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NAVFAC
Naval Facilities Engineering Command

Groundwater Sample Results, Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, and the Sample Location Report, SDG 1902014

Marine Corps Air Station Yuma
Yuma, Arizona

November 2019

APPROVED FOR PUBLIC RELEASE: DISTRIBUTION UNLIMITED

July 23, 2019

Vista Work Order No. 1902014

Ms. Lisa Bienkowski
Tetra Tech EC, Inc.
17885 Von Karman Avenue, Suite 500
Irvine, CA 92614

Dear Ms. Bienkowski,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on July 09, 2019 under your Project Name '4663.3803'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director

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

Vista Work Order No. 1902014
Case Narrative

Sample Condition on Receipt:

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

Analytical Notes:

PFAS Isotope Dilution Method

The samples were extracted and analyzed for a selected list of PFAS using Vista's PFAS Isotope Dilution Method. This method is listed on Vista's NELAP certificate as Modified EPA Method 537. The results for PFHxS, PFOA, PFOS, MeFOSAA, and EtFOSAA include both linear and branched isomers. Results for all other analytes include the linear isomers only.

Sample "CAOA-B01-GW" contained particulate and was centrifuged prior to extraction.

Holding Times

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

Quality Control

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

A Method Blank and Laboratory Control Sample (LCS)/Laboratory Control Sample Duplicate (LCSD) were extracted and analyzed with the aqueous 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.

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

The extract of sample "CAOA-B03-SO-20-20.5" was re-injected because one or more Injection Internal Standard Analyte response areas were outside of criteria. The area criteria passed for the second injection; therefore, the results from the re-injection have been reported.

The extract of sample "CAOA-B01-SO-0-0.5" was re-injected because it followed an extract with an analyte with a concentration greater than the highest point in the calibration curve. The results from the re-injection 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
1902014-01	CAOA-B03-SO-4-4.5	PFAS Isotope Dilution Method	d3-MeFOSAA	H	42.2
1902014-01	CAOA-B03-SO-4-4.5	PFAS Isotope Dilution Method	d5-EtFOSAA	H	46.3
1902014-01	CAOA-B03-SO-4-4.5	PFAS Isotope Dilution Method	13C2-PFDoA	H	49.5
1902014-02	CAOA-B03-SO-20-20.5	PFAS Isotope Dilution Method	13C2-PFDoA	H	43.2
1902014-02	CAOA-B03-SO-20-20.5	PFAS Isotope Dilution Method	13C2-PFTeDA	H	30.5
1902014-05	CAOA-B01-SO-0-0.5	PFAS Isotope Dilution Method	13C2-PFDoA	H	43.6
1902014-06	CAOA-B04-SO-0-0.5	PFAS Isotope Dilution Method	d3-MeFOSAA	H	48.3
1902014-07	CAOA-B01-SO-20-20.5	PFAS Isotope Dilution Method	13C3-PFBS	H	48.9
1902014-07	CAOA-B01-SO-20-20.5	PFAS Isotope Dilution Method	d3-MeFOSAA	H	36.1
1902014-07	CAOA-B01-SO-20-20.5	PFAS Isotope Dilution Method	d5-EtFOSAA	H	37.5
1902014-07	CAOA-B01-SO-20-20.5	PFAS Isotope Dilution Method	13C2-PFDoA	H	42.8
1902014-09	CAOA-B01-GW	PFAS Isotope Dilution Method	13C2-PFTeDA	H	32.4
B9G0189-BLK1	B9G0189-BLK1	PFAS Isotope Dilution Method	d3-MeFOSAA	H	35.4
B9G0189-BLK1	B9G0189-BLK1	PFAS Isotope Dilution Method	d5-EtFOSAA	H	41.5
B9G0189-BLK1	B9G0189-BLK1	PFAS Isotope Dilution Method	13C2-PFDoA	H	42.6
B9G0189-BS1	B9G0189-BS1	PFAS Isotope Dilution Method	13C3-PFBS	H	46.0
B9G0189-BS1	B9G0189-BS1	PFAS Isotope Dilution Method	d3-MeFOSAA	H	33.4
B9G0189-BS1	B9G0189-BS1	PFAS Isotope Dilution Method	d5-EtFOSAA	H	32.2
B9G0189-BS1	B9G0189-BS1	PFAS Isotope Dilution Method	13C2-PFDoA	H	43.1
B9G0189-MS1	B9G0189-MS1	PFAS Isotope Dilution Method	d3-MeFOSAA	H	38.7
B9G0189-MS1	B9G0189-MS1	PFAS Isotope Dilution Method	d5-EtFOSAA	H	38.8
B9G0189-MSD1	B9G0189-MSD1	PFAS Isotope Dilution Method	d3-MeFOSAA	H	41.4
B9G0189-MSD1	B9G0189-MSD1	PFAS Isotope Dilution Method	d5-EtFOSAA	H	45.9
B9G0189-MSD1	B9G0189-MSD1	PFAS Isotope Dilution Method	13C2-PFDoA	H	46.3

H = Recovery was outside laboratory acceptance criteria.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1902014-01	CAOA-B03-SO-4-4.5	03-Jul-19 08:10	09-Jul-19 09:30	HDPE Jar, 6 oz
1902014-02	CAOA-B03-SO-20-20.5	03-Jul-19 08:40	09-Jul-19 09:30	HDPE Jar, 6 oz
1902014-03	FRB-07032019	03-Jul-19 11:05	09-Jul-19 09:30	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1902014-04	EB-07032019	03-Jul-19 13:20	09-Jul-19 09:30	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1902014-05	CAOA-B01-SO-0-0.5	08-Jul-19 12:10	09-Jul-19 09:30	HDPE Jar, 6 oz
1902014-06	CAOA-B04-SO-0-0.5	08-Jul-19 12:20	09-Jul-19 09:30	HDPE Jar, 6 oz
1902014-07	CAOA-B01-SO-20-20.5	08-Jul-19 12:40	09-Jul-19 09:30	HDPE Jar, 6 oz
1902014-08	FRB-07082019	08-Jul-19 15:00	09-Jul-19 09:30	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1902014-09	CAOA-B01-GW	08-Jul-19 15:20	09-Jul-19 09:30	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL
1902014-10	EB-07082019	08-Jul-19 15:25	09-Jul-19 09:30	HDPE Bottle, 125 mL
				HDPE Bottle, 125 mL

ANALYTICAL RESULTS

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Tetra Tech EC, Inc.
Project: 4663.3803
Matrix: Solid

Laboratory Data

Lab Sample: B9G0189-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ug/kg)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
PFHxA	307-24-4	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
PFHpA	375-85-9	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
PFHxS	355-46-4	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
PFOA	335-67-1	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
PFNA	375-95-1	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
PFOS	1763-23-1	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
PFDA	335-76-2	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
MeFOSAA	2355-31-9	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
EtFOSAA	2991-50-6	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
PFUnA	2058-94-8	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
PFDoA	307-55-1	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
PFTrDA	72629-94-8	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
PFTeDA	376-06-7	ND	0.845	1.00	2.00	U	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	88.6	50 - 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
13C2-PFHxA	IS	85.9	50 - 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
13C4-PFHpA	IS	81.7	50 - 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
13C3-PFHxS	IS	92.4	50 - 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
13C2-PFOA	IS	77.6	50 - 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
13C5-PFNA	IS	80.6	50 - 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
13C8-PFOS	IS	78.5	50 - 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
13C2-PFDA	IS	58.8	50 - 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
d3-MeFOSAA	IS	35.4	50 - 150	H	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
d5-EtFOSAA	IS	41.5	50 - 150	H	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
13C2-PFUnA	IS	51.2	50 - 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
13C2-PFDoA	IS	42.6	50 - 150	H	B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1
13C2-PFTeDA	IS	55.6	50 - 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 17:20	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to the DL.

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

Sample ID: OPR **PFAS Isotope Dilution Method**

Client Data

Name: Tetra Tech EC, Inc.
Project: 4663.3803
Matrix: Solid

Laboratory Data

Lab Sample: B9G0189-BS1
Column: BEH C18

Analyte	CAS Number	Amt Found (ug/kg	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	10.4	10.0	104	70 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
PFHxA	307-24-4	10.7	10.0	107	70 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
PFHpA	375-85-9	10.4	10.0	104	70 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
PFHxS	355-46-4	8.60	10.0	86.0	70 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
PFOA	335-67-1	10.4	10.0	104	70 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
PFNA	375-95-1	10.9	10.0	109	70 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
PFOS	1763-23-1	8.91	10.0	89.1	70 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
PFDA	335-76-2	10.3	10.0	103	70 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
MeFOSAA	2355-31-9	9.72	10.0	97.2	70 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
EtFOSAA	2991-50-6	10.3	10.0	103	70 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
PFUnA	2058-94-8	10.3	10.0	103	70 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
PFDoA	307-55-1	10.5	10.0	105	70 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
PFTrDA	72629-94-8	11.6	10.0	116	60 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
PFTeDA	376-06-7	9.88	10.0	98.8	70 - 130		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	46.0	50- 150	H	B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
13C2-PFHxA	IS	83.4	50- 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
13C4-PFHpA	IS	80.8	50- 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
13C3-PFHxS	IS	74.7	50- 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
13C2-PFOA	IS	78.6	50- 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
13C5-PFNA	IS	78.9	50- 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
13C8-PFOS	IS	80.6	50- 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
13C2-PFDA	IS	57.4	50- 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
d3-MeFOSAA	IS	33.4	50- 150	H	B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
d5-EtFOSAA	IS	32.2	50- 150	H	B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
13C2-PFUnA	IS	54.6	50- 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
13C2-PFDoA	IS	43.1	50- 150	H	B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1
13C2-PFTeDA	IS	59.4	50- 150		B9G0189	18-Jul-19	1.00 g	19-Jul-19 16:48	1

Sample ID: CAOA-B03-SO-4-4.5

PFAS Isotope Dilution Method

Client Data

Name: Tetra Tech EC, Inc.
Project: 4663.3803
Location: Yuma, AZ

Matrix: Soil
Date Collected: 03-Jul-19 08:10

Laboratory Data

Lab Sample: 1902014-01
Date Received: 09-Jul-19 09:30
% Solids: 92.7

Column: BEH C18

Analyte	CAS Number	Conc. (ug/kg)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.967	0.844	0.999	2.00	J	B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
PFHxA	307-24-4	110	0.844	0.999	2.00		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
PFHpA	375-85-9	7.71	0.844	0.999	2.00		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
PFHxS	355-46-4	24.9	0.844	0.999	2.00		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
PFOA	335-67-1	51.5	0.844	0.999	2.00		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
PFNA	375-95-1	0.871	0.844	0.999	2.00	J	B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
PFOS	1763-23-1	185	0.844	0.999	2.00		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
PFDA	335-76-2	4.62	0.844	0.999	2.00		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
MeFOSAA	2355-31-9	ND	0.844	0.999	2.00	U	B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
EtFOSAA	2991-50-6	ND	0.844	0.999	2.00	U	B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
PFUnA	2058-94-8	ND	0.844	0.999	2.00	U	B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
PFDoA	307-55-1	1.14	0.844	0.999	2.00	J	B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
PFTrDA	72629-94-8	ND	0.844	0.999	2.00	U	B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
PFTeDA	376-06-7	ND	0.844	0.999	2.00	U	B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	52.7	50 - 150		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
13C2-PFHxA	IS	80.6	50 - 150		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
13C4-PFHpA	IS	86.6	50 - 150		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
13C3-PFHxS	IS	71.9	50 - 150		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
13C2-PFOA	IS	75.9	50 - 150		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
13C5-PFNA	IS	70.7	50 - 150		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
13C8-PFOS	IS	74.7	50 - 150		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
13C2-PFDA	IS	61.7	50 - 150		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
d3-MeFOSAA	IS	42.2	50 - 150	H	B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
d5-EtFOSAA	IS	46.3	50 - 150	H	B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
13C2-PFUnA	IS	54.6	50 - 150		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
13C2-PFDoA	IS	49.5	50 - 150	H	B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1
13C2-PFTeDA	IS	64.6	50 - 150		B9G0189	18-Jul-19	1.08 g	19-Jul-19 17:30	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to the DL.

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

Sample ID: CAOA-B03-SO-20-20.5

PFAS Isotope Dilution Method

Client Data

Name: Tetra Tech EC, Inc.
Project: 4663.3803
Location: Yuma, AZ
Matrix: Soil
Date Collected: 03-Jul-19 08:40

Laboratory Data

Lab Sample: 1902014-02
Date Received: 09-Jul-19 09:30
% Solids: 91.6
Column: BEH C18

Analyte	CAS Number	Conc. (ug/kg)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	1.22	0.847	1.00	2.00	J	B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
PFHxA	307-24-4	103	0.847	1.00	2.00		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
PFHpA	375-85-9	5.56	0.847	1.00	2.00		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
PFHxS	355-46-4	19.4	0.847	1.00	2.00		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
PFOA	335-67-1	18.5	0.847	1.00	2.00		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
PFNA	375-95-1	0.987	0.847	1.00	2.00	J	B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
PFOS	1763-23-1	434	0.847	1.00	2.00		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
PFDA	335-76-2	3.81	0.847	1.00	2.00		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
MeFOSAA	2355-31-9	ND	0.847	1.00	2.00	U	B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
EtFOSAA	2991-50-6	ND	0.847	1.00	2.00	U	B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
PFUnA	2058-94-8	ND	0.847	1.00	2.00	U	B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
PFDoA	307-55-1	1.24	0.847	1.00	2.00	J	B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
PFTrDA	72629-94-8	ND	0.847	1.00	2.00	U	B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
PFTeDA	376-06-7	ND	0.847	1.00	2.00	U	B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	68.7	50 - 150		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
13C2-PFHxA	IS	105	50 - 150		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
13C4-PFHpA	IS	125	50 - 150		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
13C3-PFHxS	IS	74.7	50 - 150		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
13C2-PFOA	IS	108	50 - 150		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
13C5-PFNA	IS	79.1	50 - 150		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
13C8-PFOS	IS	83.2	50 - 150		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
13C2-PFDA	IS	78.5	50 - 150		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
d3-MeFOSAA	IS	66.3	50 - 150		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
d5-EtFOSAA	IS	55.3	50 - 150		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
13C2-PFUnA	IS	66.3	50 - 150		B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
13C2-PFDoA	IS	43.2	50 - 150	H	B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1
13C2-PFTeDA	IS	30.5	50 - 150	H	B9G0189	18-Jul-19	1.09 g	22-Jul-19 00:51	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to the DL.

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

Sample ID: CAOA-B01-SO-0-0.5

PFAS Isotope Dilution Method

Client Data

Name: Tetra Tech EC, Inc.
Project: 4663.3803
Location: Yuma, AZ

Matrix: Soil
Date Collected: 08-Jul-19 12:10

Laboratory Data

Lab Sample: 1902014-05
Date Received: 09-Jul-19 09:30
% Solids: 94.1

Column: BEH C18

Analyte	CAS Number	Conc. (ug/kg)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.839	0.993	1.99	U	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
PFHxA	307-24-4	ND	0.839	0.993	1.99	U	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
PFHpA	375-85-9	ND	0.839	0.993	1.99	U	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
PFHxS	355-46-4	ND	0.839	0.993	1.99	U	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
PFOA	335-67-1	ND	0.839	0.993	1.99	U	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
PFNA	375-95-1	ND	0.839	0.993	1.99	U	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
PFOS	1763-23-1	1.15	0.839	0.993	1.99	J	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
PFDA	335-76-2	ND	0.839	0.993	1.99	U	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
MeFOSAA	2355-31-9	ND	0.839	0.993	1.99	U	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
EtFOSAA	2991-50-6	ND	0.839	0.993	1.99	U	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
PFUnA	2058-94-8	ND	0.839	0.993	1.99	U	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
PFDoA	307-55-1	ND	0.839	0.993	1.99	U	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
PFTrDA	72629-94-8	ND	0.839	0.993	1.99	U	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
PFTeDA	376-06-7	ND	0.839	0.993	1.99	U	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	69.6	50 - 150		B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
13C2-PFHxA	IS	108	50 - 150		B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
13C4-PFHpA	IS	115	50 - 150		B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
13C3-PFHxS	IS	81.7	50 - 150		B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
13C2-PFOA	IS	108	50 - 150		B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
13C5-PFNA	IS	71.8	50 - 150		B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
13C8-PFOS	IS	75.8	50 - 150		B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
13C2-PFDA	IS	70.4	50 - 150		B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
d3-MeFOSAA	IS	54.6	50 - 150		B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
d5-EtFOSAA	IS	53.6	50 - 150		B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
13C2-PFUnA	IS	55.5	50 - 150		B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
13C2-PFDoA	IS	43.6	50 - 150	H	B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1
13C2-PFTeDA	IS	80.9	50 - 150		B9G0189	18-Jul-19	1.07 g	22-Jul-19 01:23	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to the DL.

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

Sample ID: CAOA-B01-SO-0-0.5 **PFAS Isotope Dilution Method**

Name:	Tetra Tech EC, Inc.	Lab Sample:	B9G0189-MS1/B9G0189-MSD1	Source Lab Sample:	1902014-05
Project:	4663.3803	QC Batch:	B9G0189	Date Extracted:	18-Jul-19
Matrix:	Solid	Samp Size:	1.07/1.08 g	Column:	BEH C18

Analyte	CAS Number	Sample (ug/kg)	MS (ug/kg)	MS Spike	MS % Rec	MS Quals	MSD (ug/kg)	MSD Spike	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBS	375-73-5	ND	9.37	9.93	93.8		9.44	9.84	95.4	1.69		70-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1
PFHxA	307-24-4	ND	10.9	9.93	105		11.4	9.84	110	4.65		70-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1
PFHpA	375-85-9	ND	10.9	9.93	107		10.9	9.84	107	0		70-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1
PFHxS	355-46-4	ND	9.27	9.93	91.6		10.5	9.84	105	13.6		70-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1
PFOA	335-67-1	ND	10.4	9.93	103		10.8	9.84	108	4.74		70-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1
PFNA	375-95-1	ND	10.3	9.93	102		10.6	9.84	105	2.90		70-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1
PFOS	1763-23-1	1.15	11.0	9.93	98.9		10.7	9.84	97.3	1.63		70-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1
PFDA	335-76-2	ND	9.97	9.93	100		10.7	9.84	108	7.69		70-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1
MeFOSAA	2355-31-9	ND	9.50	9.93	95.7		10.9	9.84	111	14.8		70-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1
EtFOSAA	2991-50-6	ND	10.1	9.93	101		9.98	9.84	101	0		70-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1
PFUnA	2058-94-8	ND	10.5	9.93	106		10.3	9.84	105	0.948		70-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1
PFDoA	307-55-1	ND	10.3	9.93	104		10.7	9.84	108	3.77		70-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1
PFTrDA	72629-94-8	ND	11.4	9.93	114		12.3	9.84	125	9.21		60-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1
PFTeDA	376-06-7	ND	10.1	9.93	102		11.0	9.84	112	9.35		70-130	30	19-Jul-19 16:58	1	19-Jul-19 17:09	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBS	IS	76.1		59.5		50-150	19-Jul-19 16:58	1	19-Jul-19 17:09	1
13C2-PFHxA	IS	86.3		82.2		50-150	19-Jul-19 16:58	1	19-Jul-19 17:09	1
13C4-PFHpA	IS	81.9		78.8		50-150	19-Jul-19 16:58	1	19-Jul-19 17:09	1
13C3-PFHxS	IS	88.8		74.8		50-150	19-Jul-19 16:58	1	19-Jul-19 17:09	1
13C2-PFOA	IS	84.2		80.8		50-150	19-Jul-19 16:58	1	19-Jul-19 17:09	1
13C5-PFNA	IS	78.5		79.3		50-150	19-Jul-19 16:58	1	19-Jul-19 17:09	1
13C8-PFOS	IS	79.8		74.8		50-150	19-Jul-19 16:58	1	19-Jul-19 17:09	1
13C2-PFDA	IS	65.5		60.5		50-150	19-Jul-19 16:58	1	19-Jul-19 17:09	1
d3-MeFOSAA	IS	38.7	H	41.4	H	50-150	19-Jul-19 16:58	1	19-Jul-19 17:09	1
d5-EtFOSAA	IS	38.8	H	45.9	H	50-150	19-Jul-19 16:58	1	19-Jul-19 17:09	1
13C2-PFUnA	IS	54.6		54.2		50-150	19-Jul-19 16:58	1	19-Jul-19 17:09	1
13C2-PFDoA	IS	50.5		46.3	H	50-150	19-Jul-19 16:58	1	19-Jul-19 17:09	1
13C2-PFTeDA	IS	63.3		62.6		50-150	19-Jul-19 16:58	1	19-Jul-19 17:09	1

Sample ID: CAOA-B04-SO-0-0.5

PFAS Isotope Dilution Method

Client Data

Name: Tetra Tech EC, Inc.
Project: 4663.3803
Location: Yuma, AZ

Matrix: Soil
Date Collected: 08-Jul-19 12:20

Laboratory Data

Lab Sample: 1902014-06
Date Received: 09-Jul-19 09:30
% Solids: 98.1

Column: BEH C18

Analyte	CAS Number	Conc. (ug/kg)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.836	0.990	1.98	U	B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
PFHxA	307-24-4	ND	0.836	0.990	1.98	U	B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
PFHpA	375-85-9	ND	0.836	0.990	1.98	U	B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
PFHxS	355-46-4	ND	0.836	0.990	1.98	U	B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
PFOA	335-67-1	ND	0.836	0.990	1.98	U	B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
PFNA	375-95-1	1.22	0.836	0.990	1.98	J, Q	B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
PFOS	1763-23-1	3.30	0.836	0.990	1.98		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
PFDA	335-76-2	10.5	0.836	0.990	1.98		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
MeFOSAA	2355-31-9	ND	0.836	0.990	1.98	U	B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
EtFOSAA	2991-50-6	ND	0.836	0.990	1.98	U	B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
PFUnA	2058-94-8	17.0	0.836	0.990	1.98		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
PFDoA	307-55-1	5.07	0.836	0.990	1.98		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
PFTrDA	72629-94-8	ND	0.836	0.990	1.98	U	B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
PFTeDA	376-06-7	ND	0.836	0.990	1.98	U	B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	74.3	50 - 150		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
13C2-PFHxA	IS	86.7	50 - 150		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
13C4-PFHpA	IS	84.7	50 - 150		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
13C3-PFHxS	IS	89.7	50 - 150		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
13C2-PFOA	IS	86.1	50 - 150		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
13C5-PFNA	IS	73.3	50 - 150		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
13C8-PFOS	IS	77.8	50 - 150		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
13C2-PFDA	IS	62.5	50 - 150		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
d3-MeFOSAA	IS	48.3	50 - 150	H	B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
d5-EtFOSAA	IS	52.2	50 - 150		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
13C2-PFUnA	IS	66.2	50 - 150		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
13C2-PFDoA	IS	60.7	50 - 150		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1
13C2-PFTeDA	IS	74.9	50 - 150		B9G0189	18-Jul-19	1.03 g	19-Jul-19 18:02	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to the DL.

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

Sample ID: CAOA-B01-SO-20-20.5

PFAS Isotope Dilution Method

Client Data

Name: Tetra Tech EC, Inc.
Project: 4663.3803
Location: Yuma, AZ

Matrix: Soil
Date Collected: 08-Jul-19 12:40

Laboratory Data

Lab Sample: 1902014-07
Date Received: 09-Jul-19 09:30
% Solids: 83.6

Column: BEH C18

Analyte	CAS Number	Conc. (ug/kg)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.843	0.997	1.99	U	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
PFHxA	307-24-4	ND	0.843	0.997	1.99	U	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
PFHpA	375-85-9	ND	0.843	0.997	1.99	U	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
PFHxS	355-46-4	ND	0.843	0.997	1.99	U	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
PFOA	335-67-1	ND	0.843	0.997	1.99	U	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
PFNA	375-95-1	ND	0.843	0.997	1.99	U	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
PFOS	1763-23-1	0.878	0.843	0.997	1.99	J	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
PFDA	335-76-2	ND	0.843	0.997	1.99	U	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
MeFOSAA	2355-31-9	ND	0.843	0.997	1.99	U	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
EtFOSAA	2991-50-6	ND	0.843	0.997	1.99	U	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
PFUnA	2058-94-8	ND	0.843	0.997	1.99	U	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
PFDoA	307-55-1	ND	0.843	0.997	1.99	U	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
PFTrDA	72629-94-8	ND	0.843	0.997	1.99	U	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
PFTeDA	376-06-7	ND	0.843	0.997	1.99	U	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	48.9	50 - 150	H	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
13C2-PFHxA	IS	78.6	50 - 150		B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
13C4-PFHpA	IS	79.6	50 - 150		B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
13C3-PFHxS	IS	66.0	50 - 150		B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
13C2-PFOA	IS	84.2	50 - 150		B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
13C5-PFNA	IS	77.0	50 - 150		B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
13C8-PFOS	IS	70.9	50 - 150		B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
13C2-PFDA	IS	65.2	50 - 150		B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
d3-MeFOSAA	IS	36.1	50 - 150	H	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
d5-EtFOSAA	IS	37.5	50 - 150	H	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
13C2-PFUnA	IS	54.9	50 - 150		B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
13C2-PFDoA	IS	42.8	50 - 150	H	B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1
13C2-PFTeDA	IS	51.0	50 - 150		B9G0189	18-Jul-19	1.20 g	19-Jul-19 18:45	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

The results are reported in dry weight.
The sample size is reported in wet weight.
Results reported to the DL.

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

Sample ID: Method Blank

PFAS Isotope Dilution Method

Client Data

Name: Tetra Tech EC, Inc.
Project: 4663.3803
Matrix: Aqueous

Laboratory Data

Lab Sample: B9G0134-BLK1
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
PFHxA	307-24-4	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
PFHpA	375-85-9	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
PFHxS	355-46-4	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
PFOA	335-67-1	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
PFNA	375-95-1	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
PFOS	1763-23-1	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
PFDA	335-76-2	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
MeFOSAA	2355-31-9	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
EtFOSAA	2991-50-6	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
PFUnA	2058-94-8	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
PFDoA	307-55-1	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
PFTrDA	72629-94-8	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
PFTeDA	376-06-7	ND	0.00137	0.00200	0.00400	U	B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	107	50 - 150		B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
13C2-PFHxA	IS	98.2	50 - 150		B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
13C4-PFHpA	IS	95.1	50 - 150		B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
13C3-PFHxS	IS	98.4	50 - 150		B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
13C2-PFOA	IS	93.6	50 - 150		B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
13C5-PFNA	IS	88.0	50 - 150		B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
13C8-PFOS	IS	93.0	50 - 150		B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
13C2-PFDA	IS	82.9	50 - 150		B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
d3-MeFOSAA	IS	72.5	50 - 150		B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
d5-EtFOSAA	IS	70.8	50 - 150		B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
13C2-PFUnA	IS	84.1	50 - 150		B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
13C2-PFDoA	IS	81.7	50 - 150		B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1
13C2-PFTeDA	IS	79.6	50 - 150		B9G0134	15-Jul-19	0.250 L	22-Jul-19 22:14	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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

Sample ID: LCSD **PFAS Isotope Dilution Method**

Name:	Tetra Tech EC, Inc.	Lab Sample:	B9G0134-BS1/B9G0134-BSD1
Project:	4663.3803	QC Batch:	B9G0134
Matrix:	Aqueous	Samp Size:	0.250/0.250 L
		Date Extracted:	15-Jul-19
		Column:	BEH C18

Analyte	CAS Number	LCS (ug/L)	LCS Spike	LCS % Rec	LCS Quals	LCSD (ug/L)	LCSD Spike	LCSD % Rec	RPD	LCSD Quals	%Rec Limits	RPD Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
PFBS	375-73-5	0.0403	0.0400	101		0.0426	0.0400	106	5.39		70-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1
PFHxA	307-24-4	0.0420	0.0400	105		0.0436	0.0400	109	3.87		70-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1
PFHpA	375-85-9	0.0391	0.0400	97.7		0.0423	0.0400	106	7.95		70-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1
PFHxS	355-46-4	0.0444	0.0400	111		0.0471	0.0400	118	5.98		70-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1
PFOA	335-67-1	0.0410	0.0400	103		0.0399	0.0400	99.8	2.70		70-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1
PFNA	375-95-1	0.0423	0.0400	106		0.0441	0.0400	110	4.26		70-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1
PFOS	1763-23-1	0.0401	0.0400	100		0.0425	0.0400	106	5.93		70-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1
PFDA	335-76-2	0.0414	0.0400	103		0.0460	0.0400	115	10.7		70-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1
MeFOSAA	2355-31-9	0.0402	0.0400	101		0.0443	0.0400	111	9.67		70-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1
EtFOSAA	2991-50-6	0.0400	0.0400	100		0.0463	0.0400	116	14.6		70-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1
PFUnA	2058-94-8	0.0435	0.0400	109		0.0445	0.0400	111	2.39		70-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1
PFDoA	307-55-1	0.0381	0.0400	95.2		0.0434	0.0400	109	13.1		70-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1
PFTrDA	72629-94-8	0.0369	0.0400	92.3		0.0397	0.0400	99.3	7.36		60-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1
PFTeDA	376-06-7	0.0399	0.0400	99.8		0.0447	0.0400	112	11.3		70-130	30	22-Jul-19 21:53	1	22-Jul-19 22:04	1

Labeled Standards	Type	LCS % Rec	LCS Quals	LCSD % Rec	LCSD Quals	Limits	LCS Analyzed	LCS Dil	LCSD Analyzed	LCSD Dil
13C3-PFBS	IS	101		102		50-150	22-Jul-19 21:53	1	22-Jul-19 22:04	1
13C2-PFHxA	IS	101		96.5		50-150	22-Jul-19 21:53	1	22-Jul-19 22:04	1
13C4-PFHpA	IS	102		90.7		50-150	22-Jul-19 21:53	1	22-Jul-19 22:04	1
13C3-PFHxS	IS	102		100		50-150	22-Jul-19 21:53	1	22-Jul-19 22:04	1
13C2-PFOA	IS	91.3		94.0		50-150	22-Jul-19 21:53	1	22-Jul-19 22:04	1
13C5-PFNA	IS	88.6		85.9		50-150	22-Jul-19 21:53	1	22-Jul-19 22:04	1
13C8-PFOS	IS	93.1		90.1		50-150	22-Jul-19 21:53	1	22-Jul-19 22:04	1
13C2-PFDA	IS	85.0		77.6		50-150	22-Jul-19 21:53	1	22-Jul-19 22:04	1
d3-MeFOSAA	IS	80.1		68.6		50-150	22-Jul-19 21:53	1	22-Jul-19 22:04	1
d5-EtFOSAA	IS	81.7		73.7		50-150	22-Jul-19 21:53	1	22-Jul-19 22:04	1
13C2-PFUnA	IS	85.1		80.9		50-150	22-Jul-19 21:53	1	22-Jul-19 22:04	1
13C2-PFDoA	IS	83.7		74.9		50-150	22-Jul-19 21:53	1	22-Jul-19 22:04	1
13C2-PFTeDA	IS	83.8		71.5		50-150	22-Jul-19 21:53	1	22-Jul-19 22:04	1

Sample ID: FRB-07032019 **PFAS Isotope Dilution Method**

Client Data

Name: Tetra Tech EC, Inc.
Project: 4663.3803
Location: Yuma, AZ
Matrix: Aqueous
Date Collected: 03-Jul-19 11:05

Laboratory Data

Lab Sample: 1902014-03
Date Received: 09-Jul-19 09:30
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
PFHxA	307-24-4	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
PFHpA	375-85-9	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
PFHxS	355-46-4	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
PFOA	335-67-1	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
PFNA	375-95-1	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
PFOS	1763-23-1	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
PFDA	335-76-2	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
MeFOSAA	2355-31-9	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
EtFOSAA	2991-50-6	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
PFUnA	2058-94-8	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
PFDoA	307-55-1	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
PFTrDA	72629-94-8	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
PFTeDA	376-06-7	ND	0.00294	0.00431	0.00860	U	B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	102	50 - 150		B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
13C2-PFHxA	IS	95.6	50 - 150		B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
13C4-PFHpA	IS	96.0	50 - 150		B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
13C3-PFHxS	IS	102	50 - 150		B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
13C2-PFOA	IS	99.4	50 - 150		B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
13C5-PFNA	IS	92.5	50 - 150		B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
13C8-PFOS	IS	93.3	50 - 150		B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
13C2-PFDA	IS	78.5	50 - 150		B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
d3-MeFOSAA	IS	60.4	50 - 150		B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
d5-EtFOSAA	IS	64.2	50 - 150		B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
13C2-PFUnA	IS	67.9	50 - 150		B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
13C2-PFDoA	IS	67.0	50 - 150		B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1
13C2-PFTeDA	IS	79.8	50 - 150		B9G0134	15-Jul-19	0.116 L	22-Jul-19 22:36	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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

Sample ID: EB-07032019 **PFAS Isotope Dilution Method**

Client Data

Name: Tetra Tech EC, Inc.
Project: 4663.3803
Location: Yuma, AZ
Matrix: Aqueous
Date Collected: 03-Jul-19 13:20

Laboratory Data

Lab Sample: 1902014-04
Date Received: 09-Jul-19 09:30
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.00291	0.00424	0.00851	U	B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
PFHxA	307-24-4	0.00623	0.00291	0.00424	0.00851	J	B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
PFHpA	375-85-9	ND	0.00291	0.00424	0.00851	U	B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
PFHxS	355-46-4	ND	0.00291	0.00424	0.00851	U	B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
PFOA	335-67-1	ND	0.00291	0.00424	0.00851	U	B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
PFNA	375-95-1	ND	0.00291	0.00424	0.00851	U	B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
PFOS	1763-23-1	0.0852	0.00291	0.00424	0.00851		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
PFDA	335-76-2	ND	0.00291	0.00424	0.00851	U	B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
MeFOSAA	2355-31-9	ND	0.00291	0.00424	0.00851	U	B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
EtFOSAA	2991-50-6	ND	0.00291	0.00424	0.00851	U	B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
PFUnA	2058-94-8	ND	0.00291	0.00424	0.00851	U	B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
PFDoA	307-55-1	ND	0.00291	0.00424	0.00851	U	B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
PFTrDA	72629-94-8	ND	0.00291	0.00424	0.00851	U	B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
PFTeDA	376-06-7	ND	0.00291	0.00424	0.00851	U	B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	101	50 - 150		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
13C2-PFHxA	IS	98.3	50 - 150		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
13C4-PFHpA	IS	99.4	50 - 150		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
13C3-PFHxS	IS	98.5	50 - 150		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
13C2-PFOA	IS	98.7	50 - 150		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
13C5-PFNA	IS	94.9	50 - 150		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
13C8-PFOS	IS	101	50 - 150		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
13C2-PFDA	IS	83.2	50 - 150		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
d3-MeFOSAA	IS	68.0	50 - 150		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
d5-EtFOSAA	IS	78.6	50 - 150		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
13C2-PFUnA	IS	79.3	50 - 150		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
13C2-PFDoA	IS	77.6	50 - 150		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1
13C2-PFTeDA	IS	85.3	50 - 150		B9G0134	15-Jul-19	0.118 L	22-Jul-19 22:46	1

DL - Detection Limit
LOD - Limit of Detection
LOQ - Limit of quantitation
Results reported to the DL.
When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA include both linear and branched isomers. Only the linear isomer is reported for all other analytes.

Sample ID: FRB-07082019

PFAS Isotope Dilution Method

Client Data

Name: Tetra Tech EC, Inc.
Project: 4663.3803
Location: Yuma, AZ
Matrix: Aqueous
Date Collected: 08-Jul-19 15:00

Laboratory Data

Lab Sample: 1902014-08
Date Received: 09-Jul-19 09:30
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
PFHxA	307-24-4	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
PFHpA	375-85-9	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
PFHxS	355-46-4	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
PFOA	335-67-1	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
PFNA	375-95-1	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
PFOS	1763-23-1	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
PFDA	335-76-2	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
MeFOSAA	2355-31-9	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
EtFOSAA	2991-50-6	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
PFUnA	2058-94-8	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
PFDoA	307-55-1	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
PFTrDA	72629-94-8	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
PFTeDA	376-06-7	ND	0.00292	0.00427	0.00853	U	B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	102	50 - 150		B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
13C2-PFHxA	IS	103	50 - 150		B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
13C4-PFHpA	IS	105	50 - 150		B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
13C3-PFHxS	IS	103	50 - 150		B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
13C2-PFOA	IS	96.1	50 - 150		B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
13C5-PFNA	IS	96.3	50 - 150		B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
13C8-PFOS	IS	105	50 - 150		B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
13C2-PFDA	IS	86.2	50 - 150		B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
d3-MeFOSAA	IS	73.9	50 - 150		B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
d5-EtFOSAA	IS	77.0	50 - 150		B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
13C2-PFUnA	IS	76.4	50 - 150		B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
13C2-PFDoA	IS	74.6	50 - 150		B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1
13C2-PFTeDA	IS	81.8	50 - 150		B9G0134	15-Jul-19	0.117 L	23-Jul-19 10:24	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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

Sample ID: CAOA-B01-GW — **PFAS Isotope Dilution Method**

Client Data

Name: Tetra Tech EC, Inc.
Project: 4663.3803
Location: Yuma, AZ
Matrix: Aqueous
Date Collected: 08-Jul-19 15:20

Laboratory Data

Lab Sample: 1902014-09
Date Received: 09-Jul-19 09:30
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	0.152	0.00268	0.00391	0.00784		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
PFHxA	307-24-4	0.417	0.00268	0.00391	0.00784		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
PFHpA	375-85-9	0.0317	0.00268	0.00391	0.00784		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
PFHxS	355-46-4	0.160	0.00268	0.00391	0.00784		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
PFOA	335-67-1	0.0278	0.00268	0.00391	0.00784		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
PFNA	375-95-1	0.00304	0.00268	0.00391	0.00784	J	B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
PFOS	1763-23-1	0.0946	0.00268	0.00391	0.00784		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
PFDA	335-76-2	ND	0.00268	0.00391	0.00784	U	B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
MeFOSAA	2355-31-9	ND	0.00268	0.00391	0.00784	U	B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
EtFOSAA	2991-50-6	ND	0.00268	0.00391	0.00784	U	B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
PFUnA	2058-94-8	ND	0.00268	0.00391	0.00784	U	B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
PFDoA	307-55-1	ND	0.00268	0.00391	0.00784	U	B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
PFTrDA	72629-94-8	ND	0.00268	0.00391	0.00784	U	B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
PFTeDA	376-06-7	ND	0.00268	0.00391	0.00784	U	B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	94.4	50 - 150		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
13C2-PFHxA	IS	94.7	50 - 150		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
13C4-PFHpA	IS	101	50 - 150		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
13C3-PFHxS	IS	99.6	50 - 150		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
13C2-PFOA	IS	93.8	50 - 150		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
13C5-PFNA	IS	89.1	50 - 150		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
13C8-PFOS	IS	90.0	50 - 150		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
13C2-PFDA	IS	84.4	50 - 150		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
d3-MeFOSAA	IS	65.1	50 - 150		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
d5-EtFOSAA	IS	63.5	50 - 150		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
13C2-PFUnA	IS	67.8	50 - 150		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
13C2-PFDoA	IS	57.7	50 - 150		B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1
13C2-PFTeDA	IS	32.4	50 - 150	H	B9G0134	15-Jul-19	0.128 L	23-Jul-19 10:35	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

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

Sample ID: EB-07082019 **PFAS Isotope Dilution Method**

Client Data

Name: Tetra Tech EC, Inc.
Project: 4663.3803
Location: Yuma, AZ
Matrix: Aqueous
Date Collected: 08-Jul-19 15:25

Laboratory Data

Lab Sample: 1902014-10
Date Received: 09-Jul-19 09:30
Column: BEH C18

Analyte	CAS Number	Conc. (ug/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	375-73-5	ND	0.00290	0.00424	0.00846	U	B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
PFHxA	307-24-4	0.0164	0.00290	0.00424	0.00846		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
PFHpA	375-85-9	ND	0.00290	0.00424	0.00846	U	B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
PFHxS	355-46-4	ND	0.00290	0.00424	0.00846	U	B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
PFOA	335-67-1	ND	0.00290	0.00424	0.00846	U	B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
PFNA	375-95-1	ND	0.00290	0.00424	0.00846	U	B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
PFOS	1763-23-1	0.0217	0.00290	0.00424	0.00846		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
PFDA	335-76-2	ND	0.00290	0.00424	0.00846	U	B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
MeFOSAA	2355-31-9	ND	0.00290	0.00424	0.00846	U	B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
EtFOSAA	2991-50-6	ND	0.00290	0.00424	0.00846	U	B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
PFUnA	2058-94-8	ND	0.00290	0.00424	0.00846	U	B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
PFDoA	307-55-1	ND	0.00290	0.00424	0.00846	U	B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
PFTrDA	72629-94-8	ND	0.00290	0.00424	0.00846	U	B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
PFTeDA	376-06-7	ND	0.00290	0.00424	0.00846	U	B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	94.1	50 - 150		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
13C2-PFHxA	IS	90.5	50 - 150		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
13C4-PFHpA	IS	95.5	50 - 150		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
13C3-PFHxS	IS	92.2	50 - 150		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
13C2-PFOA	IS	91.5	50 - 150		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
13C5-PFNA	IS	85.8	50 - 150		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
13C8-PFOS	IS	99.6	50 - 150		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
13C2-PFDA	IS	74.0	50 - 150		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
d3-MeFOSAA	IS	63.6	50 - 150		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
d5-EtFOSAA	IS	64.9	50 - 150		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
13C2-PFUnA	IS	65.6	50 - 150		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
13C2-PFDoA	IS	61.0	50 - 150		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1
13C2-PFTeDA	IS	74.6	50 - 150		B9G0134	15-Jul-19	0.118 L	23-Jul-19 10:45	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

Results reported to the DL.

When reported, PFHxS, PFOA, PFOS, MeFOSAA and EtFOSAA 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
Conc.	Concentration
D	Dilution
DL	Detection limit
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
LOD	Limits of Detection
LOQ	Limits of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
NA	Not applicable
ND	Not Detected
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)
*	See Cover Letter

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

Vista Analytical Laboratory Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	19-013-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-21
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2018017
Massachusetts Department of Environmental Protection	N/A
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	1521520
New Hampshire Environmental Accreditation Program	207718-B
New Jersey Department of Environmental Protection	190001
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-010
Pennsylvania Department of Environmental Protection	016
Texas Commission on Environmental Quality	T104704189-19-10
Virginia Department of General Services	10272
Washington Department of Ecology	C584-19
Wisconsin Department of Natural Resources	998036160

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

NELAP Accredited Test Methods

MATRIX: Air	
Description of Test	**Method**
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA 23
Determination of Polychlorinated p-Dioxins & Polychlorinated Dibenzofurans	EPA TO-9A

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

MATRIX: Drinking Water	
Description of Test	**Method**
2,3,7,8-Tetrachlorodibenzo- p-dioxin (2,3,7,8-TCDD) GC/HRMS	EPA 1613/1613B
1,4-Dioxane (1,4-Diethyleneoxide) analysis by GC/HRMS	EPA 522
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	EPA 537
Perfluorinated Alkyl Acids in Drinking Water by SPE and LC/MS/MS	ISO 25101 2009

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

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

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1902014 Temp: 1.1 °C
Storage ID: R-13 / WR-2 Storage Secured: Yes ☑ No ☐

Project ID: 4663.3803 PO#: 1164824 Sampler: Mckinstry (name)

TAT (check one): Standard: ☐ 21 days Rush (surcharge may apply): ☐ 14 days ☐ 7 days Specify: 10 BD

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
Accts Payable	Tetra Tech EC, Inc.	1230 Columbia St. Suite 750	San Diego	CA	619-234-8696	

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Jeremy Mckinstry	7/8/19	1630	FEDEX	7/8/19	1630
FedEx			Marissa Sparks	07/09/19	0930

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

ATTN: SAMPLE RECEIVING

Method of Shipment: FED EX

Tracking No.:

Add Analysis(es) Requested

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
CAOA-B03-SO-4-4.5	7/3/19	0910	YUMA AZ	1	P	SO			X						
CAOA-B03-SO-20-20.5	7/3/19	0840	Yuma, AZ	1	P	SO			X						
FRB-07032019	7/3/19	1105	Yuma, AZ	2	P	AQ			X						
EB-07032019	7/3/19	1320	Yuma, AZ	2	P	AQ			X						
CAOA-B01-SO-0-0.5	7/8/19	1210	Yuma, AZ	1	P	SO			X						
CAOA-B04-SO-0-0.5	7/8/19	1220	Yuma AZ	1	P	SO			X						
CAOA-B01-SO-20-20.5	7/8/19	1240	Yuma, AZ	1	P	SO			X						
FRB-07082019	7/8/19	1500	Yuma, AZ	2	P	AQ			X						
CAOA-B01-GW	7/8/19	1520	Yuma, AZ	2	P	AQ			X						
EB-07082019	7/8/19	1525	Yuma, AZ	2	P	AQ			X						

Special Instructions/Comments:

SEND DOCUMENTATION AND RESULTS TO:

Name: Lisa Bienkowski
Company: Tetra Tech EC, Inc.
Address: 17885 Von Karman Avenue, Suite 500
City: Irvine State: CA Zip: 92614
Phone: 949-809-5028 Fax:
Email: lisa.bienkowski@tetratech.com

Container Types: P= HDPE, PJ= HDPE Jar **Bottle Preservation Type:** T = Thiosulfate, **Matrix Types:** AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Process Solid, SD = Sediment.

Vista Analytical Laboratory

Sample Log-In Checklist

Vista Work Order #: 1902014 TAT 14 days

Samples Arrival:	**Date/Time** 07/09/19 0930	**Initials:** WDS	**Location:** WR-2 **Shelf/Rack:** N/a
Logged In:	**Date/Time** 07/09/19 1437	**Initials:** ajm	**Location:** R-13 / WR-2 **Shelf/Rack:** A-3/E-2, A-3

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

Temp °C: 1.0	(uncorrected)	**Probe used:** Y / (N)	**Thermometer ID:** IR-3
Temp °C: 1.0	(corrected)		

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill — Trk # 7883 5353 4435	✓		
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) Other				Yes	No (NA)
Shipping Container	Vista	(Client)	Retain	(Return)	Dispose	

Comments:


ORIGIN ID:YUMA (619) 200-6897
TETRATECH

1230 COLUMBIA ST STE 750

SAN DIEGO, CA 92101
UNITED STATES US

SHIP DATE: 08JUL19
ACTWGT: 44.90 LB
CAD: 006995180/SSFE2002
DIMS: 24x14x13 IN

BILL THIRD PARTY

Part # 156297-435 RRDB2 EXP 04/20
565J2/A6F9/23AD

TO VISTA ANALYTICAL LAB
ATTN: SAMPLE RECEIVING
1104 WINDFIELD WAY

EL DORADO HILLS CA 95762
(916) 673-1620

INV:
PO:
REF:
DEPT:

FedEx
Express

J191019010701av

TUE - 09 JUL 10:30A
7883 5353 4435
PRIORITY OVERNIGHT

MHRA

95762
CA-US SMF

EXTRACTION INFORMATION

Process Sheet

Workorder: 1902014

Prep Expiration: 2019-07-17
Client: Tetra Tech EC, Inc.

Workorder Due: 23-Jul-19 00:00
TAT: 14

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

Prep Batch: B9G0134

Prep Data Entered: AE 07/16/19
Date and Initials

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

Initial Sequence: S9G0056

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1902014-03	"A"	☑	☑	FRB-07032019		R-13 A-3	HDPE Bottle, 125 mL
1902014-04	"A"	☑	☑	EB-07032019		R-13 A-3	HDPE Bottle, 125 mL
1902014-08	"A"	☑	☑	FRB-07082019		R-13 A-3	HDPE Bottle, 125 mL
1902014-09	"A"	☑	☑	CAOA-B01-GW		R-13 A-3	HDPE Bottle, 125 mL
1902014-10	"A"	☑	☑	EB-07082019		R-13 A-3	HDPE Bottle, 125 mL

WO Comments: Internal COC

Pre-Prep Check Out: FB 07/12/19
Pre-Prep Check In: FB 07/12/19
Prep Check Out: ONL 07/15/19
Prep Check In: N/A
Prep Reconciled Initals/Date: FB 07/12/19
Spike Reconciled Initals/Date: ONL 07/15/19
VialBoxID: Bam

Matrix: Aqueous
Method: 537M PFAS DOD (LOQ as mRL)
Method: 537M PFAS MI Sp Sig Digs

PREPARATION BENCH SHEET

B9G0134

Chemist: HR 07/12/19
Prep Date: HR 07/12/19 07/15/19
Prep Time: 06:14

Prepared using: ☐ Sonication Shaker ☒ SPE Extraction ☒ Centrifuge ID: C3

Date/Initals: FB 07/12/19 | BalanceID: HBMS-9

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	ENVI-Carb	RS CHEM/WIT DATE
☒	B9G0134-BLK1 (10)	7	2	0	4	N/A	N/A	(0.250)	HR DNL 07/15/19	DPV 07/15/19	DPV 07/15/19	DPV HR 07/15/19
☒	B9G0134-BS1	7	2	0	4	N/A	N/A	(0.250)				
☒	B9G0134-BSD1	7	2	0	4	N/A	N/A	(0.250)				
☐	1902003-01	7	2	0	6	133.46	17.08	0.11638				
☐	1902014-03	5	2	0	1	142.99	26.65	0.11634				
☐	1902014-04	5	2	0	1	144.27	26.77	0.11750				
☐	1902014-08	5	2	0	1	143.96	26.72	0.11724				
☒	1902014-09	7	*2 2	0	*+2	154.27	26.69	0.12758				
☐	1902014-10	5	2	0	1	145.02	26.80	0.11822				
☐	1902035-01	7	*2 2	0	6	257.95	25.84	0.23211				
☐	1902036-01	7	2	0	6	266.57	26.18	0.24039				
☐	1902037-01	7	2	0	5	262.76	25.55	0.23721				
☐	1902038-01 (3)	7	2	0	5	260.57	25.70	0.23487				
☐	1902039-01	7	2	0	6	245.96	25.92	0.22004				
☐	1902040-01	7	2	0	5	282.49	25.58	0.25691				

IS: 19E2201, 10mL (V3)
IS SUP: N/A
NS: 19E2204, 10mL (V2)
NS SUP: N/A
RS: ~~19E1101, 1mL (V1)~~ 19E2202, DPV 07/23/19

SPE Chem: Strata-X-AW 33µm 200mg/6mL
SPE Lot#: SIB-000831
ENVI-Carb Lot#: 11155501
Ele SOLV: MeOH/0.5%NH4OH in MeOH
Final Volume(s) 1 mL

Notes: ⓒ FB 07/12/19
*FB 07/12/19
*FB 07/12/19
(3) DPV 07/15/19

Comments: Assume 1 g = 1 mL
Cen = Centrifuged

1 = Sample centrifuged twice
2 = Sample deeply colored after centrifuge
3 = Cartridge sorbent discolored after SPE
4 = Sample clogged cartridge, additional cartridge(s) used
5 = Sample recombined at final volume
6 = Sample took longer to SPE, required stronger vacuum
7 = Required Nitrogen line to finish SPE
8 = Required Nitrogen line to finish elution
9 = Sample arrived with low volume
10 = Trizma added to QC (5g/L)

Batch: B9G0134

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1902003-01	0.11638	NA	NA	1000	15-Jul-19 06:14	HNR			Potable Water	537M PFAS DOD (LOQ as
1902014-03	0.11634			1000	15-Jul-19 06:14	HNR			Aqueous	537M PFAS DOD (LOQ as
1902014-04	0.1175			1000	15-Jul-19 06:14	HNR			Aqueous	537M PFAS DOD (LOQ as
1902014-08	0.11724			1000	15-Jul-19 06:14	HNR			Aqueous	537M PFAS DOD (LOQ as
1902014-09	0.12758			1000	15-Jul-19 06:14	HNR			Aqueous	537M PFAS DOD (LOQ as
1902014-10	0.11822			1000	15-Jul-19 06:14	HNR			Aqueous	537M PFAS DOD (LOQ as
1902035-01	0.23211			1000	15-Jul-19 06:14	HNR			Aqueous	537M PFAS MI Sp Sig Dig
1902036-01	0.24039			1000	15-Jul-19 06:14	HNR			Aqueous	537M PFAS MI Sp Sig Dig
1902037-01	0.23721			1000	15-Jul-19 06:14	HNR			Aqueous	537M PFAS MI Sp Sig Dig
1902038-01	0.23487			1000	15-Jul-19 06:14	HNR			Aqueous	537M PFAS MI Sp Sig Dig
1902039-01	0.22004			1000	15-Jul-19 06:14	HNR			Aqueous	537M PFAS MI Sp Sig Dig
1902040-01	0.25691			1000	15-Jul-19 06:14	HNR			Aqueous	537M PFAS MI Sp Sig Dig
B9G0134-BLK1	0.25			1000	15-Jul-19 06:14	HNR				QC
B9G0134-BS1	0.25			1000	15-Jul-19 06:14	HNR	19E2204	10		QC
B9G0134-BSD1	0.25			1000	15-Jul-19 06:14	HNR	19E2204	10		QC

All bolded data on report verified against written benchsheet by (initial/date) AE 07/16/19

Process Sheet

Workorder: 1902014

Prep Expiration: 2019-09-01
Client: Tetra Tech EC, Inc.

Workorder Due: 23-Jul-19 00:00

TAT: 14

Method: **VAL - PFAS DoD (LOQ as RL)**
Matrix: **Solid**

Prep Batch: HP 07/13/19 ~~B9G0137~~ B9G0189

Also run: **Percent Solids**
Version: 537 (14 Analyte) - DoD Limits
DoD: DoD QSM 5.1

Prep Data Entered: AE 07/19/19
Date and Initials

Initial Sequence: S9G0047

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1902014-01	~~A~~	☑	☐	CAOA-B03-SO-4-4.5		WR-2 A-3	HDPE Jar, 6 oz
1902014-02	~~A~~	☑	☐	CAOA-B03-SO-20-20.5		WR-2 A-3	HDPE Jar, 6 oz
1902014-05	~~A~~	☑	☐	CAOA-B01-SO-0-0.5		WR-2 A-3	HDPE Jar, 6 oz
1902014-06	~~A~~	☑	☐	CAOA-B04-SO-0-0.5		WR-2 A-3	HDPE Jar, 6 oz
1902014-07	~~A~~	☑	☐	CAOA-B01-SO-20-20.5		WR-2 A-3	HDPE Jar, 6 oz

WO Comments: Internal COC

Pre-Prep Check Out: OPV 07/16/19
Pre-Prep Check In: OPV 07/16/19

Prep Check Out: NA
Prep Check In: NA

Prep Reconciled Initals/Date: OPV 07/16/19
Spike Reconciled Initals/Date: NA
VialBoxID: Roni

Matrix: Solid
Method: VAL - PFAS DoD (LOQ as RL)

PREPARATION BENCH SHEET

B9G0189

Chemist: HR

Prep Date: 07/18/19

Prep Time: 13:49

Prepared using: ☑ Sonication ☑ Shaker ☑ SPE Extraction ☑ Centrifuge ID: C4

Initial/Date: SAE 07/18/19

BalanceID: HR MS-9

Cen	VISTA Sample ID	Sample Amt. (g)	IS/NS CHEM/WIT DATE	Pre-Ext	Extraction	SPE	ENVI-Carb	RS CHEM/WIT DATE
☐	B9G0189-BLK1	(1.00)	HR OPV 07/18/19	HR 07/18/19	AE 07/19/19	AE 07/19/19	AE 07/19/19	AE DNL 07/19/19
☐	B9G0189-BS1	(1.00)						
☐	B9G0189-MS1 1902014-05	1.07						
☐	B9G0189-MSD1 1902014-05	1.08						
☐	1902014-01	1.08						
☐	1902014-02	1.09						
☐	1902014-05	1.07						
☐	1902014-06	1.03						
☐	1902014-07	1.20						

IS: 19E2201, 10mL, V2

IS SUP: N/A

NS: 19E2204, 10mL, V2

NS SUP: N/A

RS: 19E2202, 10mL V2

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

SPE Lot#: S18-006831

Extraction Solvent: 1:1 MeOH:ACN

ENVI-Carb Lot#: A0143I

Ele SOLV: MeOH/0.5%NH4OH in MeOH

Final Volume(s) 1 mL

Notes:

Comments: Assume 1 g = 1 mL

1 = Sample deeply colored
2 = Cartridge sorbent discolored after SPE
3 = Sample clogged cartridge, additional cartridge(s) used
4 = Sample recombined at final volume
5 = Sample took longer to SPE, required stronger vacuum
6 = Required Nitrogen line to finish SPE
7 = Required Nitrogen line to finish elution

Solids estimate

Batch: B9G0148

Lab ID	Analysis	% Solids	Entered	Target weight	Weigh this much
1902014-01	Percent Solids	92.72		1.00	1.08
1902014-02	Percent Solids	91.56		1.00	1.09
1902014-05	Percent Solids	94.13		1.00	1.06
1902014-06	Percent Solids	98.10		1.00	1.02
1902014-07	Percent Solids	83.58		1.00	1.20

Percent Moisture/ Percent Solids

D2216-90 BATCH ID B9G0148

Analyst: OPV ✓ **Test Code:** %Moist/%Solids **Analyte:** **Units:** % Dried at 110°C+/-5°C **Oven ID:** *01* 02	Data Entry Verified by: (Initial and Date) HR 07/17/19

Inst HRMS-9 ✓

Date/Time IN:	Date/Time OUT
7/16/19 14:29 ✓	7/17/19 8:07 ✓

	B	C	D	E	F	G	H	I	K	L	M	N	O	P
				Intial and Date:	OPV 07/16/19	ONL 07/17/19			OPV 07/16/19					OPV 07/16/19
Particle Size	SampID		SampType	Pan Tare Wt. (gms)	Wet Pan and Sample Weight (g)	Dry Pan and Sample Weight (g)	Dry Sample Weight (g)	%Solids RawVal	Visual Inspection	Cl-	pH Before	pH After	Acid Added	Sample Homogenized*
	1902014-01		Sample	1.2900 ✓	6.1000 ✓	5.7500 ✓	4.4600	92.72	rown Sedime	N/A	N/A	N/A	N/A	X
	1902014-02		Sample	1.2900 ✓	6.7400 ✓	6.2800 ✓	4.9900	91.56	rown Sedime	N/A	N/A	N/A	N/A	X
	1902014-05		Sample	1.2900 ✓	7.0800 ✓	6.7400 ✓	5.4500	94.13	Brown Sand	N/A	N/A	N/A	N/A	X
	1902014-06		Sample	1.2900 ✓	6.0200 ✓	5.9300 ✓	4.6400	98.10	Sand	N/A	N/A	N/A	N/A	X
	1902014-07		Sample	1.3000 ✓	6.1100 ✓	5.3200 ✓	4.0200	83.58	Clay	N/A	N/A	N/A	N/A	X

*Sample homogenized in sample container unless otherwise noted.

Percent Moisture/ Percent Solids

D2216-90 BATCH ID B9G0148

Analyst: dPV	**Test Code:** %Moist/%Solids	Data Entry Verified by: (Initial and Date) N/A
Analyte: Dried at 110°C+/-5°C	**Units:** %	
Oven ID: (01) 02		

Inst HRMS-9

Date/Time IN: 07/16/19 14:29 Date/Time OUT 07/17/19 08:07

	B	C	D	E	F	G	H	I	K	L	M	N	O	P
				Intial and Date:	dPV 07/16/19	CNL 07/17/19			dPV 07/16/19					dPV 07/16/19
	Particle Size	SampID	SampType	Pan Tare Wt. (gms)	Wet Pan and Sample Weight (g)	Dry Pan and Sample Weight (g)	Dry Sample Weight (g)	%Solids RawVal	Visual Inspection	Cl-	pH Before	pH After	Acid Added	Sample Homogenized*
		1902014-01	Sample	1.29	6.10	5.75			Brown Sediment.					✓
		1902014-02	Sample	1.29	6.74	6.28			Brown Sediment.		NA			✓
		1902014-05	Sample	1.29	7.08	6.74		N/A	Brown Sand.					✓
		1902014-06	Sample	1.29	6.02	5.93			Sand.					✓
		1902014-07	Sample	1.30	6.11	5.32			clay					✓

*Sample homogenized in sample container unless otherwise noted.

Batch: B9G0189

Matrix: Solid

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1902014-01	**1.08**	**92.7235**	**1.0014**	**1000**	**18-Jul-19 13:49**	**HNR**			Soil	VAL - PFAS DoD (LOQ as
1902014-02	**1.09**	**91.55964**	**0.9980**	**1000**	**18-Jul-19 13:49**	**HNR**			Soil	VAL - PFAS DoD (LOQ as
1902014-05	**1.07**	**94.12781**	**1.0072**	**1000**	**18-Jul-19 13:49**	**HNR**			Soil	VAL - PFAS DoD (LOQ as
1902014-06	**1.03**	**98.09725**	**1.0104**	**1000**	**18-Jul-19 13:49**	**HNR**			Soil	VAL - PFAS DoD (LOQ as
1902014-07	**1.2**	**83.57588**	**1.0029**	**1000**	**18-Jul-19 13:49**	**HNR**			Soil	VAL - PFAS DoD (LOQ as
B9G0189-BLK1	**1**			**1000**	**18-Jul-19 13:49**	**HNR**				QC
B9G0189-BS1	**1**			**1000**	**18-Jul-19 13:49**	**HNR**	**19E2204**	**10**		QC
B9G0189-MS1	**1.07**			**1000**	**18-Jul-19 13:49**	**HNR**	**19E2204**	**10**		QC
B9G0189-MSD1	**1.08**			**1000**	**18-Jul-19 13:49**	**HNR**	**19E2204**	**10**		QC

All bolded data on report verified against written benchsheet by (initial/date) QE 07/19/19

Sample Data – PFAS Isotope Dilution Method

Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-51.qld

Last Altered: Monday, July 22, 2019 10:08:46 Pacific Daylight Time
Printed: Monday, July 22, 2019 10:09:16 Pacific Daylight Time

Name: 190719M1_51, Date: 19-Jul-2019, Time: 17:20:14, ID: B9G0189-BLK1 Method Blank 1, Description: Method Blank

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7		7.20e2	1.00		2.46						
2	7	PFHxA	313.0 > 269.0		3.46e3	1.00		2.97						
3	11	PFHpA	363.0 > 318.9		3.79e3	1.00		3.60						
4	13	L-PFHxS	398.9 > 79.6		1.60e3	1.00		3.75						
5	80	Total PFHxS	398.9 > 79.6	0.00e0	1.60e3	1.00		3.83		0.000				
6	49	13C3-PFBS	302.0 > 98.8	7.20e2	7.86e2	1.00	1.034	2.47	2.46	11.5	11.0724	88.6		
7	52	13C2-PFHxA	315.0 > 270.0	3.46e3	1.27e4	1.00	0.791	2.98	2.97	3.40	4.2965	85.9		
8	53	13C4-PFHpA	367.2 > 321.8	3.79e3	1.27e4	1.00	0.365	3.60	3.60	3.73	10.2076	81.7		
9	54	13C3-PFHxS	401.8 > 79.9	1.60e3	7.86e2	1.00	2.210	3.76	3.75	25.5	11.5521	92.4		
10	54	13C3-PFHxS	401.8 > 79.9	1.60e3	7.86e2	1.00	2.210	3.76	3.75	25.5	11.5521	92.4		
11	-1													
12	16	L-PFOA	412.8 > 368.9		7.45e3	1.00		4.13						
13	81	Total PFOA	412.8 > 368.9	0.00e0	7.45e3	1.00		4.21		0.000				
14	21	PFNA	463.0 > 418.8		7.74e3	1.00		4.58						
15	23	L-PFOS	498.9 > 79.9	1.28e0	1.59e3	1.00		4.66	4.55	0.0101	0.1244		0.275	YES
16	82	Total PFOS	498.9 > 79.9	1.28e0	1.59e3	1.00		4.74		0.0101	0.1244			
17	58	13C2-PFOA	414.9 > 369.7	7.45e3	1.88e4	1.00	0.509	4.14	4.13	4.94	9.7047	77.6		
18	58	13C2-PFOA	414.9 > 369.7	7.45e3	1.88e4	1.00	0.509	4.14	4.13	4.94	9.7047	77.6		
19	56	13C5-PFNA	468.2 > 422.9	7.74e3	9.62e3	1.00	0.998	4.58	4.58	10.1	10.0794	80.6		
20	59	13C8-PFOS	507.0 > 79.9	1.59e3	1.99e3	1.00	1.015	4.67	4.66	9.97	9.8187	78.5		
21	59	13C8-PFOS	507.0 > 79.9	1.59e3	1.99e3	1.00	1.015	4.67	4.66	9.97	9.8187	78.5		
22	-1													
23	26	PFDA	513 > 468.8		5.48e3	1.00		4.96						
24	29	L-MeFOSAA	570 > 419		7.54e2	1.00		5.11						
25	83	Total N-MeFOSAA	570. > 419	0.00e0	7.54e2	1.00		5.19		0.000				
26	33	PFUdA	563.0 > 518.9		7.12e3	1.00		5.29						
27	37	PFDoA	612.9 > 569.0		7.79e3	1.00		5.58						
28	60	13C2-PFDA	515.1 > 469.9	5.48e3	1.39e4	1.00	0.669	4.97	4.96	4.91	7.3459	58.8		
29	62	d3-N-MeFOSAA	573.3 > 419	7.54e2	1.72e4	1.00	0.124	5.12	5.11	0.550	4.4278	35.4		
30	62	d3-N-MeFOSAA	573.3 > 419	7.54e2	1.72e4	1.00	0.124	5.12	5.11	0.550	4.4278	35.4		
31	63	13C2-PFUdA	565 > 519.8	7.12e3	1.72e4	1.00	0.812	5.30	5.29	5.19	6.3969	51.2		
32	65	13C2-PFDoA	614.7 > 569.7	7.79e3	1.39e4	1.00	1.311	5.59	5.58	6.99	5.3272	42.6		
33	-1													
34	31	L-EtFOSAA	584.1 > 419		1.24e3	1.00		5.27						
35	84	Total N-EtFOSAA	584.1 > 419	0.00e0	1.24e3	1.00		5.33		0.000				
36	39	PFTrDA	662.9 > 618.9		7.79e3	1.00		5.84						

Vista Analytical Laboratory L14

MM 7/22/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-51.qld

Last Altered: Monday, July 22, 2019 10:08:46 Pacific Daylight Time
Printed: Monday, July 22, 2019 10:09:16 Pacific Daylight Time

Name: 190719M1_51, Date: 19-Jul-2019, Time: 17:20:14, ID: B9G0189-BLK1 Method Blank 1, Description: Method Blank

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0		4.16e3	1.00		6.06						
38	85	TDCA	498.3>106.9			1.00		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	1.24e3	1.72e4	1.00	0.174	5.28	5.27	0.905	5.1874	41.5		
40	64	d5-N-EtFOSAA	589.3 > 419	1.24e3	1.72e4	1.00	0.174	5.28	5.27	0.905	5.1874	41.5		
41	65	13C2-PFDoA	614.7 > 569.7	7.79e3	1.39e4	1.00	1.311	5.59	5.58	6.99	5.3272	42.6		
42	67	13C2-PFTeDA	715.1 > 669.7	4.16e3	1.72e4	1.00	0.437	6.06	6.06	3.03	6.9453	55.6		
43	59	13C8-PFOS	507.0 > 79.9	1.59e3	1.99e3	1.00	1.015	4.67	4.66	9.97	9.8187	78.5		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	1.27e4	1.27e4	1.00	1.000	2.98	2.97	12.5	12.5000	100.0		
46	75	13C8-PFOA	420.9 > 376.0	1.88e4	1.88e4	1.00	1.000	4.14	4.12	12.5	12.5000	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	7.86e2	7.86e2	1.00	1.000	3.76	3.75	12.5	12.5000	100.0		
48	76	13C9-PFNA	472.2 > 426.9	9.62e3	9.62e3	1.00	1.000	4.58	4.58	12.5	12.5000	100.0		
49	77	13C4-PFOS	503 > 79.9	1.99e3	1.99e3	1.00	1.000	4.67	4.66	12.5	12.5000	100.0		
50	78	13C6-PFDA	519.1 > 473.7	1.39e4	1.39e4	1.00	1.000	4.97	4.96	12.5	12.5000	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	1.72e4	1.72e4	1.00	1.000	5.30	5.29	12.5	12.5000	100.0		

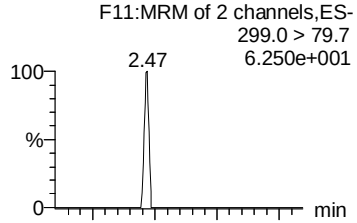
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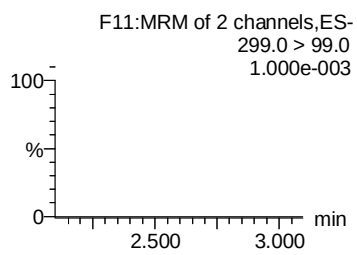
Last Altered: Monday, July 22, 2019 10:08:46 Pacific Daylight Time
Printed: Monday, July 22, 2019 10:09:16 Pacific Daylight Time

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Calibration: Z:\Projects\PFAS.pro\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

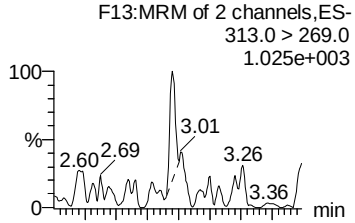
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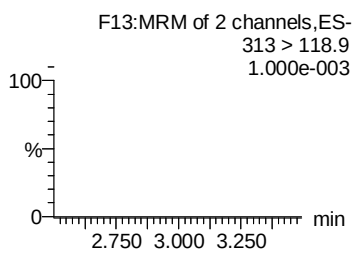
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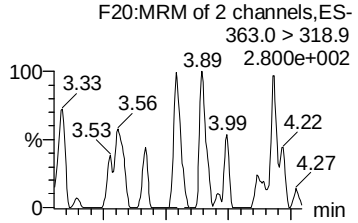


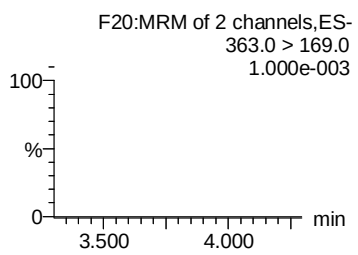
PFHxA



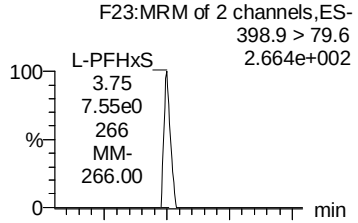


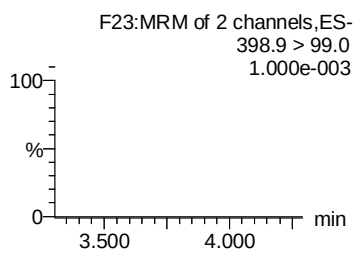
PFHpA



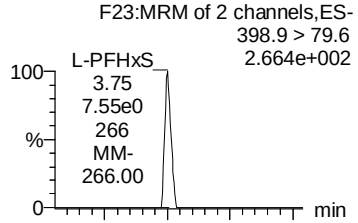


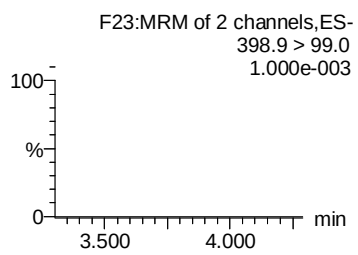
L-PFHxS



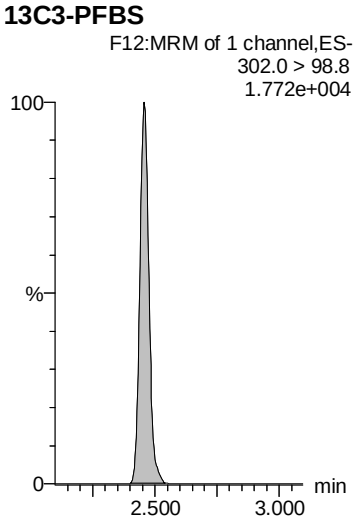


Total PFHxS

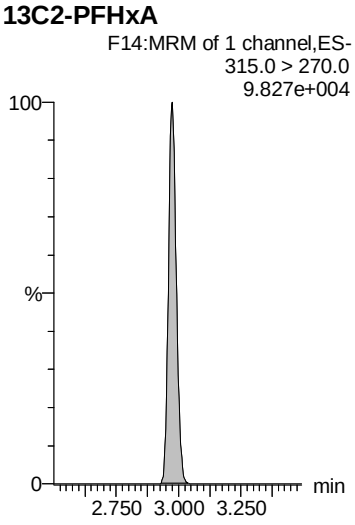




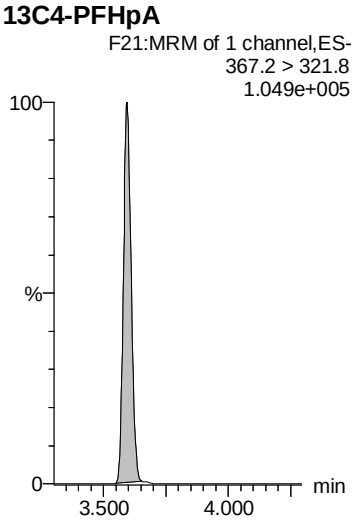
13C3-PFBS



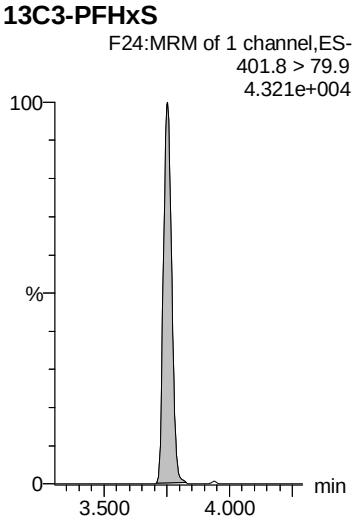
13C2-PFHxA



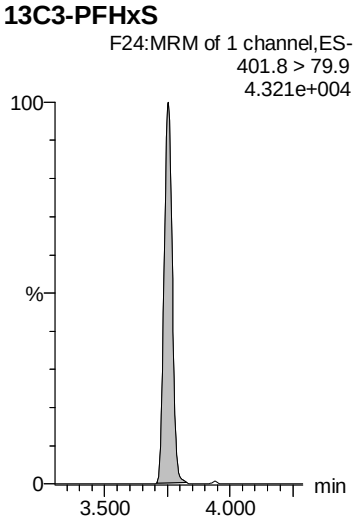
13C4-PFHpA



13C3-PFHxS



13C3-PFHxS

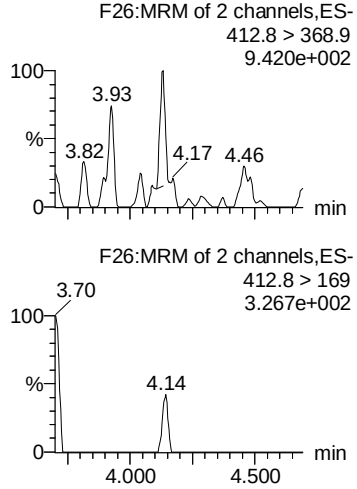


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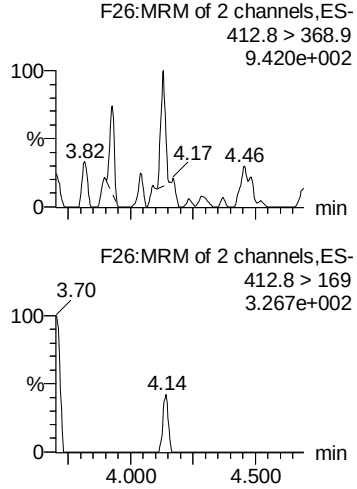
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Printed: Monday, July 22, 2019 10:09:16 Pacific Daylight Time

Name: 190719M1_51, Date: 19-Jul-2019, Time: 17:20:14, ID: B9G0189-BLK1 Method Blank 1, Description: Method Blank

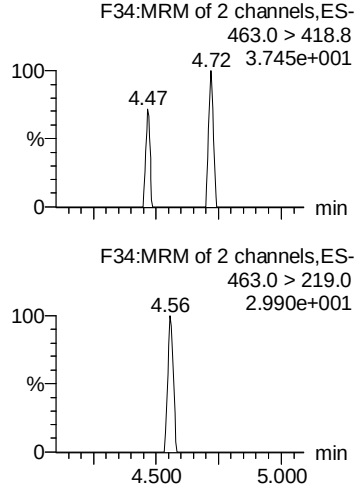
L-PFOA



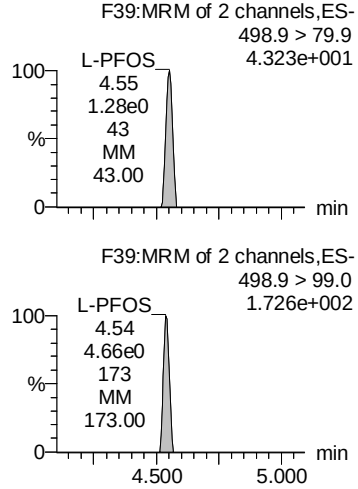
Total PFOA



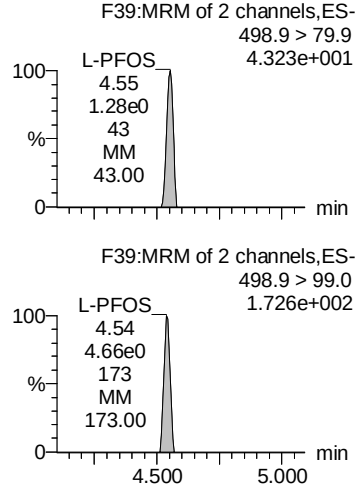
PFNA



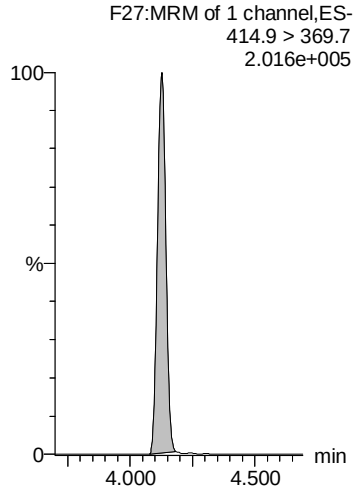
L-PFOS



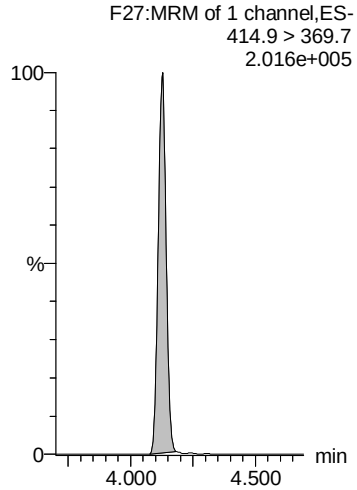
Total PFOS



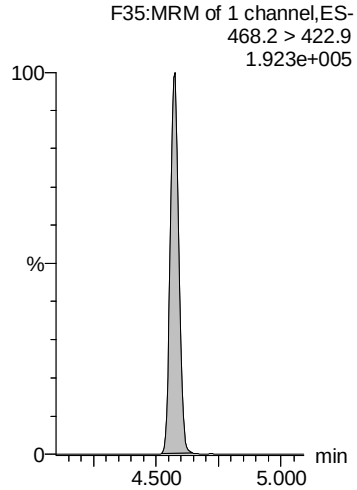
13C2-PFOA



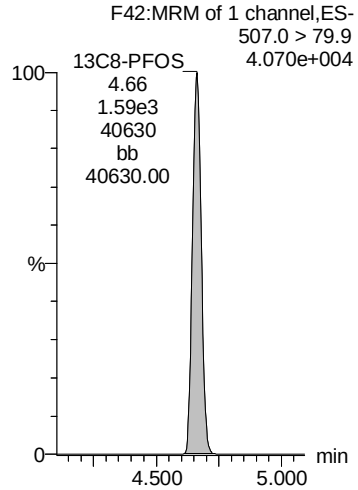
13C2-PFOA



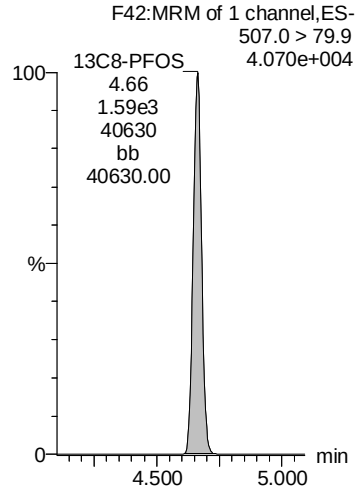
13C5-PFNA



13C8-PFOS



13C8-PFOS

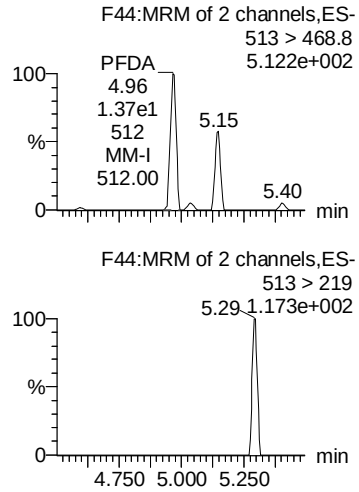


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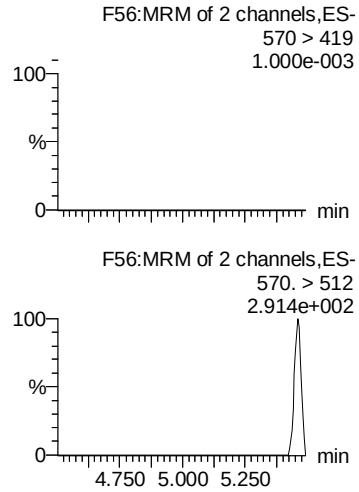
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Printed: Monday, July 22, 2019 10:09:16 Pacific Daylight Time

Name: 190719M1_51, Date: 19-Jul-2019, Time: 17:20:14, ID: B9G0189-BLK1 Method Blank 1, Description: Method Blank

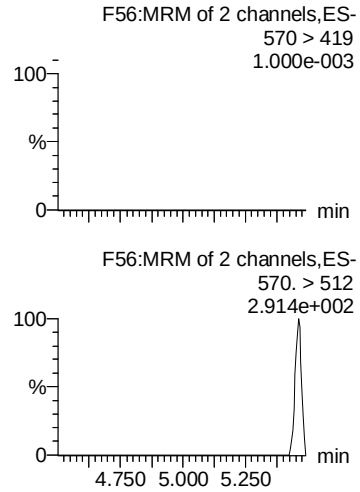
PFDA



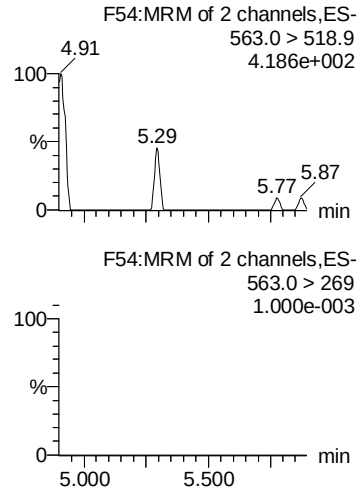
L-MeFOSAA



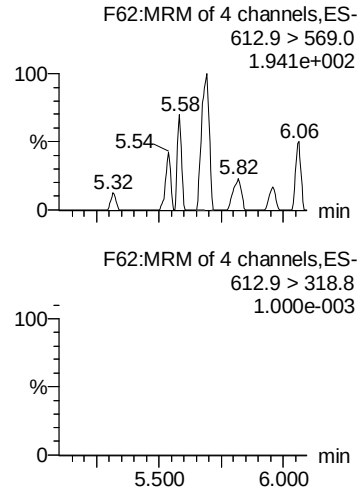
Total N-MeFOSAA



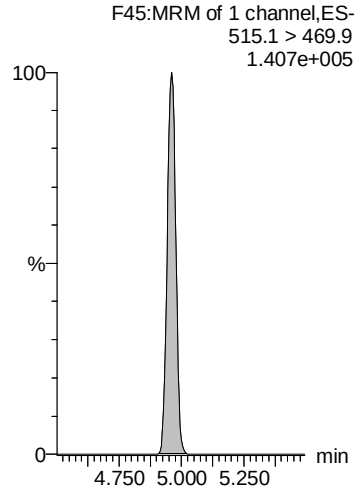
PFUdA



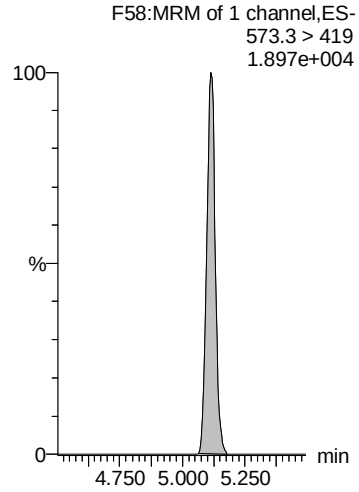
PFDoA



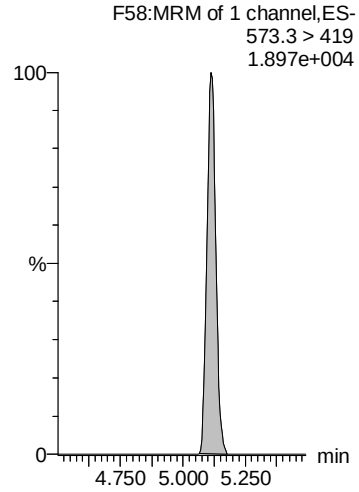
13C2-PFDA



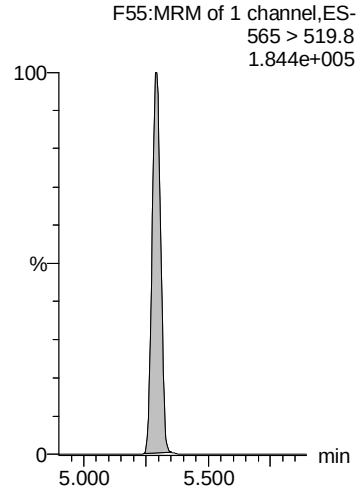
d3-N-MeFOSAA



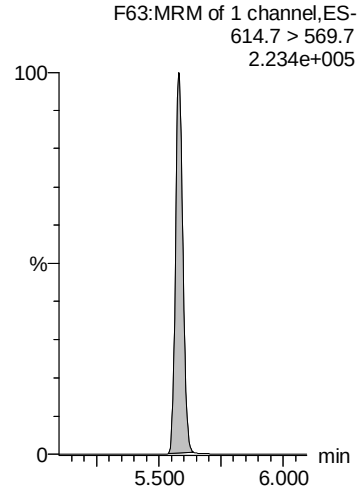
d3-N-MeFOSAA



13C2-PFUdA



13C2-PFDoA

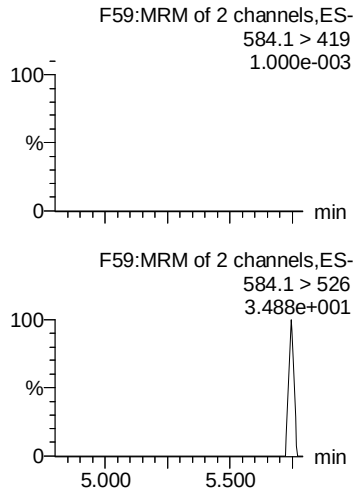


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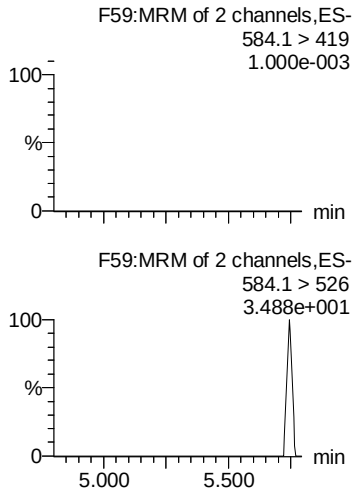
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Printed: Monday, July 22, 2019 10:09:16 Pacific Daylight Time

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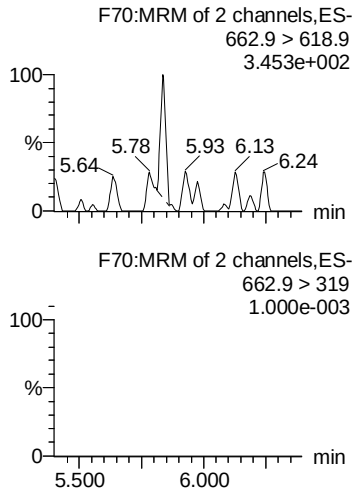
L-EtFOSAA



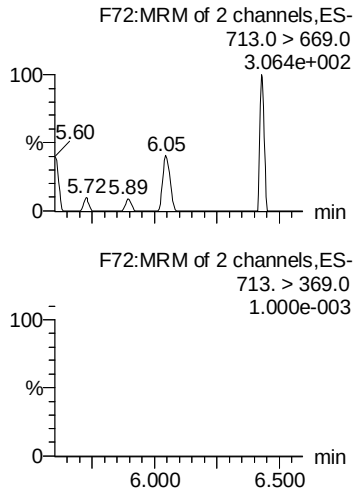
Total N-EtFOSAA



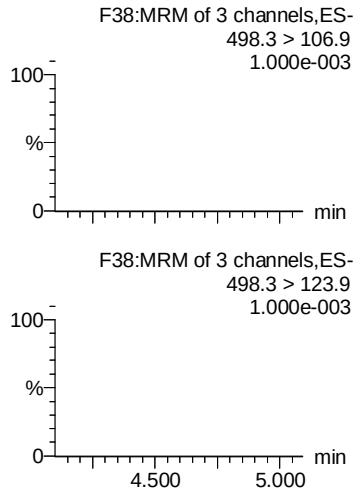
PFTrDA



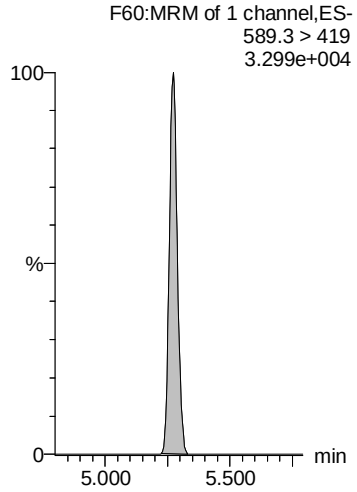
PFTeDA



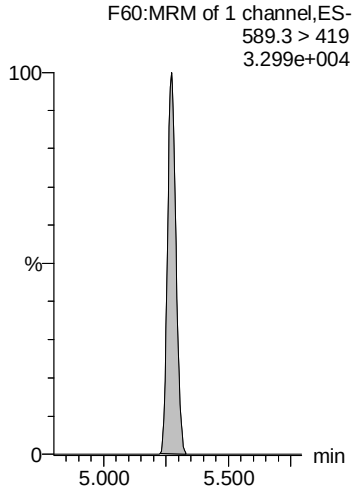
TDCA



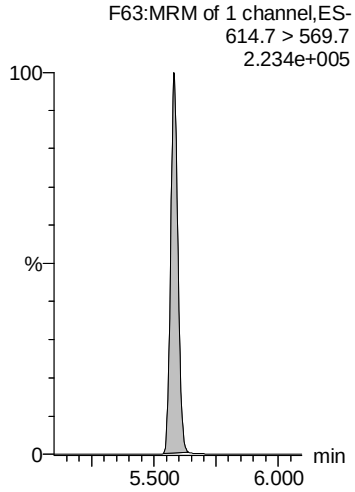
d5-N-EtFOSAA



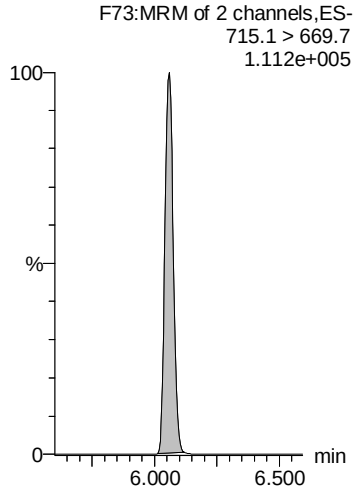
d5-N-EtFOSAA



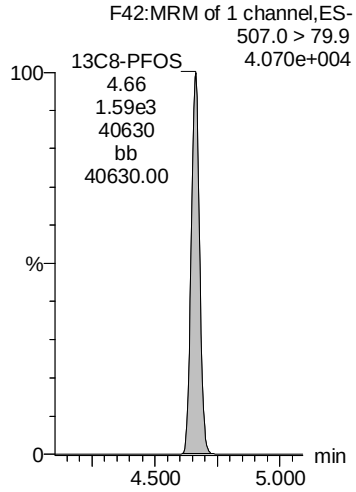
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS

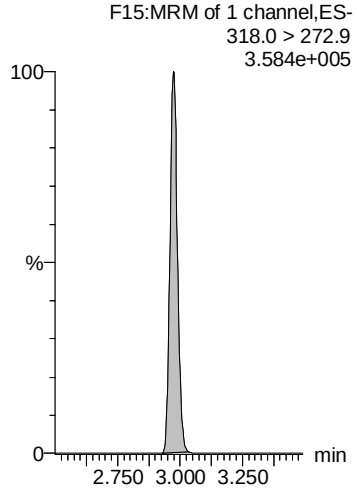


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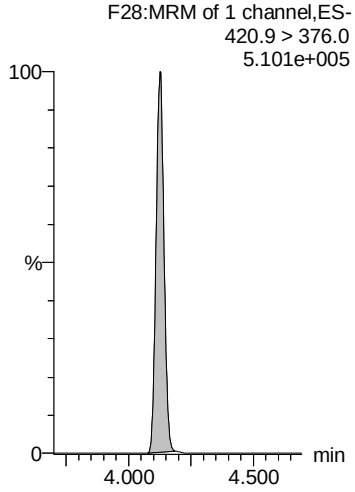
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Name: 190719M1_51, Date: 19-Jul-2019, Time: 17:20:14, ID: B9G0189-BLK1 Method Blank 1, Description: Method Blank

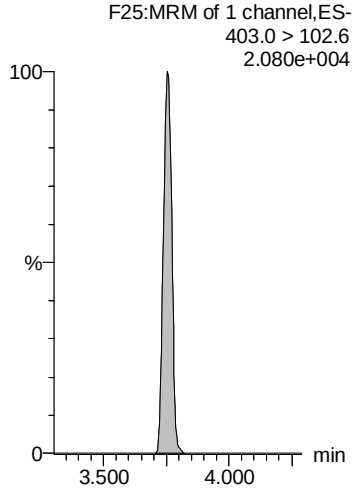
13C5-PFHxA



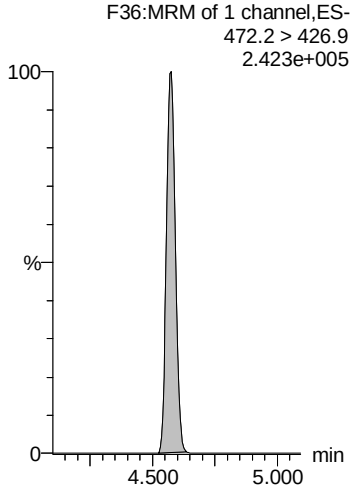
13C8-PFOA



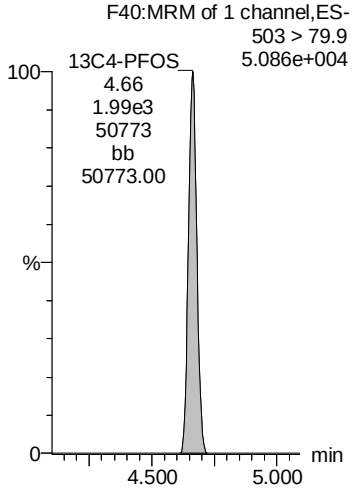
18O2-PFHxS



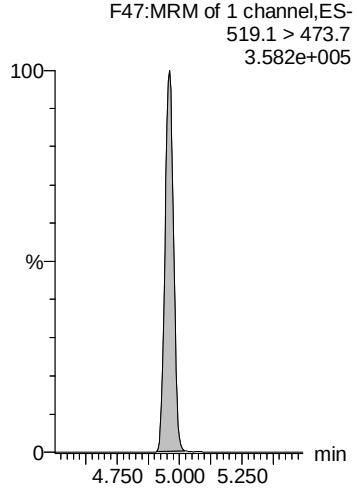
13C9-PFNA



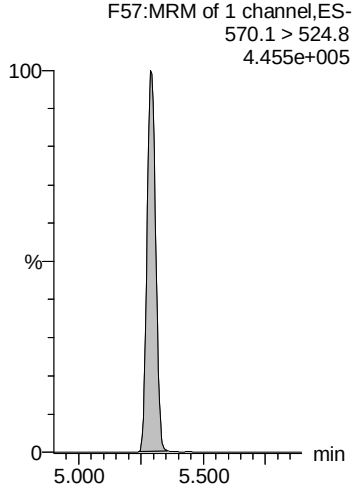
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory L14

MM 7/22/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-48.qld

Last Altered: Monday, July 22, 2019 09:59:33 Pacific Daylight Time
Printed: Monday, July 22, 2019 09:59:41 Pacific Daylight Time

Name: 190719M1_48, Date: 19-Jul-2019, Time: 16:48:06, ID: B9G0189-BS1 OPR 1, Description: OPR

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	8.12e2	4.25e2	1.00		2.47	2.47	23.9	10.4060	104.1	3.167	NO
2	7	PFHxA	313.0 > 269.0	8.83e3	3.58e3	1.00		2.98	2.98	12.3	10.6647	106.6	14.198	NO
3	11	PFHpA	363.0 > 318.9	4.16e3	4.00e3	1.00		3.60	3.61	13.0	10.3752	103.8	4.948	NO
4	13	L-PFHxS	398.9 > 79.6	1.00e3	1.47e3	1.00		3.76	3.76	8.52	8.5966	86.0	2.374	NO
5	80	Total PFHxS	398.9 > 79.6	1.00e3	1.47e3	1.00		3.83		8.52	8.5966			
6	49	13C3-PFBS	302.0 > 98.8	4.25e2	8.92e2	1.00	1.034	2.47	2.47	5.95	5.7524	46.0		
7	52	13C2-PFHxA	315.0 > 270.0	3.58e3	1.36e4	1.00	0.791	2.98	2.98	3.30	4.1683	83.4		
8	53	13C4-PFHpA	367.2 > 321.8	4.00e3	1.36e4	1.00	0.365	3.60	3.60	3.69	10.0970	80.8		
9	54	13C3-PFHxS	401.8 > 79.9	1.47e3	8.92e2	1.00	2.210	3.76	3.76	20.6	9.3388	74.7		
10	54	13C3-PFHxS	401.8 > 79.9	1.47e3	8.92e2	1.00	2.210	3.76	3.76	20.6	9.3388	74.7		
11	-1													
12	16	L-PFOA	412.8 > 368.9	1.32e4	7.92e3	1.00		4.14	4.14	20.9	10.4471	104.5	3.858	NO
13	81	Total PFOA	412.8 > 368.9	1.32e4	7.92e3	1.00		4.21		20.9	10.4471			
14	21	PFNA	463.0 > 418.8	7.57e3	8.33e3	1.00		4.58	4.58	11.3	10.9421	109.4	2.979	NO
15	23	L-PFOS	498.9 > 79.9	1.41e3	1.56e3	1.00		4.67	4.67	11.3	8.9088	89.1	1.890	NO
16	82	Total PFOS	498.9 > 79.9	1.41e3	1.56e3	1.00		4.74		11.3	8.9088			
17	58	13C2-PFOA	414.9 > 369.7	7.92e3	1.98e4	1.00	0.509	4.14	4.14	5.00	9.8210	78.6		
18	58	13C2-PFOA	414.9 > 369.7	7.92e3	1.98e4	1.00	0.509	4.14	4.14	5.00	9.8210	78.6		
19	56	13C5-PFNA	468.2 > 422.9	8.33e3	1.06e4	1.00	0.998	4.58	4.58	9.84	9.8609	78.9		
20	59	13C8-PFOS	507.0 > 79.9	1.56e3	1.90e3	1.00	1.015	4.67	4.67	10.2	10.0725	80.6		
21	59	13C8-PFOS	507.0 > 79.9	1.56e3	1.90e3	1.00	1.015	4.67	4.67	10.2	10.0725	80.6		
22	-1													
23	26	PFDA	513 > 468.8	7.30e3	5.92e3	1.00		4.96	4.96	15.4	10.3208	103.2	4.716	NO
24	29	L-MeFOSAA	570 > 419	1.80e3	7.83e2	1.00		5.11	5.12	28.7	9.7179	97.2	2.423	NO
25	83	Total N-MeFOSAA	570. > 419	1.80e3	7.83e2	1.00		5.19		28.7	9.7179			
26	33	PFUdA	563.0 > 518.9	6.18e3	8.37e3	1.00		5.29	5.29	9.24	10.3339	103.3	5.279	NO
27	37	PFDoA	612.9 > 569.0	7.05e3	8.71e3	1.00		5.58	5.58	10.1	10.4974	105.0	7.319	NO
28	60	13C2-PFDA	515.1 > 469.9	5.92e3	1.54e4	1.00	0.669	4.97	4.96	4.80	7.1741	57.4		
29	62	d3-N-MeFOSAA	573.3 > 419	7.83e2	1.89e4	1.00	0.124	5.12	5.11	0.518	4.1775	33.4		
30	62	d3-N-MeFOSAA	573.3 > 419	7.83e2	1.89e4	1.00	0.124	5.12	5.11	0.518	4.1775	33.4		
31	63	13C2-PFUdA	565 > 519.8	8.37e3	1.89e4	1.00	0.812	5.30	5.29	5.54	6.8273	54.6		
32	65	13C2-PFDoA	614.7 > 569.7	8.71e3	1.54e4	1.00	1.311	5.59	5.58	7.07	5.3895	43.1		
33	-1													
34	31	L-EtFOSAA	584.1 > 419	1.38e3	1.06e3	1.00		5.28	5.28	16.2	10.3431	103.4	1.266	NO
35	84	Total N-EtFOSAA	584.1 > 419	1.38e3	1.06e3	1.00		5.33		16.2	10.3431			
36	39	PFTrDA	662.9 > 618.9	8.22e3	8.71e3	1.00		5.84	5.84	11.8	11.5828	115.8	15.785	NO

Vista Analytical Laboratory L14

MM 7/22/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-48.qld

Last Altered: Monday, July 22, 2019 09:59:33 Pacific Daylight Time
Printed: Monday, July 22, 2019 09:59:41 Pacific Daylight Time

Name: 190719M1_48, Date: 19-Jul-2019, Time: 16:48:06, ID: B9G0189-BS1 OPR 1, Description: OPR

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0	6.87e3	4.90e3	1.00		6.06	6.06	17.5	9.8838	98.8	13.854	NO
38	85	TDCA	498.3>106.9			1.00		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	1.06e3	1.89e4	1.00	0.174	5.28	5.28	0.701	4.0223	32.2		
40	64	d5-N-EtFOSAA	589.3 > 419	1.06e3	1.89e4	1.00	0.174	5.28	5.28	0.701	4.0223	32.2		
41	65	13C2-PFDoA	614.7 > 569.7	8.71e3	1.54e4	1.00	1.311	5.59	5.58	7.07	5.3895	43.1		
42	67	13C2-PFTeDA	715.1 > 669.7	4.90e3	1.89e4	1.00	0.437	6.06	6.06	3.24	7.4243	59.4		
43	59	13C8-PFOS	507.0 > 79.9	1.56e3	1.90e3	1.00	1.015	4.67	4.67	10.2	10.0725	80.6		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	1.36e4	1.36e4	1.00	1.000	2.98	2.98	12.5	12.5000	100.0		
46	75	13C8-PFOA	420.9 > 376.0	1.98e4	1.98e4	1.00	1.000	4.14	4.14	12.5	12.5000	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	8.92e2	8.92e2	1.00	1.000	3.76	3.76	12.5	12.5000	100.0		
48	76	13C9-PFNA	472.2 > 426.9	1.06e4	1.06e4	1.00	1.000	4.58	4.58	12.5	12.5000	100.0		
49	77	13C4-PFOS	503 > 79.9	1.90e3	1.90e3	1.00	1.000	4.67	4.67	12.5	12.5000	100.0		
50	78	13C6-PFDA	519.1 > 473.7	1.54e4	1.54e4	1.00	1.000	4.97	4.96	12.5	12.5000	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	1.89e4	1.89e4	1.00	1.000	5.30	5.29	12.5	12.5000	100.0		

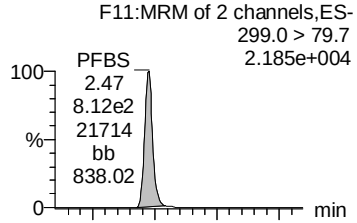
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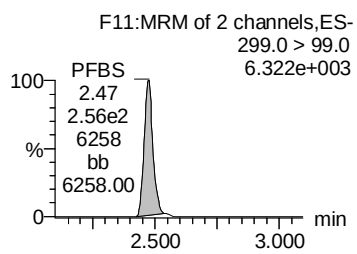
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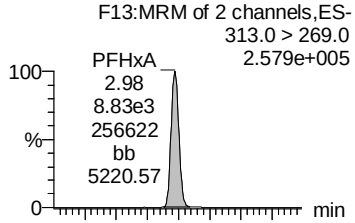
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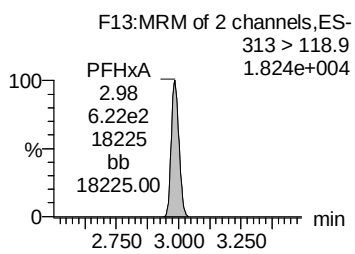
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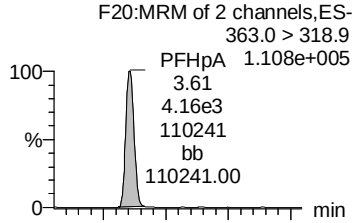


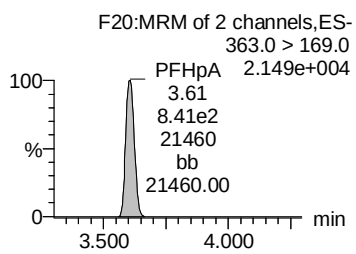
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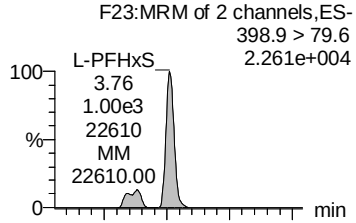


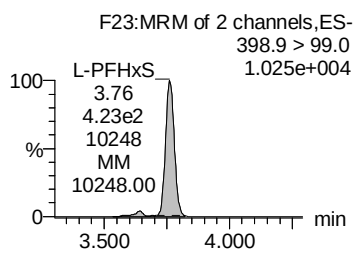
PFHpA



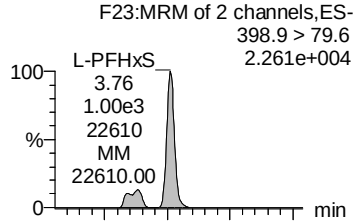


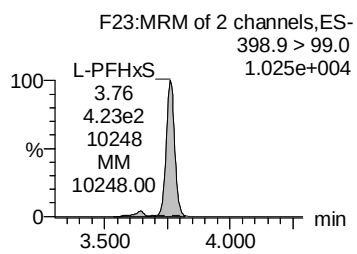
L-PFHxS



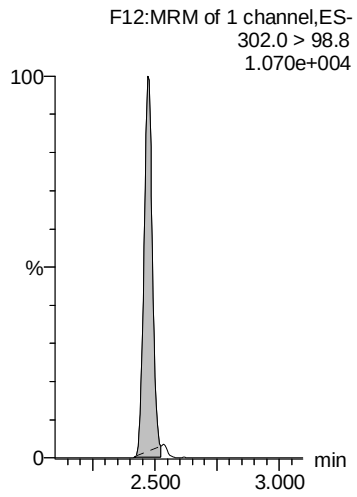


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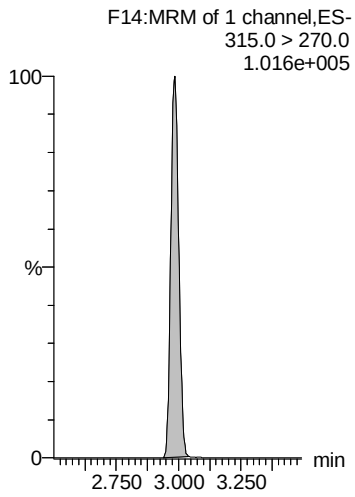




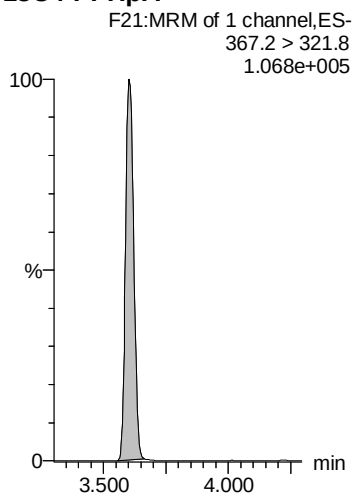
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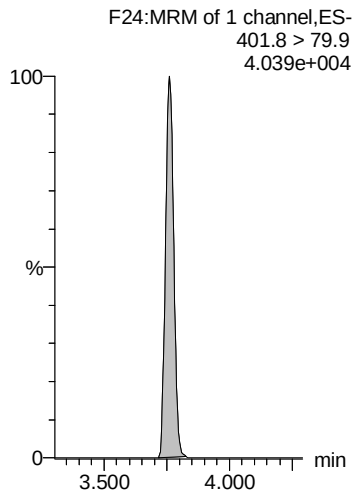
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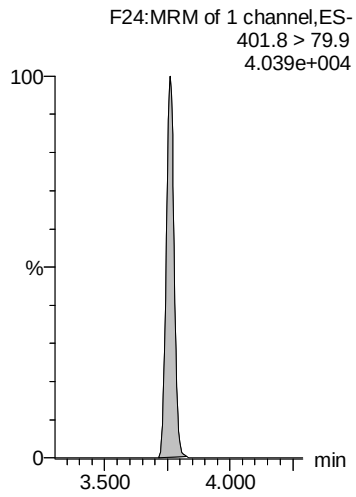
13C4-PFHpA



13C3-PFHxS



13C3-PFHxS

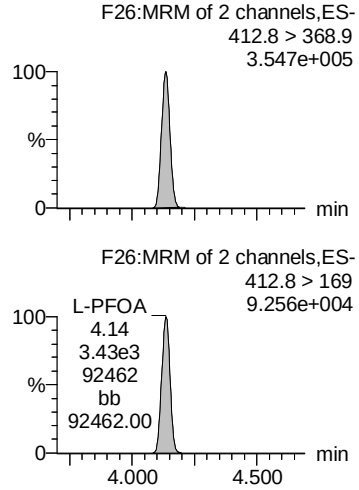


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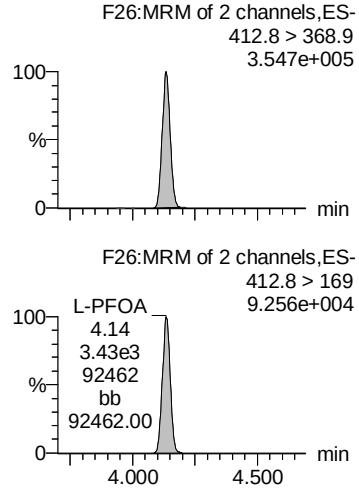
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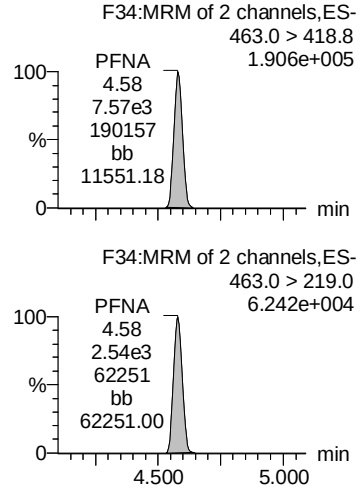
L-PFOA



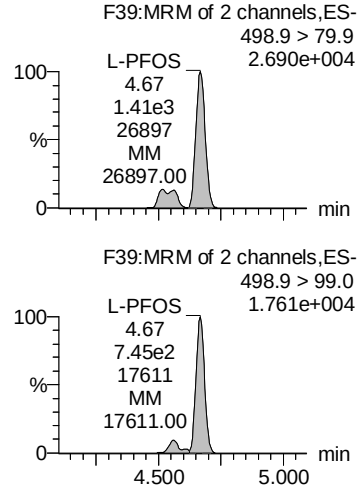
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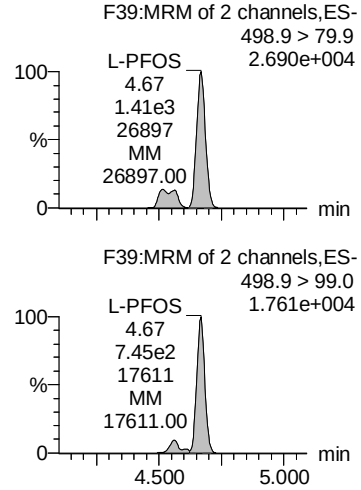
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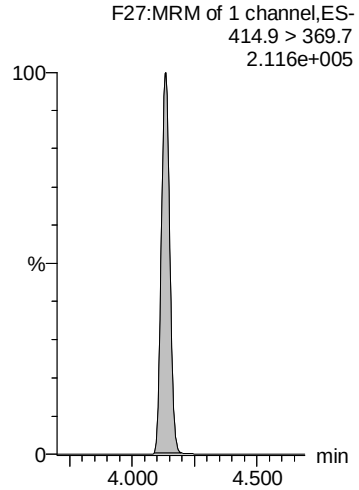
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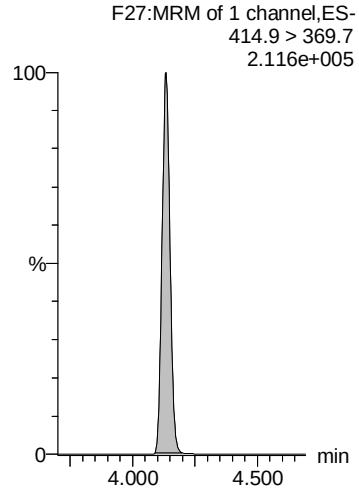
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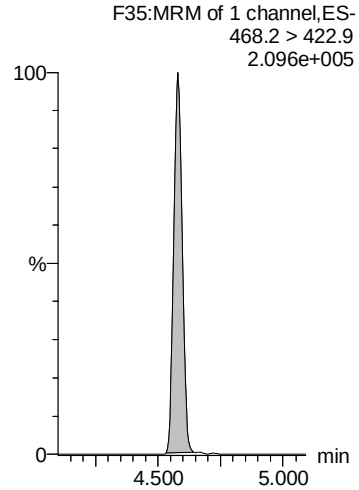
13C2-PFOA



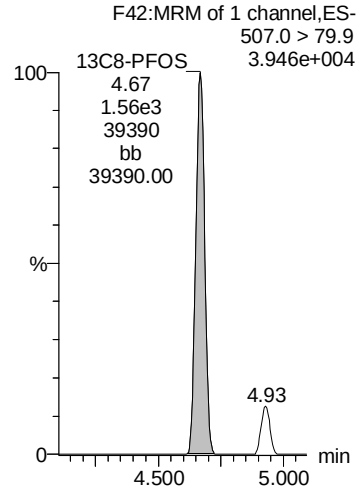
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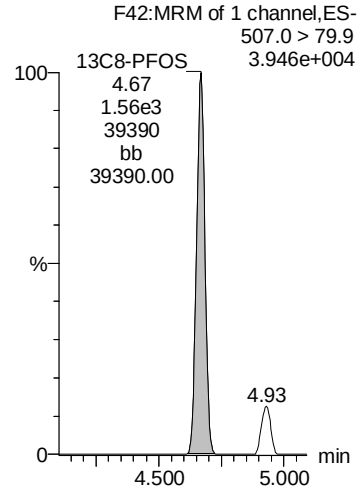
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13C8-PFOS



13C8-PFOS

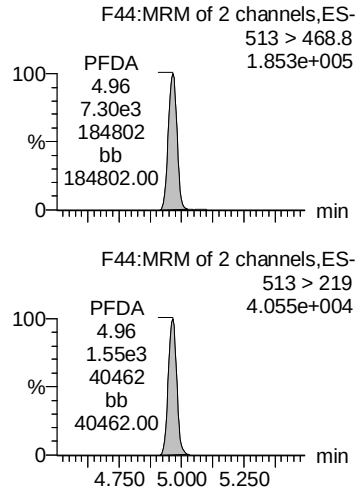


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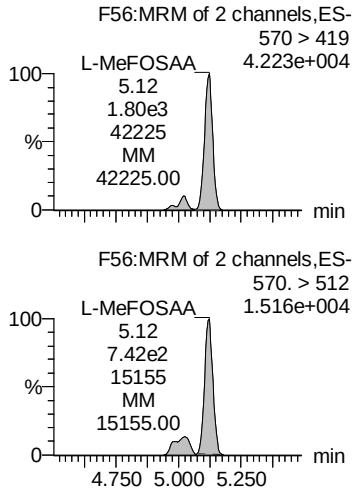
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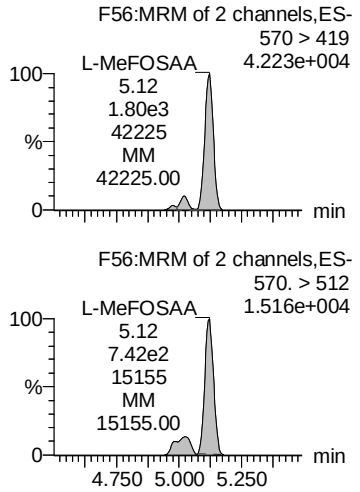
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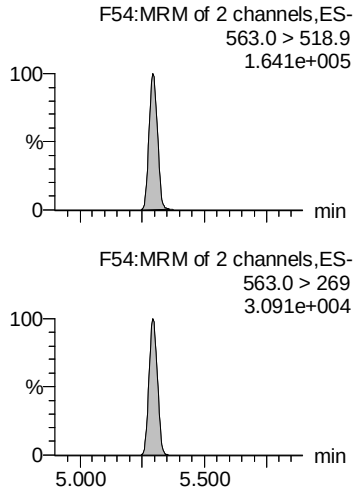
L-MeFOSAA



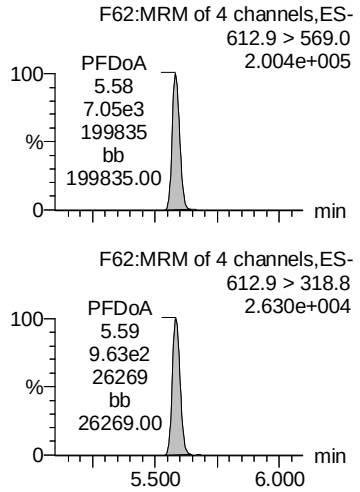
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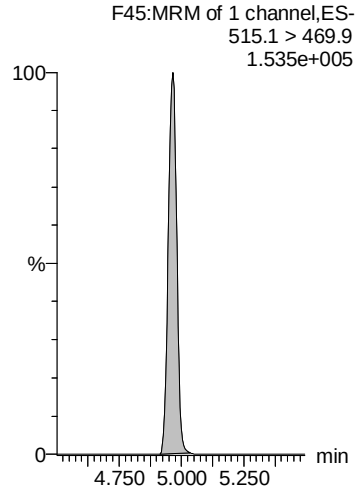
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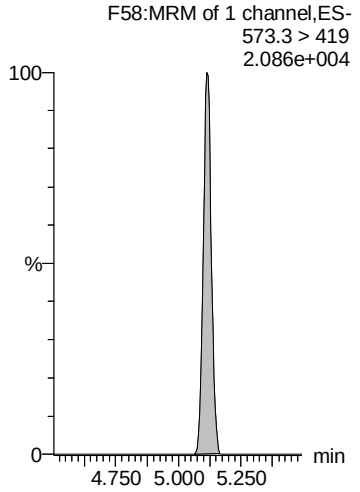
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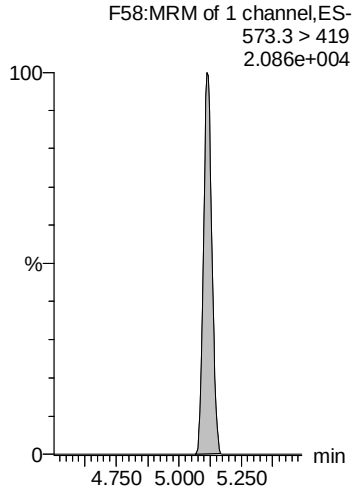
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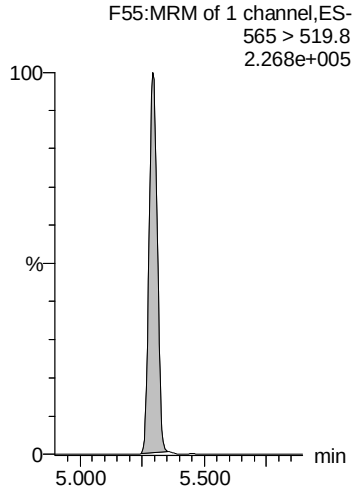
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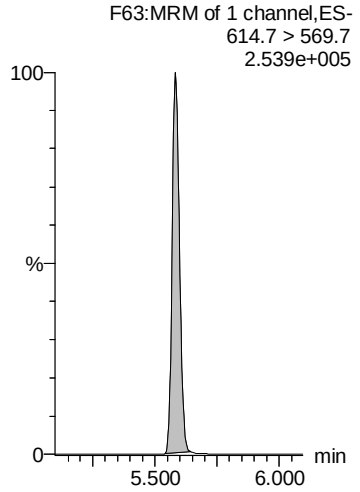
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13C2-PFUdA



13C2-PFDoA

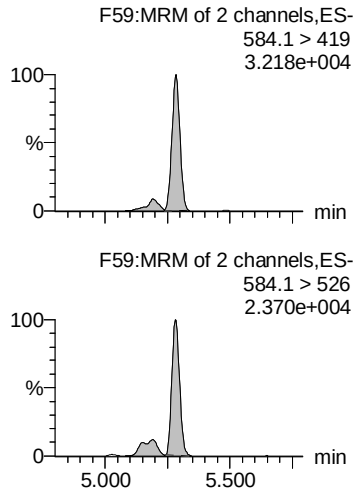


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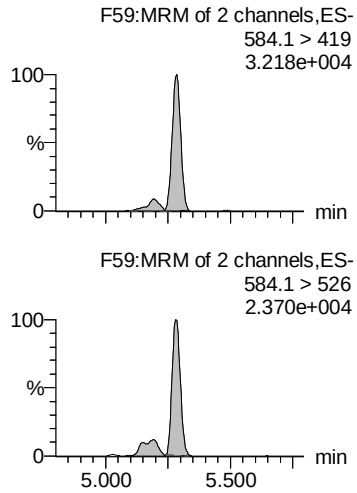
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Printed: Monday, July 22, 2019 09:59:41 Pacific Daylight Time

Name: 190719M1_48, Date: 19-Jul-2019, Time: 16:48:06, ID: B9G0189-BS1 OPR 1, Description: OPR

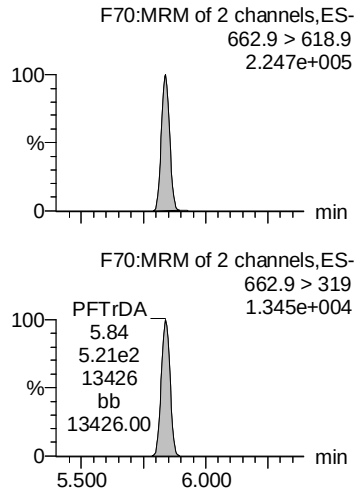
L-EtFOSAA



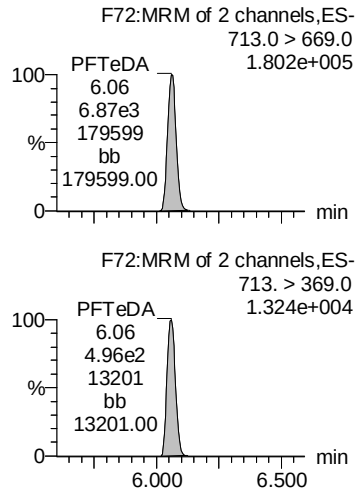
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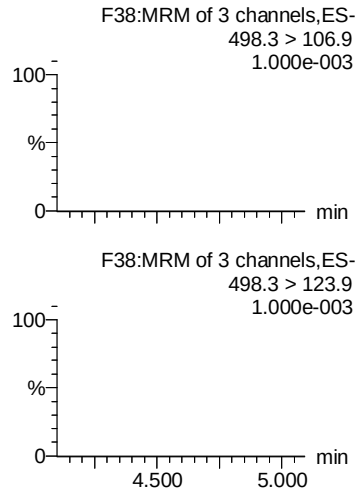
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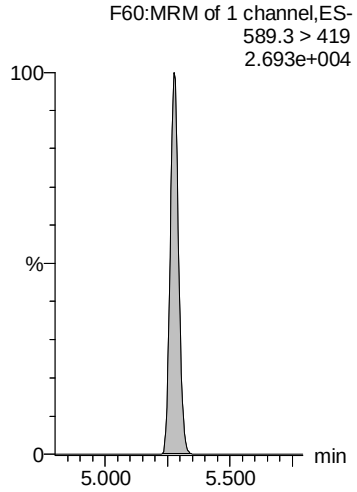
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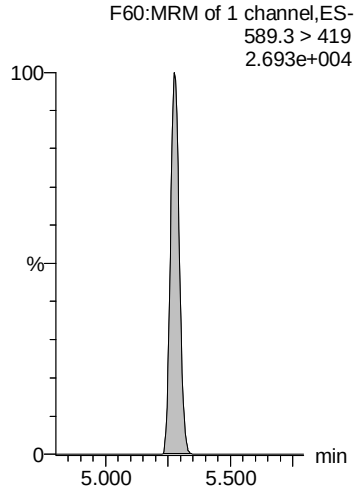
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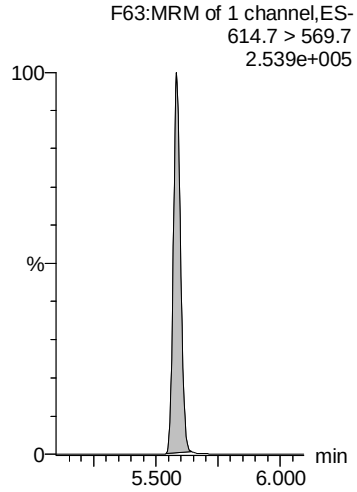
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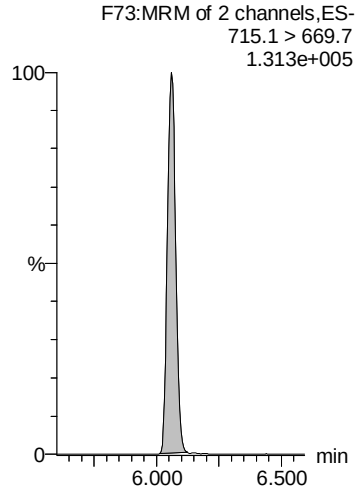
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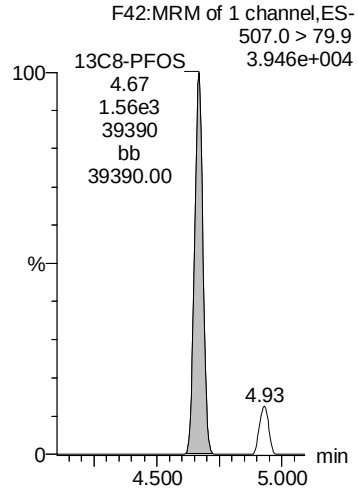
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS

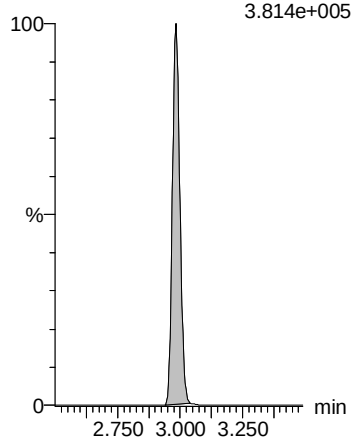


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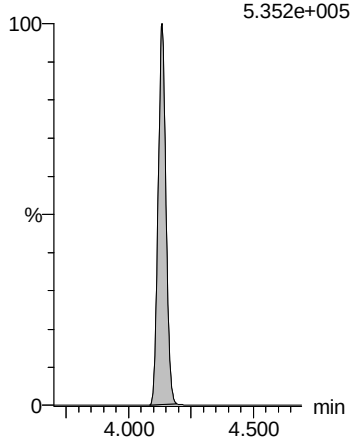
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Name: 190719M1_48, Date: 19-Jul-2019, Time: 16:48:06, ID: B9G0189-BS1 OPR 1, Description: OPR

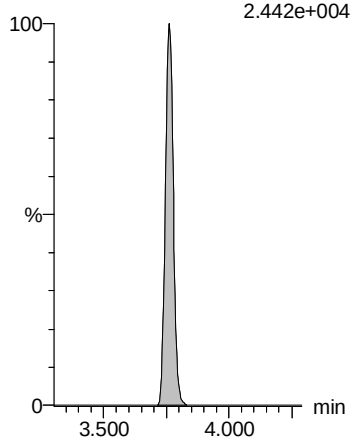
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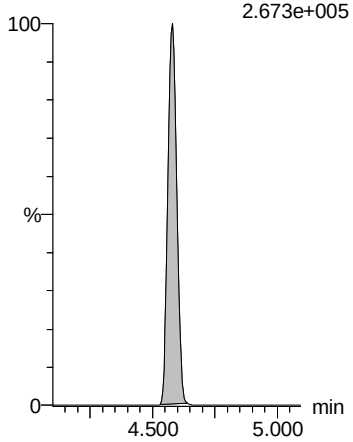
13C8-PFOA



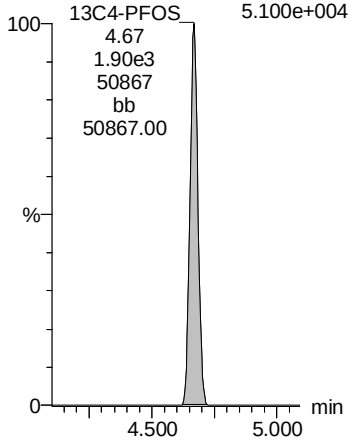
18O2-PFHxS



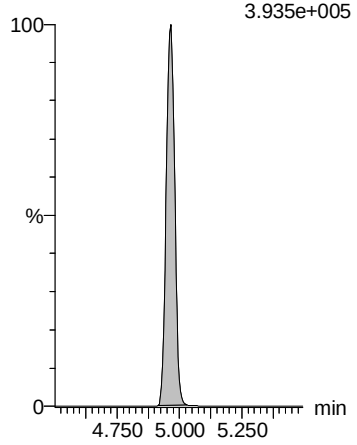
13C9-PFNA



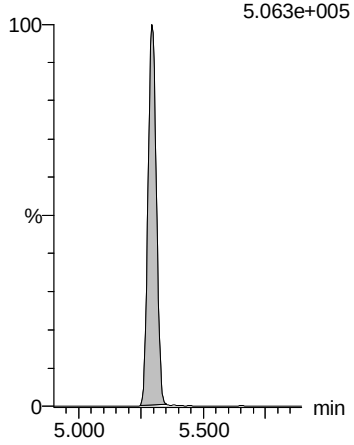
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13C6-PFDA



13C7-PFUdA



Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-52.qld

Last Altered: Monday, July 22, 2019 10:11:34 Pacific Daylight Time
Printed: Monday, July 22, 2019 10:11:44 Pacific Daylight Time

Name: 190719M1_52, Date: 19-Jul-2019, Time: 17:30:51, ID: 1902014-01 CAOA-B03-SO-4-4.5 1.08, Description: CAOA-B03-SO-4-4.5

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	8.51e1	5.01e2	1.00		2.46	2.47	2.12	0.9668		4.549	NO
2	7	PFHxA	313.0 > 269.0	8.40e4	3.31e3	1.00		2.98	2.98	127	109.9552		13.995	NO
3	11	PFHpA	363.0 > 318.9	3.17e3	4.10e3	1.00		3.60	3.60	9.67	7.7139		4.359	NO
4	13	L-PFHxS	398.9 > 79.6	2.90e3	1.46e3	1.00		3.75	3.76	24.9	24.9110		2.266	NO
5	80	Total PFHxS	398.9 > 79.6	2.90e3	1.46e3	1.00		3.83		24.9	24.9110			
6	49	13C3-PFBS	302.0 > 98.8	5.01e2	9.19e2	1.00	1.034	2.47	2.46	6.82	6.5843	52.7		
7	52	13C2-PFHxA	315.0 > 270.0	3.31e3	1.30e4	1.00	0.791	2.98	2.98	3.19	4.0244	80.6		
8	53	13C4-PFHpA	367.2 > 321.8	4.10e3	1.30e4	1.00	0.365	3.60	3.60	3.95	10.8149	86.6		
9	54	13C3-PFHxS	401.8 > 79.9	1.46e3	9.19e2	1.00	2.210	3.76	3.75	19.9	8.9704	71.9		
10	54	13C3-PFHxS	401.8 > 79.9	1.46e3	9.19e2	1.00	2.210	3.76	3.75	19.9	8.9704	71.9		
11	-1													
12	16	L-PFOA	412.8 > 368.9	6.32e4	7.67e3	1.00		4.13	4.13	103	51.5424		3.959	NO
13	81	Total PFOA	412.8 > 368.9	6.32e4	7.67e3	1.00		4.21		103	51.5424			
14	21	PFNA	463.0 > 418.8	5.51e2	7.70e3	1.00		4.58	4.58	0.894	0.8714		3.659	NO
15	23	L-PFOS	498.9 > 79.9	2.77e4	1.45e3	1.00		4.66	4.66	239	185.4293		2.019	NO
16	82	Total PFOS	498.9 > 79.9	2.77e4	1.45e3	1.00		4.74		239	185.4293			
17	58	13C2-PFOA	414.9 > 369.7	7.67e3	1.99e4	1.00	0.509	4.14	4.13	4.83	9.4727	75.9		
18	58	13C2-PFOA	414.9 > 369.7	7.67e3	1.99e4	1.00	0.509	4.14	4.13	4.83	9.4727	75.9		
19	56	13C5-PFNA	468.2 > 422.9	7.70e3	1.09e4	1.00	0.998	4.58	4.58	8.82	8.8304	70.7		
20	59	13C8-PFOS	507.0 > 79.9	1.45e3	1.91e3	1.00	1.015	4.67	4.66	9.48	9.3251	74.7		
21	59	13C8-PFOS	507.0 > 79.9	1.45e3	1.91e3	1.00	1.015	4.67	4.66	9.48	9.3251	74.7		
22	-1													
23	26	PFDA	513 > 468.8	3.39e3	6.11e3	1.00		4.96	4.96	6.94	4.6221		4.291	NO
24	29	L-MeFOSAA	570 > 419		1.02e3	1.00		5.11						
25	83	Total N-MeFOSAA	570. > 419	0.00e0	1.02e3	1.00		5.19		0.000				
26	33	PFUdA	563.0 > 518.9	8.37e1	8.64e3	1.00		5.29	5.30	0.121	0.0942		4.867	NO
27	37	PFDoA	612.9 > 569.0	8.55e2	9.61e3	1.00		5.58	5.59	1.11	1.1383		7.420	NO
28	60	13C2-PFDA	515.1 > 469.9	6.11e3	1.48e4	1.00	0.669	4.97	4.96	5.16	7.6960	61.7		
29	62	d3-N-MeFOSAA	573.3 > 419	1.02e3	1.95e4	1.00	0.124	5.12	5.11	0.654	5.2614	42.2		
30	62	d3-N-MeFOSAA	573.3 > 419	1.02e3	1.95e4	1.00	0.124	5.12	5.11	0.654	5.2614	42.2		
31	63	13C2-PFUdA	565 > 519.8	8.64e3	1.95e4	1.00	0.812	5.30	5.29	5.54	6.8162	54.6		
32	65	13C2-PFDoA	614.7 > 569.7	9.61e3	1.48e4	1.00	1.311	5.59	5.58	8.12	6.1815	49.5		
33	-1													
34	31	L-EtFOSAA	584.1 > 419		1.58e3	1.00		5.28						
35	84	Total N-EtFOSAA	584.1 > 419	0.00e0	1.58e3	1.00		5.33		0.000				
36	39	PFTrDA	662.9 > 618.9		9.61e3	1.00		5.84						

Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-52.qld

Last Altered: Monday, July 22, 2019 10:11:34 Pacific Daylight Time
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Name: 190719M1_52, Date: 19-Jul-2019, Time: 17:30:51, ID: 1902014-01 CAOA-B03-SO-4-4.5 1.08, Description: CAOA-B03-SO-4-4.5

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0	2.47e2	5.50e3	1.00		6.06	6.06	0.562	0.2726		177.618	YES
38	85	TDCA	498.3>106.9			1.00		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	1.58e3	1.95e4	1.00	0.174	5.28	5.28	1.01	5.7821	46.3		
40	64	d5-N-EtFOSAA	589.3 > 419	1.58e3	1.95e4	1.00	0.174	5.28	5.28	1.01	5.7821	46.3		
41	65	13C2-PFDoA	614.7 > 569.7	9.61e3	1.48e4	1.00	1.311	5.59	5.58	8.12	6.1815	49.5		
42	67	13C2-PFTeDA	715.1 > 669.7	5.50e3	1.95e4	1.00	0.437	6.06	6.06	3.53	8.0604	64.6		
43	59	13C8-PFOS	507.0 > 79.9	1.45e3	1.91e3	1.00	1.015	4.67	4.66	9.48	9.3251	74.7		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	1.30e4	1.30e4	1.00	1.000	2.98	2.98	12.5	12.4823	100.0		
46	75	13C8-PFOA	420.9 > 376.0	1.99e4	1.99e4	1.00	1.000	4.14	4.13	12.5	12.4823	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	9.19e2	9.19e2	1.00	1.000	3.76	3.76	12.5	12.4823	100.0		
48	76	13C9-PFNA	472.2 > 426.9	1.09e4	1.09e4	1.00	1.000	4.58	4.58	12.5	12.4823	100.0		
49	77	13C4-PFOS	503 > 79.9	1.91e3	1.91e3	1.00	1.000	4.67	4.66	12.5	12.4823	100.0		
50	78	13C6-PFDA	519.1 > 473.7	1.48e4	1.48e4	1.00	1.000	4.97	4.96	12.5	12.4823	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	1.95e4	1.95e4	1.00	1.000	5.30	5.29	12.5	12.4823	100.0		

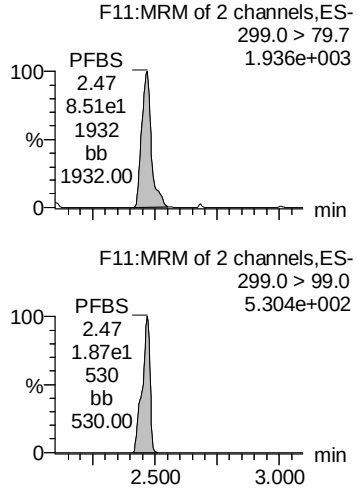
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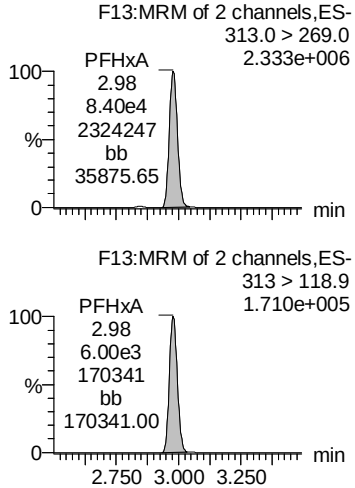
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Name: 190719M1_52, Date: 19-Jul-2019, Time: 17:30:51, ID: 1902014-01 CAOA-B03-SO-4-4.5 1.08, Description: CAOA-B03-SO-4-4.5

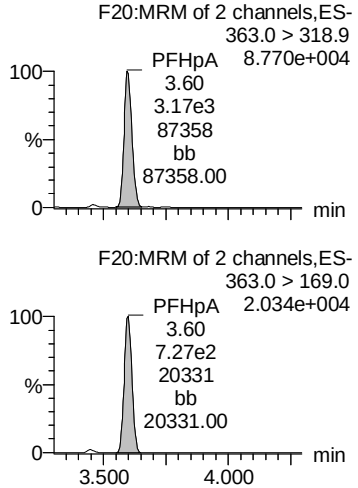
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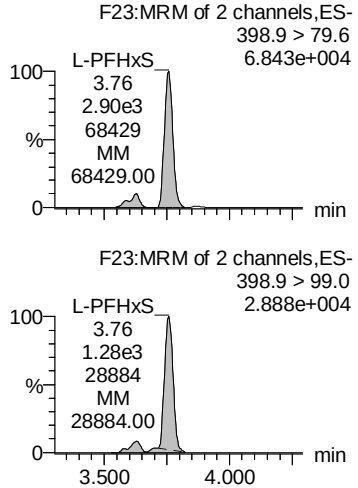
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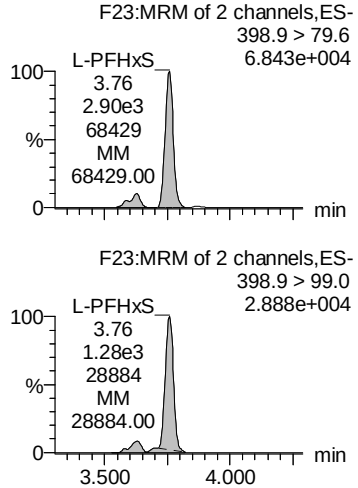
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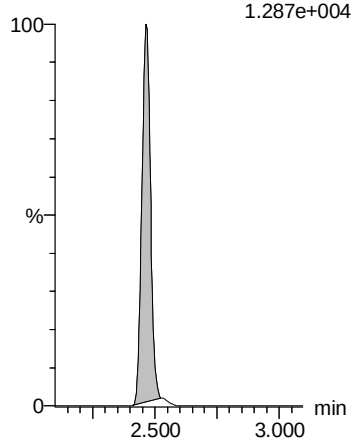
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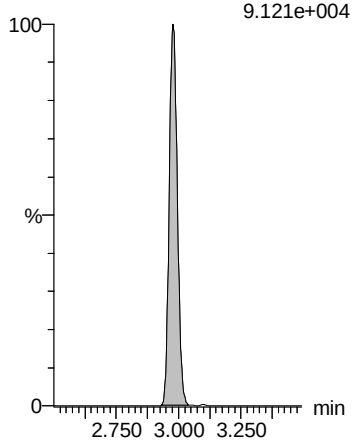
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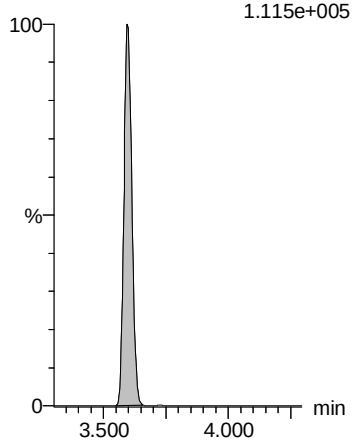
13C3-PFBS



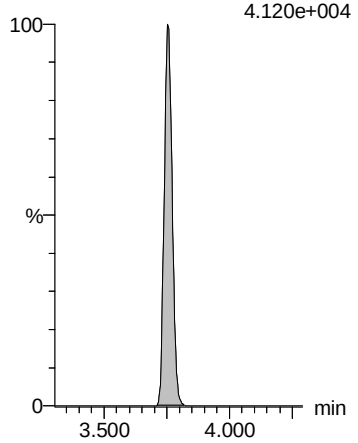
13C2-PFHxA



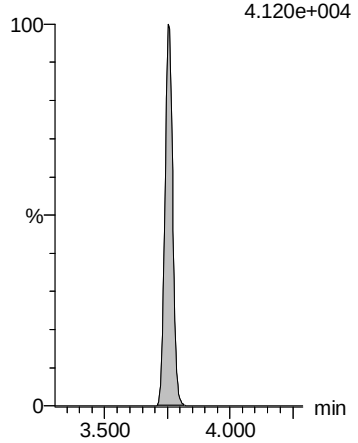
13C4-PFHpA



13C3-PFHxS



13C3-PFHxS

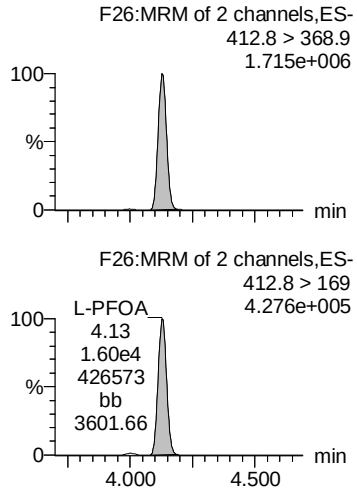


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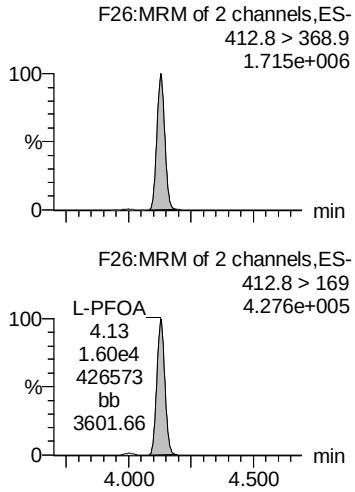
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Name: 190719M1_52, Date: 19-Jul-2019, Time: 17:30:51, ID: 1902014-01 CAOA-B03-SO-4-4.5 1.08, Description: CAOA-B03-SO-4-4.5

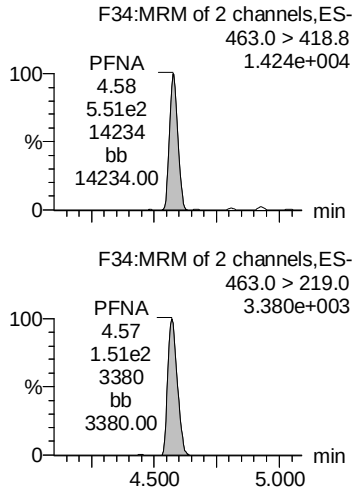
L-PFOA



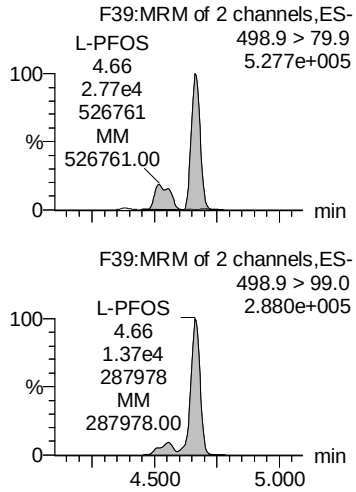
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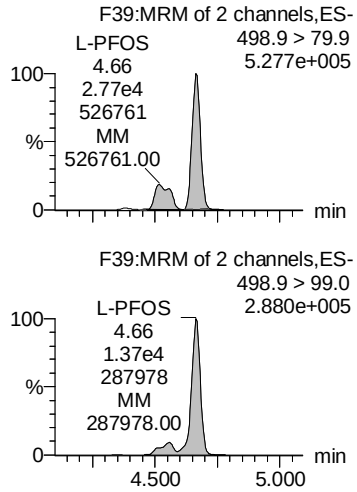
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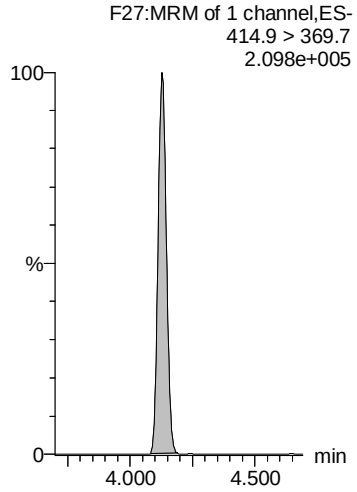
L-PFOS



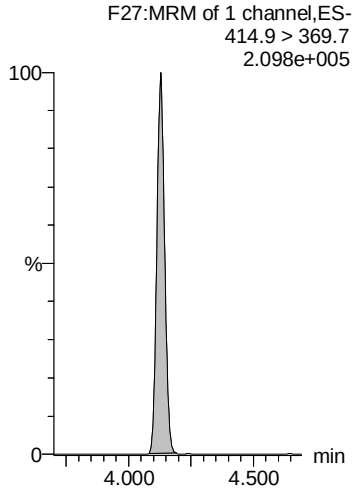
Total PFOS



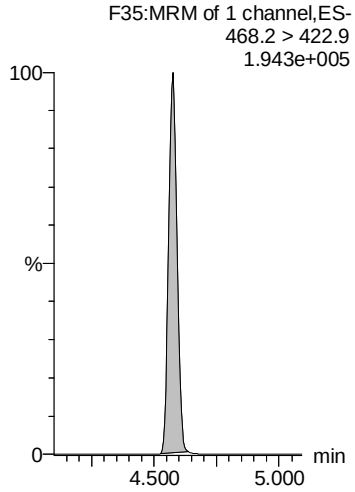
13C2-PFOA



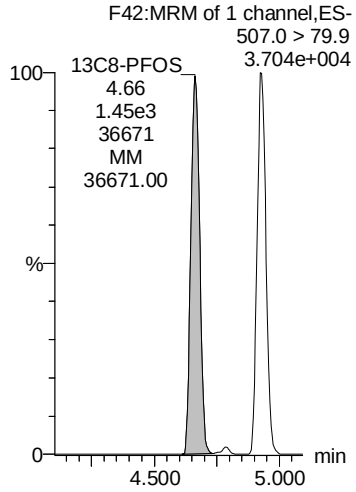
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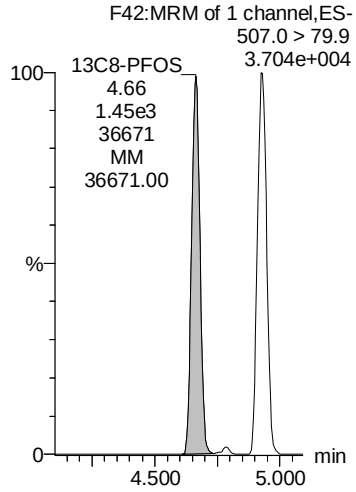
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13C8-PFOS



13C8-PFOS

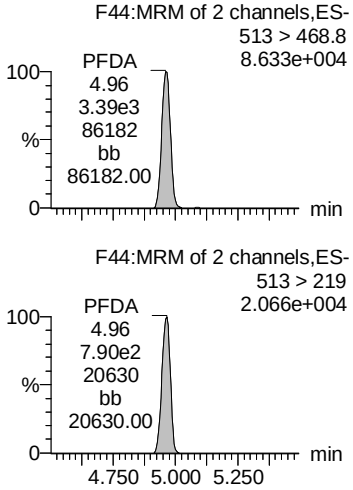


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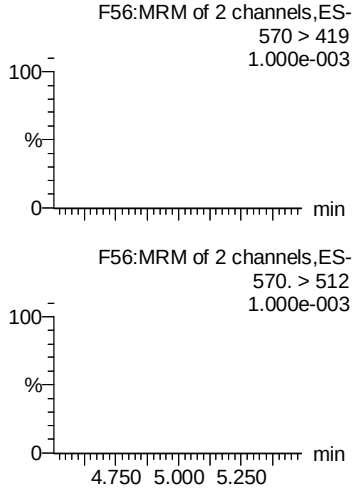
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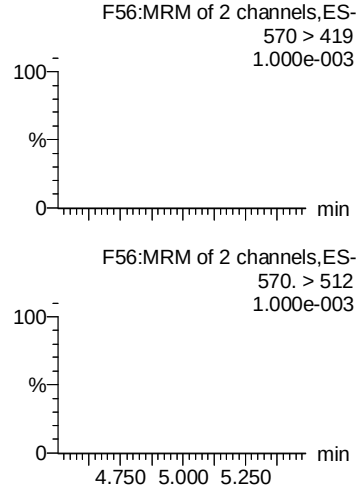
PFDA



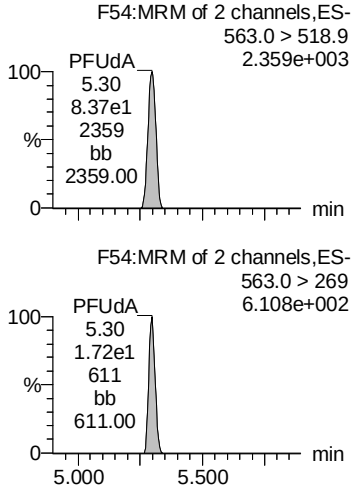
L-MeFOSAA



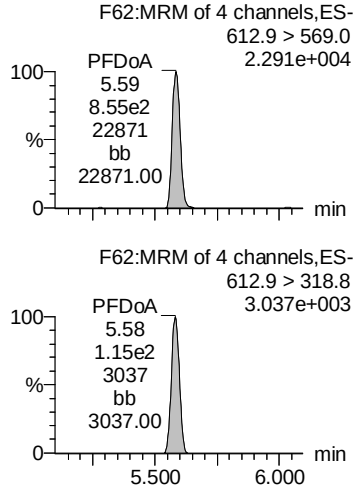
Total N-MeFOSAA



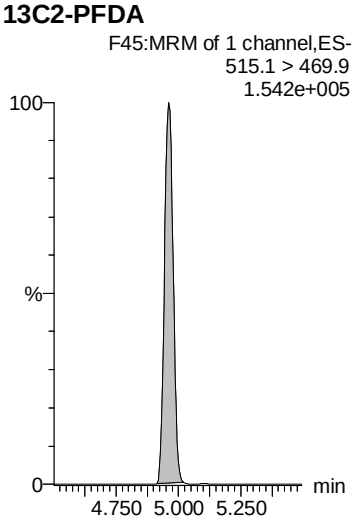
PFUdA



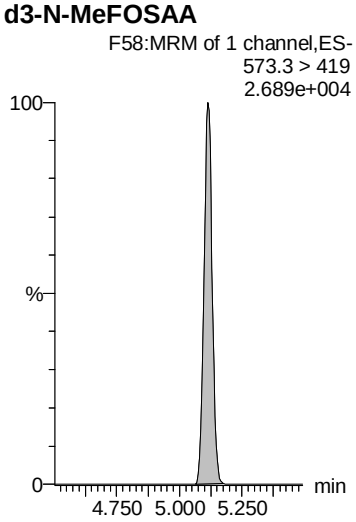
PFDoA



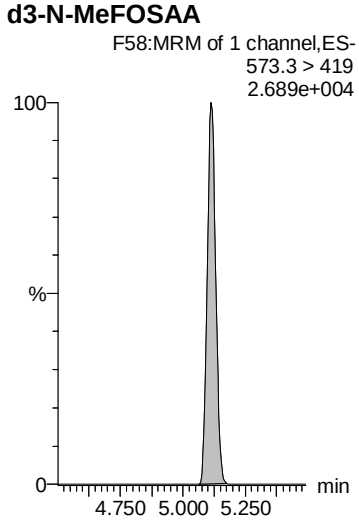
13C2-PFDA



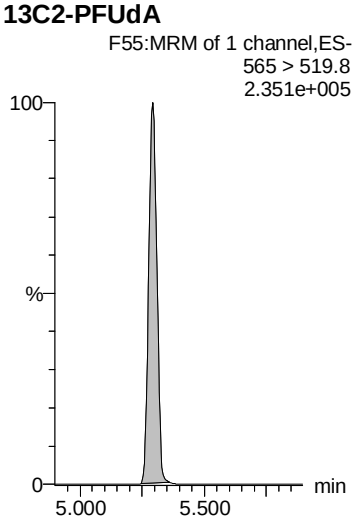
d3-N-MeFOSAA



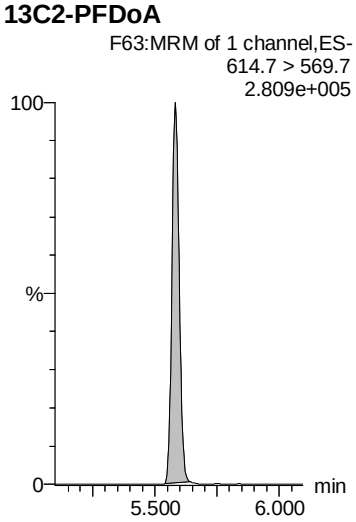
d3-N-MeFOSAA



13C2-PFUdA



13C2-PFDoA

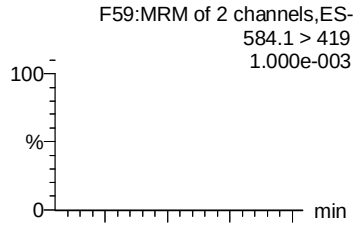


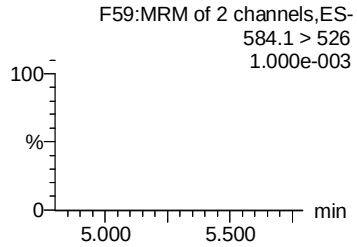
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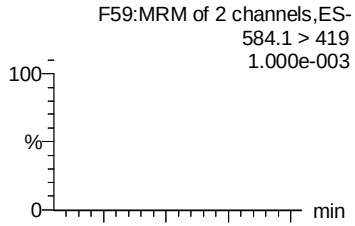
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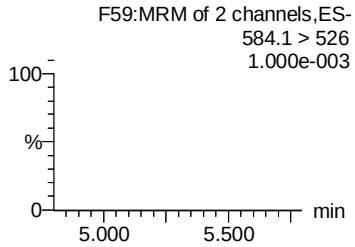
L-EtFOSAA



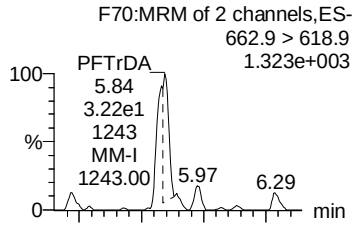


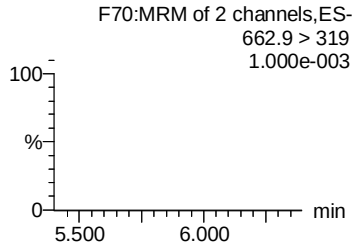
Total N-EtFOSAA



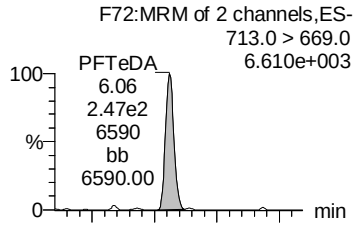


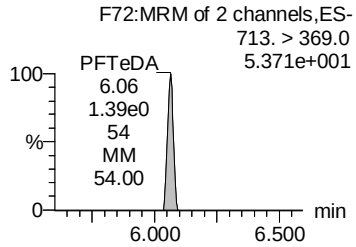
PFTrDA



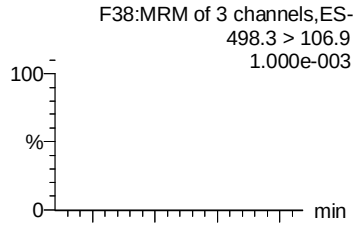


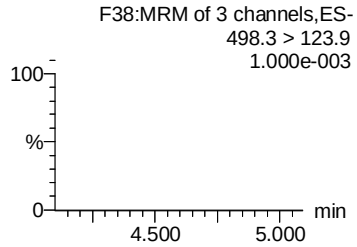
PFTeDA



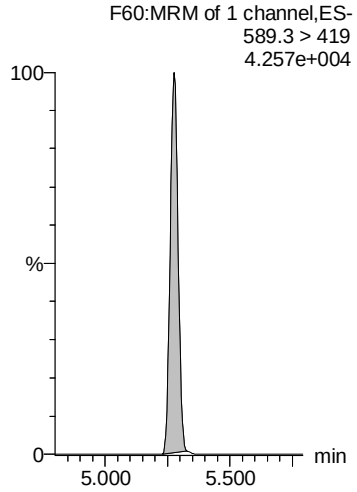


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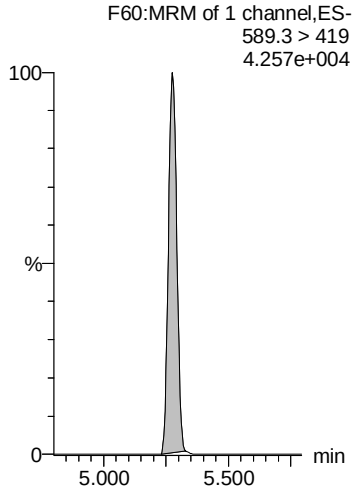




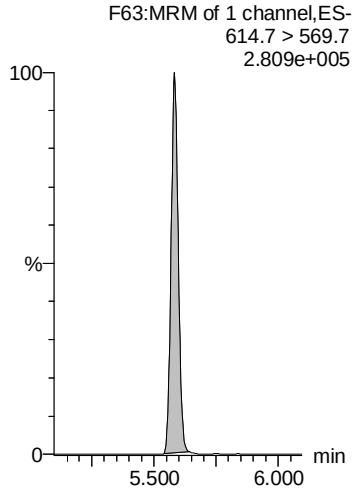
d5-N-EtFOSAA



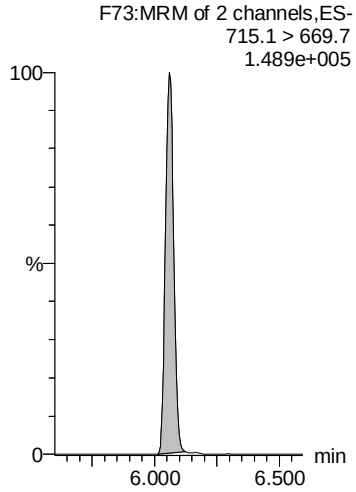
d5-N-EtFOSAA



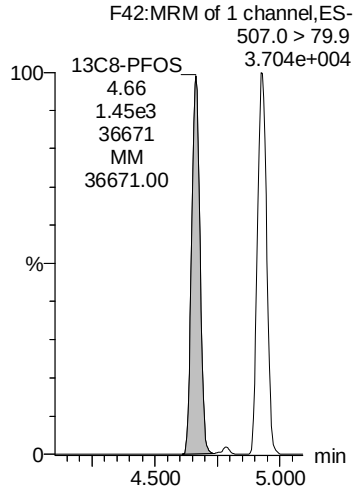
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS

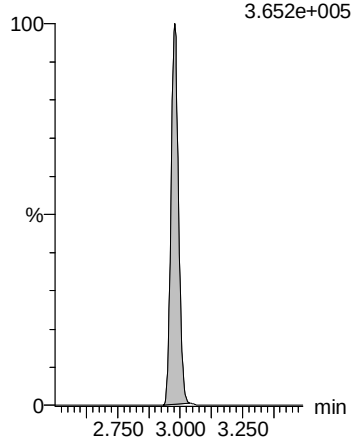


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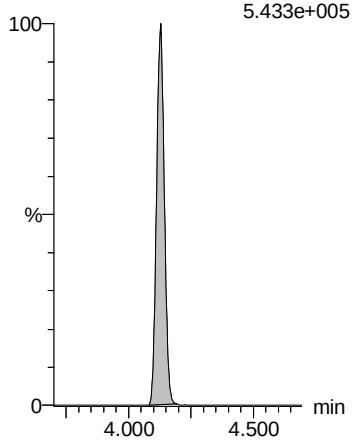
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Name: 190719M1_52, Date: 19-Jul-2019, Time: 17:30:51, ID: 1902014-01 CAOA-B03-SO-4-4.5 1.08, Description: CAOA-B03-SO-4-4.5

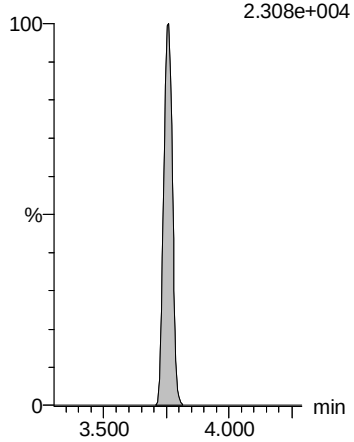
13C5-PFHxA



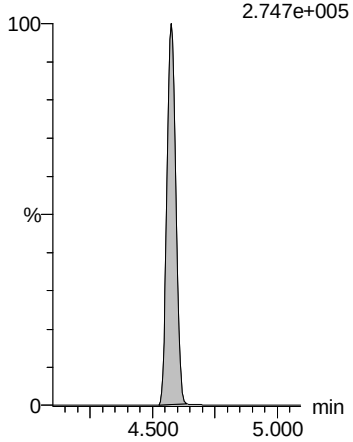
13C8-PFOA



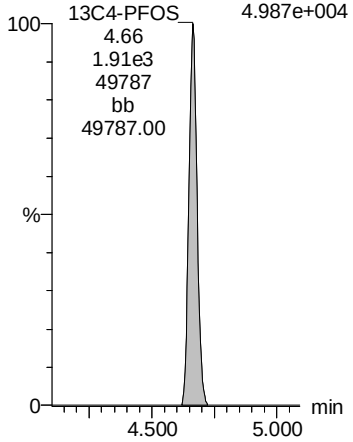
18O2-PFHxS



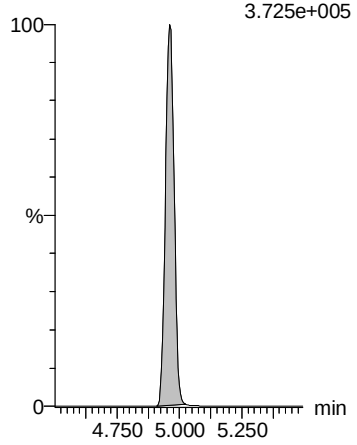
13C9-PFNA



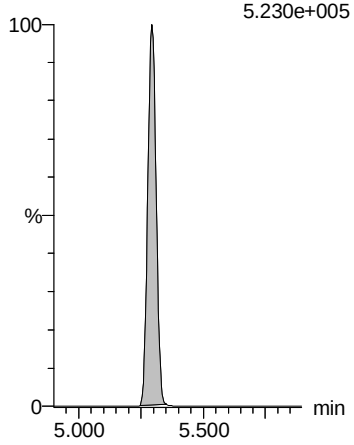
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Dataset: Z:\Projects\PFAS.PRO\Results\190721M2\190721M2-23.qld

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Name: 190721M2_23, Date: 22-Jul-2019, Time: 00:51:35, ID: 1902014-02 CAOA-B03-SO-20-20.5 1.09, Description: CAOA-B03-SO-20-20.5

