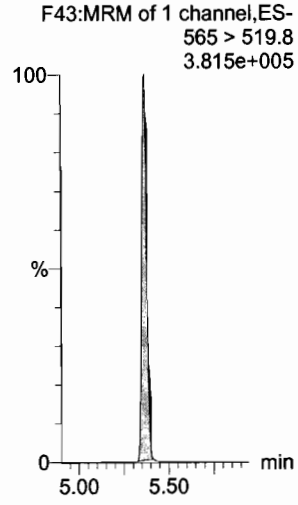
d3-N-MeFOSAA



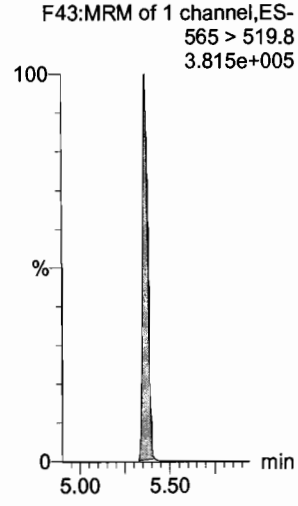
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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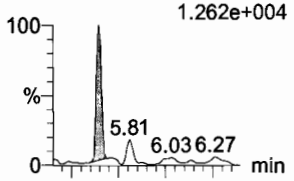
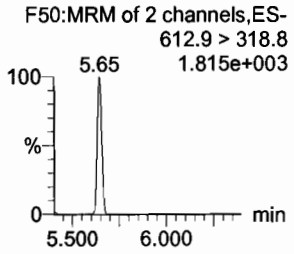
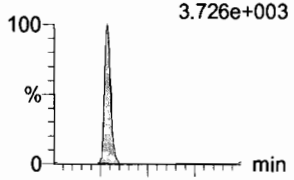
Name: 171229M2_2, Date: 29-Dec-2017, Time: 13:31:42, ID: ST171229M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

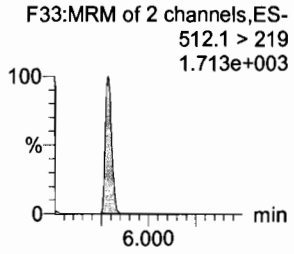
PFDoA



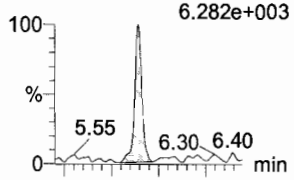


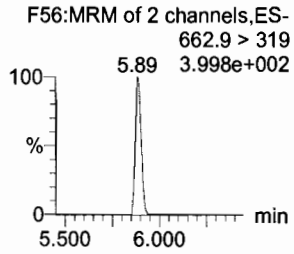
N-MeFOSA



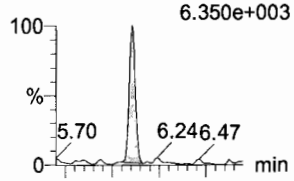


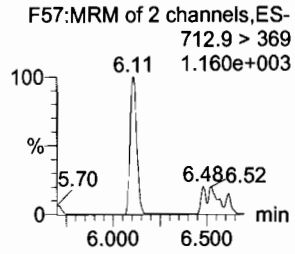
PFTrDA





PFTeDA





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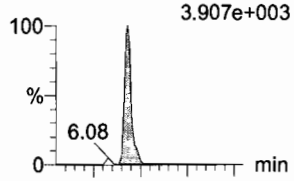
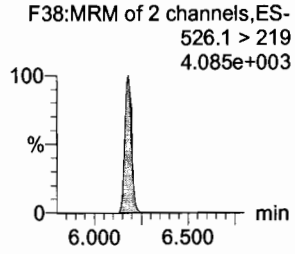
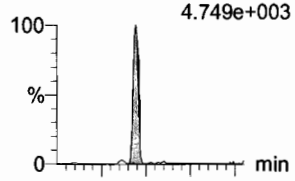
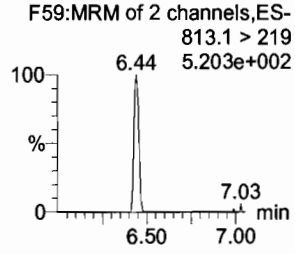


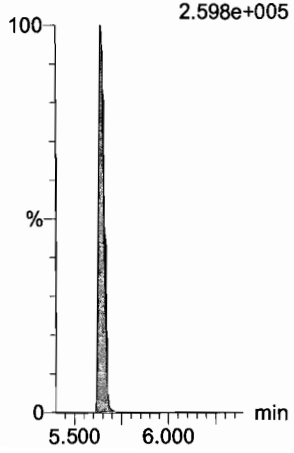


PFHxDA

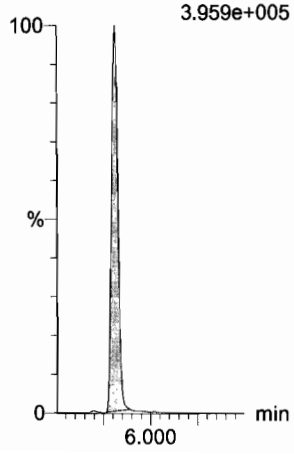




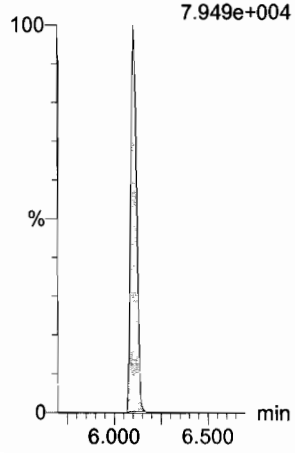
13C2-PFDoA



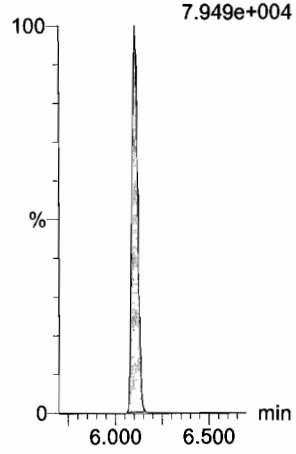
d3-N-MeFOSA



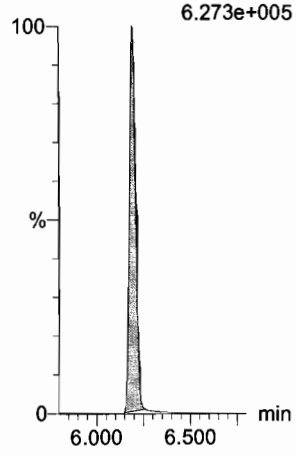
13C2-PFTeDA



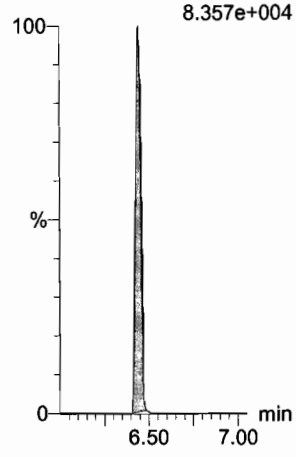
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



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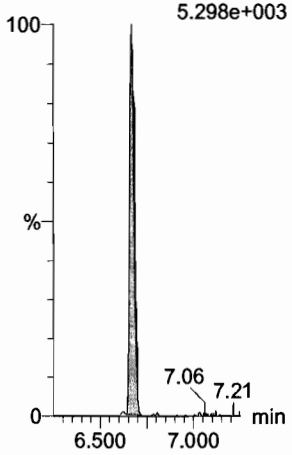
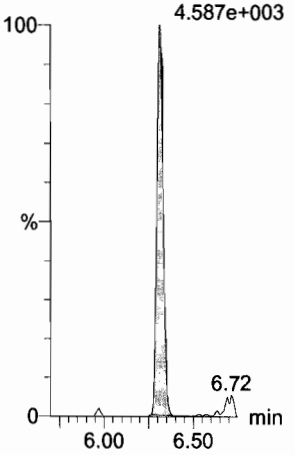
Name: 171229M2_2, Date: 29-Dec-2017, Time: 13:31:42, ID: ST171229M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

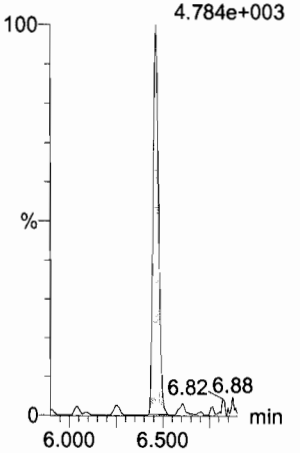
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
5.298e+003



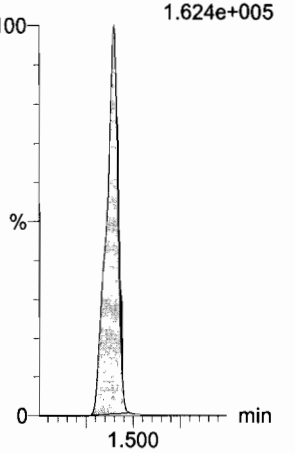
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
4.587e+003



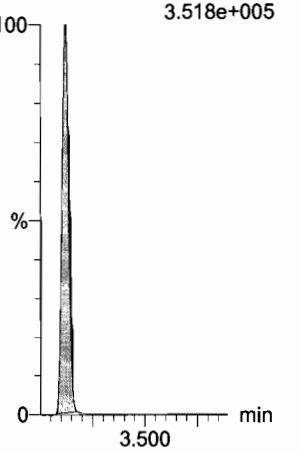
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
4.784e+003



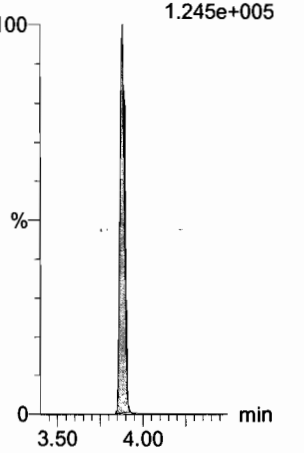
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.624e+005



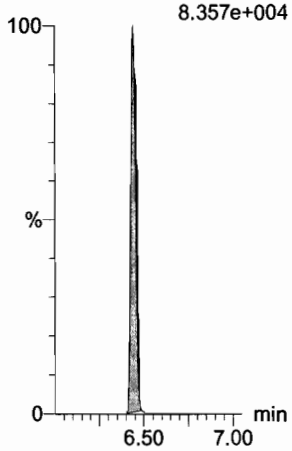
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.518e+005



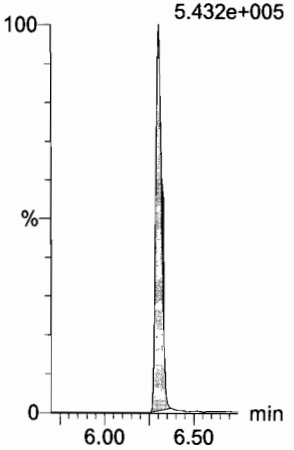
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.245e+005



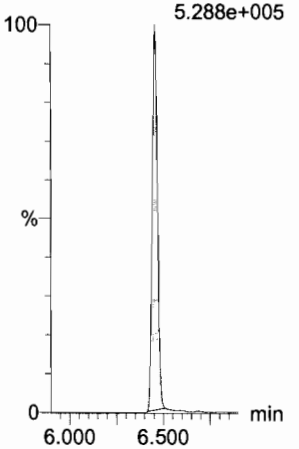
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.357e+004



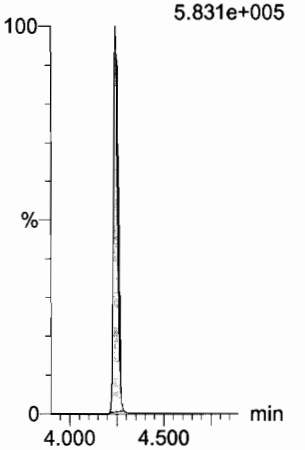
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.432e+005



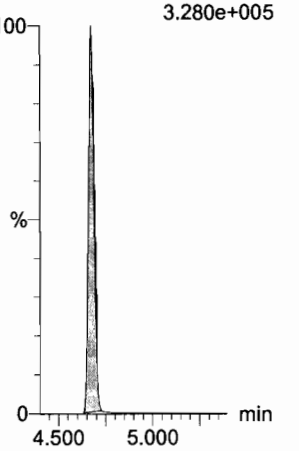
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.288e+005



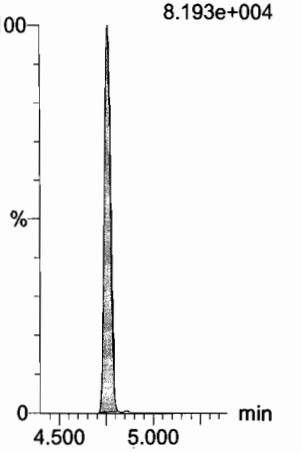
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.831e+005



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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Name: 171229M2_2, Date: 29-Dec-2017, Time: 13:31:42, ID: ST171229M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

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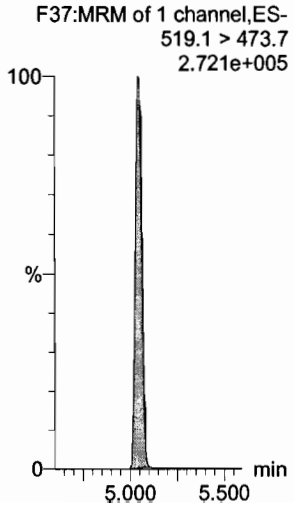
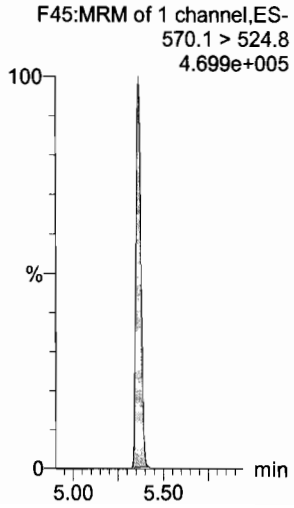


13C7-PFUdA



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Name: 171229M2_3, Date: 29-Dec-2017, Time: 13:42:53, ID: ST171229M2-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

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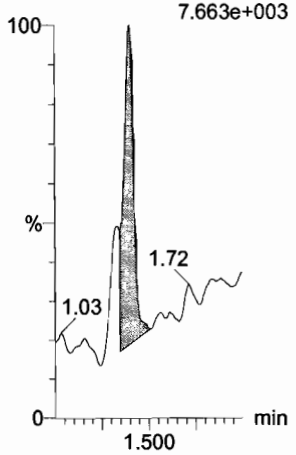

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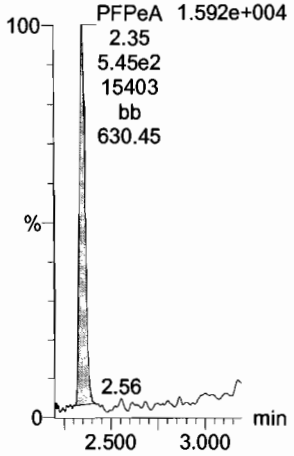

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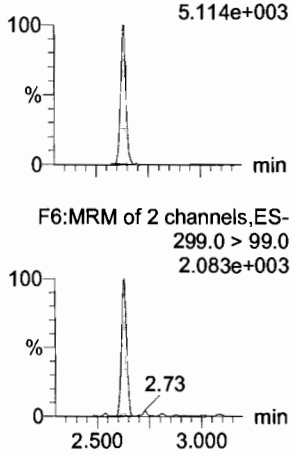

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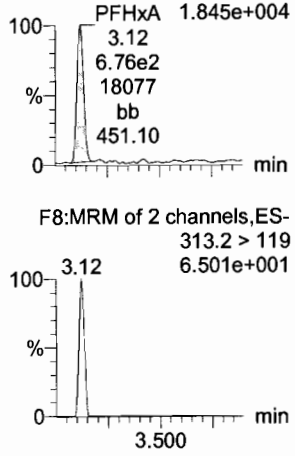

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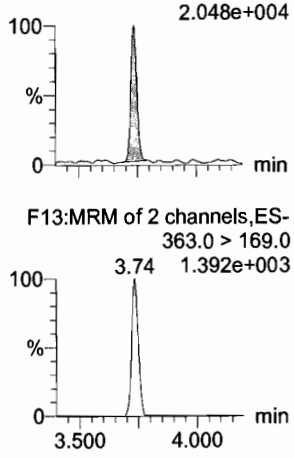

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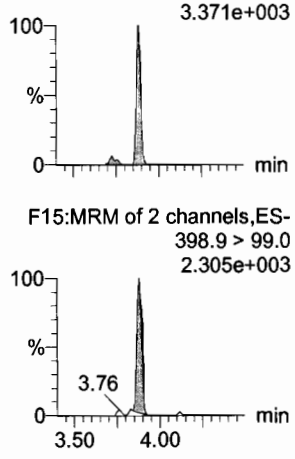

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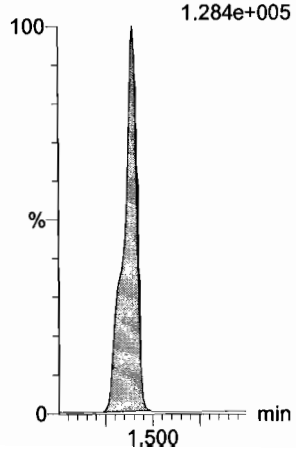

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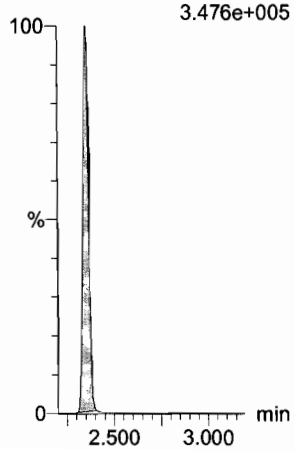

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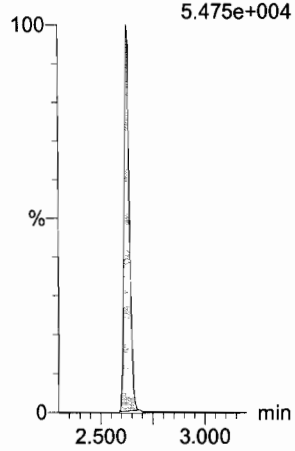

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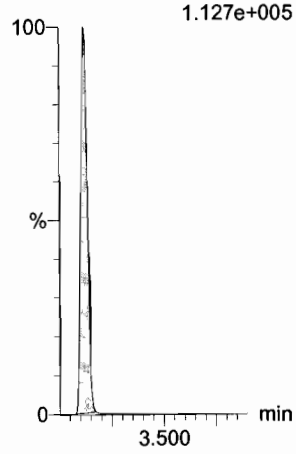

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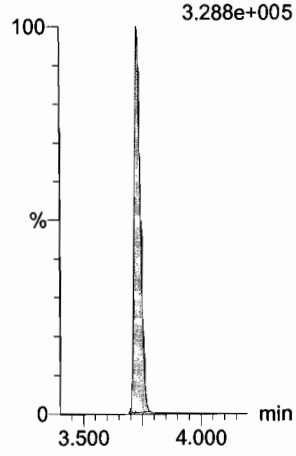

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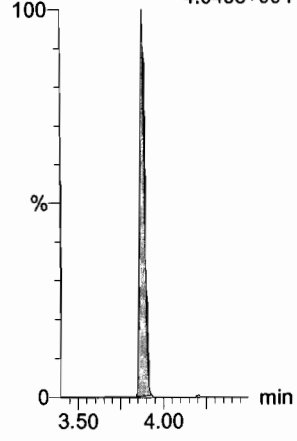

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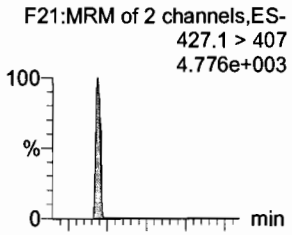
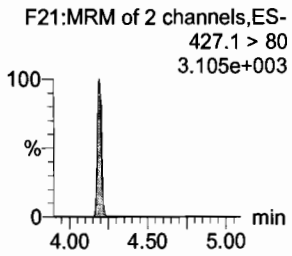
6:2 FTS





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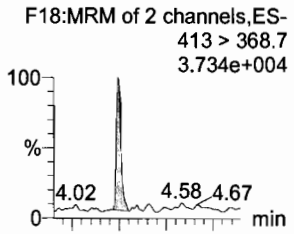

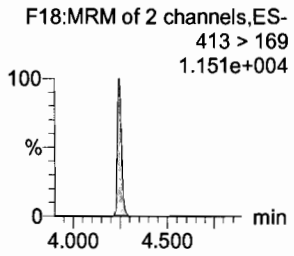

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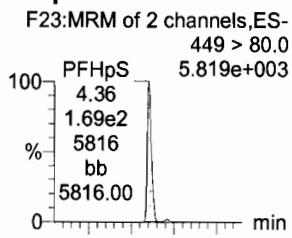

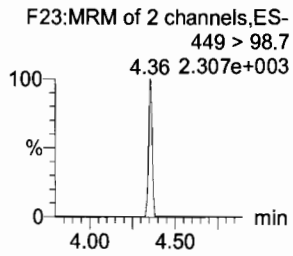

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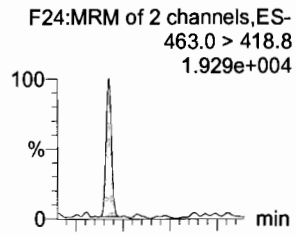

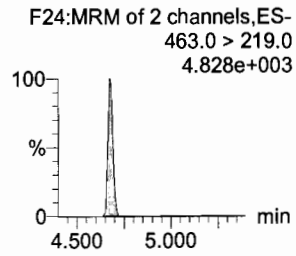

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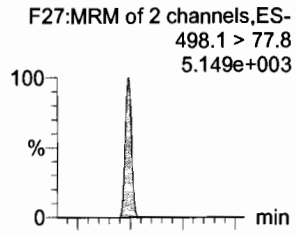

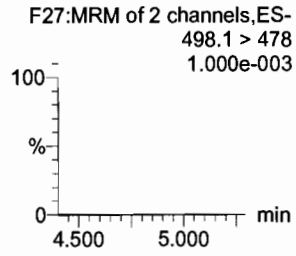

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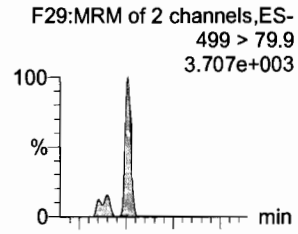

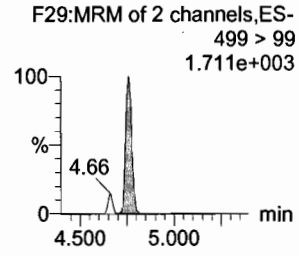

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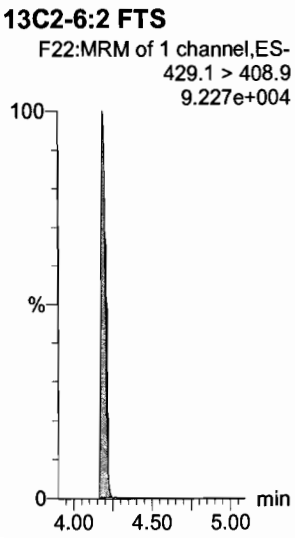

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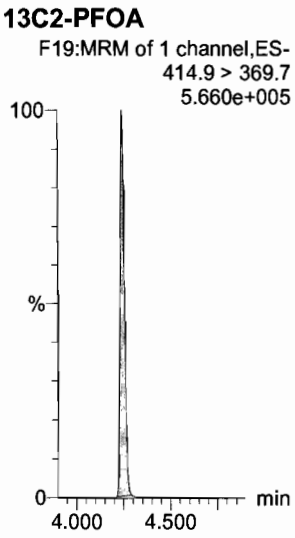

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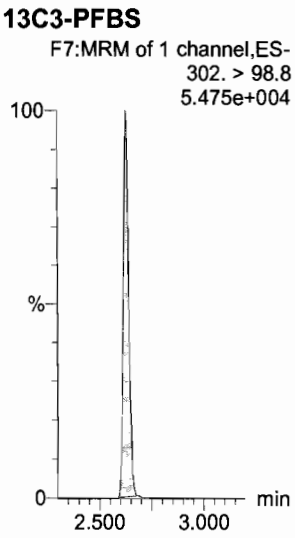

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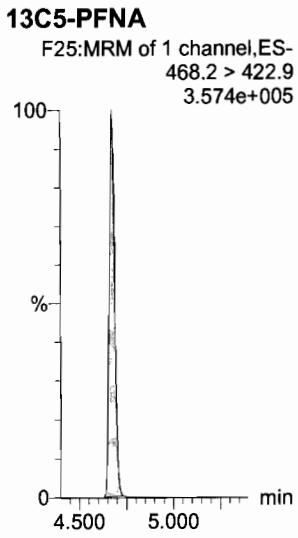

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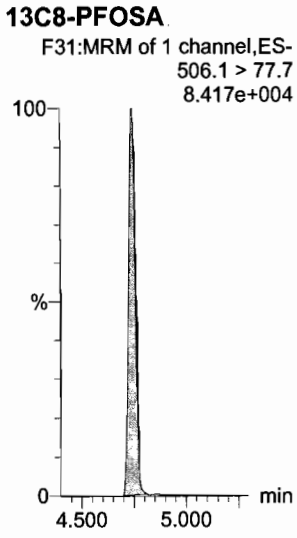

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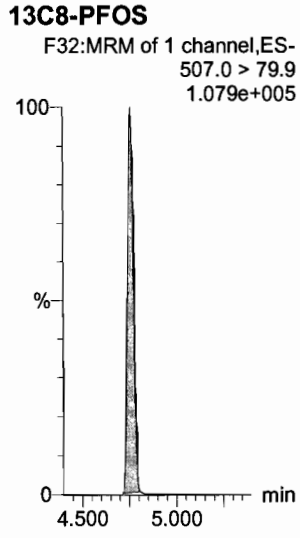

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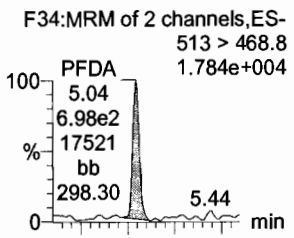
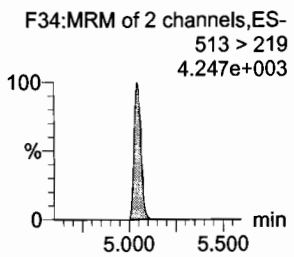
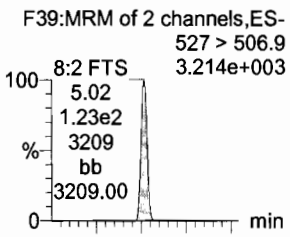
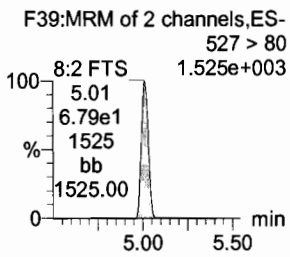
PFDA





8:2 FTS





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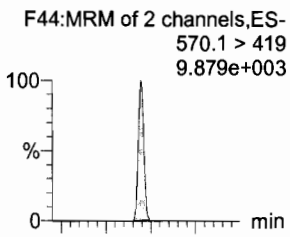

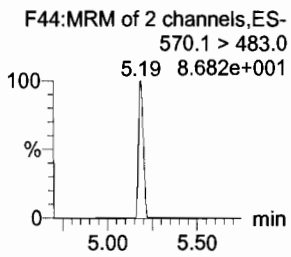

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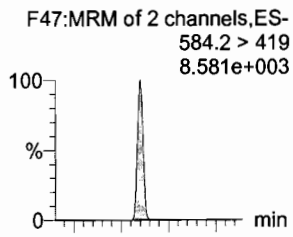

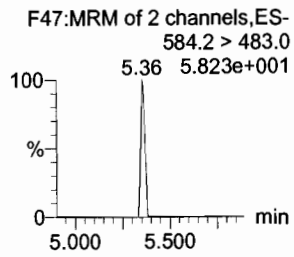

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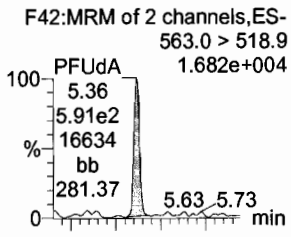

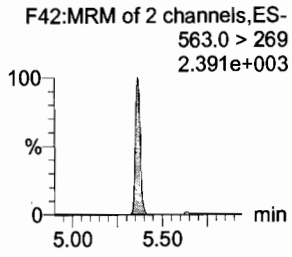

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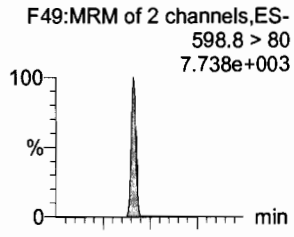

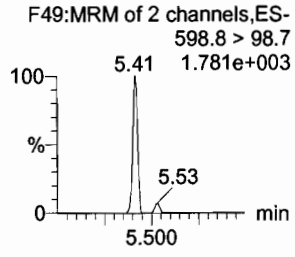

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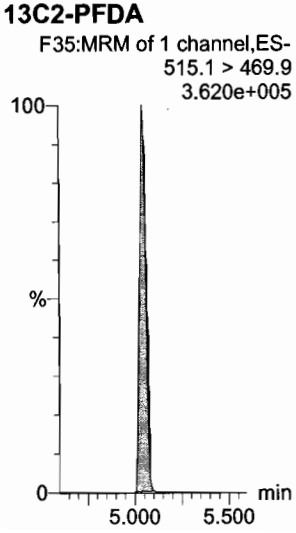

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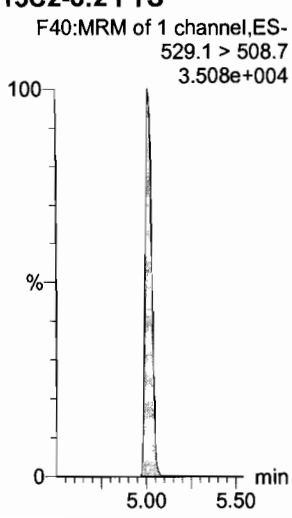

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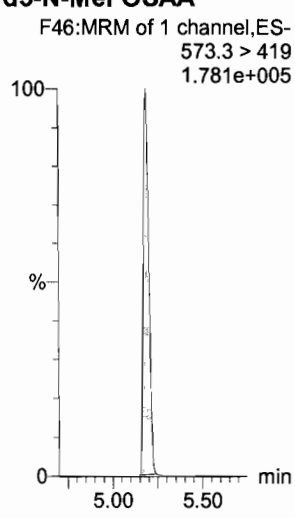

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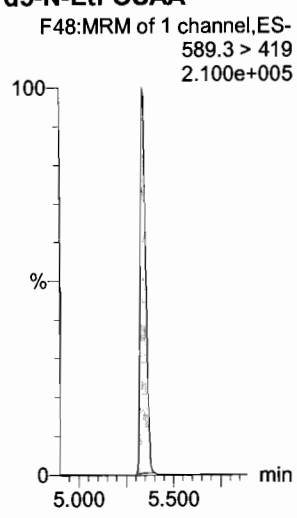

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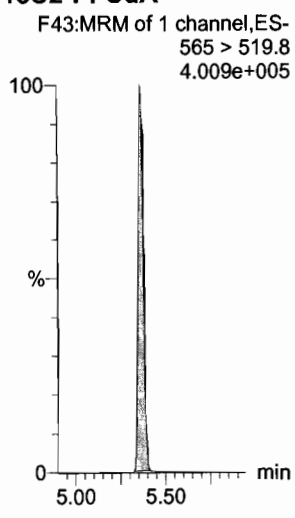

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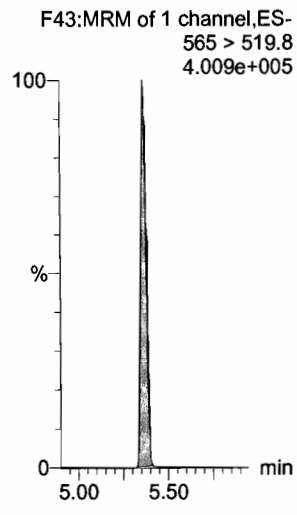

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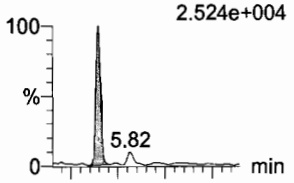
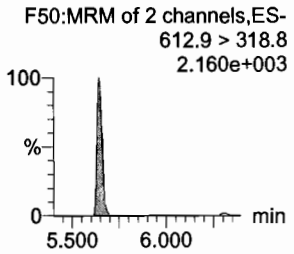
PFDoA





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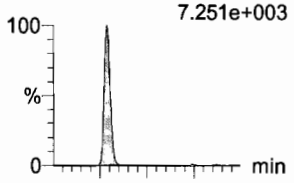
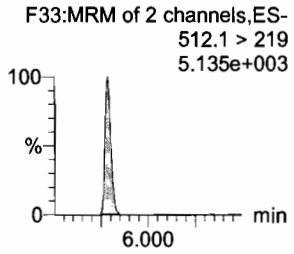
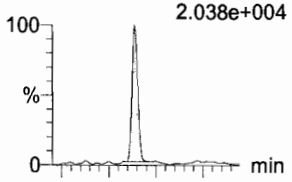
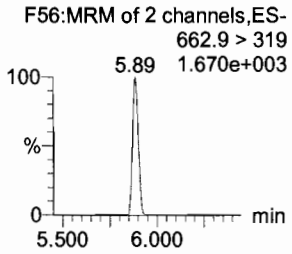


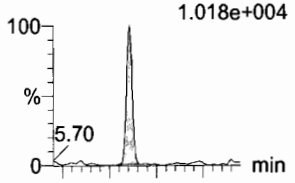


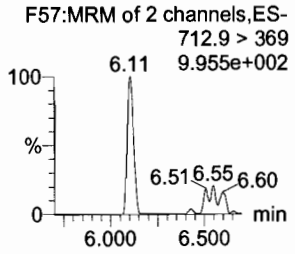
PFTrDA



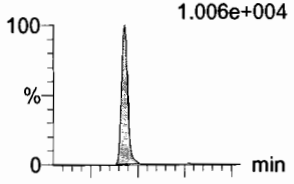


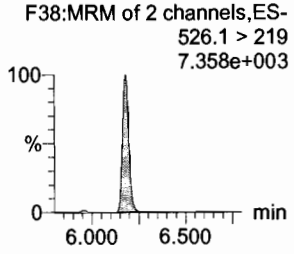
PFTeDA



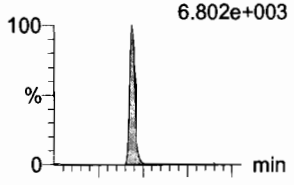


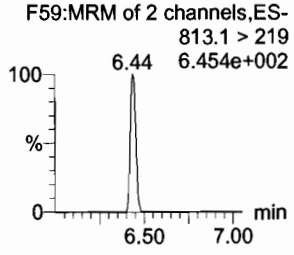
N-EtFOSA



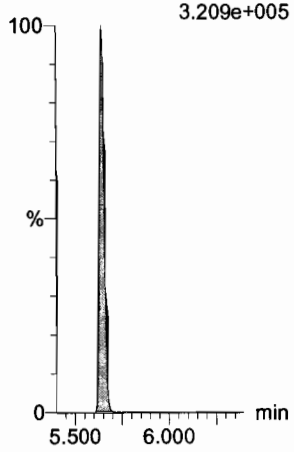


PFHxDA

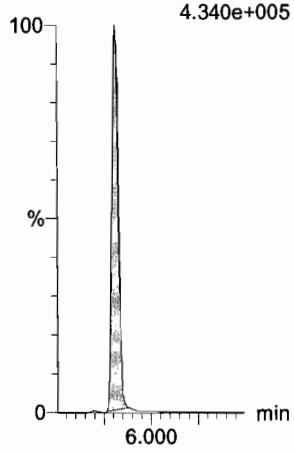




13C2-PFDoA



d3-N-MeFOSA



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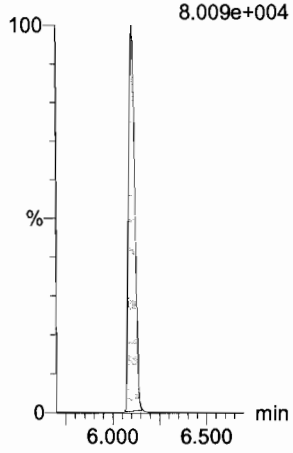

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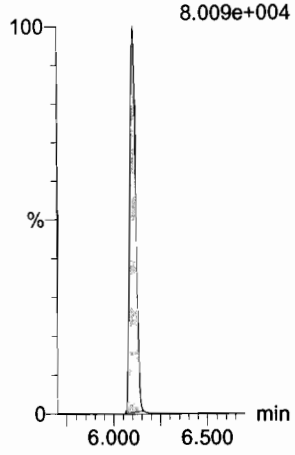
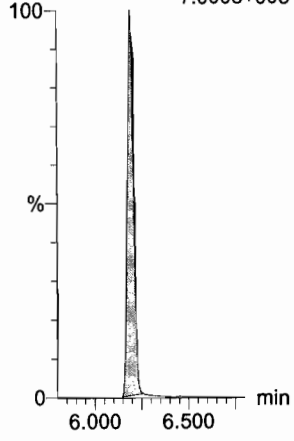
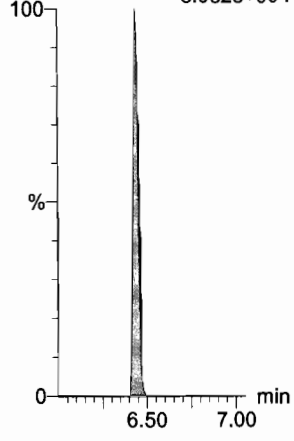


d5-N-ETFOSA



13C2-PFHxDA



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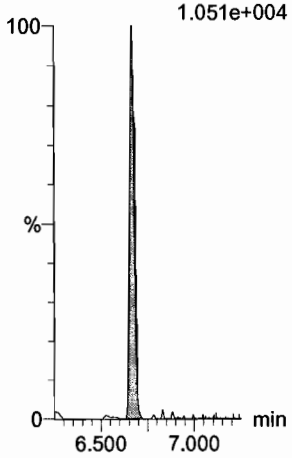
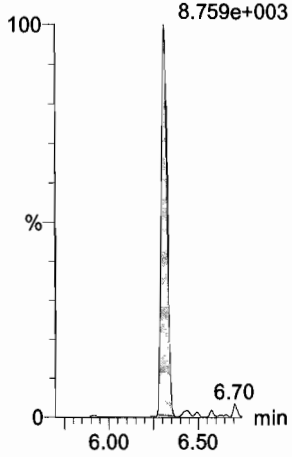
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_3, Date: 29-Dec-2017, Time: 13:42:53, ID: ST171229M2-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

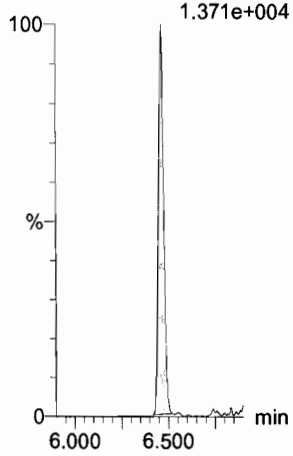
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.051e+004



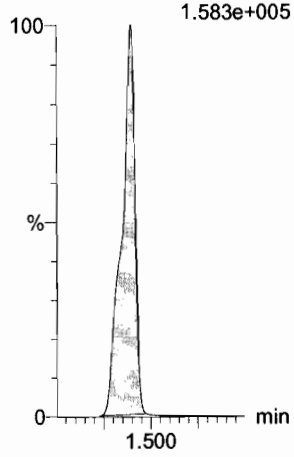
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
8.759e+003



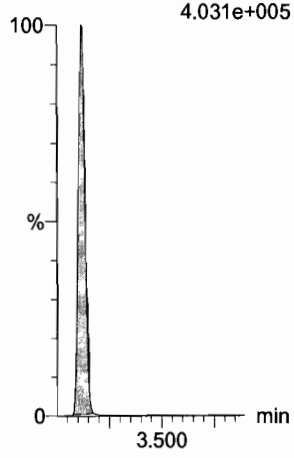
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.371e+004



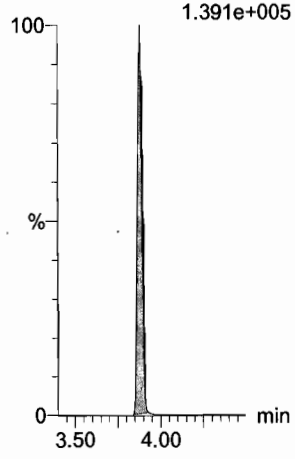
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.583e+005



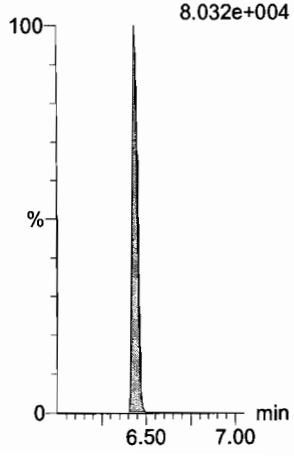
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.031e+005



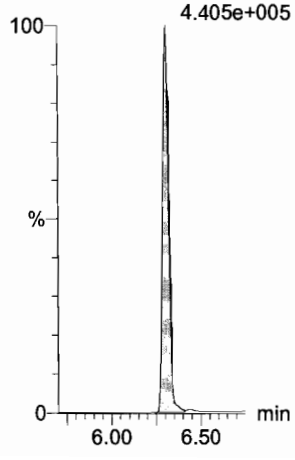
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.391e+005



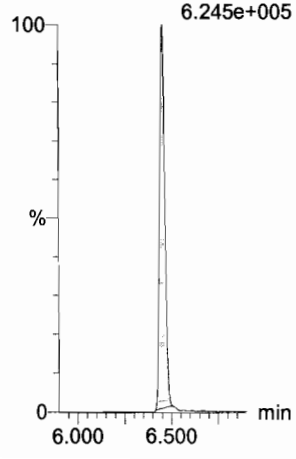
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.032e+004



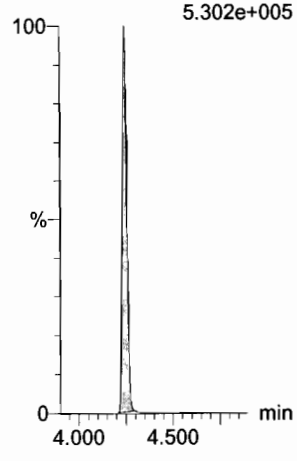
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.405e+005



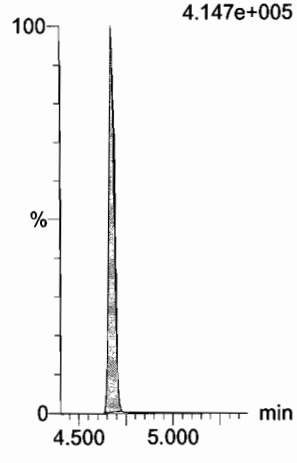
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.245e+005



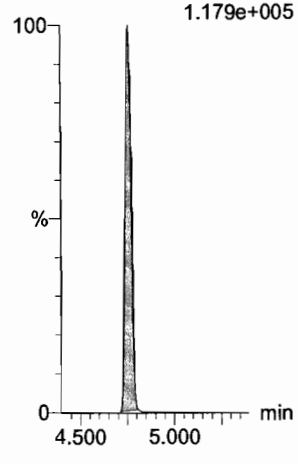
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.302e+005



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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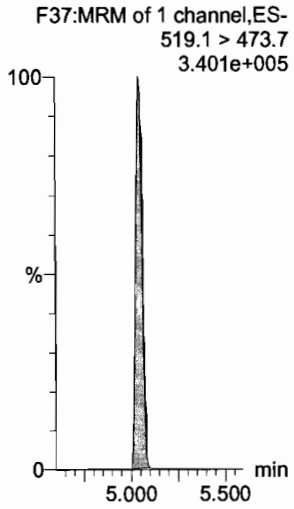
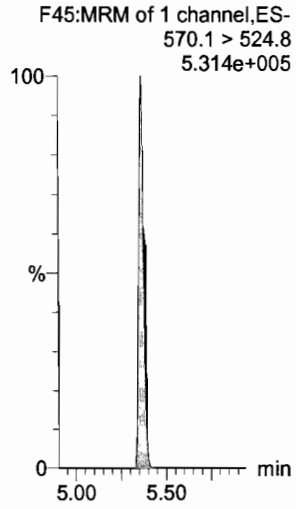
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

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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Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
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Name: 171229M2_4, Date: 29-Dec-2017, Time: 13:54:04, ID: ST171229M2-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

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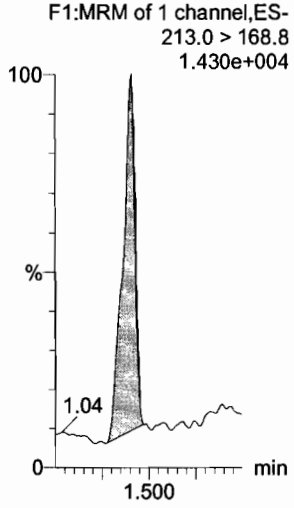
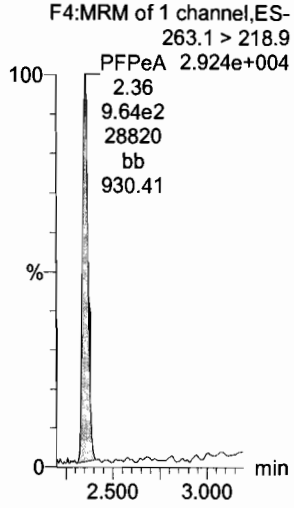
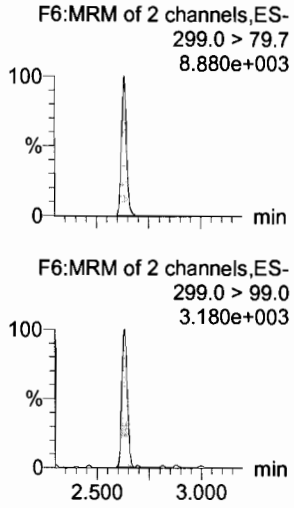


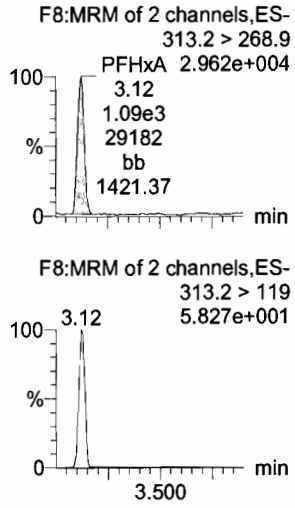
PFPeA



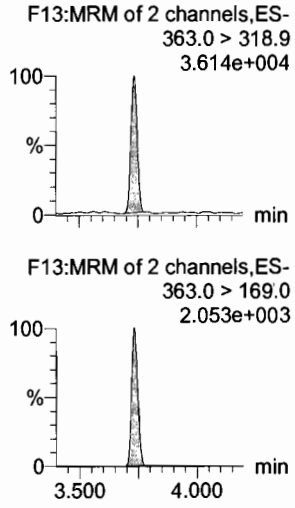
PFBS



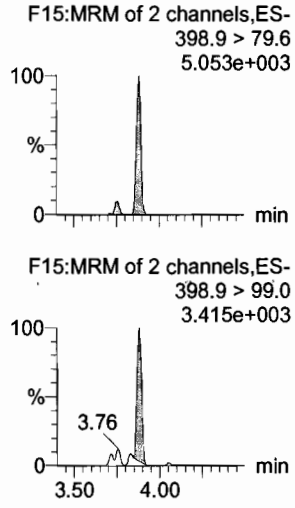
PFHxA



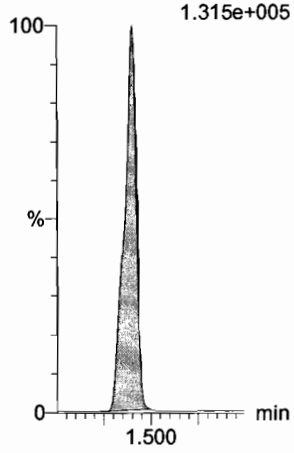
PFHpA



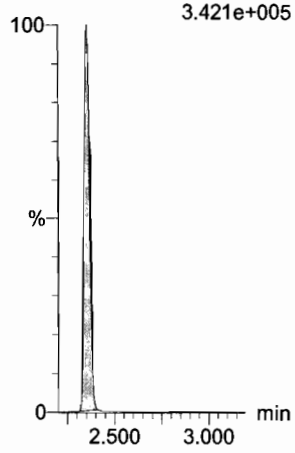
L-PFHxS



13C3-PFBA



13C3-PFPeA



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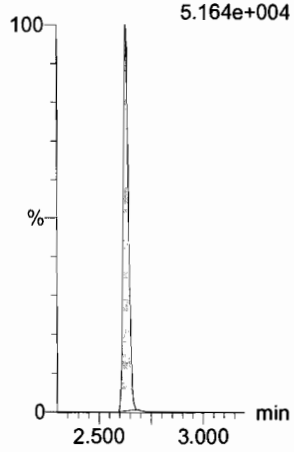
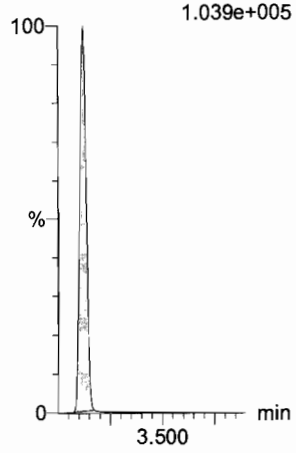
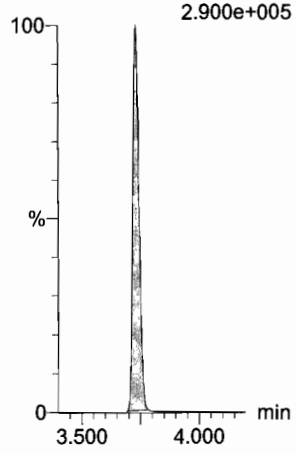


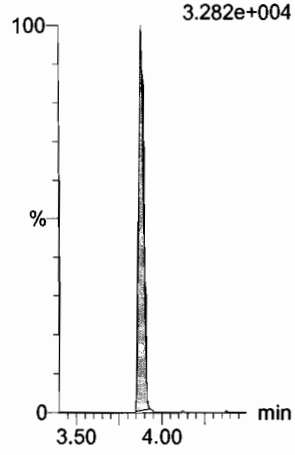
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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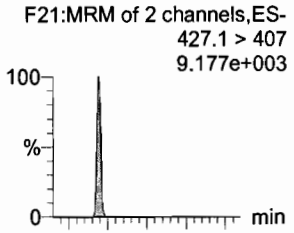
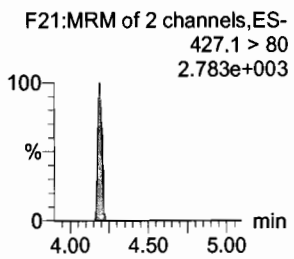
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

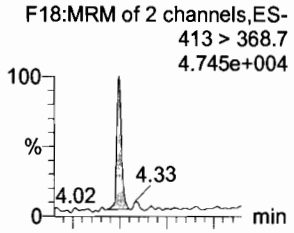
Name: 171229M2_4, Date: 29-Dec-2017, Time: 13:54:04, ID: ST171229M2-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

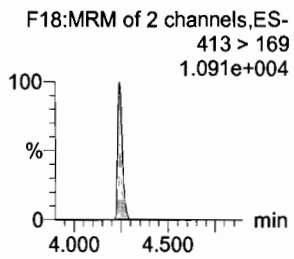
6:2 FTS





L-PFOA





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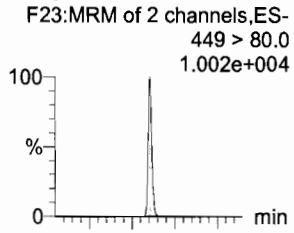
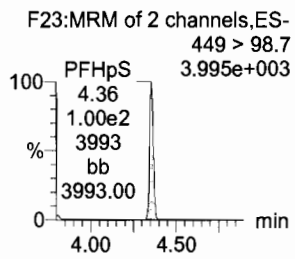
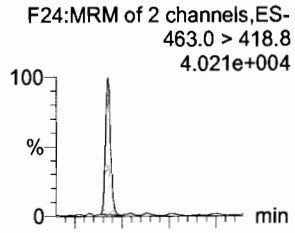
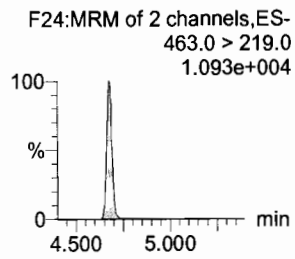


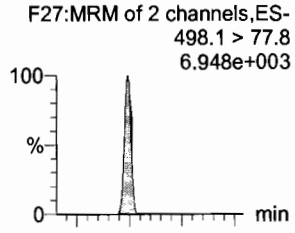


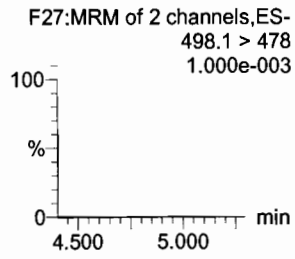
PFNA



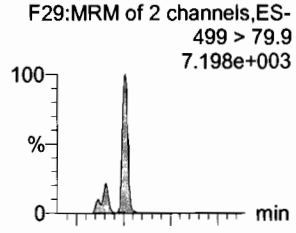


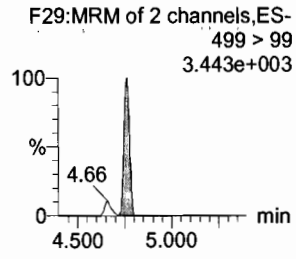
PFOSA



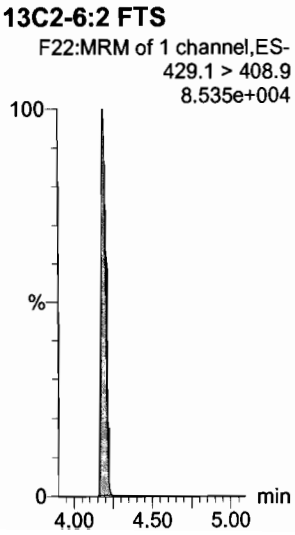


L-PFOS

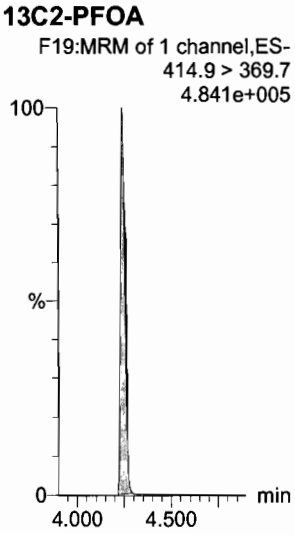




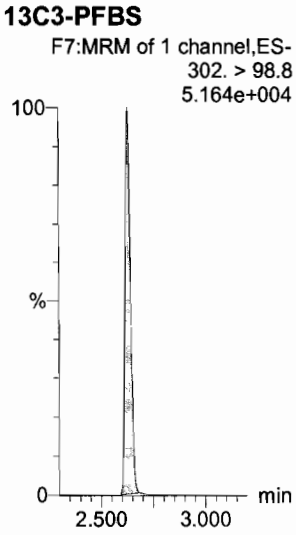
13C2-6:2 FTS



13C2-PFOA



13C3-PFBS



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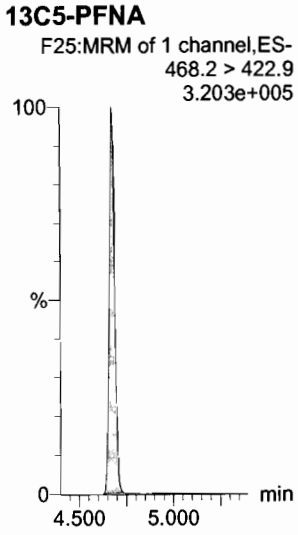

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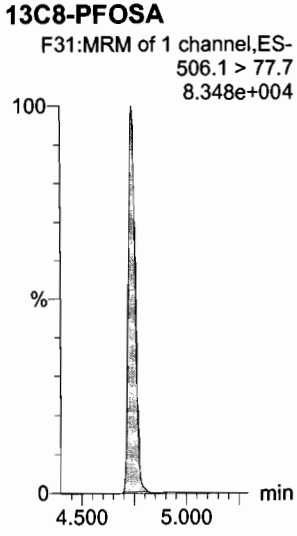

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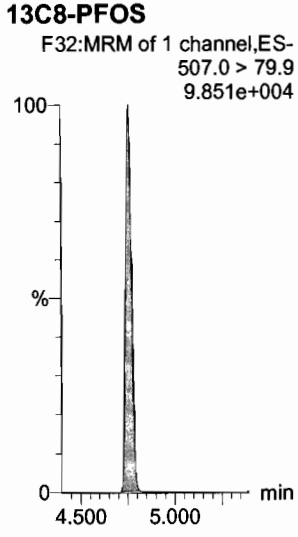

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Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
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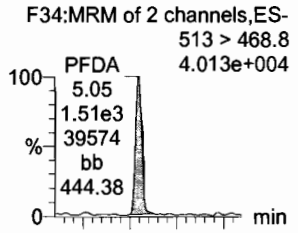
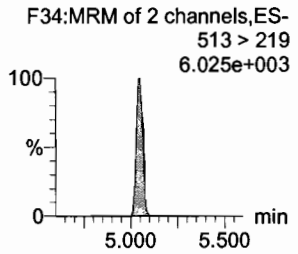
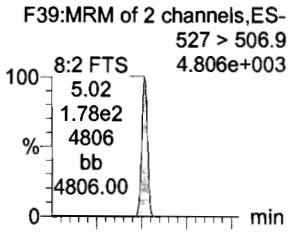
Name: 171229M2_4, Date: 29-Dec-2017, Time: 13:54:04, ID: ST171229M2-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

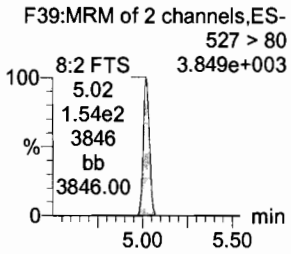
PFDA



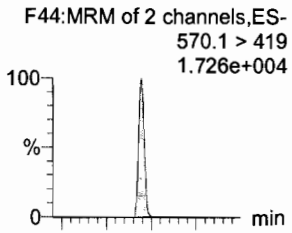


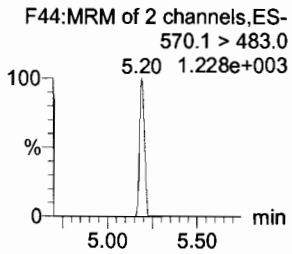
8:2 FTS





N-MeFOSAA





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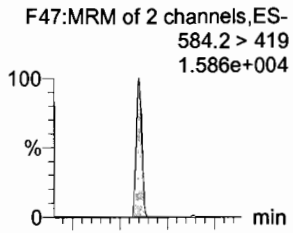

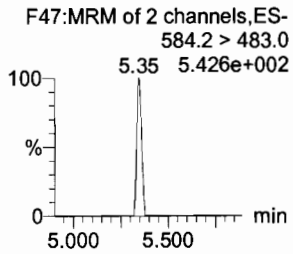

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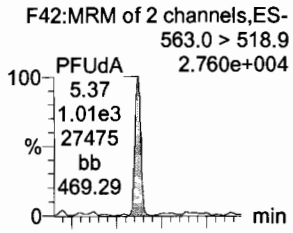
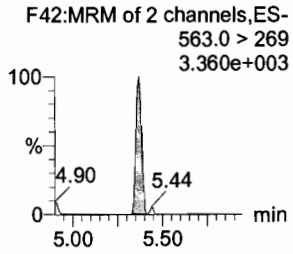
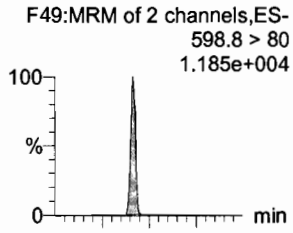
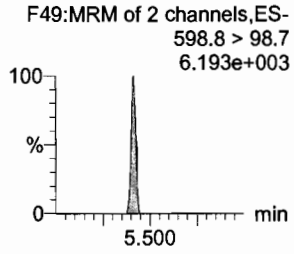


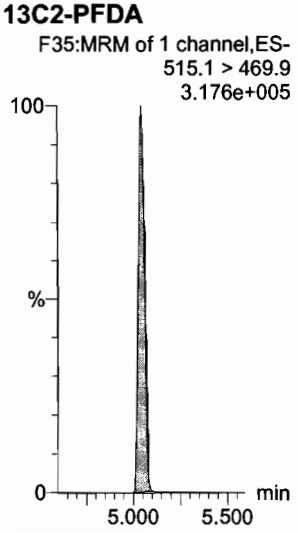


PFDS

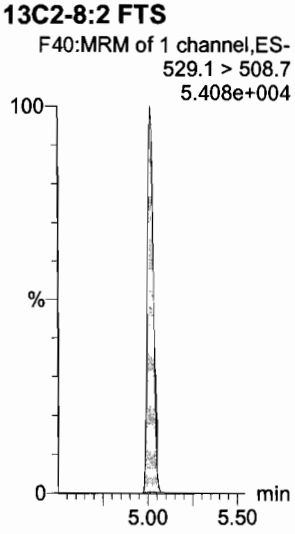




13C2-PFDA



13C2-8:2 FTS



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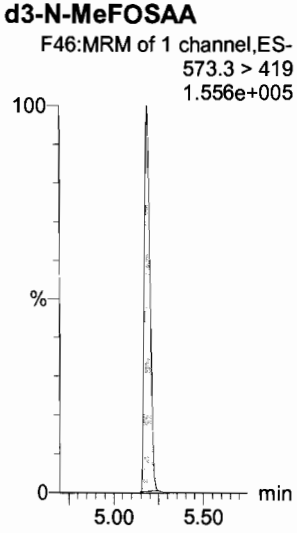
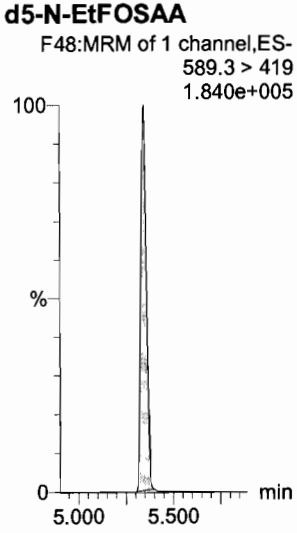
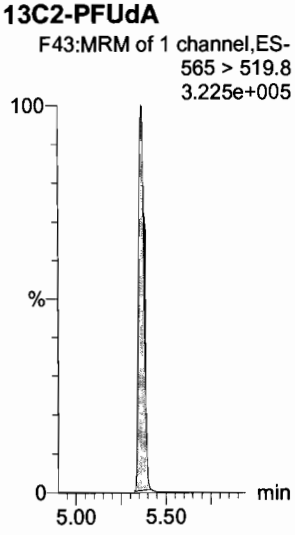


d5-N-EtFOSAA



13C2-PFUdA



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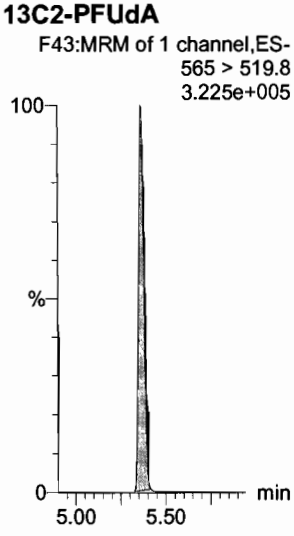

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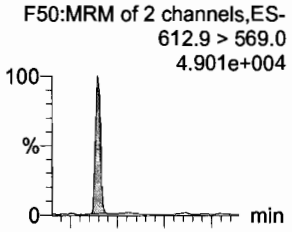
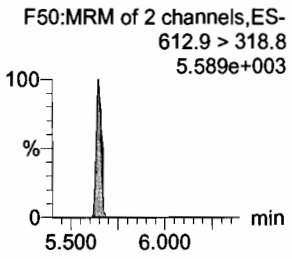
PFDoA





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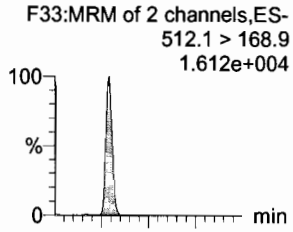

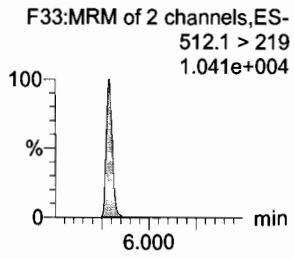

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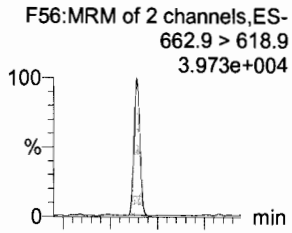

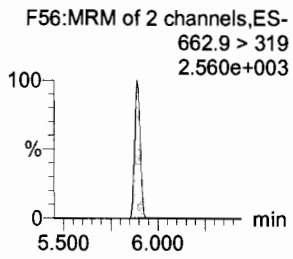

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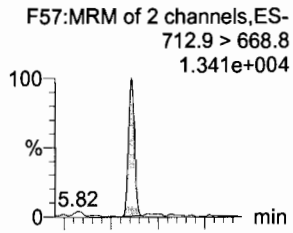

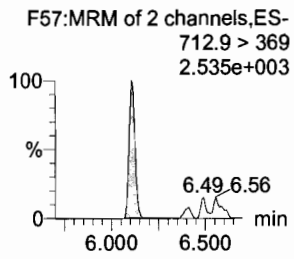

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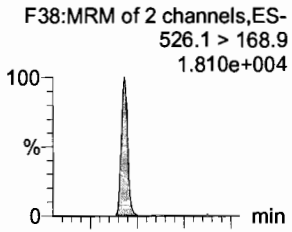

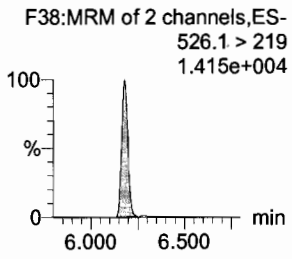

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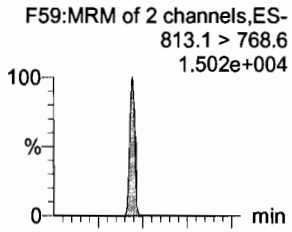

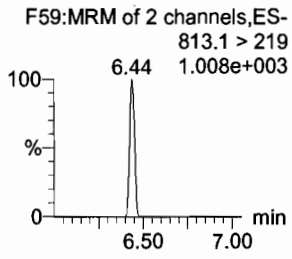

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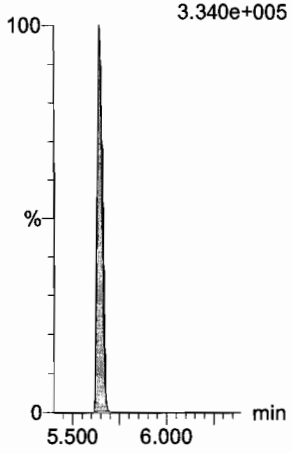
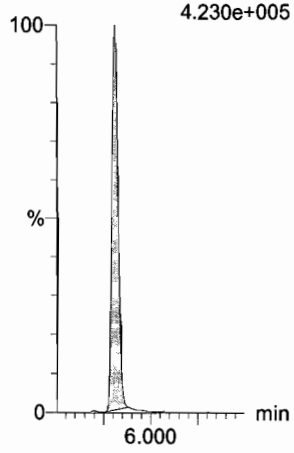


d3-N-MeFOSA



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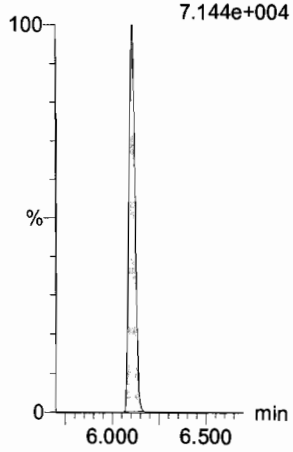

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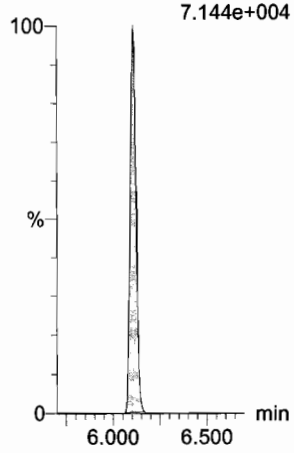
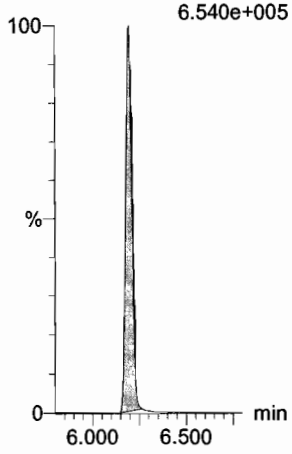


d5-N-ETFOSA



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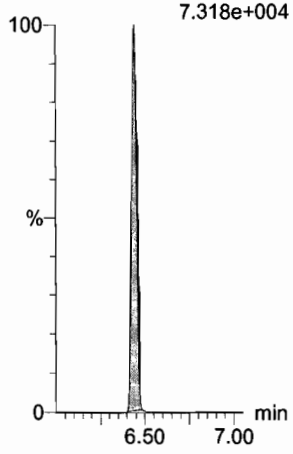

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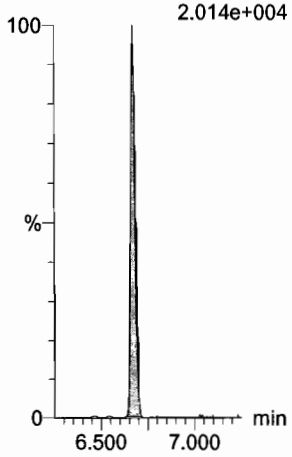
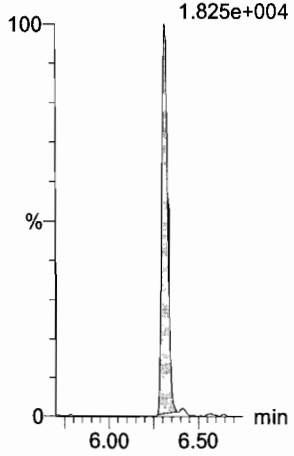
Name: 171229M2_4, Date: 29-Dec-2017, Time: 13:54:04, ID: ST171229M2-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

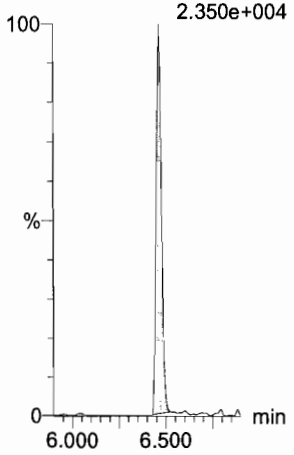
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.014e+004



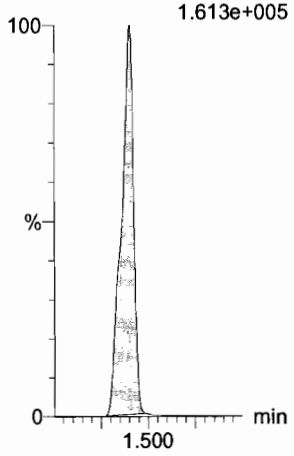
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.825e+004



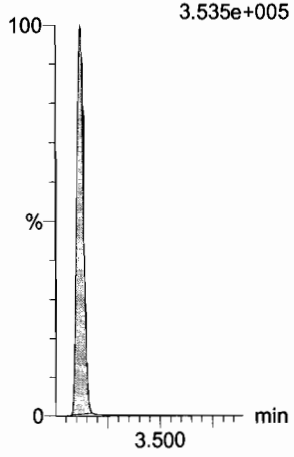
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.350e+004



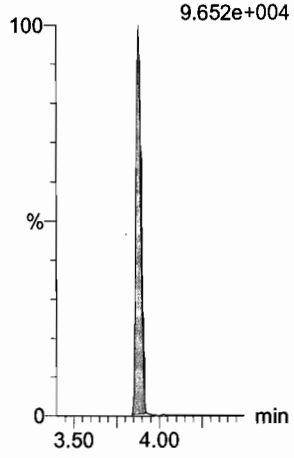
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.613e+005



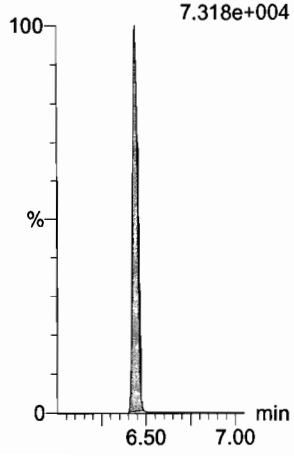
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.535e+005



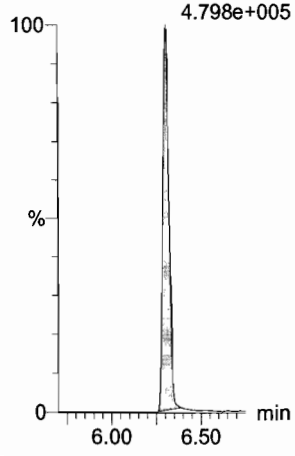
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.652e+004



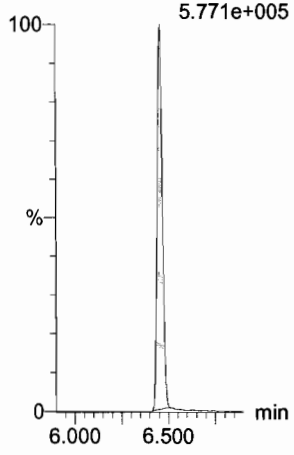
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
7.318e+004



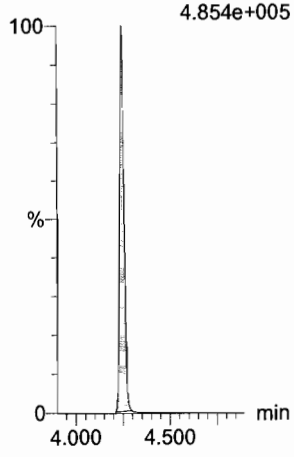
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.798e+005



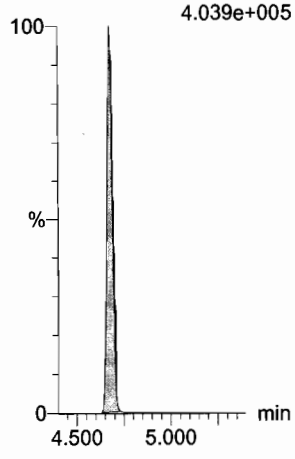
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.771e+005



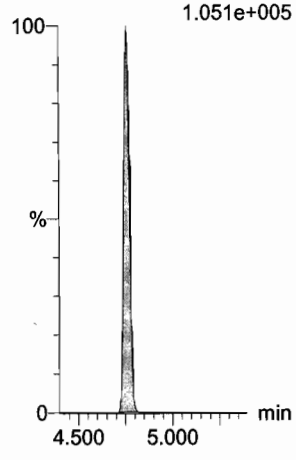
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.854e+005



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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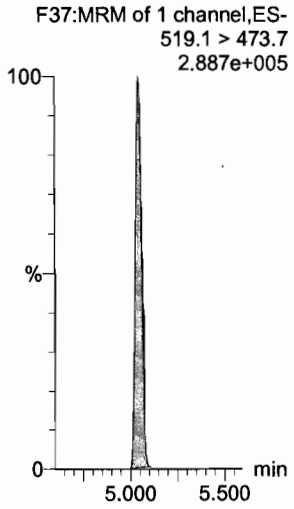
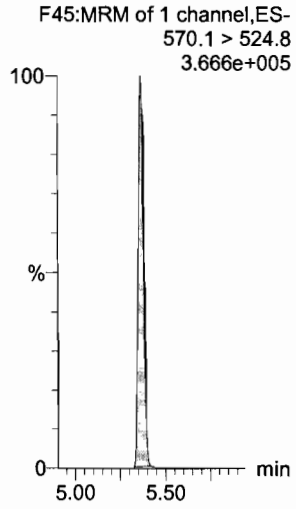
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_4, Date: 29-Dec-2017, Time: 13:54:04, ID: ST171229M2-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

13C6-PFDA



13C7-PFUdA



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Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_5, Date: 29-Dec-2017, Time: 14:05:15, ID: ST171229M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

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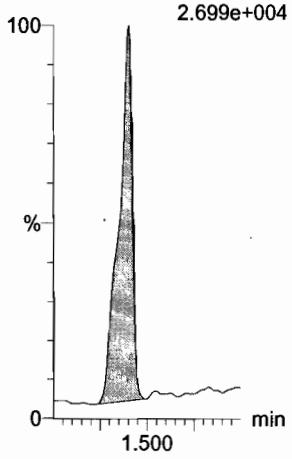
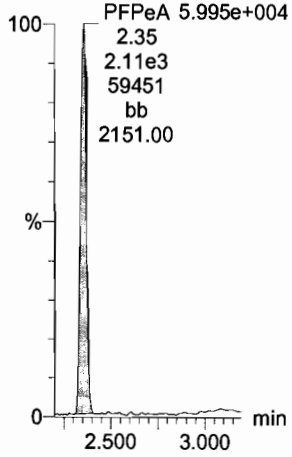
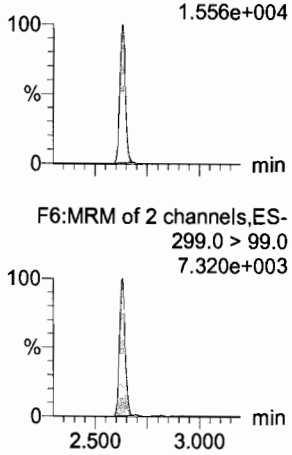


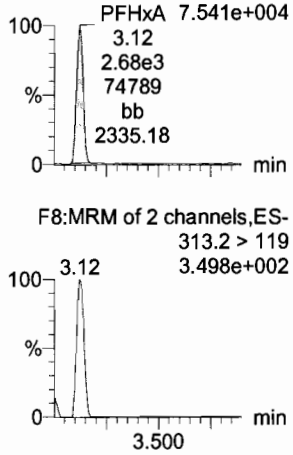
PFPeA



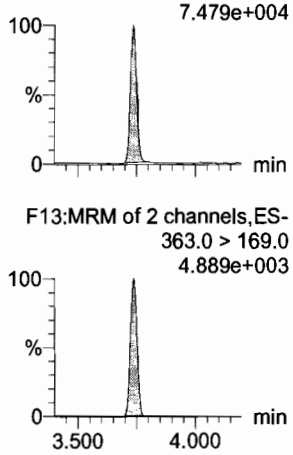
PFBS



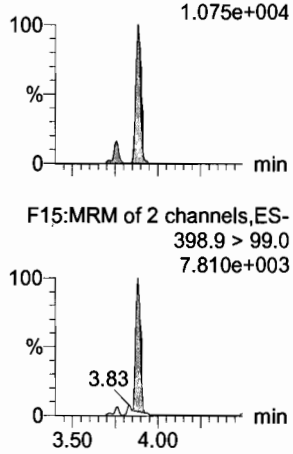
PFHxA



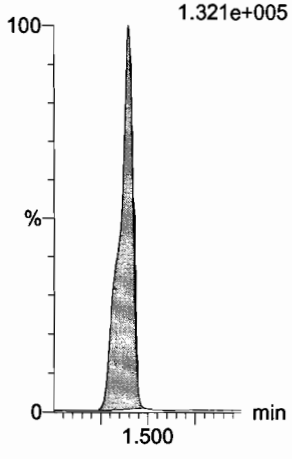
PFHpA



L-PFHxS



13C3-PFBA



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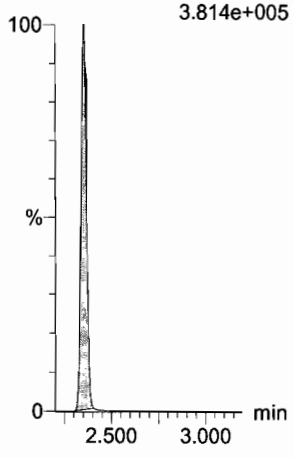

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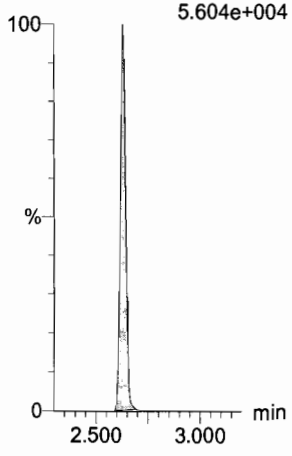
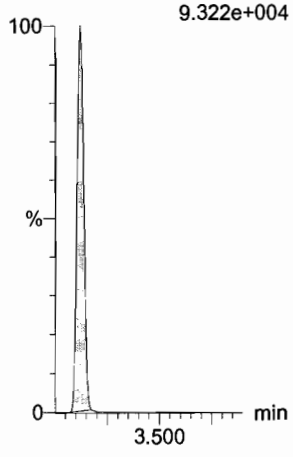
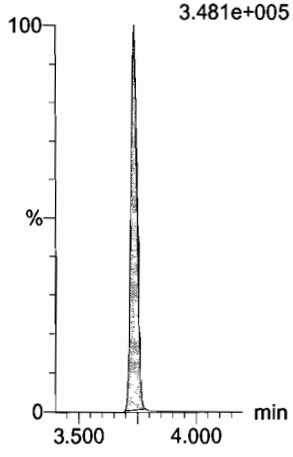


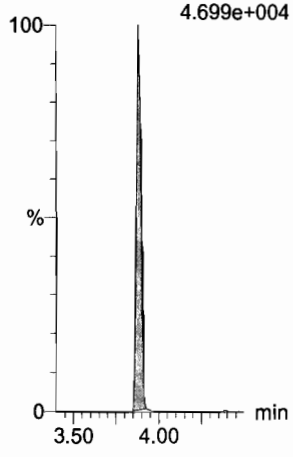
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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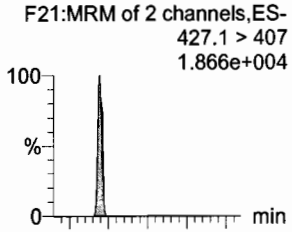
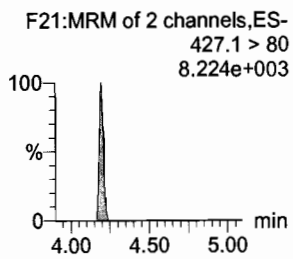
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

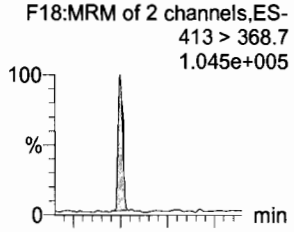
Name: 171229M2_5, Date: 29-Dec-2017, Time: 14:05:15, ID: ST171229M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

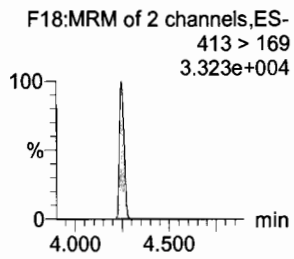
6:2 FTS



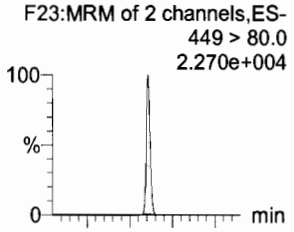


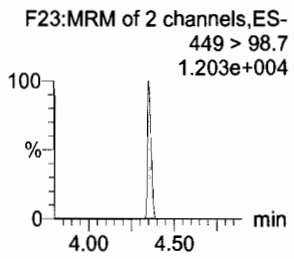
L-PFOA





PFHpS





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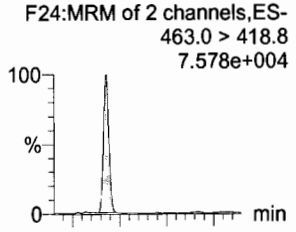
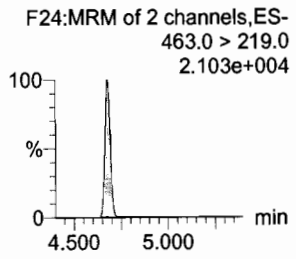
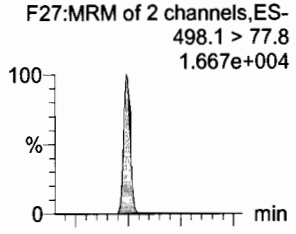
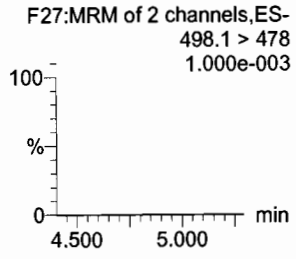


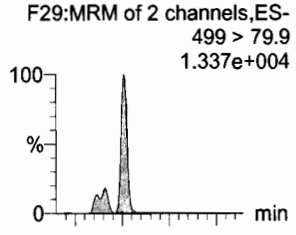


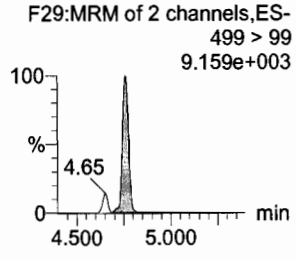
PFOSA



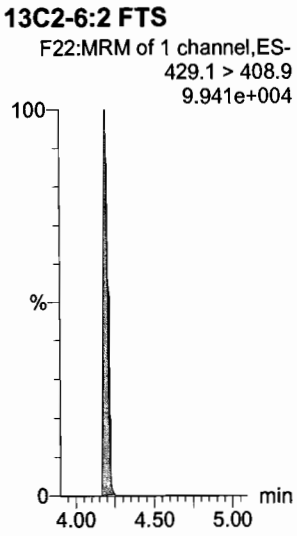


L-PFOS

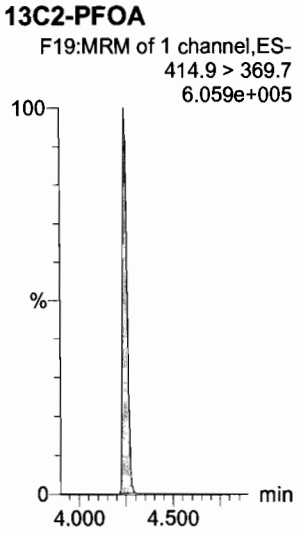




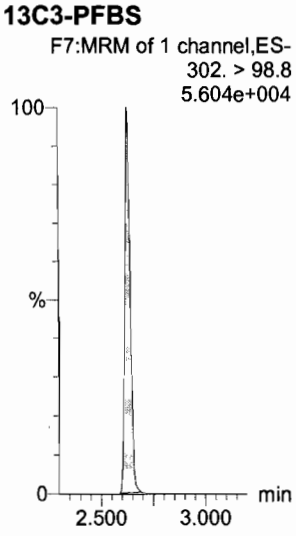
13C2-6:2 FTS



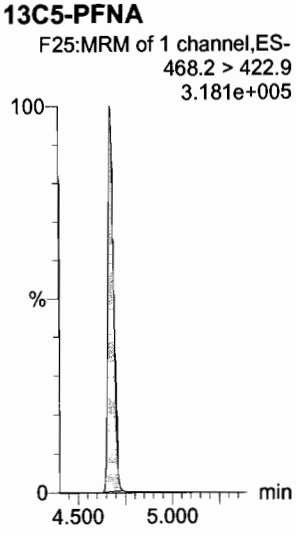
13C2-PFOA



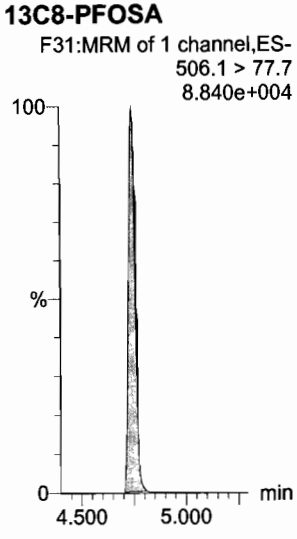
13C3-PFBS



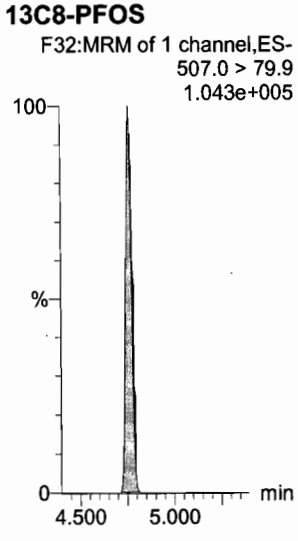
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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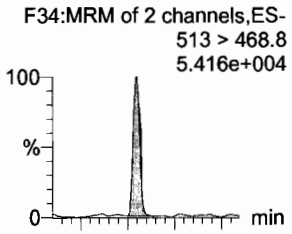
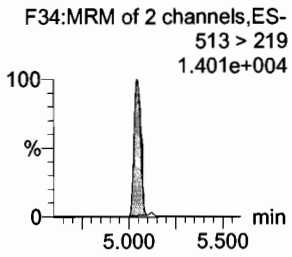
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

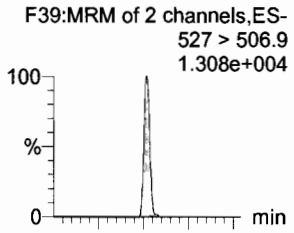
Name: 171229M2_5, Date: 29-Dec-2017, Time: 14:05:15, ID: ST171229M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

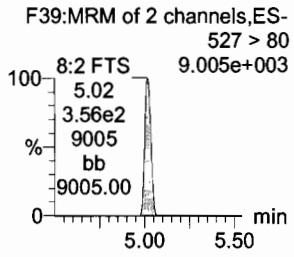
PFDA



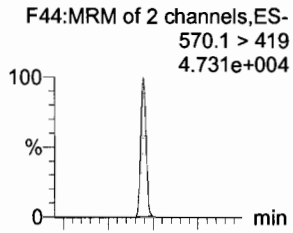


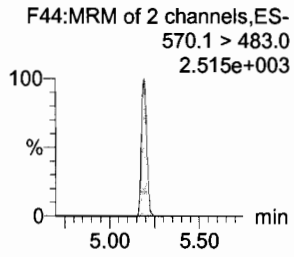
8:2 FTS



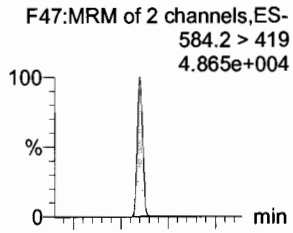


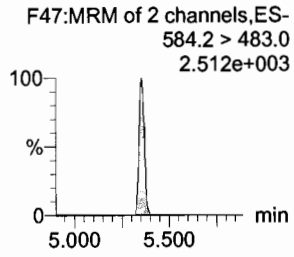
N-MeFOSAA



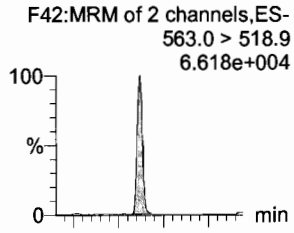


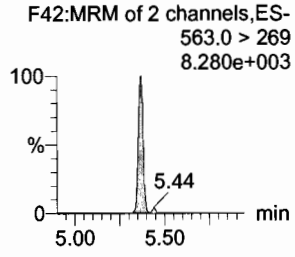
N-EtFOSAA



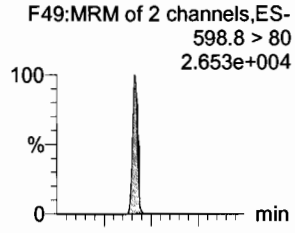


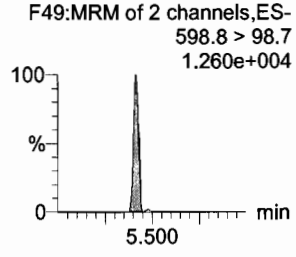
PFUdA



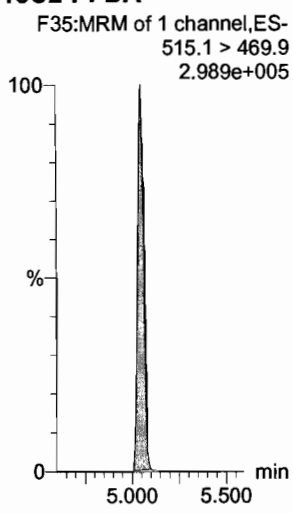


PFDS

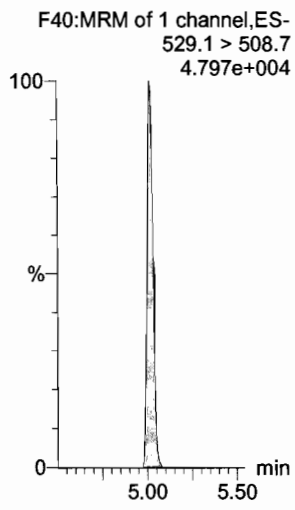




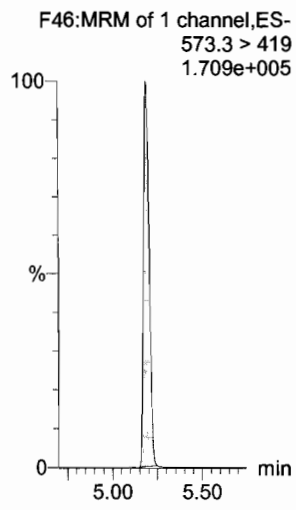
13C2-PFDA



13C2-8:2 FTS



d3-N-MeFOSAA



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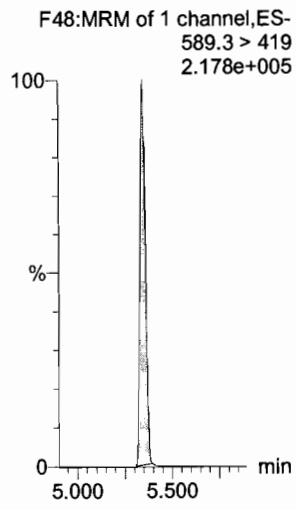
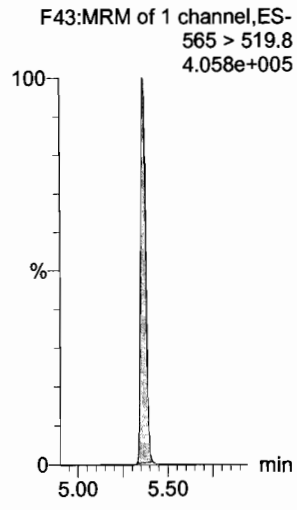


13C2-PFUdA



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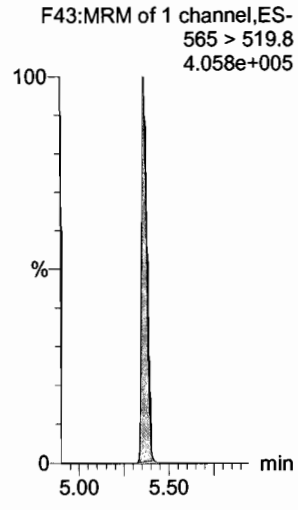

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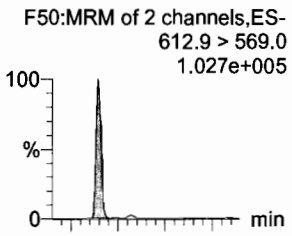
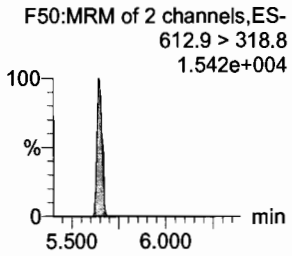
Name: 171229M2_5, Date: 29-Dec-2017, Time: 14:05:15, ID: ST171229M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

PFDoA





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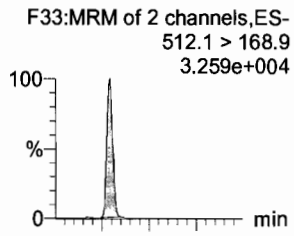
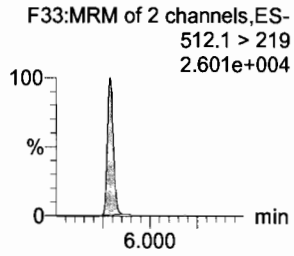
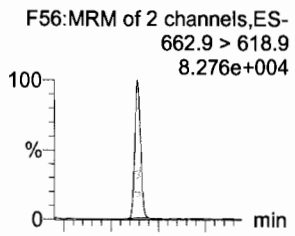
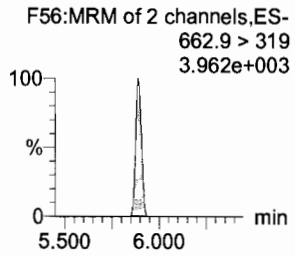


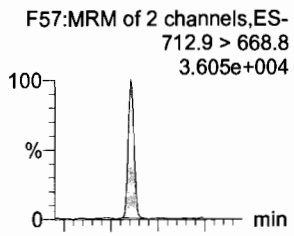


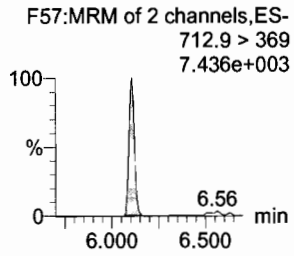
PFTrDA





PFTeDA





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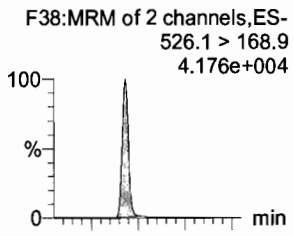
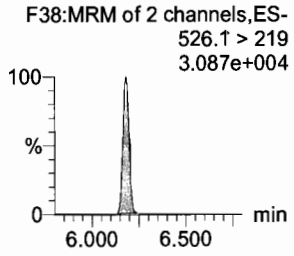
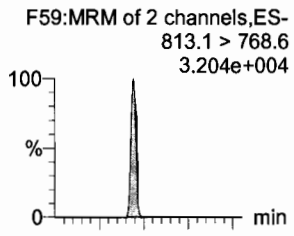
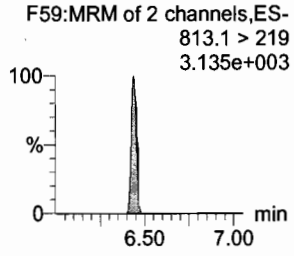




PFHxDA





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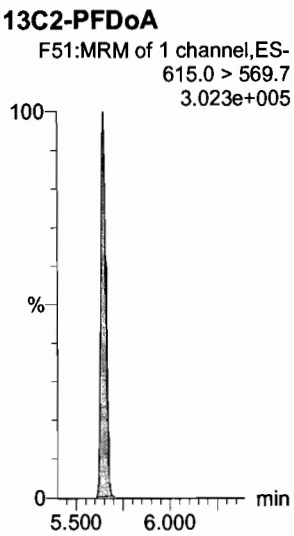
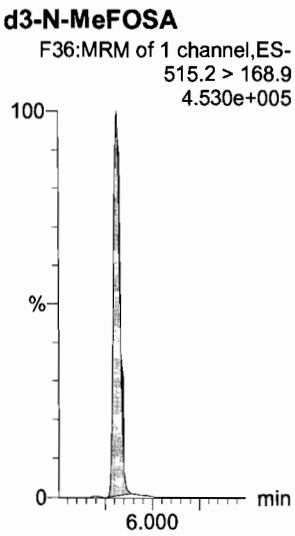


d3-N-MeFOSA



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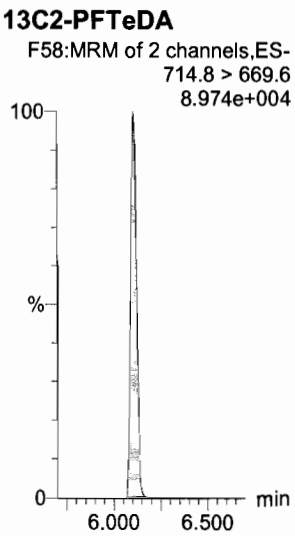

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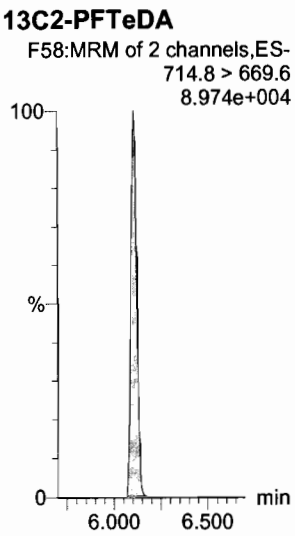

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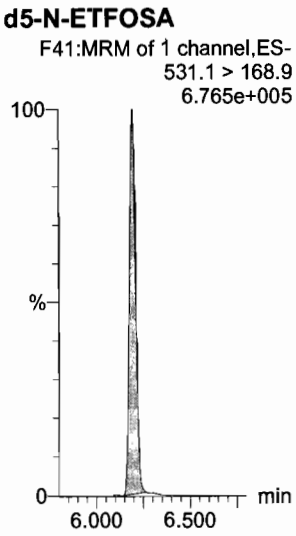
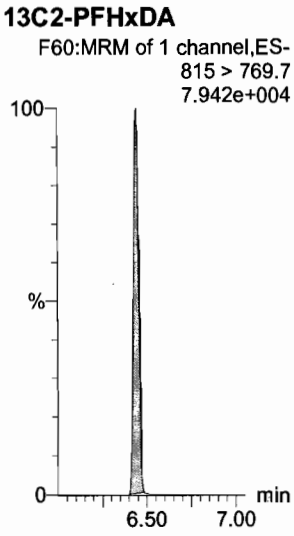


13C2-PFHxDA



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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

PFODA
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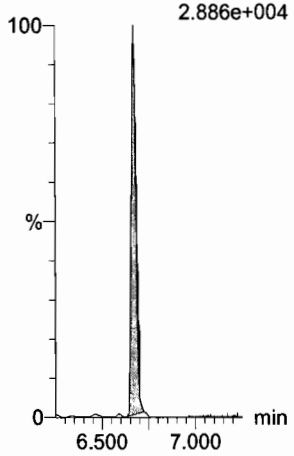
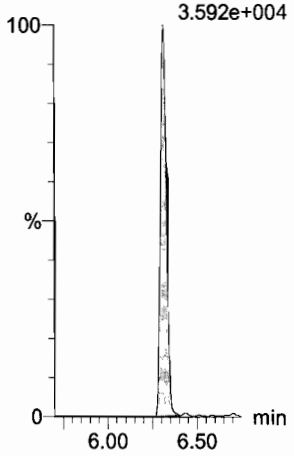
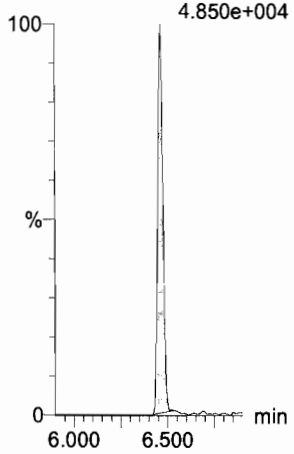
913.1 > 868.8
2.886e+004



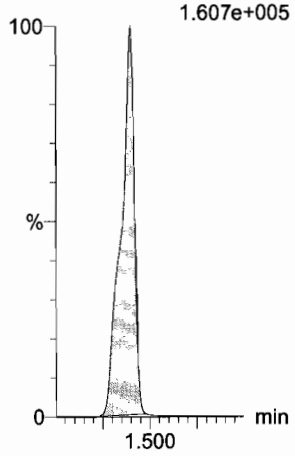
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.592e+004



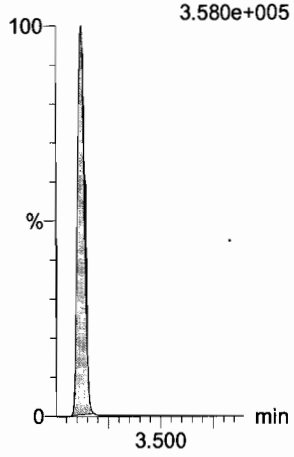
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
4.850e+004



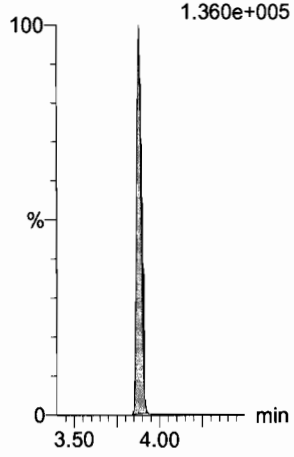
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.607e+005



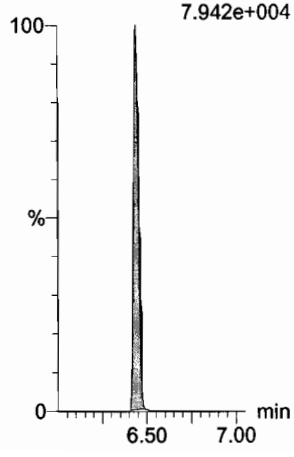
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.580e+005



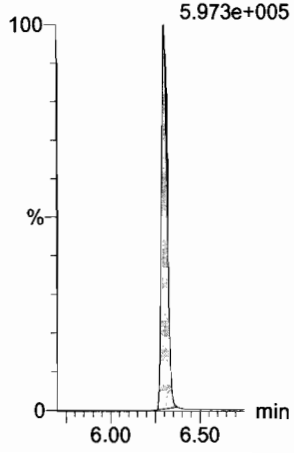
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.360e+005



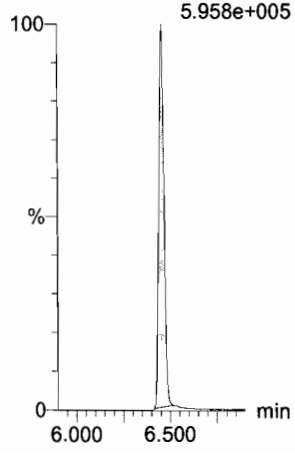
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
7.942e+004



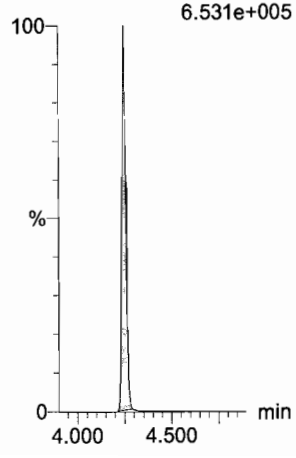
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.973e+005



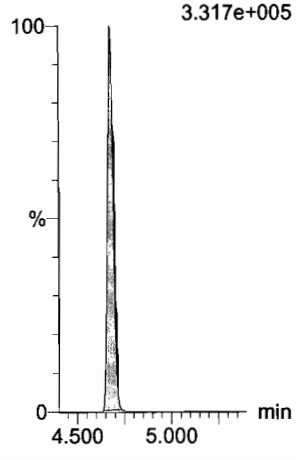
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.958e+005



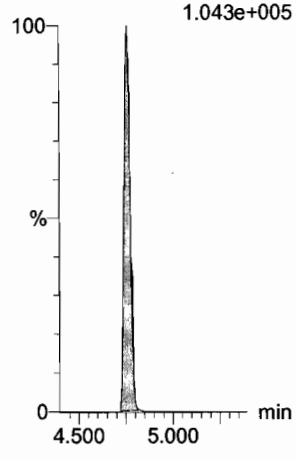
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
6.531e+005



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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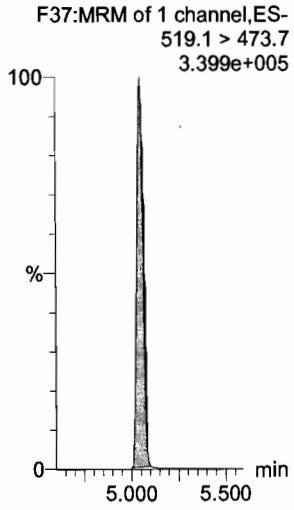
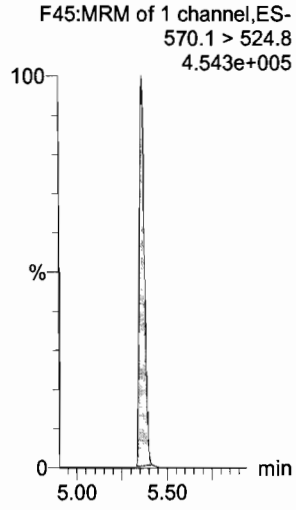
Name: 171229M2_5, Date: 29-Dec-2017, Time: 14:05:15, ID: ST171229M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

13C6-PFDA



13C7-PFUdA



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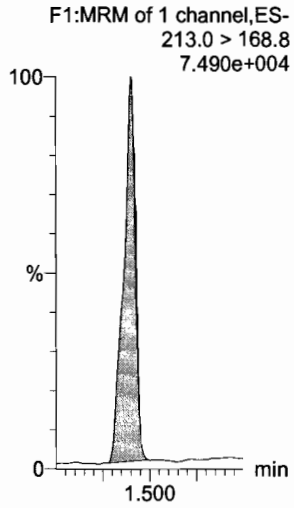
PFBA



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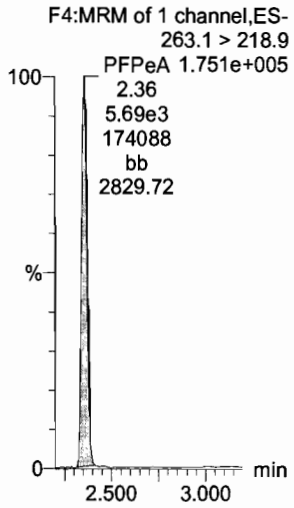
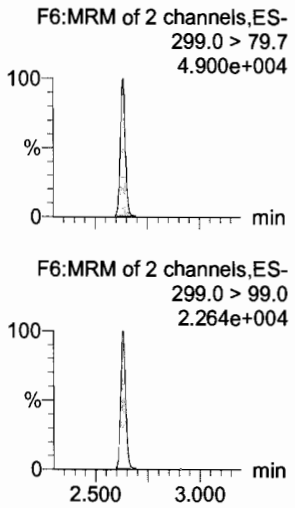
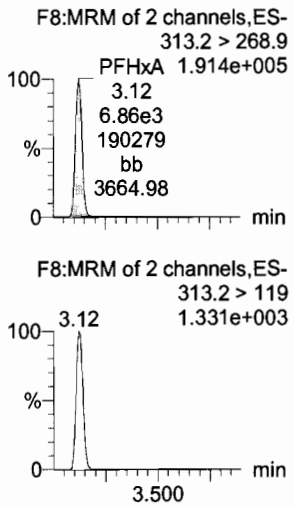


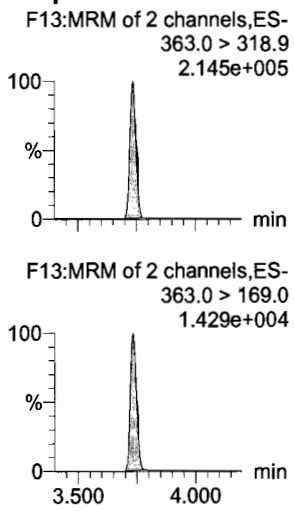
PFBS



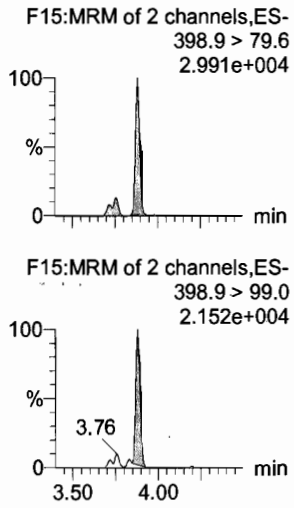
PFHxA



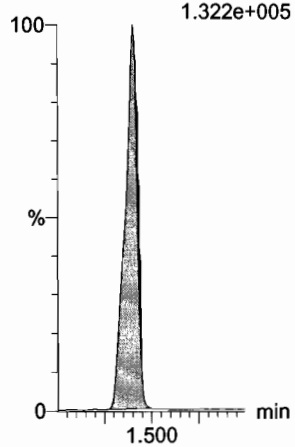
PFHpA



L-PFHxS



13C3-PFBA



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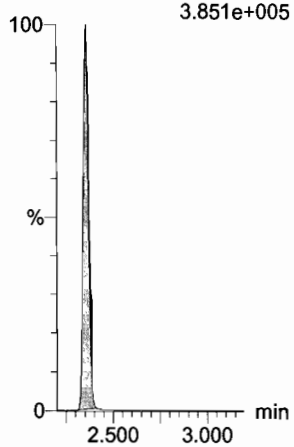

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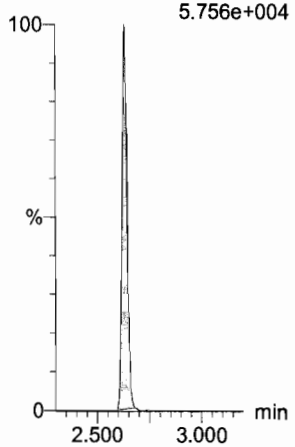

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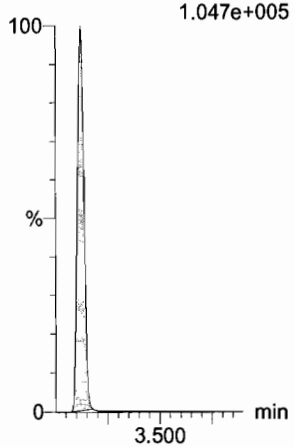

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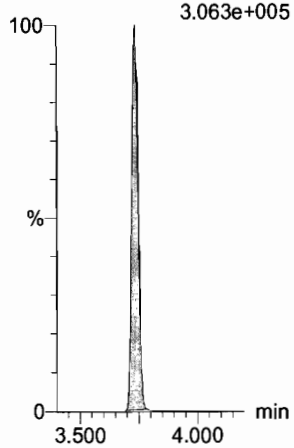

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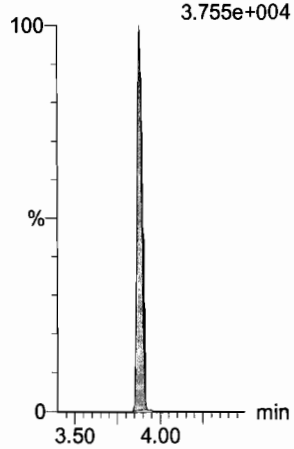

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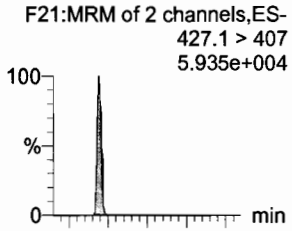
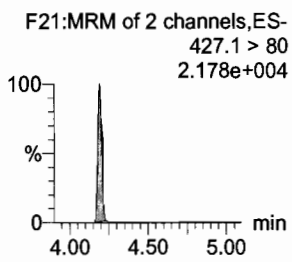
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_6, Date: 29-Dec-2017, Time: 14:16:26, ID: ST171229M2-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

6:2 FTS





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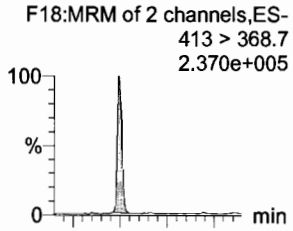

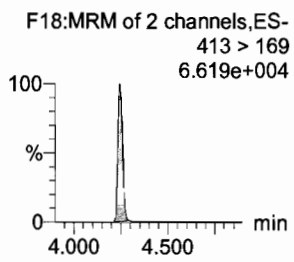

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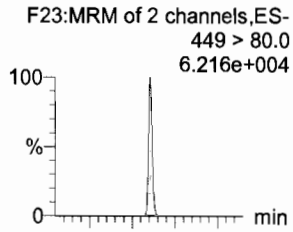

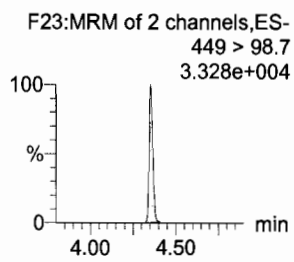

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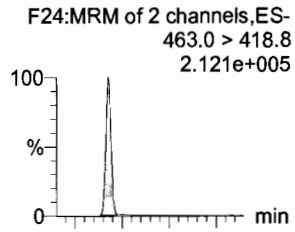

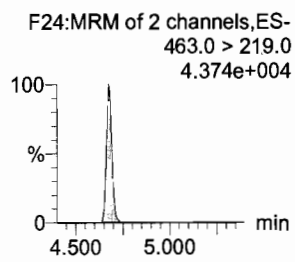

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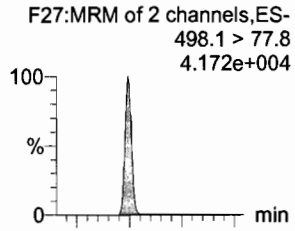

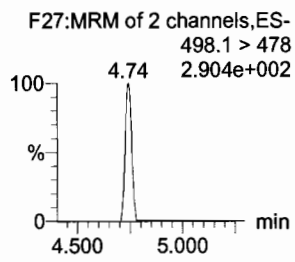

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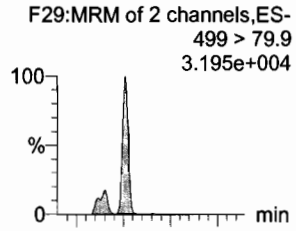

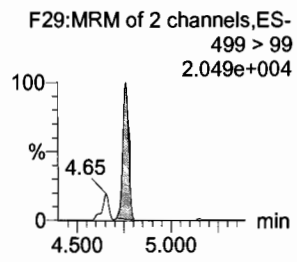

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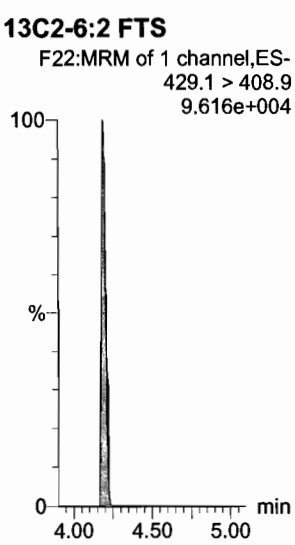

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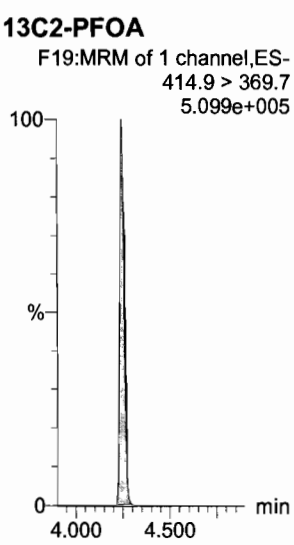

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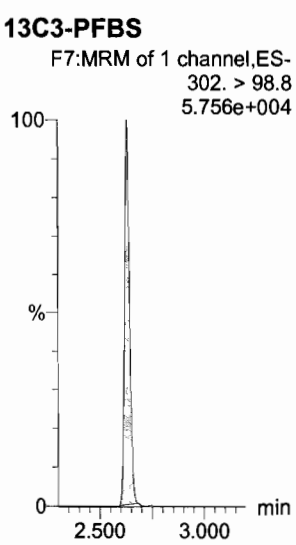

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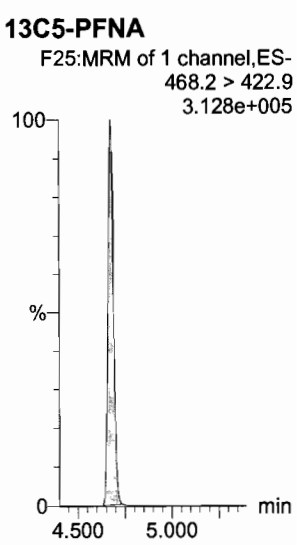

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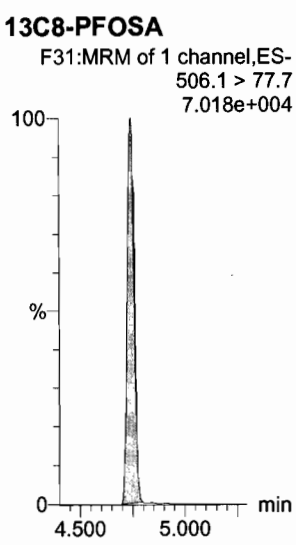

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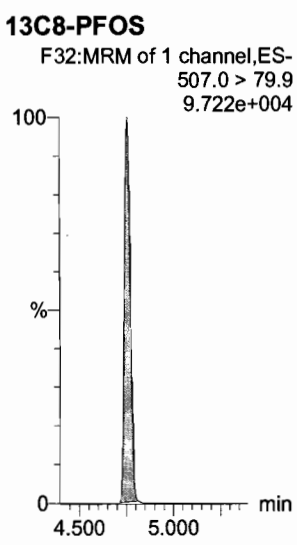

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Name: 171229M2_6, Date: 29-Dec-2017, Time: 14:16:26, ID: ST171229M2-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

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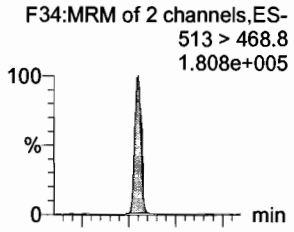

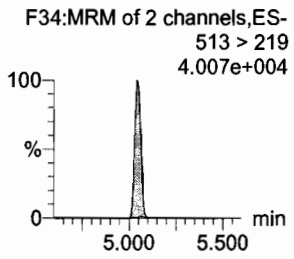

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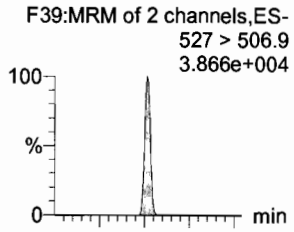

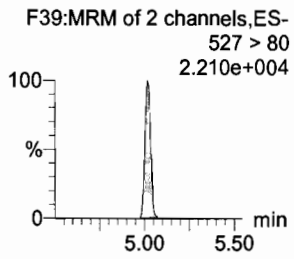

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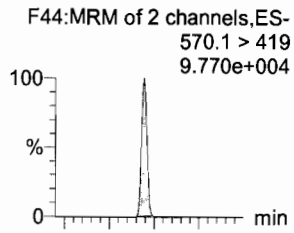

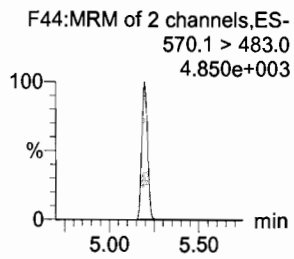

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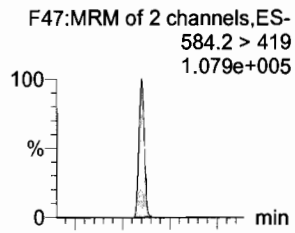

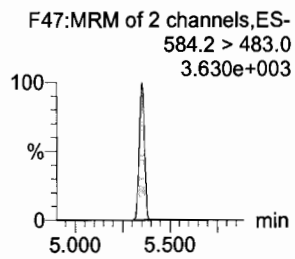

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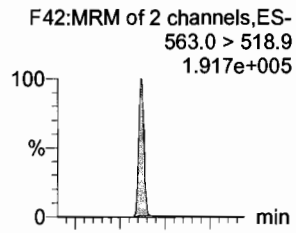

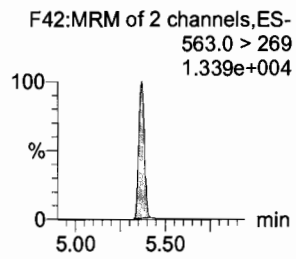

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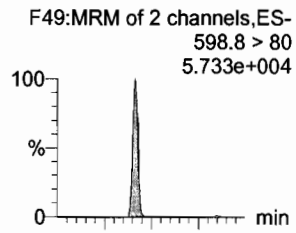

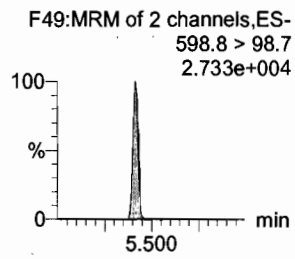

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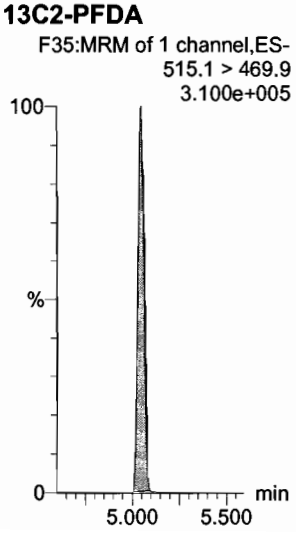

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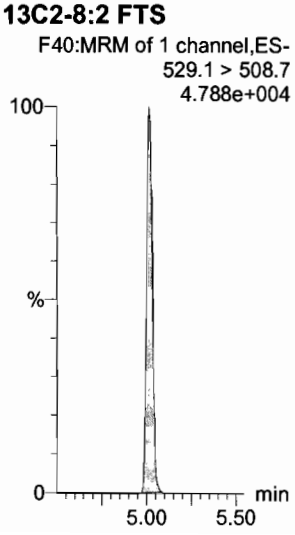

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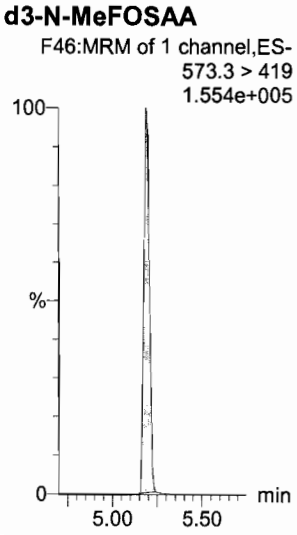

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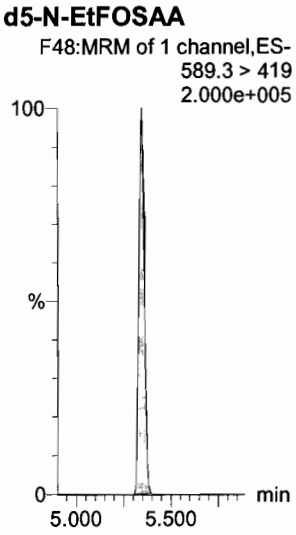

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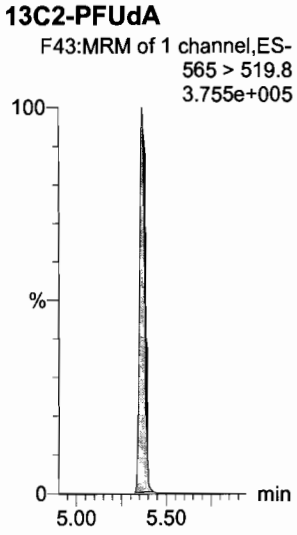

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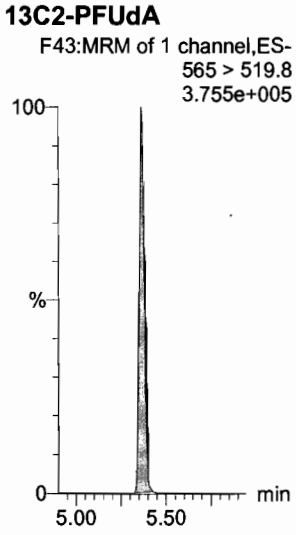

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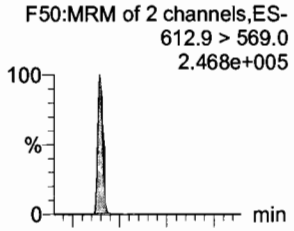

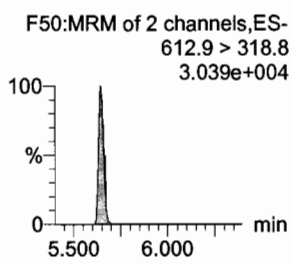

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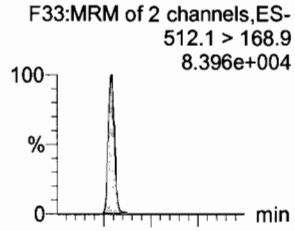

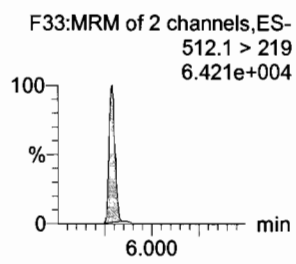

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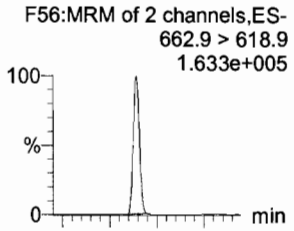

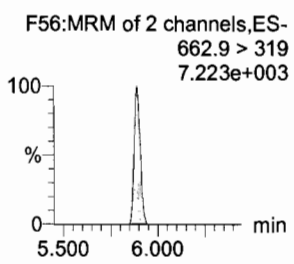

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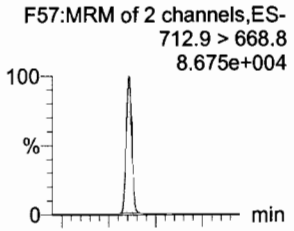

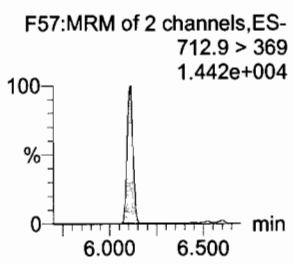

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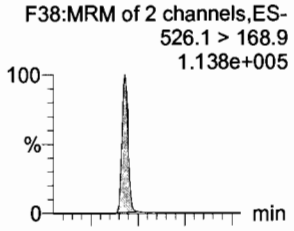

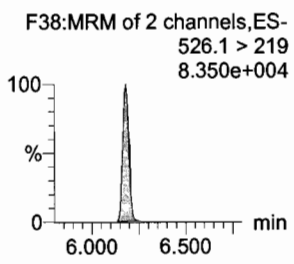

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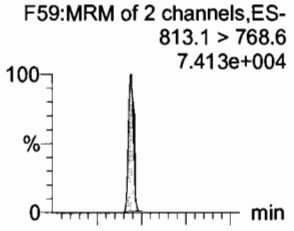

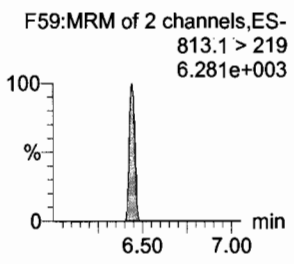

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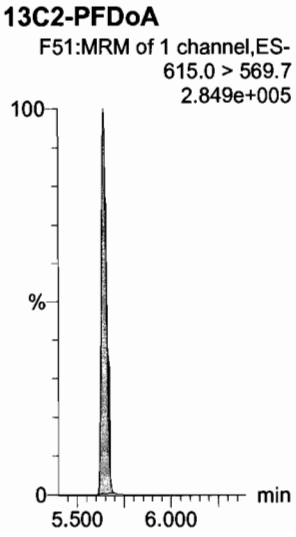

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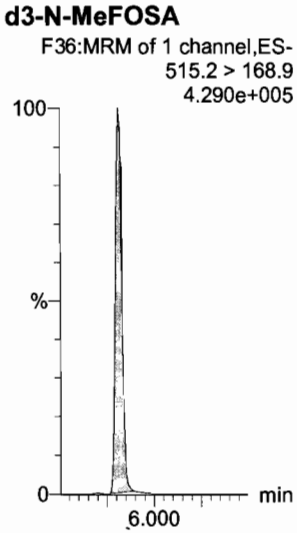

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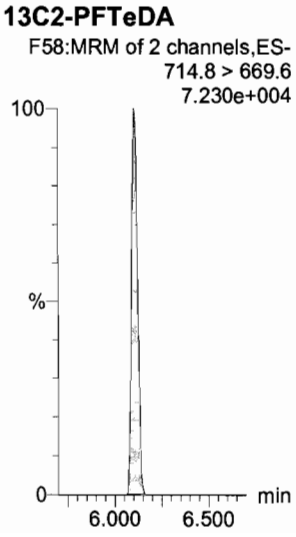

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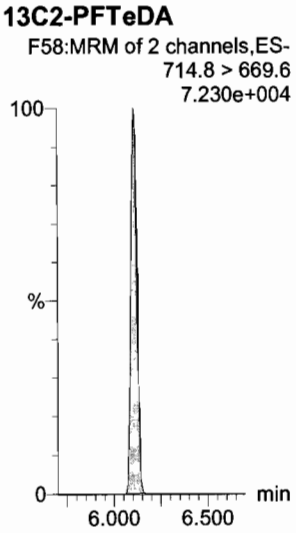

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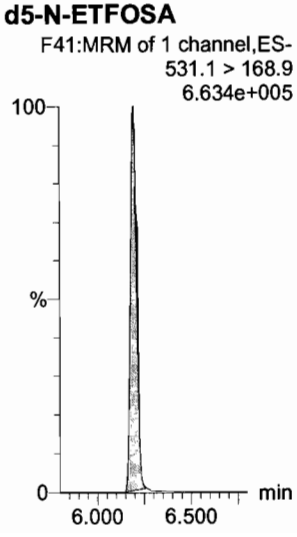

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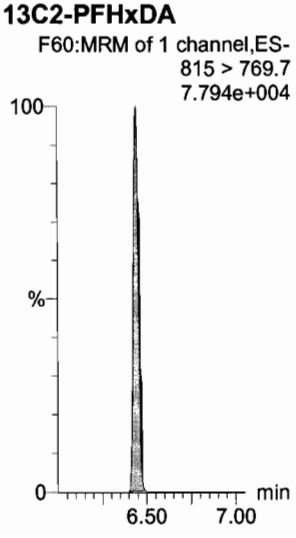

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Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
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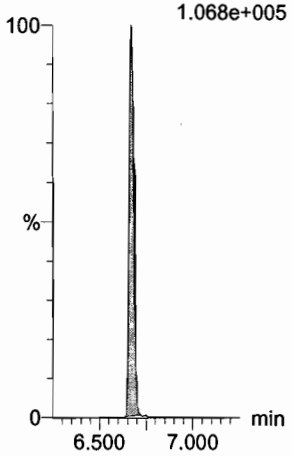
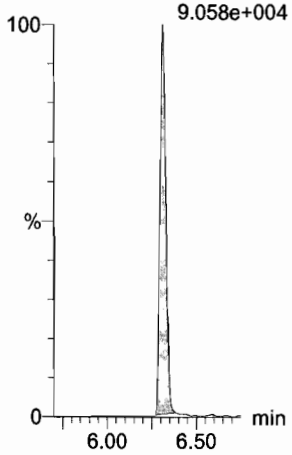
Name: 171229M2_6, Date: 29-Dec-2017, Time: 14:16:26, ID: ST171229M2-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.068e+005



N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
9.058e+004



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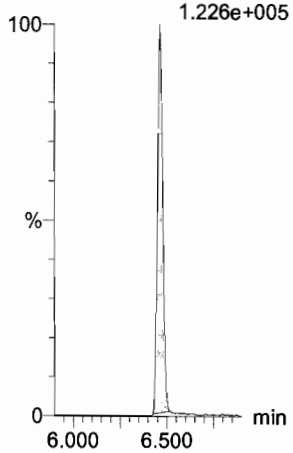
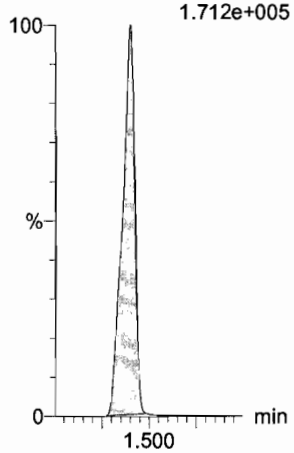
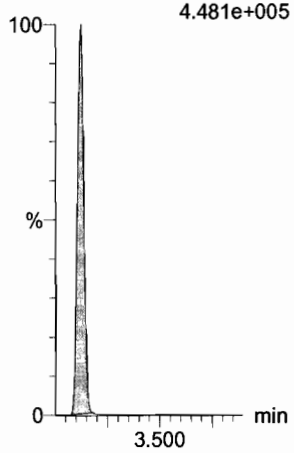
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.226e+005



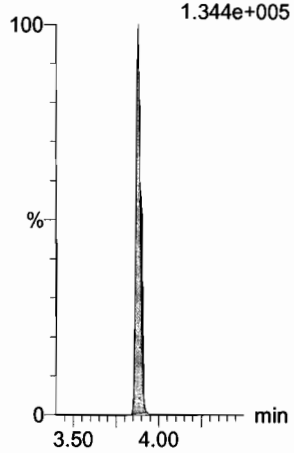
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.712e+005



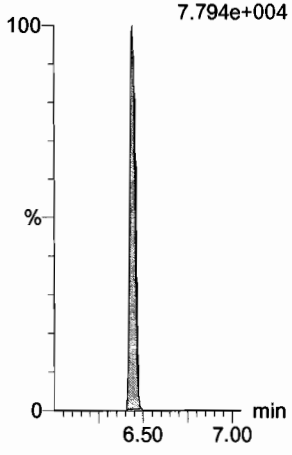
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.481e+005



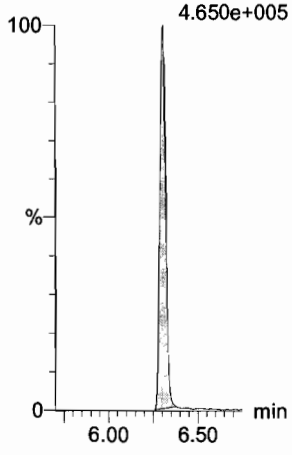
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.344e+005



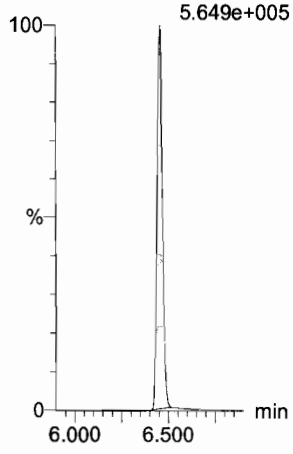
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
7.794e+004



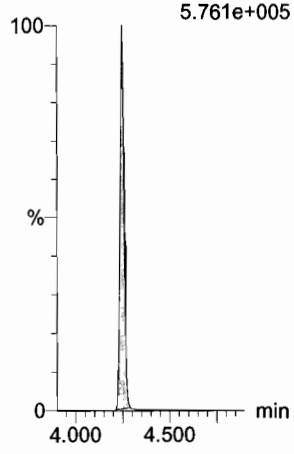
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.650e+005



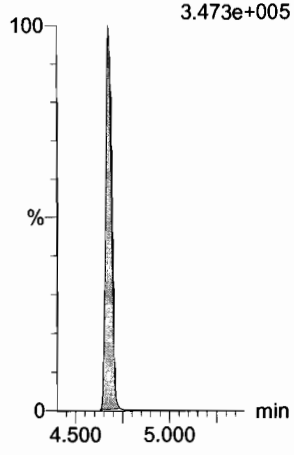
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.649e+005



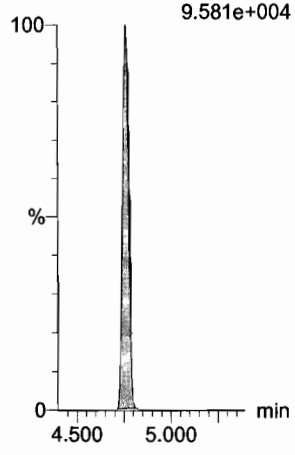
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.761e+005



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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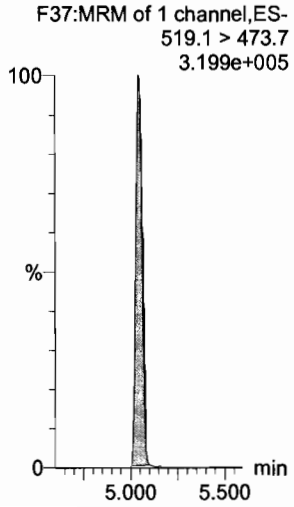
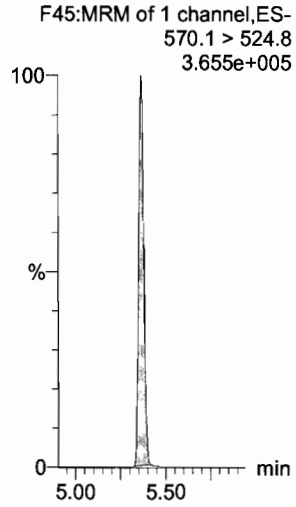
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_6, Date: 29-Dec-2017, Time: 14:16:26, ID: ST171229M2-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

13C6-PFDA



13C7-PFUdA



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Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
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

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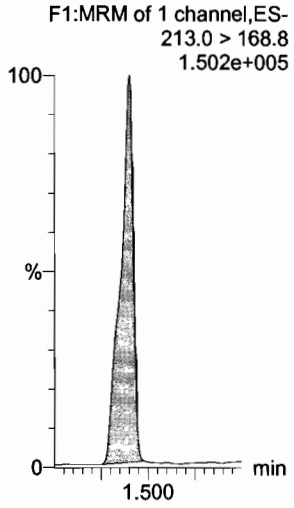
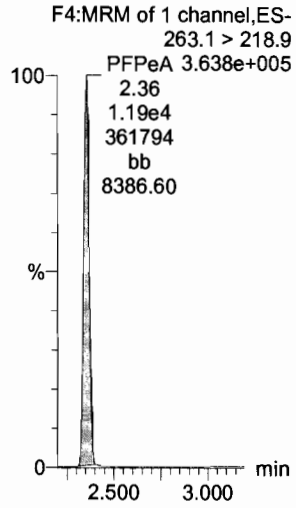
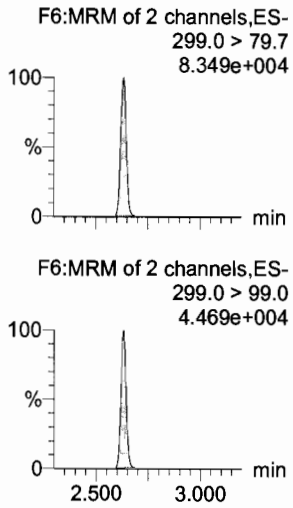


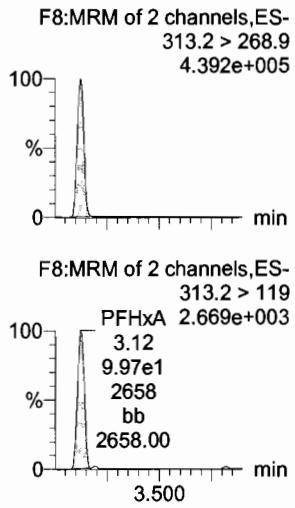
PFPeA



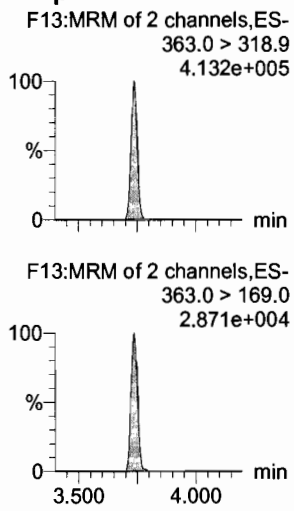
PFBS



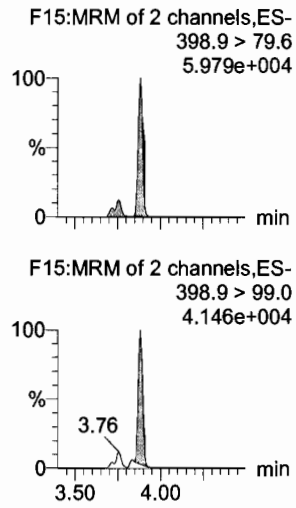
PFHxA



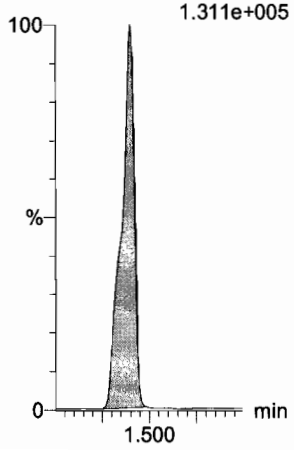
PFHpA



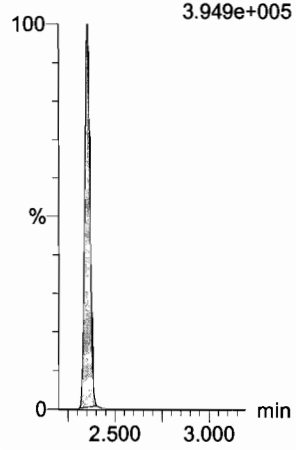
L-PFHxS



13C3-PFBA



13C3-PFPeA



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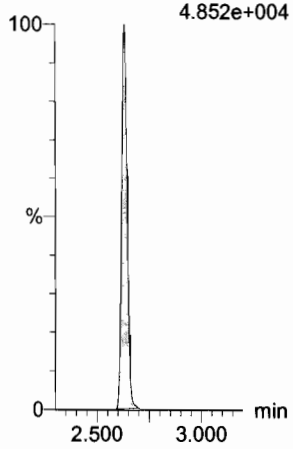
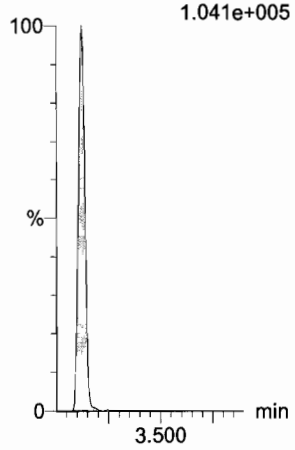
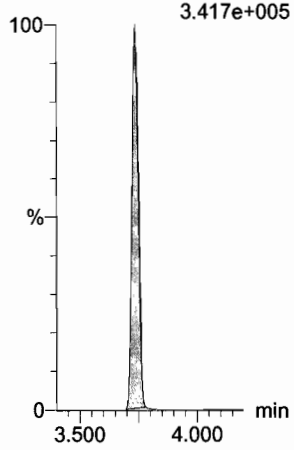


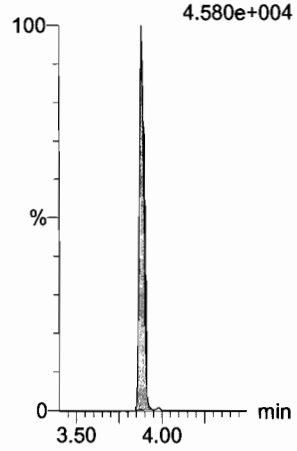
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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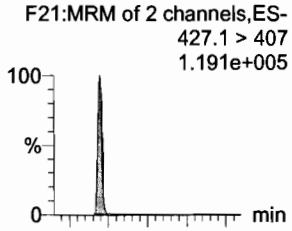
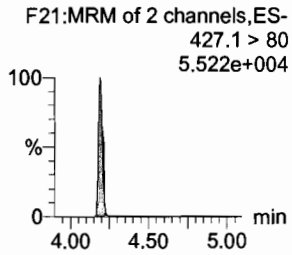
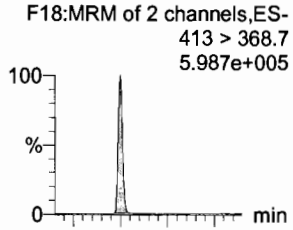
Name: 171229M2_7, Date: 29-Dec-2017, Time: 14:27:38, ID: ST171229M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

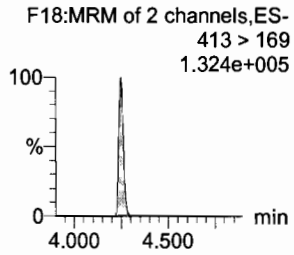
6:2 FTS



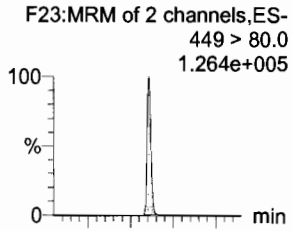


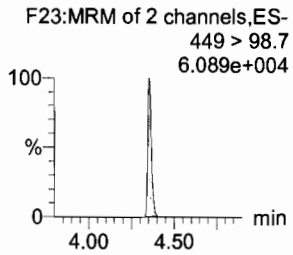
L-PFOA



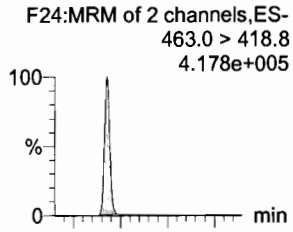


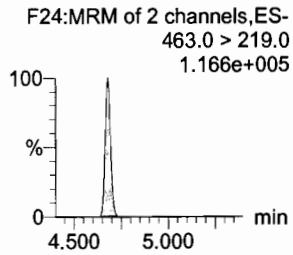
PFHpS



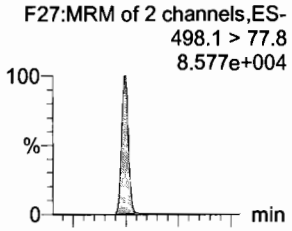


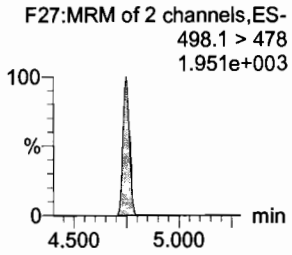
PFNA



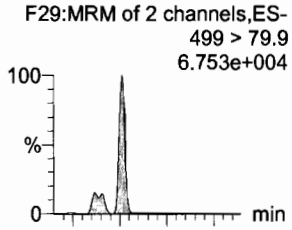


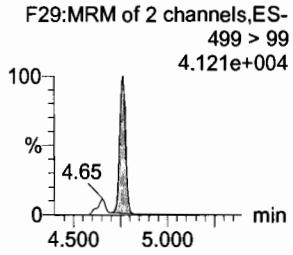
PFOSA



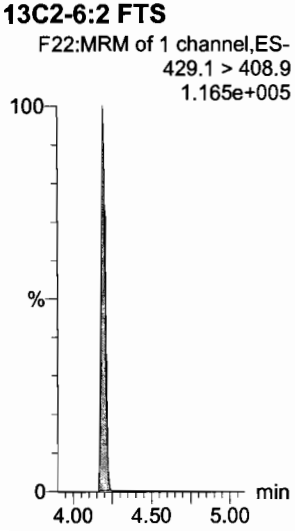


L-PFOS

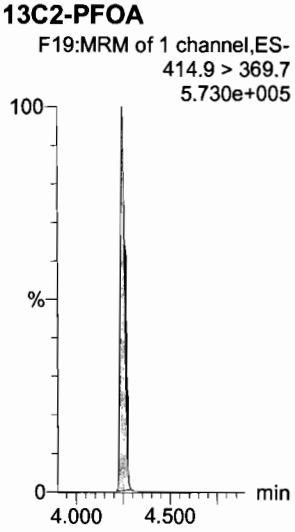




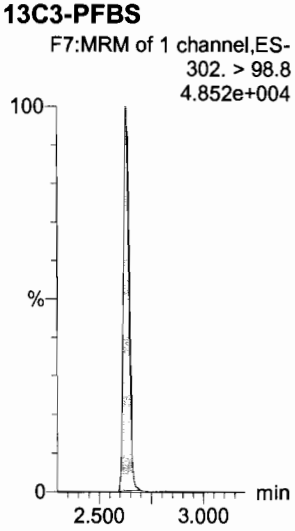
13C2-6:2 FTS



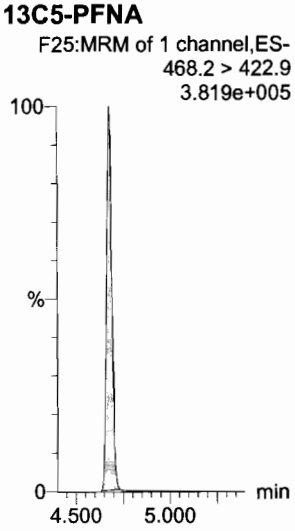
13C2-PFOA



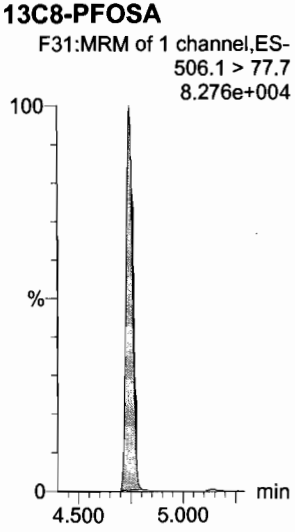
13C3-PFBS



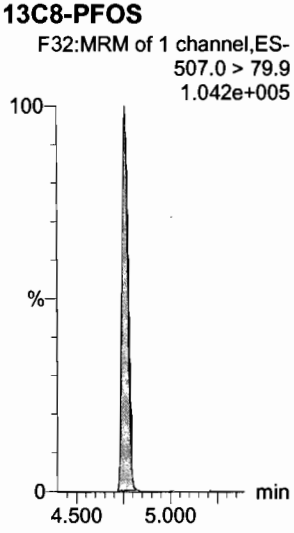
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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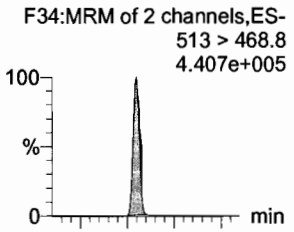
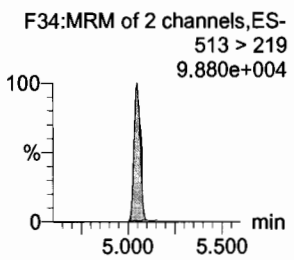
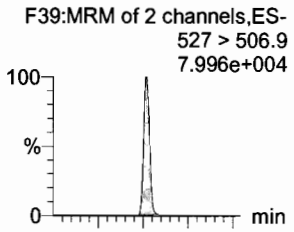
Name: 171229M2_7, Date: 29-Dec-2017, Time: 14:27:38, ID: ST171229M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

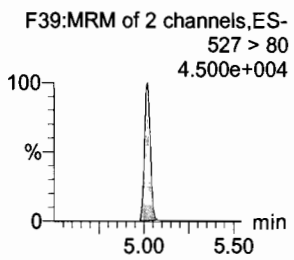
PFDA



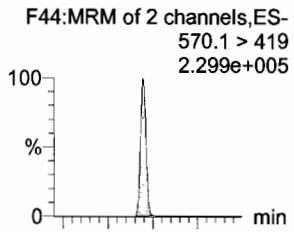


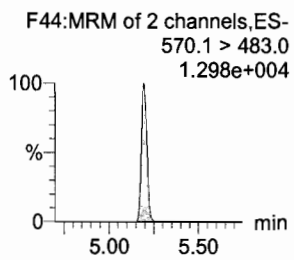
8:2 FTS



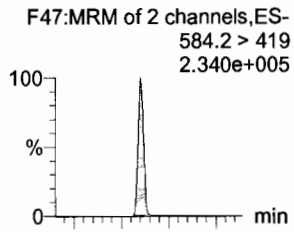


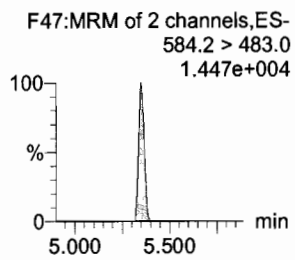
N-MeFOSAA



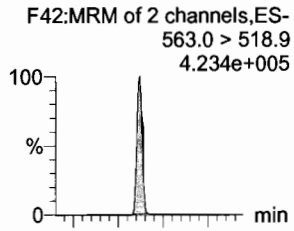


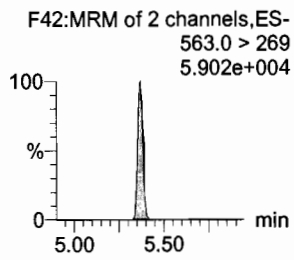
N-EtFOSAA



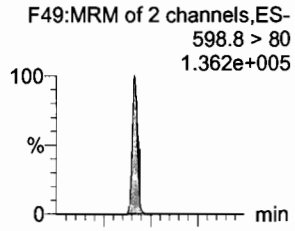


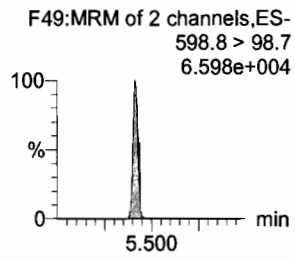
PFUdA



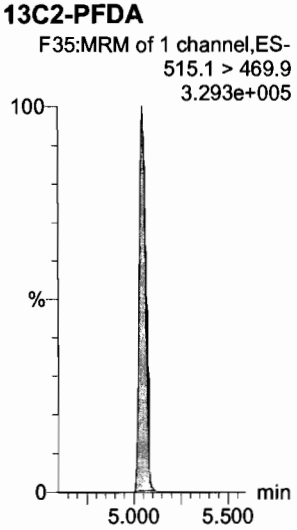


PFDS

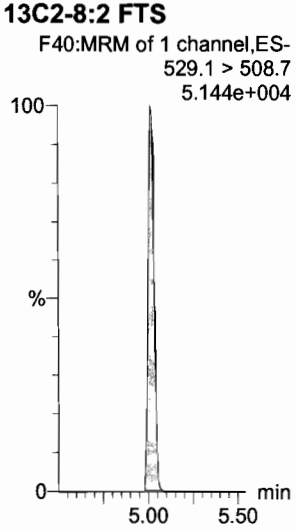




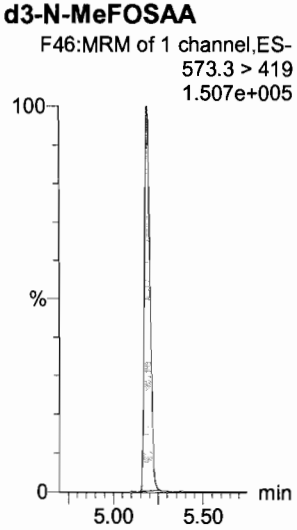
13C2-PFDA



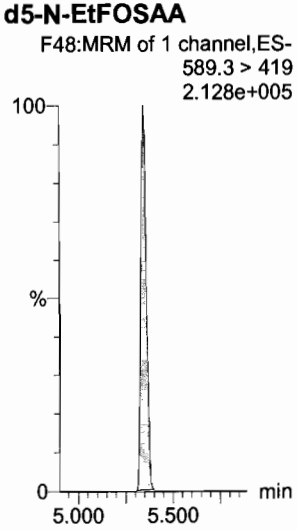
13C2-8:2 FTS



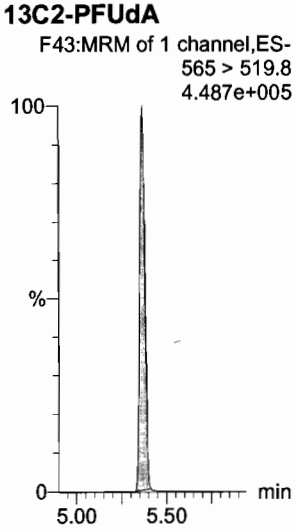
d3-N-MeFOSAA



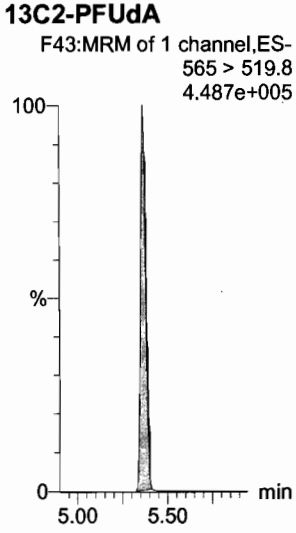
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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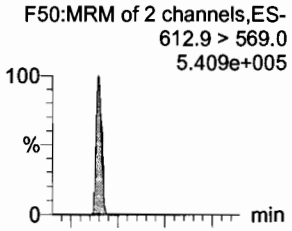
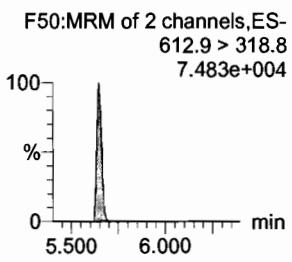
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

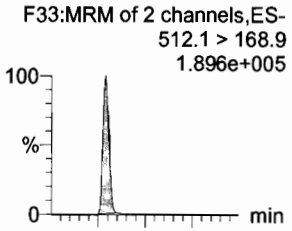
Name: 171229M2_7, Date: 29-Dec-2017, Time: 14:27:38, ID: ST171229M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

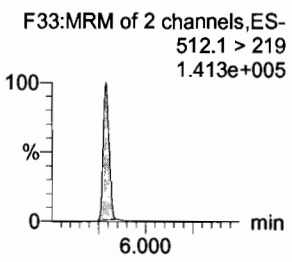
PFDoA



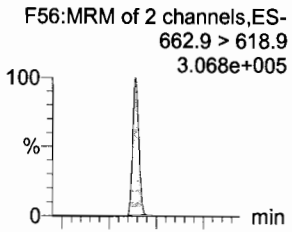


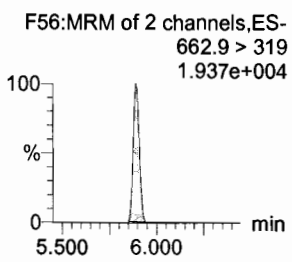
N-MeFOSA



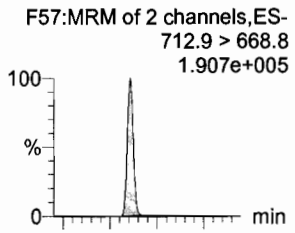


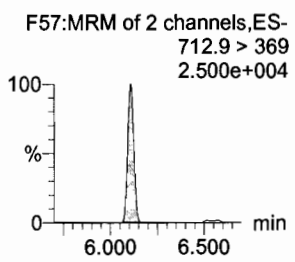
PFTrDA



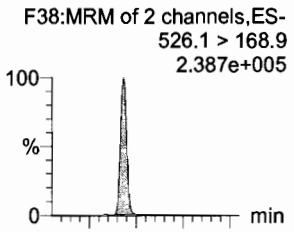


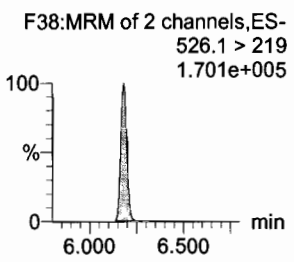
PFTeDA



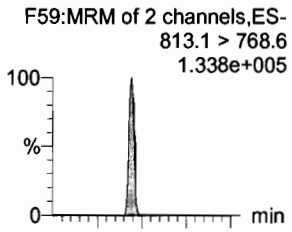


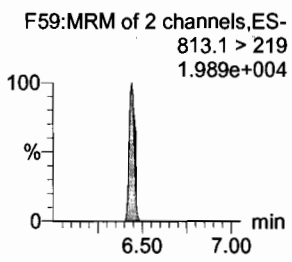
N-EtFOSA



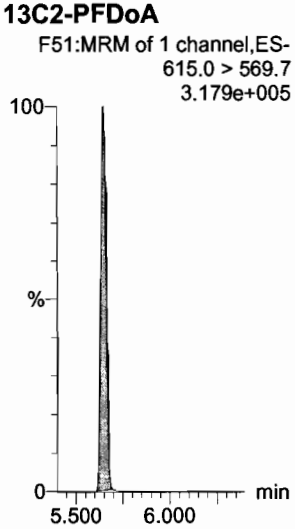


PFHxDA

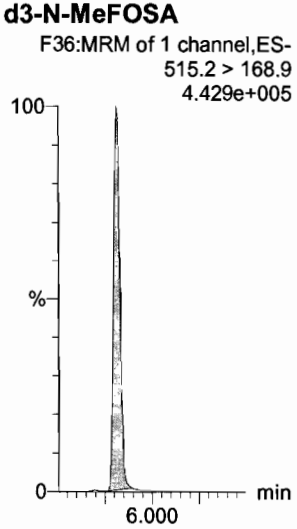




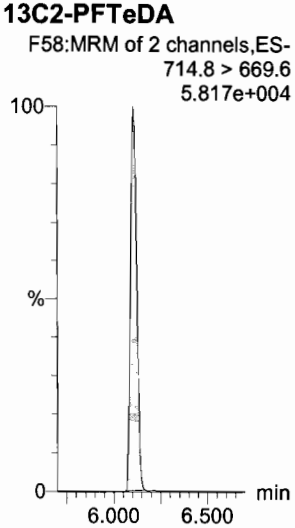
13C2-PFDoA



d3-N-MeFOSA



13C2-PFTeDA



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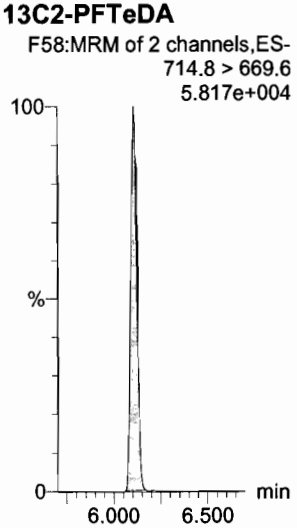
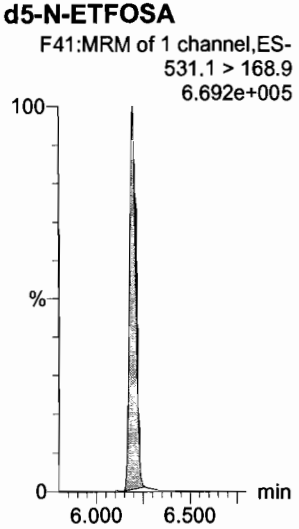
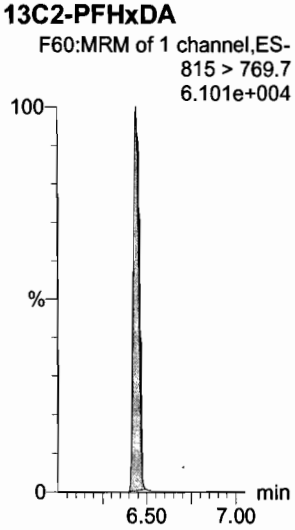


d5-N-ETFOSA



13C2-PFHxDA



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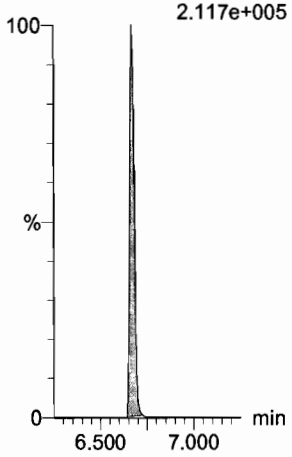
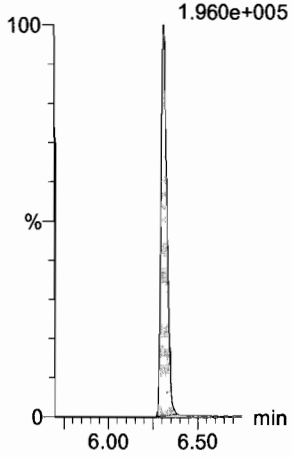
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_7, Date: 29-Dec-2017, Time: 14:27:38, ID: ST171229M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

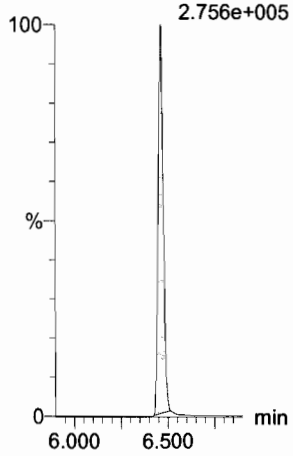
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.117e+005



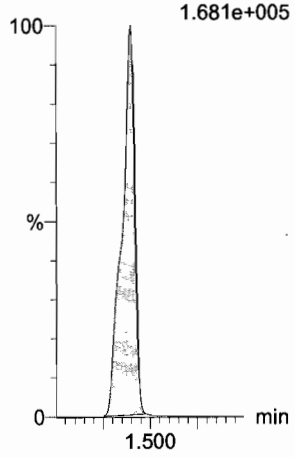
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.960e+005



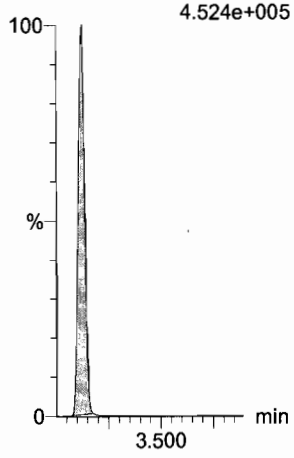
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.756e+005



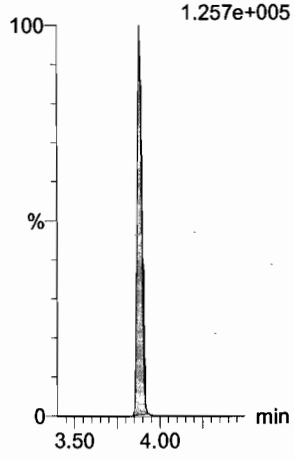
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.681e+005



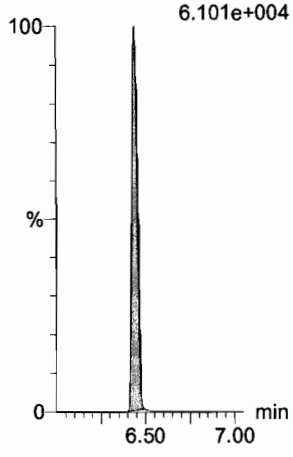
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.524e+005



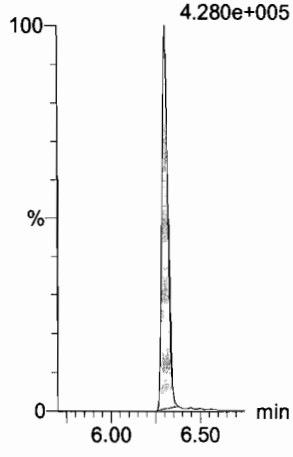
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.257e+005



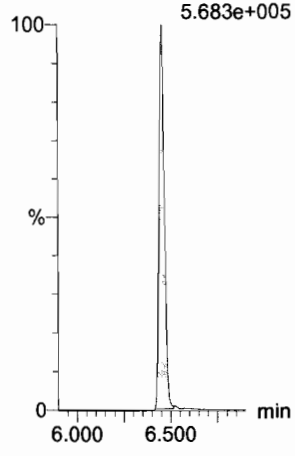
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.101e+004



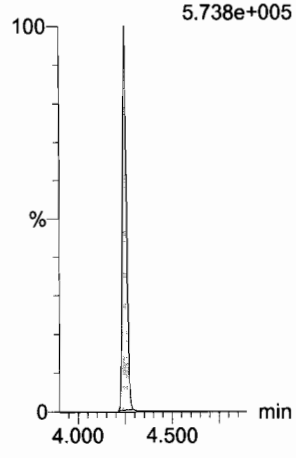
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.280e+005



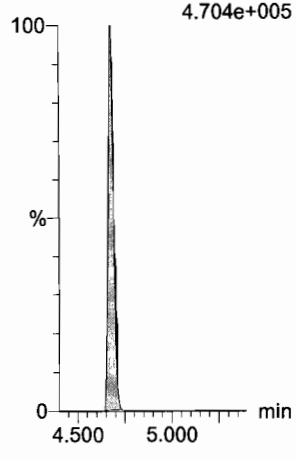
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.683e+005



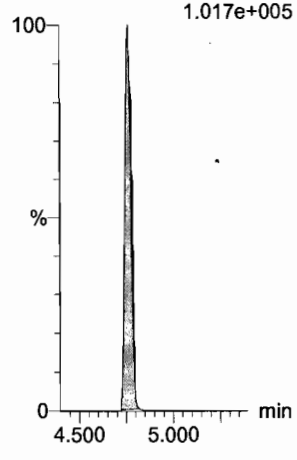
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.738e+005



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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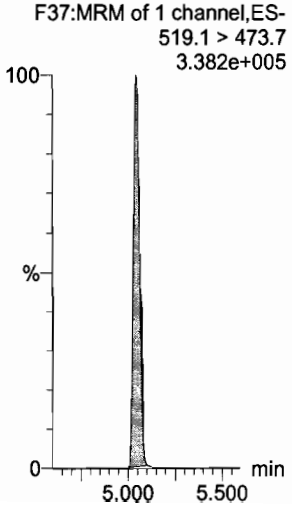
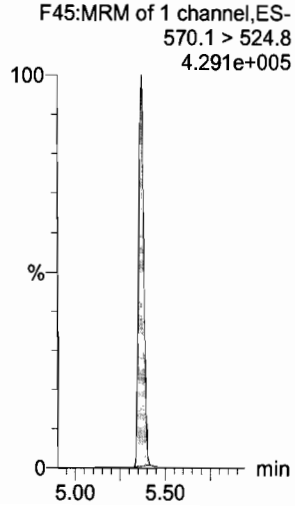
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_7, Date: 29-Dec-2017, Time: 14:27:38, ID: ST171229M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

13C6-PFDA



13C7-PFUdA



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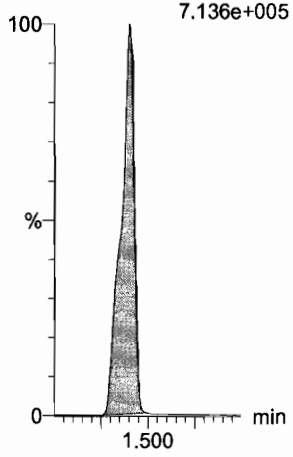
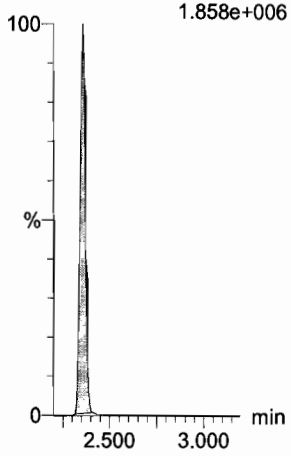
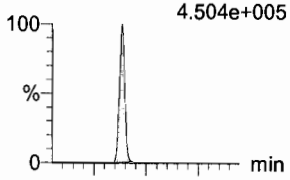
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
7.136e+005



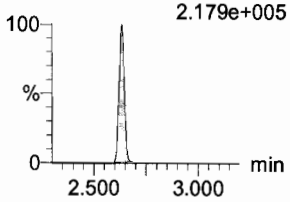
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
1.858e+006



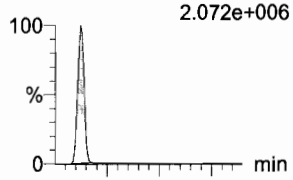
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
4.504e+005



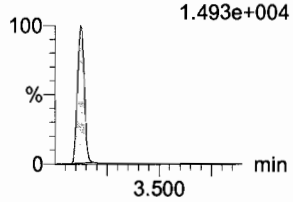
F6:MRM of 2 channels,ES-
299.0 > 99.0
2.179e+005



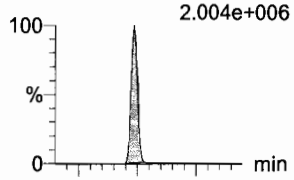
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
2.072e+006



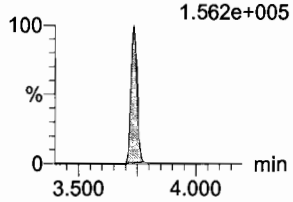
F8:MRM of 2 channels,ES-
313.2 > 119
1.493e+004



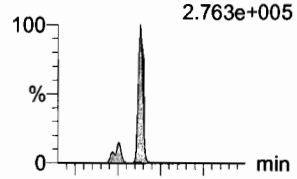
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
2.004e+006



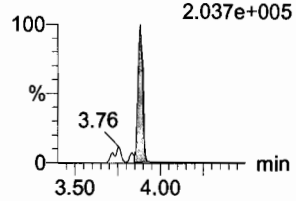
F13:MRM of 2 channels,ES-
363.0 > 169.0
1.562e+005



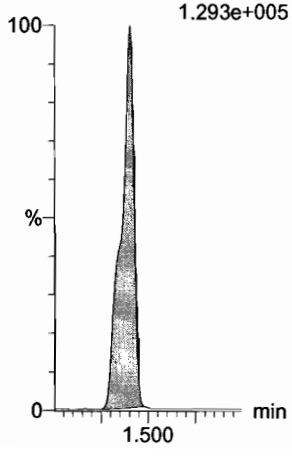
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
2.763e+005



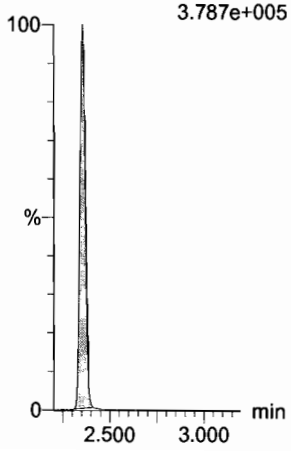
F15:MRM of 2 channels,ES-
398.9 > 99.0
2.037e+005



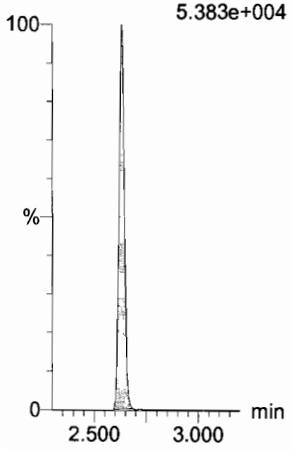
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.293e+005



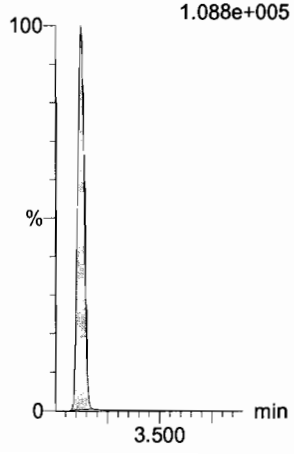
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.787e+005



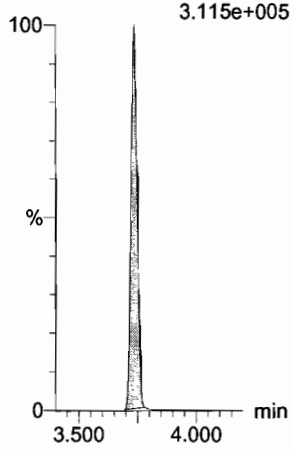
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
5.383e+004



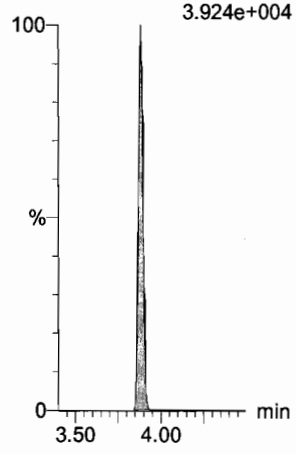
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.088e+005



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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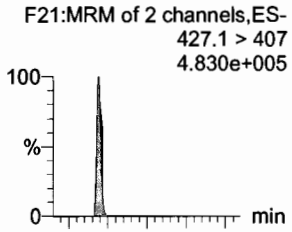
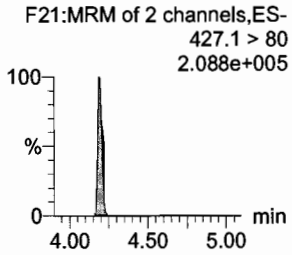
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

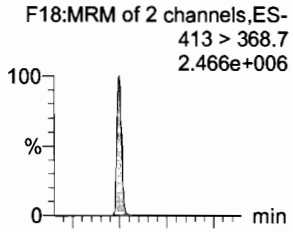
Name: 171229M2_8, Date: 29-Dec-2017, Time: 14:38:48, ID: ST171229M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

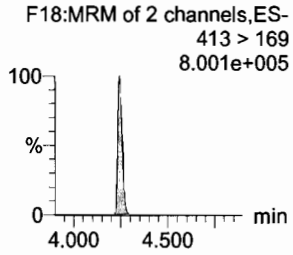
6:2 FTS



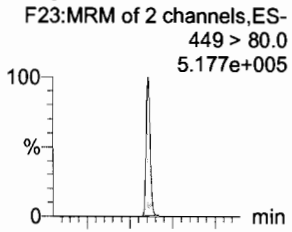


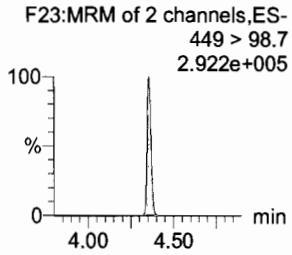
L-PFOA





PFHpS





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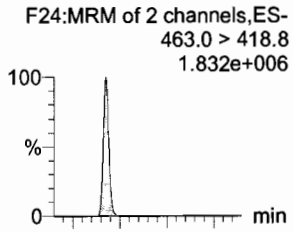

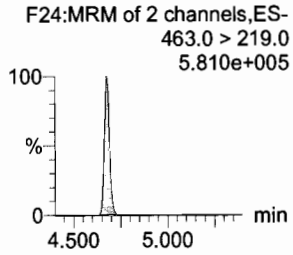

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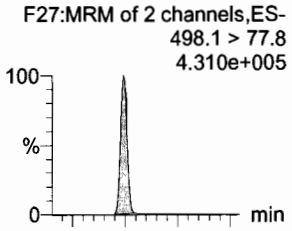
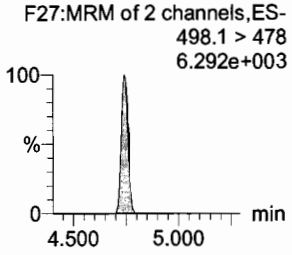
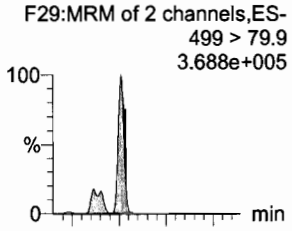
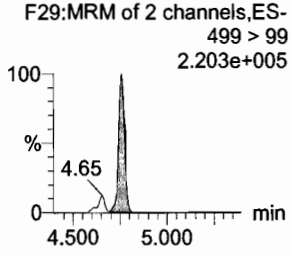


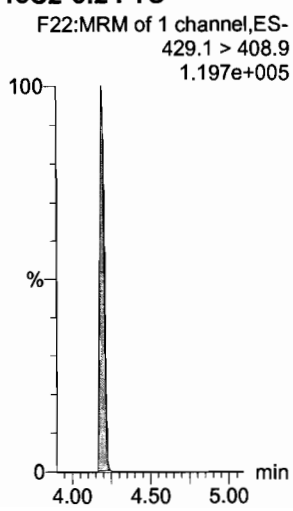


L-PFOS

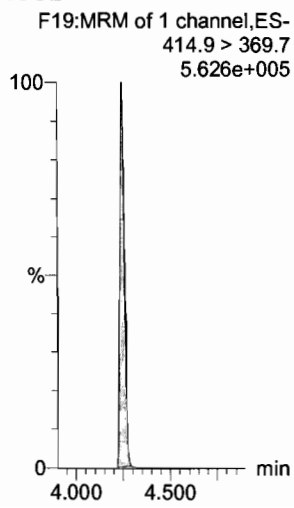




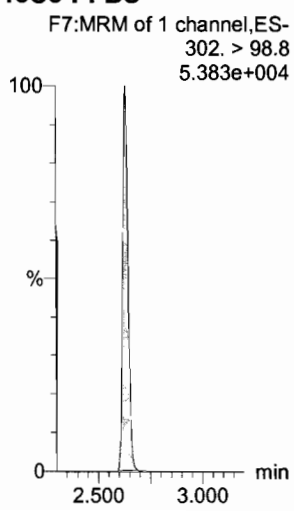
13C2-6:2 FTS



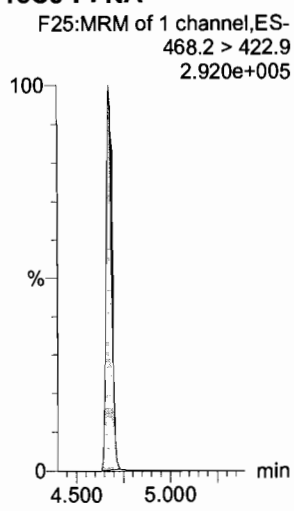
13C2-PFOA



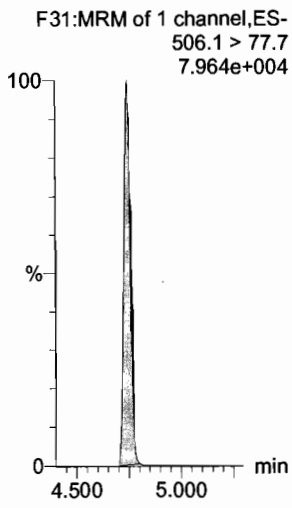
13C3-PFBS



13C5-PFNA



13C8-PFOSA



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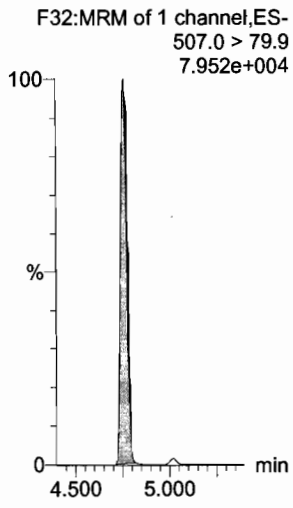

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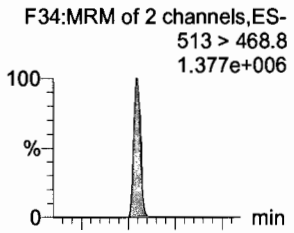
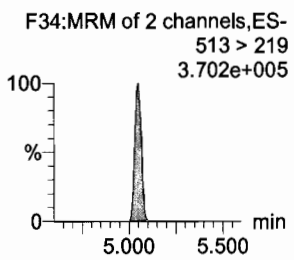
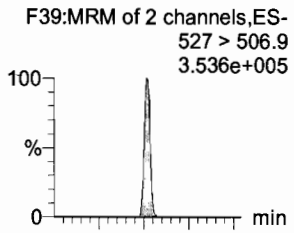
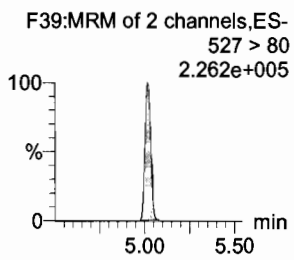
PFDA





8:2 FTS





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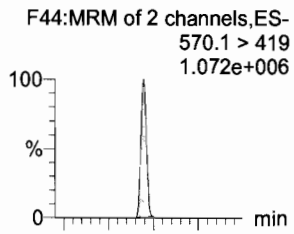

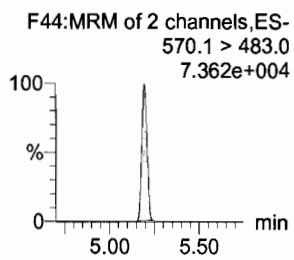

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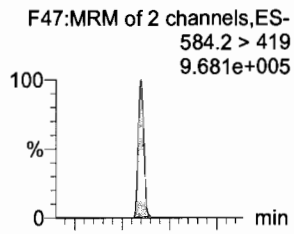
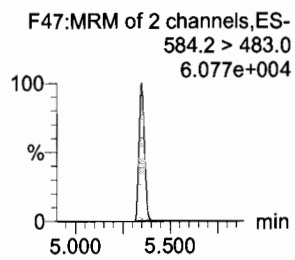
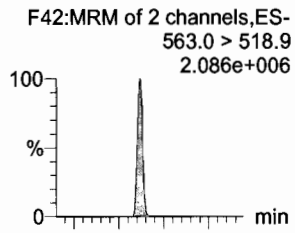
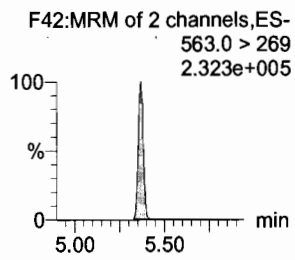




PFUdA





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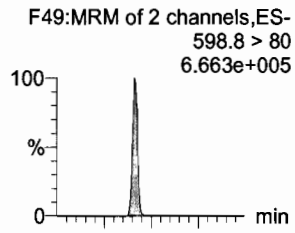

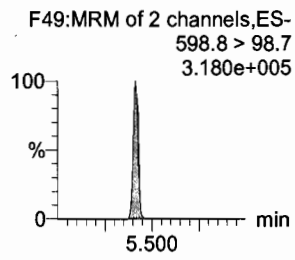

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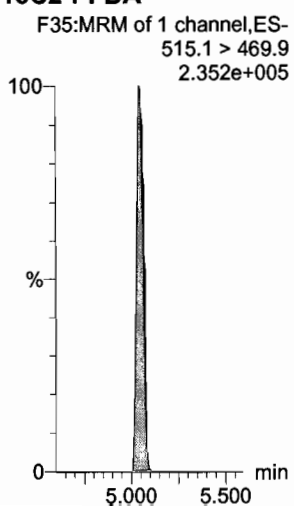
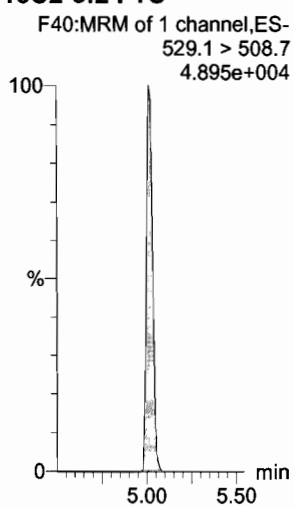


13C2-8:2 FTS



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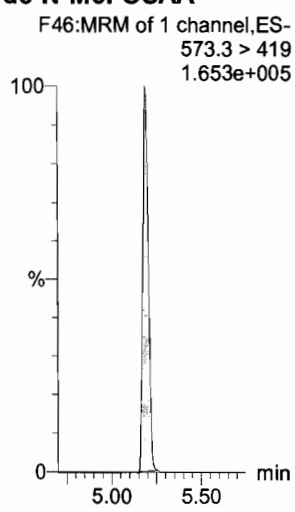

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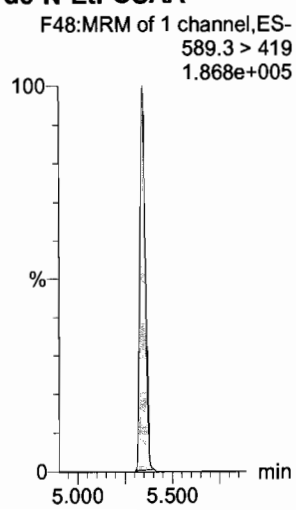

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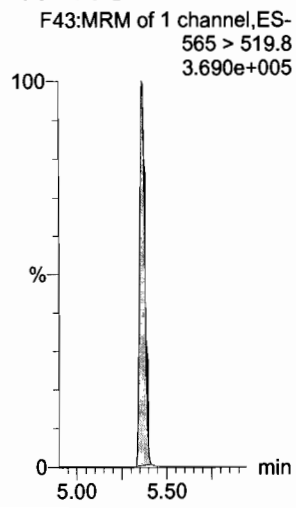

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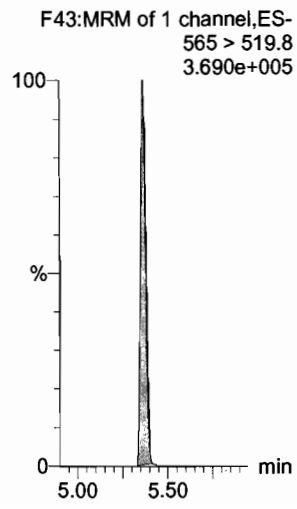

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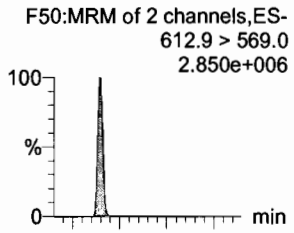

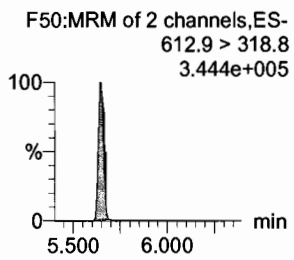

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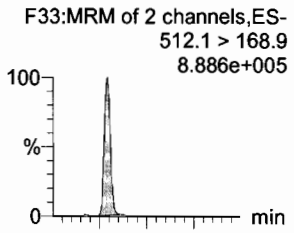
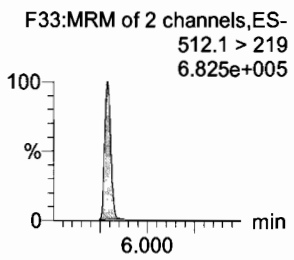
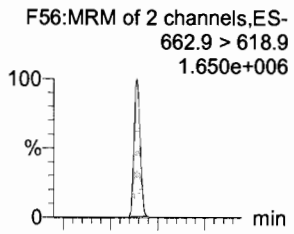
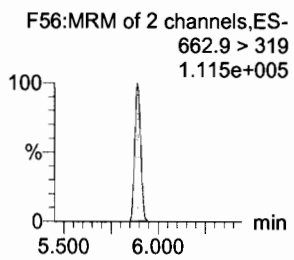


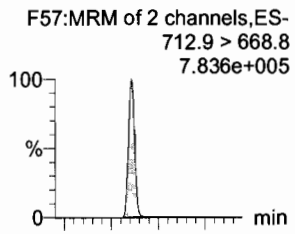


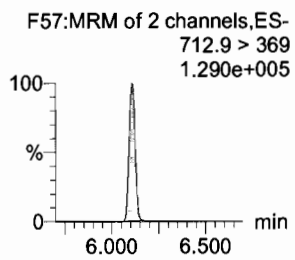
PFTrDA



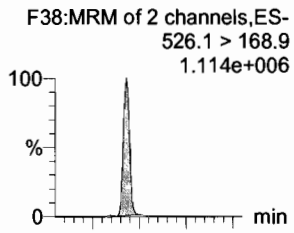


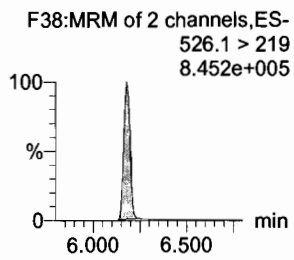
PFTeDA



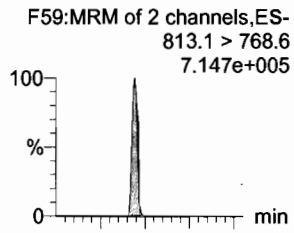


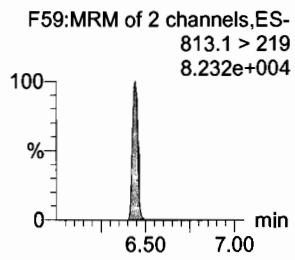
N-EtFOSA



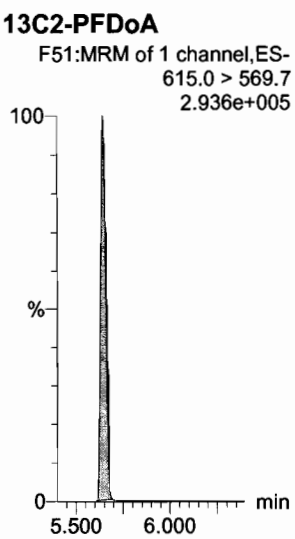


PFHxDA

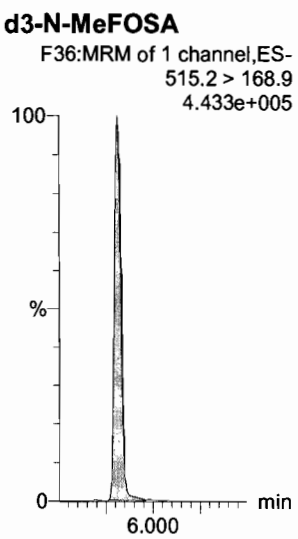




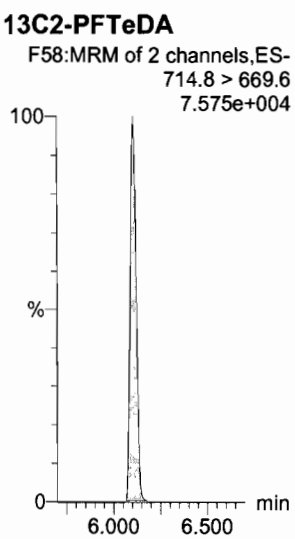
13C2-PFDoA



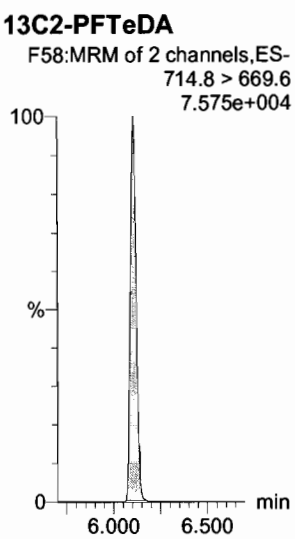
d3-N-MeFOSA



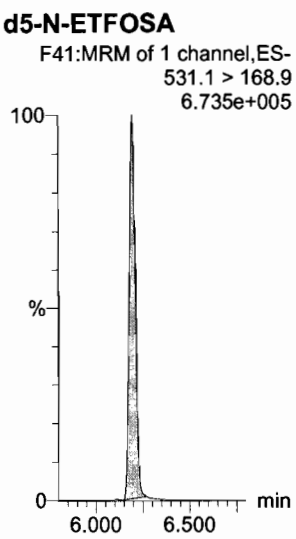
13C2-PFTeDA



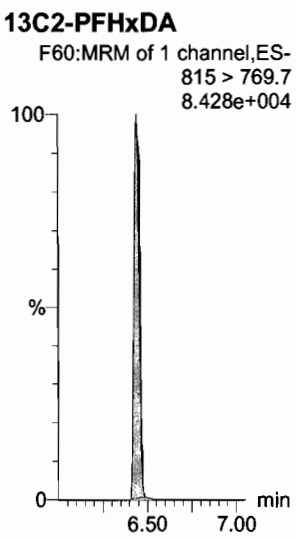
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

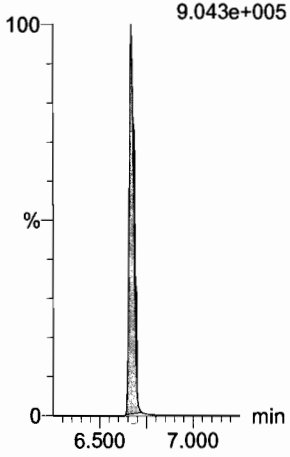


Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

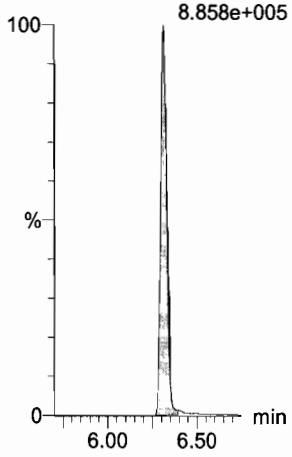
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_8, Date: 29-Dec-2017, Time: 14:38:48, ID: ST171229M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

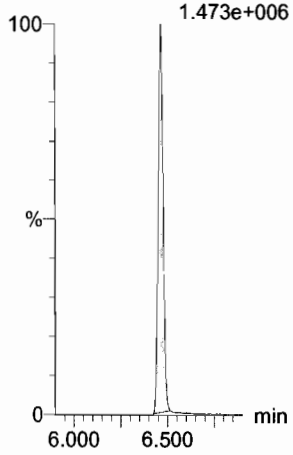
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
9.043e+005



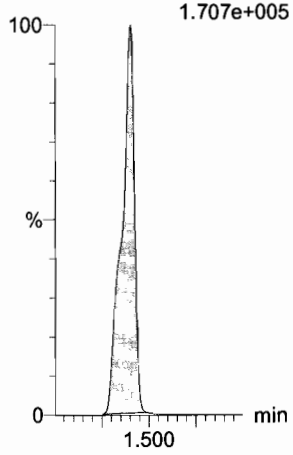
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
8.858e+005



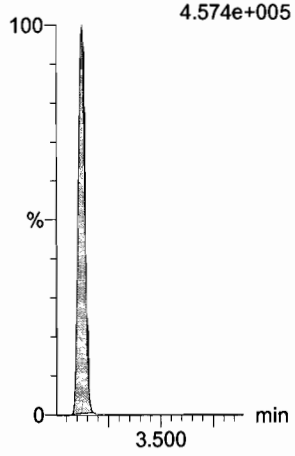
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.473e+006



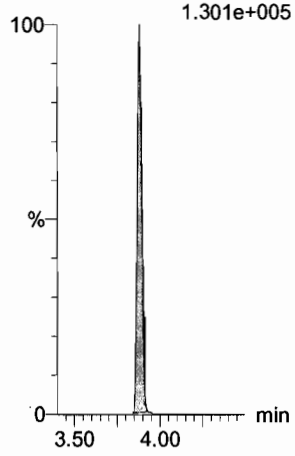
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.707e+005



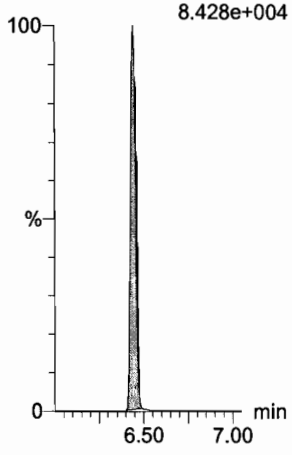
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.574e+005



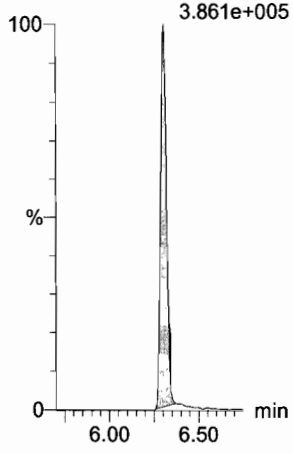
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.301e+005



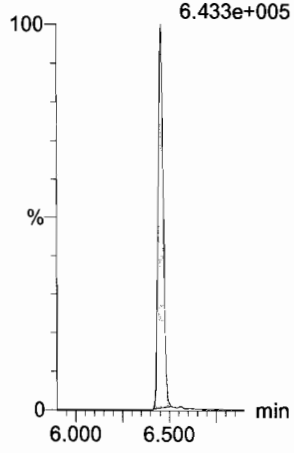
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.428e+004



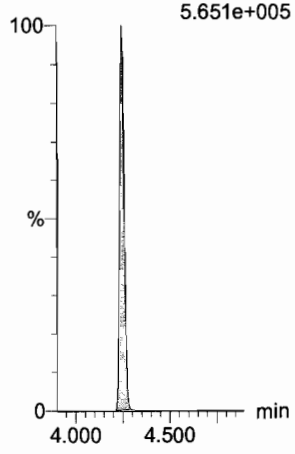
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
3.861e+005



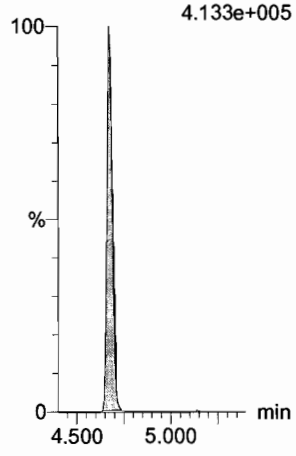
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.433e+005



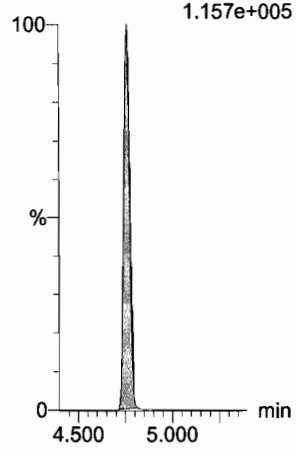
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.651e+005



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

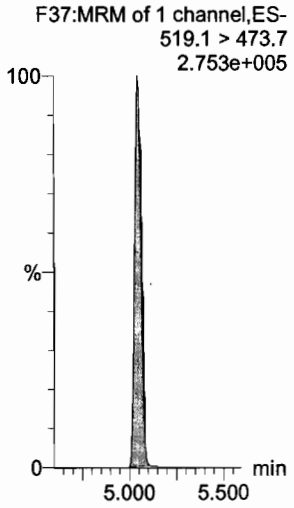


Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

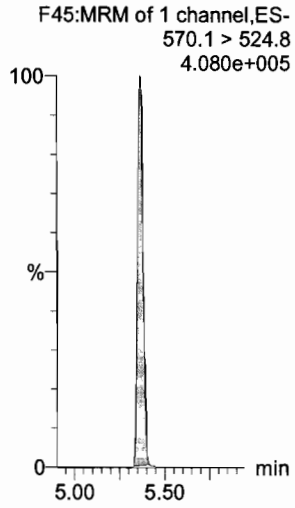
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

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

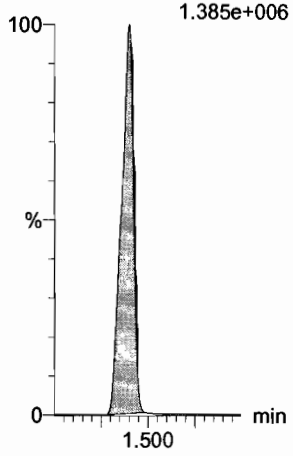


Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

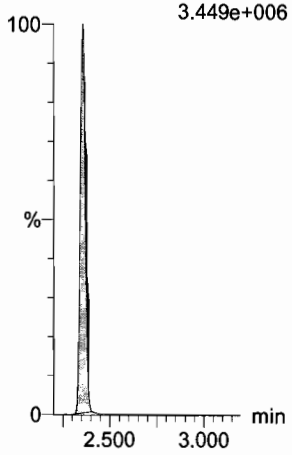
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_9, Date: 29-Dec-2017, Time: 14:49:59, ID: ST171229M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

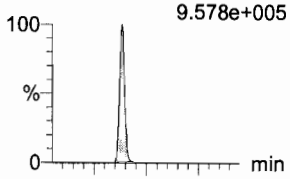
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.385e+006



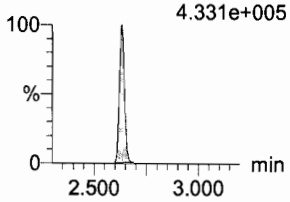
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
3.449e+006



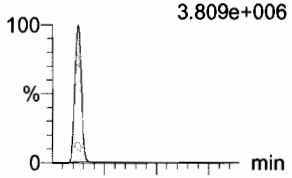
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
9.578e+005



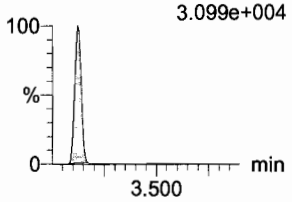
F6:MRM of 2 channels,ES-
299.0 > 99.0
4.331e+005



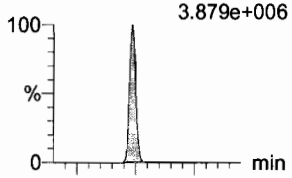
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
3.809e+006



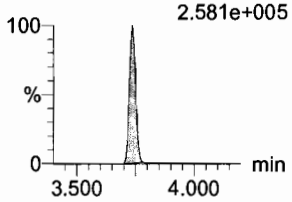
F8:MRM of 2 channels,ES-
313.2 > 119
3.099e+004



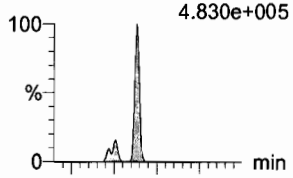
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
3.879e+006



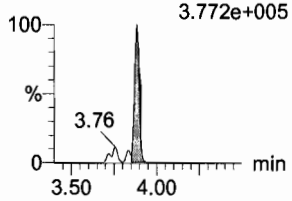
F13:MRM of 2 channels,ES-
363.0 > 169.0
2.581e+005



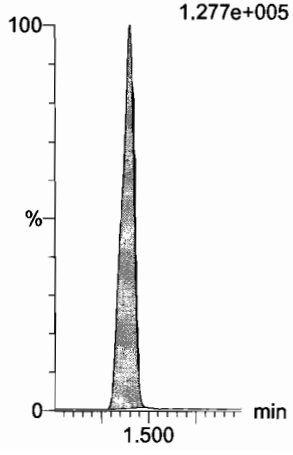
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
4.830e+005



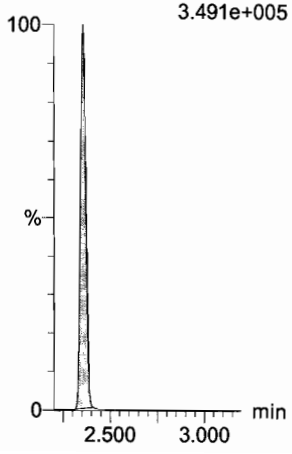
F15:MRM of 2 channels,ES-
398.9 > 99.0
3.772e+005



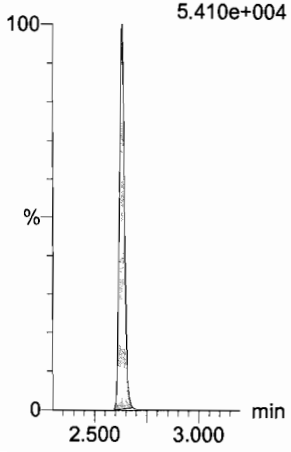
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.277e+005



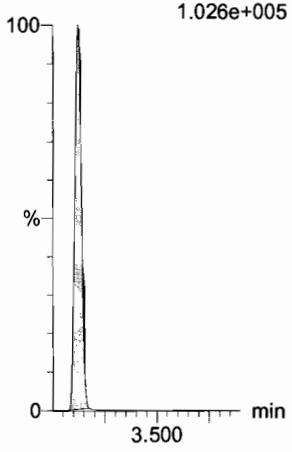
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.491e+005



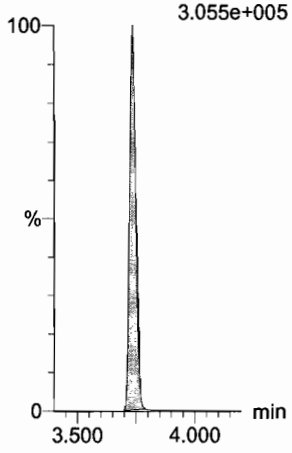
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
5.410e+004



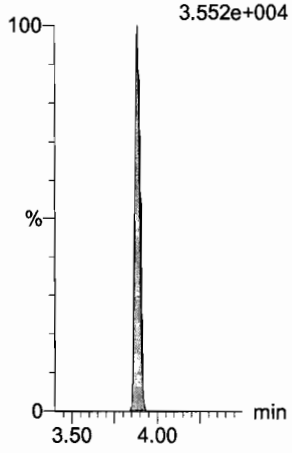
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.026e+005



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

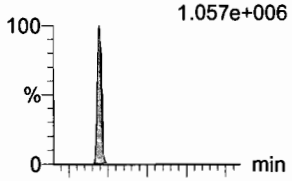


Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

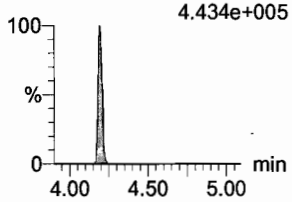
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_9, Date: 29-Dec-2017, Time: 14:49:59, ID: ST171229M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

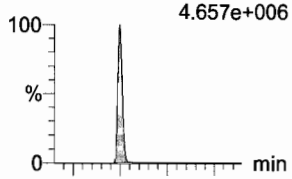
6:2 FTS
F21:MRM of 2 channels,ES-
427.1 > 407
1.057e+006



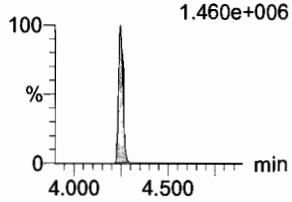
F21:MRM of 2 channels,ES-
427.1 > 80
4.434e+005



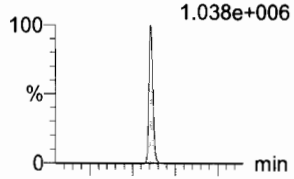
L-PFOA
F18:MRM of 2 channels,ES-
413 > 368.7
4.657e+006



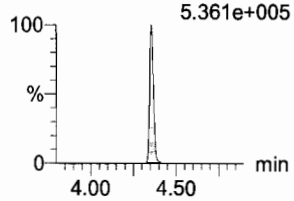
F18:MRM of 2 channels,ES-
413 > 169
1.460e+006



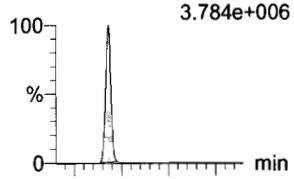
PFHpS
F23:MRM of 2 channels,ES-
449 > 80.0
1.038e+006



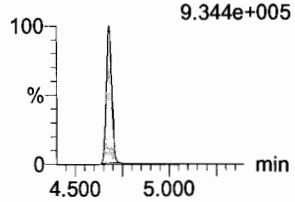
F23:MRM of 2 channels,ES-
449 > 98.7
5.361e+005



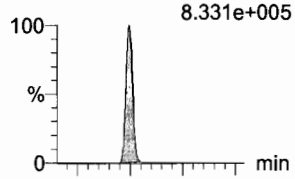
PFNA
F24:MRM of 2 channels,ES-
463.0 > 418.8
3.784e+006



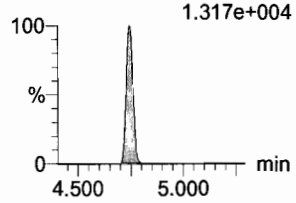
F24:MRM of 2 channels,ES-
463.0 > 219.0
9.344e+005



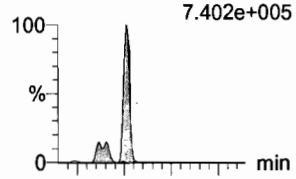
PFOSA
F27:MRM of 2 channels,ES-
498.1 > 77.8
8.331e+005



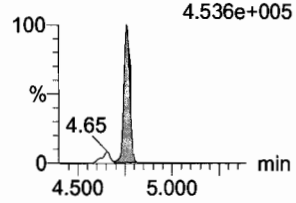
F27:MRM of 2 channels,ES-
498.1 > 478
1.317e+004



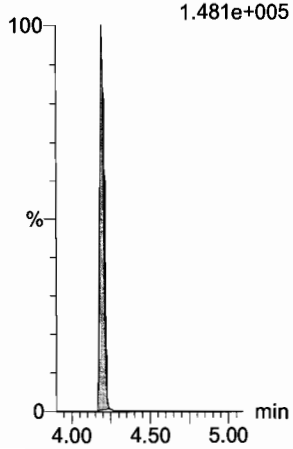
L-PFOS
F29:MRM of 2 channels,ES-
499 > 79.9
7.402e+005



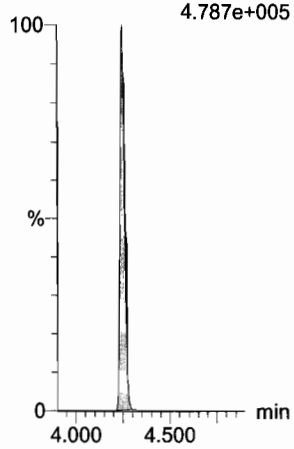
F29:MRM of 2 channels,ES-
499 > 99
4.536e+005



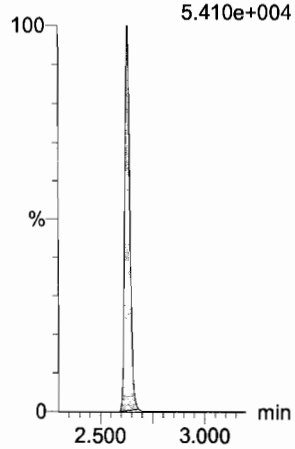
13C2-6:2 FTS
F22:MRM of 1 channel,ES-
429.1 > 408.9
1.481e+005



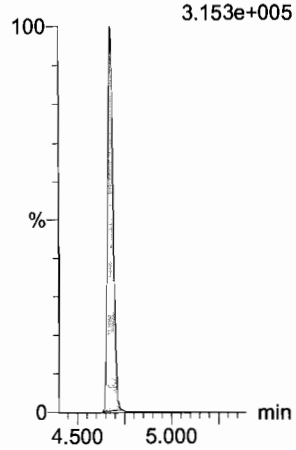
13C2-PFOA
F19:MRM of 1 channel,ES-
414.9 > 369.7
4.787e+005



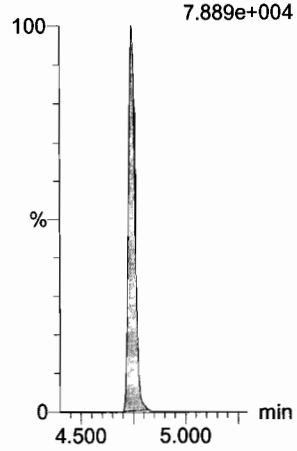
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
5.410e+004



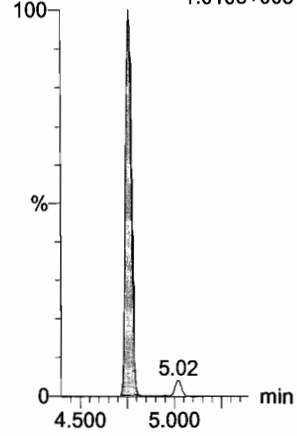
13C5-PFNA
F25:MRM of 1 channel,ES-
468.2 > 422.9
3.153e+005



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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Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
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

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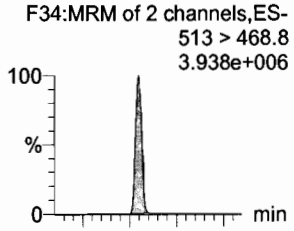
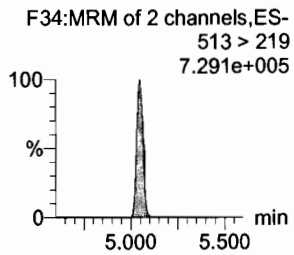
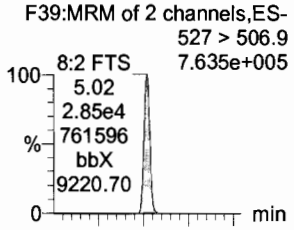
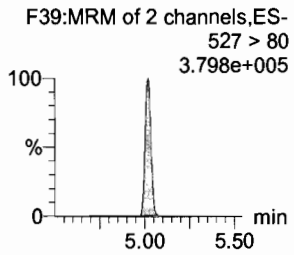


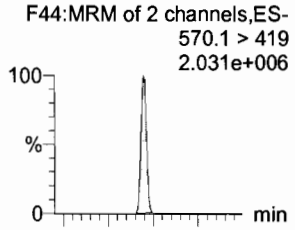


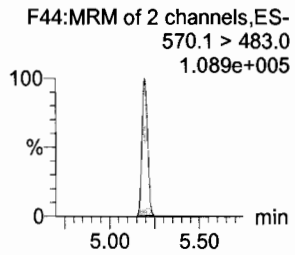
8:2 FTS





N-MeFOSAA





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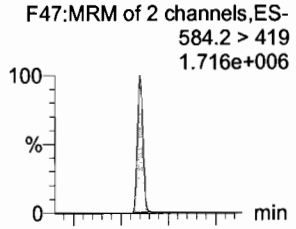

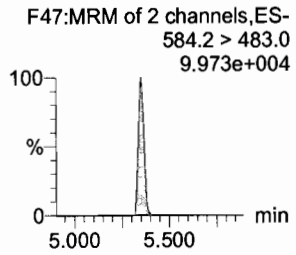

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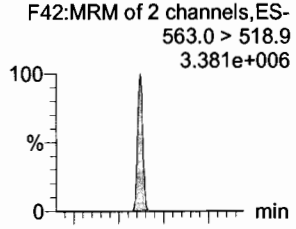
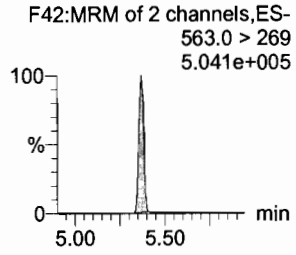
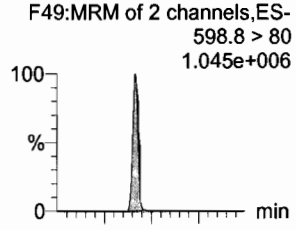
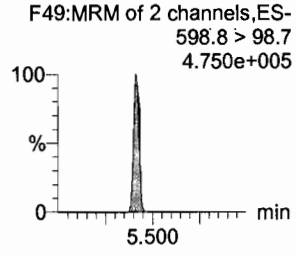




PFDS





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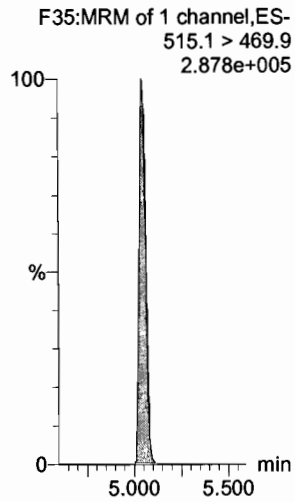
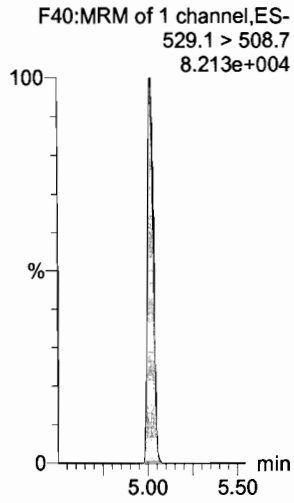
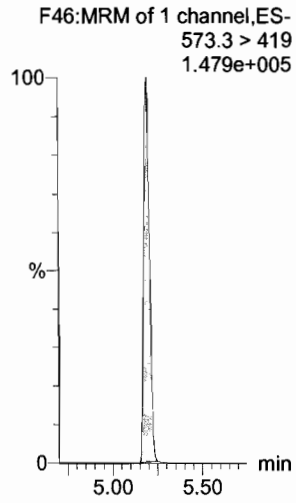


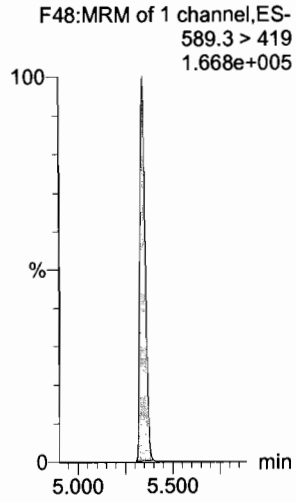
13C2-8:2 FTS



d3-N-MeFOSAA



d5-N-EtFOSAA



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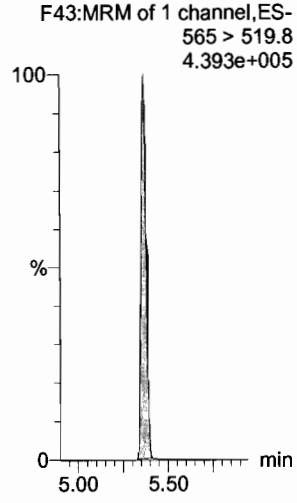

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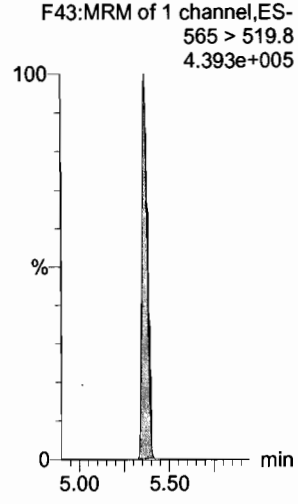

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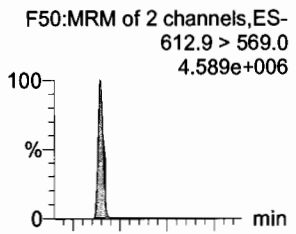
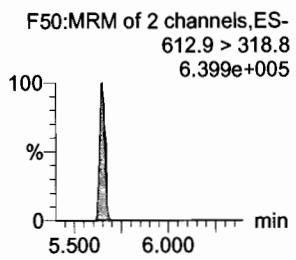
Name: 171229M2_9, Date: 29-Dec-2017, Time: 14:49:59, ID: ST171229M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

PFDoA





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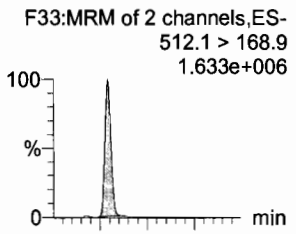

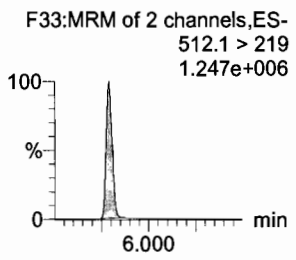

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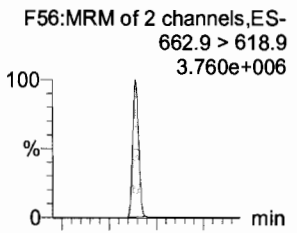

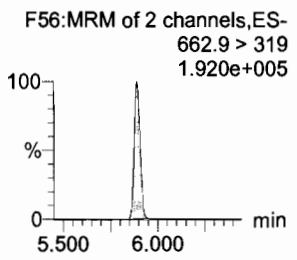

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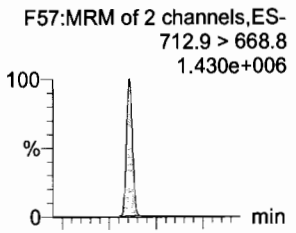
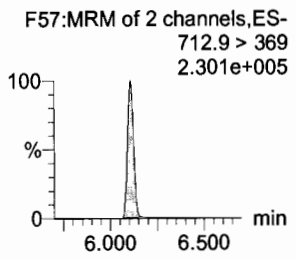
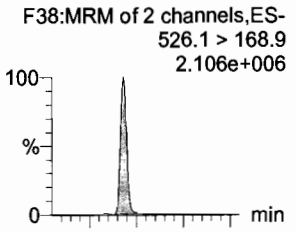
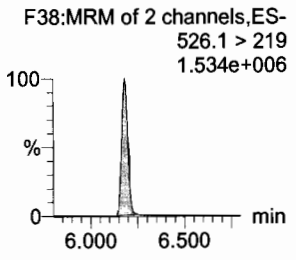




N-EtFOSA





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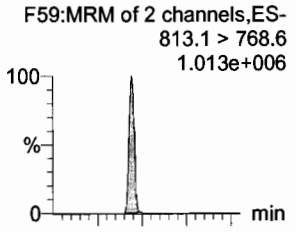

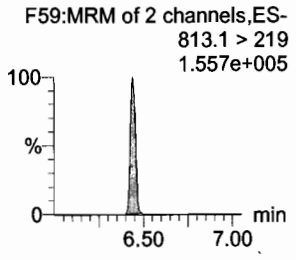

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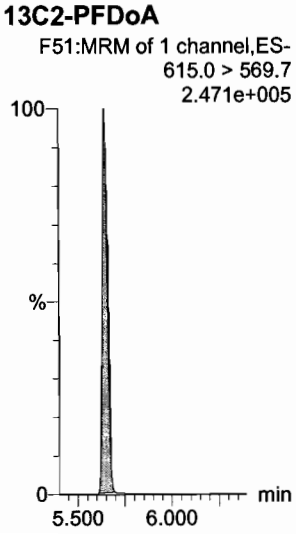
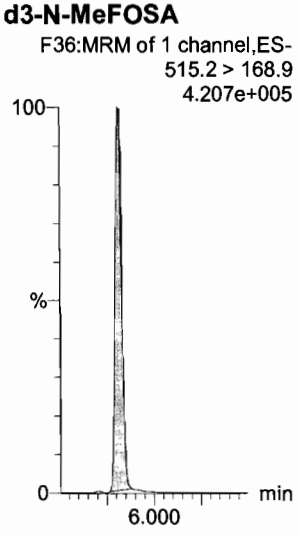


d3-N-MeFOSA



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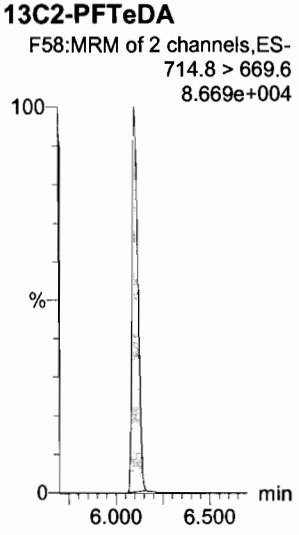

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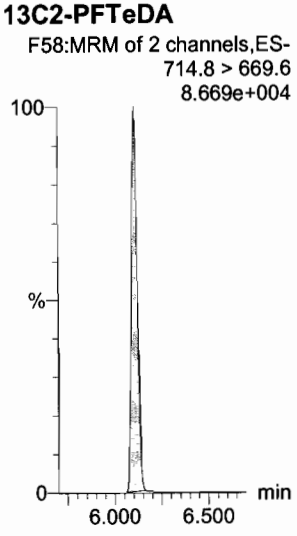

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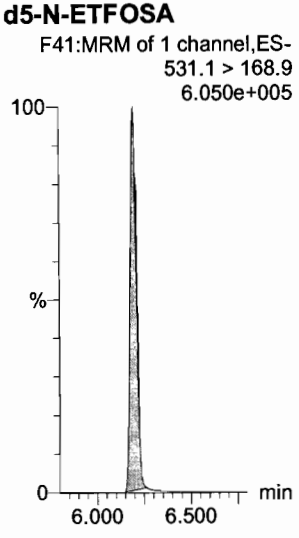
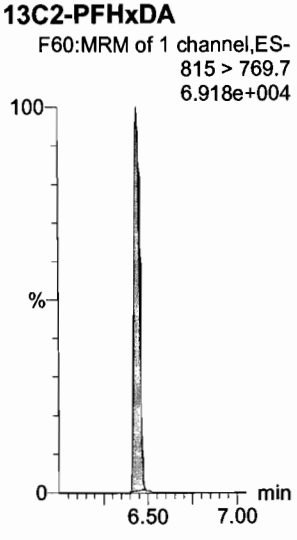


13C2-PFHxDA



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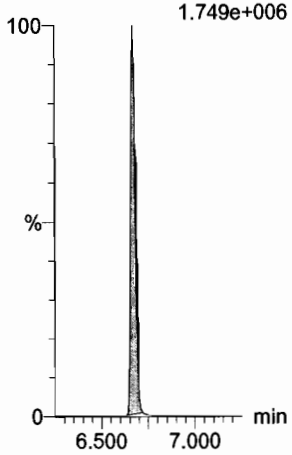
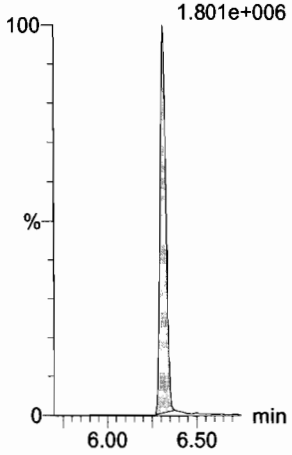
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_9, Date: 29-Dec-2017, Time: 14:49:59, ID: ST171229M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

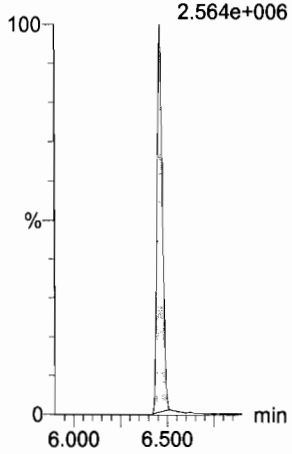
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.749e+006



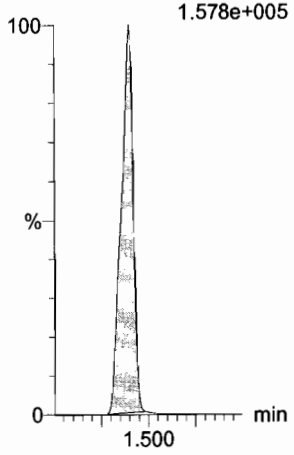
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.801e+006



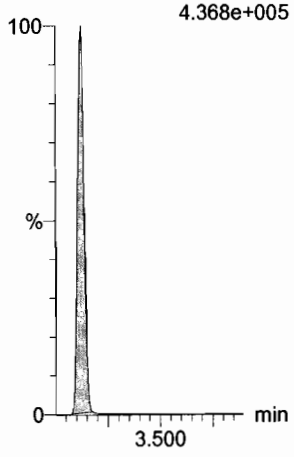
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.564e+006



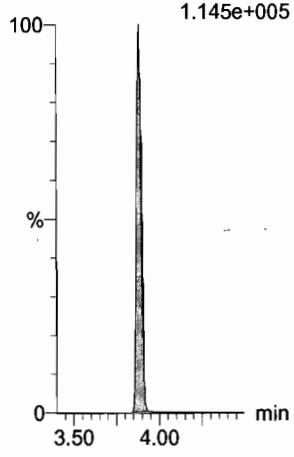
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.578e+005



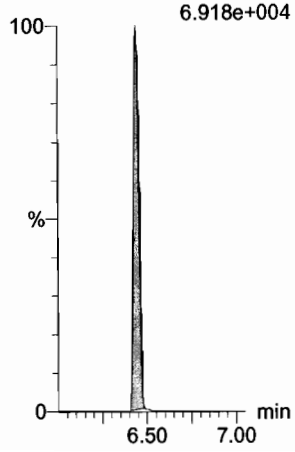
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.368e+005



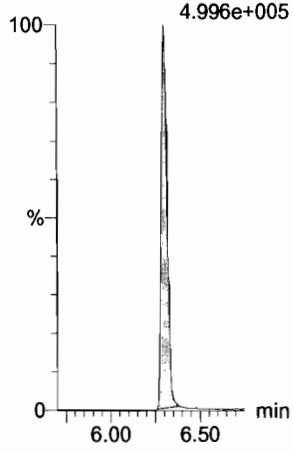
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.145e+005



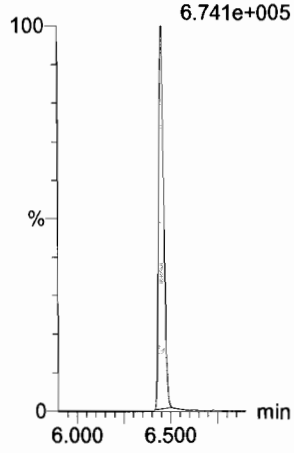
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.918e+004



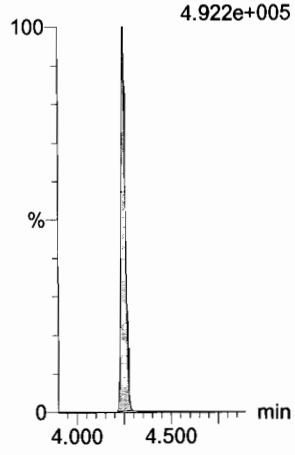
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.996e+005



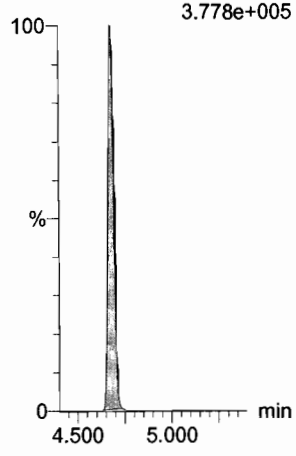
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.741e+005



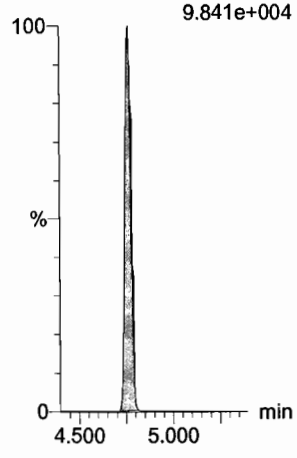
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.922e+005



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

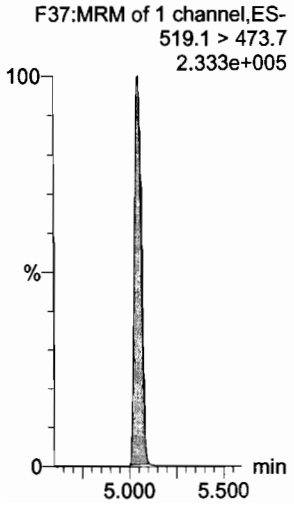


Dataset: U:\Q4.PRO\results\171229M2\171229M2-CRV.qld

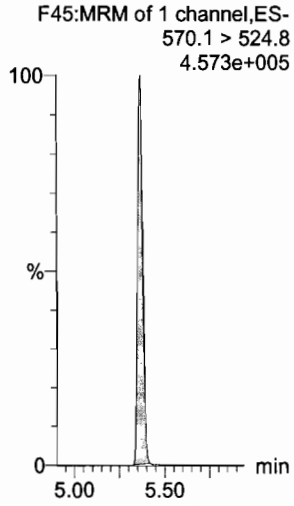
Last Altered: Friday, December 29, 2017 15:29:28 Pacific Standard Time
Printed: Friday, December 29, 2017 15:32:14 Pacific Standard Time

Name: 171229M2_9, Date: 29-Dec-2017, Time: 14:49:59, ID: ST171229M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

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

70-130

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

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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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

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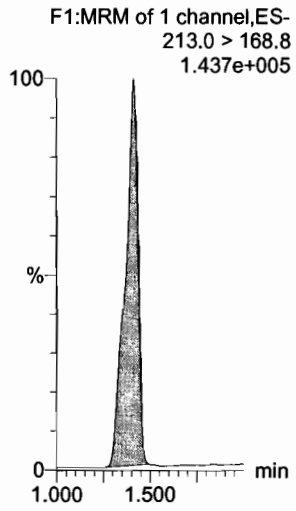
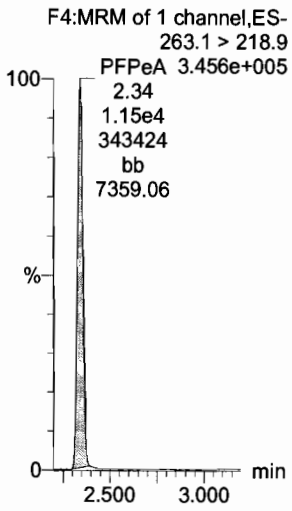
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-29-17_FULL.cdb 29 Dec 2017 16:04:07

Name: 171229M2_14, Date: 29-Dec-2017, Time: 15:54:47, ID: ICV171229M2-2 PFC ICV 17L1201, Description: PFC ICV 17L1201

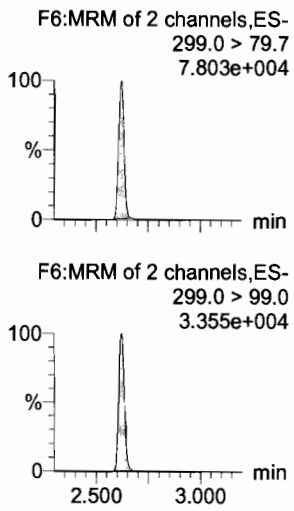
PFBA



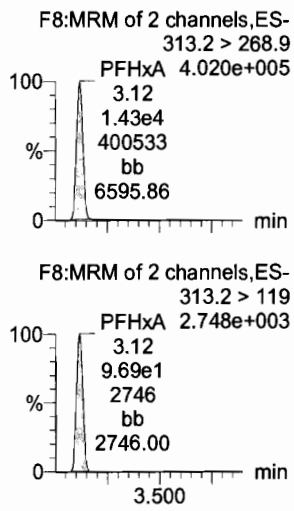
PFPeA



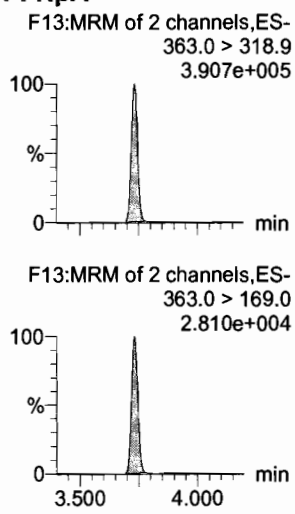
PFBS



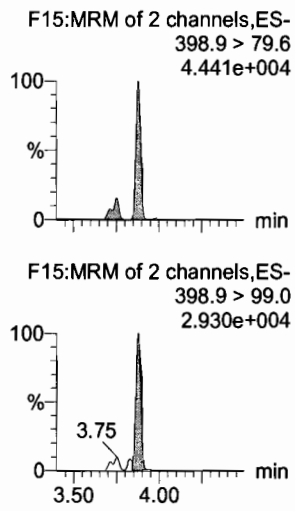
PFHxA



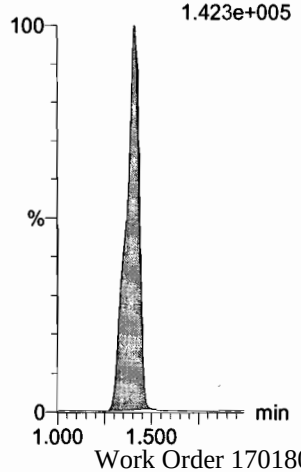
PFHpA



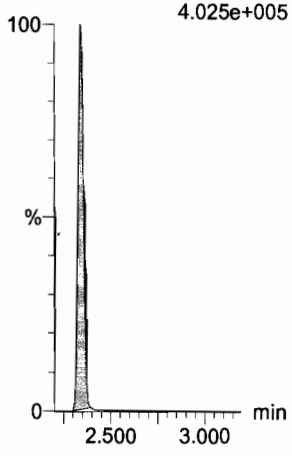
L-PFHxS



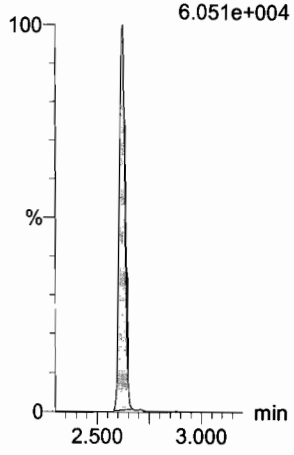
13C3-PFBA



13C3-PFPeA



13C3-PFBS



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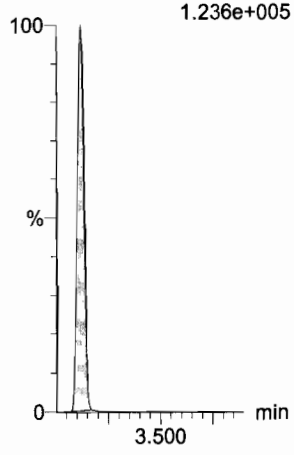

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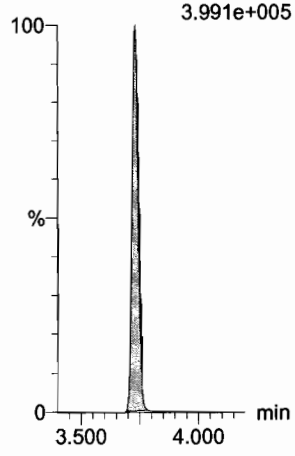

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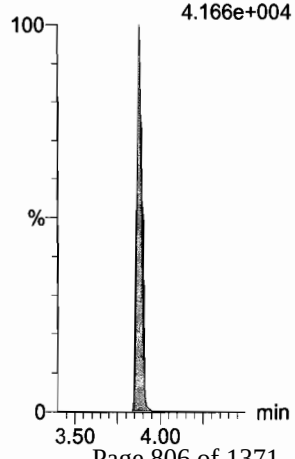

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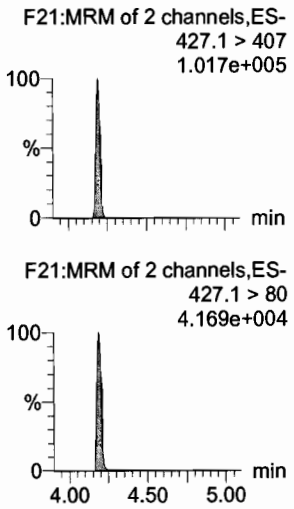

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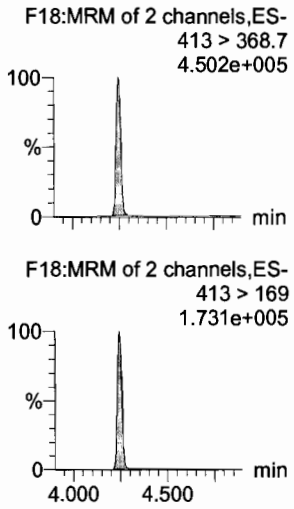

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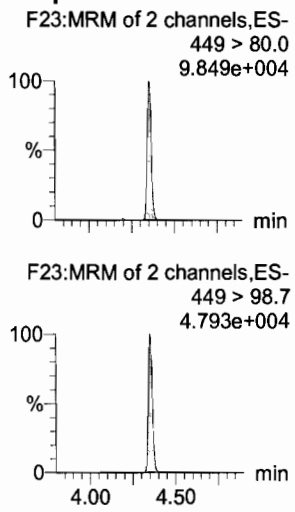

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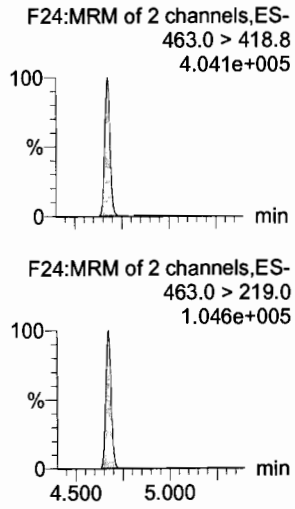

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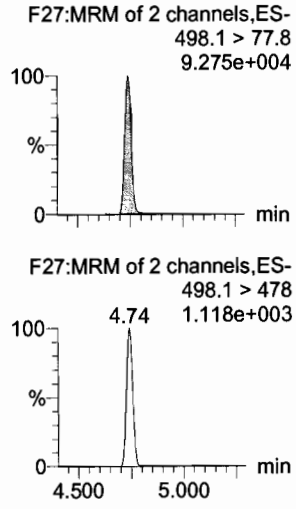

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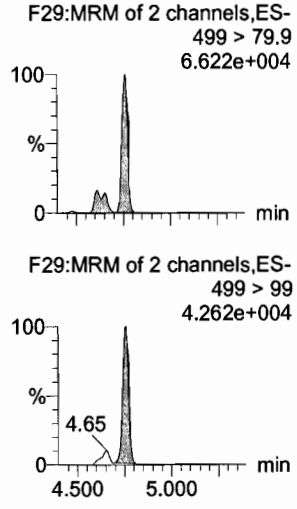

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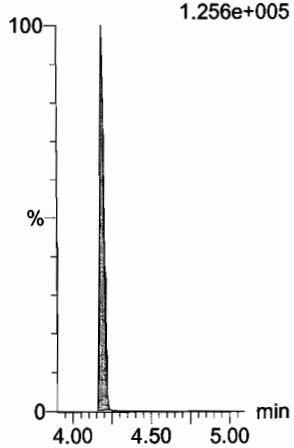

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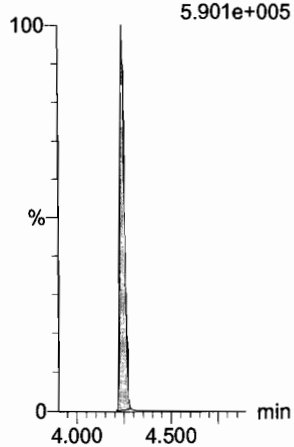

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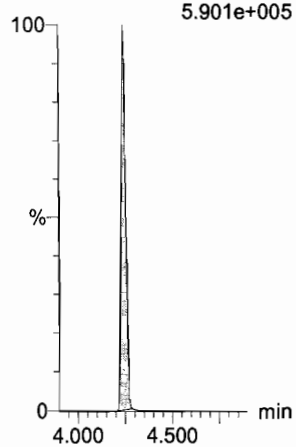

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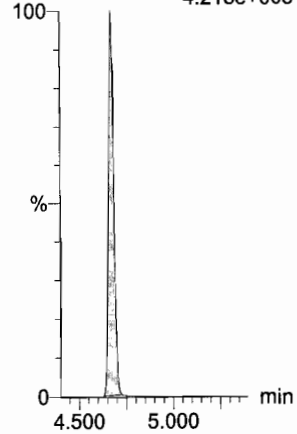

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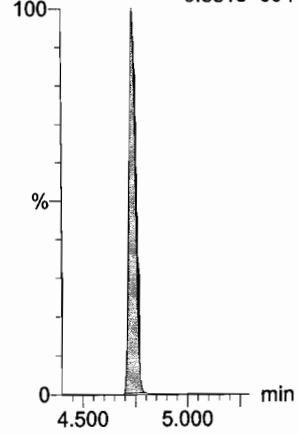

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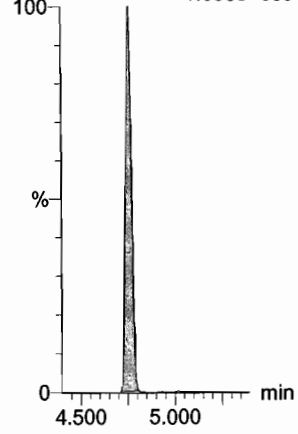

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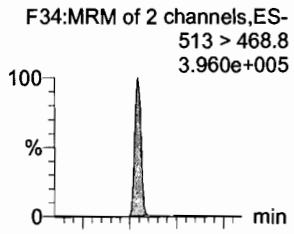

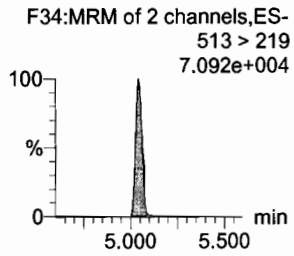

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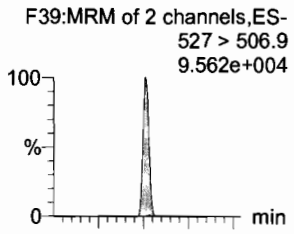

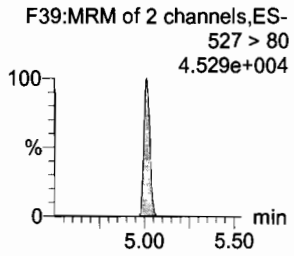

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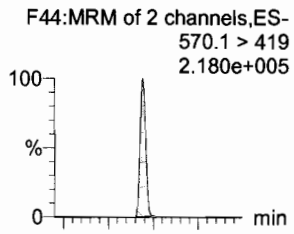

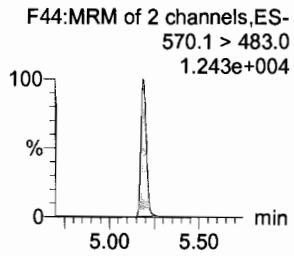

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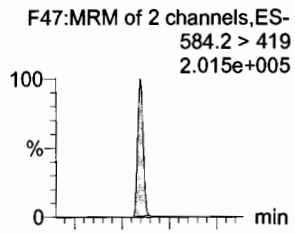

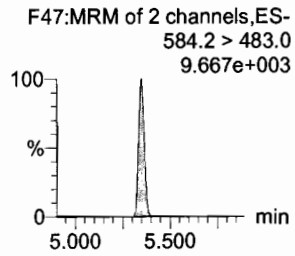

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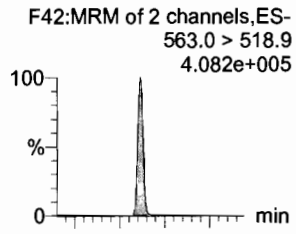

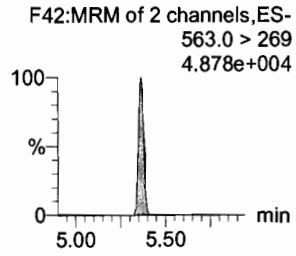

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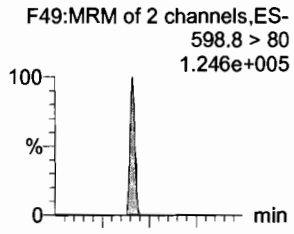

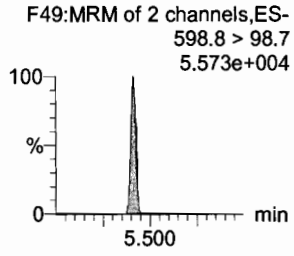

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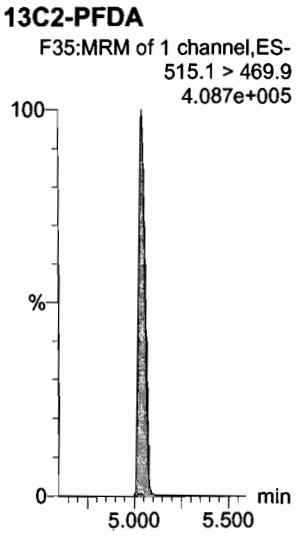

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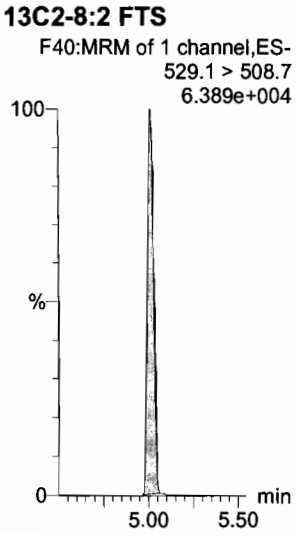