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	2.34e2	1.08e3	0.998		2.47	2.47	2.69	1.2185		4.328	NO
2	7	PFHxA	313.0 > 269.0	1.52e5	6.45e3	0.998		2.98	2.99	118	102.6781		14.386	NO
3	11	PFHpA	363.0 > 318.9	4.92e3	8.88e3	0.998		3.61	3.61	6.93	5.5627		8.554	NO
4	13	L-PFHxS	398.9 > 79.6	3.88e3	2.52e3	0.998		3.76	3.76	19.2	19.3685		2.054	NO
5	80	Total PFHxS	398.9 > 79.6	3.88e3	2.52e3	0.998		3.83		19.2	19.3685			
6	49	13C3-PFBS	302.0 > 98.8	1.08e3	1.53e3	0.998	1.034	2.47	2.47	8.88	8.5989	68.7		
7	52	13C2-PFHxA	315.0 > 270.0	6.45e3	1.94e4	0.998	0.791	2.98	2.98	4.15	5.2578	104.9		
8	53	13C4-PFHpA	367.2 > 321.8	8.88e3	1.94e4	0.998	0.365	3.60	3.61	5.72	15.7027	125.4		
9	54	13C3-PFHxS	401.8 > 79.9	2.52e3	1.53e3	0.998	2.210	3.76	3.76	20.6	9.3512	74.7		
10	54	13C3-PFHxS	401.8 > 79.9	2.52e3	1.53e3	0.998	2.210	3.76	3.76	20.6	9.3512	74.7		
11	-1													
12	16	L-PFOA	412.8 > 368.9	4.31e4	1.46e4	0.998		4.13	4.13	36.8	18.4803		3.832	NO
13	81	Total PFOA	412.8 > 368.9	4.31e4	1.46e4	0.998		4.21		36.8	18.4803			
14	21	PFNA	463.0 > 418.8	1.19e3	1.47e4	0.998		4.58	4.58	1.01	0.9866		3.732	NO
15	23	L-PFOS	498.9 > 79.9	1.09e5	2.45e3	0.998		4.66	4.66	558	434.1216		2.004	NO
16	82	Total PFOS	498.9 > 79.9	1.09e5	2.45e3	0.998		4.74		558	434.1216			
17	58	13C2-PFOA	414.9 > 369.7	1.46e4	2.67e4	0.998	0.509	4.14	4.13	6.86	13.4990	107.8		
18	58	13C2-PFOA	414.9 > 369.7	1.46e4	2.67e4	0.998	0.509	4.14	4.13	6.86	13.4990	107.8		
19	56	13C5-PFNA	468.2 > 422.9	1.47e4	1.86e4	0.998	0.998	4.58	4.58	9.86	9.9058	79.1		
20	59	13C8-PFOS	507.0 > 79.9	2.45e3	2.91e3	0.998	1.015	4.66	4.66	10.6	10.4225	83.2		
21	59	13C8-PFOS	507.0 > 79.9	2.45e3	2.91e3	0.998	1.015	4.66	4.66	10.6	10.4225	83.2		
22	-1													
23	26	PFDA	513 > 468.8	5.65e3	1.24e4	0.998		4.95	4.95	5.70	3.8083		5.845	NO
24	29	L-MeFOSAA	570 > 419		2.33e3	0.998		5.11						
25	83	Total N-MeFOSAA	570. > 419	0.00e0	2.33e3	0.998		5.19		0.000				
26	33	PFUdA	563.0 > 518.9	3.17e2	1.52e4	0.998		5.28	5.28	0.260	0.2510		9.545	NO
27	37	PFDoA	612.9 > 569.0	1.29e3	1.34e4	0.998		5.57	5.57	1.21	1.2387		8.715	NO
28	60	13C2-PFDA	515.1 > 469.9	1.24e4	2.36e4	0.998	0.669	4.96	4.95	6.56	9.8260	78.5		
29	62	d3-N-MeFOSAA	573.3 > 419	2.33e3	2.83e4	0.998	0.124	5.11	5.11	1.03	8.3018	66.3		
30	62	d3-N-MeFOSAA	573.3 > 419	2.33e3	2.83e4	0.998	0.124	5.11	5.11	1.03	8.3018	66.3		
31	63	13C2-PFUdA	565 > 519.8	1.52e4	2.83e4	0.998	0.812	5.29	5.28	6.72	8.3022	66.3		
32	65	13C2-PFDoA	614.7 > 569.7	1.34e4	2.36e4	0.998	1.311	5.57	5.57	7.08	5.4060	43.2		
33	-1													
34	31	L-EtFOSAA	584.1 > 419		2.73e3	0.998		5.27						
35	84	Total N-EtFOSAA	584.1 > 419	0.00e0	2.73e3	0.998		5.33		0.000				
36	39	PFTrDA	662.9 > 618.9		1.34e4	0.998		5.83						

Vista Analytical Laboratory L14

MM 7/22/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190721M2\190721M2-23.qld

Last Altered: Monday, July 22, 2019 09:17:28 Pacific Daylight Time
Printed: Monday, July 22, 2019 09:20:20 Pacific Daylight Time

Name: 190721M2_23, Date: 22-Jul-2019, Time: 00:51:35, ID: 1902014-02 CAOA-B03-SO-20-20.5 1.09, Description: CAOA-B03-SO-20-20.5

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0	1.64e2	3.77e3	0.998		6.04	6.04	0.542	0.2620		12.692	NO
38	85	TDCA	498.3>106.9			0.998		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	2.73e3	2.83e4	0.998	0.174	5.27	5.27	1.21	6.9261	55.3		
40	64	d5-N-EtFOSAA	589.3 > 419	2.73e3	2.83e4	0.998	0.174	5.27	5.27	1.21	6.9261	55.3		
41	65	13C2-PFDoA	614.7 > 569.7	1.34e4	2.36e4	0.998	1.311	5.57	5.57	7.08	5.4060	43.2		
42	67	13C2-PFTeDA	715.1 > 669.7	3.77e3	2.83e4	0.998	0.437	6.06	6.04	1.67	3.8193	30.5		
43	59	13C8-PFOS	507.0 > 79.9	2.45e3	2.91e3	0.998	1.015	4.66	4.66	10.6	10.4225	83.2		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	1.94e4	1.94e4	0.998	1.000	2.98	2.98	12.5	12.5251	100.0		
46	75	13C8-PFOA	420.9 > 376.0	2.67e4	2.67e4	0.998	1.000	4.13	4.13	12.5	12.5251	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	1.53e3	1.53e3	0.998	1.000	3.76	3.76	12.5	12.5251	100.0		
48	76	13C9-PFNA	472.2 > 426.9	1.86e4	1.86e4	0.998	1.000	4.58	4.58	12.5	12.5251	100.0		
49	77	13C4-PFOS	503 > 79.9	2.91e3	2.91e3	0.998	1.000	4.66	4.66	12.5	12.5251	100.0		
50	78	13C6-PFDA	519.1 > 473.7	2.36e4	2.36e4	0.998	1.000	4.96	4.95	12.5	12.5251	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	2.83e4	2.83e4	0.998	1.000	5.28	5.28	12.5	12.5251	100.0		

Vista Analytical Laboratory L14

MM 7/22/2019

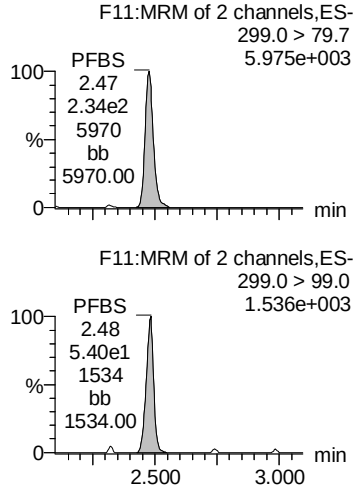
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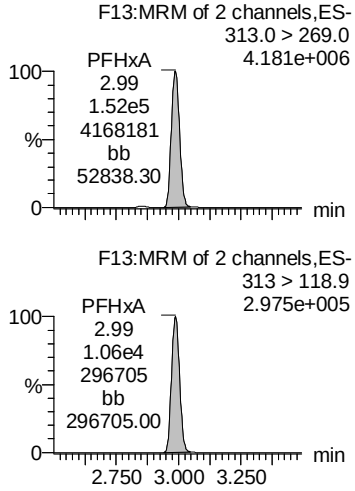
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Name: 190721M2_23, Date: 22-Jul-2019, Time: 00:51:35, ID: 1902014-02 CAOA-B03-SO-20-20.5 1.09, Description: CAOA-B03-SO-20-20.5

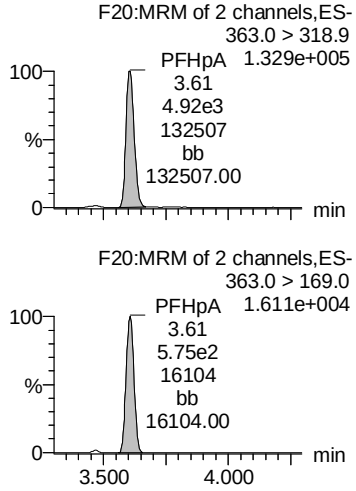
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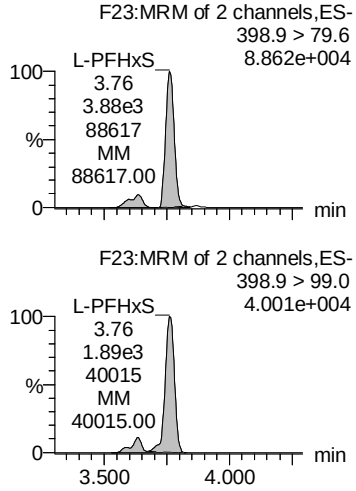
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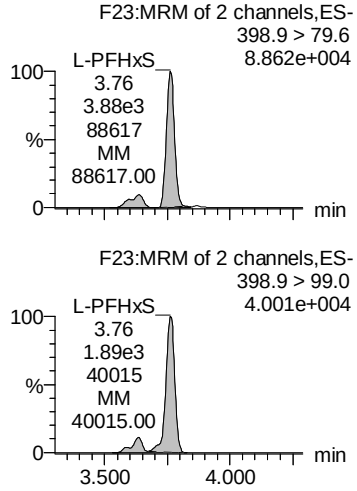
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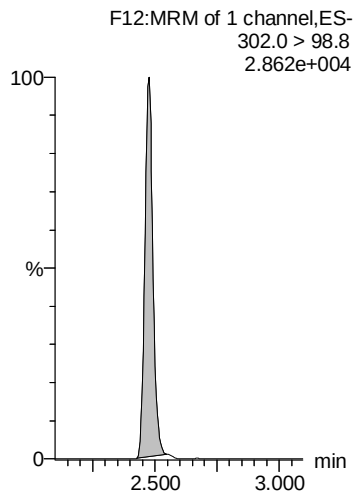
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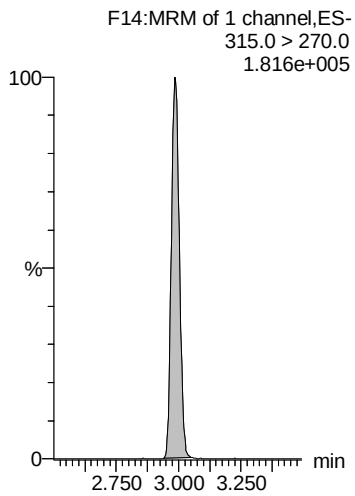
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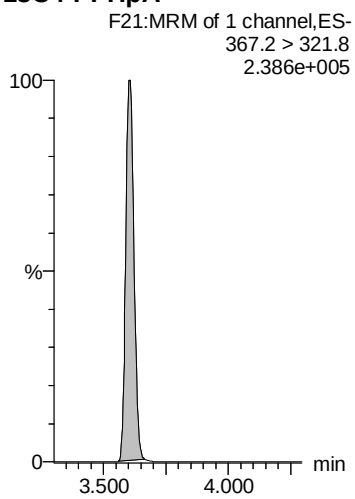
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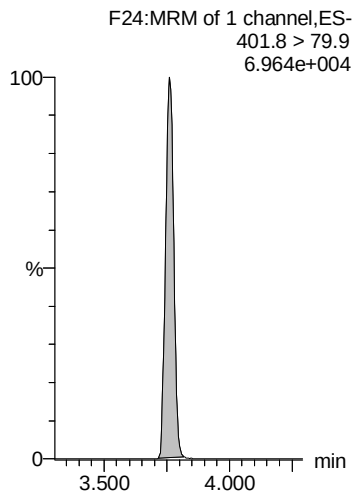
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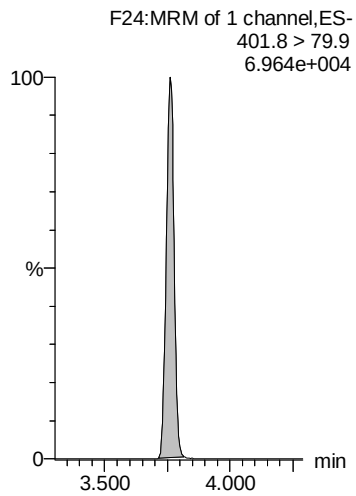
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13C3-PFHxS



13C3-PFHxS

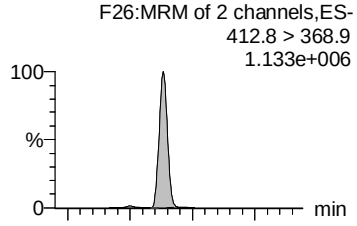


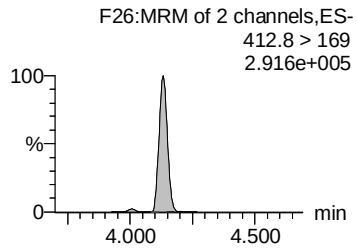
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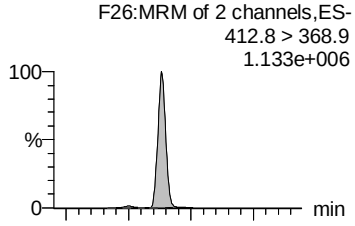
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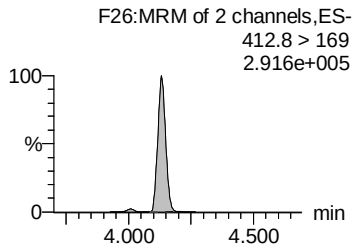
L-PFOA



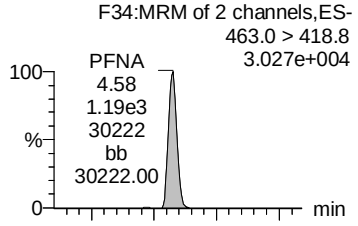


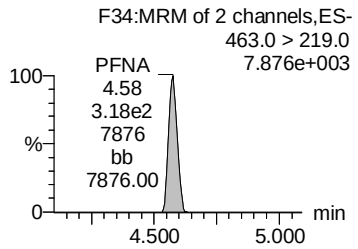
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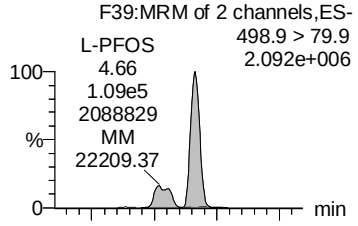


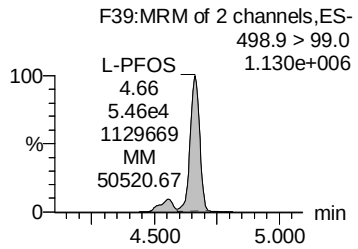
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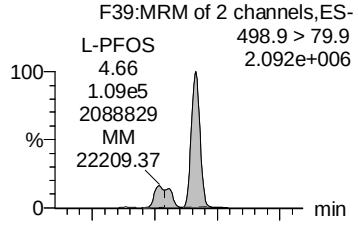


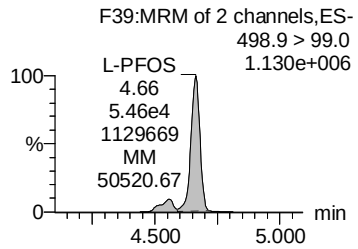
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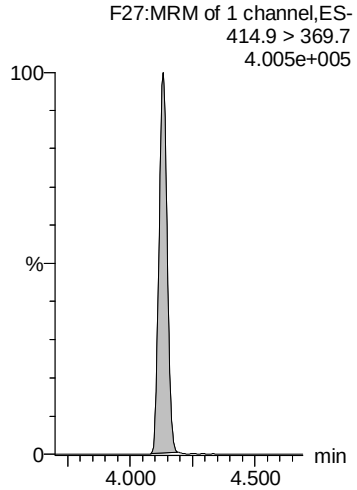


Total PFOS

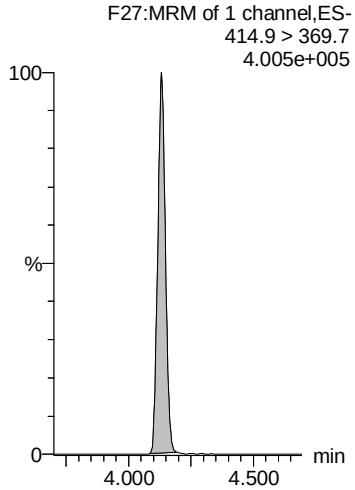




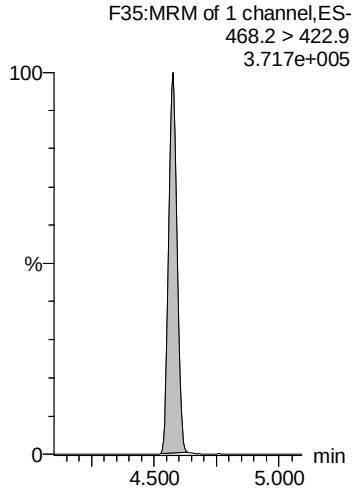
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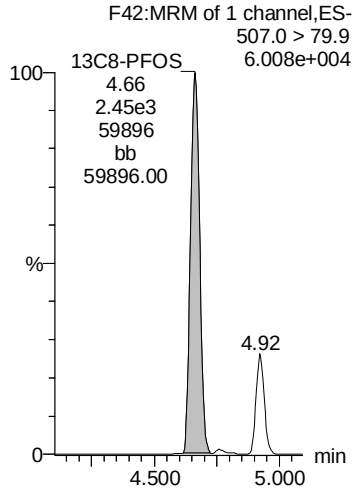
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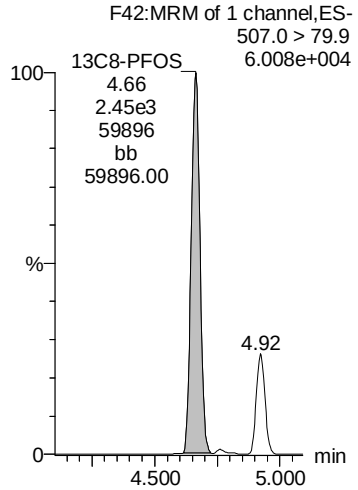
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13C8-PFOS



13C8-PFOS

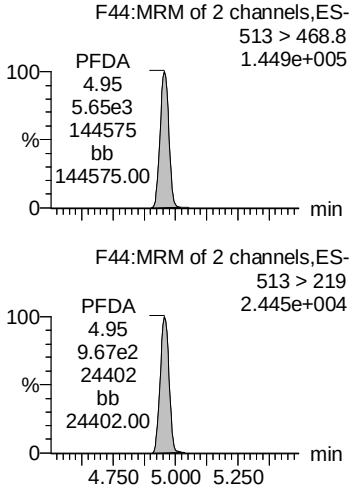


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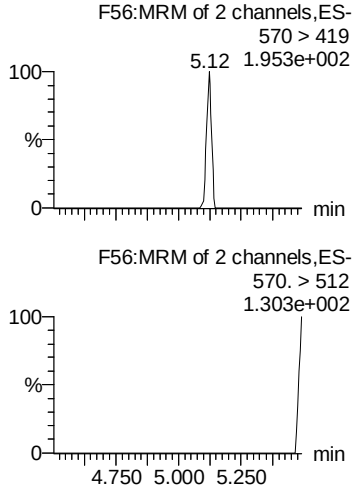
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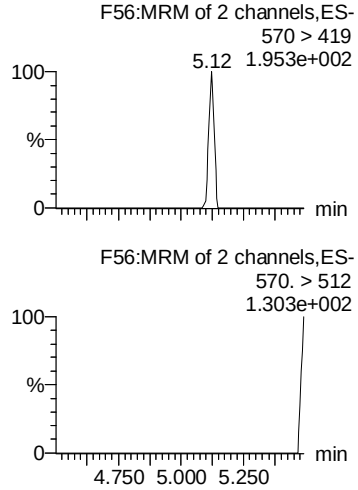
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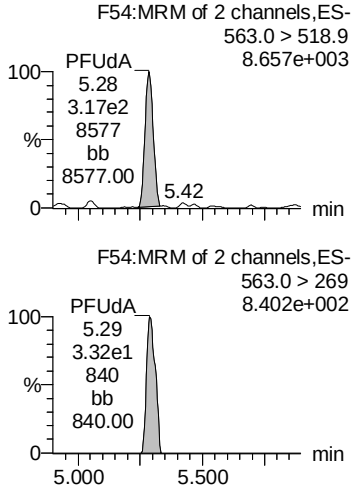
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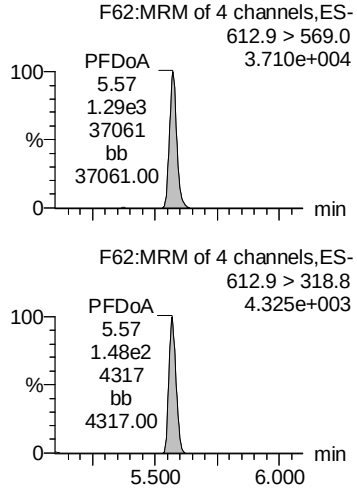
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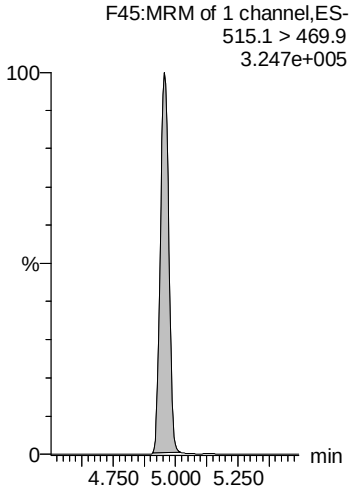
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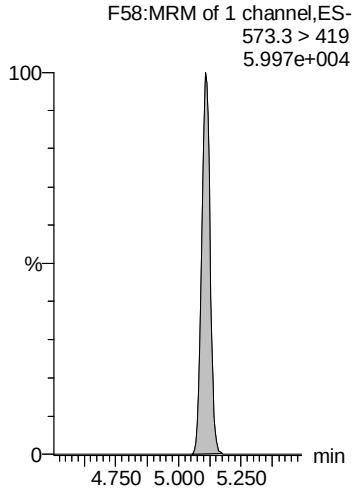
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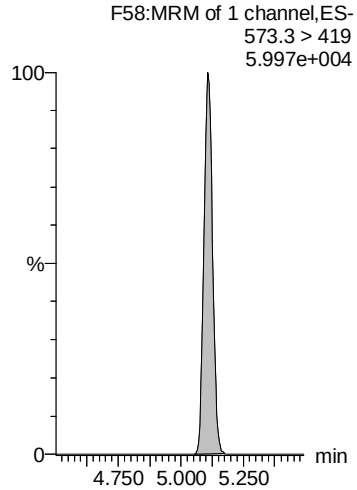
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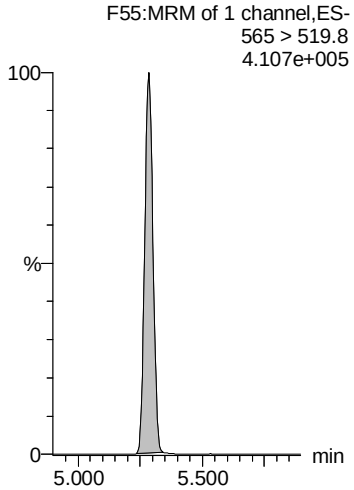
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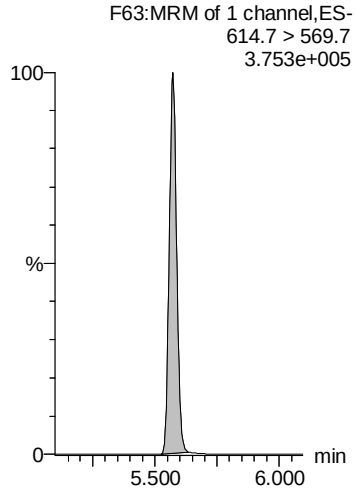
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13C2-PFUdA



13C2-PFDoA

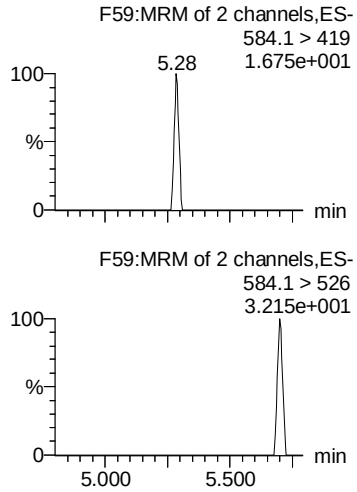


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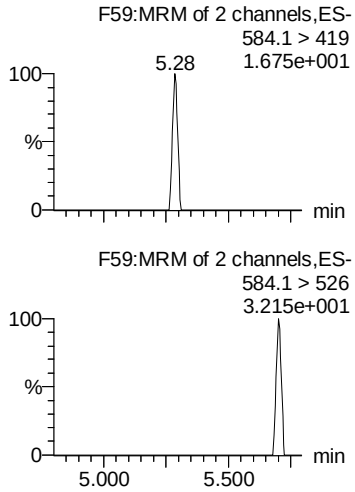
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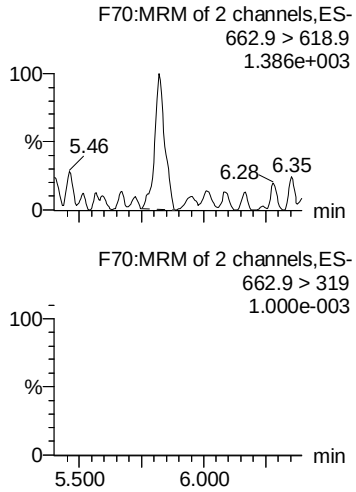
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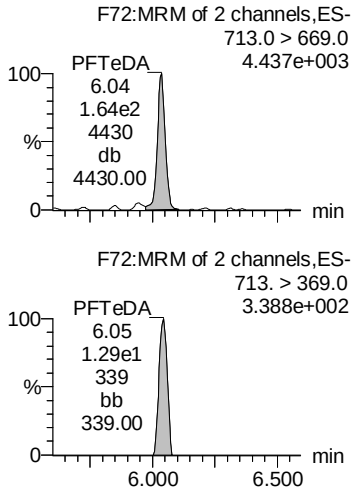
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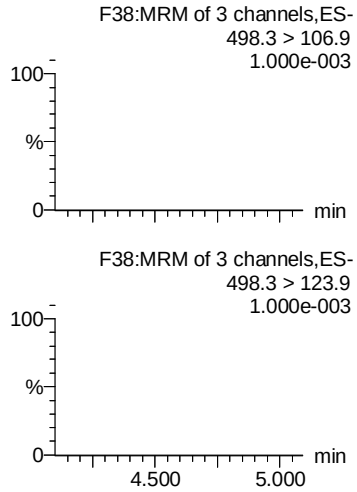
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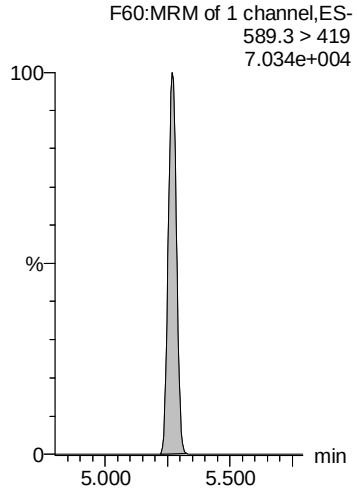
PFTeDA



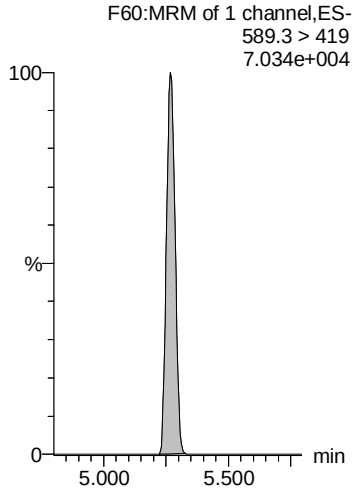
TDCA



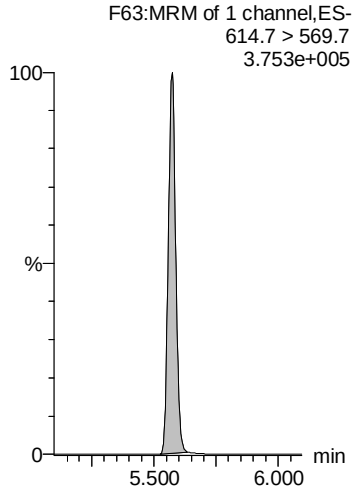
d5-N-EtFOSAA



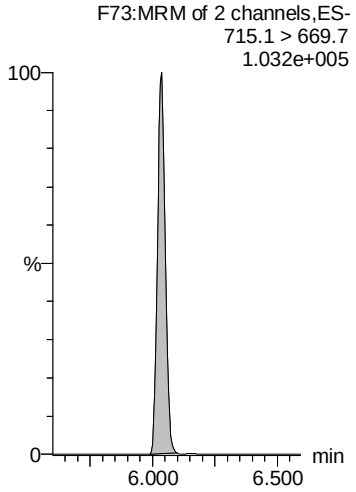
d5-N-EtFOSAA



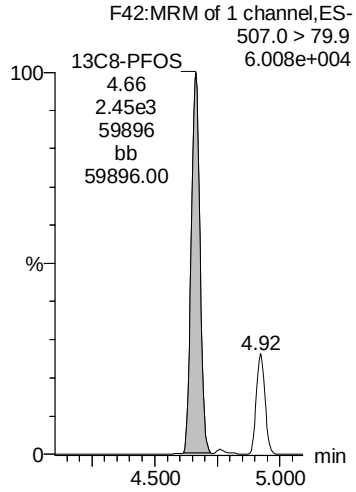
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS

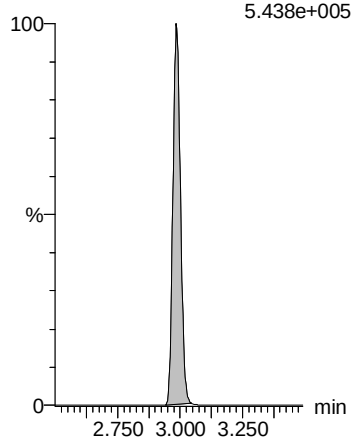


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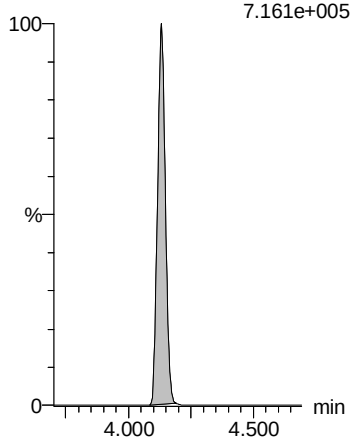
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Printed: Monday, July 22, 2019 09:20:20 Pacific Daylight Time

Name: 190721M2_23, Date: 22-Jul-2019, Time: 00:51:35, ID: 1902014-02 CAOA-B03-SO-20-20.5 1.09, Description: CAOA-B03-SO-20-20.5

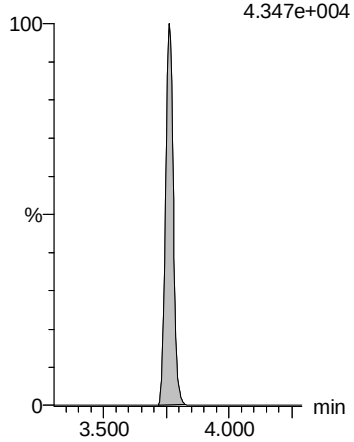
13C5-PFHxA



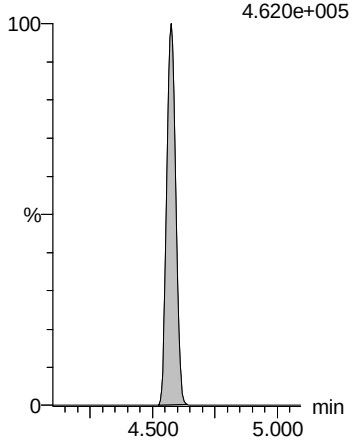
13C8-PFOA



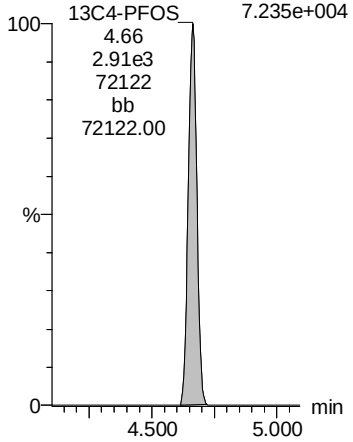
18O2-PFHxS



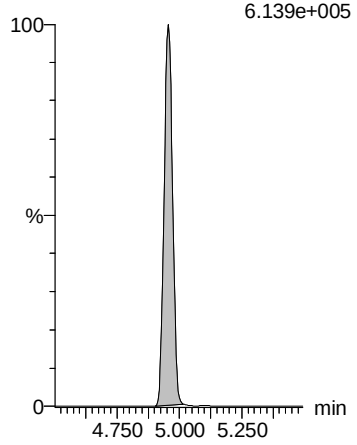
13C9-PFNA



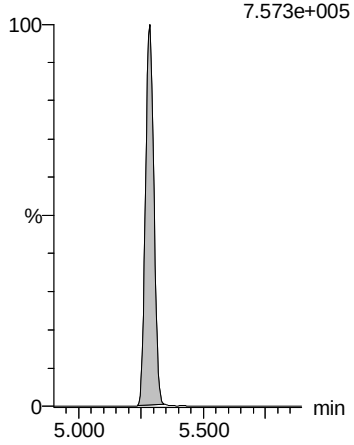
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Dataset: Z:\Projects\PFAS.PRO\Results\190721M2\190721M2-26.qld

Last Altered: Monday, July 22, 2019 09:45:44 Pacific Daylight Time
Printed: Monday, July 22, 2019 09:46:05 Pacific Daylight Time

Name: 190721M2_26, Date: 22-Jul-2019, Time: 01:23:25, ID: 1902014-05 CAOA-B01-SO-0-0.5 1.07, Description: CAOA-B01-SO-0-0.5

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	1.18e0	1.18e3	1.01		2.47	2.46	0.0125	0.0531		0.482	YES
2	7	PFHxA	313.0 > 269.0	8.73e2	7.23e3	1.01		2.99	2.99	0.604	0.4949		23.406	YES
3	11	PFHpA	363.0 > 318.9	2.26e2	8.88e3	1.01		3.61	3.61	0.318	0.3075		14.070	NO
4	13	L-PFHxS	398.9 > 79.6	2.43e1	2.96e3	1.01		3.76	3.76	0.102	0.1677		2.483	NO
5	80	Total PFHxS	398.9 > 79.6	2.43e1	2.96e3	1.01		3.83		0.102	0.1677			
6	49	13C3-PFBS	302.0 > 98.8	1.18e3	1.64e3	1.01	1.034	2.47	2.47	9.00	8.6376	69.6		
7	52	13C2-PFHxA	315.0 > 270.0	7.23e3	2.11e4	1.01	0.791	2.98	2.99	4.28	5.3705	108.2		
8	53	13C4-PFHpA	367.2 > 321.8	8.88e3	2.11e4	1.01	0.365	3.60	3.61	5.26	14.2985	115.2		
9	54	13C3-PFHxS	401.8 > 79.9	2.96e3	1.64e3	1.01	2.210	3.76	3.76	22.6	10.1403	81.7		
10	54	13C3-PFHxS	401.8 > 79.9	2.96e3	1.64e3	1.01	2.210	3.76	3.76	22.6	10.1403	81.7		
11	-1													
12	16	L-PFOA	412.8 > 368.9	5.70e2	1.62e4	1.01		4.14	4.14	0.439	0.1980		3.867	NO
13	81	Total PFOA	412.8 > 368.9	5.70e2	1.62e4	1.01		4.21		0.439	0.1980			
14	21	PFNA	463.0 > 418.8	2.20e2	1.42e4	1.01		4.58	4.58	0.194	0.1976		15.858	YES
15	23	L-PFOS	498.9 > 79.9	3.22e2	2.99e3	1.01		4.66	4.67	1.34	1.1524		2.135	NO
16	82	Total PFOS	498.9 > 79.9	3.22e2	2.99e3	1.01		4.74		1.34	1.1524			
17	58	13C2-PFOA	414.9 > 369.7	1.62e4	2.94e4	1.01	0.509	4.14	4.14	6.89	13.4440	108.3		
18	58	13C2-PFOA	414.9 > 369.7	1.62e4	2.94e4	1.01	0.509	4.14	4.14	6.89	13.4440	108.3		
19	56	13C5-PFNA	468.2 > 422.9	1.42e4	1.98e4	1.01	0.998	4.58	4.58	8.95	8.9062	71.8		
20	59	13C8-PFOS	507.0 > 79.9	2.99e3	3.89e3	1.01	1.015	4.66	4.66	9.61	9.4015	75.8		
21	59	13C8-PFOS	507.0 > 79.9	2.99e3	3.89e3	1.01	1.015	4.66	4.66	9.61	9.4015	75.8		
22	-1													
23	26	PFDA	513 > 468.8	8.92e1	1.24e4	1.01		4.96	4.97	0.0902	0.0370		16.150	YES
24	29	L-MeFOSAA	570 > 419		2.19e3	1.01		5.12						
25	83	Total N-MeFOSAA	570. > 419	0.00e0	2.19e3	1.01		5.19		0.000				
26	33	PFUdA	563.0 > 518.9	5.25e1	1.46e4	1.01		5.29	5.28	0.0450	0.0090		8.914	NO
27	37	PFDoA	612.9 > 569.0		1.50e4	1.01		5.58						
28	60	13C2-PFDA	515.1 > 469.9	1.24e4	2.62e4	1.01	0.669	4.96	4.96	5.89	8.7361	70.4		
29	62	d3-N-MeFOSAA	573.3 > 419	2.19e3	3.24e4	1.01	0.124	5.11	5.12	0.848	6.7799	54.6		
30	62	d3-N-MeFOSAA	573.3 > 419	2.19e3	3.24e4	1.01	0.124	5.11	5.12	0.848	6.7799	54.6		
31	63	13C2-PFUdA	565 > 519.8	1.46e4	3.24e4	1.01	0.812	5.29	5.29	5.63	6.8843	55.5		
32	65	13C2-PFDoA	614.7 > 569.7	1.50e4	2.62e4	1.01	1.311	5.57	5.58	7.14	5.4068	43.6		
33	-1													
34	31	L-EtFOSAA	584.1 > 419		3.03e3	1.01		5.27						
35	84	Total N-EtFOSAA	584.1 > 419	0.00e0	3.03e3	1.01		5.33		0.000				
36	39	PFTrDA	662.9 > 618.9		1.50e4	1.01		5.83						

Dataset: Z:\Projects\PFAS.PRO\Results\190721M2\190721M2-26.qld

Last Altered: Monday, July 22, 2019 09:45:44 Pacific Daylight Time
Printed: Monday, July 22, 2019 09:46:05 Pacific Daylight Time

Name: 190721M2_26, Date: 22-Jul-2019, Time: 01:23:25, ID: 1902014-05 CAOA-B01-SO-0-0.5 1.07, Description: CAOA-B01-SO-0-0.5

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0	2.88e1	1.14e4	1.01		6.05	6.05	0.0314			5.985	YES
38	85	TDCA	498.3>106.9			1.01		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	3.03e3	3.24e4	1.01	0.174	5.27	5.27	1.17	6.6561	53.6		
40	64	d5-N-EtFOSAA	589.3 > 419	3.03e3	3.24e4	1.01	0.174	5.27	5.27	1.17	6.6561	53.6		
41	65	13C2-PFDoA	614.7 > 569.7	1.50e4	2.62e4	1.01	1.311	5.57	5.58	7.14	5.4068	43.6		
42	67	13C2-PFTeDA	715.1 > 669.7	1.14e4	3.24e4	1.01	0.437	6.06	6.05	4.42	10.0454	80.9		
43	59	13C8-PFOS	507.0 > 79.9	2.99e3	3.89e3	1.01	1.015	4.66	4.66	9.61	9.4015	75.8		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	2.11e4	2.11e4	1.01	1.000	2.98	2.99	12.5	12.4110	100.0		
46	75	13C8-PFOA	420.9 > 376.0	2.94e4	2.94e4	1.01	1.000	4.13	4.14	12.5	12.4110	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	1.64e3	1.64e3	1.01	1.000	3.76	3.77	12.5	12.4110	100.0		
48	76	13C9-PFNA	472.2 > 426.9	1.98e4	1.98e4	1.01	1.000	4.58	4.58	12.5	12.4110	100.0		
49	77	13C4-PFOS	503 > 79.9	3.89e3	3.89e3	1.01	1.000	4.66	4.67	12.5	12.4110	100.0		
50	78	13C6-PFDA	519.1 > 473.7	2.62e4	2.62e4	1.01	1.000	4.96	4.96	12.5	12.4110	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	3.24e4	3.24e4	1.01	1.000	5.28	5.29	12.5	12.4110	100.0		

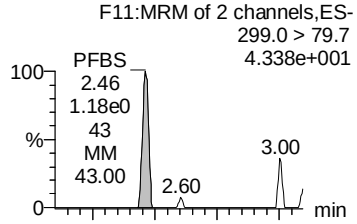
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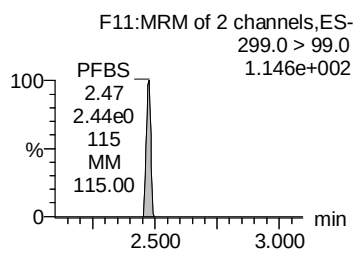
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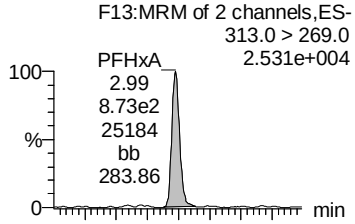
Name: 190721M2_26, Date: 22-Jul-2019, Time: 01:23:25, ID: 1902014-05 CAOA-B01-SO-0-0.5 1.07, Description: CAOA-B01-SO-0-0.5

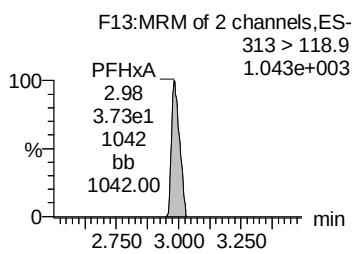
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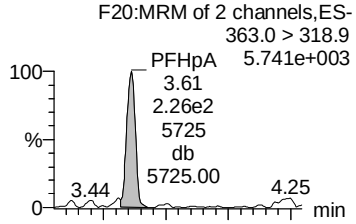


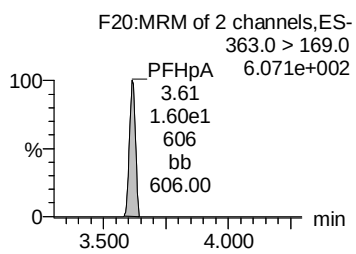
PFHxA



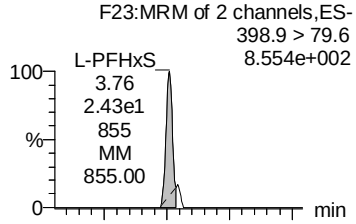


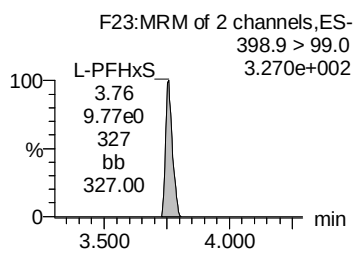
PFHpA



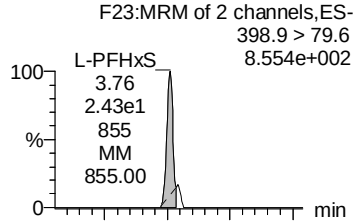


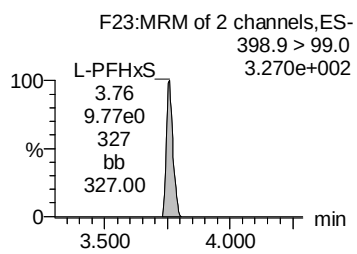
L-PFHxS



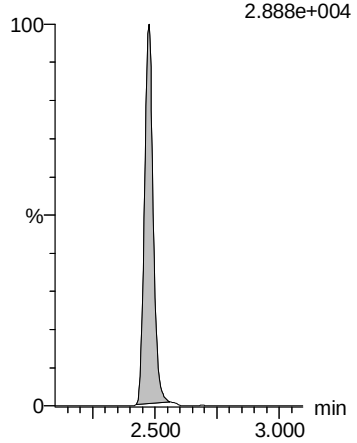


Total PFHxS

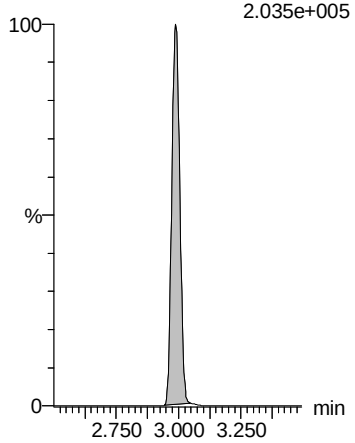




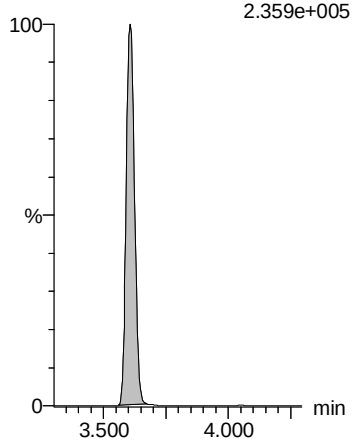
13C3-PFBS



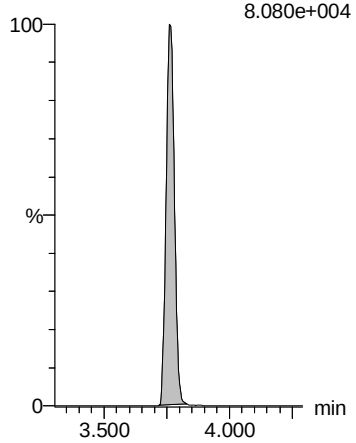
13C2-PFHxA



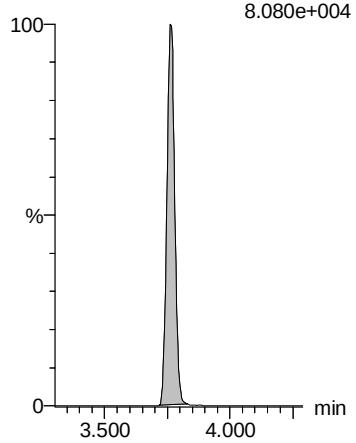
13C4-PFHpA



13C3-PFHxS



13C3-PFHxS

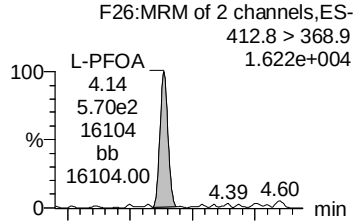


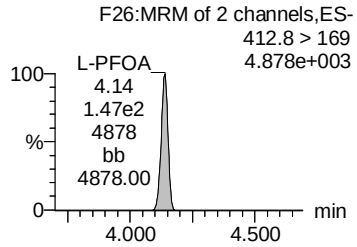
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Printed: Monday, July 22, 2019 09:46:05 Pacific Daylight Time

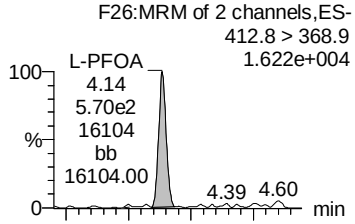
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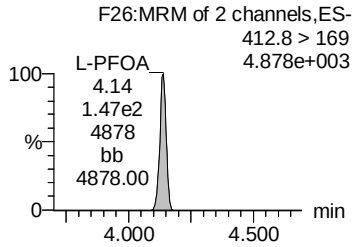
L-PFOA



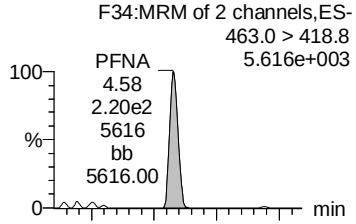


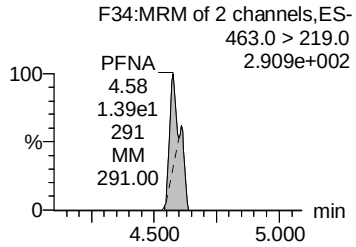
Total PFOA



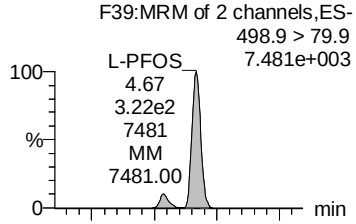


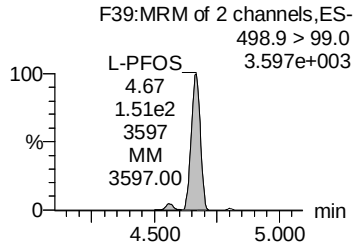
PFNA



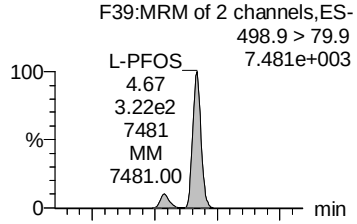


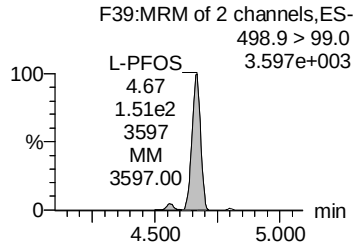
L-PFOS



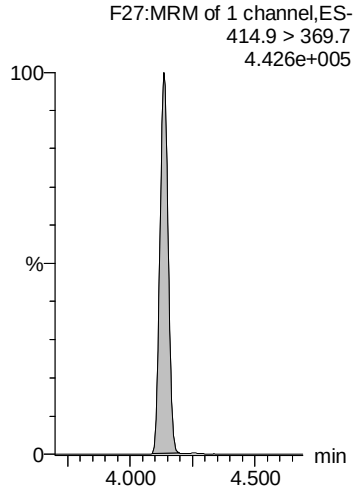


Total PFOS

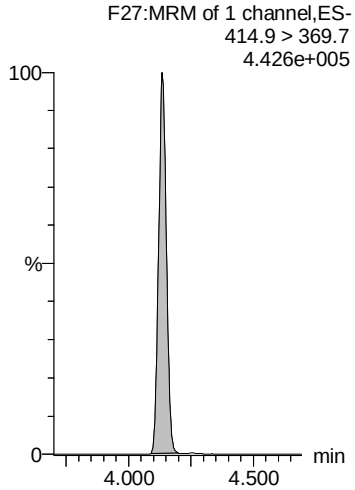




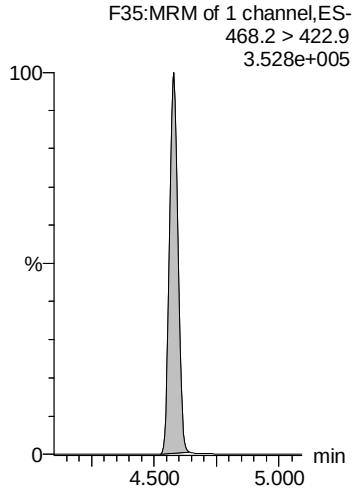
13C2-PFOA



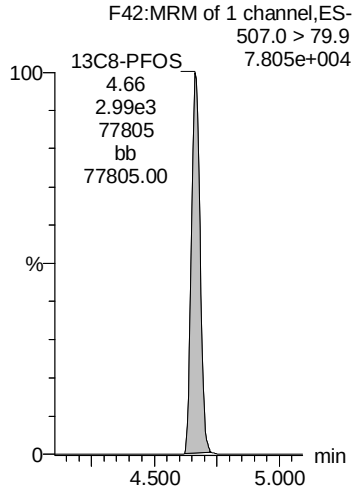
13C2-PFOA



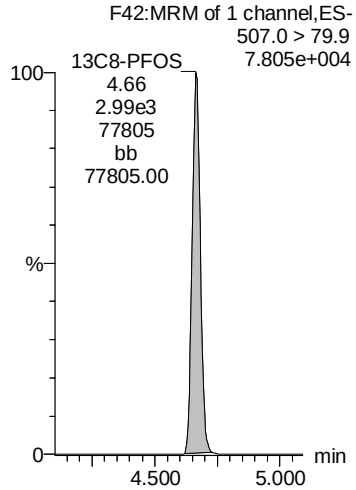
13C5-PFNA



13C8-PFOS



13C8-PFOS

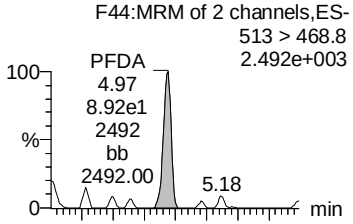


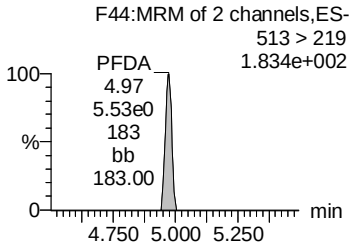
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Last Altered: Monday, July 22, 2019 09:45:44 Pacific Daylight Time
Printed: Monday, July 22, 2019 09:46:05 Pacific Daylight Time

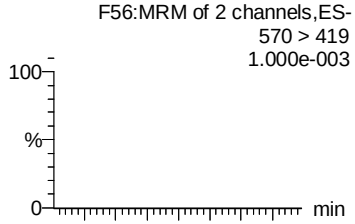
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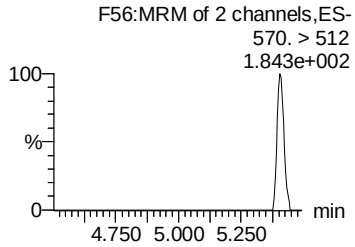
PFDA



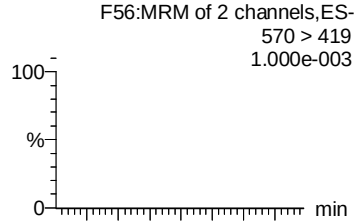


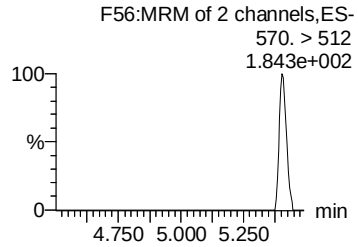
L-MeFOSAA



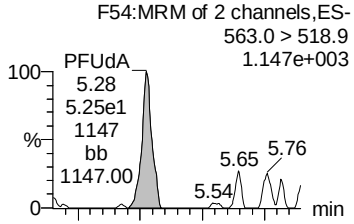


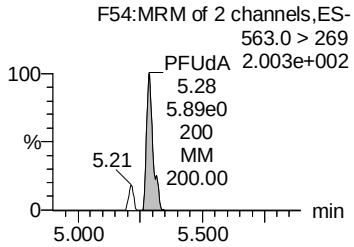
Total N-MeFOSAA



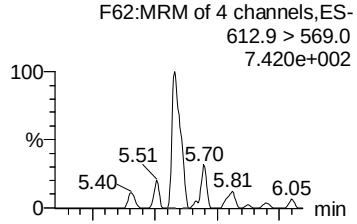


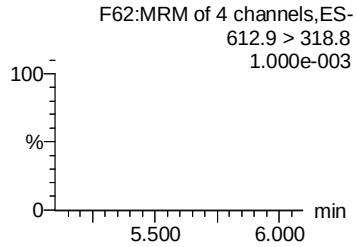
PFUdA



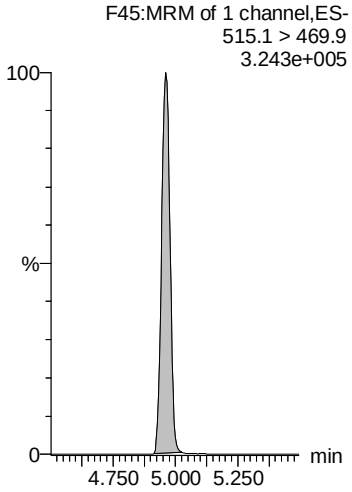


PFDoA

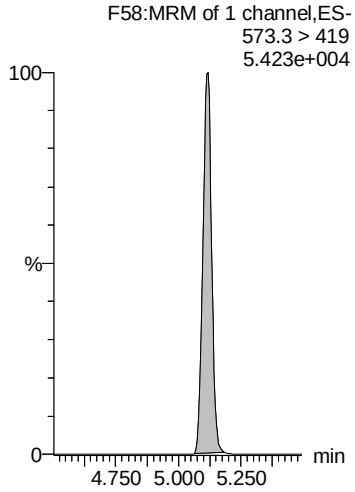




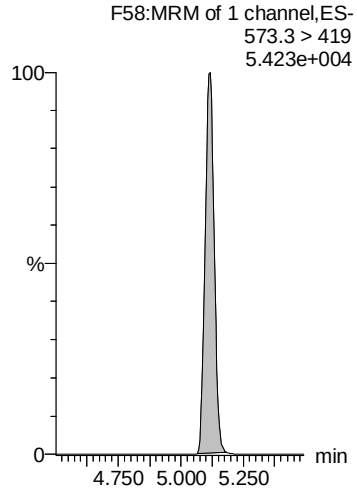
13C2-PFDA



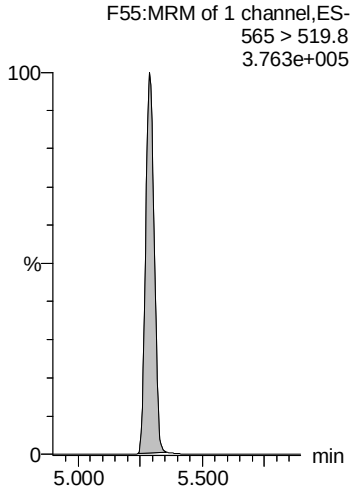
d3-N-MeFOSAA



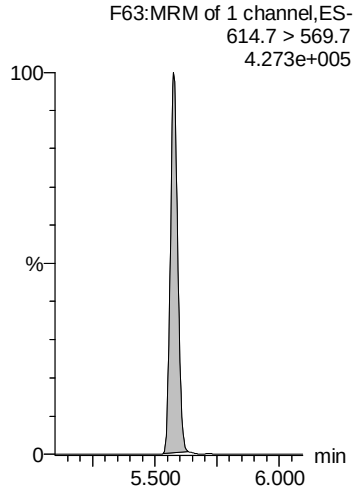
d3-N-MeFOSAA



13C2-PFUdA



13C2-PFDoA

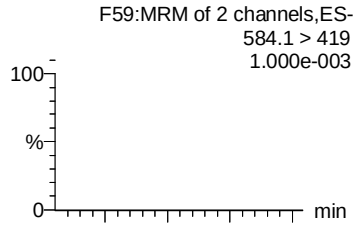


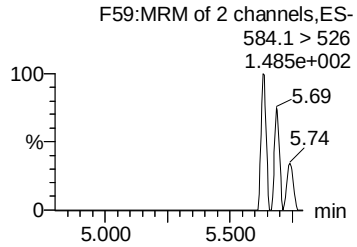
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Printed: Monday, July 22, 2019 09:46:05 Pacific Daylight Time

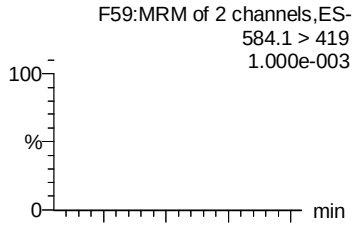
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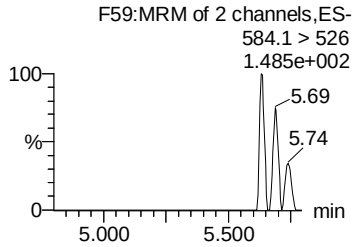
L-EtFOSAA



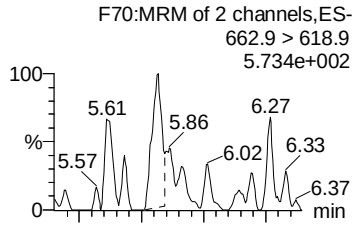


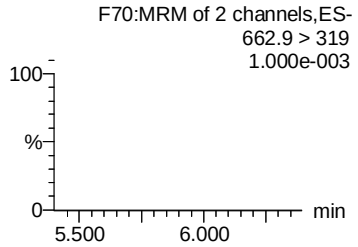
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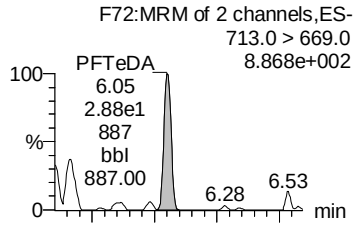


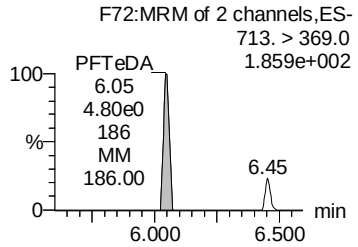
PFTrDA



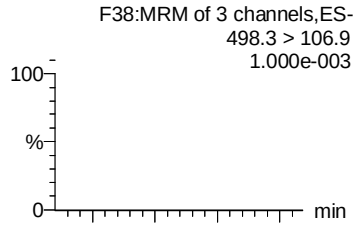


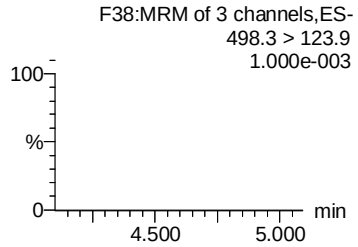
PFTeDA



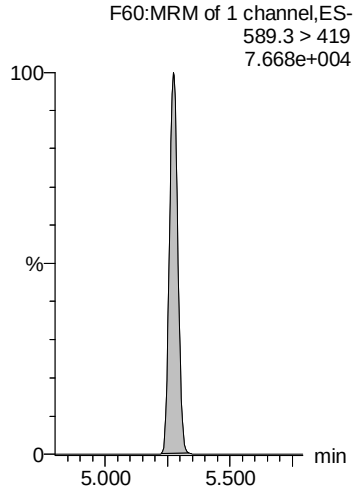


TDCA

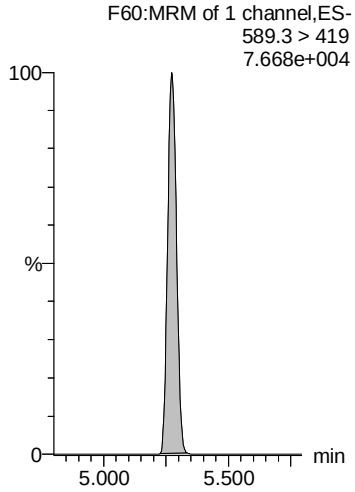




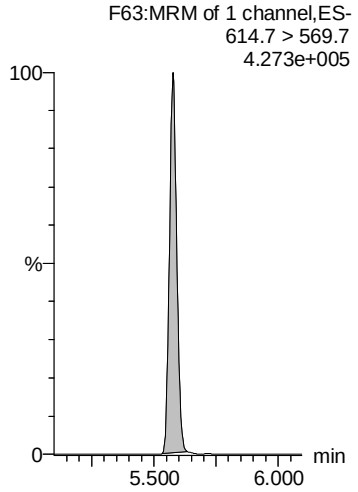
d5-N-EtFOSAA



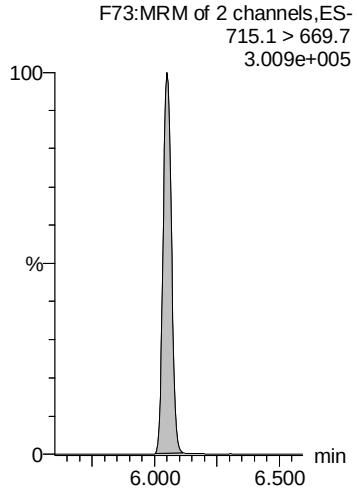
d5-N-EtFOSAA



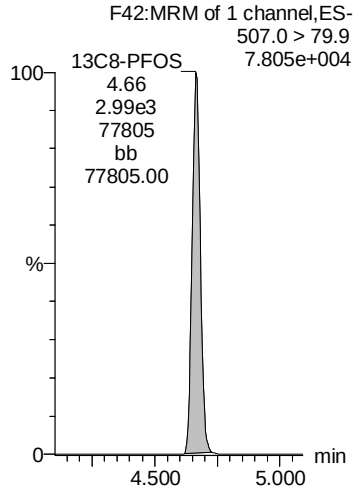
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS

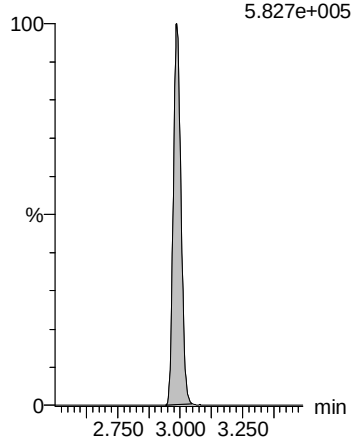


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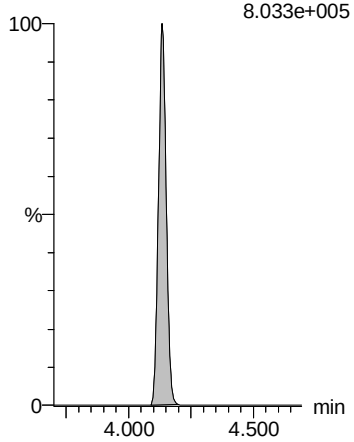
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Printed: Monday, July 22, 2019 09:46:05 Pacific Daylight Time

Name: 190721M2_26, Date: 22-Jul-2019, Time: 01:23:25, ID: 1902014-05 CAOA-B01-SO-0-0.5 1.07, Description: CAOA-B01-SO-0-0.5

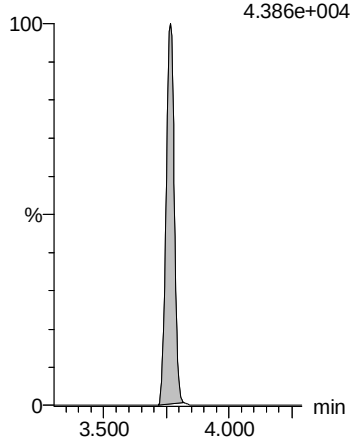
13C5-PFHxA



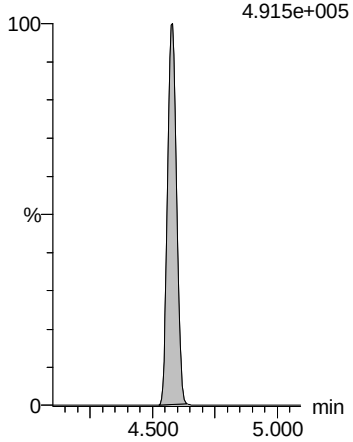
13C8-PFOA



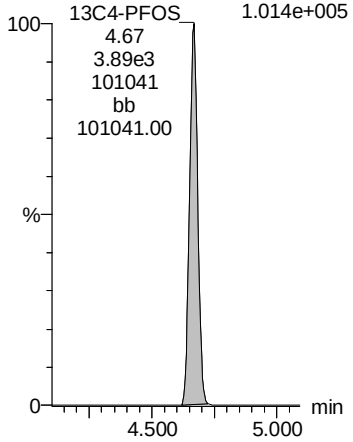
18O2-PFHxS



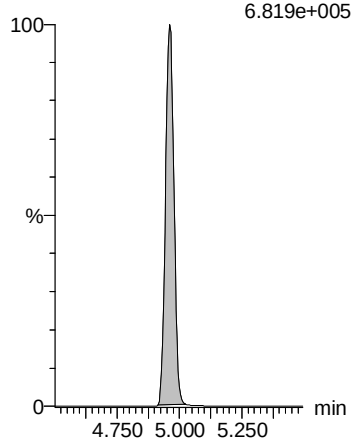
13C9-PFNA



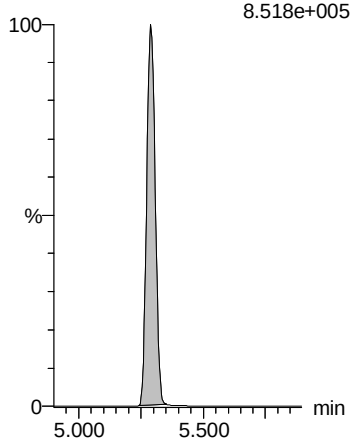
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory L14

Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-49B.qld

Last Altered: Tuesday, July 23, 2019 09:35:59 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 09:39:17 Pacific Daylight Time

Name: 190719M1_49, Date: 19-Jul-2019, Time: 16:58:40, ID: B9G0189-MS1 Matrix Spike 1.07, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	1.06e3	6.12e2	1.01		2.46	2.46	21.6	9.3652		3.308	NO
2	7	PFHxA	313.0 > 269.0	9.31e3	3.66e3	1.01		2.98	2.98	12.7	10.9203		16.066	NO
3	11	PFHpA	363.0 > 318.9	4.42e3	4.00e3	1.01		3.60	3.60	13.8	10.9342		5.068	NO
4	13	L-PFHxS	398.9 > 79.6	1.13e3	1.53e3	1.01		3.76	3.76	9.26	9.2681		1.939	NO
5	80	Total PFHxS	398.9 > 79.6	1.13e3	1.53e3	1.01		3.83		9.26	9.2681			
6	49	13C3-PFBS	302.0 > 98.8	6.12e2	7.78e2	1.01	1.034	2.47	2.46	9.84	9.4451	76.1		
7	52	13C2-PFHxA	315.0 > 270.0	3.66e3	1.34e4	1.01	0.791	2.98	2.98	3.41	4.2855	86.3		
8	53	13C4-PFHpA	367.2 > 321.8	4.00e3	1.34e4	1.01	0.365	3.60	3.60	3.73	10.1588	81.9		
9	54	13C3-PFHxS	401.8 > 79.9	1.53e3	7.78e2	1.01	2.210	3.76	3.76	24.5	11.0153	88.8		
10	54	13C3-PFHxS	401.8 > 79.9	1.53e3	7.78e2	1.01	2.210	3.76	3.76	24.5	11.0153	88.8		
11	-1													
12	16	L-PFOA	412.8 > 368.9	1.42e4	8.44e3	1.01		4.13	4.13	21.0	10.4310		3.830	NO
13	81	Total PFOA	412.8 > 368.9	1.42e4	8.44e3	1.01		4.21		21.0	10.4310			
14	21	PFNA	463.0 > 418.8	7.21e3	8.34e3	1.01		4.58	4.58	10.8	10.3421		2.923	NO
15	23	L-PFOS	498.9 > 79.9	1.84e3	1.63e3	1.01		4.66	4.67	14.1	10.9712		2.339	NO
16	82	Total PFOS	498.9 > 79.9	1.84e3	1.63e3	1.01		4.74		14.1	10.9712			
17	58	13C2-PFOA	414.9 > 369.7	8.44e3	1.97e4	1.01	0.509	4.14	4.13	5.36	10.4485	84.2		
18	58	13C2-PFOA	414.9 > 369.7	8.44e3	1.97e4	1.01	0.509	4.14	4.13	5.36	10.4485	84.2		
19	56	13C5-PFNA	468.2 > 422.9	8.34e3	1.06e4	1.01	0.998	4.58	4.58	9.79	9.7386	78.5		
20	59	13C8-PFOS	507.0 > 79.9	1.63e3	2.02e3	1.01	1.015	4.67	4.66	10.1	9.9072	79.8		
21	59	13C8-PFOS	507.0 > 79.9	1.63e3	2.02e3	1.01	1.015	4.67	4.66	10.1	9.9072	79.8		
22	-1													
23	26	PFDA	513 > 468.8	7.61e3	6.34e3	1.01		4.96	4.96	15.0	9.9681		4.600	NO
24	29	L-MeFOSAA	570 > 419	2.08e3	9.21e2	1.01		5.11	5.12	28.3	9.4990		2.395	NO
25	83	Total N-MeFOSAA	570. > 419	2.08e3	9.21e2	1.01		5.19		28.3	9.4990			
26	33	PFUdA	563.0 > 518.9	6.44e3	8.50e3	1.01		5.29	5.29	9.46	10.5094		5.714	NO
27	37	PFDoA	612.9 > 569.0	7.66e3	9.58e3	1.01		5.58	5.58	10.0	10.3029		6.888	NO
28	60	13C2-PFDA	515.1 > 469.9	6.34e3	1.45e4	1.01	0.669	4.97	4.96	5.48	8.1334	65.5		
29	62	d3-N-MeFOSAA	573.3 > 419	9.21e2	1.92e4	1.01	0.124	5.12	5.11	0.600	4.8014	38.7		
30	62	d3-N-MeFOSAA	573.3 > 419	9.21e2	1.92e4	1.01	0.124	5.12	5.11	0.600	4.8014	38.7		
31	63	13C2-PFUdA	565 > 519.8	8.50e3	1.92e4	1.01	0.812	5.30	5.29	5.54	6.7813	54.6		
32	65	13C2-PFDoA	614.7 > 569.7	9.58e3	1.45e4	1.01	1.311	5.59	5.58	8.28	6.2653	50.5		
33	-1													
34	31	L-EtFOSAA	584.1 > 419	1.65e3	1.30e3	1.01		5.28	5.28	15.9	10.0591		1.179	NO
35	84	Total N-EtFOSAA	584.1 > 419	1.65e3	1.30e3	1.01		5.33		15.9	10.0591			
36	39	PFTrDA	662.9 > 618.9	8.93e3	9.58e3	1.01		5.84	5.84	11.7	11.3666		11.646	NO

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Vista Analytical Laboratory L14

Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-49B.qld

Last Altered: Tuesday, July 23, 2019 09:35:59 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 09:39:17 Pacific Daylight Time

Name: 190719M1_49, Date: 19-Jul-2019, Time: 16:58:40, ID: B9G0189-MS1 Matrix Spike 1.07, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0	7.68e3	5.31e3	1.01		6.06	6.06	18.1	10.1283		21.036	NO
38	85	TDCA	498.3>106.9			1.01		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	1.30e3	1.92e4	1.01	0.174	5.28	5.28	0.846	4.8183	38.8		
40	64	d5-N-EtFOSAA	589.3 > 419	1.30e3	1.92e4	1.01	0.174	5.28	5.28	0.846	4.8183	38.8		
41	65	13C2-PFDoA	614.7 > 569.7	9.58e3	1.45e4	1.01	1.311	5.59	5.58	8.28	6.2653	50.5		
42	67	13C2-PFTeDA	715.1 > 669.7	5.31e3	1.92e4	1.01	0.437	6.06	6.06	3.46	7.8593	63.3		
43	59	13C8-PFOS	507.0 > 79.9	1.63e3	2.02e3	1.01	1.015	4.67	4.66	10.1	9.9072	79.8		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	1.34e4	1.34e4	1.01	1.000	2.98	2.98	12.5	12.4110	100.0		
46	75	13C8-PFOA	420.9 > 376.0	1.97e4	1.97e4	1.01	1.000	4.14	4.13	12.5	12.4110	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	7.78e2	7.78e2	1.01	1.000	3.76	3.76	12.5	12.4110	100.0		
48	76	13C9-PFNA	472.2 > 426.9	1.06e4	1.06e4	1.01	1.000	4.58	4.58	12.5	12.4110	100.0		
49	77	13C4-PFOS	503 > 79.9	2.02e3	2.02e3	1.01	1.000	4.67	4.67	12.5	12.4110	100.0		
50	78	13C6-PFDA	519.1 > 473.7	1.45e4	1.45e4	1.01	1.000	4.97	4.96	12.5	12.4110	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	1.92e4	1.92e4	1.01	1.000	5.30	5.29	12.5	12.4110	100.0		

 NY 7/23/2019

Vista Analytical Laboratory L14

Review: AMR 7/23/2019

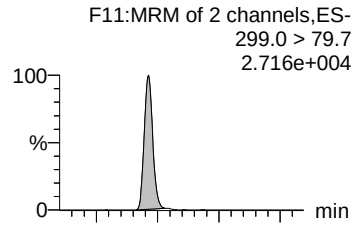
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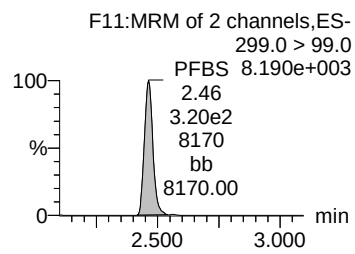
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Printed: Tuesday, July 23, 2019 09:39:17 Pacific Daylight Time

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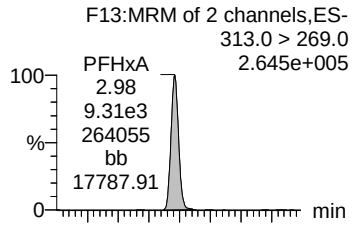
Name: 190719M1_49, Date: 19-Jul-2019, Time: 16:58:40, ID: B9G0189-MS1 Matrix Spike 1.07, Description: Matrix Spike

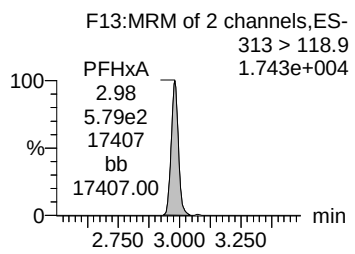
PFBS



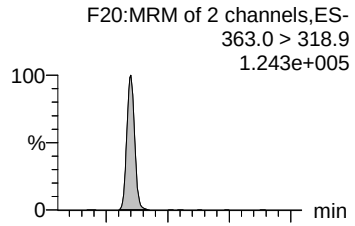


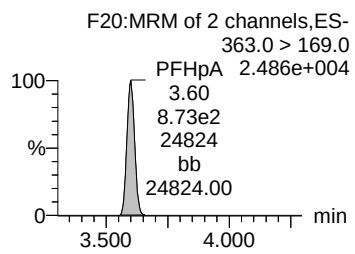
PFHxA



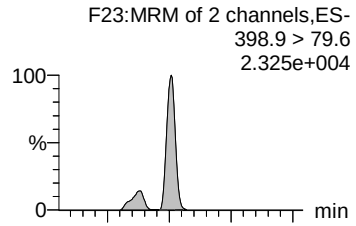


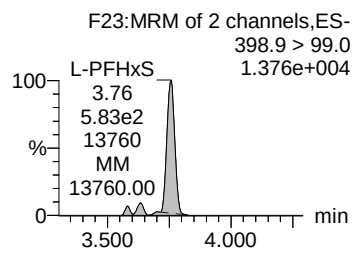
PFHpA



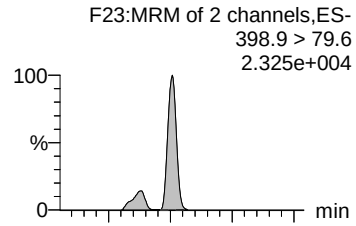


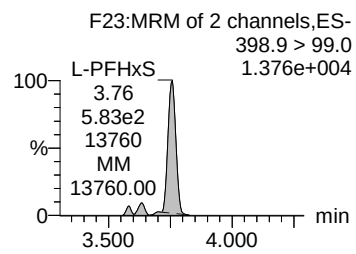
L-PFHxS



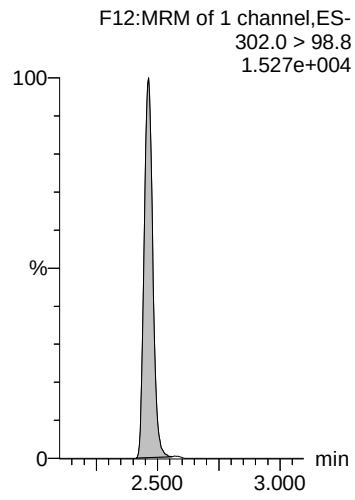


Total PFHxS

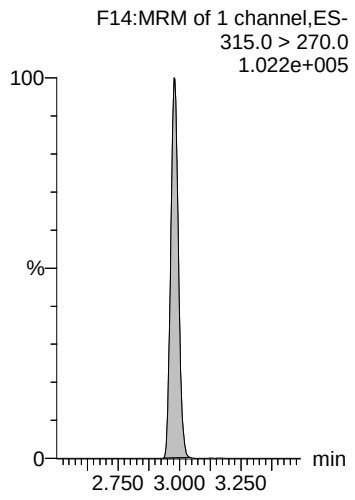




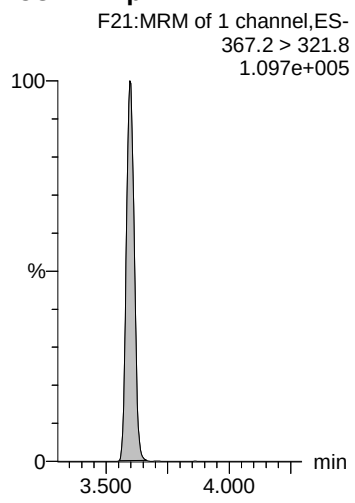
13C3-PFBS



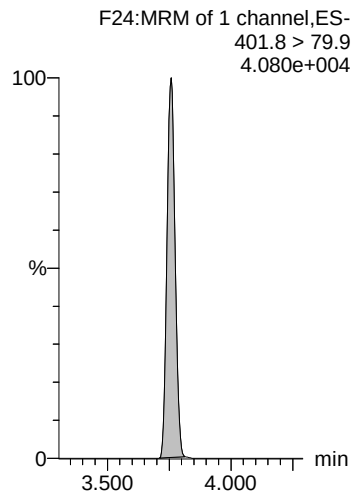
13C2-PFHxA



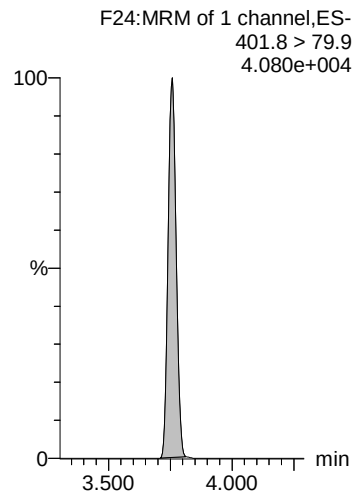
13C4-PFHpA



13C3-PFHxS



13C3-PFHxS



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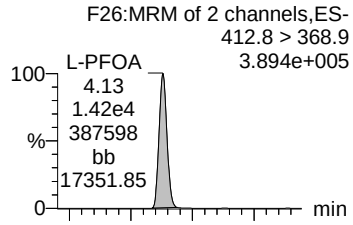
Review: AMR 7/23/2019

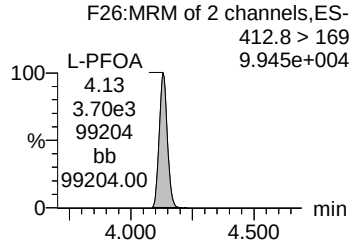
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Printed: Tuesday, July 23, 2019 09:39:17 Pacific Daylight Time

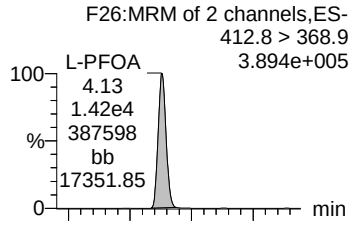
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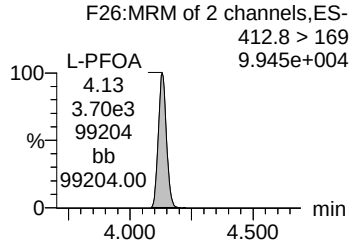
L-PFOA



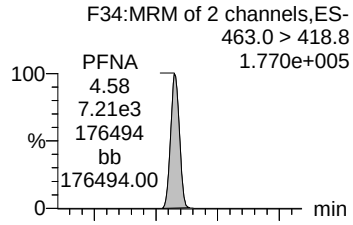


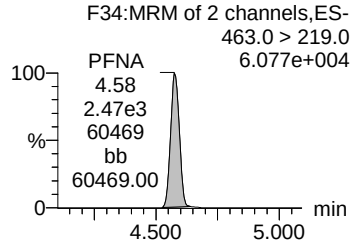
Total PFOA



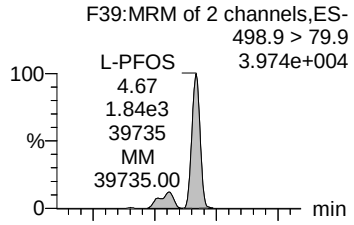


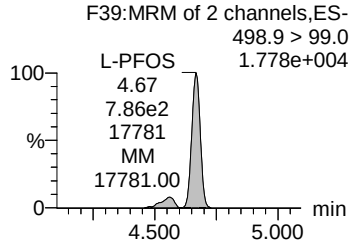
PFNA



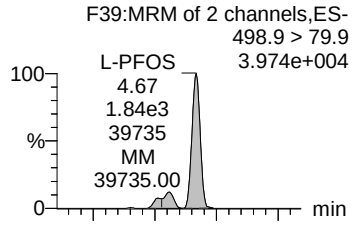


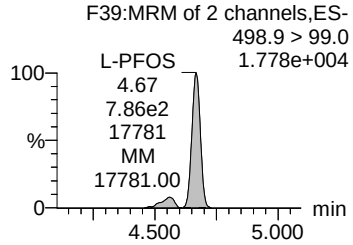
L-PFOS



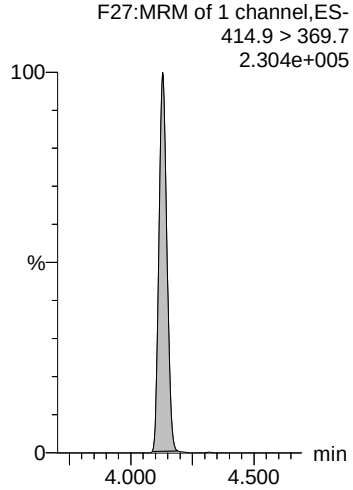


Total PFOS

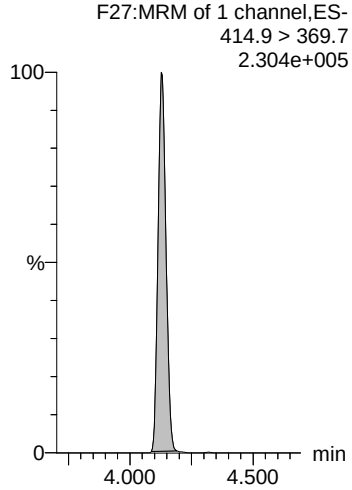




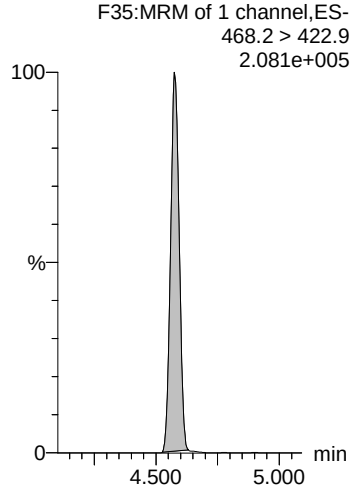
13C2-PFOA



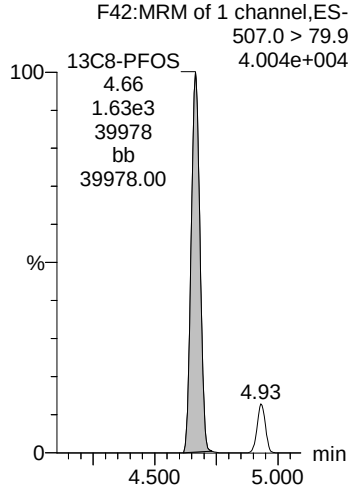
13C2-PFOA



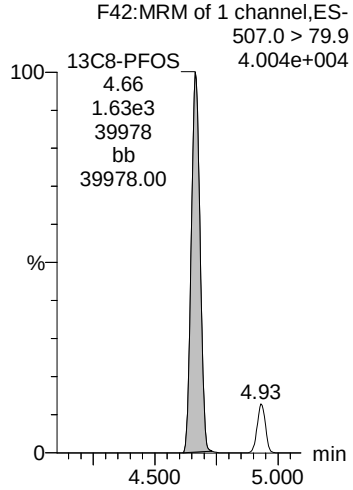
13C5-PFNA



13C8-PFOS



13C8-PFOS



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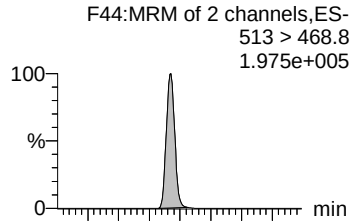
Review: AMR 7/23/2019

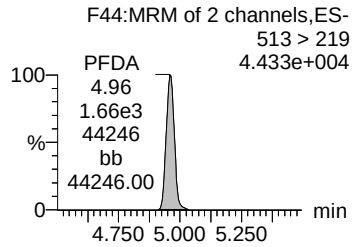
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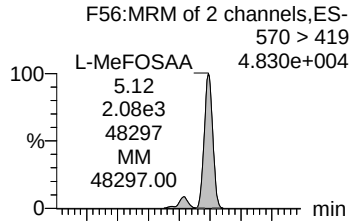
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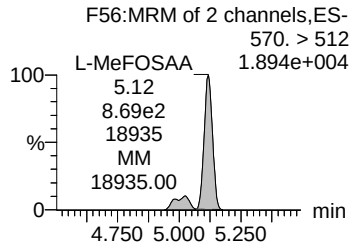
PFDA



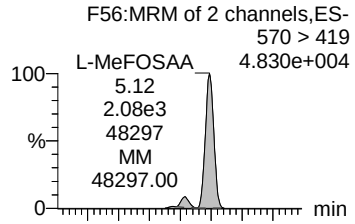


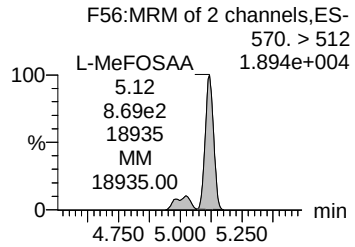
L-MeFOSAA



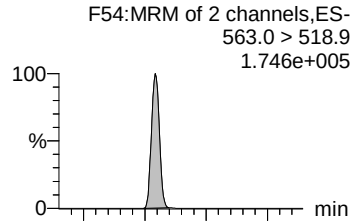


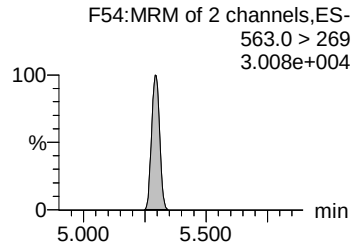
Total N-MeFOSAA



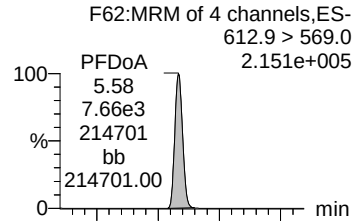


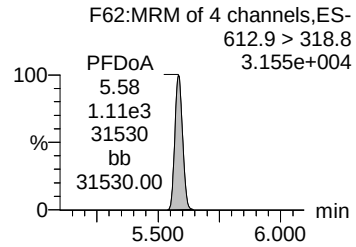
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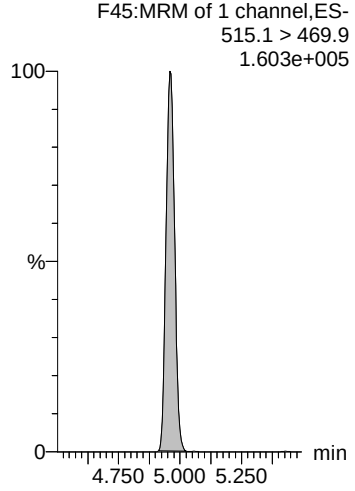


PFDoA

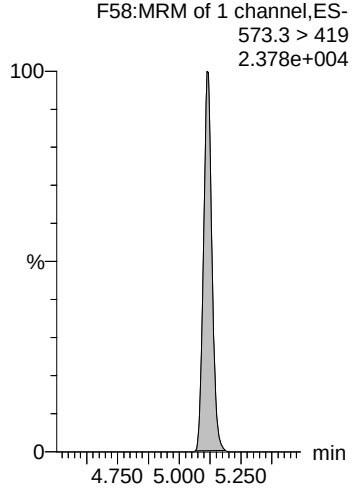




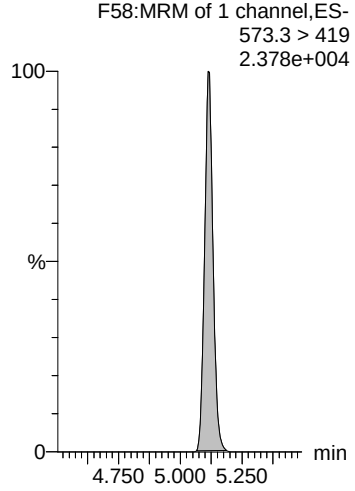
13C2-PFDA



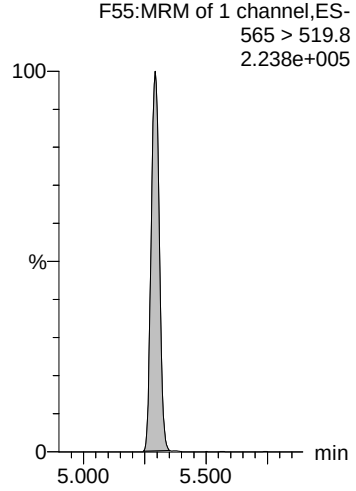
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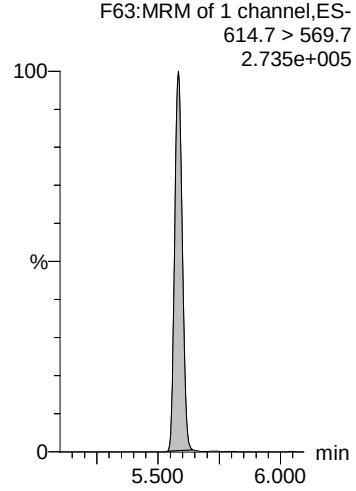
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13C2-PFUdA



13C2-PFDoA



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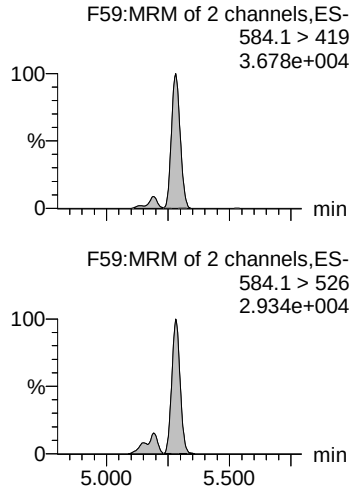
Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-49B.qld

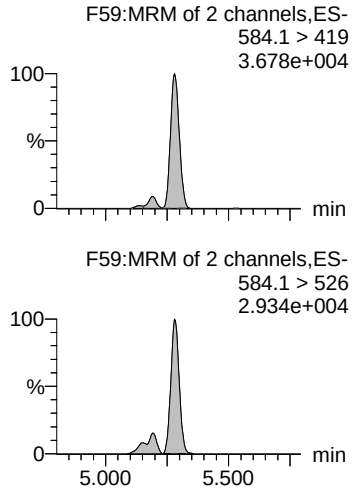
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Printed: Tuesday, July 23, 2019 09:39:17 Pacific Daylight Time

Name: 190719M1_49, Date: 19-Jul-2019, Time: 16:58:40, ID: B9G0189-MS1 Matrix Spike 1.07, Description: Matrix Spike

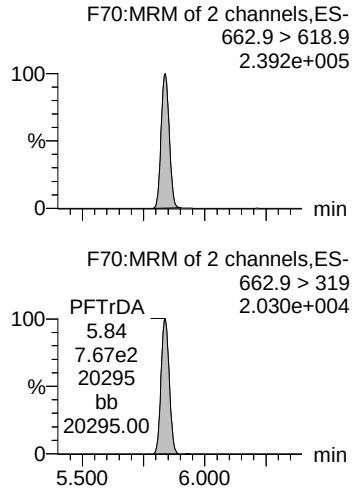
L-EtFOSAA



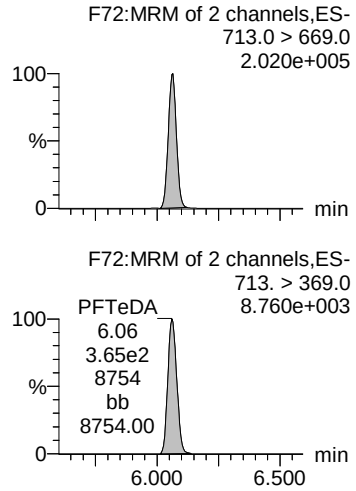
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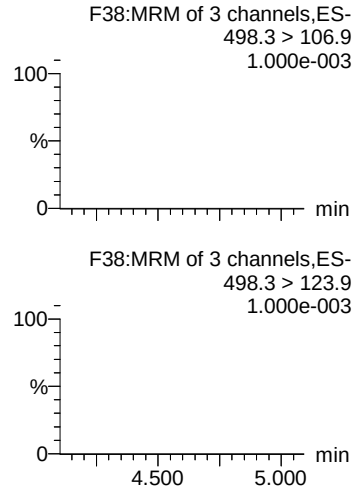
PFTrDA



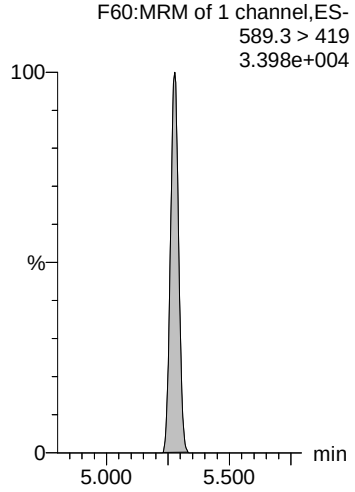
PFTeDA



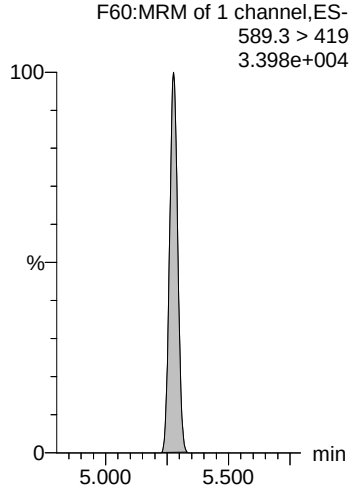
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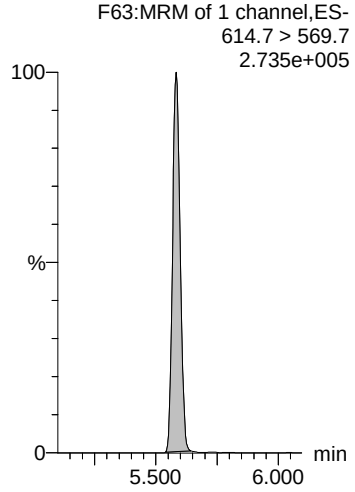
d5-N-EtFOSAA



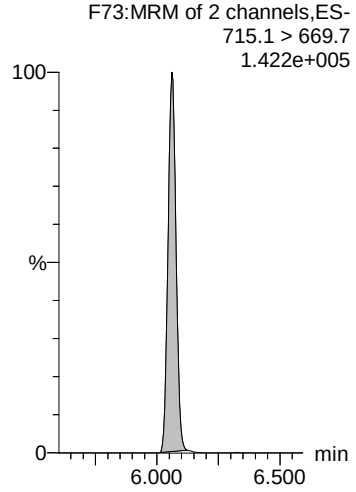
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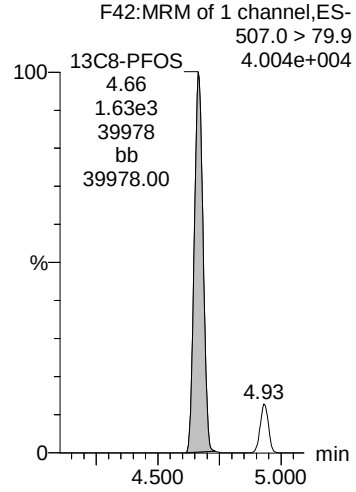
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS



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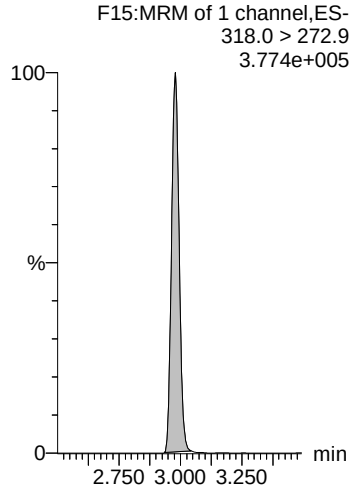
Review: AMR 7/23/2019

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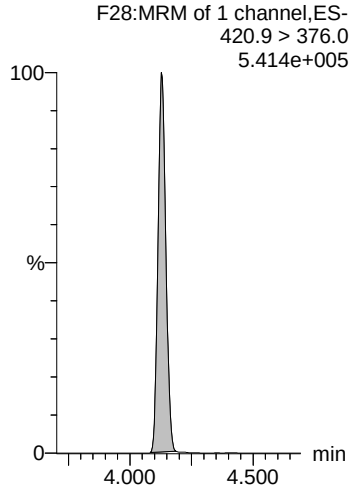
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Name: 190719M1_49, Date: 19-Jul-2019, Time: 16:58:40, ID: B9G0189-MS1 Matrix Spike 1.07, Description: Matrix Spike

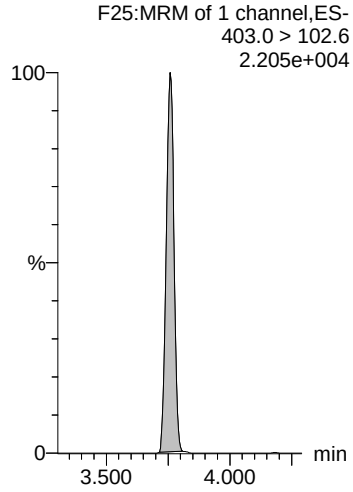
13C5-PFHxA



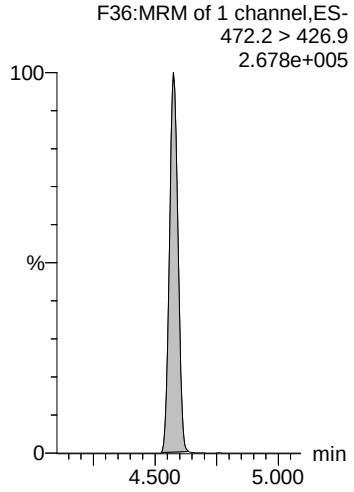
13C8-PFOA



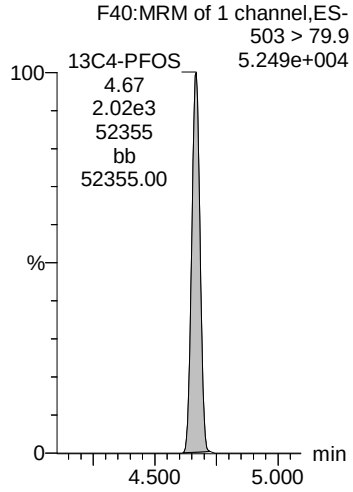
18O2-PFHxS



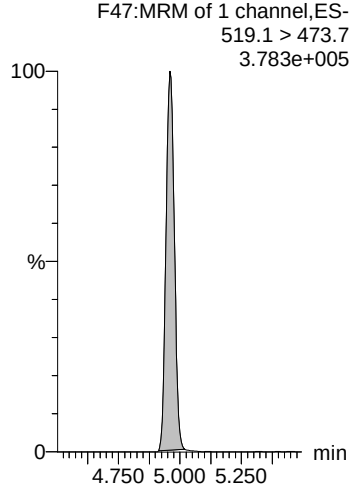
13C9-PFNA



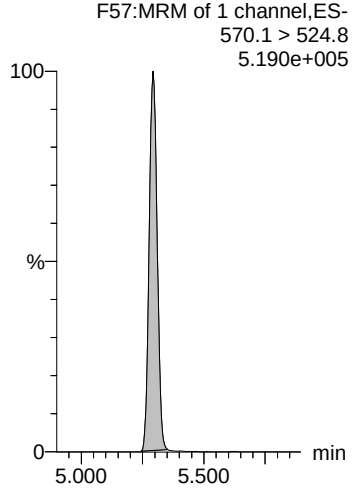
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-50B.qld

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Printed: Tuesday, July 23, 2019 09:44:32 Pacific Daylight Time

Name: 190719M1_50, Date: 19-Jul-2019, Time: 17:09:41, ID: B9G0189-MSD1 Matrix Spike Dup 1.08, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	9.95e2	5.64e2	1.02		2.47	2.47	22.0	9.4446		3.492	NO
2	7	PFHxA	313.0 > 269.0	9.36e3	3.51e3	1.02		2.97	2.97	13.4	11.3605		15.165	NO
3	11	PFHpA	363.0 > 318.9	4.29e3	3.88e3	1.02		3.59	3.60	13.8	10.8569		4.640	NO
4	13	L-PFHxS	398.9 > 79.6	1.29e3	1.51e3	1.02		3.75	3.75	10.6	10.5363		2.156	NO
5	80	Total PFHxS	398.9 > 79.6	1.29e3	1.51e3	1.02		3.83		10.6	10.5363			
6	49	13C3-PFBS	302.0 > 98.8	5.64e2	9.16e2	1.02	1.034	2.47	2.47	7.70	7.3194	59.5		
7	52	13C2-PFHxA	315.0 > 270.0	3.51e3	1.35e4	1.02	0.791	2.98	2.97	3.25	4.0425	82.2		
8	53	13C4-PFHpA	367.2 > 321.8	3.88e3	1.35e4	1.02	0.365	3.60	3.59	3.59	9.6874	78.8		
9	54	13C3-PFHxS	401.8 > 79.9	1.51e3	9.16e2	1.02	2.210	3.76	3.75	20.7	9.1979	74.8		
10	54	13C3-PFHxS	401.8 > 79.9	1.51e3	9.16e2	1.02	2.210	3.76	3.75	20.7	9.1979	74.8		
11	-1													
12	16	L-PFOA	412.8 > 368.9	1.40e4	7.96e3	1.02		4.13	4.13	21.9	10.7870		3.909	NO
13	81	Total PFOA	412.8 > 368.9	1.40e4	7.96e3	1.02		4.21		21.9	10.7870			
14	21	PFNA	463.0 > 418.8	7.42e3	8.32e3	1.02		4.58	4.58	11.2	10.5784		2.778	NO
15	23	L-PFOS	498.9 > 79.9	1.76e3	1.58e3	1.02		4.66	4.66	13.9	10.7231		1.963	NO
16	82	Total PFOS	498.9 > 79.9	1.76e3	1.58e3	1.02		4.74		13.9	10.7231			
17	58	13C2-PFOA	414.9 > 369.7	7.96e3	1.94e4	1.02	0.509	4.14	4.13	5.14	9.9359	80.8		
18	58	13C2-PFOA	414.9 > 369.7	7.96e3	1.94e4	1.02	0.509	4.14	4.13	5.14	9.9359	80.8		
19	56	13C5-PFNA	468.2 > 422.9	8.32e3	1.05e4	1.02	0.998	4.58	4.58	9.90	9.7555	79.3		
20	59	13C8-PFOS	507.0 > 79.9	1.58e3	2.09e3	1.02	1.015	4.67	4.66	9.50	9.2032	74.8		
21	59	13C8-PFOS	507.0 > 79.9	1.58e3	2.09e3	1.02	1.015	4.67	4.66	9.50	9.2032	74.8		
22	-1													
23	26	PFDA	513 > 468.8	7.78e3	6.01e3	1.02		4.96	4.96	16.2	10.6536		4.228	NO
24	29	L-MeFOSAA	570 > 419	2.60e3	9.88e2	1.02		5.11	5.12	32.9	10.9422		2.590	NO
25	83	Total N-MeFOSAA	570. > 419	2.60e3	9.88e2	1.02		5.19		32.9	10.9422			
26	33	PFUdA	563.0 > 518.9	6.34e3	8.46e3	1.02		5.29	5.29	9.36	10.2981		5.928	NO
27	37	PFDoA	612.9 > 569.0	7.53e3	9.00e3	1.02		5.58	5.58	10.5	10.6761		8.042	NO
28	60	13C2-PFDA	515.1 > 469.9	6.01e3	1.48e4	1.02	0.669	4.97	4.96	5.06	7.4422	60.5		
29	62	d3-N-MeFOSAA	573.3 > 419	9.88e2	1.92e4	1.02	0.124	5.12	5.11	0.642	5.0864	41.4		
30	62	d3-N-MeFOSAA	573.3 > 419	9.88e2	1.92e4	1.02	0.124	5.12	5.11	0.642	5.0864	41.4		
31	63	13C2-PFUdA	565 > 519.8	8.46e3	1.92e4	1.02	0.812	5.30	5.29	5.50	6.6642	54.2		
32	65	13C2-PFDoA	614.7 > 569.7	9.00e3	1.48e4	1.02	1.311	5.59	5.58	7.58	5.6885	46.3		
33	-1													
34	31	L-EtFOSAA	584.1 > 419	1.96e3	1.54e3	1.02		5.27	5.28	15.9	9.9758		1.261	NO
35	84	Total N-EtFOSAA	584.1 > 419	1.96e3	1.54e3	1.02		5.33		15.9	9.9758			
36	39	PFTrDA	662.9 > 618.9	9.16e3	9.00e3	1.02		5.84	5.83	12.7	12.3057		15.212	NO

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Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-50B.qld

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Printed: Tuesday, July 23, 2019 09:44:32 Pacific Daylight Time

Name: 190719M1_50, Date: 19-Jul-2019, Time: 17:09:41, ID: B9G0189-MSD1 Matrix Spike Dup 1.08, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0	8.35e3	5.26e3	1.02		6.06	6.06	19.8	11.0137		17.918	NO
38	85	TDCA	498.3>106.9			1.02		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	1.54e3	1.92e4	1.02	0.174	5.28	5.27	1.00	5.6434	45.9		
40	64	d5-N-EtFOSAA	589.3 > 419	1.54e3	1.92e4	1.02	0.174	5.28	5.27	1.00	5.6434	45.9		
41	65	13C2-PFDoA	614.7 > 569.7	9.00e3	1.48e4	1.02	1.311	5.59	5.58	7.58	5.6885	46.3		
42	67	13C2-PFTeDA	715.1 > 669.7	5.26e3	1.92e4	1.02	0.437	6.06	6.06	3.42	7.6971	62.6		
43	59	13C8-PFOS	507.0 > 79.9	1.58e3	2.09e3	1.02	1.015	4.67	4.66	9.50	9.2032	74.8		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	1.35e4	1.35e4	1.02	1.000	2.98	2.97	12.5	12.2961	100.0		
46	75	13C8-PFOA	420.9 > 376.0	1.94e4	1.94e4	1.02	1.000	4.14	4.12	12.5	12.2961	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	9.16e2	9.16e2	1.02	1.000	3.76	3.75	12.5	12.2961	100.0		
48	76	13C9-PFNA	472.2 > 426.9	1.05e4	1.05e4	1.02	1.000	4.58	4.57	12.5	12.2961	100.0		
49	77	13C4-PFOS	503 > 79.9	2.09e3	2.09e3	1.02	1.000	4.67	4.66	12.5	12.2961	100.0		
50	78	13C6-PFDA	519.1 > 473.7	1.48e4	1.48e4	1.02	1.000	4.97	4.96	12.5	12.2961	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	1.92e4	1.92e4	1.02	1.000	5.30	5.29	12.5	12.2961	100.0		

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Review: AMR 7/23/2019

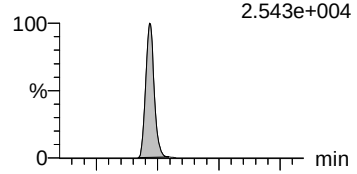
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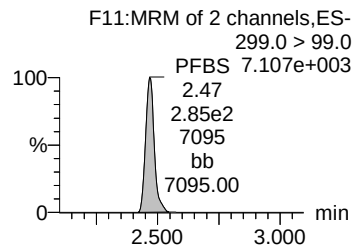
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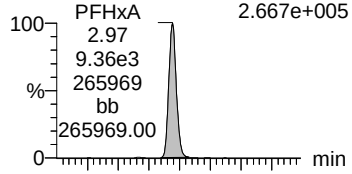
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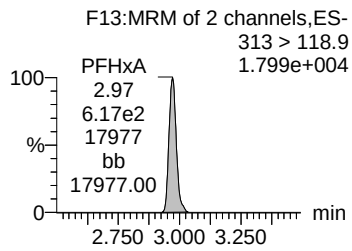
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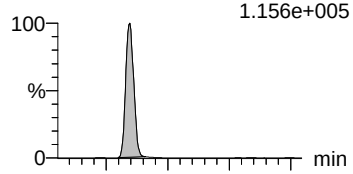


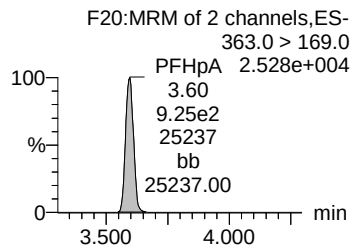
PFHxA



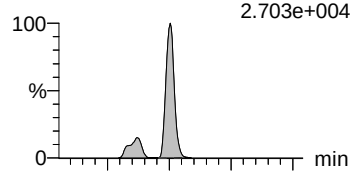


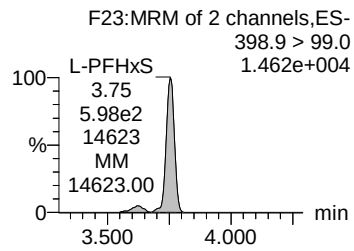
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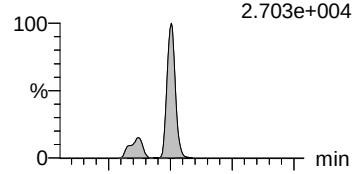


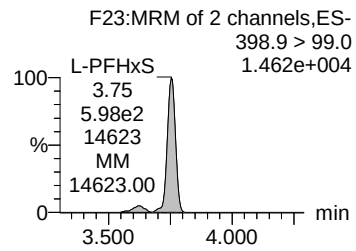
L-PFHxS



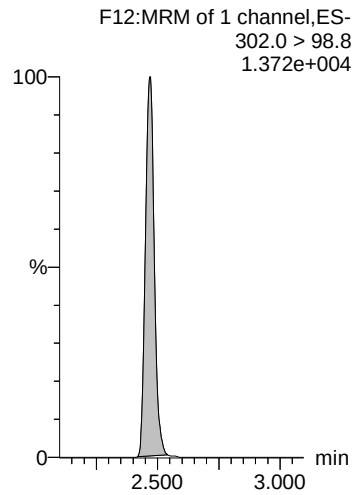


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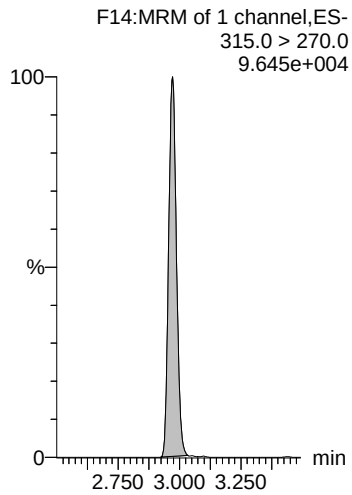




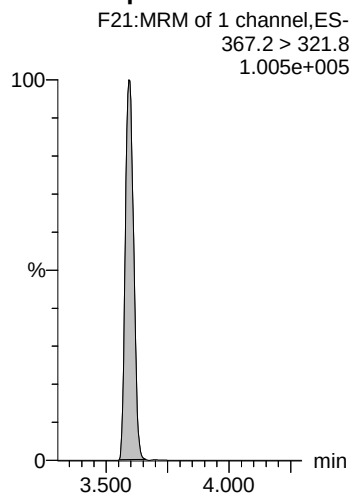
13C3-PFBS



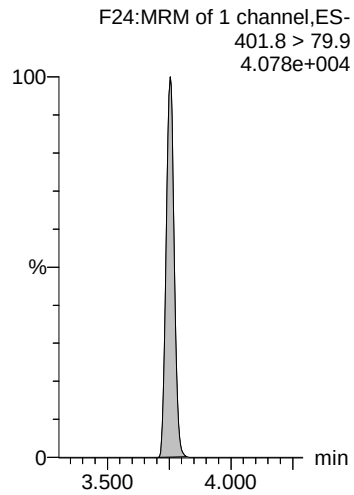
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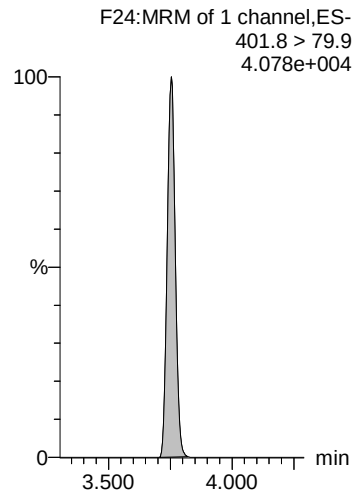
13C4-PFHpA



13C3-PFHxS



13C3-PFHxS



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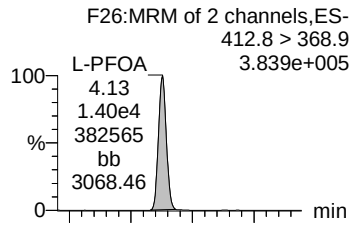
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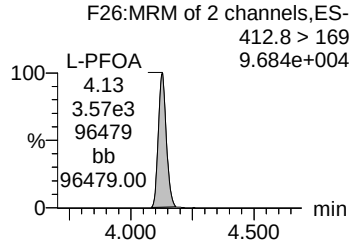
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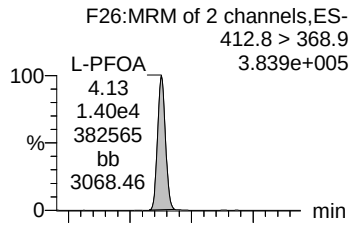
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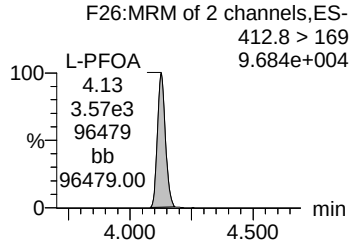
L-PFOA



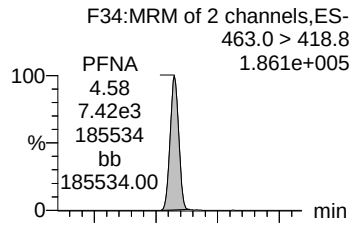


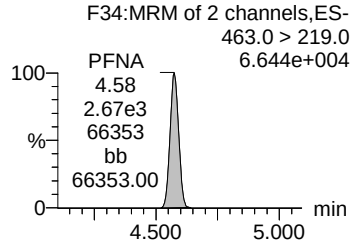
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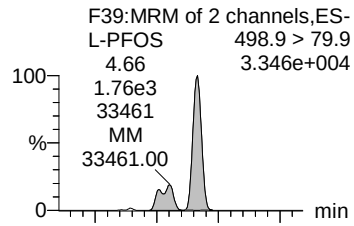


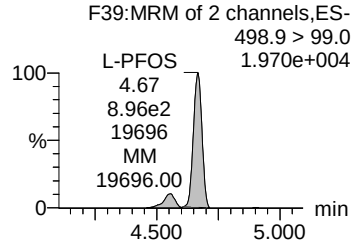
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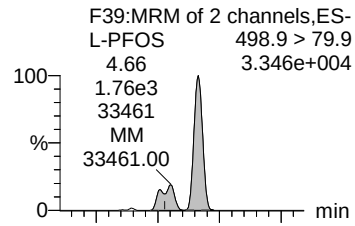


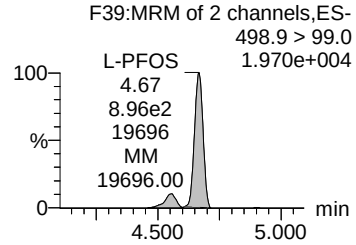
L-PFOS



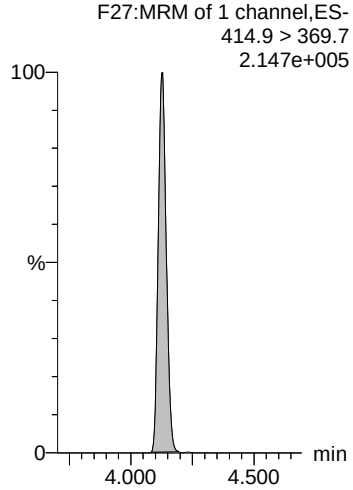


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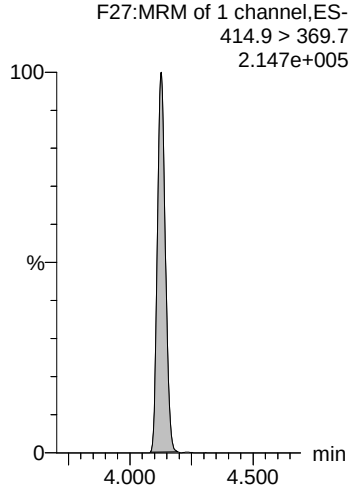




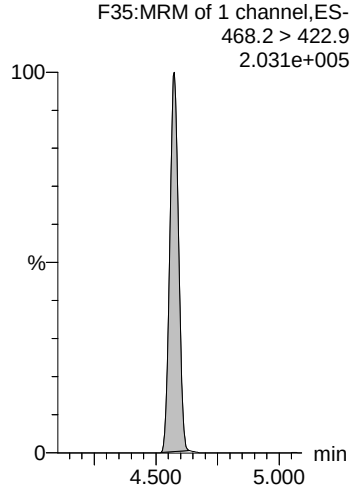
13C2-PFOA



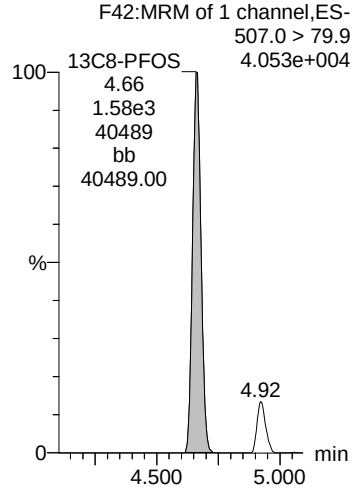
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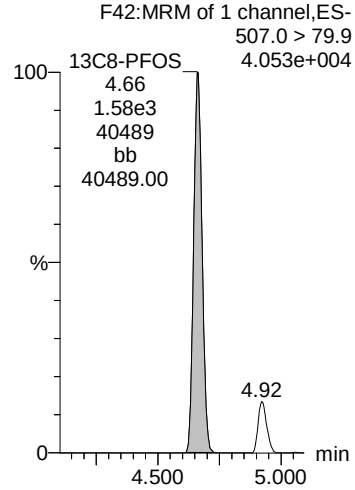
13C5-PFNA



13C8-PFOS



13C8-PFOS



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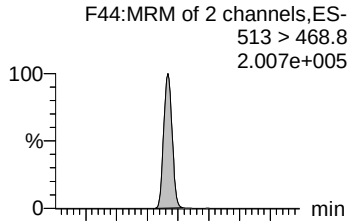
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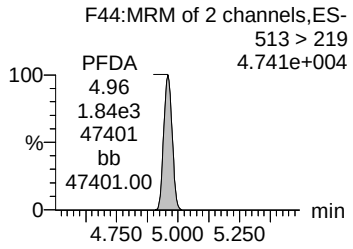
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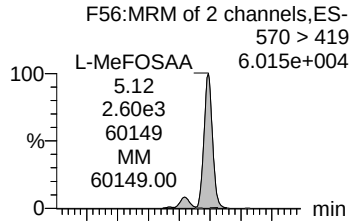
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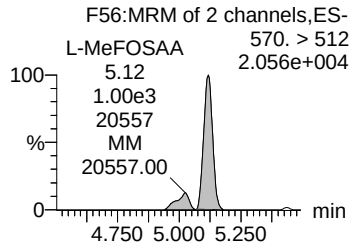
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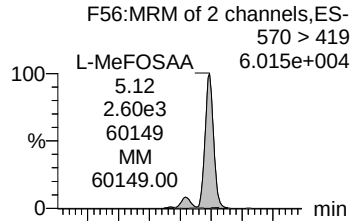


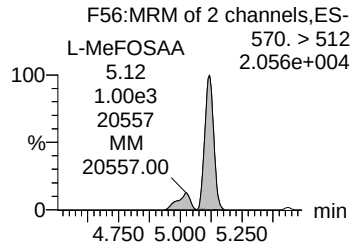
L-MeFOSAA



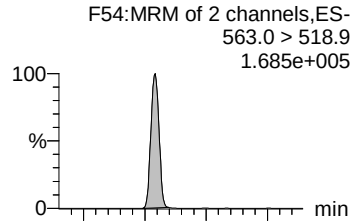


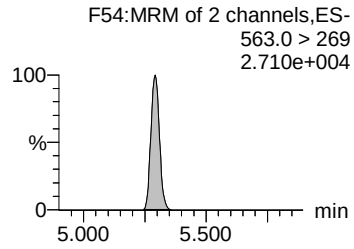
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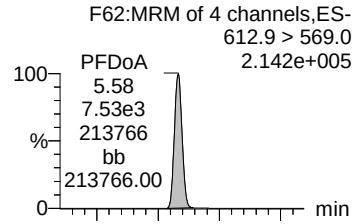


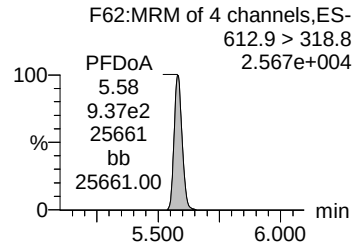
PFUdA



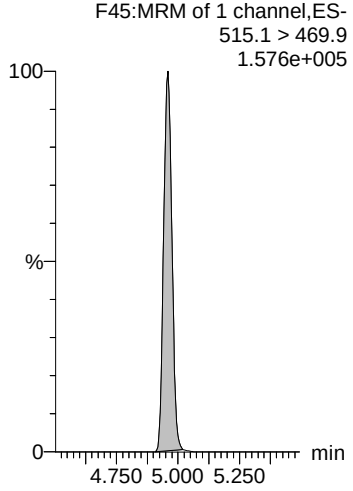


PFDoA

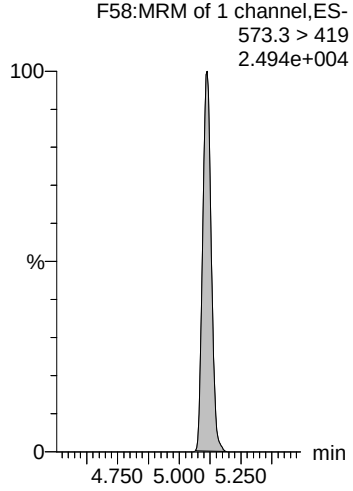




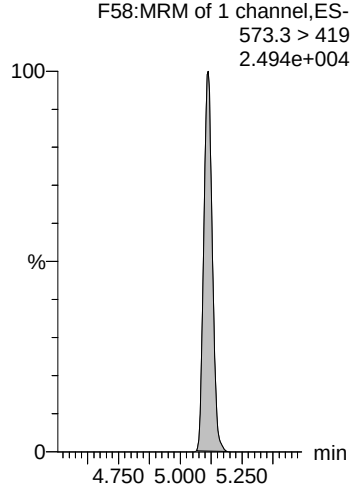
13C2-PFDA



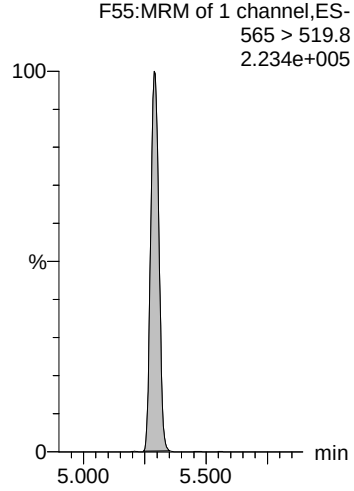
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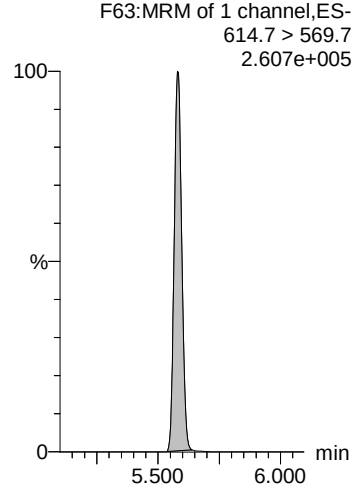
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13C2-PFUdA



13C2-PFDoA



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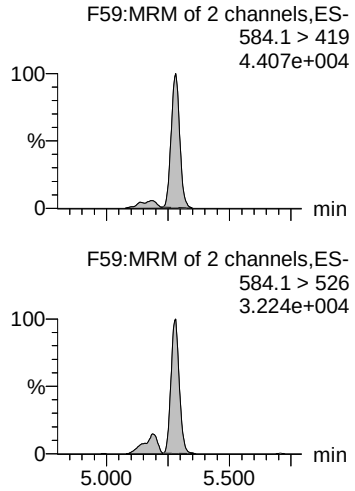
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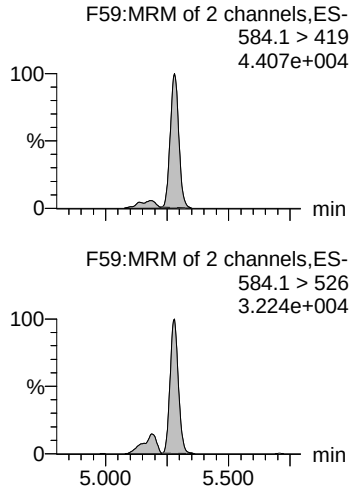
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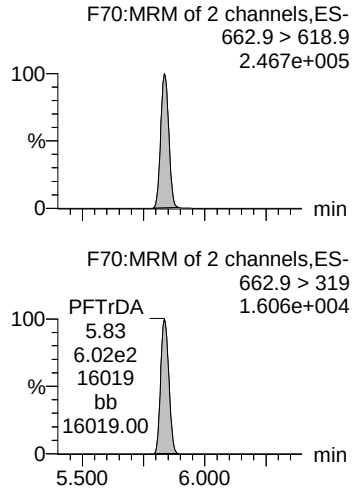
L-EtFOSAA



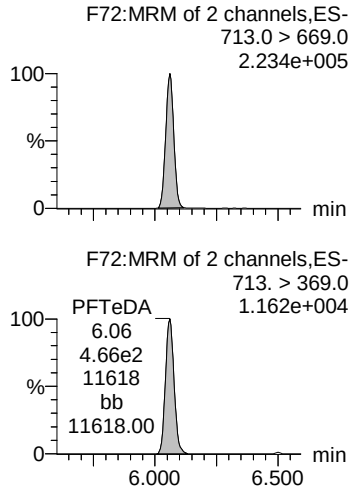
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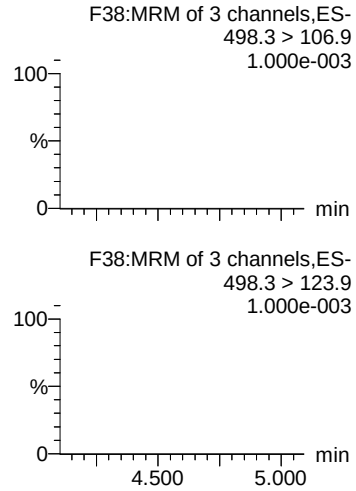
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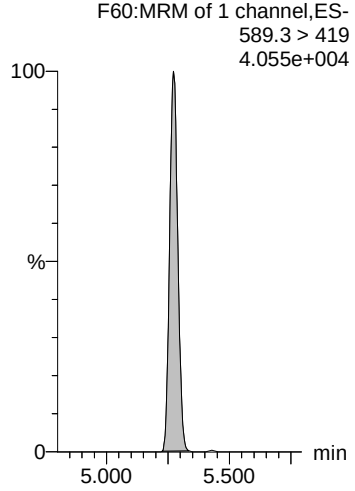
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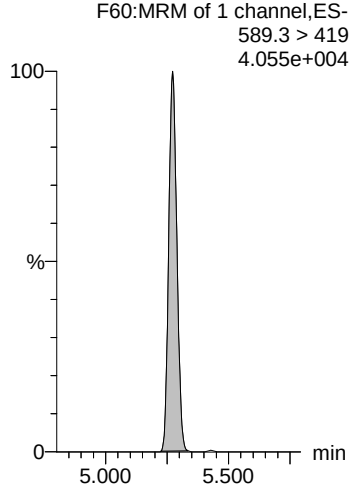
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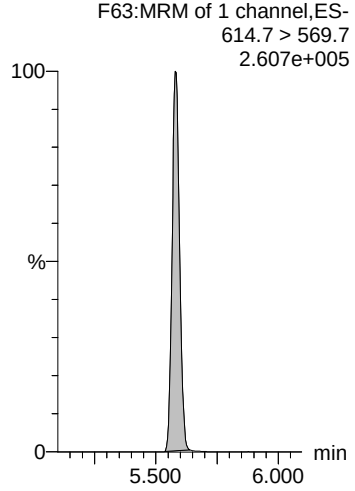
d5-N-EtFOSAA



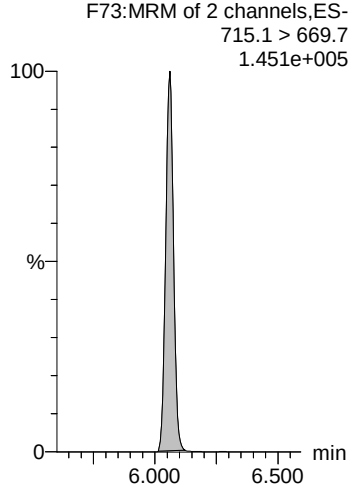
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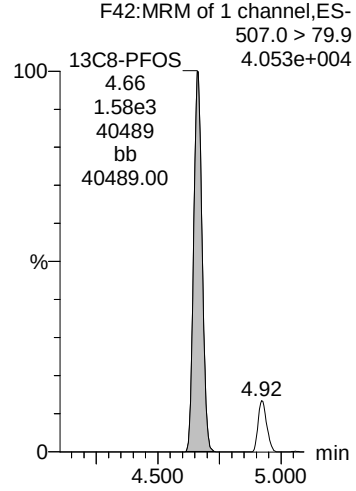
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS



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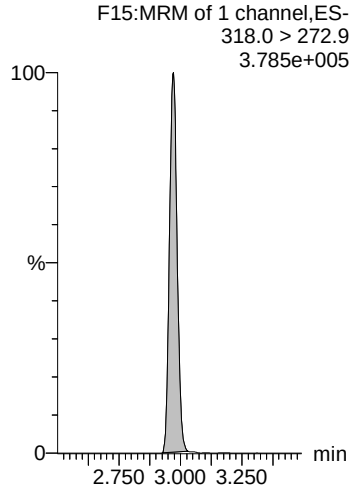
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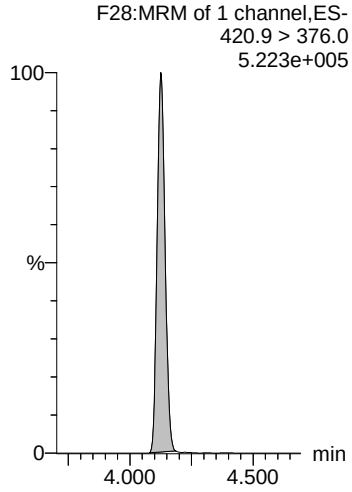
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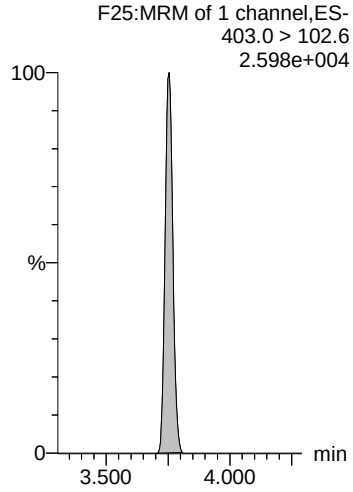
13C5-PFHxA



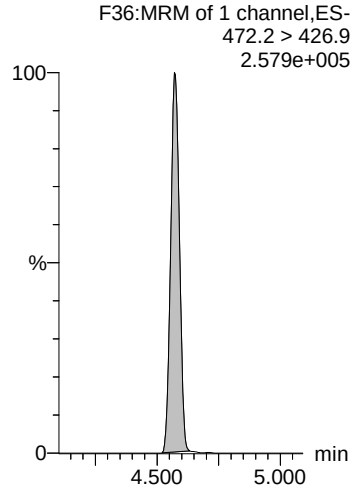
13C8-PFOA



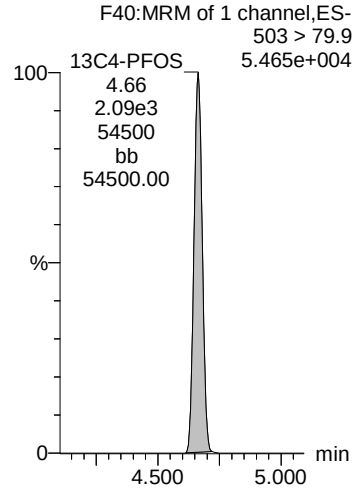
18O2-PFHxS



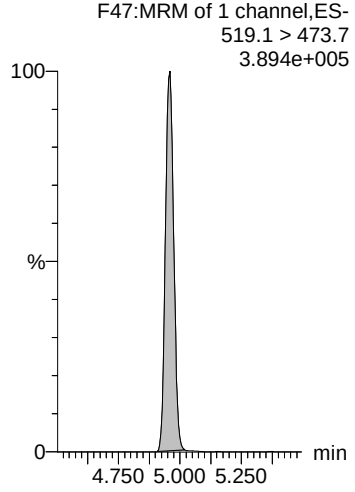
13C9-PFNA



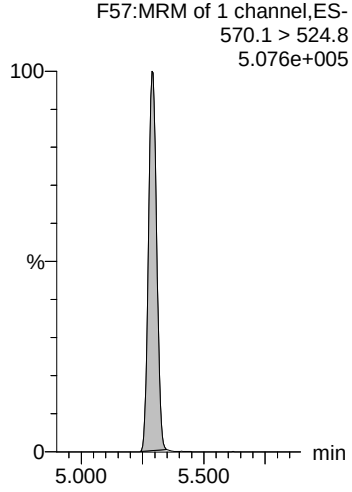
13C4-PFOS



13C6-PFDA



13C7-PFUdA



 NY 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-55.qld

Last Altered: Monday, July 22, 2019 10:13:55 Pacific Daylight Time
Printed: Monday, July 22, 2019 10:14:24 Pacific Daylight Time

Name: 190719M1_55, Date: 19-Jul-2019, Time: 18:02:36, ID: 1902014-06 CAOA-B04-SO-0-0.5 1.03, Description: CAOA-B04-SO-0-0.5

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7		6.14e2	1.01		2.46						
2	7	PFHxA	313.0 > 269.0	6.18e2	3.51e3	1.01		2.97	2.97	0.879	0.7297		22.581	YES
3	11	PFHpA	363.0 > 318.9	4.62e1	3.96e3	1.01		3.60	3.60	0.146	0.1716		25.229	YES
4	13	L-PFHxS	398.9 > 79.6	1.09e1	1.58e3	1.01		3.75	3.75	0.0860	0.1510		20.685	YES
5	80	Total PFHxS	398.9 > 79.6	1.09e1	1.58e3	1.01		3.83		0.0860	0.1510			
6	49	13C3-PFBS	302.0 > 98.8	6.14e2	7.99e2	1.01	1.034	2.47	2.46	9.61	9.1917	74.3		
7	52	13C2-PFHxA	315.0 > 270.0	3.51e3	1.28e4	1.01	0.791	2.98	2.97	3.43	4.2899	86.7		
8	53	13C4-PFHpA	367.2 > 321.8	3.96e3	1.28e4	1.01	0.365	3.60	3.60	3.87	10.4820	84.7		
9	54	13C3-PFHxS	401.8 > 79.9	1.58e3	7.99e2	1.01	2.210	3.76	3.75	24.8	11.0936	89.7		
10	54	13C3-PFHxS	401.8 > 79.9	1.58e3	7.99e2	1.01	2.210	3.76	3.75	24.8	11.0936	89.7		
11	-1													
12	16	L-PFOA	412.8 > 368.9	8.16e2	7.75e3	1.01		4.13	4.13	1.32	0.6331		4.673	NO
13	81	Total PFOA	412.8 > 368.9	8.16e2	7.75e3	1.01		4.21		1.32	0.6331			
14	21	PFNA	463.0 > 418.8	7.42e2	7.32e3	1.01		4.58	4.58	1.27	1.2192		4.366	YES
15	23	L-PFOS	498.9 > 79.9	4.78e2	1.44e3	1.01		4.66	4.66	4.14	3.2978		2.144	NO
16	82	Total PFOS	498.9 > 79.9	4.78e2	1.44e3	1.01		4.74		4.14	3.2978			
17	58	13C2-PFOA	414.9 > 369.7	7.75e3	1.77e4	1.01	0.509	4.14	4.13	5.48	10.6564	86.1		
18	58	13C2-PFOA	414.9 > 369.7	7.75e3	1.77e4	1.01	0.509	4.14	4.13	5.48	10.6564	86.1		
19	56	13C5-PFNA	468.2 > 422.9	7.32e3	1.00e4	1.01	0.998	4.58	4.58	9.14	9.0664	73.3		
20	59	13C8-PFOS	507.0 > 79.9	1.44e3	1.83e3	1.01	1.015	4.67	4.66	9.87	9.6200	77.8		
21	59	13C8-PFOS	507.0 > 79.9	1.44e3	1.83e3	1.01	1.015	4.67	4.66	9.87	9.6200	77.8		
22	-1													
23	26	PFDA	513 > 468.8	7.46e3	5.86e3	1.01		4.96	4.96	15.9	10.5282		4.734	NO
24	29	L-MeFOSAA	570 > 419		1.08e3	1.01		5.12						
25	83	Total N-MeFOSAA	570. > 419	0.00e0	1.08e3	1.01		5.19		0.000				
26	33	PFUdA	563.0 > 518.9	1.19e4	9.71e3	1.01		5.29	5.29	15.3	16.9978		5.369	NO
27	37	PFDoA	612.9 > 569.0	4.43e3	1.12e4	1.01		5.58	5.58	4.96	5.0737		7.870	NO
28	60	13C2-PFDA	515.1 > 469.9	5.86e3	1.40e4	1.01	0.669	4.97	4.96	5.23	7.7318	62.5		
29	62	d3-N-MeFOSAA	573.3 > 419	1.08e3	1.81e4	1.01	0.124	5.12	5.12	0.750	5.9774	48.3		
30	62	d3-N-MeFOSAA	573.3 > 419	1.08e3	1.81e4	1.01	0.124	5.12	5.12	0.750	5.9774	48.3		
31	63	13C2-PFUdA	565 > 519.8	9.71e3	1.81e4	1.01	0.812	5.30	5.29	6.71	8.1877	66.2		
32	65	13C2-PFDoA	614.7 > 569.7	1.12e4	1.40e4	1.01	1.311	5.59	5.58	9.95	7.5116	60.7		
33	-1													
34	31	L-EtFOSAA	584.1 > 419	5.09e0	1.64e3	1.01		5.28	5.29	0.0387	0.0999		1.224	NO
35	84	Total N-EtFOSAA	584.1 > 419	5.09e0	1.64e3	1.01		5.33		0.0387	0.0999			
36	39	PFTrDA	662.9 > 618.9	5.87e2	1.12e4	1.01		5.84	5.83	0.657	0.5584		30.201	YES

Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-55.qld

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Name: 190719M1_55, Date: 19-Jul-2019, Time: 18:02:36, ID: 1902014-06 CAOA-B04-SO-0-0.5 1.03, Description: CAOA-B04-SO-0-0.5

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0	1.86e2	5.92e3	1.01		6.06	6.06	0.393	0.1755		49.725	YES
38	85	TDCA	498.3>106.9			1.01		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	1.64e3	1.81e4	1.01	0.174	5.28	5.28	1.14	6.4546	52.2		
40	64	d5-N-EtFOSAA	589.3 > 419	1.64e3	1.81e4	1.01	0.174	5.28	5.28	1.14	6.4546	52.2		
41	65	13C2-PFDoA	614.7 > 569.7	1.12e4	1.40e4	1.01	1.311	5.59	5.58	9.95	7.5116	60.7		
42	67	13C2-PFTeDA	715.1 > 669.7	5.92e3	1.81e4	1.01	0.437	6.06	6.06	4.09	9.2684	74.9		
43	59	13C8-PFOS	507.0 > 79.9	1.44e3	1.83e3	1.01	1.015	4.67	4.66	9.87	9.6200	77.8		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	1.28e4	1.28e4	1.01	1.000	2.98	2.97	12.5	12.3713	100.0		
46	75	13C8-PFOA	420.9 > 376.0	1.77e4	1.77e4	1.01	1.000	4.14	4.13	12.5	12.3713	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	7.99e2	7.99e2	1.01	1.000	3.76	3.75	12.5	12.3713	100.0		
48	76	13C9-PFNA	472.2 > 426.9	1.00e4	1.00e4	1.01	1.000	4.58	4.58	12.5	12.3713	100.0		
49	77	13C4-PFOS	503 > 79.9	1.83e3	1.83e3	1.01	1.000	4.67	4.66	12.5	12.3713	100.0		
50	78	13C6-PFDA	519.1 > 473.7	1.40e4	1.40e4	1.01	1.000	4.97	4.96	12.5	12.3713	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	1.81e4	1.81e4	1.01	1.000	5.30	5.29	12.5	12.3713	100.0		

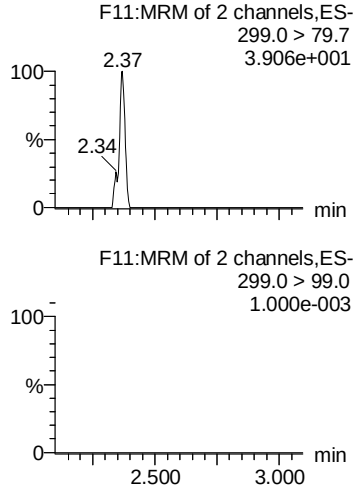
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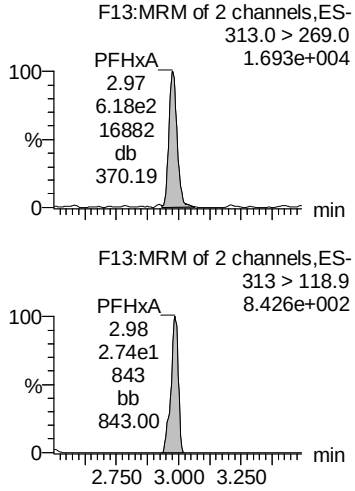
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Name: 190719M1_55, Date: 19-Jul-2019, Time: 18:02:36, ID: 1902014-06 CAOA-B04-SO-0-0.5 1.03, Description: CAOA-B04-SO-0-0.5

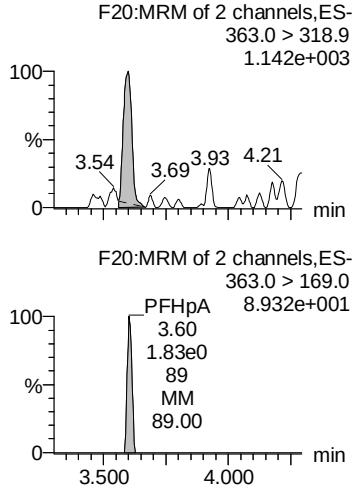
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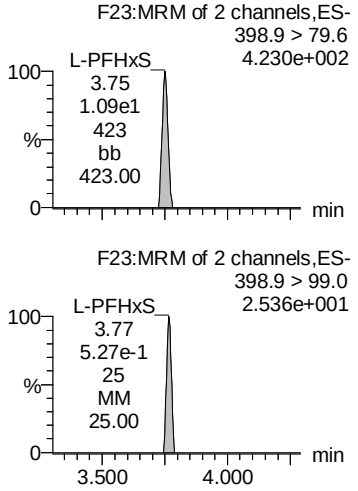
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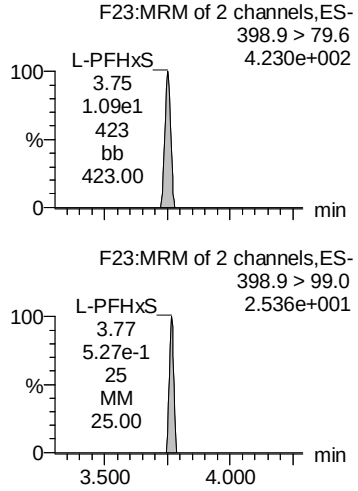
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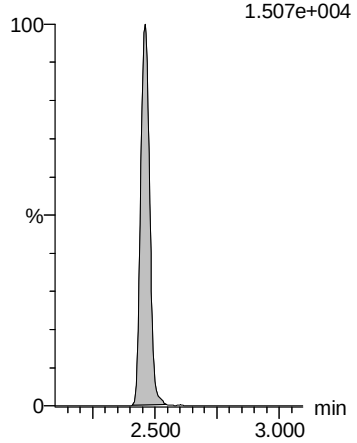
L-PFHxS



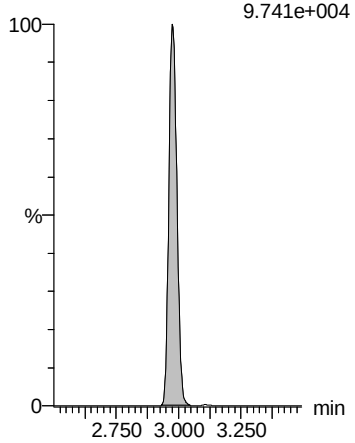
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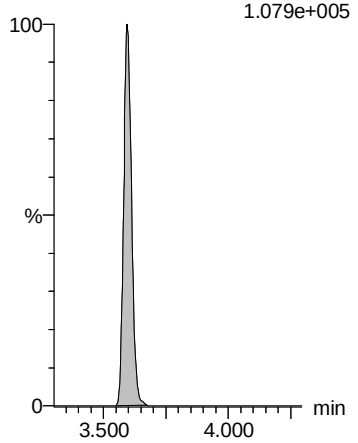
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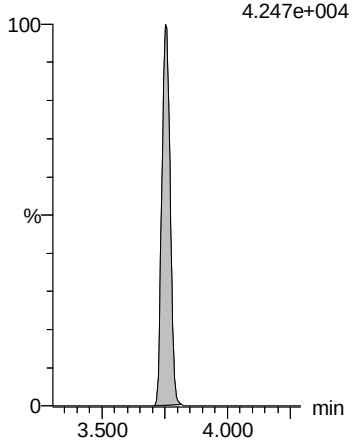
13C2-PFHxA



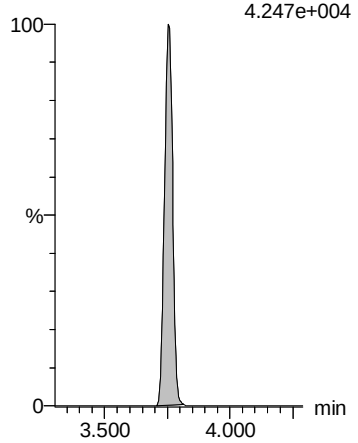
13C4-PFHpA



13C3-PFHxS



13C3-PFHxS

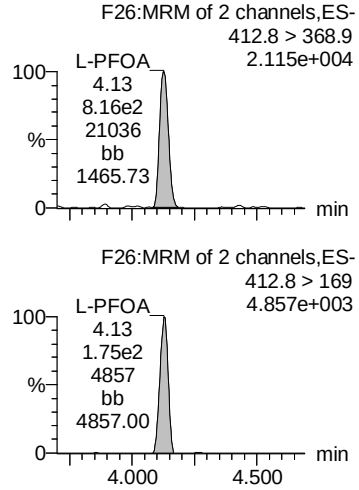


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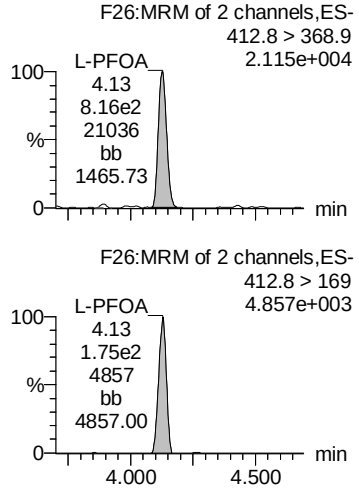
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Name: 190719M1_55, Date: 19-Jul-2019, Time: 18:02:36, ID: 1902014-06 CAOA-B04-SO-0-0.5 1.03, Description: CAOA-B04-SO-0-0.5

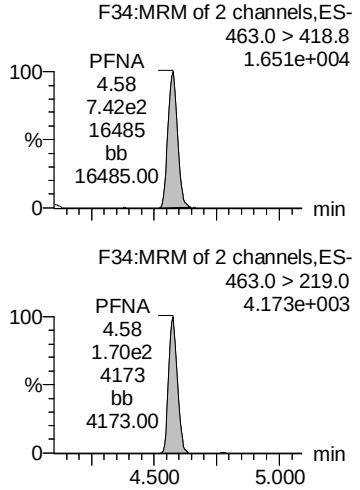
L-PFOA



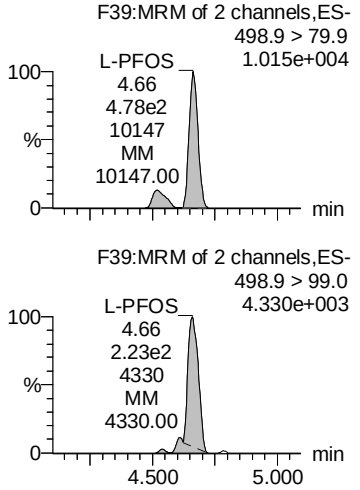
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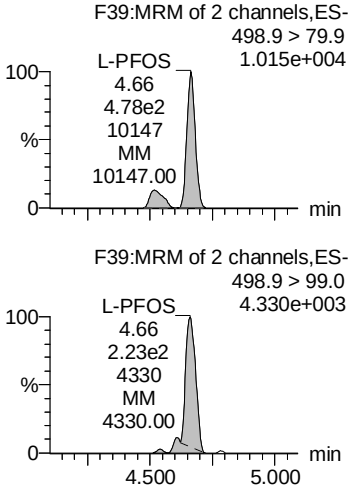
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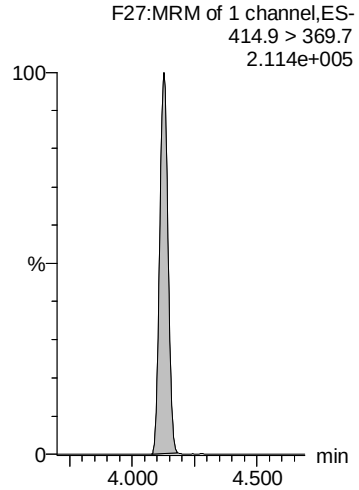
L-PFOS



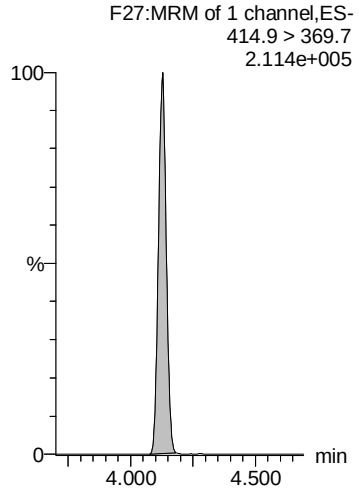
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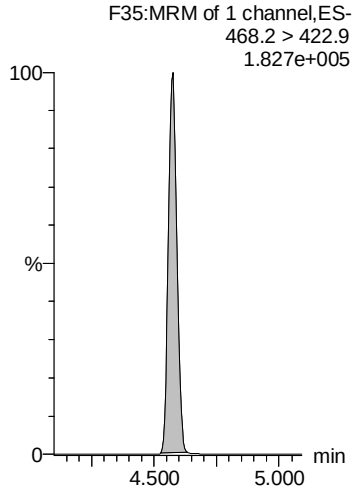
13C2-PFOA



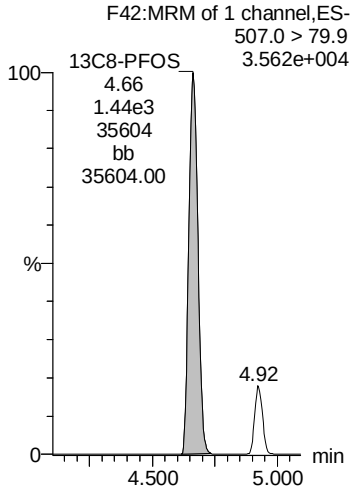
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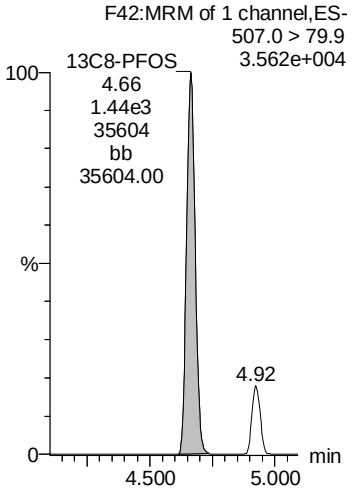
13C5-PFNA



13C8-PFOS



13C8-PFOS

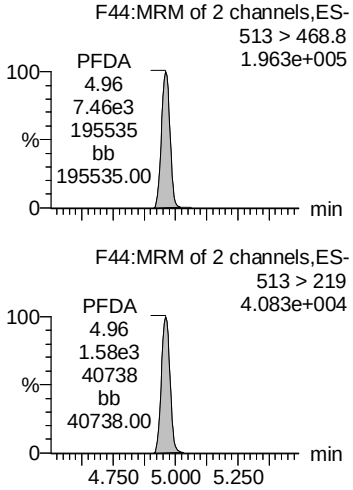


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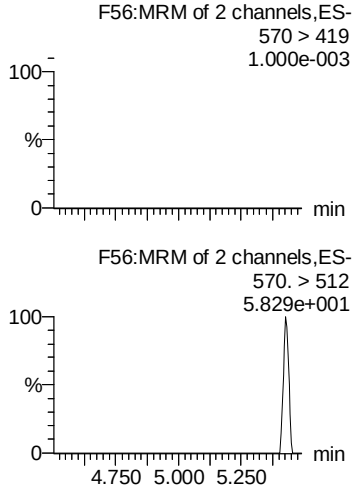
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Name: 190719M1_55, Date: 19-Jul-2019, Time: 18:02:36, ID: 1902014-06 CAOA-B04-SO-0-0.5 1.03, Description: CAOA-B04-SO-0-0.5

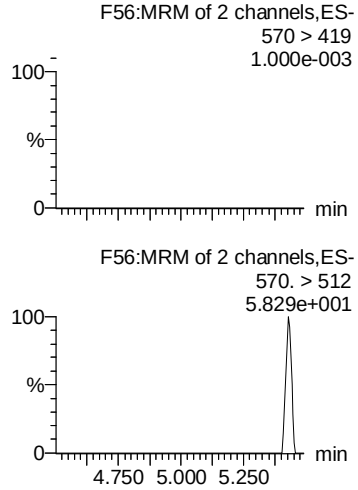
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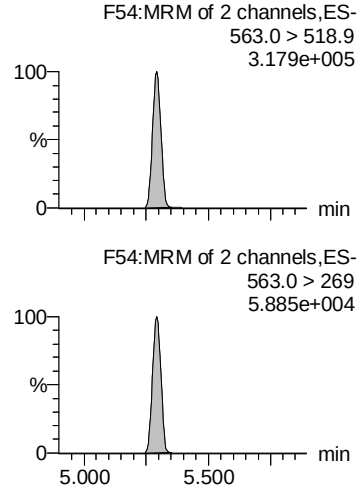
L-MeFOSAA



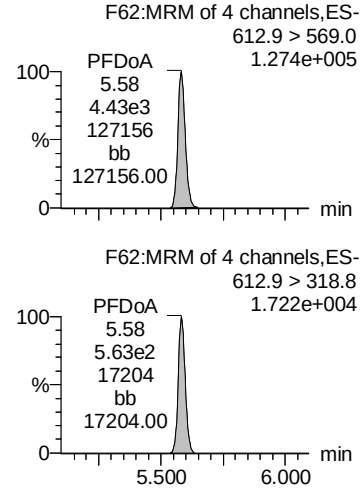
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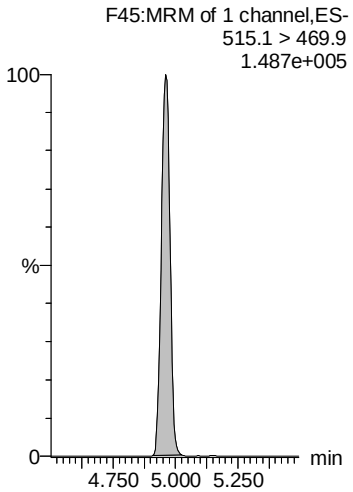
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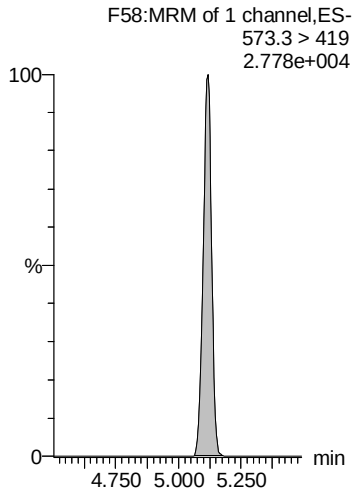
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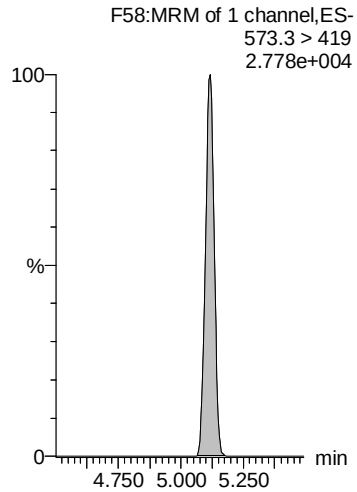
13C2-PFDA



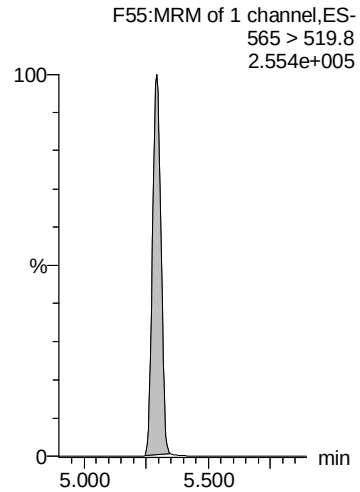
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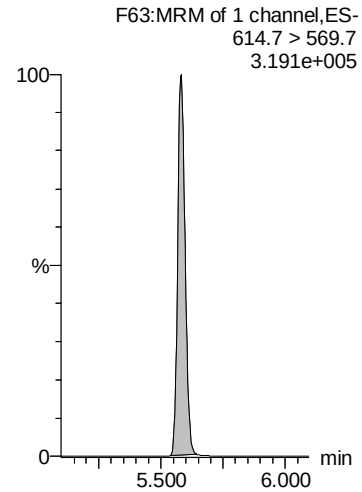
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13C2-PFUdA



13C2-PFDoA

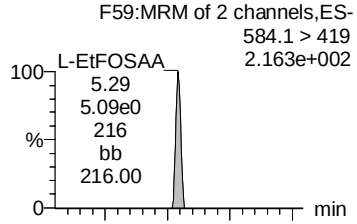


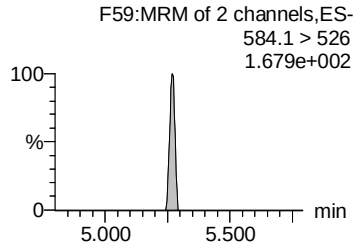
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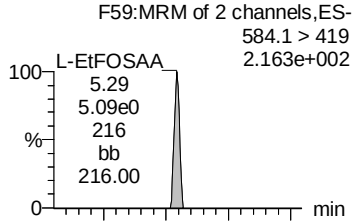
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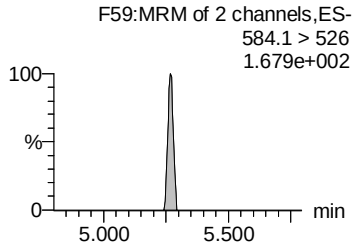
L-EtFOSAA



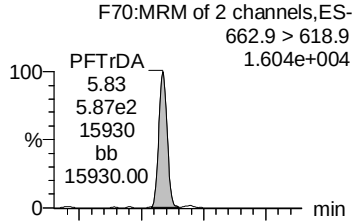


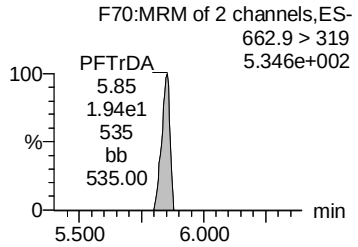
Total N-EtFOSAA



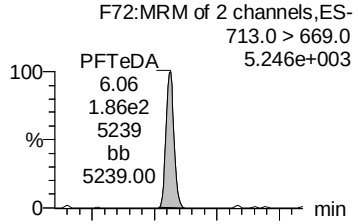


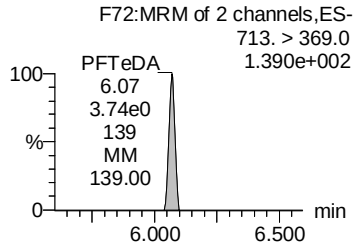
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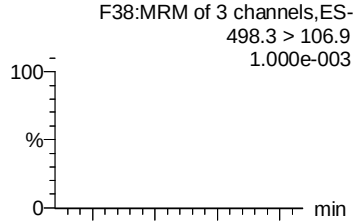


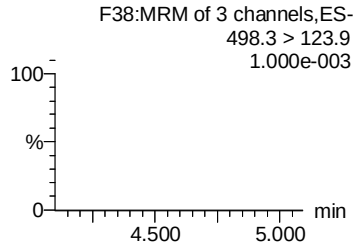
PFTeDA



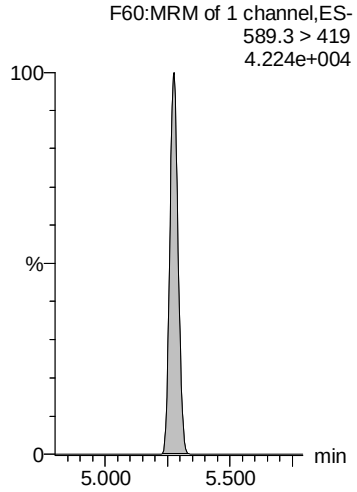


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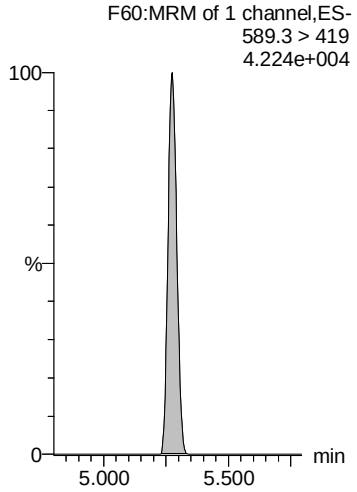