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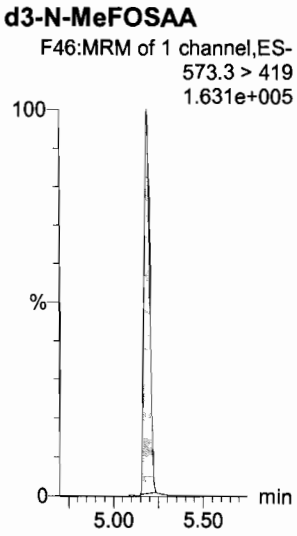

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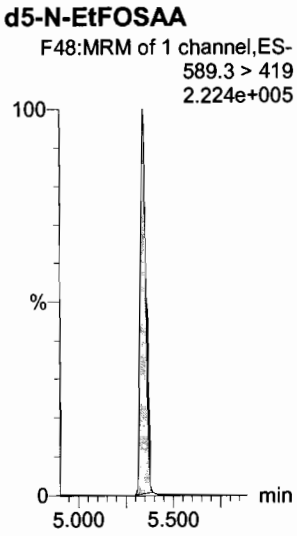

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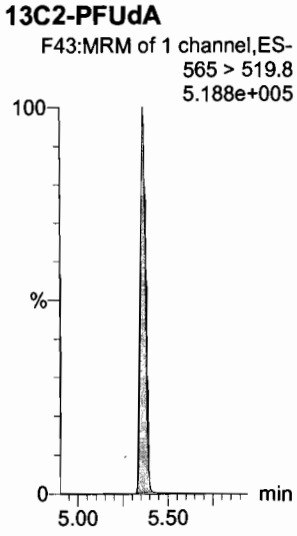

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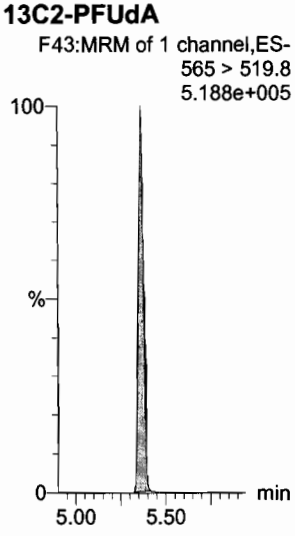

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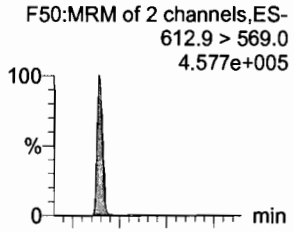

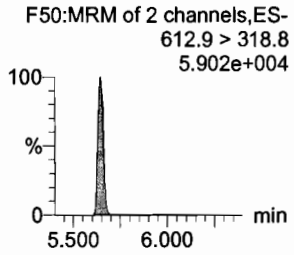

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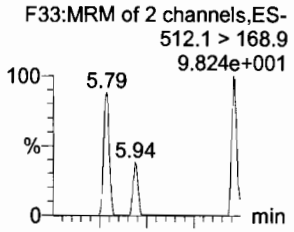

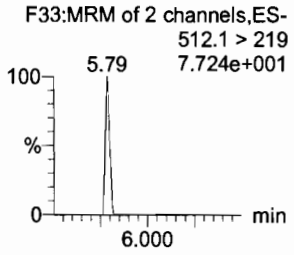

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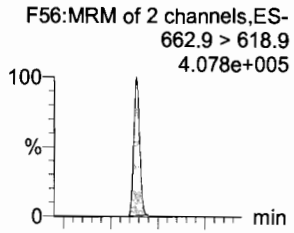

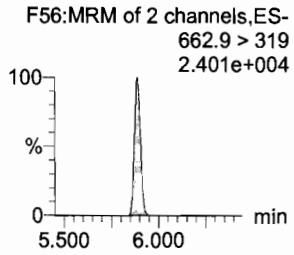

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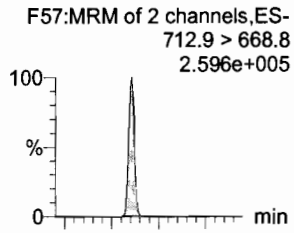

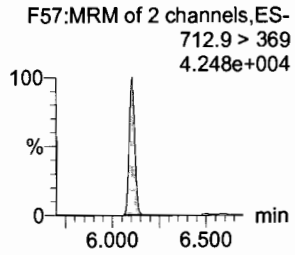

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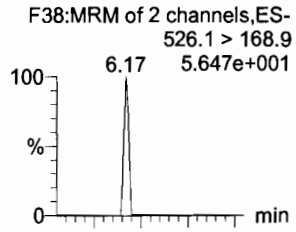

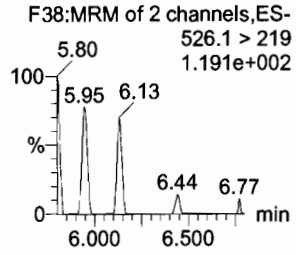

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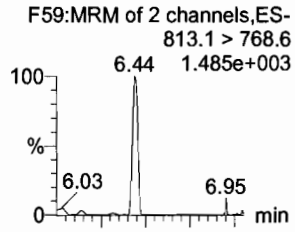

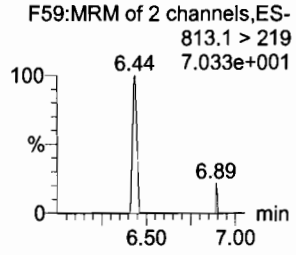

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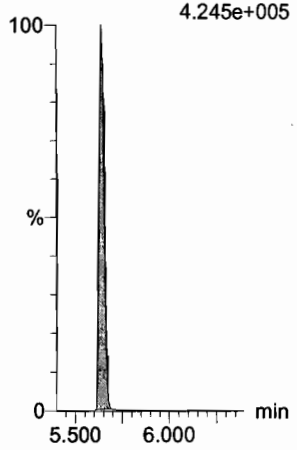

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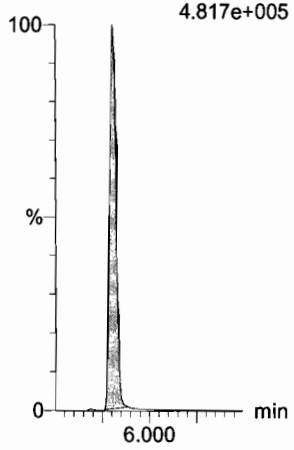

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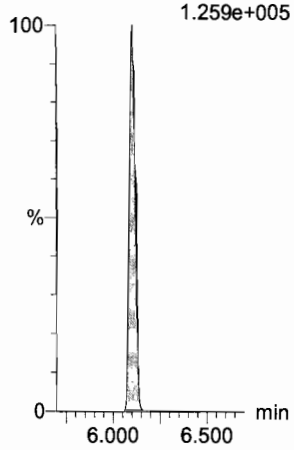

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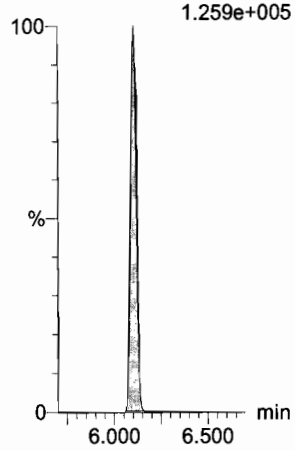

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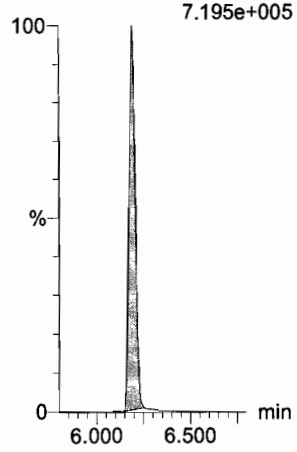

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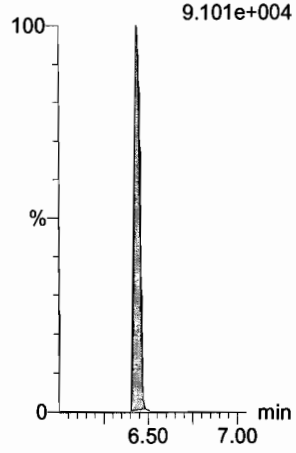

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PFODA
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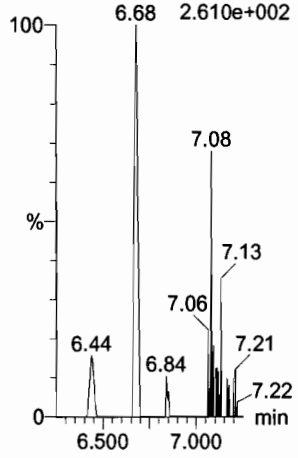
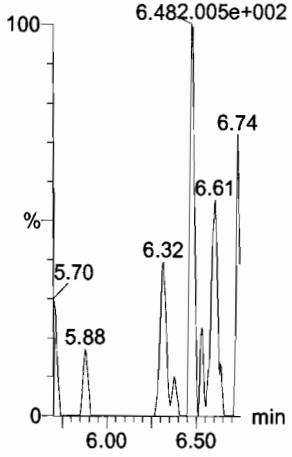
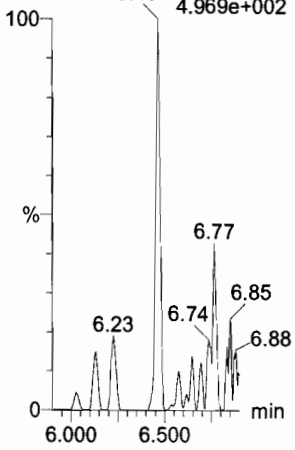
913.1 > 868.8
2.610e+002



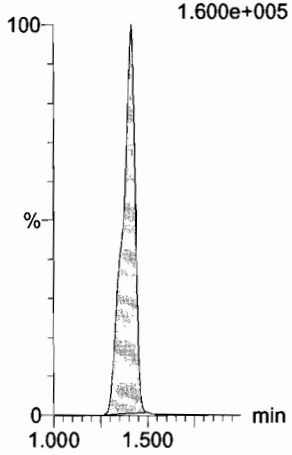
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
6.482.005e+002



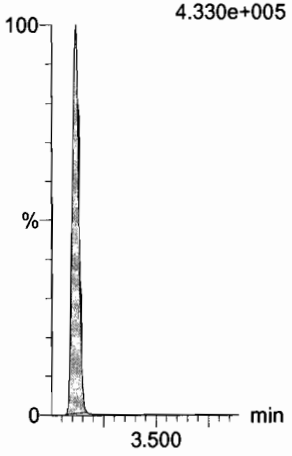
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
4.969e+002



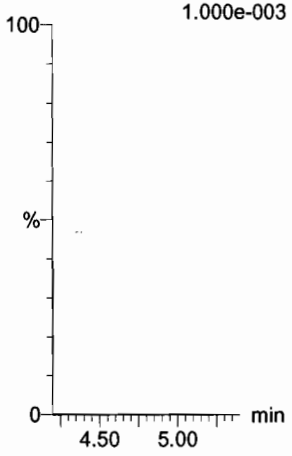
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.600e+005



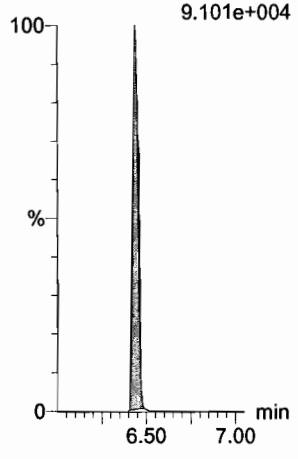
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.330e+005



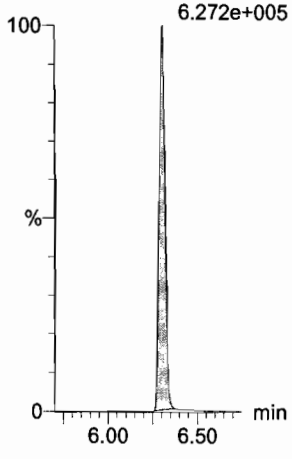
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



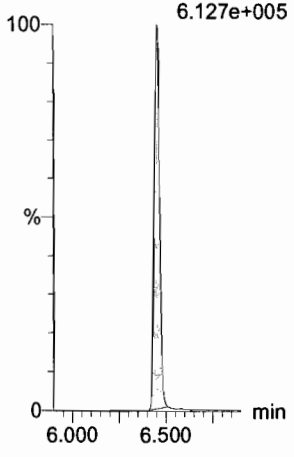
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
9.101e+004



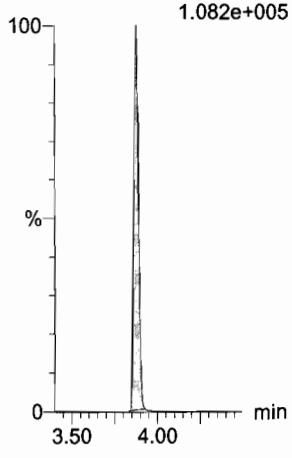
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.272e+005



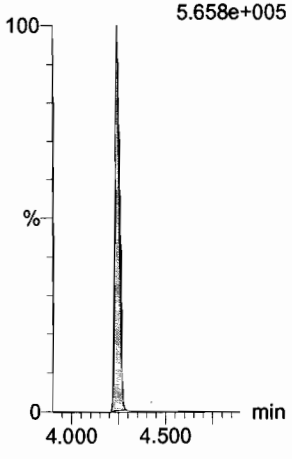
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.127e+005



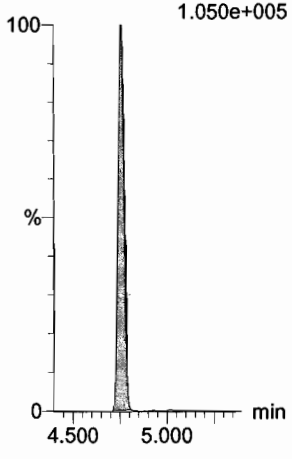
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.082e+005



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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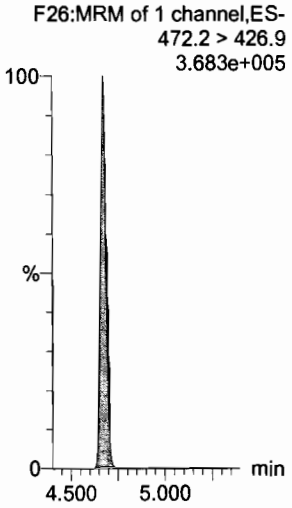
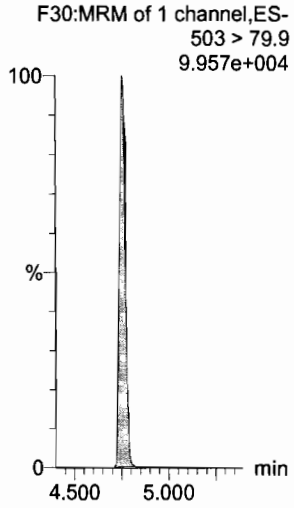
Last Altered: Friday, December 29, 2017 16:10:03 Pacific Standard Time
Printed: Friday, December 29, 2017 16:10:34 Pacific Standard Time

Name: 171229M2_14, Date: 29-Dec-2017, Time: 15:54:47, ID: ICV171229M2-2 PFC ICV 17L1201, Description: PFC ICV 17L1201

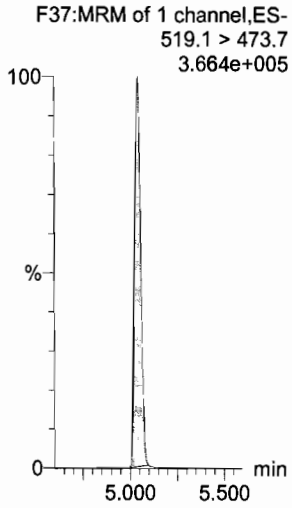
13C9-PFNA



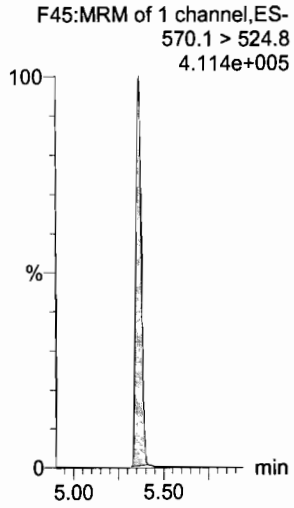
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

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

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Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

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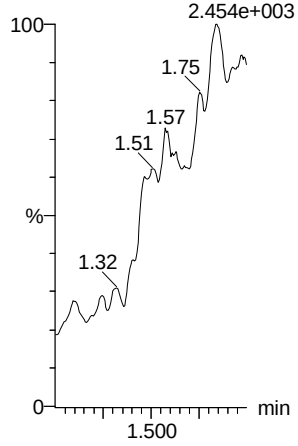
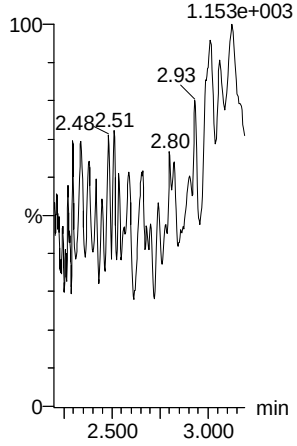
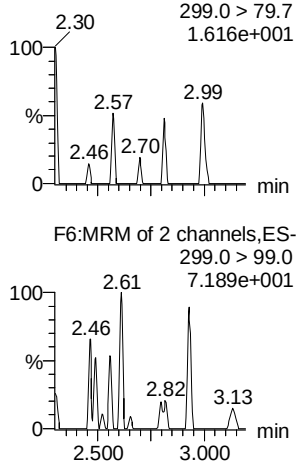


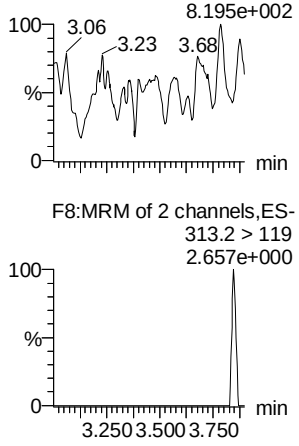
PFPeA



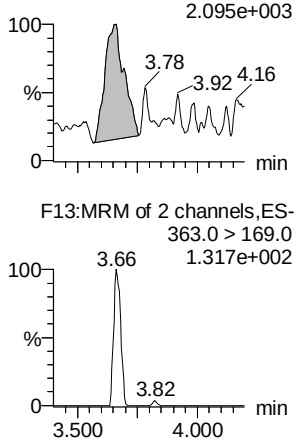
PFBS



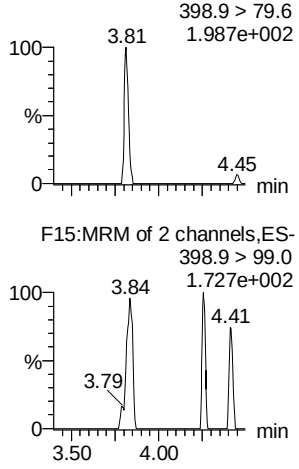
PFHxA



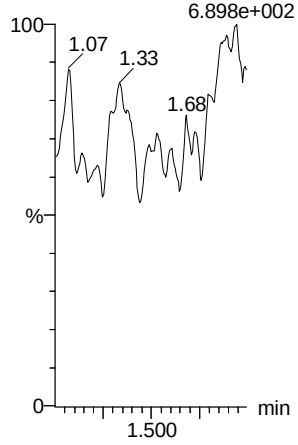
PFHpA



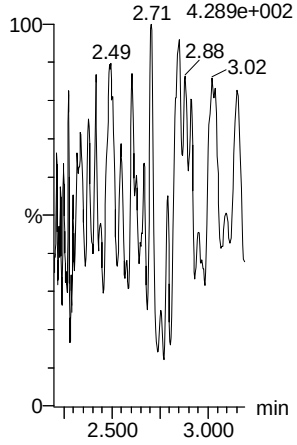
L-PFHxS



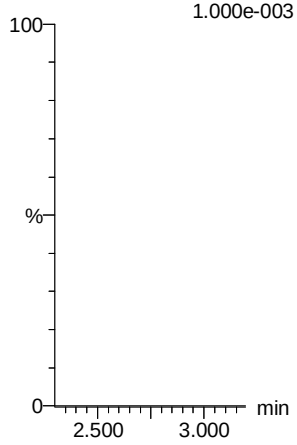
13C3-PFBA



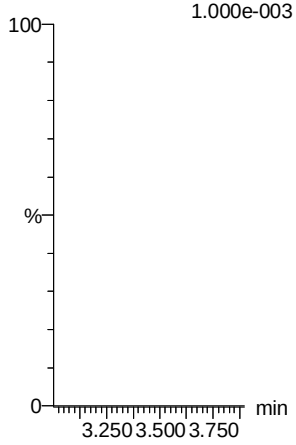
13C3-PFPeA



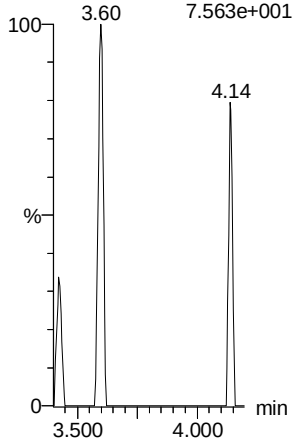
13C3-PFBS



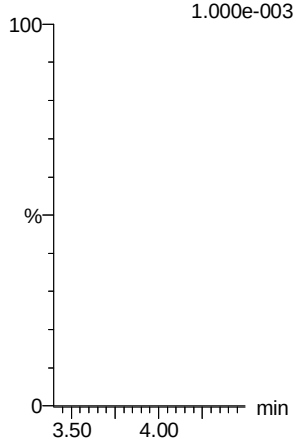
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



AC 12/30/17

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171229M2\171229M2-12.qld

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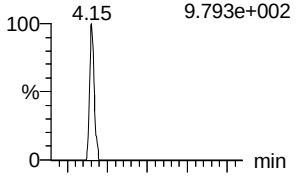
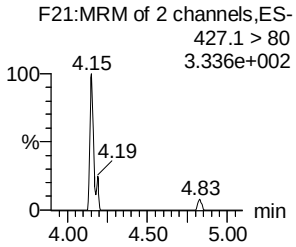
Printed: Saturday, December 30, 2017 10:27:32 Pacific Standard Time

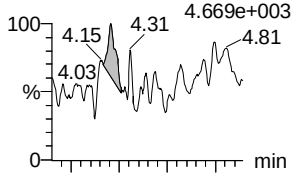
Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

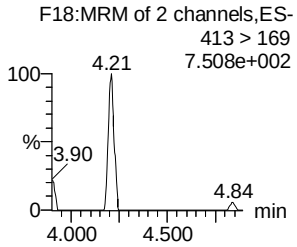
6:2 FTS



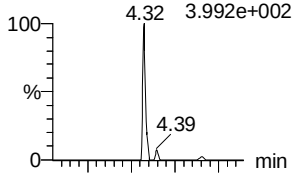


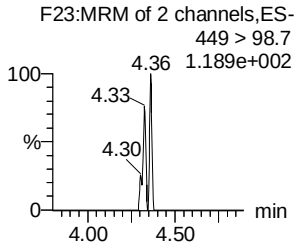
L-PFOA



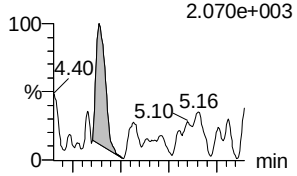


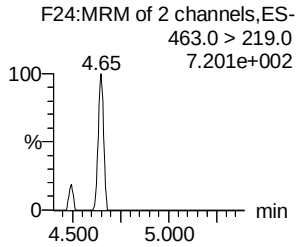
PFHpS



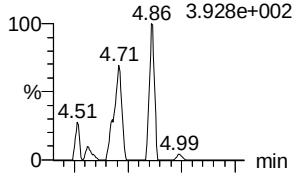


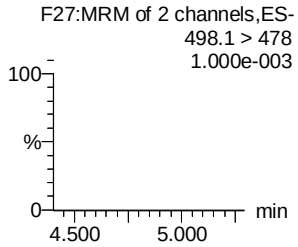
PFNA



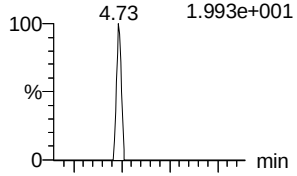


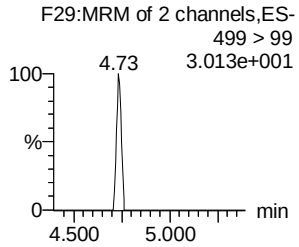
PFOSA



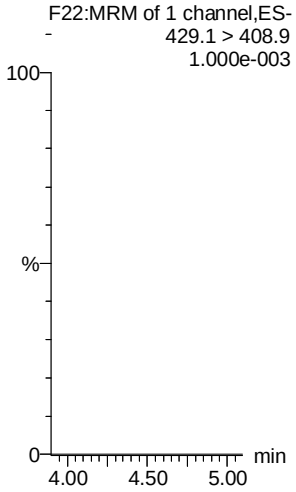


L-PFOS

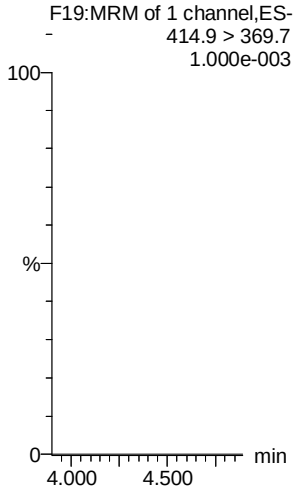




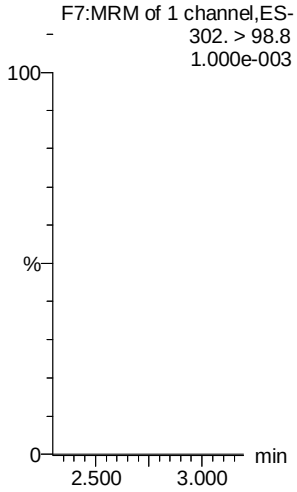
13C2-6:2 FTS



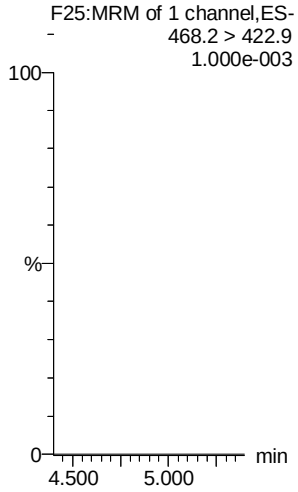
13C2-PFOA



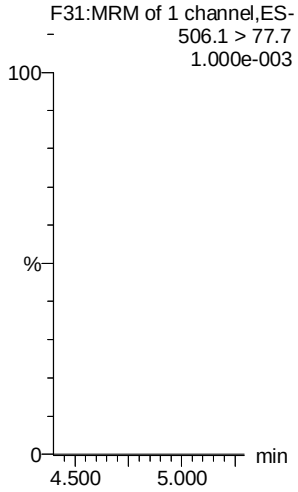
13C3-PFBS



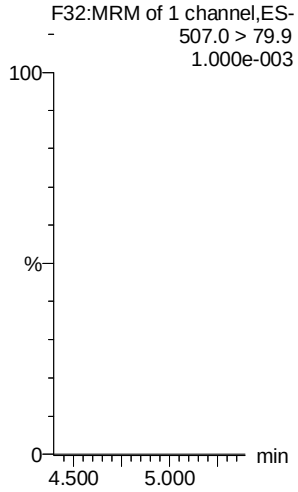
13C5-PFNA



13C8-PFOSA



13C8-PFOS



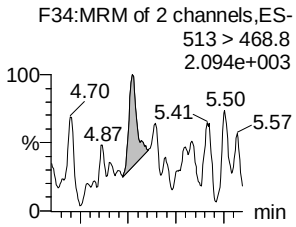
AC 12/30/17

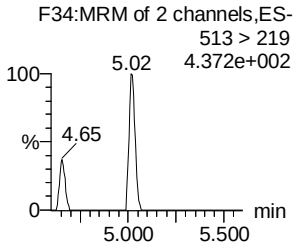
Dataset: U:\Q4.PRO\results\171229M2\171229M2-12.qld

Last Altered: Saturday, December 30, 2017 10:26:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 10:27:32 Pacific Standard Time

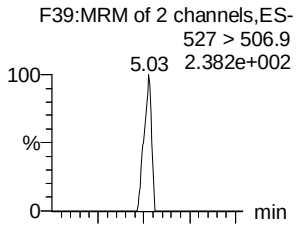
Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

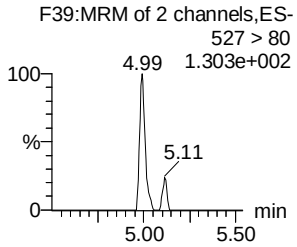
PFDA



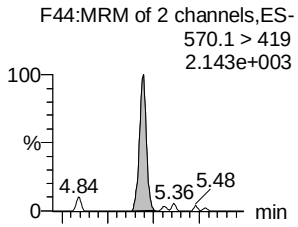


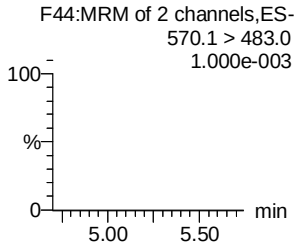
8:2 FTS





N-MeFOSAA





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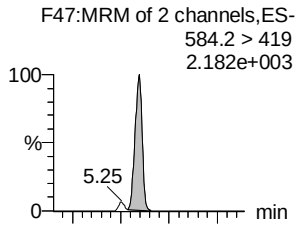
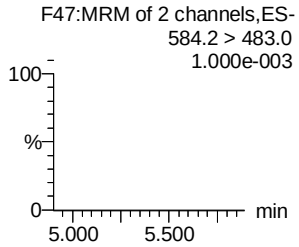
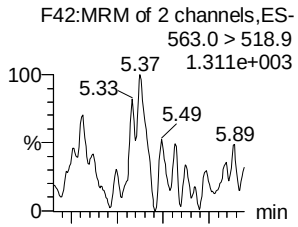
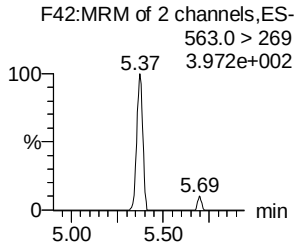




PFUdA





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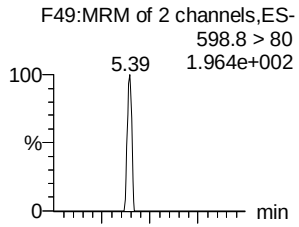
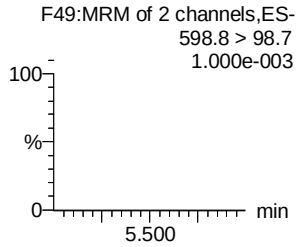
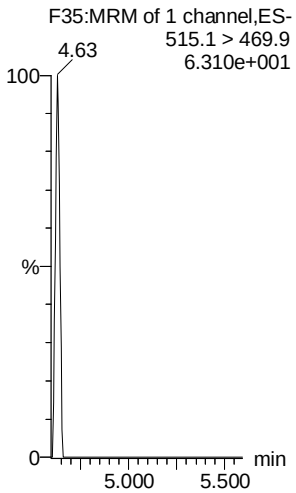
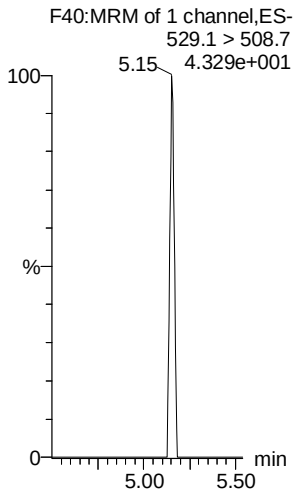




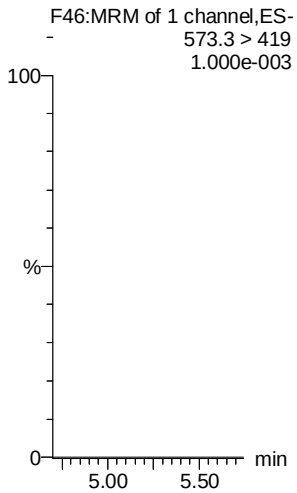
13C2-PFDA



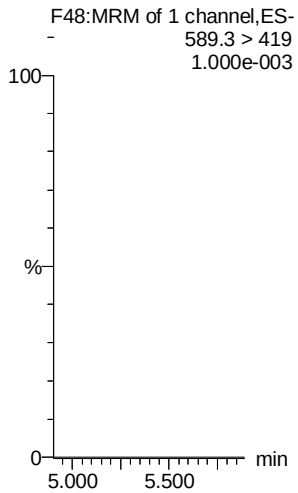
13C2-8:2 FTS



d3-N-MeFOSAA



d5-N-EtFOSAA



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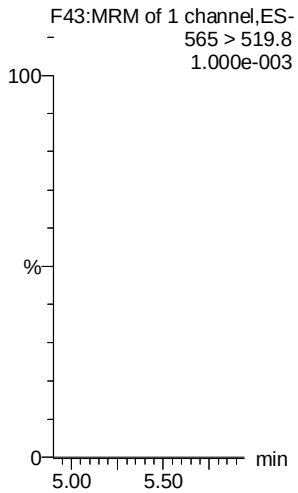

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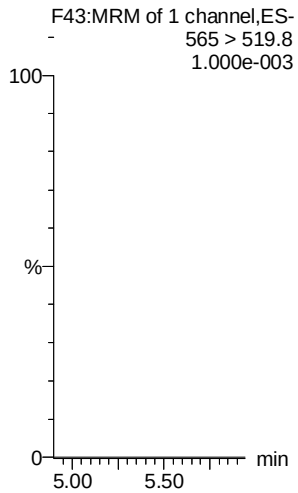

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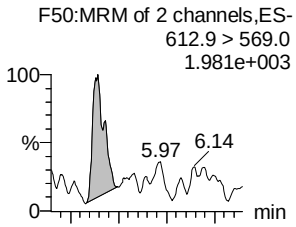
Vista Analytical Laboratory

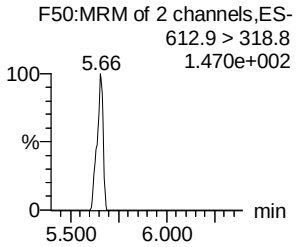
Dataset: U:\Q4.PRO\results\171229M2\171229M2-12.qld

Last Altered: Saturday, December 30, 2017 10:26:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 10:27:32 Pacific Standard Time

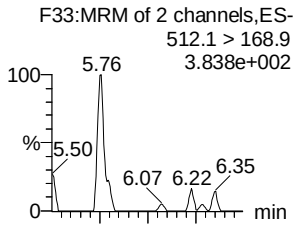
Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

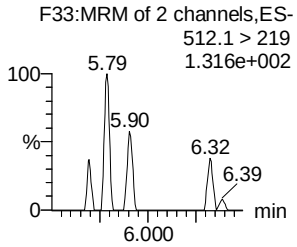
PFDoA





N-MeFOSA





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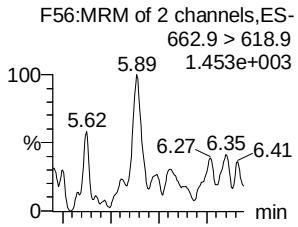

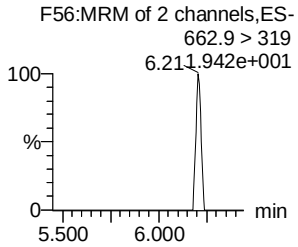

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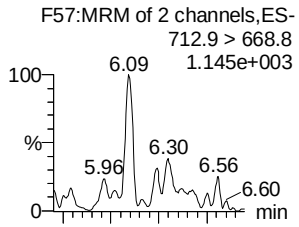
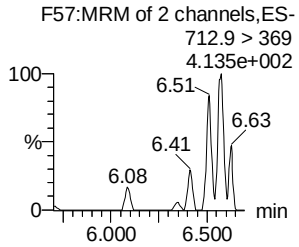
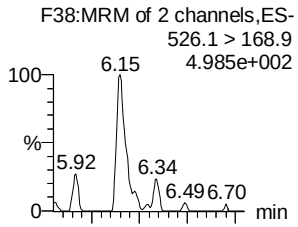
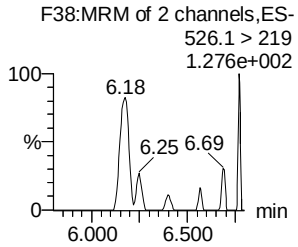


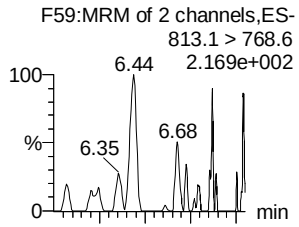


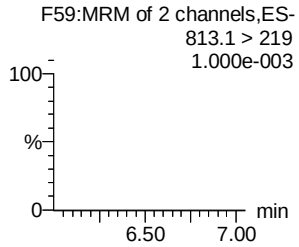
N-EtFOSA



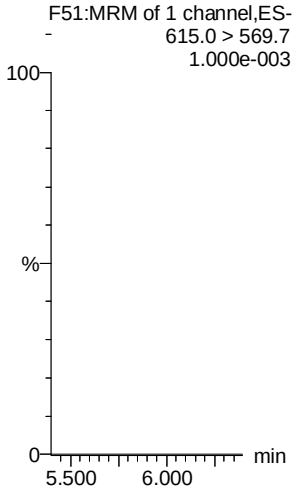


PFHxDA

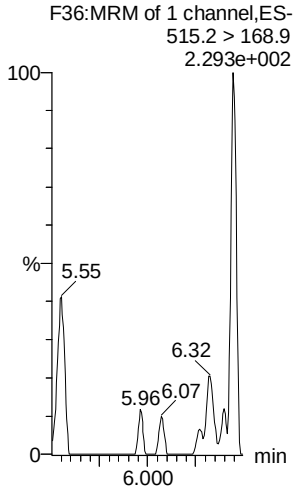




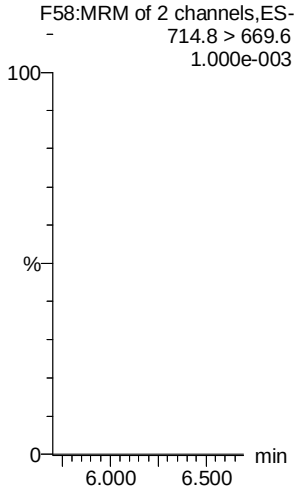
13C2-PFDoA



d3-N-MeFOSA



13C2-PFTeDA



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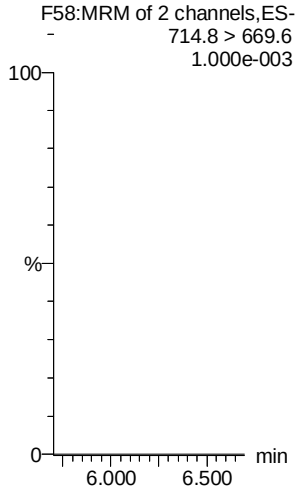
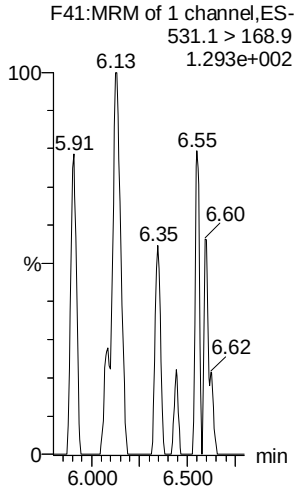


d5-N-ETFOSA



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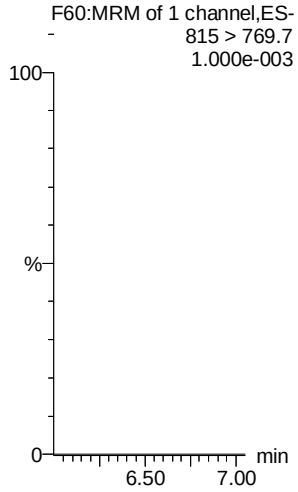

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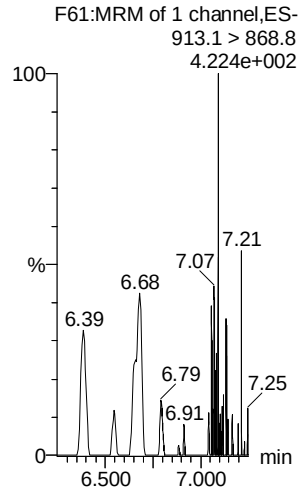
Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171229M2\171229M2-12.qld

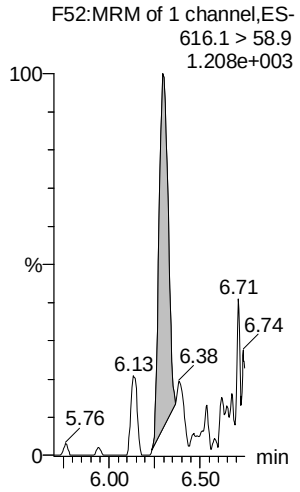
Last Altered: Saturday, December 30, 2017 10:26:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 10:27:32 Pacific Standard Time

Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

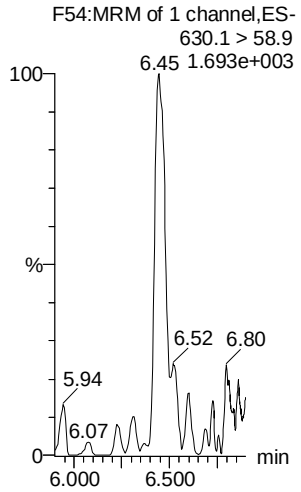
PFODA



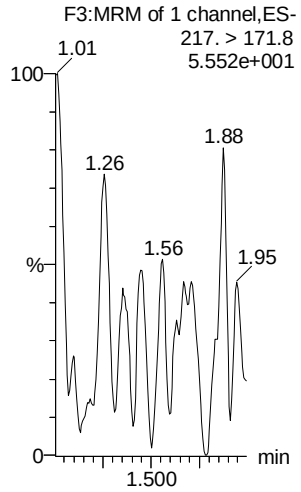
N-MeFOSE



N-EtFOSE



13C4-PFBA



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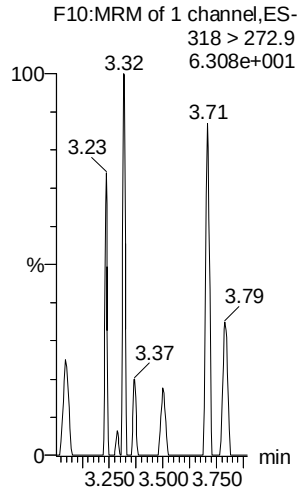
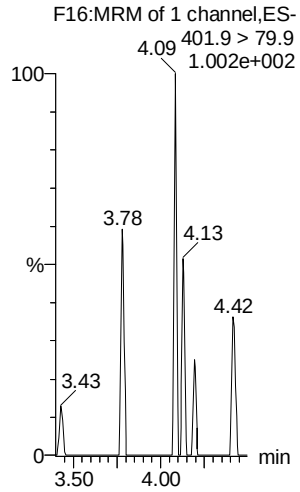


13C3-PFHxS



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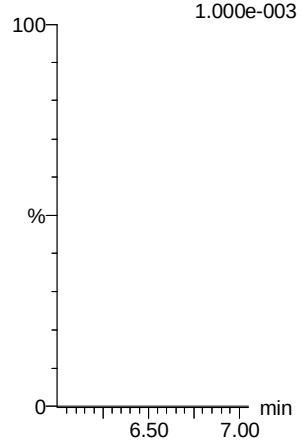
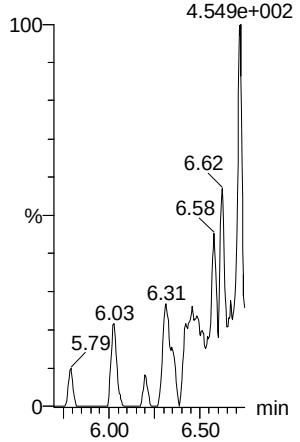
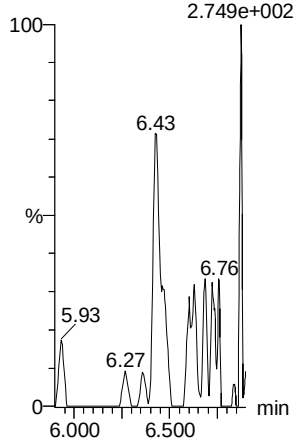


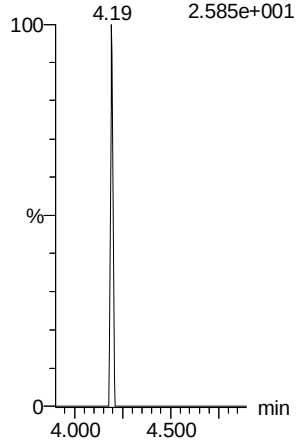
d7-N-MeFOSE



d9-N-EtFOSE



13C8-PFOA



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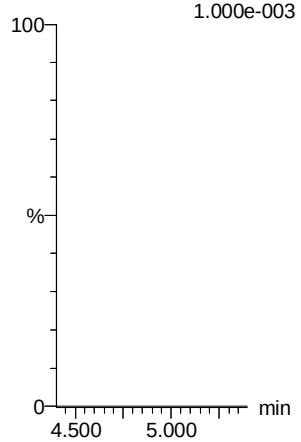
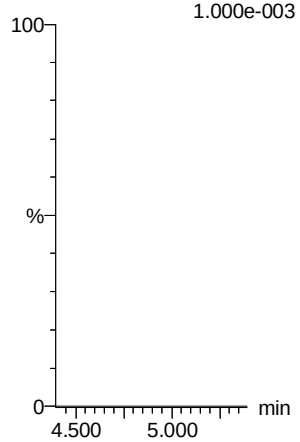


13C4-PFOS



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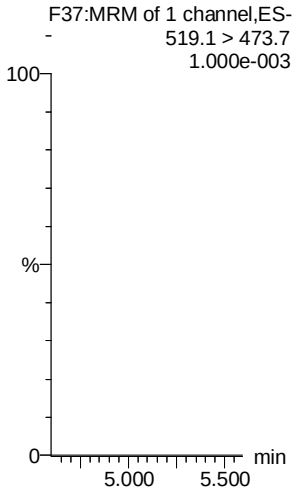
Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171229M2\171229M2-12.qld

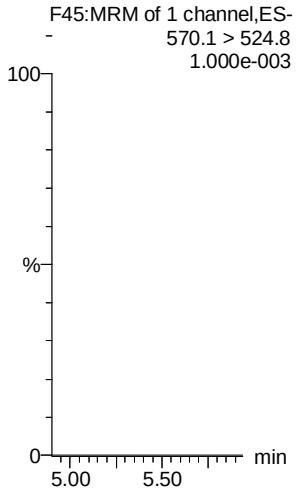
Last Altered: Saturday, December 30, 2017 10:26:21 Pacific Standard Time
Printed: Saturday, December 30, 2017 10:27:32 Pacific Standard Time

Name: 171229M2_12, Date: 29-Dec-2017, Time: 15:23:31, ID: IPA, Description: IPA

13C6-PFDA



13C7-PFUdA



AC 12/30/17

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 11:12:59 Pacific Standard Time
Printed: Wednesday, January 03, 2018 11:15:10 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 03 Jan 2018 08:57:44
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

AC 1/3/18
VJA 01/03/2018

Compound name: PFBA
Correlation coefficient: r = 0.999791, r^2 = 0.999582
Calibration curve: 1.41407 * x + -0.110571
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	180102M2_2	Standard	0.250	1.32	133.430	7679.443	0.217	0.2	-7.3	NO	1.000	NO	MM
2	2	180102M2_3	Standard	0.500	1.33	316.689	7379.304	0.536	0.5	-8.5	NO	1.000	NO	MM
3	3	180102M2_4	Standard	1.000	1.34	736.662	7688.878	1.198	0.9	-7.5	NO	1.000	NO	bb
4	4	180102M2_5	Standard	2.000	1.33	1599.927	7962.546	2.512	1.9	-7.3	NO	1.000	NO	bb
5	5	180102M2_6	Standard	5.000	1.33	4627.116	8693.651	6.653	4.8	-4.3	NO	1.000	NO	bb
6	6	180102M2_7	Standard	10.000	1.33	9158.581	7877.662	14.533	10.4	3.6	NO	1.000	NO	bb
7	7	180102M2_8	Standard	50.000	1.33	43935.418	7793.737	70.466	49.9	-0.2	NO	1.000	NO	bb
8	8	180102M2_9	Standard	100.000	1.33	90157.727	7957.421	141.625	100.2	0.2	NO	1.000	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.999811, r^2 = 0.999622
Calibration curve: 1.24942 * x + -0.05615
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	180102M2_2	Standard	0.250	2.29	195.129	8771.149	0.278	0.3	7.0	NO	1.000	NO	MM
2	2	180102M2_3	Standard	0.500	2.29	418.951	8708.200	0.601	0.5	5.3	NO	1.000	NO	bb
3	3	180102M2_4	Standard	1.000	2.29	856.387	9069.425	1.180	1.0	-1.0	NO	1.000	NO	bb
4	4	180102M2_5	Standard	2.000	2.29	1652.619	9109.592	2.268	1.9	-7.0	NO	1.000	NO	bb
5	5	180102M2_6	Standard	5.000	2.30	4810.782	10001.896	6.012	4.9	-2.9	NO	1.000	NO	bb
6	6	180102M2_7	Standard	10.000	2.30	8845.332	9179.234	12.045	9.7	-3.1	NO	1.000	NO	bb
7	7	180102M2_8	Standard	50.000	2.30	45689.668	8932.026	63.941	51.2	2.4	NO	1.000	NO	bb
8	8	180102M2_9	Standard	100.000	2.30	89158.703	8983.092	124.065	99.3	-0.7	NO	1.000	NO	bb

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Compound name: PFBS
Correlation coefficient: r = 0.999631, r^2 = 0.999262
Calibration curve: 2.21075 * x + -0.178043
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	180102M2_2	Standard	0.250	2.58	45.008	1181.301	0.476	0.3	18.4	NO	0.999	NO	MM
2	2	180102M2_3	Standard	0.500	2.57	85.371	1141.135	0.935	0.5	0.7	NO	0.999	NO	bb
3	3	180102M2_4	Standard	1.000	2.58	181.124	1152.078	1.965	1.0	-3.1	NO	0.999	NO	bb
4	4	180102M2_5	Standard	2.000	2.58	360.275	1269.738	3.547	1.7	-15.8	NO	0.999	NO	bb
5	5	180102M2_6	Standard	5.000	2.58	1095.079	1301.825	10.515	4.8	-3.3	NO	0.999	NO	bb
6	6	180102M2_7	Standard	10.000	2.58	2190.513	1233.457	22.199	10.1	1.2	NO	0.999	NO	bb
7	7	180102M2_8	Standard	50.000	2.58	10565.378	1163.406	113.518	51.4	2.9	NO	0.999	NO	bb
8	8	180102M2_9	Standard	100.000	2.58	20015.322	1145.117	218.486	98.9	-1.1	NO	0.999	NO	bb

Compound name: PFHxA
Correlation coefficient: r = 0.999826, r^2 = 0.999652
Calibration curve: 1.87024 * x + -0.00601342
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	180102M2_2	Standard	0.250	3.07	277.833	2786.930	0.498	0.3	7.9	NO	1.000	NO	bb
2	2	180102M2_3	Standard	0.500	3.07	518.870	2774.891	0.935	0.5	0.6	NO	1.000	NO	bb
3	3	180102M2_4	Standard	1.000	3.07	1015.502	2891.223	1.756	0.9	-5.8	NO	1.000	NO	bb
4	4	180102M2_5	Standard	2.000	3.07	1912.217	2818.971	3.392	1.8	-9.2	NO	1.000	NO	bb
5	5	180102M2_6	Standard	5.000	3.07	6170.946	3243.789	9.512	5.1	1.8	NO	1.000	NO	bb
6	6	180102M2_7	Standard	10.000	3.07	10937.149	2801.342	19.521	10.4	4.4	NO	1.000	NO	bb
7	7	180102M2_8	Standard	50.000	3.07	50017.852	2645.966	94.517	50.5	1.1	NO	1.000	NO	bb
8	8	180102M2_9	Standard	100.000	3.07	108583.602	2927.999	185.423	99.1	-0.9	NO	1.000	NO	bb

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Compound name: PFHpA
Correlation coefficient: r = 0.999512, r^2 = 0.999024
Calibration curve: 1.60481 * x + -0.093655
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	180102M2_2	Standard	0.250	3.69	187.645	7535.956	0.311	0.3	0.9	NO	0.999	NO	bb
2	2	180102M2_3	Standard	0.500	3.69	339.072	6210.619	0.682	0.5	-3.3	NO	0.999	NO	bb
3	3	180102M2_4	Standard	1.000	3.68	816.133	7248.519	1.407	0.9	-6.5	NO	0.999	NO	bb
4	4	180102M2_5	Standard	2.000	3.68	1862.432	7337.285	3.173	2.0	1.8	NO	0.999	NO	bb
5	5	180102M2_6	Standard	5.000	3.69	5258.148	8242.492	7.974	5.0	0.5	NO	0.999	NO	bb
6	6	180102M2_7	Standard	10.000	3.69	10093.437	7242.242	17.421	10.9	9.1	NO	0.999	NO	bb
7	7	180102M2_8	Standard	50.000	3.69	44724.414	7227.423	77.352	48.3	-3.5	NO	0.999	NO	bb
8	8	180102M2_9	Standard	100.000	3.69	88920.313	6872.139	161.741	100.8	0.8	NO	0.999	NO	bb

Compound name: L-PFHxS
Correlation coefficient: r = 0.999178, r^2 = 0.998357
Calibration curve: 1.9979 * x + -0.0316488
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	180102M2_2	Standard	0.250	3.83	35.877	876.585	0.512	0.3	8.8	NO	0.998	NO	MM
2	2	180102M2_3	Standard	0.500	3.83	59.717	975.615	0.765	0.4	-20.2	NO	0.998	NO	MM
3	3	180102M2_4	Standard	1.000	3.84	151.775	980.415	1.935	1.0	-1.6	NO	0.998	NO	MM
4	4	180102M2_5	Standard	2.000	3.84	324.389	935.565	4.334	2.2	9.3	NO	0.998	NO	MM
5	5	180102M2_6	Standard	5.000	3.84	904.931	1187.076	9.529	4.8	-4.3	NO	0.998	NO	MM
6	6	180102M2_7	Standard	10.000	3.84	1826.527	1076.210	21.215	10.6	6.3	NO	0.998	NO	MM
7	7	180102M2_8	Standard	50.000	3.84	8250.046	988.496	104.326	52.2	4.5	NO	0.998	NO	MM
8	8	180102M2_9	Standard	100.000	3.84	15698.343	1010.053	194.276	97.3	-2.7	NO	0.998	NO	MM

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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.999391
Calibration curve: 0.000388154 * x^2 + 0.304544 * x + -0.033568
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 180102M2_2	Standard	0.250	4.16	46.499	10253.480	0.057	0.3	18.5	NO	0.999	NO	MM
2	2 180102M2_3	Standard	0.500	4.16	85.017	11050.722	0.096	0.4	-14.8	NO	0.999	NO	bb
3	3 180102M2_4	Standard	1.000	4.15	248.949	11297.149	0.275	1.0	1.3	NO	0.999	NO	bb
4	4 180102M2_5	Standard	2.000	4.15	475.032	11350.530	0.523	1.8	-8.8	NO	0.999	NO	bb
5	5 180102M2_6	Standard	5.000	4.16	1402.688	11281.333	1.554	5.2	3.6	NO	0.999	NO	bb
6	6 180102M2_7	Standard	10.000	4.15	2855.455	11669.804	3.059	10.0	0.3	NO	0.999	NO	bb
7	7 180102M2_8	Standard	50.000	4.15	13225.257	10230.492	16.159	50.0	-0.0	NO	0.999	NO	bb
8	8 180102M2_9	Standard	100.000	4.15	25190.375	10901.502	28.884	85.6	-14.4	NO	0.999	NO	bbX

Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.999271
Calibration curve: -0.000103873 * x^2 + 1.25172 * x + 0.219686
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 180102M2_2	Standard	0.250	4.21	504.171	10253.480	0.615	0.3	26.2	NO	0.999	NO	MM
2	2 180102M2_3	Standard	0.500	4.21	731.494	11050.722	0.827	0.5	-2.9	NO	0.999	NO	bb
3	3 180102M2_4	Standard	1.000	4.21	1202.276	11297.149	1.330	0.9	-11.3	NO	0.999	NO	bb
4	4 180102M2_5	Standard	2.000	4.21	2295.707	11350.530	2.528	1.8	-7.8	NO	0.999	NO	bb
5	5 180102M2_6	Standard	5.000	4.21	5753.975	11281.333	6.376	4.9	-1.6	NO	0.999	NO	bb
6	6 180102M2_7	Standard	10.000	4.21	11303.767	11669.804	12.108	9.5	-5.0	NO	0.999	NO	bb
7	7 180102M2_8	Standard	50.000	4.21	52693.516	10230.492	64.383	51.5	3.0	NO	0.999	NO	bb
8	8 180102M2_9	Standard	100.000	4.21	107713.055	10901.502	123.507	99.3	-0.7	NO	0.999	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.997002
Calibration curve: -0.000453199 * x^2 + 0.312955 * x + -0.0835439
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	180102M2_2	Standard	0.250	4.32	60.548	10253.480	0.074	0.5	101.3	NO	0.997	NO	bbX
2	2	180102M2_3	Standard	0.500	4.32	97.532	11050.722	0.110	0.6	24.0	NO	0.997	NO	bb
3	3	180102M2_4	Standard	1.000	4.32	207.092	11297.149	0.229	1.0	0.1	NO	0.997	NO	bb
4	4	180102M2_5	Standard	2.000	4.32	437.136	11350.530	0.481	1.8	-9.5	NO	0.997	NO	bb
5	5	180102M2_6	Standard	5.000	4.32	1207.311	11281.333	1.338	4.6	-8.6	NO	0.997	NO	bb
6	6	180102M2_7	Standard	10.000	4.32	2494.892	11669.804	2.672	8.9	-10.8	NO	0.997	NO	bb
7	7	180102M2_8	Standard	50.000	4.32	12533.765	10230.492	15.314	53.3	6.6	NO	0.997	NO	bb
8	8	180102M2_9	Standard	100.000	4.32	22918.361	10901.502	26.279	98.2	-1.8	NO	0.997	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.998828
Calibration curve: -0.0026515 * x^2 + 1.47025 * x + -0.0610636
Response type: Internal Std (Ref 39), 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	180102M2_2	Standard	0.250	4.65	169.052	8691.937	0.243	0.2	-17.2	NO	0.999	NO	bb
2	2	180102M2_3	Standard	0.500	4.65	432.718	7683.161	0.704	0.5	4.2	NO	0.999	NO	bb
3	3	180102M2_4	Standard	1.000	4.65	901.739	7595.522	1.484	1.1	5.3	NO	0.999	NO	bb
4	4	180102M2_5	Standard	2.000	4.65	1783.958	9038.605	2.467	1.7	-13.8	NO	0.999	NO	bb
5	5	180102M2_6	Standard	5.000	4.65	6637.959	10988.831	7.551	5.2	4.5	NO	0.999	NO	bb
6	6	180102M2_7	Standard	10.000	4.65	9878.730	8553.649	14.436	10.0	0.4	NO	0.999	NO	bb
7	7	180102M2_8	Standard	50.000	4.65	52029.359	9737.121	66.793	50.0	-0.1	NO	0.999	NO	bb
8	8	180102M2_9	Standard	100.000	4.65	108784.531	8681.578	156.631	143.9	43.9	NO	0.999	NO	bbX

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Compound name: PFOSA
Correlation coefficient: r = 0.999523, r^2 = 0.999047
Calibration curve: 1.3556 * x + -0.0180652
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	180102M2_2	Standard	0.250	4.71	102.892	3084.802	0.417	0.3	28.4	NO	0.999	NO	bb
2	2	180102M2_3	Standard	0.500	4.71	143.012	2870.135	0.623	0.5	-5.4	NO	0.999	NO	bb
3	3	180102M2_4	Standard	1.000	4.71	260.685	3118.891	1.045	0.8	-21.6	NO	0.999	NO	bb
4	4	180102M2_5	Standard	2.000	4.71	637.889	3245.851	2.457	1.8	-8.7	NO	0.999	NO	bb
5	5	180102M2_6	Standard	5.000	4.71	1699.651	3144.589	6.756	5.0	-0.1	NO	0.999	NO	bb
6	6	180102M2_7	Standard	10.000	4.71	3065.491	2639.988	14.515	10.7	7.2	NO	0.999	NO	bb
7	7	180102M2_8	Standard	50.000	4.71	15233.161	2775.264	68.611	50.6	1.3	NO	0.999	NO	bb
8	8	180102M2_9	Standard	100.000	4.71	34198.551	3185.676	134.189	99.0	-1.0	NO	0.999	NO	bb

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.999016
Calibration curve: 0.00240525 * x^2 + 0.993312 * x + 0.0576985
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	180102M2_2	Standard	0.250	4.73	45.392	1962.993	0.289	0.2	-6.9	NO	0.999	NO	MM
2	2	180102M2_3	Standard	0.500	4.73	115.118	2365.519	0.608	0.6	10.7	NO	0.999	NO	MM
3	3	180102M2_4	Standard	1.000	4.73	220.888	2404.826	1.148	1.1	9.5	NO	0.999	NO	MM
4	4	180102M2_5	Standard	2.000	4.73	449.043	2701.989	2.077	2.0	1.2	NO	0.999	NO	MM
5	5	180102M2_6	Standard	5.000	4.73	1249.128	2982.788	5.235	5.1	3.0	NO	0.999	NO	MM
6	6	180102M2_7	Standard	10.000	4.73	2587.916	2905.263	11.135	10.9	8.7	NO	0.999	NO	MM
7	7	180102M2_8	Standard	50.000	4.73	10285.645	2402.318	53.519	48.2	-3.6	NO	0.999	NO	MM
8	8	180102M2_9	Standard	100.000	4.73	27177.135	2729.716	124.450	100.7	0.7	NO	0.999	NO	MM

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.996665
Calibration curve: -0.00380311 * x^2 + 1.68255 * x + -0.179654
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 180102M2_2	Standard	0.250	5.02	188.776	9409.795	0.251	0.3	2.4	NO	0.997	NO	bb
2	2 180102M2_3	Standard	0.500	5.02	434.026	6177.648	0.878	0.6	25.9	NO	0.997	NO	bb
3	3 180102M2_4	Standard	1.000	5.02	913.680	7943.417	1.438	1.0	-3.7	NO	0.997	NO	bb
4	4 180102M2_5	Standard	2.000	5.02	1855.236	8068.738	2.874	1.8	-8.9	NO	0.997	NO	bb
5	5 180102M2_6	Standard	5.000	5.02	6252.152	10867.858	7.191	4.4	-11.5	NO	0.997	NO	bb
6	6 180102M2_7	Standard	10.000	5.03	11102.589	9396.339	14.770	9.1	-9.3	NO	0.997	NO	bb
7	7 180102M2_8	Standard	50.000	5.02	50007.871	7894.606	79.180	53.7	7.4	NO	0.997	NO	bb
8	8 180102M2_9	Standard	100.000	5.02	101693.664	9940.610	127.877	97.7	-2.3	NO	0.997	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.999379
Calibration curve: 0.00321238 * x^2 + 1.21 * x + 0.026507
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 180102M2_2	Standard	0.250	4.99	78.019	1962.993	0.497	0.4	55.3	NO	0.999	NO	bbX
2	2 180102M2_3	Standard	0.500	4.99	121.430	2365.519	0.642	0.5	1.5	NO	0.999	NO	bb
3	3 180102M2_4	Standard	1.000	4.99	237.716	2404.826	1.236	1.0	-0.3	NO	0.999	NO	bb
4	4 180102M2_5	Standard	2.000	4.99	530.424	2701.989	2.454	2.0	-0.2	NO	0.999	NO	bb
5	5 180102M2_6	Standard	5.000	4.99	1578.239	2982.788	6.614	5.4	7.4	NO	0.999	NO	bb
6	6 180102M2_7	Standard	10.000	4.99	2773.601	2905.263	11.934	9.6	-4.0	NO	0.999	NO	bb
7	7 180102M2_8	Standard	50.000	4.99	13186.767	2402.318	68.615	50.0	0.1	NO	0.999	NO	bb
8	8 180102M2_9	Standard	100.000	4.99	26248.576	2729.716	120.198	81.6	-18.4	NO	0.999	NO	bbX

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.995661
Calibration curve: -0.00295106 * x^2 + 2.02309 * x + -0.48271
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	180102M2_2	Standard	0.250	5.18	146.003	4037.611	0.452	0.5	84.9	NO	0.996	NO	bbX
2	2	180102M2_3	Standard	0.500	5.18	165.121	4428.044	0.466	0.5	-6.1	NO	0.996	NO	bb
3	3	180102M2_4	Standard	1.000	5.18	503.131	4239.640	1.483	1.0	-2.7	NO	0.996	NO	bb
4	4	180102M2_5	Standard	2.000	5.18	896.785	4568.624	2.454	1.5	-27.3	NO	0.996	NO	bb
5	5	180102M2_6	Standard	5.000	5.18	3131.262	4889.789	8.005	4.2	-15.6	NO	0.996	NO	bb
6	6	180102M2_7	Standard	10.000	5.18	6267.033	4051.958	19.333	9.9	-0.6	NO	0.996	NO	bb
7	7	180102M2_8	Standard	50.000	5.18	31284.895	3956.298	98.845	53.2	6.5	NO	0.996	NO	bb
8	8	180102M2_9	Standard	100.000	5.18	60237.043	4438.268	169.652	98.1	-1.9	NO	0.996	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.997767
Calibration curve: 9.13857e-005 * x^2 + 1.33013 * x + -0.086728
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	180102M2_2	Standard	0.250	5.33	121.493	4884.998	0.311	0.3	19.6	NO	0.998	NO	bb
2	2	180102M2_3	Standard	0.500	5.33	193.938	4813.042	0.504	0.4	-11.2	NO	0.998	NO	bb
3	3	180102M2_4	Standard	1.000	5.33	525.972	5595.485	1.175	0.9	-5.1	NO	0.998	NO	bb
4	4	180102M2_5	Standard	2.000	5.33	737.799	5133.932	1.796	1.4	-29.2	NO	0.998	NO	bb
5	5	180102M2_6	Standard	5.000	5.33	2792.286	5962.557	5.854	4.5	-10.7	NO	0.998	NO	bb
6	6	180102M2_7	Standard	10.000	5.33	5926.133	5089.167	14.556	11.0	10.0	NO	0.998	NO	bb
7	7	180102M2_8	Standard	50.000	5.33	26036.283	4837.116	67.283	50.5	0.9	NO	0.998	NO	bb
8	8	180102M2_9	Standard	100.000	5.33	49957.531	4679.708	133.442	99.7	-0.3	NO	0.998	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.999792
Calibration curve: 0.00151861 * x^2 + 1.26795 * x + -0.0897658
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	180102M2_2	Standard	0.250	5.35	281.464	11795.863	0.298	0.3	22.4	NO	1.000	NO	bb
2	2	180102M2_3	Standard	0.500	5.35	377.855	9383.154	0.503	0.5	-6.5	NO	1.000	NO	bb
3	3	180102M2_4	Standard	1.000	5.35	978.323	11350.477	1.077	0.9	-8.0	NO	1.000	NO	bb
4	4	180102M2_5	Standard	2.000	5.35	1838.890	10189.292	2.256	1.8	-7.7	NO	1.000	NO	bb
5	5	180102M2_6	Standard	5.000	5.35	5316.464	10613.905	6.261	5.0	-0.4	NO	1.000	NO	bb
6	6	180102M2_7	Standard	10.000	5.35	10743.087	10589.070	12.682	10.0	-0.5	NO	1.000	NO	bb
7	7	180102M2_8	Standard	50.000	5.35	54328.406	10017.716	67.790	50.5	1.0	NO	1.000	NO	bb
8	8	180102M2_9	Standard	100.000	5.35	90727.727	8011.392	141.560	99.8	-0.2	NO	1.000	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.999404
Calibration curve: 0.000619715 * x^2 + 0.348908 * x + -0.0321756
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	180102M2_2	Standard	0.250	5.40	54.250	11795.863	0.057	0.3	2.7	NO	0.999	NO	MM
2	2	180102M2_3	Standard	0.500	5.39	134.482	9383.154	0.179	0.6	21.0	NO	0.999	NO	bb
3	3	180102M2_4	Standard	1.000	5.40	209.579	11350.477	0.231	0.8	-24.7	NO	0.999	NO	bb
4	4	180102M2_5	Standard	2.000	5.40	506.416	10189.292	0.621	1.9	-6.7	NO	0.999	NO	bb
5	5	180102M2_6	Standard	5.000	5.40	1580.514	10613.905	1.861	5.4	7.5	NO	0.999	NO	bb
6	6	180102M2_7	Standard	10.000	5.40	2996.446	10589.070	3.537	10.1	0.5	NO	0.999	NO	bb
7	7	180102M2_8	Standard	50.000	5.39	15115.732	10017.716	18.861	49.8	-0.5	NO	0.999	NO	bb
8	8	180102M2_9	Standard	100.000	5.40	26341.176	8011.392	41.100	100.1	0.1	NO	0.999	NO	bb

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998777
Calibration curve: -0.00160285 * x^2 + 2.48629 * x + -0.22897
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	180102M2_2	Standard	0.250	5.63	338.603	7412.730	0.571	0.3	28.7	NO	0.999	NO	bb
2	2	180102M2_3	Standard	0.500	5.63	534.028	6530.110	1.022	0.5	0.7	NO	0.999	NO	bb
3	3	180102M2_4	Standard	1.000	5.63	925.550	5725.445	2.021	0.9	-9.5	NO	0.999	NO	bb
4	4	180102M2_5	Standard	2.000	5.63	2155.063	7762.978	3.470	1.5	-25.5	NO	0.999	NO	bb
5	5	180102M2_6	Standard	5.000	5.63	6230.569	6324.164	12.315	5.1	1.2	NO	0.999	NO	bb
6	6	180102M2_7	Standard	10.000	5.63	12466.664	6115.064	25.484	10.4	4.1	NO	0.999	NO	bb
7	7	180102M2_8	Standard	50.000	5.63	55516.375	5756.736	120.547	50.2	0.4	NO	0.999	NO	bb
8	8	180102M2_9	Standard	100.000	5.63	109663.125	5907.151	232.056	99.9	-0.1	NO	0.999	NO	bb

Compound name: N-MeFOSA
Correlation coefficient: r = 0.999762, r^2 = 0.999523
Calibration curve: 1.1239 * x + -0.108539
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	180102M2_2	Standard	1.250	5.74	132.232	16043.687	1.236	1.2	-4.3	NO	1.000	NO	bb
2	2	180102M2_3	Standard	2.500	5.74	291.559	15513.691	2.819	2.6	4.2	NO	1.000	NO	bb
3	3	180102M2_4	Standard	5.000	5.74	525.825	15964.676	4.941	4.5	-10.2	NO	1.000	NO	bb
4	4	180102M2_5	Standard	10.000	5.74	1119.642	15841.742	10.602	9.5	-4.7	NO	1.000	NO	bb
5	5	180102M2_6	Standard	25.000	5.74	3347.026	17837.416	28.146	25.1	0.6	NO	1.000	NO	bb
6	6	180102M2_7	Standard	50.000	5.74	6455.166	16188.742	59.812	53.3	6.6	NO	1.000	NO	bb
7	7	180102M2_8	Standard	250.000	5.74	30288.393	16006.967	283.830	252.6	1.1	NO	1.000	NO	bb
8	8	180102M2_9	Standard	500.000	5.74	57847.578	15605.370	556.035	494.8	-1.0	NO	1.000	NO	bb

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Compound name: PFTrDA
Correlation coefficient: r = 0.999249, r^2 = 0.998498
Calibration curve: 5.6605 * x + -0.467093
Response type: Internal Std (Ref 49), 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	180102M2_2	Standard	0.250	5.89	277.814	2910.322	1.193	0.3	17.3	NO	0.998	NO	bb
2	2	180102M2_3	Standard	0.500	5.88	411.250	2442.518	2.105	0.5	-9.1	NO	0.998	NO	bb
3	3	180102M2_4	Standard	1.000	5.88	1163.026	2346.519	6.195	1.2	17.7	NO	0.998	NO	bb
4	4	180102M2_5	Standard	2.000	5.89	1925.857	2926.466	8.226	1.5	-23.2	NO	0.998	NO	bb
5	5	180102M2_6	Standard	5.000	5.89	5931.961	2891.711	25.642	4.6	-7.7	NO	0.998	NO	bb
6	6	180102M2_7	Standard	10.000	5.88	13812.504	2975.646	58.023	10.3	3.3	NO	0.998	NO	bb
7	7	180102M2_8	Standard	50.000	5.88	51607.465	2221.127	290.435	51.4	2.8	NO	0.998	NO	bb
8	8	180102M2_9	Standard	100.000	5.88	110358.539	2464.889	559.653	99.0	-1.0	NO	0.998	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.997476
Calibration curve: -0.00874416 * x^2 + 3.37255 * x + -0.193713
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	180102M2_2	Standard	0.250	6.11	155.613	2910.322	0.668	0.3	2.3	NO	0.997	NO	bb
2	2	180102M2_3	Standard	0.500	6.10	346.768	2442.518	1.775	0.6	16.9	NO	0.997	NO	bb
3	3	180102M2_4	Standard	1.000	6.10	603.105	2346.519	3.213	1.0	1.3	NO	0.997	NO	bb
4	4	180102M2_5	Standard	2.000	6.10	1419.695	2926.466	6.064	1.9	-6.8	NO	0.997	NO	bb
5	5	180102M2_6	Standard	5.000	6.11	3444.145	2891.711	14.888	4.5	-9.5	NO	0.997	NO	bb
6	6	180102M2_7	Standard	10.000	6.10	7116.754	2975.646	29.896	9.1	-8.6	NO	0.997	NO	bb
7	7	180102M2_8	Standard	50.000	6.10	27490.512	2221.127	154.710	53.3	6.6	NO	0.997	NO	bb
8	8	180102M2_9	Standard	100.000	6.10	48491.793	2464.889	245.913	97.7	-2.3	NO	0.997	NO	bb

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999640
Calibration curve: -2.4844e-005 * x^2 + 1.02224 * x + -0.049377
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	180102M2_2	Standard	1.250	6.15	212.599	23250.135	1.372	1.4	11.2	NO	1.000	NO	bb
2	2	180102M2_3	Standard	2.500	6.15	332.429	22543.910	2.212	2.2	-11.5	NO	1.000	NO	bb
3	3	180102M2_4	Standard	5.000	6.15	751.350	22784.709	4.946	4.9	-2.2	NO	1.000	NO	bb
4	4	180102M2_5	Standard	10.000	6.15	1555.895	24182.727	9.651	9.5	-5.1	NO	1.000	NO	bb
5	5	180102M2_6	Standard	25.000	6.15	4660.037	25951.254	26.935	26.4	5.7	NO	1.000	NO	bb
6	6	180102M2_7	Standard	50.000	6.15	8255.741	23514.104	52.665	51.6	3.3	NO	1.000	NO	bb
7	7	180102M2_8	Standard	250.000	6.15	38230.813	22960.252	249.763	245.8	-1.7	NO	1.000	NO	bb
8	8	180102M2_9	Standard	500.000	6.15	76544.398	22658.357	506.730	501.9	0.4	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998895
Calibration curve: -0.00112888 * x^2 + 1.06189 * x + 0.0169353
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	180102M2_2	Standard	0.250	6.44	122.613	2287.571	0.268	0.2	-5.4	NO	0.999	NO	bb
2	2	180102M2_3	Standard	0.500	6.44	238.979	1923.725	0.621	0.6	13.9	NO	0.999	NO	bb
3	3	180102M2_4	Standard	1.000	6.44	380.080	2087.165	0.911	0.8	-15.8	NO	0.999	NO	bb
4	4	180102M2_5	Standard	2.000	6.44	838.696	1935.460	2.167	2.0	1.4	NO	0.999	NO	bb
5	5	180102M2_6	Standard	5.000	6.44	2246.317	2134.108	5.263	5.0	-0.7	NO	0.999	NO	bb
6	6	180102M2_7	Standard	10.000	6.44	4191.203	1832.003	11.439	10.9	8.8	NO	0.999	NO	bb
7	7	180102M2_8	Standard	50.000	6.44	18382.549	1881.102	48.861	48.5	-3.0	NO	0.999	NO	bb
8	8	180102M2_9	Standard	100.000	6.44	34930.980	1828.044	95.542	100.7	0.7	NO	0.999	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.997481
Calibration curve: 0.00107929 * x^2 + 1.12186 * x + -0.011842
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	180102M2_2	Standard	0.250	6.67	124.985	2287.571	0.273	0.3	1.6	NO	0.997	NO	bb
2	2	180102M2_3	Standard	0.500	6.67	199.113	1923.725	0.518	0.5	-5.7	NO	0.997	NO	bb
3	3	180102M2_4	Standard	1.000	6.67	349.216	2087.165	0.837	0.8	-24.4	NO	0.997	NO	bb
4	4	180102M2_5	Standard	2.000	6.67	889.898	1935.460	2.299	2.1	2.8	NO	0.997	NO	bb
5	5	180102M2_6	Standard	5.000	6.67	2784.832	2134.108	6.525	5.8	15.9	NO	0.997	NO	bb
6	6	180102M2_7	Standard	10.000	6.67	4554.946	1832.003	12.432	11.0	9.8	NO	0.997	NO	bb
7	7	180102M2_8	Standard	50.000	6.67	20892.854	1881.102	55.534	47.4	-5.3	NO	0.997	NO	bb
8	8	180102M2_9	Standard	100.000	6.67	45494.445	1828.044	124.435	101.1	1.1	NO	0.997	NO	bb

Compound name: N-MeFOSE
Coefficient of Determination: R^2 = 0.998506
Calibration curve: 0.000105341 * x^2 + 1.17709 * x + -0.269877
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	180102M2_2	Standard	1.250	6.32	194.009	18647.293	1.561	1.6	24.4	NO	0.999	NO	bb
2	2	180102M2_3	Standard	2.500	6.32	402.526	23599.381	2.558	2.4	-3.9	NO	0.999	NO	bb
3	3	180102M2_4	Standard	5.000	6.32	789.621	21770.959	5.440	4.8	-3.0	NO	0.999	NO	bb
4	4	180102M2_5	Standard	10.000	6.32	1642.807	22482.695	10.960	9.5	-4.7	NO	0.999	NO	bb
5	5	180102M2_6	Standard	25.000	6.32	4507.014	25207.309	26.820	23.0	-8.1	NO	0.999	NO	bb
6	6	180102M2_7	Standard	50.000	6.32	8806.382	24505.541	53.904	45.8	-8.3	NO	0.999	NO	bb
7	7	180102M2_8	Standard	250.000	6.32	47261.012	22505.619	314.995	261.7	4.7	NO	0.999	NO	bb
8	8	180102M2_9	Standard	500.000	6.32	83348.844	20561.994	608.031	494.9	-1.0	NO	0.999	NO	bb

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.998320, r^2 = 0.996643
Calibration curve: 1.24163 * x + 0.370762
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	180102M2_2	Standard	1.250	6.47	223.713	23019.424	1.458	0.9	-30.0	NO	0.997	NO	MM
2	2	180102M2_3	Standard	2.500	6.46	436.147	20567.943	3.181	2.3	-9.5	NO	0.997	NO	bb
3	3	180102M2_4	Standard	5.000	6.47	864.033	17832.957	7.268	5.6	11.1	NO	0.997	NO	bb
4	4	180102M2_5	Standard	10.000	6.46	1891.609	19875.211	14.276	11.2	12.0	NO	0.997	NO	bb
5	5	180102M2_6	Standard	25.000	6.47	5346.759	25813.174	31.070	24.7	-1.1	NO	0.997	NO	bb
6	6	180102M2_7	Standard	50.000	6.46	11386.544	22655.969	75.388	60.4	20.8	NO	0.997	NO	bb
7	7	180102M2_8	Standard	250.000	6.46	45743.367	22587.609	303.773	244.4	-2.3	NO	0.997	NO	bb
8	8	180102M2_9	Standard	500.000	6.46	89916.203	21959.977	614.182	494.4	-1.1	NO	0.997	NO	bb

Compound name: 13C3-PFBA
Response Factor: 0.774545
RRF SD: 0.0140973, Relative SD: 1.82007
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	180102M2_2	Standard	12.500	1.32	7679.443	9795.079	9.800	12.7	1.2	NO		NO	bb
2	2	180102M2_3	Standard	12.500	1.33	7379.304	9353.119	9.862	12.7	1.9	NO		NO	bb
3	3	180102M2_4	Standard	12.500	1.33	7688.878	9888.167	9.720	12.5	0.4	NO		NO	bb
4	4	180102M2_5	Standard	12.500	1.33	7962.546	10208.585	9.750	12.6	0.7	NO		NO	bb
5	5	180102M2_6	Standard	12.500	1.33	8693.651	11545.845	9.412	12.2	-2.8	NO		NO	bb
6	6	180102M2_7	Standard	12.500	1.33	7877.662	10184.753	9.668	12.5	-0.1	NO		NO	bb
7	7	180102M2_8	Standard	12.500	1.33	7793.737	9914.055	9.827	12.7	1.5	NO		NO	bb
8	8	180102M2_9	Standard	12.500	1.33	7957.421	10564.219	9.416	12.2	-2.8	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 0.805228
RRF SD: 0.0287658, Relative SD: 3.57238
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	180102M2_2	Standard	12.500	2.29	8771.149	11257.119	9.740	12.1	-3.2	NO		NO	bb
2	2	180102M2_3	Standard	12.500	2.30	8708.200	11155.473	9.758	12.1	-3.1	NO		NO	bb
3	3	180102M2_4	Standard	12.500	2.30	9069.425	10715.271	10.580	13.1	5.1	NO		NO	bb
4	4	180102M2_5	Standard	12.500	2.29	9109.592	10941.471	10.407	12.9	3.4	NO		NO	bb
5	5	180102M2_6	Standard	12.500	2.30	10001.896	12852.977	9.727	12.1	-3.4	NO		NO	bb
6	6	180102M2_7	Standard	12.500	2.29	9179.234	11296.521	10.157	12.6	0.9	NO		NO	bb
7	7	180102M2_8	Standard	12.500	2.30	8932.026	10743.026	10.393	12.9	3.3	NO		NO	bb
8	8	180102M2_9	Standard	12.500	2.30	8983.092	11503.685	9.761	12.1	-3.0	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.106139
RRF SD: 0.00530931, Relative SD: 5.00223
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	180102M2_2	Standard	12.500	2.58	1181.301	11257.119	1.312	12.4	-1.1	NO		NO	bb
2	2	180102M2_3	Standard	12.500	2.58	1141.135	11155.473	1.279	12.0	-3.6	NO		NO	bb
3	3	180102M2_4	Standard	12.500	2.58	1152.078	10715.271	1.344	12.7	1.3	NO		NO	bb
4	4	180102M2_5	Standard	12.500	2.58	1269.738	10941.471	1.451	13.7	9.3	NO		NO	bb
5	5	180102M2_6	Standard	12.500	2.58	1301.825	12852.977	1.266	11.9	-4.6	NO		NO	bb
6	6	180102M2_7	Standard	12.500	2.58	1233.457	11296.521	1.365	12.9	2.9	NO		NO	bb
7	7	180102M2_8	Standard	12.500	2.58	1163.406	10743.026	1.354	12.8	2.0	NO		NO	bb
8	8	180102M2_9	Standard	12.500	2.58	1145.117	11503.685	1.244	11.7	-6.2	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.632801
RRF SD: 0.0194759, Relative SD: 3.07773
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 180102M2_2	Standard	5.000	3.07	2786.930	11257.119	3.095	4.9	-2.2	NO		NO	bb
2	2 180102M2_3	Standard	5.000	3.07	2774.891	11155.473	3.109	4.9	-1.7	NO		NO	bb
3	3 180102M2_4	Standard	5.000	3.07	2891.223	10715.271	3.373	5.3	6.6	NO		NO	bb
4	4 180102M2_5	Standard	5.000	3.07	2818.971	10941.471	3.221	5.1	1.8	NO		NO	bb
5	5 180102M2_6	Standard	5.000	3.07	3243.789	12852.977	3.155	5.0	-0.3	NO		NO	bb
6	6 180102M2_7	Standard	5.000	3.07	2801.342	11296.521	3.100	4.9	-2.0	NO		NO	bb
7	7 180102M2_8	Standard	5.000	3.07	2645.966	10743.026	3.079	4.9	-2.7	NO		NO	bb
8	8 180102M2_9	Standard	5.000	3.07	2927.999	11503.685	3.182	5.0	0.6	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.640721
RRF SD: 0.0430173, Relative SD: 6.71389
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 180102M2_2	Standard	12.500	3.68	7535.956	11257.119	8.368	13.1	4.5	NO		NO	bb
2	2 180102M2_3	Standard	12.500	3.68	6210.619	11155.473	6.959	10.9	-13.1	NO		NO	bb
3	3 180102M2_4	Standard	12.500	3.68	7248.519	10715.271	8.456	13.2	5.6	NO		NO	bb
4	4 180102M2_5	Standard	12.500	3.68	7337.285	10941.471	8.382	13.1	4.7	NO		NO	bb
5	5 180102M2_6	Standard	12.500	3.69	8242.492	12852.977	8.016	12.5	0.1	NO		NO	bb
6	6 180102M2_7	Standard	12.500	3.68	7242.242	11296.521	8.014	12.5	0.1	NO		NO	bb
7	7 180102M2_8	Standard	12.500	3.68	7227.423	10743.026	8.409	13.1	5.0	NO		NO	bb
8	8 180102M2_9	Standard	12.500	3.69	6872.139	11503.685	7.467	11.7	-6.8	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.334101
RRF SD: 0.0276572, Relative SD: 8.2781
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 180102M2_2	Standard	12.500	3.84	876.585	2657.506	4.123	12.3	-1.3	NO		NO	bb
2	2 180102M2_3	Standard	12.500	3.84	975.615	2624.274	4.647	13.9	11.3	NO		NO	bb
3	3 180102M2_4	Standard	12.500	3.84	980.415	3029.475	4.045	12.1	-3.1	NO		NO	bb
4	4 180102M2_5	Standard	12.500	3.84	935.565	3337.803	3.504	10.5	-16.1	NO		NO	bb
5	5 180102M2_6	Standard	12.500	3.84	1187.076	3400.203	4.364	13.1	4.5	NO		NO	bb
6	6 180102M2_7	Standard	12.500	3.84	1076.210	3109.047	4.327	13.0	3.6	NO		NO	bb
7	7 180102M2_8	Standard	12.500	3.84	988.496	3092.462	3.996	12.0	-4.3	NO		NO	bb
8	8 180102M2_9	Standard	12.500	3.84	1010.053	2866.612	4.404	13.2	5.5	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.228249
RRF SD: 0.0195949, Relative SD: 8.58486
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 180102M2_2	Standard	12.500	4.15	2365.684	11300.266	2.617	11.5	-8.3	NO		NO	bb
2	2 180102M2_3	Standard	12.500	4.15	2497.060	11166.586	2.795	12.2	-2.0	NO		NO	bb
3	3 180102M2_4	Standard	12.500	4.15	2614.704	13026.614	2.509	11.0	-12.1	NO		NO	bb
4	4 180102M2_5	Standard	12.500	4.15	2592.692	10689.178	3.032	13.3	6.3	NO		NO	bb
5	5 180102M2_6	Standard	12.500	4.15	2827.852	12345.387	2.863	12.5	0.4	NO		NO	bb
6	6 180102M2_7	Standard	12.500	4.15	2672.582	11438.119	2.921	12.8	2.4	NO		NO	bb
7	7 180102M2_8	Standard	12.500	4.15	2972.808	11487.354	3.235	14.2	13.4	NO		NO	bb
8	8 180102M2_9	Standard	12.500	4.15	3727.913	10658.433	4.372	19.2	53.2	NO		NO	bbX

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Compound name: 13C2-PFOA
Response Factor: 0.959194
RRF SD: 0.0728526, Relative SD: 7.59519
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	180102M2_2	Standard	12.500	4.21	10253.480	11300.266	11.342	11.8	-5.4	NO		NO	bb
2	2	180102M2_3	Standard	12.500	4.21	11050.722	11166.586	12.370	12.9	3.2	NO		NO	bb
3	3	180102M2_4	Standard	12.500	4.21	11297.149	13026.614	10.840	11.3	-9.6	NO		NO	bb
4	4	180102M2_5	Standard	12.500	4.21	11350.530	10689.178	13.273	13.8	10.7	NO		NO	bb
5	5	180102M2_6	Standard	12.500	4.21	11281.333	12345.387	11.423	11.9	-4.7	NO		NO	bb
6	6	180102M2_7	Standard	12.500	4.21	11669.804	11438.119	12.753	13.3	6.4	NO		NO	bb
7	7	180102M2_8	Standard	12.500	4.21	10230.492	11487.354	11.132	11.6	-7.2	NO		NO	bb
8	8	180102M2_9	Standard	12.500	4.21	10901.502	10658.433	12.785	13.3	6.6	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.830371
RRF SD: 0.0908104, Relative SD: 10.9361
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	180102M2_2	Standard	12.500	4.65	8691.937	11569.109	9.391	11.3	-9.5	NO		NO	bb
2	2	180102M2_3	Standard	12.500	4.65	7683.161	10709.896	8.967	10.8	-13.6	NO		NO	bb
3	3	180102M2_4	Standard	12.500	4.65	7595.522	9521.270	9.972	12.0	-3.9	NO		NO	bb
4	4	180102M2_5	Standard	12.500	4.65	9038.605	11166.313	10.118	12.2	-2.5	NO		NO	bb
5	5	180102M2_6	Standard	12.500	4.65	10988.831	10782.388	12.739	15.3	22.7	NO		NO	bb
6	6	180102M2_7	Standard	12.500	4.65	8553.649	10069.055	10.619	12.8	2.3	NO		NO	bb
7	7	180102M2_8	Standard	12.500	4.65	9737.121	11682.408	10.419	12.5	0.4	NO		NO	bb
8	8	180102M2_9	Standard	12.500	4.65	8681.578	10037.111	10.812	13.0	4.2	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.262346
RRF SD: 0.0411456, Relative SD: 15.6837
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	180102M2_2	Standard	12.500	4.71	3084.802	10469.664	3.683	14.0	12.3	NO		NO	bb
2	2	180102M2_3	Standard	12.500	4.71	2870.135	12880.041	2.785	10.6	-15.1	NO		NO	bb
3	3	180102M2_4	Standard	12.500	4.71	3118.891	12169.355	3.204	12.2	-2.3	NO		NO	bb
4	4	180102M2_5	Standard	12.500	4.71	3245.851	10135.316	4.003	15.3	22.1	NO		NO	bb
5	5	180102M2_6	Standard	12.500	4.71	3144.589	13274.537	2.961	11.3	-9.7	NO		NO	bb
6	6	180102M2_7	Standard	12.500	4.71	2639.988	12415.121	2.658	10.1	-18.9	NO		NO	bb
7	7	180102M2_8	Standard	12.500	4.70	2775.264	11378.685	3.049	11.6	-7.0	NO		NO	bb
8	8	180102M2_9	Standard	12.500	4.71	3185.676	10232.887	3.891	14.8	18.7	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 0.880323
RRF SD: 0.0915711, Relative SD: 10.402
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	180102M2_2	Standard	12.500	4.73	1962.993	2791.994	8.788	10.0	-20.1	NO		NO	bb
2	2	180102M2_3	Standard	12.500	4.73	2365.519	2652.125	11.149	12.7	1.3	NO		NO	bb
3	3	180102M2_4	Standard	12.500	4.73	2404.826	2921.574	10.289	11.7	-6.5	NO		NO	bb
4	4	180102M2_5	Standard	12.500	4.73	2701.989	2824.538	11.958	13.6	8.7	NO		NO	bb
5	5	180102M2_6	Standard	12.500	4.73	2982.788	3429.124	10.873	12.4	-1.2	NO		NO	bb
6	6	180102M2_7	Standard	12.500	4.73	2905.263	2868.500	12.660	14.4	15.1	NO		NO	bb
7	7	180102M2_8	Standard	12.500	4.73	2402.318	2711.805	11.073	12.6	0.6	NO		NO	bb
8	8	180102M2_9	Standard	12.500	4.73	2729.716	3035.383	11.241	12.8	2.2	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 0.995216
RRF SD: 0.164321, Relative SD: 16.5111
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	180102M2_2	Standard	12.500	5.03	9409.795	9374.130	12.548	12.6	0.9	NO		NO	bb
2	2	180102M2_3	Standard	12.500	5.02	6177.648	8188.296	9.431	9.5	-24.2	NO		NO	bb
3	3	180102M2_4	Standard	12.500	5.02	7943.417	8646.034	11.484	11.5	-7.7	NO		NO	bb
4	4	180102M2_5	Standard	12.500	5.02	8068.738	8933.577	11.290	11.3	-9.2	NO		NO	bb
5	5	180102M2_6	Standard	12.500	5.02	10867.858	9861.516	13.776	13.8	10.7	NO		NO	bb
6	6	180102M2_7	Standard	12.500	5.03	9396.339	10360.227	11.337	11.4	-8.9	NO		NO	bb
7	7	180102M2_8	Standard	12.500	5.02	7894.606	7338.946	13.446	13.5	8.1	NO		NO	bb
8	8	180102M2_9	Standard	12.500	5.02	9940.610	7665.349	16.210	16.3	30.3	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.142215
RRF SD: 0.0240969, Relative SD: 16.944
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	180102M2_2	Standard	12.500	4.99	1488.020	11257.119	1.652	11.6	-7.1	NO		NO	bb
2	2	180102M2_3	Standard	12.500	4.99	1363.151	11155.473	1.527	10.7	-14.1	NO		NO	bb
3	3	180102M2_4	Standard	12.500	4.99	1616.851	10715.271	1.886	13.3	6.1	NO		NO	bb
4	4	180102M2_5	Standard	12.500	4.99	1578.551	10941.471	1.803	12.7	1.4	NO		NO	bb
5	5	180102M2_6	Standard	12.500	4.99	1470.059	12852.977	1.430	10.1	-19.6	NO		NO	bb
6	6	180102M2_7	Standard	12.500	4.99	1381.755	11296.521	1.529	10.8	-14.0	NO		NO	bb
7	7	180102M2_8	Standard	12.500	4.99	1949.049	10743.026	2.268	15.9	27.6	NO		NO	bb
8	8	180102M2_9	Standard	12.500	4.99	1956.313	11503.685	2.126	14.9	19.6	NO		NO	bb

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Compound name: d3-N-MeFOSAA
Response Factor: 0.375593
RRF SD: 0.0449379, Relative SD: 11.9645
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	180102M2_2	Standard	12.500	5.17	4037.611	10469.664	4.821	12.8	2.7	NO		NO	bb
2	2	180102M2_3	Standard	12.500	5.17	4428.044	12880.041	4.297	11.4	-8.5	NO		NO	bb
3	3	180102M2_4	Standard	12.500	5.17	4239.640	12169.355	4.355	11.6	-7.2	NO		NO	bb
4	4	180102M2_5	Standard	12.500	5.17	4568.624	10135.316	5.635	15.0	20.0	NO		NO	bb
5	5	180102M2_6	Standard	12.500	5.17	4889.789	13274.537	4.604	12.3	-1.9	NO		NO	bb
6	6	180102M2_7	Standard	12.500	5.17	4051.958	12415.121	4.080	10.9	-13.1	NO		NO	bb
7	7	180102M2_8	Standard	12.500	5.17	3956.298	11378.685	4.346	11.6	-7.4	NO		NO	bb
8	8	180102M2_9	Standard	12.500	5.17	4438.268	10232.887	5.422	14.4	15.5	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.443515
RRF SD: 0.0402431, Relative SD: 9.07368
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	180102M2_2	Standard	12.500	5.33	4884.998	10469.664	5.832	13.2	5.2	NO		NO	bb
2	2	180102M2_3	Standard	12.500	5.33	4813.042	12880.041	4.671	10.5	-15.7	NO		NO	bb
3	3	180102M2_4	Standard	12.500	5.33	5595.485	12169.355	5.748	13.0	3.7	NO		NO	bb
4	4	180102M2_5	Standard	12.500	5.33	5133.932	10135.316	6.332	14.3	14.2	NO		NO	bb
5	5	180102M2_6	Standard	12.500	5.33	5962.557	13274.537	5.615	12.7	1.3	NO		NO	bb
6	6	180102M2_7	Standard	12.500	5.33	5089.167	12415.121	5.124	11.6	-7.6	NO		NO	bb
7	7	180102M2_8	Standard	12.500	5.32	4837.116	11378.685	5.314	12.0	-4.2	NO		NO	bb
8	8	180102M2_9	Standard	12.500	5.33	4679.708	10232.887	5.717	12.9	3.1	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 0.888624
RRF SD: 0.13001, Relative SD: 14.6304
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	180102M2_2	Standard	12.500	5.35	11795.863	10469.664	14.083	15.8	26.8	NO		NO	bb
2	2	180102M2_3	Standard	12.500	5.35	9383.154	12880.041	9.106	10.2	-18.0	NO		NO	bb
3	3	180102M2_4	Standard	12.500	5.35	11350.477	12169.355	11.659	13.1	5.0	NO		NO	bb
4	4	180102M2_5	Standard	12.500	5.35	10189.292	10135.316	12.567	14.1	13.1	NO		NO	bb
5	5	180102M2_6	Standard	12.500	5.35	10613.905	13274.537	9.995	11.2	-10.0	NO		NO	bb
6	6	180102M2_7	Standard	12.500	5.35	10589.070	12415.121	10.661	12.0	-4.0	NO		NO	bb
7	7	180102M2_8	Standard	12.500	5.35	10017.716	11378.685	11.005	12.4	-0.9	NO		NO	bb
8	8	180102M2_9	Standard	12.500	5.35	8011.392	10232.887	9.786	11.0	-11.9	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.542224
RRF SD: 0.104705, Relative SD: 19.3103
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	180102M2_2	Standard	12.500	5.63	7412.730	10469.664	8.850	16.3	30.6	NO		NO	bbX
2	2	180102M2_3	Standard	12.500	5.63	6530.110	12880.041	6.337	11.7	-6.5	NO		NO	bb
3	3	180102M2_4	Standard	12.500	5.63	5725.445	12169.355	5.881	10.8	-13.2	NO		NO	bb
4	4	180102M2_5	Standard	12.500	5.63	7762.978	10135.316	9.574	17.7	41.3	NO		NO	bb
5	5	180102M2_6	Standard	12.500	5.63	6324.164	13274.537	5.955	11.0	-12.1	NO		NO	bb
6	6	180102M2_7	Standard	12.500	5.63	6115.064	12415.121	6.157	11.4	-9.2	NO		NO	bb
7	7	180102M2_8	Standard	12.500	5.63	5756.736	11378.685	6.324	11.7	-6.7	NO		NO	bb
8	8	180102M2_9	Standard	12.500	5.63	5907.151	10232.887	7.216	13.3	6.5	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.116575
RRF SD: 0.0108269, Relative SD: 9.28746
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	180102M2_2	Standard	150.000	5.76	16043.687	10469.664	19.155	164.3	9.5	NO		NO	bb
2	2	180102M2_3	Standard	150.000	5.76	15513.691	12880.041	15.056	129.2	-13.9	NO		NO	bb
3	3	180102M2_4	Standard	150.000	5.76	15964.676	12169.355	16.398	140.7	-6.2	NO		NO	bb
4	4	180102M2_5	Standard	150.000	5.76	15841.742	10135.316	19.538	167.6	11.7	NO		NO	bb
5	5	180102M2_6	Standard	150.000	5.76	17837.416	13274.537	16.797	144.1	-3.9	NO		NO	bb
6	6	180102M2_7	Standard	150.000	5.76	16188.742	12415.121	16.299	139.8	-6.8	NO		NO	bb
7	7	180102M2_8	Standard	150.000	5.76	16006.967	11378.685	17.584	150.8	0.6	NO		NO	bb
8	8	180102M2_9	Standard	150.000	5.76	15605.370	10232.887	19.063	163.5	9.0	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.230346
RRF SD: 0.0384216, Relative SD: 16.6799
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	180102M2_2	Standard	12.500	6.10	2910.322	10469.664	3.475	15.1	20.7	NO		NO	bb
2	2	180102M2_3	Standard	12.500	6.10	2442.518	12880.041	2.370	10.3	-17.7	NO		NO	bb
3	3	180102M2_4	Standard	12.500	6.10	2346.519	12169.355	2.410	10.5	-16.3	NO		NO	bb
4	4	180102M2_5	Standard	12.500	6.10	2926.466	10135.316	3.609	15.7	25.4	NO		NO	bb
5	5	180102M2_6	Standard	12.500	6.10	2891.711	13274.537	2.723	11.8	-5.4	NO		NO	bb
6	6	180102M2_7	Standard	12.500	6.10	2975.646	12415.121	2.996	13.0	4.1	NO		NO	bb
7	7	180102M2_8	Standard	12.500	6.10	2221.127	11378.685	2.440	10.6	-15.3	NO		NO	bb
8	8	180102M2_9	Standard	12.500	6.10	2464.889	10232.887	3.011	13.1	4.6	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.1699
RRF SD: 0.0179233, Relative SD: 10.5493
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	180102M2_2	Standard	150.000	6.17	23250.135	10469.664	27.759	163.4	8.9	NO		NO	bb
2	2	180102M2_3	Standard	150.000	6.16	22543.910	12880.041	21.879	128.8	-14.2	NO		NO	bb
3	3	180102M2_4	Standard	150.000	6.17	22784.709	12169.355	23.404	137.8	-8.2	NO		NO	bb
4	4	180102M2_5	Standard	150.000	6.17	24182.727	10135.316	29.825	175.5	17.0	NO		NO	bb
5	5	180102M2_6	Standard	150.000	6.17	25951.254	13274.537	24.437	143.8	-4.1	NO		NO	bb
6	6	180102M2_7	Standard	150.000	6.17	23514.104	12415.121	23.675	139.3	-7.1	NO		NO	bb
7	7	180102M2_8	Standard	150.000	6.16	22960.252	11378.685	25.223	148.5	-1.0	NO		NO	bb
8	8	180102M2_9	Standard	150.000	6.16	22658.357	10232.887	27.678	162.9	8.6	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.432067
RRF SD: 0.0585617, Relative SD: 13.5538
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	180102M2_2	Standard	5.000	6.44	2287.571	10469.664	2.731	6.3	26.4	NO		NO	bb
2	2	180102M2_3	Standard	5.000	6.44	1923.725	12880.041	1.867	4.3	-13.6	NO		NO	bb
3	3	180102M2_4	Standard	5.000	6.44	2087.165	12169.355	2.144	5.0	-0.8	NO		NO	bb
4	4	180102M2_5	Standard	5.000	6.44	1935.460	10135.316	2.387	5.5	10.5	NO		NO	bb
5	5	180102M2_6	Standard	5.000	6.44	2134.108	13274.537	2.010	4.7	-7.0	NO		NO	bb
6	6	180102M2_7	Standard	5.000	6.44	1832.003	12415.121	1.845	4.3	-14.6	NO		NO	bb
7	7	180102M2_8	Standard	5.000	6.44	1881.102	11378.685	2.066	4.8	-4.3	NO		NO	bb
8	8	180102M2_9	Standard	5.000	6.44	1828.044	10232.887	2.233	5.2	3.4	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.161256
RRF SD: 0.0120343, Relative SD: 7.46286
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	180102M2_2	Standard	150.000	6.31	18647.293	10469.664	22.263	138.1	-8.0	NO		NO	bb
2	2	180102M2_3	Standard	150.000	6.31	23599.381	12880.041	22.903	142.0	-5.3	NO		NO	bb
3	3	180102M2_4	Standard	150.000	6.31	21770.959	12169.355	22.362	138.7	-7.5	NO		NO	bb
4	4	180102M2_5	Standard	150.000	6.31	22482.695	10135.316	27.728	172.0	14.6	NO		NO	bb
5	5	180102M2_6	Standard	150.000	6.31	25207.309	13274.537	23.737	147.2	-1.9	NO		NO	bb
6	6	180102M2_7	Standard	150.000	6.31	24505.541	12415.121	24.673	153.0	2.0	NO		NO	bb
7	7	180102M2_8	Standard	150.000	6.31	22505.619	11378.685	24.723	153.3	2.2	NO		NO	bb
8	8	180102M2_9	Standard	150.000	6.31	20561.994	10232.887	25.118	155.8	3.8	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.157526
RRF SD: 0.0210896, Relative SD: 13.388
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	180102M2_2	Standard	150.000	6.46	23019.424	10469.664	27.483	174.5	16.3	NO		NO	bb
2	2	180102M2_3	Standard	150.000	6.46	20567.943	12880.041	19.961	126.7	-15.5	NO		NO	bb
3	3	180102M2_4	Standard	150.000	6.46	17832.957	12169.355	18.317	116.3	-22.5	NO		NO	bb
4	4	180102M2_5	Standard	150.000	6.46	19875.211	10135.316	24.512	155.6	3.7	NO		NO	bb
5	5	180102M2_6	Standard	150.000	6.46	25813.174	13274.537	24.307	154.3	2.9	NO		NO	bb
6	6	180102M2_7	Standard	150.000	6.46	22655.969	12415.121	22.811	144.8	-3.5	NO		NO	bd
7	7	180102M2_8	Standard	150.000	6.46	22587.609	11378.685	24.814	157.5	5.0	NO		NO	bb
8	8	180102M2_9	Standard	150.000	6.46	21959.977	10232.887	26.825	170.3	13.5	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	180102M2_2	Standard	12.500	1.32	9795.079	9795.079	12.500	12.5	0.0	NO		NO	bb
2	2	180102M2_3	Standard	12.500	1.33	9353.119	9353.119	12.500	12.5	0.0	NO		NO	bb
3	3	180102M2_4	Standard	12.500	1.33	9888.167	9888.167	12.500	12.5	0.0	NO		NO	bb
4	4	180102M2_5	Standard	12.500	1.33	10208.585	10208.585	12.500	12.5	0.0	NO		NO	bb
5	5	180102M2_6	Standard	12.500	1.33	11545.845	11545.845	12.500	12.5	0.0	NO		NO	bb
6	6	180102M2_7	Standard	12.500	1.33	10184.753	10184.753	12.500	12.5	0.0	NO		NO	bb
7	7	180102M2_8	Standard	12.500	1.33	9914.055	9914.055	12.500	12.5	0.0	NO		NO	bb
8	8	180102M2_9	Standard	12.500	1.33	10564.219	10564.219	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	180102M2_2	Standard	12.500	3.07	11257.119	11257.119	12.500	12.5	0.0	NO		NO	bb
2	2	180102M2_3	Standard	12.500	3.07	11155.473	11155.473	12.500	12.5	0.0	NO		NO	bb
3	3	180102M2_4	Standard	12.500	3.07	10715.271	10715.271	12.500	12.5	0.0	NO		NO	bb
4	4	180102M2_5	Standard	12.500	3.07	10941.471	10941.471	12.500	12.5	0.0	NO		NO	bb
5	5	180102M2_6	Standard	12.500	3.07	12852.977	12852.977	12.500	12.5	0.0	NO		NO	bb
6	6	180102M2_7	Standard	12.500	3.07	11296.521	11296.521	12.500	12.5	0.0	NO		NO	bb
7	7	180102M2_8	Standard	12.500	3.07	10743.026	10743.026	12.500	12.5	0.0	NO		NO	bb
8	8	180102M2_9	Standard	12.500	3.07	11503.685	11503.685	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	180102M2_2	Standard	12.500	3.84	2657.506	2657.506	12.500	12.5	0.0	NO		NO	bb
2	2	180102M2_3	Standard	12.500	3.84	2624.274	2624.274	12.500	12.5	0.0	NO		NO	bb
3	3	180102M2_4	Standard	12.500	3.84	3029.475	3029.475	12.500	12.5	0.0	NO		NO	bb
4	4	180102M2_5	Standard	12.500	3.84	3337.803	3337.803	12.500	12.5	0.0	NO		NO	bb
5	5	180102M2_6	Standard	12.500	3.84	3400.203	3400.203	12.500	12.5	0.0	NO		NO	bb
6	6	180102M2_7	Standard	12.500	3.84	3109.047	3109.047	12.500	12.5	0.0	NO		NO	bb
7	7	180102M2_8	Standard	12.500	3.84	3092.462	3092.462	12.500	12.5	0.0	NO		NO	bb
8	8	180102M2_9	Standard	12.500	3.84	2866.612	2866.612	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	180102M2_2	Standard	12.500	4.21	11300.266	11300.266	12.500	12.5	0.0	NO		NO	bb
2	2	180102M2_3	Standard	12.500	4.21	11166.586	11166.586	12.500	12.5	0.0	NO		NO	bb
3	3	180102M2_4	Standard	12.500	4.21	13026.614	13026.614	12.500	12.5	0.0	NO		NO	bb
4	4	180102M2_5	Standard	12.500	4.21	10689.178	10689.178	12.500	12.5	0.0	NO		NO	bb
5	5	180102M2_6	Standard	12.500	4.21	12345.387	12345.387	12.500	12.5	0.0	NO		NO	bb
6	6	180102M2_7	Standard	12.500	4.21	11438.119	11438.119	12.500	12.5	0.0	NO		NO	bb
7	7	180102M2_8	Standard	12.500	4.21	11487.354	11487.354	12.500	12.5	0.0	NO		NO	bb
8	8	180102M2_9	Standard	12.500	4.21	10658.433	10658.433	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	180102M2_2	Standard	12.500	4.65	11569.109	11569.109	12.500	12.5	0.0	NO		NO	bb
2	2	180102M2_3	Standard	12.500	4.65	10709.896	10709.896	12.500	12.5	0.0	NO		NO	bb
3	3	180102M2_4	Standard	12.500	4.65	9521.270	9521.270	12.500	12.5	0.0	NO		NO	bb
4	4	180102M2_5	Standard	12.500	4.65	11166.313	11166.313	12.500	12.5	0.0	NO		NO	bb
5	5	180102M2_6	Standard	12.500	4.65	10782.388	10782.388	12.500	12.5	0.0	NO		NO	bb
6	6	180102M2_7	Standard	12.500	4.65	10069.055	10069.055	12.500	12.5	0.0	NO		NO	bb
7	7	180102M2_8	Standard	12.500	4.65	11682.408	11682.408	12.500	12.5	0.0	NO		NO	bb
8	8	180102M2_9	Standard	12.500	4.65	10037.111	10037.111	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	180102M2_2	Standard	12.500	4.73	2791.994	2791.994	12.500	12.5	0.0	NO		NO	bb
2	2	180102M2_3	Standard	12.500	4.73	2652.125	2652.125	12.500	12.5	0.0	NO		NO	bb
3	3	180102M2_4	Standard	12.500	4.73	2921.574	2921.574	12.500	12.5	0.0	NO		NO	bb
4	4	180102M2_5	Standard	12.500	4.73	2824.538	2824.538	12.500	12.5	0.0	NO		NO	bb
5	5	180102M2_6	Standard	12.500	4.73	3429.124	3429.124	12.500	12.5	0.0	NO		NO	bb
6	6	180102M2_7	Standard	12.500	4.73	2868.500	2868.500	12.500	12.5	0.0	NO		NO	bb
7	7	180102M2_8	Standard	12.500	4.73	2711.805	2711.805	12.500	12.5	0.0	NO		NO	bb
8	8	180102M2_9	Standard	12.500	4.73	3035.383	3035.383	12.500	12.5	0.0	NO		NO	bb

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:42:48 Pacific Standard Time

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	180102M2_2	Standard	12.500	5.02	9374.130	9374.130	12.500	12.5	0.0	NO		NO	bb
2	2	180102M2_3	Standard	12.500	5.02	8188.296	8188.296	12.500	12.5	0.0	NO		NO	bb
3	3	180102M2_4	Standard	12.500	5.02	8646.034	8646.034	12.500	12.5	0.0	NO		NO	bb
4	4	180102M2_5	Standard	12.500	5.02	8933.577	8933.577	12.500	12.5	0.0	NO		NO	bb
5	5	180102M2_6	Standard	12.500	5.02	9861.516	9861.516	12.500	12.5	0.0	NO		NO	bb
6	6	180102M2_7	Standard	12.500	5.02	10360.227	10360.227	12.500	12.5	0.0	NO		NO	bb
7	7	180102M2_8	Standard	12.500	5.02	7338.946	7338.946	12.500	12.5	0.0	NO		NO	bb
8	8	180102M2_9	Standard	12.500	5.02	7665.349	7665.349	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	180102M2_2	Standard	12.500	5.35	10469.664	10469.664	12.500	12.5	0.0	NO		NO	bb
2	2	180102M2_3	Standard	12.500	5.35	12880.041	12880.041	12.500	12.5	0.0	NO		NO	bb
3	3	180102M2_4	Standard	12.500	5.35	12169.355	12169.355	12.500	12.5	0.0	NO		NO	bb
4	4	180102M2_5	Standard	12.500	5.35	10135.316	10135.316	12.500	12.5	0.0	NO		NO	bb
5	5	180102M2_6	Standard	12.500	5.35	13274.537	13274.537	12.500	12.5	0.0	NO		NO	bb
6	6	180102M2_7	Standard	12.500	5.35	12415.121	12415.121	12.500	12.5	0.0	NO		NO	bb
7	7	180102M2_8	Standard	12.500	5.35	11378.685	11378.685	12.500	12.5	0.0	NO		NO	bb
8	8	180102M2_9	Standard	12.500	5.35	10232.887	10232.887	12.500	12.5	0.0	NO		NO	bb

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:42:48 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 03 Jan 2018 08:57:44
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 10:38:46

Name: 180102M2_2, Date: 02-Jan-2018, Time: 15:35:49, ID: ST180102M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBA	0.9996	NO	
2	2	PFPeA	0.9996	NO	
3	3	PFBS	0.9993	NO	
4	4	PFHxA	0.9997	NO	
5	5	PFHpA	0.9990	NO	
6	6	L-PFHxS	0.9984	NO	
7	8	6:2 FTS	0.9994	NO	
8	9	L-PFOA	0.9993	NO	
9	11	PFHpS	0.9970	NO	
10	12	PFNA	0.9977	NO	
11	13	PFOSA	0.9990	NO	
12	14	L-PFOS	0.9990	NO	
13	16	PFDA	0.9967	NO	
14	17	8:2 FTS	0.9994	NO	
15	18	N-MeFOSAA	0.9957	NO	
16	19	N-EtFOSAA	0.9978	NO	
17	20	PFUdA	0.9998	NO	
18	21	PFDS	0.9994	NO	
19	22	PFDoA	0.9988	NO	
20	23	N-MeFOSA	0.9995	NO	
21	24	PFTrDA	0.9985	NO	
22	25	PFTeDA	0.9975	NO	
23	26	N-EtFOSA	0.9996	NO	
24	27	PFHxDA	0.9989	NO	
25	28	PFODA	0.9975	NO	
26	29	N-MeFOSE	0.9985	NO	
27	30	N-EtFOSE	0.9966	NO	
28	31	13C3-PFBA		NO	1.820
29	32	13C3-PFPeA		NO	3.572
30	33	13C3-PFBS		NO	5.002
31	34	13C2-PFHxA		NO	3.078

Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:42:48 Pacific Standard Time

Name: 180102M2_2, Date: 02-Jan-2018, Time: 15:35:49, ID: ST180102M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD
32	35	13C4-PFHpA		NO	6.714
33	36	18O2-PFHxS		NO	8.278
34	37	13C2-6:2 FTS		NO	8.585
35	38	13C2-PFOA		NO	7.595
36	39	13C5-PFNA		NO	10.936
37	40	13C8-PFOSA		NO	15.684
38	41	13C8-PFOS		NO	10.402
39	42	13C2-PFDA		NO	16.511
40	43	13C2-8:2 FTS		NO	16.944
41	44	d3-N-MeFOSAA		NO	11.965
42	45	d5-N-EtFOSAA		NO	9.074
43	46	13C2-PFUdA		NO	14.630
44	47	13C2-PFDoA		NO	19.310
45	48	d3-N-MeFOSA		NO	9.287
46	49	13C2-PFTeDA		NO	16.680
47	50	d5-N-ETFOSA		NO	10.549
48	51	13C2-PFHxDA		NO	13.554
49	52	d7-N-MeFOSE		NO	7.463
50	53	d9-N-EtFOSE		NO	13.388
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

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, January 03, 2018 10:52:28 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:53:06 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 03 Jan 2018 08:57:44
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 10:38:46

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180102M2_1	IPA	02-Jan-18	15:24:32
2	180102M2_2	ST180102M2-1 PFC CS-2 17L2606	02-Jan-18	15:35:49
3	180102M2_3	ST180102M2-2 PFC CS-1 17L2607	02-Jan-18	15:46:59
4	180102M2_4	ST180102M2-3 PFC CS0 17L2608	02-Jan-18	15:58:11
5	180102M2_5	ST180102M2-4 PFC CS1 17L2609	02-Jan-18	16:09:21
6	180102M2_6	ST180102M2-5 PFC CS2 17L2610	02-Jan-18	16:20:32
7	180102M2_7	ST180102M2-6 PFC CS3 17L2611	02-Jan-18	16:31:43
8	180102M2_8	ST180102M2-7 PFC CS4 17L2612	02-Jan-18	16:42:54
9	180102M2_9	ST180102M2-8 PFC CS5 17L2613	02-Jan-18	16:54:04
10	180102M2_10	ST180102M2-9 PFC CS6 17L2710	02-Jan-18	17:05:15
11	180102M2_11	ST180102M2-10 PFC CS7 17L1804	02-Jan-18	17:16:26
12	180102M2_12	IPA	02-Jan-18	17:27:37
13	180102M2_13	ICV180102M2-1 PFC ICV 17L1201	02-Jan-18	17:38:47

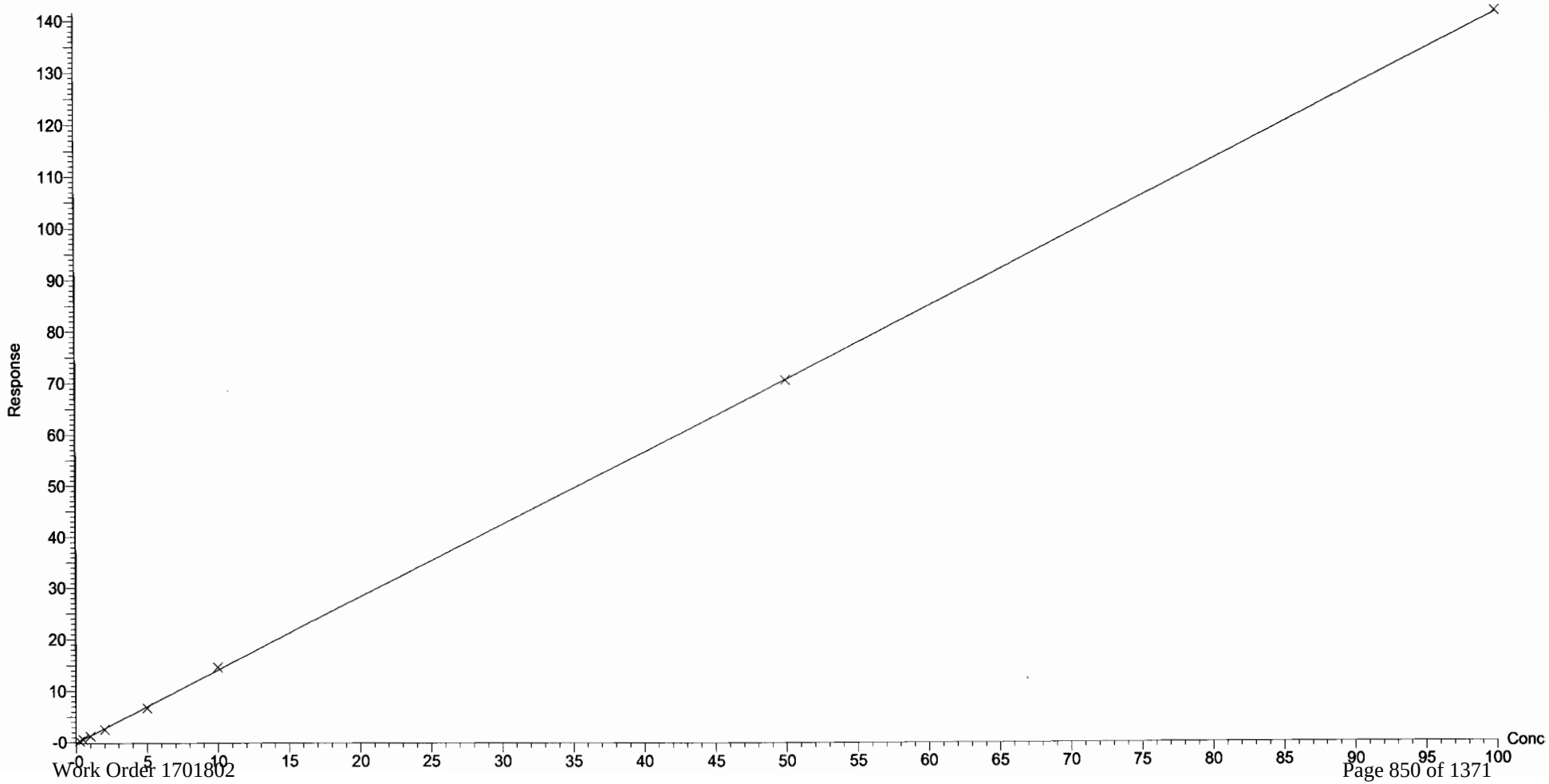
Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 03 Jan 2018 08:57:44
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 10:38:46

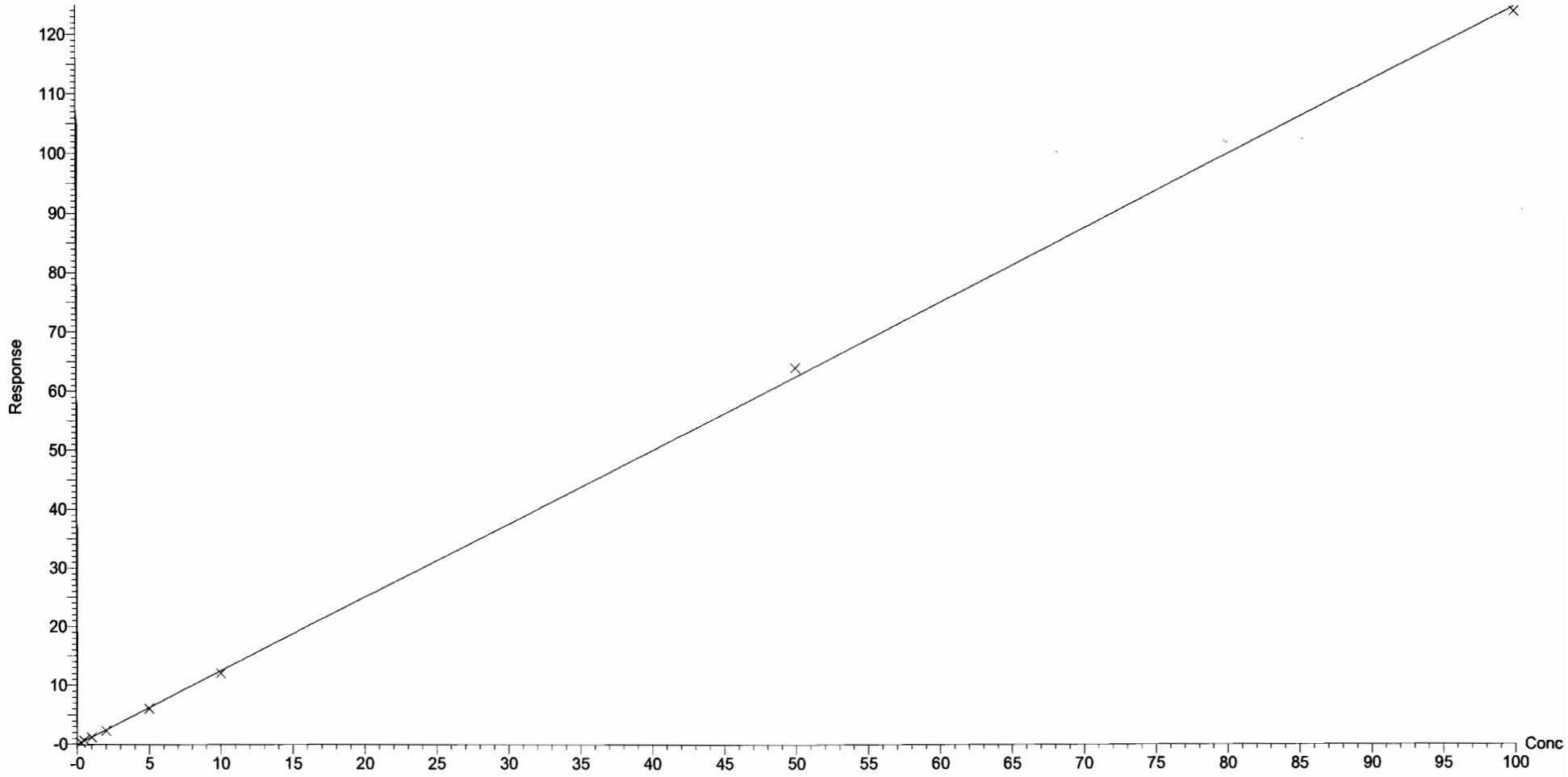
Compound name: PFBA
Correlation coefficient: r = 0.999791, r^2 = 0.999582
Calibration curve: 1.41407 * x + -0.110571
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

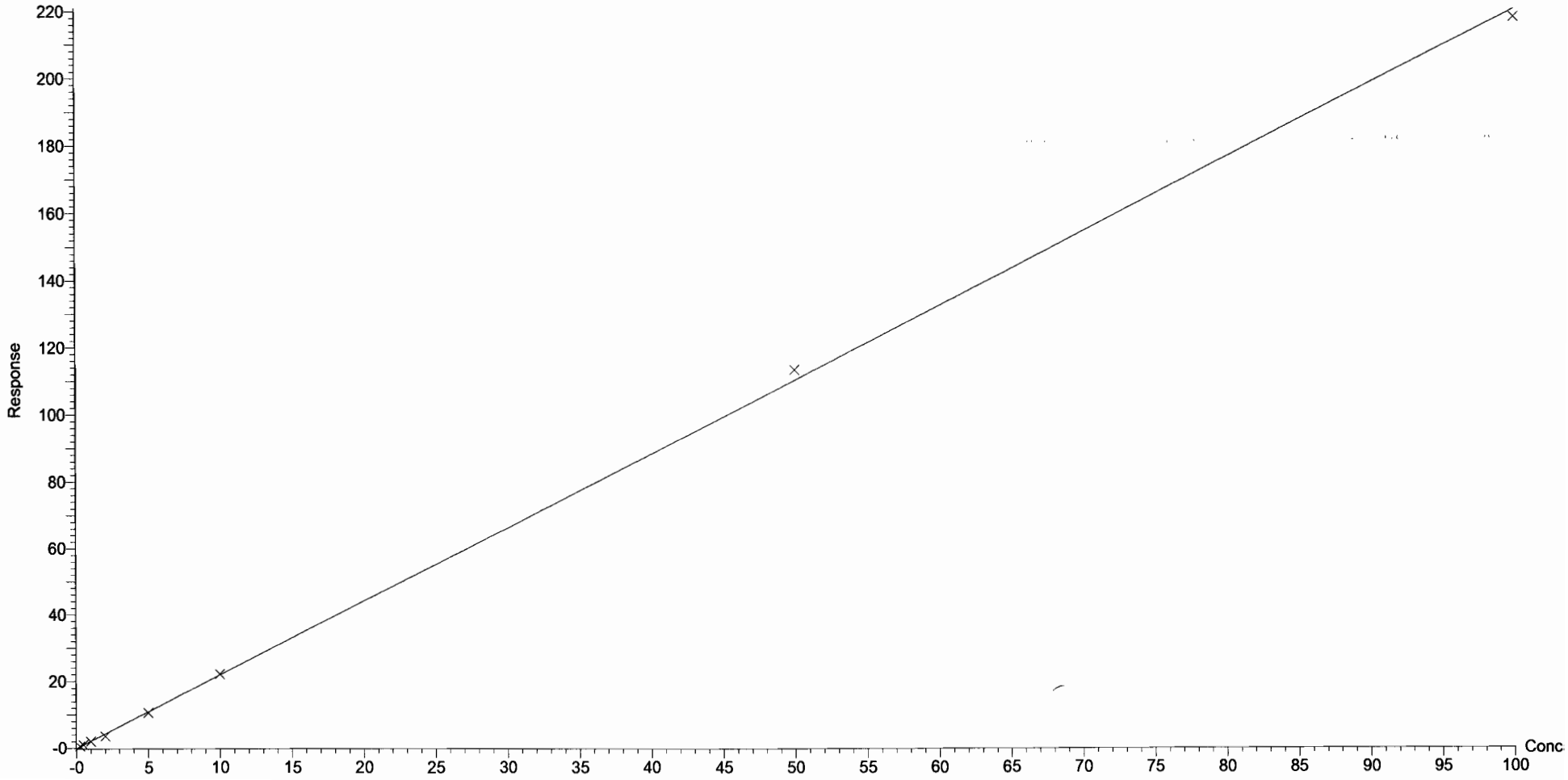
Compound name: PFPeA
Correlation coefficient: r = 0.999811, r^2 = 0.999622
Calibration curve: 1.24942 * x + -0.05615
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

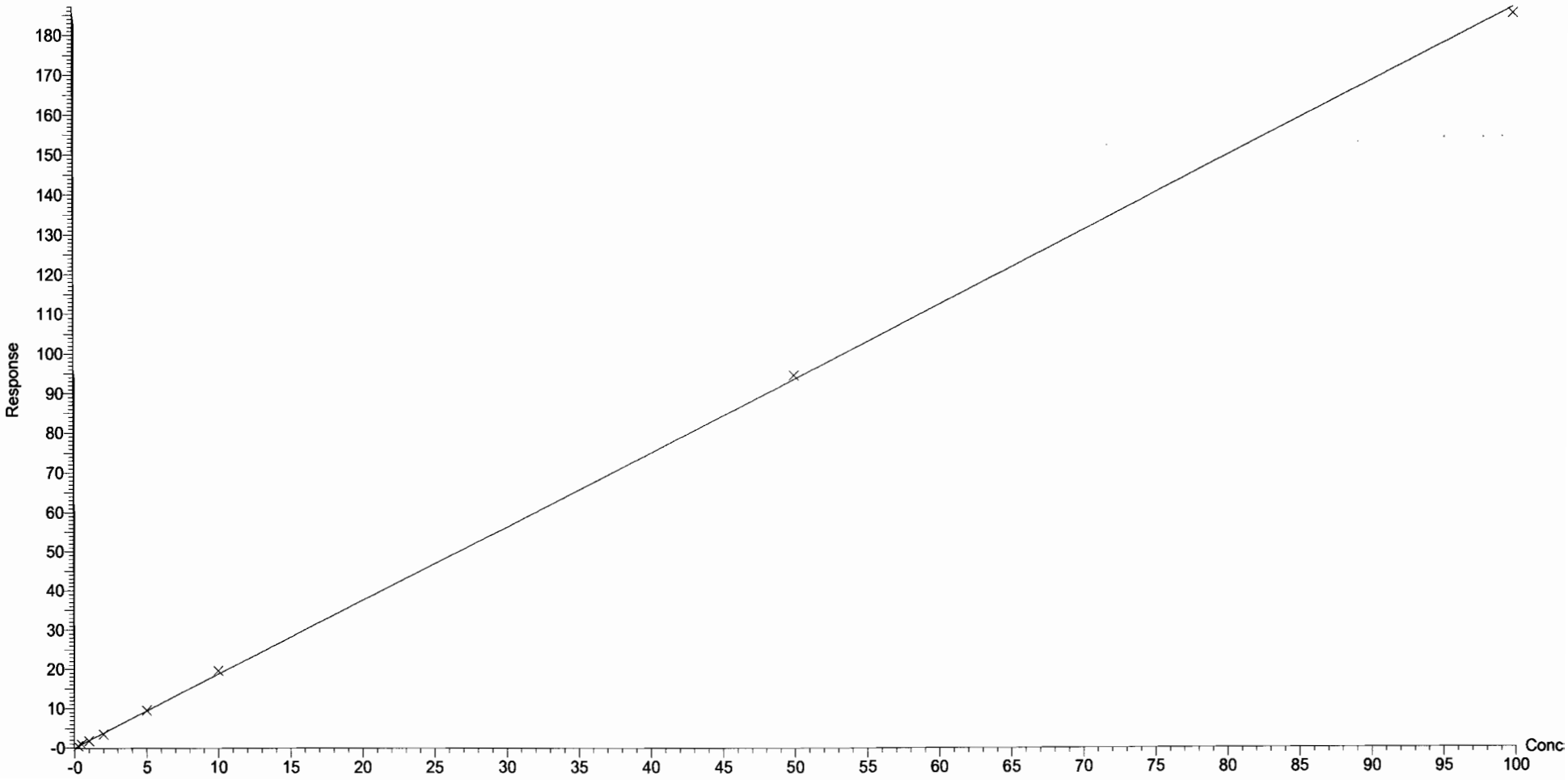
Compound name: PFBS
Correlation coefficient: r = 0.999631, r^2 = 0.999262
Calibration curve: 2.21075 * x + -0.178043
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

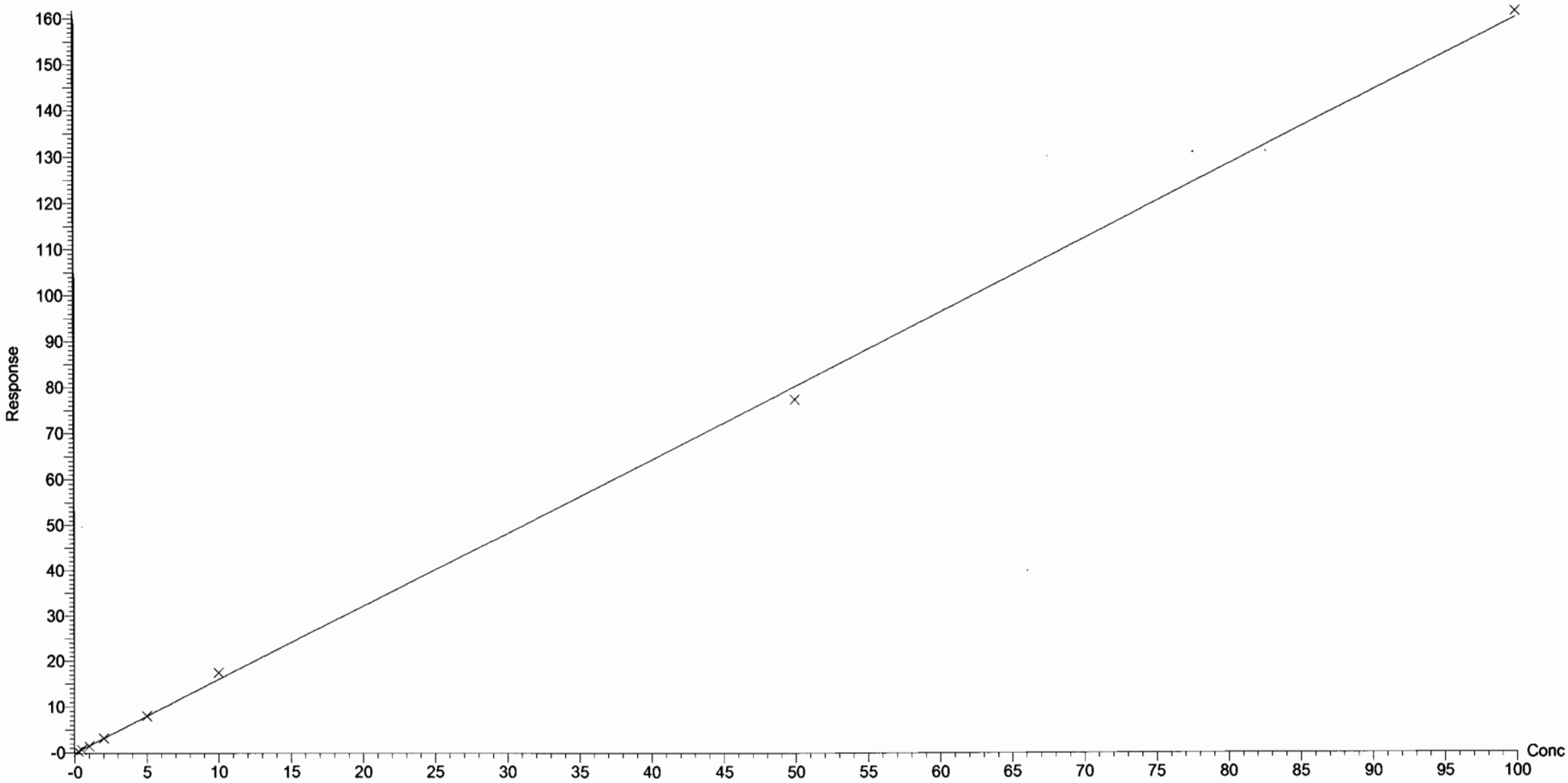
Compound name: PFHxA
Correlation coefficient: r = 0.999826, r^2 = 0.999652
Calibration curve: 1.87024 * x + -0.00601342
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

Compound name: PFHpA
Correlation coefficient: r = 0.999512, r^2 = 0.999024
Calibration curve: 1.60481 * x + -0.093655
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

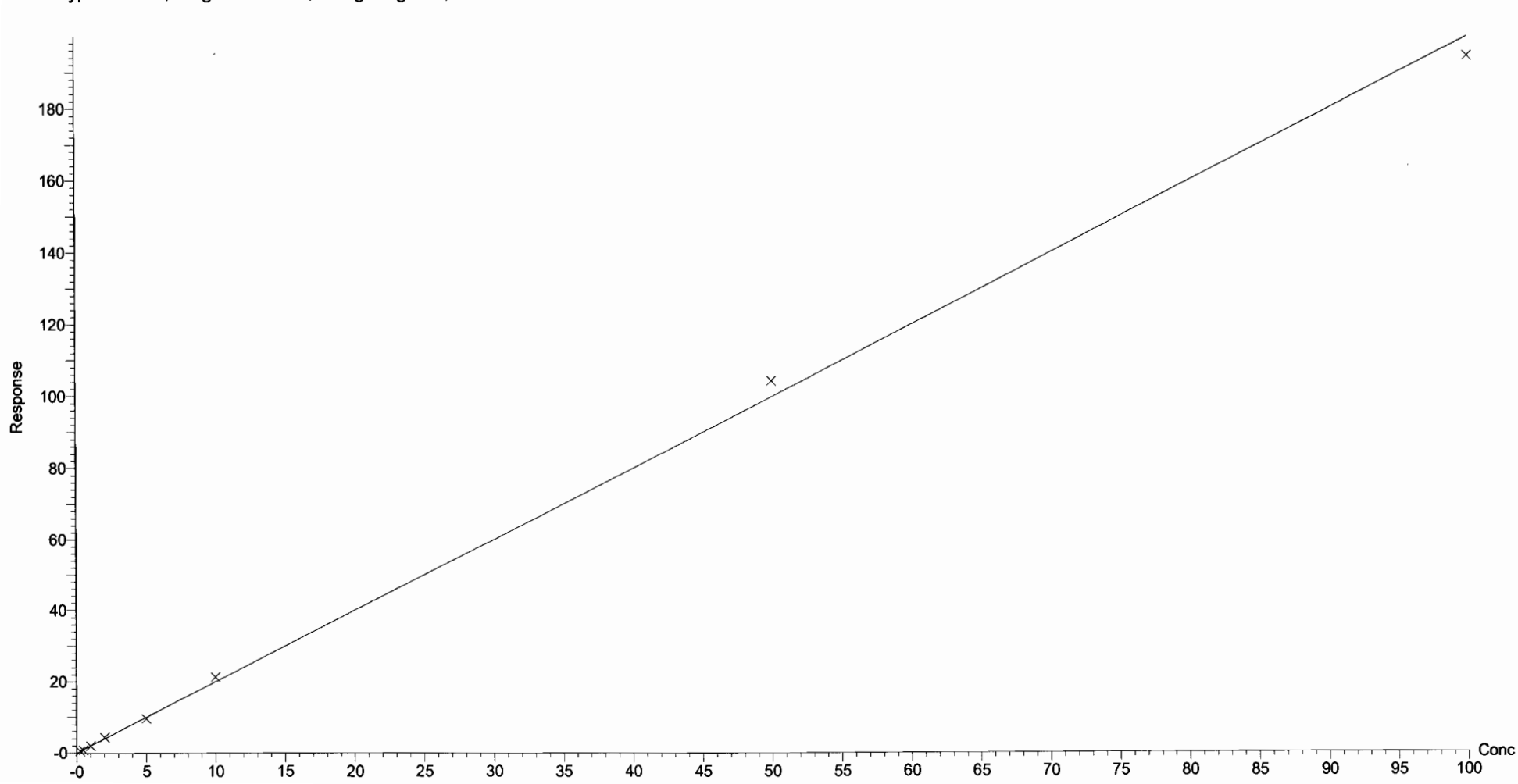


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

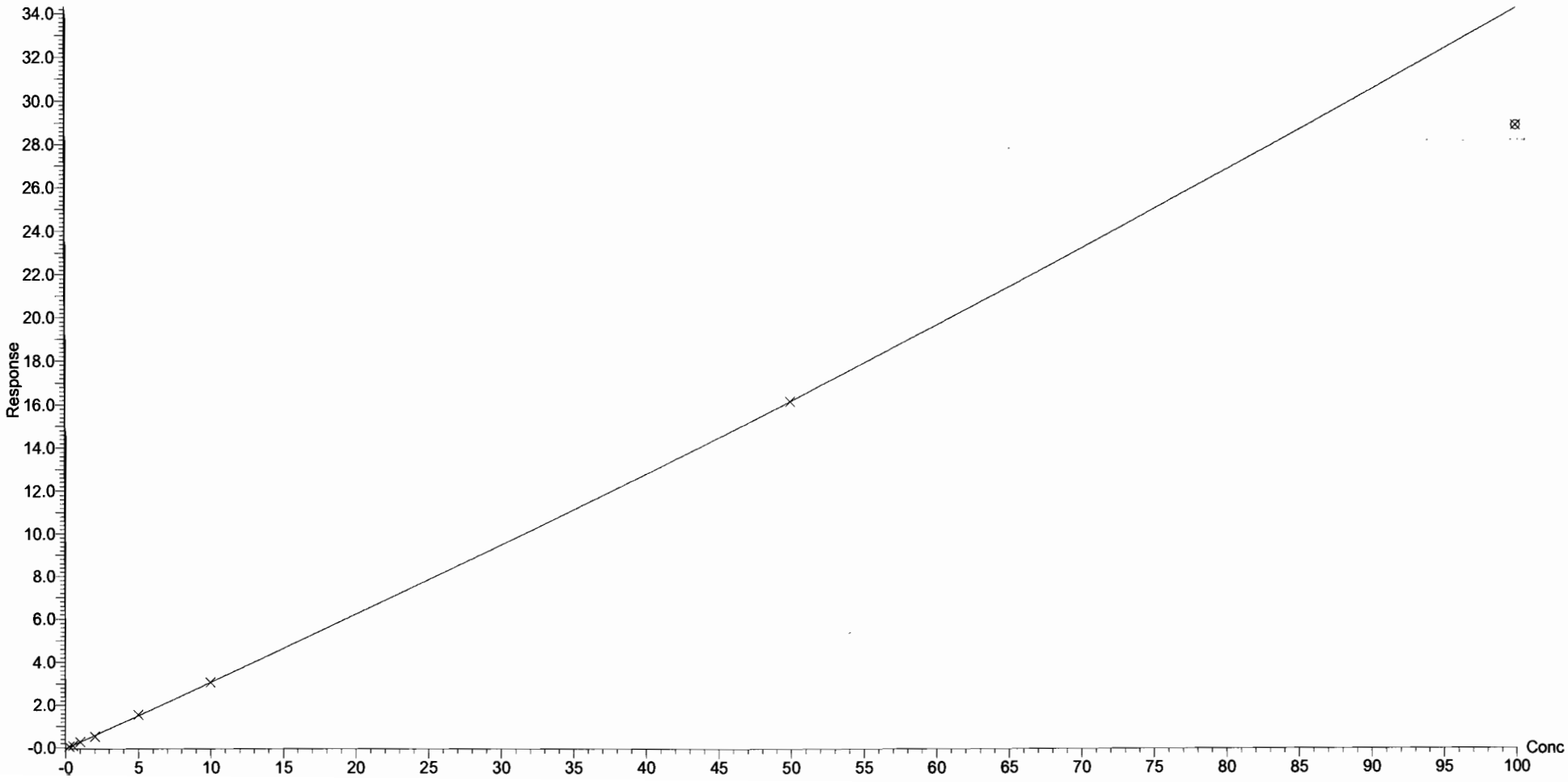
Compound name: L-PFHxS
Correlation coefficient: r = 0.999178, r^2 = 0.998357
Calibration curve: 1.9979 * x + -0.0316488
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

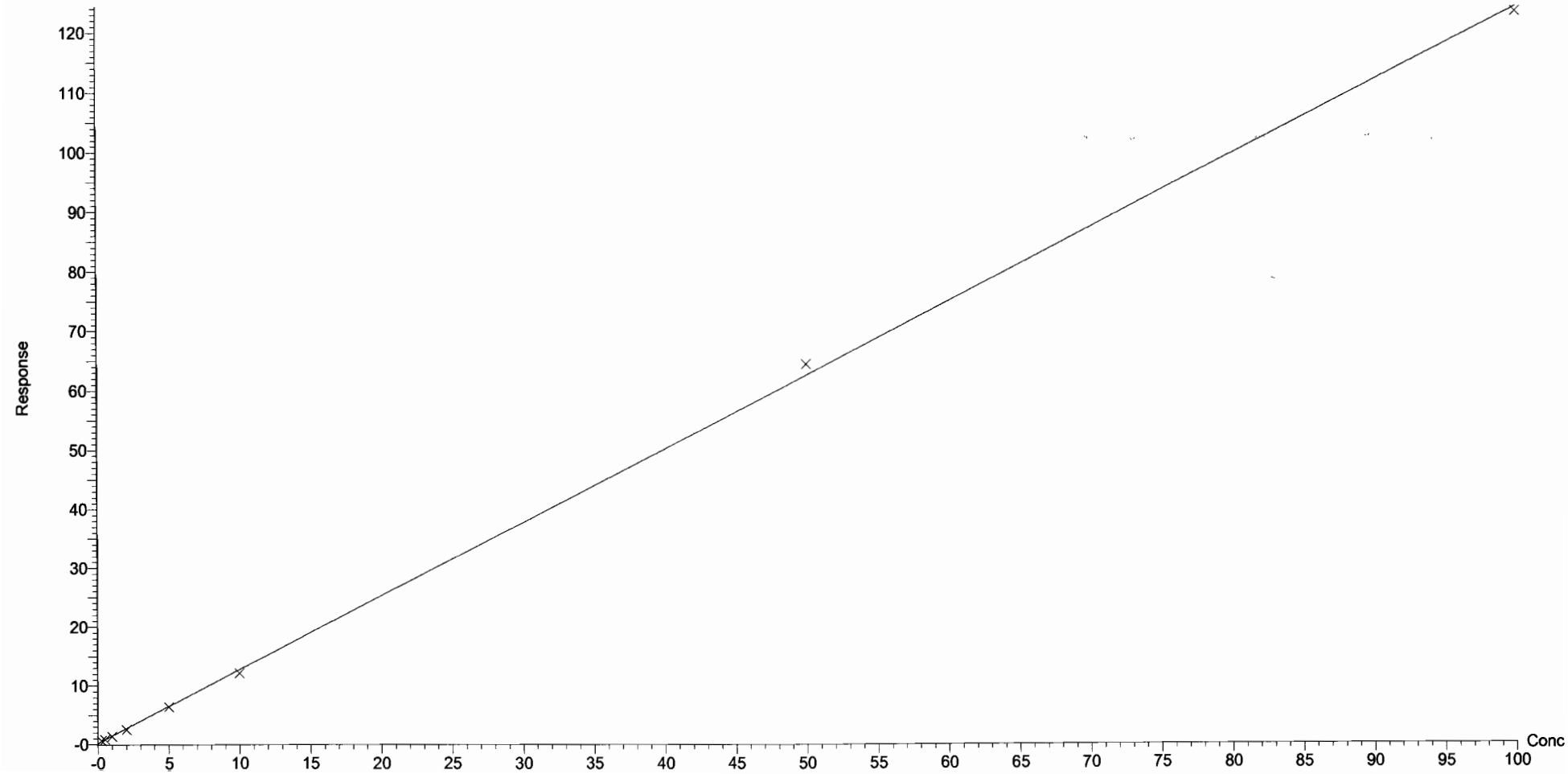
Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.999391
Calibration curve: 0.000388154 * x^2 + 0.304544 * x + -0.033568
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.999271
Calibration curve: -0.000103873 * x^2 + 1.25172 * x + 0.219686
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

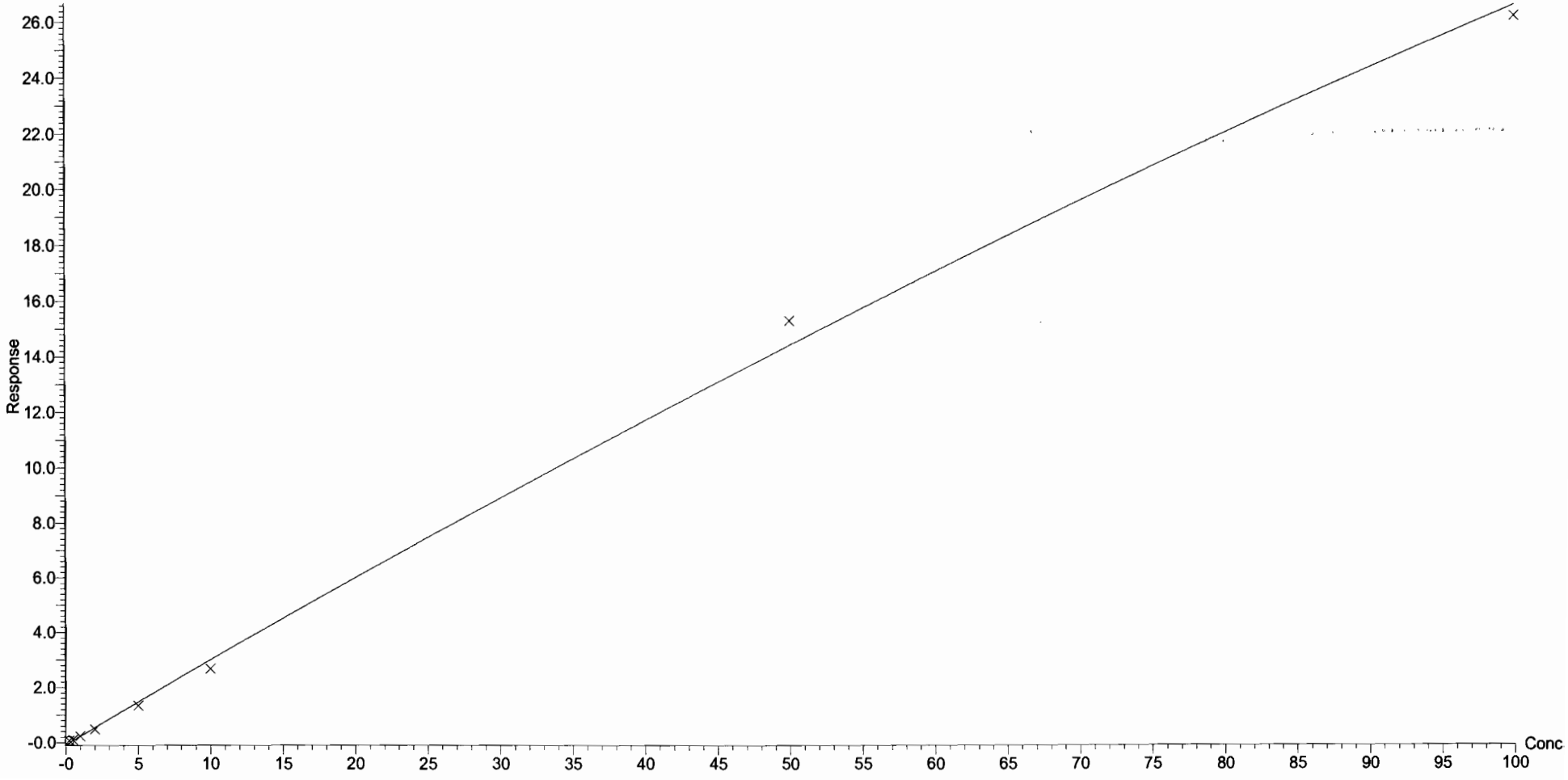


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

Compound name: PFHpS
Coefficient of Determination: R^2 = 0.997002
Calibration curve: -0.000453199 * x^2 + 0.312955 * x + -0.0835439
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



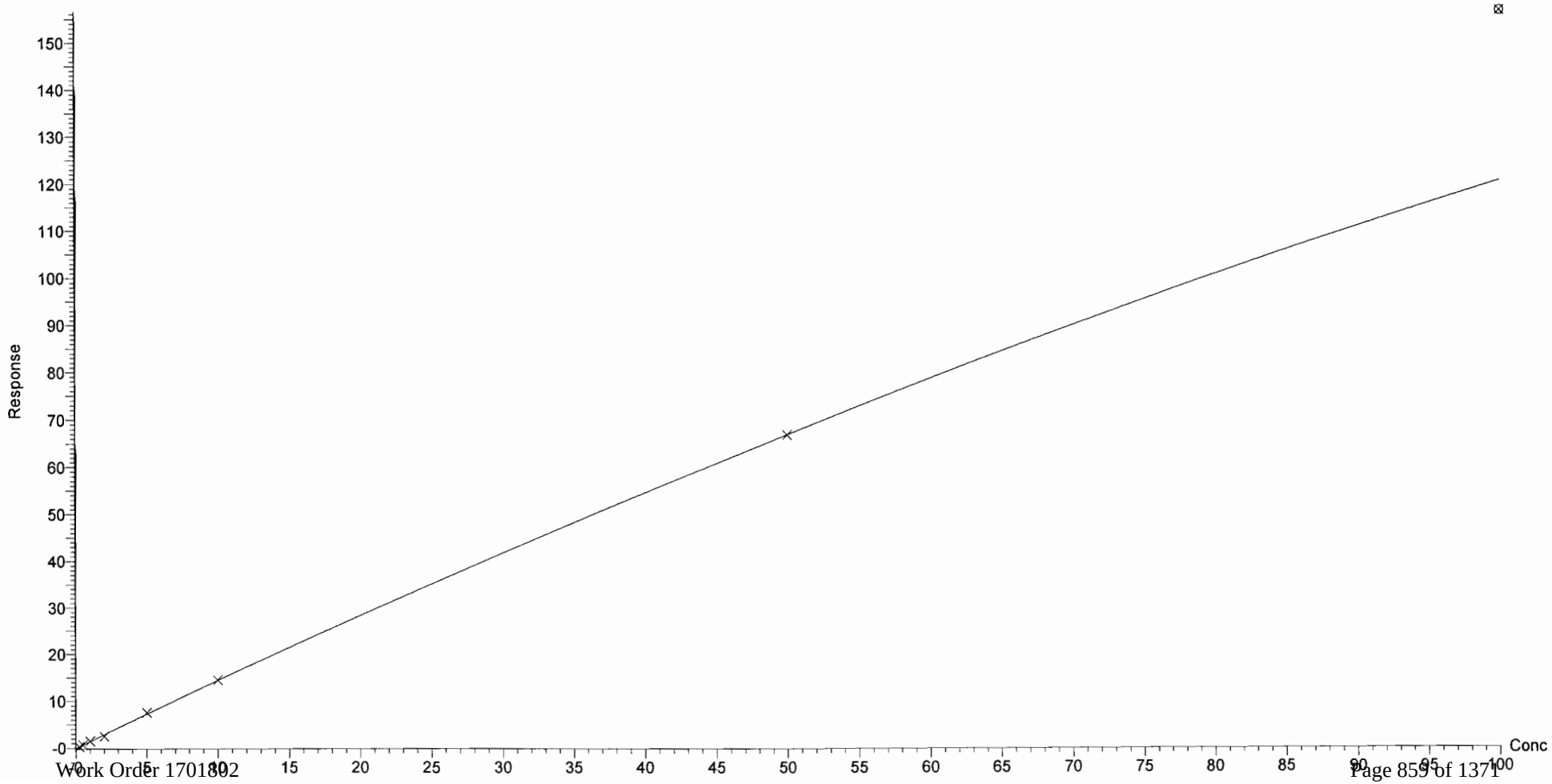
Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 11:12:59 Pacific Standard Time
Printed: Wednesday, January 03, 2018 11:13:35 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 03 Jan 2018 08:57:44
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

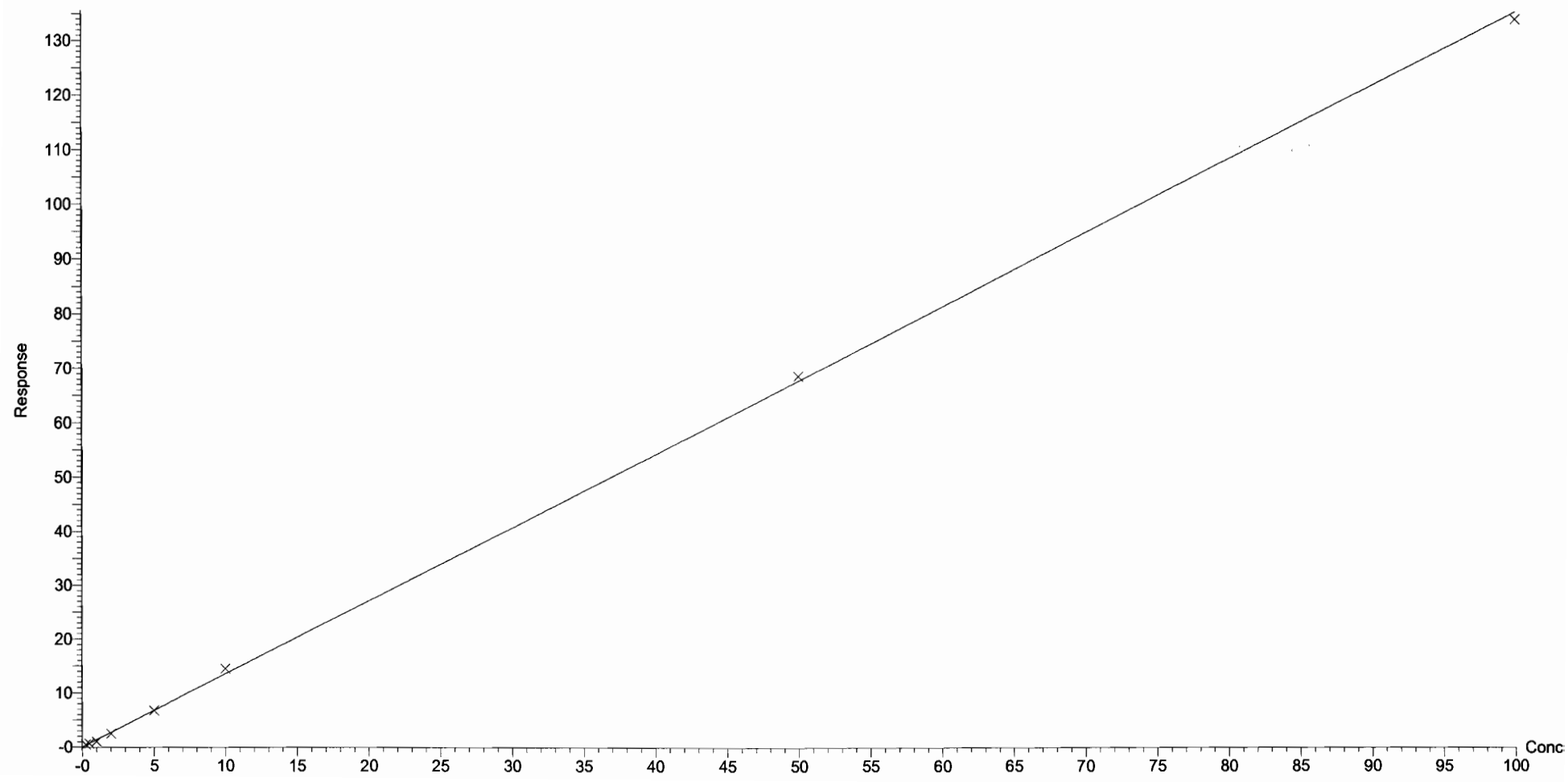
Compound name: PFNA
Coefficient of Determination: R^2 = 0.998828
Calibration curve: -0.0026515 * x^2 + 1.47025 * x + -0.0610636
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

Compound name: PFOSA
Correlation coefficient: r = 0.999523, r^2 = 0.999047
Calibration curve: 1.3556 * x + -0.0180652
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

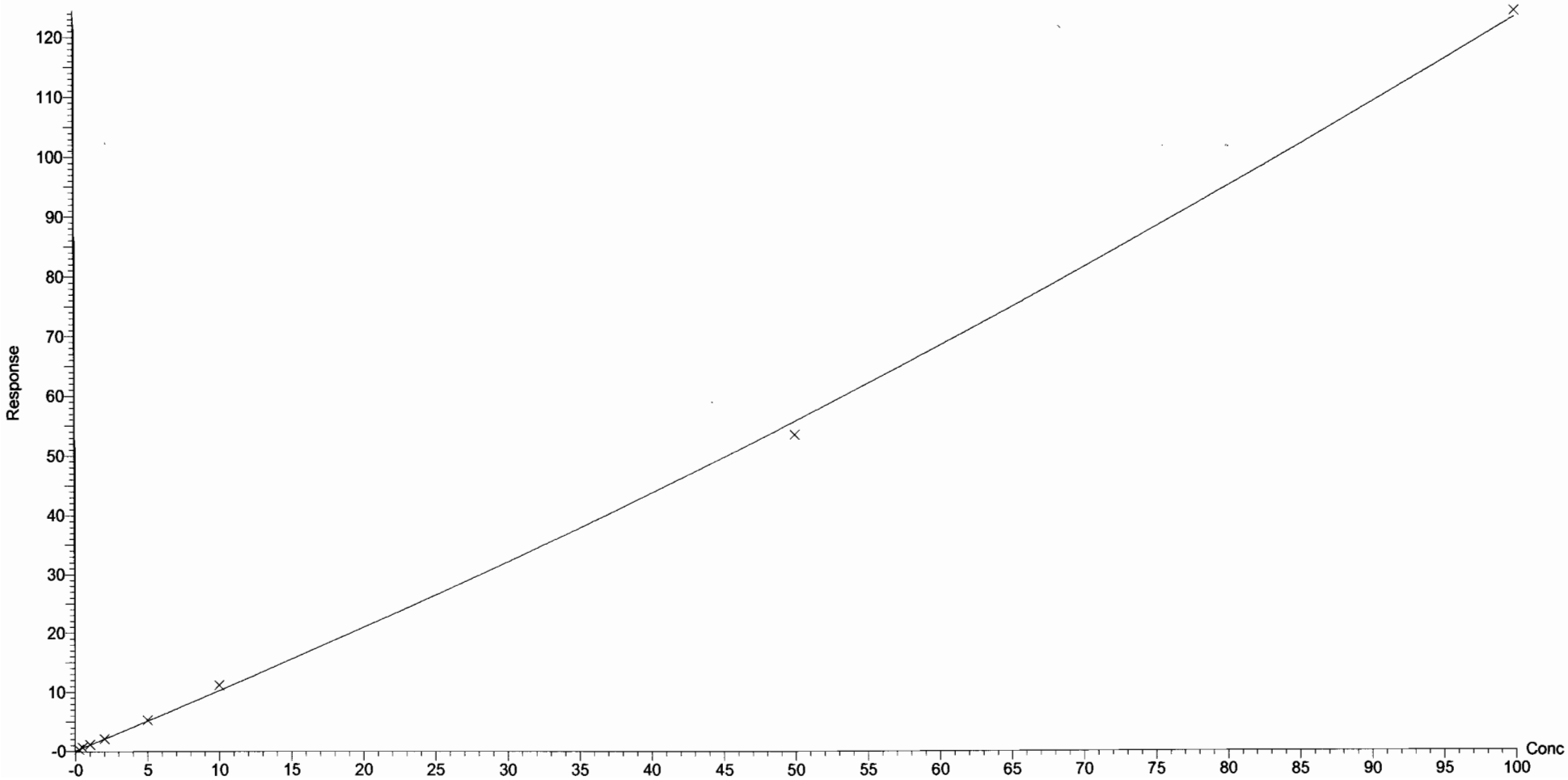


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

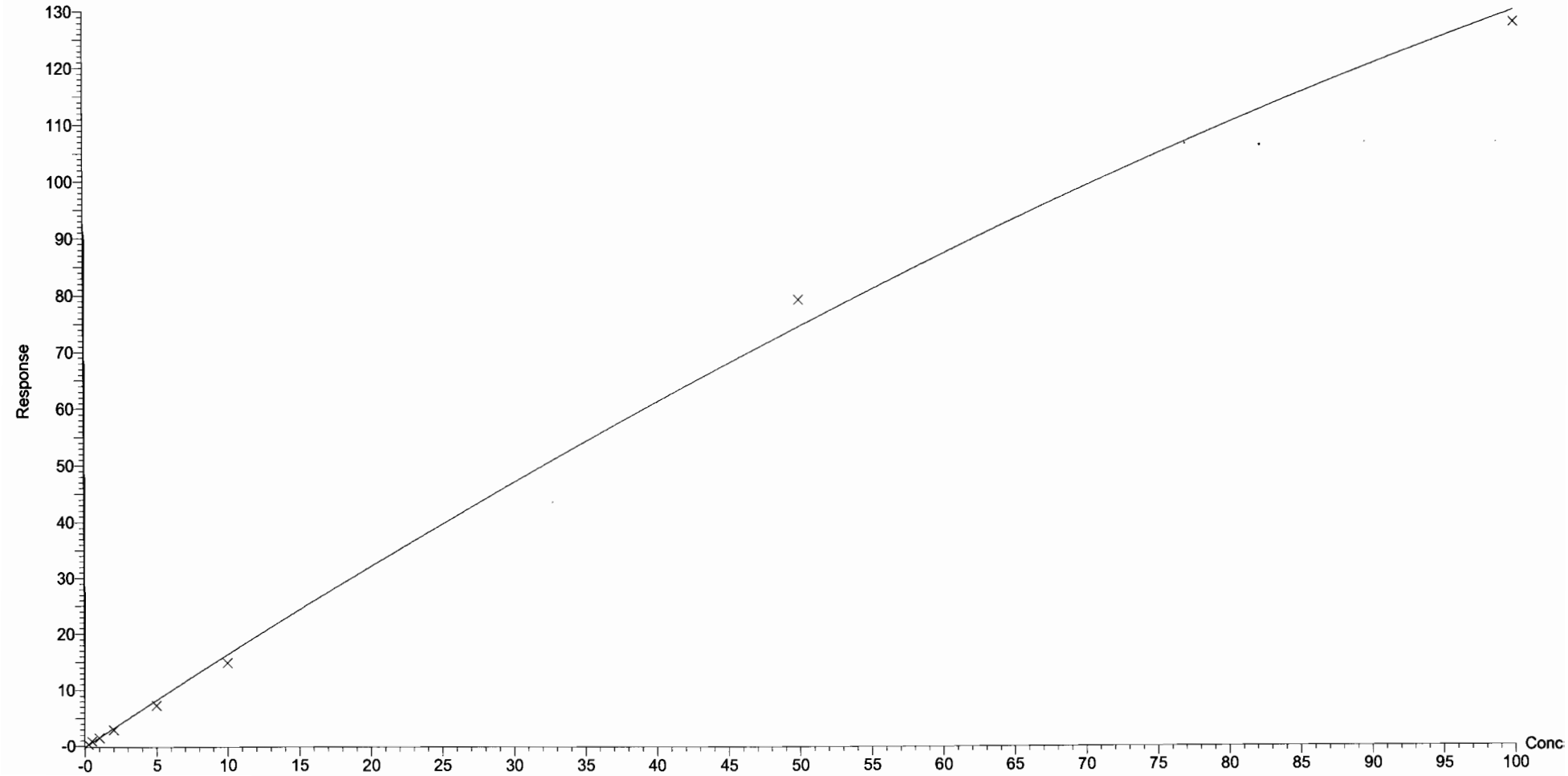
Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.999016
Calibration curve: 0.00240525 * x^2 + 0.993312 * x + 0.0576985
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

Compound name: PFDA
Coefficient of Determination: R^2 = 0.996665
Calibration curve: -0.00380311 * x^2 + 1.68255 * x + -0.179654
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

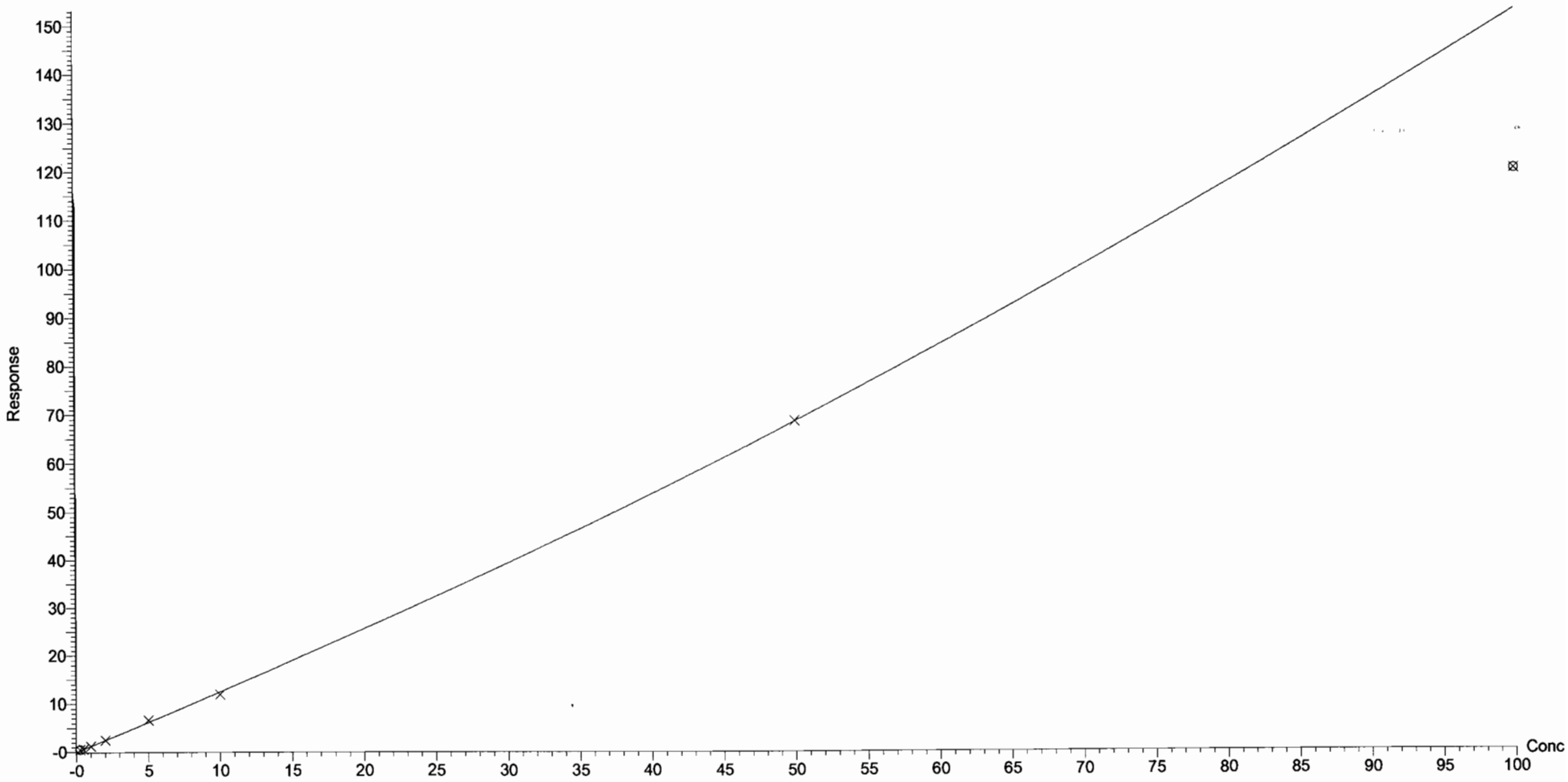


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

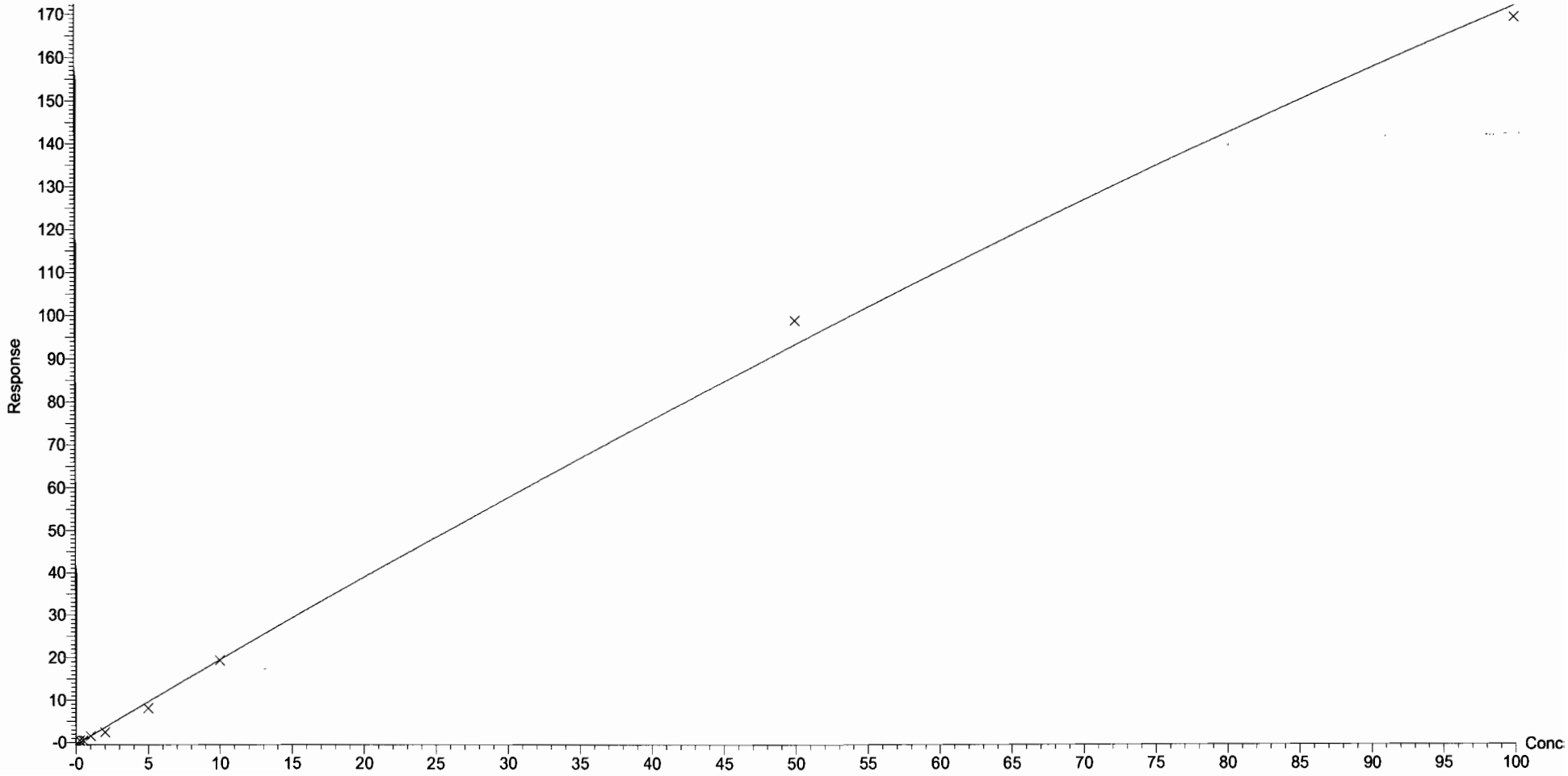
Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.999379
Calibration curve: 0.00321238 * x^2 + 1.21 * x + 0.026507
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

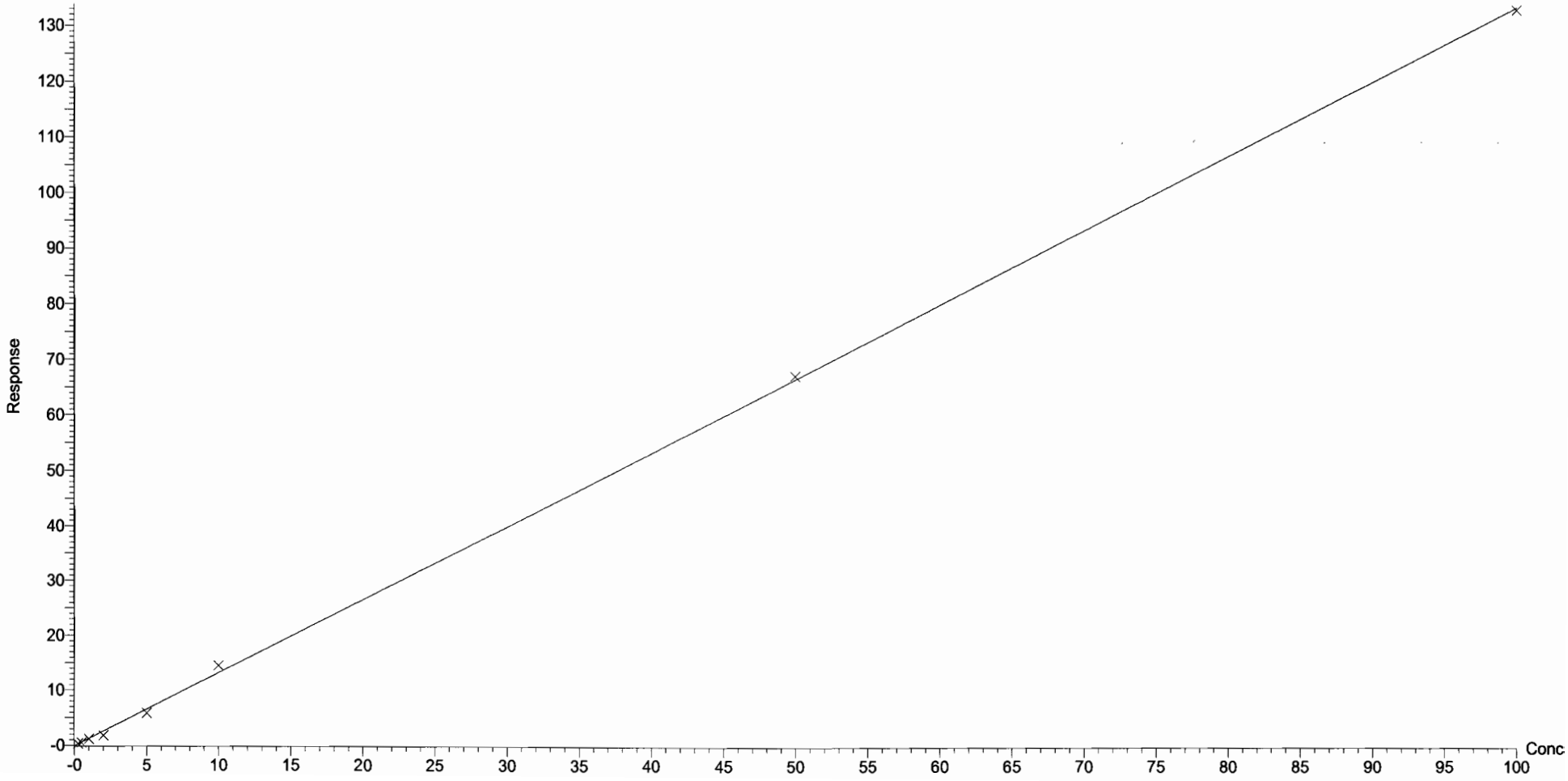
Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.995661
Calibration curve: -0.00295106 * x^2 + 2.02309 * x + -0.48271
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

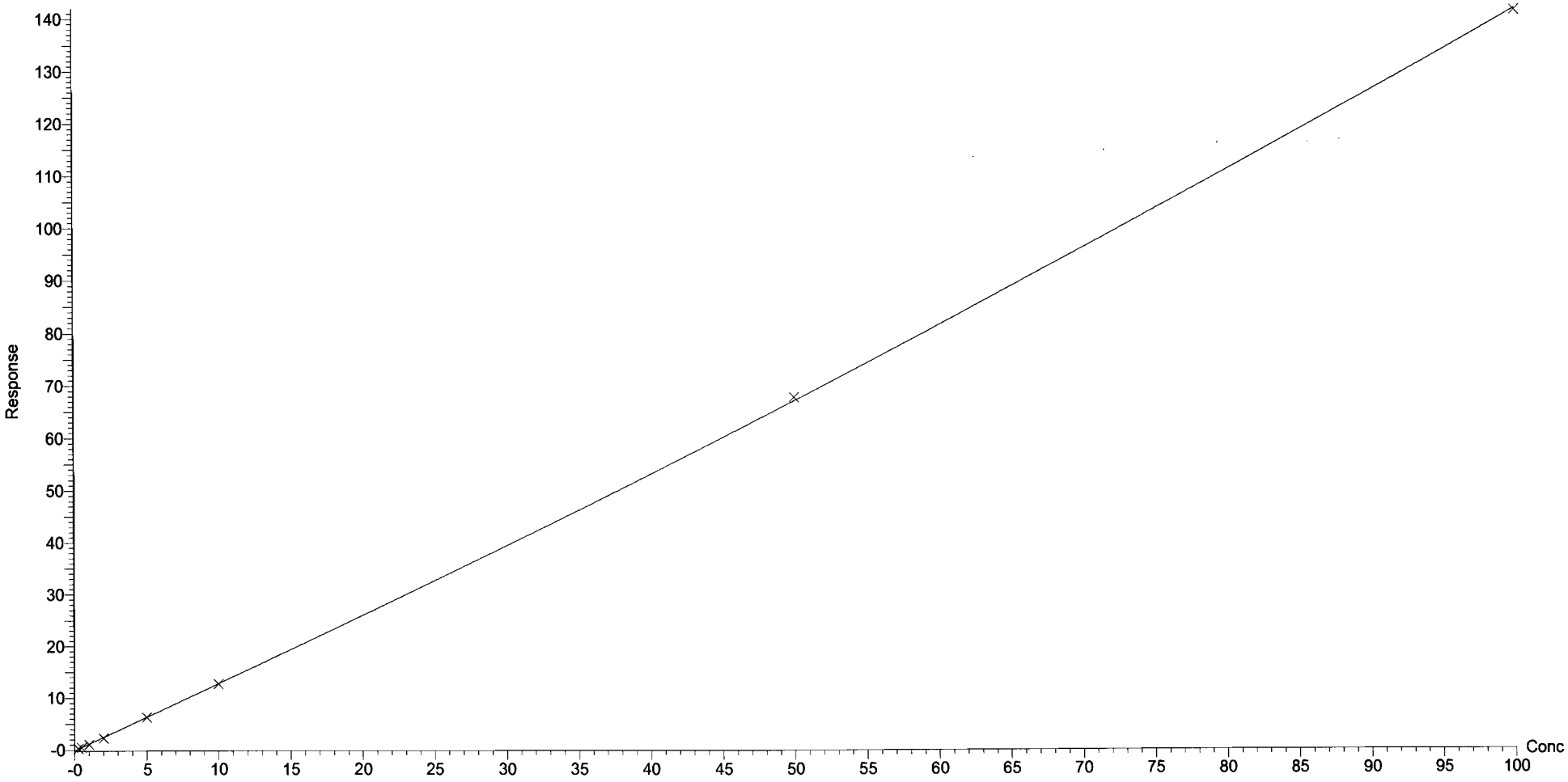
Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.997767
Calibration curve: 9.13857e-005 * x^2 + 1.33013 * x + -0.086728
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

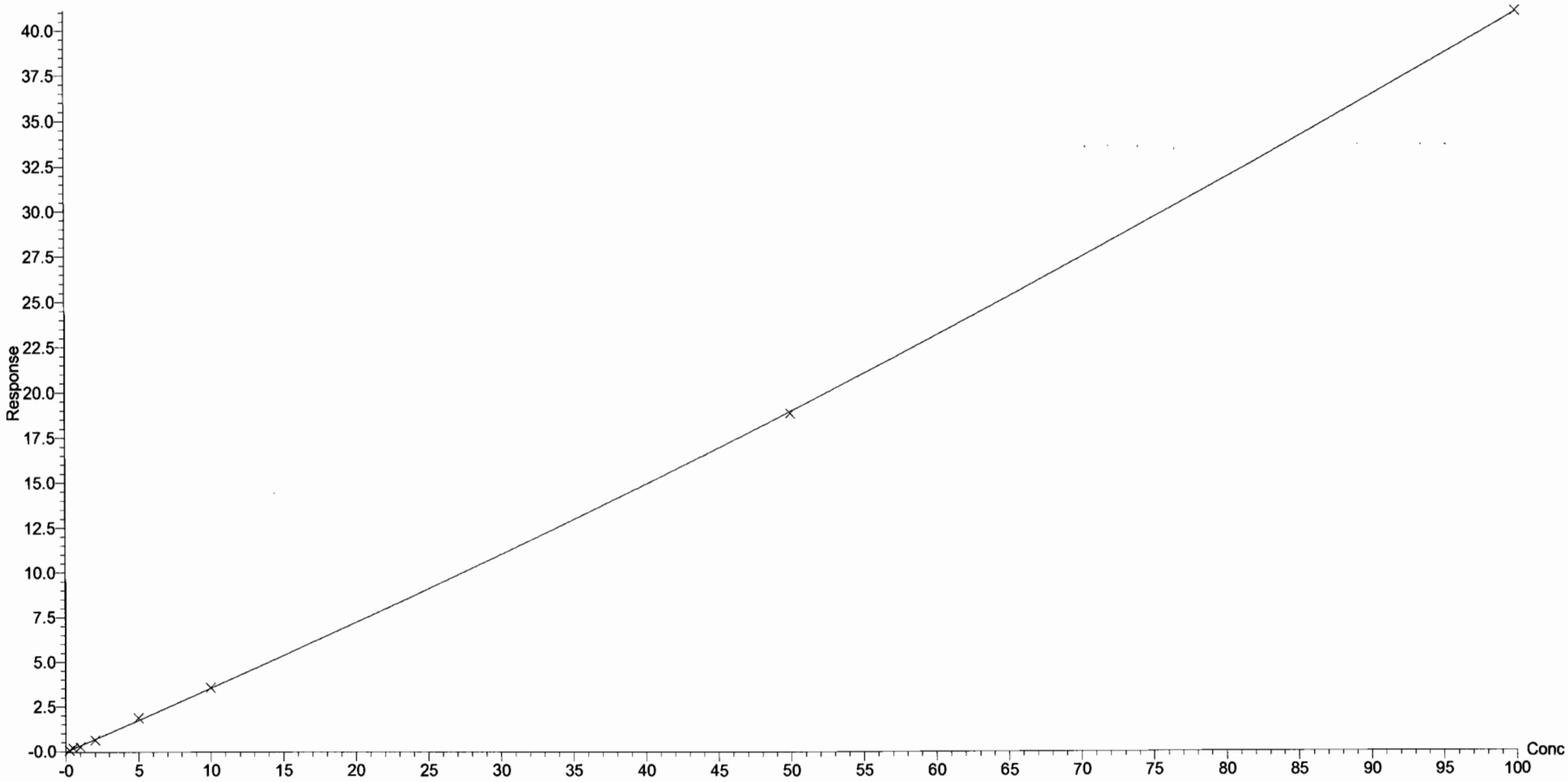
Compound name: PFUdA
Coefficient of Determination: R^2 = 0.999792
Calibration curve: 0.00151861 * x^2 + 1.26795 * x + -0.0897658
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

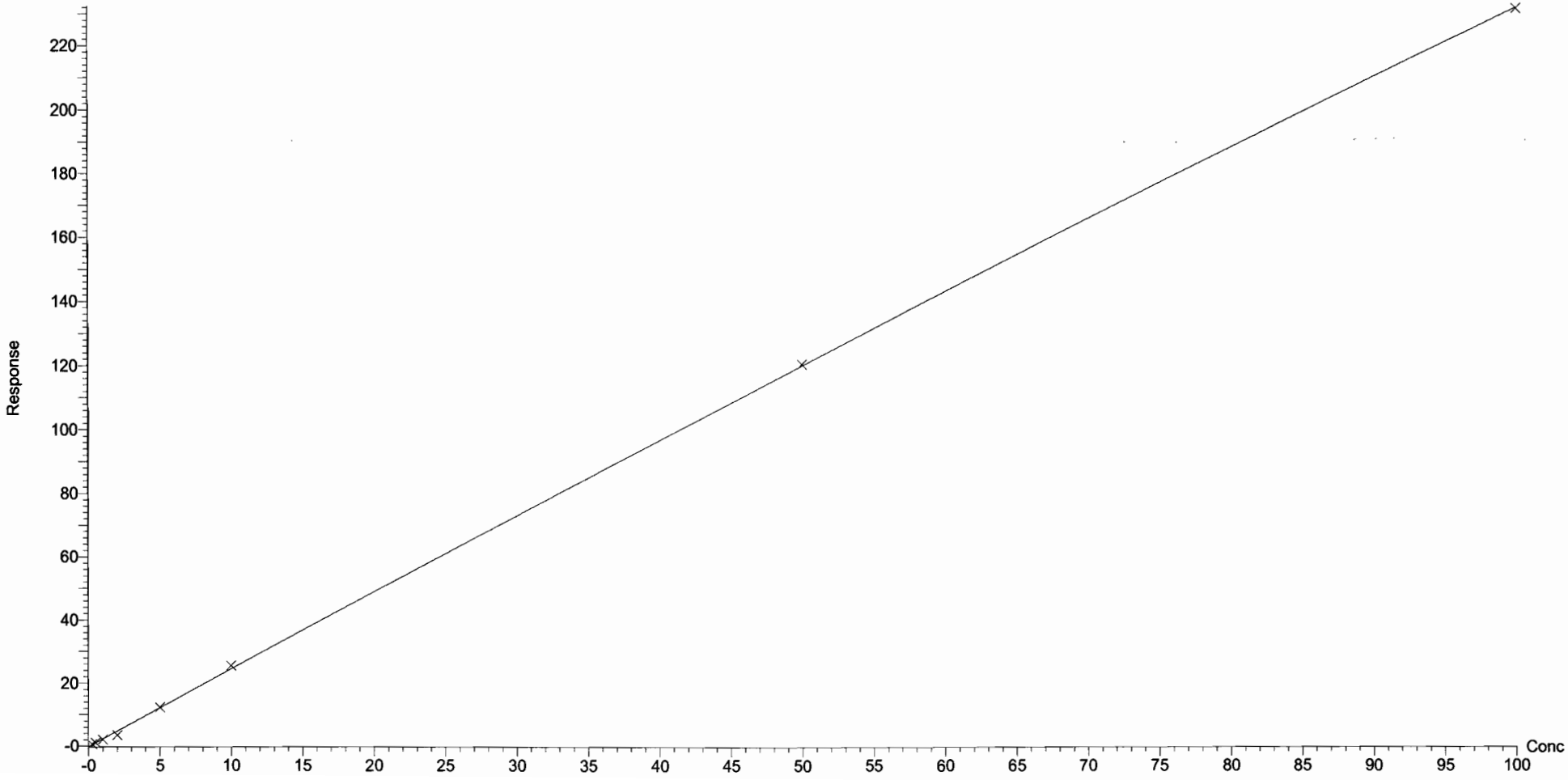
Compound name: PFDS
Coefficient of Determination: R^2 = 0.999404
Calibration curve: 0.000619715 * x^2 + 0.348908 * x + -0.0321756
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

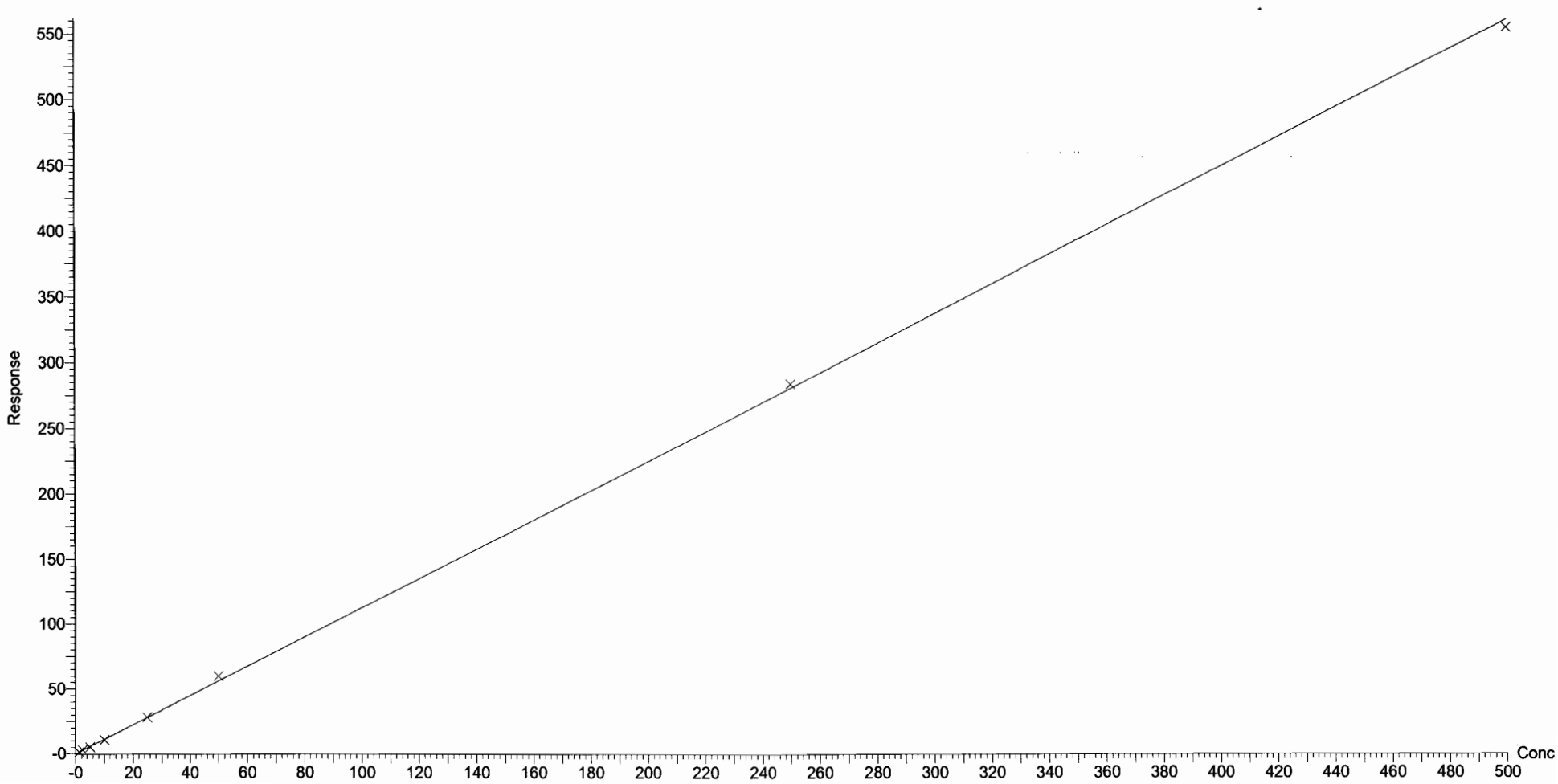
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998777
Calibration curve: -0.00160285 * x^2 + 2.48629 * x + -0.22897
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

Compound name: N-MeFOSA
Correlation coefficient: r = 0.999762, r^2 = 0.999523
Calibration curve: 1.1239 * x + -0.108539
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

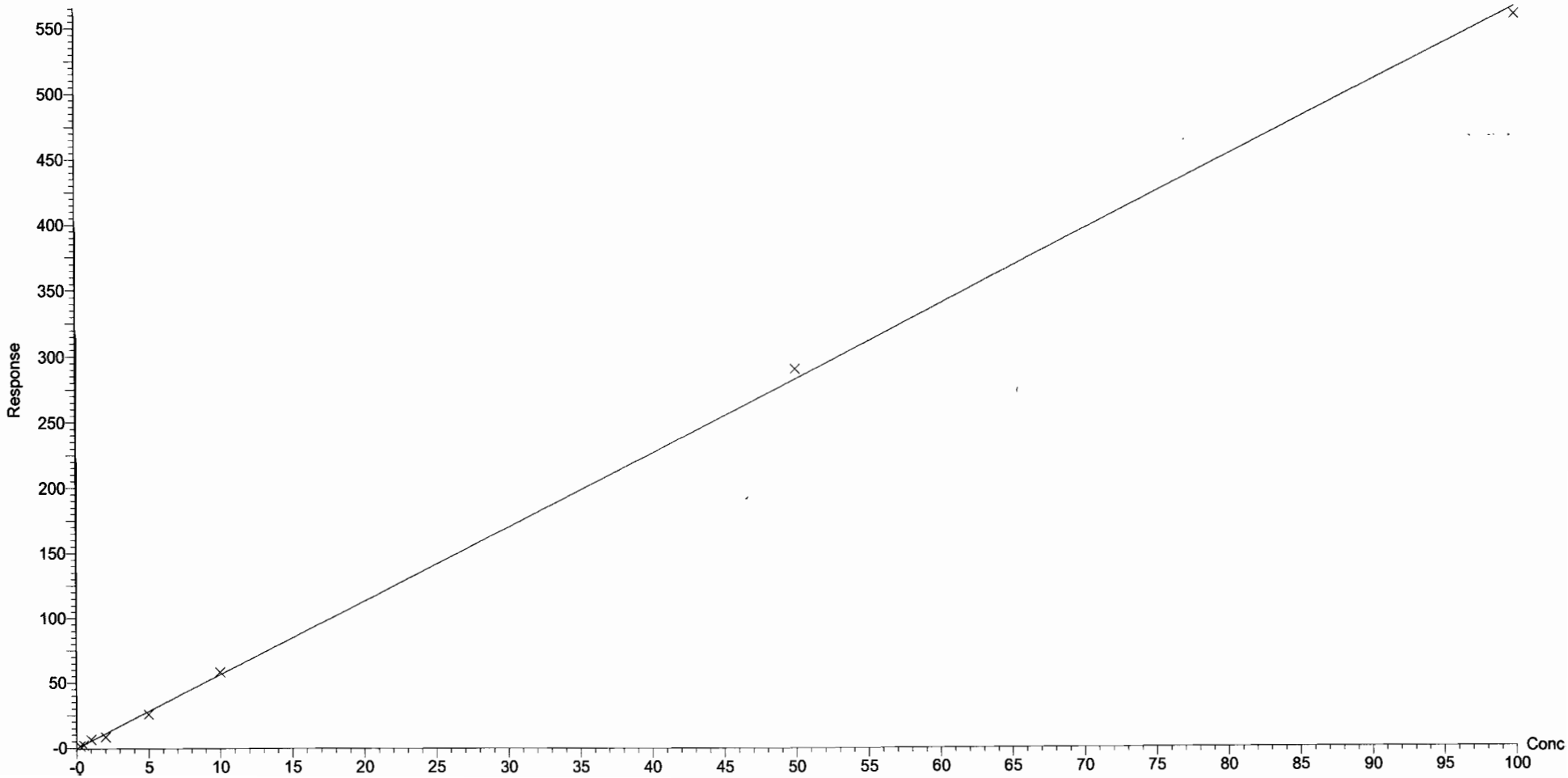


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

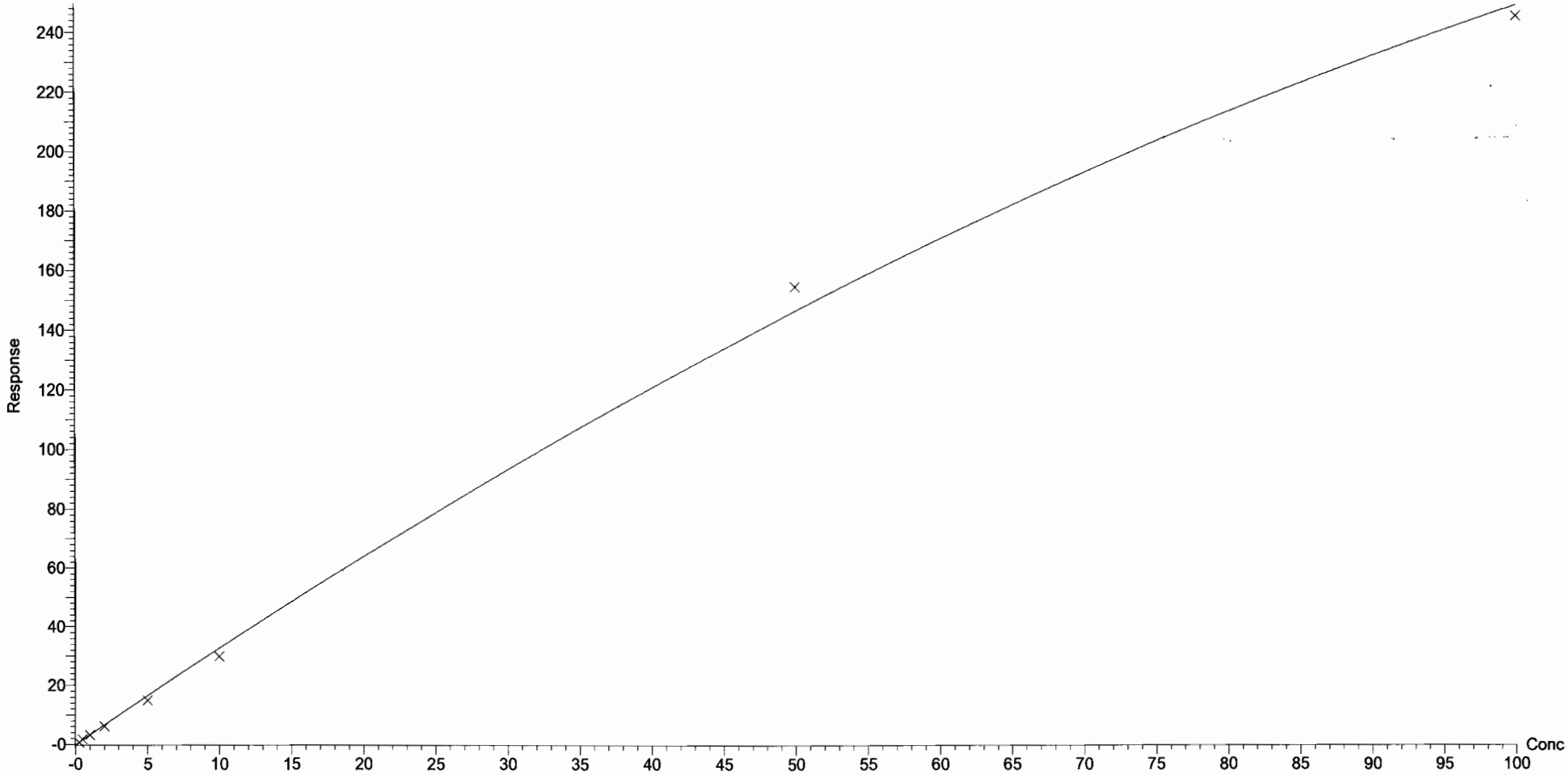
Compound name: PFTrDA
Correlation coefficient: r = 0.999249, r^2 = 0.998498
Calibration curve: 5.6605 * x + -0.467093
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

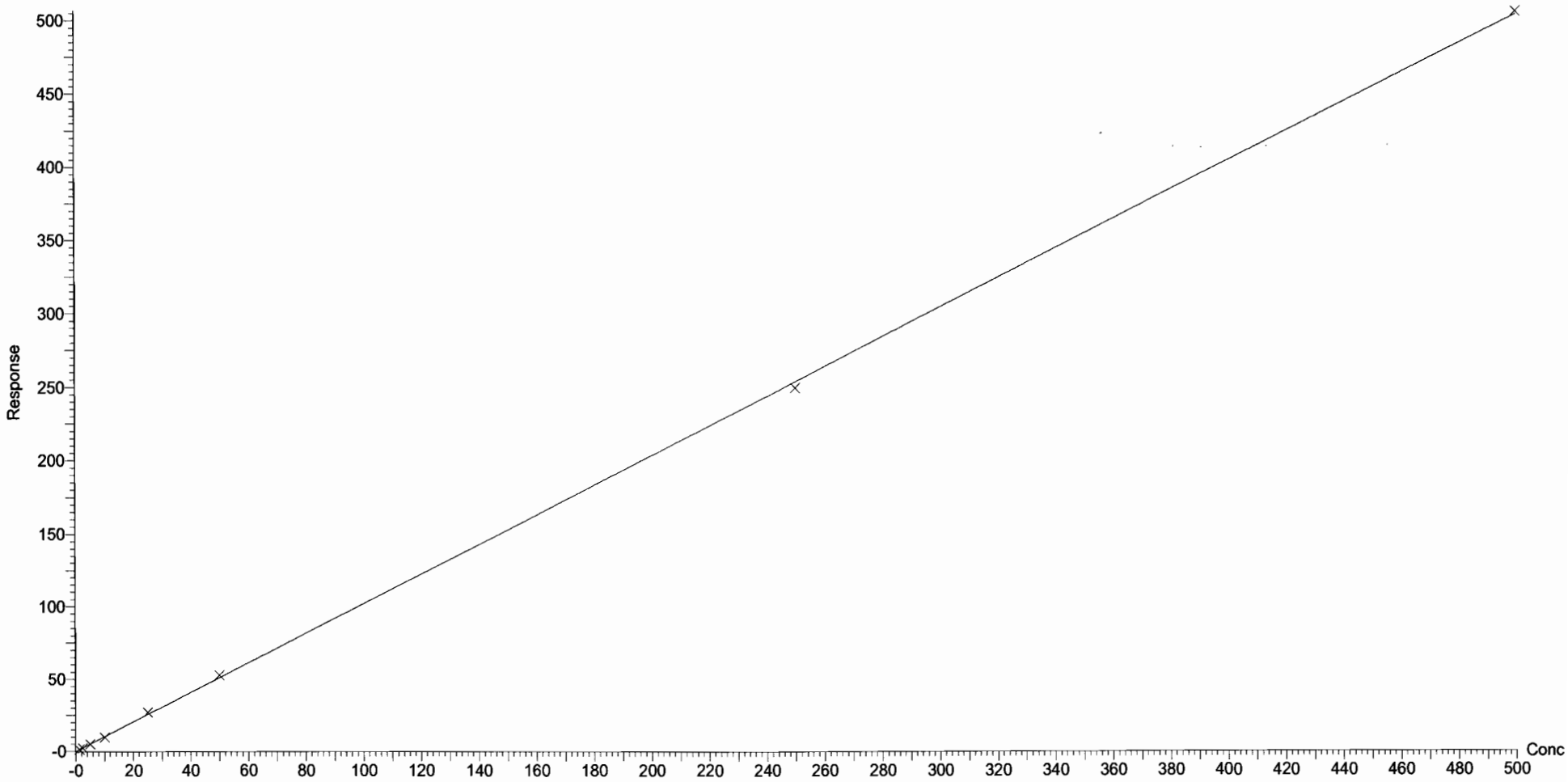
Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.997476
Calibration curve: -0.00874416 * x^2 + 3.37255 * x + -0.193713
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

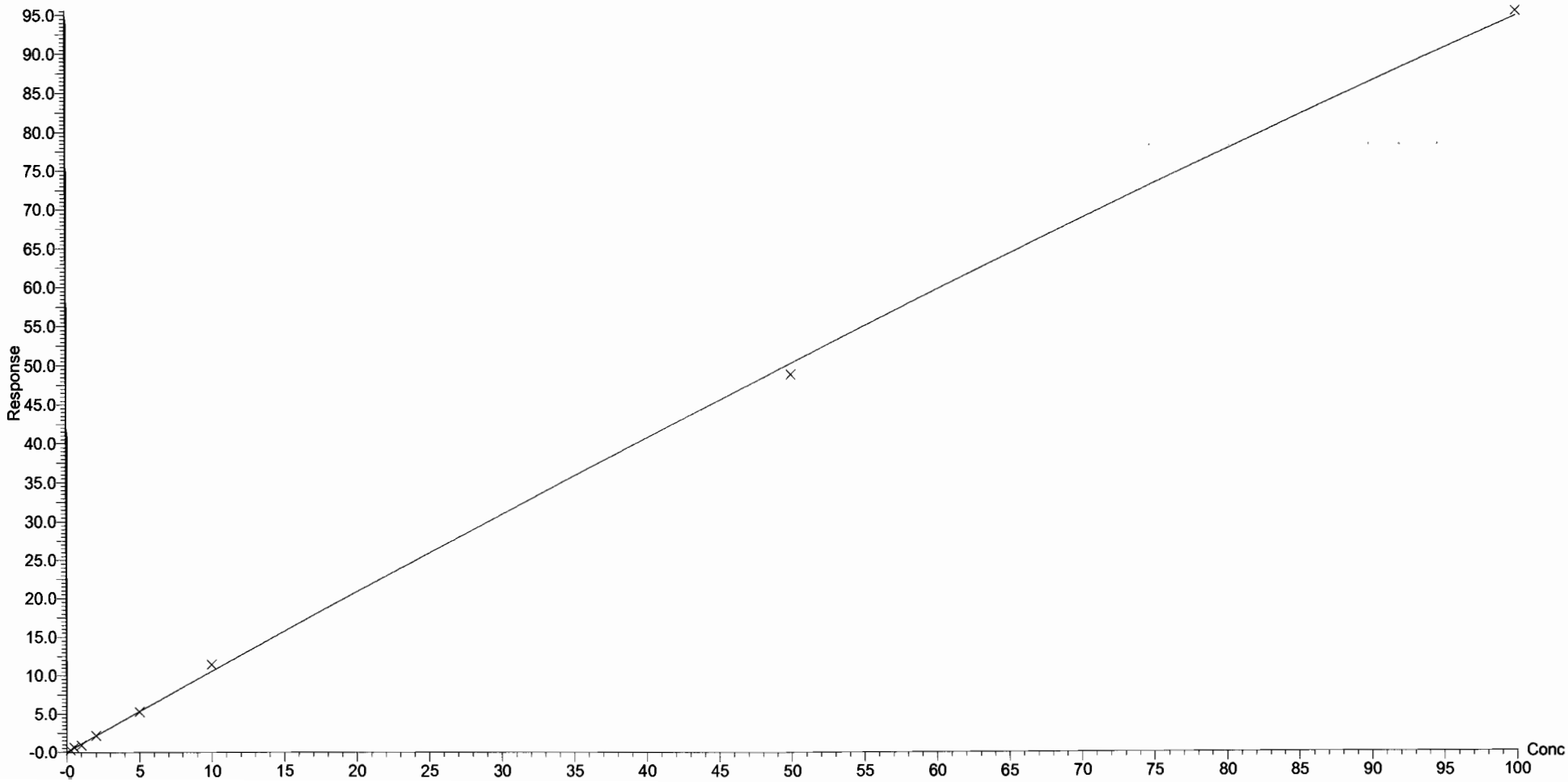
Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999640
Calibration curve: -2.4844e-005 * x^2 + 1.02224 * x + -0.049377
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998895
Calibration curve: -0.00112888 * x^2 + 1.06189 * x + 0.0169353
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

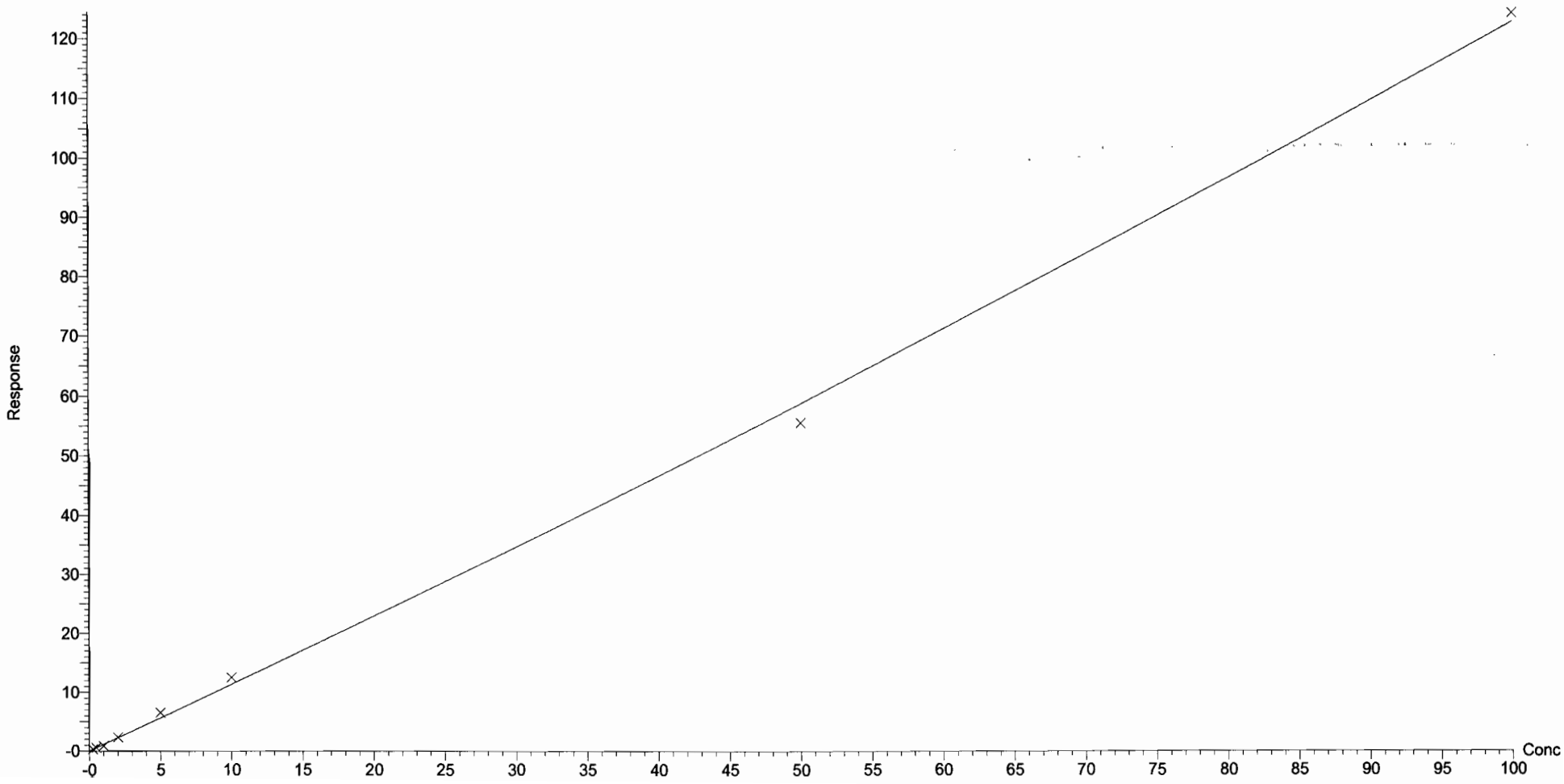


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

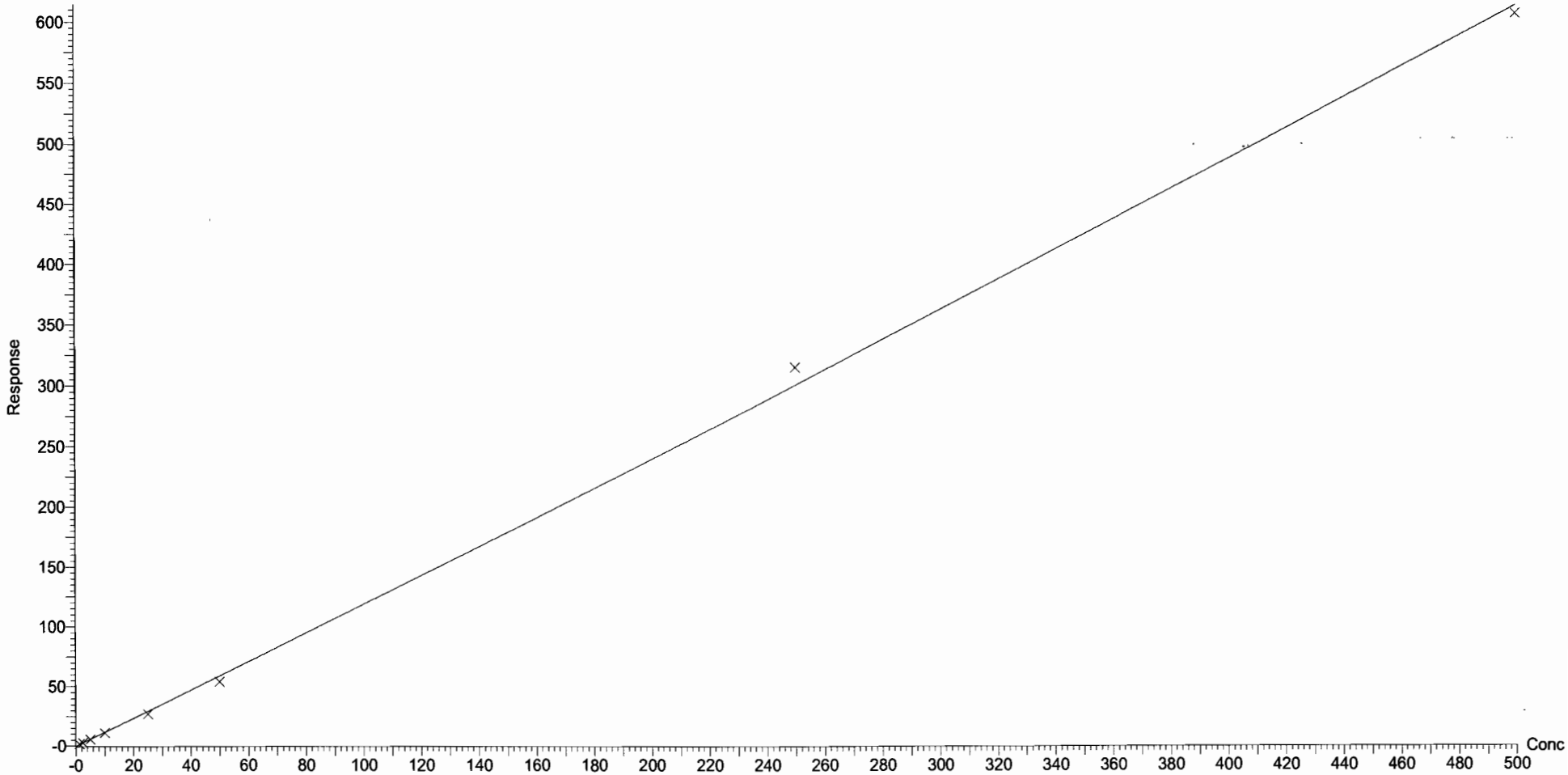
Compound name: PFODA
Coefficient of Determination: R^2 = 0.997481
Calibration curve: 0.00107929 * x^2 + 1.12186 * x + -0.011842
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

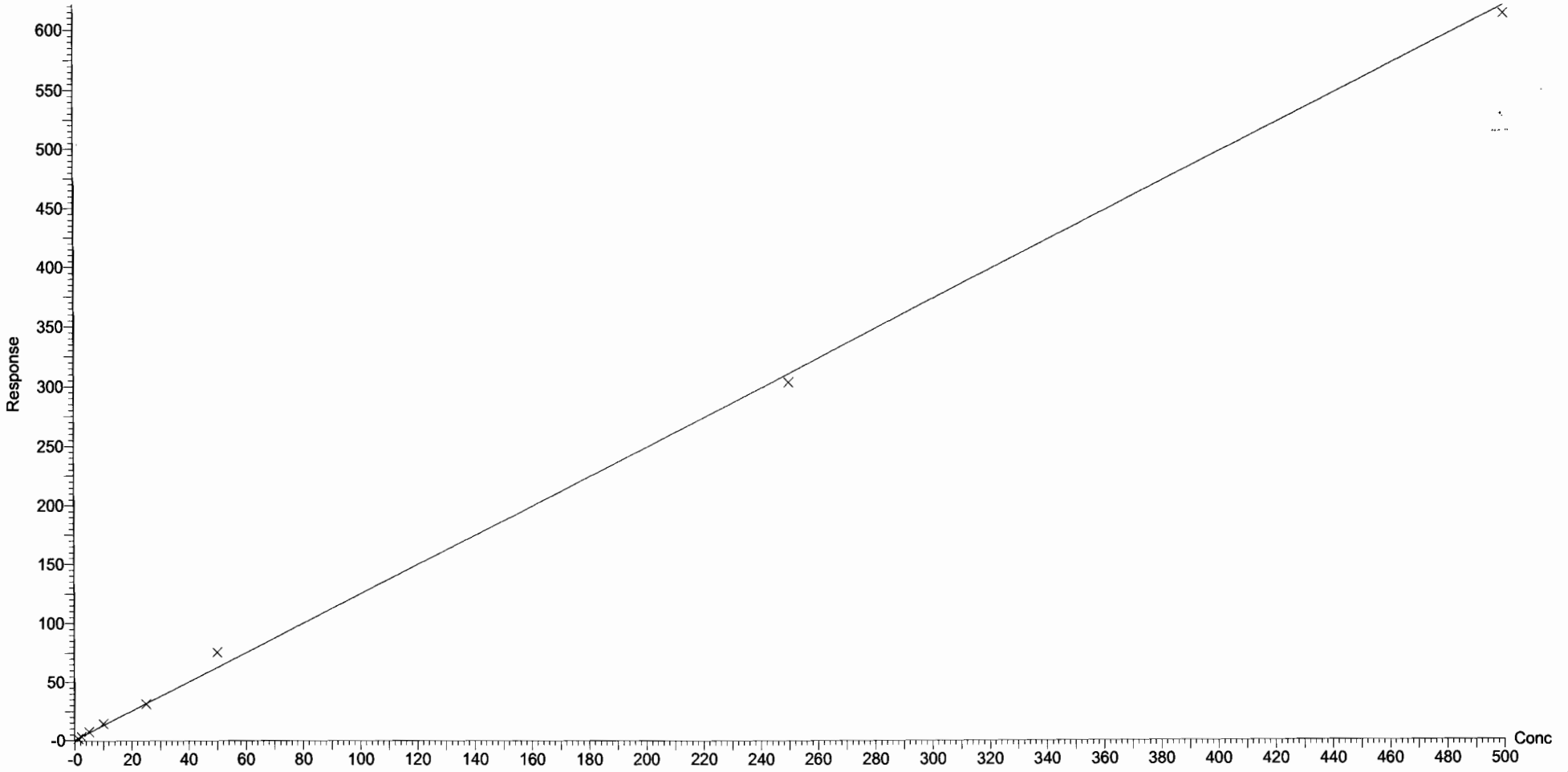
Compound name: N-MeFOSE
Coefficient of Determination: R^2 = 0.998506
Calibration curve: 0.000105341 * x^2 + 1.17709 * x + -0.269877
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:38:46 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:39:35 Pacific Standard Time

Compound name: N-EtFOSE
Correlation coefficient: r = 0.998320, r^2 = 0.996643
Calibration curve: 1.24163 * x + 0.370762
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



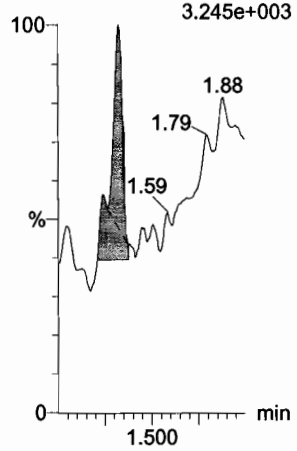
Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

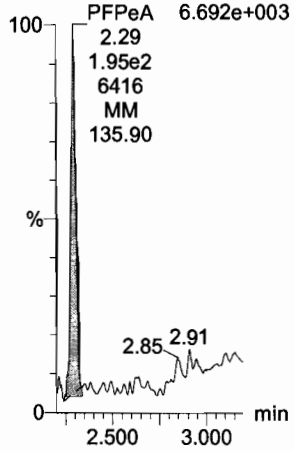
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 03 Jan 2018 08:57:44
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 10:30:34

Name: 180102M2_2, Date: 02-Jan-2018, Time: 15:35:49, ID: ST180102M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

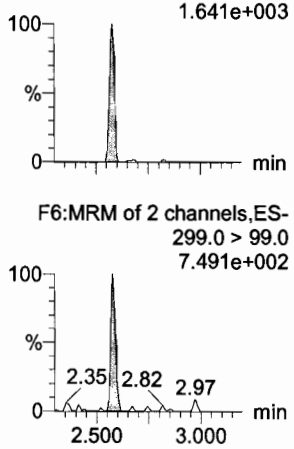
PFBA



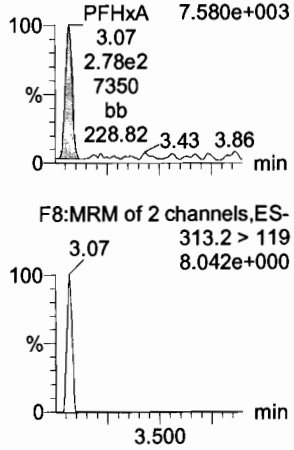
PFPeA



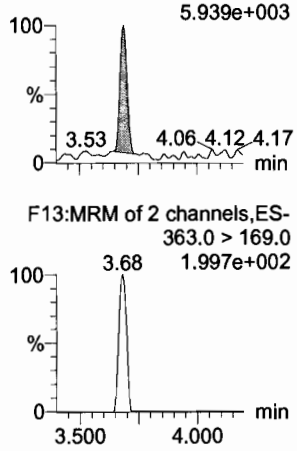
PFBS



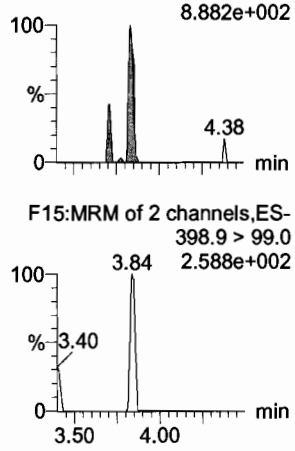
PFHxA



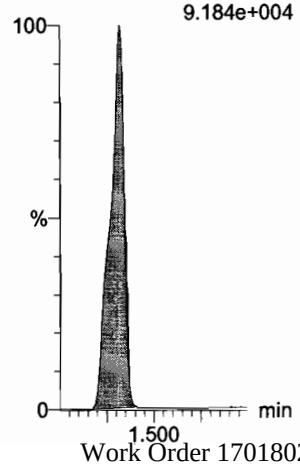
PFHpA



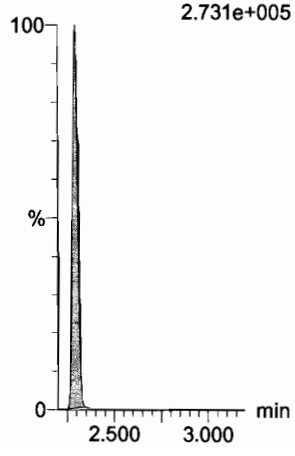
L-PFHxS



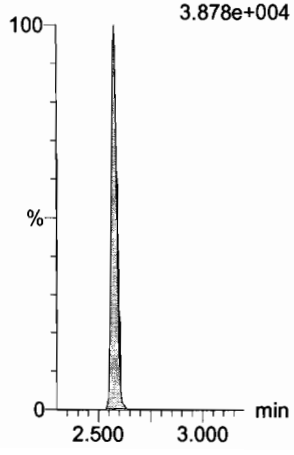
13C3-PFBA



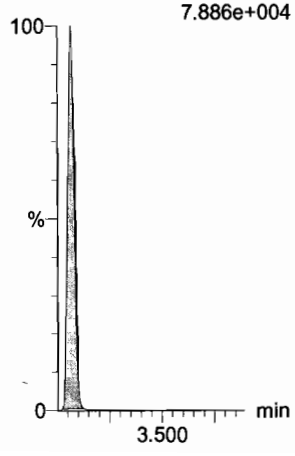
13C3-PFPeA



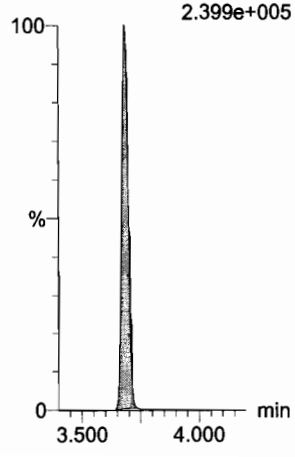
13C3-PFBS



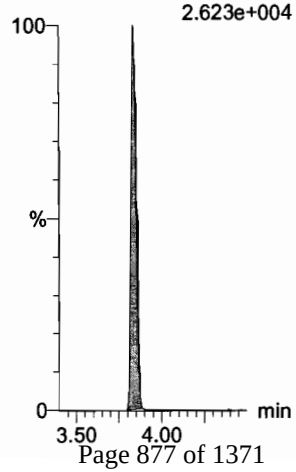
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

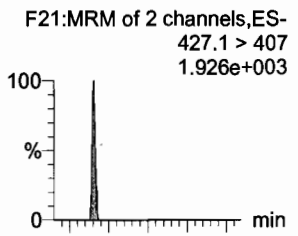


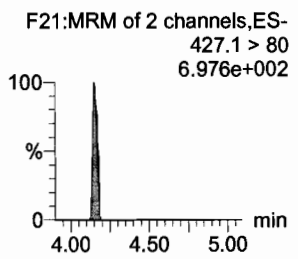
Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

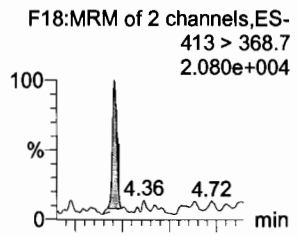
Name: 180102M2_2, Date: 02-Jan-2018, Time: 15:35:49, ID: ST180102M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

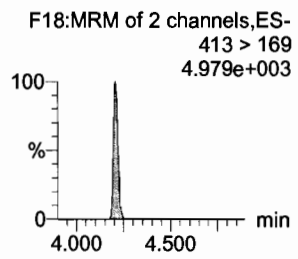
6:2 FTS



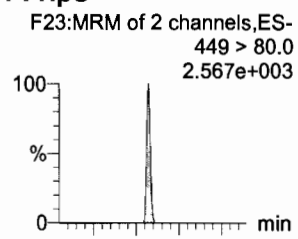


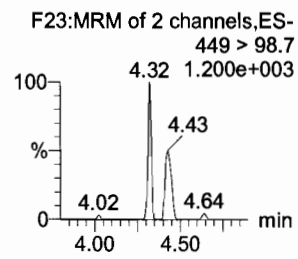
L-PFOA



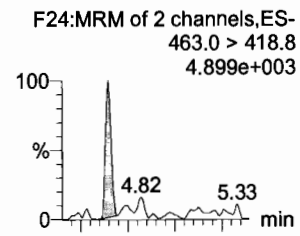


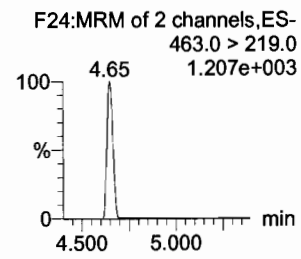
PFHpS



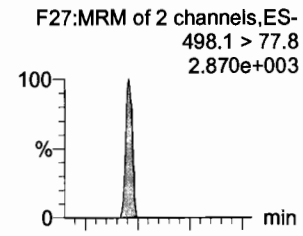


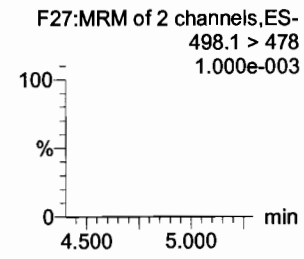
PFNA



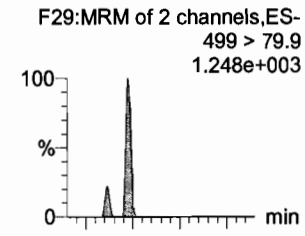


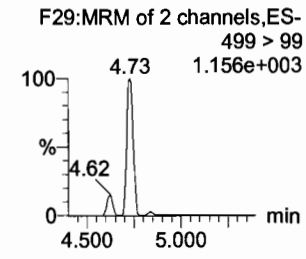
PFOSA



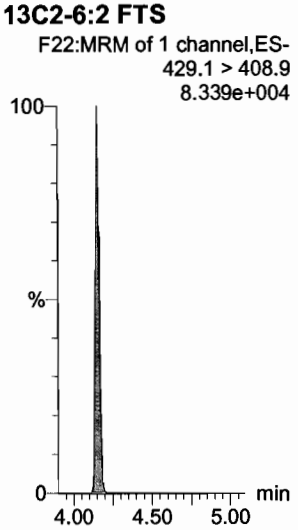


L-PFOS

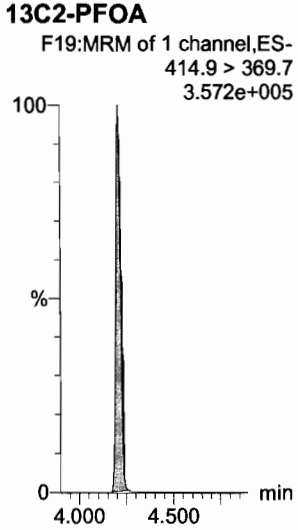




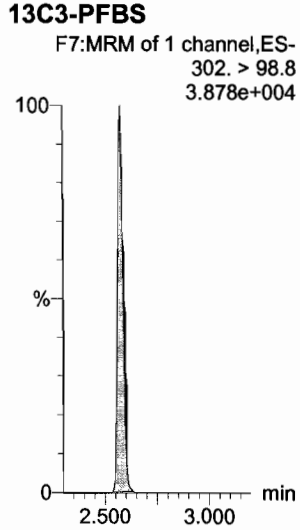
13C2-6:2 FTS



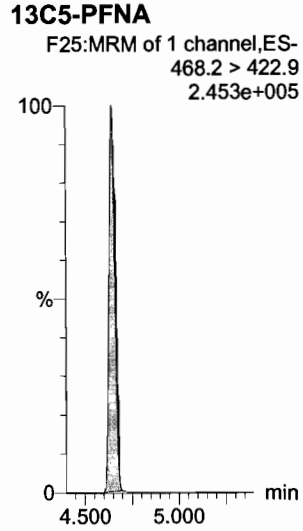
13C2-PFOA



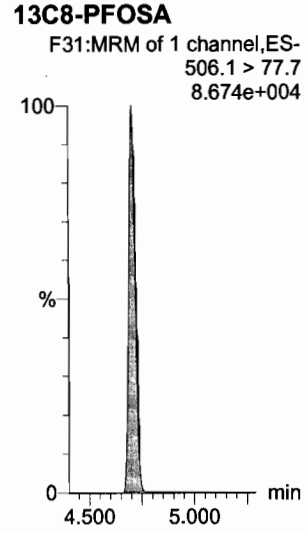
13C3-PFBS



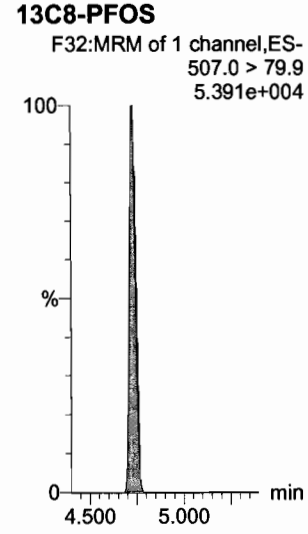
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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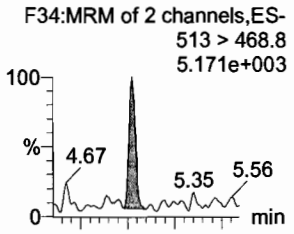
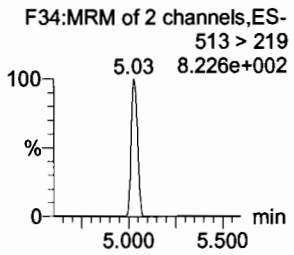
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

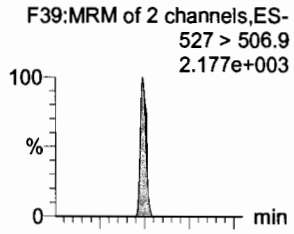
Name: 180102M2_2, Date: 02-Jan-2018, Time: 15:35:49, ID: ST180102M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

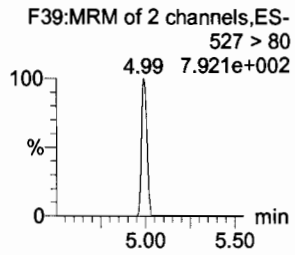
PFDA





8:2 FTS





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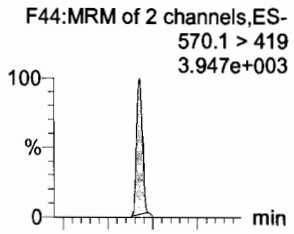
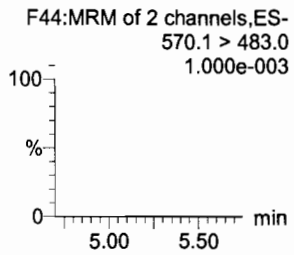
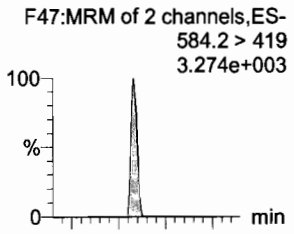
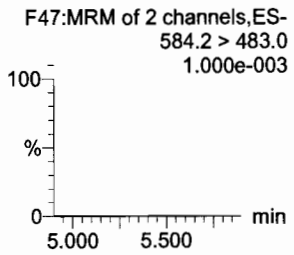


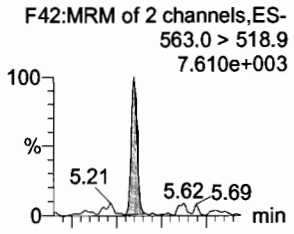


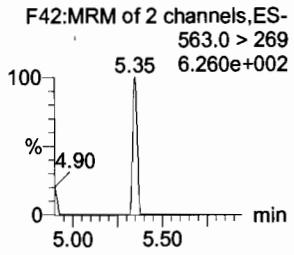
N-EtFOSAA



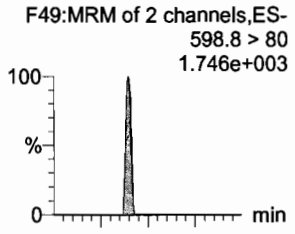


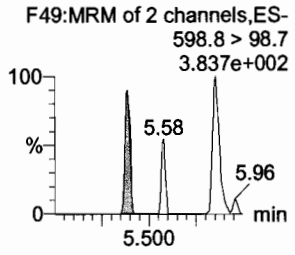
PFUdA



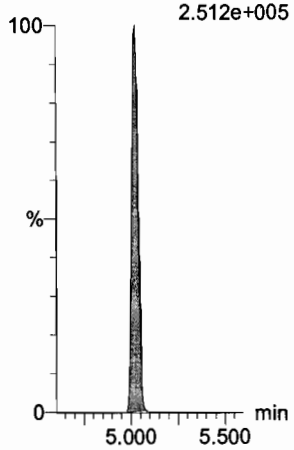


PFDS

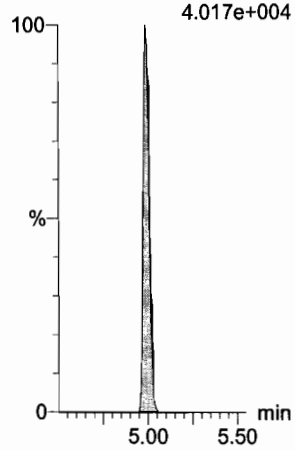




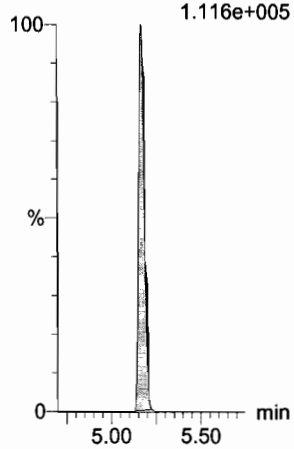
13C2-PFDA



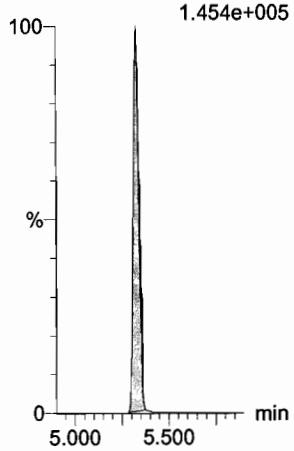
13C2-8:2 FTS



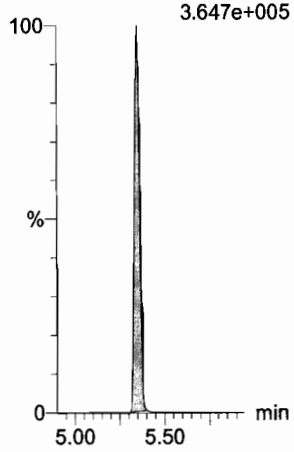
d3-N-MeFOSAA



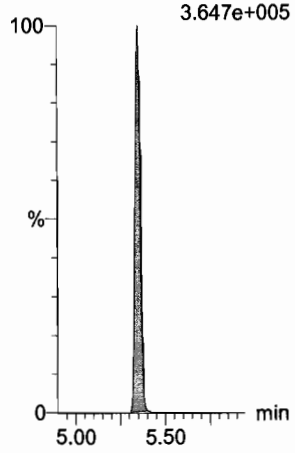
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
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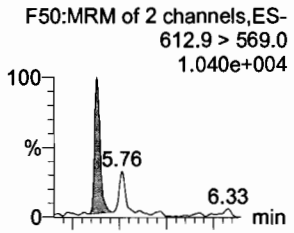
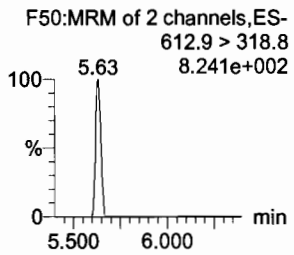
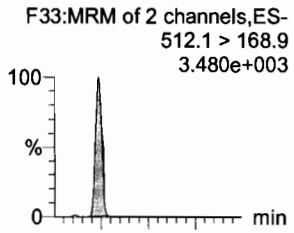
Name: 180102M2_2, Date: 02-Jan-2018, Time: 15:35:49, ID: ST180102M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

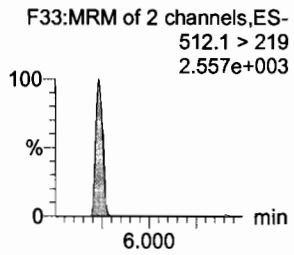
PFDoA



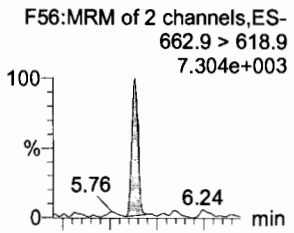


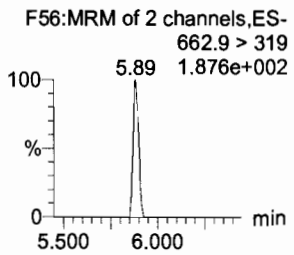
N-MeFOSA



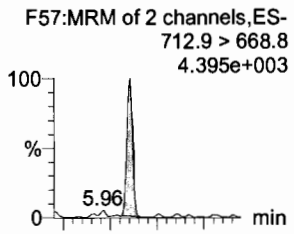


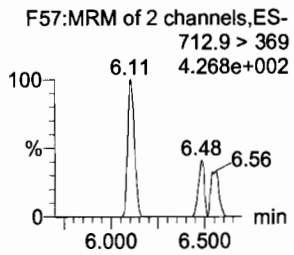
PFTrDA



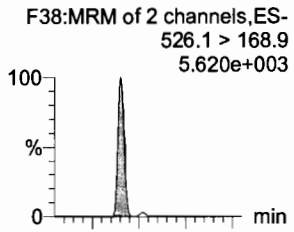


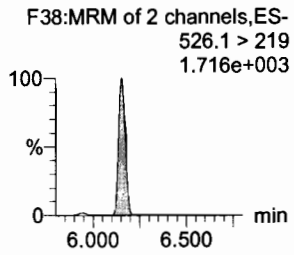
PFTeDA



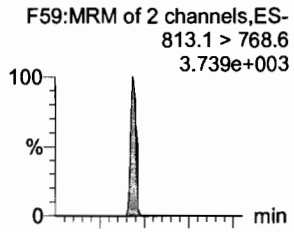


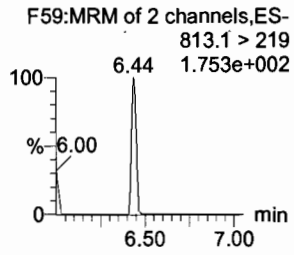
N-EtFOSA



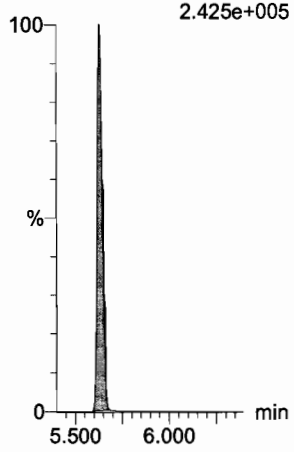


PFHxDA

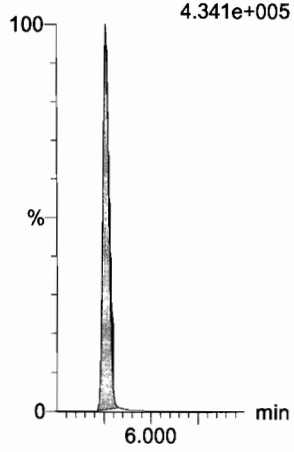




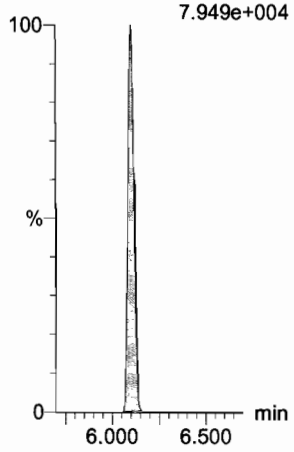
13C2-PFDoA



d3-N-MeFOSA



13C2-PFTeDA



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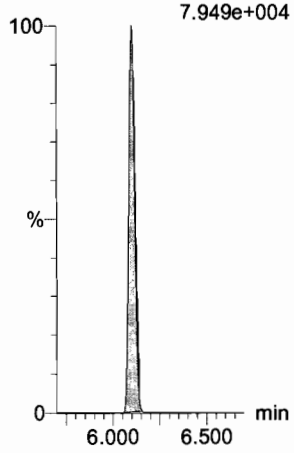
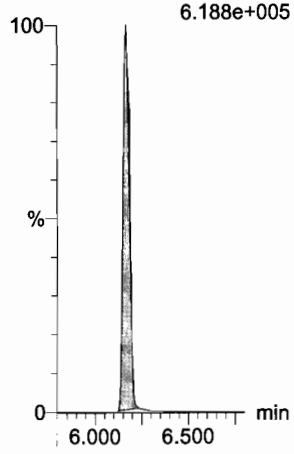
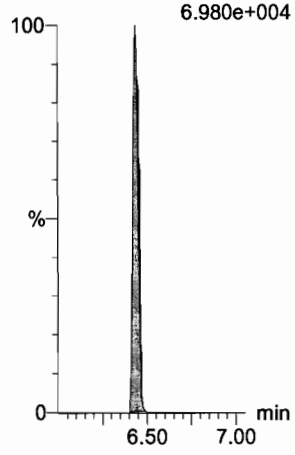


d5-N-ETFOSA



13C2-PFHxDA



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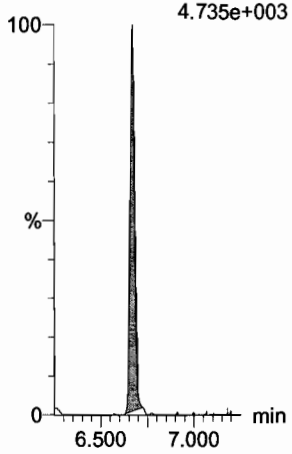
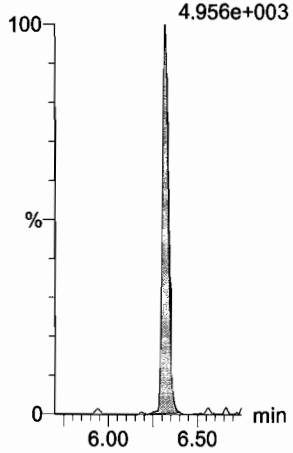
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_2, Date: 02-Jan-2018, Time: 15:35:49, ID: ST180102M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

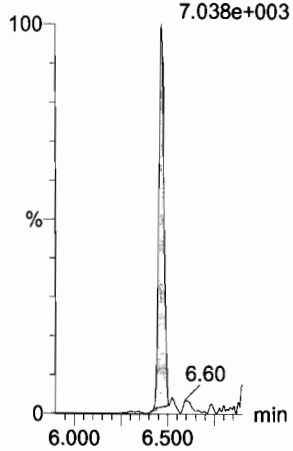
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
4.735e+003



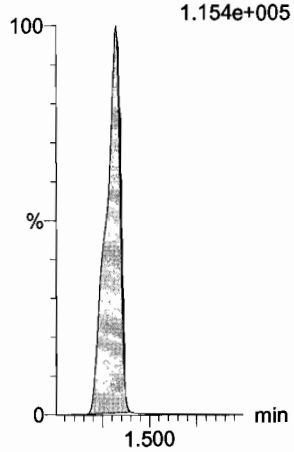
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
4.956e+003



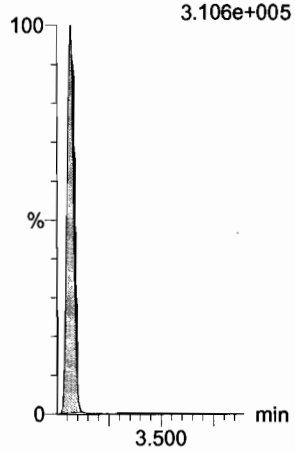
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
7.038e+003



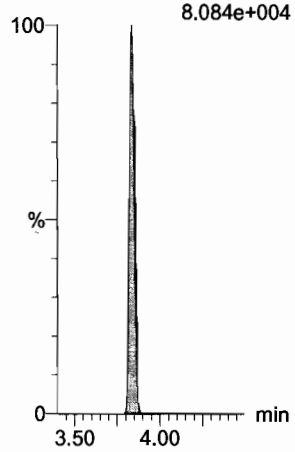
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.154e+005



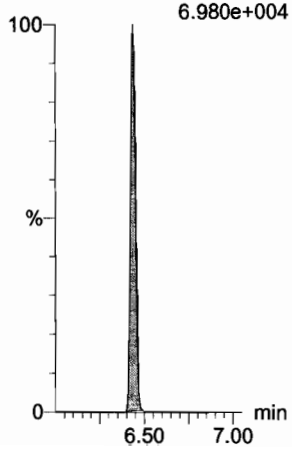
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.106e+005



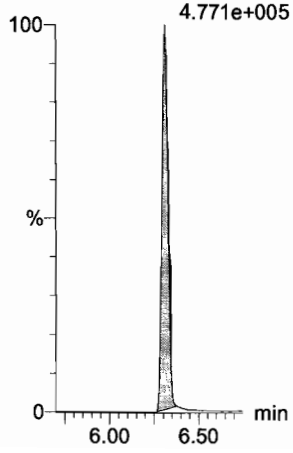
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
8.084e+004



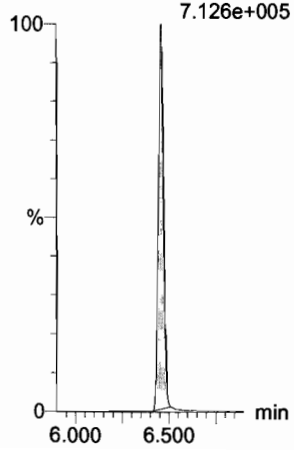
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.980e+004



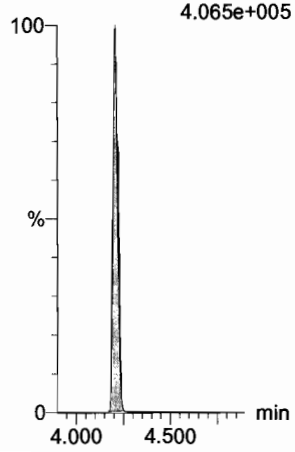
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.771e+005



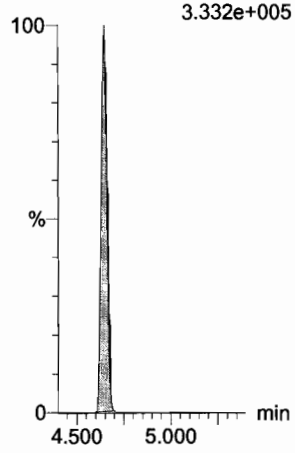
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.126e+005



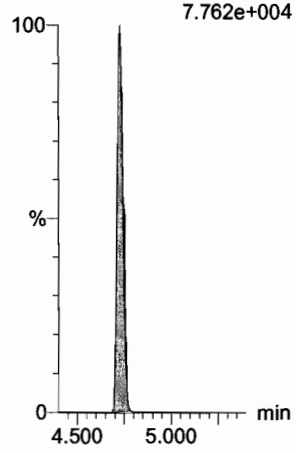
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.065e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.332e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.762e+004

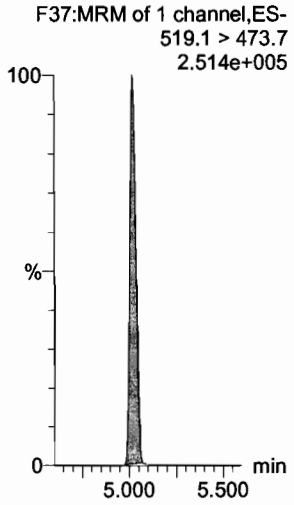


Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

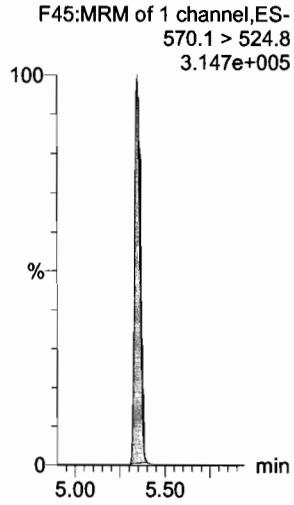
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_2, Date: 02-Jan-2018, Time: 15:35:49, ID: ST180102M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

13C6-PFDA



13C7-PFUdA

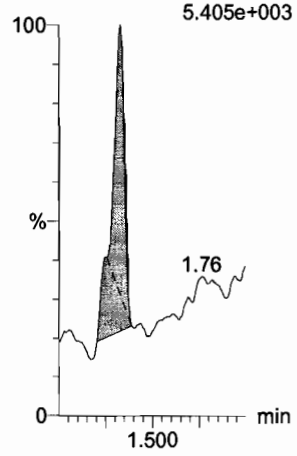


Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

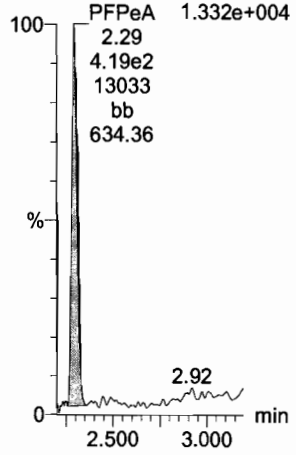
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_3, Date: 02-Jan-2018, Time: 15:46:59, ID: ST180102M2-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

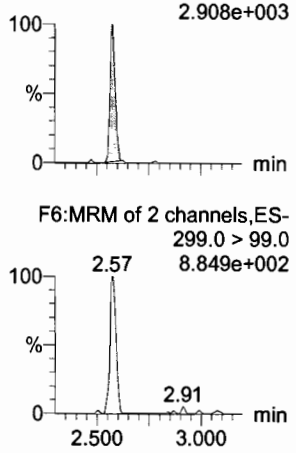
PFBA



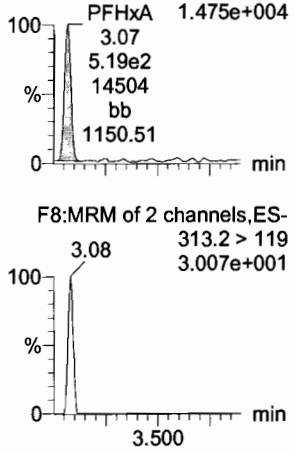
PFPeA



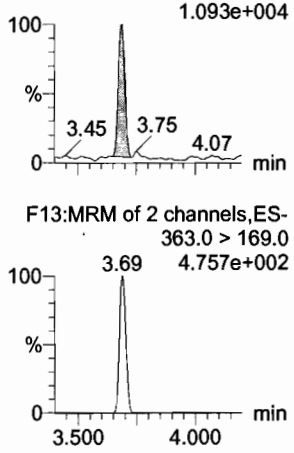
PFBS



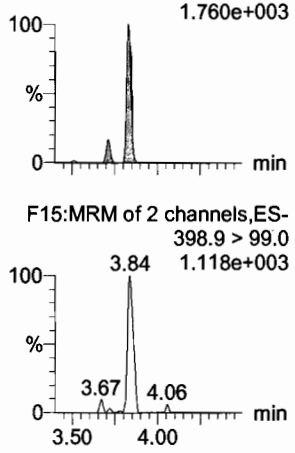
PFHxA



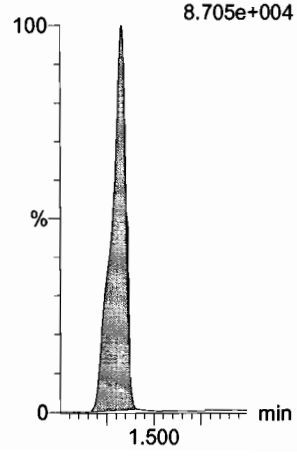
PFHpA



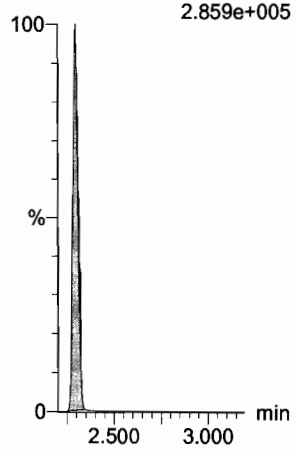
L-PFHxS



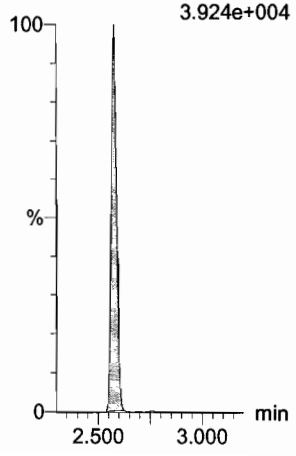
13C3-PFBA



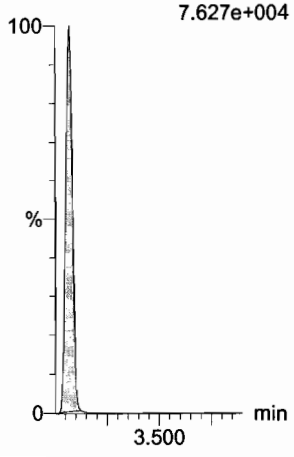
13C3-PFPeA



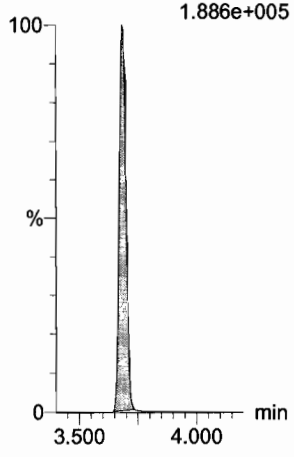
13C3-PFBS



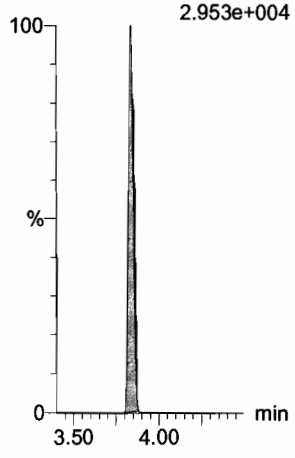
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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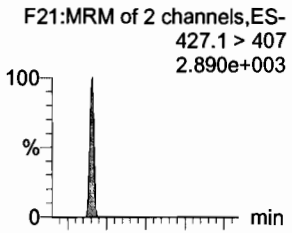
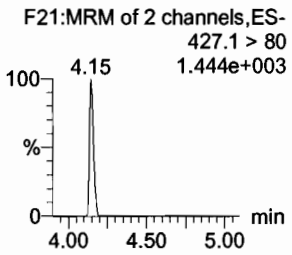
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

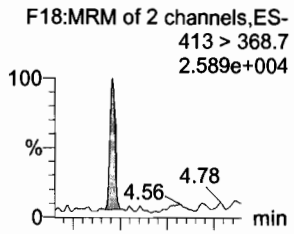
Name: 180102M2_3, Date: 02-Jan-2018, Time: 15:46:59, ID: ST180102M2-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

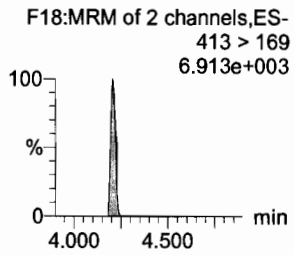
6:2 FTS



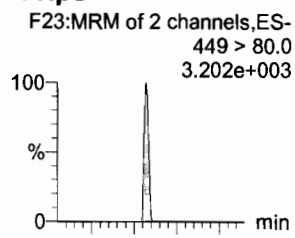


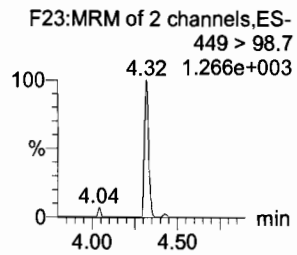
L-PFOA



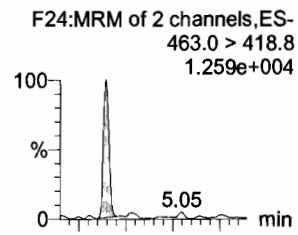


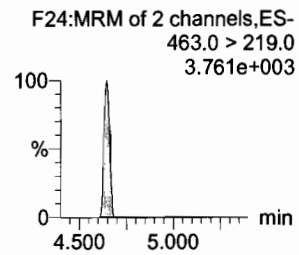
PFHpS



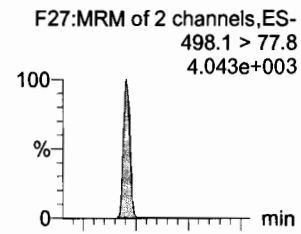


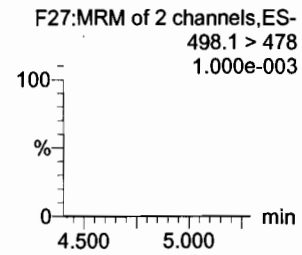
PFNA



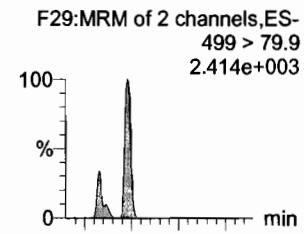


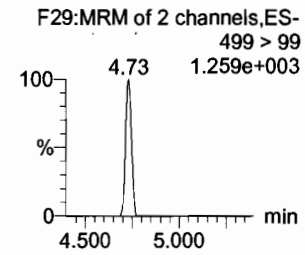
PFOSA



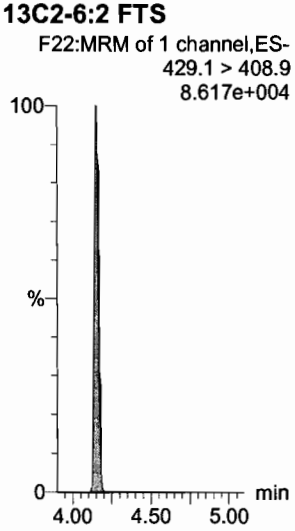


L-PFOS

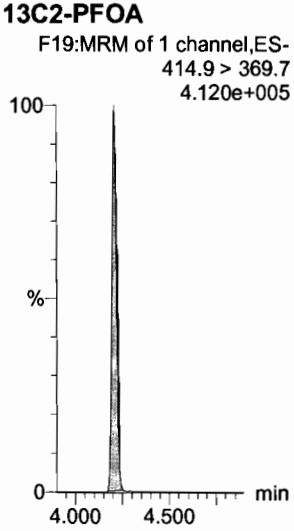




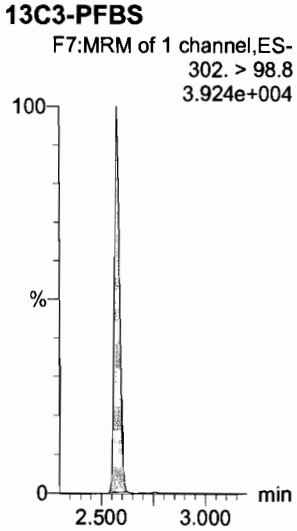
13C2-6:2 FTS



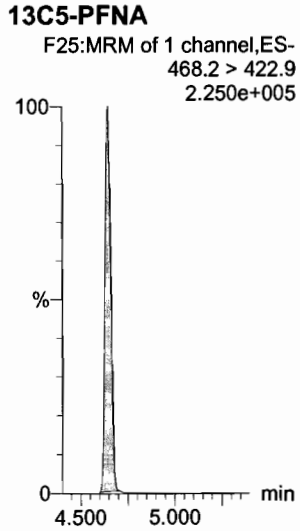
13C2-PFOA



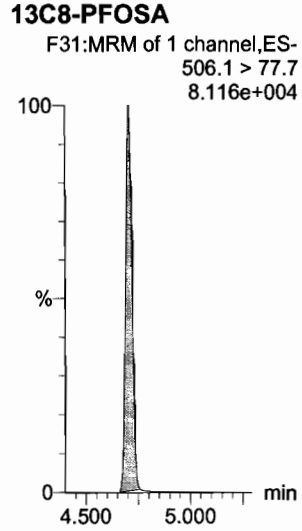
13C3-PFBS



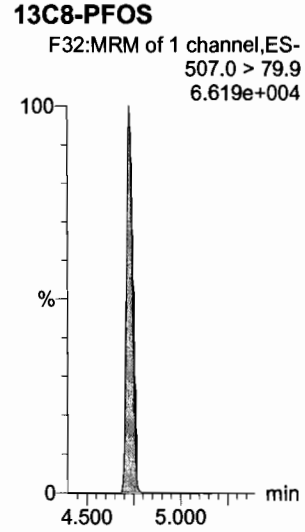
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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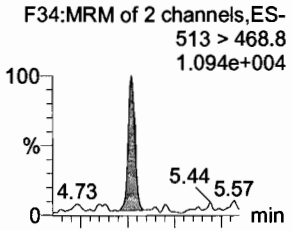
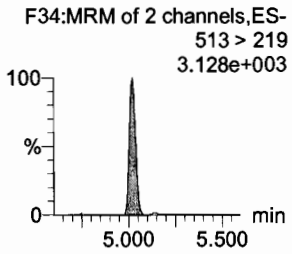
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

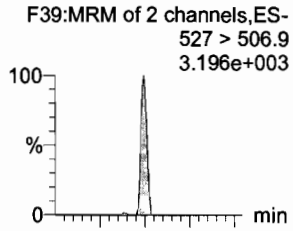
Name: 180102M2_3, Date: 02-Jan-2018, Time: 15:46:59, ID: ST180102M2-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

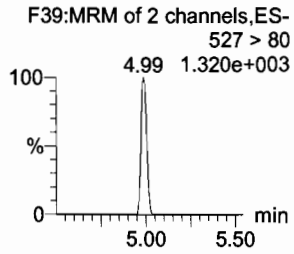
PFDA



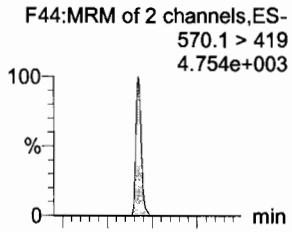


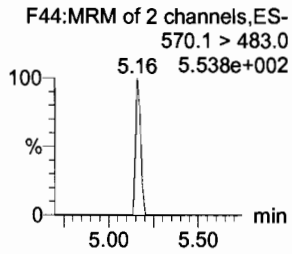
8:2 FTS





N-MeFOSAA





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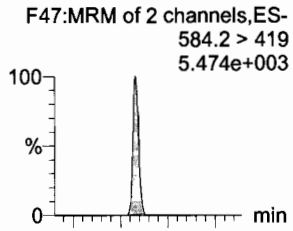
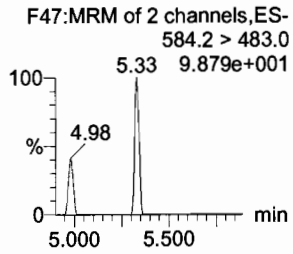
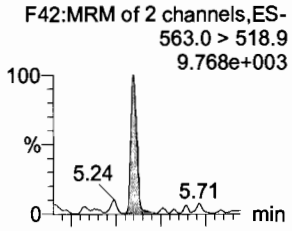
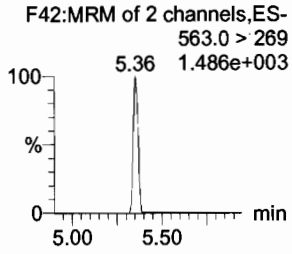


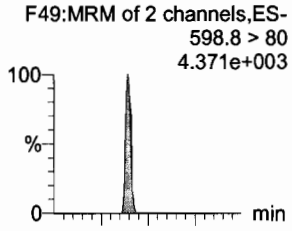


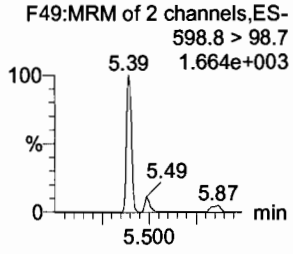
PFUdA



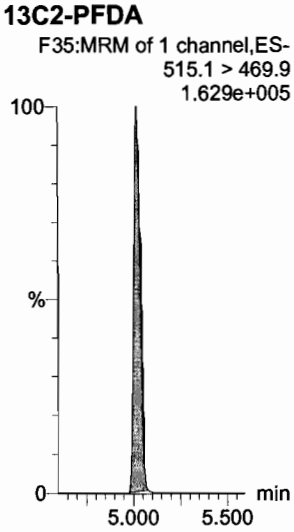


PFDS

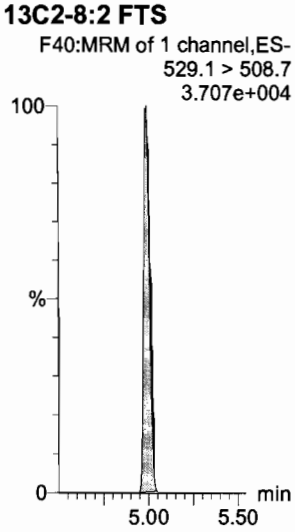




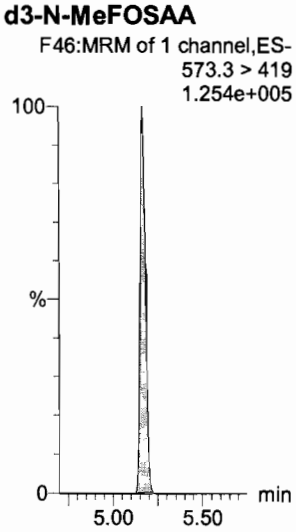
13C2-PFDA



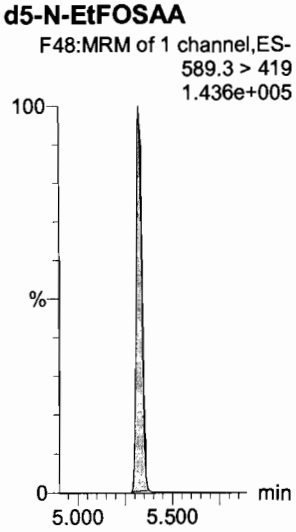
13C2-8:2 FTS



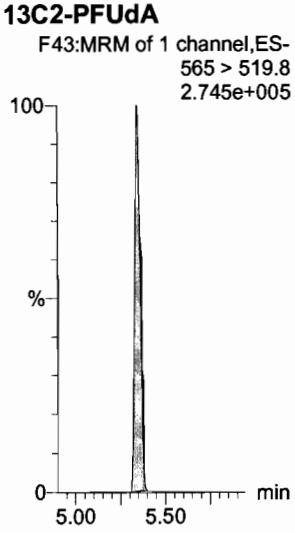
d3-N-MeFOSAA



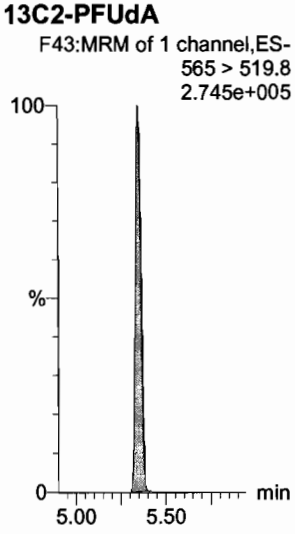
d5-N-EtFOSAA



13C2-PFUdA



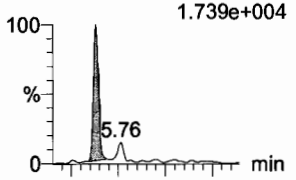
13C2-PFUdA

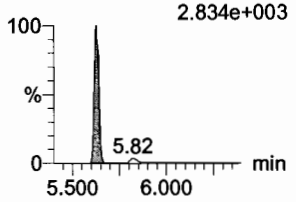


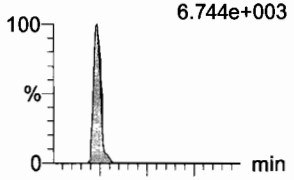
Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

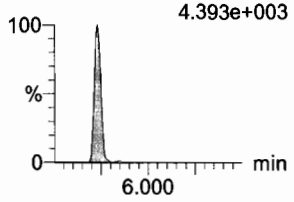
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

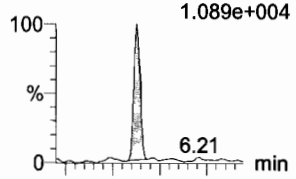
Name: 180102M2_3, Date: 02-Jan-2018, Time: 15:46:59, ID: ST180102M2-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

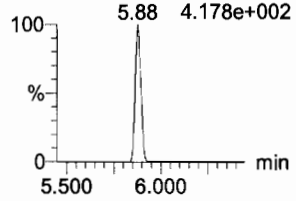
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
1.739e+004


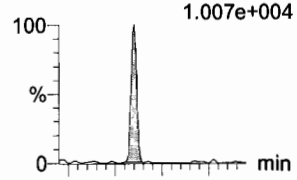
F50:MRM of 2 channels,ES-
612.9 > 318.8
2.834e+003


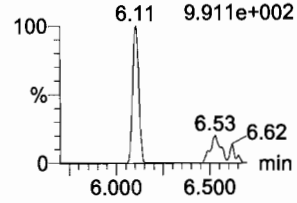
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
6.744e+003


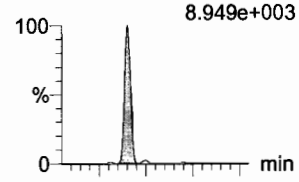
F33:MRM of 2 channels,ES-
512.1 > 219
4.393e+003


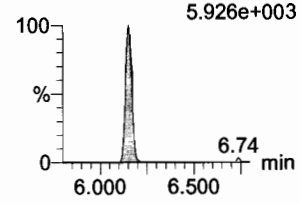
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
1.089e+004


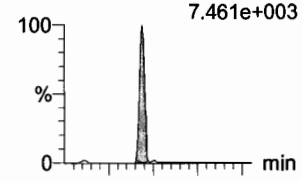
F56:MRM of 2 channels,ES-
662.9 > 319
5.88 4.178e+002


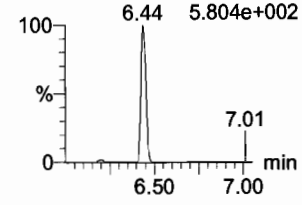
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
1.007e+004


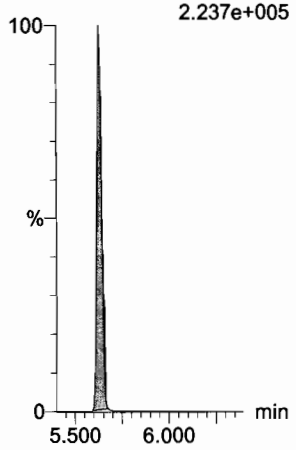
F57:MRM of 2 channels,ES-
712.9 > 369
6.11 9.911e+002


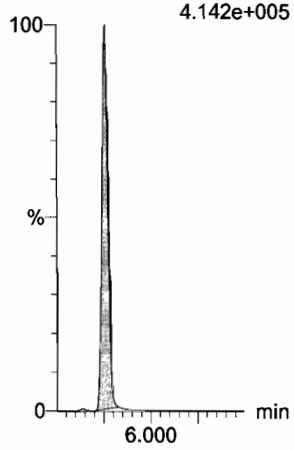
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
8.949e+003


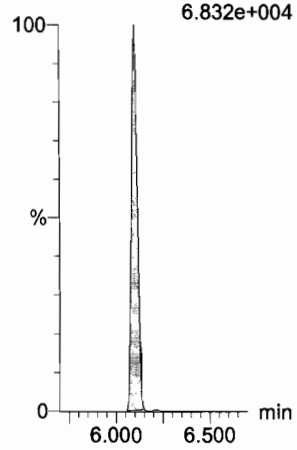
F38:MRM of 2 channels,ES-
526.1 > 219
5.926e+003


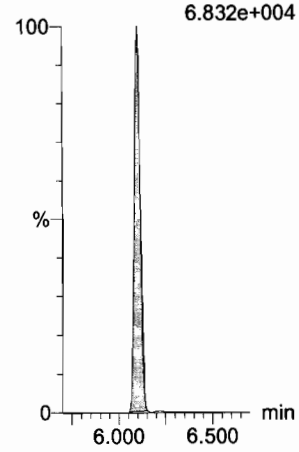
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
7.461e+003


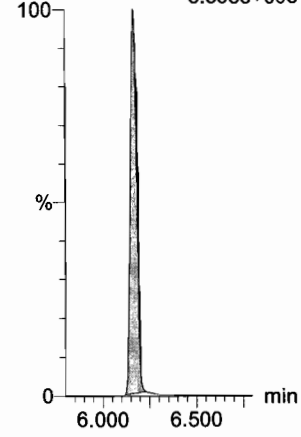
F59:MRM of 2 channels,ES-
813.1 > 219
6.44 5.804e+002


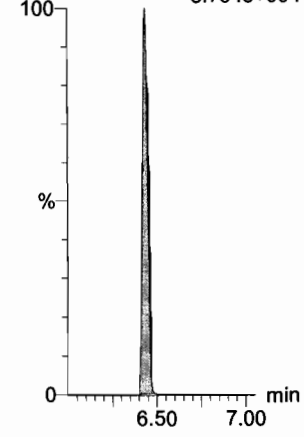
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
2.237e+005


d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.142e+005


13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
6.832e+004


13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
6.832e+004


d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
5.865e+005


13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.764e+004


Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
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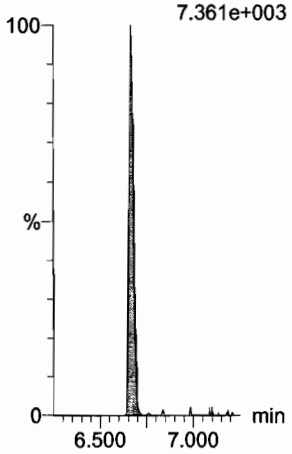
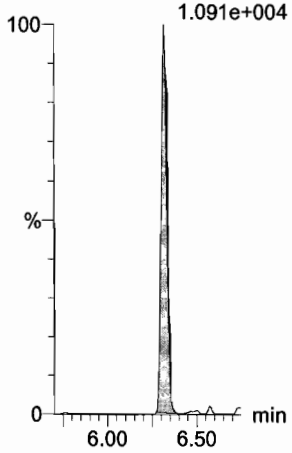
Name: 180102M2_3, Date: 02-Jan-2018, Time: 15:46:59, ID: ST180102M2-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

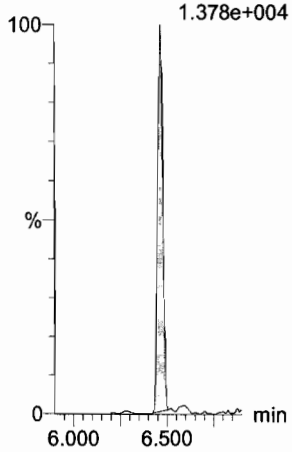
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
7.361e+003



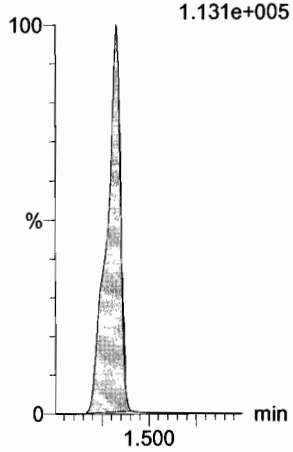
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.091e+004



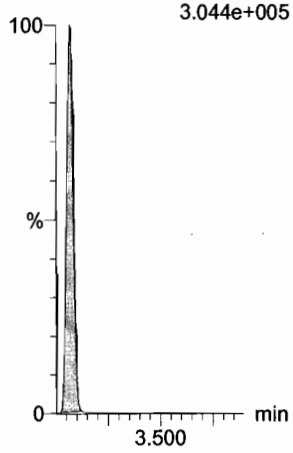
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.378e+004



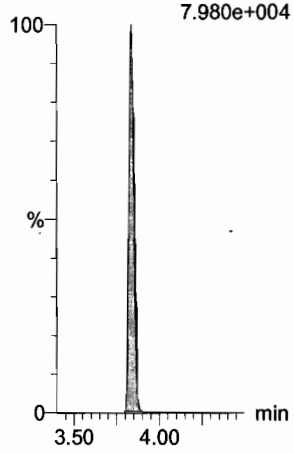
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.131e+005



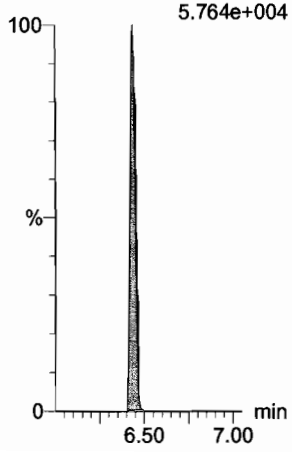
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.044e+005



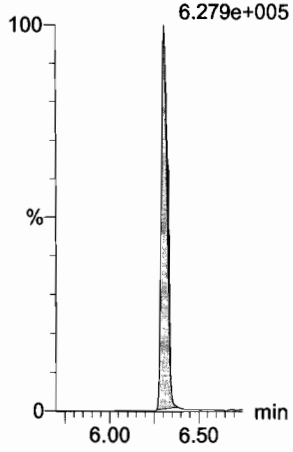
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
7.980e+004



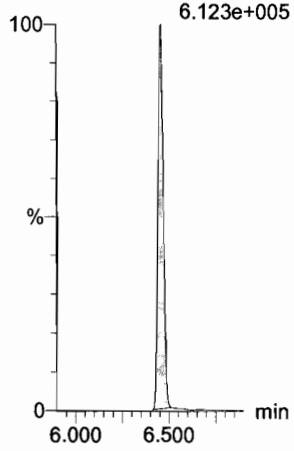
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.764e+004



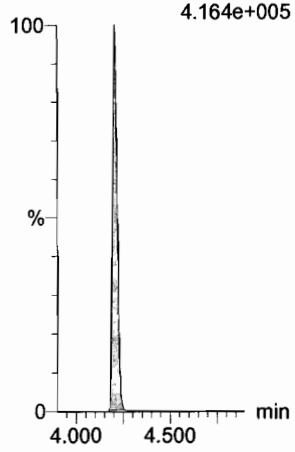
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.279e+005



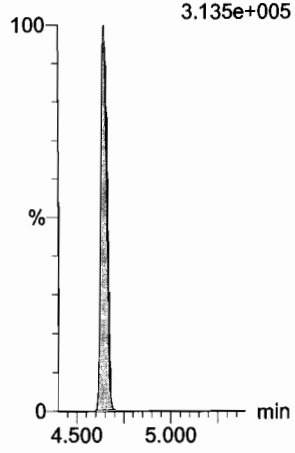
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.123e+005



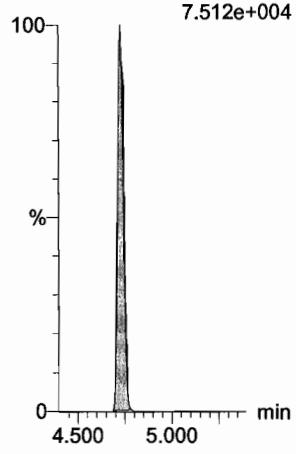
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.164e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.135e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.512e+004



Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
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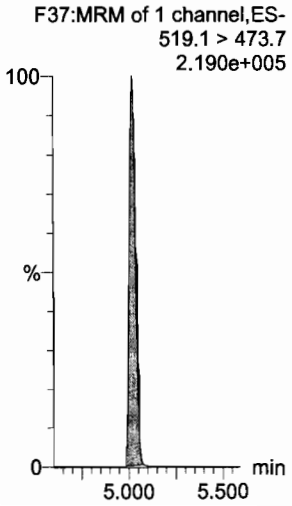
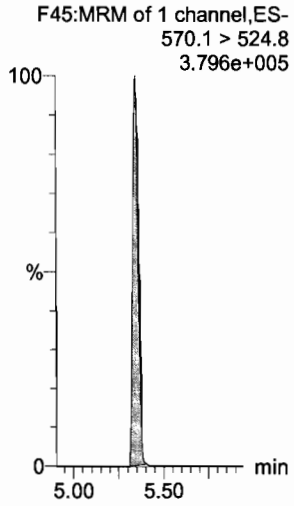
Name: 180102M2_3, Date: 02-Jan-2018, Time: 15:46:59, ID: ST180102M2-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

13C6-PFDA



13C7-PFUdA



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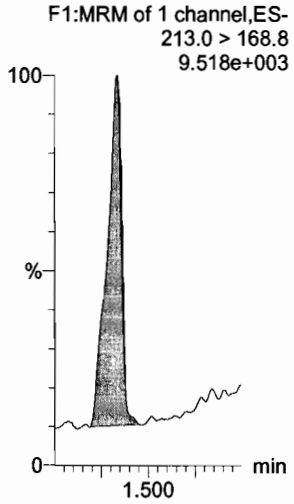
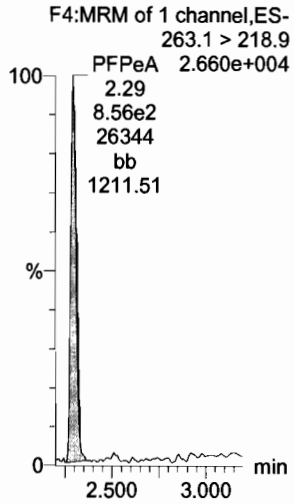
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_4, Date: 02-Jan-2018, Time: 15:58:11, ID: ST180102M2-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

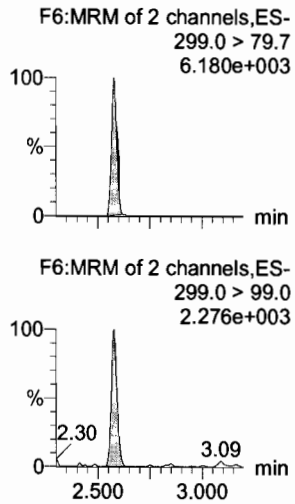
PFBA



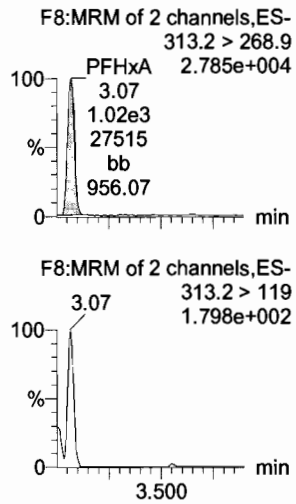
PFPeA



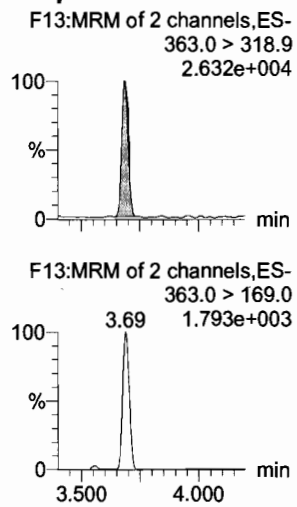
PFBS



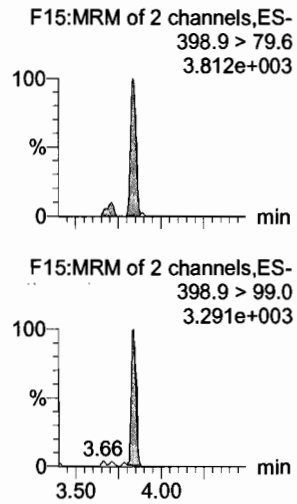
PFHxA



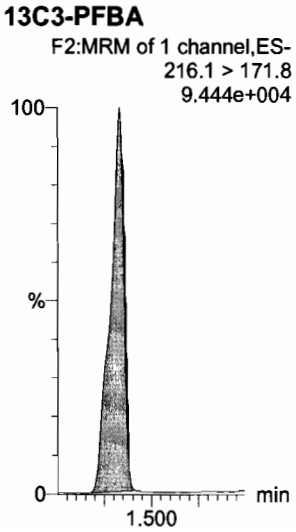
PFHpA



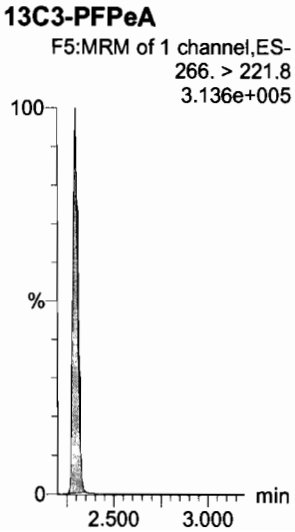
L-PFHxS



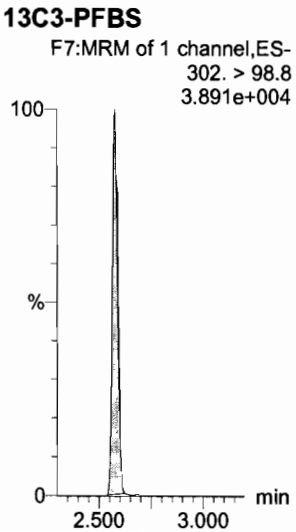
13C3-PFBA



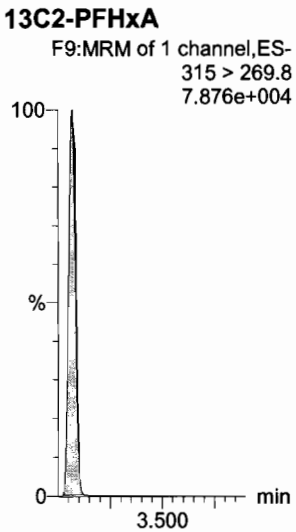
13C3-PFPeA



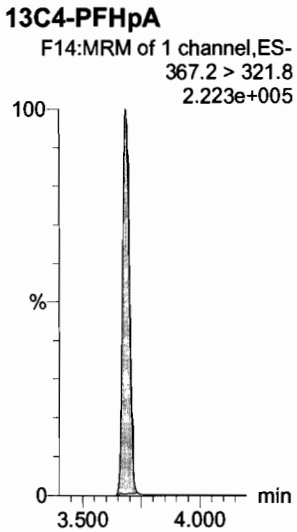
13C3-PFBS



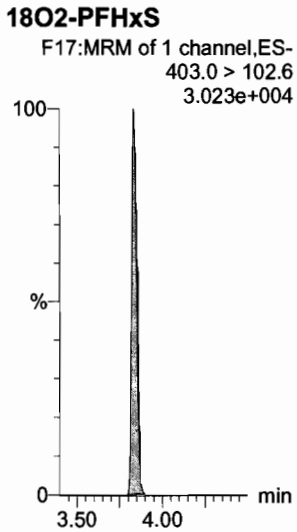
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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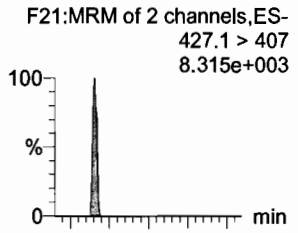
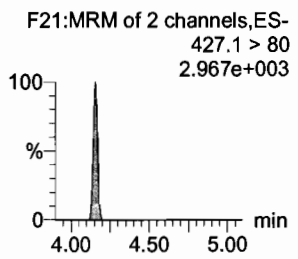
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_4, Date: 02-Jan-2018, Time: 15:58:11, ID: ST180102M2-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

6:2 FTS





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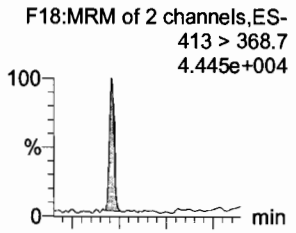

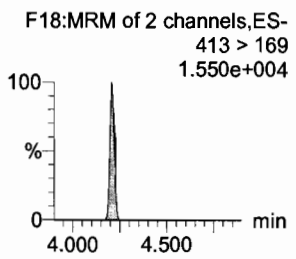

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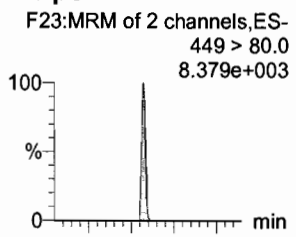

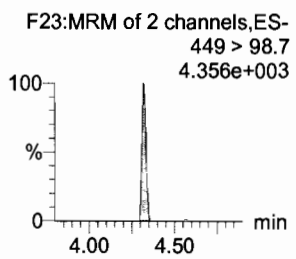

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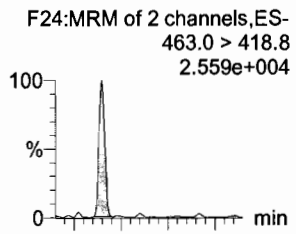

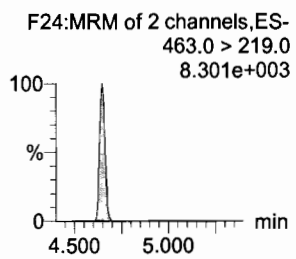

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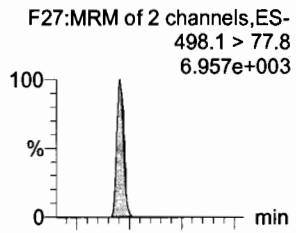

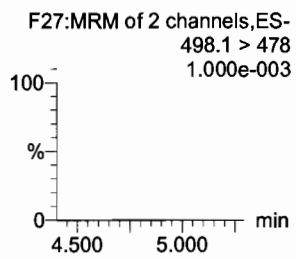

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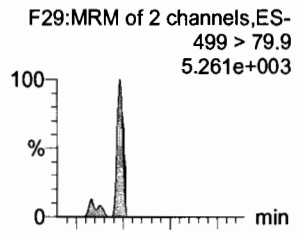
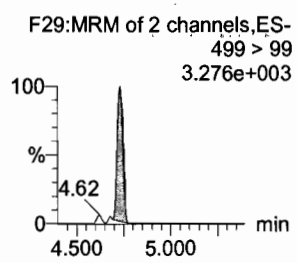
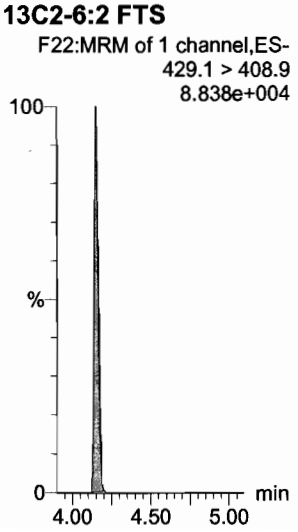




13C2-6:2 FTS



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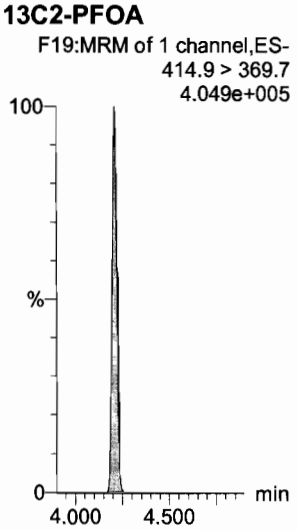

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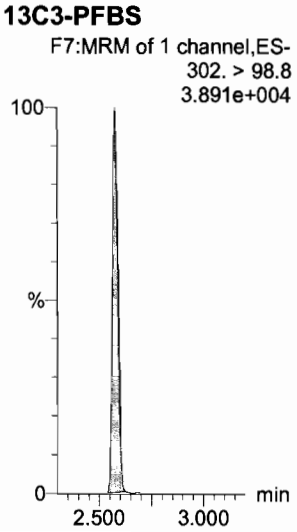

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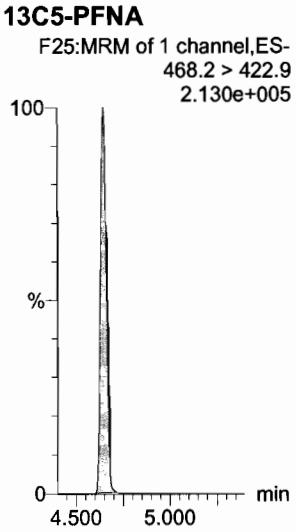

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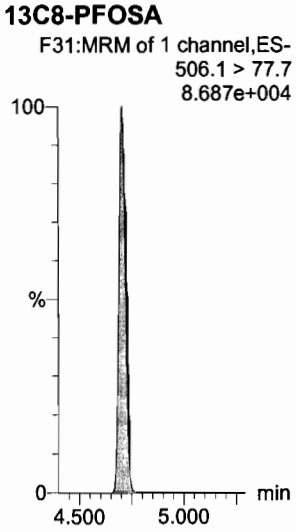

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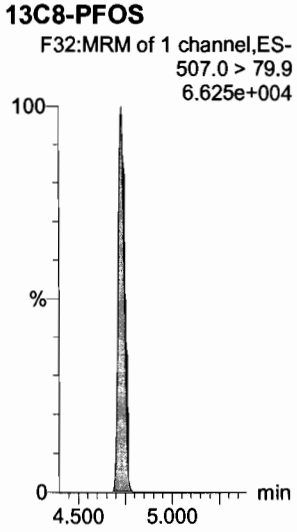

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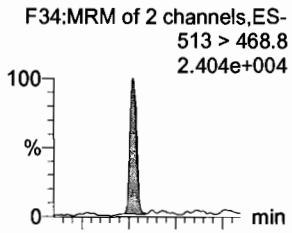
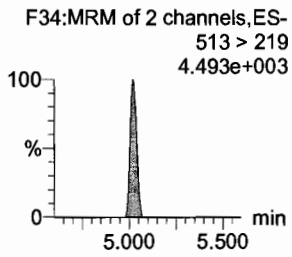
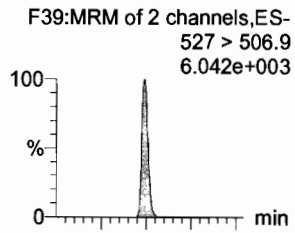
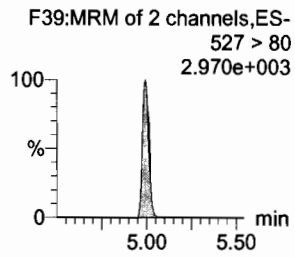




8:2 FTS





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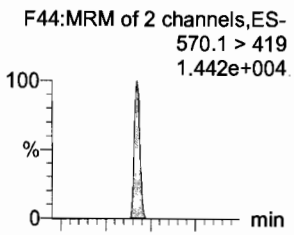

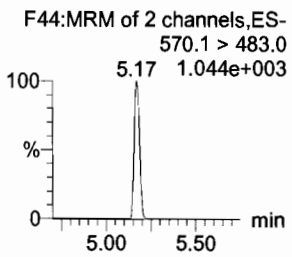

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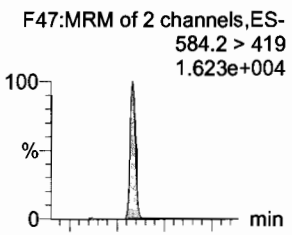

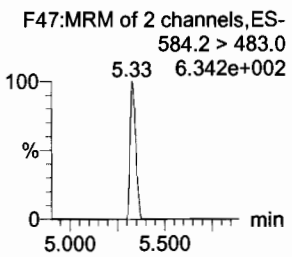

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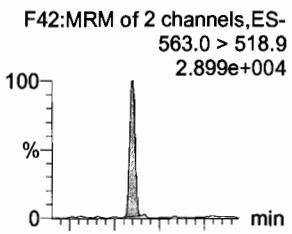

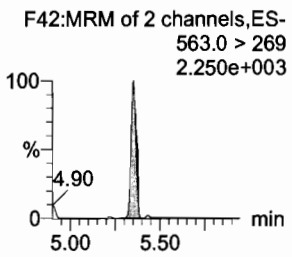

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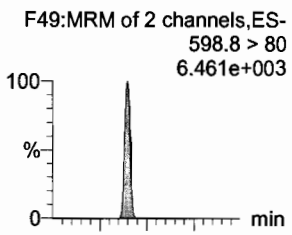

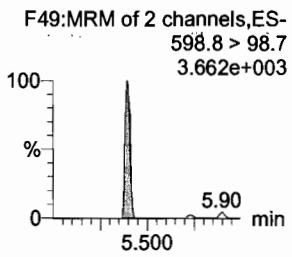

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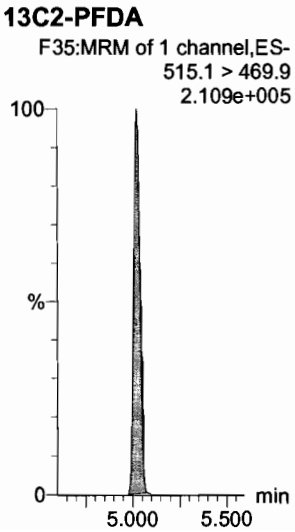

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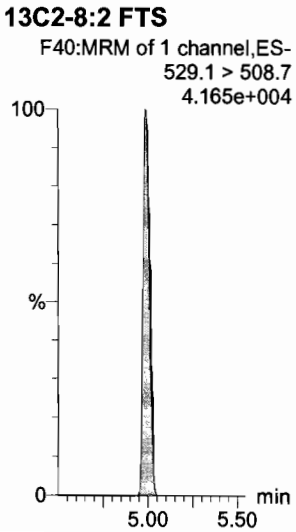

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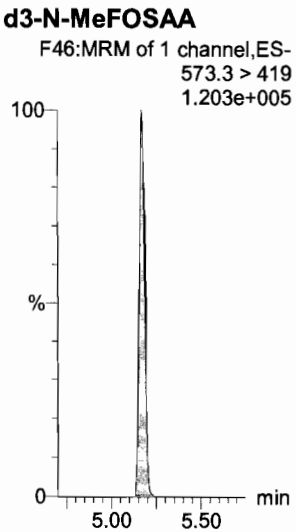

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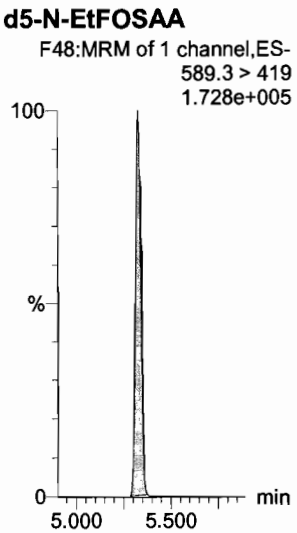

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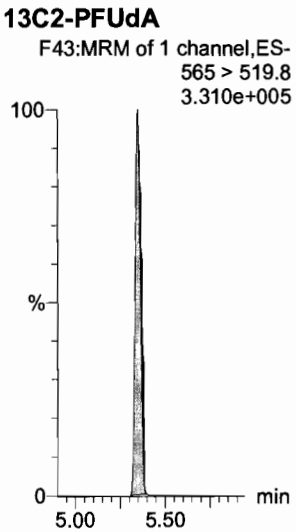

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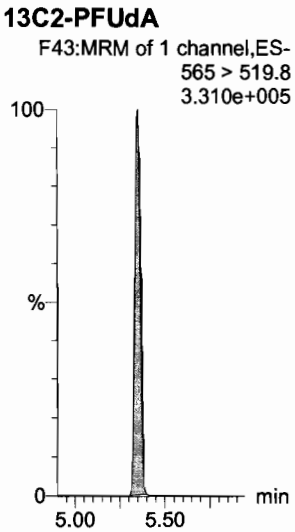

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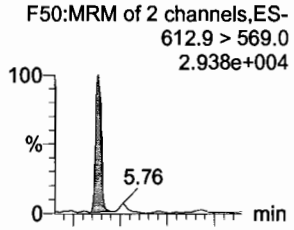

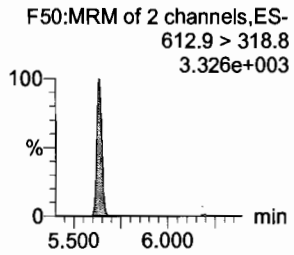

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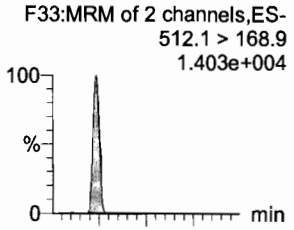

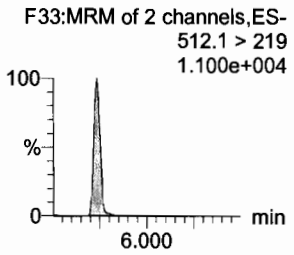

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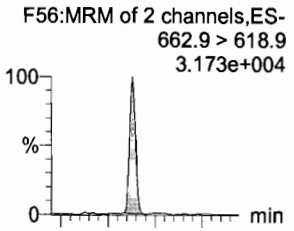

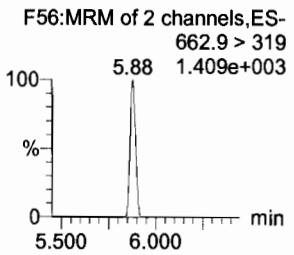

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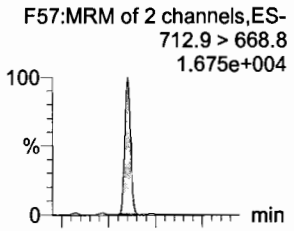

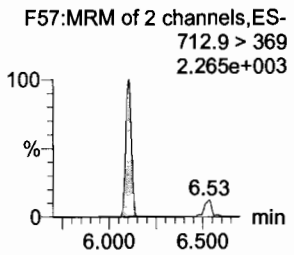

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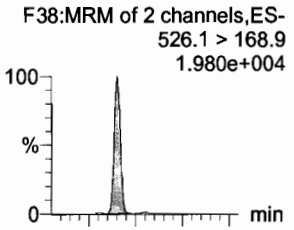

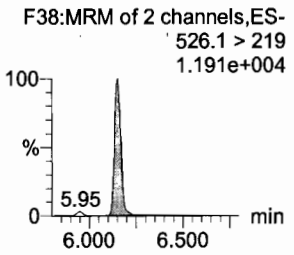

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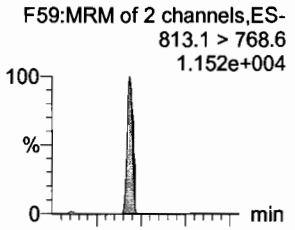

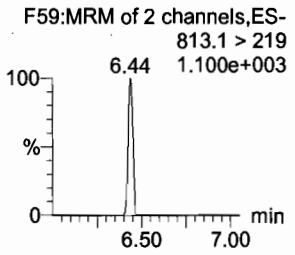

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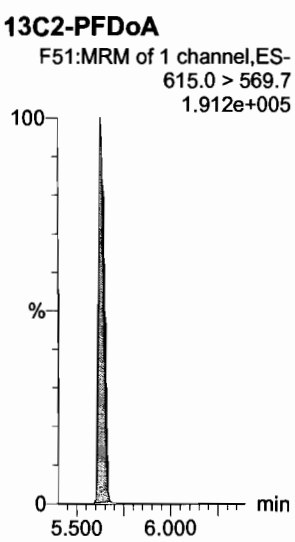

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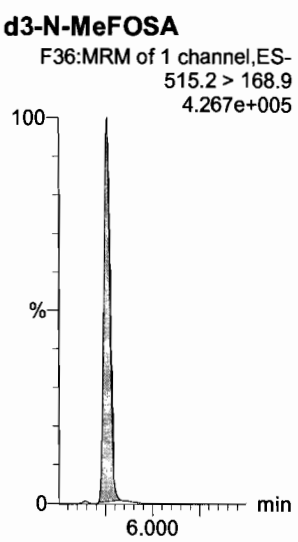

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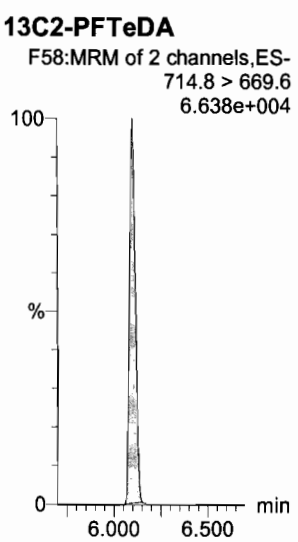

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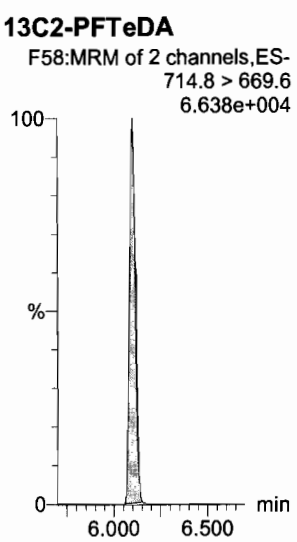

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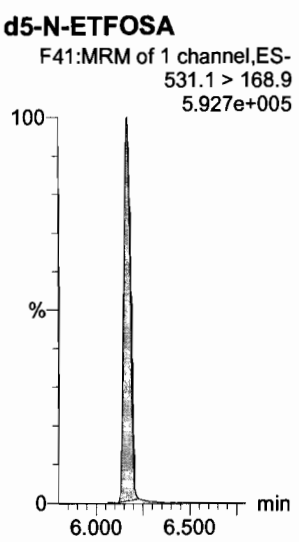

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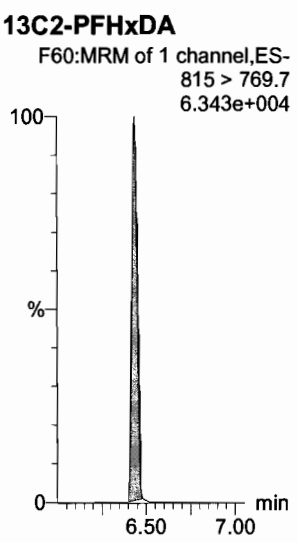

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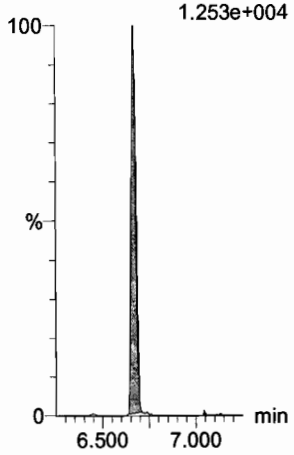
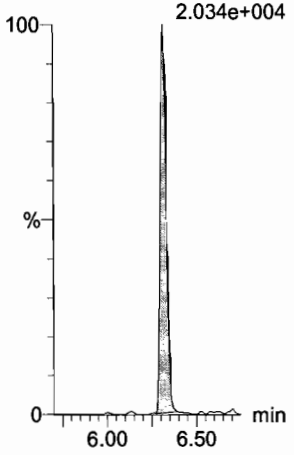
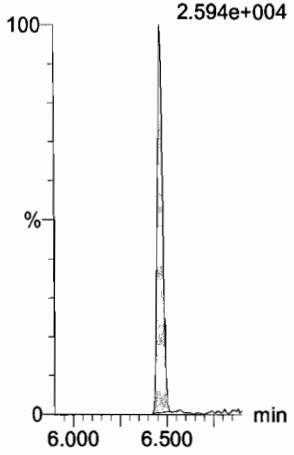
913.1 > 868.8
1.253e+004



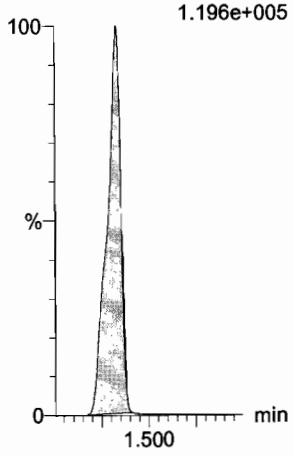
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.034e+004



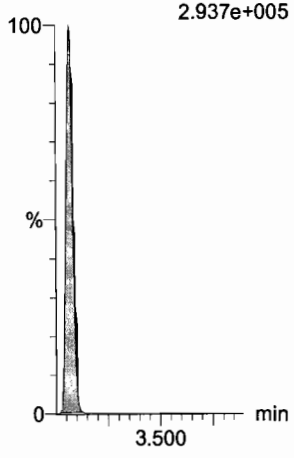
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.594e+004



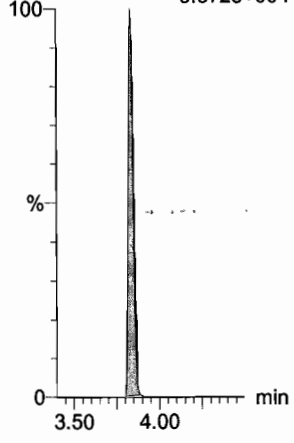
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.196e+005



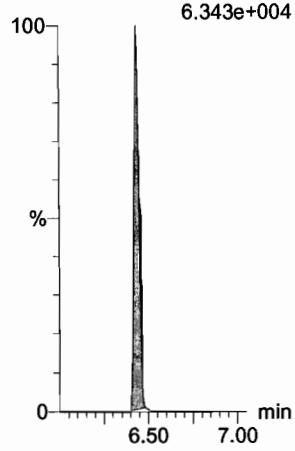
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
2.937e+005



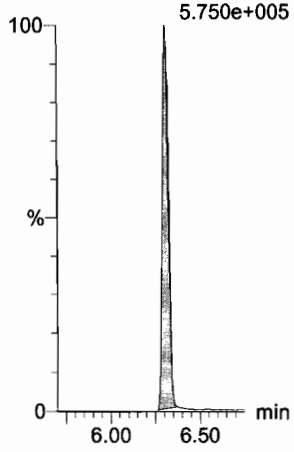
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.572e+004



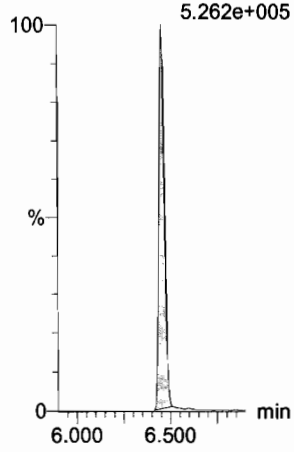
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.343e+004



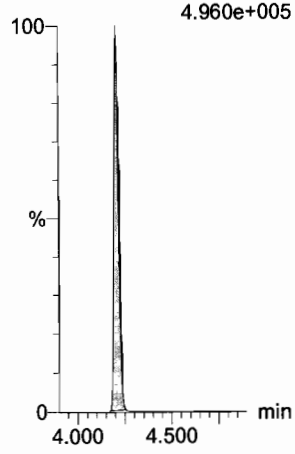
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.750e+005



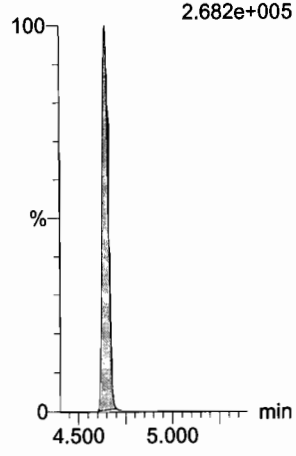
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.262e+005



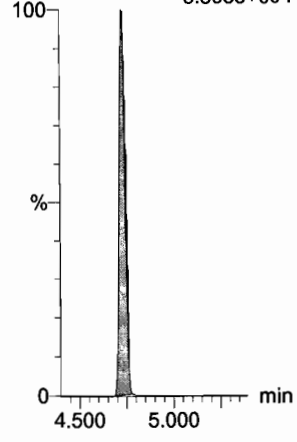
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.960e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.682e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.393e+004

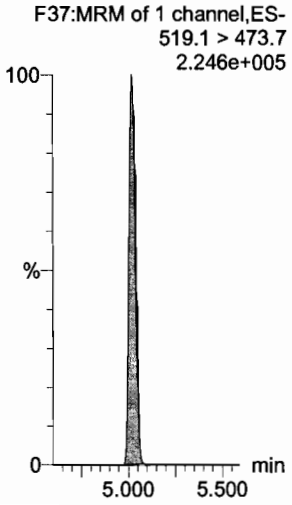


Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

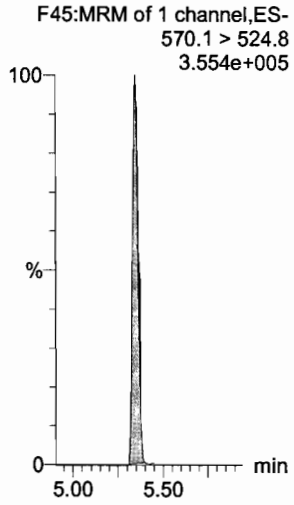
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_4, Date: 02-Jan-2018, Time: 15:58:11, ID: ST180102M2-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

13C6-PFDA



13C7-PFUdA

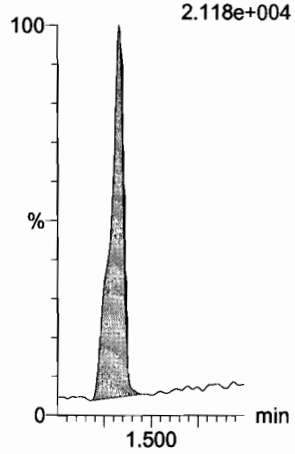


Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

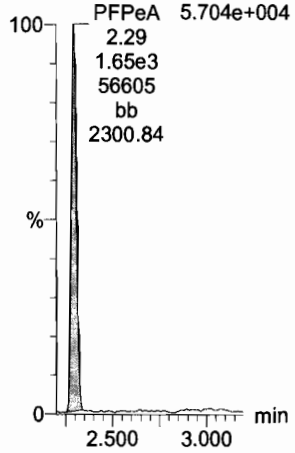
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_5, Date: 02-Jan-2018, Time: 16:09:21, ID: ST180102M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

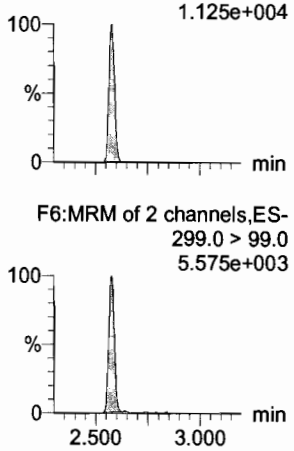
PFBA



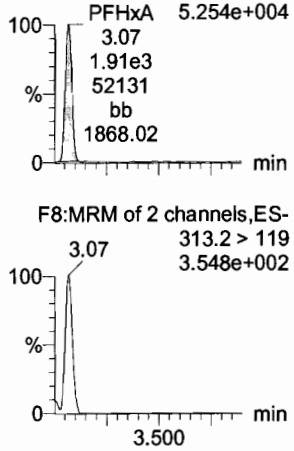
PFPeA



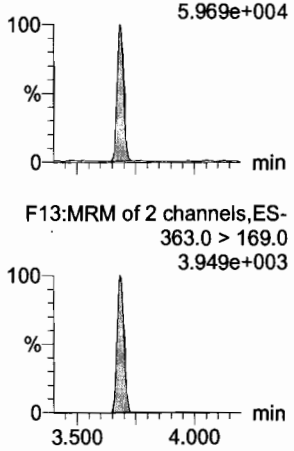
PFBS



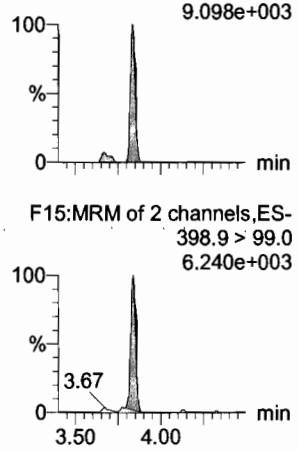
PFHxA



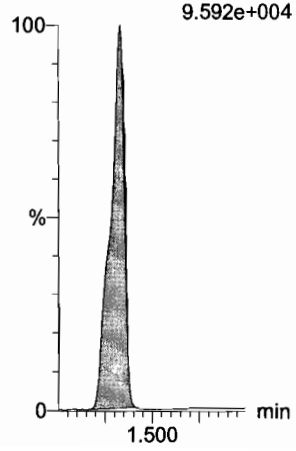
PFHpA



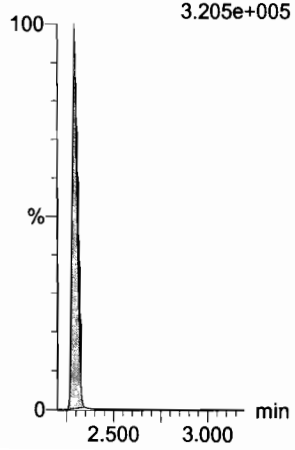
L-PFHxS



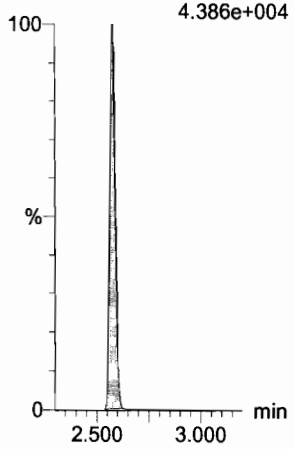
13C3-PFBA



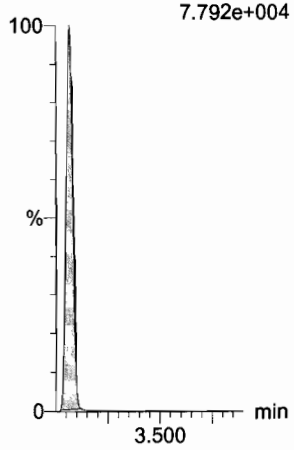
13C3-PFPeA



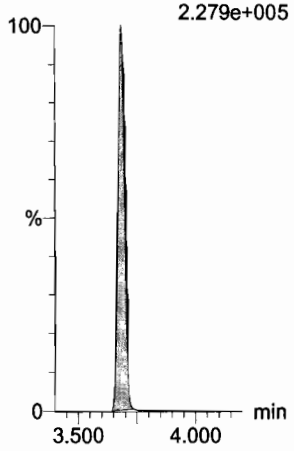
13C3-PFBS



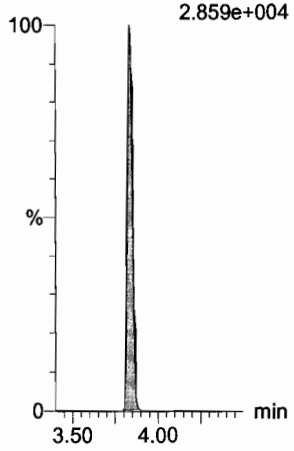
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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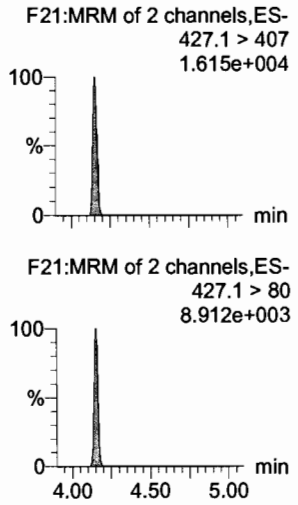
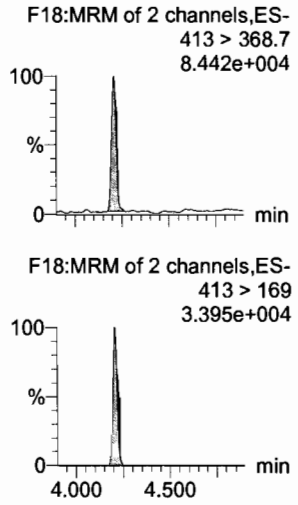
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_5, Date: 02-Jan-2018, Time: 16:09:21, ID: ST180102M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

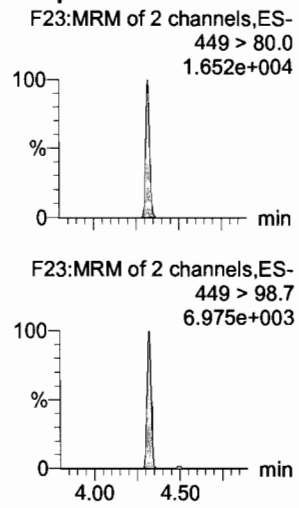
6:2 FTS



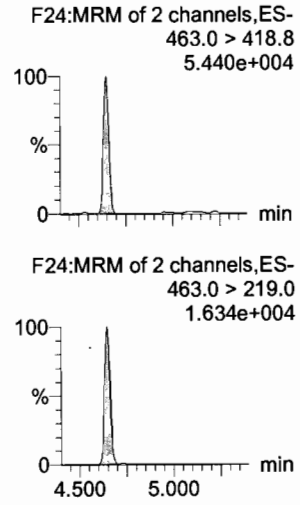
L-PFOA



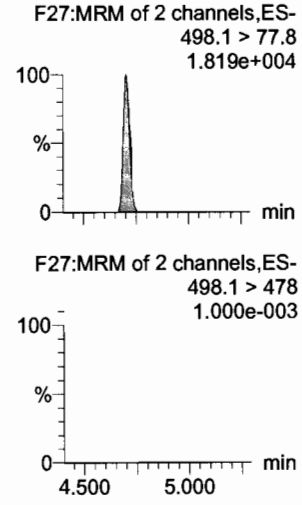
PFHpS



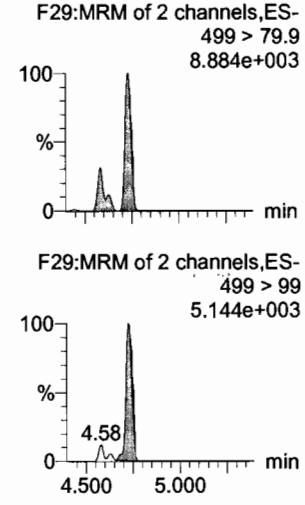
PFNA



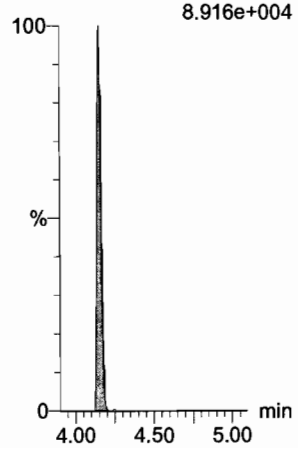
PFOSA



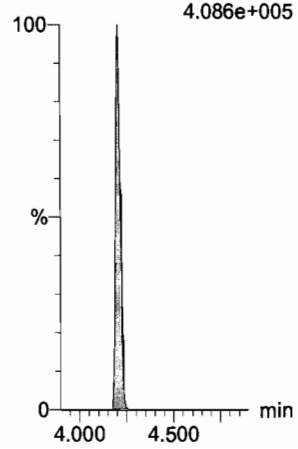
L-PFOS



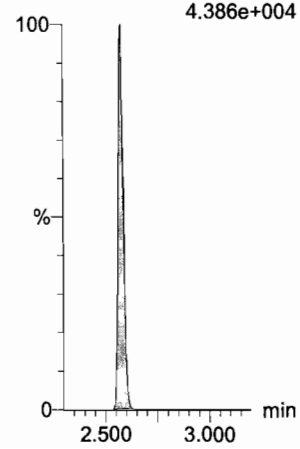
13C2-6:2 FTS



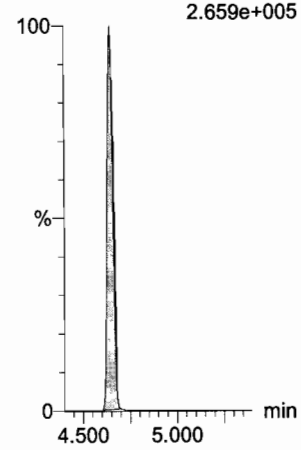
13C2-PFOA



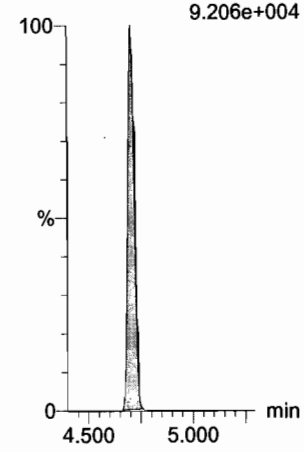
13C3-PFBS



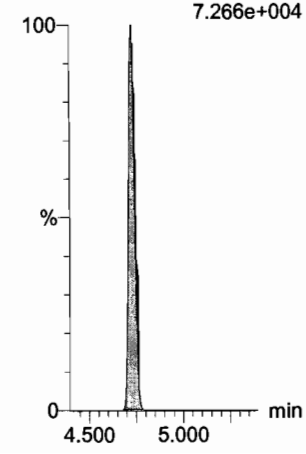
13C5-PFNA



13C8-PFOSA



13C8-PFOS

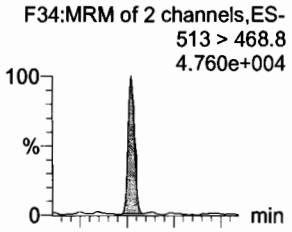


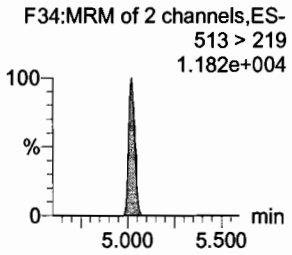
Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

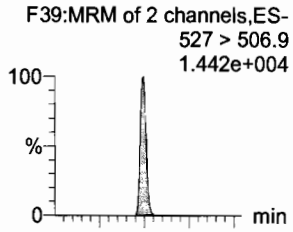
Name: 180102M2_5, Date: 02-Jan-2018, Time: 16:09:21, ID: ST180102M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

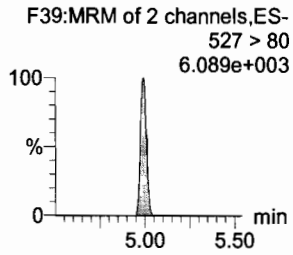
PFDA



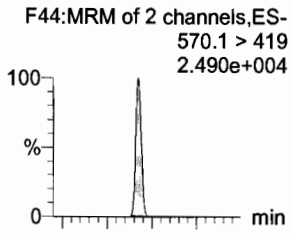


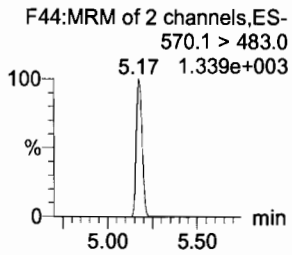
8:2 FTS



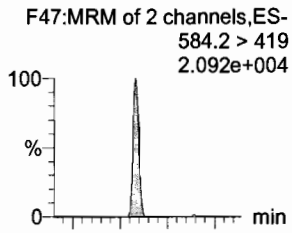


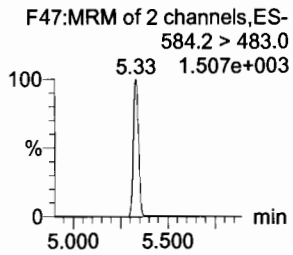
N-MeFOSAA



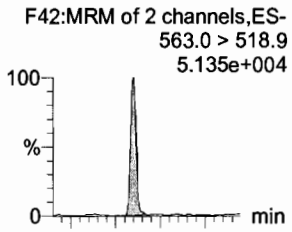


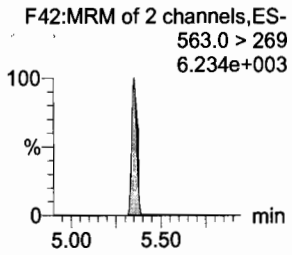
N-EtFOSAA



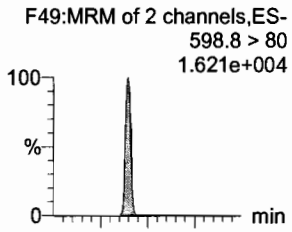


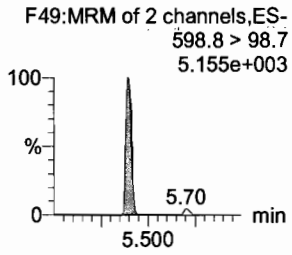
PFUdA



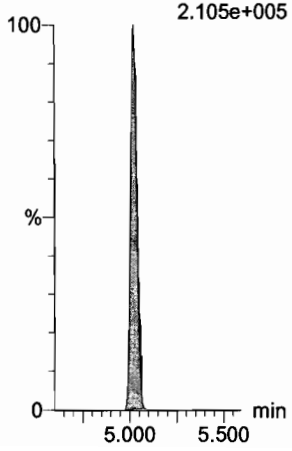


PFDS

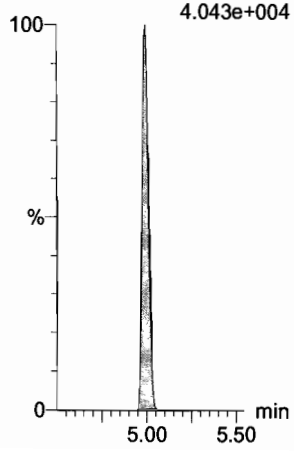




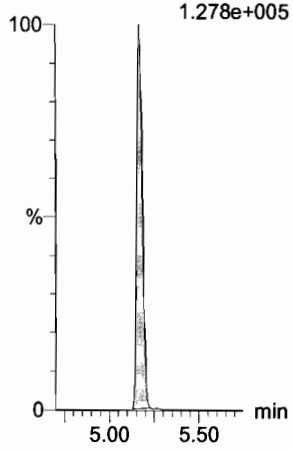
13C2-PFDA



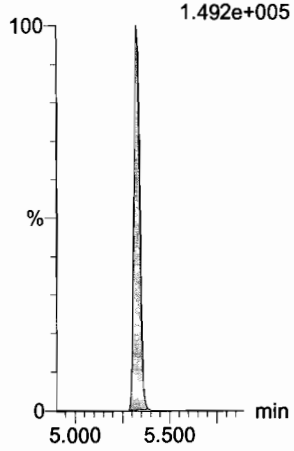
13C2-8:2 FTS



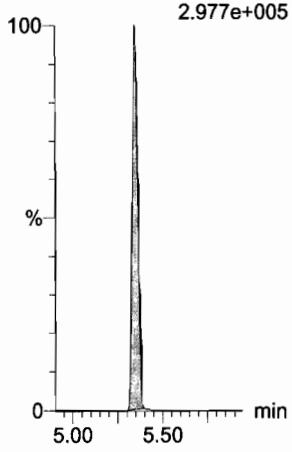
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFUdA



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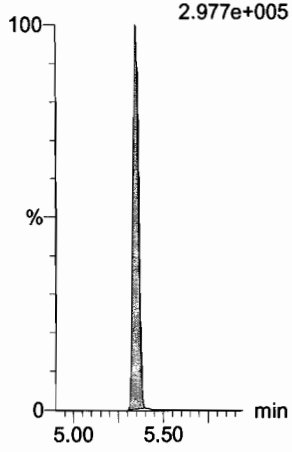

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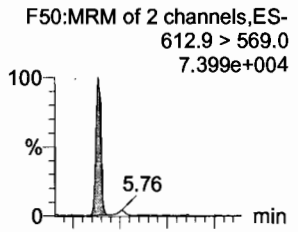
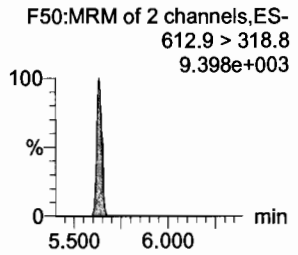
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

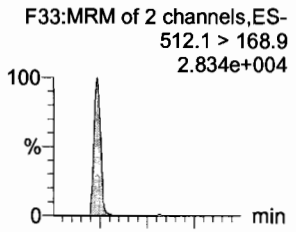
Name: 180102M2_5, Date: 02-Jan-2018, Time: 16:09:21, ID: ST180102M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

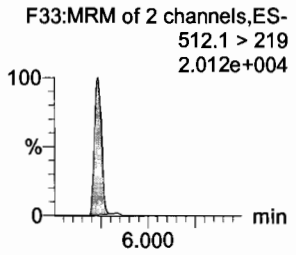
PFDoA



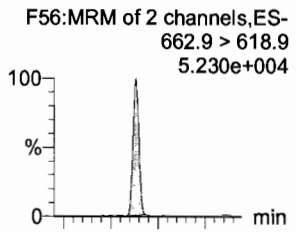


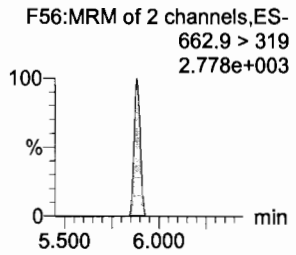
N-MeFOSA



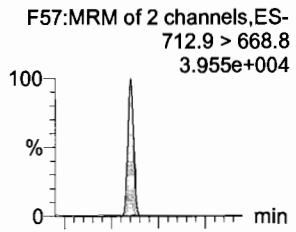


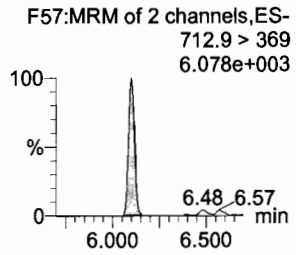
PFTrDA



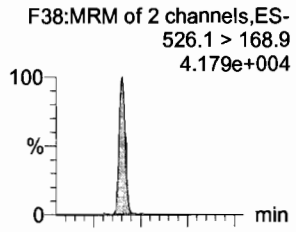


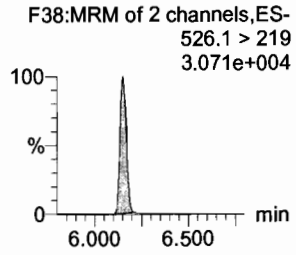
PFTeDA



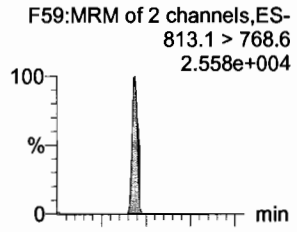


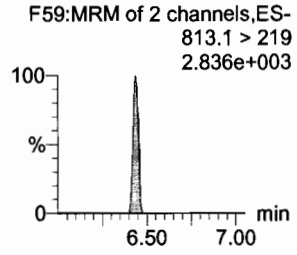
N-EtFOSA



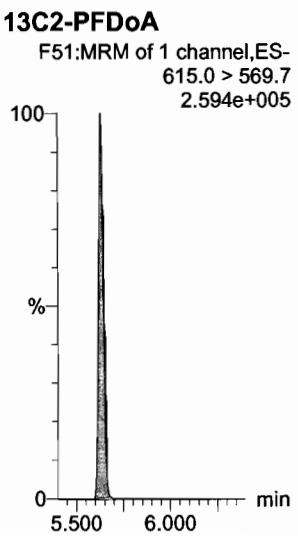


PFHxDA

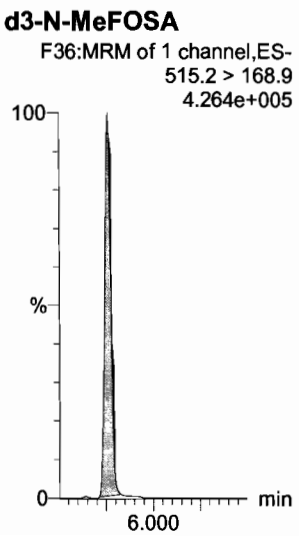




13C2-PFDoA



d3-N-MeFOSA



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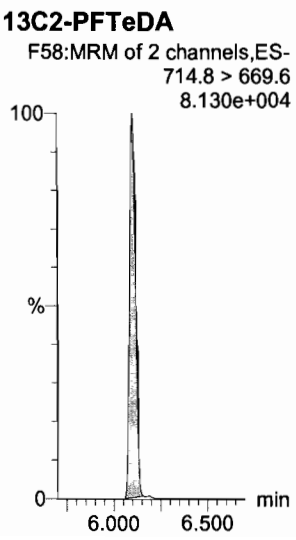

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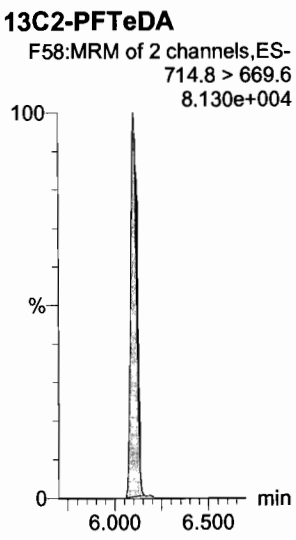
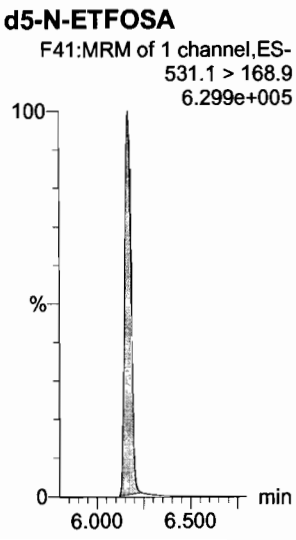
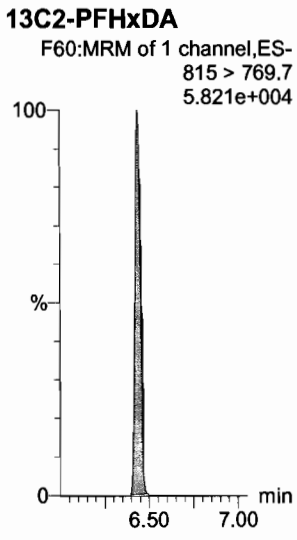


d5-N-ETFOSA



13C2-PFHxDA



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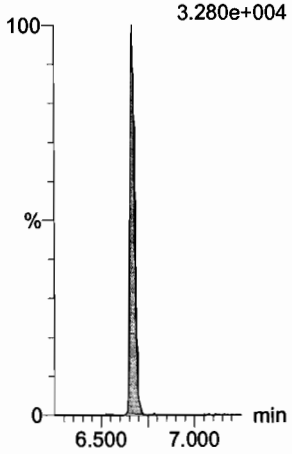
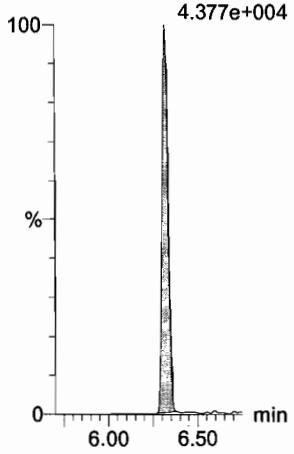
Name: 180102M2_5, Date: 02-Jan-2018, Time: 16:09:21, ID: ST180102M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

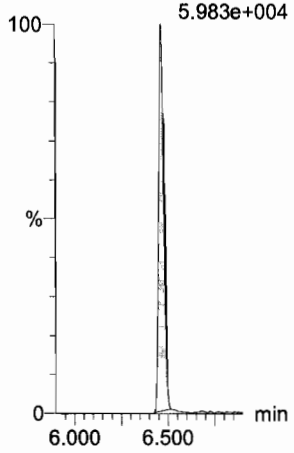
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.280e+004



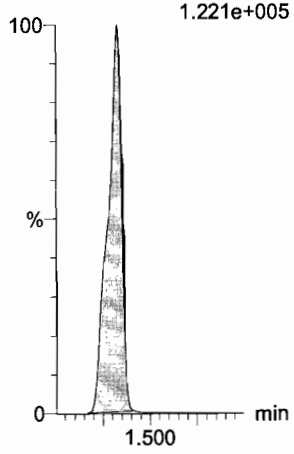
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
4.377e+004



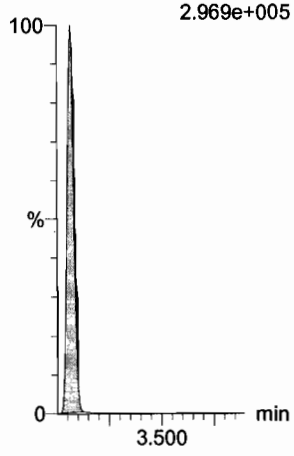
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
5.983e+004



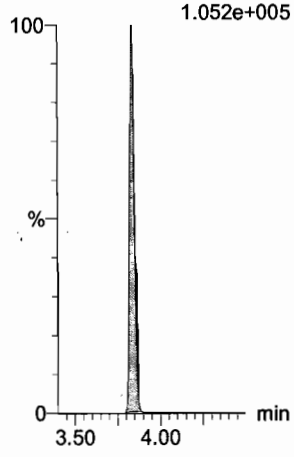
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.221e+005



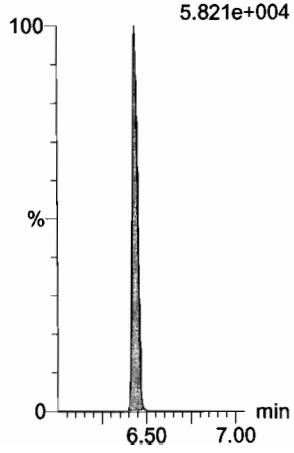
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
2.969e+005



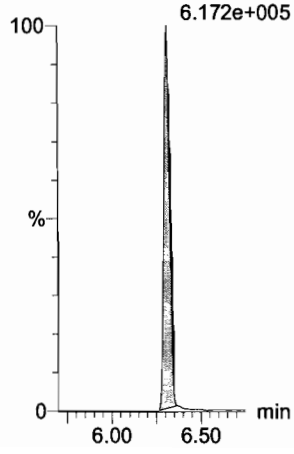
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.052e+005



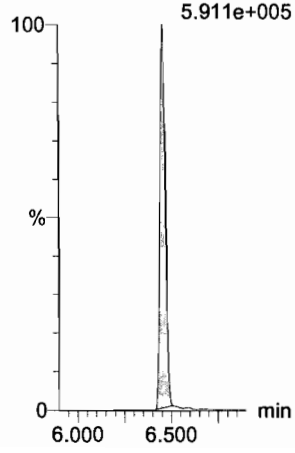
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.821e+004



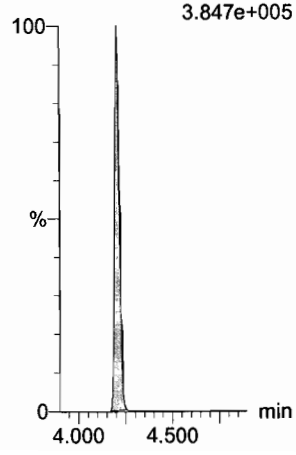
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.172e+005



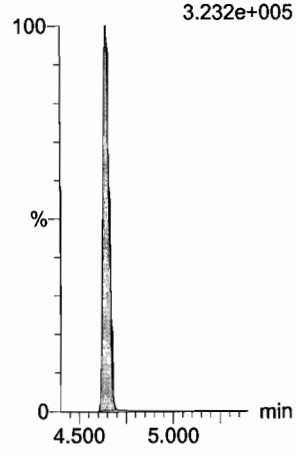
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.911e+005



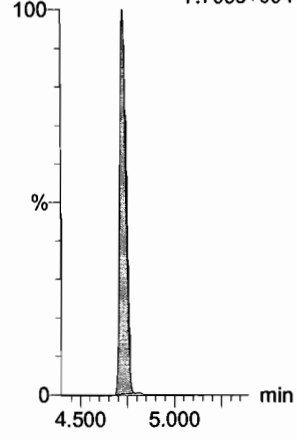
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.847e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.232e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.709e+004



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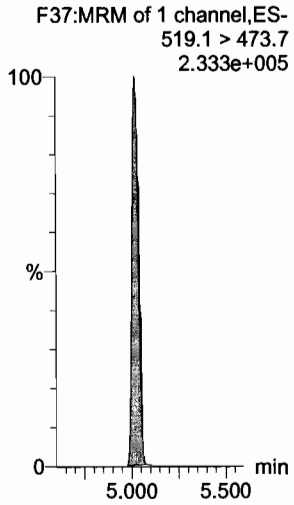
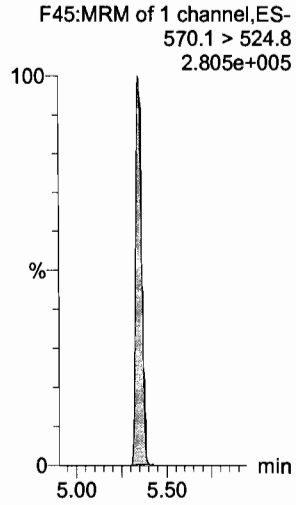
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_5, Date: 02-Jan-2018, Time: 16:09:21, ID: ST180102M2-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

13C6-PFDA



13C7-PFUdA



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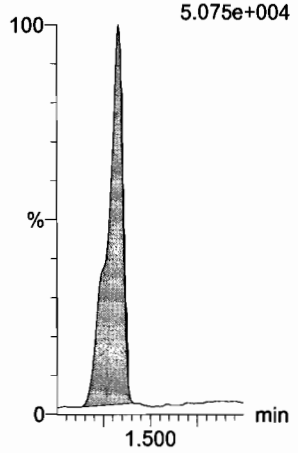
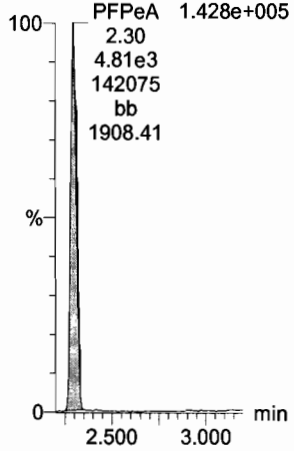
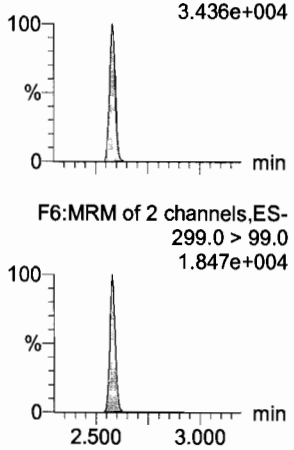
PFBA



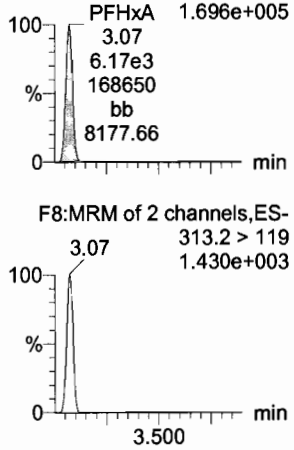
PFPeA



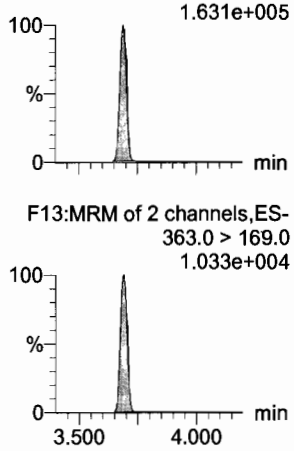
PFBS



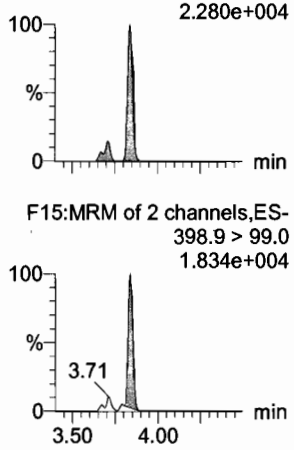
PFHxA



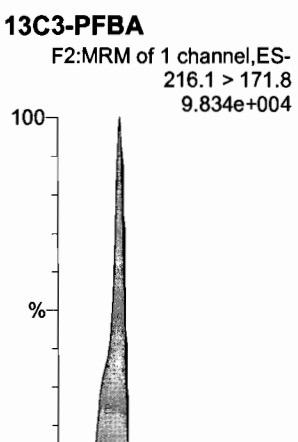
PFHpA



L-PFHxS



13C3-PFBA



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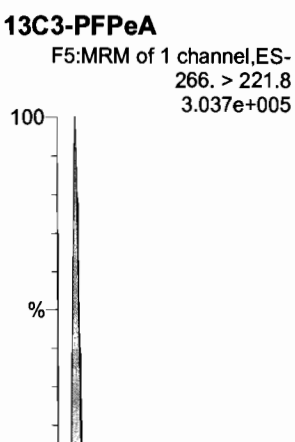
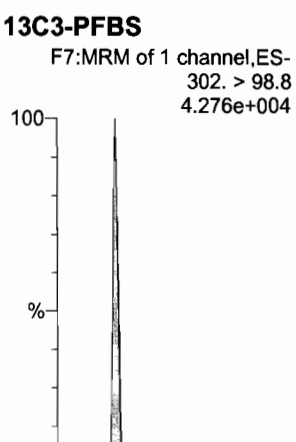


13C3-PFBS



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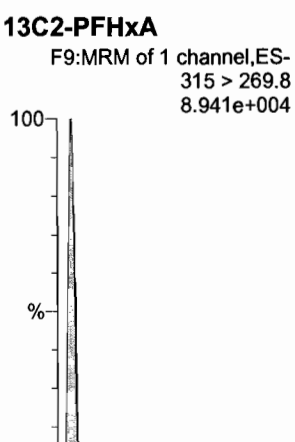
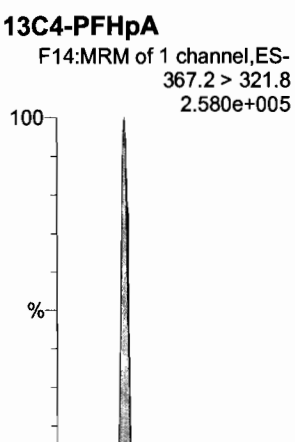
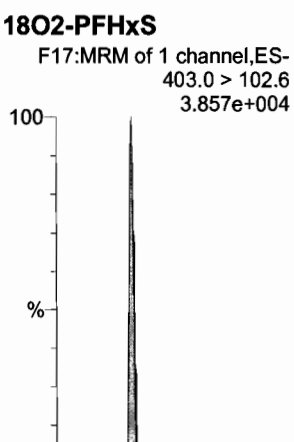


13C4-PFHpA



18O2-PFHxS



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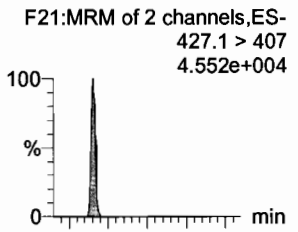
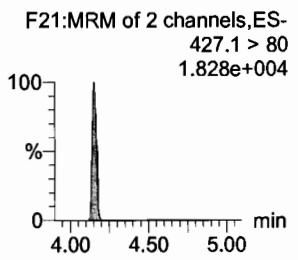
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

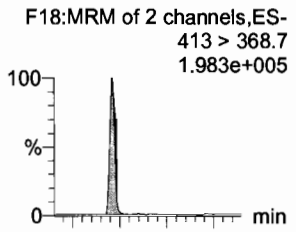
Name: 180102M2_6, Date: 02-Jan-2018, Time: 16:20:32, ID: ST180102M2-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

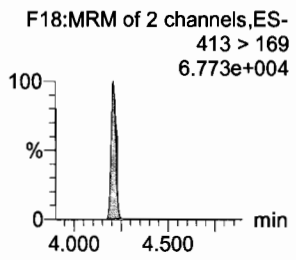
6:2 FTS



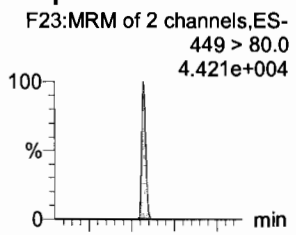


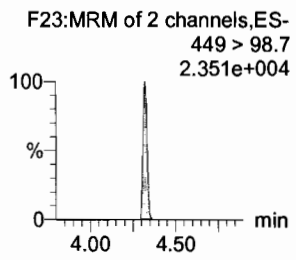
L-PFOA



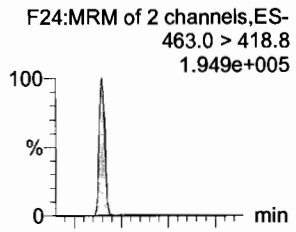


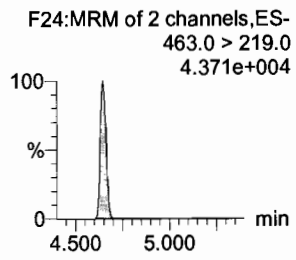
PFHpS



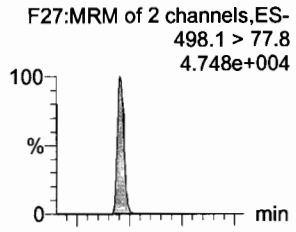


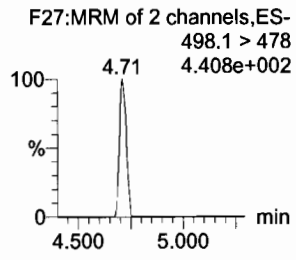
PFNA



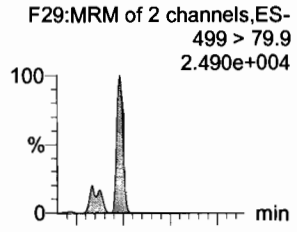


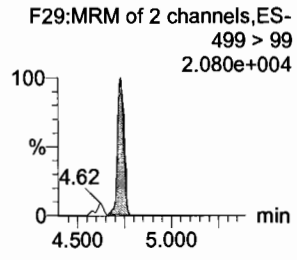
PFOSA



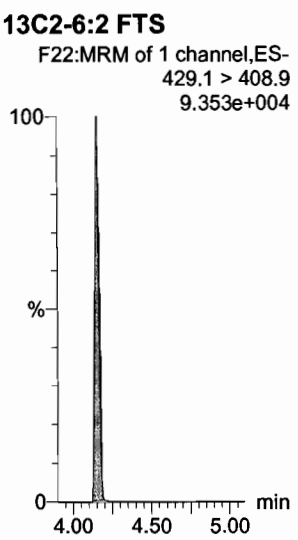


L-PFOS

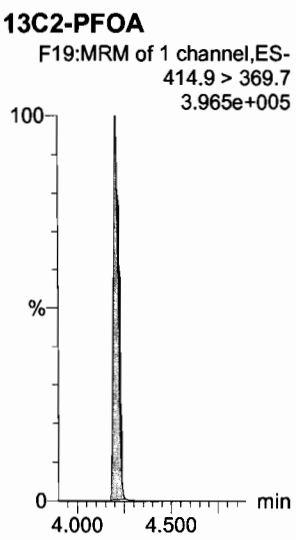




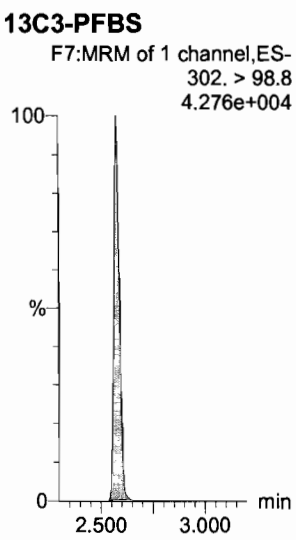
13C2-6:2 FTS



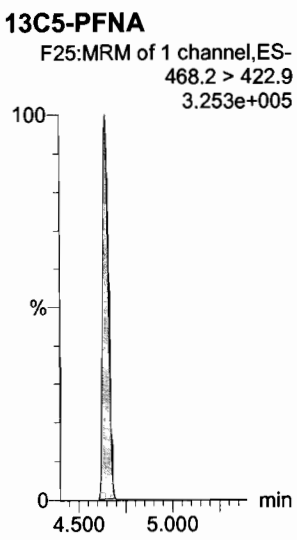
13C2-PFOA



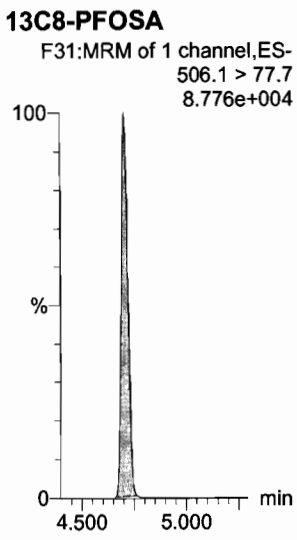
13C3-PFBS



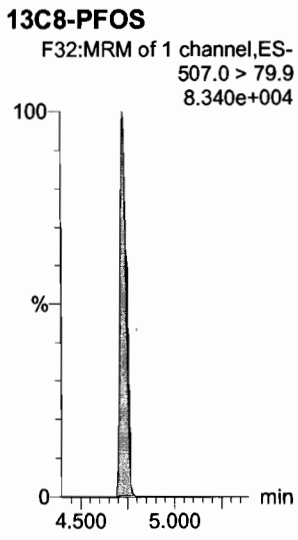
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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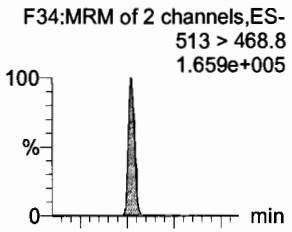
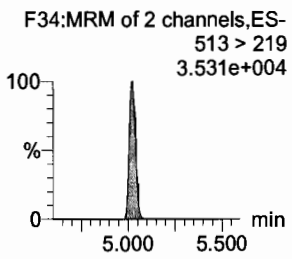
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

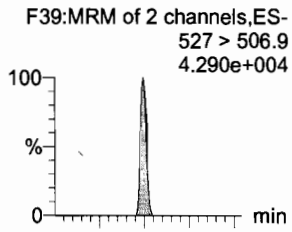
Name: 180102M2_6, Date: 02-Jan-2018, Time: 16:20:32, ID: ST180102M2-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

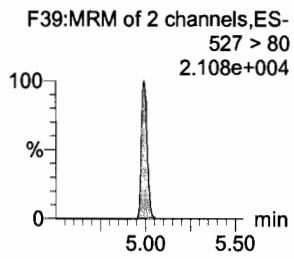
PFDA



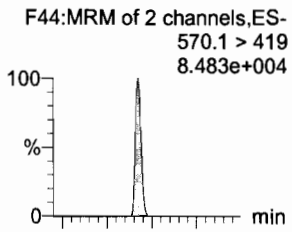


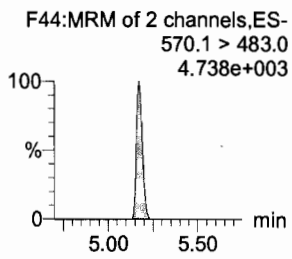
8:2 FTS



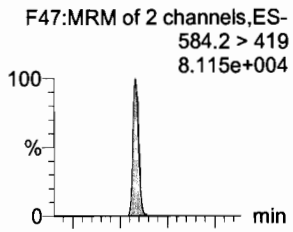


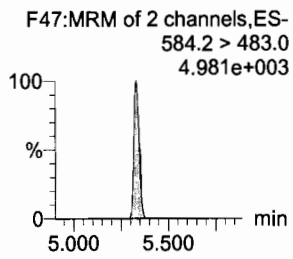
N-MeFOSAA



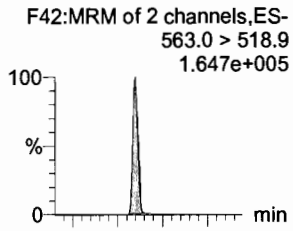


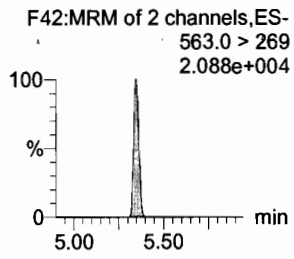
N-EtFOSAA



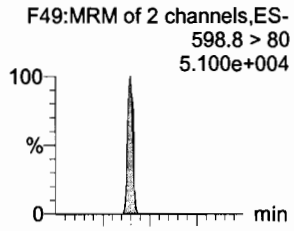


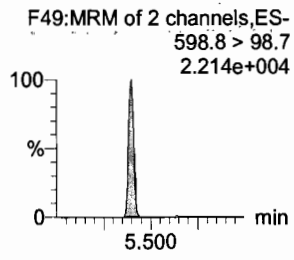
PFUdA



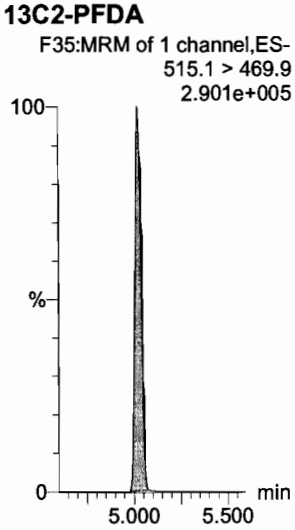


PFDS

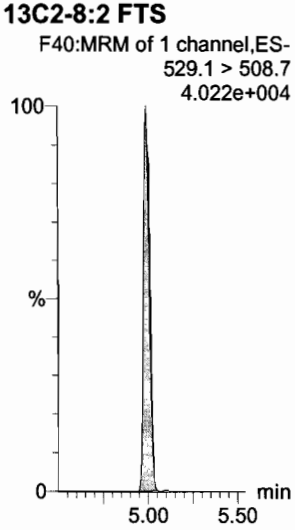




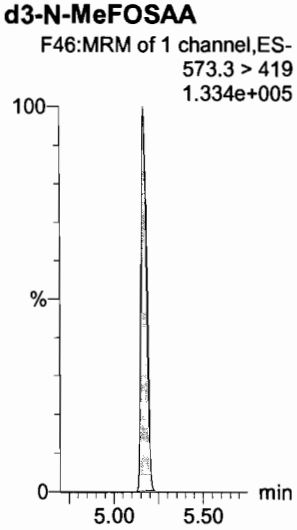
13C2-PFDA



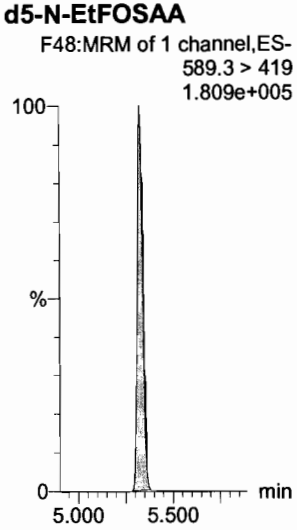
13C2-8:2 FTS



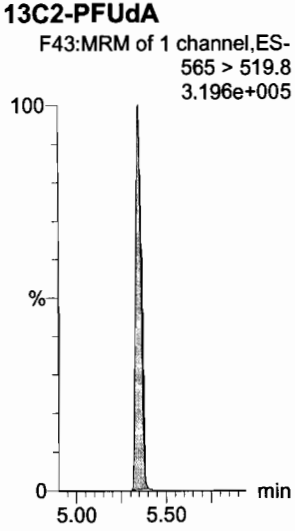
d3-N-MeFOSAA



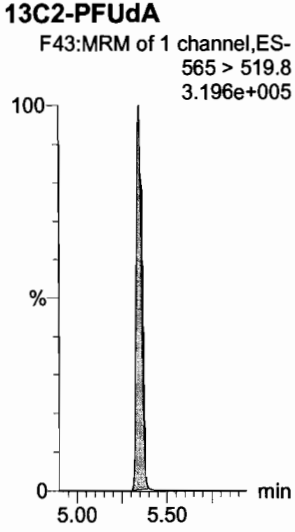
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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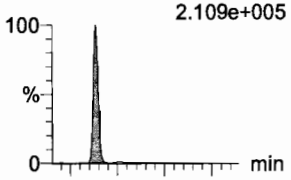
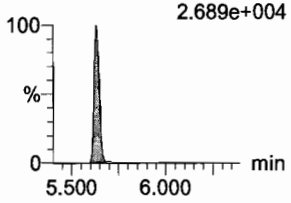
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_6, Date: 02-Jan-2018, Time: 16:20:32, ID: ST180102M2-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

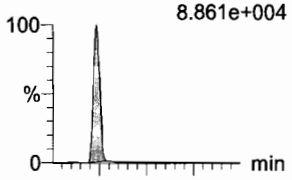
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
2.109e+005



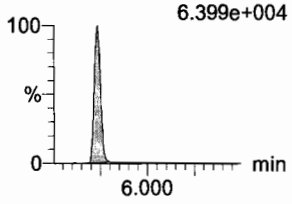
F50:MRM of 2 channels,ES-
612.9 > 318.8
2.689e+004



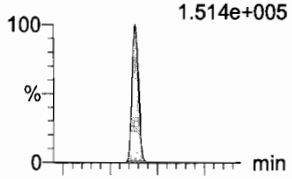
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
8.861e+004



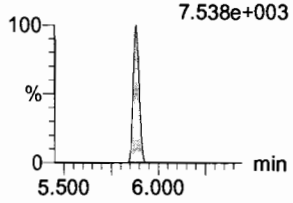
F33:MRM of 2 channels,ES-
512.1 > 219
6.399e+004



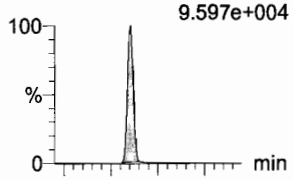
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
1.514e+005



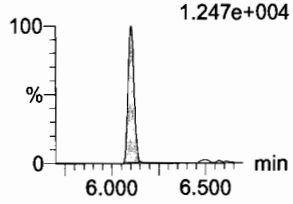
F56:MRM of 2 channels,ES-
662.9 > 319
7.538e+003



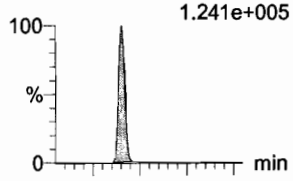
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
9.597e+004



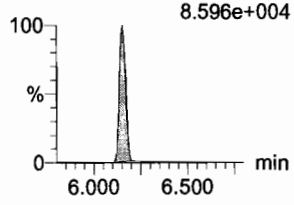
F57:MRM of 2 channels,ES-
712.9 > 369
1.247e+004



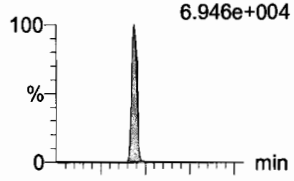
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
1.241e+005



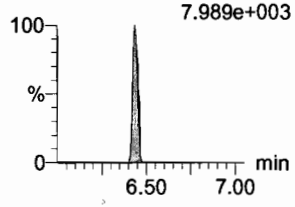
F38:MRM of 2 channels,ES-
526.1 > 219
8.596e+004



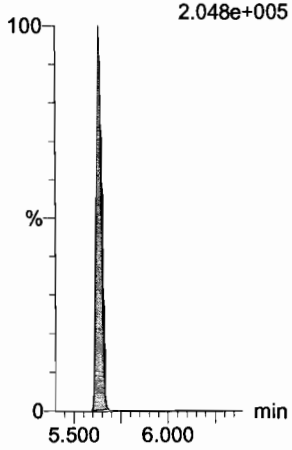
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
6.946e+004



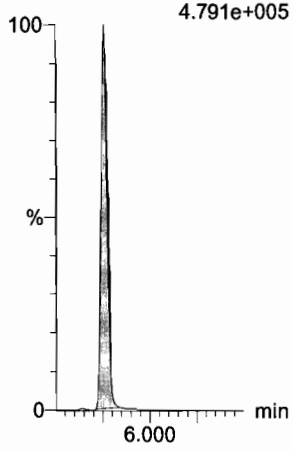
F59:MRM of 2 channels,ES-
813.1 > 219
7.989e+003



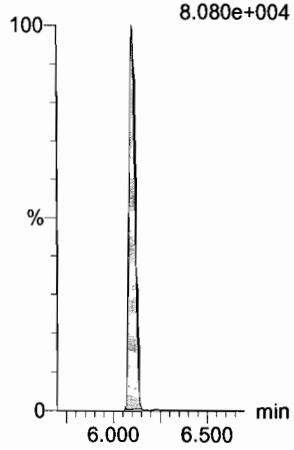
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
2.048e+005



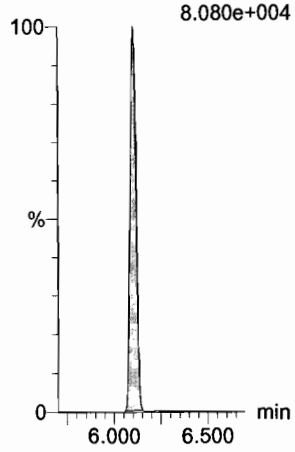
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.791e+005



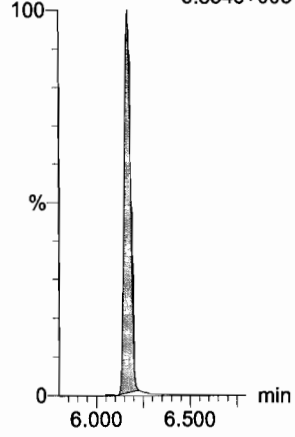
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
8.080e+004



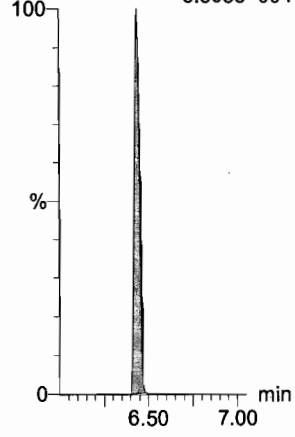
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
8.080e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.854e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.605e+004

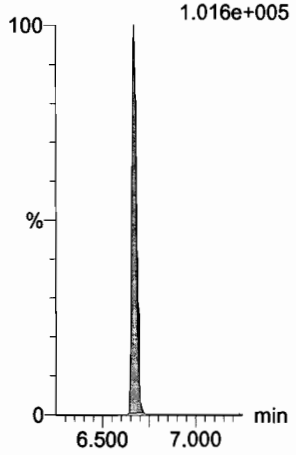


Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

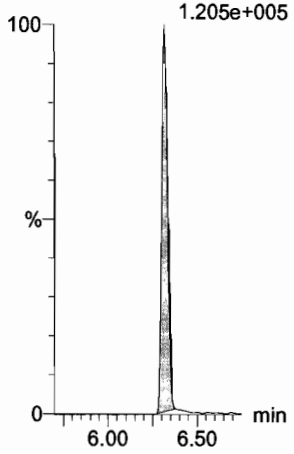
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_6, Date: 02-Jan-2018, Time: 16:20:32, ID: ST180102M2-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

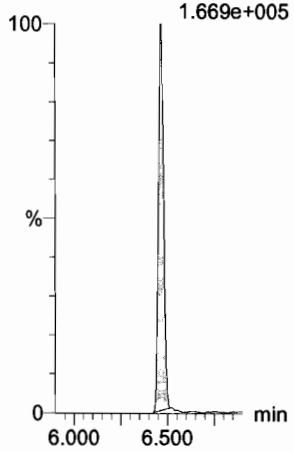
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.016e+005



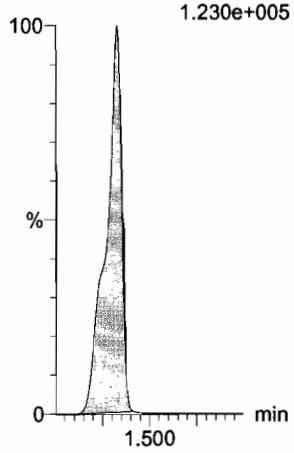
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.205e+005



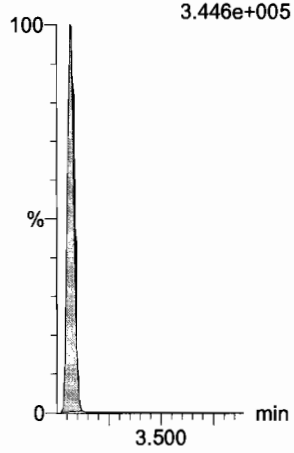
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.669e+005



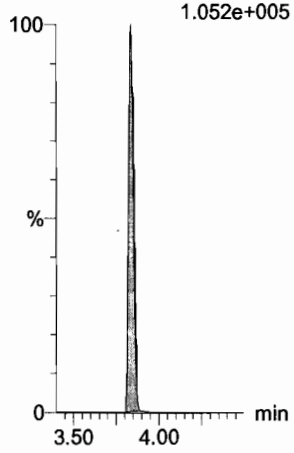
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.230e+005



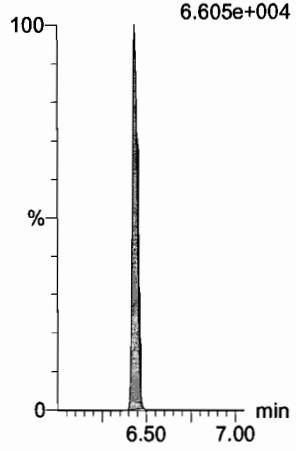
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.446e+005



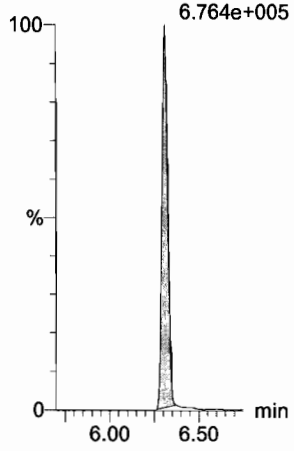
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.052e+005



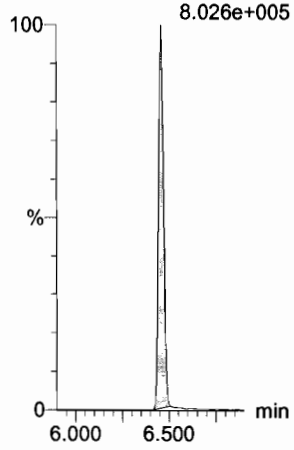
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.605e+004



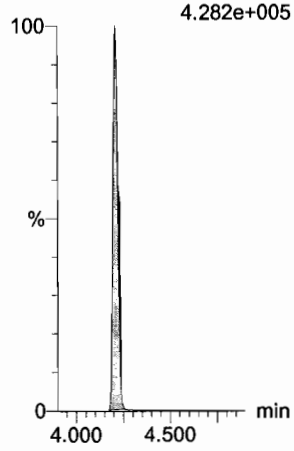
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.764e+005



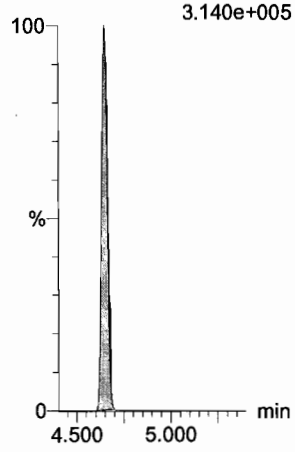
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
8.026e+005



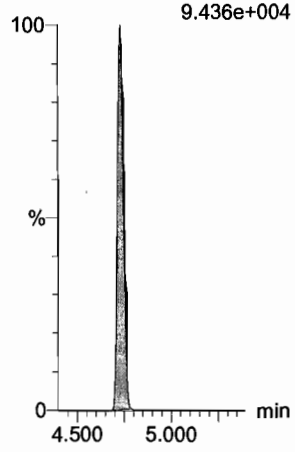
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.282e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.140e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.436e+004

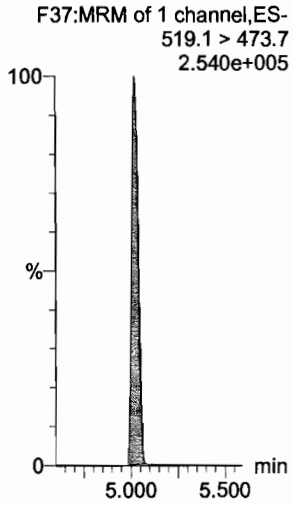


Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

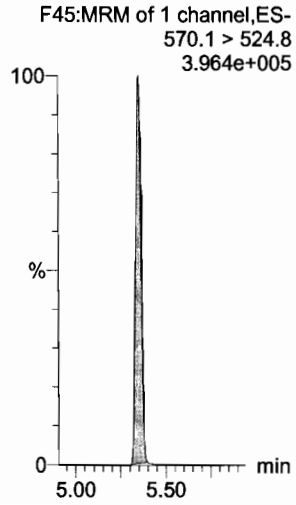
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_6, Date: 02-Jan-2018, Time: 16:20:32, ID: ST180102M2-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

13C6-PFDA



13C7-PFUdA



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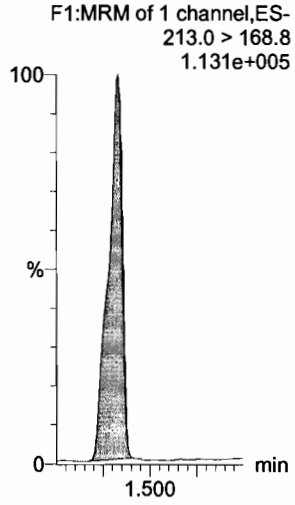
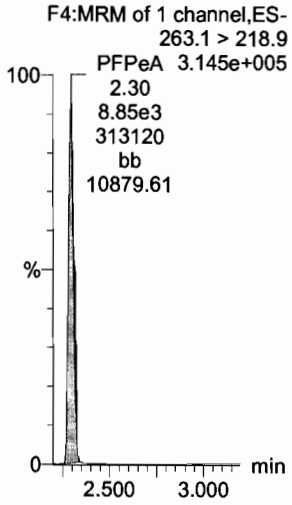
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_7, Date: 02-Jan-2018, Time: 16:31:43, ID: ST180102M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

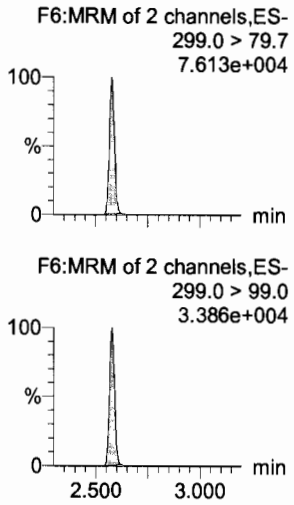
PFBA



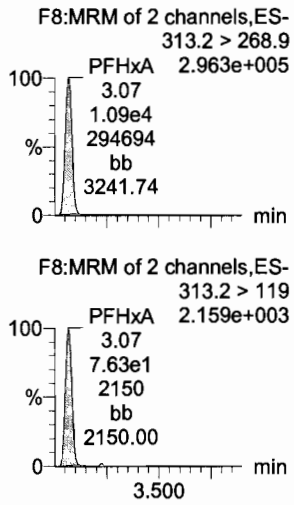
PFPeA



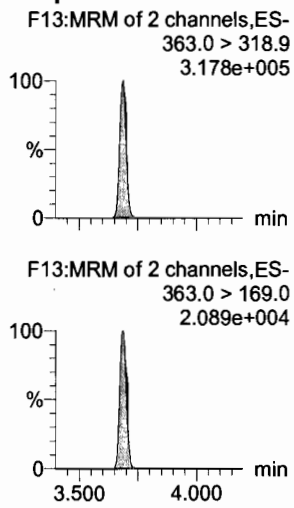
PFBS



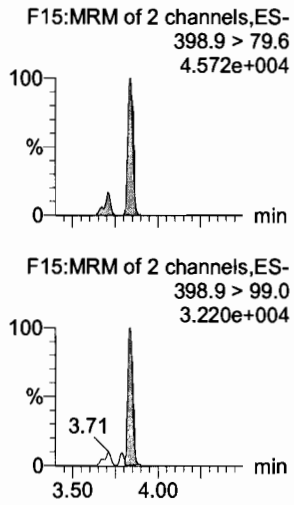
PFHxA



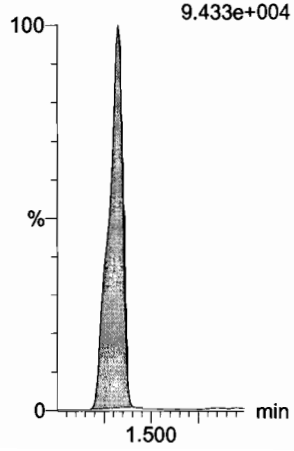
PFHpA



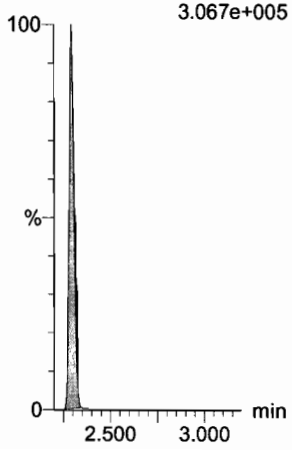
L-PFHxS



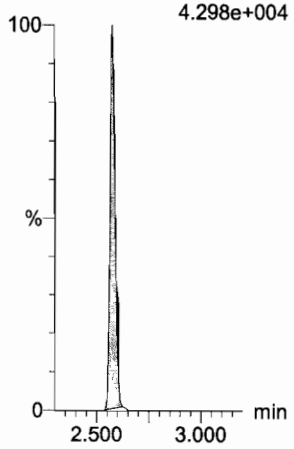
13C3-PFBA



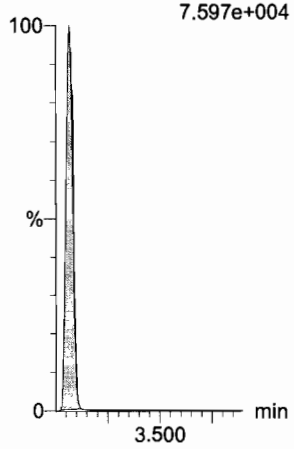
13C3-PFPeA



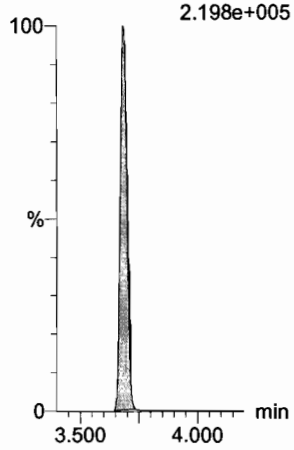
13C3-PFBS



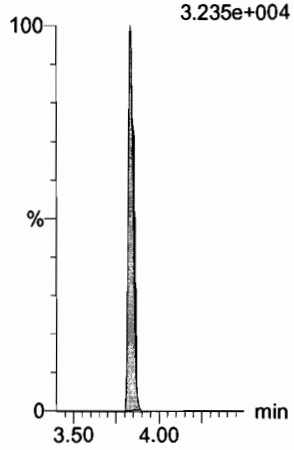
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
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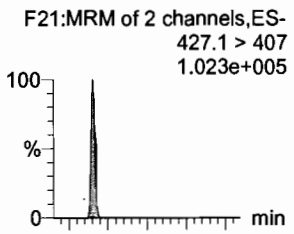
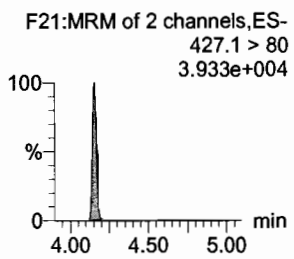
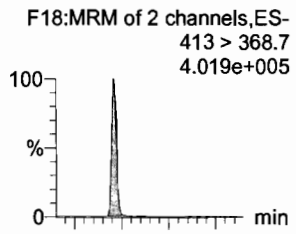
Name: 180102M2_7, Date: 02-Jan-2018, Time: 16:31:43, ID: ST180102M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

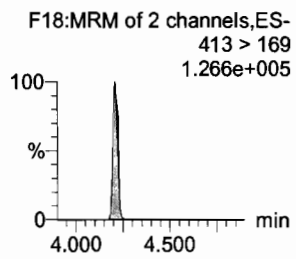
6:2 FTS



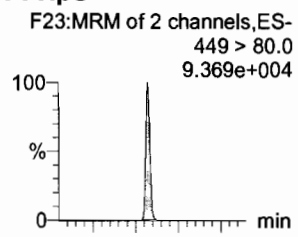


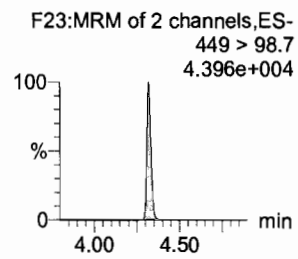
L-PFOA



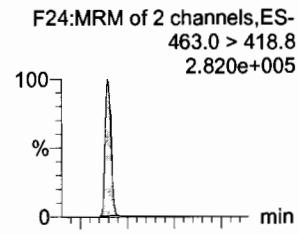


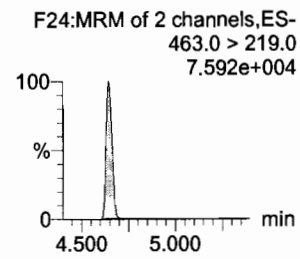
PFHpS



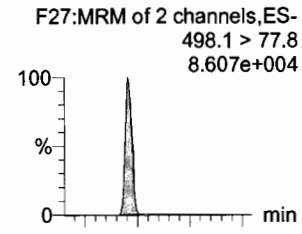


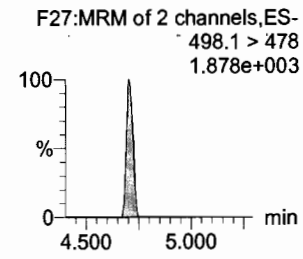
PFNA



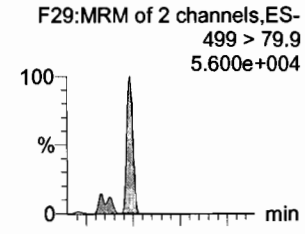


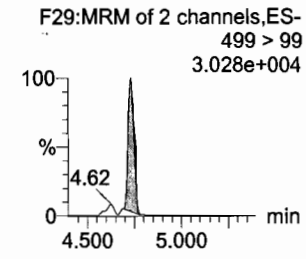
PFOSA



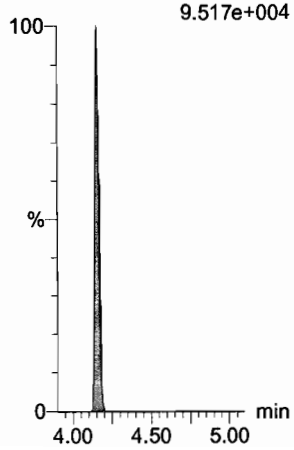


L-PFOS

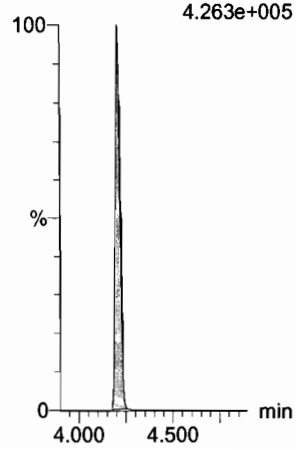




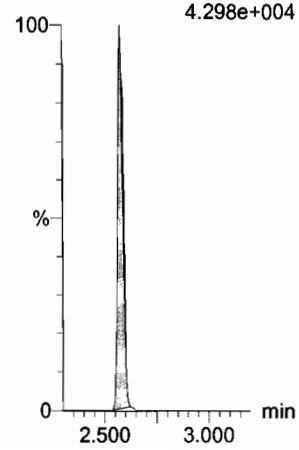
13C2-6:2 FTS



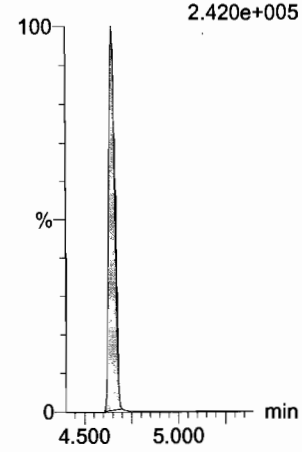
13C2-PFOA



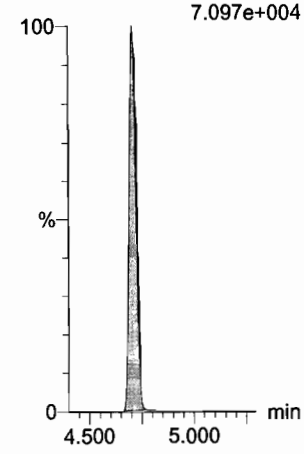
13C3-PFBS



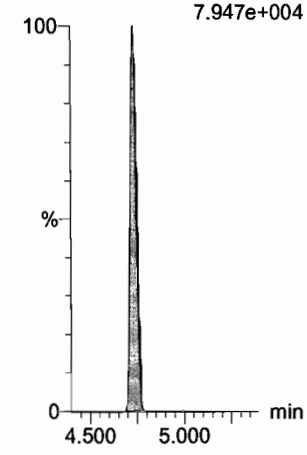
13C5-PFNA



13C8-PFOSA



13C8-PFOS

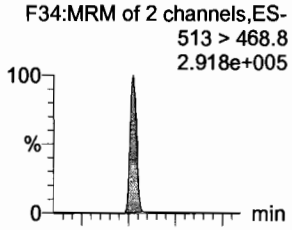


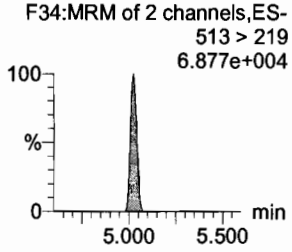
Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

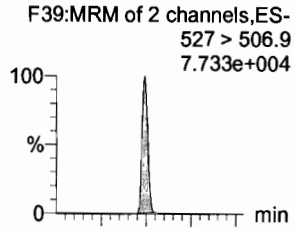
Name: 180102M2_7, Date: 02-Jan-2018, Time: 16:31:43, ID: ST180102M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

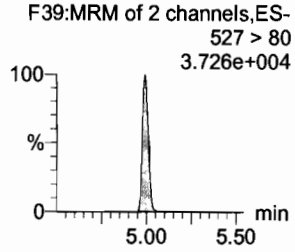
PFDA





8:2 FTS





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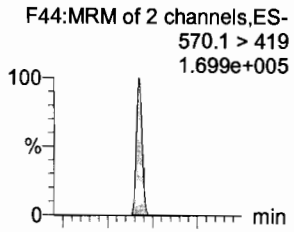

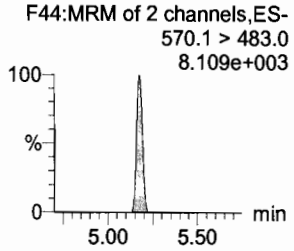

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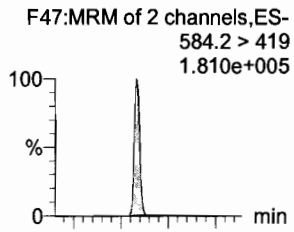
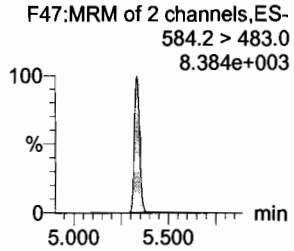
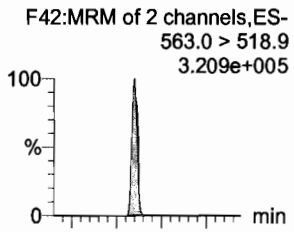
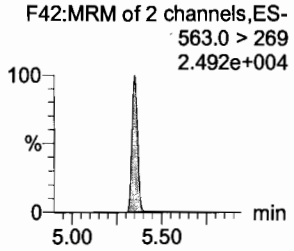


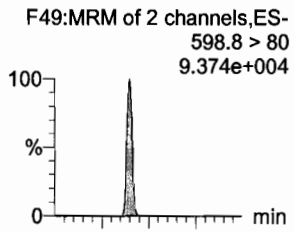


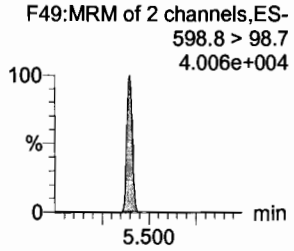
PFUdA



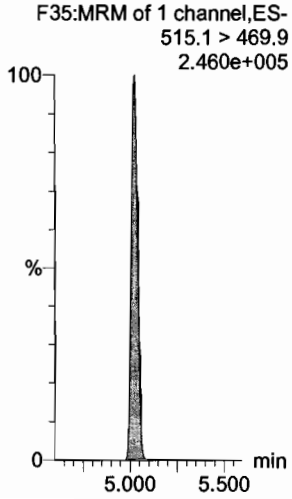


PFDS

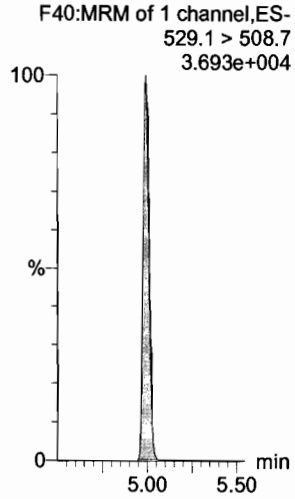




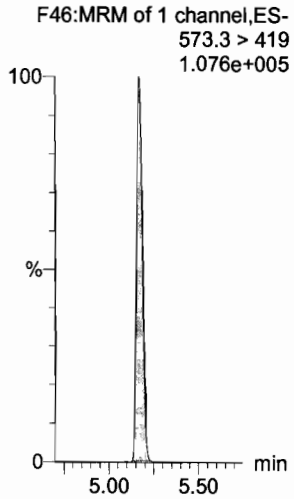
13C2-PFDA



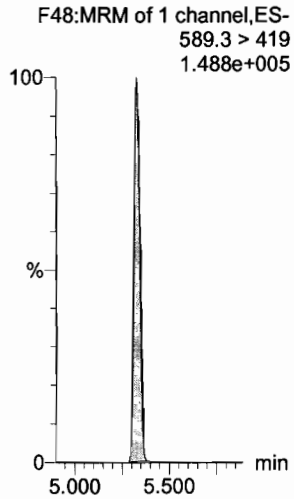
13C2-8:2 FTS



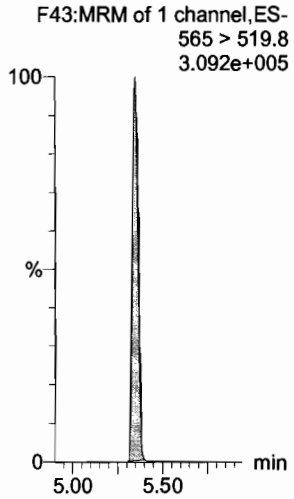
d3-N-MeFOSAA



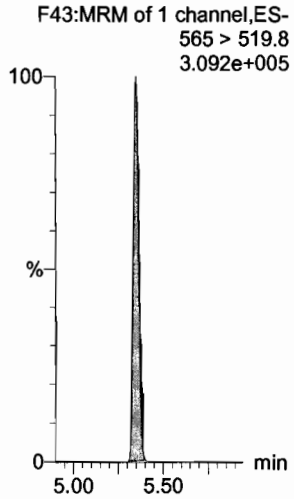
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
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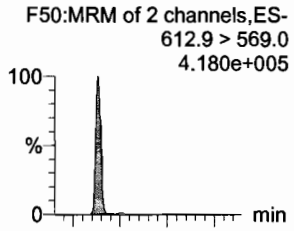
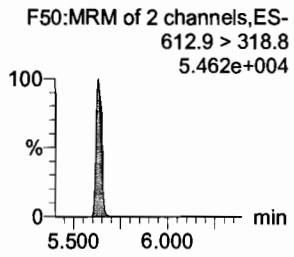
Name: 180102M2_7, Date: 02-Jan-2018, Time: 16:31:43, ID: ST180102M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

PFDoA





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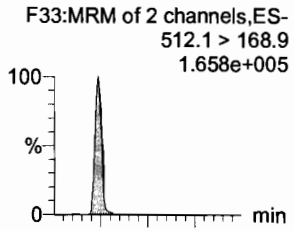
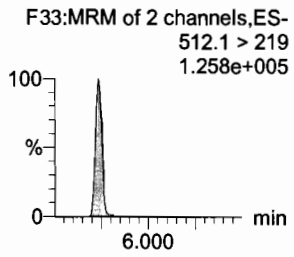
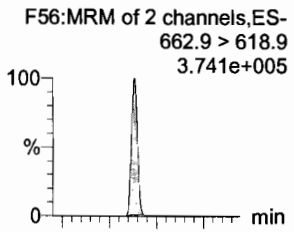
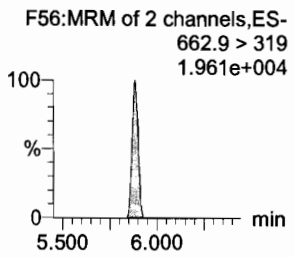


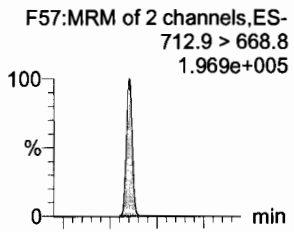


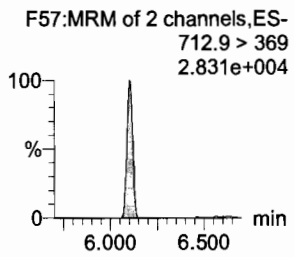
PFTrDA





PFTeDA





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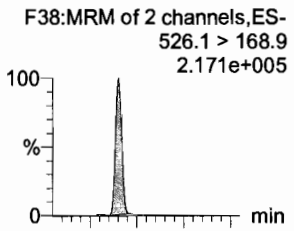

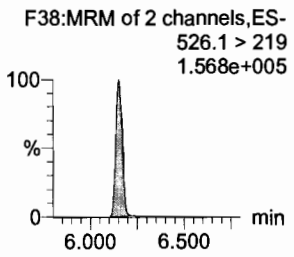

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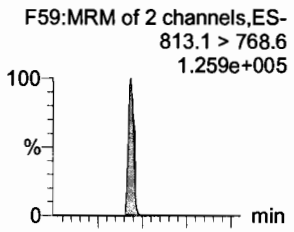
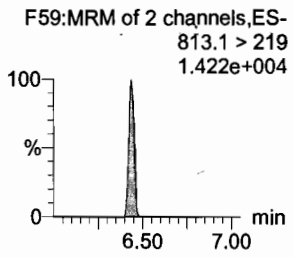
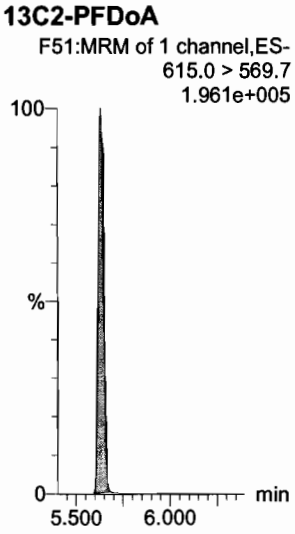
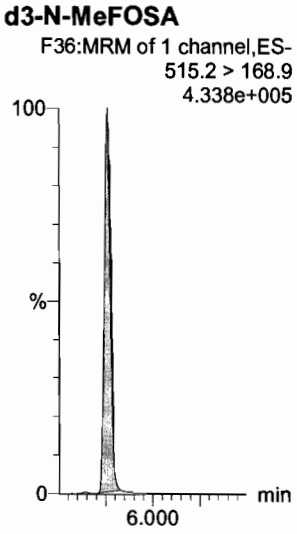




13C2-PFDoA



d3-N-MeFOSA



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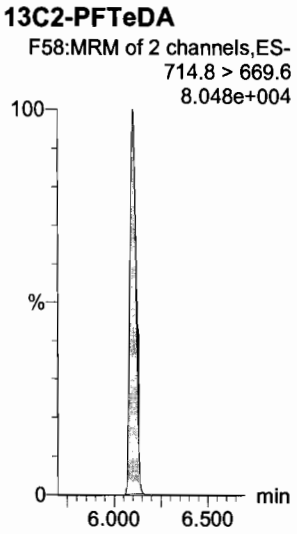

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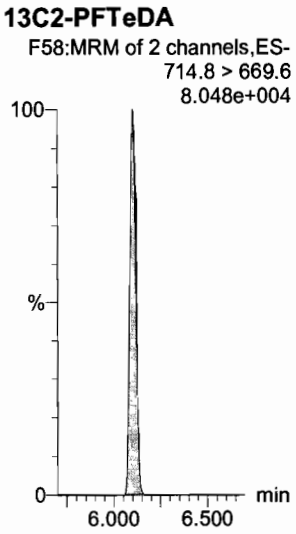
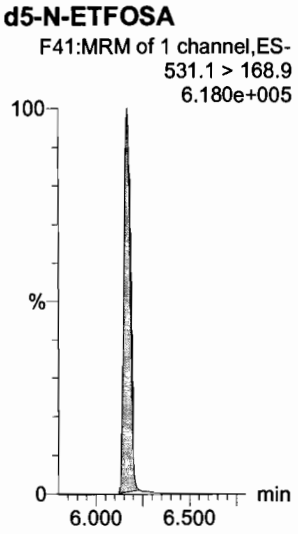
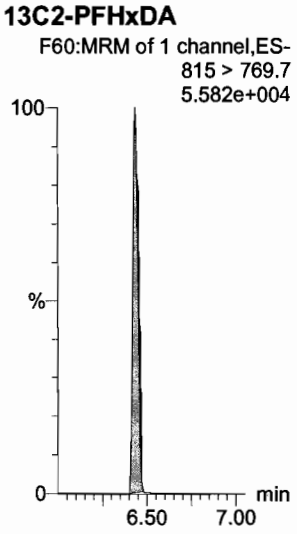


d5-N-ETFOSA



13C2-PFHxDA



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Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
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Name: 180102M2_7, Date: 02-Jan-2018, Time: 16:31:43, ID: ST180102M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

PFODA
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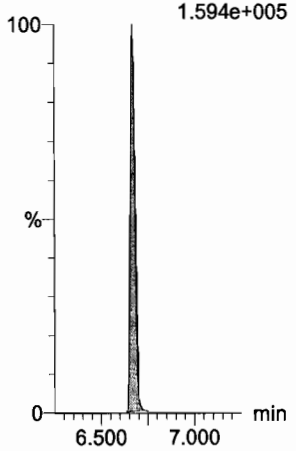
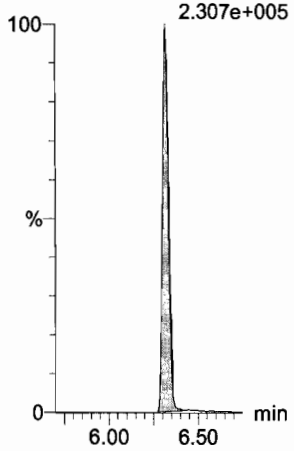
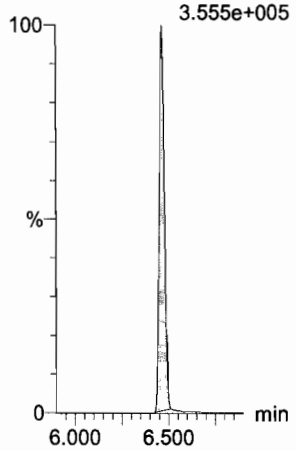
913.1 > 868.8
1.594e+005



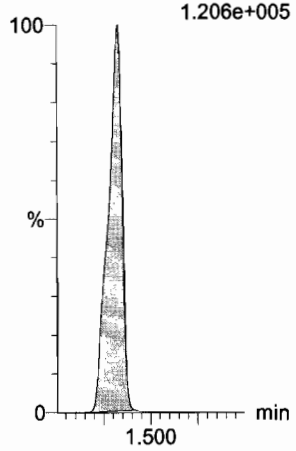
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.307e+005



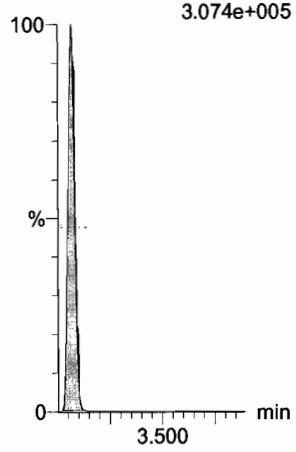
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.555e+005



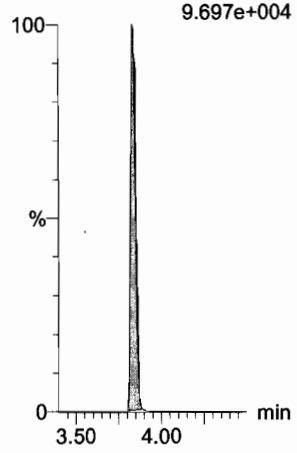
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.206e+005



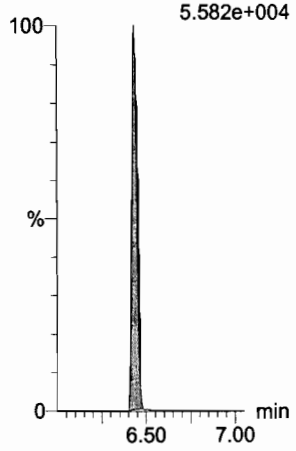
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.074e+005



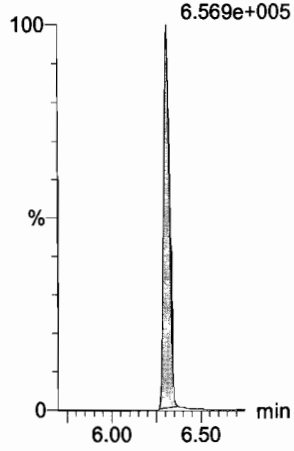
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.697e+004



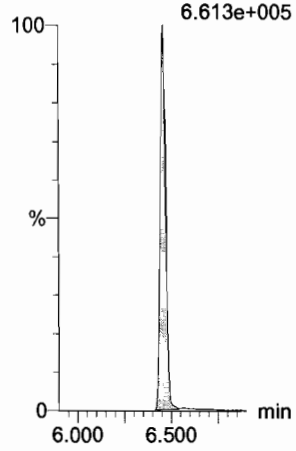
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.582e+004



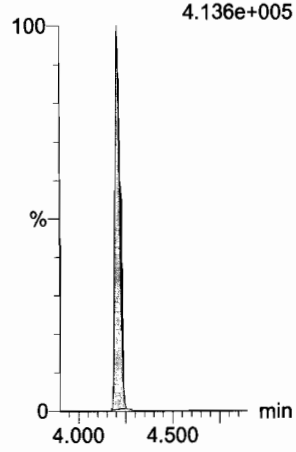
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.569e+005



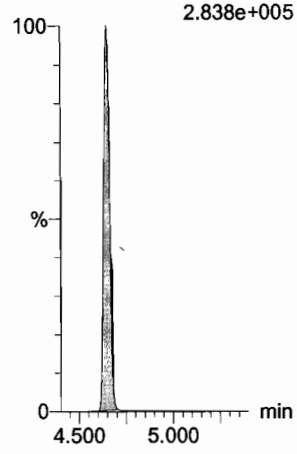
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.613e+005



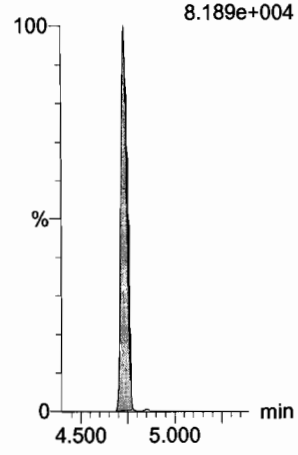
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.136e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.838e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.189e+004



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Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
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Name: 180102M2_7, Date: 02-Jan-2018, Time: 16:31:43, ID: ST180102M2-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

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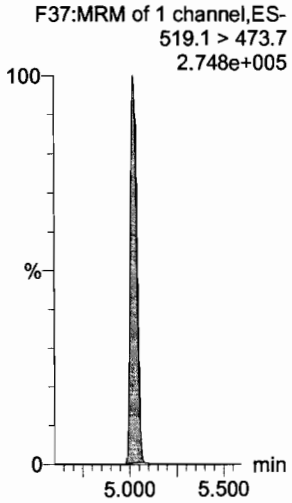
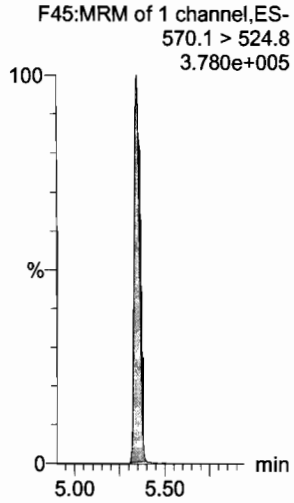


13C7-PFUdA



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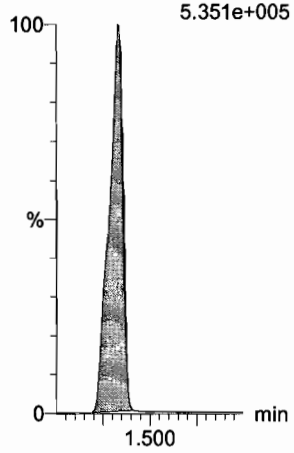
Name: 180102M2_8, Date: 02-Jan-2018, Time: 16:42:54, ID: ST180102M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

PFBA



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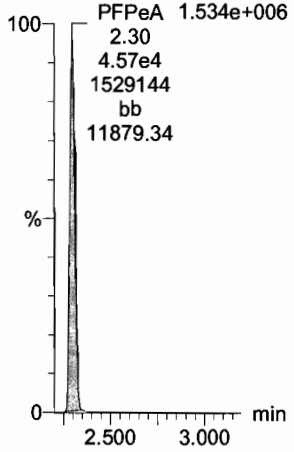

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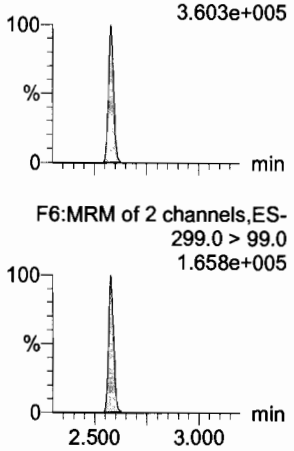

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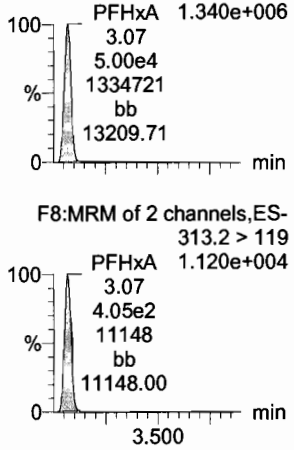

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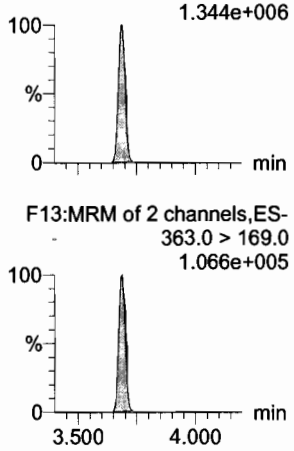

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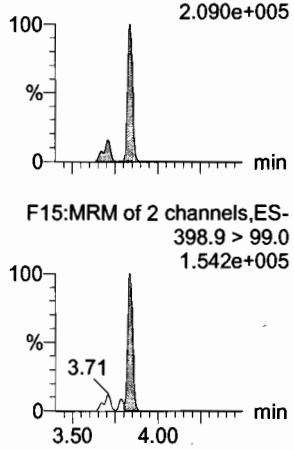
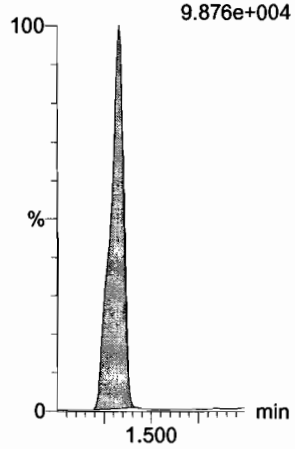


13C3-PFBA



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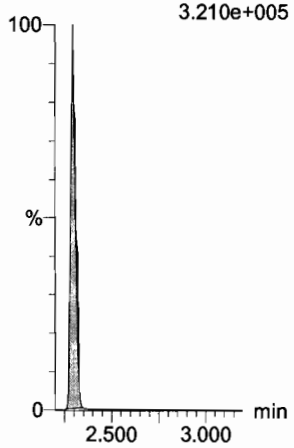

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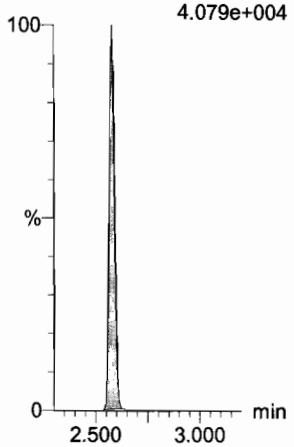
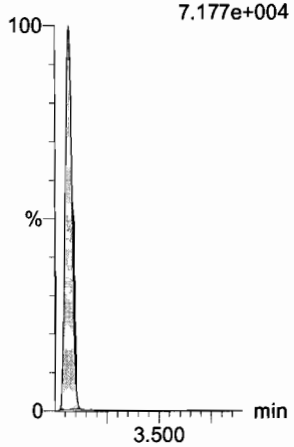


13C2-PFHxA



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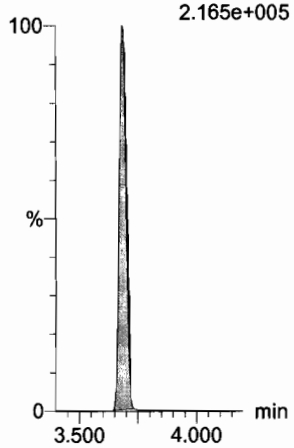

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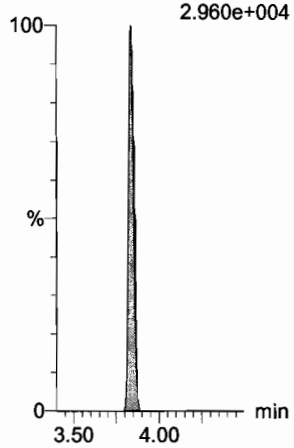

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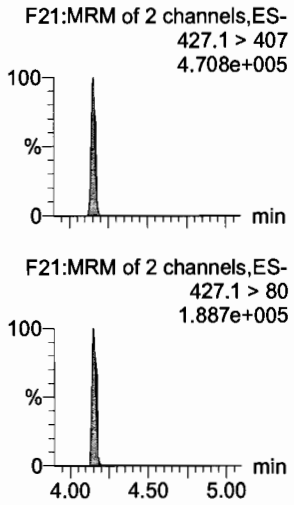
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_8, Date: 02-Jan-2018, Time: 16:42:54, ID: ST180102M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

6:2 FTS



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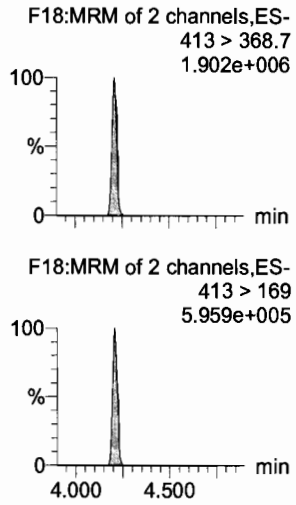

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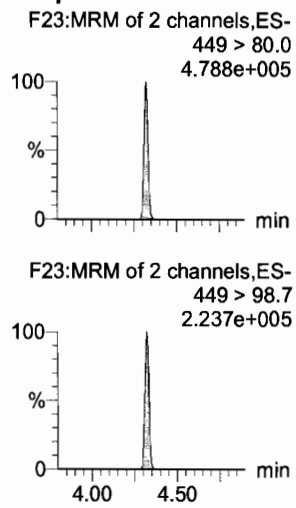

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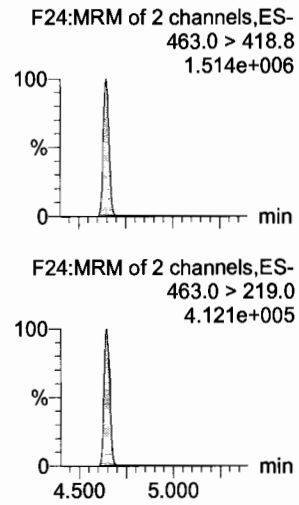

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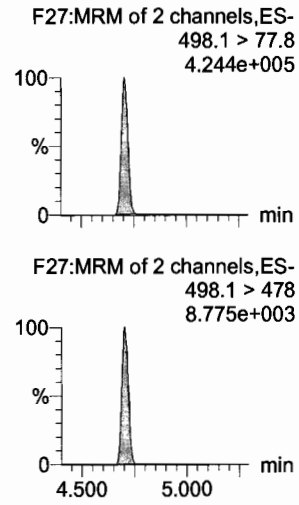

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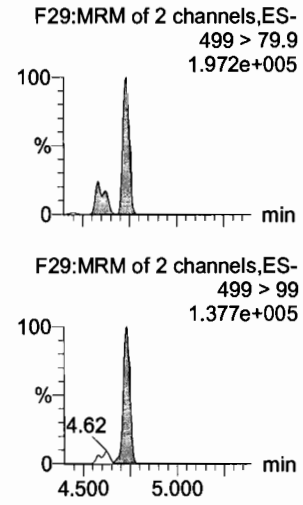
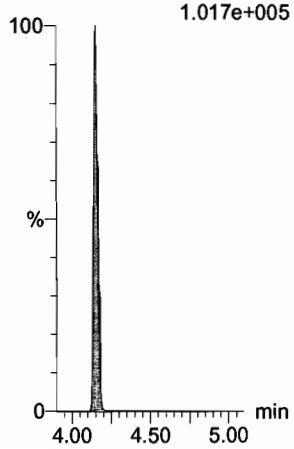


13C2-6:2 FTS



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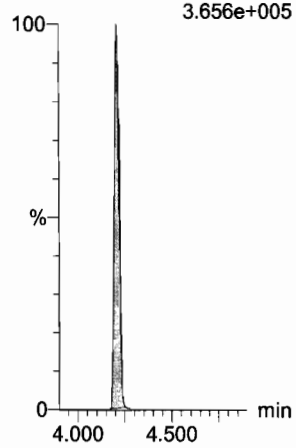

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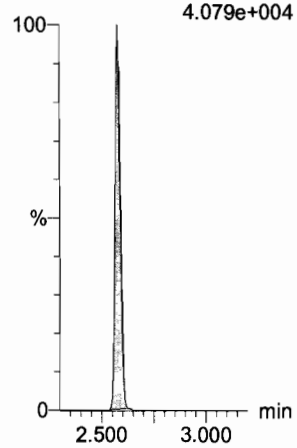

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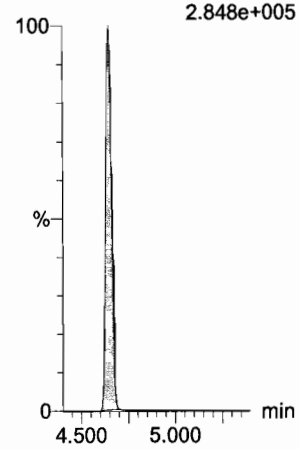

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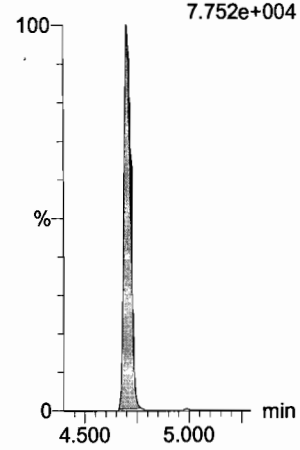

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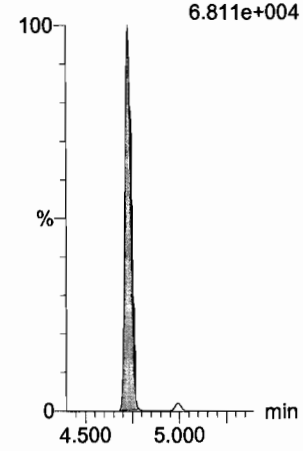

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Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
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Name: 180102M2_8, Date: 02-Jan-2018, Time: 16:42:54, ID: ST180102M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

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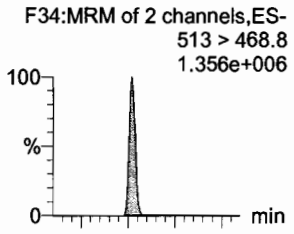
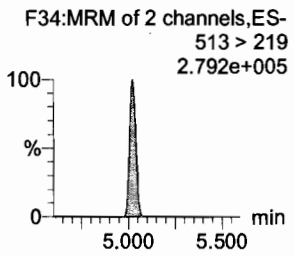
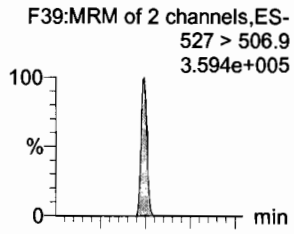
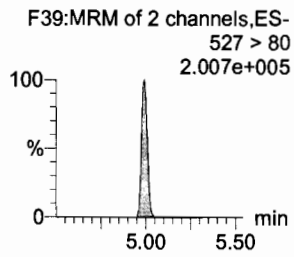




8:2 FTS





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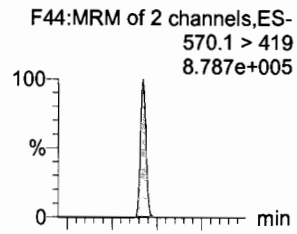

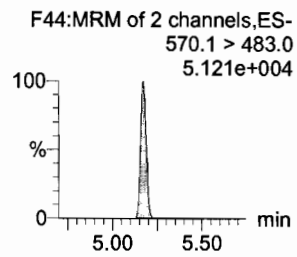

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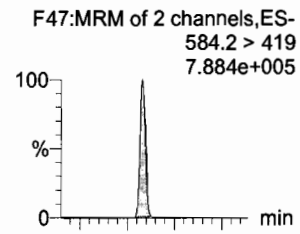

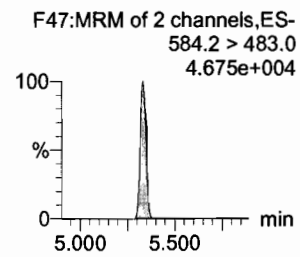

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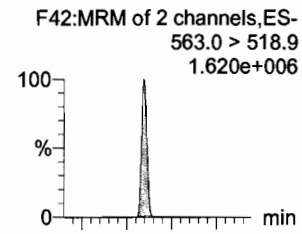

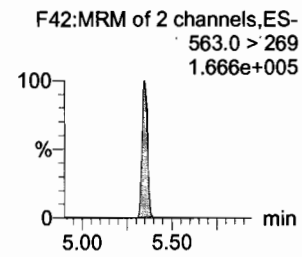

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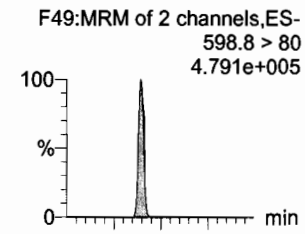

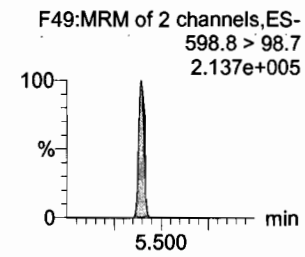

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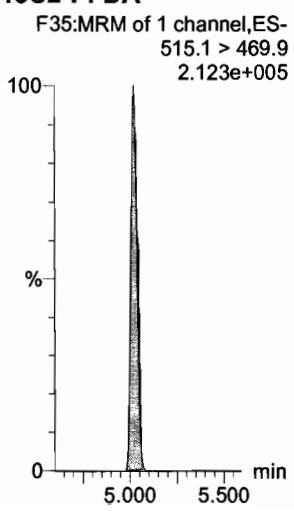

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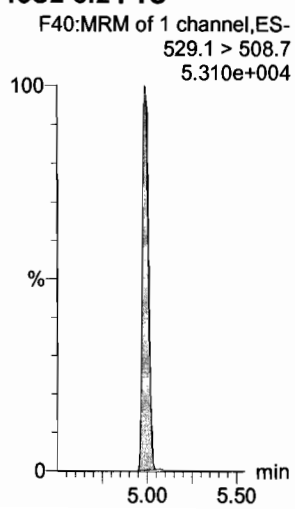

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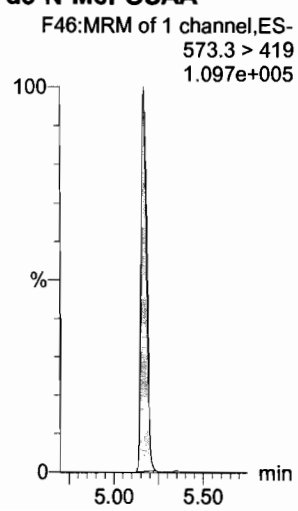

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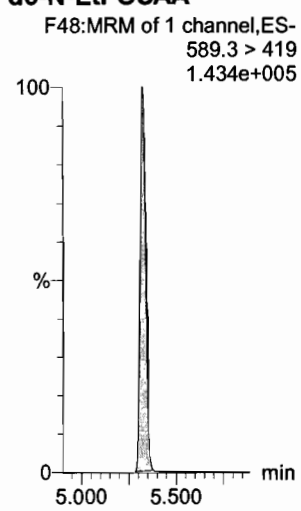

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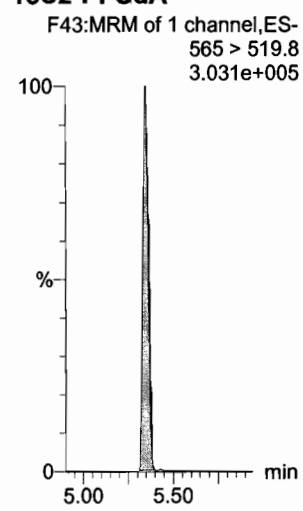

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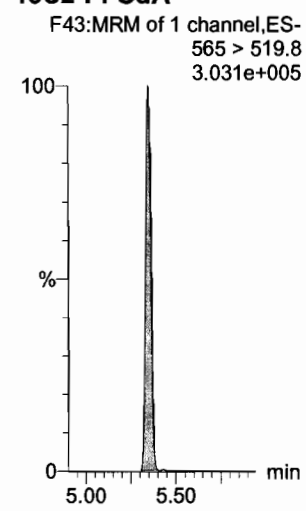

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Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
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Name: 180102M2_8, Date: 02-Jan-2018, Time: 16:42:54, ID: ST180102M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

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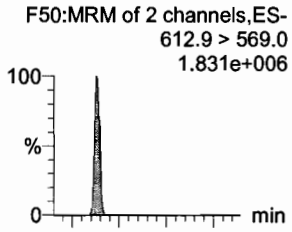

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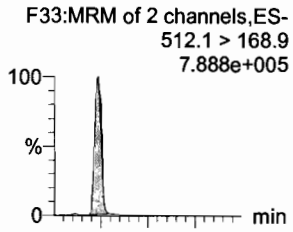

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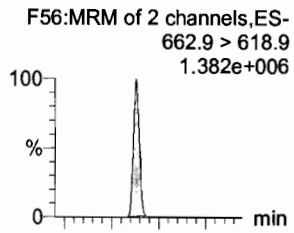

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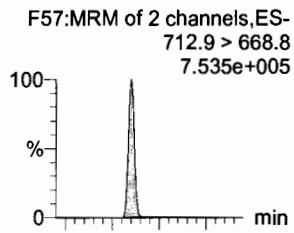

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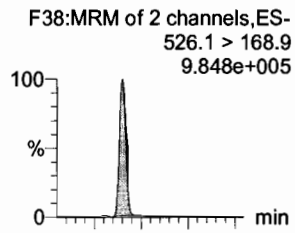

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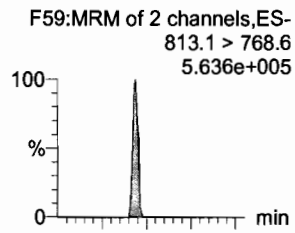
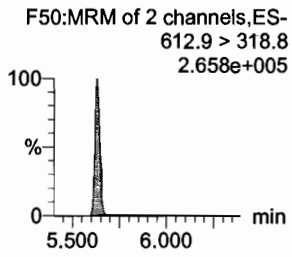
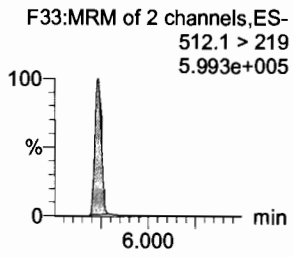
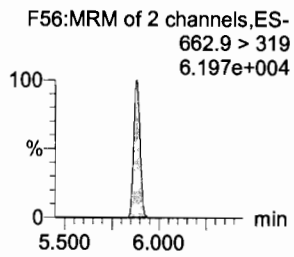
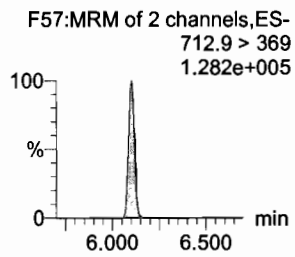
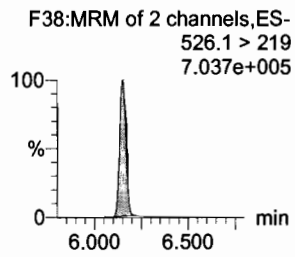


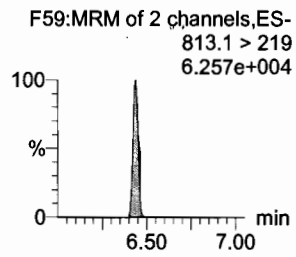




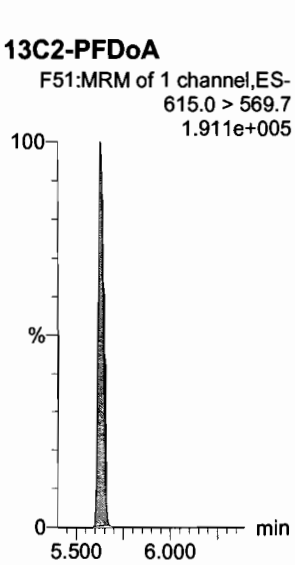




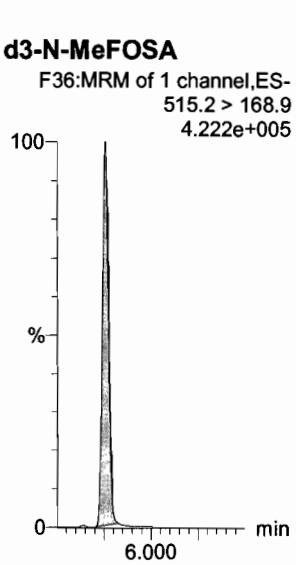




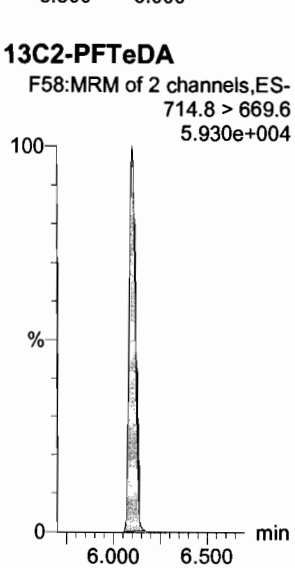
13C2-PFDoA



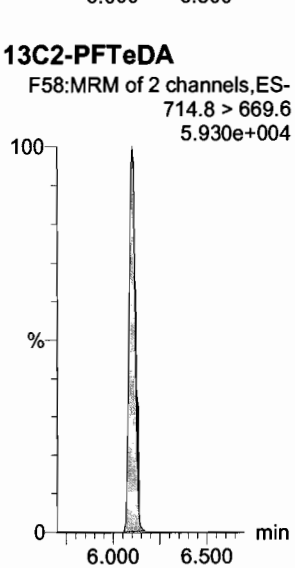
d3-N-MeFOSA



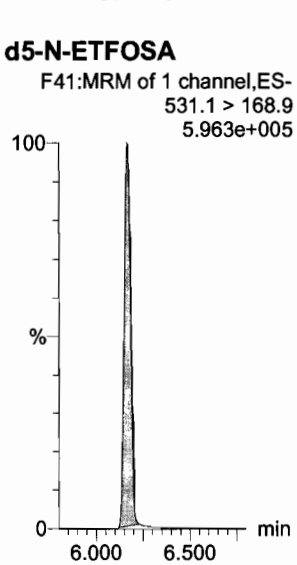
13C2-PFTeDA



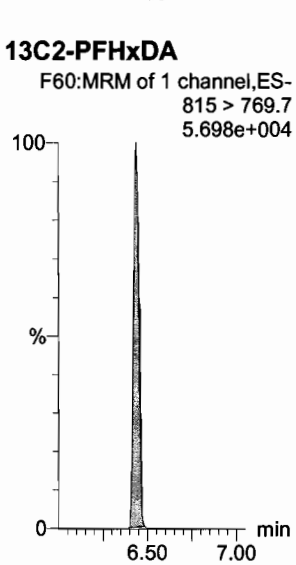
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

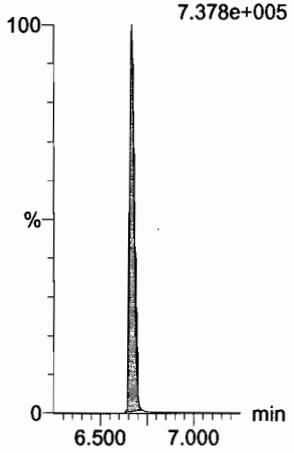


Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

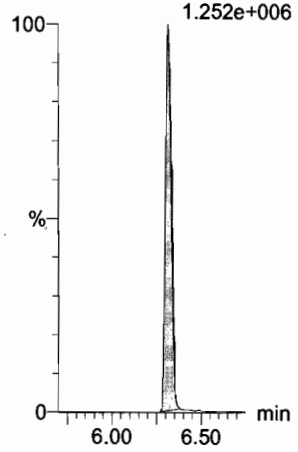
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_8, Date: 02-Jan-2018, Time: 16:42:54, ID: ST180102M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

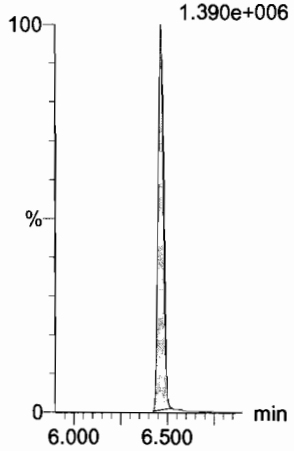
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
7.378e+005



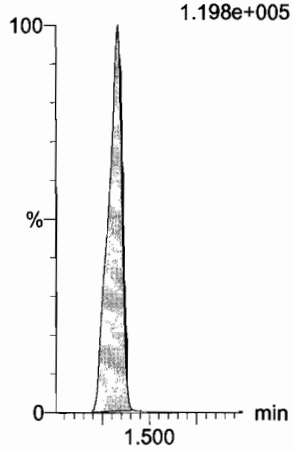
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.252e+006



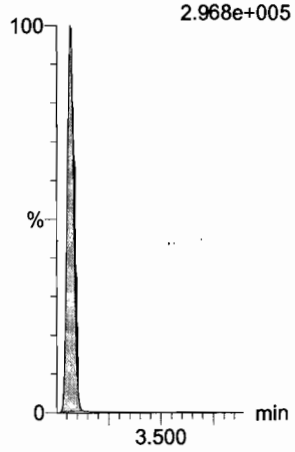
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.390e+006



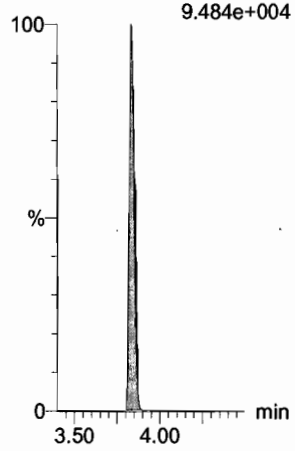
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.198e+005



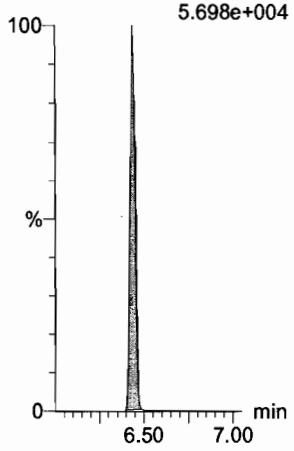
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
2.968e+005



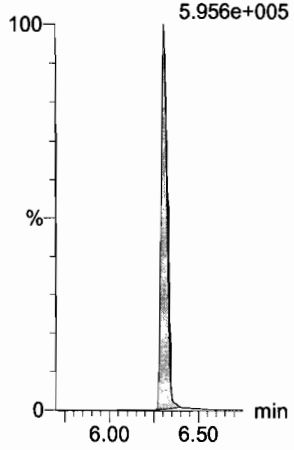
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.484e+004



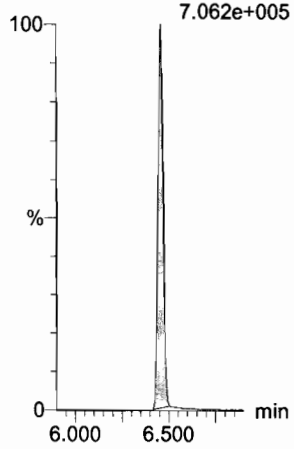
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.698e+004



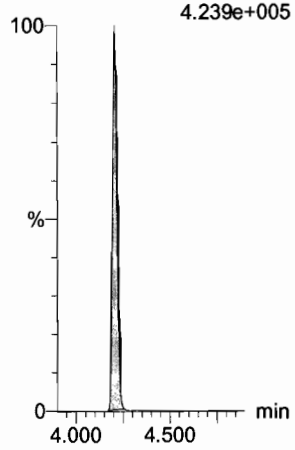
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.956e+005



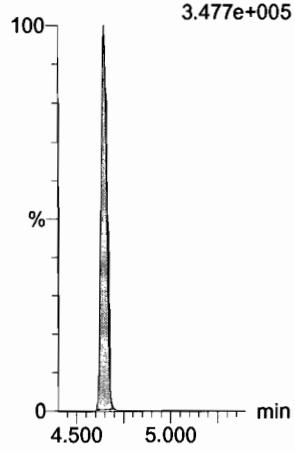
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.062e+005



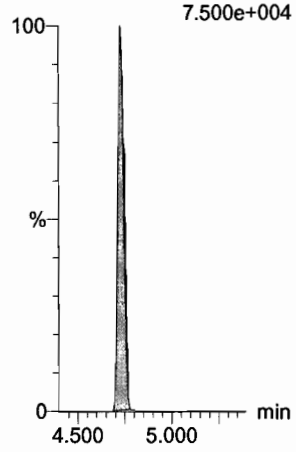
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.239e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.477e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.500e+004

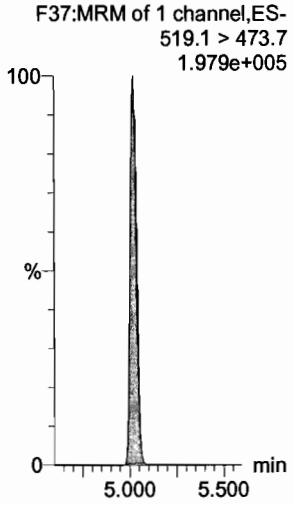


Dataset: U:\Q4.PRO\results\180102M2\180102M2-CRV.qld

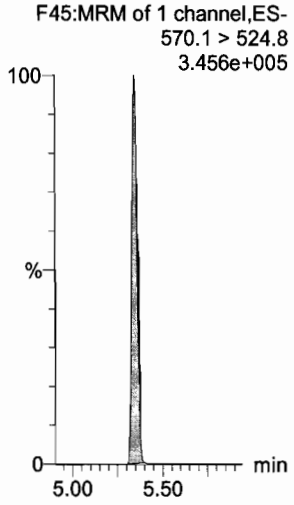
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_8, Date: 02-Jan-2018, Time: 16:42:54, ID: ST180102M2-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

13C6-PFDA



13C7-PFUdA



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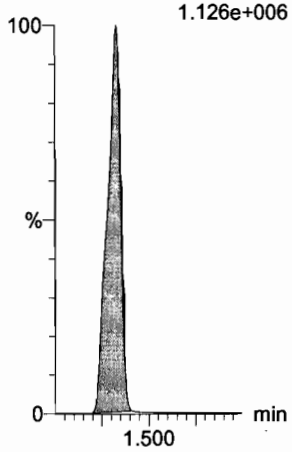
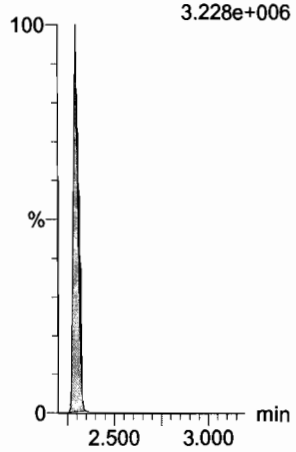
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_9, Date: 02-Jan-2018, Time: 16:54:04, ID: ST180102M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

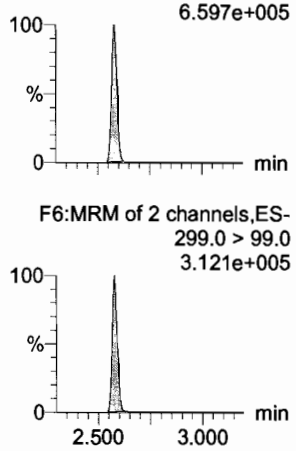
PFBA



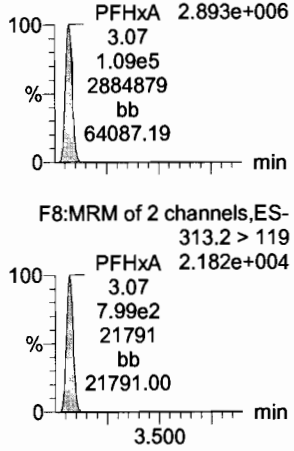
PFPeA



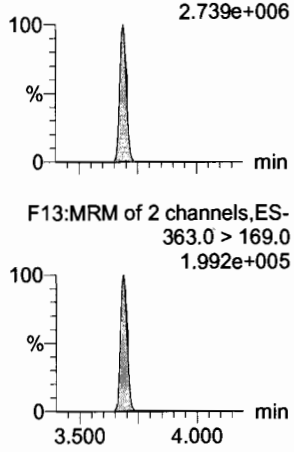
PFBS



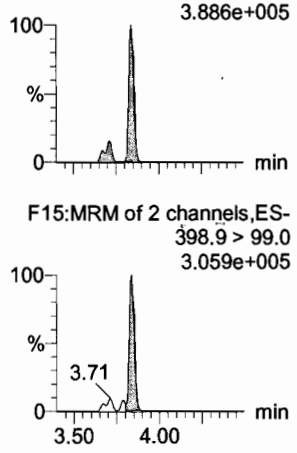
PFHxA



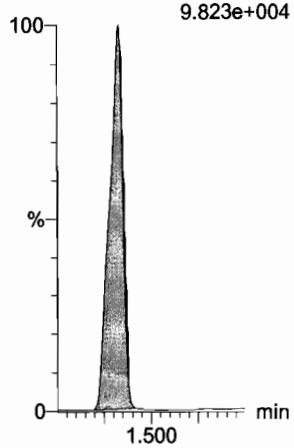
PFHpA



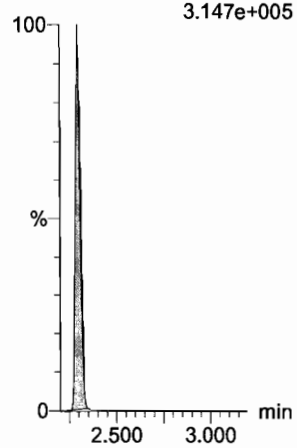
L-PFHxS



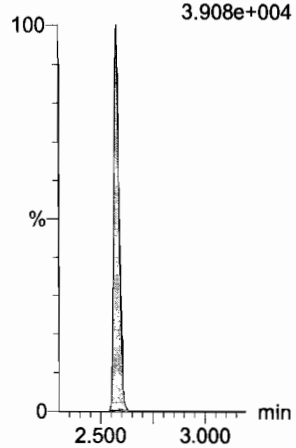
13C3-PFBA



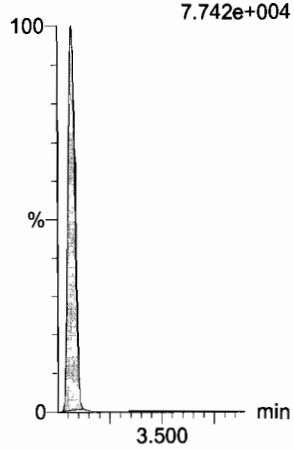
13C3-PFPeA



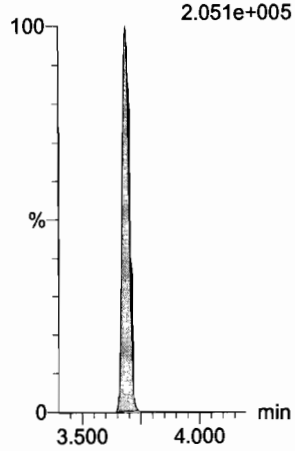
13C3-PFBS



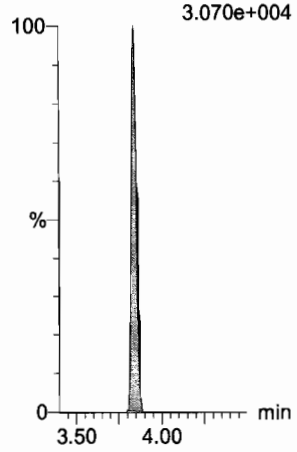
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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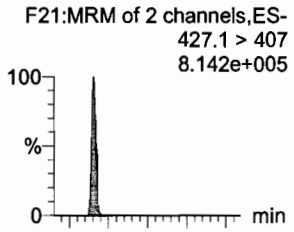
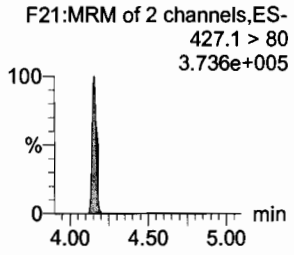
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

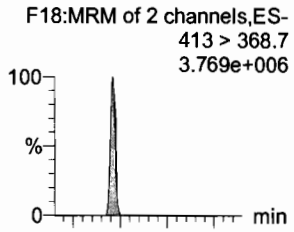
Name: 180102M2_9, Date: 02-Jan-2018, Time: 16:54:04, ID: ST180102M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

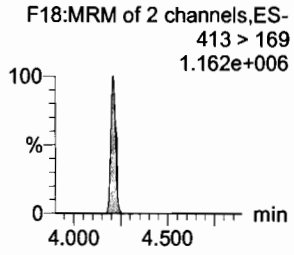
6:2 FTS



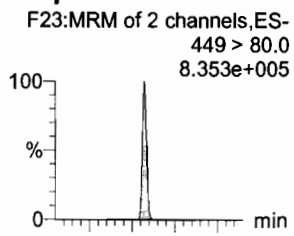


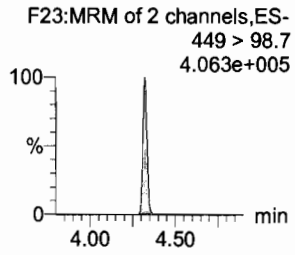
L-PFOA



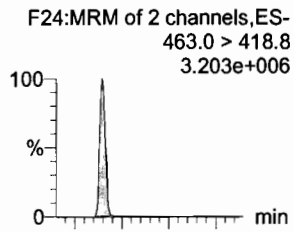


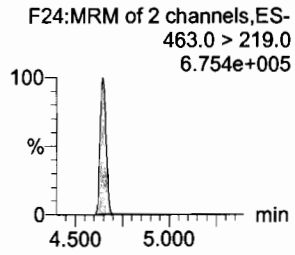
PFHpS



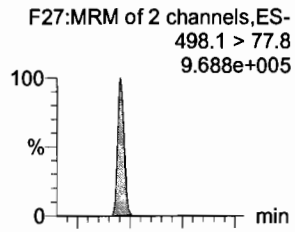


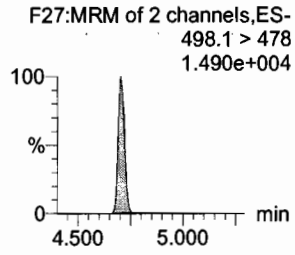
PFNA



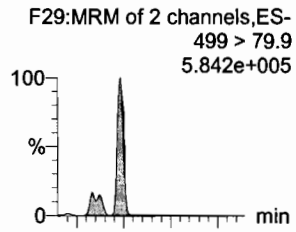


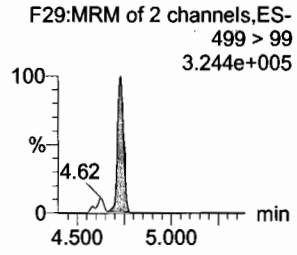
PFOSA



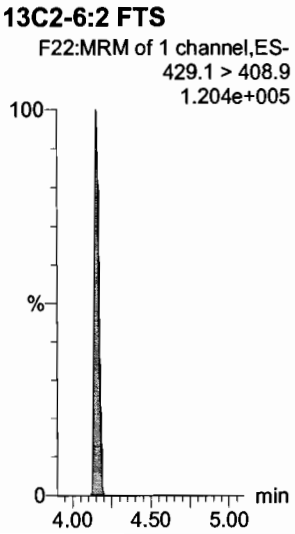


L-PFOS

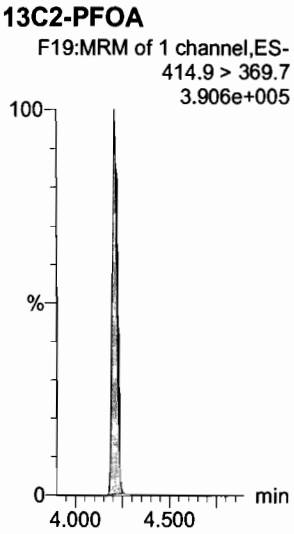




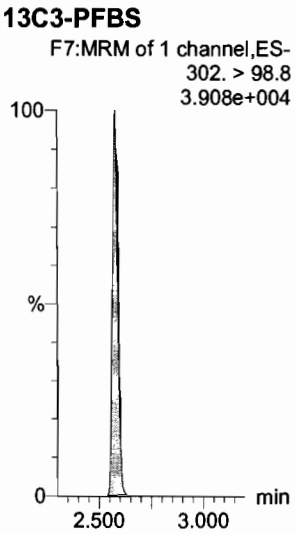
13C2-6:2 FTS



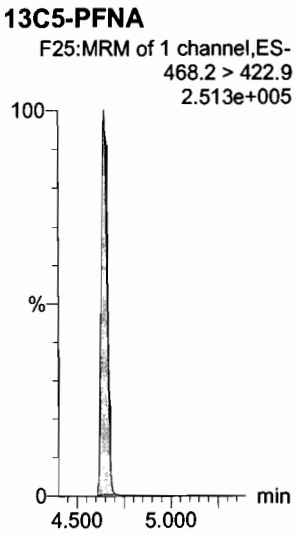
13C2-PFOA



13C3-PFBS



13C5-PFNA



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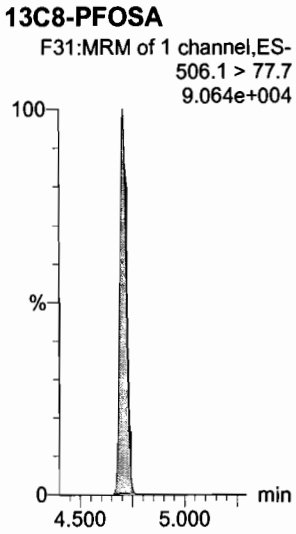

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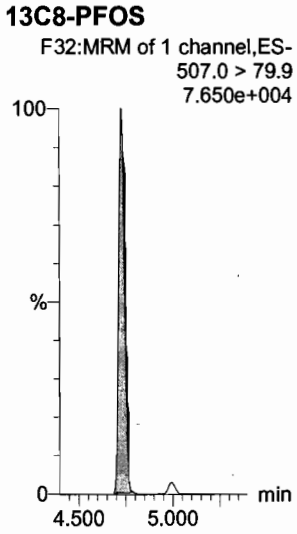

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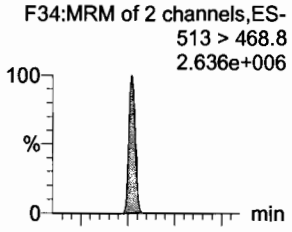
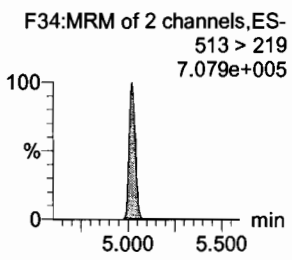
Last Altered: Wednesday, January 03, 2018 10:30:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

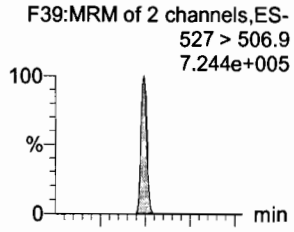
Name: 180102M2_9, Date: 02-Jan-2018, Time: 16:54:04, ID: ST180102M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

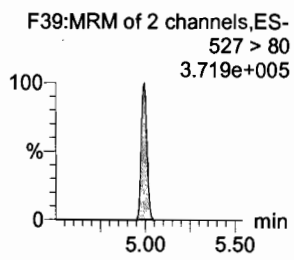
PFDA





8:2 FTS





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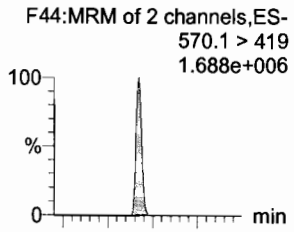

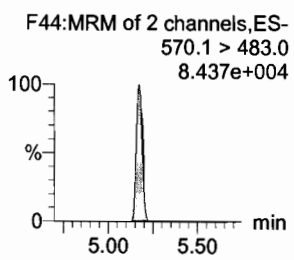

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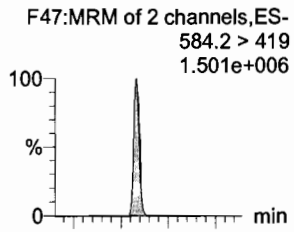
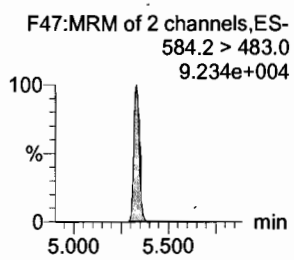
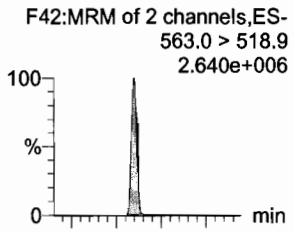
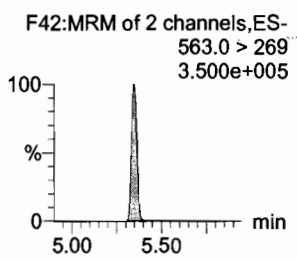




PFUdA





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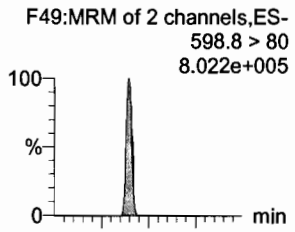
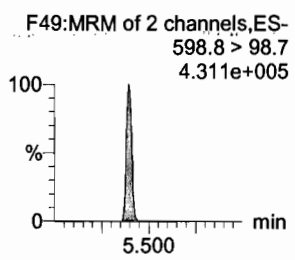
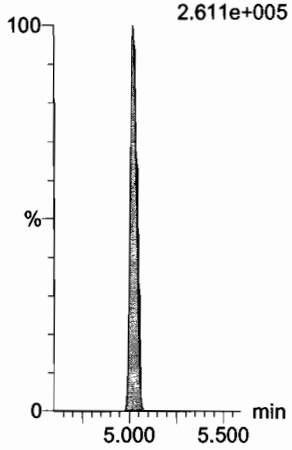
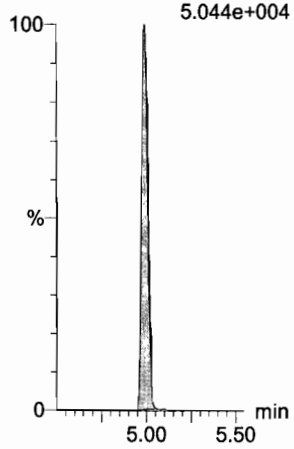




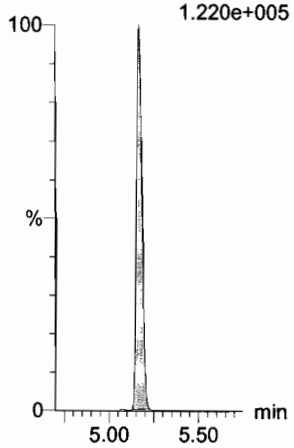
13C2-PFDA



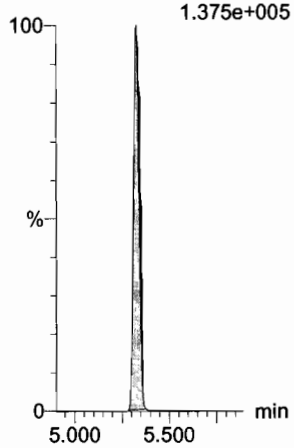
13C2-8:2 FTS



d3-N-MeFOSAA



d5-N-EtFOSAA



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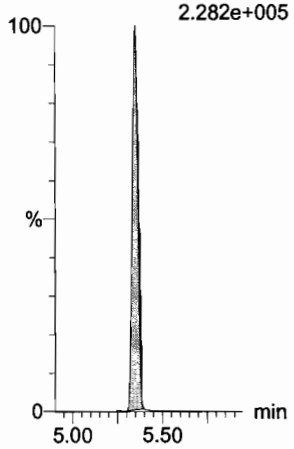

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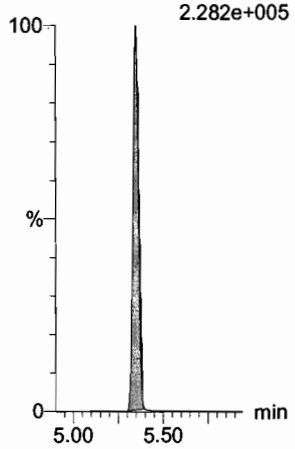

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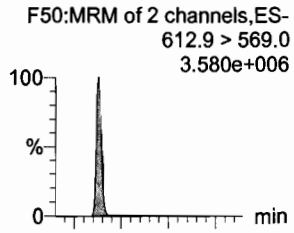
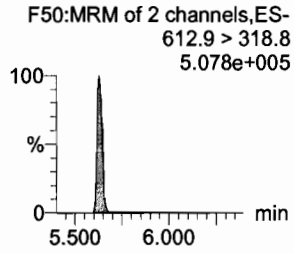
Printed: Wednesday, January 03, 2018 10:37:19 Pacific Standard Time

Name: 180102M2_9, Date: 02-Jan-2018, Time: 16:54:04, ID: ST180102M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

PFDoA





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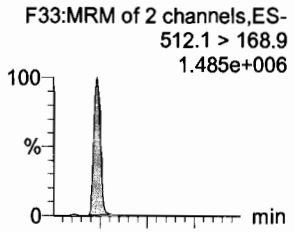

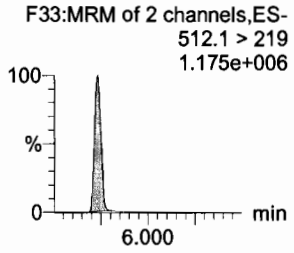

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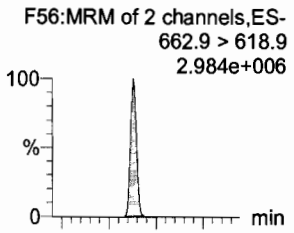

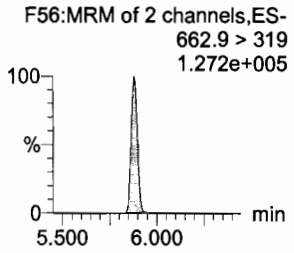

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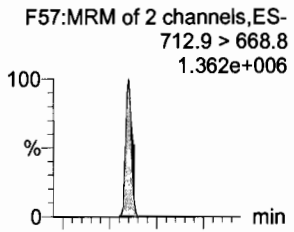

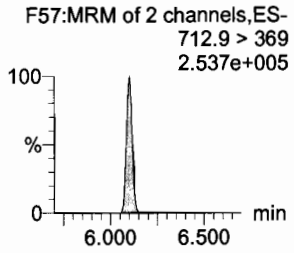

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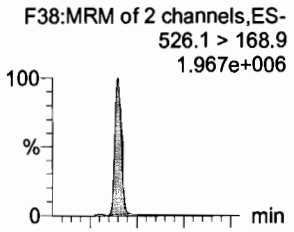
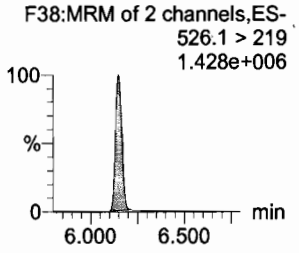
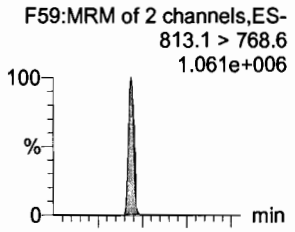
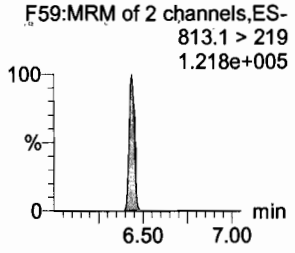




PFHxDA





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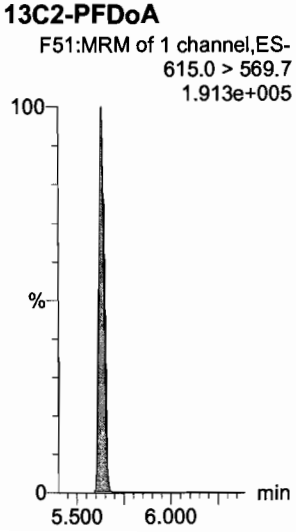
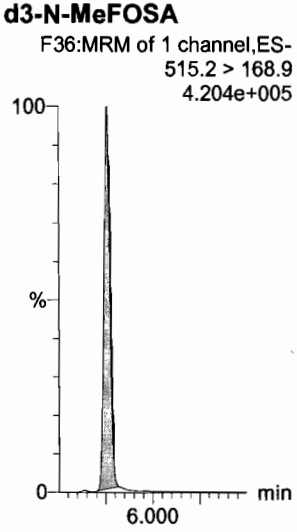
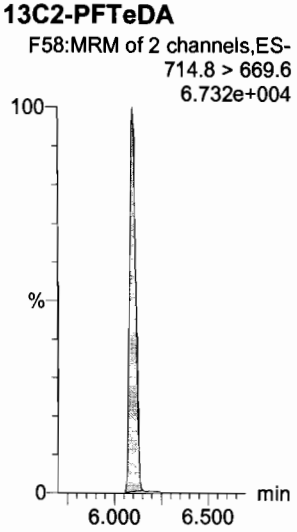


d3-N-MeFOSA



13C2-PFTeDA



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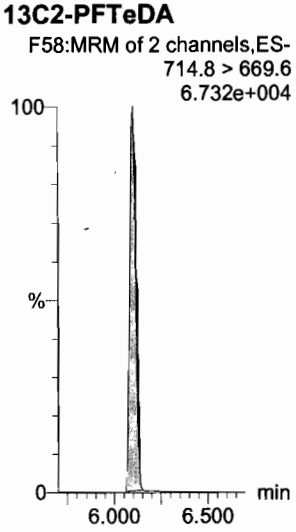
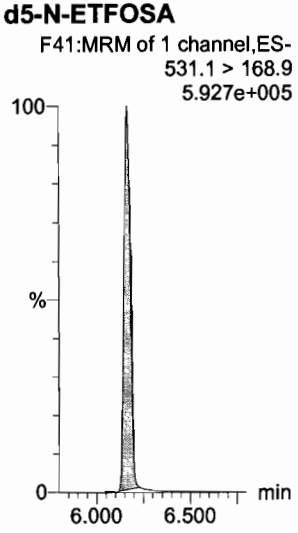
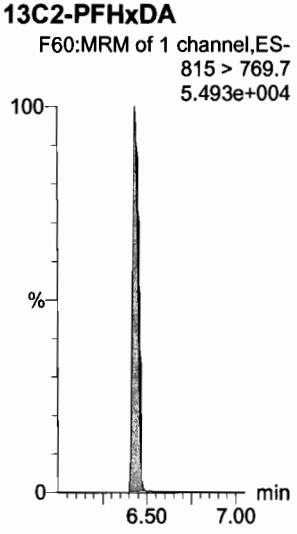


d5-N-ETFOSA



13C2-PFHxDA



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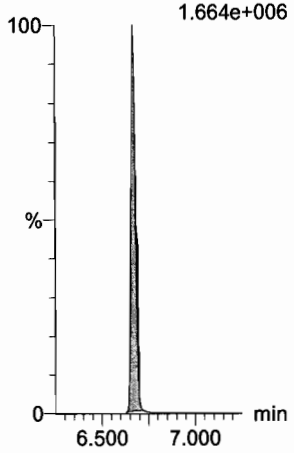
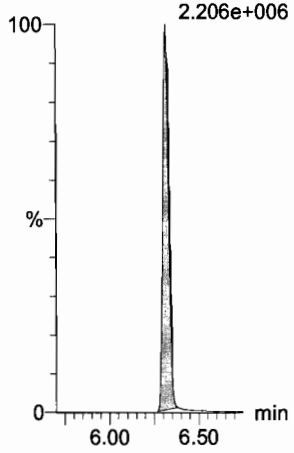
Name: 180102M2_9, Date: 02-Jan-2018, Time: 16:54:04, ID: ST180102M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

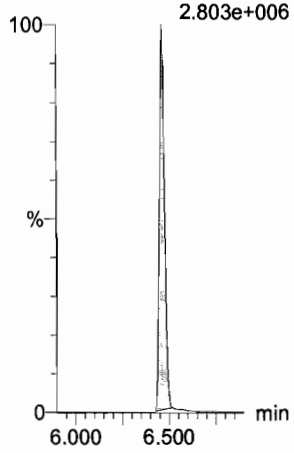
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.664e+006



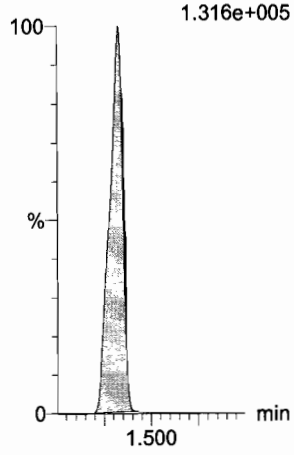
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.206e+006



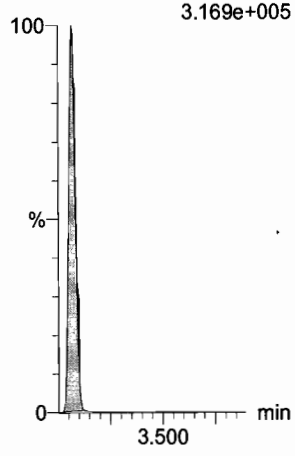
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.803e+006



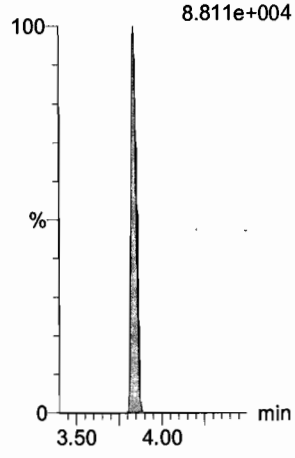
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.316e+005



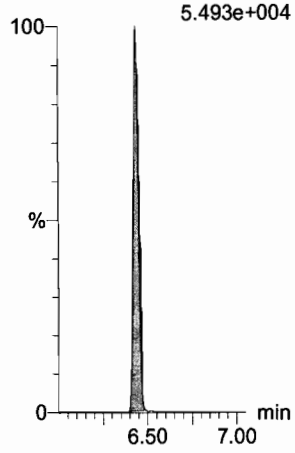
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.169e+005



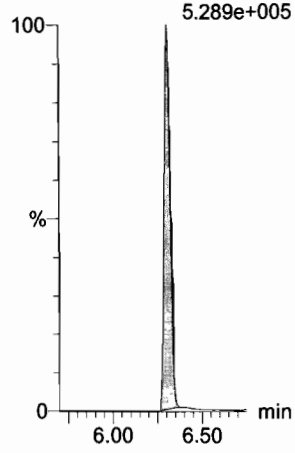
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
8.811e+004



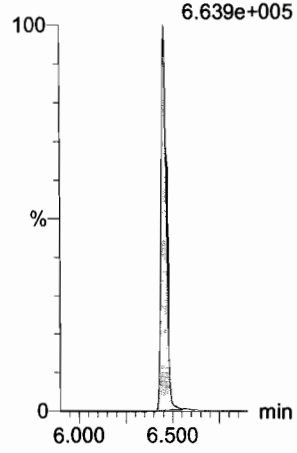
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.493e+004



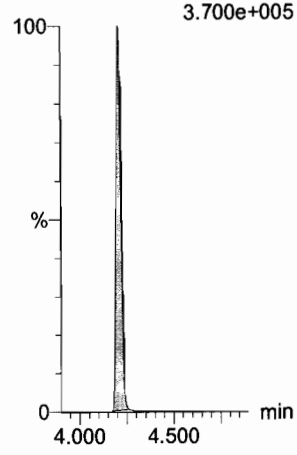
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.289e+005



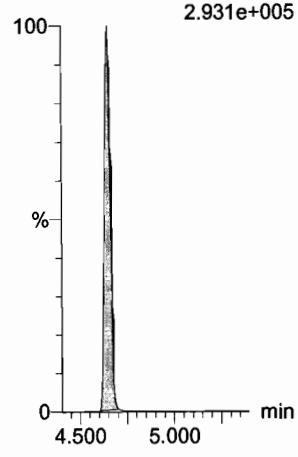
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.639e+005



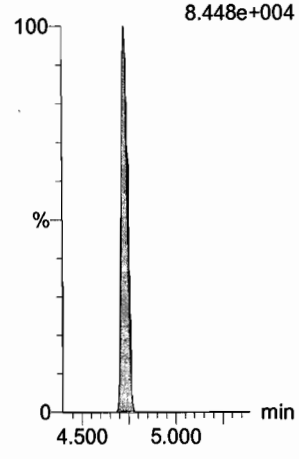
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.700e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.931e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
8.448e+004



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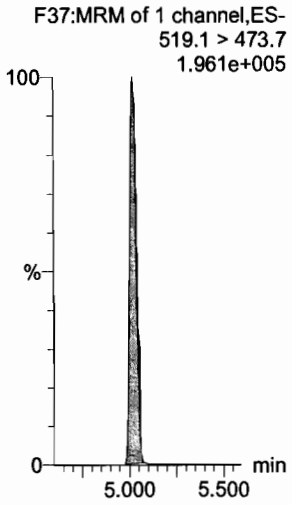
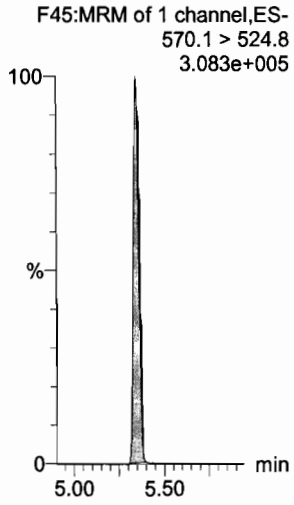
Name: 180102M2_9, Date: 02-Jan-2018, Time: 16:54:04, ID: ST180102M2-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\180102M2\180102M2-13.qld

Last Altered: Wednesday, January 03, 2018 11:17:18 Pacific Standard Time
Printed: Wednesday, January 03, 2018 11:17:55 Pacific Standard Time

(A) No SS available.

AC 1/3/18

rJA 01/03/2018

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917-PFOA-QUAD.mdb 03 Jan 2018 08:57:44
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-02-18_FULL.cdb 03 Jan 2018 11:12:59

Name: 180102M2_13, Date: 02-Jan-2018, Time: 17:38:47, ID: ICV180102M2-1 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	8.09e3	8.15e3	1.0000		1.47	1.33	12.4	8.859	88.6
2	2	PFPeA	263.1 > 218.9	7.83e3	9.74e3	1.0000		2.35	2.30	10.0	8.087	80.9
3	3	PFBS	299.0 > 79.7	1.58e3	1.28e3	1.0000		2.70	2.58	15.5	7.073	70.7
4	4	PFHxA	313.2 > 268.9	9.42e3	2.95e3	1.0000		3.12	3.07	16.0	8.548	85.5
5	5	PFHpA	363.0 > 318.9	8.17e3	6.97e3	1.0000		3.75	3.69	14.7	9.193	91.9
6	6	L-PFHxS	398.9 > 79.6	1.36e3	1.04e3	1.0000		3.85	3.84	16.4	8.211	82.1
7	8	6:2 FTS	427.1 > 407	2.52e3	1.09e4	1.0000		4.20	4.15	2.88	9.461	94.6
8	9	L-PFOA	413 > 368.7	8.96e3	1.09e4	1.0000		4.25	4.21	10.2	8.001	80.0
9	11	PFHpS	449 > 80.0	1.89e3	1.09e4	1.0000		4.35	4.32	2.15	7.225	72.2
10	12	PFNA	463.0 > 418.8	9.79e3	1.06e4	1.0000		4.70	4.65	11.5	7.994	79.9
11	13	PFOSA	498.1 > 77.8	3.10e3	3.14e3	1.0000		4.81	4.71	12.3	9.112	91.1
12	14	L-PFOS	499 > 79.9	2.28e3	2.59e3	1.0000		4.83	4.73	11.0	10.766	107.7
13	16	PFDA	513 > 468.8	9.04e3	9.42e3	1.0000		5.05	5.02	12.0	7.357	73.6
14	17	8:2 FTS	527 > 506.9	1.87e3	2.59e3	1.0000		5.02	4.99	9.04	7.305	73.1
15	18	N-MeFOSAA	570.1 > 419	5.52e3	4.62e3	1.0000		5.20	5.18	14.9	7.713	77.1
16	19	N-EtFOSAA	584.2 > 419	5.07e3	5.99e3	1.0000		5.42	5.33	10.6	8.013	80.1
17	20	PFUdA	563.0 > 518.9	9.20e3	1.15e4	1.0000		5.35	5.35	9.98	7.868	78.7
18	21	PFDS	598.8 > 80	2.47e3	1.15e4	1.0000		5.50	5.40	2.68	7.669	76.7
19	22	PFDoA	612.9 > 569.0	1.09e4	6.06e3	1.0000		5.70	5.63	22.5	9.193	91.9
20	23	N-MeFOSA	512.1 > 168.9		1.60e4	1.0000		5.77				(A)
21	24	PFTrDA	662.9 > 618.9	8.37e3	2.33e3	1.0000		5.95	5.88	45.0	8.028	80.3
22	25	PFTeDA	712.9 > 668.8	4.89e3	2.33e3	1.0000		6.16	6.10	26.3	8.011	80.1
23	26	N-EtFOSA	526.1 > 168.9		2.35e4	1.0000		6.15				(A)
24	27	PFHxDA	813.1 > 768.6		1.83e3	1.0000		6.48				
25	28	PFODA	913.1 > 868.8		1.83e3	1.0000		6.70				
26	29	N-MeFOSE	616.1 > 58.9		2.51e4	1.0000		6.30				
27	30	N-EtFOSE	630.1 > 58.9		2.32e4	1.0000		6.42				
28	31	13C3-PFBA	216.1 > 171.8	8.15e3	9.19e3	1.0000	0.775	1.47	1.33	11.1	14.303	114.4
29	32	13C3-PFPeA	266. > 221.8	9.74e3	9.86e3	1.0000	0.805	2.44	2.30	12.4	15.344	122.8
30	33	13C3-PFBS	302. > 98.8	1.28e3	9.86e3	1.0000	0.106	2.70	2.58	1.62	15.245	122.0
31	34	13C2-PFHxA	315 > 269.8	2.95e3	9.86e3	1.0000	0.633	3.20	3.07	3.74	5.904	118.