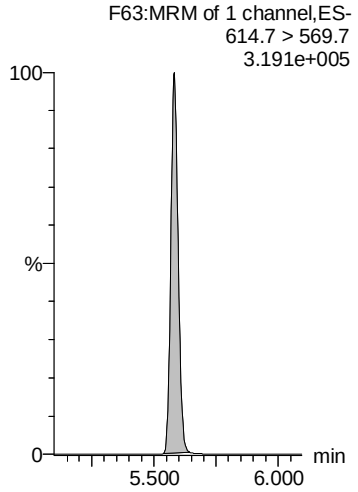
d5-N-EtFOSAA



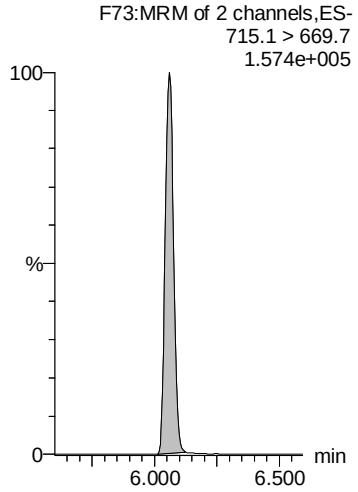
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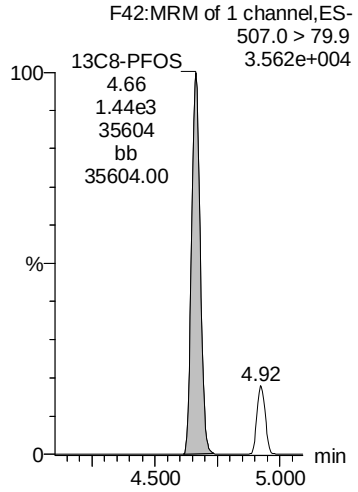
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS

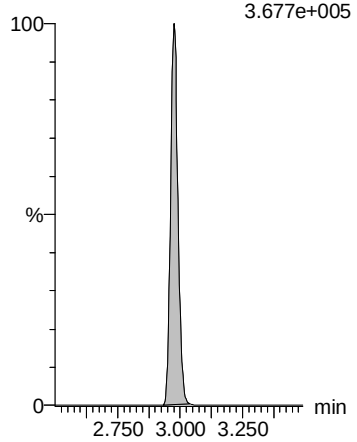


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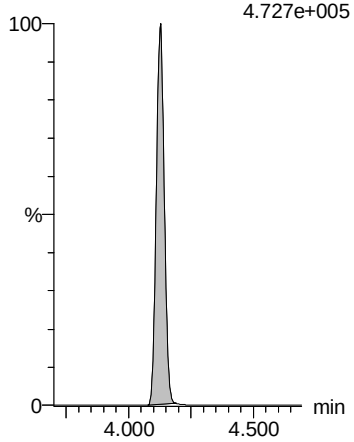
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Name: 190719M1_55, Date: 19-Jul-2019, Time: 18:02:36, ID: 1902014-06 CAOA-B04-SO-0-0.5 1.03, Description: CAOA-B04-SO-0-0.5

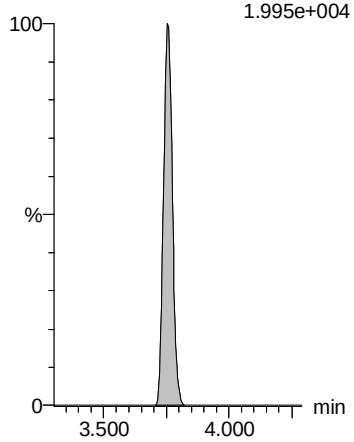
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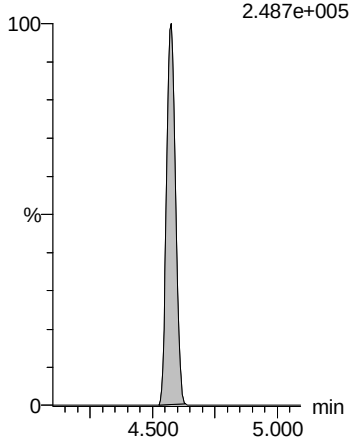
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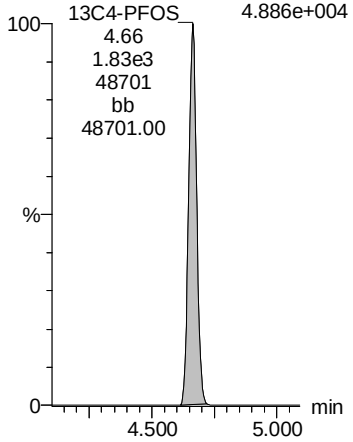
18O2-PFHxS



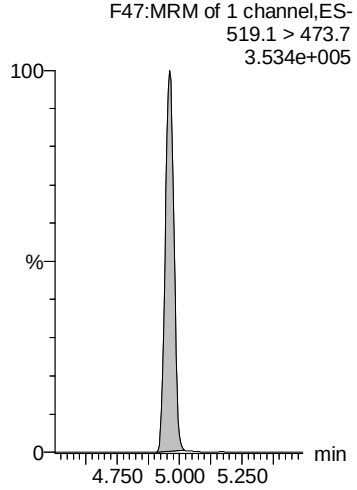
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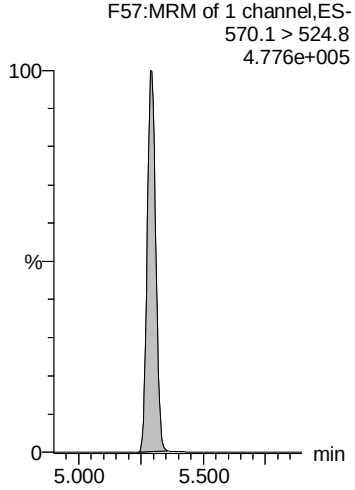
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-59.qld

Last Altered: Monday, July 22, 2019 10:16:21 Pacific Daylight Time
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Name: 190719M1_59, Date: 19-Jul-2019, Time: 18:45:05, ID: 1902014-07 CAOA-B01-SO-20-20.5 1.2, Description: CAOA-B01-SO-20-20.5

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7		4.96e2	1.00		2.46						
2	7	PFHxA	313.0 > 269.0	3.78e2	3.42e3	1.00		2.98	2.98	0.553	0.4535		31.085	YES
3	11	PFHpA	363.0 > 318.9	7.03e1	3.99e3	1.00		3.60	3.60	0.220	0.2314		3.172	NO
4	13	L-PFHxS	398.9 > 79.6	4.43e1	1.43e3	1.00		3.76	3.77	0.387	0.4526		13.602	YES
5	80	Total PFHxS	398.9 > 79.6	4.43e1	1.43e3	1.00		3.83		0.387	0.4526			
6	49	13C3-PFBS	302.0 > 98.8	4.96e2	9.81e2	1.00	1.034	2.47	2.46	6.32	6.0941	48.9		
7	52	13C2-PFHxA	315.0 > 270.0	3.42e3	1.37e4	1.00	0.791	2.98	2.98	3.11	3.9173	78.6		
8	53	13C4-PFHpA	367.2 > 321.8	3.99e3	1.37e4	1.00	0.365	3.60	3.60	3.63	9.9228	79.6		
9	54	13C3-PFHxS	401.8 > 79.9	1.43e3	9.81e2	1.00	2.210	3.76	3.76	18.2	8.2242	66.0		
10	54	13C3-PFHxS	401.8 > 79.9	1.43e3	9.81e2	1.00	2.210	3.76	3.76	18.2	8.2242	66.0		
11	-1													
12	16	L-PFOA	412.8 > 368.9	2.74e2	8.26e3	1.00		4.13	4.13	0.415	0.1868		6.504	YES
13	81	Total PFOA	412.8 > 368.9	2.74e2	8.26e3	1.00		4.21		0.415	0.1868			
14	21	PFNA	463.0 > 418.8		7.99e3	1.00		4.58						
15	23	L-PFOS	498.9 > 79.9	1.12e2	1.42e3	1.00		4.67	4.67	0.984	0.8781		2.672	NO
16	82	Total PFOS	498.9 > 79.9	1.12e2	1.42e3	1.00		4.74		0.984	0.8781			
17	58	13C2-PFOA	414.9 > 369.7	8.26e3	1.93e4	1.00	0.509	4.14	4.13	5.36	10.4904	84.2		
18	58	13C2-PFOA	414.9 > 369.7	8.26e3	1.93e4	1.00	0.509	4.14	4.13	5.36	10.4904	84.2		
19	56	13C5-PFNA	468.2 > 422.9	7.99e3	1.04e4	1.00	0.998	4.58	4.58	9.60	9.5962	77.0		
20	59	13C8-PFOS	507.0 > 79.9	1.42e3	1.98e3	1.00	1.015	4.67	4.67	9.00	8.8412	70.9		
21	59	13C8-PFOS	507.0 > 79.9	1.42e3	1.98e3	1.00	1.015	4.67	4.67	9.00	8.8412	70.9		
22	-1													
23	26	PFDA	513 > 468.8		6.32e3	1.00		4.96						
24	29	L-MeFOSAA	570 > 419		8.45e2	1.00		5.12						
25	83	Total N-MeFOSAA	570. > 419	0.00e0	8.45e2	1.00		5.19		0.000				
26	33	PFUdA	563.0 > 518.9		8.41e3	1.00		5.30						
27	37	PFDoA	612.9 > 569.0		8.13e3	1.00		5.59						
28	60	13C2-PFDA	515.1 > 469.9	6.32e3	1.45e4	1.00	0.669	4.97	4.96	5.45	8.1206	65.2		
29	62	d3-N-MeFOSAA	573.3 > 419	8.45e2	1.89e4	1.00	0.124	5.12	5.12	0.560	4.4999	36.1		
30	62	d3-N-MeFOSAA	573.3 > 419	8.45e2	1.89e4	1.00	0.124	5.12	5.12	0.560	4.4999	36.1		
31	63	13C2-PFUdA	565 > 519.8	8.41e3	1.89e4	1.00	0.812	5.30	5.30	5.57	6.8462	54.9		
32	65	13C2-PFDoA	614.7 > 569.7	8.13e3	1.45e4	1.00	1.311	5.59	5.59	7.01	5.3327	42.8		
33	-1													
34	31	L-EtFOSAA	584.1 > 419		1.23e3	1.00		5.28						
35	84	Total N-EtFOSAA	584.1 > 419	0.00e0	1.23e3	1.00		5.33		0.000				
36	39	PFTrDA	662.9 > 618.9		8.13e3	1.00		5.84						

Dataset: Z:\Projects\PFAS.PRO\Results\190719M1\190719M1-59.qld

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Name: 190719M1_59, Date: 19-Jul-2019, Time: 18:45:05, ID: 1902014-07 CAOA-B01-SO-20-20.5 1.2, Description: CAOA-B01-SO-20-20.5

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0		4.20e3	1.00		6.06						
38	85	TDCA	498.3>106.9			1.00		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	1.23e3	1.89e4	1.00	0.174	5.28	5.28	0.818	4.6748	37.5		
40	64	d5-N-EtFOSAA	589.3 > 419	1.23e3	1.89e4	1.00	0.174	5.28	5.28	0.818	4.6748	37.5		
41	65	13C2-PFDoA	614.7 > 569.7	8.13e3	1.45e4	1.00	1.311	5.59	5.59	7.01	5.3327	42.8		
42	67	13C2-PFTeDA	715.1 > 669.7	4.20e3	1.89e4	1.00	0.437	6.06	6.06	2.79	6.3561	51.0		
43	59	13C8-PFOS	507.0 > 79.9	1.42e3	1.98e3	1.00	1.015	4.67	4.67	9.00	8.8412	70.9		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	1.37e4	1.37e4	1.00	1.000	2.98	2.98	12.5	12.4637	100.0		
46	75	13C8-PFOA	420.9 > 376.0	1.93e4	1.93e4	1.00	1.000	4.14	4.13	12.5	12.4637	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	9.81e2	9.81e2	1.00	1.000	3.76	3.76	12.5	12.4637	100.0		
48	76	13C9-PFNA	472.2 > 426.9	1.04e4	1.04e4	1.00	1.000	4.58	4.58	12.5	12.4637	100.0		
49	77	13C4-PFOS	503 > 79.9	1.98e3	1.98e3	1.00	1.000	4.67	4.67	12.5	12.4637	100.0		
50	78	13C6-PFDA	519.1 > 473.7	1.45e4	1.45e4	1.00	1.000	4.97	4.96	12.5	12.4637	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	1.89e4	1.89e4	1.00	1.000	5.30	5.30	12.5	12.4637	100.0		

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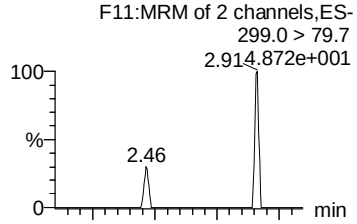
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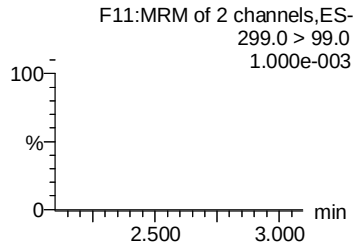
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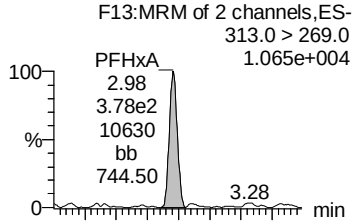
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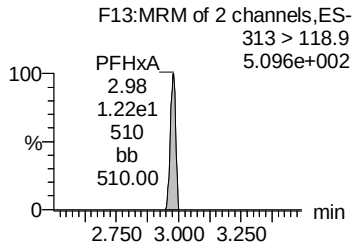
PFBS



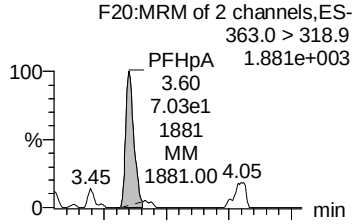


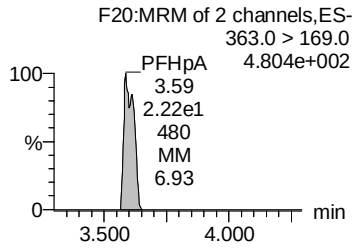
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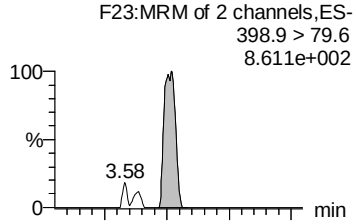


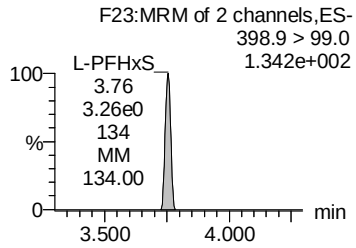
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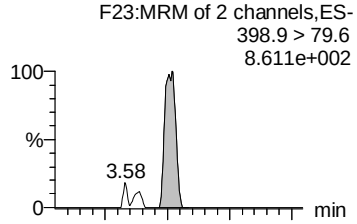


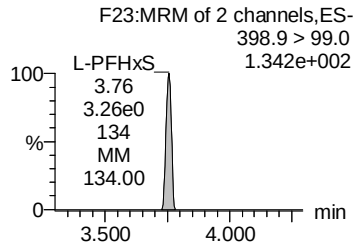
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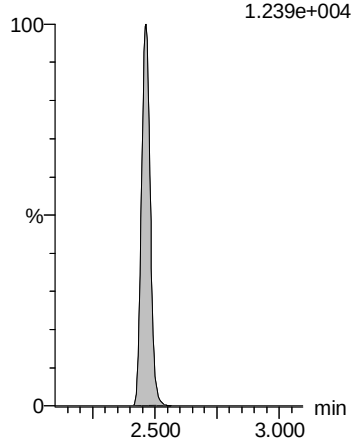


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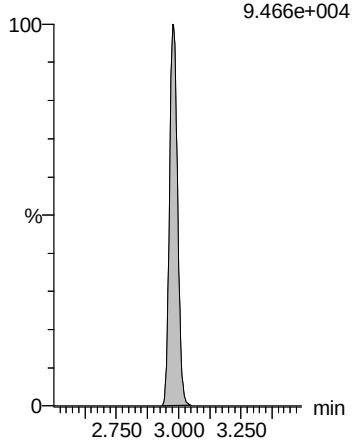




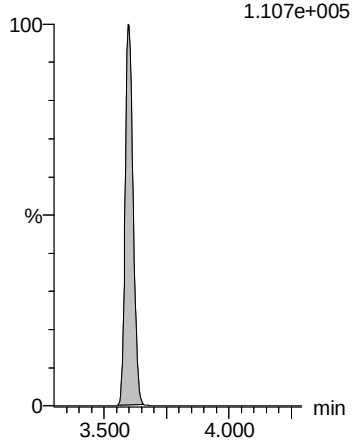
13C3-PFBS



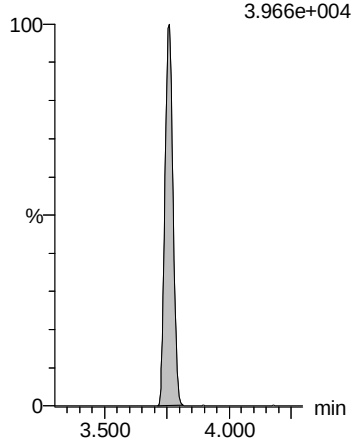
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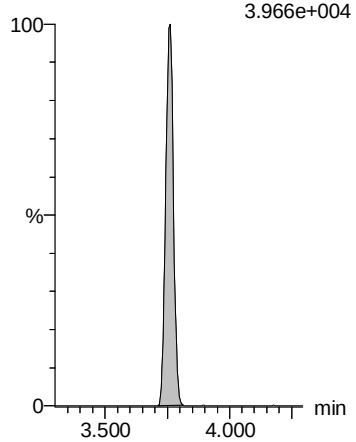
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13C3-PFHxS



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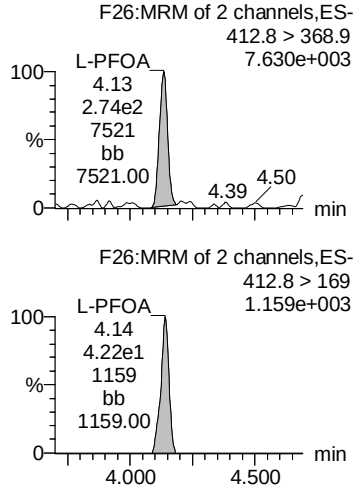


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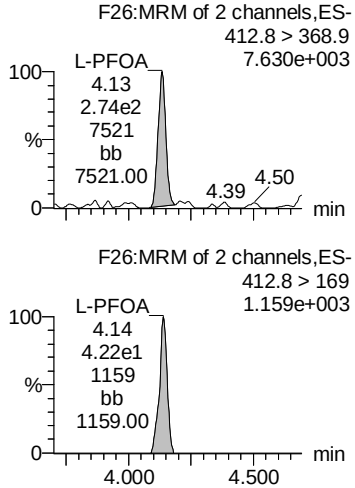
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Name: 190719M1_59, Date: 19-Jul-2019, Time: 18:45:05, ID: 1902014-07 CAOA-B01-SO-20-20.5 1.2, Description: CAOA-B01-SO-20-20.5

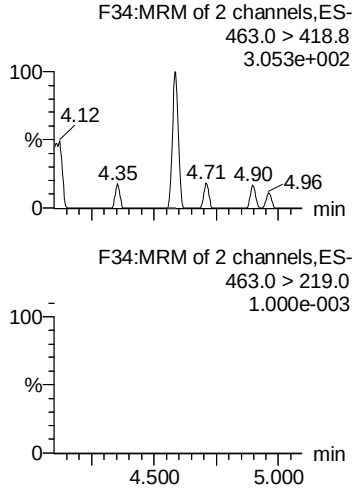
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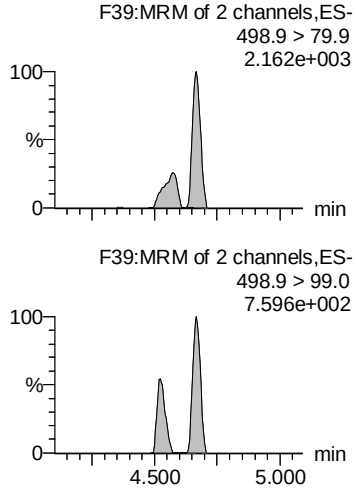
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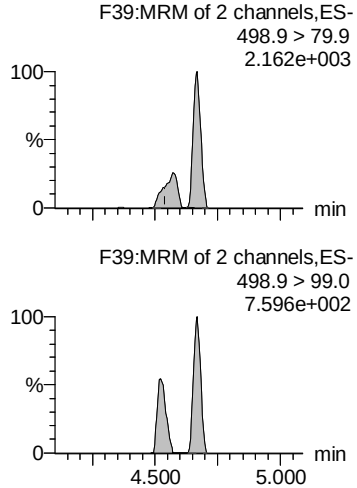
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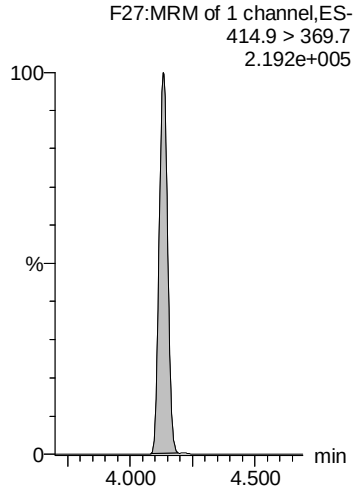
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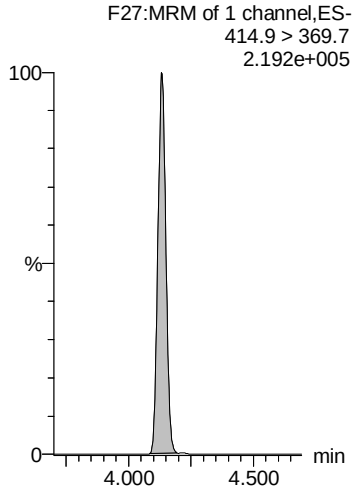
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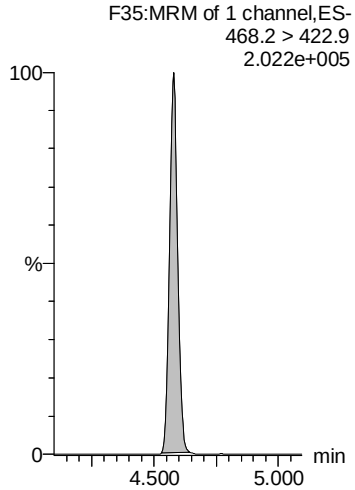
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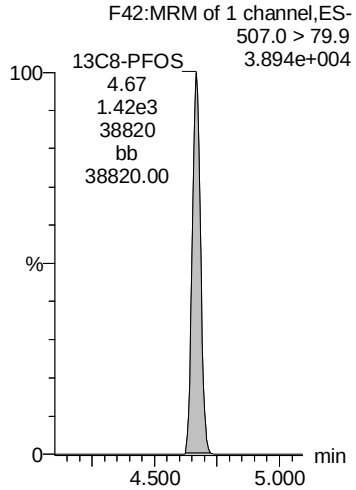
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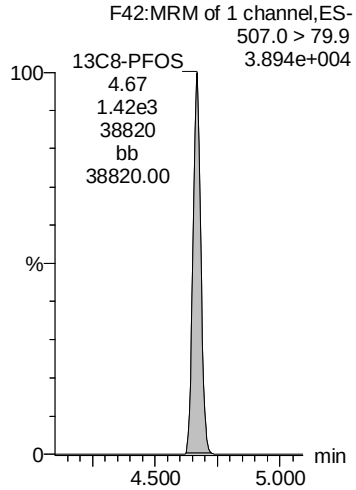
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13C8-PFOS



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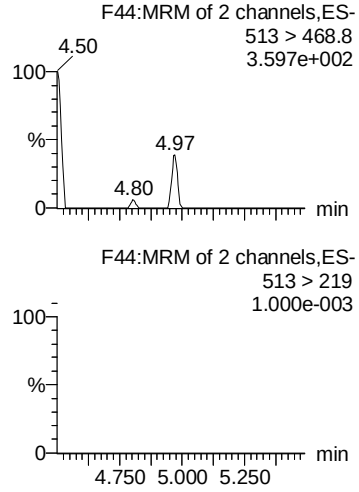


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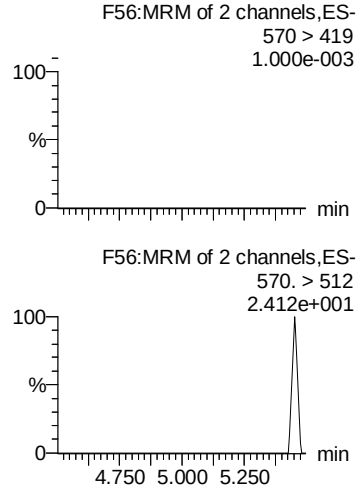
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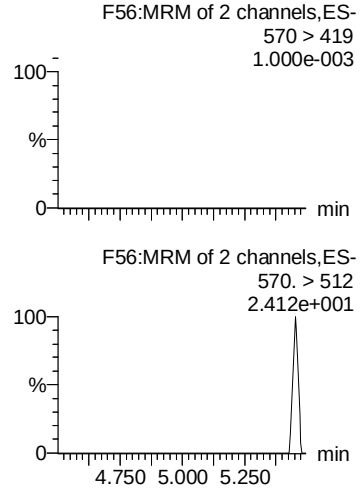
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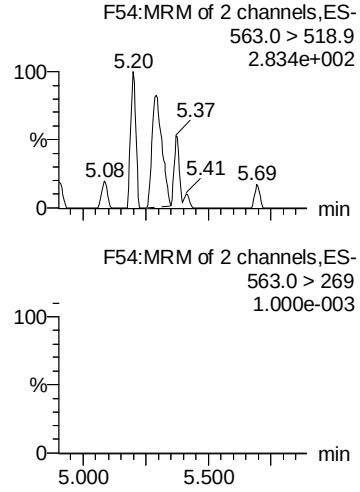
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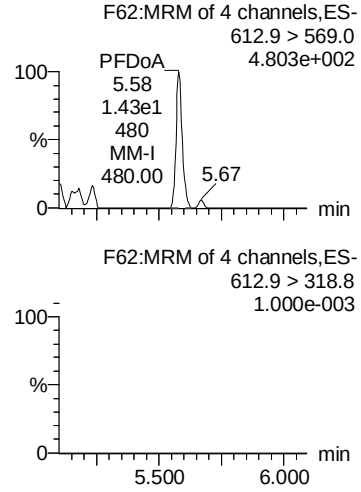
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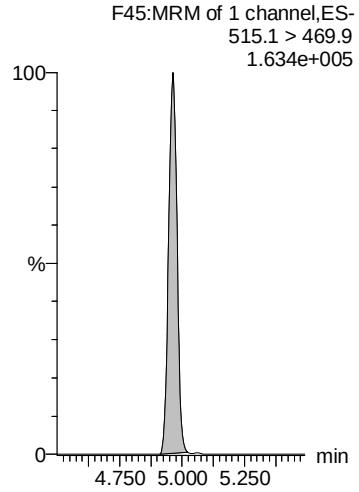
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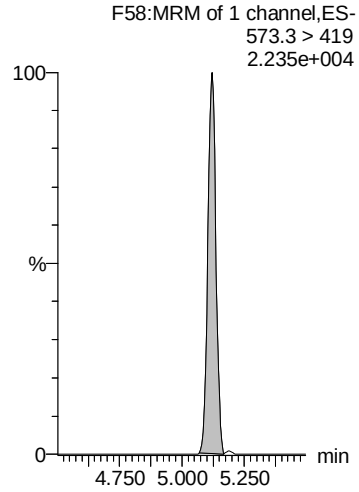
PFDoA



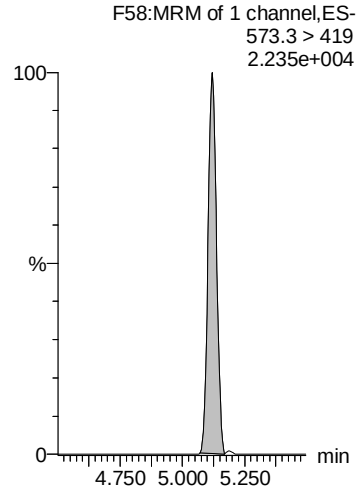
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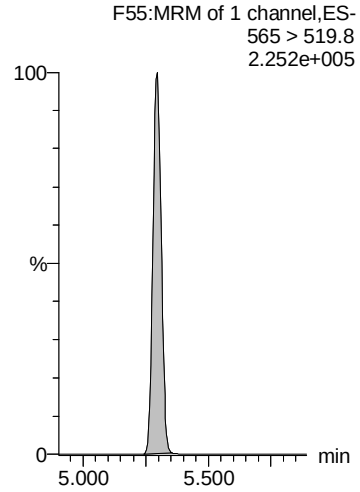
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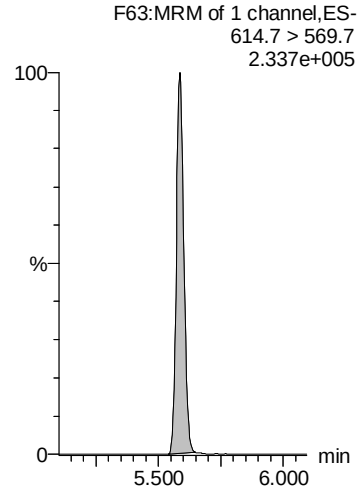
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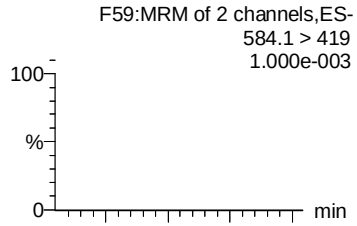


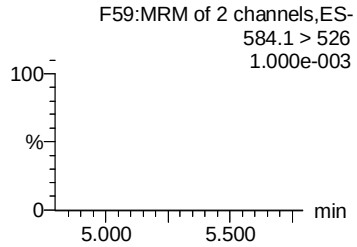
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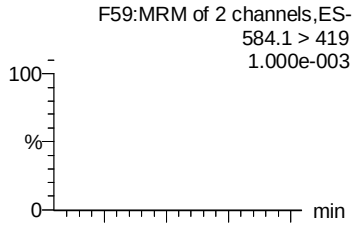
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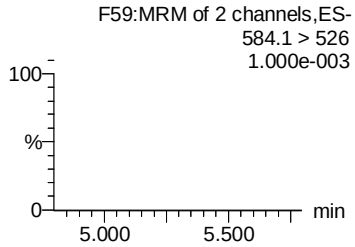
L-EtFOSAA



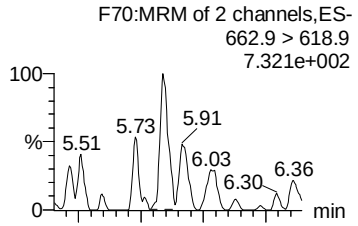


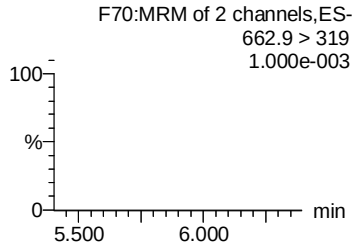
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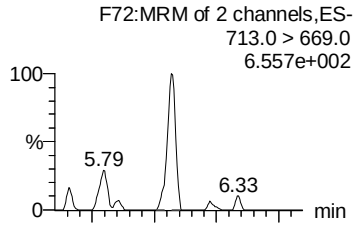


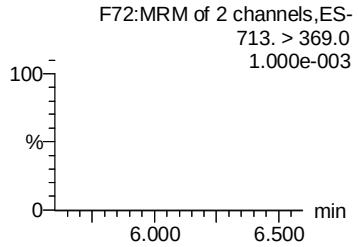
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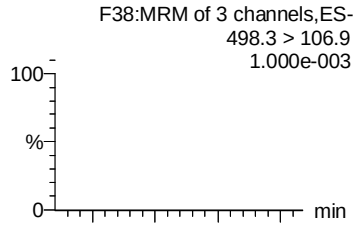


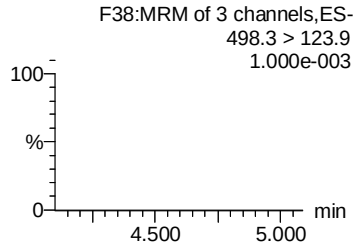
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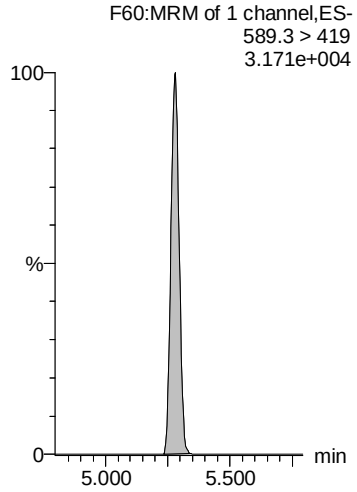


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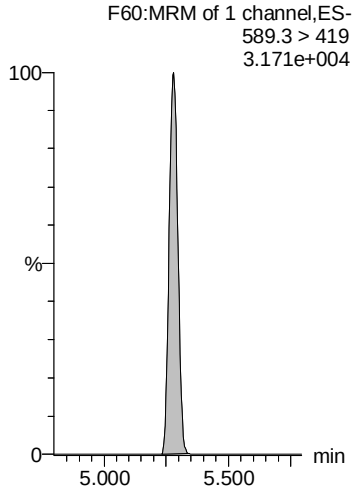




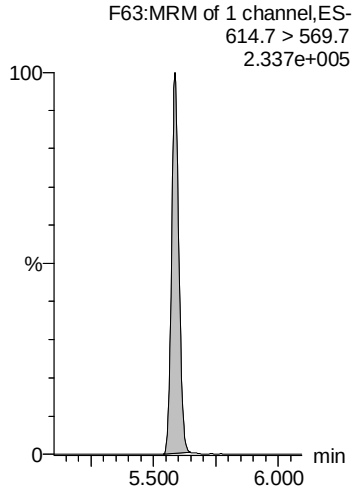
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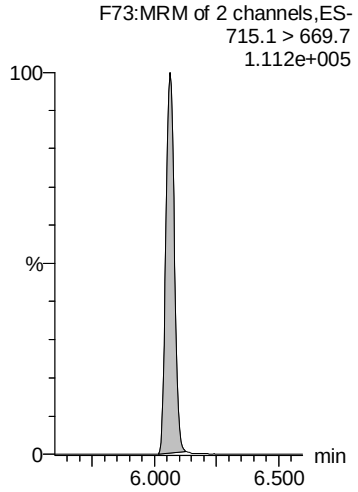
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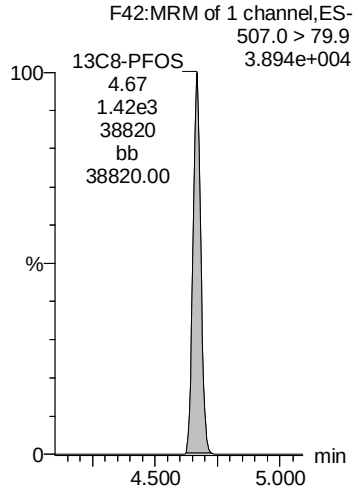
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS

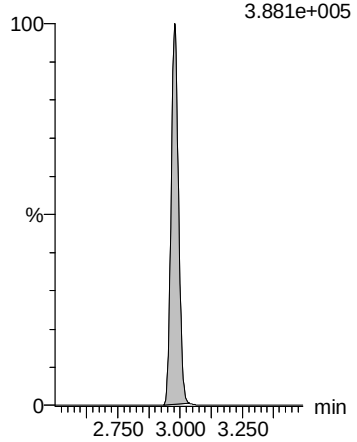


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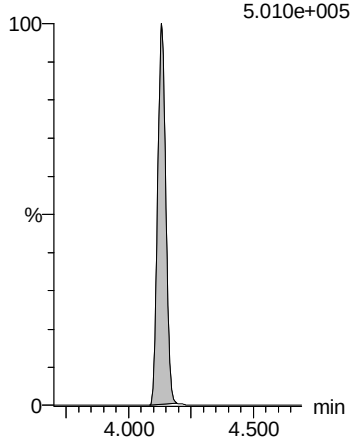
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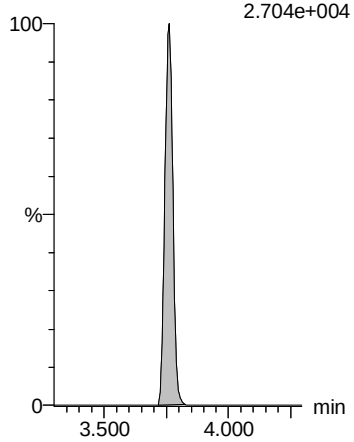
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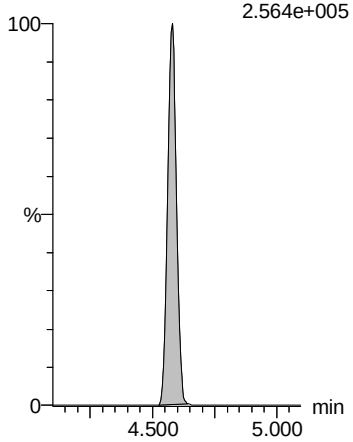
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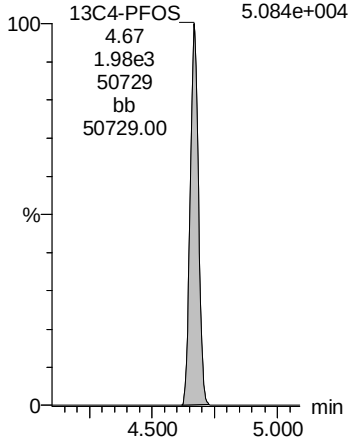
18O2-PFHxS



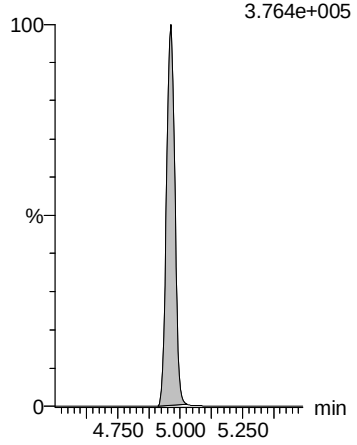
13C9-PFNA



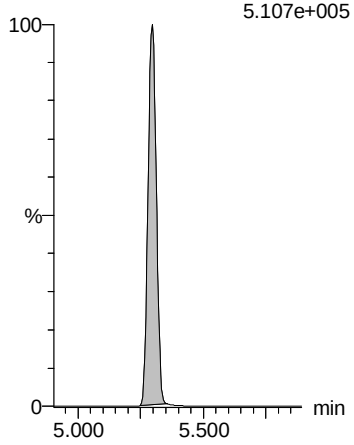
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-62.qld

Last Altered: Tuesday, July 23, 2019 10:29:00 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 10:29:11 Pacific Daylight Time

Name: 190722M1_62, Date: 22-Jul-2019, Time: 22:14:52, ID: B9G0134-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8		1.09e4	0.250		1.17						
2	4	PFPeA	263.1 > 218.9		1.39e4	0.250		2.15						
3	5	PFBS	299.0 > 79.7		2.28e3	0.250		2.46						
4	7	PFHxA	313.0 > 269.0		1.13e4	0.250		2.97						
5	11	PFHpA	363.0 > 318.9		1.34e4	0.250		3.59						
6	47	13C3-PFBA	216.1 > 171.8	1.09e4	1.51e4	0.250	0.734	1.15	1.17	9.07	49.4371	98.9		
7	48	13C3-PFPeA	266.0 > 221.8	1.39e4	2.94e4	0.250	0.498	2.15	2.15	5.93	47.5888	95.2		
8	49	13C3-PFBS	302.0 > 98.8	2.28e3	2.01e3	0.250	1.058	2.45	2.46	14.2	53.5407	107.1		
9	52	13C2-PFHxA	315.0 > 270.0	1.13e4	2.94e4	0.250	0.978	2.96	2.97	4.80	19.6386	98.2		
10	53	13C4-PFHpA	367.2 > 321.8	1.34e4	2.94e4	0.250	0.479	3.59	3.59	5.69	47.5300	95.1		
11	-1													
12	13	L-PFHxS	398.9 > 79.6	9.07e0	4.00e3	0.250		3.75	3.76	0.0283	0.1299		1.361	NO
13	80	Total PFHxS	398.9 > 79.6	9.07e0	4.00e3	0.250		3.83		0.0283	0.1299			
14	16	L-PFOA	412.8 > 368.9	6.65e1	2.39e4	0.250		4.12	4.13	0.0349			8.049	YES
15	81	Total PFOA	412.8 > 368.9	6.65e1	2.39e4	0.250		4.21		0.000				
16	22	PFOSA	497.9 > 77.9		1.87e3	0.250		4.63						
17	74	18O2-PFHxS	403.0 > 102.6	2.01e3	2.01e3	0.250	1.000	3.75	3.75	12.5	50.0000	100.0		
18	74	18O2-PFHxS	403.0 > 102.6	2.01e3	2.01e3	0.250	1.000	3.75	3.75	12.5	50.0000	100.0		
19	58	13C2-PFOA	414.9 > 369.7	2.39e4	3.74e4	0.250	0.681	4.12	4.12	7.97	46.8194	93.6		
20	58	13C2-PFOA	414.9 > 369.7	2.39e4	3.74e4	0.250	0.681	4.12	4.12	7.97	46.8194	93.6		
21	57	13C8-PFOSA	506.1 > 77.7	1.87e3	4.12e4	0.250	0.168	4.62	4.63	0.568	13.5507	27.1		
22	-1													
23	21	PFNA	463.0 > 418.8		2.31e4	0.250		4.57						
24	23	L-PFOS	498.9 > 79.9		4.38e3	0.250		4.66						
25	82	Total PFOS	498.9 > 79.9	0.00e0	4.38e3	0.250		4.74		0.000				
26	26	PFDA	513 > 468.8	3.59e1	2.28e4	0.250		4.95	4.96	0.0196	0.0488		11.070	YES
27	33	PFUdA	563.0 > 518.9	7.88e1	3.08e4	0.250		5.28	5.28	0.0319			13.962	YES
28	56	13C5-PFNA	468.2 > 422.9	2.31e4	2.62e4	0.250	1.002	4.56	4.57	11.0	43.9880	88.0		
29	59	13C8-PFOS	507.0 > 79.9	4.38e3	4.73e3	0.250	0.997	4.65	4.66	11.6	46.5102	93.0		
30	59	13C8-PFOS	507.0 > 79.9	4.38e3	4.73e3	0.250	0.997	4.65	4.66	11.6	46.5102	93.0		
31	60	13C2-PFDA	515.1 > 469.9	2.28e4	3.36e4	0.250	0.819	4.95	4.95	8.49	41.4692	82.9		
32	63	13C2-PFUdA	565 > 519.8	3.08e4	4.12e4	0.250	0.889	5.28	5.28	9.34	42.0321	84.1		
33	-1													
34	29	L-MeFOSAA	570 > 419		5.30e3	0.250		5.10						
35	83	Total N-MeFOSAA	570. > 419	0.00e0	5.30e3	0.250		5.19		0.000				
36	31	L-EtFOSAA	584.1 > 419		6.54e3	0.250		5.26						

EM 7/23/2019

Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-62.qld

Last Altered: Tuesday, July 23, 2019 10:29:00 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 10:29:11 Pacific Daylight Time

Name: 190722M1_62, Date: 22-Jul-2019, Time: 22:14:52, ID: B9G0134-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	84	Total N-EtFOSAA	584.1 > 419	0.00e0	6.54e3	0.250		5.33		0.000				
38	34	PFDS	598.8 > 79.9		2.69e3	0.250		5.33						
39	62	d3-N-MeFOSAA	573.3 > 419	5.30e3	4.12e4	0.250	0.177	5.10	5.10	1.61	36.2253	72.5		
40	62	d3-N-MeFOSAA	573.3 > 419	5.30e3	4.12e4	0.250	0.177	5.10	5.10	1.61	36.2253	72.5		
41	64	d5-N-EtFOSAA	589.3 > 419	6.54e3	4.12e4	0.250	0.224	5.26	5.26	1.98	35.4025	70.8		
42	64	d5-N-EtFOSAA	589.3 > 419	6.54e3	4.12e4	0.250	0.224	5.26	5.26	1.98	35.4025	70.8		
43	59	13C8-PFOS	507.0 > 79.9	4.38e3	4.73e3	0.250	0.997	4.65	4.66	11.6	46.5102	93.0		
44	-1													
45	37	PFDoA	612.9 > 569.0		2.99e4	0.250		5.57						
46	39	PFTrDA	662.9 > 618.9		2.99e4	0.250		5.83						
47	41	PFTeDA	713.0 > 669.0		1.98e4	0.250		6.04						
48	72	13C4-PFBA	217.0 > 172.0	1.51e4	1.51e4	0.250	1.000	1.16	1.17	12.5	50.0000	100.0		
49	65	13C2-PFDoA	614.7 > 569.7	2.99e4	3.36e4	0.250	1.087	5.57	5.57	11.1	40.8476	81.7		
50	65	13C2-PFDoA	614.7 > 569.7	2.99e4	3.36e4	0.250	1.087	5.57	5.57	11.1	40.8476	81.7		
51	67	13C2-PFTeDA	715.1 > 669.7	1.98e4	4.12e4	0.250	0.604	6.05	6.04	6.01	39.7870	79.6		
52	59	13C8-PFOS	507.0 > 79.9	4.38e3	4.73e3	0.250	0.997	4.65	4.66	11.6	46.5102	93.0		
53	54	13C3-PFHxS	401.8 > 79.9	4.00e3	2.01e3	0.250	2.024	3.75	3.75	24.9	49.1795	98.4		
54	-1													
55	78	13C6-PFDA	519.1 > 473.7	3.36e4	3.36e4	0.250	1.000	4.95	4.95	12.5	50.0000	100.0		
56	79	13C7-PFUdA	570.1 > 524.8	4.12e4	4.12e4	0.250	1.000	5.28	5.28	12.5	50.0000	100.0		
57	77	13C4-PFOS	503 > 79.9	4.73e3	4.73e3	0.250	1.000	4.65	4.66	12.5	50.0000	100.0		
58	76	13C9-PFNA	472.2 > 426.9	2.62e4	2.62e4	0.250	1.000	4.56	4.57	12.5	50.0000	100.0		
59	73	13C5-PFHxA	318.0 > 272.9	2.94e4	2.94e4	0.250	1.000	2.96	2.97	12.5	50.0000	100.0		

Review: AMR 7/23/2019

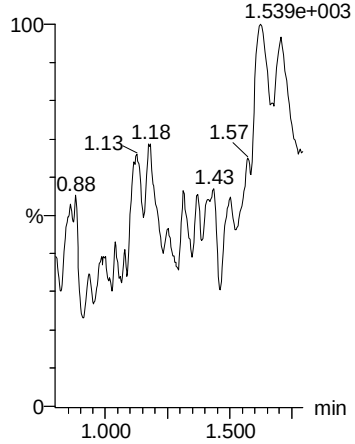
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Printed: Tuesday, July 23, 2019 10:29:11 Pacific Daylight Time

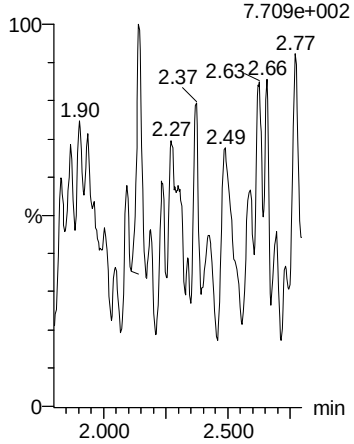
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Name: 190722M1_62, Date: 22-Jul-2019, Time: 22:14:52, ID: B9G0134-BLK1 Method Blank 0.25, Description: Method Blank

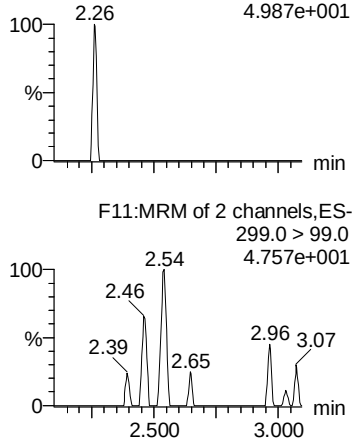
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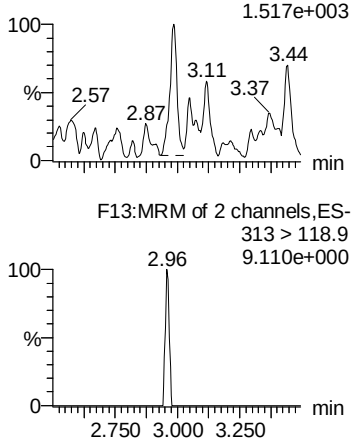
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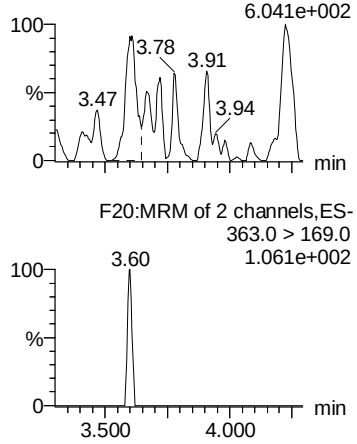
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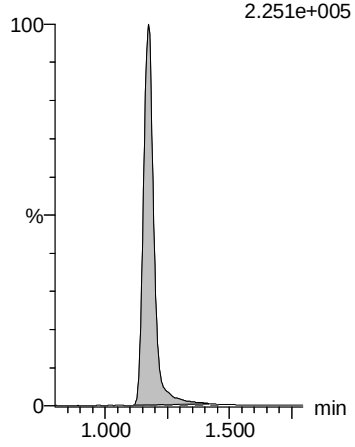
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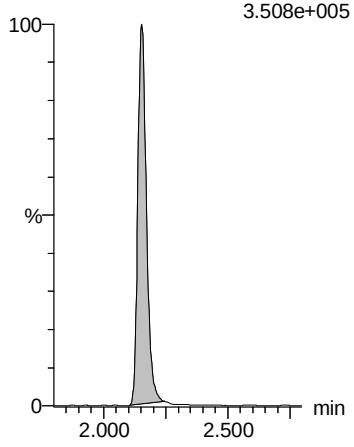
PFHpA



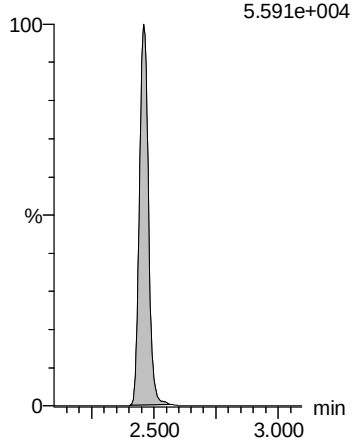
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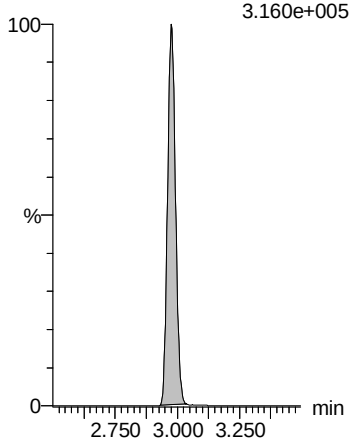
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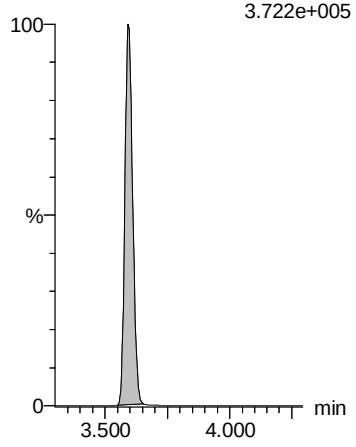
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13C2-PFHxA



13C4-PFHpA



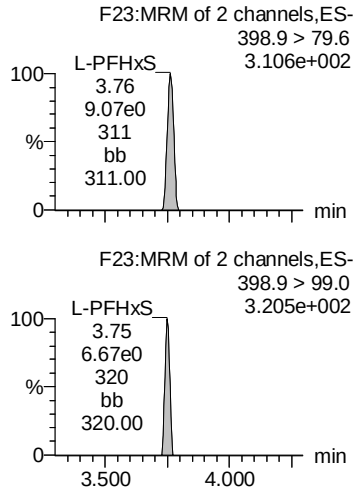
Review: AMR 7/23/2019

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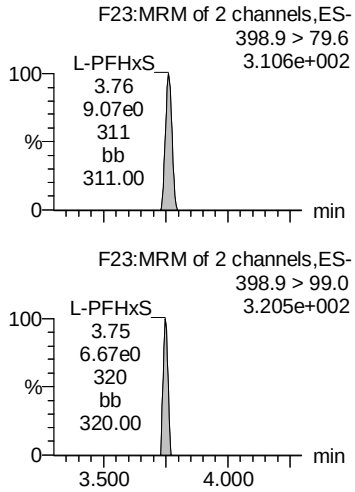
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Name: 190722M1_62, Date: 22-Jul-2019, Time: 22:14:52, ID: B9G0134-BLK1 Method Blank 0.25, Description: Method Blank

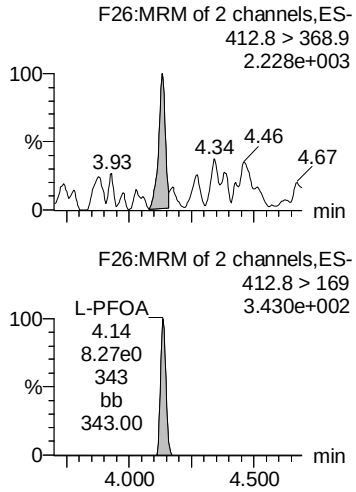
L-PFHxS



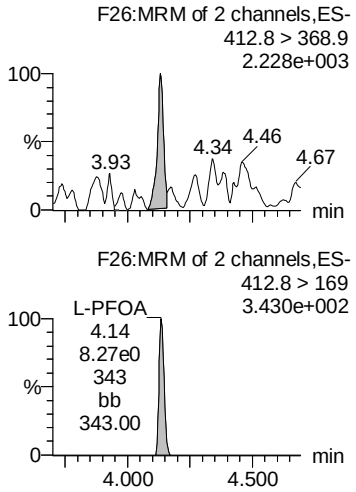
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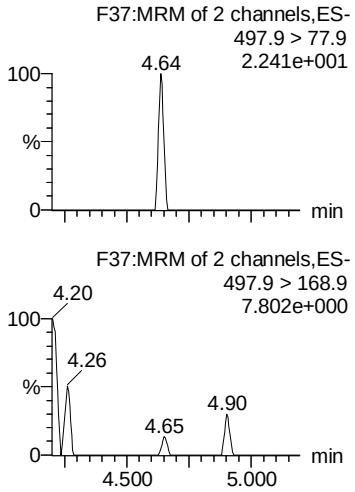
L-PFOA



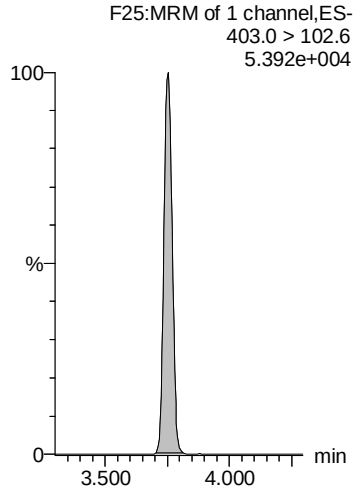
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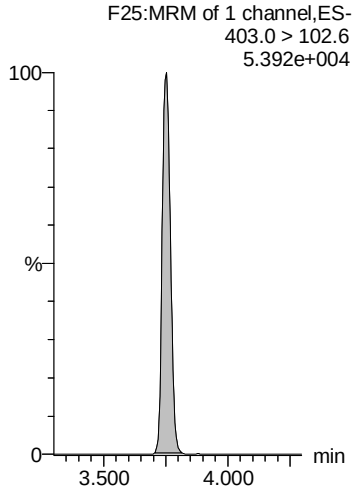
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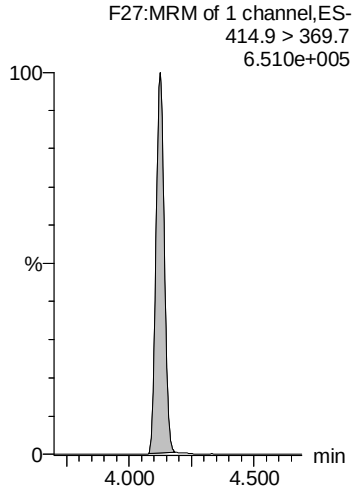
18O2-PFHxS



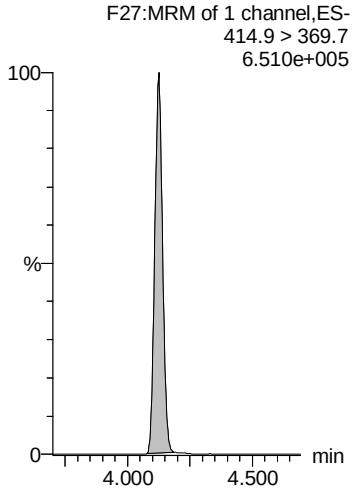
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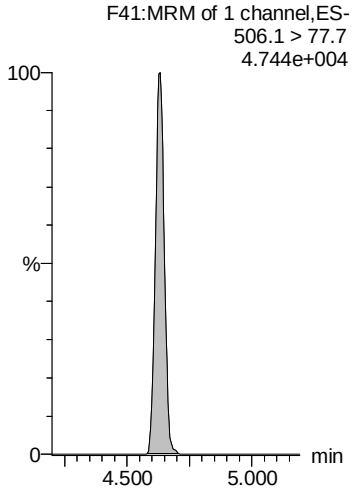
13C2-PFOA



13C2-PFOA



13C8-PFOSA



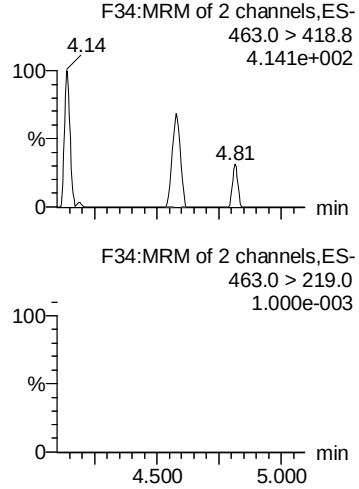
Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-62.qld

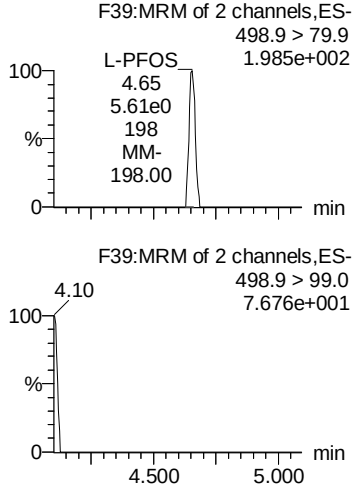
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Name: 190722M1_62, Date: 22-Jul-2019, Time: 22:14:52, ID: B9G0134-BLK1 Method Blank 0.25, Description: Method Blank

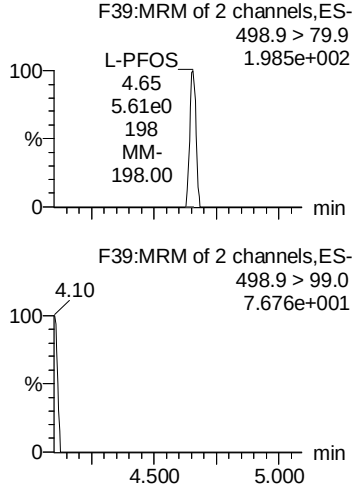
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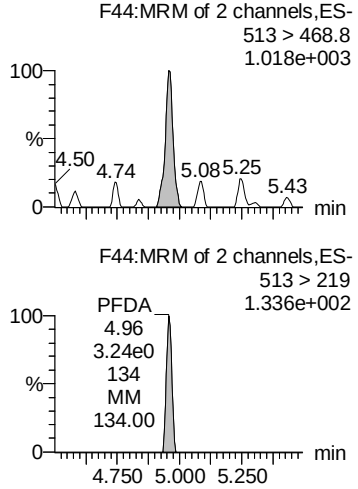
L-PFOS



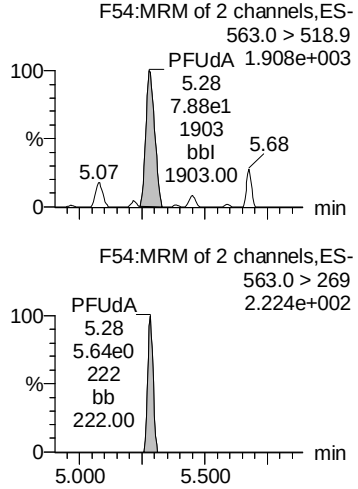
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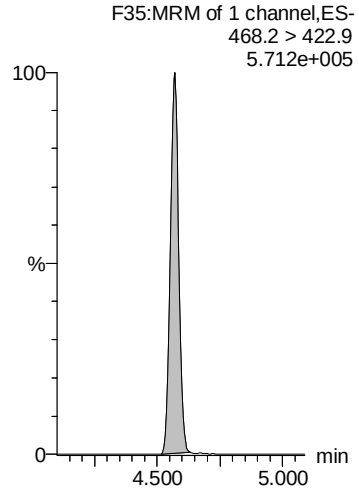
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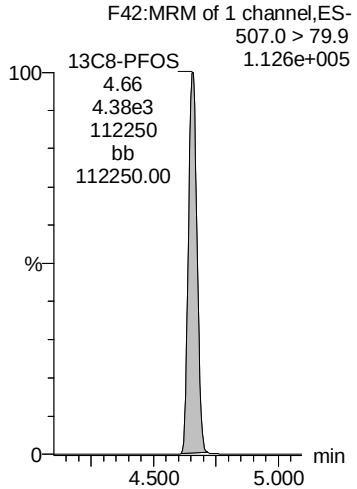
PFUdA



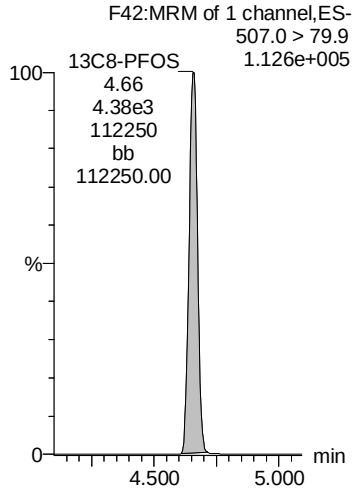
13C5-PFNA



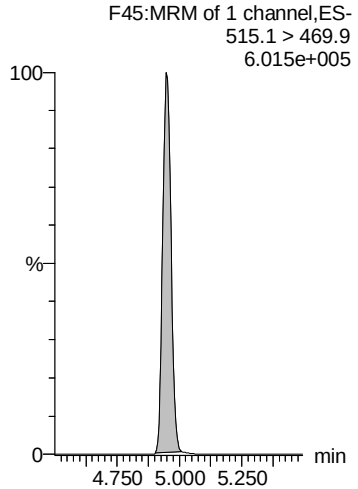
13C8-PFOS



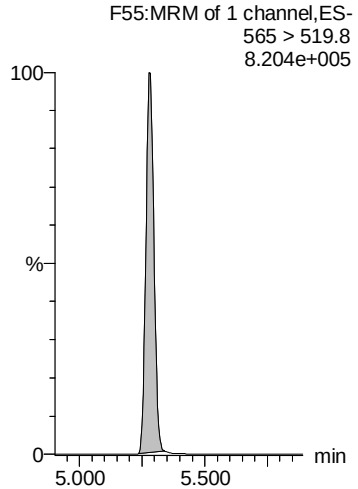
13C8-PFOS



13C2-PFDA



13C2-PFUdA



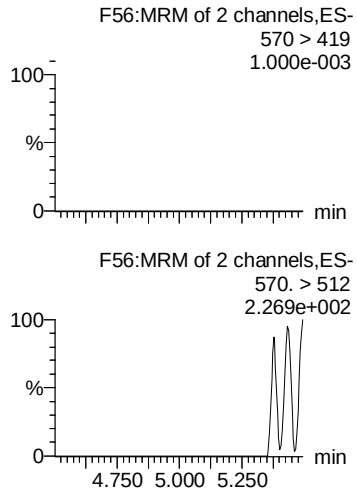
Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-62.qld

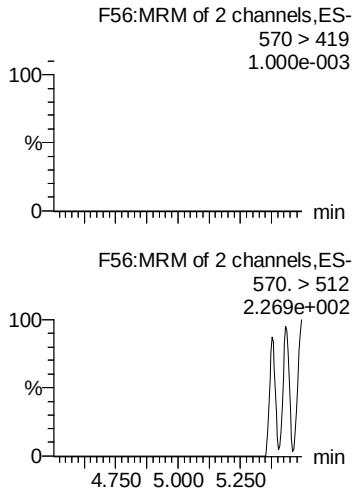
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Printed: Tuesday, July 23, 2019 10:29:11 Pacific Daylight Time

Name: 190722M1_62, Date: 22-Jul-2019, Time: 22:14:52, ID: B9G0134-BLK1 Method Blank 0.25, Description: Method Blank

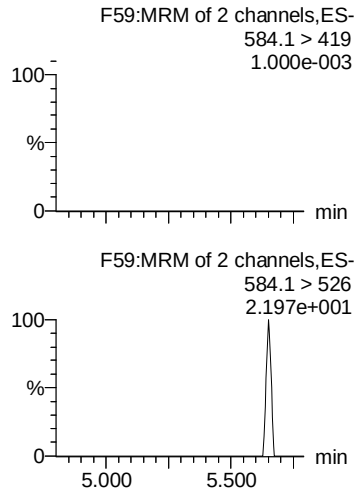
L-MeFOSAA



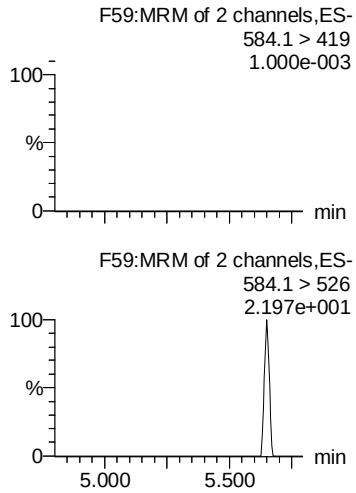
Total N-MeFOSAA



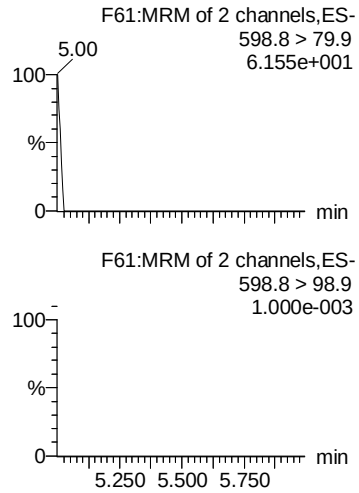
L-EtFOSAA



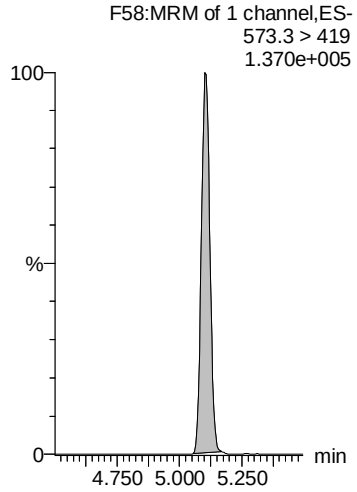
Total N-EtFOSAA



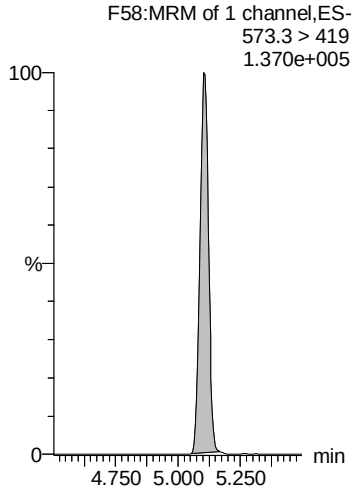
PFDS



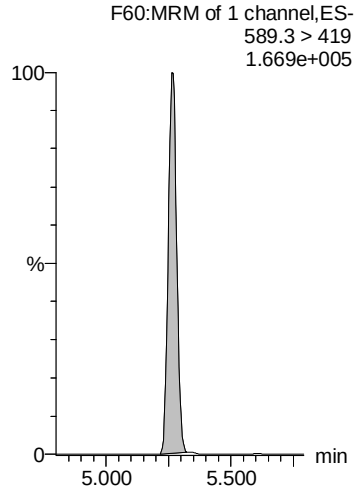
d3-N-MeFOSAA



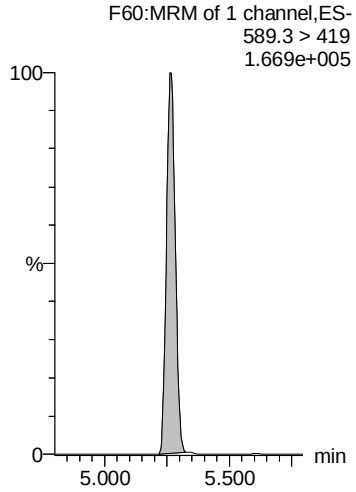
d3-N-MeFOSAA



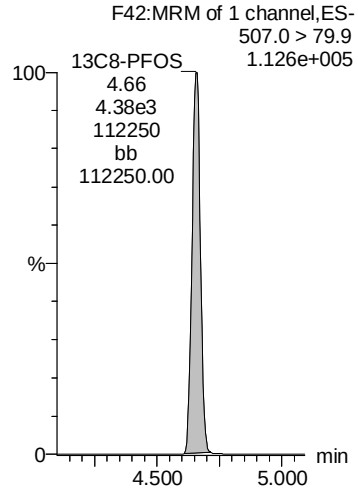
d5-N-EtFOSAA



d5-N-EtFOSAA



13C8-PFOS



 EM 7/23/2019

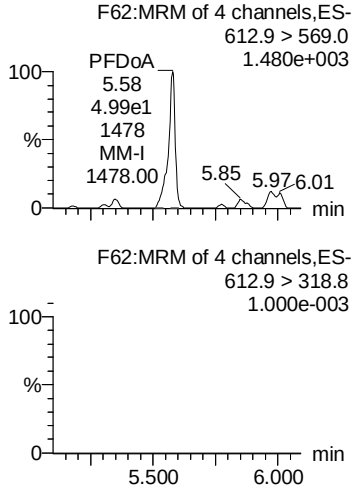
Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-62.qld

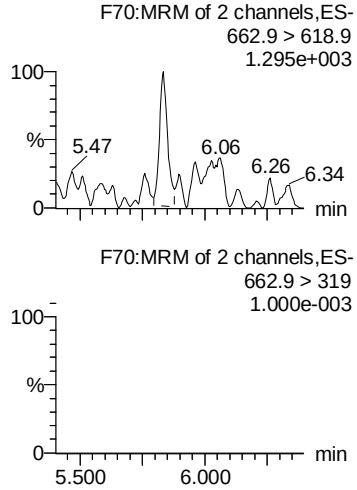
Last Altered: Tuesday, July 23, 2019 10:29:00 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 10:29:11 Pacific Daylight Time

Name: 190722M1_62, Date: 22-Jul-2019, Time: 22:14:52, ID: B9G0134-BLK1 Method Blank 0.25, Description: Method Blank

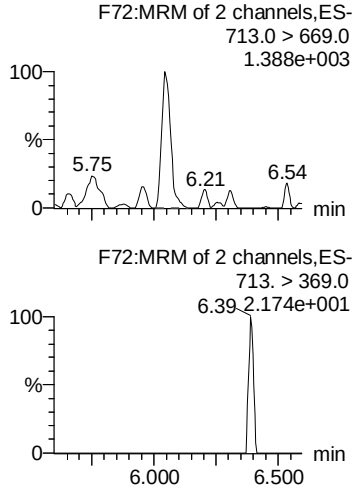
PFDoA



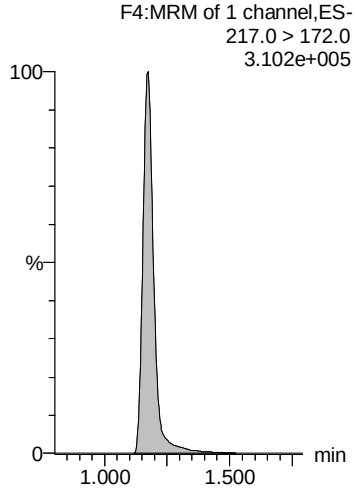
PFTrDA



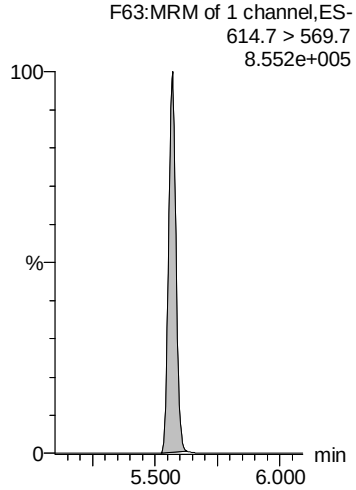
PFTeDA



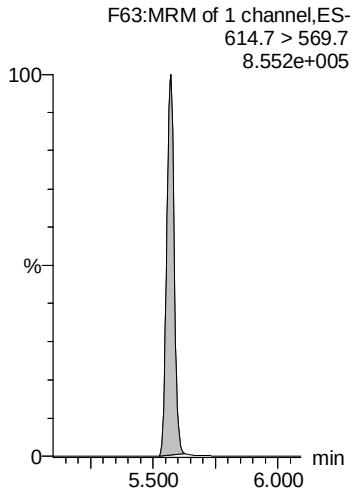
13C4-PFBA



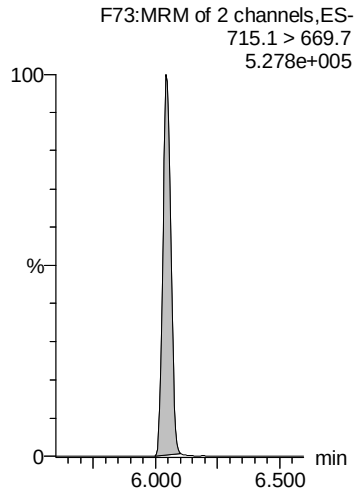
13C2-PFDoA



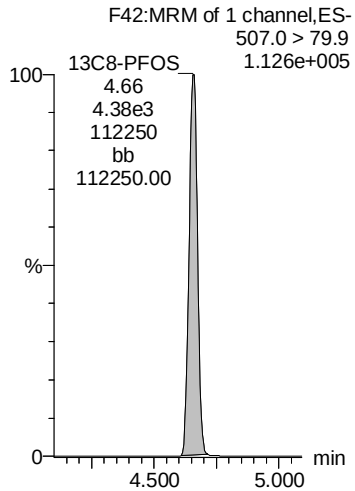
13C2-PFDoA



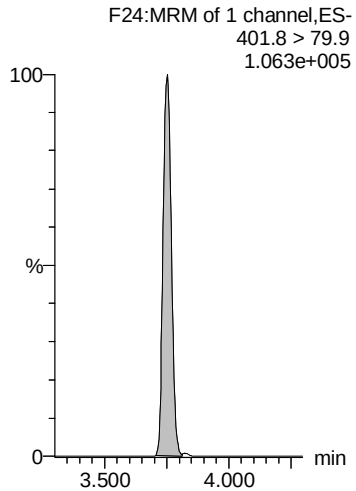
13C2-PFTeDA



13C8-PFOS



13C3-PFHxS



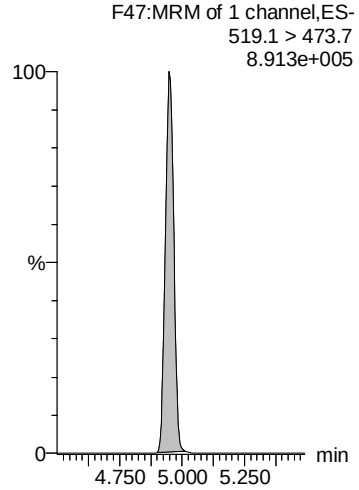
Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-62.qld

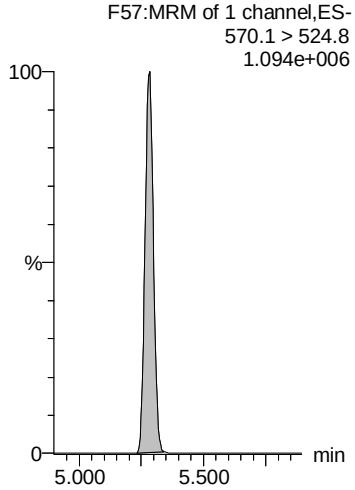
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Printed: Tuesday, July 23, 2019 10:29:11 Pacific Daylight Time

Name: 190722M1_62, Date: 22-Jul-2019, Time: 22:14:52, ID: B9G0134-BLK1 Method Blank 0.25, Description: Method Blank

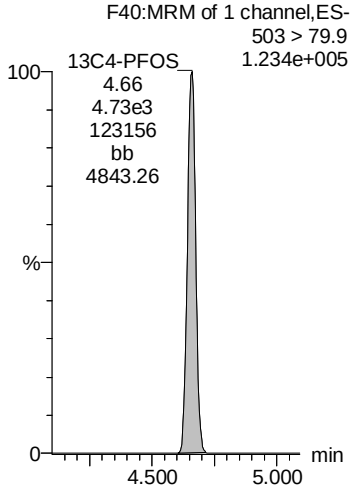
13C6-PFDA



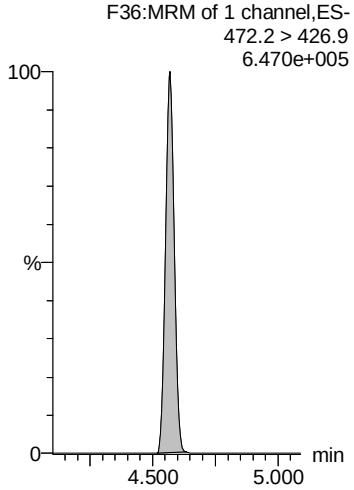
13C7-PFUdA



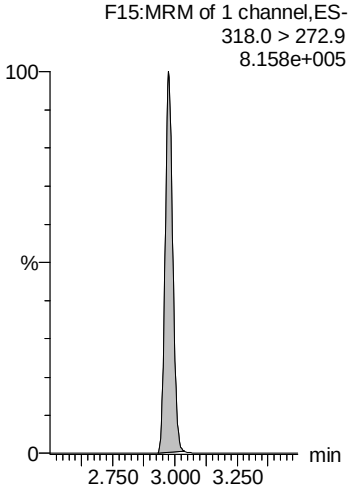
13C4-PFOS



13C9-PFNA



13C5-PFHxA



Vista Analytical Laboratory L18

Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-60.qld

Last Altered: Tuesday, July 23, 2019 10:20:22 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 10:22:16 Pacific Daylight Time

Name: 190722M1_60, Date: 22-Jul-2019, Time: 21:53:36, ID: B9G0134-BS1 OPR 0.25, Description: OPR

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8	9.98e3	1.01e4	0.250		1.17	1.16	12.4	39.6559	99.1		
2	4	PFPeA	263.1 > 218.9	9.73e3	1.34e4	0.250		2.15	2.15	9.04	39.1146	97.8		
3	5	PFBS	299.0 > 79.7	3.71e3	2.03e3	0.250		2.46	2.46	22.9	40.3330	100.8	3.039	NO
4	7	PFHxA	313.0 > 269.0	1.92e4	1.04e4	0.250		2.97	2.97	9.26	41.9645	104.9	15.028	NO
5	11	PFHpA	363.0 > 318.9	1.30e4	1.29e4	0.250		3.59	3.60	12.6	39.0614	97.7	10.403	NO
6	47	13C3-PFBA	216.1 > 171.8	1.01e4	1.40e4	0.250	0.734	1.15	1.17	9.04	49.2619	98.5		
7	48	13C3-PFPeA	266.0 > 221.8	1.34e4	2.63e4	0.250	0.498	2.15	2.15	6.39	51.3241	102.6		
8	49	13C3-PFBS	302.0 > 98.8	2.03e3	1.89e3	0.250	1.058	2.45	2.46	13.4	50.7007	101.4		
9	52	13C2-PFHxA	315.0 > 270.0	1.04e4	2.63e4	0.250	0.978	2.96	2.97	4.93	20.1839	100.9		
10	53	13C4-PFHpA	367.2 > 321.8	1.29e4	2.63e4	0.250	0.479	3.59	3.59	6.12	51.1712	102.3		
11	-1													
12	13	L-PFHxS	398.9 > 79.6	3.15e3	3.89e3	0.250		3.75	3.75	10.1	44.3539	110.9	2.182	NO
13	80	Total PFHxS	398.9 > 79.6	3.15e3	3.89e3	0.250		3.83		10.1	44.3539			
14	16	L-PFOA	412.8 > 368.9	2.53e4	2.04e4	0.250		4.12	4.12	15.4	41.0242	102.6	3.644	NO
15	81	Total PFOA	412.8 > 368.9	2.53e4	2.04e4	0.250		4.21		15.4	41.0242			
16	22	PFOSA	497.9 > 77.9	1.26e3	1.35e3	0.250		4.63	4.63	11.7	45.9927	115.0	33.809	NO
17	74	18O2-PFHxS	403.0 > 102.6	1.89e3	1.89e3	0.250	1.000	3.75	3.75	12.5	50.0000	100.0		
18	74	18O2-PFHxS	403.0 > 102.6	1.89e3	1.89e3	0.250	1.000	3.75	3.75	12.5	50.0000	100.0		
19	58	13C2-PFOA	414.9 > 369.7	2.04e4	3.29e4	0.250	0.681	4.12	4.12	7.77	45.6449	91.3		
20	58	13C2-PFOA	414.9 > 369.7	2.04e4	3.29e4	0.250	0.681	4.12	4.12	7.77	45.6449	91.3		
21	57	13C8-PFOSA	506.1 > 77.7	1.35e3	3.76e4	0.250	0.168	4.62	4.63	0.448	10.6887	21.4		
22	-1													
23	21	PFNA	463.0 > 418.8	2.07e4	2.12e4	0.250		4.57	4.57	12.2	42.2861	105.7	3.913	NO
24	23	L-PFOS	498.9 > 79.9	3.60e3	4.21e3	0.250		4.66	4.66	10.7	40.0634	100.2	2.066	NO
25	82	Total PFOS	498.9 > 79.9	3.60e3	4.21e3	0.250		4.74		10.7	40.0634			
26	26	PFDA	513 > 468.8	2.36e4	2.22e4	0.250		4.95	4.95	13.3	41.3704	103.4	5.361	NO
27	33	PFUdA	563.0 > 518.9	2.26e4	2.85e4	0.250		5.28	5.28	9.94	43.4828	108.7	9.372	NO
28	56	13C5-PFNA	468.2 > 422.9	2.12e4	2.39e4	0.250	1.002	4.56	4.57	11.1	44.3187	88.6		
29	59	13C8-PFOS	507.0 > 79.9	4.21e3	4.54e3	0.250	0.997	4.65	4.66	11.6	46.5636	93.1		
30	59	13C8-PFOS	507.0 > 79.9	4.21e3	4.54e3	0.250	0.997	4.65	4.66	11.6	46.5636	93.1		
31	60	13C2-PFDA	515.1 > 469.9	2.22e4	3.18e4	0.250	0.819	4.95	4.95	8.71	42.5213	85.0		
32	63	13C2-PFUdA	565 > 519.8	2.85e4	3.76e4	0.250	0.889	5.28	5.28	9.46	42.5645	85.1		
33	-1													
34	29	L-MeFOSAA	570 > 419	9.27e3	5.34e3	0.250		5.10	5.10	21.7	40.2260	100.6	2.567	NO
35	83	Total N-MeFOSAA	570. > 419	9.27e3	5.34e3	0.250		5.19		21.7	40.2260			
36	31	L-EtFOSAA	584.1 > 419	6.86e3	6.87e3	0.250		5.26	5.26	12.5	39.9878	100.0	1.398	NO

Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-60.qld

Last Altered: Tuesday, July 23, 2019 10:20:22 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 10:22:16 Pacific Daylight Time

Name: 190722M1_60, Date: 22-Jul-2019, Time: 21:53:36, ID: B9G0134-BS1 OPR 0.25, Description: OPR

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	84	Total N-EtFOSAA	584.1 > 419	6.86e3	6.87e3	0.250		5.33		12.5	39.9878			
38	34	PFDS	598.8 > 79.9	3.37e3	2.55e3	0.250		5.33	5.33	16.5	38.9479	97.4	1.924	NO
39	62	d3-N-MeFOSAA	573.3 > 419	5.34e3	3.76e4	0.250	0.177	5.10	5.10	1.78	40.0564	80.1		
40	62	d3-N-MeFOSAA	573.3 > 419	5.34e3	3.76e4	0.250	0.177	5.10	5.10	1.78	40.0564	80.1		
41	64	d5-N-EtFOSAA	589.3 > 419	6.87e3	3.76e4	0.250	0.224	5.26	5.26	2.28	40.8265	81.7		
42	64	d5-N-EtFOSAA	589.3 > 419	6.87e3	3.76e4	0.250	0.224	5.26	5.26	2.28	40.8265	81.7		
43	59	13C8-PFOS	507.0 > 79.9	4.21e3	4.54e3	0.250	0.997	4.65	4.66	11.6	46.5636	93.1		
44	-1													
45	37	PFDoA	612.9 > 569.0	2.36e4	2.89e4	0.250		5.57	5.57	10.2	38.0719	95.2	8.180	NO
46	39	PFTrDA	662.9 > 618.9	2.44e4	2.89e4	0.250		5.82	5.82	10.5	36.9163	92.3	20.030	NO
47	41	PFTeDA	713.0 > 669.0	2.30e4	1.90e4	0.250		6.04	6.04	15.1	39.9333	99.8	14.266	NO
48	72	13C4-PFBA	217.0 > 172.0	1.40e4	1.40e4	0.250	1.000	1.16	1.17	12.5	50.0000	100.0		
49	65	13C2-PFDoA	614.7 > 569.7	2.89e4	3.18e4	0.250	1.087	5.57	5.57	11.4	41.8426	83.7		
50	65	13C2-PFDoA	614.7 > 569.7	2.89e4	3.18e4	0.250	1.087	5.57	5.57	11.4	41.8426	83.7		
51	67	13C2-PFTeDA	715.1 > 669.7	1.90e4	3.76e4	0.250	0.604	6.05	6.04	6.33	41.9094	83.8		
52	59	13C8-PFOS	507.0 > 79.9	4.21e3	4.54e3	0.250	0.997	4.65	4.66	11.6	46.5636	93.1		
53	54	13C3-PFHxS	401.8 > 79.9	3.89e3	1.89e3	0.250	2.024	3.75	3.75	25.7	50.8149	101.6		
54	-1													
55	78	13C6-PFDA	519.1 > 473.7	3.18e4	3.18e4	0.250	1.000	4.95	4.95	12.5	50.0000	100.0		
56	79	13C7-PFUdA	570.1 > 524.8	3.76e4	3.76e4	0.250	1.000	5.28	5.28	12.5	50.0000	100.0		
57	77	13C4-PFOS	503 > 79.9	4.54e3	4.54e3	0.250	1.000	4.65	4.66	12.5	50.0000	100.0		
58	76	13C9-PFNA	472.2 > 426.9	2.39e4	2.39e4	0.250	1.000	4.56	4.57	12.5	50.0000	100.0		
59	73	13C5-PFHxA	318.0 > 272.9	2.63e4	2.63e4	0.250	1.000	2.96	2.97	12.5	50.0000	100.0		

Review: AMR 7/23/2019

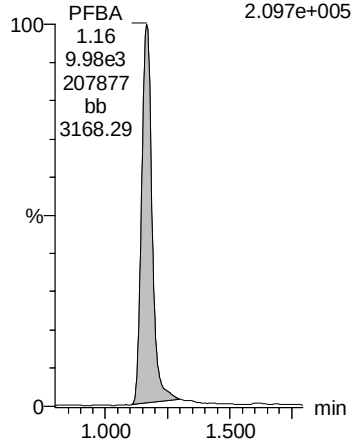
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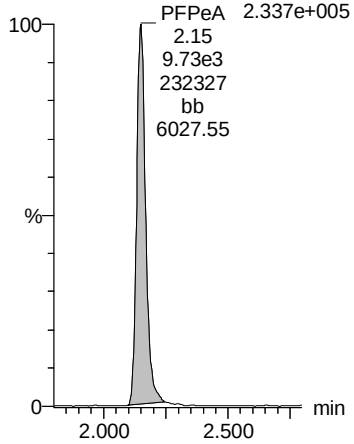
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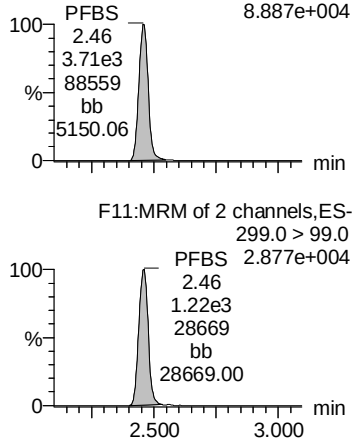
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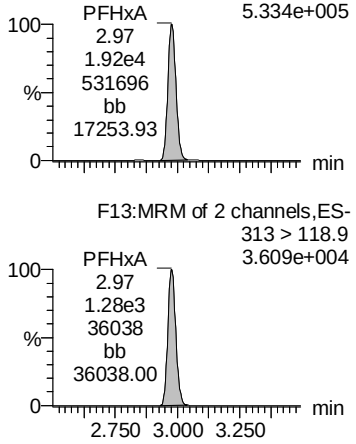
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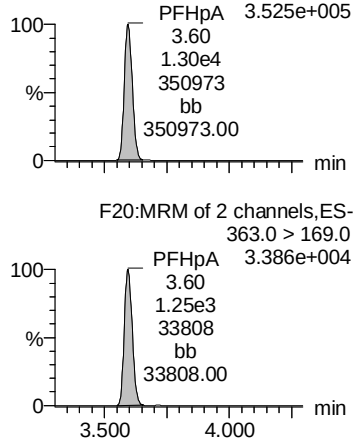
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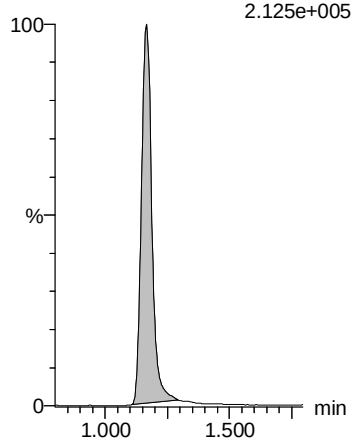
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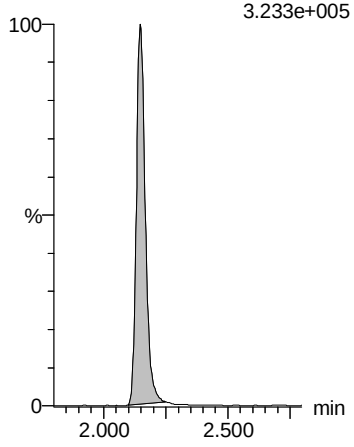
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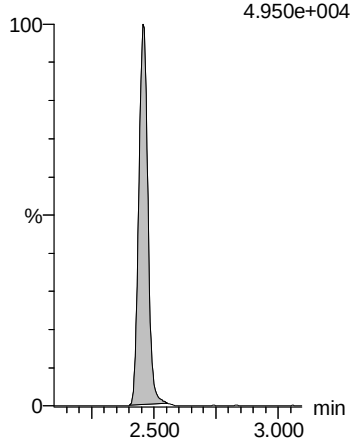
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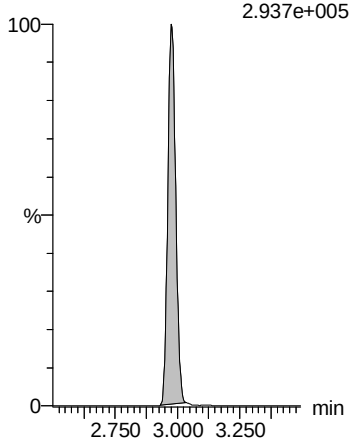
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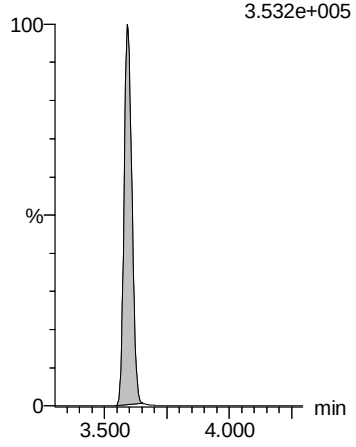
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13C2-PFHxA



13C4-PFHpA



GM 7/23/2019

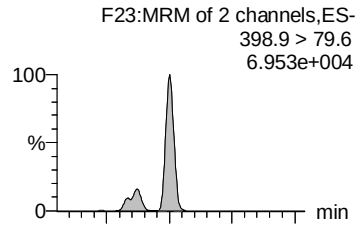
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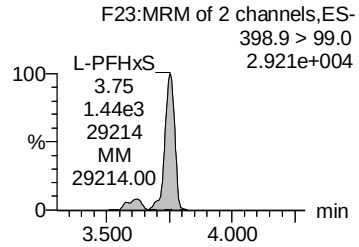
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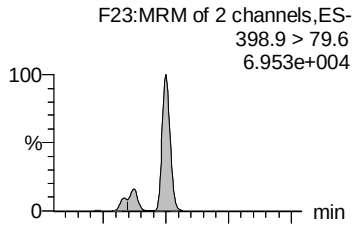
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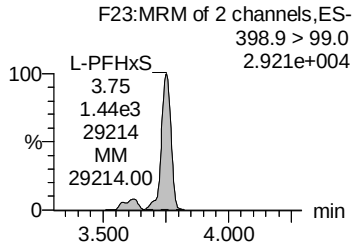
L-PFHxS



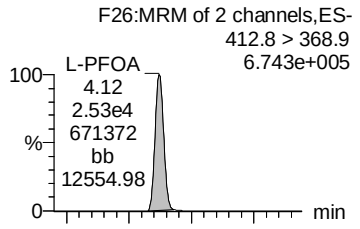


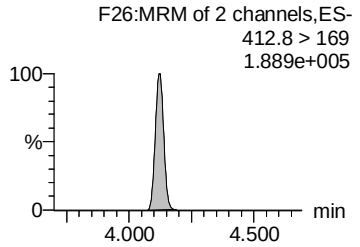
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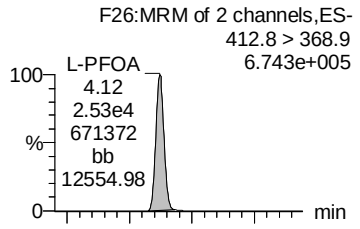


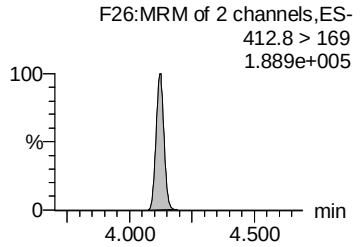
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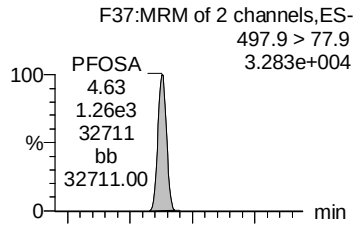


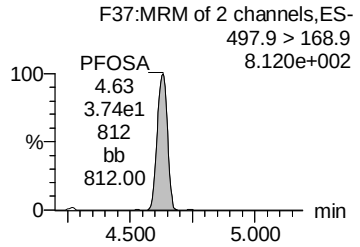
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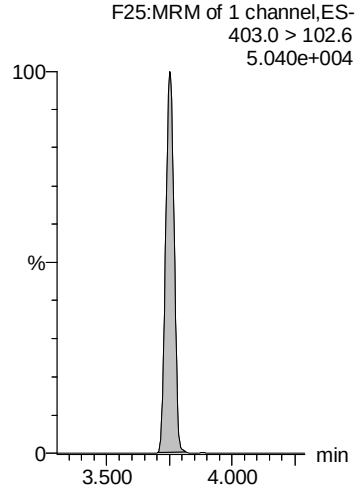


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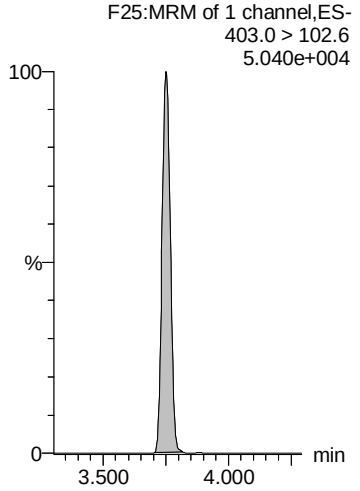




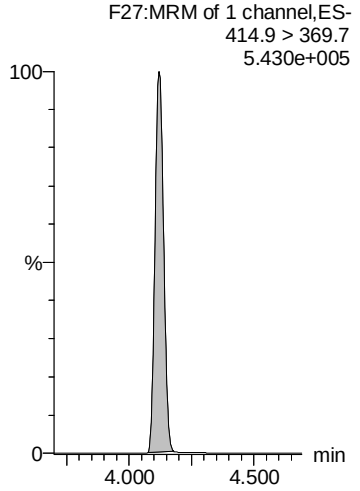
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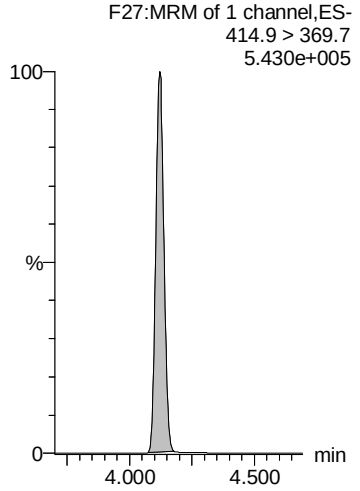
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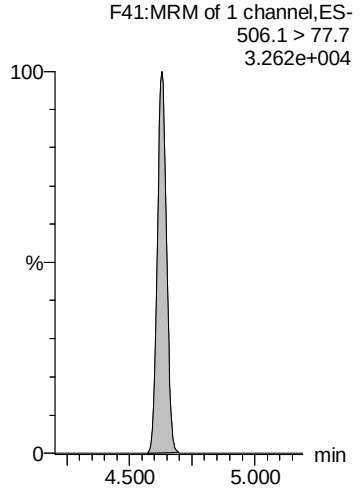
13C2-PFOA



13C2-PFOA



13C8-PFOSA



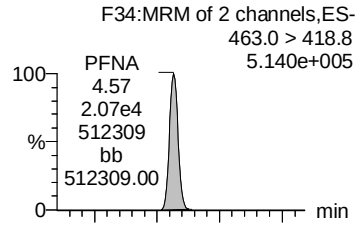
Review: AMR 7/23/2019

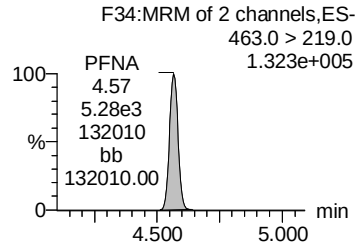
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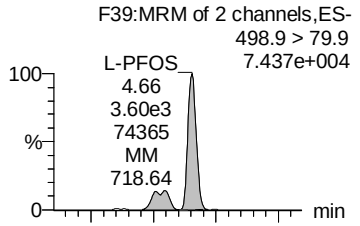
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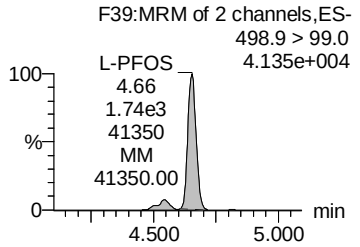
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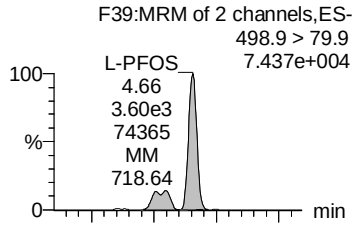


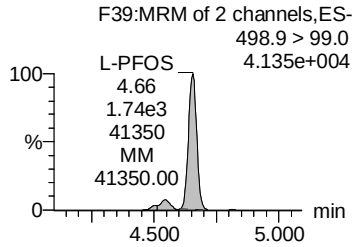
L-PFOS



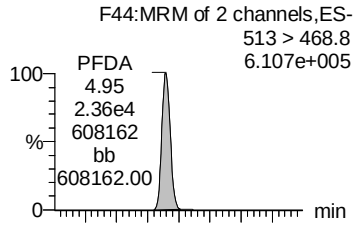


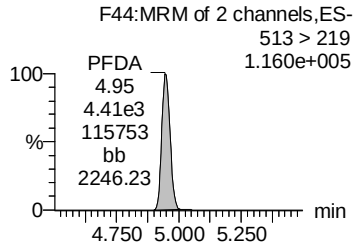
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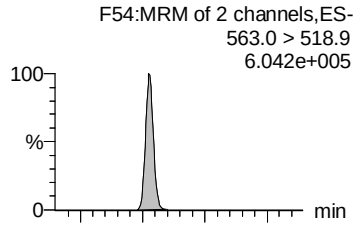


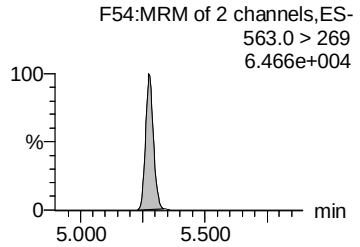
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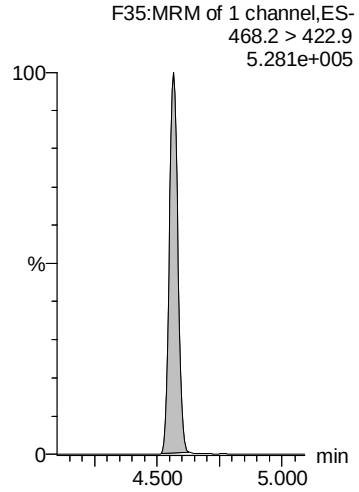


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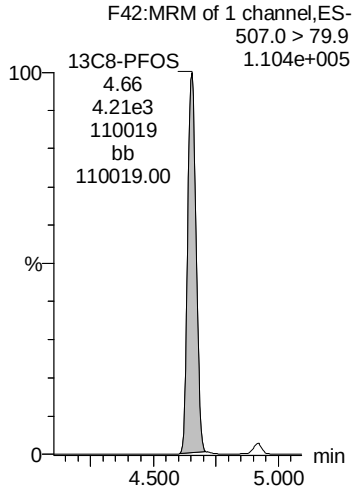




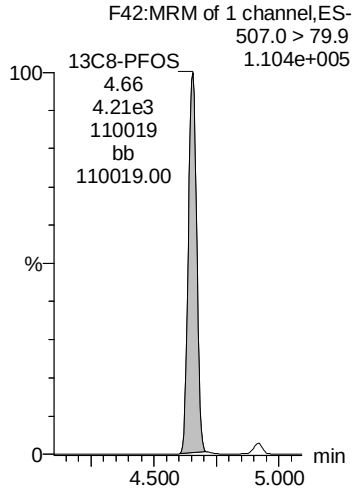
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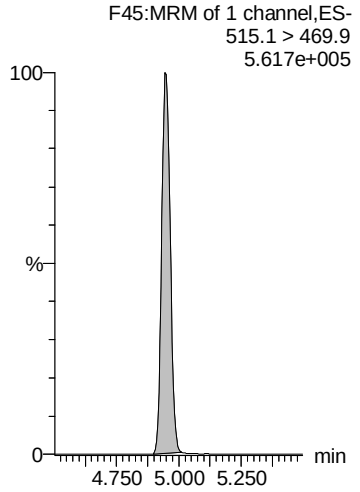
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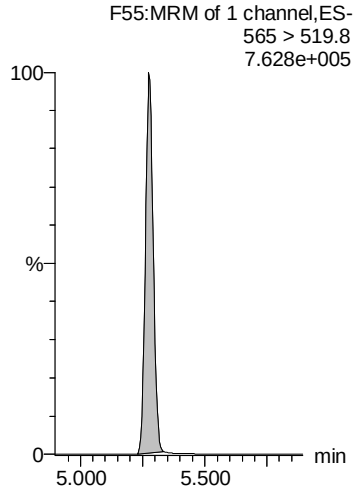
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13C2-PFDA



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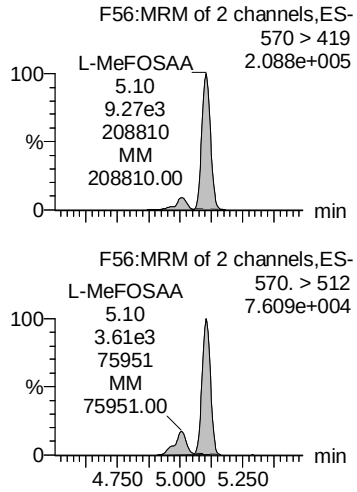
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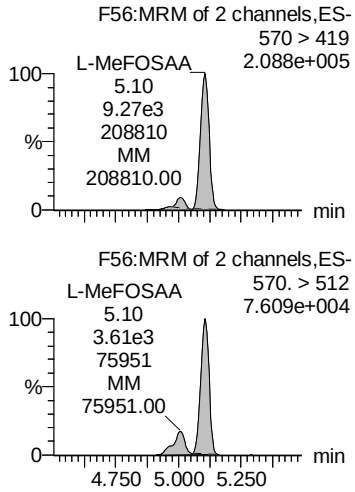
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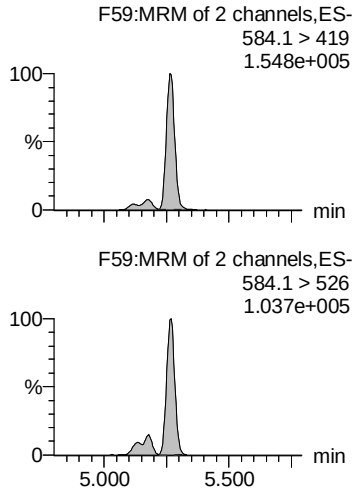
L-MeFOSAA



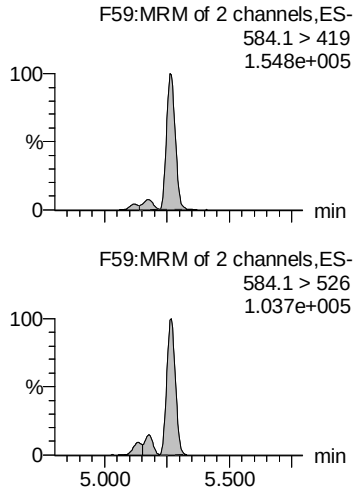
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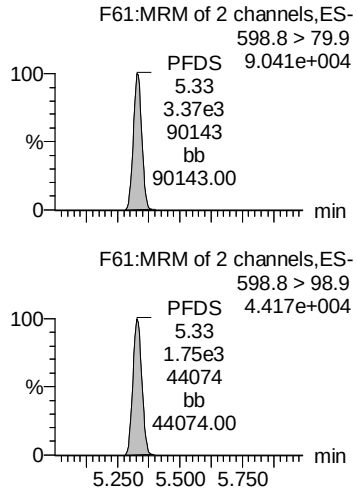
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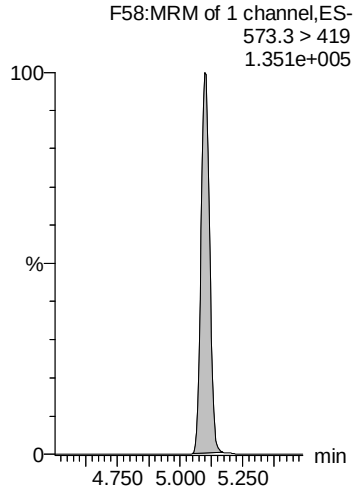
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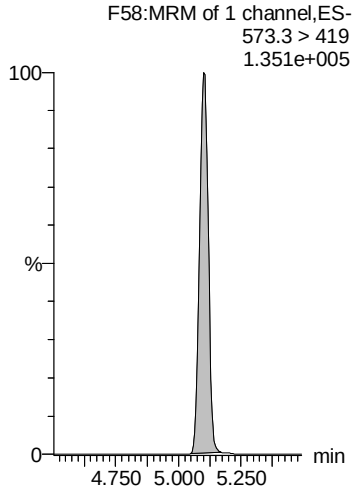
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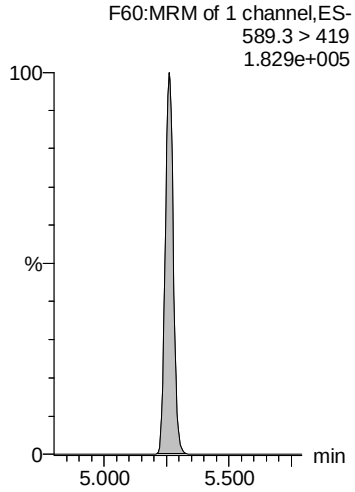
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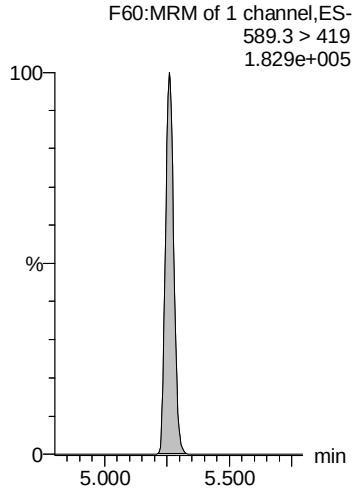
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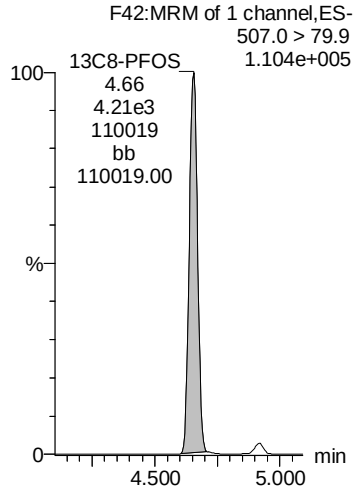
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d5-N-EtFOSAA



13C8-PFOS



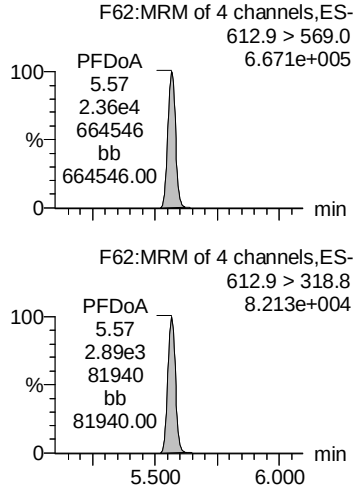
Review: AMR 7/23/2019

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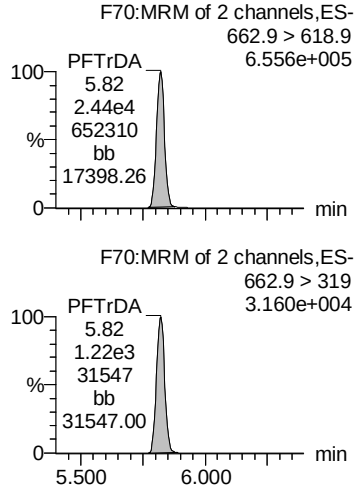
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Printed: Tuesday, July 23, 2019 10:22:16 Pacific Daylight Time

Name: 190722M1_60, Date: 22-Jul-2019, Time: 21:53:36, ID: B9G0134-BS1 OPR 0.25, Description: OPR

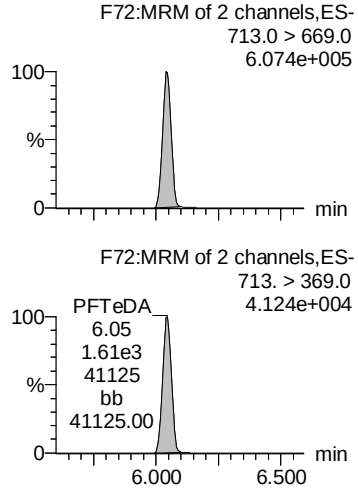
PFDoA



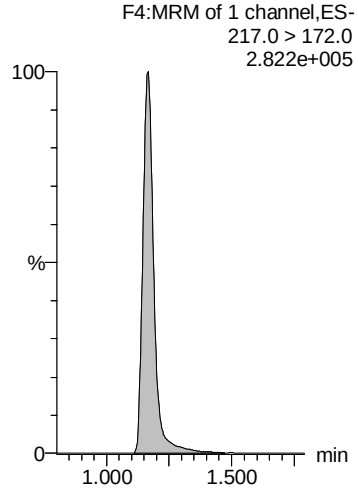
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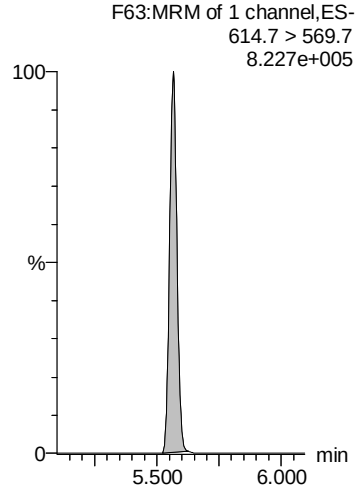
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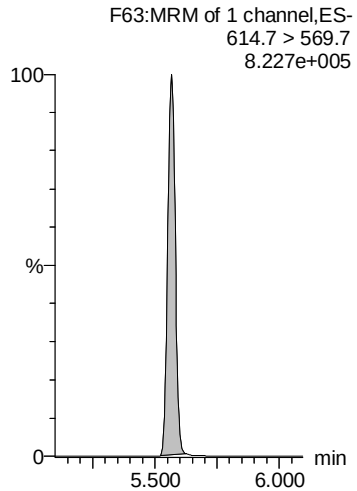
13C4-PFBA



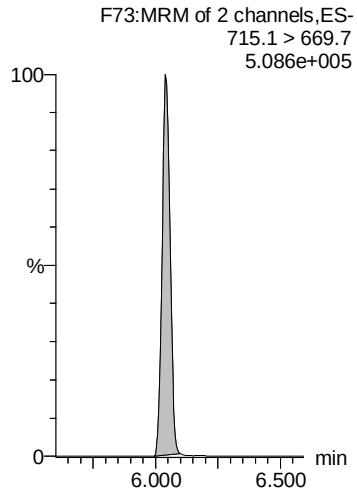
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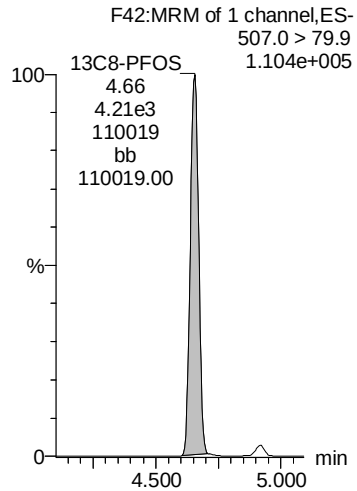
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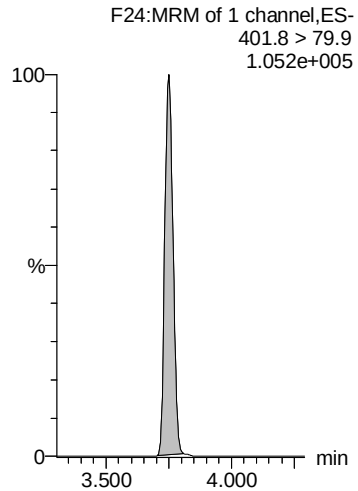
13C2-PFTeDA



13C8-PFOS



13C3-PFHxS



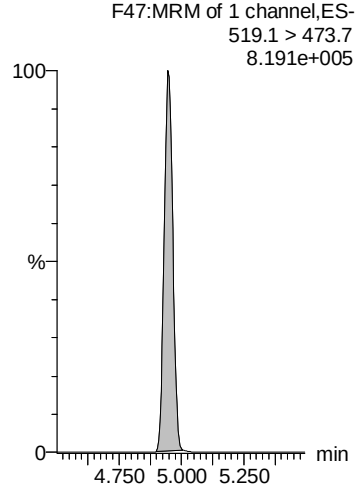
Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-60.qld

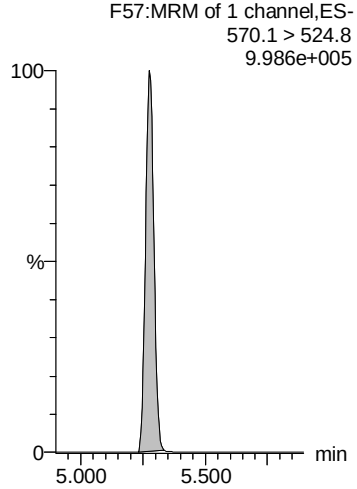
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Printed: Tuesday, July 23, 2019 10:22:16 Pacific Daylight Time

Name: 190722M1_60, Date: 22-Jul-2019, Time: 21:53:36, ID: B9G0134-BS1 OPR 0.25, Description: OPR

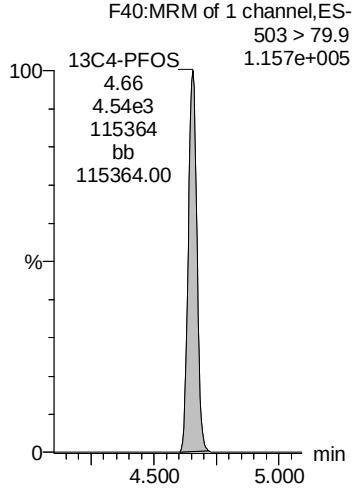
13C6-PFDA



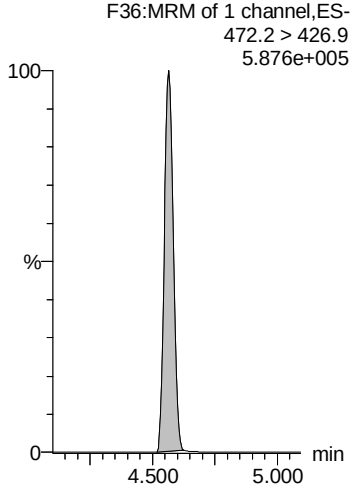
13C7-PFUdA



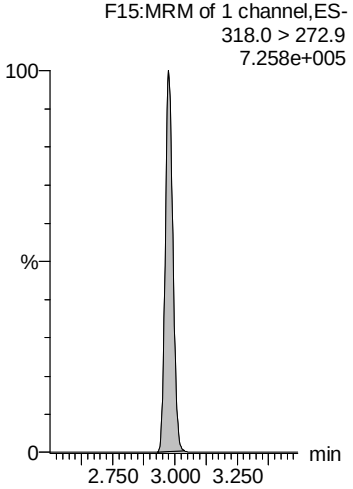
13C4-PFOS



13C9-PFNA



13C5-PFHxA



Vista Analytical Laboratory L18

Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-61.qld

Last Altered: Tuesday, July 23, 2019 10:24:50 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 10:25:14 Pacific Daylight Time

Name: 190722M1_61, Date: 22-Jul-2019, Time: 22:04:14, ID: B9G0134-BSD1 LCSD 0.25, Description: LCSD

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8	1.10e4	1.07e4	0.250		1.17	1.18	12.8	41.0872	102.7		
2	4	PFPeA	263.1 > 218.9	1.06e4	1.36e4	0.250		2.15	2.15	9.68	41.8665	104.7		
3	5	PFBS	299.0 > 79.7	3.95e3	2.04e3	0.250		2.46	2.46	24.1	42.5677	106.4	2.830	NO
4	7	PFHxA	313.0 > 269.0	2.12e4	1.10e4	0.250		2.97	2.97	9.62	43.6211	109.1	15.453	NO
5	11	PFHpA	363.0 > 318.9	1.39e4	1.27e4	0.250		3.59	3.60	13.7	42.2959	105.7	9.306	NO
6	47	13C3-PFBA	216.1 > 171.8	1.07e4	1.52e4	0.250	0.734	1.15	1.17	8.81	48.0053	96.0		
7	48	13C3-PFPeA	266.0 > 221.8	1.36e4	2.92e4	0.250	0.498	2.15	2.15	5.84	46.8721	93.7		
8	49	13C3-PFBS	302.0 > 98.8	2.04e3	1.89e3	0.250	1.058	2.45	2.46	13.5	51.1608	102.3		
9	52	13C2-PFHxA	315.0 > 270.0	1.10e4	2.92e4	0.250	0.978	2.96	2.97	4.72	19.3006	96.5		
10	53	13C4-PFHpA	367.2 > 321.8	1.27e4	2.92e4	0.250	0.479	3.59	3.59	5.43	45.3583	90.7		
11	-1													
12	13	L-PFHxS	398.9 > 79.6	3.30e3	3.84e3	0.250		3.75	3.75	10.7	47.0865	117.7	2.309	NO
13	80	Total PFHxS	398.9 > 79.6	3.30e3	3.84e3	0.250		3.83		10.7	47.0865			
14	16	L-PFOA	412.8 > 368.9	2.70e4	2.24e4	0.250		4.12	4.12	15.0	39.9311	99.8	3.650	NO
15	81	Total PFOA	412.8 > 368.9	2.70e4	2.24e4	0.250		4.21		15.0	39.9311			
16	22	PFOSA	497.9 > 77.9	2.14e3	2.22e3	0.250		4.63	4.63	12.0	47.1857	118.0	27.623	NO
17	74	18O2-PFHxS	403.0 > 102.6	1.89e3	1.89e3	0.250	1.000	3.75	3.75	12.5	50.0000	100.0		
18	74	18O2-PFHxS	403.0 > 102.6	1.89e3	1.89e3	0.250	1.000	3.75	3.75	12.5	50.0000	100.0		
19	58	13C2-PFOA	414.9 > 369.7	2.24e4	3.50e4	0.250	0.681	4.12	4.12	8.01	47.0175	94.0		
20	58	13C2-PFOA	414.9 > 369.7	2.24e4	3.50e4	0.250	0.681	4.12	4.12	8.01	47.0175	94.0		
21	57	13C8-PFOSA	506.1 > 77.7	2.22e3	3.96e4	0.250	0.168	4.62	4.63	0.700	16.7198	33.4		
22	-1													
23	21	PFNA	463.0 > 418.8	2.22e4	2.19e4	0.250		4.57	4.57	12.7	44.1270	110.3	4.007	NO
24	23	L-PFOS	498.9 > 79.9	3.85e3	4.24e3	0.250		4.66	4.66	11.3	42.5120	106.3	2.130	NO
25	82	Total PFOS	498.9 > 79.9	3.85e3	4.24e3	0.250		4.74		11.3	42.5120			
26	26	PFDA	513 > 468.8	2.57e4	2.16e4	0.250		4.95	4.95	14.8	46.0243	115.1	5.723	NO
27	33	PFUdA	563.0 > 518.9	2.32e4	2.85e4	0.250		5.28	5.28	10.2	44.5325	111.3	9.063	NO
28	56	13C5-PFNA	468.2 > 422.9	2.19e4	2.54e4	0.250	1.002	4.56	4.57	10.8	42.9579	85.9		
29	59	13C8-PFOS	507.0 > 79.9	4.24e3	4.72e3	0.250	0.997	4.65	4.66	11.2	45.0355	90.1		
30	59	13C8-PFOS	507.0 > 79.9	4.24e3	4.72e3	0.250	0.997	4.65	4.66	11.2	45.0355	90.1		
31	60	13C2-PFDA	515.1 > 469.9	2.16e4	3.40e4	0.250	0.819	4.95	4.95	7.95	38.8031	77.6		
32	63	13C2-PFUdA	565 > 519.8	2.85e4	3.96e4	0.250	0.889	5.28	5.28	8.99	40.4597	80.9		
33	-1													
34	29	L-MeFOSAA	570 > 419	9.21e3	4.82e3	0.250		5.10	5.11	23.9	44.3115	110.8	2.511	NO
35	83	Total N-MeFOSAA	570. > 419	9.21e3	4.82e3	0.250		5.19		23.9	44.3115			
36	31	L-EtFOSAA	584.1 > 419	7.56e3	6.53e3	0.250		5.26	5.27	14.5	46.3057	115.8	1.459	NO

Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-61.qld

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Name: 190722M1_61, Date: 22-Jul-2019, Time: 22:04:14, ID: B9G0134-BSD1 LCSD 0.25, Description: LCSD

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	84	Total N-EtFOSAA	584.1 > 419	7.56e3	6.53e3	0.250		5.33		14.5	46.3057			
38	34	PFDS	598.8 > 79.9	3.57e3	2.43e3	0.250		5.33	5.33	18.4	43.1890	108.0	1.643	NO
39	62	d3-N-MeFOSAA	573.3 > 419	4.82e3	3.96e4	0.250	0.177	5.10	5.10	1.52	34.2820	68.6		
40	62	d3-N-MeFOSAA	573.3 > 419	4.82e3	3.96e4	0.250	0.177	5.10	5.10	1.52	34.2820	68.6		
41	64	d5-N-EtFOSAA	589.3 > 419	6.53e3	3.96e4	0.250	0.224	5.26	5.26	2.06	36.8395	73.7		
42	64	d5-N-EtFOSAA	589.3 > 419	6.53e3	3.96e4	0.250	0.224	5.26	5.26	2.06	36.8395	73.7		
43	59	13C8-PFOS	507.0 > 79.9	4.24e3	4.72e3	0.250	0.997	4.65	4.66	11.2	45.0355	90.1		
44	-1													
45	37	PFDoA	612.9 > 569.0	2.57e4	2.77e4	0.250		5.57	5.57	11.6	43.4227	108.6	8.553	NO
46	39	PFTrDA	662.9 > 618.9	2.51e4	2.77e4	0.250		5.83	5.82	11.3	39.7358	99.3	18.221	NO
47	41	PFTeDA	713.0 > 669.0	2.32e4	1.71e4	0.250		6.05	6.05	16.9	44.6951	111.7	14.627	NO
48	72	13C4-PFBA	217.0 > 172.0	1.52e4	1.52e4	0.250	1.000	1.16	1.17	12.5	50.0000	100.0		
49	65	13C2-PFDoA	614.7 > 569.7	2.77e4	3.40e4	0.250	1.087	5.57	5.57	10.2	37.4254	74.9		
50	65	13C2-PFDoA	614.7 > 569.7	2.77e4	3.40e4	0.250	1.087	5.57	5.57	10.2	37.4254	74.9		
51	67	13C2-PFTeDA	715.1 > 669.7	1.71e4	3.96e4	0.250	0.604	6.05	6.05	5.40	35.7607	71.5		
52	59	13C8-PFOS	507.0 > 79.9	4.24e3	4.72e3	0.250	0.997	4.65	4.66	11.2	45.0355	90.1		
53	54	13C3-PFHxS	401.8 > 79.9	3.84e3	1.89e3	0.250	2.024	3.75	3.75	25.4	50.2199	100.4		
54	-1													
55	78	13C6-PFDA	519.1 > 473.7	3.40e4	3.40e4	0.250	1.000	4.95	4.95	12.5	50.0000	100.0		
56	79	13C7-PFUdA	570.1 > 524.8	3.96e4	3.96e4	0.250	1.000	5.28	5.28	12.5	50.0000	100.0		
57	77	13C4-PFOS	503 > 79.9	4.72e3	4.72e3	0.250	1.000	4.65	4.66	12.5	50.0000	100.0		
58	76	13C9-PFNA	472.2 > 426.9	2.54e4	2.54e4	0.250	1.000	4.56	4.57	12.5	50.0000	100.0		
59	73	13C5-PFHxA	318.0 > 272.9	2.92e4	2.92e4	0.250	1.000	2.96	2.97	12.5	50.0000	100.0		

Review: AMR 7/23/2019

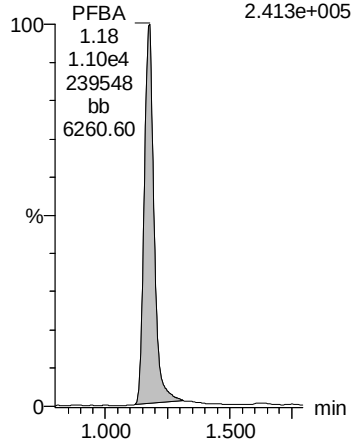
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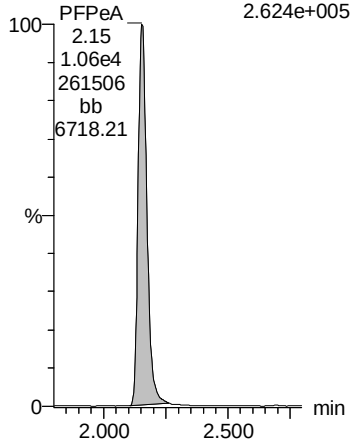
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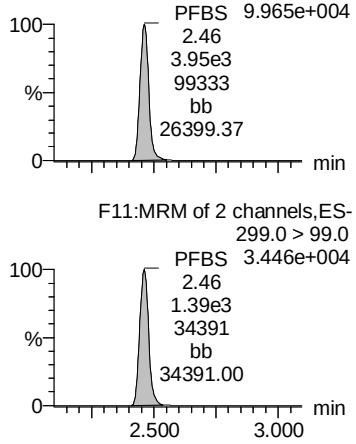
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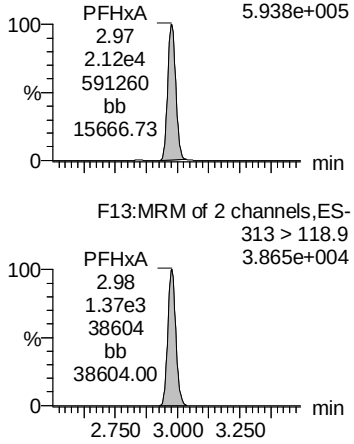
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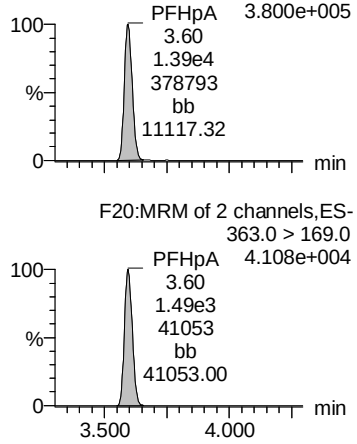
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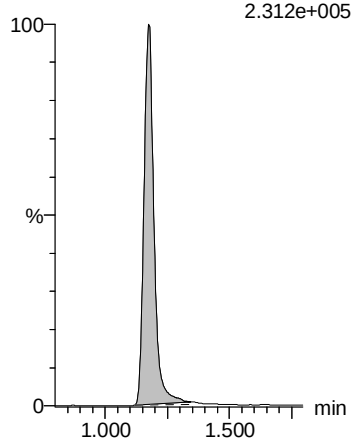
PFHxA



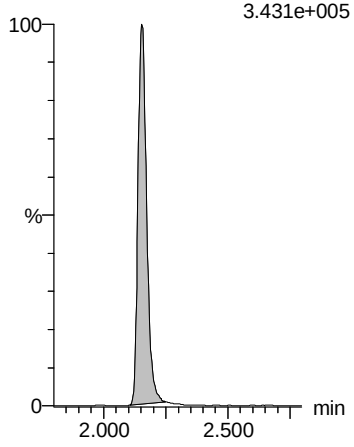
PFHpA



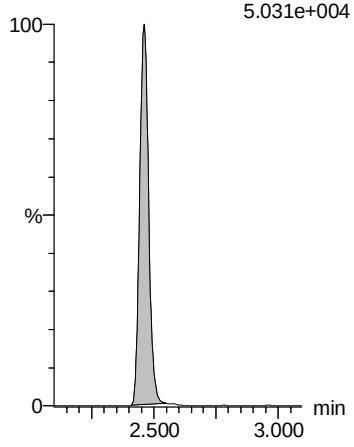
13C3-PFBA



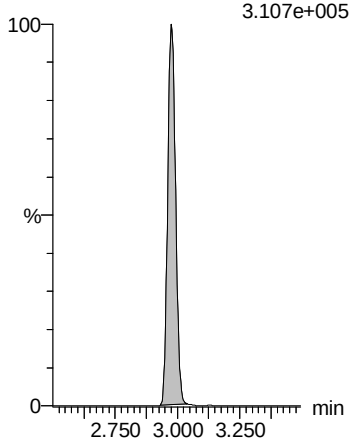
13C3-PFPeA



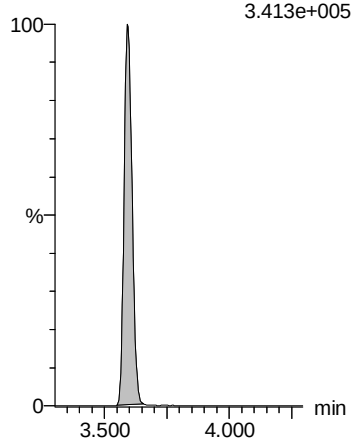
13C3-PFBS



13C2-PFHxA



13C4-PFHpA



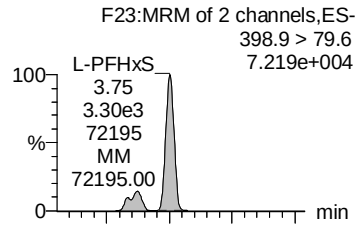
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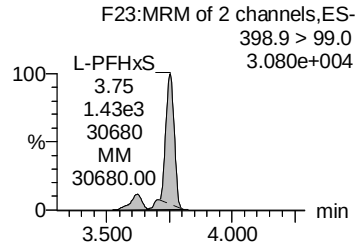
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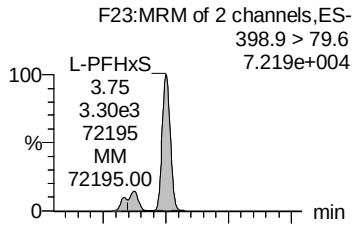
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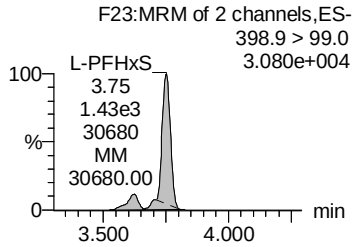
L-PFHxS



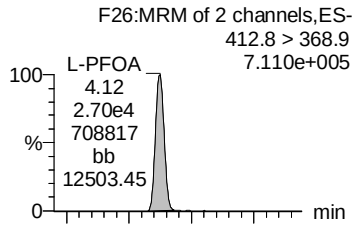


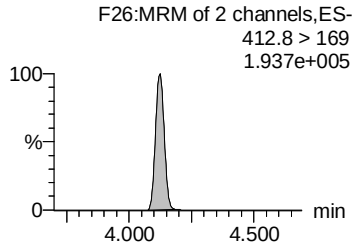
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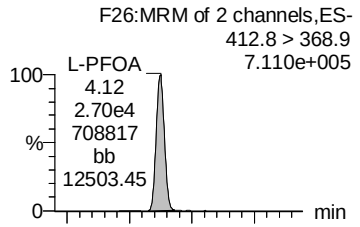


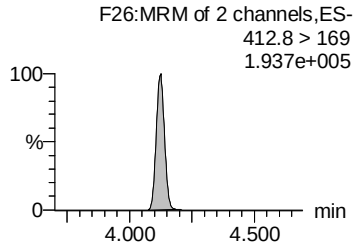
L-PFOA



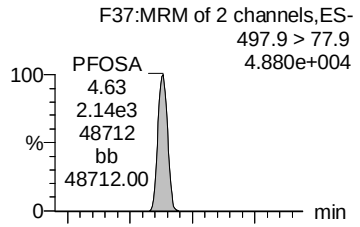


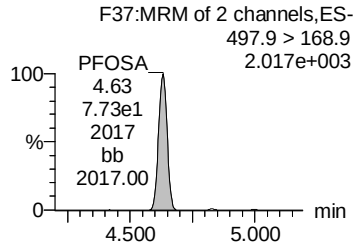
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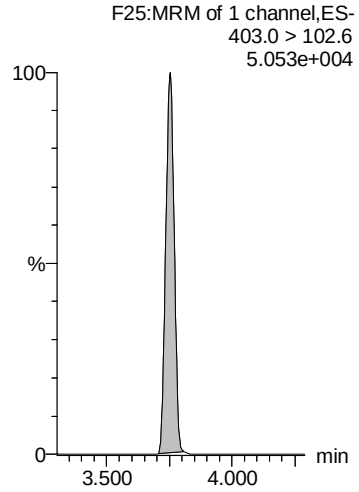


PFOSA

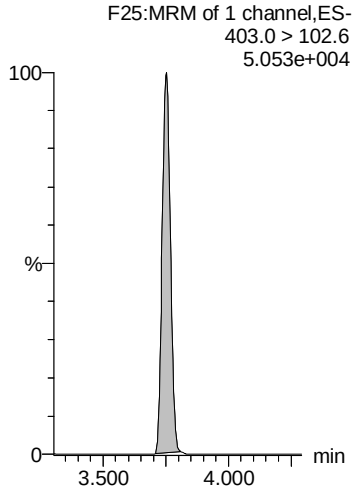




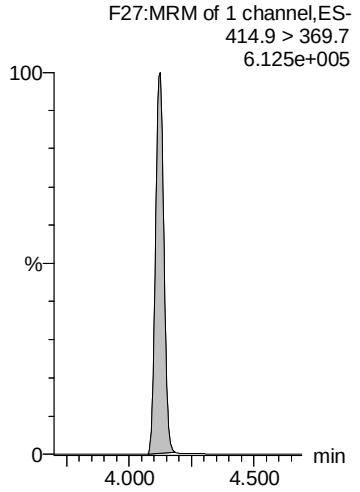
18O2-PFHxS



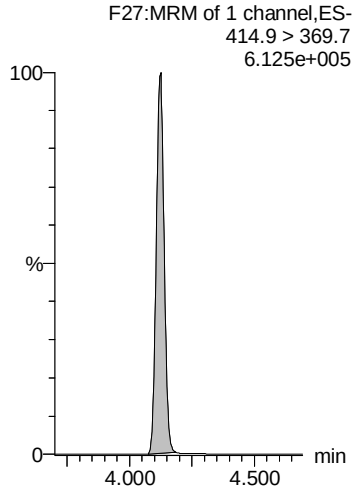
18O2-PFHxS



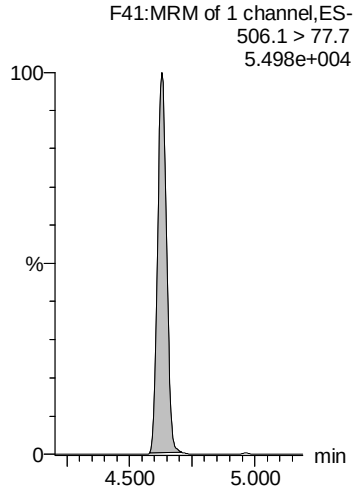
13C2-PFOA



13C2-PFOA



13C8-PFOSA



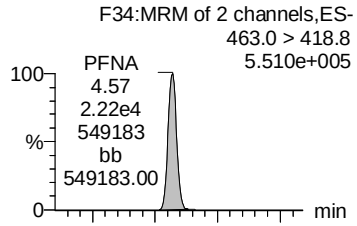
Review: AMR 7/23/2019

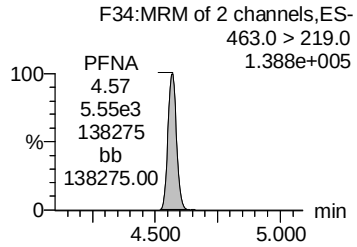
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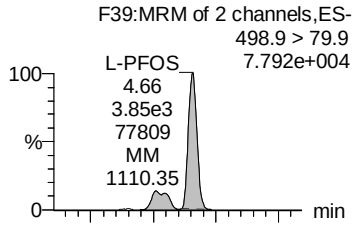
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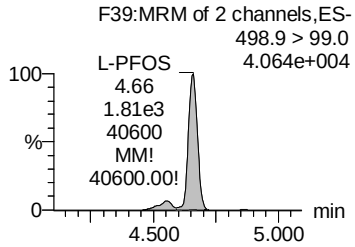
PFNA



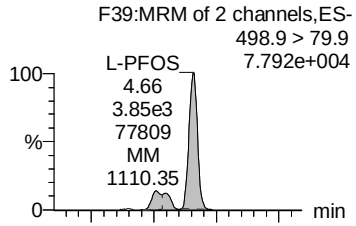


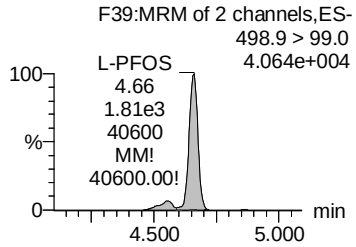
L-PFOS



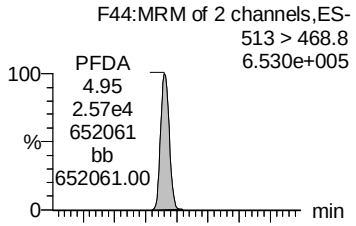


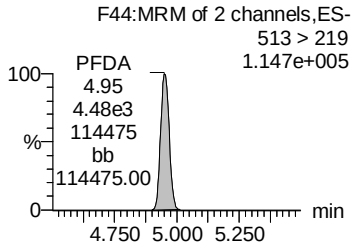
Total PFOS



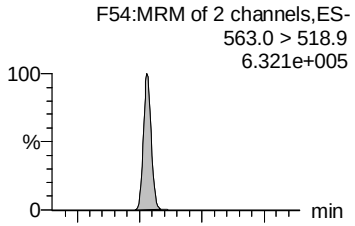


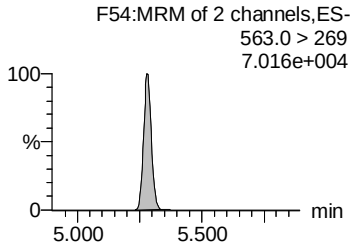
PFDA



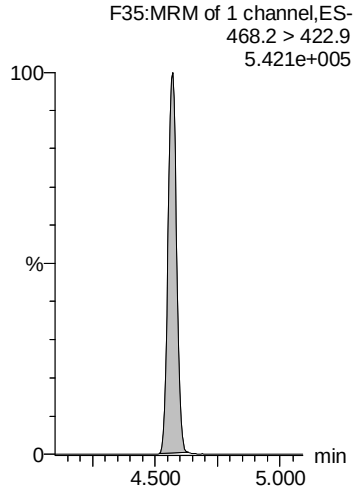


PFUdA

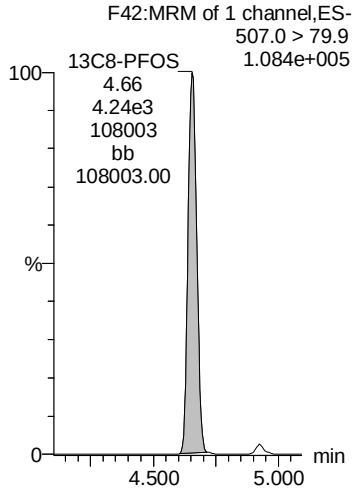




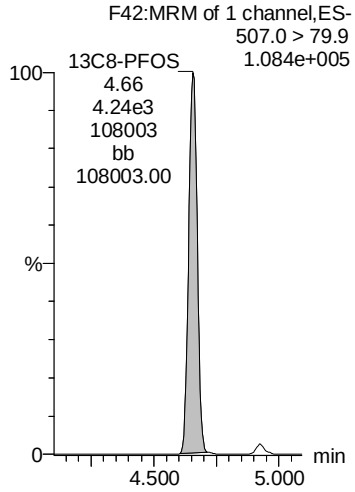
13C5-PFNA



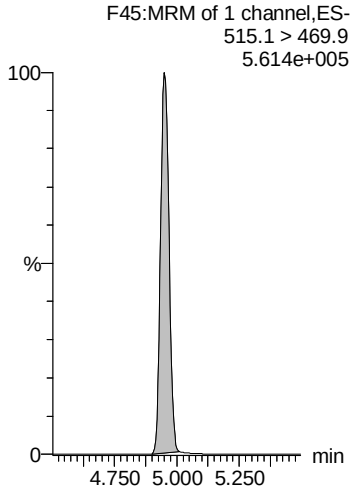
13C8-PFOS



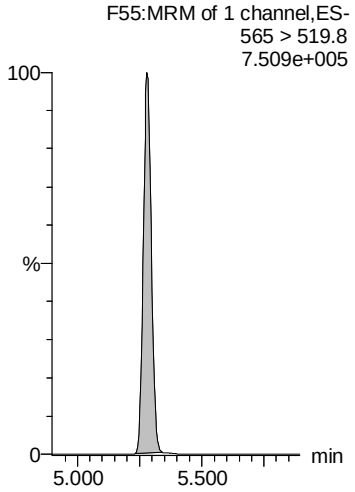
13C8-PFOS



13C2-PFDA



13C2-PFUdA



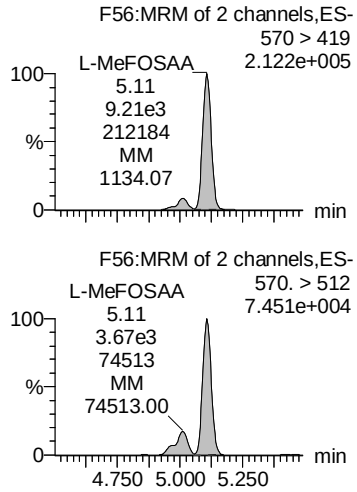
Review: AMR 7/23/2019

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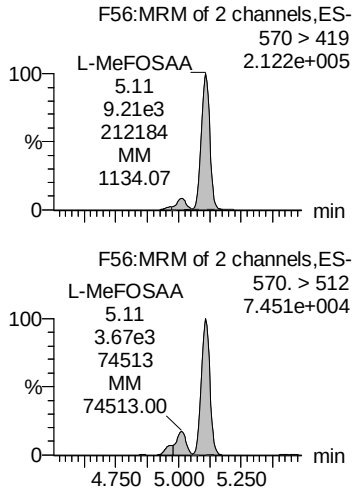
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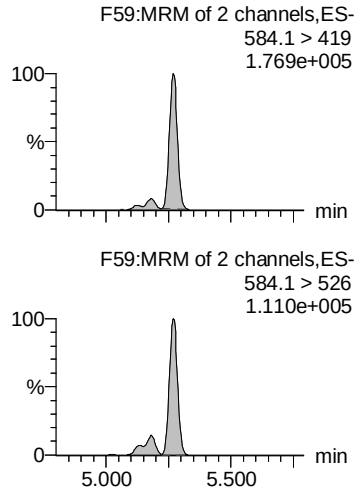
L-MeFOSAA



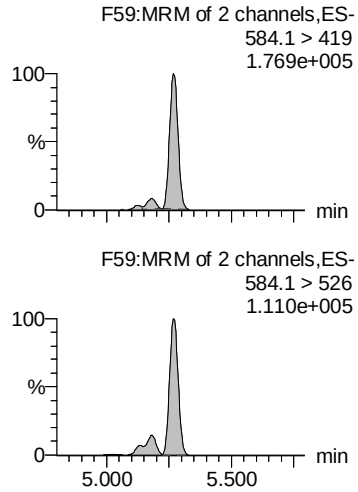
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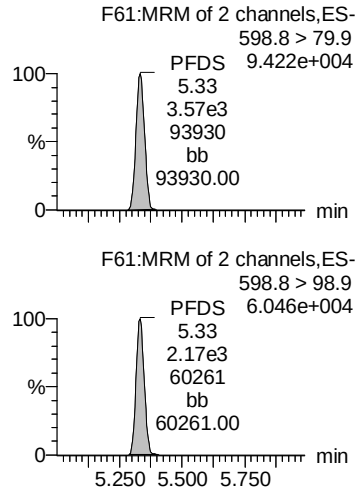
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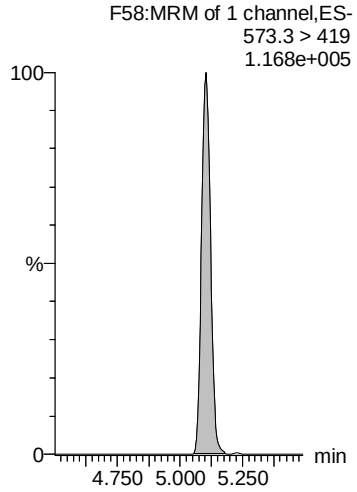
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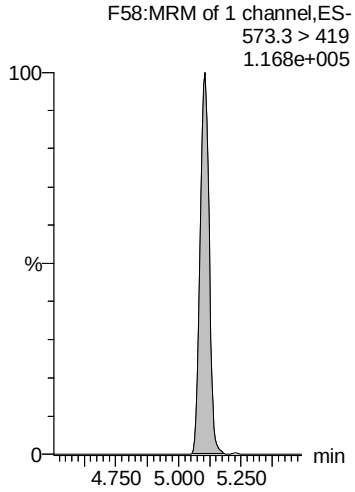
PFDS



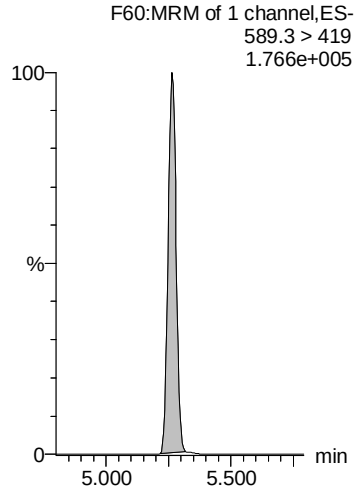
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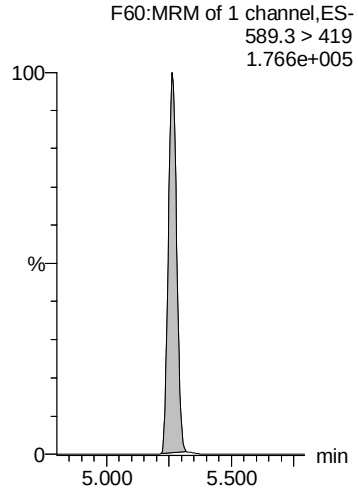
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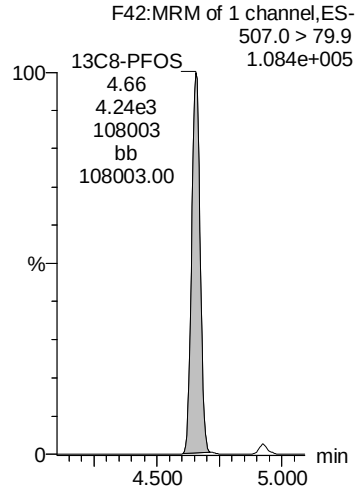
d5-N-EtFOSAA



d5-N-EtFOSAA



13C8-PFOS



 GM 7/23/2019

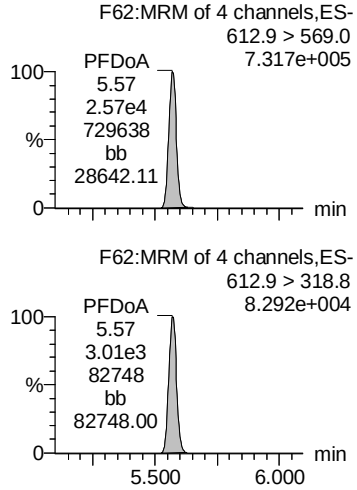
Review: AMR 7/23/2019

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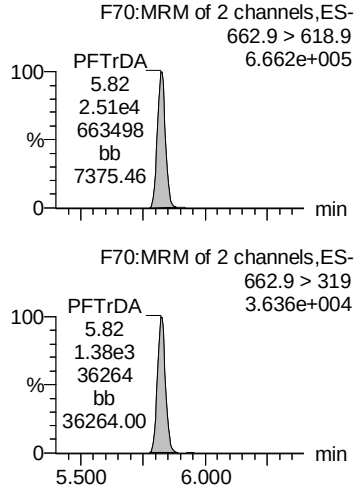
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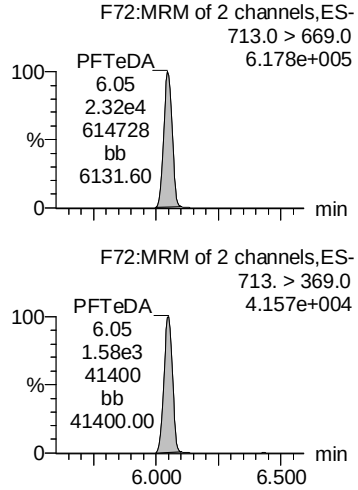
PFDoA



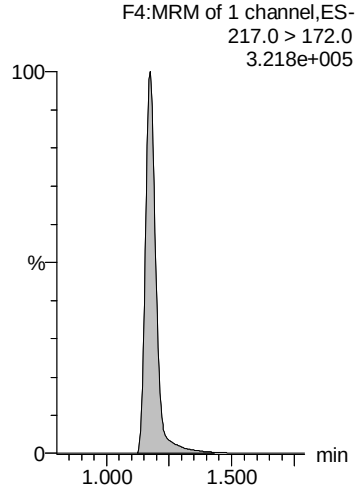
PFTrDA



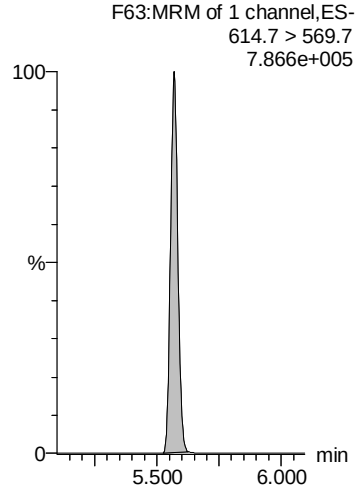
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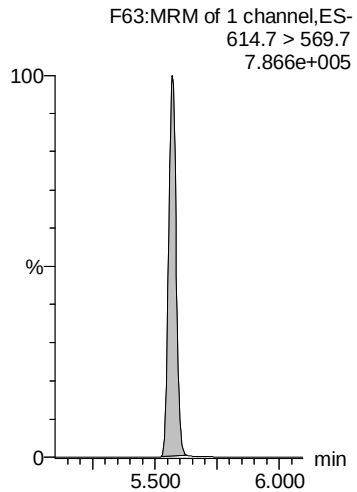
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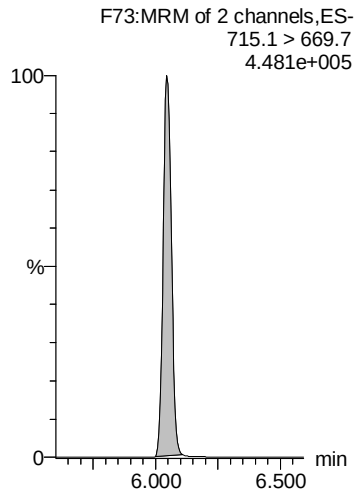
13C2-PFDoA



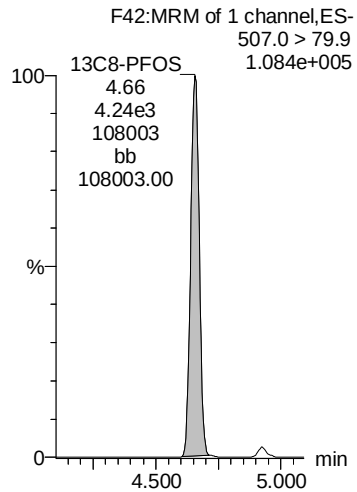
13C2-PFDoA



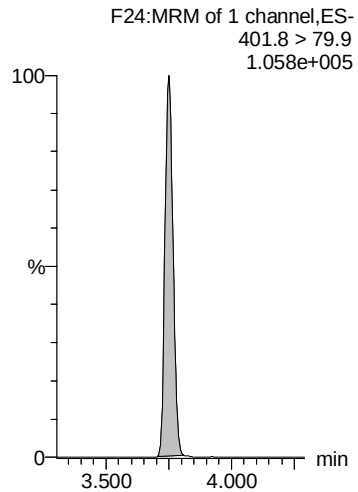
13C2-PFTeDA



13C8-PFOS



13C3-PFHxS



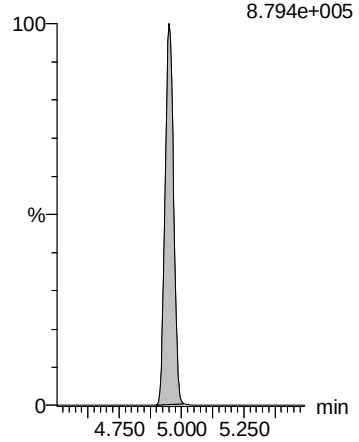
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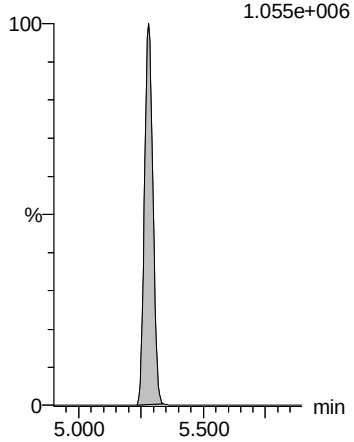
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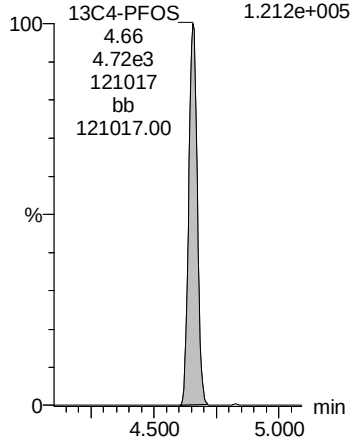
13C6-PFDA



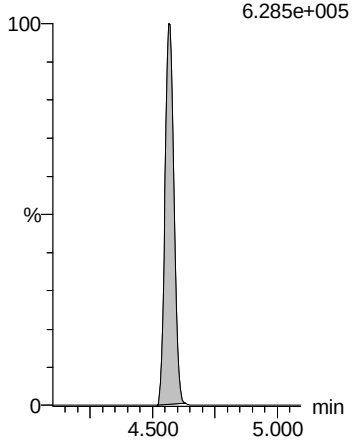
13C7-PFUdA



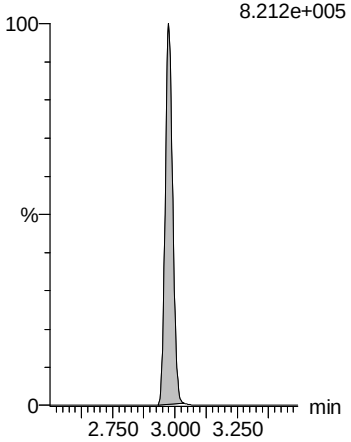
13C4-PFOS



13C9-PFNA



13C5-PFHxA



Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-64.qld

Last Altered: Tuesday, July 23, 2019 11:36:50 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 12:41:35 Pacific Daylight Time

Name: 190722M1_64, Date: 22-Jul-2019, Time: 22:36:03, ID: 1902014-03 FRB-07032019 0.11634, Description: FRB-07032019

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7		2.03e3	0.116		2.46						
2	7	PFHxA	313.0 > 269.0	6.93e1	9.28e3	0.116		2.98	2.98	0.0373			31.279	YES
3	11	PFHpA	363.0 > 318.9		1.14e4	0.116		3.60						
4	13	L-PFHxS	398.9 > 79.6	9.23e0	3.88e3	0.116		3.75	3.75	0.0298	0.2926		1.926	NO
5	80	Total PFHxS	398.9 > 79.6	9.23e0	3.88e3	0.116		3.83		0.0298	0.2926			
6	49	13C3-PFBS	302.0 > 98.8	2.03e3	1.88e3	0.116	1.058	2.45	2.46	13.5	109.6757	102.1		
7	52	13C2-PFHxA	315.0 > 270.0	9.28e3	2.48e4	0.116	0.978	2.96	2.98	4.67	41.1005	95.6		
8	53	13C4-PFHpA	367.2 > 321.8	1.14e4	2.48e4	0.116	0.479	3.59	3.60	5.74	103.1256	96.0		
9	54	13C3-PFHxS	401.8 > 79.9	3.88e3	1.88e3	0.116	2.024	3.75	3.75	25.7	109.1866	101.6		
10	54	13C3-PFHxS	401.8 > 79.9	3.88e3	1.88e3	0.116	2.024	3.75	3.75	25.7	109.1866	101.6		
11	-1													
12	16	L-PFOA	412.8 > 368.9	9.25e1	2.06e4	0.116		4.12	4.12	0.0560	0.1049		31.264	YES
13	81	Total PFOA	412.8 > 368.9	9.25e1	2.06e4	0.116		4.21		0.0560	0.1049			
14	21	PFNA	463.0 > 418.8		2.08e4	0.116		4.57						
15	23	L-PFOS	498.9 > 79.9	7.76e0	4.22e3	0.116		4.66	4.68	0.0230	0.3438		8.196	YES
16	82	Total PFOS	498.9 > 79.9	7.76e0	4.22e3	0.116		4.74		0.0230	0.3438			
17	58	13C2-PFOA	414.9 > 369.7	2.06e4	3.05e4	0.116	0.681	4.12	4.12	8.46	106.7947	99.4		
18	58	13C2-PFOA	414.9 > 369.7	2.06e4	3.05e4	0.116	0.681	4.12	4.12	8.46	106.7947	99.4		
19	56	13C5-PFNA	468.2 > 422.9	2.08e4	2.25e4	0.116	1.002	4.56	4.57	11.6	99.4338	92.5		
20	59	13C8-PFOS	507.0 > 79.9	4.22e3	4.53e3	0.116	0.997	4.65	4.66	11.6	100.2523	93.3		
21	59	13C8-PFOS	507.0 > 79.9	4.22e3	4.53e3	0.116	0.997	4.65	4.66	11.6	100.2523	93.3		
22	-1													
23	26	PFDA	513 > 468.8		1.90e4	0.116		4.95						
24	29	L-MeFOSAA	570 > 419		4.01e3	0.116		5.10						
25	83	Total N-MeFOSAA	570. > 419	0.00e0	4.01e3	0.116		5.19		0.000				
26	33	PFUdA	563.0 > 518.9		2.26e4	0.116		5.28						
27	37	PFDoA	612.9 > 569.0		2.16e4	0.116		5.57						
28	60	13C2-PFDA	515.1 > 469.9	1.90e4	2.96e4	0.116	0.819	4.95	4.95	8.04	84.3465	78.5		
29	62	d3-N-MeFOSAA	573.3 > 419	4.01e3	3.74e4	0.116	0.177	5.10	5.10	1.34	64.9018	60.4		
30	62	d3-N-MeFOSAA	573.3 > 419	4.01e3	3.74e4	0.116	0.177	5.10	5.10	1.34	64.9018	60.4		
31	63	13C2-PFUdA	565 > 519.8	2.26e4	3.74e4	0.116	0.889	5.28	5.28	7.55	72.9875	67.9		
32	65	13C2-PFDoA	614.7 > 569.7	2.16e4	2.96e4	0.116	1.087	5.57	5.57	9.10	71.9542	67.0		
33	-1													
34	31	L-EtFOSAA	584.1 > 419		5.37e3	0.116		5.26						
35	84	Total N-EtFOSAA	584.1 > 419	0.00e0	5.37e3	0.116		5.33		0.000				
36	39	PFTrDA	662.9 > 618.9		2.16e4	0.116		5.83						

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Name: 190722M1_64, Date: 22-Jul-2019, Time: 22:36:03, ID: 1902014-03 FRB-07032019 0.11634, Description: FRB-07032019

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0		1.80e4	0.116		6.05						
38	85	TDCA	498.3>106.9			0.116		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	5.37e3	3.74e4	0.116	0.224	5.26	5.26	1.80	68.9366	64.2		
40	64	d5-N-EtFOSAA	589.3 > 419	5.37e3	3.74e4	0.116	0.224	5.26	5.26	1.80	68.9366	64.2		
41	65	13C2-PFDoA	614.7 > 569.7	2.16e4	2.96e4	0.116	1.087	5.57	5.57	9.10	71.9542	67.0		
42	67	13C2-PFTeDA	715.1 > 669.7	1.80e4	3.74e4	0.116	0.604	6.05	6.05	6.03	85.7167	79.8		
43	59	13C8-PFOS	507.0 > 79.9	4.22e3	4.53e3	0.116	0.997	4.65	4.66	11.6	100.2523	93.3		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	2.48e4	2.48e4	0.116	1.000	2.96	2.97	12.5	107.4437	100.0		
46	75	13C8-PFOA	420.9 > 376.0	3.05e4	3.05e4	0.116	1.000	4.12	4.12	12.5	107.4437	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	1.88e3	1.88e3	0.116	1.000	3.75	3.75	12.5	107.4437	100.0		
48	76	13C9-PFNA	472.2 > 426.9	2.25e4	2.25e4	0.116	1.000	4.56	4.57	12.5	107.4437	100.0		
49	77	13C4-PFOS	503 > 79.9	4.53e3	4.53e3	0.116	1.000	4.65	4.66	12.5	107.4437	100.0		
50	78	13C6-PFDA	519.1 > 473.7	2.96e4	2.96e4	0.116	1.000	4.95	4.95	12.5	107.4437	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	3.74e4	3.74e4	0.116	1.000	5.28	5.28	12.5	107.4437	100.0		

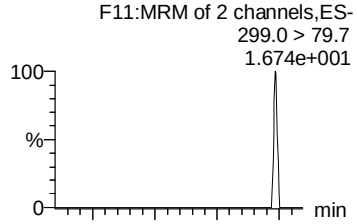
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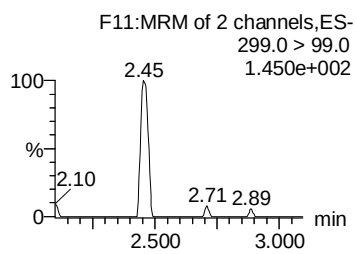
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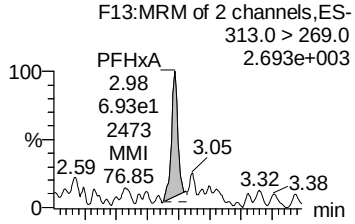
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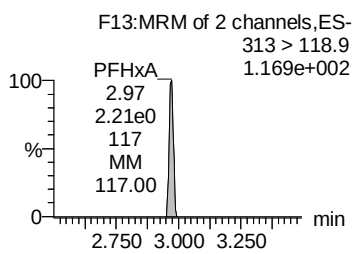
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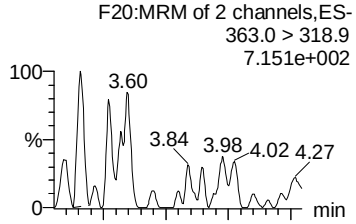