70-130

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Dataset: U:\Q4.PRO\results\180102M2\180102M2-13.qld

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Printed: Wednesday, January 03, 2018 11:17:55 Pacific Standard Time

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	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	6.97e3	9.86e3	1.0000	0.641	3.80	3.69	8.84	13.790	110.3
33	36	18O2-PFHxS	403.0 > 102.6	1.04e3	2.35e3	1.0000	0.334	3.95	3.84	5.52	16.524	132.2
34	37	13C2-6:2 FTS	429.1 > 408.9	2.84e3	9.09e3	1.0000	0.228	4.26	4.16	3.90	17.084	136.7
35	38	13C2-PFOA	414.9 > 369.7	1.09e4	9.09e3	1.0000	0.959	4.32	4.21	15.0	15.686	125.5
36	39	13C5-PFNA	468.2 > 422.9	1.06e4	1.17e4	1.0000	0.830	4.75	4.65	11.4	13.671	109.4
37	40	13C8-PFOSA	506.1 > 77.7	3.14e3	1.10e4	1.0000	0.262	4.81	4.71	3.57	13.613	108.9
38	41	13C8-PFOS	507.0 > 79.9	2.59e3	2.87e3	1.0000	0.880	4.83	4.73	11.3	12.790	102.3
39	42	13C2-PFDA	515.1 > 469.9	9.42e3	8.61e3	1.0000	0.995	5.11	5.02	13.7	13.749	110.0
40	43	13C2-8:2 FTS	529.1 > 508.7	1.21e3	9.86e3	1.0000	0.142	5.09	4.99	1.54	10.794	86.3
41	44	d3-N-MeFOSAA	573.3 > 419	4.62e3	1.10e4	1.0000	0.376	5.26	5.17	5.25	13.968	111.7
42	45	d5-N-EtFOSAA	589.3 > 419	5.99e3	1.10e4	1.0000	0.444	5.42	5.33	6.80	15.342	122.7
43	46	13C2-PFUdA	565 > 519.8	1.15e4	1.10e4	1.0000	0.889	5.43	5.35	13.1	14.729	117.8
44	47	13C2-PFDoA	615.0 > 569.7	6.06e3	1.10e4	1.0000	0.542	5.70	5.63	6.88	12.696	101.6
45	48	d3-N-MeFOSA	515.2 > 168.9	1.60e4	1.10e4	1.0000	0.117	5.80	5.76	18.1	155.682	103.8
46	49	13C2-PFTeDA	714.8 > 669.6	2.33e3	1.10e4	1.0000	0.230	6.16	6.10	2.64	11.478	91.8
47	50	d5-N-ETFOSA	531.1 > 168.9	2.35e4	1.10e4	1.0000	0.170	6.16	6.16	26.8	157.466	105.0
48	51	13C2-PFHxDA	815 > 769.7	1.83e3	1.10e4	1.0000	0.432	6.48	6.44	2.08	4.805	96.1
49	52	d7-N-MeFOSE	623.1 > 58.9	2.51e4	1.10e4	1.0000	0.161	6.30	6.31	28.5	176.914	117.9
50	53	d9-N-EtFOSE	639.2 > 58.8	2.32e4	1.10e4	1.0000	0.158	6.42	6.46	26.3	166.984	111.3
51	54	13C4-PFBA	217. > 171.8	9.19e3	9.19e3	1.0000	1.000	1.47	1.33	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	9.86e3	9.86e3	1.0000	1.000	3.20	3.07	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	2.35e3	2.35e3	1.0000	1.000	3.95	3.84	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	9.09e3	9.09e3	1.0000	1.000	4.32	4.21	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.17e4	1.17e4	1.0000	1.000	4.75	4.65	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	2.87e3	2.87e3	1.0000	1.000	4.83	4.73	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	8.61e3	8.61e3	1.0000	1.000	5.11	5.02	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.10e4	1.10e4	1.0000	1.000	5.43	5.35	12.5	12.500	100.0

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Dataset: U:\Q4.PRO\results\180102M2\180102M2-13.qld

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Name: 180102M2_13, Date: 02-Jan-2018, Time: 17:38:47, ID: ICV180102M2-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

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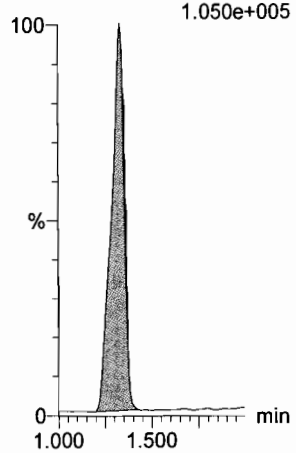

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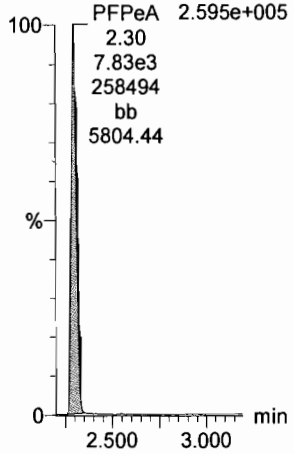

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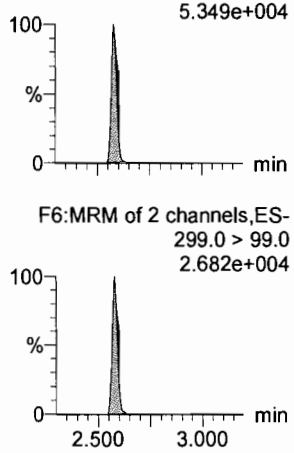

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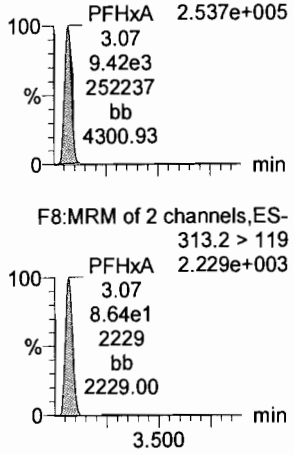

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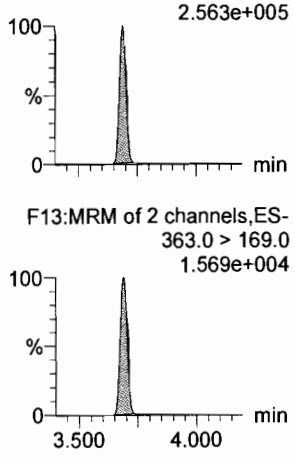

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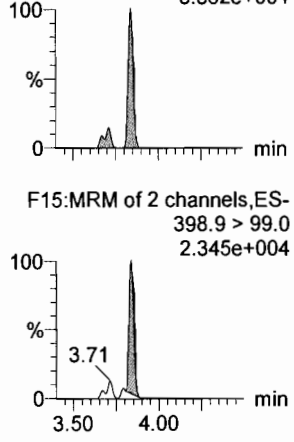

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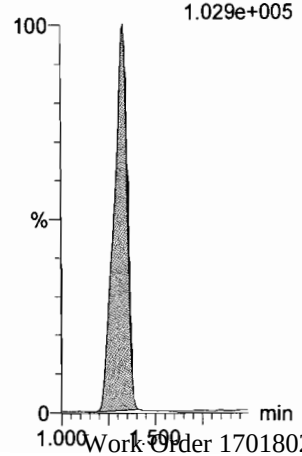

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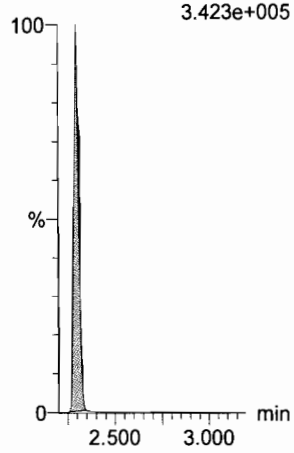

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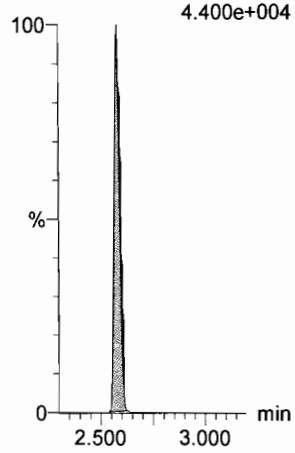

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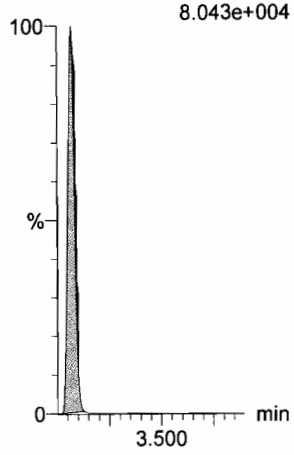

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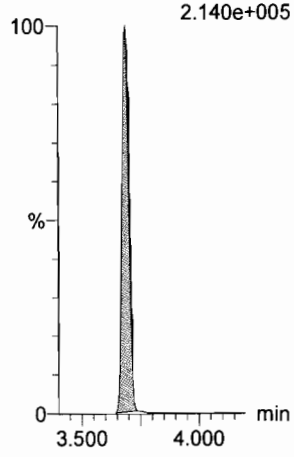

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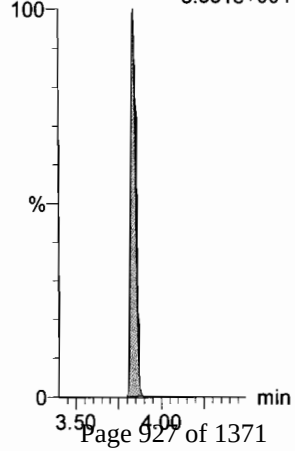

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Name: 180102M2_13, Date: 02-Jan-2018, Time: 17:38:47, ID: ICV180102M2-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

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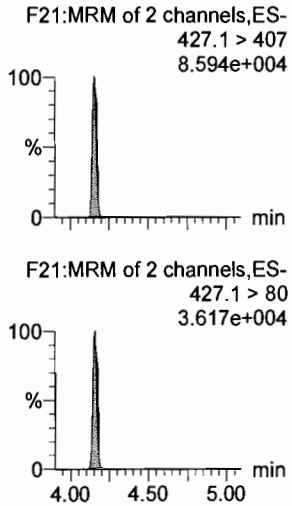
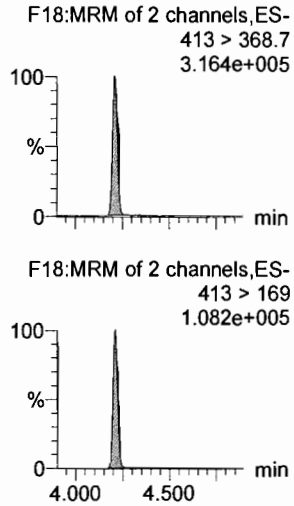
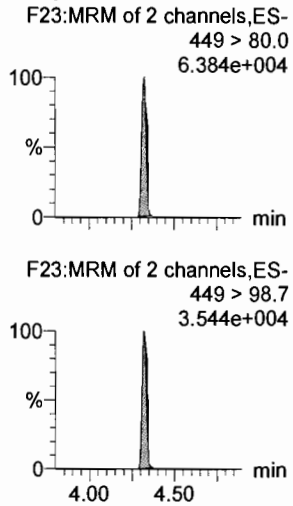


L-PFOA



PFHpS



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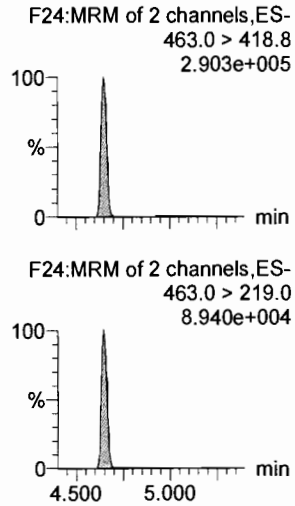
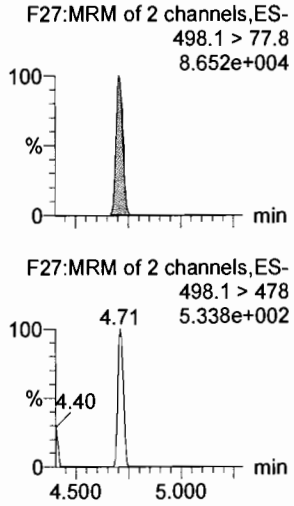
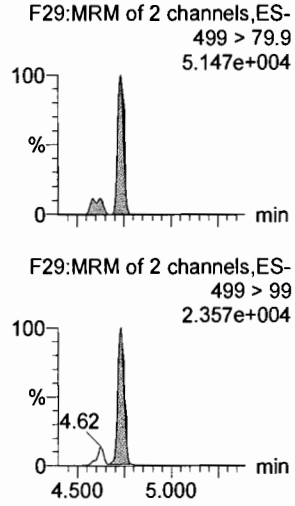


PFOSA



L-PFOS



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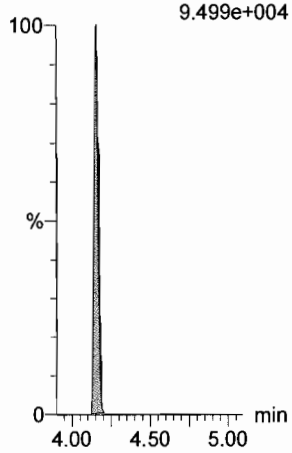

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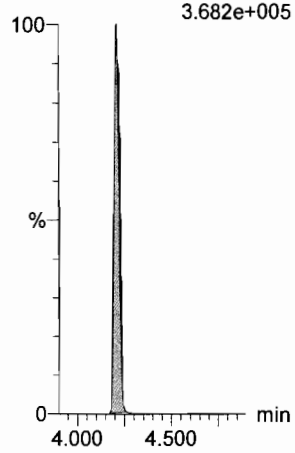

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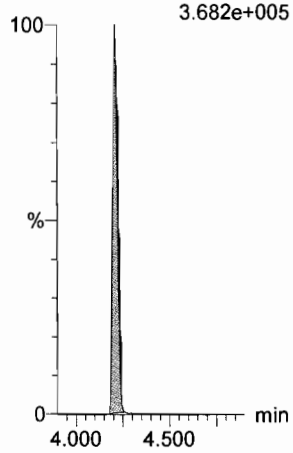

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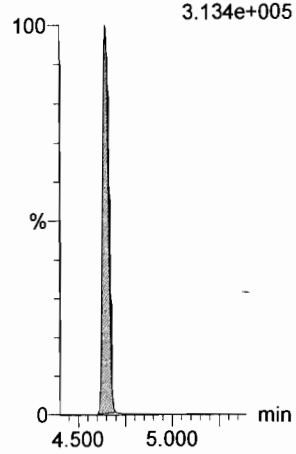

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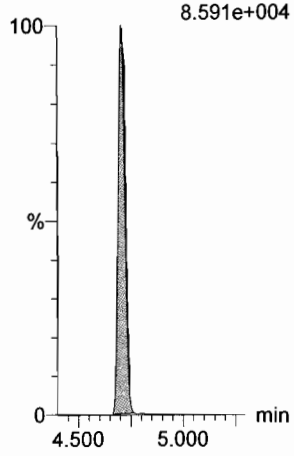

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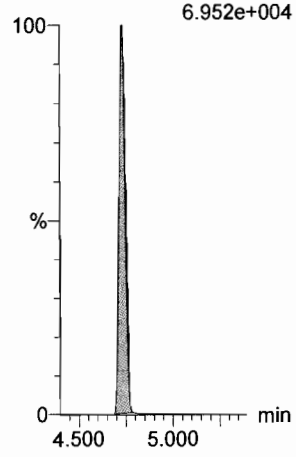

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Last Altered: Wednesday, January 03, 2018 11:17:18 Pacific Standard Time
Printed: Wednesday, January 03, 2018 11:17:55 Pacific Standard Time

Name: 180102M2_13, Date: 02-Jan-2018, Time: 17:38:47, ID: ICV180102M2-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

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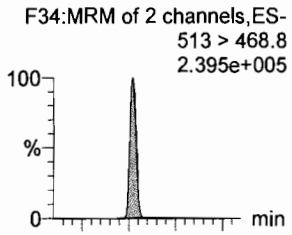
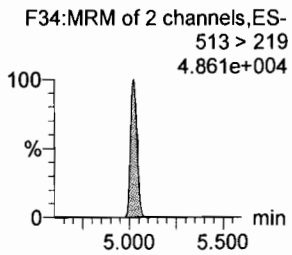
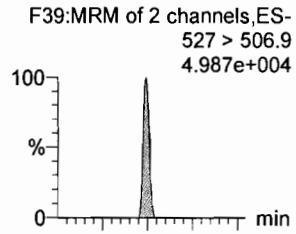
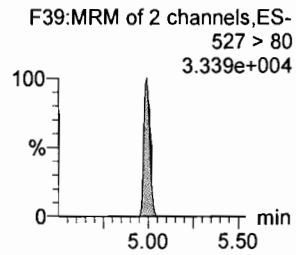




8:2 FTS





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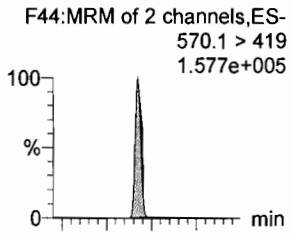

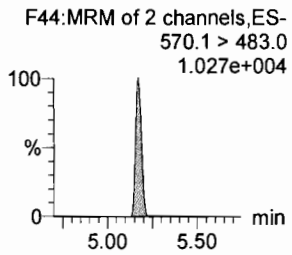

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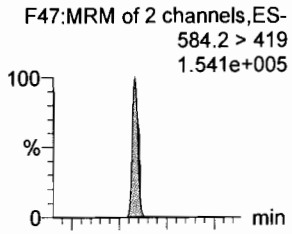

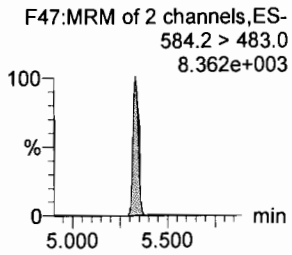

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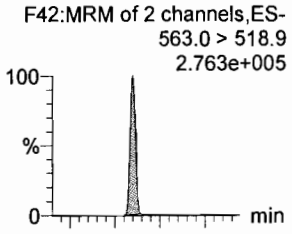

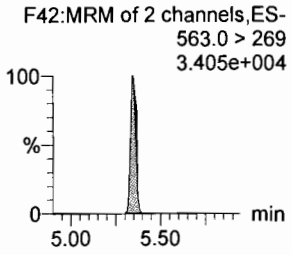

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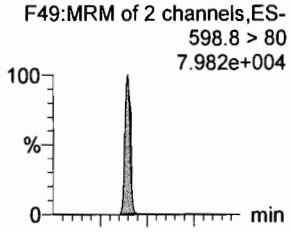

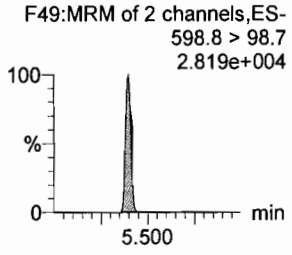

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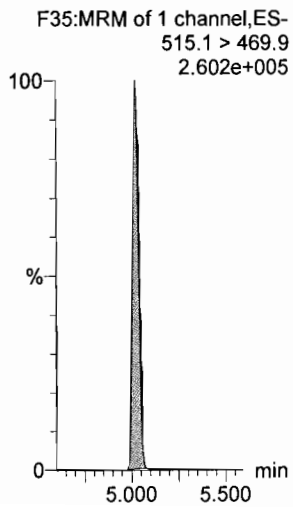

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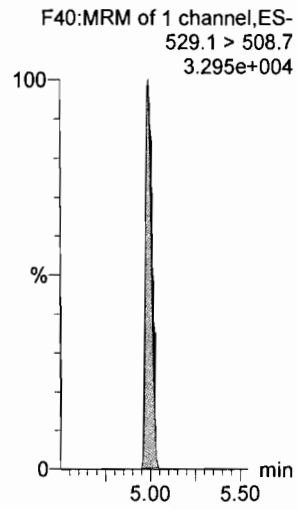

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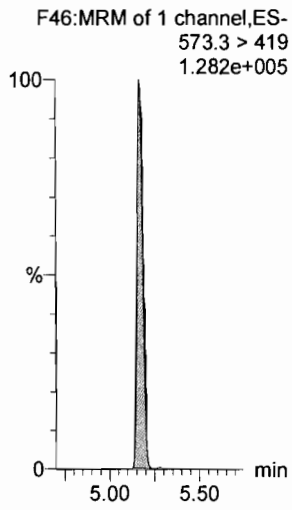
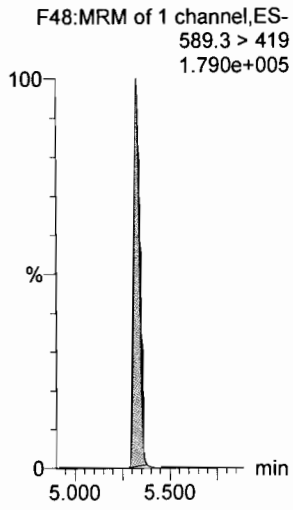


d5-N-EtFOSAA



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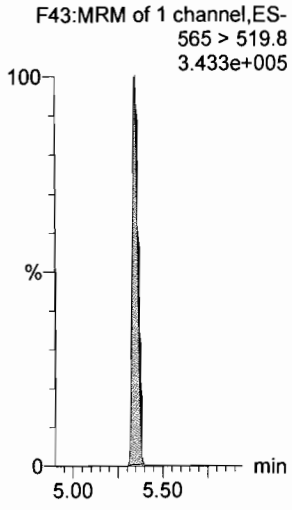

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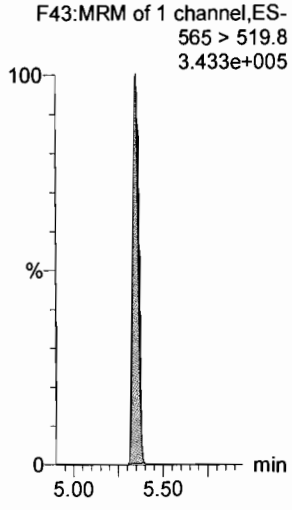

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Last Altered: Wednesday, January 03, 2018 11:17:18 Pacific Standard Time
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Name: 180102M2_13, Date: 02-Jan-2018, Time: 17:38:47, ID: ICV180102M2-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

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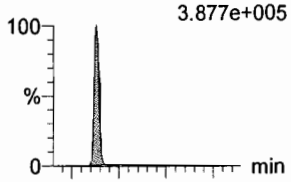

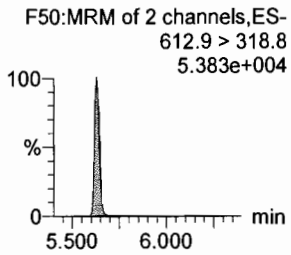

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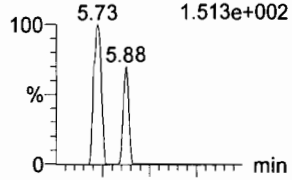

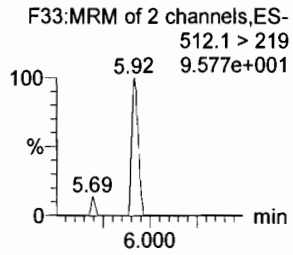

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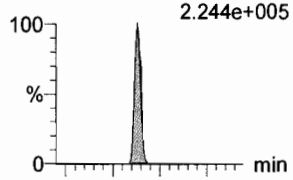

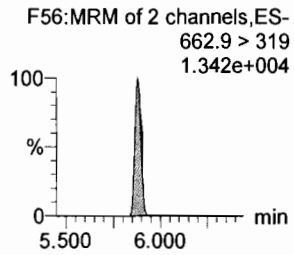

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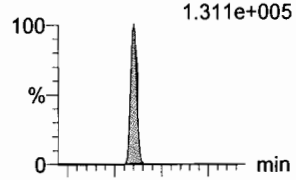

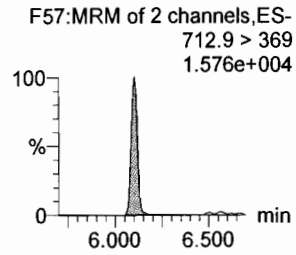

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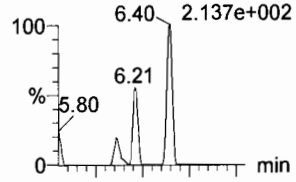

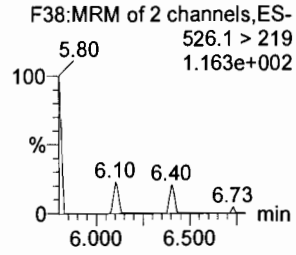

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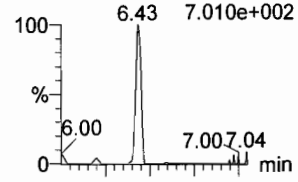

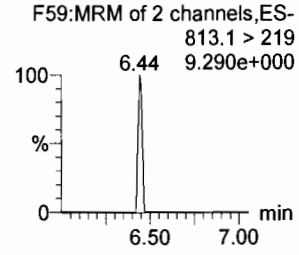

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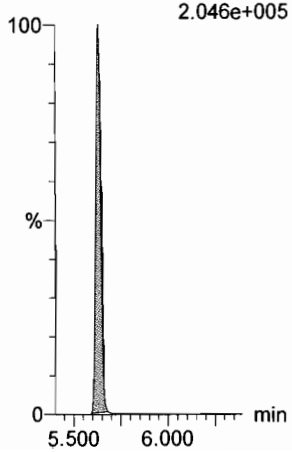

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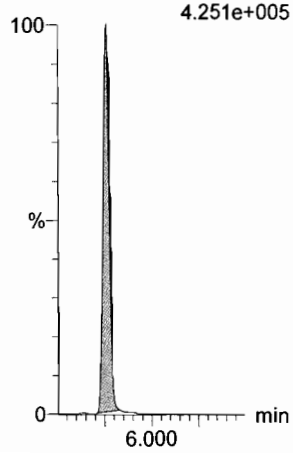

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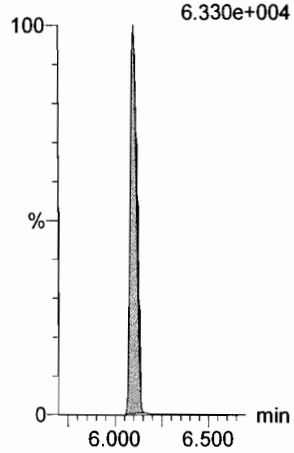

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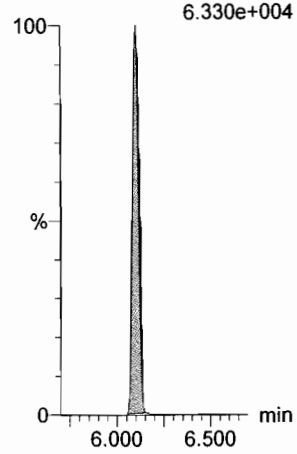

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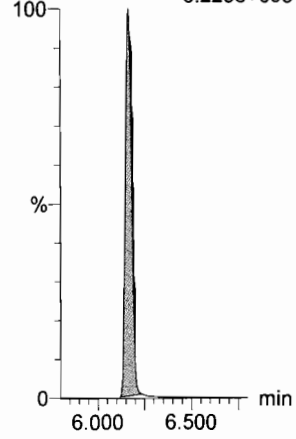

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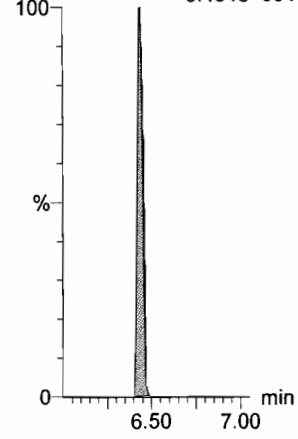

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Name: 180102M2_13, Date: 02-Jan-2018, Time: 17:38:47, ID: ICV180102M2-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

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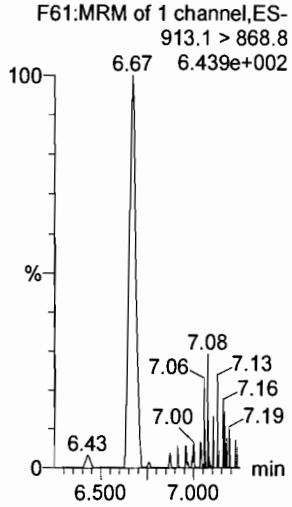

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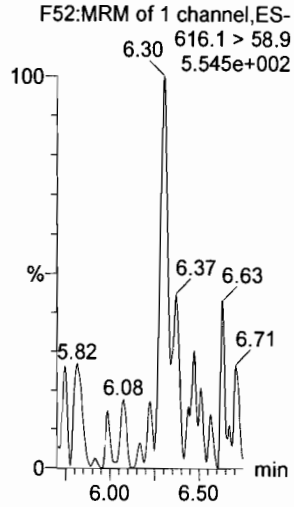

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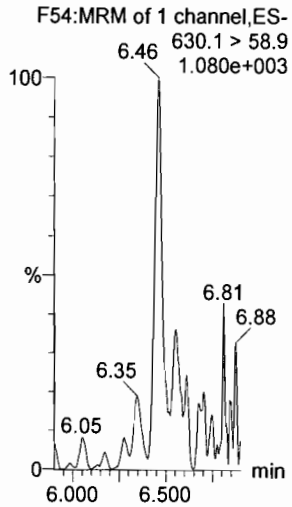

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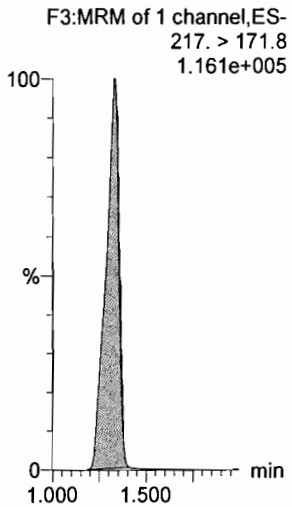

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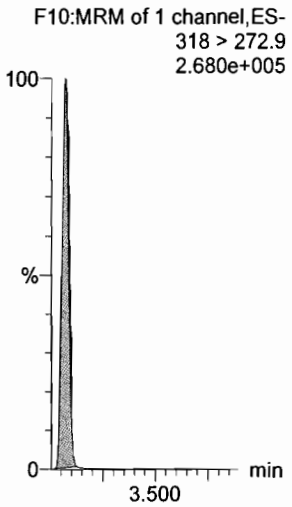

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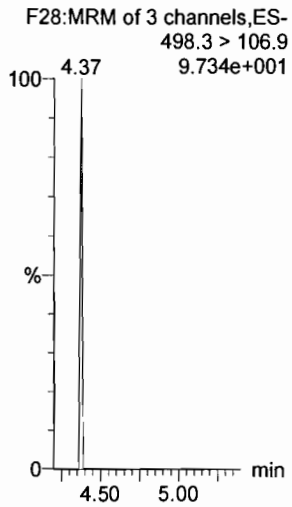

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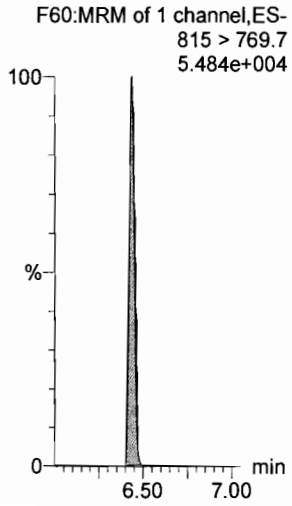

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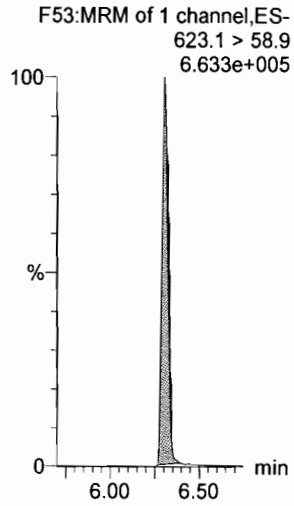

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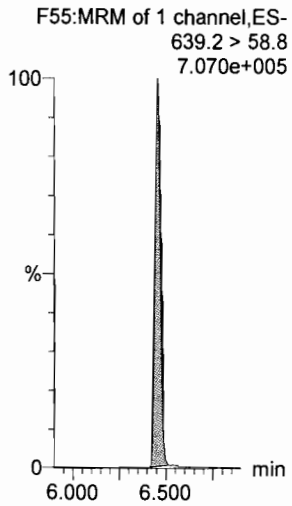

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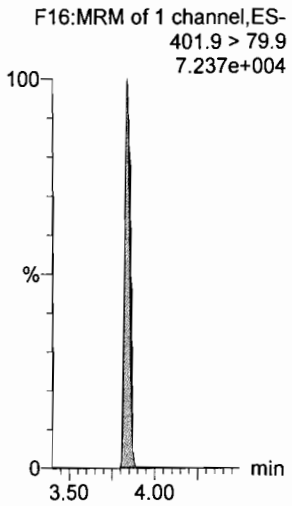

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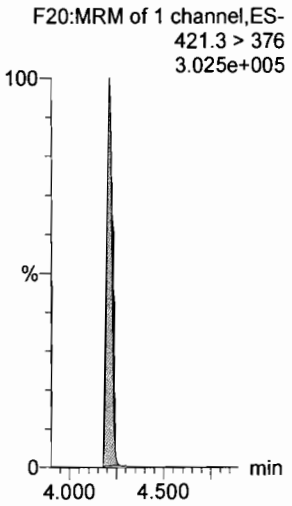

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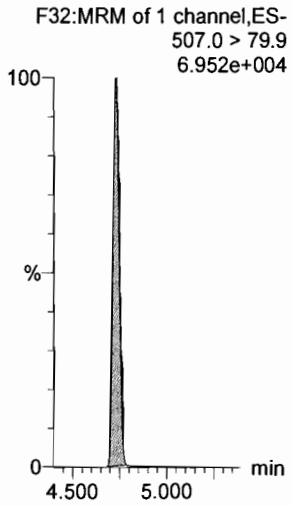

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Last Altered: Wednesday, January 03, 2018 11:17:18 Pacific Standard Time
Printed: Wednesday, January 03, 2018 11:17:55 Pacific Standard Time

Name: 180102M2_13, Date: 02-Jan-2018, Time: 17:38:47, ID: ICV180102M2-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

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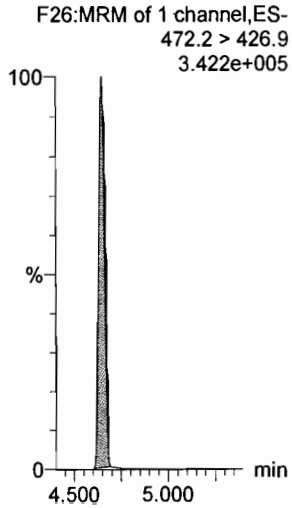

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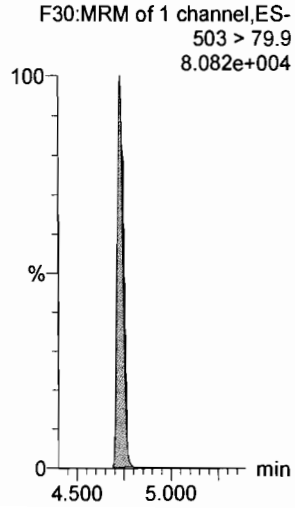

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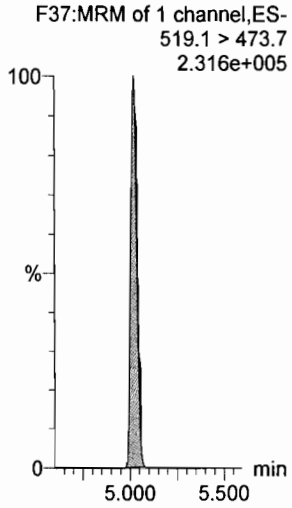

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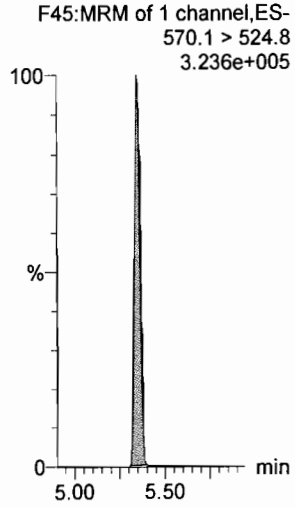

Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180102M2\180102M2-12.qld

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Name: 180102M2_12, Date: 02-Jan-2018, Time: 17:27:37, ID: IPA, Description: IPA

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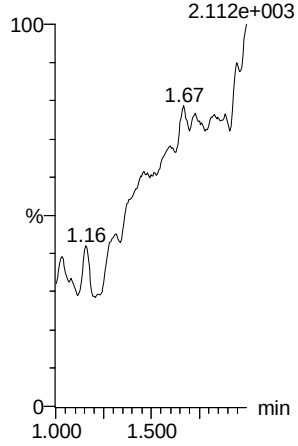

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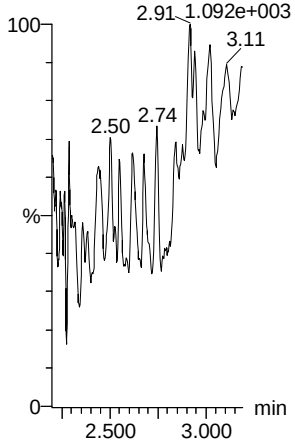

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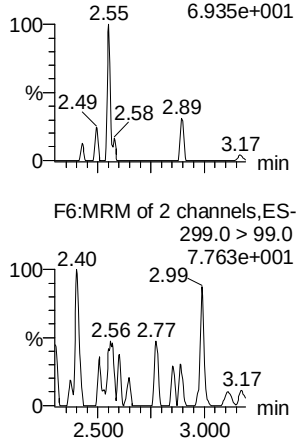

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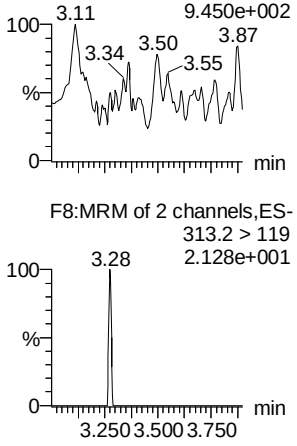

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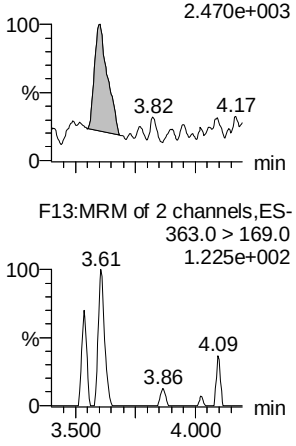

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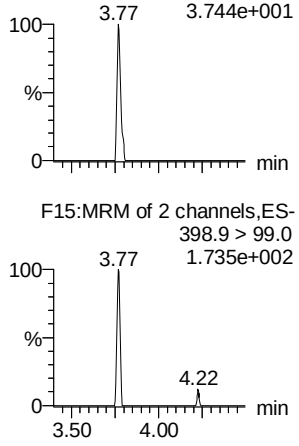

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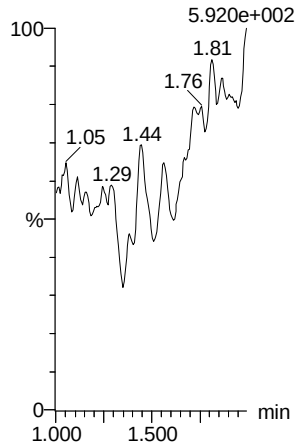

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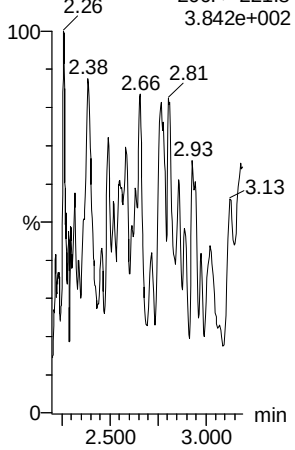

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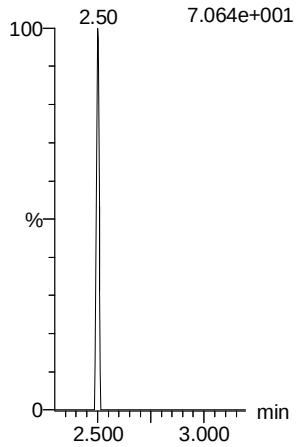

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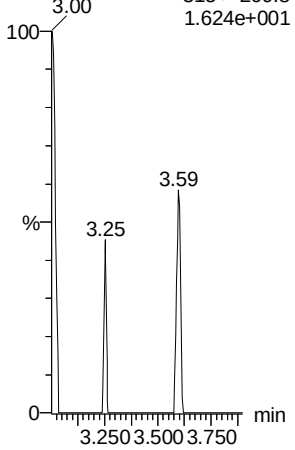

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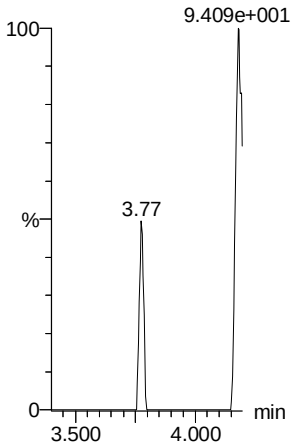

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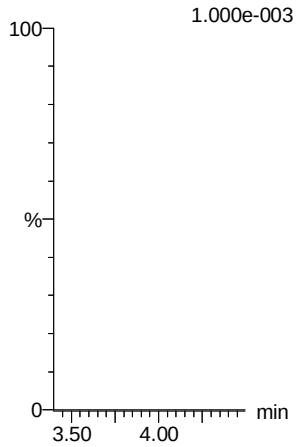


AC 1/3/18

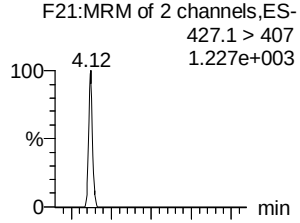
Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

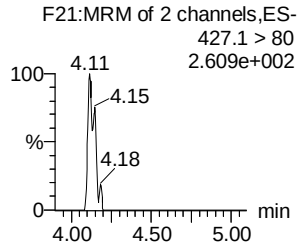
Dataset: U:\Q4.PRO\results\180102M2\180102M2-12.qld

Last Altered: Wednesday, January 03, 2018 11:01:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 11:02:35 Pacific Standard Time

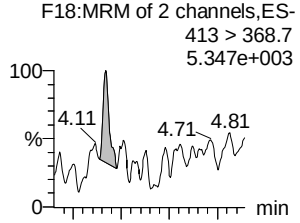
Name: 180102M2_12, Date: 02-Jan-2018, Time: 17:27:37, ID: IPA, Description: IPA

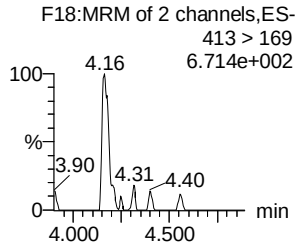
6:2 FTS





L-PFOA





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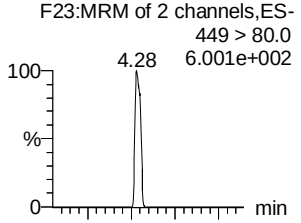

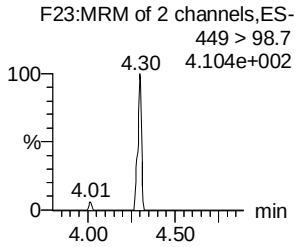

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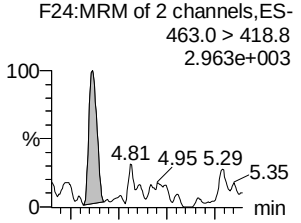

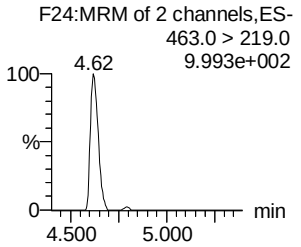

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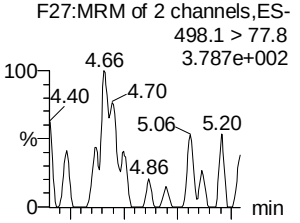

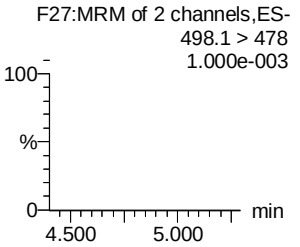

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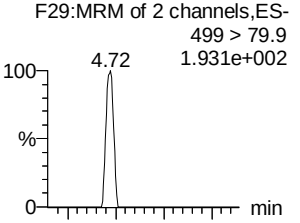
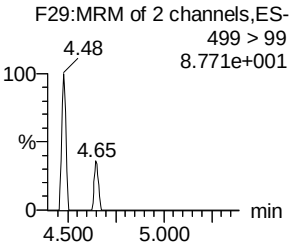
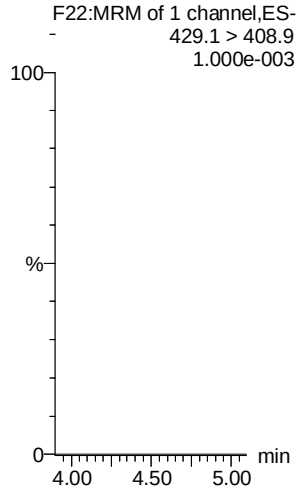
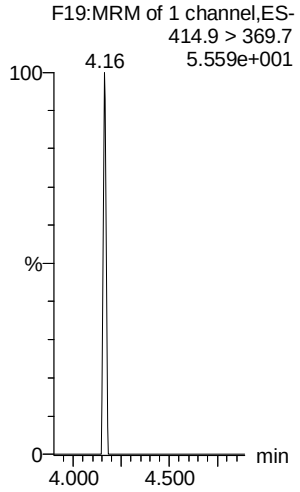




13C2-6:2 FTS



13C2-PFOA



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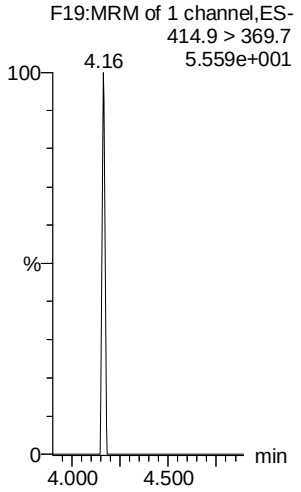
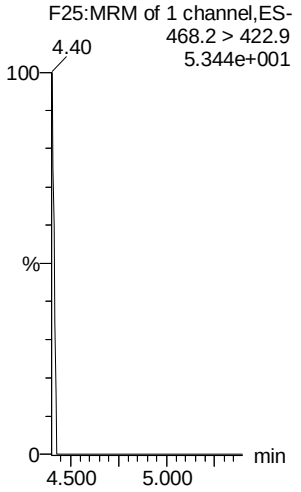
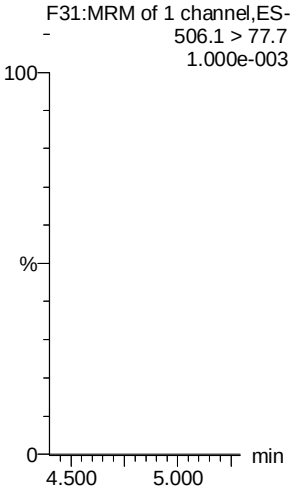


13C5-PFNA



13C8-PFOSA



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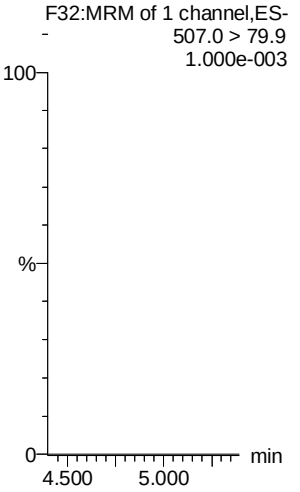

AC 1/3/18

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

Dataset: U:\Q4.PRO\results\180102M2\180102M2-12.qld

Last Altered: Wednesday, January 03, 2018 11:01:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 11:02:35 Pacific Standard Time

Name: 180102M2_12, Date: 02-Jan-2018, Time: 17:27:37, ID: IPA, Description: IPA

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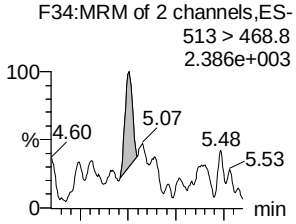
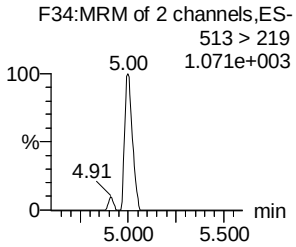
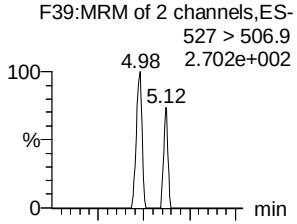
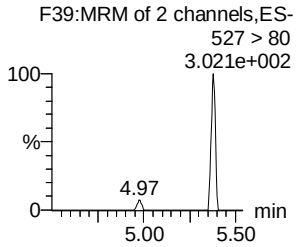




8:2 FTS





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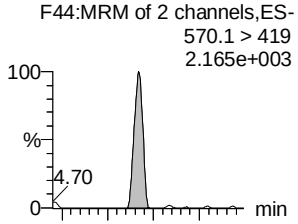

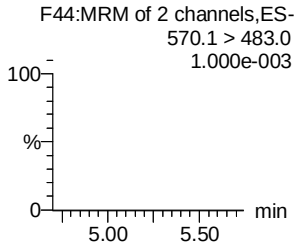

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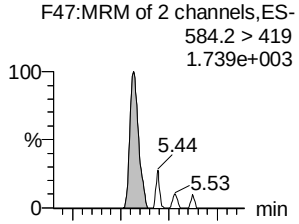

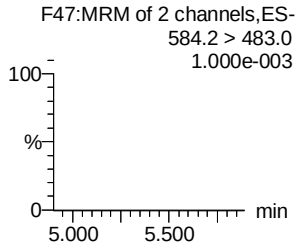

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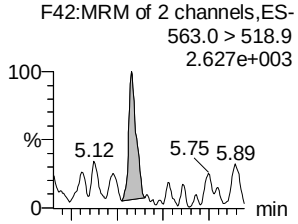

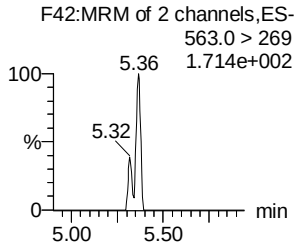

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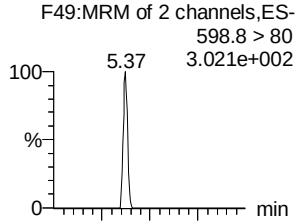

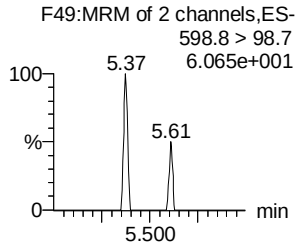

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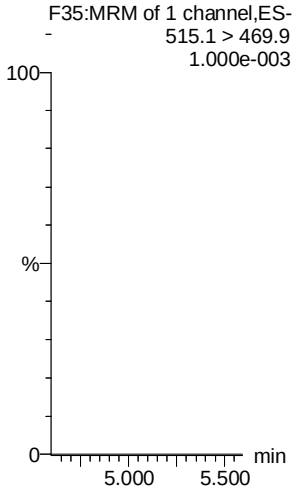
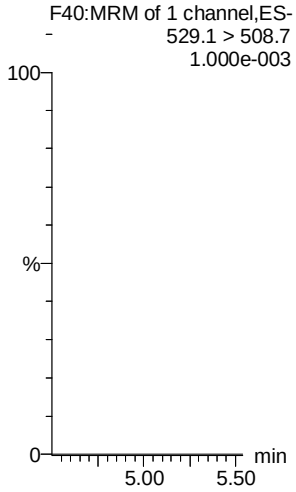
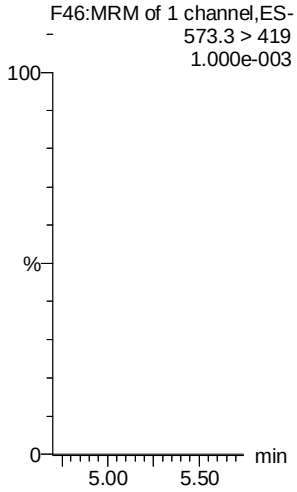


13C2-8:2 FTS



d3-N-MeFOSAA



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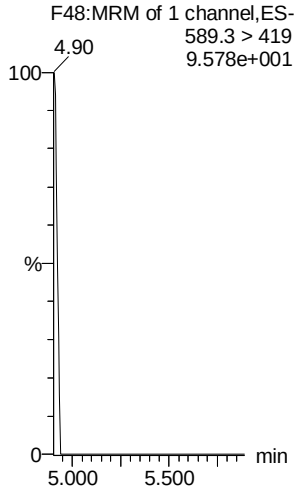

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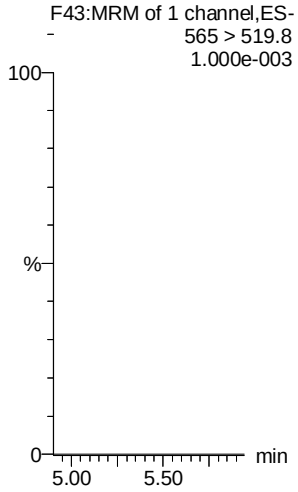

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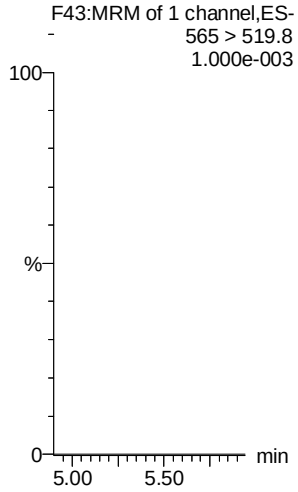


AC 1/3/18

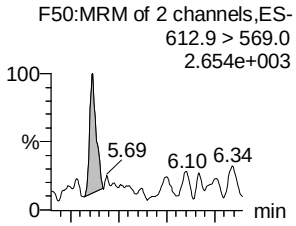
Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

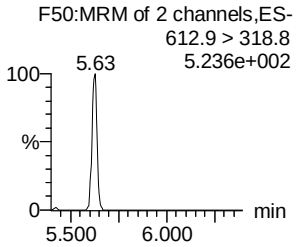
Dataset: U:\Q4.PRO\results\180102M2\180102M2-12.qld

Last Altered: Wednesday, January 03, 2018 11:01:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 11:02:35 Pacific Standard Time

Name: 180102M2_12, Date: 02-Jan-2018, Time: 17:27:37, ID: IPA, Description: IPA

PFDoA





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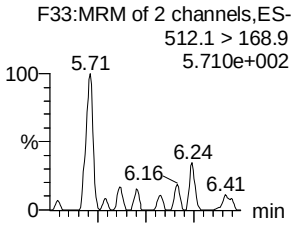

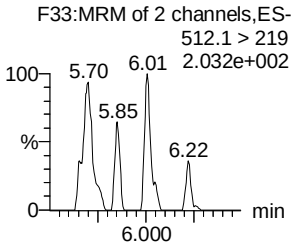

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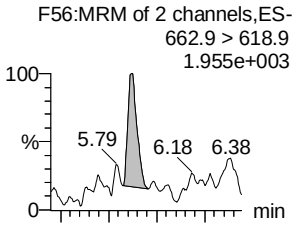
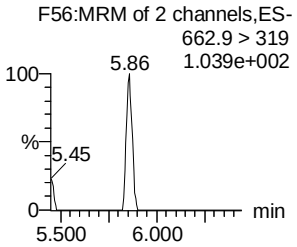
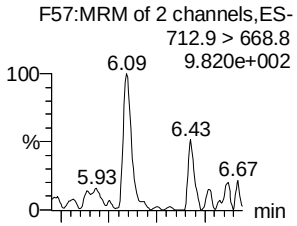
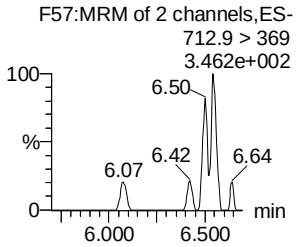


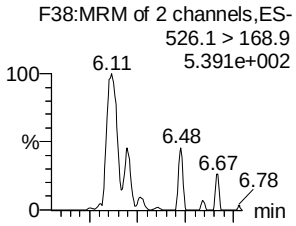


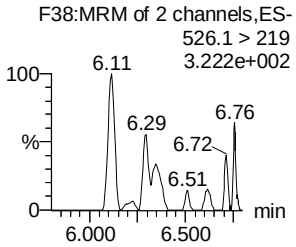
PFTeDA



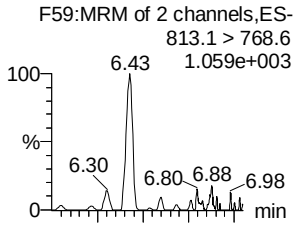


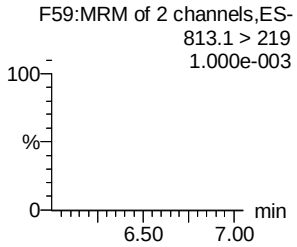
N-EtFOSA



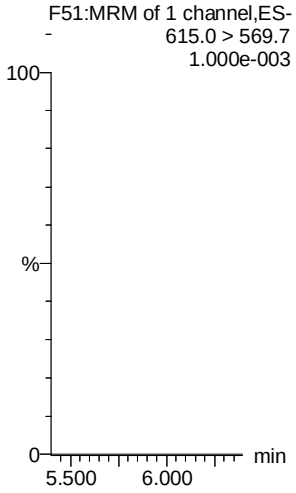


PFHxDA

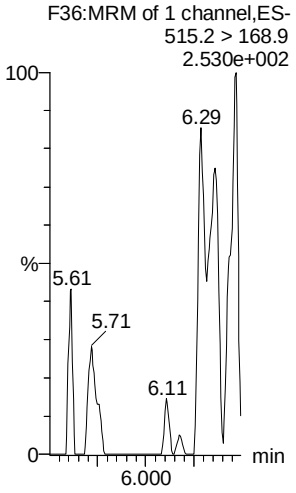




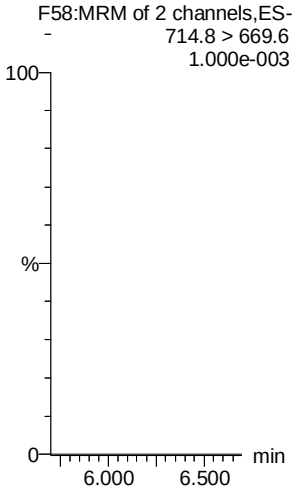
13C2-PFDoA



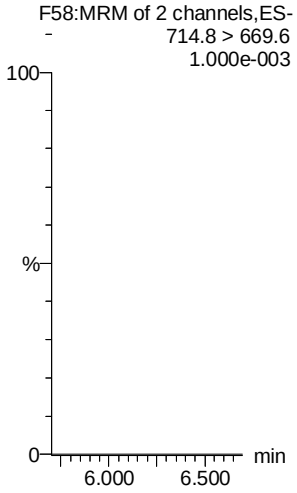
d3-N-MeFOSA



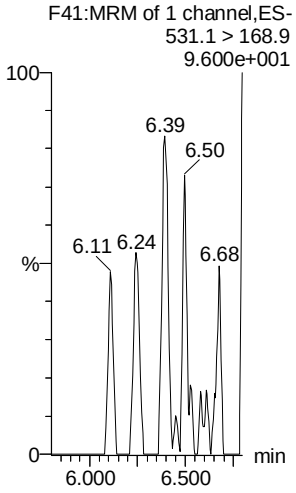
13C2-PFTeDA



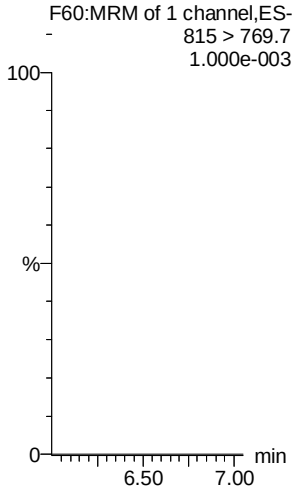
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



AC 1/3/18

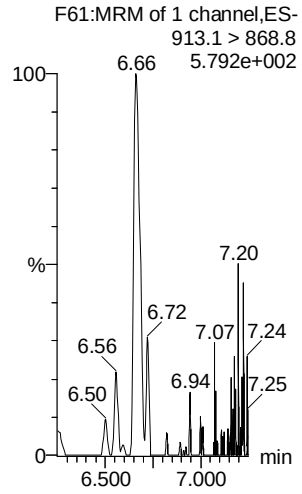
Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180102M2\180102M2-12.qld

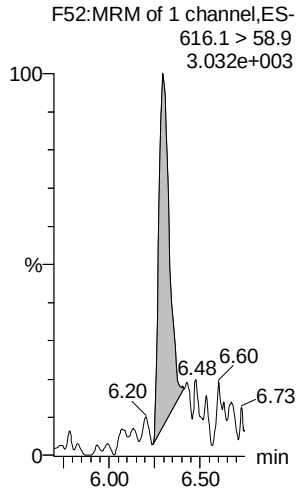
Last Altered: Wednesday, January 03, 2018 11:01:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 11:02:35 Pacific Standard Time

Name: 180102M2_12, Date: 02-Jan-2018, Time: 17:27:37, ID: IPA, Description: IPA

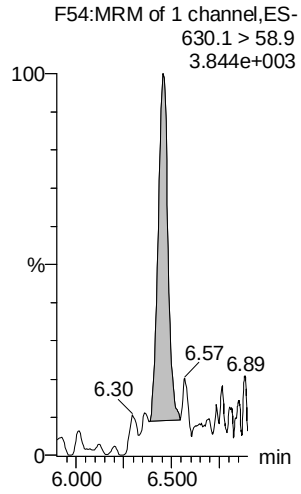
PFODA



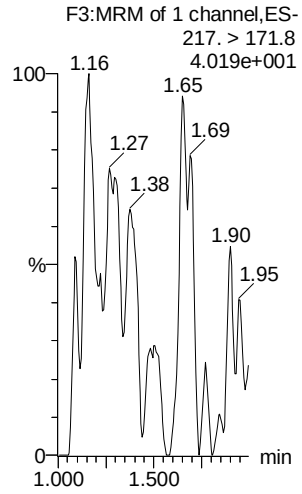
N-MeFOSE



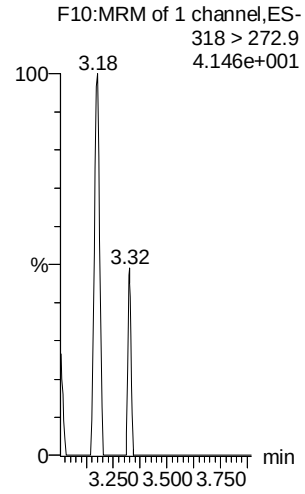
N-EtFOSE



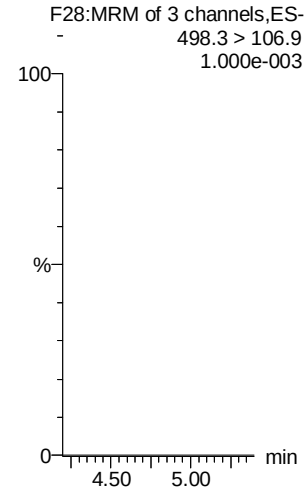
13C4-PFBA



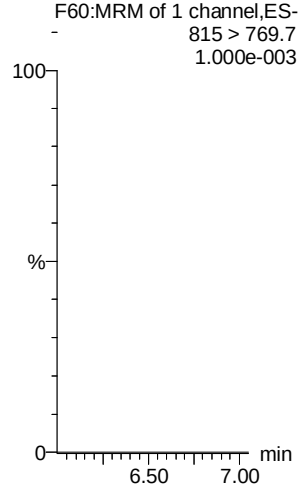
13C5-PFHxA



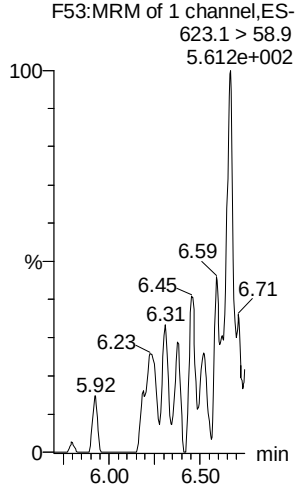
TCDA



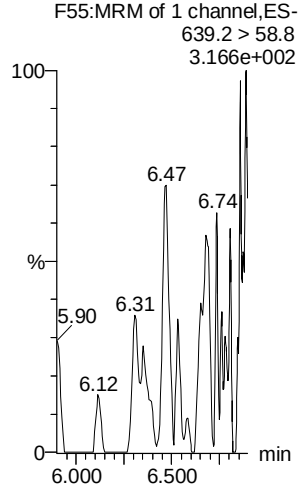
13C2-PFHxDA



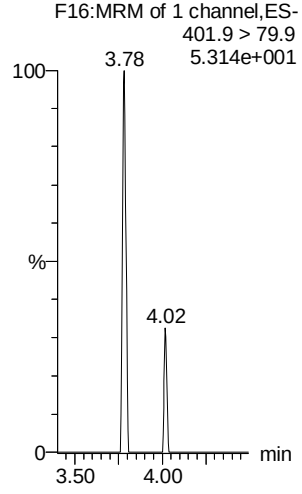
d7-N-MeFOSE



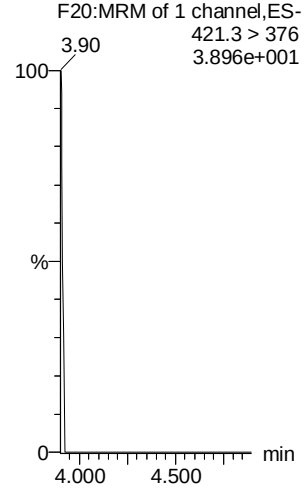
d9-N-EtFOSE



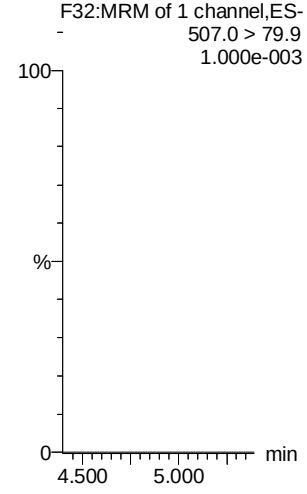
13C3-PFHxS



13C8-PFOA



13C8-PFOS



AC 1/3/18

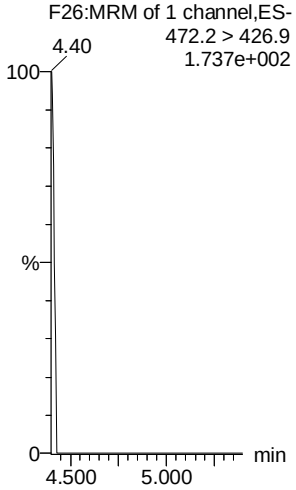
Quantify Sample Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180102M2\180102M2-12.qld

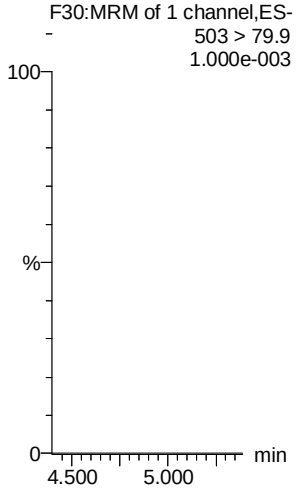
Last Altered: Wednesday, January 03, 2018 11:01:34 Pacific Standard Time
Printed: Wednesday, January 03, 2018 11:02:35 Pacific Standard Time

Name: 180102M2_12, Date: 02-Jan-2018, Time: 17:27:37, ID: IPA, Description: IPA

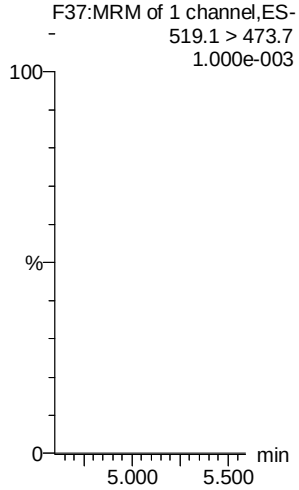
13C9-PFNA



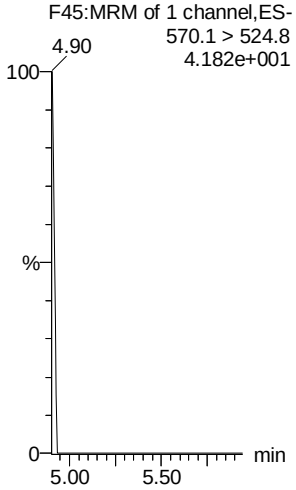
13C4-PFOS



13C6-PFDA



13C7-PFUdA



AC 1/3/18

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818.mdb 09 Jan 2018 10:39:49
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

1/11/18

01/11/2018

Compound name: PFBA
Correlation coefficient: r = 0.999526, r^2 = 0.999051
Calibration curve: 1.47179 * x + -0.0484807
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	180110M3_2	Standard	0.250	1.34	158.015	5445.118	0.363	0.3	11.8	NO	0.999	NO	MM
2	2	180110M3_3	Standard	0.500	1.34	298.382	5531.277	0.674	0.5	-1.8	NO	0.999	NO	MM
3	3	180110M3_4	Standard	1.000	1.34	656.323	6197.237	1.324	0.9	-6.8	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	1.34	1397.959	6682.359	2.615	1.8	-9.5	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	1.33	5018.948	8645.433	7.257	5.0	-0.7	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	1.34	8762.965	7475.106	14.654	10.0	-0.1	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	1.34	47496.918	8574.918	69.238	47.1	-5.8	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	1.34	92845.438	8087.149	143.508	97.5	-2.5	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	1.34	322793.250	10724.149	376.246	255.7	2.3	NO	0.999	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.999692, r^2 = 0.999384
Calibration curve: 1.26321 * x + -0.0617763
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	180110M3_2	Standard	0.250	2.31	137.895	6191.314	0.278	0.3	7.7	NO	0.999	NO	bb
2	2	180110M3_3	Standard	0.500	2.32	294.900	6388.503	0.577	0.5	1.1	NO	0.999	NO	bb
3	3	180110M3_4	Standard	1.000	2.31	611.176	7240.874	1.055	0.9	-11.6	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	2.31	1403.153	7656.253	2.291	1.9	-6.9	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	2.31	5529.848	10067.521	6.866	5.5	9.7	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	2.32	9436.634	9432.145	12.506	9.9	-0.5	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	2.32	48777.508	9361.531	65.130	51.6	3.2	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	2.31	87627.469	8984.164	121.919	96.6	-3.4	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	2.32	298433.719	11738.701	317.788	251.6	0.6	NO	0.999	NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999640
Calibration curve: 0.00081362 * x^2 + 2.12043 * x + 0.00999409
Response type: Internal Std (Ref 33), 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	180110M3_2	Standard	0.250	2.59	40.093	843.391	0.594	0.3	10.2	NO	1.000	NO	MM
2	2	180110M3_3	Standard	0.500	2.60	65.625	875.797	0.937	0.4	-12.6	NO	1.000	NO	MM
3	3	180110M3_4	Standard	1.000	2.60	157.137	894.616	2.196	1.0	3.0	NO	1.000	NO	bb
4	4	180110M3_5	Standard	2.000	2.60	324.442	1011.215	4.011	1.9	-5.7	NO	1.000	NO	bb
5	5	180110M3_6	Standard	5.000	2.59	1100.859	1232.651	11.164	5.2	5.0	NO	1.000	NO	bb
6	6	180110M3_7	Standard	10.000	2.60	2102.512	1207.154	21.771	10.2	2.2	NO	1.000	NO	bb
7	7	180110M3_8	Standard	50.000	2.59	10660.588	1285.018	103.701	48.0	-4.0	NO	1.000	NO	bb
8	8	180110M3_9	Standard	100.000	2.59	21287.502	1183.646	224.809	102.0	2.0	NO	1.000	NO	bb
9	9	180110M3_10	Standard	250.000	2.60	69073.766	1488.746	579.966	249.6	-0.2	NO	1.000	NO	bb

Compound name: PFHxA
Correlation coefficient: r = 0.999048, r^2 = 0.998098
Calibration curve: 1.9385 * x + -0.0246659
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	180110M3_2	Standard	0.250	3.09	216.357	2081.847	0.520	0.3	12.3	NO	0.998	NO	bb
2	2	180110M3_3	Standard	0.500	3.09	311.359	2064.240	0.754	0.4	-19.6	NO	0.998	NO	bb
3	3	180110M3_4	Standard	1.000	3.09	809.112	2293.726	1.764	0.9	-7.7	NO	0.998	NO	bb
4	4	180110M3_5	Standard	2.000	3.09	1863.764	2353.448	3.960	2.1	2.8	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	3.09	6463.479	3551.324	9.100	4.7	-5.9	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	3.09	12226.492	2750.103	22.229	11.5	14.8	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	3.09	62812.871	3223.589	97.427	50.3	0.5	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	3.09	121751.227	2973.789	204.707	105.6	5.6	NO	0.998	NO	bb
9	9	180110M3_10	Standard	250.000	3.09	379602.906	4029.222	471.062	243.0	-2.8	NO	0.998	NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

Compound name: PFHpA
Correlation coefficient: r = 0.999839, r^2 = 0.999677
Calibration curve: 1.65421 * x + -0.120464
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	180110M3_2	Standard	0.250	3.71	153.400	5439.776	0.352	0.3	14.4	NO	1.000	NO	bb
2	2	180110M3_3	Standard	0.500	3.71	280.672	5317.372	0.660	0.5	-5.7	NO	1.000	NO	bb
3	3	180110M3_4	Standard	1.000	3.71	717.935	6029.103	1.488	1.0	-2.7	NO	1.000	NO	bb
4	4	180110M3_5	Standard	2.000	3.71	1492.550	6373.487	2.927	1.8	-7.9	NO	1.000	NO	bb
5	5	180110M3_6	Standard	5.000	3.71	5516.071	8559.692	8.055	4.9	-1.2	NO	1.000	NO	bb
6	6	180110M3_7	Standard	10.000	3.71	9751.433	7383.596	16.509	10.1	0.5	NO	1.000	NO	bb
7	7	180110M3_8	Standard	50.000	3.71	51160.898	7430.805	86.062	52.1	4.2	NO	1.000	NO	bb
8	8	180110M3_9	Standard	100.000	3.70	97725.922	7501.529	162.843	98.5	-1.5	NO	1.000	NO	bb
9	9	180110M3_10	Standard	250.000	3.71	316358.625	9581.552	412.718	249.6	-0.2	NO	1.000	NO	bb

Compound name: L-PFHxS
Correlation coefficient: r = 0.999101, r^2 = 0.998203
Calibration curve: 2.11856 * x + -0.208942
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	180110M3_2	Standard	0.250	3.85	19.254	607.107	0.396	0.3	14.3	NO	0.998	NO	MM
2	2	180110M3_3	Standard	0.500	3.86	48.454	587.859	1.030	0.6	17.0	NO	0.998	NO	MM
3	3	180110M3_4	Standard	1.000	3.85	74.238	721.191	1.287	0.7	-29.4	NO	0.998	NO	MM
4	4	180110M3_5	Standard	2.000	3.85	208.085	841.432	3.091	1.6	-22.1	NO	0.998	NO	MM
5	5	180110M3_6	Standard	5.000	3.86	868.133	928.808	11.683	5.6	12.3	NO	0.998	NO	MM
6	6	180110M3_7	Standard	10.000	3.86	1509.147	837.404	22.527	10.7	7.3	NO	0.998	NO	MM
7	7	180110M3_8	Standard	50.000	3.85	7829.683	881.507	111.027	52.5	5.0	NO	0.998	NO	MM
8	8	180110M3_9	Standard	100.000	3.85	15222.428	947.682	200.785	94.9	-5.1	NO	0.998	NO	MM
9	9	180110M3_10	Standard	250.000	3.86	50756.664	1189.369	533.441	251.9	0.8	NO	0.998	NO	MM

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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.995180
Calibration curve: 0.0125368 * x^2 + 2.94435 * x + -0.110501
Response type: Internal Std (Ref 36), 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 180110M3_2	Standard	0.250	4.17	27.306	607.107	0.562	0.2	-8.7	NO	0.995	NO	MM
2	2 180110M3_3	Standard	0.500	4.18	82.592	587.859	1.756	0.6	26.5	NO	0.995	NO	bb
3	3 180110M3_4	Standard	1.000	4.17	113.301	721.191	1.964	0.7	-29.8	NO	0.995	NO	bb
4	4 180110M3_5	Standard	2.000	4.17	318.644	841.432	4.734	1.6	-18.3	NO	0.995	NO	bb
5	5 180110M3_6	Standard	5.000	4.17	1331.516	928.808	17.920	6.0	19.4	NO	0.995	NO	bb
6	6 180110M3_7	Standard	10.000	4.17	1956.682	837.404	29.208	9.6	-4.3	NO	0.995	NO	bb
7	7 180110M3_8	Standard	50.000	4.17	12586.734	881.507	178.483	50.0	0.0	NO	0.995	NO	bb
8	8 180110M3_9	Standard	100.000	4.17	18243.367	947.682	240.631	64.2	-35.8	NO	0.995	NO	bbX
9	9 180110M3_10	Standard	250.000	4.17	67354.156	1189.369	707.877	147.6	-40.9	NO	0.995	NO	bbX

Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.998464
Calibration curve: -9.7055e-005 * x^2 + 1.26022 * x + 0.185633
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 180110M3_2	Standard	0.250	4.23	298.790	6843.800	0.546	0.3	14.3	NO	0.998	NO	MM
2	2 180110M3_3	Standard	0.500	4.23	519.394	7076.908	0.917	0.6	16.1	NO	0.998	NO	MM
3	3 180110M3_4	Standard	1.000	4.22	859.486	9304.335	1.155	0.8	-23.1	NO	0.998	NO	bb
4	4 180110M3_5	Standard	2.000	4.23	1848.242	8455.973	2.732	2.0	1.1	NO	0.998	NO	db
5	5 180110M3_6	Standard	5.000	4.22	5524.569	11446.934	6.033	4.6	-7.2	NO	0.998	NO	bb
6	6 180110M3_7	Standard	10.000	4.23	10129.542	10524.176	12.031	9.4	-5.9	NO	0.998	NO	bb
7	7 180110M3_8	Standard	50.000	4.22	52634.219	9660.232	68.107	54.1	8.2	NO	0.998	NO	bb
8	8 180110M3_9	Standard	100.000	4.22	96777.461	10039.607	120.495	96.2	-3.8	NO	0.998	NO	bb
9	9 180110M3_10	Standard	250.000	4.22	349181.594	14076.219	310.081	250.7	0.3	NO	0.998	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999403
Calibration curve: 0.00123665 * x^2 + 0.283611 * x + -0.0187761
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	180110M3_2	Standard	0.250	4.34	40.899	6843.800	0.075	0.3	31.6	NO	0.999	NO	MMX
2	2	180110M3_3	Standard	0.500	4.33	68.354	7076.908	0.121	0.5	-1.8	NO	0.999	NO	bb
3	3	180110M3_4	Standard	1.000	4.33	197.523	9304.335	0.265	1.0	-0.2	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	4.33	365.727	8455.973	0.541	2.0	-2.2	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	4.33	1415.746	11446.934	1.546	5.4	7.8	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	4.34	2382.782	10524.176	2.830	9.6	-3.6	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	4.33	13342.360	9660.232	17.265	50.0	0.1	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	4.33	26513.092	10039.607	33.011	85.0	-15.0	NO	0.999	NO	bbX
9	9	180110M3_10	Standard	250.000	4.33	85610.664	14076.219	76.024	158.5	-36.6	NO	0.999	NO	bbX

Compound name: PFNA
Coefficient of Determination: R^2 = 0.998092
Calibration curve: 0.000693223 * x^2 + 1.40868 * x + 0.0082777
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	180110M3_2	Standard	0.250	4.66	214.934	6595.252	0.407	0.3	13.3	NO	0.998	NO	bb
2	2	180110M3_3	Standard	0.500	4.66	364.859	7834.280	0.582	0.4	-18.5	NO	0.998	NO	bb
3	3	180110M3_4	Standard	1.000	4.66	803.702	7113.500	1.412	1.0	-0.4	NO	0.998	NO	bb
4	4	180110M3_5	Standard	2.000	4.66	1676.318	7757.888	2.701	1.9	-4.5	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	4.66	5845.264	10243.467	7.133	5.0	0.9	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	4.66	10523.932	8076.588	16.288	11.5	14.9	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	4.66	56089.699	10747.179	65.238	45.3	-9.4	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	4.66	107733.680	8749.379	153.916	103.9	3.9	NO	0.998	NO	bb
9	9	180110M3_10	Standard	250.000	4.66	368969.406	11695.055	394.365	249.4	-0.3	NO	0.998	NO	bb

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Compound name: PFOSA
Correlation coefficient: r = 0.999329, r^2 = 0.998658
Calibration curve: 1.30775 * x + 0.0347805
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	180110M3_2	Standard	0.250	4.72	50.514	1564.524	0.404	0.3	12.8	NO	0.999	NO	MM
2	2	180110M3_3	Standard	0.500	4.72	68.373	1375.187	0.621	0.4	-10.3	NO	0.999	NO	bb
3	3	180110M3_4	Standard	1.000	4.71	201.535	1766.893	1.426	1.1	6.4	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	4.72	360.366	1897.929	2.373	1.8	-10.6	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	4.72	1269.298	2478.382	6.402	4.9	-2.6	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	4.72	2319.396	2100.719	13.801	10.5	5.3	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	4.72	12512.175	2311.924	67.650	51.7	3.4	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	4.72	21843.365	2220.110	122.986	94.0	-6.0	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	4.72	79570.422	2993.427	332.271	254.1	1.6	NO	0.999	NO	bb

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.997444
Calibration curve: -3.62431e-005 * x^2 + 1.17583 * x + 0.0311451
Response type: Internal Std (Ref 41), 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	180110M3_2	Standard	0.250	4.74	52.733	1618.655	0.407	0.3	27.9	NO	0.997	NO	MM
2	2	180110M3_3	Standard	0.500	4.75	80.186	1941.504	0.516	0.4	-17.5	NO	0.997	NO	MM
3	3	180110M3_4	Standard	1.000	4.74	227.959	1895.721	1.503	1.3	25.2	NO	0.997	NO	MM
4	4	180110M3_5	Standard	2.000	4.74	330.437	2275.169	1.815	1.5	-24.1	NO	0.997	NO	MM
5	5	180110M3_6	Standard	5.000	4.74	1373.176	3237.610	5.302	4.5	-10.3	NO	0.997	NO	MM
6	6	180110M3_7	Standard	10.000	4.75	2325.923	2589.350	11.228	9.5	-4.7	NO	0.997	NO	MM
7	7	180110M3_8	Standard	50.000	4.74	13028.005	2649.839	61.457	52.3	4.6	NO	0.997	NO	MM
8	8	180110M3_9	Standard	100.000	4.74	24612.139	2652.518	115.985	98.9	-1.1	NO	0.997	NO	MM
9	9	180110M3_10	Standard	250.000	4.74	94234.469	2938.436	400.870	344.6	37.8	NO	0.997	NO	MMX

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.999932
Calibration curve: 0.00546964 * x^2 + 1.60165 * x + -0.235203
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	180110M3_2	Standard	0.250	5.03	149.694	6621.417	0.283	0.3	29.2	NO	1.000	NO	bbX
2	2	180110M3_3	Standard	0.500	5.03	326.927	7011.031	0.583	0.5	2.0	NO	1.000	NO	bb
3	3	180110M3_4	Standard	1.000	5.03	882.103	7865.675	1.402	1.0	1.9	NO	1.000	NO	bb
4	4	180110M3_5	Standard	2.000	5.03	1805.777	7909.186	2.854	1.9	-4.2	NO	1.000	NO	bb
5	5	180110M3_6	Standard	5.000	5.03	5656.708	8990.281	7.865	5.0	-0.5	NO	1.000	NO	bb
6	6	180110M3_7	Standard	10.000	5.03	11071.540	8394.882	16.486	10.1	0.9	NO	1.000	NO	bb
7	7	180110M3_8	Standard	50.000	5.03	53691.906	7178.136	93.499	50.0	-0.0	NO	1.000	NO	bb
8	8	180110M3_9	Standard	100.000	5.03	106324.383	8067.630	164.739	80.7	-19.3	NO	1.000	NO	bbX
9	9	180110M3_10	Standard	250.000	5.03	334810.344	11784.516	355.138	147.5	-41.0	NO	1.000	NO	bbX

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997732
Calibration curve: 0.00123859 * x^2 + 0.307368 * x + -0.0309813
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	180110M3_2	Standard	0.250	5.01	6.878	6621.417	0.013	0.1	-42.8	NO	0.998	NO	MMX
2	2	180110M3_3	Standard	0.500	5.00	69.176	7011.031	0.123	0.5	0.2	NO	0.998	NO	bb
3	3	180110M3_4	Standard	1.000	5.00	143.316	7865.675	0.228	0.8	-16.1	NO	0.998	NO	bb
4	4	180110M3_5	Standard	2.000	5.00	310.839	7909.186	0.491	1.7	-15.6	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	5.00	1255.848	8990.281	1.746	5.7	13.1	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	5.00	2087.793	8394.882	3.109	9.8	-1.7	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	5.00	10583.119	7178.136	18.429	50.0	-0.0	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	5.00	21826.646	8067.630	33.818	82.6	-17.4	NO	0.998	NO	bbX
9	9	180110M3_10	Standard	250.000	5.00	63576.629	11784.516	67.437	140.2	-43.9	NO	0.998	NO	bbX

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.991446
Calibration curve: -0.00315911 * x^2 + 2.0555 * x + -0.320574
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	180110M3_2	Standard	0.250	5.18	36.415	2584.018	0.176	0.2	-3.3	NO	0.991	NO	MM
2	2	180110M3_3	Standard	0.500	5.18	80.226	2279.408	0.440	0.4	-26.0	NO	0.991	NO	bb
3	3	180110M3_4	Standard	1.000	5.18	378.250	2474.278	1.911	1.1	8.7	NO	0.991	NO	bb
4	4	180110M3_5	Standard	2.000	5.19	712.568	3010.187	2.959	1.6	-20.0	NO	0.991	NO	bb
5	5	180110M3_6	Standard	5.000	5.18	2686.279	4004.625	8.385	4.3	-14.7	NO	0.991	NO	bb
6	6	180110M3_7	Standard	10.000	5.18	4645.245	3453.088	16.816	8.4	-15.5	NO	0.991	NO	bb
7	7	180110M3_8	Standard	50.000	5.18	27682.430	3302.028	104.793	55.9	11.9	NO	0.991	NO	bb
8	8	180110M3_9	Standard	100.000	5.18	50942.434	3769.683	168.921	96.7	-3.3	NO	0.991	NO	bb
9	9	180110M3_10	Standard	250.000	5.18	168432.422	3847.682	547.188			NO	0.991	NO	bbXI

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999097
Calibration curve: -0.000915461 * x^2 + 1.58258 * x + -0.401153
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	180110M3_2	Standard	0.250	5.33	66.359	3050.200	0.272	0.4	70.2	NO	0.999	NO	bbX
2	2	180110M3_3	Standard	0.500	5.34	73.558	3056.172	0.301	0.4	-11.3	NO	0.999	NO	bb
3	3	180110M3_4	Standard	1.000	5.33	220.973	3257.867	0.848	0.8	-21.0	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	5.34	631.177	3281.707	2.404	1.8	-11.3	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	5.34	2480.533	4319.860	7.178	4.8	-4.0	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	5.34	4016.860	3499.391	14.348	9.4	-6.3	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	5.34	20914.289	3318.419	78.781	51.6	3.1	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	5.33	43324.688	3635.765	148.953	100.2	0.2	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	5.33	130110.156	4818.760	337.509	249.5	-0.2	NO	0.999	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.997858
Calibration curve: -0.000355567 * x^2 + 1.33241 * x + -0.0949136
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	180110M3_2	Standard	0.250	5.36	175.412	7775.131	0.282	0.3	13.2	NO	0.998	NO	bb
2	2	180110M3_3	Standard	0.500	5.35	241.658	5841.358	0.517	0.5	-8.1	NO	0.998	NO	MM
3	3	180110M3_4	Standard	1.000	5.35	652.062	6821.692	1.195	1.0	-3.2	NO	0.998	NO	MM
4	4	180110M3_5	Standard	2.000	5.35	1465.764	7907.348	2.317	1.8	-9.4	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	5.35	4824.436	9228.782	6.534	5.0	-0.4	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	5.35	11112.005	10040.164	13.834	10.5	4.8	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	5.35	54444.684	9539.813	71.339	54.4	8.8	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	5.35	92094.172	9474.396	121.504	93.6	-6.4	NO	0.998	NO	bb
9	9	180110M3_10	Standard	250.000	5.35	343973.500	13743.283	312.856	251.8	0.7	NO	0.998	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.997344
Calibration curve: 0.000962848 * x^2 + 0.363602 * x + -0.00209133
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	180110M3_2	Standard	0.250	5.40	48.906	7775.131	0.079	0.2	-11.3	NO	0.997	NO	MM
2	2	180110M3_3	Standard	0.500	5.41	89.190	5841.358	0.191	0.5	6.0	NO	0.997	NO	bb
3	3	180110M3_4	Standard	1.000	5.40	200.620	6821.692	0.368	1.0	1.4	NO	0.997	NO	bb
4	4	180110M3_5	Standard	2.000	5.40	442.118	7907.348	0.699	1.9	-4.1	NO	0.997	NO	bb
5	5	180110M3_6	Standard	5.000	5.40	1573.748	9228.782	2.132	5.8	15.6	NO	0.997	NO	bb
6	6	180110M3_7	Standard	10.000	5.40	2755.989	10040.164	3.431	9.2	-7.8	NO	0.997	NO	bb
7	7	180110M3_8	Standard	50.000	5.40	15734.462	9539.813	20.617	50.1	0.1	NO	0.997	NO	bb
8	8	180110M3_9	Standard	100.000	5.40	26637.205	9474.396	35.144	79.8	-20.2	NO	0.997	NO	bbX
9	9	180110M3_10	Standard	250.000	5.40	84029.797	13743.283	76.428	150.3	-39.9	NO	0.997	NO	bbX

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998683
Calibration curve: 0.00180407 * x^2 + 2.09493 * x + 0.150658
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	180110M3_2	Standard	0.250	5.64	187.793	4189.487	0.560	0.2	-21.8	NO	0.999	NO	MM
2	2	180110M3_3	Standard	0.500	5.64	395.079	3969.021	1.244	0.5	4.4	NO	0.999	NO	bd
3	3	180110M3_4	Standard	1.000	5.64	711.553	4869.713	1.826	0.8	-20.1	NO	0.999	NO	bd
4	4	180110M3_5	Standard	2.000	5.64	1599.483	4575.956	4.369	2.0	0.5	NO	0.999	NO	bd
5	5	180110M3_6	Standard	5.000	5.63	7052.525	6385.208	13.806	6.5	29.6	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	5.64	10897.177	5791.910	23.518	11.0	10.5	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	5.63	62116.109	7164.268	108.378	49.5	-0.9	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	5.64	105146.766	5943.687	221.131	97.3	-2.7	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	5.63	373600.125	7304.709	639.314	250.9	0.4	NO	0.999	NO	bb

Compound name: N-MeFOSA
Correlation coefficient: r = 0.999537, r^2 = 0.999075
Calibration curve: 1.10666 * x + -0.170034
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	180110M3_2	Standard	1.250	5.71	74.505	10743.257	1.040	1.1	-12.5	NO	0.999	NO	bb
2	2	180110M3_3	Standard	2.500	5.71	176.977	9835.262	2.699	2.6	3.7	NO	0.999	NO	bb
3	3	180110M3_4	Standard	5.000	5.71	344.751	12097.896	4.275	4.0	-19.7	NO	0.999	NO	bb
4	4	180110M3_5	Standard	10.000	5.71	911.162	12431.512	10.994	10.1	0.9	NO	0.999	NO	bb
5	5	180110M3_6	Standard	25.000	5.71	3012.821	16115.154	28.043	25.5	2.0	NO	0.999	NO	bb
6	6	180110M3_7	Standard	50.000	5.71	5797.346	14402.728	60.378	54.7	9.4	NO	0.999	NO	bb
7	7	180110M3_8	Standard	250.000	5.71	29412.832	15466.819	285.251	257.9	3.2	NO	0.999	NO	bb
8	8	180110M3_9	Standard	500.000	5.71	54924.184	14480.274	568.955	514.3	2.9	NO	0.999	NO	bb
9	9	180110M3_10	Standard	1250.000	5.71	171069.844	18952.975	1353.902	1223.6	-2.1	NO	0.999	NO	bb

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999460
Calibration curve: 0.000122781 * x^2 + 2.39065 * x + 0.000840038
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	180110M3_2	Standard	0.250	5.88	174.970	4189.487	0.522	0.2	-12.8	NO	0.999	NO	bb
2	2	180110M3_3	Standard	0.500	5.88	376.310	3969.021	1.185	0.5	-0.9	NO	0.999	NO	bb
3	3	180110M3_4	Standard	1.000	5.88	950.586	4869.713	2.440	1.0	2.0	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	5.89	1891.809	4575.956	5.168	2.2	8.1	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	5.88	5659.594	6385.208	11.080	4.6	-7.3	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	5.89	12450.600	5791.910	26.871	11.2	12.3	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	5.88	68696.688	7164.268	119.860	50.0	0.0	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	5.88	112410.352	5943.687	236.407	98.4	-1.6	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	5.88	354589.906	7304.709	606.783	250.6	0.2	NO	0.999	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.999533
Calibration curve: 0.00349062 * x^2 + 2.93229 * x + -0.154941
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	180110M3_2	Standard	0.250	6.09	124.998	1955.129	0.799	0.3	30.1	NO	1.000	NO	bbX
2	2	180110M3_3	Standard	0.500	6.10	236.010	1829.135	1.613	0.6	20.5	NO	1.000	NO	bb
3	3	180110M3_4	Standard	1.000	6.10	405.845	2327.717	2.179	0.8	-20.5	NO	1.000	NO	bb
4	4	180110M3_5	Standard	2.000	6.09	1041.416	2174.831	5.986	2.1	4.4	NO	1.000	NO	bb
5	5	180110M3_6	Standard	5.000	6.10	3533.474	3158.222	13.985	4.8	-4.1	NO	1.000	NO	bb
6	6	180110M3_7	Standard	10.000	6.10	6573.327	2821.178	29.125	9.9	-1.3	NO	1.000	NO	bb
7	7	180110M3_8	Standard	50.000	6.09	36266.531	2885.126	157.127	50.6	1.2	NO	1.000	NO	bb
8	8	180110M3_9	Standard	100.000	6.10	68578.852	2620.882	327.079	99.8	-0.2	NO	1.000	NO	db
9	9	180110M3_10	Standard	250.000	6.10	176036.891	3871.496	568.375	162.5	-35.0	NO	1.000	NO	dbX

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999897
Calibration curve: -3.00904e-005 * x^2 + 1.02444 * x + -0.199244
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	180110M3_2	Standard	1.250	6.10	131.383	16238.895	1.214	1.4	10.3	NO	1.000	NO	bb
2	2	180110M3_3	Standard	2.500	6.11	254.736	15620.249	2.446	2.6	3.3	NO	1.000	NO	bb
3	3	180110M3_4	Standard	5.000	6.10	520.024	17774.992	4.388	4.5	-10.4	NO	1.000	NO	bb
4	4	180110M3_5	Standard	10.000	6.10	1156.534	18942.303	9.158	9.1	-8.6	NO	1.000	NO	bb
5	5	180110M3_6	Standard	25.000	6.10	4408.425	24990.723	26.460	26.0	4.2	NO	1.000	NO	bb
6	6	180110M3_7	Standard	50.000	6.10	7411.040	21510.641	51.679	50.7	1.4	NO	1.000	NO	bb
7	7	180110M3_8	Standard	250.000	6.10	37406.688	22103.201	253.855	249.8	-0.1	NO	1.000	NO	bb
8	8	180110M3_9	Standard	500.000	6.10	71470.891	21279.357	503.804	499.3	-0.1	NO	1.000	NO	bb
9	9	180110M3_10	Standard	1250.000	6.10	207247.922	25200.256	1233.606	1250.3	0.0	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.997686
Calibration curve: -0.00114258 * x^2 + 0.984182 * x + 0.0683094
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	180110M3_2	Standard	0.250	6.43	89.534	1428.470	0.313	0.2	-0.4	NO	0.998	NO	MM
2	2	180110M3_3	Standard	0.500	6.43	149.353	1602.730	0.466	0.4	-19.2	NO	0.998	NO	MM
3	3	180110M3_4	Standard	1.000	6.43	383.028	1624.887	1.179	1.1	13.0	NO	0.998	NO	bb
4	4	180110M3_5	Standard	2.000	6.43	604.669	1502.644	2.012	2.0	-1.0	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	6.43	2370.623	2226.881	5.323	5.4	7.4	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	6.43	3907.469	2045.703	9.550	9.7	-2.6	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	6.43	22137.709	2213.677	50.002	54.1	8.3	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	6.43	40541.285	2470.003	82.067	93.5	-6.5	NO	0.998	NO	bb
9	9	180110M3_10	Standard	250.000	6.43	106609.336	3028.907	175.986	253.1	1.3	NO	0.998	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.997999
Calibration curve: -0.00347318 * x^2 + 1.33796 * x + -0.219409
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	180110M3_2	Standard	0.250	6.66	89.732	1428.470	0.314	0.4	59.7	NO	0.998	NO	bbX
2	2	180110M3_3	Standard	0.500	6.66	134.672	1602.730	0.420	0.5	-4.3	NO	0.998	NO	bb
3	3	180110M3_4	Standard	1.000	6.66	288.807	1624.887	0.889	0.8	-17.0	NO	0.998	NO	bb
4	4	180110M3_5	Standard	2.000	6.66	713.056	1502.644	2.373	1.9	-2.6	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	6.66	2483.912	2226.881	5.577	4.4	-12.4	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	6.66	5287.183	2045.703	12.923	10.1	0.9	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	6.66	26551.906	2213.677	59.972	52.0	4.0	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	6.66	48357.449	2470.003	97.889	98.5	-1.5	NO	0.998	NO	bb
9	9	180110M3_10	Standard	250.000	6.66	71018.602	3028.907	117.235	135.3	-45.9	NO	0.998	NO	bbX

Compound name: N-MeFOSE
Correlation coefficient: r = 0.998982, r^2 = 0.997965
Calibration curve: 1.173 * x + -0.745383
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	180110M3_2	Standard	1.250	6.24	132.978	18600.686	1.072	1.5	24.0	NO	0.998	NO	bb
2	2	180110M3_3	Standard	2.500	6.26	224.899	14371.076	2.347	2.6	5.5	NO	0.998	NO	bb
3	3	180110M3_4	Standard	5.000	6.25	520.318	17457.375	4.471	4.4	-11.1	NO	0.998	NO	bb
4	4	180110M3_5	Standard	10.000	6.25	1056.121	18372.555	8.623	8.0	-20.1	NO	0.998	NO	bb
5	5	180110M3_6	Standard	25.000	6.25	4167.101	23253.285	26.881	23.6	-5.8	NO	0.998	NO	bb
6	6	180110M3_7	Standard	50.000	6.25	7847.585	18111.193	64.995	56.0	12.1	NO	0.998	NO	bb
7	7	180110M3_8	Standard	250.000	6.25	44727.859	23087.781	290.594	248.4	-0.7	NO	0.998	NO	bb
8	8	180110M3_9	Standard	500.000	6.25	74536.172	20386.021	548.436	468.2	-6.4	NO	0.998	NO	bb
9	9	180110M3_10	Standard	1250.000	6.25	281086.719	28074.316	1501.836	1281.0	2.5	NO	0.998	NO	bd

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999540, r^2 = 0.999080
Calibration curve: 1.40177 * x + -0.207477
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	180110M3_2	Standard	1.250	6.40	179.573	16885.416	1.595	1.3	2.9	NO	0.999	NO	bb
2	2	180110M3_3	Standard	2.500	6.41	310.656	13110.849	3.554	2.7	7.3	NO	0.999	NO	bb
3	3	180110M3_4	Standard	5.000	6.40	739.963	16446.465	6.749	5.0	-0.7	NO	0.999	NO	bb
4	4	180110M3_5	Standard	10.000	6.41	1344.736	16689.393	12.086	8.8	-12.3	NO	0.999	NO	bb
5	5	180110M3_6	Standard	25.000	6.41	5119.930	22391.037	34.299	24.6	-1.5	NO	0.999	NO	bb
6	6	180110M3_7	Standard	50.000	6.41	9741.974	19962.660	73.201	52.4	4.7	NO	0.999	NO	bb
7	7	180110M3_8	Standard	250.000	6.40	52164.645	22425.359	348.922	249.1	-0.4	NO	0.999	NO	bd
8	8	180110M3_9	Standard	500.000	6.40	98149.102	16106.103	914.086	652.2	30.4	NO	0.999	NO	bbX
9	9	180110M3_10	Standard	1250.000	6.40	346314.875	28984.094	1792.267	1278.7	2.3	NO	0.999	NO	bbX

Compound name: 13C3-PFBA
Response Factor: 0.763512
RRF SD: 0.0350184, Relative SD: 4.58648
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	180110M3_2	Standard	12.500	1.33	5445.118	7508.845	9.065	11.9	-5.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	1.34	5531.277	7057.356	9.797	12.8	2.7	NO		NO	bd
3	3	180110M3_4	Standard	12.500	1.34	6197.237	8001.987	9.681	12.7	1.4	NO		NO	bb
4	4	180110M3_5	Standard	12.500	1.34	6682.359	8507.537	9.818	12.9	2.9	NO		NO	bb
5	5	180110M3_6	Standard	12.500	1.33	8645.433	11925.119	9.062	11.9	-5.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	1.34	7475.106	10276.120	9.093	11.9	-4.7	NO		NO	bb
7	7	180110M3_8	Standard	12.500	1.33	8574.918	10906.643	9.828	12.9	3.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	1.34	8087.149	9827.420	10.286	13.5	7.8	NO		NO	bb
9	9	180110M3_10	Standard	12.500	1.34	10724.149	14467.951	9.265	12.1	-2.9	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 0.730064
RRF SD: 0.0283912, Relative SD: 3.88886
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 180110M3_2	Standard	12.500	2.31	6191.314	8819.409	8.775	12.0	-3.8	NO		NO	bb
2	2 180110M3_3	Standard	12.500	2.32	6388.503	8657.168	9.224	12.6	1.1	NO		NO	bb
3	3 180110M3_4	Standard	12.500	2.31	7240.874	10153.727	8.914	12.2	-2.3	NO		NO	bb
4	4 180110M3_5	Standard	12.500	2.31	7656.253	10362.211	9.236	12.7	1.2	NO		NO	bb
5	5 180110M3_6	Standard	12.500	2.31	10067.521	14579.612	8.632	11.8	-5.4	NO		NO	bb
6	6 180110M3_7	Standard	12.500	2.32	9432.145	12281.571	9.600	13.1	5.2	NO		NO	bb
7	7 180110M3_8	Standard	12.500	2.31	9361.531	12975.809	9.018	12.4	-1.2	NO		NO	bb
8	8 180110M3_9	Standard	12.500	2.31	8984.164	11578.389	9.699	13.3	6.3	NO		NO	bb
9	9 180110M3_10	Standard	12.500	2.32	11738.701	16242.380	9.034	12.4	-1.0	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.0953602
RRF SD: 0.0060334, Relative SD: 6.32696
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 180110M3_2	Standard	12.500	2.59	843.391	8819.409	1.195	12.5	0.3	NO		NO	bb
2	2 180110M3_3	Standard	12.500	2.60	875.797	8657.168	1.265	13.3	6.1	NO		NO	bb
3	3 180110M3_4	Standard	12.500	2.59	894.616	10153.727	1.101	11.5	-7.6	NO		NO	bb
4	4 180110M3_5	Standard	12.500	2.59	1011.215	10362.211	1.220	12.8	2.3	NO		NO	bb
5	5 180110M3_6	Standard	12.500	2.59	1232.651	14579.612	1.057	11.1	-11.3	NO		NO	bb
6	6 180110M3_7	Standard	12.500	2.60	1207.154	12281.571	1.229	12.9	3.1	NO		NO	bb
7	7 180110M3_8	Standard	12.500	2.59	1285.018	12975.809	1.238	13.0	3.9	NO		NO	bb
8	8 180110M3_9	Standard	12.500	2.59	1183.646	11578.389	1.278	13.4	7.2	NO		NO	bb
9	9 180110M3_10	Standard	12.500	2.60	1488.746	16242.380	1.146	12.0	-3.9	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.596765
RRF SD: 0.0287608, Relative SD: 4.81945
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	180110M3_2	Standard	5.000	3.08	2081.847	8819.409	2.951	4.9	-1.1	NO		NO	bb
2	2	180110M3_3	Standard	5.000	3.09	2064.240	8657.168	2.981	5.0	-0.1	NO		NO	bb
3	3	180110M3_4	Standard	5.000	3.08	2293.726	10153.727	2.824	4.7	-5.4	NO		NO	bb
4	4	180110M3_5	Standard	5.000	3.09	2353.448	10362.211	2.839	4.8	-4.9	NO		NO	bb
5	5	180110M3_6	Standard	5.000	3.09	3551.324	14579.612	3.045	5.1	2.0	NO		NO	bb
6	6	180110M3_7	Standard	5.000	3.09	2750.103	12281.571	2.799	4.7	-6.2	NO		NO	bb
7	7	180110M3_8	Standard	5.000	3.09	3223.589	12975.809	3.105	5.2	4.1	NO		NO	bb
8	8	180110M3_9	Standard	5.000	3.09	2973.789	11578.389	3.210	5.4	7.6	NO		NO	bb
9	9	180110M3_10	Standard	5.000	3.09	4029.222	16242.380	3.101	5.2	3.9	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.604292
RRF SD: 0.0220638, Relative SD: 3.65118
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	180110M3_2	Standard	12.500	3.70	5439.776	8819.409	7.710	12.8	2.1	NO		NO	bb
2	2	180110M3_3	Standard	12.500	3.71	5317.372	8657.168	7.678	12.7	1.6	NO		NO	bb
3	3	180110M3_4	Standard	12.500	3.70	6029.103	10153.727	7.422	12.3	-1.7	NO		NO	bb
4	4	180110M3_5	Standard	12.500	3.71	6373.487	10362.211	7.688	12.7	1.8	NO		NO	bb
5	5	180110M3_6	Standard	12.500	3.70	8559.692	14579.612	7.339	12.1	-2.8	NO		NO	bb
6	6	180110M3_7	Standard	12.500	3.71	7383.596	12281.571	7.515	12.4	-0.5	NO		NO	bb
7	7	180110M3_8	Standard	12.500	3.71	7430.805	12975.809	7.158	11.8	-5.2	NO		NO	bb
8	8	180110M3_9	Standard	12.500	3.70	7501.529	11578.389	8.099	13.4	7.2	NO		NO	bb
9	9	180110M3_10	Standard	12.500	3.71	9581.552	16242.380	7.374	12.2	-2.4	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.293143
RRF SD: 0.02198, Relative SD: 7.49804
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 180110M3_2	Standard	12.500	3.85	607.107	2278.692	3.330	11.4	-9.1	NO		NO	bb
2	2 180110M3_3	Standard	12.500	3.85	587.859	2027.751	3.624	12.4	-1.1	NO		NO	bb
3	3 180110M3_4	Standard	12.500	3.85	721.191	2588.349	3.483	11.9	-5.0	NO		NO	MM
4	4 180110M3_5	Standard	12.500	3.85	841.432	2638.712	3.986	13.6	8.8	NO		NO	bb
5	5 180110M3_6	Standard	12.500	3.86	928.808	3243.043	3.580	12.2	-2.3	NO		NO	bb
6	6 180110M3_7	Standard	12.500	3.86	837.404	2945.932	3.553	12.1	-3.0	NO		NO	bb
7	7 180110M3_8	Standard	12.500	3.85	881.507	3128.825	3.522	12.0	-3.9	NO		NO	bb
8	8 180110M3_9	Standard	12.500	3.85	947.682	3222.897	3.676	12.5	0.3	NO		NO	bb
9	9 180110M3_10	Standard	12.500	3.85	1189.369	3518.808	4.225	14.4	15.3	NO		NO	bb

Compound name: 13C2-6:2 FTS Not used
Response Factor: 0.215203
RRF SD: 0.0808496, Relative SD: 37.5689
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 180110M3_2	Standard	12.500	4.17	1482.806	7716.699	2.402	11.2	-10.7	NO		NO	bb
2	2 180110M3_3	Standard	12.500	4.17	1155.556	8022.848	1.800	8.4	-33.1	NO		NO	bb
3	3 180110M3_4	Standard	12.500	4.17	1397.855	9839.251	1.776	8.3	-34.0	NO		NO	bb
4	4 180110M3_5	Standard	12.500	4.17	1987.587	9158.829	2.713	12.6	0.8	NO		NO	bb
5	5 180110M3_6	Standard	12.500	4.17	2364.256	13168.367	2.244	10.4	-16.6	NO		NO	bb
6	6 180110M3_7	Standard	12.500	4.17	2119.823	12177.514	2.176	10.1	-19.1	NO		NO	bb
7	7 180110M3_8	Standard	12.500	4.17	2466.705	11624.087	2.653	12.3	-1.4	NO		NO	bb
8	8 180110M3_9	Standard	12.500	4.17	2650.556	9690.272	3.419	15.9	27.1	NO		NO	bb
9	9 180110M3_10	Standard	12.500	4.17	5642.398	14028.530	5.028	23.4	86.9	NO		NO	bb

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Compound name: 13C2-PFOA
Response Factor: 0.915764
RRF SD: 0.0680605, Relative SD: 7.4321
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	180110M3_2	Standard	12.500	4.22	6843.800	7716.699	11.086	12.1	-3.2	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.23	7076.908	8022.848	11.026	12.0	-3.7	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.22	9304.335	9839.251	11.820	12.9	3.3	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.23	8455.973	9158.829	11.541	12.6	0.8	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.22	11446.934	13168.367	10.866	11.9	-5.1	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.23	10524.176	12177.514	10.803	11.8	-5.6	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.22	9660.232	11624.087	10.388	11.3	-9.3	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.23	10039.607	9690.272	12.951	14.1	13.1	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.23	14076.219	14028.530	12.542	13.7	9.6	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.817427
RRF SD: 0.0843622, Relative SD: 10.3205
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	180110M3_2	Standard	12.500	4.66	6595.252	8419.302	9.792	12.0	-4.2	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.66	7834.280	7958.151	12.305	15.1	20.4	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.65	7113.500	8439.292	10.536	12.9	3.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.66	7757.888	9727.010	9.970	12.2	-2.4	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.66	10243.467	13224.706	9.682	11.8	-5.2	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.66	8076.588	11503.174	8.776	10.7	-14.1	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.66	10747.179	11865.055	11.322	13.9	10.8	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.66	8749.379	11583.457	9.442	11.6	-7.6	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.66	11695.055	14424.272	10.135	12.4	-0.8	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.222952
RRF SD: 0.0226253, Relative SD: 10.148
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	180110M3_2	Standard	12.500	4.72	1564.524	7146.186	2.737	12.3	-1.8	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.72	1375.187	6976.103	2.464	11.1	-11.6	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.72	1766.893	8730.687	2.530	11.3	-9.2	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.72	1897.929	8502.860	2.790	12.5	0.1	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.72	2478.382	9392.645	3.298	14.8	18.4	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.72	2100.719	10144.617	2.588	11.6	-7.1	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.72	2311.924	10475.976	2.759	12.4	-1.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.72	2220.110	10176.034	2.727	12.2	-2.1	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.71	2993.427	11733.247	3.189	14.3	14.4	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 0.874623
RRF SD: 0.125135, Relative SD: 14.3074
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	180110M3_2	Standard	12.500	4.74	1618.655	2105.094	9.612	11.0	-12.1	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.74	1941.504	2275.136	10.667	12.2	-2.4	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.74	1895.721	2164.789	10.946	12.5	0.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.74	2275.169	1933.818	14.706	16.8	34.5	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.74	3237.610	3714.762	10.894	12.5	-0.4	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.74	2589.350	2811.424	11.513	13.2	5.3	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.74	2649.839	3528.814	9.386	10.7	-14.1	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.74	2652.518	3149.809	10.527	12.0	-3.7	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.74	2938.436	3620.976	10.144	11.6	-7.2	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 1.10533
RRF SD: 0.141708, Relative SD: 12.8204
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	180110M3_2	Standard	12.500	5.03	6621.417	6709.350	12.336	11.2	-10.7	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.04	7011.031	6275.866	13.964	12.6	1.1	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.03	7865.675	5735.000	17.144	15.5	24.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.03	7909.186	7379.163	13.398	12.1	-3.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.03	8990.281	8404.810	13.371	12.1	-3.2	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.03	8394.882	6873.380	15.267	13.8	10.5	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.03	7178.136	7852.201	11.427	10.3	-17.3	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.03	8067.630	8147.183	12.378	11.2	-10.4	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.03	11784.516	9778.104	15.065	13.6	9.0	NO		NO	bb

Compound name: 13C2-8:2 FTS Not used
Response Factor: 0.100865
RRF SD: 0.0423355, Relative SD: 41.9722
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	180110M3_2	Standard	12.500	5.00	644.281	8819.409	0.913	9.1	-27.6	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.00	889.045	8657.168	1.284	12.7	1.8	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.00	654.053	10153.727	0.805	8.0	-36.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.01	773.072	10362.211	0.933	9.2	-26.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.00	975.410	14579.612	0.836	8.3	-33.7	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.00	1012.922	12281.571	1.031	10.2	-18.2	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.00	1364.890	12975.809	1.315	13.0	4.3	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.00	1744.984	11578.389	1.884	18.7	49.4	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.00	3049.447	16242.380	2.347	23.3	86.1	NO		NO	bb

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Compound name: d3-N-MeFOSAA
Response Factor: 0.34512
RRF SD: 0.0402363, Relative SD: 11.6586
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	180110M3_2	Standard	12.500	5.18	2584.018	7146.186	4.520	13.1	4.8	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.18	2279.408	6976.103	4.084	11.8	-5.3	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.18	2474.278	8730.687	3.543	10.3	-17.9	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.18	3010.187	8502.860	4.425	12.8	2.6	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.18	4004.625	9392.645	5.329	15.4	23.5	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.18	3453.088	10144.617	4.255	12.3	-1.4	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.18	3302.028	10475.976	3.940	11.4	-8.7	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.18	3769.683	10176.034	4.631	13.4	7.3	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.18	3847.682	11733.247	4.099	11.9	-5.0	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.390404
RRF SD: 0.0471008, Relative SD: 12.0646
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	180110M3_2	Standard	12.500	5.33	3050.200	7146.186	5.335	13.7	9.3	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.33	3056.172	6976.103	5.476	14.0	12.2	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.33	3257.867	8730.687	4.664	11.9	-4.4	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.33	3281.707	8502.860	4.824	12.4	-1.1	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.33	4319.860	9392.645	5.749	14.7	17.8	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.34	3499.391	10144.617	4.312	11.0	-11.6	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.33	3318.419	10475.976	3.960	10.1	-18.9	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.33	3635.765	10176.034	4.466	11.4	-8.5	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.33	4818.760	11733.247	5.134	13.1	5.2	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 0.957991
RRF SD: 0.119129, Relative SD: 12.4353
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	180110M3_2	Standard	12.500	5.35	7775.131	7146.186	13.600	14.2	13.6	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.35	5841.358	6976.103	10.467	10.9	-12.6	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.35	6821.692	8730.687	9.767	10.2	-18.4	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.36	7907.348	8502.860	11.625	12.1	-2.9	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.35	9228.782	9392.645	12.282	12.8	2.6	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.35	10040.164	10144.617	12.371	12.9	3.3	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.35	9539.813	10475.976	11.383	11.9	-4.9	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.35	9474.396	10176.034	11.638	12.1	-2.8	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.35	13743.283	11733.247	14.641	15.3	22.3	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.599156
RRF SD: 0.0521603, Relative SD: 8.70563
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	180110M3_2	Standard	12.500	5.63	4189.487	7146.186	7.328	12.2	-2.2	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.64	3969.021	6976.103	7.112	11.9	-5.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.63	4869.713	8730.687	6.972	11.6	-6.9	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.64	4575.956	8502.860	6.727	11.2	-10.2	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.63	6385.208	9392.645	8.498	14.2	13.5	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.64	5791.910	10144.617	7.137	11.9	-4.7	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.63	7164.268	10475.976	8.548	14.3	14.1	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.63	5943.687	10176.034	7.301	12.2	-2.5	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.64	7304.709	11733.247	7.782	13.0	3.9	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.124177
RRF SD: 0.00905884, Relative SD: 7.29512
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	180110M3_2	Standard	150.000	5.73	10743.257	7146.186	18.792	151.3	0.9	NO		NO	bb
2	2	180110M3_3	Standard	150.000	5.73	9835.262	6976.103	17.623	141.9	-5.4	NO		NO	bb
3	3	180110M3_4	Standard	150.000	5.73	12097.896	8730.687	17.321	139.5	-7.0	NO		NO	bb
4	4	180110M3_5	Standard	150.000	5.73	12431.512	8502.860	18.275	147.2	-1.9	NO		NO	bb
5	5	180110M3_6	Standard	150.000	5.73	16115.154	9392.645	21.447	172.7	15.1	NO		NO	bb
6	6	180110M3_7	Standard	150.000	5.73	14402.728	10144.617	17.747	142.9	-4.7	NO		NO	bb
7	7	180110M3_8	Standard	150.000	5.73	15466.819	10475.976	18.455	148.6	-0.9	NO		NO	bb
8	8	180110M3_9	Standard	150.000	5.73	14480.274	10176.034	17.787	143.2	-4.5	NO		NO	bb
9	9	180110M3_10	Standard	150.000	5.73	18952.975	11733.247	20.192	162.6	8.4	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.281715
RRF SD: 0.0301772, Relative SD: 10.712
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	180110M3_2	Standard	12.500	6.10	1955.129	7146.186	3.420	12.1	-2.9	NO		NO	bb
2	2	180110M3_3	Standard	12.500	6.10	1829.135	6976.103	3.278	11.6	-6.9	NO		NO	bb
3	3	180110M3_4	Standard	12.500	6.10	2327.717	8730.687	3.333	11.8	-5.4	NO		NO	bb
4	4	180110M3_5	Standard	12.500	6.10	2174.831	8502.860	3.197	11.3	-9.2	NO		NO	bb
5	5	180110M3_6	Standard	12.500	6.10	3158.222	9392.645	4.203	14.9	19.4	NO		NO	bb
6	6	180110M3_7	Standard	12.500	6.10	2821.178	10144.617	3.476	12.3	-1.3	NO		NO	bb
7	7	180110M3_8	Standard	12.500	6.10	2885.126	10475.976	3.443	12.2	-2.2	NO		NO	bb
8	8	180110M3_9	Standard	12.500	6.10	2620.882	10176.034	3.219	11.4	-8.6	NO		NO	bb
9	9	180110M3_10	Standard	12.500	6.10	3871.496	11733.247	4.124	14.6	17.1	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.184306
RRF SD: 0.0154361, Relative SD: 8.37525
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	180110M3_2	Standard	150.000	6.12	16238.895	7146.186	28.405	154.1	2.7	NO		NO	bb
2	2	180110M3_3	Standard	150.000	6.12	15620.249	6976.103	27.989	151.9	1.2	NO		NO	bb
3	3	180110M3_4	Standard	150.000	6.12	17774.992	8730.687	25.449	138.1	-7.9	NO		NO	bb
4	4	180110M3_5	Standard	150.000	6.12	18942.303	8502.860	27.847	151.1	0.7	NO		NO	bb
5	5	180110M3_6	Standard	150.000	6.12	24990.723	9392.645	33.258	180.5	20.3	NO		NO	bb
6	6	180110M3_7	Standard	150.000	6.12	21510.641	10144.617	26.505	143.8	-4.1	NO		NO	bb
7	7	180110M3_8	Standard	150.000	6.11	22103.201	10475.976	26.374	143.1	-4.6	NO		NO	bb
8	8	180110M3_9	Standard	150.000	6.12	21279.357	10176.034	26.139	141.8	-5.5	NO		NO	bb
9	9	180110M3_10	Standard	150.000	6.12	25200.256	11733.247	26.847	145.7	-2.9	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.539833
RRF SD: 0.0687366, Relative SD: 12.7329
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	180110M3_2	Standard	5.000	6.43	1428.470	7146.186	2.499	4.6	-7.4	NO		NO	bb
2	2	180110M3_3	Standard	5.000	6.43	1602.730	6976.103	2.872	5.3	6.4	NO		NO	bb
3	3	180110M3_4	Standard	5.000	6.43	1624.887	8730.687	2.326	4.3	-13.8	NO		NO	bb
4	4	180110M3_5	Standard	5.000	6.43	1502.644	8502.860	2.209	4.1	-18.2	NO		NO	bb
5	5	180110M3_6	Standard	5.000	6.43	2226.881	9392.645	2.964	5.5	9.8	NO		NO	bb
6	6	180110M3_7	Standard	5.000	6.43	2045.703	10144.617	2.521	4.7	-6.6	NO		NO	bb
7	7	180110M3_8	Standard	5.000	6.43	2213.677	10475.976	2.641	4.9	-2.1	NO		NO	bb
8	8	180110M3_9	Standard	5.000	6.43	2470.003	10176.034	3.034	5.6	12.4	NO		NO	bb
9	9	180110M3_10	Standard	5.000	6.43	3028.907	11733.247	3.227	6.0	19.5	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.182261
RRF SD: 0.0217695, Relative SD: 11.9442
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 180110M3_2	Standard	150.000	6.24	18600.686	7146.186	32.536	178.5	19.0	NO		NO	bb
2	2 180110M3_3	Standard	150.000	6.24	14371.076	6976.103	25.751	141.3	-5.8	NO		NO	bb
3	3 180110M3_4	Standard	150.000	6.24	17457.375	8730.687	24.994	137.1	-8.6	NO		NO	bb
4	4 180110M3_5	Standard	150.000	6.24	18372.555	8502.860	27.009	148.2	-1.2	NO		NO	bb
5	5 180110M3_6	Standard	150.000	6.24	23253.285	9392.645	30.946	169.8	13.2	NO		NO	bb
6	6 180110M3_7	Standard	150.000	6.24	18111.193	10144.617	22.316	122.4	-18.4	NO		NO	bb
7	7 180110M3_8	Standard	150.000	6.24	23087.781	10475.976	27.548	151.1	0.8	NO		NO	bb
8	8 180110M3_9	Standard	150.000	6.24	20386.021	10176.034	25.042	137.4	-8.4	NO		NO	bb
9	9 180110M3_10	Standard	150.000	6.24	28074.316	11733.247	29.909	164.1	9.4	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.172538
RRF SD: 0.024293, Relative SD: 14.0798
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 180110M3_2	Standard	150.000	6.40	16885.416	7146.186	29.536	171.2	14.1	NO		NO	bb
2	2 180110M3_3	Standard	150.000	6.40	13110.849	6976.103	23.492	136.2	-9.2	NO		NO	bb
3	3 180110M3_4	Standard	150.000	6.39	16446.465	8730.687	23.547	136.5	-9.0	NO		NO	bb
4	4 180110M3_5	Standard	150.000	6.39	16689.393	8502.860	24.535	142.2	-5.2	NO		NO	bb
5	5 180110M3_6	Standard	150.000	6.40	22391.037	9392.645	29.799	172.7	15.1	NO		NO	bb
6	6 180110M3_7	Standard	150.000	6.40	19962.660	10144.617	24.598	142.6	-5.0	NO		NO	bb
7	7 180110M3_8	Standard	150.000	6.39	22425.359	10475.976	26.758	155.1	3.4	NO		NO	bb
8	8 180110M3_9	Standard	150.000	6.39	16106.103	10176.034	19.784	114.7	-23.6	NO		NO	bb
9	9 180110M3_10	Standard	150.000	6.39	28984.094	11733.247	30.878	179.0	19.3	NO		NO	bb

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Compound name: 13C4-PFBA
Response Factor: 1
RRF SD: 3.92523e-017, Relative SD: 3.92523e-015
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	180110M3_2	Standard	12.500	1.33	7508.845	7508.845	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	1.34	7057.356	7057.356	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	1.33	8001.987	8001.987	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	1.33	8507.537	8507.537	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	1.33	11925.119	11925.119	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	1.34	10276.120	10276.120	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	1.33	10906.643	10906.643	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	1.34	9827.420	9827.420	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	1.34	14467.951	14467.951	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
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	180110M3_2	Standard	12.500	3.08	8819.409	8819.409	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	3.09	8657.168	8657.168	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	3.08	10153.727	10153.727	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	3.08	10362.211	10362.211	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	3.08	14579.612	14579.612	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	3.09	12281.571	12281.571	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	3.09	12975.809	12975.809	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	3.08	11578.389	11578.389	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	3.09	16242.380	16242.380	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
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	180110M3_2	Standard	12.500	3.85	2278.692	2278.692	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	3.86	2027.751	2027.751	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	3.85	2588.349	2588.349	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	3.86	2638.712	2638.712	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	3.85	3243.043	3243.043	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	3.86	2945.932	2945.932	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	3.85	3128.825	3128.825	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	3.85	3222.897	3222.897	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	3.85	3518.808	3518.808	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	180110M3_2	Standard	12.500	4.22	7716.699	7716.699	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.22	8022.848	8022.848	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.22	9839.251	9839.251	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.22	9158.829	9158.829	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.22	13168.367	13168.367	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.23	12177.514	12177.514	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.23	11624.087	11624.087	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.22	9690.272	9690.272	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.23	14028.530	14028.530	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 8.77708e-017, Relative SD: 8.77708e-015
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 180110M3_2	Standard	12.500	4.65	8419.302	8419.302	12.500	12.5	0.0	NO		NO	bb
2	2 180110M3_3	Standard	12.500	4.66	7958.151	7958.151	12.500	12.5	0.0	NO		NO	bb
3	3 180110M3_4	Standard	12.500	4.65	8439.292	8439.292	12.500	12.5	0.0	NO		NO	bb
4	4 180110M3_5	Standard	12.500	4.66	9727.010	9727.010	12.500	12.5	0.0	NO		NO	bb
5	5 180110M3_6	Standard	12.500	4.66	13224.706	13224.706	12.500	12.5	0.0	NO		NO	bb
6	6 180110M3_7	Standard	12.500	4.66	11503.174	11503.174	12.500	12.5	0.0	NO		NO	bb
7	7 180110M3_8	Standard	12.500	4.66	11865.055	11865.055	12.500	12.5	0.0	NO		NO	bb
8	8 180110M3_9	Standard	12.500	4.66	11583.457	11583.457	12.500	12.5	0.0	NO		NO	bb
9	9 180110M3_10	Standard	12.500	4.66	14424.272	14424.272	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 5.55112e-017, Relative SD: 5.55112e-015
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 180110M3_2	Standard	12.500	4.74	2105.094	2105.094	12.500	12.5	0.0	NO		NO	bb
2	2 180110M3_3	Standard	12.500	4.74	2275.136	2275.136	12.500	12.5	0.0	NO		NO	bb
3	3 180110M3_4	Standard	12.500	4.74	2164.789	2164.789	12.500	12.5	0.0	NO		NO	bb
4	4 180110M3_5	Standard	12.500	4.74	1933.818	1933.818	12.500	12.5	0.0	NO		NO	bb
5	5 180110M3_6	Standard	12.500	4.74	3714.762	3714.762	12.500	12.5	0.0	NO		NO	bb
6	6 180110M3_7	Standard	12.500	4.74	2811.424	2811.424	12.500	12.5	0.0	NO		NO	bb
7	7 180110M3_8	Standard	12.500	4.74	3528.814	3528.814	12.500	12.5	0.0	NO		NO	bb
8	8 180110M3_9	Standard	12.500	4.74	3149.809	3149.809	12.500	12.5	0.0	NO		NO	bb
9	9 180110M3_10	Standard	12.500	4.74	3620.976	3620.976	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
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	180110M3_2	Standard	12.500	5.03	6709.350	6709.350	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.03	6275.866	6275.866	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.03	5735.000	5735.000	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.03	7379.163	7379.163	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.03	8404.810	8404.810	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.03	6873.380	6873.380	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.03	7852.201	7852.201	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.03	8147.183	8147.183	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.03	9778.104	9778.104	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	180110M3_2	Standard	12.500	5.35	7146.186	7146.186	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.35	6976.103	6976.103	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.35	8730.687	8730.687	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.36	8502.860	8502.860	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.35	9392.645	9392.645	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.36	10144.617	10144.617	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.35	10475.976	10475.976	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.35	10176.034	10176.034	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.35	11733.247	11733.247	12.500	12.5	0.0	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818.mdb 09 Jan 2018 10:39:49
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBA	0.9991	NO	
2	2	PFPeA	0.9994	NO	
3	3	PFBS	0.9996	NO	
4	4	PFHxA	0.9981	NO	
5	5	PFHpA	0.9997	NO	
6	6	L-PFHxS	0.9982	NO	
7	8	6:2 FTS	0.9952	NO	
8	9	L-PFOA	0.9985	NO	
9	11	PFHpS	0.9994	NO	
10	12	PFNA	0.9981	NO	
11	13	PFOSA	0.9987	NO	
12	14	L-PFOS	0.9974	NO	
13	16	PFDA	0.9999	NO	
14	17	8:2 FTS	0.9977	NO	
15	18	N-MeFOSAA	0.9914	NO	
16	19	N-EtFOSAA	0.9991	NO	
17	20	PFUdA	0.9979	NO	
18	21	PFDS	0.9973	NO	
19	22	PFDoA	0.9987	NO	
20	23	N-MeFOSA	0.9991	NO	
21	24	PFTrDA	0.9995	NO	
22	25	PFTeDA	0.9995	NO	
23	26	N-EtFOSA	0.9999	NO	
24	27	PFHxDA	0.9977	NO	
25	28	PFODA	0.9980	NO	
26	29	N-MeFOSE	0.9980	NO	
27	30	N-EtFOSE	0.9991	NO	
28	31	13C3-PFBA		NO	4.586
29	32	13C3-PFPeA		NO	3.889
30	33	13C3-PFBS		NO	6.327
31	34	13C2-PFHxA		NO	4.819

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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Name: 180110M3_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD	
32	35	13C4-PFHpA		NO	3.651	
33	36	18O2-PFHxS		NO	7.498	
34	37	13C2-6:2 FTS		NO	37.569	not used
35	38	13C2-PFOA		NO	7.432	
36	39	13C5-PFNA		NO	10.320	
37	40	13C8-PFOSA		NO	10.148	
38	41	13C8-PFOS		NO	14.307	
39	42	13C2-PFDA		NO	12.820	
40	43	13C2-8:2 FTS		NO	41.972	Not used
41	44	d3-N-MeFOSAA		NO	11.659	
42	45	d5-N-EtFOSAA		NO	12.065	
43	46	13C2-PFUdA		NO	12.435	
44	47	13C2-PFDoA		NO	8.706	
45	48	d3-N-MeFOSA		NO	7.295	
46	49	13C2-PFTeDA		NO	10.712	
47	50	d5-N-ETFOSA		NO	8.375	
48	51	13C2-PFHxDA		NO	12.733	
49	52	d7-N-MeFOSE		NO	11.944	
50	53	d9-N-EtFOSE		NO	14.080	
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	

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Thursday, January 11, 2018 15:27:52 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:26:25
Calibration: 11 Jan 2018 15:27:52

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180110M3_1	IPA	11-Jan-18	09:22:51
2	180110M3_2	ST180110M3-1 PFC CS-2 17L2606	11-Jan-18	09:34:02
3	180110M3_3	ST180110M3-2 PFC CS-1 17L2607	11-Jan-18	09:45:13
4	180110M3_4	ST180110M3-3 PFC CS0 17L2608	11-Jan-18	09:56:23
5	180110M3_5	ST180110M3-4 PFC CS1 17L2609	11-Jan-18	10:07:34
6	180110M3_6	ST180110M3-5 PFC CS2 17L2610	11-Jan-18	10:18:46
7	180110M3_7	ST180110M3-6 PFC CS3 17L2611	11-Jan-18	10:29:56
8	180110M3_8	ST180110M3-7 PFC CS4 17L2612	11-Jan-18	10:41:06
9	180110M3_9	ST180110M3-8 PFC CS5 17L2613	11-Jan-18	10:52:18
10	180110M3_10	ST180110M3-9 PFC CS6 17L2710	11-Jan-18	11:03:28
11	180110M3_11	IPA	11-Jan-18	11:14:39
12	180110M3_12	ICV180110M3-1 PFC ICV 17L1201	11-Jan-18	11:25:49

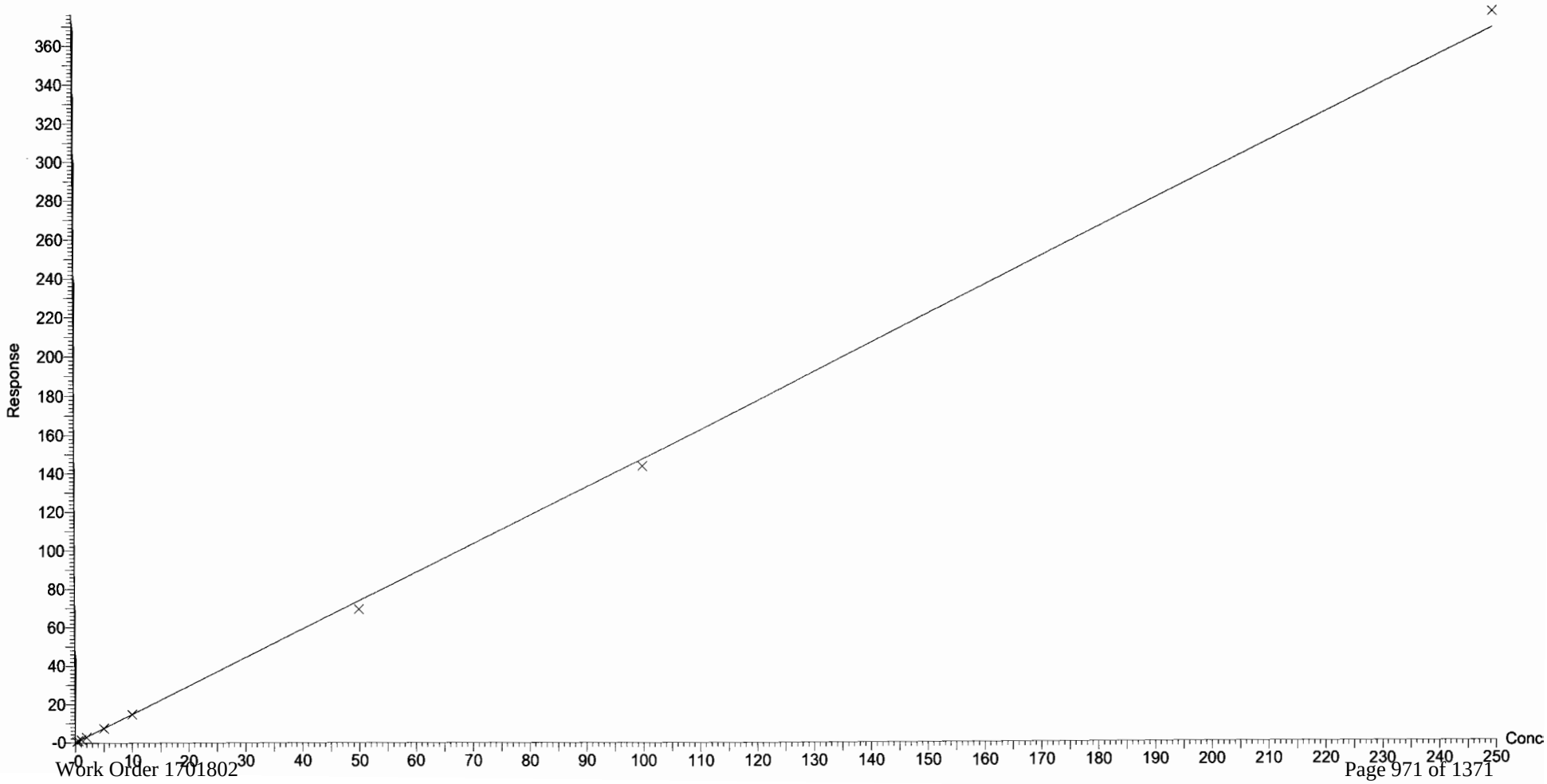
Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818.mdb 09 Jan 2018 10:39:49
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Compound name: PFBA
Correlation coefficient: r = 0.999526, r^2 = 0.999051
Calibration curve: 1.47179 * x + -0.0484807
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\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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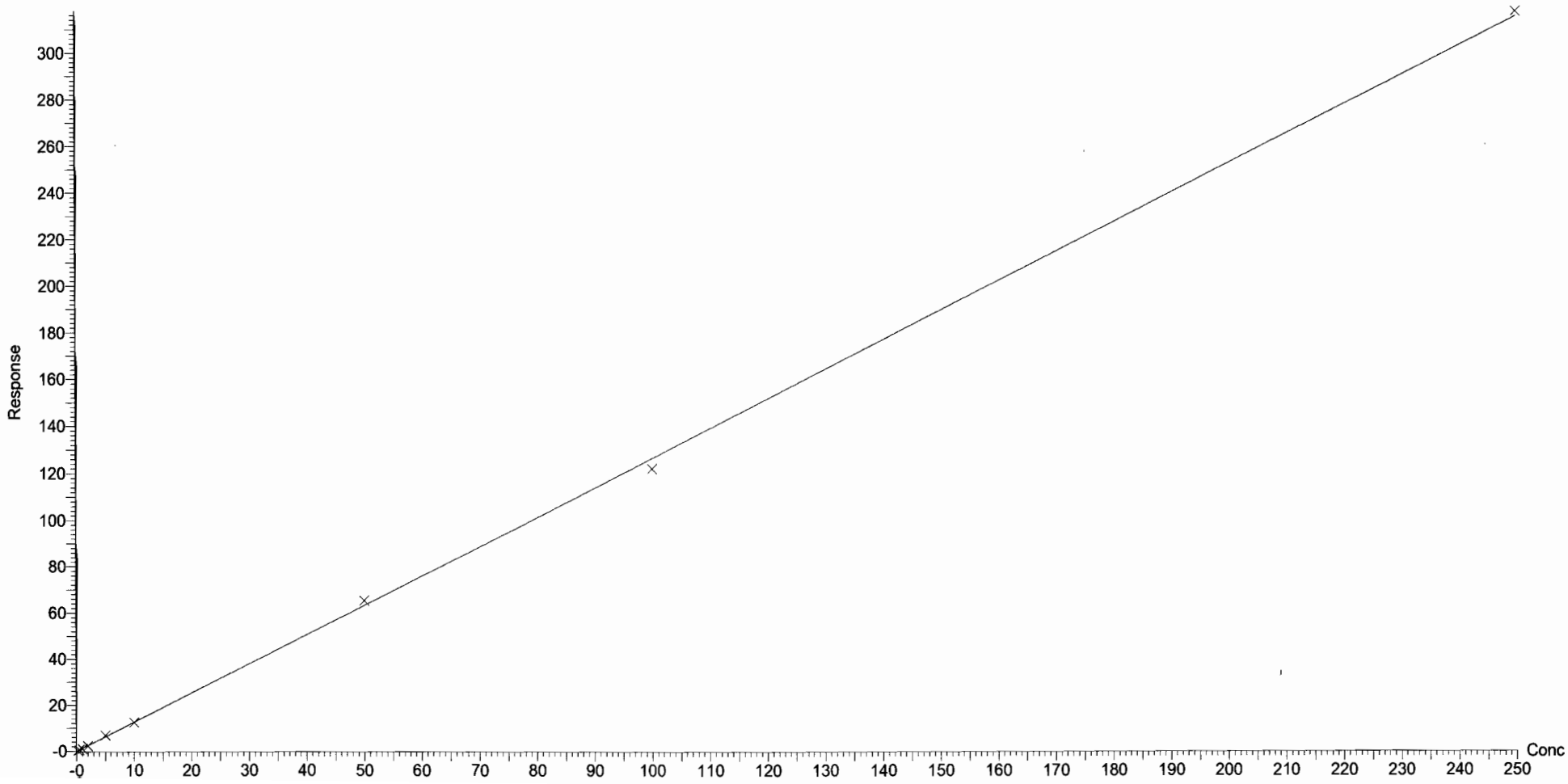
Compound name: PFPeA
Correlation coefficient: r = 0.999692, r^2 = 0.999384
Calibration curve: 1.26321 * x + -0.0617763
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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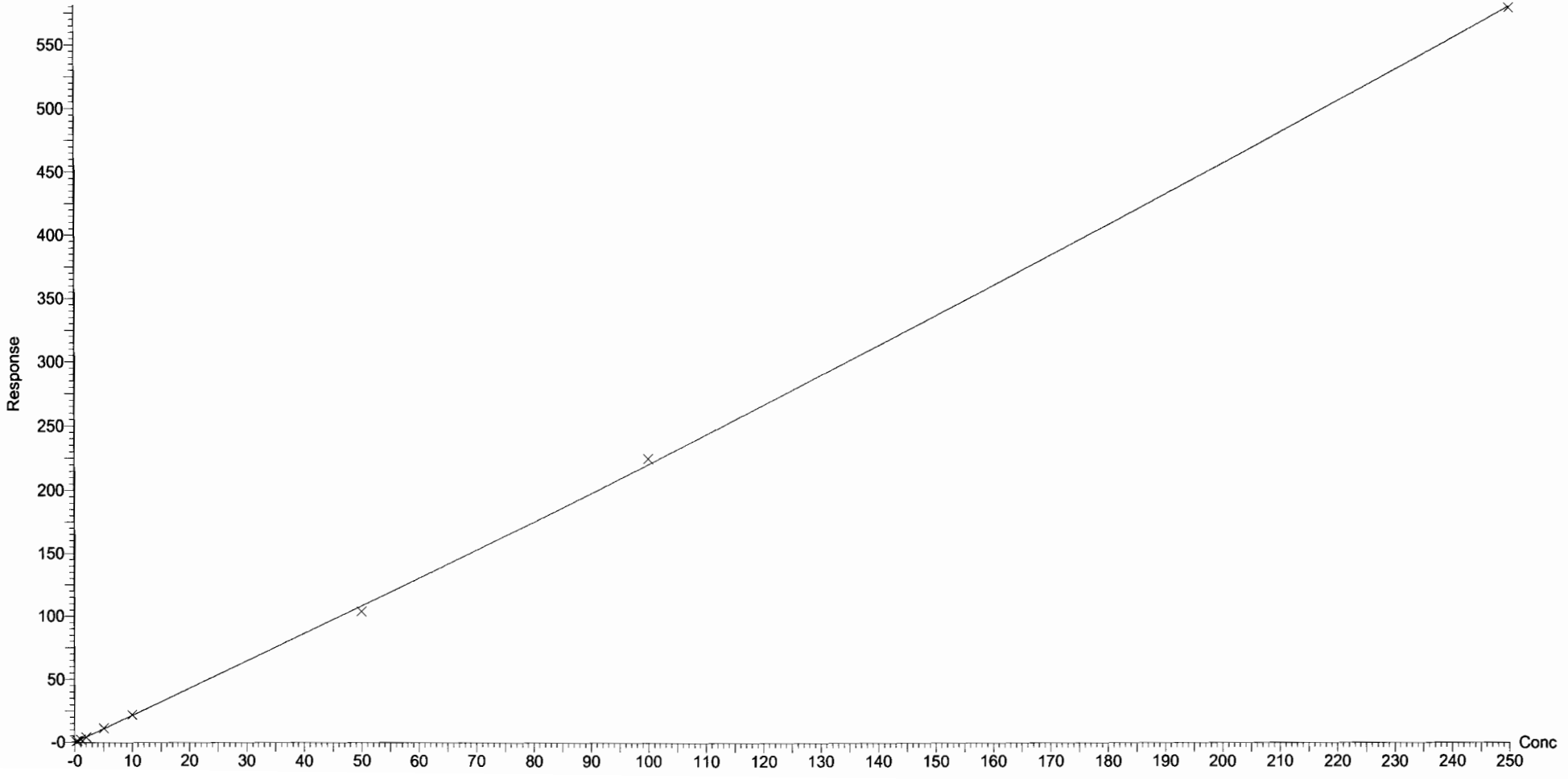
Compound name: PFBS
Coefficient of Determination: R^2 = 0.999640
Calibration curve: 0.00081362 * x^2 + 2.12043 * x + 0.00999409
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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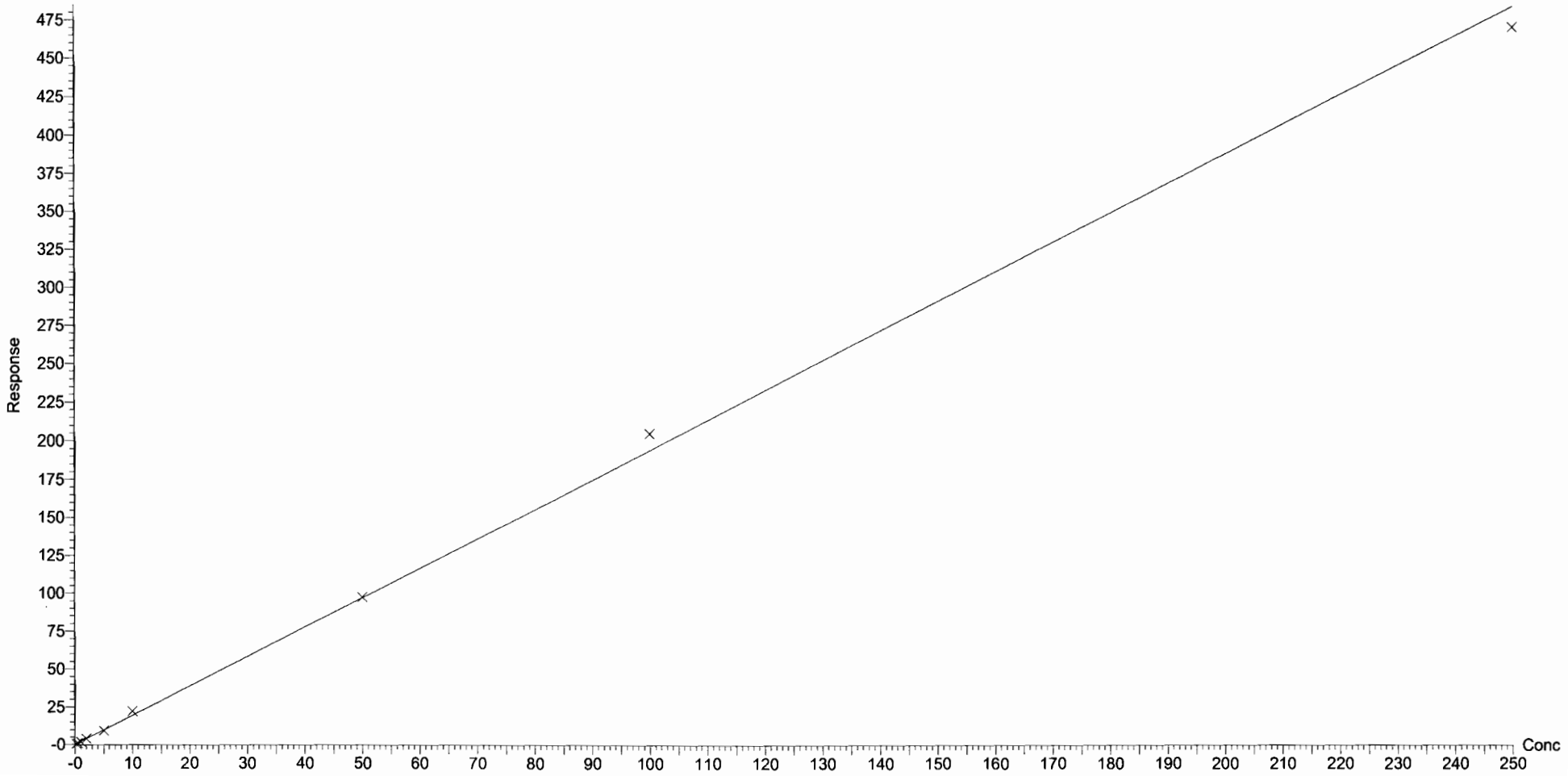
Compound name: PFHxA
Correlation coefficient: r = 0.999048, r^2 = 0.998098
Calibration curve: 1.9385 * x + -0.0246659
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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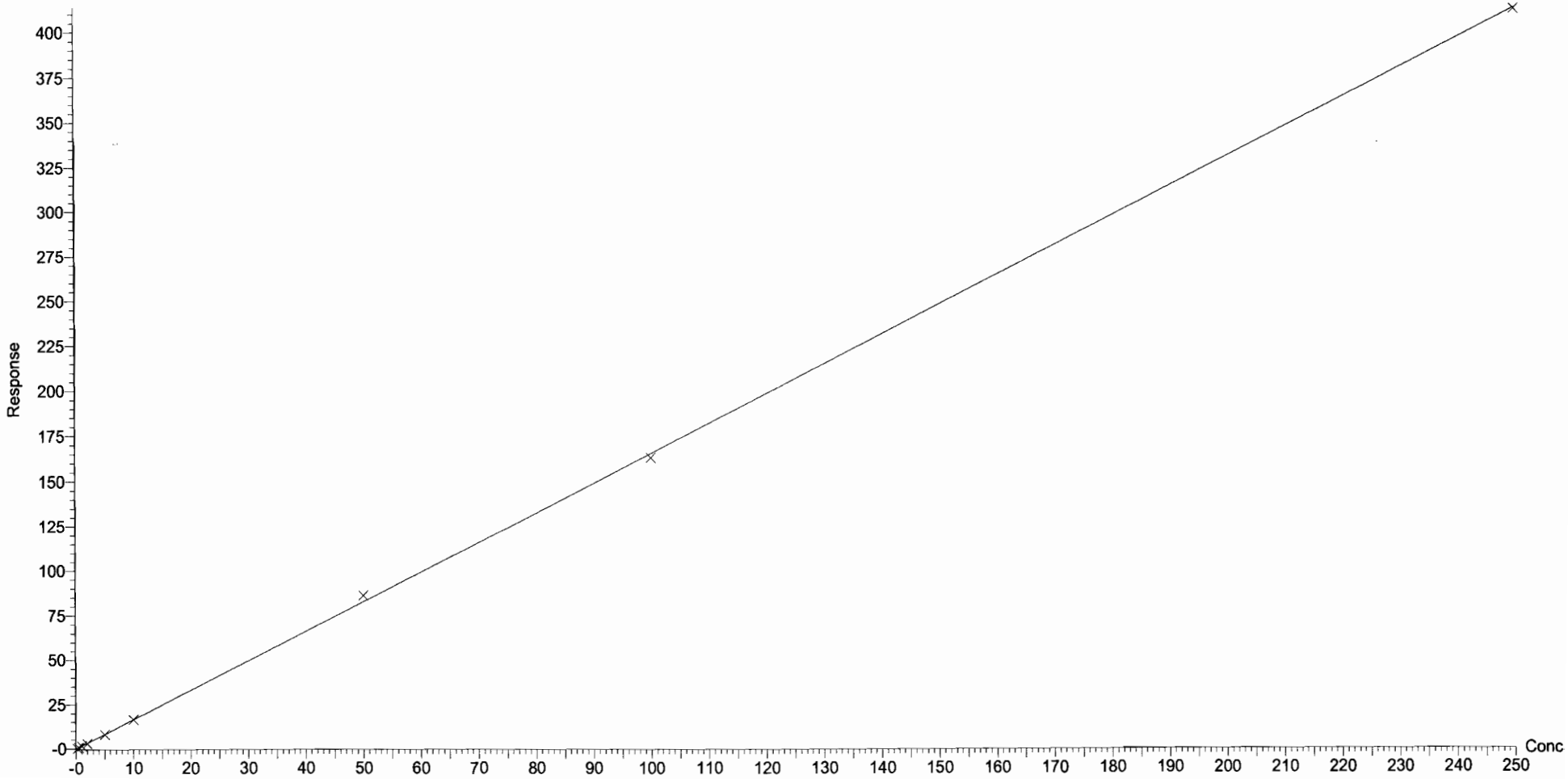
Compound name: PFHpA
Correlation coefficient: r = 0.999839, r^2 = 0.999677
Calibration curve: 1.65421 * x + -0.120464
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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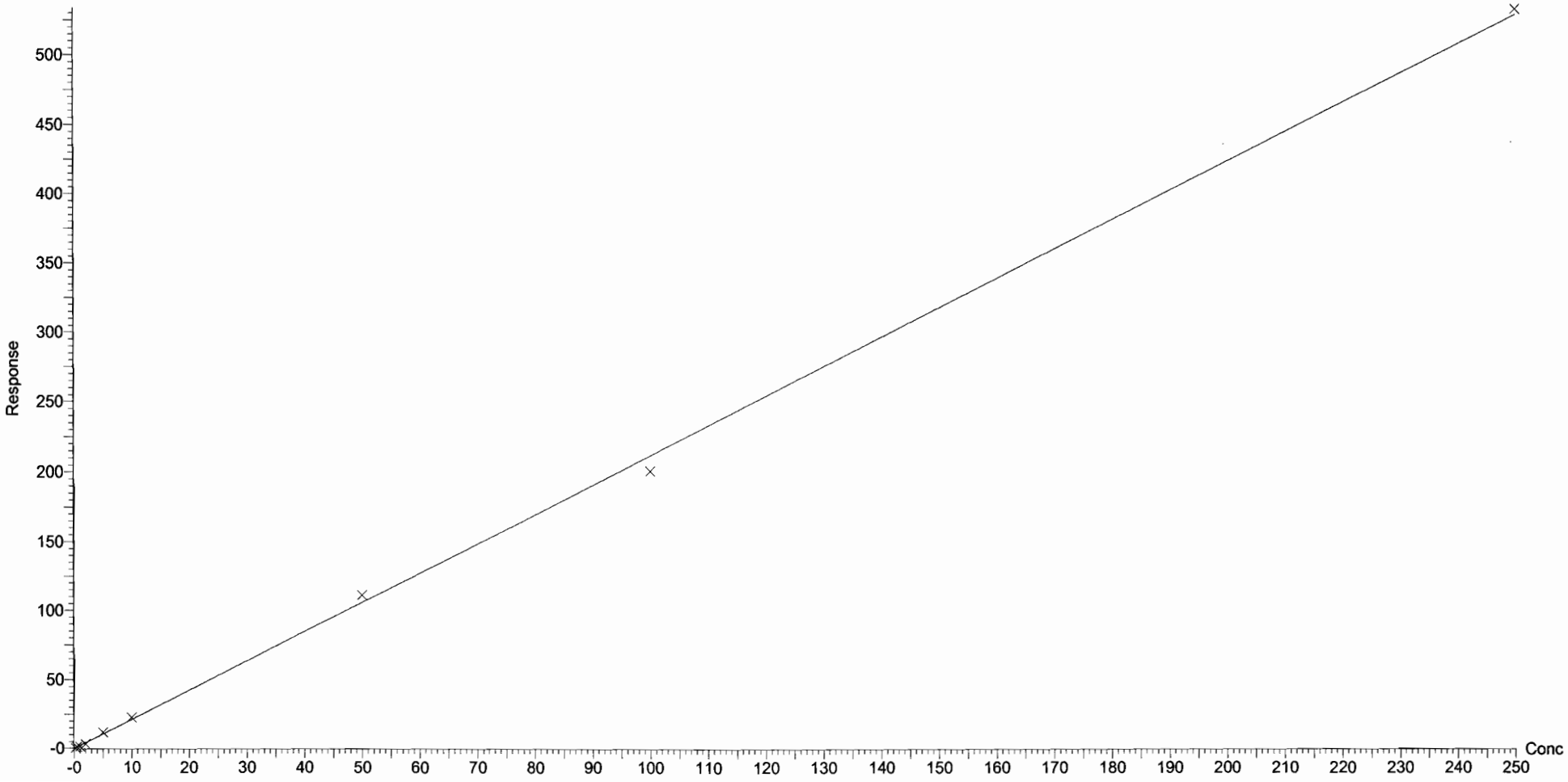
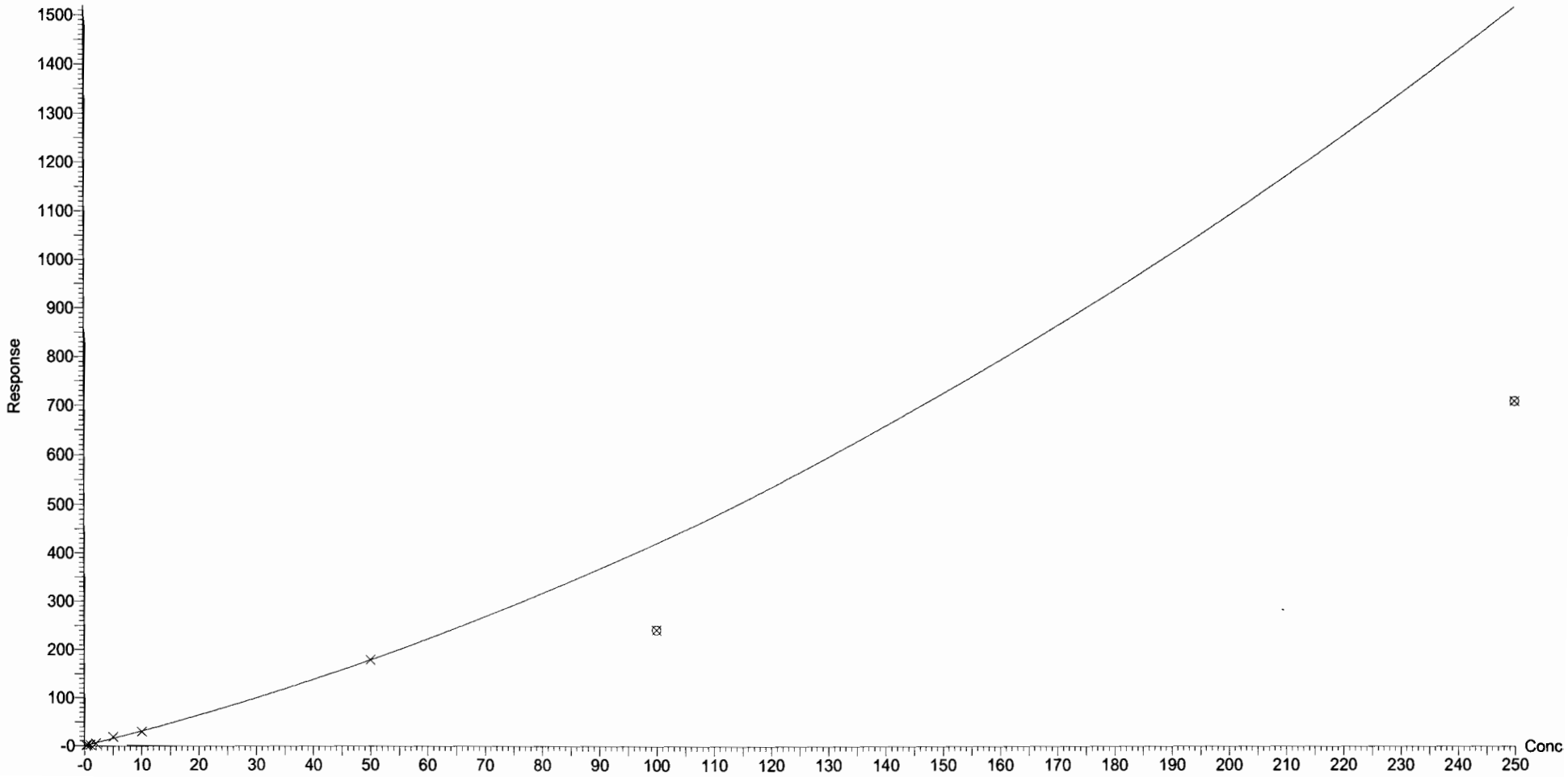
Compound name: L-PFHxS
Correlation coefficient: r = 0.999101, r^2 = 0.998203
Calibration curve: 2.11856 * x + -0.208942
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

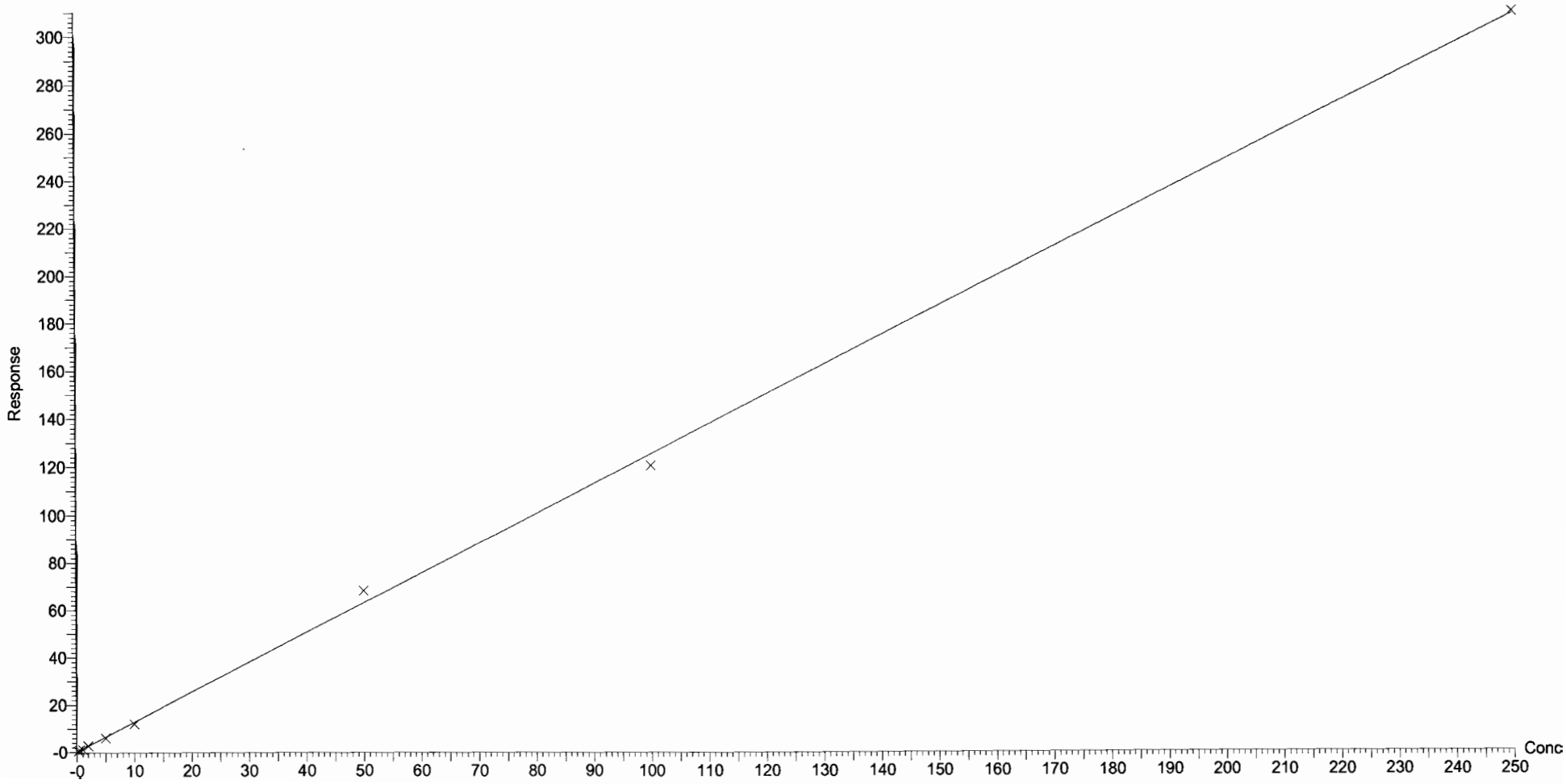
Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.995180
Calibration curve: 0.0125368 * x^2 + 2.94435 * x + -0.110501
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

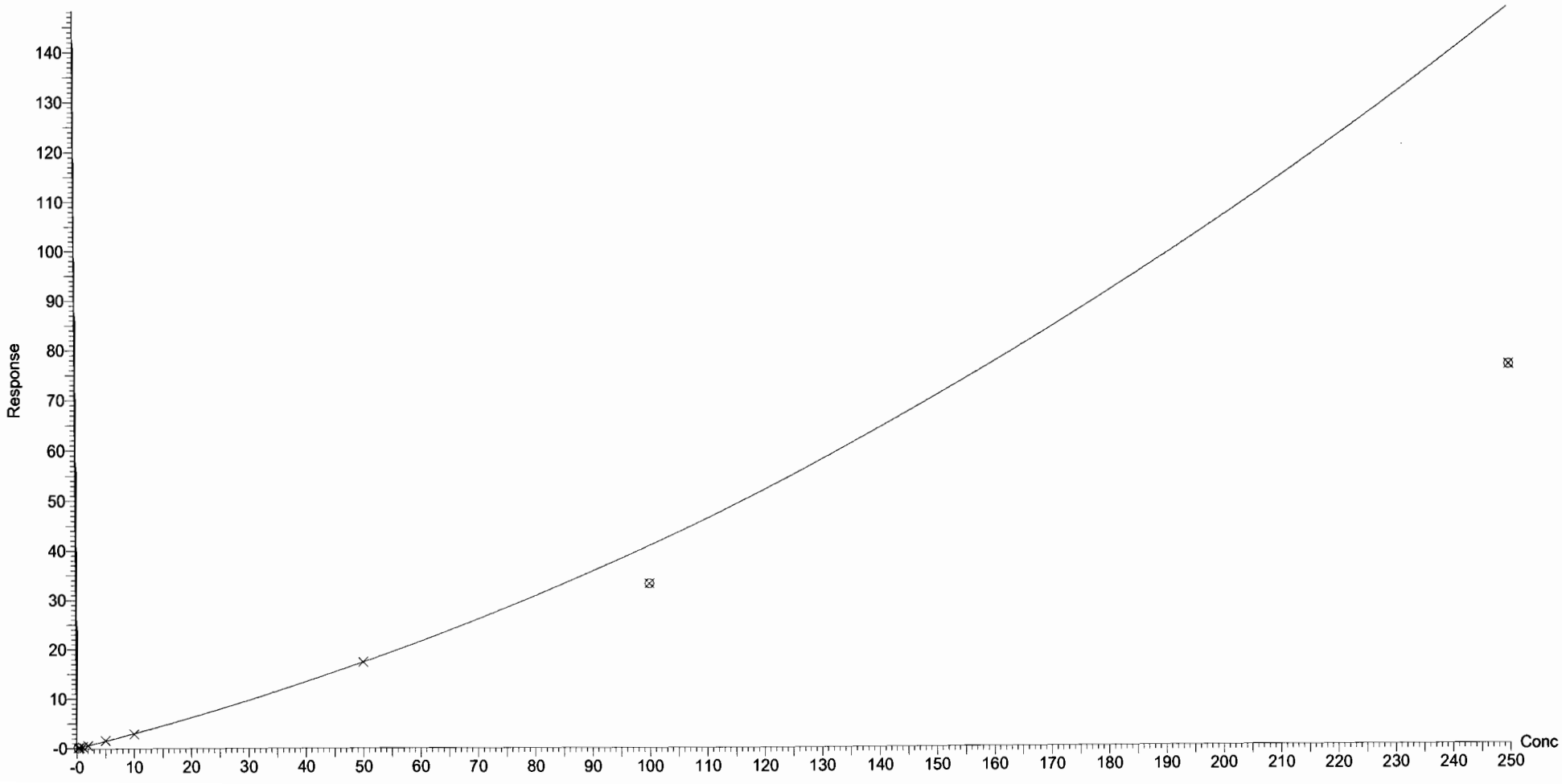
Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.998464
Calibration curve: -9.7055e-005 * x^2 + 1.26022 * x + 0.185633
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

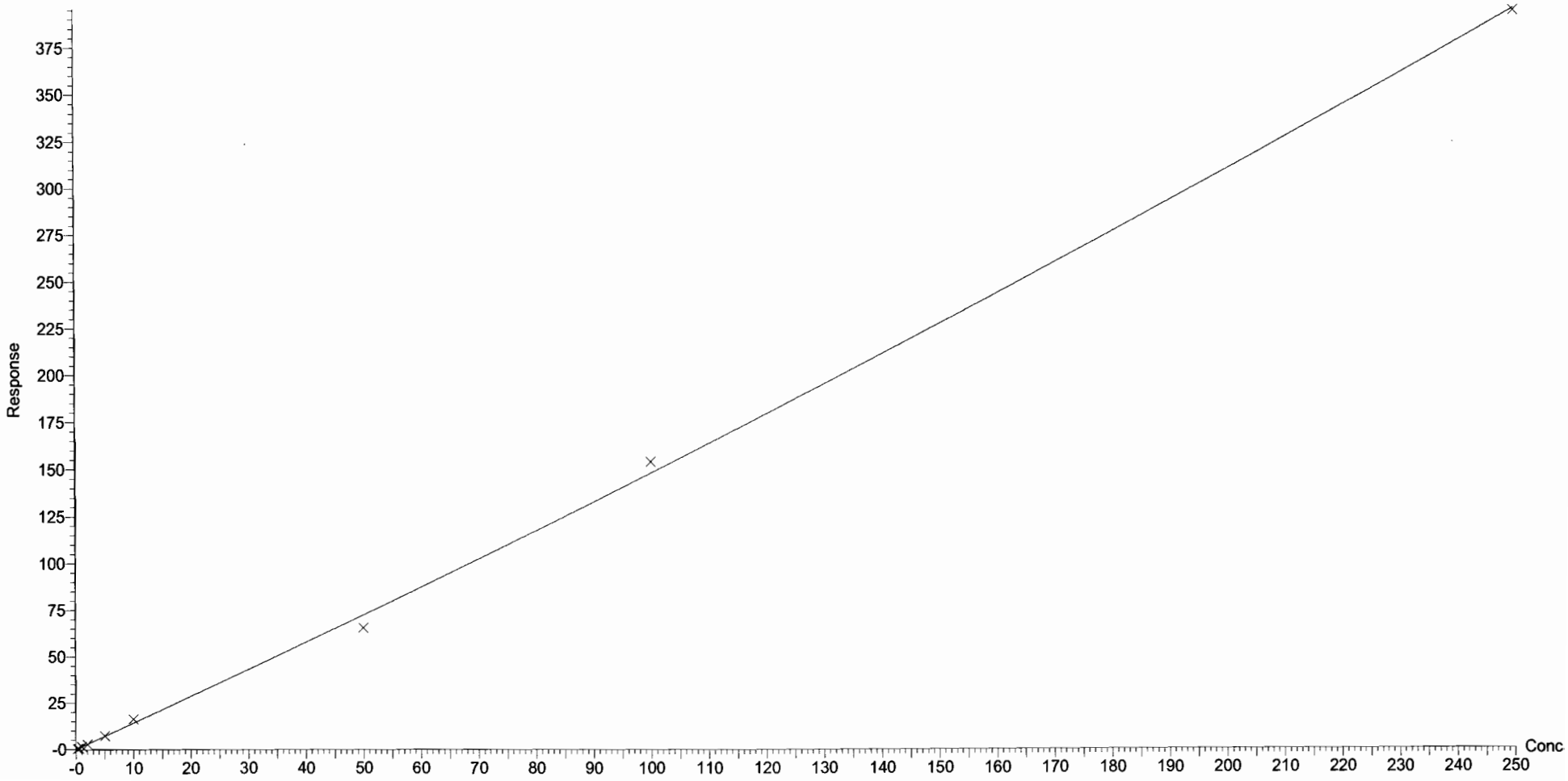
Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999403
Calibration curve: 0.00123665 * x^2 + 0.283611 * x + -0.0187761
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

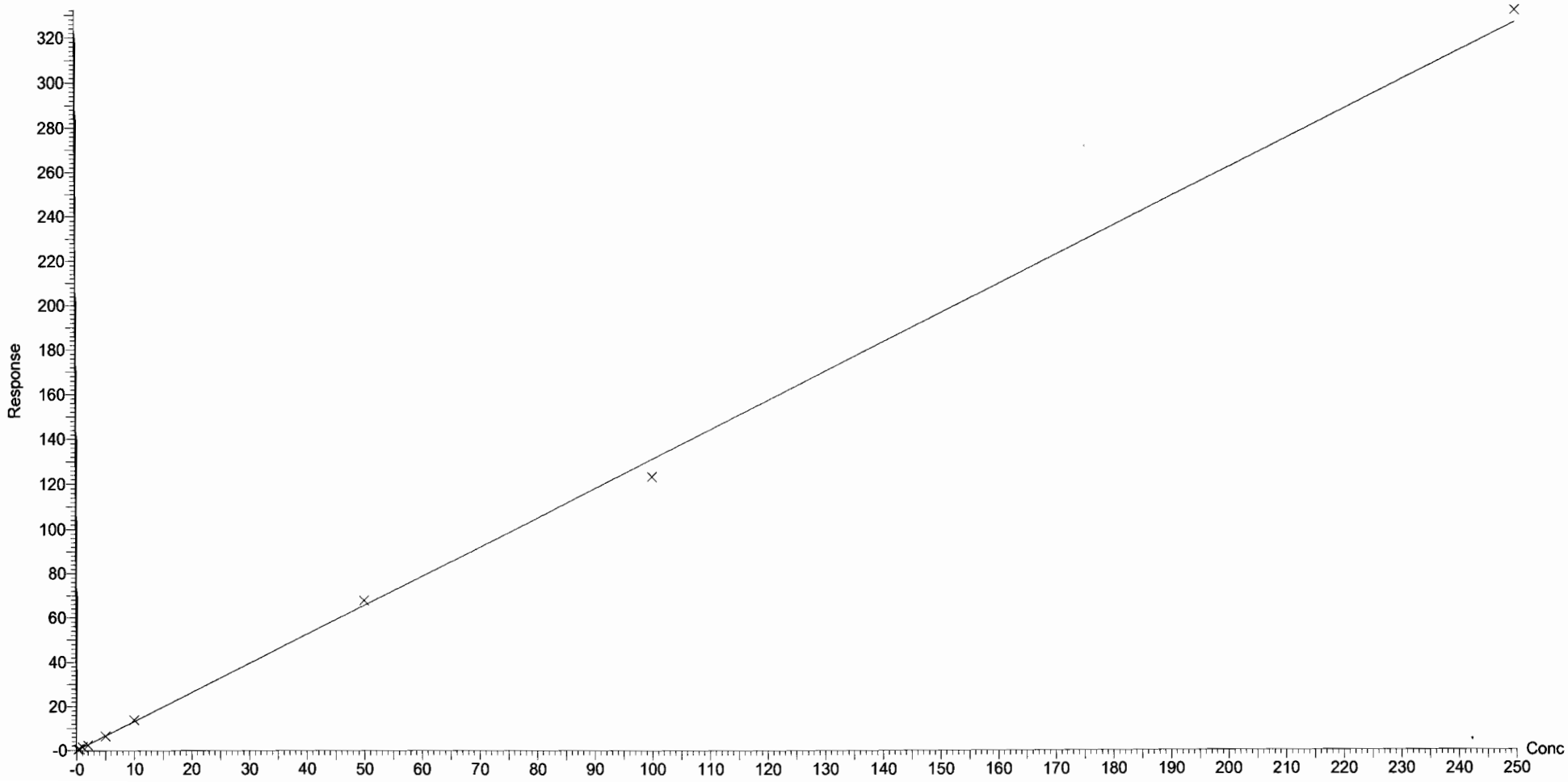
Compound name: PFNA
Coefficient of Determination: R^2 = 0.998092
Calibration curve: 0.000693223 * x^2 + 1.40868 * x + 0.0082777
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

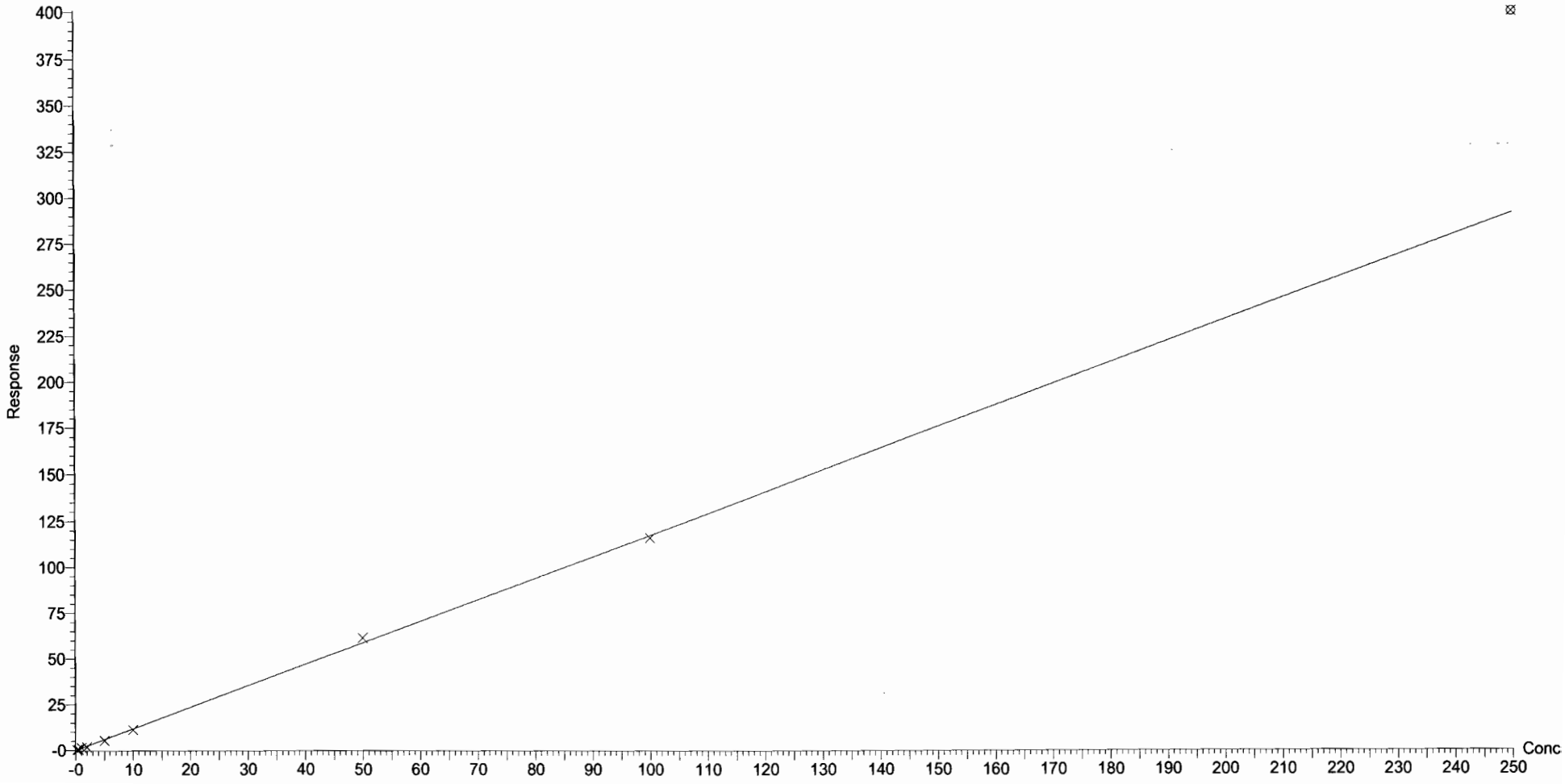
Compound name: PFOSA
Correlation coefficient: r = 0.999329, r^2 = 0.998658
Calibration curve: 1.30775 * x + 0.0347805
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

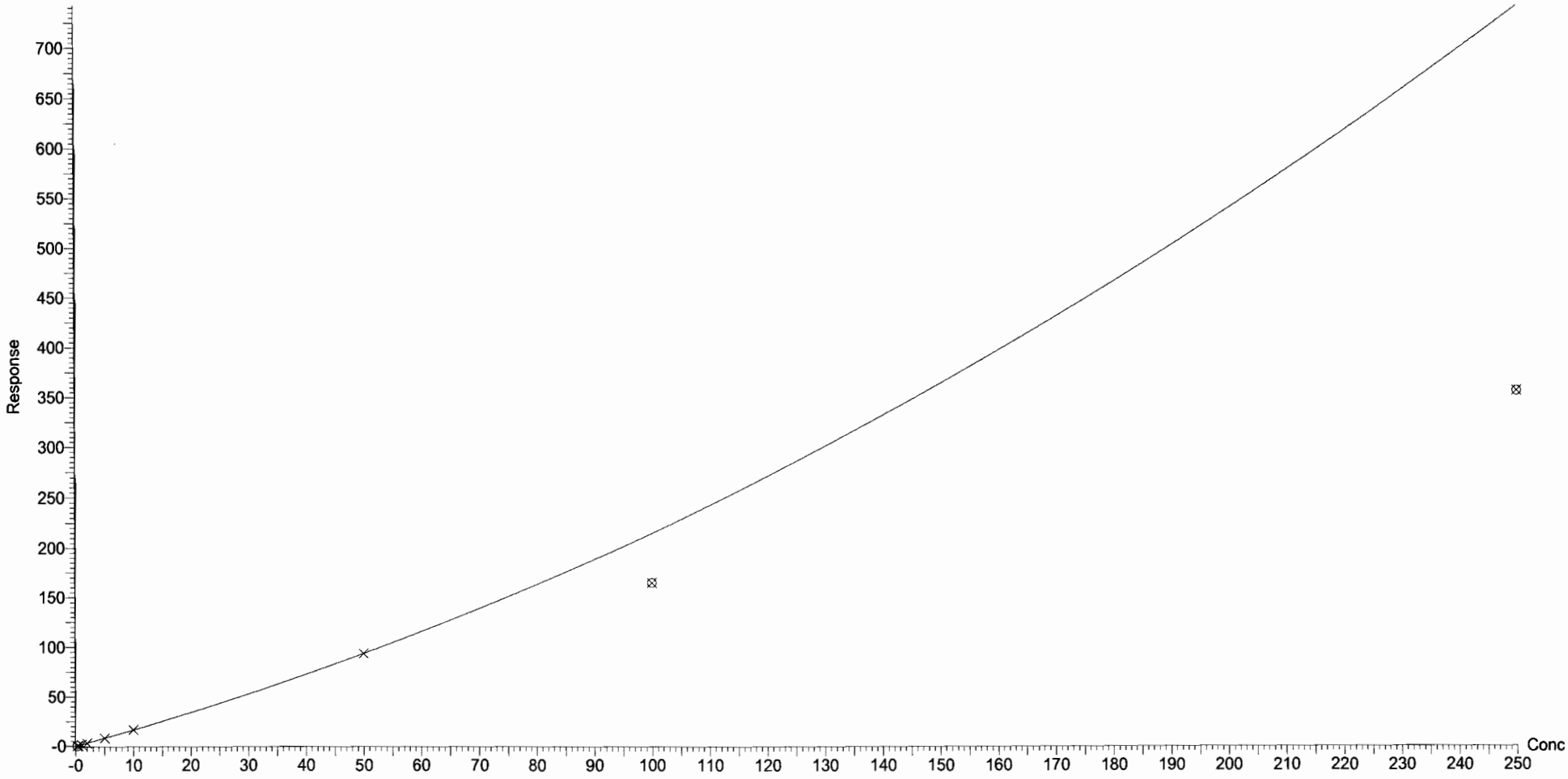
Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.997444
Calibration curve: -3.62431e-005 * x^2 + 1.17583 * x + 0.0311451
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

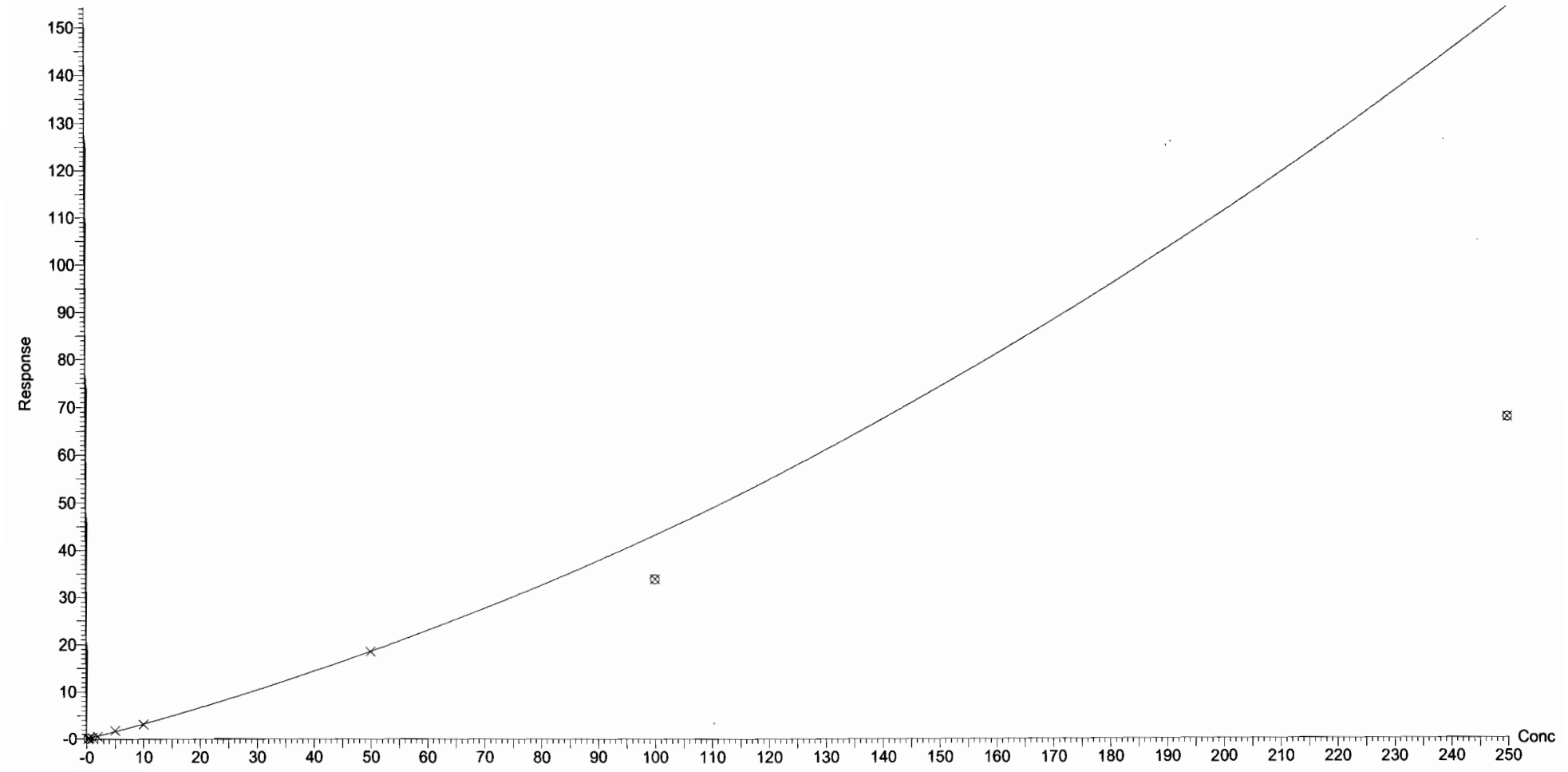
Compound name: PFDA
Coefficient of Determination: R^2 = 0.999932
Calibration curve: 0.00546964 * x^2 + 1.60165 * x + -0.235203
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

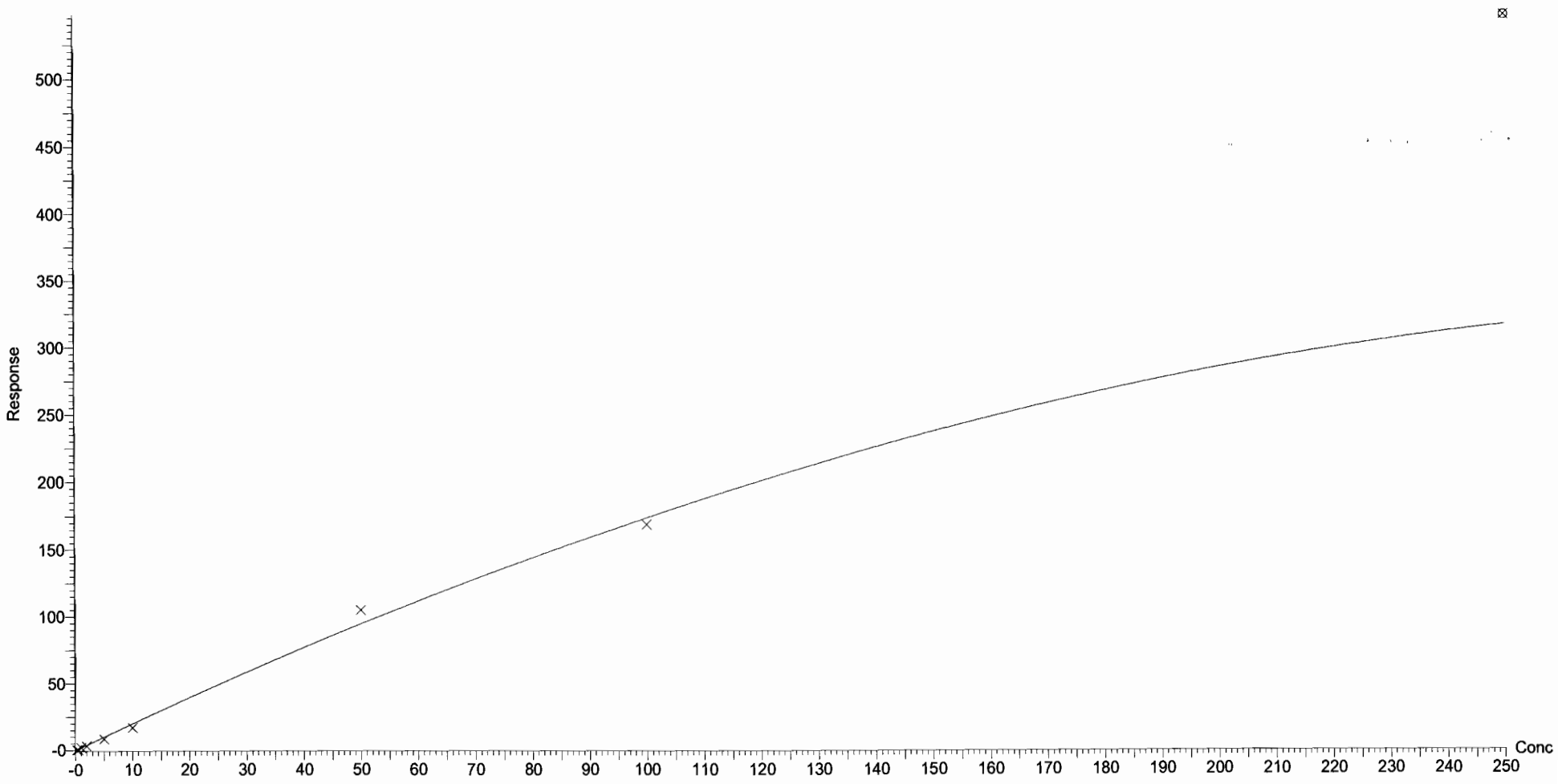
Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997732
Calibration curve: 0.00123859 * x^2 + 0.307368 * x + -0.0309813
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

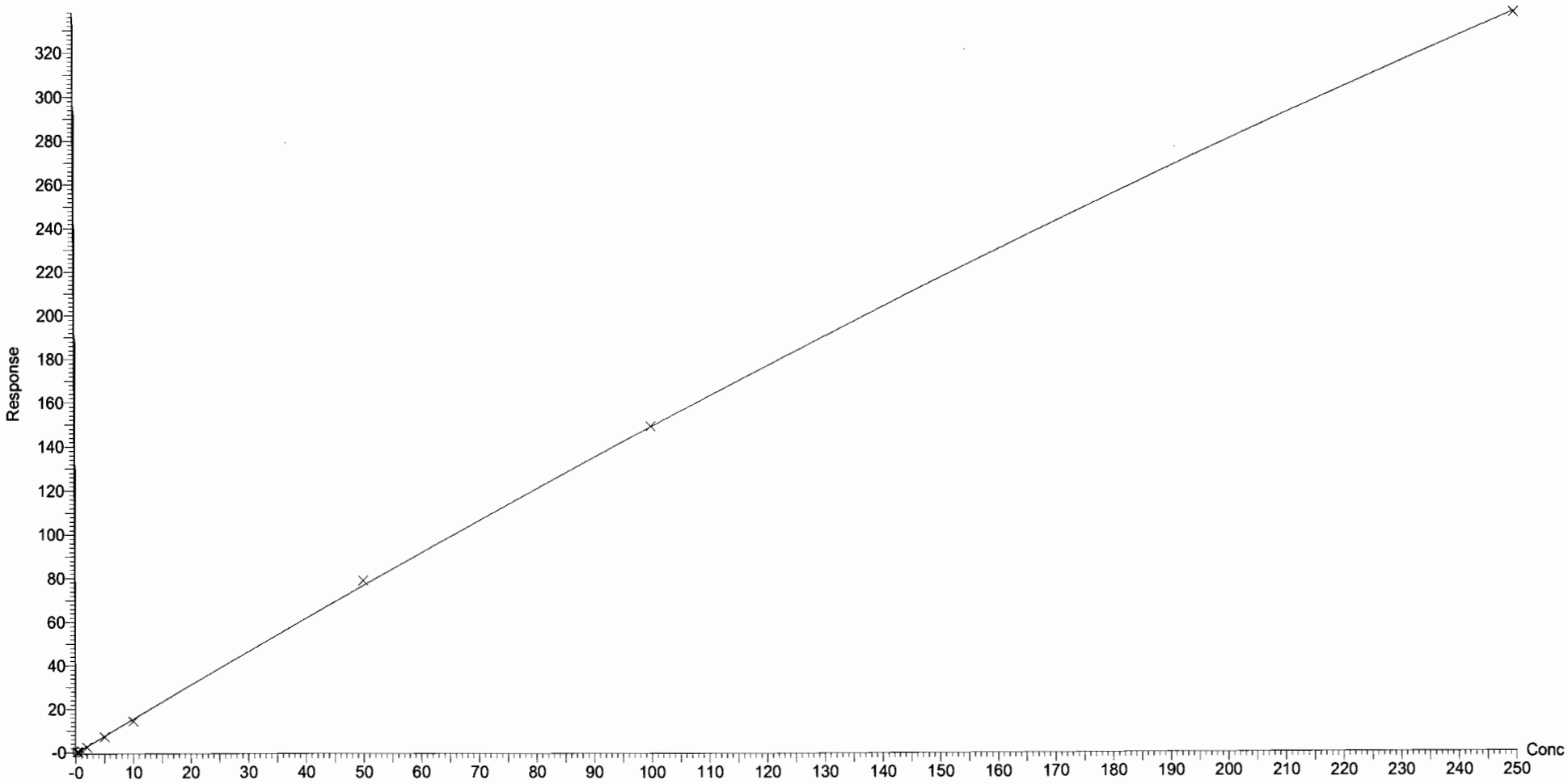
Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.991446
Calibration curve: -0.00315911 * x^2 + 2.0555 * x + -0.320574
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999097
Calibration curve: -0.000915461 * x^2 + 1.58258 * x + -0.401153
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

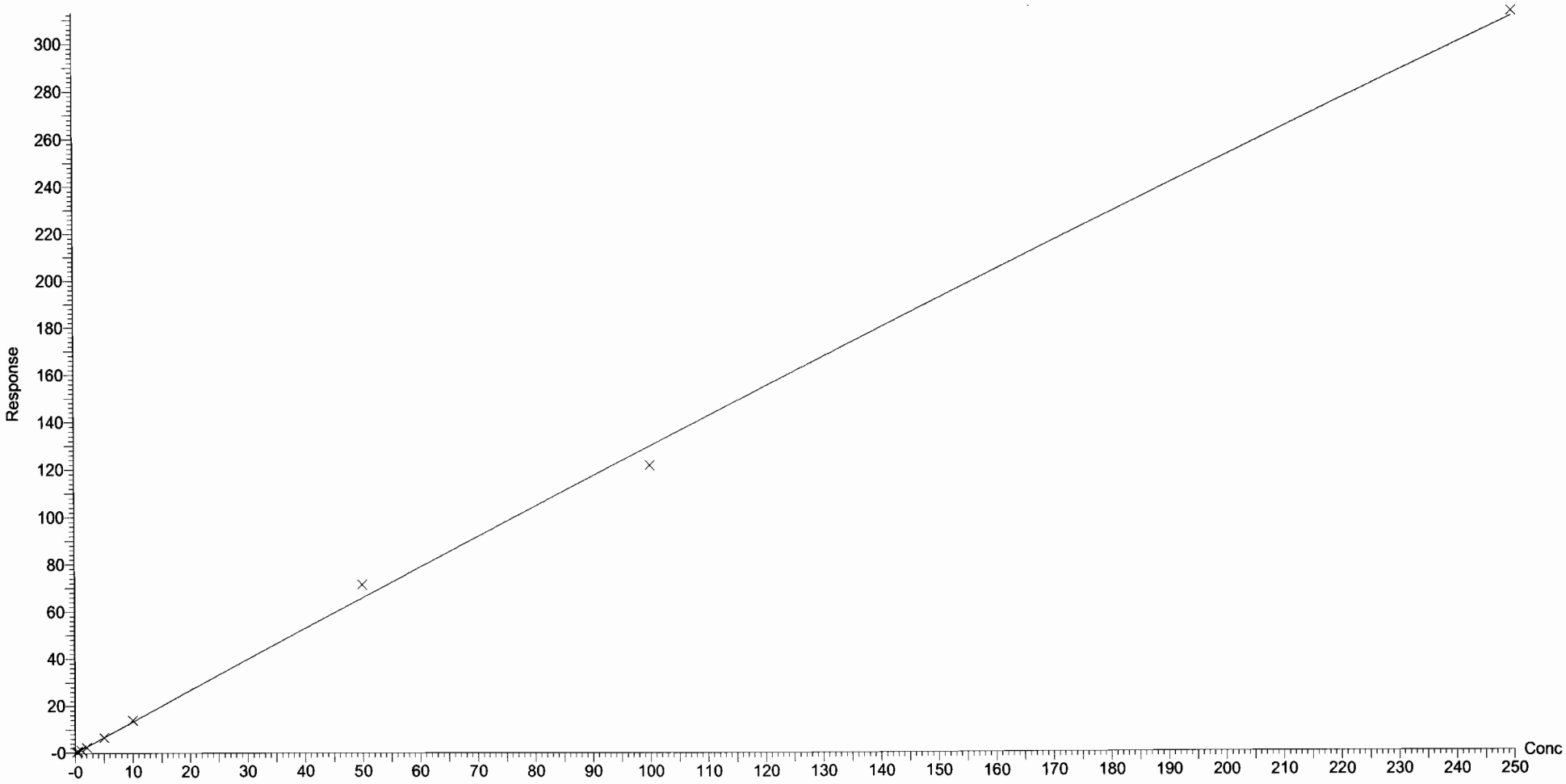


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

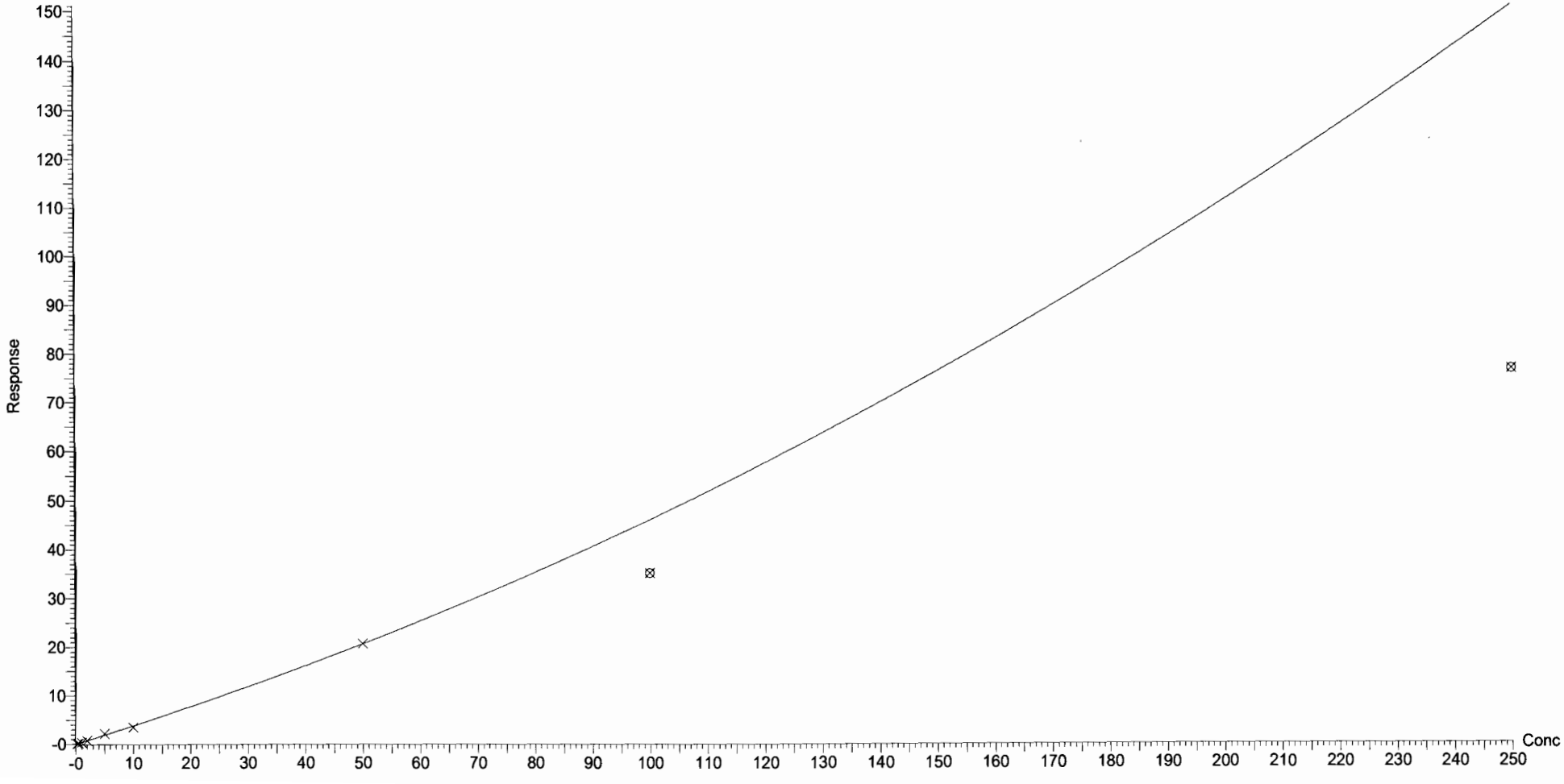
Compound name: PFUdA
Coefficient of Determination: R^2 = 0.997858
Calibration curve: -0.000355567 * x^2 + 1.33241 * x + -0.0949136
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

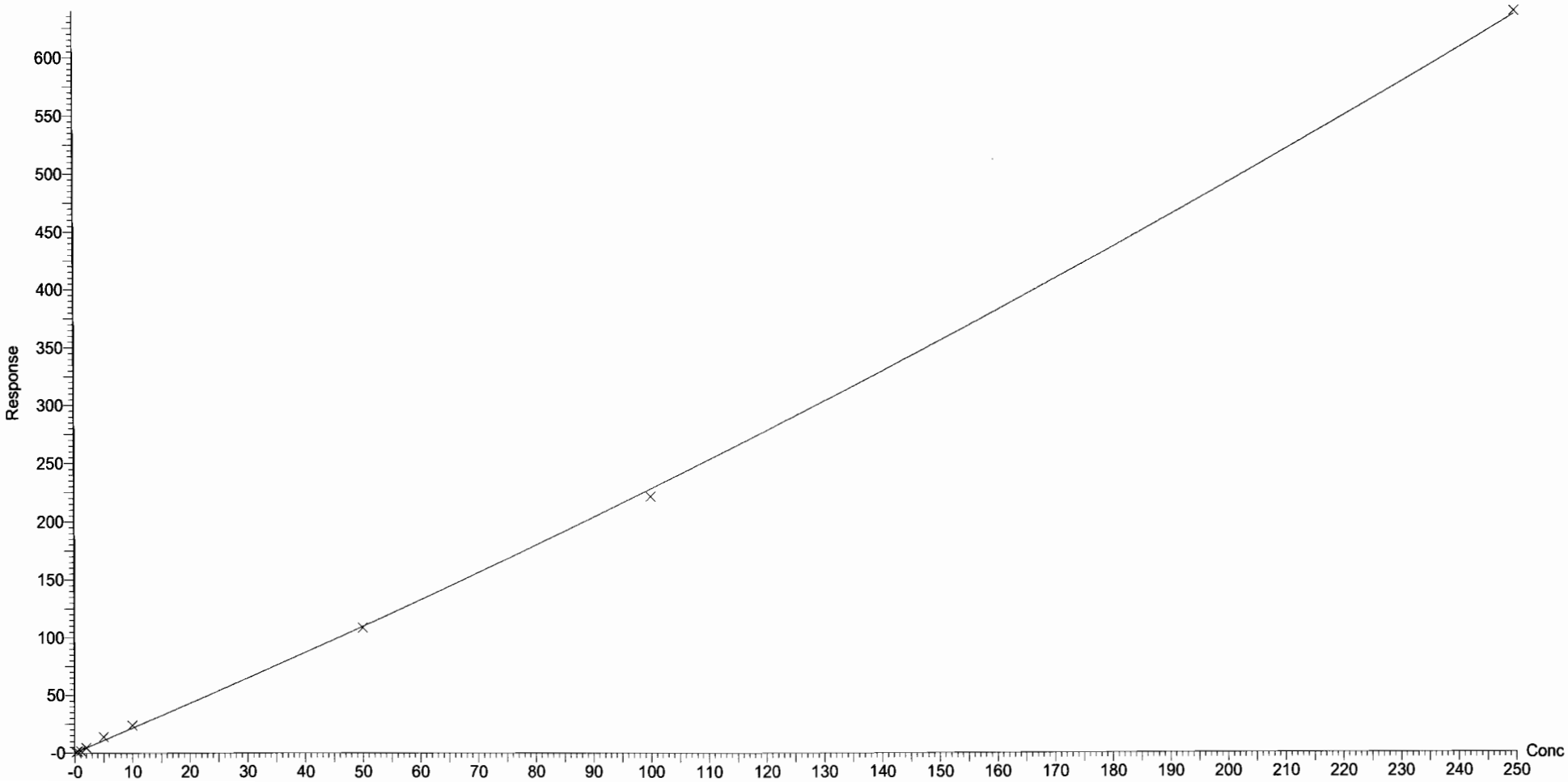
Compound name: PFDS
Coefficient of Determination: R^2 = 0.997344
Calibration curve: 0.000962848 * x^2 + 0.363602 * x + -0.00209133
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

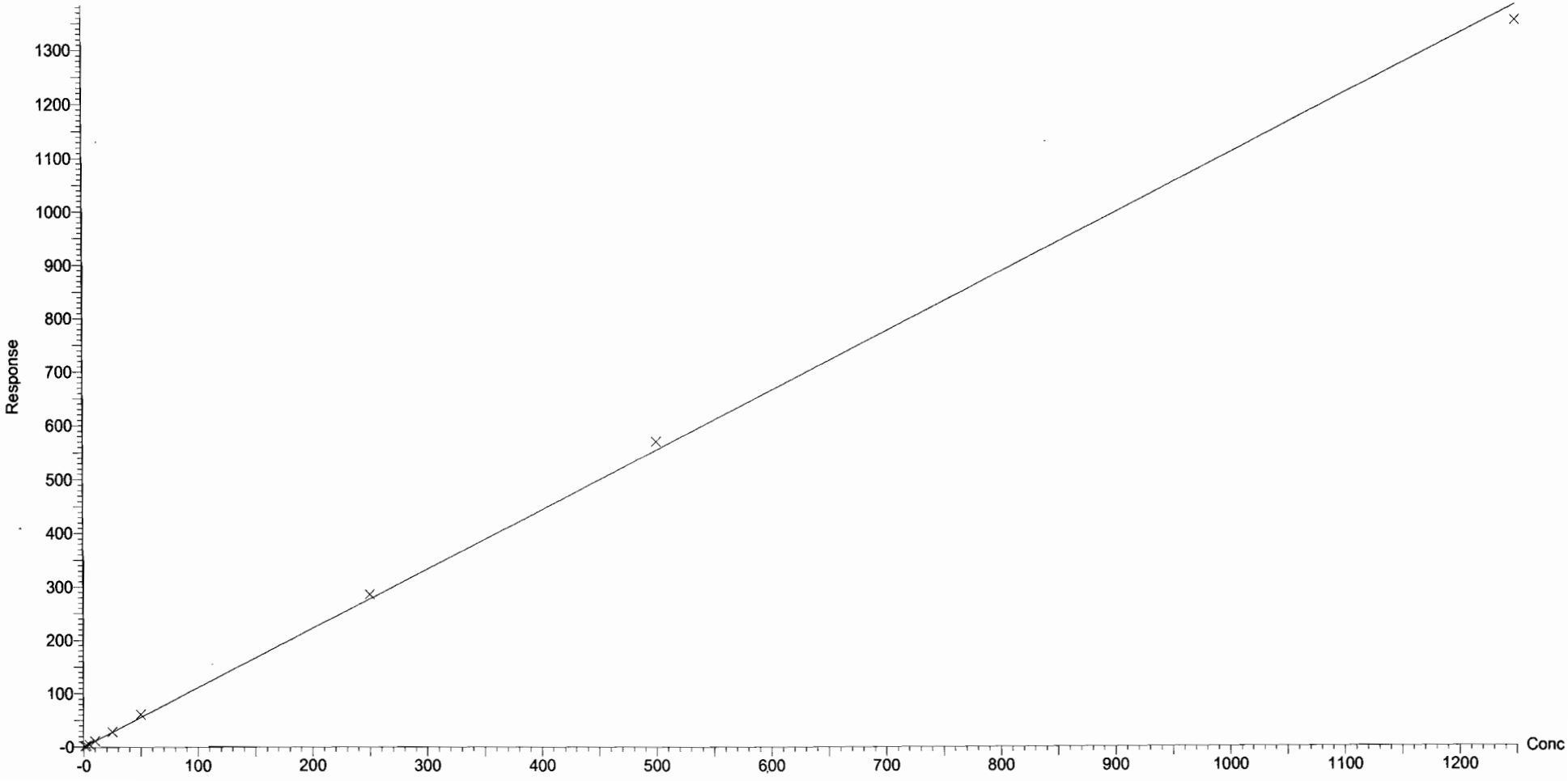
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998683
Calibration curve: 0.00180407 * x^2 + 2.09493 * x + 0.150658
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

Compound name: N-MeFOSA
Correlation coefficient: r = 0.999537, r^2 = 0.999075
Calibration curve: 1.10666 * x + -0.170034
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\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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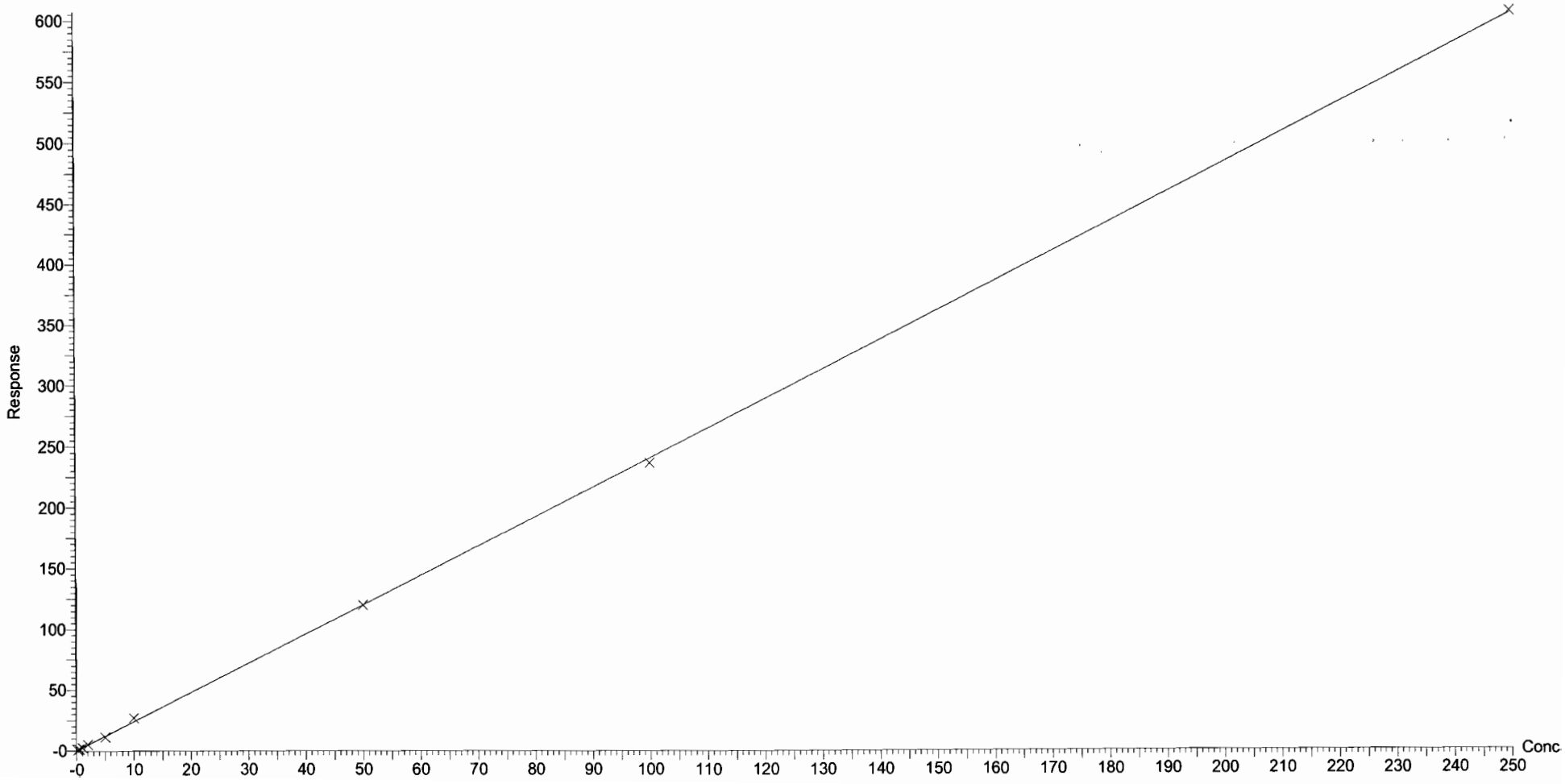
Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999460
Calibration curve: 0.000122781 * x^2 + 2.39065 * x + 0.000840038
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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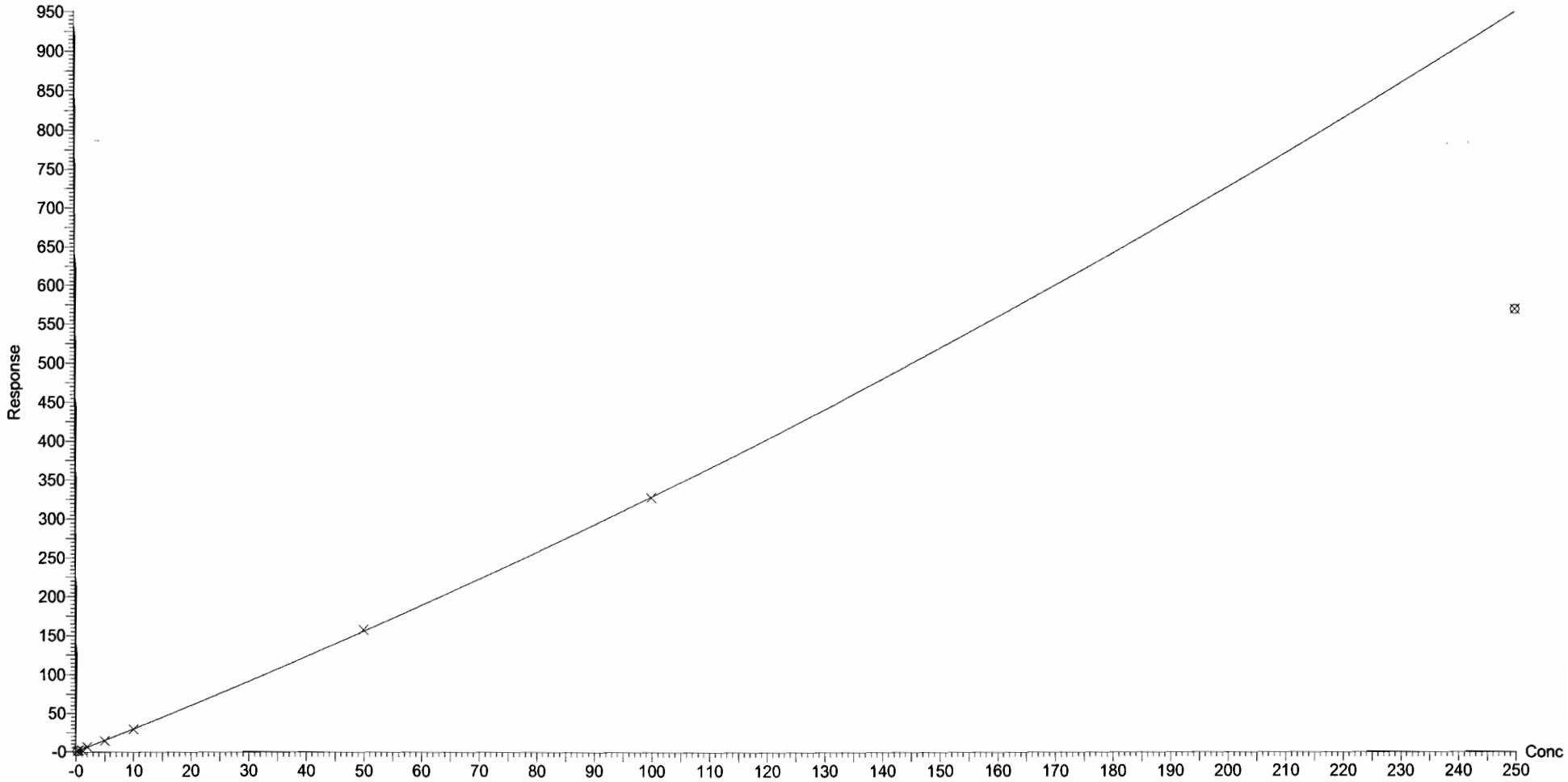
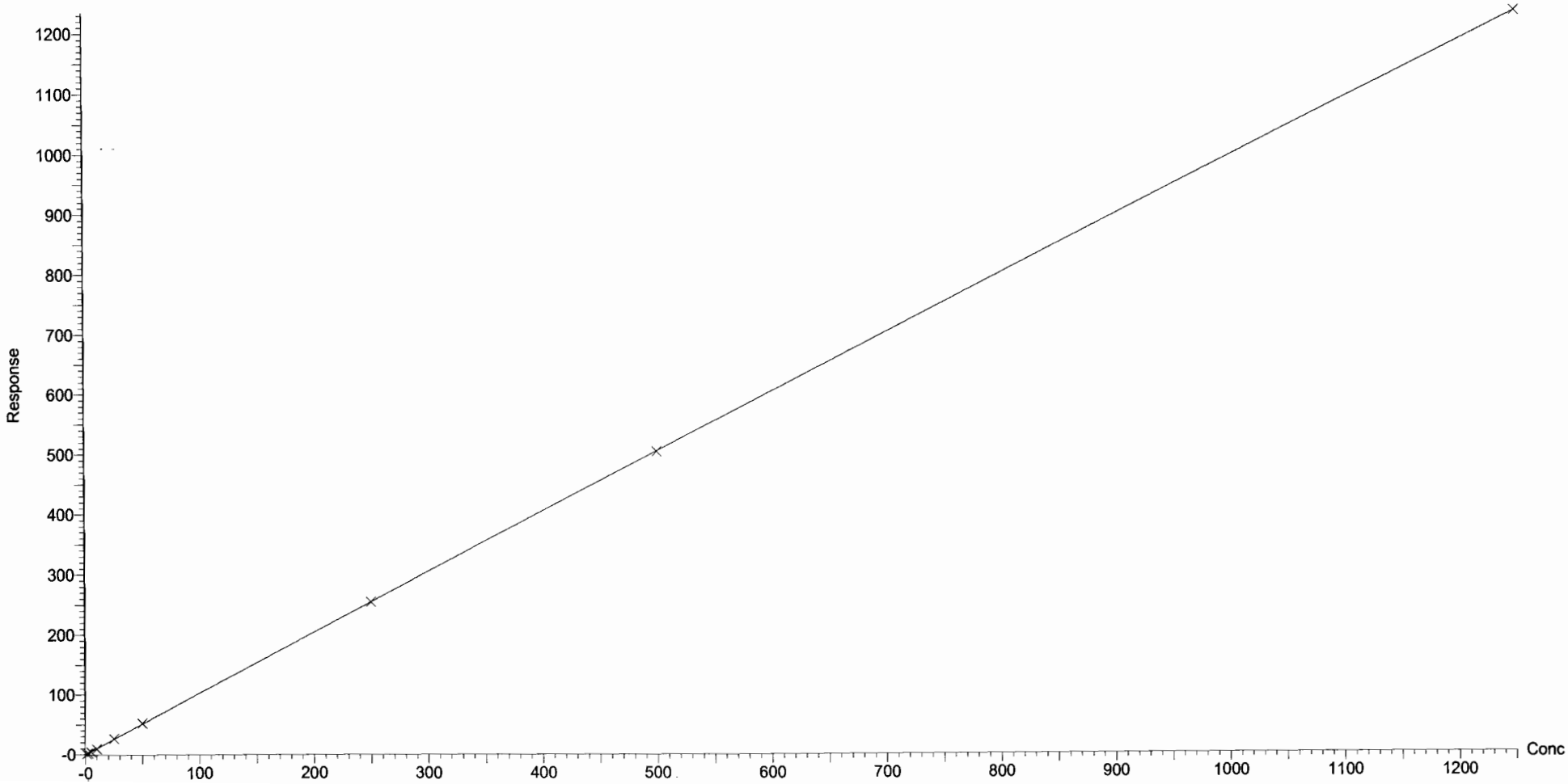
Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.999533
Calibration curve: 0.00349062 * x^2 + 2.93229 * x + -0.154941
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

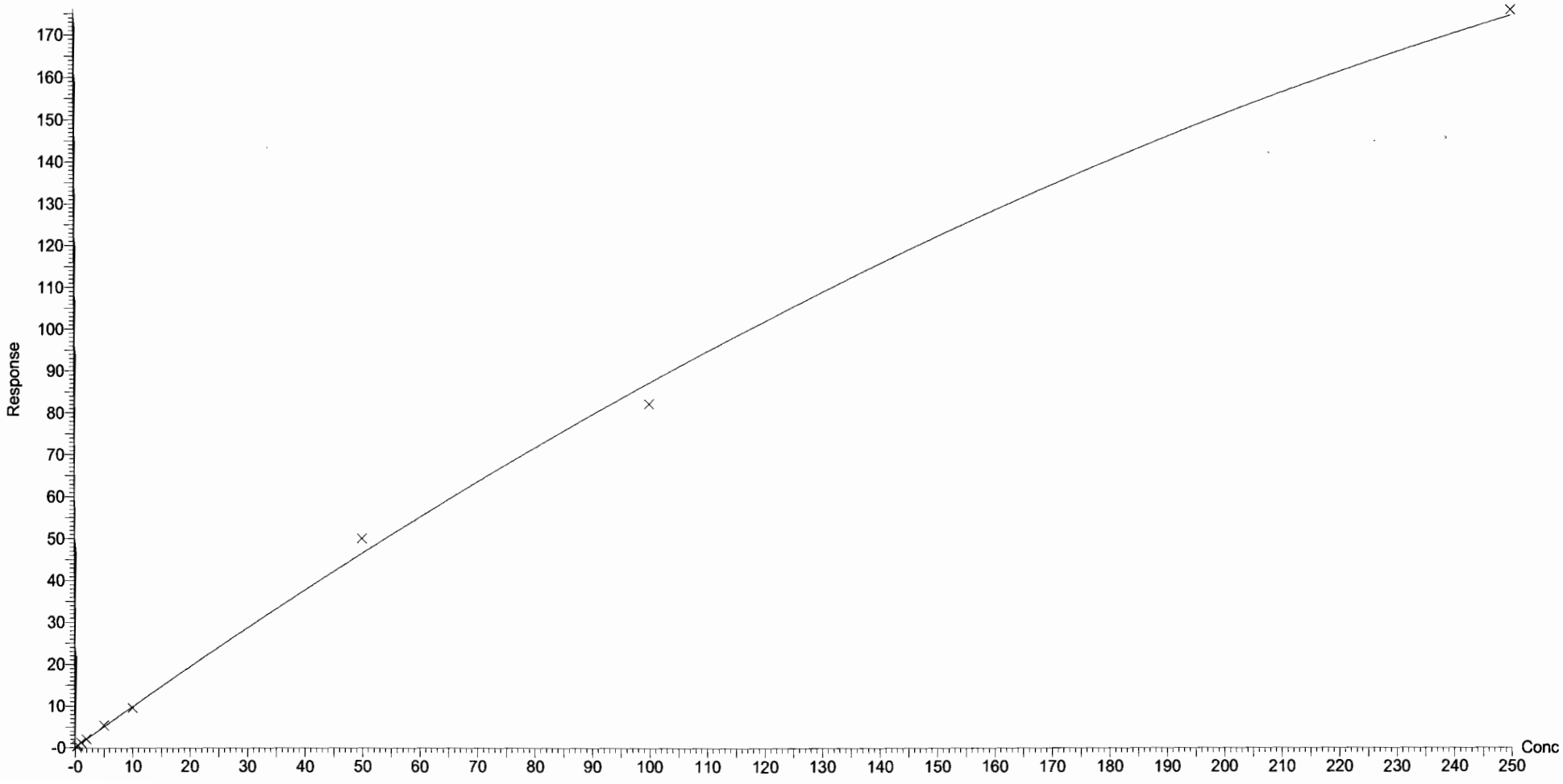
Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999897
Calibration curve: -3.00904e-005 * x^2 + 1.02444 * x + -0.199244
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.997686
Calibration curve: -0.00114258 * x^2 + 0.984182 * x + 0.0683094
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\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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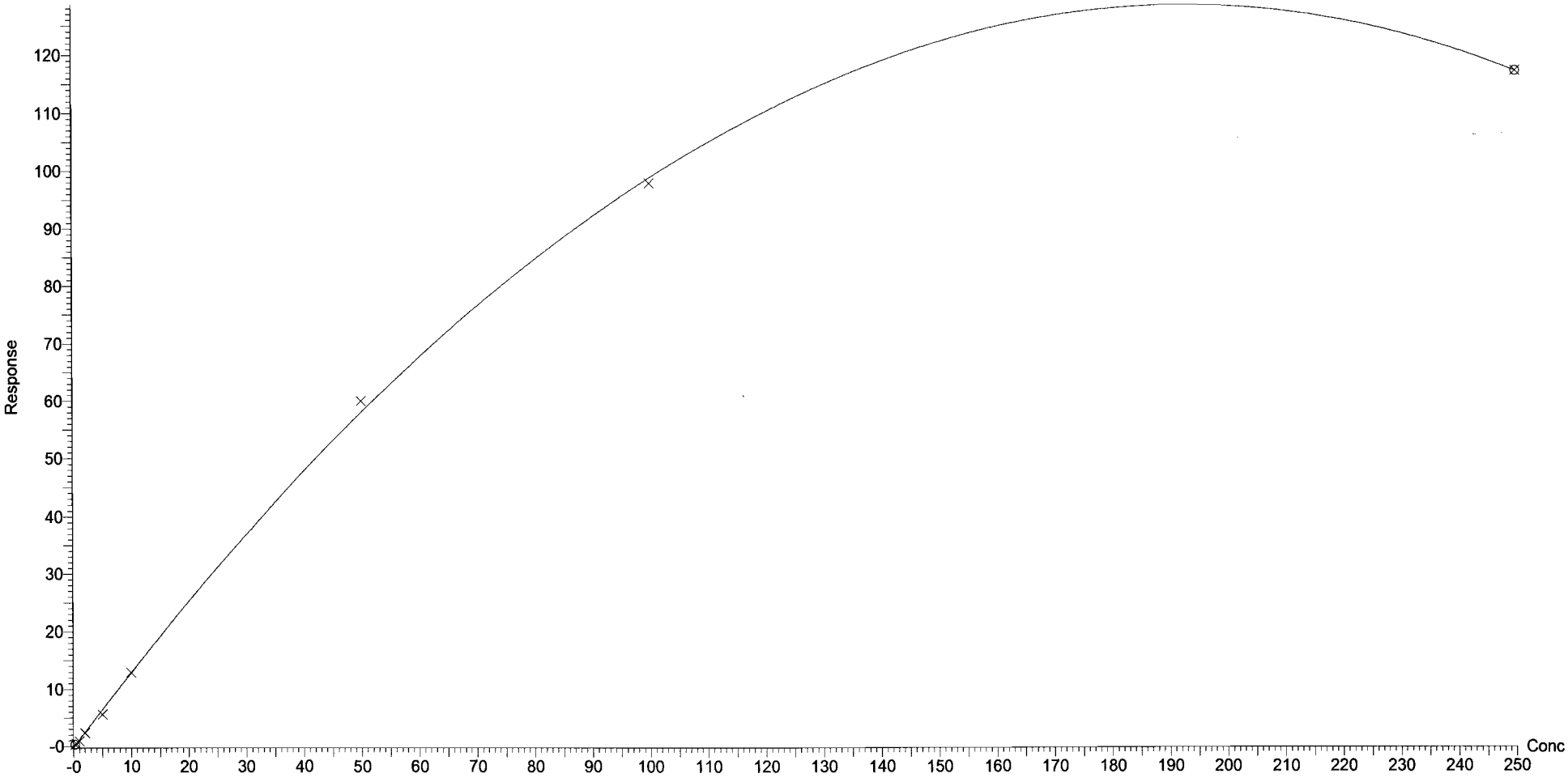
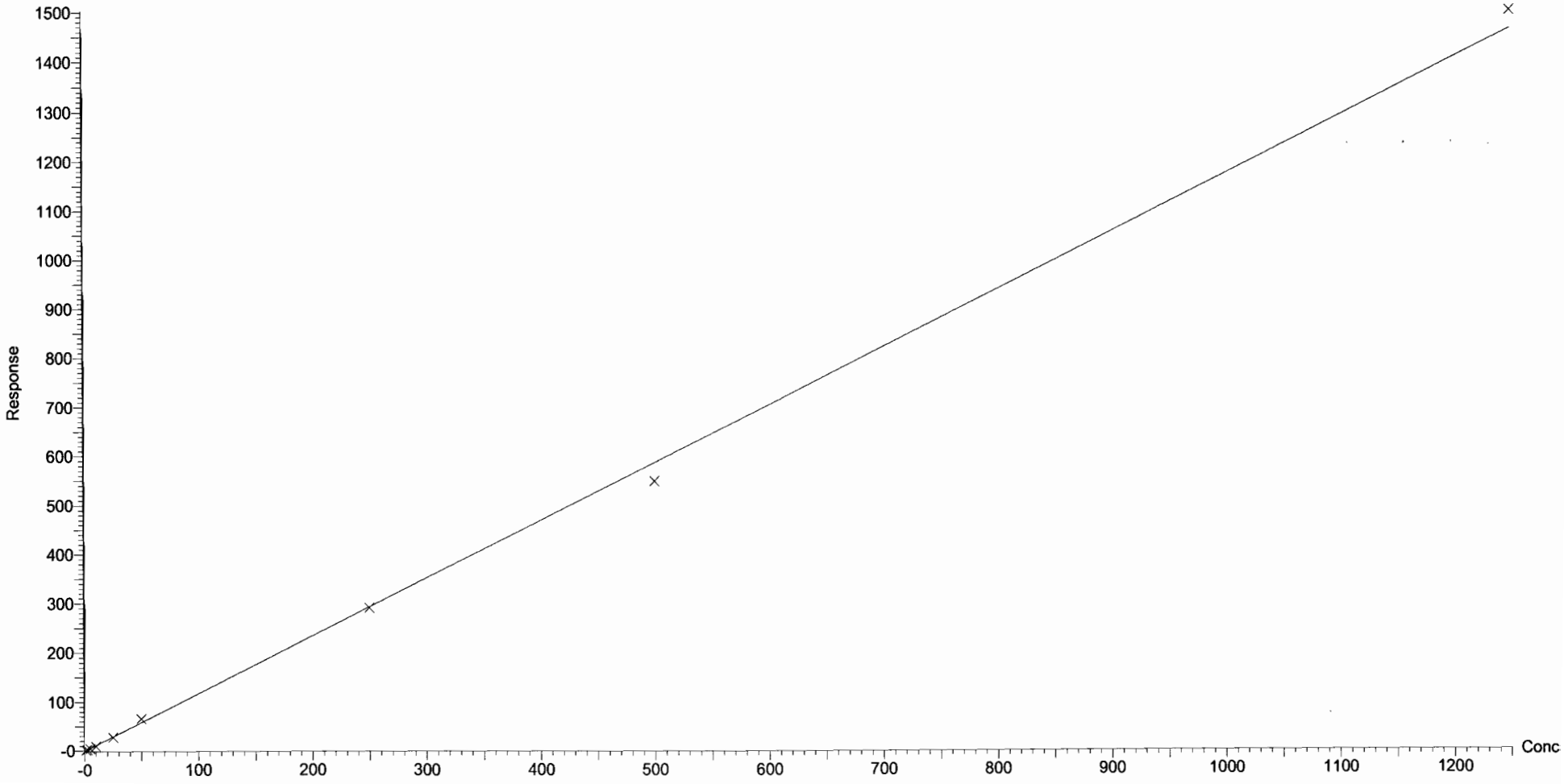
Compound name: PFODA
Coefficient of Determination: R^2 = 0.997999
Calibration curve: -0.00347318 * x^2 + 1.33796 * x + -0.219409
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

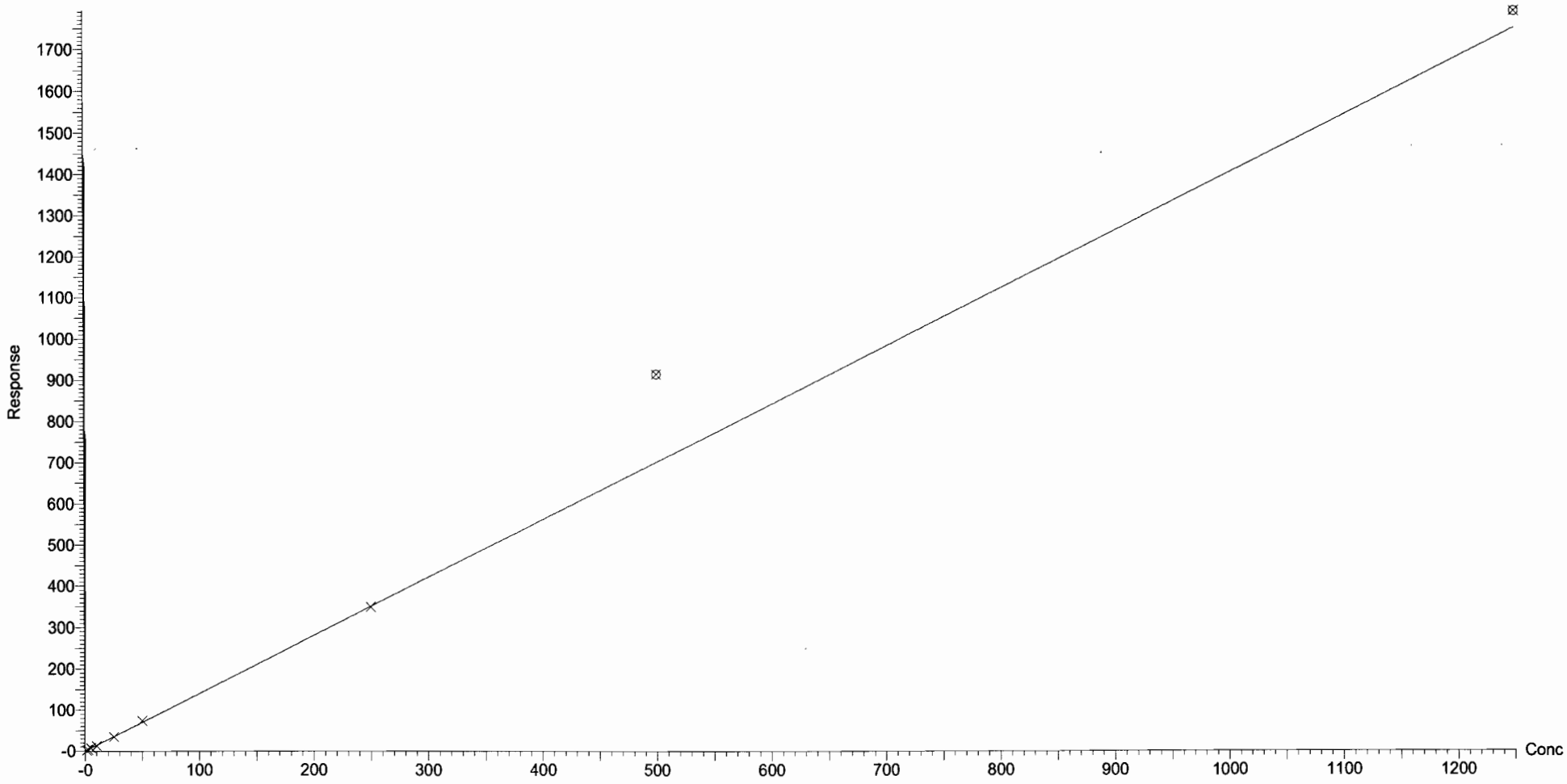
Compound name: N-MeFOSE
Correlation coefficient: r = 0.998982, r^2 = 0.997965
Calibration curve: 1.173 * x + -0.745383
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

Compound name: N-EtFOSE
Correlation coefficient: r = 0.999540, r^2 = 0.999080
Calibration curve: 1.40177 * x + -0.207477
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

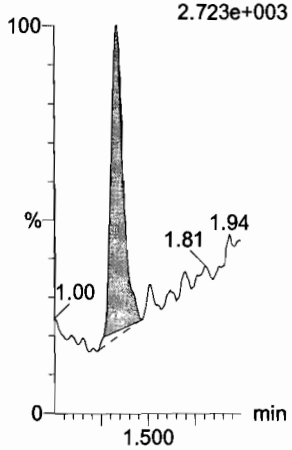
Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

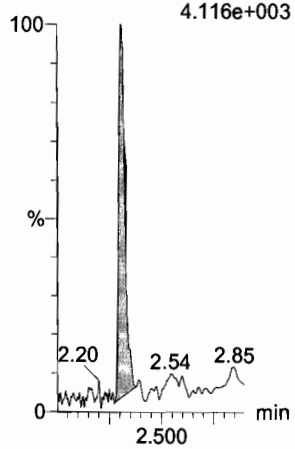
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818.mdb 09 Jan 2018 10:39:49
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

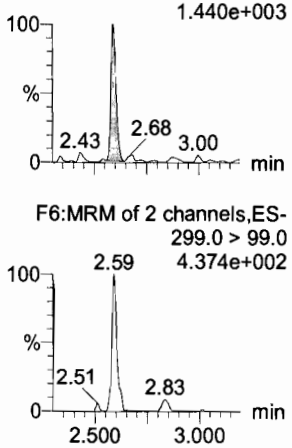
PFBA



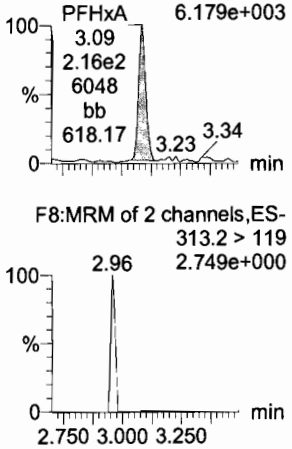
PFPeA



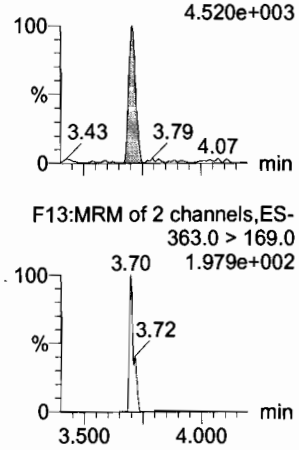
PFBS



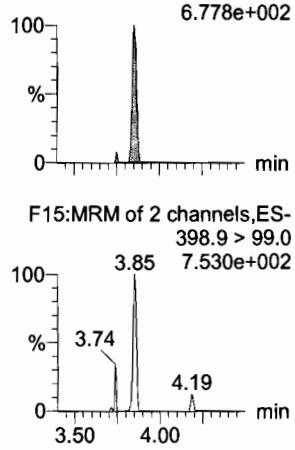
PFHxA



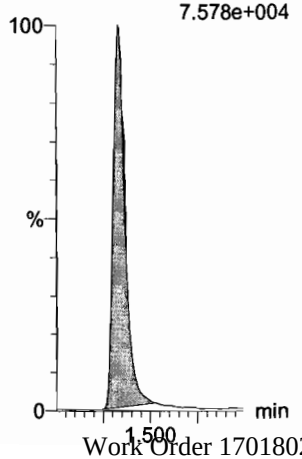
PFHpA



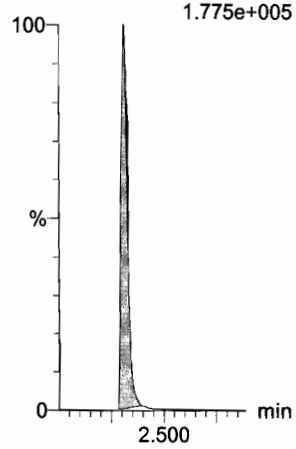
L-PFHxS



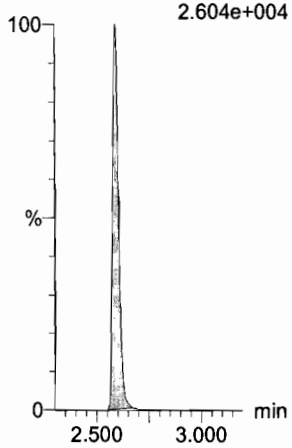
13C3-PFBA



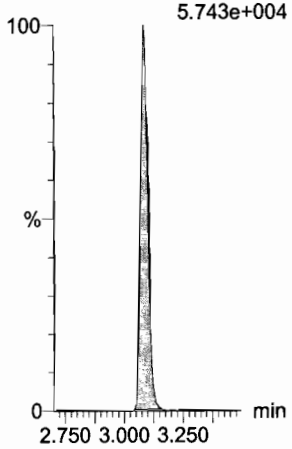
13C3-PFPeA



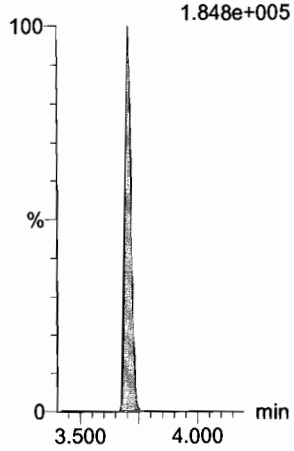
13C3-PFBS



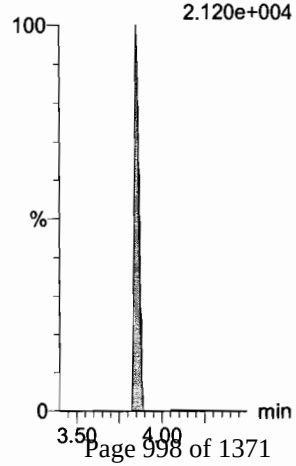
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

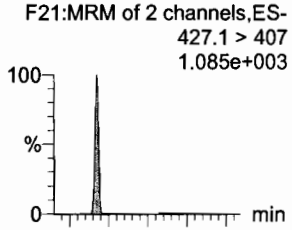


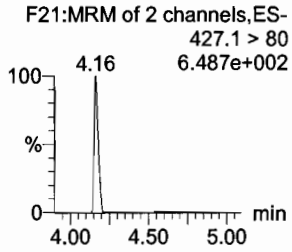
Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

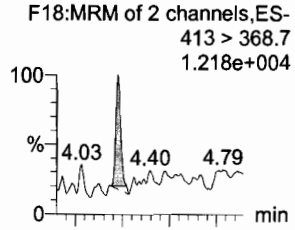
Name: 180110M3_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

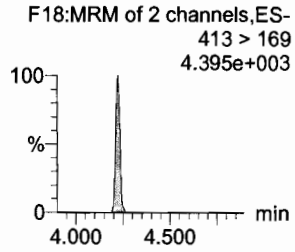
6:2 FTS



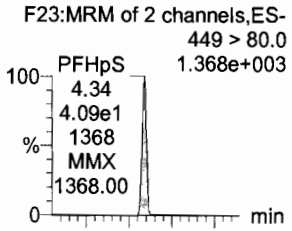


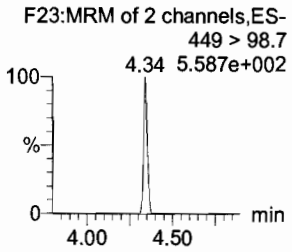
L-PFOA



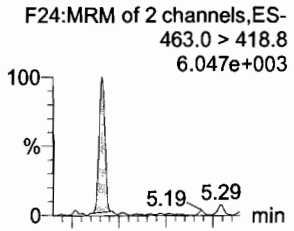


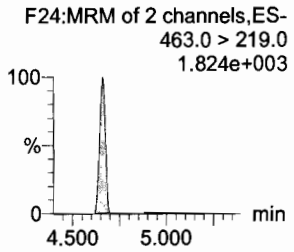
PFHpS



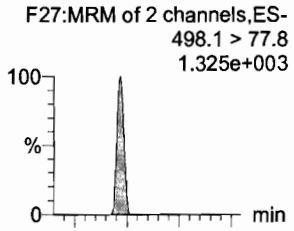


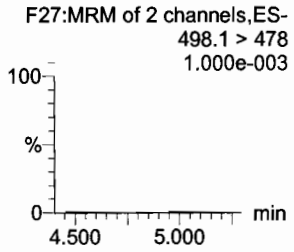
PFNA



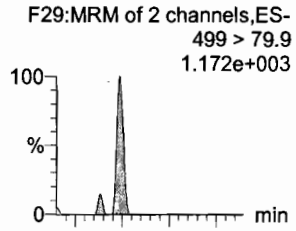


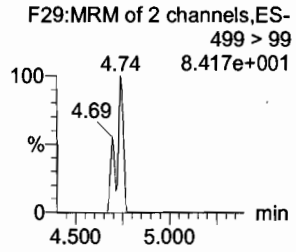
PFOSA



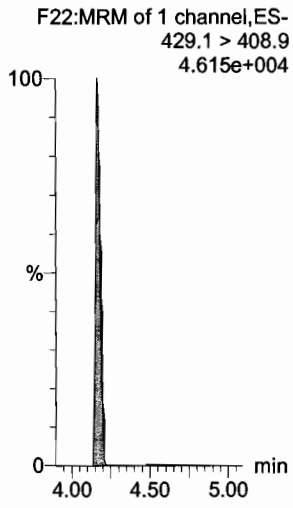


L-PFOS

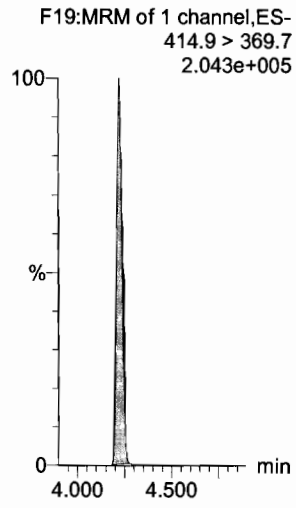




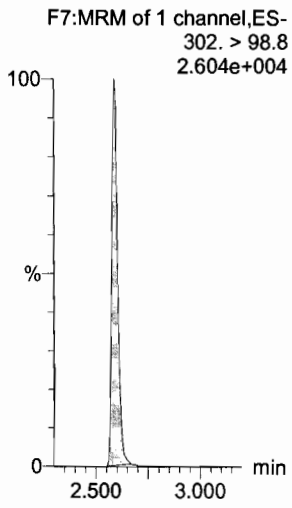
13C2-6:2 FTS



13C2-PFOA



13C3-PFBS



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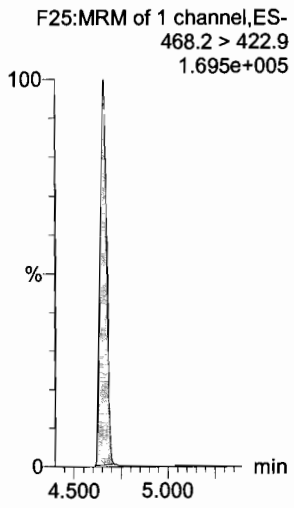
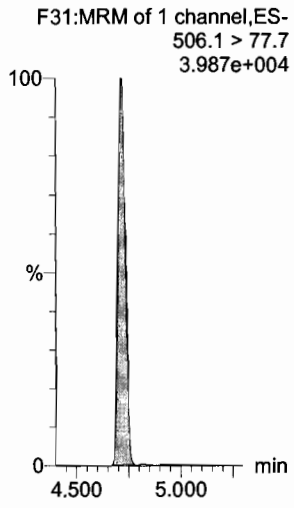


13C8-PFOSA



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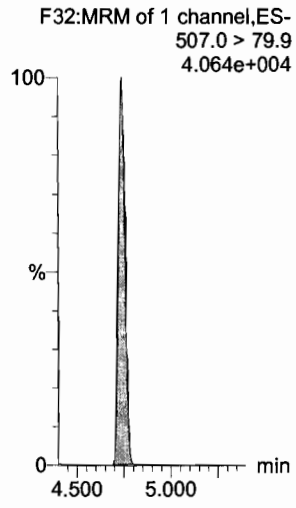

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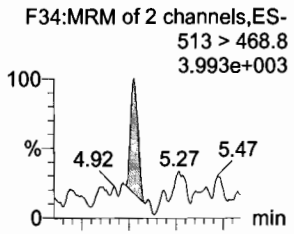
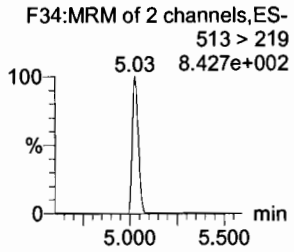
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

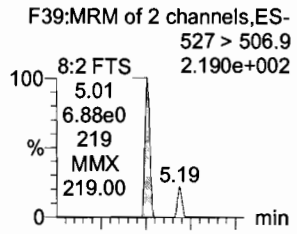
Name: 180110M3_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

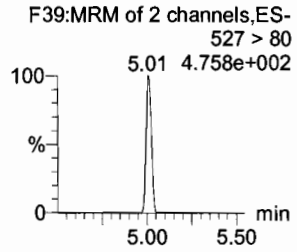
PFDA



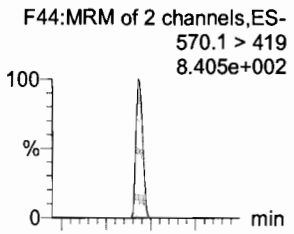


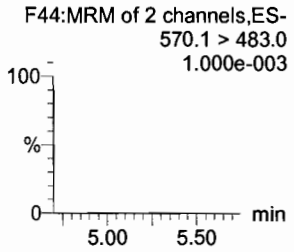
8:2 FTS



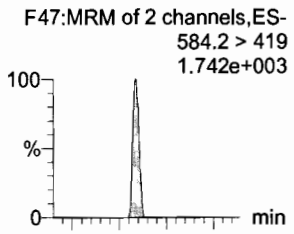


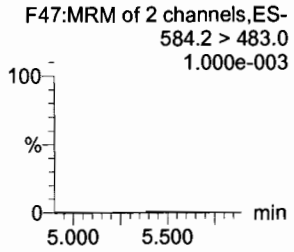
N-MeFOSAA



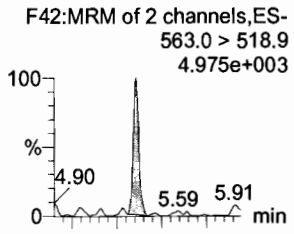


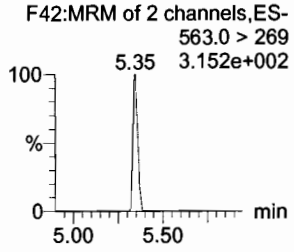
N-EtFOSAA



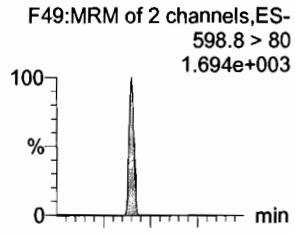


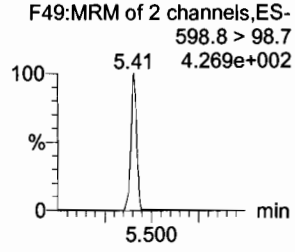
PFUdA



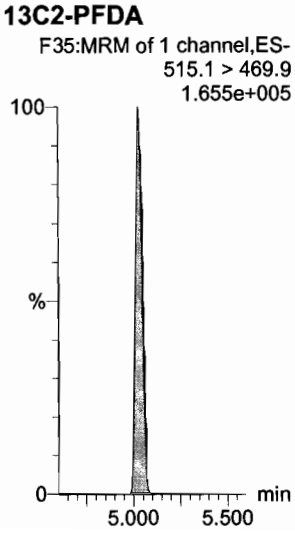


PFDS

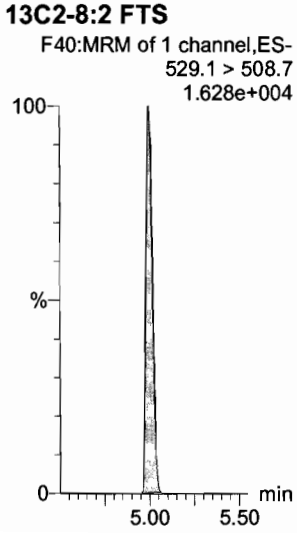




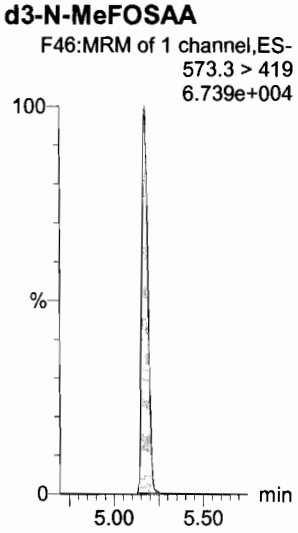
13C2-PFDA



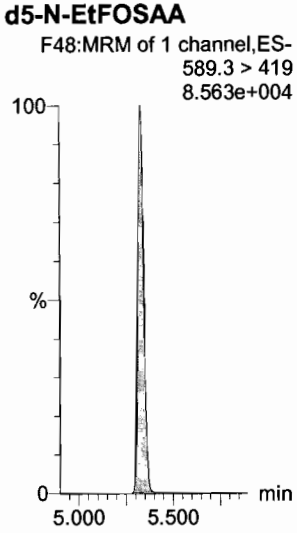
13C2-8:2 FTS



d3-N-MeFOSAA



d5-N-EtFOSAA



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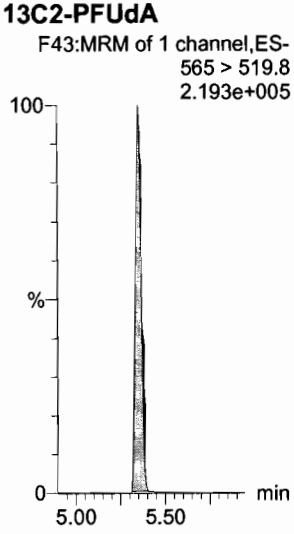

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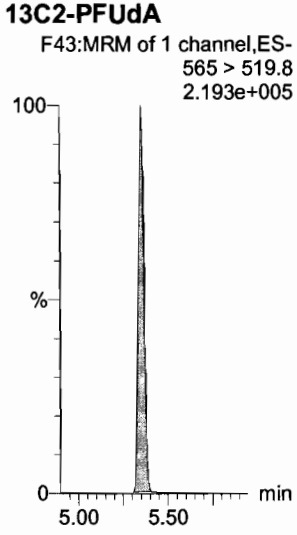

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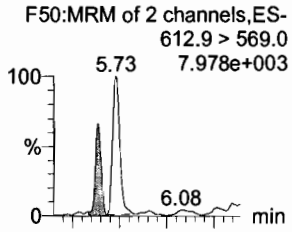
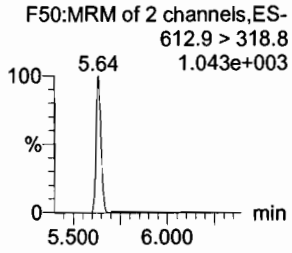
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

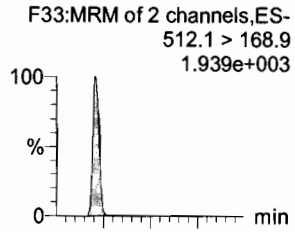
Name: 180110M3_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

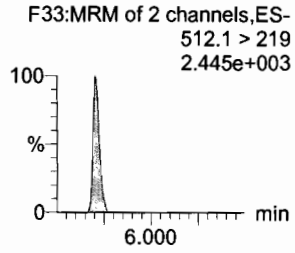
PFDoA





N-MeFOSA





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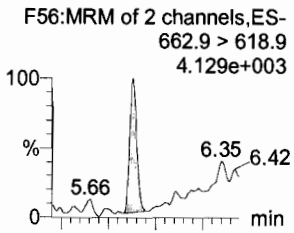
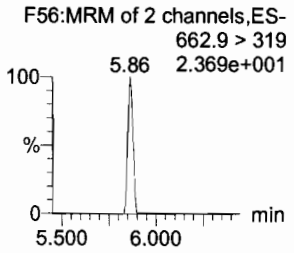
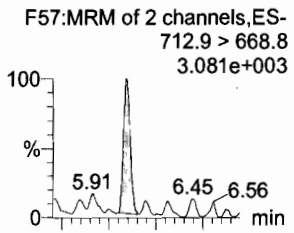
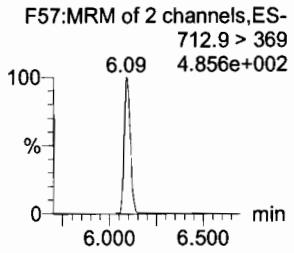




PFTeDA





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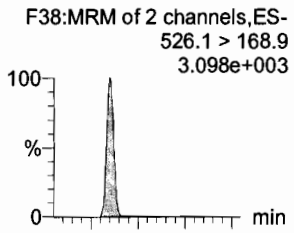
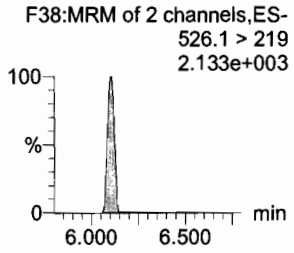
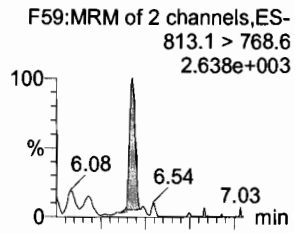
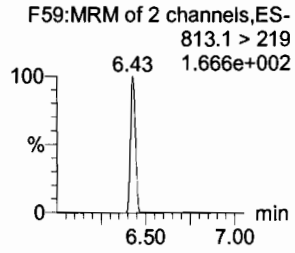




PFHxDA





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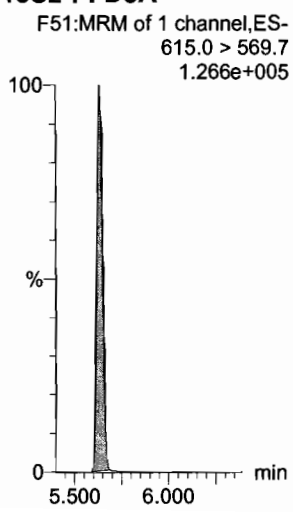
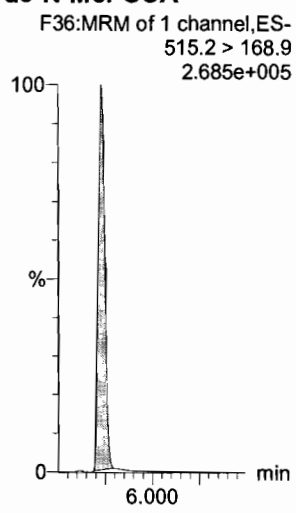


d3-N-MeFOSA



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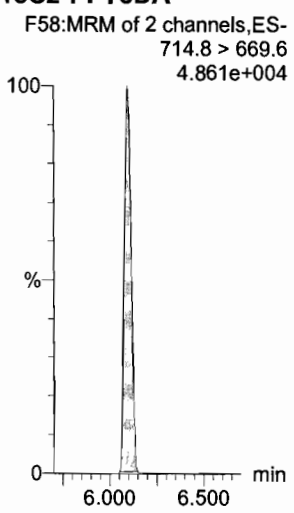

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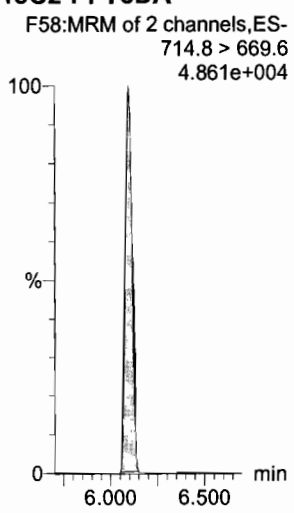

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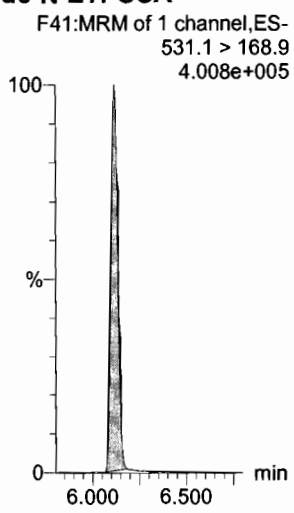

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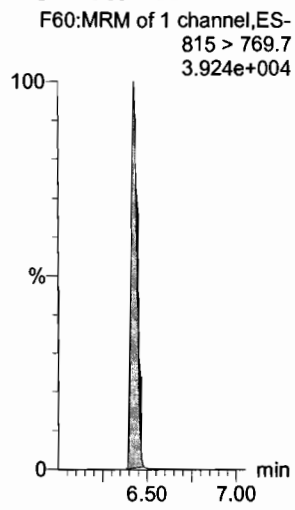

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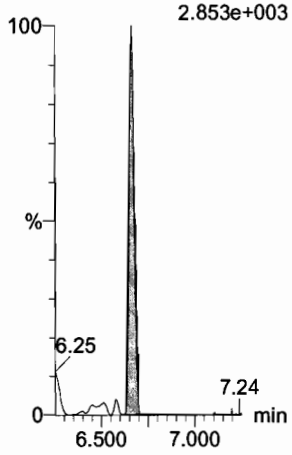
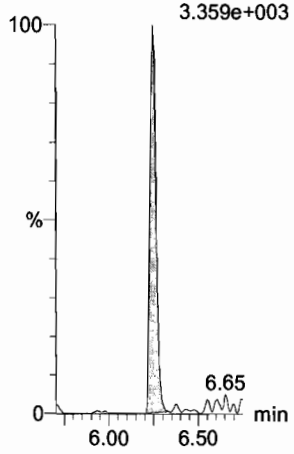
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

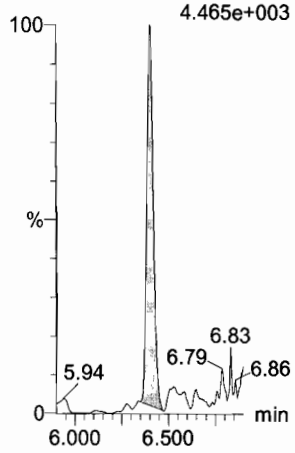
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.853e+003



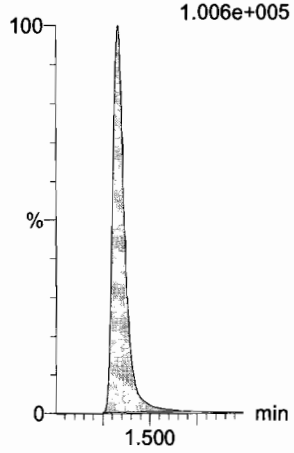
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.359e+003



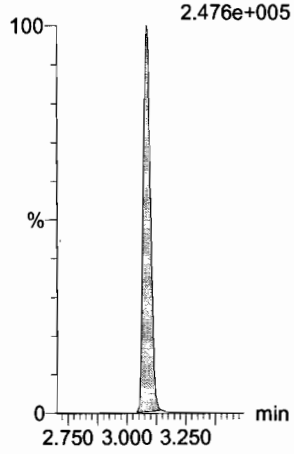
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
4.465e+003



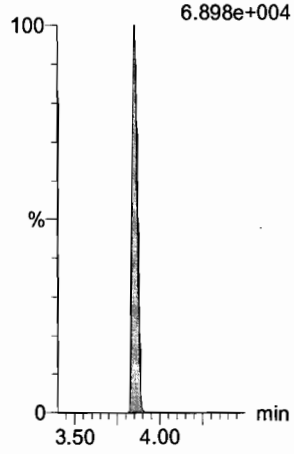
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.006e+005



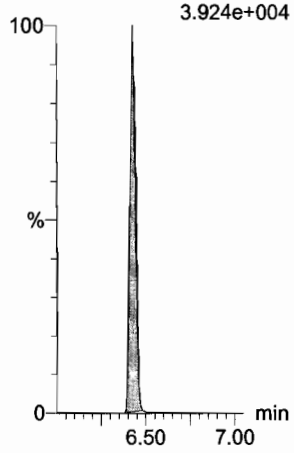
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
2.476e+005



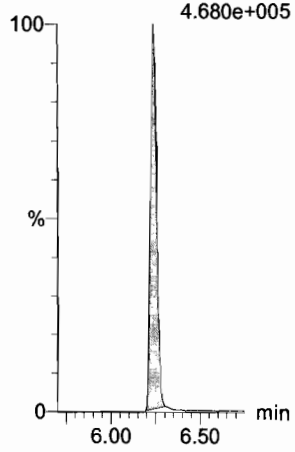
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
6.898e+004



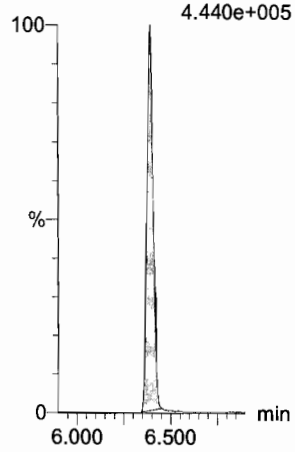
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
3.924e+004



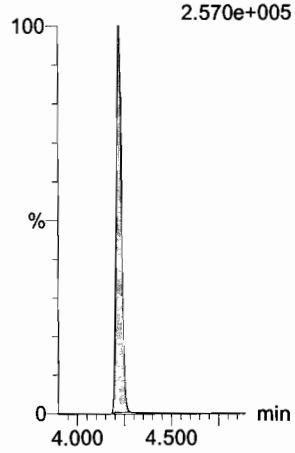
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.680e+005



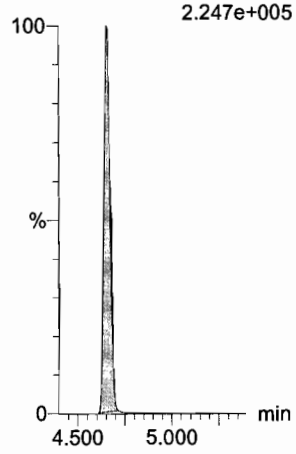
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
4.440e+005



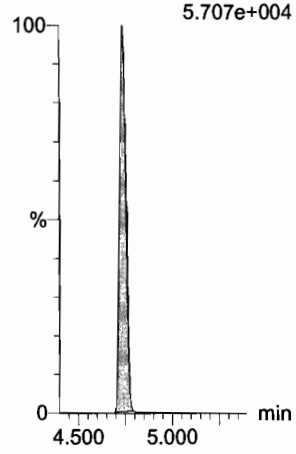
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
2.570e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.247e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
5.707e+004



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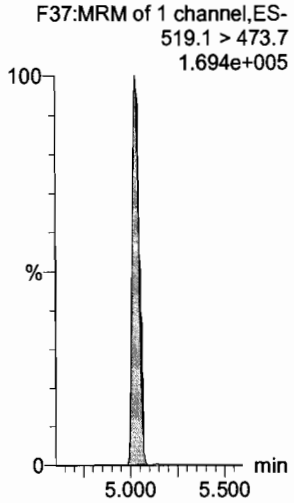
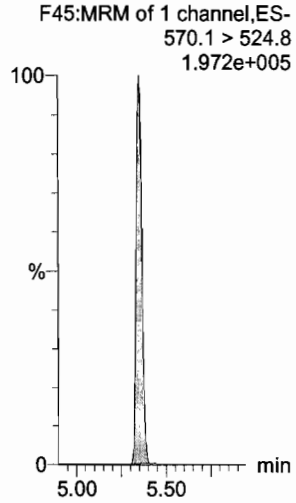
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

13C6-PFDA



13C7-PFUdA



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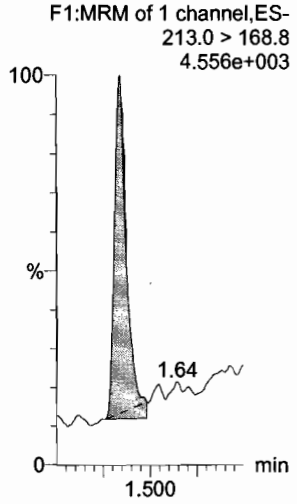
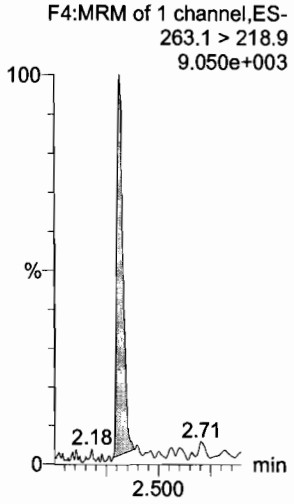
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_3, Date: 11-Jan-2018, Time: 09:45:13, ID: ST180110M3-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

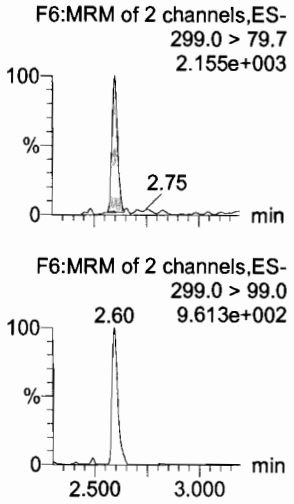
PFBA



PFPeA



PFBS



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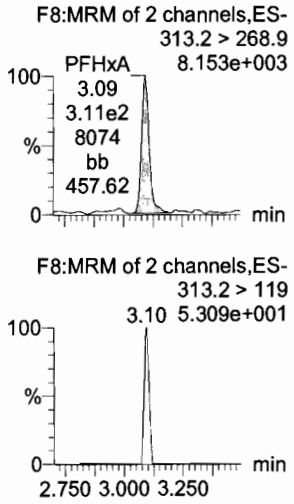
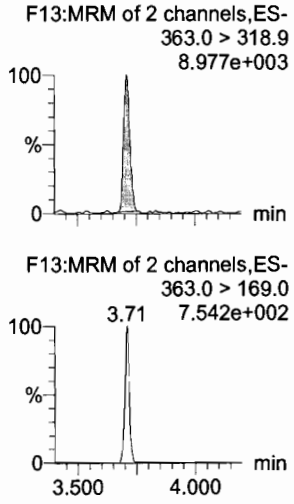
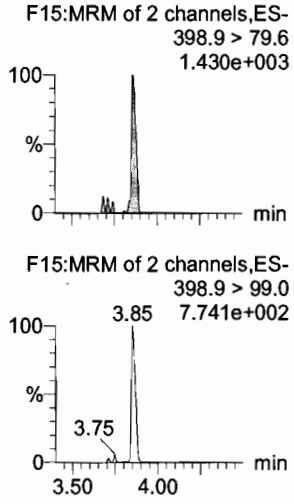


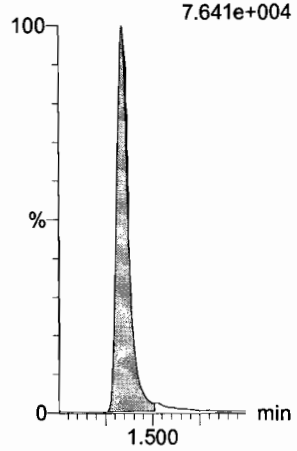
PFHpA



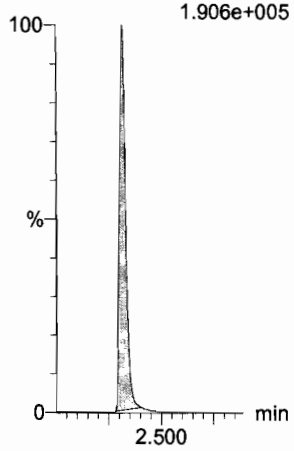
L-PFHxS



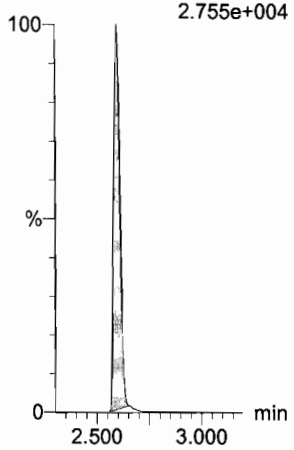
13C3-PFBA



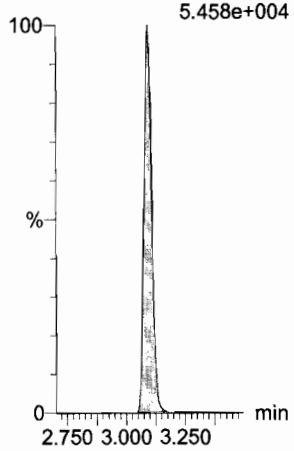
13C3-PFPeA



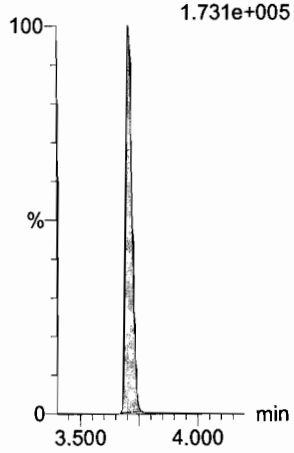
13C3-PFBS



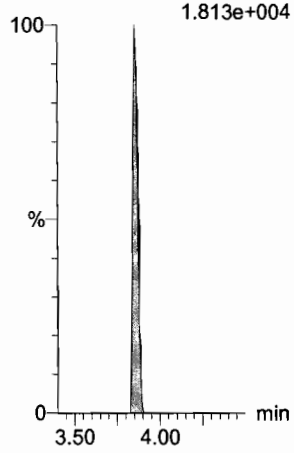
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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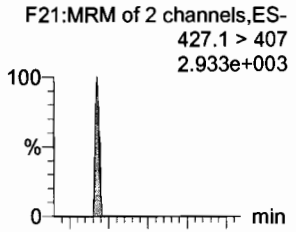
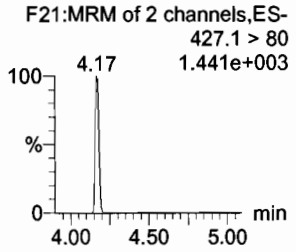
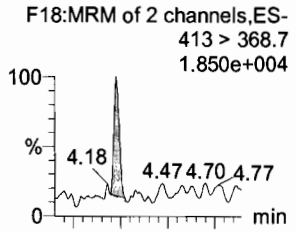
Name: 180110M3_3, Date: 11-Jan-2018, Time: 09:45:13, ID: ST180110M3-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

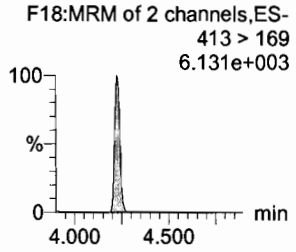
6:2 FTS





L-PFOA





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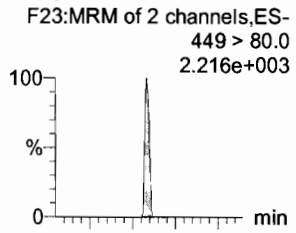
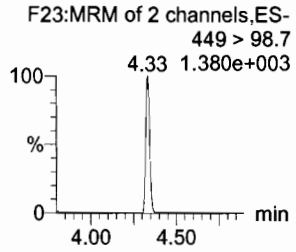
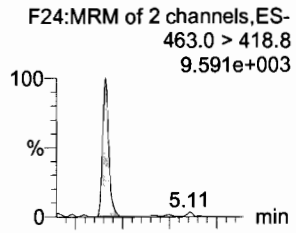
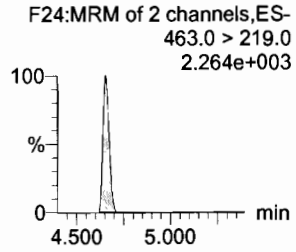


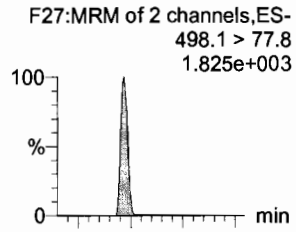


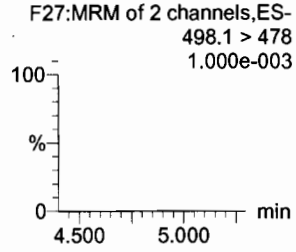
PFNA



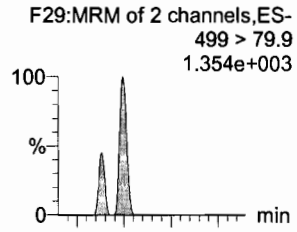


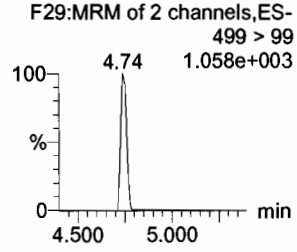
PFOSA



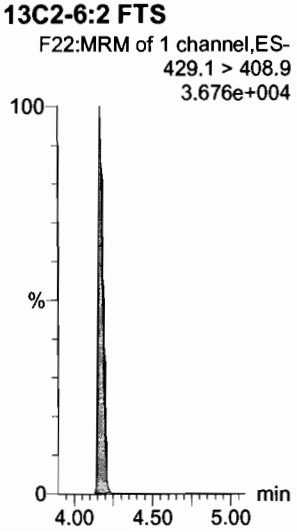


L-PFOS

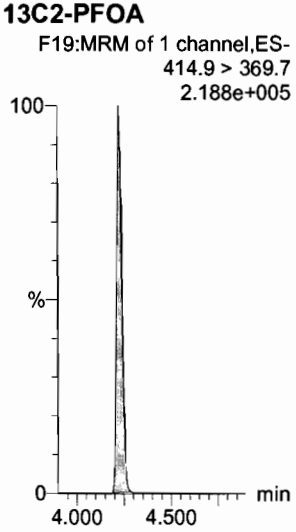




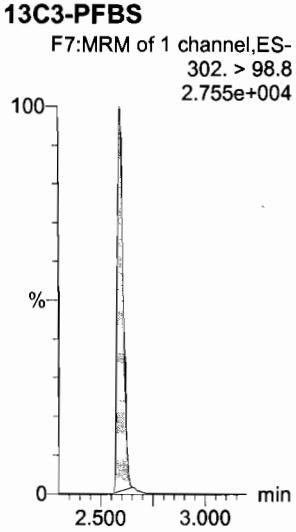
13C2-6:2 FTS



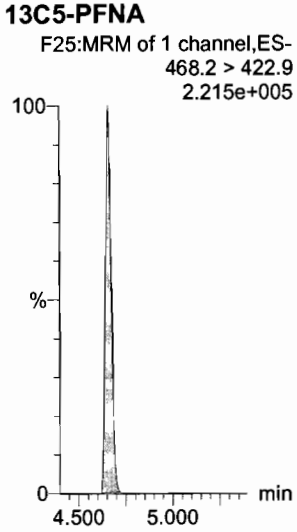
13C2-PFOA



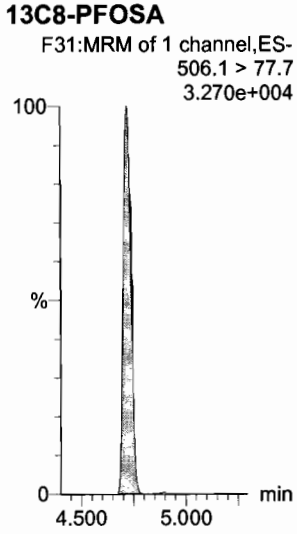
13C3-PFBS



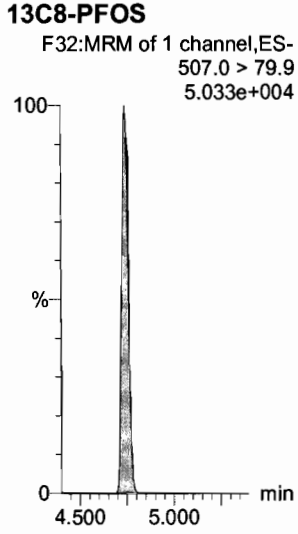
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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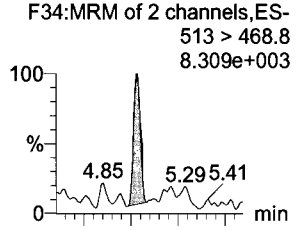
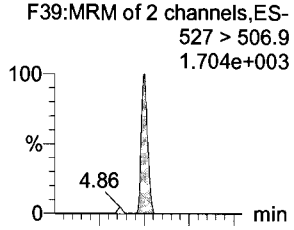
Name: 180110M3_3, Date: 11-Jan-2018, Time: 09:45:13, ID: ST180110M3-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

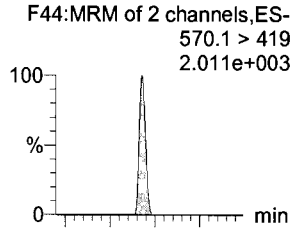
PFDA



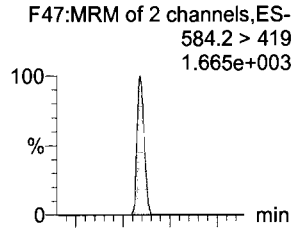
8:2 FTS



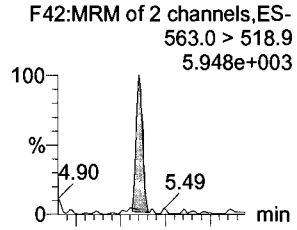
N-MeFOSAA



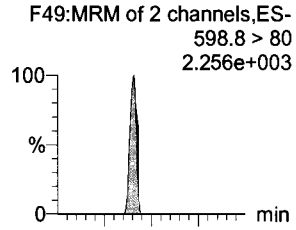
N-EtFOSAA



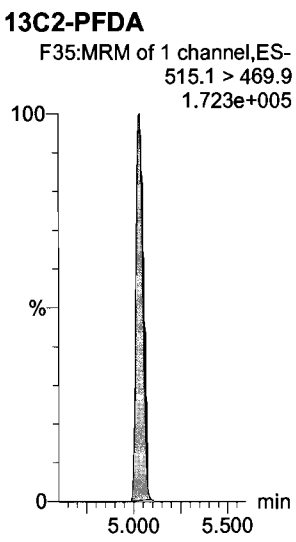
PFUdA



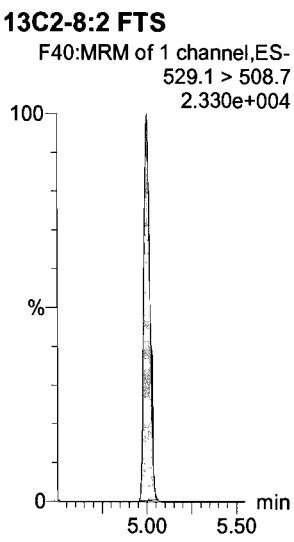
PFDS



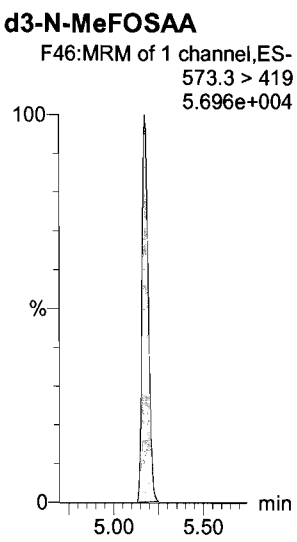
13C2-PFDA



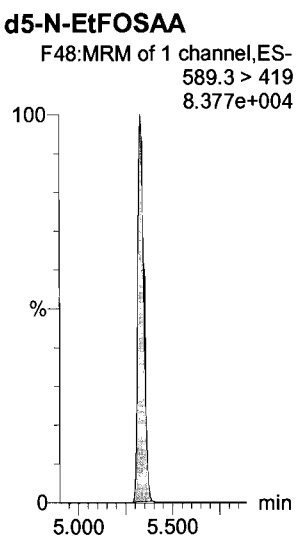
13C2-8:2 FTS



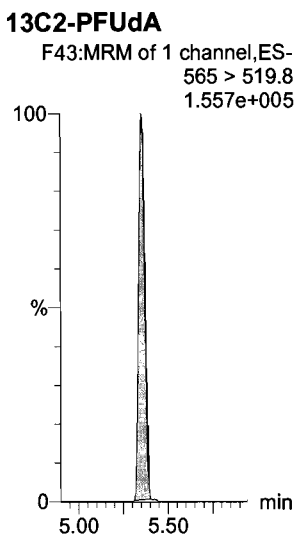
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFUdA



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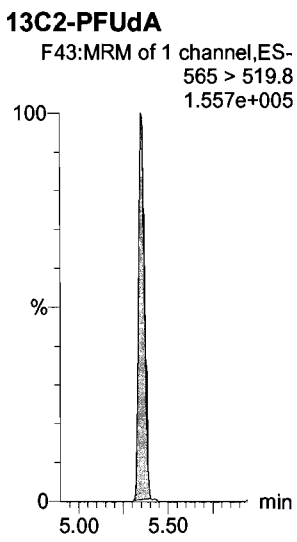

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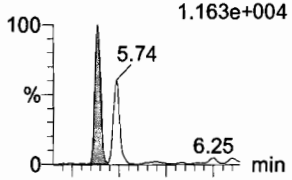
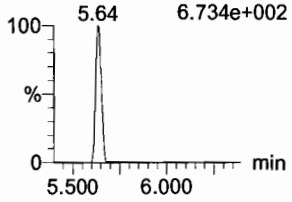
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_3, Date: 11-Jan-2018, Time: 09:45:13, ID: ST180110M3-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

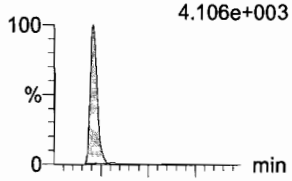
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
1.163e+004



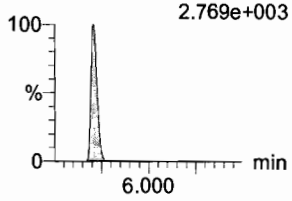
F50:MRM of 2 channels,ES-
612.9 > 318.8
6.734e+002



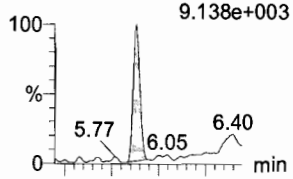
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
4.106e+003



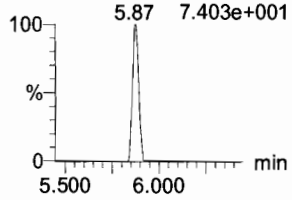
F33:MRM of 2 channels,ES-
512.1 > 219
2.769e+003



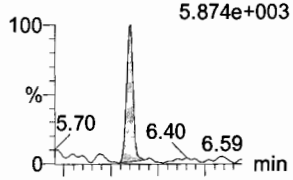
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
9.138e+003



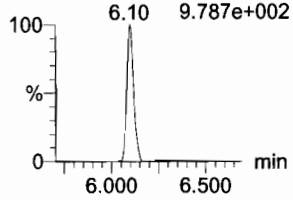
F56:MRM of 2 channels,ES-
662.9 > 319
7.403e+001



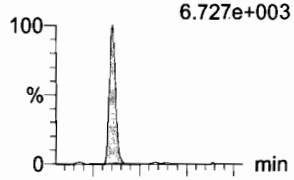
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
5.874e+003



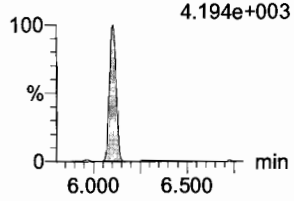
F57:MRM of 2 channels,ES-
712.9 > 369
9.787e+002



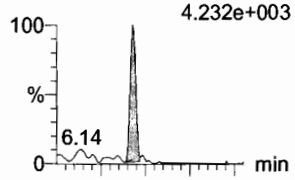
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
6.727e+003



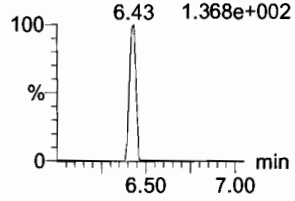
F38:MRM of 2 channels,ES-
526.1 > 219
4.194e+003



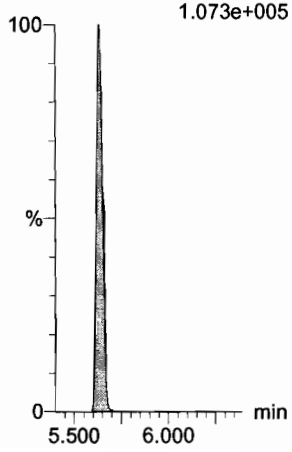
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
4.232e+003



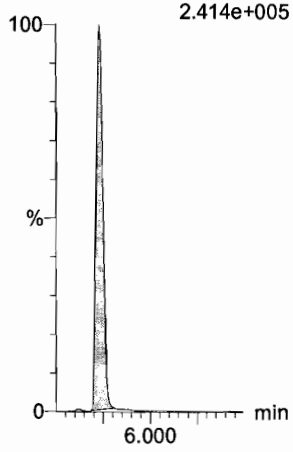
F59:MRM of 2 channels,ES-
813.1 > 219
1.368e+002



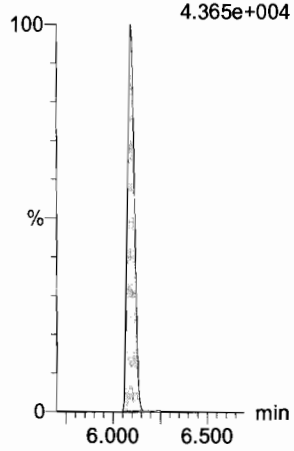
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
1.073e+005



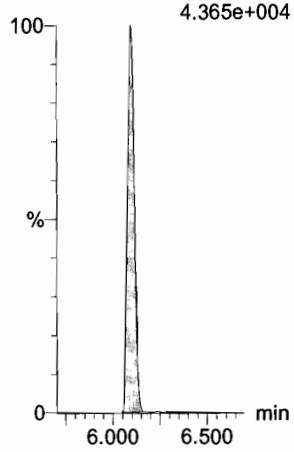
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
2.414e+005



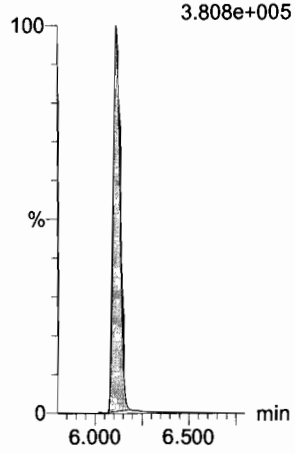
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
4.365e+004



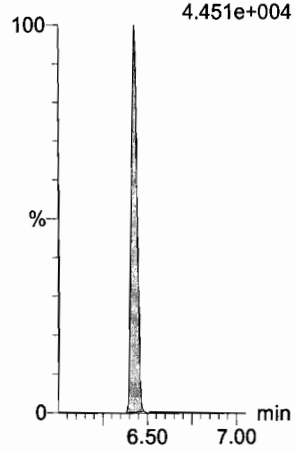
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
4.365e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
3.808e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
4.451e+004



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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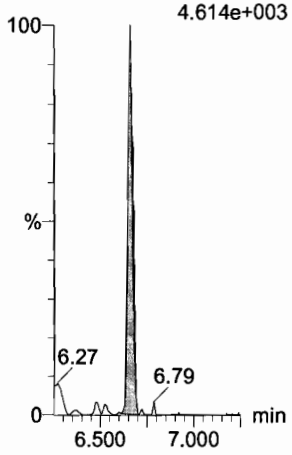
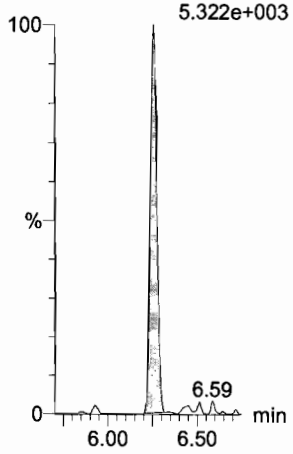
Name: 180110M3_3, Date: 11-Jan-2018, Time: 09:45:13, ID: ST180110M3-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

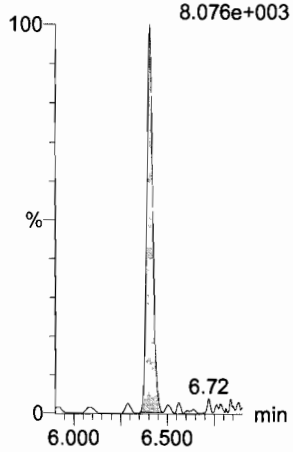
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
4.614e+003



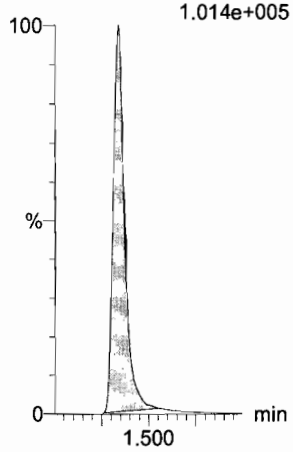
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
5.322e+003



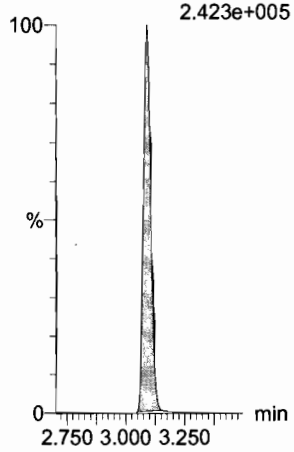
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
8.076e+003



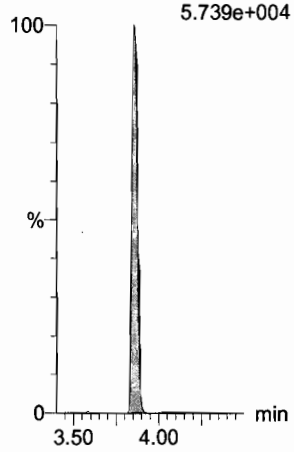
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.014e+005



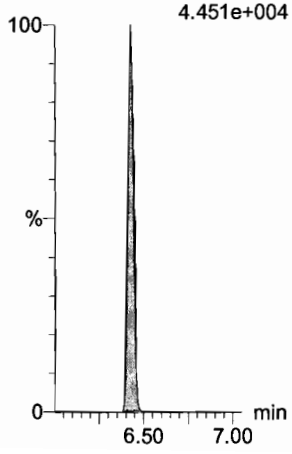
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
2.423e+005



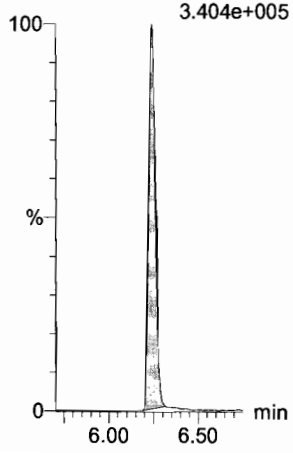
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
5.739e+004



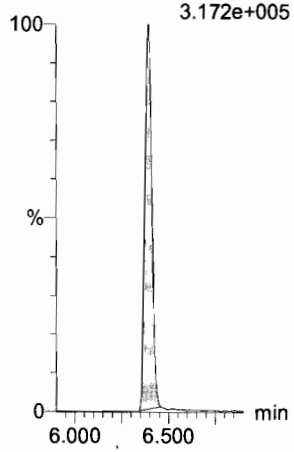
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
4.451e+004



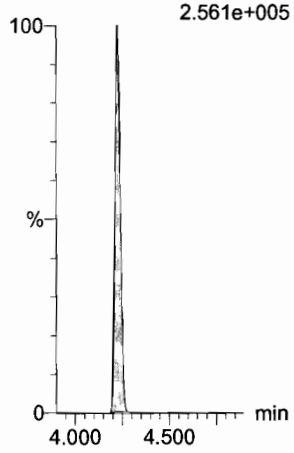
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
3.404e+005



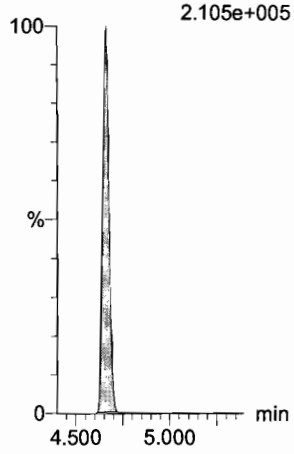
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
3.172e+005



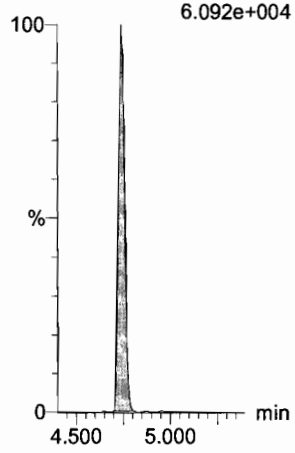
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
2.561e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.105e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
6.092e+004



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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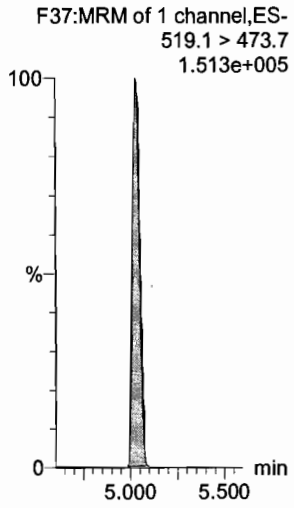
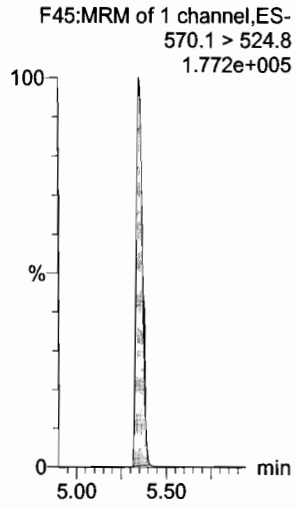
Name: 180110M3_3, Date: 11-Jan-2018, Time: 09:45:13, ID: ST180110M3-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

13C6-PFDA



13C7-PFUdA



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Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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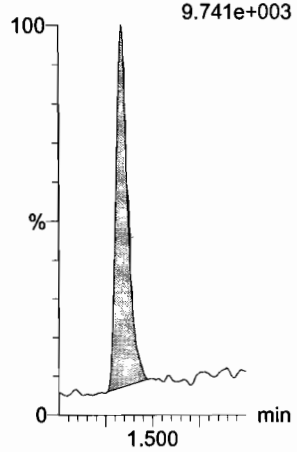
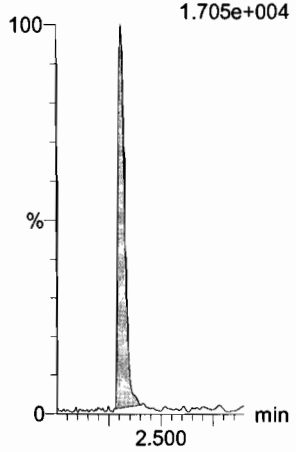
Name: 180110M3_4, Date: 11-Jan-2018, Time: 09:56:23, ID: ST180110M3-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

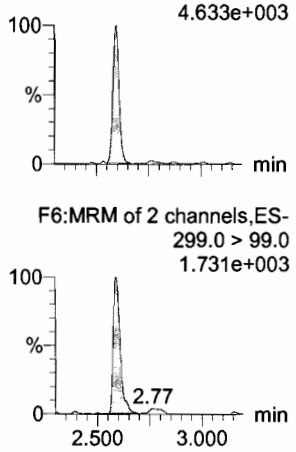
PFBA



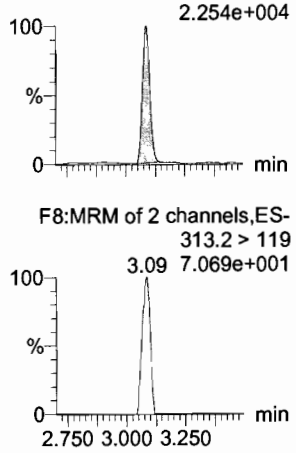
PFPeA



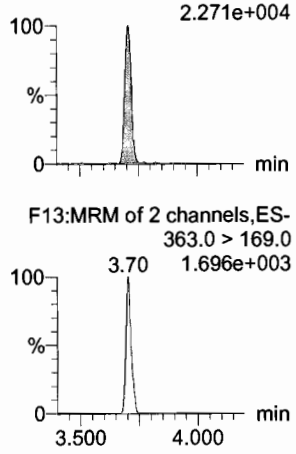
PFBS



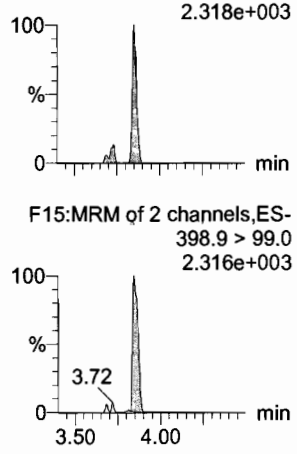
PFHxA



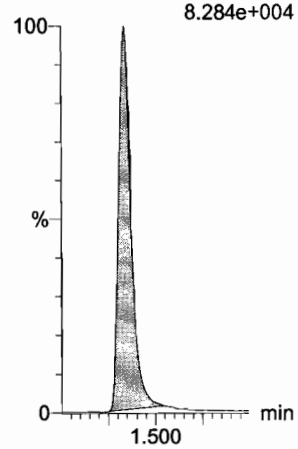
PFHpA



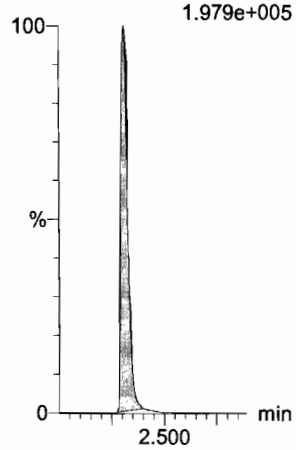
L-PFHxS



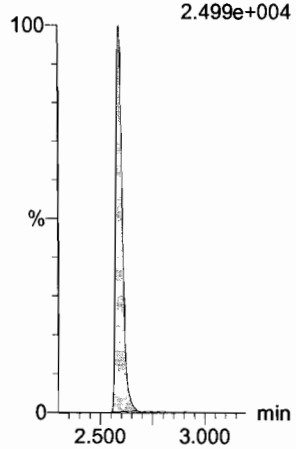
13C3-PFBA



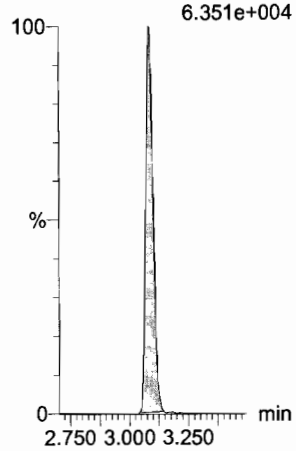
13C3-PFPeA



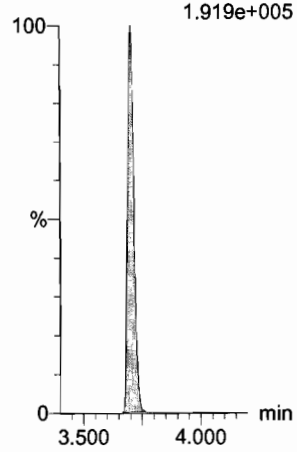
13C3-PFBS



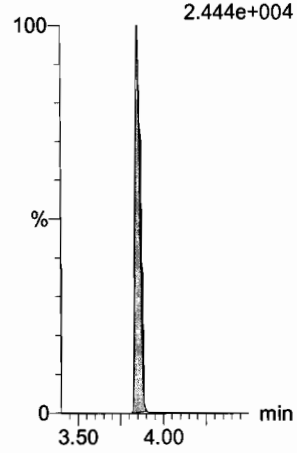
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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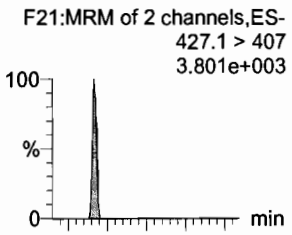
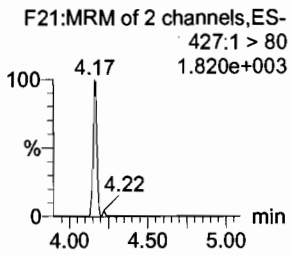
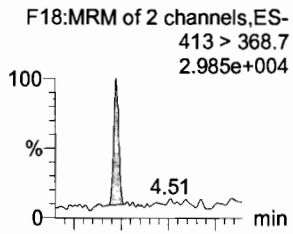
Name: 180110M3_4, Date: 11-Jan-2018, Time: 09:56:23, ID: ST180110M3-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

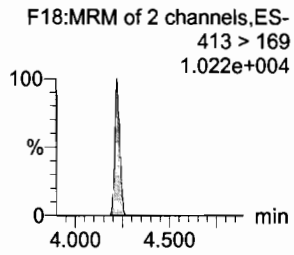
6:2 FTS



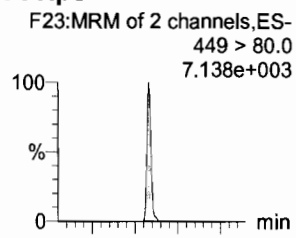


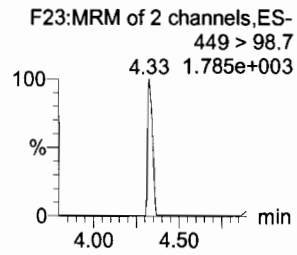
L-PFOA



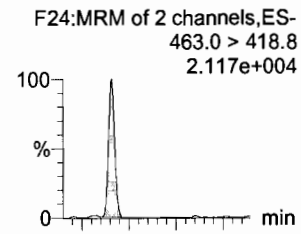


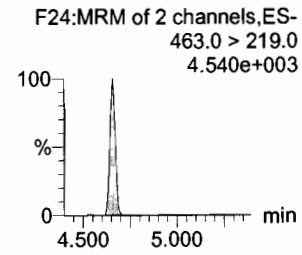
PFHpS



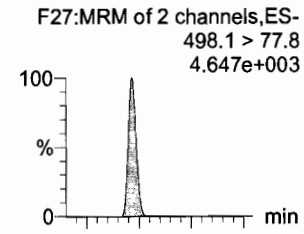


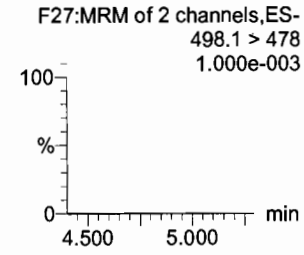
PFNA



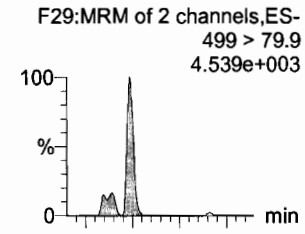


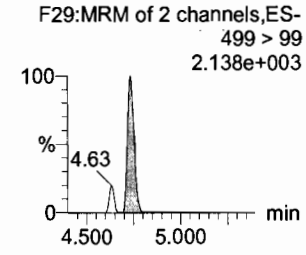
PFOSA



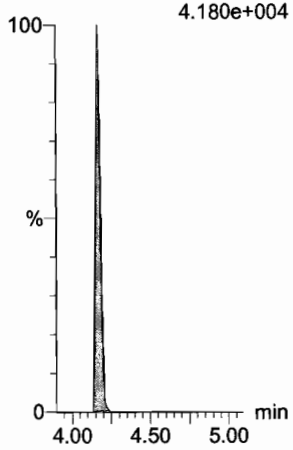


L-PFOS

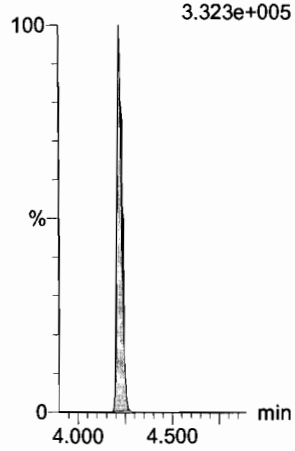




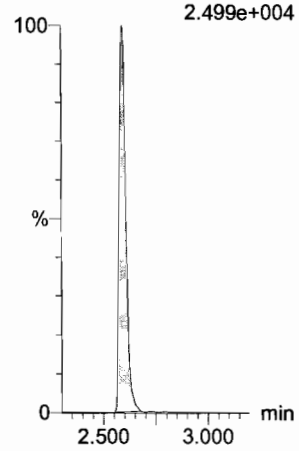
13C2-6:2 FTS



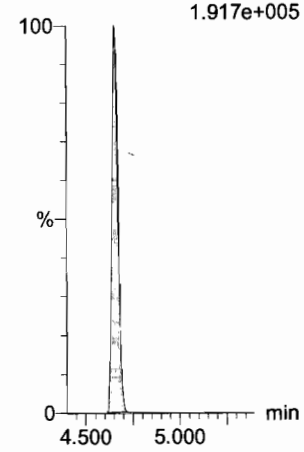
13C2-PFOA



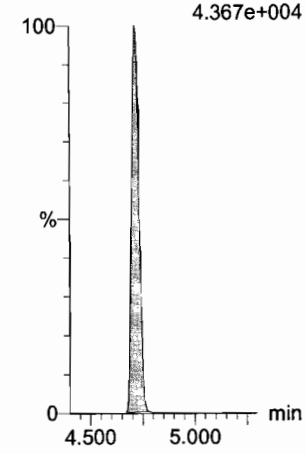
13C3-PFBS



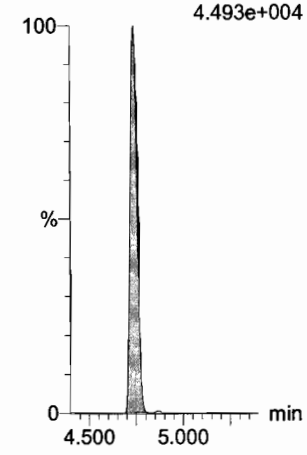
13C5-PFNA



13C8-PFOSA



13C8-PFOS

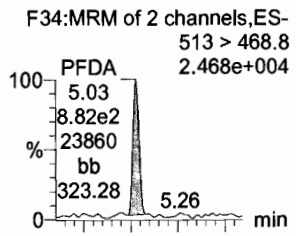


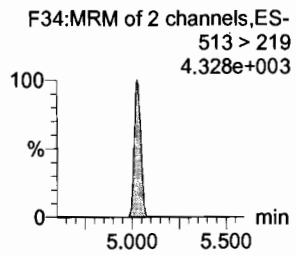
Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

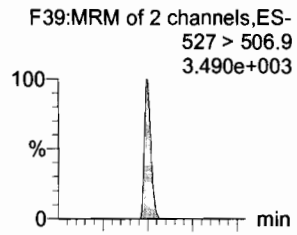
Name: 180110M3_4, Date: 11-Jan-2018, Time: 09:56:23, ID: ST180110M3-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

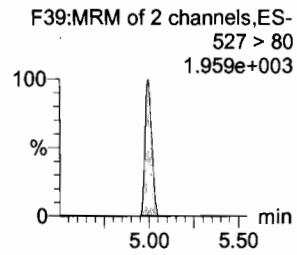
PFDA



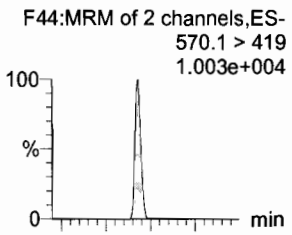


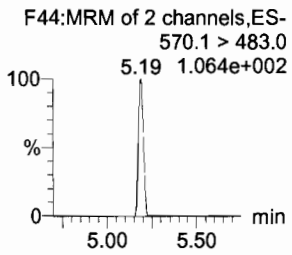
8:2 FTS



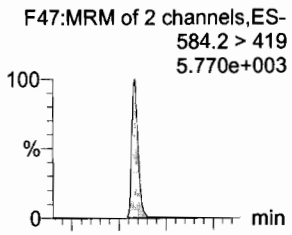


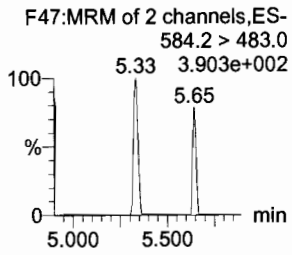
N-MeFOSAA



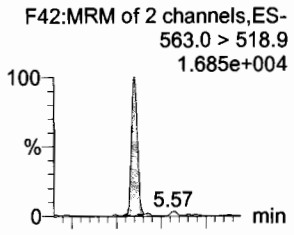


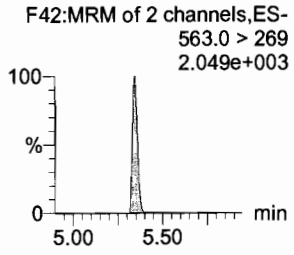
N-EtFOSAA



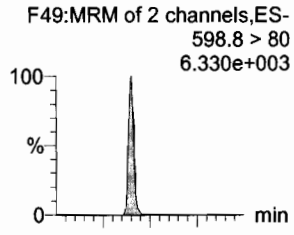


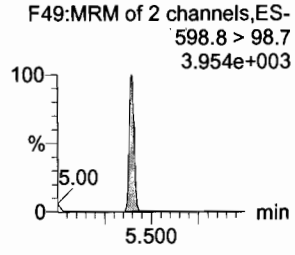
PFUdA



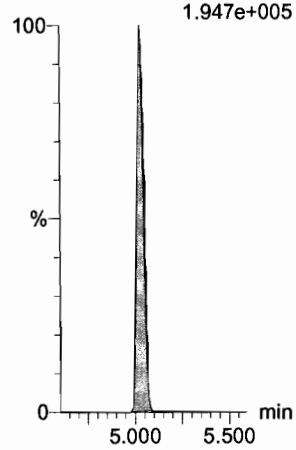


PFDS

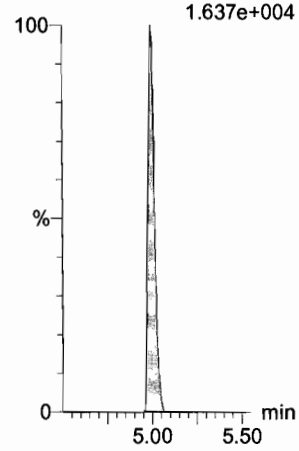




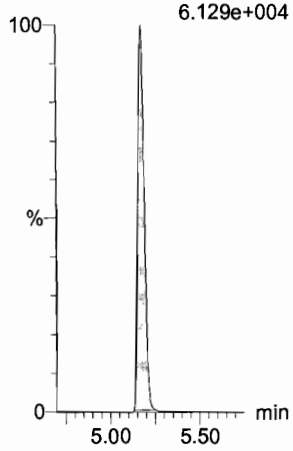
13C2-PFDA



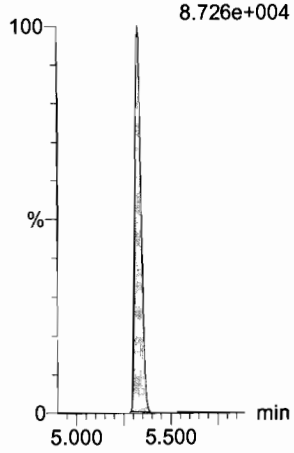
13C2-8:2 FTS



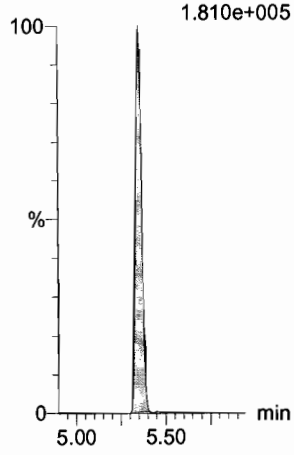
d3-N-MeFOSAA



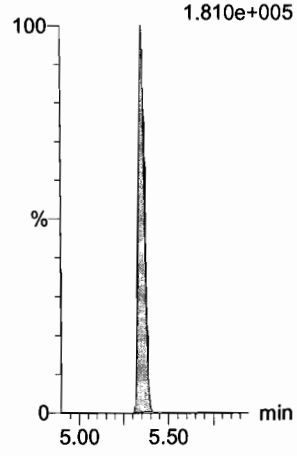
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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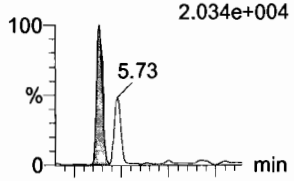
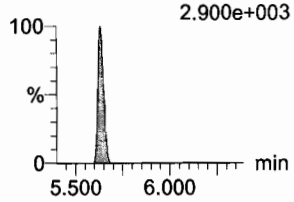
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_4, Date: 11-Jan-2018, Time: 09:56:23, ID: ST180110M3-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

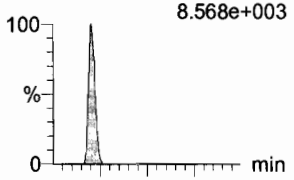
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
2.034e+004



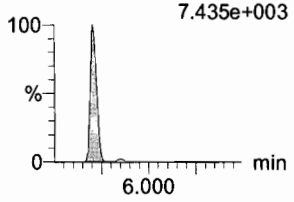
F50:MRM of 2 channels,ES-
612.9 > 318.8
2.900e+003



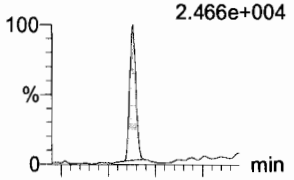
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
8.568e+003



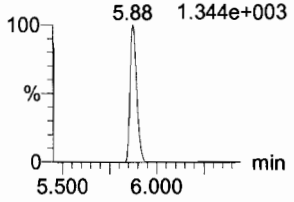
F33:MRM of 2 channels,ES-
512.1 > 219
7.435e+003



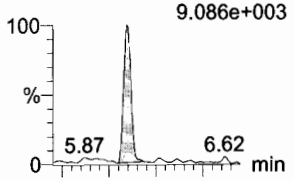
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
2.466e+004



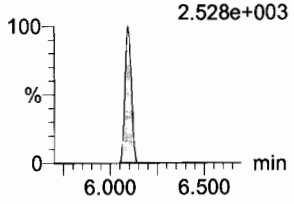
F56:MRM of 2 channels,ES-
662.9 > 319
5.88 1.344e+003



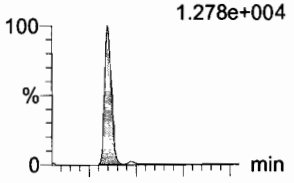
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
9.086e+003



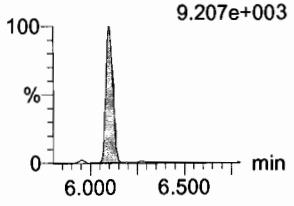
F57:MRM of 2 channels,ES-
712.9 > 369
2.528e+003



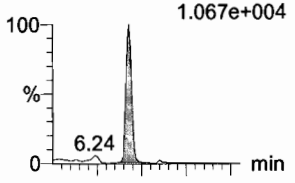
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
1.278e+004



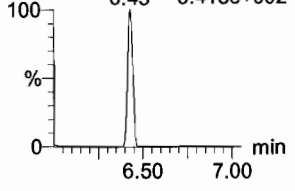
F38:MRM of 2 channels,ES-
526.1 > 219
9.207e+003



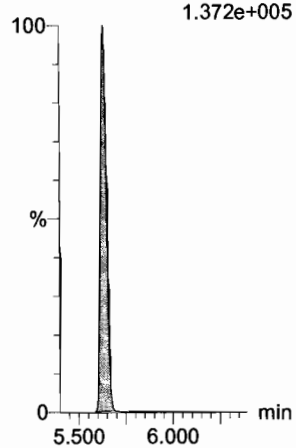
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
1.067e+004



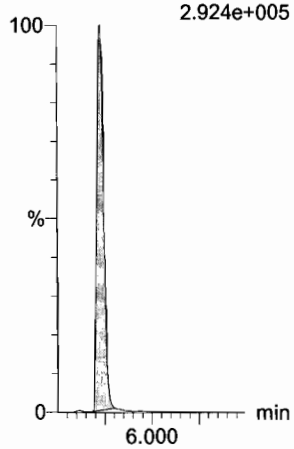
F59:MRM of 2 channels,ES-
813.1 > 219
6.43 6.418e+002



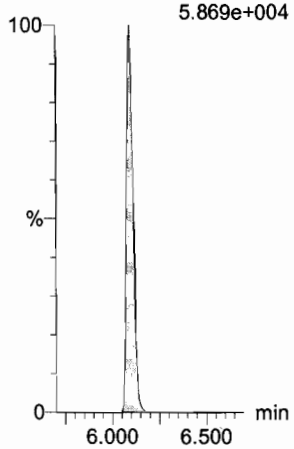
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
1.372e+005



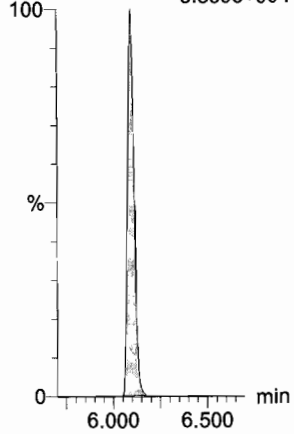
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
2.924e+005



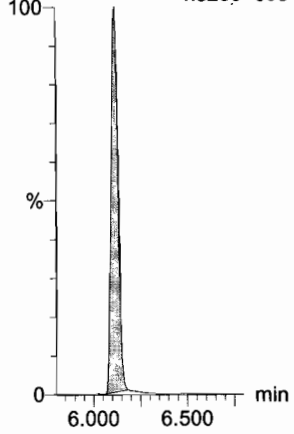
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
5.869e+004



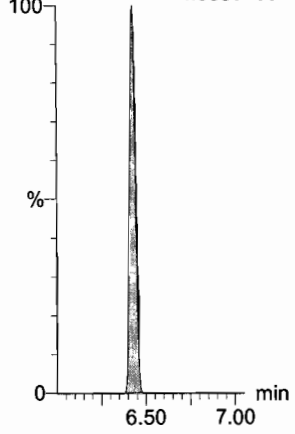
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
5.869e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
4.328e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
4.388e+004



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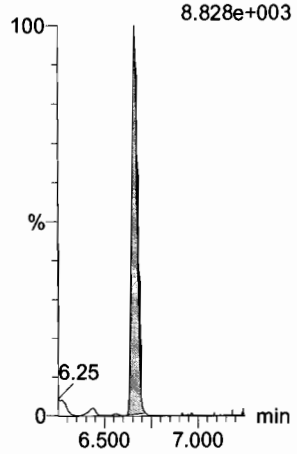
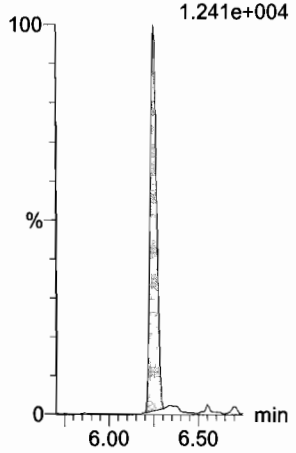
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_4, Date: 11-Jan-2018, Time: 09:56:23, ID: ST180110M3-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

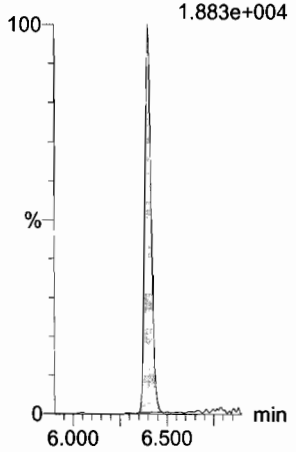
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
8.828e+003



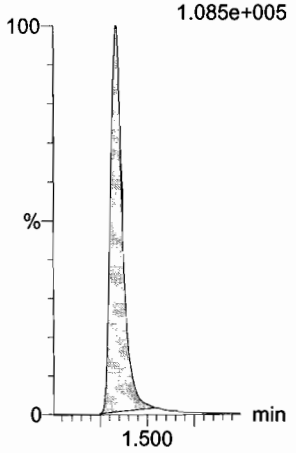
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.241e+004



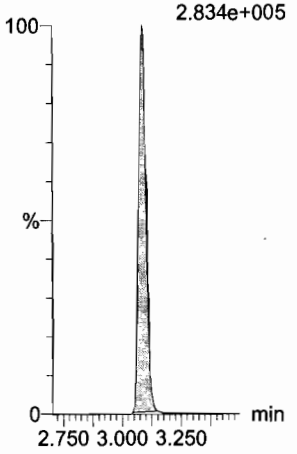
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.883e+004



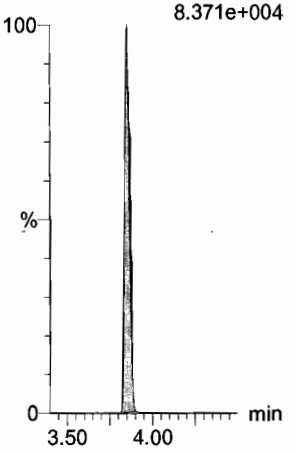
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.085e+005



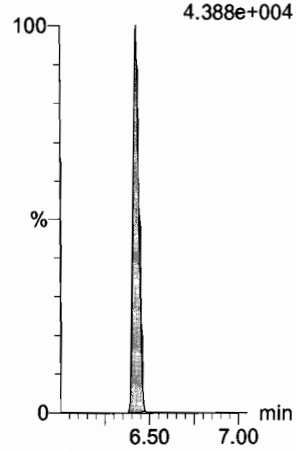
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
2.834e+005



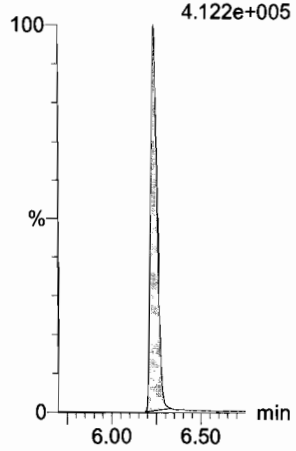
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
8.371e+004



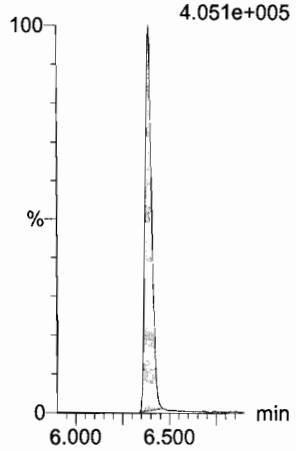
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
4.388e+004



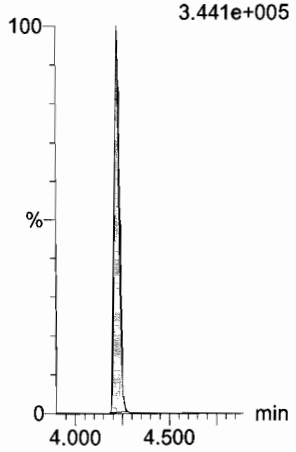
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.122e+005



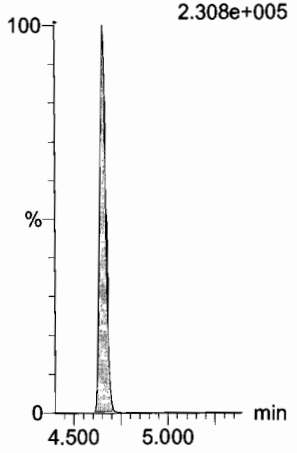
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
4.051e+005



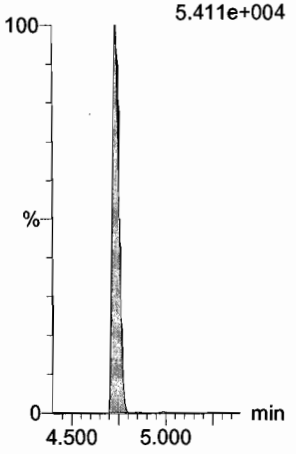
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.441e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.308e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
5.411e+004



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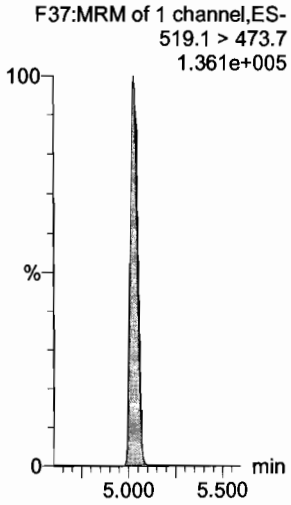
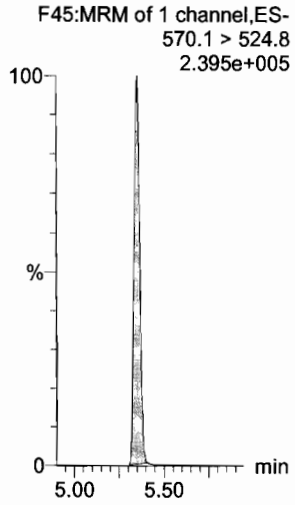
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_4, Date: 11-Jan-2018, Time: 09:56:23, ID: ST180110M3-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

13C6-PFDA



13C7-PFUdA



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Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_5, Date: 11-Jan-2018, Time: 10:07:34, ID: ST180110M3-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

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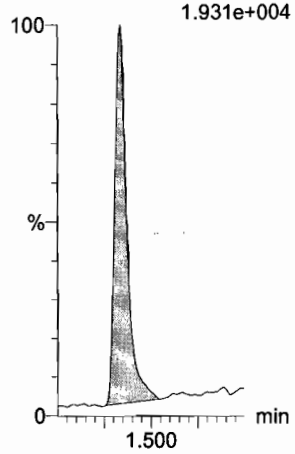

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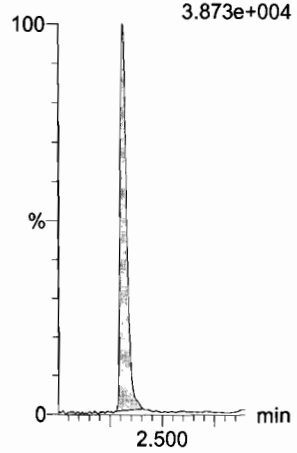
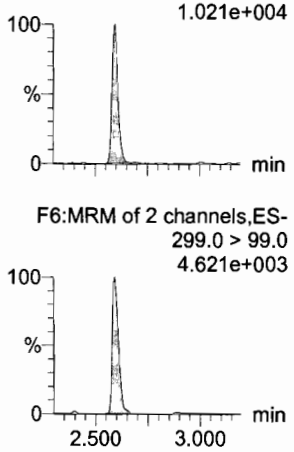
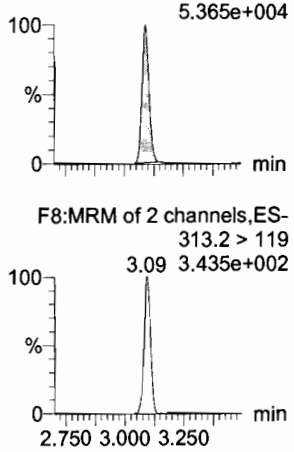


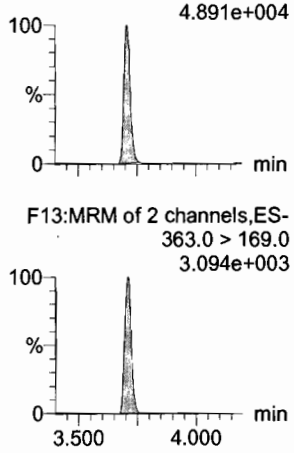
PFBS



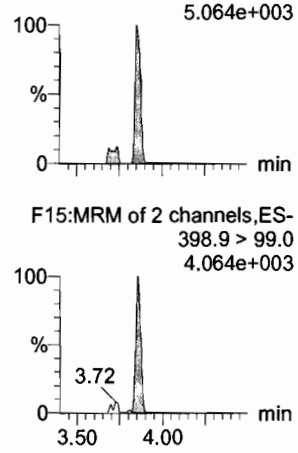
PFHxA



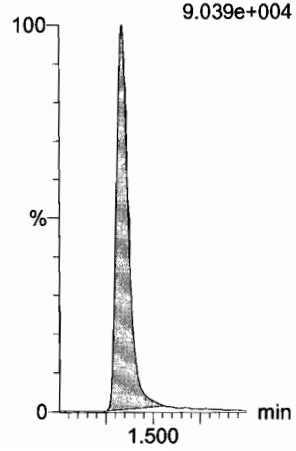
PFHpA



L-PFHxS



13C3-PFBA



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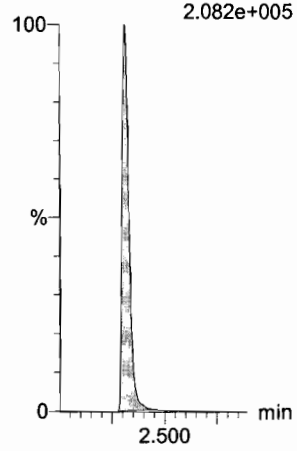

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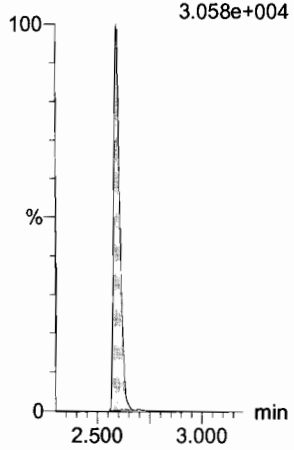
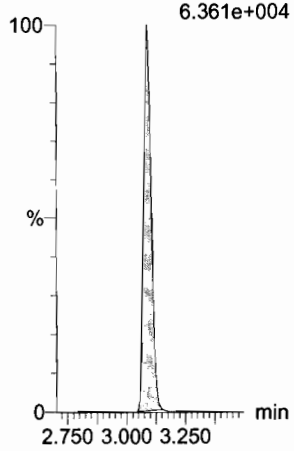
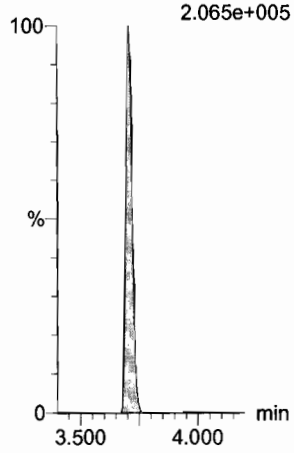


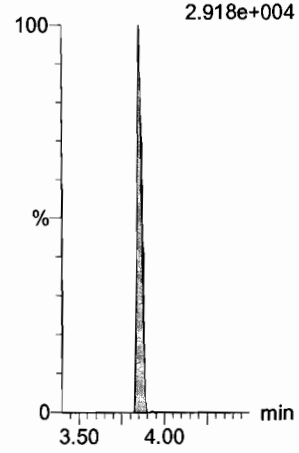
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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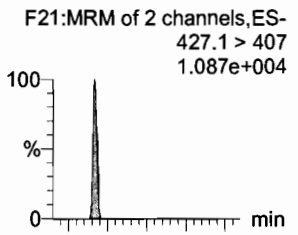
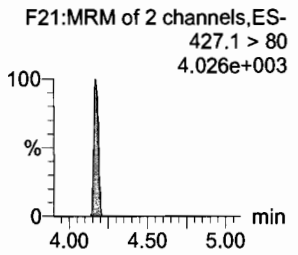
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

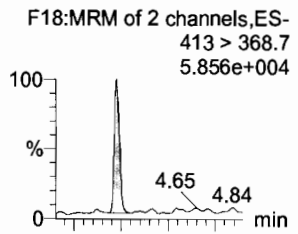
Name: 180110M3_5, Date: 11-Jan-2018, Time: 10:07:34, ID: ST180110M3-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

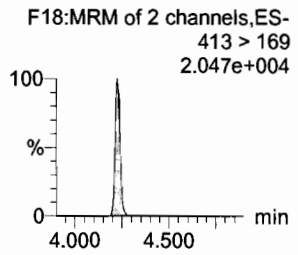
6:2 FTS



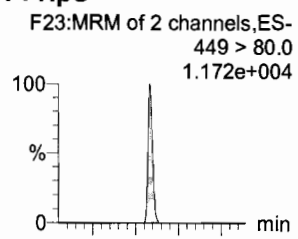


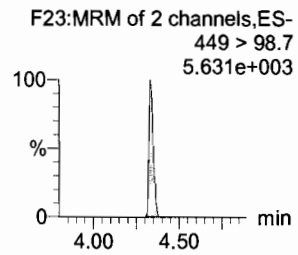
L-PFOA



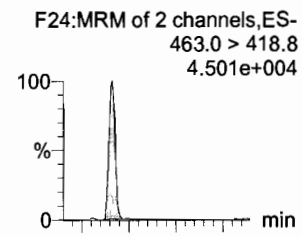


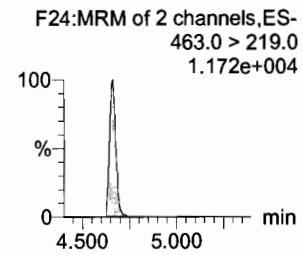
PFHpS



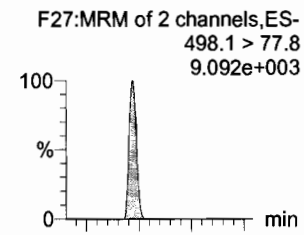


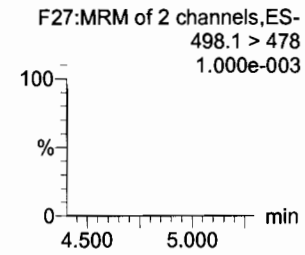
PFNA



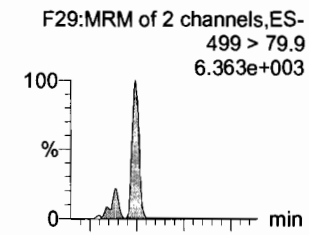


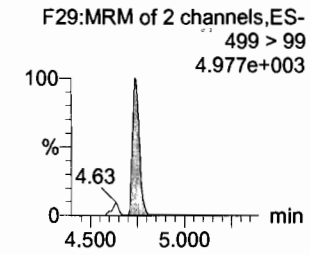
PFOSA



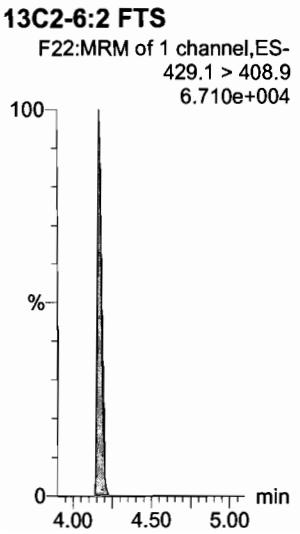


L-PFOS

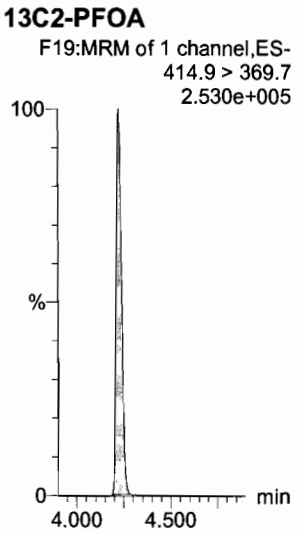




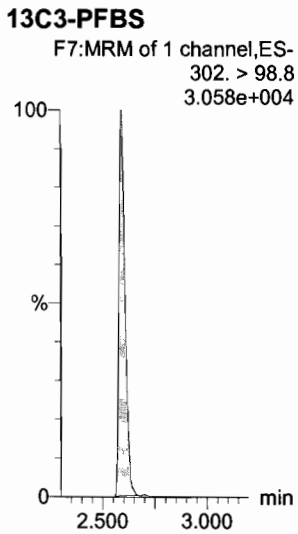
13C2-6:2 FTS



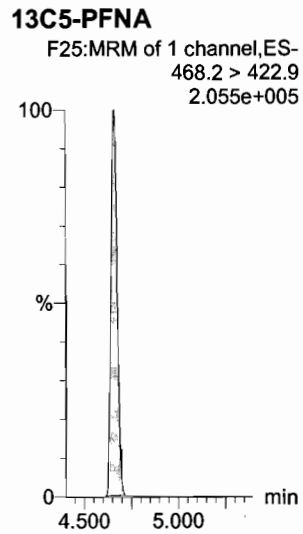
13C2-PFOA



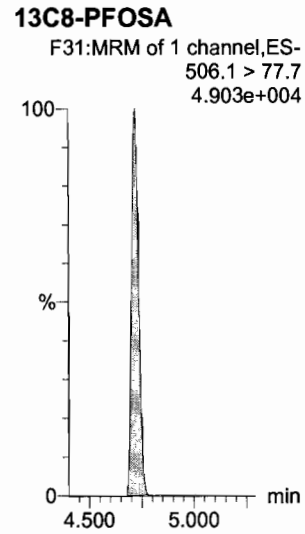
13C3-PFBS



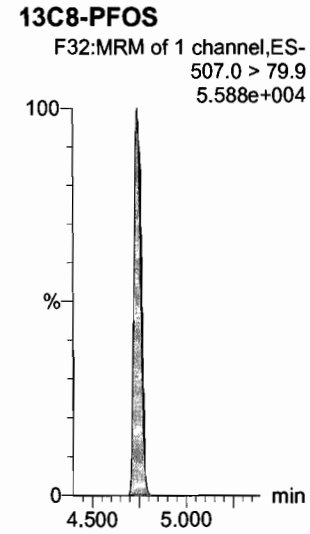
13C5-PFNA



13C8-PFOSA



13C8-PFOS



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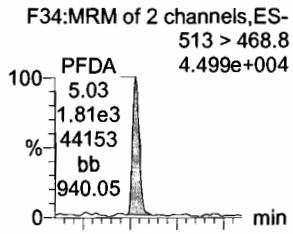
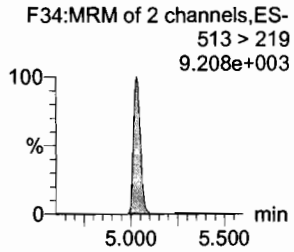
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

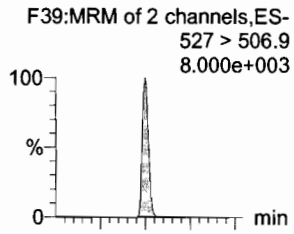
Name: 180110M3_5, Date: 11-Jan-2018, Time: 10:07:34, ID: ST180110M3-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

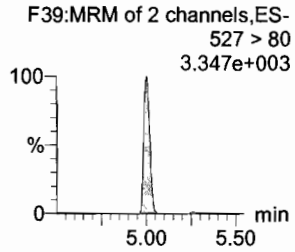
PFDA



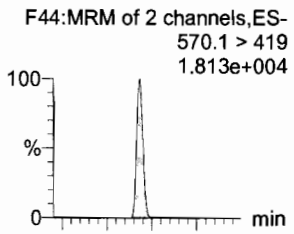


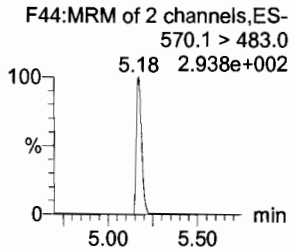
8:2 FTS



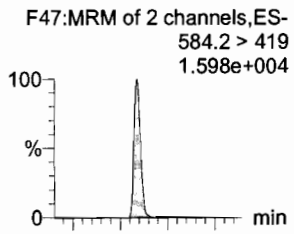


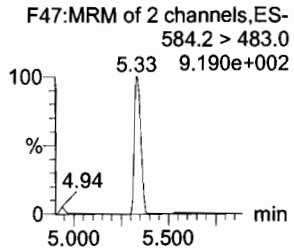
N-MeFOSAA



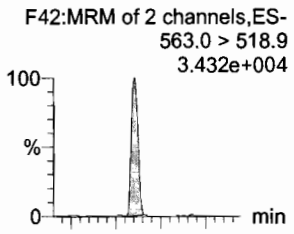


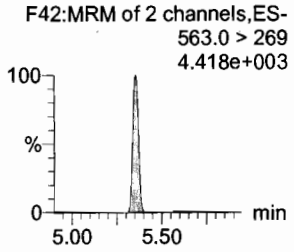
N-EtFOSAA



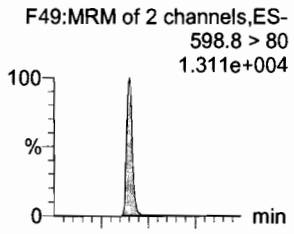


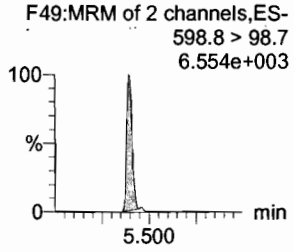
PFUdA



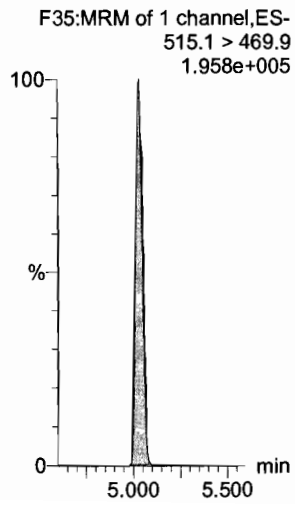


PFDS

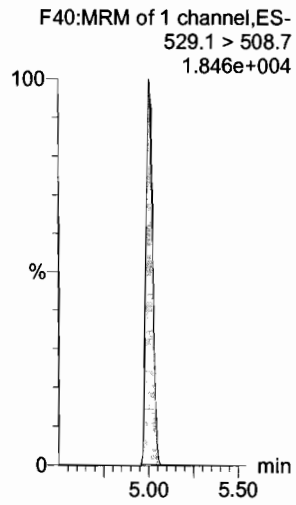




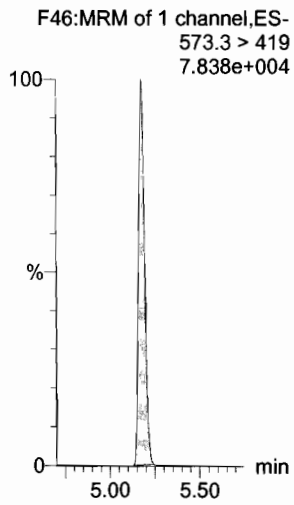
13C2-PFDA



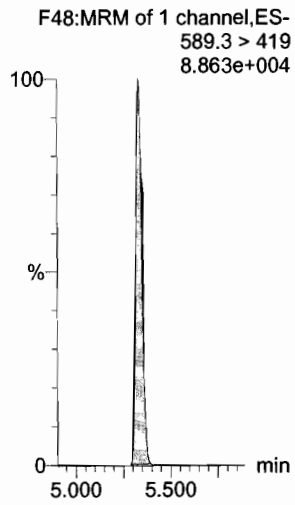
13C2-8:2 FTS



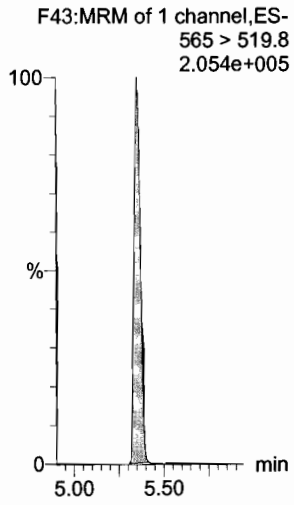
d3-N-MeFOSAA



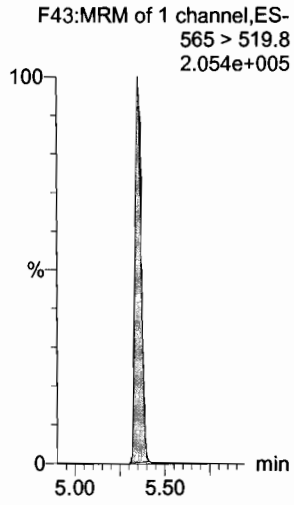
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



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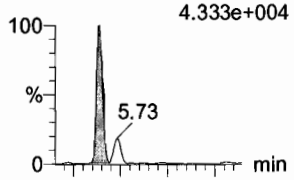
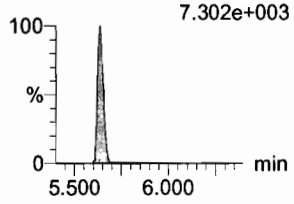
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_5, Date: 11-Jan-2018, Time: 10:07:34, ID: ST180110M3-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

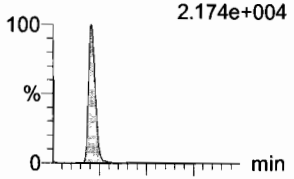
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
4.333e+004



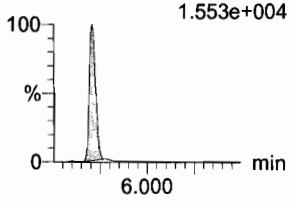
F50:MRM of 2 channels,ES-
612.9 > 318.8
7.302e+003



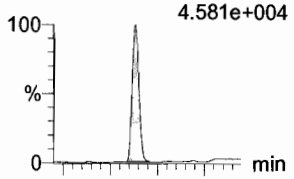
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
2.174e+004



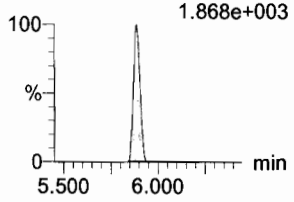
F33:MRM of 2 channels,ES-
512.1 > 219
1.553e+004



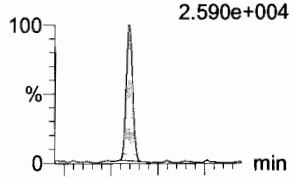
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
4.581e+004



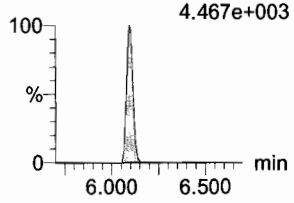
F56:MRM of 2 channels,ES-
662.9 > 319
1.868e+003



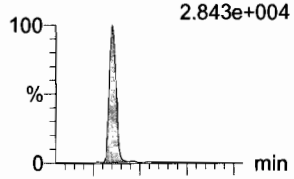
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
2.590e+004



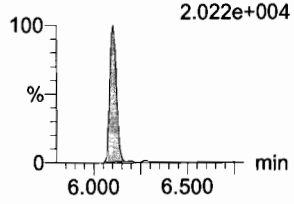
F57:MRM of 2 channels,ES-
712.9 > 369
4.467e+003



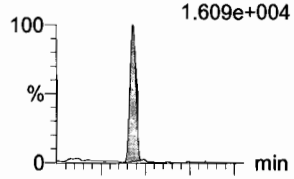
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
2.843e+004



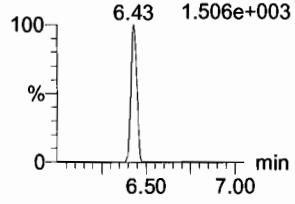
F38:MRM of 2 channels,ES-
526.1 > 219
2.022e+004



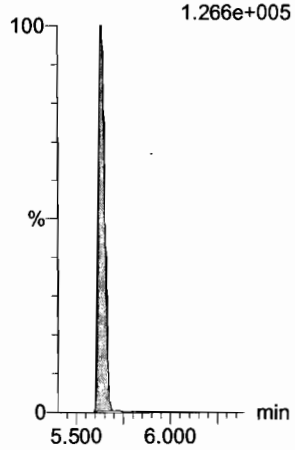
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
1.609e+004



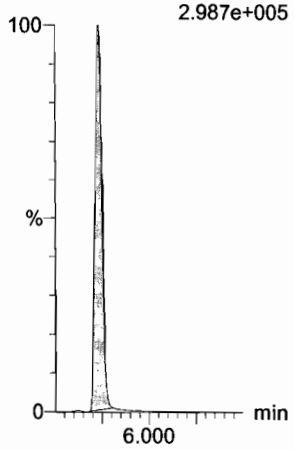
F59:MRM of 2 channels,ES-
813.1 > 219
1.506e+003



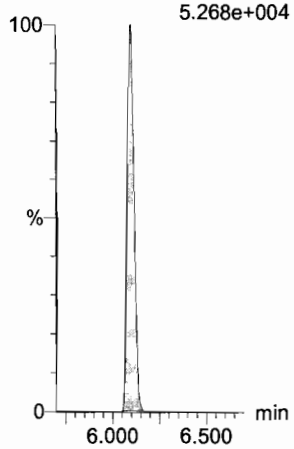
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
1.266e+005



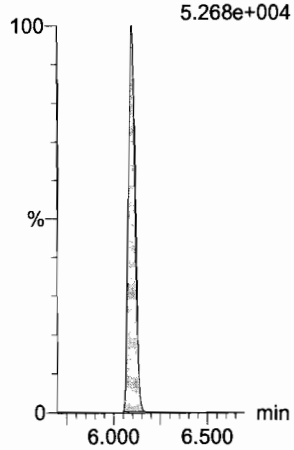
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
2.987e+005



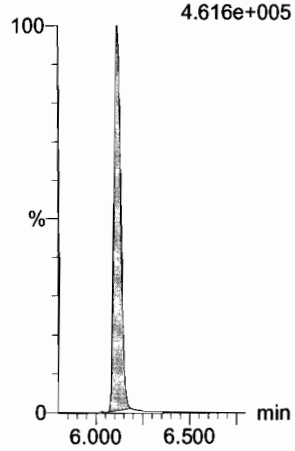
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
5.268e+004



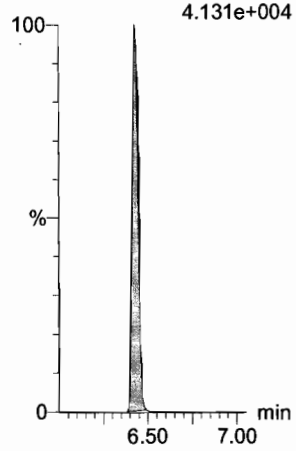
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
5.268e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
4.616e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
4.131e+004



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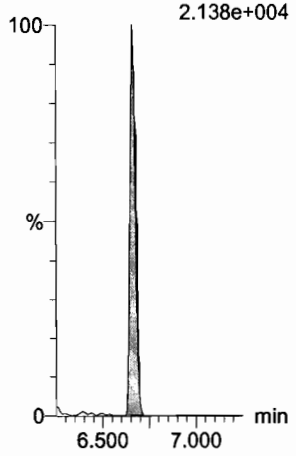
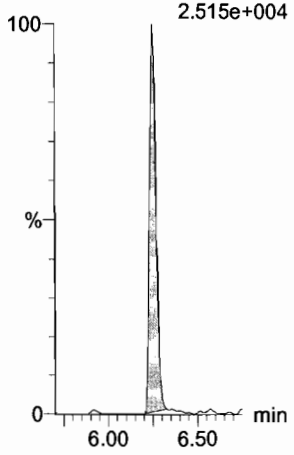
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_5, Date: 11-Jan-2018, Time: 10:07:34, ID: ST180110M3-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

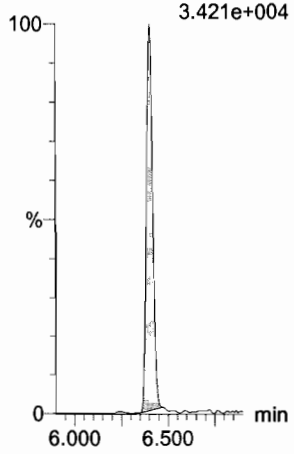
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.138e+004



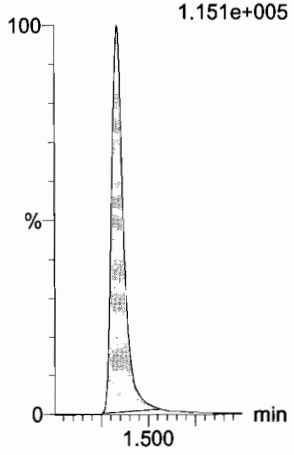
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.515e+004



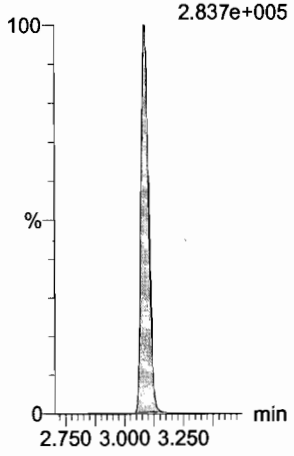
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.421e+004



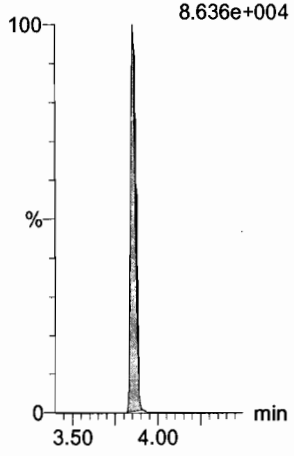
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.151e+005



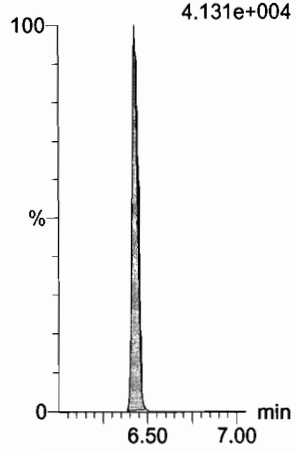
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
2.837e+005



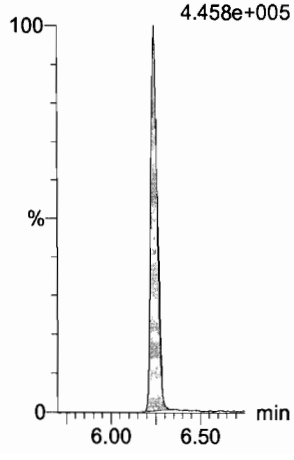
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
8.636e+004



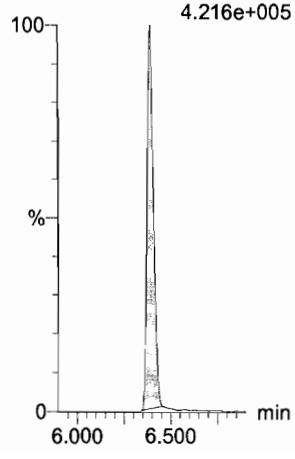
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
4.131e+004



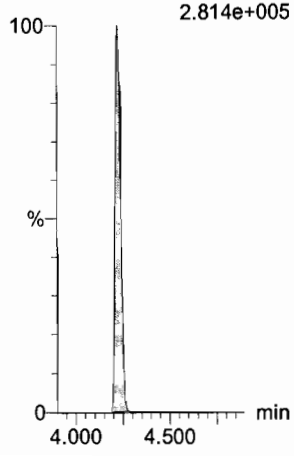
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.458e+005



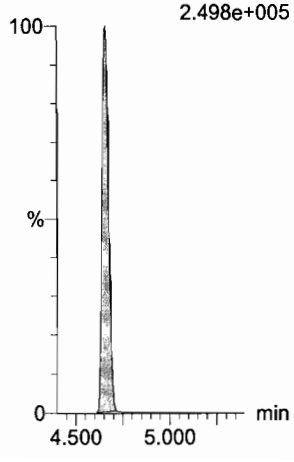
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
4.216e+005



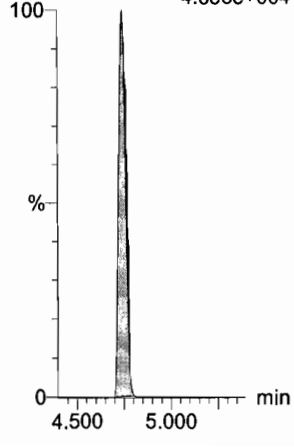
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
2.814e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.498e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
4.653e+004



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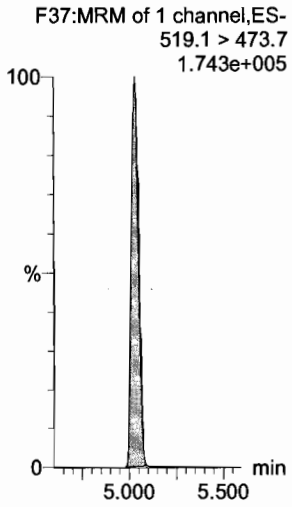
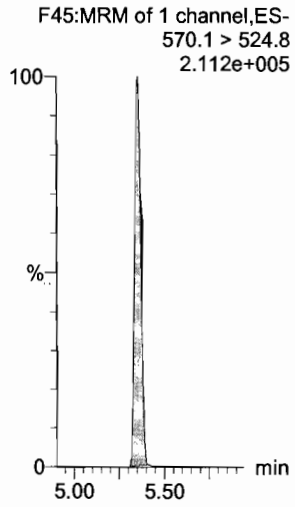
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_5, Date: 11-Jan-2018, Time: 10:07:34, ID: ST180110M3-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

13C6-PFDA



13C7-PFUdA



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Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_6, Date: 11-Jan-2018, Time: 10:18:46, ID: ST180110M3-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

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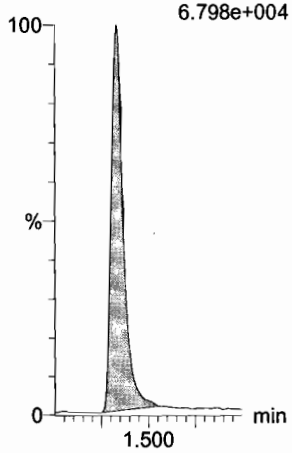

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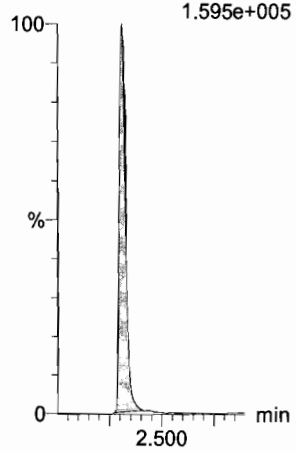

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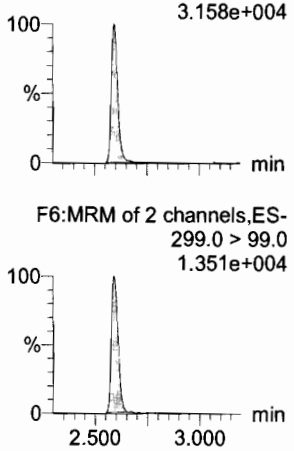

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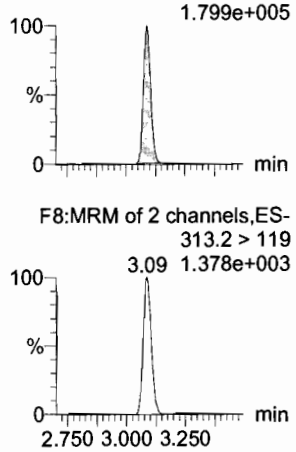

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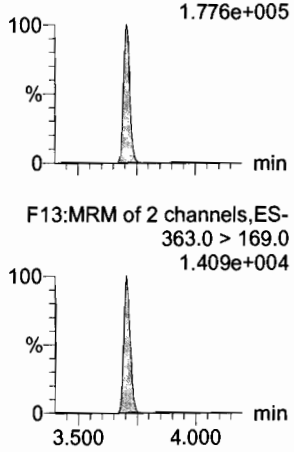

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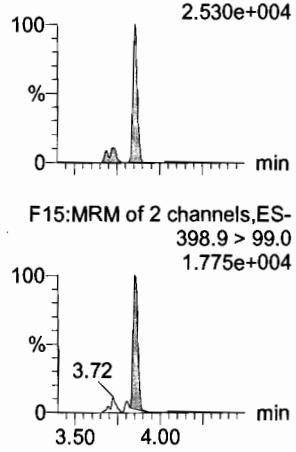

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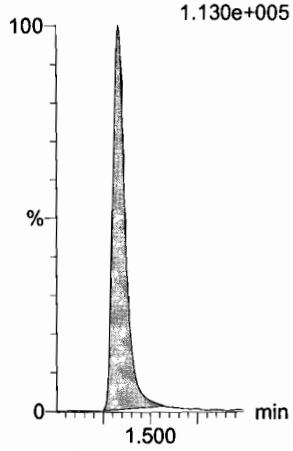

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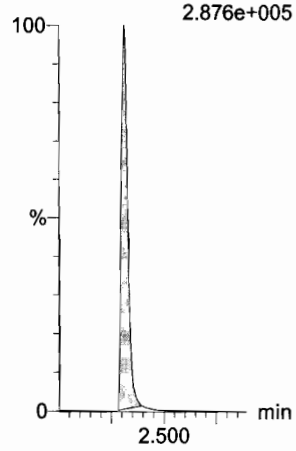

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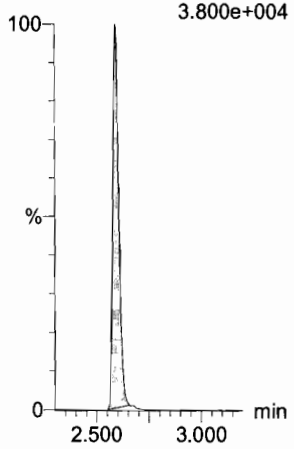

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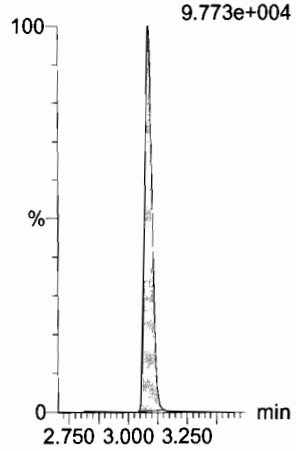

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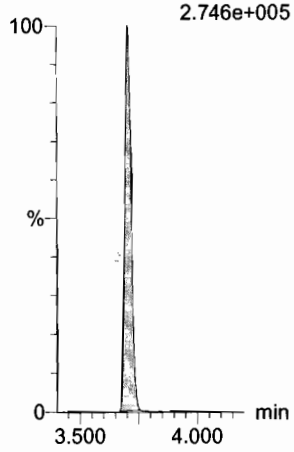

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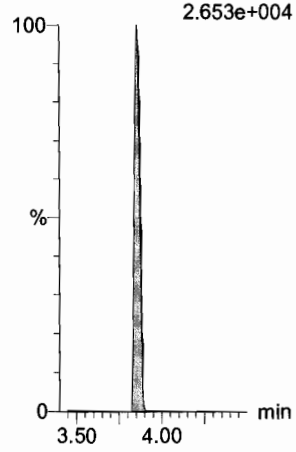

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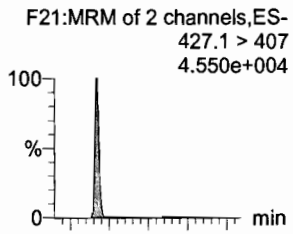
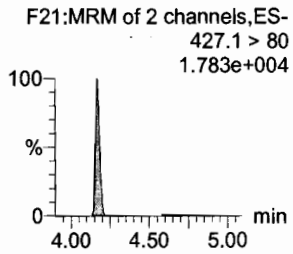
Name: 180110M3_6, Date: 11-Jan-2018, Time: 10:18:46, ID: ST180110M3-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

6:2 FTS





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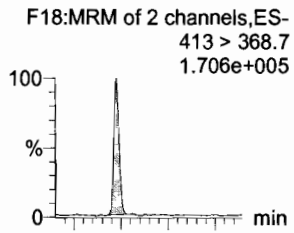

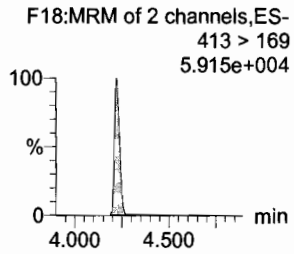

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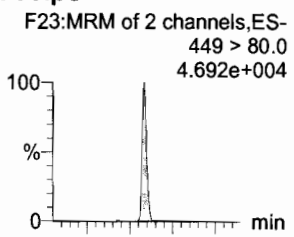

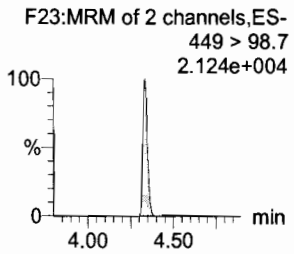

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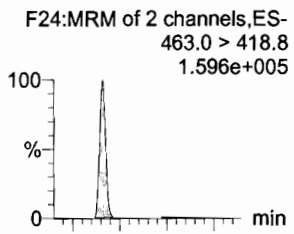

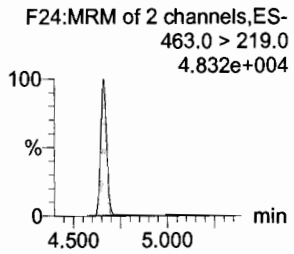

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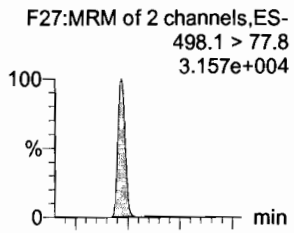

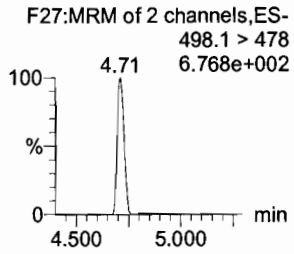

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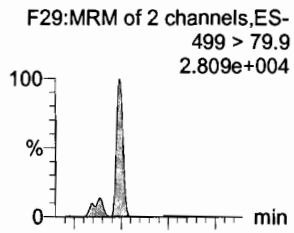

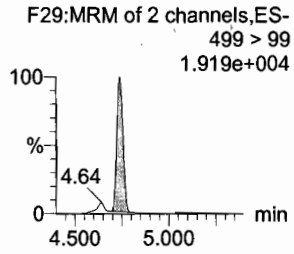

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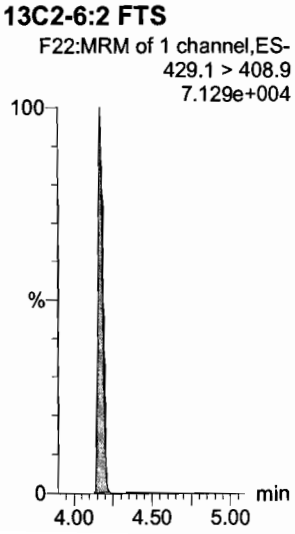

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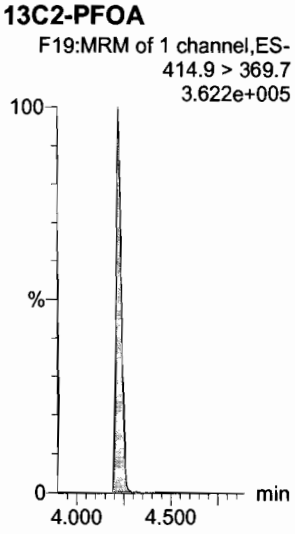

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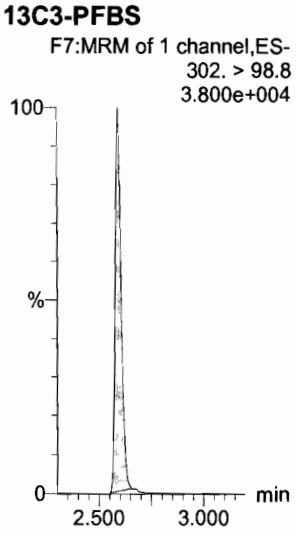

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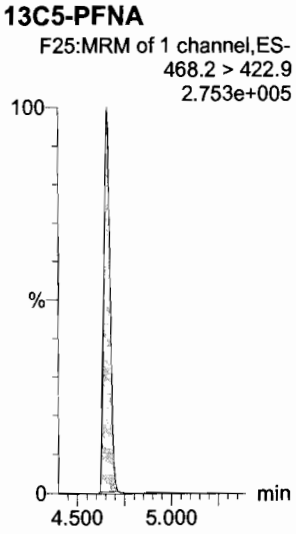

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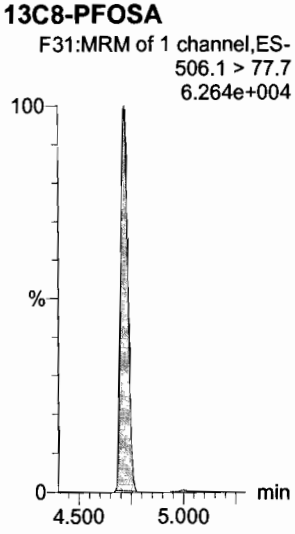

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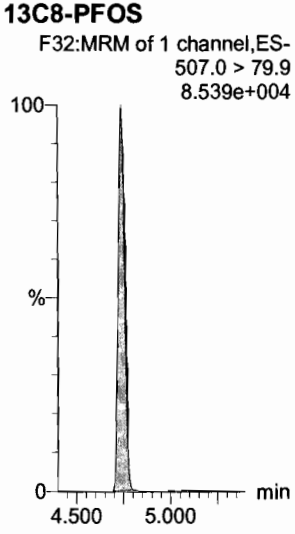

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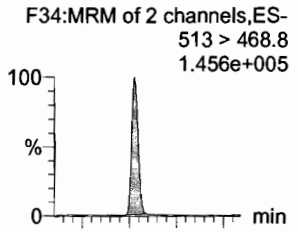
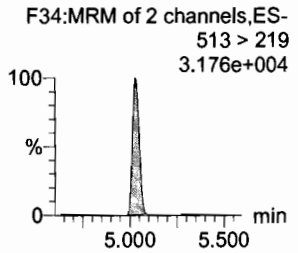
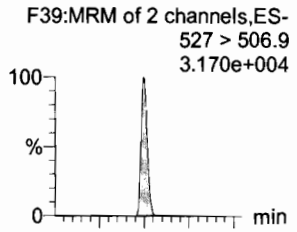
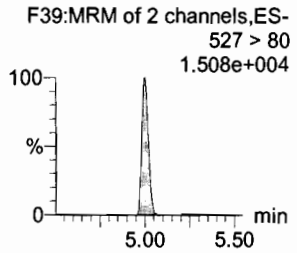
PFDA





8:2 FTS





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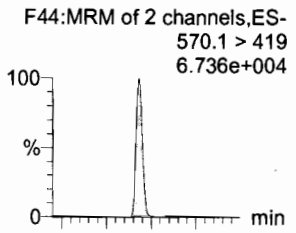

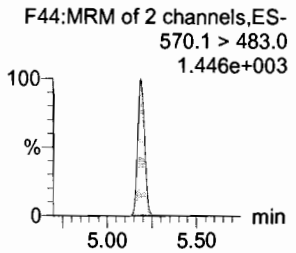

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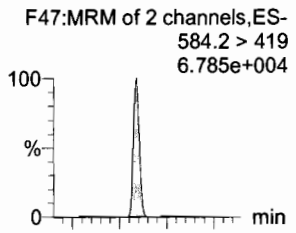

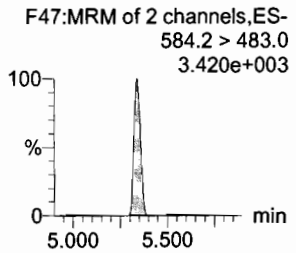

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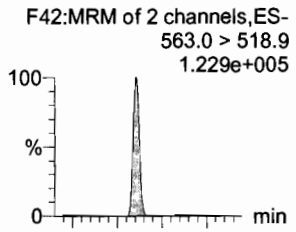

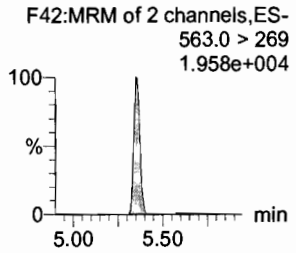

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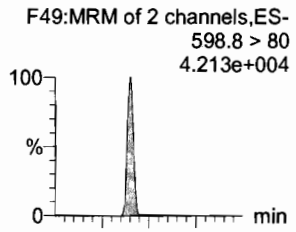

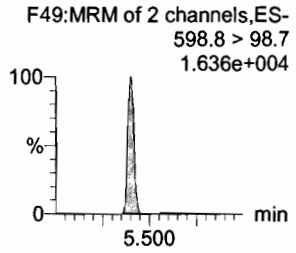

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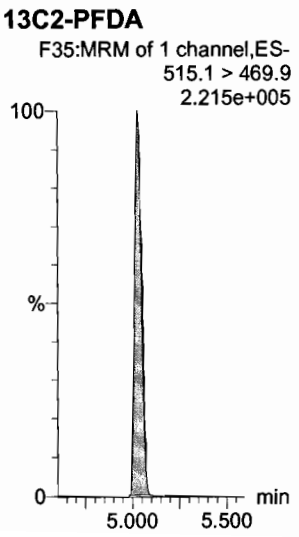
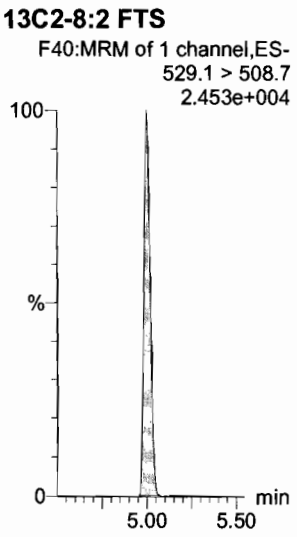


13C2-8:2 FTS



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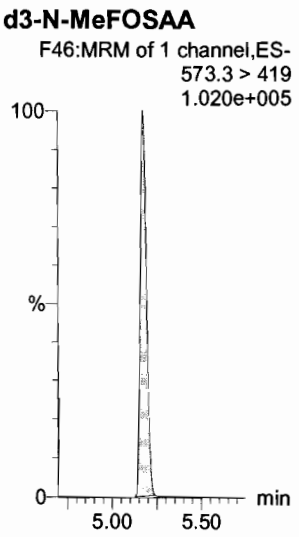

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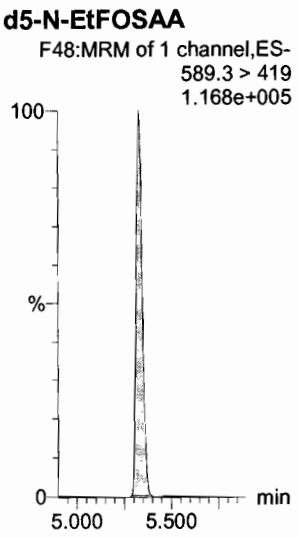

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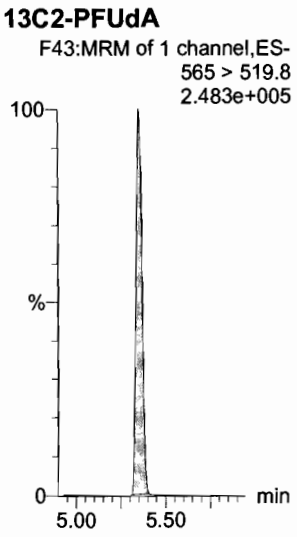

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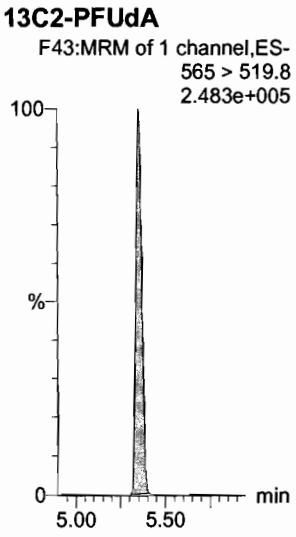

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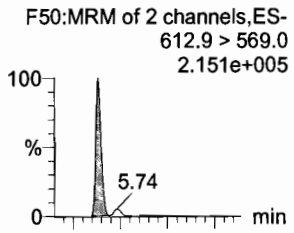

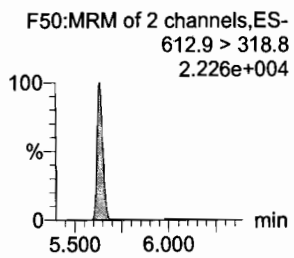

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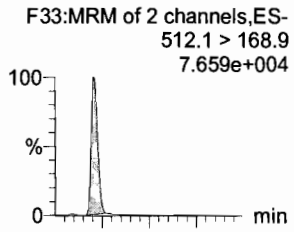
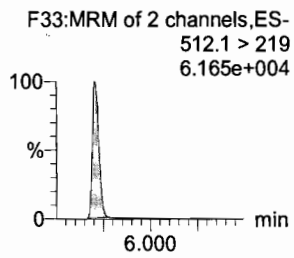
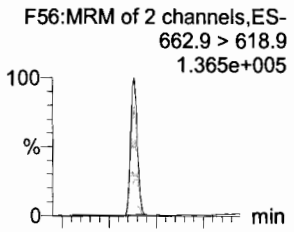
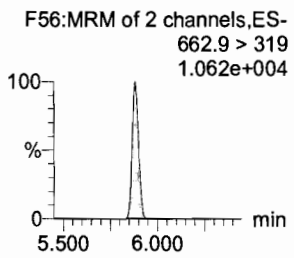


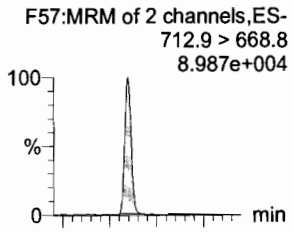


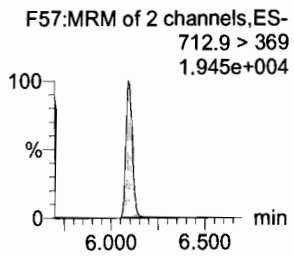
PFTrDA



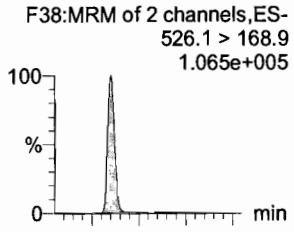


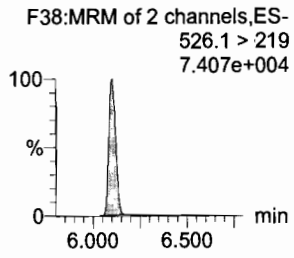
PFTeDA



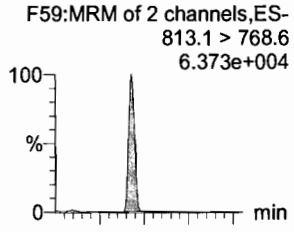


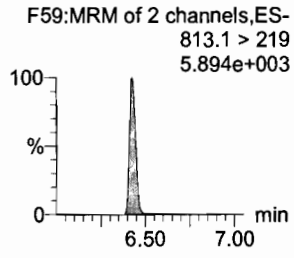
N-EtFOSA



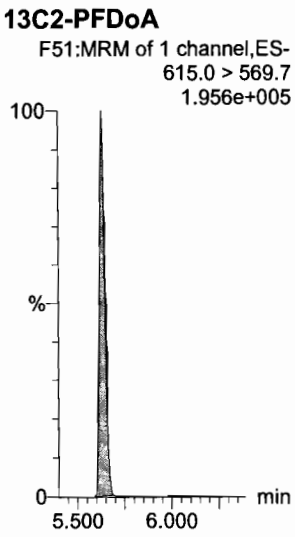


PFHxDA

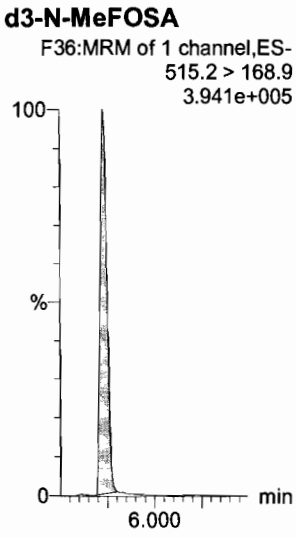




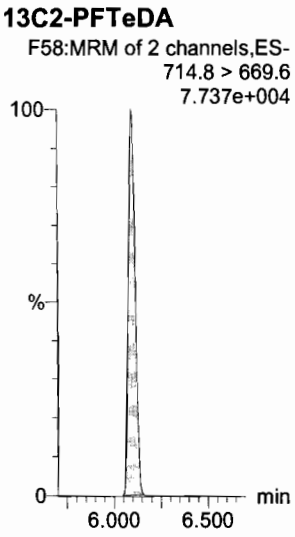
13C2-PFDoA



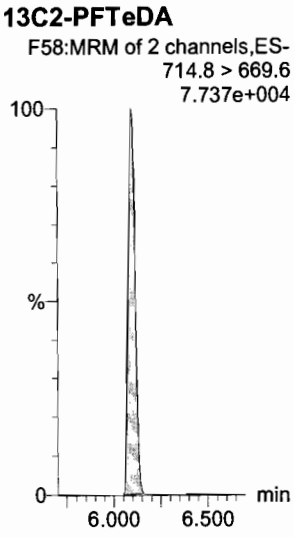
d3-N-MeFOSA



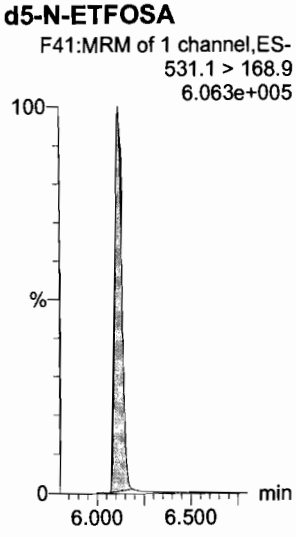
13C2-PFTeDA



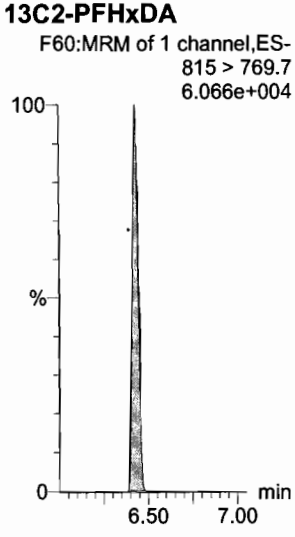
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

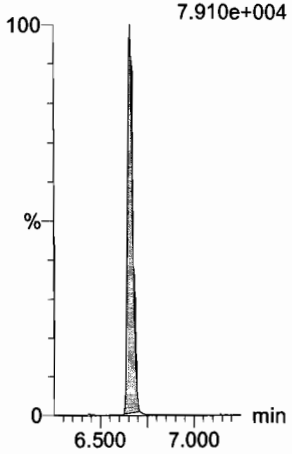


Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

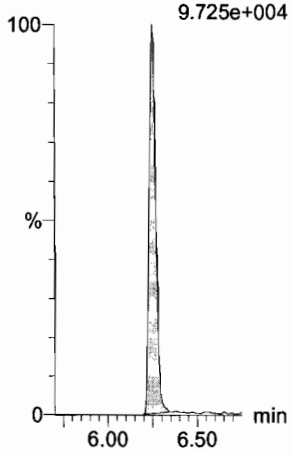
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_6, Date: 11-Jan-2018, Time: 10:18:46, ID: ST180110M3-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

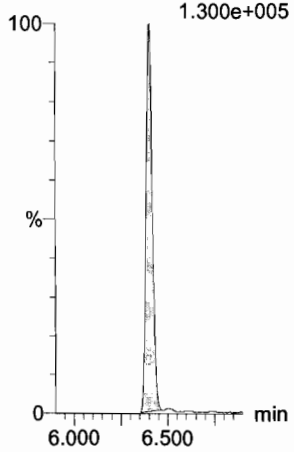
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
7.910e+004



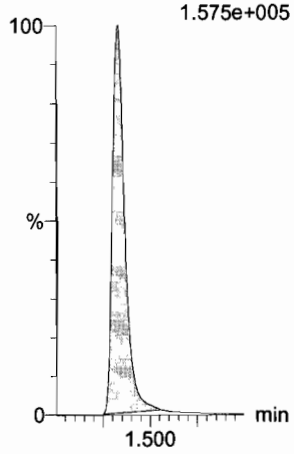
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
9.725e+004



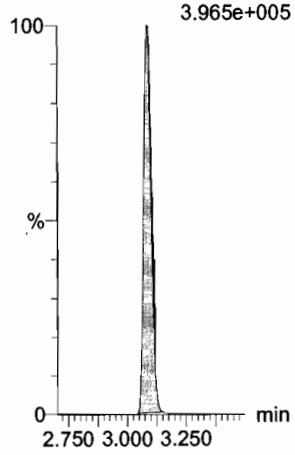
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.300e+005



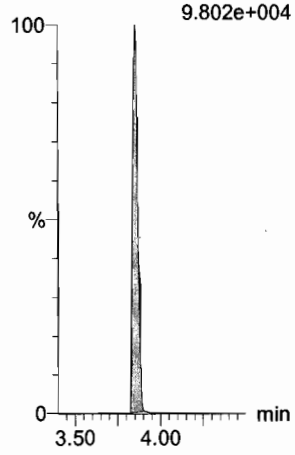
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.575e+005



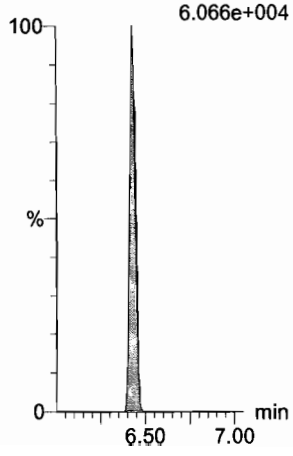
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.965e+005



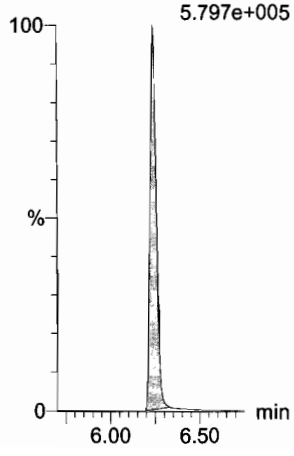
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.802e+004



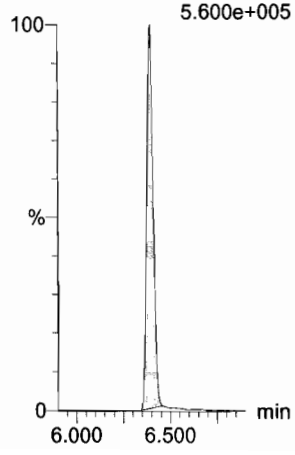
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.066e+004



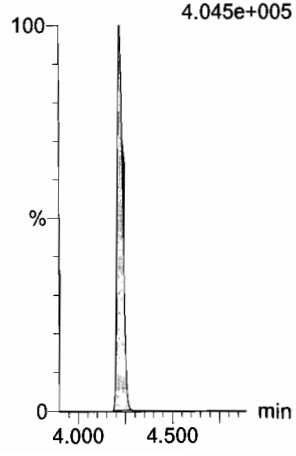
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.797e+005



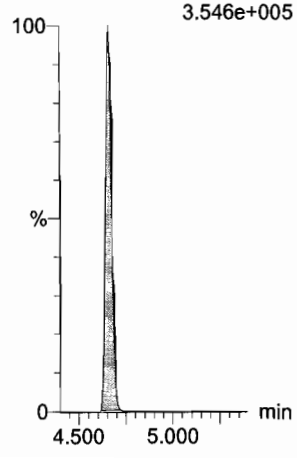
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.600e+005



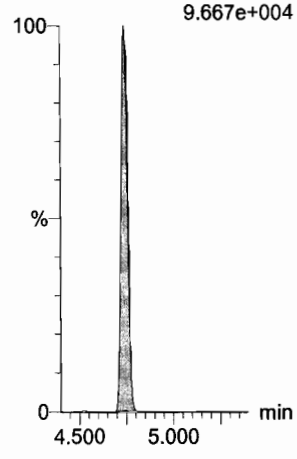
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.045e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.546e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.667e+004



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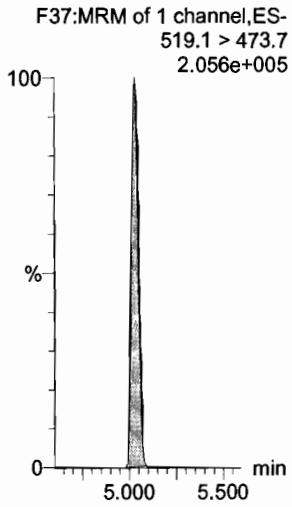
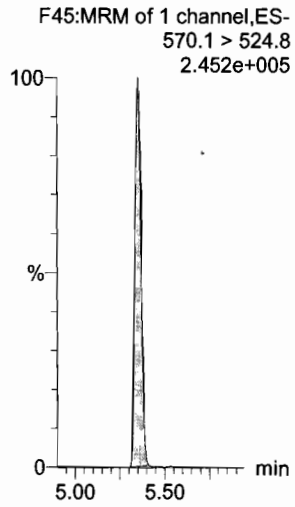
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_6, Date: 11-Jan-2018, Time: 10:18:46, ID: ST180110M3-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

13C6-PFDA



13C7-PFUdA



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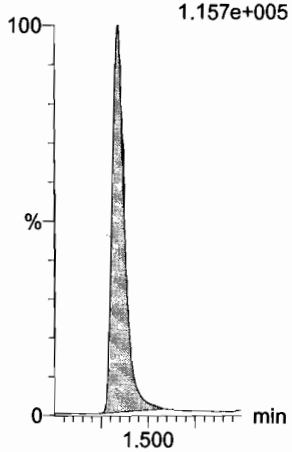
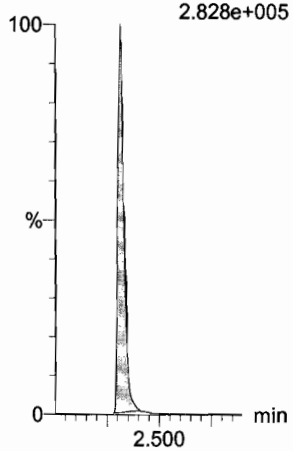
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_7, Date: 11-Jan-2018, Time: 10:29:56, ID: ST180110M3-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

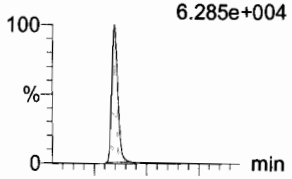
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.157e+005



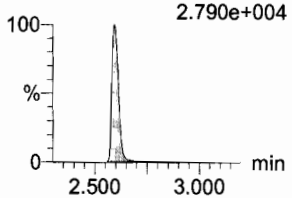
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
2.828e+005



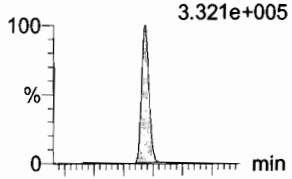
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
6.285e+004



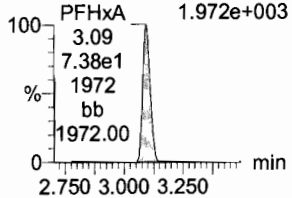
F6:MRM of 2 channels,ES-
299.0 > 99.0
2.790e+004



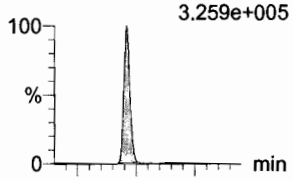
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
3.321e+005



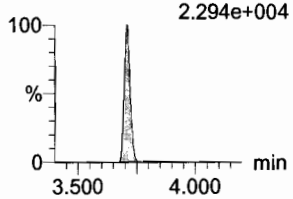
F8:MRM of 2 channels,ES-
313.2 > 119
1.972e+003



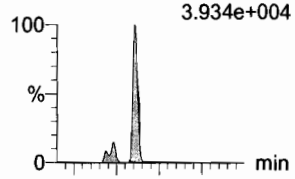
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
3.259e+005



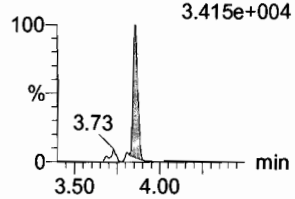
F13:MRM of 2 channels,ES-
363.0 > 169.0
2.294e+004



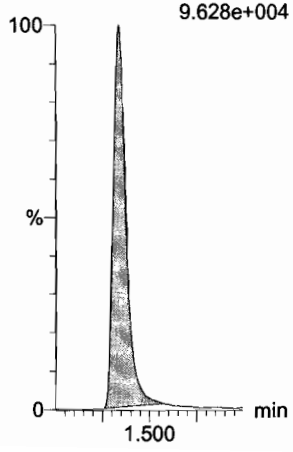
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
3.934e+004



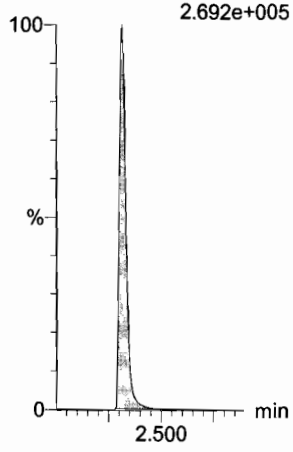
F15:MRM of 2 channels,ES-
398.9 > 99.0
3.415e+004



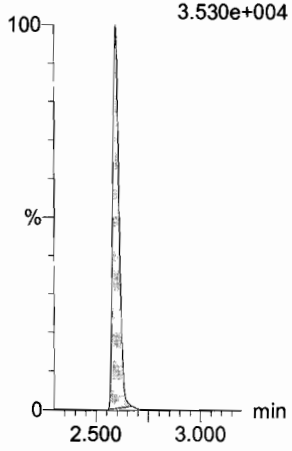
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
9.628e+004



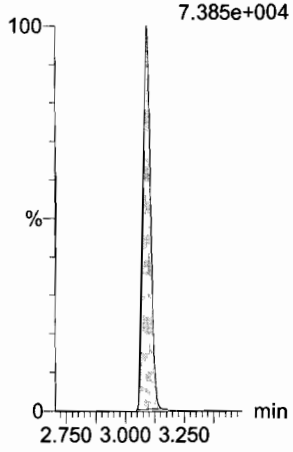
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
2.692e+005



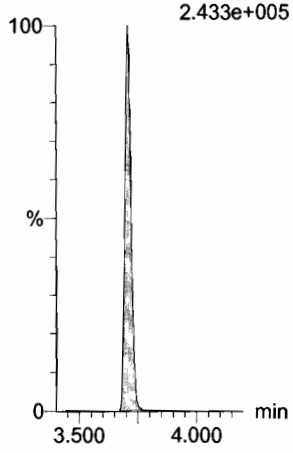
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
3.530e+004



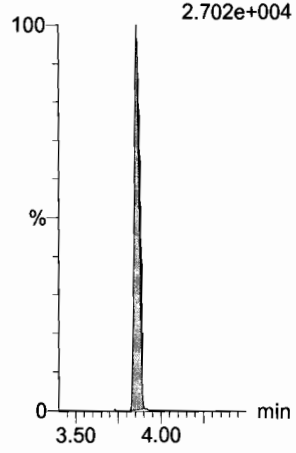
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
7.385e+004



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
2.433e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
2.702e+004

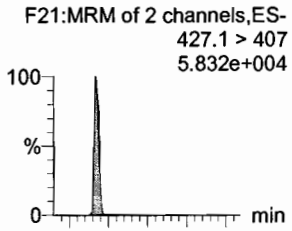


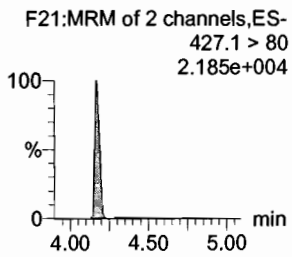
Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

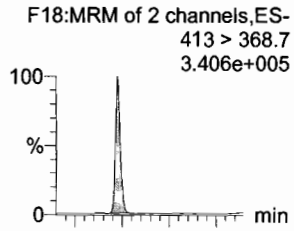
Name: 180110M3_7, Date: 11-Jan-2018, Time: 10:29:56, ID: ST180110M3-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

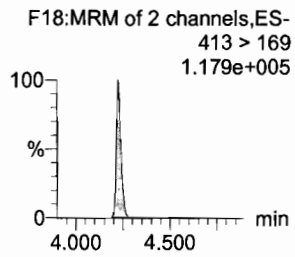
6:2 FTS



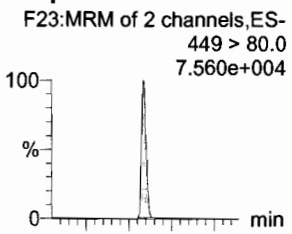


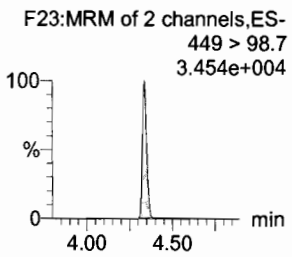
L-PFOA



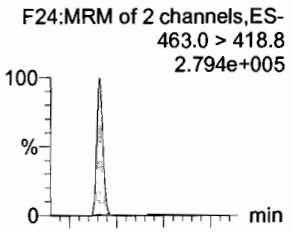


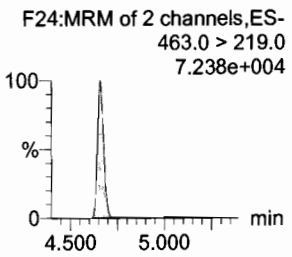
PFHpS



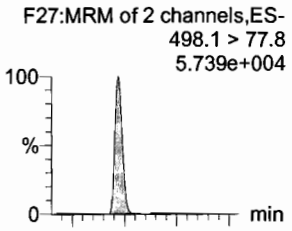


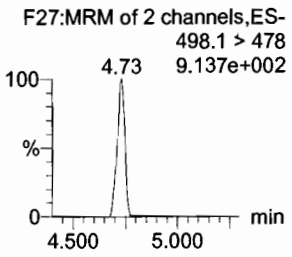
PFNA



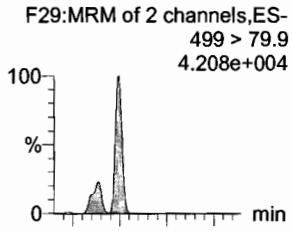


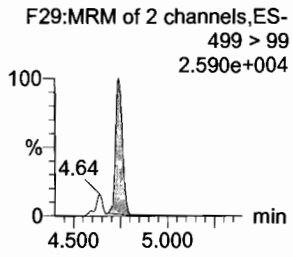
PFOSA



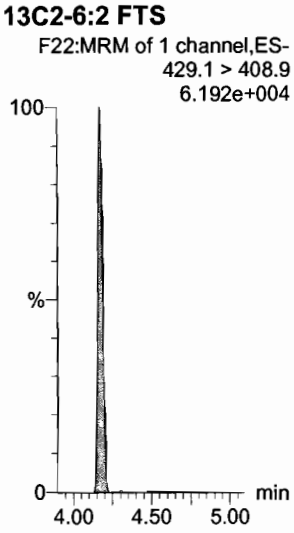


L-PFOS

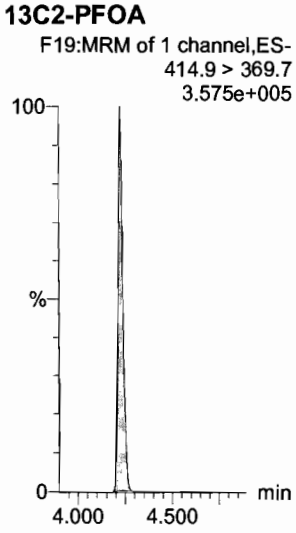




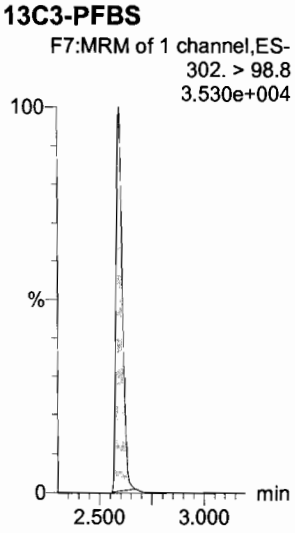
13C2-6:2 FTS



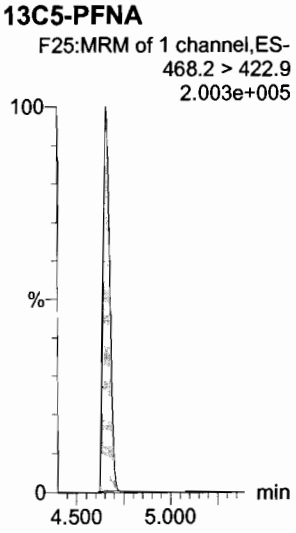
13C2-PFOA



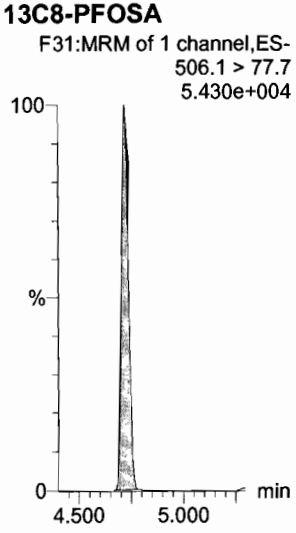
13C3-PFBS



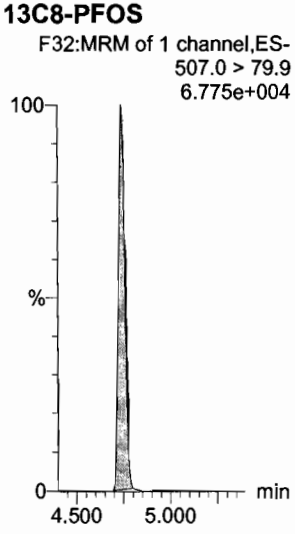
13C5-PFNA



13C8-PFOSA



13C8-PFOS

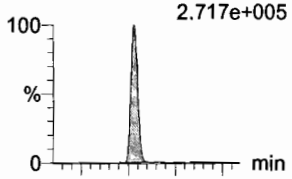


Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

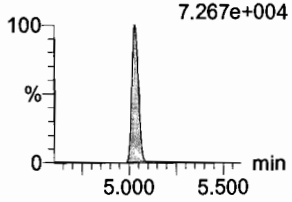
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_7, Date: 11-Jan-2018, Time: 10:29:56, ID: ST180110M3-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

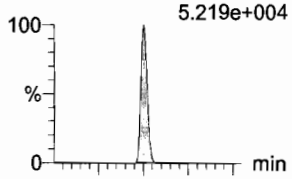
PFDA
F34:MRM of 2 channels,ES-
513 > 468.8
2.717e+005



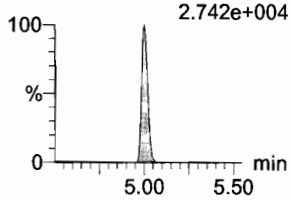
F34:MRM of 2 channels,ES-
513 > 219
7.267e+004



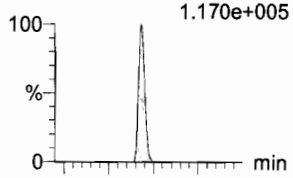
8:2 FTS
F39:MRM of 2 channels,ES-
527 > 506.9
5.219e+004



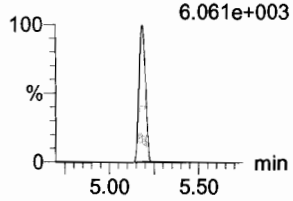
F39:MRM of 2 channels,ES-
527 > 80
2.742e+004



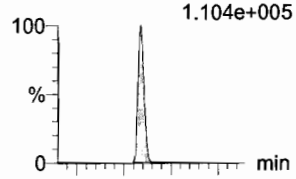
N-MeFOSAA
F44:MRM of 2 channels,ES-
570.1 > 419
1.170e+005



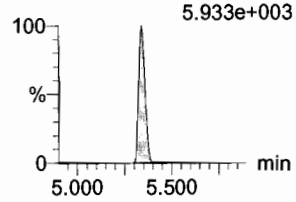
F44:MRM of 2 channels,ES-
570.1 > 483.0
6.061e+003



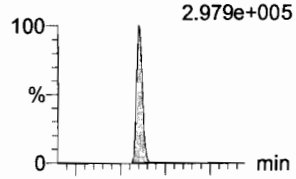
N-EtFOSAA
F47:MRM of 2 channels,ES-
584.2 > 419
1.104e+005



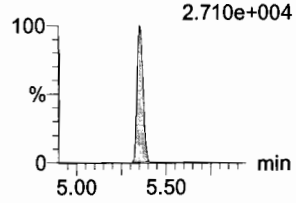
F47:MRM of 2 channels,ES-
584.2 > 483.0
5.933e+003



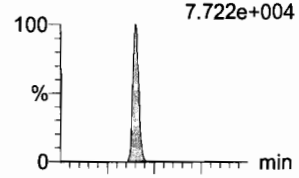
PFUdA
F42:MRM of 2 channels,ES-
563.0 > 518.9
2.979e+005



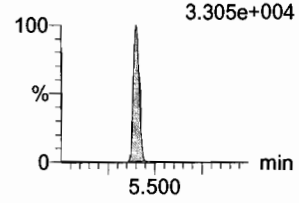
F42:MRM of 2 channels,ES-
563.0 > 269
2.710e+004



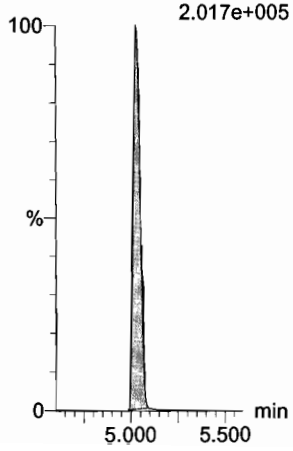
PFDS
F49:MRM of 2 channels,ES-
598.8 > 80
7.722e+004



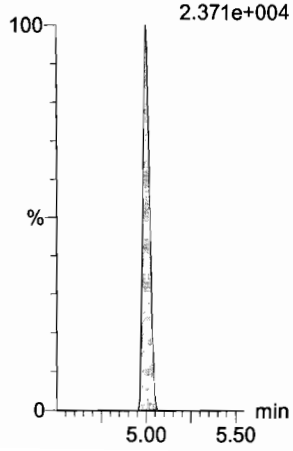
F49:MRM of 2 channels,ES-
598.8 > 98.7
3.305e+004



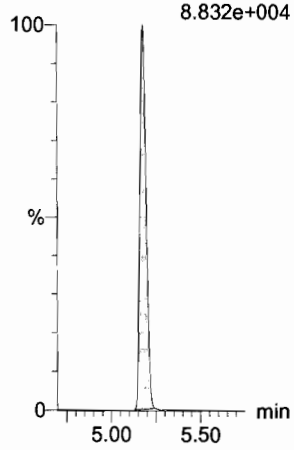
13C2-PFDA
F35:MRM of 1 channel,ES-
515.1 > 469.9
2.017e+005



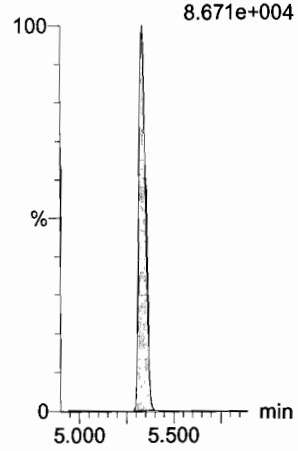
13C2-8:2 FTS
F40:MRM of 1 channel,ES-
529.1 > 508.7
2.371e+004



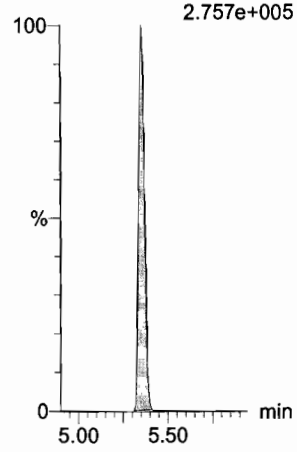
d3-N-MeFOSAA
F46:MRM of 1 channel,ES-
573.3 > 419
8.832e+004



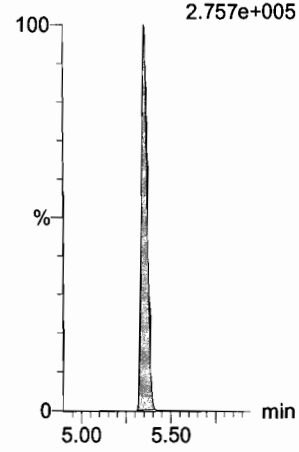
d5-N-EtFOSAA
F48:MRM of 1 channel,ES-
589.3 > 419
8.671e+004



13C2-PFUdA
F43:MRM of 1 channel,ES-
565 > 519.8
2.757e+005



13C2-PFUdA
F43:MRM of 1 channel,ES-
565 > 519.8
2.757e+005

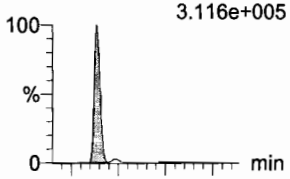


Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

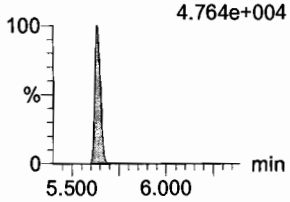
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_7, Date: 11-Jan-2018, Time: 10:29:56, ID: ST180110M3-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

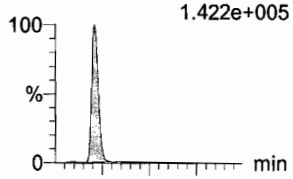
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
3.116e+005



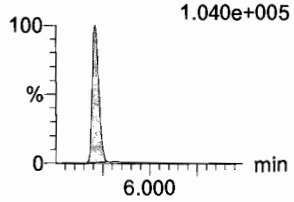
F50:MRM of 2 channels,ES-
612.9 > 318.8
4.764e+004



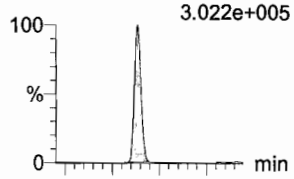
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
1.422e+005



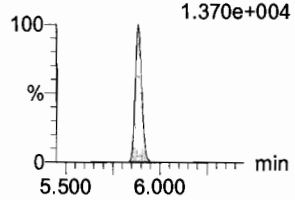
F33:MRM of 2 channels,ES-
512.1 > 219
1.040e+005



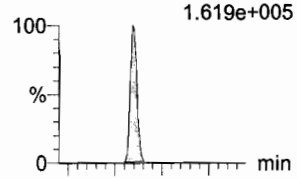
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
3.022e+005



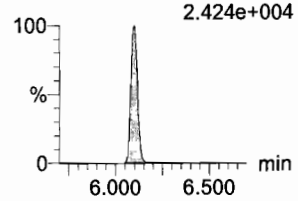
F56:MRM of 2 channels,ES-
662.9 > 319
1.370e+004



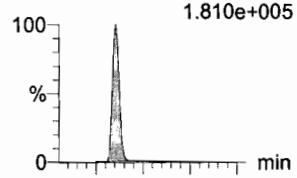
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
1.619e+005



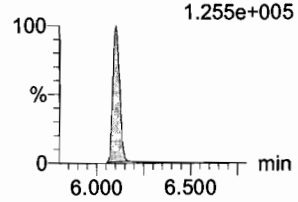
F57:MRM of 2 channels,ES-
712.9 > 369
2.424e+004



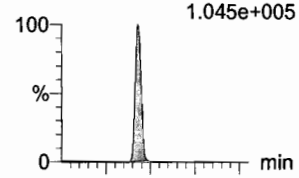
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
1.810e+005



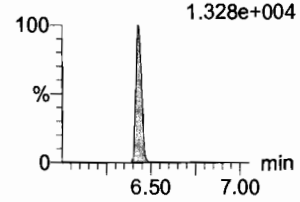
F38:MRM of 2 channels,ES-
526.1 > 219
1.255e+005



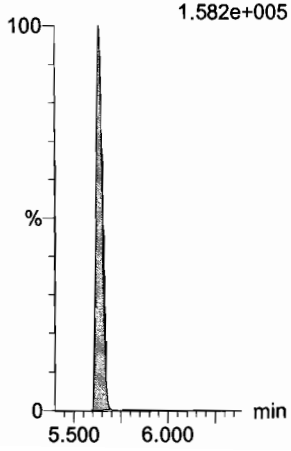
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
1.045e+005



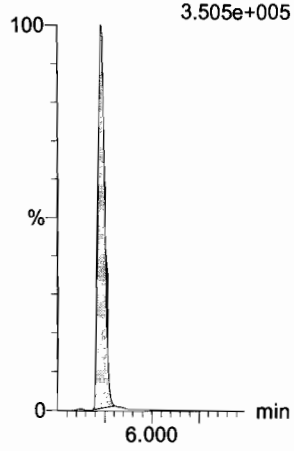
F59:MRM of 2 channels,ES-
813.1 > 219
1.328e+004



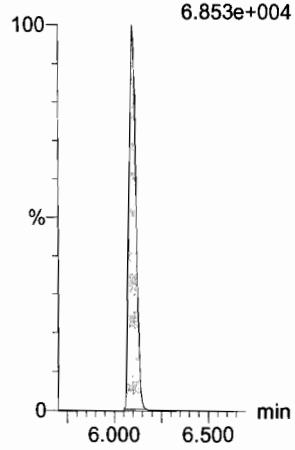
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
1.582e+005



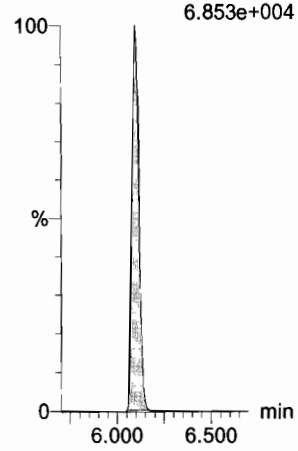
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
3.505e+005



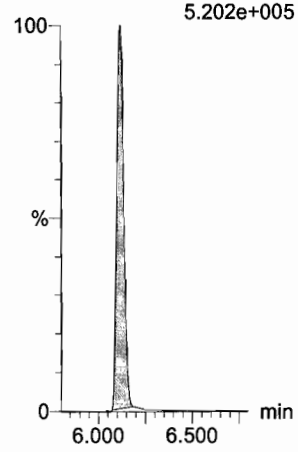
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
6.853e+004



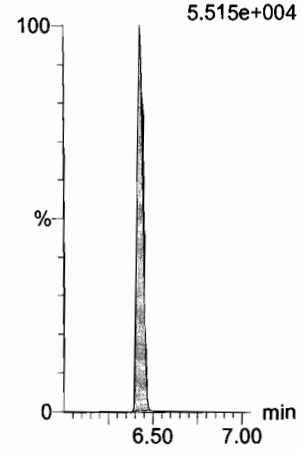
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
6.853e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
5.202e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.515e+004

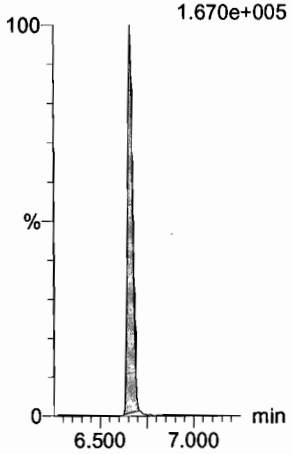


Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

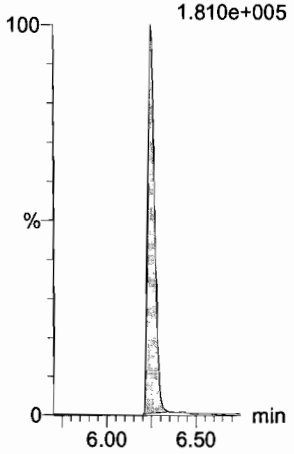
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_7, Date: 11-Jan-2018, Time: 10:29:56, ID: ST180110M3-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

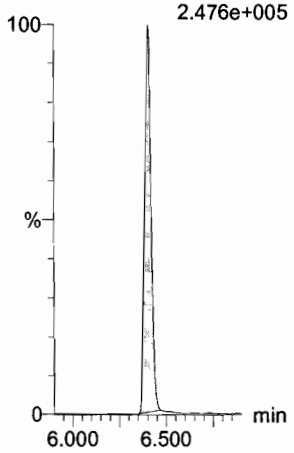
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.670e+005



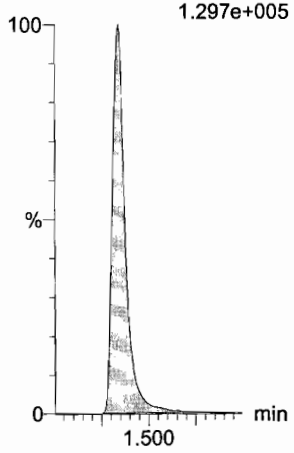
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.810e+005



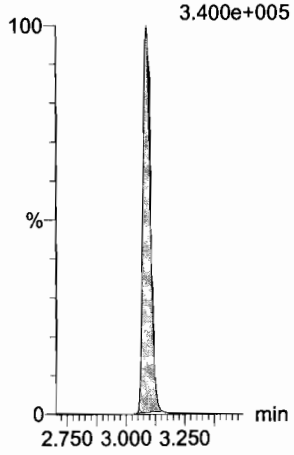
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.476e+005



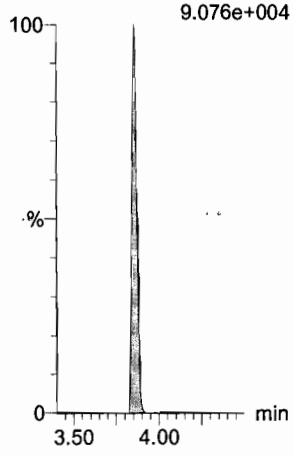
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.297e+005



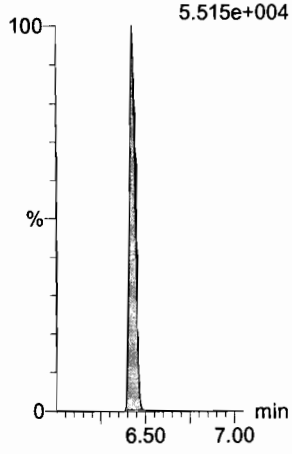
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.400e+005



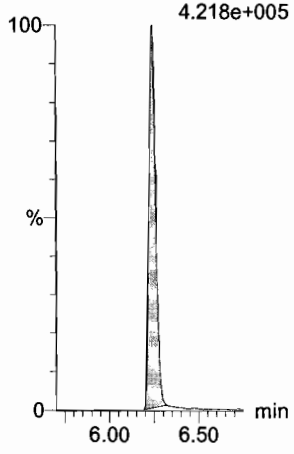
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.076e+004



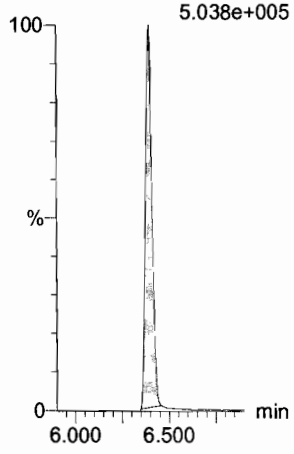
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.515e+004



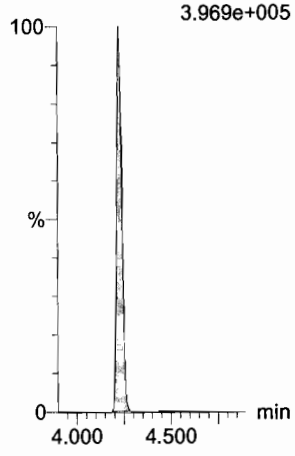
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.218e+005



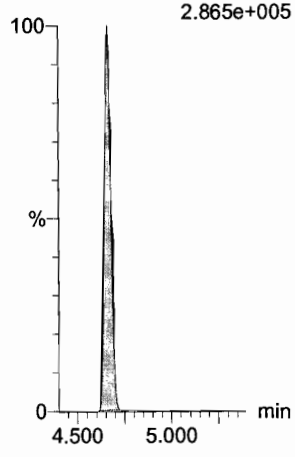
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.038e+005



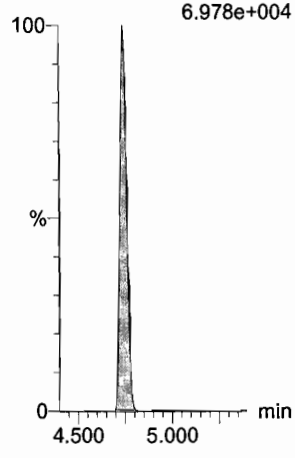
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.969e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.865e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
6.978e+004

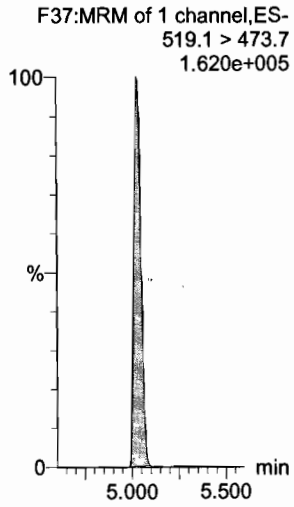


Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

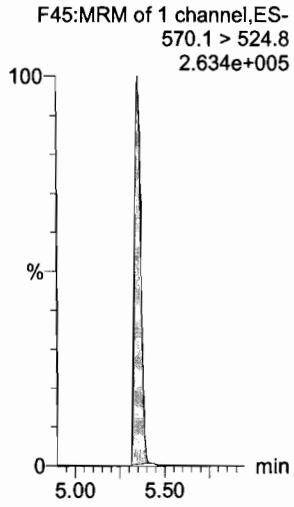
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_7, Date: 11-Jan-2018, Time: 10:29:56, ID: ST180110M3-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

13C6-PFDA



13C7-PFUdA

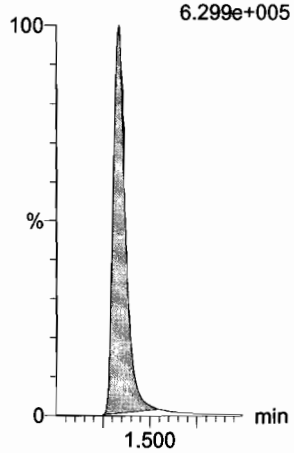


Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

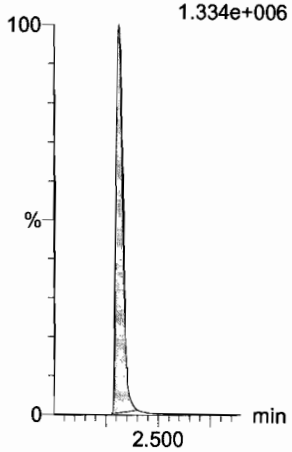
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_8, Date: 11-Jan-2018, Time: 10:41:06, ID: ST180110M3-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

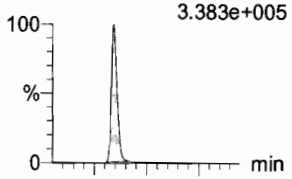
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
6.299e+005



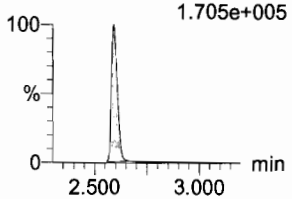
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
1.334e+006



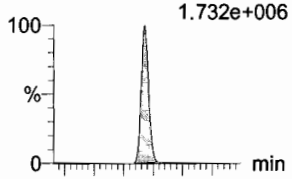
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
3.383e+005



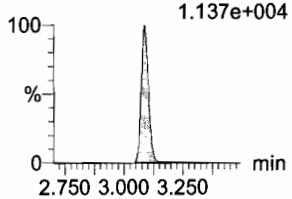
F6:MRM of 2 channels,ES-
299.0 > 99.0
1.705e+005



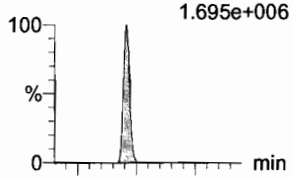
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
1.732e+006



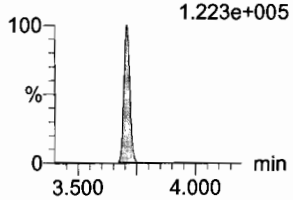
F8:MRM of 2 channels,ES-
313.2 > 119
1.137e+004



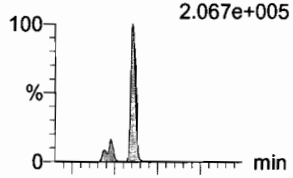
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
1.695e+006



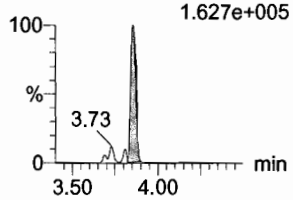
F13:MRM of 2 channels,ES-
363.0 > 169.0
1.223e+005



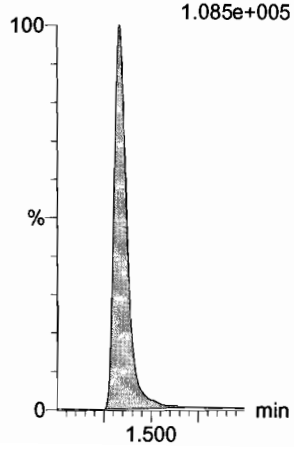
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
2.067e+005



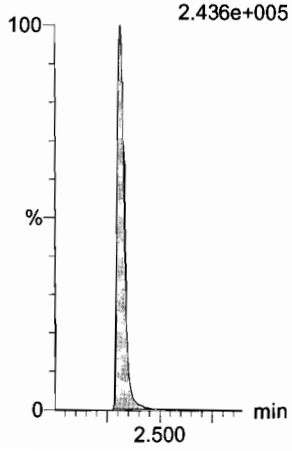
F15:MRM of 2 channels,ES-
398.9 > 99.0
1.627e+005



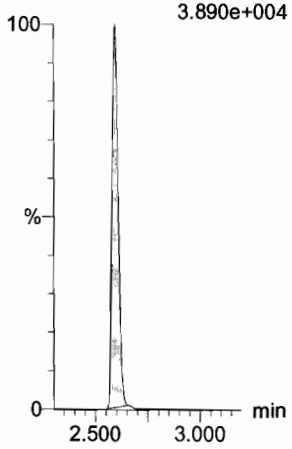
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.085e+005



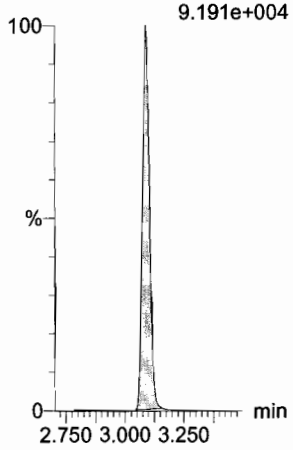
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
2.436e+005



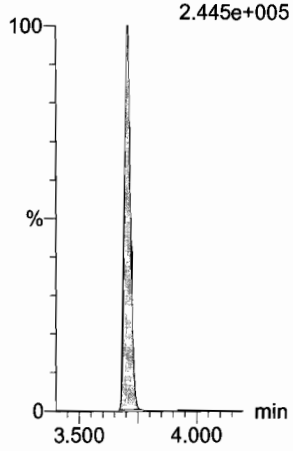
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
3.890e+004



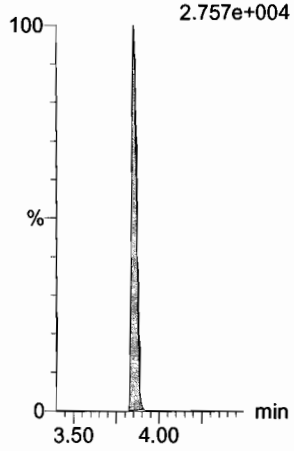
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
9.191e+004



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
2.445e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
2.757e+004



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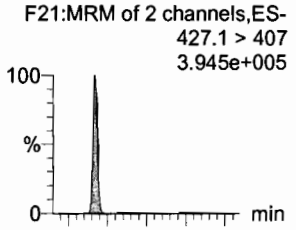
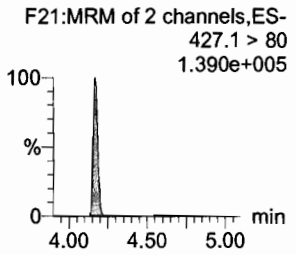
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

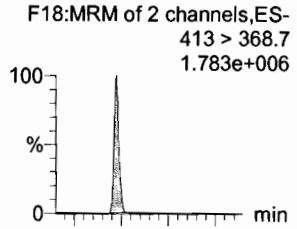
Name: 180110M3_8, Date: 11-Jan-2018, Time: 10:41:06, ID: ST180110M3-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

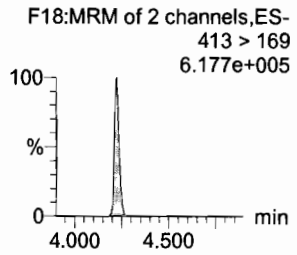
6:2 FTS



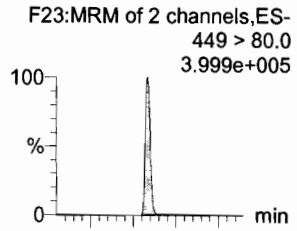


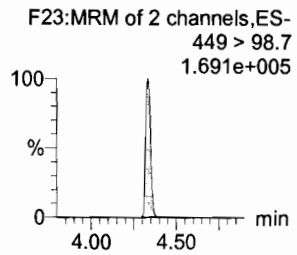
L-PFOA



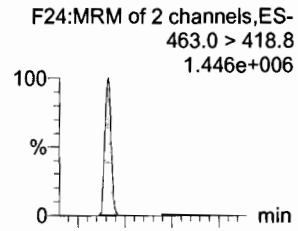


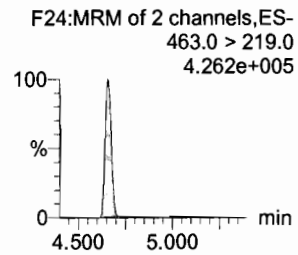
PFHpS



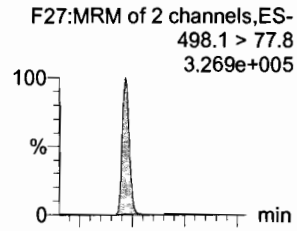


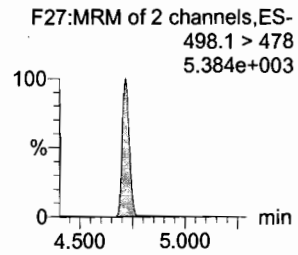
PFNA



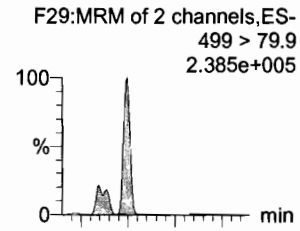


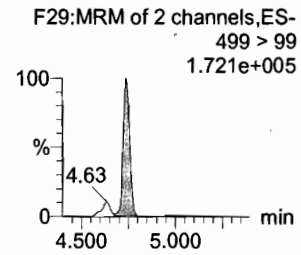
PFOSA



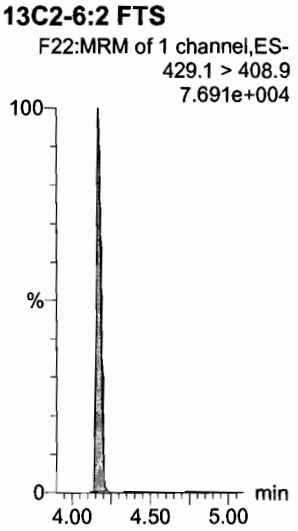


L-PFOS

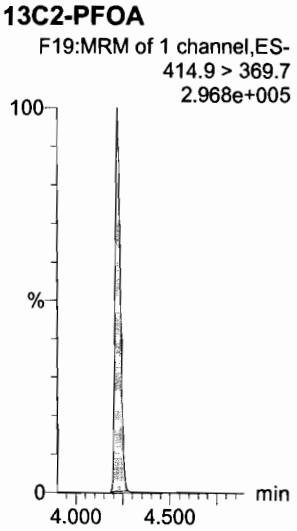




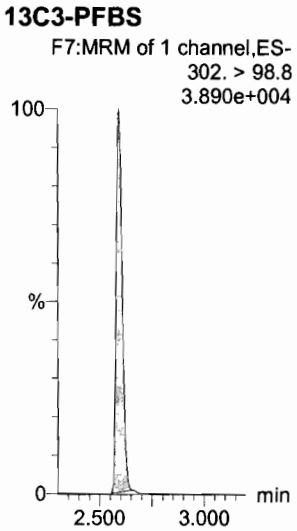
13C2-6:2 FTS



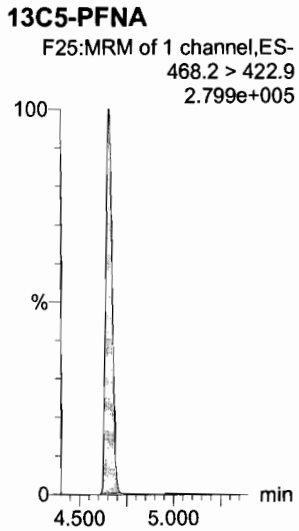
13C2-PFOA



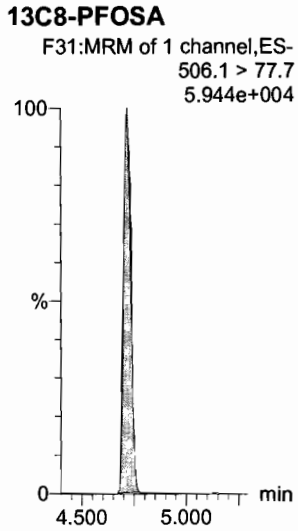
13C3-PFBS



13C5-PFNA



13C8-PFOSA



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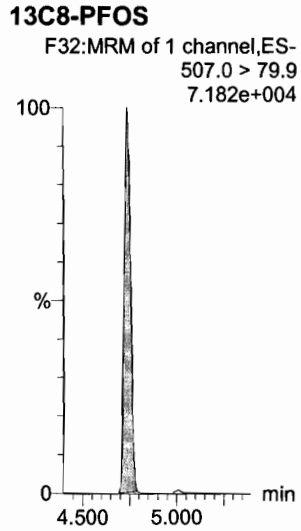

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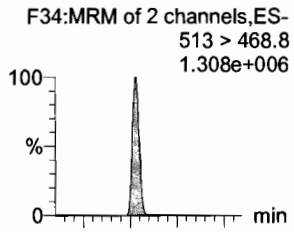
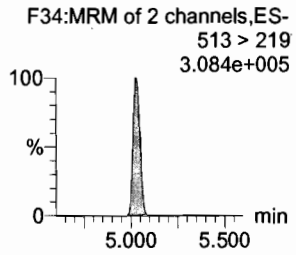
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

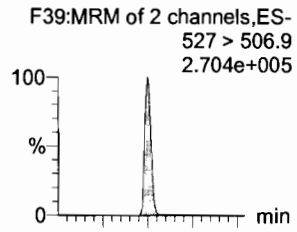
Name: 180110M3_8, Date: 11-Jan-2018, Time: 10:41:06, ID: ST180110M3-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

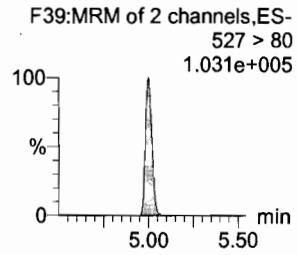
PFDA



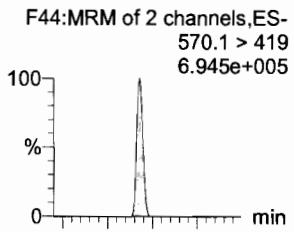


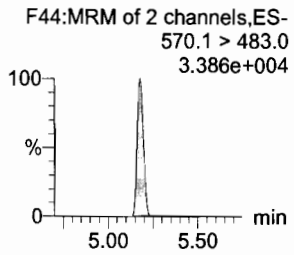
8:2 FTS



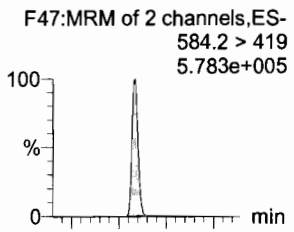


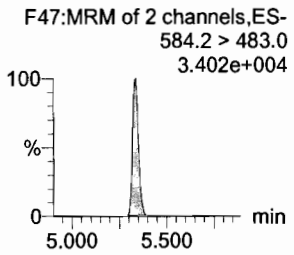
N-MeFOSAA



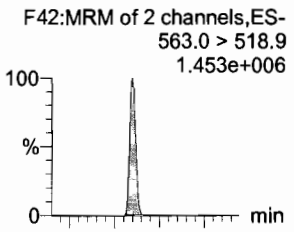


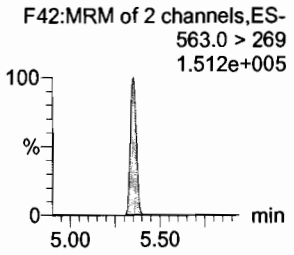
N-EtFOSAA



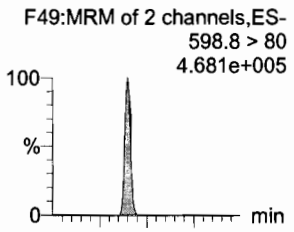


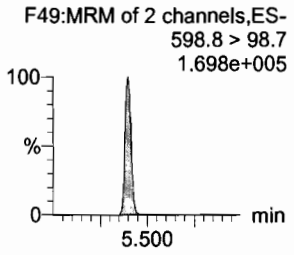
PFUdA



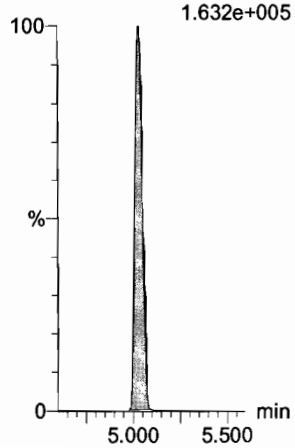


PFDS

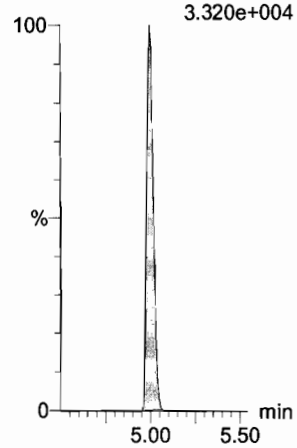




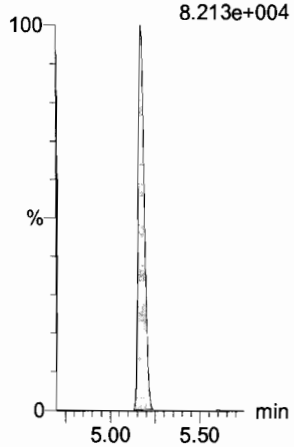
13C2-PFDA



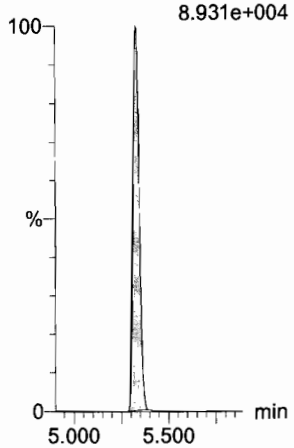
13C2-8:2 FTS



d3-N-MeFOSAA



d5-N-EtFOSAA



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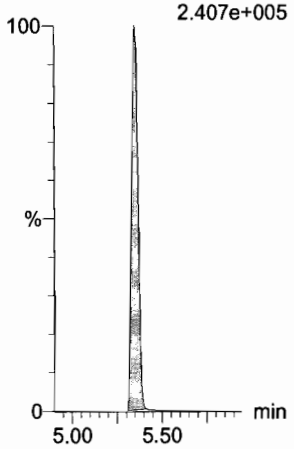
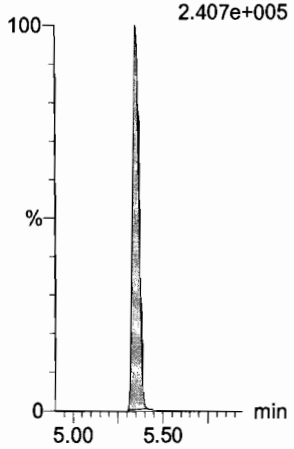


13C2-PFUdA



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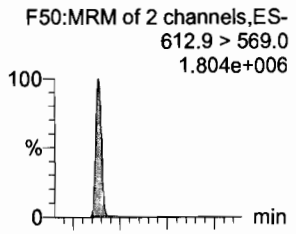
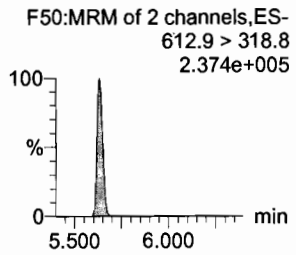
Name: 180110M3_8, Date: 11-Jan-2018, Time: 10:41:06, ID: ST180110M3-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

PFDoA





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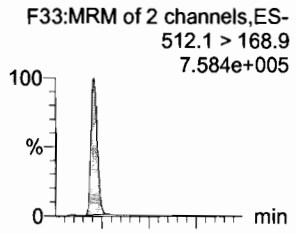

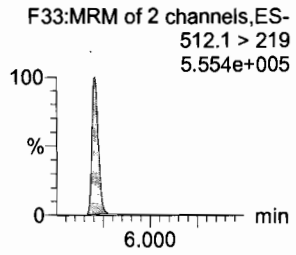

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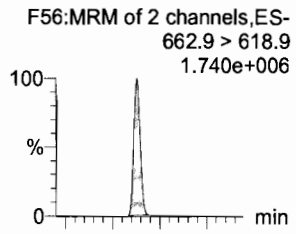
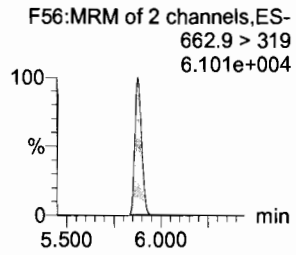
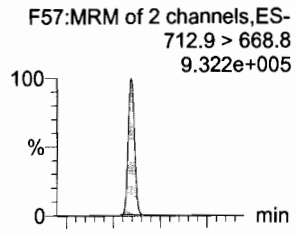
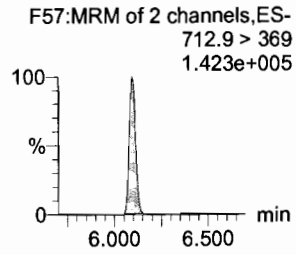


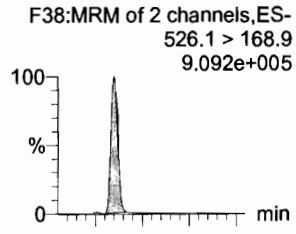


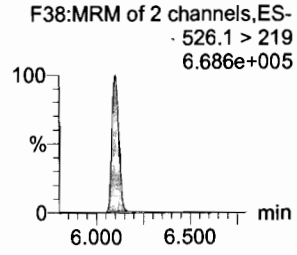
PFTeDA



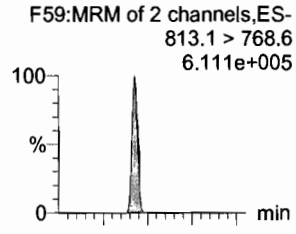


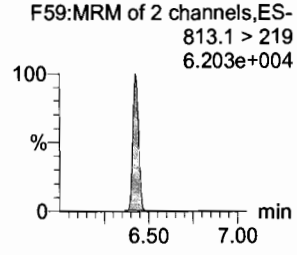
N-EtFOSA





PFHxDA





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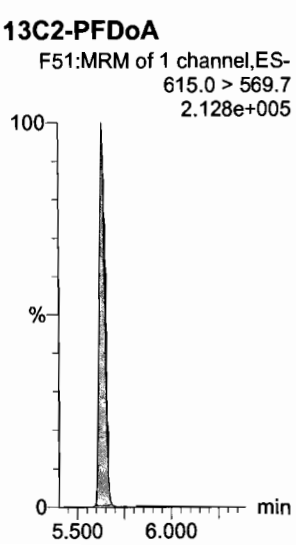
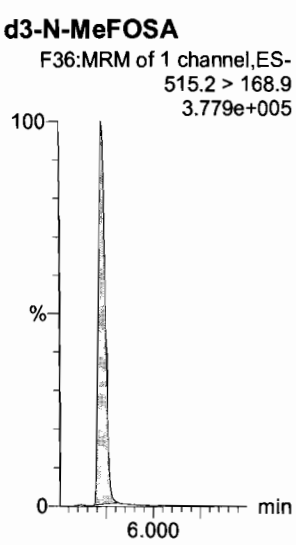


d3-N-MeFOSA



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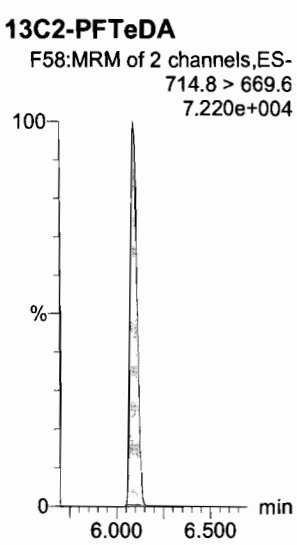

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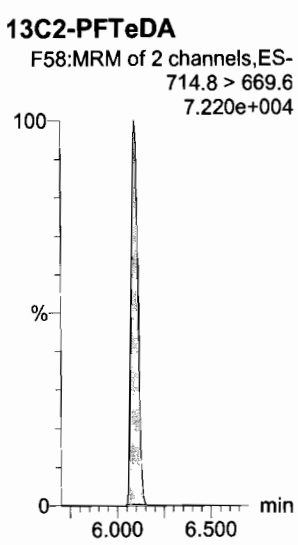
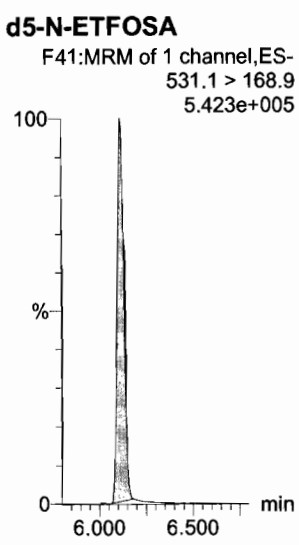
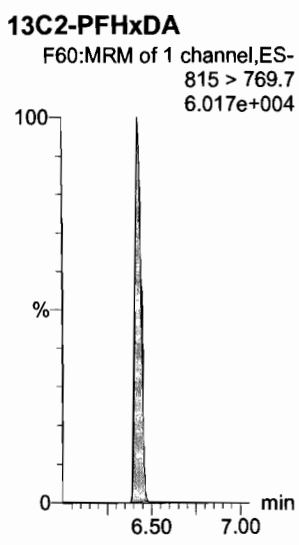


d5-N-ETFOSA



13C2-PFHxDA



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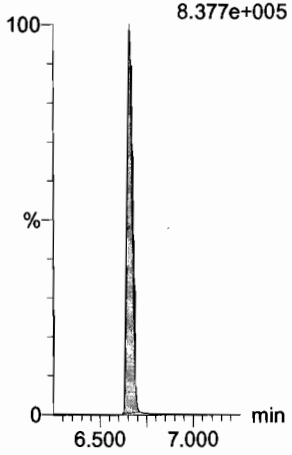
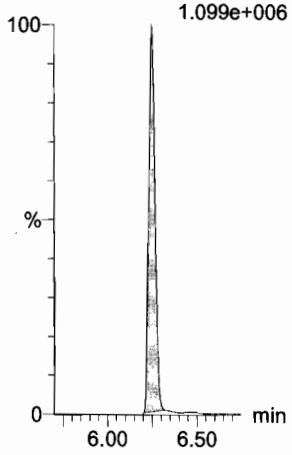
Name: 180110M3_8, Date: 11-Jan-2018, Time: 10:41:06, ID: ST180110M3-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

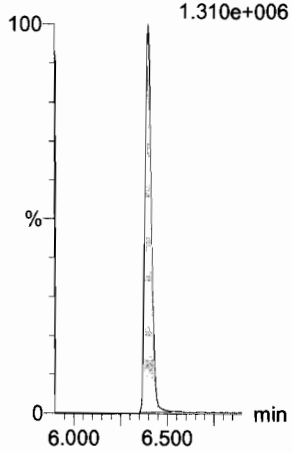
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
8.377e+005



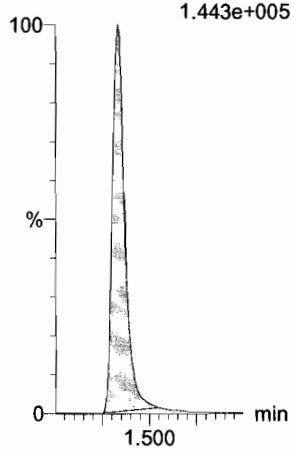
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.099e+006



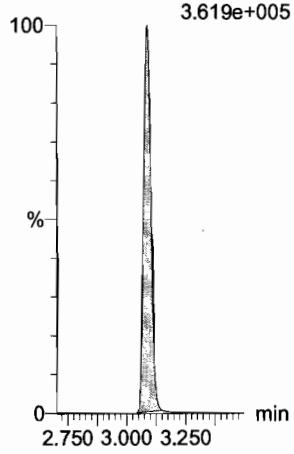
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.310e+006



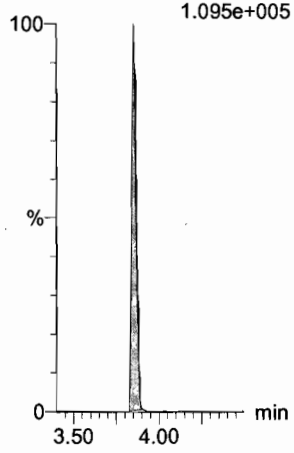
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.443e+005



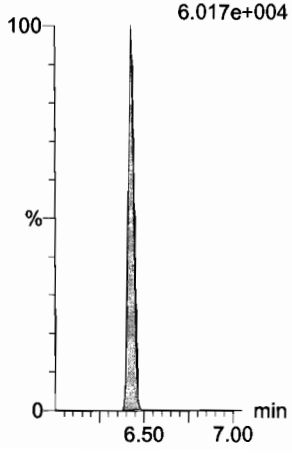
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.619e+005



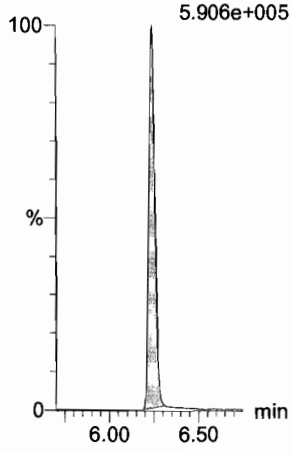
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.095e+005



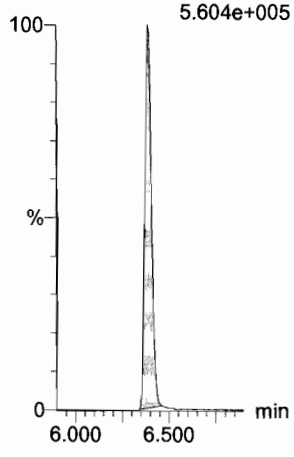
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.017e+004



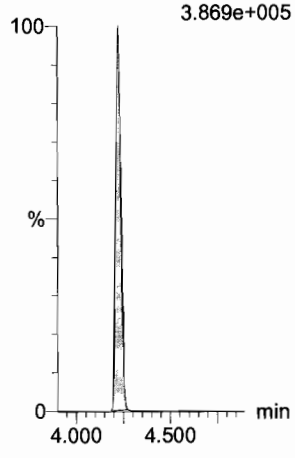
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.906e+005



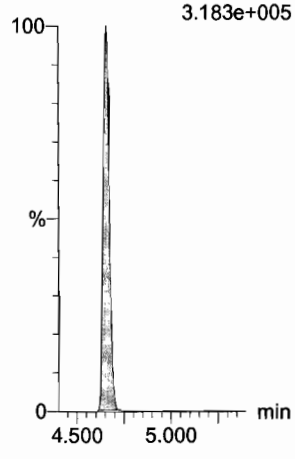
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.604e+005



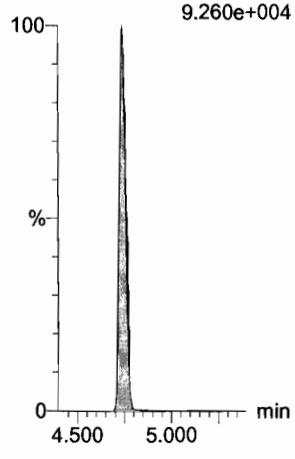
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.869e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.183e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.260e+004



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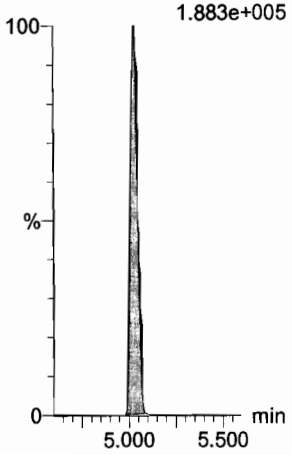
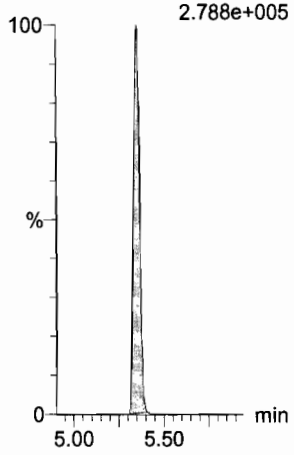
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_8, Date: 11-Jan-2018, Time: 10:41:06, ID: ST180110M3-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

13C6-PFDA



13C7-PFUdA



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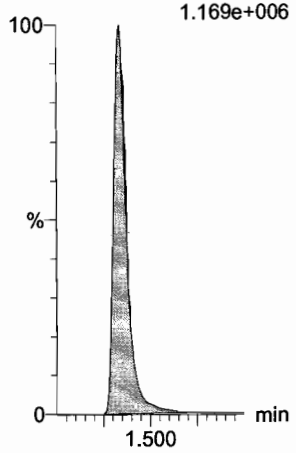
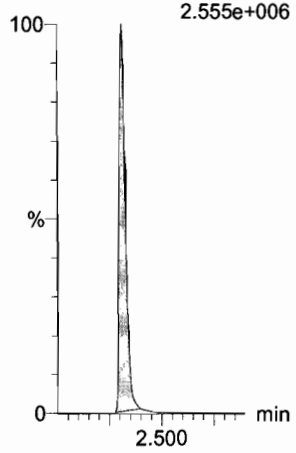
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_9, Date: 11-Jan-2018, Time: 10:52:18, ID: ST180110M3-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

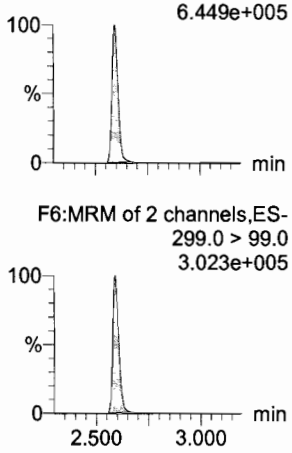
PFBA



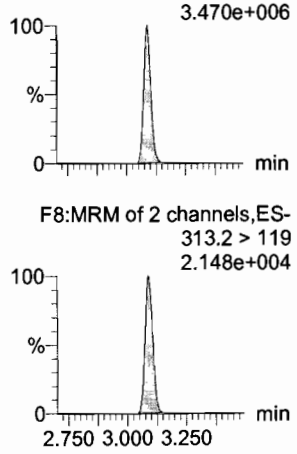
PFPeA



PFBS



PFHxA



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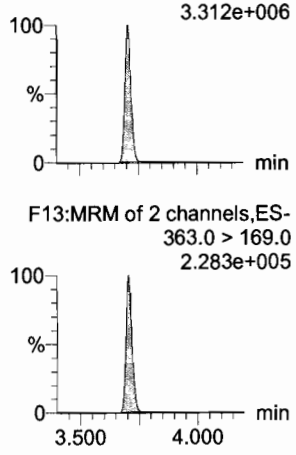
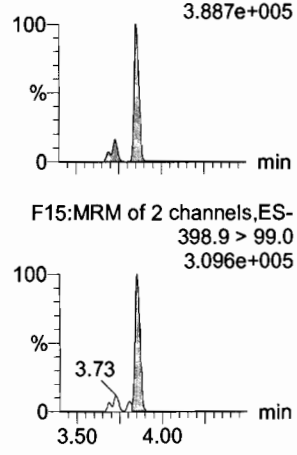
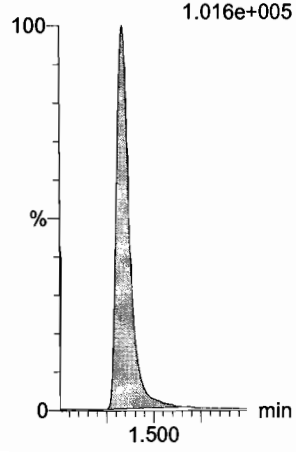


L-PFHxS



13C3-PFBA



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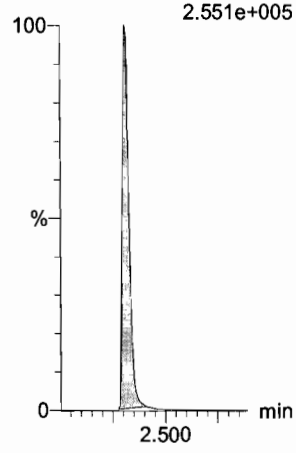

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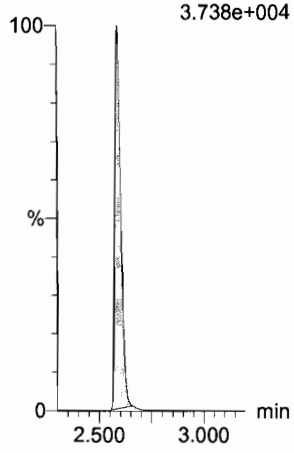
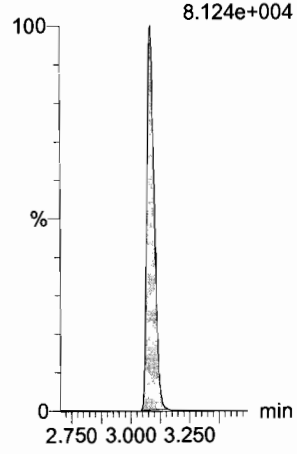
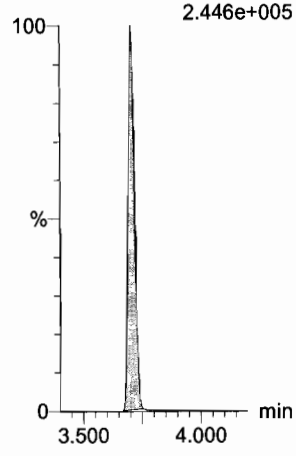


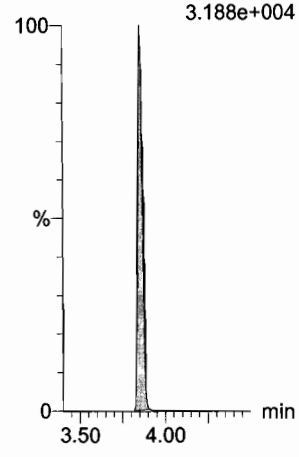
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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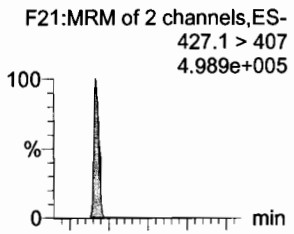
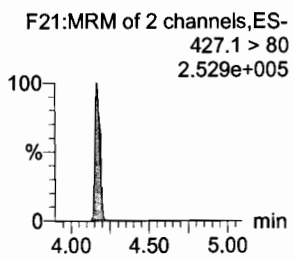
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

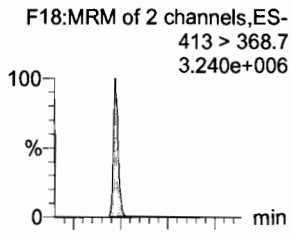
Name: 180110M3_9, Date: 11-Jan-2018, Time: 10:52:18, ID: ST180110M3-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

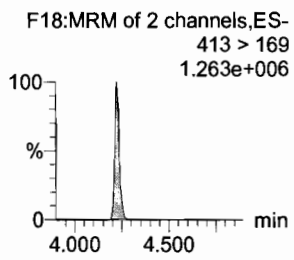
6:2 FTS





L-PFOA





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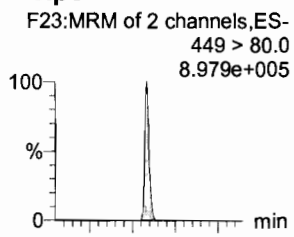

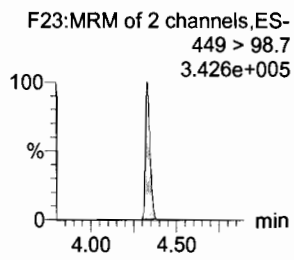

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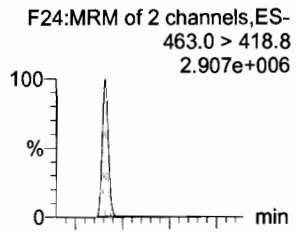

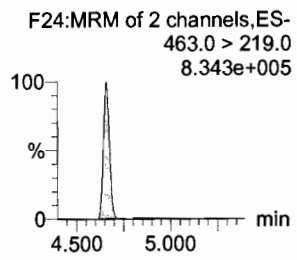

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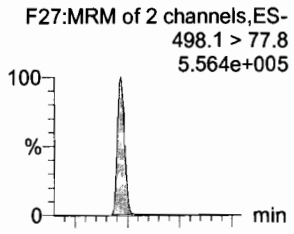
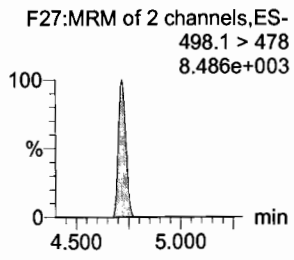
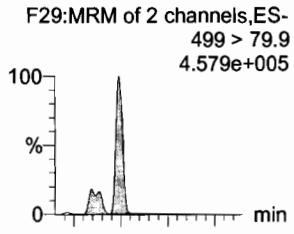
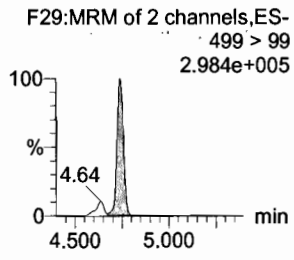


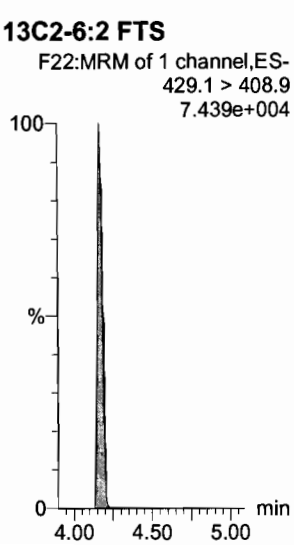


L-PFOS

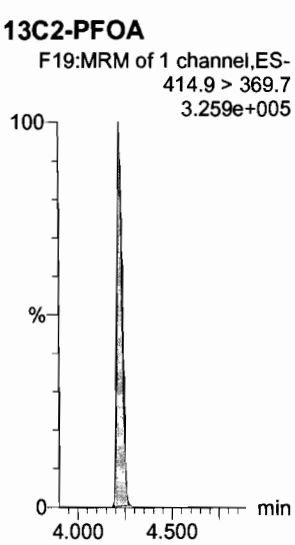




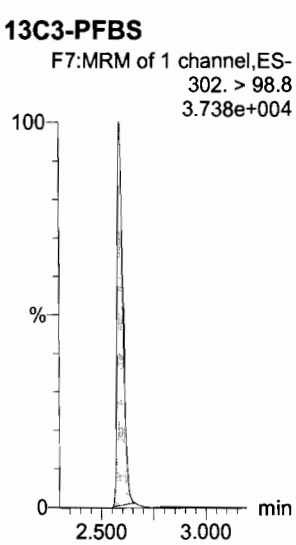
13C2-6:2 FTS



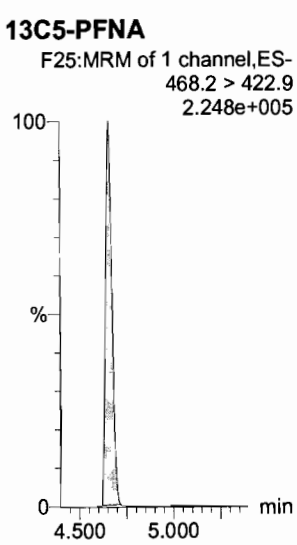
13C2-PFOA



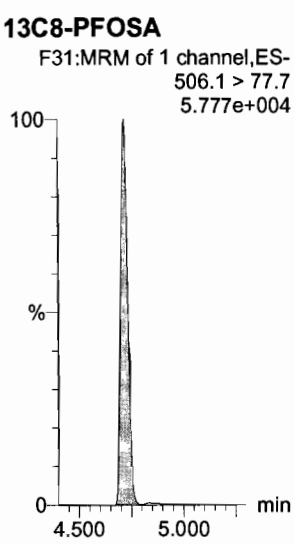
13C3-PFBS



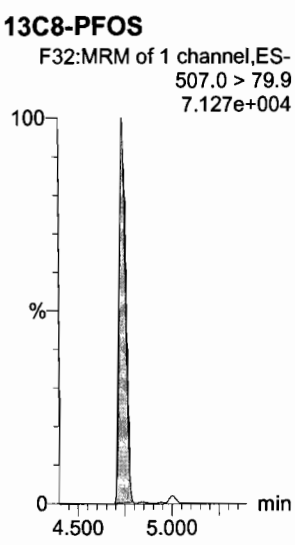
13C5-PFNA



13C8-PFOSA



13C8-PFOS

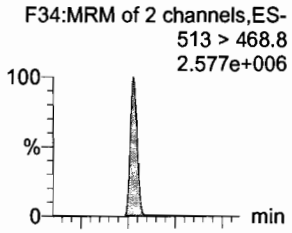


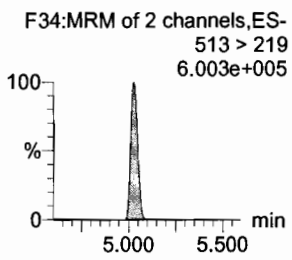
Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

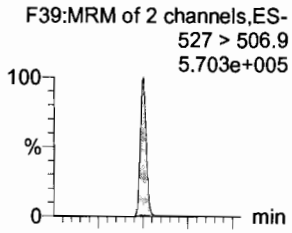
Name: 180110M3_9, Date: 11-Jan-2018, Time: 10:52:18, ID: ST180110M3-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

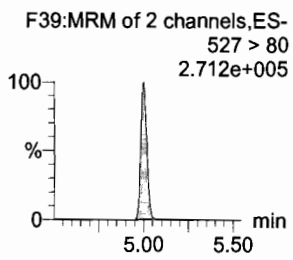
PFDA



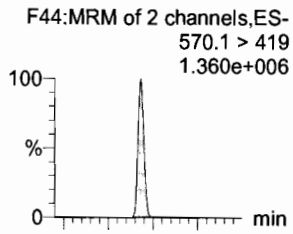


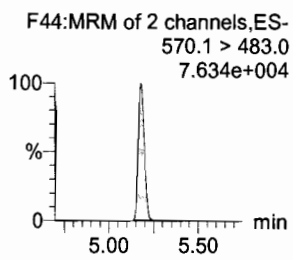
8:2 FTS





N-MeFOSAA





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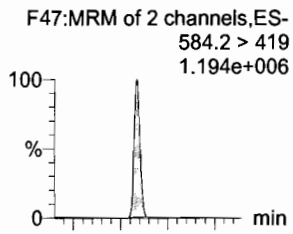
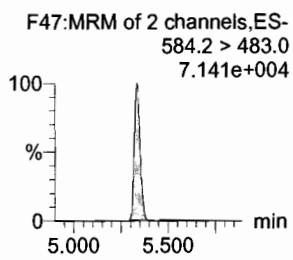
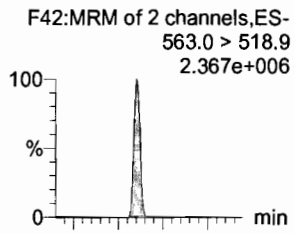
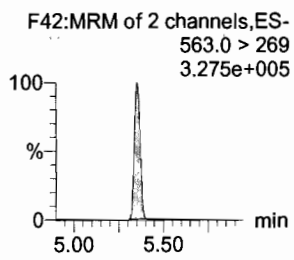


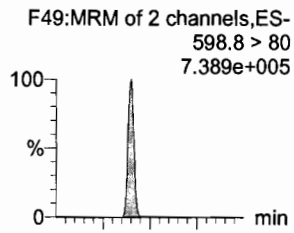


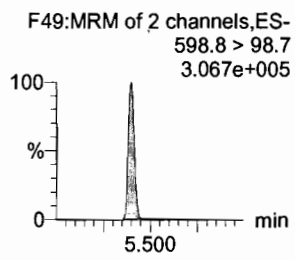
PFUdA



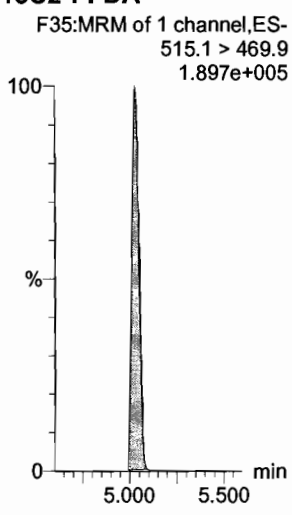


PFDS

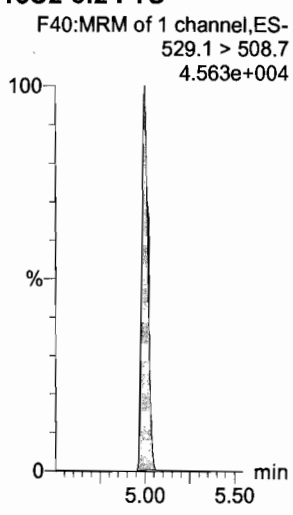




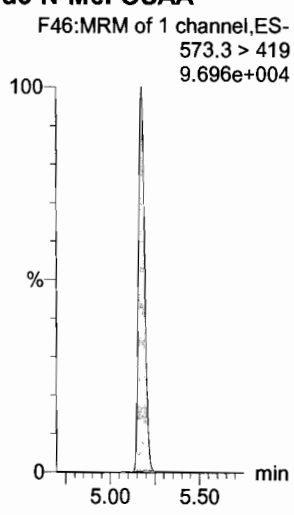
13C2-PFDA



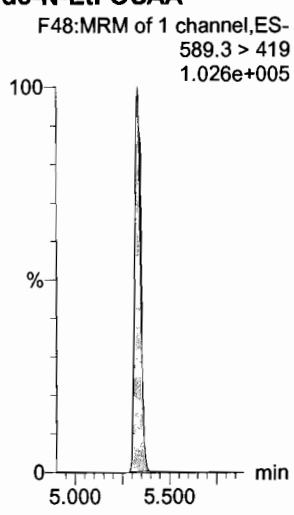
13C2-8:2 FTS



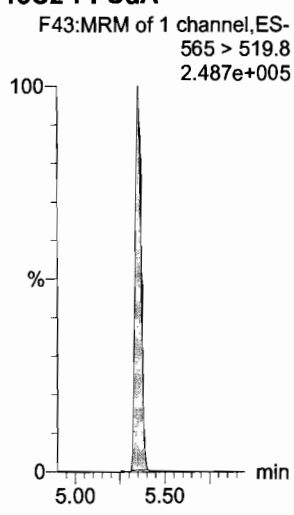
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFUdA



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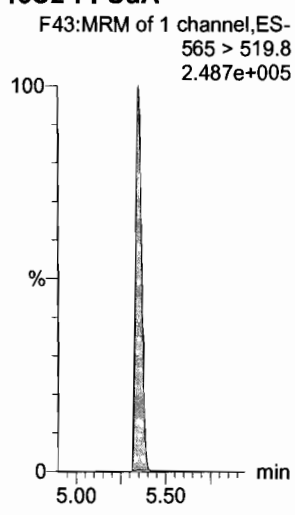

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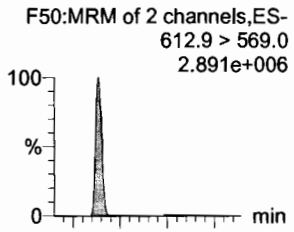
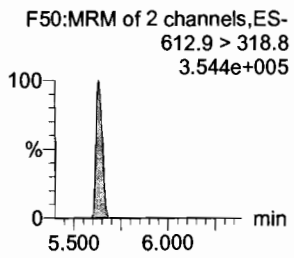
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

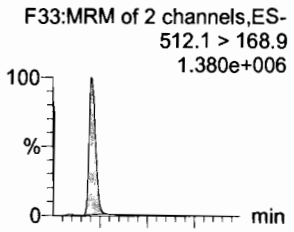
Name: 180110M3_9, Date: 11-Jan-2018, Time: 10:52:18, ID: ST180110M3-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

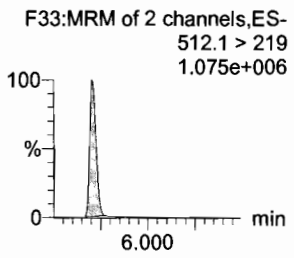
PFDoA



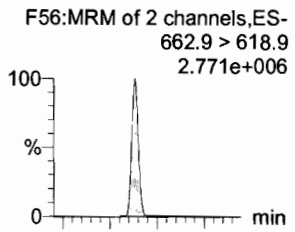


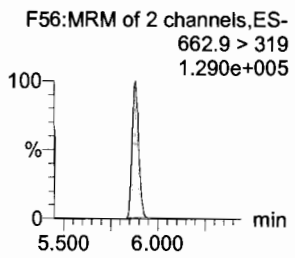
N-MeFOSA



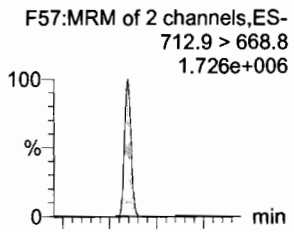


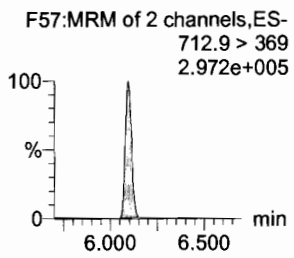
PFTrDA



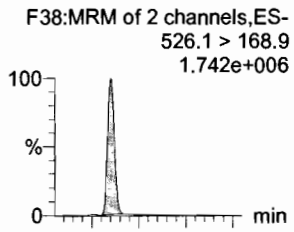


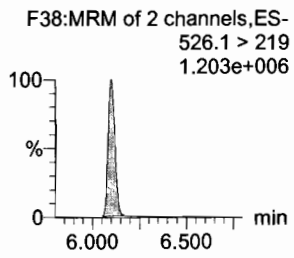
PFTeDA



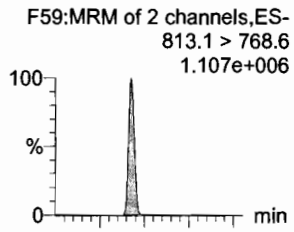


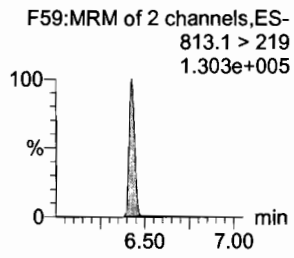
N-EtFOSA



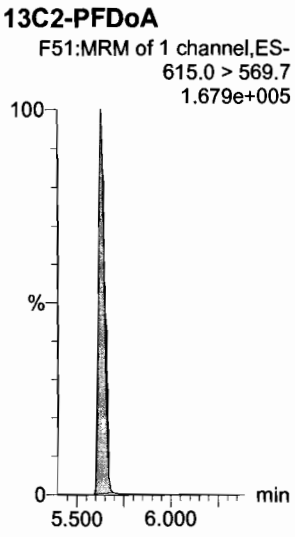


PFHxDA

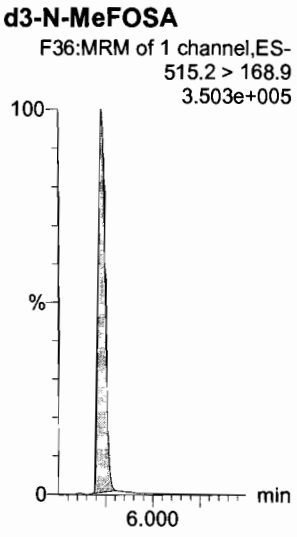




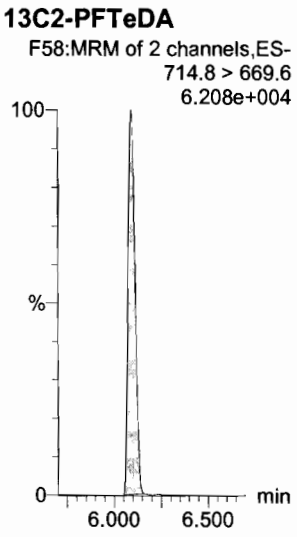
13C2-PFDoA



d3-N-MeFOSA



13C2-PFTeDA



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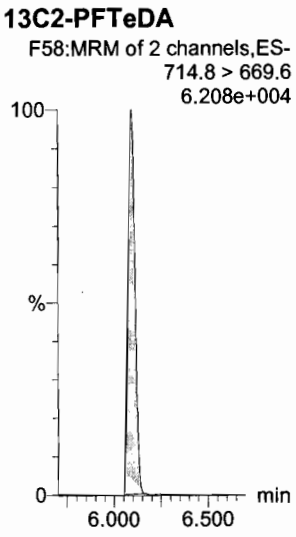
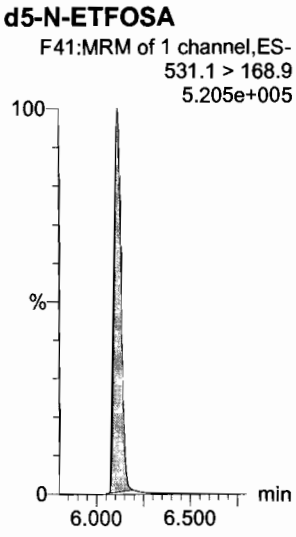
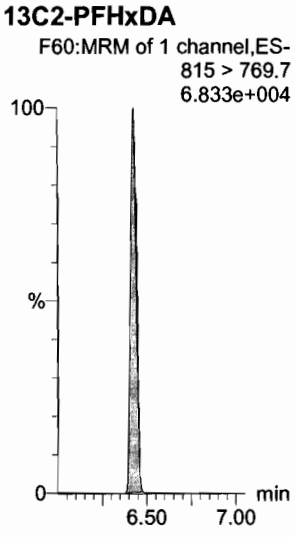


d5-N-ETFOSA



13C2-PFHxDA



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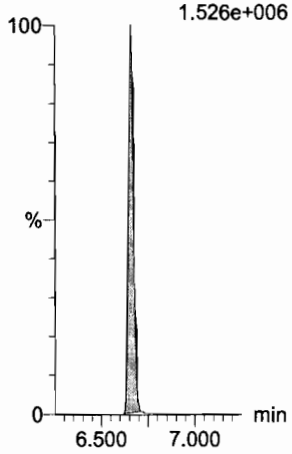
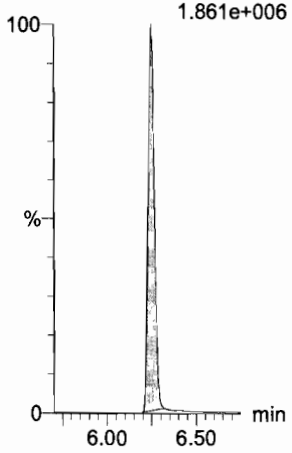
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_9, Date: 11-Jan-2018, Time: 10:52:18, ID: ST180110M3-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

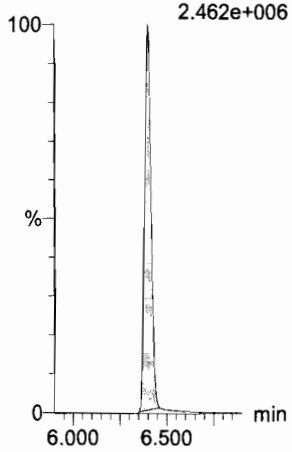
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.526e+006



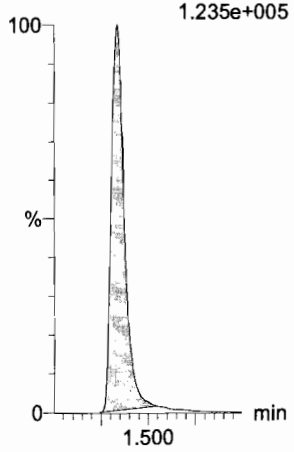
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.861e+006



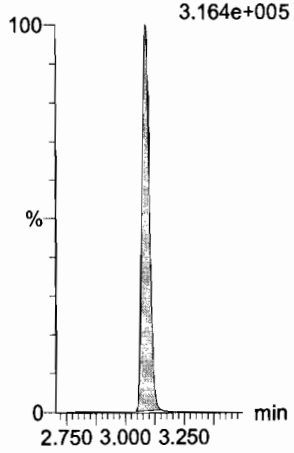
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.462e+006



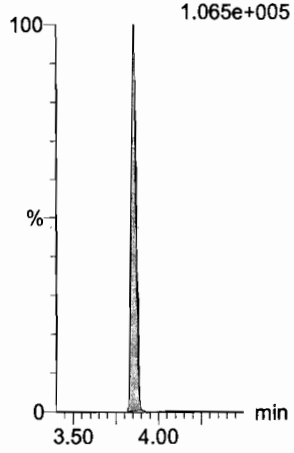
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.235e+005



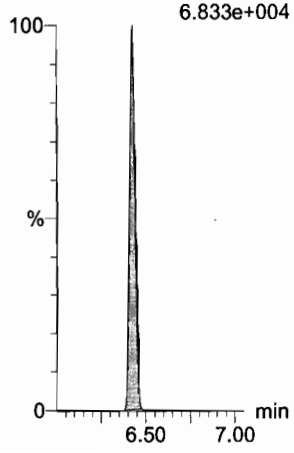
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.164e+005



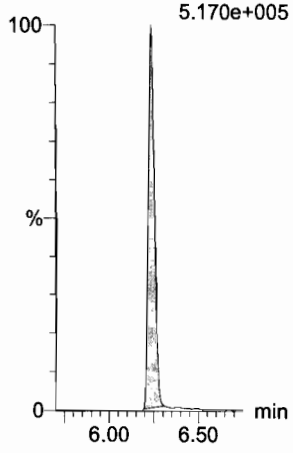
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.065e+005



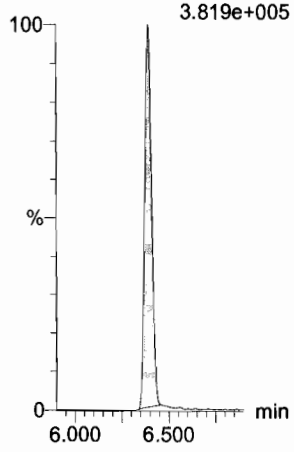
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.833e+004



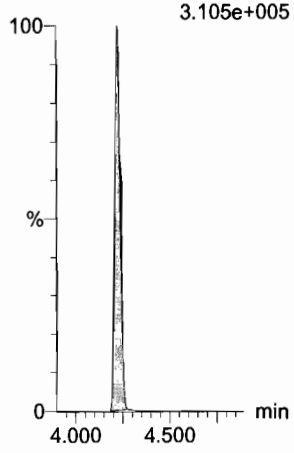
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.170e+005



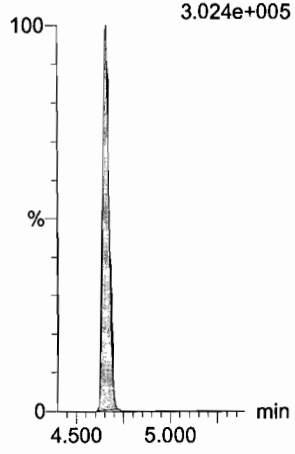
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
3.819e+005



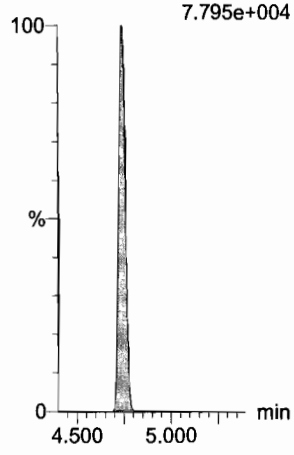
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.105e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.024e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.795e+004

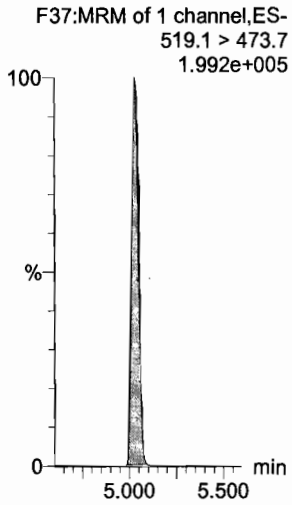


Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

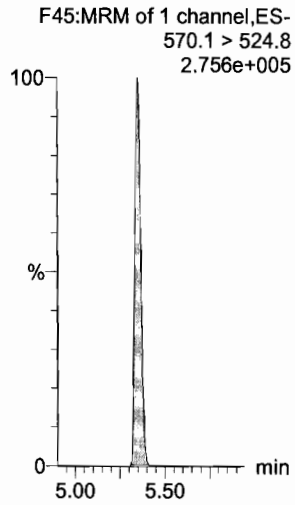
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_9, Date: 11-Jan-2018, Time: 10:52:18, ID: ST180110M3-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

13C6-PFDA



13C7-PFUdA



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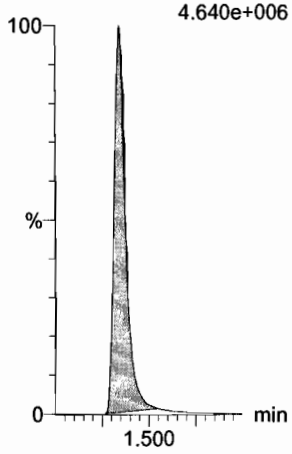
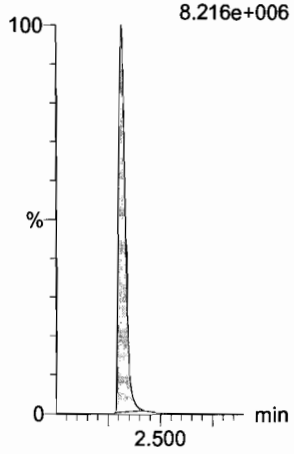
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_10, Date: 11-Jan-2018, Time: 11:03:28, ID: ST180110M3-9 PFC CS6 17L2710, Description: PFC CS6 17L2710

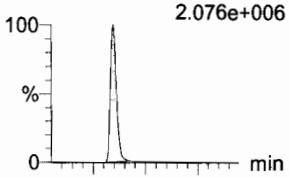
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
4.640e+006



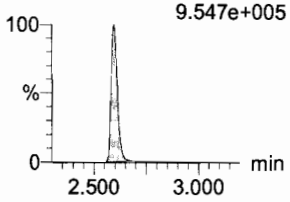
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
8.216e+006



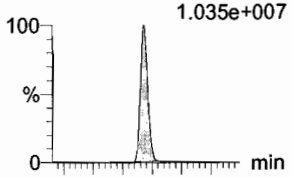
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
2.076e+006



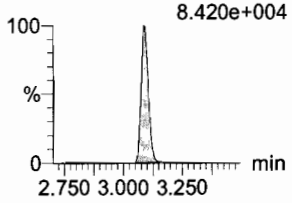
F6:MRM of 2 channels,ES-
299.0 > 99.0
9.547e+005



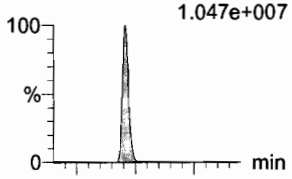
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
1.035e+007



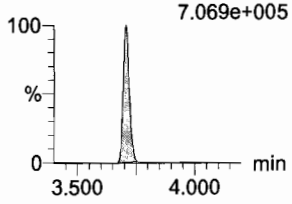
F8:MRM of 2 channels,ES-
313.2 > 119
8.420e+004



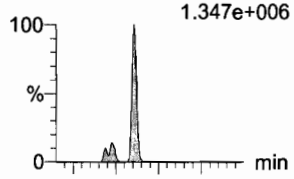
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
1.047e+007



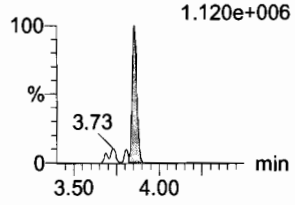
F13:MRM of 2 channels,ES-
363.0 > 169.0
7.069e+005



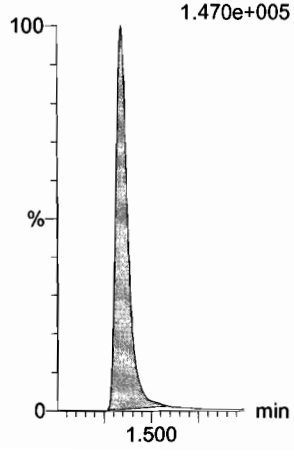
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
1.347e+006



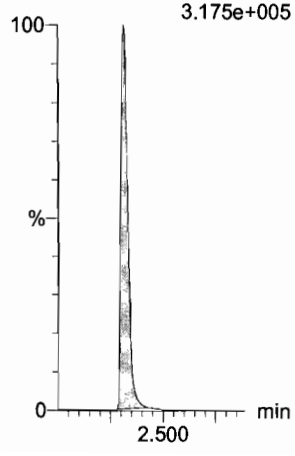
F15:MRM of 2 channels,ES-
398.9 > 99.0
1.120e+006



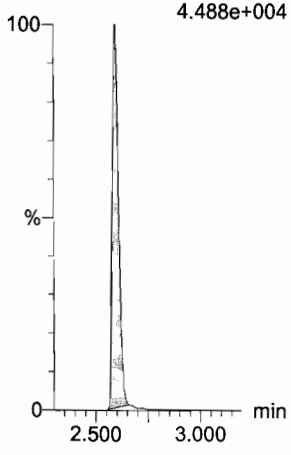
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.470e+005



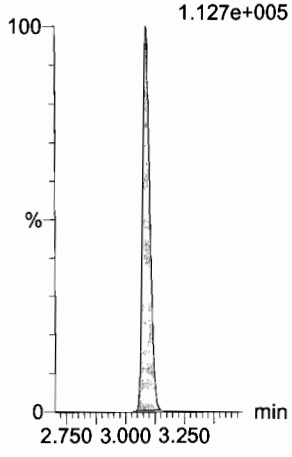
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.175e+005



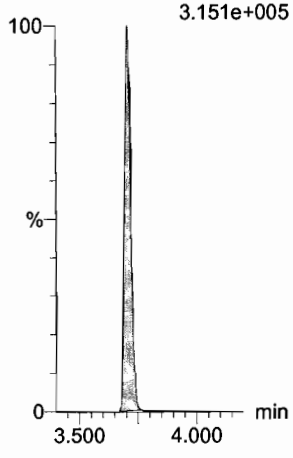
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
4.488e+004



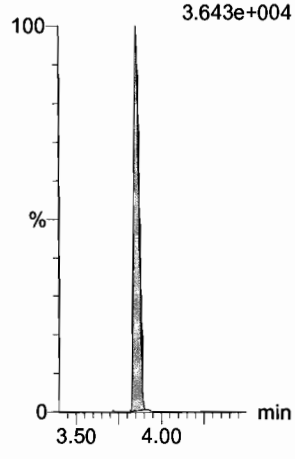
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.127e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
3.151e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
3.643e+004



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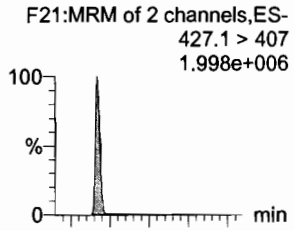
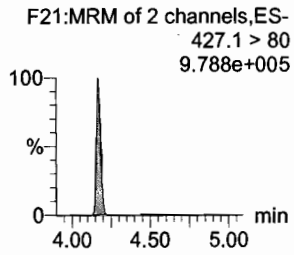
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

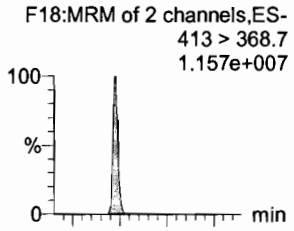
Name: 180110M3_10, Date: 11-Jan-2018, Time: 11:03:28, ID: ST180110M3-9 PFC CS6 17L2710, Description: PFC CS6 17L2710

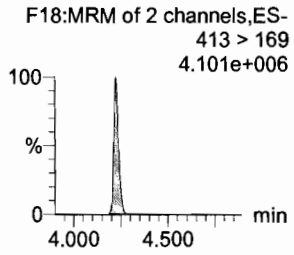
6:2 FTS



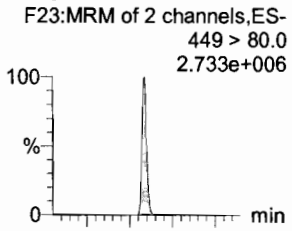


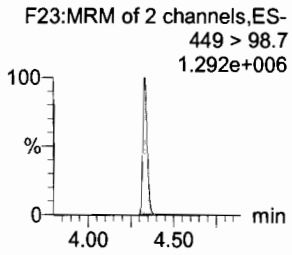
L-PFOA





PFHpS





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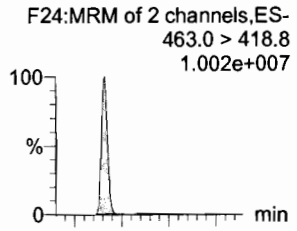
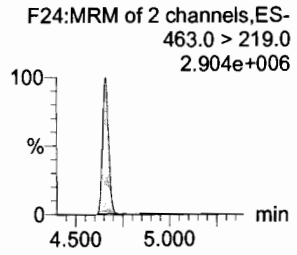
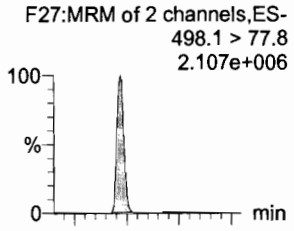
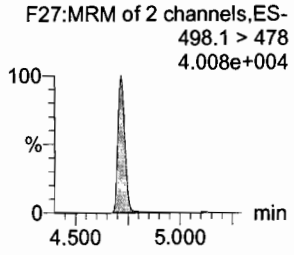




PFOSA





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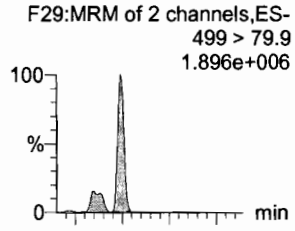
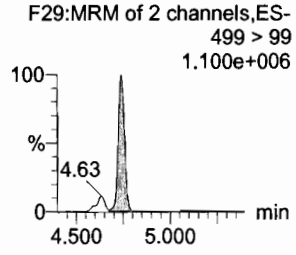
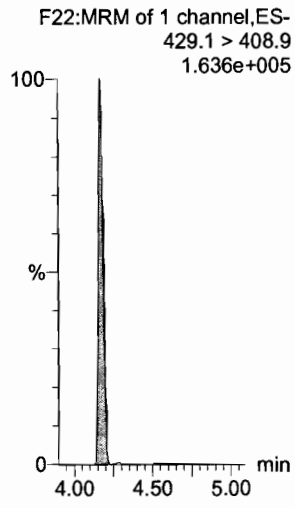
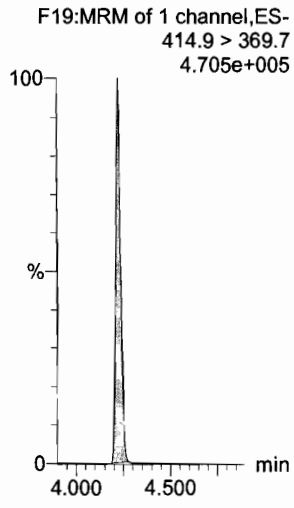




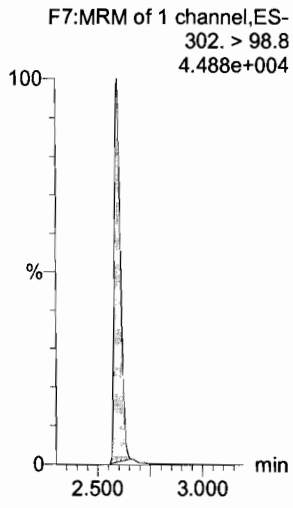
13C2-6:2 FTS



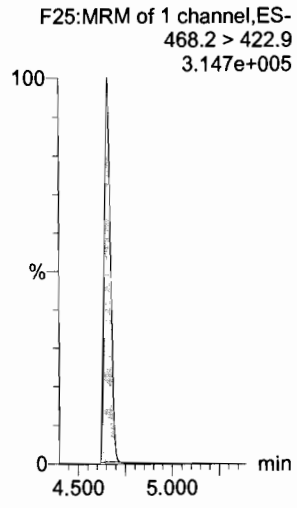
13C2-PFOA



13C3-PFBS



13C5-PFNA



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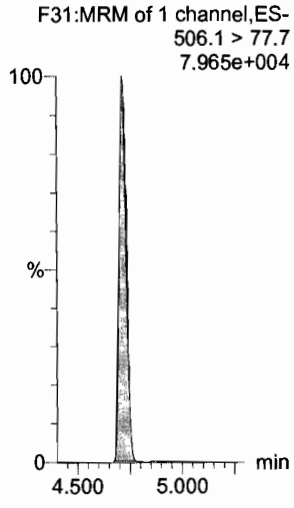

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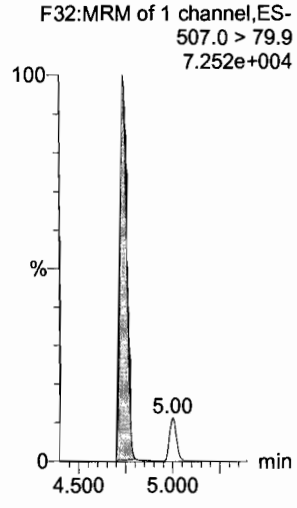

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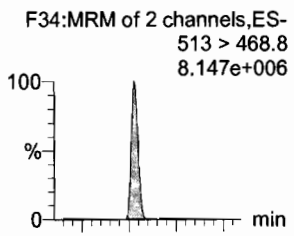
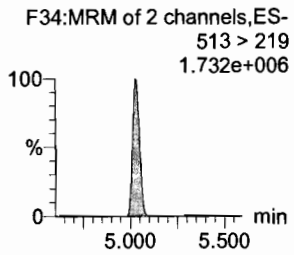
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

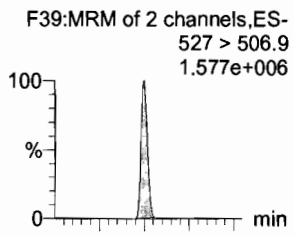
Name: 180110M3_10, Date: 11-Jan-2018, Time: 11:03:28, ID: ST180110M3-9 PFC CS6 17L2710, Description: PFC CS6 17L2710

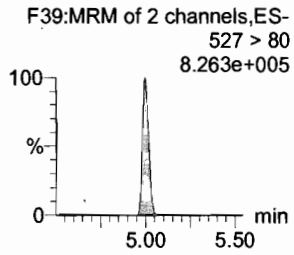
PFDA





8:2 FTS





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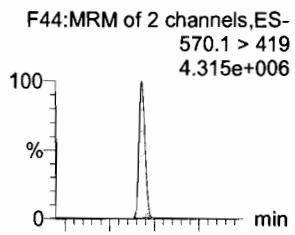

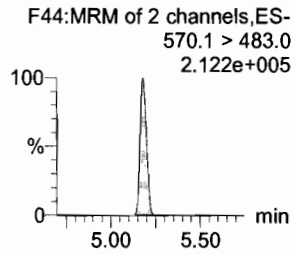

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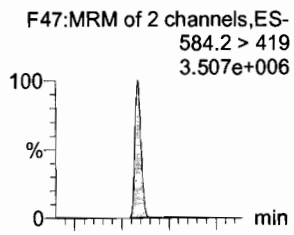

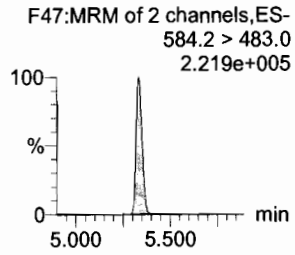

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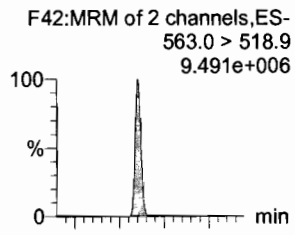

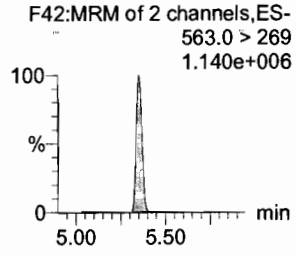

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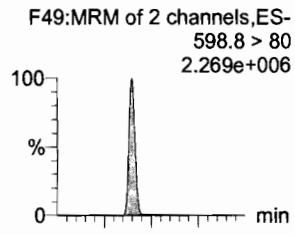

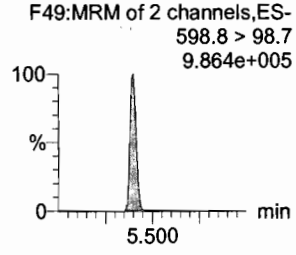

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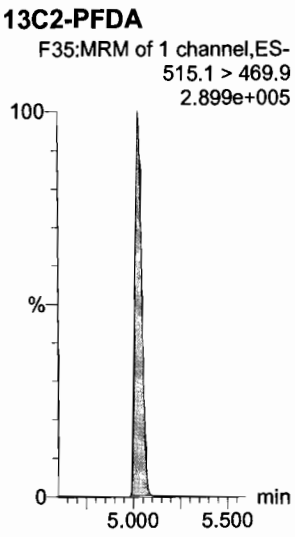
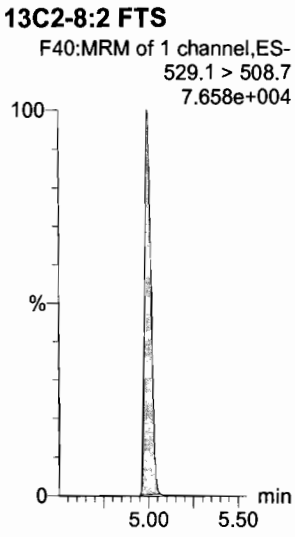


13C2-8:2 FTS



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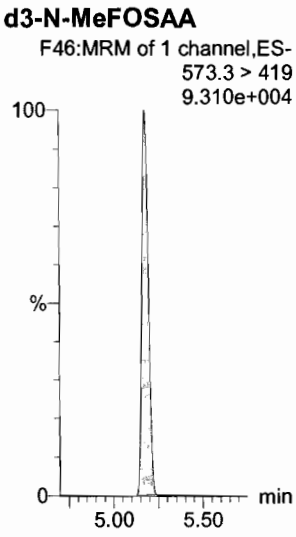
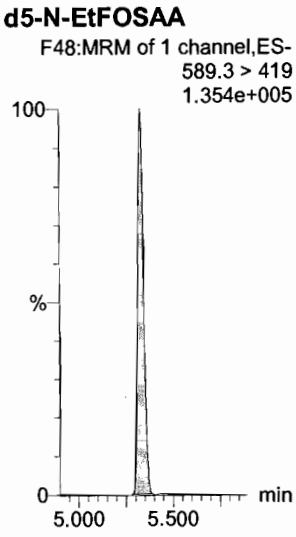
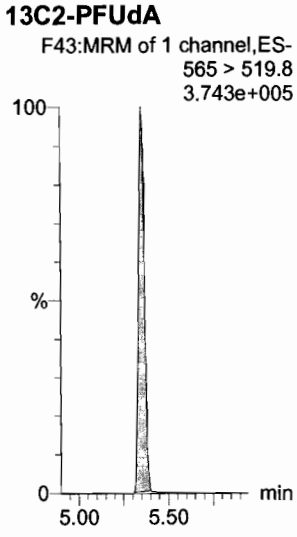


d5-N-EtFOSAA



13C2-PFUdA



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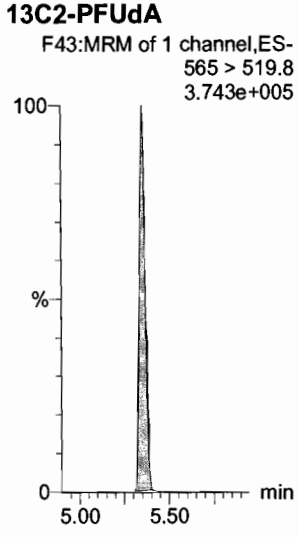

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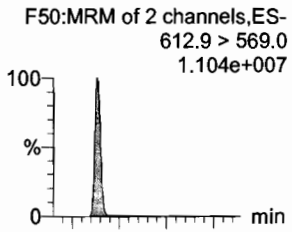
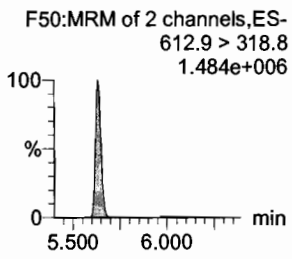
PFDoA





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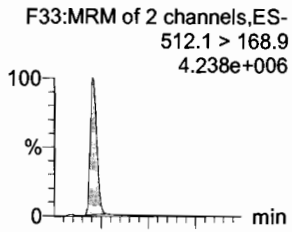

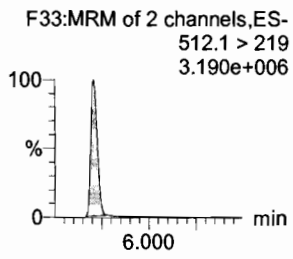

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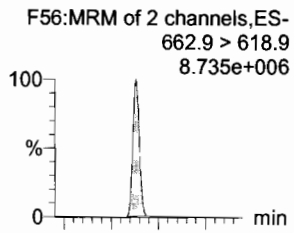
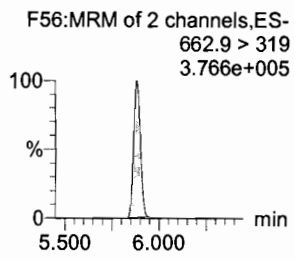
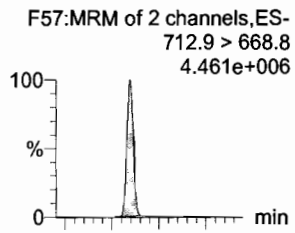
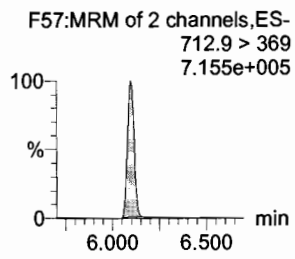




PFTeDA





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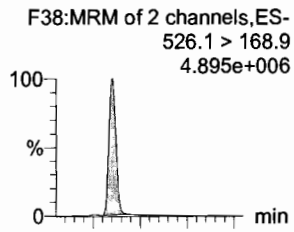
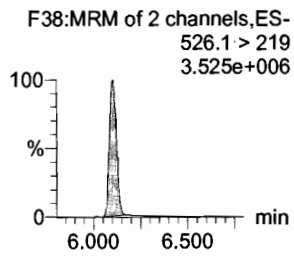
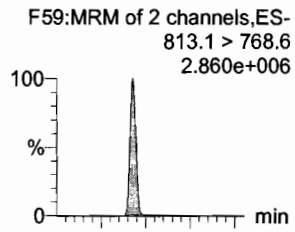
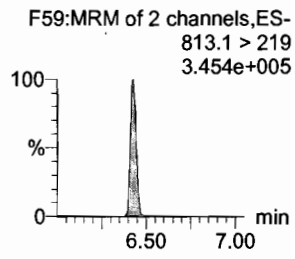




PFHxDA





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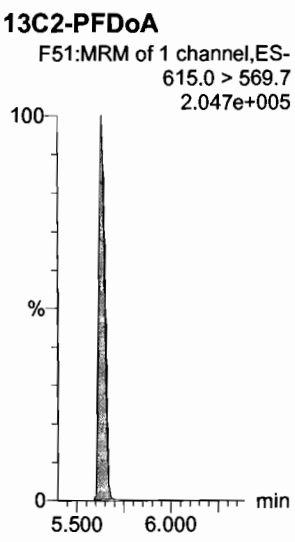
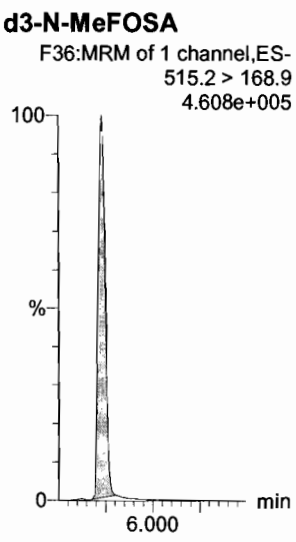
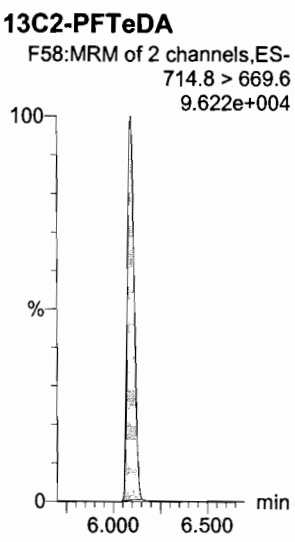


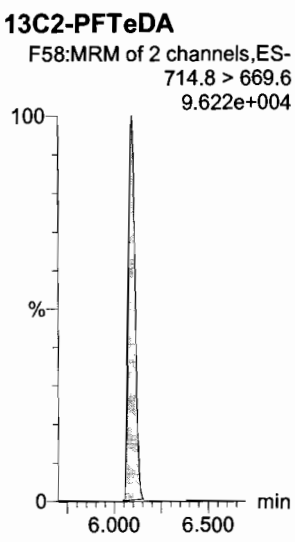
d3-N-MeFOSA



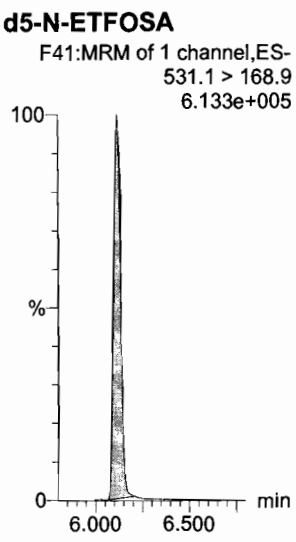
13C2-PFTeDA



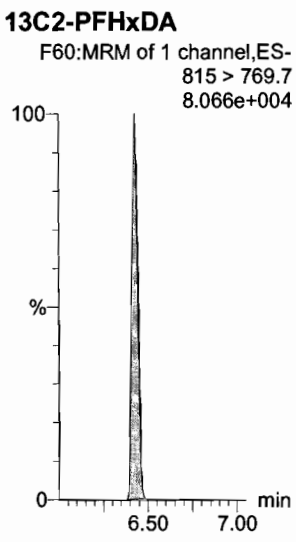
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

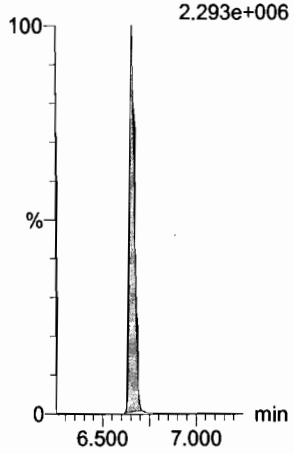


Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

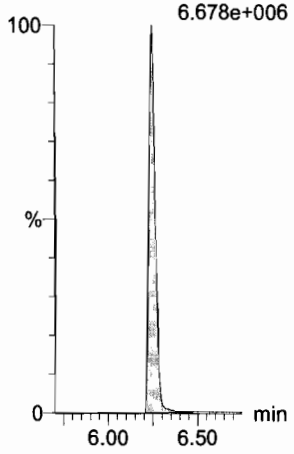
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_10, Date: 11-Jan-2018, Time: 11:03:28, ID: ST180110M3-9 PFC CS6 17L2710, Description: PFC CS6 17L2710

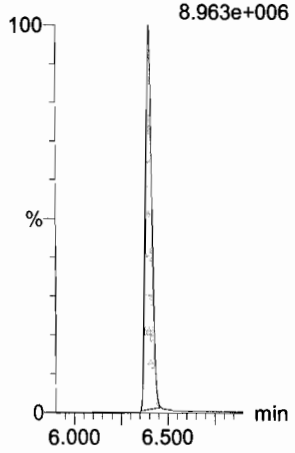
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.293e+006



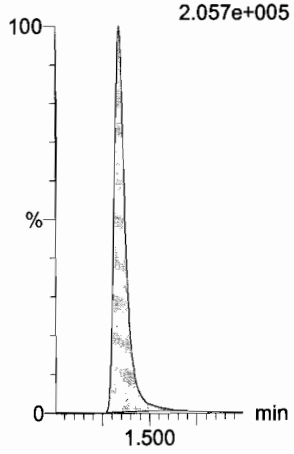
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
6.678e+006



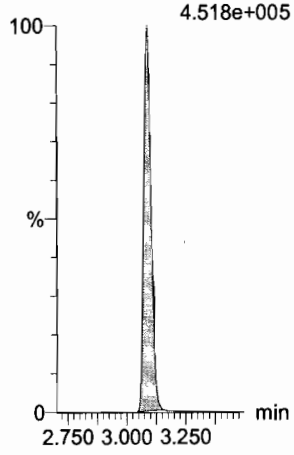
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
8.963e+006



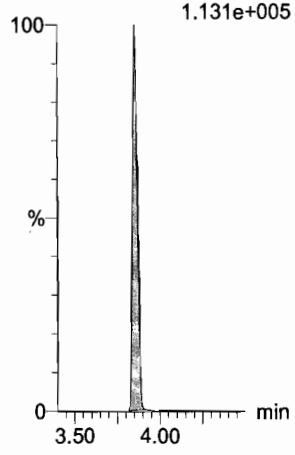
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
2.057e+005



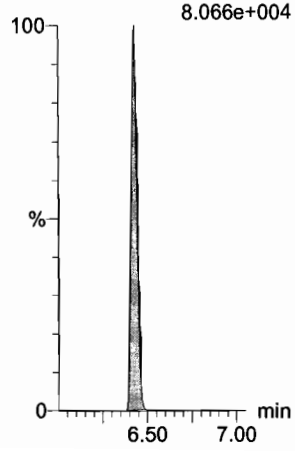
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.518e+005



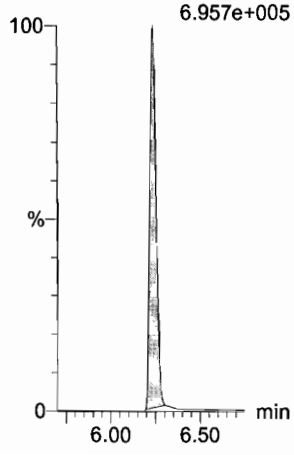
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.131e+005



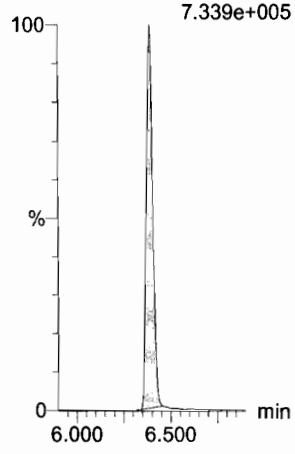
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.066e+004



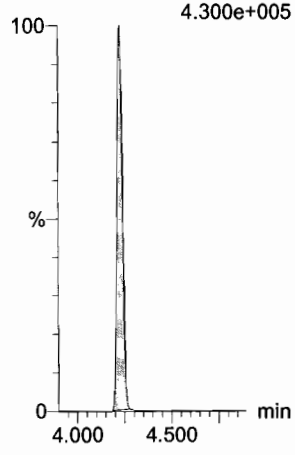
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.957e+005



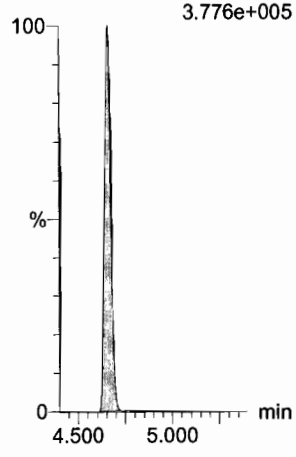
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.339e+005



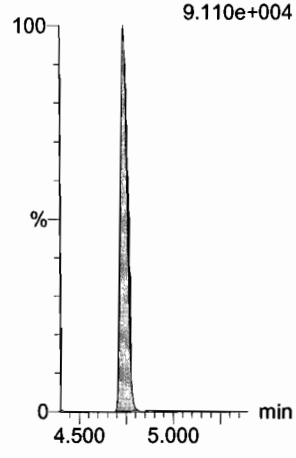
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.300e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.776e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.110e+004

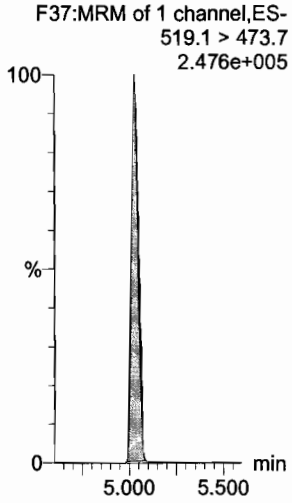


Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

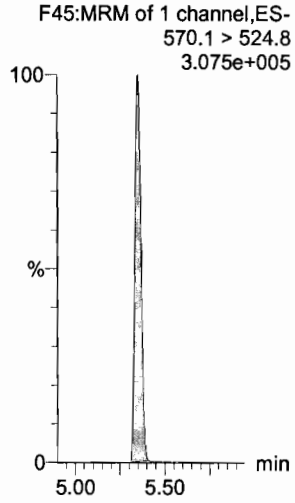
Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_10, Date: 11-Jan-2018, Time: 11:03:28, ID: ST180110M3-9 PFC CS6 17L2710, Description: PFC CS6 17L2710

13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\180110M3\180110M3_12.qld

Last Altered: Thursday, January 11, 2018 14:32:59 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:33:41 Pacific Standard Time

A) Not present in SS

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 11:46:18
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

1/11/18

Name: 180110M3_12, Date: 11-Jan-2018, Time: 11:25:49, ID: ICV180110M3-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

✓ JMA 01/11/2018

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1	PFBA	213.0 > 168.8	8.27e3	8.56e3		1.38	1.34	12.1	8.24	82.4	NO
2	2	PFPeA	263.1 > 218.9	8.08e3	9.73e3		2.37	2.32	10.4	8.26	82.6	NO
3	3	PFBS	299.0 > 79.7	1.64e3	1.22e3		2.66	2.60	16.8	7.87	78.7	NO
4	4	PFHxA	313.2 > 268.9	9.53e3	2.94e3		3.15	3.09	16.2	8.37	83.7	NO
5	5	PFHpA	363.0 > 318.9	8.72e3	8.24e3		3.78	3.71	13.2	8.07	80.7	NO
6	6	L-PFHxS	398.9 > 79.6	1.31e3	9.86e2		3.94	3.86	16.6	7.93	79.3	NO
7	8	6:2 FTS	427.1 > 407	1.82e3	9.86e2		4.25	4.17	23.0	7.61	76.1	NO
8	9	L-PFOA	413 > 368.7	9.56e3	1.21e4		4.31	4.23	9.91	7.72	77.2	NO
9	11	PFHpS	449 > 80.0	2.06e3	1.21e4		4.42	4.34	2.14	7.38	73.8	NO
10	12	PFNA	463.0 > 418.8	1.08e4	9.71e3		4.81	4.66	13.9	9.82	98.2	NO
11	13	PFOSA	498.1 > 77.8	2.37e3	2.29e3		4.87	4.72	13.0	9.88	98.8	NO
12	14	L-PFOS	499 > 79.9	2.02e3	2.64e3		4.89	4.74	9.54	8.09	80.9	NO
13	16	PFDA	513 > 468.8	8.49e3	9.21e3		5.18	5.03	11.5	7.17	71.7	NO
14	17	8:2 FTS	527 > 506.9	1.74e3	9.21e3		5.15	5.00	2.36	7.55	75.5	NO
15	18	N-MeFOSAA	570.1 > 419	5.07e3	4.15e3		5.32	5.18	15.3	7.67	76.7	NO
16	19	N-EtFOSAA	584.2 > 419	3.88e3	4.38e3		5.48	5.34	11.0	7.26	72.6	NO
17	20	PFUdA	563.0 > 518.9	9.19e3	9.66e3		5.50	5.35	11.9	9.02	90.2	NO
18	21	PFDS	598.8 > 80	2.11e3	9.66e3		5.54	5.40	2.73	7.36	73.6	NO
19	22	PFDoA	612.9 > 569.0	1.00e4	6.35e3		5.77	5.64	19.7	9.27	92.7	NO
20	23	N-MeFOSA	512.1 > 168.9		1.48e4		5.80				A	NO
21	24	PFTrDA	662.9 > 618.9	9.41e3	6.35e3		6.00	5.88	18.5	7.74	77.4	NO
22	25	PFTeDA	712.9 > 668.8	5.49e3	2.33e3		6.22	6.10	29.5	9.98	99.8	NO
23	26	N-EtFOSA	526.1 > 168.9		2.26e4		6.17				A	NO
24	27	PFHxDA	813.1 > 768.6		1.99e3		6.53					NO
25	28	PFODA	913.1 > 868.8		1.99e3		6.74					NO
26	29	N-MeFOSE	616.1 > 58.9		2.11e4		6.27					NO
27	30	N-EtFOSE	630.1 > 58.9	7.11e1	1.70e4		6.43	6.40	0.629	0.596	A ~~1.2~~	YES
28	31	13C3-PFBA	216.1 > 171.8	8.56e3	9.86e3	0.764	1.38	1.34	10.8	14.2	113.7	NO
29	32	13C3-PFPeA	266. > 221.8	9.73e3	1.10e4	0.730	2.37	2.32	11.0	15.1	120.8	NO
30	33	13C3-PFBS	302. > 98.8	1.22e3	1.10e4	0.095	2.77	2.59	1.38	14.5	116.0	NO
31	34	13C2-PFHxA	315 > 269.8	2.94e3	1.10e4	0.597	3.15	3.09	3.33	5.58	111.7	NO

Dataset: U:\Q4.PRO\results\180110M3\180110M3_12.qld

Last Altered: Thursday, January 11, 2018 14:32:59 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:33:41 Pacific Standard Time

Name: 180110M3_12, Date: 11-Jan-2018, Time: 11:25:49, ID: ICV180110M3-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35	13C4-PFHpA	367.2 > 321.8	8.24e3	1.10e4	0.604	3.78	3.71	9.33	15.4	123.6	NO
33	36	18O2-PFHxS	403.0 > 102.6	9.86e2	2.90e3	0.293	3.94	3.86	4.25	14.5	116.0	NO
34	37	13C2-6:2 FTS	429.1 > 408.9	2.17e3	1.06e4	0.215	4.25	4.18	2.55	11.9	94.8	NO
35	38	13C2-PFOA	414.9 > 369.7	1.21e4	1.06e4	0.916	4.31	4.23	14.1	15.5	123.6	NO
36	39	13C5-PFNA	468.2 > 422.9	9.71e3	9.76e3	0.817	4.81	4.66	12.4	15.2	121.7	NO
37	40	13C8-PFOSA	506.1 > 77.7	2.29e3	9.91e3	0.223	4.87	4.72	2.89	12.9	103.6	NO
38	41	13C8-PFOS	507.0 > 79.9	2.64e3	2.83e3	0.875	4.89	4.74	11.7	13.3	106.7	NO
39	42	13C2-PFDA	515.1 > 469.9	9.21e3	7.32e3	1.105	5.18	5.04	15.7	14.2	113.8	NO
40	43	13C2-8:2 FTS	529.1 > 508.7	1.21e3	1.10e4	0.101	5.15	5.00	1.37	13.6	108.5	NO
41	44	d3-N-MeFOSAA	573.3 > 419	4.15e3	9.91e3	0.345	5.32	5.18	5.23	15.2	121.3	NO
42	45	d5-N-EtFOSAA	589.3 > 419	4.38e3	9.91e3	0.390	5.47	5.34	5.53	14.2	113.4	NO
43	46	13C2-PFUdA	565 > 519.8	9.66e3	9.91e3	0.958	5.49	5.35	12.2	12.7	101.8	NO
44	47	13C2-PFDoA	615.0 > 569.7	6.35e3	9.91e3	0.599	5.77	5.63	8.01	13.4	107.0	NO
45	48	d3-N-MeFOSA	515.2 > 168.9	1.48e4	9.91e3	0.124	5.83	5.73	18.6	150	100.1	NO
46	49	13C2-PFTeDA	714.8 > 669.6	2.33e3	9.91e3	0.282	6.22	6.10	2.94	10.4	83.5	NO
47	50	d5-N-ETFOSA	531.1 > 168.9	2.26e4	9.91e3	0.184	6.18	6.12	28.5	155	103.2	NO
48	51	13C2-PFHxDA	815 > 769.7	1.99e3	9.91e3	0.540	6.53	6.43	2.52	4.66	93.2	NO
49	52	d7-N-MeFOSE	623.1 > 58.9	2.11e4	9.91e3	0.182	6.27	6.24	26.6	146	97.2	NO
50	53	d9-N-EtFOSE	639.2 > 58.8	1.70e4	9.91e3	0.173	6.42	6.39	21.4	124	82.8	NO
51	54	13C4-PFBA	217. > 171.8	9.86e3	9.86e3	1.000	1.38	1.33	12.5	12.5	100.0	NO
52	55	13C5-PFHxA	318 > 272.9	1.10e4	1.10e4	1.000	3.15	3.09	12.5	12.5	100.0	NO
53	56	13C3-PFHxS	401.9 > 79.9	2.90e3	2.90e3	1.000	4.02	3.86	12.5	12.5	100.0	NO
54	57	13C8-PFOA	421.3 > 376	1.06e4	1.06e4	1.000	4.38	4.22	12.5	12.5	100.0	NO
55	58	13C9-PFNA	472.2 > 426.9	9.76e3	9.76e3	1.000	4.81	4.66	12.5	12.5	100.0	NO
56	59	13C4-PFOS	503 > 79.9	2.83e3	2.83e3	1.000	4.89	4.74	12.5	12.5	100.0	NO
57	60	13C6-PFDA	519.1 > 473.7	7.32e3	7.32e3	1.000	5.18	5.03	12.5	12.5	100.0	NO
58	61	13C7-PFUdA	570.1 > 524.8	9.91e3	9.91e3	1.000	5.49	5.35	12.5	12.5	100.0	NO