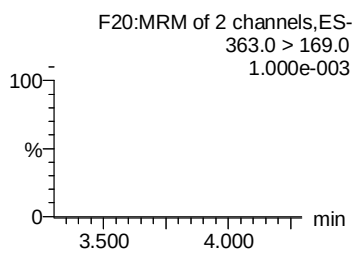
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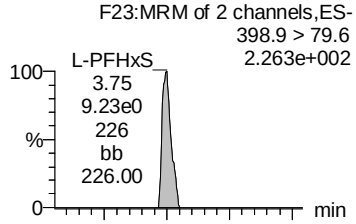


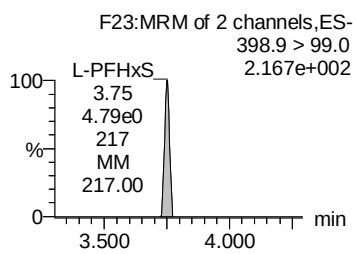
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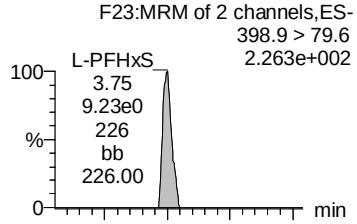


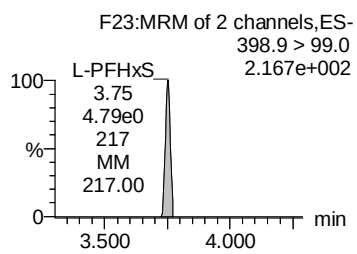
L-PFHxS



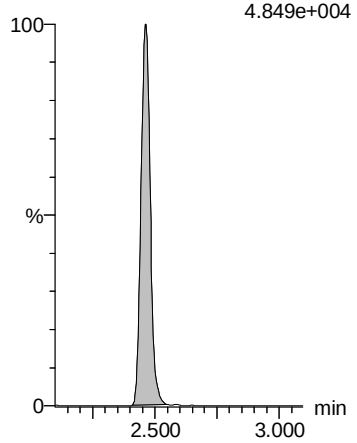


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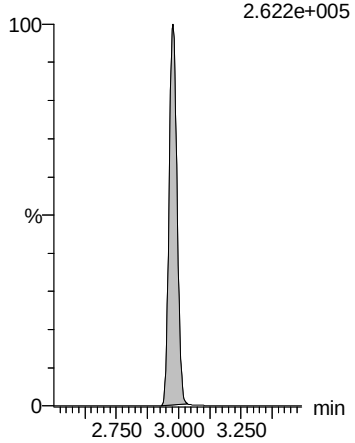




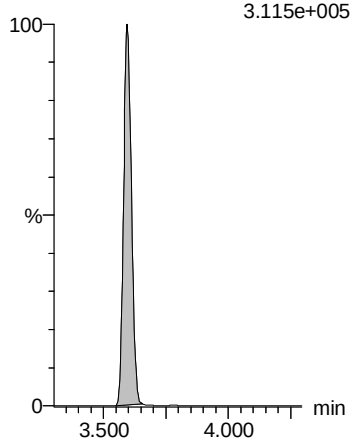
13C3-PFBS



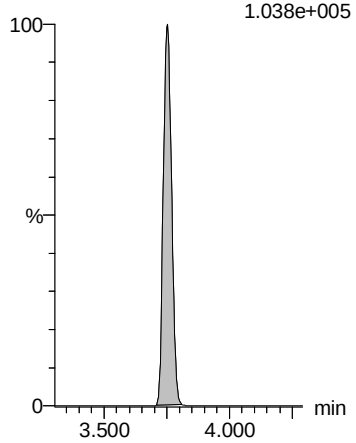
13C2-PFHxA



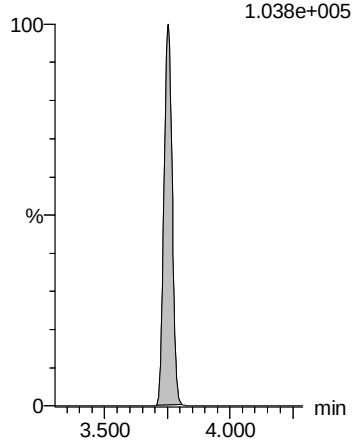
13C4-PFHpA



13C3-PFHxS



13C3-PFHxS



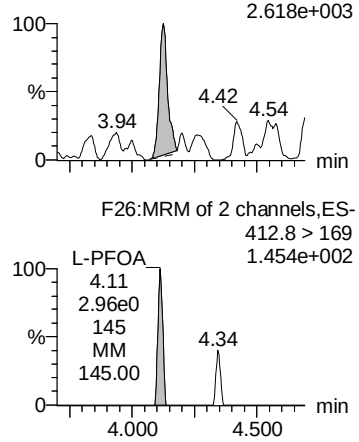
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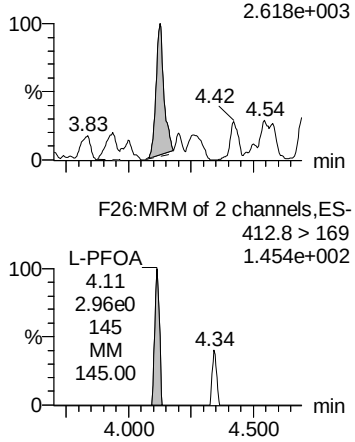
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Name: 190722M1_64, Date: 22-Jul-2019, Time: 22:36:03, ID: 1902014-03 FRB-07032019 0.11634, Description: FRB-07032019

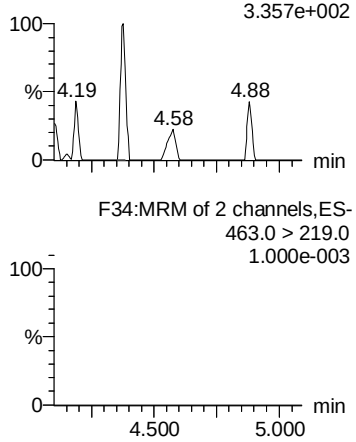
L-PFOA



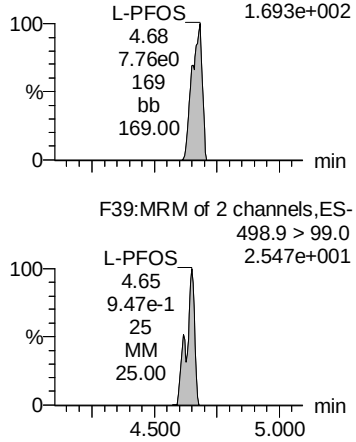
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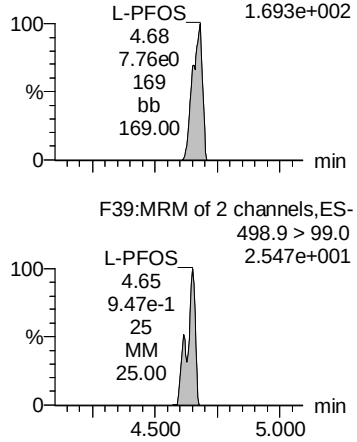
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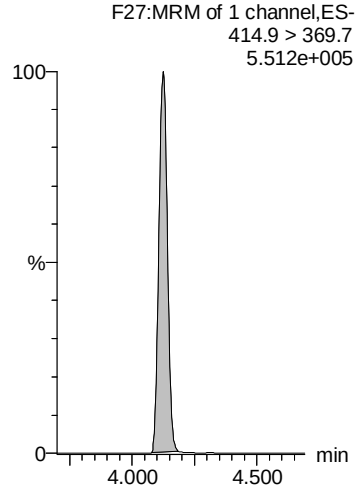
L-PFOS



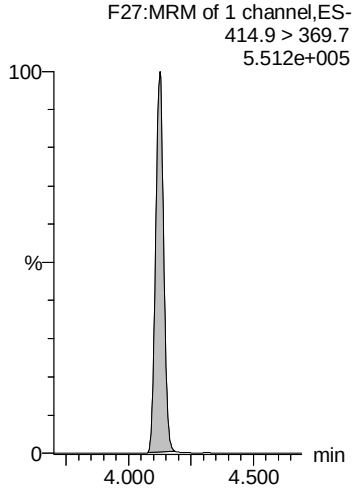
Total PFOS



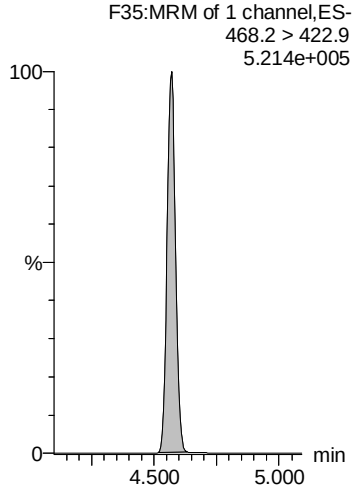
13C2-PFOA



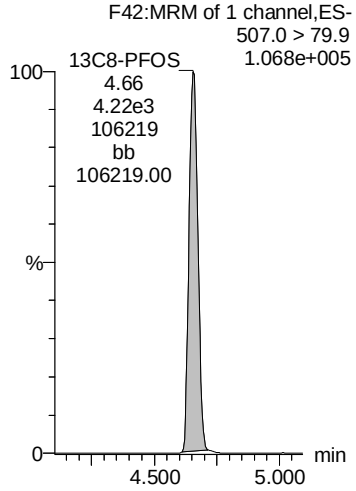
13C2-PFOA



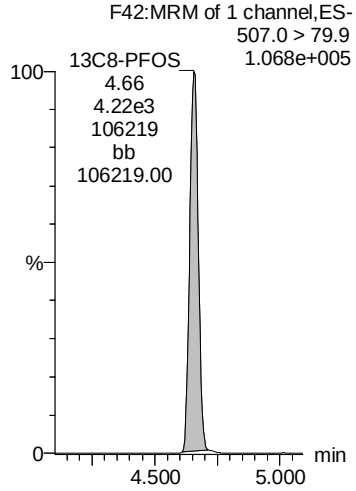
13C5-PFNA



13C8-PFOS



13C8-PFOS



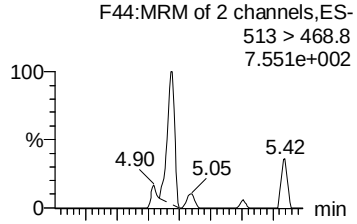
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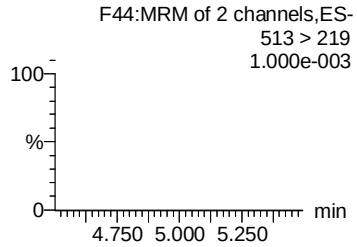
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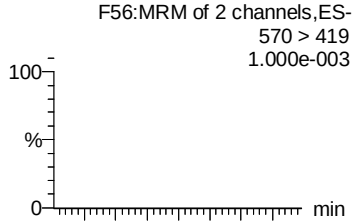
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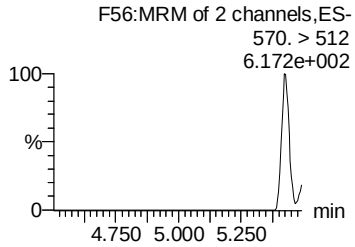
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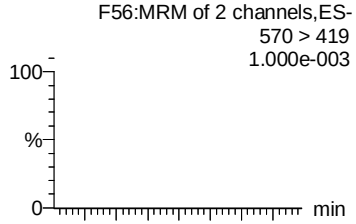


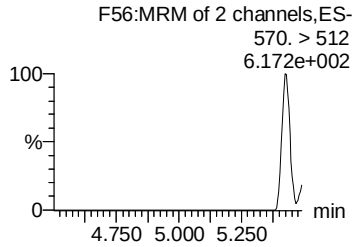
L-MeFOSAA



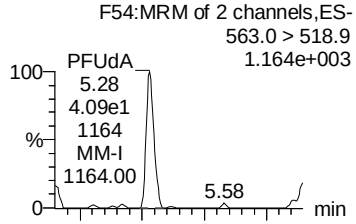


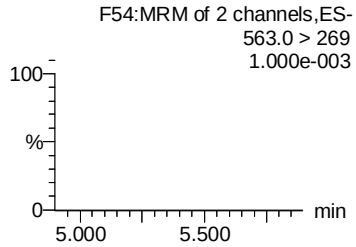
Total N-MeFOSAA



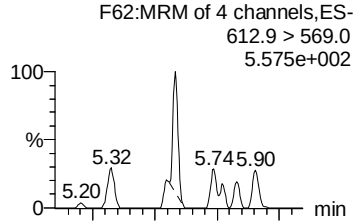


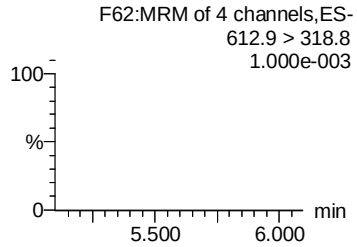
PFUdA



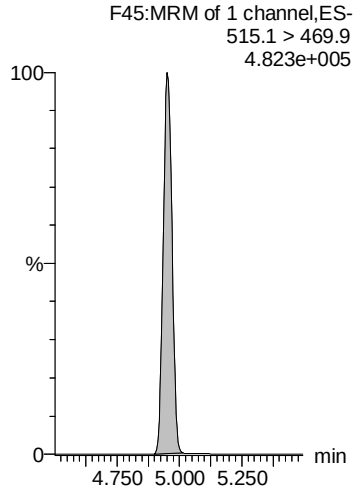


PFDoA

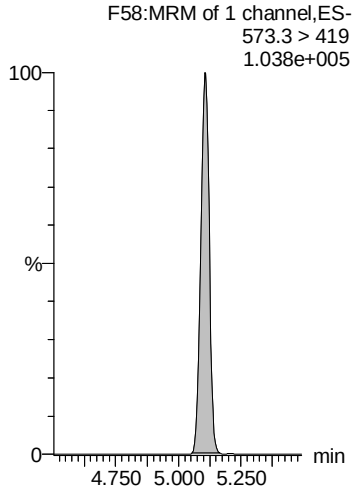




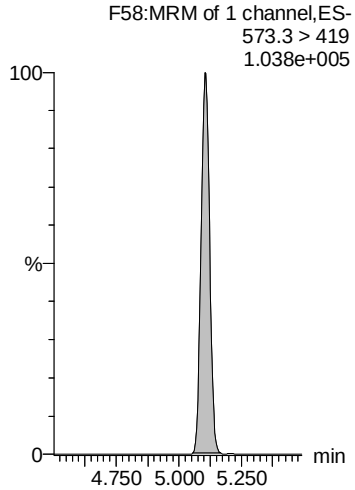
13C2-PFDA



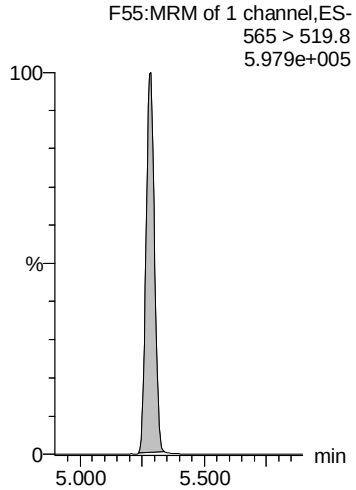
d3-N-MeFOSAA



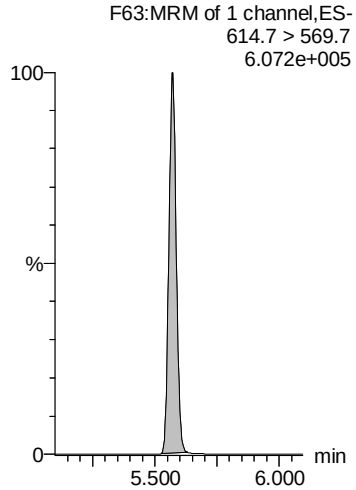
d3-N-MeFOSAA



13C2-PFUdA



13C2-PFDoA



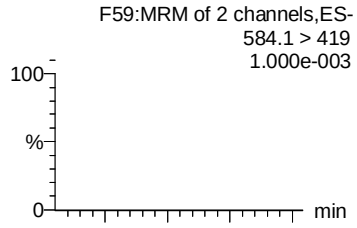
Review: AMR 7/23/2019

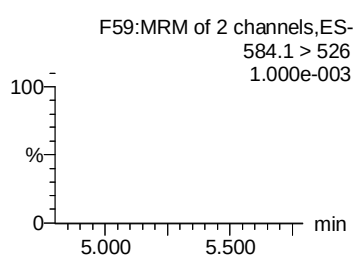
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Printed: Tuesday, July 23, 2019 12:41:35 Pacific Daylight Time

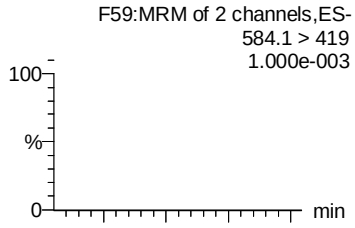
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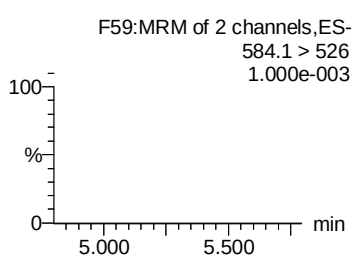
L-EtFOSAA



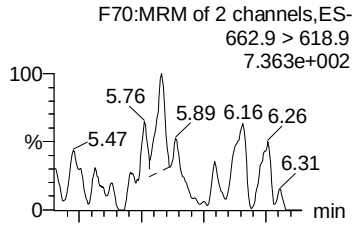


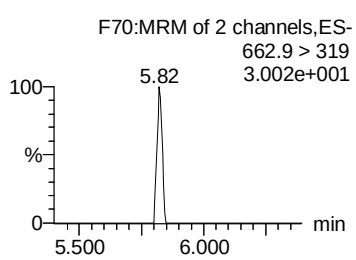
Total N-EtFOSAA



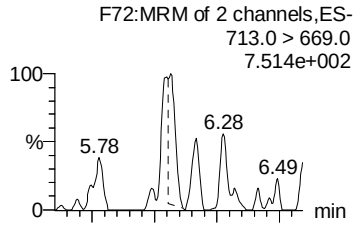


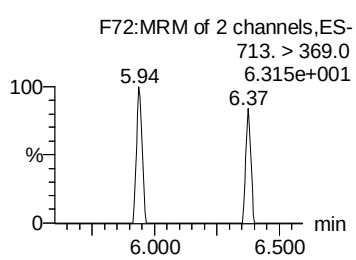
PFTrDA



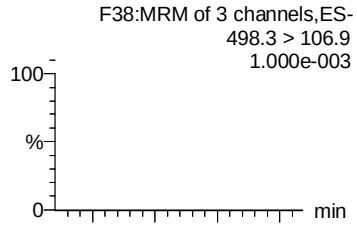


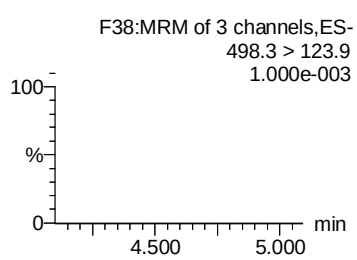
PFTeDA



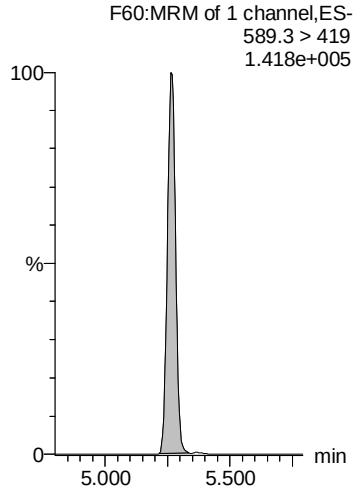


TDCA

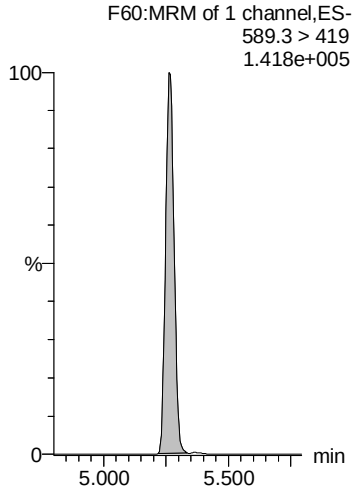




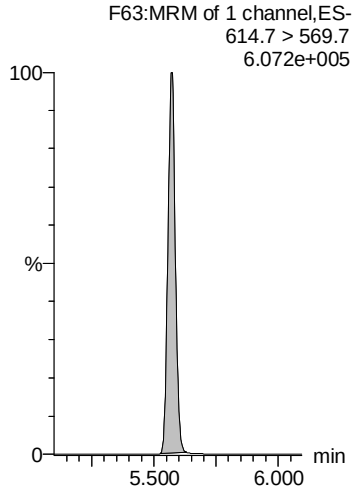
d5-N-EtFOSAA



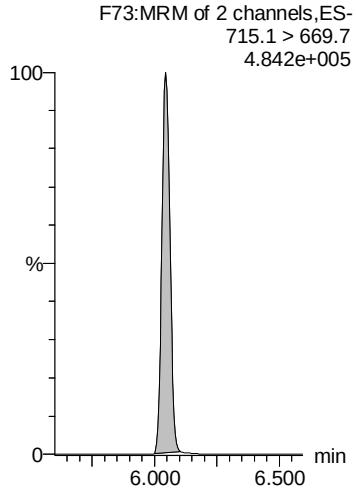
d5-N-EtFOSAA



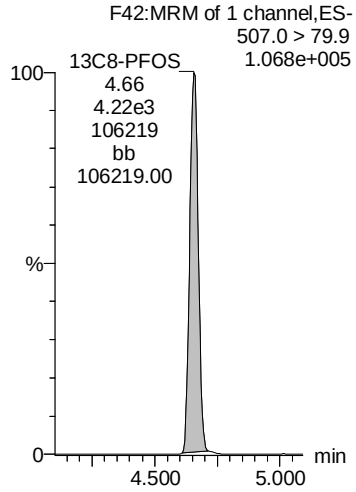
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS

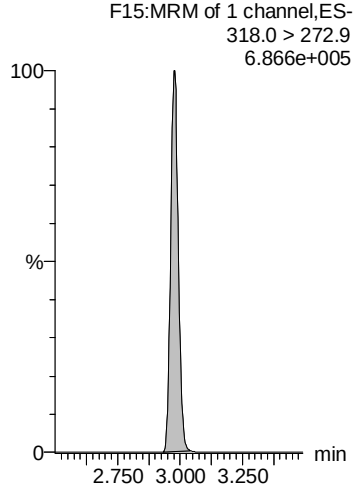


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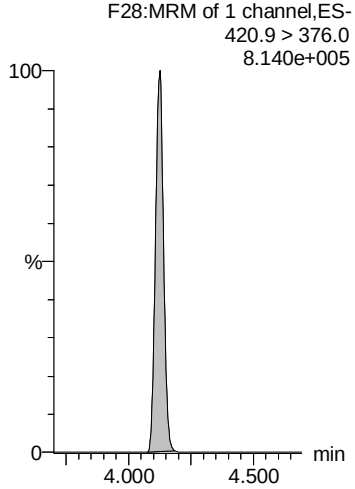
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Printed: Tuesday, July 23, 2019 12:41:35 Pacific Daylight Time

Name: 190722M1_64, Date: 22-Jul-2019, Time: 22:36:03, ID: 1902014-03 FRB-07032019 0.11634, Description: FRB-07032019

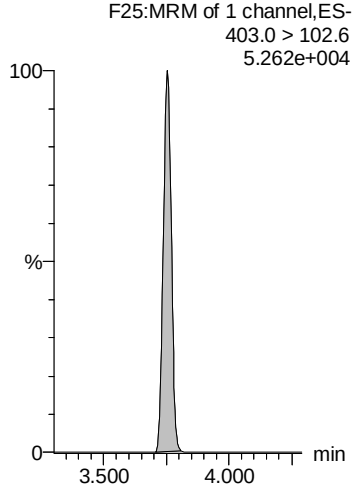
13C5-PFHxA



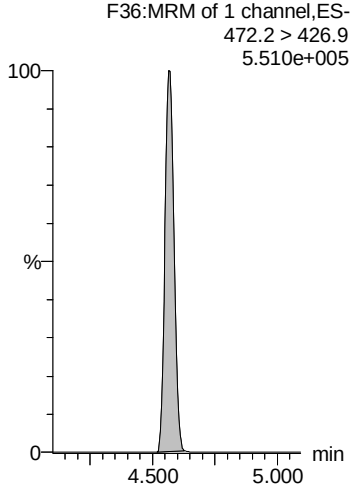
13C8-PFOA



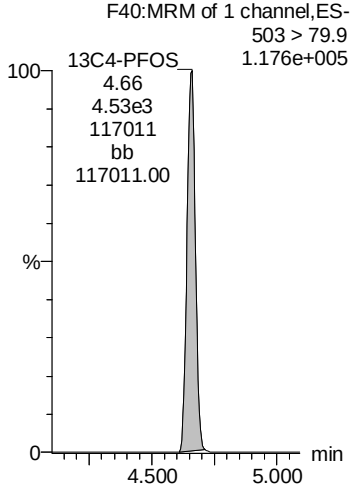
18O2-PFHxS



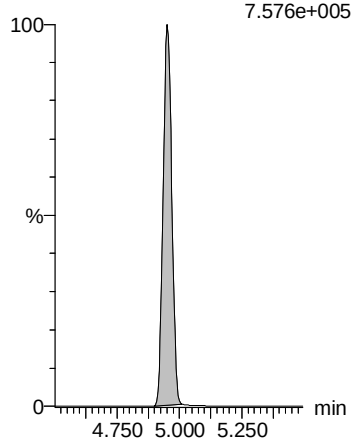
13C9-PFNA



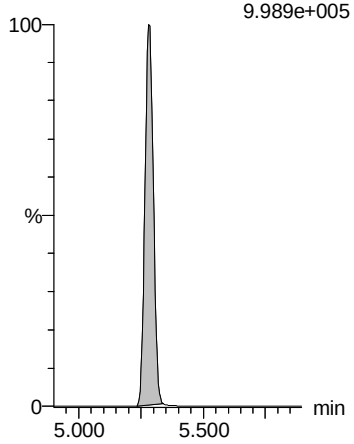
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-65.qld

Last Altered: Tuesday, July 23, 2019 11:40:18 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 12:42:12 Pacific Daylight Time

Name: 190722M1_65, Date: 22-Jul-2019, Time: 22:46:42, ID: 1902014-04 EB-07032019 0.1175, Description: EB-07032019

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	7.31e0	2.07e3	0.117		2.46	2.47	0.0442	0.4475		0.392	YES
2	7	PFHxA	313.0 > 269.0	1.54e3	1.09e4	0.117		2.98	2.98	0.703	6.2310		15.778	NO
3	11	PFHpA	363.0 > 318.9		1.35e4	0.117		3.60						
4	13	L-PFHxS	398.9 > 79.6	3.46e1	3.87e3	0.117		3.75	3.76	0.112	1.0592		7.816	YES
5	80	Total PFHxS	398.9 > 79.6	3.46e1	3.87e3	0.117		3.83		0.112	1.0592			
6	49	13C3-PFBS	302.0 > 98.8	2.07e3	1.94e3	0.117	1.058	2.45	2.46	13.3	107.1298	100.7		
7	52	13C2-PFHxA	315.0 > 270.0	1.09e4	2.84e4	0.117	0.978	2.96	2.98	4.81	41.8435	98.3		
8	53	13C4-PFHpA	367.2 > 321.8	1.35e4	2.84e4	0.117	0.479	3.59	3.60	5.94	105.6991	99.4		
9	54	13C3-PFHxS	401.8 > 79.9	3.87e3	1.94e3	0.117	2.024	3.75	3.75	24.9	104.8023	98.5		
10	54	13C3-PFHxS	401.8 > 79.9	3.87e3	1.94e3	0.117	2.024	3.75	3.75	24.9	104.8023	98.5		
11	-1													
12	16	L-PFOA	412.8 > 368.9	2.94e2	2.39e4	0.117		4.12	4.13	0.154	0.6576		4.300	NO
13	81	Total PFOA	412.8 > 368.9	2.94e2	2.39e4	0.117		4.21		0.154	0.6576			
14	21	PFNA	463.0 > 418.8		2.36e4	0.117		4.57						
15	23	L-PFOS	498.9 > 79.9	3.89e3	4.55e3	0.117		4.66	4.66	10.7	85.2226		2.168	NO
16	82	Total PFOS	498.9 > 79.9	3.89e3	4.55e3	0.117		4.74		10.7	85.2226			
17	58	13C2-PFOA	414.9 > 369.7	2.39e4	3.56e4	0.117	0.681	4.12	4.12	8.40	104.9810	98.7		
18	58	13C2-PFOA	414.9 > 369.7	2.39e4	3.56e4	0.117	0.681	4.12	4.12	8.40	104.9810	98.7		
19	56	13C5-PFNA	468.2 > 422.9	2.36e4	2.48e4	0.117	1.002	4.56	4.57	11.9	101.0066	94.9		
20	59	13C8-PFOS	507.0 > 79.9	4.55e3	4.52e3	0.117	0.997	4.65	4.66	12.6	107.3566	100.9		
21	59	13C8-PFOS	507.0 > 79.9	4.55e3	4.52e3	0.117	0.997	4.65	4.66	12.6	107.3566	100.9		
22	-1													
23	26	PFDA	513 > 468.8	4.88e1	2.24e4	0.117		4.95	4.95	0.0272	0.1537		70.340	YES
24	29	L-MeFOSAA	570 > 419		4.79e3	0.117		5.11						
25	83	Total N-MeFOSAA	570. > 419	0.00e0	4.79e3	0.117		5.19		0.000				
26	33	PFUdA	563.0 > 518.9	5.00e1	2.80e4	0.117		5.28	5.29	0.0223			21.388	YES
27	37	PFDoA	612.9 > 569.0		2.78e4	0.117		5.57						
28	60	13C2-PFDA	515.1 > 469.9	2.24e4	3.29e4	0.117	0.819	4.95	4.95	8.52	88.5063	83.2		
29	62	d3-N-MeFOSAA	573.3 > 419	4.79e3	3.97e4	0.117	0.177	5.10	5.11	1.51	72.3681	68.0		
30	62	d3-N-MeFOSAA	573.3 > 419	4.79e3	3.97e4	0.117	0.177	5.10	5.11	1.51	72.3681	68.0		
31	63	13C2-PFUdA	565 > 519.8	2.80e4	3.97e4	0.117	0.889	5.28	5.28	8.81	84.3280	79.3		
32	65	13C2-PFDoA	614.7 > 569.7	2.78e4	3.29e4	0.117	1.087	5.57	5.57	10.5	82.5245	77.6		
33	-1													
34	31	L-EtFOSAA	584.1 > 419		6.98e3	0.117		5.27						
35	84	Total N-EtFOSAA	584.1 > 419	0.00e0	6.98e3	0.117		5.33		0.000				
36	39	PFTrDA	662.9 > 618.9		2.78e4	0.117		5.83						

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Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-65.qld

Last Altered: Tuesday, July 23, 2019 11:40:18 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 12:42:12 Pacific Daylight Time

Name: 190722M1_65, Date: 22-Jul-2019, Time: 22:46:42, ID: 1902014-04 EB-07032019 0.1175, Description: EB-07032019

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0	8.31e1	2.05e4	0.117		6.05	6.05	0.0508			246.469	YES
38	85	TDCA	498.3>106.9			0.117		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	6.98e3	3.97e4	0.117	0.224	5.26	5.27	2.20	83.5867	78.6		
40	64	d5-N-EtFOSAA	589.3 > 419	6.98e3	3.97e4	0.117	0.224	5.26	5.27	2.20	83.5867	78.6		
41	65	13C2-PFDoA	614.7 > 569.7	2.78e4	3.29e4	0.117	1.087	5.57	5.57	10.5	82.5245	77.6		
42	67	13C2-PFTeDA	715.1 > 669.7	2.05e4	3.97e4	0.117	0.604	6.05	6.05	6.45	90.7905	85.3		
43	59	13C8-PFOS	507.0 > 79.9	4.55e3	4.52e3	0.117	0.997	4.65	4.66	12.6	107.3566	100.9		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	2.84e4	2.84e4	0.117	1.000	2.96	2.97	12.5	106.3830	100.0		
46	75	13C8-PFOA	420.9 > 376.0	3.56e4	3.56e4	0.117	1.000	4.12	4.12	12.5	106.3830	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	1.94e3	1.94e3	0.117	1.000	3.75	3.75	12.5	106.3830	100.0		
48	76	13C9-PFNA	472.2 > 426.9	2.48e4	2.48e4	0.117	1.000	4.56	4.57	12.5	106.3830	100.0		
49	77	13C4-PFOS	503 > 79.9	4.52e3	4.52e3	0.117	1.000	4.65	4.66	12.5	106.3830	100.0		
50	78	13C6-PFDA	519.1 > 473.7	3.29e4	3.29e4	0.117	1.000	4.95	4.95	12.5	106.3830	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	3.97e4	3.97e4	0.117	1.000	5.28	5.28	12.5	106.3830	100.0		

Vista Analytical Laboratory L14

Review: AMR 7/23/2019

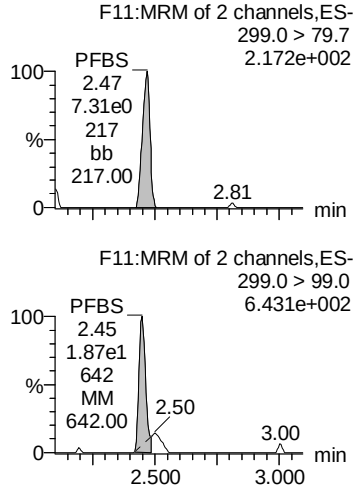
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Printed: Tuesday, July 23, 2019 12:42:12 Pacific Daylight Time

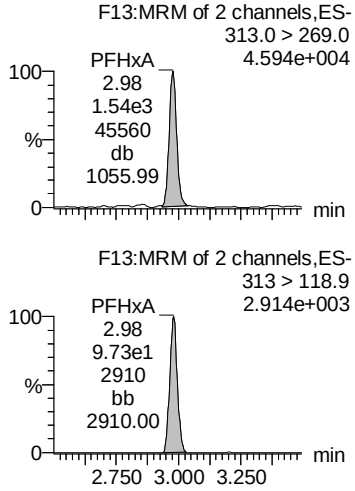
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Name: 190722M1_65, Date: 22-Jul-2019, Time: 22:46:42, ID: 1902014-04 EB-07032019 0.1175, Description: EB-07032019

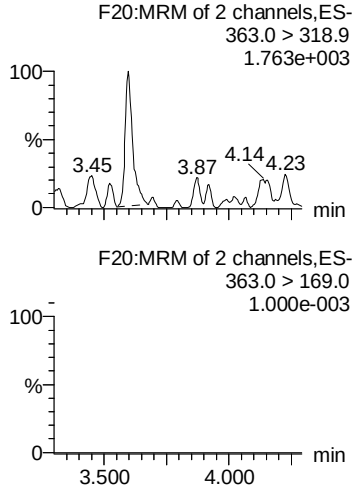
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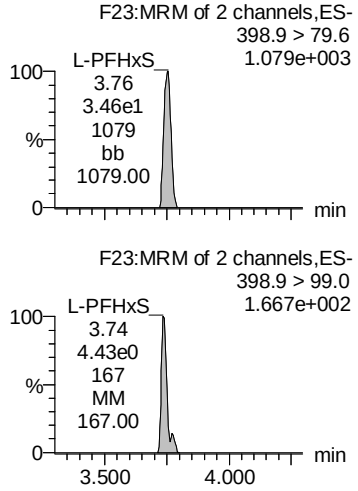
PFHxA



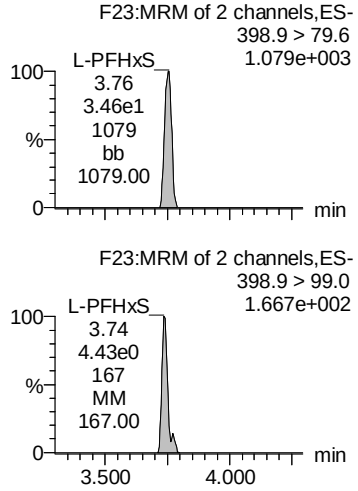
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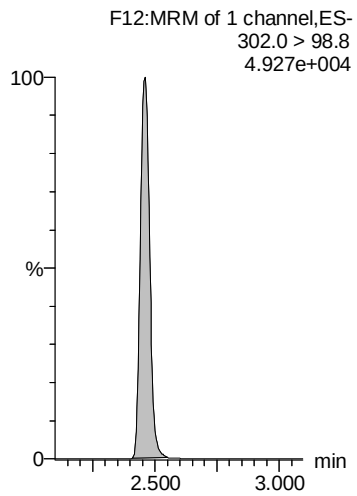
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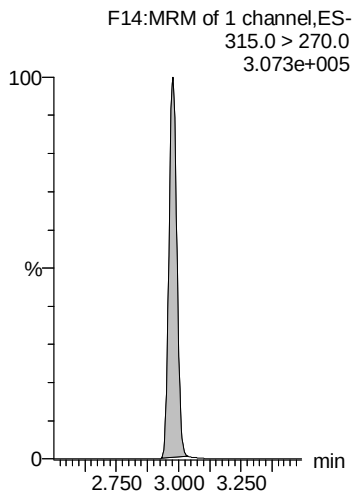
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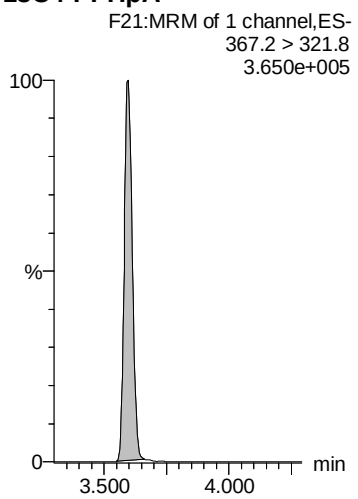
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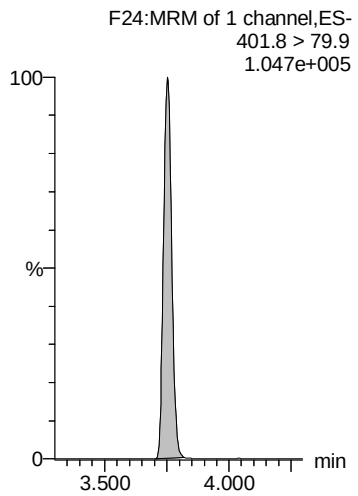
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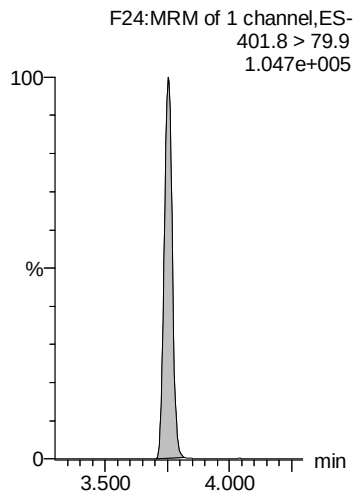
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13C3-PFHxS



13C3-PFHxS



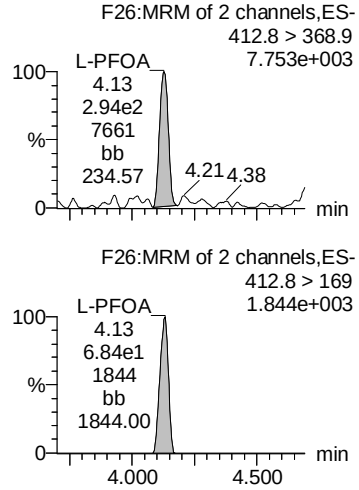
Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190722M1\190722M1-65.qld

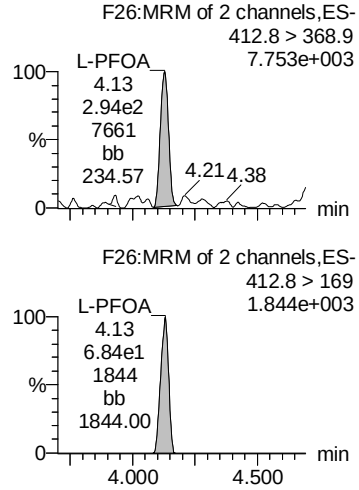
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Printed: Tuesday, July 23, 2019 12:42:12 Pacific Daylight Time

Name: 190722M1_65, Date: 22-Jul-2019, Time: 22:46:42, ID: 1902014-04 EB-07032019 0.1175, Description: EB-07032019

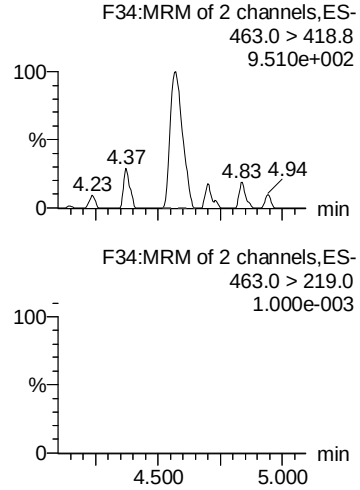
L-PFOA



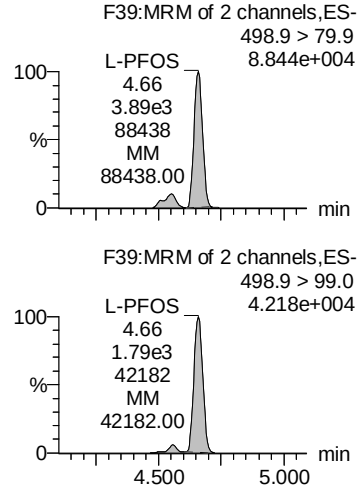
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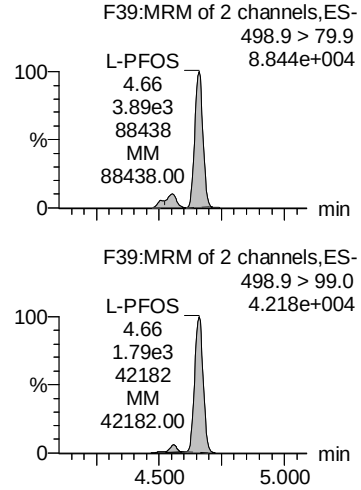
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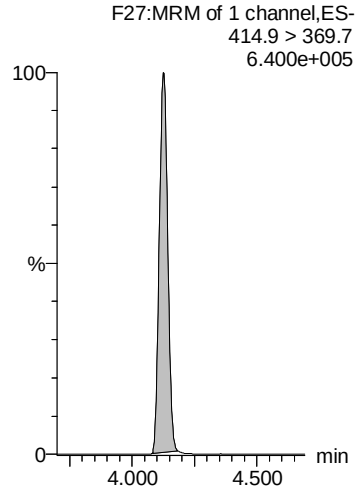
L-PFOS



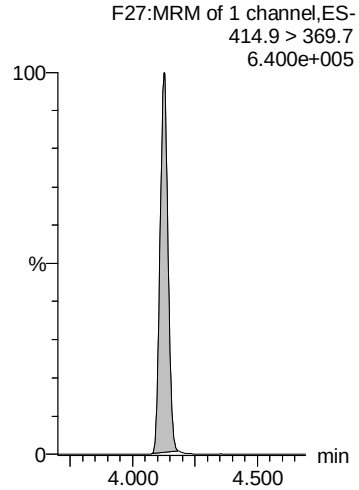
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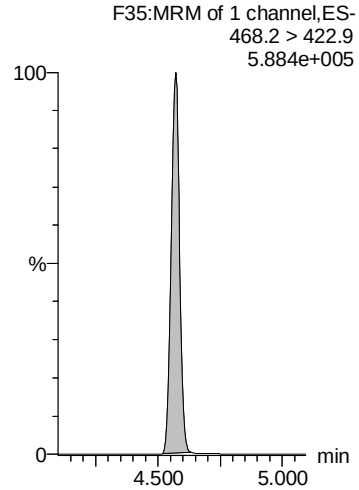
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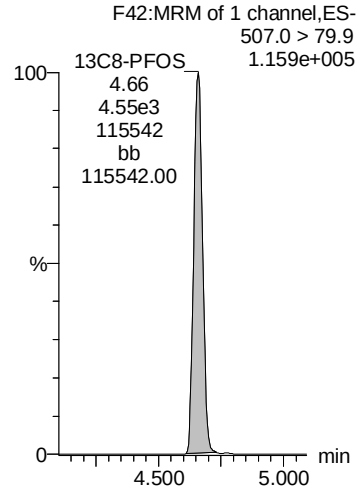
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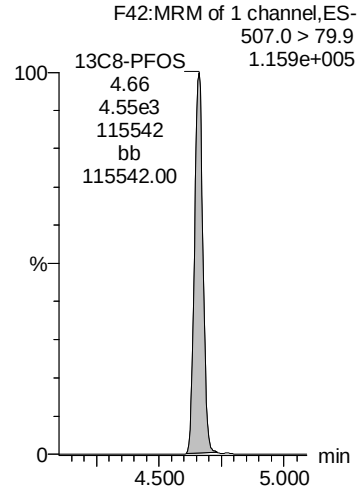
13C5-PFNA



13C8-PFOS



13C8-PFOS



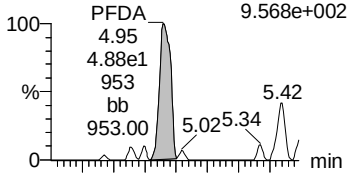
Review: AMR 7/23/2019

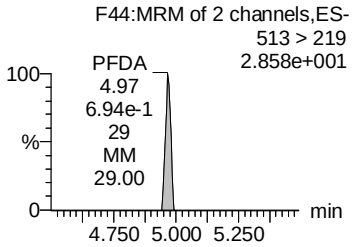
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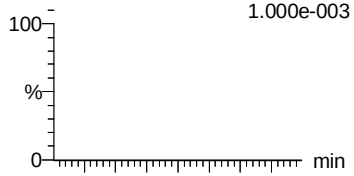
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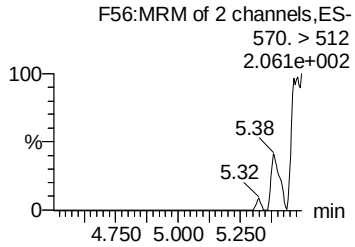
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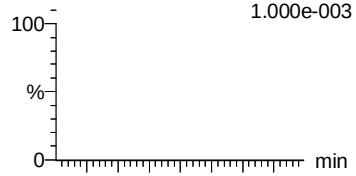


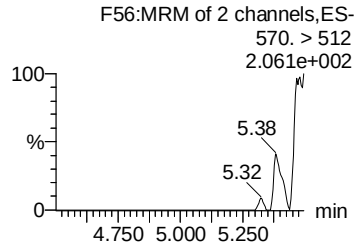
L-MeFOSAA



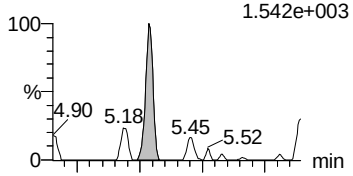


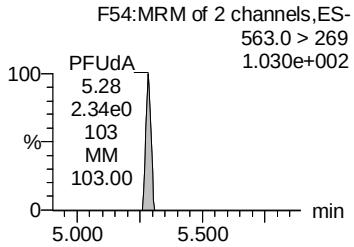
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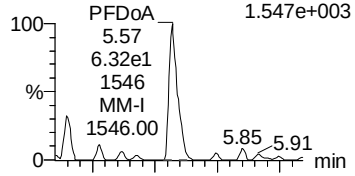


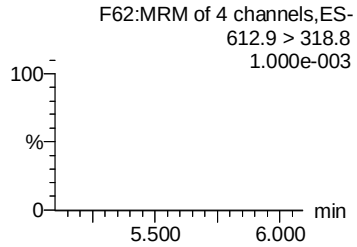
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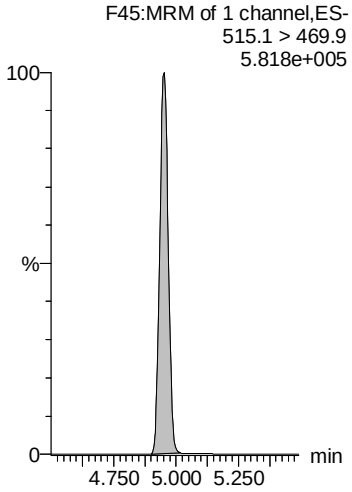


PFDoA

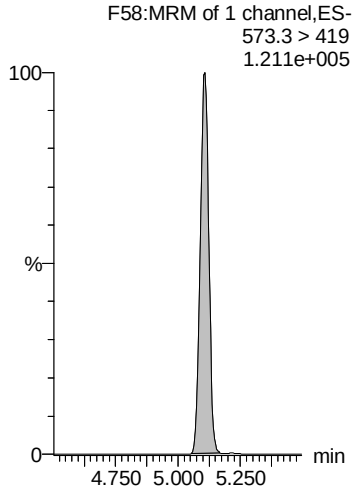




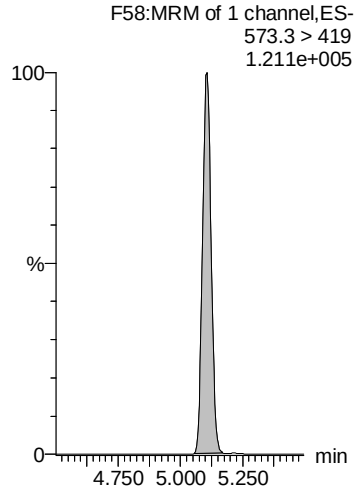
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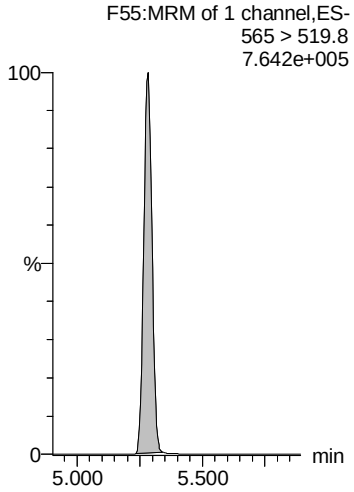
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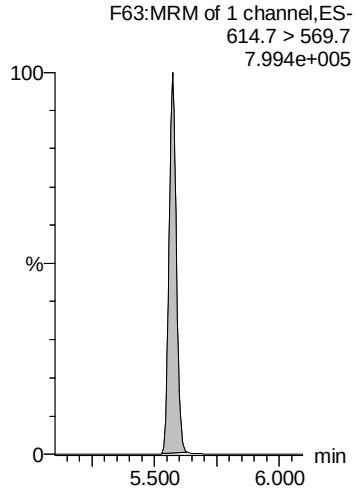
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13C2-PFUdA



13C2-PFDoA



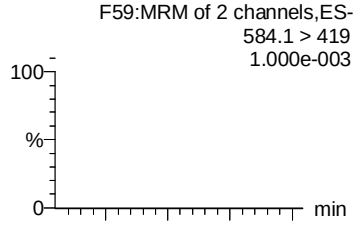
Review: AMR 7/23/2019

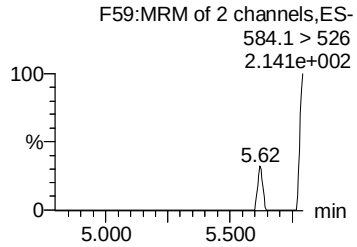
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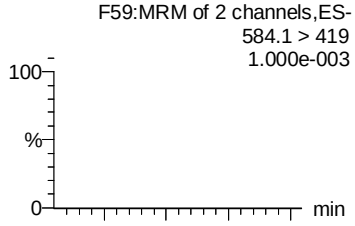
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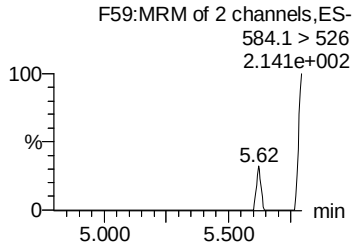
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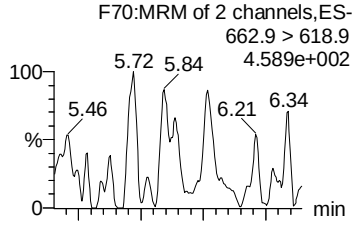


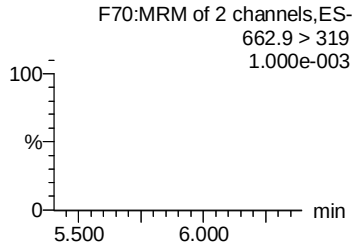
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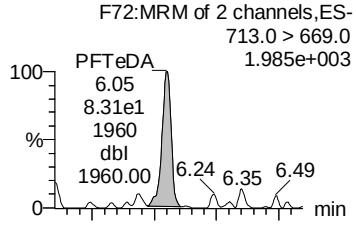


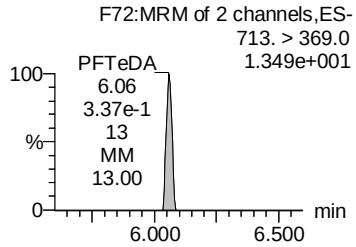
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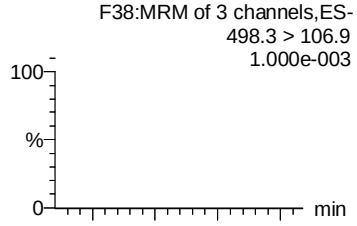


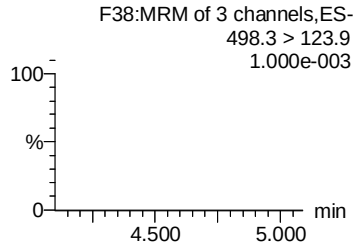
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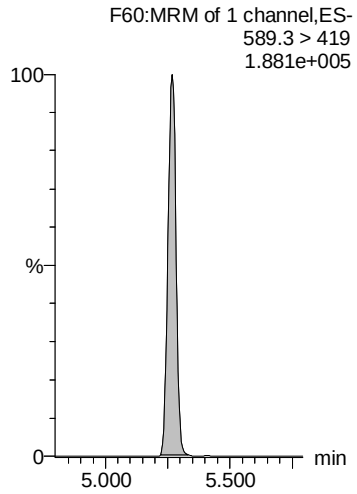


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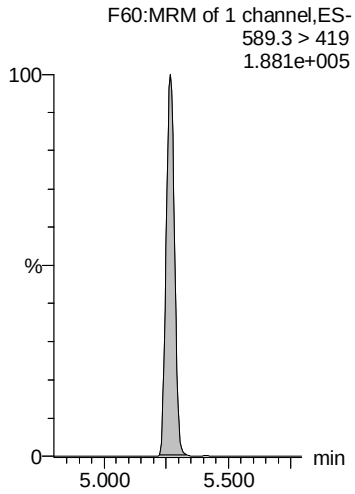




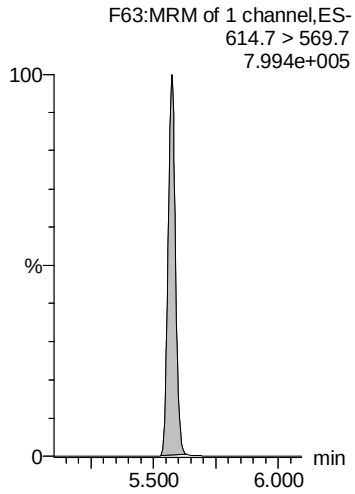
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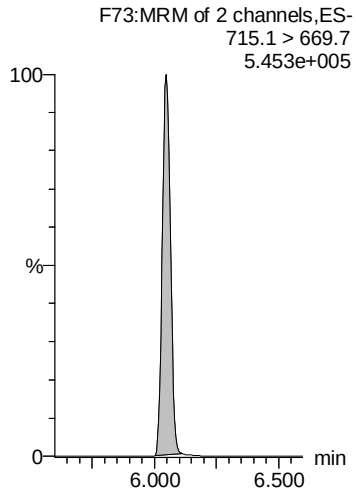
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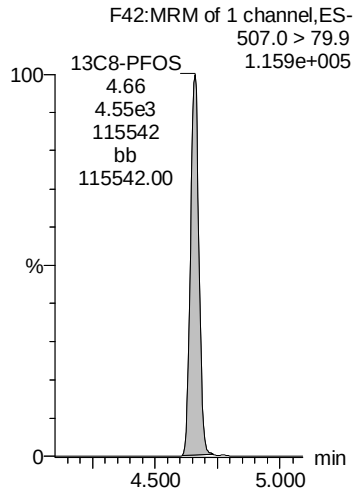
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS



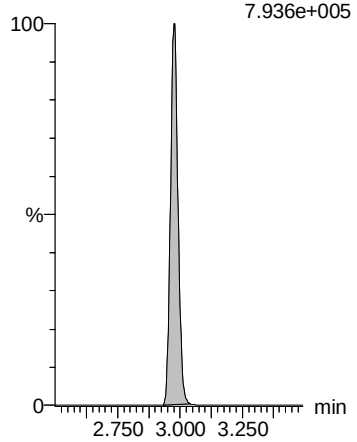
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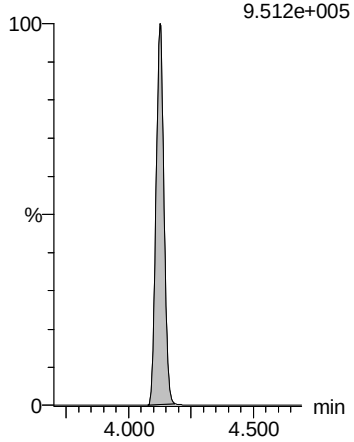
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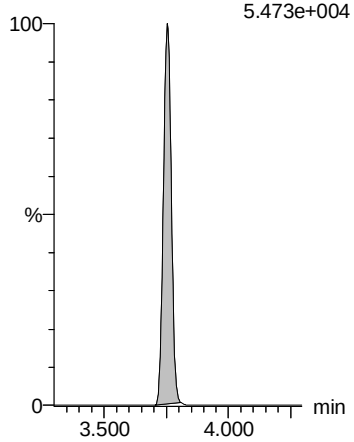
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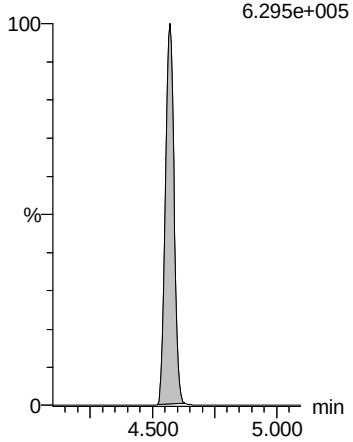
13C8-PFOA



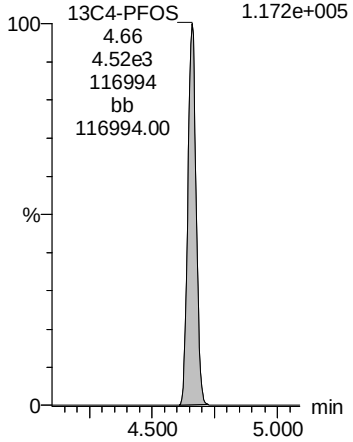
18O2-PFHxS



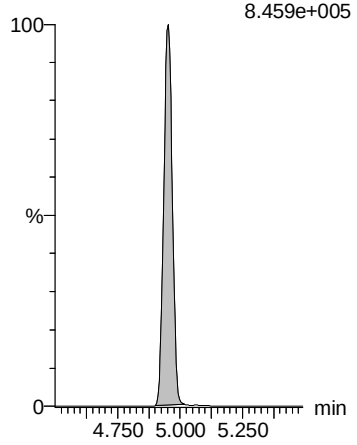
13C9-PFNA



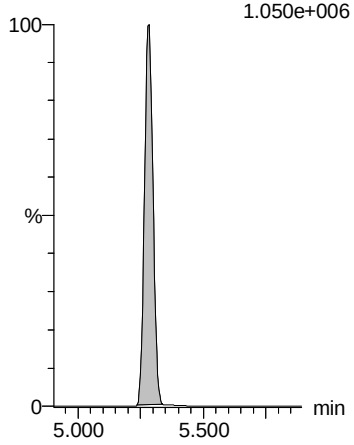
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190723M2\190723M2-6.qld

Last Altered: Tuesday, July 23, 2019 11:52:43 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 12:42:56 Pacific Daylight Time

Name: 190723M2_6, Date: 23-Jul-2019, Time: 10:24:28, ID: 1902014-08 FRB-07082019 0.11724, Description: FRB-07082019

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	1.80e1	2.19e3	0.117		2.47	2.46	0.103	0.6670		8.235	YES
2	7	PFHxA	313.0 > 269.0	2.77e2	1.12e4	0.117		2.97	2.97	0.124	0.6096		88.227	YES
3	11	PFHpA	363.0 > 318.9		1.39e4	0.117		3.60						
4	13	L-PFHxS	398.9 > 79.6	9.97e0	4.23e3	0.117		3.75	3.75	0.0295	0.2874		0.791	YES
5	80	Total PFHxS	398.9 > 79.6	9.97e0	4.23e3	0.117		3.83		0.0295	0.2874			
6	49	13C3-PFBS	302.0 > 98.8	2.19e3	2.04e3	0.117	1.058	2.46	2.47	13.5	108.5910	101.8		
7	52	13C2-PFHxA	315.0 > 270.0	1.12e4	2.76e4	0.117	0.978	2.97	2.97	5.05	44.0243	103.2		
8	53	13C4-PFHpA	367.2 > 321.8	1.39e4	2.76e4	0.117	0.479	3.59	3.60	6.28	111.9186	105.0		
9	54	13C3-PFHxS	401.8 > 79.9	4.23e3	2.04e3	0.117	2.024	3.75	3.75	26.0	109.4251	102.6		
10	54	13C3-PFHxS	401.8 > 79.9	4.23e3	2.04e3	0.117	2.024	3.75	3.75	26.0	109.4251	102.6		
11	-1													
12	16	L-PFOA	412.8 > 368.9	5.90e1	2.41e4	0.117		4.12	4.13	0.0306			3.655	NO
13	81	Total PFOA	412.8 > 368.9	5.90e1	2.41e4	0.117		4.21		0.000				
14	21	PFNA	463.0 > 418.8		2.52e4	0.117		4.57						
15	23	L-PFOS	498.9 > 79.9		5.08e3	0.117		4.66						
16	82	Total PFOS	498.9 > 79.9	0.00e0	5.08e3	0.117		4.74		0.000				
17	58	13C2-PFOA	414.9 > 369.7	2.41e4	3.68e4	0.117	0.681	4.12	4.12	8.18	102.4592	96.1		
18	58	13C2-PFOA	414.9 > 369.7	2.41e4	3.68e4	0.117	0.681	4.12	4.12	8.18	102.4592	96.1		
19	56	13C5-PFNA	468.2 > 422.9	2.52e4	2.62e4	0.117	1.002	4.57	4.57	12.1	102.6267	96.3		
20	59	13C8-PFOS	507.0 > 79.9	5.08e3	4.84e3	0.117	0.997	4.65	4.66	13.1	112.4020	105.4		
21	59	13C8-PFOS	507.0 > 79.9	5.08e3	4.84e3	0.117	0.997	4.65	4.66	13.1	112.4020	105.4		
22	-1													
23	26	PFDA	513 > 468.8		2.34e4	0.117		4.95						
24	29	L-MeFOSAA	570 > 419		5.42e3	0.117		5.10						
25	83	Total N-MeFOSAA	570. > 419	0.00e0	5.42e3	0.117		5.19		0.000				
26	33	PFUdA	563.0 > 518.9	5.17e1	2.81e4	0.117		5.28	5.28	0.0230			6.081	NO
27	37	PFDoA	612.9 > 569.0		2.69e4	0.117		5.57						
28	60	13C2-PFDA	515.1 > 469.9	2.34e4	3.32e4	0.117	0.819	4.95	4.95	8.82	91.9046	86.2		
29	62	d3-N-MeFOSAA	573.3 > 419	5.42e3	4.13e4	0.117	0.177	5.11	5.10	1.64	78.7726	73.9		
30	62	d3-N-MeFOSAA	573.3 > 419	5.42e3	4.13e4	0.117	0.177	5.11	5.10	1.64	78.7726	73.9		
31	63	13C2-PFUdA	565 > 519.8	2.81e4	4.13e4	0.117	0.889	5.28	5.28	8.49	81.4367	76.4		
32	65	13C2-PFDoA	614.7 > 569.7	2.69e4	3.32e4	0.117	1.087	5.57	5.57	10.1	79.5534	74.6		
33	-1													
34	31	L-EtFOSAA	584.1 > 419		7.12e3	0.117		5.26						
35	84	Total N-EtFOSAA	584.1 > 419	0.00e0	7.12e3	0.117		5.33		0.000				
36	39	PFTrDA	662.9 > 618.9		2.69e4	0.117		5.82						

GM 7/23/2019

Vista Analytical Laboratory L14

Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190723M2\190723M2-6.qld

Last Altered: Tuesday, July 23, 2019 11:52:43 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 12:42:56 Pacific Daylight Time

Name: 190723M2_6, Date: 23-Jul-2019, Time: 10:24:28, ID: 1902014-08 FRB-07082019 0.11724, Description: FRB-07082019

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0		2.04e4	0.117		6.05						
38	85	TDCA	498.3>106.9			0.117		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	7.12e3	4.13e4	0.117	0.224	5.27	5.26	2.15	82.0698	77.0		
40	64	d5-N-EtFOSAA	589.3 > 419	7.12e3	4.13e4	0.117	0.224	5.27	5.26	2.15	82.0698	77.0		
41	65	13C2-PFDoA	614.7 > 569.7	2.69e4	3.32e4	0.117	1.087	5.57	5.57	10.1	79.5534	74.6		
42	67	13C2-PFTeDA	715.1 > 669.7	2.04e4	4.13e4	0.117	0.604	6.04	6.05	6.18	87.2052	81.8		
43	59	13C8-PFOS	507.0 > 79.9	5.08e3	4.84e3	0.117	0.997	4.65	4.66	13.1	112.4020	105.4		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	2.76e4	2.76e4	0.117	1.000	2.97	2.97	12.5	106.6189	100.0		
46	75	13C8-PFOA	420.9 > 376.0	3.68e4	3.68e4	0.117	1.000	4.12	4.12	12.5	106.6189	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	2.04e3	2.04e3	0.117	1.000	3.75	3.75	12.5	106.6189	100.0		
48	76	13C9-PFNA	472.2 > 426.9	2.62e4	2.62e4	0.117	1.000	4.57	4.57	12.5	106.6189	100.0		
49	77	13C4-PFOS	503 > 79.9	4.84e3	4.84e3	0.117	1.000	4.65	4.66	12.5	106.6189	100.0		
50	78	13C6-PFDA	519.1 > 473.7	3.32e4	3.32e4	0.117	1.000	4.95	4.95	12.5	106.6189	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	4.13e4	4.13e4	0.117	1.000	5.28	5.28	12.5	106.6189	100.0		

Vista Analytical Laboratory L14

Review: AMR 7/23/2019

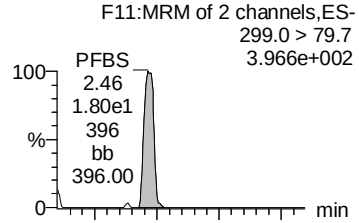
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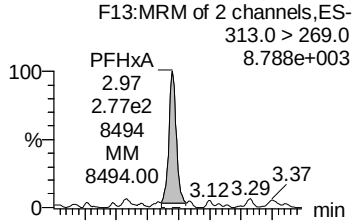
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Name: 190723M2_6, Date: 23-Jul-2019, Time: 10:24:28, ID: 1902014-08 FRB-07082019 0.11724, Description: FRB-07082019

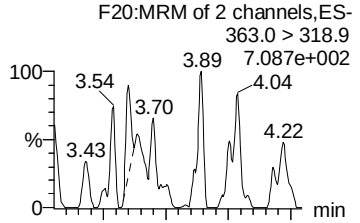
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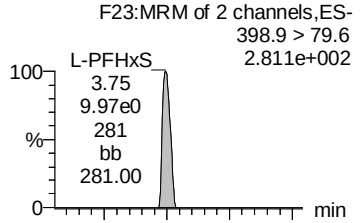
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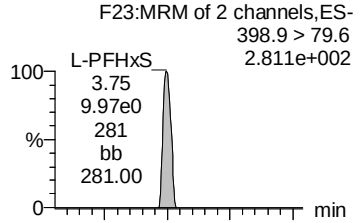
PFHpA



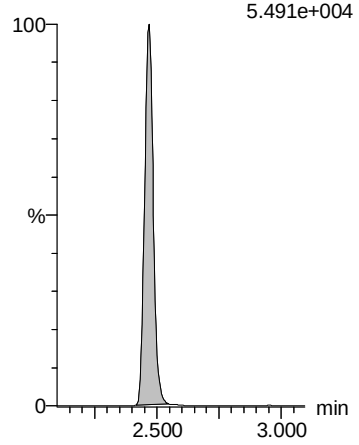
L-PFHxS



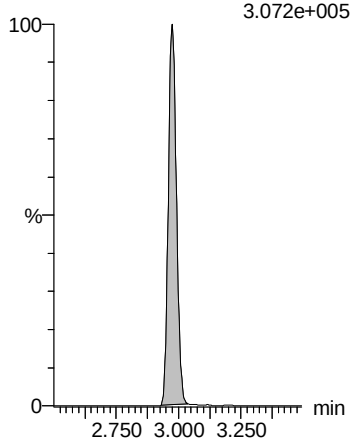
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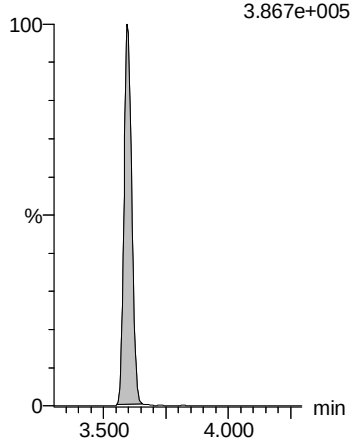
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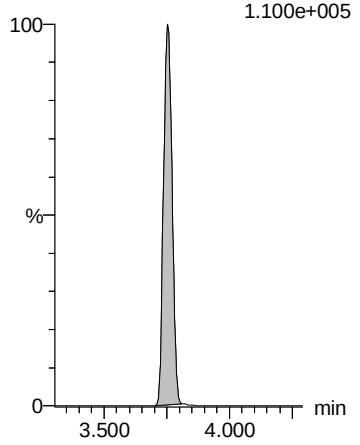
13C2-PFHxA



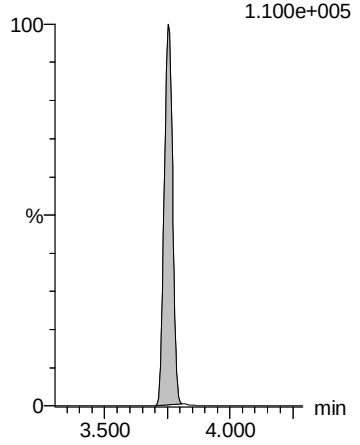
13C4-PFHpA



13C3-PFHxS



13C3-PFHxS



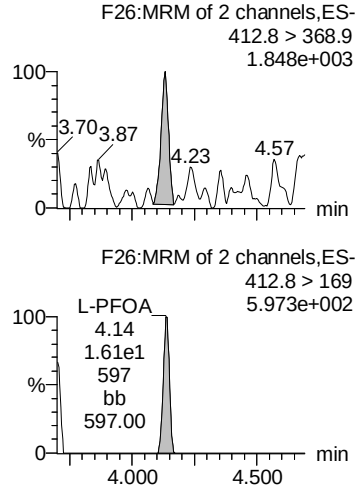
Review: AMR 7/23/2019

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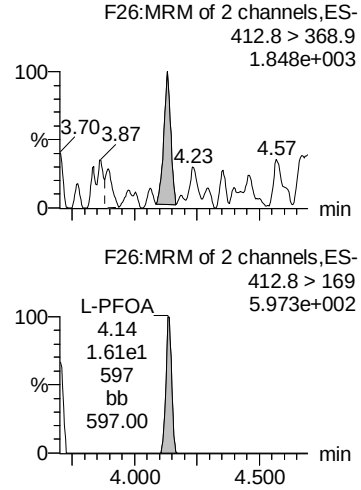
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Name: 190723M2_6, Date: 23-Jul-2019, Time: 10:24:28, ID: 1902014-08 FRB-07082019 0.11724, Description: FRB-07082019

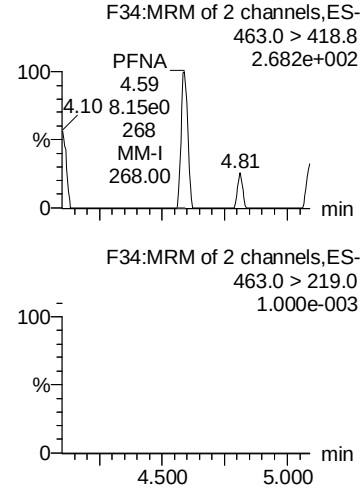
L-PFOA



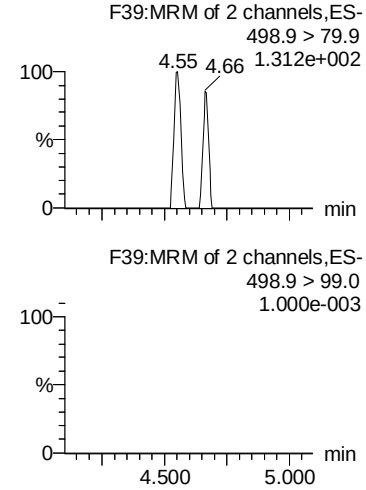
Total PFOA



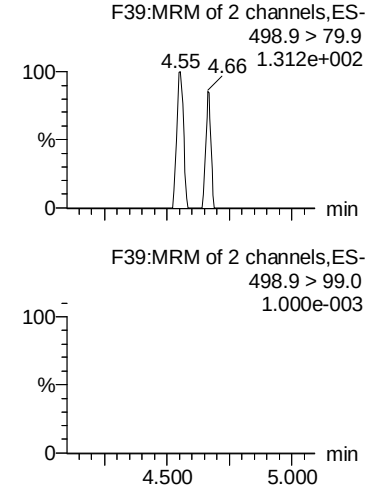
PFNA



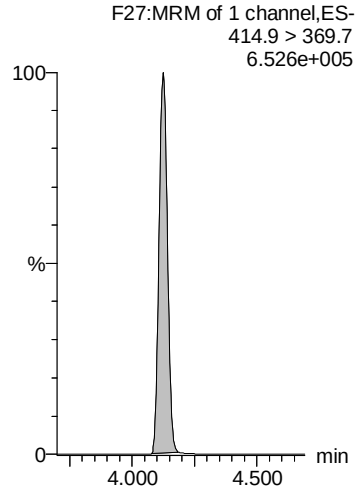
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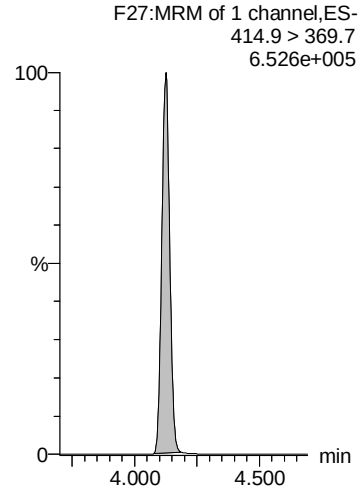
Total PFOS



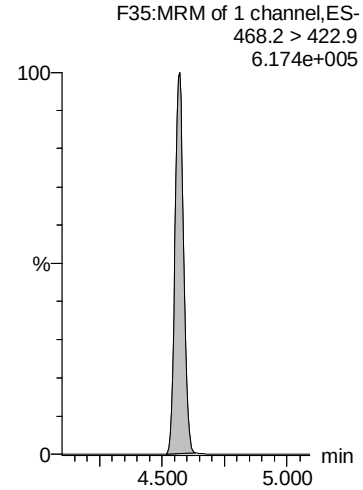
13C2-PFOA



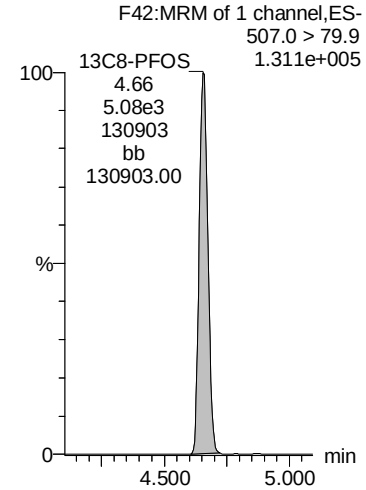
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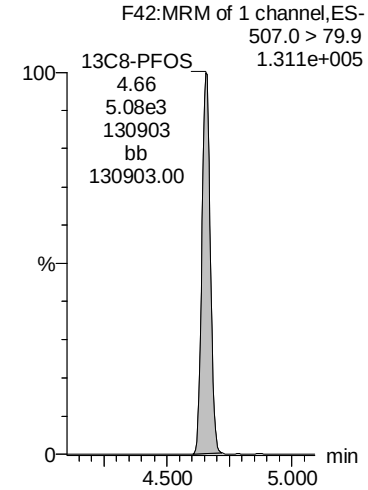
13C5-PFNA



13C8-PFOS



13C8-PFOS



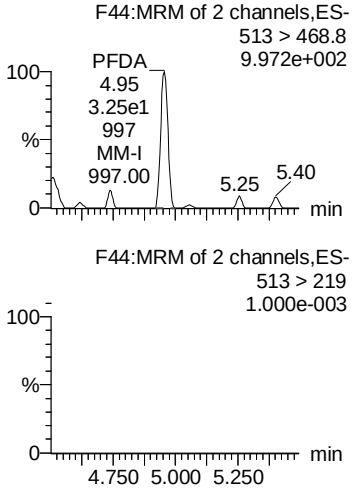
Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190723M2\190723M2-6.qld

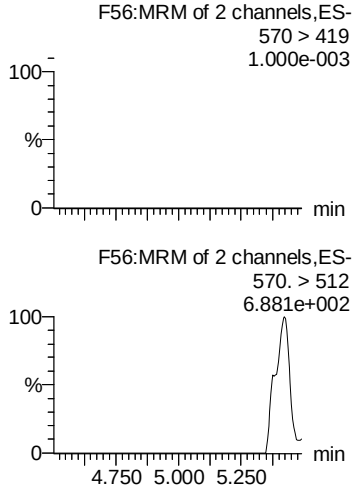
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Name: 190723M2_6, Date: 23-Jul-2019, Time: 10:24:28, ID: 1902014-08 FRB-07082019 0.11724, Description: FRB-07082019

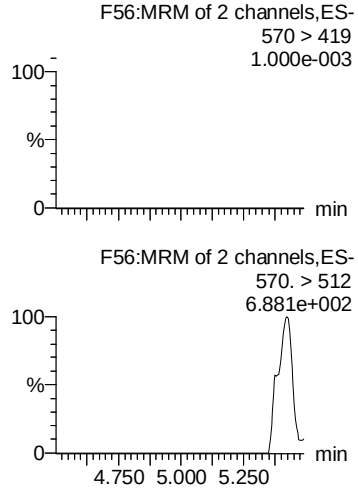
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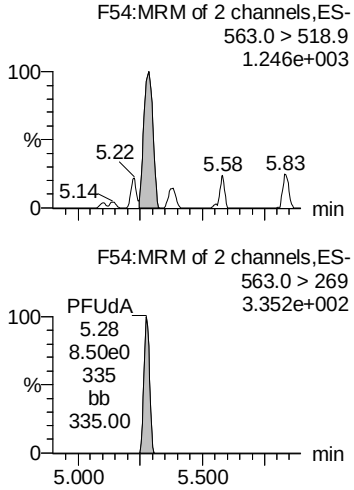
L-MeFOSAA



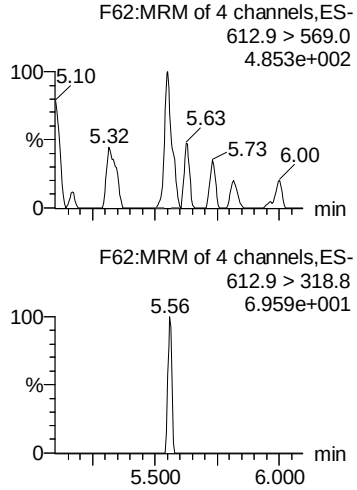
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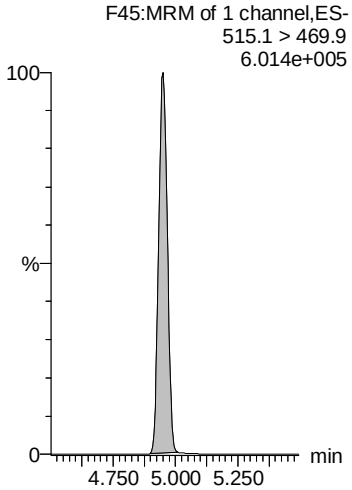
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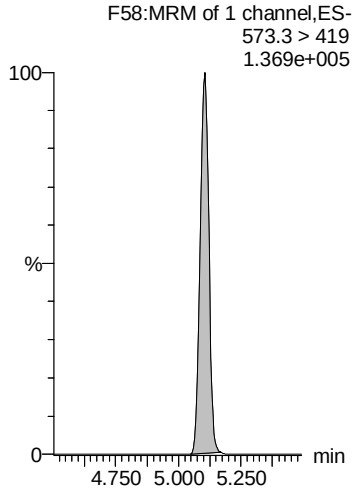
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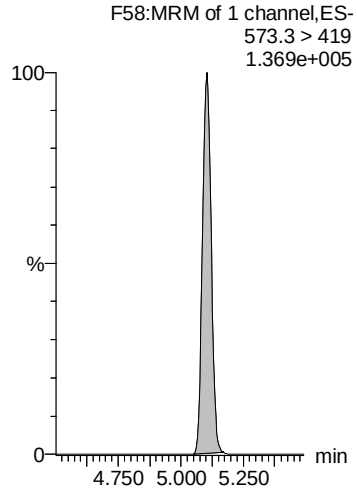
13C2-PFDA



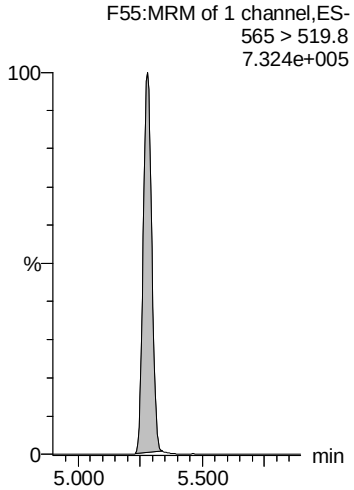
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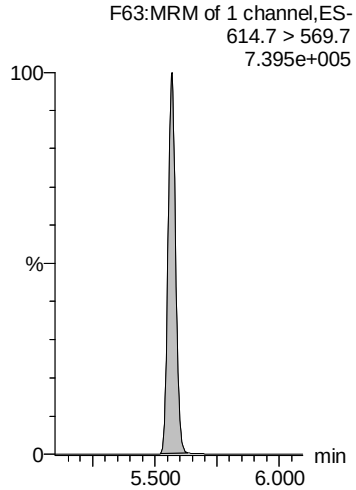
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13C2-PFUdA



13C2-PFDoA



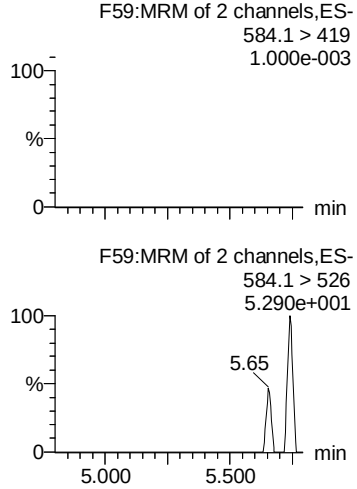
Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190723M2\190723M2-6.qld

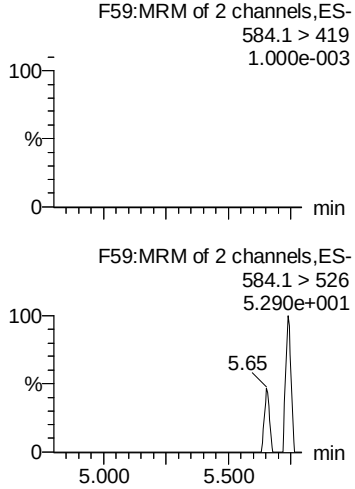
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Printed: Tuesday, July 23, 2019 12:42:56 Pacific Daylight Time

Name: 190723M2_6, Date: 23-Jul-2019, Time: 10:24:28, ID: 1902014-08 FRB-07082019 0.11724, Description: FRB-07082019

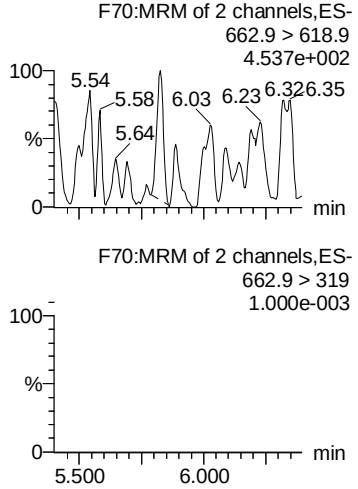
L-EtFOSAA



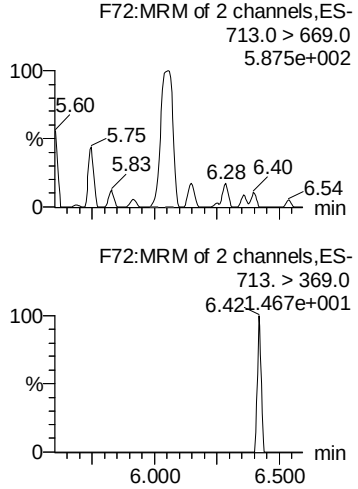
Total N-EtFOSAA



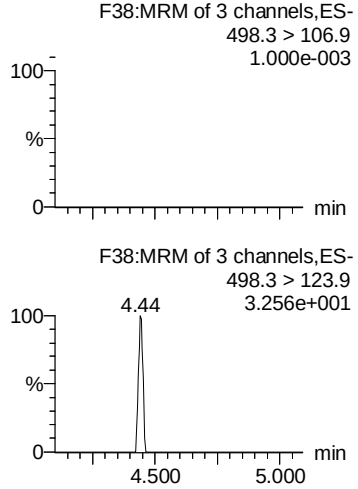
PFTrDA



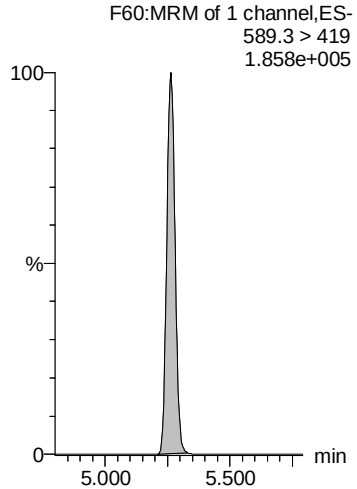
PFTeDA



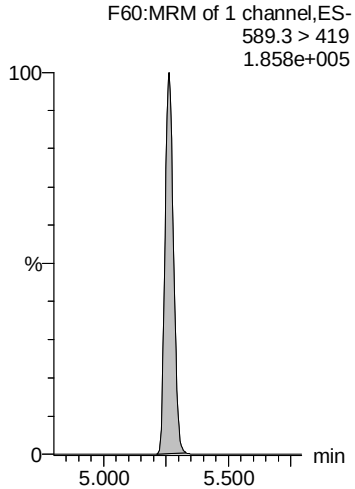
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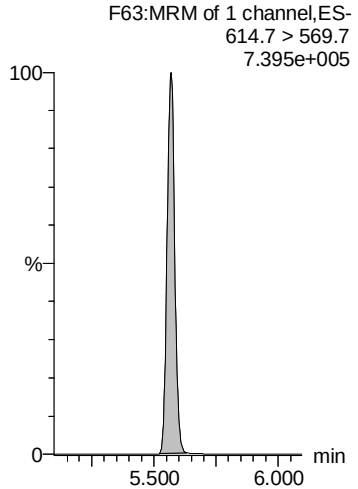
d5-N-EtFOSAA



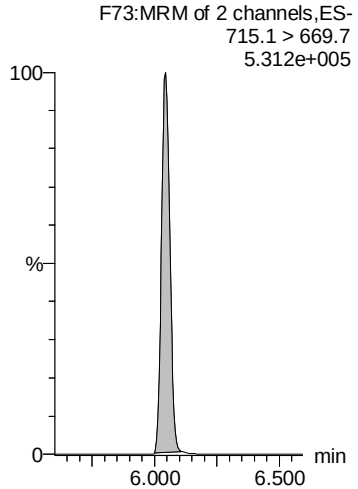
d5-N-EtFOSAA



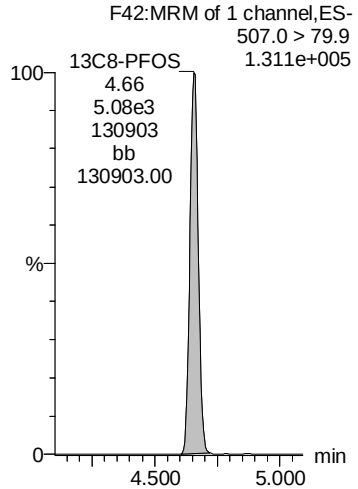
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS



GM 7/23/2019

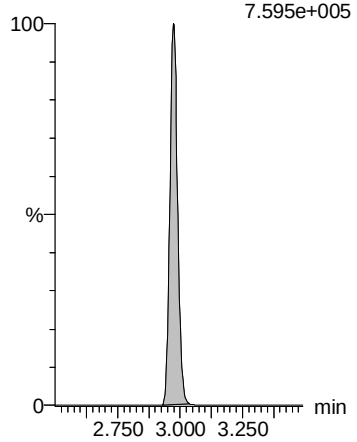
Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190723M2\190723M2-6.qld

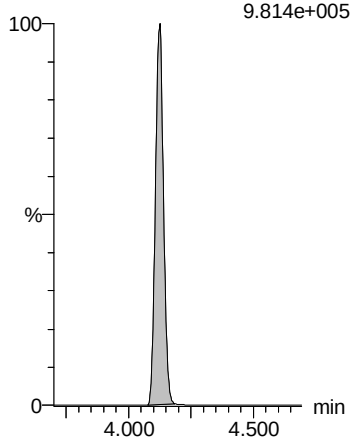
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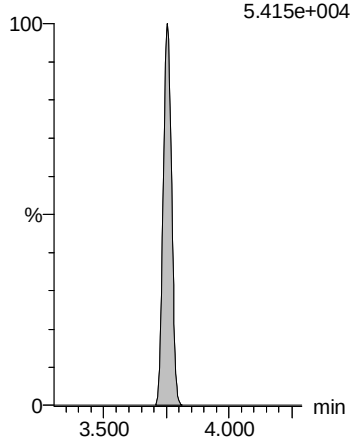
13C5-PFHxA



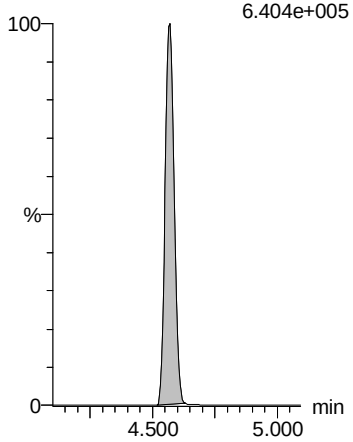
13C8-PFOA



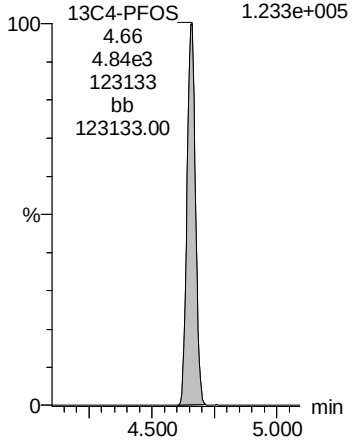
18O2-PFHxS



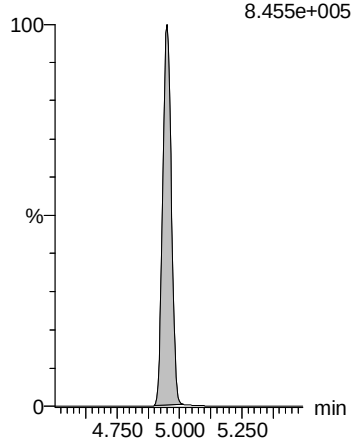
13C9-PFNA



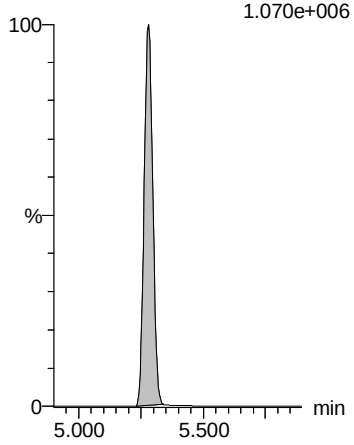
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory L14

Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190723M2\190723M2-7.qld

Last Altered: Tuesday, July 23, 2019 11:54:44 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 12:43:55 Pacific Daylight Time

Name: 190723M2_7, Date: 23-Jul-2019, Time: 10:35:01, ID: 1902014-09 CAOA-B01-GW 0.12758, Description: CAOA-B01-GW

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	6.77e3	1.92e3	0.128		2.46	2.46	44.1	152.2132		2.961	NO
2	7	PFHxA	313.0 > 269.0	7.77e4	8.31e3	0.128		2.98	2.98	46.7	417.4863		15.198	NO
3	11	PFHpA	363.0 > 318.9	4.55e3	1.09e4	0.128		3.59	3.60	5.24	31.7080		10.012	NO
4	13	L-PFHxS	398.9 > 79.6	5.79e3	3.87e3	0.128		3.75	3.75	18.7	160.0958		2.116	NO
5	80	Total PFHxS	398.9 > 79.6	5.79e3	3.87e3	0.128		3.83		18.7	160.0958			
6	49	13C3-PFBS	302.0 > 98.8	1.92e3	1.92e3	0.128	1.058	2.46	2.46	12.5	92.5233	94.4		
7	52	13C2-PFHxA	315.0 > 270.0	8.31e3	2.24e4	0.128	0.978	2.97	2.98	4.63	37.1321	94.7		
8	53	13C4-PFHpA	367.2 > 321.8	1.09e4	2.24e4	0.128	0.479	3.59	3.59	6.05	99.1375	101.2		
9	54	13C3-PFHxS	401.8 > 79.9	3.87e3	1.92e3	0.128	2.024	3.75	3.75	25.2	97.5549	99.6		
10	54	13C3-PFHxS	401.8 > 79.9	3.87e3	1.92e3	0.128	2.024	3.75	3.75	25.2	97.5549	99.6		
11	-1													
12	16	L-PFOA	412.8 > 368.9	8.77e3	2.05e4	0.128		4.12	4.12	5.36	27.7865		3.349	NO
13	81	Total PFOA	412.8 > 368.9	8.77e3	2.05e4	0.128		4.21		5.36	27.7865			
14	21	PFNA	463.0 > 418.8	8.16e2	2.15e4	0.128		4.57	4.57	0.474	3.0351		4.613	NO
15	23	L-PFOS	498.9 > 79.9	4.21e3	4.08e3	0.128		4.66	4.66	12.9	94.6290		1.975	NO
16	82	Total PFOS	498.9 > 79.9	4.21e3	4.08e3	0.128		4.74		12.9	94.6290			
17	58	13C2-PFOA	414.9 > 369.7	2.05e4	3.20e4	0.128	0.681	4.12	4.12	7.99	91.8840	93.8		
18	58	13C2-PFOA	414.9 > 369.7	2.05e4	3.20e4	0.128	0.681	4.12	4.12	7.99	91.8840	93.8		
19	56	13C5-PFNA	468.2 > 422.9	2.15e4	2.41e4	0.128	1.002	4.57	4.57	11.2	87.2528	89.1		
20	59	13C8-PFOS	507.0 > 79.9	4.08e3	4.55e3	0.128	0.997	4.65	4.66	11.2	88.2167	90.0		
21	59	13C8-PFOS	507.0 > 79.9	4.08e3	4.55e3	0.128	0.997	4.65	4.66	11.2	88.2167	90.0		
22	-1													
23	26	PFDA	513 > 468.8	5.07e2	2.09e4	0.128		4.95	4.95	0.304	1.8226		5.216	NO
24	29	L-MeFOSAA	570 > 419		4.50e3	0.128		5.10						
25	83	Total N-MeFOSAA	570. > 419	0.00e0	4.50e3	0.128		5.19		0.000				
26	33	PFUdA	563.0 > 518.9	1.78e2	2.35e4	0.128		5.28	5.28	0.0948	0.3446		18.515	YES
27	37	PFDoA	612.9 > 569.0	5.74e1	1.89e4	0.128		5.57	5.57	0.0379			19.469	YES
28	60	13C2-PFDA	515.1 > 469.9	2.09e4	3.02e4	0.128	0.819	4.95	4.95	8.64	82.7340	84.4		
29	62	d3-N-MeFOSAA	573.3 > 419	4.50e3	3.90e4	0.128	0.177	5.11	5.10	1.44	63.7743	65.1		
30	62	d3-N-MeFOSAA	573.3 > 419	4.50e3	3.90e4	0.128	0.177	5.11	5.10	1.44	63.7743	65.1		
31	63	13C2-PFUdA	565 > 519.8	2.35e4	3.90e4	0.128	0.889	5.28	5.28	7.53	66.4126	67.8		
32	65	13C2-PFDoA	614.7 > 569.7	1.89e4	3.02e4	0.128	1.087	5.57	5.57	7.84	56.4885	57.7		
33	-1													
34	31	L-EtFOSAA	584.1 > 419		5.54e3	0.128		5.26						
35	84	Total N-EtFOSAA	584.1 > 419	0.00e0	5.54e3	0.128		5.33		0.000				
36	39	PFTrDA	662.9 > 618.9		1.89e4	0.128		5.82						

Vista Analytical Laboratory L14

Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190723M2\190723M2-7.qld

Last Altered: Tuesday, July 23, 2019 11:54:44 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 12:43:55 Pacific Daylight Time

Name: 190723M2_7, Date: 23-Jul-2019, Time: 10:35:01, ID: 1902014-09 CAOA-B01-GW 0.12758, Description: CAOA-B01-GW

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0		7.64e3	0.128		6.04						
38	85	TDCA	498.3>106.9			0.128		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	5.54e3	3.90e4	0.128	0.224	5.27	5.26	1.78	62.2215	63.5		
40	64	d5-N-EtFOSAA	589.3 > 419	5.54e3	3.90e4	0.128	0.224	5.27	5.26	1.78	62.2215	63.5		
41	65	13C2-PFDoA	614.7 > 569.7	1.89e4	3.02e4	0.128	1.087	5.57	5.57	7.84	56.4885	57.7		
42	67	13C2-PFTeDA	715.1 > 669.7	7.64e3	3.90e4	0.128	0.604	6.04	6.04	2.45	31.7742	32.4		
43	59	13C8-PFOS	507.0 > 79.9	4.08e3	4.55e3	0.128	0.997	4.65	4.66	11.2	88.2167	90.0		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	2.24e4	2.24e4	0.128	1.000	2.97	2.98	12.5	97.9777	100.0		
46	75	13C8-PFOA	420.9 > 376.0	3.20e4	3.20e4	0.128	1.000	4.12	4.12	12.5	97.9777	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	1.92e3	1.92e3	0.128	1.000	3.75	3.75	12.5	97.9777	100.0		
48	76	13C9-PFNA	472.2 > 426.9	2.41e4	2.41e4	0.128	1.000	4.57	4.57	12.5	97.9777	100.0		
49	77	13C4-PFOS	503 > 79.9	4.55e3	4.55e3	0.128	1.000	4.65	4.66	12.5	97.9777	100.0		
50	78	13C6-PFDA	519.1 > 473.7	3.02e4	3.02e4	0.128	1.000	4.95	4.95	12.5	97.9777	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	3.90e4	3.90e4	0.128	1.000	5.28	5.28	12.5	97.9777	100.0		

Vista Analytical Laboratory L14

Review: AMR 7/23/2019

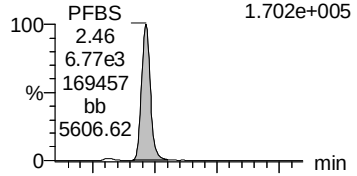
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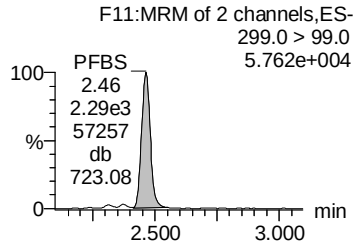
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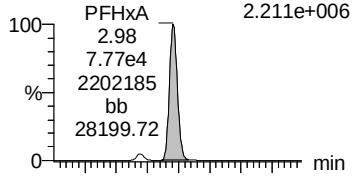
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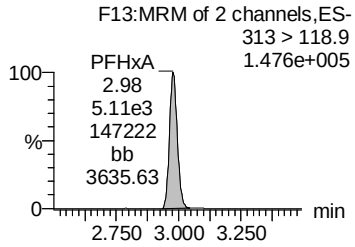
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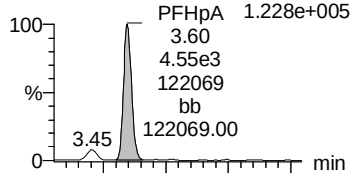


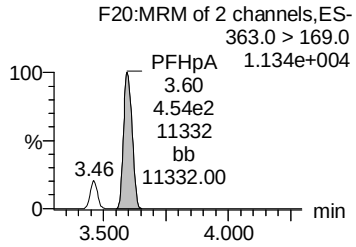
PFHxA



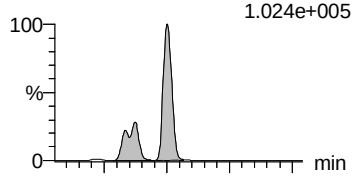


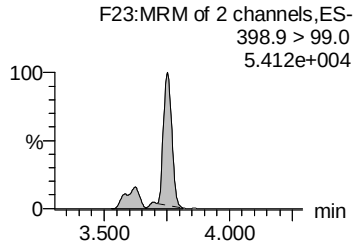
PFHpA



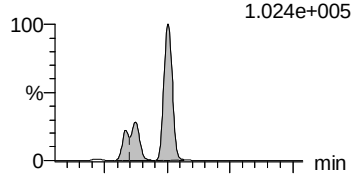


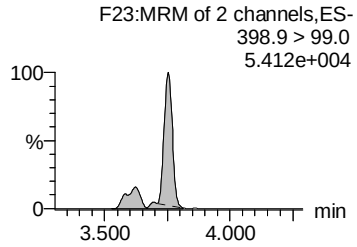
L-PFHxS



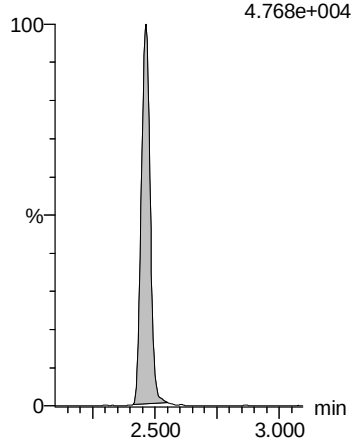


Total PFHxS

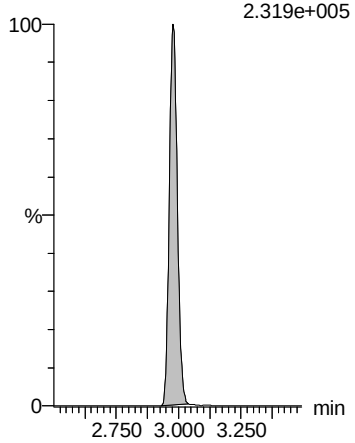




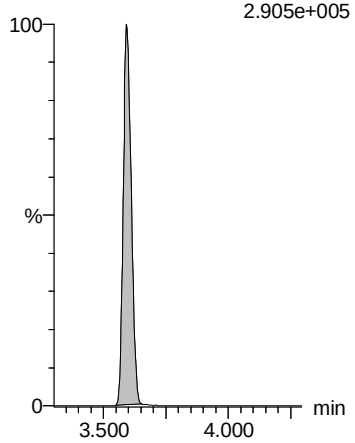
13C3-PFBS



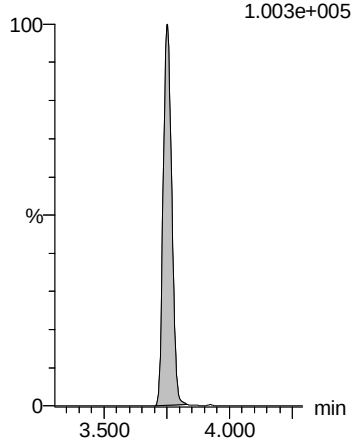
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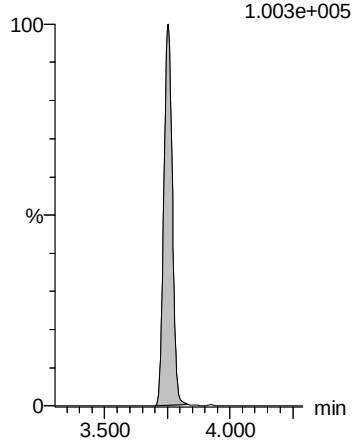
13C4-PFHpA



13C3-PFHxS



13C3-PFHxS



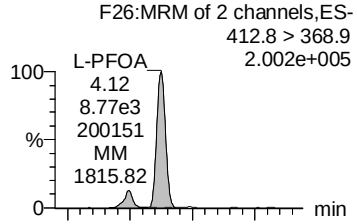
Review: AMR 7/23/2019

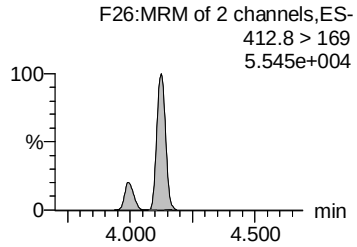
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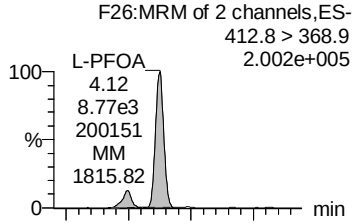
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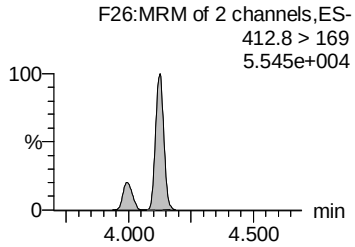
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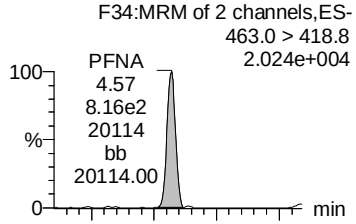


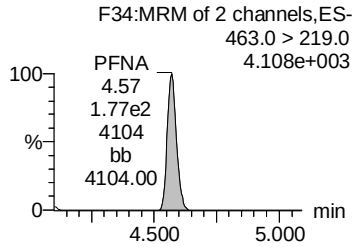
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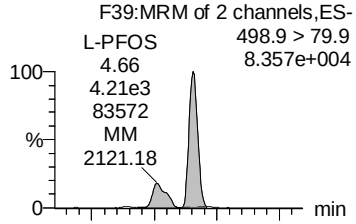


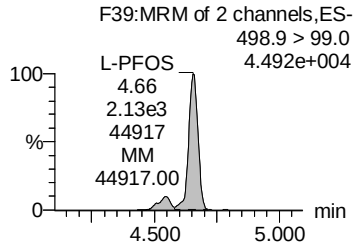
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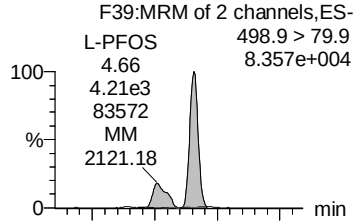


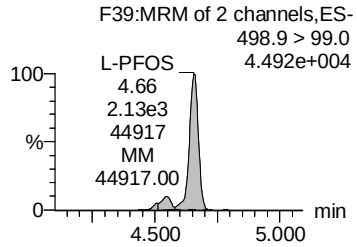
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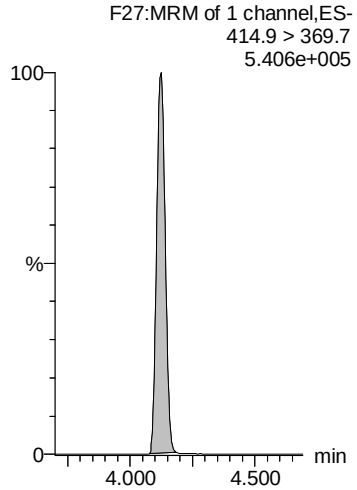


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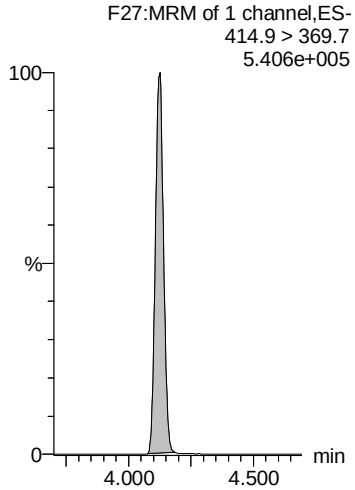




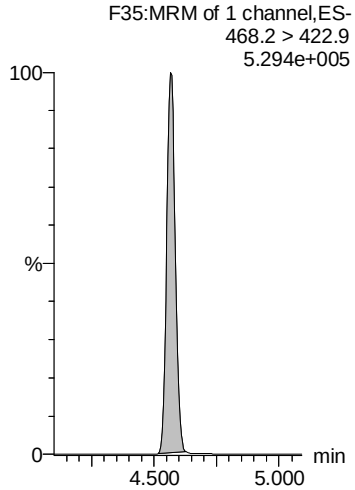
13C2-PFOA



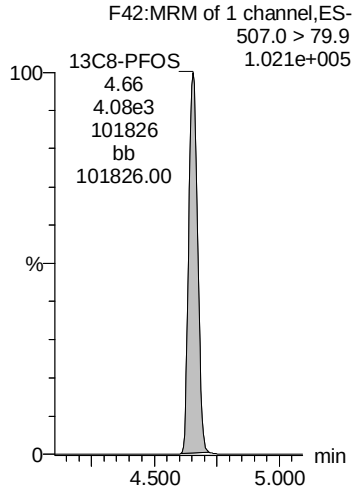
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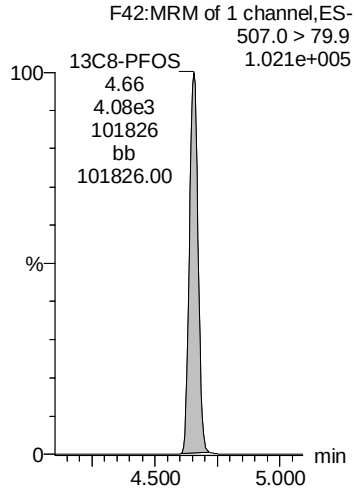
13C5-PFNA



13C8-PFOS



13C8-PFOS



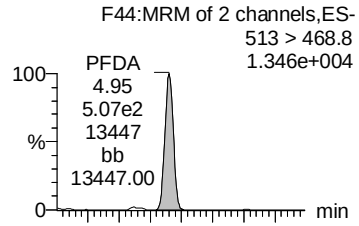
Review: AMR 7/23/2019

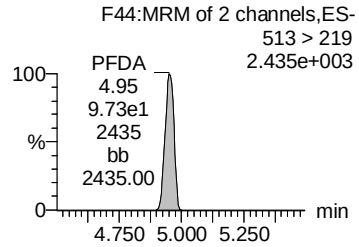
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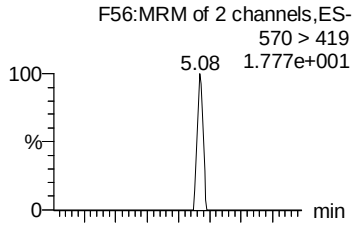
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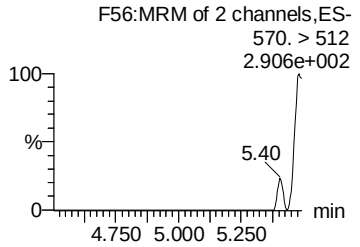
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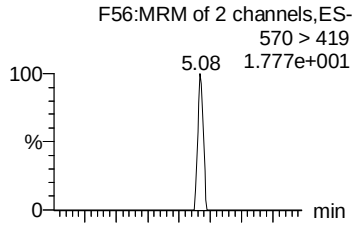


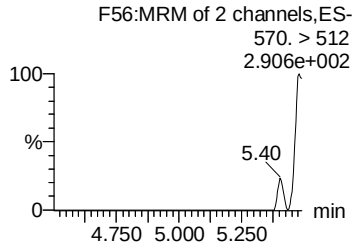
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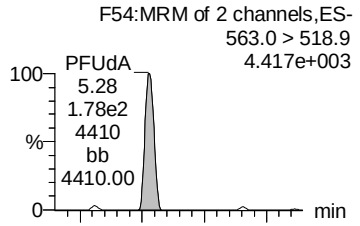


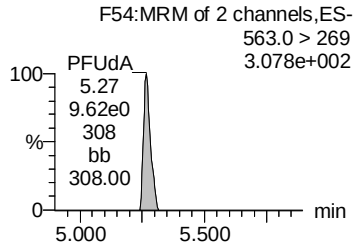
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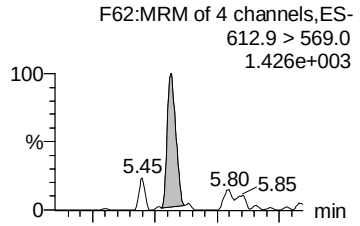


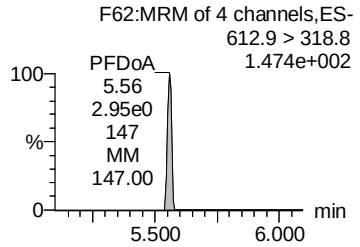
PFUdA



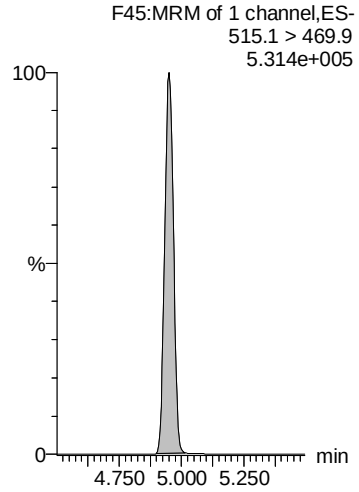


PFDoA

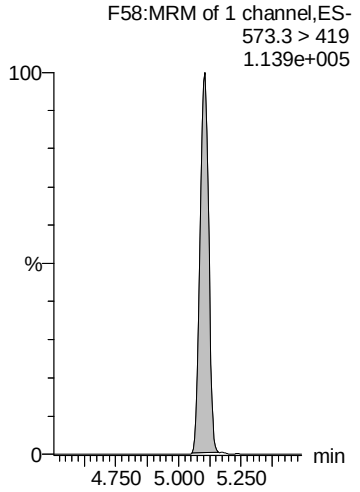




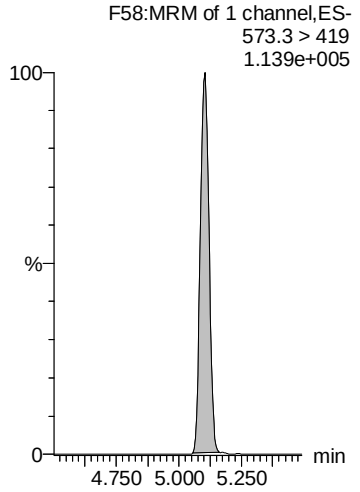
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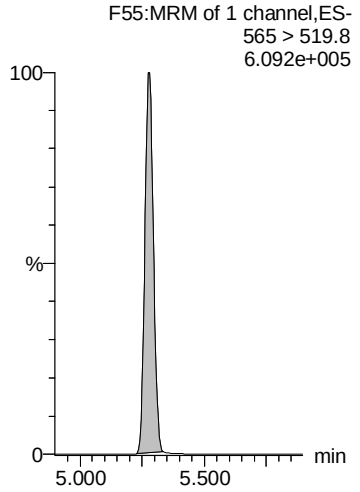
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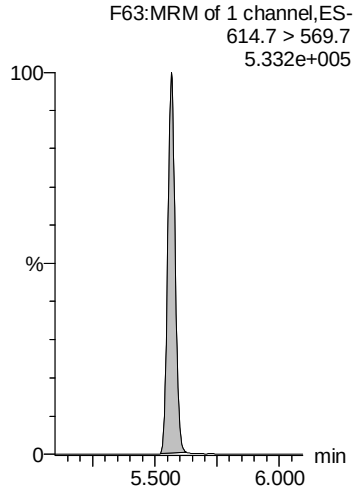
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13C2-PFUdA



13C2-PFDoA



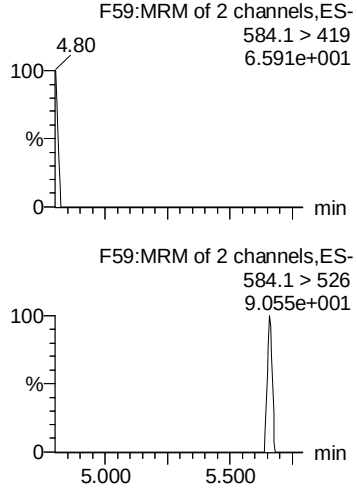
Review: AMR 7/23/2019

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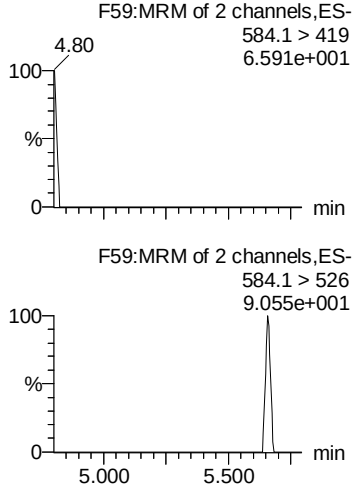
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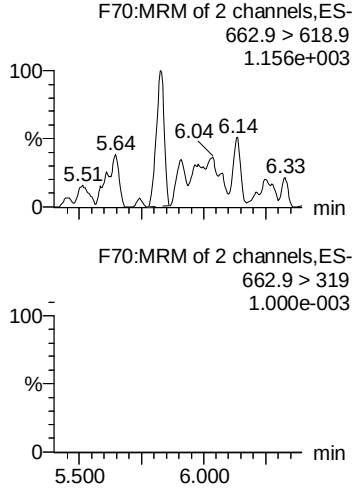
L-EtFOSAA



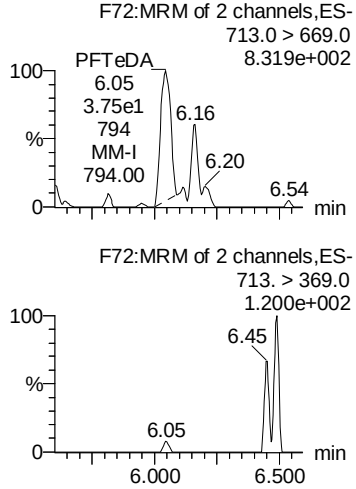
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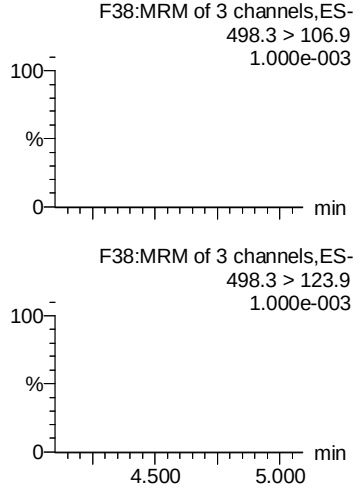
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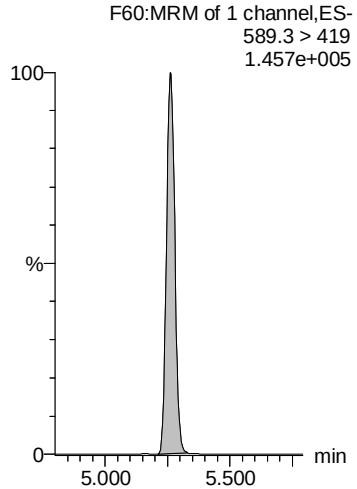
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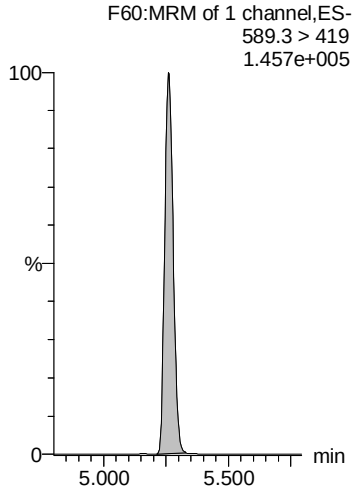
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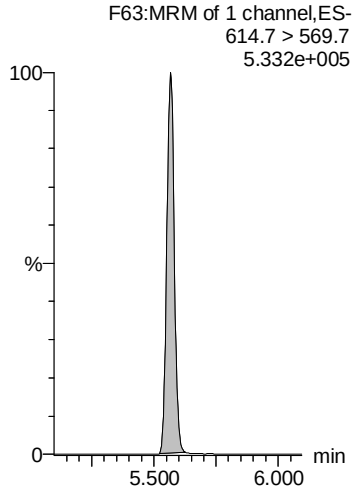
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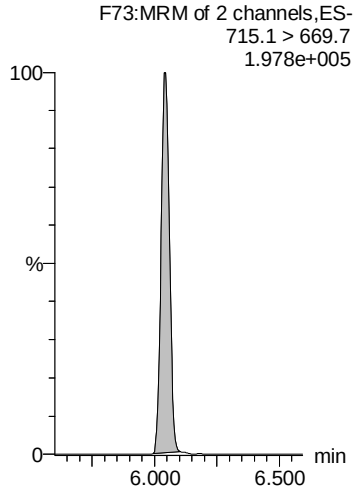
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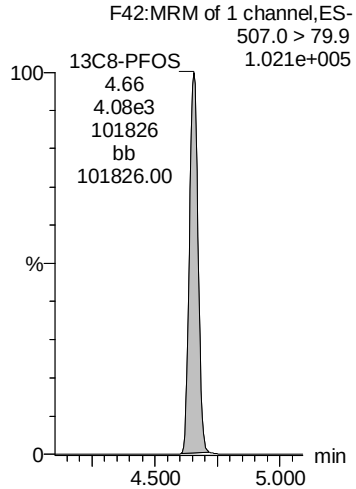
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS



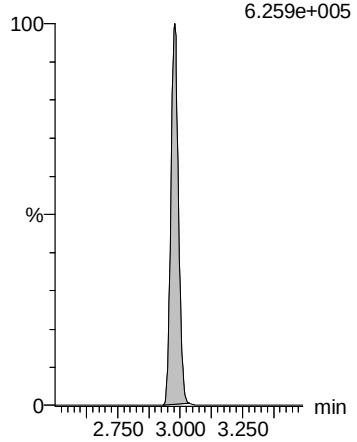
GM 7/23/2019

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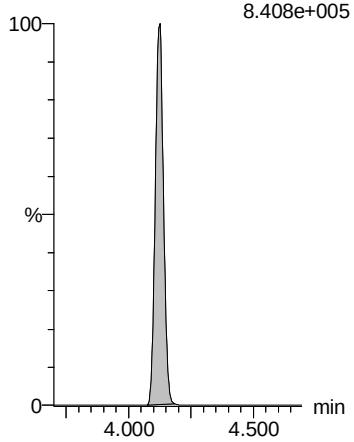
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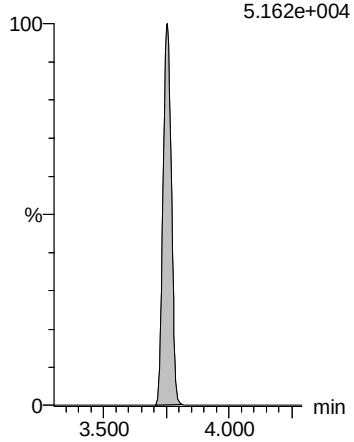
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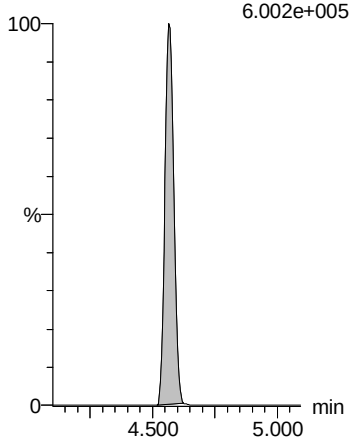
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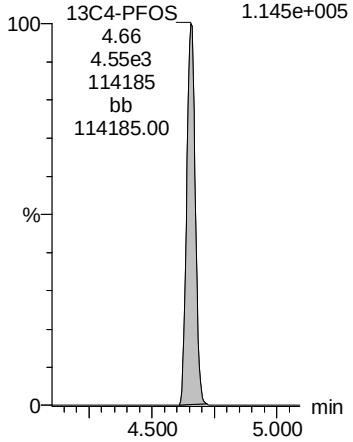
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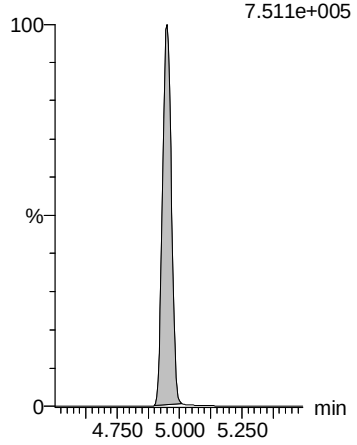
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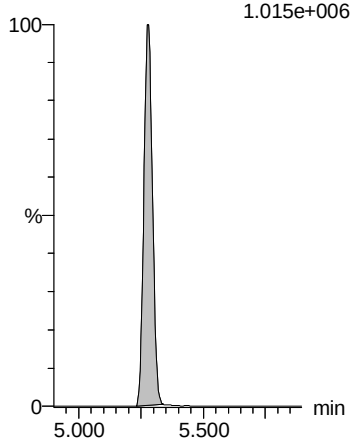
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory L14

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Last Altered: Tuesday, July 23, 2019 11:57:05 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 12:44:29 Pacific Daylight Time

Name: 190723M2_8, Date: 23-Jul-2019, Time: 10:45:40, ID: 1902014-10 EB-07082019 0.11822, Description: EB-07082019

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
1	5	PFBS	299.0 > 79.7	4.94e0	2.11e3	0.118		2.46	2.47	0.0293	0.3894		0.955	YES
2	7	PFHxA	313.0 > 269.0	3.53e3	1.00e4	0.118		2.98	2.98	1.76	16.4122		13.929	NO
3	11	PFHpA	363.0 > 318.9	1.22e2	1.29e4	0.118		3.60	3.60	0.118	0.7755		12.617	NO
4	13	L-PFHxS	398.9 > 79.6	4.77e1	3.95e3	0.118		3.75	3.74	0.151	1.4171		1.859	NO
5	80	Total PFHxS	398.9 > 79.6	4.77e1	3.95e3	0.118		3.83		0.151	1.4171			
6	49	13C3-PFBS	302.0 > 98.8	2.11e3	2.12e3	0.118	1.058	2.46	2.46	12.4	99.5111	94.1		
7	52	13C2-PFHxA	315.0 > 270.0	1.00e4	2.83e4	0.118	0.978	2.97	2.98	4.43	38.2960	90.5		
8	53	13C4-PFHpA	367.2 > 321.8	1.29e4	2.83e4	0.118	0.479	3.59	3.60	5.71	100.9641	95.5		
9	54	13C3-PFHxS	401.8 > 79.9	3.95e3	2.12e3	0.118	2.024	3.75	3.75	23.3	97.4604	92.2		
10	54	13C3-PFHxS	401.8 > 79.9	3.95e3	2.12e3	0.118	2.024	3.75	3.75	23.3	97.4604	92.2		
11	-1													
12	16	L-PFOA	412.8 > 368.9	2.54e2	2.32e4	0.118		4.12	4.12	0.137	0.5577		2.461	NO
13	81	Total PFOA	412.8 > 368.9	2.54e2	2.32e4	0.118		4.21		0.137	0.5577			
14	21	PFNA	463.0 > 418.8	1.17e1	2.30e4	0.118		4.57	4.57	0.00635			1.658	YES
15	23	L-PFOS	498.9 > 79.9	1.01e3	4.65e3	0.118		4.66	4.66	2.72	21.6782		1.843	NO
16	82	Total PFOS	498.9 > 79.9	1.01e3	4.65e3	0.118		4.74		2.72	21.6782			
17	58	13C2-PFOA	414.9 > 369.7	2.32e4	3.72e4	0.118	0.681	4.12	4.12	7.79	96.7536	91.5		
18	58	13C2-PFOA	414.9 > 369.7	2.32e4	3.72e4	0.118	0.681	4.12	4.12	7.79	96.7536	91.5		
19	56	13C5-PFNA	468.2 > 422.9	2.30e4	2.68e4	0.118	1.002	4.57	4.57	10.7	90.6776	85.8		
20	59	13C8-PFOS	507.0 > 79.9	4.65e3	4.68e3	0.118	0.997	4.65	4.66	12.4	105.3294	99.6		
21	59	13C8-PFOS	507.0 > 79.9	4.65e3	4.68e3	0.118	0.997	4.65	4.66	12.4	105.3294	99.6		
22	-1													
23	26	PFDA	513 > 468.8	5.58e1	2.11e4	0.118		4.95	4.96	0.0331	0.1911		4.785	NO
24	29	L-MeFOSAA	570 > 419		4.76e3	0.118		5.10						
25	83	Total N-MeFOSAA	570. > 419	0.00e0	4.76e3	0.118		5.19		0.000				
26	33	PFUdA	563.0 > 518.9	8.48e1	2.46e4	0.118		5.28	5.27	0.0432			99.930	YES
27	37	PFDoA	612.9 > 569.0		2.31e4	0.118		5.57						
28	60	13C2-PFDA	515.1 > 469.9	2.11e4	3.49e4	0.118	0.819	4.95	4.95	7.57	78.2049	74.0		
29	62	d3-N-MeFOSAA	573.3 > 419	4.76e3	4.22e4	0.118	0.177	5.11	5.10	1.41	67.2858	63.6		
30	62	d3-N-MeFOSAA	573.3 > 419	4.76e3	4.22e4	0.118	0.177	5.11	5.10	1.41	67.2858	63.6		
31	63	13C2-PFUdA	565 > 519.8	2.46e4	4.22e4	0.118	0.889	5.28	5.28	7.29	69.3207	65.6		
32	65	13C2-PFDoA	614.7 > 569.7	2.31e4	3.49e4	0.118	1.087	5.57	5.57	8.29	64.5266	61.0		
33	-1													
34	31	L-EtFOSAA	584.1 > 419		6.12e3	0.118		5.26						
35	84	Total N-EtFOSAA	584.1 > 419	0.00e0	6.12e3	0.118		5.33		0.000				
36	39	PFTrDA	662.9 > 618.9		2.31e4	0.118		5.82						

Vista Analytical Laboratory L14

Review: AMR 7/23/2019

Dataset: Z:\Projects\PFAS.PRO\Results\190723M2\190723M2-8.qld

Last Altered: Tuesday, July 23, 2019 11:57:05 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 12:44:29 Pacific Daylight Time

Name: 190723M2_8, Date: 23-Jul-2019, Time: 10:45:40, ID: 1902014-10 EB-07082019 0.11822, Description: EB-07082019

	#	Name	Trace	Area	IS Area	wt/vol	RRF Mean	Pred.RT	RT	Response	Conc.	%Rec	Ion Ratio	Ratio Out?
37	41	PFTeDA	713.0 > 669.0		1.90e4	0.118		6.04						
38	85	TDCA	498.3>106.9			0.118		5.45						
39	64	d5-N-EtFOSAA	589.3 > 419	6.12e3	4.22e4	0.118	0.224	5.27	5.26	1.82	68.6199	64.9		
40	64	d5-N-EtFOSAA	589.3 > 419	6.12e3	4.22e4	0.118	0.224	5.27	5.26	1.82	68.6199	64.9		
41	65	13C2-PFDoA	614.7 > 569.7	2.31e4	3.49e4	0.118	1.087	5.57	5.57	8.29	64.5266	61.0		
42	67	13C2-PFTeDA	715.1 > 669.7	1.90e4	4.22e4	0.118	0.604	6.04	6.04	5.64	78.9127	74.6		
43	59	13C8-PFOS	507.0 > 79.9	4.65e3	4.68e3	0.118	0.997	4.65	4.66	12.4	105.3294	99.6		
44	-1													
45	73	13C5-PFHxA	318.0 > 272.9	2.83e4	2.83e4	0.118	1.000	2.97	2.97	12.5	105.7351	100.0		
46	75	13C8-PFOA	420.9 > 376.0	3.72e4	3.72e4	0.118	1.000	4.12	4.12	12.5	105.7351	100.0		
47	74	18O2-PFHxS	403.0 > 102.6	2.12e3	2.12e3	0.118	1.000	3.75	3.75	12.5	105.7351	100.0		
48	76	13C9-PFNA	472.2 > 426.9	2.68e4	2.68e4	0.118	1.000	4.57	4.57	12.5	105.7351	100.0		
49	77	13C4-PFOS	503 > 79.9	4.68e3	4.68e3	0.118	1.000	4.65	4.66	12.5	105.7351	100.0		
50	78	13C6-PFDA	519.1 > 473.7	3.49e4	3.49e4	0.118	1.000	4.95	4.95	12.5	105.7351	100.0		
51	79	13C7-PFUdA	570.1 > 524.8	4.22e4	4.22e4	0.118	1.000	5.28	5.28	12.5	105.7351	100.0		

Vista Analytical Laboratory L14

Review: AMR 7/23/2019

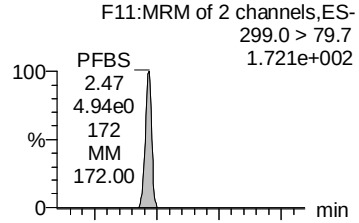
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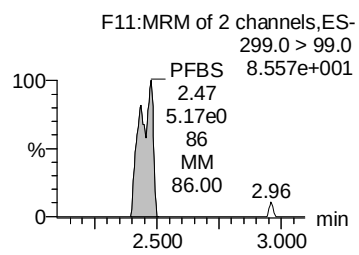
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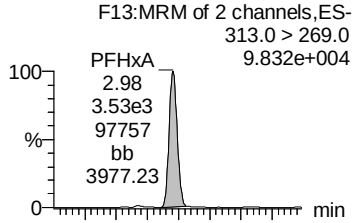
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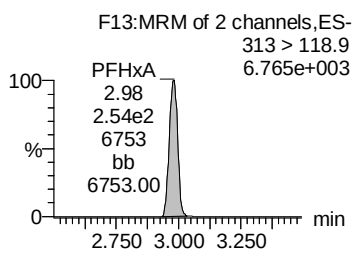
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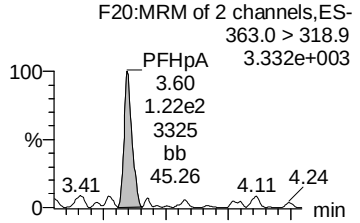


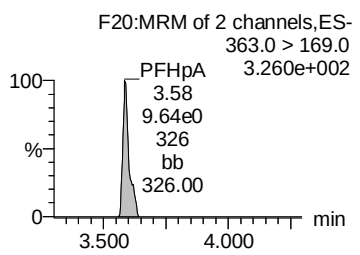
PFHxA



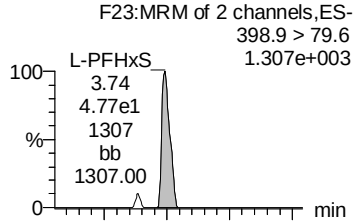


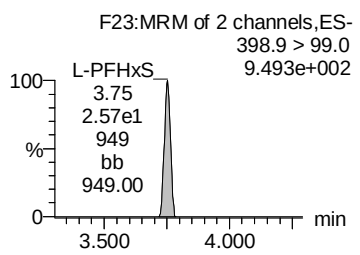
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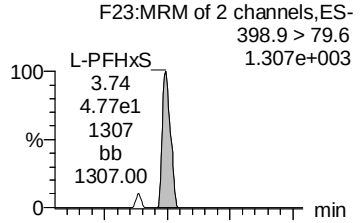


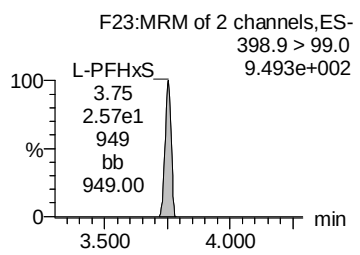
L-PFHxS



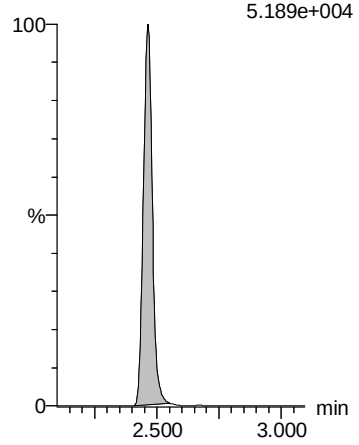


Total PFHxS

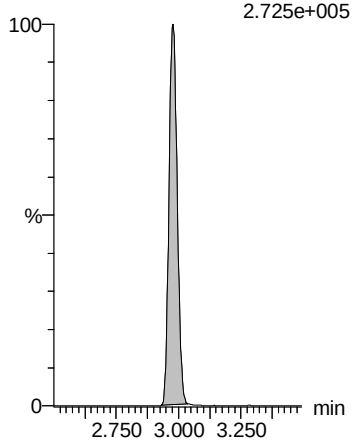




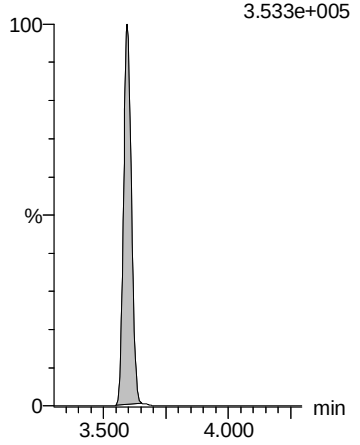
13C3-PFBS



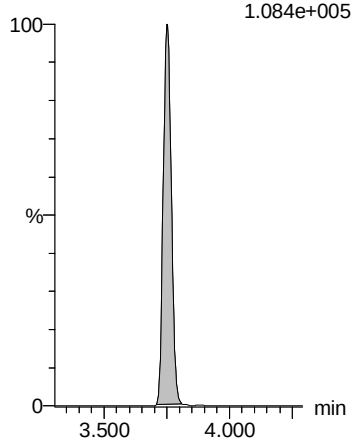
13C2-PFHxA



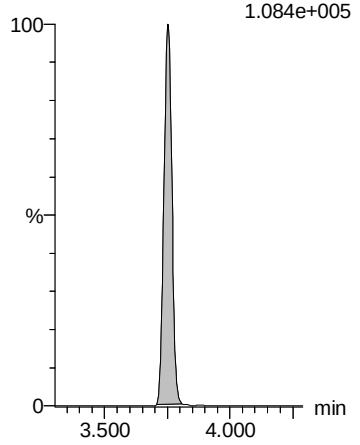
13C4-PFHpA



13C3-PFHxS



13C3-PFHxS



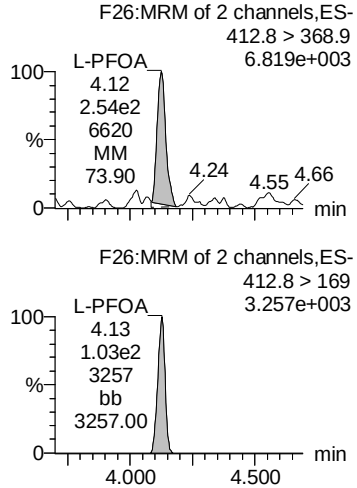
Review: AMR 7/23/2019

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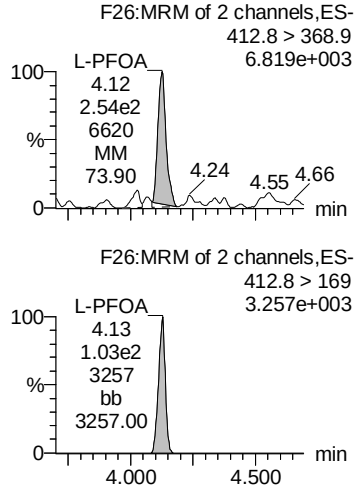
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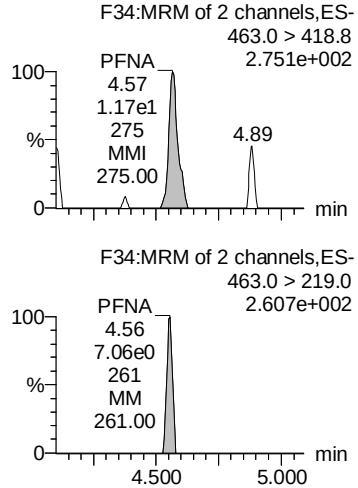
L-PFOA



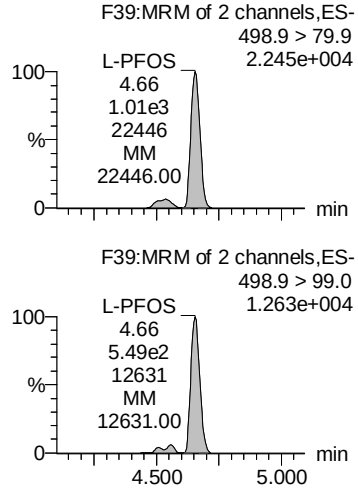
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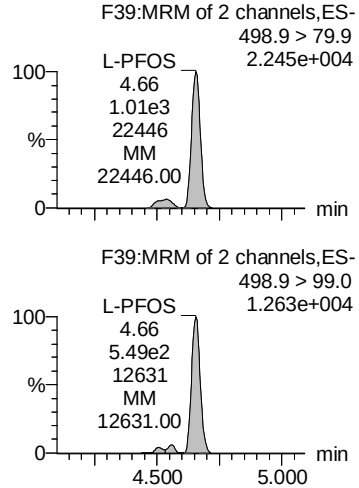
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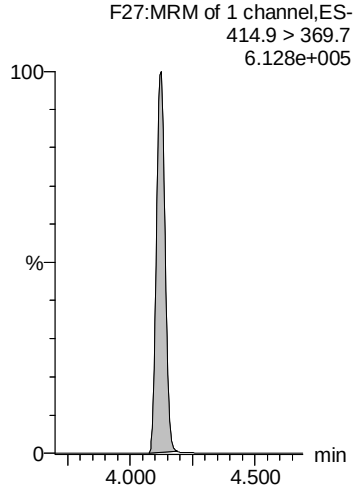
L-PFOS



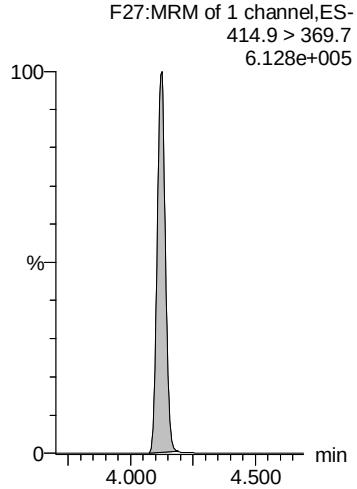
Total PFOS



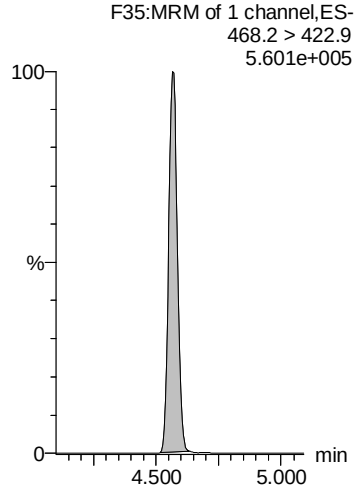
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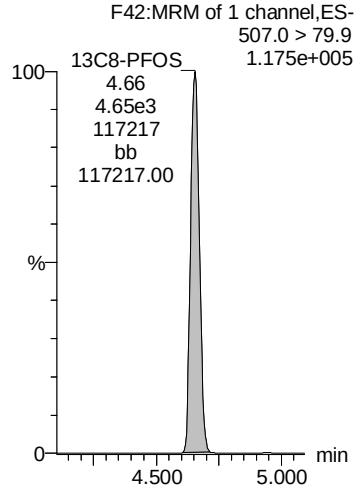
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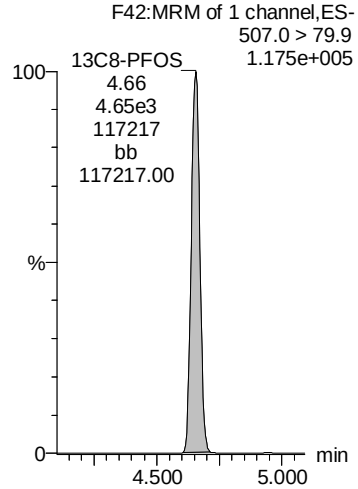
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13C8-PFOS



13C8-PFOS



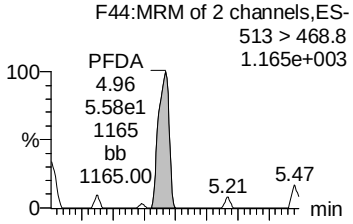
Review: AMR 7/23/2019

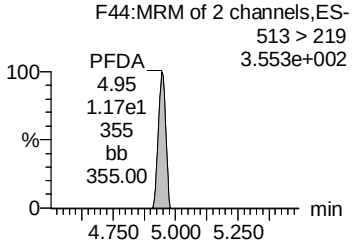
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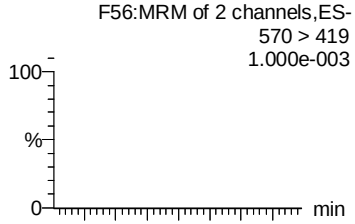
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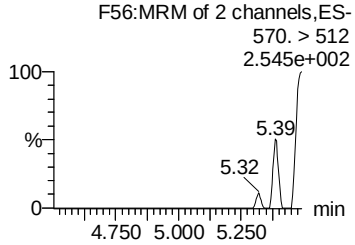
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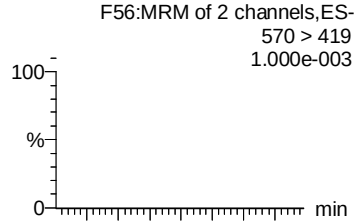


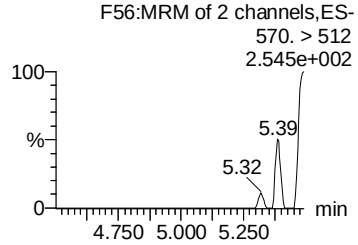
L-MeFOSAA



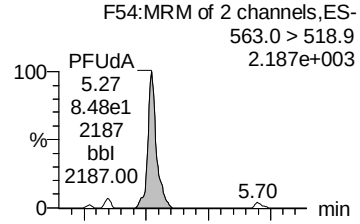


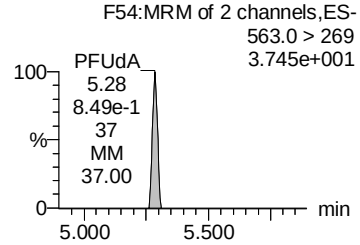
Total N-MeFOSAA



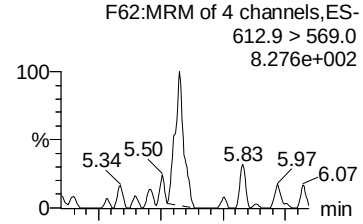


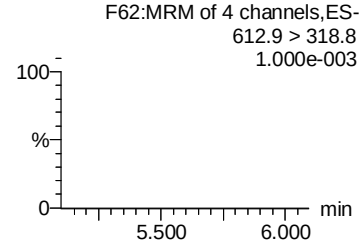
PFUdA



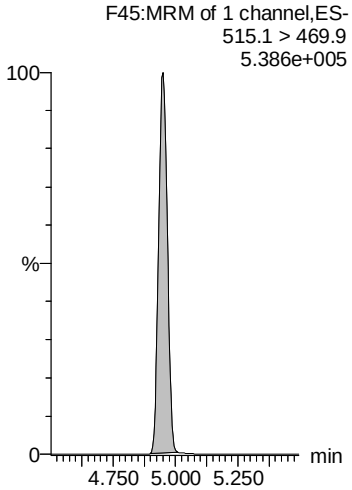


PFDoA

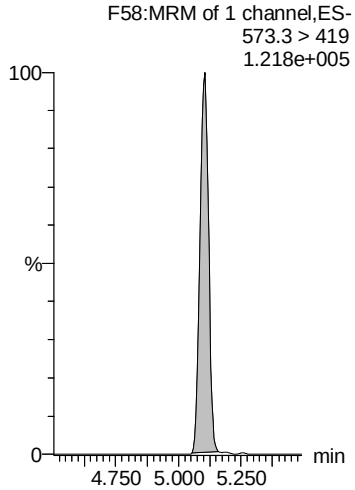




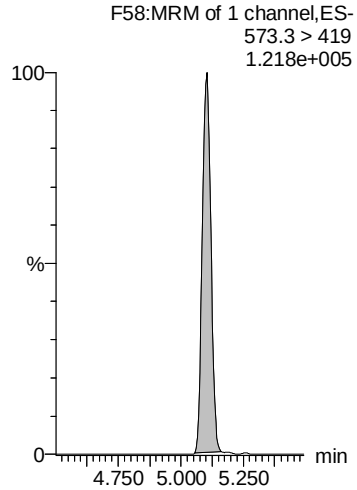
13C2-PFDA



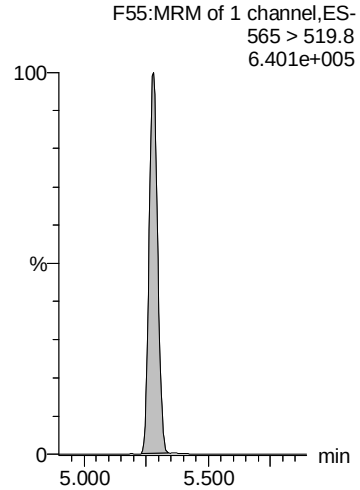
d3-N-MeFOSAA



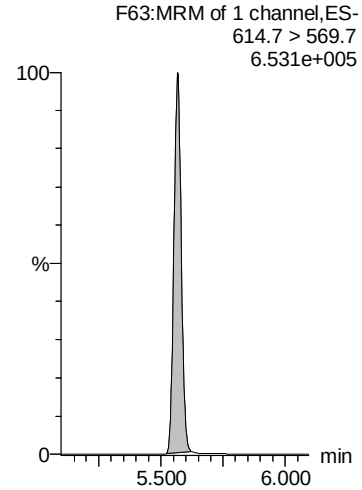
d3-N-MeFOSAA



13C2-PFUdA



13C2-PFDoA



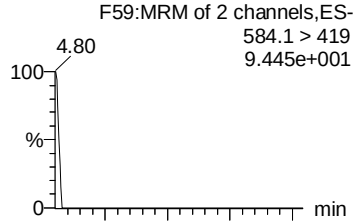
Review: AMR 7/23/2019

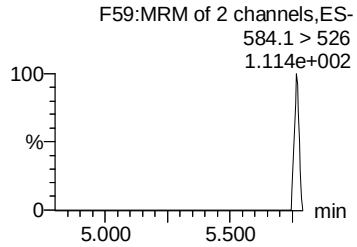
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Printed: Tuesday, July 23, 2019 12:44:29 Pacific Daylight Time

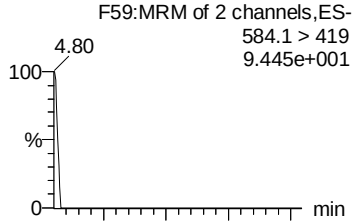
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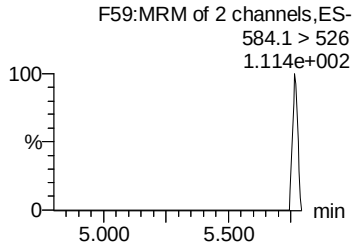
L-EtFOSAA



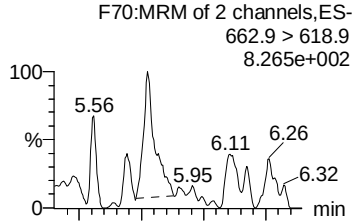


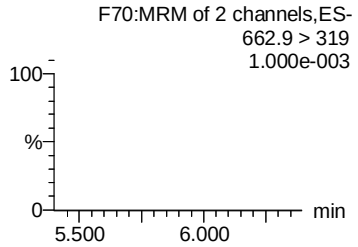
Total N-EtFOSAA



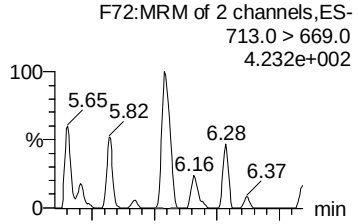


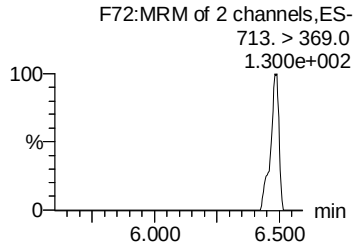
PFTrDA



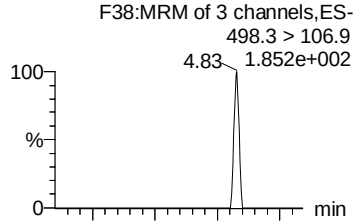


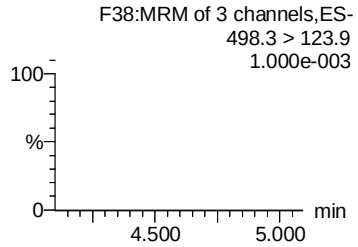
PFTeDA



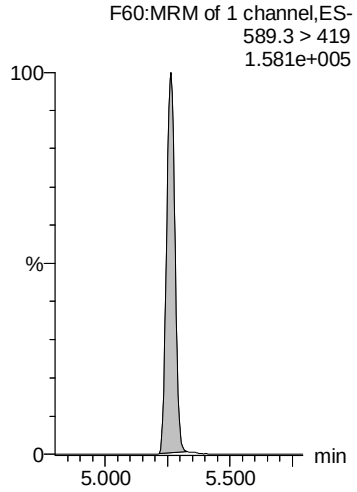


TDCA

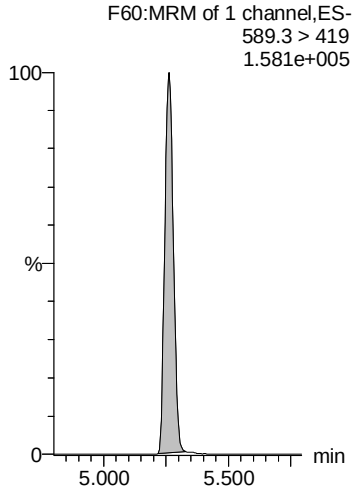




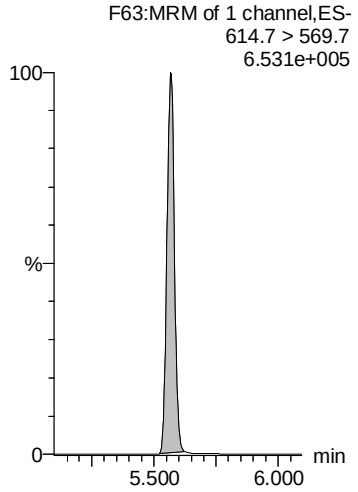
d5-N-EtFOSAA



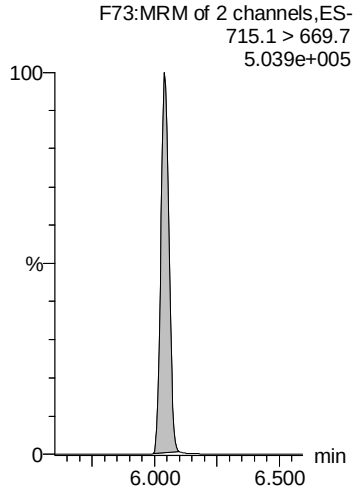
d5-N-EtFOSAA



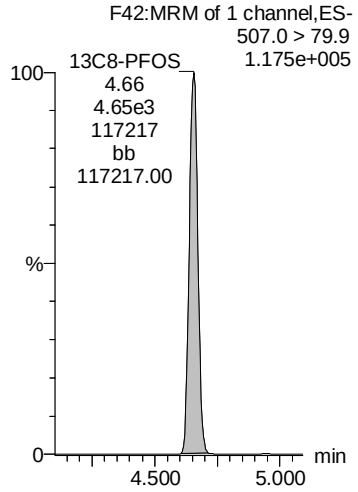
13C2-PFDoA



13C2-PFTeDA



13C8-PFOS



EM 7/23/2019

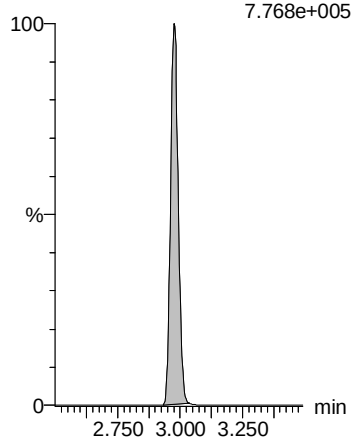
Review: AMR 7/23/2019

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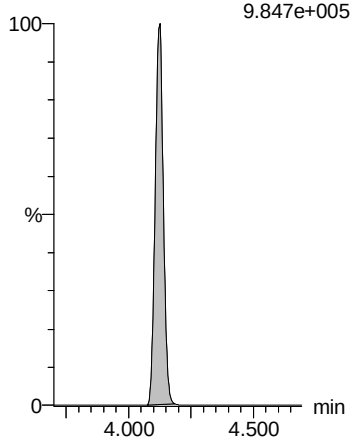
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Printed: Tuesday, July 23, 2019 12:44:29 Pacific Daylight Time

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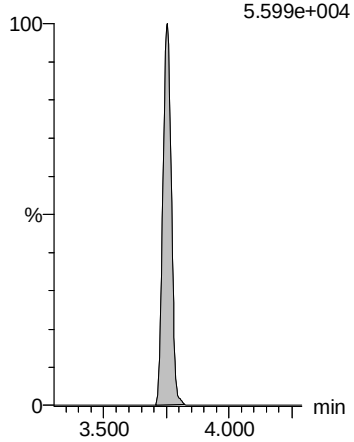
13C5-PFHxA



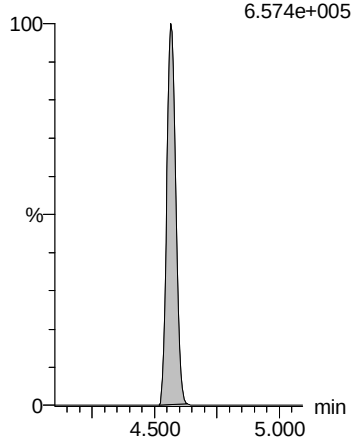
13C8-PFOA



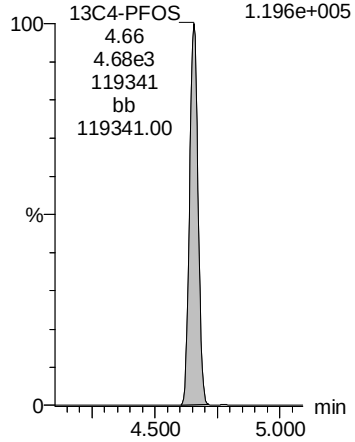
18O2-PFHxS



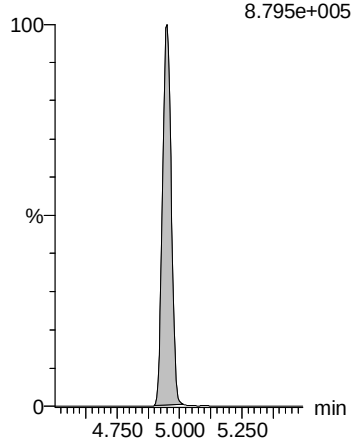
13C9-PFNA



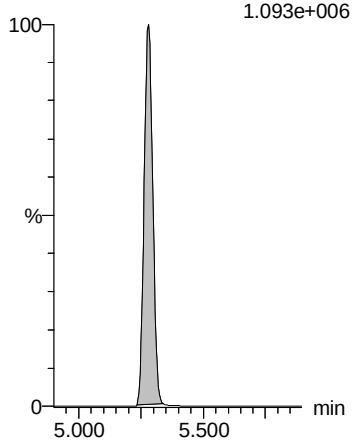
13C4-PFOS



13C6-PFDA



13C7-PFUdA



INJECTION INTERNAL STANDARD (IIS) AREAS,

INSTRUMENT BLANKS (IB)

AND

CONTINUTING CALIBRATION VERIFICATIONS CCV)

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\190719M1\IIS.qld

Last Altered: Sunday, July 21, 2019 20:10:24 Pacific Daylight Time
Printed: Sunday, July 21, 2019 20:10:29 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_RS-07-11-19.mdb 11 Jul 2019 15:12:17
Calibration: 21 Jul 2019 18:39:08

Name: 190719M1_4, Date: 19-Jul-2019, Time: 08:44:14, ID: ST190719M1-1 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190719M1-1 PFC CS0 19G1103	8.13e3	100.0	NO
2	2	13C5-PFHxA	ST190719M1-1 PFC CS0 19G1103	2.20e4	100.0	NO
3	3	18O2-PFHxS	ST190719M1-1 PFC CS0 19G1103	1.33e3	100.0	NO
4	4	13C8-PFOA	ST190719M1-1 PFC CS0 19G1103	2.89e4	100.0	NO
5	5	13C9-PFNA	ST190719M1-1 PFC CS0 19G1103	1.66e4	100.0	NO
6	6	13C4-PFOS	ST190719M1-1 PFC CS0 19G1103	3.00e3	100.0	NO
7	7	13C6-PFDA	ST190719M1-1 PFC CS0 19G1103	2.09e4	100.0	NO
8	8	13C7-PFUdA	ST190719M1-1 PFC CS0 19G1103	2.81e4	100.0	NO

Name: 190719M1_5, Date: 19-Jul-2019, Time: 08:54:47, ID: IB, Description: IB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IB	6.72e3	82.7	NO
2	2	13C5-PFHxA	IB	1.85e4	84.1	NO
3	3	18O2-PFHxS	IB	1.19e3	89.9	NO
4	4	13C8-PFOA	IB	2.69e4	93.1	NO
5	5	13C9-PFNA	IB	1.40e4	84.2	NO
6	6	13C4-PFOS	IB	2.50e3	83.2	NO
7	7	13C6-PFDA	IB	1.85e4	88.5	NO
8	8	13C7-PFUdA	IB	2.42e4	86.2	NO

Name: 190719M1_6, Date: 19-Jul-2019, Time: 09:09:25, ID: B9G0117-BS1 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0117-BS1 OPR 1	9.15e3	112.7	NO
2	2	13C5-PFHxA	B9G0117-BS1 OPR 1	1.55e4	70.6	NO
3	3	18O2-PFHxS	B9G0117-BS1 OPR 1	1.04e3	78.7	NO
4	4	13C8-PFOA	B9G0117-BS1 OPR 1	2.02e4	69.7	NO
5	5	13C9-PFNA	B9G0117-BS1 OPR 1	1.01e4	60.5	NO
6	6	13C4-PFOS	B9G0117-BS1 OPR 1	1.59e3	53.1	NO
7	7	13C6-PFDA	B9G0117-BS1 OPR 1	1.00e4	48.1	YES
8	8	13C7-PFUdA	B9G0117-BS1 OPR 1	5.73e3	20.4	YES

Name: 190719M1_7, Date: 19-Jul-2019, Time: 09:19:59, ID: B9G0117-BSD1 LCSD 1, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0117-BSD1 LCSD 1	9.52e3	117.2	NO
2	2	13C5-PFHxA	B9G0117-BSD1 LCSD 1	1.58e4	72.1	NO
3	3	18O2-PFHxS	B9G0117-BSD1 LCSD 1	9.65e2	72.8	NO
4	4	13C8-PFOA	B9G0117-BSD1 LCSD 1	1.93e4	66.7	NO
5	5	13C9-PFNA	B9G0117-BSD1 LCSD 1	9.31e3	55.9	NO
6	6	13C4-PFOS	B9G0117-BSD1 LCSD 1	1.66e3	55.5	NO
7	7	13C6-PFDA	B9G0117-BSD1 LCSD 1	9.88e3	47.3	YES
8	8	13C7-PFUdA	B9G0117-BSD1 LCSD 1	7.21e3	25.7	YES

Dataset: F:\Projects\PFAS.PRO\Results\190719M1\IIS.qld

Last Altered: Sunday, July 21, 2019 20:10:24 Pacific Daylight Time
Printed: Sunday, July 21, 2019 20:10:29 Pacific Daylight Time

Name: 190719M1_8, Date: 19-Jul-2019, Time: 09:30:29, ID: B9G0117-BLK1 Method Blank 1, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0117-BLK1 Method Blank 1	9.94e3	122.3	NO
2	2	13C5-PFHxA	B9G0117-BLK1 Method Blank 1	1.63e4	74.2	NO
3	3	18O2-PFHxS	B9G0117-BLK1 Method Blank 1	9.73e2	73.4	NO
4	4	13C8-PFOA	B9G0117-BLK1 Method Blank 1	2.21e4	76.4	NO
5	5	13C9-PFNA	B9G0117-BLK1 Method Blank 1	9.61e3	57.7	NO
6	6	13C4-PFOS	B9G0117-BLK1 Method Blank 1	1.53e3	51.1	NO
7	7	13C6-PFDA	B9G0117-BLK1 Method Blank 1	8.44e3	40.4	YES
8	8	13C7-PFUdA	B9G0117-BLK1 Method Blank 1	4.04e3	14.4	YES

Name: 190719M1_9, Date: 19-Jul-2019, Time: 09:41:08, ID: B9G0117-MS1 Matrix Spike 1.07, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0117-MS1 Matrix Spike 1.07	8.82e3	108.6	NO
2	2	13C5-PFHxA	B9G0117-MS1 Matrix Spike 1.07	1.47e4	66.8	NO
3	3	18O2-PFHxS	B9G0117-MS1 Matrix Spike 1.07	7.98e2	60.2	NO
4	4	13C8-PFOA	B9G0117-MS1 Matrix Spike 1.07	1.83e4	63.4	NO
5	5	13C9-PFNA	B9G0117-MS1 Matrix Spike 1.07	8.31e3	50.0	NO
6	6	13C4-PFOS	B9G0117-MS1 Matrix Spike 1.07	1.54e3	51.3	NO
7	7	13C6-PFDA	B9G0117-MS1 Matrix Spike 1.07	8.05e3	38.5	YES
8	8	13C7-PFUdA	B9G0117-MS1 Matrix Spike 1.07	5.87e3	20.9	YES

Name: 190719M1_10, Date: 19-Jul-2019, Time: 09:51:41, ID: B9G0117-MSD1 Matrix Spike Dup 1.06, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0117-MSD1 Matrix Spike Dup 1.06	9.09e3	111.9	NO
2	2	13C5-PFHxA	B9G0117-MSD1 Matrix Spike Dup 1.06	1.61e4	73.4	NO
3	3	18O2-PFHxS	B9G0117-MSD1 Matrix Spike Dup 1.06	8.84e2	66.7	NO
4	4	13C8-PFOA	B9G0117-MSD1 Matrix Spike Dup 1.06	1.92e4	66.5	NO
5	5	13C9-PFNA	B9G0117-MSD1 Matrix Spike Dup 1.06	7.93e3	47.7	YES
6	6	13C4-PFOS	B9G0117-MSD1 Matrix Spike Dup 1.06	1.39e3	46.2	YES
7	7	13C6-PFDA	B9G0117-MSD1 Matrix Spike Dup 1.06	6.78e3	32.4	YES
8	8	13C7-PFUdA	B9G0117-MSD1 Matrix Spike Dup 1.06	4.05e3	14.4	YES

Name: 190719M1_11, Date: 19-Jul-2019, Time: 10:02:20, ID: B9G0117-MS2 Matrix Spike 1.07, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0117-MS2 Matrix Spike 1.07	9.05e3	111.4	NO
2	2	13C5-PFHxA	B9G0117-MS2 Matrix Spike 1.07	1.52e4	69.2	NO
3	3	18O2-PFHxS	B9G0117-MS2 Matrix Spike 1.07	1.06e3	80.1	NO
4	4	13C8-PFOA	B9G0117-MS2 Matrix Spike 1.07	2.08e4	72.0	NO
5	5	13C9-PFNA	B9G0117-MS2 Matrix Spike 1.07	1.14e4	68.4	NO
6	6	13C4-PFOS	B9G0117-MS2 Matrix Spike 1.07	1.81e3	60.4	NO
7	7	13C6-PFDA	B9G0117-MS2 Matrix Spike 1.07	1.24e4	59.2	NO
8	8	13C7-PFUdA	B9G0117-MS2 Matrix Spike 1.07	9.79e3	34.8	YES

Dataset: F:\Projects\PFAS.PRO\Results\190719M1\IIS.qld

Last Altered: Sunday, July 21, 2019 20:10:24 Pacific Daylight Time
Printed: Sunday, July 21, 2019 20:10:29 Pacific Daylight Time

Name: 190719M1_12, Date: 19-Jul-2019, Time: 10:12:52, ID: B9G0117-MSD2 Matrix Spike Dup 1.06, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0117-MSD2 Matrix Spike Dup 1.06	8.16e3	100.4	NO
2	2	13C5-PFHxA	B9G0117-MSD2 Matrix Spike Dup 1.06	1.34e4	61.1	NO
3	3	18O2-PFHxS	B9G0117-MSD2 Matrix Spike Dup 1.06	8.48e2	64.0	NO
4	4	13C8-PFOA	B9G0117-MSD2 Matrix Spike Dup 1.06	1.82e4	62.9	NO
5	5	13C9-PFNA	B9G0117-MSD2 Matrix Spike Dup 1.06	8.51e3	51.1	NO
6	6	13C4-PFOS	B9G0117-MSD2 Matrix Spike Dup 1.06	1.33e3	44.3	YES
7	7	13C6-PFDA	B9G0117-MSD2 Matrix Spike Dup 1.06	8.29e3	39.7	YES
8	8	13C7-PFUdA	B9G0117-MSD2 Matrix Spike Dup 1.06	6.50e3	23.1	YES

Name: 190719M1_13, Date: 19-Jul-2019, Time: 10:23:31, ID: 1901860-01 B96-PFAS-SB56-0-2-062619 1.08, Description: B96-PFAS-SB56-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-01 B96-PFAS-SB56-0-2-0626...	8.54e3	105.1	NO
2	2	13C5-PFHxA	1901860-01 B96-PFAS-SB56-0-2-0626...	1.45e4	66.0	NO
3	3	18O2-PFHxS	1901860-01 B96-PFAS-SB56-0-2-0626...	9.63e2	72.7	NO
4	4	13C8-PFOA	1901860-01 B96-PFAS-SB56-0-2-0626...	1.84e4	63.5	NO
5	5	13C9-PFNA	1901860-01 B96-PFAS-SB56-0-2-0626...	7.77e3	46.7	YES
6	6	13C4-PFOS	1901860-01 B96-PFAS-SB56-0-2-0626...	1.07e3	35.7	YES
7	7	13C6-PFDA	1901860-01 B96-PFAS-SB56-0-2-0626...	6.58e3	31.5	YES
8	8	13C7-PFUdA	1901860-01 B96-PFAS-SB56-0-2-0626...	3.95e3	14.1	YES

Name: 190719M1_14, Date: 19-Jul-2019, Time: 10:34:09, ID: 1901860-02 B96-PFAS-SB61-0-2-062619 1.06, Description: B96-PFAS-SB61-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-02 B96-PFAS-SB61-0-2-0626...	9.22e3	113.4	NO
2	2	13C5-PFHxA	1901860-02 B96-PFAS-SB61-0-2-0626...	1.66e4	75.5	NO
3	3	18O2-PFHxS	1901860-02 B96-PFAS-SB61-0-2-0626...	1.04e3	78.7	NO
4	4	13C8-PFOA	1901860-02 B96-PFAS-SB61-0-2-0626...	2.12e4	73.5	NO
5	5	13C9-PFNA	1901860-02 B96-PFAS-SB61-0-2-0626...	9.39e3	56.4	NO
6	6	13C4-PFOS	1901860-02 B96-PFAS-SB61-0-2-0626...	1.77e3	59.0	NO
7	7	13C6-PFDA	1901860-02 B96-PFAS-SB61-0-2-0626...	8.97e3	42.9	YES
8	8	13C7-PFUdA	1901860-02 B96-PFAS-SB61-0-2-0626...	5.61e3	20.0	YES

Name: 190719M1_15, Date: 19-Jul-2019, Time: 10:44:41, ID: 1901860-03 B96-PFAS-SB62-0-2-062619 1.14, Description: B96-PFAS-SB62-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-03 B96-PFAS-SB62-0-2-0626...	8.94e3	110.0	NO
2	2	13C5-PFHxA	1901860-03 B96-PFAS-SB62-0-2-0626...	1.44e4	65.3	NO
3	3	18O2-PFHxS	1901860-03 B96-PFAS-SB62-0-2-0626...	9.20e2	69.4	NO
4	4	13C8-PFOA	1901860-03 B96-PFAS-SB62-0-2-0626...	1.62e4	56.0	NO
5	5	13C9-PFNA	1901860-03 B96-PFAS-SB62-0-2-0626...	7.22e3	43.4	YES
6	6	13C4-PFOS	1901860-03 B96-PFAS-SB62-0-2-0626...	1.61e3	53.5	NO
7	7	13C6-PFDA	1901860-03 B96-PFAS-SB62-0-2-0626...	6.33e3	30.3	YES
8	8	13C7-PFUdA	1901860-03 B96-PFAS-SB62-0-2-0626...	4.15e3	14.8	YES

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Name: 190719M1_16, Date: 19-Jul-2019, Time: 10:55:20, ID: 1901860-04 H1-PFAS-SB138N-0-2-062619 1.11, Description: H1-PFAS-SB138N-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-04 H1-PFAS-SB138N-0-2-062...	9.32e3	114.7	NO
2	2	13C5-PFHxA	1901860-04 H1-PFAS-SB138N-0-2-062...	1.63e4	74.0	NO
3	3	18O2-PFHxS	1901860-04 H1-PFAS-SB138N-0-2-062...	1.04e3	78.6	NO
4	4	13C8-PFOA	1901860-04 H1-PFAS-SB138N-0-2-062...	2.12e4	73.2	NO
5	5	13C9-PFNA	1901860-04 H1-PFAS-SB138N-0-2-062...	1.05e4	63.0	NO
6	6	13C4-PFOS	1901860-04 H1-PFAS-SB138N-0-2-062...	1.78e3	59.1	NO
7	7	13C6-PFDA	1901860-04 H1-PFAS-SB138N-0-2-062...	1.06e4	50.9	NO
8	8	13C7-PFUdA	1901860-04 H1-PFAS-SB138N-0-2-062...	5.92e3	21.1	YES

Name: 190719M1_17, Date: 19-Jul-2019, Time: 11:05:53, ID: 1901860-05 H1-PFAS-SB138S-0-2-062619 1.05, Description: H1-PFAS-SB138S-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-05 H1-PFAS-SB138S-0-2-062...	9.12e3	112.3	NO
2	2	13C5-PFHxA	1901860-05 H1-PFAS-SB138S-0-2-062...	1.43e4	65.0	NO
3	3	18O2-PFHxS	1901860-05 H1-PFAS-SB138S-0-2-062...	9.70e2	73.2	NO
4	4	13C8-PFOA	1901860-05 H1-PFAS-SB138S-0-2-062...	1.98e4	68.4	NO
5	5	13C9-PFNA	1901860-05 H1-PFAS-SB138S-0-2-062...	1.01e4	60.9	NO
6	6	13C4-PFOS	1901860-05 H1-PFAS-SB138S-0-2-062...	1.59e3	53.1	NO
7	7	13C6-PFDA	1901860-05 H1-PFAS-SB138S-0-2-062...	1.06e4	50.7	NO
8	8	13C7-PFUdA	1901860-05 H1-PFAS-SB138S-0-2-062...	6.21e3	22.1	YES

Name: 190719M1_18, Date: 19-Jul-2019, Time: 11:16:31, ID: 1901860-06 DUP03-062619 1.09, Description: DUP03-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-06 DUP03-062619 1.09	9.89e3	121.7	NO
2	2	13C5-PFHxA	1901860-06 DUP03-062619 1.09	1.65e4	75.2	NO
3	3	18O2-PFHxS	1901860-06 DUP03-062619 1.09	1.08e3	81.7	NO
4	4	13C8-PFOA	1901860-06 DUP03-062619 1.09	2.09e4	72.2	NO
5	5	13C9-PFNA	1901860-06 DUP03-062619 1.09	1.05e4	63.3	NO
6	6	13C4-PFOS	1901860-06 DUP03-062619 1.09	1.73e3	57.6	NO
7	7	13C6-PFDA	1901860-06 DUP03-062619 1.09	1.04e4	49.9	NO
8	8	13C7-PFUdA	1901860-06 DUP03-062619 1.09	7.29e3	25.9	YES

Name: 190719M1_19, Date: 19-Jul-2019, Time: 11:27:03, ID: 1901860-07 B96-PFAS-SB63-0-2-062619 1.07, Description: B96-PFAS-SB63-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-07 B96-PFAS-SB63-0-2-0626...	9.81e3	120.7	NO
2	2	13C5-PFHxA	1901860-07 B96-PFAS-SB63-0-2-0626...	1.61e4	73.3	NO
3	3	18O2-PFHxS	1901860-07 B96-PFAS-SB63-0-2-0626...	1.01e3	75.9	NO
4	4	13C8-PFOA	1901860-07 B96-PFAS-SB63-0-2-0626...	1.83e4	63.3	NO
5	5	13C9-PFNA	1901860-07 B96-PFAS-SB63-0-2-0626...	8.10e3	48.7	YES
6	6	13C4-PFOS	1901860-07 B96-PFAS-SB63-0-2-0626...	1.50e3	50.1	NO
7	7	13C6-PFDA	1901860-07 B96-PFAS-SB63-0-2-0626...	7.23e3	34.6	YES
8	8	13C7-PFUdA	1901860-07 B96-PFAS-SB63-0-2-0626...	3.51e3	12.5	YES

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Name: 190719M1_20, Date: 19-Jul-2019, Time: 11:37:42, ID: 1901860-08 B96-PFAS-SB43-0-2-062719 1.14, Description: B96-PFAS-SB43-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-08 B96-PFAS-SB43-0-2-0627...	9.80e3	120.6	NO
2	2	13C5-PFHxA	1901860-08 B96-PFAS-SB43-0-2-0627...	1.63e4	74.0	NO
3	3	18O2-PFHxS	1901860-08 B96-PFAS-SB43-0-2-0627...	9.41e2	71.0	NO
4	4	13C8-PFOA	1901860-08 B96-PFAS-SB43-0-2-0627...	1.89e4	65.4	NO
5	5	13C9-PFNA	1901860-08 B96-PFAS-SB43-0-2-0627...	8.22e3	49.4	YES
6	6	13C4-PFOS	1901860-08 B96-PFAS-SB43-0-2-0627...	1.15e3	38.3	YES
7	7	13C6-PFDA	1901860-08 B96-PFAS-SB43-0-2-0627...	5.94e3	28.4	YES
8	8	13C7-PFUdA	1901860-08 B96-PFAS-SB43-0-2-0627...	3.14e3	11.2	YES

Name: 190719M1_21, Date: 19-Jul-2019, Time: 11:48:14, ID: 1901860-09 B96-PFAS-SB43-7-8-062719 1.14, Description: B96-PFAS-SB43-7-8-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-09 B96-PFAS-SB43-7-8-0627...	1.06e4	130.0	NO
2	2	13C5-PFHxA	1901860-09 B96-PFAS-SB43-7-8-0627...	1.79e4	81.2	NO
3	3	18O2-PFHxS	1901860-09 B96-PFAS-SB43-7-8-0627...	1.08e3	81.5	NO
4	4	13C8-PFOA	1901860-09 B96-PFAS-SB43-7-8-0627...	2.28e4	78.8	NO
5	5	13C9-PFNA	1901860-09 B96-PFAS-SB43-7-8-0627...	1.03e4	62.0	NO
6	6	13C4-PFOS	1901860-09 B96-PFAS-SB43-7-8-0627...	1.72e3	57.3	NO
7	7	13C6-PFDA	1901860-09 B96-PFAS-SB43-7-8-0627...	1.01e4	48.5	YES
8	8	13C7-PFUdA	1901860-09 B96-PFAS-SB43-7-8-0627...	5.63e3	20.0	YES

Name: 190719M1_22, Date: 19-Jul-2019, Time: 11:58:53, ID: 1901860-10 H1-PFAS-SB138E-0-2-062719 1.09, Description: H1-PFAS-SB138E-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-10 H1-PFAS-SB138E-0-2-062...	9.20e3	113.2	NO
2	2	13C5-PFHxA	1901860-10 H1-PFAS-SB138E-0-2-062...	1.56e4	71.0	NO
3	3	18O2-PFHxS	1901860-10 H1-PFAS-SB138E-0-2-062...	9.34e2	70.5	NO
4	4	13C8-PFOA	1901860-10 H1-PFAS-SB138E-0-2-062...	2.12e4	73.4	NO
5	5	13C9-PFNA	1901860-10 H1-PFAS-SB138E-0-2-062...	1.01e4	60.7	NO
6	6	13C4-PFOS	1901860-10 H1-PFAS-SB138E-0-2-062...	1.64e3	54.7	NO
7	7	13C6-PFDA	1901860-10 H1-PFAS-SB138E-0-2-062...	9.72e3	46.5	YES
8	8	13C7-PFUdA	1901860-10 H1-PFAS-SB138E-0-2-062...	6.30e3	22.4	YES

Name: 190719M1_23, Date: 19-Jul-2019, Time: 12:09:31, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190719M1_24, Date: 19-Jul-2019, Time: 12:20:04, ID: ST190719M1-2 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190719M1-2 PFC CS3 19G1106	8.01e3	98.6	NO
2	2	13C5-PFHxA	ST190719M1-2 PFC CS3 19G1106	2.14e4	97.3	NO
3	3	18O2-PFHxS	ST190719M1-2 PFC CS3 19G1106	1.27e3	96.0	NO
4	4	13C8-PFOA	ST190719M1-2 PFC CS3 19G1106	2.93e4	101.5	NO
5	5	13C9-PFNA	ST190719M1-2 PFC CS3 19G1106	1.53e4	91.9	NO
6	6	13C4-PFOS	ST190719M1-2 PFC CS3 19G1106	2.78e3	92.5	NO
7	7	13C6-PFDA	ST190719M1-2 PFC CS3 19G1106	2.12e4	101.6	NO
8	8	13C7-PFUdA	ST190719M1-2 PFC CS3 19G1106	2.72e4	96.7	NO

Name: 190719M1_25, Date: 19-Jul-2019, Time: 12:30:42, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190719M1_26, Date: 19-Jul-2019, Time: 12:41:23, ID: B9G0154-BS1 OPR 0.125, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0154-BS1 OPR 0.125	1.04e4	128.0	NO
2	2	13C5-PFHxA	B9G0154-BS1 OPR 0.125	1.78e4	81.2	NO
3	3	18O2-PFHxS	B9G0154-BS1 OPR 0.125	9.53e2	71.9	NO
4	4	13C8-PFOA	B9G0154-BS1 OPR 0.125	2.26e4	78.3	NO
5	5	13C9-PFNA	B9G0154-BS1 OPR 0.125	9.19e3	55.3	NO
6	6	13C4-PFOS	B9G0154-BS1 OPR 0.125	9.73e2	32.4	YES
7	7	13C6-PFDA	B9G0154-BS1 OPR 0.125	4.76e3	22.8	YES
8	8	13C7-PFUdA	B9G0154-BS1 OPR 0.125	1.33e3	4.7	YES

Name: 190719M1_27, Date: 19-Jul-2019, Time: 12:51:59, ID: B9G0154-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0154-BLK1 Method Blank 0.125	9.76e3	120.1	NO
2	2	13C5-PFHxA	B9G0154-BLK1 Method Blank 0.125	1.69e4	77.0	NO
3	3	18O2-PFHxS	B9G0154-BLK1 Method Blank 0.125	9.78e2	73.8	NO
4	4	13C8-PFOA	B9G0154-BLK1 Method Blank 0.125	2.15e4	74.4	NO
5	5	13C9-PFNA	B9G0154-BLK1 Method Blank 0.125	9.11e3	54.8	NO
6	6	13C4-PFOS	B9G0154-BLK1 Method Blank 0.125	9.09e2	30.3	YES
7	7	13C6-PFDA	B9G0154-BLK1 Method Blank 0.125	5.27e3	25.2	YES
8	8	13C7-PFUdA	B9G0154-BLK1 Method Blank 0.125	1.70e3	6.1	YES

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Name: 190719M1_28, Date: 19-Jul-2019, Time: 13:02:37, ID: 1902100-01 B-304UR_20190708 0.11278, Description: B-304UR_20190708

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-01 B-304UR_20190708 0.11278	7.14e3	87.8	NO
2	2	13C5-PFHxA	1902100-01 B-304UR_20190708 0.11278	1.08e4	49.1	YES
3	3	18O2-PFHxS	1902100-01 B-304UR_20190708 0.11278	1.06e3	79.8	NO
4	4	13C8-PFOA	1902100-01 B-304UR_20190708 0.11278	1.47e4	51.0	NO
5	5	13C9-PFNA	1902100-01 B-304UR_20190708 0.11278	7.42e3	44.6	YES
6	6	13C4-PFOS	1902100-01 B-304UR_20190708 0.11278	1.70e3	56.7	NO
7	7	13C6-PFDA	1902100-01 B-304UR_20190708 0.11278	7.04e3	33.7	YES
8	8	13C7-PFUdA	1902100-01 B-304UR_20190708 0.11278	3.82e3	13.6	YES

Name: 190719M1_29, Date: 19-Jul-2019, Time: 13:13:10, ID: 1902100-02 B-304DR_20190708 0.12047, Description: B-304DR_20190708

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-02 B-304DR_20190708 0.120...	8.86e3	109.1	NO
2	2	13C5-PFHxA	1902100-02 B-304DR_20190708 0.120...	1.57e4	71.2	NO
3	3	18O2-PFHxS	1902100-02 B-304DR_20190708 0.120...	1.07e3	80.8	NO
4	4	13C8-PFOA	1902100-02 B-304DR_20190708 0.120...	1.99e4	68.9	NO
5	5	13C9-PFNA	1902100-02 B-304DR_20190708 0.120...	9.89e3	59.4	NO
6	6	13C4-PFOS	1902100-02 B-304DR_20190708 0.120...	1.37e3	45.5	YES
7	7	13C6-PFDA	1902100-02 B-304DR_20190708 0.120...	7.53e3	36.1	YES
8	8	13C7-PFUdA	1902100-02 B-304DR_20190708 0.120...	3.13e3	11.1	YES

Name: 190719M1_30, Date: 19-Jul-2019, Time: 13:23:48, ID: 1902100-03 MW-701_20190709 0.11646, Description: MW-701_20190709

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-03 MW-701_20190709 0.11646	9.66e3	118.9	NO
2	2	13C5-PFHxA	1902100-03 MW-701_20190709 0.11646	1.74e4	79.1	NO
3	3	18O2-PFHxS	1902100-03 MW-701_20190709 0.11646	1.05e3	79.5	NO
4	4	13C8-PFOA	1902100-03 MW-701_20190709 0.11646	2.21e4	76.5	NO
5	5	13C9-PFNA	1902100-03 MW-701_20190709 0.11646	1.06e4	63.5	NO
6	6	13C4-PFOS	1902100-03 MW-701_20190709 0.11646	1.46e3	48.7	YES
7	7	13C6-PFDA	1902100-03 MW-701_20190709 0.11646	7.73e3	37.0	YES
8	8	13C7-PFUdA	1902100-03 MW-701_20190709 0.11646	3.07e3	10.9	YES

Name: 190719M1_31, Date: 19-Jul-2019, Time: 13:34:21, ID: 1902100-04 MW-802_20190708 0.11849, Description: MW-802_20190708

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-04 MW-802_20190708 0.11849	9.37e3	115.3	NO
2	2	13C5-PFHxA	1902100-04 MW-802_20190708 0.11849	1.69e4	76.8	NO
3	3	18O2-PFHxS	1902100-04 MW-802_20190708 0.11849	1.12e3	84.8	NO
4	4	13C8-PFOA	1902100-04 MW-802_20190708 0.11849	2.39e4	82.7	NO
5	5	13C9-PFNA	1902100-04 MW-802_20190708 0.11849	1.20e4	72.0	NO
6	6	13C4-PFOS	1902100-04 MW-802_20190708 0.11849	1.96e3	65.4	NO
7	7	13C6-PFDA	1902100-04 MW-802_20190708 0.11849	1.39e4	66.7	NO
8	8	13C7-PFUdA	1902100-04 MW-802_20190708 0.11849	1.11e4	39.4	YES

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Name: 190719M1_32, Date: 19-Jul-2019, Time: 13:44:59, ID: 1902100-05 B-904U_20190708 0.10365, Description: B-904U_20190708

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-05 B-904U_20190708 0.10365	9.34e3	114.9	NO
2	2	13C5-PFHxA	1902100-05 B-904U_20190708 0.10365	1.63e4	73.9	NO
3	3	18O2-PFHxS	1902100-05 B-904U_20190708 0.10365	9.12e2	68.8	NO
4	4	13C8-PFOA	1902100-05 B-904U_20190708 0.10365	2.09e4	72.4	NO
5	5	13C9-PFNA	1902100-05 B-904U_20190708 0.10365	1.02e4	61.2	NO
6	6	13C4-PFOS	1902100-05 B-904U_20190708 0.10365	1.51e3	50.3	NO
7	7	13C6-PFDA	1902100-05 B-904U_20190708 0.10365	9.39e3	44.9	YES
8	8	13C7-PFUdA	1902100-05 B-904U_20190708 0.10365	4.26e3	15.2	YES

Name: 190719M1_33, Date: 19-Jul-2019, Time: 13:55:32, ID: 1902100-06 B-914U_20190708 0.11954, Description: B-914U_20190708

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-06 B-914U_20190708 0.11954	9.37e3	115.4	NO
2	2	13C5-PFHxA	1902100-06 B-914U_20190708 0.11954	1.59e4	72.3	NO
3	3	18O2-PFHxS	1902100-06 B-914U_20190708 0.11954	1.12e3	84.8	NO
4	4	13C8-PFOA	1902100-06 B-914U_20190708 0.11954	1.98e4	68.6	NO
5	5	13C9-PFNA	1902100-06 B-914U_20190708 0.11954	9.82e3	59.0	NO
6	6	13C4-PFOS	1902100-06 B-914U_20190708 0.11954	2.36e3	78.5	NO
7	7	13C6-PFDA	1902100-06 B-914U_20190708 0.11954	1.14e4	54.7	NO
8	8	13C7-PFUdA	1902100-06 B-914U_20190708 0.11954	7.92e3	28.2	YES

Name: 190719M1_34, Date: 19-Jul-2019, Time: 14:06:10, ID: 1902100-07 B-915U_20190709 0.11635, Description: B-915U_20190709

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-07 B-915U_20190709 0.11635	9.70e3	119.3	NO
2	2	13C5-PFHxA	1902100-07 B-915U_20190709 0.11635	1.69e4	77.0	NO
3	3	18O2-PFHxS	1902100-07 B-915U_20190709 0.11635	1.17e3	88.5	NO
4	4	13C8-PFOA	1902100-07 B-915U_20190709 0.11635	2.15e4	74.4	NO
5	5	13C9-PFNA	1902100-07 B-915U_20190709 0.11635	1.04e4	62.5	NO
6	6	13C4-PFOS	1902100-07 B-915U_20190709 0.11635	1.63e3	54.2	NO
7	7	13C6-PFDA	1902100-07 B-915U_20190709 0.11635	8.95e3	42.8	YES
8	8	13C7-PFUdA	1902100-07 B-915U_20190709 0.11635	4.92e3	17.5	YES

Name: 190719M1_35, Date: 19-Jul-2019, Time: 14:16:48, ID: 1902100-08 B-915M_20190709 0.11805, Description: B-915M_20190709

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-08 B-915M_20190709 0.11805	9.08e3	111.8	NO
2	2	13C5-PFHxA	1902100-08 B-915M_20190709 0.11805	1.63e4	74.1	NO
3	3	18O2-PFHxS	1902100-08 B-915M_20190709 0.11805	9.69e2	73.1	NO
4	4	13C8-PFOA	1902100-08 B-915M_20190709 0.11805	2.18e4	75.3	NO
5	5	13C9-PFNA	1902100-08 B-915M_20190709 0.11805	1.02e4	61.2	NO
6	6	13C4-PFOS	1902100-08 B-915M_20190709 0.11805	1.67e3	55.6	NO
7	7	13C6-PFDA	1902100-08 B-915M_20190709 0.11805	9.82e3	47.0	YES
8	8	13C7-PFUdA	1902100-08 B-915M_20190709 0.11805	4.77e3	17.0	YES

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Name: 190719M1_36, Date: 19-Jul-2019, Time: 14:27:22, ID: 1902100-09 B-918U_20190709 0.1189, Description: B-918U_20190709

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-09 B-918U_20190709 0.1189	8.74e3	107.6	NO
2	2	13C5-PFHxA	1902100-09 B-918U_20190709 0.1189	1.57e4	71.4	NO
3	3	18O2-PFHxS	1902100-09 B-918U_20190709 0.1189	9.55e2	72.0	NO
4	4	13C8-PFOA	1902100-09 B-918U_20190709 0.1189	2.14e4	73.9	NO
5	5	13C9-PFNA	1902100-09 B-918U_20190709 0.1189	1.07e4	64.5	NO
6	6	13C4-PFOS	1902100-09 B-918U_20190709 0.1189	1.93e3	64.3	NO
7	7	13C6-PFDA	1902100-09 B-918U_20190709 0.1189	1.15e4	55.1	NO
8	8	13C7-PFUdA	1902100-09 B-918U_20190709 0.1189	8.26e3	29.4	YES

Name: 190719M1_37, Date: 19-Jul-2019, Time: 14:38:16, ID: 1902100-10 B-918M_20190709 0.11456, Description: B-918M_20190709

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-10 B-918M_20190709 0.11456	9.18e3	113.0	NO
2	2	13C5-PFHxA	1902100-10 B-918M_20190709 0.11456	1.61e4	73.2	NO
3	3	18O2-PFHxS	1902100-10 B-918M_20190709 0.11456	9.28e2	70.0	NO
4	4	13C8-PFOA	1902100-10 B-918M_20190709 0.11456	2.09e4	72.4	NO
5	5	13C9-PFNA	1902100-10 B-918M_20190709 0.11456	9.53e3	57.3	NO
6	6	13C4-PFOS	1902100-10 B-918M_20190709 0.11456	1.39e3	46.5	YES
7	7	13C6-PFDA	1902100-10 B-918M_20190709 0.11456	7.34e3	35.1	YES
8	8	13C7-PFUdA	1902100-10 B-918M_20190709 0.11456	2.56e3	9.1	YES

Name: 190719M1_38, Date: 19-Jul-2019, Time: 14:56:34, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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	5.77e0	0.0	YES

Name: 190719M1_39, Date: 19-Jul-2019, Time: 15:07:08, ID: ST190719M1-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190719M1-3 PFC CS0 19G1103	8.04e3	98.9	NO
2	2	13C5-PFHxA	ST190719M1-3 PFC CS0 19G1103	2.01e4	91.6	NO
3	3	18O2-PFHxS	ST190719M1-3 PFC CS0 19G1103	1.27e3	95.7	NO
4	4	13C8-PFOA	ST190719M1-3 PFC CS0 19G1103	2.88e4	99.6	NO
5	5	13C9-PFNA	ST190719M1-3 PFC CS0 19G1103	1.56e4	94.1	NO
6	6	13C4-PFOS	ST190719M1-3 PFC CS0 19G1103	2.94e3	97.9	NO
7	7	13C6-PFDA	ST190719M1-3 PFC CS0 19G1103	2.14e4	102.5	NO
8	8	13C7-PFUdA	ST190719M1-3 PFC CS0 19G1103	2.73e4	97.1	NO

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Name: 190719M1_40, Date: 19-Jul-2019, Time: 15:23:13, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190719M1_41, Date: 19-Jul-2019, Time: 15:33:48, ID: 1902100-11 B-918M_20190709_FD 0.10856, Description: B-918M_20190709_FD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-11 B-918M_20190709_FD 0.1...	9.61e3	118.3	NO
2	2	13C5-PFHxA	1902100-11 B-918M_20190709_FD 0.1...	1.67e4	75.9	NO
3	3	18O2-PFHxS	1902100-11 B-918M_20190709_FD 0.1...	1.10e3	83.3	NO
4	4	13C8-PFOA	1902100-11 B-918M_20190709_FD 0.1...	2.19e4	75.8	NO
5	5	13C9-PFNA	1902100-11 B-918M_20190709_FD 0.1...	1.04e4	62.6	NO
6	6	13C4-PFOS	1902100-11 B-918M_20190709_FD 0.1...	1.39e3	46.3	YES
7	7	13C6-PFDA	1902100-11 B-918M_20190709_FD 0.1...	8.35e3	40.0	YES
8	8	13C7-PFUdA	1902100-11 B-918M_20190709_FD 0.1...	2.91e3	10.3	YES

Name: 190719M1_42, Date: 19-Jul-2019, Time: 15:44:26, ID: 1902100-12 B-918D_20190709 0.11494, Description: B-918D_20190709

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-12 B-918D_20190709 0.11494	9.10e3	112.0	NO
2	2	13C5-PFHxA	1902100-12 B-918D_20190709 0.11494	1.54e4	69.9	NO
3	3	18O2-PFHxS	1902100-12 B-918D_20190709 0.11494	1.10e3	83.2	NO
4	4	13C8-PFOA	1902100-12 B-918D_20190709 0.11494	1.94e4	67.2	NO
5	5	13C9-PFNA	1902100-12 B-918D_20190709 0.11494	8.75e3	52.6	NO
6	6	13C4-PFOS	1902100-12 B-918D_20190709 0.11494	1.72e3	57.4	NO
7	7	13C6-PFDA	1902100-12 B-918D_20190709 0.11494	7.92e3	37.9	YES
8	8	13C7-PFUdA	1902100-12 B-918D_20190709 0.11494	3.95e3	14.1	YES

Name: 190719M1_43, Date: 19-Jul-2019, Time: 15:55:04, ID: 1902100-13 B-919U_20190708 0.11629, Description: B-919U_20190708

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-13 B-919U_20190708 0.11629	8.49e3	104.5	NO
2	2	13C5-PFHxA	1902100-13 B-919U_20190708 0.11629	1.45e4	65.9	NO
3	3	18O2-PFHxS	1902100-13 B-919U_20190708 0.11629	1.06e3	80.3	NO
4	4	13C8-PFOA	1902100-13 B-919U_20190708 0.11629	1.98e4	68.6	NO
5	5	13C9-PFNA	1902100-13 B-919U_20190708 0.11629	9.80e3	58.9	NO
6	6	13C4-PFOS	1902100-13 B-919U_20190708 0.11629	1.92e3	64.0	NO
7	7	13C6-PFDA	1902100-13 B-919U_20190708 0.11629	1.10e4	52.5	NO
8	8	13C7-PFUdA	1902100-13 B-919U_20190708 0.11629	7.72e3	27.5	YES

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Name: 190719M1_44, Date: 19-Jul-2019, Time: 16:05:43, ID: 1902100-14 B-919M_20190709 0.11271, Description: B-919M_20190709

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-14 B-919M_20190709 0.11271	9.95e3	122.5	NO
2	2	13C5-PFHxA	1902100-14 B-919M_20190709 0.11271	1.77e4	80.6	NO
3	3	18O2-PFHxS	1902100-14 B-919M_20190709 0.11271	1.09e3	82.4	NO
4	4	13C8-PFOA	1902100-14 B-919M_20190709 0.11271	2.35e4	81.2	NO
5	5	13C9-PFNA	1902100-14 B-919M_20190709 0.11271	1.16e4	69.5	NO
6	6	13C4-PFOS	1902100-14 B-919M_20190709 0.11271	1.88e3	62.6	NO
7	7	13C6-PFDA	1902100-14 B-919M_20190709 0.11271	1.15e4	55.2	NO
8	8	13C7-PFUdA	1902100-14 B-919M_20190709 0.11271	7.01e3	25.0	YES

Name: 190719M1_45, Date: 19-Jul-2019, Time: 16:16:16, ID: 1902100-15 B-919D_20190708 0.11738, Description: B-919D_20190708

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-15 B-919D_20190708 0.11738	9.24e3	113.7	NO
2	2	13C5-PFHxA	1902100-15 B-919D_20190708 0.11738	1.58e4	72.0	NO
3	3	18O2-PFHxS	1902100-15 B-919D_20190708 0.11738	9.11e2	68.7	NO
4	4	13C8-PFOA	1902100-15 B-919D_20190708 0.11738	2.04e4	70.6	NO
5	5	13C9-PFNA	1902100-15 B-919D_20190708 0.11738	9.36e3	56.3	NO
6	6	13C4-PFOS	1902100-15 B-919D_20190708 0.11738	1.08e3	36.1	YES
7	7	13C6-PFDA	1902100-15 B-919D_20190708 0.11738	6.34e3	30.4	YES
8	8	13C7-PFUdA	1902100-15 B-919D_20190708 0.11738	2.56e3	9.1	YES

Name: 190719M1_46, Date: 19-Jul-2019, Time: 16:26:54, ID: 1902100-16 B-924U_20190709 0.1155, Description: B-924U_20190709

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-16 B-924U_20190709 0.1155	8.21e3	101.1	NO
2	2	13C5-PFHxA	1902100-16 B-924U_20190709 0.1155	1.50e4	68.4	NO
3	3	18O2-PFHxS	1902100-16 B-924U_20190709 0.1155	9.03e2	68.1	NO
4	4	13C8-PFOA	1902100-16 B-924U_20190709 0.1155	1.96e4	67.6	NO
5	5	13C9-PFNA	1902100-16 B-924U_20190709 0.1155	8.42e3	50.6	NO
6	6	13C4-PFOS	1902100-16 B-924U_20190709 0.1155	1.14e3	38.0	YES
7	7	13C6-PFDA	1902100-16 B-924U_20190709 0.1155	6.52e3	31.2	YES
8	8	13C7-PFUdA	1902100-16 B-924U_20190709 0.1155	1.88e3	6.7	YES

Name: 190719M1_47, Date: 19-Jul-2019, Time: 16:37:28, ID: 1902100-17 FB-PFAS-01_20190709 0.11935, Description: FB-PFAS-01_20190709

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902100-17 FB-PFAS-01_20190709 0....	9.30e3	114.4	NO
2	2	13C5-PFHxA	1902100-17 FB-PFAS-01_20190709 0....	1.63e4	74.1	NO
3	3	18O2-PFHxS	1902100-17 FB-PFAS-01_20190709 0....	9.71e2	73.3	NO
4	4	13C8-PFOA	1902100-17 FB-PFAS-01_20190709 0....	1.99e4	69.0	NO
5	5	13C9-PFNA	1902100-17 FB-PFAS-01_20190709 0....	8.06e3	48.4	YES
6	6	13C4-PFOS	1902100-17 FB-PFAS-01_20190709 0....	1.19e3	39.7	YES
7	7	13C6-PFDA	1902100-17 FB-PFAS-01_20190709 0....	4.76e3	22.8	YES
8	8	13C7-PFUdA	1902100-17 FB-PFAS-01_20190709 0....	1.62e3	5.8	YES

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Name: 190719M1_48, Date: 19-Jul-2019, Time: 16:48:06, ID: B9G0189-BS1 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0189-BS1 OPR 1	7.61e3	93.7	NO
2	2	13C5-PFHxA	B9G0189-BS1 OPR 1	1.36e4	61.7	NO
3	3	18O2-PFHxS	B9G0189-BS1 OPR 1	8.92e2	67.3	NO
4	4	13C8-PFOA	B9G0189-BS1 OPR 1	1.98e4	68.5	NO
5	5	13C9-PFNA	B9G0189-BS1 OPR 1	1.06e4	63.6	NO
6	6	13C4-PFOS	B9G0189-BS1 OPR 1	1.90e3	63.4	NO
7	7	13C6-PFDA	B9G0189-BS1 OPR 1	1.54e4	73.7	NO
8	8	13C7-PFUdA	B9G0189-BS1 OPR 1	1.89e4	67.2	NO

Name: 190719M1_49, Date: 19-Jul-2019, Time: 16:58:40, ID: B9G0189-MS1 Matrix Spike 1.07, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0189-MS1 Matrix Spike 1.07	6.92e3	85.2	NO
2	2	13C5-PFHxA	B9G0189-MS1 Matrix Spike 1.07	1.34e4	60.9	NO
3	3	18O2-PFHxS	B9G0189-MS1 Matrix Spike 1.07	7.78e2	58.7	NO
4	4	13C8-PFOA	B9G0189-MS1 Matrix Spike 1.07	1.97e4	68.1	NO
5	5	13C9-PFNA	B9G0189-MS1 Matrix Spike 1.07	1.06e4	64.0	NO
6	6	13C4-PFOS	B9G0189-MS1 Matrix Spike 1.07	2.02e3	67.1	NO
7	7	13C6-PFDA	B9G0189-MS1 Matrix Spike 1.07	1.45e4	69.2	NO
8	8	13C7-PFUdA	B9G0189-MS1 Matrix Spike 1.07	1.92e4	68.3	NO

Name: 190719M1_50, Date: 19-Jul-2019, Time: 17:09:41, ID: B9G0189-MSD1 Matrix Spike Dup 1.08, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0189-MSD1 Matrix Spike Dup 1.08	6.99e3	86.1	NO
2	2	13C5-PFHxA	B9G0189-MSD1 Matrix Spike Dup 1.08	1.35e4	61.3	NO
3	3	18O2-PFHxS	B9G0189-MSD1 Matrix Spike Dup 1.08	9.16e2	69.1	NO
4	4	13C8-PFOA	B9G0189-MSD1 Matrix Spike Dup 1.08	1.94e4	67.0	NO
5	5	13C9-PFNA	B9G0189-MSD1 Matrix Spike Dup 1.08	1.05e4	63.1	NO
6	6	13C4-PFOS	B9G0189-MSD1 Matrix Spike Dup 1.08	2.09e3	69.5	NO
7	7	13C6-PFDA	B9G0189-MSD1 Matrix Spike Dup 1.08	1.48e4	71.0	NO
8	8	13C7-PFUdA	B9G0189-MSD1 Matrix Spike Dup 1.08	1.92e4	68.5	NO

Name: 190719M1_51, Date: 19-Jul-2019, Time: 17:20:14, ID: B9G0189-BLK1 Method Blank 1, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0189-BLK1 Method Blank 1	6.97e3	85.7	NO
2	2	13C5-PFHxA	B9G0189-BLK1 Method Blank 1	1.27e4	57.8	NO
3	3	18O2-PFHxS	B9G0189-BLK1 Method Blank 1	7.86e2	59.3	NO
4	4	13C8-PFOA	B9G0189-BLK1 Method Blank 1	1.88e4	65.2	NO
5	5	13C9-PFNA	B9G0189-BLK1 Method Blank 1	9.62e3	57.8	NO
6	6	13C4-PFOS	B9G0189-BLK1 Method Blank 1	1.99e3	66.3	NO
7	7	13C6-PFDA	B9G0189-BLK1 Method Blank 1	1.39e4	66.7	NO
8	8	13C7-PFUdA	B9G0189-BLK1 Method Blank 1	1.72e4	61.1	NO

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Name: 190719M1_52, Date: 19-Jul-2019, Time: 17:30:51, ID: 1902014-01 CAOA-B03-SO-4-4.5 1.08, Description: CAOA-B03-SO-4-4.5

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-01 CAOA-B03-SO-4-4.5 1.08	7.26e3	89.4	NO
2	2	13C5-PFHxA	1902014-01 CAOA-B03-SO-4-4.5 1.08	1.30e4	59.0	NO
3	3	18O2-PFHxS	1902014-01 CAOA-B03-SO-4-4.5 1.08	9.19e2	69.3	NO
4	4	13C8-PFOA	1902014-01 CAOA-B03-SO-4-4.5 1.08	1.99e4	68.7	NO
5	5	13C9-PFNA	1902014-01 CAOA-B03-SO-4-4.5 1.08	1.09e4	65.6	NO
6	6	13C4-PFOS	1902014-01 CAOA-B03-SO-4-4.5 1.08	1.91e3	63.6	NO
7	7	13C6-PFDA	1902014-01 CAOA-B03-SO-4-4.5 1.08	1.48e4	70.8	NO
8	8	13C7-PFUdA	1902014-01 CAOA-B03-SO-4-4.5 1.08	1.95e4	69.4	NO

Name: 190719M1_53, Date: 19-Jul-2019, Time: 17:41:25, ID: 1902014-02 CAOA-B03-SO-20-20.5 1.09, Description: CAOA-B03-SO-20-20.5

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-02 CAOA-B03-SO-20-20.5 1.09	6.15e3	75.7	NO
2	2	13C5-PFHxA	1902014-02 CAOA-B03-SO-20-20.5 1.09	1.10e4	50.0	NO
3	3	18O2-PFHxS	1902014-02 CAOA-B03-SO-20-20.5 1.09	7.53e2	56.8	NO
4	4	13C8-PFOA	1902014-02 CAOA-B03-SO-20-20.5 1.09	1.66e4	57.4	NO
5	5	13C9-PFNA	1902014-02 CAOA-B03-SO-20-20.5 1.09	9.03e3	54.3	NO
6	6	13C4-PFOS	1902014-02 CAOA-B03-SO-20-20.5 1.09	1.37e3	45.5	YES
7	7	13C6-PFDA	1902014-02 CAOA-B03-SO-20-20.5 1.09	1.28e4	61.3	NO
8	8	13C7-PFUdA	1902014-02 CAOA-B03-SO-20-20.5 1.09	1.67e4	59.5	NO

Name: 190719M1_54, Date: 19-Jul-2019, Time: 17:52:03, ID: 1902014-05 CAOA-B01-SO-0-0.5 1.07, Description: CAOA-B01-SO-0-0.5

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-05 CAOA-B01-SO-0-0.5 1.07	6.96e3	85.7	NO
2	2	13C5-PFHxA	1902014-05 CAOA-B01-SO-0-0.5 1.07	1.23e4	56.1	NO
3	3	18O2-PFHxS	1902014-05 CAOA-B01-SO-0-0.5 1.07	7.78e2	58.7	NO
4	4	13C8-PFOA	1902014-05 CAOA-B01-SO-0-0.5 1.07	1.84e4	63.5	NO
5	5	13C9-PFNA	1902014-05 CAOA-B01-SO-0-0.5 1.07	1.05e4	62.9	NO
6	6	13C4-PFOS	1902014-05 CAOA-B01-SO-0-0.5 1.07	1.95e3	64.8	NO
7	7	13C6-PFDA	1902014-05 CAOA-B01-SO-0-0.5 1.07	1.42e4	67.8	NO
8	8	13C7-PFUdA	1902014-05 CAOA-B01-SO-0-0.5 1.07	1.89e4	67.2	NO

Name: 190719M1_55, Date: 19-Jul-2019, Time: 18:02:36, ID: 1902014-06 CAOA-B04-SO-0-0.5 1.03, Description: CAOA-B04-SO-0-0.5

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-06 CAOA-B04-SO-0-0.5 1.03	7.06e3	86.9	NO
2	2	13C5-PFHxA	1902014-06 CAOA-B04-SO-0-0.5 1.03	1.28e4	58.2	NO
3	3	18O2-PFHxS	1902014-06 CAOA-B04-SO-0-0.5 1.03	7.99e2	60.3	NO
4	4	13C8-PFOA	1902014-06 CAOA-B04-SO-0-0.5 1.03	1.77e4	61.1	NO
5	5	13C9-PFNA	1902014-06 CAOA-B04-SO-0-0.5 1.03	1.00e4	60.2	NO
6	6	13C4-PFOS	1902014-06 CAOA-B04-SO-0-0.5 1.03	1.83e3	60.9	NO
7	7	13C6-PFDA	1902014-06 CAOA-B04-SO-0-0.5 1.03	1.40e4	67.1	NO
8	8	13C7-PFUdA	1902014-06 CAOA-B04-SO-0-0.5 1.03	1.81e4	64.3	NO

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Name: 190719M1_56, Date: 19-Jul-2019, Time: 18:13:15, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190719M1_57, Date: 19-Jul-2019, Time: 18:23:53, ID: ST190719M1-4 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190719M1-4 PFC CS3 19G1106	8.50e3	104.6	NO
2	2	13C5-PFHxA	ST190719M1-4 PFC CS3 19G1106	2.17e4	98.6	NO
3	3	18O2-PFHxS	ST190719M1-4 PFC CS3 19G1106	1.41e3	106.5	NO
4	4	13C8-PFOA	ST190719M1-4 PFC CS3 19G1106	3.14e4	108.5	NO
5	5	13C9-PFNA	ST190719M1-4 PFC CS3 19G1106	1.66e4	99.7	NO
6	6	13C4-PFOS	ST190719M1-4 PFC CS3 19G1106	3.06e3	102.0	NO
7	7	13C6-PFDA	ST190719M1-4 PFC CS3 19G1106	2.31e4	110.4	NO
8	8	13C7-PFUdA	ST190719M1-4 PFC CS3 19G1106	2.84e4	101.0	NO

Name: 190719M1_58, Date: 19-Jul-2019, Time: 18:34:27, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190719M1_59, Date: 19-Jul-2019, Time: 18:45:05, ID: 1902014-07 CAOA-B01-SO-20-20.5 1.2, Description: CAOA-B01-SO-20-20.5

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-07 CAOA-B01-SO-20-20.5 1.2	7.45e3	91.7	NO
2	2	13C5-PFHxA	1902014-07 CAOA-B01-SO-20-20.5 1.2	1.37e4	62.5	NO
3	3	18O2-PFHxS	1902014-07 CAOA-B01-SO-20-20.5 1.2	9.81e2	74.0	NO
4	4	13C8-PFOA	1902014-07 CAOA-B01-SO-20-20.5 1.2	1.93e4	66.7	NO
5	5	13C9-PFNA	1902014-07 CAOA-B01-SO-20-20.5 1.2	1.04e4	62.5	NO
6	6	13C4-PFOS	1902014-07 CAOA-B01-SO-20-20.5 1.2	1.98e3	65.8	NO
7	7	13C6-PFDA	1902014-07 CAOA-B01-SO-20-20.5 1.2	1.45e4	69.4	NO
8	8	13C7-PFUdA	1902014-07 CAOA-B01-SO-20-20.5 1.2	1.89e4	67.2	NO

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Name: 190719M1_60, Date: 19-Jul-2019, Time: 18:55:38, ID: B9G0052-BS1 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0052-BS1 OPR 1	1.00e4	123.7	NO
2	2	13C5-PFHxA	B9G0052-BS1 OPR 1	1.79e4	81.5	NO
3	3	18O2-PFHxS	B9G0052-BS1 OPR 1	9.92e2	74.8	NO
4	4	13C8-PFOA	B9G0052-BS1 OPR 1	2.21e4	76.5	NO
5	5	13C9-PFNA	B9G0052-BS1 OPR 1	9.74e3	58.5	NO
6	6	13C4-PFOS	B9G0052-BS1 OPR 1	1.43e3	47.8	YES
7	7	13C6-PFDA	B9G0052-BS1 OPR 1	7.08e3	33.9	YES
8	8	13C7-PFUdA	B9G0052-BS1 OPR 1	3.03e3	10.8	YES

Name: 190719M1_61, Date: 19-Jul-2019, Time: 19:06:16, ID: B9G0052-BSD1 LCSD 1, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0052-BSD1 LCSD 1	9.96e3	122.6	NO
2	2	13C5-PFHxA	B9G0052-BSD1 LCSD 1	1.71e4	77.7	NO
3	3	18O2-PFHxS	B9G0052-BSD1 LCSD 1	1.04e3	78.8	NO
4	4	13C8-PFOA	B9G0052-BSD1 LCSD 1	2.22e4	76.8	NO
5	5	13C9-PFNA	B9G0052-BSD1 LCSD 1	9.86e3	59.3	NO
6	6	13C4-PFOS	B9G0052-BSD1 LCSD 1	1.66e3	55.2	NO
7	7	13C6-PFDA	B9G0052-BSD1 LCSD 1	8.57e3	41.0	YES
8	8	13C7-PFUdA	B9G0052-BSD1 LCSD 1	4.61e3	16.4	YES

Name: 190719M1_62, Date: 19-Jul-2019, Time: 19:16:49, ID: B9G0052-MS1 Matrix Spike 1.11, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0052-MS1 Matrix Spike 1.11	1.05e4	128.7	NO
2	2	13C5-PFHxA	B9G0052-MS1 Matrix Spike 1.11	1.79e4	81.6	NO
3	3	18O2-PFHxS	B9G0052-MS1 Matrix Spike 1.11	1.03e3	77.8	NO
4	4	13C8-PFOA	B9G0052-MS1 Matrix Spike 1.11	2.33e4	80.5	NO
5	5	13C9-PFNA	B9G0052-MS1 Matrix Spike 1.11	9.71e3	58.4	NO
6	6	13C4-PFOS	B9G0052-MS1 Matrix Spike 1.11	8.65e2	28.8	YES
7	7	13C6-PFDA	B9G0052-MS1 Matrix Spike 1.11	5.85e3	28.0	YES
8	8	13C7-PFUdA	B9G0052-MS1 Matrix Spike 1.11	2.01e3	7.1	YES

Name: 190719M1_63, Date: 19-Jul-2019, Time: 19:27:28, ID: B9G0052-MSD1 Matrix Spike Dup 1.16, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0052-MSD1 Matrix Spike Dup 1.16	9.84e3	121.1	NO
2	2	13C5-PFHxA	B9G0052-MSD1 Matrix Spike Dup 1.16	1.72e4	78.4	NO
3	3	18O2-PFHxS	B9G0052-MSD1 Matrix Spike Dup 1.16	9.21e2	69.5	NO
4	4	13C8-PFOA	B9G0052-MSD1 Matrix Spike Dup 1.16	2.17e4	75.0	NO
5	5	13C9-PFNA	B9G0052-MSD1 Matrix Spike Dup 1.16	8.65e3	52.0	NO
6	6	13C4-PFOS	B9G0052-MSD1 Matrix Spike Dup 1.16	7.68e2	25.6	YES
7	7	13C6-PFDA	B9G0052-MSD1 Matrix Spike Dup 1.16	4.62e3	22.1	YES
8	8	13C7-PFUdA	B9G0052-MSD1 Matrix Spike Dup 1.16	2.31e3	8.2	YES

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Name: 190719M1_64, Date: 19-Jul-2019, Time: 19:38:01, ID: B9G0052-BLK1 Method Blank 1, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0052-BLK1 Method Blank 1	9.74e3	119.9	NO
2	2	13C5-PFHxA	B9G0052-BLK1 Method Blank 1	1.72e4	78.1	NO
3	3	18O2-PFHxS	B9G0052-BLK1 Method Blank 1	1.02e3	76.7	NO
4	4	13C8-PFOA	B9G0052-BLK1 Method Blank 1	2.32e4	80.2	NO
5	5	13C9-PFNA	B9G0052-BLK1 Method Blank 1	1.05e4	63.4	NO
6	6	13C4-PFOS	B9G0052-BLK1 Method Blank 1	1.82e3	60.8	NO
7	7	13C6-PFDA	B9G0052-BLK1 Method Blank 1	9.64e3	46.1	YES
8	8	13C7-PFUdA	B9G0052-BLK1 Method Blank 1	5.64e3	20.1	YES

Name: 190719M1_65, Date: 19-Jul-2019, Time: 19:48:40, ID: 1901859-01 B96-PFAS-SB41-0-2-062019 1.1, Description: B96-PFAS-SB41-0-2-062019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-01 B96-PFAS-SB41-0-2-0620...	1.02e4	126.0	NO
2	2	13C5-PFHxA	1901859-01 B96-PFAS-SB41-0-2-0620...	1.59e4	72.3	NO
3	3	18O2-PFHxS	1901859-01 B96-PFAS-SB41-0-2-0620...	3.13e2	23.6	YES
4	4	13C8-PFOA	1901859-01 B96-PFAS-SB41-0-2-0620...	6.57e3	22.7	YES
5	5	13C9-PFNA	1901859-01 B96-PFAS-SB41-0-2-0620...	5.14e2	3.1	YES
6	6	13C4-PFOS	1901859-01 B96-PFAS-SB41-0-2-0620...	3.76e1	1.3	YES
7	7	13C6-PFDA	1901859-01 B96-PFAS-SB41-0-2-0620...	2.48e2	1.2	YES
8	8	13C7-PFUdA	1901859-01 B96-PFAS-SB41-0-2-0620...	1.78e3	6.3	YES

Name: 190719M1_66, Date: 19-Jul-2019, Time: 19:59:13, ID: 1901859-02 B96-PFAS-SB42-0-2-062019 1.11, Description: B96-PFAS-SB42-0-2-062019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-02 B96-PFAS-SB42-0-2-0620...	9.69e3	119.3	NO
2	2	13C5-PFHxA	1901859-02 B96-PFAS-SB42-0-2-0620...	1.70e4	77.2	NO
3	3	18O2-PFHxS	1901859-02 B96-PFAS-SB42-0-2-0620...	9.72e2	73.3	NO
4	4	13C8-PFOA	1901859-02 B96-PFAS-SB42-0-2-0620...	1.99e4	68.7	NO
5	5	13C9-PFNA	1901859-02 B96-PFAS-SB42-0-2-0620...	6.37e3	38.3	YES
6	6	13C4-PFOS	1901859-02 B96-PFAS-SB42-0-2-0620...	3.37e2	11.2	YES
7	7	13C6-PFDA	1901859-02 B96-PFAS-SB42-0-2-0620...	3.00e3	14.4	YES
8	8	13C7-PFUdA	1901859-02 B96-PFAS-SB42-0-2-0620...	1.26e3	4.5	YES

Name: 190719M1_67, Date: 19-Jul-2019, Time: 20:09:51, ID: 1901859-03 B96-PFAS-SB44-0-2-062119 1.09, Description: B96-PFAS-SB44-0-2-062119

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-03 B96-PFAS-SB44-0-2-0621...	1.11e4	136.3	NO
2	2	13C5-PFHxA	1901859-03 B96-PFAS-SB44-0-2-0621...	1.90e4	86.3	NO
3	3	18O2-PFHxS	1901859-03 B96-PFAS-SB44-0-2-0621...	1.04e3	78.6	NO
4	4	13C8-PFOA	1901859-03 B96-PFAS-SB44-0-2-0621...	2.40e4	83.2	NO
5	5	13C9-PFNA	1901859-03 B96-PFAS-SB44-0-2-0621...	1.04e4	62.3	NO
6	6	13C4-PFOS	1901859-03 B96-PFAS-SB44-0-2-0621...	1.21e3	40.2	YES
7	7	13C6-PFDA	1901859-03 B96-PFAS-SB44-0-2-0621...	7.63e3	36.5	YES
8	8	13C7-PFUdA	1901859-03 B96-PFAS-SB44-0-2-0621...	4.52e3	16.1	YES

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Name: 190719M1_68, Date: 19-Jul-2019, Time: 20:20:24, ID: 1901859-04 DUP02-062119 1.1, Description: DUP02-062119

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-04 DUP02-062119 1.1	9.32e3	114.6	NO
2	2	13C5-PFHxA	1901859-04 DUP02-062119 1.1	1.68e4	76.6	NO
3	3	18O2-PFHxS	1901859-04 DUP02-062119 1.1	8.78e2	66.3	NO
4	4	13C8-PFOA	1901859-04 DUP02-062119 1.1	1.96e4	67.9	NO
5	5	13C9-PFNA	1901859-04 DUP02-062119 1.1	8.21e3	49.4	YES
6	6	13C4-PFOS	1901859-04 DUP02-062119 1.1	6.87e2	22.9	YES
7	7	13C6-PFDA	1901859-04 DUP02-062119 1.1	4.93e3	23.6	YES
8	8	13C7-PFUdA	1901859-04 DUP02-062119 1.1	1.71e3	6.1	YES

Name: 190719M1_69, Date: 19-Jul-2019, Time: 20:31:03, ID: 1901859-06 B96-PFAS-SB52-0-2-062619 1.1, Description: B96-PFAS-SB52-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-06 B96-PFAS-SB52-0-2-0626...	1.05e4	129.3	NO
2	2	13C5-PFHxA	1901859-06 B96-PFAS-SB52-0-2-0626...	1.84e4	83.8	NO
3	3	18O2-PFHxS	1901859-06 B96-PFAS-SB52-0-2-0626...	1.12e3	84.4	NO
4	4	13C8-PFOA	1901859-06 B96-PFAS-SB52-0-2-0626...	2.30e4	79.6	NO
5	5	13C9-PFNA	1901859-06 B96-PFAS-SB52-0-2-0626...	9.48e3	57.0	NO
6	6	13C4-PFOS	1901859-06 B96-PFAS-SB52-0-2-0626...	9.09e2	30.3	YES
7	7	13C6-PFDA	1901859-06 B96-PFAS-SB52-0-2-0626...	5.58e3	26.7	YES
8	8	13C7-PFUdA	1901859-06 B96-PFAS-SB52-0-2-0626...	2.69e3	9.6	YES

Name: 190719M1_70, Date: 19-Jul-2019, Time: 20:41:35, ID: 1901859-07 B96-PFAS-SB37-0-2-062619 1.09, Description: B96-PFAS-SB37-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-07 B96-PFAS-SB37-0-2-0626...	9.65e3	118.8	NO
2	2	13C5-PFHxA	1901859-07 B96-PFAS-SB37-0-2-0626...	1.72e4	78.4	NO
3	3	18O2-PFHxS	1901859-07 B96-PFAS-SB37-0-2-0626...	1.05e3	79.5	NO
4	4	13C8-PFOA	1901859-07 B96-PFAS-SB37-0-2-0626...	2.30e4	79.6	NO
5	5	13C9-PFNA	1901859-07 B96-PFAS-SB37-0-2-0626...	1.07e4	64.1	NO
6	6	13C4-PFOS	1901859-07 B96-PFAS-SB37-0-2-0626...	1.48e3	49.3	YES
7	7	13C6-PFDA	1901859-07 B96-PFAS-SB37-0-2-0626...	8.63e3	41.3	YES
8	8	13C7-PFUdA	1901859-07 B96-PFAS-SB37-0-2-0626...	4.51e3	16.1	YES

Name: 190719M1_71, Date: 19-Jul-2019, Time: 20:52:14, ID: 1901859-08 B96-PFAS-SB38-0-2-062619 1.06, Description: B96-PFAS-SB38-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-08 B96-PFAS-SB38-0-2-0626...	1.01e4	124.9	NO
2	2	13C5-PFHxA	1901859-08 B96-PFAS-SB38-0-2-0626...	1.79e4	81.4	NO
3	3	18O2-PFHxS	1901859-08 B96-PFAS-SB38-0-2-0626...	9.31e2	70.3	NO
4	4	13C8-PFOA	1901859-08 B96-PFAS-SB38-0-2-0626...	2.09e4	72.4	NO
5	5	13C9-PFNA	1901859-08 B96-PFAS-SB38-0-2-0626...	6.23e3	37.5	YES
6	6	13C4-PFOS	1901859-08 B96-PFAS-SB38-0-2-0626...	3.82e2	12.7	YES
7	7	13C6-PFDA	1901859-08 B96-PFAS-SB38-0-2-0626...	2.85e3	13.6	YES
8	8	13C7-PFUdA	1901859-08 B96-PFAS-SB38-0-2-0626...	1.26e3	4.5	YES

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Name: 190719M1_72, Date: 19-Jul-2019, Time: 21:02:52, ID: 1901859-09 B96-PFAS-SB29-0-2-062619 1.1, Description: B96-PFAS-SB29-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-09 B96-PFAS-SB29-0-2-0626...	1.09e4	133.5	NO
2	2	13C5-PFHxA	1901859-09 B96-PFAS-SB29-0-2-0626...	1.78e4	81.0	NO
3	3	18O2-PFHxS	1901859-09 B96-PFAS-SB29-0-2-0626...	1.07e3	81.0	NO
4	4	13C8-PFOA	1901859-09 B96-PFAS-SB29-0-2-0626...	2.48e4	85.8	NO
5	5	13C9-PFNA	1901859-09 B96-PFAS-SB29-0-2-0626...	1.18e4	71.1	NO
6	6	13C4-PFOS	1901859-09 B96-PFAS-SB29-0-2-0626...	2.17e3	72.4	NO
7	7	13C6-PFDA	1901859-09 B96-PFAS-SB29-0-2-0626...	1.29e4	61.9	NO
8	8	13C7-PFUdA	1901859-09 B96-PFAS-SB29-0-2-0626...	9.10e3	32.4	YES

Name: 190719M1_73, Date: 19-Jul-2019, Time: 21:13:25, ID: 1901859-10 B96-PFAS-SB30-0-2-062719 1.04, Description: B96-PFAS-SB30-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-10 B96-PFAS-SB30-0-2-0627...	1.04e4	127.9	NO
2	2	13C5-PFHxA	1901859-10 B96-PFAS-SB30-0-2-0627...	1.82e4	82.8	NO
3	3	18O2-PFHxS	1901859-10 B96-PFAS-SB30-0-2-0627...	1.12e3	84.4	NO
4	4	13C8-PFOA	1901859-10 B96-PFAS-SB30-0-2-0627...	2.32e4	80.2	NO
5	5	13C9-PFNA	1901859-10 B96-PFAS-SB30-0-2-0627...	1.16e4	69.9	NO
6	6	13C4-PFOS	1901859-10 B96-PFAS-SB30-0-2-0627...	1.47e3	49.1	YES
7	7	13C6-PFDA	1901859-10 B96-PFAS-SB30-0-2-0627...	8.62e3	41.2	YES
8	8	13C7-PFUdA	1901859-10 B96-PFAS-SB30-0-2-0627...	4.75e3	16.9	YES

Name: 190719M1_74, Date: 19-Jul-2019, Time: 21:24:03, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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	7.02e0	0.0	YES

Name: 190719M1_75, Date: 19-Jul-2019, Time: 21:34:35, ID: ST190719M1-5 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190719M1-5 PFC CS3 19G1106	8.37e3	103.1	NO
2	2	13C5-PFHxA	ST190719M1-5 PFC CS3 19G1106	2.24e4	101.7	NO
3	3	18O2-PFHxS	ST190719M1-5 PFC CS3 19G1106	1.33e3	100.5	NO
4	4	13C8-PFOA	ST190719M1-5 PFC CS3 19G1106	3.08e4	106.5	NO
5	5	13C9-PFNA	ST190719M1-5 PFC CS3 19G1106	1.66e4	99.7	NO
6	6	13C4-PFOS	ST190719M1-5 PFC CS3 19G1106	3.06e3	102.0	NO
7	7	13C6-PFDA	ST190719M1-5 PFC CS3 19G1106	2.27e4	108.4	NO
8	8	13C7-PFUdA	ST190719M1-5 PFC CS3 19G1106	2.92e4	103.9	NO

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Name: 190719M1_76, Date: 19-Jul-2019, Time: 21:45:14, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190719M1_77, Date: 19-Jul-2019, Time: 21:55:52, ID: 1901859-11 DUP04-062719 1.04, Description: DUP04-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-11 DUP04-062719 1.04	1.11e4	136.5	NO
2	2	13C5-PFHxA	1901859-11 DUP04-062719 1.04	1.91e4	86.8	NO
3	3	18O2-PFHxS	1901859-11 DUP04-062719 1.04	1.16e3	87.2	NO
4	4	13C8-PFOA	1901859-11 DUP04-062719 1.04	2.55e4	88.2	NO
5	5	13C9-PFNA	1901859-11 DUP04-062719 1.04	1.31e4	78.5	NO
6	6	13C4-PFOS	1901859-11 DUP04-062719 1.04	2.09e3	69.7	NO
7	7	13C6-PFDA	1901859-11 DUP04-062719 1.04	1.42e4	67.8	NO
8	8	13C7-PFUdA	1901859-11 DUP04-062719 1.04	8.22e3	29.3	YES

Name: 190719M1_78, Date: 19-Jul-2019, Time: 22:06:25, ID: 1901859-12 B96-PFAS-SB31-0-2-062719 1.08, Description: B96-PFAS-SB31-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-12 B96-PFAS-SB31-0-2-0627...	1.01e4	124.7	NO
2	2	13C5-PFHxA	1901859-12 B96-PFAS-SB31-0-2-0627...	1.80e4	82.0	NO
3	3	18O2-PFHxS	1901859-12 B96-PFAS-SB31-0-2-0627...	1.04e3	78.7	NO
4	4	13C8-PFOA	1901859-12 B96-PFAS-SB31-0-2-0627...	2.41e4	83.3	NO
5	5	13C9-PFNA	1901859-12 B96-PFAS-SB31-0-2-0627...	1.19e4	71.5	NO
6	6	13C4-PFOS	1901859-12 B96-PFAS-SB31-0-2-0627...	1.70e3	56.8	NO
7	7	13C6-PFDA	1901859-12 B96-PFAS-SB31-0-2-0627...	1.07e4	51.4	NO
8	8	13C7-PFUdA	1901859-12 B96-PFAS-SB31-0-2-0627...	5.80e3	20.6	YES

Name: 190719M1_79, Date: 19-Jul-2019, Time: 22:17:04, ID: 1901859-13 B96-PFAS-SB28-0-2-062719 1.09, Description: B96-PFAS-SB28-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-13 B96-PFAS-SB28-0-2-0627...	1.03e4	126.5	NO
2	2	13C5-PFHxA	1901859-13 B96-PFAS-SB28-0-2-0627...	1.88e4	85.5	NO
3	3	18O2-PFHxS	1901859-13 B96-PFAS-SB28-0-2-0627...	1.11e3	84.1	NO
4	4	13C8-PFOA	1901859-13 B96-PFAS-SB28-0-2-0627...	2.31e4	79.8	NO
5	5	13C9-PFNA	1901859-13 B96-PFAS-SB28-0-2-0627...	8.34e3	50.2	NO
6	6	13C4-PFOS	1901859-13 B96-PFAS-SB28-0-2-0627...	4.79e2	15.9	YES
7	7	13C6-PFDA	1901859-13 B96-PFAS-SB28-0-2-0627...	4.15e3	19.8	YES
8	8	13C7-PFUdA	1901859-13 B96-PFAS-SB28-0-2-0627...	1.71e3	6.1	YES

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Name: 190719M1_80, Date: 19-Jul-2019, Time: 22:27:42, ID: 1901859-14 B96-PFAS-SB70-0-2-062719 1.09, Description: B96-PFAS-SB70-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-14 B96-PFAS-SB70-0-2-0627...	1.10e4	135.8	NO
2	2	13C5-PFHxA	1901859-14 B96-PFAS-SB70-0-2-0627...	1.98e4	90.0	NO
3	3	18O2-PFHxS	1901859-14 B96-PFAS-SB70-0-2-0627...	1.12e3	84.3	NO
4	4	13C8-PFOA	1901859-14 B96-PFAS-SB70-0-2-0627...	2.60e4	90.1	NO
5	5	13C9-PFNA	1901859-14 B96-PFAS-SB70-0-2-0627...	1.19e4	71.4	NO
6	6	13C4-PFOS	1901859-14 B96-PFAS-SB70-0-2-0627...	1.71e3	56.8	NO
7	7	13C6-PFDA	1901859-14 B96-PFAS-SB70-0-2-0627...	1.07e4	51.4	NO
8	8	13C7-PFUdA	1901859-14 B96-PFAS-SB70-0-2-0627...	5.48e3	19.5	YES

Name: 190719M1_81, Date: 19-Jul-2019, Time: 22:38:15, ID: 1901859-15 B96-PFAS-SB71-0-2-062719 1.08, Description: B96-PFAS-SB71-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-15 B96-PFAS-SB71-0-2-0627...	1.02e4	125.8	NO
2	2	13C5-PFHxA	1901859-15 B96-PFAS-SB71-0-2-0627...	1.76e4	80.3	NO
3	3	18O2-PFHxS	1901859-15 B96-PFAS-SB71-0-2-0627...	1.06e3	80.0	NO
4	4	13C8-PFOA	1901859-15 B96-PFAS-SB71-0-2-0627...	2.27e4	78.5	NO
5	5	13C9-PFNA	1901859-15 B96-PFAS-SB71-0-2-0627...	9.45e3	56.8	NO
6	6	13C4-PFOS	1901859-15 B96-PFAS-SB71-0-2-0627...	1.36e3	45.2	YES
7	7	13C6-PFDA	1901859-15 B96-PFAS-SB71-0-2-0627...	7.40e3	35.4	YES
8	8	13C7-PFUdA	1901859-15 B96-PFAS-SB71-0-2-0627...	2.98e3	10.6	YES

Name: 190719M1_82, Date: 19-Jul-2019, Time: 22:48:54, ID: 1901859-16 B96-PFAS-SB25-0-2-062719 1.07, Description: B96-PFAS-SB25-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-16 B96-PFAS-SB25-0-2-0627...	1.08e4	133.4	NO
2	2	13C5-PFHxA	1901859-16 B96-PFAS-SB25-0-2-0627...	1.84e4	83.7	NO
3	3	18O2-PFHxS	1901859-16 B96-PFAS-SB25-0-2-0627...	1.16e3	87.4	NO
4	4	13C8-PFOA	1901859-16 B96-PFAS-SB25-0-2-0627...	2.46e4	84.9	NO
5	5	13C9-PFNA	1901859-16 B96-PFAS-SB25-0-2-0627...	1.23e4	73.9	NO
6	6	13C4-PFOS	1901859-16 B96-PFAS-SB25-0-2-0627...	2.26e3	75.2	NO
7	7	13C6-PFDA	1901859-16 B96-PFAS-SB25-0-2-0627...	1.37e4	65.7	NO
8	8	13C7-PFUdA	1901859-16 B96-PFAS-SB25-0-2-0627...	1.14e4	40.6	YES

Name: 190719M1_83, Date: 19-Jul-2019, Time: 22:59:27, ID: 1901859-17 B96-PFAS-SB26-0-2-062719 1.06, Description: B96-PFAS-SB26-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-17 B96-PFAS-SB26-0-2-0627...	1.10e4	135.3	NO
2	2	13C5-PFHxA	1901859-17 B96-PFAS-SB26-0-2-0627...	1.98e4	90.1	NO
3	3	18O2-PFHxS	1901859-17 B96-PFAS-SB26-0-2-0627...	1.16e3	87.7	NO
4	4	13C8-PFOA	1901859-17 B96-PFAS-SB26-0-2-0627...	2.59e4	89.4	NO
5	5	13C9-PFNA	1901859-17 B96-PFAS-SB26-0-2-0627...	1.35e4	81.2	NO
6	6	13C4-PFOS	1901859-17 B96-PFAS-SB26-0-2-0627...	2.27e3	75.7	NO
7	7	13C6-PFDA	1901859-17 B96-PFAS-SB26-0-2-0627...	1.54e4	73.7	NO
8	8	13C7-PFUdA	1901859-17 B96-PFAS-SB26-0-2-0627...	1.01e4	35.9	YES

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Name: 190719M1_84, Date: 19-Jul-2019, Time: 23:10:06, ID: 1901859-18 B96-PFAS-SB27-0-2-062719 1.07, Description: B96-PFAS-SB27-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-18 B96-PFAS-SB27-0-2-0627...	1.01e4	124.4	NO
2	2	13C5-PFHxA	1901859-18 B96-PFAS-SB27-0-2-0627...	1.77e4	80.5	NO
3	3	18O2-PFHxS	1901859-18 B96-PFAS-SB27-0-2-0627...	9.79e2	73.8	NO
4	4	13C8-PFOA	1901859-18 B96-PFAS-SB27-0-2-0627...	2.41e4	83.5	NO
5	5	13C9-PFNA	1901859-18 B96-PFAS-SB27-0-2-0627...	1.17e4	70.1	NO
6	6	13C4-PFOS	1901859-18 B96-PFAS-SB27-0-2-0627...	1.11e3	37.0	YES
7	7	13C6-PFDA	1901859-18 B96-PFAS-SB27-0-2-0627...	8.19e3	39.2	YES
8	8	13C7-PFUdA	1901859-18 B96-PFAS-SB27-0-2-0627...	3.55e3	12.6	YES

Name: 190719M1_85, Date: 19-Jul-2019, Time: 23:20:38, ID: 1901859-19 B96-PFAS-SB72-0-2-062719 1.07, Description: B96-PFAS-SB72-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-19 B96-PFAS-SB72-0-2-0627...	9.92e3	122.1	NO
2	2	13C5-PFHxA	1901859-19 B96-PFAS-SB72-0-2-0627...	1.76e4	80.2	NO
3	3	18O2-PFHxS	1901859-19 B96-PFAS-SB72-0-2-0627...	1.08e3	81.4	NO
4	4	13C8-PFOA	1901859-19 B96-PFAS-SB72-0-2-0627...	2.27e4	78.6	NO
5	5	13C9-PFNA	1901859-19 B96-PFAS-SB72-0-2-0627...	9.90e3	59.5	NO
6	6	13C4-PFOS	1901859-19 B96-PFAS-SB72-0-2-0627...	1.57e3	52.1	NO
7	7	13C6-PFDA	1901859-19 B96-PFAS-SB72-0-2-0627...	8.85e3	42.3	YES
8	8	13C7-PFUdA	1901859-19 B96-PFAS-SB72-0-2-0627...	4.63e3	16.5	YES

Name: 190719M1_86, Date: 19-Jul-2019, Time: 23:31:17, ID: B9G0149-BS1 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0149-BS1 OPR 1	9.64e3	118.6	NO
2	2	13C5-PFHxA	B9G0149-BS1 OPR 1	1.69e4	76.9	NO
3	3	18O2-PFHxS	B9G0149-BS1 OPR 1	1.09e3	82.4	NO
4	4	13C8-PFOA	B9G0149-BS1 OPR 1	2.22e4	76.7	NO
5	5	13C9-PFNA	B9G0149-BS1 OPR 1	9.52e3	57.2	NO
6	6	13C4-PFOS	B9G0149-BS1 OPR 1	1.26e3	41.9	YES
7	7	13C6-PFDA	B9G0149-BS1 OPR 1	7.66e3	36.6	YES
8	8	13C7-PFUdA	B9G0149-BS1 OPR 1	4.23e3	15.1	YES

Name: 190719M1_87, Date: 19-Jul-2019, Time: 23:41:47, ID: B9G0149-BSD1 LCSD 1, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0149-BSD1 LCSD 1	1.02e4	125.7	NO
2	2	13C5-PFHxA	B9G0149-BSD1 LCSD 1	1.63e4	74.0	NO
3	3	18O2-PFHxS	B9G0149-BSD1 LCSD 1	1.12e3	84.3	NO
4	4	13C8-PFOA	B9G0149-BSD1 LCSD 1	1.85e4	64.1	NO
5	5	13C9-PFNA	B9G0149-BSD1 LCSD 1	8.31e3	50.0	NO
6	6	13C4-PFOS	B9G0149-BSD1 LCSD 1	1.84e3	61.2	NO
7	7	13C6-PFDA	B9G0149-BSD1 LCSD 1	7.83e3	37.5	YES
8	8	13C7-PFUdA	B9G0149-BSD1 LCSD 1	4.97e3	17.7	YES

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Name: 190719M1_88, Date: 19-Jul-2019, Time: 23:52:25, ID: B9G0149-MS1 Matrix Spike 1.04, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0149-MS1 Matrix Spike 1.04	1.06e4	130.5	NO
2	2	13C5-PFHxA	B9G0149-MS1 Matrix Spike 1.04	1.75e4	79.5	NO
3	3	18O2-PFHxS	B9G0149-MS1 Matrix Spike 1.04	1.06e3	80.2	NO
4	4	13C8-PFOA	B9G0149-MS1 Matrix Spike 1.04	2.37e4	81.9	NO
5	5	13C9-PFNA	B9G0149-MS1 Matrix Spike 1.04	1.19e4	71.3	NO
6	6	13C4-PFOS	B9G0149-MS1 Matrix Spike 1.04	2.07e3	69.0	NO
7	7	13C6-PFDA	B9G0149-MS1 Matrix Spike 1.04	1.36e4	65.3	NO
8	8	13C7-PFUdA	B9G0149-MS1 Matrix Spike 1.04	1.27e4	45.3	YES

Name: 190719M1_89, Date: 20-Jul-2019, Time: 00:02:59, ID: B9G0149-MSD1 Matrix Spike Dup 1.03, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0149-MSD1 Matrix Spike Dup 1.03	1.04e4	127.7	NO
2	2	13C5-PFHxA	B9G0149-MSD1 Matrix Spike Dup 1.03	1.70e4	77.4	NO
3	3	18O2-PFHxS	B9G0149-MSD1 Matrix Spike Dup 1.03	1.11e3	83.8	NO
4	4	13C8-PFOA	B9G0149-MSD1 Matrix Spike Dup 1.03	2.07e4	71.6	NO
5	5	13C9-PFNA	B9G0149-MSD1 Matrix Spike Dup 1.03	9.40e3	56.5	NO
6	6	13C4-PFOS	B9G0149-MSD1 Matrix Spike Dup 1.03	2.14e3	71.4	NO
7	7	13C6-PFDA	B9G0149-MSD1 Matrix Spike Dup 1.03	9.34e3	44.7	YES
8	8	13C7-PFUdA	B9G0149-MSD1 Matrix Spike Dup 1.03	8.60e3	30.6	YES

Name: 190719M1_90, Date: 20-Jul-2019, Time: 00:13:37, ID: B9G0149-BLK1 Method Blank 1, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0149-BLK1 Method Blank 1	9.84e3	121.1	NO
2	2	13C5-PFHxA	B9G0149-BLK1 Method Blank 1	1.64e4	74.4	NO
3	3	18O2-PFHxS	B9G0149-BLK1 Method Blank 1	1.08e3	81.8	NO
4	4	13C8-PFOA	B9G0149-BLK1 Method Blank 1	1.74e4	60.1	NO
5	5	13C9-PFNA	B9G0149-BLK1 Method Blank 1	6.94e3	41.7	YES
6	6	13C4-PFOS	B9G0149-BLK1 Method Blank 1	1.25e3	41.8	YES
7	7	13C6-PFDA	B9G0149-BLK1 Method Blank 1	4.50e3	21.6	YES
8	8	13C7-PFUdA	B9G0149-BLK1 Method Blank 1	2.02e3	7.2	YES

Name: 190719M1_91, Date: 20-Jul-2019, Time: 00:24:10, ID: 1901983-01 B96-PFAS-SB19-0-2-070119 1.03, Description: B96-PFAS-SB19-0-2-070119

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-01 B96-PFAS-SB19-0-2-0701...	9.58e3	117.9	NO
2	2	13C5-PFHxA	1901983-01 B96-PFAS-SB19-0-2-0701...	1.69e4	76.8	NO
3	3	18O2-PFHxS	1901983-01 B96-PFAS-SB19-0-2-0701...	1.05e3	79.1	NO
4	4	13C8-PFOA	1901983-01 B96-PFAS-SB19-0-2-0701...	2.28e4	78.8	NO
5	5	13C9-PFNA	1901983-01 B96-PFAS-SB19-0-2-0701...	1.06e4	63.5	NO
6	6	13C4-PFOS	1901983-01 B96-PFAS-SB19-0-2-0701...	1.88e3	62.6	NO
7	7	13C6-PFDA	1901983-01 B96-PFAS-SB19-0-2-0701...	1.10e4	52.7	NO
8	8	13C7-PFUdA	1901983-01 B96-PFAS-SB19-0-2-0701...	9.32e3	33.2	YES

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Name: 190719M1_92, Date: 20-Jul-2019, Time: 00:34:48, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190719M1_93, Date: 20-Jul-2019, Time: 00:45:26, ID: ST190719M1-6 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190719M1-6 PFC CS0 19G1103	7.95e3	97.9	NO
2	2	13C5-PFHxA	ST190719M1-6 PFC CS0 19G1103	2.09e4	95.0	NO
3	3	18O2-PFHxS	ST190719M1-6 PFC CS0 19G1103	1.36e3	102.8	NO
4	4	13C8-PFOA	ST190719M1-6 PFC CS0 19G1103	2.88e4	99.7	NO
5	5	13C9-PFNA	ST190719M1-6 PFC CS0 19G1103	1.61e4	96.8	NO
6	6	13C4-PFOS	ST190719M1-6 PFC CS0 19G1103	2.69e3	89.5	NO
7	7	13C6-PFDA	ST190719M1-6 PFC CS0 19G1103	2.20e4	105.2	NO
8	8	13C7-PFUdA	ST190719M1-6 PFC CS0 19G1103	2.81e4	100.2	NO

Name: 190719M1_94, Date: 20-Jul-2019, Time: 00:55:59, ID: ST190719M1-7 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190719M1-7 PFC CS3 19G1106	8.67e3	106.7	NO
2	2	13C5-PFHxA	ST190719M1-7 PFC CS3 19G1106	2.29e4	104.2	NO
3	3	18O2-PFHxS	ST190719M1-7 PFC CS3 19G1106	1.37e3	103.1	NO
4	4	13C8-PFOA	ST190719M1-7 PFC CS3 19G1106	3.16e4	109.3	NO
5	5	13C9-PFNA	ST190719M1-7 PFC CS3 19G1106	1.75e4	104.9	NO
6	6	13C4-PFOS	ST190719M1-7 PFC CS3 19G1106	3.14e3	104.5	NO
7	7	13C6-PFDA	ST190719M1-7 PFC CS3 19G1106	2.26e4	108.1	NO
8	8	13C7-PFUdA	ST190719M1-7 PFC CS3 19G1106	2.98e4	106.2	NO

Name: 190719M1_95, Date: 20-Jul-2019, Time: 01:06:37, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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	1.03e1	0.0	YES

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Name: 190719M1_96, Date: 20-Jul-2019, Time: 01:17:10, ID: 1901983-02 B96-PFAS-SB21-0-2-070119 1.06, Description: B96-PFAS-SB21-0-2-070119

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-02 B96-PFAS-SB21-0-2-0701...	8.93e3	109.9	NO
2	2	13C5-PFHxA	1901983-02 B96-PFAS-SB21-0-2-0701...	1.52e4	69.2	NO
3	3	18O2-PFHxS	1901983-02 B96-PFAS-SB21-0-2-0701...	9.26e2	69.8	NO
4	4	13C8-PFOA	1901983-02 B96-PFAS-SB21-0-2-0701...	1.96e4	67.8	NO
5	5	13C9-PFNA	1901983-02 B96-PFAS-SB21-0-2-0701...	9.73e3	58.5	NO
6	6	13C4-PFOS	1901983-02 B96-PFAS-SB21-0-2-0701...	1.35e3	45.1	YES
7	7	13C6-PFDA	1901983-02 B96-PFAS-SB21-0-2-0701...	8.42e3	40.3	YES
8	8	13C7-PFUdA	1901983-02 B96-PFAS-SB21-0-2-0701...	3.83e3	13.6	YES

Name: 190719M1_97, Date: 20-Jul-2019, Time: 01:27:48, ID: 1901983-03 B96-PFAS-SB66-0-2-070119 1.04, Description: B96-PFAS-SB66-0-2-070119

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-03 B96-PFAS-SB66-0-2-0701...	9.74e3	119.8	NO
2	2	13C5-PFHxA	1901983-03 B96-PFAS-SB66-0-2-0701...	1.65e4	75.2	NO
3	3	18O2-PFHxS	1901983-03 B96-PFAS-SB66-0-2-0701...	9.40e2	70.9	NO
4	4	13C8-PFOA	1901983-03 B96-PFAS-SB66-0-2-0701...	2.27e4	78.6	NO
5	5	13C9-PFNA	1901983-03 B96-PFAS-SB66-0-2-0701...	1.11e4	66.5	NO
6	6	13C4-PFOS	1901983-03 B96-PFAS-SB66-0-2-0701...	2.06e3	68.5	NO
7	7	13C6-PFDA	1901983-03 B96-PFAS-SB66-0-2-0701...	1.24e4	59.3	NO
8	8	13C7-PFUdA	1901983-03 B96-PFAS-SB66-0-2-0701...	1.27e4	45.1	YES

Name: 190719M1_98, Date: 20-Jul-2019, Time: 01:38:20, ID: 1901983-04 DUP05-070119 1.06, Description: DUP05-070119

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-04 DUP05-070119 1.06	1.05e4	128.9	NO
2	2	13C5-PFHxA	1901983-04 DUP05-070119 1.06	1.72e4	78.3	NO
3	3	18O2-PFHxS	1901983-04 DUP05-070119 1.06	1.08e3	81.7	NO
4	4	13C8-PFOA	1901983-04 DUP05-070119 1.06	2.29e4	79.4	NO
5	5	13C9-PFNA	1901983-04 DUP05-070119 1.06	1.22e4	73.6	NO
6	6	13C4-PFOS	1901983-04 DUP05-070119 1.06	2.10e3	70.1	NO
7	7	13C6-PFDA	1901983-04 DUP05-070119 1.06	1.38e4	66.2	NO
8	8	13C7-PFUdA	1901983-04 DUP05-070119 1.06	1.51e4	53.9	NO

Name: 190719M1_99, Date: 20-Jul-2019, Time: 01:48:58, ID: 1901983-05 B96-PFAS-SB65-0-2-070119 1.04, Description: B96-PFAS-SB65-0-2-070119

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-05 B96-PFAS-SB65-0-2-0701...	1.02e4	125.2	NO
2	2	13C5-PFHxA	1901983-05 B96-PFAS-SB65-0-2-0701...	1.67e4	75.7	NO
3	3	18O2-PFHxS	1901983-05 B96-PFAS-SB65-0-2-0701...	1.04e3	78.1	NO
4	4	13C8-PFOA	1901983-05 B96-PFAS-SB65-0-2-0701...	2.28e4	78.7	NO
5	5	13C9-PFNA	1901983-05 B96-PFAS-SB65-0-2-0701...	1.11e4	66.9	NO
6	6	13C4-PFOS	1901983-05 B96-PFAS-SB65-0-2-0701...	2.22e3	74.1	NO
7	7	13C6-PFDA	1901983-05 B96-PFAS-SB65-0-2-0701...	1.42e4	67.8	NO
8	8	13C7-PFUdA	1901983-05 B96-PFAS-SB65-0-2-0701...	1.48e4	52.5	NO

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Name: 190719M1_100, Date: 20-Jul-2019, Time: 01:59:31, ID: 1901983-06 B96-PFAS-SB68-0-2-070119 1.02, Description: B96-PFAS-SB68-0-2-070119

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-06 B96-PFAS-SB68-0-2-0701...	8.83e3	108.6	NO
2	2	13C5-PFHxA	1901983-06 B96-PFAS-SB68-0-2-0701...	1.55e4	70.6	NO
3	3	18O2-PFHxS	1901983-06 B96-PFAS-SB68-0-2-0701...	9.03e2	68.1	NO
4	4	13C8-PFOA	1901983-06 B96-PFAS-SB68-0-2-0701...	1.81e4	62.7	NO
5	5	13C9-PFNA	1901983-06 B96-PFAS-SB68-0-2-0701...	8.38e3	50.4	NO
6	6	13C4-PFOS	1901983-06 B96-PFAS-SB68-0-2-0701...	2.02e3	67.4	NO
7	7	13C6-PFDA	1901983-06 B96-PFAS-SB68-0-2-0701...	1.01e4	48.1	YES
8	8	13C7-PFUdA	1901983-06 B96-PFAS-SB68-0-2-0701...	9.61e3	34.2	YES

Name: 190719M1_101, Date: 20-Jul-2019, Time: 02:10:09, ID: 1901983-07 B96-PFAS-SB69-0-2-070119 1.04, Description: B96-PFAS-SB69-0-2-070119

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-07 B96-PFAS-SB69-0-2-0701...	1.11e4	136.8	NO
2	2	13C5-PFHxA	1901983-07 B96-PFAS-SB69-0-2-0701...	1.79e4	81.6	NO
3	3	18O2-PFHxS	1901983-07 B96-PFAS-SB69-0-2-0701...	9.28e2	70.0	NO
4	4	13C8-PFOA	1901983-07 B96-PFAS-SB69-0-2-0701...	2.35e4	81.3	NO
5	5	13C9-PFNA	1901983-07 B96-PFAS-SB69-0-2-0701...	1.04e4	62.2	NO
6	6	13C4-PFOS	1901983-07 B96-PFAS-SB69-0-2-0701...	1.60e3	53.2	NO
7	7	13C6-PFDA	1901983-07 B96-PFAS-SB69-0-2-0701...	9.61e3	46.0	YES
8	8	13C7-PFUdA	1901983-07 B96-PFAS-SB69-0-2-0701...	4.41e3	15.7	YES

Name: 190719M1_102, Date: 20-Jul-2019, Time: 02:20:48, ID: 1901983-08 B96-PFAS-SB75-0-2-070119 1.04, Description: B96-PFAS-SB75-0-2-070119

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-08 B96-PFAS-SB75-0-2-0701...	1.05e4	129.3	NO
2	2	13C5-PFHxA	1901983-08 B96-PFAS-SB75-0-2-0701...	1.76e4	80.1	NO
3	3	18O2-PFHxS	1901983-08 B96-PFAS-SB75-0-2-0701...	1.02e3	77.3	NO
4	4	13C8-PFOA	1901983-08 B96-PFAS-SB75-0-2-0701...	2.34e4	81.1	NO
5	5	13C9-PFNA	1901983-08 B96-PFAS-SB75-0-2-0701...	1.10e4	65.9	NO
6	6	13C4-PFOS	1901983-08 B96-PFAS-SB75-0-2-0701...	1.95e3	64.9	NO
7	7	13C6-PFDA	1901983-08 B96-PFAS-SB75-0-2-0701...	1.08e4	51.5	NO
8	8	13C7-PFUdA	1901983-08 B96-PFAS-SB75-0-2-0701...	9.39e3	33.4	YES

Name: 190719M1_103, Date: 20-Jul-2019, Time: 02:31:20, ID: 1901983-09 B96-PFAS-SB60-0-2-070219 1.06, Description: B96-PFAS-SB60-0-2-070219

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-09 B96-PFAS-SB60-0-2-0702...	1.06e4	129.9	NO
2	2	13C5-PFHxA	1901983-09 B96-PFAS-SB60-0-2-0702...	1.75e4	79.4	NO
3	3	18O2-PFHxS	1901983-09 B96-PFAS-SB60-0-2-0702...	1.07e3	80.7	NO
4	4	13C8-PFOA	1901983-09 B96-PFAS-SB60-0-2-0702...	1.87e4	64.6	NO
5	5	13C9-PFNA	1901983-09 B96-PFAS-SB60-0-2-0702...	7.66e3	46.1	YES
6	6	13C4-PFOS	1901983-09 B96-PFAS-SB60-0-2-0702...	1.80e3	59.9	NO
7	7	13C6-PFDA	1901983-09 B96-PFAS-SB60-0-2-0702...	5.65e3	27.0	YES
8	8	13C7-PFUdA	1901983-09 B96-PFAS-SB60-0-2-0702...	3.43e3	12.2	YES

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Name: 190719M1_104, Date: 20-Jul-2019, Time: 02:41:59, ID: 1901983-10 B96-PFAS-SB59-0-2-070219 1.12, Description: B96-PFAS-SB59-0-2-070219

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-10 B96-PFAS-SB59-0-2-0702...	9.97e3	122.7	NO
2	2	13C5-PFHxA	1901983-10 B96-PFAS-SB59-0-2-0702...	1.71e4	77.8	NO
3	3	18O2-PFHxS	1901983-10 B96-PFAS-SB59-0-2-0702...	1.07e3	80.7	NO
4	4	13C8-PFOA	1901983-10 B96-PFAS-SB59-0-2-0702...	2.25e4	77.9	NO
5	5	13C9-PFNA	1901983-10 B96-PFAS-SB59-0-2-0702...	1.04e4	62.8	NO
6	6	13C4-PFOS	1901983-10 B96-PFAS-SB59-0-2-0702...	1.30e3	43.3	YES
7	7	13C6-PFDA	1901983-10 B96-PFAS-SB59-0-2-0702...	8.01e3	38.3	YES
8	8	13C7-PFUdA	1901983-10 B96-PFAS-SB59-0-2-0702...	3.62e3	12.9	YES

Name: 190719M1_105, Date: 20-Jul-2019, Time: 02:52:37, ID: 1901983-11 B96-PFAS-SB22-0-2-070219 1.06, Description: B96-PFAS-SB22-0-2-070219

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-11 B96-PFAS-SB22-0-2-0702...	9.98e3	122.8	NO
2	2	13C5-PFHxA	1901983-11 B96-PFAS-SB22-0-2-0702...	1.70e4	77.3	NO
3	3	18O2-PFHxS	1901983-11 B96-PFAS-SB22-0-2-0702...	9.78e2	73.8	NO
4	4	13C8-PFOA	1901983-11 B96-PFAS-SB22-0-2-0702...	2.14e4	74.0	NO
5	5	13C9-PFNA	1901983-11 B96-PFAS-SB22-0-2-0702...	8.61e3	51.8	NO
6	6	13C4-PFOS	1901983-11 B96-PFAS-SB22-0-2-0702...	9.07e2	30.2	YES
7	7	13C6-PFDA	1901983-11 B96-PFAS-SB22-0-2-0702...	5.36e3	25.6	YES
8	8	13C7-PFUdA	1901983-11 B96-PFAS-SB22-0-2-0702...	2.68e3	9.6	YES

Name: 190719M1_106, Date: 20-Jul-2019, Time: 03:03:10, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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	5.30e0	0.0	YES
8	8	13C7-PFUdA	IPA			NO

Name: 190719M1_107, Date: 20-Jul-2019, Time: 03:13:48, ID: ST190719M1-8 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190719M1-8 PFC CS3 19G1106	8.62e3	106.1	NO
2	2	13C5-PFHxA	ST190719M1-8 PFC CS3 19G1106	2.23e4	101.6	NO
3	3	18O2-PFHxS	ST190719M1-8 PFC CS3 19G1106	1.36e3	102.3	NO
4	4	13C8-PFOA	ST190719M1-8 PFC CS3 19G1106	3.14e4	108.5	NO
5	5	13C9-PFNA	ST190719M1-8 PFC CS3 19G1106	1.64e4	98.7	NO
6	6	13C4-PFOS	ST190719M1-8 PFC CS3 19G1106	2.92e3	97.3	NO
7	7	13C6-PFDA	ST190719M1-8 PFC CS3 19G1106	2.20e4	105.3	NO
8	8	13C7-PFUdA	ST190719M1-8 PFC CS3 19G1106	3.01e4	107.0	NO

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Name: 190719M1_108, Date: 20-Jul-2019, Time: 03:24:21, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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	6.15e0	0.0	YES

Name: 190719M1_109, Date: 20-Jul-2019, Time: 03:34:59, ID: 1901983-12 B96-PFAS-SB24-0-2-070219 1.08, Description: B96-PFAS-SB24-0-2-070219

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-12 B96-PFAS-SB24-0-2-0702...	8.77e3	108.0	NO
2	2	13C5-PFHxA	1901983-12 B96-PFAS-SB24-0-2-0702...	1.58e4	71.8	NO
3	3	18O2-PFHxS	1901983-12 B96-PFAS-SB24-0-2-0702...	1.00e3	75.5	NO
4	4	13C8-PFOA	1901983-12 B96-PFAS-SB24-0-2-0702...	2.06e4	71.3	NO
5	5	13C9-PFNA	1901983-12 B96-PFAS-SB24-0-2-0702...	9.64e3	57.9	NO
6	6	13C4-PFOS	1901983-12 B96-PFAS-SB24-0-2-0702...	1.75e3	58.4	NO
7	7	13C6-PFDA	1901983-12 B96-PFAS-SB24-0-2-0702...	1.11e4	53.3	NO
8	8	13C7-PFUdA	1901983-12 B96-PFAS-SB24-0-2-0702...	9.44e3	33.6	YES

Name: 190719M1_110, Date: 20-Jul-2019, Time: 03:45:32, ID: 1901983-13 B96-PFAS-SB23-0-2-070219 1.07, Description: B96-PFAS-SB23-0-2-070219

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-13 B96-PFAS-SB23-0-2-0702...	9.55e3	117.5	NO
2	2	13C5-PFHxA	1901983-13 B96-PFAS-SB23-0-2-0702...	1.68e4	76.2	NO
3	3	18O2-PFHxS	1901983-13 B96-PFAS-SB23-0-2-0702...	1.11e3	84.1	NO
4	4	13C8-PFOA	1901983-13 B96-PFAS-SB23-0-2-0702...	2.17e4	75.2	NO
5	5	13C9-PFNA	1901983-13 B96-PFAS-SB23-0-2-0702...	1.08e4	65.0	NO
6	6	13C4-PFOS	1901983-13 B96-PFAS-SB23-0-2-0702...	1.97e3	65.7	NO
7	7	13C6-PFDA	1901983-13 B96-PFAS-SB23-0-2-0702...	1.25e4	59.6	NO
8	8	13C7-PFUdA	1901983-13 B96-PFAS-SB23-0-2-0702...	1.27e4	45.3	YES

Name: 190719M1_111, Date: 20-Jul-2019, Time: 03:56:11, ID: 1901983-14 B96-PFAS-SB18-0-2-070219 1.08, Description: B96-PFAS-SB18-0-2-070219

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-14 B96-PFAS-SB18-0-2-0702...	9.38e3	115.5	NO
2	2	13C5-PFHxA	1901983-14 B96-PFAS-SB18-0-2-0702...	1.64e4	74.8	NO
3	3	18O2-PFHxS	1901983-14 B96-PFAS-SB18-0-2-0702...	1.07e3	80.8	NO
4	4	13C8-PFOA	1901983-14 B96-PFAS-SB18-0-2-0702...	2.03e4	70.1	NO
5	5	13C9-PFNA	1901983-14 B96-PFAS-SB18-0-2-0702...	9.33e3	56.1	NO
6	6	13C4-PFOS	1901983-14 B96-PFAS-SB18-0-2-0702...	1.98e3	65.9	NO
7	7	13C6-PFDA	1901983-14 B96-PFAS-SB18-0-2-0702...	9.52e3	45.6	YES
8	8	13C7-PFUdA	1901983-14 B96-PFAS-SB18-0-2-0702...	8.55e3	30.5	YES

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Name: 190719M1_112, Date: 20-Jul-2019, Time: 04:06:43, ID: 1901983-15 B96-PFAS-SB20-0-2-070219 1.05, Description: B96-PFAS-SB20-0-2-070219

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-15 B96-PFAS-SB20-0-2-0702...	9.72e3	119.7	NO
2	2	13C5-PFHxA	1901983-15 B96-PFAS-SB20-0-2-0702...	1.67e4	75.9	NO
3	3	18O2-PFHxS	1901983-15 B96-PFAS-SB20-0-2-0702...	1.06e3	79.9	NO
4	4	13C8-PFOA	1901983-15 B96-PFAS-SB20-0-2-0702...	2.07e4	71.6	NO
5	5	13C9-PFNA	1901983-15 B96-PFAS-SB20-0-2-0702...	9.38e3	56.4	NO
6	6	13C4-PFOS	1901983-15 B96-PFAS-SB20-0-2-0702...	1.90e3	63.2	NO
7	7	13C6-PFDA	1901983-15 B96-PFAS-SB20-0-2-0702...	8.46e3	40.5	YES
8	8	13C7-PFUdA	1901983-15 B96-PFAS-SB20-0-2-0702...	5.18e3	18.4	YES

Name: 190719M1_113, Date: 20-Jul-2019, Time: 04:17:21, ID: B9G0193-BS1 OPR 0.01, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0193-BS1 OPR 0.01	7.38e3	90.8	NO
2	2	13C5-PFHxA	B9G0193-BS1 OPR 0.01	1.31e4	59.6	NO
3	3	18O2-PFHxS	B9G0193-BS1 OPR 0.01	7.86e2	59.3	NO
4	4	13C8-PFOA	B9G0193-BS1 OPR 0.01	1.79e4	61.9	NO
5	5	13C9-PFNA	B9G0193-BS1 OPR 0.01	8.17e3	49.1	YES
6	6	13C4-PFOS	B9G0193-BS1 OPR 0.01	1.13e3	37.5	YES
7	7	13C6-PFDA	B9G0193-BS1 OPR 0.01	7.24e3	34.6	YES
8	8	13C7-PFUdA	B9G0193-BS1 OPR 0.01	2.91e3	10.4	YES

Name: 190719M1_114, Date: 20-Jul-2019, Time: 04:28:00, ID: B9G0193-BSD1 LCSD 0.01, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0193-BSD1 LCSD 0.01	9.08e3	111.7	NO
2	2	13C5-PFHxA	B9G0193-BSD1 LCSD 0.01	1.57e4	71.4	NO
3	3	18O2-PFHxS	B9G0193-BSD1 LCSD 0.01	9.40e2	70.9	NO
4	4	13C8-PFOA	B9G0193-BSD1 LCSD 0.01	2.24e4	77.3	NO
5	5	13C9-PFNA	B9G0193-BSD1 LCSD 0.01	1.03e4	61.8	NO
6	6	13C4-PFOS	B9G0193-BSD1 LCSD 0.01	1.47e3	49.1	YES
7	7	13C6-PFDA	B9G0193-BSD1 LCSD 0.01	8.52e3	40.7	YES
8	8	13C7-PFUdA	B9G0193-BSD1 LCSD 0.01	3.77e3	13.4	YES

Name: 190719M1_115, Date: 20-Jul-2019, Time: 04:38:33, ID: B9G0193-BLK1 Method Blank 0.01, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0193-BLK1 Method Blank 0.01	8.97e3	110.4	NO
2	2	13C5-PFHxA	B9G0193-BLK1 Method Blank 0.01	1.51e4	68.8	NO
3	3	18O2-PFHxS	B9G0193-BLK1 Method Blank 0.01	9.21e2	69.5	NO
4	4	13C8-PFOA	B9G0193-BLK1 Method Blank 0.01	1.99e4	68.8	NO
5	5	13C9-PFNA	B9G0193-BLK1 Method Blank 0.01	9.36e3	56.3	NO
6	6	13C4-PFOS	B9G0193-BLK1 Method Blank 0.01	1.20e3	39.9	YES
7	7	13C6-PFDA	B9G0193-BLK1 Method Blank 0.01	7.32e3	35.0	YES
8	8	13C7-PFUdA	B9G0193-BLK1 Method Blank 0.01	2.70e3	9.6	YES

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Name: 190719M1_116, Date: 20-Jul-2019, Time: 04:49:11, ID: 1902082-01 Milk Sample A 0.01, Description: Milk Sample A

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902082-01 Milk Sample A 0.01	7.96e3	98.0	NO
2	2	13C5-PFHxA	1902082-01 Milk Sample A 0.01	1.51e4	68.5	NO
3	3	18O2-PFHxS	1902082-01 Milk Sample A 0.01	9.67e2	72.9	NO
4	4	13C8-PFOA	1902082-01 Milk Sample A 0.01	2.22e4	76.9	NO
5	5	13C9-PFNA	1902082-01 Milk Sample A 0.01	1.12e4	67.4	NO
6	6	13C4-PFOS	1902082-01 Milk Sample A 0.01	2.00e3	66.7	NO
7	7	13C6-PFDA	1902082-01 Milk Sample A 0.01	1.10e4	52.5	NO
8	8	13C7-PFUdA	1902082-01 Milk Sample A 0.01	1.09e4	38.7	YES

Name: 190719M1_117, Date: 20-Jul-2019, Time: 04:59:44, ID: B9G0155-BS1 OPR 0.125, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0155-BS1 OPR 0.125	9.92e3	122.0	NO
2	2	13C5-PFHxA	B9G0155-BS1 OPR 0.125	1.67e4	76.0	NO
3	3	18O2-PFHxS	B9G0155-BS1 OPR 0.125	1.01e3	76.1	NO
4	4	13C8-PFOA	B9G0155-BS1 OPR 0.125	1.99e4	68.8	NO
5	5	13C9-PFNA	B9G0155-BS1 OPR 0.125	8.05e3	48.4	YES
6	6	13C4-PFOS	B9G0155-BS1 OPR 0.125	9.14e2	30.4	YES
7	7	13C6-PFDA	B9G0155-BS1 OPR 0.125	4.73e3	22.6	YES
8	8	13C7-PFUdA	B9G0155-BS1 OPR 0.125	1.82e3	6.5	YES

Name: 190719M1_118, Date: 20-Jul-2019, Time: 05:10:23, ID: B9G0155-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0155-BLK1 Method Blank 0.125	9.72e3	119.7	NO
2	2	13C5-PFHxA	B9G0155-BLK1 Method Blank 0.125	1.67e4	75.8	NO
3	3	18O2-PFHxS	B9G0155-BLK1 Method Blank 0.125	1.02e3	77.1	NO
4	4	13C8-PFOA	B9G0155-BLK1 Method Blank 0.125	2.10e4	72.5	NO
5	5	13C9-PFNA	B9G0155-BLK1 Method Blank 0.125	8.42e3	50.6	NO
6	6	13C4-PFOS	B9G0155-BLK1 Method Blank 0.125	9.58e2	31.9	YES
7	7	13C6-PFDA	B9G0155-BLK1 Method Blank 0.125	4.82e3	23.1	YES
8	8	13C7-PFUdA	B9G0155-BLK1 Method Blank 0.125	1.88e3	6.7	YES

Name: 190719M1_119, Date: 20-Jul-2019, Time: 05:20:55, ID: 1902102-01 Headworks #1 0.10636, Description: Headworks #1

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902102-01 Headworks #1 0.10636	9.94e3	122.3	NO
2	2	13C5-PFHxA	1902102-01 Headworks #1 0.10636	1.70e4	77.2	NO
3	3	18O2-PFHxS	1902102-01 Headworks #1 0.10636	1.25e3	94.1	NO
4	4	13C8-PFOA	1902102-01 Headworks #1 0.10636	2.49e4	86.1	NO
5	5	13C9-PFNA	1902102-01 Headworks #1 0.10636	1.30e4	78.4	NO
6	6	13C4-PFOS	1902102-01 Headworks #1 0.10636	2.59e3	86.1	NO
7	7	13C6-PFDA	1902102-01 Headworks #1 0.10636	1.84e4	88.1	NO
8	8	13C7-PFUdA	1902102-01 Headworks #1 0.10636	2.11e4	75.1	NO

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Name: 190719M1_120, Date: 20-Jul-2019, Time: 05:31:34, ID: 1902103-01 MW-3A 0.116, Description: MW-3A

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902103-01 MW-3A 0.116	1.07e4	131.1	NO
2	2	13C5-PFHxA	1902103-01 MW-3A 0.116	1.81e4	82.4	NO
3	3	18O2-PFHxS	1902103-01 MW-3A 0.116	1.09e3	82.1	NO
4	4	13C8-PFOA	1902103-01 MW-3A 0.116	2.48e4	85.7	NO
5	5	13C9-PFNA	1902103-01 MW-3A 0.116	1.23e4	73.7	NO
6	6	13C4-PFOS	1902103-01 MW-3A 0.116	1.85e3	61.6	NO
7	7	13C6-PFDA	1902103-01 MW-3A 0.116	1.11e4	53.2	NO
8	8	13C7-PFUdA	1902103-01 MW-3A 0.116	5.42e3	19.3	YES

Name: 190719M1_121, Date: 20-Jul-2019, Time: 05:42:07, ID: 1902103-02 MW-4 0.11257, Description: MW-4

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902103-02 MW-4 0.11257	9.49e3	116.8	NO
2	2	13C5-PFHxA	1902103-02 MW-4 0.11257	1.73e4	78.6	NO
3	3	18O2-PFHxS	1902103-02 MW-4 0.11257	1.16e3	87.4	NO
4	4	13C8-PFOA	1902103-02 MW-4 0.11257	2.36e4	81.6	NO
5	5	13C9-PFNA	1902103-02 MW-4 0.11257	1.15e4	69.2	NO
6	6	13C4-PFOS	1902103-02 MW-4 0.11257	1.93e3	64.4	NO
7	7	13C6-PFDA	1902103-02 MW-4 0.11257	1.06e4	50.5	NO
8	8	13C7-PFUdA	1902103-02 MW-4 0.11257	5.49e3	19.6	YES

Name: 190719M1_122, Date: 20-Jul-2019, Time: 05:52:45, ID: 1902103-03 B-106S 0.11376, Description: B-106S

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902103-03 B-106S 0.11376	8.86e3	109.1	NO
2	2	13C5-PFHxA	1902103-03 B-106S 0.11376	1.51e4	68.8	NO
3	3	18O2-PFHxS	1902103-03 B-106S 0.11376	9.22e2	69.5	NO
4	4	13C8-PFOA	1902103-03 B-106S 0.11376	2.07e4	71.5	NO
5	5	13C9-PFNA	1902103-03 B-106S 0.11376	9.85e3	59.2	NO
6	6	13C4-PFOS	1902103-03 B-106S 0.11376	1.88e3	62.5	NO
7	7	13C6-PFDA	1902103-03 B-106S 0.11376	1.03e4	49.2	YES
8	8	13C7-PFUdA	1902103-03 B-106S 0.11376	5.18e3	18.4	YES

Name: 190719M1_123, Date: 20-Jul-2019, Time: 06:03:18, ID: 1902103-04 B-205A 0.11334, Description: B-205A

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902103-04 B-205A 0.11334	8.54e3	105.1	NO
2	2	13C5-PFHxA	1902103-04 B-205A 0.11334	1.55e4	70.6	NO
3	3	18O2-PFHxS	1902103-04 B-205A 0.11334	9.18e2	69.2	NO
4	4	13C8-PFOA	1902103-04 B-205A 0.11334	2.02e4	70.0	NO
5	5	13C9-PFNA	1902103-04 B-205A 0.11334	9.25e3	55.6	NO
6	6	13C4-PFOS	1902103-04 B-205A 0.11334	1.61e3	53.8	NO
7	7	13C6-PFDA	1902103-04 B-205A 0.11334	7.35e3	35.1	YES
8	8	13C7-PFUdA	1902103-04 B-205A 0.11334	3.38e3	12.0	YES

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Name: 190719M1_124, Date: 20-Jul-2019, Time: 06:13:56, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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	5.22e0	0.0	YES
8	8	13C7-PFUdA	IPA	8.80e0	0.0	YES

Name: 190719M1_125, Date: 20-Jul-2019, Time: 06:24:29, ID: ST190719M1-9 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190719M1-9 PFC CS3 19G1106	8.64e3	106.4	NO
2	2	13C5-PFHxA	ST190719M1-9 PFC CS3 19G1106	2.29e4	104.1	NO
3	3	18O2-PFHxS	ST190719M1-9 PFC CS3 19G1106	1.49e3	112.4	NO
4	4	13C8-PFOA	ST190719M1-9 PFC CS3 19G1106	3.15e4	108.9	NO
5	5	13C9-PFNA	ST190719M1-9 PFC CS3 19G1106	1.71e4	102.5	NO
6	6	13C4-PFOS	ST190719M1-9 PFC CS3 19G1106	3.08e3	102.5	NO
7	7	13C6-PFDA	ST190719M1-9 PFC CS3 19G1106	2.24e4	107.4	NO
8	8	13C7-PFUdA	ST190719M1-9 PFC CS3 19G1106	2.91e4	103.6	NO

Name: 190719M1_126, Date: 20-Jul-2019, Time: 06:35:08, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190719M1_127, Date: 20-Jul-2019, Time: 06:45:46, ID: 1902103-05 MW-402 0.11687, Description: MW-402

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902103-05 MW-402 0.11687	9.70e3	119.3	NO
2	2	13C5-PFHxA	1902103-05 MW-402 0.11687	1.71e4	77.9	NO
3	3	18O2-PFHxS	1902103-05 MW-402 0.11687	1.15e3	86.9	NO
4	4	13C8-PFOA	1902103-05 MW-402 0.11687	2.29e4	79.3	NO
5	5	13C9-PFNA	1902103-05 MW-402 0.11687	1.05e4	63.3	NO
6	6	13C4-PFOS	1902103-05 MW-402 0.11687	1.99e3	66.2	NO
7	7	13C6-PFDA	1902103-05 MW-402 0.11687	9.45e3	45.2	YES
8	8	13C7-PFUdA	1902103-05 MW-402 0.11687	4.90e3	17.5	YES

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Name: 190719M1_128, Date: 20-Jul-2019, Time: 06:56:19, ID: 1902103-06 MW-501 0.1145, Description: MW-501

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902103-06 MW-501 0.1145	9.34e3	114.9	NO
2	2	13C5-PFHxA	1902103-06 MW-501 0.1145	1.67e4	76.2	NO
3	3	18O2-PFHxS	1902103-06 MW-501 0.1145	1.06e3	80.3	NO
4	4	13C8-PFOA	1902103-06 MW-501 0.1145	2.31e4	80.0	NO
5	5	13C9-PFNA	1902103-06 MW-501 0.1145	1.09e4	65.6	NO
6	6	13C4-PFOS	1902103-06 MW-501 0.1145	1.90e3	63.1	NO
7	7	13C6-PFDA	1902103-06 MW-501 0.1145	9.87e3	47.2	YES
8	8	13C7-PFUdA	1902103-06 MW-501 0.1145	5.87e3	20.9	YES

Name: 190719M1_129, Date: 20-Jul-2019, Time: 07:06:57, ID: 1902103-07 MW-504 0.11556, Description: MW-504

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902103-07 MW-504 0.11556	8.94e3	110.0	NO
2	2	13C5-PFHxA	1902103-07 MW-504 0.11556	1.59e4	72.2	NO
3	3	18O2-PFHxS	1902103-07 MW-504 0.11556	9.63e2	72.7	NO
4	4	13C8-PFOA	1902103-07 MW-504 0.11556	2.00e4	69.2	NO
5	5	13C9-PFNA	1902103-07 MW-504 0.11556	8.33e3	50.1	NO
6	6	13C4-PFOS	1902103-07 MW-504 0.11556	8.84e2	29.4	YES
7	7	13C6-PFDA	1902103-07 MW-504 0.11556	4.77e3	22.8	YES
8	8	13C7-PFUdA	1902103-07 MW-504 0.11556	1.53e3	5.5	YES

Name: 190719M1_130, Date: 20-Jul-2019, Time: 07:17:36, ID: 1902103-08 MW-507 0.11507, Description: MW-507

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902103-08 MW-507 0.11507	8.71e3	107.1	NO
2	2	13C5-PFHxA	1902103-08 MW-507 0.11507	1.57e4	71.5	NO
3	3	18O2-PFHxS	1902103-08 MW-507 0.11507	9.70e2	73.2	NO
4	4	13C8-PFOA	1902103-08 MW-507 0.11507	2.18e4	75.3	NO
5	5	13C9-PFNA	1902103-08 MW-507 0.11507	9.32e3	56.0	NO
6	6	13C4-PFOS	1902103-08 MW-507 0.11507	1.54e3	51.4	NO
7	7	13C6-PFDA	1902103-08 MW-507 0.11507	9.53e3	45.6	YES
8	8	13C7-PFUdA	1902103-08 MW-507 0.11507	5.49e3	19.5	YES

Name: 190719M1_131, Date: 20-Jul-2019, Time: 07:28:09, ID: 1902103-09 MW-601 0.10707, Description: MW-601

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902103-09 MW-601 0.10707	8.83e3	108.6	NO
2	2	13C5-PFHxA	1902103-09 MW-601 0.10707	1.62e4	73.9	NO
3	3	18O2-PFHxS	1902103-09 MW-601 0.10707	9.63e2	72.7	NO
4	4	13C8-PFOA	1902103-09 MW-601 0.10707	2.11e4	73.0	NO
5	5	13C9-PFNA	1902103-09 MW-601 0.10707	9.86e3	59.3	NO
6	6	13C4-PFOS	1902103-09 MW-601 0.10707	1.64e3	54.7	NO
7	7	13C6-PFDA	1902103-09 MW-601 0.10707	8.31e3	39.7	YES
8	8	13C7-PFUdA	1902103-09 MW-601 0.10707	4.05e3	14.4	YES

Dataset: F:\Projects\PFAS.PRO\Results\190719M1\IIS.qld

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Name: 190719M1_132, Date: 20-Jul-2019, Time: 07:38:39, ID: 1902103-10 Field Blank 0.11383, Description: Field Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902103-10 Field Blank 0.11383	9.45e3	116.3	NO
2	2	13C5-PFHxA	1902103-10 Field Blank 0.11383	1.55e4	70.4	NO
3	3	18O2-PFHxS	1902103-10 Field Blank 0.11383	8.63e2	65.1	NO
4	4	13C8-PFOA	1902103-10 Field Blank 0.11383	1.91e4	66.2	NO
5	5	13C9-PFNA	1902103-10 Field Blank 0.11383	7.86e3	47.3	YES
6	6	13C4-PFOS	1902103-10 Field Blank 0.11383	1.28e3	42.7	YES
7	7	13C6-PFDA	1902103-10 Field Blank 0.11383	5.47e3	26.2	YES
8	8	13C7-PFUdA	1902103-10 Field Blank 0.11383	3.15e3	11.2	YES

Name: 190719M1_133, Date: 20-Jul-2019, Time: 07:49:17, ID: 1902103-11 Trip Blank 0.11636, Description: Trip Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902103-11 Trip Blank 0.11636	8.51e3	104.7	NO
2	2	13C5-PFHxA	1902103-11 Trip Blank 0.11636	1.47e4	66.6	NO
3	3	18O2-PFHxS	1902103-11 Trip Blank 0.11636	9.11e2	68.7	NO
4	4	13C8-PFOA	1902103-11 Trip Blank 0.11636	1.70e4	58.9	NO
5	5	13C9-PFNA	1902103-11 Trip Blank 0.11636	6.38e3	38.4	YES
6	6	13C4-PFOS	1902103-11 Trip Blank 0.11636	1.06e3	35.3	YES
7	7	13C6-PFDA	1902103-11 Trip Blank 0.11636	4.49e3	21.5	YES
8	8	13C7-PFUdA	1902103-11 Trip Blank 0.11636	2.07e3	7.4	YES

Name: 190719M1_134, Date: 20-Jul-2019, Time: 07:59:55, ID: B9G0174-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0174-BS1 OPR 0.25	1.06e4	131.0	NO
2	2	13C5-PFHxA	B9G0174-BS1 OPR 0.25	1.91e4	87.1	NO
3	3	18O2-PFHxS	B9G0174-BS1 OPR 0.25	1.05e3	79.2	NO
4	4	13C8-PFOA	B9G0174-BS1 OPR 0.25	2.74e4	94.6	NO
5	5	13C9-PFNA	B9G0174-BS1 OPR 0.25	1.42e4	85.5	NO
6	6	13C4-PFOS	B9G0174-BS1 OPR 0.25	2.69e3	89.6	NO
7	7	13C6-PFDA	B9G0174-BS1 OPR 0.25	2.00e4	95.5	NO
8	8	13C7-PFUdA	B9G0174-BS1 OPR 0.25	2.54e4	90.5	NO

Name: 190719M1_135, Date: 20-Jul-2019, Time: 08:10:29, ID: B9G0174-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0174-BLK1 Method Blank 0.25	1.02e4	125.1	NO
2	2	13C5-PFHxA	B9G0174-BLK1 Method Blank 0.25	1.82e4	82.9	NO
3	3	18O2-PFHxS	B9G0174-BLK1 Method Blank 0.25	1.20e3	90.4	NO
4	4	13C8-PFOA	B9G0174-BLK1 Method Blank 0.25	2.66e4	92.1	NO
5	5	13C9-PFNA	B9G0174-BLK1 Method Blank 0.25	1.42e4	85.2	NO
6	6	13C4-PFOS	B9G0174-BLK1 Method Blank 0.25	2.75e3	91.5	NO
7	7	13C6-PFDA	B9G0174-BLK1 Method Blank 0.25	1.94e4	92.9	NO
8	8	13C7-PFUdA	B9G0174-BLK1 Method Blank 0.25	2.47e4	88.1	NO

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Name: 190719M1_136, Date: 20-Jul-2019, Time: 08:21:07, ID: 1902098-02 WS 276 0.25, Description: WS 276

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902098-02 WS 276 0.25	1.09e4	134.0	NO
2	2	13C5-PFHxA	1902098-02 WS 276 0.25	1.91e4	86.7	NO
3	3	18O2-PFHxS	1902098-02 WS 276 0.25	1.30e3	97.7	NO
4	4	13C8-PFOA	1902098-02 WS 276 0.25	2.64e4	91.2	NO
5	5	13C9-PFNA	1902098-02 WS 276 0.25	1.41e4	84.5	NO
6	6	13C4-PFOS	1902098-02 WS 276 0.25	2.60e3	86.4	NO
7	7	13C6-PFDA	1902098-02 WS 276 0.25	1.91e4	91.3	NO
8	8	13C7-PFUdA	1902098-02 WS 276 0.25	2.65e4	94.2	NO

Name: 190719M1_137, Date: 20-Jul-2019, Time: 08:31:45, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190719M1_138, Date: 20-Jul-2019, Time: 08:42:18, ID: ST190719M1-10 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190719M1-10 PFC CS3 19G1106	8.57e3	105.5	NO
2	2	13C5-PFHxA	ST190719M1-10 PFC CS3 19G1106	2.32e4	105.5	NO
3	3	18O2-PFHxS	ST190719M1-10 PFC CS3 19G1106	1.33e3	100.5	NO
4	4	13C8-PFOA	ST190719M1-10 PFC CS3 19G1106	3.07e4	106.1	NO
5	5	13C9-PFNA	ST190719M1-10 PFC CS3 19G1106	1.64e4	98.7	NO
6	6	13C4-PFOS	ST190719M1-10 PFC CS3 19G1106	2.98e3	99.3	NO
7	7	13C6-PFDA	ST190719M1-10 PFC CS3 19G1106	2.29e4	109.4	NO
8	8	13C7-PFUdA	ST190719M1-10 PFC CS3 19G1106	2.89e4	102.9	NO

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Name: 190719M1_5, Date: 19-Jul-2019, Time: 08:54:47, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8		4491.196	1.00					NO		
2	2	PFPrS	248.9 > 79.9		1213.042	1.00					NO		
3	3	3:3 FTCA	240.9 > 176.9		7941.535	1.00					NO		
4	4	PFPeA	263.1 > 218.9		7941.535	1.00					NO		
5	5	PFBS	299.0 > 79.7		1213.042	1.00					NO		
6	6	4:2 FTS	327.0 > 306.9		2291.287	1.00					NO		
7	47	13C3-PFBA	216.1 > 171.8	4491.196	6722.997	1.00	1.17	8.350	12.4	99.5	NO		
8	49	13C3-PFBS	302.0 > 98.8	1213.042	1192.048	1.00	2.46	12.720	12.3	98.4	NO		
9	48	13C3-PFPeA	266.0 > 221.8	7941.535	18498.889	1.00	2.16	5.366	11.8	94.7	NO		
10	48	13C3-PFPeA	266.0 > 221.8	7941.535	18498.889	1.00	2.16	5.366	11.8	94.7	NO		
11	49	13C3-PFBS	302.0 > 98.8	1213.042	1192.048	1.00	2.46	12.720	12.3	98.4	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	2291.287	1192.048	1.00	2.89	24.027	12.9	103.4	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0		5608.599	1.00					NO		
15	8	PFPeS	349.1>80.1		1213.042	1.00					NO		
16	9	HFPO-DA	285.1 > 168.9		1410.782	1.00					NO		
17	10	5:3 FTCA	340.9 > 236.9		6514.571	1.00					NO		
18	11	PFHpA	363.0 > 318.9		6514.571	1.00					NO		
19	12	ADONA	376.8 > 250.9		6514.571	1.00					NO		
20	52	13C2-PFHxA	315.0 > 270.0	5608.599	18498.889	1.00	2.97	3.790	4.8	95.8	NO		
21	49	13C3-PFBS	302.0 > 98.8	1213.042	1192.048	1.00	2.46	12.720	12.3	98.4	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1410.782	18498.889	1.00	3.18	0.953	4.2	84.1	NO		
23	53	13C4-PFHpA	367.2 > 321.8	6514.571	18498.889	1.00	3.60	4.402	12.1	96.5	NO		
24	53	13C4-PFHpA	367.2 > 321.8	6514.571	18498.889	1.00	3.60	4.402	12.1	96.5	NO		
25	53	13C4-PFHpA	367.2 > 321.8	6514.571	18498.889	1.00	3.60	4.402	12.1	96.5	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6		2473.132	1.00					NO		
28	15	6:2 FTS	427.0 > 406.9		1644.954	1.00					NO		
29	16	L-PFOA	412.8 > 368.9	51.840	13222.238	1.00	4.12	0.049	0.0		NO	9.213	YES
30	18	PFecHS	460.8 > 381.0		13222.238	1.00					NO		
31	19	PFHpS	449.0 > 80.0		2427.473	1.00					NO		
32	20	7:3 FTCA	440.9 > 336.9		13934.931	1.00					NO		
33	54	13C3-PFHxS	401.8 > 79.9	2473.132	1192.048	1.00	3.76	25.934	11.7	93.9	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	1644.954	2497.928	1.00	4.07	8.232	12.1	96.5	NO		
35	58	13C2-PFOA	414.9 > 369.7	13222.238	26910.801	1.00	4.13	6.142	12.1	96.5	NO		
36	58	13C2-PFOA	414.9 > 369.7	13222.238	26910.801	1.00	4.13	6.142	12.1	96.5	NO		

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Name: 190719M1_5, Date: 19-Jul-2019, Time: 08:54:47, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	2427.473	2497.928	1.00	4.66	12.147	12.0	95.7	NO		
38	56	13C5-PFNA	468.2 > 422.9	13934.931	14015.089	1.00	4.58	12.429	12.5	99.6	NO		
39	-1												
40	21	PFNA	463.0 > 418.8		13934.931	1.00					NO		
41	22	PFOSA	497.9 > 77.9	1.080	3483.532	1.00	4.62	0.004			NO	7.606	YES
42	23	L-PFOS	498.9 > 79.9		2427.473	1.00					NO		
43	25	9Cl-PF30NS	530.7 > 350.8		2427.473	1.00					NO		
44	26	PFDA	513 > 468.8	8.136	12288.846	1.00	4.96	0.008			NO	18.040	YES
45	27	8:2 FTS	527.0 > 506.9		1786.684	1.00					NO		
46	56	13C5-PFNA	468.2 > 422.9	13934.931	14015.089	1.00	4.58	12.429	12.5	99.6	NO		
47	57	13C8-PFOSA	506.1 > 77.7	3483.532	24215.207	1.00	4.64	1.798	13.0	103.8	NO		
48	59	13C8-PFOS	507.0 > 79.9	2427.473	2497.928	1.00	4.66	12.147	12.0	95.7	NO		
49	59	13C8-PFOS	507.0 > 79.9	2427.473	2497.928	1.00	4.66	12.147	12.0	95.7	NO		
50	60	13C2-PFDA	515.1 > 469.9	12288.846	18488.529	1.00	4.96	8.308	12.4	99.4	NO		
51	61	13C2-8:2 FTS	529 > 79.9	1786.684	2497.928	1.00	4.93	8.941	13.0	104.3	NO		
52	-1												
53	28	PFNS	549.1 > 80.1		2427.473	1.00					NO		
54	29	L-MeFOSAA	570 > 419		3186.920	1.00					NO		
55	31	L-EtFOSAA	584.1 > 419		4562.980	1.00					NO		
56	33	PFUdA	563.0 > 518.9	17.733	18723.301	1.00	5.29	0.012			NO	7.253	NO
57	34	PFDS	598.8 > 79.9		1786.684	1.00					NO		
58	35	11Cl-PF30UdS	632.6 > 452.7		22410.113	1.00					NO		
59	59	13C8-PFOS	507.0 > 79.9	2427.473	2497.928	1.00	4.66	12.147	12.0	95.7	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	3186.920	24215.207	1.00	5.11	1.645	13.3	106.0	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	4562.980	24215.207	1.00	5.28	2.355	13.5	108.1	NO		
62	63	13C2-PFUdA	565 > 519.8	18723.301	24215.207	1.00	5.29	9.665	11.9	95.3	NO		
63	61	13C2-8:2 FTS	529 > 79.9	1786.684	2497.928	1.00	4.93	8.941	13.0	104.3	NO		
64	65	13C2-PFDoA	614.7 > 569.7	22410.113	18488.529	1.00	5.58	15.151	11.6	92.4	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9		1786.684	1.00					NO		
67	37	PFDoA	612.9 > 569.0		22410.113	1.00					NO		
68	38	N-MeFOSA	512.1 > 168.9		7704.903	1.00					NO		
69	39	PFTrDA	662.9 > 618.9		22410.113	1.00					NO		
70	40	PFDoS	698.8 > 79.9		10193.977	1.00					NO		
71	41	PFTeDA	713.0 > 669.0		10193.977	1.00					NO		
72	65	13C2-PFDoA	614.7 > 569.7	22410.113	18488.529	1.00	5.58	15.151	11.6	92.4	NO		

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	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	22410.113	18488.529	1.00	5.58	15.151	11.6	92.4	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	7704.903	24215.207	1.00	5.76	3.977	143.9	95.9	NO		
75	65	13C2-PFDoA	614.7 > 569.7	22410.113	18488.529	1.00	5.58	15.151	11.6	92.4	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	10193.977	24215.207	1.00	6.06	5.262	12.0	96.3	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	10193.977	24215.207	1.00	6.06	5.262	12.0	96.3	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9		9965.003	1.00					NO		
80	43	PFHxDA	813.1 > 768.6		6284.167	1.00					NO		
81	44	PFODA	913.1 > 868.8	8.238	6284.167	1.00	6.66	0.007			NO		
82	45	N-MeFOSE	616.1 > 58.9		8197.141	1.00					NO		
83	46	N-EtFOSE	630.1 > 58.9		8401.450	1.00					NO		
84	72	13C4-PFBA	217.0 > 172.0	6722.997	6722.997	1.00	1.17	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	9965.003	24215.207	1.00	6.19	5.144	158.4	105.6	NO		
86	69	13C2-PFHxDA	815 > 769.7	6284.167	24215.207	1.00	6.42	3.244	4.5	89.1	NO		
87	69	13C2-PFHxDA	815 > 769.7	6284.167	24215.207	1.00	6.42	3.244	4.5	89.1	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	8197.141	24215.207	1.00	6.36	4.231	142.3	94.9	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	8401.450	24215.207	1.00	6.51	4.337	142.4	95.0	NO		
90	73	13C5-PFHxA	318.0 > 272.9	18498.889	18498.889	1.00	2.97	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	26910.801	26910.801	1.00	4.13	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	1192.048	1192.048	1.00	3.76	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	14015.089	14015.089	1.00	4.58	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	2497.928	2497.928	1.00	4.66	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	18488.529	18488.529	1.00	4.96	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	24215.207	24215.207	1.00	5.29	12.500	12.5	100.0	NO		

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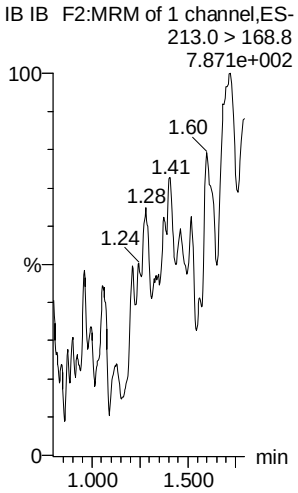
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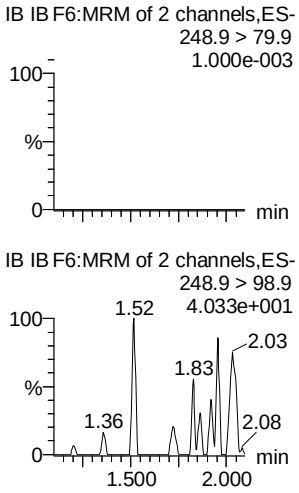
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Name: 190719M1_5, Date: 19-Jul-2019, Time: 08:54:47, ID: IB, Description: IB

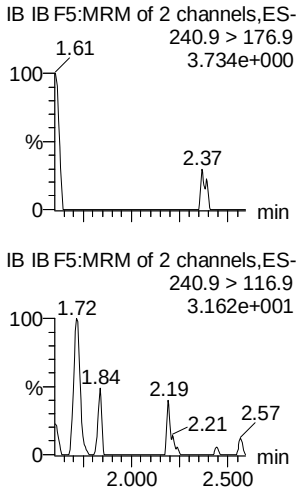
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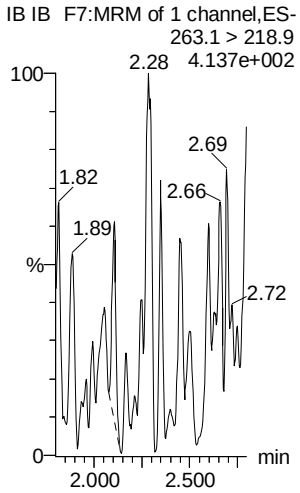
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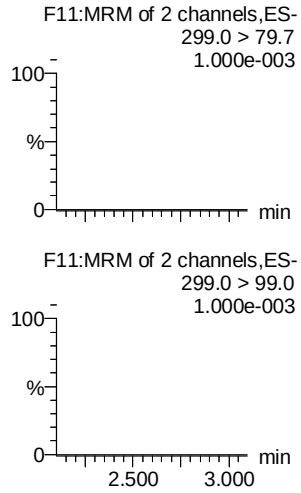
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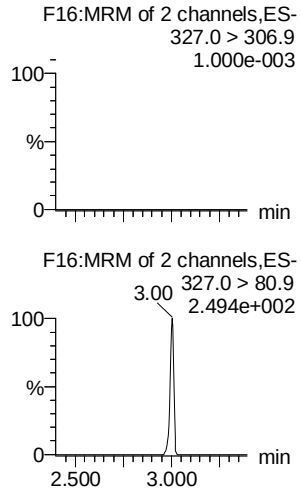
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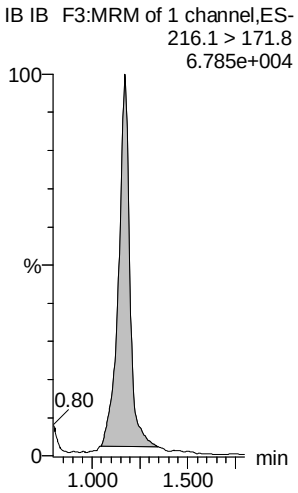
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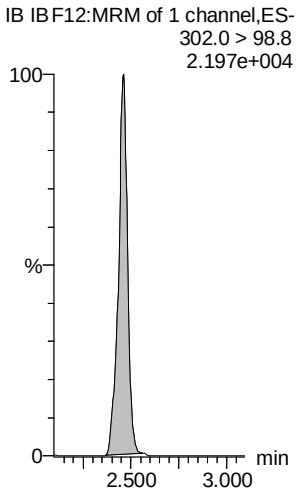
4:2 FTS



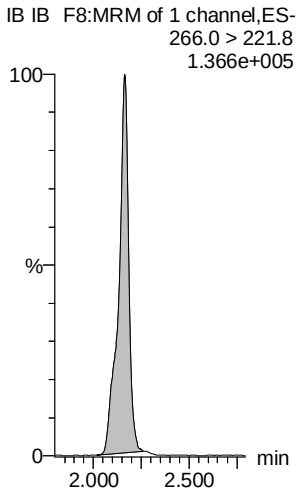
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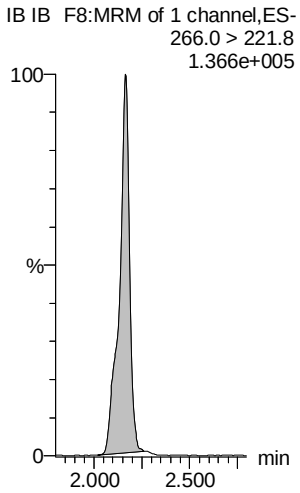
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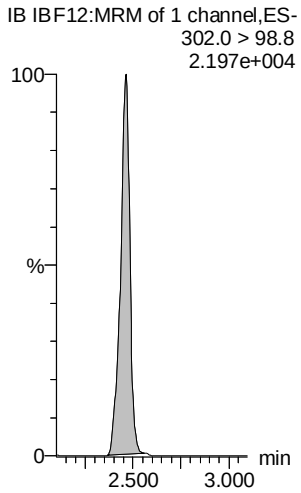
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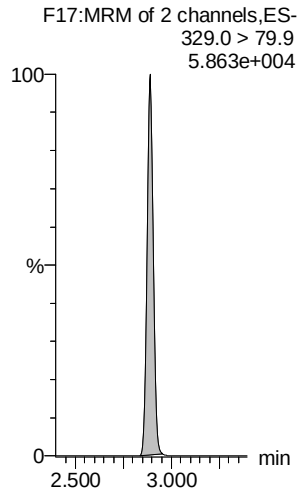
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13C3-PFBS



13C2-4:2 FTS



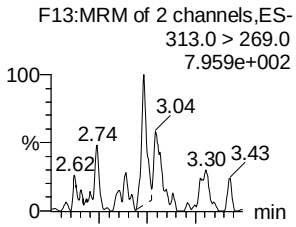
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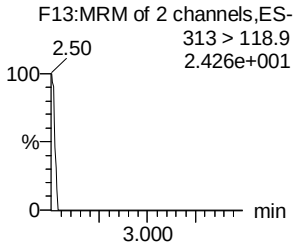
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Printed: Friday, July 19, 2019 16:10:38 Pacific Daylight Time

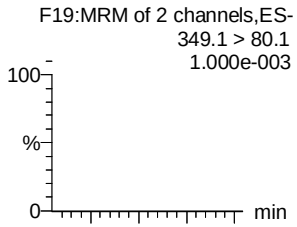
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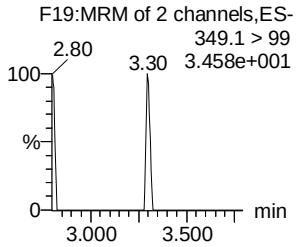
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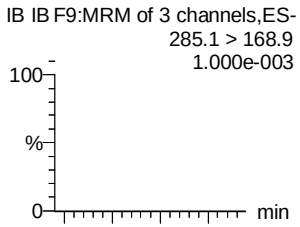


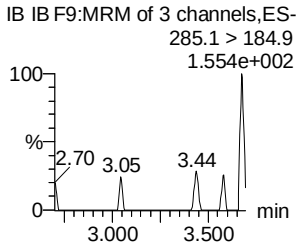
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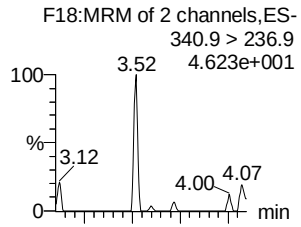


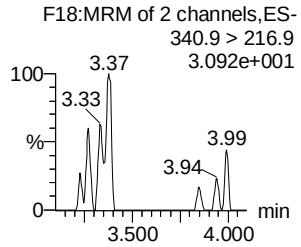
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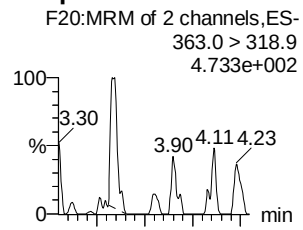


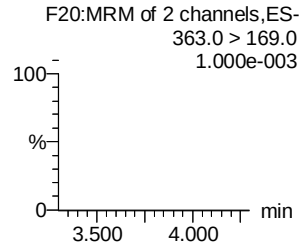
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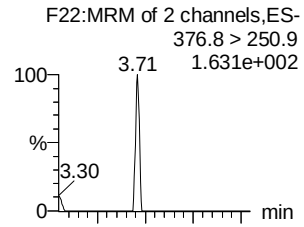


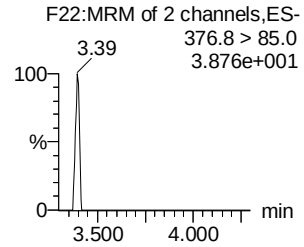
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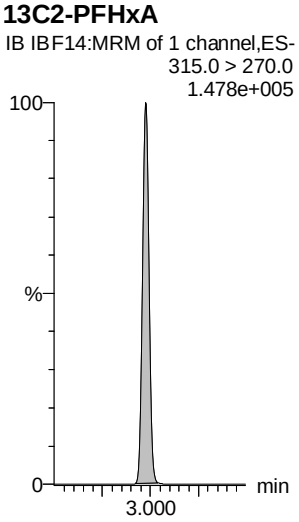


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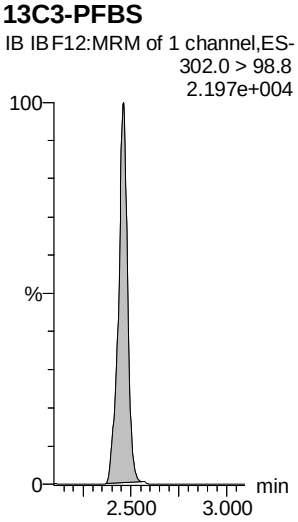




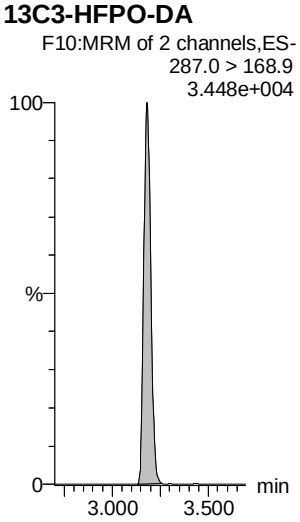
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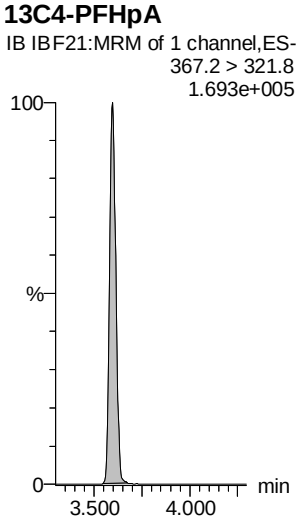
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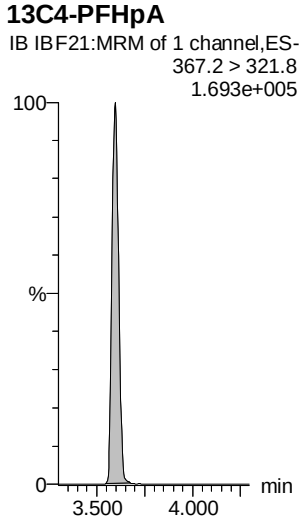
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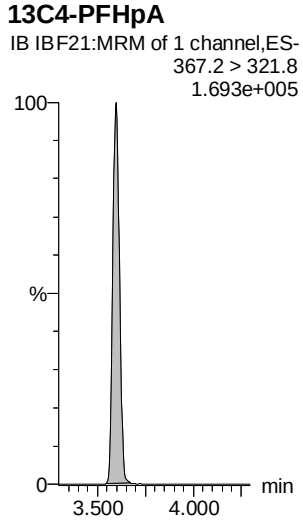
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13C4-PFHpA



13C4-PFHpA

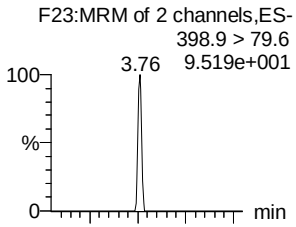


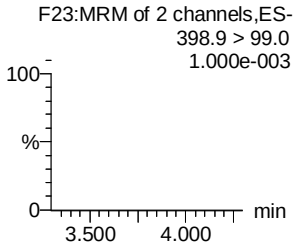
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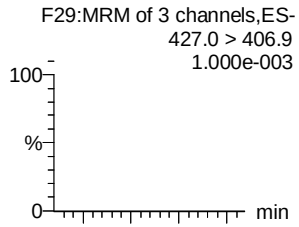
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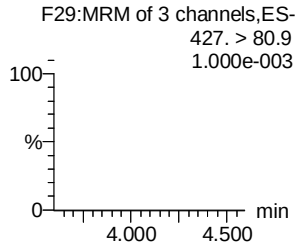
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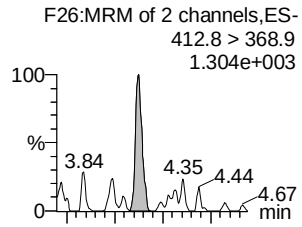


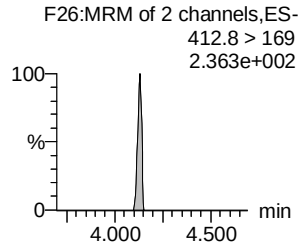
6:2 FTS



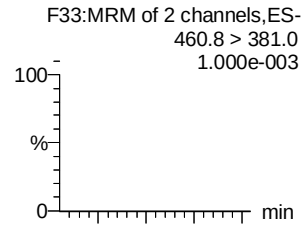


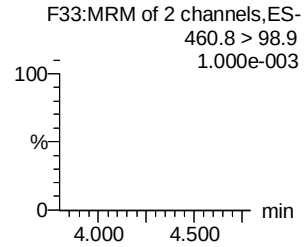
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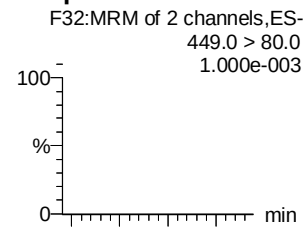


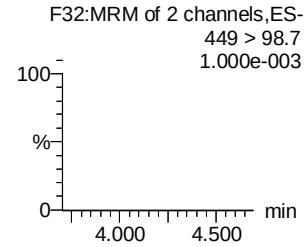
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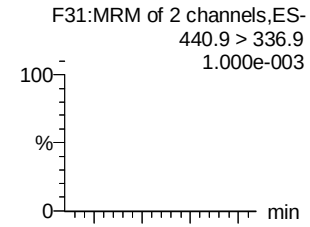


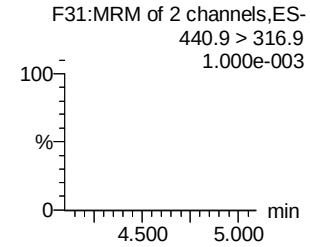
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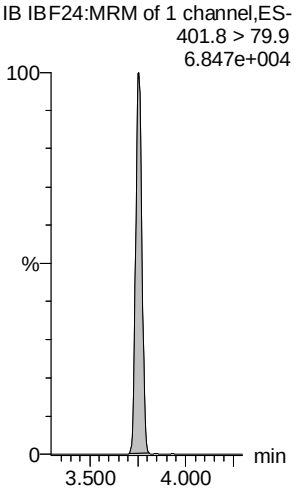


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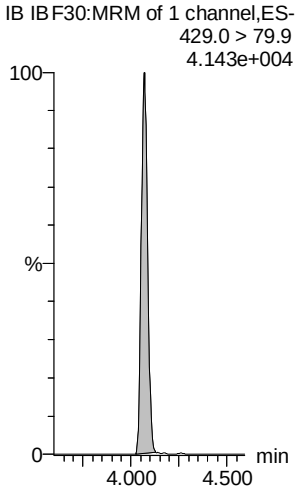




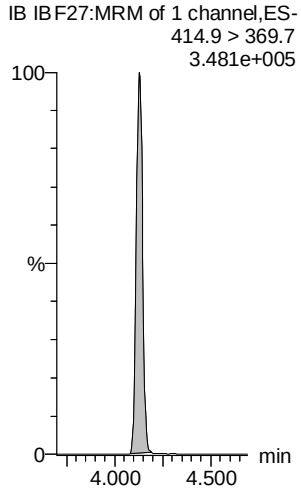
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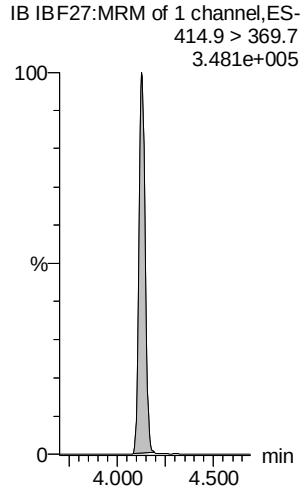
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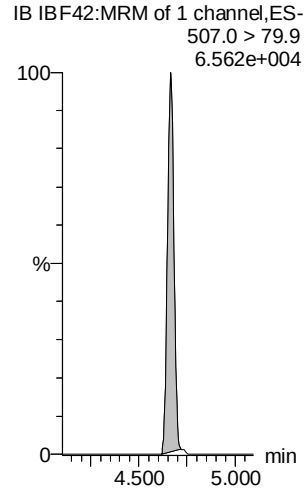
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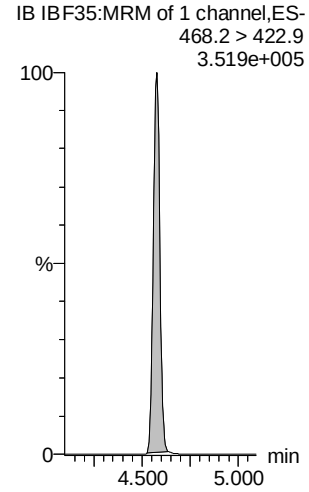
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13C8-PFOS



13C5-PFNA

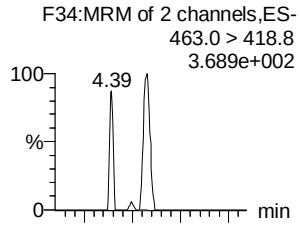


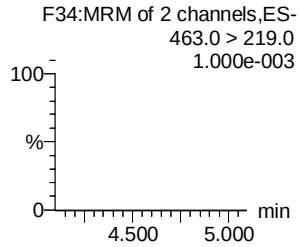
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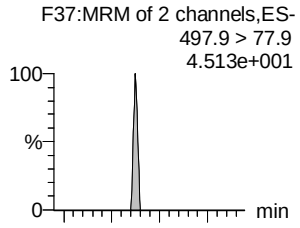
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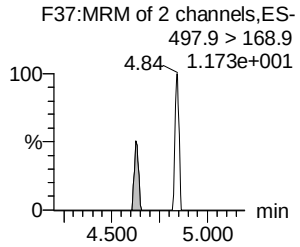
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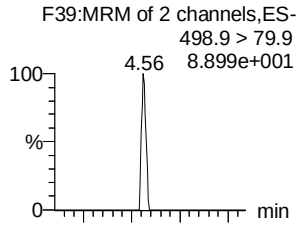


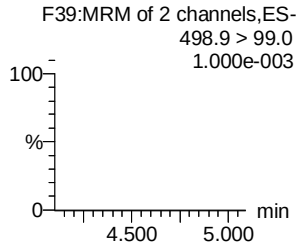
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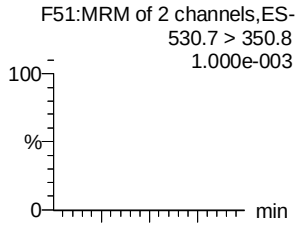


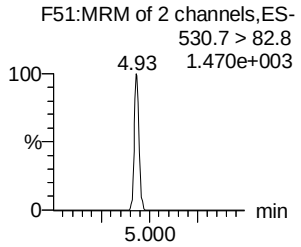
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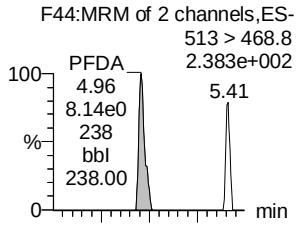


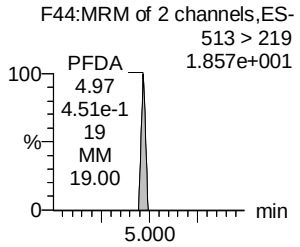
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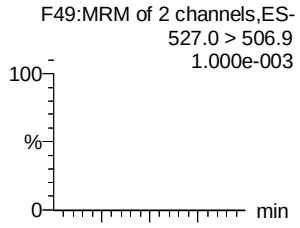


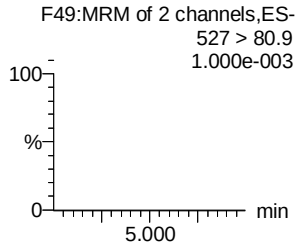
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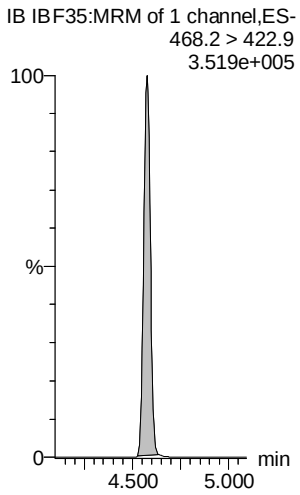


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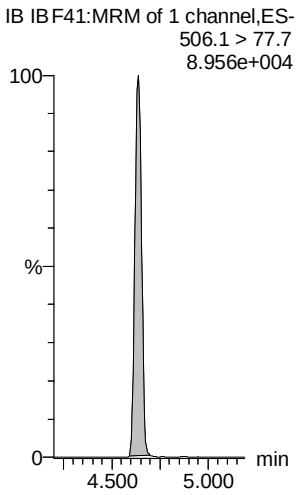




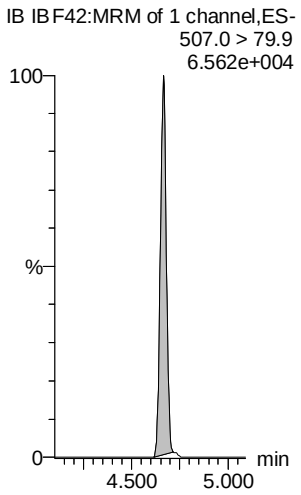
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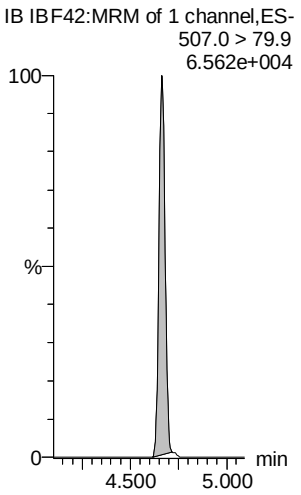
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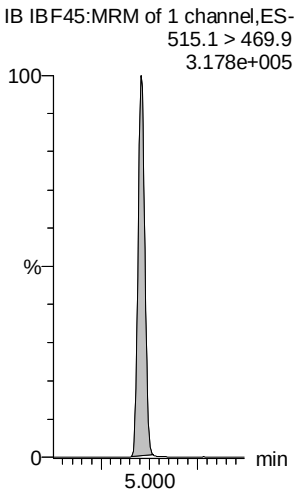
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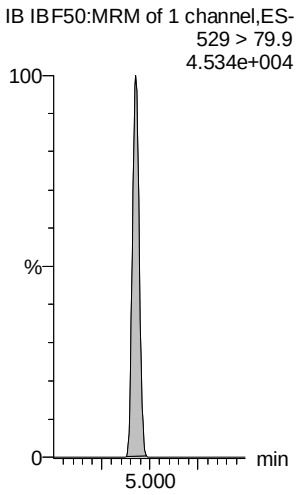
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13C2-PFDA



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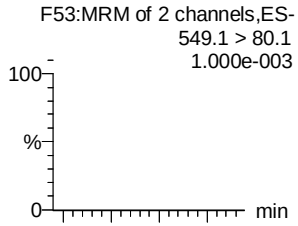


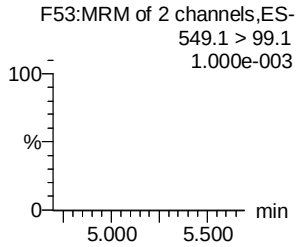
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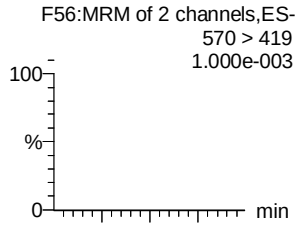
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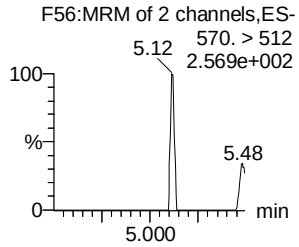
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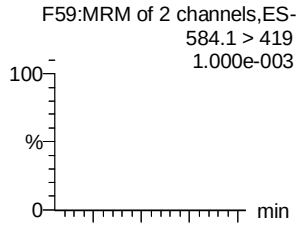


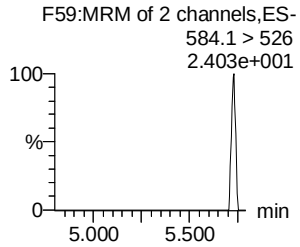
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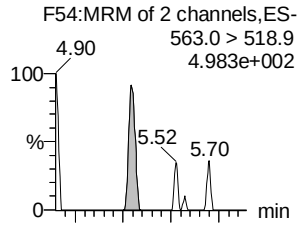


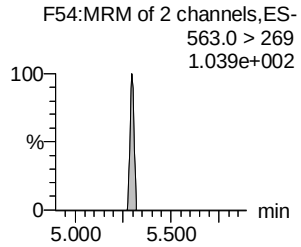
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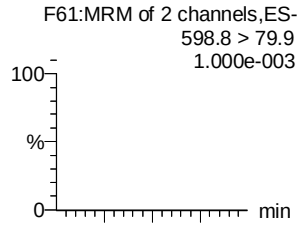


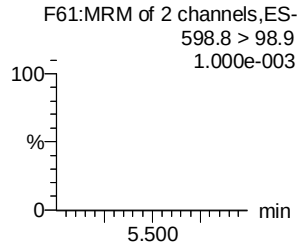
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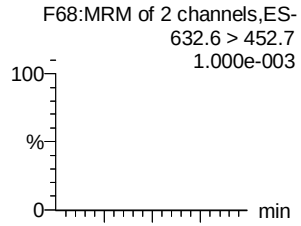


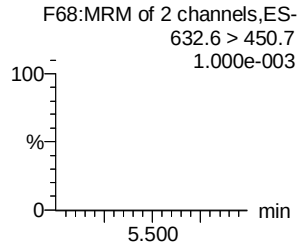
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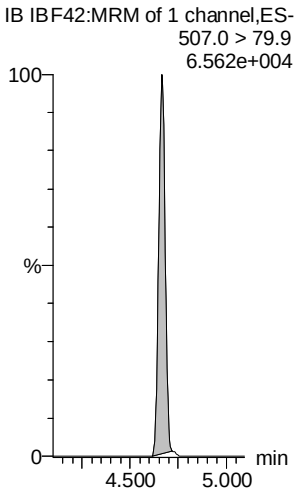


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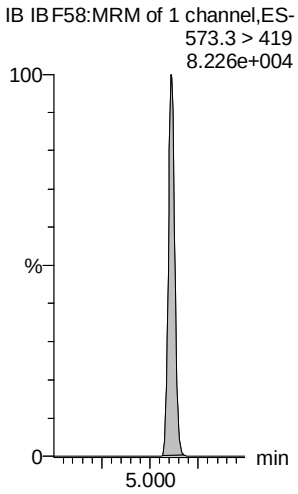




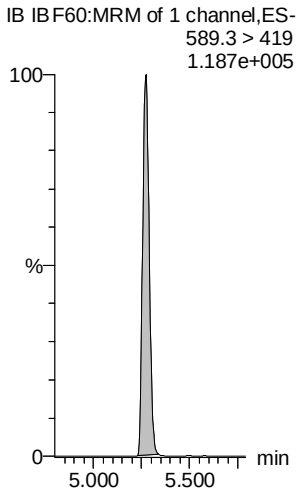
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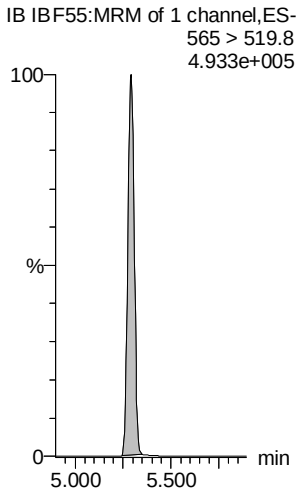
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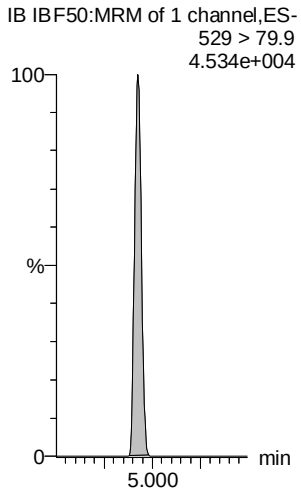
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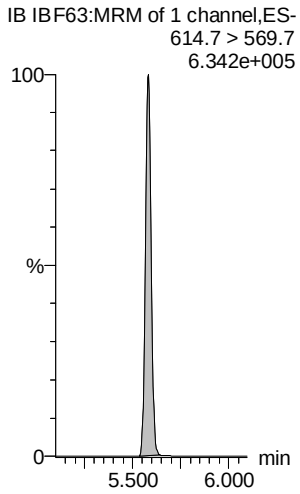
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

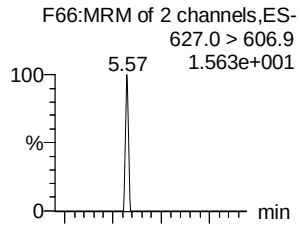


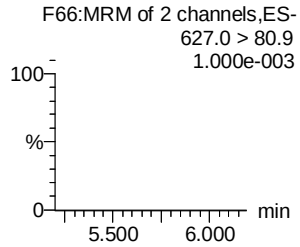
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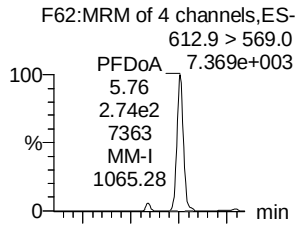
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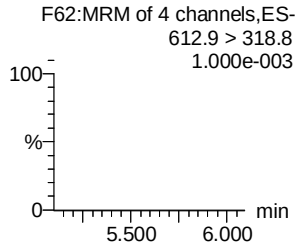
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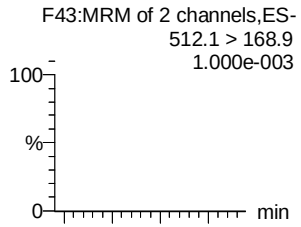


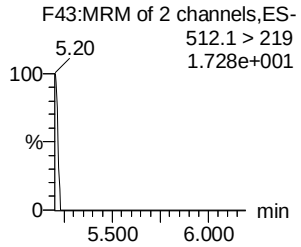
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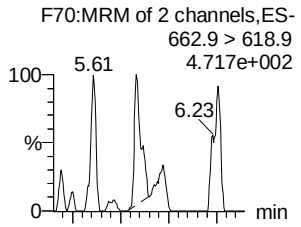


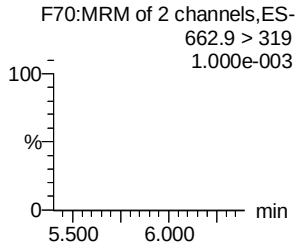
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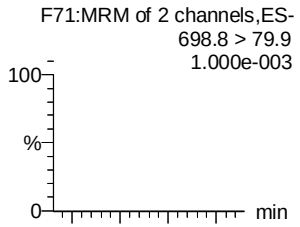


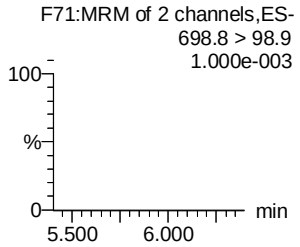
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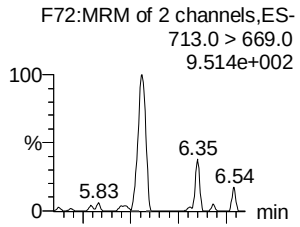


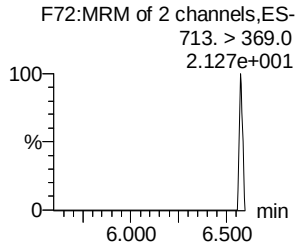
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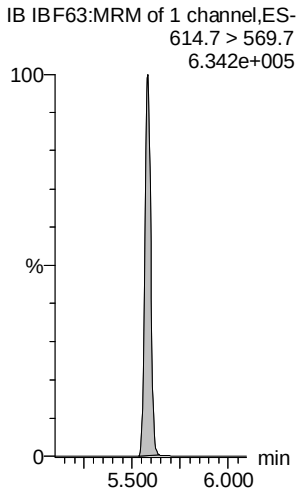


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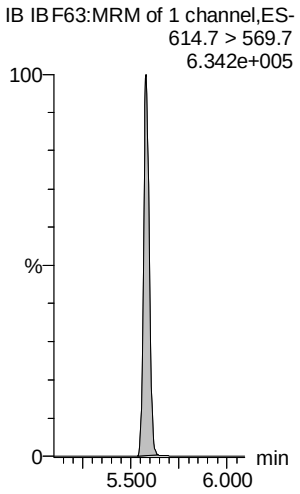