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_12.qld

Last Altered: Thursday, January 11, 2018 14:32:59 Pacific Standard Time
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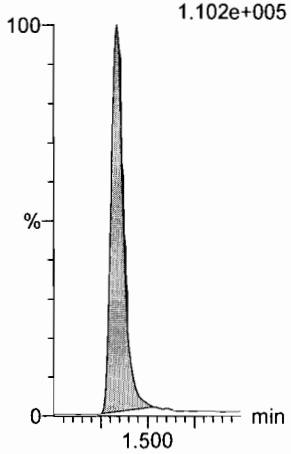
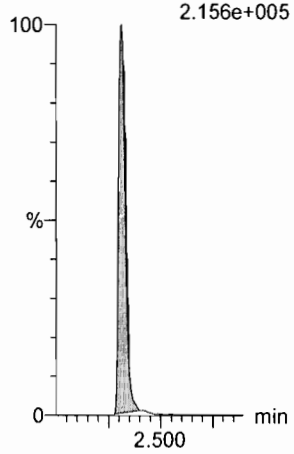
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 11:46:18
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_12, Date: 11-Jan-2018, Time: 11:25:49, ID: ICV180110M3-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

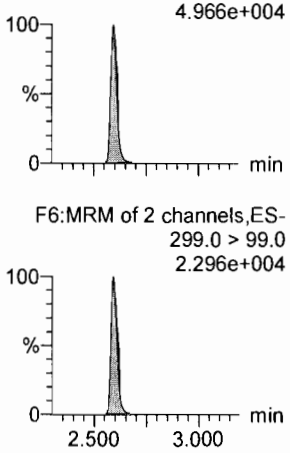
PFBA



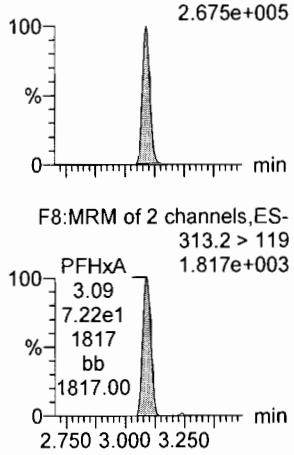
PFPeA



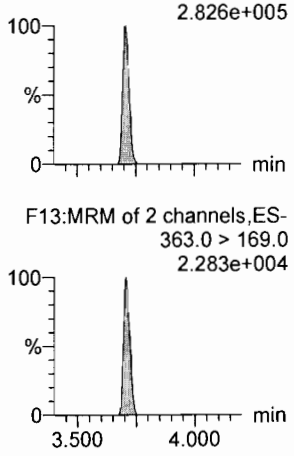
PFBS



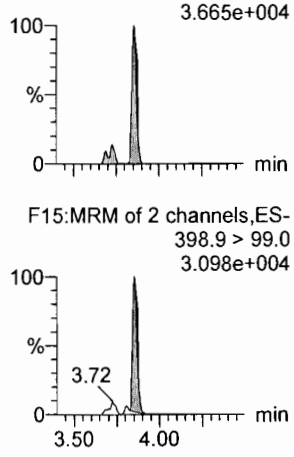
PFHxA



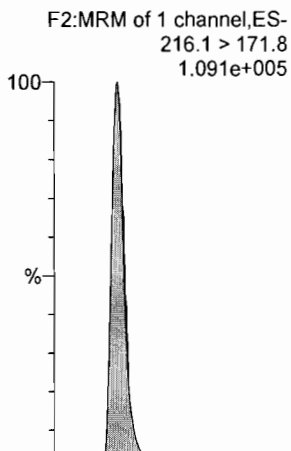
PFHpA



L-PFHxS



13C3-PFBA



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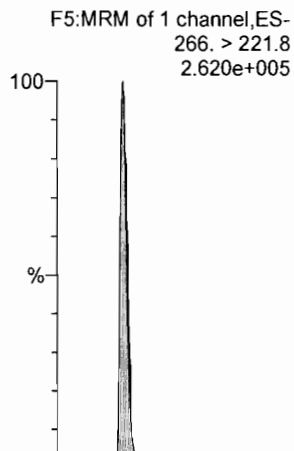

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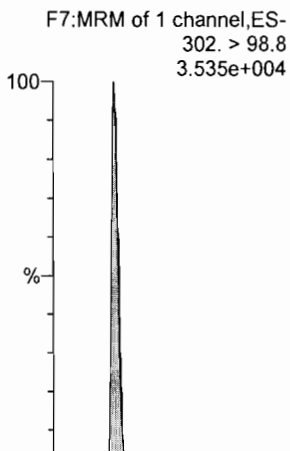

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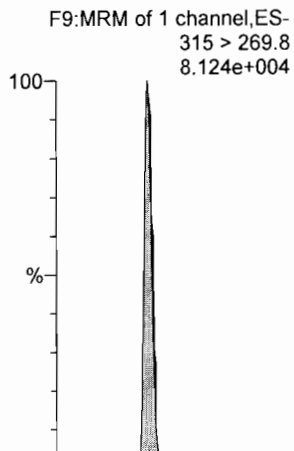

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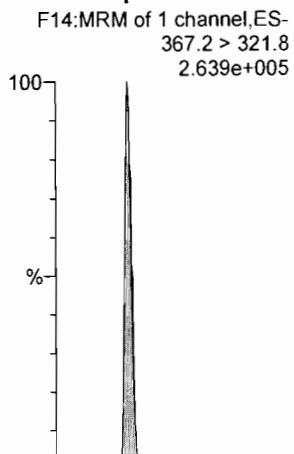

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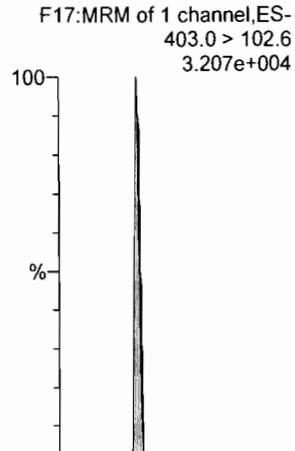

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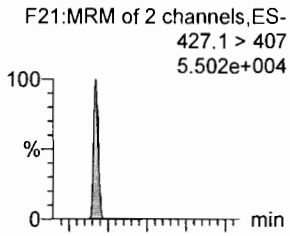
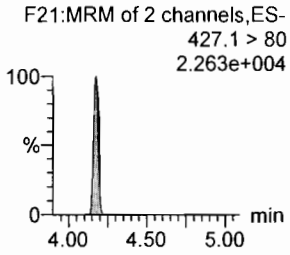
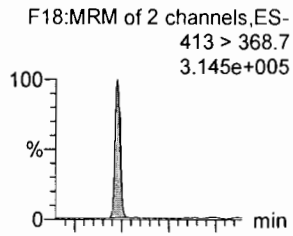
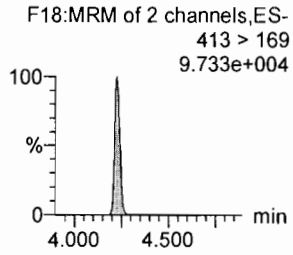
6:2 FTS





L-PFOA





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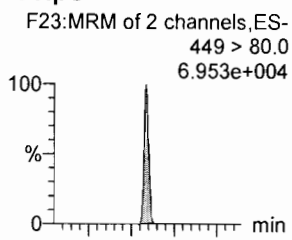

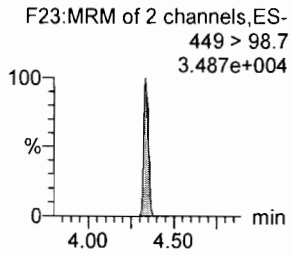

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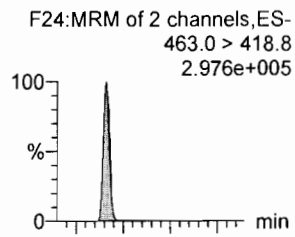

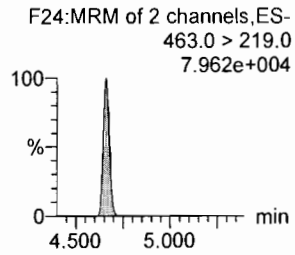

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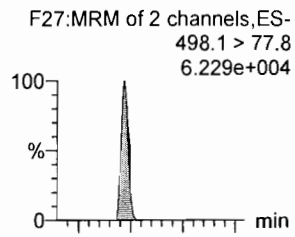

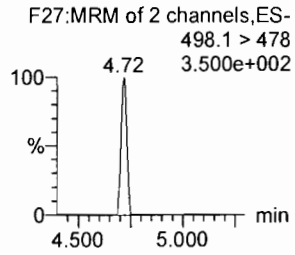

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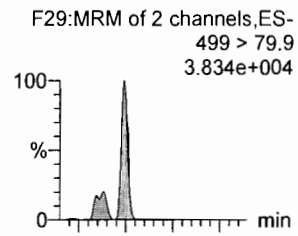
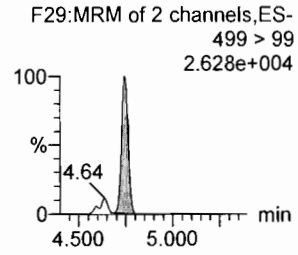
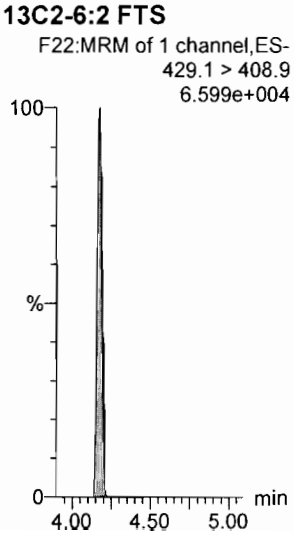




13C2-6:2 FTS



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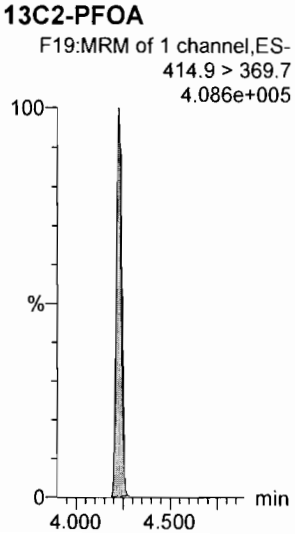

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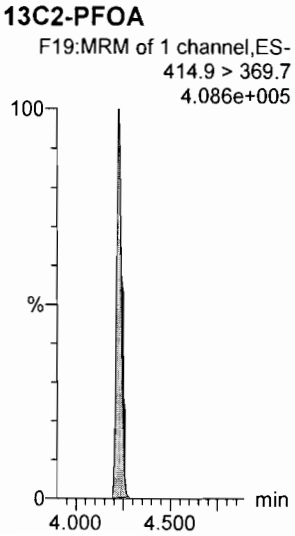

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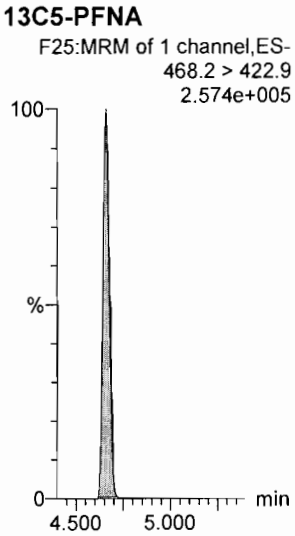

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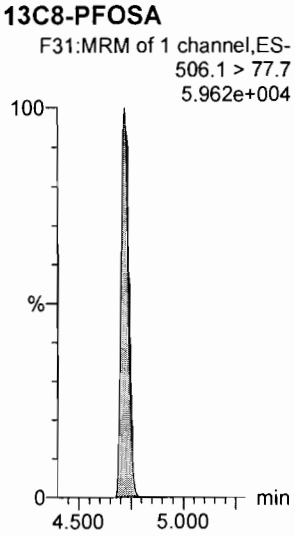

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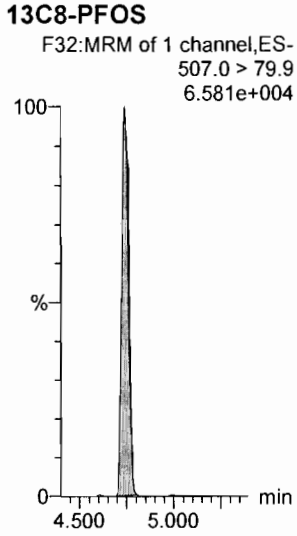

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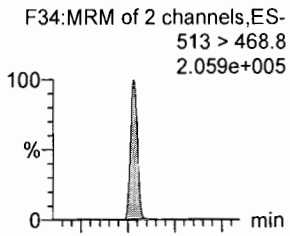
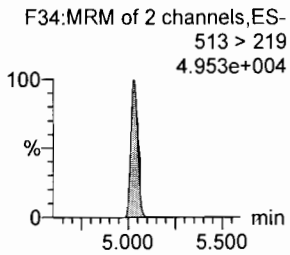
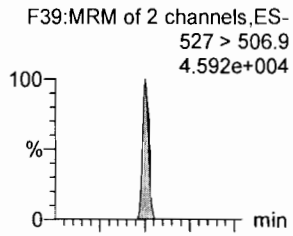
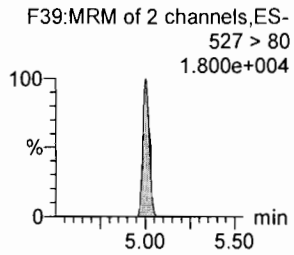




8:2 FTS





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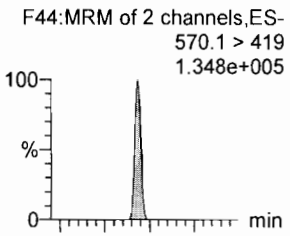

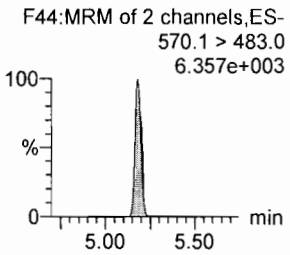

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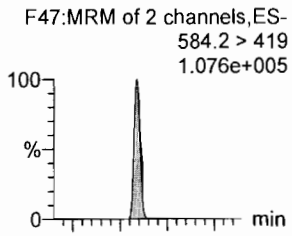

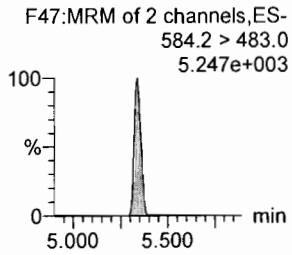

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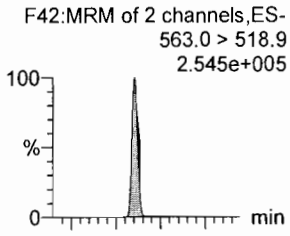

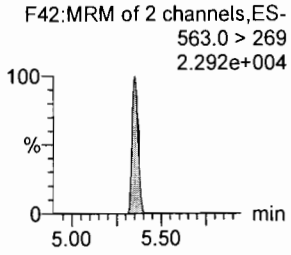

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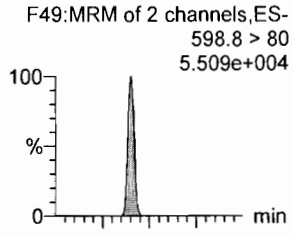

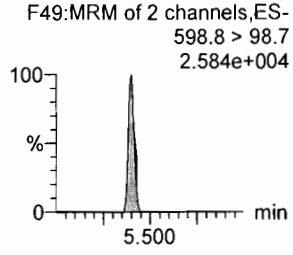

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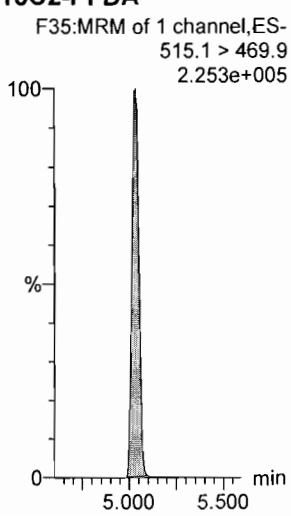

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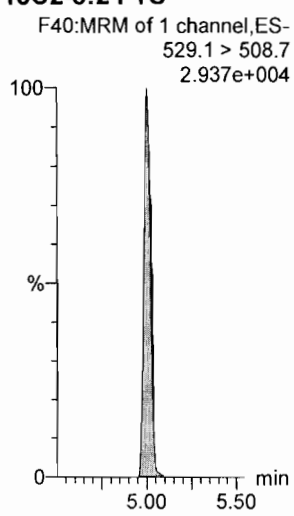

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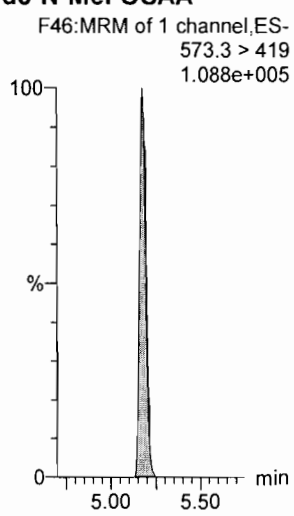

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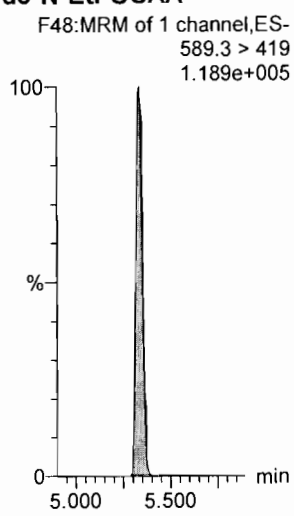

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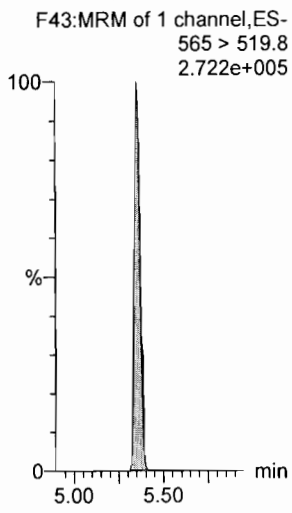

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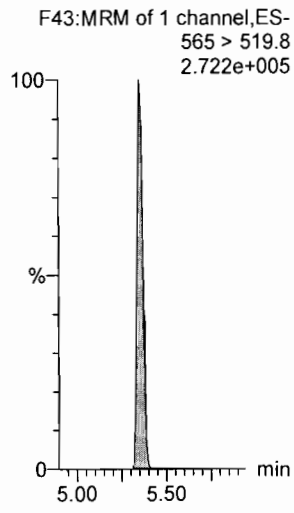

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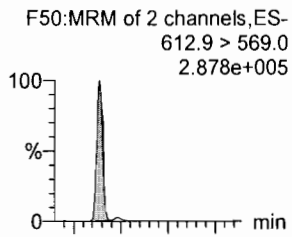

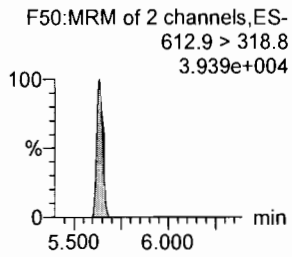

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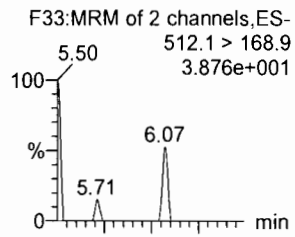

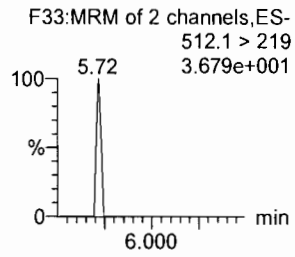

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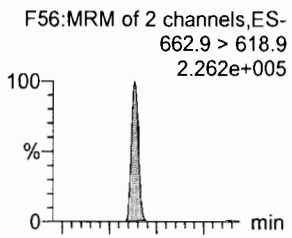

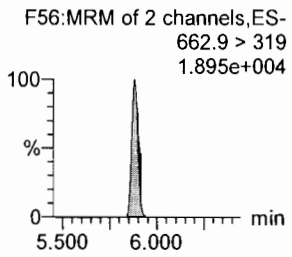

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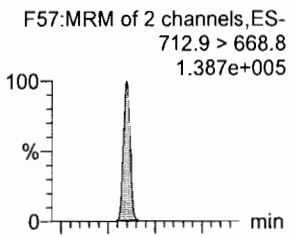

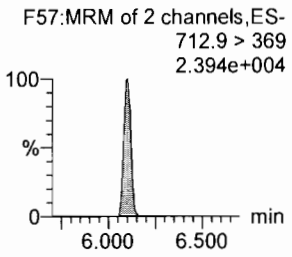

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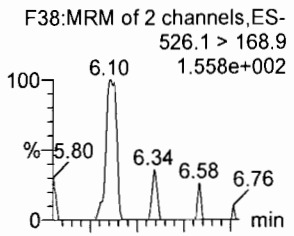
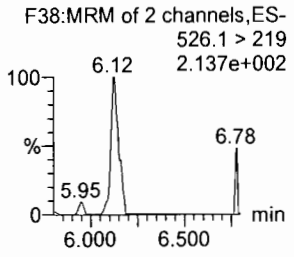
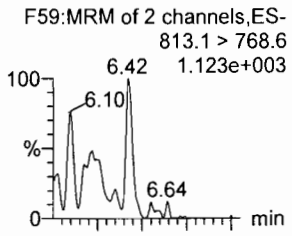
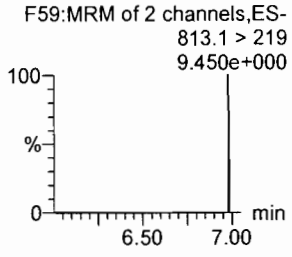


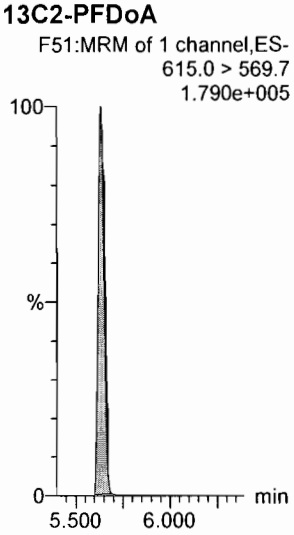


PFHxDA

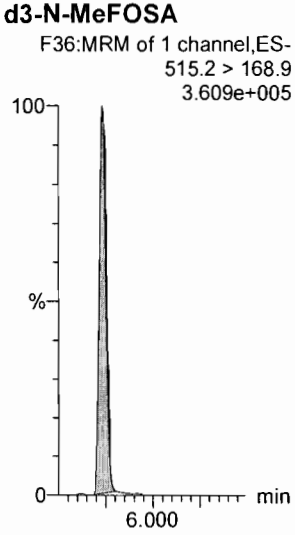




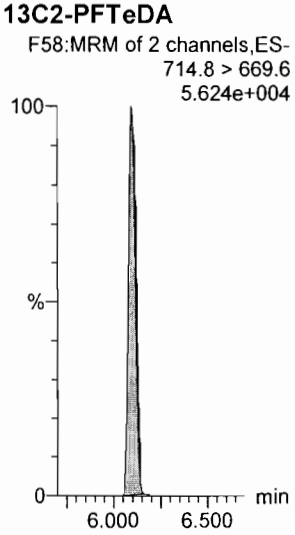
13C2-PFDoA



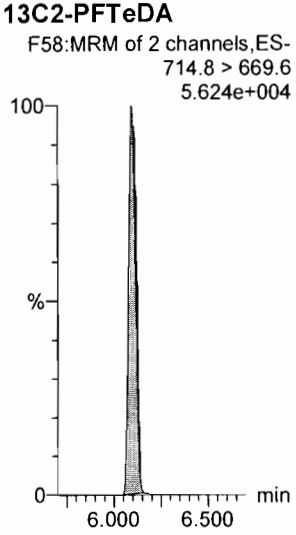
d3-N-MeFOSA



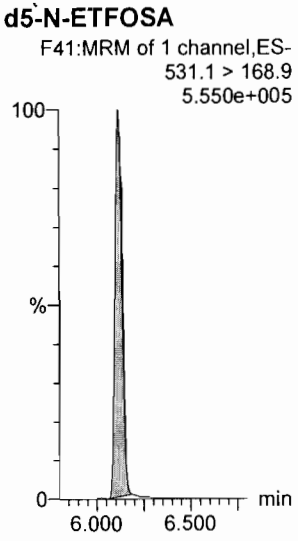
13C2-PFTeDA



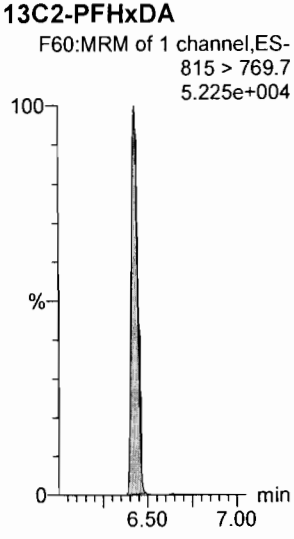
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

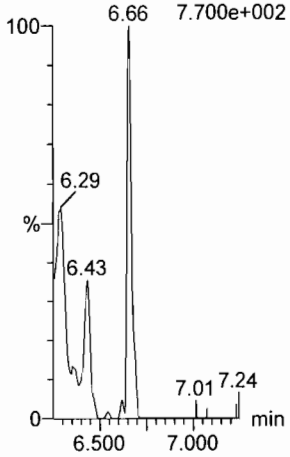


Dataset: U:\Q4.PRO\results\180110M3\180110M3_12.qld

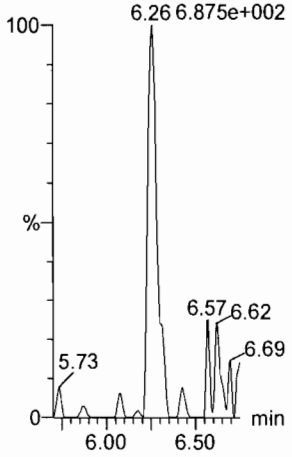
Last Altered: Thursday, January 11, 2018 14:32:59 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:33:41 Pacific Standard Time

Name: 180110M3_12, Date: 11-Jan-2018, Time: 11:25:49, ID: ICV180110M3-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

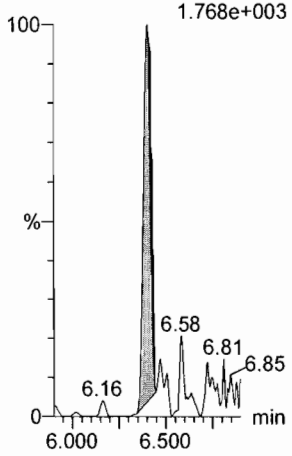
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
7.700e+002



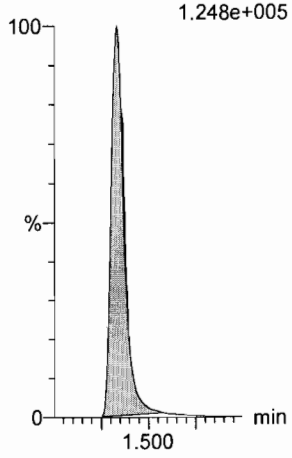
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
6.875e+002



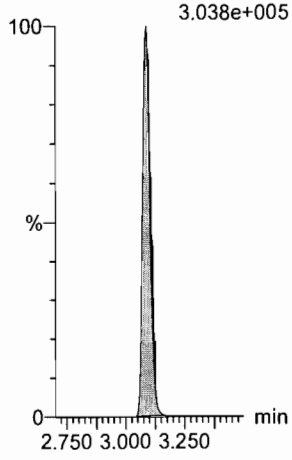
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.768e+003



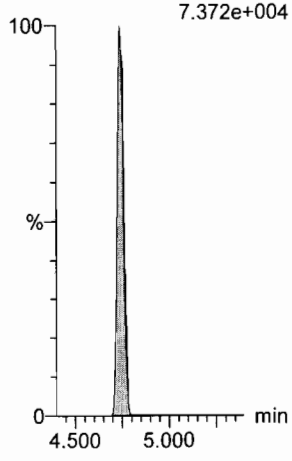
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.248e+005



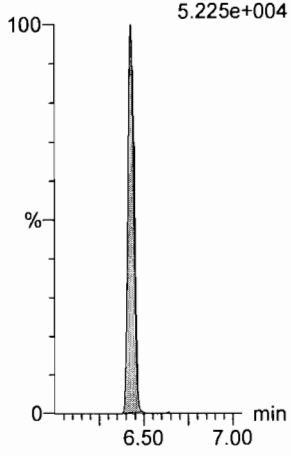
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.038e+005



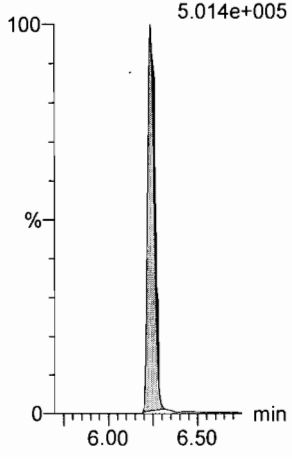
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.372e+004



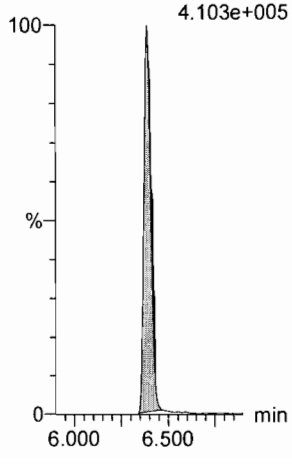
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.225e+004



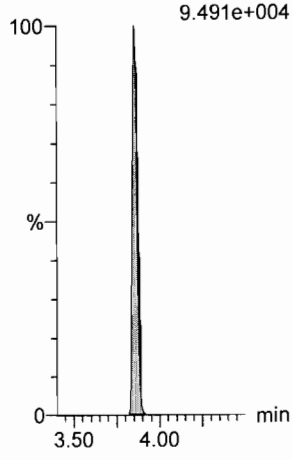
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.014e+005



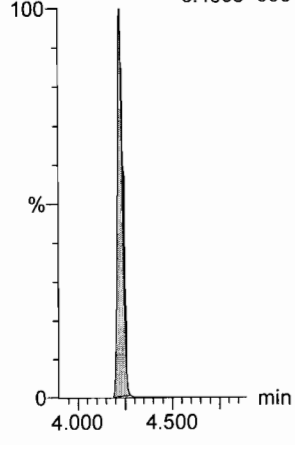
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
4.103e+005



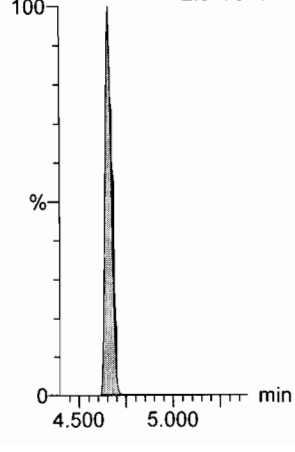
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.491e+004



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.465e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.547e+005

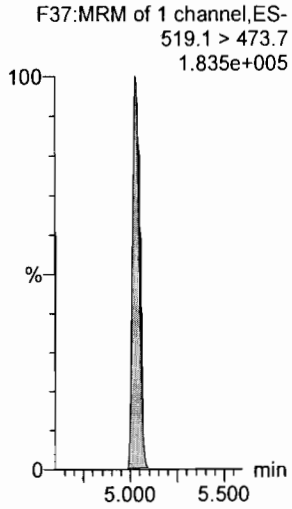


Dataset: U:\Q4.PRO\results\180110M3\180110M3_12.qld

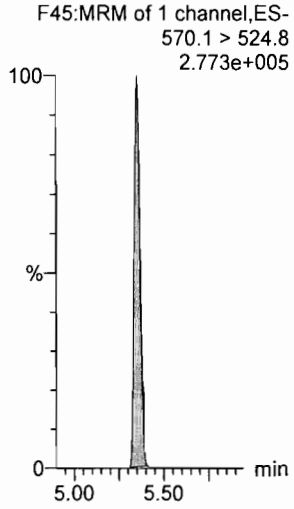
Last Altered: Thursday, January 11, 2018 14:32:59 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:33:41 Pacific Standard Time

Name: 180110M3_12, Date: 11-Jan-2018, Time: 11:25:49, ID: ICV180110M3-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

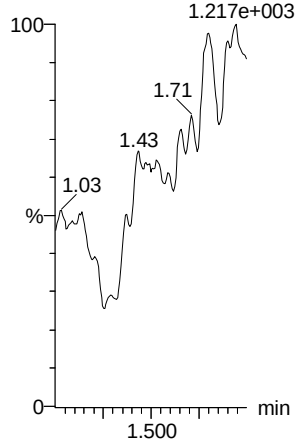
Dataset: U:\Q4.PRO\results\180110M3\180110M3_11.qld

Last Altered: Thursday, January 11, 2018 14:12:26 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:13:30 Pacific Standard Time

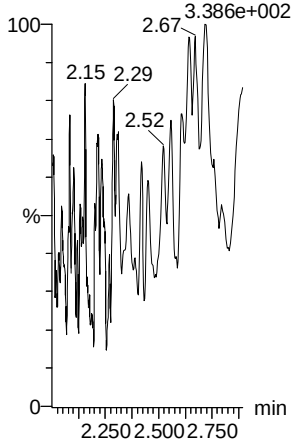
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 11:46:18
Calibration: 11 Jan 2018 14:12:25

Name: 180110M3_11, Date: 11-Jan-2018, Time: 11:14:39, ID: IPA, Description: IPA

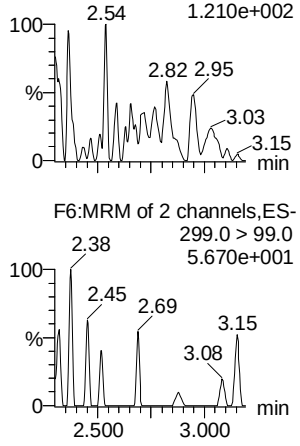
PFBA



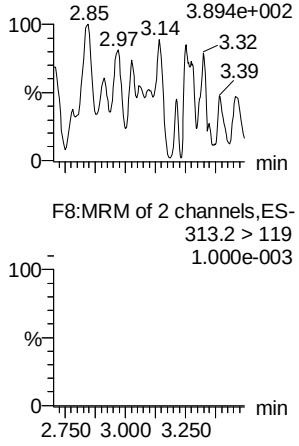
PFPeA



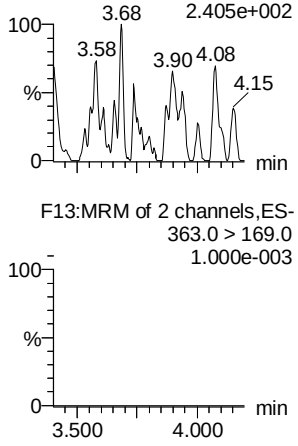
PFBS



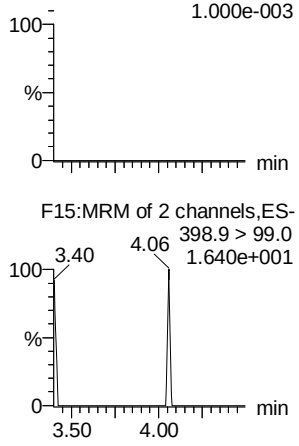
PFHxA



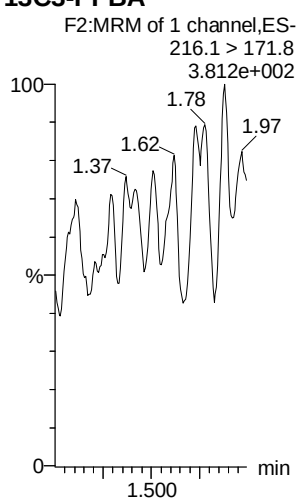
PFHpA



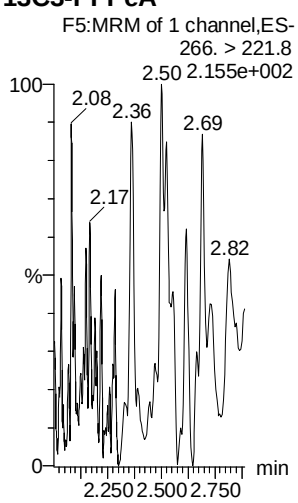
L-PFHxS



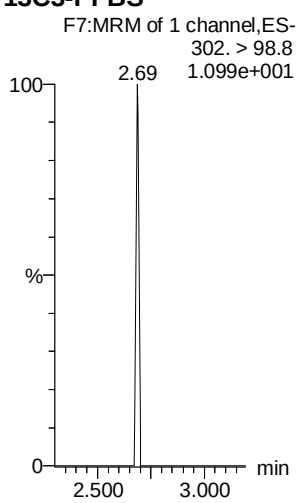
13C3-PFBA



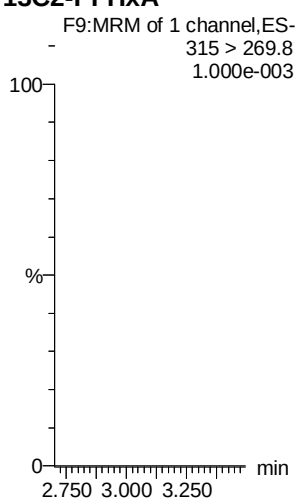
13C3-PFPeA



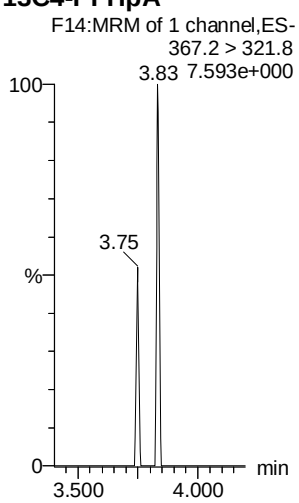
13C3-PFBS



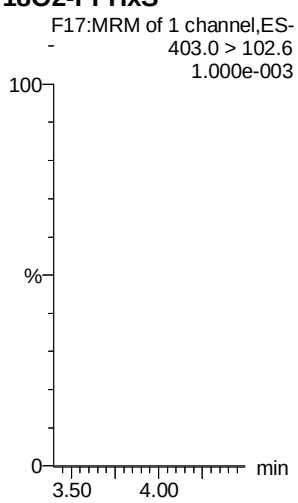
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



ANP 1/11/2018

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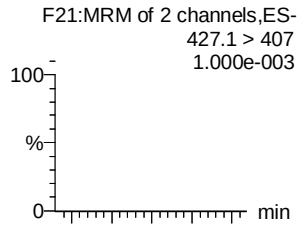
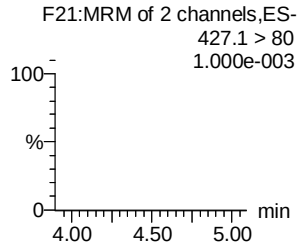
Dataset: U:\Q4.PRO\results\180110M3\180110M3_11.qld

Last Altered: Thursday, January 11, 2018 14:12:26 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:13:30 Pacific Standard Time

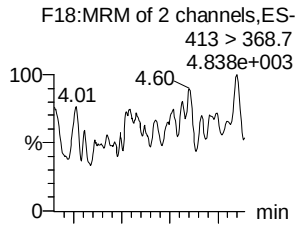
Name: 180110M3_11, Date: 11-Jan-2018, Time: 11:14:39, ID: IPA, Description: IPA

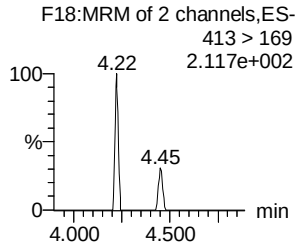
6:2 FTS



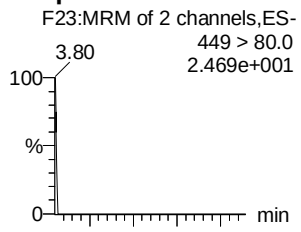


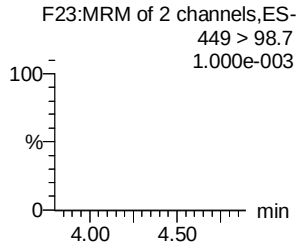
L-PFOA



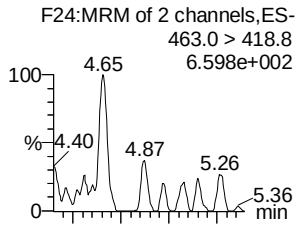


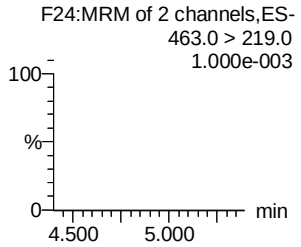
PFHpS



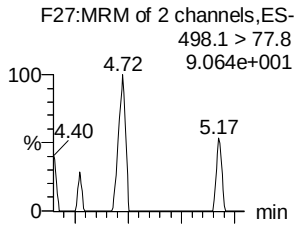


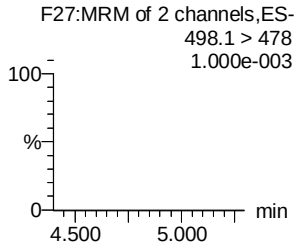
PFNA



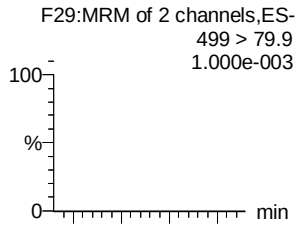


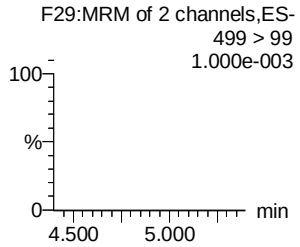
PFOSA



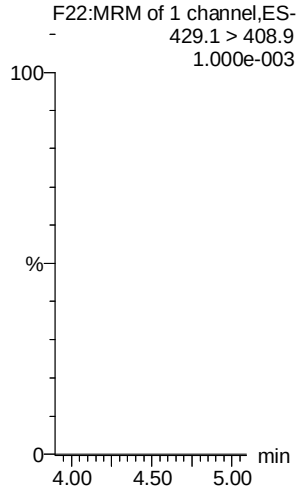


L-PFOS

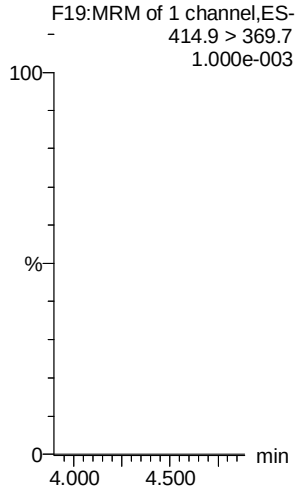




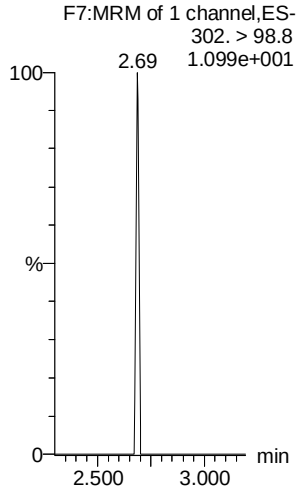
13C2-6:2 FTS



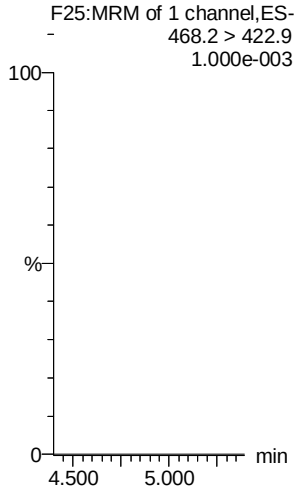
13C2-PFOA



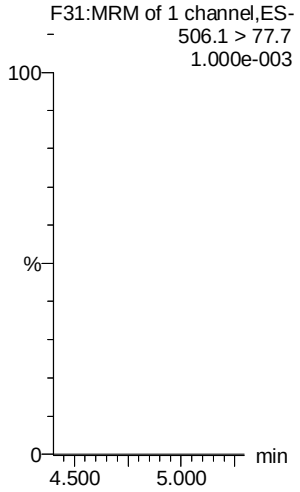
13C3-PFBS



13C5-PFNA



13C8-PFOSA



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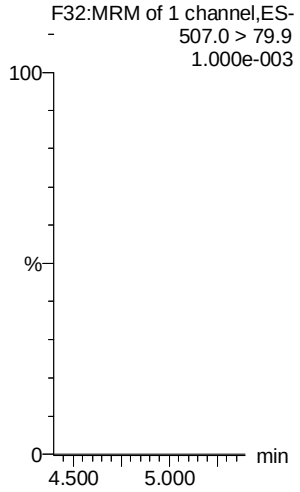

ANP 1/11/2018

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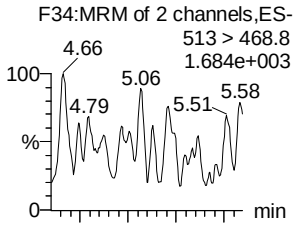

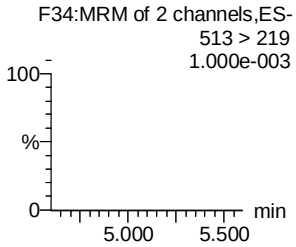

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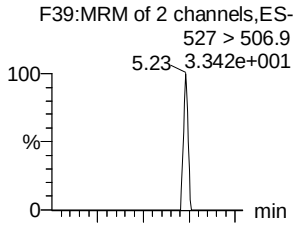

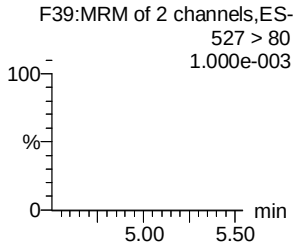

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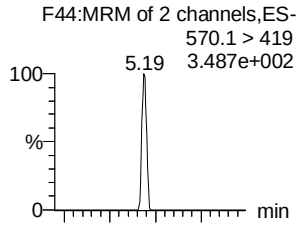

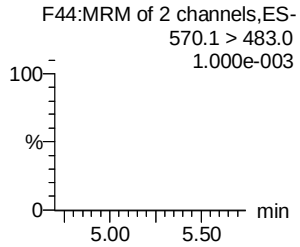

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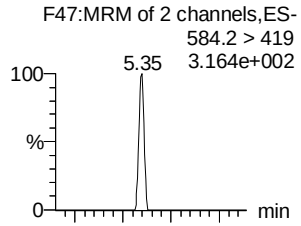

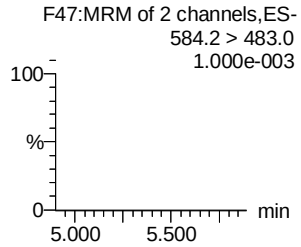

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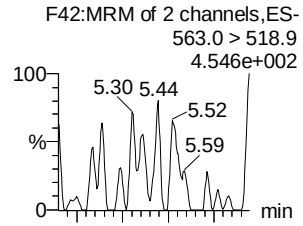

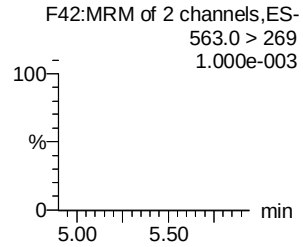

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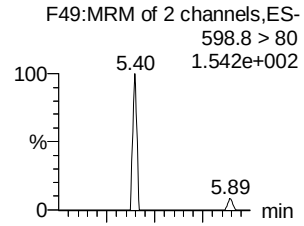

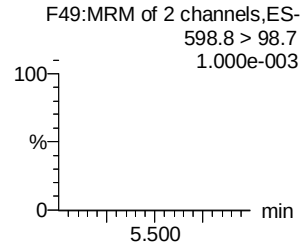

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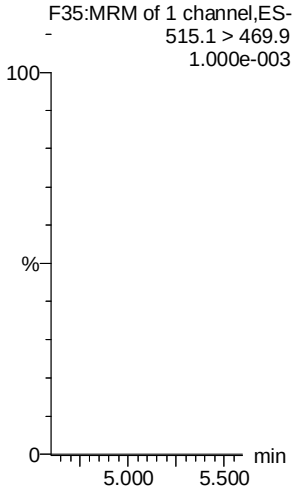

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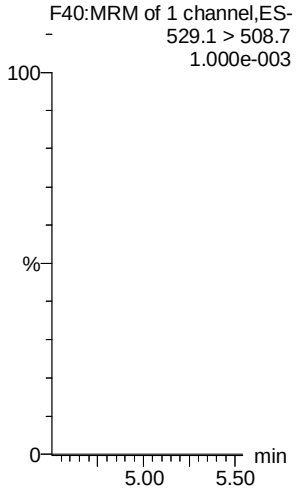

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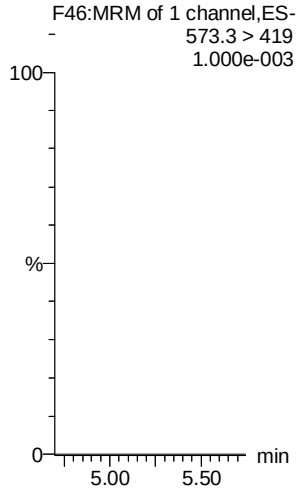

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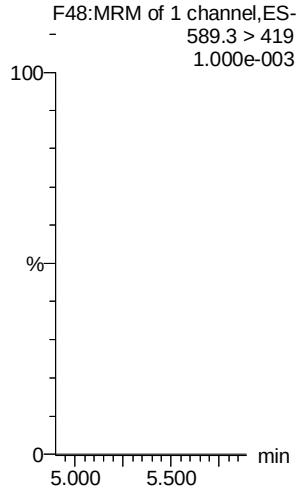

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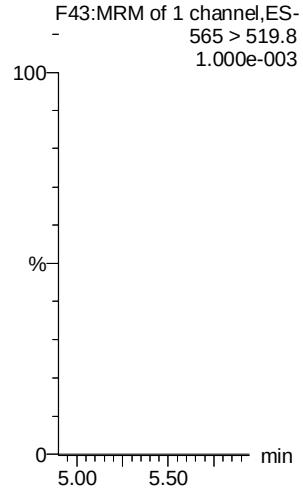

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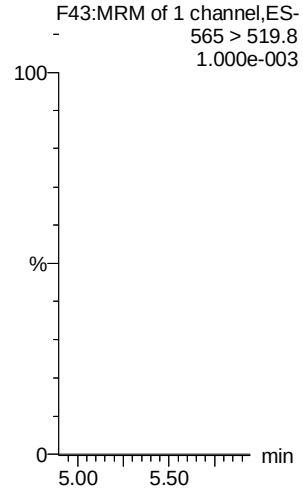

ANP 1/11/2018

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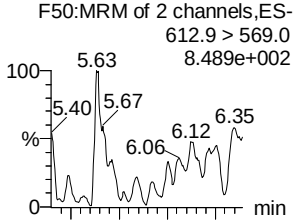

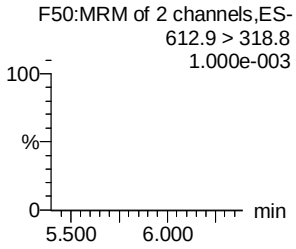

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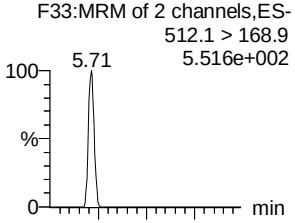

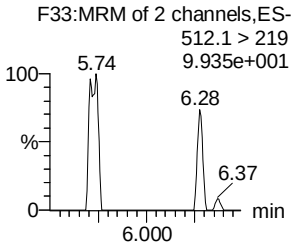

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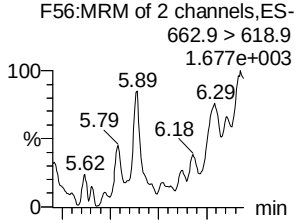

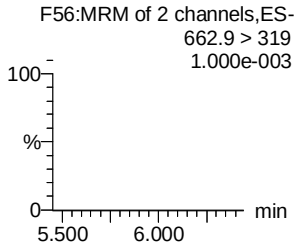

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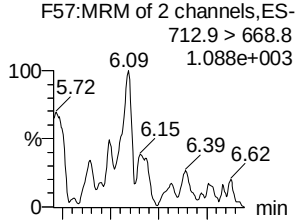

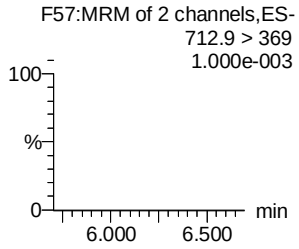

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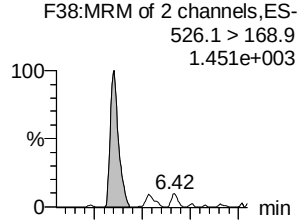

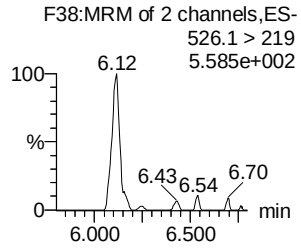

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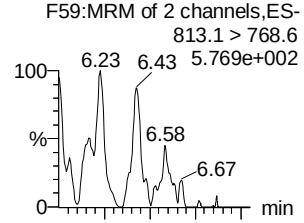

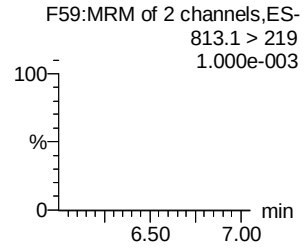

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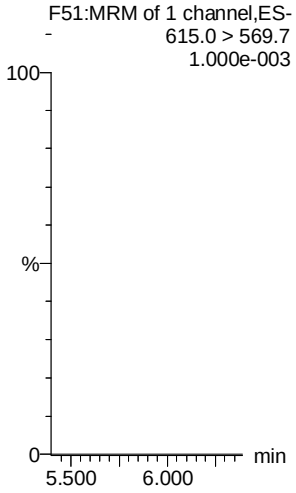

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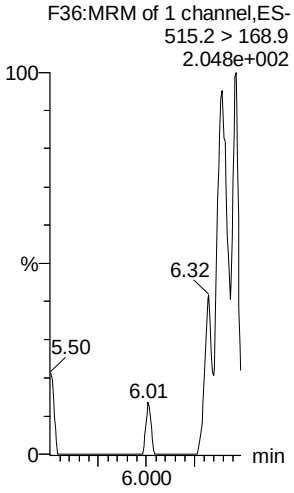

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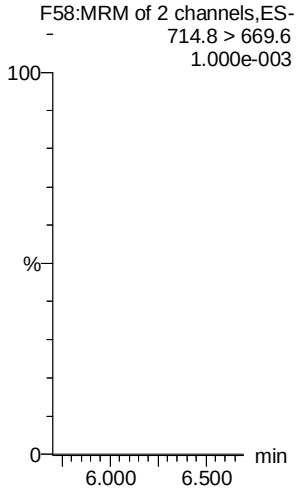

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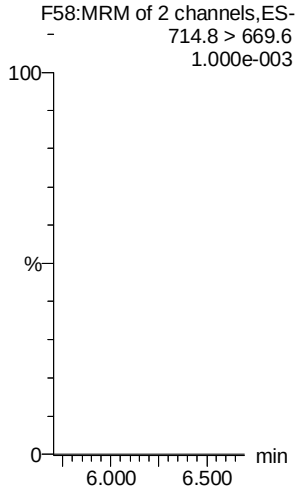

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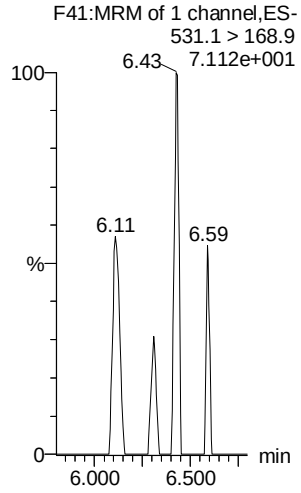

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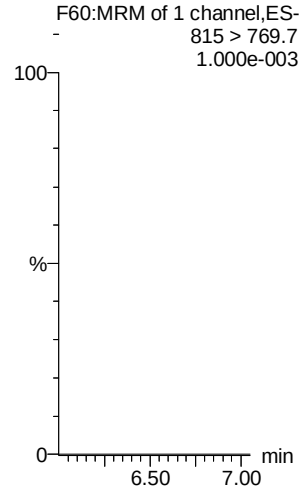

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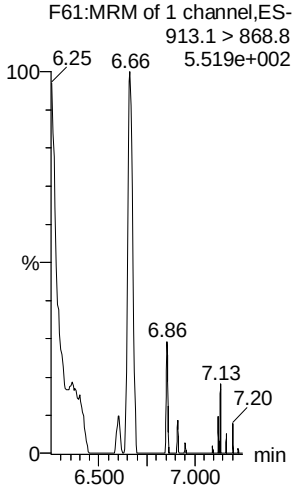

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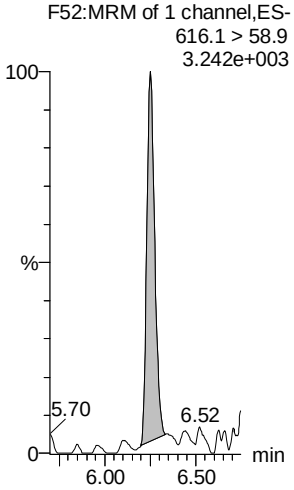

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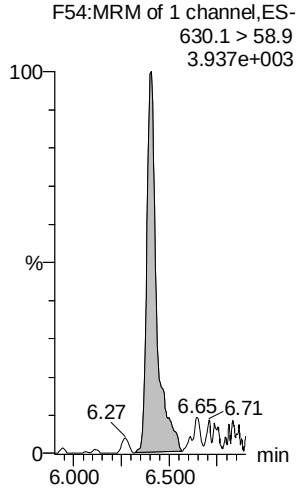

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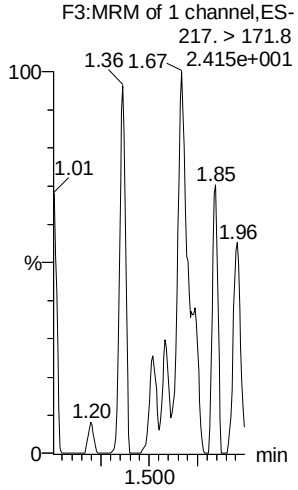

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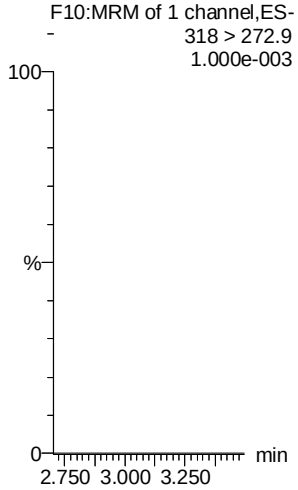

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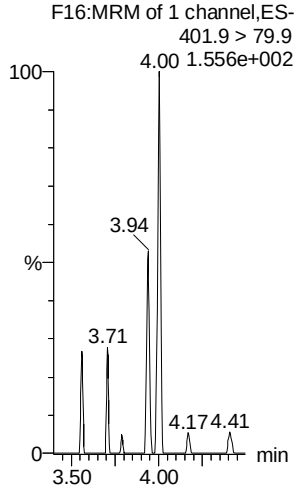

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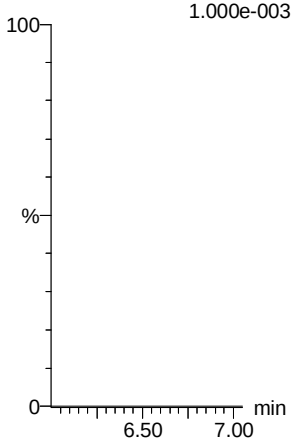
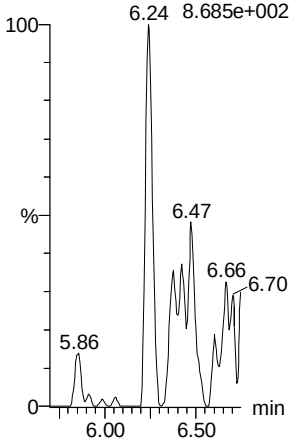


d7-N-MeFOSE



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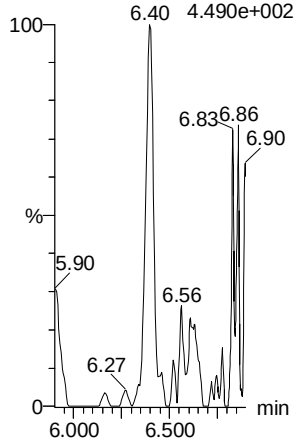

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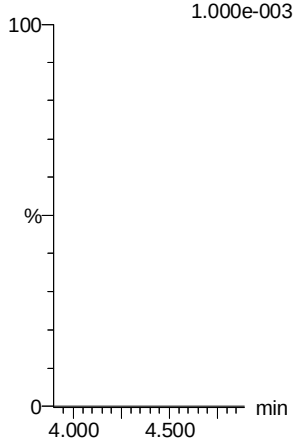

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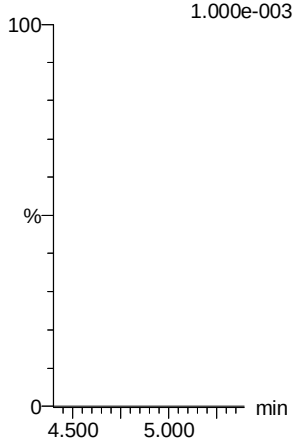

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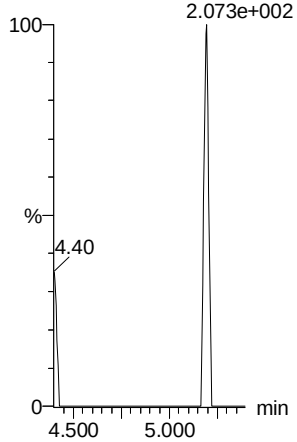

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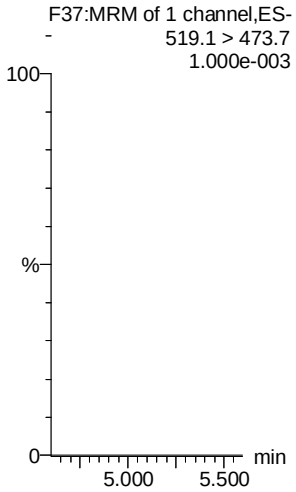

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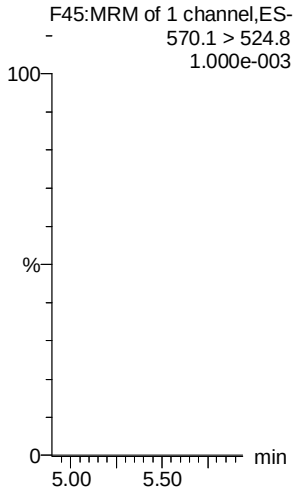

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Analytical Standard Record

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

1681221

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).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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:

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

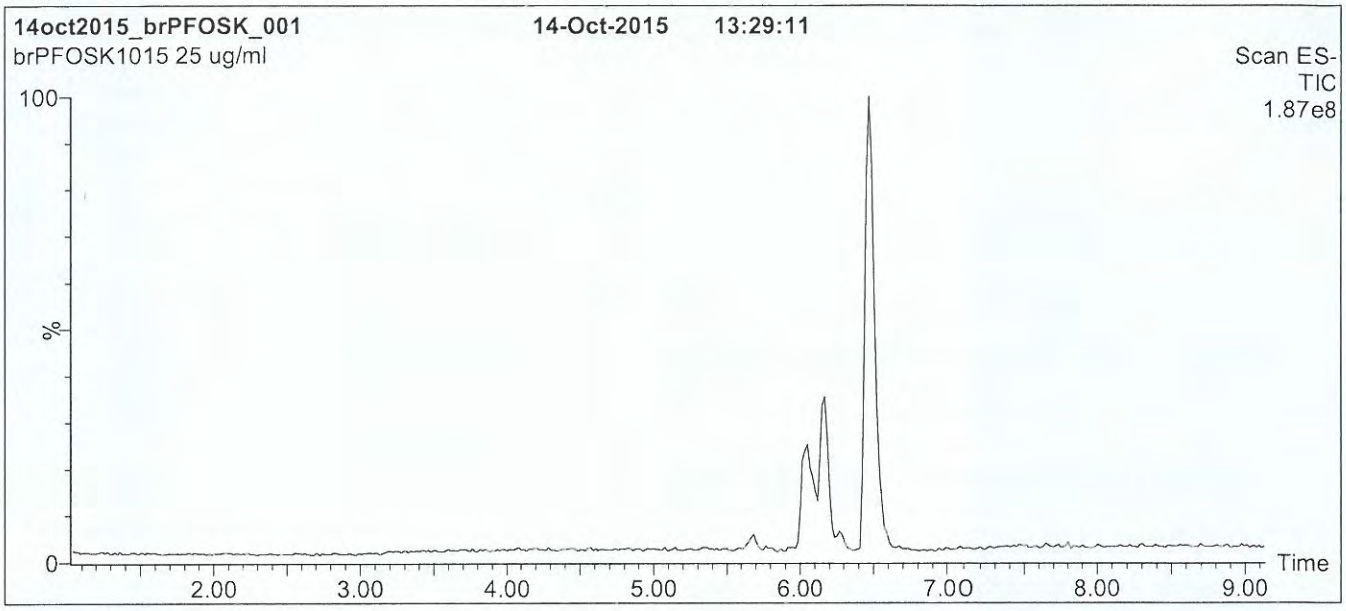
Table A: **br-PFOSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

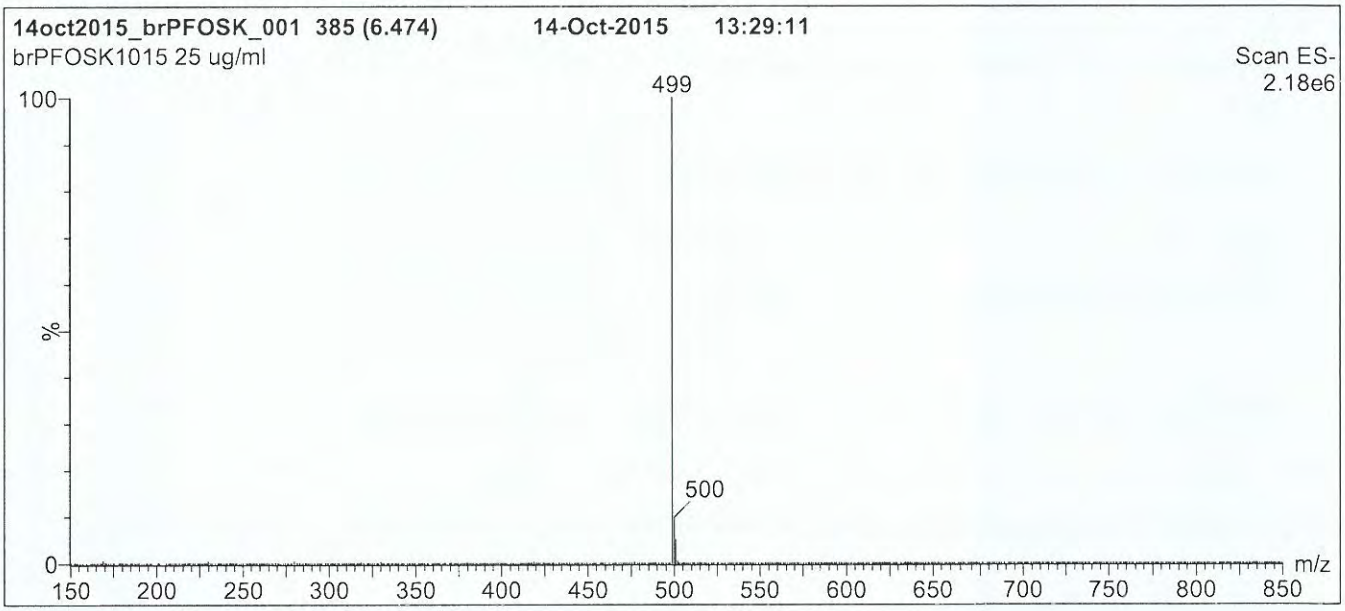
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-octanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$CF_3CF_2CF_2CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	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	$CF_3C(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF_2C(CF_3)CF_2CF_2CF_2SO_3^-K^+$	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

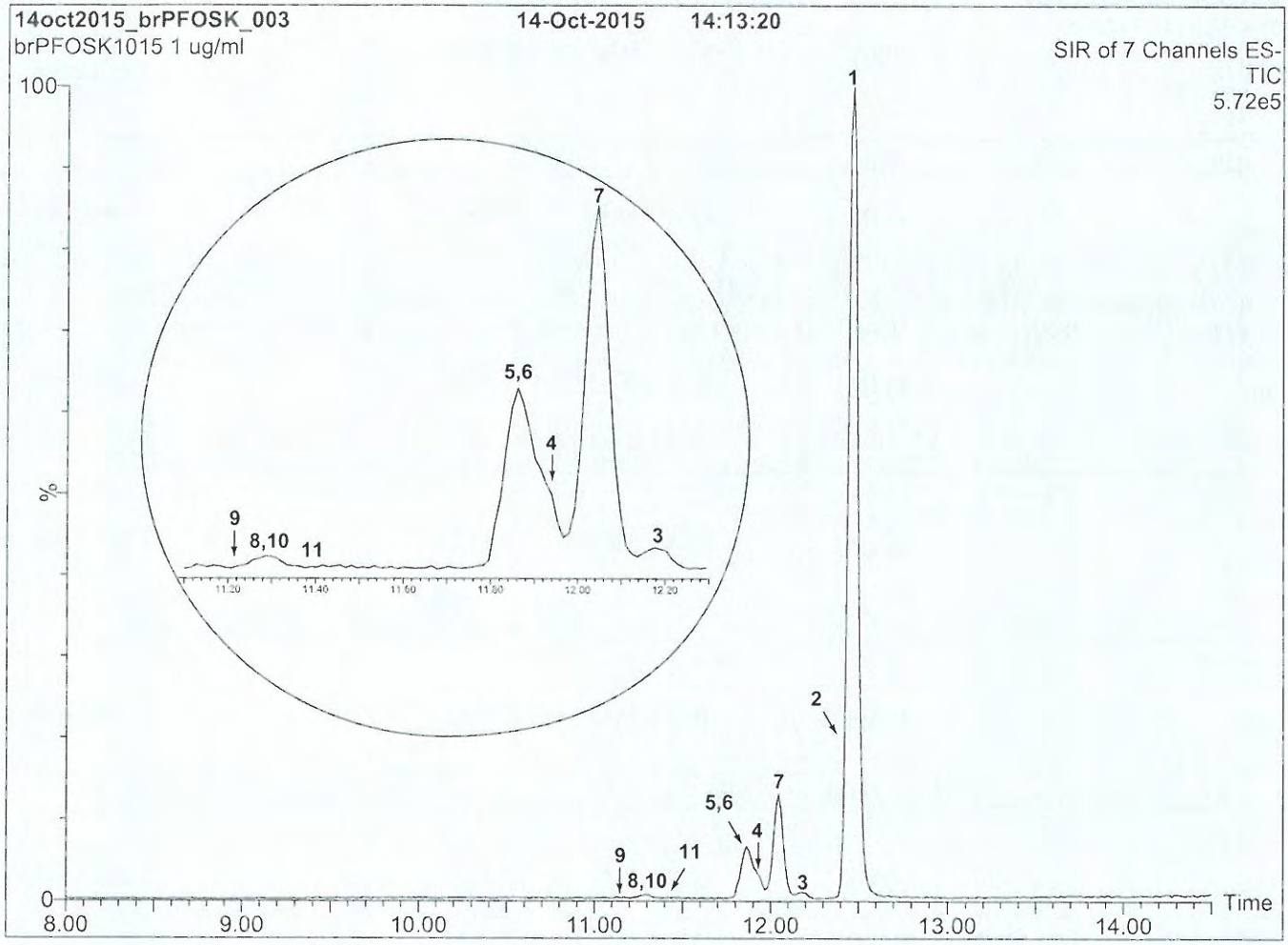
Flow: 300 µl/min

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

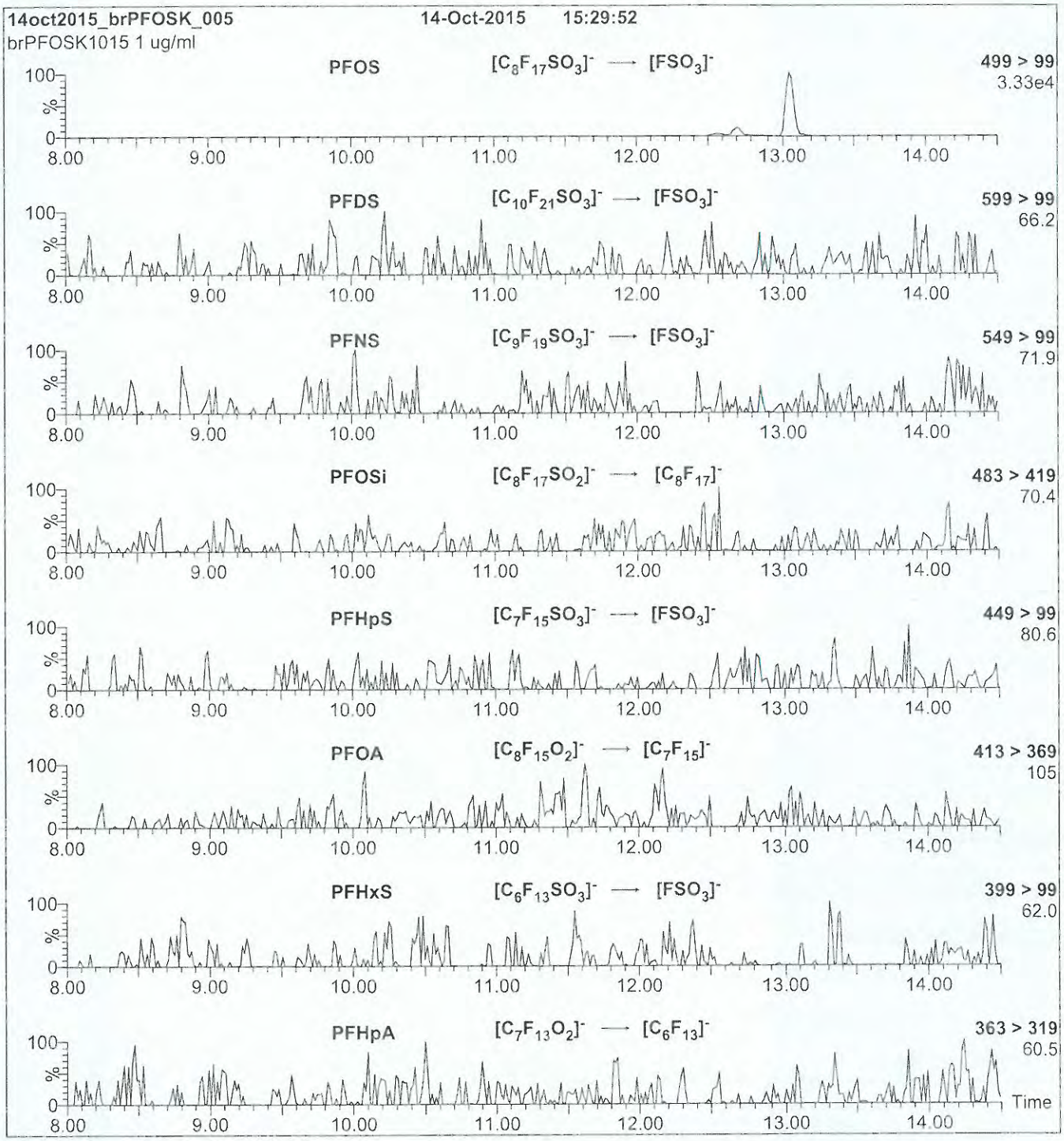
Mobile Phase: Gradient
45% (80:20 MeOH:ACN) / 55% H_2O (both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 15 min and hold for 3 min.
Return to initial conditions over 1 min.
Time: 20 min

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)

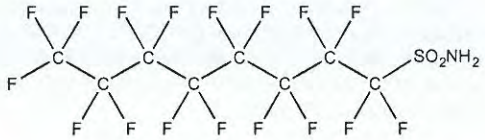
17G1209

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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/07/2016 (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

17G1209

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:

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).

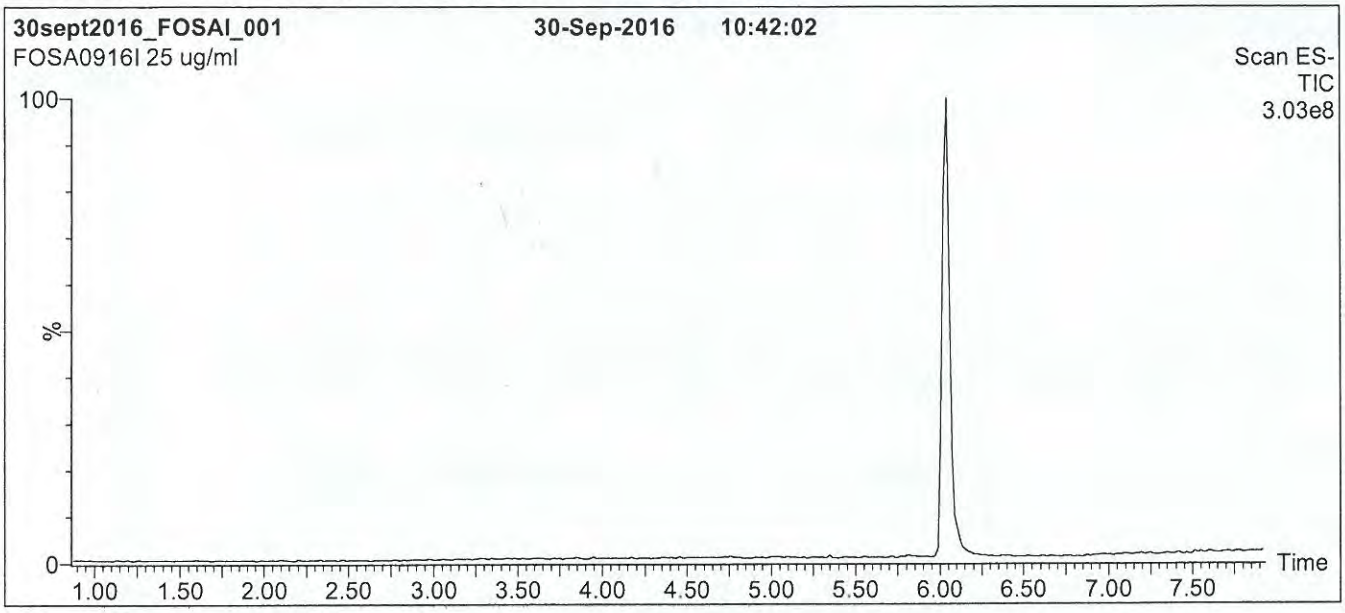
CALA

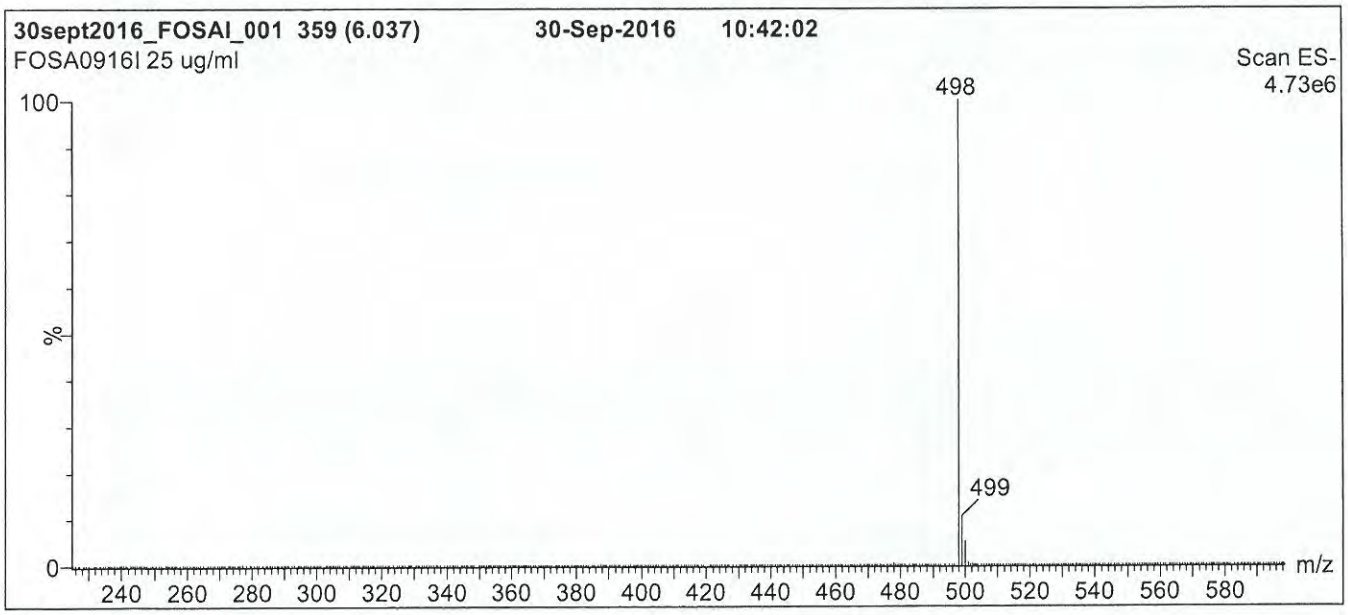
ANAB ACCREDITED

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

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

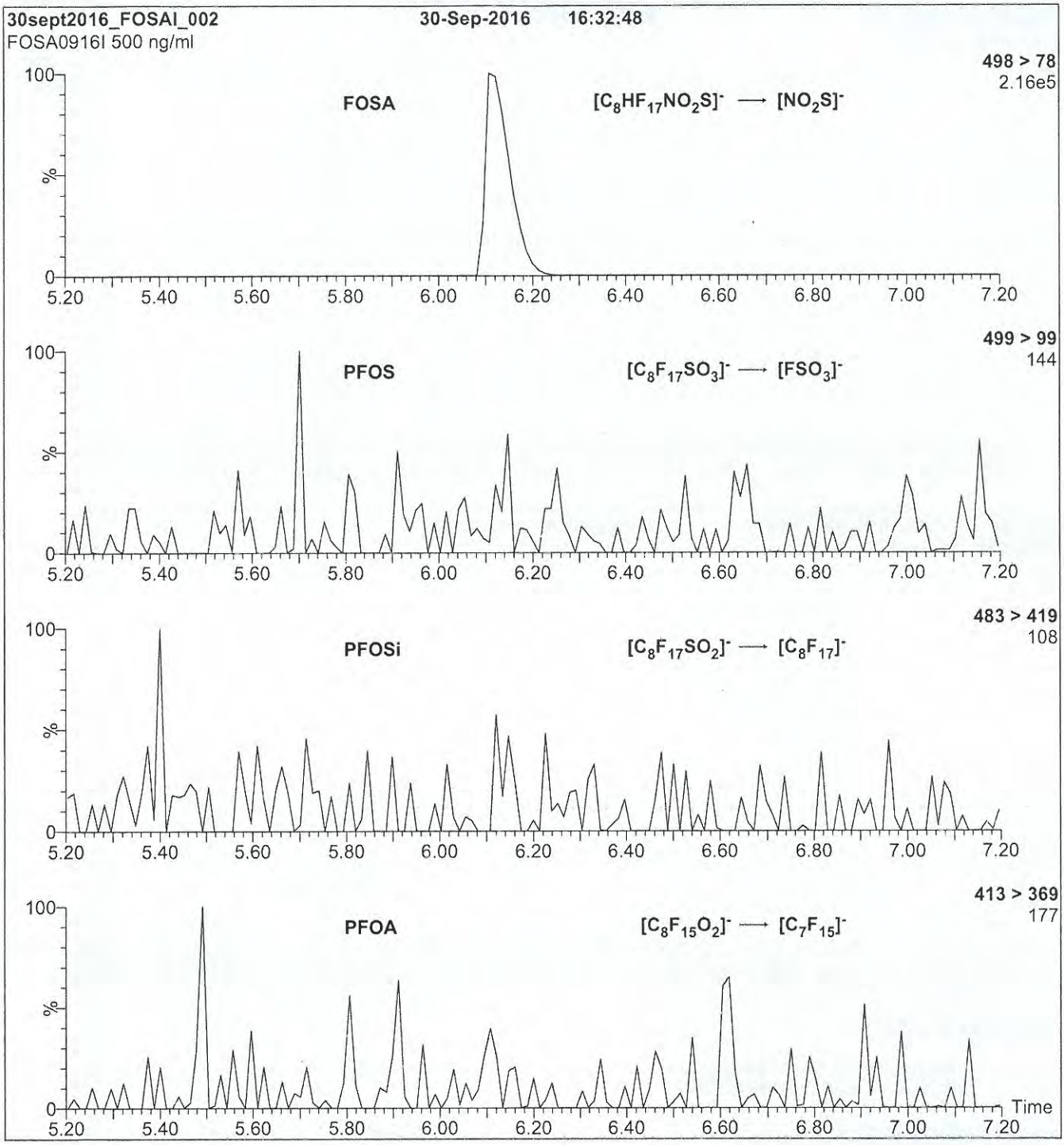
MS Parameters

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

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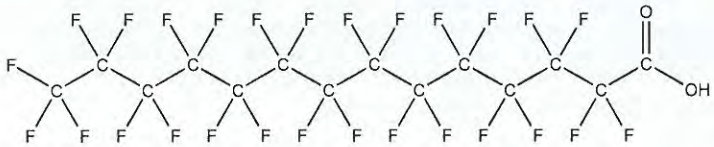
CERTIFICATE OF ANALYSIS
DOCUMENTATION

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

17G1312

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:

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).

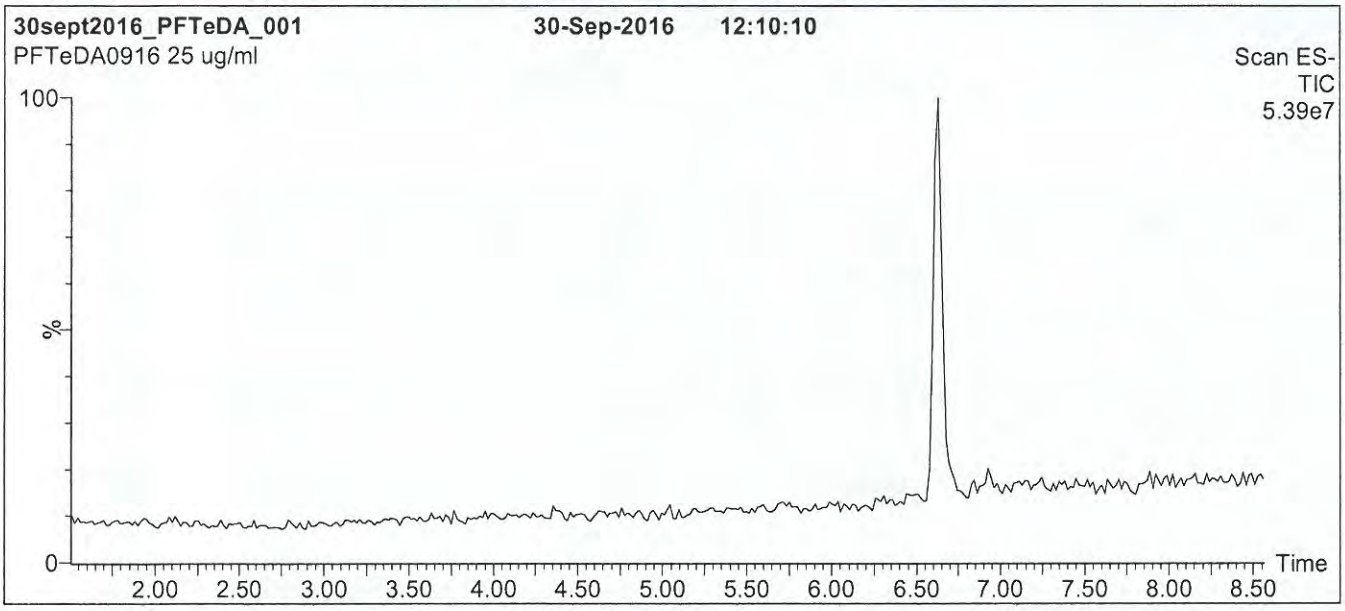
CALA

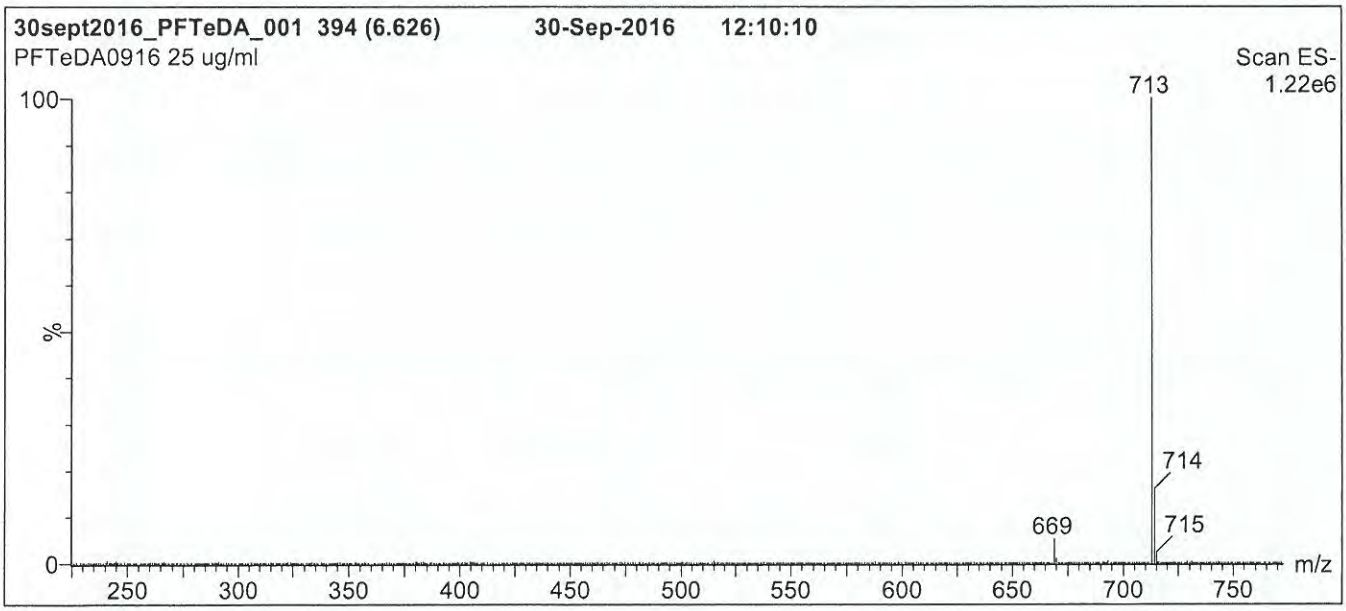
ANAB ACCREDITED

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

17G1312

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

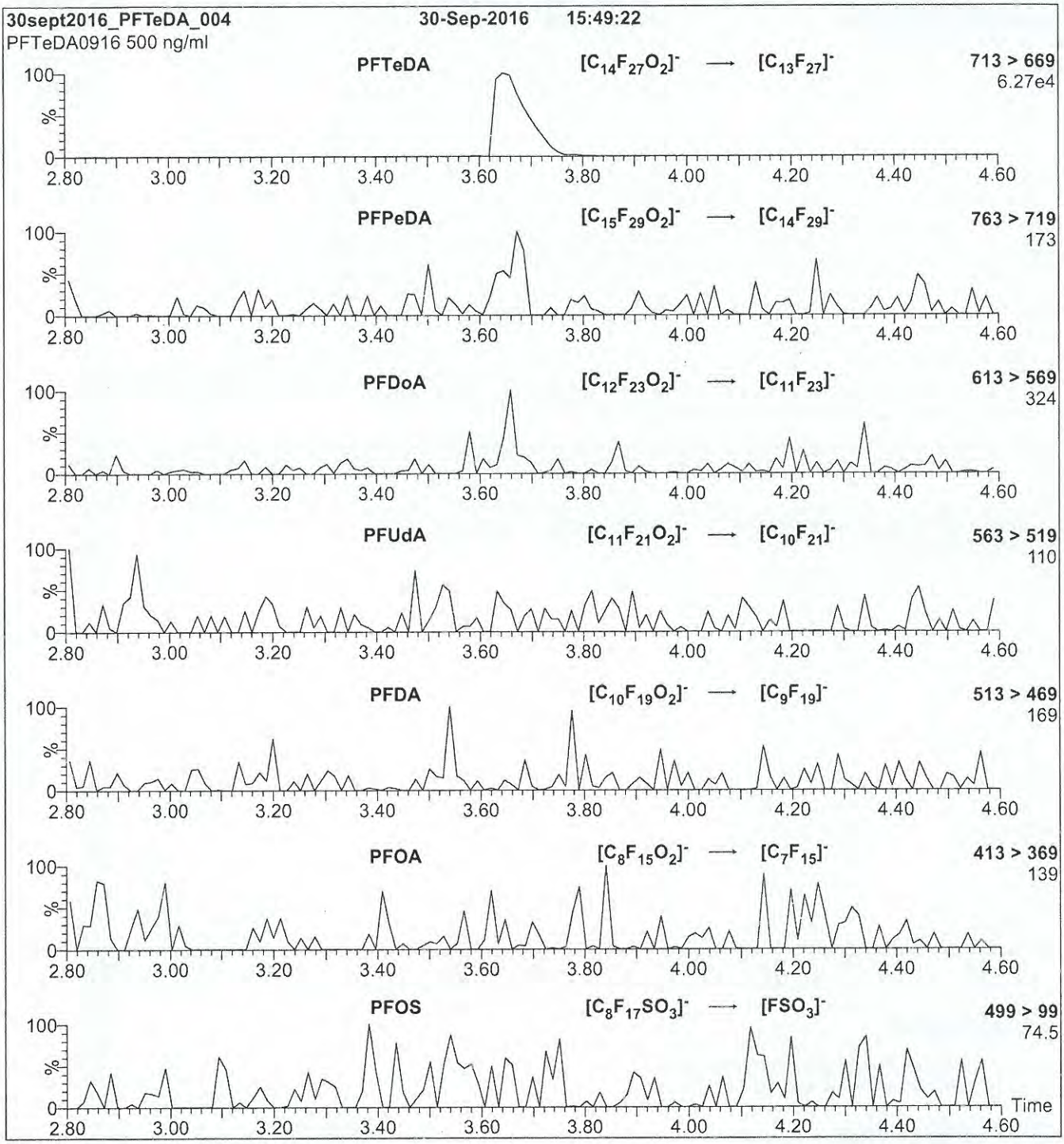
MS Parameters

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

WELLINGTON LABORATORIES

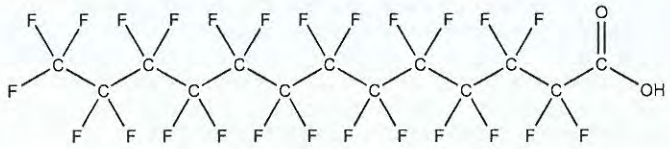
CERTIFICATE OF ANALYSIS
DOCUMENTATION

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)

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:

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:

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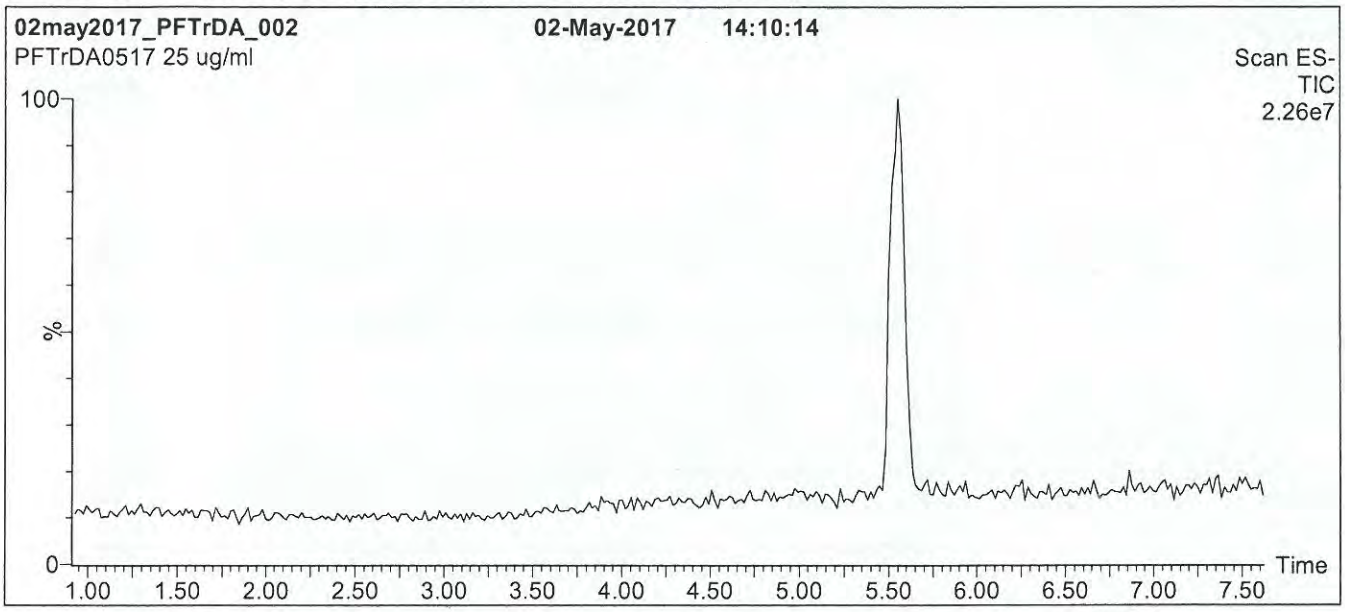
CALA

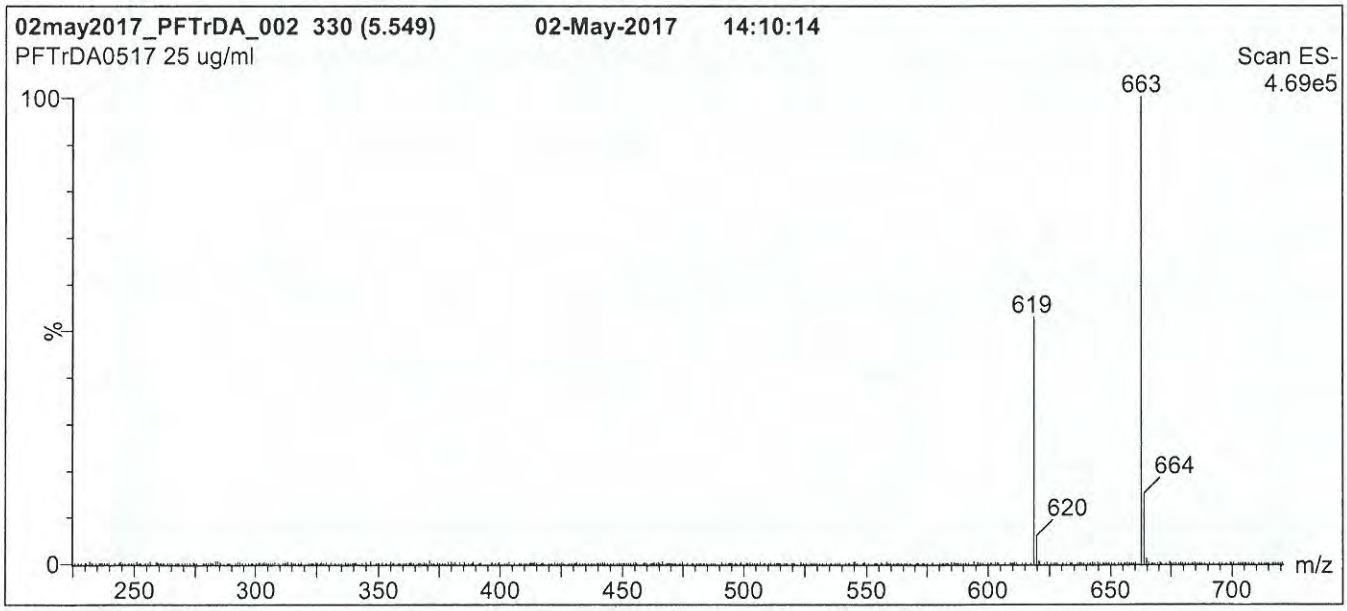
ANAB ACCREDITED

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

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

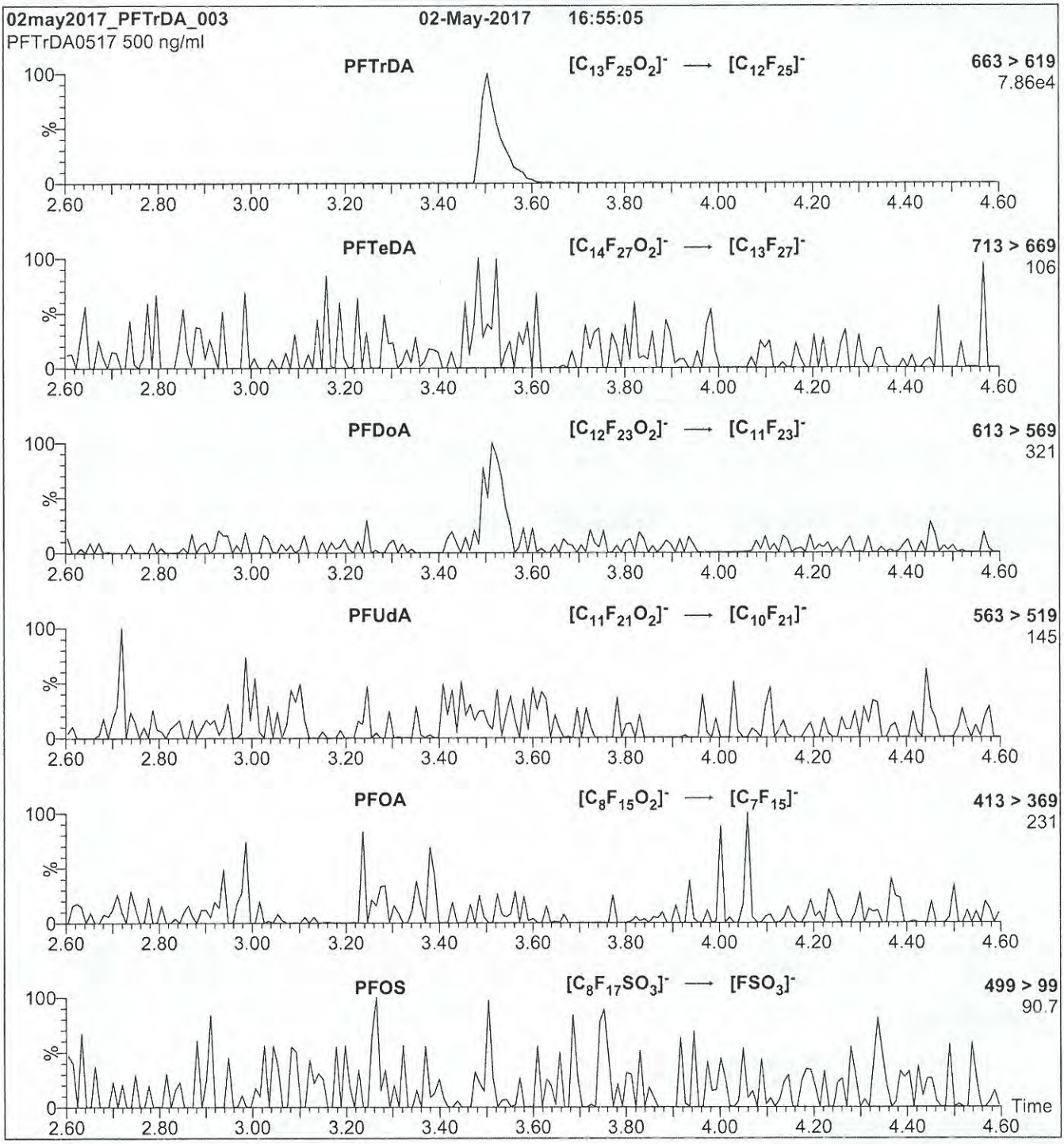
MS Parameters

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

WELLINGTON LABORATORIES

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).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

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17G1323

INTENDED USE:

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HAZARDS:

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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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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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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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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A1226

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

17G1323

Table A: **br-PFHxSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

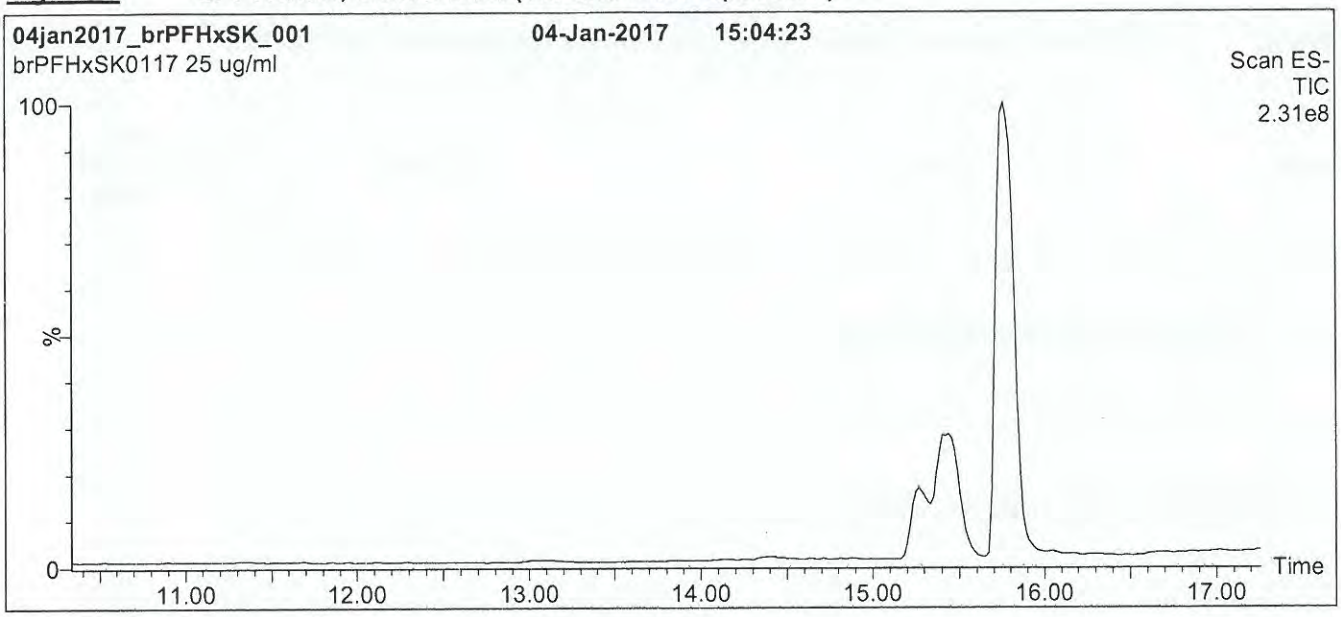
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	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	$CF_3C(CF_3)_2CF_2CF_2SO_3^-K^+$	0.2
7	Other Unidentified Isomers		0.5

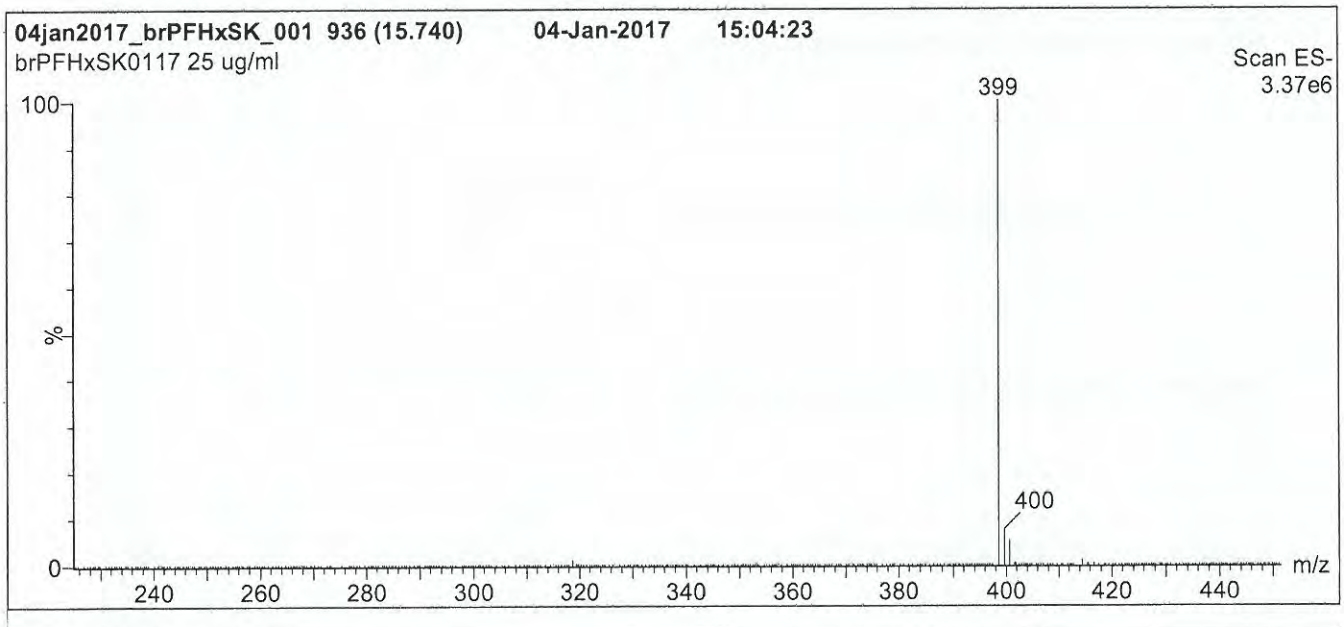
* Percent of total perfluorohexanesulfonate isomers only.
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

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

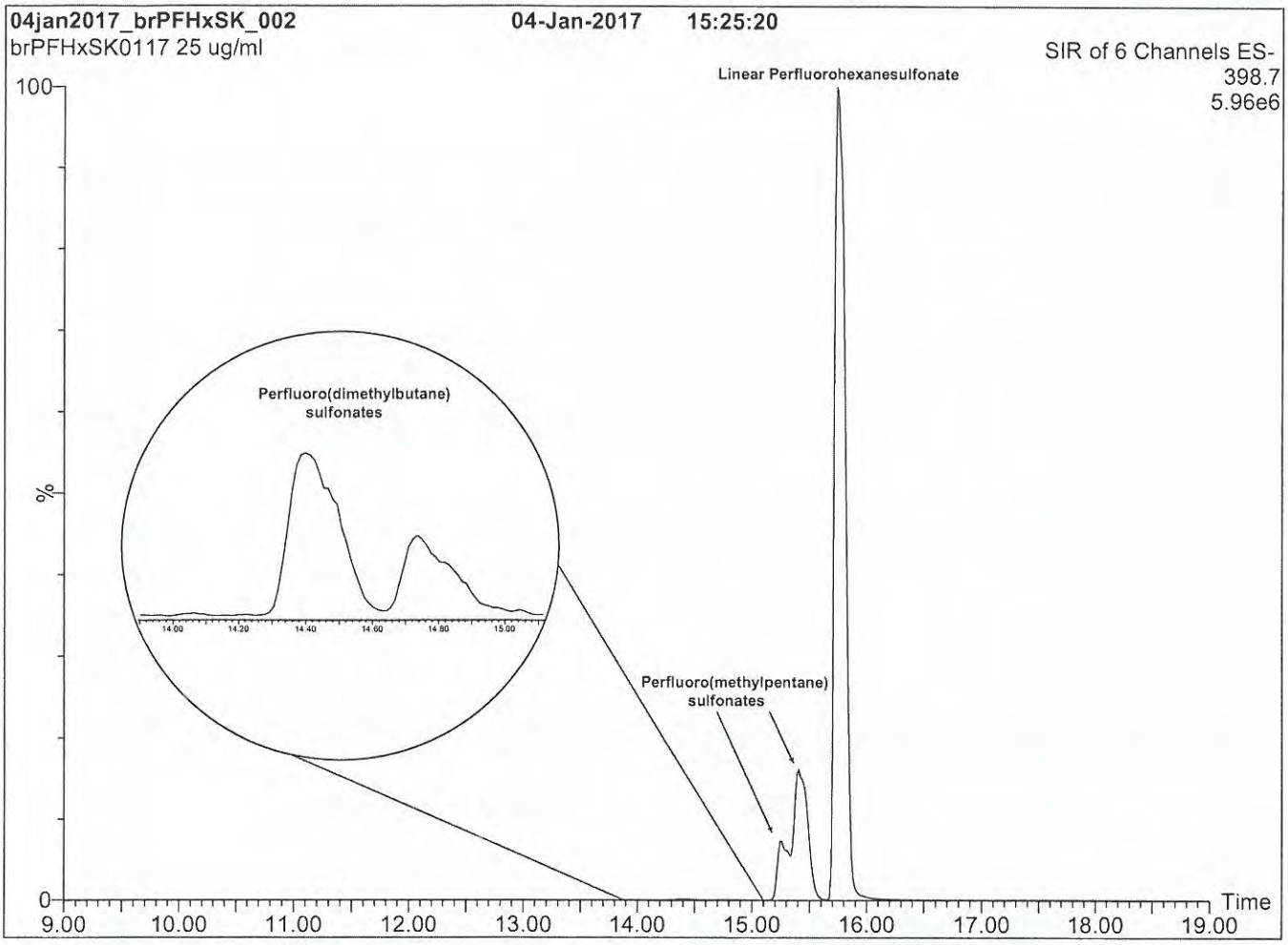
MS Parameters

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

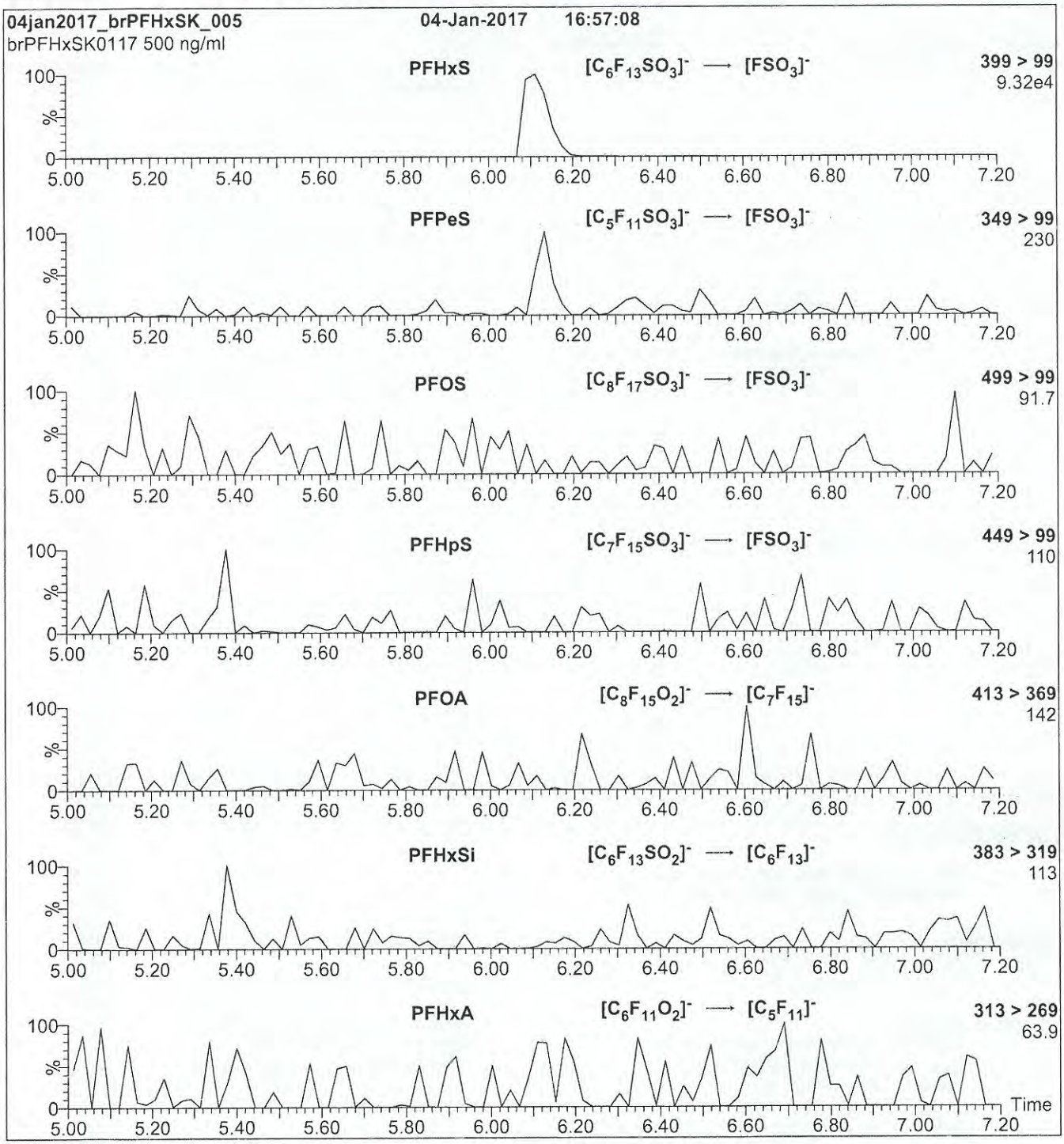
MS Parameters

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

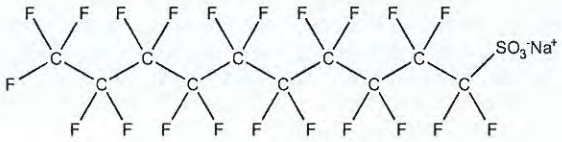
17G1325

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
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1325

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).

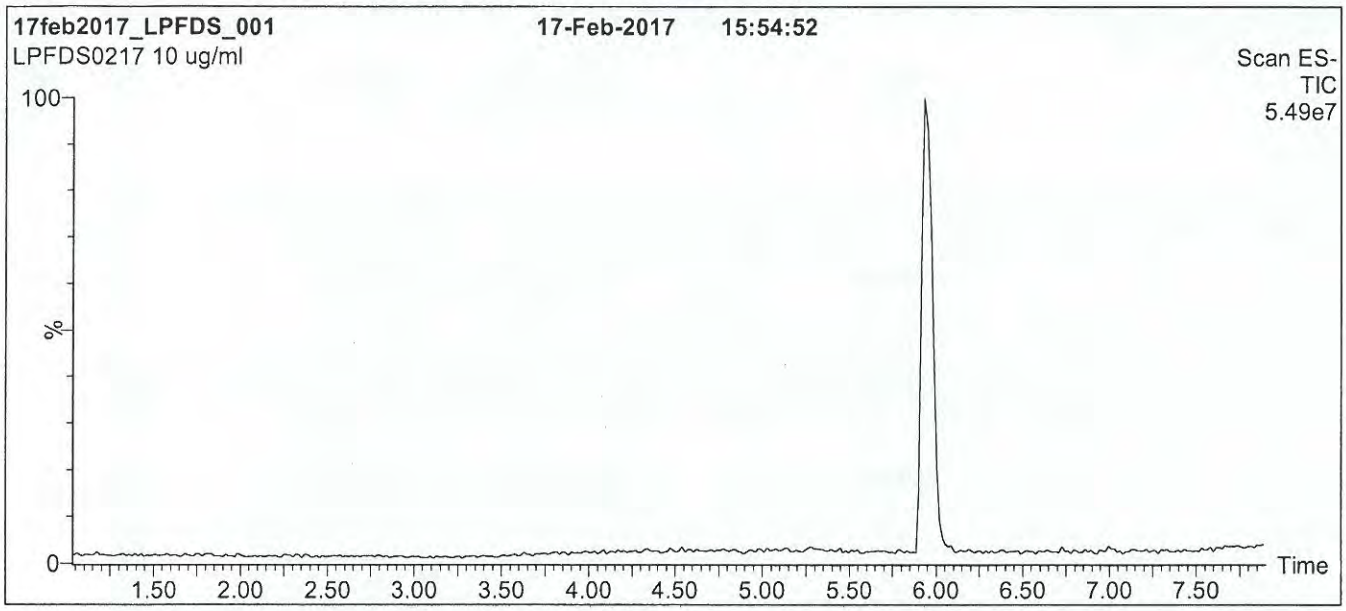
CALA Testing

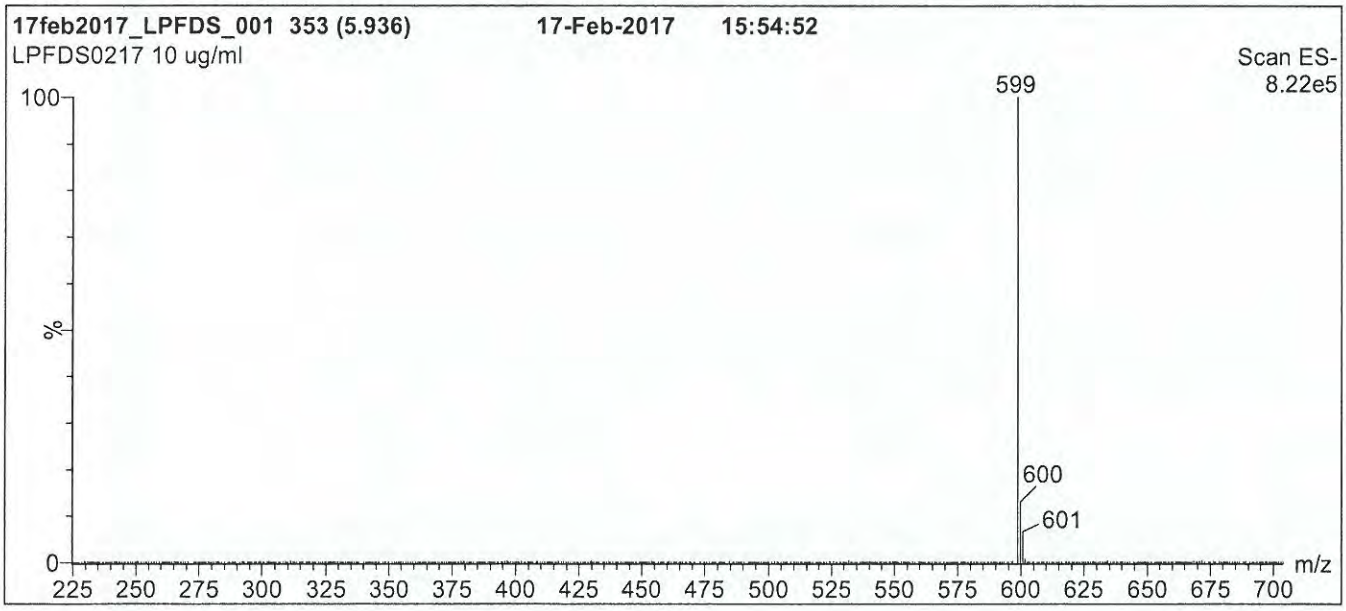
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

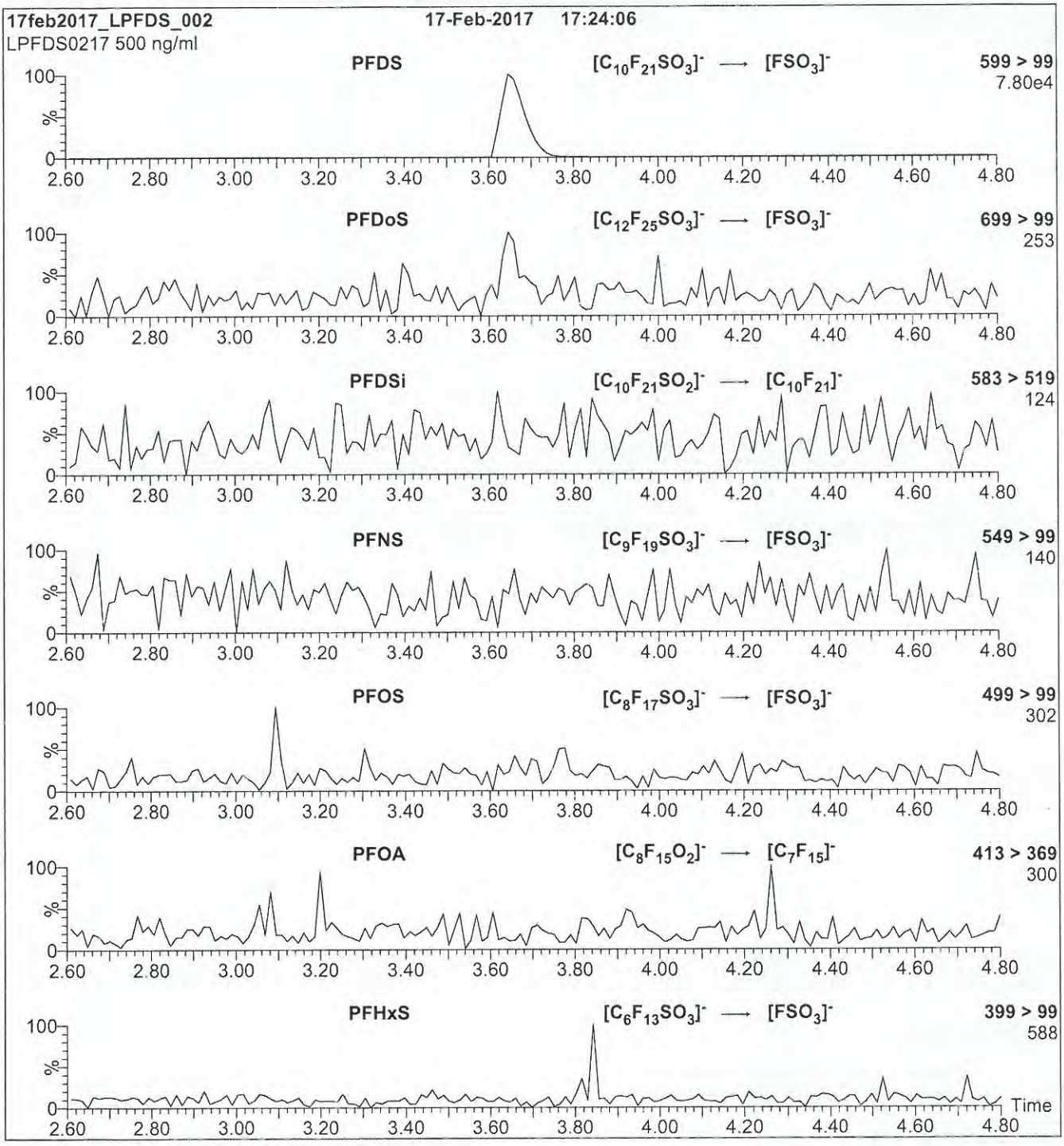
MS Parameters

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

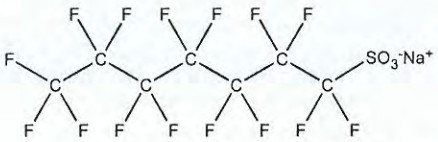
17G1326

WELLINGTON LABORATORIES

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:

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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.

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).

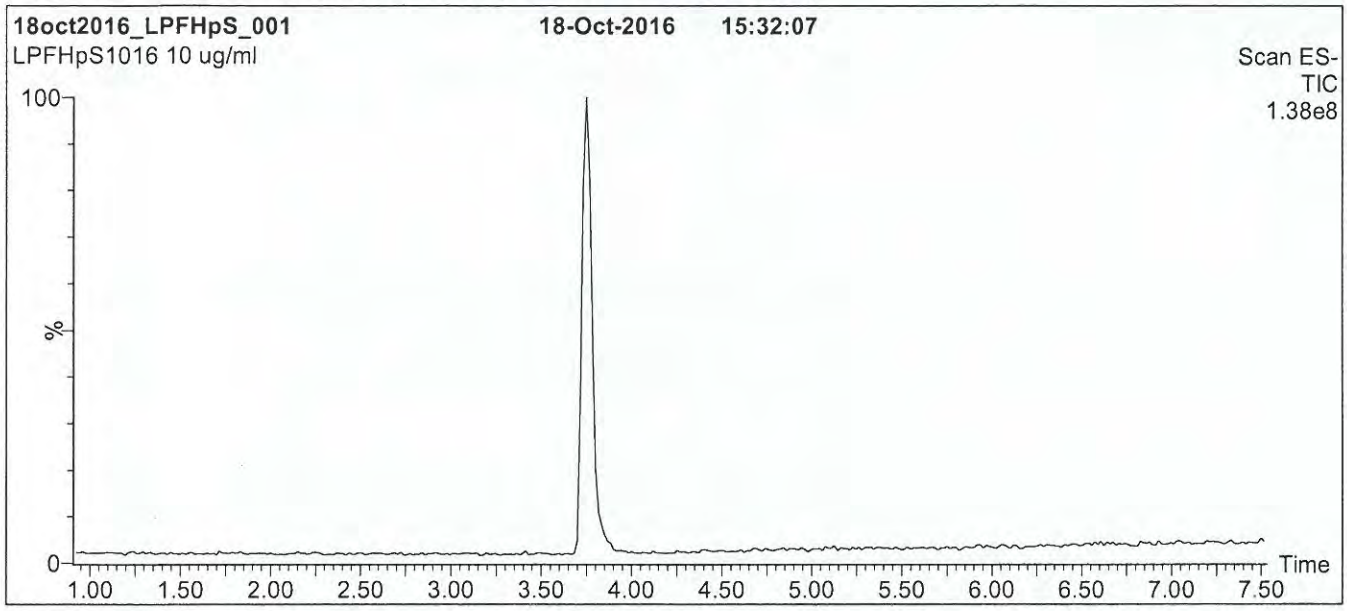
CALA

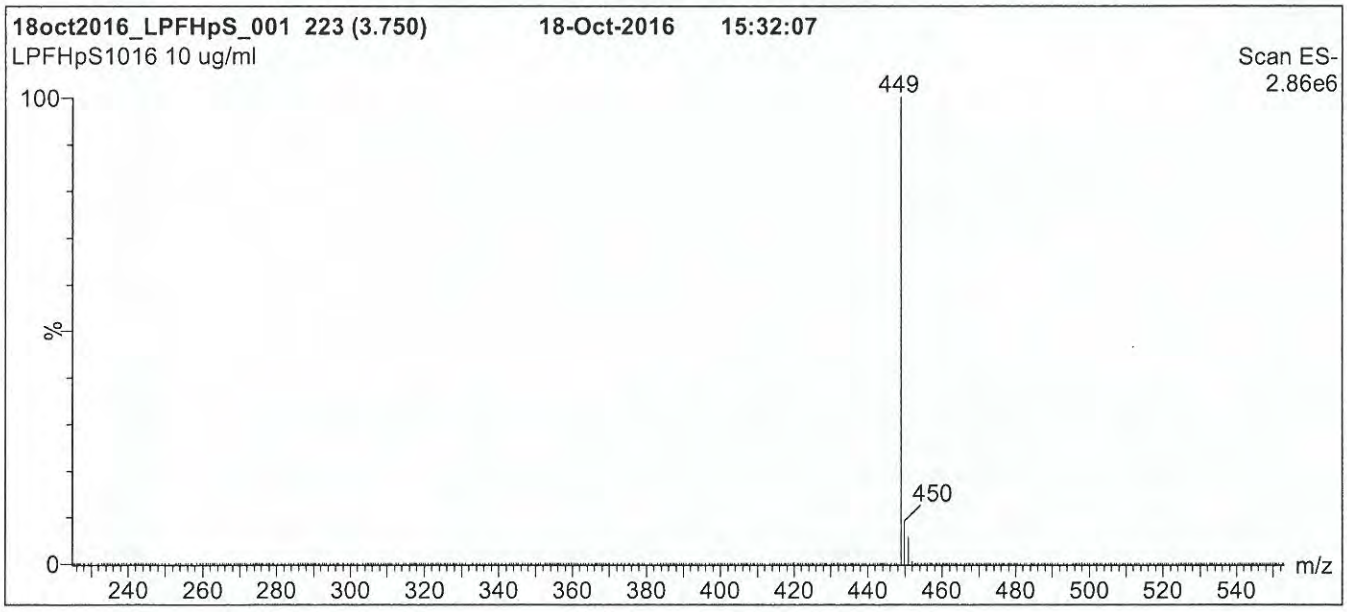
ANAB ACCREDITED

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

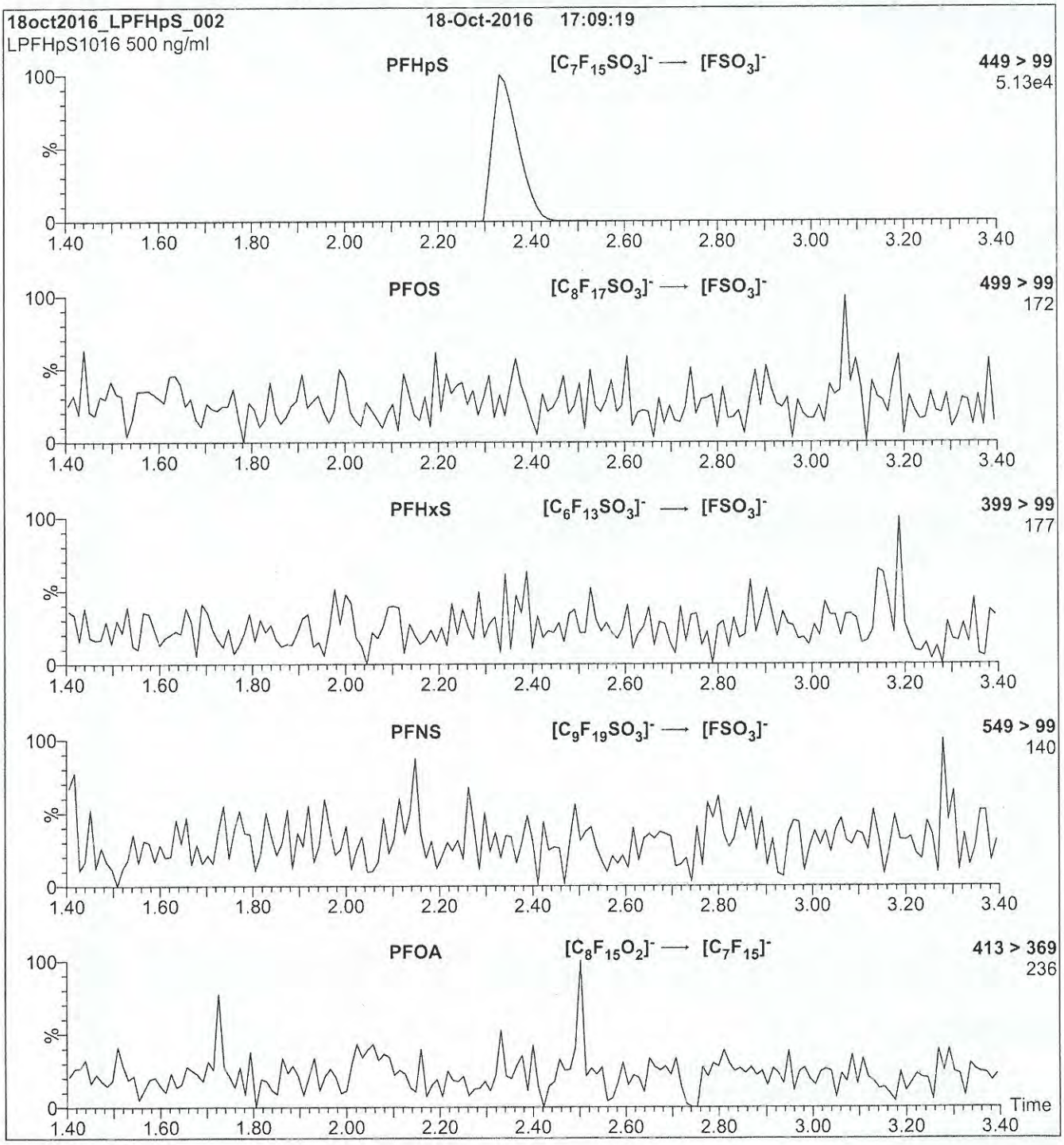
MS Parameters

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: B.G. Chittim **Date:** 06/13/2016 (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

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:

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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.

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TRACEABILITY:

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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:

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QUALITY MANAGEMENT:

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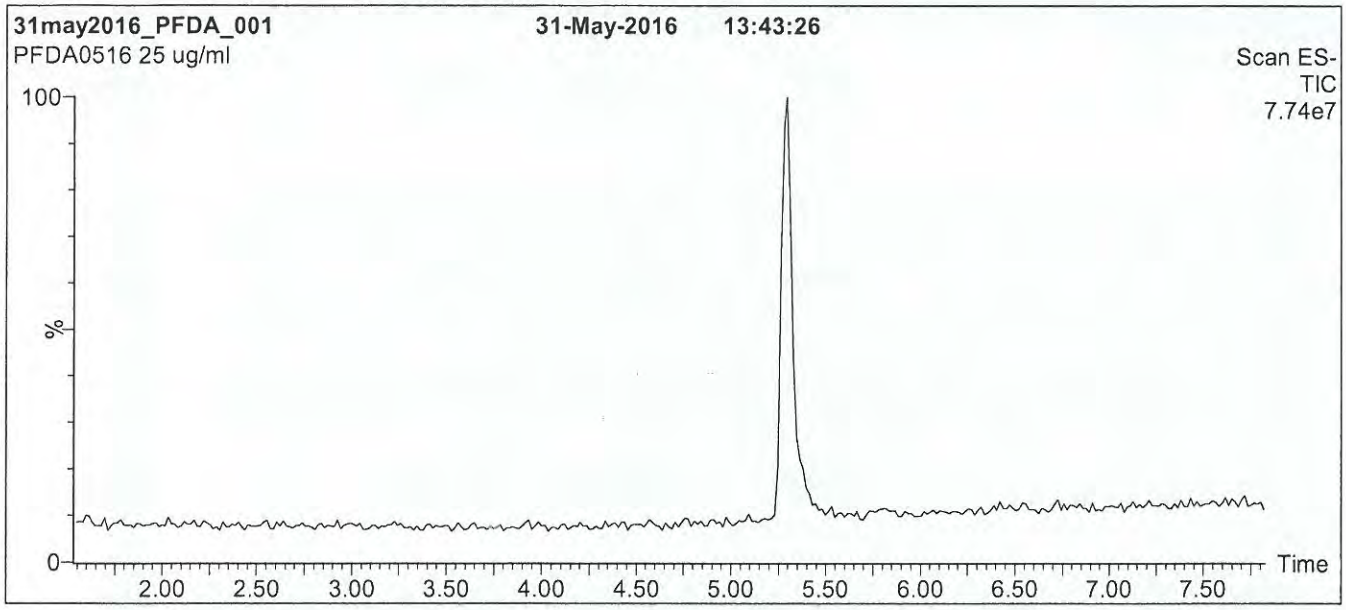
CALA

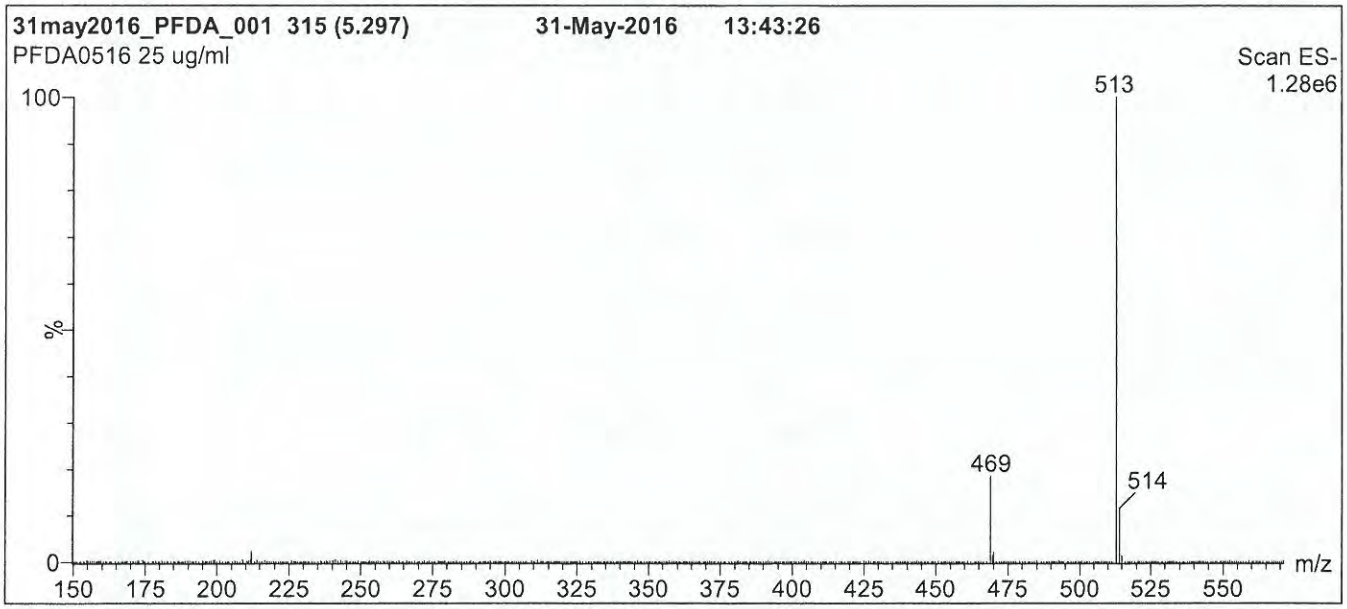
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

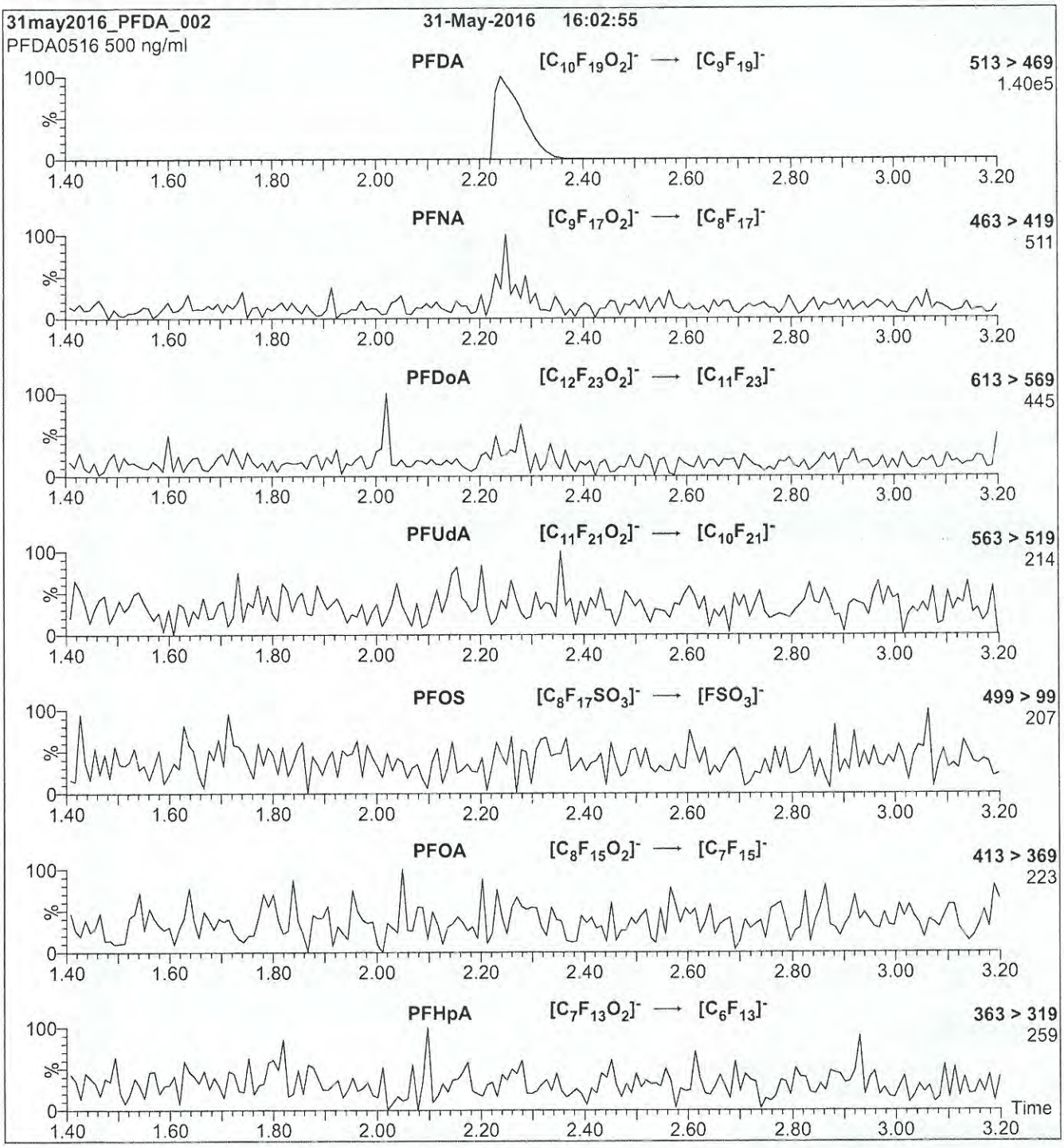
MS Parameters

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

WELLINGTON LABORATORIES

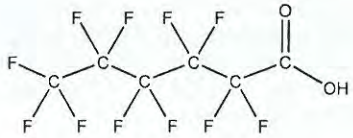
CERTIFICATE OF ANALYSIS
DOCUMENTATION

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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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).

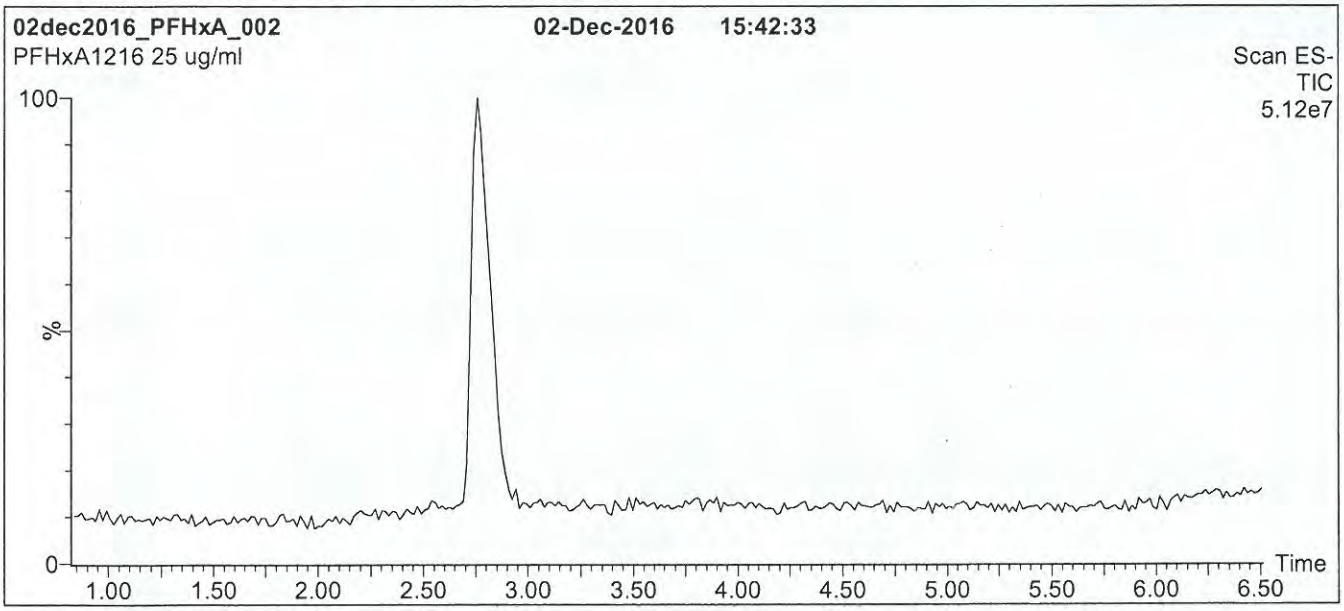
CALA Testing

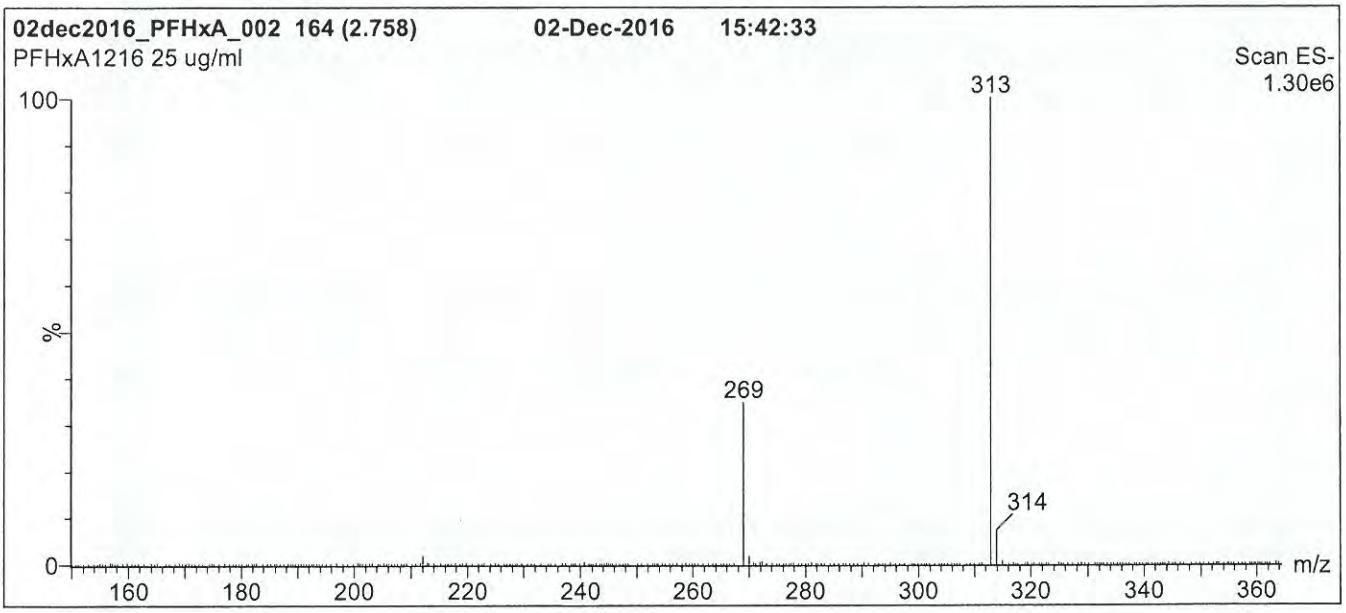
ANAB ACCREDITED Reference Material Producer

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

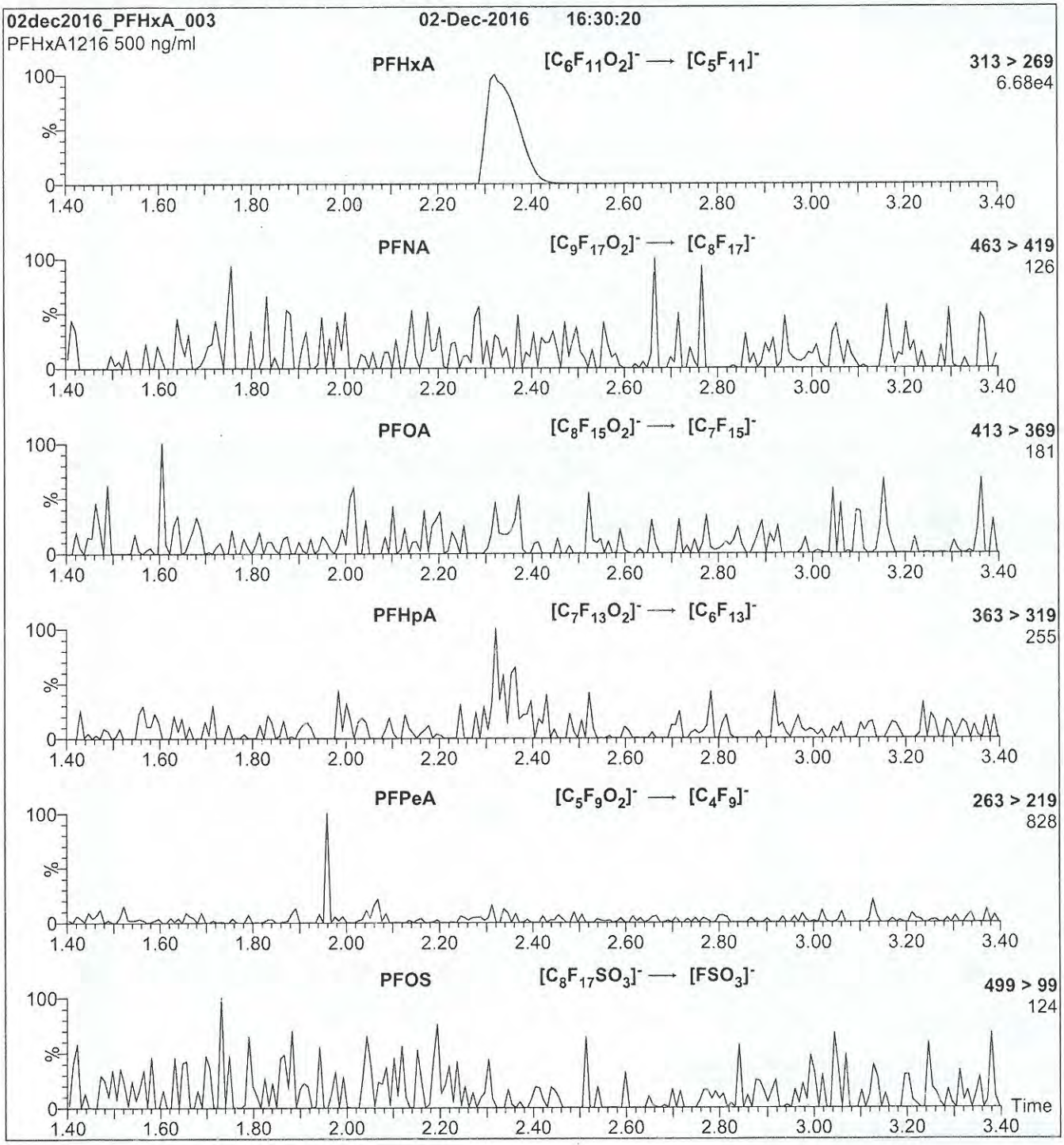
MS Parameters

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

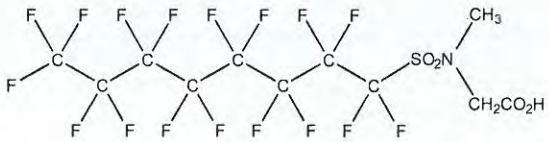
WELLINGTON LABORATORIES

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.

SYNTHESIS / CHARACTERIZATION:

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QUALITY MANAGEMENT:

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CALA

ANAB ACCREDITED

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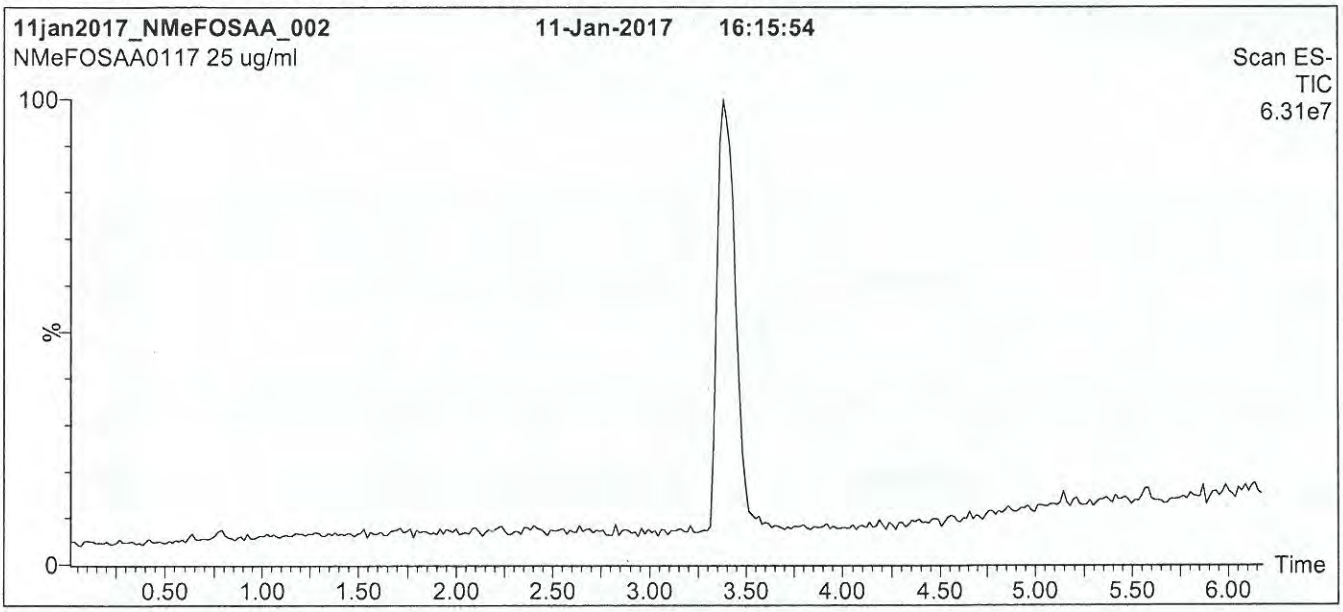
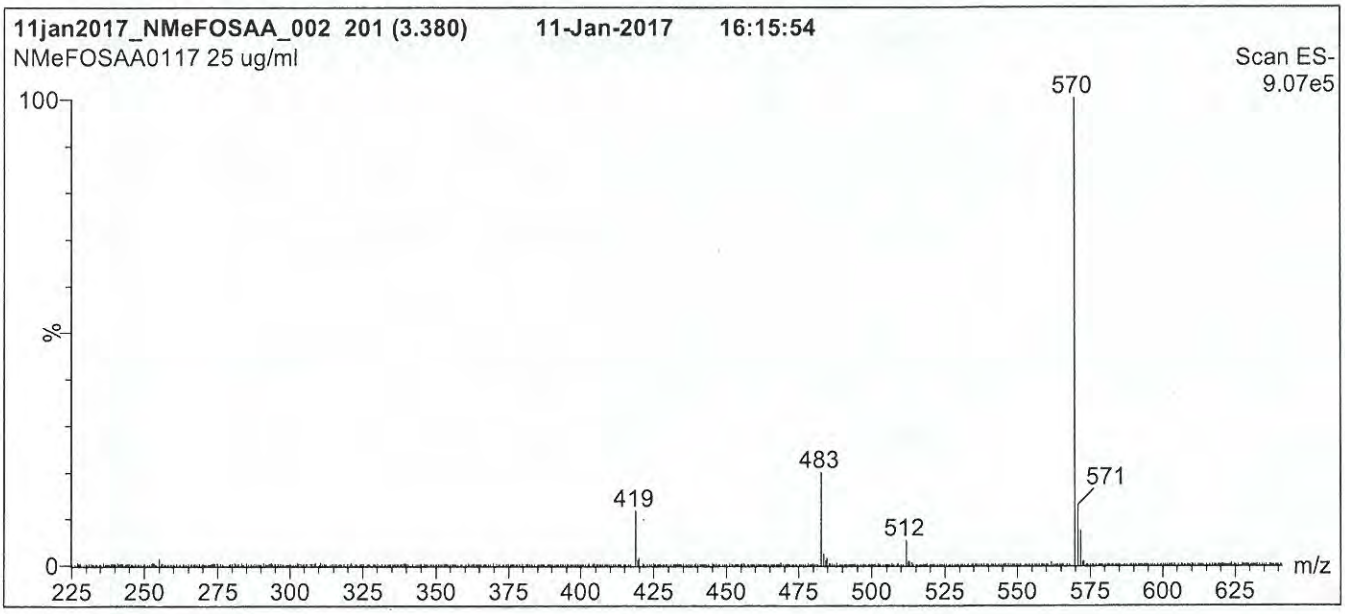
17G1807

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

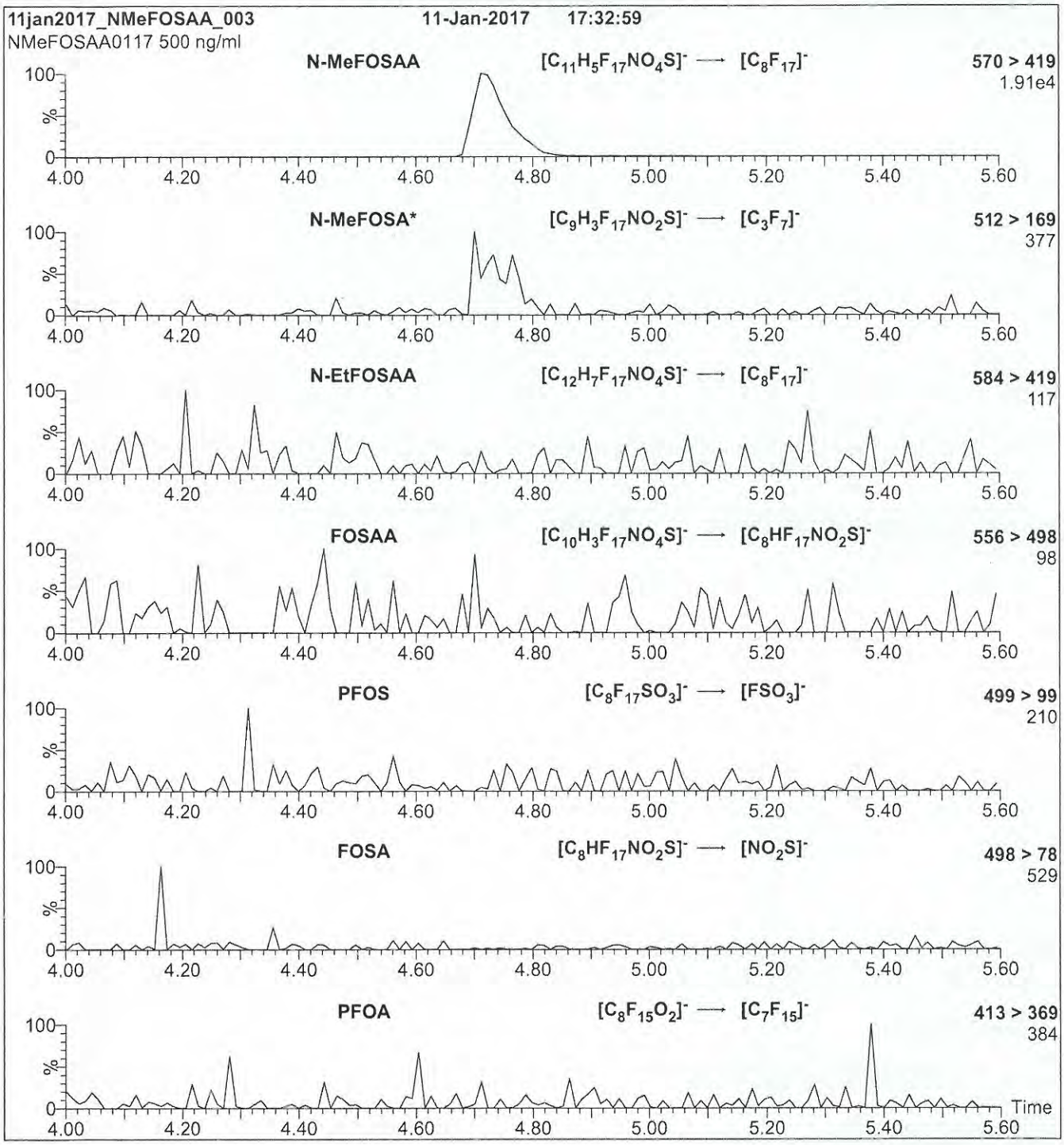
MS Parameters

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

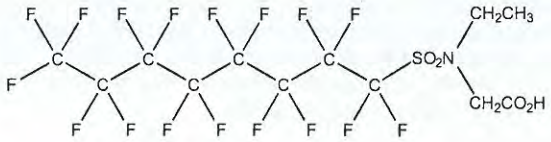
WELLINGTON LABORATORIES

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.

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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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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

ANAB ACCREDITED ISO GUIDE 34 REFERENCE MATERIAL PRODUCER

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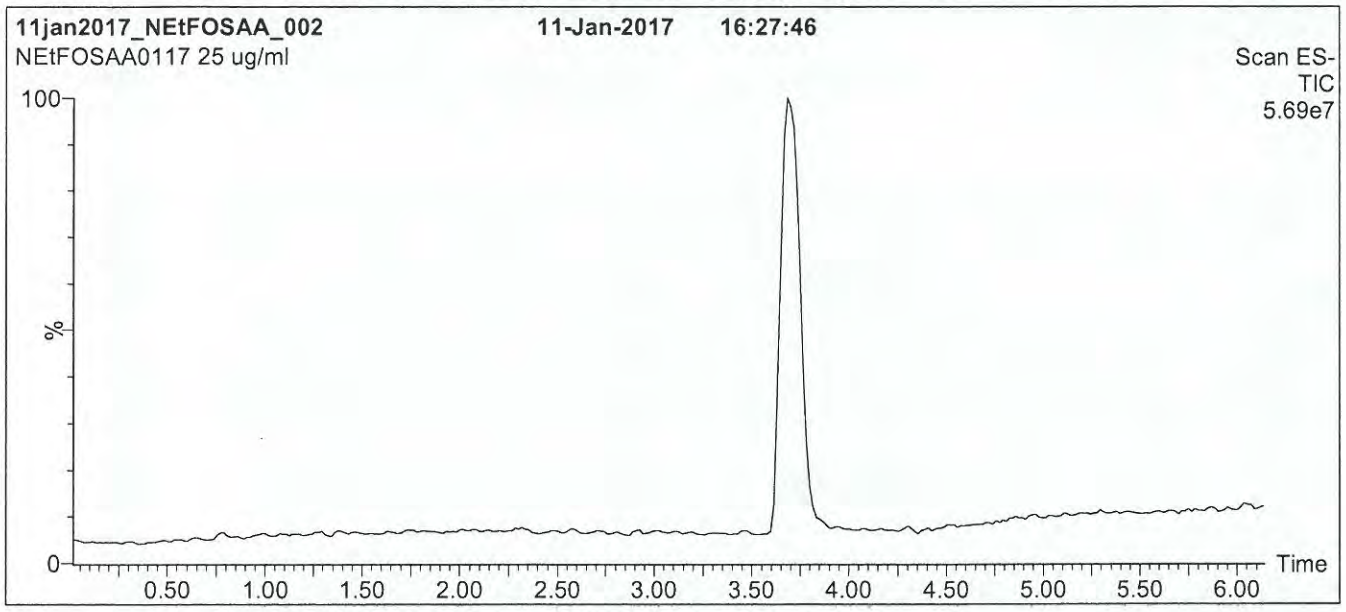
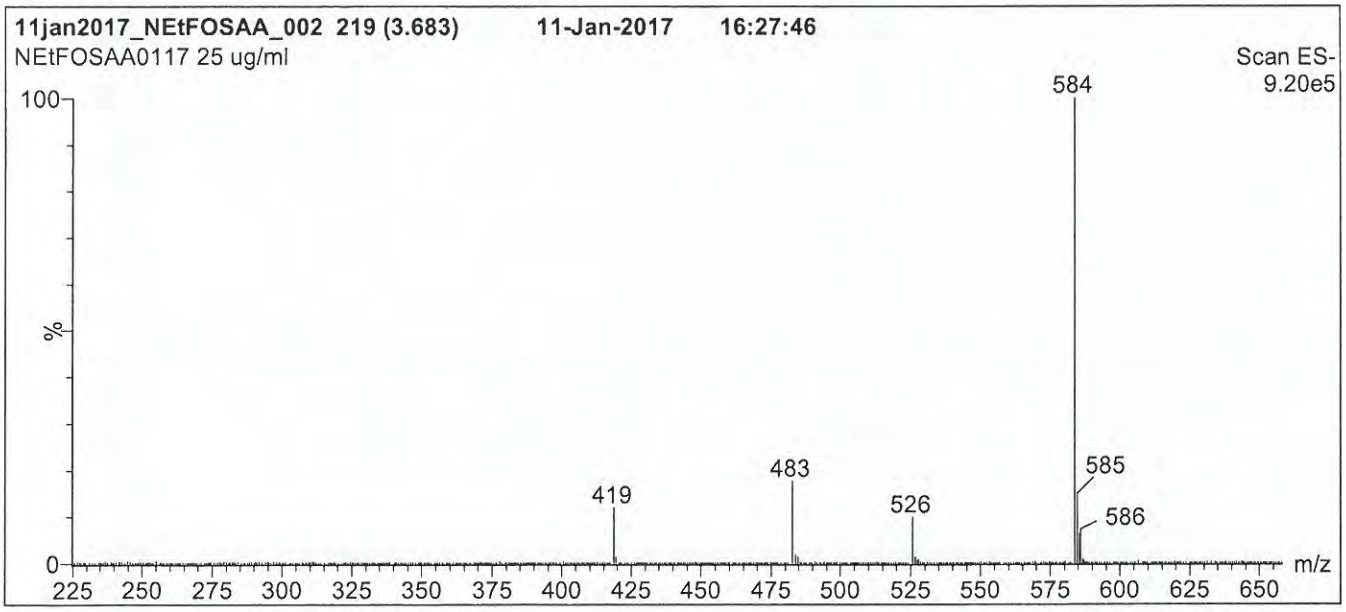
17G1808

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

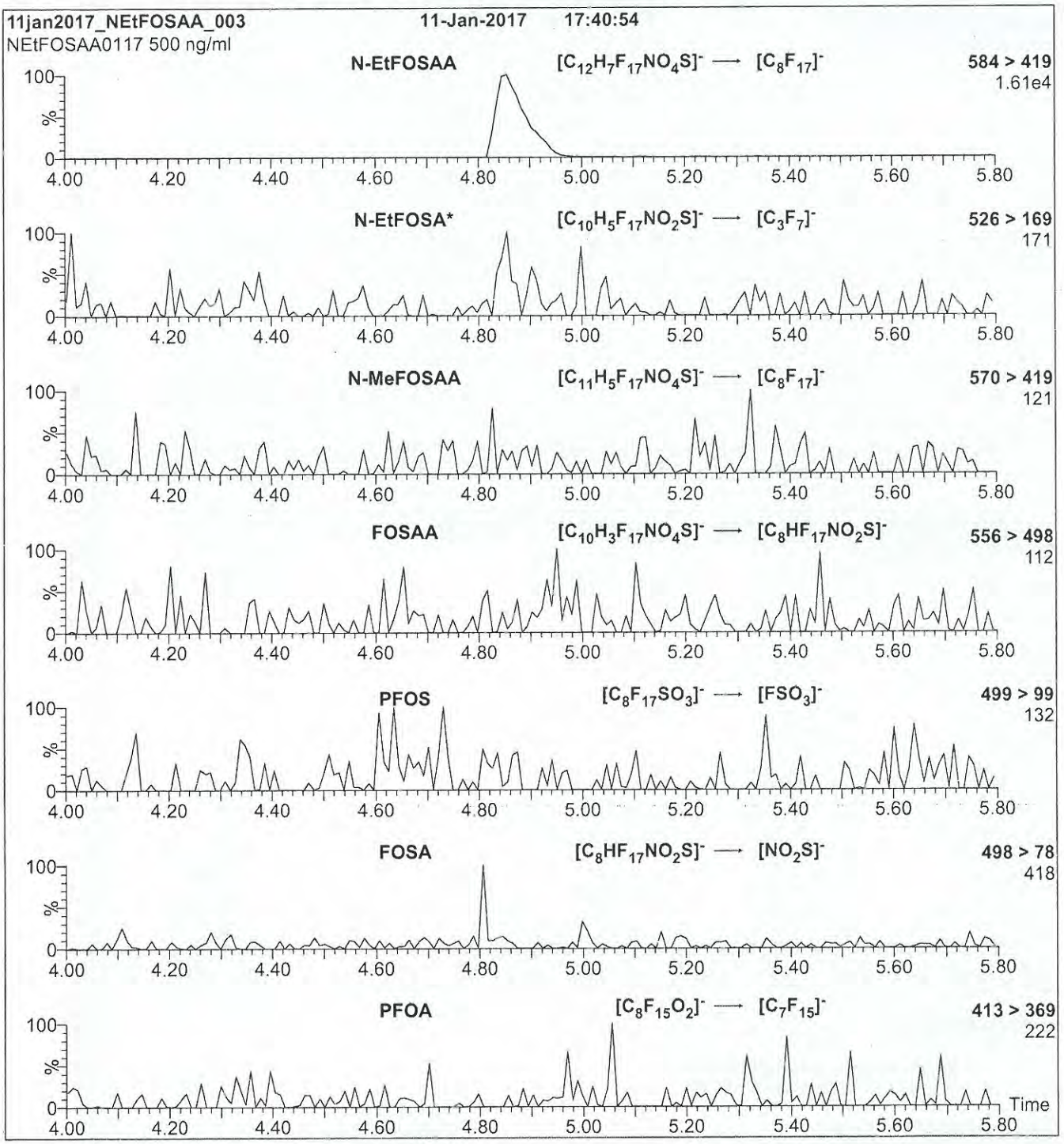
MS Parameters

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

17G1809

WELLINGTON LABORATORIES

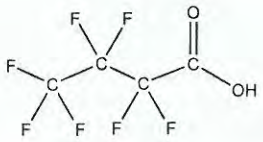
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA0517

STRUCTURE:

CAS #: 375-22-4



MOLECULAR FORMULA: $C_4HF_7O_2$
MOLECULAR WEIGHT: 214.04
CONCENTRATION: 50 ± 2.5 µg/ml
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

17G1809

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UNCERTAINTY:

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CALA

ANAB ACCREDITED

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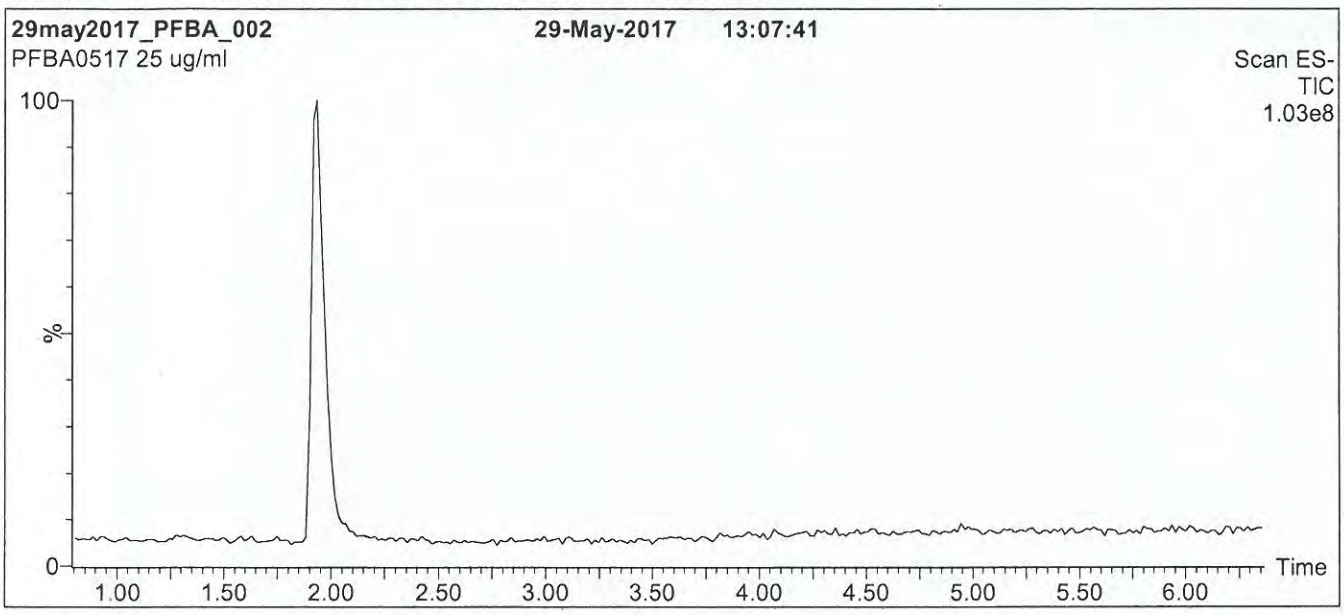
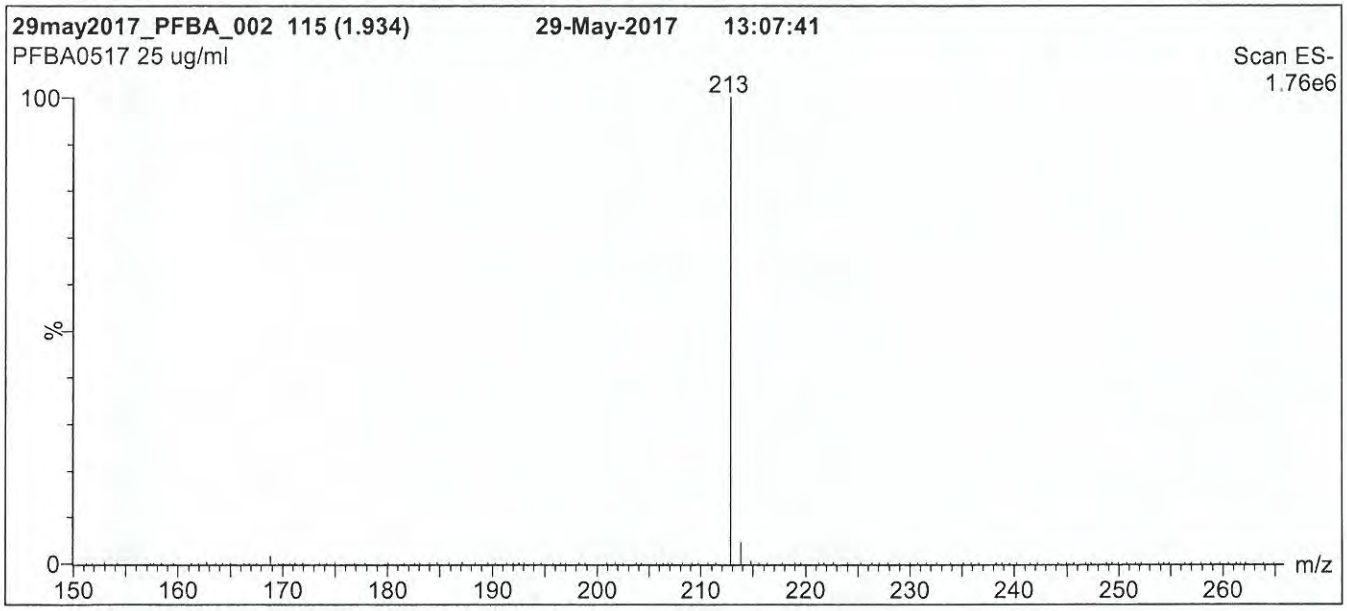
17G1809

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

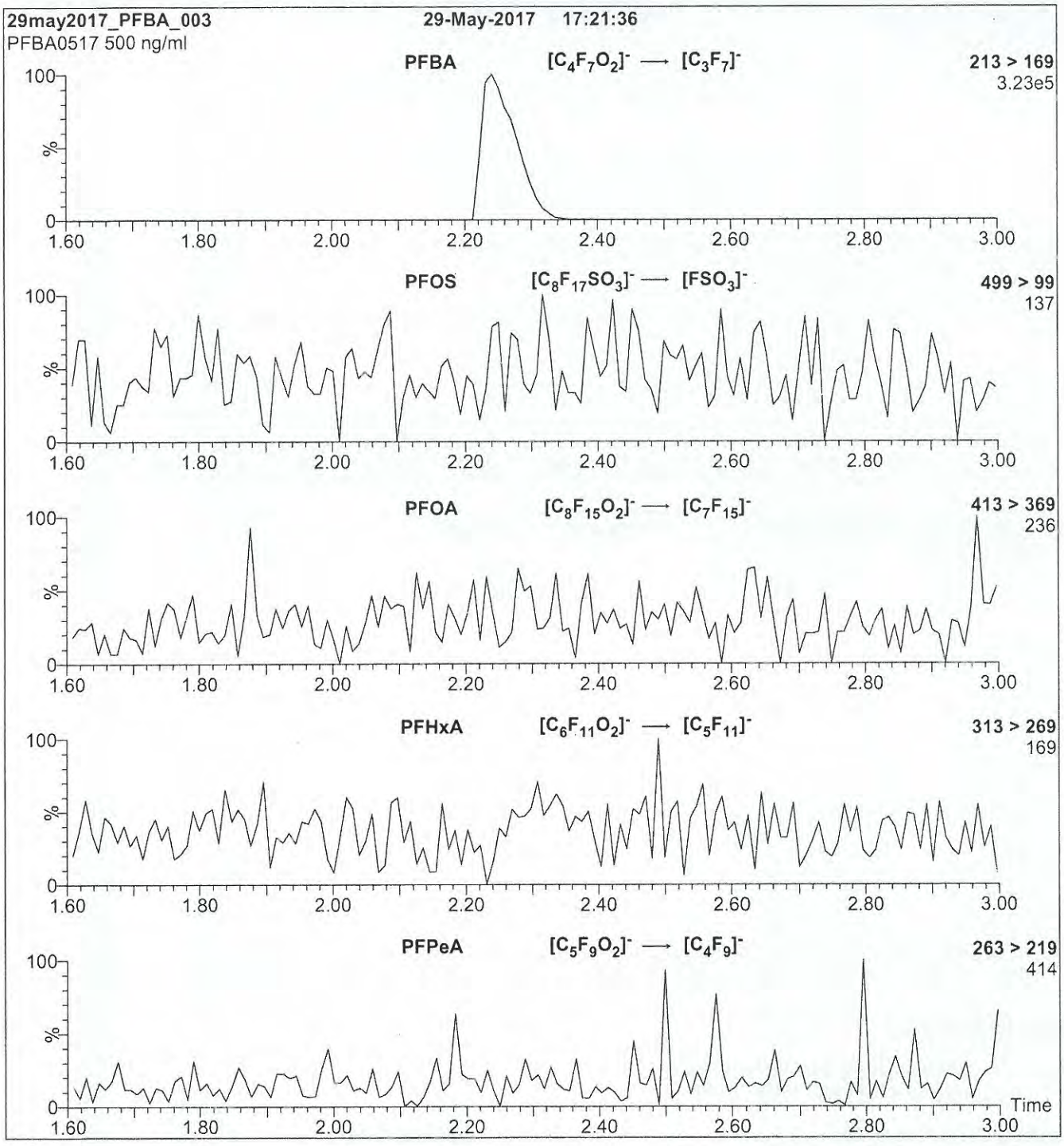
MS Parameters

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

WELLINGTON LABORATORIES

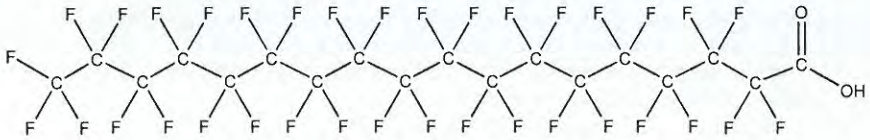
CERTIFICATE OF ANALYSIS
DOCUMENTATION

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)
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:** 05/20/2016 (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

17G1810

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).

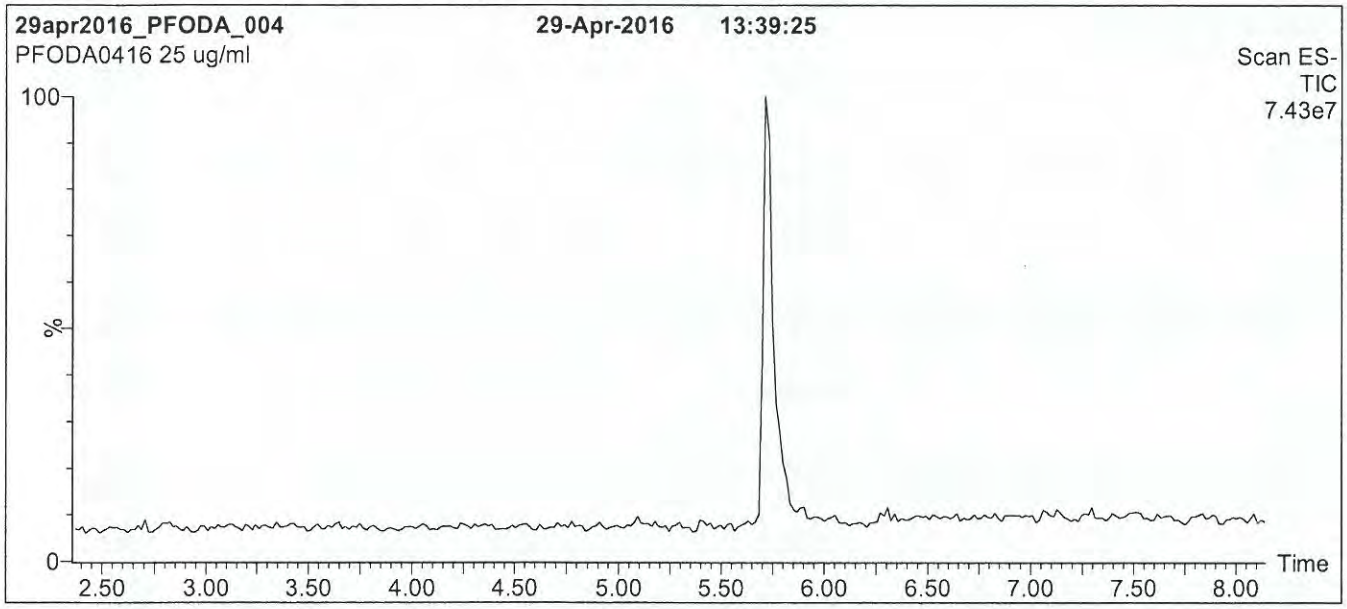
CALA

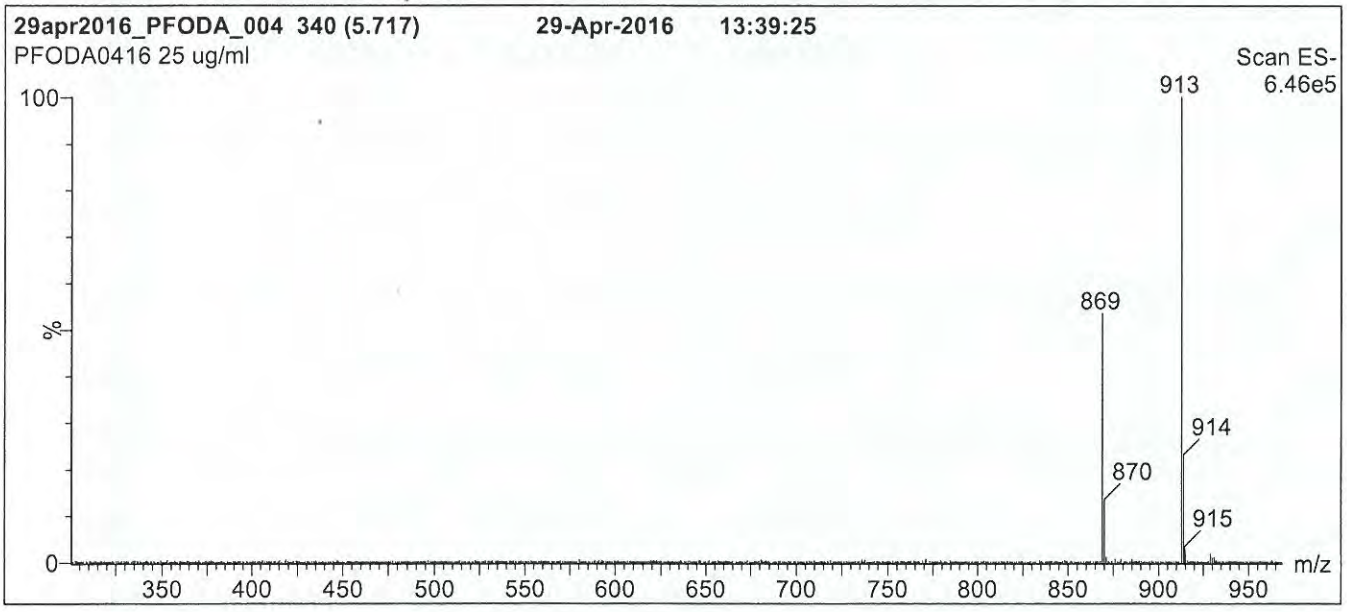
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

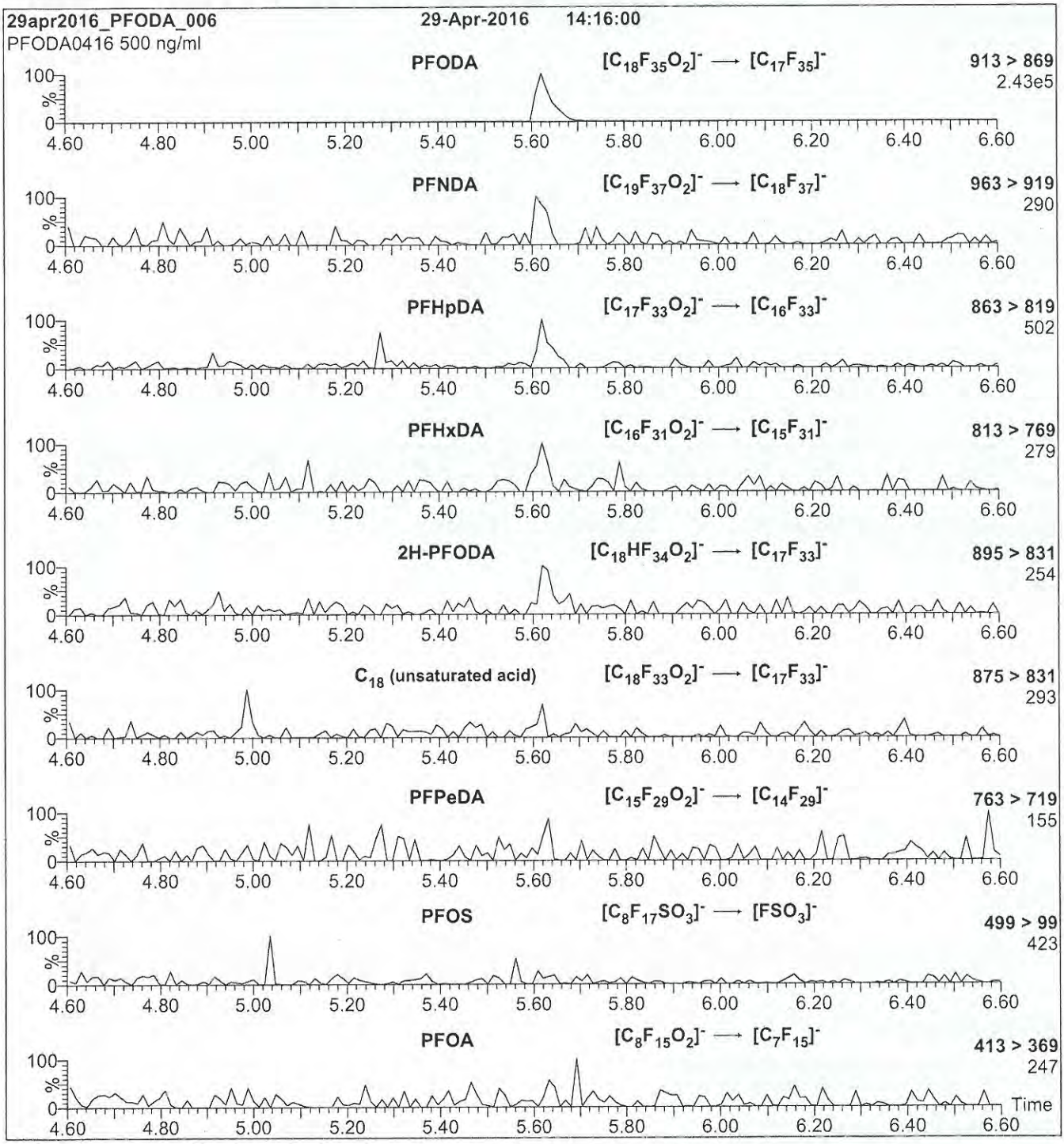
MS Parameters

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

17G1810

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

17G1811

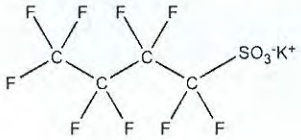
WELLINGTON LABORATORIES

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

17G1811

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:

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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:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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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CALA Testing A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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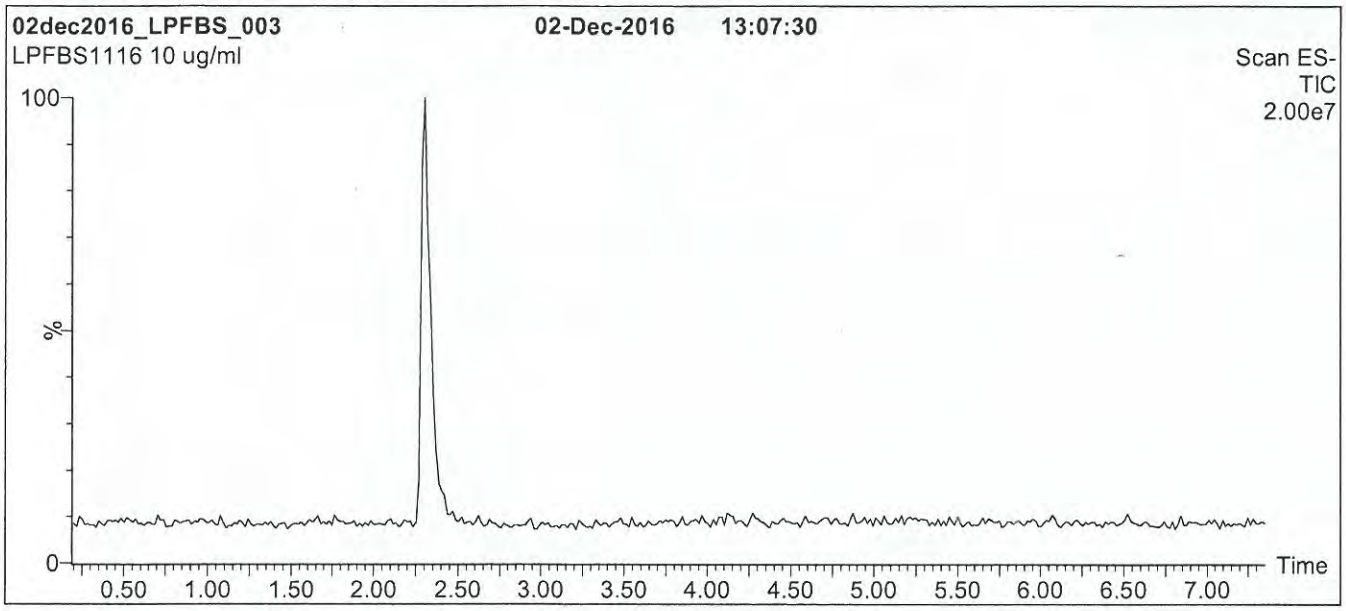
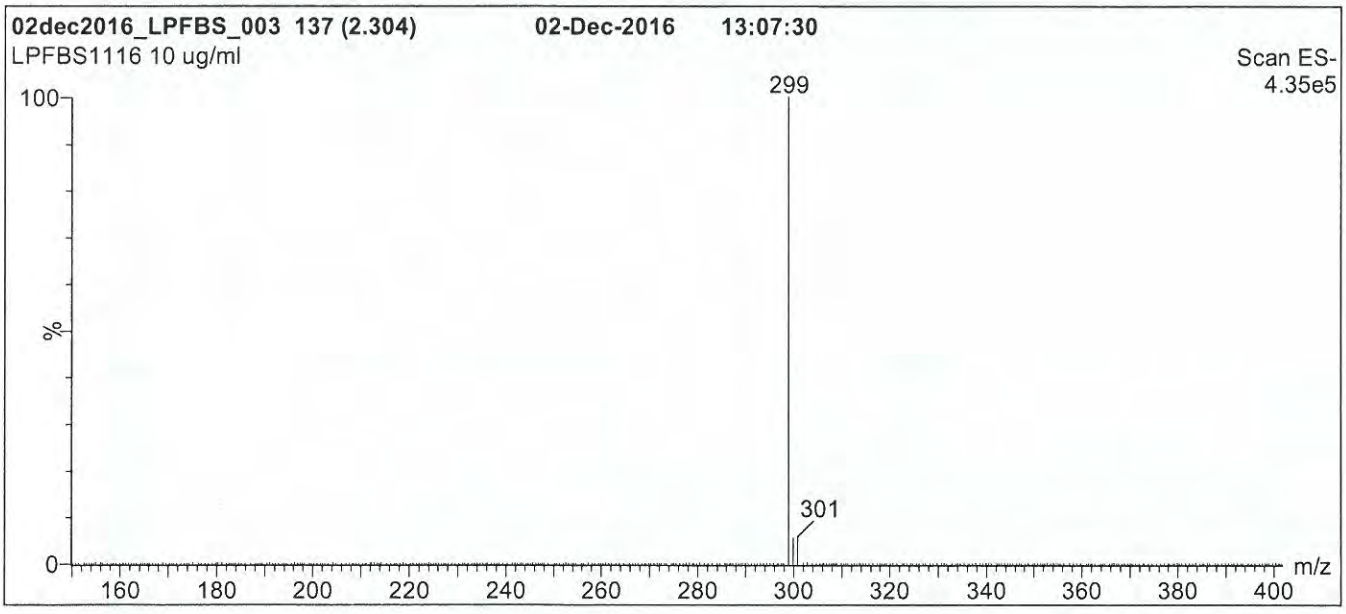
17G1811

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

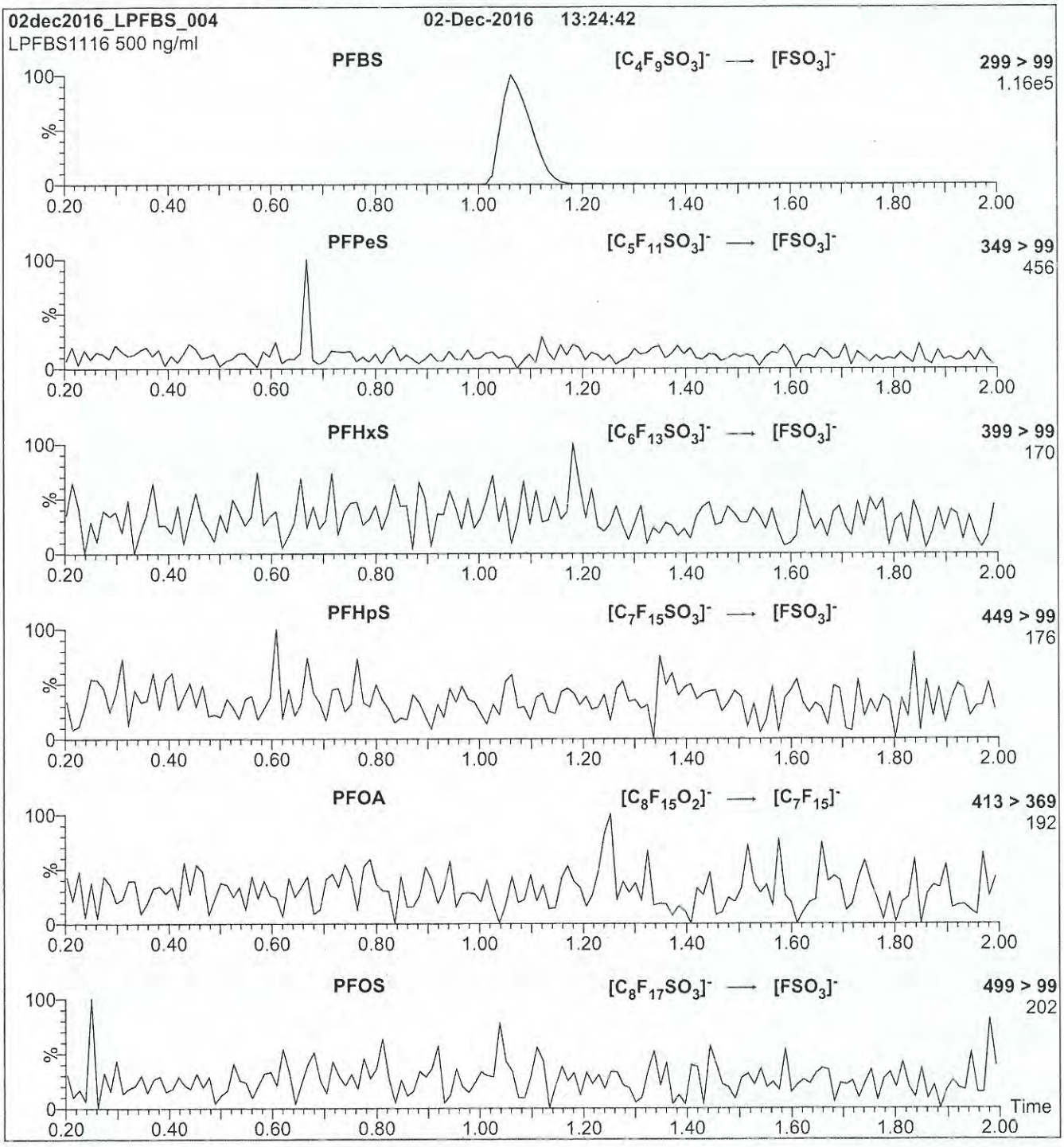
MS Parameters

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

17G1812

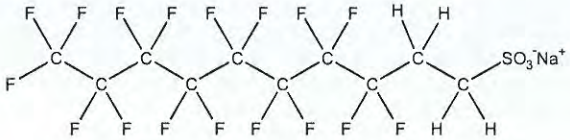
WELLINGTON LABORATORIES

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.

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Certified By: B.G. Chittim **Date:** 12/21/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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17G1812

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CALA

ANAB ACCREDITED

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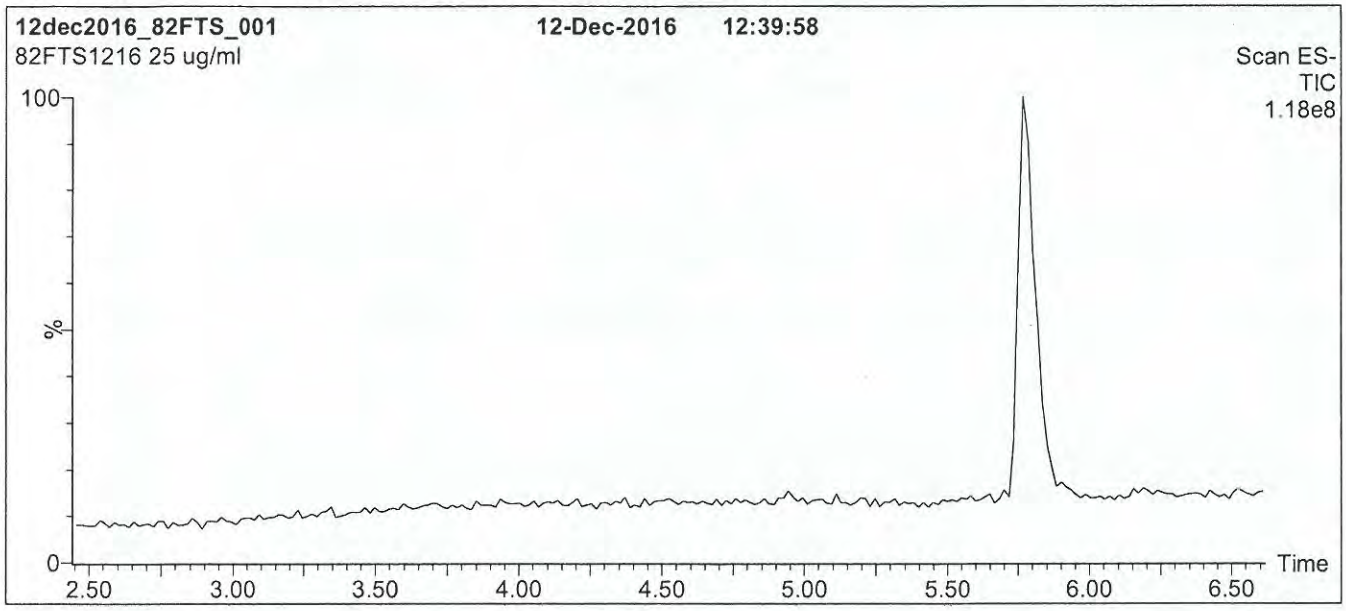
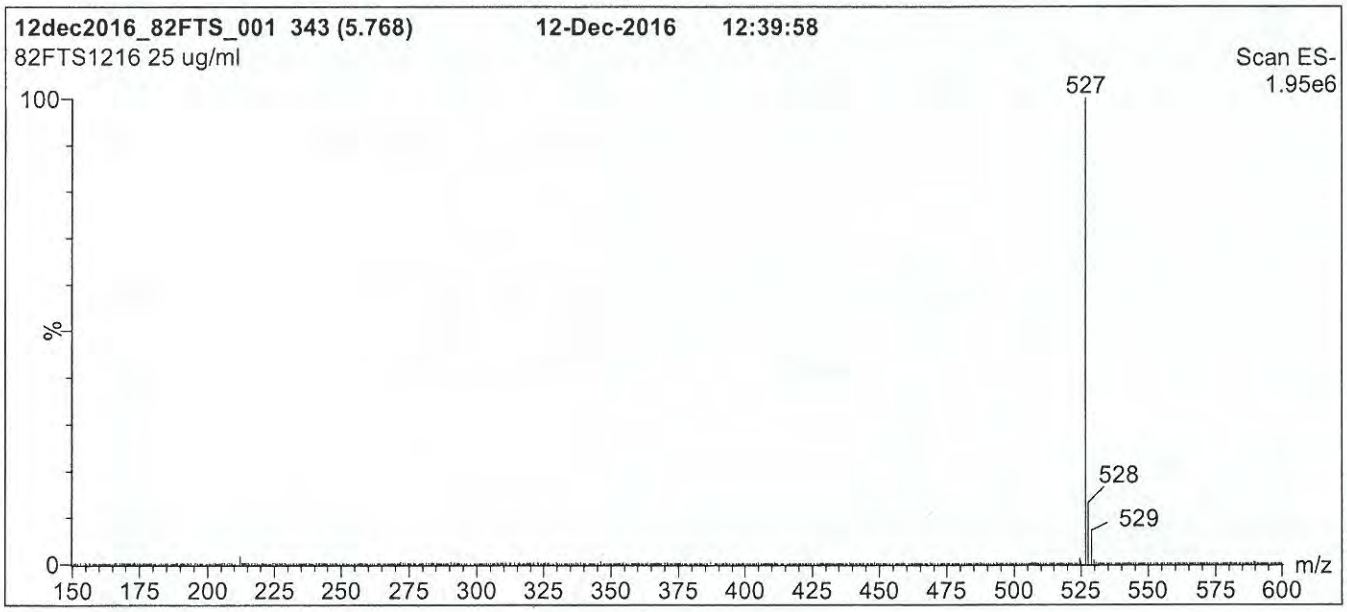
17G1812

Figure 1: **8:2FTS; LC/MS Data (TIC and Mass Spectrum)**





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Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

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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

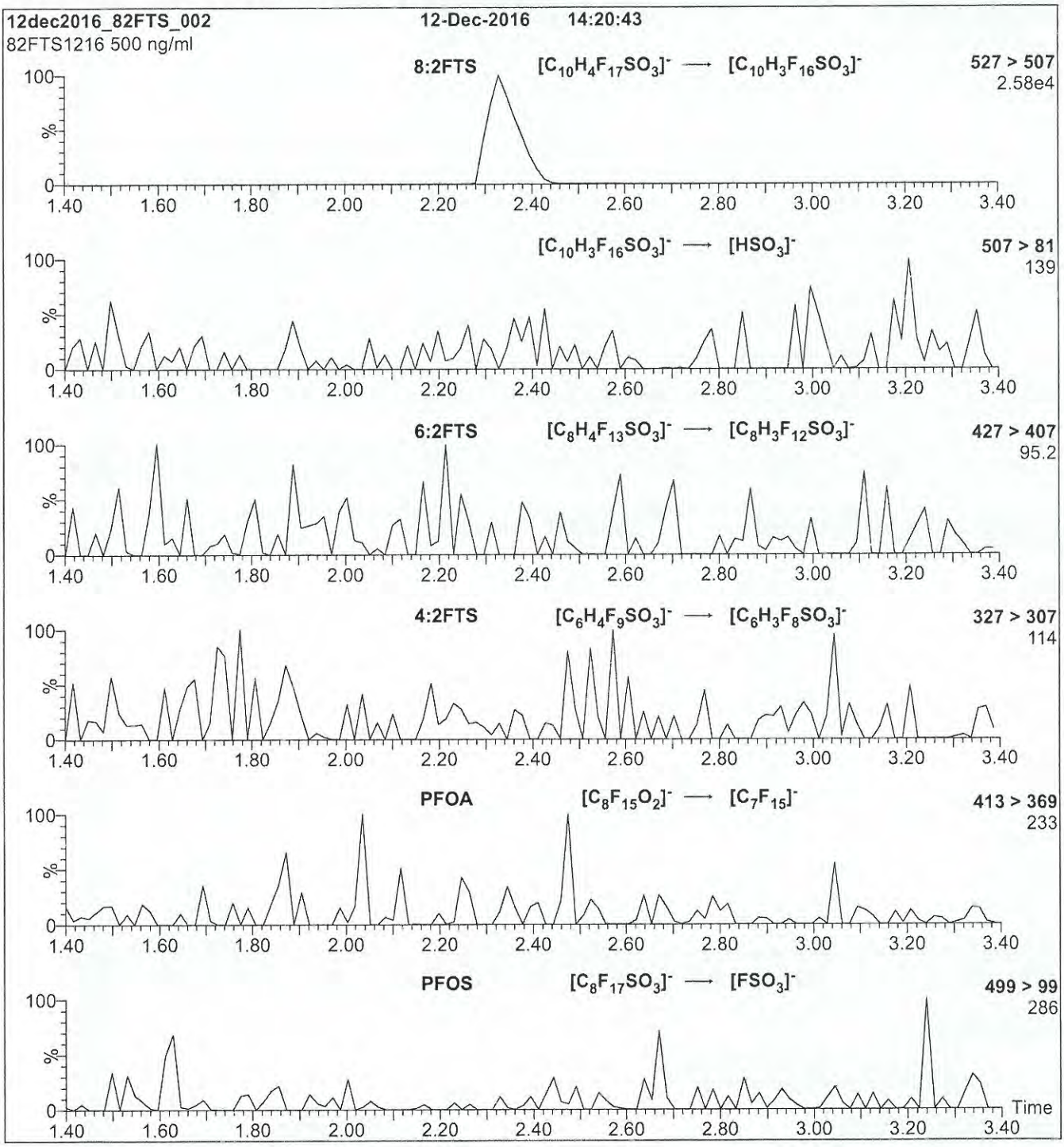
MS Parameters

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

17G1813

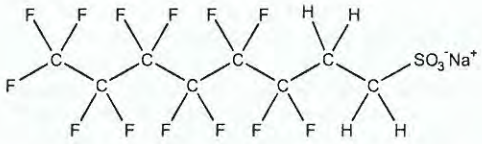
WELLINGTON LABORATORIES

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

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).

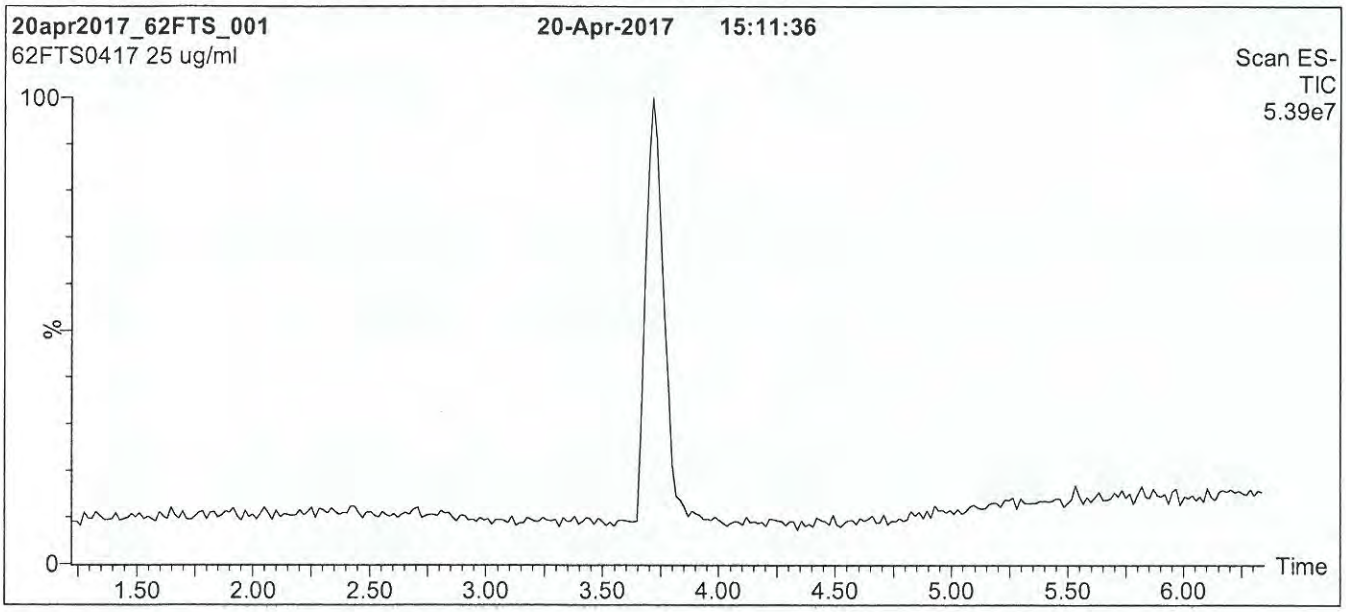
CALA

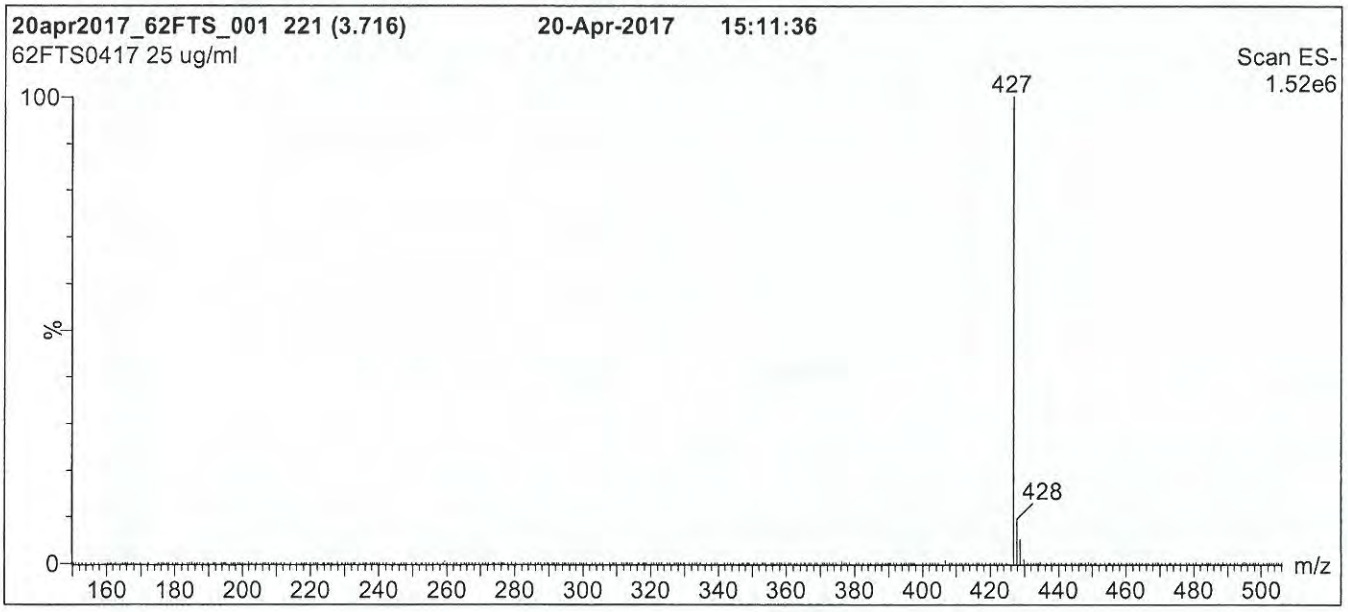
ANAB ACCREDITED

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

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

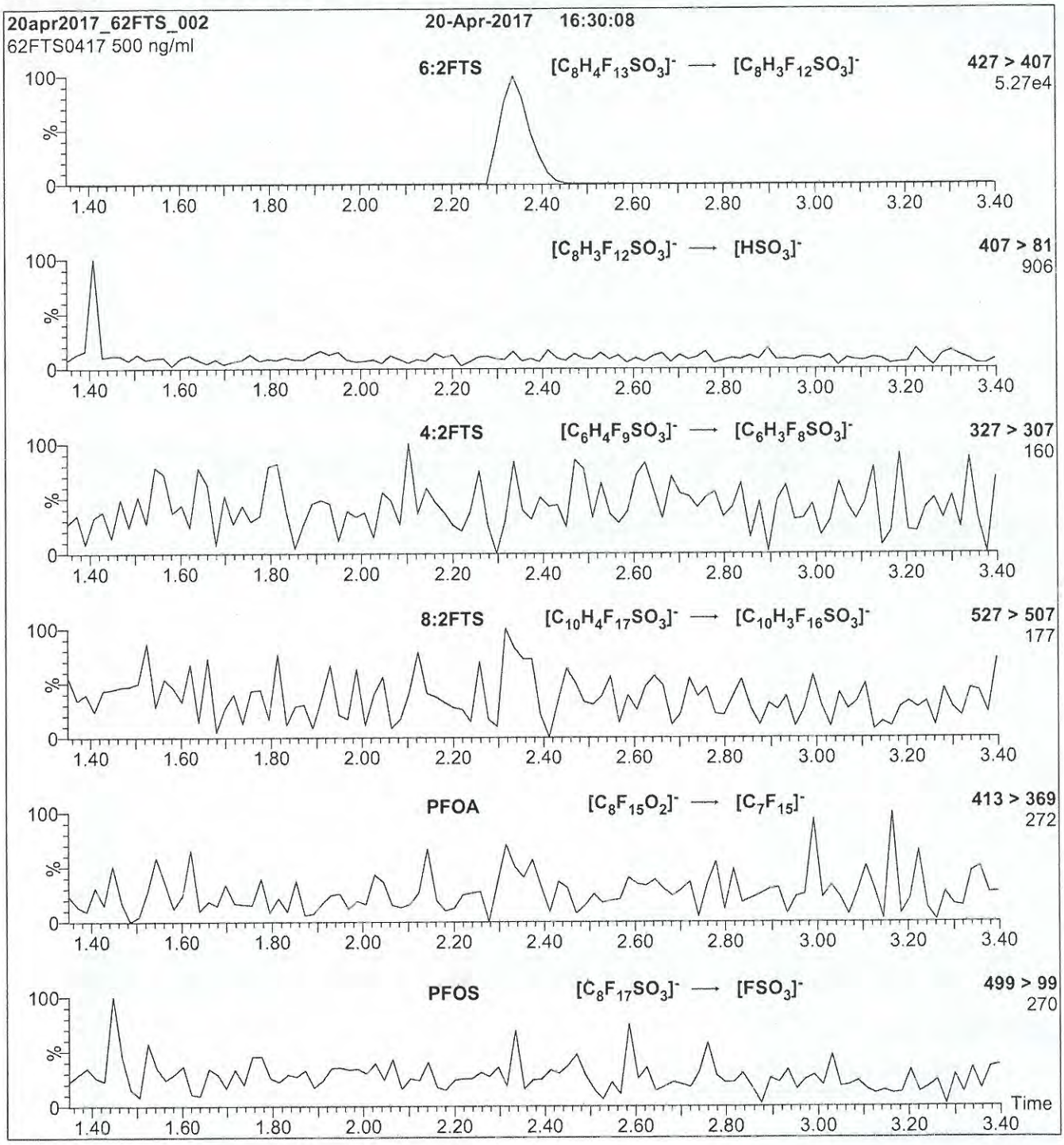
MS Parameters

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

1701820

WELLINGTON LABORATORIES

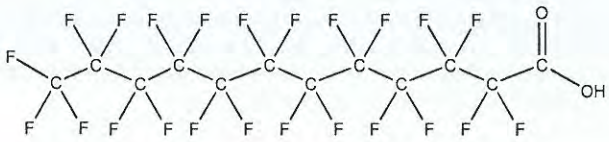
CERTIFICATE OF ANALYSIS DOCUMENTATION

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.

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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 $x_1, x_2, \ldots x_n$ 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:

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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).

CALA

ANAB ACCREDITED

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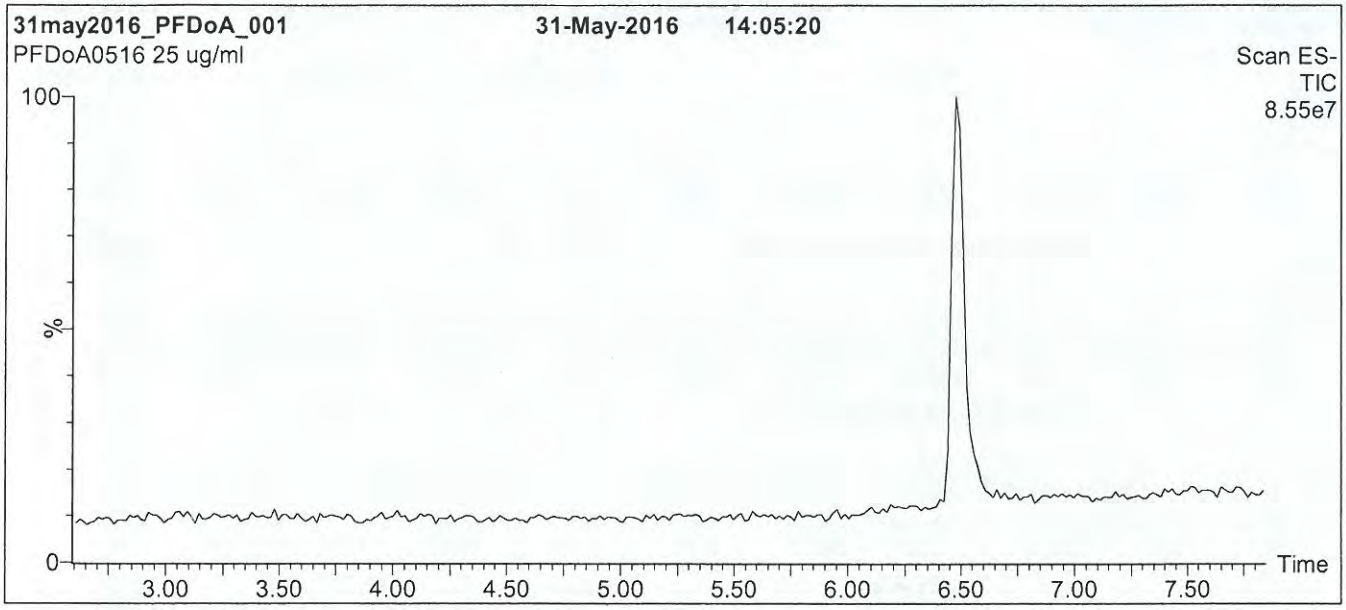
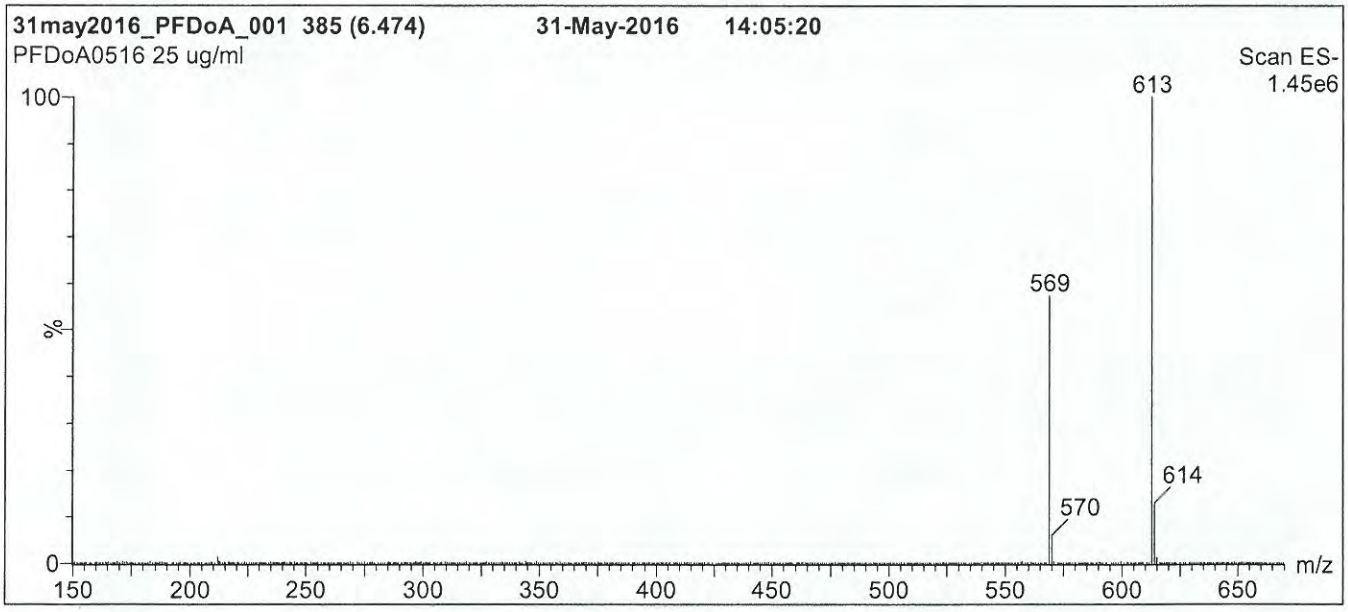
Figure 1: **PFDoA; LC/MS Data (TIC and Mass Spectrum)**





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

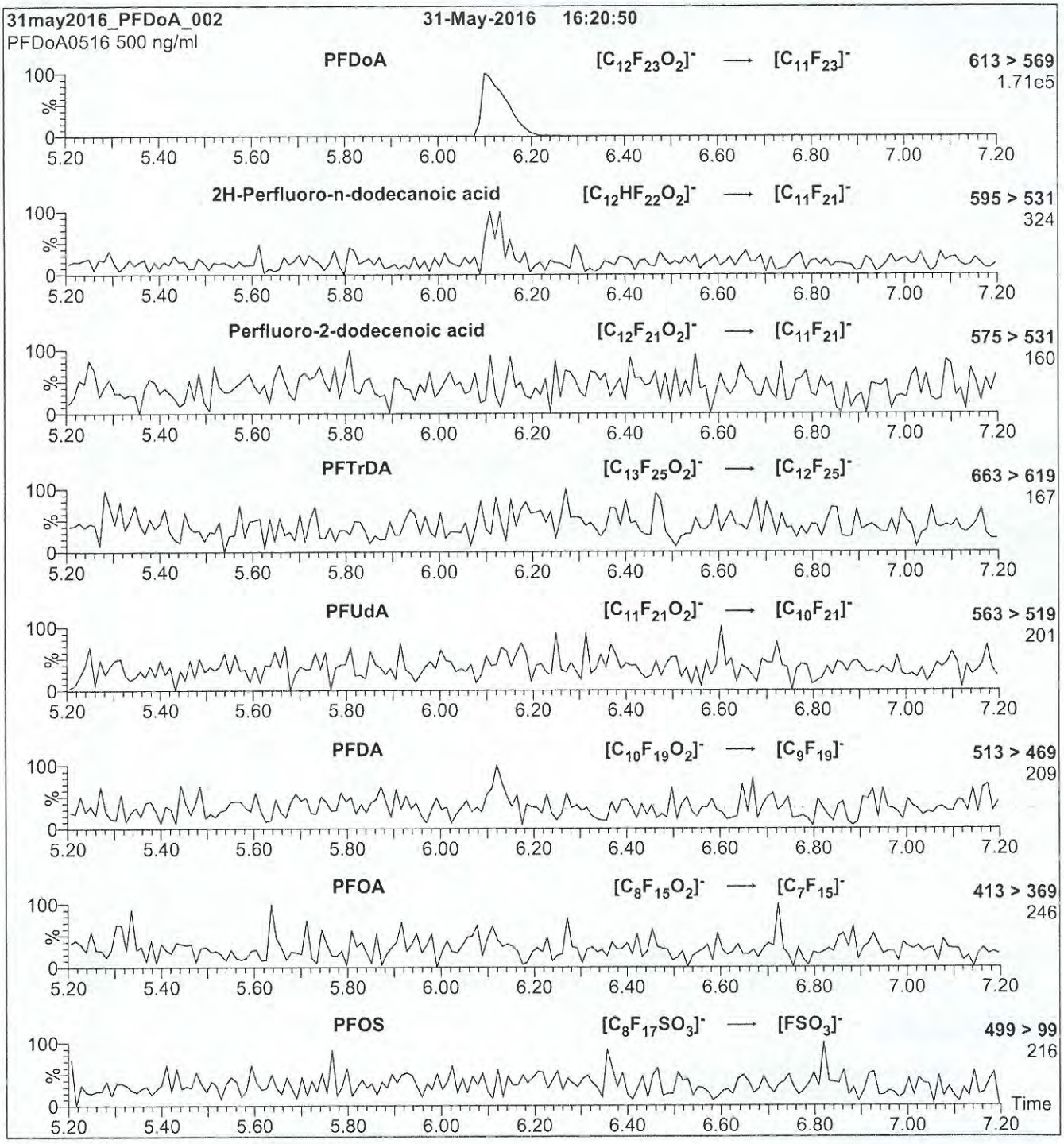
Flow: 300 µl/min

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

WELLINGTON LABORATORIES

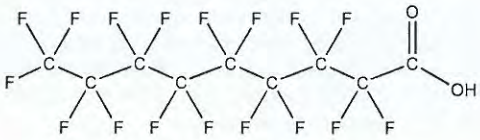
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

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CALA

ANAB ACCREDITED

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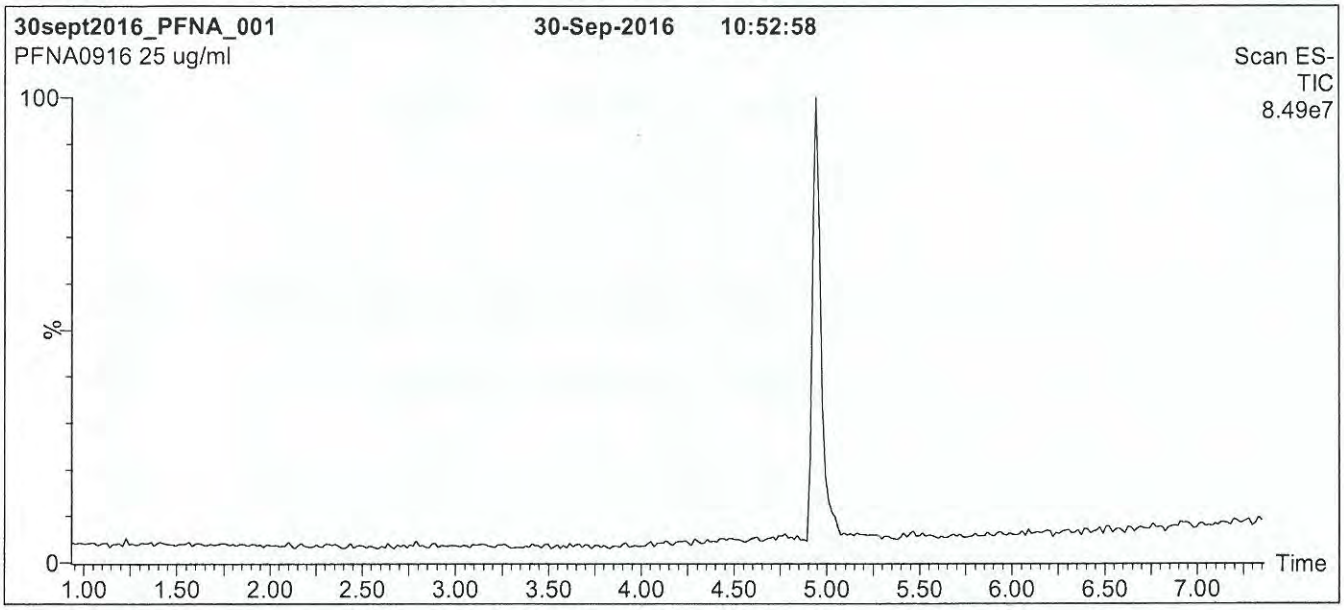
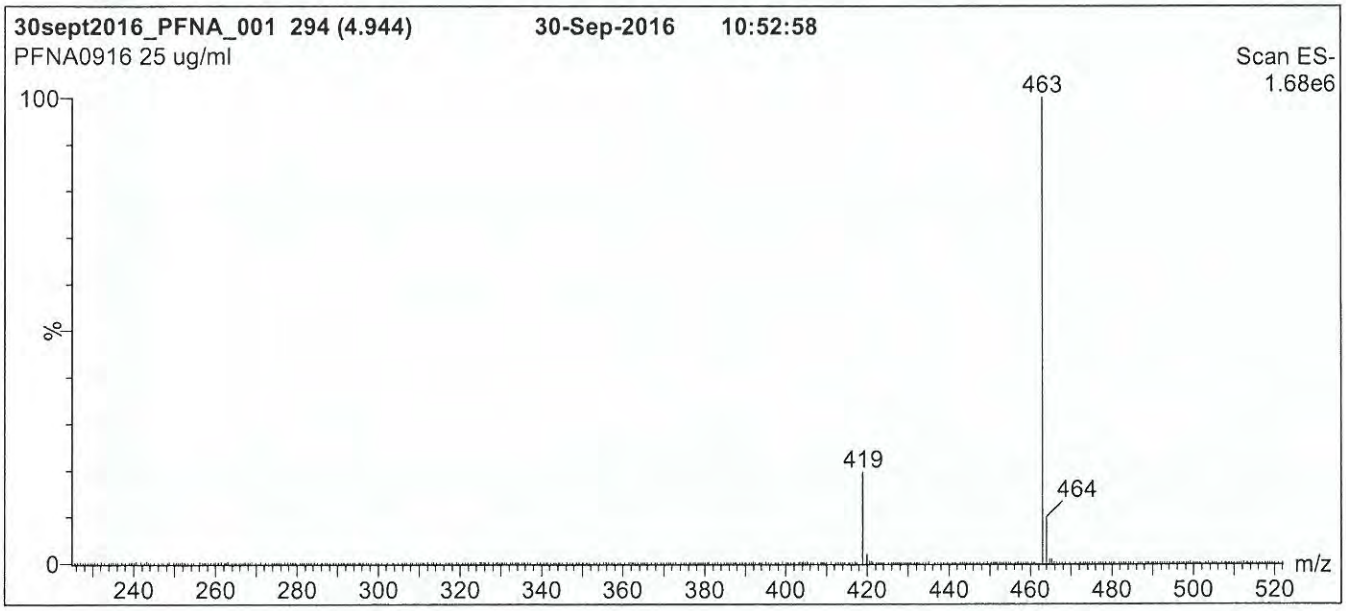
Figure 1: **PFNA; LC/MS Data (TIC and Mass Spectrum)**





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

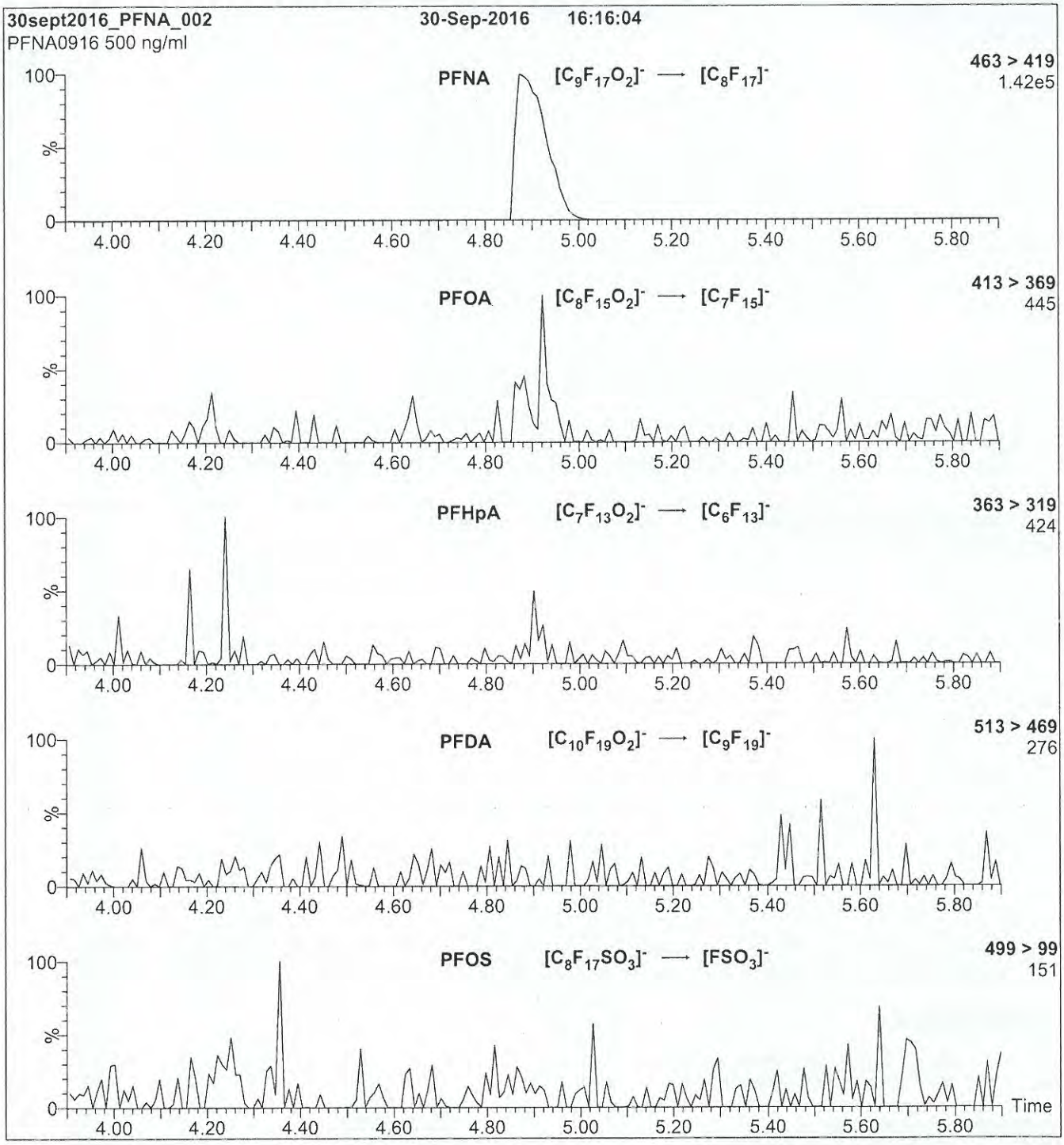
Flow: 300 µl/min

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

1701802

WELLINGTON LABORATORIES

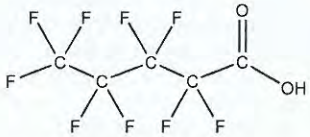
CERTIFICATE OF ANALYSIS DOCUMENTATION

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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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:

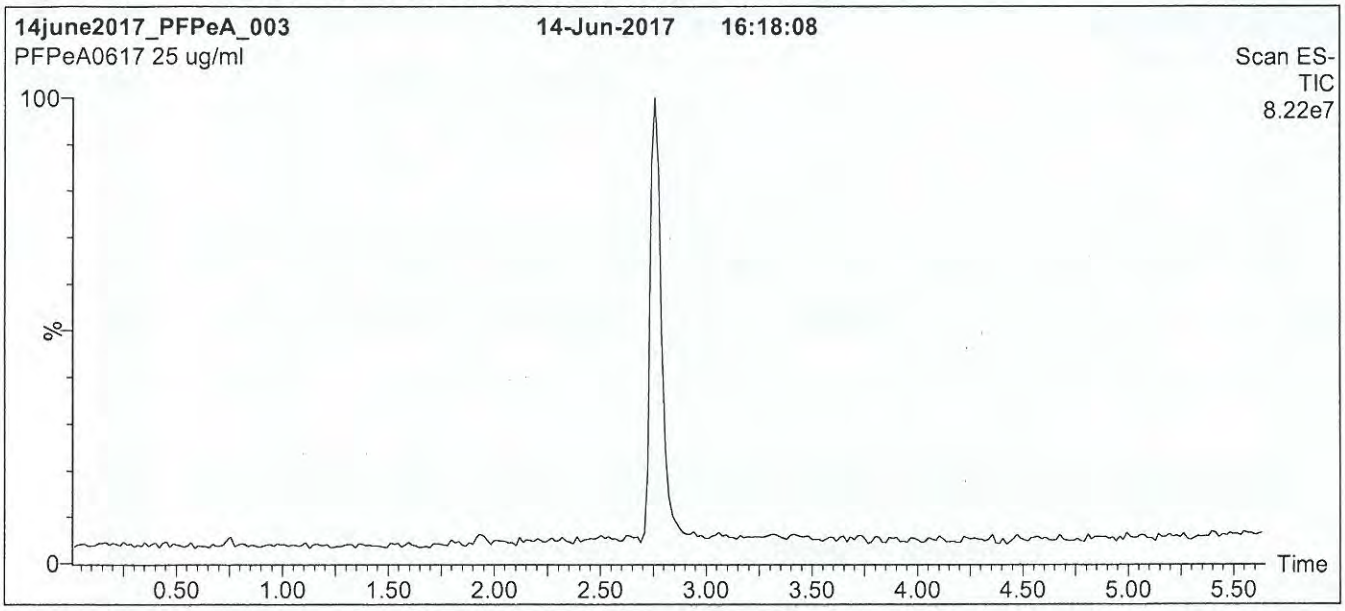
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

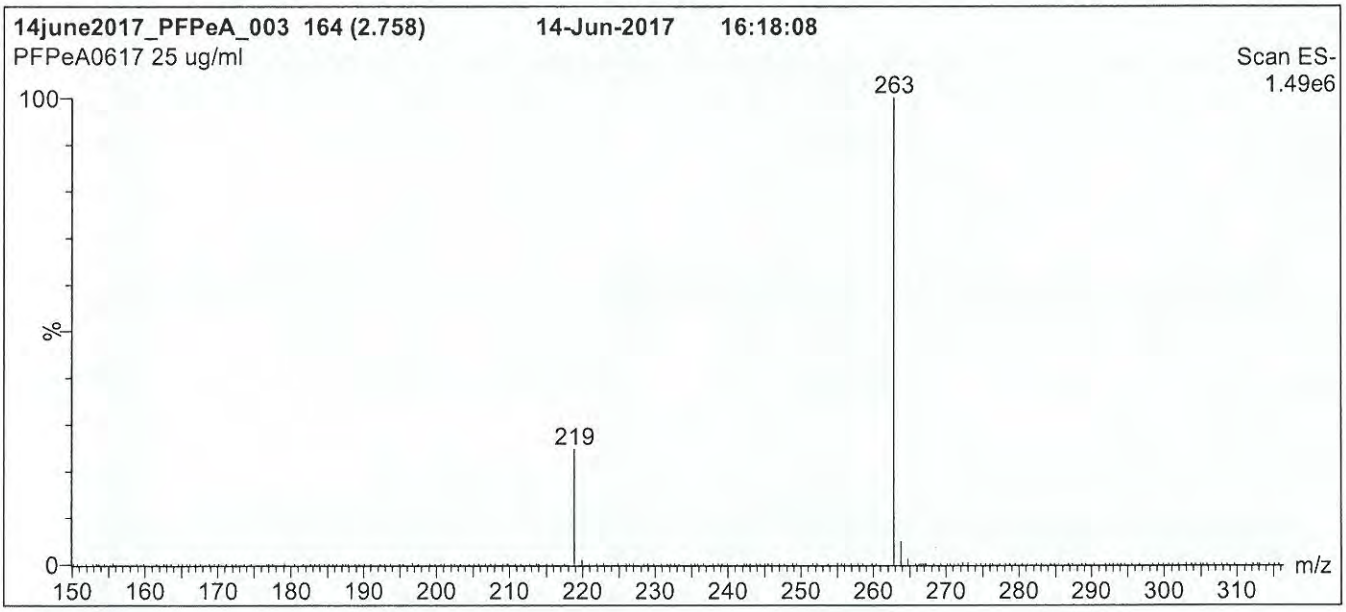
CALA

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: **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

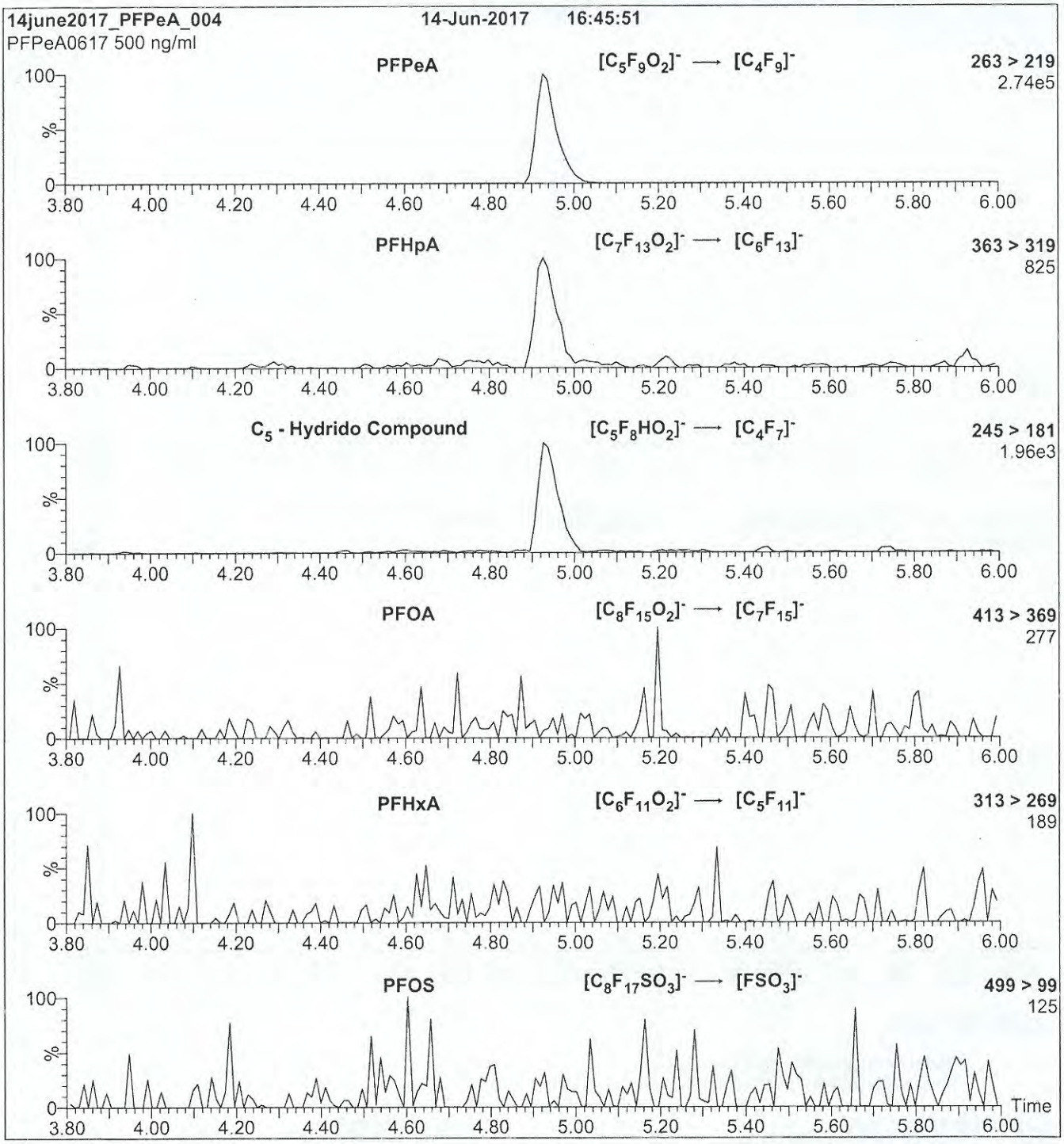
Flow: 300 µl/min

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

1710823

WELLINGTON LABORATORIES

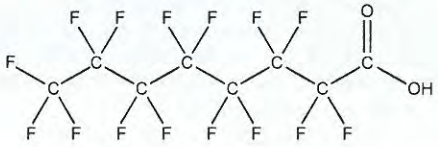
CERTIFICATE OF ANALYSIS
DOCUMENTATION

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

INTENDED USE:

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HAZARDS:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA

ANAB ACCREDITED

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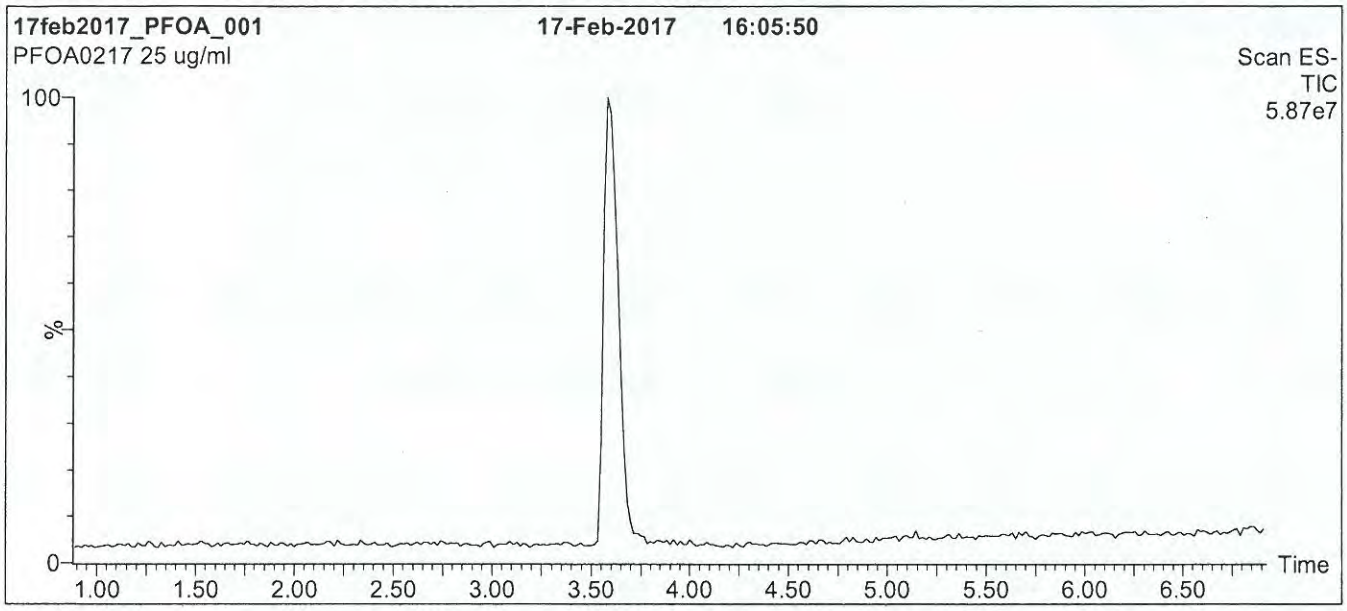
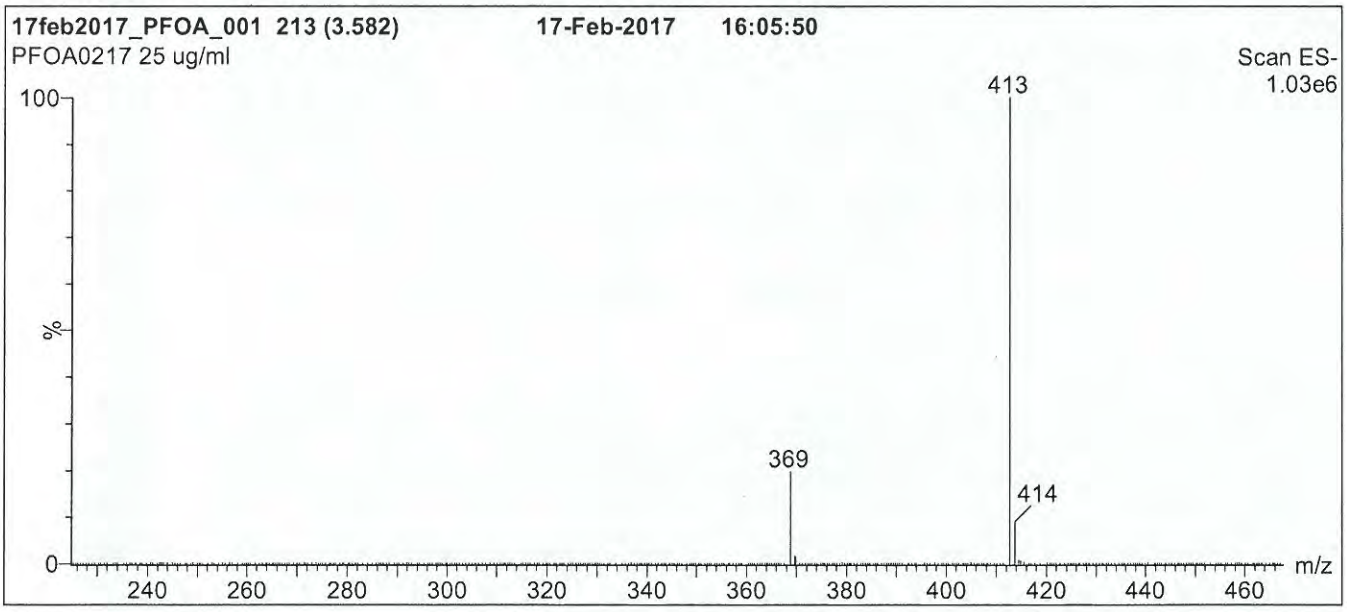
Figure 1: **PFOA; LC/MS Data (TIC and Mass Spectrum)**





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

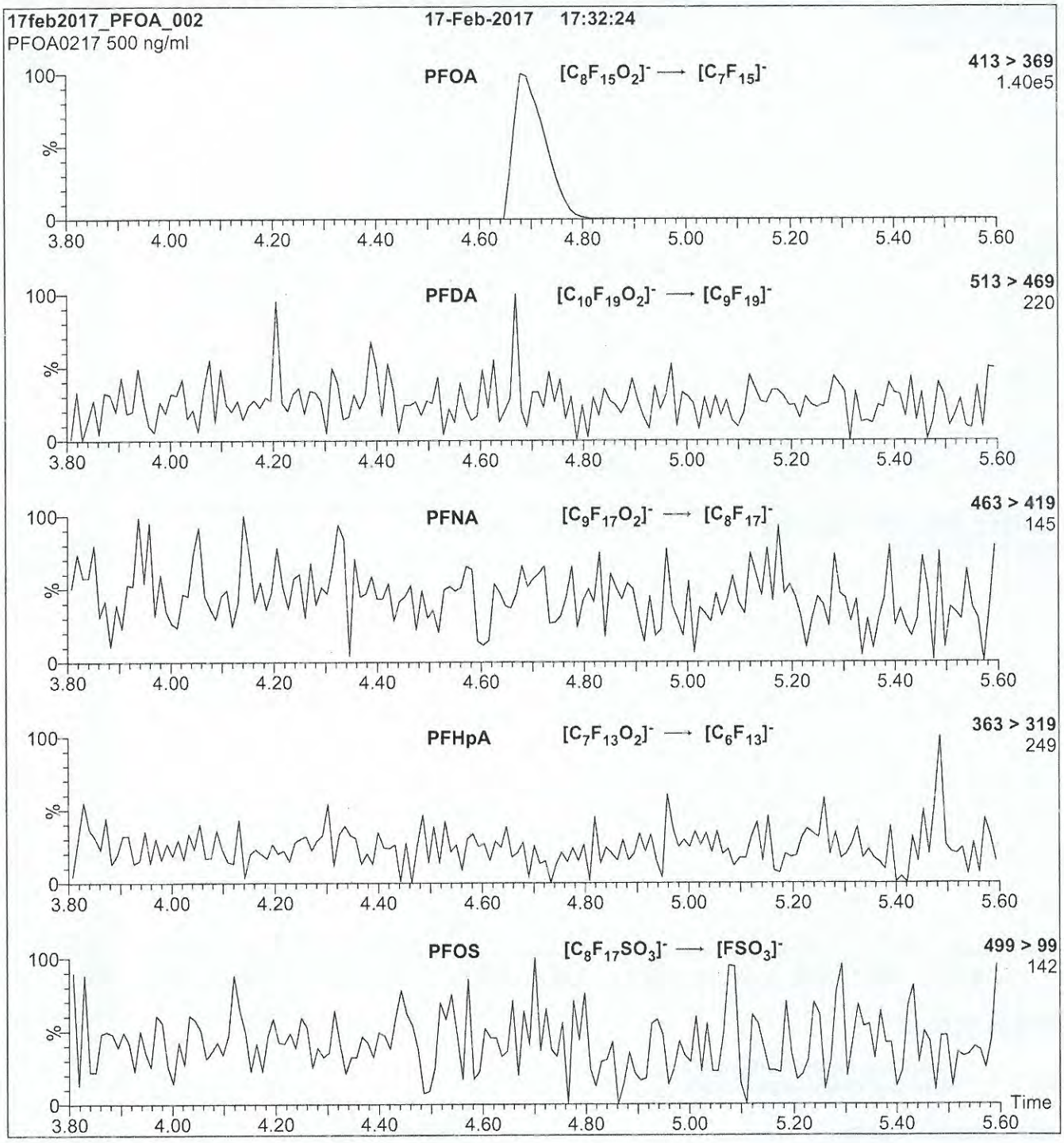
Flow: 300 µl/min

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

1701802

WELLINGTON LABORATORIES

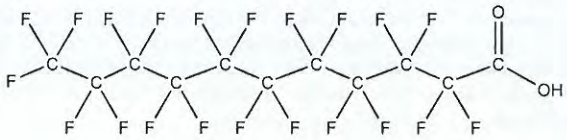
CERTIFICATE OF ANALYSIS DOCUMENTATION

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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CALA

ANAB ACCREDITED

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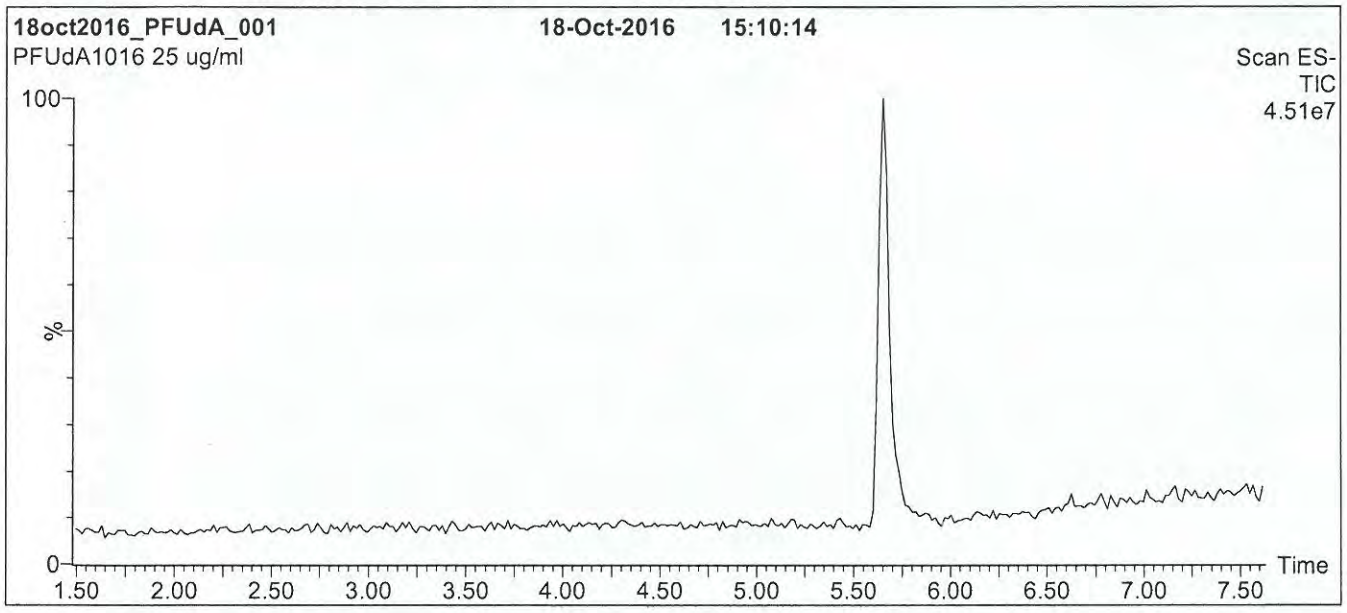
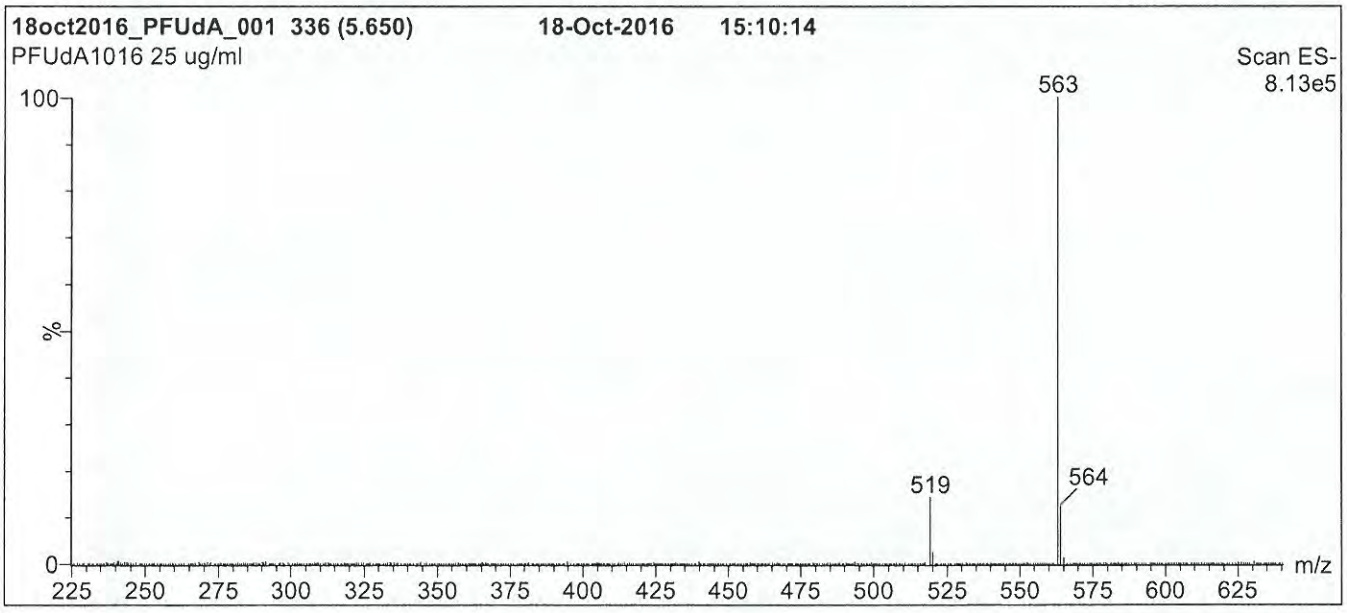
Figure 1: **PFUdA; LC/MS Data (TIC and Mass Spectrum)**





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

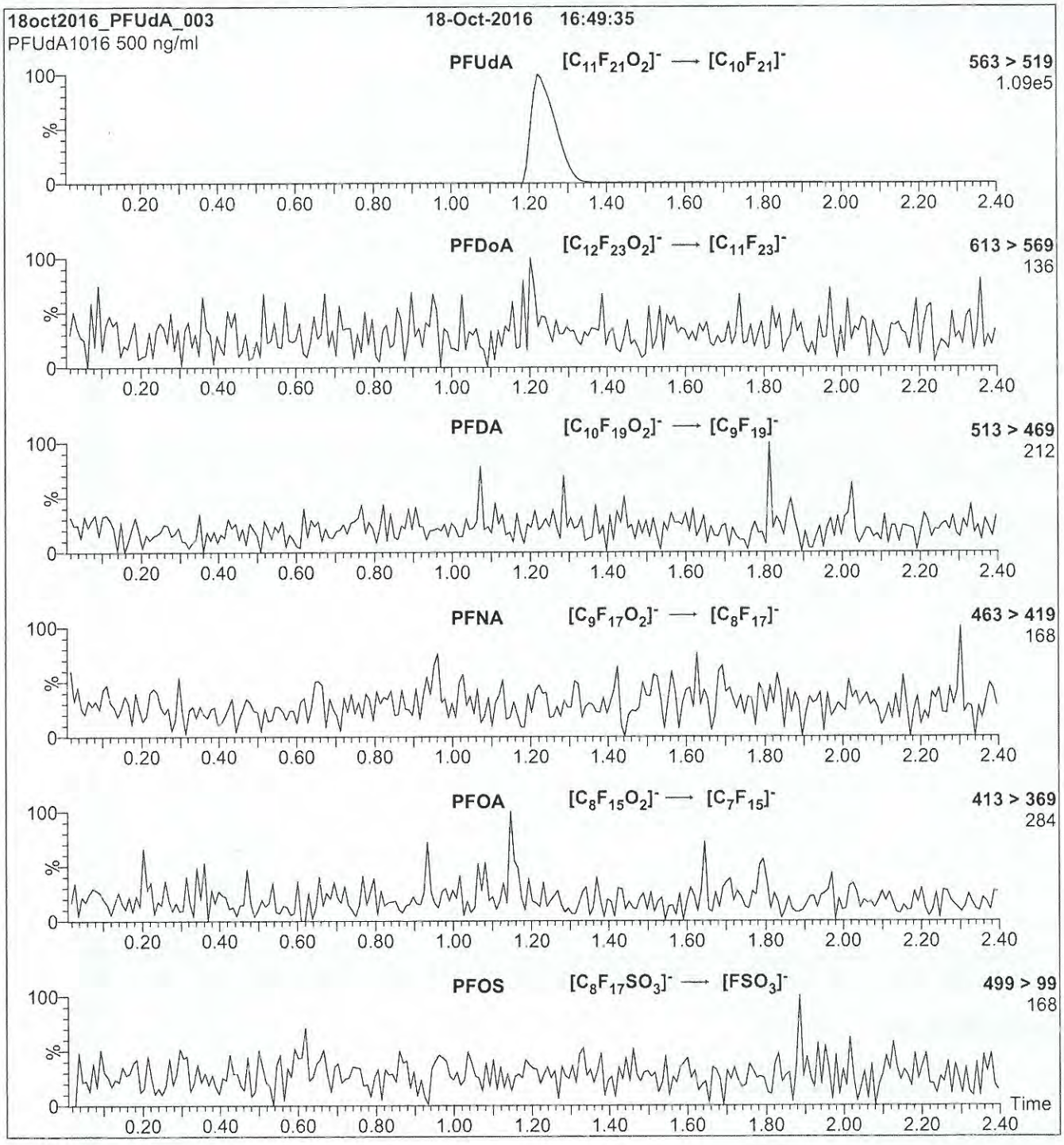
Flow: 300 µl/min

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

WELLINGTON LABORATORIES

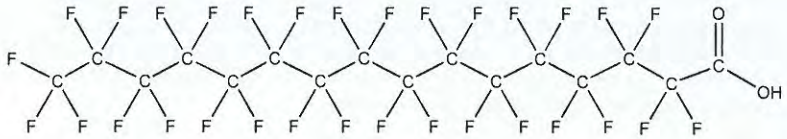
CERTIFICATE OF ANALYSIS DOCUMENTATION

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
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CALA Testing

ANAB ACCREDITED

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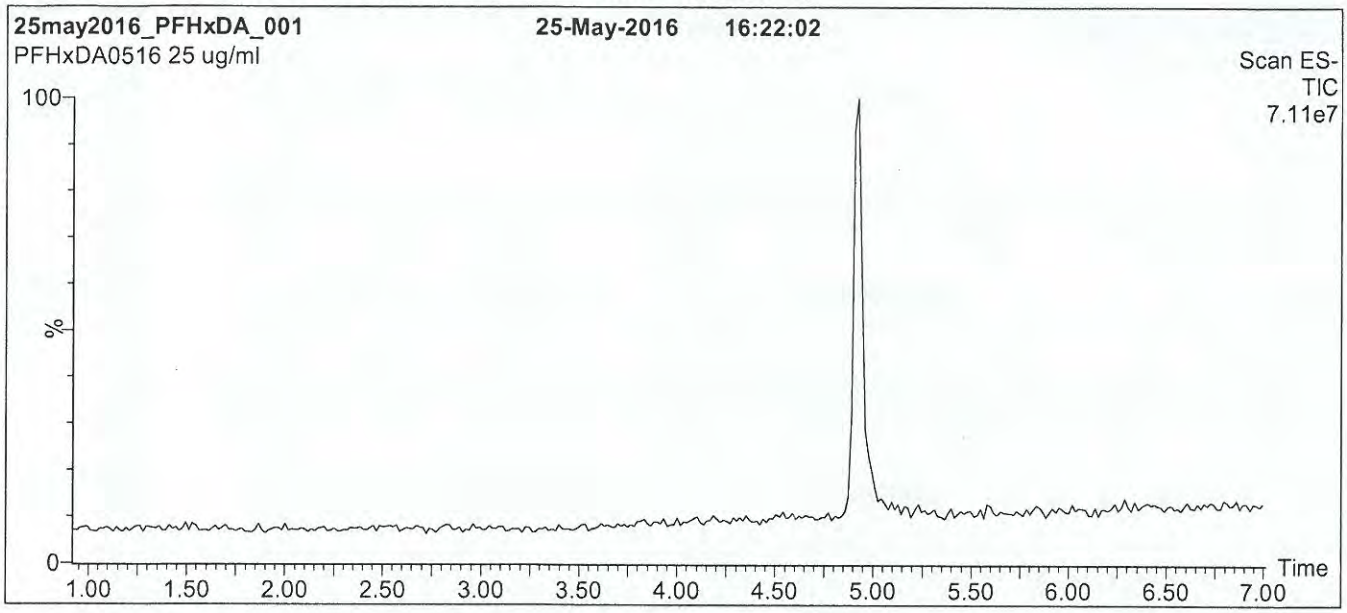
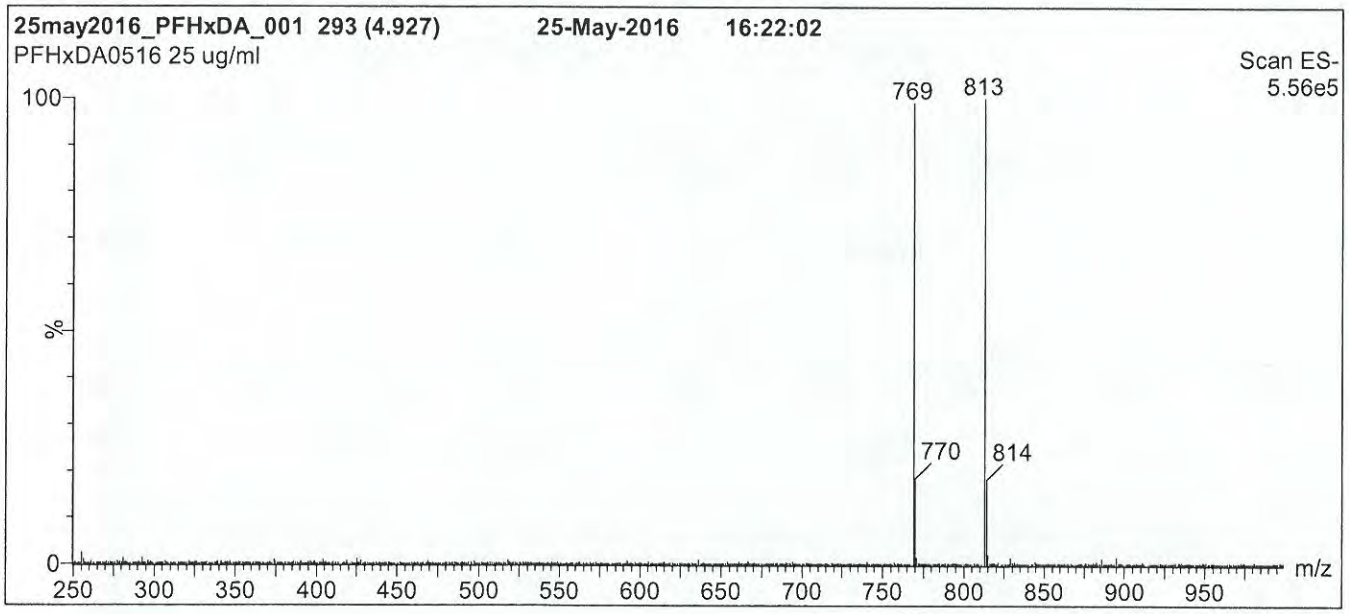
Figure 1: **PFHxDA; LC/MS Data (TIC and Mass Spectrum)**





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

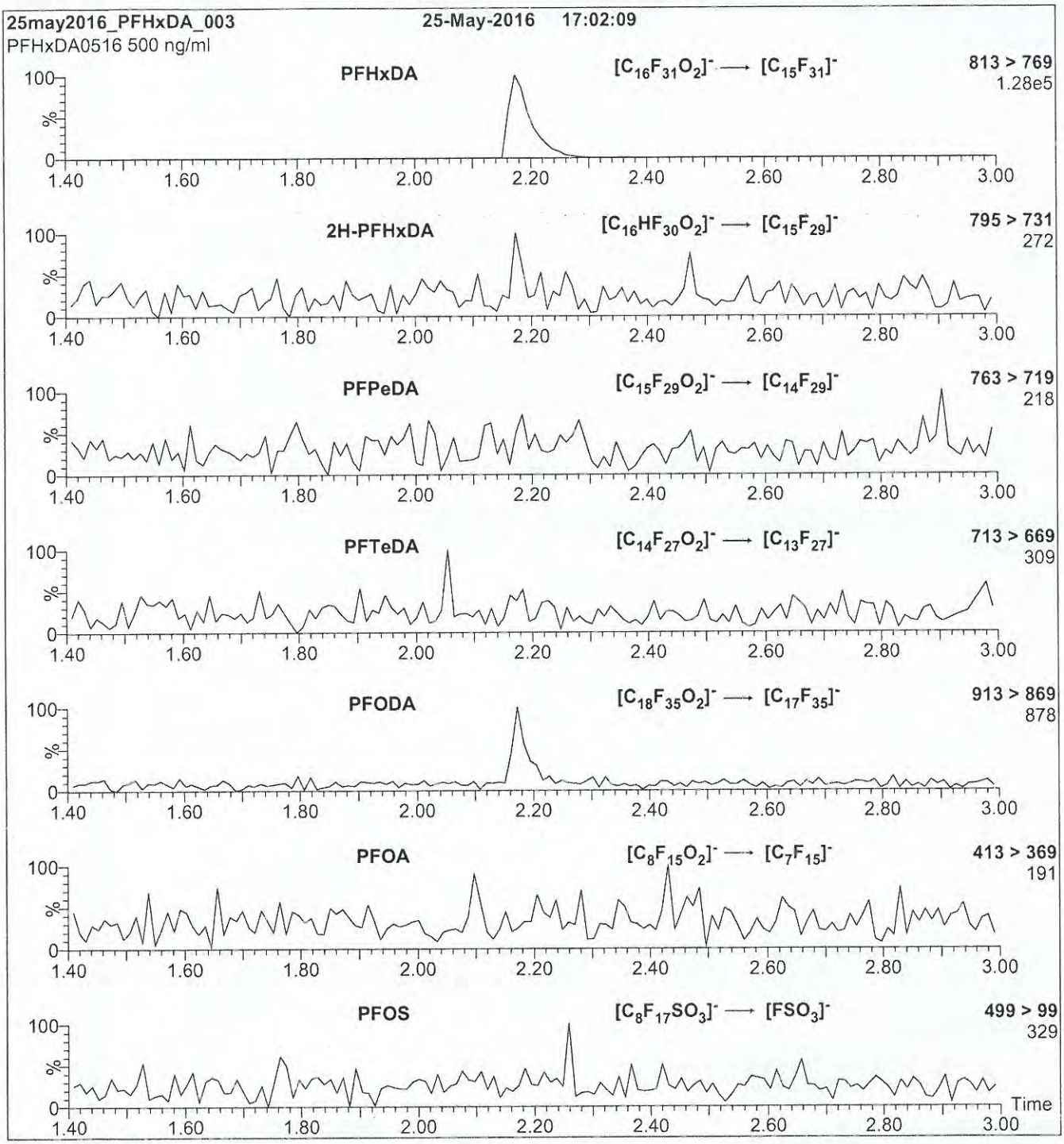
Flow: 300 µl/min

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

WELLINGTON LABORATORIES

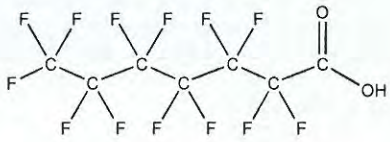
CERTIFICATE OF ANALYSIS DOCUMENTATION

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.
- 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:** 12/12/2016 (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.