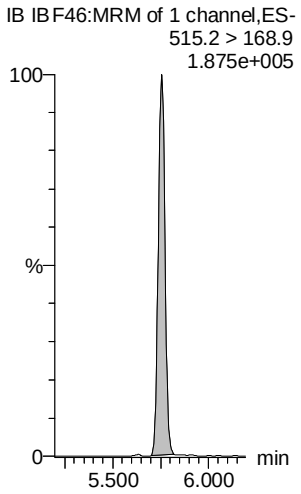
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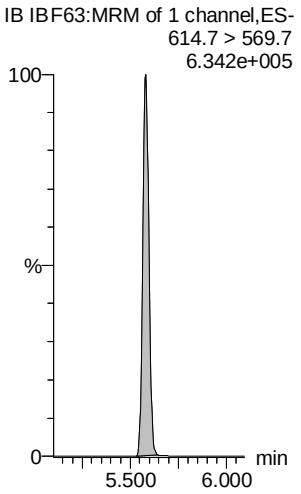
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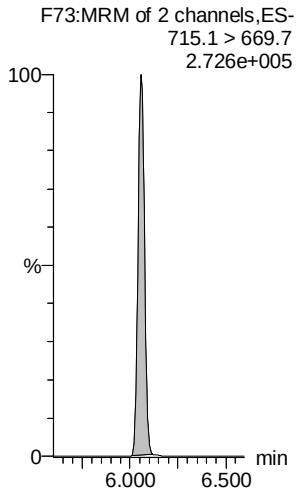
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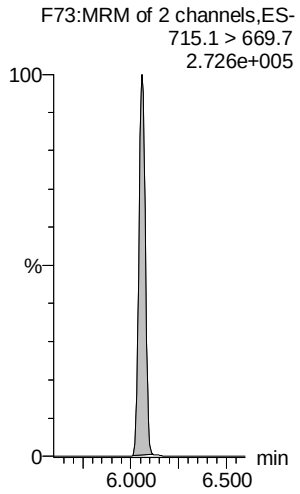
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13C2-PFTeDA



13C2-PFTeDA



CGH 7/19/2019

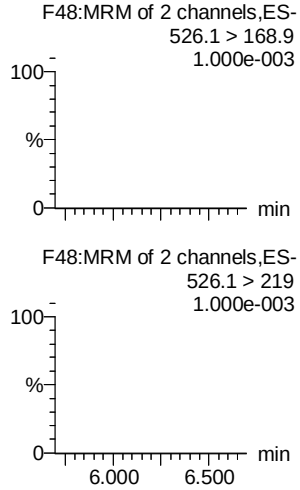
Vista Analytical Laboratory

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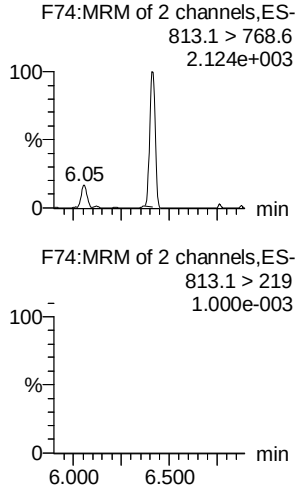
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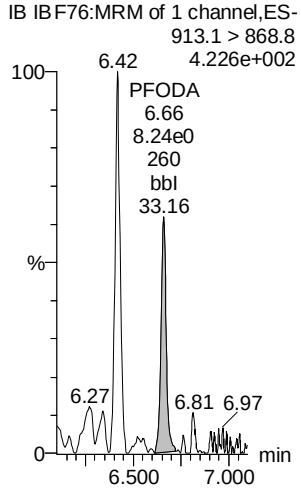
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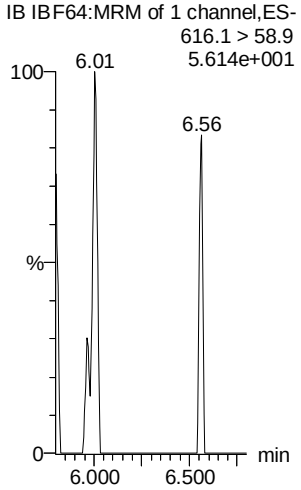
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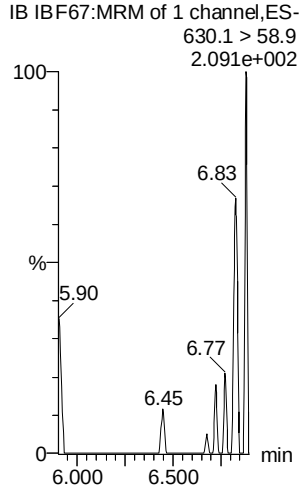
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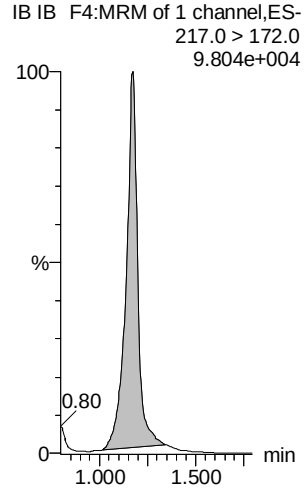
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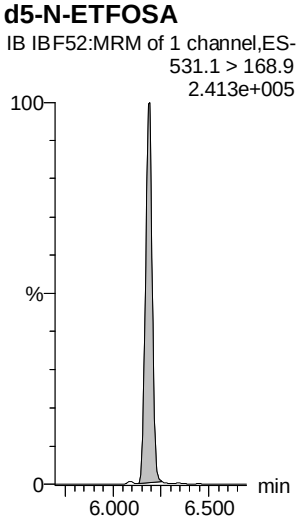
N-EtFOSE



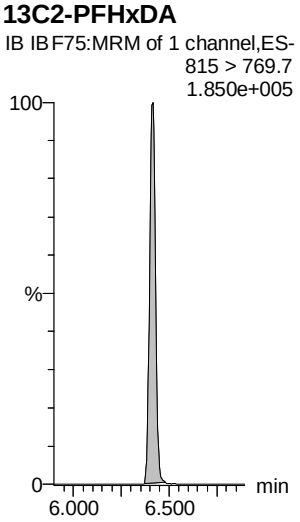
13C4-PFBA



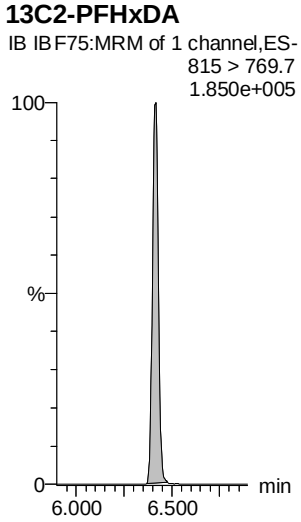
d5-N-ETFOSA



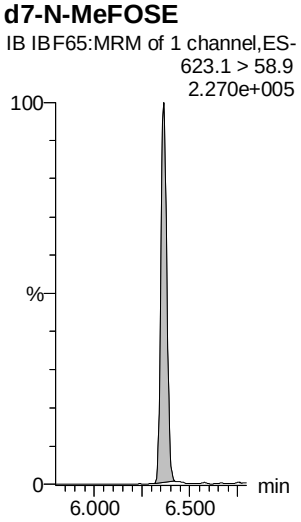
13C2-PFHxDA



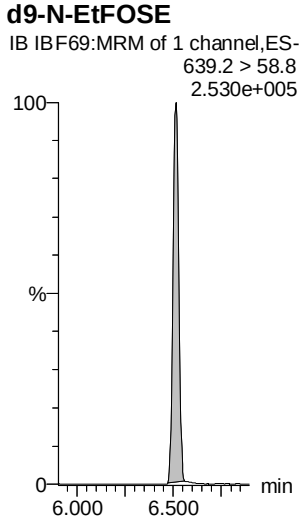
13C2-PFHxDA



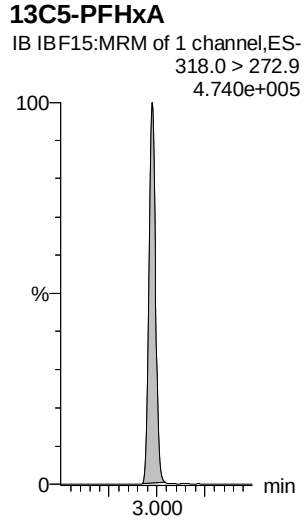
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA



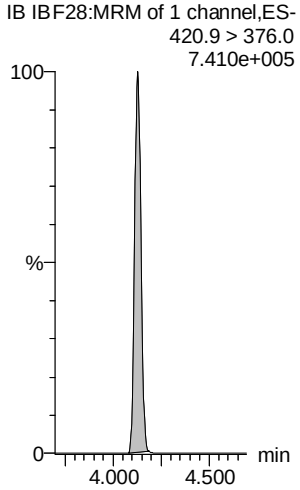
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Dataset: F:\Projects\PFAS.PRO\Results\190719M1\190719M1-IB.qld

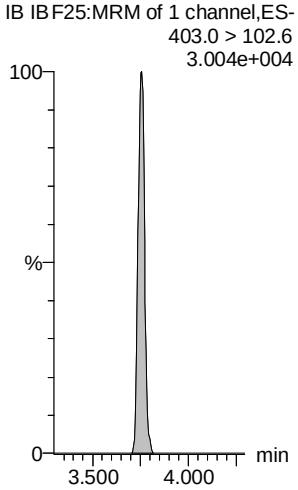
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Printed: Friday, July 19, 2019 16:10:38 Pacific Daylight Time

Name: 190719M1_5, Date: 19-Jul-2019, Time: 08:54:47, ID: IB, Description: IB

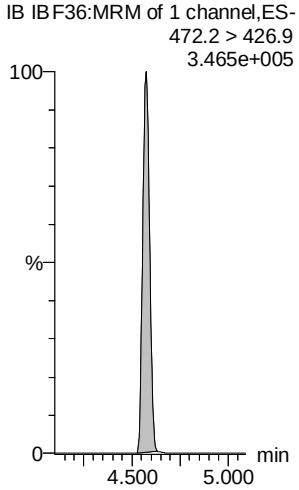
13C8-PFOA



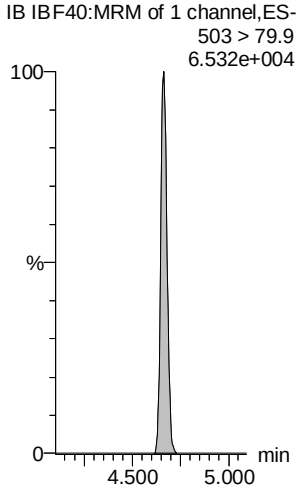
18O2-PFHxS



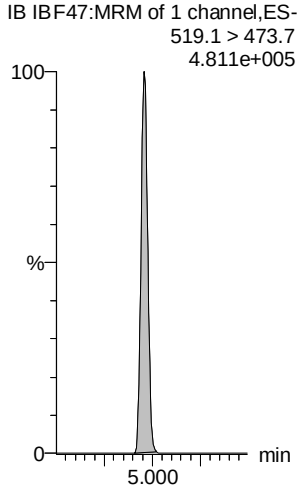
13C9-PFNA



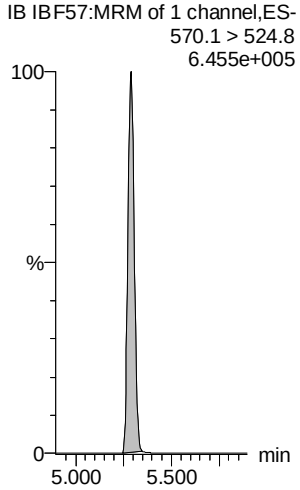
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: F:\Projects\PFAS.PRO\Results\190719M1\190719M1-39.qld

(A) 7:3 FTCA < 70%

Last Altered: Friday, July 19, 2019 16:04:29 Pacific Daylight Time
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Name: 190719M1_39, Date: 19-Jul-2019, Time: 15:07:08, ID: ST190719M1-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8	511.239	5414.107	1.00	1.19	1.180	0.9	92.9	NO		
2	2	PFPrS	248.9 > 79.9	108.409	1363.912	1.00	1.56	0.994	0.8	82.7	NO	2.448	NO
3	3	3:3 FTCA	240.9 > 176.9	25.586	9095.932	1.00	2.03	0.035	0.9	94.7	NO	1.395	NO
4	4	PFPeA	263.1 > 218.9	632.992	9095.932	1.00	2.18	0.870	1.0	98.7	NO		
5	5	PFBS	299.0 > 79.7	233.460	1363.912	1.00	2.48	2.140	1.0	97.6	NO	3.380	NO
6	6	4:2 FTS	327.0 > 306.9	522.041	2501.784	1.00	2.90	2.608	1.0	101.2	NO	2.041	NO
7	47	13C3-PFBA	216.1 > 171.8	5414.107	8039.726	1.00	1.19	8.418	12.5	100.3	NO		
8	49	13C3-PFBS	302.0 > 98.8	1363.912	1268.925	1.00	2.48	13.436	13.0	103.9	NO		
9	48	13C3-PFPeA	266.0 > 221.8	9095.932	20133.857	1.00	2.18	5.647	12.5	99.7	NO		
10	48	13C3-PFPeA	266.0 > 221.8	9095.932	20133.857	1.00	2.18	5.647	12.5	99.7	NO		
11	49	13C3-PFBS	302.0 > 98.8	1363.912	1268.925	1.00	2.48	13.436	13.0	103.9	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	2501.784	1268.925	1.00	2.90	24.645	13.3	106.1	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0	1596.005	6720.377	1.00	2.99	1.187	1.0	100.4	NO	13.211	NO
15	8	PFPeS	349.1>80.1	210.592	1363.912	1.00	3.19	1.930	1.2	120.9	NO	1.824	NO
16	9	HFPO-DA	285.1 > 168.9	202.836	1873.234	1.00	3.20	0.541	1.0	103.0	NO	2.122	NO
17	10	5:3 FTCA	340.9 > 236.9	166.176	7265.727	1.00	3.54	0.286	1.1	107.2	NO	1.891	NO
18	11	PFHpA	363.0 > 318.9	740.892	7265.727	1.00	3.61	1.275	1.1	106.9	NO	5.074	NO
19	12	ADONA	376.8 > 250.9	2520.909	7265.727	1.00	3.72	4.337	1.0	98.7	NO	3.456	NO
20	52	13C2-PFHxA	315.0 > 270.0	6720.377	20133.857	1.00	2.99	4.172	5.3	105.5	NO		
21	49	13C3-PFBS	302.0 > 98.8	1363.912	1268.925	1.00	2.48	13.436	13.0	103.9	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1873.234	20133.857	1.00	3.20	1.163	5.1	102.6	NO		
23	53	13C4-PFHpA	367.2 > 321.8	7265.727	20133.857	1.00	3.61	4.511	12.4	98.9	NO		
24	53	13C4-PFHpA	367.2 > 321.8	7265.727	20133.857	1.00	3.61	4.511	12.4	98.9	NO		
25	53	13C4-PFHpA	367.2 > 321.8	7265.727	20133.857	1.00	3.61	4.511	12.4	98.9	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6	183.272	2730.481	1.00	3.77	0.839	0.9	90.6	NO	2.768	NO
28	15	6:2 FTS	427.0 > 406.9	424.778	2036.630	1.00	4.08	2.607	0.9	94.9	NO	2.315	NO
29	16	L-PFOA	412.8 > 368.9	2362.378	14405.576	1.00	4.14	2.050	1.0	100.7	NO	4.144	NO
30	18	PFecHS	460.8 > 381.0	365.367	14405.576	1.00	4.16	0.317	1.0	102.2	NO	0.893	NO
31	19	PFHpS	449.0 > 80.0	146.879	2886.187	1.00	4.26	0.636	0.8	80.9	NO	1.608	NO
32	20	7:3 FTCA	440.9 > 336.9	99.749	16764.385	1.00	4.57	0.074	0.7	67.1	YES (A)	1.619	NO
33	54	13C3-PFHxS	401.8 > 79.9	2730.481	1268.925	1.00	3.77	26.898	12.2	97.4	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	2036.630	2937.775	1.00	4.08	8.666	12.7	101.6	NO		
35	58	13C2-PFOA	414.9 > 369.7	14405.576	28801.168	1.00	4.14	6.252	12.3	98.3	NO		
36	58	13C2-PFOA	414.9 > 369.7	14405.576	28801.168	1.00	4.14	6.252	12.3	98.3	NO		

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Dataset: F:\Projects\PFAS.PRO\Results\190719M1\190719M1-39.qld

Last Altered: Friday, July 19, 2019 16:04:29 Pacific Daylight Time
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Name: 190719M1_39, Date: 19-Jul-2019, Time: 15:07:08, ID: ST190719M1-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	2886.187	2937.775	1.00	4.67	12.280	12.1	96.8	NO		
38	56	13C5-PFNA	468.2 > 422.9	16764.385	15649.766	1.00	4.59	13.390	13.4	107.4	NO		
39	-1												
40	21	PFNA	463.0 > 418.8	1319.838	16764.385	1.00	4.59	0.984	1.0	96.0	NO	2.590	NO
41	22	PFOSA	497.9 > 77.9	333.108	3556.653	1.00	4.65	1.171	1.0	97.4	NO	31.269	NO
42	23	L-PFOS	498.9 > 79.9	235.758	2886.187	1.00	4.68	1.021	0.9	91.0	NO	2.458	NO
43	25	9Cl-PF30NS	530.7 > 350.8	685.246	2886.187	1.00	4.90	2.968	0.9	93.0	NO	25.059	NO
44	26	PFDA	513 > 468.8	1508.557	14274.944	1.00	4.97	1.321	0.9	86.2	NO	4.141	NO
45	27	8:2 FTS	527.0 > 506.9	344.256	2060.893	1.00	4.94	2.088	0.9	90.0	NO	1.327	NO
46	56	13C5-PFNA	468.2 > 422.9	16764.385	15649.766	1.00	4.59	13.390	13.4	107.4	NO		
47	57	13C8-PFOSA	506.1 > 77.7	3556.653	27278.520	1.00	4.65	1.630	11.8	94.0	NO		
48	59	13C8-PFOS	507.0 > 79.9	2886.187	2937.775	1.00	4.67	12.280	12.1	96.8	NO		
49	59	13C8-PFOS	507.0 > 79.9	2886.187	2937.775	1.00	4.67	12.280	12.1	96.8	NO		
50	60	13C2-PFDA	515.1 > 469.9	14274.944	21411.420	1.00	4.97	8.334	12.5	99.7	NO		
51	61	13C2-8:2 FTS	529 > 79.9	2060.893	2937.775	1.00	4.94	8.769	12.8	102.3	NO		
52	-1												
53	28	PFNS	549.1 > 80.1	217.034	2886.187	1.00	5.03	0.940	1.2	123.6	NO	2.026	NO
54	29	L-MeFOSAA	570 > 419	722.769	3534.146	1.00	5.13	2.556	0.9	93.6	NO	2.530	NO
55	31	L-EtFOSAA	584.1 > 419	448.474	4958.908	1.00	5.29	1.130	0.8	79.1	NO	1.015	NO
56	33	PFUdA	563.0 > 518.9	1669.403	21425.809	1.00	5.30	0.974	1.1	105.2	NO	6.810	NO
57	34	PFDS	598.8 > 79.9	238.964	2060.893	1.00	5.35	1.449	0.8	78.9	NO	1.461	NO
58	35	11Cl-PF30UdS	632.6 > 452.7	102.712	24665.334	1.00	5.52	0.052	1.0	104.2	NO	9.069	YES
59	59	13C8-PFOS	507.0 > 79.9	2886.187	2937.775	1.00	4.67	12.280	12.1	96.8	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	3534.146	27278.520	1.00	5.12	1.619	13.0	104.4	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	4958.908	27278.520	1.00	5.28	2.272	13.0	104.2	NO		
62	63	13C2-PFUdA	565 > 519.8	21425.809	27278.520	1.00	5.30	9.818	12.1	96.8	NO		
63	61	13C2-8:2 FTS	529 > 79.9	2060.893	2937.775	1.00	4.94	8.769	12.8	102.3	NO		
64	65	13C2-PFDoA	614.7 > 569.7	24665.334	21411.420	1.00	5.59	14.400	11.0	87.8	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9	436.950	2060.893	1.00	5.58	2.650	1.0	104.1	NO	1.693	NO
67	37	PFDoA	612.9 > 569.0	1991.265	24665.334	1.00	5.59	1.009	1.0	103.3	NO	7.795	NO
68	38	N-MeFOSA	512.1 > 168.9	280.172	8452.404	1.00	5.74	4.972	4.8	95.5	NO	1.943	NO
69	39	PFTrDA	662.9 > 618.9	2159.856	24665.334	1.00	5.84	1.095	1.0	99.4	NO	19.569	YES
70	40	PFDoS	698.8 > 79.9	234.058	11063.727	1.00	5.87	0.264	1.0	99.6	NO	1.465	NO
71	41	PFTeDA	713.0 > 669.0	1703.860	11063.727	1.00	6.06	1.925	1.0	104.5	NO	17.388	NO
72	65	13C2-PFDoA	614.7 > 569.7	24665.334	21411.420	1.00	5.59	14.400	11.0	87.8	NO		

Dataset: F:\Projects\PFAS.PRO\Results\190719M1\190719M1-39.qld

Last Altered: Friday, July 19, 2019 16:04:29 Pacific Daylight Time
Printed: Friday, July 19, 2019 16:05:19 Pacific Daylight Time

Name: 190719M1_39, Date: 19-Jul-2019, Time: 15:07:08, ID: ST190719M1-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	24665.334	21411.420	1.00	5.59	14.400	11.0	87.8	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	8452.404	27278.520	1.00	5.77	3.873	140.1	93.4	NO		
75	65	13C2-PFDoA	614.7 > 569.7	24665.334	21411.420	1.00	5.59	14.400	11.0	87.8	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	11063.727	27278.520	1.00	6.06	5.070	11.6	92.8	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	11063.727	27278.520	1.00	6.06	5.070	11.6	92.8	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9	316.571	11034.352	1.00	6.18	4.303	5.0	99.4	NO	1.981	NO
80	43	PFHxDA	813.1 > 768.6	995.983	7620.365	1.00	6.42	0.654	1.0	100.1	NO	11.213	NO
81	44	PFODA	913.1 > 868.8	1212.216	7620.365	1.00	6.67	0.795	1.0	98.6	NO		
82	45	N-MeFOSE	616.1 > 58.9	312.854	8830.052	1.00	6.38	5.315	5.1	101.1	NO		
83	46	N-EtFOSE	630.1 > 58.9	387.985	9237.790	1.00	6.53	6.300	5.0	99.6	NO		
84	72	13C4-PFBA	217.0 > 172.0	8039.726	8039.726	1.00	1.19	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	11034.352	27278.520	1.00	6.20	5.056	155.7	103.8	NO		
86	69	13C2-PFHxDA	815 > 769.7	7620.365	27278.520	1.00	6.42	3.492	4.8	95.9	NO		
87	69	13C2-PFHxDA	815 > 769.7	7620.365	27278.520	1.00	6.42	3.492	4.8	95.9	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	8830.052	27278.520	1.00	6.36	4.046	136.1	90.7	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	9237.790	27278.520	1.00	6.51	4.233	139.0	92.7	NO		
90	73	13C5-PFHxA	318.0 > 272.9	20133.857	20133.857	1.00	2.99	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	28801.168	28801.168	1.00	4.14	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	1268.925	1268.925	1.00	3.77	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	15649.766	15649.766	1.00	4.59	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	2937.775	2937.775	1.00	4.67	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	21411.420	21411.420	1.00	4.97	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	27278.520	27278.520	1.00	5.30	12.500	12.5	100.0	NO		

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Dataset: Untitled

Last Altered: Sunday, July 21, 2019 21:59:53 Pacific Daylight Time
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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_071919.mdb 19 Jul 2019 13:43:15
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	190719M1_1	IPA	19-Jul-19	08:12:17
2	2	190719M1_2	IPA	19-Jul-19	08:23:03
3	3	190719M1_3	IPA	19-Jul-19	08:33:36
4	4	190719M1_4	ST190719M1-1 PFC CS0 19G1103	19-Jul-19	08:44:14
5	5	190719M1_5	IB	19-Jul-19	08:54:47
6	6	190719M1_6	B9G0117-BS1 OPR 1	19-Jul-19	09:09:25
7	7	190719M1_7	B9G0117-BSD1 LCSD 1	19-Jul-19	09:19:59
8	8	190719M1_8	B9G0117-BLK1 Method Blank 1	19-Jul-19	09:30:29
9	9	190719M1_9	B9G0117-MS1 Matrix Spike 1.07	19-Jul-19	09:41:08
10	10	190719M1_10	B9G0117-MSD1 Matrix Spike Dup 1.06	19-Jul-19	09:51:41
11	11	190719M1_11	B9G0117-MS2 Matrix Spike 1.07	19-Jul-19	10:02:20
12	12	190719M1_12	B9G0117-MSD2 Matrix Spike Dup 1.06	19-Jul-19	10:12:52
13	13	190719M1_13	1901860-01 B96-PFAS-SB56-0-2-062619 1.08	19-Jul-19	10:23:31
14	14	190719M1_14	1901860-02 B96-PFAS-SB61-0-2-062619 1.06	19-Jul-19	10:34:09
15	15	190719M1_15	1901860-03 B96-PFAS-SB62-0-2-062619 1.14	19-Jul-19	10:44:41
16	16	190719M1_16	1901860-04 H1-PFAS-SB138N-0-2-062619 1.11	19-Jul-19	10:55:20
17	17	190719M1_17	1901860-05 H1-PFAS-SB138S-0-2-062619 1.05	19-Jul-19	11:05:53
18	18	190719M1_18	1901860-06 DUP03-062619 1.09	19-Jul-19	11:16:31
19	19	190719M1_19	1901860-07 B96-PFAS-SB63-0-2-062619 1.07	19-Jul-19	11:27:03
20	20	190719M1_20	1901860-08 B96-PFAS-SB43-0-2-062719 1.14	19-Jul-19	11:37:42
21	21	190719M1_21	1901860-09 B96-PFAS-SB43-7-8-062719 1.14	19-Jul-19	11:48:14
22	22	190719M1_22	1901860-10 H1-PFAS-SB138E-0-2-062719 1.09	19-Jul-19	11:58:53
23	23	190719M1_23	IPA	19-Jul-19	12:09:31
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25	25	190719M1_25	IPA	19-Jul-19	12:30:42
26	26	190719M1_26	B9G0154-BS1 OPR 0.125	19-Jul-19	12:41:23
27	27	190719M1_27	B9G0154-BLK1 Method Blank 0.125	19-Jul-19	12:51:59
28	28	190719M1_28	1902100-01 B-304UR_20190708 0.11278	19-Jul-19	13:02:37
29	29	190719M1_29	1902100-02 B-304DR_20190708 0.12047	19-Jul-19	13:13:10
30	30	190719M1_30	1902100-03 MW-701_20190709 0.11646	19-Jul-19	13:23:48
31	31	190719M1_31	1902100-04 MW-802_20190708 0.11849	19-Jul-19	13:34:21
32	32	190719M1_32	1902100-05 B-904U_20190708 0.10365	19-Jul-19	13:44:59

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35	35	190719M1_35	1902100-08 B-915M_20190709 0.11805	19-Jul-19	14:16:48
36	36	190719M1_36	1902100-09 B-918U_20190709 0.1189	19-Jul-19	14:27:22
37	37	190719M1_37	1902100-10 B-918M_20190709 0.11456	19-Jul-19	14:38:16
38	38	190719M1_38	IPA	19-Jul-19	14:56:34
39	39	190719M1_39	ST190719M1-3 PFC CS0 19G1103	19-Jul-19	15:07:08
40	40	190719M1_40	IPA	19-Jul-19	15:23:13
41	41	190719M1_41	1902100-11 B-918M_20190709_FD 0.10856	19-Jul-19	15:33:48
42	42	190719M1_42	1902100-12 B-918D_20190709 0.11494	19-Jul-19	15:44:26
43	43	190719M1_43	1902100-13 B-919U_20190708 0.11629	19-Jul-19	15:55:04
44	44	190719M1_44	1902100-14 B-919M_20190709 0.11271	19-Jul-19	16:05:43
45	45	190719M1_45	1902100-15 B-919D_20190708 0.11738	19-Jul-19	16:16:16
46	46	190719M1_46	1902100-16 B-924U_20190709 0.1155	19-Jul-19	16:26:54
47	47	190719M1_47	1902100-17 FB-PFAS-01_20190709 0.11935	19-Jul-19	16:37:28
48	48	190719M1_48	B9G0189-BS1 OPR 1	19-Jul-19	16:48:06
49	49	190719M1_49	B9G0189-MS1 Matrix Spike 1.07	19-Jul-19	16:58:40
50	50	190719M1_50	B9G0189-MSD1 Matrix Spike Dup 1.08	19-Jul-19	17:09:41
51	51	190719M1_51	B9G0189-BLK1 Method Blank 1	19-Jul-19	17:20:14
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53	53	190719M1_53	1902014-02 CAOA-B03-SO-20-20.5 1.09	19-Jul-19	17:41:25
54	54	190719M1_54	1902014-05 CAOA-B01-SO-0-0.5 1.07	19-Jul-19	17:52:03
55	55	190719M1_55	1902014-06 CAOA-B04-SO-0-0.5 1.03	19-Jul-19	18:02:36
56	56	190719M1_56	IPA	19-Jul-19	18:13:15
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58	58	190719M1_58	IPA	19-Jul-19	18:34:27
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60	60	190719M1_60	B9G0052-BS1 OPR 1	19-Jul-19	18:55:38
61	61	190719M1_61	B9G0052-BSD1 LCSD 1	19-Jul-19	19:06:16
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66	66	190719M1_66	1901859-02 B96-PFAS-SB42-0-2-062019 1.11	19-Jul-19	19:59:13
67	67	190719M1_67	1901859-03 B96-PFAS-SB44-0-2-062119 1.09	19-Jul-19	20:09:51
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71	71	190719M1_71	1901859-08 B96-PFAS-SB38-0-2-062619 1.06	19-Jul-19	20:52:14
72	72	190719M1_72	1901859-09 B96-PFAS-SB29-0-2-062619 1.1	19-Jul-19	21:02:52
73	73	190719M1_73	1901859-10 B96-PFAS-SB30-0-2-062719 1.04	19-Jul-19	21:13:25
74	74	190719M1_74	IPA	19-Jul-19	21:24:03
75	75	190719M1_75	ST190719M1-5 PFC CS3 19G1106	19-Jul-19	21:34:35
76	76	190719M1_76	IPA	19-Jul-19	21:45:14
77	77	190719M1_77	1901859-11 DUP04-062719 1.04	19-Jul-19	21:55:52
78	78	190719M1_78	1901859-12 B96-PFAS-SB31-0-2-062719 1.08	19-Jul-19	22:06:25
79	79	190719M1_79	1901859-13 B96-PFAS-SB28-0-2-062719 1.09	19-Jul-19	22:17:04
80	80	190719M1_80	1901859-14 B96-PFAS-SB70-0-2-062719 1.09	19-Jul-19	22:27:42
81	81	190719M1_81	1901859-15 B96-PFAS-SB71-0-2-062719 1.08	19-Jul-19	22:38:15
82	82	190719M1_82	1901859-16 B96-PFAS-SB25-0-2-062719 1.07	19-Jul-19	22:48:54
83	83	190719M1_83	1901859-17 B96-PFAS-SB26-0-2-062719 1.06	19-Jul-19	22:59:27
84	84	190719M1_84	1901859-18 B96-PFAS-SB27-0-2-062719 1.07	19-Jul-19	23:10:06
85	85	190719M1_85	1901859-19 B96-PFAS-SB72-0-2-062719 1.07	19-Jul-19	23:20:38
86	86	190719M1_86	B9G0149-BS1 OPR 1	19-Jul-19	23:31:17
87	87	190719M1_87	B9G0149-BSD1 LCSD 1	19-Jul-19	23:41:47
88	88	190719M1_88	B9G0149-MS1 Matrix Spike 1.04	19-Jul-19	23:52:25
89	89	190719M1_89	B9G0149-MSD1 Matrix Spike Dup 1.03	20-Jul-19	00:02:59
90	90	190719M1_90	B9G0149-BLK1 Method Blank 1	20-Jul-19	00:13:37
91	91	190719M1_91	1901983-01 B96-PFAS-SB19-0-2-070119 1.03	20-Jul-19	00:24:10
92	92	190719M1_92	IPA	20-Jul-19	00:34:48
93	93	190719M1_93	ST190719M1-6 PFC CS0 19G1103	20-Jul-19	00:45:26
94	94	190719M1_94	ST190719M1-7 PFC CS3 19G1106	20-Jul-19	00:55:59
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96	96	190719M1_96	1901983-02 B96-PFAS-SB21-0-2-070119 1.06	20-Jul-19	01:17:10
97	97	190719M1_97	1901983-03 B96-PFAS-SB66-0-2-070119 1.04	20-Jul-19	01:27:48
98	98	190719M1_98	1901983-04 DUP05-070119 1.06	20-Jul-19	01:38:20
99	99	190719M1_99	1901983-05 B96-PFAS-SB65-0-2-070119 1.04	20-Jul-19	01:48:58
100	100	190719M1_100	1901983-06 B96-PFAS-SB68-0-2-070119 1.02	20-Jul-19	01:59:31
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102	102	190719M1_102	1901983-08 B96-PFAS-SB75-0-2-070119 1.04	20-Jul-19	02:20:48
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107	107 190719M1_107	ST190719M1-8 PFC CS3 19G1106	20-Jul-19	03:13:48
108	108 190719M1_108	IPA	20-Jul-19	03:24:21
109	109 190719M1_109	1901983-12 B96-PFAS-SB24-0-2-070219 1.08	20-Jul-19	03:34:59
110	110 190719M1_110	1901983-13 B96-PFAS-SB23-0-2-070219 1.07	20-Jul-19	03:45:32
111	111 190719M1_111	1901983-14 B96-PFAS-SB18-0-2-070219 1.08	20-Jul-19	03:56:11
112	112 190719M1_112	1901983-15 B96-PFAS-SB20-0-2-070219 1.05	20-Jul-19	04:06:43
113	113 190719M1_113	B9G0193-BS1 OPR 0.01	20-Jul-19	04:17:21
114	114 190719M1_114	B9G0193-BSD1 LCSD 0.01	20-Jul-19	04:28:00
115	115 190719M1_115	B9G0193-BLK1 Method Blank 0.01	20-Jul-19	04:38:33
116	116 190719M1_116	1902082-01 Milk Sample A 0.01	20-Jul-19	04:49:11
117	117 190719M1_117	B9G0155-BS1 OPR 0.125	20-Jul-19	04:59:44
118	118 190719M1_118	B9G0155-BLK1 Method Blank 0.125	20-Jul-19	05:10:23
119	119 190719M1_119	1902102-01 Headworks #1 0.10636	20-Jul-19	05:20:55
120	120 190719M1_120	1902103-01 MW-3A 0.116	20-Jul-19	05:31:34
121	121 190719M1_121	1902103-02 MW-4 0.11257	20-Jul-19	05:42:07
122	122 190719M1_122	1902103-03 B-106S 0.11376	20-Jul-19	05:52:45
123	123 190719M1_123	1902103-04 B-205A 0.11334	20-Jul-19	06:03:18
124	124 190719M1_124	IPA	20-Jul-19	06:13:56
125	125 190719M1_125	ST190719M1-9 PFC CS3 19G1106	20-Jul-19	06:24:29
126	126 190719M1_126	IPA	20-Jul-19	06:35:08
127	127 190719M1_127	1902103-05 MW-402 0.11687	20-Jul-19	06:45:46
128	128 190719M1_128	1902103-06 MW-501 0.1145	20-Jul-19	06:56:19
129	129 190719M1_129	1902103-07 MW-504 0.11556	20-Jul-19	07:06:57
130	130 190719M1_130	1902103-08 MW-507 0.11507	20-Jul-19	07:17:36
131	131 190719M1_131	1902103-09 MW-601 0.10707	20-Jul-19	07:28:09
132	132 190719M1_132	1902103-10 Field Blank 0.11383	20-Jul-19	07:38:39
133	133 190719M1_133	1902103-11 Trip Blank 0.11636	20-Jul-19	07:49:17
134	134 190719M1_134	B9G0174-BS1 OPR 0.25	20-Jul-19	07:59:55
135	135 190719M1_135	B9G0174-BLK1 Method Blank 0.25	20-Jul-19	08:10:29
136	136 190719M1_136	1902098-02 WS 276 0.25	20-Jul-19	08:21:07
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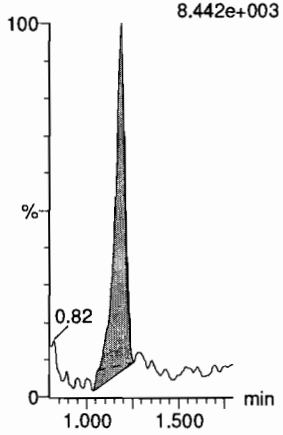
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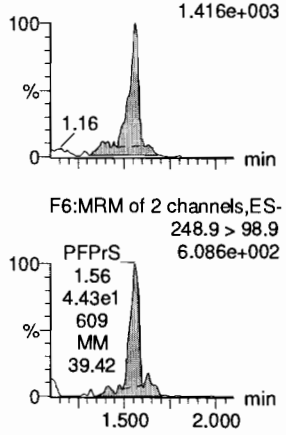
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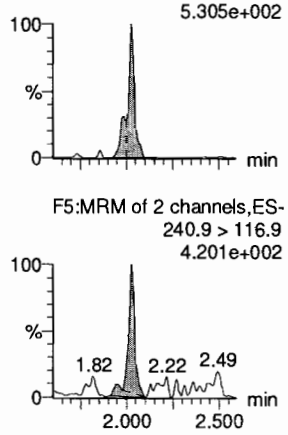
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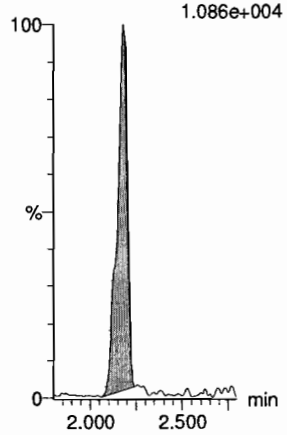
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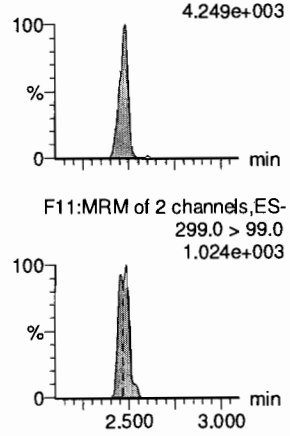
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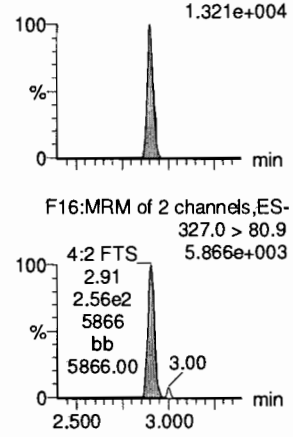
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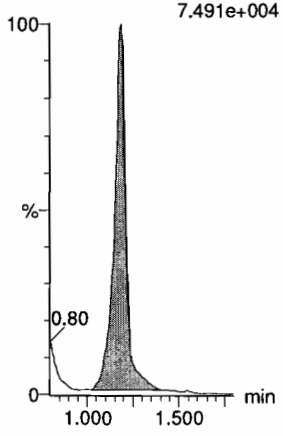
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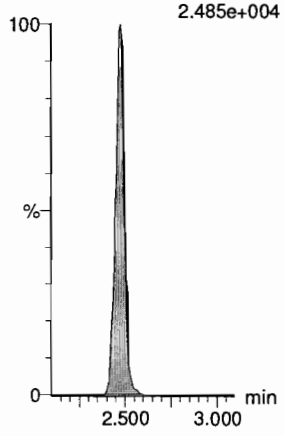
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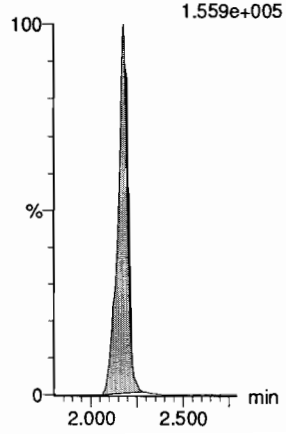
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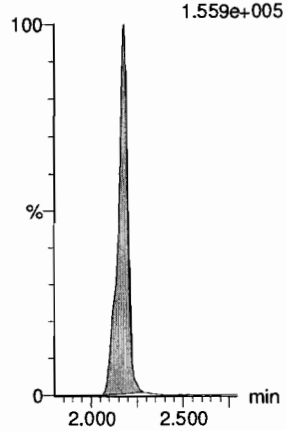
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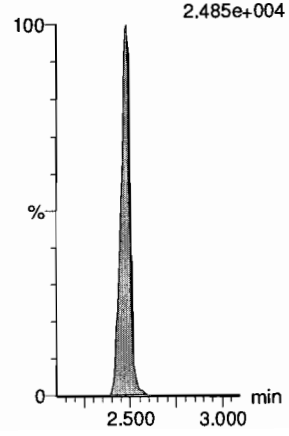
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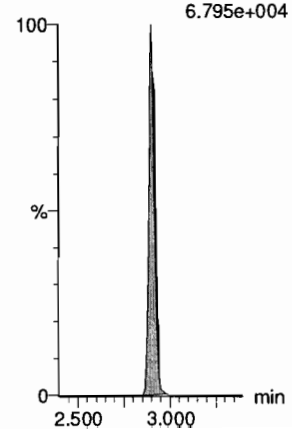
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13C3-PFBS



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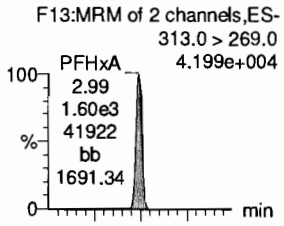


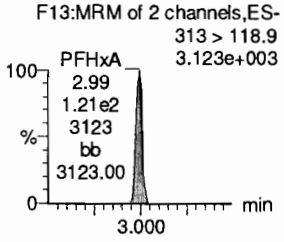
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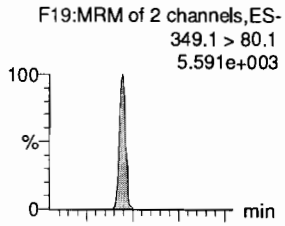
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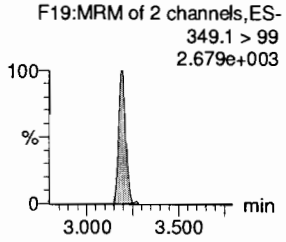
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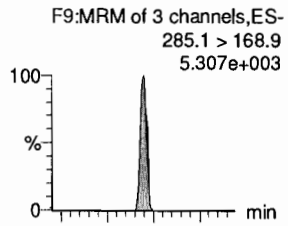


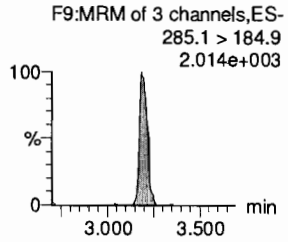
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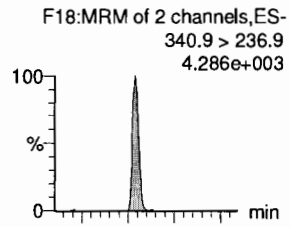


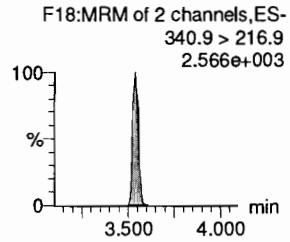
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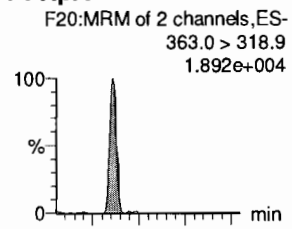


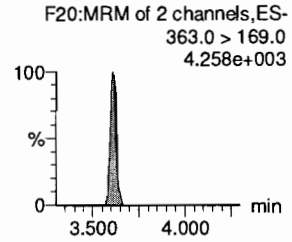
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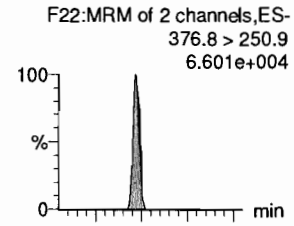


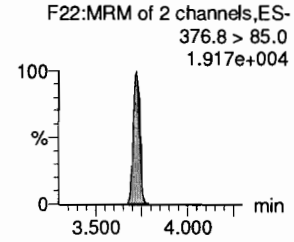
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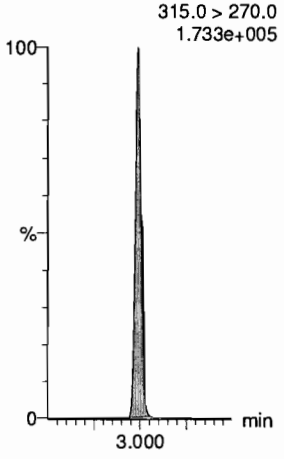


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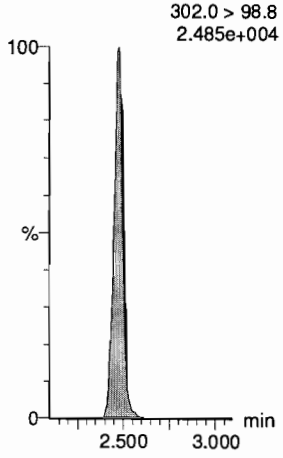




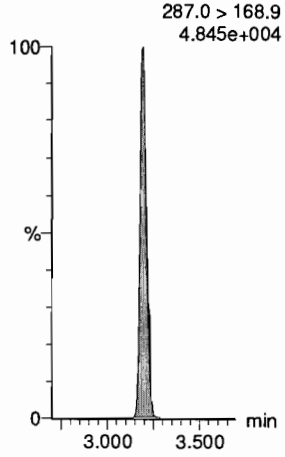
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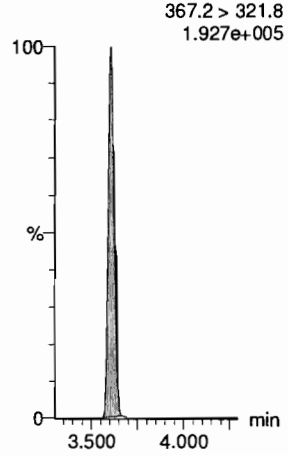
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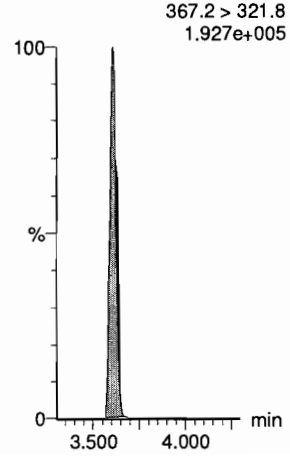
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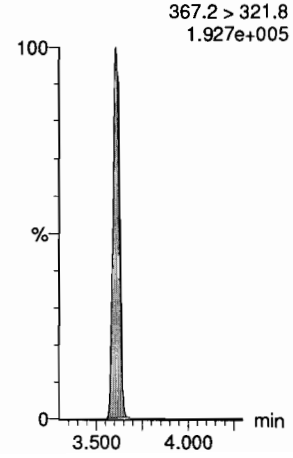
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13C4-PFHpA



13C4-PFHpA

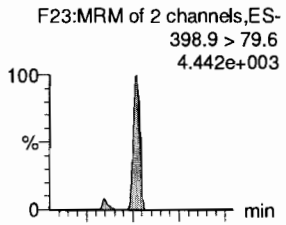


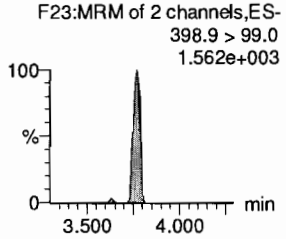
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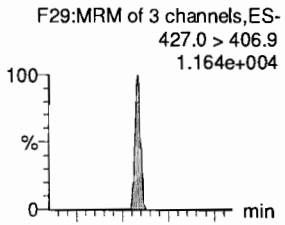
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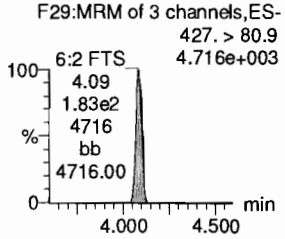
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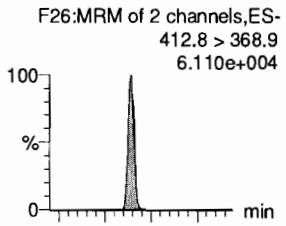


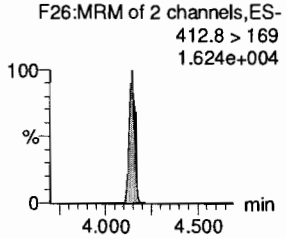
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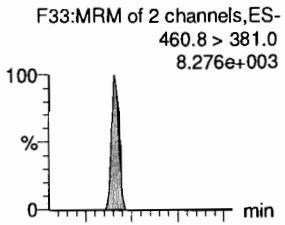


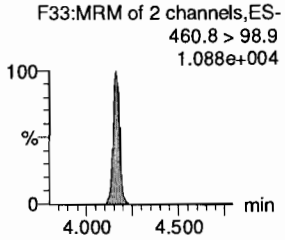
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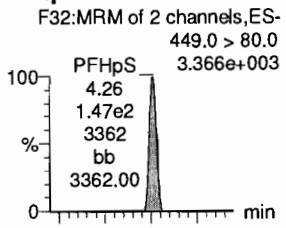


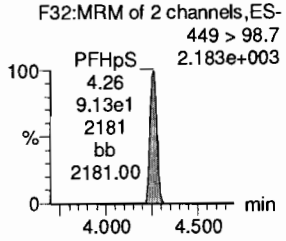
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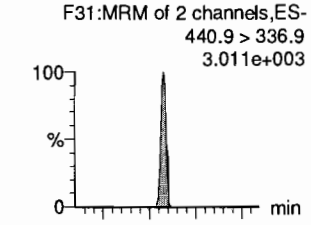


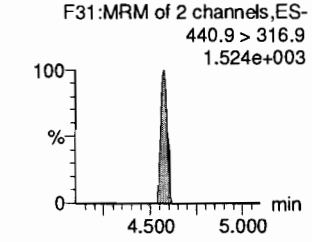
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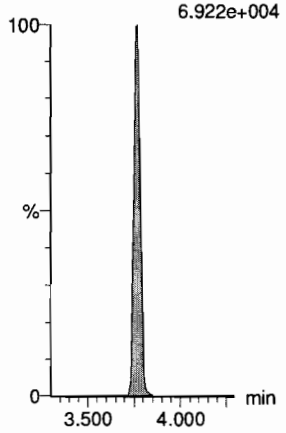


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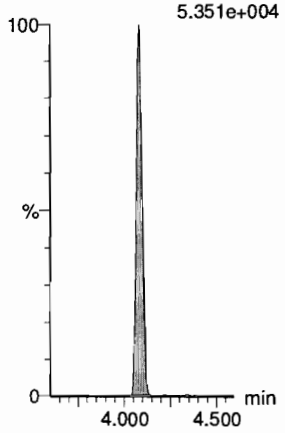




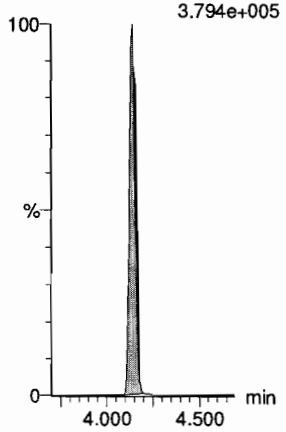
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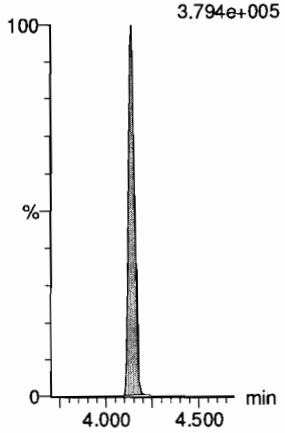
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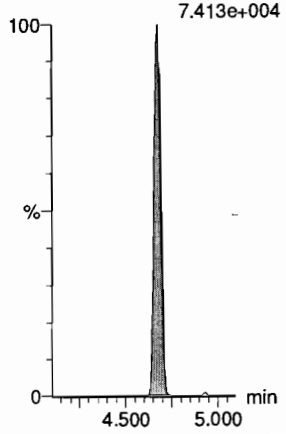
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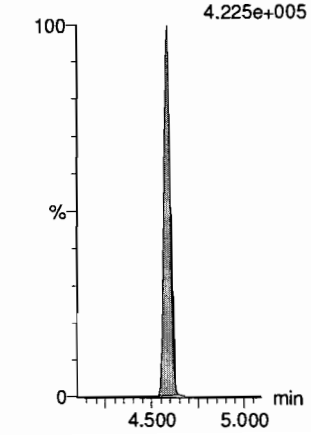
13C2-PFOA



13C8-PFOS



13C5-PFNA

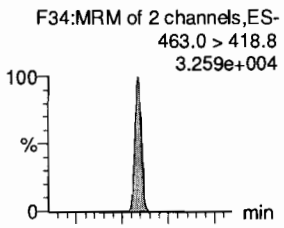


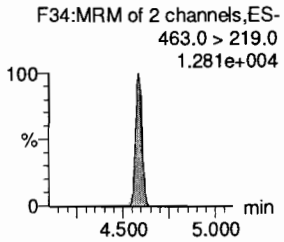
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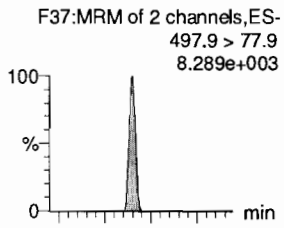
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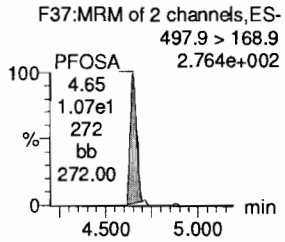
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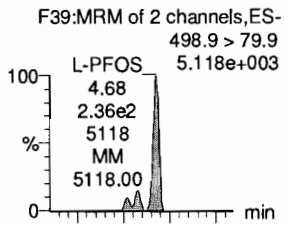


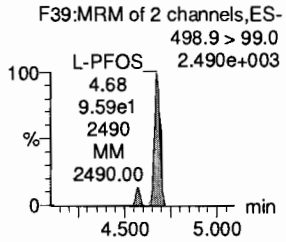
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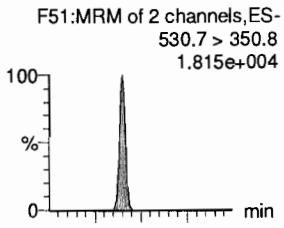


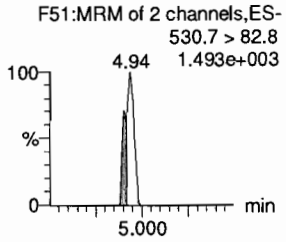
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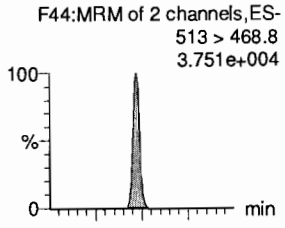


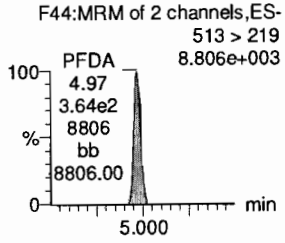
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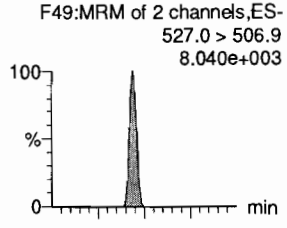


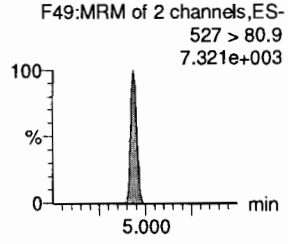
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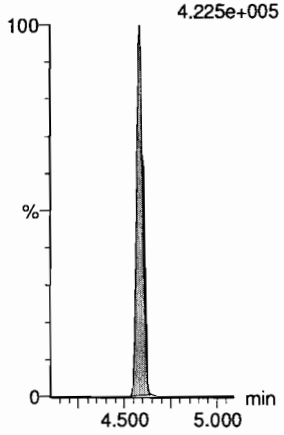


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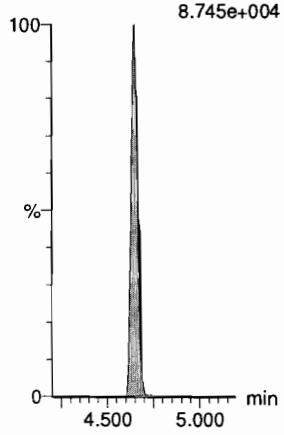




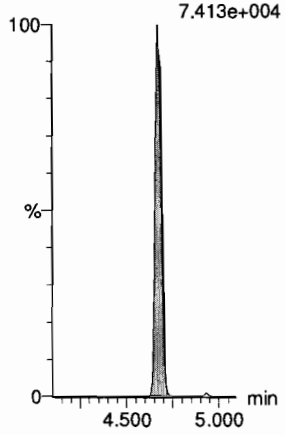
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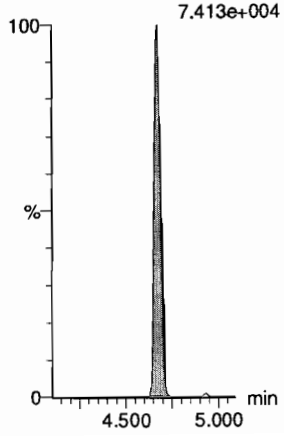
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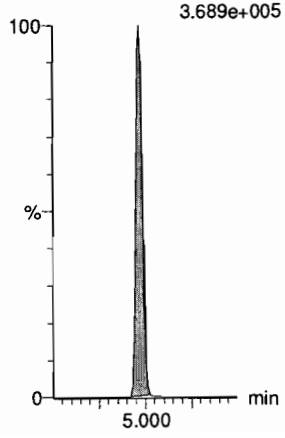
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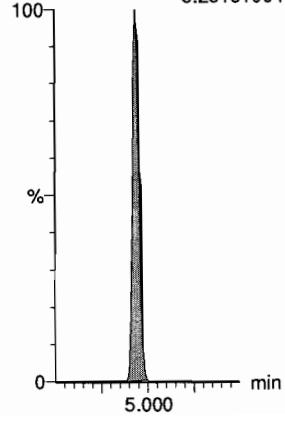
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13C2-PFDA



13C2-8:2 FTS

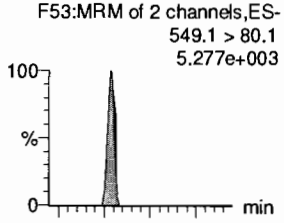


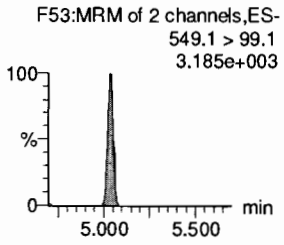
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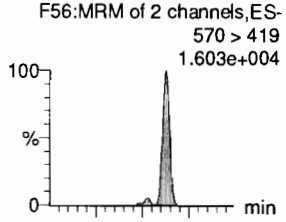
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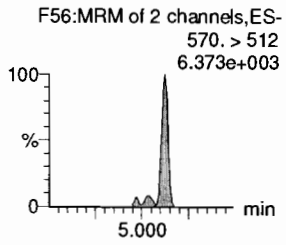
PFNS



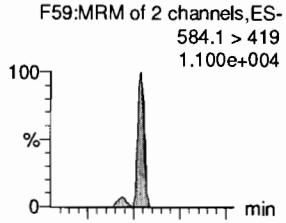


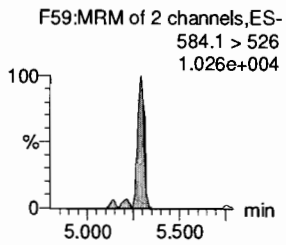
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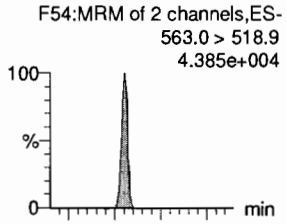


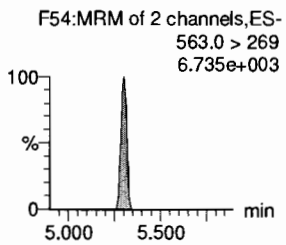
L-EtFOSAA



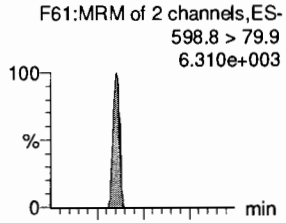


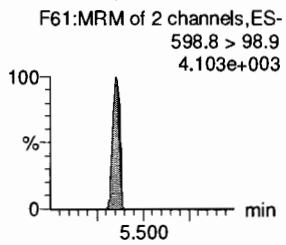
PFUdA



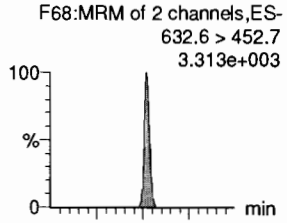


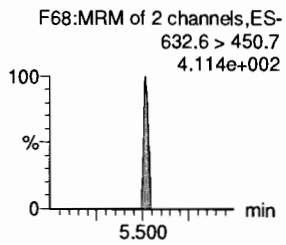
PFDS



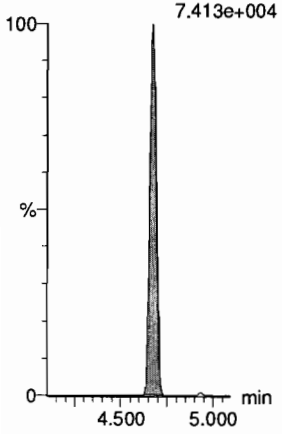


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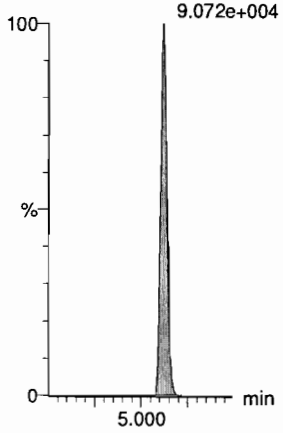




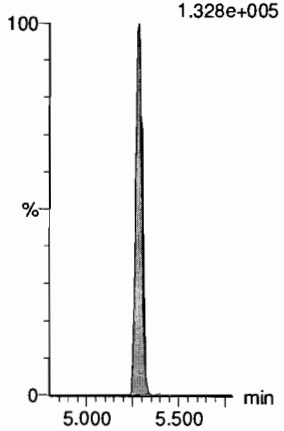
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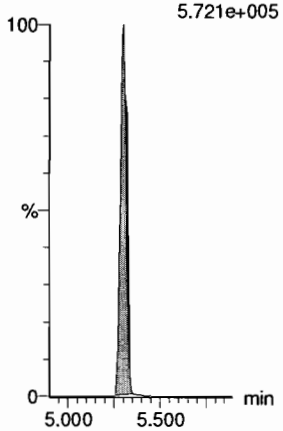
d3-N-MeFOSAA



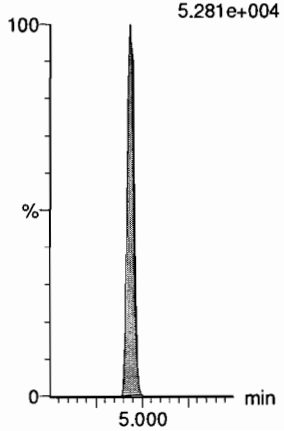
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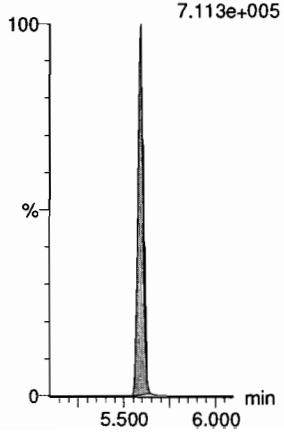
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

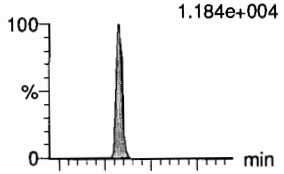


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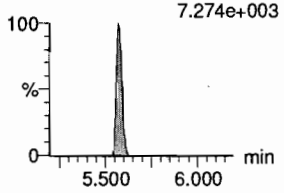
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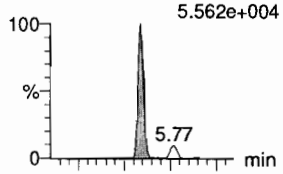
10:2 FTS
F66:MRM of 2 channels,ES-
627.0 > 606.9
1.184e+004



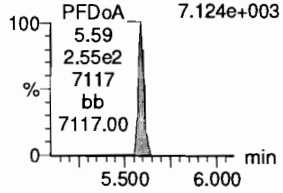
F66:MRM of 2 channels,ES-
627.0 > 80.9
7.274e+003



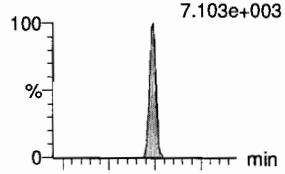
PFDoA
F62:MRM of 4 channels,ES-
612.9 > 569.0
5.562e+004



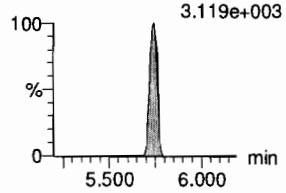
F62:MRM of 4 channels,ES-
612.9 > 318.8
7.124e+003



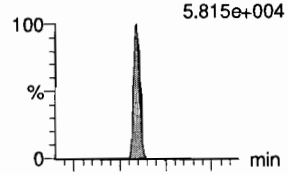
N-MeFOSA
F43:MRM of 2 channels,ES-
512.1 > 168.9
7.103e+003



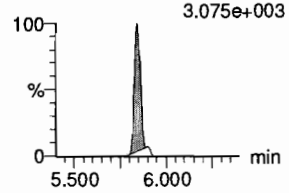
F43:MRM of 2 channels,ES-
512.1 > 219
3.119e+003



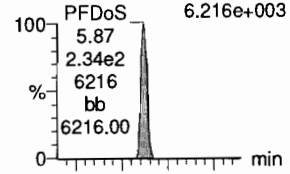
PFTrDA
F70:MRM of 2 channels,ES-
662.9 > 618.9
5.815e+004



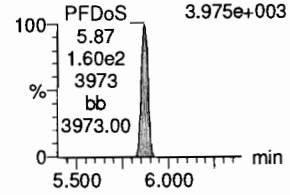
F70:MRM of 2 channels,ES-
662.9 > 319
3.075e+003



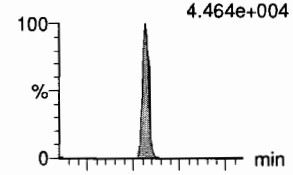
PFDoS
F71:MRM of 2 channels,ES-
698.8 > 79.9
6.216e+003



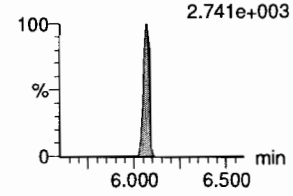
F71:MRM of 2 channels,ES-
698.8 > 98.9
3.975e+003



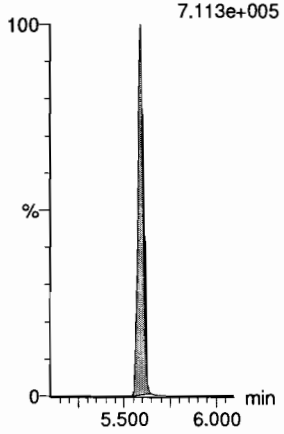
PFTeDA
F72:MRM of 2 channels,ES-
713.0 > 669.0
4.464e+004



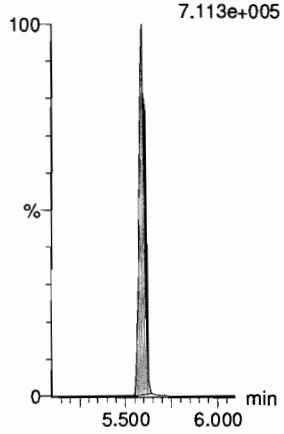
F72:MRM of 2 channels,ES-
713. > 369.0
2.741e+003



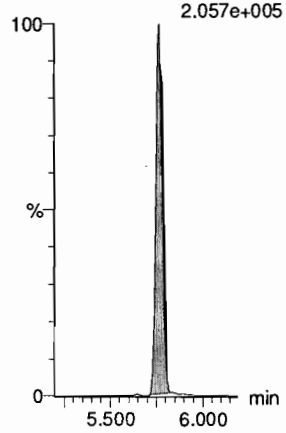
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
7.113e+005



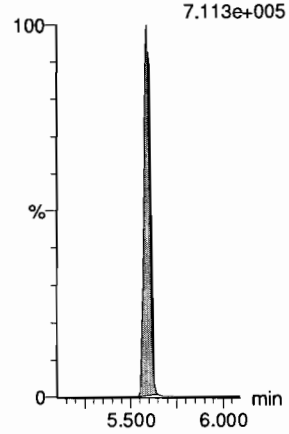
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F63:MRM of 1 channel,ES-
614.7 > 569.7
7.113e+005



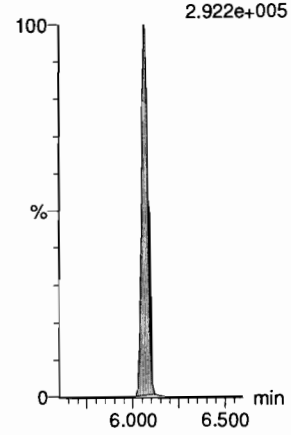
d3-N-MeFOSA
F46:MRM of 1 channel,ES-
515.2 > 168.9
2.057e+005



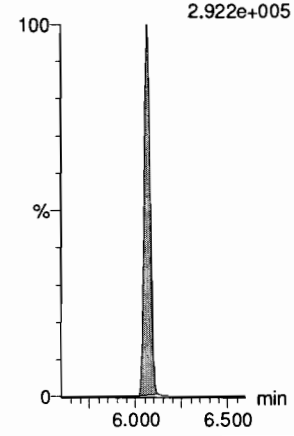
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
7.113e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
2.922e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
2.922e+005

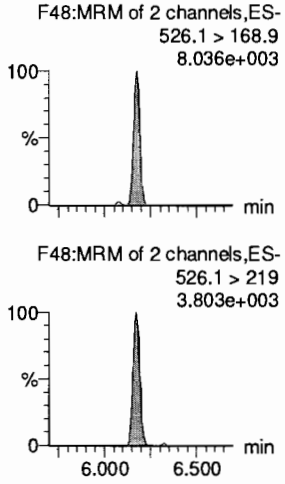


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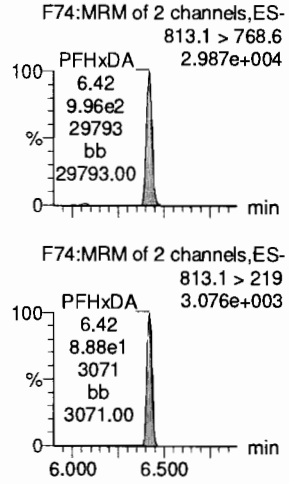
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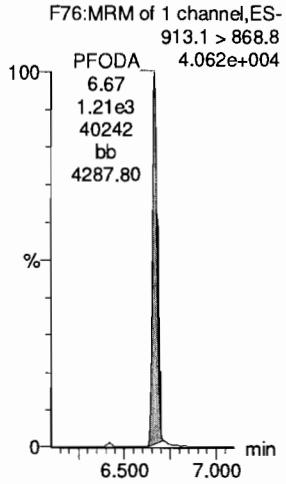
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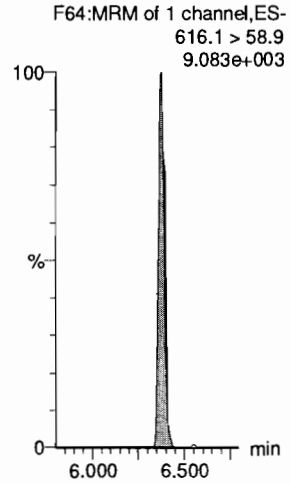
PFHxDA



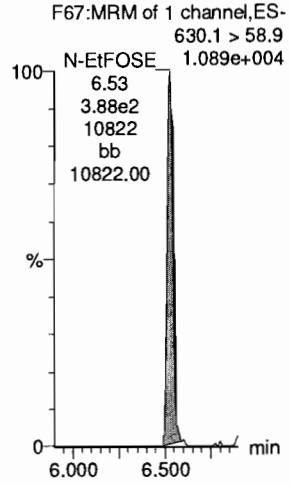
PFODA



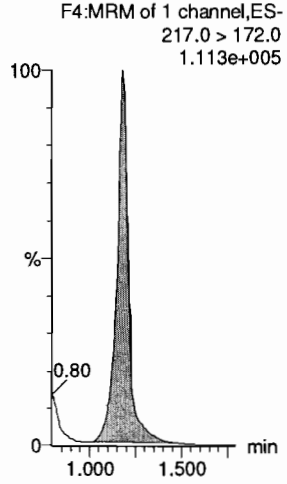
N-MeFOSE



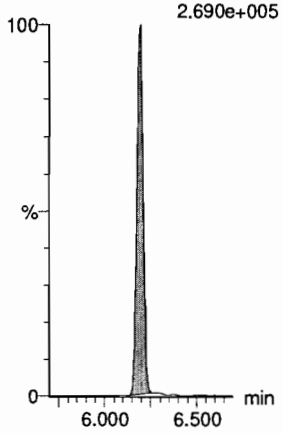
N-EtFOSE



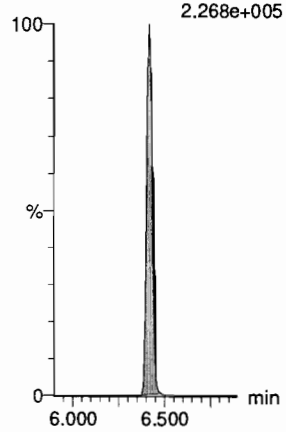
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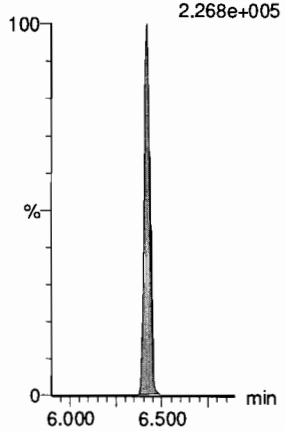
d5-N-ETFOSA



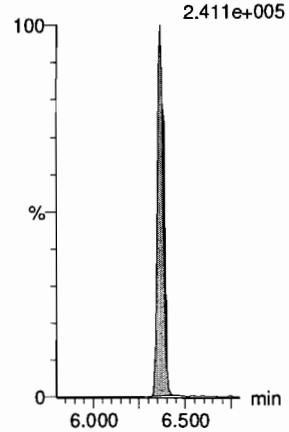
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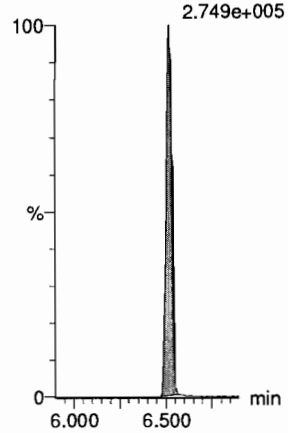
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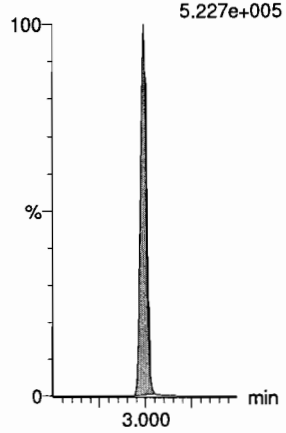
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d9-N-EtFOSE



13C5-PFHxA

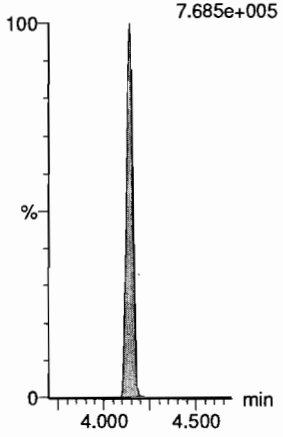


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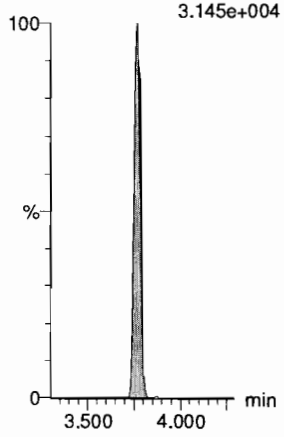
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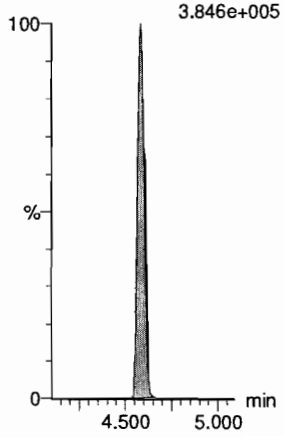
13C8-PFOA



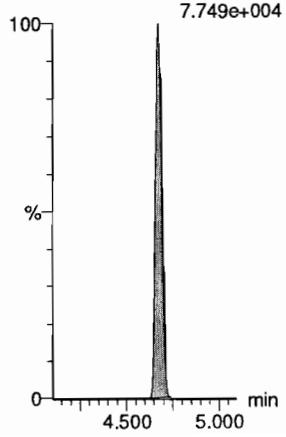
18O2-PFHxS



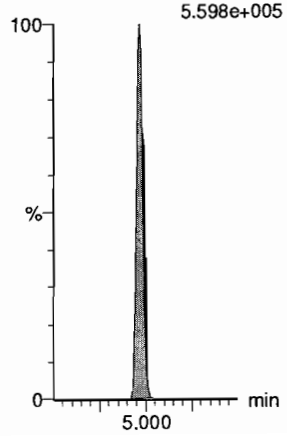
13C9-PFNA



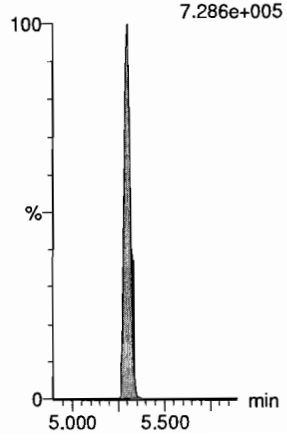
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Dataset: F:\Projects\PFAS.PRO\Results\190719M1\190719M1-57.qld

Last Altered: Sunday, July 21, 2019 19:24:38 Pacific Daylight Time
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Name: 190719M1_57, Date: 19-Jul-2019, Time: 18:23:53, ID: ST190719M1-4 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8	6346.901	5737.284	1.00	1.16	13.828	9.8	97.8	NO		
2	2	PFPrS	248.9 > 79.9	1436.443	1392.792	1.00	1.53	12.892	9.7	96.7	NO	2.566	NO
3	3	3:3 FTCA	240.9 > 176.9	323.162	9916.744	1.00	2.00	0.407	10.3	103.2	NO	1.814	NO
4	4	PFPeA	263.1 > 218.9	7194.658	9916.744	1.00	2.16	9.069	9.8	98.3	NO		
5	5	PFBS	299.0 > 79.7	2653.350	1392.792	1.00	2.46	23.813	10.4	103.7	NO	3.318	NO
6	6	4:2 FTS	327.0 > 306.9	5798.940	2613.685	1.00	2.89	27.734	10.1	101.0	NO	1.867	NO
7	47	13C3-PFBA	216.1 > 171.8	5737.284	8497.873	1.00	1.16	8.439	12.6	100.5	NO		
8	49	13C3-PFBS	302.0 > 98.8	1392.792	1411.748	1.00	2.46	12.332	11.9	95.4	NO		
9	48	13C3-PFPeA	266.0 > 221.8	9916.744	21687.025	1.00	2.16	5.716	12.6	100.9	NO		
10	48	13C3-PFPeA	266.0 > 221.8	9916.744	21687.025	1.00	2.16	5.716	12.6	100.9	NO		
11	49	13C3-PFBS	302.0 > 98.8	1392.792	1411.748	1.00	2.46	12.332	11.9	95.4	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	2613.685	1411.748	1.00	2.88	23.142	12.5	99.6	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0	16645.549	6973.497	1.00	2.97	11.935	10.3	103.2	NO	15.224	NO
15	8	PFPeS	349.1>80.1	2036.591	1392.792	1.00	3.18	18.278	12.2	121.7	NO	1.449	NO
16	9	HFPO-DA	285.1 > 168.9	2060.024	1948.470	1.00	3.18	5.286	9.0	90.2	NO	2.341	NO
17	10	5:3 FTCA	340.9 > 236.9	1853.470	7589.495	1.00	3.53	3.053	11.0	109.9	NO	1.489	NO
18	11	PFHpA	363.0 > 318.9	7902.982	7589.495	1.00	3.60	13.016	10.4	103.8	NO	4.904	NO
19	12	ADONA	376.8 > 250.9	27693.133	7589.495	1.00	3.71	45.611	9.7	97.0	NO	3.276	NO
20	52	13C2-PFHxA	315.0 > 270.0	6973.497	21687.025	1.00	2.97	4.019	5.1	101.6	NO		
21	49	13C3-PFBS	302.0 > 98.8	1392.792	1411.748	1.00	2.46	12.332	11.9	95.4	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1948.470	21687.025	1.00	3.18	1.123	5.0	99.1	NO		
23	53	13C4-PFHpA	367.2 > 321.8	7589.495	21687.025	1.00	3.60	4.374	12.0	95.9	NO		
24	53	13C4-PFHpA	367.2 > 321.8	7589.495	21687.025	1.00	3.60	4.374	12.0	95.9	NO		
25	53	13C4-PFHpA	367.2 > 321.8	7589.495	21687.025	1.00	3.60	4.374	12.0	95.9	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6	2334.847	2928.449	1.00	3.75	9.966	10.0	100.4	NO	2.294	NO
28	15	6:2 FTS	427.0 > 406.9	4680.045	1925.382	1.00	4.07	30.384	10.5	104.8	NO	2.026	NO
29	16	L-PFOA	412.8 > 368.9	24583.410	15755.975	1.00	4.13	19.503	9.8	97.6	NO	3.716	NO
30	18	PFecHS	460.8 > 381.0	4085.182	15755.975	1.00	4.15	3.241	10.1	100.9	NO	1.039	NO
31	19	PFHpS	449.0 > 80.0	2201.021	3125.745	1.00	4.24	8.802	10.4	103.8	NO	1.825	NO
32	20	7:3 FTCA	440.9 > 336.9	2045.293	16523.654	1.00	4.56	1.547	10.1	101.5	NO	1.999	NO
33	54	13C3-PFHxS	401.8 > 79.9	2928.449	1411.748	1.00	3.75	25.929	11.7	93.9	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	1925.382	3061.992	1.00	4.07	7.860	11.5	92.1	NO		

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dm 7/21/19

Dataset: F:\Projects\PFAS.PRO\Results\190719M1\190719M1-57.qld

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Name: 190719M1_57, Date: 19-Jul-2019, Time: 18:23:53, ID: ST190719M1-4 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
35	58	13C2-PFOA	414.9 > 369.7	15755.975	31382.721	1.00	4.13	6.276	12.3	98.6	NO		
36	58	13C2-PFOA	414.9 > 369.7	15755.975	31382.721	1.00	4.13	6.276	12.3	98.6	NO		
37	59	13C8-PFOS	507.0 > 79.9	3125.745	3061.992	1.00	4.66	12.760	12.6	100.6	NO		
38	56	13C5-PFNA	468.2 > 422.9	16523.654	16589.354	1.00	4.58	12.450	12.5	99.8	NO		
39	-1												
40	21	PFNA	463.0 > 418.8	15346.902	16523.654	1.00	4.58	11.610	11.2	111.9	NO	2.945	NO
41	22	PFOSA	497.9 > 77.9	4388.076	4519.692	1.00	4.64	12.136	10.5	104.8	NO	29.278	NO
42	23	L-PFOS	498.9 > 79.9	2858.043	3125.745	1.00	4.66	11.429	9.0	90.0	NO	2.021	NO
43	25	9Cl-PF30NS	530.7 > 350.8	8552.040	3125.745	1.00	4.89	34.200	9.9	98.6	NO	16.880	NO
44	26	PFDA	513 > 468.8	17703.354	14604.483	1.00	4.96	15.152	10.1	101.4	NO	4.508	NO
45	27	8:2 FTS	527.0 > 506.9	4289.916	2158.495	1.00	4.93	24.843	10.1	101.2	NO	1.429	NO
46	56	13C5-PFNA	468.2 > 422.9	16523.654	16589.354	1.00	4.58	12.450	12.5	99.8	NO		
47	57	13C8-PFOSA	506.1 > 77.7	4519.692	28377.287	1.00	4.63	1.991	14.4	114.9	NO		
48	59	13C8-PFOS	507.0 > 79.9	3125.745	3061.992	1.00	4.66	12.760	12.6	100.6	NO		
49	59	13C8-PFOS	507.0 > 79.9	3125.745	3061.992	1.00	4.66	12.760	12.6	100.6	NO		
50	60	13C2-PFDA	515.1 > 469.9	14604.483	23079.699	1.00	4.96	7.910	11.8	94.6	NO		
51	61	13C2-8:2 FTS	529 > 79.9	2158.495	3061.992	1.00	4.93	8.812	12.8	102.8	NO		
52	-1												
53	28	PFNS	549.1 > 80.1	1971.568	3125.745	1.00	5.03	7.884	9.8	98.1	NO	1.651	NO
54	29	L-MeFOSAA	570 > 419	8546.523	3558.429	1.00	5.12	30.022	10.2	101.6	NO	2.330	NO
55	31	L-EtFOSAA	584.1 > 419	6536.524	5123.334	1.00	5.28	15.948	10.2	101.6	NO	1.370	NO
56	33	PFUdA	563.0 > 518.9	17579.021	23044.979	1.00	5.29	9.535	10.7	106.7	NO	5.465	NO
57	34	PFDS	598.8 > 79.9	3056.453	2158.495	1.00	5.34	17.700	9.5	95.0	NO	1.802	NO
58	35	11Cl-PF30UdS	632.6 > 452.7	1371.189	26842.238	1.00	5.51	0.639	10.8	108.2	NO	5.814	NO
59	59	13C8-PFOS	507.0 > 79.9	3125.745	3061.992	1.00	4.66	12.760	12.6	100.6	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	3558.429	28377.287	1.00	5.11	1.567	12.6	101.0	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	5123.334	28377.287	1.00	5.27	2.257	12.9	103.5	NO		
62	63	13C2-PFUdA	565 > 519.8	23044.979	28377.287	1.00	5.29	10.151	12.5	100.1	NO		
63	61	13C2-8:2 FTS	529 > 79.9	2158.495	3061.992	1.00	4.93	8.812	12.8	102.8	NO		
64	65	13C2-PFDoA	614.7 > 569.7	26842.238	23079.699	1.00	5.58	14.538	11.1	88.7	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9	4380.597	2158.495	1.00	5.57	25.368	10.3	103.2	NO	1.538	NO
67	37	PFDoA	612.9 > 569.0	21226.445	26842.238	1.00	5.58	9.885	10.3	102.6	NO	7.653	NO
68	38	N-MeFOSA	512.1 > 168.9	3617.691	9561.686	1.00	5.72	56.753	52.1	104.2	NO	1.955	NO

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Name: 190719M1_57, Date: 19-Jul-2019, Time: 18:23:53, ID: ST190719M1-4 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
69	39	PFTrDA	662.9 > 618.9	22809.754	26842.238	1.00	5.83	10.622	10.4	104.2	NO	13.062	NO
70	40	PFDoS	698.8 > 79.9	2569.828	12509.279	1.00	5.86	2.568	9.4	93.6	NO	1.727	NO
71	41	PFTeDA	713.0 > 669.0	18773.574	12509.279	1.00	6.06	18.760	10.6	105.8	NO	15.058	NO
72	65	13C2-PFDoA	614.7 > 569.7	26842.238	23079.699	1.00	5.58	14.538	11.1	88.7	NO		
73	65	13C2-PFDoA	614.7 > 569.7	26842.238	23079.699	1.00	5.58	14.538	11.1	88.7	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	9561.686	28377.287	1.00	5.75	4.212	152.3	101.6	NO		
75	65	13C2-PFDoA	614.7 > 569.7	26842.238	23079.699	1.00	5.58	14.538	11.1	88.7	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	12509.279	28377.287	1.00	6.06	5.510	12.6	100.9	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	12509.279	28377.287	1.00	6.06	5.510	12.6	100.9	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9	4097.817	12722.805	1.00	6.17	48.313	51.5	103.0	NO	2.094	NO
80	43	PFHxDA	813.1 > 768.6	10175.492	7978.280	1.00	6.42	6.377	10.0	100.0	NO	10.081	NO
81	44	PFODA	913.1 > 868.8	13206.637	7978.280	1.00	6.66	8.277	11.1	110.6	NO		
82	45	N-MeFOSE	616.1 > 58.9	3879.085	10780.674	1.00	6.37	53.973	49.8	99.6	NO		
83	46	N-EtFOSE	630.1 > 58.9	5030.086	10897.117	1.00	6.53	69.240	51.8	103.6	NO		
84	72	13C4-PFBA	217.0 > 172.0	8497.873	8497.873	1.00	1.16	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	12722.805	28377.287	1.00	6.18	5.604	172.6	115.1	NO		
86	69	13C2-PFHxDA	815 > 769.7	7978.280	28377.287	1.00	6.42	3.514	4.8	96.5	NO		
87	69	13C2-PFHxDA	815 > 769.7	7978.280	28377.287	1.00	6.42	3.514	4.8	96.5	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	10780.674	28377.287	1.00	6.36	4.749	159.7	106.5	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	10897.117	28377.287	1.00	6.51	4.800	157.6	105.1	NO		
90	73	13C5-PFHxA	318.0 > 272.9	21687.025	21687.025	1.00	2.97	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	31382.721	31382.721	1.00	4.12	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	1411.748	1411.748	1.00	3.75	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	16589.354	16589.354	1.00	4.58	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	3061.992	3061.992	1.00	4.66	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	23079.699	23079.699	1.00	4.96	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	28377.287	28377.287	1.00	5.29	12.500	12.5	100.0	NO		

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_071919.mdb 19 Jul 2019 13:43:15
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	190719M1_1	IPA	19-Jul-19	08:12:17
2	2	190719M1_2	IPA	19-Jul-19	08:23:03
3	3	190719M1_3	IPA	19-Jul-19	08:33:36
4	4	190719M1_4	ST190719M1-1 PFC CS0 19G1103	19-Jul-19	08:44:14
5	5	190719M1_5	IB	19-Jul-19	08:54:47
6	6	190719M1_6	B9G0117-BS1 OPR 1	19-Jul-19	09:09:25
7	7	190719M1_7	B9G0117-BSD1 LCSD 1	19-Jul-19	09:19:59
8	8	190719M1_8	B9G0117-BLK1 Method Blank 1	19-Jul-19	09:30:29
9	9	190719M1_9	B9G0117-MS1 Matrix Spike 1.07	19-Jul-19	09:41:08
10	10	190719M1_10	B9G0117-MSD1 Matrix Spike Dup 1.06	19-Jul-19	09:51:41
11	11	190719M1_11	B9G0117-MS2 Matrix Spike 1.07	19-Jul-19	10:02:20
12	12	190719M1_12	B9G0117-MSD2 Matrix Spike Dup 1.06	19-Jul-19	10:12:52
13	13	190719M1_13	1901860-01 B96-PFAS-SB56-0-2-062619 1.08	19-Jul-19	10:23:31
14	14	190719M1_14	1901860-02 B96-PFAS-SB61-0-2-062619 1.06	19-Jul-19	10:34:09
15	15	190719M1_15	1901860-03 B96-PFAS-SB62-0-2-062619 1.14	19-Jul-19	10:44:41
16	16	190719M1_16	1901860-04 H1-PFAS-SB138N-0-2-062619 1.11	19-Jul-19	10:55:20
17	17	190719M1_17	1901860-05 H1-PFAS-SB138S-0-2-062619 1.05	19-Jul-19	11:05:53
18	18	190719M1_18	1901860-06 DUP03-062619 1.09	19-Jul-19	11:16:31
19	19	190719M1_19	1901860-07 B96-PFAS-SB63-0-2-062619 1.07	19-Jul-19	11:27:03
20	20	190719M1_20	1901860-08 B96-PFAS-SB43-0-2-062719 1.14	19-Jul-19	11:37:42
21	21	190719M1_21	1901860-09 B96-PFAS-SB43-7-8-062719 1.14	19-Jul-19	11:48:14
22	22	190719M1_22	1901860-10 H1-PFAS-SB138E-0-2-062719 1.09	19-Jul-19	11:58:53
23	23	190719M1_23	IPA	19-Jul-19	12:09:31
24	24	190719M1_24	ST190719M1-2 PFC CS3 19G1106	19-Jul-19	12:20:04
25	25	190719M1_25	IPA	19-Jul-19	12:30:42
26	26	190719M1_26	B9G0154-BS1 OPR 0.125	19-Jul-19	12:41:23
27	27	190719M1_27	B9G0154-BLK1 Method Blank 0.125	19-Jul-19	12:51:59
28	28	190719M1_28	1902100-01 B-304UR_20190708 0.11278	19-Jul-19	13:02:37
29	29	190719M1_29	1902100-02 B-304DR_20190708 0.12047	19-Jul-19	13:13:10
30	30	190719M1_30	1902100-03 MW-701_20190709 0.11646	19-Jul-19	13:23:48
31	31	190719M1_31	1902100-04 MW-802_20190708 0.11849	19-Jul-19	13:34:21
32	32	190719M1_32	1902100-05 B-904U_20190708 0.10365	19-Jul-19	13:44:59

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Last Altered: Sunday, July 21, 2019 21:59:53 Pacific Daylight Time
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Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
33	33	190719M1_33	1902100-06 B-914U_20190708 0.11954	19-Jul-19	13:55:32
34	34	190719M1_34	1902100-07 B-915U_20190709 0.11635	19-Jul-19	14:06:10
35	35	190719M1_35	1902100-08 B-915M_20190709 0.11805	19-Jul-19	14:16:48
36	36	190719M1_36	1902100-09 B-918U_20190709 0.1189	19-Jul-19	14:27:22
37	37	190719M1_37	1902100-10 B-918M_20190709 0.11456	19-Jul-19	14:38:16
38	38	190719M1_38	IPA	19-Jul-19	14:56:34
39	39	190719M1_39	ST190719M1-3 PFC CS0 19G1103	19-Jul-19	15:07:08
40	40	190719M1_40	IPA	19-Jul-19	15:23:13
41	41	190719M1_41	1902100-11 B-918M_20190709_FD 0.10856	19-Jul-19	15:33:48
42	42	190719M1_42	1902100-12 B-918D_20190709 0.11494	19-Jul-19	15:44:26
43	43	190719M1_43	1902100-13 B-919U_20190708 0.11629	19-Jul-19	15:55:04
44	44	190719M1_44	1902100-14 B-919M_20190709 0.11271	19-Jul-19	16:05:43
45	45	190719M1_45	1902100-15 B-919D_20190708 0.11738	19-Jul-19	16:16:16
46	46	190719M1_46	1902100-16 B-924U_20190709 0.1155	19-Jul-19	16:26:54
47	47	190719M1_47	1902100-17 FB-PFAS-01_20190709 0.11935	19-Jul-19	16:37:28
48	48	190719M1_48	B9G0189-BS1 OPR 1	19-Jul-19	16:48:06
49	49	190719M1_49	B9G0189-MS1 Matrix Spike 1.07	19-Jul-19	16:58:40
50	50	190719M1_50	B9G0189-MSD1 Matrix Spike Dup 1.08	19-Jul-19	17:09:41
51	51	190719M1_51	B9G0189-BLK1 Method Blank 1	19-Jul-19	17:20:14
52	52	190719M1_52	1902014-01 CAOA-B03-SO-4-4.5 1.08	19-Jul-19	17:30:51
53	53	190719M1_53	1902014-02 CAOA-B03-SO-20-20.5 1.09	19-Jul-19	17:41:25
54	54	190719M1_54	1902014-05 CAOA-B01-SO-0-0.5 1.07	19-Jul-19	17:52:03
55	55	190719M1_55	1902014-06 CAOA-B04-SO-0-0.5 1.03	19-Jul-19	18:02:36
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59	59	190719M1_59	1902014-07 CAOA-B01-SO-20-20.5 1.2	19-Jul-19	18:45:05
60	60	190719M1_60	B9G0052-BS1 OPR 1	19-Jul-19	18:55:38
61	61	190719M1_61	B9G0052-BSD1 LCSD 1	19-Jul-19	19:06:16
62	62	190719M1_62	B9G0052-MS1 Matrix Spike 1.11	19-Jul-19	19:16:49
63	63	190719M1_63	B9G0052-MSD1 Matrix Spike Dup 1.16	19-Jul-19	19:27:28
64	64	190719M1_64	B9G0052-BLK1 Method Blank 1	19-Jul-19	19:38:01
65	65	190719M1_65	1901859-01 B96-PFAS-SB41-0-2-062019 1.1	19-Jul-19	19:48:40
66	66	190719M1_66	1901859-02 B96-PFAS-SB42-0-2-062019 1.11	19-Jul-19	19:59:13
67	67	190719M1_67	1901859-03 B96-PFAS-SB44-0-2-062119 1.09	19-Jul-19	20:09:51
68	68	190719M1_68	1901859-04 DUP02-062119 1.1	19-Jul-19	20:20:24

Vista Analytical Laboratory

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71	71	190719M1_71	1901859-08 B96-PFAS-SB38-0-2-062619 1.06	19-Jul-19	20:52:14
72	72	190719M1_72	1901859-09 B96-PFAS-SB29-0-2-062619 1.1	19-Jul-19	21:02:52
73	73	190719M1_73	1901859-10 B96-PFAS-SB30-0-2-062719 1.04	19-Jul-19	21:13:25
74	74	190719M1_74	IPA	19-Jul-19	21:24:03
75	75	190719M1_75	ST190719M1-5 PFC CS3 19G1106	19-Jul-19	21:34:35
76	76	190719M1_76	IPA	19-Jul-19	21:45:14
77	77	190719M1_77	1901859-11 DUP04-062719 1.04	19-Jul-19	21:55:52
78	78	190719M1_78	1901859-12 B96-PFAS-SB31-0-2-062719 1.08	19-Jul-19	22:06:25
79	79	190719M1_79	1901859-13 B96-PFAS-SB28-0-2-062719 1.09	19-Jul-19	22:17:04
80	80	190719M1_80	1901859-14 B96-PFAS-SB70-0-2-062719 1.09	19-Jul-19	22:27:42
81	81	190719M1_81	1901859-15 B96-PFAS-SB71-0-2-062719 1.08	19-Jul-19	22:38:15
82	82	190719M1_82	1901859-16 B96-PFAS-SB25-0-2-062719 1.07	19-Jul-19	22:48:54
83	83	190719M1_83	1901859-17 B96-PFAS-SB26-0-2-062719 1.06	19-Jul-19	22:59:27
84	84	190719M1_84	1901859-18 B96-PFAS-SB27-0-2-062719 1.07	19-Jul-19	23:10:06
85	85	190719M1_85	1901859-19 B96-PFAS-SB72-0-2-062719 1.07	19-Jul-19	23:20:38
86	86	190719M1_86	B9G0149-BS1 OPR 1	19-Jul-19	23:31:17
87	87	190719M1_87	B9G0149-BSD1 LCSD 1	19-Jul-19	23:41:47
88	88	190719M1_88	B9G0149-MS1 Matrix Spike 1.04	19-Jul-19	23:52:25
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91	91	190719M1_91	1901983-01 B96-PFAS-SB19-0-2-070119 1.03	20-Jul-19	00:24:10
92	92	190719M1_92	IPA	20-Jul-19	00:34:48
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100	100	190719M1_100	1901983-06 B96-PFAS-SB68-0-2-070119 1.02	20-Jul-19	01:59:31
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102	102	190719M1_102	1901983-08 B96-PFAS-SB75-0-2-070119 1.04	20-Jul-19	02:20:48
103	103	190719M1_103	1901983-09 B96-PFAS-SB60-0-2-070219 1.06	20-Jul-19	02:31:20
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107	107 190719M1_107	ST190719M1-8 PFC CS3 19G1106	20-Jul-19	03:13:48
108	108 190719M1_108	IPA	20-Jul-19	03:24:21
109	109 190719M1_109	1901983-12 B96-PFAS-SB24-0-2-070219 1.08	20-Jul-19	03:34:59
110	110 190719M1_110	1901983-13 B96-PFAS-SB23-0-2-070219 1.07	20-Jul-19	03:45:32
111	111 190719M1_111	1901983-14 B96-PFAS-SB18-0-2-070219 1.08	20-Jul-19	03:56:11
112	112 190719M1_112	1901983-15 B96-PFAS-SB20-0-2-070219 1.05	20-Jul-19	04:06:43
113	113 190719M1_113	B9G0193-BS1 OPR 0.01	20-Jul-19	04:17:21
114	114 190719M1_114	B9G0193-BSD1 LCSD 0.01	20-Jul-19	04:28:00
115	115 190719M1_115	B9G0193-BLK1 Method Blank 0.01	20-Jul-19	04:38:33
116	116 190719M1_116	1902082-01 Milk Sample A 0.01	20-Jul-19	04:49:11
117	117 190719M1_117	B9G0155-BS1 OPR 0.125	20-Jul-19	04:59:44
118	118 190719M1_118	B9G0155-BLK1 Method Blank 0.125	20-Jul-19	05:10:23
119	119 190719M1_119	1902102-01 Headworks #1 0.10636	20-Jul-19	05:20:55
120	120 190719M1_120	1902103-01 MW-3A 0.116	20-Jul-19	05:31:34
121	121 190719M1_121	1902103-02 MW-4 0.11257	20-Jul-19	05:42:07
122	122 190719M1_122	1902103-03 B-106S 0.11376	20-Jul-19	05:52:45
123	123 190719M1_123	1902103-04 B-205A 0.11334	20-Jul-19	06:03:18
124	124 190719M1_124	IPA	20-Jul-19	06:13:56
125	125 190719M1_125	ST190719M1-9 PFC CS3 19G1106	20-Jul-19	06:24:29
126	126 190719M1_126	IPA	20-Jul-19	06:35:08
127	127 190719M1_127	1902103-05 MW-402 0.11687	20-Jul-19	06:45:46
128	128 190719M1_128	1902103-06 MW-501 0.1145	20-Jul-19	06:56:19
129	129 190719M1_129	1902103-07 MW-504 0.11556	20-Jul-19	07:06:57
130	130 190719M1_130	1902103-08 MW-507 0.11507	20-Jul-19	07:17:36
131	131 190719M1_131	1902103-09 MW-601 0.10707	20-Jul-19	07:28:09
132	132 190719M1_132	1902103-10 Field Blank 0.11383	20-Jul-19	07:38:39
133	133 190719M1_133	1902103-11 Trip Blank 0.11636	20-Jul-19	07:49:17
134	134 190719M1_134	B9G0174-BS1 OPR 0.25	20-Jul-19	07:59:55
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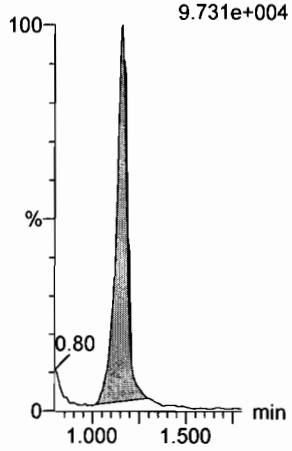
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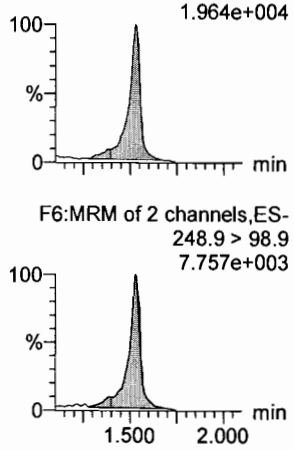
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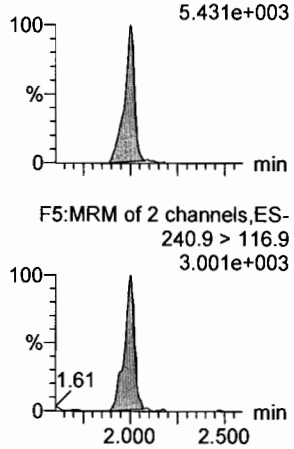
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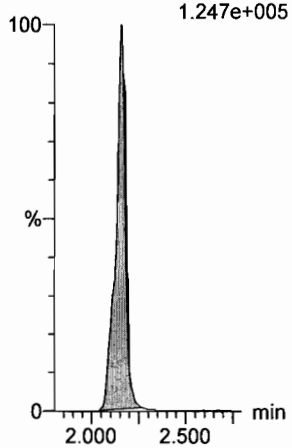
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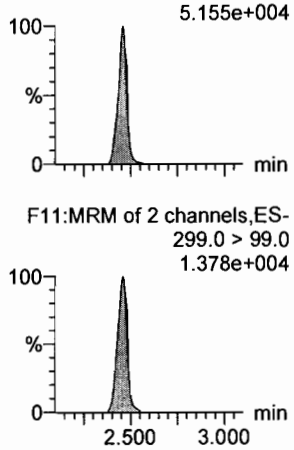
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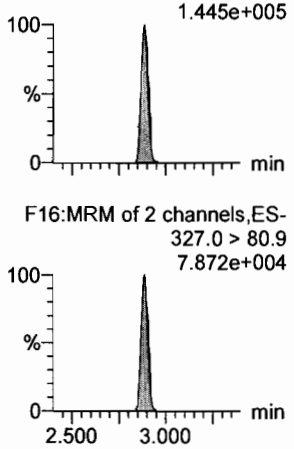
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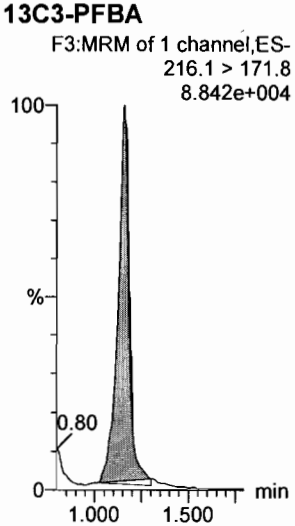
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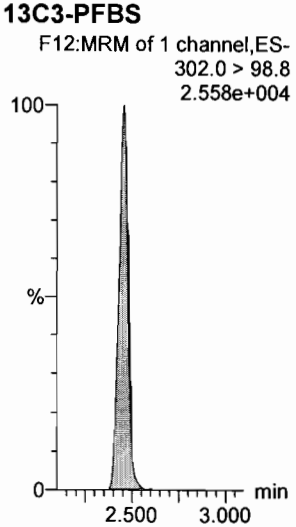
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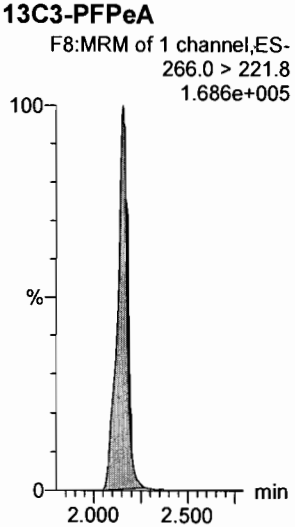
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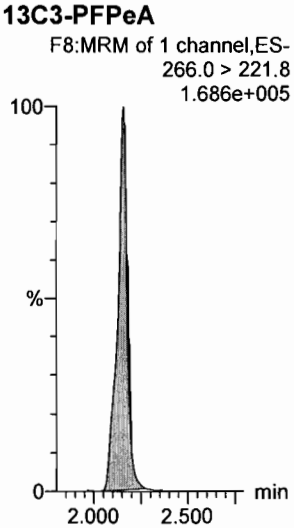
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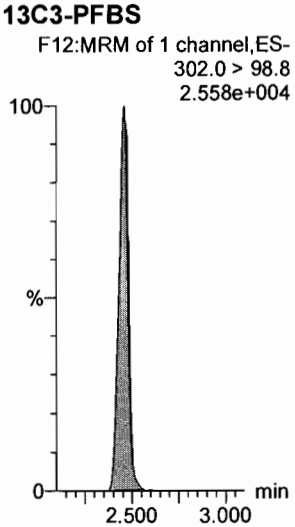
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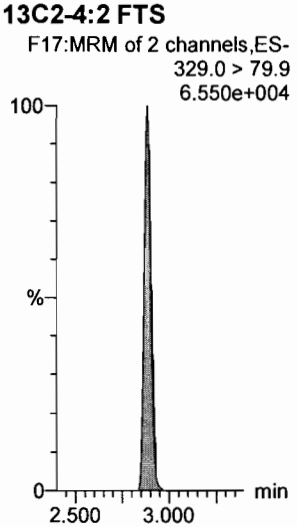
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13C3-PFBS



13C2-4:2 FTS

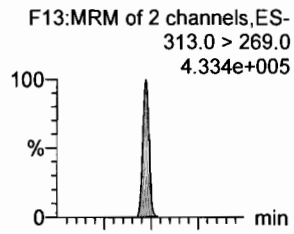


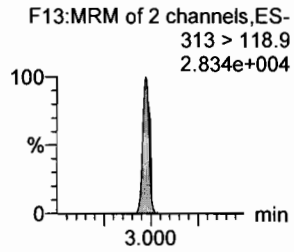
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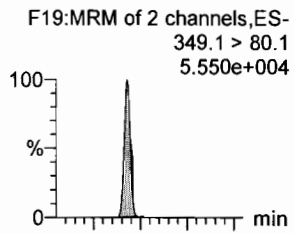
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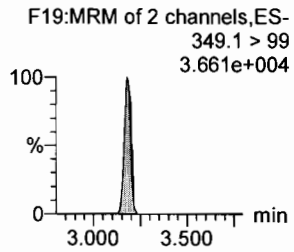
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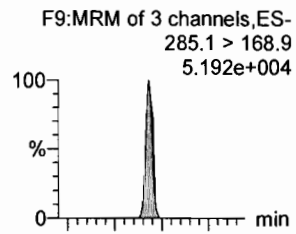


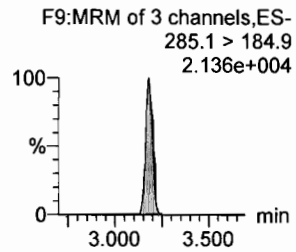
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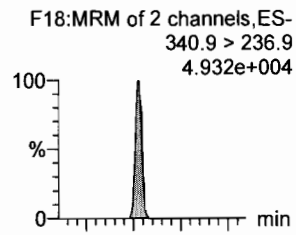


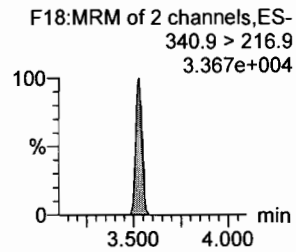
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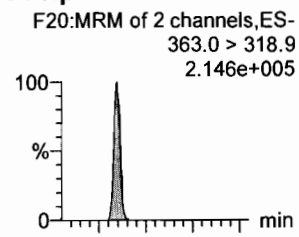


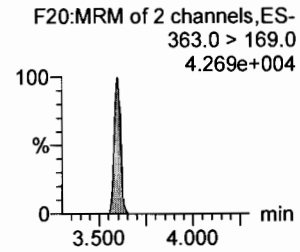
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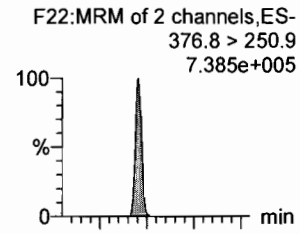


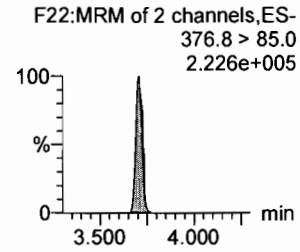
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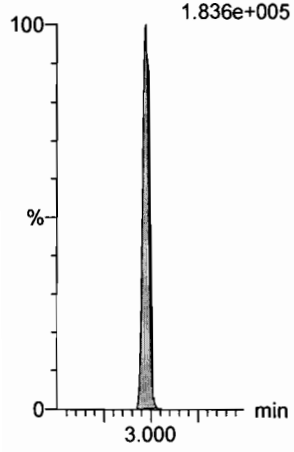


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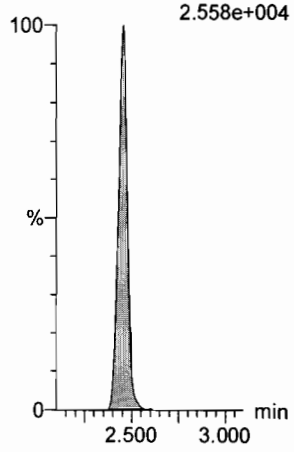




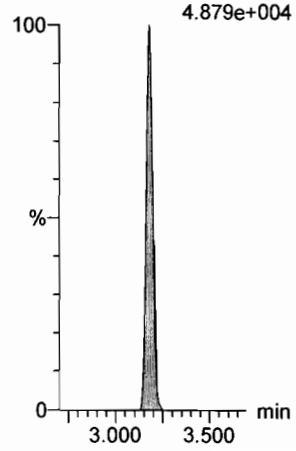
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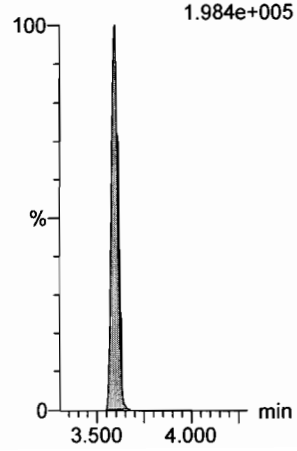
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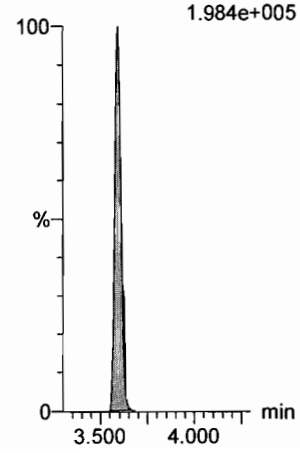
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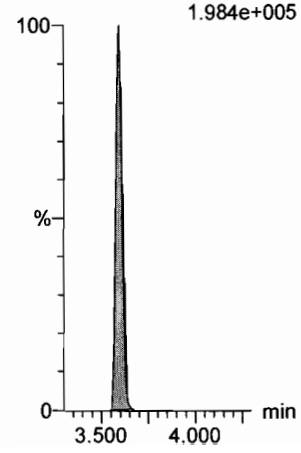
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13C4-PFHpA



13C4-PFHpA

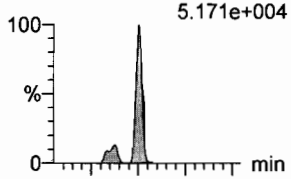


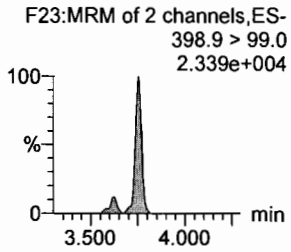
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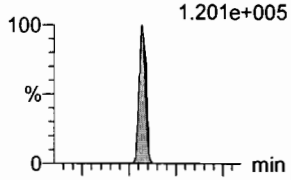
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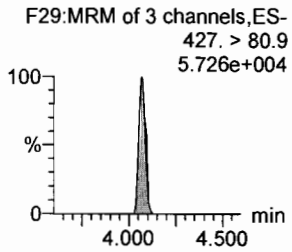
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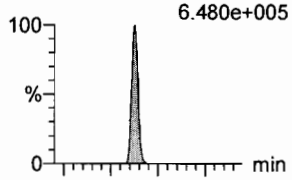


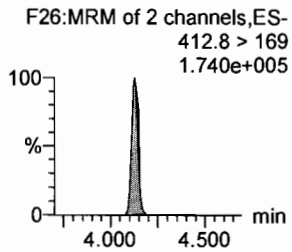
6:2 FTS



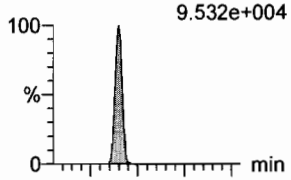


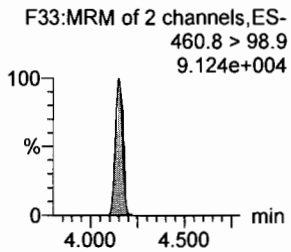
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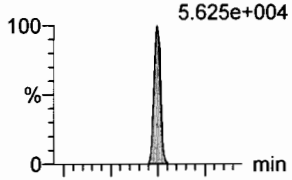


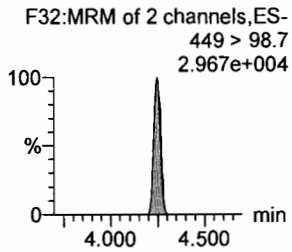
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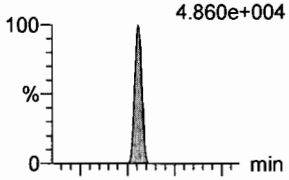


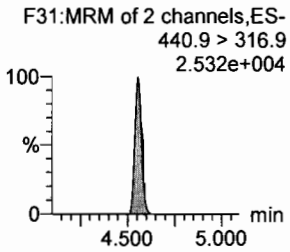
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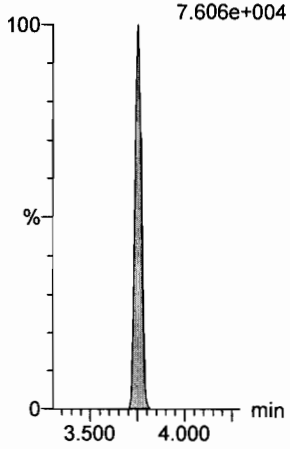


7:3 FTCA

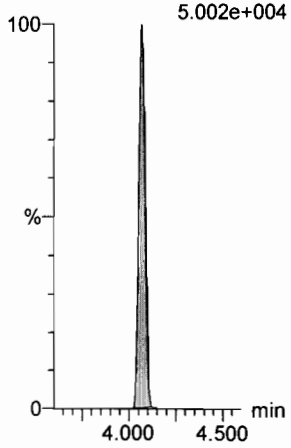




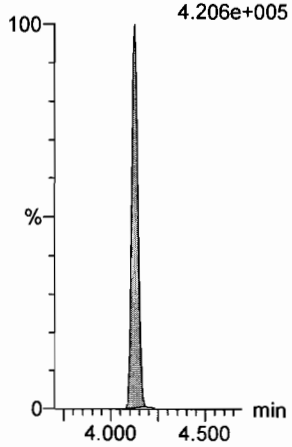
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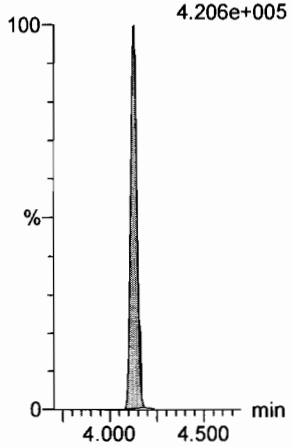
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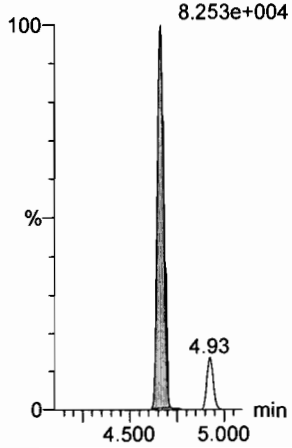
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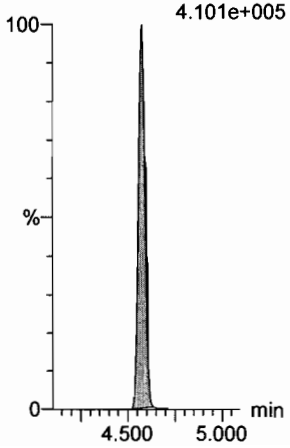
13C2-PFOA



13C8-PFOS



13C5-PFNA

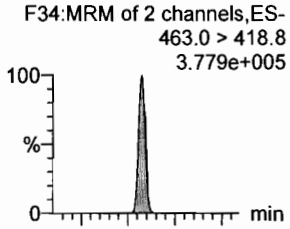


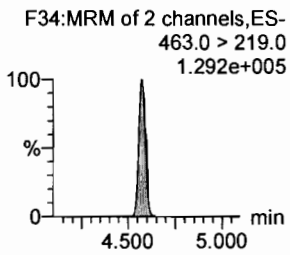
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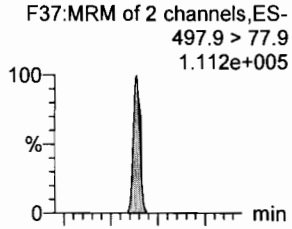
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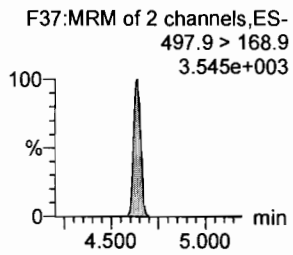
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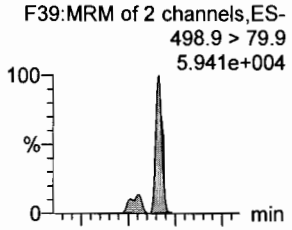


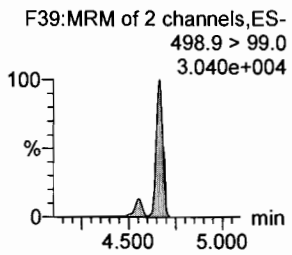
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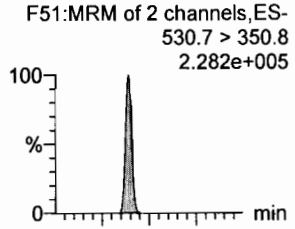


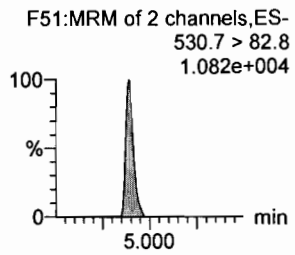
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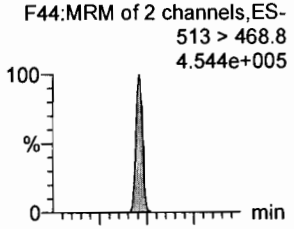


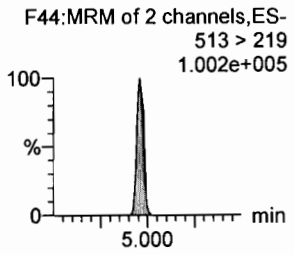
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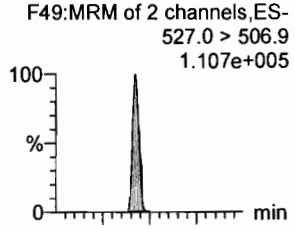


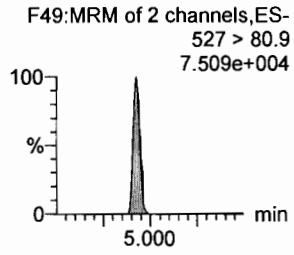
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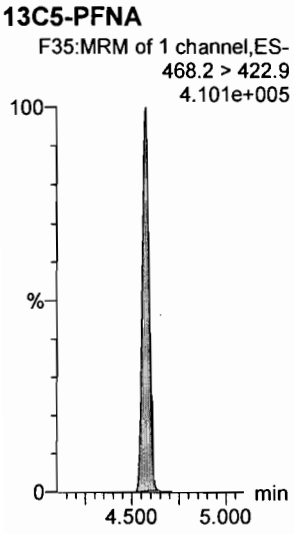


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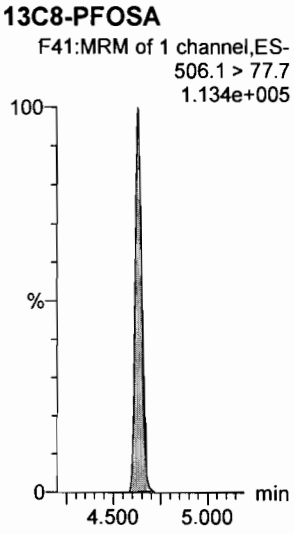




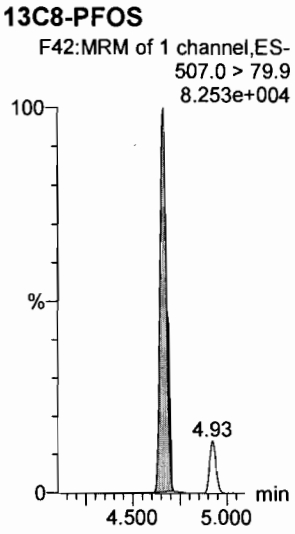
13C5-PFNA



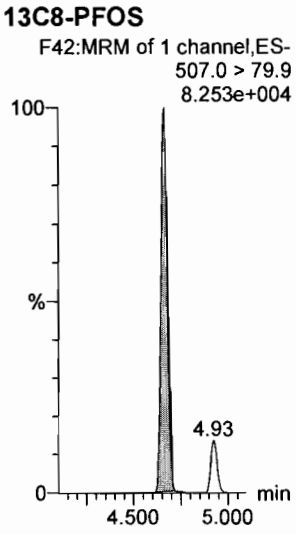
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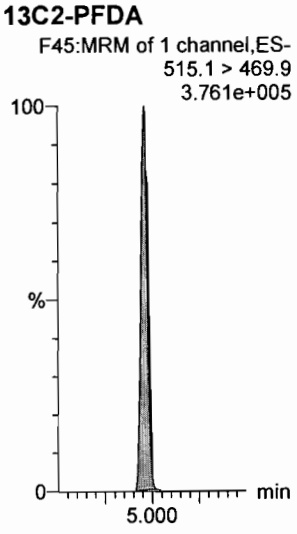
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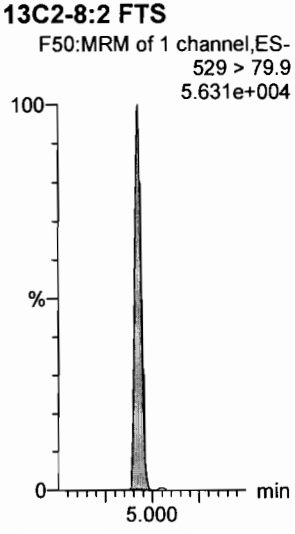
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

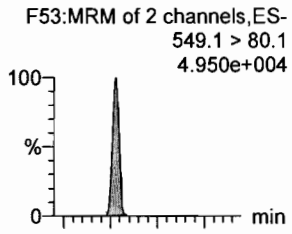


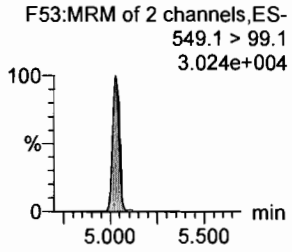
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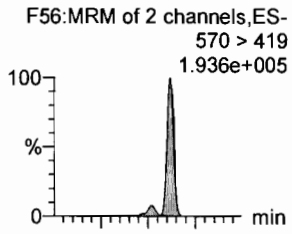
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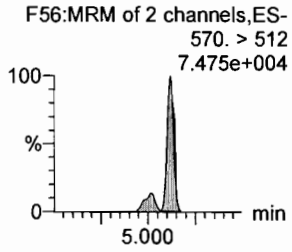
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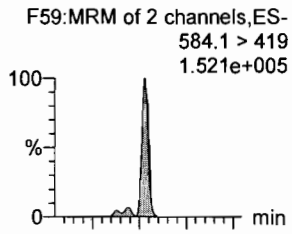


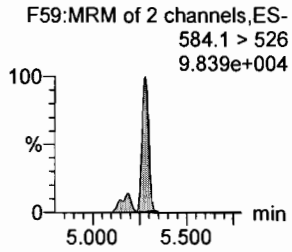
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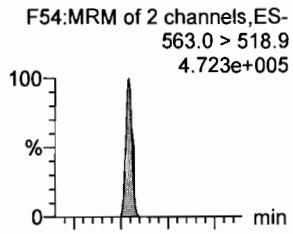


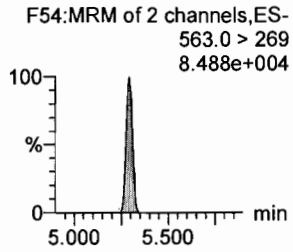
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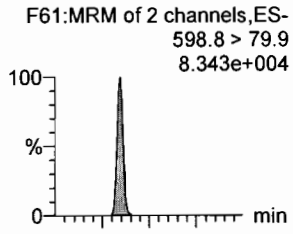


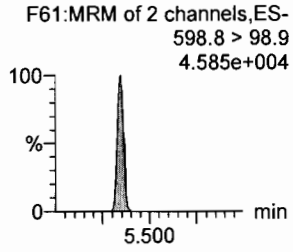
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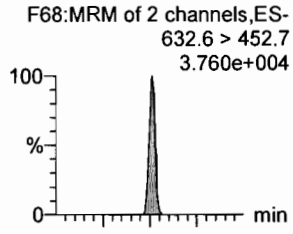


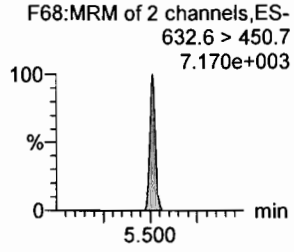
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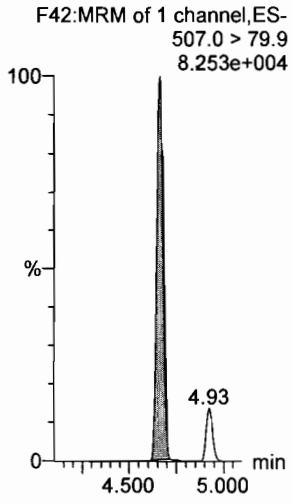


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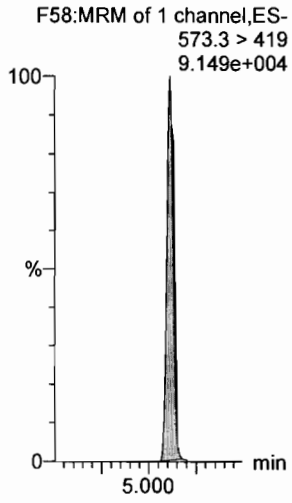




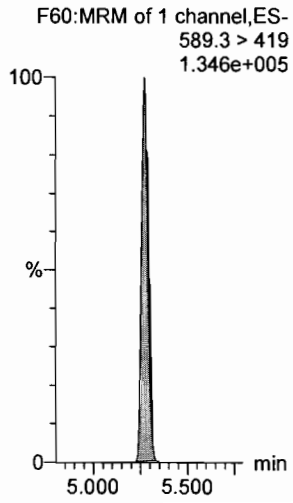
13C8-PFOS



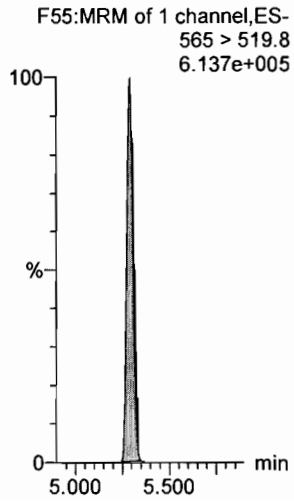
d3-N-MeFOSAA



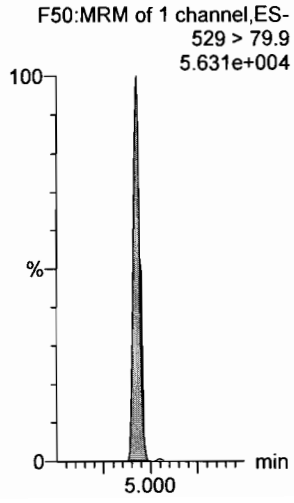
d5-N-EtFOSAA



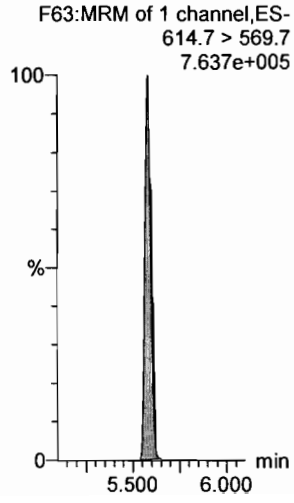
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

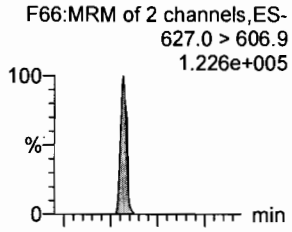


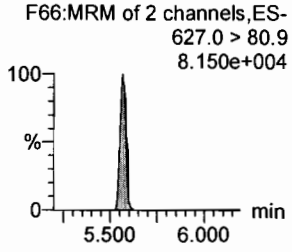
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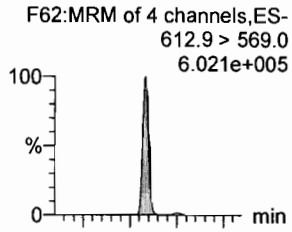
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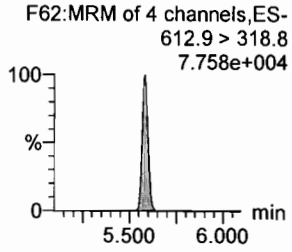
10:2 FTS



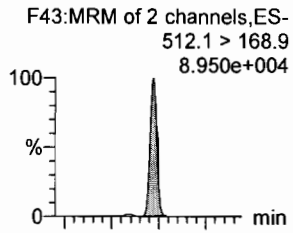


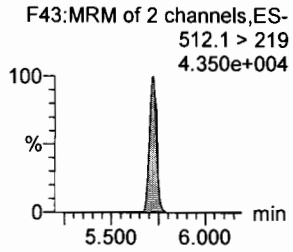
PFDoA



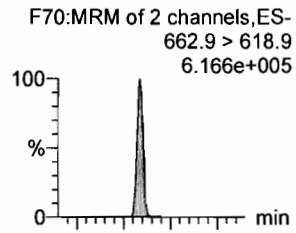


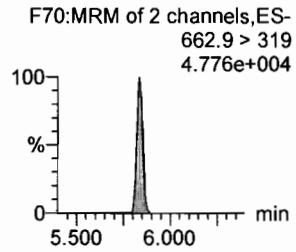
N-MeFOSA



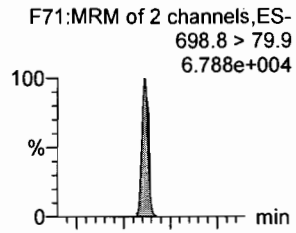


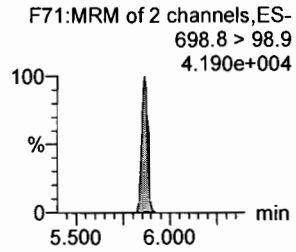
PFTrDA



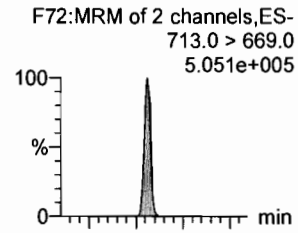


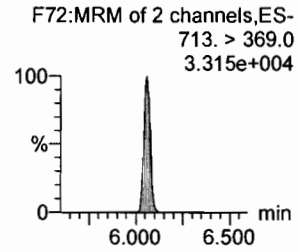
PFDoS



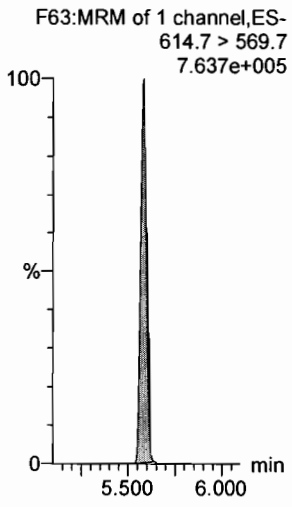


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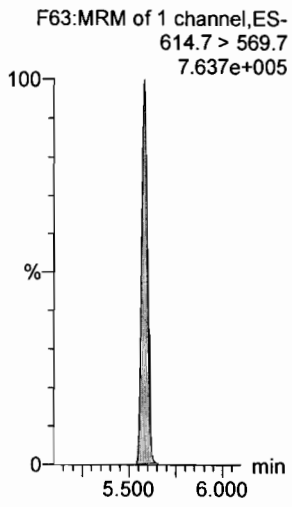




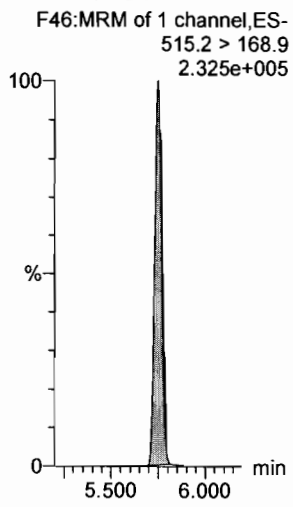
13C2-PFDoA



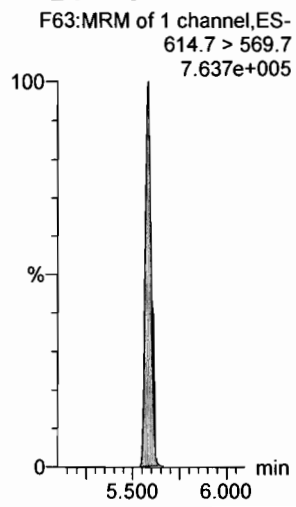
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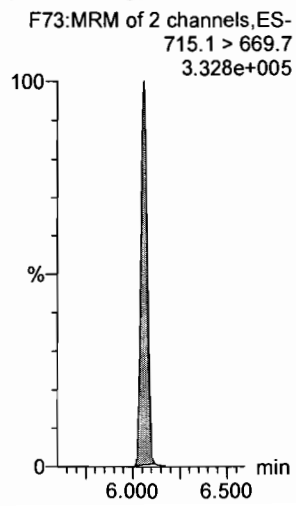
d3-N-MeFOSA



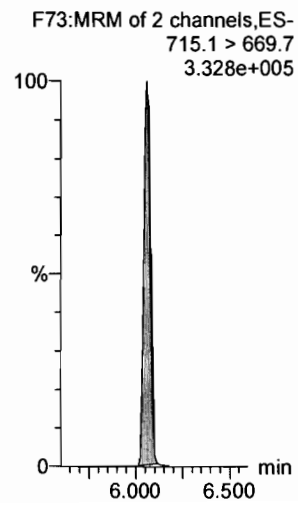
13C2-PFDoA



13C2-PFTeDA



13C2-PFTeDA

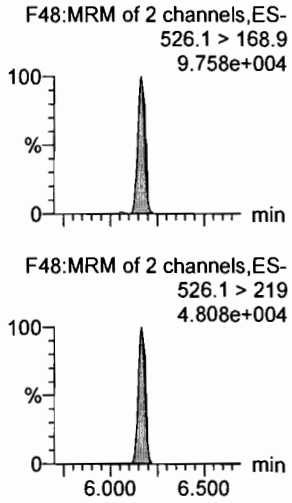


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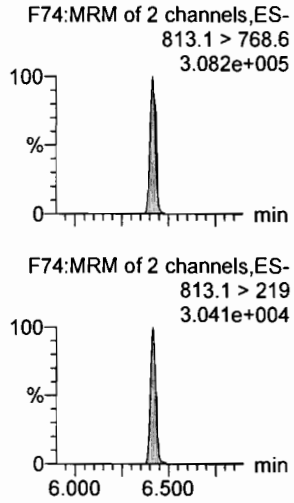
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Name: 190719M1_57, Date: 19-Jul-2019, Time: 18:23:53, ID: ST190719M1-4 PFC CS3 19G1106, Description: PFC CS3 19G1106

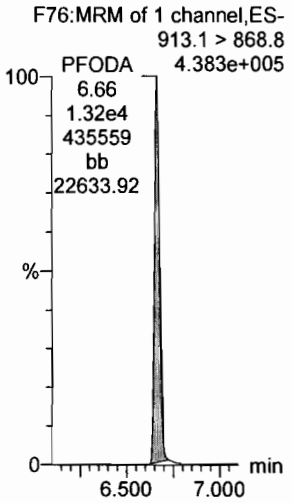
N-EtFOSA



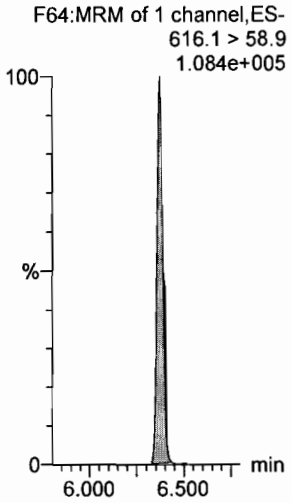
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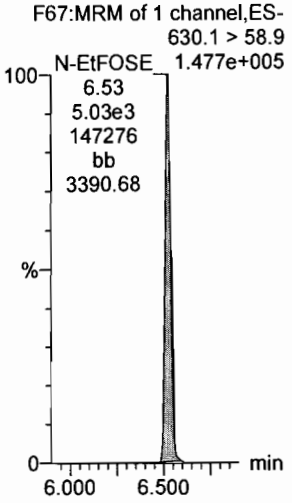
PFODA



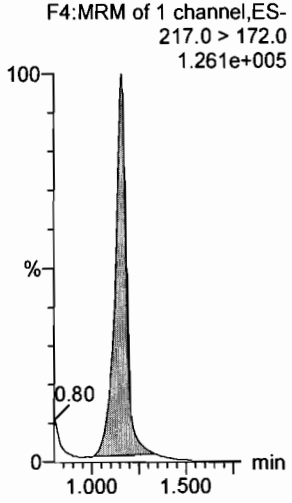
N-MeFOSE



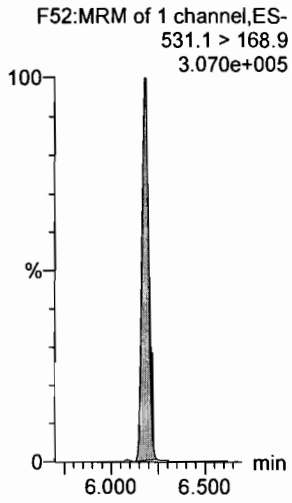
N-EtFOSE



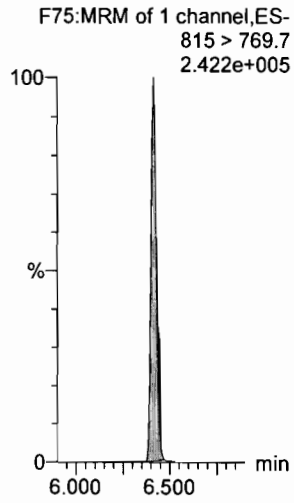
13C4-PFBA



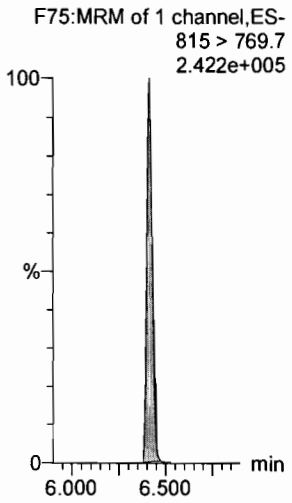
d5-N-ETFOSA



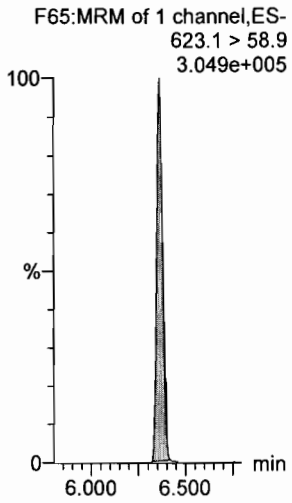
13C2-PFHxDA



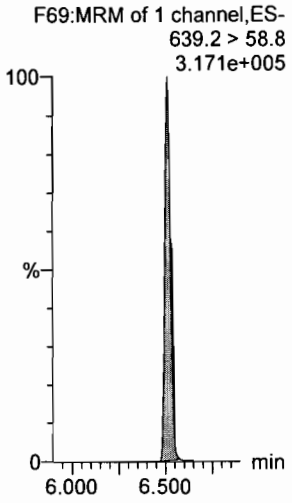
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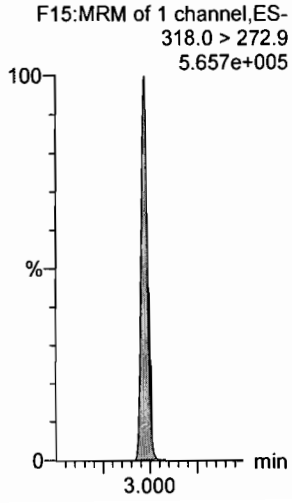
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d9-N-EtFOSE



13C5-PFHxA

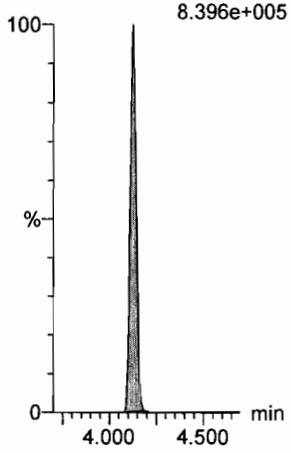


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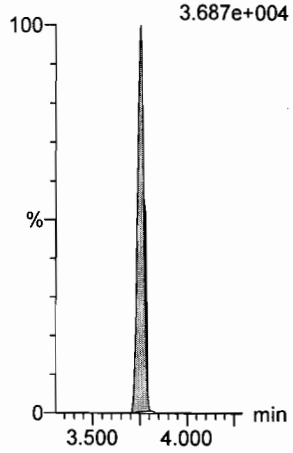
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Name: 190719M1_57, Date: 19-Jul-2019, Time: 18:23:53, ID: ST190719M1-4 PFC CS3 19G1106, Description: PFC CS3 19G1106

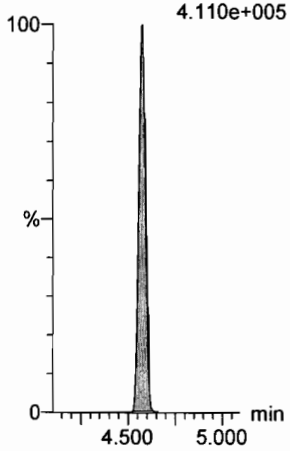
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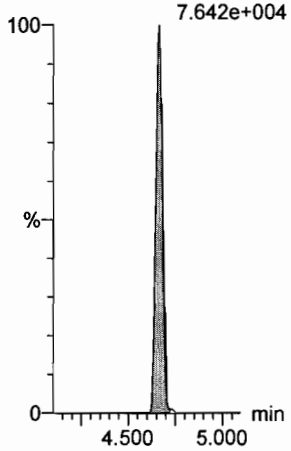
18O2-PFHxS



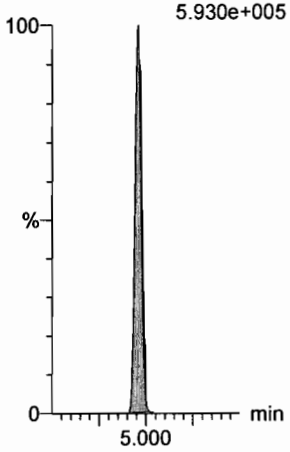
13C9-PFNA



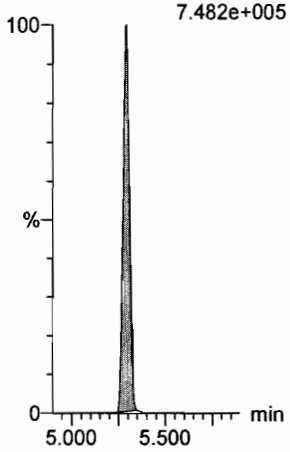
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Dataset: F:\Projects\PFAS.PRO\Results\190719M1\190719M1-75.qld

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Name: 190719M1_75, Date: 19-Jul-2019, Time: 21:34:35, ID: ST190719M1-5 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8	6193.012	5798.816	1.00	1.17	13.350	9.4	94.5	NO		
2	2	PFPrS	248.9 > 79.9	1414.698	1440.640	1.00	1.54	12.275	9.2	92.1	NO	2.383	NO
3	3	3:3 FTCA	240.9 > 176.9	345.508	9904.619	1.00	2.01	0.436	11.0	110.4	NO	1.910	NO
4	4	PFPeA	263.1 > 218.9	7197.228	9904.619	1.00	2.16	9.083	9.8	98.4	NO		
5	5	PFBS	299.0 > 79.7	2484.122	1440.640	1.00	2.46	21.554	9.4	93.9	NO	3.057	NO
6	6	4:2 FTS	327.0 > 306.9	5581.911	2512.579	1.00	2.89	27.770	10.1	101.2	NO	1.945	NO
7	47	13C3-PFBA	216.1 > 171.8	5798.816	8373.686	1.00	1.17	8.656	12.9	103.1	NO		
8	49	13C3-PFBS	302.0 > 98.8	1440.640	1332.610	1.00	2.46	13.513	13.1	104.5	NO		
9	48	13C3-PFPeA	266.0 > 221.8	9904.619	22350.766	1.00	2.16	5.539	12.2	97.8	NO		
10	48	13C3-PFPeA	266.0 > 221.8	9904.619	22350.766	1.00	2.16	5.539	12.2	97.8	NO		
11	49	13C3-PFBS	302.0 > 98.8	1440.640	1332.610	1.00	2.46	13.513	13.1	104.5	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	2512.579	1332.610	1.00	2.89	23.568	12.7	101.5	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0	16709.047	6958.111	1.00	2.98	12.007	10.4	103.8	NO	14.640	NO
15	8	PFPeS	349.1>80.1	2001.336	1440.640	1.00	3.18	17.365	11.6	115.6	NO	1.396	NO
16	9	HFPO-DA	285.1 > 168.9	2326.340	2041.865	1.00	3.19	5.697	9.7	97.1	NO	2.466	NO
17	10	5:3 FTCA	340.9 > 236.9	1835.410	7697.206	1.00	3.53	2.981	10.7	107.3	NO	1.517	NO
18	11	PFHpA	363.0 > 318.9	7695.876	7697.206	1.00	3.60	12.498	10.0	99.7	NO	4.606	NO
19	12	ADONA	376.8 > 250.9	27940.674	7697.206	1.00	3.71	45.375	9.6	96.5	NO	3.333	NO
20	52	13C2-PFHxA	315.0 > 270.0	6958.111	22350.766	1.00	2.98	3.891	4.9	98.4	NO		
21	49	13C3-PFBS	302.0 > 98.8	1440.640	1332.610	1.00	2.46	13.513	13.1	104.5	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	2041.865	22350.766	1.00	3.18	1.142	5.0	100.8	NO		
23	53	13C4-PFHpA	367.2 > 321.8	7697.206	22350.766	1.00	3.60	4.305	11.8	94.4	NO		
24	53	13C4-PFHpA	367.2 > 321.8	7697.206	22350.766	1.00	3.60	4.305	11.8	94.4	NO		
25	53	13C4-PFHpA	367.2 > 321.8	7697.206	22350.766	1.00	3.60	4.305	11.8	94.4	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6	2471.901	3068.052	1.00	3.76	10.071	10.1	101.5	NO	2.413	NO
28	15	6:2 FTS	427.0 > 406.9	4818.058	1952.357	1.00	4.07	30.848	10.6	106.4	NO	2.061	NO
29	16	L-PFOA	412.8 > 368.9	24438.455	15714.170	1.00	4.13	19.440	9.7	97.3	NO	4.032	NO
30	18	PFecHS	460.8 > 381.0	3880.555	15714.170	1.00	4.15	3.087	9.6	96.2	NO	0.974	NO
31	19	PFHpS	449.0 > 80.0	2255.134	3085.035	1.00	4.25	9.137	10.8	107.7	NO	1.918	NO
32	20	7:3 FTCA	440.9 > 336.9	2080.517	16682.613	1.00	4.56	1.559	10.2	102.2	NO	2.157	NO
33	54	13C3-PFHxS	401.8 > 79.9	3068.052	1332.610	1.00	3.76	28.779	13.0	104.2	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	1952.357	3062.524	1.00	4.07	7.969	11.7	93.4	NO		

JR 07/22/19

7/22/19

Dataset: F:\Projects\PFAS.PRO\Results\190719M1\190719M1-75.qld

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Name: 190719M1_75, Date: 19-Jul-2019, Time: 21:34:35, ID: ST190719M1-5 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
35	58	13C2-PFOA	414.9 > 369.7	15714.170	30778.701	1.00	4.13	6.382	12.5	100.3	NO		
36	58	13C2-PFOA	414.9 > 369.7	15714.170	30778.701	1.00	4.13	6.382	12.5	100.3	NO		
37	59	13C8-PFOS	507.0 > 79.9	3085.035	3062.524	1.00	4.66	12.592	12.4	99.2	NO		
38	56	13C5-PFNA	468.2 > 422.9	16682.613	16581.465	1.00	4.58	12.576	12.6	100.8	NO		
39	-1												
40	21	PFNA	463.0 > 418.8	14738.889	16682.613	1.00	4.58	11.044	10.6	106.5	NO	2.920	NO
41	22	PFOSA	497.9 > 77.9	4108.952	4407.070	1.00	4.64	11.654	10.1	100.7	NO	30.914	NO
42	23	L-PFOS	498.9 > 79.9	3093.120	3085.035	1.00	4.67	12.533	9.9	98.5	NO	2.131	NO
43	25	9Cl-PF30NS	530.7 > 350.8	8376.705	3085.035	1.00	4.89	33.941	9.8	97.9	NO	18.260	NO
44	26	PFDA	513 > 468.8	17429.518	14346.416	1.00	4.96	15.186	10.2	101.6	NO	4.336	NO
45	27	8:2 FTS	527.0 > 506.9	4349.332	1915.523	1.00	4.93	28.382	11.6	115.6	NO	1.487	NO
46	56	13C5-PFNA	468.2 > 422.9	16682.613	16581.465	1.00	4.58	12.576	12.6	100.8	NO		
47	57	13C8-PFOSA	506.1 > 77.7	4407.070	29193.467	1.00	4.64	1.887	13.6	108.9	NO		
48	59	13C8-PFOS	507.0 > 79.9	3085.035	3062.524	1.00	4.66	12.592	12.4	99.2	NO		
49	59	13C8-PFOS	507.0 > 79.9	3085.035	3062.524	1.00	4.66	12.592	12.4	99.2	NO		
50	60	13C2-PFDA	515.1 > 469.9	14346.416	22656.232	1.00	4.96	7.915	11.8	94.6	NO		
51	61	13C2-8:2 FTS	529 > 79.9	1915.523	3062.524	1.00	4.93	7.818	11.4	91.2	NO		
52	-1												
53	28	PFNS	549.1 > 80.1	1886.395	3085.035	1.00	5.03	7.643	9.5	95.1	NO	1.464	NO
54	29	L-MeFOSAA	570 > 419	8570.370	3334.083	1.00	5.12	32.132	10.9	108.7	NO	2.372	NO
55	31	L-EtFOSAA	584.1 > 419	6620.946	4899.816	1.00	5.28	16.891	10.8	107.5	NO	1.389	NO
56	33	PFUdA	563.0 > 518.9	17626.201	22725.199	1.00	5.30	9.695	10.8	108.5	NO	6.189	NO
57	34	PFDS	598.8 > 79.9	3087.723	1915.523	1.00	5.35	20.149	10.8	107.9	NO	1.916	NO
58	35	11Cl-PF30UdS	632.6 > 452.7	1200.186	26041.721	1.00	5.52	0.576	9.8	97.7	NO	4.442	NO
59	59	13C8-PFOS	507.0 > 79.9	3085.035	3062.524	1.00	4.66	12.592	12.4	99.2	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	3334.083	29193.467	1.00	5.12	1.428	11.5	92.0	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	4899.816	29193.467	1.00	5.28	2.098	12.0	96.3	NO		
62	63	13C2-PFUdA	565 > 519.8	22725.199	29193.467	1.00	5.30	9.730	12.0	95.9	NO		
63	61	13C2-8:2 FTS	529 > 79.9	1915.523	3062.524	1.00	4.93	7.818	11.4	91.2	NO		
64	65	13C2-PFDoA	614.7 > 569.7	26041.721	22656.232	1.00	5.59	14.368	11.0	87.6	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9	4275.809	1915.523	1.00	5.57	27.902	11.4	113.6	NO	1.573	NO
67	37	PFDoA	612.9 > 569.0	21010.057	26041.721	1.00	5.59	10.085	10.5	104.6	NO	7.977	NO
68	38	N-MeFOSA	512.1 > 168.9	3741.981	9778.763	1.00	5.72	57.400	52.7	105.4	NO	1.985	NO

Dataset: F:\Projects\PFAS.PRO\Results\190719M1\190719M1-75.qld

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Name: 190719M1_75, Date: 19-Jul-2019, Time: 21:34:35, ID: ST190719M1-5 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
69	39	PFTrDA	662.9 > 618.9	22643.760	26041.721	1.00	5.84	10.869	10.7	106.6	NO	13.070	NO
70	40	PFDoS	698.8 > 79.9	2398.717	12296.419	1.00	5.87	2.438	8.9	88.9	NO	1.709	NO
71	41	PFTeDA	713.0 > 669.0	18303.053	12296.419	1.00	6.06	18.606	10.5	105.0	NO	14.983	NO
72	65	13C2-PFDoA	614.7 > 569.7	26041.721	22656.232	1.00	5.59	14.368	11.0	87.6	NO		
73	65	13C2-PFDoA	614.7 > 569.7	26041.721	22656.232	1.00	5.59	14.368	11.0	87.6	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	9778.763	29193.467	1.00	5.75	4.187	151.4	101.0	NO		
75	65	13C2-PFDoA	614.7 > 569.7	26041.721	22656.232	1.00	5.59	14.368	11.0	87.6	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	12296.419	29193.467	1.00	6.06	5.265	12.0	96.4	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	12296.419	29193.467	1.00	6.06	5.265	12.0	96.4	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9	3761.641	12474.887	1.00	6.17	45.231	48.2	96.5	NO	1.978	NO
80	43	PFHxDA	813.1 > 768.6	9716.725	8076.477	1.00	6.42	6.015	9.4	94.3	NO	9.128	NO
81	44	PFODA	913.1 > 868.8	13288.093	8076.477	1.00	6.67	8.226	11.0	109.9	NO		
82	45	N-MeFOSE	616.1 > 58.9	3634.040	10578.146	1.00	6.37	51.531	47.6	95.1	NO		
83	46	N-EtFOSE	630.1 > 58.9	4553.347	10540.804	1.00	6.53	64.796	48.5	97.0	NO		
84	72	13C4-PFBA	217.0 > 172.0	8373.686	8373.686	1.00	1.17	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	12474.887	29193.467	1.00	6.19	5.341	164.5	109.7	NO		
86	69	13C2-PFHxDA	815 > 769.7	8076.477	29193.467	1.00	6.42	3.458	4.7	95.0	NO		
87	69	13C2-PFHxDA	815 > 769.7	8076.477	29193.467	1.00	6.42	3.458	4.7	95.0	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	10578.146	29193.467	1.00	6.37	4.529	152.3	101.5	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	10540.804	29193.467	1.00	6.51	4.513	148.2	98.8	NO		
90	73	13C5-PFHxA	318.0 > 272.9	22350.766	22350.766	1.00	2.98	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	30778.701	30778.701	1.00	4.13	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	1332.610	1332.610	1.00	3.76	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	16581.465	16581.465	1.00	4.58	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	3062.524	3062.524	1.00	4.67	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	22656.232	22656.232	1.00	4.96	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	29193.467	29193.467	1.00	5.29	12.500	12.5	100.0	NO		

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_071919.mdb 19 Jul 2019 13:43:15
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	190719M1_1	IPA	19-Jul-19	08:12:17
2	2	190719M1_2	IPA	19-Jul-19	08:23:03
3	3	190719M1_3	IPA	19-Jul-19	08:33:36
4	4	190719M1_4	ST190719M1-1 PFC CS0 19G1103	19-Jul-19	08:44:14
5	5	190719M1_5	IB	19-Jul-19	08:54:47
6	6	190719M1_6	B9G0117-BS1 OPR 1	19-Jul-19	09:09:25
7	7	190719M1_7	B9G0117-BSD1 LCSD 1	19-Jul-19	09:19:59
8	8	190719M1_8	B9G0117-BLK1 Method Blank 1	19-Jul-19	09:30:29
9	9	190719M1_9	B9G0117-MS1 Matrix Spike 1.07	19-Jul-19	09:41:08
10	10	190719M1_10	B9G0117-MSD1 Matrix Spike Dup 1.06	19-Jul-19	09:51:41
11	11	190719M1_11	B9G0117-MS2 Matrix Spike 1.07	19-Jul-19	10:02:20
12	12	190719M1_12	B9G0117-MSD2 Matrix Spike Dup 1.06	19-Jul-19	10:12:52
13	13	190719M1_13	1901860-01 B96-PFAS-SB56-0-2-062619 1.08	19-Jul-19	10:23:31
14	14	190719M1_14	1901860-02 B96-PFAS-SB61-0-2-062619 1.06	19-Jul-19	10:34:09
15	15	190719M1_15	1901860-03 B96-PFAS-SB62-0-2-062619 1.14	19-Jul-19	10:44:41
16	16	190719M1_16	1901860-04 H1-PFAS-SB138N-0-2-062619 1.11	19-Jul-19	10:55:20
17	17	190719M1_17	1901860-05 H1-PFAS-SB138S-0-2-062619 1.05	19-Jul-19	11:05:53
18	18	190719M1_18	1901860-06 DUP03-062619 1.09	19-Jul-19	11:16:31
19	19	190719M1_19	1901860-07 B96-PFAS-SB63-0-2-062619 1.07	19-Jul-19	11:27:03
20	20	190719M1_20	1901860-08 B96-PFAS-SB43-0-2-062719 1.14	19-Jul-19	11:37:42
21	21	190719M1_21	1901860-09 B96-PFAS-SB43-7-8-062719 1.14	19-Jul-19	11:48:14
22	22	190719M1_22	1901860-10 H1-PFAS-SB138E-0-2-062719 1.09	19-Jul-19	11:58:53
23	23	190719M1_23	IPA	19-Jul-19	12:09:31
24	24	190719M1_24	ST190719M1-2 PFC CS3 19G1106	19-Jul-19	12:20:04
25	25	190719M1_25	IPA	19-Jul-19	12:30:42
26	26	190719M1_26	B9G0154-BS1 OPR 0.125	19-Jul-19	12:41:23
27	27	190719M1_27	B9G0154-BLK1 Method Blank 0.125	19-Jul-19	12:51:59
28	28	190719M1_28	1902100-01 B-304UR_20190708 0.11278	19-Jul-19	13:02:37
29	29	190719M1_29	1902100-02 B-304DR_20190708 0.12047	19-Jul-19	13:13:10
30	30	190719M1_30	1902100-03 MW-701_20190709 0.11646	19-Jul-19	13:23:48
31	31	190719M1_31	1902100-04 MW-802_20190708 0.11849	19-Jul-19	13:34:21
32	32	190719M1_32	1902100-05 B-904U_20190708 0.10365	19-Jul-19	13:44:59

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Compound name: PFBA

	# Name	ID	Acq.Date	Acq.Time
33	33 190719M1_33	1902100-06 B-914U_20190708 0.11954	19-Jul-19	13:55:32
34	34 190719M1_34	1902100-07 B-915U_20190709 0.11635	19-Jul-19	14:06:10
35	35 190719M1_35	1902100-08 B-915M_20190709 0.11805	19-Jul-19	14:16:48
36	36 190719M1_36	1902100-09 B-918U_20190709 0.1189	19-Jul-19	14:27:22
37	37 190719M1_37	1902100-10 B-918M_20190709 0.11456	19-Jul-19	14:38:16
38	38 190719M1_38	IPA	19-Jul-19	14:56:34
39	39 190719M1_39	ST190719M1-3 PFC CS0 19G1103	19-Jul-19	15:07:08
40	40 190719M1_40	IPA	19-Jul-19	15:23:13
41	41 190719M1_41	1902100-11 B-918M_20190709_FD 0.10856	19-Jul-19	15:33:48
42	42 190719M1_42	1902100-12 B-918D_20190709 0.11494	19-Jul-19	15:44:26
43	43 190719M1_43	1902100-13 B-919U_20190708 0.11629	19-Jul-19	15:55:04
44	44 190719M1_44	1902100-14 B-919M_20190709 0.11271	19-Jul-19	16:05:43
45	45 190719M1_45	1902100-15 B-919D_20190708 0.11738	19-Jul-19	16:16:16
46	46 190719M1_46	1902100-16 B-924U_20190709 0.1155	19-Jul-19	16:26:54
47	47 190719M1_47	1902100-17 FB-PFAS-01_20190709 0.11935	19-Jul-19	16:37:28
48	48 190719M1_48	B9G0189-BS1 OPR 1	19-Jul-19	16:48:06
49	49 190719M1_49	B9G0189-MS1 Matrix Spike 1.07	19-Jul-19	16:58:40
50	50 190719M1_50	B9G0189-MSD1 Matrix Spike Dup 1.08	19-Jul-19	17:09:41
51	51 190719M1_51	B9G0189-BLK1 Method Blank 1	19-Jul-19	17:20:14
52	52 190719M1_52	1902014-01 CAOA-B03-SO-4-4.5 1.08	19-Jul-19	17:30:51
53	53 190719M1_53	1902014-02 CAOA-B03-SO-20-20.5 1.09	19-Jul-19	17:41:25
54	54 190719M1_54	1902014-05 CAOA-B01-SO-0-0.5 1.07	19-Jul-19	17:52:03
55	55 190719M1_55	1902014-06 CAOA-B04-SO-0-0.5 1.03	19-Jul-19	18:02:36
56	56 190719M1_56	IPA	19-Jul-19	18:13:15
57	57 190719M1_57	ST190719M1-4 PFC CS3 19G1106	19-Jul-19	18:23:53
58	58 190719M1_58	IPA	19-Jul-19	18:34:27
59	59 190719M1_59	1902014-07 CAOA-B01-SO-20-20.5 1.2	19-Jul-19	18:45:05
60	60 190719M1_60	B9G0052-BS1 OPR 1	19-Jul-19	18:55:38
61	61 190719M1_61	B9G0052-BSD1 LCSD 1	19-Jul-19	19:06:16
62	62 190719M1_62	B9G0052-MS1 Matrix Spike 1.11	19-Jul-19	19:16:49
63	63 190719M1_63	B9G0052-MSD1 Matrix Spike Dup 1.16	19-Jul-19	19:27:28
64	64 190719M1_64	B9G0052-BLK1 Method Blank 1	19-Jul-19	19:38:01
65	65 190719M1_65	1901859-01 B96-PFAS-SB41-0-2-062019 1.1	19-Jul-19	19:48:40
66	66 190719M1_66	1901859-02 B96-PFAS-SB42-0-2-062019 1.11	19-Jul-19	19:59:13
67	67 190719M1_67	1901859-03 B96-PFAS-SB44-0-2-062119 1.09	19-Jul-19	20:09:51
68	68 190719M1_68	1901859-04 DUP02-062119 1.1	19-Jul-19	20:20:24

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Compound name: PFBA

	# Name	ID	Acq.Date	Acq.Time
69	69 190719M1_69	1901859-06 B96-PFAS-SB52-0-2-062619 1.1	19-Jul-19	20:31:03
70	70 190719M1_70	1901859-07 B96-PFAS-SB37-0-2-062619 1.09	19-Jul-19	20:41:35
71	71 190719M1_71	1901859-08 B96-PFAS-SB38-0-2-062619 1.06	19-Jul-19	20:52:14
72	72 190719M1_72	1901859-09 B96-PFAS-SB29-0-2-062619 1.1	19-Jul-19	21:02:52
73	73 190719M1_73	1901859-10 B96-PFAS-SB30-0-2-062719 1.04	19-Jul-19	21:13:25
74	74 190719M1_74	IPA	19-Jul-19	21:24:03
75	75 190719M1_75	ST190719M1-5 PFC CS3 19G1106	19-Jul-19	21:34:35
76	76 190719M1_76	IPA	19-Jul-19	21:45:14
77	77 190719M1_77	1901859-11 DUP04-062719 1.04	19-Jul-19	21:55:52
78	78 190719M1_78	1901859-12 B96-PFAS-SB31-0-2-062719 1.08	19-Jul-19	22:06:25
79	79 190719M1_79	1901859-13 B96-PFAS-SB28-0-2-062719 1.09	19-Jul-19	22:17:04
80	80 190719M1_80	1901859-14 B96-PFAS-SB70-0-2-062719 1.09	19-Jul-19	22:27:42
81	81 190719M1_81	1901859-15 B96-PFAS-SB71-0-2-062719 1.08	19-Jul-19	22:38:15
82	82 190719M1_82	1901859-16 B96-PFAS-SB25-0-2-062719 1.07	19-Jul-19	22:48:54
83	83 190719M1_83	1901859-17 B96-PFAS-SB26-0-2-062719 1.06	19-Jul-19	22:59:27
84	84 190719M1_84	1901859-18 B96-PFAS-SB27-0-2-062719 1.07	19-Jul-19	23:10:06
85	85 190719M1_85	1901859-19 B96-PFAS-SB72-0-2-062719 1.07	19-Jul-19	23:20:38
86	86 190719M1_86	B9G0149-BS1 OPR 1	19-Jul-19	23:31:17
87	87 190719M1_87	B9G0149-BSD1 LCSD 1	19-Jul-19	23:41:47
88	88 190719M1_88	B9G0149-MS1 Matrix Spike 1.04	19-Jul-19	23:52:25
89	89 190719M1_89	B9G0149-MSD1 Matrix Spike Dup 1.03	20-Jul-19	00:02:59
90	90 190719M1_90	B9G0149-BLK1 Method Blank 1	20-Jul-19	00:13:37
91	91 190719M1_91	1901983-01 B96-PFAS-SB19-0-2-070119 1.03	20-Jul-19	00:24:10
92	92 190719M1_92	IPA	20-Jul-19	00:34:48
93	93 190719M1_93	ST190719M1-6 PFC CS0 19G1103	20-Jul-19	00:45:26
94	94 190719M1_94	ST190719M1-7 PFC CS3 19G1106	20-Jul-19	00:55:59
95	95 190719M1_95	IPA	20-Jul-19	01:06:37
96	96 190719M1_96	1901983-02 B96-PFAS-SB21-0-2-070119 1.06	20-Jul-19	01:17:10
97	97 190719M1_97	1901983-03 B96-PFAS-SB66-0-2-070119 1.04	20-Jul-19	01:27:48
98	98 190719M1_98	1901983-04 DUP05-070119 1.06	20-Jul-19	01:38:20
99	99 190719M1_99	1901983-05 B96-PFAS-SB65-0-2-070119 1.04	20-Jul-19	01:48:58
100	100 190719M1_100	1901983-06 B96-PFAS-SB68-0-2-070119 1.02	20-Jul-19	01:59:31
101	101 190719M1_101	1901983-07 B96-PFAS-SB69-0-2-070119 1.04	20-Jul-19	02:10:09
102	102 190719M1_102	1901983-08 B96-PFAS-SB75-0-2-070119 1.04	20-Jul-19	02:20:48
103	103 190719M1_103	1901983-09 B96-PFAS-SB60-0-2-070219 1.06	20-Jul-19	02:31:20
104	104 190719M1_104	1901983-10 B96-PFAS-SB59-0-2-070219 1.12	20-Jul-19	02:41:59

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108	108	190719M1_108	IPA	20-Jul-19	03:24:21
109	109	190719M1_109	1901983-12 B96-PFAS-SB24-0-2-070219 1.08	20-Jul-19	03:34:59
110	110	190719M1_110	1901983-13 B96-PFAS-SB23-0-2-070219 1.07	20-Jul-19	03:45:32
111	111	190719M1_111	1901983-14 B96-PFAS-SB18-0-2-070219 1.08	20-Jul-19	03:56:11
112	112	190719M1_112	1901983-15 B96-PFAS-SB20-0-2-070219 1.05	20-Jul-19	04:06:43
113	113	190719M1_113	B9G0193-BS1 OPR 0.01	20-Jul-19	04:17:21
114	114	190719M1_114	B9G0193-BSD1 LCSD 0.01	20-Jul-19	04:28:00
115	115	190719M1_115	B9G0193-BLK1 Method Blank 0.01	20-Jul-19	04:38:33
116	116	190719M1_116	1902082-01 Milk Sample A 0.01	20-Jul-19	04:49:11
117	117	190719M1_117	B9G0155-BS1 OPR 0.125	20-Jul-19	04:59:44
118	118	190719M1_118	B9G0155-BLK1 Method Blank 0.125	20-Jul-19	05:10:23
119	119	190719M1_119	1902102-01 Headworks #1 0.10636	20-Jul-19	05:20:55
120	120	190719M1_120	1902103-01 MW-3A 0.116	20-Jul-19	05:31:34
121	121	190719M1_121	1902103-02 MW-4 0.11257	20-Jul-19	05:42:07
122	122	190719M1_122	1902103-03 B-106S 0.11376	20-Jul-19	05:52:45
123	123	190719M1_123	1902103-04 B-205A 0.11334	20-Jul-19	06:03:18
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125	125	190719M1_125	ST190719M1-9 PFC CS3 19G1106	20-Jul-19	06:24:29
126	126	190719M1_126	IPA	20-Jul-19	06:35:08
127	127	190719M1_127	1902103-05 MW-402 0.11687	20-Jul-19	06:45:46
128	128	190719M1_128	1902103-06 MW-501 0.1145	20-Jul-19	06:56:19
129	129	190719M1_129	1902103-07 MW-504 0.11556	20-Jul-19	07:06:57
130	130	190719M1_130	1902103-08 MW-507 0.11507	20-Jul-19	07:17:36
131	131	190719M1_131	1902103-09 MW-601 0.10707	20-Jul-19	07:28:09
132	132	190719M1_132	1902103-10 Field Blank 0.11383	20-Jul-19	07:38:39
133	133	190719M1_133	1902103-11 Trip Blank 0.11636	20-Jul-19	07:49:17
134	134	190719M1_134	B9G0174-BS1 OPR 0.25	20-Jul-19	07:59:55
135	135	190719M1_135	B9G0174-BLK1 Method Blank 0.25	20-Jul-19	08:10:29
136	136	190719M1_136	1902098-02 WS 276 0.25	20-Jul-19	08:21:07
137	137	190719M1_137	IPA	20-Jul-19	08:31:45
138	138	190719M1_138	ST190719M1-10 PFC CS3 19G1106	20-Jul-19	08:42:18
139	139	190719M1_139	IPA	20-Jul-19	08:52:56
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Vista Analytical Laboratory

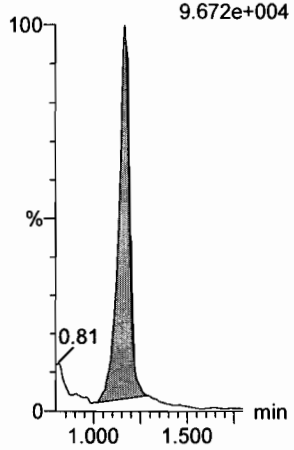
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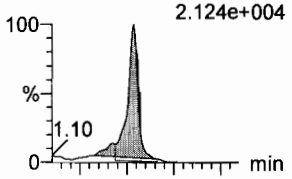
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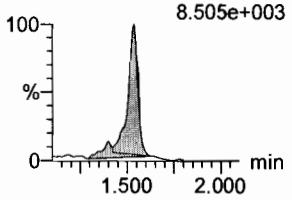
PFBA
F2:MRM of 1 channel,ES-
213.0 > 168.8
9.672e+004



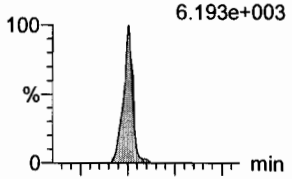
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F6:MRM of 2 channels,ES-
248.9 > 79.9
2.124e+004



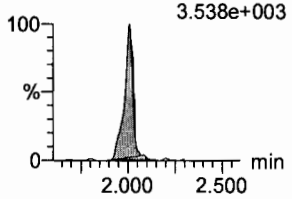
F6:MRM of 2 channels,ES-
248.9 > 98.9
8.505e+003



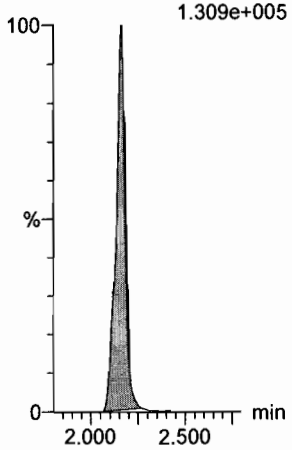
3:3 FTCA
F5:MRM of 2 channels,ES-
240.9 > 176.9
6.193e+003



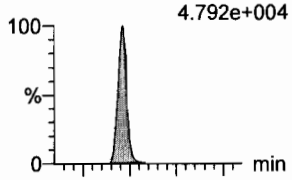
F5:MRM of 2 channels,ES-
240.9 > 116.9
3.538e+003



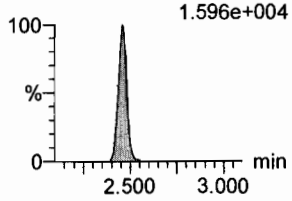
PFPeA
F7:MRM of 1 channel,ES-
263.1 > 218.9
1.309e+005



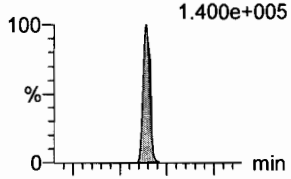
PFBS
F11:MRM of 2 channels,ES-
299.0 > 79.7
4.792e+004



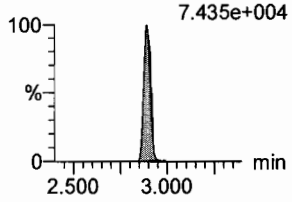
F11:MRM of 2 channels,ES-
299.0 > 99.0
1.596e+004



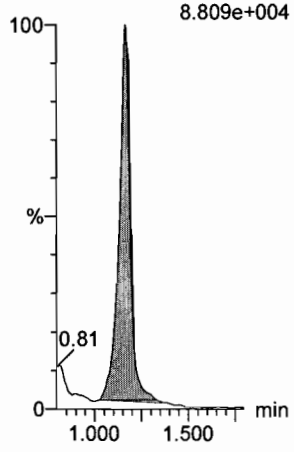
4:2 FTS
F16:MRM of 2 channels,ES-
327.0 > 306.9
1.400e+005



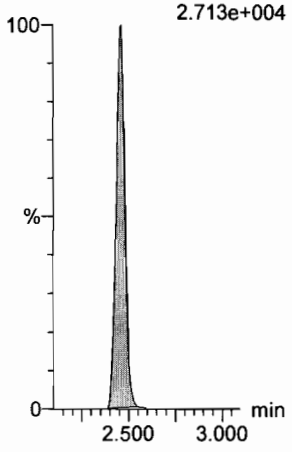
F16:MRM of 2 channels,ES-
327.0 > 80.9
7.435e+004



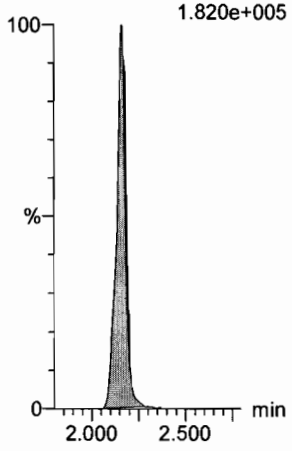
13C3-PFBA
F3:MRM of 1 channel,ES-
216.1 > 171.8
8.809e+004



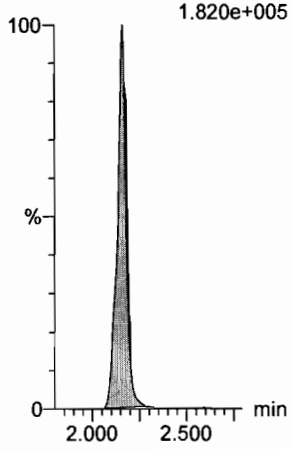
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F12:MRM of 1 channel,ES-
302.0 > 98.8
2.713e+004



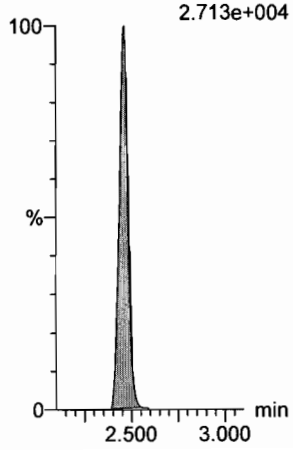
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F8:MRM of 1 channel,ES-
266.0 > 221.8
1.820e+005



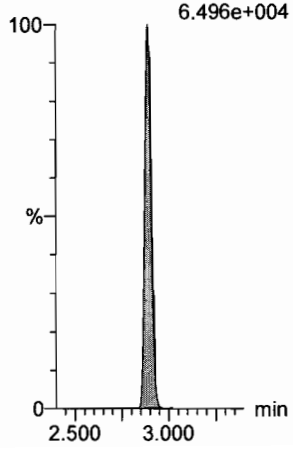
13C3-PFPeA
F8:MRM of 1 channel,ES-
266.0 > 221.8
1.820e+005



13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
2.713e+004



13C2-4:2 FTS
F17:MRM of 2 channels,ES-
329.0 > 79.9
6.496e+004

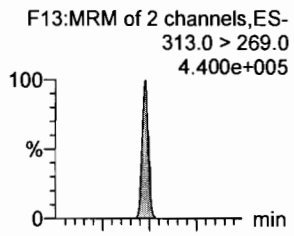


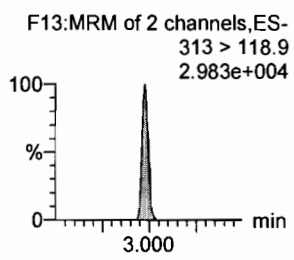
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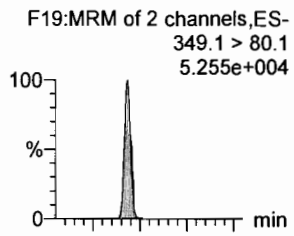
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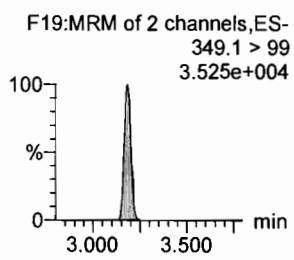
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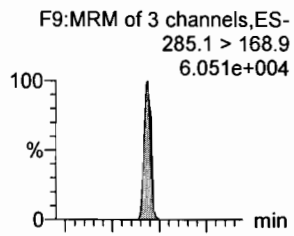


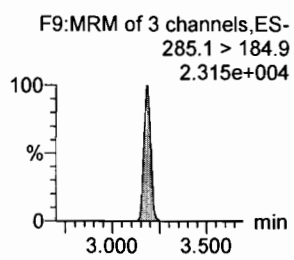
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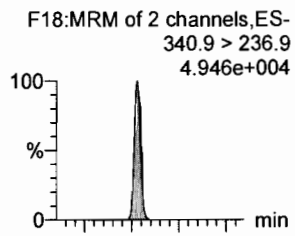


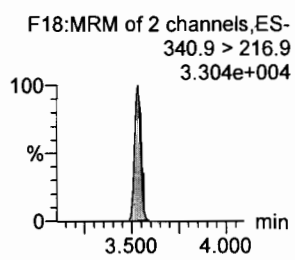
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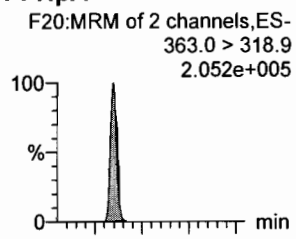


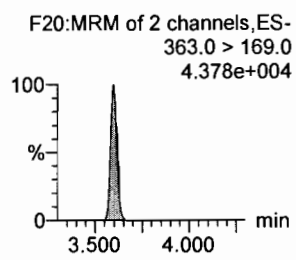
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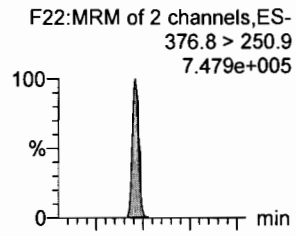


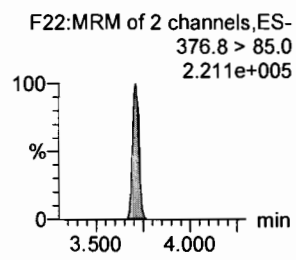
PFHpA



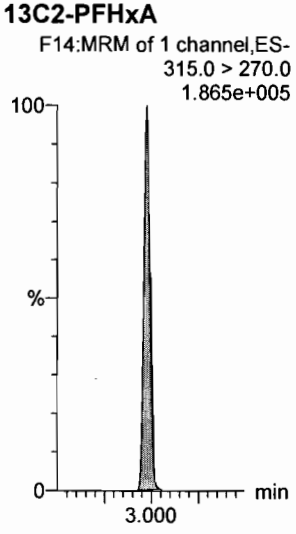


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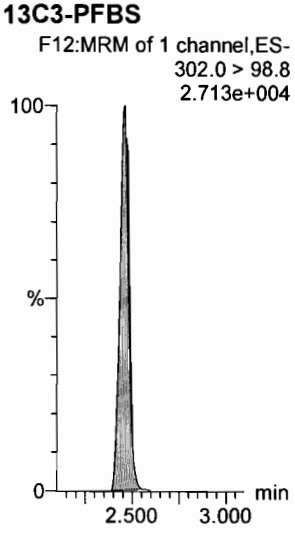




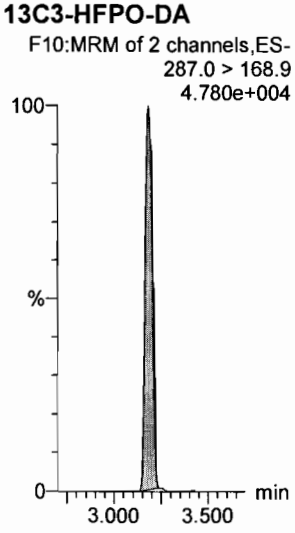
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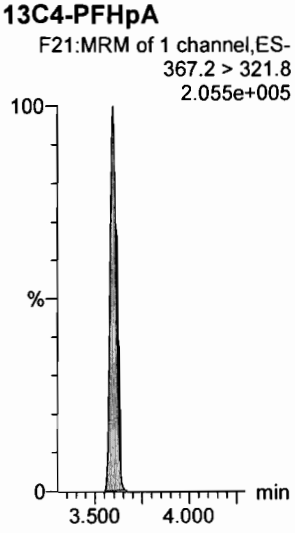
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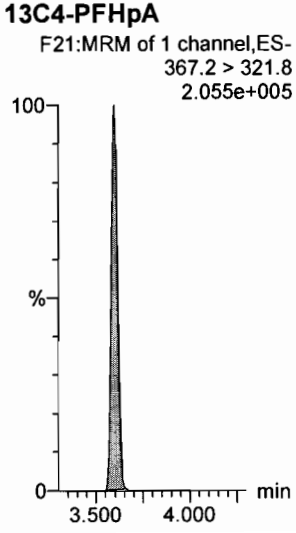
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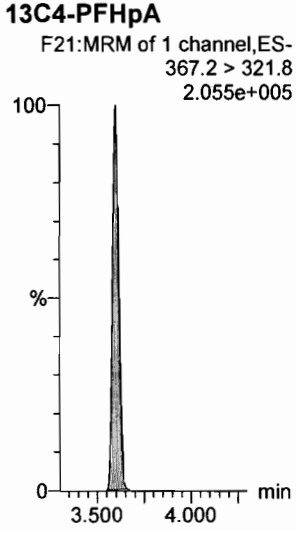
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13C4-PFHpA



13C4-PFHpA

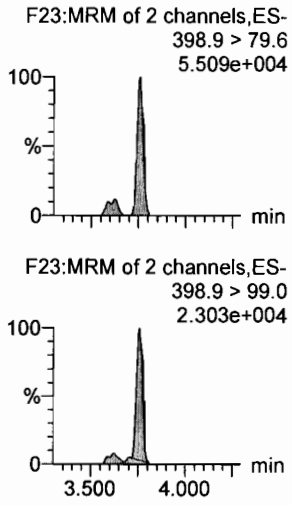


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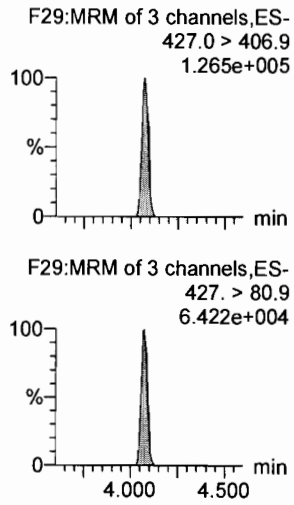
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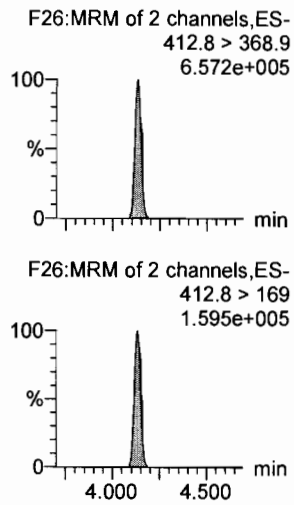
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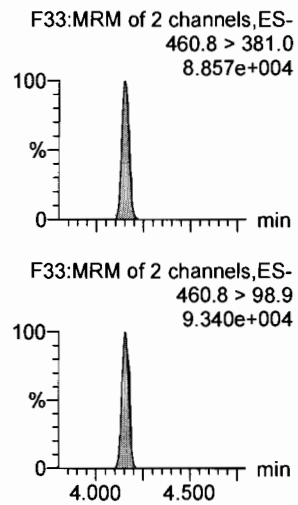
6:2 FTS



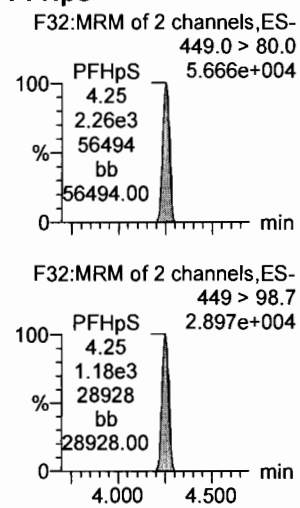
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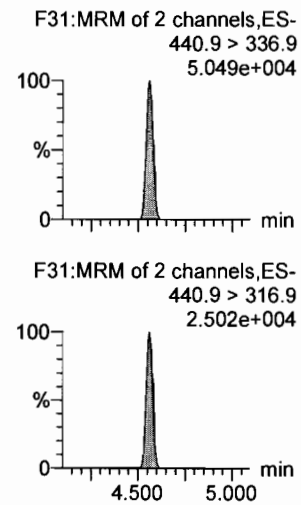
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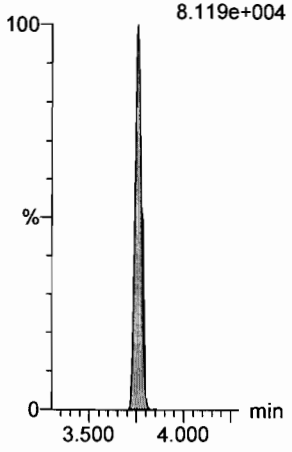
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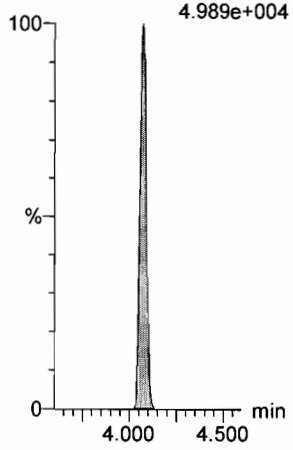
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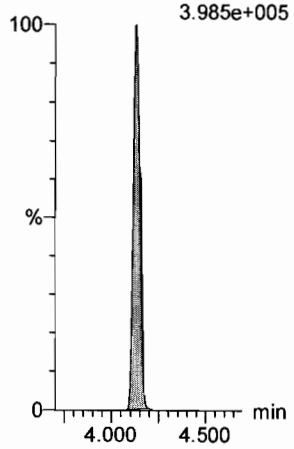
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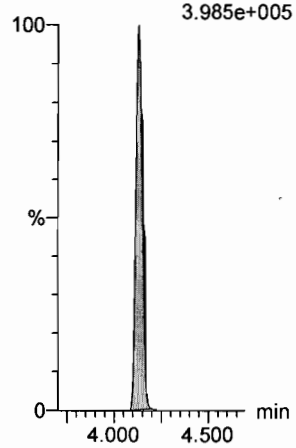
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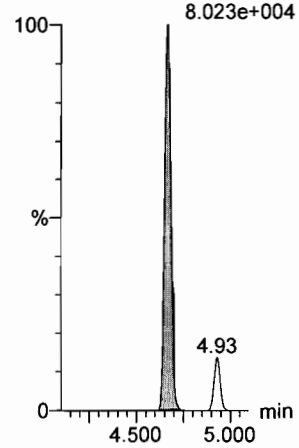
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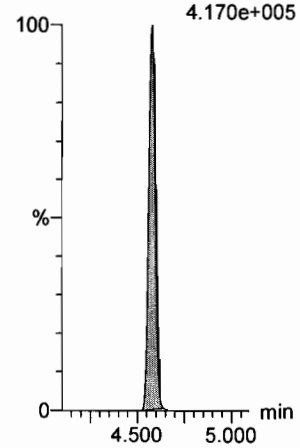
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13C8-PFOS



13C5-PFNA

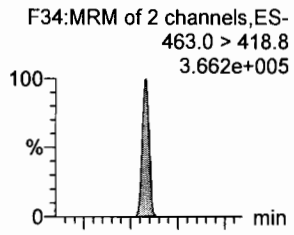


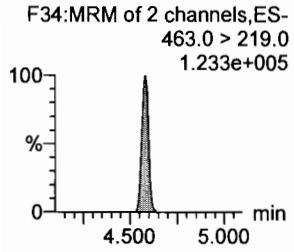
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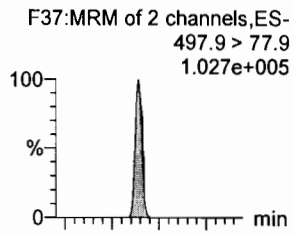
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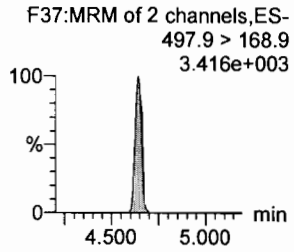
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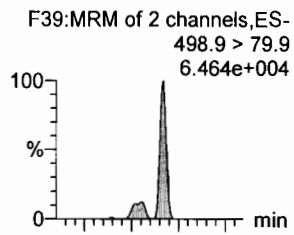


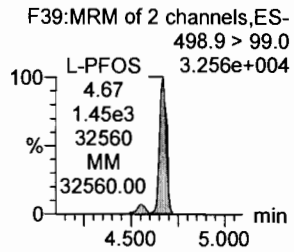
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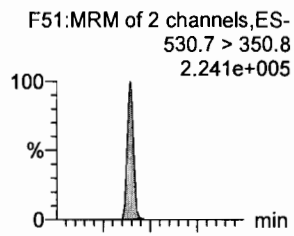


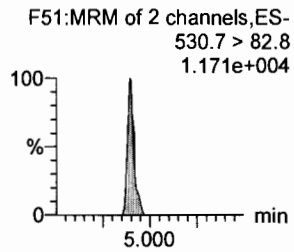
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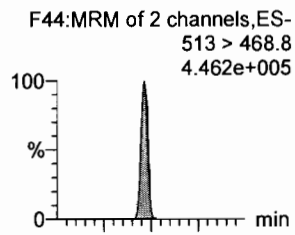


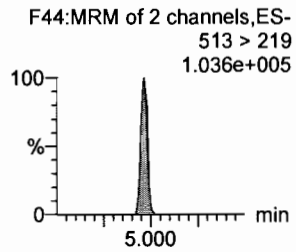
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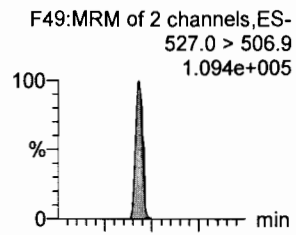


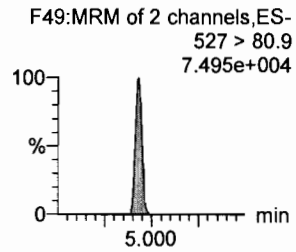
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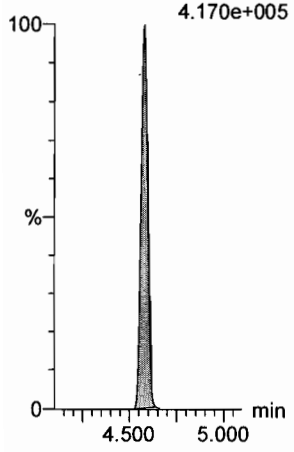


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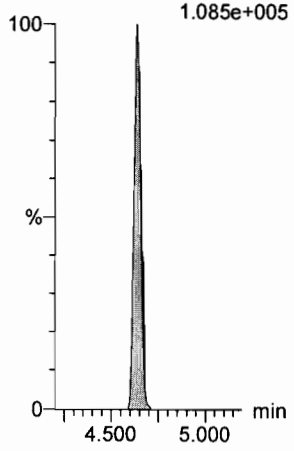




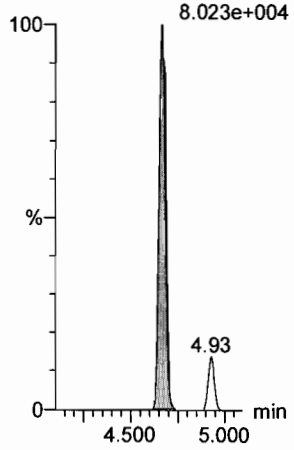
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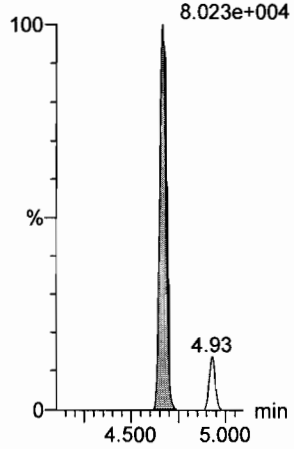
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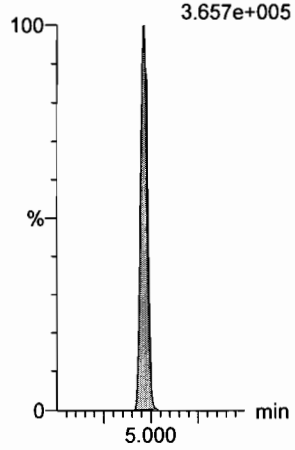
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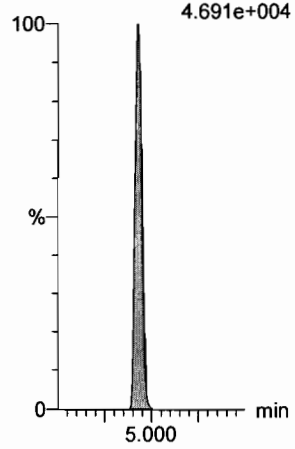
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13C2-PFDA



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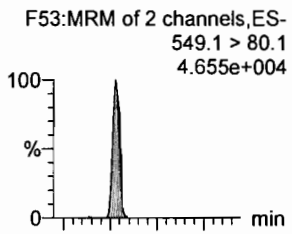


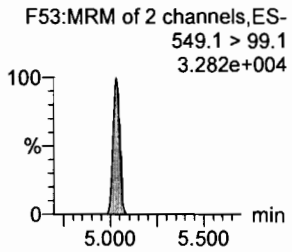
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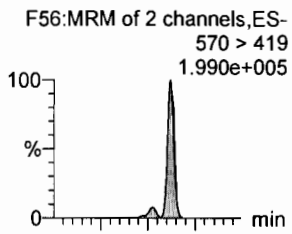
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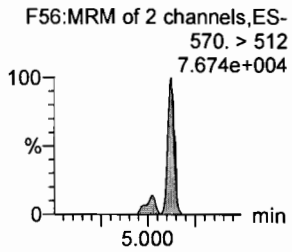
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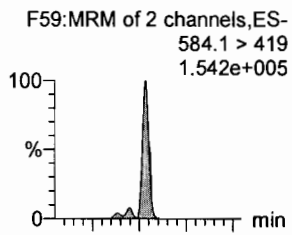


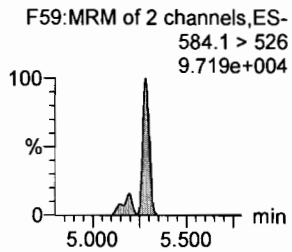
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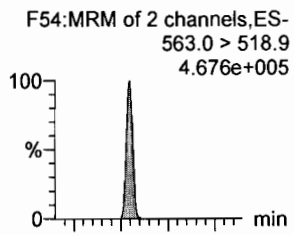


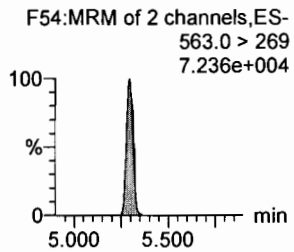
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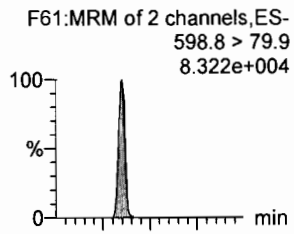


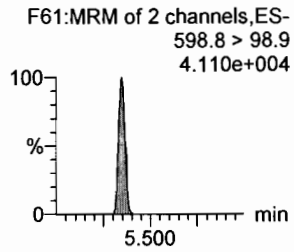
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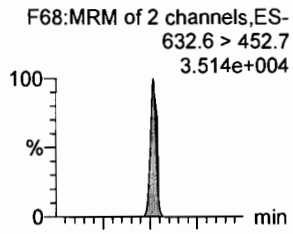


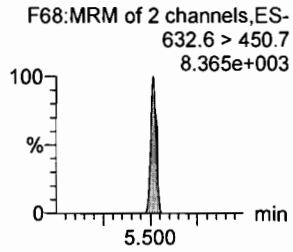
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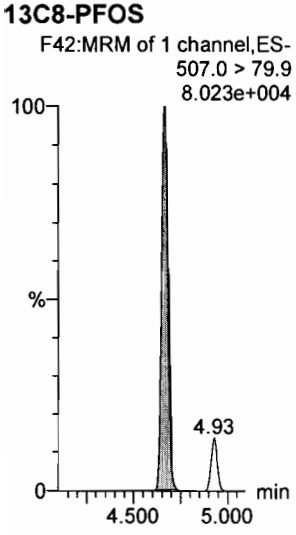


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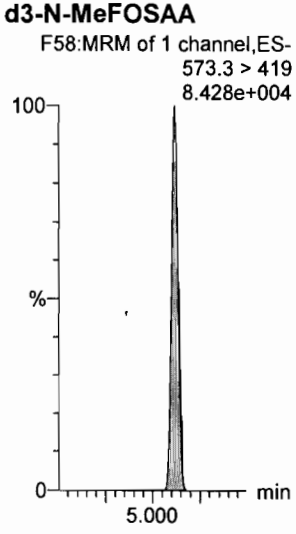




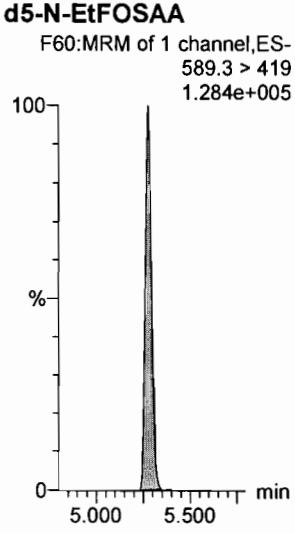
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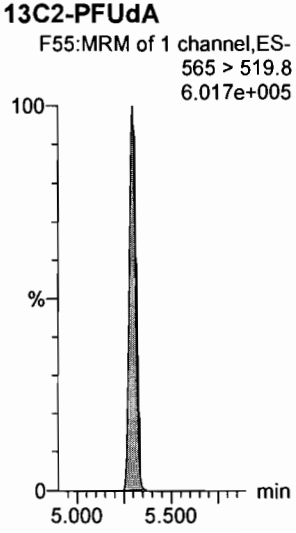
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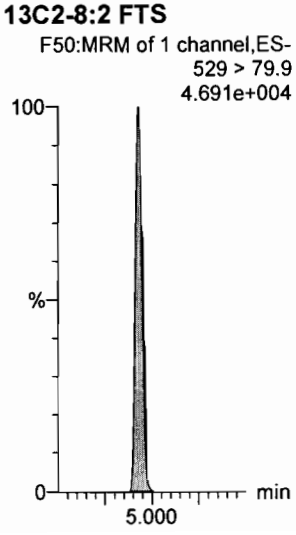
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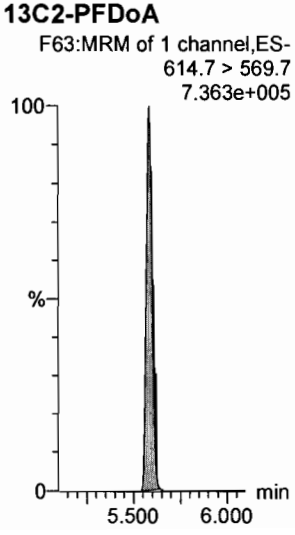
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13C2-8:2 FTS



13C2-PFDoA

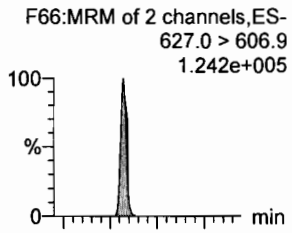


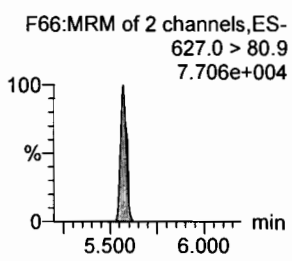
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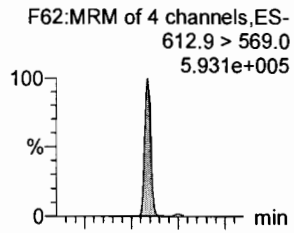
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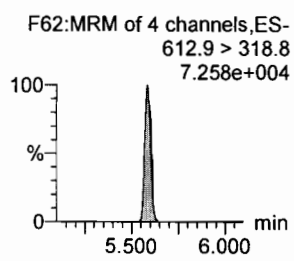
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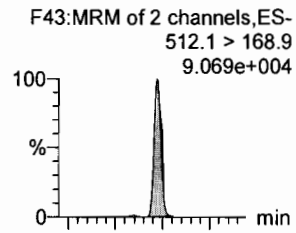


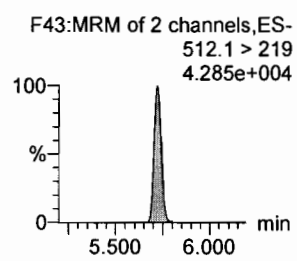
PFDoA



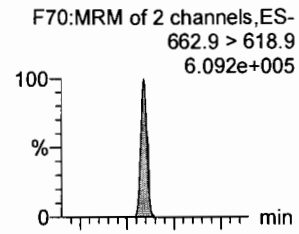


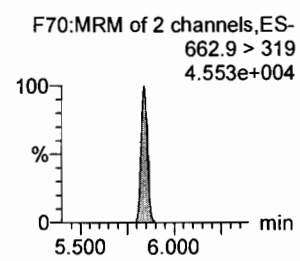
N-MeFOSA



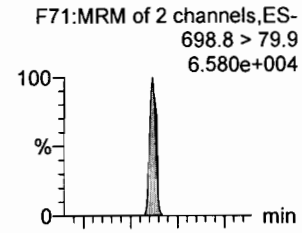


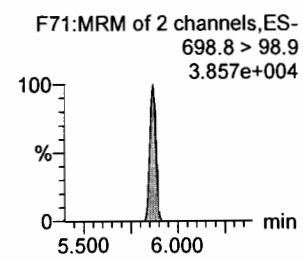
PFTrDA



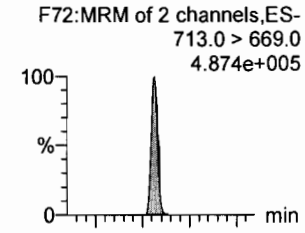


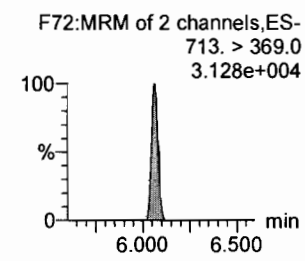
PFDoS



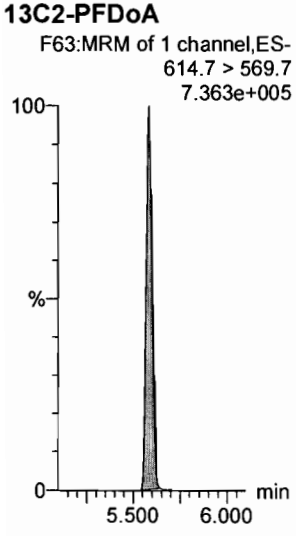


PFTeDA

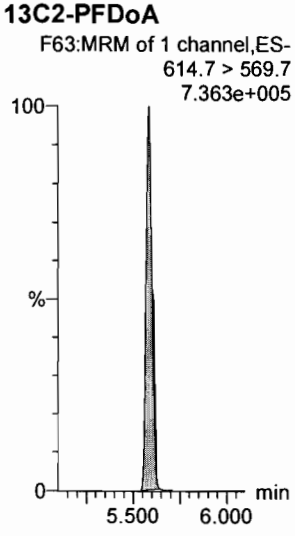




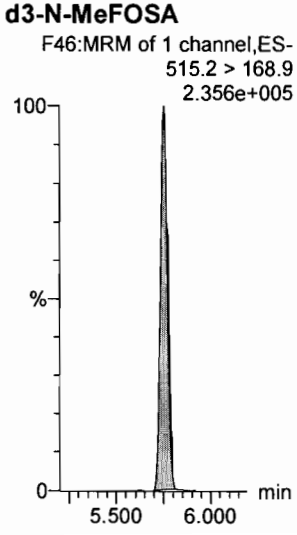
13C2-PFDoA



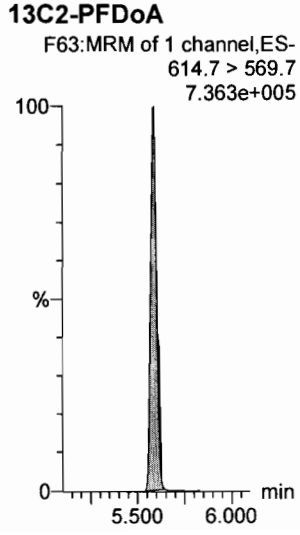
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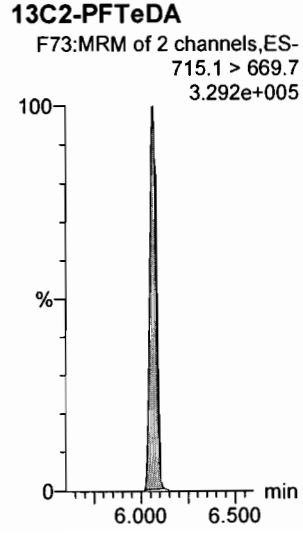
d3-N-MeFOSA



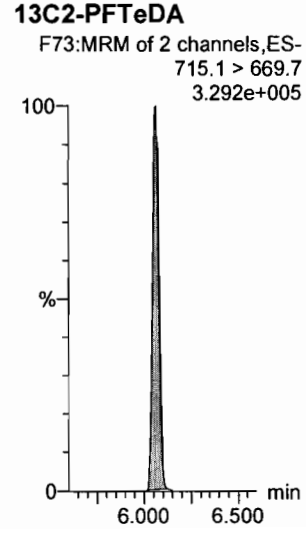
13C2-PFDoA



13C2-PFTeDA



13C2-PFTeDA

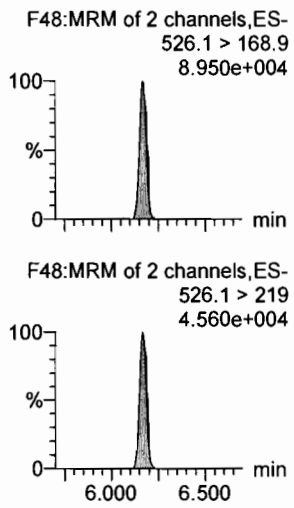


Dataset: F:\Projects\PFAS.PRO\Results\190719M1\190719M1-75.qld

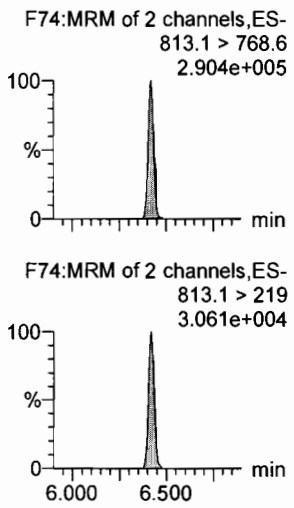
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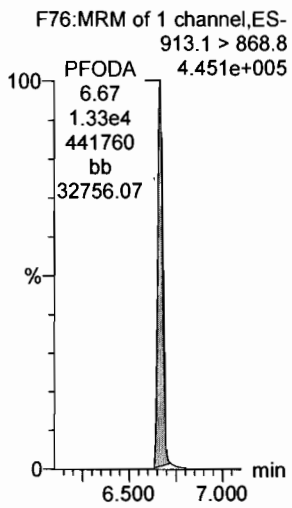
N-EtFOSA



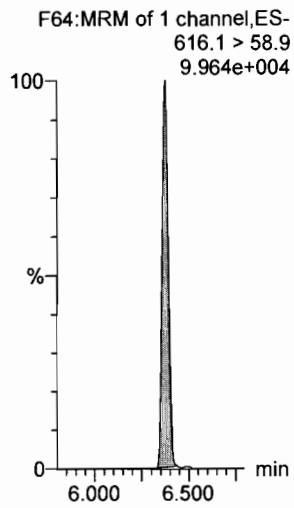
PFHxDA



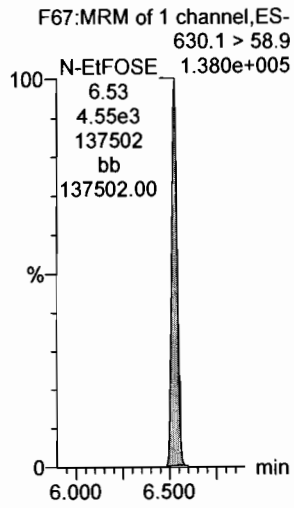
PFODA



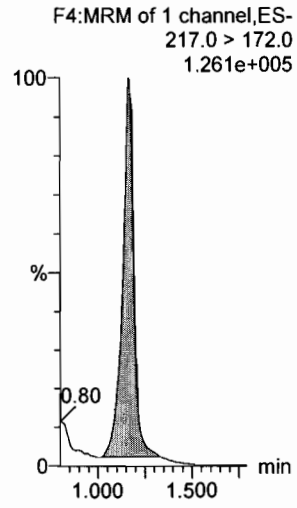
N-MeFOSE



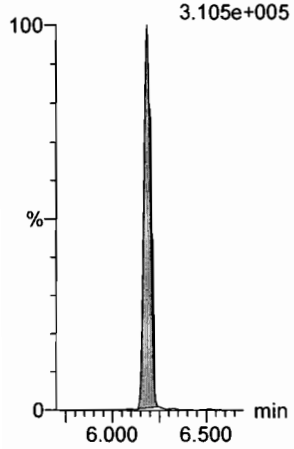
N-EtFOSE



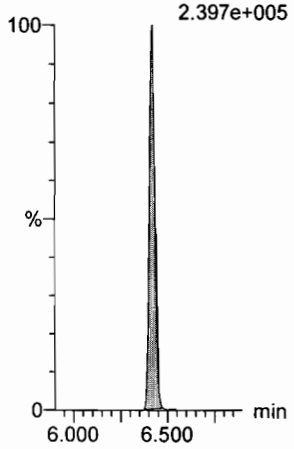
13C4-PFBA



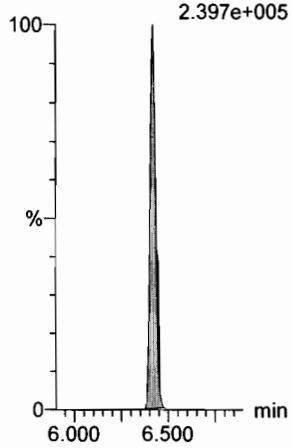
d5-N-ETFOSA



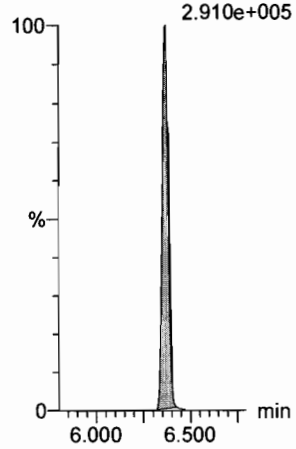
13C2-PFHxDA



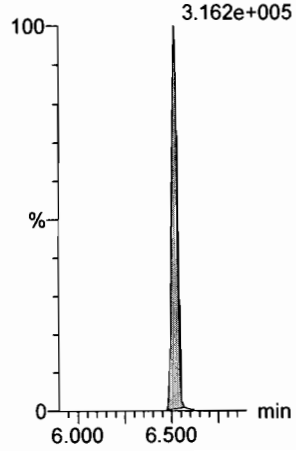
13C2-PFHxDA



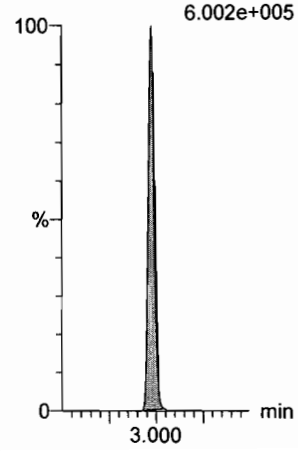
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

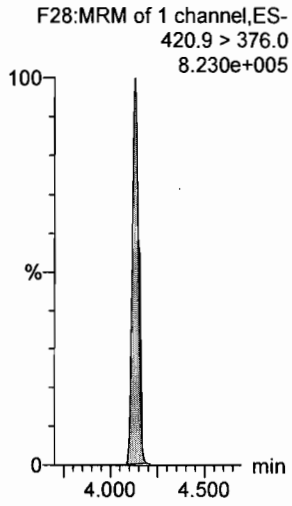


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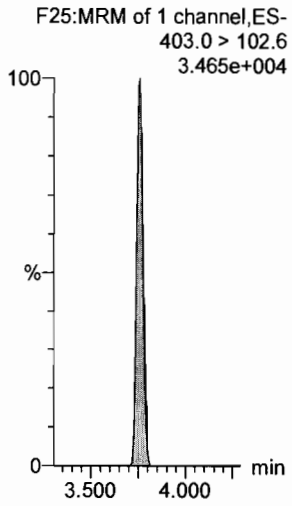
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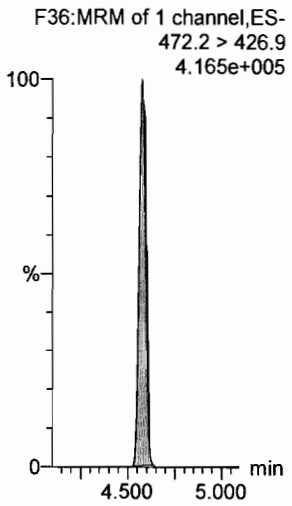
13C8-PFOA



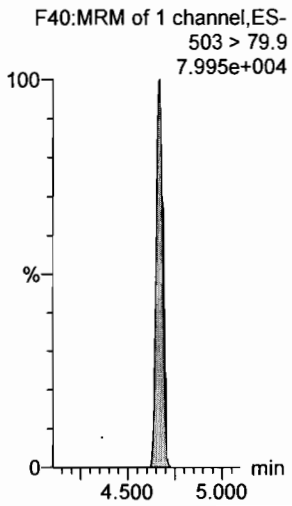
18O2-PFHxS



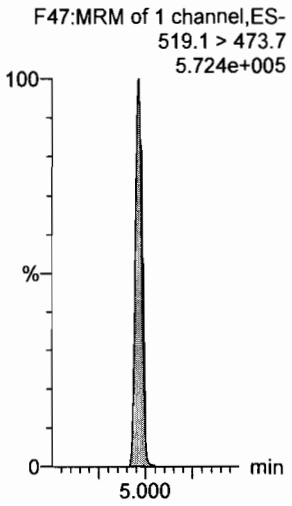
13C9-PFNA



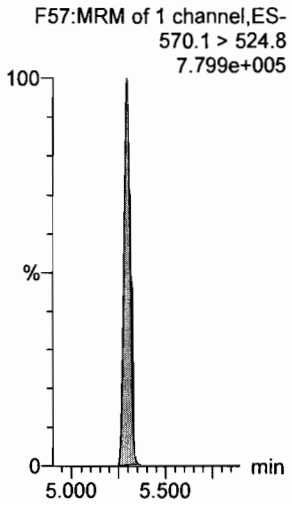
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Dataset: Untitled

Last Altered: Monday, July 22, 2019 16:29:55 Pacific Daylight Time
Printed: Monday, July 22, 2019 16:30:10 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_RS-07-11-19.mdb 11 Jul 2019 15:12:17
Calibration: 22 Jul 2019 16:29:55

Name: 190721M2_6, Date: 21-Jul-2019, Time: 21:51:15, ID: ST190721M2-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190721M2-3 PFC CS0 19G1103	1.01e4	100.0	NO
2	2	13C5-PFHxA	ST190721M2-3 PFC CS0 19G1103	2.84e4	100.0	NO
3	3	18O2-PFHxS	ST190721M2-3 PFC CS0 19G1103	2.03e3	100.0	NO
4	4	13C8-PFOA	ST190721M2-3 PFC CS0 19G1103	3.76e4	100.0	NO
5	5	13C9-PFNA	ST190721M2-3 PFC CS0 19G1103	2.47e4	100.0	NO
6	6	13C4-PFOS	ST190721M2-3 PFC CS0 19G1103	4.52e3	100.0	NO
7	7	13C6-PFDA	ST190721M2-3 PFC CS0 19G1103	3.04e4	100.0	NO
8	8	13C7-PFUdA	ST190721M2-3 PFC CS0 19G1103	3.83e4	100.0	NO

Name: 190721M2_7, Date: 21-Jul-2019, Time: 22:01:53, ID: ST190721M2-4 PFC CS1 19G1104, Description: PFC CS1 19G1104

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190721M2-4 PFC CS1 19G1104	9.36e3	93.1	NO
2	2	13C5-PFHxA	ST190721M2-4 PFC CS1 19G1104	2.89e4	101.7	NO
3	3	18O2-PFHxS	ST190721M2-4 PFC CS1 19G1104	2.02e3	99.7	NO
4	4	13C8-PFOA	ST190721M2-4 PFC CS1 19G1104	3.59e4	95.5	NO
5	5	13C9-PFNA	ST190721M2-4 PFC CS1 19G1104	2.52e4	101.9	NO
6	6	13C4-PFOS	ST190721M2-4 PFC CS1 19G1104	4.54e3	100.4	NO
7	7	13C6-PFDA	ST190721M2-4 PFC CS1 19G1104	3.26e4	107.3	NO
8	8	13C7-PFUdA	ST190721M2-4 PFC CS1 19G1104	3.87e4	100.8	NO

Name: 190721M2_8, Date: 21-Jul-2019, Time: 22:12:26, ID: ST190721M2-5 PFC CS2 19G1105, Description: PFC CS2 19G1105

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190721M2-5 PFC CS2 19G1105	1.04e4	103.5	NO
2	2	13C5-PFHxA	ST190721M2-5 PFC CS2 19G1105	2.99e4	105.4	NO
3	3	18O2-PFHxS	ST190721M2-5 PFC CS2 19G1105	2.06e3	101.3	NO
4	4	13C8-PFOA	ST190721M2-5 PFC CS2 19G1105	3.92e4	104.3	NO
5	5	13C9-PFNA	ST190721M2-5 PFC CS2 19G1105	2.68e4	108.2	NO
6	6	13C4-PFOS	ST190721M2-5 PFC CS2 19G1105	4.87e3	107.6	NO
7	7	13C6-PFDA	ST190721M2-5 PFC CS2 19G1105	3.46e4	113.8	NO
8	8	13C7-PFUdA	ST190721M2-5 PFC CS2 19G1105	4.17e4	108.7	NO

Name: 190721M2_9, Date: 21-Jul-2019, Time: 22:23:05, ID: ST190721M2-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190721M2-6 PFC CS3 19G1106	1.00e4	99.8	NO
2	2	13C5-PFHxA	ST190721M2-6 PFC CS3 19G1106	2.91e4	102.3	NO
3	3	18O2-PFHxS	ST190721M2-6 PFC CS3 19G1106	2.04e3	100.5	NO
4	4	13C8-PFOA	ST190721M2-6 PFC CS3 19G1106	3.72e4	99.0	NO
5	5	13C9-PFNA	ST190721M2-6 PFC CS3 19G1106	2.66e4	107.4	NO
6	6	13C4-PFOS	ST190721M2-6 PFC CS3 19G1106	4.67e3	103.3	NO
7	7	13C6-PFDA	ST190721M2-6 PFC CS3 19G1106	3.22e4	106.0	NO
8	8	13C7-PFUdA	ST190721M2-6 PFC CS3 19G1106	3.98e4	103.8	NO

Dataset: Untitled

Last Altered: Monday, July 22, 2019 16:29:55 Pacific Daylight Time
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Name: 190721M2_10, Date: 21-Jul-2019, Time: 22:33:38, ID: ST190721M2-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190721M2-7 PFC CS4 19G1107	1.02e4	101.4	NO
2	2	13C5-PFHxA	ST190721M2-7 PFC CS4 19G1107	3.15e4	111.1	NO
3	3	18O2-PFHxS	ST190721M2-7 PFC CS4 19G1107	2.11e3	104.0	NO
4	4	13C8-PFOA	ST190721M2-7 PFC CS4 19G1107	4.01e4	106.7	NO
5	5	13C9-PFNA	ST190721M2-7 PFC CS4 19G1107	2.64e4	106.8	NO
6	6	13C4-PFOS	ST190721M2-7 PFC CS4 19G1107	4.90e3	108.5	NO
7	7	13C6-PFDA	ST190721M2-7 PFC CS4 19G1107	3.38e4	111.1	NO
8	8	13C7-PFUdA	ST190721M2-7 PFC CS4 19G1107	4.10e4	107.0	NO

Name: 190721M2_11, Date: 21-Jul-2019, Time: 22:44:17, ID: ST190721M2-8 PFC CS5 19G1108, Description: PFC CS5 19G1108

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190721M2-8 PFC CS5 19G1108	1.03e4	102.8	NO
2	2	13C5-PFHxA	ST190721M2-8 PFC CS5 19G1108	2.65e4	93.5	NO
3	3	18O2-PFHxS	ST190721M2-8 PFC CS5 19G1108	1.84e3	90.8	NO
4	4	13C8-PFOA	ST190721M2-8 PFC CS5 19G1108	3.34e4	89.0	NO
5	5	13C9-PFNA	ST190721M2-8 PFC CS5 19G1108	2.45e4	99.2	NO
6	6	13C4-PFOS	ST190721M2-8 PFC CS5 19G1108	4.22e3	93.3	NO
7	7	13C6-PFDA	ST190721M2-8 PFC CS5 19G1108	3.05e4	100.4	NO
8	8	13C7-PFUdA	ST190721M2-8 PFC CS5 19G1108	3.64e4	94.9	NO

Name: 190721M2_12, Date: 21-Jul-2019, Time: 22:54:55, ID: ST190721M2-9 PFC CS6 19G1109, Description: PFC CS6 19G1109

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190721M2-9 PFC CS6 19G1109	1.01e4	100.4	NO
2	2	13C5-PFHxA	ST190721M2-9 PFC CS6 19G1109	2.67e4	94.1	NO
3	3	18O2-PFHxS	ST190721M2-9 PFC CS6 19G1109	1.77e3	87.2	NO
4	4	13C8-PFOA	ST190721M2-9 PFC CS6 19G1109	3.17e4	84.5	NO
5	5	13C9-PFNA	ST190721M2-9 PFC CS6 19G1109	2.27e4	91.9	NO
6	6	13C4-PFOS	ST190721M2-9 PFC CS6 19G1109	4.29e3	94.8	NO
7	7	13C6-PFDA	ST190721M2-9 PFC CS6 19G1109	2.67e4	87.9	NO
8	8	13C7-PFUdA	ST190721M2-9 PFC CS6 19G1109	3.29e4	85.8	NO

Name: 190721M2_13, Date: 21-Jul-2019, Time: 23:05:28, ID: ST190721M2-10 PFC CS7 19G1110, Description: PFC CS7 19G1110

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190721M2-10 PFC CS7 19G1110	9.97e3	99.2	NO
2	2	13C5-PFHxA	ST190721M2-10 PFC CS7 19G1110	2.26e4	79.8	NO
3	3	18O2-PFHxS	ST190721M2-10 PFC CS7 19G1110	1.48e3	73.2	NO
4	4	13C8-PFOA	ST190721M2-10 PFC CS7 19G1110	2.49e4	66.3	NO
5	5	13C9-PFNA	ST190721M2-10 PFC CS7 19G1110	1.94e4	78.3	NO
6	6	13C4-PFOS	ST190721M2-10 PFC CS7 19G1110	3.38e3	74.7	NO
7	7	13C6-PFDA	ST190721M2-10 PFC CS7 19G1110	2.32e4	76.4	NO
8	8	13C7-PFUdA	ST190721M2-10 PFC CS7 19G1110	2.72e4	70.8	NO

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Name: 190721M2_14, Date: 21-Jul-2019, Time: 23:16:06, ID: IB, Description: IB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IB	1.06e4	105.0	NO
2	2	13C5-PFHxA	IB	3.01e4	106.0	NO
3	3	18O2-PFHxS	IB	2.14e3	105.6	NO
4	4	13C8-PFOA	IB	3.89e4	103.4	NO
5	5	13C9-PFNA	IB	2.72e4	110.0	NO
6	6	13C4-PFOS	IB	4.92e3	108.9	NO
7	7	13C6-PFDA	IB	3.41e4	112.3	NO
8	8	13C7-PFUdA	IB	4.23e4	110.3	NO

Name: 190721M2_15, Date: 21-Jul-2019, Time: 23:26:44, ID: ICV190721M2-1 PFC ICV 19F2422, Description: PFC ICV 19F2422

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ICV190721M2-1 PFC ICV 19F2422	9.91e3	98.6	NO
2	2	13C5-PFHxA	ICV190721M2-1 PFC ICV 19F2422	2.88e4	101.5	NO
3	3	18O2-PFHxS	ICV190721M2-1 PFC ICV 19F2422	1.98e3	97.4	NO
4	4	13C8-PFOA	ICV190721M2-1 PFC ICV 19F2422	3.67e4	97.6	NO
5	5	13C9-PFNA	ICV190721M2-1 PFC ICV 19F2422	2.48e4	100.2	NO
6	6	13C4-PFOS	ICV190721M2-1 PFC ICV 19F2422	4.64e3	102.5	NO
7	7	13C6-PFDA	ICV190721M2-1 PFC ICV 19F2422	3.10e4	102.0	NO
8	8	13C7-PFUdA	ICV190721M2-1 PFC ICV 19F2422	3.91e4	101.9	NO

Name: 190721M2_16, Date: 21-Jul-2019, Time: 23:37:17, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190721M2_17, Date: 21-Jul-2019, Time: 23:47:56, ID: B9G0117-MSD1 Matrix Spike Dup 1.06, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0117-MSD1 Matrix Spike Dup 1.06	1.42e4	141.3	NO
2	2	13C5-PFHxA	B9G0117-MSD1 Matrix Spike Dup 1.06	2.38e4	83.9	NO
3	3	18O2-PFHxS	B9G0117-MSD1 Matrix Spike Dup 1.06	1.55e3	76.4	NO
4	4	13C8-PFOA	B9G0117-MSD1 Matrix Spike Dup 1.06	2.72e4	72.5	NO
5	5	13C9-PFNA	B9G0117-MSD1 Matrix Spike Dup 1.06	1.47e4	59.3	NO
6	6	13C4-PFOS	B9G0117-MSD1 Matrix Spike Dup 1.06	2.64e3	58.4	NO
7	7	13C6-PFDA	B9G0117-MSD1 Matrix Spike Dup 1.06	1.23e4	40.4	YES
8	8	13C7-PFUdA	B9G0117-MSD1 Matrix Spike Dup 1.06	6.98e3	18.2	YES

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Name: 190721M2_18, Date: 21-Jul-2019, Time: 23:58:34, ID: B9G0117-MSD2 Matrix Spike Dup 1.06, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0117-MSD2 Matrix Spike Dup 1.06	1.24e4	122.9	NO
2	2	13C5-PFHxA	B9G0117-MSD2 Matrix Spike Dup 1.06	2.14e4	75.3	NO
3	3	18O2-PFHxS	B9G0117-MSD2 Matrix Spike Dup 1.06	1.46e3	71.9	NO
4	4	13C8-PFOA	B9G0117-MSD2 Matrix Spike Dup 1.06	2.68e4	71.2	NO
5	5	13C9-PFNA	B9G0117-MSD2 Matrix Spike Dup 1.06	1.65e4	66.8	NO
6	6	13C4-PFOS	B9G0117-MSD2 Matrix Spike Dup 1.06	2.41e3	53.3	NO
7	7	13C6-PFDA	B9G0117-MSD2 Matrix Spike Dup 1.06	1.49e4	48.9	YES
8	8	13C7-PFUdA	B9G0117-MSD2 Matrix Spike Dup 1.06	8.65e3	22.6	YES

Name: 190721M2_19, Date: 22-Jul-2019, Time: 00:09:08, ID: 1901860-01 B96-PFAS-SB56-0-2-062619 1.08, Description: B96-PFAS-SB56-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-01 B96-PFAS-SB56-0-2-0626...	1.38e4	137.0	NO
2	2	13C5-PFHxA	1901860-01 B96-PFAS-SB56-0-2-0626...	2.56e4	90.2	NO
3	3	18O2-PFHxS	1901860-01 B96-PFAS-SB56-0-2-0626...	1.68e3	82.7	NO
4	4	13C8-PFOA	1901860-01 B96-PFAS-SB56-0-2-0626...	2.78e4	74.1	NO
5	5	13C9-PFNA	1901860-01 B96-PFAS-SB56-0-2-0626...	1.49e4	60.2	NO
6	6	13C4-PFOS	1901860-01 B96-PFAS-SB56-0-2-0626...	2.57e3	56.7	NO
7	7	13C6-PFDA	1901860-01 B96-PFAS-SB56-0-2-0626...	1.31e4	43.0	YES
8	8	13C7-PFUdA	1901860-01 B96-PFAS-SB56-0-2-0626...	6.64e3	17.3	YES

Name: 190721M2_20, Date: 22-Jul-2019, Time: 00:19:46, ID: 1901860-03 B96-PFAS-SB62-0-2-062619 1.14, Description: B96-PFAS-SB62-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-03 B96-PFAS-SB62-0-2-0626...	1.42e4	141.5	NO
2	2	13C5-PFHxA	1901860-03 B96-PFAS-SB62-0-2-0626...	2.60e4	91.6	NO
3	3	18O2-PFHxS	1901860-03 B96-PFAS-SB62-0-2-0626...	1.78e3	87.7	NO
4	4	13C8-PFOA	1901860-03 B96-PFAS-SB62-0-2-0626...	2.73e4	72.5	NO
5	5	13C9-PFNA	1901860-03 B96-PFAS-SB62-0-2-0626...	1.48e4	59.8	NO
6	6	13C4-PFOS	1901860-03 B96-PFAS-SB62-0-2-0626...	2.92e3	64.6	NO
7	7	13C6-PFDA	1901860-03 B96-PFAS-SB62-0-2-0626...	1.19e4	39.1	YES
8	8	13C7-PFUdA	1901860-03 B96-PFAS-SB62-0-2-0626...	5.28e3	13.8	YES

Name: 190721M2_21, Date: 22-Jul-2019, Time: 00:30:24, ID: 1901860-07 B96-PFAS-SB63-0-2-062619 1.07, Description: B96-PFAS-SB63-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-07 B96-PFAS-SB63-0-2-0626...	1.60e4	159.5	YES
2	2	13C5-PFHxA	1901860-07 B96-PFAS-SB63-0-2-0626...	2.71e4	95.6	NO
3	3	18O2-PFHxS	1901860-07 B96-PFAS-SB63-0-2-0626...	2.04e3	100.3	NO
4	4	13C8-PFOA	1901860-07 B96-PFAS-SB63-0-2-0626...	2.91e4	77.3	NO
5	5	13C9-PFNA	1901860-07 B96-PFAS-SB63-0-2-0626...	1.61e4	65.1	NO
6	6	13C4-PFOS	1901860-07 B96-PFAS-SB63-0-2-0626...	3.14e3	69.5	NO
7	7	13C6-PFDA	1901860-07 B96-PFAS-SB63-0-2-0626...	1.34e4	44.2	YES
8	8	13C7-PFUdA	1901860-07 B96-PFAS-SB63-0-2-0626...	6.55e3	17.1	YES

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Name: 190721M2_22, Date: 22-Jul-2019, Time: 00:40:57, ID: 1901860-08 B96-PFAS-SB43-0-2-062719 1.14, Description: B96-PFAS-SB43-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901860-08 B96-PFAS-SB43-0-2-0627...	1.45e4	143.8	NO
2	2	13C5-PFHxA	1901860-08 B96-PFAS-SB43-0-2-0627...	2.70e4	95.3	NO
3	3	18O2-PFHxS	1901860-08 B96-PFAS-SB43-0-2-0627...	1.70e3	84.0	NO
4	4	13C8-PFOA	1901860-08 B96-PFAS-SB43-0-2-0627...	3.01e4	80.2	NO
5	5	13C9-PFNA	1901860-08 B96-PFAS-SB43-0-2-0627...	1.54e4	62.4	NO
6	6	13C4-PFOS	1901860-08 B96-PFAS-SB43-0-2-0627...	2.00e3	44.2	YES
7	7	13C6-PFDA	1901860-08 B96-PFAS-SB43-0-2-0627...	9.87e3	32.4	YES
8	8	13C7-PFUdA	1901860-08 B96-PFAS-SB43-0-2-0627...	3.64e3	9.5	YES

Name: 190721M2_23, Date: 22-Jul-2019, Time: 00:51:35, ID: 1902014-02 CAOA-B03-SO-20-20.5 1.09, Description: CAOA-B03-SO-20-20.5

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-02 CAOA-B03-SO-20-20.5 1.09	1.02e4	101.8	NO
2	2	13C5-PFHxA	1902014-02 CAOA-B03-SO-20-20.5 1.09	1.94e4	68.4	NO
3	3	18O2-PFHxS	1902014-02 CAOA-B03-SO-20-20.5 1.09	1.53e3	75.3	NO
4	4	13C8-PFOA	1902014-02 CAOA-B03-SO-20-20.5 1.09	2.67e4	70.9	NO
5	5	13C9-PFNA	1902014-02 CAOA-B03-SO-20-20.5 1.09	1.86e4	75.3	NO
6	6	13C4-PFOS	1902014-02 CAOA-B03-SO-20-20.5 1.09	2.91e3	64.3	NO
7	7	13C6-PFDA	1902014-02 CAOA-B03-SO-20-20.5 1.09	2.36e4	77.6	NO
8	8	13C7-PFUdA	1902014-02 CAOA-B03-SO-20-20.5 1.09	2.83e4	73.9	NO

Name: 190721M2_24, Date: 22-Jul-2019, Time: 01:02:13, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190721M2_25, Date: 22-Jul-2019, Time: 01:12:47, ID: 1902014-02@5X CAOA-B03-SO-20-20.5 1.09, Description: CAOA-B03-SO-20-20.5

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-02@5X CAOA-B03-SO-20-20....	1.98e3	19.7	YES
2	2	13C5-PFHxA	1902014-02@5X CAOA-B03-SO-20-20....	4.04e3	14.2	YES
3	3	18O2-PFHxS	1902014-02@5X CAOA-B03-SO-20-20....	2.61e2	12.8	YES
4	4	13C8-PFOA	1902014-02@5X CAOA-B03-SO-20-20....	5.39e3	14.4	YES
5	5	13C9-PFNA	1902014-02@5X CAOA-B03-SO-20-20....	3.61e3	14.6	YES
6	6	13C4-PFOS	1902014-02@5X CAOA-B03-SO-20-20....	6.22e2	13.8	YES
7	7	13C6-PFDA	1902014-02@5X CAOA-B03-SO-20-20....	4.60e3	15.1	YES
8	8	13C7-PFUdA	1902014-02@5X CAOA-B03-SO-20-20....	5.13e3	13.4	YES

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Name: 190721M2_26, Date: 22-Jul-2019, Time: 01:23:25, ID: 1902014-05 CAOA-B01-SO-0-0.5 1.07, Description: CAOA-B01-SO-0-0.5

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-05 CAOA-B01-SO-0-0.5 1.07	1.11e4	110.2	NO
2	2	13C5-PFHxA	1902014-05 CAOA-B01-SO-0-0.5 1.07	2.11e4	74.4	NO
3	3	18O2-PFHxS	1902014-05 CAOA-B01-SO-0-0.5 1.07	1.64e3	80.9	NO
4	4	13C8-PFOA	1902014-05 CAOA-B01-SO-0-0.5 1.07	2.94e4	78.2	NO
5	5	13C9-PFNA	1902014-05 CAOA-B01-SO-0-0.5 1.07	1.98e4	79.9	NO
6	6	13C4-PFOS	1902014-05 CAOA-B01-SO-0-0.5 1.07	3.89e3	86.0	NO
7	7	13C6-PFDA	1902014-05 CAOA-B01-SO-0-0.5 1.07	2.62e4	86.3	NO
8	8	13C7-PFUdA	1902014-05 CAOA-B01-SO-0-0.5 1.07	3.24e4	84.4	NO

Name: 190721M2_27, Date: 22-Jul-2019, Time: 01:33:58, ID: B9G0052-BS1 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0052-BS1 OPR 1	1.69e4	168.1	YES
2	2	13C5-PFHxA	B9G0052-BS1 OPR 1	2.94e4	103.5	NO
3	3	18O2-PFHxS	B9G0052-BS1 OPR 1	2.00e3	98.6	NO
4	4	13C8-PFOA	B9G0052-BS1 OPR 1	3.32e4	88.3	NO
5	5	13C9-PFNA	B9G0052-BS1 OPR 1	1.82e4	73.5	NO
6	6	13C4-PFOS	B9G0052-BS1 OPR 1	2.91e3	64.3	NO
7	7	13C6-PFDA	B9G0052-BS1 OPR 1	1.33e4	43.7	YES
8	8	13C7-PFUdA	B9G0052-BS1 OPR 1	5.21e3	13.6	YES

Name: 190721M2_28, Date: 22-Jul-2019, Time: 01:44:29, ID: B9G0052-MS1 Matrix Spike 1.11, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0052-MS1 Matrix Spike 1.11	1.60e4	159.1	YES
2	2	13C5-PFHxA	B9G0052-MS1 Matrix Spike 1.11	2.85e4	100.2	NO
3	3	18O2-PFHxS	B9G0052-MS1 Matrix Spike 1.11	1.81e3	89.3	NO
4	4	13C8-PFOA	B9G0052-MS1 Matrix Spike 1.11	3.32e4	88.5	NO
5	5	13C9-PFNA	B9G0052-MS1 Matrix Spike 1.11	1.66e4	67.0	NO
6	6	13C4-PFOS	B9G0052-MS1 Matrix Spike 1.11	1.67e3	36.8	YES
7	7	13C6-PFDA	B9G0052-MS1 Matrix Spike 1.11	9.24e3	30.4	YES
8	8	13C7-PFUdA	B9G0052-MS1 Matrix Spike 1.11	2.30e3	6.0	YES

Name: 190721M2_29, Date: 22-Jul-2019, Time: 01:55:07, ID: B9G0052-MSD1 Matrix Spike Dup 1.16, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0052-MSD1 Matrix Spike Dup 1.16	1.69e4	167.8	YES
2	2	13C5-PFHxA	B9G0052-MSD1 Matrix Spike Dup 1.16	2.98e4	105.0	NO
3	3	18O2-PFHxS	B9G0052-MSD1 Matrix Spike Dup 1.16	2.00e3	98.5	NO
4	4	13C8-PFOA	B9G0052-MSD1 Matrix Spike Dup 1.16	3.40e4	90.6	NO
5	5	13C9-PFNA	B9G0052-MSD1 Matrix Spike Dup 1.16	1.75e4	70.7	NO
6	6	13C4-PFOS	B9G0052-MSD1 Matrix Spike Dup 1.16	1.65e3	36.4	YES
7	7	13C6-PFDA	B9G0052-MSD1 Matrix Spike Dup 1.16	9.98e3	32.8	YES
8	8	13C7-PFUdA	B9G0052-MSD1 Matrix Spike Dup 1.16	3.67e3	9.6	YES

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Name: 190721M2_30, Date: 22-Jul-2019, Time: 02:05:41, ID: 1901859-01 B96-PFAS-SB41-0-2-062019 1.1, Description: B96-PFAS-SB41-0-2-062019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-01 B96-PFAS-SB41-0-2-0620...	1.54e4	152.9	YES
2	2	13C5-PFHxA	1901859-01 B96-PFAS-SB41-0-2-0620...	2.67e4	94.1	NO
3	3	18O2-PFHxS	1901859-01 B96-PFAS-SB41-0-2-0620...	5.10e2	25.1	YES
4	4	13C8-PFOA	1901859-01 B96-PFAS-SB41-0-2-0620...	8.65e3	23.0	YES
5	5	13C9-PFNA	1901859-01 B96-PFAS-SB41-0-2-0620...	7.95e2	3.2	YES
6	6	13C4-PFOS	1901859-01 B96-PFAS-SB41-0-2-0620...	4.34e1	1.0	YES
7	7	13C6-PFDA	1901859-01 B96-PFAS-SB41-0-2-0620...	3.28e2	1.1	YES
8	8	13C7-PFUdA	1901859-01 B96-PFAS-SB41-0-2-0620...	2.21e2	0.6	YES

Name: 190721M2_31, Date: 22-Jul-2019, Time: 02:16:19, ID: 1901859-01@10X B96-PFAS-SB41-0-2-062019 1.1, Description: B96-PFAS-SB41-0-2-062019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-01@10X B96-PFAS-SB41-0-2...	2.05e3	20.4	YES
2	2	13C5-PFHxA	1901859-01@10X B96-PFAS-SB41-0-2...	3.12e3	11.0	YES
3	3	18O2-PFHxS	1901859-01@10X B96-PFAS-SB41-0-2...	5.00e1	2.5	YES
4	4	13C8-PFOA	1901859-01@10X B96-PFAS-SB41-0-2...	1.13e3	3.0	YES
5	5	13C9-PFNA	1901859-01@10X B96-PFAS-SB41-0-2...	2.76e2	1.1	YES
6	6	13C4-PFOS	1901859-01@10X B96-PFAS-SB41-0-2...	2.42e1	0.5	YES
7	7	13C6-PFDA	1901859-01@10X B96-PFAS-SB41-0-2...	1.45e2	0.5	YES
8	8	13C7-PFUdA	1901859-01@10X B96-PFAS-SB41-0-2...	1.76e2	0.5	YES

Name: 190721M2_32, Date: 22-Jul-2019, Time: 02:26:58, ID: 1901859-02 B96-PFAS-SB42-0-2-062019 1.11, Description: B96-PFAS-SB42-0-2-062019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-02 B96-PFAS-SB42-0-2-0620...	1.53e4	152.3	YES
2	2	13C5-PFHxA	1901859-02 B96-PFAS-SB42-0-2-0620...	2.77e4	97.6	NO
3	3	18O2-PFHxS	1901859-02 B96-PFAS-SB42-0-2-0620...	1.48e3	72.8	NO
4	4	13C8-PFOA	1901859-02 B96-PFAS-SB42-0-2-0620...	2.93e4	77.9	NO
5	5	13C9-PFNA	1901859-02 B96-PFAS-SB42-0-2-0620...	1.06e4	42.7	YES
6	6	13C4-PFOS	1901859-02 B96-PFAS-SB42-0-2-0620...	4.23e2	9.3	YES
7	7	13C6-PFDA	1901859-02 B96-PFAS-SB42-0-2-0620...	3.16e3	10.4	YES
8	8	13C7-PFUdA	1901859-02 B96-PFAS-SB42-0-2-0620...	1.08e3	2.8	YES

Name: 190721M2_33, Date: 22-Jul-2019, Time: 02:37:31, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190721M2_34, Date: 22-Jul-2019, Time: 02:48:09, ID: ST190721M2-11 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190721M2-11 PFC CS3 19G1106	1.03e4	102.4	NO
2	2	13C5-PFHxA	ST190721M2-11 PFC CS3 19G1106	2.97e4	104.6	NO
3	3	18O2-PFHxS	ST190721M2-11 PFC CS3 19G1106	2.04e3	100.6	NO
4	4	13C8-PFOA	ST190721M2-11 PFC CS3 19G1106	3.72e4	99.0	NO
5	5	13C9-PFNA	ST190721M2-11 PFC CS3 19G1106	2.63e4	106.2	NO
6	6	13C4-PFOS	ST190721M2-11 PFC CS3 19G1106	4.83e3	106.7	NO
7	7	13C6-PFDA	ST190721M2-11 PFC CS3 19G1106	3.19e4	105.0	NO
8	8	13C7-PFUdA	ST190721M2-11 PFC CS3 19G1106	4.01e4	104.6	NO

Name: 190721M2_35, Date: 22-Jul-2019, Time: 02:58:43, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190721M2_36, Date: 22-Jul-2019, Time: 03:09:21, ID: 1901859-03 B96-PFAS-SB44-0-2-062119 1.09, Description: B96-PFAS-SB44-0-2-062119

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-03 B96-PFAS-SB44-0-2-0621...	1.68e4	167.5	YES
2	2	13C5-PFHxA	1901859-03 B96-PFAS-SB44-0-2-0621...	2.96e4	104.4	NO
3	3	18O2-PFHxS	1901859-03 B96-PFAS-SB44-0-2-0621...	1.99e3	98.2	NO
4	4	13C8-PFOA	1901859-03 B96-PFAS-SB44-0-2-0621...	3.37e4	89.6	NO
5	5	13C9-PFNA	1901859-03 B96-PFAS-SB44-0-2-0621...	1.79e4	72.3	NO
6	6	13C4-PFOS	1901859-03 B96-PFAS-SB44-0-2-0621...	2.05e3	45.2	YES
7	7	13C6-PFDA	1901859-03 B96-PFAS-SB44-0-2-0621...	1.17e4	38.3	YES
8	8	13C7-PFUdA	1901859-03 B96-PFAS-SB44-0-2-0621...	4.62e3	12.0	YES

Name: 190721M2_37, Date: 22-Jul-2019, Time: 03:19:54, ID: 1901859-04 DUP02-062119 1.1, Description: DUP02-062119

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-04 DUP02-062119 1.1	1.57e4	156.1	YES
2	2	13C5-PFHxA	1901859-04 DUP02-062119 1.1	2.80e4	98.6	NO
3	3	18O2-PFHxS	1901859-04 DUP02-062119 1.1	1.63e3	80.1	NO
4	4	13C8-PFOA	1901859-04 DUP02-062119 1.1	3.35e4	89.2	NO
5	5	13C9-PFNA	1901859-04 DUP02-062119 1.1	1.80e4	72.6	NO
6	6	13C4-PFOS	1901859-04 DUP02-062119 1.1	2.21e3	48.8	YES
7	7	13C6-PFDA	1901859-04 DUP02-062119 1.1	1.16e4	38.2	YES
8	8	13C7-PFUdA	1901859-04 DUP02-062119 1.1	3.79e3	9.9	YES

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Name: 190721M2_38, Date: 22-Jul-2019, Time: 03:30:33, ID: 1901859-06 B96-PFAS-SB52-0-2-062619 1.1, Description: B96-PFAS-SB52-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-06 B96-PFAS-SB52-0-2-0626...	1.66e4	165.2	YES
2	2	13C5-PFHxA	1901859-06 B96-PFAS-SB52-0-2-0626...	3.02e4	106.5	NO
3	3	18O2-PFHxS	1901859-06 B96-PFAS-SB52-0-2-0626...	1.97e3	97.2	NO
4	4	13C8-PFOA	1901859-06 B96-PFAS-SB52-0-2-0626...	3.60e4	95.7	NO
5	5	13C9-PFNA	1901859-06 B96-PFAS-SB52-0-2-0626...	1.91e4	77.3	NO
6	6	13C4-PFOS	1901859-06 B96-PFAS-SB52-0-2-0626...	1.95e3	43.1	YES
7	7	13C6-PFDA	1901859-06 B96-PFAS-SB52-0-2-0626...	1.17e4	38.3	YES
8	8	13C7-PFUdA	1901859-06 B96-PFAS-SB52-0-2-0626...	4.67e3	12.2	YES

Name: 190721M2_39, Date: 22-Jul-2019, Time: 03:41:05, ID: 1901859-07 B96-PFAS-SB37-0-2-062619 1.09, Description: B96-PFAS-SB37-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-07 B96-PFAS-SB37-0-2-0626...	1.61e4	159.7	YES
2	2	13C5-PFHxA	1901859-07 B96-PFAS-SB37-0-2-0626...	2.85e4	100.4	NO
3	3	18O2-PFHxS	1901859-07 B96-PFAS-SB37-0-2-0626...	2.00e3	98.3	NO
4	4	13C8-PFOA	1901859-07 B96-PFAS-SB37-0-2-0626...	3.37e4	89.8	NO
5	5	13C9-PFNA	1901859-07 B96-PFAS-SB37-0-2-0626...	2.16e4	87.1	NO
6	6	13C4-PFOS	1901859-07 B96-PFAS-SB37-0-2-0626...	2.97e3	65.6	NO
7	7	13C6-PFDA	1901859-07 B96-PFAS-SB37-0-2-0626...	1.70e4	55.8	NO
8	8	13C7-PFUdA	1901859-07 B96-PFAS-SB37-0-2-0626...	8.42e3	22.0	YES

Name: 190721M2_40, Date: 22-Jul-2019, Time: 03:51:44, ID: 1901859-08 B96-PFAS-SB38-0-2-062619 1.06, Description: B96-PFAS-SB38-0-2-062619

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-08 B96-PFAS-SB38-0-2-0626...	1.62e4	161.3	YES
2	2	13C5-PFHxA	1901859-08 B96-PFAS-SB38-0-2-0626...	3.02e4	106.3	NO
3	3	18O2-PFHxS	1901859-08 B96-PFAS-SB38-0-2-0626...	1.68e3	82.8	NO
4	4	13C8-PFOA	1901859-08 B96-PFAS-SB38-0-2-0626...	3.21e4	85.3	NO
5	5	13C9-PFNA	1901859-08 B96-PFAS-SB38-0-2-0626...	1.29e4	52.1	NO
6	6	13C4-PFOS	1901859-08 B96-PFAS-SB38-0-2-0626...	8.29e2	18.3	YES
7	7	13C6-PFDA	1901859-08 B96-PFAS-SB38-0-2-0626...	5.50e3	18.1	YES
8	8	13C7-PFUdA	1901859-08 B96-PFAS-SB38-0-2-0626...	2.52e3	6.6	YES

Name: 190721M2_41, Date: 22-Jul-2019, Time: 04:02:22, ID: 1901859-10 B96-PFAS-SB30-0-2-062719 1.04, Description: B96-PFAS-SB30-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-10 B96-PFAS-SB30-0-2-0627...	1.58e4	157.5	YES
2	2	13C5-PFHxA	1901859-10 B96-PFAS-SB30-0-2-0627...	2.89e4	101.7	NO
3	3	18O2-PFHxS	1901859-10 B96-PFAS-SB30-0-2-0627...	1.93e3	95.2	NO
4	4	13C8-PFOA	1901859-10 B96-PFAS-SB30-0-2-0627...	3.53e4	94.0	NO
5	5	13C9-PFNA	1901859-10 B96-PFAS-SB30-0-2-0627...	2.20e4	88.8	NO
6	6	13C4-PFOS	1901859-10 B96-PFAS-SB30-0-2-0627...	2.77e3	61.2	NO
7	7	13C6-PFDA	1901859-10 B96-PFAS-SB30-0-2-0627...	1.59e4	52.1	NO
8	8	13C7-PFUdA	1901859-10 B96-PFAS-SB30-0-2-0627...	7.30e3	19.0	YES

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Name: 190721M2_42, Date: 22-Jul-2019, Time: 04:12:55, ID: 1901859-13 B96-PFAS-SB28-0-2-062719 1.09, Description: B96-PFAS-SB28-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-13 B96-PFAS-SB28-0-2-0627...	1.57e4	155.8	YES
2	2	13C5-PFHxA	1901859-13 B96-PFAS-SB28-0-2-0627...	2.89e4	102.0	NO
3	3	18O2-PFHxS	1901859-13 B96-PFAS-SB28-0-2-0627...	1.94e3	95.8	NO
4	4	13C8-PFOA	1901859-13 B96-PFAS-SB28-0-2-0627...	3.42e4	90.9	NO
5	5	13C9-PFNA	1901859-13 B96-PFAS-SB28-0-2-0627...	1.59e4	64.4	NO
6	6	13C4-PFOS	1901859-13 B96-PFAS-SB28-0-2-0627...	7.46e2	16.5	YES
7	7	13C6-PFDA	1901859-13 B96-PFAS-SB28-0-2-0627...	5.69e3	18.7	YES
8	8	13C7-PFUdA	1901859-13 B96-PFAS-SB28-0-2-0627...	1.21e3	3.2	YES

Name: 190721M2_43, Date: 22-Jul-2019, Time: 04:23:33, ID: 1901859-15 B96-PFAS-SB71-0-2-062719 1.08, Description: B96-PFAS-SB71-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-15 B96-PFAS-SB71-0-2-0627...	1.55e4	154.4	YES
2	2	13C5-PFHxA	1901859-15 B96-PFAS-SB71-0-2-0627...	2.86e4	100.6	NO
3	3	18O2-PFHxS	1901859-15 B96-PFAS-SB71-0-2-0627...	1.96e3	96.7	NO
4	4	13C8-PFOA	1901859-15 B96-PFAS-SB71-0-2-0627...	3.22e4	85.6	NO
5	5	13C9-PFNA	1901859-15 B96-PFAS-SB71-0-2-0627...	1.84e4	74.6	NO
6	6	13C4-PFOS	1901859-15 B96-PFAS-SB71-0-2-0627...	2.61e3	57.7	NO
7	7	13C6-PFDA	1901859-15 B96-PFAS-SB71-0-2-0627...	1.28e4	42.1	YES
8	8	13C7-PFUdA	1901859-15 B96-PFAS-SB71-0-2-0627...	4.97e3	13.0	YES

Name: 190721M2_44, Date: 22-Jul-2019, Time: 04:34:07, ID: 1901859-18 B96-PFAS-SB27-0-2-062719 1.07, Description: B96-PFAS-SB27-0-2-062719

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901859-18 B96-PFAS-SB27-0-2-0627...	1.58e4	157.1	YES
2	2	13C5-PFHxA	1901859-18 B96-PFAS-SB27-0-2-0627...	2.86e4	100.7	NO
3	3	18O2-PFHxS	1901859-18 B96-PFAS-SB27-0-2-0627...	1.84e3	90.7	NO
4	4	13C8-PFOA	1901859-18 B96-PFAS-SB27-0-2-0627...	3.51e4	93.5	NO
5	5	13C9-PFNA	1901859-18 B96-PFAS-SB27-0-2-0627...	2.13e4	86.2	NO
6	6	13C4-PFOS	1901859-18 B96-PFAS-SB27-0-2-0627...	1.90e3	42.0	YES
7	7	13C6-PFDA	1901859-18 B96-PFAS-SB27-0-2-0627...	1.24e4	40.6	YES
8	8	13C7-PFUdA	1901859-18 B96-PFAS-SB27-0-2-0627...	2.56e3	6.7	YES

Name: 190721M2_45, Date: 22-Jul-2019, Time: 04:44:45, ID: B9G0149-BS1 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0149-BS1 OPR 1	1.45e4	143.8	NO
2	2	13C5-PFHxA	B9G0149-BS1 OPR 1	2.74e4	96.6	NO
3	3	18O2-PFHxS	B9G0149-BS1 OPR 1	1.72e3	84.9	NO
4	4	13C8-PFOA	B9G0149-BS1 OPR 1	3.23e4	85.9	NO
5	5	13C9-PFNA	B9G0149-BS1 OPR 1	1.74e4	70.5	NO
6	6	13C4-PFOS	B9G0149-BS1 OPR 1	2.52e3	55.8	NO
7	7	13C6-PFDA	B9G0149-BS1 OPR 1	1.22e4	40.1	YES
8	8	13C7-PFUdA	B9G0149-BS1 OPR 1	5.38e3	14.0	YES

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Name: 190721M2_46, Date: 22-Jul-2019, Time: 04:55:18, ID: B9G0149-BLK1 Method Blank 1, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0149-BLK1 Method Blank 1	1.52e4	151.0	YES
2	2	13C5-PFHxA	B9G0149-BLK1 Method Blank 1	2.91e4	102.6	NO
3	3	18O2-PFHxS	B9G0149-BLK1 Method Blank 1	1.88e3	92.8	NO
4	4	13C8-PFOA	B9G0149-BLK1 Method Blank 1	3.37e4	89.6	NO
5	5	13C9-PFNA	B9G0149-BLK1 Method Blank 1	2.16e4	87.3	NO
6	6	13C4-PFOS	B9G0149-BLK1 Method Blank 1	4.24e3	93.8	NO
7	7	13C6-PFDA	B9G0149-BLK1 Method Blank 1	2.34e4	77.1	NO
8	8	13C7-PFUdA	B9G0149-BLK1 Method Blank 1	2.04e4	53.2	NO

Name: 190721M2_47, Date: 22-Jul-2019, Time: 05:05:57, ID: 1901983-02 B96-PFAS-SB21-0-2-070119 1.06, Description: B96-PFAS-SB21-0-2-070119

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-02 B96-PFAS-SB21-0-2-0701...	1.33e4	132.2	NO
2	2	13C5-PFHxA	1901983-02 B96-PFAS-SB21-0-2-0701...	2.44e4	86.0	NO
3	3	18O2-PFHxS	1901983-02 B96-PFAS-SB21-0-2-0701...	1.67e3	82.1	NO
4	4	13C8-PFOA	1901983-02 B96-PFAS-SB21-0-2-0701...	2.94e4	78.1	NO
5	5	13C9-PFNA	1901983-02 B96-PFAS-SB21-0-2-0701...	1.77e4	71.6	NO
6	6	13C4-PFOS	1901983-02 B96-PFAS-SB21-0-2-0701...	2.47e3	54.5	NO
7	7	13C6-PFDA	1901983-02 B96-PFAS-SB21-0-2-0701...	1.49e4	49.0	YES
8	8	13C7-PFUdA	1901983-02 B96-PFAS-SB21-0-2-0701...	6.32e3	16.5	YES

Name: 190721M2_48, Date: 22-Jul-2019, Time: 05:16:30, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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	1.08e1	0.0	YES

Name: 190721M2_49, Date: 22-Jul-2019, Time: 05:27:08, ID: ST190721M2-12 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190721M2-12 PFC CS3 19G1106	1.04e4	103.7	NO
2	2	13C5-PFHxA	ST190721M2-12 PFC CS3 19G1106	3.02e4	106.4	NO
3	3	18O2-PFHxS	ST190721M2-12 PFC CS3 19G1106	2.14e3	105.4	NO
4	4	13C8-PFOA	ST190721M2-12 PFC CS3 19G1106	3.80e4	101.2	NO
5	5	13C9-PFNA	ST190721M2-12 PFC CS3 19G1106	2.58e4	104.3	NO
6	6	13C4-PFOS	ST190721M2-12 PFC CS3 19G1106	4.88e3	108.0	NO
7	7	13C6-PFDA	ST190721M2-12 PFC CS3 19G1106	3.18e4	104.7	NO
8	8	13C7-PFUdA	ST190721M2-12 PFC CS3 19G1106	4.25e4	110.8	NO

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Name: 190721M2_50, Date: 22-Jul-2019, Time: 05:37:42, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190721M2_51, Date: 22-Jul-2019, Time: 05:48:20, ID: 1901983-09 B96-PFAS-SB60-0-2-070219 1.06, Description: B96-PFAS-SB60-0-2-070219

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-09 B96-PFAS-SB60-0-2-0702...	1.55e4	154.2	YES
2	2	13C5-PFHxA	1901983-09 B96-PFAS-SB60-0-2-0702...	2.87e4	101.2	NO
3	3	18O2-PFHxS	1901983-09 B96-PFAS-SB60-0-2-0702...	1.93e3	94.9	NO
4	4	13C8-PFOA	1901983-09 B96-PFAS-SB60-0-2-0702...	2.81e4	74.9	NO
5	5	13C9-PFNA	1901983-09 B96-PFAS-SB60-0-2-0702...	1.40e4	56.5	NO
6	6	13C4-PFOS	1901983-09 B96-PFAS-SB60-0-2-0702...	3.34e3	73.9	NO
7	7	13C6-PFDA	1901983-09 B96-PFAS-SB60-0-2-0702...	1.03e4	33.8	YES
8	8	13C7-PFUdA	1901983-09 B96-PFAS-SB60-0-2-0702...	5.54e3	14.5	YES

Name: 190721M2_52, Date: 22-Jul-2019, Time: 05:58:58, ID: 1901983-10 B96-PFAS-SB59-0-2-070219 1.12, Description: B96-PFAS-SB59-0-2-070219

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-10 B96-PFAS-SB59-0-2-0702...	1.52e4	151.3	YES
2	2	13C5-PFHxA	1901983-10 B96-PFAS-SB59-0-2-0702...	2.81e4	99.1	NO
3	3	18O2-PFHxS	1901983-10 B96-PFAS-SB59-0-2-0702...	1.83e3	90.2	NO
4	4	13C8-PFOA	1901983-10 B96-PFAS-SB59-0-2-0702...	3.30e4	87.7	NO
5	5	13C9-PFNA	1901983-10 B96-PFAS-SB59-0-2-0702...	1.83e4	73.9	NO
6	6	13C4-PFOS	1901983-10 B96-PFAS-SB59-0-2-0702...	2.30e3	50.9	NO
7	7	13C6-PFDA	1901983-10 B96-PFAS-SB59-0-2-0702...	1.17e4	38.6	YES
8	8	13C7-PFUdA	1901983-10 B96-PFAS-SB59-0-2-0702...	3.40e3	8.9	YES

Name: 190721M2_53, Date: 22-Jul-2019, Time: 06:09:31, ID: 1901983-11 B96-PFAS-SB22-0-2-070219 1.06, Description: B96-PFAS-SB22-0-2-070219

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901983-11 B96-PFAS-SB22-0-2-0702...	1.60e4	159.5	YES
2	2	13C5-PFHxA	1901983-11 B96-PFAS-SB22-0-2-0702...	2.82e4	99.4	NO
3	3	18O2-PFHxS	1901983-11 B96-PFAS-SB22-0-2-0702...	1.83e3	90.3	NO
4	4	13C8-PFOA	1901983-11 B96-PFAS-SB22-0-2-0702...	3.42e4	90.9	NO
5	5	13C9-PFNA	1901983-11 B96-PFAS-SB22-0-2-0702...	1.86e4	75.3	NO
6	6	13C4-PFOS	1901983-11 B96-PFAS-SB22-0-2-0702...	2.48e3	54.8	NO
7	7	13C6-PFDA	1901983-11 B96-PFAS-SB22-0-2-0702...	1.32e4	43.4	YES
8	8	13C7-PFUdA	1901983-11 B96-PFAS-SB22-0-2-0702...	6.67e3	17.4	YES

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Name: 190721M2_54, Date: 22-Jul-2019, Time: 06:20:09, ID: B9G0183-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0183-BS1 OPR 0.25	1.53e4	152.5	YES
2	2	13C5-PFHxA	B9G0183-BS1 OPR 0.25	2.95e4	103.9	NO
3	3	18O2-PFHxS	B9G0183-BS1 OPR 0.25	2.67e3	131.7	NO
4	4	13C8-PFOA	B9G0183-BS1 OPR 0.25	3.90e4	103.8	NO
5	5	13C9-PFNA	B9G0183-BS1 OPR 0.25	2.88e4	116.3	NO
6	6	13C4-PFOS	B9G0183-BS1 OPR 0.25	5.76e3	127.3	NO
7	7	13C6-PFDA	B9G0183-BS1 OPR 0.25	3.67e4	120.7	NO
8	8	13C7-PFUdA	B9G0183-BS1 OPR 0.25	4.77e4	124.5	NO

Name: 190721M2_55, Date: 22-Jul-2019, Time: 06:30:42, ID: B9G0183-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0183-BLK1 Method Blank 0.25	1.44e4	143.4	NO
2	2	13C5-PFHxA	B9G0183-BLK1 Method Blank 0.25	2.82e4	99.5	NO
3	3	18O2-PFHxS	B9G0183-BLK1 Method Blank 0.25	2.21e3	109.0	NO
4	4	13C8-PFOA	B9G0183-BLK1 Method Blank 0.25	3.58e4	95.2	NO
5	5	13C9-PFNA	B9G0183-BLK1 Method Blank 0.25	2.55e4	103.2	NO
6	6	13C4-PFOS	B9G0183-BLK1 Method Blank 0.25	5.22e3	115.4	NO
7	7	13C6-PFDA	B9G0183-BLK1 Method Blank 0.25	3.27e4	107.4	NO
8	8	13C7-PFUdA	B9G0183-BLK1 Method Blank 0.25	4.22e4	109.9	NO

Name: 190721M2_56, Date: 22-Jul-2019, Time: 06:41:20, ID: 1901661-01RE1 WMP1906180936BRH 0.25118, Description: WMP1906180936BRH

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901661-01RE1 WMP1906180936BRH...	1.22e4	121.7	NO
2	2	13C5-PFHxA	1901661-01RE1 WMP1906180936BRH...	2.60e4	91.6	NO
3	3	18O2-PFHxS	1901661-01RE1 WMP1906180936BRH...	2.05e3	101.2	NO
4	4	13C8-PFOA	1901661-01RE1 WMP1906180936BRH...	2.69e4	71.5	NO
5	5	13C9-PFNA	1901661-01RE1 WMP1906180936BRH...	2.16e4	87.4	NO
6	6	13C4-PFOS	1901661-01RE1 WMP1906180936BRH...	4.61e3	102.0	NO
7	7	13C6-PFDA	1901661-01RE1 WMP1906180936BRH...	2.82e4	92.7	NO
8	8	13C7-PFUdA	1901661-01RE1 WMP1906180936BRH...	3.54e4	92.3	NO

Name: 190721M2_57, Date: 22-Jul-2019, Time: 06:51:53, ID: 1901661-02RE1 WEF1906180942BRH 0.24993, Description: WEF1906180942BRH

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901661-02RE1 WEF1906180942BRH...	9.81e3	97.6	NO
2	2	13C5-PFHxA	1901661-02RE1 WEF1906180942BRH...	1.88e4	66.4	NO
3	3	18O2-PFHxS	1901661-02RE1 WEF1906180942BRH...	1.93e3	95.2	NO
4	4	13C8-PFOA	1901661-02RE1 WEF1906180942BRH...	2.53e4	67.3	NO
5	5	13C9-PFNA	1901661-02RE1 WEF1906180942BRH...	1.81e4	73.3	NO
6	6	13C4-PFOS	1901661-02RE1 WEF1906180942BRH...	4.56e3	100.7	NO
7	7	13C6-PFDA	1901661-02RE1 WEF1906180942BRH...	2.27e4	74.7	NO
8	8	13C7-PFUdA	1901661-02RE1 WEF1906180942BRH...	3.12e4	81.3	NO

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Name: 190721M2_58, Date: 22-Jul-2019, Time: 07:02:31, ID: 1901661-03RE1 WEF1906180957BRH 0.25772, Description: WEF1906180957BRH

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901661-03RE1 WEF1906180957BRH...	1.28e4	127.1	NO
2	2	13C5-PFHxA	1901661-03RE1 WEF1906180957BRH...	2.31e4	81.5	NO
3	3	18O2-PFHxS	1901661-03RE1 WEF1906180957BRH...	2.40e3	118.5	NO
4	4	13C8-PFOA	1901661-03RE1 WEF1906180957BRH...	2.96e4	78.7	NO
5	5	13C9-PFNA	1901661-03RE1 WEF1906180957BRH...	1.99e4	80.5	NO
6	6	13C4-PFOS	1901661-03RE1 WEF1906180957BRH...	5.57e3	123.3	NO
7	7	13C6-PFDA	1901661-03RE1 WEF1906180957BRH...	2.51e4	82.6	NO
8	8	13C7-PFUdA	1901661-03RE1 WEF1906180957BRH...	3.39e4	88.4	NO

Name: 190721M2_59, Date: 22-Jul-2019, Time: 07:13:04, ID: 1902105-01 6C Discharge 0.24191, Description: 6C Discharge

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902105-01 6C Discharge 0.24191	1.38e4	137.7	NO
2	2	13C5-PFHxA	1902105-01 6C Discharge 0.24191	2.82e4	99.3	NO
3	3	18O2-PFHxS	1902105-01 6C Discharge 0.24191	2.38e3	117.4	NO
4	4	13C8-PFOA	1902105-01 6C Discharge 0.24191	4.24e4	112.8	NO
5	5	13C9-PFNA	1902105-01 6C Discharge 0.24191	2.90e4	117.2	NO
6	6	13C4-PFOS	1902105-01 6C Discharge 0.24191	5.36e3	118.6	NO
7	7	13C6-PFDA	1902105-01 6C Discharge 0.24191	3.72e4	122.2	NO
8	8	13C7-PFUdA	1902105-01 6C Discharge 0.24191	4.37e4	114.0	NO

Name: 190721M2_60, Date: 22-Jul-2019, Time: 07:23:42, ID: 1902105-02 5A Raw Leachate 0.24309, Description: 5A Raw Leachate

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902105-02 5A Raw Leachate 0.24309	7.00e3	69.7	NO
2	2	13C5-PFHxA	1902105-02 5A Raw Leachate 0.24309	1.30e4	45.8	YES
3	3	18O2-PFHxS	1902105-02 5A Raw Leachate 0.24309	1.91e3	94.3	NO
4	4	13C8-PFOA	1902105-02 5A Raw Leachate 0.24309	3.12e4	82.9	NO
5	5	13C9-PFNA	1902105-02 5A Raw Leachate 0.24309	2.56e4	103.3	NO
6	6	13C4-PFOS	1902105-02 5A Raw Leachate 0.24309	4.92e3	108.8	NO
7	7	13C6-PFDA	1902105-02 5A Raw Leachate 0.24309	3.31e4	108.8	NO
8	8	13C7-PFUdA	1902105-02 5A Raw Leachate 0.24309	4.33e4	112.8	NO

Name: 190721M2_61, Date: 22-Jul-2019, Time: 07:34:14, ID: 1902105-03 Field Blank 0.23889, Description: Field Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902105-03 Field Blank 0.23889	1.62e4	160.9	YES
2	2	13C5-PFHxA	1902105-03 Field Blank 0.23889	3.15e4	110.9	NO
3	3	18O2-PFHxS	1902105-03 Field Blank 0.23889	2.29e3	112.8	NO
4	4	13C8-PFOA	1902105-03 Field Blank 0.23889	4.01e4	106.6	NO
5	5	13C9-PFNA	1902105-03 Field Blank 0.23889	2.68e4	108.3	NO
6	6	13C4-PFOS	1902105-03 Field Blank 0.23889	5.34e3	118.1	NO
7	7	13C6-PFDA	1902105-03 Field Blank 0.23889	3.53e4	116.0	NO
8	8	13C7-PFUdA	1902105-03 Field Blank 0.23889	4.60e4	120.0	NO

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Name: 190721M2_62, Date: 22-Jul-2019, Time: 07:44:53, ID: 1902106-01 WT1907110855SK 0.23917, Description: WT1907110855SK

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902106-01 WT1907110855SK 0.23917	1.52e4	151.1	YES
2	2	13C5-PFHxA	1902106-01 WT1907110855SK 0.23917	3.01e4	106.2	NO
3	3	18O2-PFHxS	1902106-01 WT1907110855SK 0.23917	2.17e3	107.0	NO
4	4	13C8-PFOA	1902106-01 WT1907110855SK 0.23917	3.77e4	100.4	NO
5	5	13C9-PFNA	1902106-01 WT1907110855SK 0.23917	2.67e4	107.7	NO
6	6	13C4-PFOS	1902106-01 WT1907110855SK 0.23917	5.14e3	113.6	NO
7	7	13C6-PFDA	1902106-01 WT1907110855SK 0.23917	3.29e4	108.3	NO
8	8	13C7-PFUdA	1902106-01 WT1907110855SK 0.23917	4.13e4	107.7	NO

Name: 190721M2_63, Date: 22-Jul-2019, Time: 07:55:25, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190721M2_64, Date: 22-Jul-2019, Time: 08:06:04, ID: ST190721M2-13 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190721M2-13 PFC CS3 19G1106	1.05e4	104.8	NO
2	2	13C5-PFHxA	ST190721M2-13 PFC CS3 19G1106	3.10e4	109.3	NO
3	3	18O2-PFHxS	ST190721M2-13 PFC CS3 19G1106	1.90e3	93.8	NO
4	4	13C8-PFOA	ST190721M2-13 PFC CS3 19G1106	3.68e4	98.1	NO
5	5	13C9-PFNA	ST190721M2-13 PFC CS3 19G1106	2.65e4	107.1	NO
6	6	13C4-PFOS	ST190721M2-13 PFC CS3 19G1106	4.75e3	105.0	NO
7	7	13C6-PFDA	ST190721M2-13 PFC CS3 19G1106	3.36e4	110.4	NO
8	8	13C7-PFUdA	ST190721M2-13 PFC CS3 19G1106	4.15e4	108.4	NO

Name: 190721M2_65, Date: 22-Jul-2019, Time: 08:16:37, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190721M2_66, Date: 22-Jul-2019, Time: 08:27:16, ID: 1902106-02 WR1907110930SK 0.24874, Description: WR1907110930SK

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902106-02 WR1907110930SK 0.24874	1.37e4	135.8	NO
2	2	13C5-PFHxA	1902106-02 WR1907110930SK 0.24874	2.64e4	92.9	NO
3	3	18O2-PFHxS	1902106-02 WR1907110930SK 0.24874	2.03e3	100.0	NO
4	4	13C8-PFOA	1902106-02 WR1907110930SK 0.24874	3.40e4	90.6	NO
5	5	13C9-PFNA	1902106-02 WR1907110930SK 0.24874	2.34e4	94.8	NO
6	6	13C4-PFOS	1902106-02 WR1907110930SK 0.24874	4.90e3	108.4	NO
7	7	13C6-PFDA	1902106-02 WR1907110930SK 0.24874	3.20e4	105.4	NO
8	8	13C7-PFUdA	1902106-02 WR1907110930SK 0.24874	3.95e4	102.9	NO

Name: 190721M2_67, Date: 22-Jul-2019, Time: 08:39:00, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190721M2_68, Date: 22-Jul-2019, Time: 08:49:37, ID: ST190721M2-14 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190721M2-14 PFC CS3 19G1106	1.04e4	103.6	NO
2	2	13C5-PFHxA	ST190721M2-14 PFC CS3 19G1106	3.13e4	110.1	NO
3	3	18O2-PFHxS	ST190721M2-14 PFC CS3 19G1106	1.98e3	97.8	NO
4	4	13C8-PFOA	ST190721M2-14 PFC CS3 19G1106	3.86e4	102.7	NO
5	5	13C9-PFNA	ST190721M2-14 PFC CS3 19G1106	2.60e4	105.0	NO
6	6	13C4-PFOS	ST190721M2-14 PFC CS3 19G1106	4.84e3	107.1	NO
7	7	13C6-PFDA	ST190721M2-14 PFC CS3 19G1106	3.42e4	112.6	NO
8	8	13C7-PFUdA	ST190721M2-14 PFC CS3 19G1106	4.08e4	106.4	NO

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Name: 190721M2_14, Date: 21-Jul-2019, Time: 23:16:06, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8		7263.589	1.00					NO		
2	2	PFPrS	248.9 > 79.9		2186.536	1.00					NO		
3	3	3:3 FTCA	240.9 > 176.9		14638.908	1.00					NO		
4	4	PFPeA	263.1 > 218.9		14638.908	1.00					NO		
5	5	PFBS	299.0 > 79.7		2186.536	1.00					NO		
6	6	4:2 FTS	327.0 > 306.9		3621.463	1.00					NO		
7	47	13C3-PFBA	216.1 > 171.8	7263.589	10065.629	1.00	1.17	9.020	13.4	107.5	NO		
8	49	13C3-PFBS	302.0 > 98.8	2186.536	2143.541	1.00	2.47	12.751	12.3	98.6	NO		
9	48	13C3-PFPeA	266.0 > 221.8	14638.908	30074.572	1.00	2.17	6.084	13.4	107.4	NO		
10	48	13C3-PFPeA	266.0 > 221.8	14638.908	30074.572	1.00	2.17	6.084	13.4	107.4	NO		
11	49	13C3-PFBS	302.0 > 98.8	2186.536	2143.541	1.00	2.47	12.751	12.3	98.6	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	3621.463	2143.541	1.00	2.89	21.118	11.4	90.9	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0		11959.717	1.00					NO		
15	8	PFPeS	349.1>80.1		2186.536	1.00					NO		
16	9	HFPO-DA	285.1 > 168.9		1618.859	1.00					NO		
17	10	5:3 FTCA	340.9 > 236.9		14792.673	1.00					NO		
18	11	PFHpA	363.0 > 318.9		14792.673	1.00					NO		
19	12	ADONA	376.8 > 250.9		14792.673	1.00					NO		
20	52	13C2-PFHxA	315.0 > 270.0	11959.717	30074.572	1.00	2.98	4.971	6.3	125.7	NO		
21	49	13C3-PFBS	302.0 > 98.8	2186.536	2143.541	1.00	2.47	12.751	12.3	98.6	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1618.859	30074.572	1.00	3.19	0.673	3.0	59.4	NO		
23	53	13C4-PFHpA	367.2 > 321.8	14792.673	30074.572	1.00	3.60	6.148	16.8	134.8	NO		
24	53	13C4-PFHpA	367.2 > 321.8	14792.673	30074.572	1.00	3.60	6.148	16.8	134.8	NO		
25	53	13C4-PFHpA	367.2 > 321.8	14792.673	30074.572	1.00	3.60	6.148	16.8	134.8	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6	5.697	4408.646	1.00	3.76	0.016	0.1		NO	1.341	NO
28	15	6:2 FTS	427.0 > 406.9		2739.844	1.00					NO		
29	16	L-PFOA	412.8 > 368.9	110.660	26968.723	1.00	4.13	0.051	0.0		NO	3.938	NO
30	18	PFecHS	460.8 > 381.0		26968.723	1.00					NO		
31	19	PFHpS	449.0 > 80.0		4757.670	1.00					NO		
32	20	7:3 FTCA	440.9 > 336.9		26968.480	1.00					NO		
33	54	13C3-PFHxS	401.8 > 79.9	4408.646	2143.541	1.00	3.76	25.709	11.6	93.1	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	2739.844	4924.605	1.00	4.08	6.954	10.2	81.5	NO		
35	58	13C2-PFOA	414.9 > 369.7	26968.723	38850.145	1.00	4.13	8.677	17.0	136.4	NO		
36	58	13C2-PFOA	414.9 > 369.7	26968.723	38850.145	1.00	4.13	8.677	17.0	136.4	NO		

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Name: 190721M2_14, Date: 21-Jul-2019, Time: 23:16:06, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	4757.670	4924.605	1.00	4.66	12.076	11.9	95.2	NO		
38	56	13C5-PFNA	468.2 > 422.9	26968.480	27217.789	1.00	4.58	12.386	12.4	99.3	NO		
39	-1												
40	21	PFNA	463.0 > 418.8		26968.480	1.00					NO		
41	22	PFOSA	497.9 > 77.9		6122.651	1.00					NO		
42	23	L-PFOS	498.9 > 79.9		4757.670	1.00					NO		
43	25	9Cl-PF30NS	530.7 > 350.8		4757.670	1.00					NO		
44	26	PFDA	513 > 468.8		27223.180	1.00					NO		
45	27	8:2 FTS	527.0 > 506.9		2860.053	1.00					NO		
46	56	13C5-PFNA	468.2 > 422.9	26968.480	27217.789	1.00	4.58	12.386	12.4	99.3	NO		
47	57	13C8-PFOSA	506.1 > 77.7	6122.651	42306.242	1.00	4.64	1.809	13.0	104.4	NO		
48	59	13C8-PFOS	507.0 > 79.9	4757.670	4924.605	1.00	4.66	12.076	11.9	95.2	NO		
49	59	13C8-PFOS	507.0 > 79.9	4757.670	4924.605	1.00	4.66	12.076	11.9	95.2	NO		
50	60	13C2-PFDA	515.1 > 469.9	27223.180	34144.391	1.00	4.96	9.966	14.9	119.2	NO		
51	61	13C2-8:2 FTS	529 > 79.9	2860.053	4924.605	1.00	4.92	7.260	10.6	84.7	NO		
52	-1												
53	28	PFNS	549.1 > 80.1		4757.670	1.00					NO		
54	29	L-MeFOSAA	570 > 419		6958.096	1.00					NO		
55	31	L-EtFOSAA	584.1 > 419		9969.561	1.00					NO		
56	33	PFUdA	563.0 > 518.9		37257.152	1.00					NO		
57	34	PFDS	598.8 > 79.9		2860.053	1.00					NO		
58	35	11Cl-PF30UdS	632.6 > 452.7		36827.016	1.00					NO		
59	59	13C8-PFOS	507.0 > 79.9	4757.670	4924.605	1.00	4.66	12.076	11.9	95.2	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	6958.096	42306.242	1.00	5.11	2.056	16.6	132.5	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	9969.561	42306.242	1.00	5.27	2.946	16.9	135.1	NO		
62	63	13C2-PFUdA	565 > 519.8	37257.152	42306.242	1.00	5.29	11.008	13.6	108.5	NO		
63	61	13C2-8:2 FTS	529 > 79.9	2860.053	4924.605	1.00	4.92	7.260	10.6	84.7	NO		
64	65	13C2-PFDoA	614.7 > 569.7	36827.016	34144.391	1.00	5.58	13.482	10.3	82.2	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9		2860.053	1.00					NO		
67	37	PFDoA	612.9 > 569.0		36827.016	1.00					NO		
68	38	N-MeFOSA	512.1 > 168.9		17578.238	1.00					NO		
69	39	PFTrDA	662.9 > 618.9		36827.016	1.00					NO		
70	40	PFDoS	698.8 > 79.9		23689.963	1.00					NO		
71	41	PFTeDA	713.0 > 669.0	98.583	23689.963	1.00	6.04	0.052			NO	38.889	YES
72	65	13C2-PFDoA	614.7 > 569.7	36827.016	34144.391	1.00	5.58	13.482	10.3	82.2	NO		

CGH 7/22/2019

Dataset: F:\Projects\PFAS.PRO\Results\190721M2\190721M2-IB.qld

Last Altered: Monday, July 22, 2019 08:53:20 Pacific Daylight Time
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Name: 190721M2_14, Date: 21-Jul-2019, Time: 23:16:06, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	36827.016	34144.391	1.00	5.58	13.482	10.3	82.2	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	17578.238	42306.242	1.00	5.77	5.194	187.9	125.2	NO		
75	65	13C2-PFDoA	614.7 > 569.7	36827.016	34144.391	1.00	5.58	13.482	10.3	82.2	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	23689.963	42306.242	1.00	6.04	7.000	16.0	128.1	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	23689.963	42306.242	1.00	6.04	7.000	16.0	128.1	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9		22592.844	1.00					NO		
80	43	PFHxDA	813.1 > 768.6	171.503	12836.536	1.00	6.39	0.067	0.1		NO	35.209	YES
81	44	PFODA	913.1 > 868.8	130.536	12836.536	1.00	6.63	0.051			NO		
82	45	N-MeFOSE	616.1 > 58.9		13630.192	1.00					NO		
83	46	N-EtFOSE	630.1 > 58.9		14404.343	1.00					NO		
84	72	13C4-PFBA	217.0 > 172.0	10065.629	10065.629	1.00	1.17	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	22592.844	42306.242	1.00	6.18	6.675	205.6	137.0	NO		
86	69	13C2-PFHxDA	815 > 769.7	12836.536	42306.242	1.00	6.39	3.793	5.2	104.2	NO		
87	69	13C2-PFHxDA	815 > 769.7	12836.536	42306.242	1.00	6.39	3.793	5.2	104.2	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	13630.192	42306.242	1.00	6.34	4.027	135.4	90.3	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	14404.343	42306.242	1.00	6.49	4.256	139.8	93.2	NO		
90	73	13C5-PFHxA	318.0 > 272.9	30074.572	30074.572	1.00	2.98	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	38850.145	38850.145	1.00	4.13	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	2143.541	2143.541	1.00	3.76	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	27217.789	27217.789	1.00	4.58	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	4924.605	4924.605	1.00	4.66	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	34144.391	34144.391	1.00	4.96	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	42306.242	42306.242	1.00	5.29	12.500	12.5	100.0	NO		

Vista Analytical Laboratory

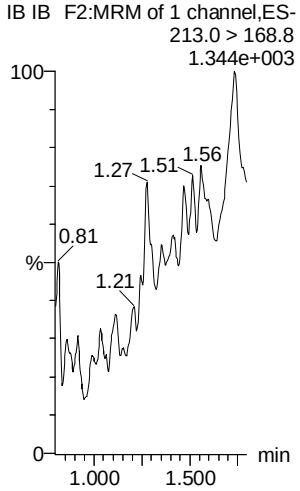
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Printed: Monday, July 22, 2019 08:53:40 Pacific Daylight Time

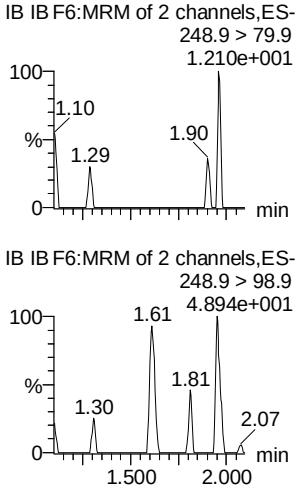
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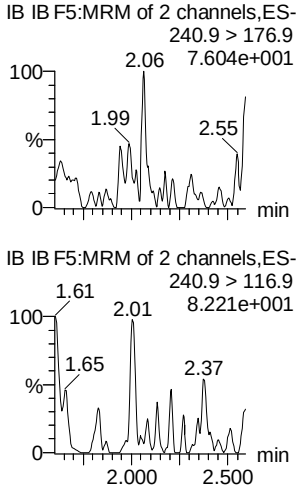
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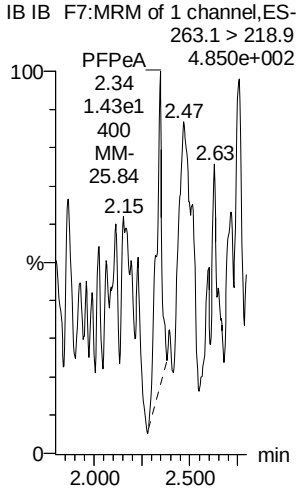
PFPrS



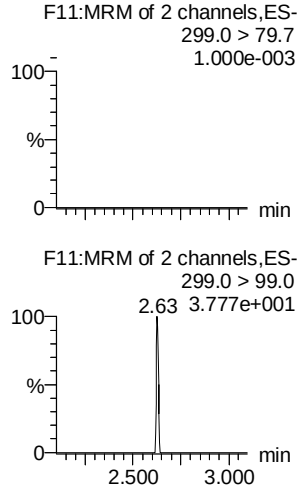
3:3 FTCA



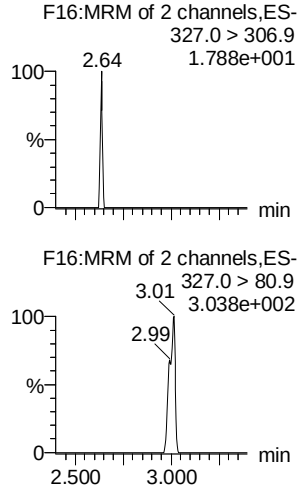
PFPeA



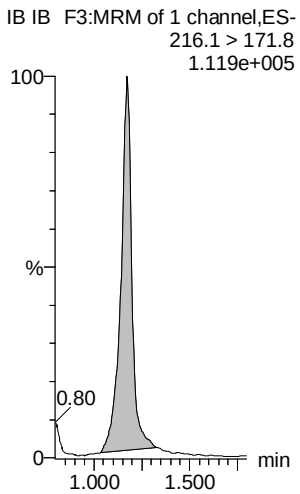
PFBS



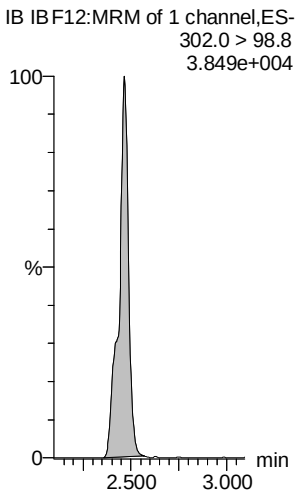
4:2 FTS



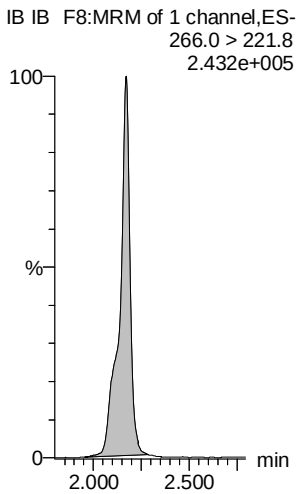
13C3-PFBA



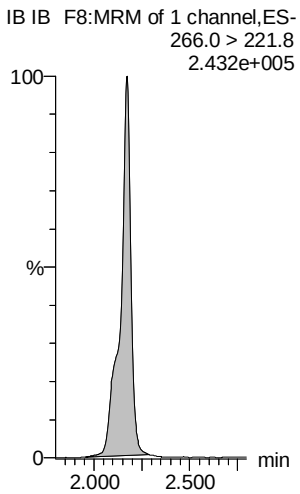
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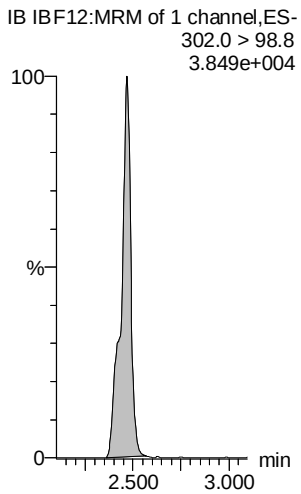
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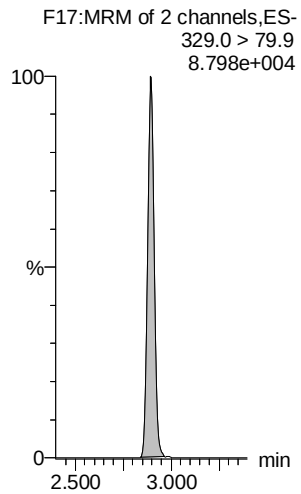
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13C3-PFBS



13C2-4:2 FTS

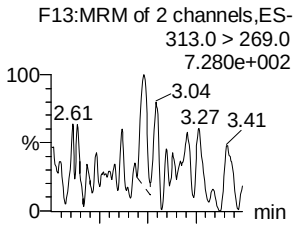


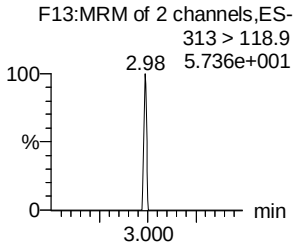
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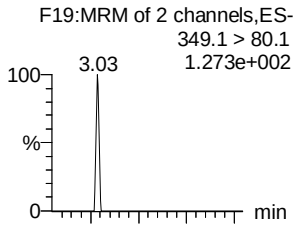
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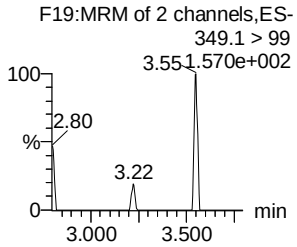
PFHxA



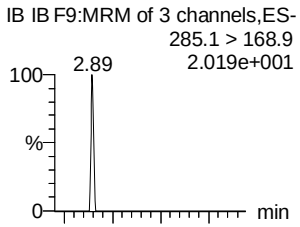


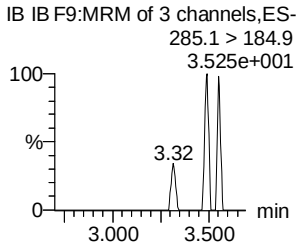
PFPeS



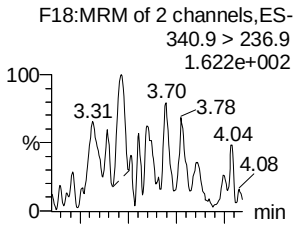


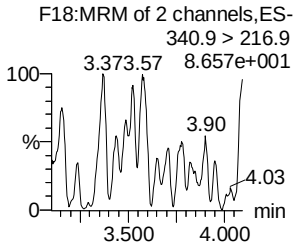
HFPO-DA



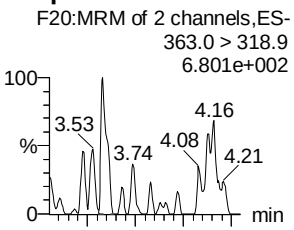


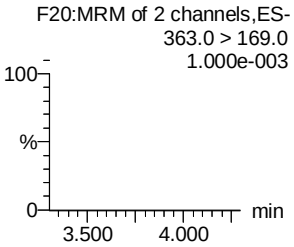
5:3 FTCA



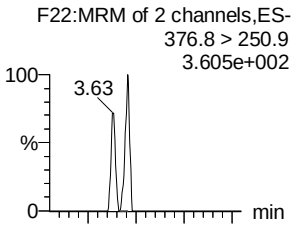


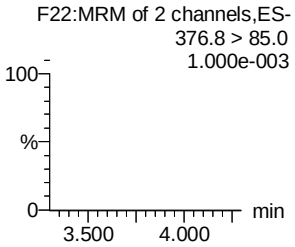
PFHpA



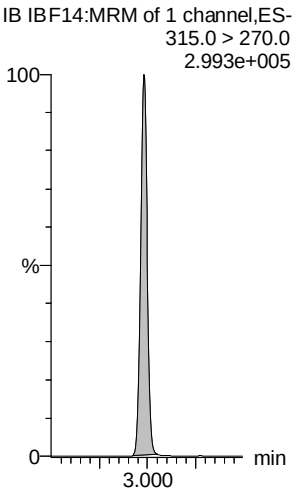


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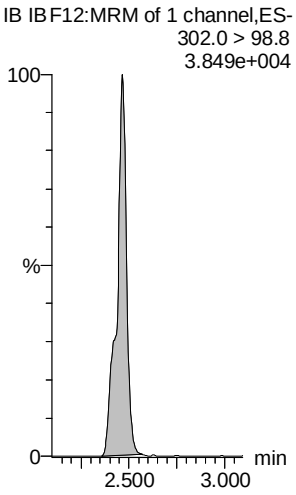




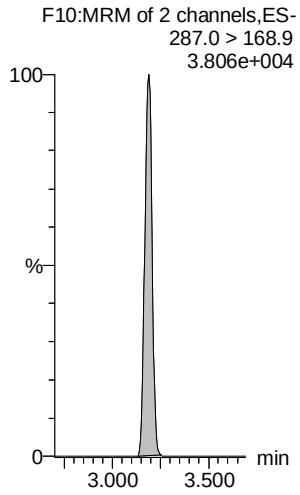
13C2-PFHxA



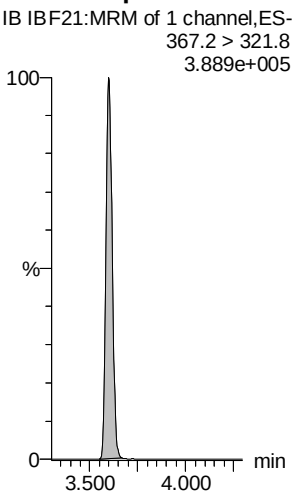
13C3-PFBS



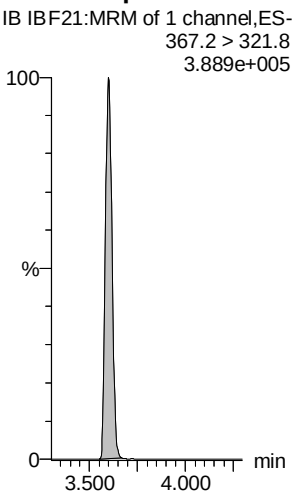
13C3-HFPO-DA



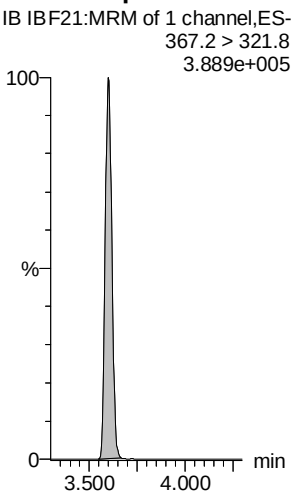
13C4-PFHpA



13C4-PFHpA



13C4-PFHpA

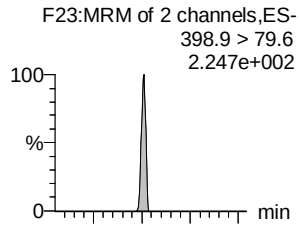


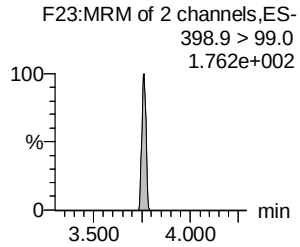
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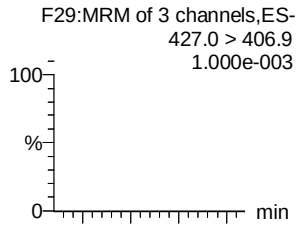
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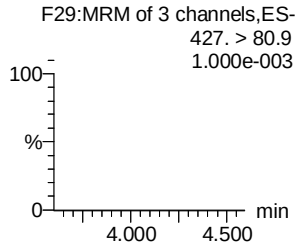
L-PFHxS



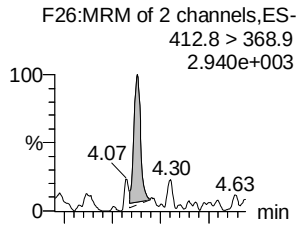


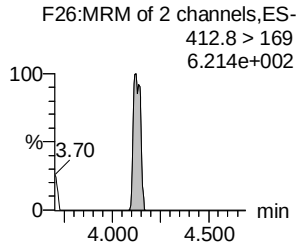
6:2 FTS



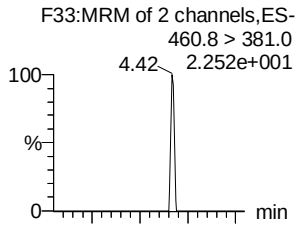


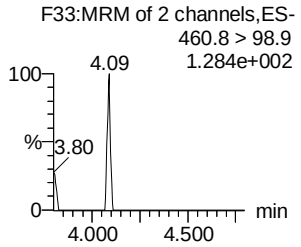
L-PFOA



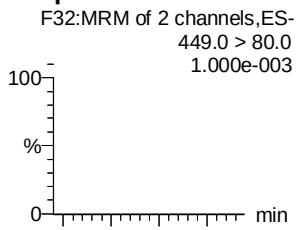


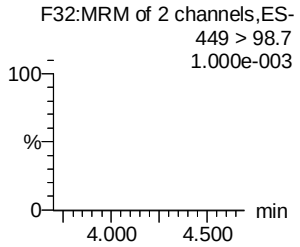
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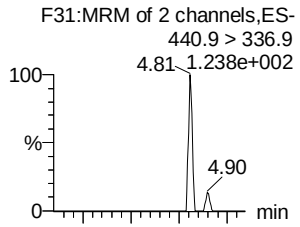


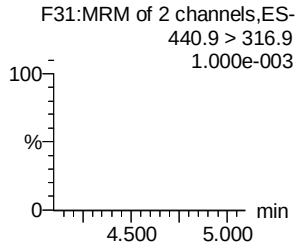
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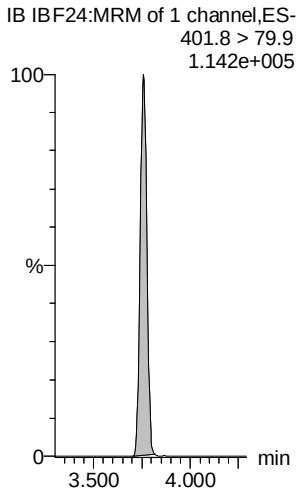


7:3 FTCA

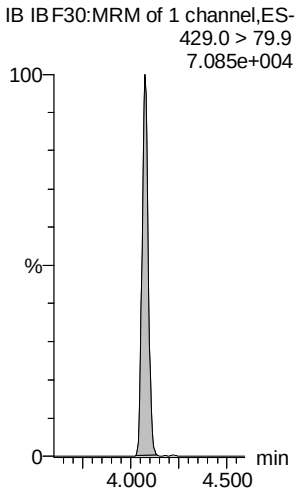




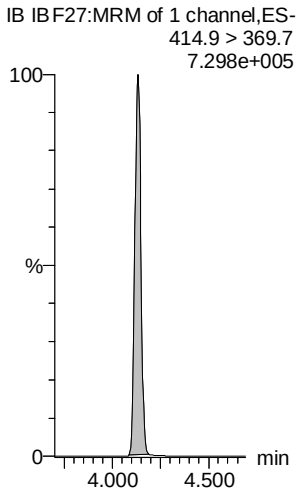
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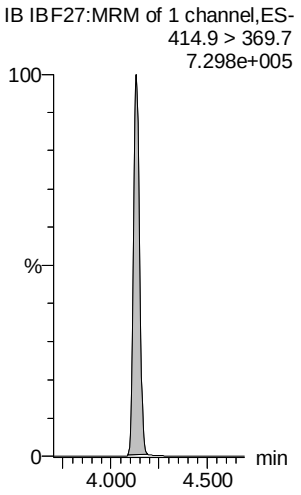
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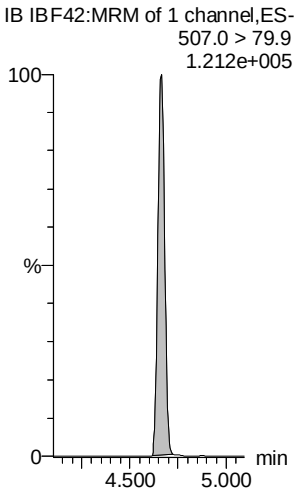
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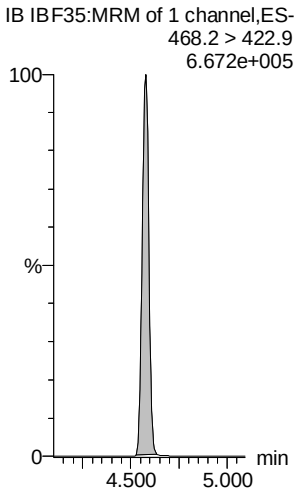
13C2-PFOA



13C8-PFOS



13C5-PFNA



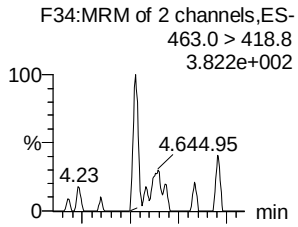
Vista Analytical Laboratory

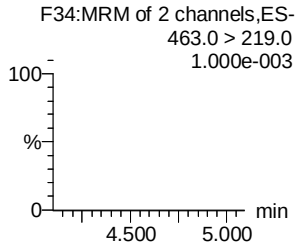
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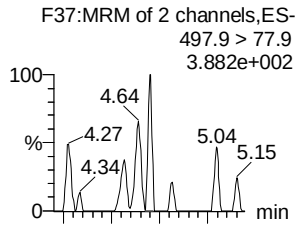
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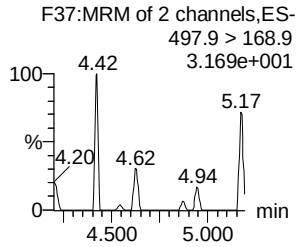
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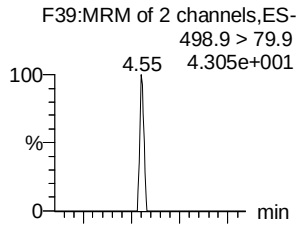


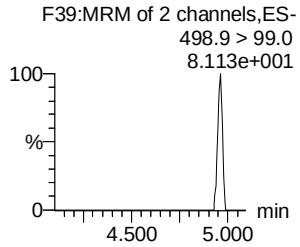
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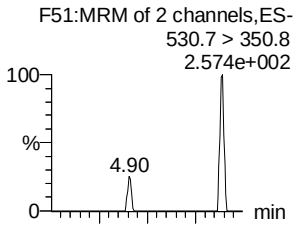


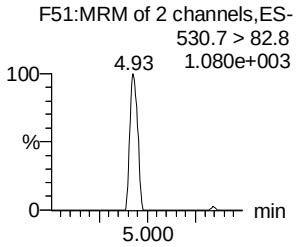
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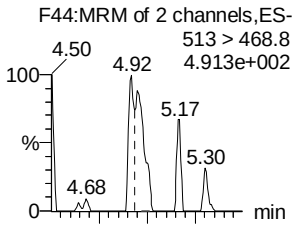


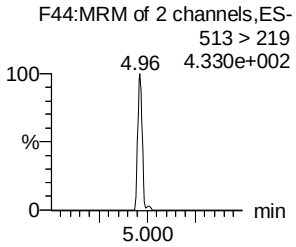
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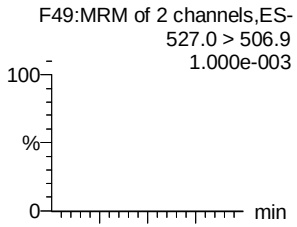


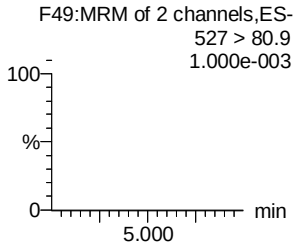
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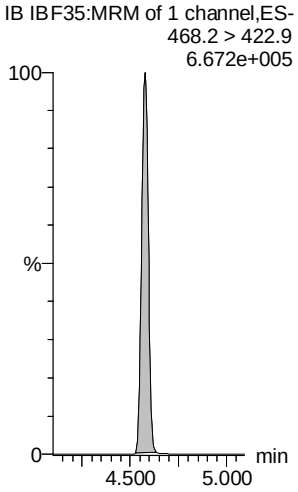


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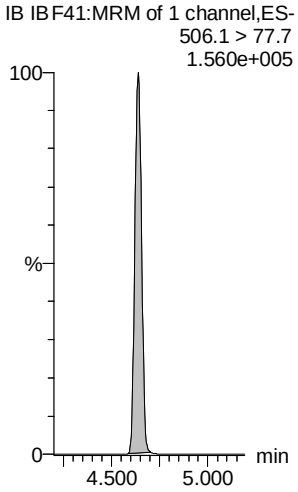




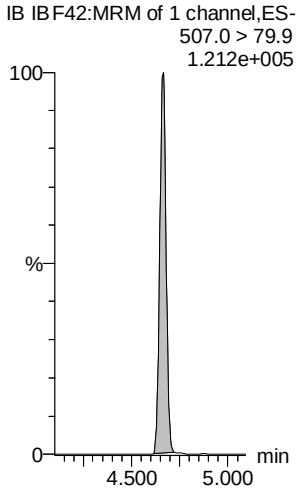
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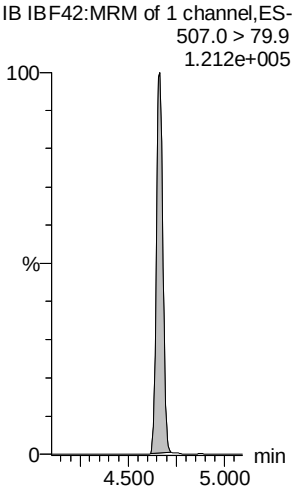
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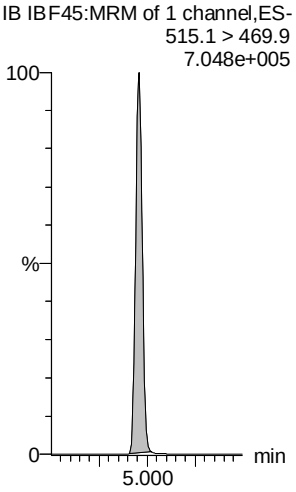
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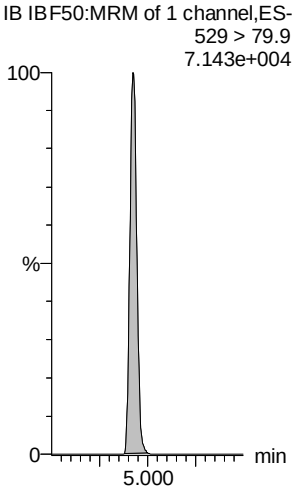
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13C2-PFDA



13C2-8:2 FTS



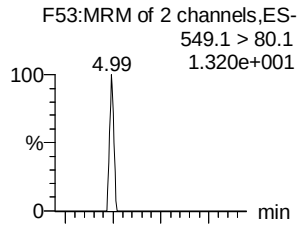
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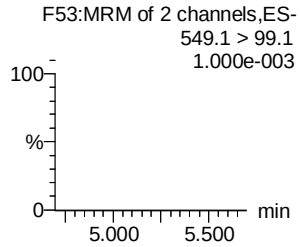
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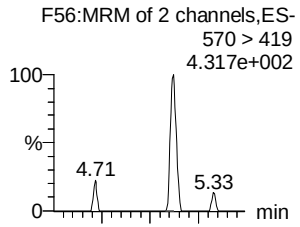
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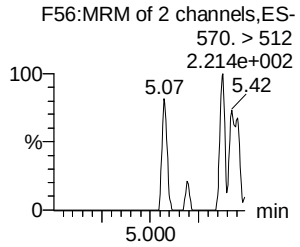
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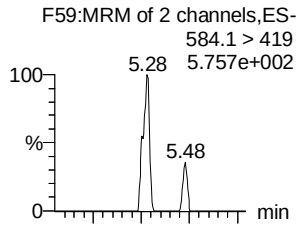


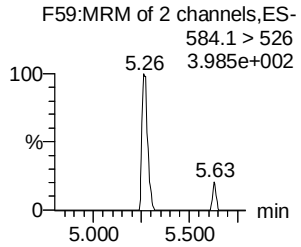
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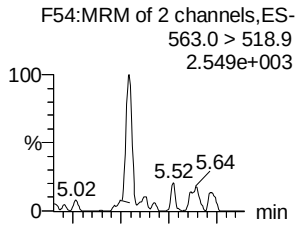


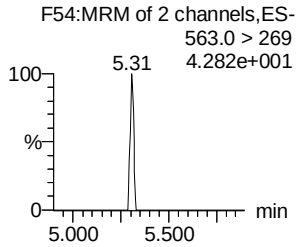
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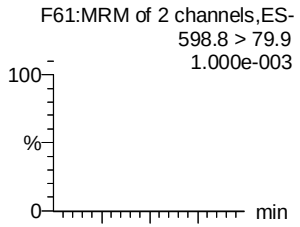


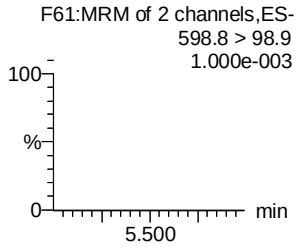
PFUdA



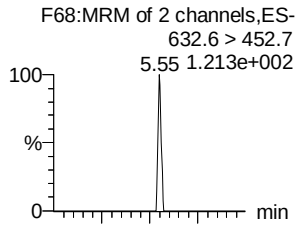


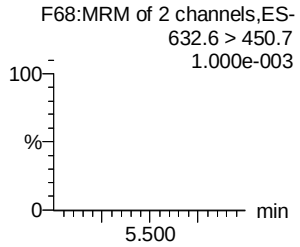
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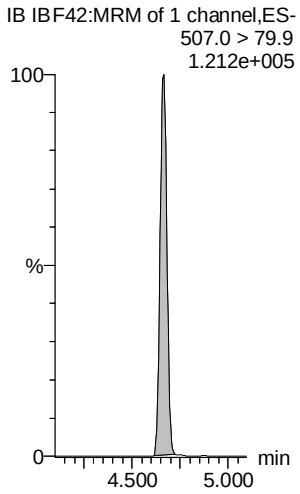


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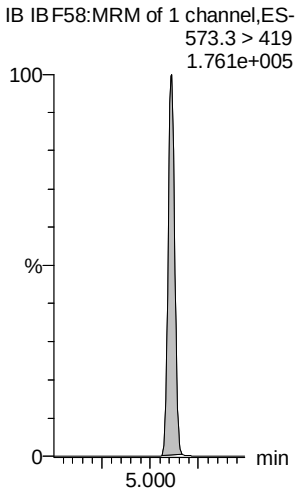




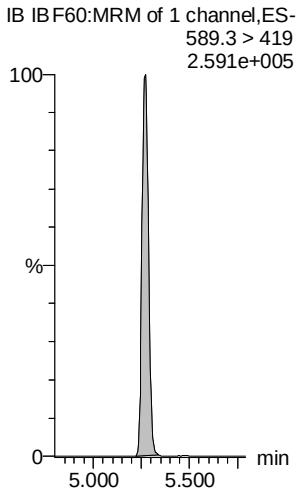
13C8-PFOS



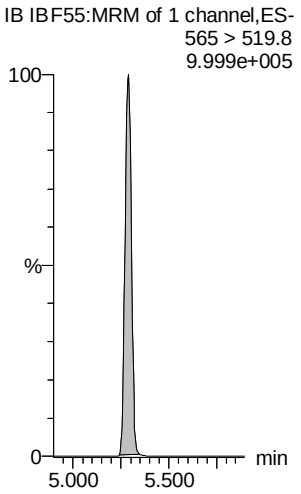
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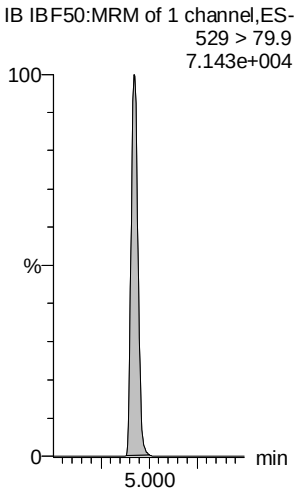
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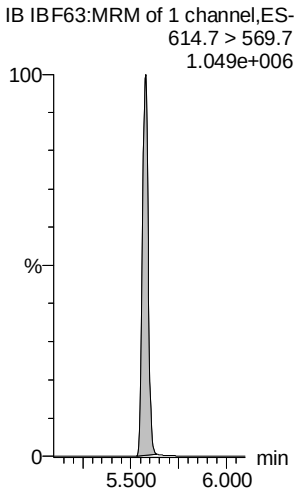
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13C2-8:2 FTS



13C2-PFDoA

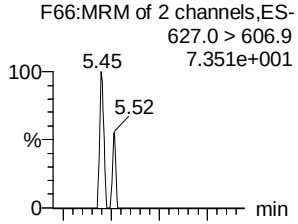


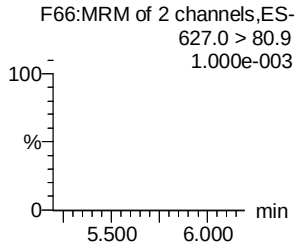
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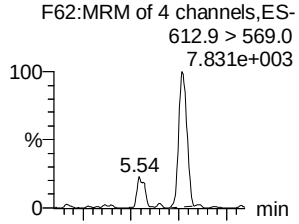
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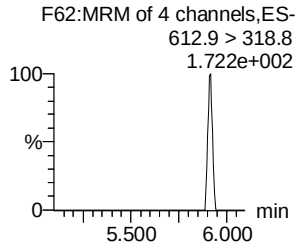
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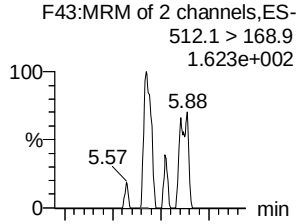


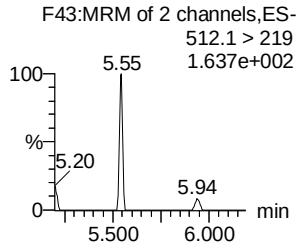
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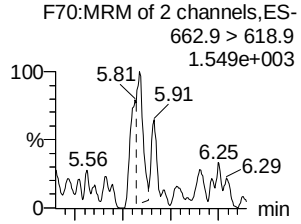


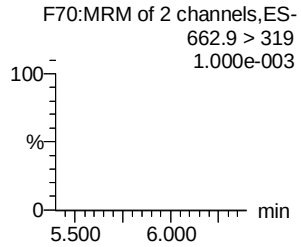
N-MeFOSA



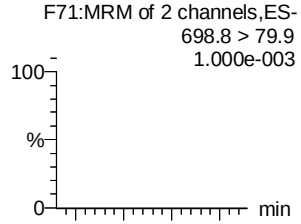


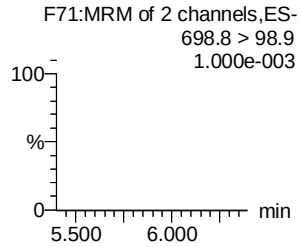
PFTrDA



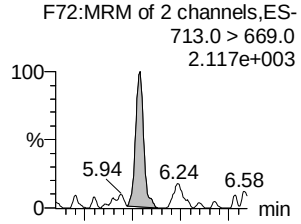


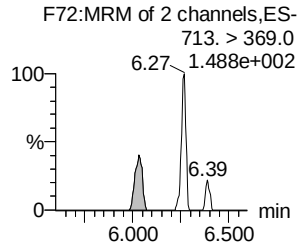
PFDoS



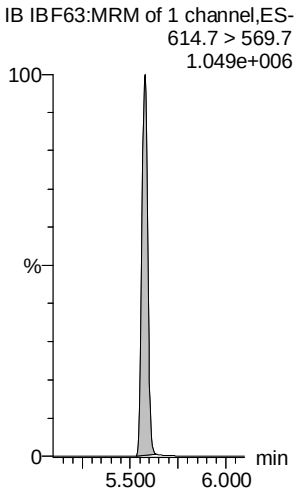


PFTeDA

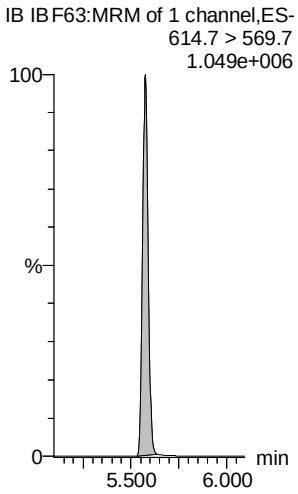




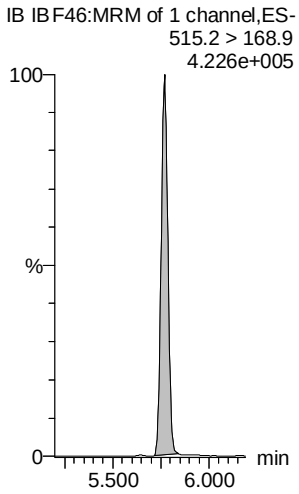
13C2-PFDoA



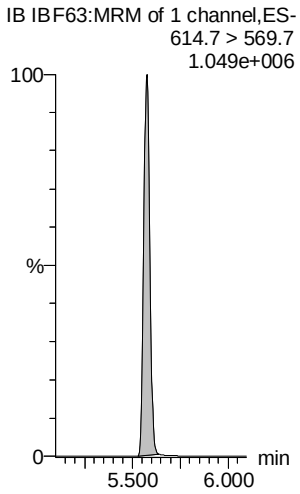
13C2-PFDoA



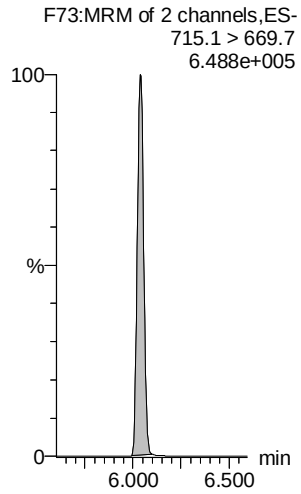
d3-N-MeFOSA



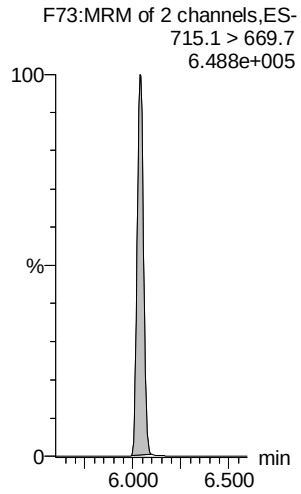
13C2-PFDoA



13C2-PFTeDA



13C2-PFTeDA

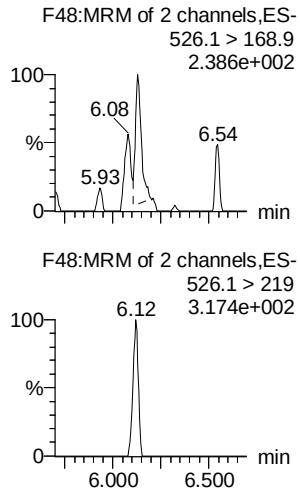


Dataset: F:\Projects\PFAS.PRO\Results\190721M2\190721M2-IB.qld

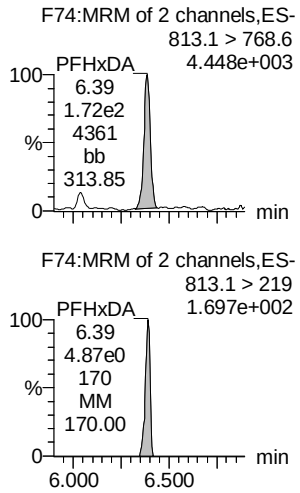
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Printed: Monday, July 22, 2019 08:53:40 Pacific Daylight Time

Name: 190721M2_14, Date: 21-Jul-2019, Time: 23:16:06, ID: IB, Description: IB

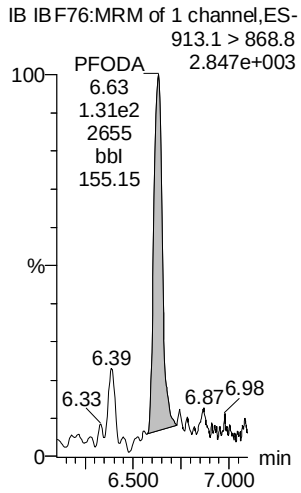
N-EtFOSA



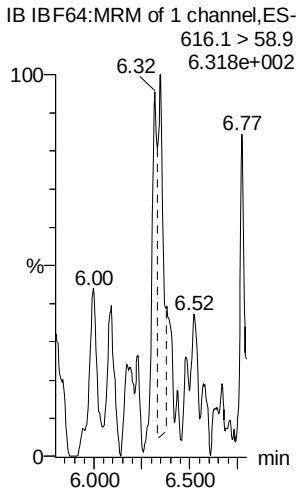
PFHxDA



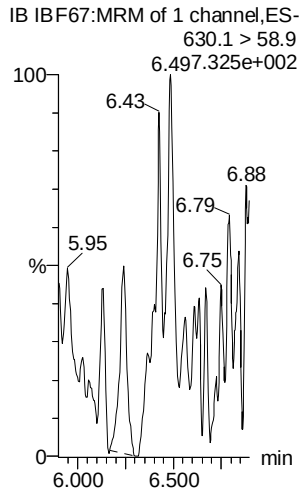
PFODA



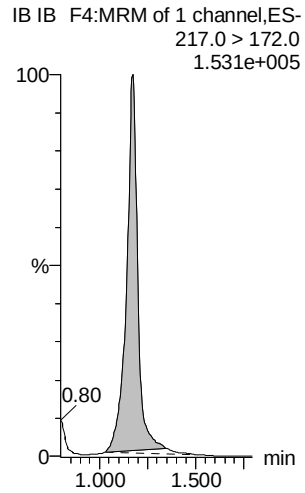
N-MeFOSE



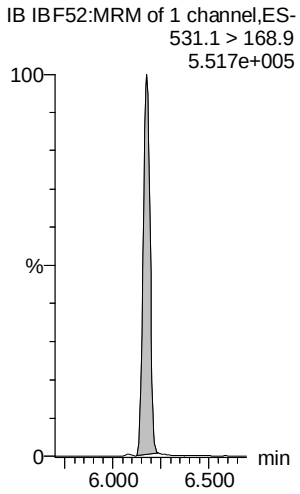
N-EtFOSE



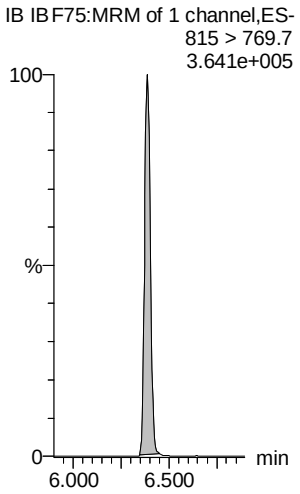
13C4-PFBA



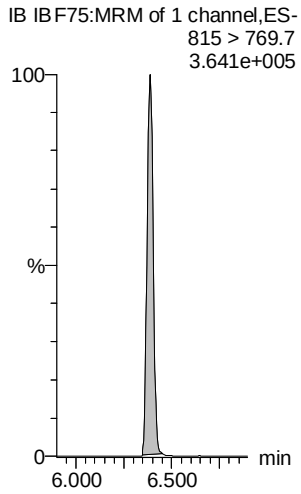
d5-N-ETFOSA



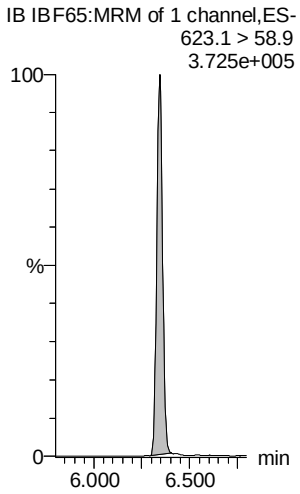
13C2-PFHxDA



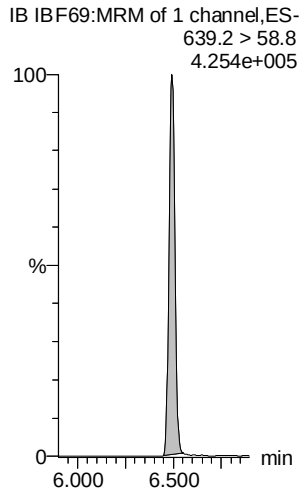
13C2-PFHxDA



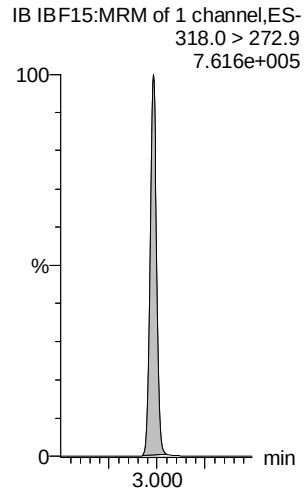
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

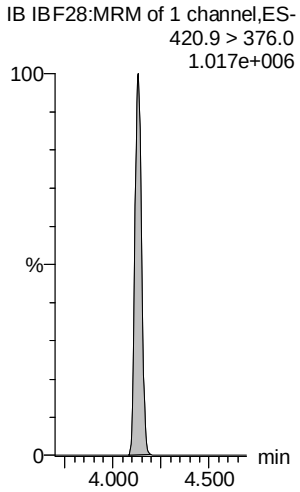


Dataset: F:\Projects\PFAS.PRO\Results\190721M2\190721M2-IB.qld

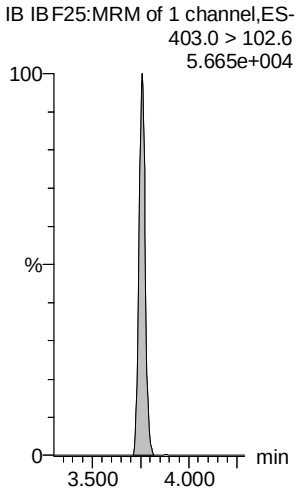
Last Altered: Monday, July 22, 2019 08:53:20 Pacific Daylight Time
Printed: Monday, July 22, 2019 08:53:40 Pacific Daylight Time

Name: 190721M2_14, Date: 21-Jul-2019, Time: 23:16:06, ID: IB, Description: IB

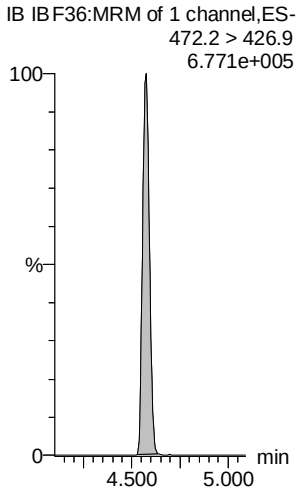
13C8-PFOA



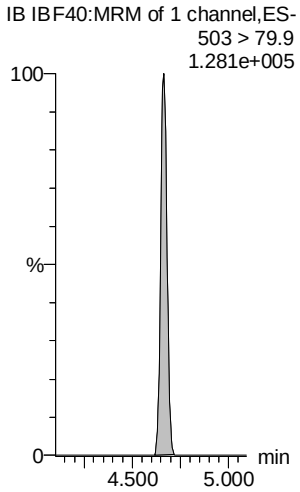
18O2-PFHxS



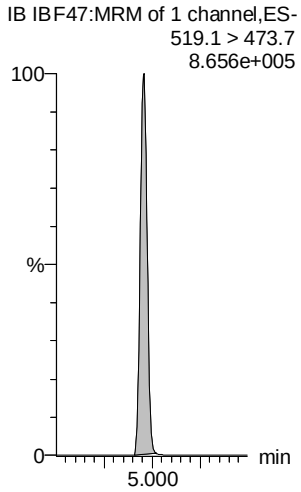
13C9-PFNA



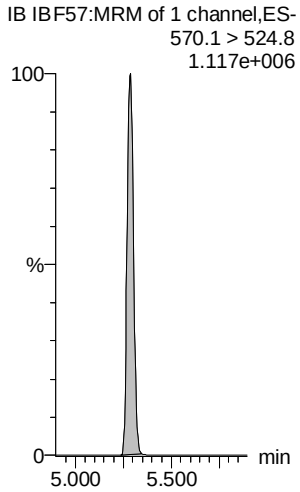
13C4-PFOS



13C6-PFDA



13C7-PFUdA



LC Calibration Standards Review Checklist Q4

			ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	N/A
Calibration ID:	ST190721M2-3	L M H	☑	☑ (A)	☑	☑	☑	☑	☐
Calibration ID:	-11	L M H	☑	☑ (B)	☑	☐	☑	☑	☐
Calibration ID:	-12	L M H	☑	☑ (C)	☑	☑	☑	☑	☐
Calibration ID:	-13	L M H	☑	☑ (D)	☑	☐	☑	☑	☐
Calibration ID:	-14	L M H	☑	☑ (D)	☑	☑	☑	☑	☑
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐ N/A CAH 7/22/19	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 07/15/19

Run Log Present: ☑

# of Samples per Sequence Checked: ☑

Instrument Blank Saved ☑

All Branches in Acquisition Window ☑

IIS Area Saved ☑

Reviewed By: 7/22/19
Initials/Date

Comments:

(A) 5:3 FTCA, 9Cl-PF3ONS, 8:2 FTS < 70%.
(B) 9Cl-PF3ONS, PFDoS ~~< 70%~~ qm 7/22/19, 5:3 FTCA, 7:3 FTCA < 70%.
(C) 3:3 FTCA, 5:3 FTCA, 9Cl-PF3ONS, PFDoS < 70%.
(D) 5:3 FTCA, 7:3 FTCA, 9Cl-PF3ONS, PFDoS < 70%.