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HOMOGENEITY:

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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:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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:

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 REFERENCE MATERIAL PRODUCER

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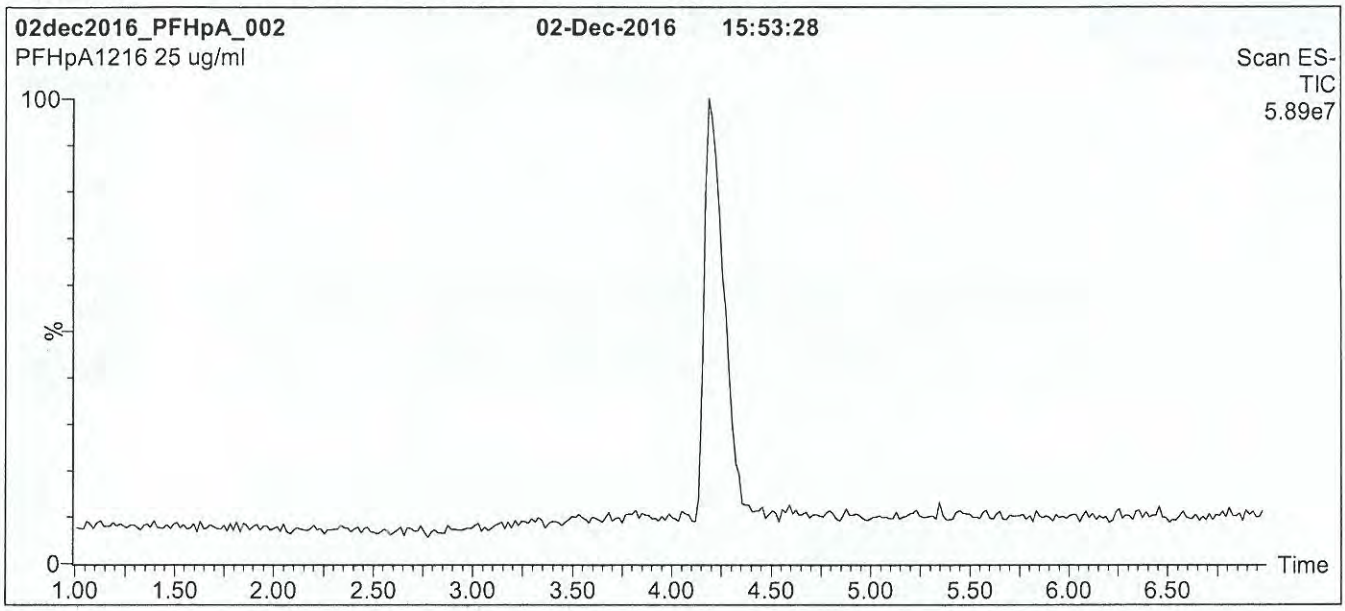
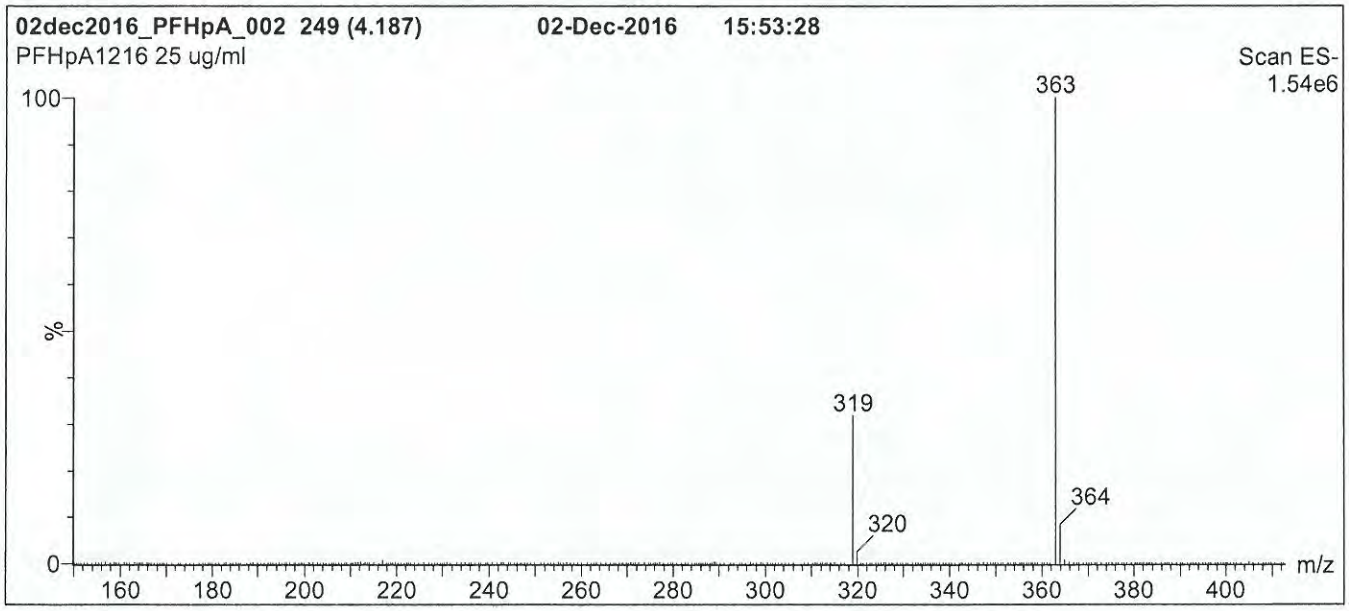
Figure 1: **PFHpA; LC/MS Data (TIC and Mass Spectrum)**





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

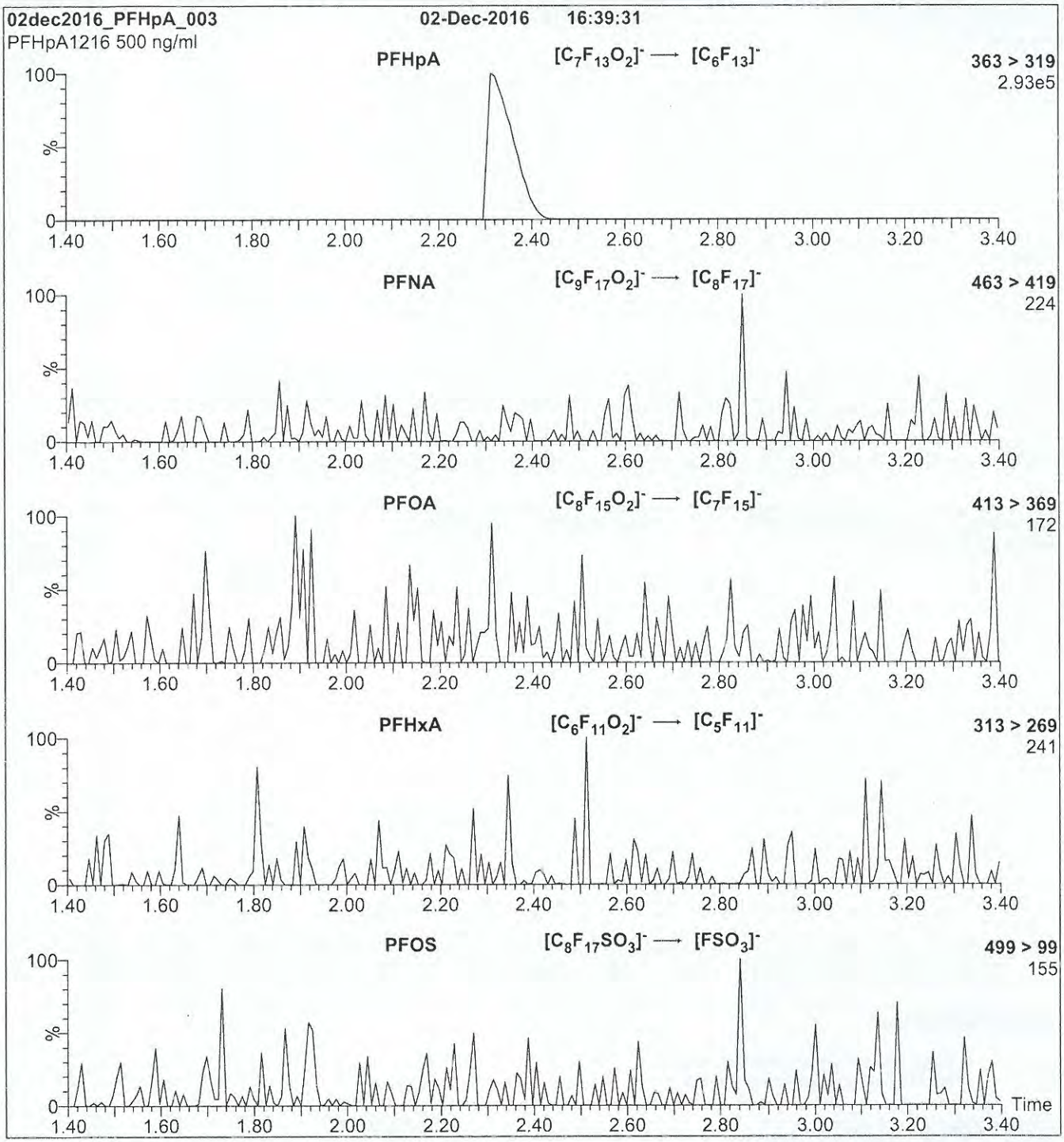
Flow: 300 µl/min

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

17H0827

WELLINGTON LABORATORIES

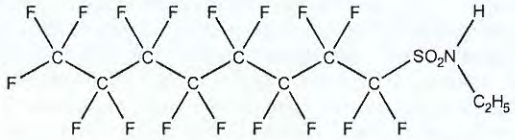
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

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SYNTHESIS / CHARACTERIZATION:

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CALA

ANAB ACCREDITED

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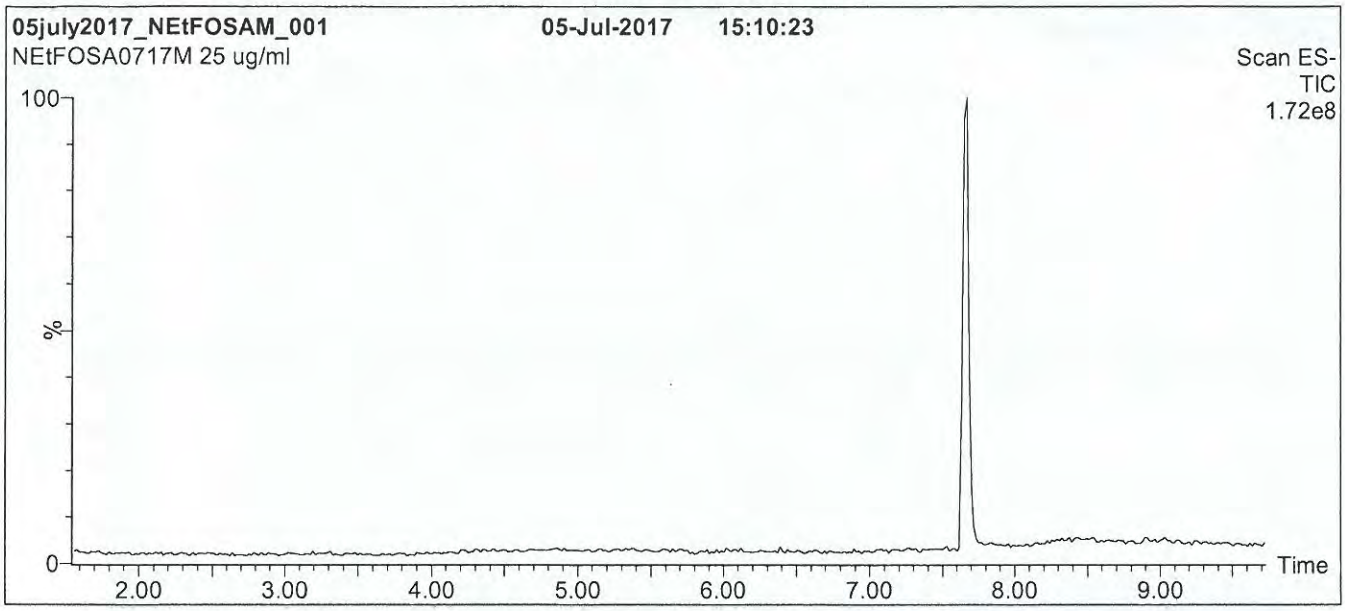
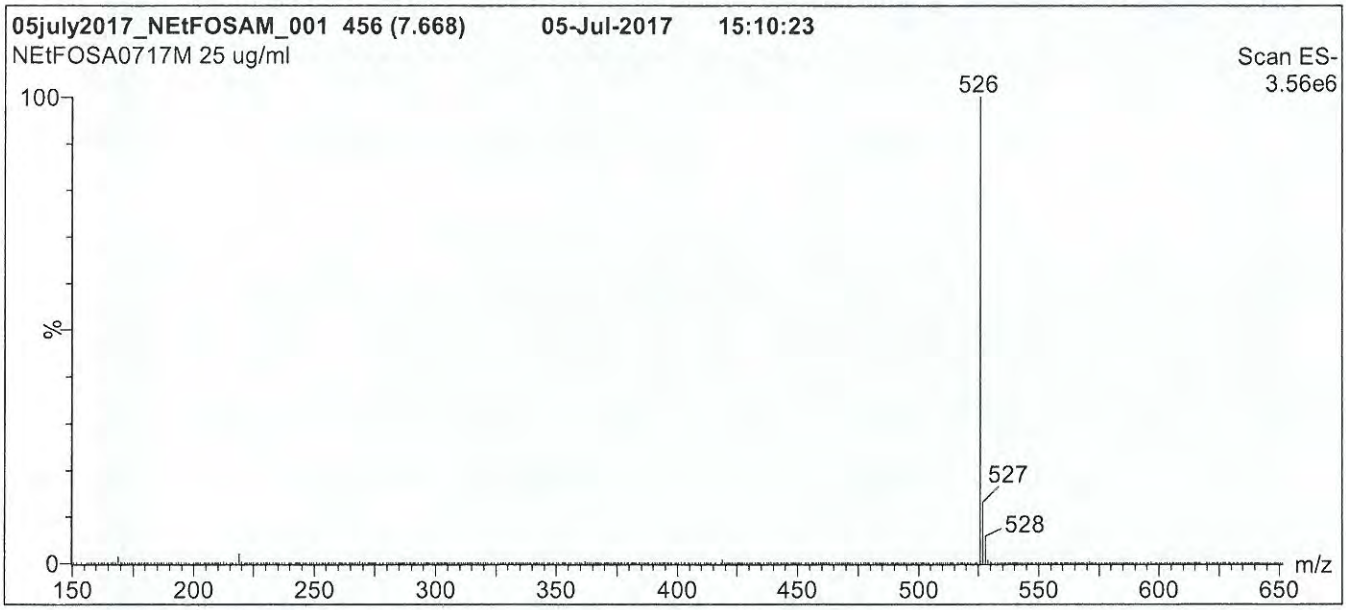
Figure 1: **N-EtFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





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

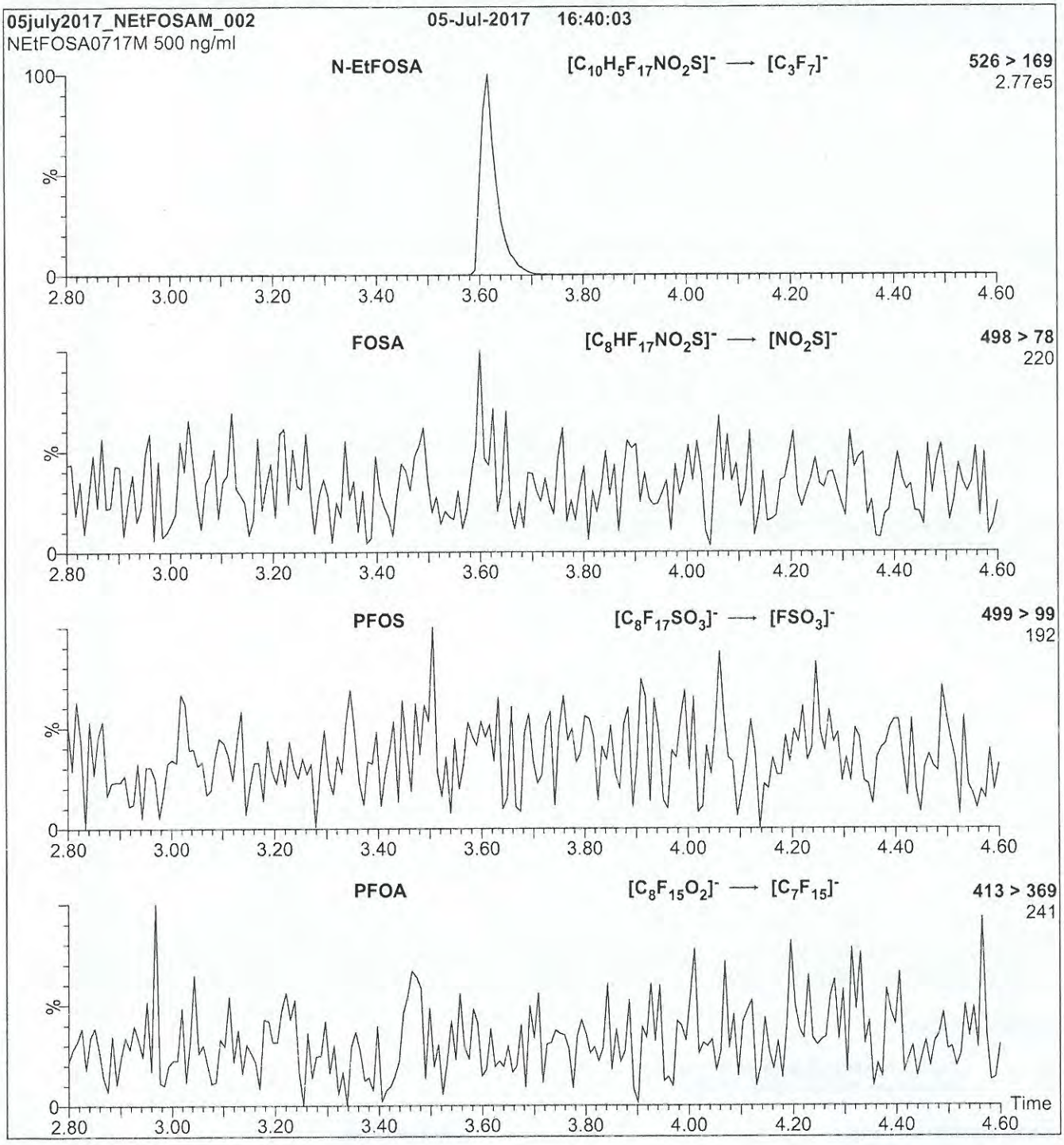
Flow: 300 µl/min

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

1701802

WELLINGTON LABORATORIES

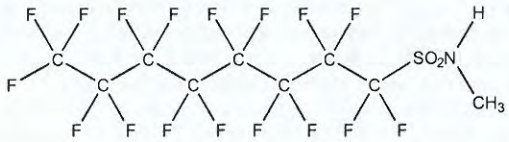
CERTIFICATE OF ANALYSIS DOCUMENTATION

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:

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Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: _____ **Date:** 07/10/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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CALA

ANAB ACCREDITED

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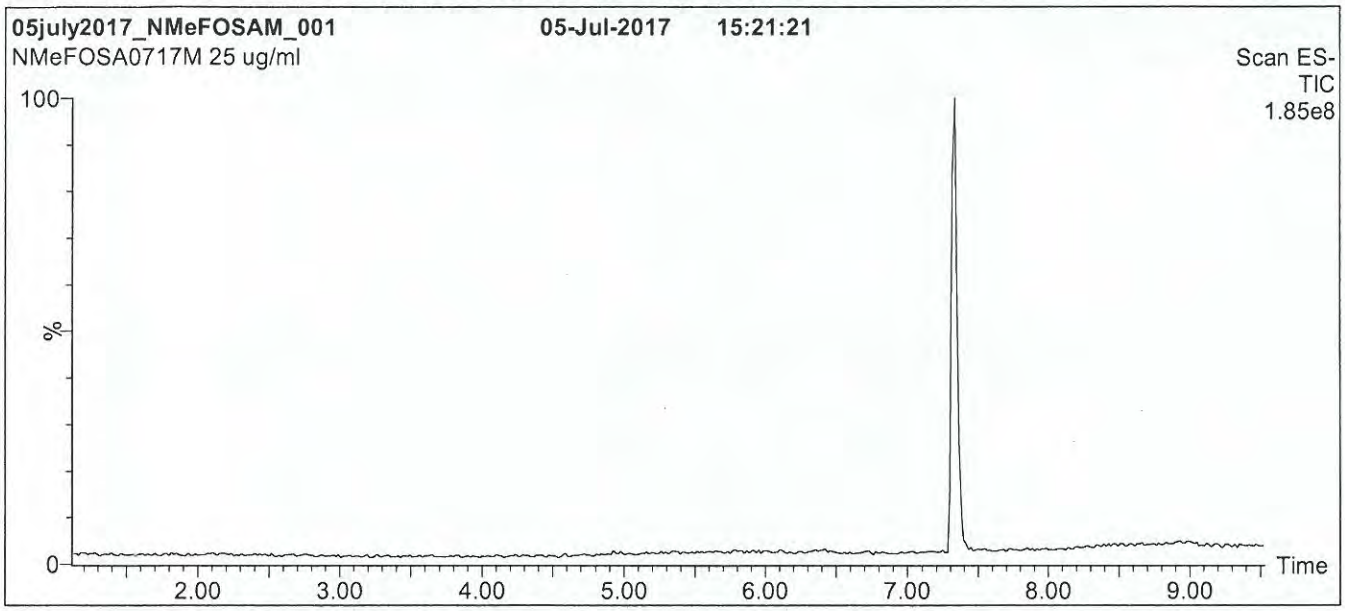
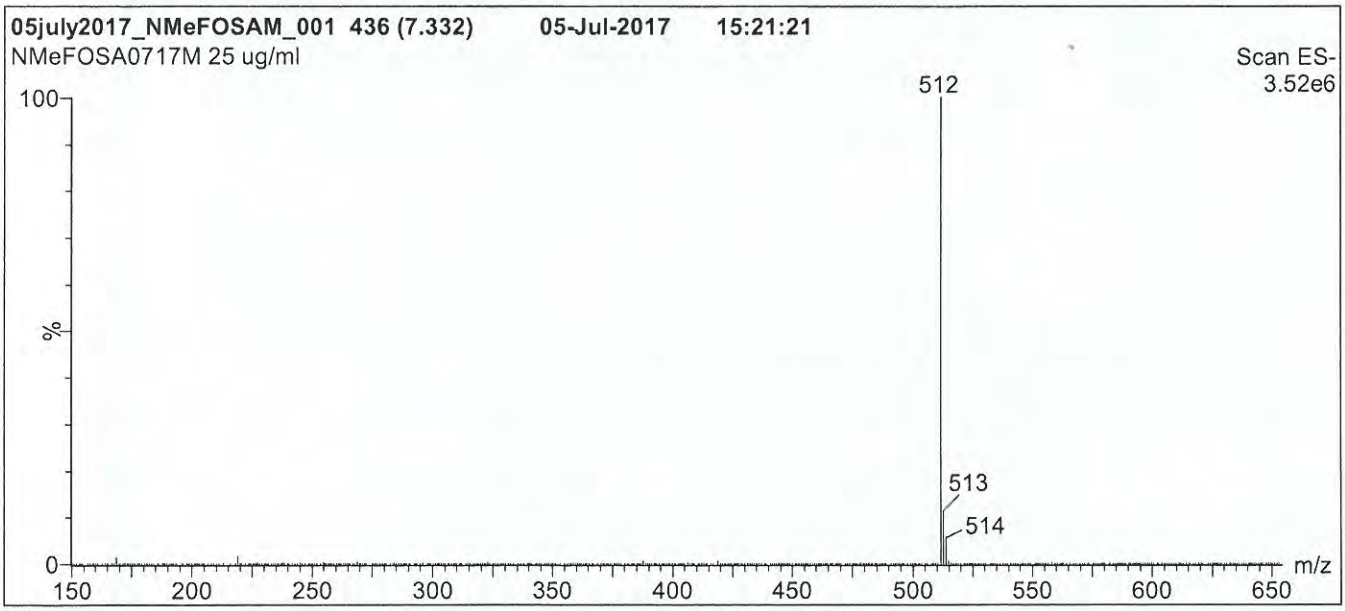
Figure 1: **N-MeFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





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

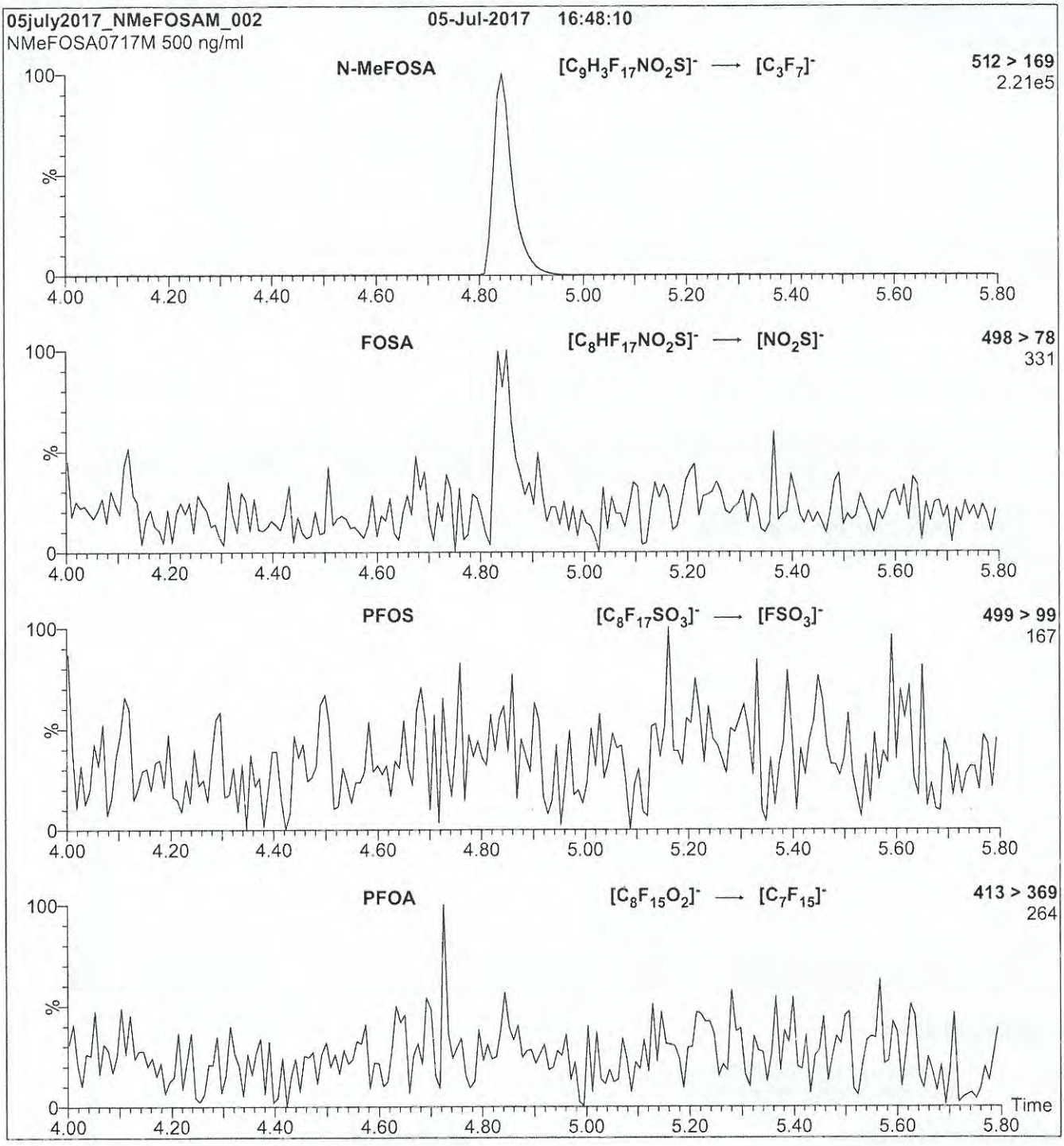
Flow: 300 µl/min

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

1710829

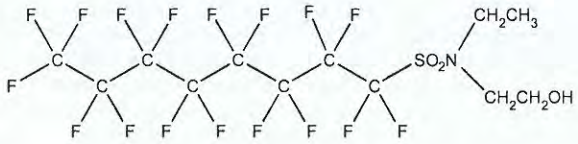
WELLINGTON LABORATORIES

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

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:

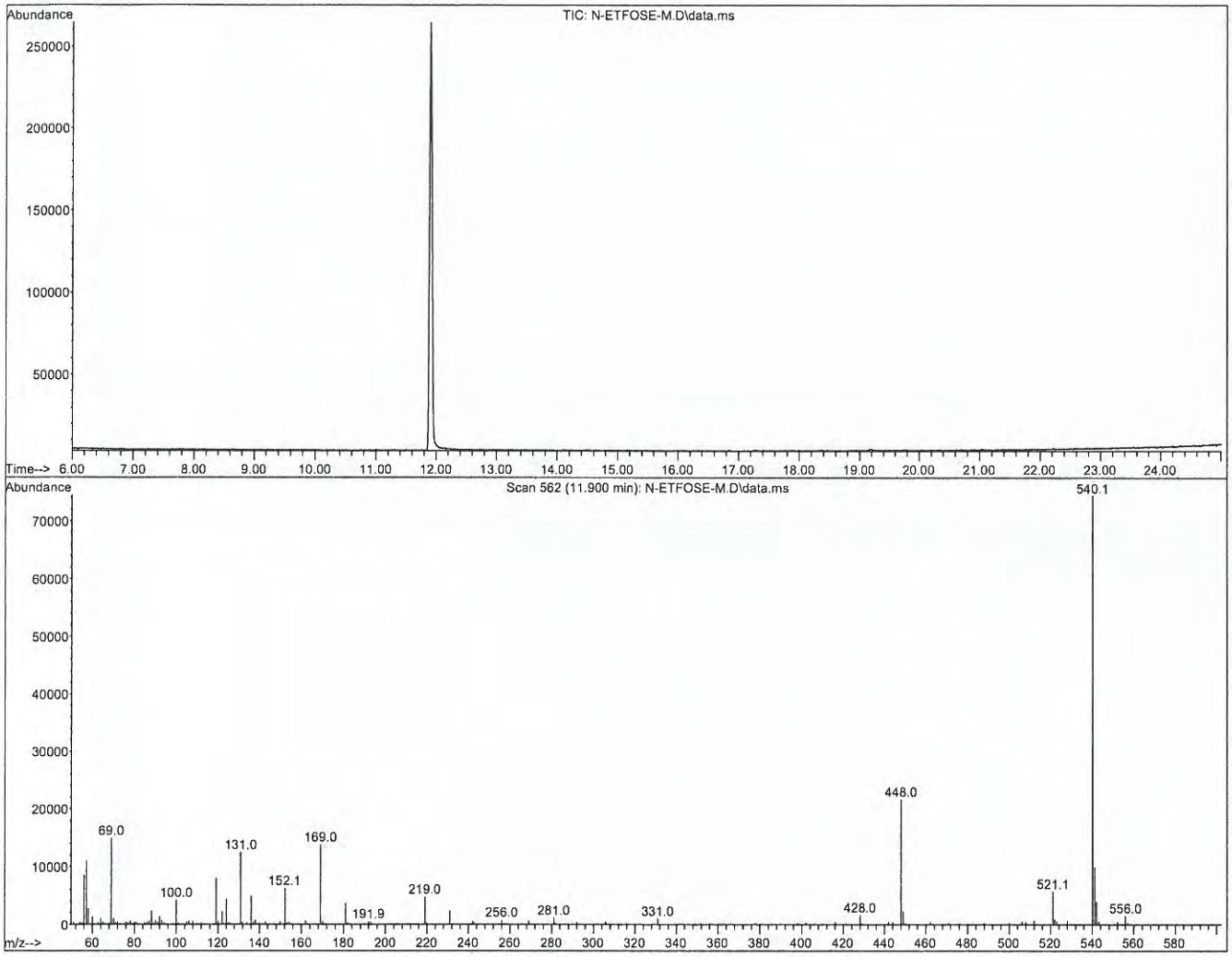
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA

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-EtFOSE-M; HRGC/LRMS Data (TIC and Mass Spectrum)**



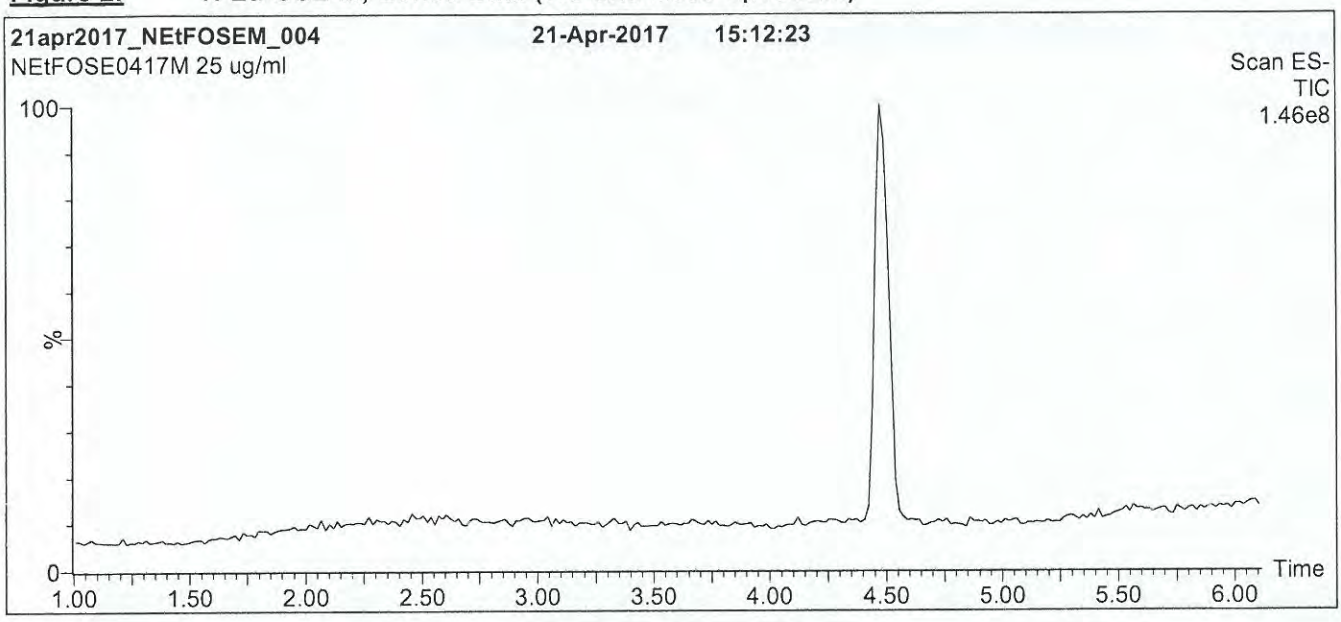
HRGC/LRMS:

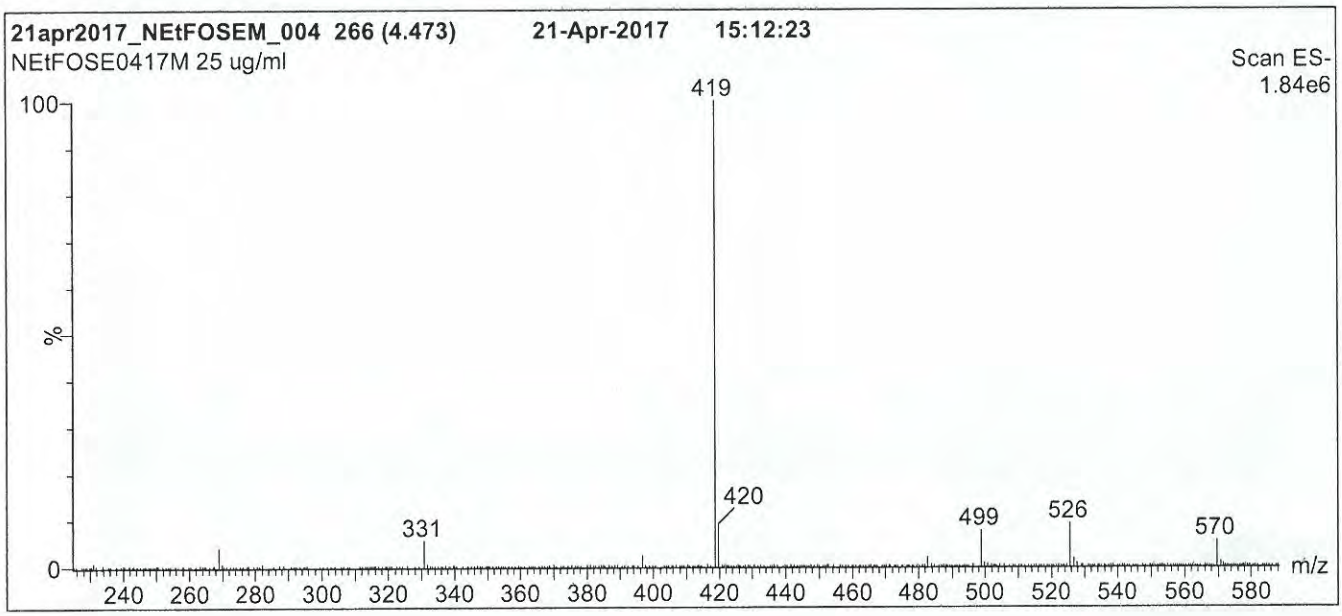
Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

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

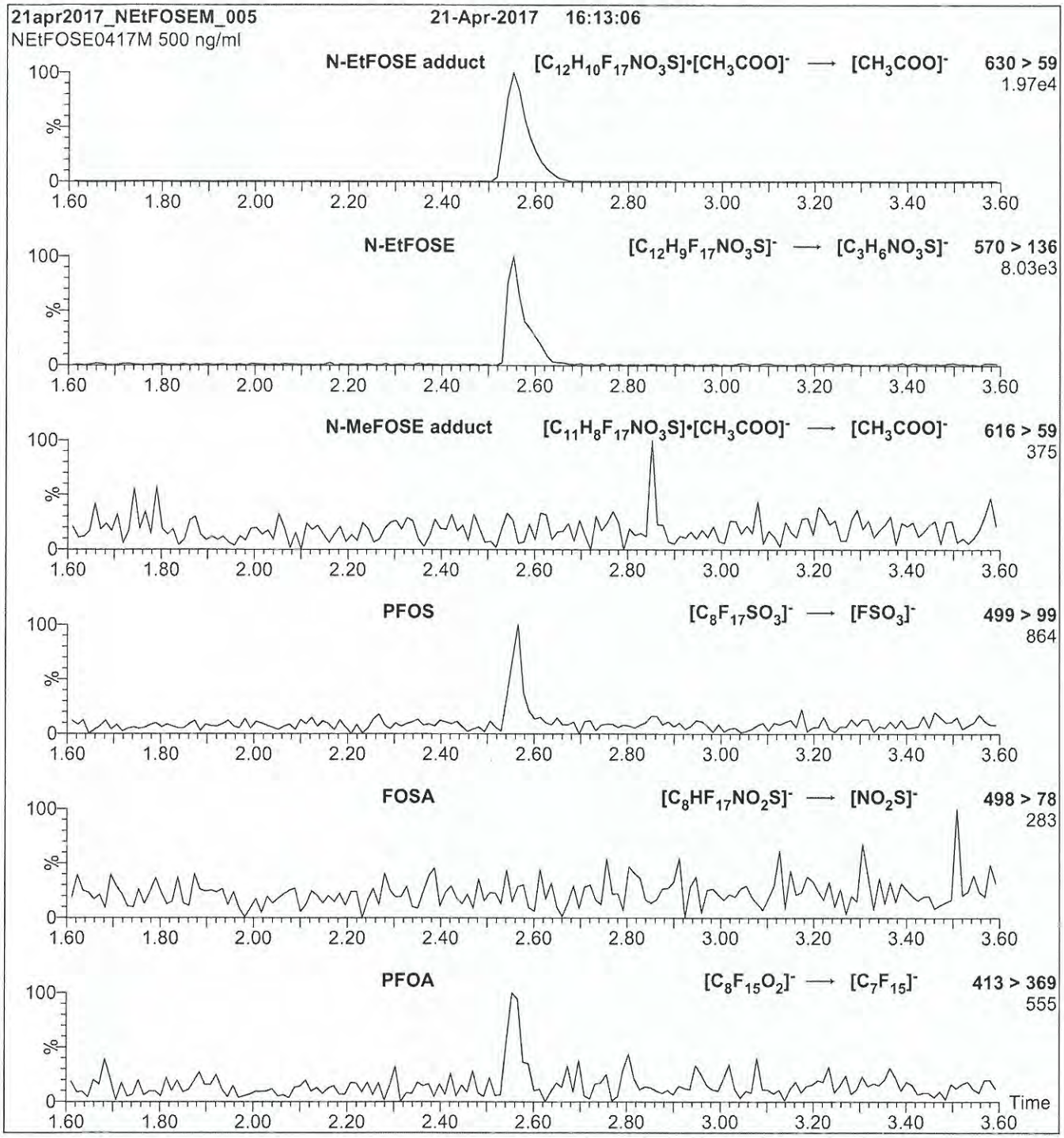
Flow: 300 µl/min

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

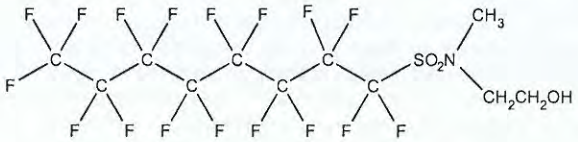
WELLINGTON LABORATORIES

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		

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ADDITIONAL INFORMATION:

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Certified By: _____ **Date:** 05/05/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

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where x is expressed as a relative standard uncertainty of the individual parameter.

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CALA Testing

ANAB ACCREDITED

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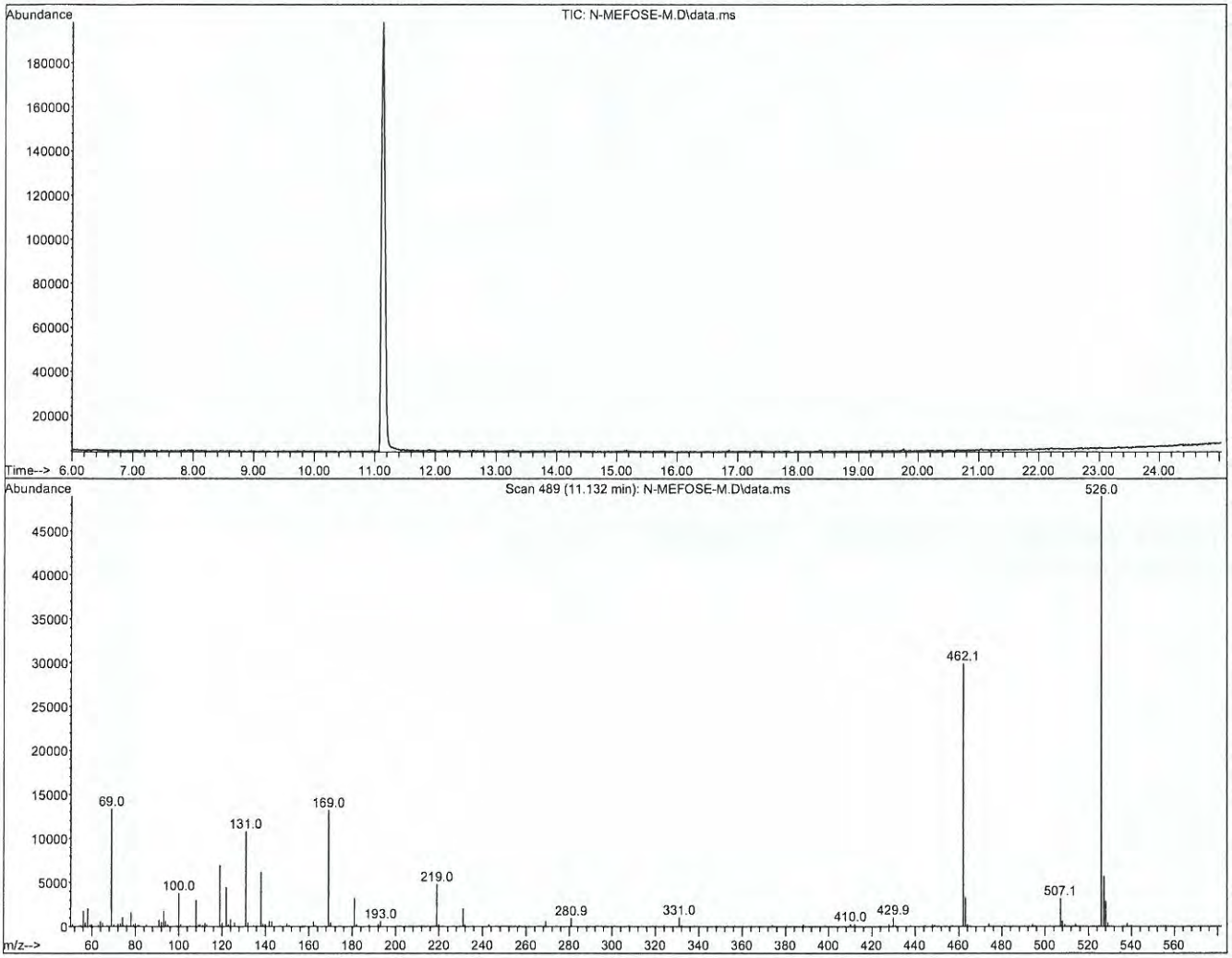
Figure 1: **N-MeFOSE-M; HRGC/LRMS Data (TIC and Mass Spectrum)**



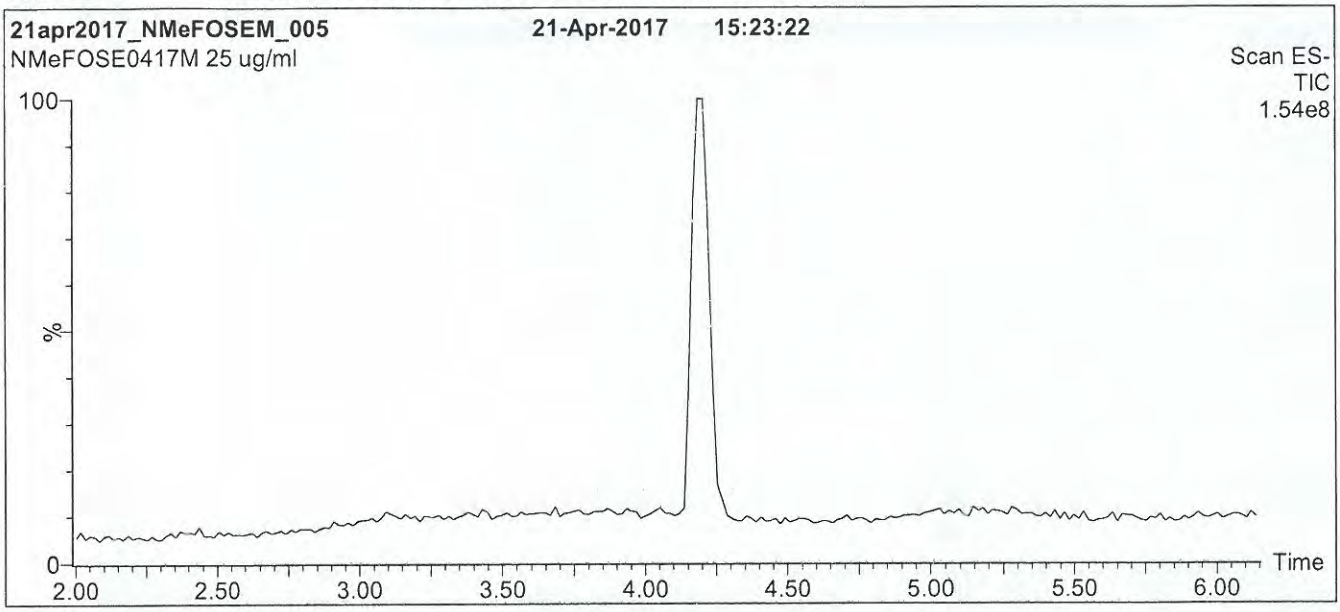
HRGC/LRMS:

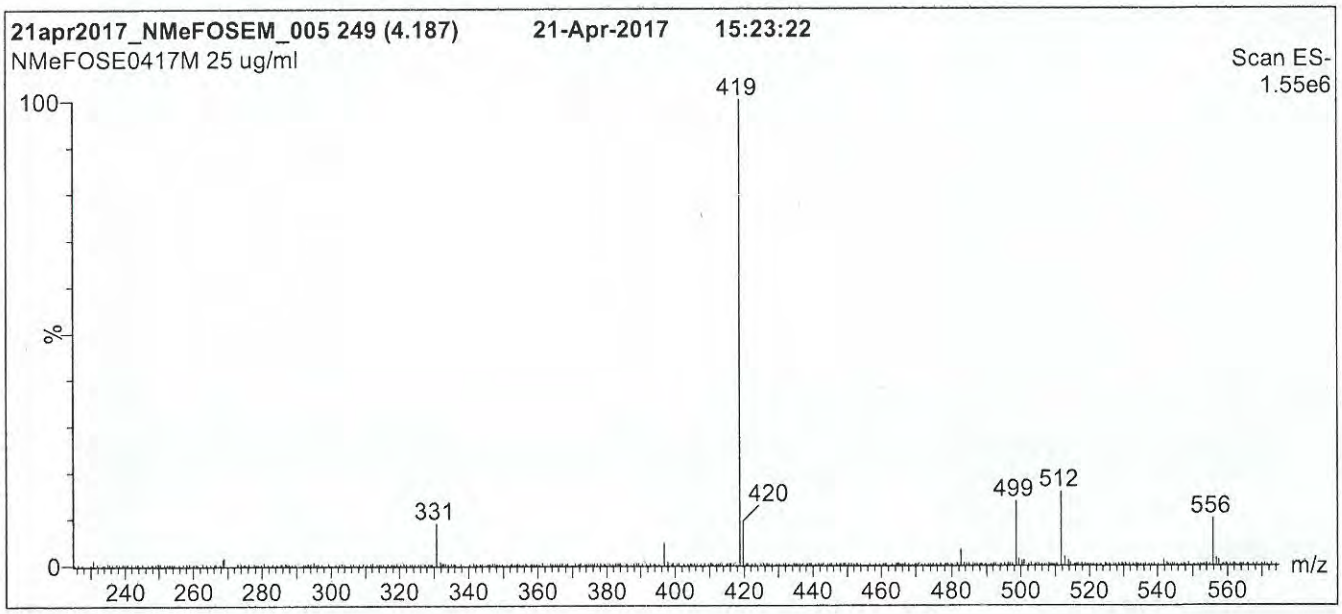
Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

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

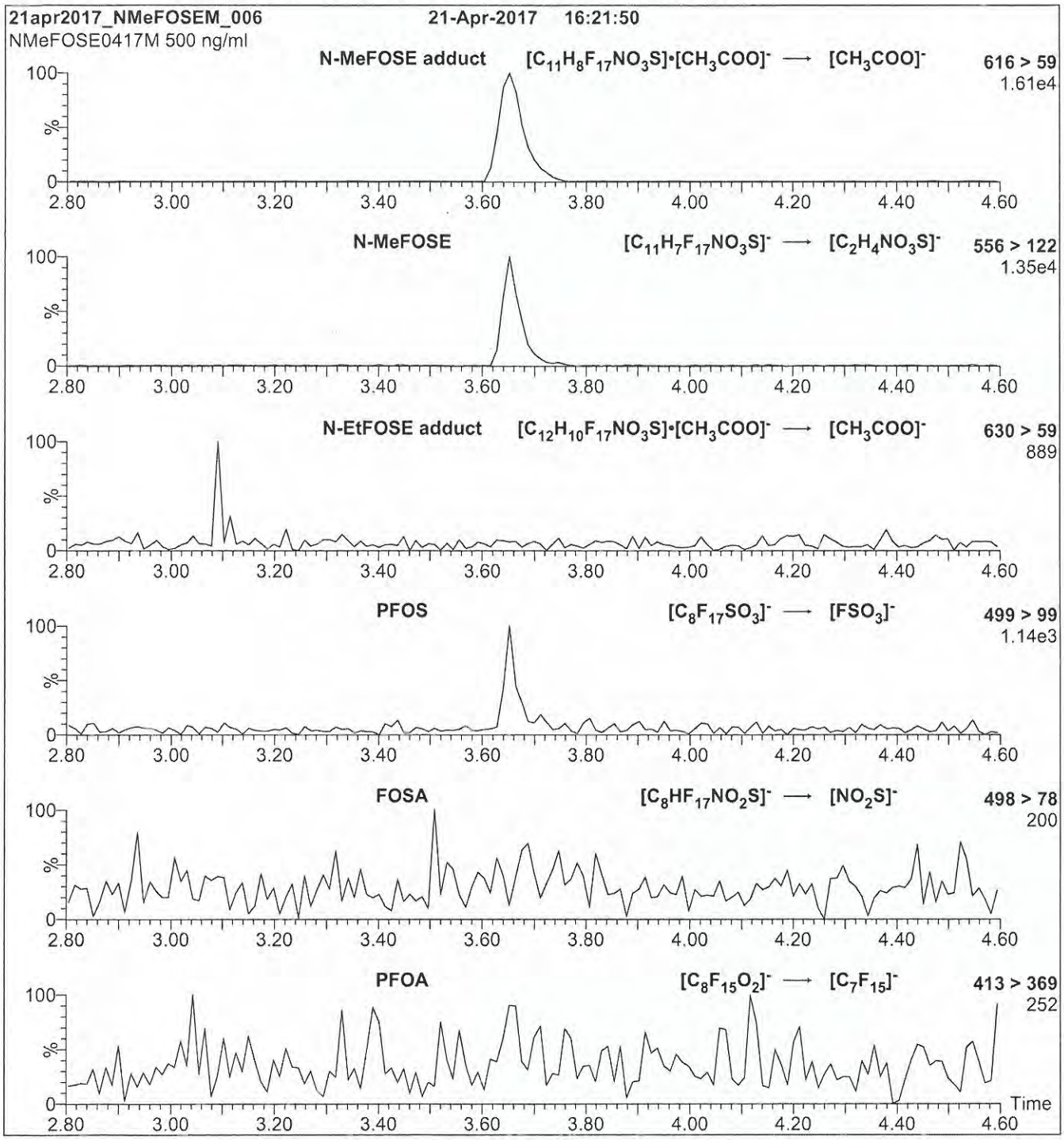
Flow: 300 µl/min

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

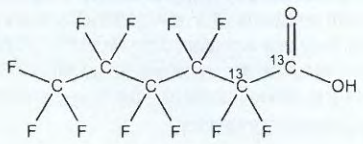
Analyte	CAS Number	Concentration	Units
13C8-PFOS		1.25	ug/mL
13C8-PFOSA		1.25	ug/mL
18O2-PFHxS		1.25	ug/mL
d3-MeFOSAA		1.25	ug/mL
13C2-PFUnA		1.25	ug/mL

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 ($1,2\text{-}^{13}C_2$)
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: B.G. Chittim **Date:** 12/13/2016 (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

1701801

WELLINGTON LABORATORIES

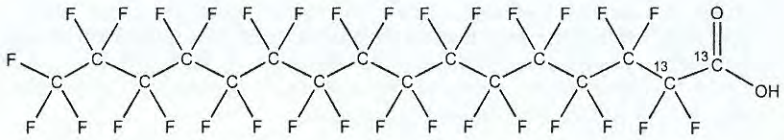
CERTIFICATE OF ANALYSIS DOCUMENTATION

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		

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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.

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Certified By: B.G. Chittim **Date:** 01/11/2016 (mm/dd/yyyy)

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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.

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:

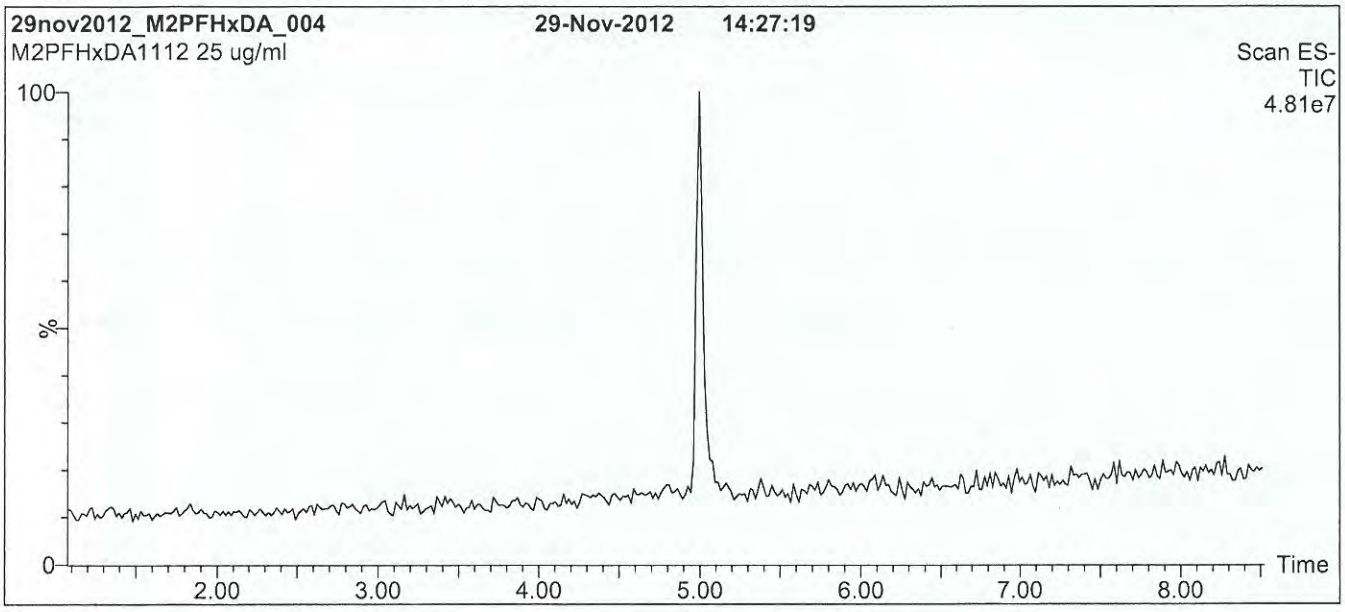
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

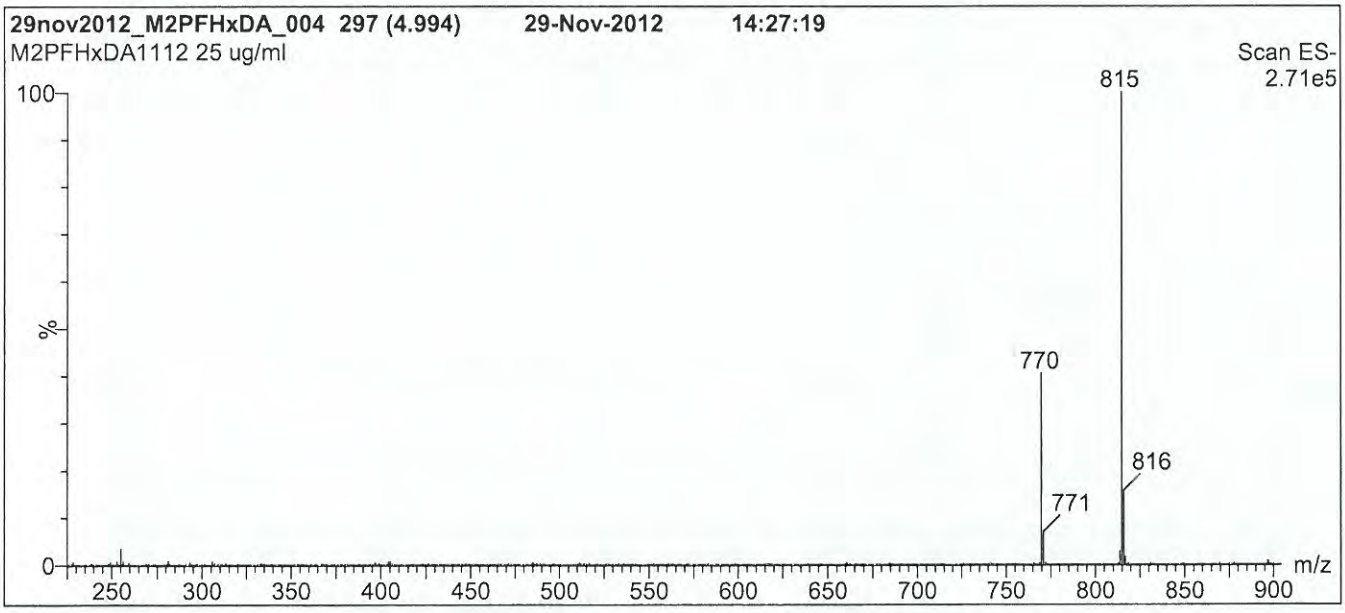
CALA Testing Accreditation No. A 1226

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

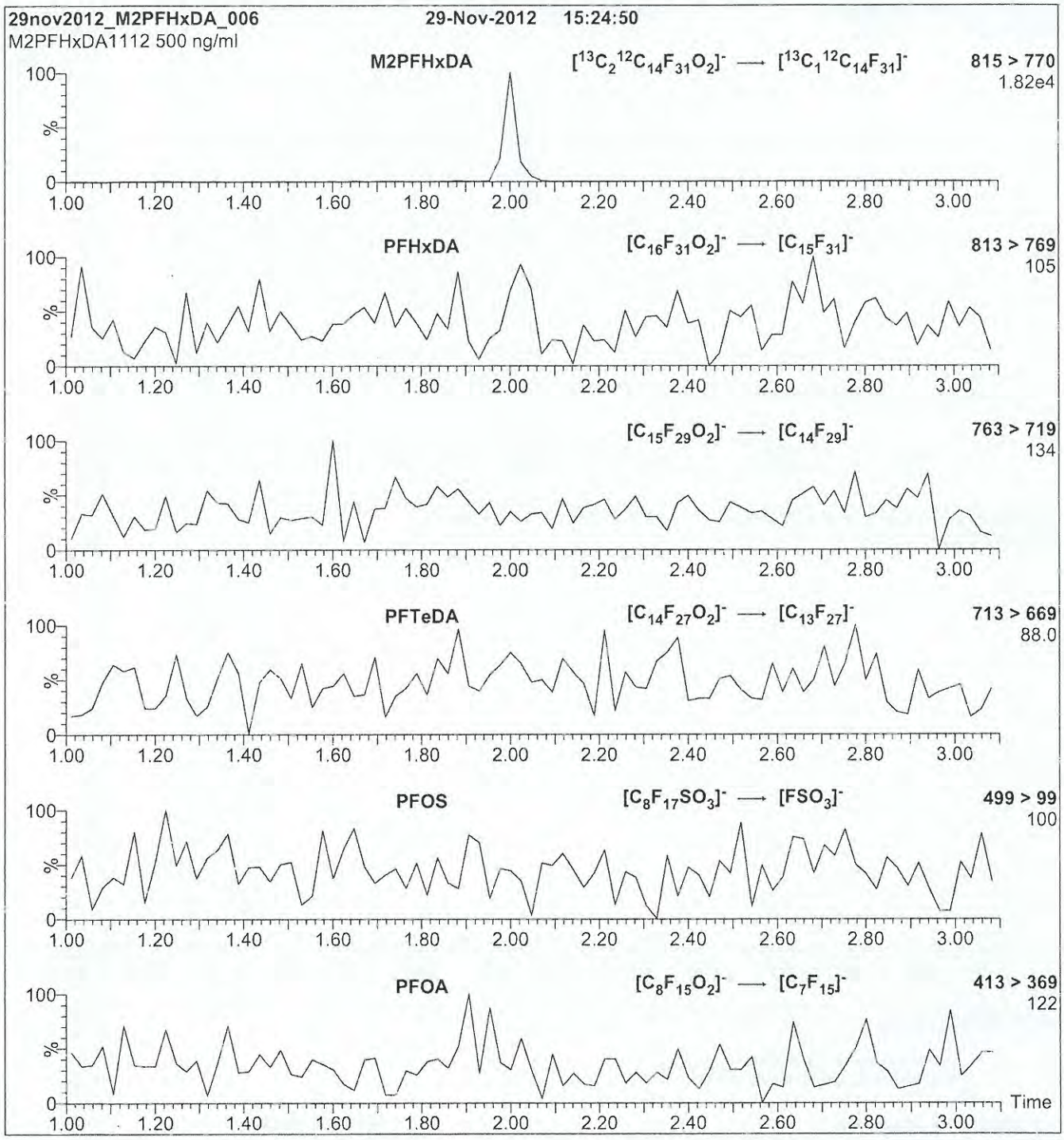
Flow: 300 µl/min

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

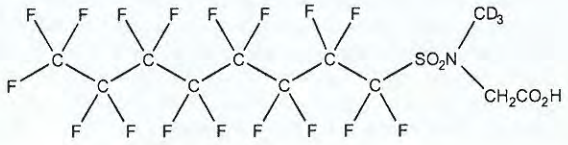
WELLINGTON LABORATORIES

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:

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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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:

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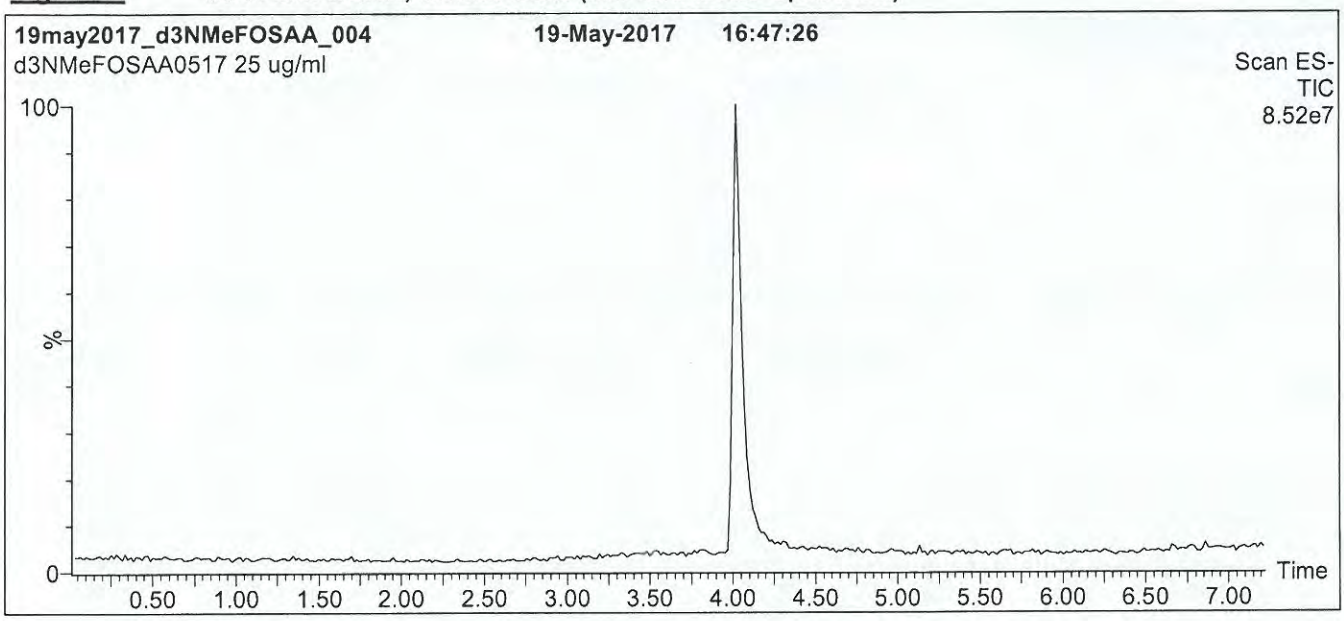
CALA Testing

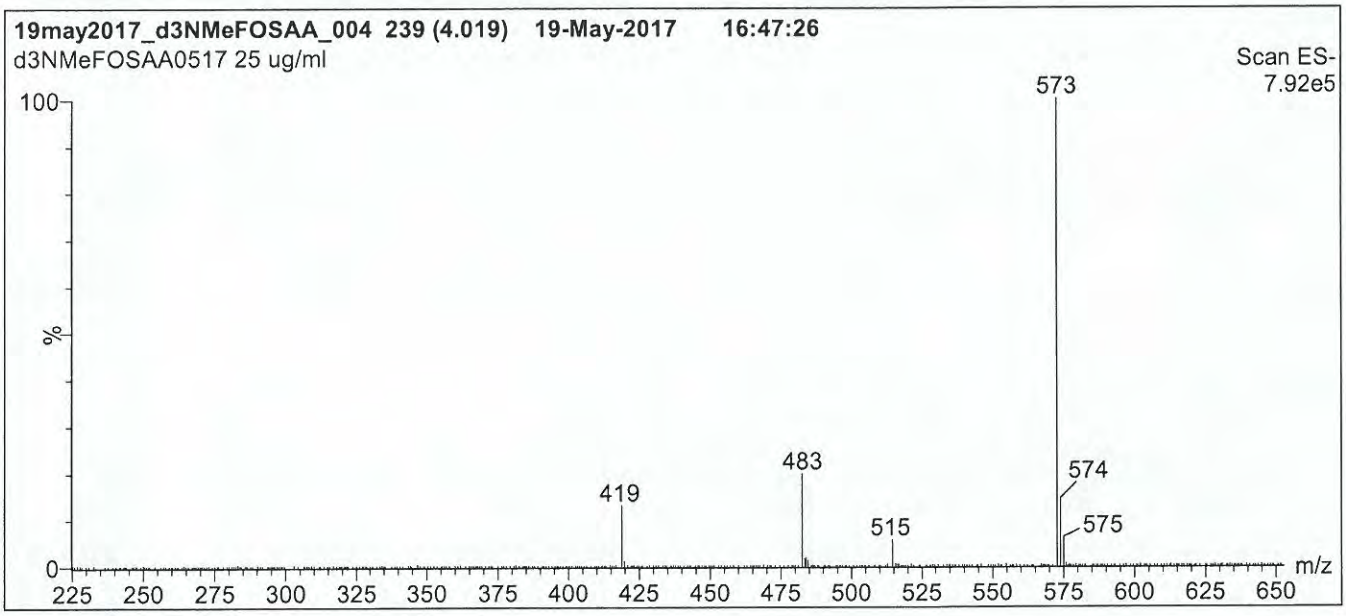
ANAB ACCREDITED

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

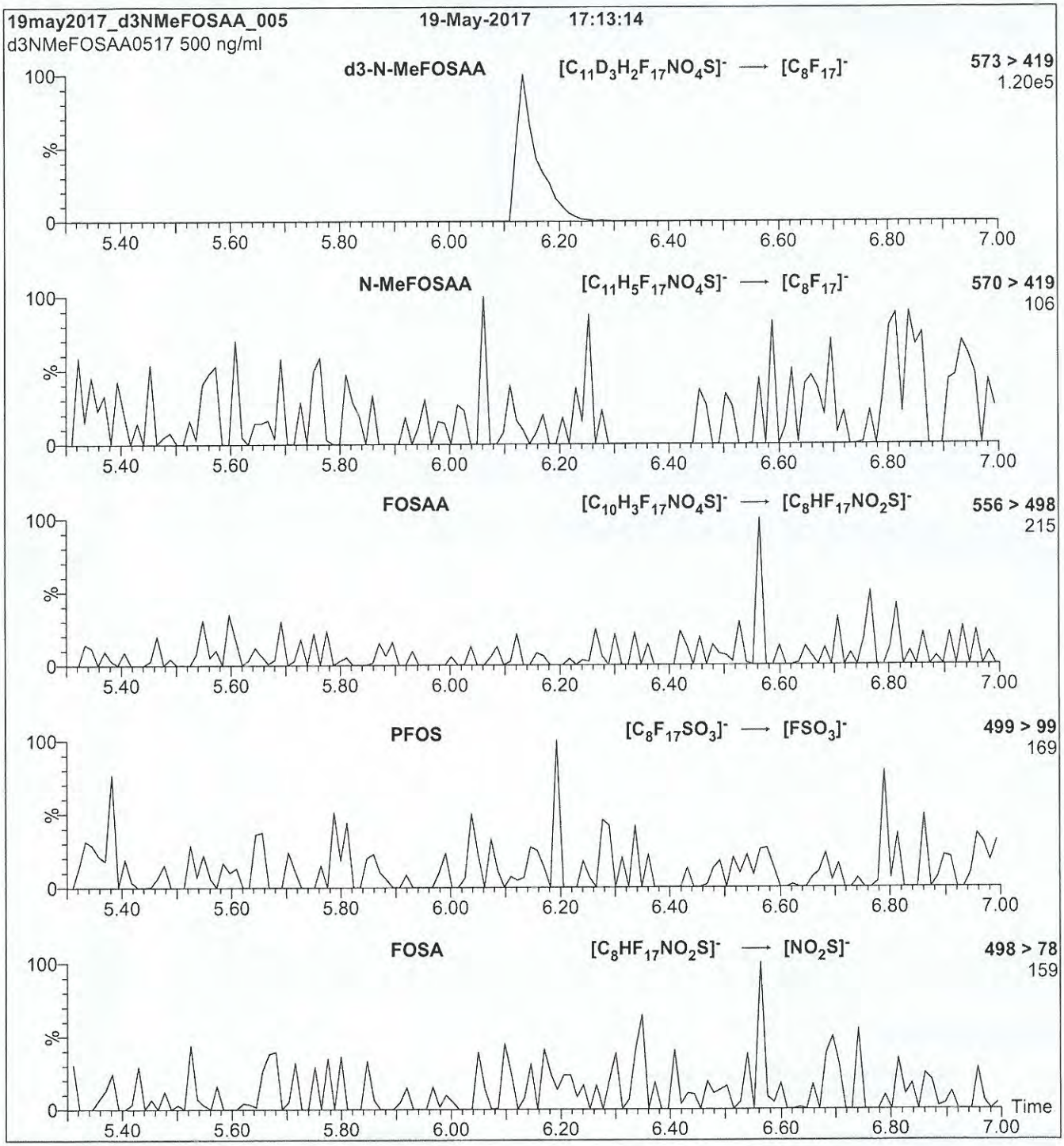
MS Parameters

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

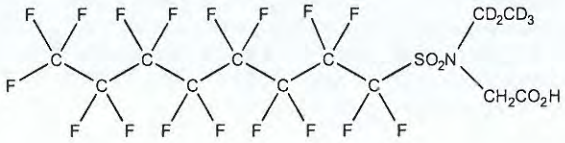
WELLINGTON LABORATORIES

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.

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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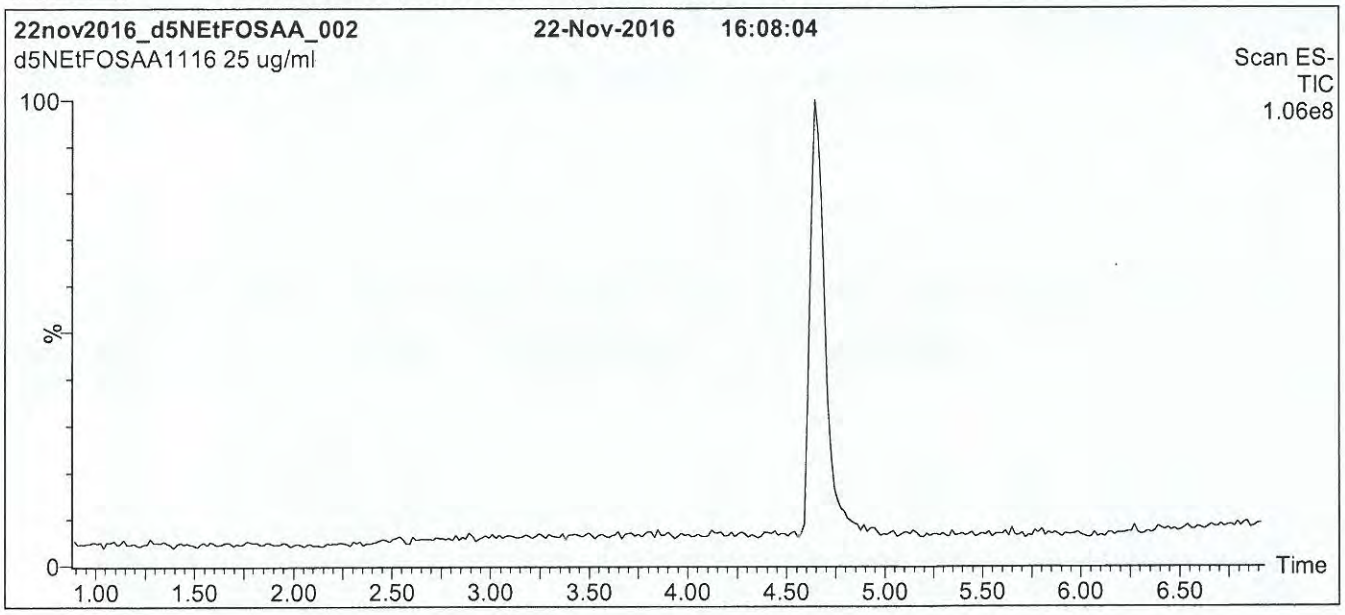
CALA Testing Accreditation No. A1226

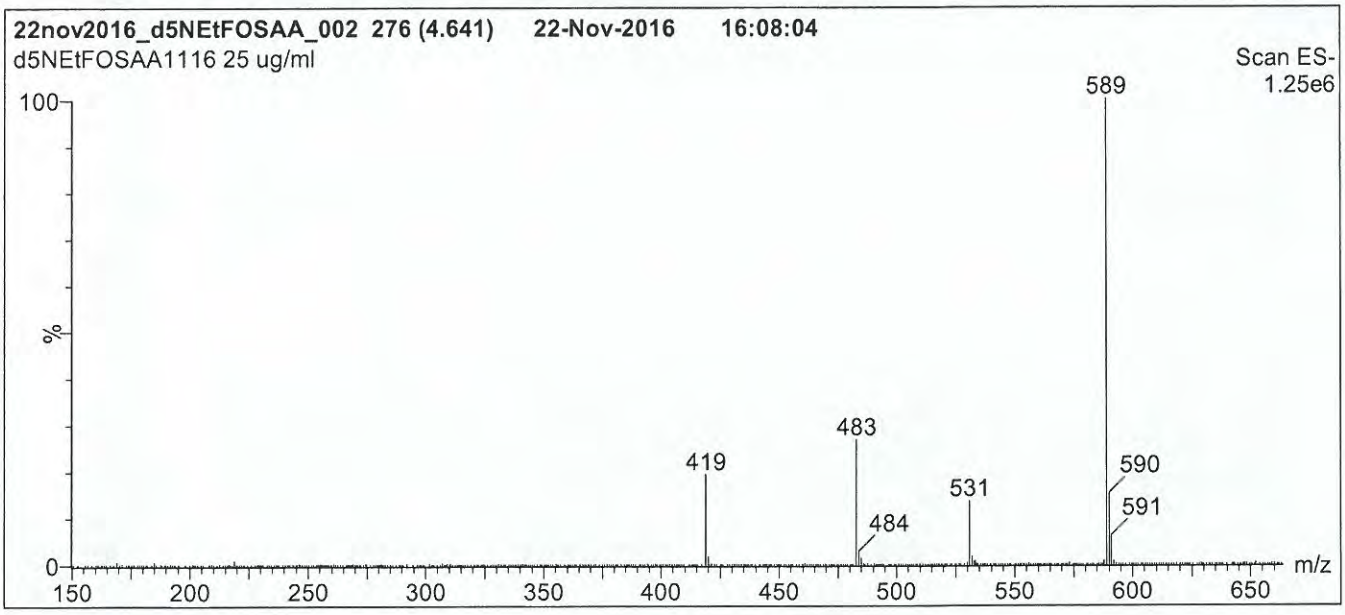
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

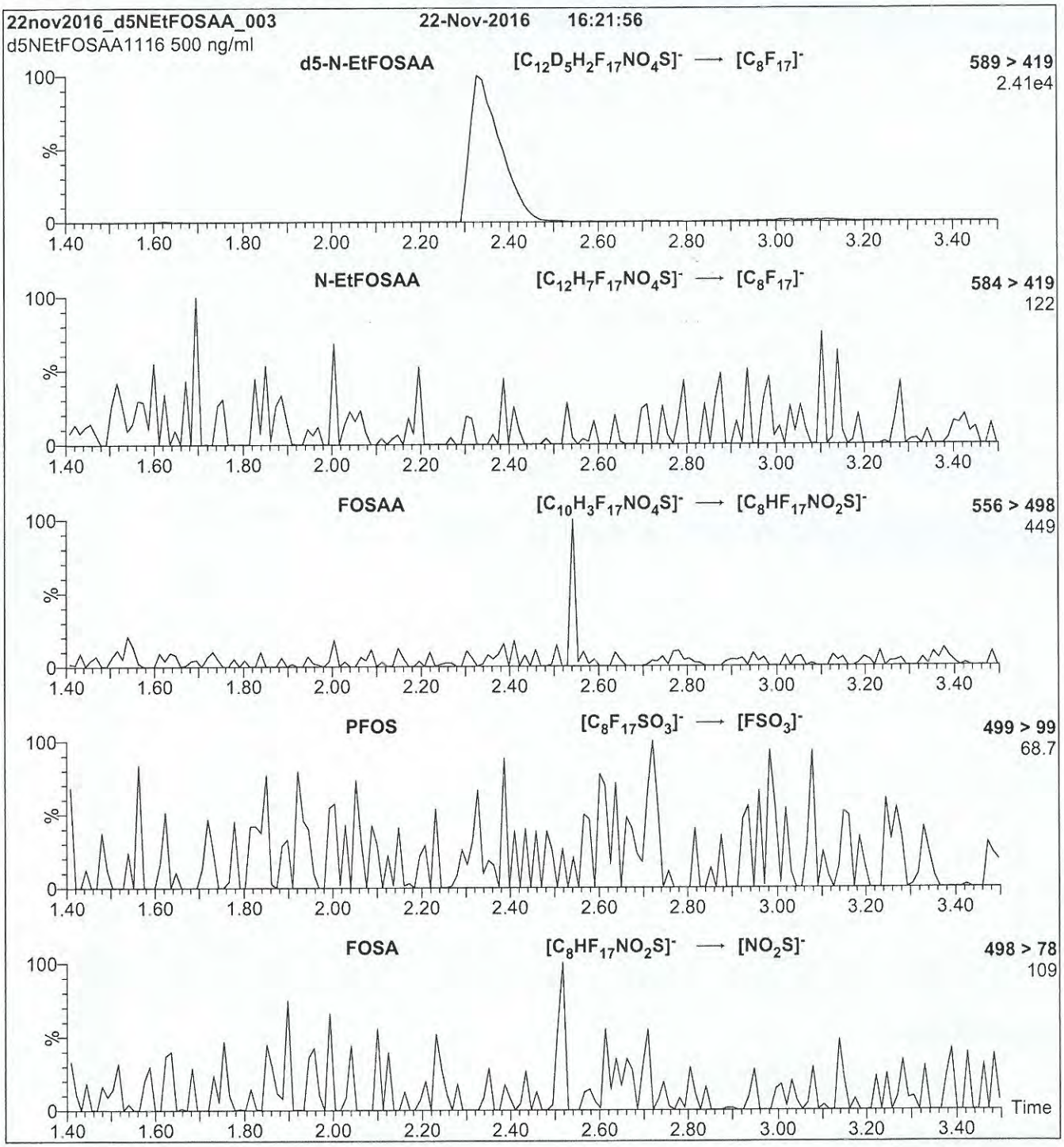
MS Parameters

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

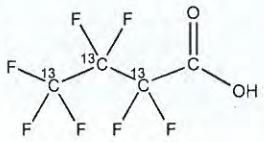
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 20

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-$^{13}C_3$)
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

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SYNTHESIS / CHARACTERIZATION:

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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:

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 REFERENCE MATERIAL PRODUCER

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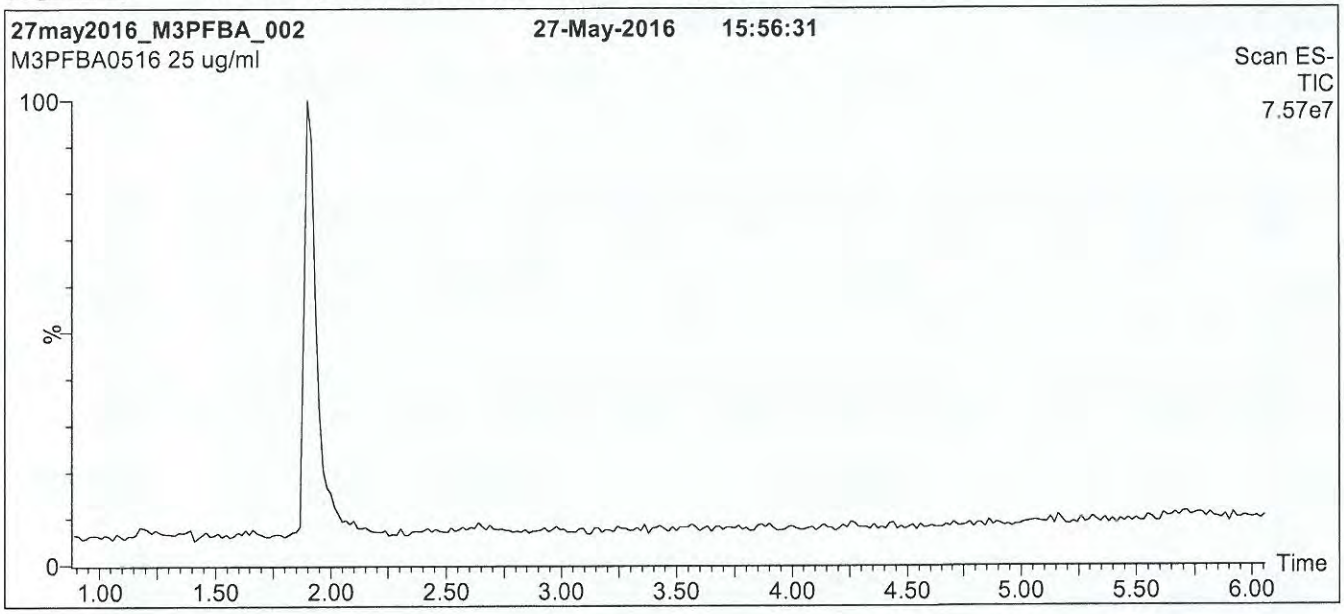
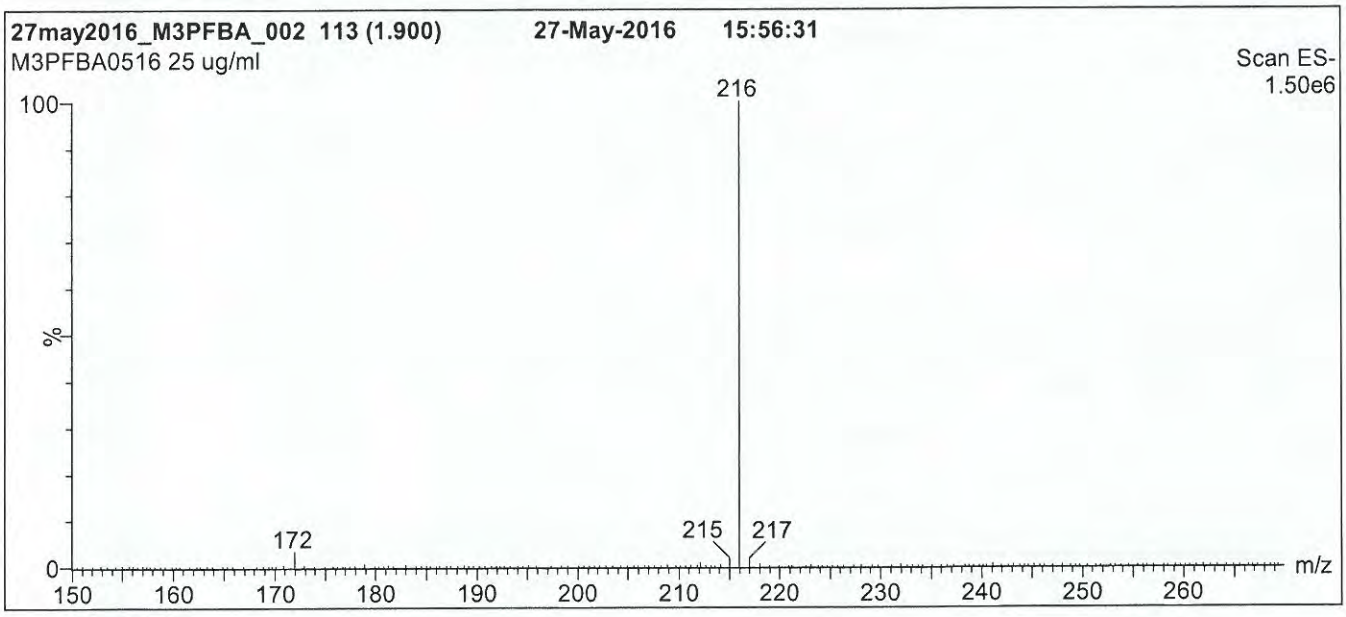
17K0804

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

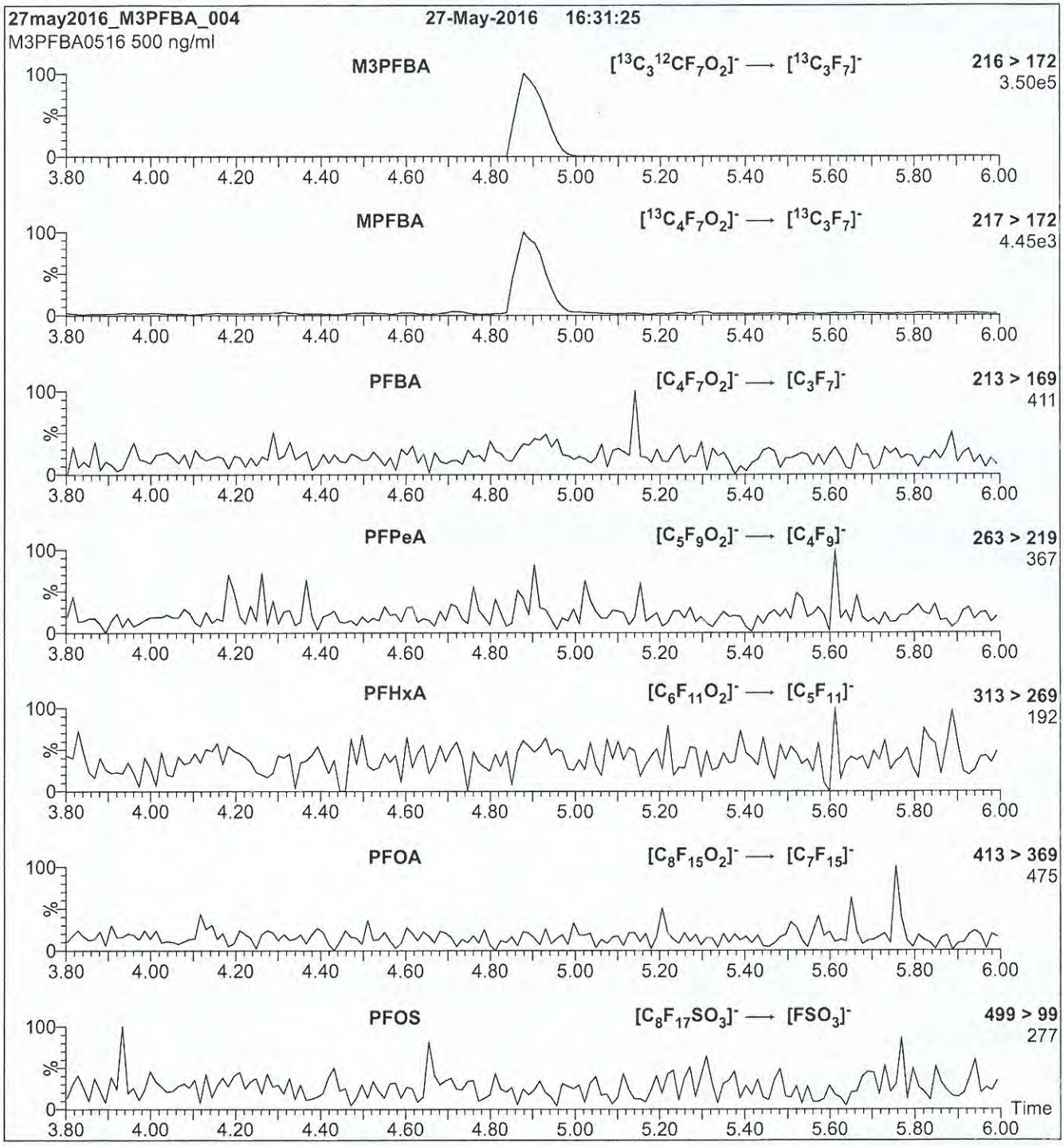
MS Parameters

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

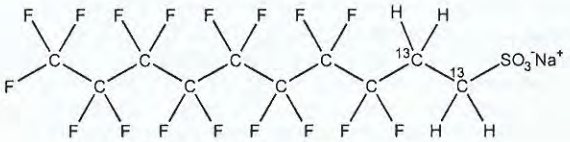
WELLINGTON LABORATORIES

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

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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CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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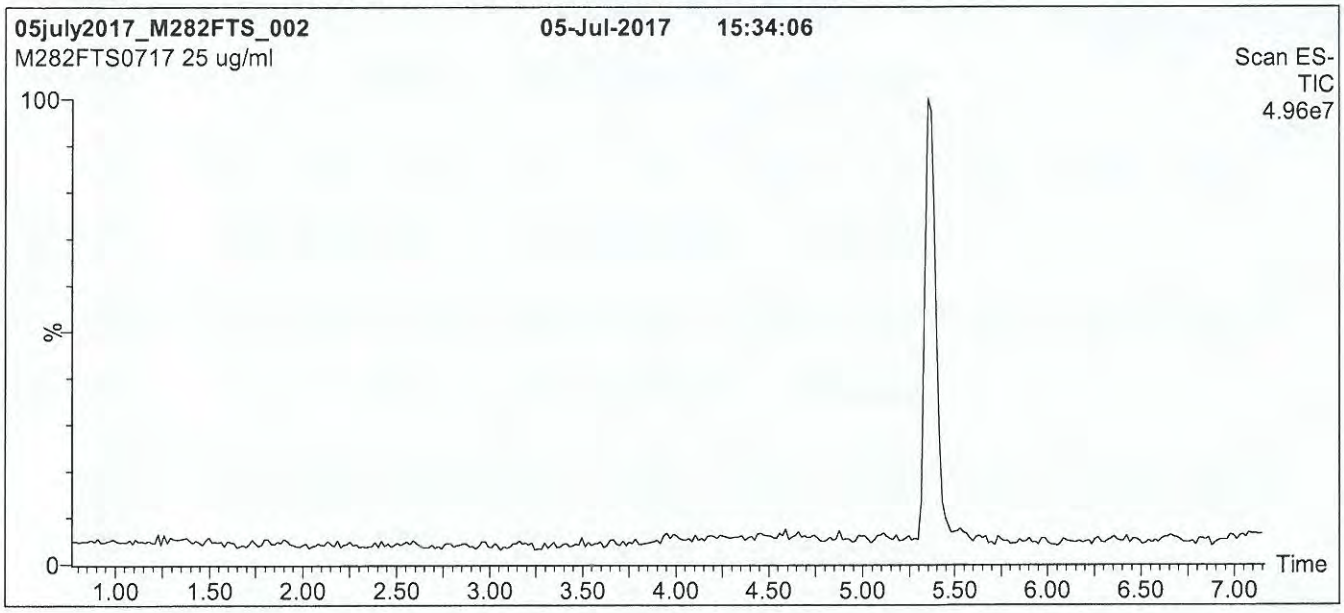
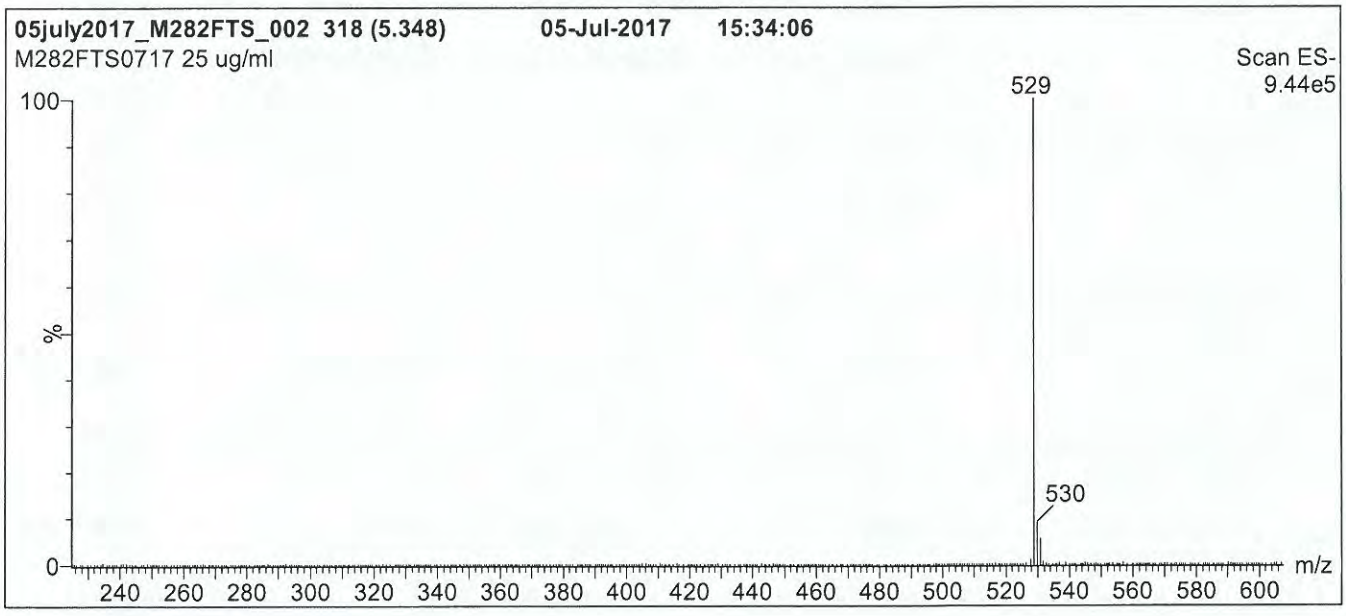
17K0805

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

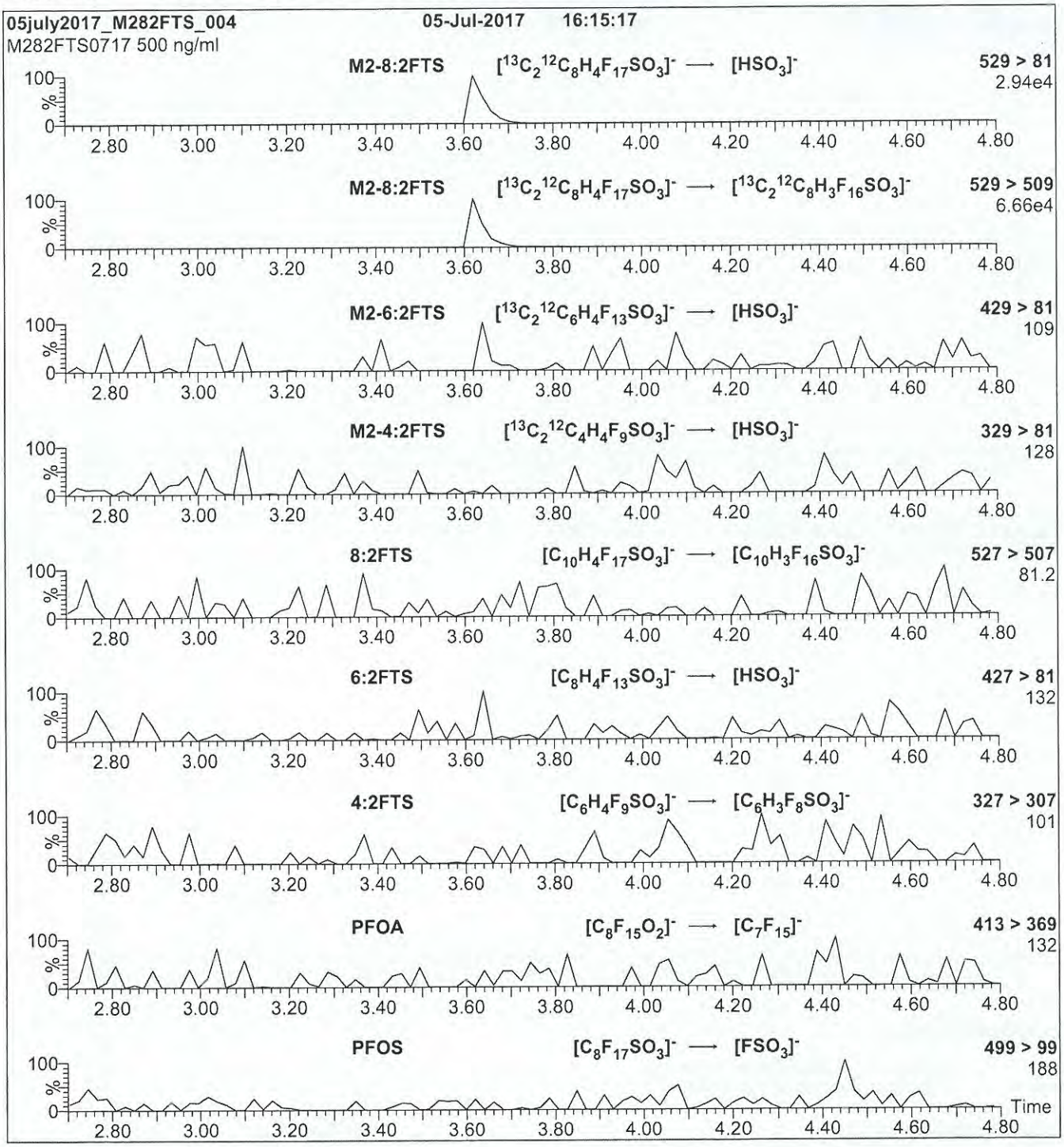
MS Parameters

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

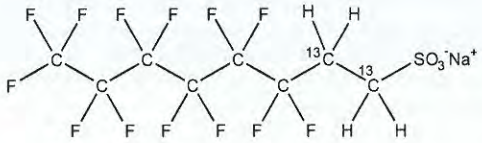
WELLINGTON LABORATORIES

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:

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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:

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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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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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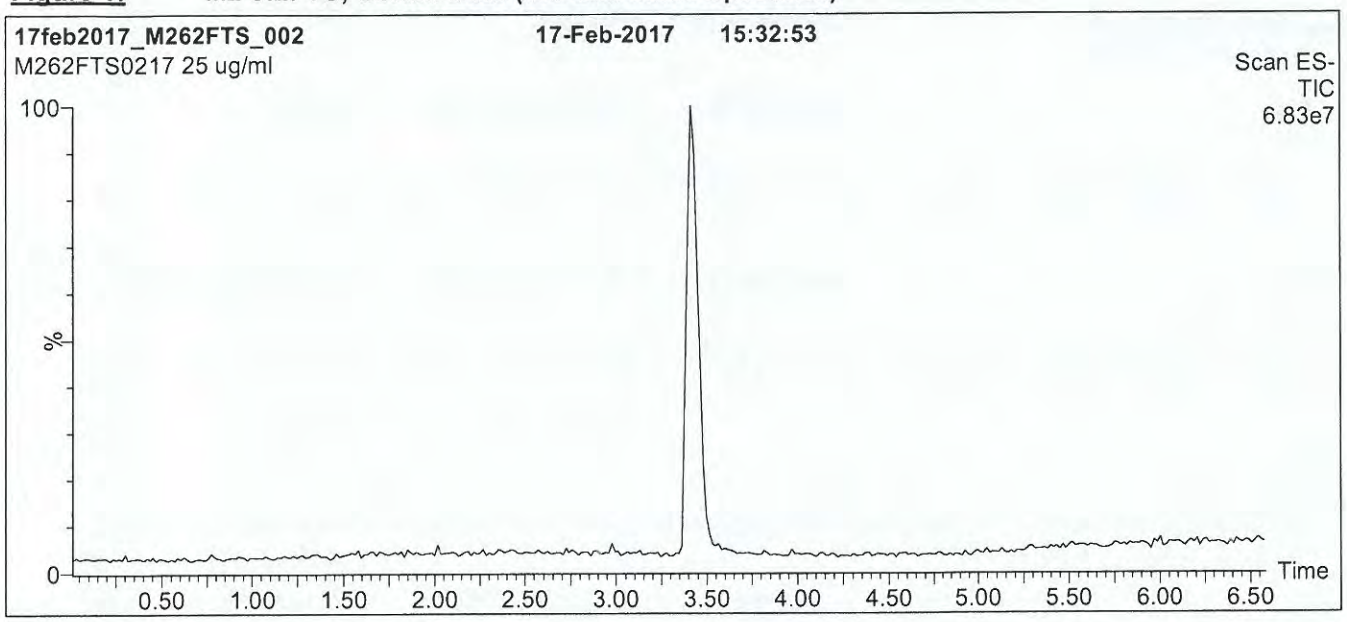
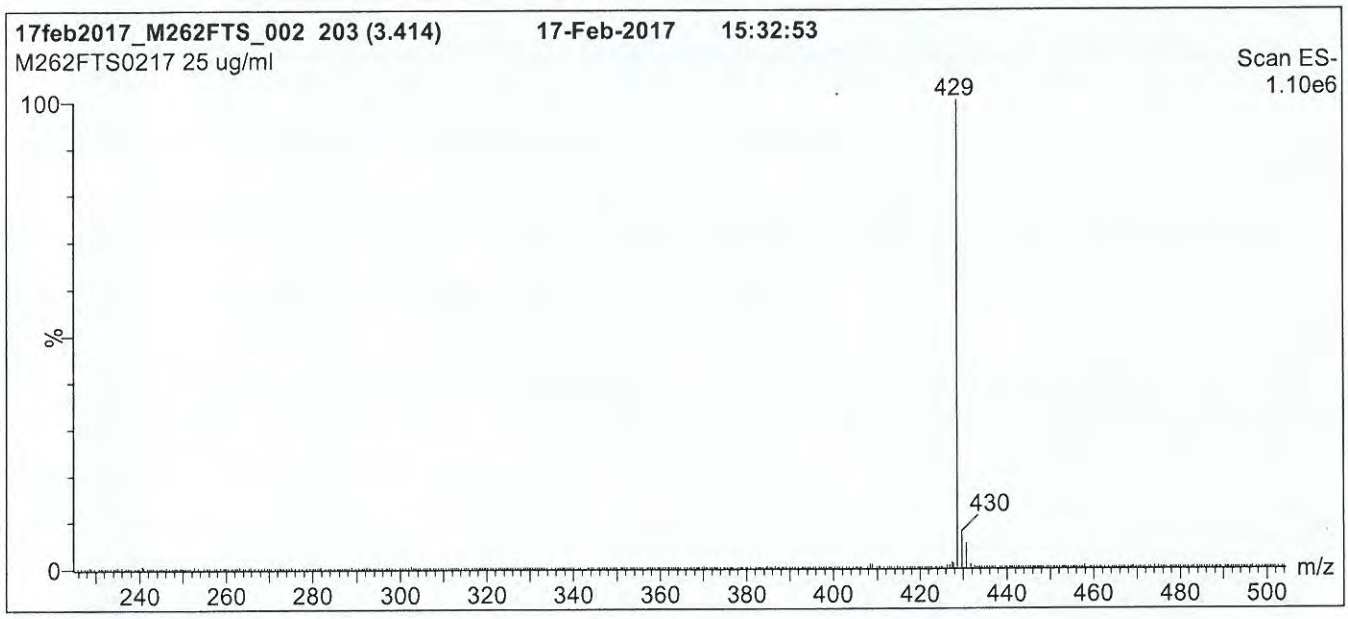
17K0807

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

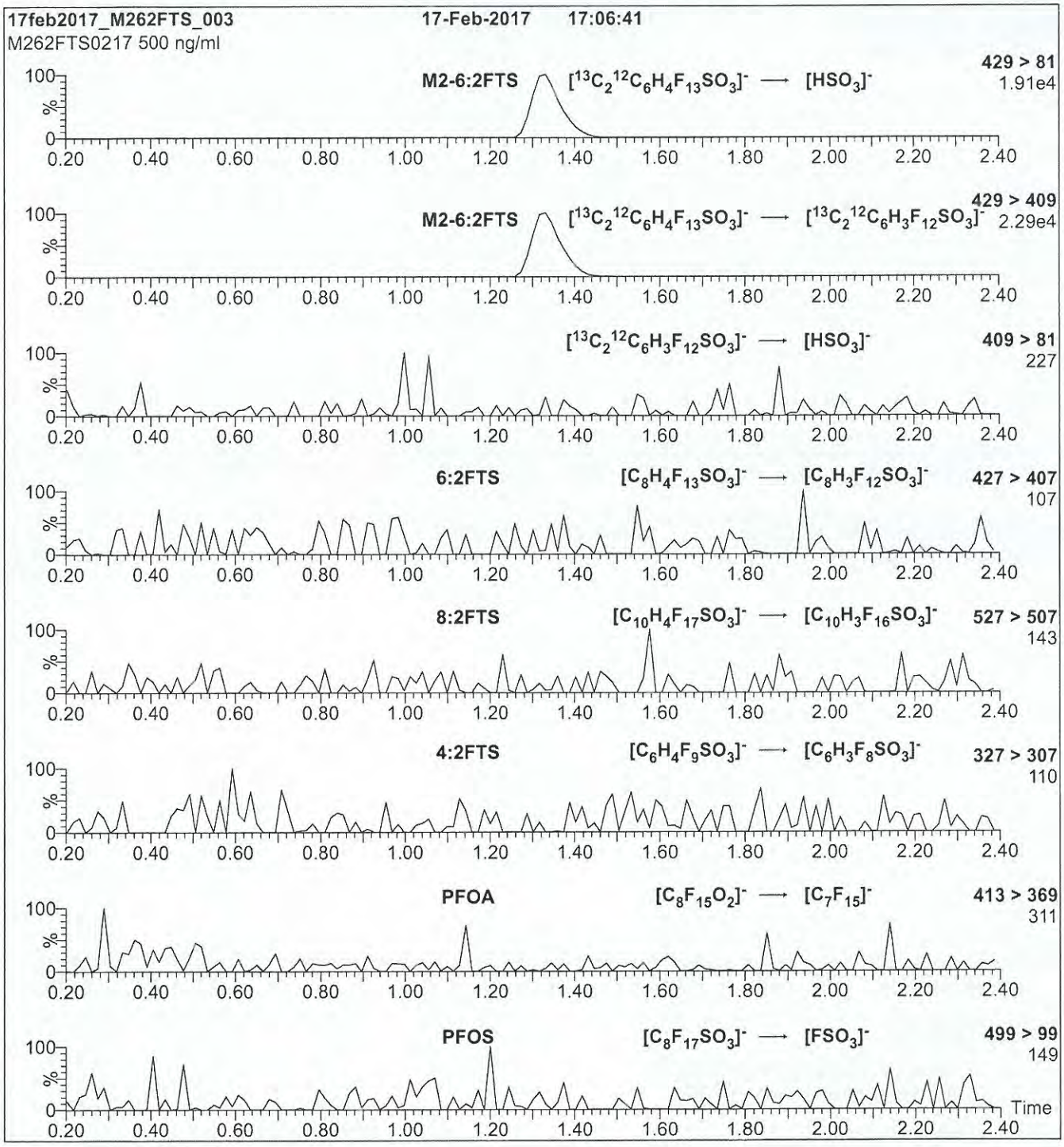
MS Parameters

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

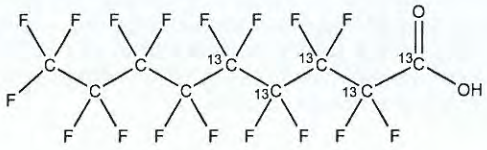
CERTIFICATE OF ANALYSIS
DOCUMENTATION

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:

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where x is expressed as a relative standard uncertainty of the individual parameter.

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CALA Testing

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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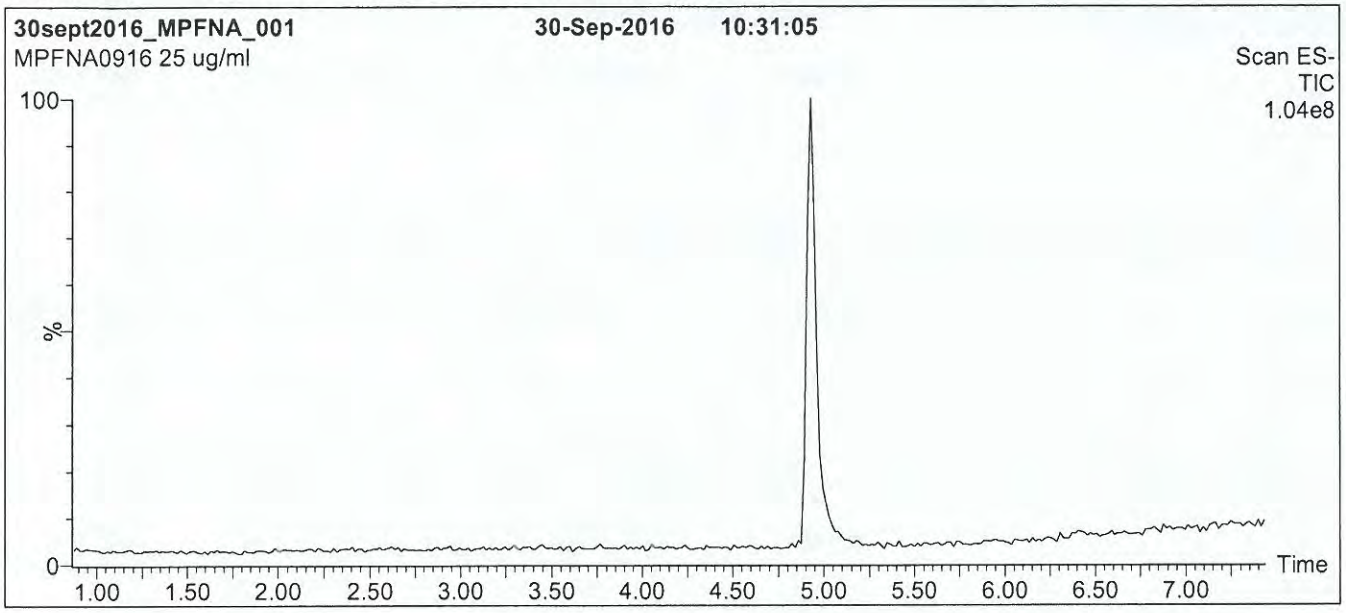
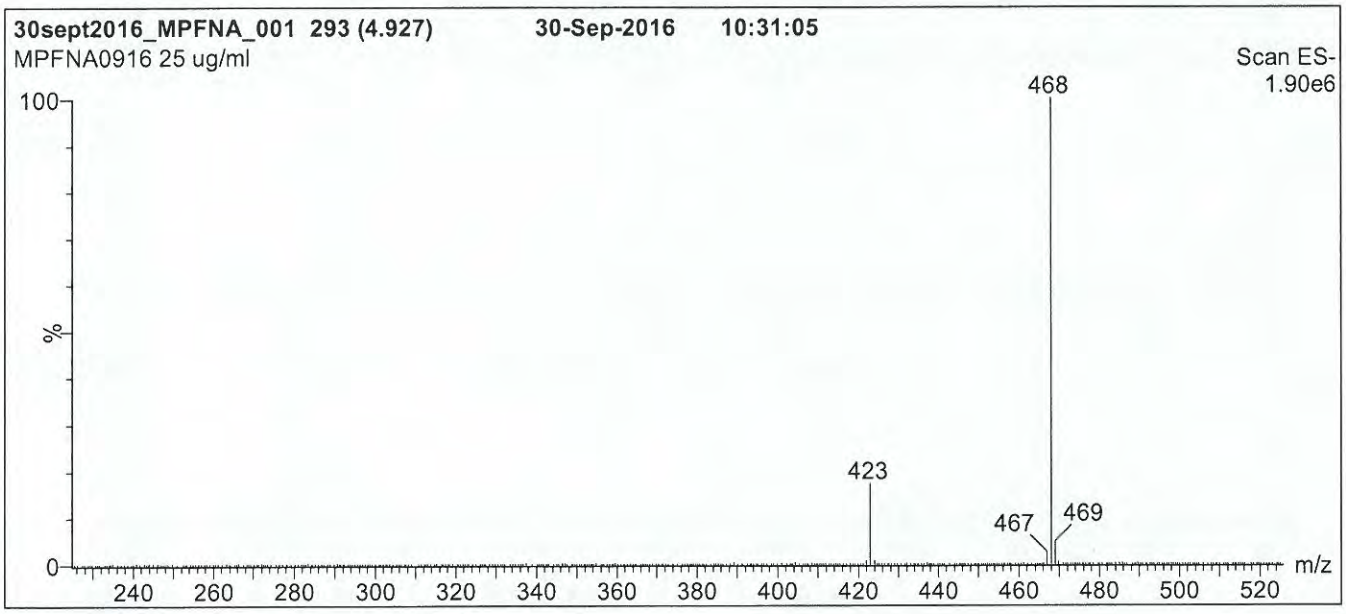
17K0810

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

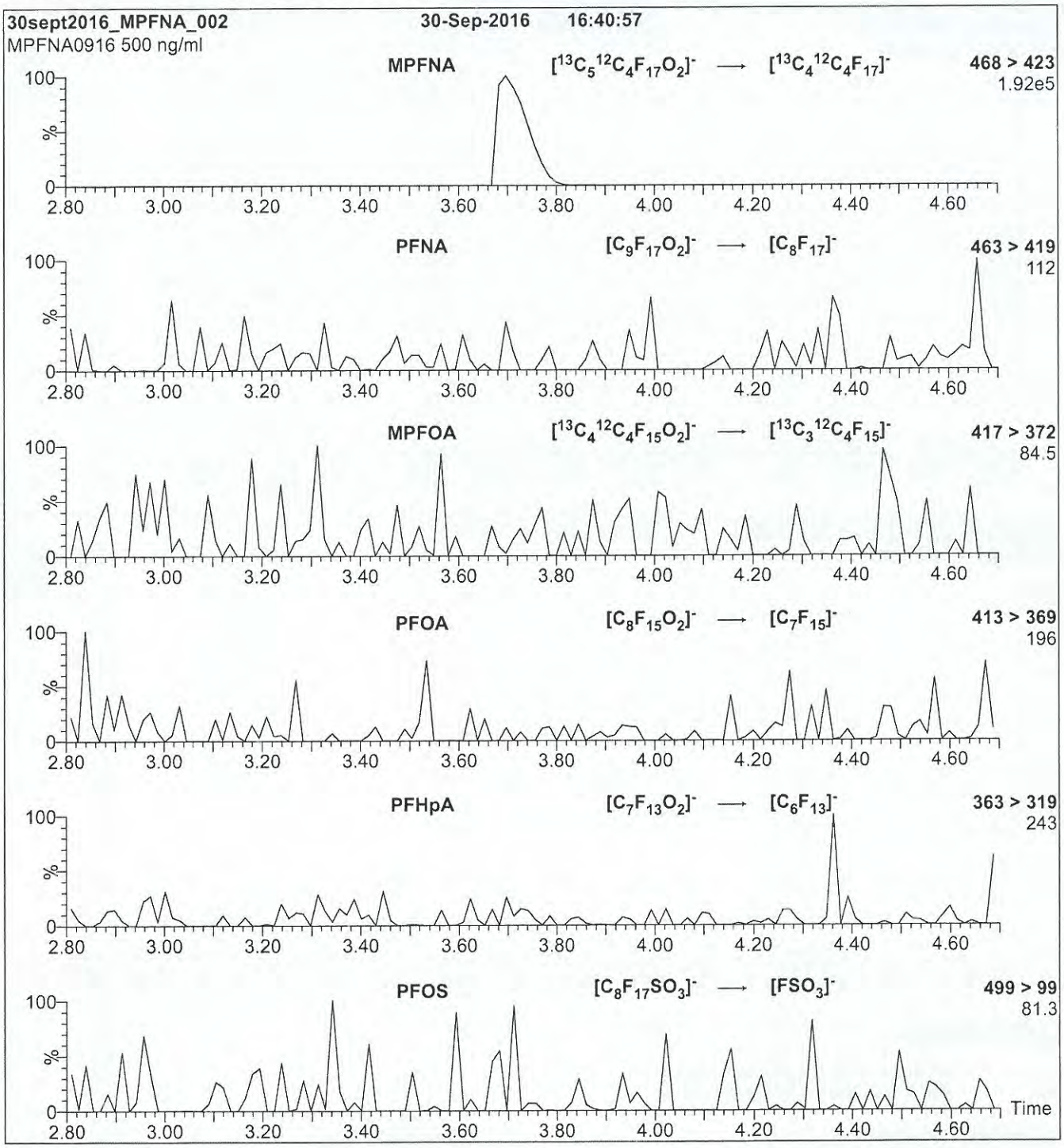
MS Parameters

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

WELLINGTON LABORATORIES

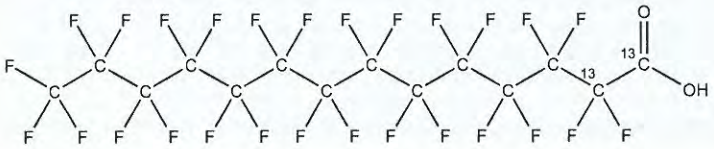
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2PFTeDA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid

LOT NUMBER: M2PFTeDA0217

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{12}HF_{27}O_2$	**MOLECULAR WEIGHT:**	716.10
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)	03/01/2017		
EXPIRY DATE: (mm/dd/yyyy)	03/01/2022		
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:** 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:

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).

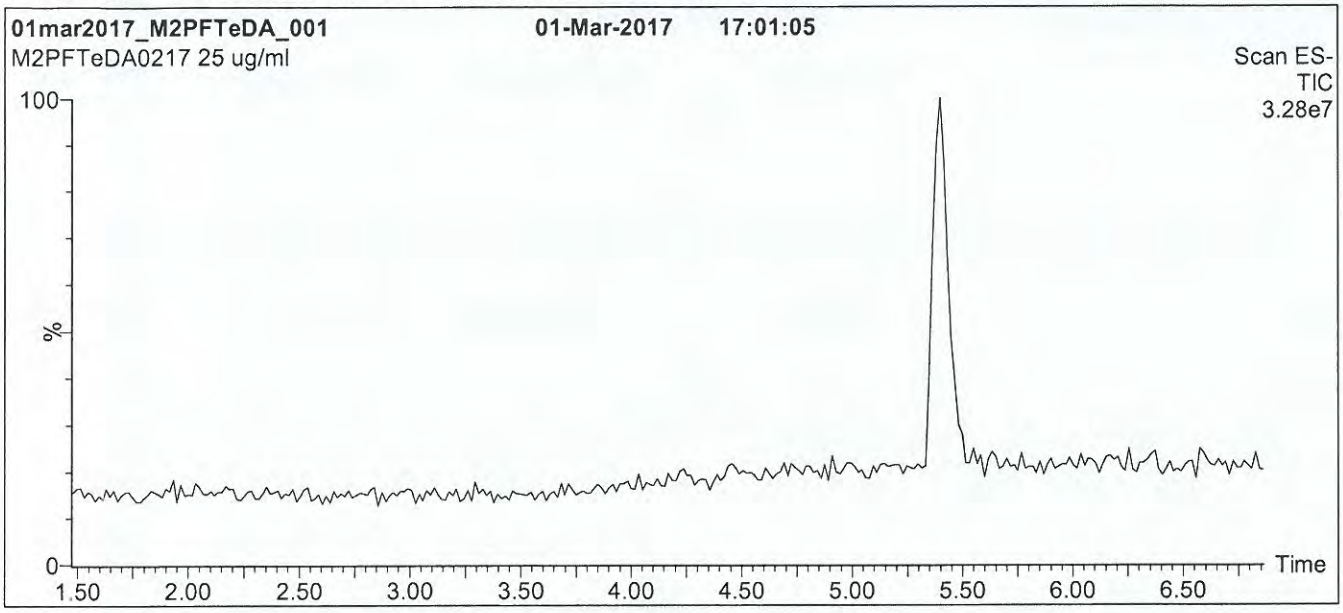
CALA Testing

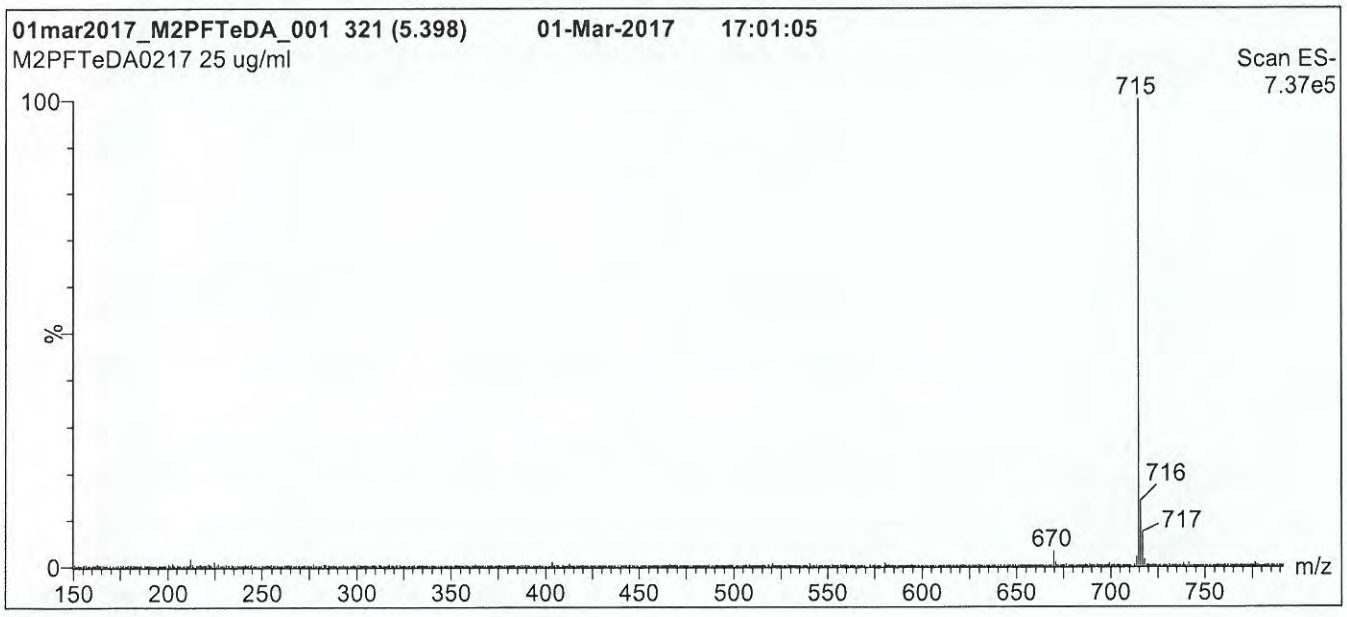
ANAB ACCREDITED Reference Material Producer

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

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

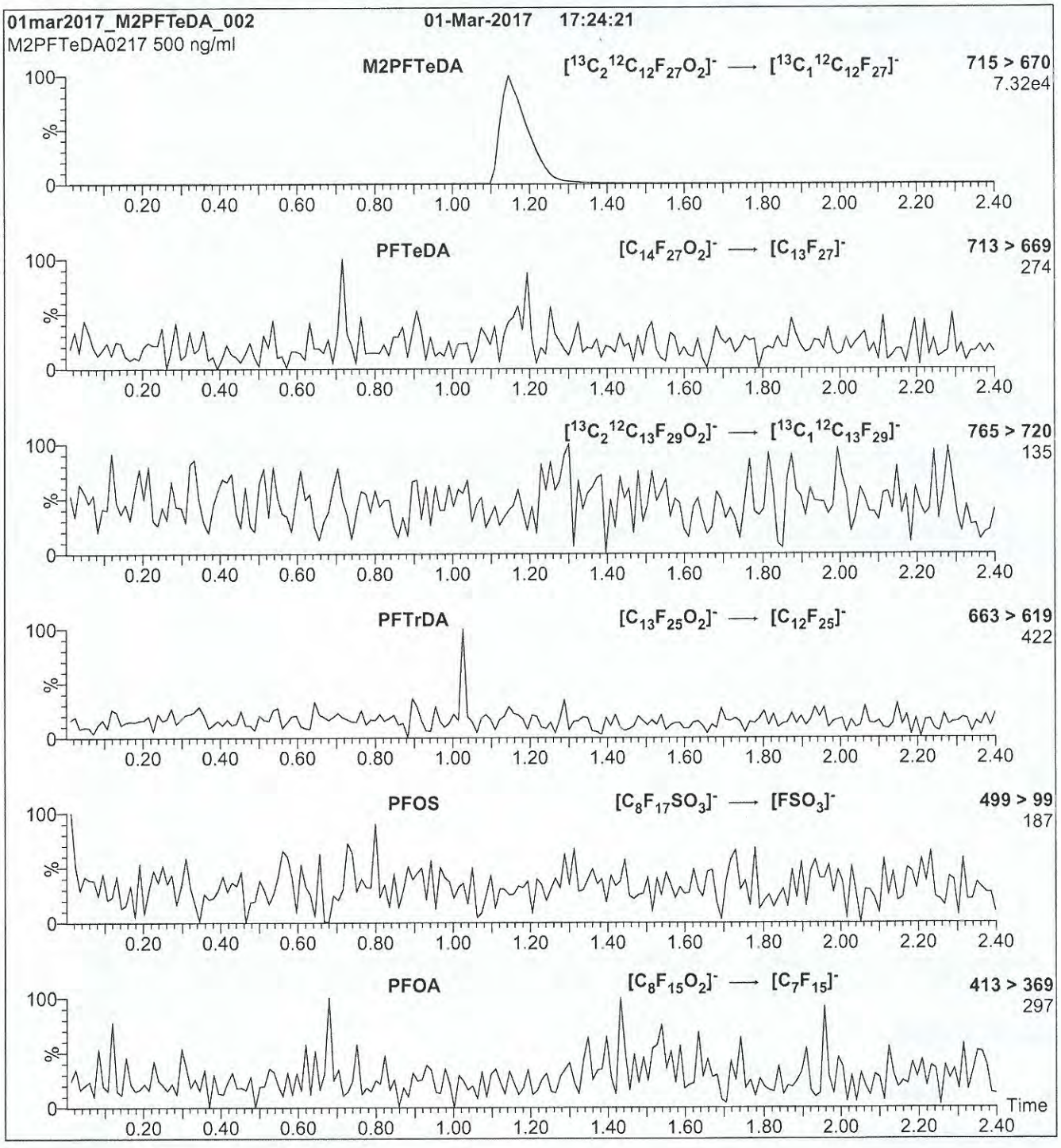
MS Parameters

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

WELLINGTON LABORATORIES

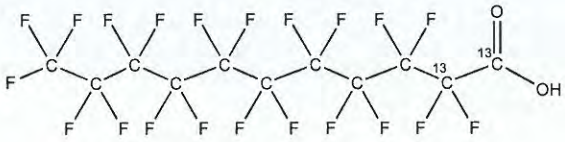
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFUdA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]undecanoic acid

LOT NUMBER: MPFUdA1116

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_9HF_{21}O_2$	**MOLECULAR WEIGHT:**	566.08
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)	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.
- 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:

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QUALITY MANAGEMENT:

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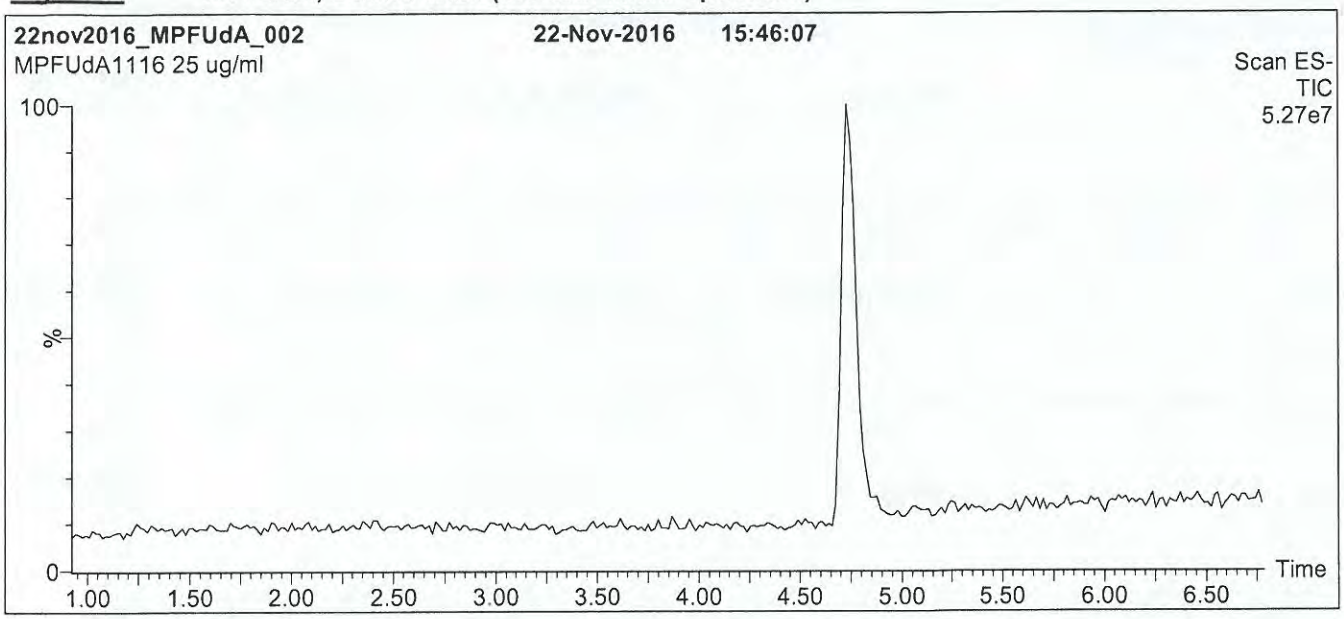
CALA Testing Accreditation No. A 1226

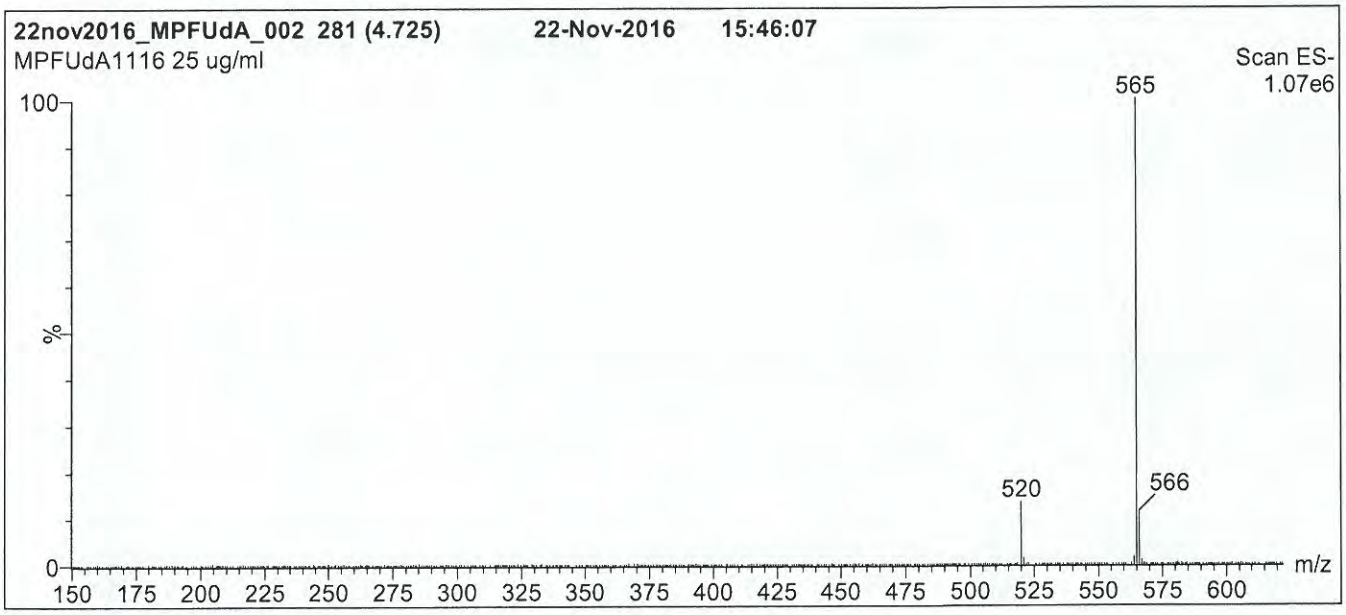
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

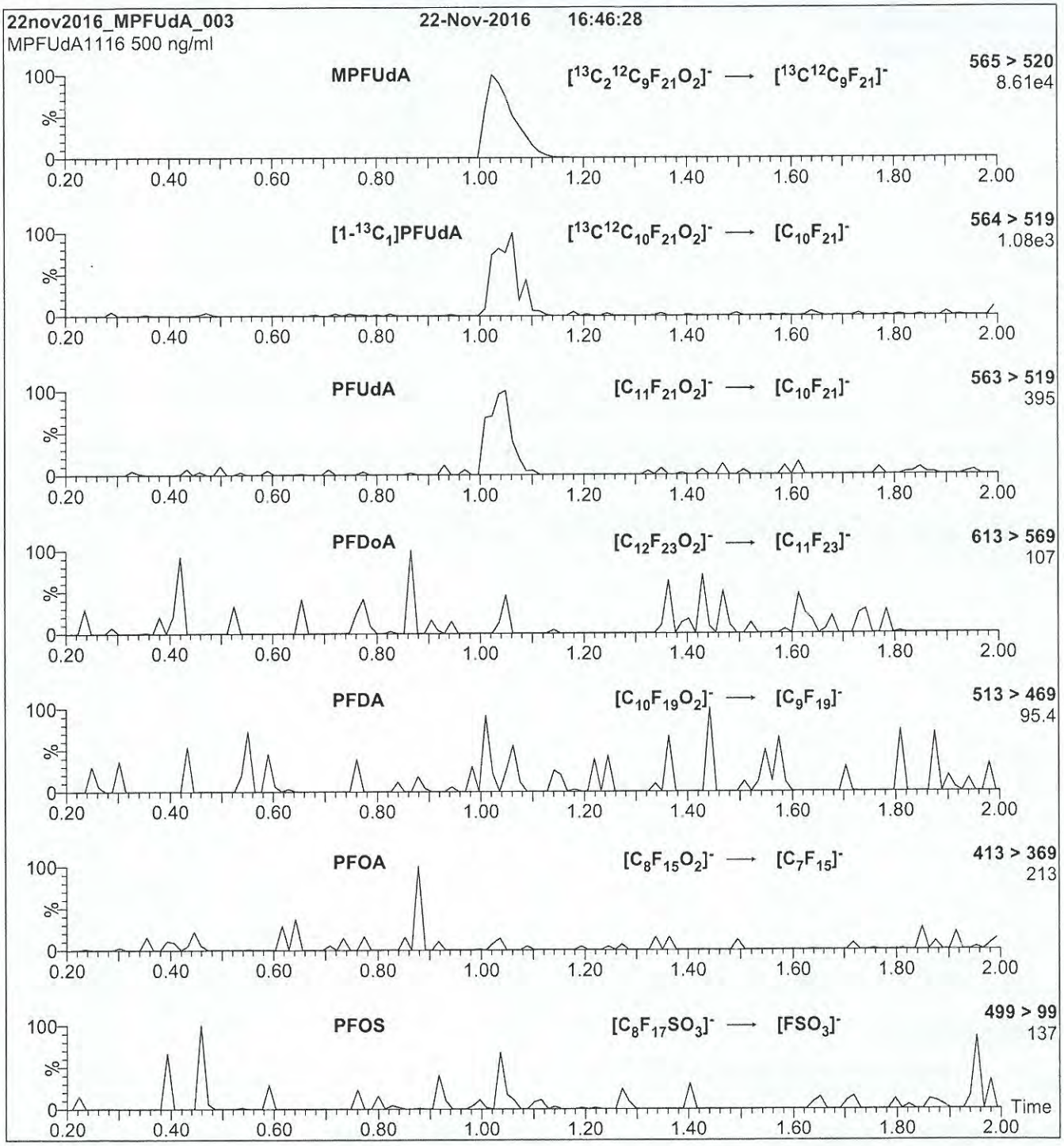
MS Parameters

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

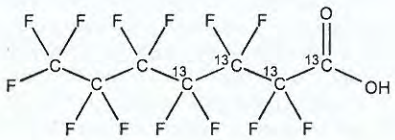
Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 11

17K0814

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M4PFHpA	**LOT NUMBER:**	M4PFHpA0517
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_3HF_{13}O_2$	**MOLECULAR WEIGHT:**	368.03
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)	05/03/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/03/2022		
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:** 05/11/2017 (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

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CALA Testing

ANAB ACCREDITED

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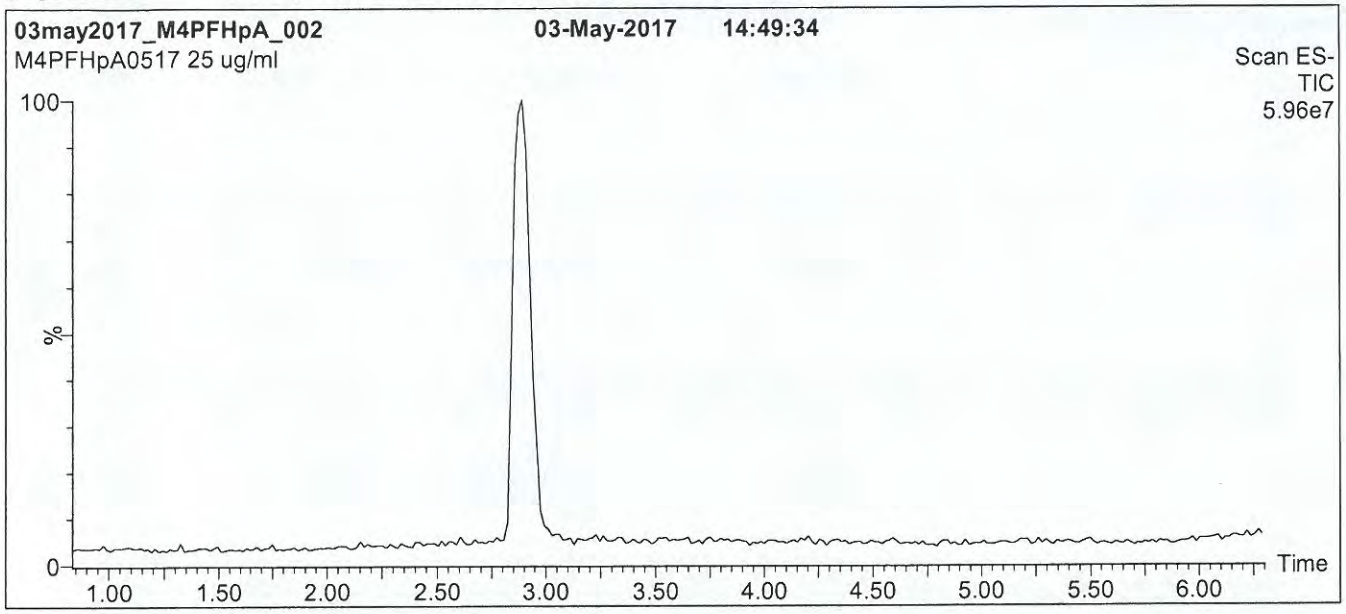
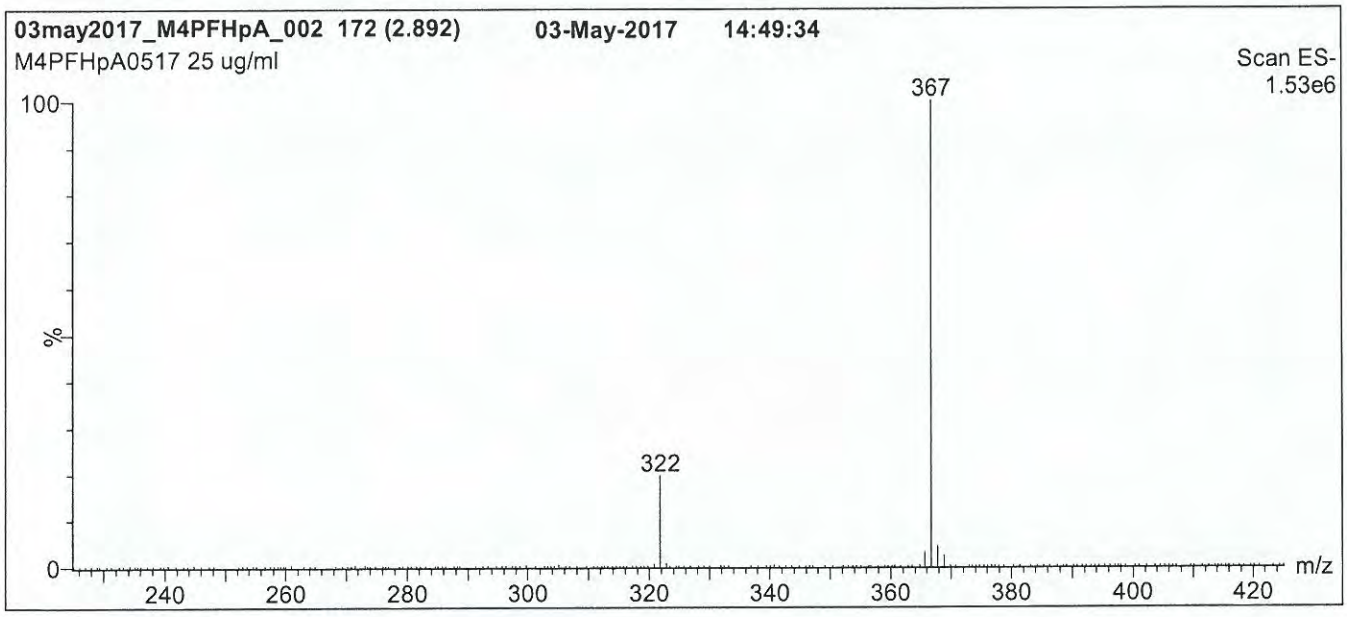
17K0814

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

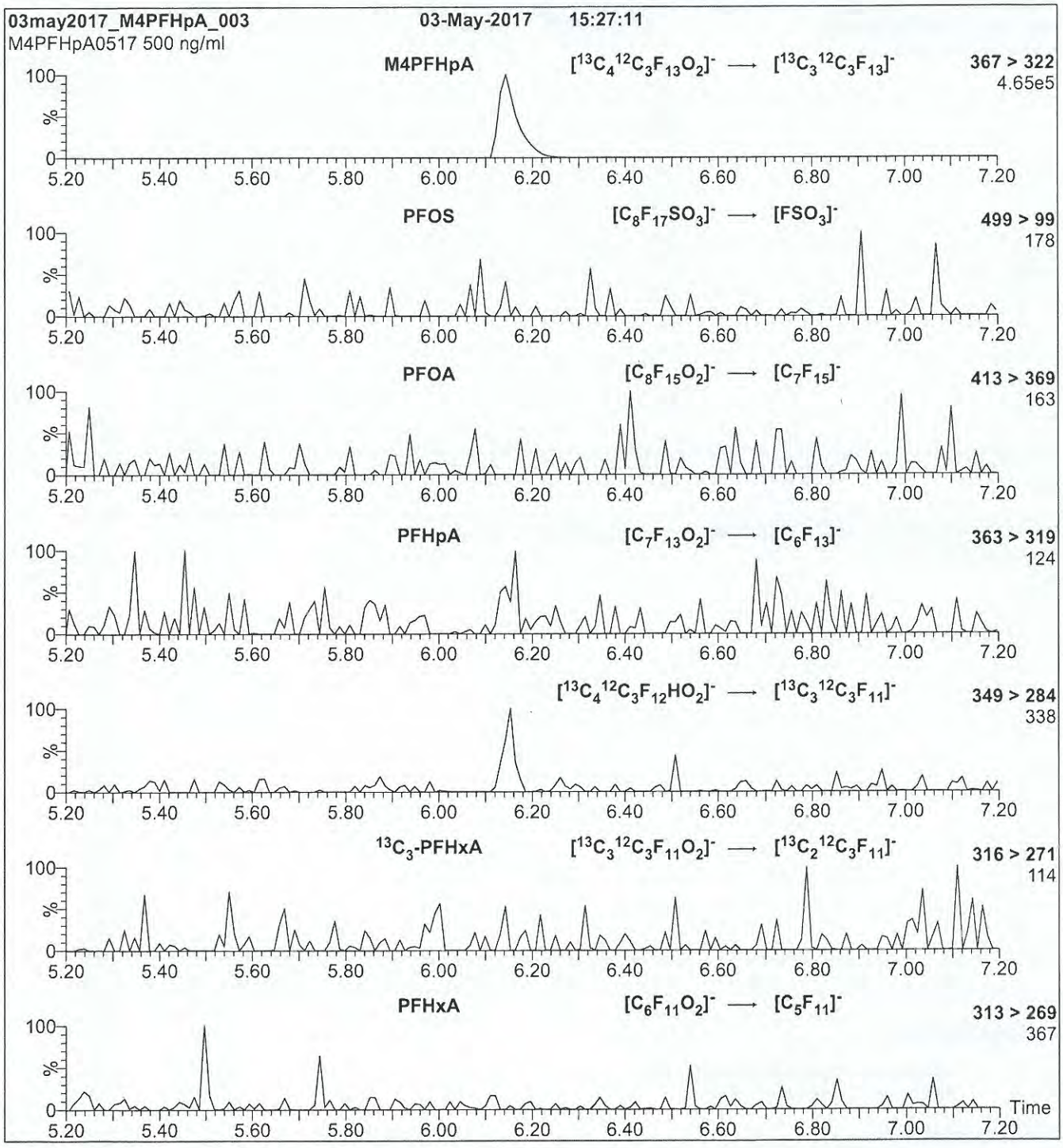
MS Parameters

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

1701<0816

WELLINGTON LABORATORIES

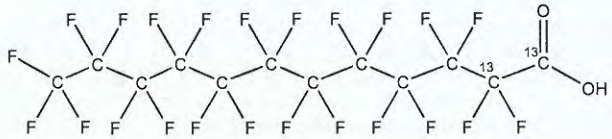
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFDoA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid

LOT NUMBER: MPFDoA0517

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_{10}HF_{23}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 616.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
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

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:** 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

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).

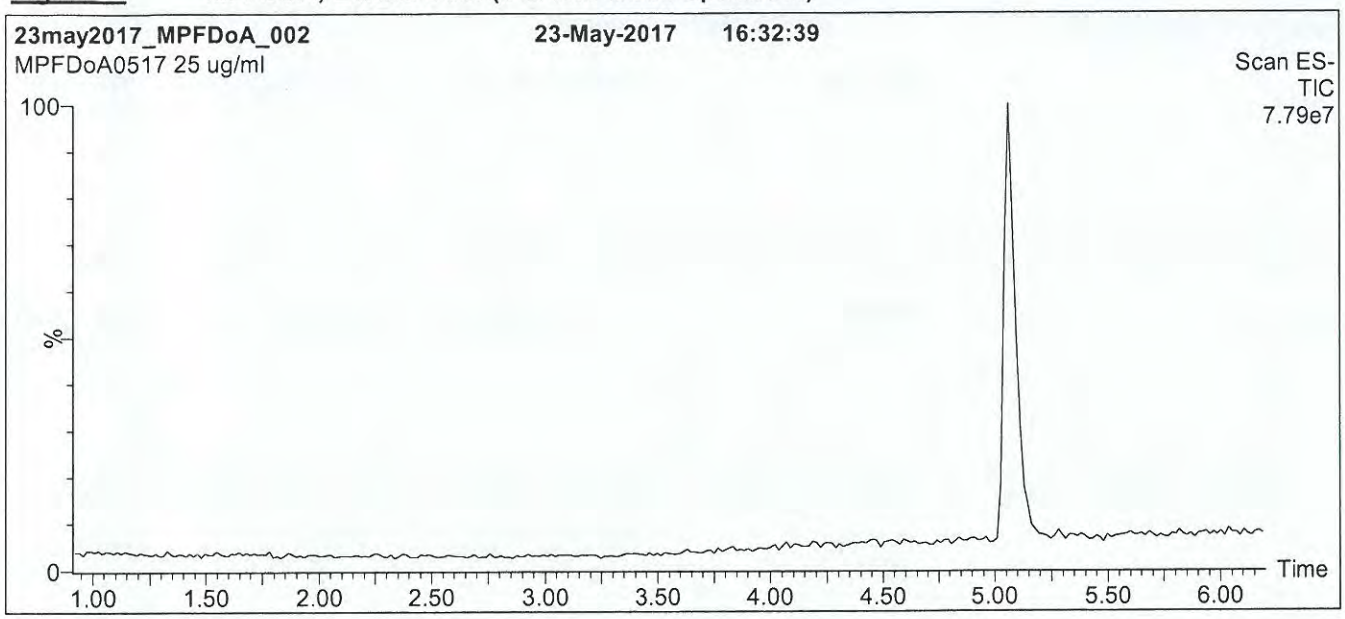


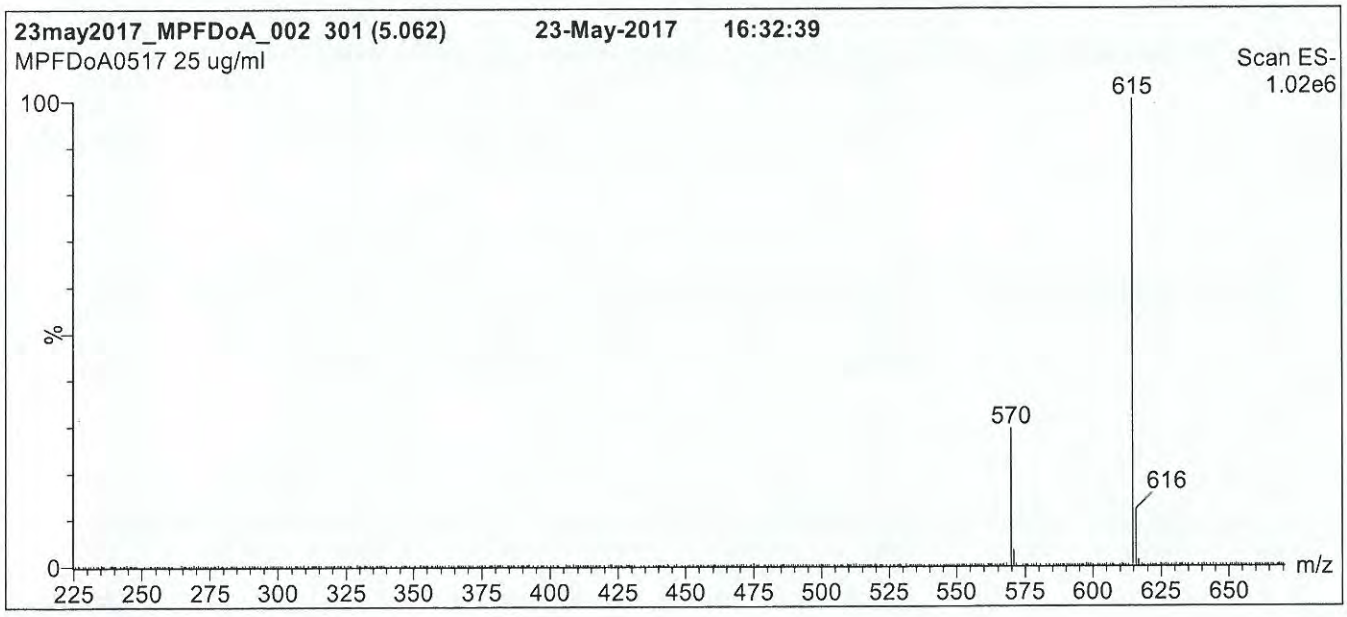


For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

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

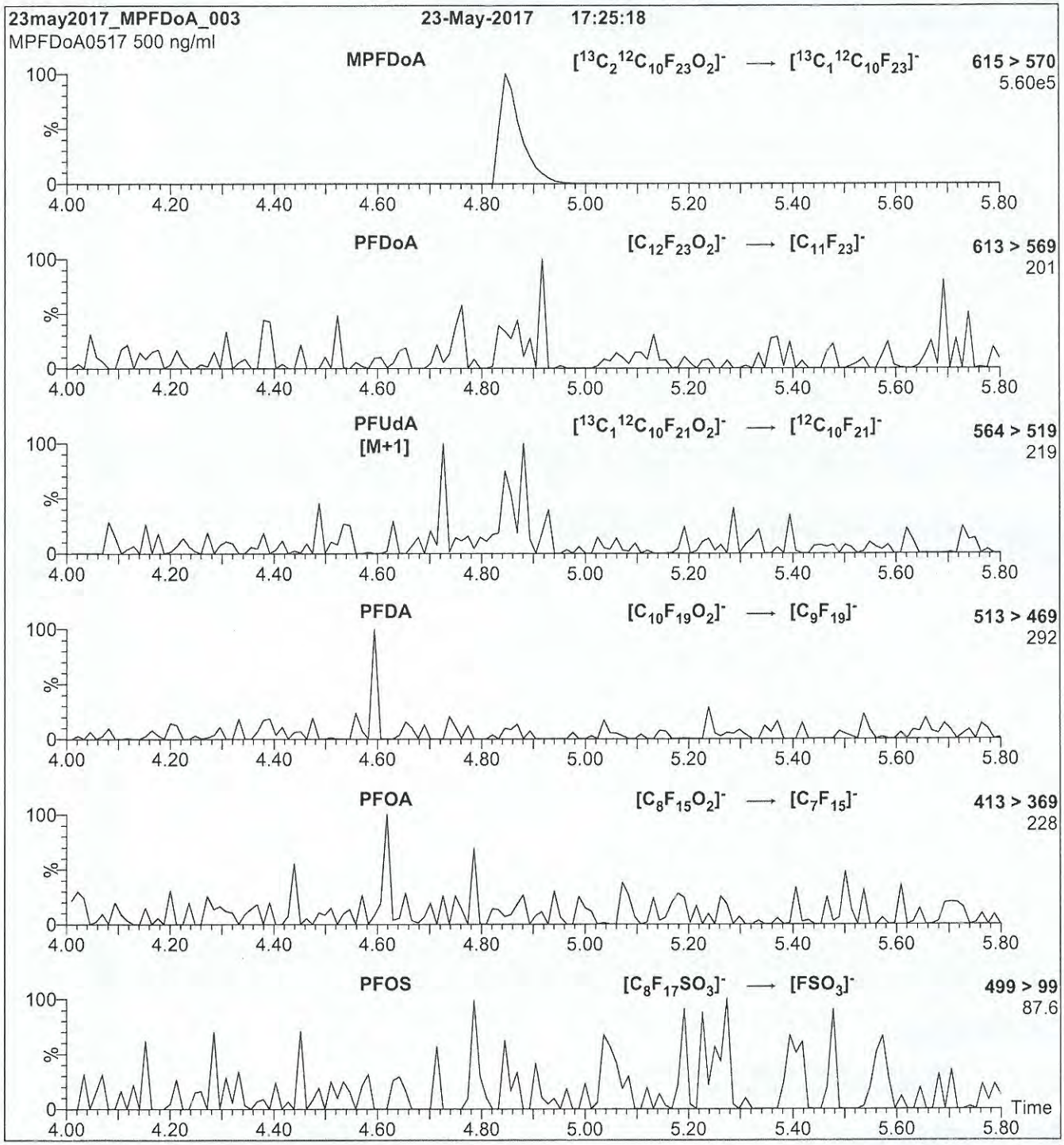
MS Parameters

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

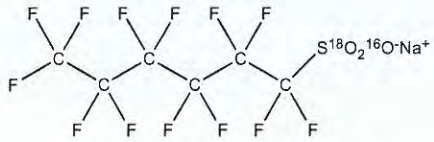
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFHxS
COMPOUND: Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate

LOT NUMBER: MPFHxS0217

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.

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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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QUALITY MANAGEMENT:

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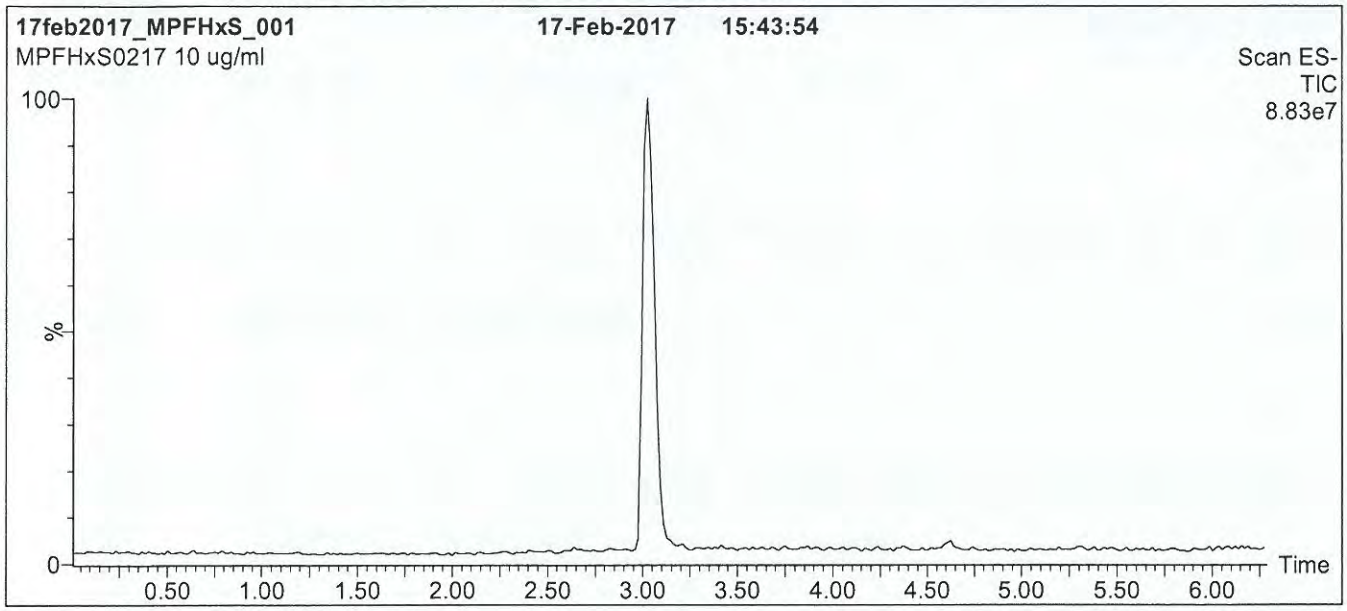
CALA Testing Accreditation No. A1226

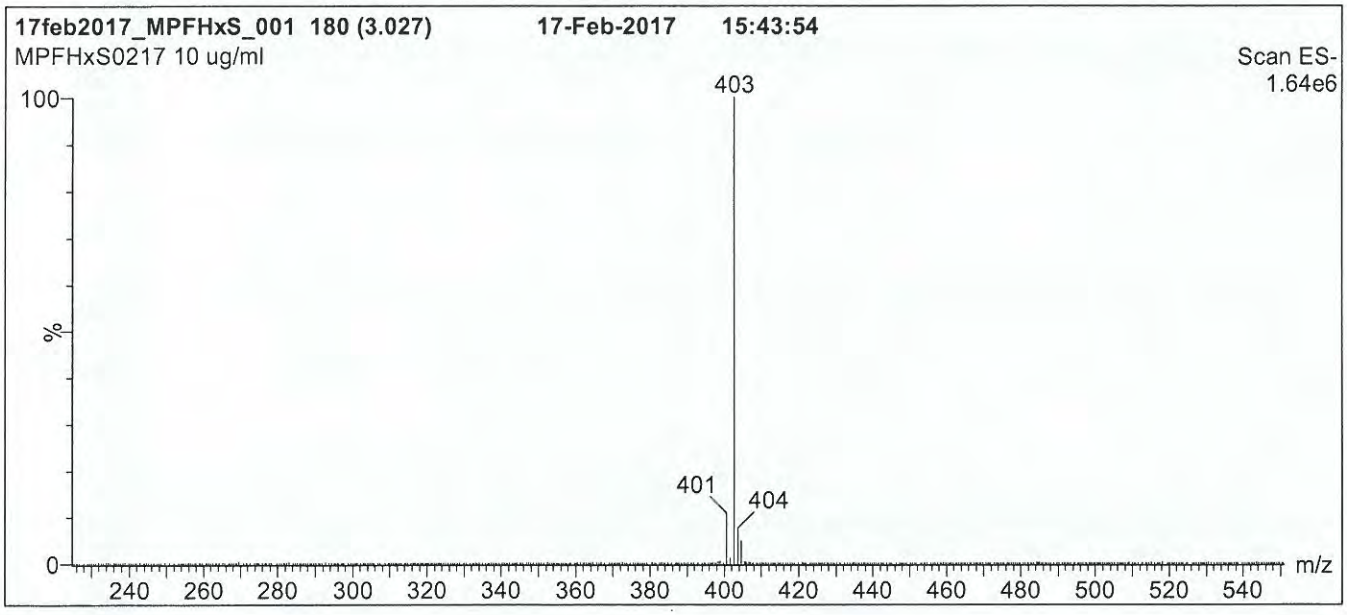
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

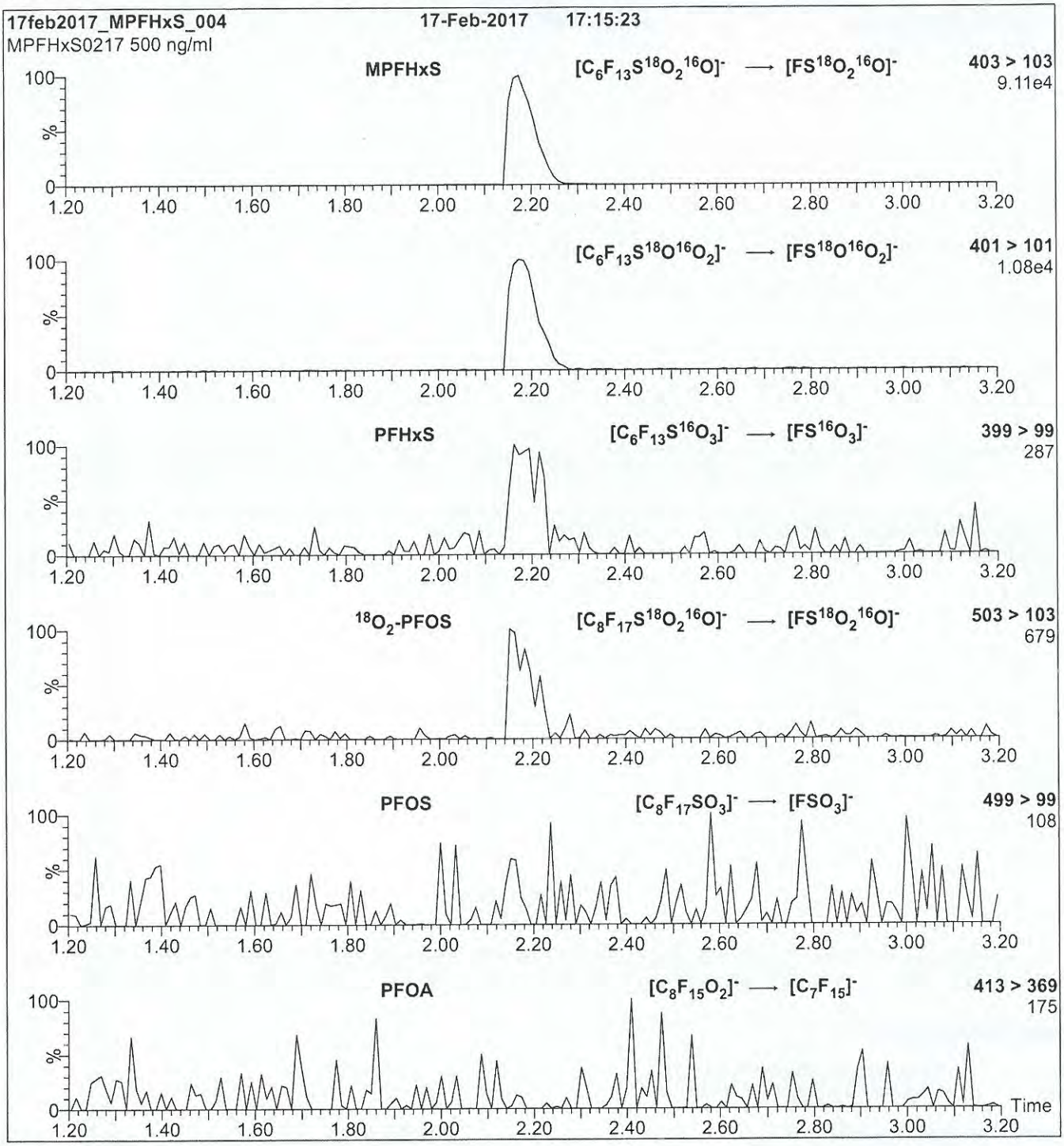
MS Parameters

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

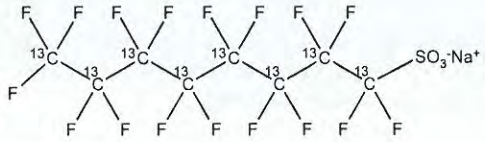
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 30

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: _____ **Date:** 10/11/2016 (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

17K0819

INTENDED USE:

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EXPIRY DATE / PERIOD OF VALIDITY:

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QUALITY MANAGEMENT:

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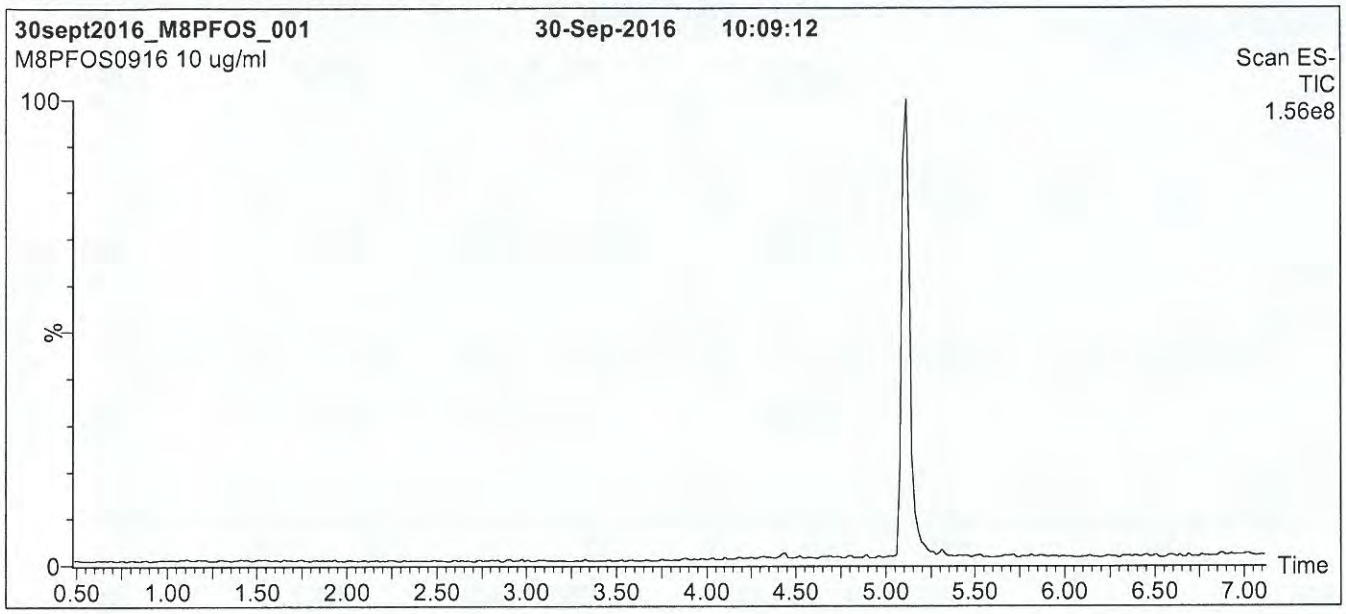
CALA Testing Accreditation No. A 1226

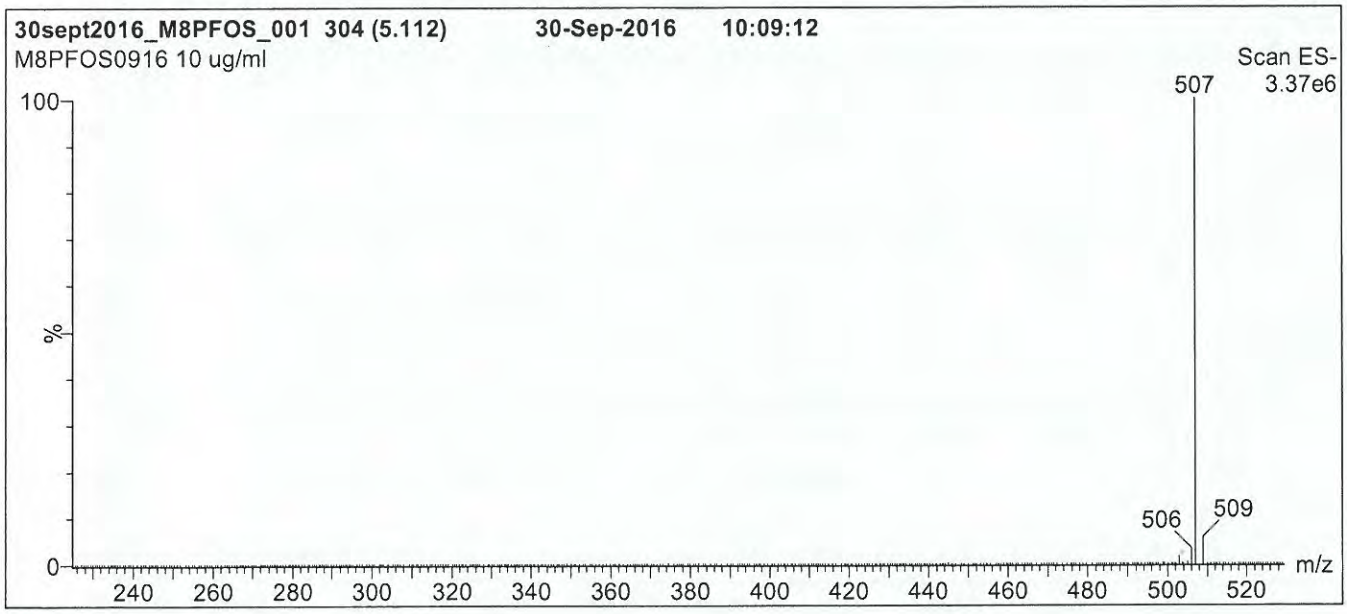
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

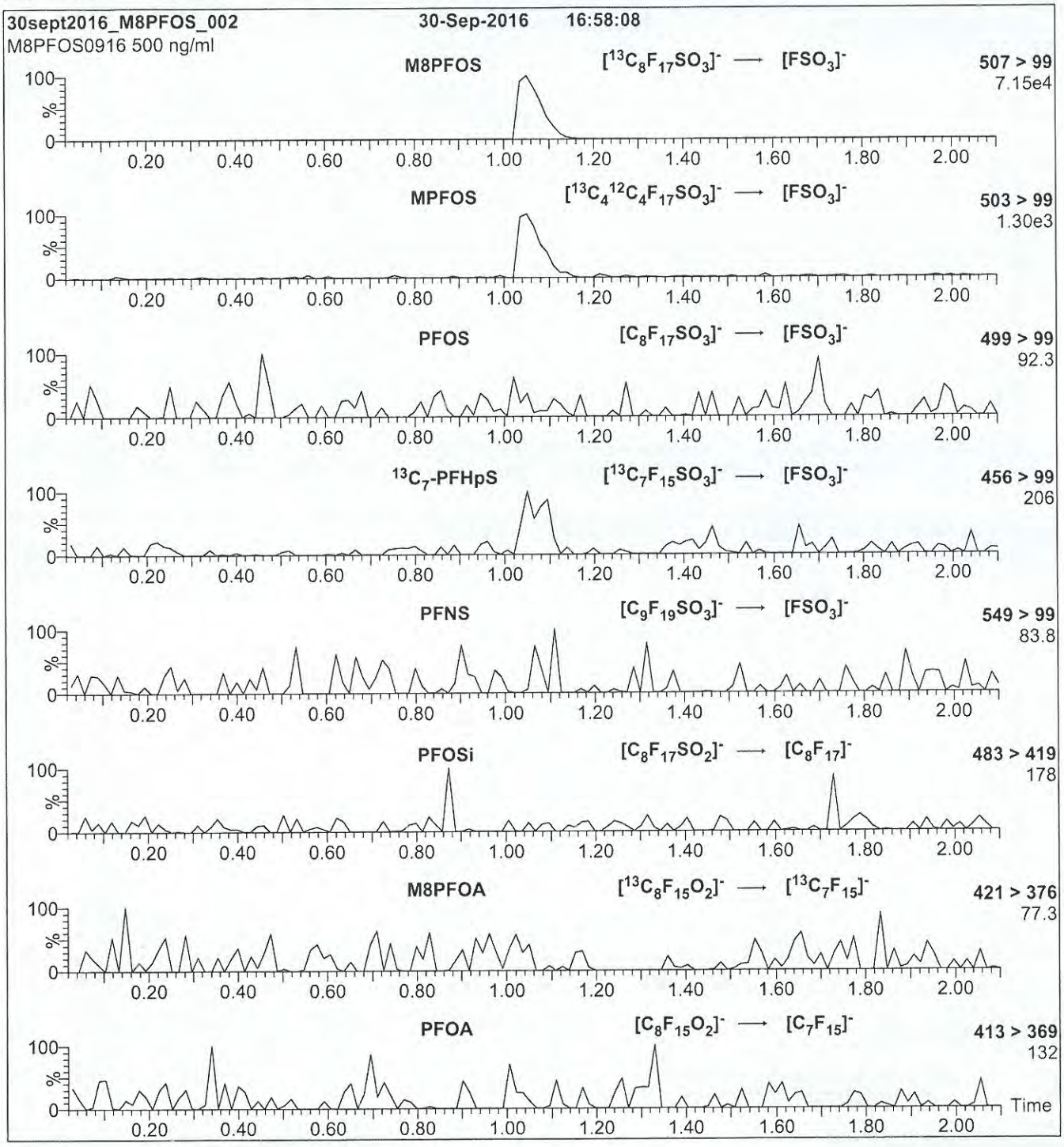
MS Parameters

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

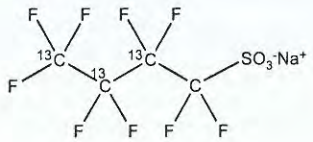
WELLINGTON LABORATORIES

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:

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).

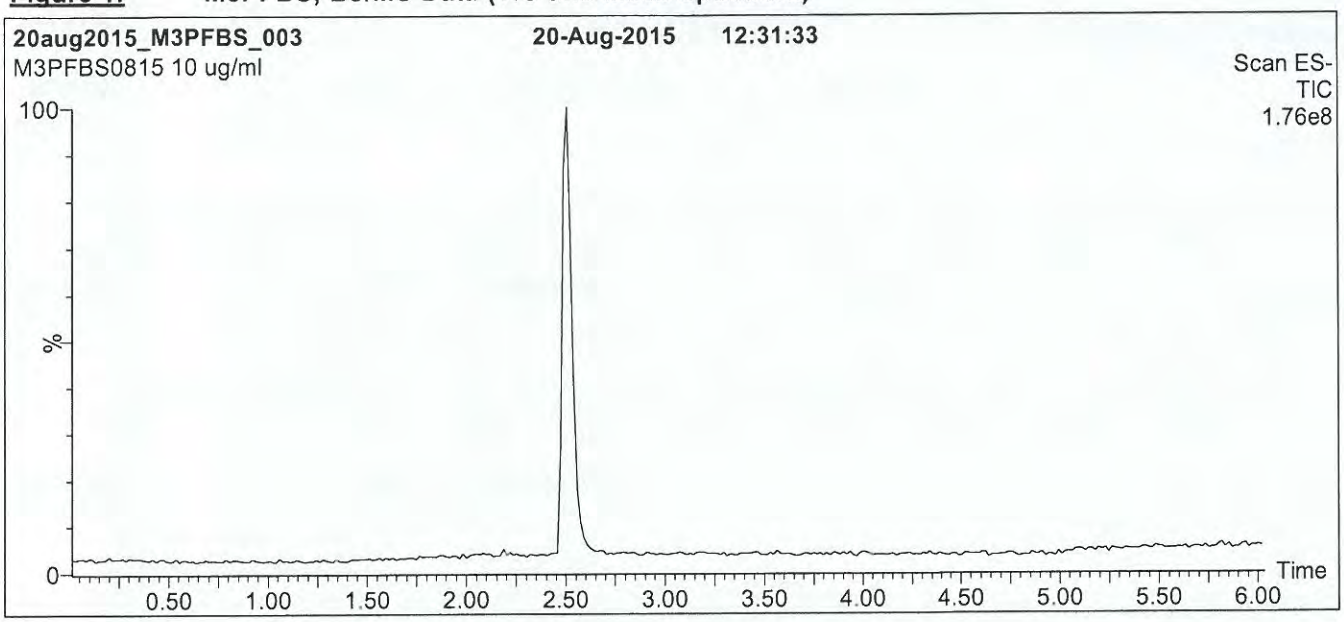
CALA Testing Accreditation No. A1226

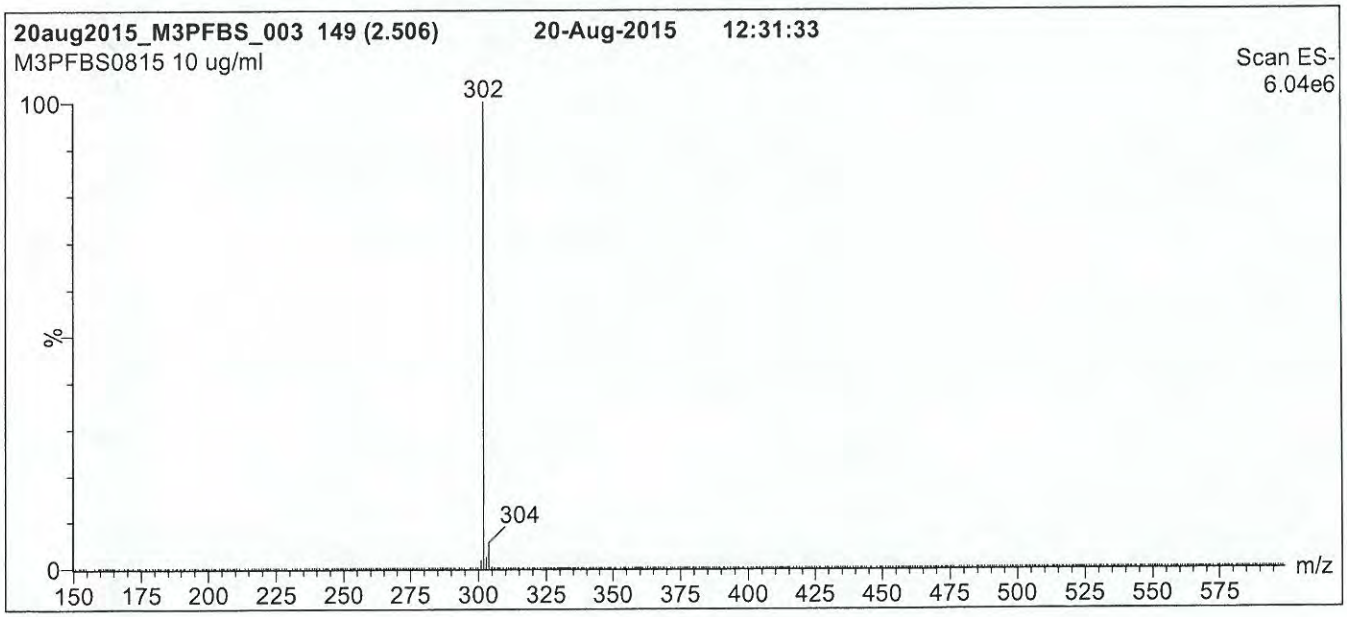
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

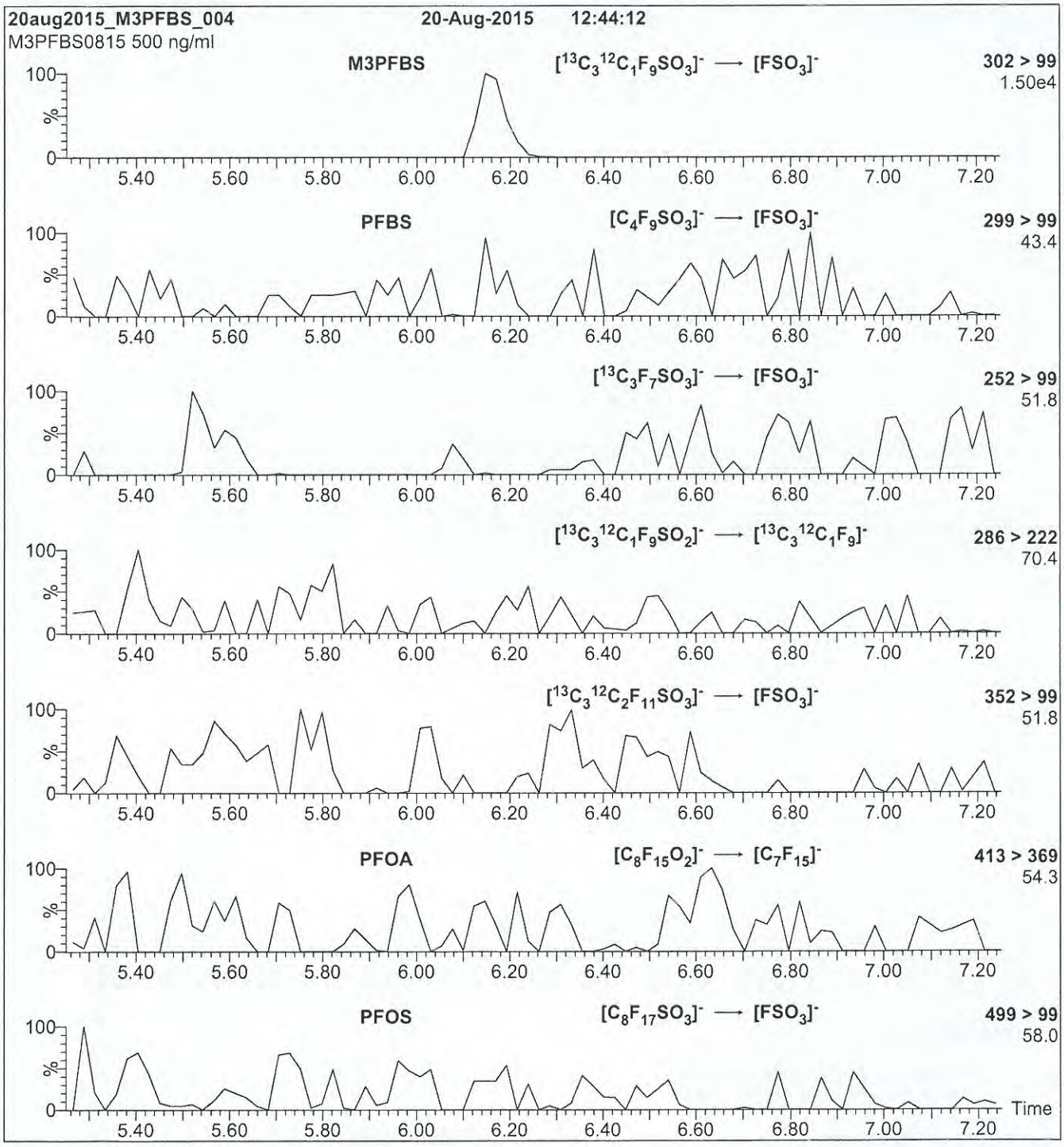
MS Parameters

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

WELLINGTON LABORATORIES

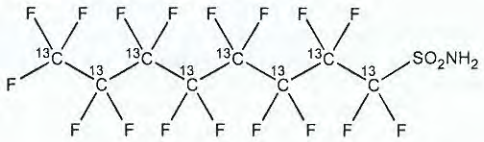
CERTIFICATE OF ANALYSIS DOCUMENTATION

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:

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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. 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).

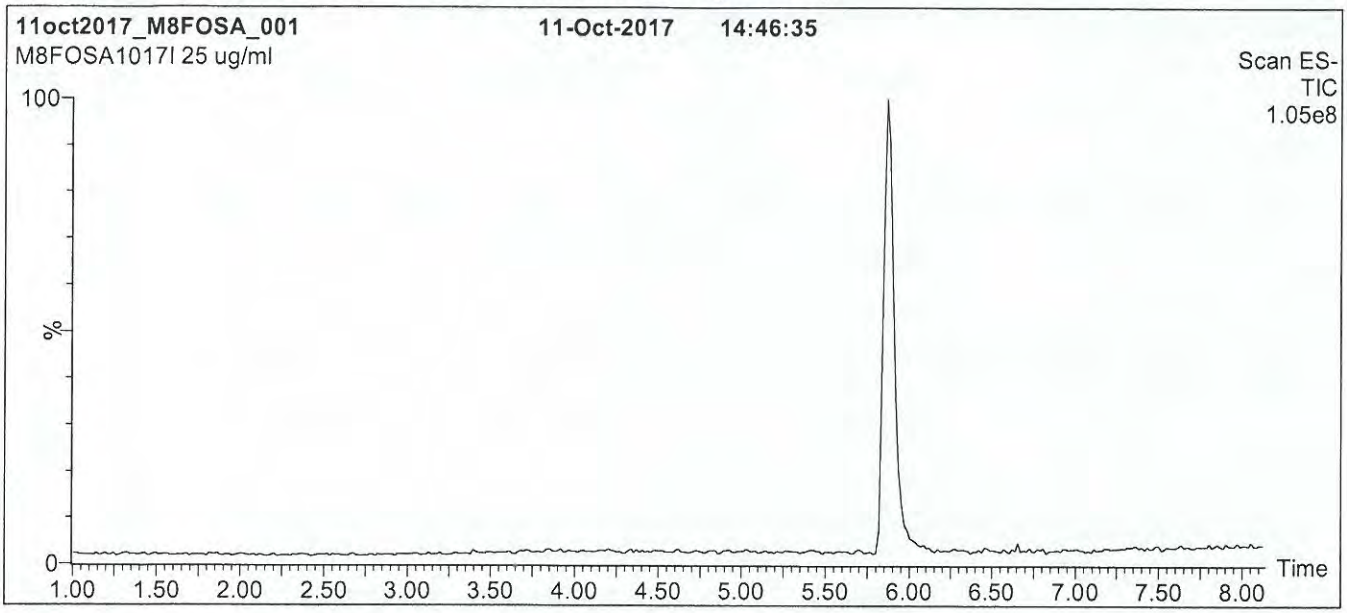
CALA

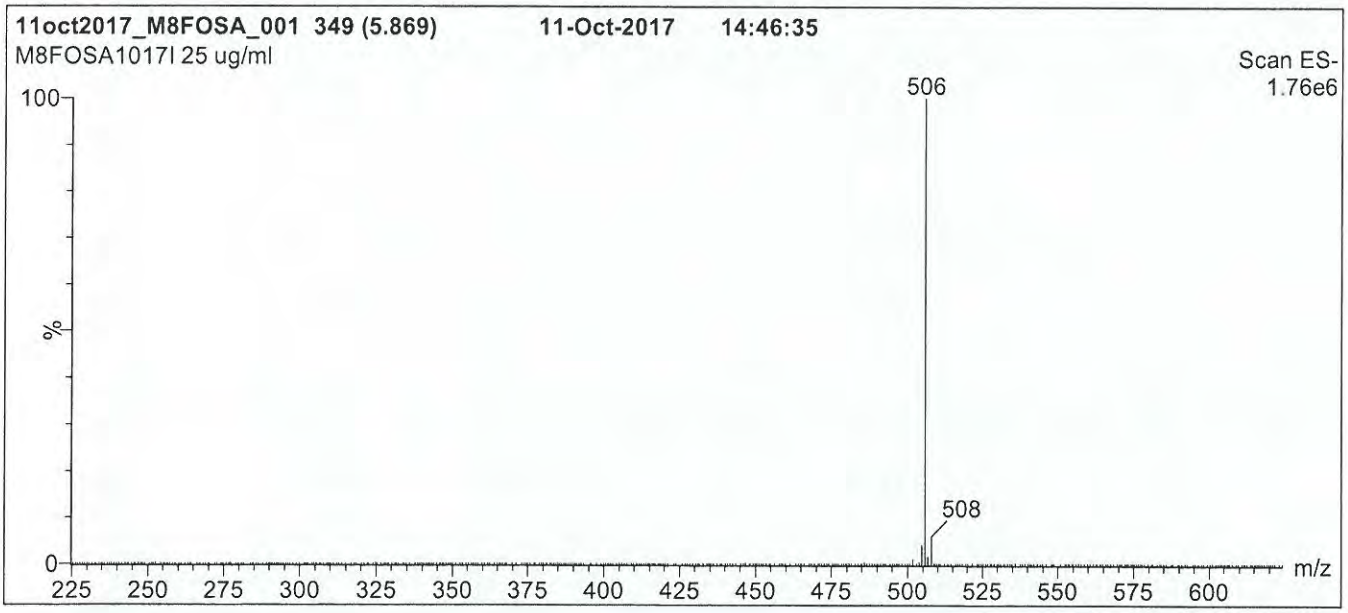
ANAB ACCREDITED

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

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

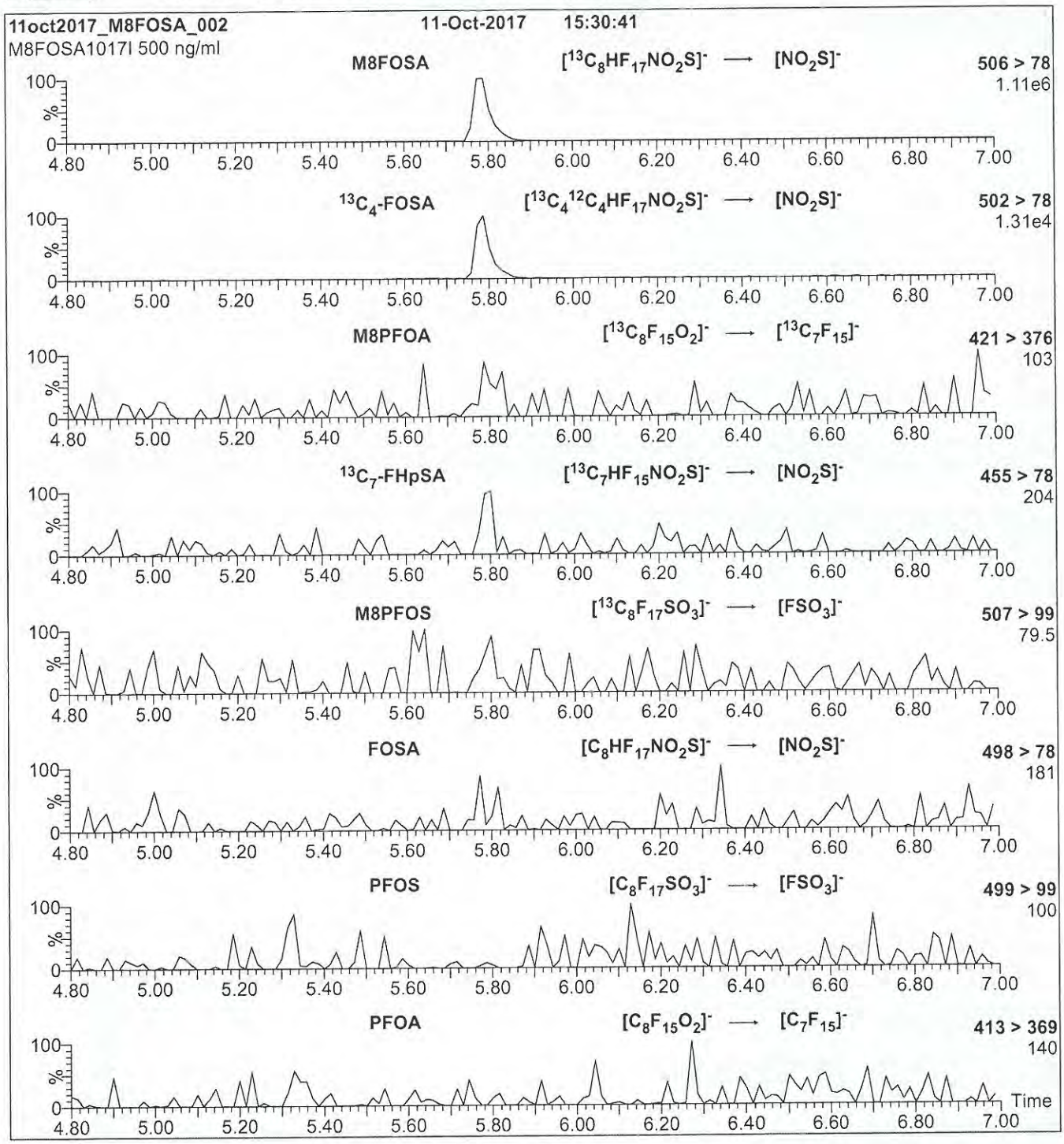
MS Parameters

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

WELLINGTON LABORATORIES

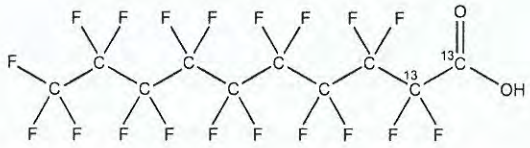
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFDA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid

LOT NUMBER: MPFDA0717

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_8HF_{19}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 516.07
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
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

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.
- 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

17K3039

INTENDED USE:

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where x is expressed as a relative standard uncertainty of the individual parameter.

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EXPIRY DATE / PERIOD OF VALIDITY:

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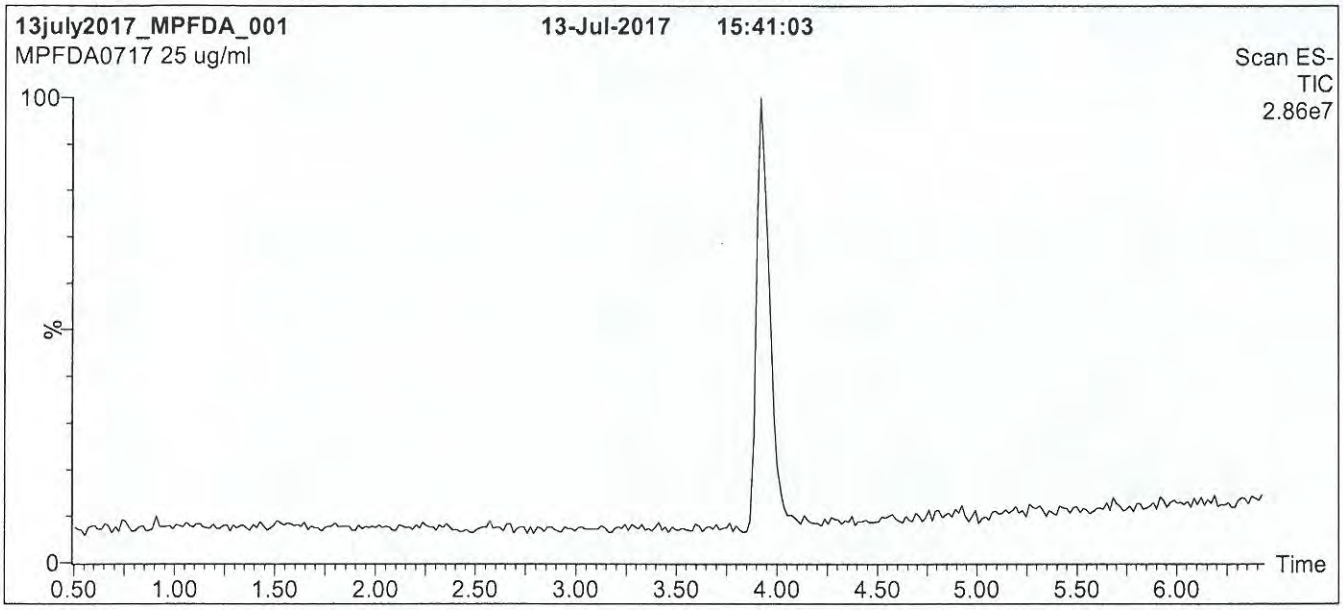
CALA

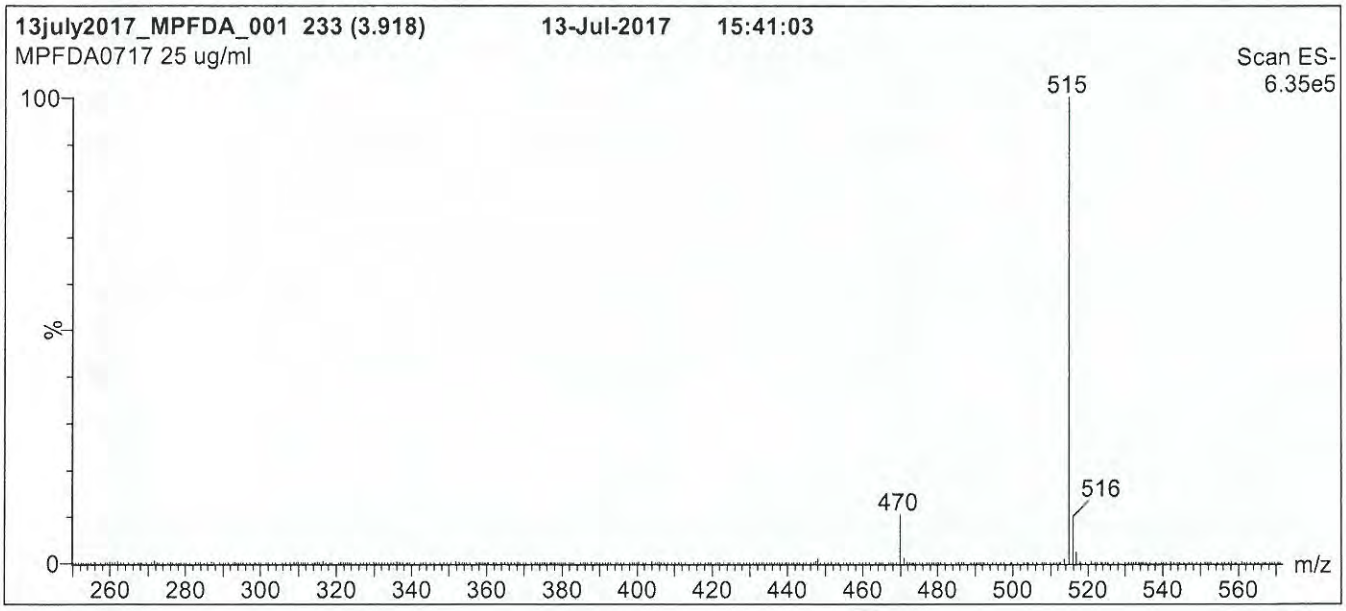
ANAB ACCREDITED

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

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

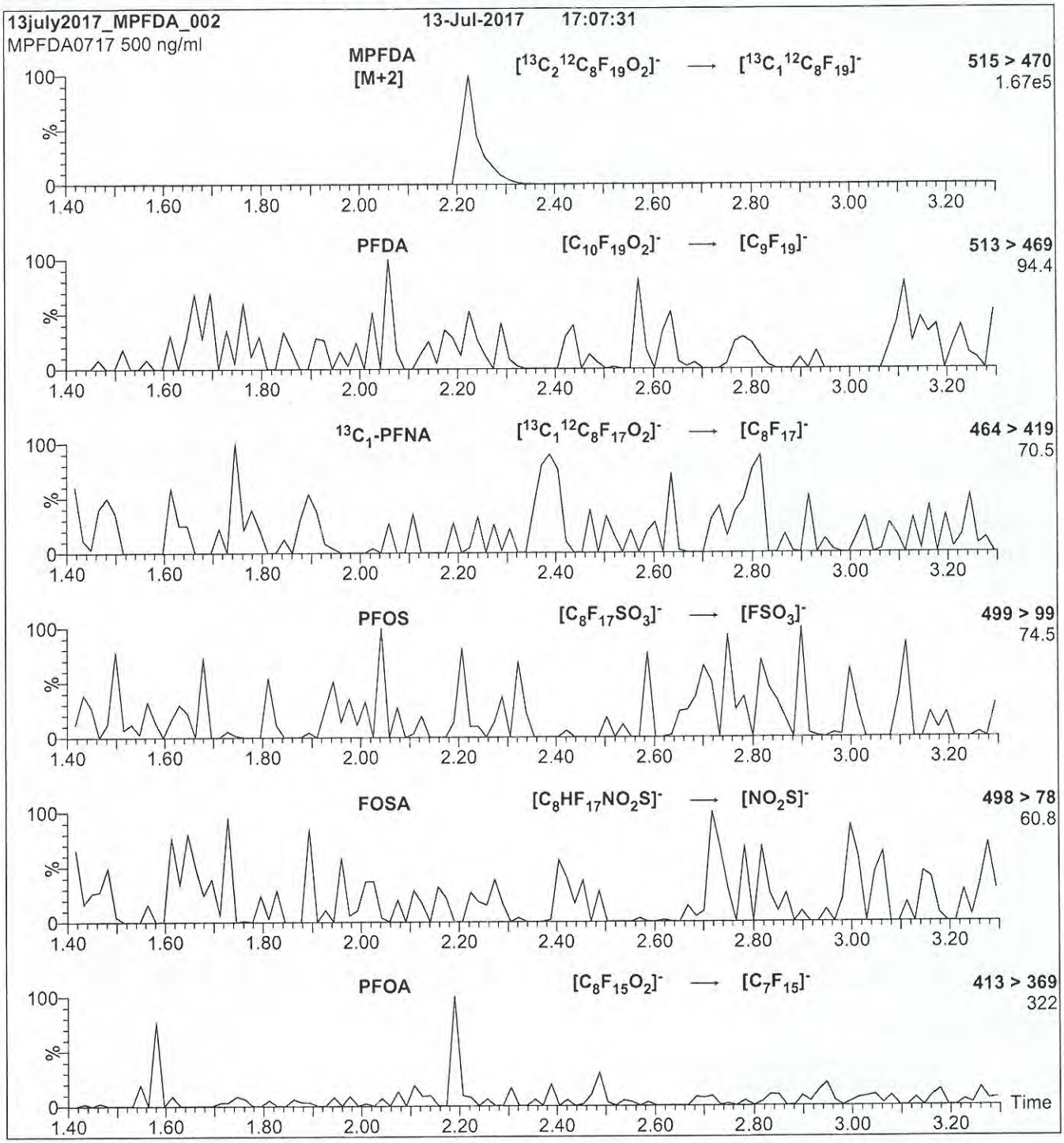
MS Parameters

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

WELLINGTON LABORATORIES

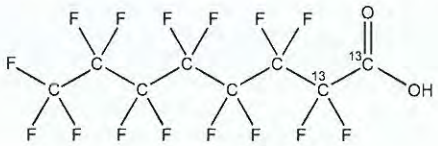
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2PFOA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]octanoic acid

LOT NUMBER: M2PFOA1017

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_6HF_{15}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 416.05
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
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

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:** 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

17K3040

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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:

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).

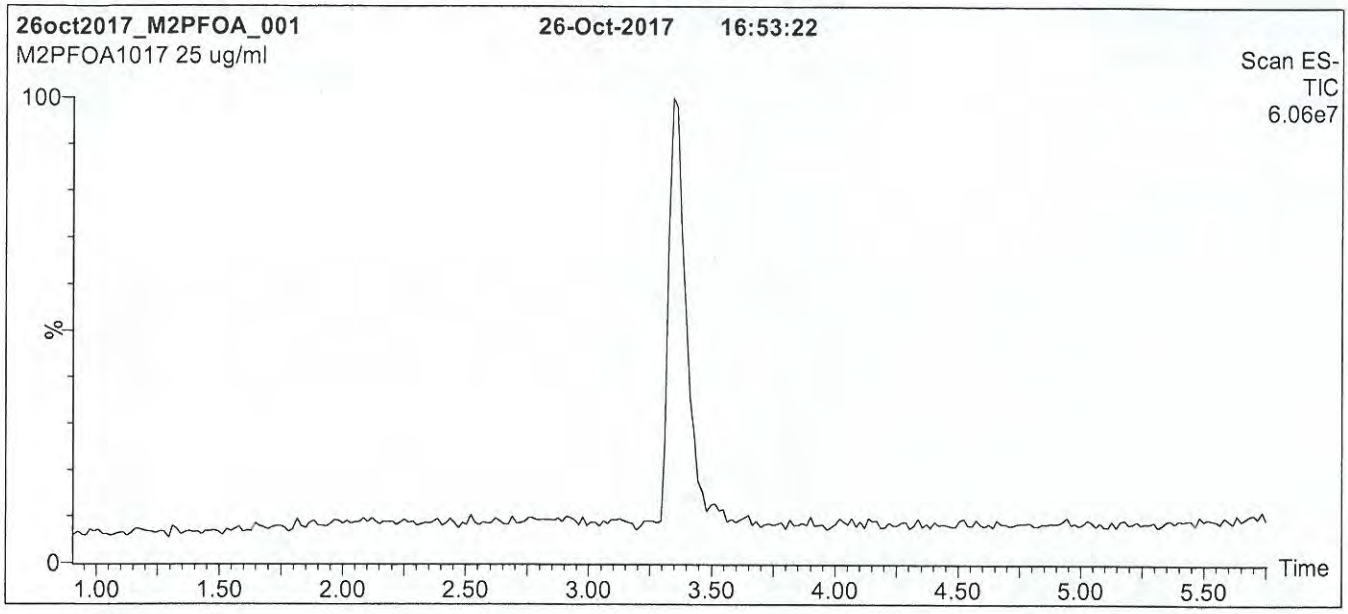
CALA Testing Accreditation No. A 1226

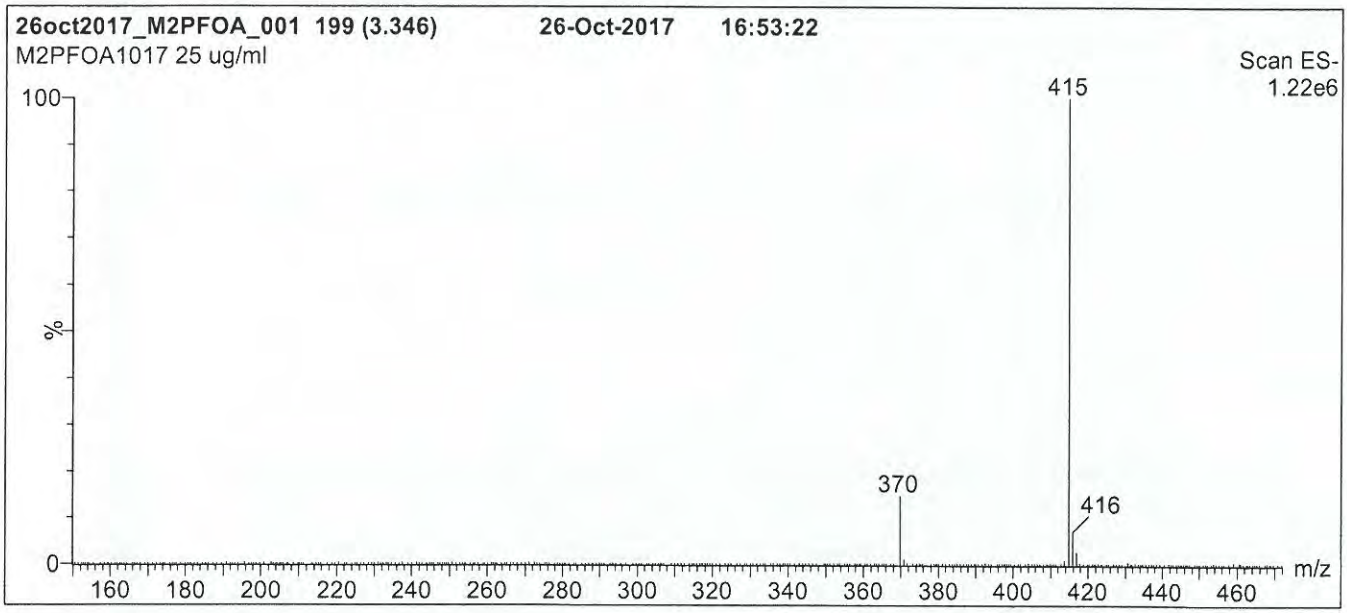
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

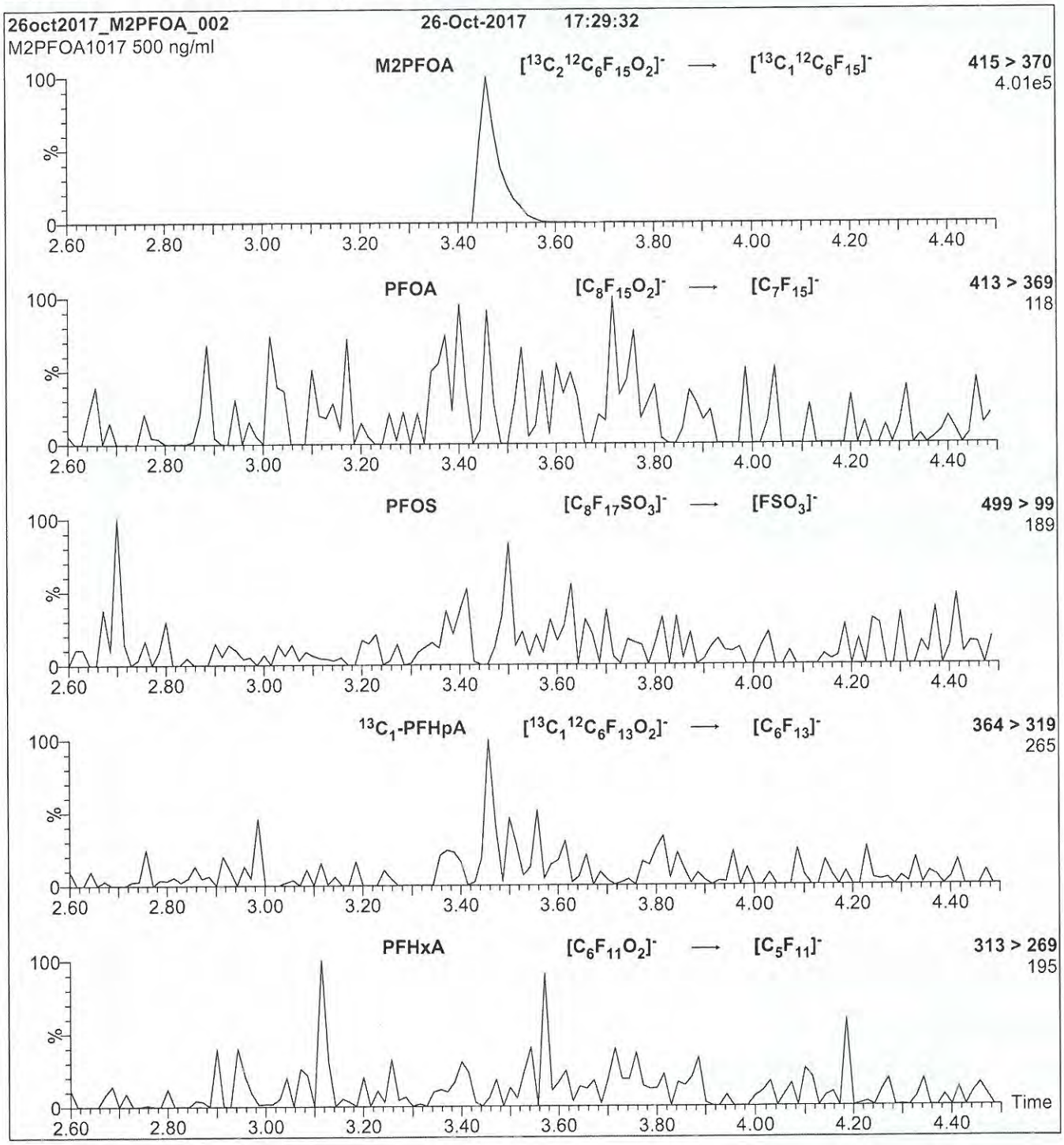
MS Parameters

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

WELLINGTON LABORATORIES

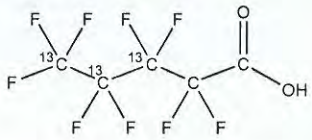
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

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:

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where x is expressed as a relative standard uncertainty of the individual parameter.

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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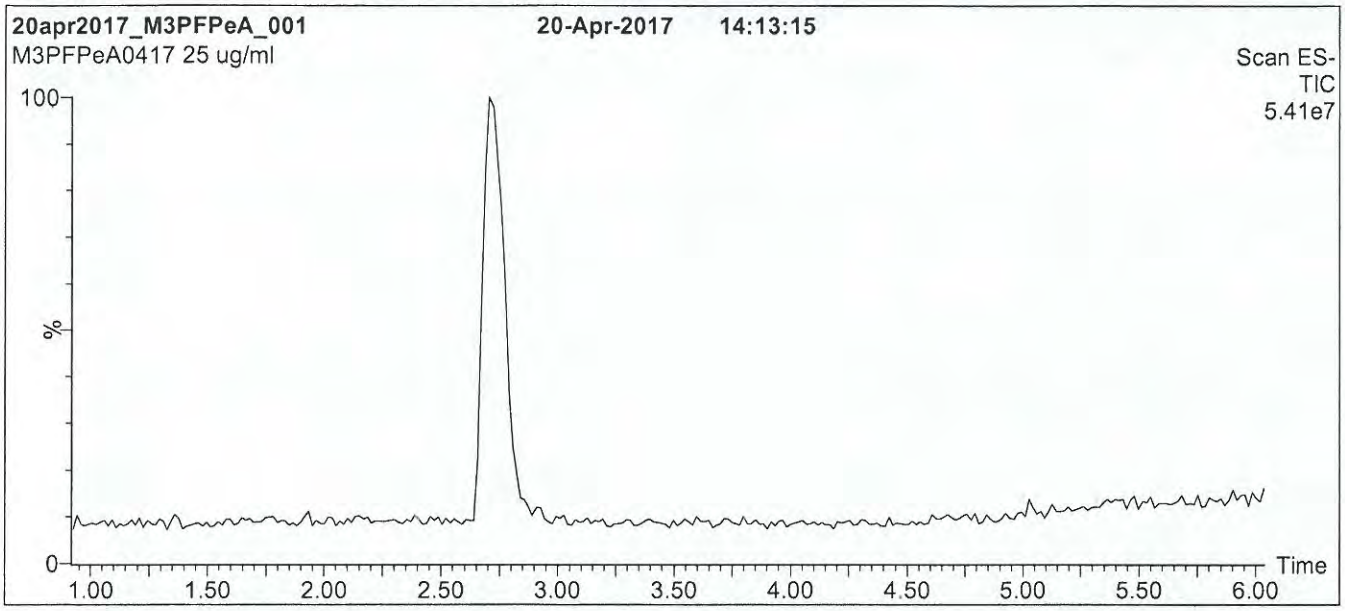
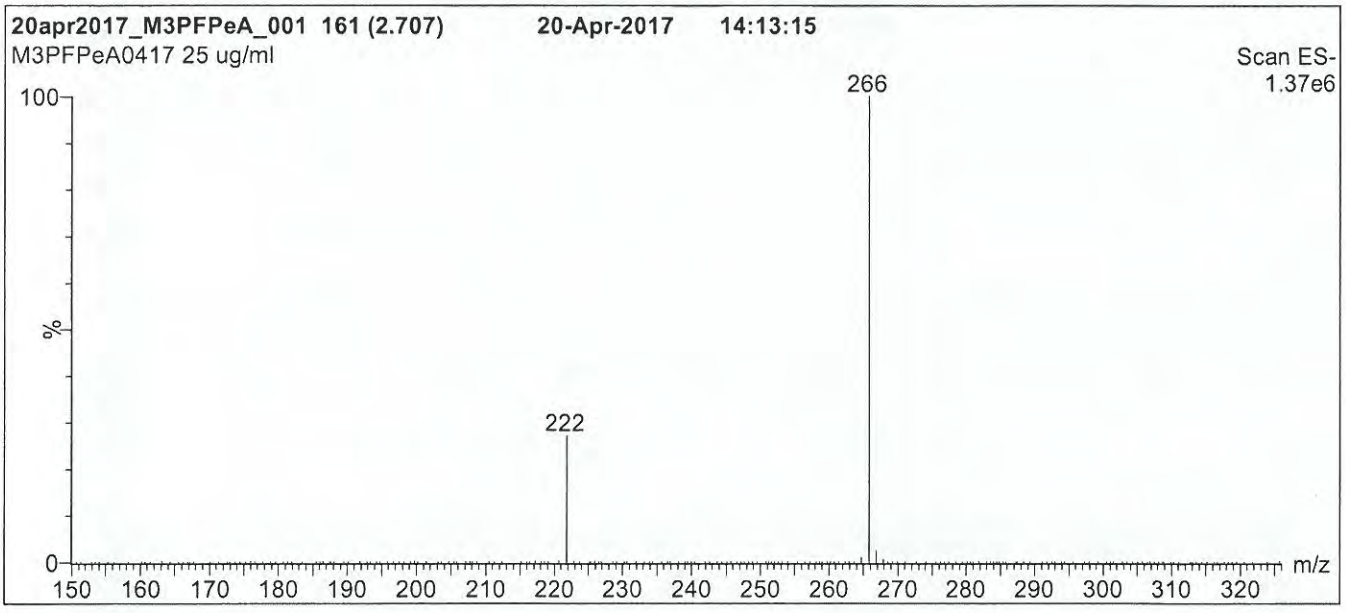
17K3041

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

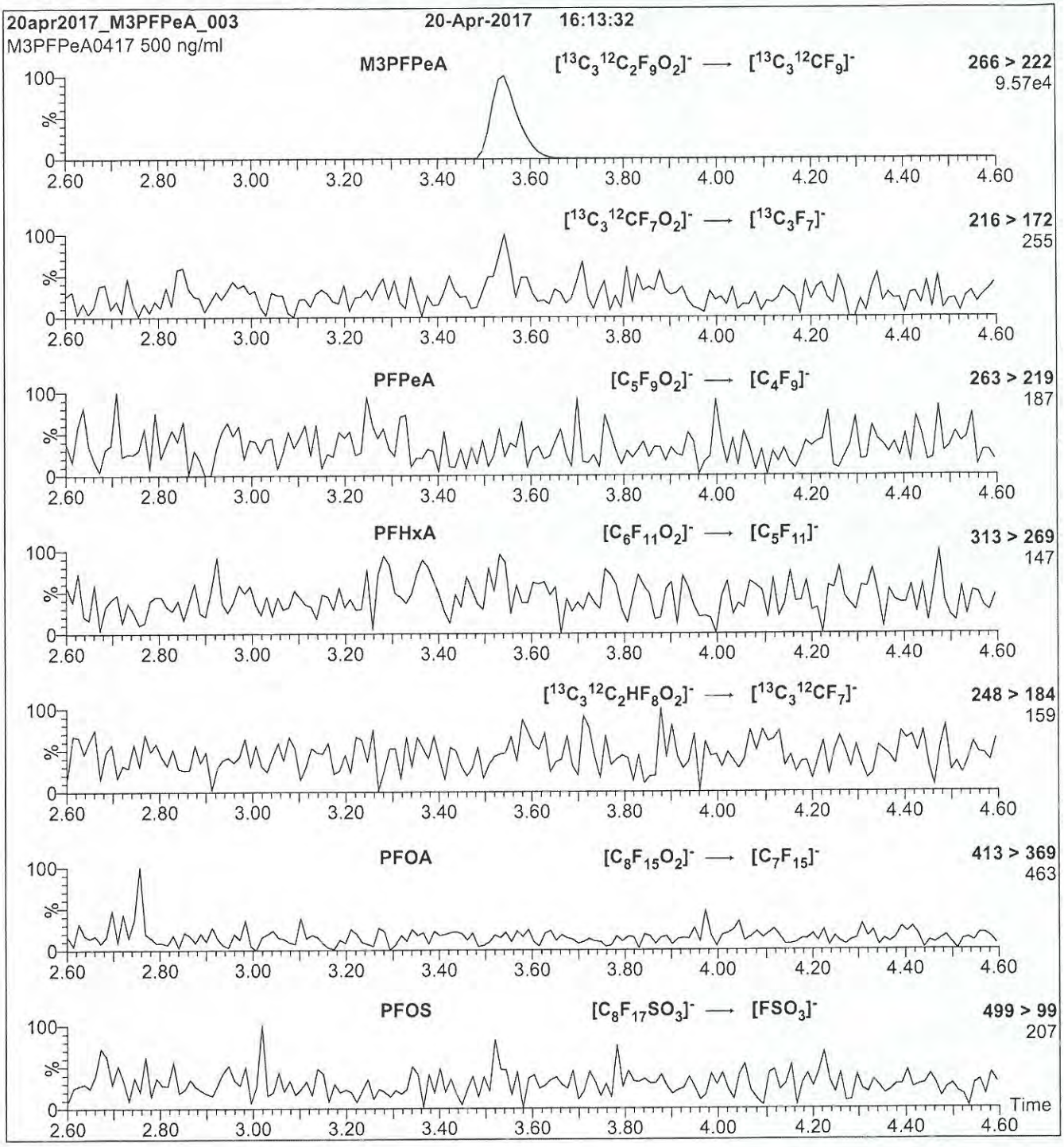
MS Parameters

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

17K0822

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
17H2507	13C2-PFDA	25-Aug-17	** Vendor **	13-Jul-22	0.5
17H2508	13C8-FOSA-I	25-Aug-17	** Vendor **	20-Apr-22	0.5
17H2509	13C2-PFOA	25-Aug-17	** Vendor **	12-Feb-21	0.5
17H2510	13C3-PFPeA	25-Aug-17	** Vendor **	20-Apr-22	0.5
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

Description:	PFC - IS	Expires:	08-Nov-19
Standard Type:	Reagent	Prepared:	08-Nov-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
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

17K0822

Description:	PFC - IS	Expires:	08-Nov-19
Standard Type:	Reagent	Prepared:	08-Nov-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	12-Dec-17 09:51 by AEW

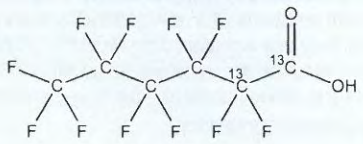
Analyte	CAS Number	Concentration	Units
13C8-PFOS		1.25	ug/mL
13C8-PFOSA		1.25	ug/mL
18O2-PFHxS		1.25	ug/mL
d3-MeFOSAA		1.25	ug/mL
13C2-PFUnA		1.25	ug/mL

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 ($1,2\text{-}^{13}C_2$)
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

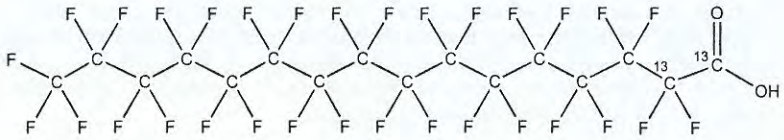
1701801

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2PFHxDA ✓
LOT NUMBER: M2PFHxDA1112
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexadecanoic acid

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:

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED Reference Material Producer

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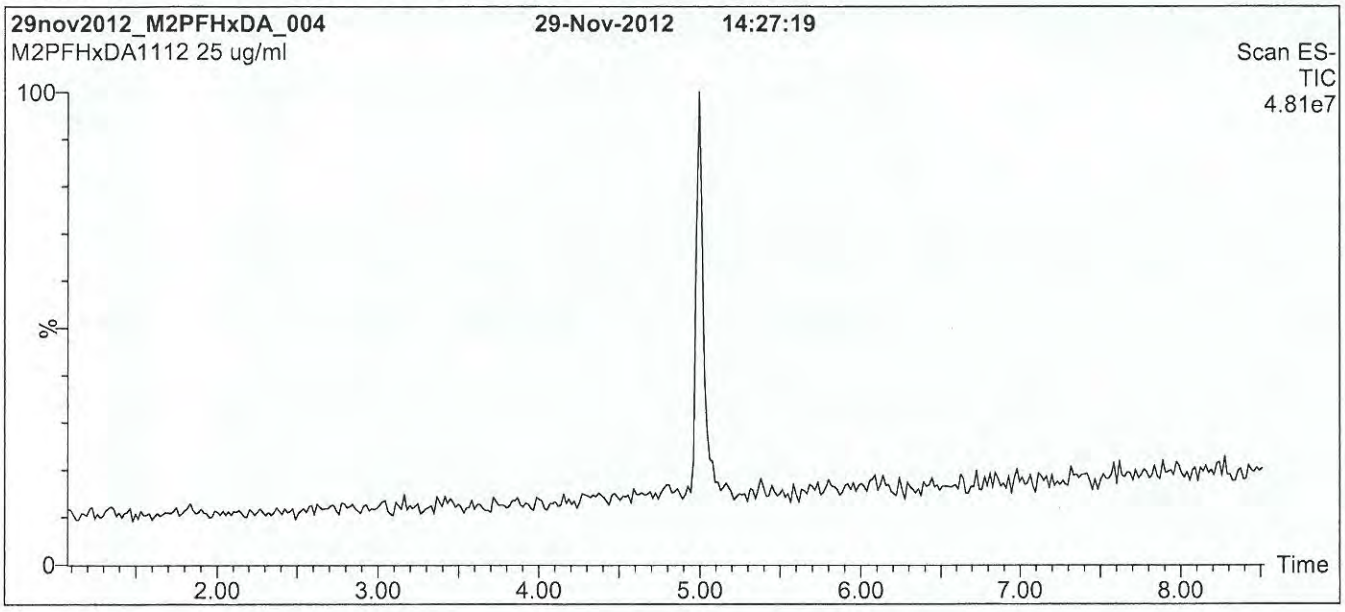
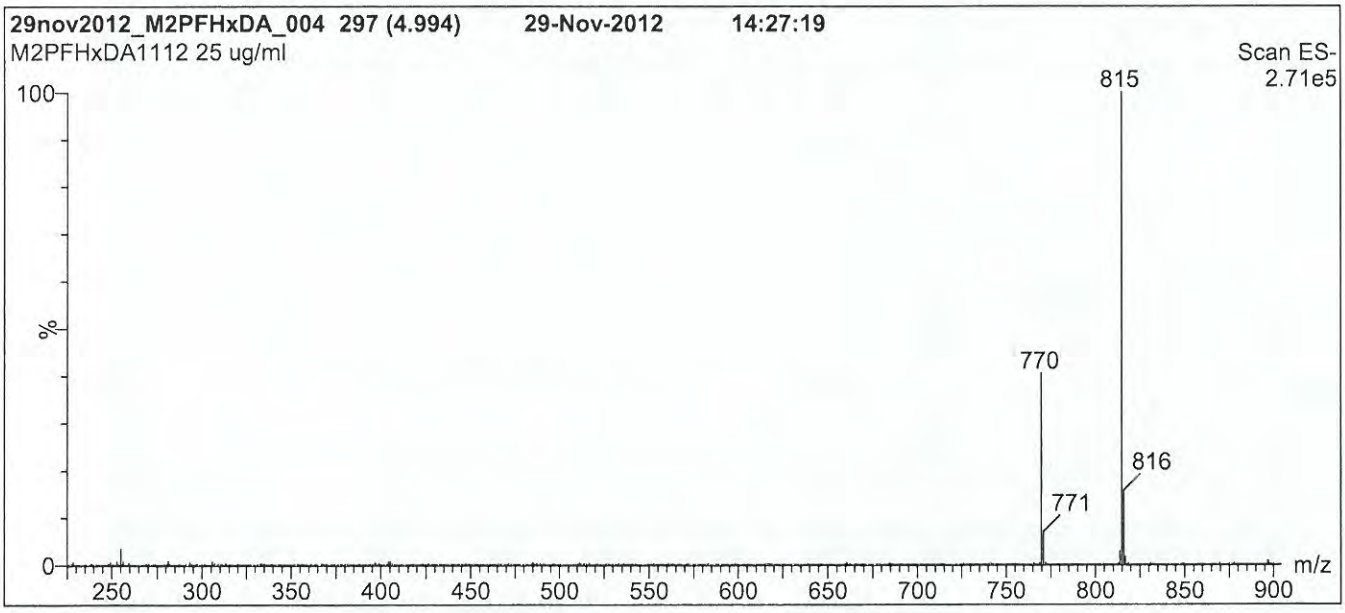
Figure 1: **M2PFHxDA; LC/MS Data (TIC and Mass Spectrum)**





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

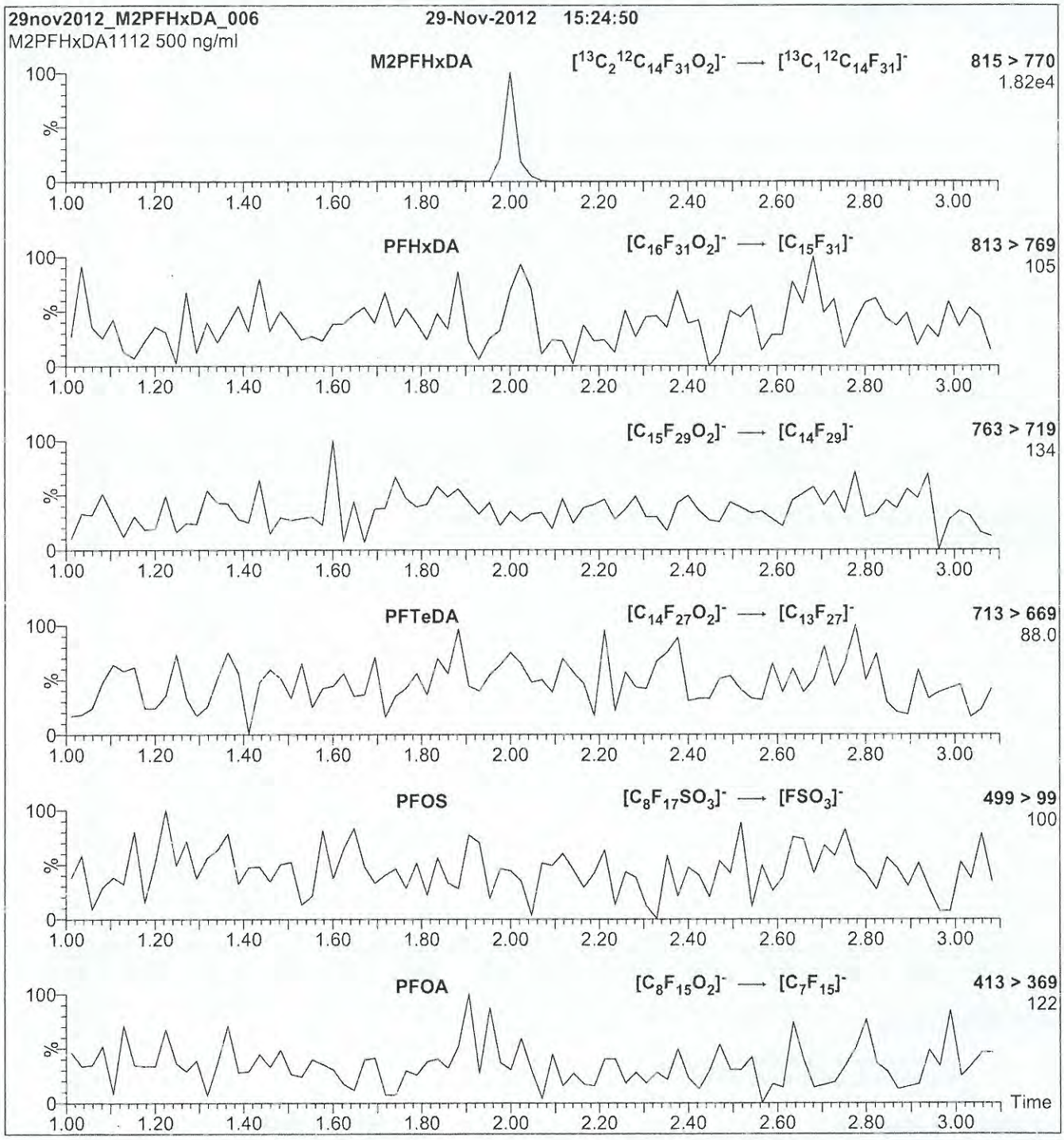
Flow: 300 µl/min

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

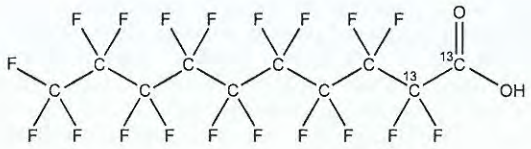
Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 15

17H2507

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFDA	**LOT NUMBER:**	MPFDA0717
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid		
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

1H2507

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).

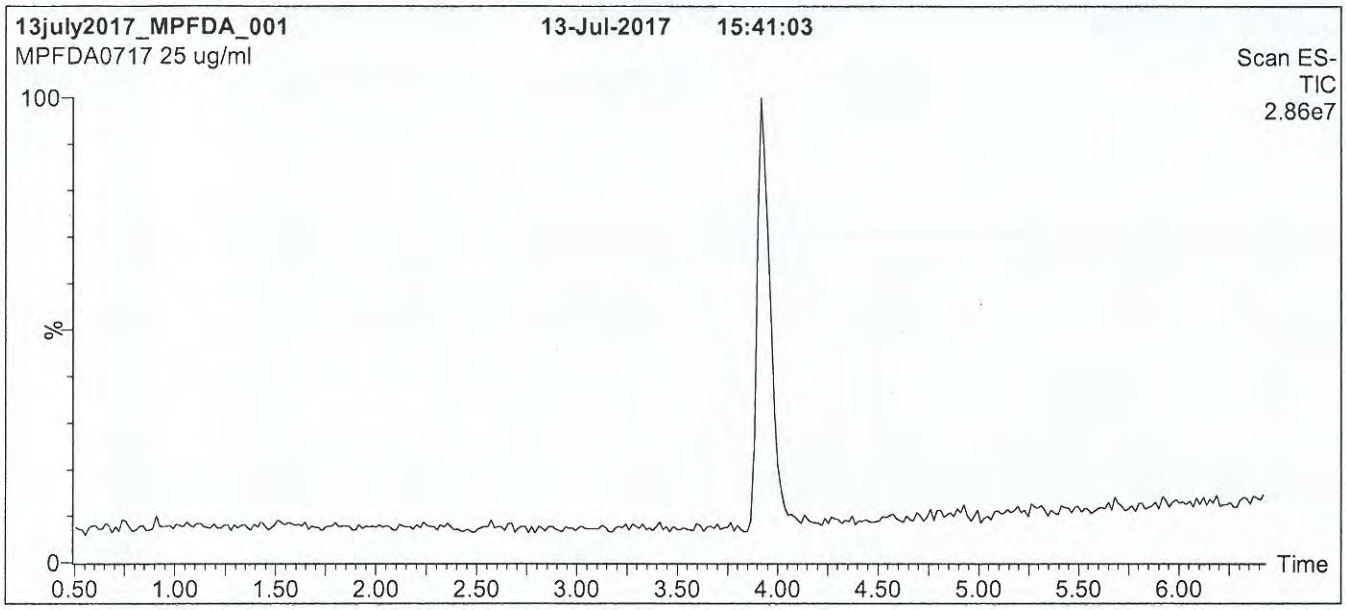
CALA

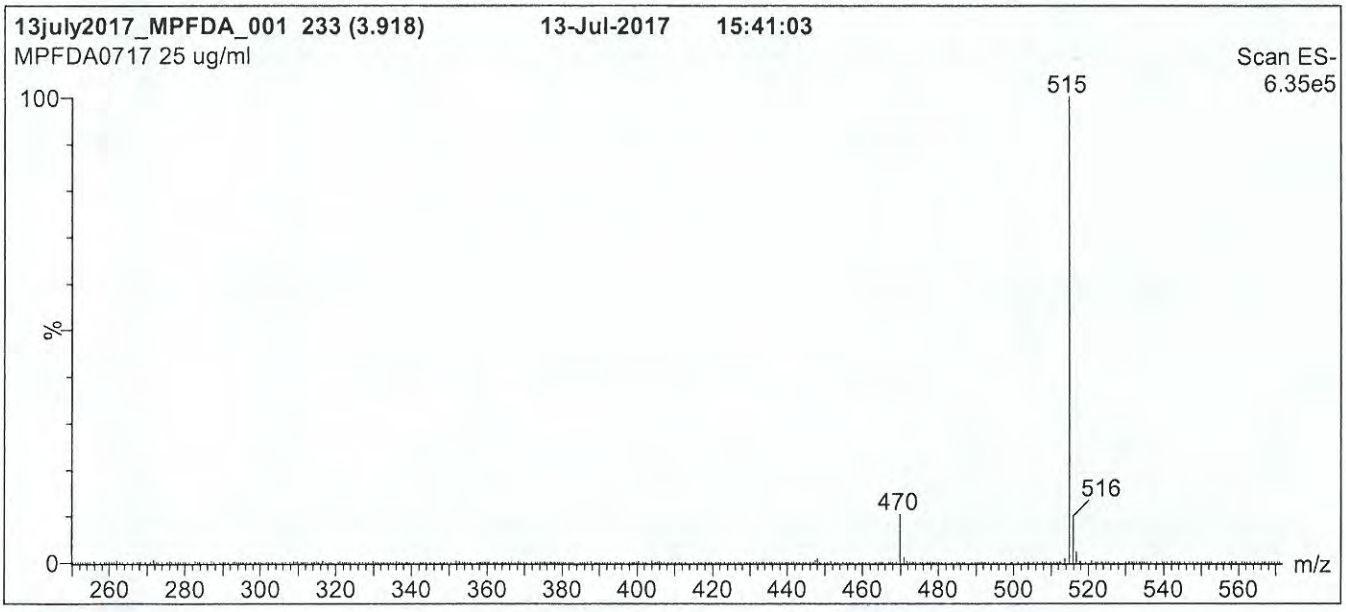
ANAB ACCREDITED

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

17-H2507

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

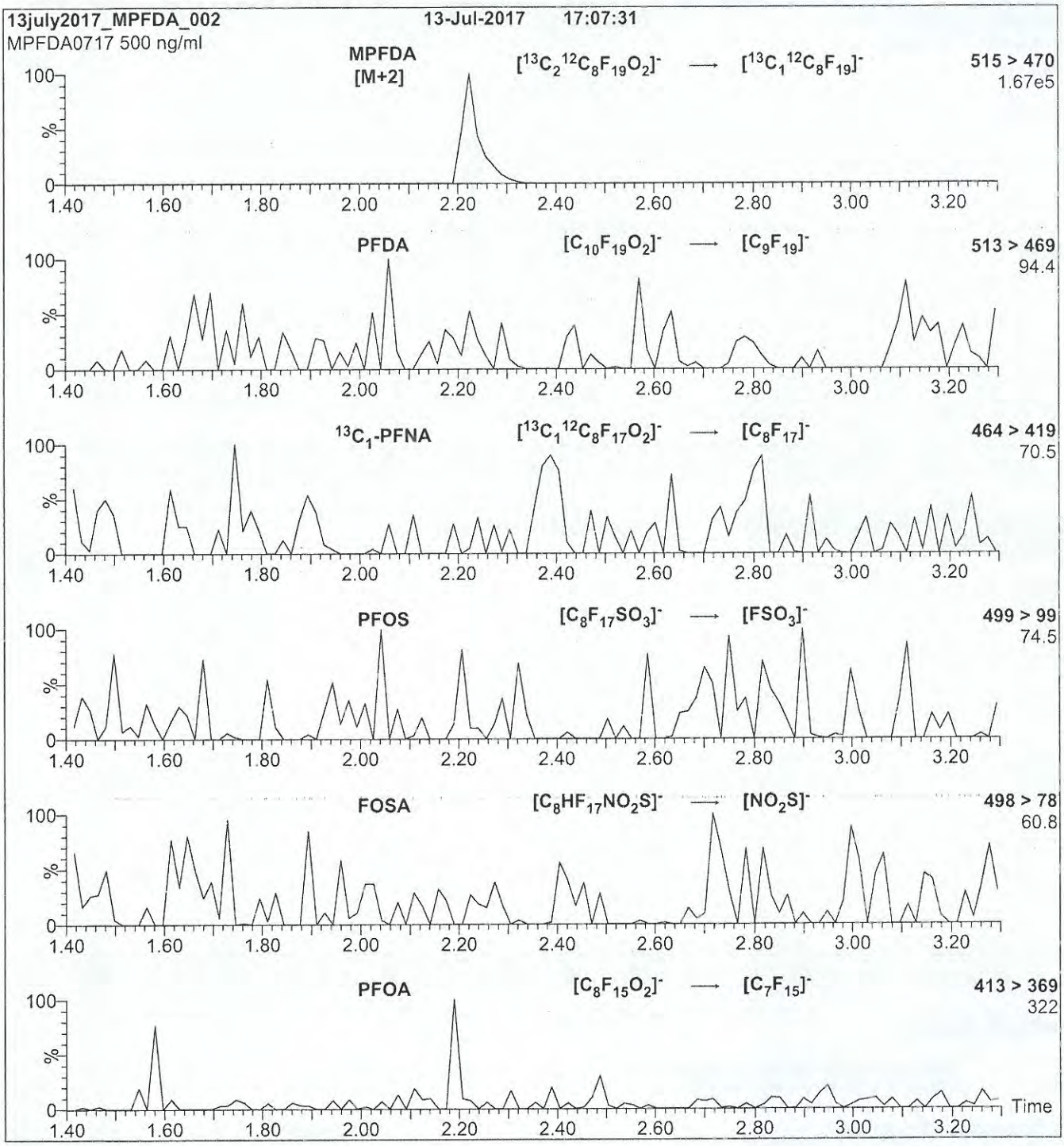
MS Parameters

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

17H2507

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

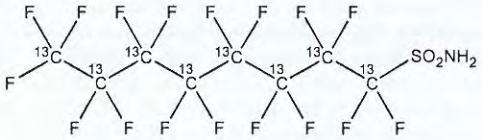
Collision Gas (mbar) = 3.17e-3
Collision Energy (eV) = 13

1712508

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M8FOSA-I	**LOT NUMBER:**	M8FOSA0417I
COMPOUND:	Perfluoro-1-[$^{13}C_8$]octanesulfonamide		
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)	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.
- 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:** 05/04/2017 (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

17H2508

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).

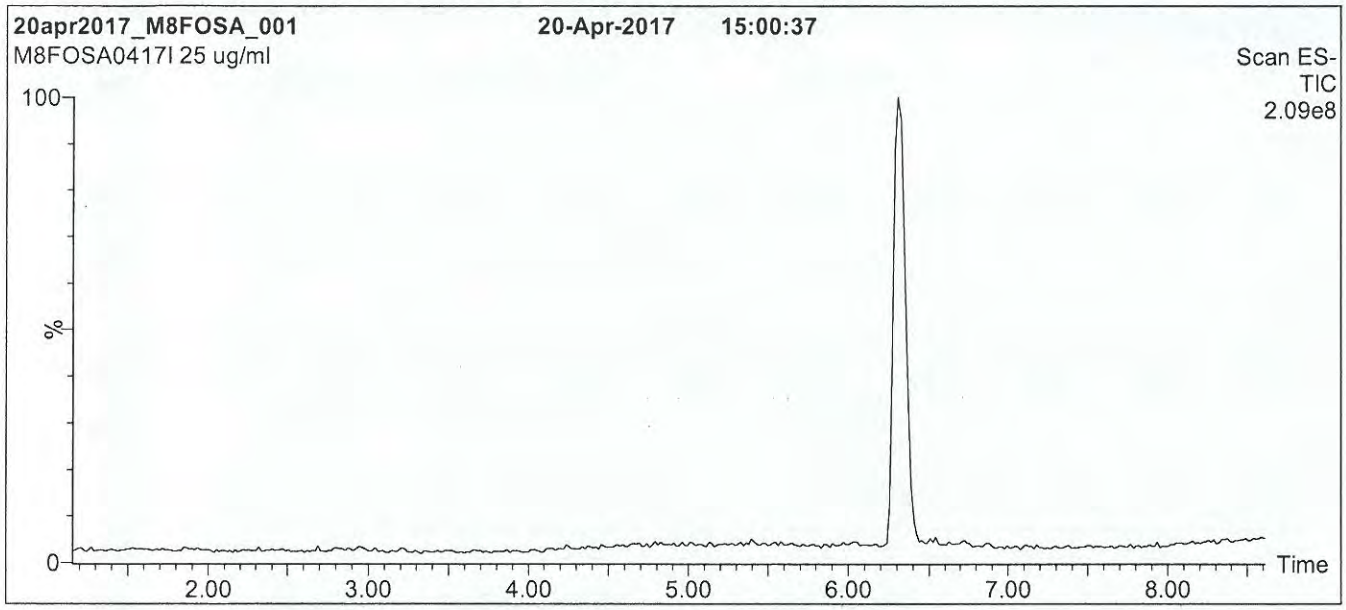
CALA

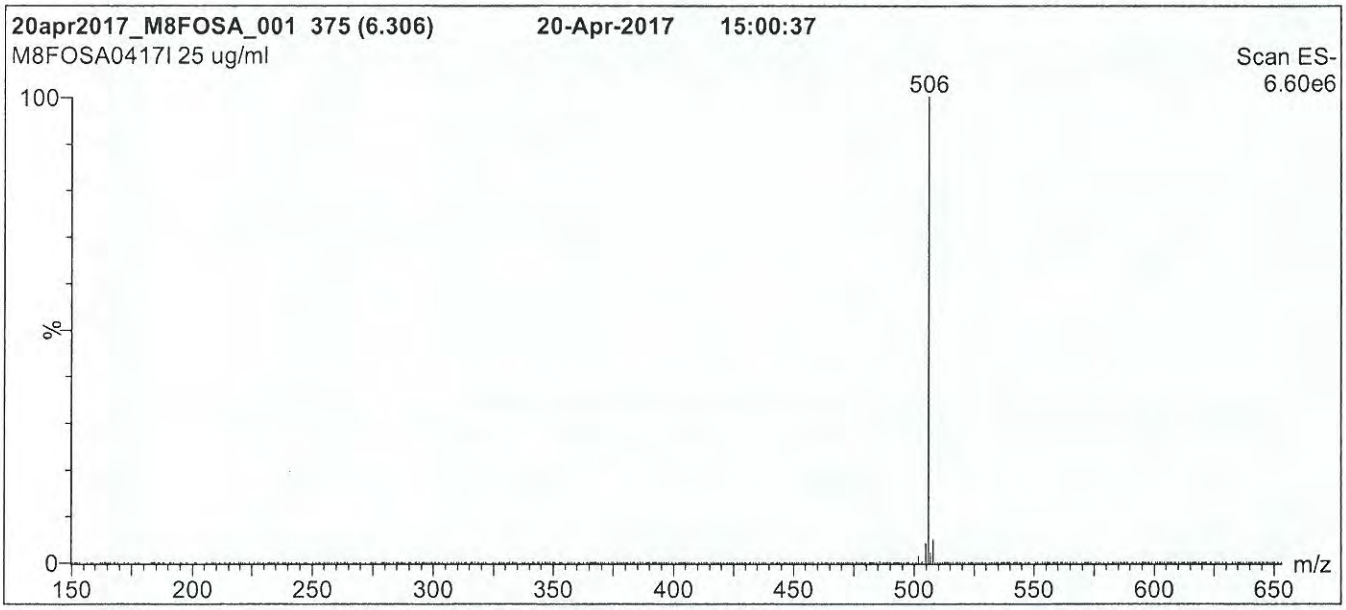
ANAB ACCREDITED

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

17H2508

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

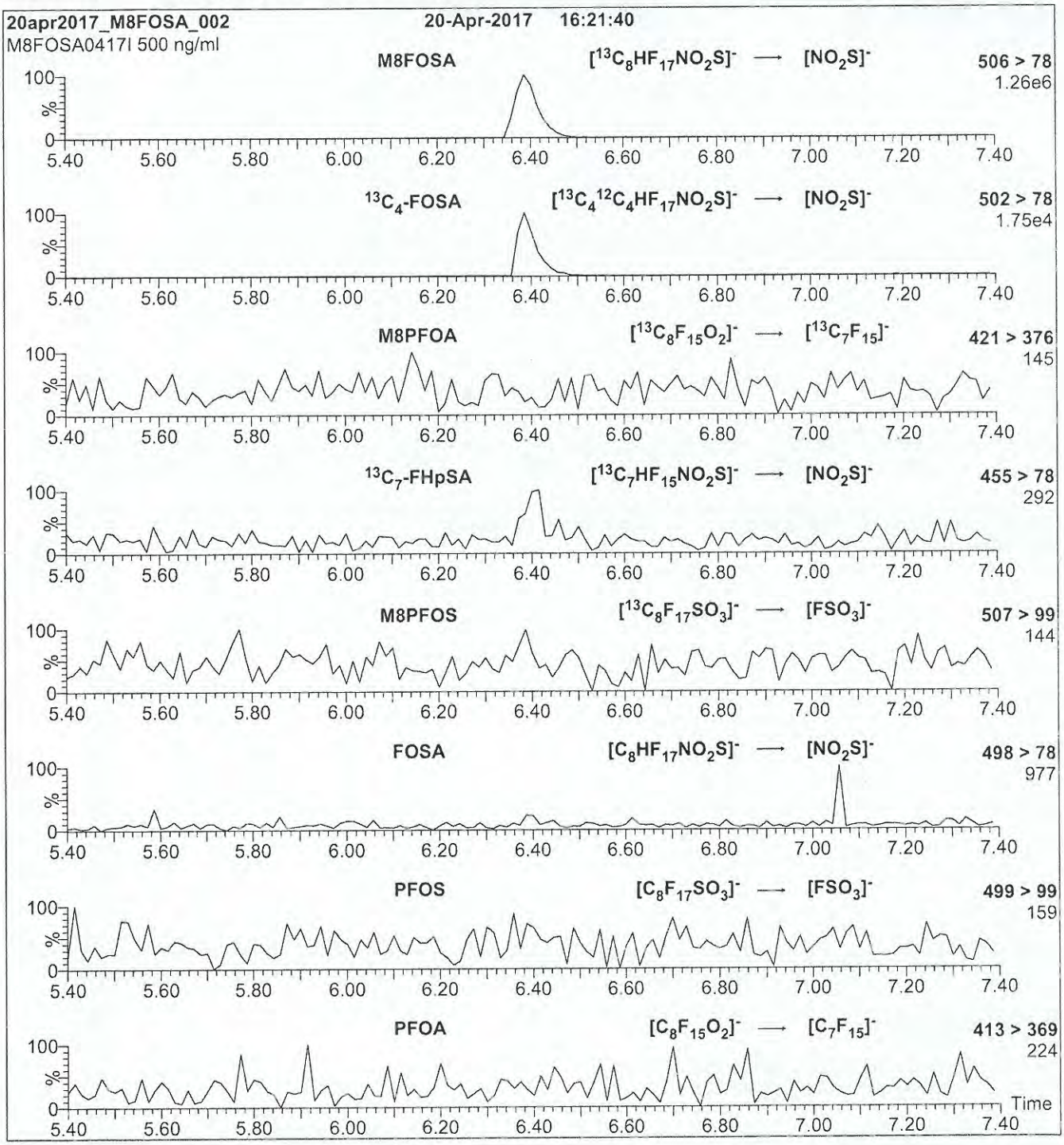
MS Parameters

Experiment: Full Scan (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

17H2508

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

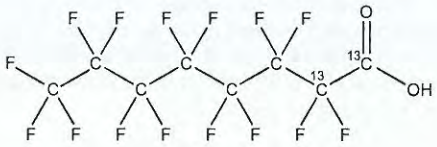
Collision Gas (mbar) = 3.17e-3
Collision Energy (eV) = 30

17H2509

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M2PFOA	**LOT NUMBER:**	M2PFOA0216
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]octanoic acid		
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)	02/12/2016		
EXPIRY DATE: (mm/dd/yyyy)	02/12/2021		
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:** 02/24/2016 (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

17H2509

INTENDED USE:

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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.

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:

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CALA

ANAB ACCREDITED

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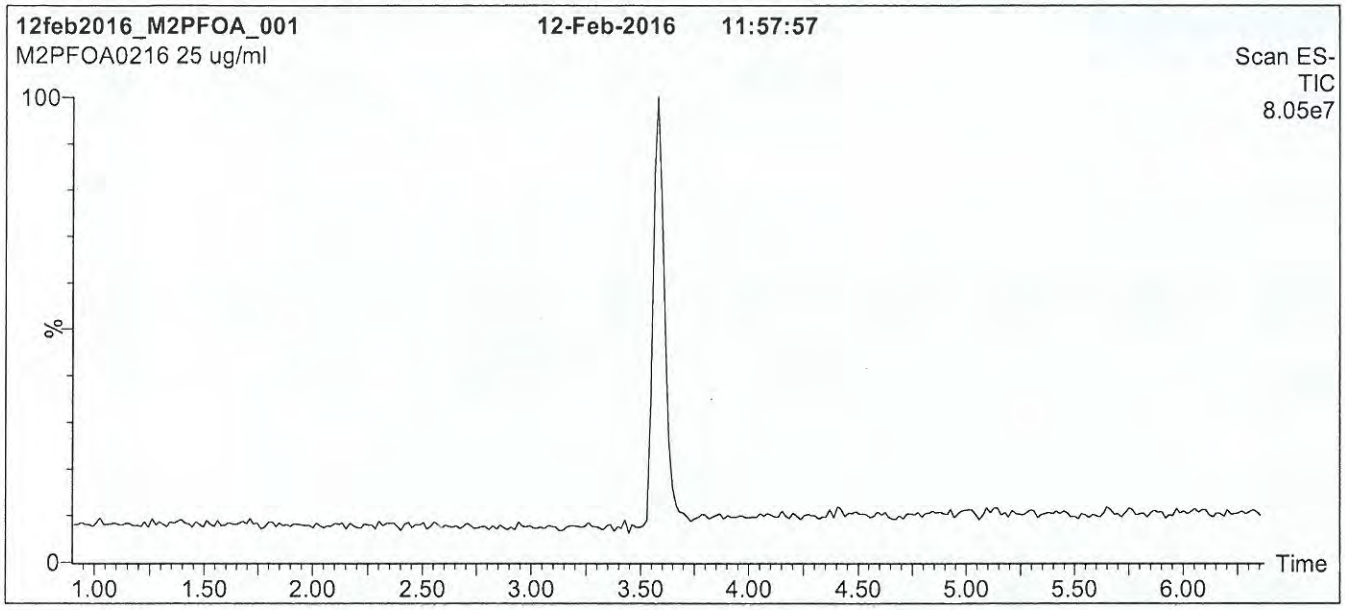
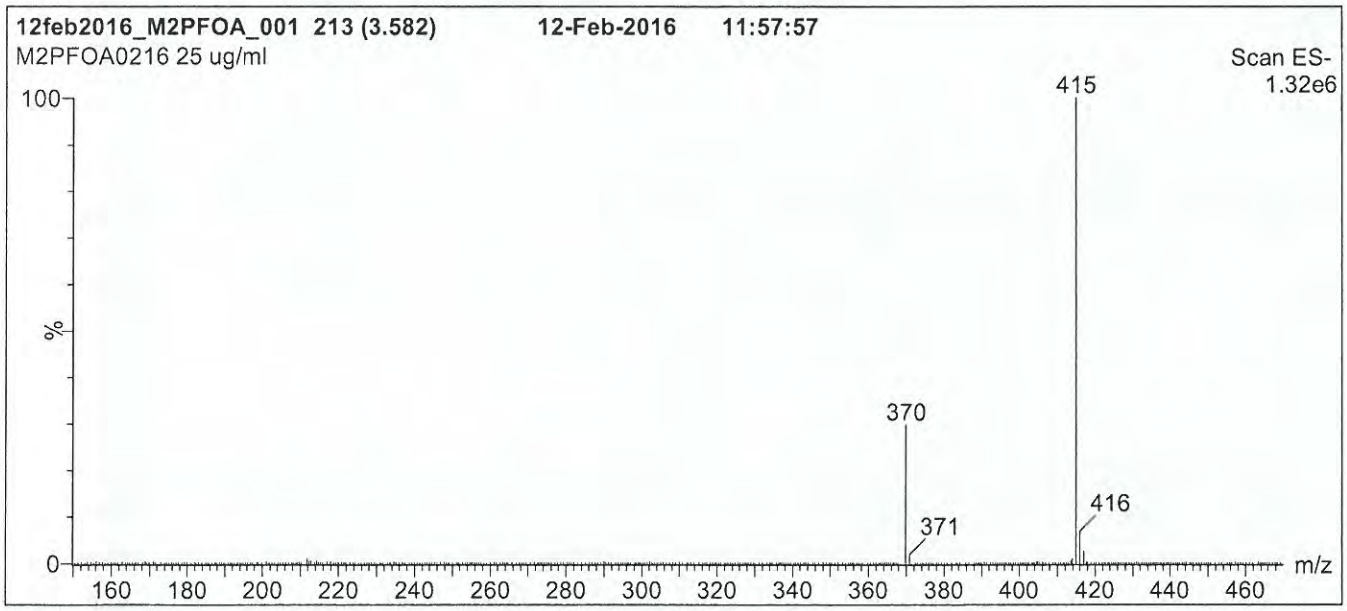
17H2509

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 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

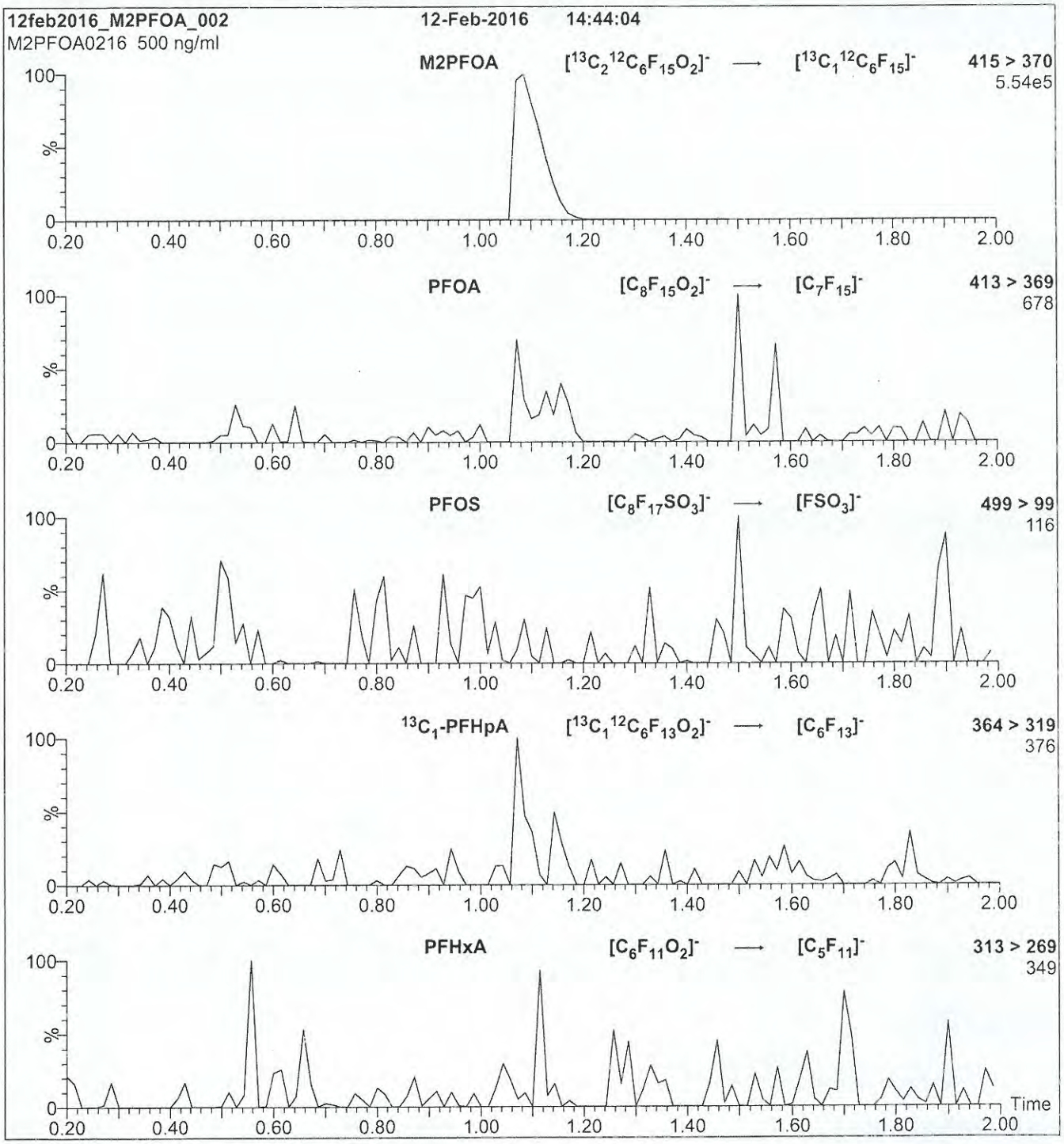
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17H2509

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% MeOH / 20% H_2O

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 10

1701802

WELLINGTON LABORATORIES

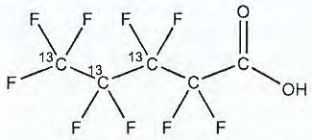
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

1717510

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).

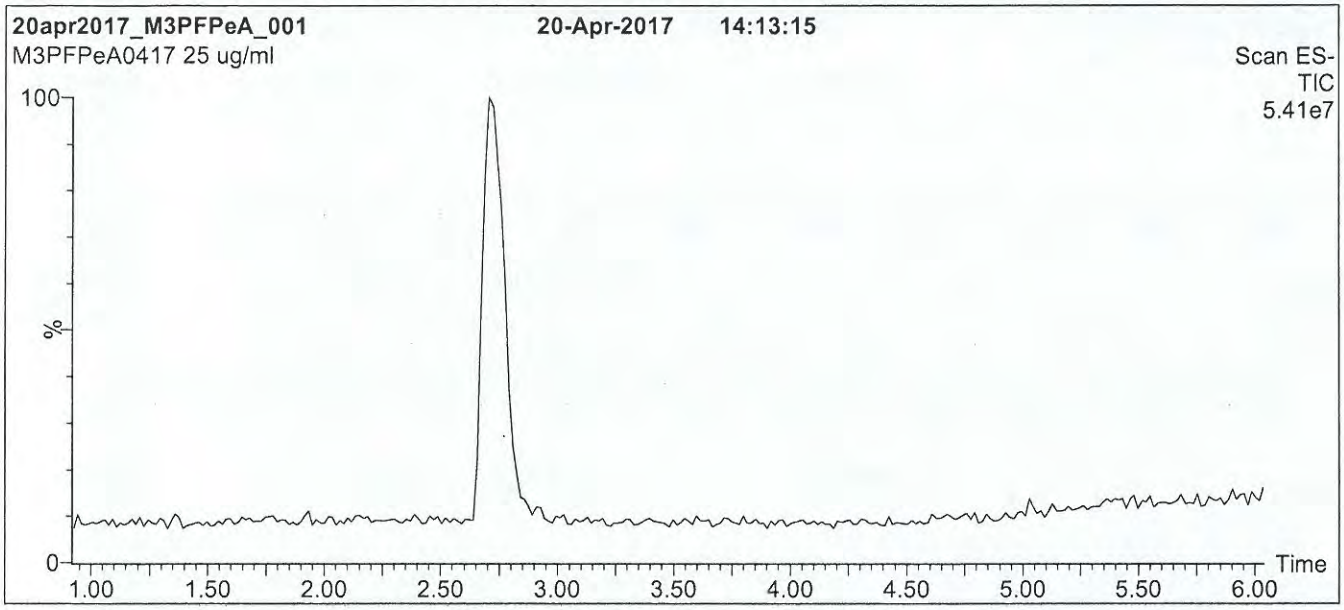
CALA

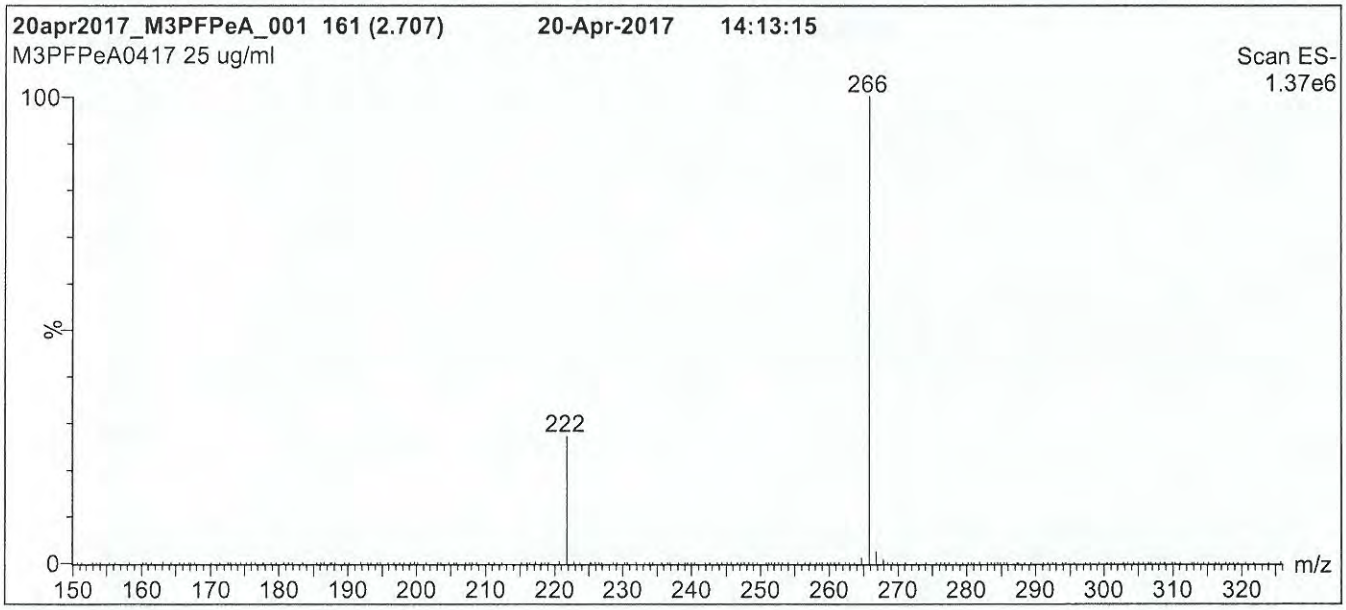
ANAB ACCREDITED

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

1742510

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

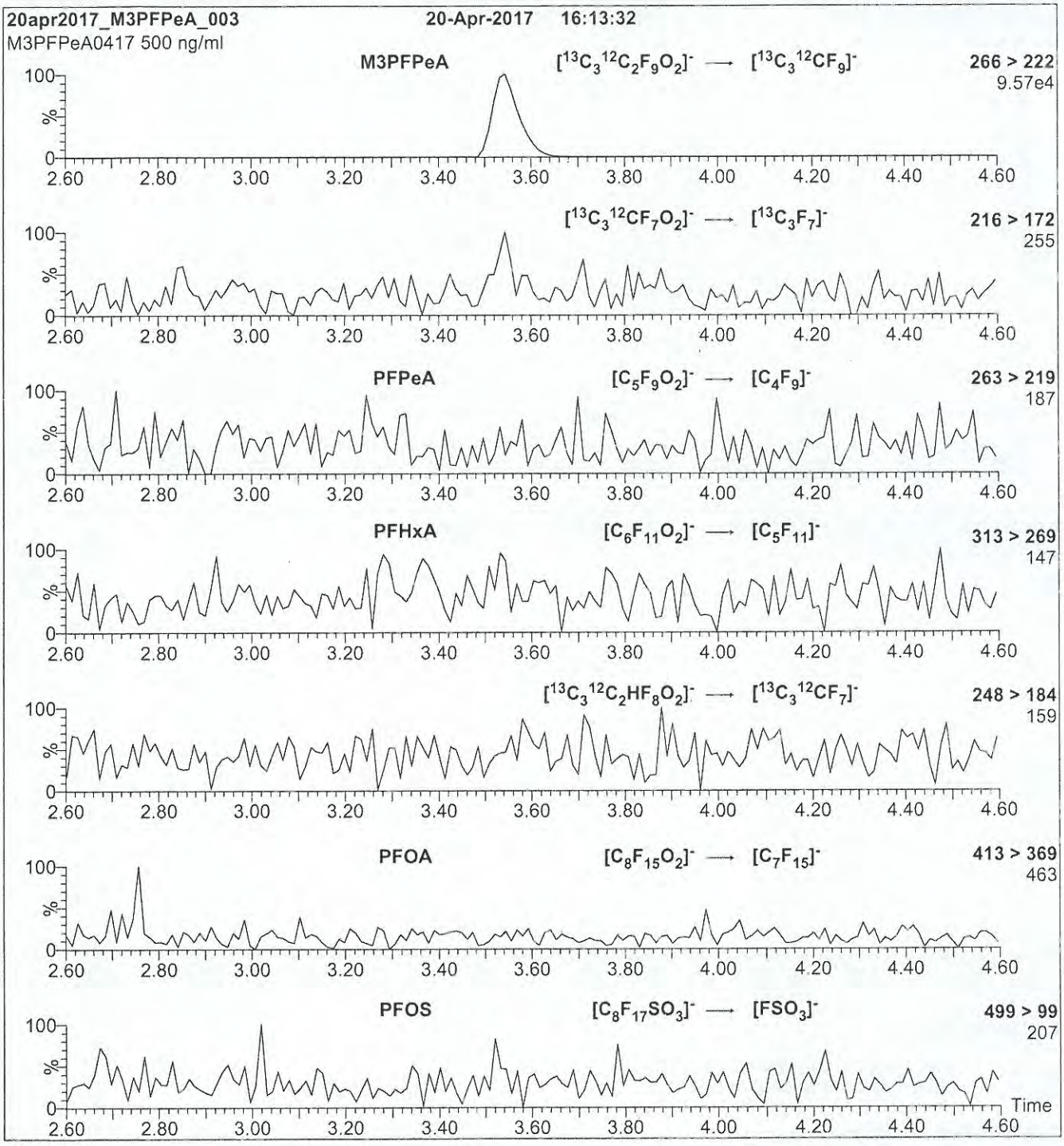
MS Parameters

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

17H2510

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

17K0802

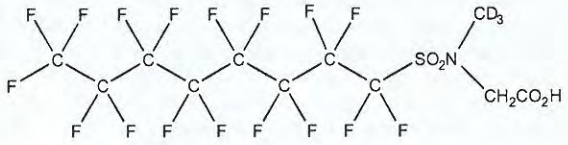
WELLINGTON LABORATORIES

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:

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:

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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:

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).

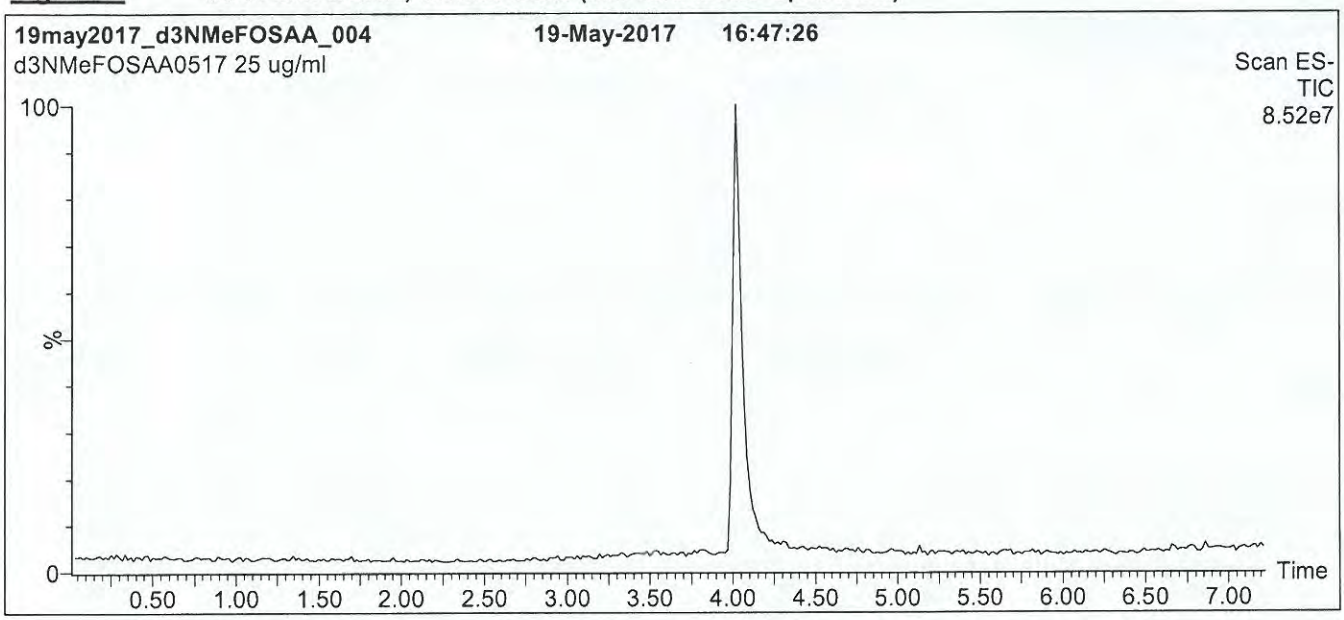
CALA Testing

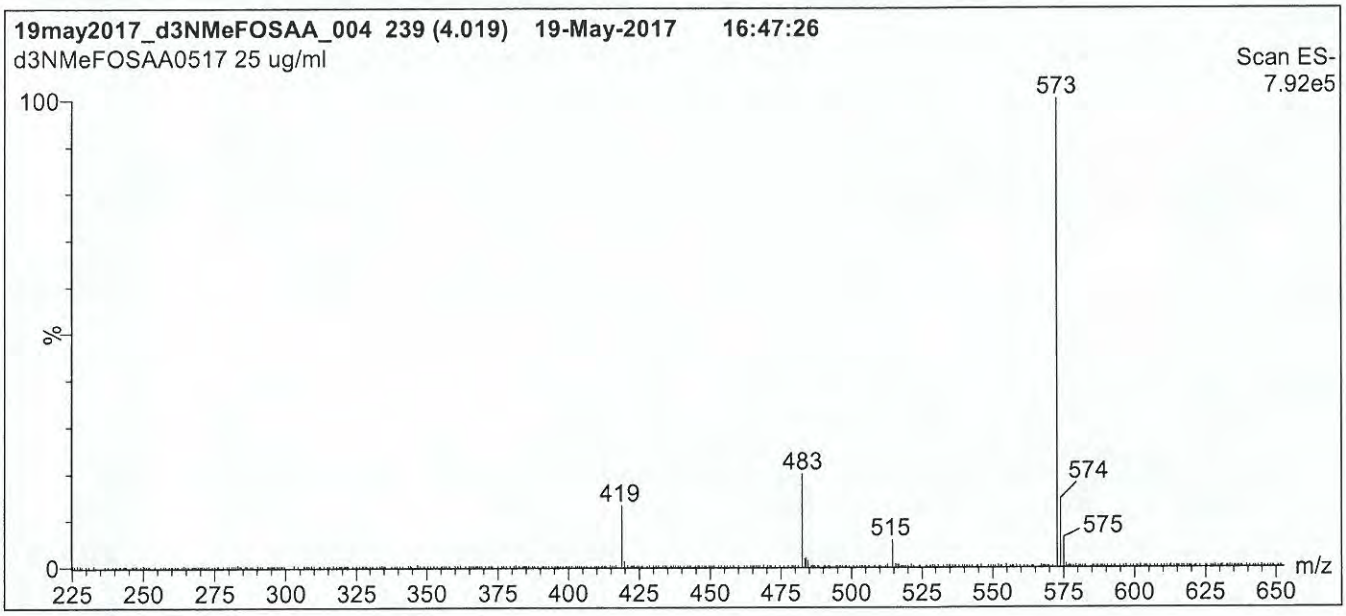
ANAB ACCREDITED

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

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

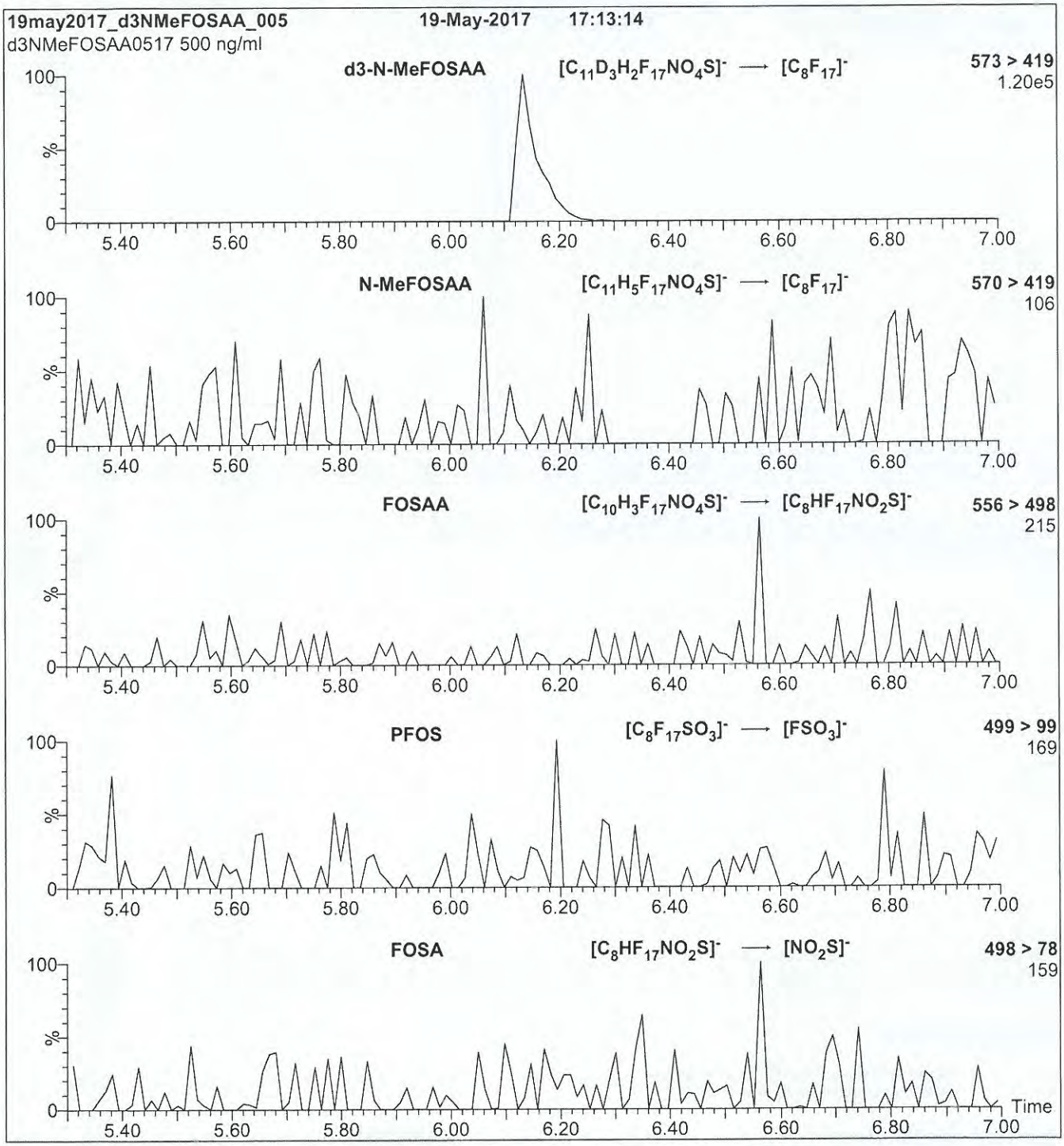
MS Parameters

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

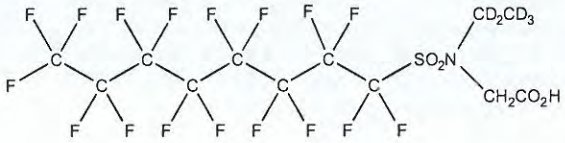
WELLINGTON LABORATORIES

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:

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HAZARDS:

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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.

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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:

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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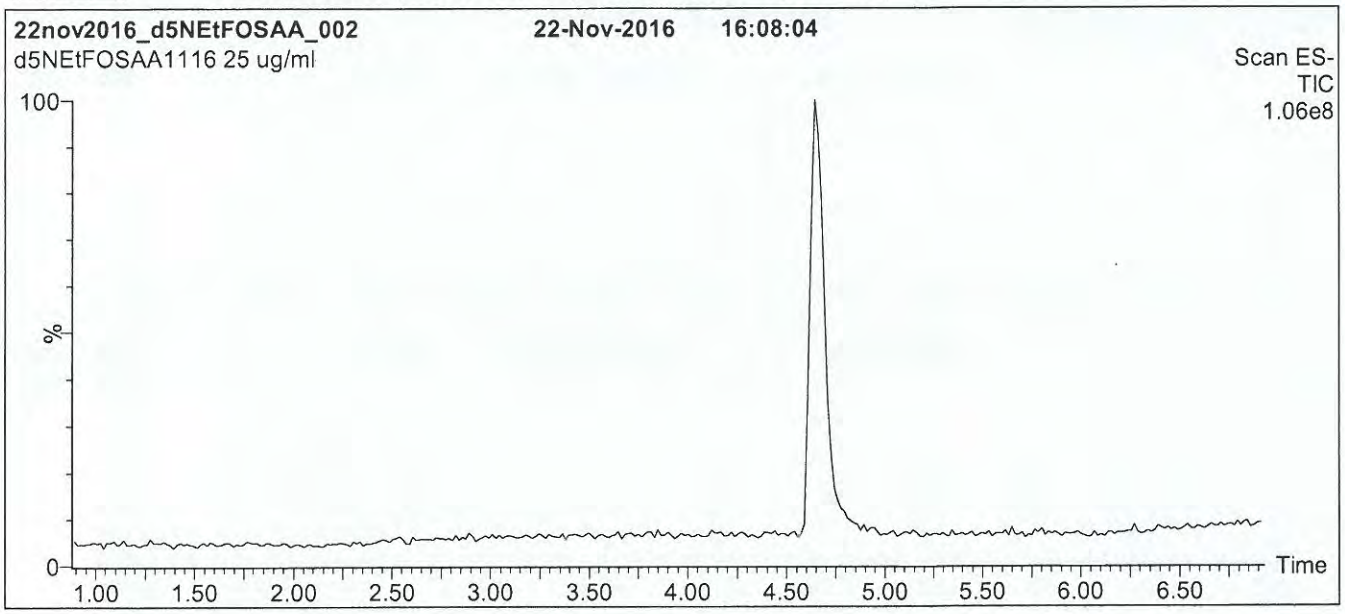
CALA Testing Accreditation No. A1226

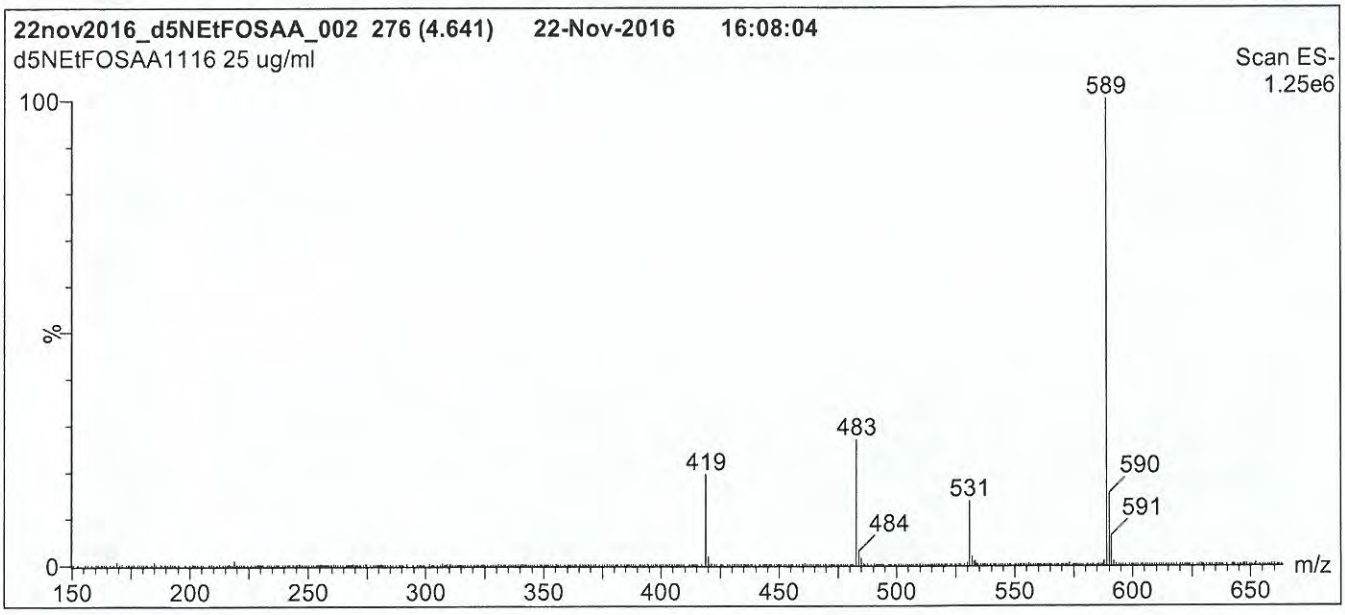
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

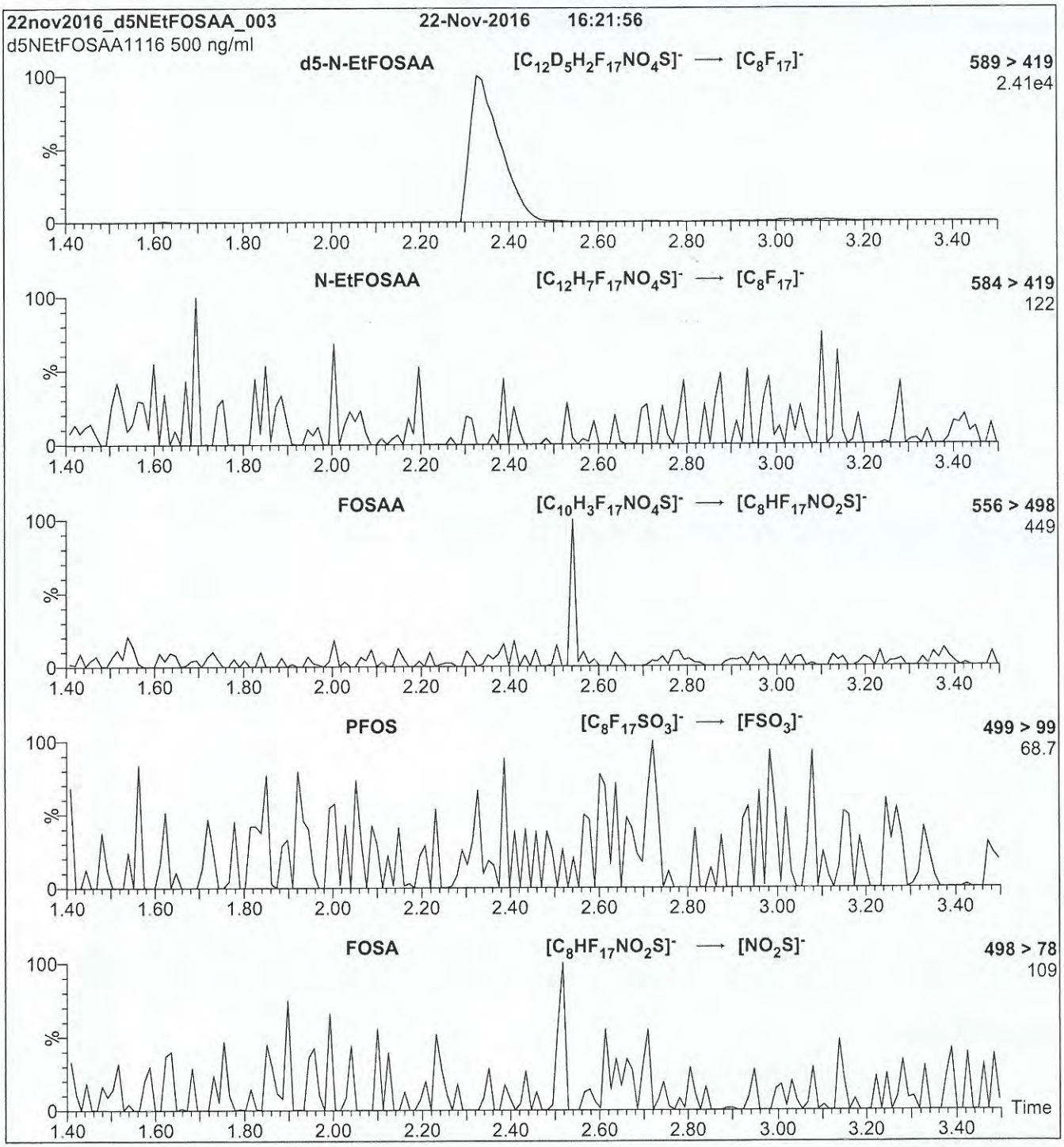
MS Parameters

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

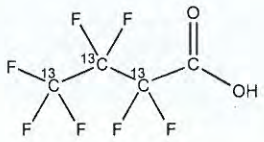
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 20

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-[$1,2,3,4\text{-}^{13}C_4$]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:

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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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:

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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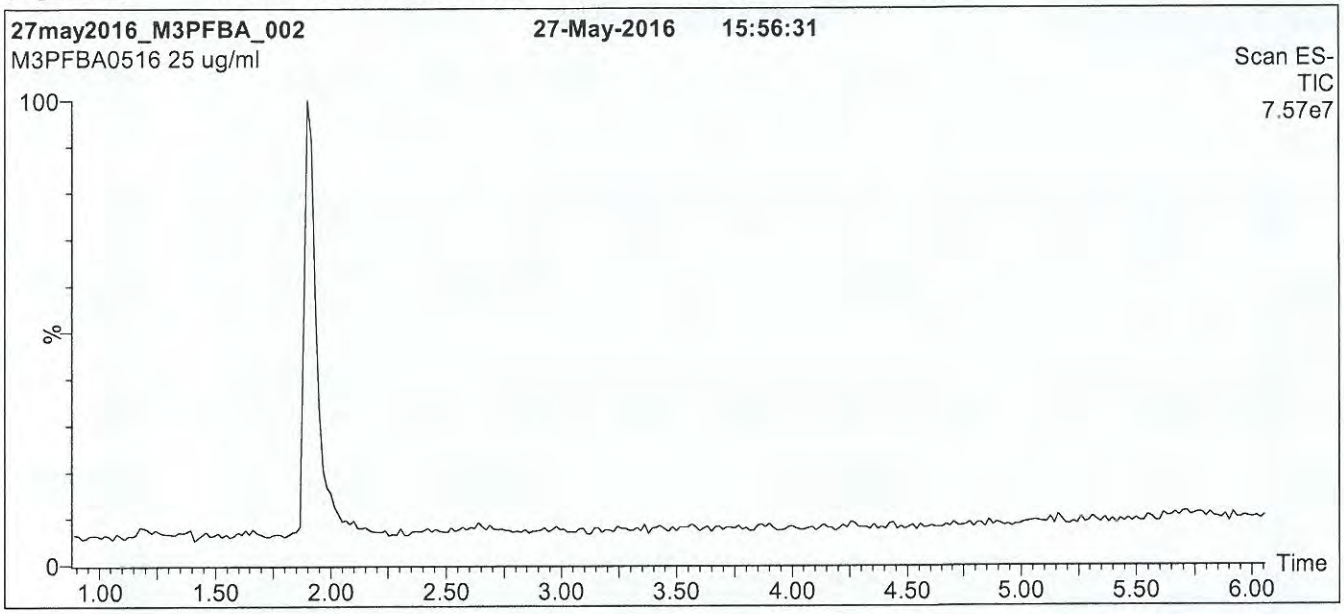
CALA

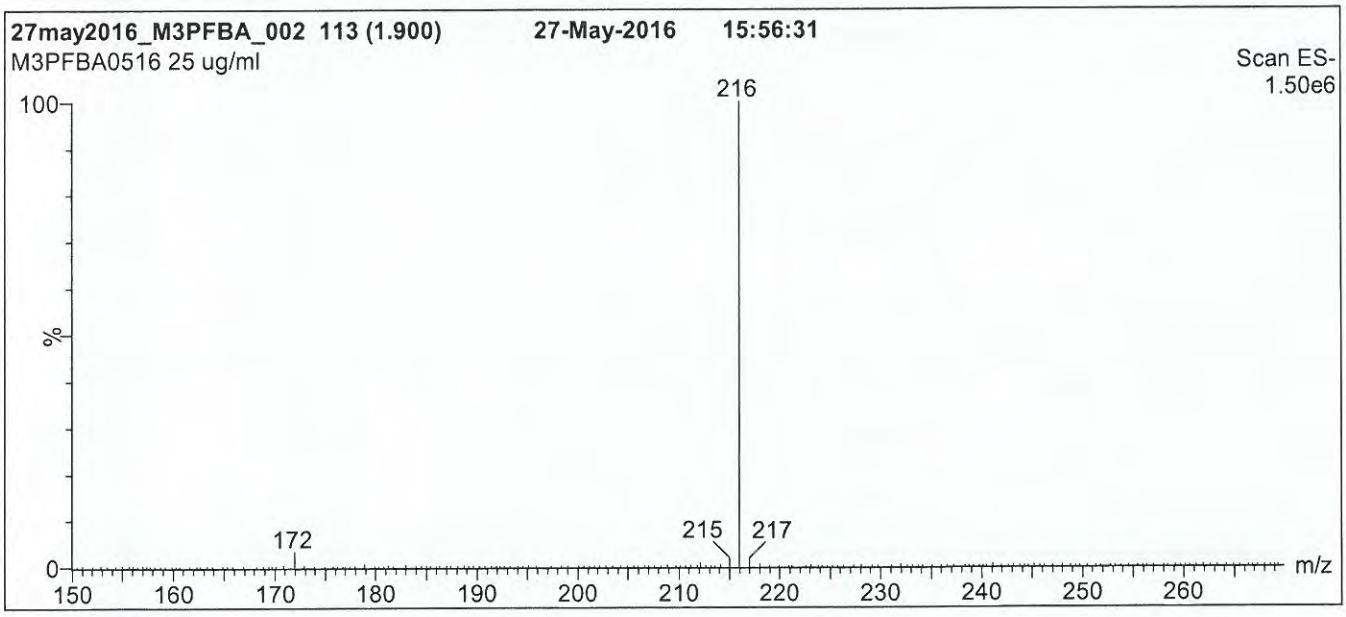
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

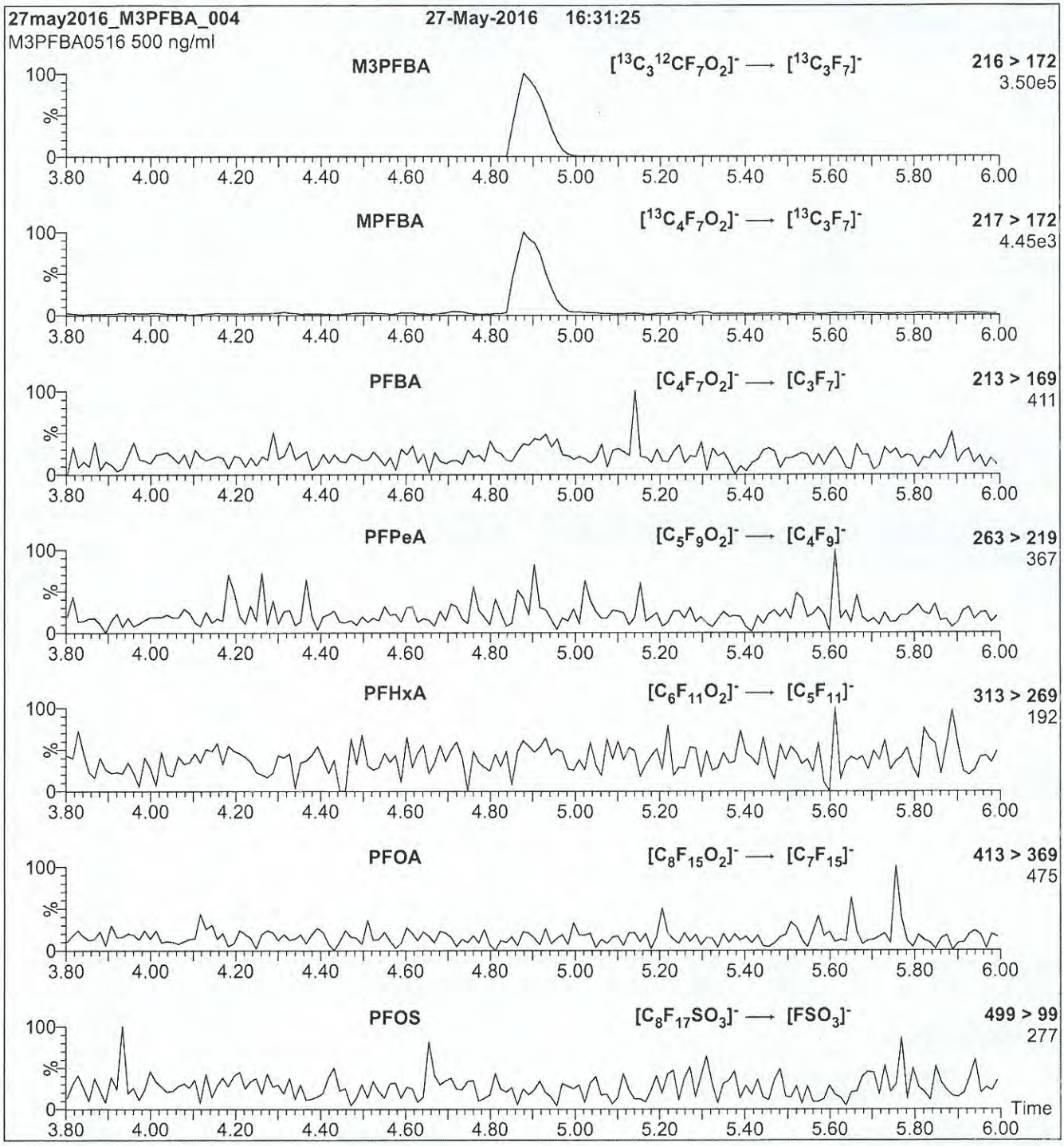
MS Parameters

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

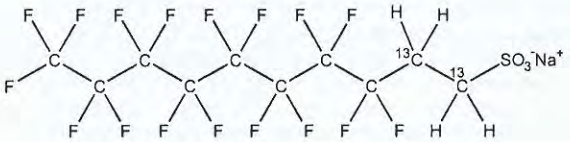
WELLINGTON LABORATORIES

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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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.

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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:

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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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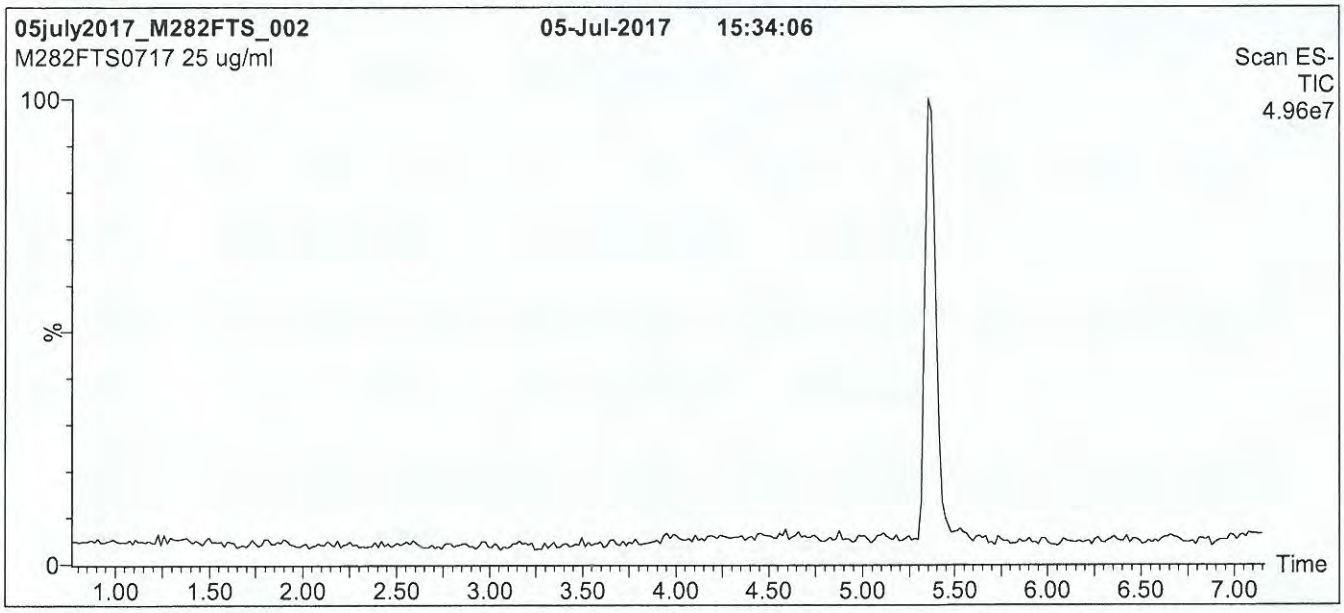
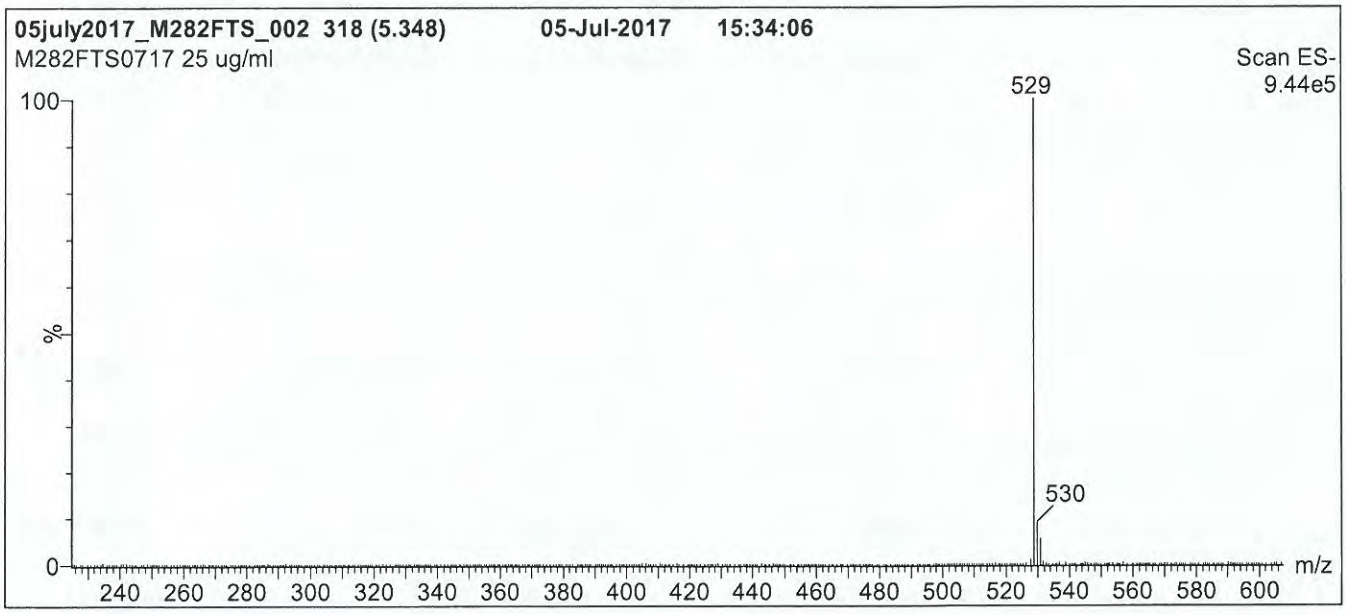
17K0805

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

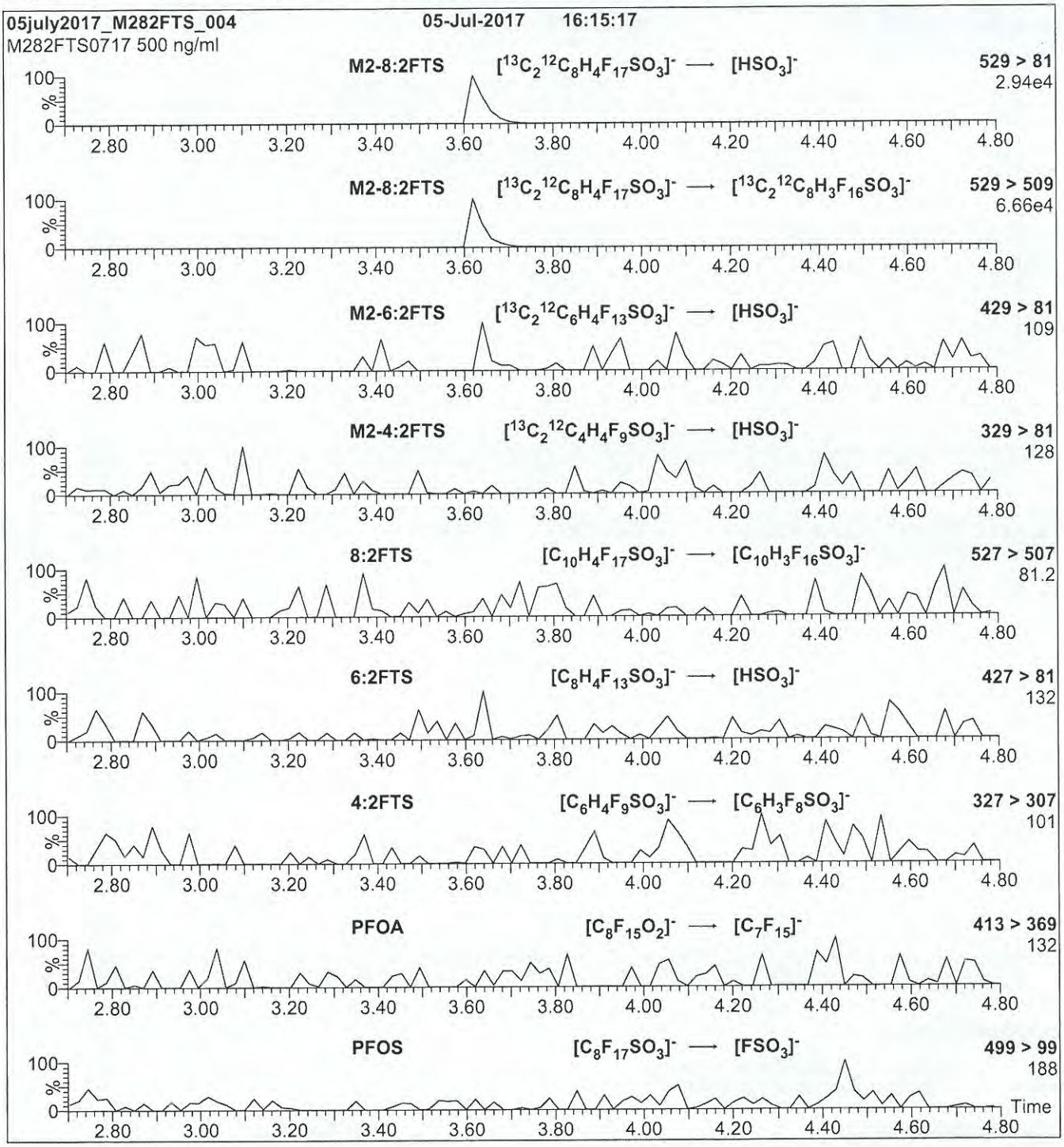
MS Parameters

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

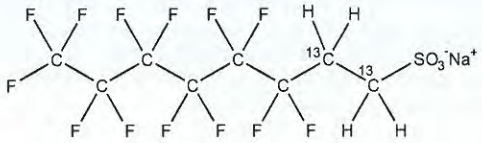
WELLINGTON LABORATORIES

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

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17025 ISO 34 REFERENCE MATERIAL PRODUCER

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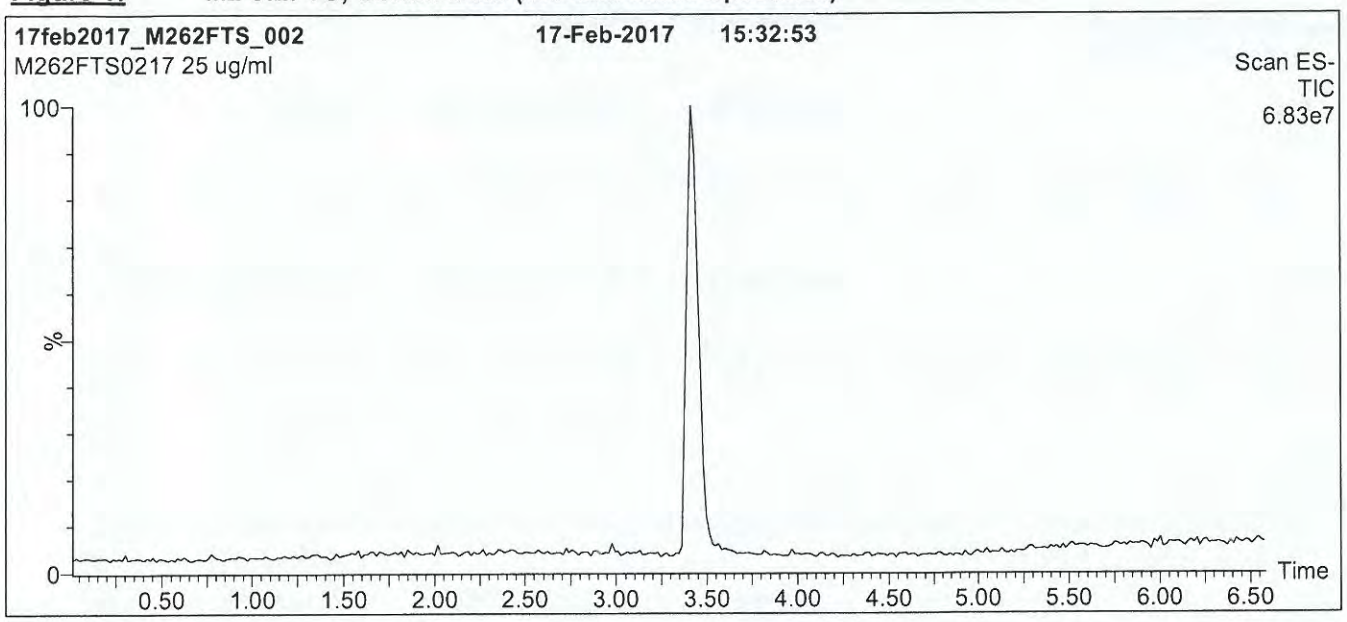
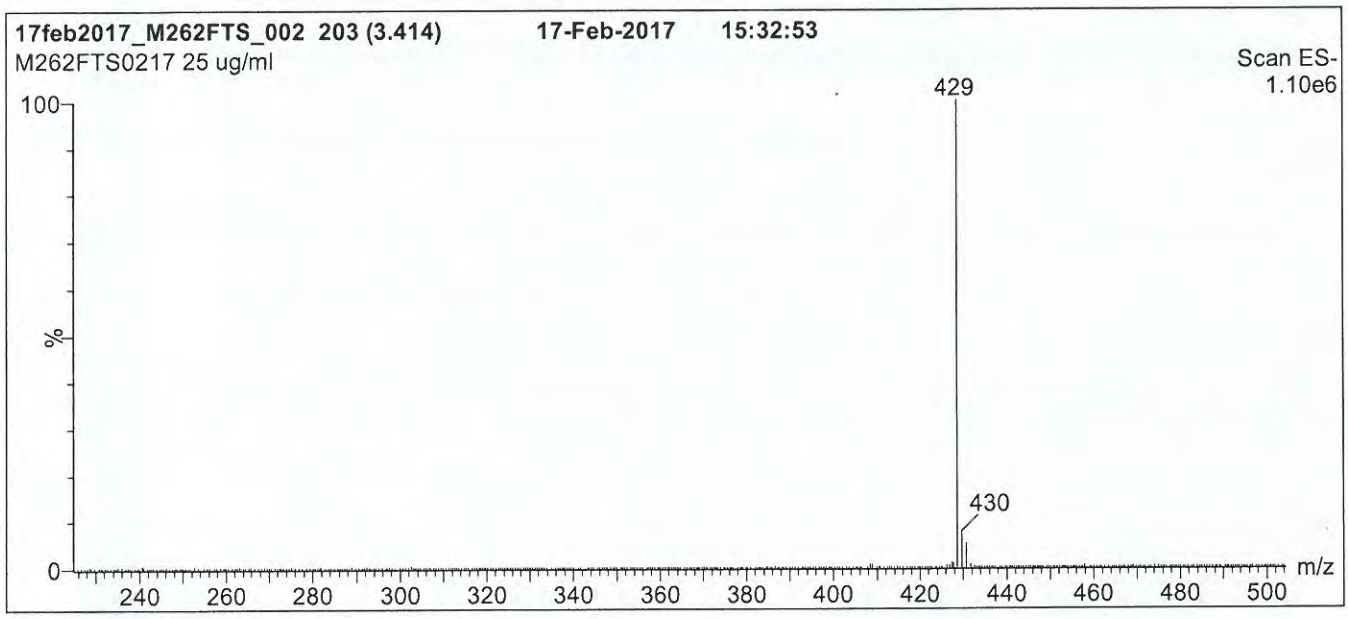
17K0807

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

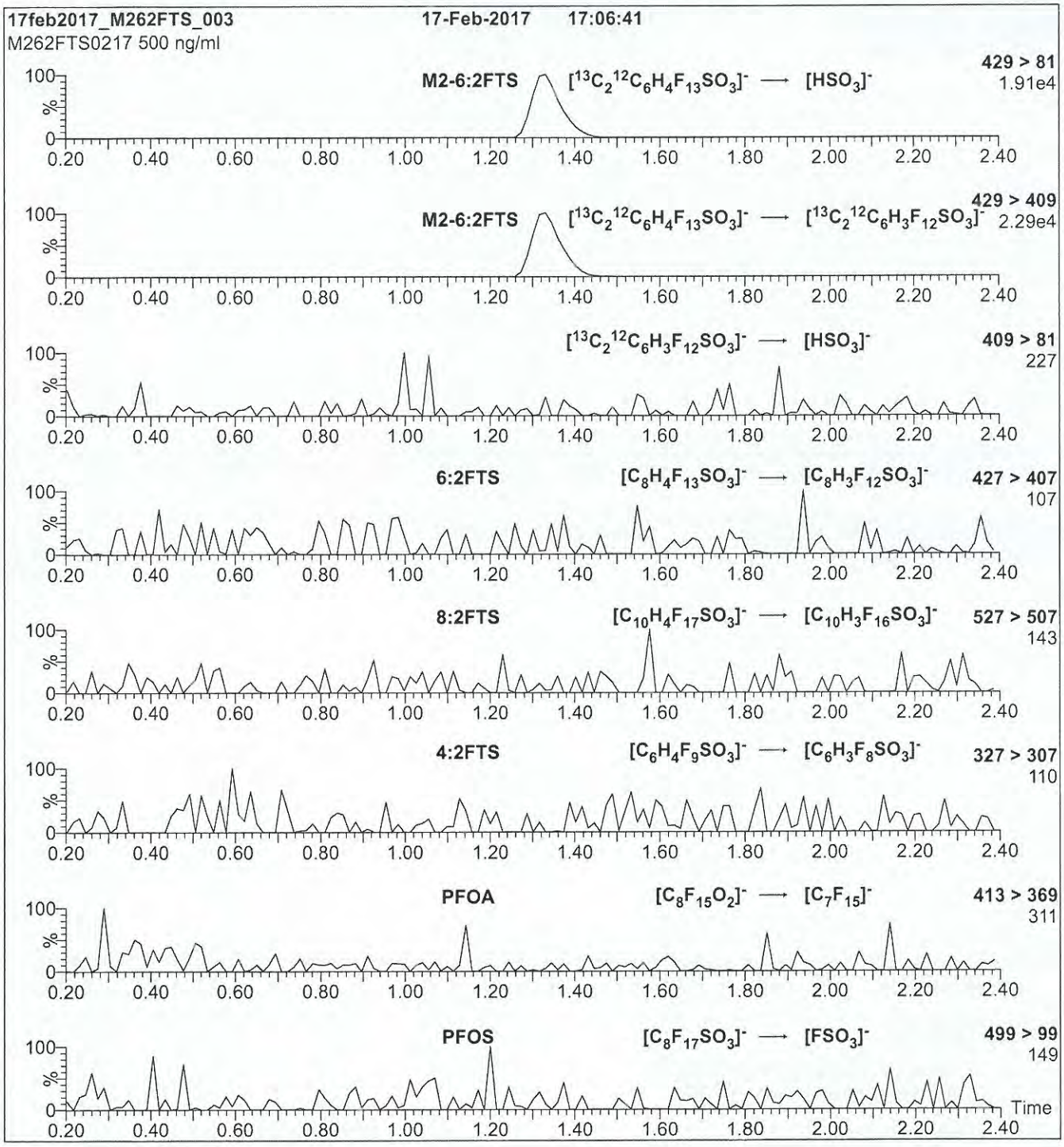
MS Parameters

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

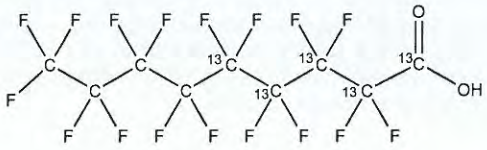
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

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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 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).

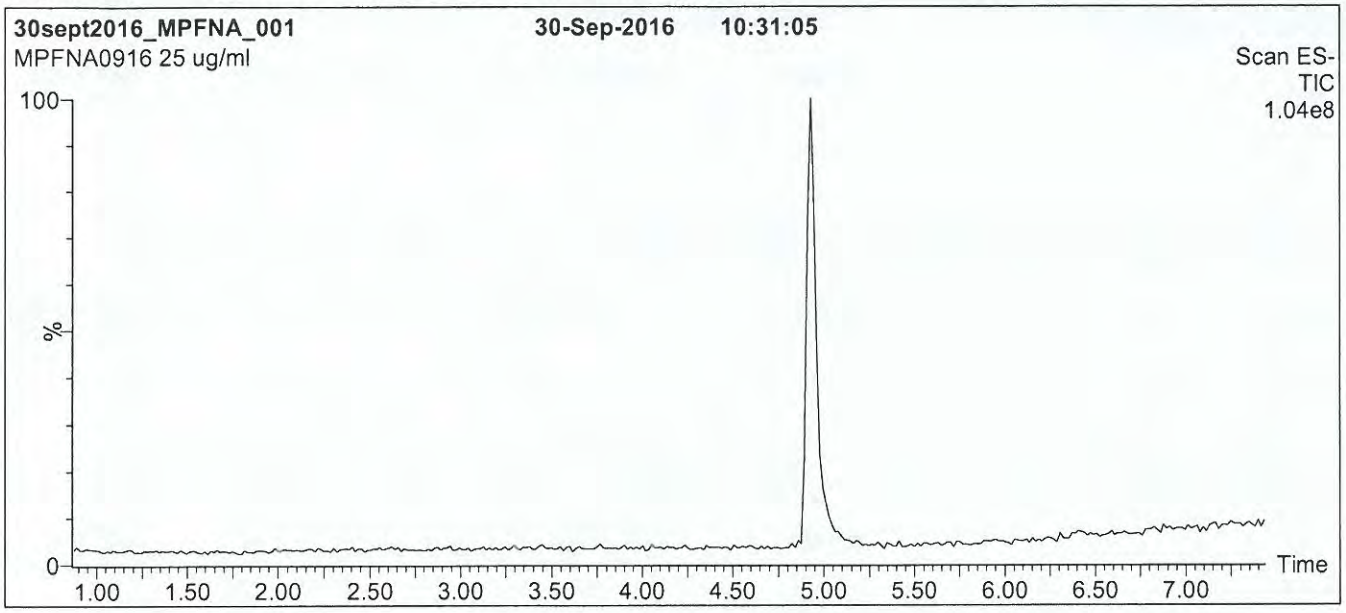
CALA Testing

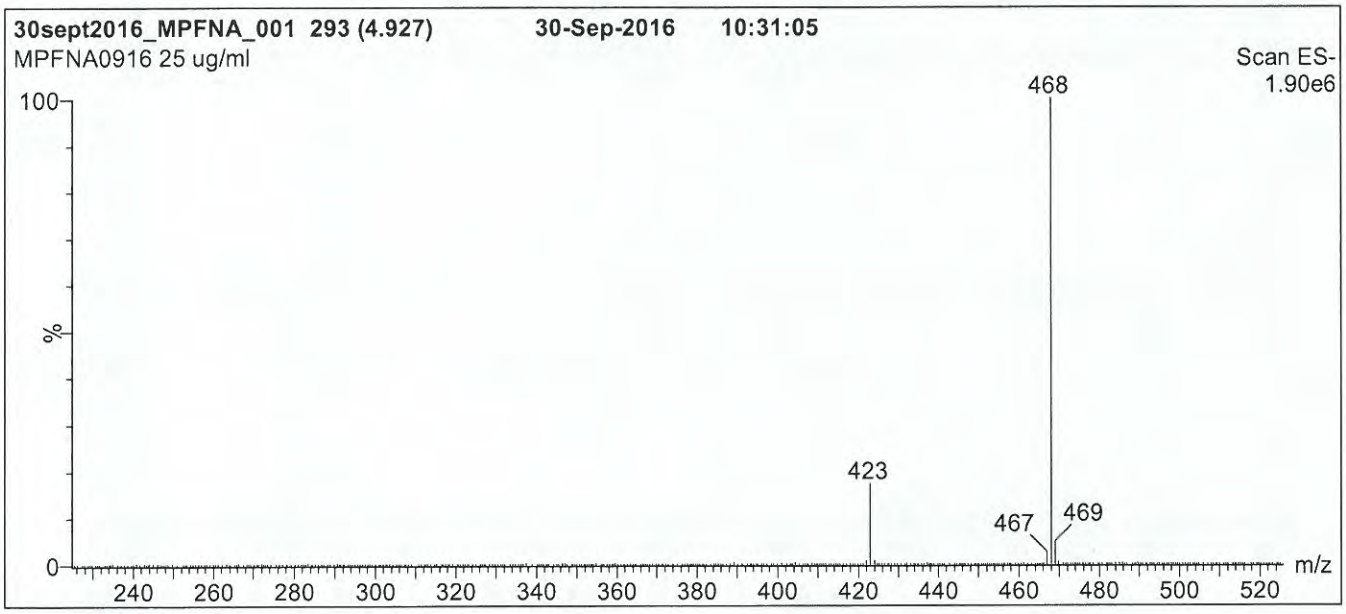
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

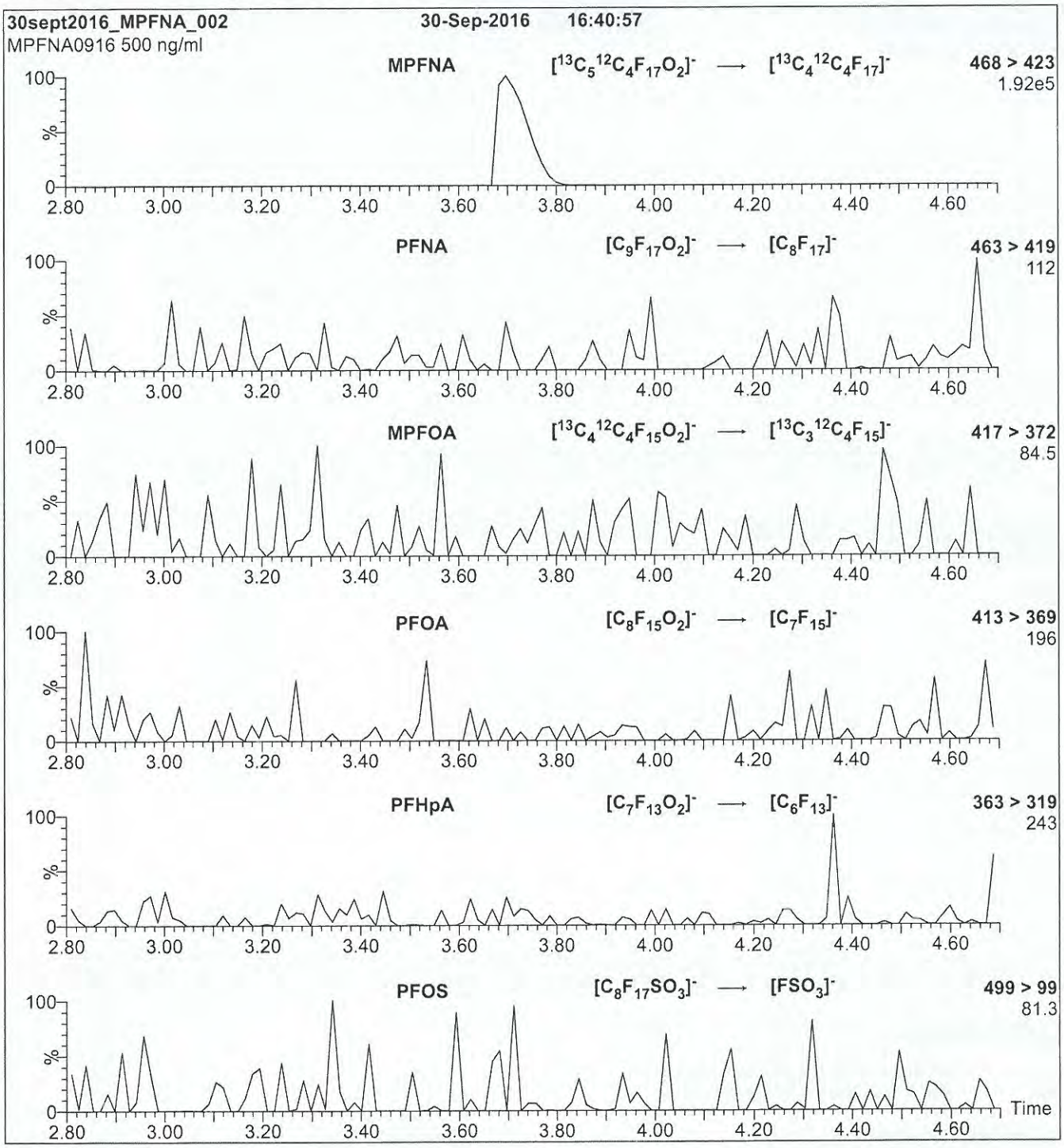
MS Parameters

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

WELLINGTON LABORATORIES

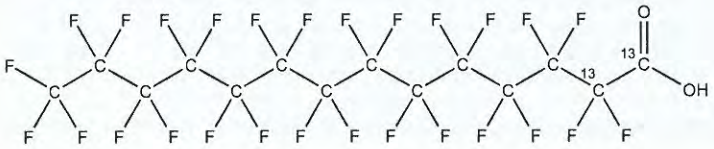
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2PFTeDA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid

LOT NUMBER: M2PFTeDA0217

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{12}HF_{27}O_2$	**MOLECULAR WEIGHT:**	716.10
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)	03/01/2017		
EXPIRY DATE: (mm/dd/yyyy)	03/01/2022		
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:** 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:

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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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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QUALITY MANAGEMENT:

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CALA Testing

ANAB ACCREDITED Reference Material Producer

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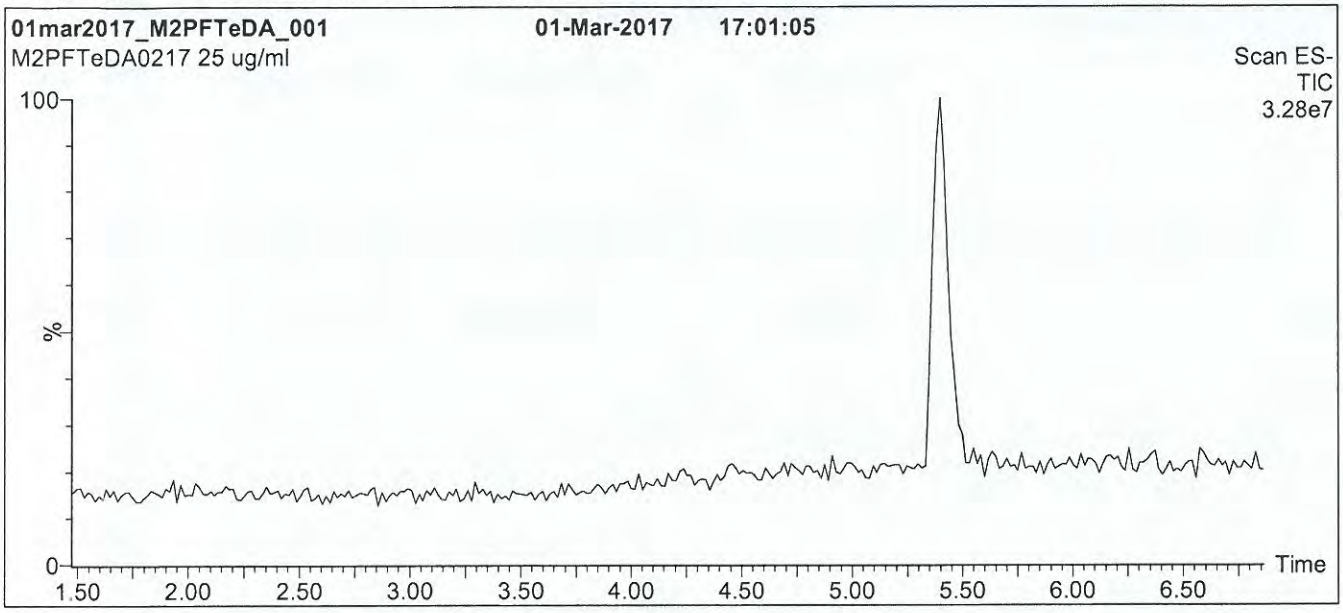
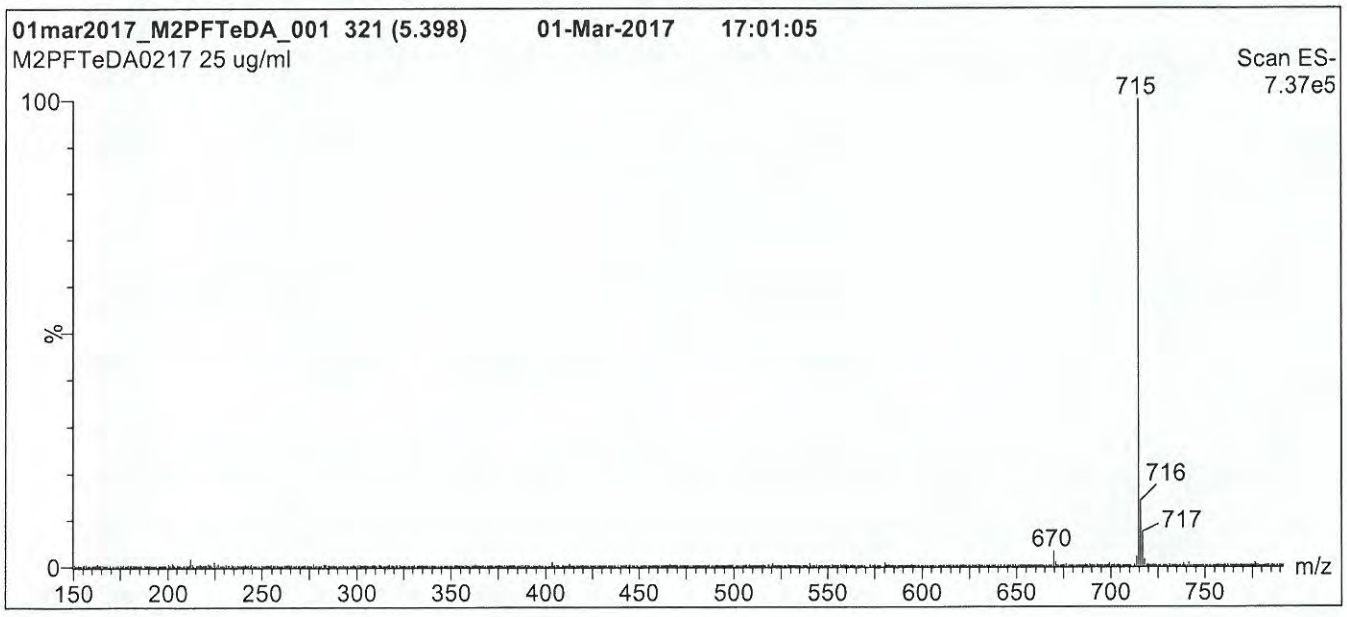
17K0812

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

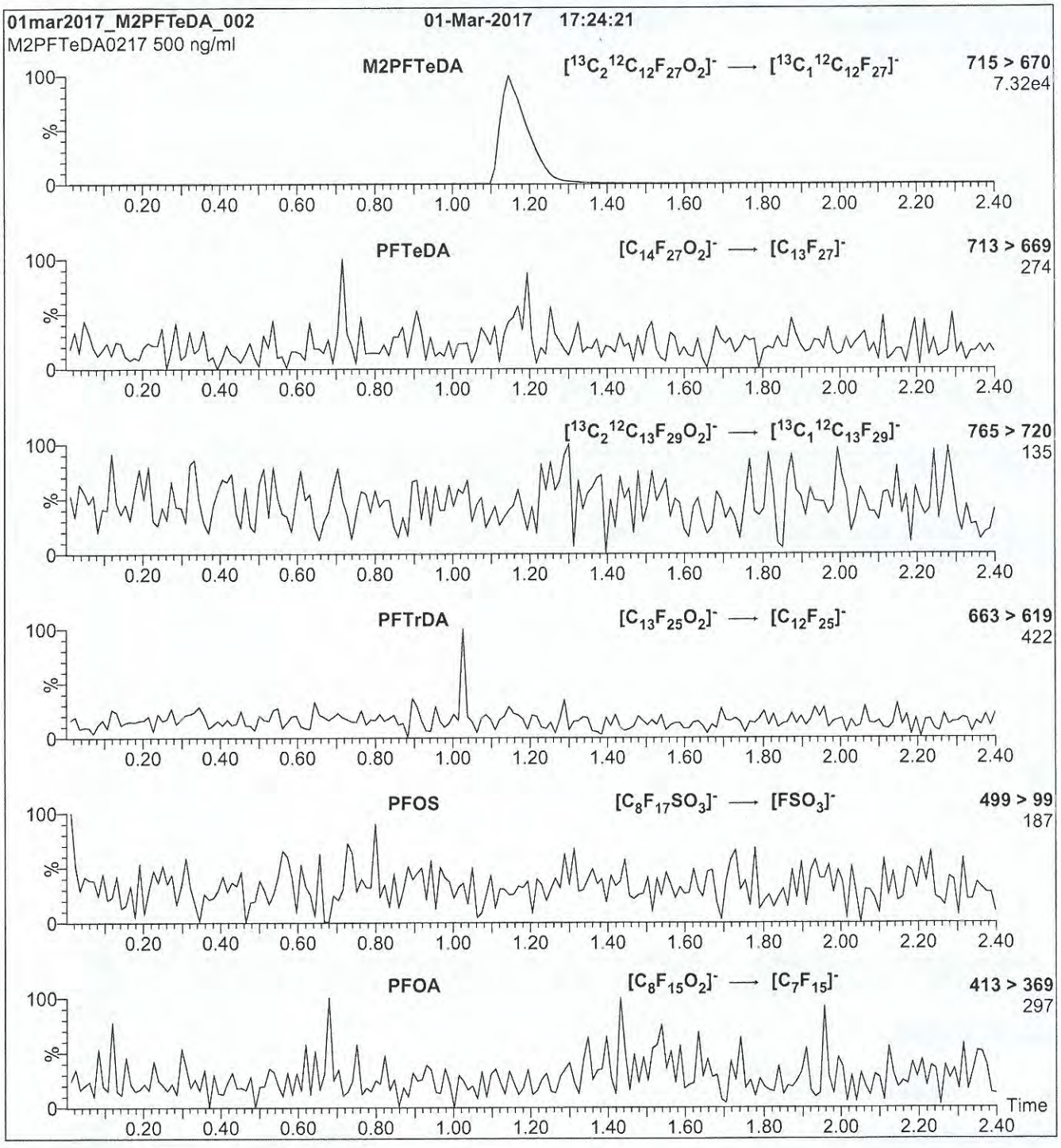
MS Parameters

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

WELLINGTON LABORATORIES

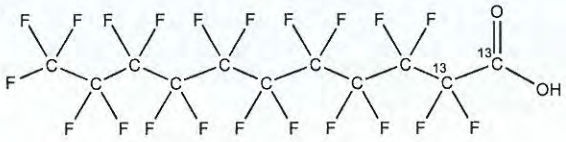
CERTIFICATE OF ANALYSIS DOCUMENTATION

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:

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HAZARDS:

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SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

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where x is expressed as a relative standard uncertainty of the individual parameter.

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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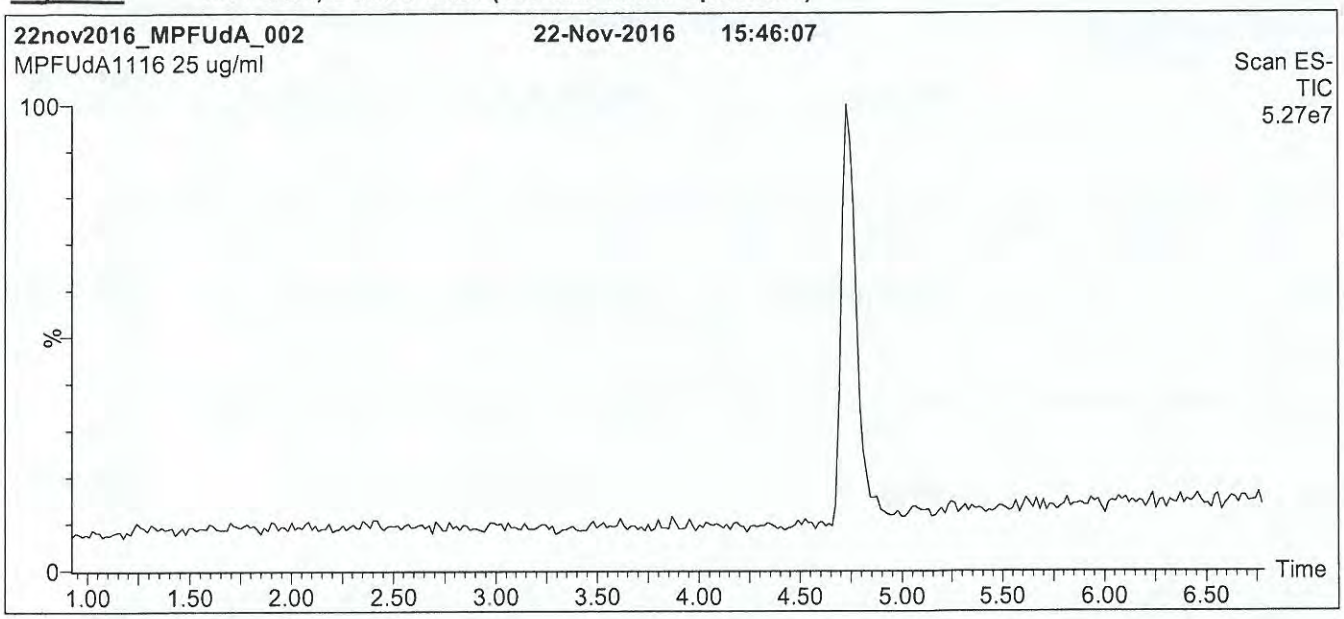
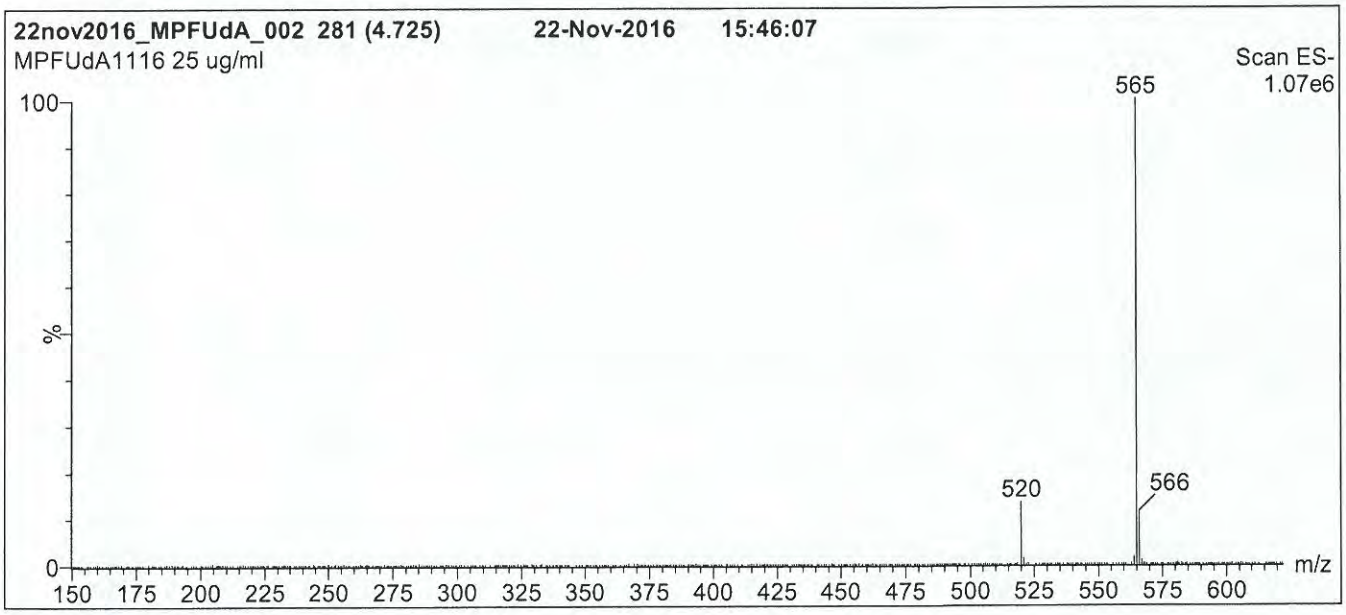
17K0813

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

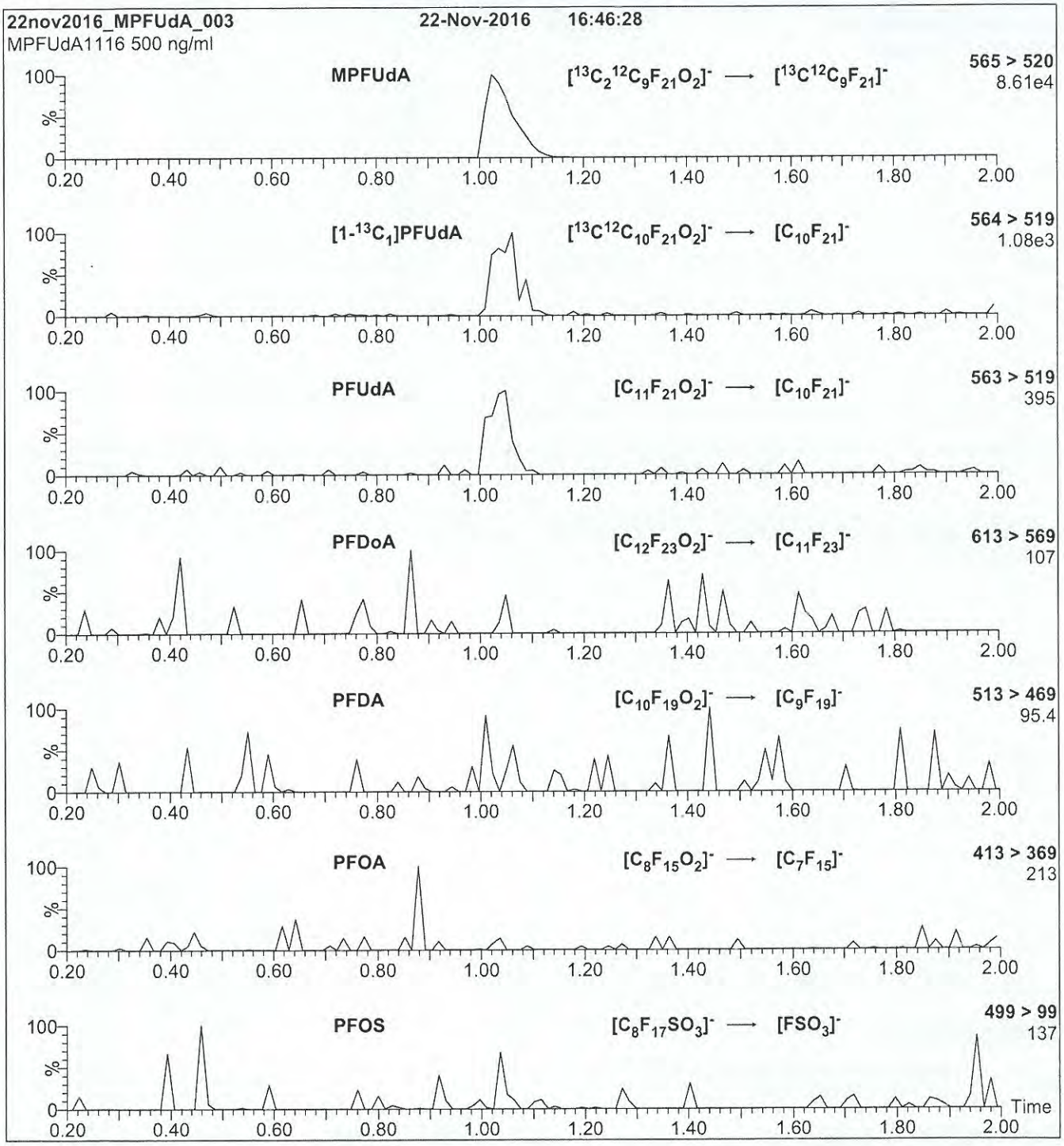
MS Parameters

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

WELLINGTON LABORATORIES

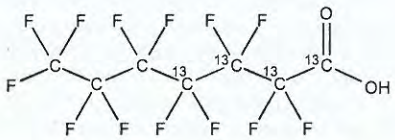
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

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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:

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).

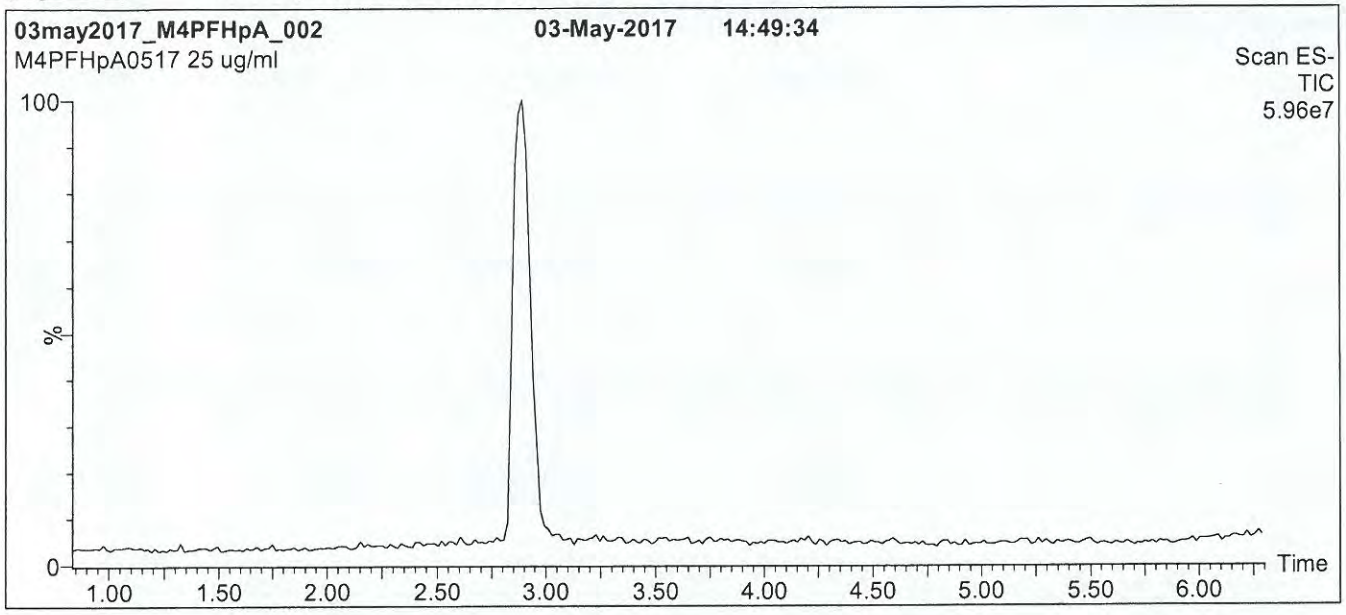
CALA Testing

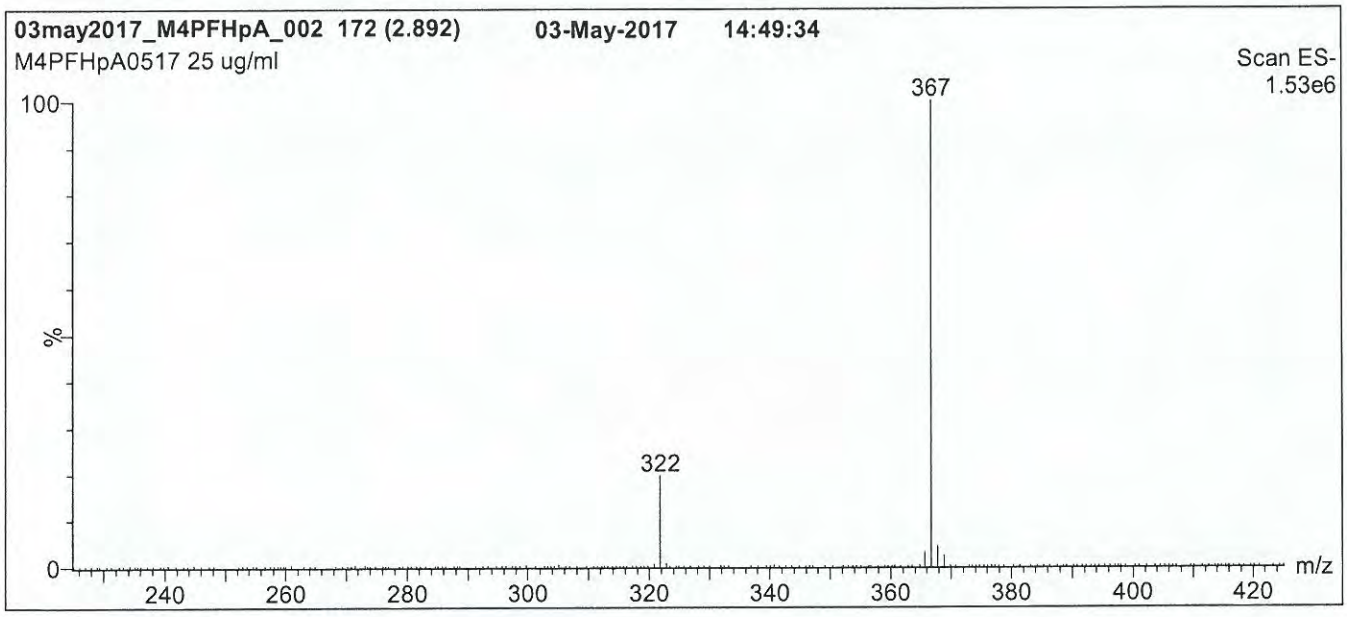
ANAB ACCREDITED

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

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

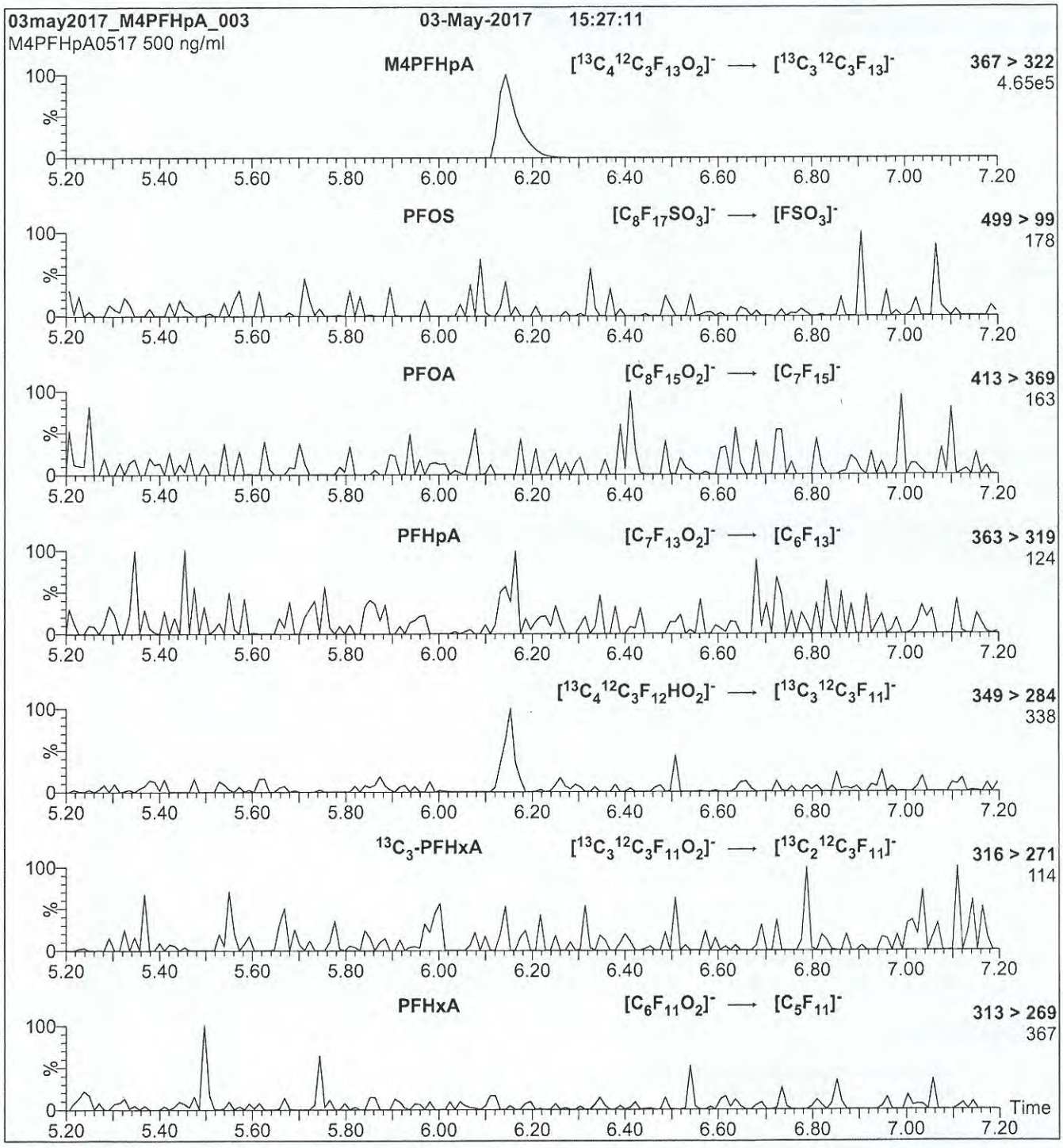
MS Parameters

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

1701<0816

WELLINGTON LABORATORIES

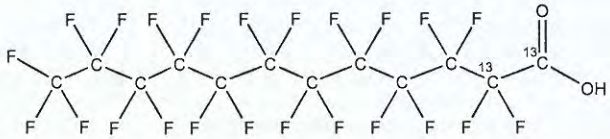
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFDoA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid

LOT NUMBER: MPFDoA0517

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_{10}HF_{23}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 616.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
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

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:** 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

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:

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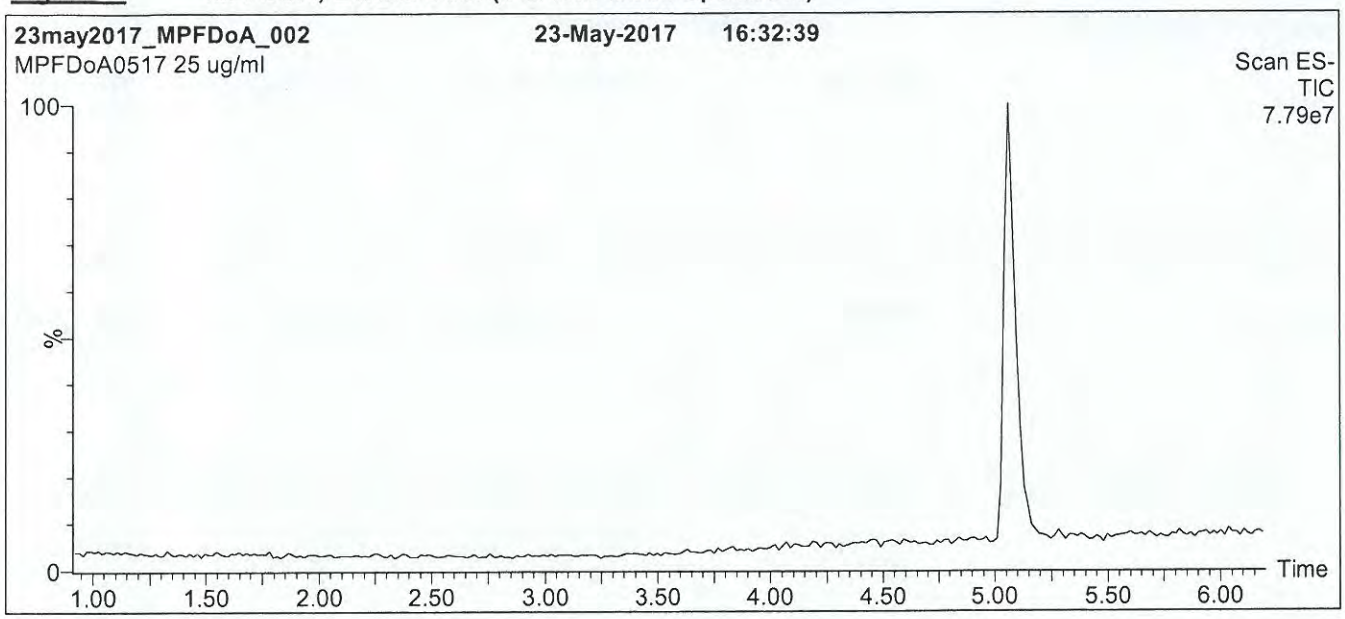
CALA Testing Accreditation No. A 1226

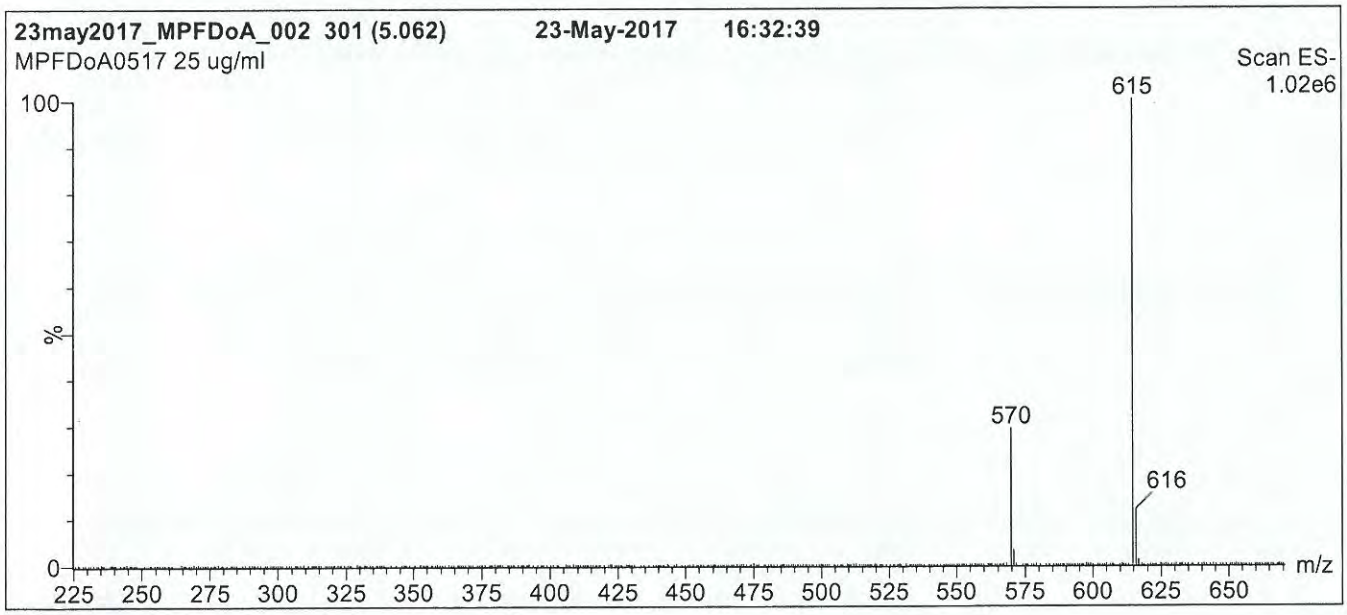
ANAB ACCREDITED Reference Material Producer

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

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

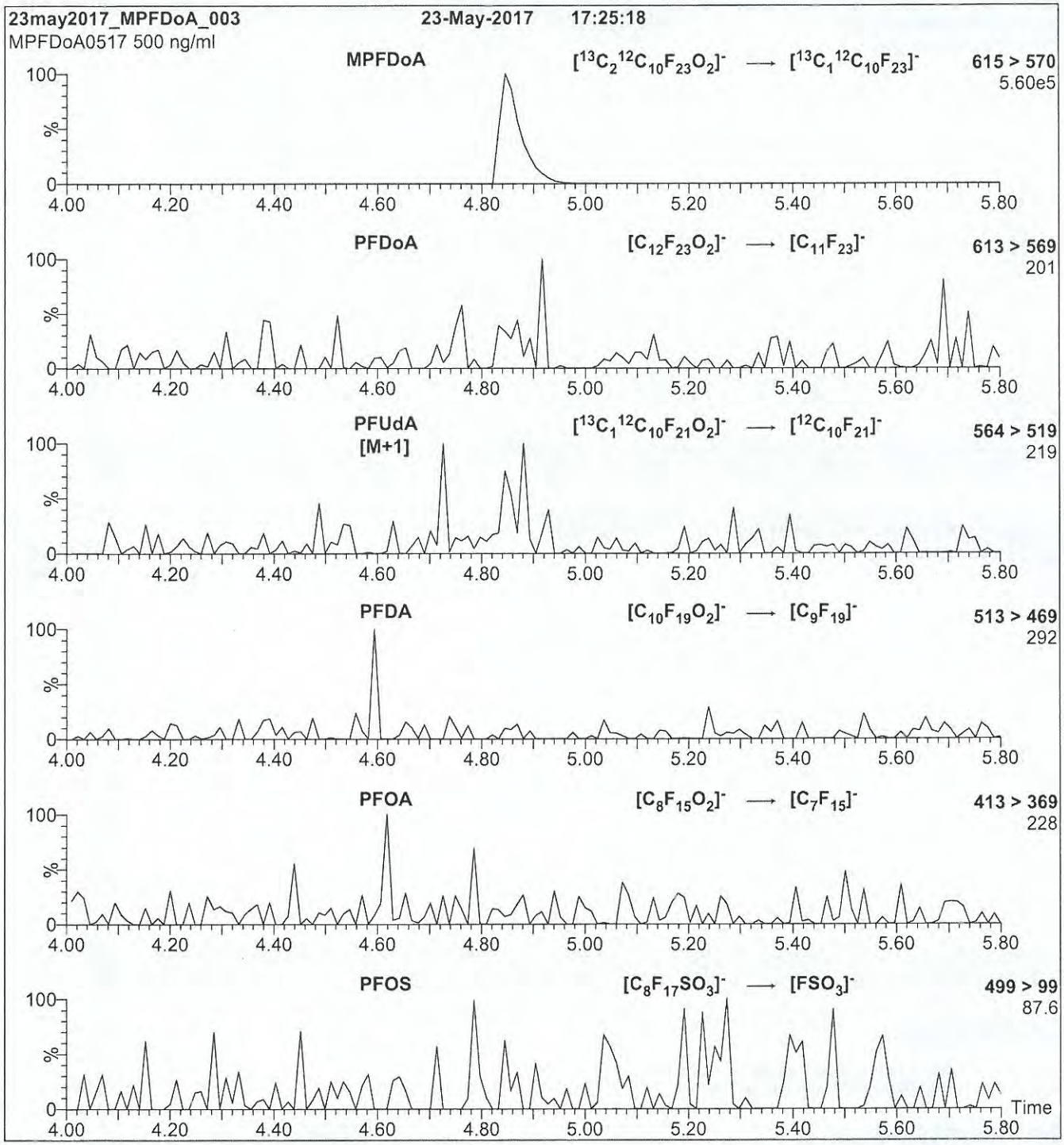
MS Parameters

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

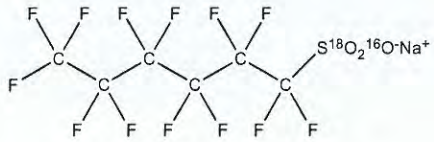
Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 13

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.

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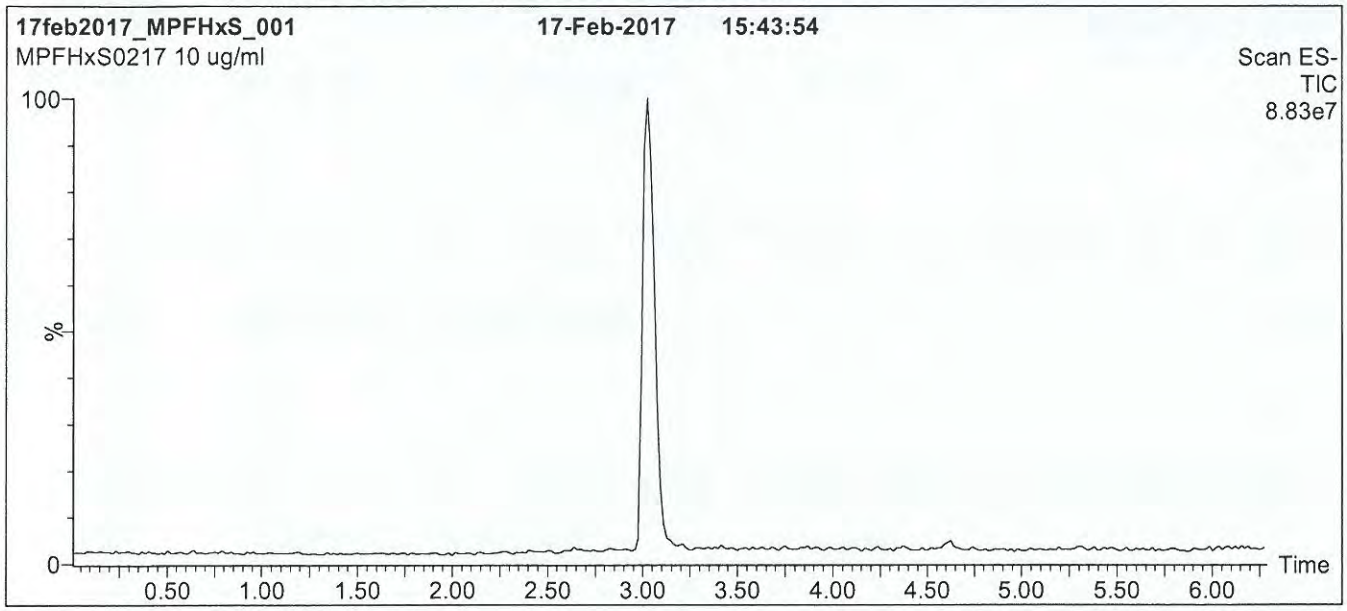
CALA Testing Accreditation No. A1226

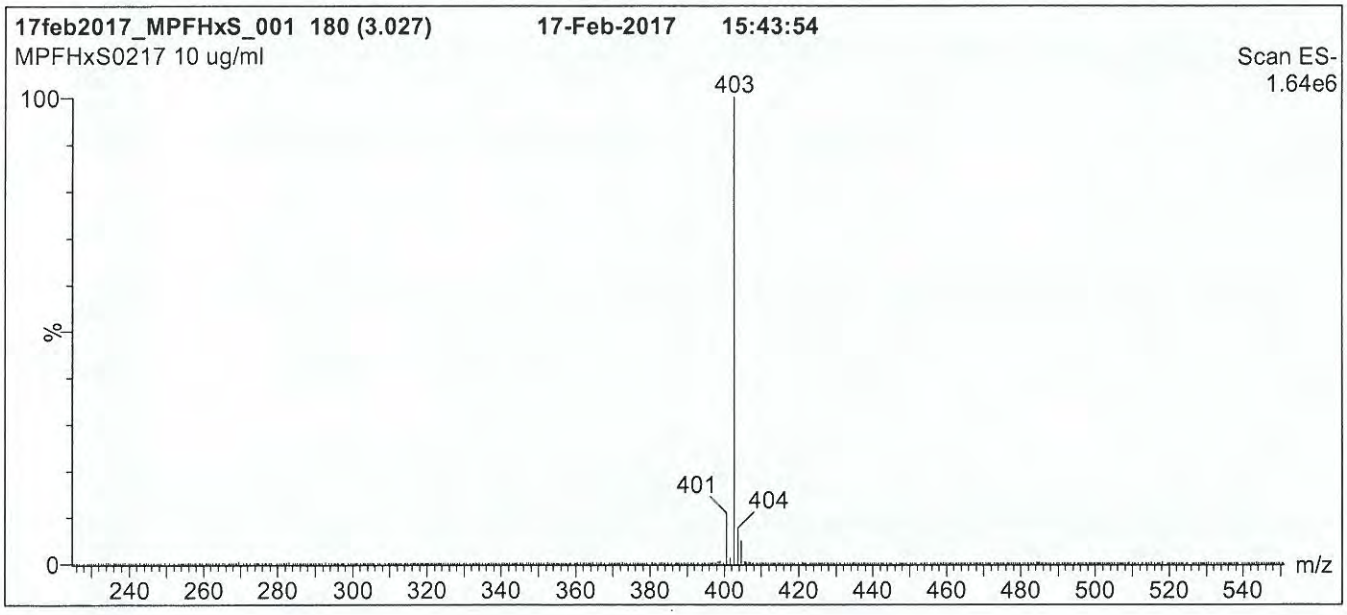
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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

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

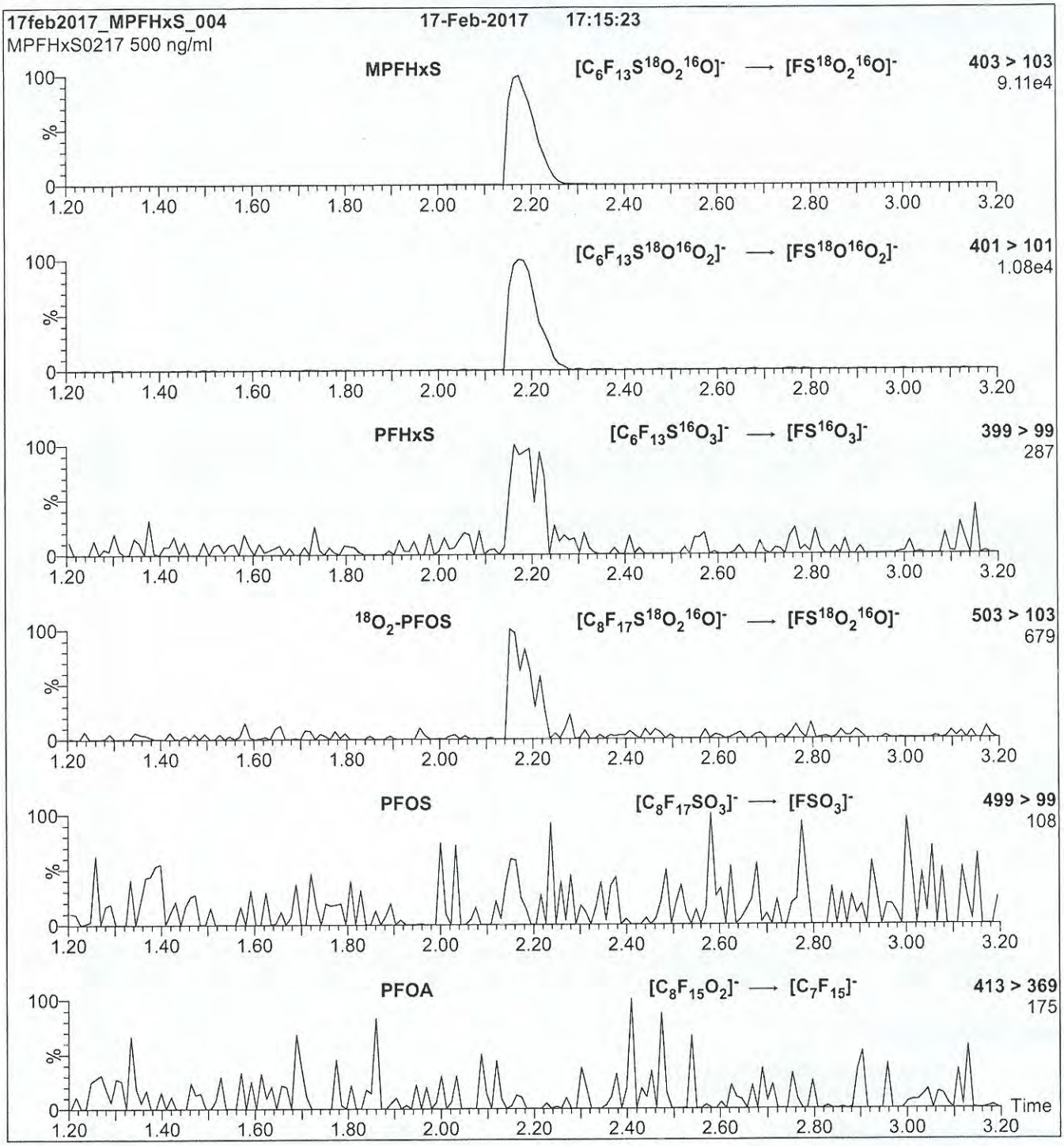
MS Parameters

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

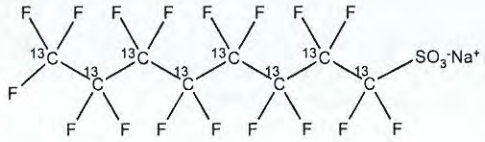
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 30

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

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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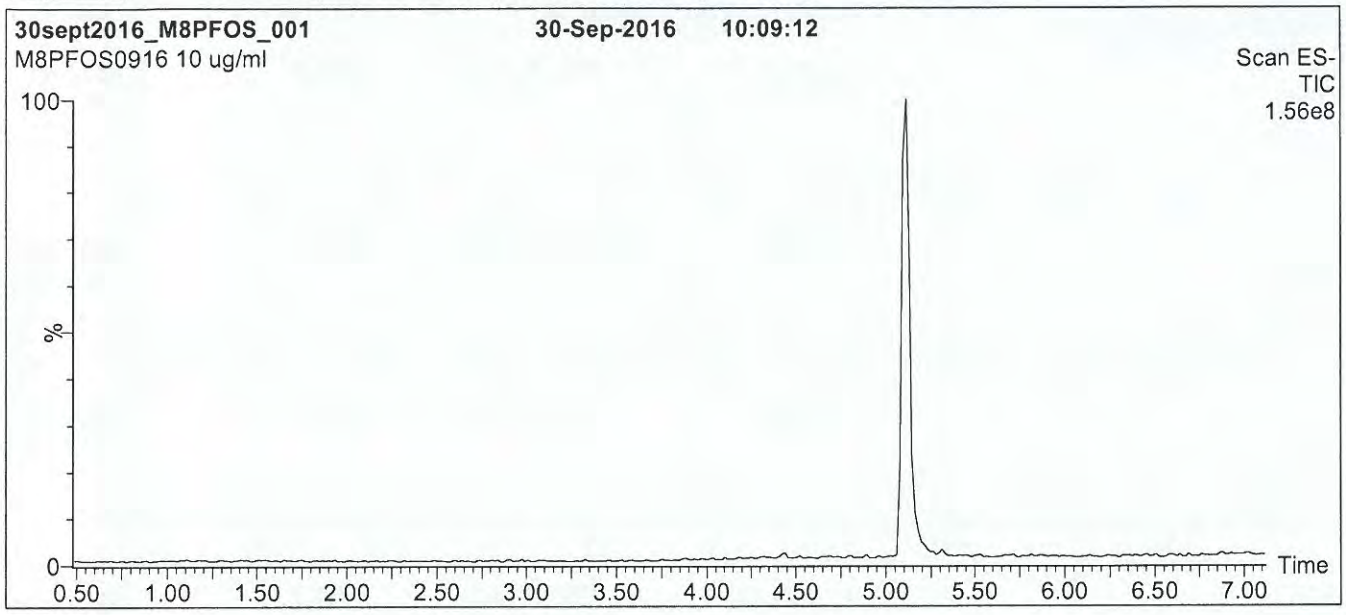
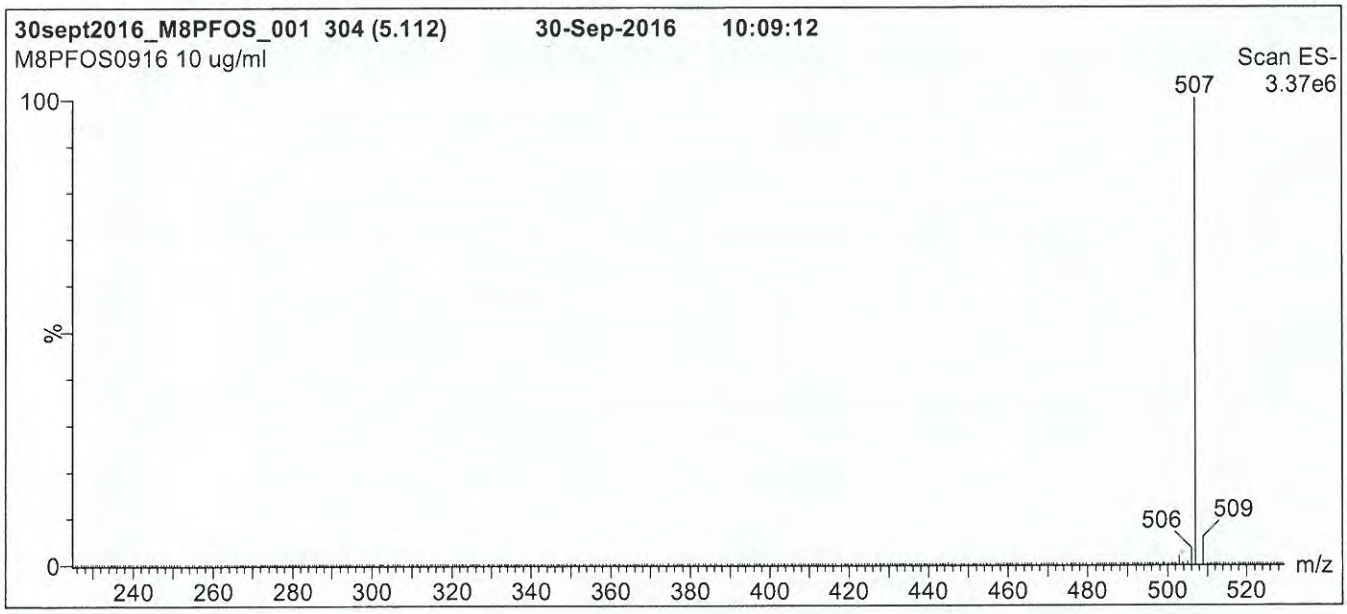
17K0819

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

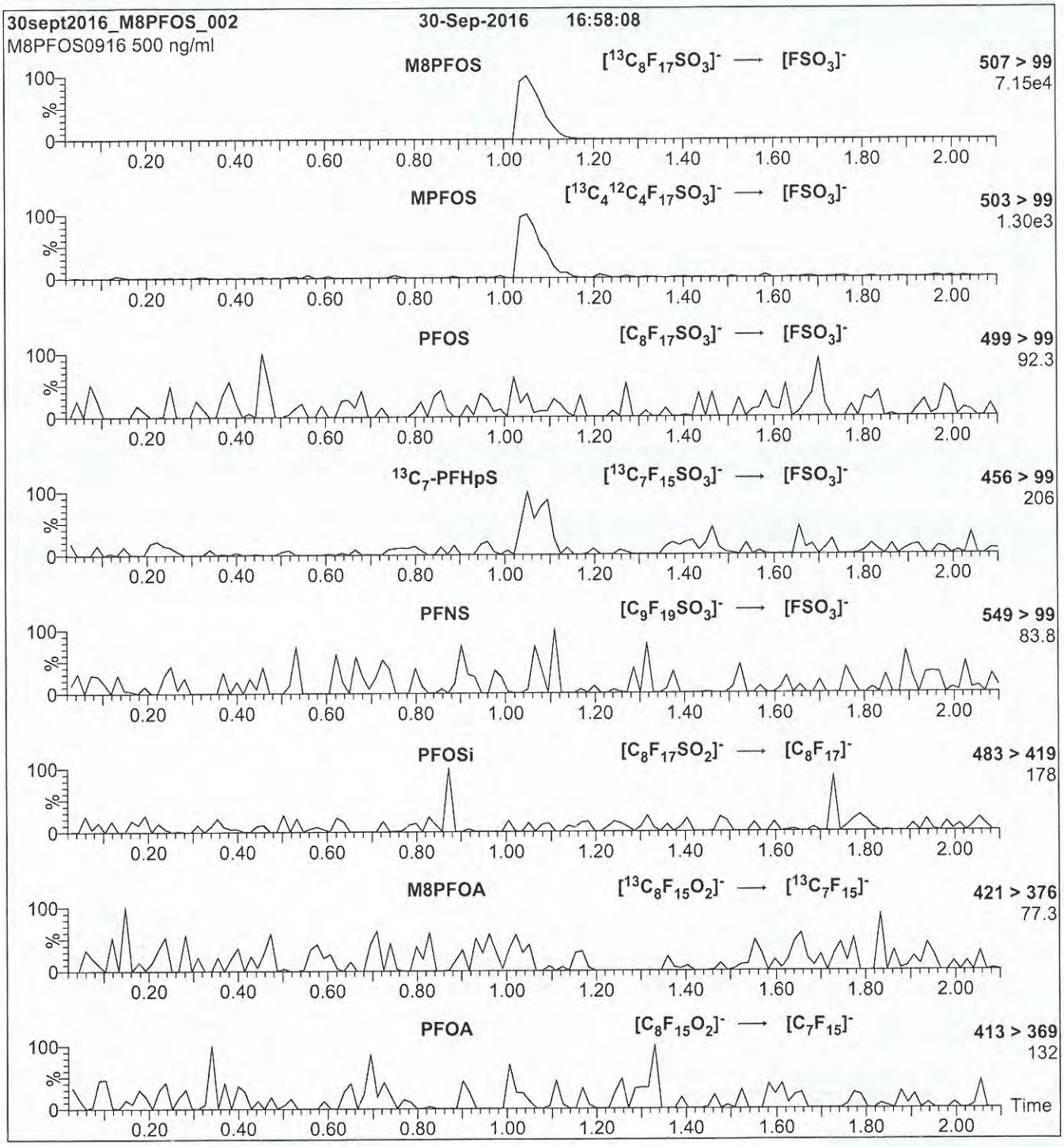
MS Parameters

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

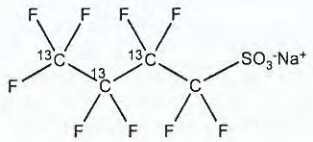
WELLINGTON LABORATORIES

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:

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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HOMOGENEITY:

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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 $x_1, x_2, \ldots x_n$ 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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CALA Testing Accreditation No. A1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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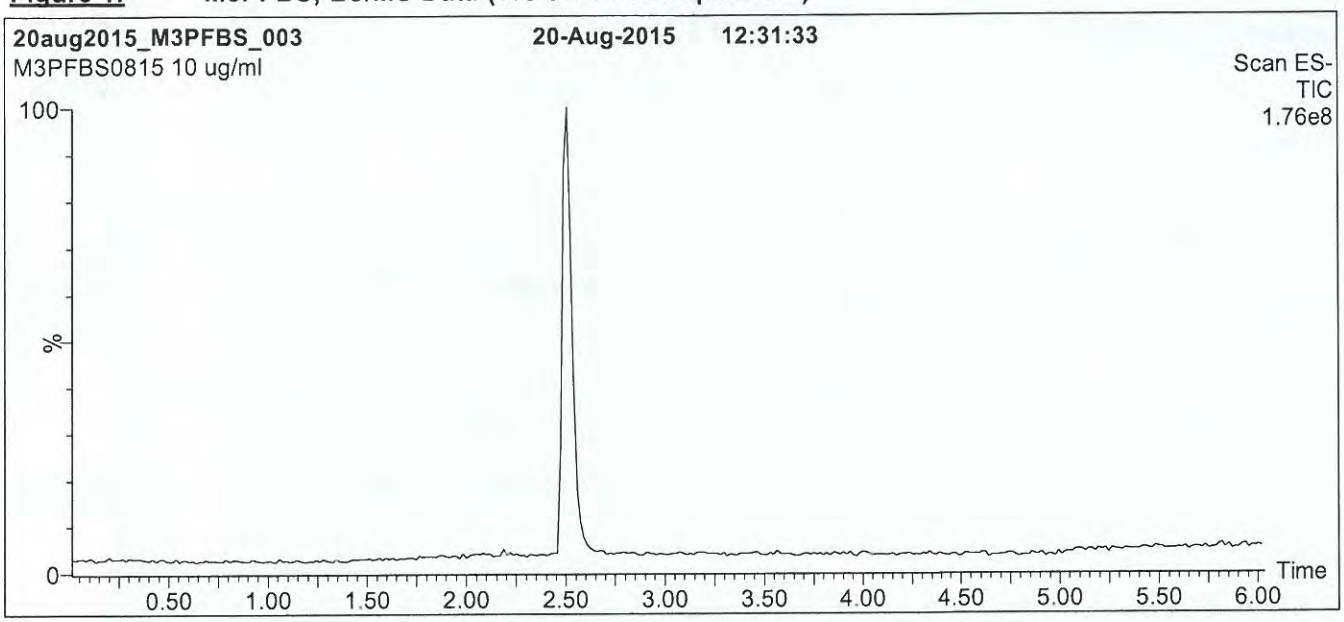
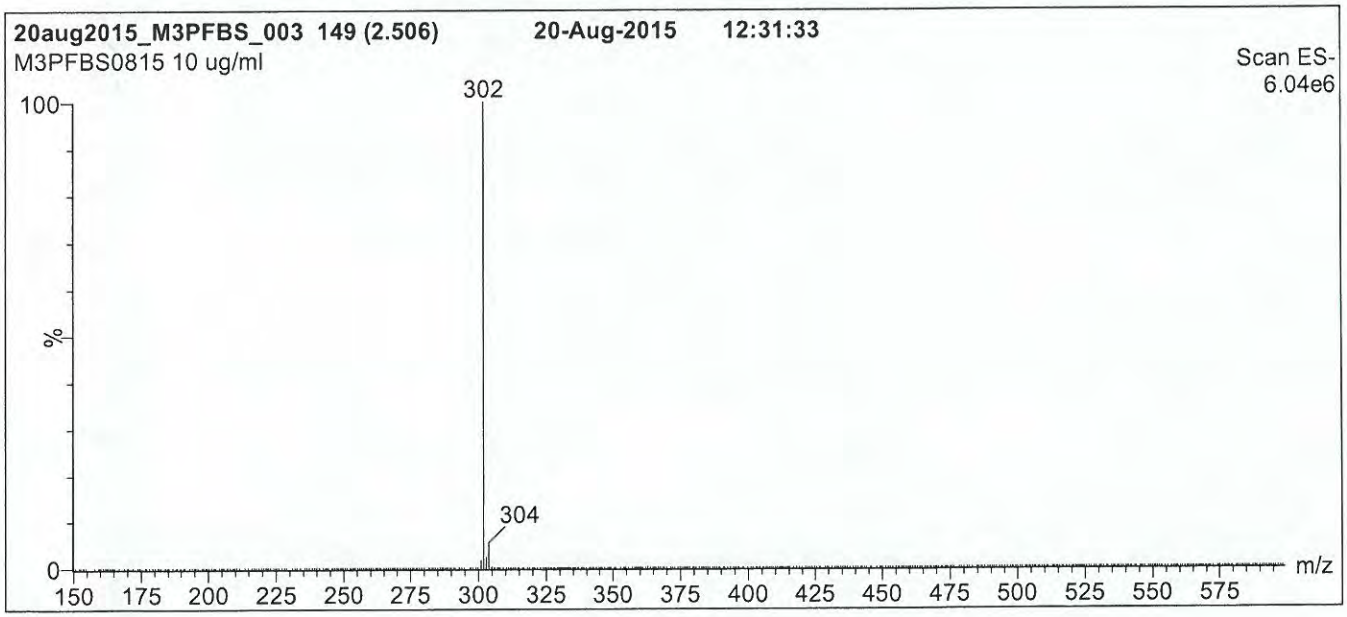
17K0821

Figure 1: **M3PFBS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

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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

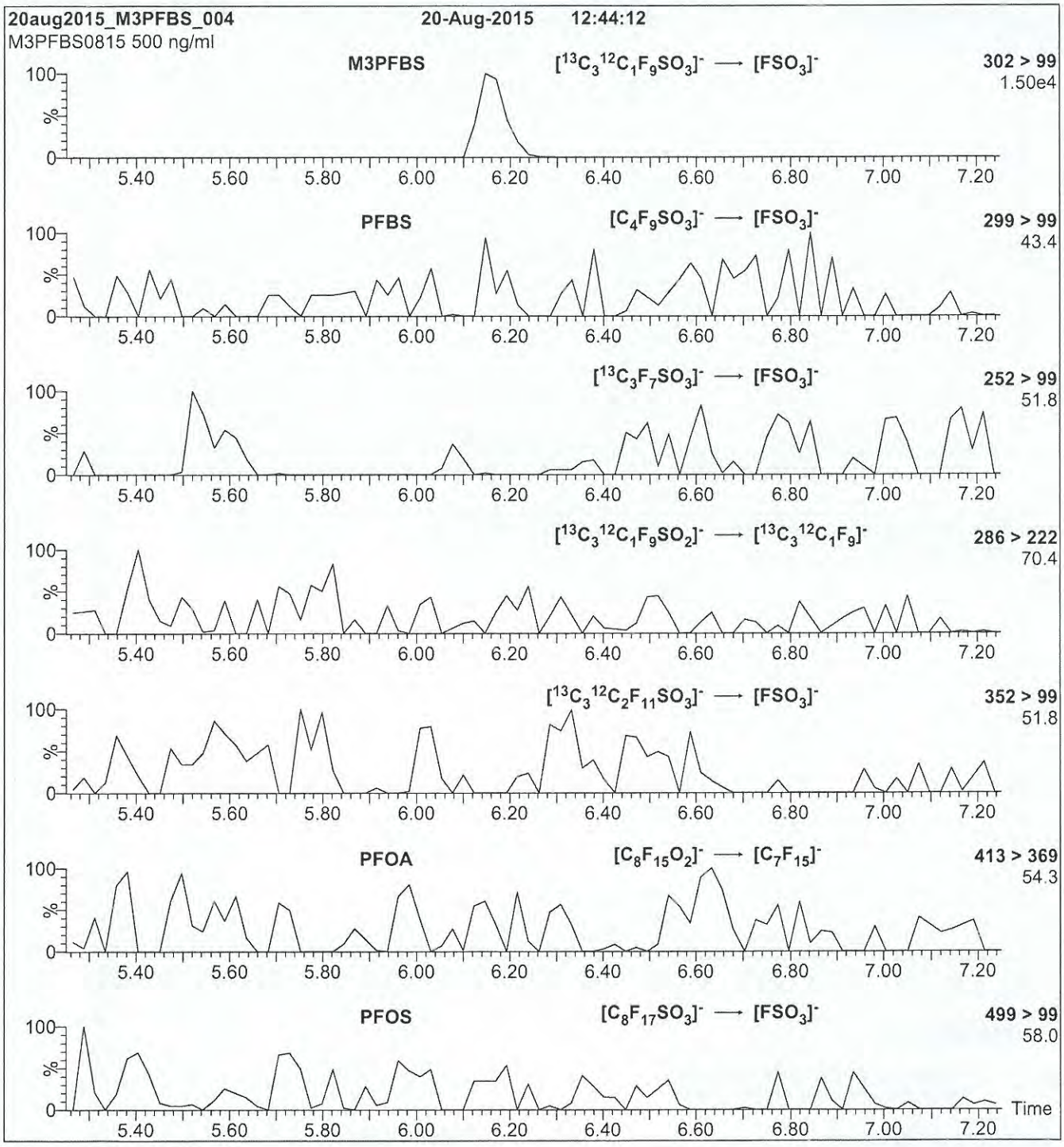
MS Parameters

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

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

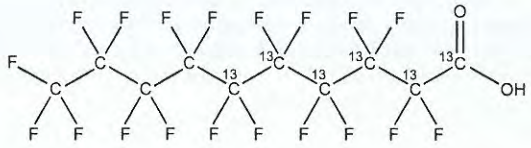
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M6PFDA
COMPOUND: Perfluoro-n-[1,2,3,4,5,6-$^{13}C_6$]decanoic acid

LOT NUMBER: M6PFDA0516

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: B.G. Chittim **Date:** 06/13/2016 (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

17J0526

INTENDED USE:

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HAZARDS:

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SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

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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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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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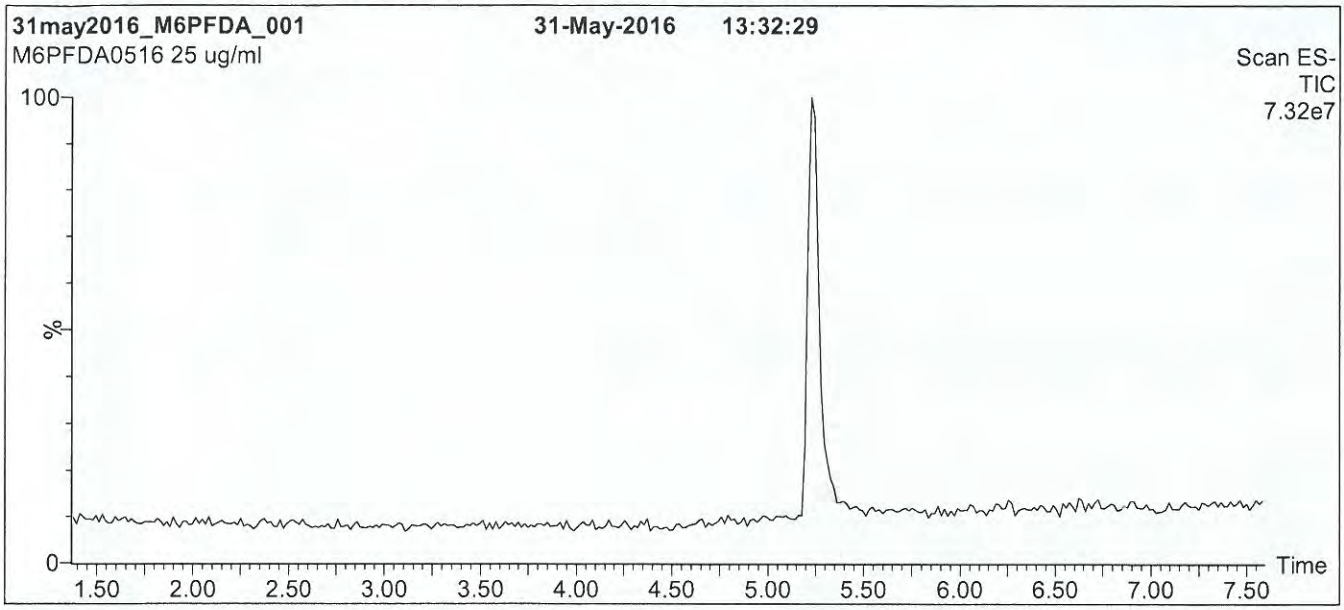
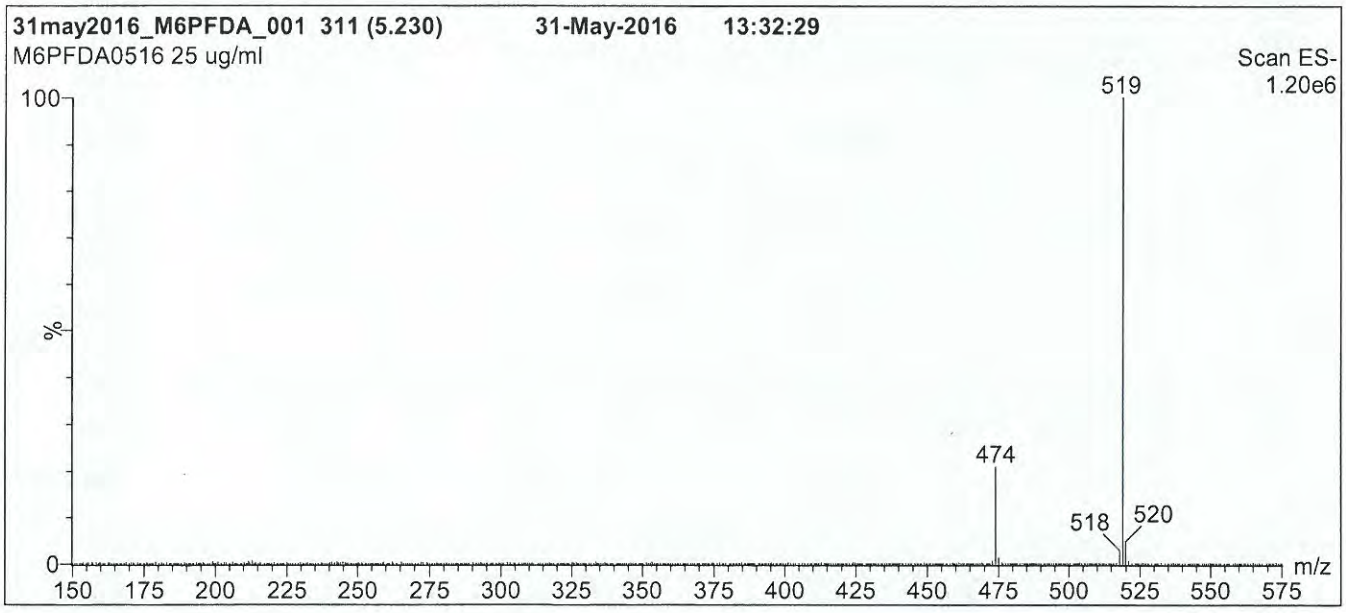
17J0526

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

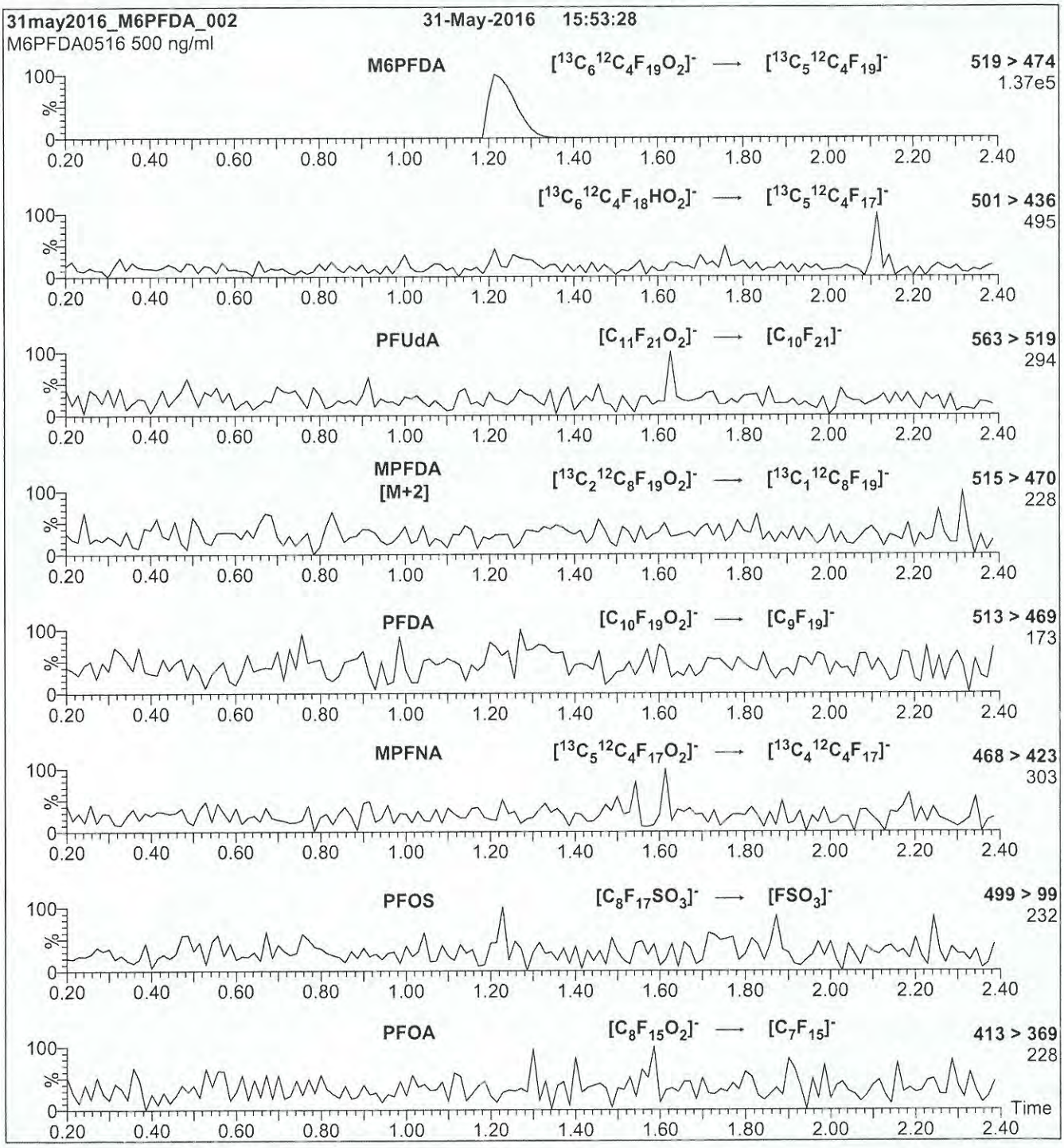
MS Parameters

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

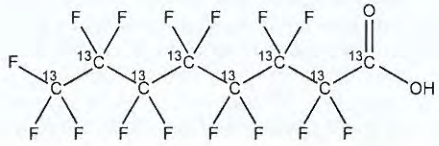
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 13

~~176~~ INJ 10/5/17 17J0527

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

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CALA

ANAB ACCREDITED

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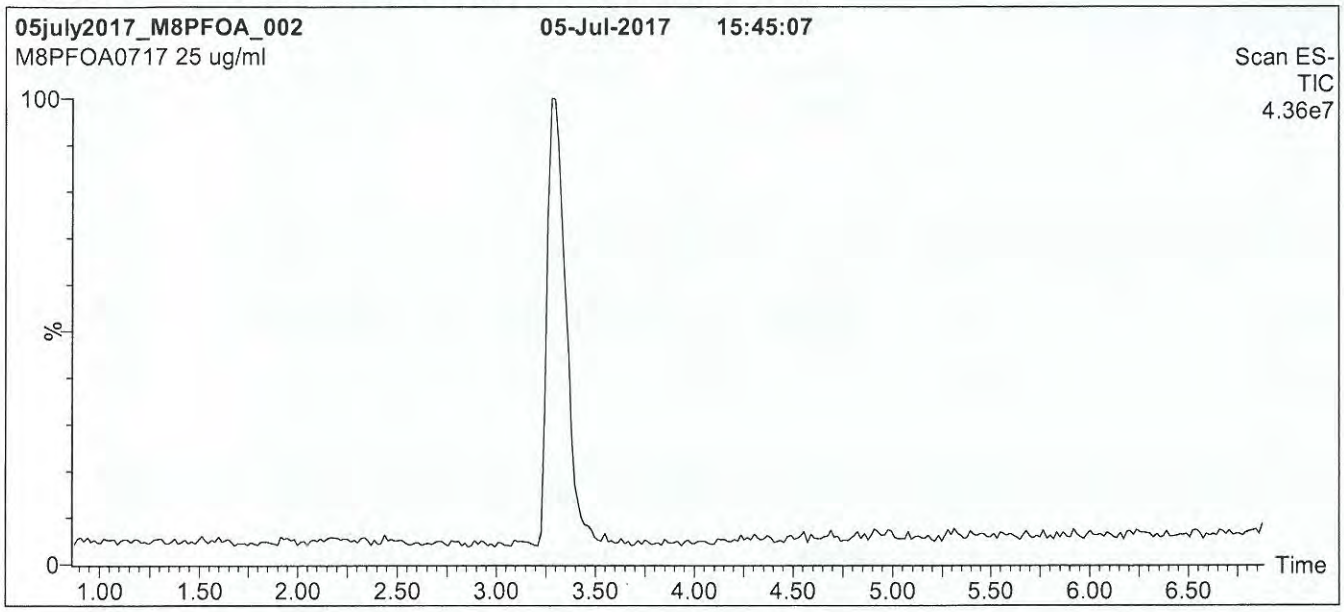
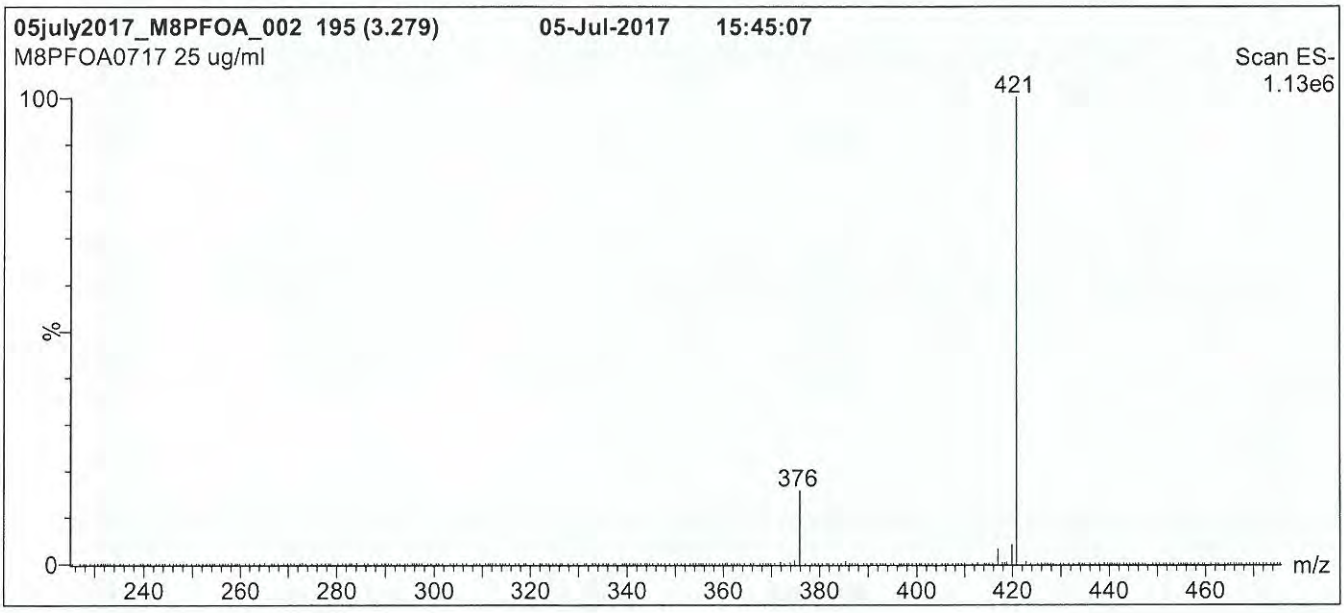
17J0527

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

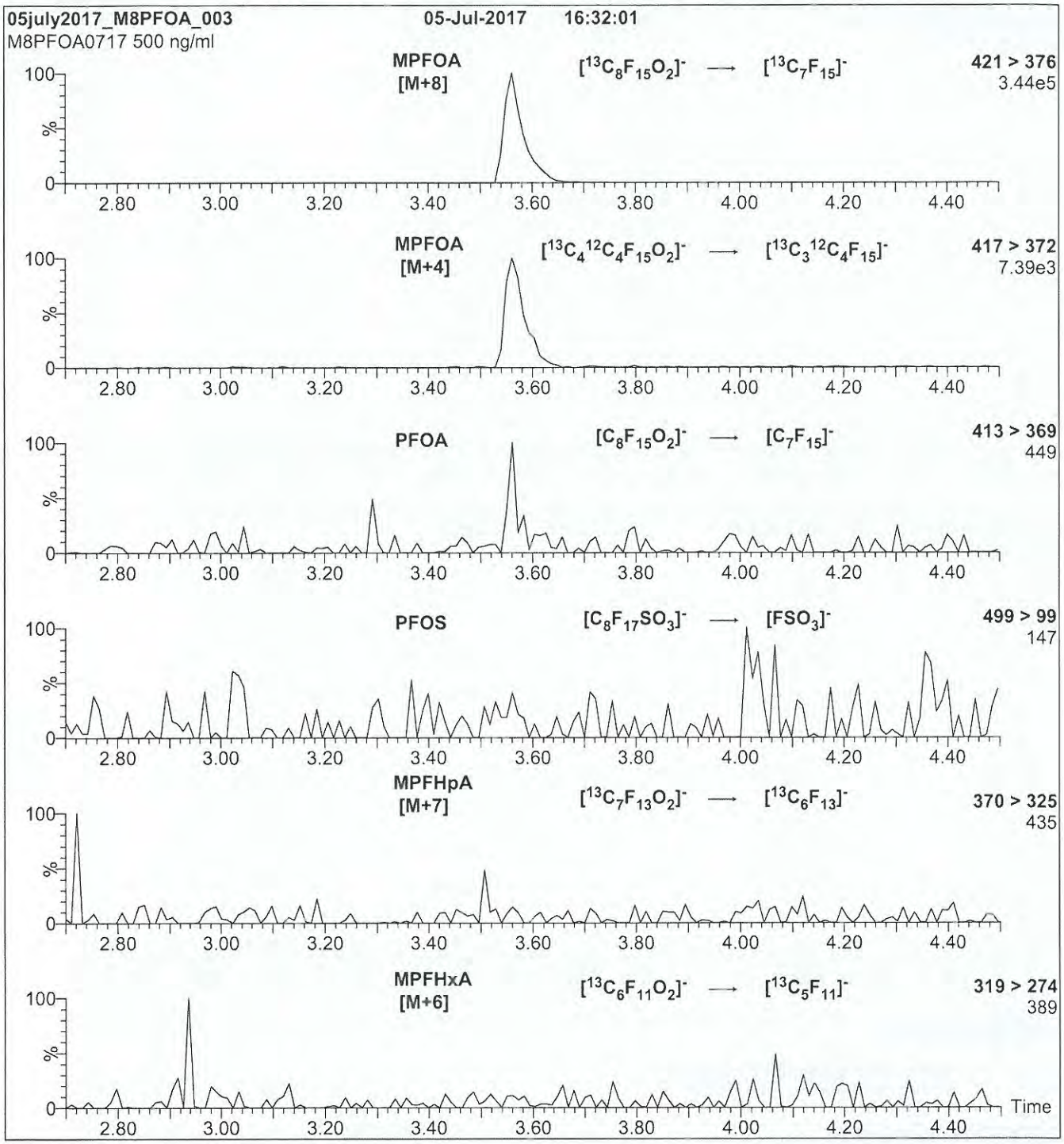
MS Parameters

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

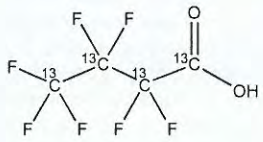
Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 10

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

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).

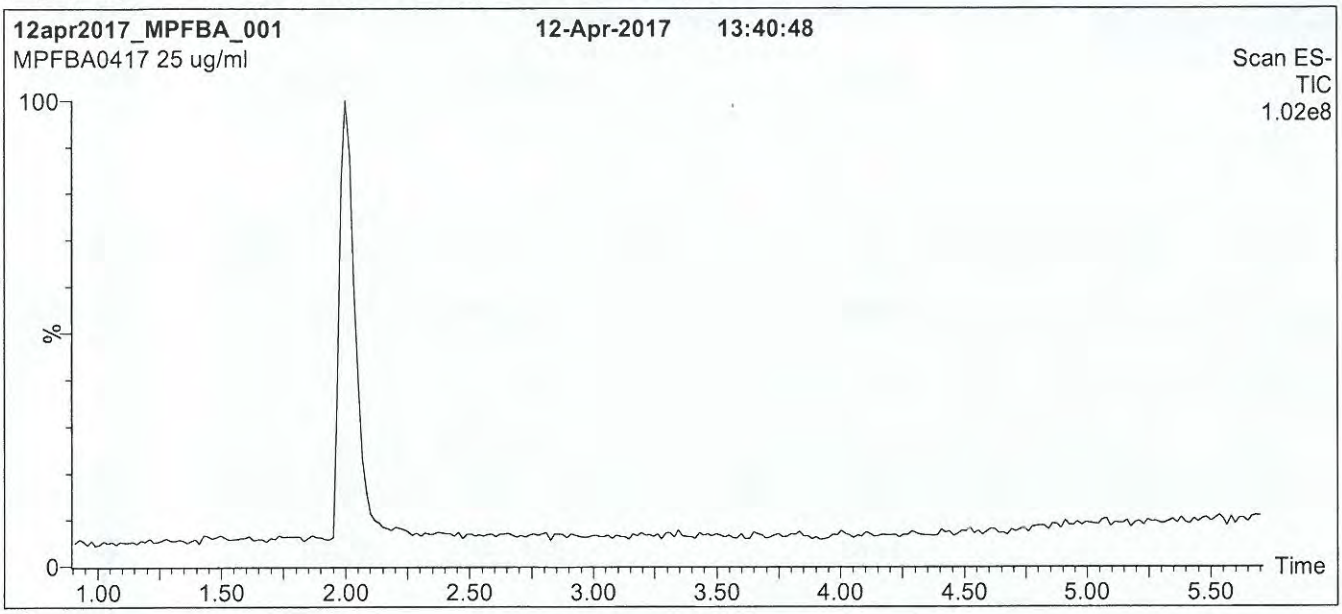
CALA

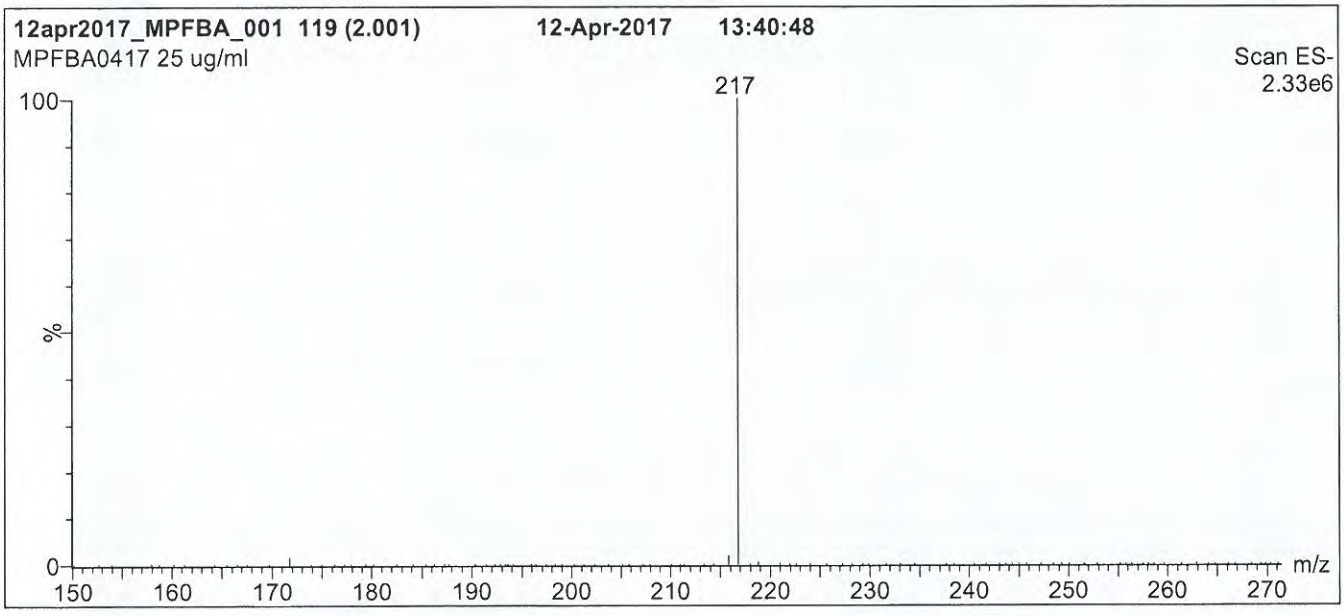
ANAB ACCREDITED

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

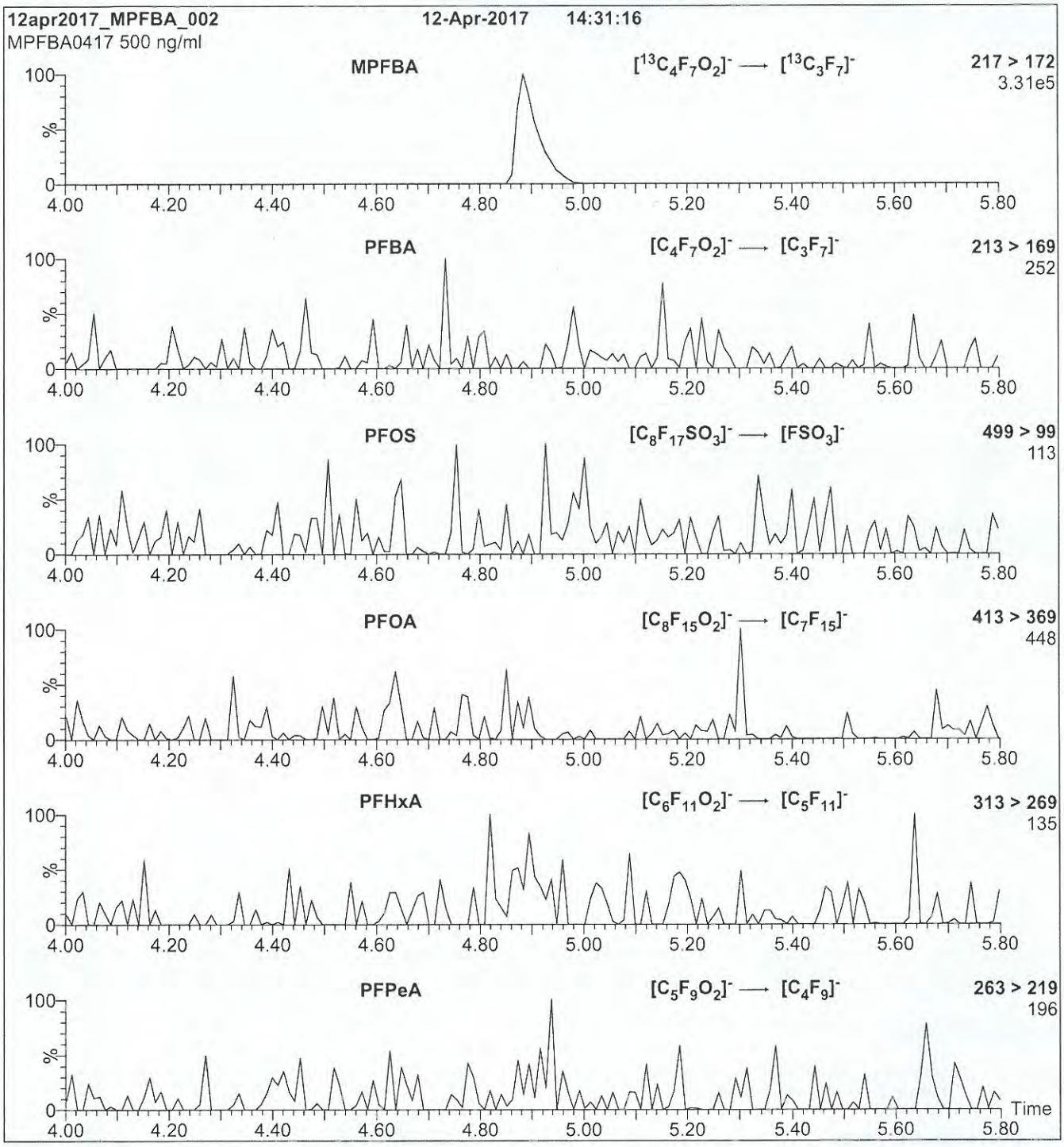
MS Parameters

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

WELLINGTON LABORATORIES

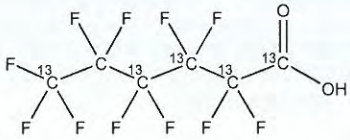
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

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:

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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).

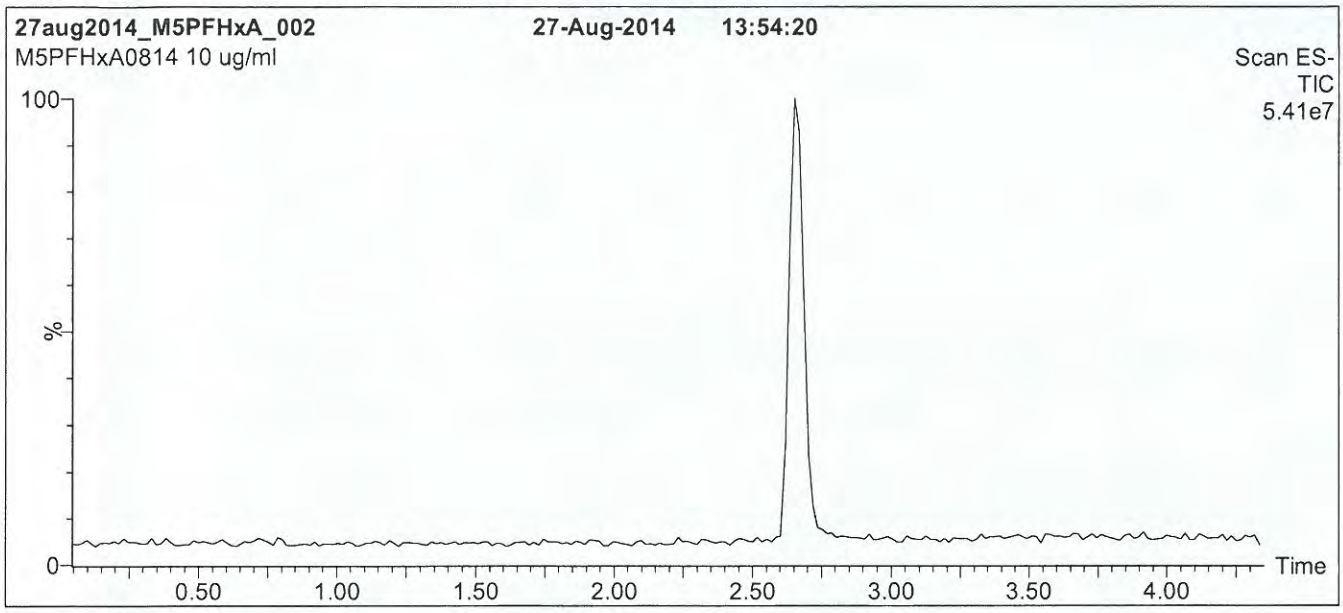
CALA Testing Accreditation No. A 1226

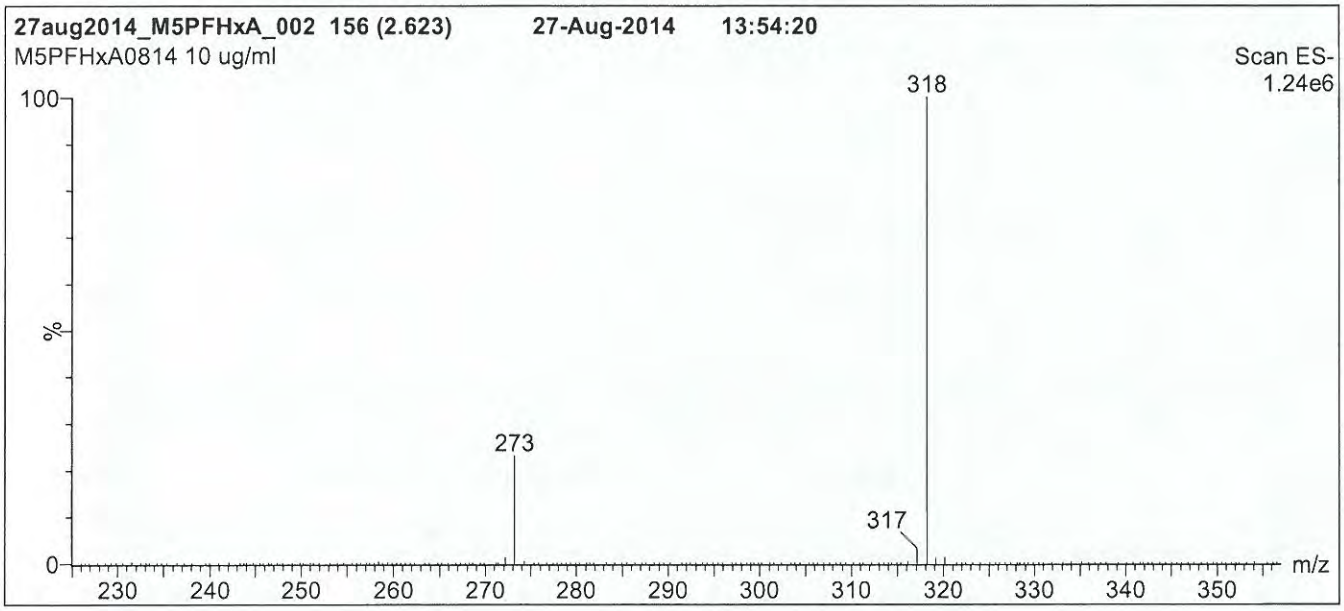
ANAB ACCREDITED Reference Material Producer

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

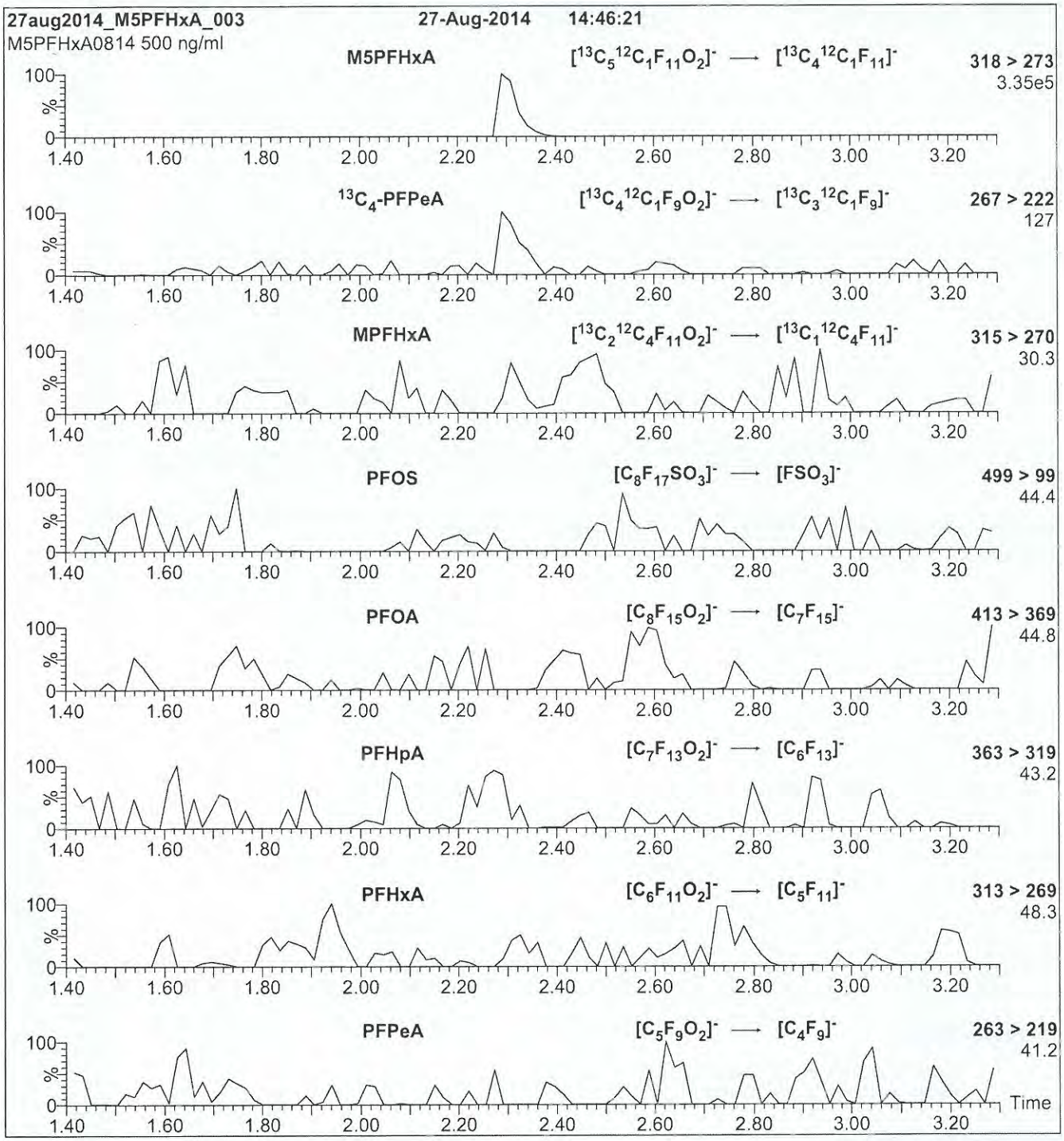
MS Parameters

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

17J1019

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

WELLINGTON LABORATORIES

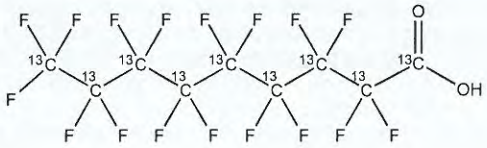
CERTIFICATE OF ANALYSIS
DOCUMENTATION

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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where x is expressed as a relative standard uncertainty of the individual parameter.

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TRACEABILITY:

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CALA

ANAB ACCREDITED

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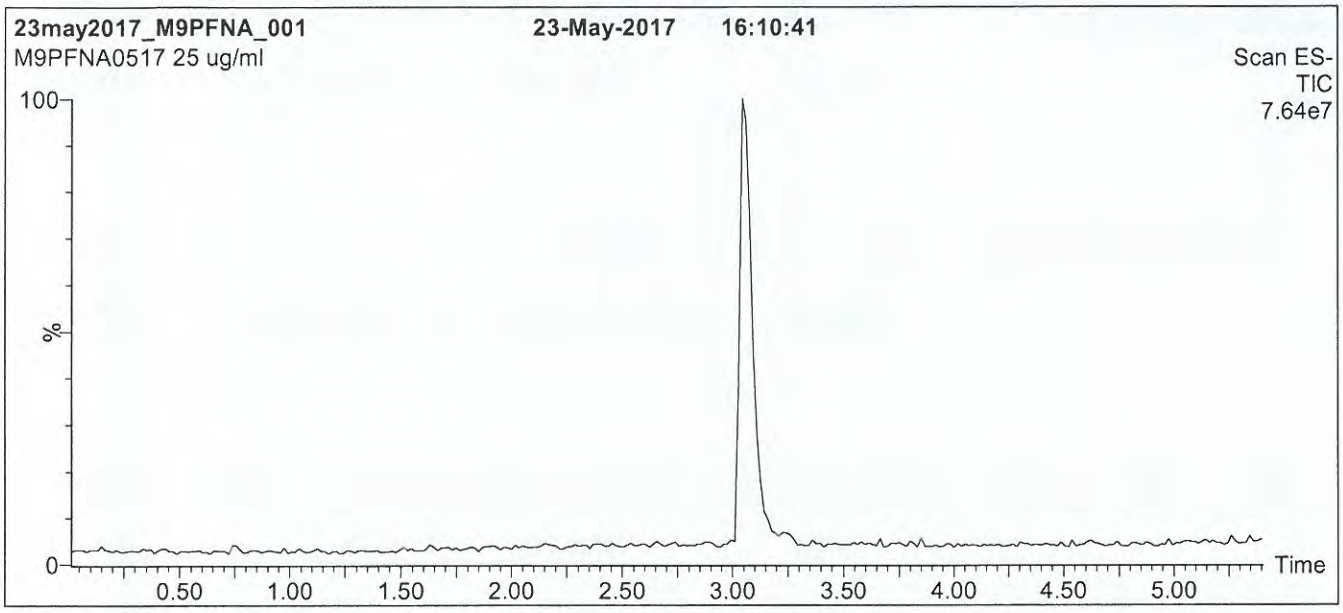
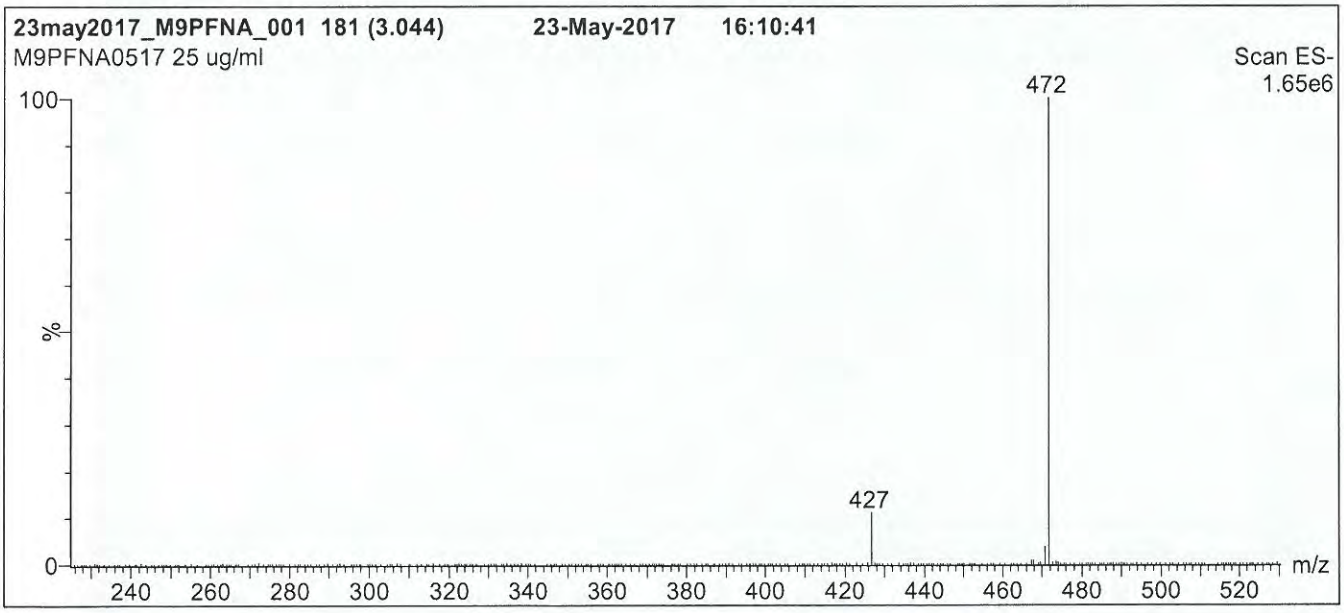
17J1020

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

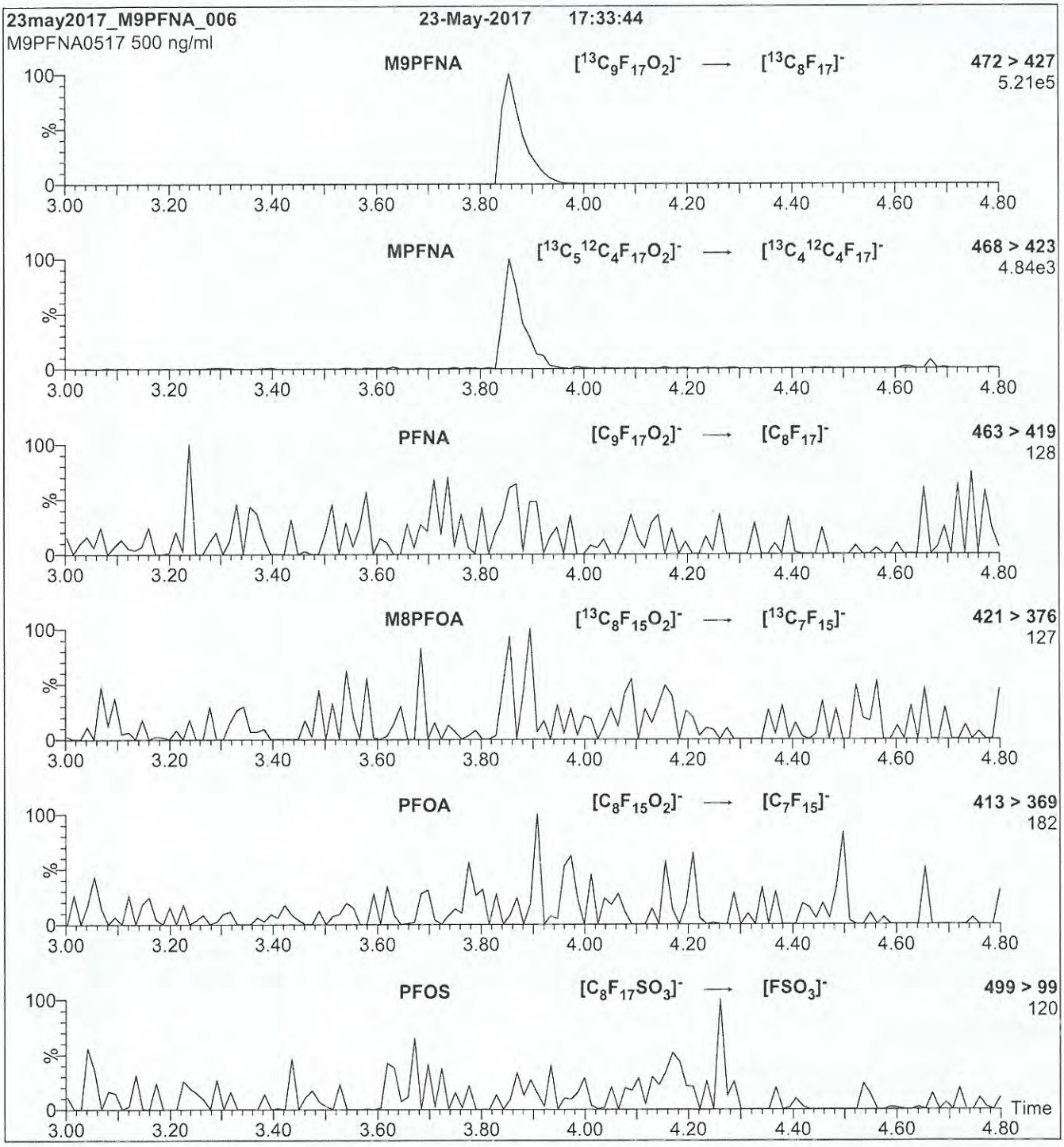
MS Parameters

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

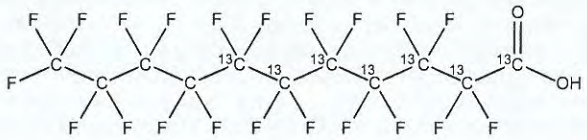
Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 11

17J1021

WELLINGTON LABORATORIES

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

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).

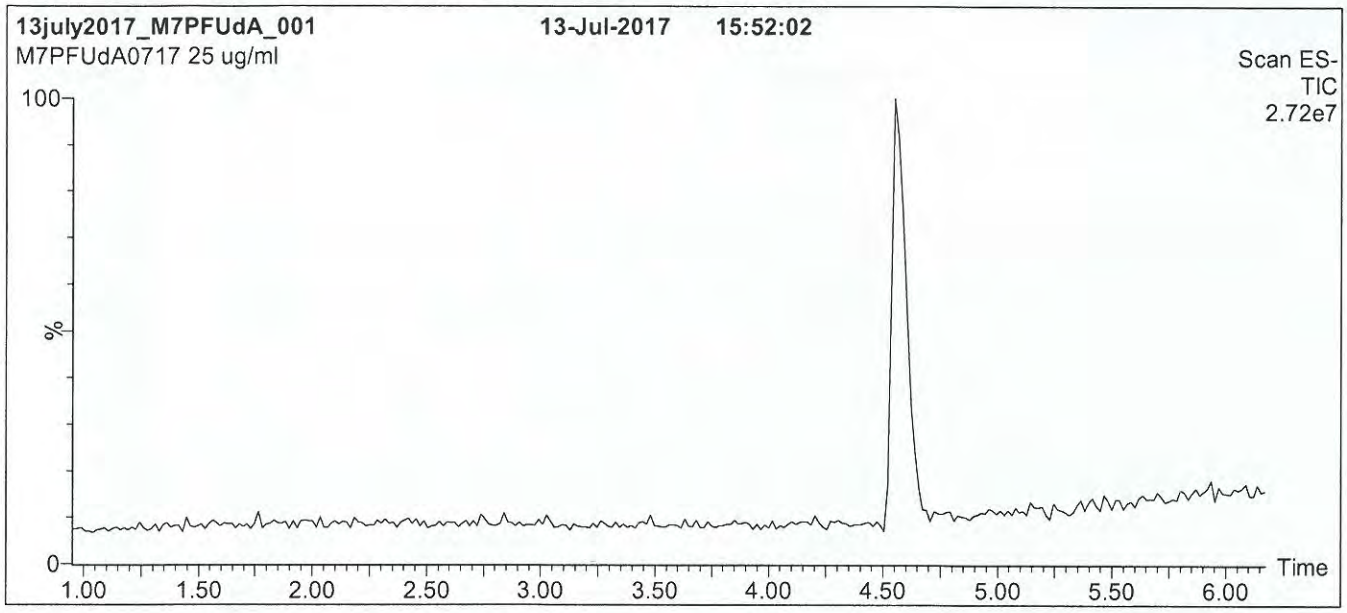
CALA Testing

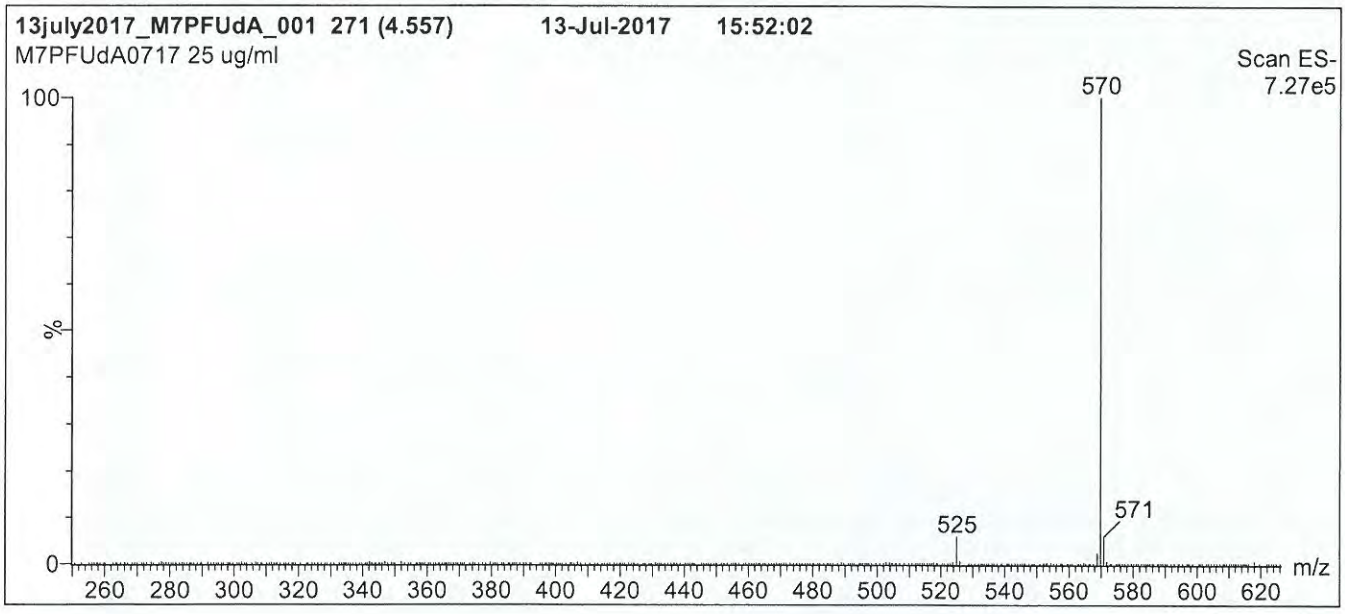
ANAB ACCREDITED Reference Material Producer

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

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

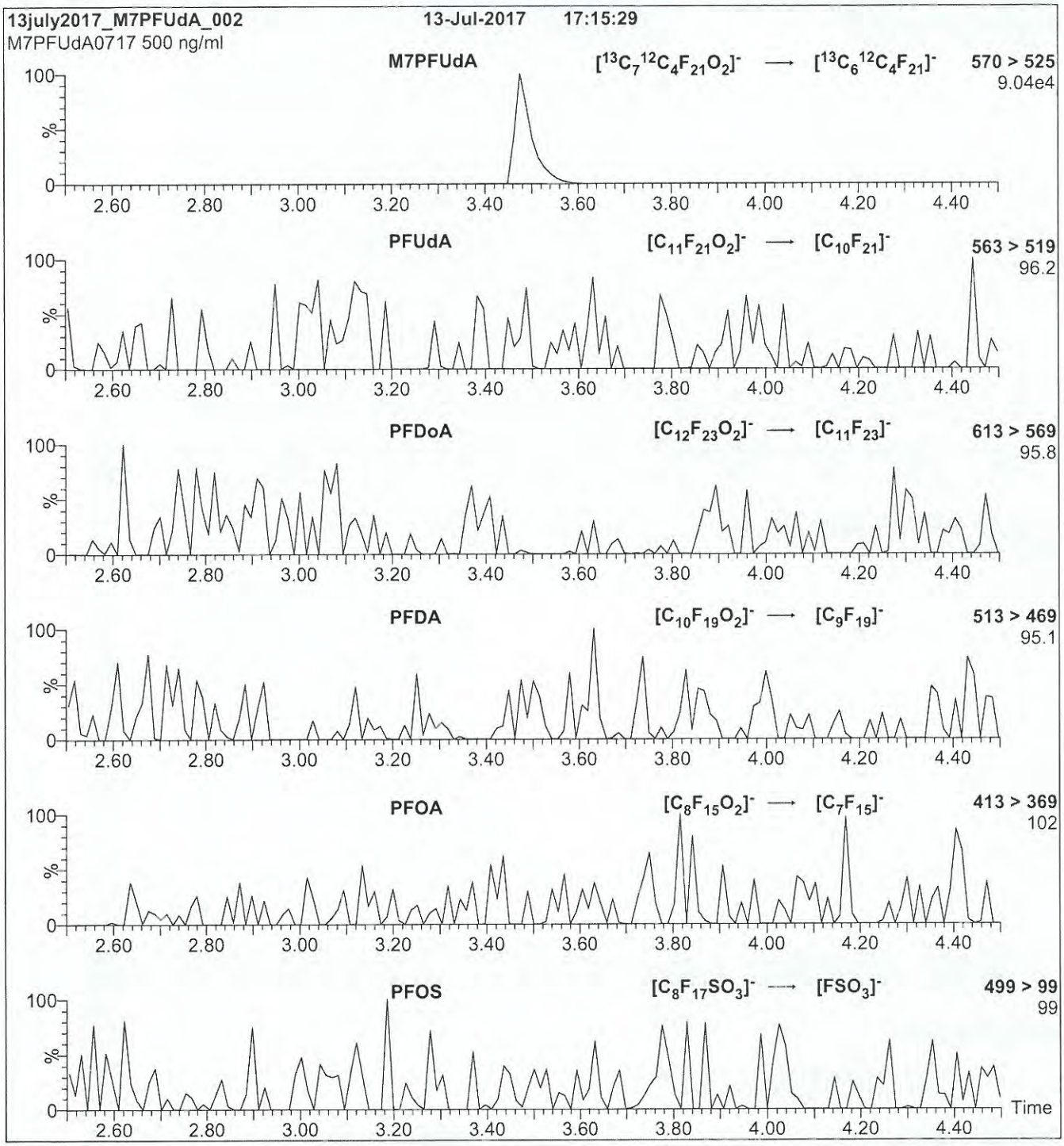
MS Parameters

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

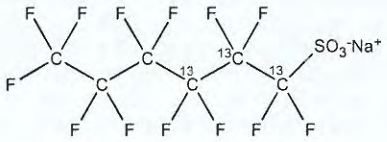
WELLINGTON LABORATORIES

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.

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:

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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:

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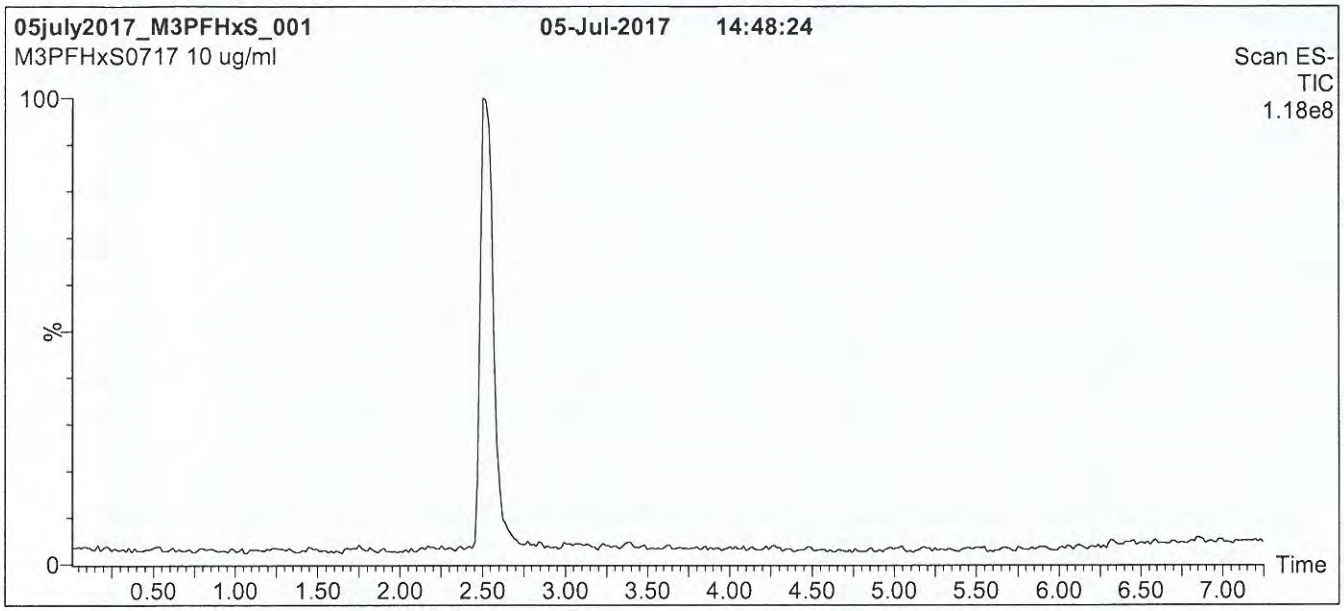
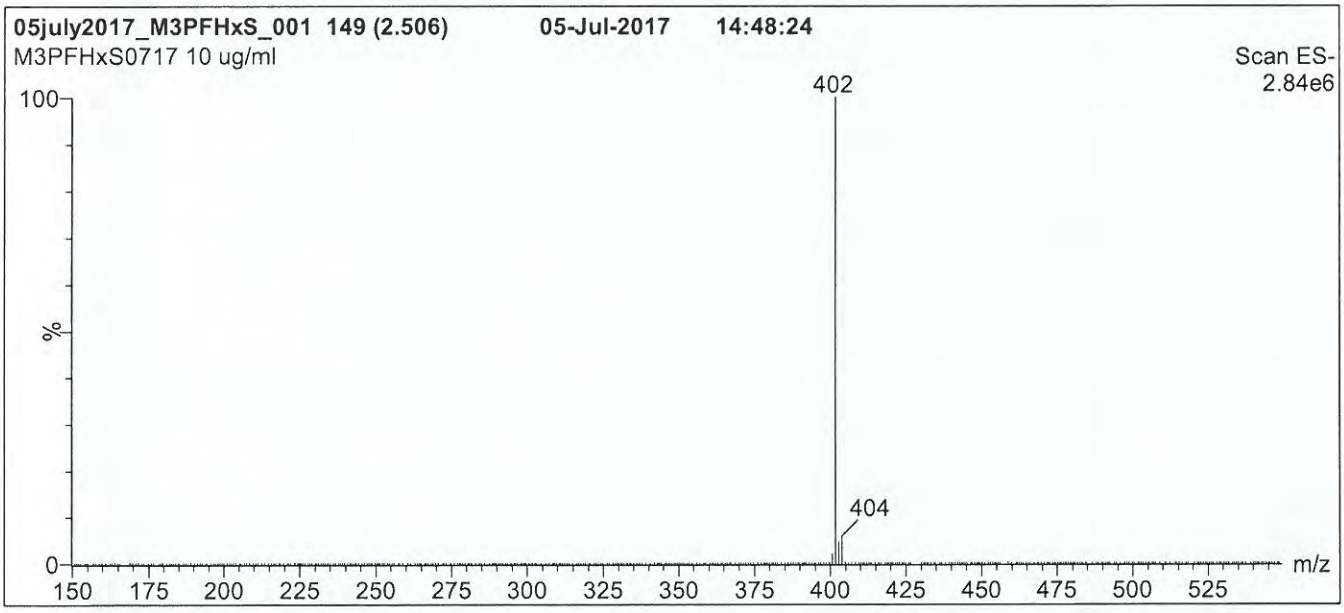
For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

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

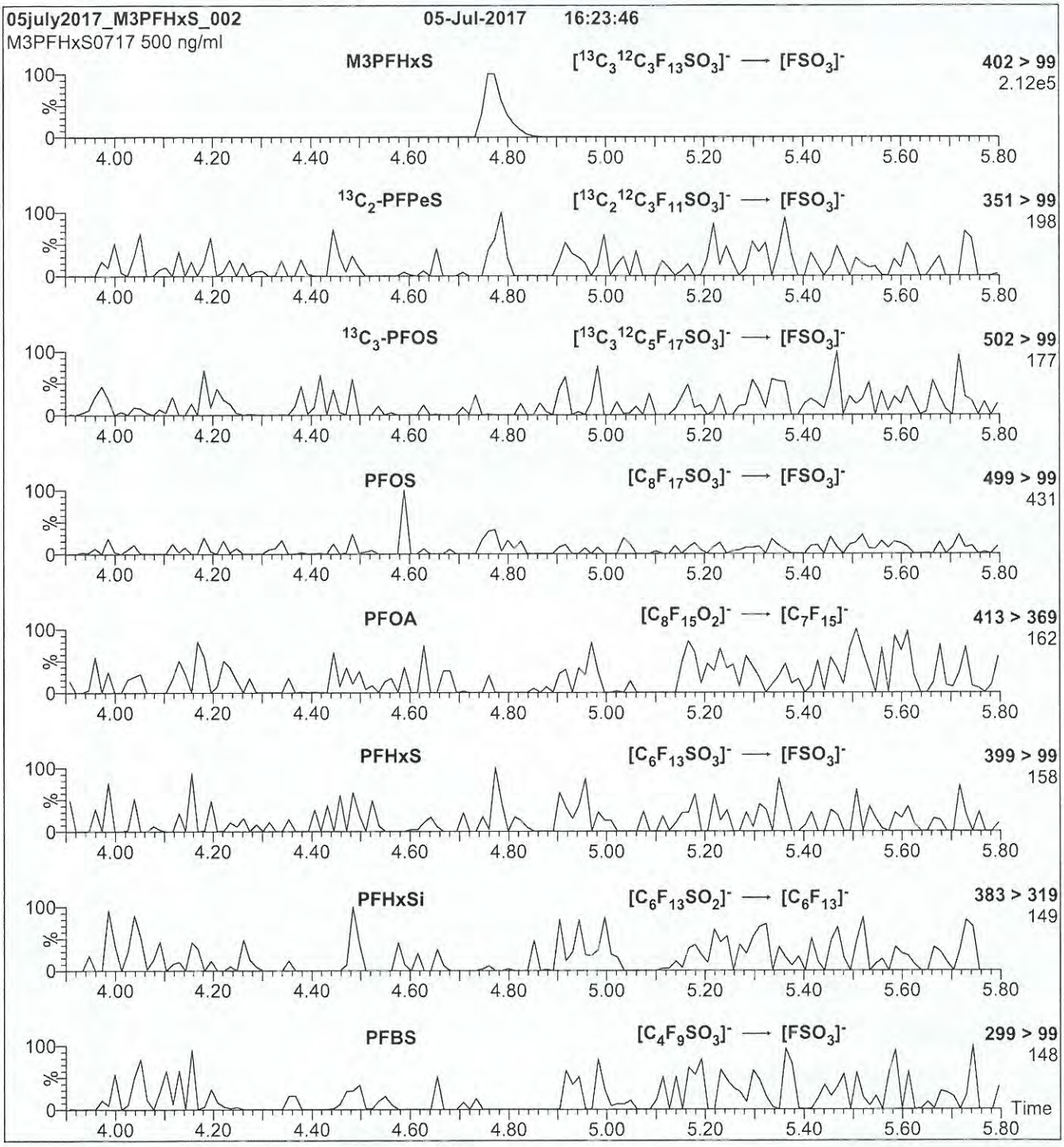
MS Parameters

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

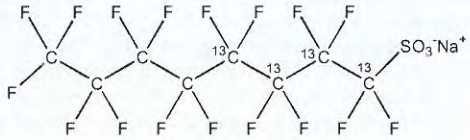
WELLINGTON LABORATORIES

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) 47.8 ± 2.4 µg/ml (MPFOS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4$-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	05/19/2017		
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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TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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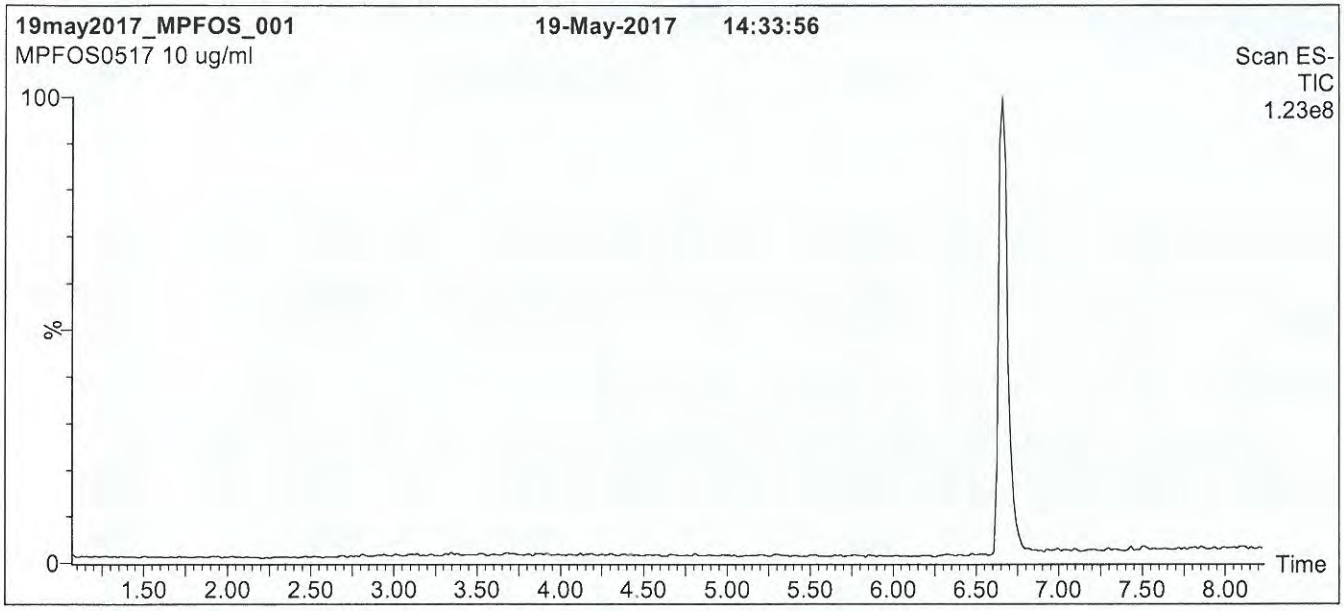
CALA

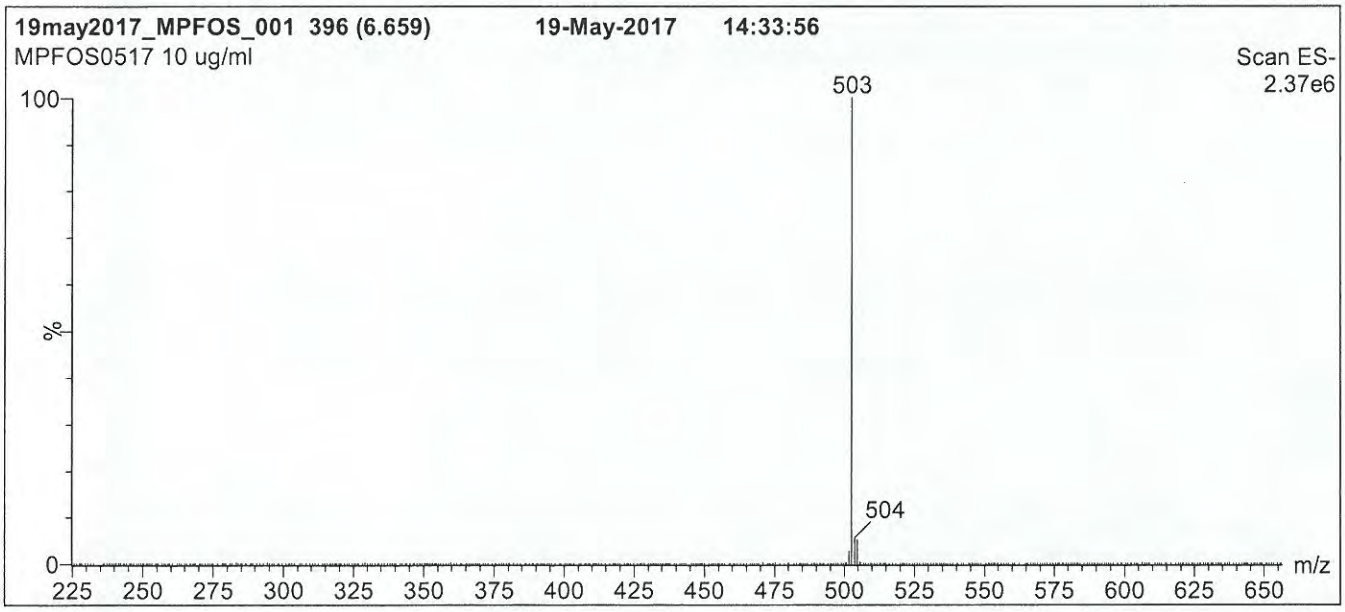
ANAB ACCREDITED

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

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

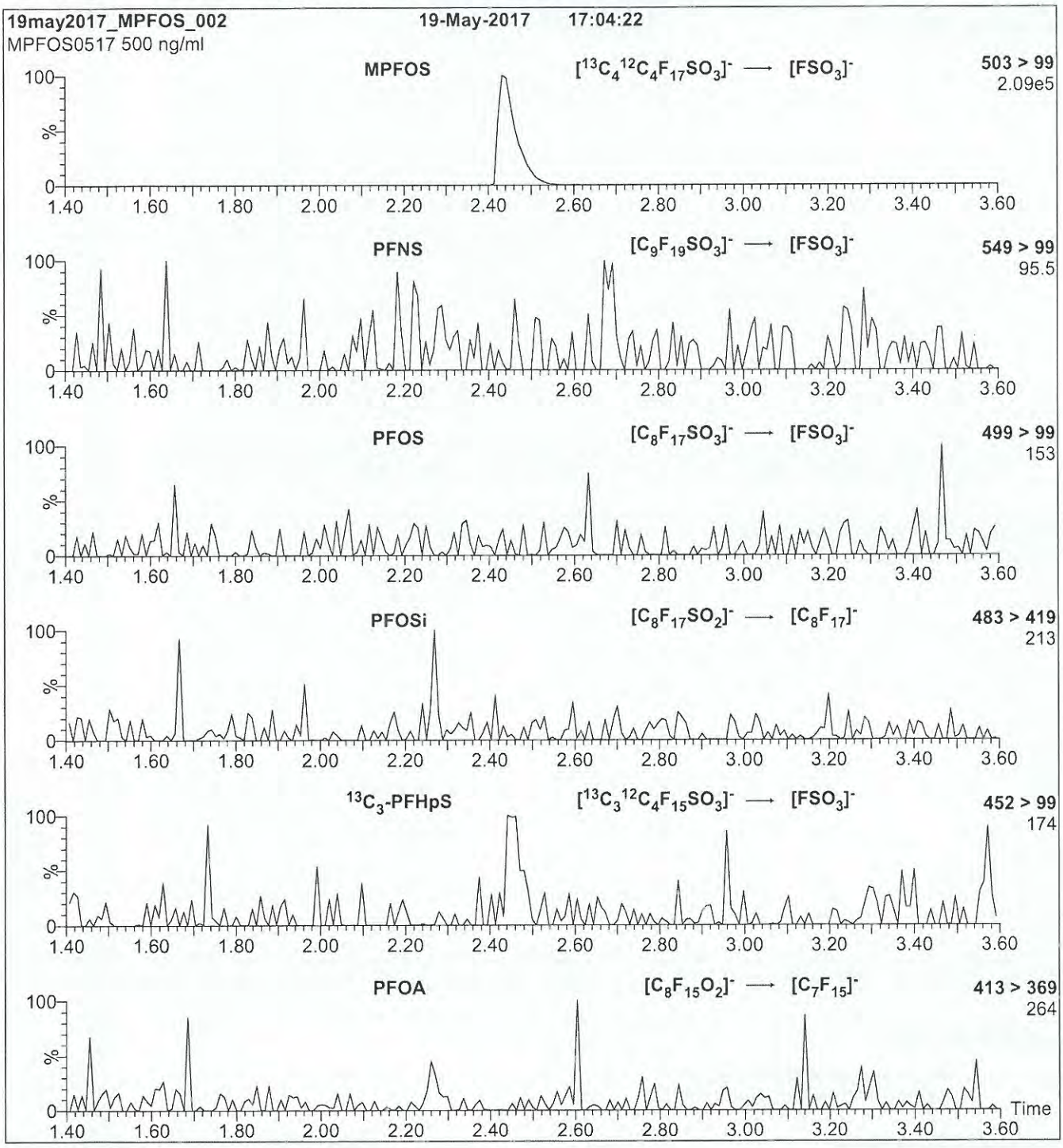
MS Parameters

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

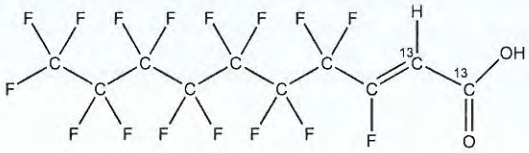
CERTIFICATE OF ANALYSIS DOCUMENTATION

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

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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 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 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

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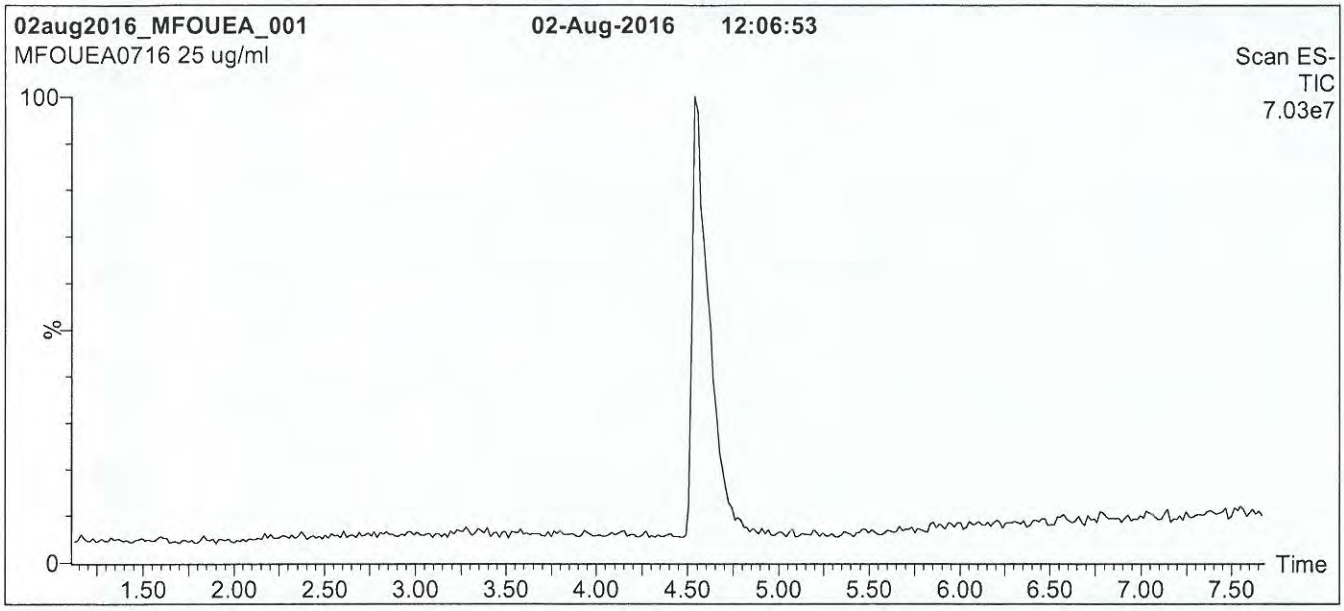
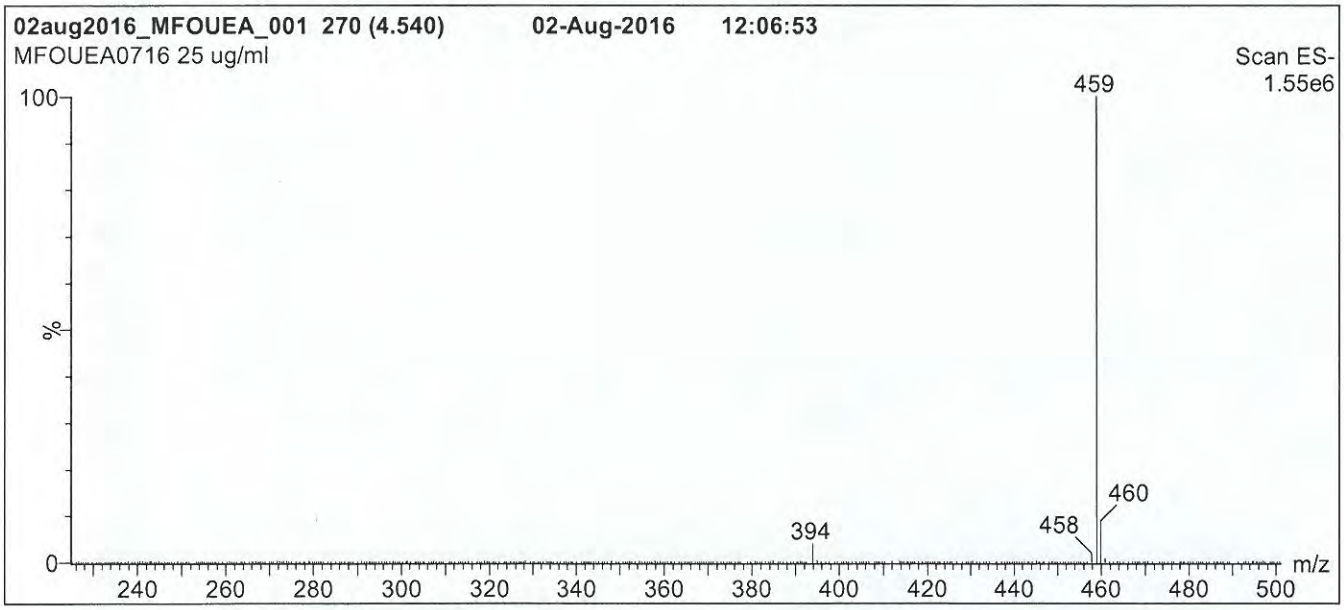
Figure 1: **MFOUEA; LC/MS Data (TIC and Mass Spectrum)**





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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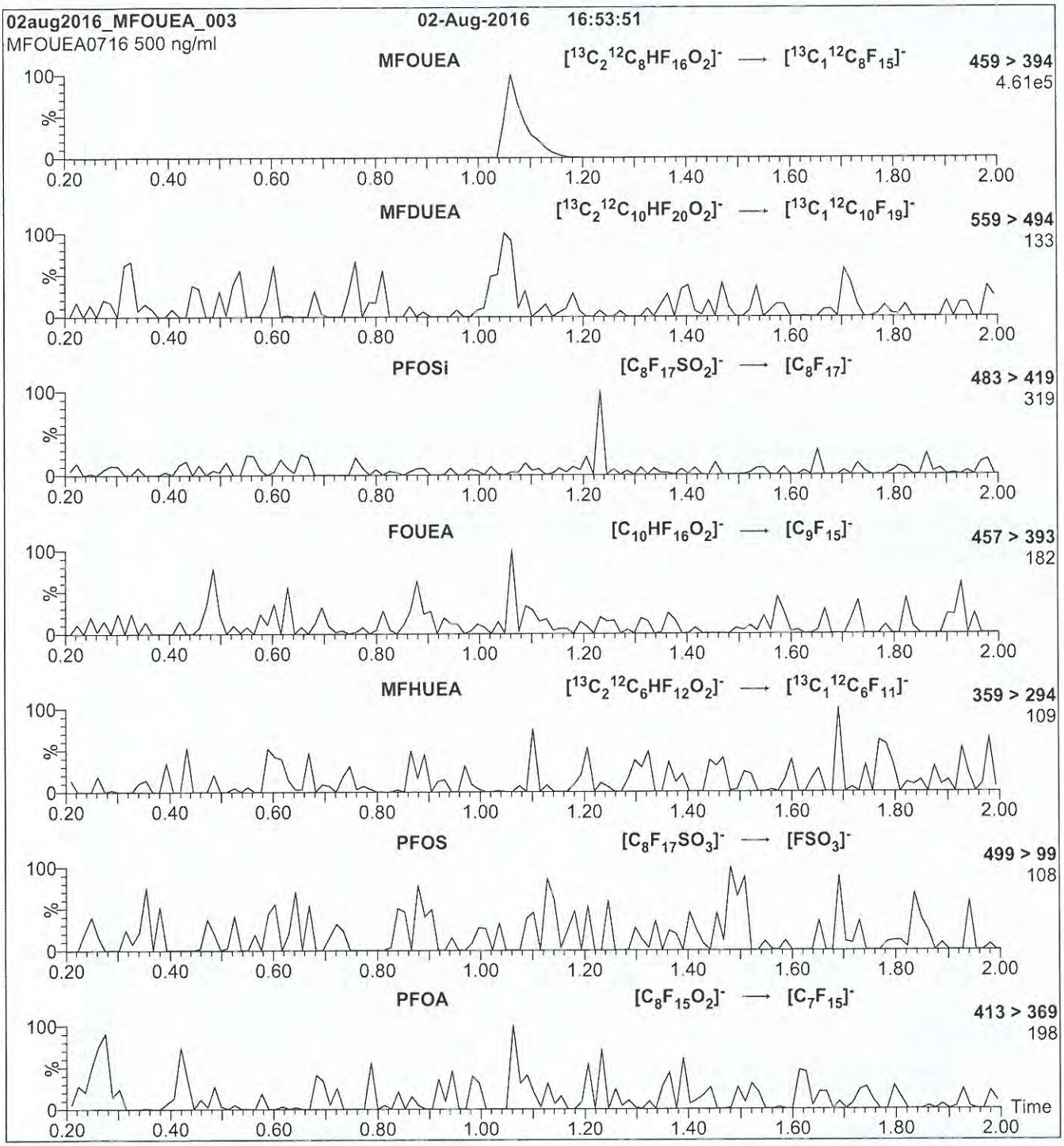
Figure 2: **MFOUEA; LC/MS/MS Data (Selected MRM Transitions)**



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