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\190721M2\190721M2-34.qld

Last Altered: Monday, July 22, 2019 08:05:46 Pacific Daylight Time
Printed: Monday, July 22, 2019 08:28:47 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072119.mdb 22 Jul 2019 08:05:44
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Name: 190721M2_34, Date: 22-Jul-2019, Time: 02:48:09, ID: ST190721M2-11 PFC CS3 19G1106, Description: PFC CS3 19G1106

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	PFBA	1.18	1.18			
2	PFPrS	1.55	1.55	2.395	2.395	NO
3	3:3 FTCA	2.04	2.02	1.999	1.999	NO
4	PFPeA	2.18	2.18			
5	PFBS	2.47	2.47	3.062	3.062	NO
6	4:2 FTS	2.90	2.90	1.803	1.803	NO
7	PFHxA	2.98	2.98	15.287	15.287	NO
8	PFPeS	3.19	3.19	1.524	1.524	NO
9	HFPO-DA	3.19	3.20	2.142	2.142	NO
10	5:3 FTCA	3.53	3.54	1.531	1.531	NO
11	PFHpA	3.60	3.60	9.397	9.397	NO
12	ADONA	3.71	3.71	3.495	3.495	NO
13	L-PFHxS	3.76	3.76	2.023	2.023	NO
14	6:2 FTS	4.08	4.08	2.408	2.408	NO
15	L-PFOA	4.14	4.14	3.834	3.834	NO
16	PFecHS	4.15	4.15	0.893	0.893	NO
17	PFHpS	4.25	4.25	1.719	1.719	NO
18	7:3 FTCA	4.57	4.56	2.025	2.025	NO
19	PFNA	4.58	4.58	3.929	3.929	NO
20	PFOSA	4.64	4.64	27.354	27.354	NO
21	L-PFOS	4.66	4.66	2.303	2.303	NO
22	9Cl-PF30NS	4.89	4.89	15.712	15.712	NO
23	PFDA	4.96	4.96	5.420	5.420	NO
24	8:2 FTS	4.93	4.93	1.192	1.192	NO
25	PFNS	5.03	5.03	1.536	1.536	NO
26	L-MeFOSAA	5.11	5.11	2.441	2.441	NO

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\190721M2\190721M2-34.qld

Last Altered: Monday, July 22, 2019 08:05:46 Pacific Daylight Time
Printed: Monday, July 22, 2019 08:29:02 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072119.mdb 22 Jul 2019 08:05:44
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Name: 190721M2_34, Date: 22-Jul-2019, Time: 02:48:09, ID: ST190721M2-11 PFC CS3 19G1106, Description: PFC CS3 19G1106

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	L-EtFOSAA	5.27	5.28	1.390	1.390	NO
2	PFUdA	5.29	5.29	7.942	7.942	NO
3	PFDS	5.34	5.34	1.775	1.775	NO
4	11Cl-PF30UdS	5.51	5.51	5.328	5.328	NO
5	10:2 FTS	5.56	5.56	1.599	1.599	NO
6	PFDoA	5.57	5.58	8.891	8.891	NO
7	N-MeFOSA	5.74	5.74	1.607	1.607	NO
8	PFTrDA	5.83	5.83	19.809	19.809	NO
9	PFDoS	5.86	5.86	1.757	1.757	NO
10	PFTeDA	6.06	6.06	16.566	16.566	NO
11	N-EtFOSA	6.19	6.19	1.623	1.623	NO
12	PFHxDA	6.42	6.42	20.291	20.291	NO
13	PFODA	6.67	6.67			
14	N-MeFOSE	6.38	6.38			
15	N-EtFOSE	6.53	6.53			

Dataset: F:\Projects\PFAS.PRO\Results\190721M2\190721M2-6.qld

(A) 5:3 FTCA, 9Cl-PF3ONS, 8:2 FTS < 70%

Last Altered: Monday, July 22, 2019 08:15:12 Pacific Daylight Time
Printed: Monday, July 22, 2019 08:15:52 Pacific Daylight Time

JLM 7/22/19

Name: 190721M2_6, Date: 21-Jul-2019, Time: 21:51:15, ID: ST190721M2-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8	709.866	7121.401	1.00	1.18	1.246	1.0	97.5	NO		
2	2	PFPrS	248.9 > 79.9	138.531	2019.375	1.00	1.54	0.858	0.7	72.5	NO	2.395	NO
3	3	3:3 FTCA	240.9 > 176.9	29.224	13861.262	1.00	2.02	0.026	0.7	72.3	NO	2.684	NO
4	4	PFPeA	263.1 > 218.9	951.918	13861.262	1.00	2.17	0.858	1.0	97.5	NO		
5	5	PFBS	299.0 > 79.7	337.626	2019.375	1.00	2.47	2.090	1.0	95.4	NO	3.477	NO
6	6	4:2 FTS	327.0 > 306.9	617.001	3432.670	1.00	2.90	2.247	0.9	88.2	NO	1.656	NO
7	47	13C3-PFBA	216.1 > 171.8	7121.401	10054.171	1.00	1.18	8.854	13.2	105.5	NO		
8	49	13C3-PFBS	302.0 > 98.8	2019.375	2029.039	1.00	2.47	12.440	12.0	96.2	NO		
9	48	13C3-PFPeA	266.0 > 221.8	13861.262	28384.602	1.00	2.17	6.104	13.5	107.8	NO		
10	48	13C3-PFPeA	266.0 > 221.8	13861.262	28384.602	1.00	2.17	6.104	13.5	107.8	NO		
11	49	13C3-PFBS	302.0 > 98.8	2019.375	2029.039	1.00	2.47	12.440	12.0	96.2	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	3432.670	2029.039	1.00	2.90	21.147	11.4	91.0	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0	2188.568	10951.500	1.00	2.98	0.999	0.8	84.1	NO	18.596	NO
15	8	PFPeS	349.1>80.1	254.394	2019.375	1.00	3.18	1.575	1.0	97.0	NO	1.480	NO
16	9	HFPO-DA	285.1 > 168.9	174.706	1955.657	1.00	3.19	0.447	0.9	87.1	NO	2.185	NO
17	10	5:3 FTCA	340.9 > 236.9	181.284	14697.290	1.00	3.53	0.154	0.6	59.7	YES(A)	1.438	NO
18	11	PFHpA	363.0 > 318.9	1441.245	14697.290	1.00	3.60	1.226	1.0	103.0	NO	12.008	NO
19	12	ADONA	376.8 > 250.9	3834.015	14697.290	1.00	3.71	3.261	0.8	76.0	NO	3.799	NO
20	52	13C2-PFHxA	315.0 > 270.0	10951.500	28384.602	1.00	2.98	4.823	6.1	121.9	NO		
21	49	13C3-PFBS	302.0 > 98.8	2019.375	2029.039	1.00	2.47	12.440	12.0	96.2	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1955.657	28384.602	1.00	3.19	0.861	3.8	76.0	NO		
23	53	13C4-PFHpA	367.2 > 321.8	14697.290	28384.602	1.00	3.60	6.472	17.7	141.9	NO		
24	53	13C4-PFHpA	367.2 > 321.8	14697.290	28384.602	1.00	3.60	6.472	17.7	141.9	NO		
25	53	13C4-PFHpA	367.2 > 321.8	14697.290	28384.602	1.00	3.60	6.472	17.7	141.9	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6	296.914	4060.802	1.00	3.76	0.914	1.0	98.1	NO	2.170	NO
28	15	6:2 FTS	427.0 > 406.9	592.698	2549.951	1.00	4.07	2.905	1.1	105.1	NO	2.157	NO
29	16	L-PFOA	412.8 > 368.9	3101.420	24548.045	1.00	4.13	1.579	0.8	77.1	NO	3.917	NO
30	18	PFecHS	460.8 > 381.0	461.795	24548.045	1.00	4.15	0.235	0.8	76.7	NO	0.957	NO
31	19	PFHpS	449.0 > 80.0	288.565	4451.512	1.00	4.25	0.810	1.0	101.3	NO	1.744	NO
32	20	7:3 FTCA	440.9 > 336.9	171.743	25200.053	1.00	4.55	0.085	0.7	74.1	NO	1.404	NO
33	54	13C3-PFHxS	401.8 > 79.9	4060.802	2029.039	1.00	3.76	25.017	11.3	90.6	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	2549.951	4522.411	1.00	4.07	7.048	10.3	82.6	NO		
35	58	13C2-PFOA	414.9 > 369.7	24548.045	37580.813	1.00	4.13	8.165	16.0	128.3	NO		
36	58	13C2-PFOA	414.9 > 369.7	24548.045	37580.813	1.00	4.13	8.165	16.0	128.3	NO		

CLL 7/22/19

Dataset: F:\Projects\PFAS.PRO\Results\190721M2\190721M2-6.qld

Last Altered: Monday, July 22, 2019 08:15:12 Pacific Daylight Time
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Name: 190721M2_6, Date: 21-Jul-2019, Time: 21:51:15, ID: ST190721M2-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	4451.512	4522.411	1.00	4.66	12.304	12.1	97.0	NO		
38	56	13C5-PFNA	468.2 > 422.9	25200.053	24733.365	1.00	4.58	12.736	12.8	102.1	NO		
39	-1												
40	21	PFNA	463.0 > 418.8	2341.559	25200.053	1.00	4.57	1.161	1.1	113.1	NO	4.274	NO
41	22	PFOSA	497.9 > 77.9	490.645	5598.974	1.00	4.64	1.095	0.9	90.8	NO	37.850	NO
42	23	L-PFOS	498.9 > 79.9	343.756	4451.512	1.00	4.66	0.965	0.9	86.6	NO	3.230	NO
43	25	9Cl-PF30NS	530.7 > 350.8	713.900	4451.512	1.00	4.88	2.005	0.7	65.5 (A)	YES	29.225	YES
44	26	PFDA	513 > 468.8	2644.681	24069.379	1.00	4.95	1.373	0.9	89.8	NO	5.456	NO
45	27	8:2 FTS	527.0 > 506.9	346.057	2746.654	1.00	4.93	1.575	0.7	69.3 (A)	YES	1.026	NO
46	56	13C5-PFNA	468.2 > 422.9	25200.053	24733.365	1.00	4.58	12.736	12.8	102.1	NO		
47	57	13C8-PFOSA	506.1 > 77.7	5598.974	38345.188	1.00	4.64	1.825	13.2	105.3	NO		
48	59	13C8-PFOS	507.0 > 79.9	4451.512	4522.411	1.00	4.66	12.304	12.1	97.0	NO		
49	59	13C8-PFOS	507.0 > 79.9	4451.512	4522.411	1.00	4.66	12.304	12.1	97.0	NO		
50	60	13C2-PFDA	515.1 > 469.9	24069.379	30409.098	1.00	4.95	9.894	14.8	118.3	NO		
51	61	13C2-8:2 FTS	529 > 79.9	2746.654	4522.411	1.00	4.92	7.592	11.1	88.6	NO		
52	-1												
53	28	PFNS	549.1 > 80.1	272.599	4451.512	1.00	5.02	0.765	1.0	102.1	NO	2.022	NO
54	29	L-MeFOSAA	570 > 419	1140.698	6402.139	1.00	5.11	2.227	0.8	82.5	NO	2.477	NO
55	31	L-EtFOSAA	584.1 > 419	940.260	8717.425	1.00	5.27	1.348	0.9	92.9	NO	1.601	NO
56	33	PFUdA	563.0 > 518.9	2651.259	33711.809	1.00	5.28	0.983	1.1	106.2	NO	13.067	YES
57	34	PFDS	598.8 > 79.9	424.453	2746.654	1.00	5.33	1.932	1.1	105.1	NO	2.223	NO
58	35	11Cl-PF30UdS	632.6 > 452.7	155.575	33807.871	1.00	5.51	0.058	1.1	113.3	NO	13.032	YES
59	59	13C8-PFOS	507.0 > 79.9	4451.512	4522.411	1.00	4.66	12.304	12.1	97.0	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	6402.139	38345.188	1.00	5.11	2.087	16.8	134.5	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	8717.425	38345.188	1.00	5.27	2.842	16.3	130.4	NO		
62	63	13C2-PFUdA	565 > 519.8	33711.809	38345.188	1.00	5.28	10.990	13.5	108.3	NO		
63	61	13C2-8:2 FTS	529 > 79.9	2746.654	4522.411	1.00	4.92	7.592	11.1	88.6	NO		
64	65	13C2-PFDoA	614.7 > 569.7	33807.871	30409.098	1.00	5.57	13.897	10.6	84.8	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9	501.510	2746.654	1.00	5.56	2.282	0.9	89.2	NO	1.534	NO
67	37	PFDoA	612.9 > 569.0	2976.333	33807.871	1.00	5.57	1.100	1.1	112.8	NO	8.863	NO
68	38	N-MeFOSA	512.1 > 168.9	589.644	15829.793	1.00	5.74	5.587	5.3	106.7	NO	1.474	NO
69	39	PFTrDA	662.9 > 618.9	3018.560	33807.871	1.00	5.82	1.116	1.0	101.6	NO	27.741	NO
70	40	PFDoS	698.8 > 79.9	325.220	22078.990	1.00	5.85	0.184	0.7	70.5	NO	2.132	NO
71	41	PFTeDA	713.0 > 669.0	2927.121	22078.990	1.00	6.03	1.657	0.9	89.3	NO	14.422	NO
72	65	13C2-PFDoA	614.7 > 569.7	33807.871	30409.098	1.00	5.57	13.897	10.6	84.8	NO		

Dataset: F:\Projects\PFAS.PRO\Results\190721M2\190721M2-6.qld

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Name: 190721M2_6, Date: 21-Jul-2019, Time: 21:51:15, ID: ST190721M2-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	33807.871	30409.098	1.00	5.57	13.897	10.6	84.8	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	15829.793	38345.188	1.00	5.76	5.160	186.7	124.4	NO		
75	65	13C2-PFDoA	614.7 > 569.7	33807.871	30409.098	1.00	5.57	13.897	10.6	84.8	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	22078.990	38345.188	1.00	6.04	7.197	16.5	131.8	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	22078.990	38345.188	1.00	6.04	7.197	16.5	131.8	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9	698.946	19349.791	1.00	6.15	5.418	6.1	122.9	NO	1.745	NO
80	43	PFHxDA	813.1 > 768.6	1557.688	11766.089	1.00	6.37	0.662	1.0	101.5	NO	21.671	NO
81	44	PFODA	913.1 > 868.8	1927.846	11766.089	1.00	6.61	0.819	1.0	101.8	NO		
82	45	N-MeFOSE	616.1 > 58.9	394.929	12611.502	1.00	6.33	4.697	4.5	89.7	NO		
83	46	N-EtFOSE	630.1 > 58.9	582.190	13213.521	1.00	6.48	6.609	5.2	104.2	NO		
84	72	13C4-PFBA	217.0 > 172.0	10054.171	10054.171	1.00	1.17	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	19349.791	38345.188	1.00	6.17	6.308	194.2	129.5	NO		
86	69	13C2-PFHxDA	815 > 769.7	11766.089	38345.188	1.00	6.37	3.836	5.3	105.4	NO		
87	69	13C2-PFHxDA	815 > 769.7	11766.089	38345.188	1.00	6.37	3.836	5.3	105.4	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	12611.502	38345.188	1.00	6.32	4.111	138.3	92.2	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	13213.521	38345.188	1.00	6.47	4.307	141.5	94.3	NO		
90	73	13C5-PFHxA	318.0 > 272.9	28384.602	28384.602	1.00	2.98	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	37580.813	37580.813	1.00	4.13	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	2029.039	2029.039	1.00	3.76	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	24733.365	24733.365	1.00	4.58	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	4522.411	4522.411	1.00	4.66	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	30409.098	30409.098	1.00	4.95	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	38345.188	38345.188	1.00	5.28	12.500	12.5	100.0	NO		

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Dataset: Untitled

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072119.mdb 22 Jul 2019 08:05:44
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	190721M2_1	IPA	21-Jul-19	20:58:18
2	2	190721M2_2	IPA	21-Jul-19	21:08:52
3	3	190721M2_3	IPA	21-Jul-19	21:19:25
4	4	190721M2_4	ST190721M2-1 PFC CS-2 19G1101	21-Jul-19	21:30:03
5	5	190721M2_5	ST190721M2-2 PFC CS-1 19G1102	21-Jul-19	21:40:42
6	6	190721M2_6	(A) ST190721M2-3 PFC CS0 19G1103	21-Jul-19	21:51:15
7	7	190721M2_7	ST190721M2-4 PFC CS1 19G1104	21-Jul-19	22:01:53
8	8	190721M2_8	ST190721M2-5 PFC CS2 19G1105	21-Jul-19	22:12:26
9	9	190721M2_9	ST190721M2-6 PFC CS3 19G1106	21-Jul-19	22:23:05
10	10	190721M2_10	ST190721M2-7 PFC CS4 19G1107	21-Jul-19	22:33:38
11	11	190721M2_11	ST190721M2-8 PFC CS5 19G1108	21-Jul-19	22:44:17
12	12	190721M2_12	ST190721M2-9 PFC CS6 19G1109	21-Jul-19	22:54:55
13	13	190721M2_13	ST190721M2-10 PFC CS7 19G1110	21-Jul-19	23:05:28
14	14	190721M2_14	IB	21-Jul-19	23:16:06
15	15	190721M2_15	ICV190721M2-1 PFC ICV 19F2422	21-Jul-19	23:26:44
16	16	190721M2_16	IPA	21-Jul-19	23:37:17
17	17	190721M2_17	B9G0117-MSD1 Matrix Spike Dup 1.06	21-Jul-19	23:47:56
18	18	190721M2_18	B9G0117-MSD2 Matrix Spike Dup 1.06	21-Jul-19	23:58:34
19	19	190721M2_19	1901860-01 B96-PFAS-SB56-0-2-062619 1.08	22-Jul-19	00:09:08
20	20	190721M2_20	1901860-03 B96-PFAS-SB62-0-2-062619 1.14	22-Jul-19	00:19:46
21	21	190721M2_21	1901860-07 B96-PFAS-SB63-0-2-062619 1.07	22-Jul-19	00:30:24
22	22	190721M2_22	1901860-08 B96-PFAS-SB43-0-2-062719 1.14	22-Jul-19	00:40:57
23	23	190721M2_23	1902014-02 CAOA-B03-SO-20-20.5 1.09	22-Jul-19	00:51:35
24	24	190721M2_24	IPA	22-Jul-19	01:02:13
25	25	190721M2_25	1902014-02@5X CAOA-B03-SO-20-20.5 1.09	22-Jul-19	01:12:47
26	26	190721M2_26	1902014-05 CAOA-B01-SO-0-0.5 1.07	22-Jul-19	01:23:25
27	27	190721M2_27	B9G0052-BS1 OPR 1	22-Jul-19	01:33:58
28	28	190721M2_28	B9G0052-MS1 Matrix Spike 1.11	22-Jul-19	01:44:29
29	29	190721M2_29	B9G0052-MSD1 Matrix Spike Dup 1.16	22-Jul-19	01:55:07
30	30	190721M2_30	1901859-01 B96-PFAS-SB41-0-2-062019 1.1	22-Jul-19	02:05:41
31	31	190721M2_31	1901859-01@10X B96-PFAS-SB41-0-2-062019 1.1	22-Jul-19	02:16:19
32	32	190721M2_32	1901859-02 B96-PFAS-SB42-0-2-062019 1.11	22-Jul-19	02:26:58

(A) curve not used. SM 7/22/19

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Dataset: Untitled

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Compound name: PFBA

	# Name	ID	Acq.Date	Acq.Time
33	33 190721M2_33	IPA	22-Jul-19	02:37:31
34	34 190721M2_34	ST190721M2-11 PFC CS3 19G1106	22-Jul-19	02:48:09
35	35 190721M2_35	IPA	22-Jul-19	02:58:43
36	36 190721M2_36	1901859-03 B96-PFAS-SB44-0-2-062119 1.09	22-Jul-19	03:09:21
37	37 190721M2_37	1901859-04 DUP02-062119 1.1	22-Jul-19	03:19:54
38	38 190721M2_38	1901859-06 B96-PFAS-SB52-0-2-062619 1.1	22-Jul-19	03:30:33
39	39 190721M2_39	1901859-07 B96-PFAS-SB37-0-2-062619 1.09	22-Jul-19	03:41:05
40	40 190721M2_40	1901859-08 B96-PFAS-SB38-0-2-062619 1.06	22-Jul-19	03:51:44
41	41 190721M2_41	1901859-10 B96-PFAS-SB30-0-2-062719 1.04	22-Jul-19	04:02:22
42	42 190721M2_42	1901859-13 B96-PFAS-SB28-0-2-062719 1.09	22-Jul-19	04:12:55
43	43 190721M2_43	1901859-15 B96-PFAS-SB71-0-2-062719 1.08	22-Jul-19	04:23:33
44	44 190721M2_44	1901859-18 B96-PFAS-SB27-0-2-062719 1.07	22-Jul-19	04:34:07
45	45 190721M2_45	B9G0149-BS1 OPR 1	22-Jul-19	04:44:45
46	46 190721M2_46	B9G0149-BLK1 Method Blank 1	22-Jul-19	04:55:18
47	47 190721M2_47	1901983-02 B96-PFAS-SB21-0-2-070119 1.06	22-Jul-19	05:05:57
48	48 190721M2_48	IPA	22-Jul-19	05:16:30
49	49 190721M2_49	ST190721M2-12 PFC CS3 19G1106	22-Jul-19	05:27:08
50	50 190721M2_50	IPA	22-Jul-19	05:37:42
51	51 190721M2_51	1901983-09 B96-PFAS-SB60-0-2-070219 1.06	22-Jul-19	05:48:20
52	52 190721M2_52	1901983-10 B96-PFAS-SB59-0-2-070219 1.12	22-Jul-19	05:58:58
53	53 190721M2_53	1901983-11 B96-PFAS-SB22-0-2-070219 1.06	22-Jul-19	06:09:31
54	54 190721M2_54	B9G0183-BS1 OPR 0.25	22-Jul-19	06:20:09
55	55 190721M2_55	B9G0183-BLK1 Method Blank 0.25	22-Jul-19	06:30:42
56	56 190721M2_56	1901661-01RE1 WMP1906180936BRH 0.25118	22-Jul-19	06:41:20
57	57 190721M2_57	1901661-02RE1 WEF1906180942BRH 0.24993	22-Jul-19	06:51:53
58	58 190721M2_58	1901661-03RE1 WEF1906180957BRH 0.25772	22-Jul-19	07:02:31
59	59 190721M2_59	1902105-01 6C Discharge 0.24191	22-Jul-19	07:13:04
60	60 190721M2_60	1902105-02 5A Raw Leachate 0.24309	22-Jul-19	07:23:42
61	61 190721M2_61	1902105-03 Field Blank 0.23889	22-Jul-19	07:34:14
62	62 190721M2_62	1902106-01 WT1907110855SK 0.23917	22-Jul-19	07:44:53
63	63 190721M2_63	IPA	22-Jul-19	07:55:25
64	64 190721M2_64	ST190721M2-13 PFC CS3 19G1106	22-Jul-19	08:06:04
65	65 190721M2_65	IPA	22-Jul-19	08:16:37
66	66 190721M2_66	1902106-02 WR1907110930SK 0.24874	22-Jul-19	08:27:16
67	67 190721M2_67	IPA	22-Jul-19	08:39:00
68	68 190721M2_68	ST190721M2-14 PFC CS3 19G1106	22-Jul-19	08:49:37

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Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
69	69	190721M2_69	IPA	22-Jul-19	09:00:10

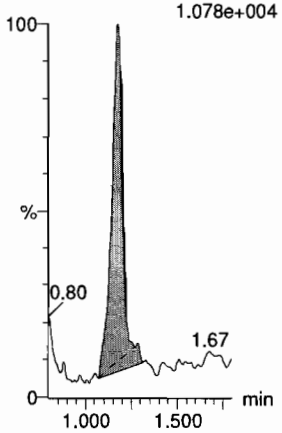
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Printed: Monday, July 22, 2019 08:15:52 Pacific Daylight Time

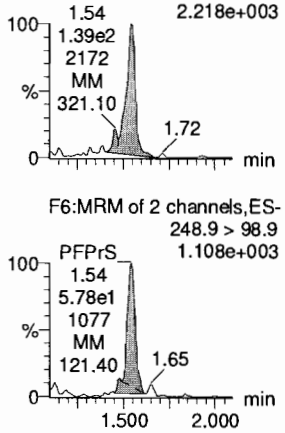
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Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Name: 190721M2_6, Date: 21-Jul-2019, Time: 21:51:15, ID: ST190721M2-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

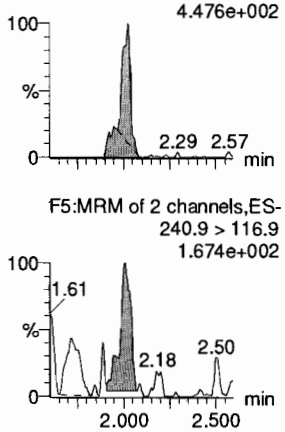
PFBA



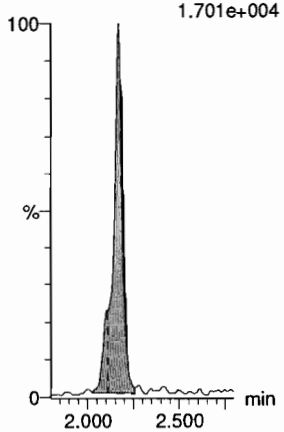
PFPrS



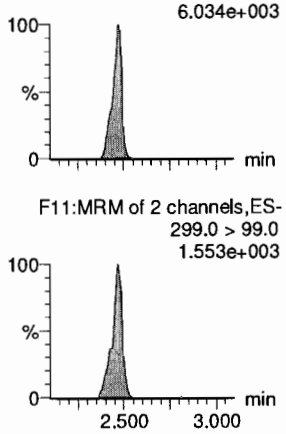
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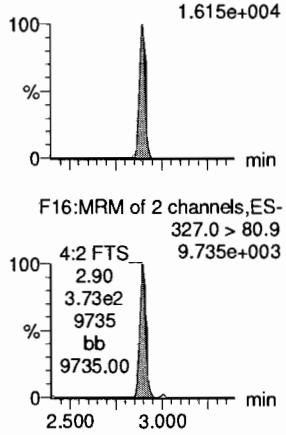
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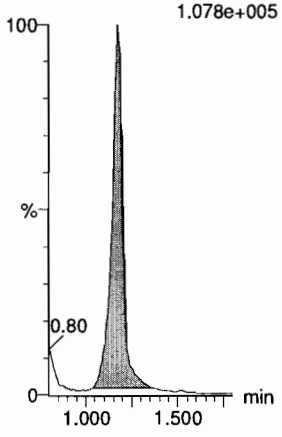
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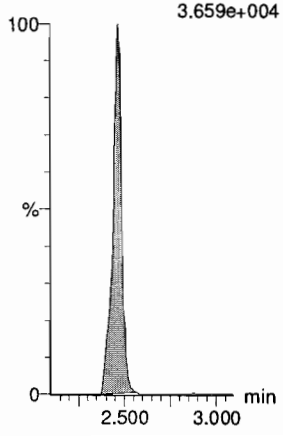
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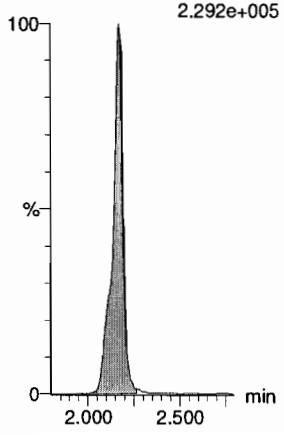
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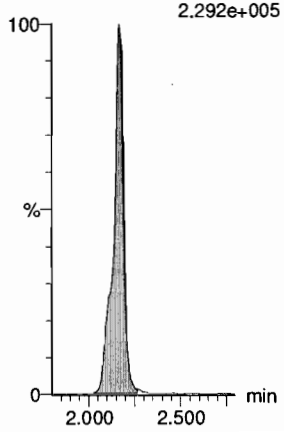
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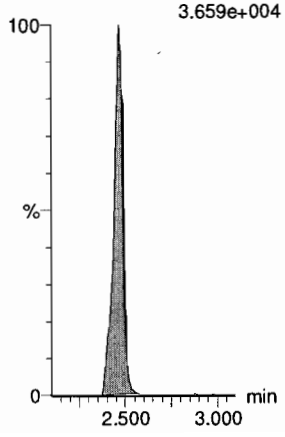
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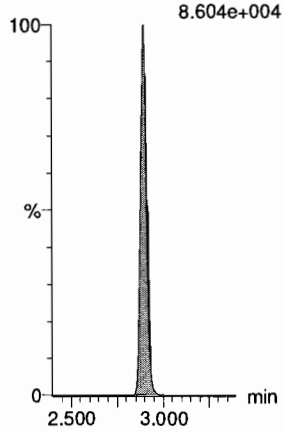
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13C3-PFBS



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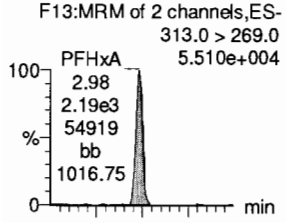


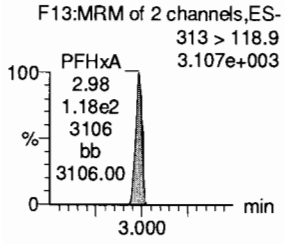
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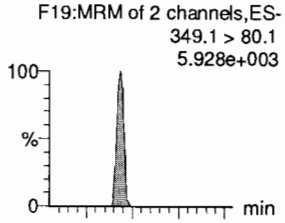
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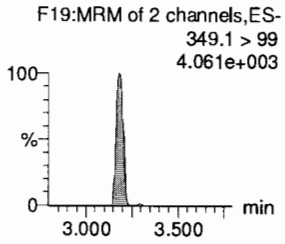
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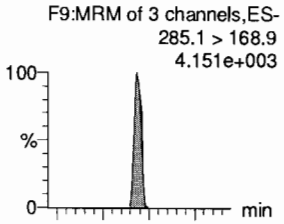


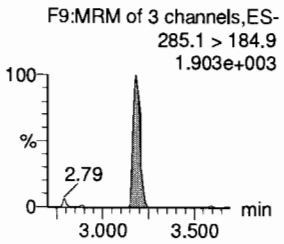
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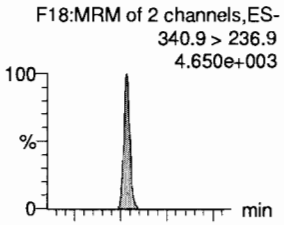


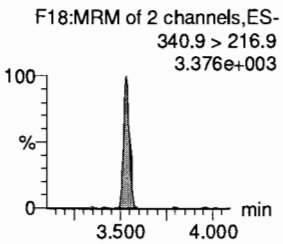
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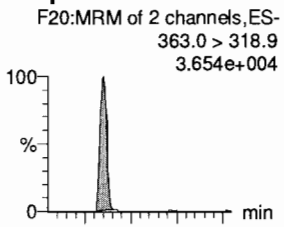


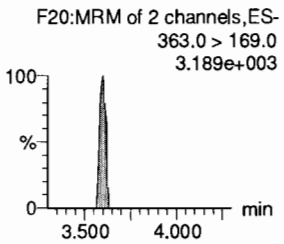
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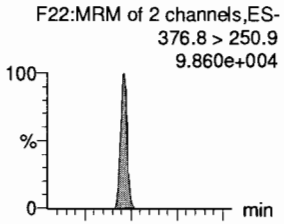


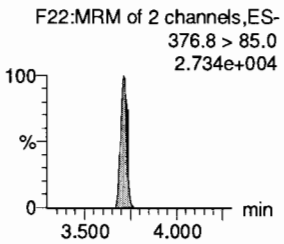
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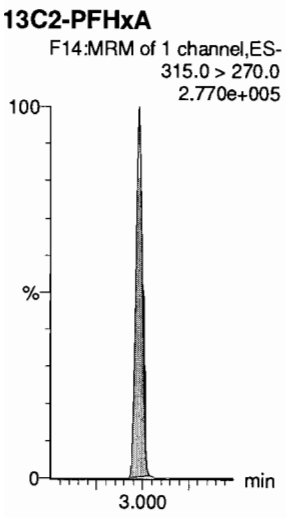


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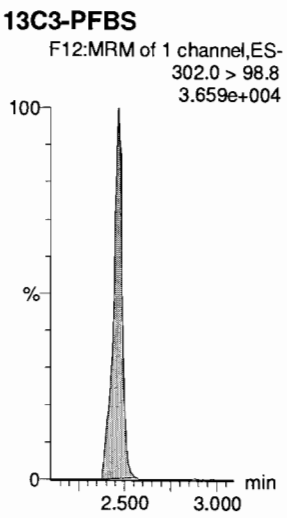




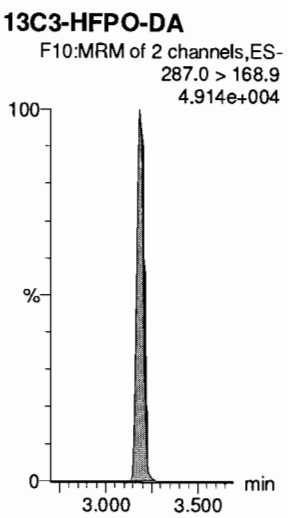
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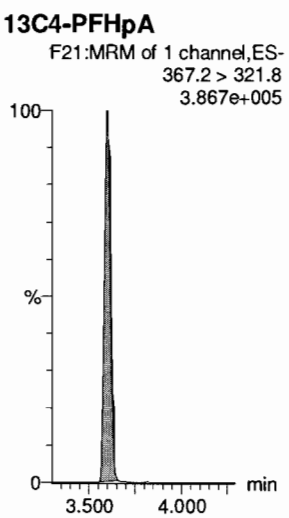
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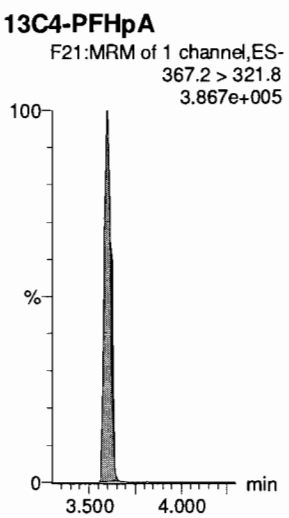
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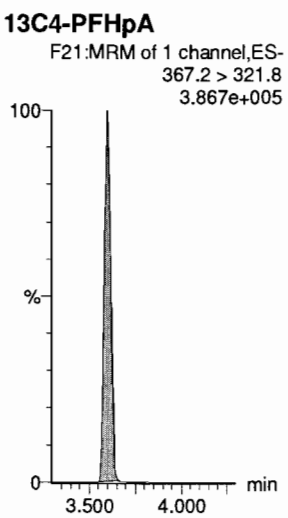
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13C4-PFHpA



13C4-PFHpA

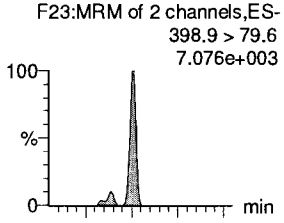


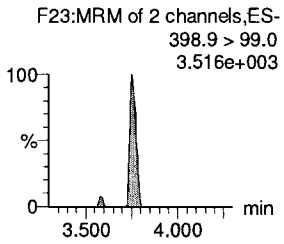
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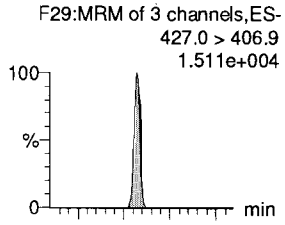
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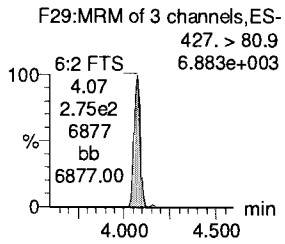
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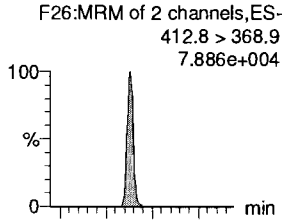


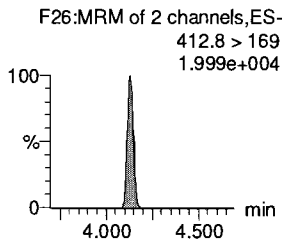
6:2 FTS



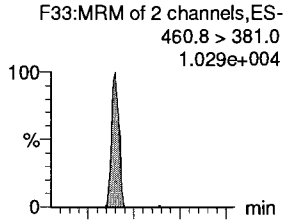


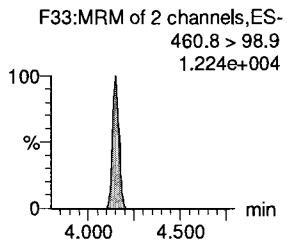
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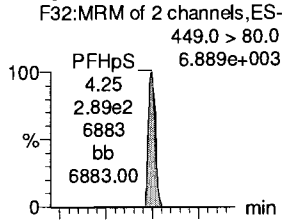


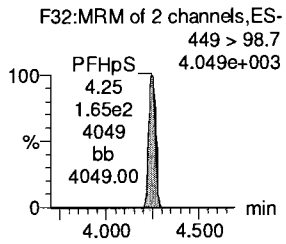
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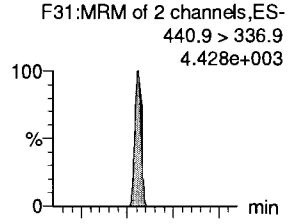


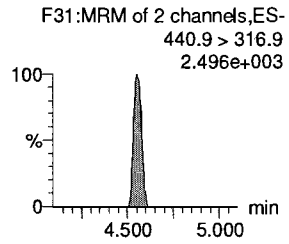
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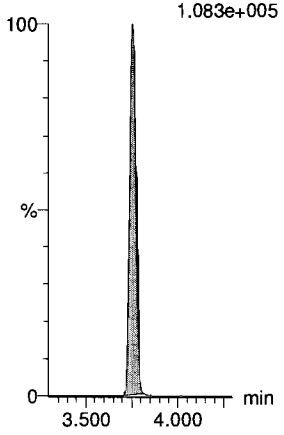


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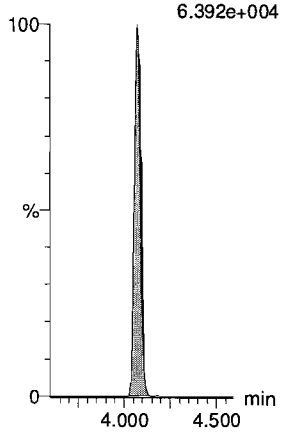




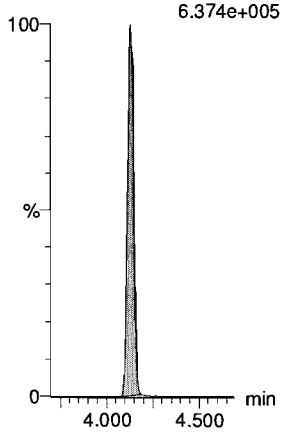
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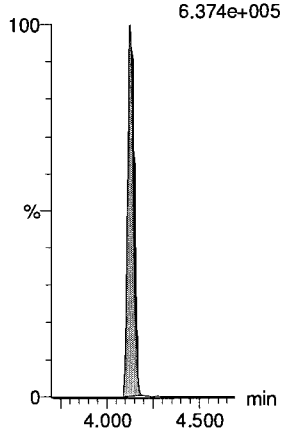
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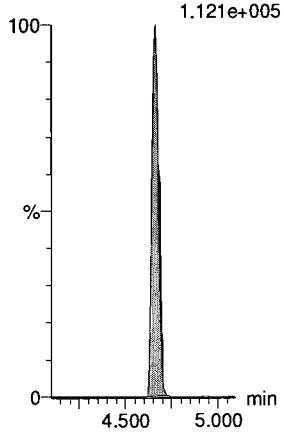
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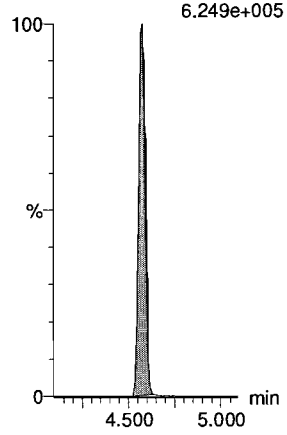
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13C8-PFOS



13C5-PFNA

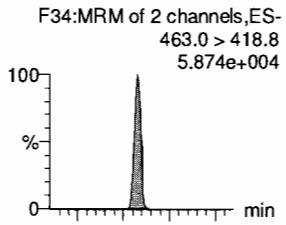


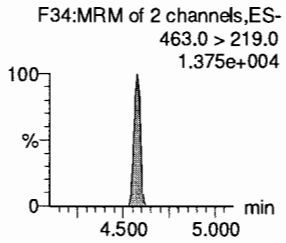
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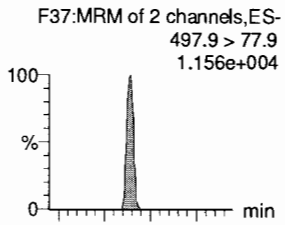
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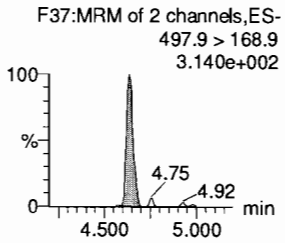
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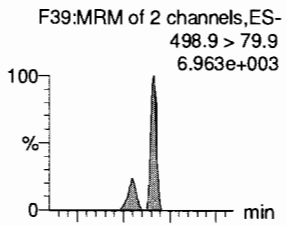


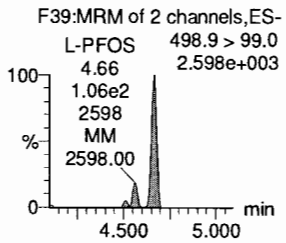
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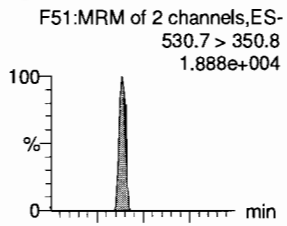


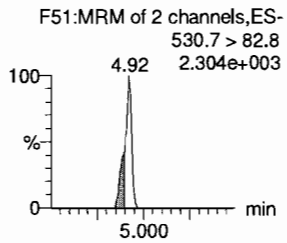
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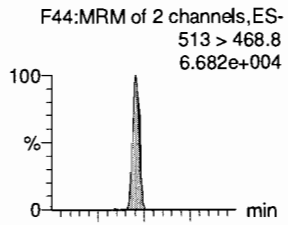


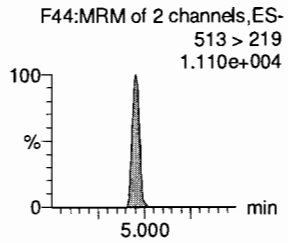
9Cl-PF30NS



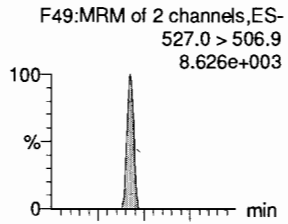


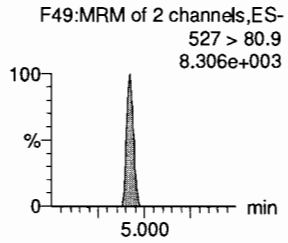
PFDA



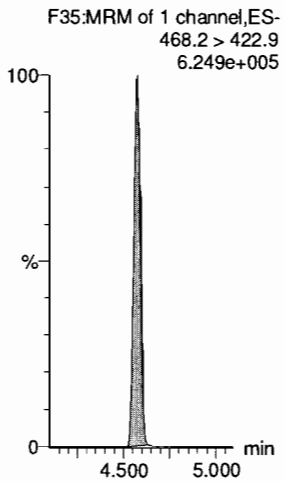


8:2 FTS

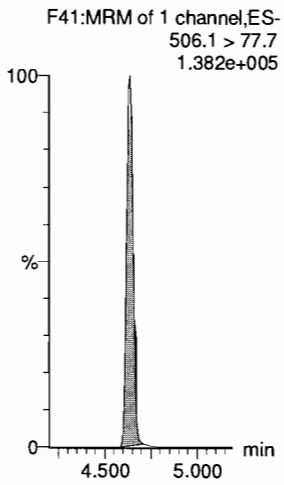




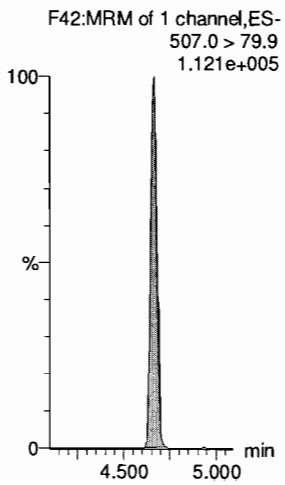
13C5-PFNA



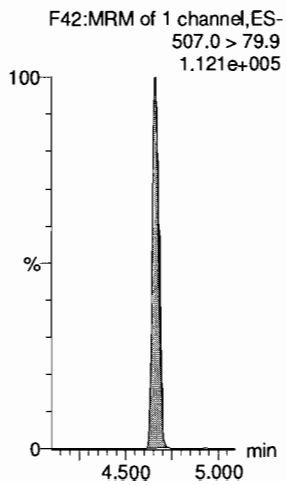
13C8-PFOSA



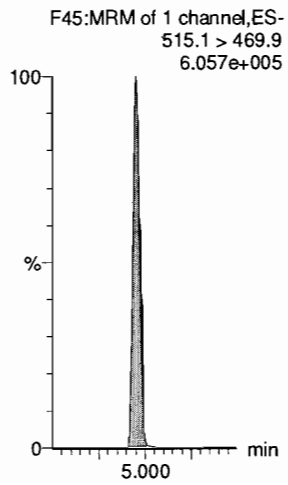
13C8-PFOS



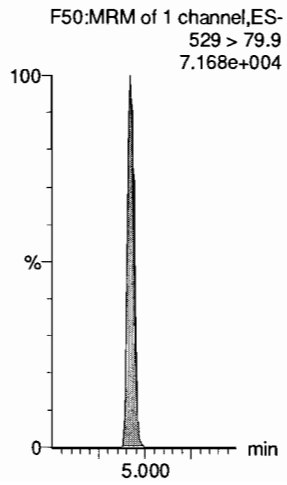
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

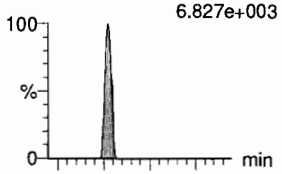


Dataset: F:\Projects\PFAS.PRO\Results\190721M2\190721M2-6.qld

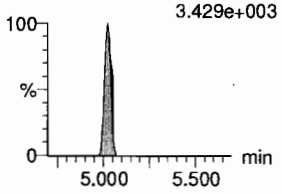
Last Altered: Monday, July 22, 2019 08:15:12 Pacific Daylight Time
Printed: Monday, July 22, 2019 08:15:52 Pacific Daylight Time

Name: 190721M2_6, Date: 21-Jul-2019, Time: 21:51:15, ID: ST190721M2-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

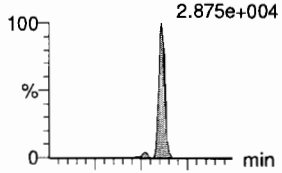
PFNS
F53:MRM of 2 channels,ES-
549.1 > 80.1
6.827e+003



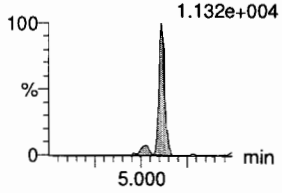
F53:MRM of 2 channels,ES-
549.1 > 99.1
3.429e+003



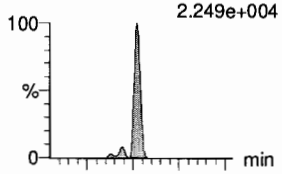
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
2.875e+004



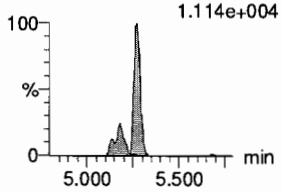
F56:MRM of 2 channels,ES-
570. > 512
1.132e+004



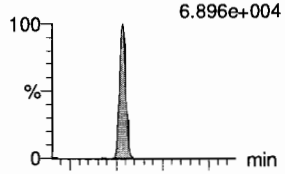
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
2.249e+004



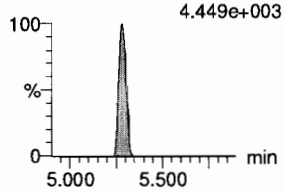
F59:MRM of 2 channels,ES-
584.1 > 526
1.114e+004



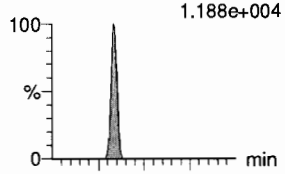
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
6.896e+004



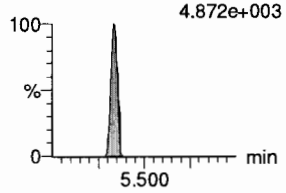
F54:MRM of 2 channels,ES-
563.0 > 269
4.449e+003



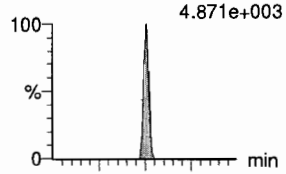
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
1.188e+004



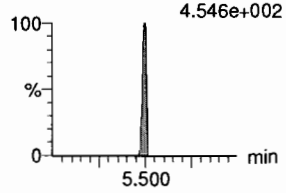
F61:MRM of 2 channels,ES-
598.8 > 98.9
4.872e+003



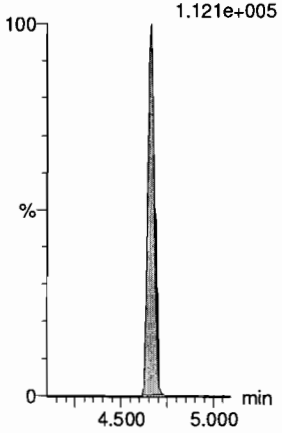
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
4.871e+003



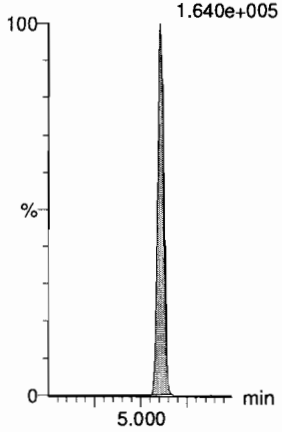
F68:MRM of 2 channels,ES-
632.6 > 450.7
4.546e+002



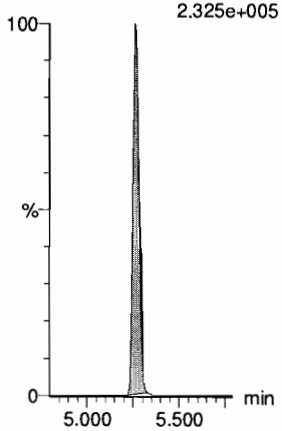
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
1.121e+005



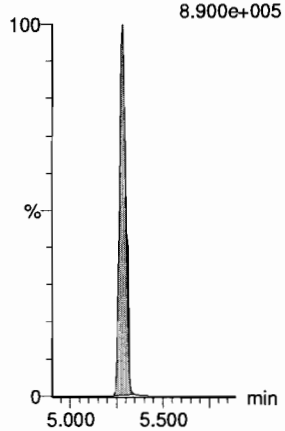
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
1.640e+005



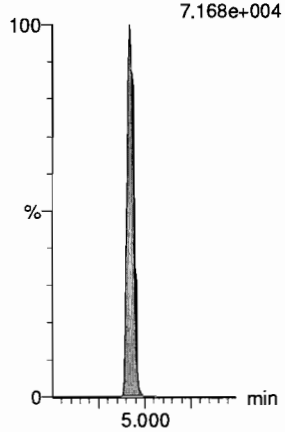
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
2.325e+005



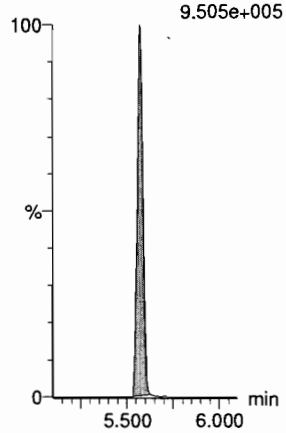
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
8.900e+005



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
7.168e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
9.505e+005

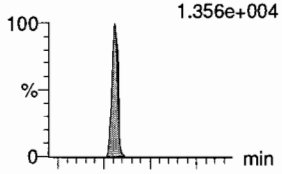


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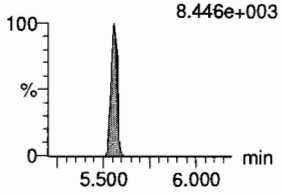
Last Altered: Monday, July 22, 2019 08:15:12 Pacific Daylight Time
Printed: Monday, July 22, 2019 08:15:52 Pacific Daylight Time

Name: 190721M2_6, Date: 21-Jul-2019, Time: 21:51:15, ID: ST190721M2-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

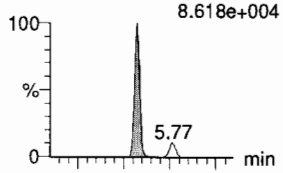
10:2 FTS
F66:MRM of 2 channels,ES-
627.0 > 606.9
1.356e+004



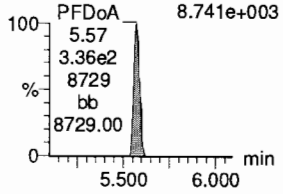
F66:MRM of 2 channels,ES-
627.0 > 80.9
8.446e+003



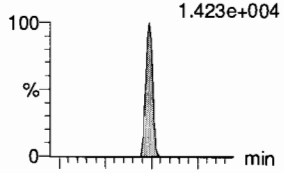
PFDoA
F62:MRM of 4 channels,ES-
612.9 > 569.0
8.618e+004



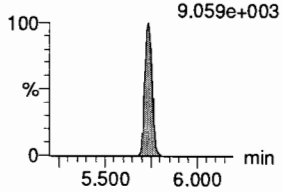
F62:MRM of 4 channels,ES-
612.9 > 318.8
8.741e+003



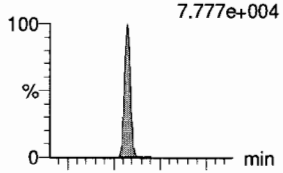
N-MeFOSA
F43:MRM of 2 channels,ES-
512.1 > 168.9
1.423e+004



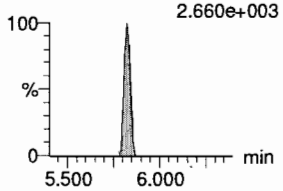
F43:MRM of 2 channels,ES-
512.1 > 219
9.059e+003



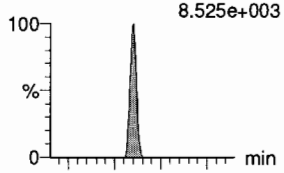
PFTrDA
F70:MRM of 2 channels,ES-
662.9 > 618.9
7.777e+004



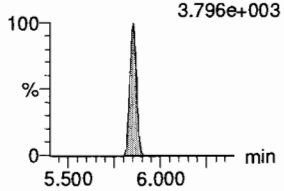
F70:MRM of 2 channels,ES-
662.9 > 319
2.660e+003



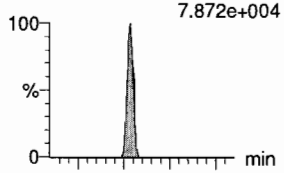
PFDoS
F71:MRM of 2 channels,ES-
698.8 > 79.9
8.525e+003



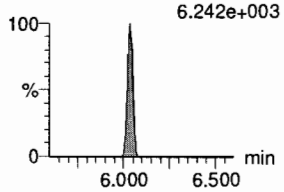
F71:MRM of 2 channels,ES-
698.8 > 98.9
3.796e+003



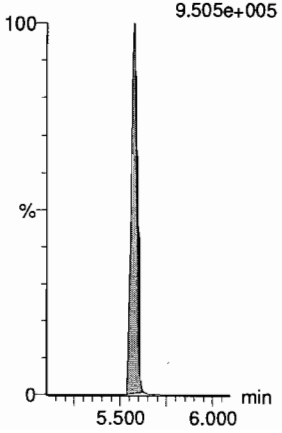
PFTeDA
F72:MRM of 2 channels,ES-
713.0 > 669.0
7.872e+004



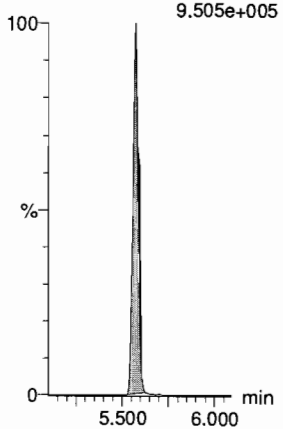
F72:MRM of 2 channels,ES-
713. > 369.0
6.242e+003



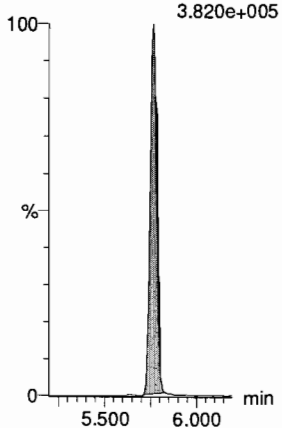
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
9.505e+005



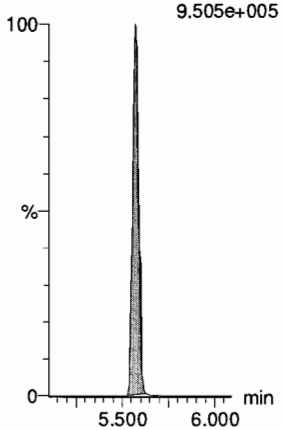
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
9.505e+005



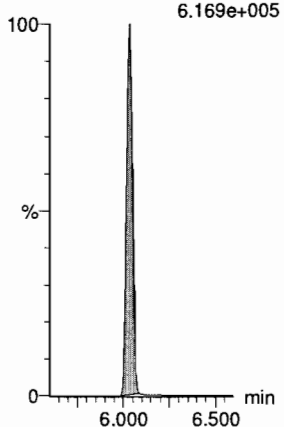
d3-N-MeFOSA
F46:MRM of 1 channel,ES-
515.2 > 168.9
3.820e+005



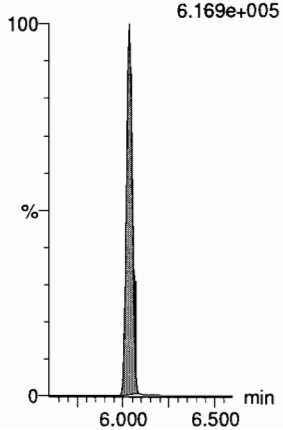
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
9.505e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
6.169e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
6.169e+005

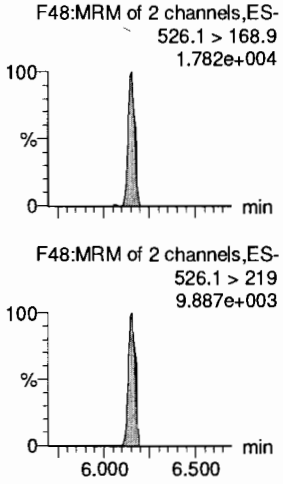


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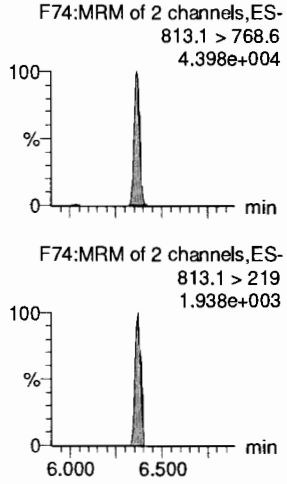
Last Altered: Monday, July 22, 2019 08:15:12 Pacific Daylight Time
Printed: Monday, July 22, 2019 08:15:52 Pacific Daylight Time

Name: 190721M2_6, Date: 21-Jul-2019, Time: 21:51:15, ID: ST190721M2-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

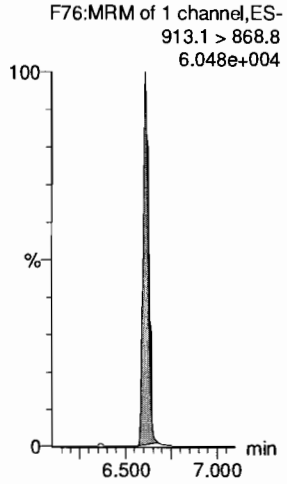
N-EtFOSA



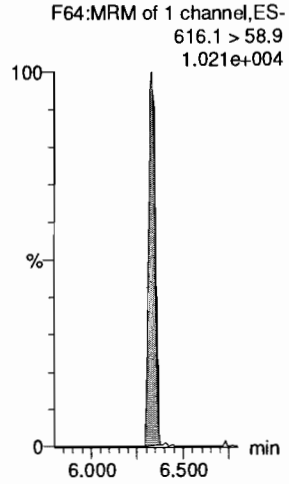
PFHxDA



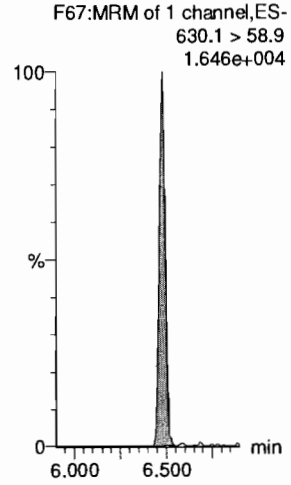
PFODA



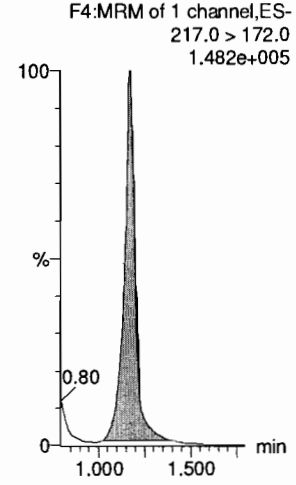
N-MeFOSE



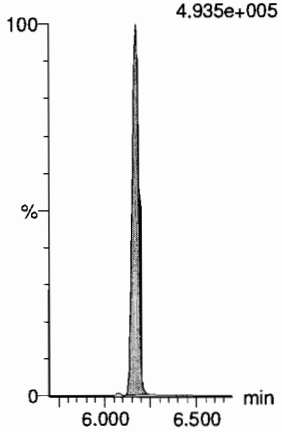
N-EtFOSE



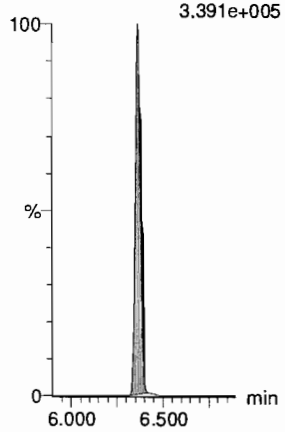
13C4-PFBA



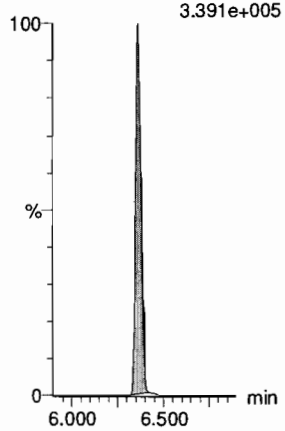
d5-N-ETFOSA



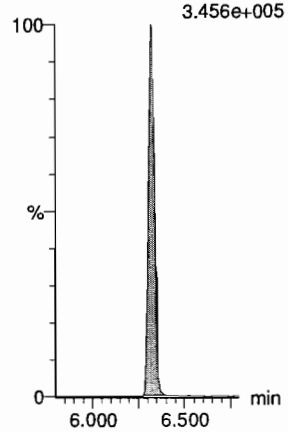
13C2-PFHxDA



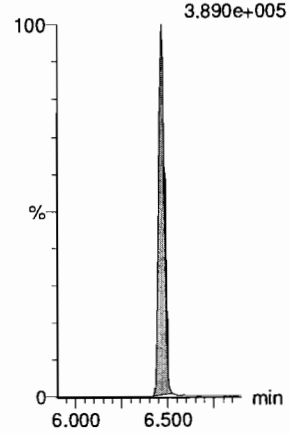
13C2-PFHxDA



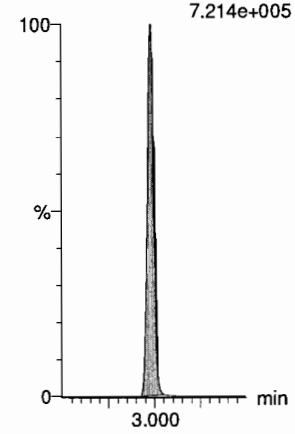
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

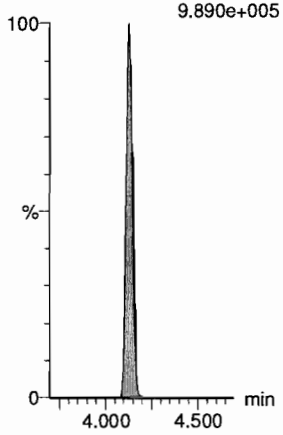


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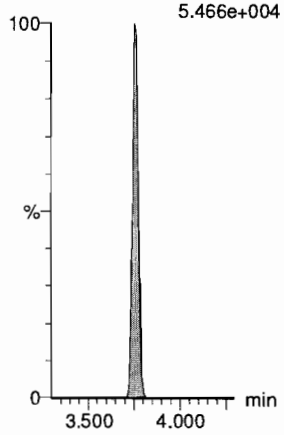
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Printed: Monday, July 22, 2019 08:15:52 Pacific Daylight Time

Name: 190721M2_6, Date: 21-Jul-2019, Time: 21:51:15, ID: ST190721M2-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

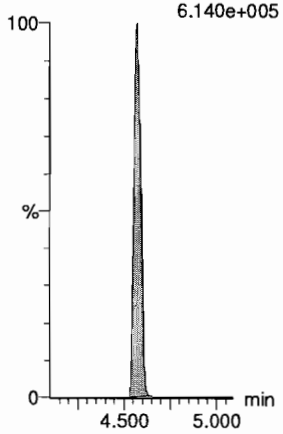
13C8-PFOA



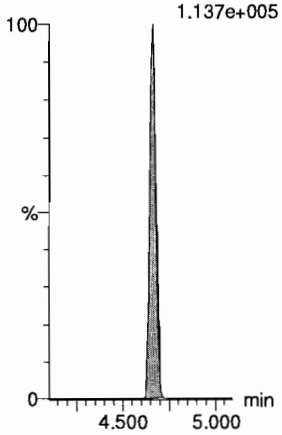
18O2-PFHxS



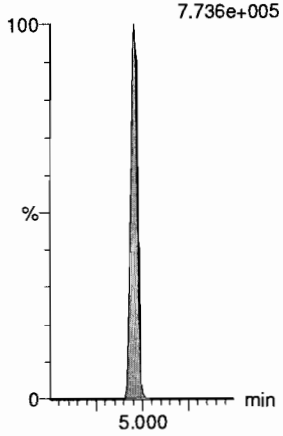
13C9-PFNA



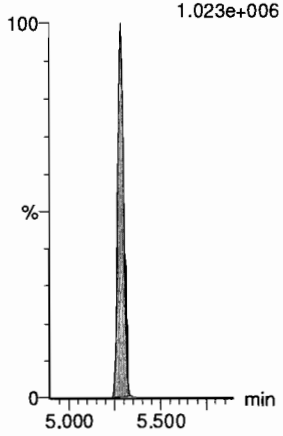
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Dataset: F:\Projects\PFAS.PRO\Results\190721M2\190721M2-34.qld

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Below limit criteria
(A) ~~9Cl-PF3ONS, PFDoS~~ < 70%
dm 7/22/19

dm 7/22/19

Name: 190721M2_34, Date: 22-Jul-2019, Time: 02:48:09, ID: ST190721M2-11 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8	7536.485	6985.484	1.00	1.18	13.486	9.5	95.4	NO		
2	2	PFPrS	248.9 > 79.9	1694.701	2025.421	1.00	1.55	10.459	7.9	78.7	NO	2.395	NO
3	3	3:3 FTCA	240.9 > 176.9	326.972	14262.171	1.00	2.02	0.287	7.3	73.0	NO	1.999	NO
4	4	PFPeA	263.1 > 218.9	10925.464	14262.171	1.00	2.18	9.576	10.4	103.8	NO		
5	5	PFBS	299.0 > 79.7	3907.254	2025.421	1.00	2.47	24.114	10.5	105.0	NO	3.062	NO
6	6	4:2 FTS	327.0 > 306.9	6822.838	3381.458	1.00	2.90	25.222	9.2	91.9	NO	1.803	NO
7	47	13C3-PFBA	216.1 > 171.8	6985.484	10295.132	1.00	1.18	8.482	12.6	101.0	NO		
8	49	13C3-PFBS	302.0 > 98.8	2025.421	2041.802	1.00	2.47	12.400	12.0	95.9	NO		
9	48	13C3-PFPeA	266.0 > 221.8	14262.171	29695.008	1.00	2.18	6.004	13.2	106.0	NO		
10	48	13C3-PFPeA	266.0 > 221.8	14262.171	29695.008	1.00	2.18	6.004	13.2	106.0	NO		
11	49	13C3-PFBS	302.0 > 98.8	2025.421	2041.802	1.00	2.47	12.400	12.0	95.9	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	3381.458	2041.802	1.00	2.90	20.701	11.1	89.1	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0	21198.131	11423.516	1.00	2.98	9.278	8.0	80.2	NO	15.287	NO
15	8	PFPeS	349.1>80.1	2801.142	2025.421	1.00	3.19	17.287	11.5	115.1	NO	1.524	NO
16	9	HFPO-DA	285.1 > 168.9	1587.562	1348.954	1.00	3.20	5.884	10.0	100.3	NO	2.142	NO
17	10	5:3 FTCA	340.9 > 236.9	1953.404	13973.405	1.00	3.54	1.747	6.3	63.3	YES (A)	1.531	NO
18	11	PFHpA	363.0 > 318.9	14684.843	13973.405	1.00	3.60	13.136	10.5	104.8	NO	9.397	NO
19	12	ADONA	376.8 > 250.9	38949.164	13973.405	1.00	3.71	34.842	7.4	74.3	NO	3.495	NO
20	52	13C2-PFHxA	315.0 > 270.0	11423.516	29695.008	1.00	2.98	4.809	6.1	121.6	NO		
21	49	13C3-PFBS	302.0 > 98.8	2025.421	2041.802	1.00	2.47	12.400	12.0	95.9	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1348.954	29695.008	1.00	3.19	0.568	2.5	50.1	NO		
23	53	13C4-PFHpA	367.2 > 321.8	13973.405	29695.008	1.00	3.60	5.882	16.1	128.9	NO		
24	53	13C4-PFHpA	367.2 > 321.8	13973.405	29695.008	1.00	3.60	5.882	16.1	128.9	NO		
25	53	13C4-PFHpA	367.2 > 321.8	13973.405	29695.008	1.00	3.60	5.882	16.1	128.9	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6	3116.662	4084.167	1.00	3.76	9.539	9.6	96.1	NO	2.023	NO
28	15	6:2 FTS	427.0 > 406.9	6880.232	2535.477	1.00	4.08	33.920	11.7	117.0	NO	2.408	NO
29	16	L-PFOA	412.8 > 368.9	31089.520	24855.342	1.00	4.14	15.635	7.8	78.2	NO	3.834	NO
30	18	PFecHS	460.8 > 381.0	4621.678	24855.342	1.00	4.15	2.324	7.3	72.6	NO	0.893	NO
31	19	PFHpS	449.0 > 80.0	3331.851	4788.080	1.00	4.25	8.698	10.3	102.6	NO	1.719	NO
32	20	7:3 FTCA	440.9 > 336.9	2183.206	25997.754	1.00	4.56	1.050	7.0	69.6	YES (A)	2.025	NO
33	54	13C3-PFHxS	401.8 > 79.9	4084.167	2041.802	1.00	3.76	25.003	11.3	90.5	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	2535.477	4825.784	1.00	4.08	6.568	9.6	77.0	NO		
35	58	13C2-PFOA	414.9 > 369.7	24855.342	37198.105	1.00	4.14	8.352	16.4	131.3	NO		
36	58	13C2-PFOA	414.9 > 369.7	24855.342	37198.105	1.00	4.14	8.352	16.4	131.3	NO		

Cdh 7/22/19

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Name: 190721M2_34, Date: 22-Jul-2019, Time: 02:48:09, ID: ST190721M2-11 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	4788.080	4825.784	1.00	4.66	12.402	12.2	97.7	NO		
38	56	13C5-PFNA	468.2 > 422.9	25997.754	26258.002	1.00	4.58	12.376	12.4	99.2	NO		
39	-1												
40	21	PFNA	463.0 > 418.8	24131.631	25997.754	1.00	4.58	11.603	11.2	111.9	NO	3.929	NO
41	22	PFOSA	497.9 > 77.9	4526.575	5642.115	1.00	4.64	10.029	8.7	86.6	NO	27.354	NO
42	23	L-PFOS	498.9 > 79.9	4035.676	4788.080	1.00	4.66	10.536	8.3	83.0	NO	2.303	NO
43	25	9Cl-PF30NS	530.7 > 350.8	8473.872	4788.080	1.00	4.89	22.122	6.4	64.1 (A)	YES	15.712	NO
44	26	PFDA	513 > 468.8	28203.000	26141.568	1.00	4.96	13.486	9.0	90.2	NO	5.420	NO
45	27	8:2 FTS	527.0 > 506.9	4384.590	2619.308	1.00	4.93	20.924	8.5	85.2	NO	1.192	NO
46	56	13C5-PFNA	468.2 > 422.9	25997.754	26258.002	1.00	4.58	12.376	12.4	99.2	NO		
47	57	13C8-PFOSA	506.1 > 77.7	5642.115	40121.305	1.00	4.64	1.758	12.7	101.4	NO		
48	59	13C8-PFOS	507.0 > 79.9	4788.080	4825.784	1.00	4.66	12.402	12.2	97.7	NO		
49	59	13C8-PFOS	507.0 > 79.9	4788.080	4825.784	1.00	4.66	12.402	12.2	97.7	NO		
50	60	13C2-PFDA	515.1 > 469.9	26141.568	31932.410	1.00	4.96	10.233	15.3	122.4	NO		
51	61	13C2-8:2 FTS	529 > 79.9	2619.308	4825.784	1.00	4.93	6.785	9.9	79.1	NO		
52	-1												
53	28	PFNS	549.1 > 80.1	2737.343	4788.080	1.00	5.03	7.146	8.9	89.0	NO	1.536	NO
54	29	L-MeFOSAA	570 > 419	11959.308	7085.761	1.00	5.11	21.097	7.2	71.7	NO	2.441	NO
55	31	L-EtFOSAA	584.1 > 419	9778.786	9519.099	1.00	5.28	12.841	8.2	81.9	NO	1.390	NO
56	33	PFUdA	563.0 > 518.9	27225.531	35222.207	1.00	5.29	9.662	10.8	108.1	NO	7.942	NO
57	34	PFDS	598.8 > 79.9	4090.695	2619.308	1.00	5.34	19.522	10.5	104.6	NO	1.775	NO
58	35	11Cl-PF30UdS	632.6 > 452.7	1493.948	31684.066	1.00	5.51	0.589	10.0	100.0	NO	5.328	NO
59	59	13C8-PFOS	507.0 > 79.9	4788.080	4825.784	1.00	4.66	12.402	12.2	97.7	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	7085.761	40121.305	1.00	5.11	2.208	17.8	142.3	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	9519.099	40121.305	1.00	5.27	2.966	17.0	136.1	NO		
62	63	13C2-PFUdA	565 > 519.8	35222.207	40121.305	1.00	5.29	10.974	13.5	108.2	NO		
63	61	13C2-8:2 FTS	529 > 79.9	2619.308	4825.784	1.00	4.93	6.785	9.9	79.1	NO		
64	65	13C2-PFDoA	614.7 > 569.7	31684.066	31932.410	1.00	5.57	12.403	9.5	75.7	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9	5386.396	2619.308	1.00	5.56	25.705	10.5	104.6	NO	1.599	NO
67	37	PFDoA	612.9 > 569.0	30954.434	31684.066	1.00	5.58	12.212	12.7	126.9	NO	8.891	NO
68	38	N-MeFOSA	512.1 > 168.9	6795.565	16293.104	1.00	5.74	62.562	57.4	114.9	NO	1.607	NO
69	39	PFTrDA	662.9 > 618.9	31828.266	31684.066	1.00	5.83	12.557	12.3	123.4	NO	19.809	NO
70	40	PFDoS	698.8 > 79.9	3206.683	24226.078	1.00	5.86	1.655	6.0	60.4 (A)	YES	1.757	NO
71	41	PFTeDA	713.0 > 669.0	32376.436	24226.078	1.00	6.06	16.705	9.4	94.2	NO	16.566	NO
72	65	13C2-PFDoA	614.7 > 569.7	31684.066	31932.410	1.00	5.57	12.403	9.5	75.7	NO		

Dataset: F:\Projects\PFAS.PRO\Results\190721M2\190721M2-34.qld

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Name: 190721M2_34, Date: 22-Jul-2019, Time: 02:48:09, ID: ST190721M2-11 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	31684.066	31932.410	1.00	5.57	12.403	9.5	75.7	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	16293.104	40121.305	1.00	5.77	5.076	183.6	122.4	NO		
75	65	13C2-PFDoA	614.7 > 569.7	31684.066	31932.410	1.00	5.57	12.403	9.5	75.7	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	24226.078	40121.305	1.00	6.06	7.548	17.3	138.2	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	24226.078	40121.305	1.00	6.06	7.548	17.3	138.2	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9	7424.725	21602.230	1.00	6.19	51.555	54.9	109.9	NO	1.623	NO
80	43	PFHxDA	813.1 > 768.6	15793.286	11845.101	1.00	6.42	6.667	10.5	104.5	NO	20.291	NO
81	44	PFODA	913.1 > 868.8	20306.455	11845.101	1.00	6.67	8.572	11.5	114.6	NO		
82	45	N-MeFOSE	616.1 > 58.9	4732.180	12985.761	1.00	6.38	54.662	50.4	100.9	NO		
83	46	N-EtFOSE	630.1 > 58.9	5786.016	13324.506	1.00	6.53	65.136	48.7	97.5	NO		
84	72	13C4-PFBA	217.0 > 172.0	10295.132	10295.132	1.00	1.19	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	21602.230	40121.305	1.00	6.21	6.730	207.2	138.2	NO		
86	69	13C2-PFHxDA	815 > 769.7	11845.101	40121.305	1.00	6.42	3.690	5.1	101.4	NO		
87	69	13C2-PFHxDA	815 > 769.7	11845.101	40121.305	1.00	6.42	3.690	5.1	101.4	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	12985.761	40121.305	1.00	6.37	4.046	136.1	90.7	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	13324.506	40121.305	1.00	6.52	4.151	136.3	90.9	NO		
90	73	13C5-PFHxA	318.0 > 272.9	29695.008	29695.008	1.00	2.98	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	37198.105	37198.105	1.00	4.13	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	2041.802	2041.802	1.00	3.76	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	26258.002	26258.002	1.00	4.58	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	4825.784	4825.784	1.00	4.66	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	31932.410	31932.410	1.00	4.96	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	40121.305	40121.305	1.00	5.28	12.500	12.5	100.0	NO		

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Printed: Monday, July 22, 2019 09:17:40 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072119.mdb 22 Jul 2019 08:05:44
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Compound name: PFBA

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1	1	190721M2_1	IPA	21-Jul-19	20:58:18
2	2	190721M2_2	IPA	21-Jul-19	21:08:52
3	3	190721M2_3	IPA	21-Jul-19	21:19:25
4	4	190721M2_4	ST190721M2-1 PFC CS-2 19G1101	21-Jul-19	21:30:03
5	5	190721M2_5	ST190721M2-2 PFC CS-1 19G1102	21-Jul-19	21:40:42
6	6	190721M2_6	ST190721M2-3 PFC CS0 19G1103	21-Jul-19	21:51:15
7	7	190721M2_7	ST190721M2-4 PFC CS1 19G1104	21-Jul-19	22:01:53
8	8	190721M2_8	ST190721M2-5 PFC CS2 19G1105	21-Jul-19	22:12:26
9	9	190721M2_9	ST190721M2-6 PFC CS3 19G1106	21-Jul-19	22:23:05
10	10	190721M2_10	ST190721M2-7 PFC CS4 19G1107	21-Jul-19	22:33:38
11	11	190721M2_11	ST190721M2-8 PFC CS5 19G1108	21-Jul-19	22:44:17
12	12	190721M2_12	ST190721M2-9 PFC CS6 19G1109	21-Jul-19	22:54:55
13	13	190721M2_13	ST190721M2-10 PFC CS7 19G1110	21-Jul-19	23:05:28
14	14	190721M2_14	IB	21-Jul-19	23:16:06
15	15	190721M2_15	ICV190721M2-1 PFC ICV 19F2422	21-Jul-19	23:26:44
16	16	190721M2_16	IPA	21-Jul-19	23:37:17
17	17	190721M2_17	B9G0117-MSD1 Matrix Spike Dup 1.06	21-Jul-19	23:47:56
18	18	190721M2_18	B9G0117-MSD2 Matrix Spike Dup 1.06	21-Jul-19	23:58:34
19	19	190721M2_19	1901860-01 B96-PFAS-SB56-0-2-062619 1.08	22-Jul-19	00:09:08
20	20	190721M2_20	1901860-03 B96-PFAS-SB62-0-2-062619 1.14	22-Jul-19	00:19:46
21	21	190721M2_21	1901860-07 B96-PFAS-SB63-0-2-062619 1.07	22-Jul-19	00:30:24
22	22	190721M2_22	1901860-08 B96-PFAS-SB43-0-2-062719 1.14	22-Jul-19	00:40:57
23	23	190721M2_23	1902014-02 CAOA-B03-SO-20-20.5 1.09	22-Jul-19	00:51:35
24	24	190721M2_24	IPA	22-Jul-19	01:02:13
25	25	190721M2_25	1902014-02@5X CAOA-B03-SO-20-20.5 1.09	22-Jul-19	01:12:47
26	26	190721M2_26	1902014-05 CAOA-B01-SO-0-0.5 1.07	22-Jul-19	01:23:25
27	27	190721M2_27	B9G0052-BS1 OPR 1	22-Jul-19	01:33:58
28	28	190721M2_28	B9G0052-MS1 Matrix Spike 1.11	22-Jul-19	01:44:29
29	29	190721M2_29	B9G0052-MSD1 Matrix Spike Dup 1.16	22-Jul-19	01:55:07
30	30	190721M2_30	1901859-01 B96-PFAS-SB41-0-2-062019 1.1	22-Jul-19	02:05:41
31	31	190721M2_31	1901859-01@10X B96-PFAS-SB41-0-2-062019 1.1	22-Jul-19	02:16:19
32	32	190721M2_32	1901859-02 B96-PFAS-SB42-0-2-062019 1.11	22-Jul-19	02:26:58

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, July 22, 2019 09:17:16 Pacific Daylight Time
Printed: Monday, July 22, 2019 09:17:40 Pacific Daylight Time

Compound name: PFBA

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33	33 190721M2_33	IPA	22-Jul-19	02:37:31
34	34 190721M2_34	ST190721M2-11 PFC CS3 19G1106	22-Jul-19	02:48:09
35	35 190721M2_35	IPA	22-Jul-19	02:58:43
36	36 190721M2_36	1901859-03 B96-PFAS-SB44-0-2-062119 1.09	22-Jul-19	03:09:21
37	37 190721M2_37	1901859-04 DUP02-062119 1.1	22-Jul-19	03:19:54
38	38 190721M2_38	1901859-06 B96-PFAS-SB52-0-2-062619 1.1	22-Jul-19	03:30:33
39	39 190721M2_39	1901859-07 B96-PFAS-SB37-0-2-062619 1.09	22-Jul-19	03:41:05
40	40 190721M2_40	1901859-08 B96-PFAS-SB38-0-2-062619 1.06	22-Jul-19	03:51:44
41	41 190721M2_41	1901859-10 B96-PFAS-SB30-0-2-062719 1.04	22-Jul-19	04:02:22
42	42 190721M2_42	1901859-13 B96-PFAS-SB28-0-2-062719 1.09	22-Jul-19	04:12:55
43	43 190721M2_43	1901859-15 B96-PFAS-SB71-0-2-062719 1.08	22-Jul-19	04:23:33
44	44 190721M2_44	1901859-18 B96-PFAS-SB27-0-2-062719 1.07	22-Jul-19	04:34:07
45	45 190721M2_45	B9G0149-BS1 OPR 1	22-Jul-19	04:44:45
46	46 190721M2_46	B9G0149-BLK1 Method Blank 1	22-Jul-19	04:55:18
47	47 190721M2_47	1901983-02 B96-PFAS-SB21-0-2-070119 1.06	22-Jul-19	05:05:57
48	48 190721M2_48	IPA	22-Jul-19	05:16:30
49	49 190721M2_49	ST190721M2-12 PFC CS3 19G1106	22-Jul-19	05:27:08
50	50 190721M2_50	IPA	22-Jul-19	05:37:42
51	51 190721M2_51	1901983-09 B96-PFAS-SB60-0-2-070219 1.06	22-Jul-19	05:48:20
52	52 190721M2_52	1901983-10 B96-PFAS-SB59-0-2-070219 1.12	22-Jul-19	05:58:58
53	53 190721M2_53	1901983-11 B96-PFAS-SB22-0-2-070219 1.06	22-Jul-19	06:09:31
54	54 190721M2_54	B9G0183-BS1 OPR 0.25	22-Jul-19	06:20:09
55	55 190721M2_55	B9G0183-BLK1 Method Blank 0.25	22-Jul-19	06:30:42
56	56 190721M2_56	1901661-01RE1 WMP1906180936BRH 0.25118	22-Jul-19	06:41:20
57	57 190721M2_57	1901661-02RE1 WEF1906180942BRH 0.24993	22-Jul-19	06:51:53
58	58 190721M2_58	1901661-03RE1 WEF1906180957BRH 0.25772	22-Jul-19	07:02:31
59	59 190721M2_59	1902105-01 6C Discharge 0.24191	22-Jul-19	07:13:04
60	60 190721M2_60	1902105-02 5A Raw Leachate 0.24309	22-Jul-19	07:23:42
61	61 190721M2_61	1902105-03 Field Blank 0.23889	22-Jul-19	07:34:14
62	62 190721M2_62	1902106-01 WT1907110855SK 0.23917	22-Jul-19	07:44:53
63	63 190721M2_63	IPA	22-Jul-19	07:55:25
64	64 190721M2_64	ST190721M2-13 PFC CS3 19G1106	22-Jul-19	08:06:04
65	65 190721M2_65	IPA	22-Jul-19	08:16:37
66	66 190721M2_66	1902106-02 WR1907110930SK 0.24874	22-Jul-19	08:27:16
67	67 190721M2_67	IPA	22-Jul-19	08:39:00
68	68 190721M2_68	ST190721M2-14 PFC CS3 19G1106	22-Jul-19	08:49:37

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, July 22, 2019 09:17:16 Pacific Daylight Time
Printed: Monday, July 22, 2019 09:17:40 Pacific Daylight Time

Compound name: PFBA

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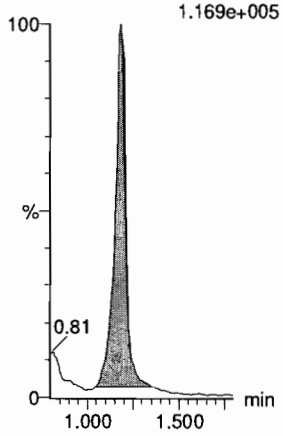
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Last Altered: Monday, July 22, 2019 08:05:46 Pacific Daylight Time
Printed: Monday, July 22, 2019 08:06:41 Pacific Daylight Time

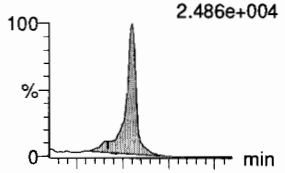
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Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Name: 190721M2_34, Date: 22-Jul-2019, Time: 02:48:09, ID: ST190721M2-11 PFC CS3 19G1106, Description: PFC CS3 19G1106

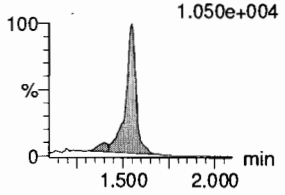
PFBA
F2:MRM of 1 channel,ES-
213.0 > 168.8
1.169e+005



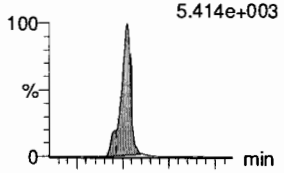
PFPrS
F6:MRM of 2 channels,ES-
248.9 > 79.9
2.486e+004



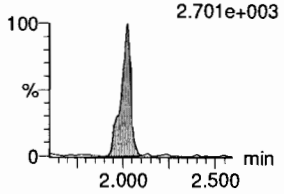
F6:MRM of 2 channels,ES-
248.9 > 98.9
1.050e+004



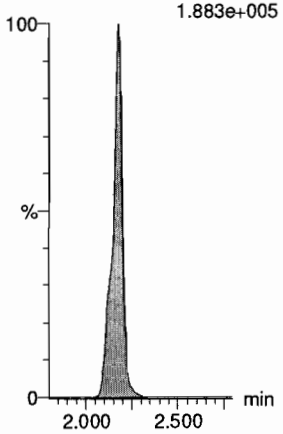
3:3 FTCA
F5:MRM of 2 channels,ES-
240.9 > 176.9
5.414e+003



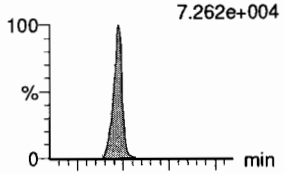
F5:MRM of 2 channels,ES-
240.9 > 116.9
2.701e+003



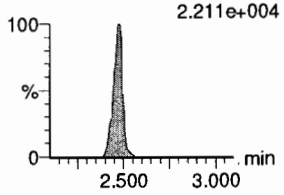
PFPeA
F7:MRM of 1 channel,ES-
263.1 > 218.9
1.883e+005



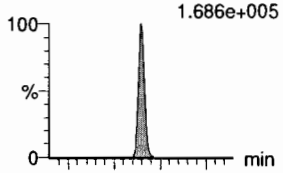
PFBS
F11:MRM of 2 channels,ES-
299.0 > 79.7
7.262e+004



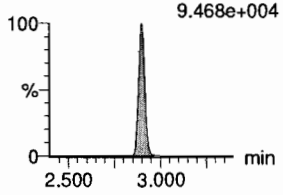
F11:MRM of 2 channels,ES-
299.0 > 99.0
2.211e+004



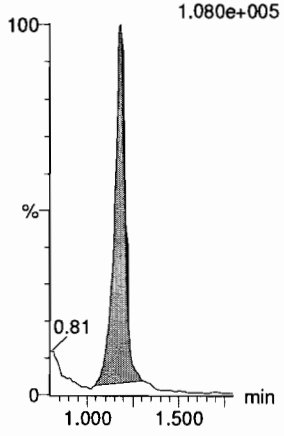
4:2 FTS
F16:MRM of 2 channels,ES-
327.0 > 306.9
1.686e+005



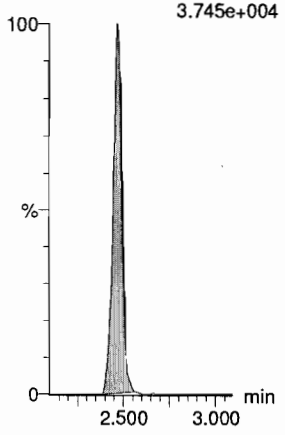
F16:MRM of 2 channels,ES-
327.0 > 80.9
9.468e+004



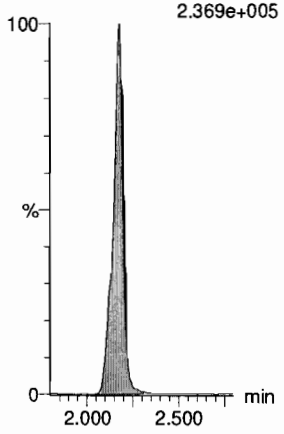
13C3-PFBA
F3:MRM of 1 channel,ES-
216.1 > 171.8
1.080e+005



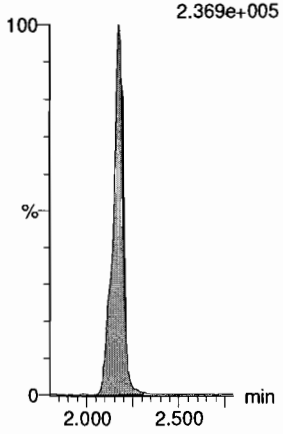
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.745e+004



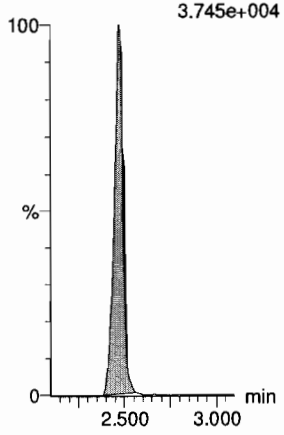
13C3-PFPeA
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.369e+005



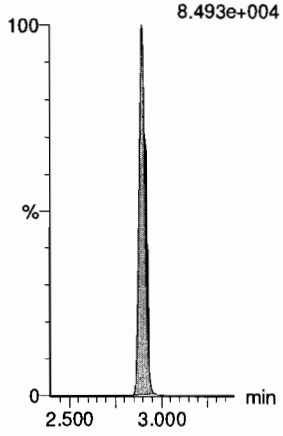
13C3-PFPeA
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.369e+005



13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.745e+004



13C2-4:2 FTS
F17:MRM of 2 channels,ES-
329.0 > 79.9
8.493e+004

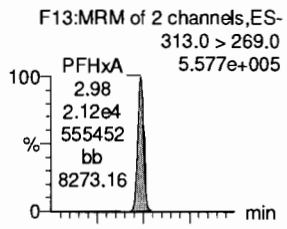


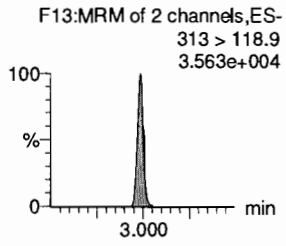
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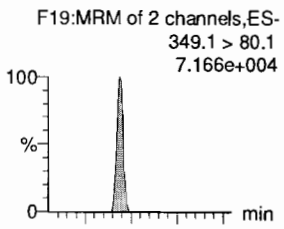
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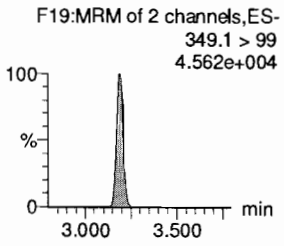
PFHxA



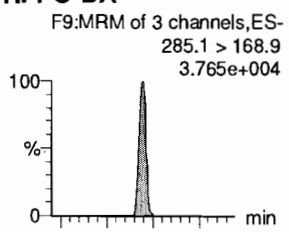


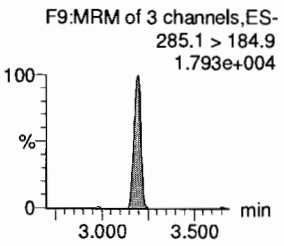
PFPeS



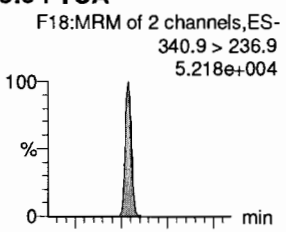


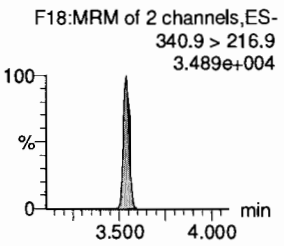
HFPO-DA



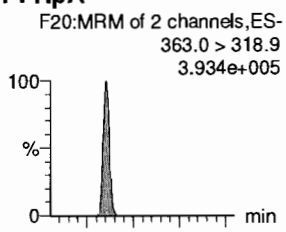


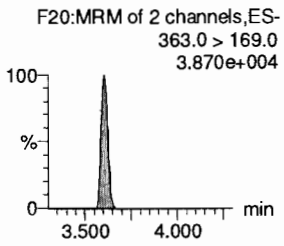
5:3 FTCA



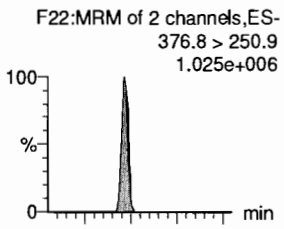


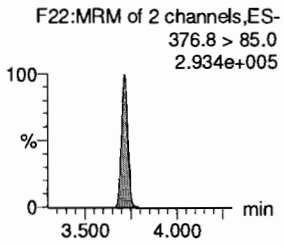
PFHpA



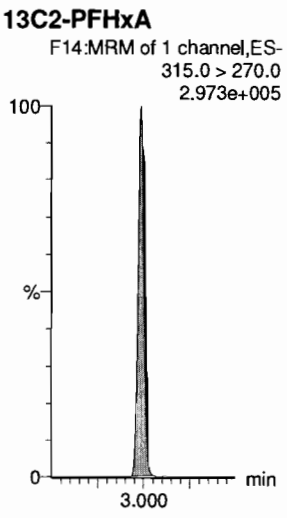


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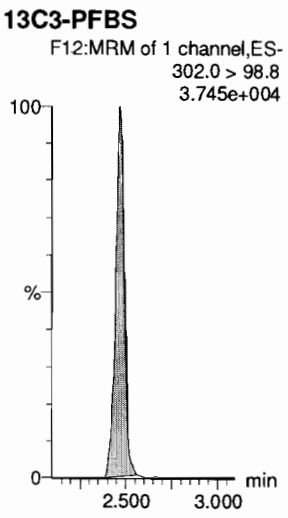




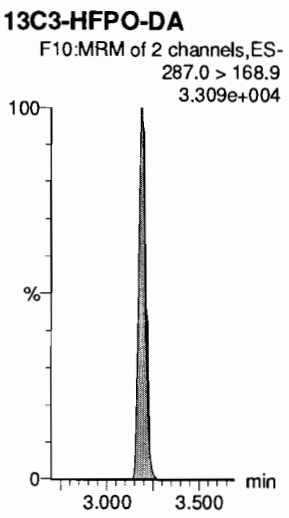
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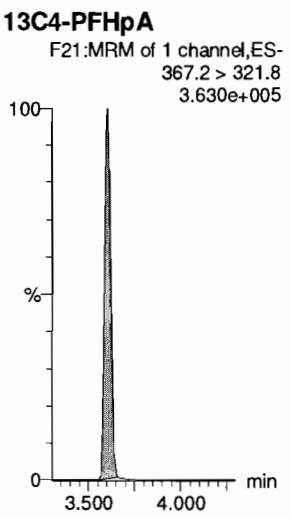
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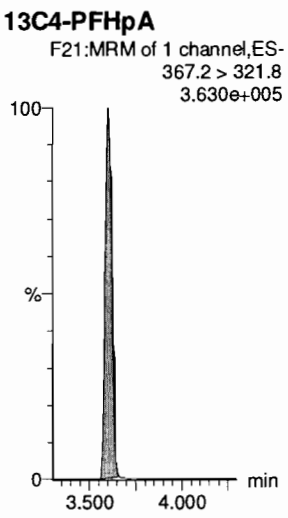
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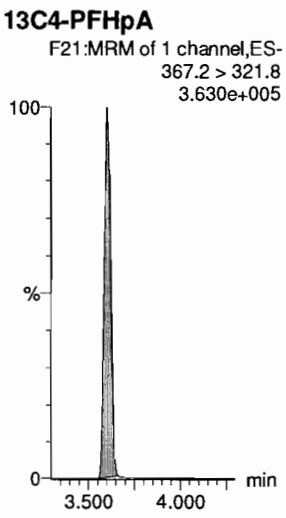
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13C4-PFHpA



13C4-PFHpA

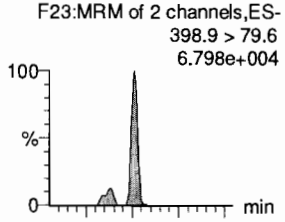


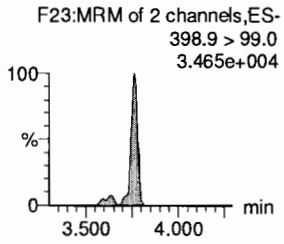
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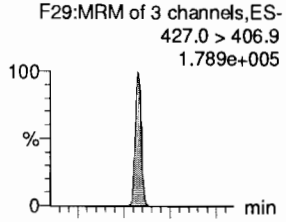
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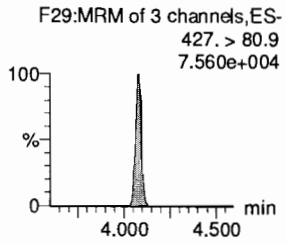
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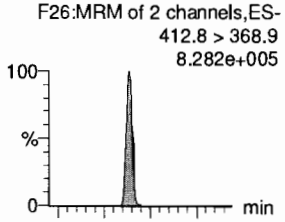


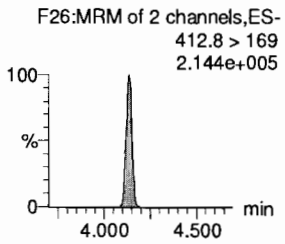
6:2 FTS



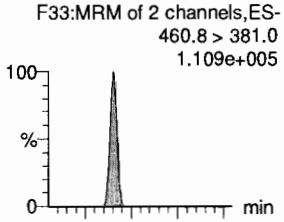


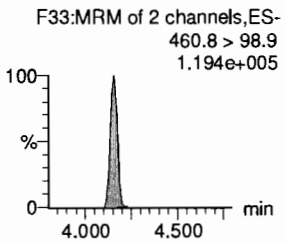
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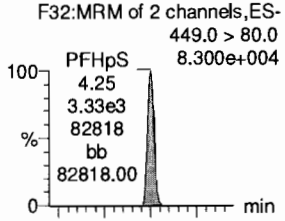


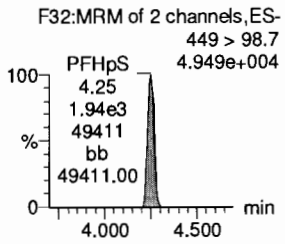
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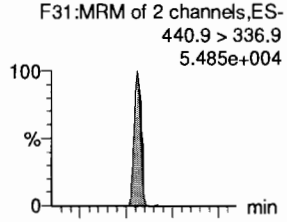


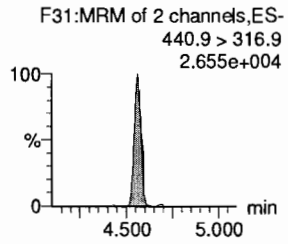
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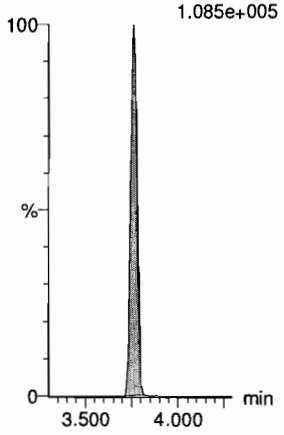


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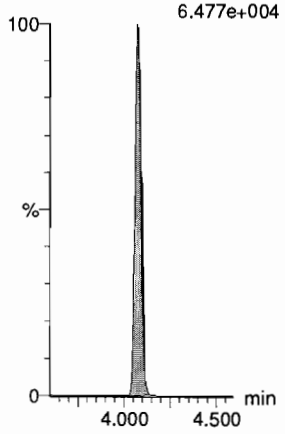




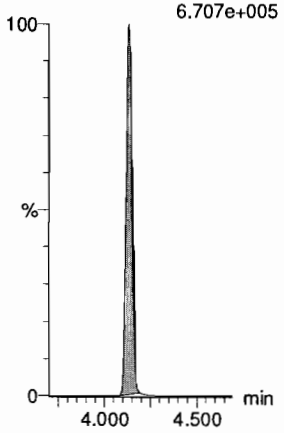
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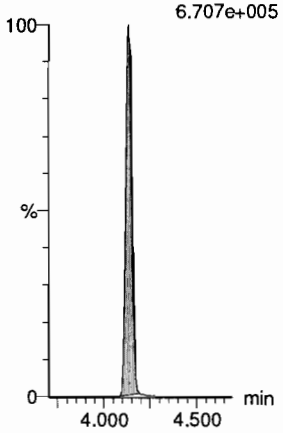
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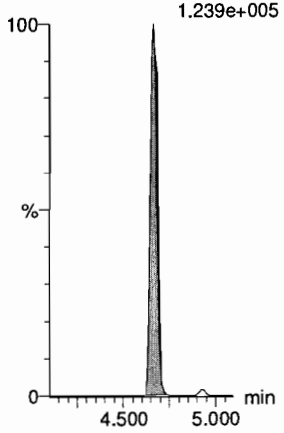
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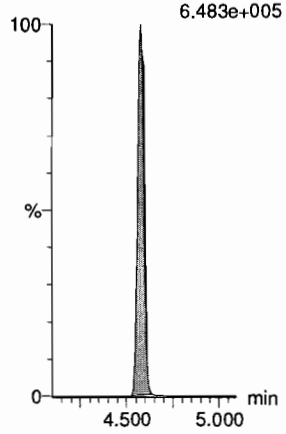
13C2-PFOA



13C8-PFOS



13C5-PFNA

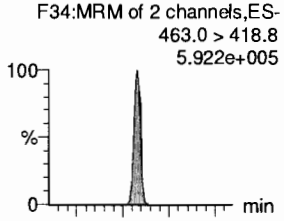


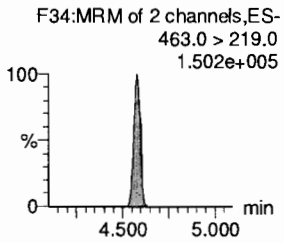
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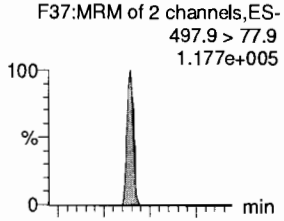
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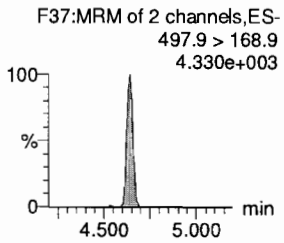
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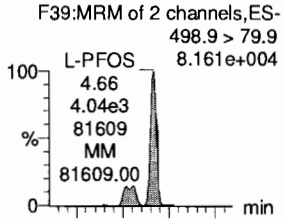


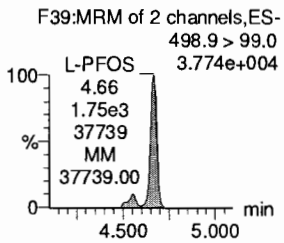
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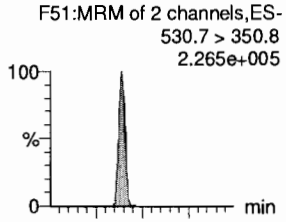


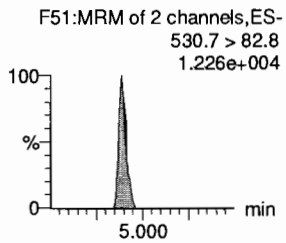
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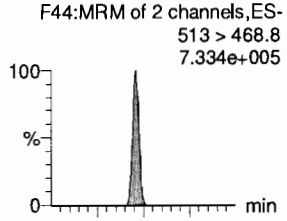


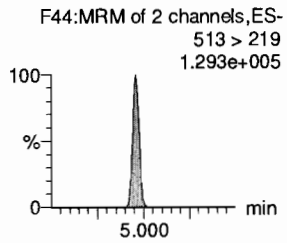
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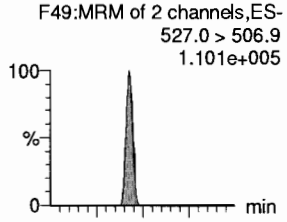


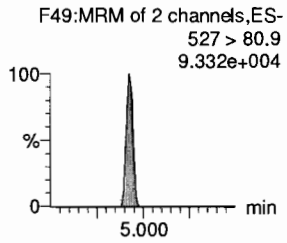
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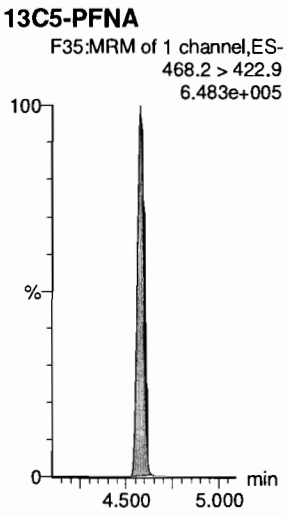


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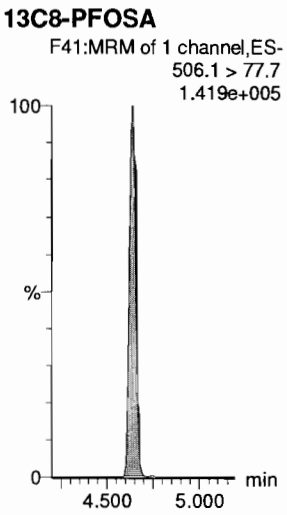




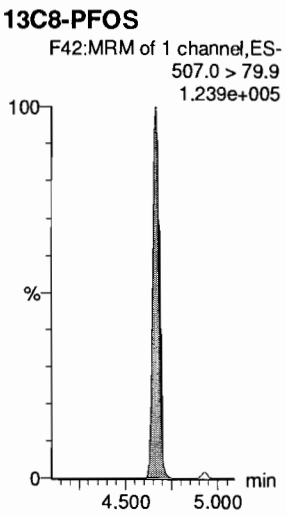
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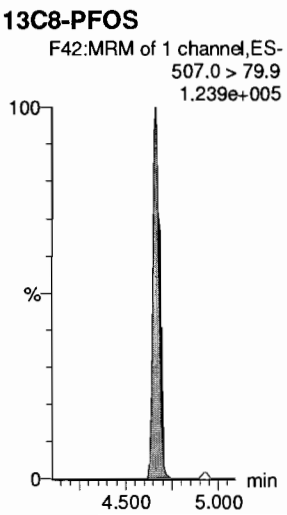
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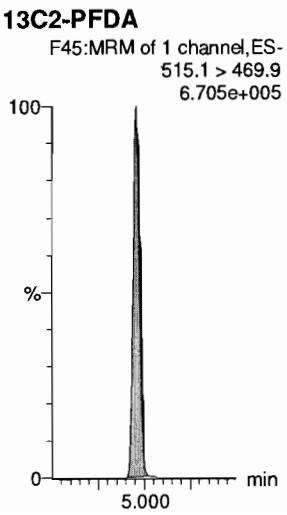
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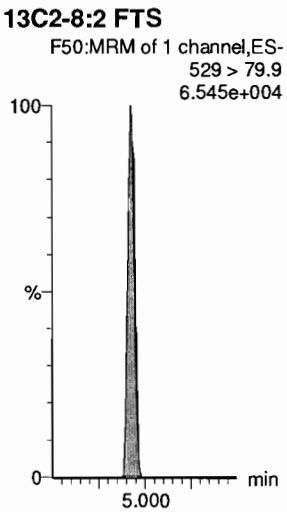
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13C2-PFDA



13C2-8:2 FTS

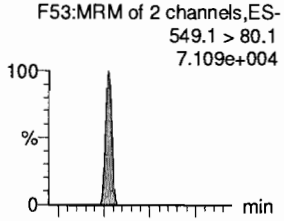


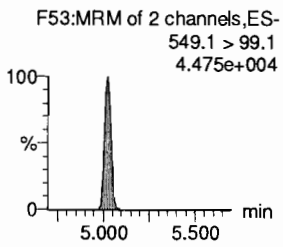
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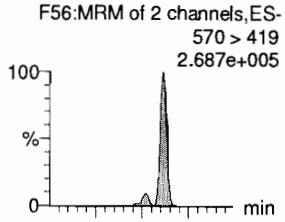
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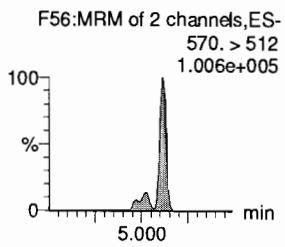
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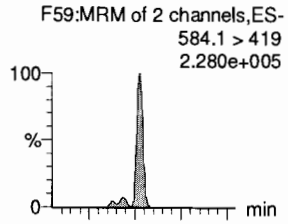


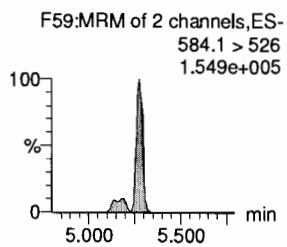
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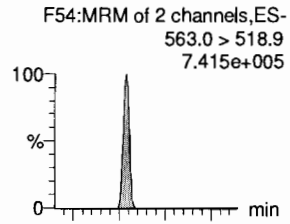


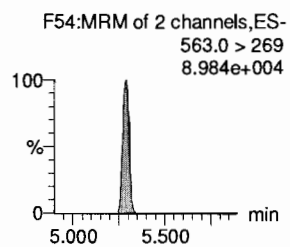
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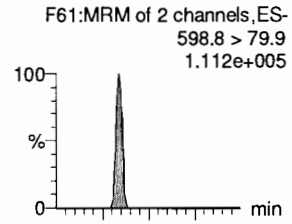


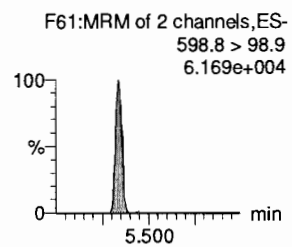
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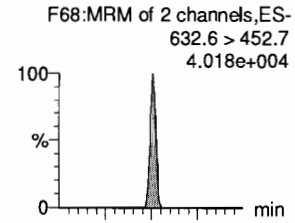


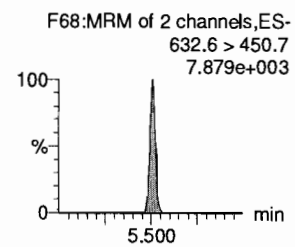
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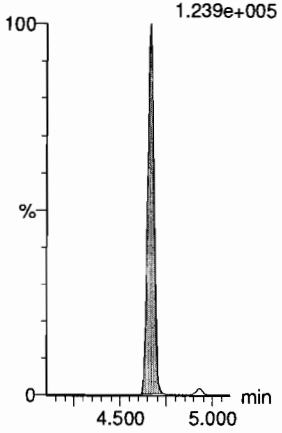


11Cl-PF30UdS

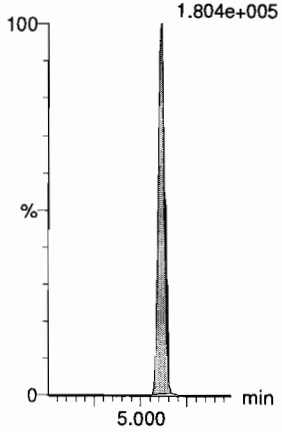




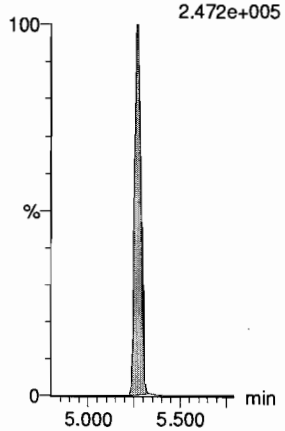
13C8-PFOS



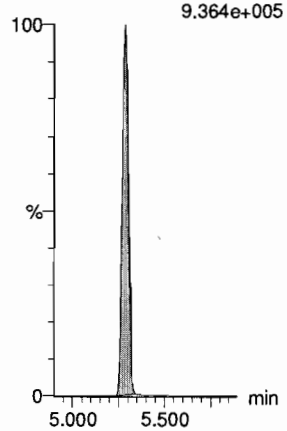
d3-N-MeFOSAA



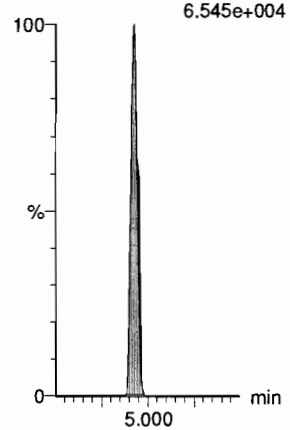
d5-N-EtFOSAA



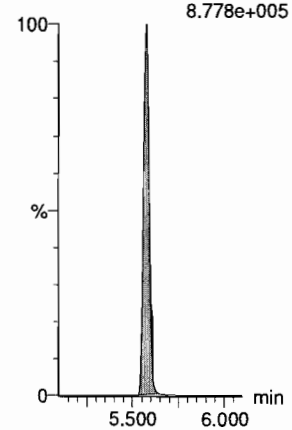
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

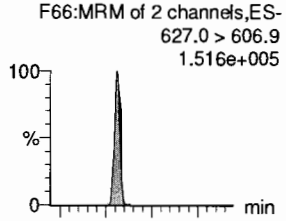


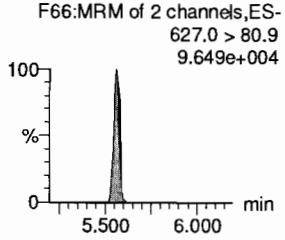
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Printed: Monday, July 22, 2019 08:06:41 Pacific Daylight Time

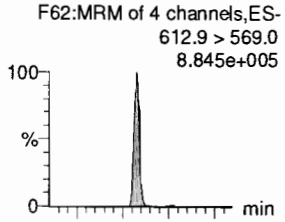
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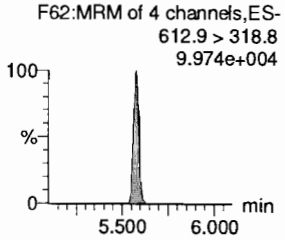
10:2 FTS



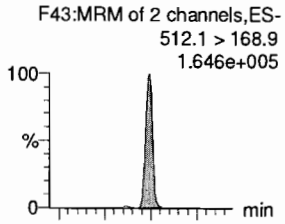


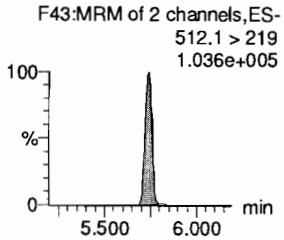
PFDoA



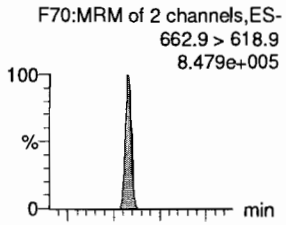


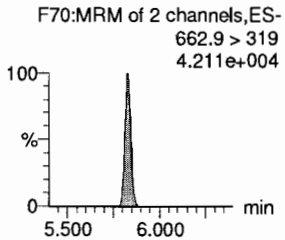
N-MeFOSA



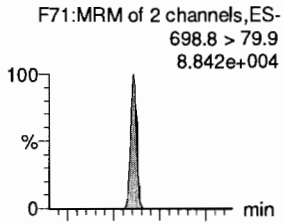


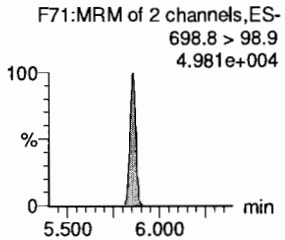
PFTrDA



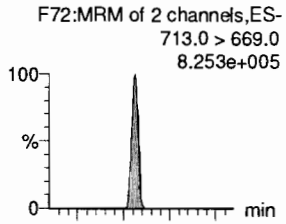


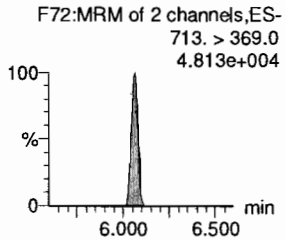
PFDoS



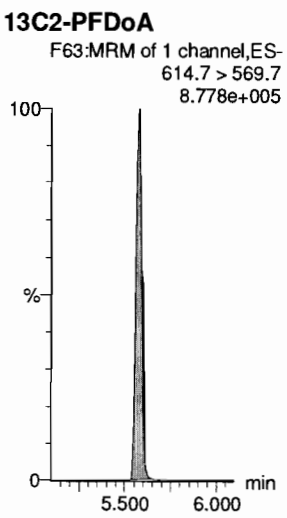


PFTeDA

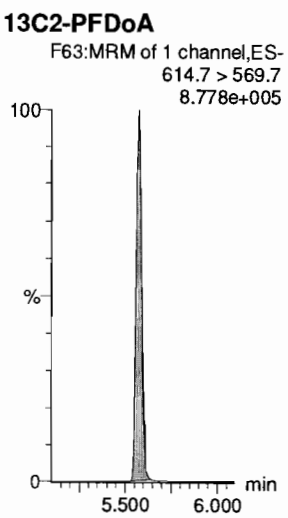




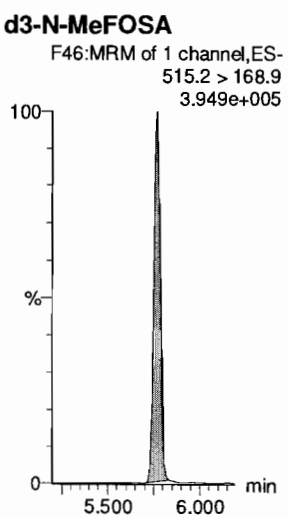
13C2-PFDoA



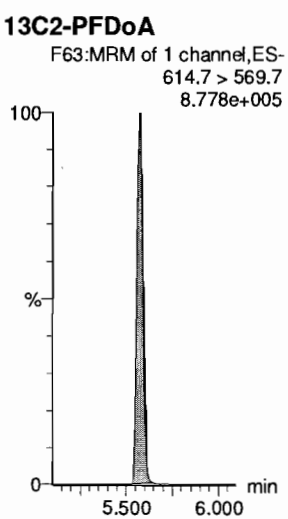
13C2-PFDoA



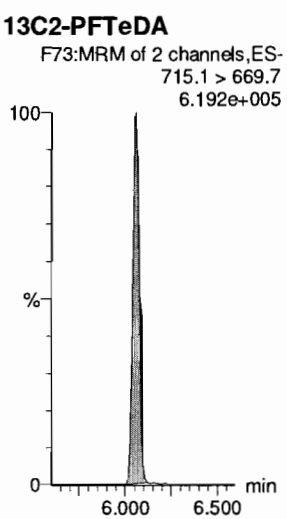
d3-N-MeFOSA



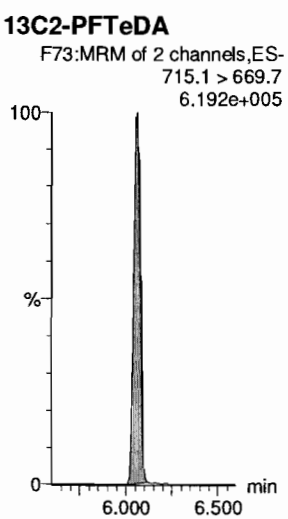
13C2-PFDoA



13C2-PFTeDA



13C2-PFTeDA

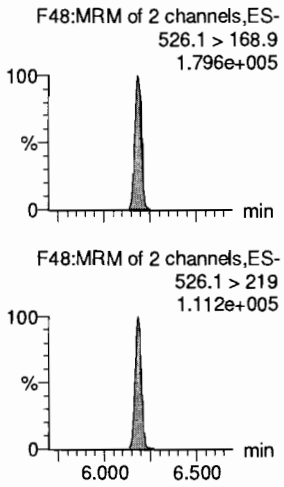


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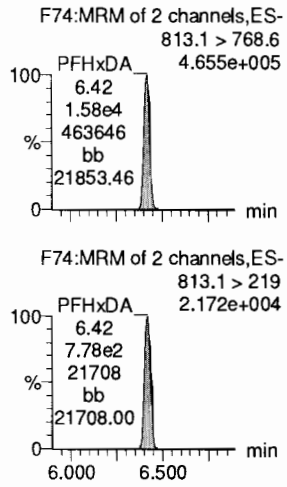
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Name: 190721M2_34, Date: 22-Jul-2019, Time: 02:48:09, ID: ST190721M2-11 PFC CS3 19G1106, Description: PFC CS3 19G1106

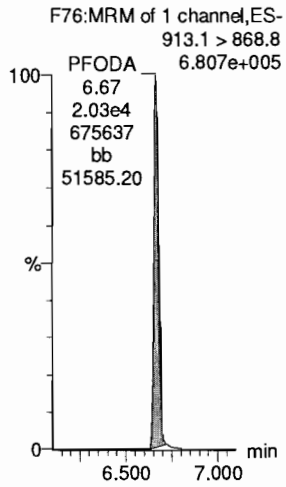
N-EtFOSA



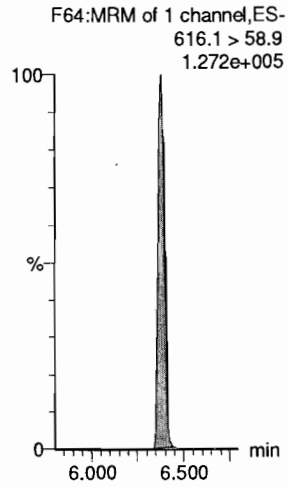
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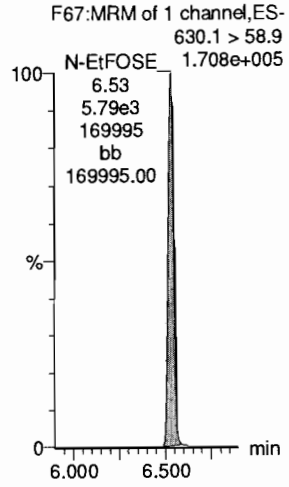
PFODA



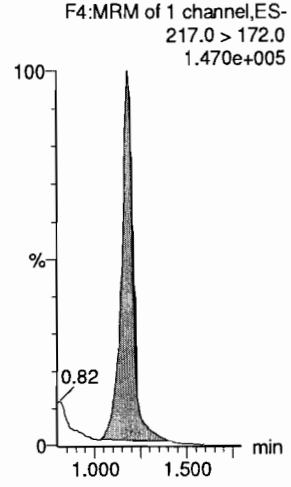
N-MeFOSE



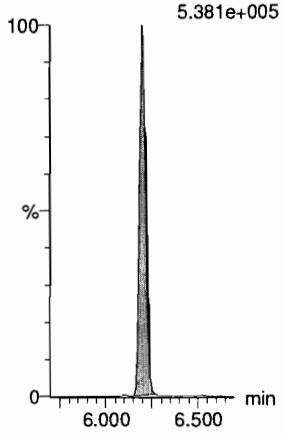
N-EtFOSE



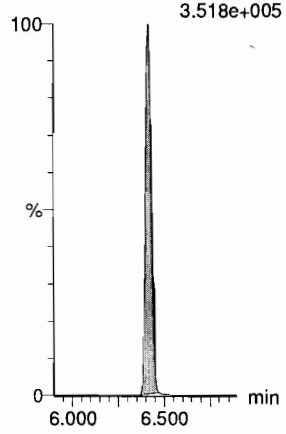
13C4-PFBA



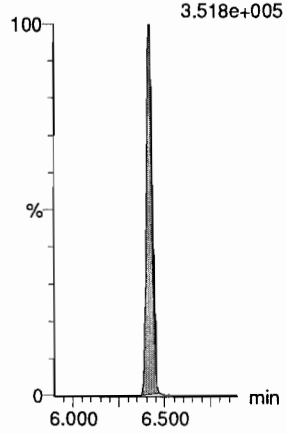
d5-N-ETFOSA



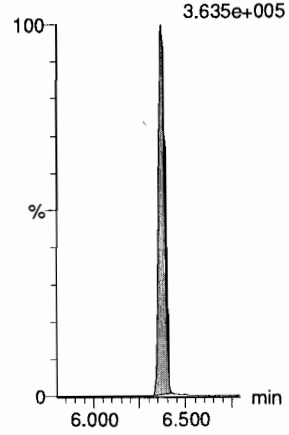
13C2-PFHxDA



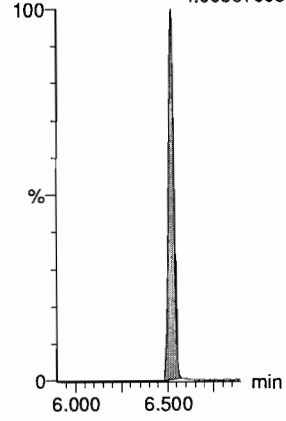
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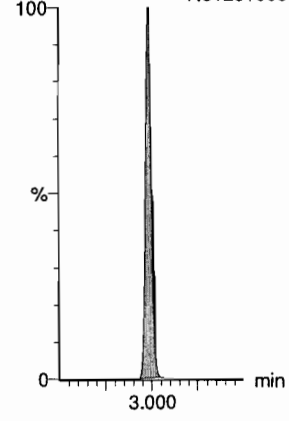
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

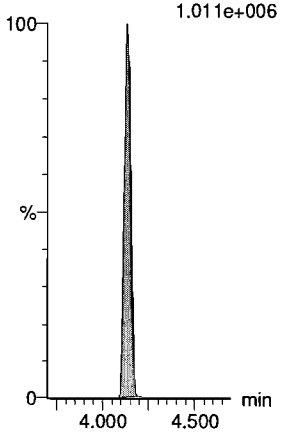


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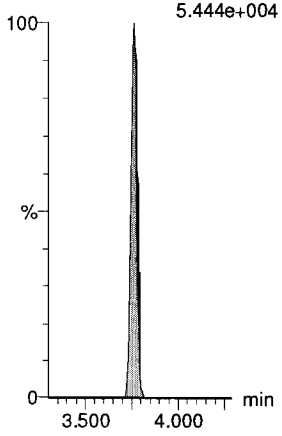
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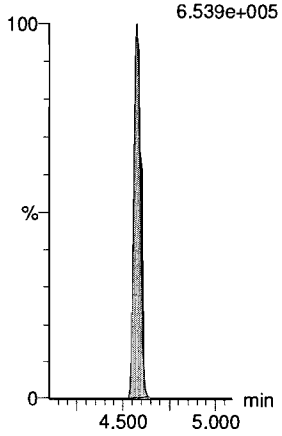
13C8-PFOA



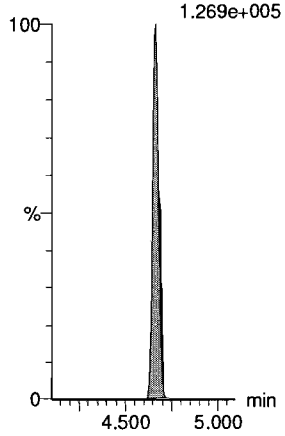
18O2-PFHxS



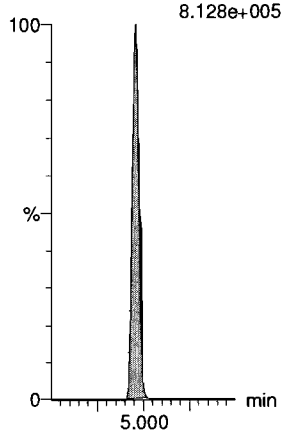
13C9-PFNA



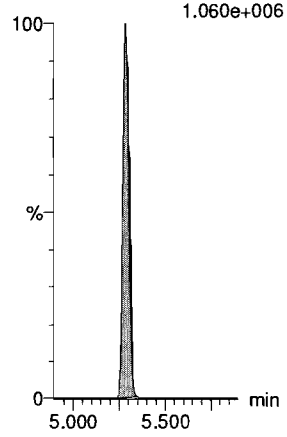
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Tuesday, July 23, 2019 08:22:13 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 08:22:36 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_RS-07-11-19.mdb 11 Jul 2019 15:12:17
Calibration: 23 Jul 2019 08:22:13

Name: 190722M1_9, Date: 22-Jul-2019, Time: 11:19:37, ID: ST190722M1-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190722M1-6 PFC CS3 19G1106	1.06e4	100.0	NO
2	2	13C5-PFHxA	ST190722M1-6 PFC CS3 19G1106	3.12e4	100.0	NO
3	3	18O2-PFHxS	ST190722M1-6 PFC CS3 19G1106	2.04e3	100.0	NO
4	4	13C8-PFOA	ST190722M1-6 PFC CS3 19G1106	3.90e4	100.0	NO
5	5	13C9-PFNA	ST190722M1-6 PFC CS3 19G1106	2.69e4	100.0	NO
6	6	13C4-PFOS	ST190722M1-6 PFC CS3 19G1106	4.73e3	100.0	NO
7	7	13C6-PFDA	ST190722M1-6 PFC CS3 19G1106	3.41e4	100.0	NO
8	8	13C7-PFUdA	ST190722M1-6 PFC CS3 19G1106	4.15e4	100.0	NO

Name: 190722M1_10, Date: 22-Jul-2019, Time: 11:30:15, ID: ST190722M1-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190722M1-7 PFC CS4 19G1107	1.10e4	104.0	NO
2	2	13C5-PFHxA	ST190722M1-7 PFC CS4 19G1107	3.17e4	101.5	NO
3	3	18O2-PFHxS	ST190722M1-7 PFC CS4 19G1107	2.12e3	103.9	NO
4	4	13C8-PFOA	ST190722M1-7 PFC CS4 19G1107	3.83e4	98.2	NO
5	5	13C9-PFNA	ST190722M1-7 PFC CS4 19G1107	2.62e4	97.6	NO
6	6	13C4-PFOS	ST190722M1-7 PFC CS4 19G1107	4.82e3	101.9	NO
7	7	13C6-PFDA	ST190722M1-7 PFC CS4 19G1107	3.40e4	99.7	NO
8	8	13C7-PFUdA	ST190722M1-7 PFC CS4 19G1107	4.29e4	103.2	NO

Name: 190722M1_11, Date: 22-Jul-2019, Time: 11:40:48, ID: ST190722M1-8 PFC CS5 19G1108, Description: PFC CS5 19G1108

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190722M1-8 PFC CS5 19G1108	1.06e4	100.3	NO
2	2	13C5-PFHxA	ST190722M1-8 PFC CS5 19G1108	3.08e4	98.7	NO
3	3	18O2-PFHxS	ST190722M1-8 PFC CS5 19G1108	2.01e3	98.6	NO
4	4	13C8-PFOA	ST190722M1-8 PFC CS5 19G1108	3.72e4	95.4	NO
5	5	13C9-PFNA	ST190722M1-8 PFC CS5 19G1108	2.55e4	94.7	NO
6	6	13C4-PFOS	ST190722M1-8 PFC CS5 19G1108	4.69e3	99.0	NO
7	7	13C6-PFDA	ST190722M1-8 PFC CS5 19G1108	3.33e4	97.7	NO
8	8	13C7-PFUdA	ST190722M1-8 PFC CS5 19G1108	3.87e4	93.2	NO

Name: 190722M1_12, Date: 22-Jul-2019, Time: 11:51:27, ID: ST190722M1-9 PFC CS6 19G1109, Description: PFC CS6 19G1109

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190722M1-9 PFC CS6 19G1109	1.08e4	102.3	NO
2	2	13C5-PFHxA	ST190722M1-9 PFC CS6 19G1109	2.68e4	85.7	NO
3	3	18O2-PFHxS	ST190722M1-9 PFC CS6 19G1109	1.78e3	87.2	NO
4	4	13C8-PFOA	ST190722M1-9 PFC CS6 19G1109	3.06e4	78.4	NO
5	5	13C9-PFNA	ST190722M1-9 PFC CS6 19G1109	2.27e4	84.6	NO
6	6	13C4-PFOS	ST190722M1-9 PFC CS6 19G1109	4.10e3	86.7	NO
7	7	13C6-PFDA	ST190722M1-9 PFC CS6 19G1109	2.83e4	83.0	NO
8	8	13C7-PFUdA	ST190722M1-9 PFC CS6 19G1109	3.34e4	80.4	NO

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Name: 190722M1_13, Date: 22-Jul-2019, Time: 12:02:00, ID: ST190722M1-10 PFC CS7 19G1110, Description: PFC CS7 19G1110

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190722M1-10 PFC CS7 19G1110	1.04e4	98.0	NO
2	2	13C5-PFHxA	ST190722M1-10 PFC CS7 19G1110	2.43e4	78.0	NO
3	3	18O2-PFHxS	ST190722M1-10 PFC CS7 19G1110	1.49e3	73.2	NO
4	4	13C8-PFOA	ST190722M1-10 PFC CS7 19G1110	2.54e4	65.0	NO
5	5	13C9-PFNA	ST190722M1-10 PFC CS7 19G1110	1.96e4	72.7	NO
6	6	13C4-PFOS	ST190722M1-10 PFC CS7 19G1110	3.69e3	78.0	NO
7	7	13C6-PFDA	ST190722M1-10 PFC CS7 19G1110	2.44e4	71.5	NO
8	8	13C7-PFUdA	ST190722M1-10 PFC CS7 19G1110	2.84e4	68.3	NO

Name: 190722M1_14, Date: 22-Jul-2019, Time: 12:12:38, ID: IB, Description: IB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IB	1.08e4	101.6	NO
2	2	13C5-PFHxA	IB	3.20e4	102.6	NO
3	3	18O2-PFHxS	IB	2.02e3	99.0	NO
4	4	13C8-PFOA	IB	3.95e4	101.2	NO
5	5	13C9-PFNA	IB	2.78e4	103.6	NO
6	6	13C4-PFOS	IB	4.72e3	99.7	NO
7	7	13C6-PFDA	IB	3.46e4	101.5	NO
8	8	13C7-PFUdA	IB	4.10e4	98.6	NO

Name: 190722M1_15, Date: 22-Jul-2019, Time: 12:23:11, ID: ICV190722M1-1 PFC ICV 19F2422, Description: PFC ICV 19F2422

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ICV190722M1-1 PFC ICV 19F2422	1.05e4	98.6	NO
2	2	13C5-PFHxA	ICV190722M1-1 PFC ICV 19F2422	3.10e4	99.4	NO
3	3	18O2-PFHxS	ICV190722M1-1 PFC ICV 19F2422	2.06e3	101.3	NO
4	4	13C8-PFOA	ICV190722M1-1 PFC ICV 19F2422	3.76e4	96.4	NO
5	5	13C9-PFNA	ICV190722M1-1 PFC ICV 19F2422	2.64e4	98.0	NO
6	6	13C4-PFOS	ICV190722M1-1 PFC ICV 19F2422	4.72e3	99.8	NO
7	7	13C6-PFDA	ICV190722M1-1 PFC ICV 19F2422	3.36e4	98.5	NO
8	8	13C7-PFUdA	ICV190722M1-1 PFC ICV 19F2422	4.14e4	99.7	NO

Name: 190722M1_16, Date: 22-Jul-2019, Time: 12:33:49, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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	5.29e0	0.0	YES

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Name: 190722M1_17, Date: 22-Jul-2019, Time: 14:12:03, ID: 1901887-01@10X Ivyland Mop Water 0.24039, Description: Ivyland Mop Water

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901887-01@10X Ivyland Mop Water 0....	1.09e3	10.3	YES
2	2	13C5-PFHxA	1901887-01@10X Ivyland Mop Water 0....	2.69e3	8.6	YES
3	3	18O2-PFHxS	1901887-01@10X Ivyland Mop Water 0....	1.73e2	8.5	YES
4	4	13C8-PFOA	1901887-01@10X Ivyland Mop Water 0....	3.21e3	8.2	YES
5	5	13C9-PFNA	1901887-01@10X Ivyland Mop Water 0....	2.31e3	8.6	YES
6	6	13C4-PFOS	1901887-01@10X Ivyland Mop Water 0....	4.29e2	9.1	YES
7	7	13C6-PFDA	1901887-01@10X Ivyland Mop Water 0....	2.89e3	8.5	YES
8	8	13C7-PFUdA	1901887-01@10X Ivyland Mop Water 0....	3.74e3	9.0	YES

Name: 190722M1_18, Date: 22-Jul-2019, Time: 14:22:44, ID: B9G0184-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0184-BLK1 Method Blank 0.25	9.72e3	91.6	NO
2	2	13C5-PFHxA	B9G0184-BLK1 Method Blank 0.25	2.07e4	66.3	NO
3	3	18O2-PFHxS	B9G0184-BLK1 Method Blank 0.25	1.64e3	80.6	NO
4	4	13C8-PFOA	B9G0184-BLK1 Method Blank 0.25	2.72e4	69.8	NO
5	5	13C9-PFNA	B9G0184-BLK1 Method Blank 0.25	2.01e4	74.8	NO
6	6	13C4-PFOS	B9G0184-BLK1 Method Blank 0.25	4.13e3	87.4	NO
7	7	13C6-PFDA	B9G0184-BLK1 Method Blank 0.25	2.63e4	77.2	NO
8	8	13C7-PFUdA	B9G0184-BLK1 Method Blank 0.25	3.25e4	78.2	NO

Name: 190722M1_19, Date: 22-Jul-2019, Time: 14:34:56, ID: B9G0185-BS1 OPR 0.125, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0185-BS1 OPR 0.125	1.64e4	154.8	YES
2	2	13C5-PFHxA	B9G0185-BS1 OPR 0.125	3.15e4	101.0	NO
3	3	18O2-PFHxS	B9G0185-BS1 OPR 0.125	2.40e3	117.8	NO
4	4	13C8-PFOA	B9G0185-BS1 OPR 0.125	4.05e4	103.8	NO
5	5	13C9-PFNA	B9G0185-BS1 OPR 0.125	2.97e4	110.6	NO
6	6	13C4-PFOS	B9G0185-BS1 OPR 0.125	5.64e3	119.2	NO
7	7	13C6-PFDA	B9G0185-BS1 OPR 0.125	3.89e4	114.2	NO
8	8	13C7-PFUdA	B9G0185-BS1 OPR 0.125	4.84e4	116.5	NO

Name: 190722M1_20, Date: 22-Jul-2019, Time: 14:47:45, ID: B9G0185-BSD1 LCSD 0.125, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0185-BSD1 LCSD 0.125	1.42e4	134.0	NO
2	2	13C5-PFHxA	B9G0185-BSD1 LCSD 0.125	2.84e4	91.1	NO
3	3	18O2-PFHxS	B9G0185-BSD1 LCSD 0.125	2.39e3	117.5	NO
4	4	13C8-PFOA	B9G0185-BSD1 LCSD 0.125	3.72e4	95.2	NO
5	5	13C9-PFNA	B9G0185-BSD1 LCSD 0.125	2.71e4	101.0	NO
6	6	13C4-PFOS	B9G0185-BSD1 LCSD 0.125	5.25e3	110.9	NO
7	7	13C6-PFDA	B9G0185-BSD1 LCSD 0.125	3.63e4	106.3	NO
8	8	13C7-PFUdA	B9G0185-BSD1 LCSD 0.125	4.64e4	111.6	NO

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Name: 190722M1_21, Date: 22-Jul-2019, Time: 14:58:19, ID: B9G0185-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0185-BLK1 Method Blank 0.125	1.46e4	137.4	NO
2	2	13C5-PFHxA	B9G0185-BLK1 Method Blank 0.125	2.71e4	86.7	NO
3	3	18O2-PFHxS	B9G0185-BLK1 Method Blank 0.125	2.06e3	101.0	NO
4	4	13C8-PFOA	B9G0185-BLK1 Method Blank 0.125	3.45e4	88.4	NO
5	5	13C9-PFNA	B9G0185-BLK1 Method Blank 0.125	2.53e4	94.2	NO
6	6	13C4-PFOS	B9G0185-BLK1 Method Blank 0.125	4.71e3	99.5	NO
7	7	13C6-PFDA	B9G0185-BLK1 Method Blank 0.125	3.20e4	93.8	NO
8	8	13C7-PFUdA	B9G0185-BLK1 Method Blank 0.125	4.11e4	98.9	NO

Name: 190722M1_22, Date: 22-Jul-2019, Time: 15:08:58, ID: 1902097-03 SAOA-B10-GW 0.11593, Description: SAOA-B10-GW

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902097-03 SAOA-B10-GW 0.11593	1.44e4	135.4	NO
2	2	13C5-PFHxA	1902097-03 SAOA-B10-GW 0.11593	2.81e4	89.9	NO
3	3	18O2-PFHxS	1902097-03 SAOA-B10-GW 0.11593	2.18e3	107.1	NO
4	4	13C8-PFOA	1902097-03 SAOA-B10-GW 0.11593	3.56e4	91.1	NO
5	5	13C9-PFNA	1902097-03 SAOA-B10-GW 0.11593	2.64e4	98.1	NO
6	6	13C4-PFOS	1902097-03 SAOA-B10-GW 0.11593	5.21e3	110.1	NO
7	7	13C6-PFDA	1902097-03 SAOA-B10-GW 0.11593	3.46e4	101.4	NO
8	8	13C7-PFUdA	1902097-03 SAOA-B10-GW 0.11593	4.24e4	102.0	NO

Name: 190722M1_23, Date: 22-Jul-2019, Time: 15:19:36, ID: 1902097-04 SAOA-B10-GW-D 0.12246, Description: SAOA-B10-GW-D

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902097-04 SAOA-B10-GW-D 0.12246	1.59e4	150.3	YES
2	2	13C5-PFHxA	1902097-04 SAOA-B10-GW-D 0.12246	3.04e4	97.5	NO
3	3	18O2-PFHxS	1902097-04 SAOA-B10-GW-D 0.12246	2.23e3	109.7	NO
4	4	13C8-PFOA	1902097-04 SAOA-B10-GW-D 0.12246	3.88e4	99.4	NO
5	5	13C9-PFNA	1902097-04 SAOA-B10-GW-D 0.12246	2.77e4	103.1	NO
6	6	13C4-PFOS	1902097-04 SAOA-B10-GW-D 0.12246	5.20e3	109.8	NO
7	7	13C6-PFDA	1902097-04 SAOA-B10-GW-D 0.12246	3.64e4	106.8	NO
8	8	13C7-PFUdA	1902097-04 SAOA-B10-GW-D 0.12246	4.48e4	107.9	NO

Name: 190722M1_24, Date: 22-Jul-2019, Time: 15:30:10, ID: 1902097-05 EB-07092019 0.11645, Description: EB-07092019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902097-05 EB-07092019 0.11645	1.27e4	119.7	NO
2	2	13C5-PFHxA	1902097-05 EB-07092019 0.11645	2.63e4	84.4	NO
3	3	18O2-PFHxS	1902097-05 EB-07092019 0.11645	1.87e3	91.7	NO
4	4	13C8-PFOA	1902097-05 EB-07092019 0.11645	3.23e4	82.8	NO
5	5	13C9-PFNA	1902097-05 EB-07092019 0.11645	2.28e4	84.9	NO
6	6	13C4-PFOS	1902097-05 EB-07092019 0.11645	4.68e3	98.8	NO
7	7	13C6-PFDA	1902097-05 EB-07092019 0.11645	3.09e4	90.7	NO
8	8	13C7-PFUdA	1902097-05 EB-07092019 0.11645	3.85e4	92.7	NO

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Name: 190722M1_25, Date: 22-Jul-2019, Time: 15:40:48, ID: 1902097-07 FRB-07092019 0.11539, Description: FRB-07092019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902097-07 FRB-07092019 0.11539	1.27e4	120.2	NO
2	2	13C5-PFHxA	1902097-07 FRB-07092019 0.11539	2.45e4	78.6	NO
3	3	18O2-PFHxS	1902097-07 FRB-07092019 0.11539	1.80e3	88.5	NO
4	4	13C8-PFOA	1902097-07 FRB-07092019 0.11539	3.16e4	80.9	NO
5	5	13C9-PFNA	1902097-07 FRB-07092019 0.11539	2.32e4	86.2	NO
6	6	13C4-PFOS	1902097-07 FRB-07092019 0.11539	4.82e3	101.8	NO
7	7	13C6-PFDA	1902097-07 FRB-07092019 0.11539	2.99e4	87.7	NO
8	8	13C7-PFUdA	1902097-07 FRB-07092019 0.11539	3.77e4	90.7	NO

Name: 190722M1_26, Date: 22-Jul-2019, Time: 15:53:08, ID: 1902097-14 EB-07102019 0.11614, Description: EB-07102019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902097-14 EB-07102019 0.11614	1.59e4	150.1	YES
2	2	13C5-PFHxA	1902097-14 EB-07102019 0.11614	3.06e4	98.1	NO
3	3	18O2-PFHxS	1902097-14 EB-07102019 0.11614	2.08e3	102.0	NO
4	4	13C8-PFOA	1902097-14 EB-07102019 0.11614	3.73e4	95.6	NO
5	5	13C9-PFNA	1902097-14 EB-07102019 0.11614	2.68e4	99.7	NO
6	6	13C4-PFOS	1902097-14 EB-07102019 0.11614	4.91e3	103.7	NO
7	7	13C6-PFDA	1902097-14 EB-07102019 0.11614	3.19e4	93.4	NO
8	8	13C7-PFUdA	1902097-14 EB-07102019 0.11614	3.86e4	92.8	NO

Name: 190722M1_27, Date: 22-Jul-2019, Time: 16:03:42, ID: 1902097-15 FRB-07102019 0.11594, Description: FRB-07102019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902097-15 FRB-07102019 0.11594	1.44e4	135.8	NO
2	2	13C5-PFHxA	1902097-15 FRB-07102019 0.11594	2.72e4	87.2	NO
3	3	18O2-PFHxS	1902097-15 FRB-07102019 0.11594	2.10e3	103.1	NO
4	4	13C8-PFOA	1902097-15 FRB-07102019 0.11594	3.39e4	86.9	NO
5	5	13C9-PFNA	1902097-15 FRB-07102019 0.11594	2.49e4	92.8	NO
6	6	13C4-PFOS	1902097-15 FRB-07102019 0.11594	4.93e3	104.2	NO
7	7	13C6-PFDA	1902097-15 FRB-07102019 0.11594	3.29e4	96.4	NO
8	8	13C7-PFUdA	1902097-15 FRB-07102019 0.11594	4.05e4	97.4	NO

Name: 190722M1_28, Date: 22-Jul-2019, Time: 16:14:14, ID: 1902097-19 EB-07112019 0.11543, Description: EB-07112019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902097-19 EB-07112019 0.11543	1.38e4	130.0	NO
2	2	13C5-PFHxA	1902097-19 EB-07112019 0.11543	2.69e4	86.2	NO
3	3	18O2-PFHxS	1902097-19 EB-07112019 0.11543	2.07e3	101.8	NO
4	4	13C8-PFOA	1902097-19 EB-07112019 0.11543	3.29e4	84.3	NO
5	5	13C9-PFNA	1902097-19 EB-07112019 0.11543	2.40e4	89.1	NO
6	6	13C4-PFOS	1902097-19 EB-07112019 0.11543	4.63e3	97.9	NO
7	7	13C6-PFDA	1902097-19 EB-07112019 0.11543	3.28e4	96.2	NO
8	8	13C7-PFUdA	1902097-19 EB-07112019 0.11543	3.99e4	96.0	NO

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Name: 190722M1_29, Date: 22-Jul-2019, Time: 16:24:52, ID: 1902097-20 FRB-07112019 0.11658, Description: FRB-07112019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902097-20 FRB-07112019 0.11658	2.01e4	189.4	YES
2	2	13C5-PFHxA	1902097-20 FRB-07112019 0.11658	3.56e4	114.1	NO
3	3	18O2-PFHxS	1902097-20 FRB-07112019 0.11658	2.22e3	108.9	NO
4	4	13C8-PFOA	1902097-20 FRB-07112019 0.11658	4.27e4	109.4	NO
5	5	13C9-PFNA	1902097-20 FRB-07112019 0.11658	2.85e4	106.1	NO
6	6	13C4-PFOS	1902097-20 FRB-07112019 0.11658	5.11e3	108.0	NO
7	7	13C6-PFDA	1902097-20 FRB-07112019 0.11658	3.39e4	99.5	NO
8	8	13C7-PFUdA	1902097-20 FRB-07112019 0.11658	3.36e4	80.8	NO

Name: 190722M1_30, Date: 22-Jul-2019, Time: 16:35:25, ID: B9G0208-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0208-BS1 OPR 0.25	1.66e4	156.3	YES
2	2	13C5-PFHxA	B9G0208-BS1 OPR 0.25	3.01e4	96.6	NO
3	3	18O2-PFHxS	B9G0208-BS1 OPR 0.25	2.02e3	99.1	NO
4	4	13C8-PFOA	B9G0208-BS1 OPR 0.25	3.68e4	94.4	NO
5	5	13C9-PFNA	B9G0208-BS1 OPR 0.25	2.69e4	100.1	NO
6	6	13C4-PFOS	B9G0208-BS1 OPR 0.25	5.05e3	106.7	NO
7	7	13C6-PFDA	B9G0208-BS1 OPR 0.25	3.33e4	97.7	NO
8	8	13C7-PFUdA	B9G0208-BS1 OPR 0.25	4.13e4	99.3	NO

Name: 190722M1_31, Date: 22-Jul-2019, Time: 16:46:04, ID: B9G0208-BSD1 LCSD 0.25, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0208-BSD1 LCSD 0.25	1.58e4	149.0	NO
2	2	13C5-PFHxA	B9G0208-BSD1 LCSD 0.25	3.02e4	96.8	NO
3	3	18O2-PFHxS	B9G0208-BSD1 LCSD 0.25	2.11e3	103.6	NO
4	4	13C8-PFOA	B9G0208-BSD1 LCSD 0.25	3.73e4	95.6	NO
5	5	13C9-PFNA	B9G0208-BSD1 LCSD 0.25	2.69e4	99.9	NO
6	6	13C4-PFOS	B9G0208-BSD1 LCSD 0.25	5.13e3	108.4	NO
7	7	13C6-PFDA	B9G0208-BSD1 LCSD 0.25	3.39e4	99.5	NO
8	8	13C7-PFUdA	B9G0208-BSD1 LCSD 0.25	4.36e4	104.9	NO

Name: 190722M1_32, Date: 22-Jul-2019, Time: 16:56:37, ID: B9G0208-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0208-BLK1 Method Blank 0.25	1.47e4	138.9	NO
2	2	13C5-PFHxA	B9G0208-BLK1 Method Blank 0.25	2.66e4	85.4	NO
3	3	18O2-PFHxS	B9G0208-BLK1 Method Blank 0.25	1.93e3	94.5	NO
4	4	13C8-PFOA	B9G0208-BLK1 Method Blank 0.25	3.46e4	88.6	NO
5	5	13C9-PFNA	B9G0208-BLK1 Method Blank 0.25	2.53e4	94.2	NO
6	6	13C4-PFOS	B9G0208-BLK1 Method Blank 0.25	4.57e3	96.6	NO
7	7	13C6-PFDA	B9G0208-BLK1 Method Blank 0.25	3.23e4	94.7	NO
8	8	13C7-PFUdA	B9G0208-BLK1 Method Blank 0.25	3.87e4	93.2	NO

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Name: 190722M1_33, Date: 22-Jul-2019, Time: 17:07:15, ID: 1902048-10RE1 EB06-070319 0.25028, Description: EB06-070319

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902048-10RE1 EB06-070319 0.25028	1.40e4	131.9	NO
2	2	13C5-PFHxA	1902048-10RE1 EB06-070319 0.25028	2.56e4	82.1	NO
3	3	18O2-PFHxS	1902048-10RE1 EB06-070319 0.25028	2.17e3	106.5	NO
4	4	13C8-PFOA	1902048-10RE1 EB06-070319 0.25028	3.18e4	81.4	NO
5	5	13C9-PFNA	1902048-10RE1 EB06-070319 0.25028	2.25e4	83.7	NO
6	6	13C4-PFOS	1902048-10RE1 EB06-070319 0.25028	5.06e3	106.9	NO
7	7	13C6-PFDA	1902048-10RE1 EB06-070319 0.25028	2.97e4	87.2	NO
8	8	13C7-PFUdA	1902048-10RE1 EB06-070319 0.25028	3.77e4	90.8	NO

Name: 190722M1_34, Date: 22-Jul-2019, Time: 17:17:49, ID: 1902049-03RE1 EB07-070819 0.24588, Description: EB07-070819

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902049-03RE1 EB07-070819 0.24588	1.42e4	133.8	NO
2	2	13C5-PFHxA	1902049-03RE1 EB07-070819 0.24588	2.76e4	88.4	NO
3	3	18O2-PFHxS	1902049-03RE1 EB07-070819 0.24588	1.99e3	97.6	NO
4	4	13C8-PFOA	1902049-03RE1 EB07-070819 0.24588	3.54e4	90.8	NO
5	5	13C9-PFNA	1902049-03RE1 EB07-070819 0.24588	2.53e4	93.9	NO
6	6	13C4-PFOS	1902049-03RE1 EB07-070819 0.24588	4.62e3	97.7	NO
7	7	13C6-PFDA	1902049-03RE1 EB07-070819 0.24588	3.34e4	98.0	NO
8	8	13C7-PFUdA	1902049-03RE1 EB07-070819 0.24588	4.09e4	98.5	NO

Name: 190722M1_35, Date: 22-Jul-2019, Time: 17:28:28, ID: 1902049-12RE1 EB08-070919 0.24611, Description: EB08-070919

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902049-12RE1 EB08-070919 0.24611	1.86e4	175.5	YES
2	2	13C5-PFHxA	1902049-12RE1 EB08-070919 0.24611	3.46e4	110.8	NO
3	3	18O2-PFHxS	1902049-12RE1 EB08-070919 0.24611	2.52e3	123.8	NO
4	4	13C8-PFOA	1902049-12RE1 EB08-070919 0.24611	4.39e4	112.5	NO
5	5	13C9-PFNA	1902049-12RE1 EB08-070919 0.24611	3.18e4	118.1	NO
6	6	13C4-PFOS	1902049-12RE1 EB08-070919 0.24611	6.00e3	126.9	NO
7	7	13C6-PFDA	1902049-12RE1 EB08-070919 0.24611	4.23e4	124.1	NO
8	8	13C7-PFUdA	1902049-12RE1 EB08-070919 0.24611	5.16e4	124.2	NO

Name: 190722M1_36, Date: 22-Jul-2019, Time: 17:39:06, ID: 1902158-01 REEPAC1734FS 0.1187, Description: REEPAC1734FS

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902158-01 REEPAC1734FS 0.1187	1.31e4	123.8	NO
2	2	13C5-PFHxA	1902158-01 REEPAC1734FS 0.1187	2.49e4	79.8	NO
3	3	18O2-PFHxS	1902158-01 REEPAC1734FS 0.1187	2.08e3	102.2	NO
4	4	13C8-PFOA	1902158-01 REEPAC1734FS 0.1187	3.01e4	77.2	NO
5	5	13C9-PFNA	1902158-01 REEPAC1734FS 0.1187	2.09e4	77.9	NO
6	6	13C4-PFOS	1902158-01 REEPAC1734FS 0.1187	4.89e3	103.4	NO
7	7	13C6-PFDA	1902158-01 REEPAC1734FS 0.1187	2.86e4	84.0	NO
8	8	13C7-PFUdA	1902158-01 REEPAC1734FS 0.1187	3.46e4	83.2	NO

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Name: 190722M1_37, Date: 22-Jul-2019, Time: 17:49:39, ID: B9G0149-BLK1 Method Blank 1, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0149-BLK1 Method Blank 1	1.52e4	143.4	NO
2	2	13C5-PFHxA	B9G0149-BLK1 Method Blank 1	2.87e4	91.9	NO
3	3	18O2-PFHxS	B9G0149-BLK1 Method Blank 1	1.87e3	92.0	NO
4	4	13C8-PFOA	B9G0149-BLK1 Method Blank 1	2.63e4	67.4	NO
5	5	13C9-PFNA	B9G0149-BLK1 Method Blank 1	1.37e4	50.8	NO
6	6	13C4-PFOS	B9G0149-BLK1 Method Blank 1	2.86e3	60.5	NO
7	7	13C6-PFDA	B9G0149-BLK1 Method Blank 1	9.83e3	28.8	YES
8	8	13C7-PFUdA	B9G0149-BLK1 Method Blank 1	4.11e3	9.9	YES

Name: 190722M1_38, Date: 22-Jul-2019, Time: 18:00:18, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190722M1_39, Date: 22-Jul-2019, Time: 18:10:56, ID: ST190722M1-11 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190722M1-11 PFC CS3 19G1106	1.06e4	100.0	NO
2	2	13C5-PFHxA	ST190722M1-11 PFC CS3 19G1106	3.26e4	104.3	NO
3	3	18O2-PFHxS	ST190722M1-11 PFC CS3 19G1106	2.21e3	108.5	NO
4	4	13C8-PFOA	ST190722M1-11 PFC CS3 19G1106	3.98e4	102.0	NO
5	5	13C9-PFNA	ST190722M1-11 PFC CS3 19G1106	2.80e4	104.2	NO
6	6	13C4-PFOS	ST190722M1-11 PFC CS3 19G1106	5.15e3	108.9	NO
7	7	13C6-PFDA	ST190722M1-11 PFC CS3 19G1106	3.72e4	109.0	NO
8	8	13C7-PFUdA	ST190722M1-11 PFC CS3 19G1106	4.24e4	102.1	NO

Name: 190722M1_40, Date: 22-Jul-2019, Time: 18:21:34, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190722M1_41, Date: 22-Jul-2019, Time: 18:32:07, ID: B9G0183-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0183-BS1 OPR 0.25	1.69e4	159.2	YES
2	2	13C5-PFHxA	B9G0183-BS1 OPR 0.25	3.51e4	112.4	NO
3	3	18O2-PFHxS	B9G0183-BS1 OPR 0.25	2.58e3	126.7	NO
4	4	13C8-PFOA	B9G0183-BS1 OPR 0.25	4.34e4	111.3	NO
5	5	13C9-PFNA	B9G0183-BS1 OPR 0.25	3.16e4	117.5	NO
6	6	13C4-PFOS	B9G0183-BS1 OPR 0.25	6.47e3	136.7	NO
7	7	13C6-PFDA	B9G0183-BS1 OPR 0.25	4.31e4	126.5	NO
8	8	13C7-PFUdA	B9G0183-BS1 OPR 0.25	5.32e4	128.0	NO

Name: 190722M1_42, Date: 22-Jul-2019, Time: 18:42:46, ID: B9G0183-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0183-BLK1 Method Blank 0.25	1.38e4	129.7	NO
2	2	13C5-PFHxA	B9G0183-BLK1 Method Blank 0.25	2.82e4	90.5	NO
3	3	18O2-PFHxS	B9G0183-BLK1 Method Blank 0.25	2.00e3	98.0	NO
4	4	13C8-PFOA	B9G0183-BLK1 Method Blank 0.25	3.61e4	92.6	NO
5	5	13C9-PFNA	B9G0183-BLK1 Method Blank 0.25	2.62e4	97.5	NO
6	6	13C4-PFOS	B9G0183-BLK1 Method Blank 0.25	5.09e3	107.7	NO
7	7	13C6-PFDA	B9G0183-BLK1 Method Blank 0.25	3.37e4	98.9	NO
8	8	13C7-PFUdA	B9G0183-BLK1 Method Blank 0.25	4.24e4	102.1	NO

Name: 190722M1_43, Date: 22-Jul-2019, Time: 18:53:19, ID: 1901661-01RE1 WMP1906180936BRH 0.25118, Description: WMP1906180936BRH

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901661-01RE1 WMP1906180936BRH...	1.19e4	111.9	NO
2	2	13C5-PFHxA	1901661-01RE1 WMP1906180936BRH...	2.48e4	79.4	NO
3	3	18O2-PFHxS	1901661-01RE1 WMP1906180936BRH...	1.99e3	97.5	NO
4	4	13C8-PFOA	1901661-01RE1 WMP1906180936BRH...	2.69e4	68.8	NO
5	5	13C9-PFNA	1901661-01RE1 WMP1906180936BRH...	1.87e4	69.7	NO
6	6	13C4-PFOS	1901661-01RE1 WMP1906180936BRH...	4.14e3	87.5	NO
7	7	13C6-PFDA	1901661-01RE1 WMP1906180936BRH...	2.77e4	81.3	NO
8	8	13C7-PFUdA	1901661-01RE1 WMP1906180936BRH...	3.46e4	83.4	NO

Name: 190722M1_44, Date: 22-Jul-2019, Time: 19:03:58, ID: 1901661-02RE1 WEF1906180942BRH 0.24993, Description: WEF1906180942BRH

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901661-02RE1 WEF1906180942BRH...	9.68e3	91.3	NO
2	2	13C5-PFHxA	1901661-02RE1 WEF1906180942BRH...	1.87e4	59.8	NO
3	3	18O2-PFHxS	1901661-02RE1 WEF1906180942BRH...	1.89e3	92.9	NO
4	4	13C8-PFOA	1901661-02RE1 WEF1906180942BRH...	2.46e4	63.0	NO
5	5	13C9-PFNA	1901661-02RE1 WEF1906180942BRH...	1.74e4	64.6	NO
6	6	13C4-PFOS	1901661-02RE1 WEF1906180942BRH...	4.49e3	94.9	NO
7	7	13C6-PFDA	1901661-02RE1 WEF1906180942BRH...	2.35e4	68.9	NO
8	8	13C7-PFUdA	1901661-02RE1 WEF1906180942BRH...	3.01e4	72.6	NO

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Name: 190722M1_45, Date: 22-Jul-2019, Time: 19:14:36, ID: 1901661-03RE1 WEF1906180957BRH 0.25772, Description: WEF1906180957BRH

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1901661-03RE1 WEF1906180957BRH...	1.23e4	116.2	NO
2	2	13C5-PFHxA	1901661-03RE1 WEF1906180957BRH...	2.38e4	76.4	NO
3	3	18O2-PFHxS	1901661-03RE1 WEF1906180957BRH...	2.27e3	111.4	NO
4	4	13C8-PFOA	1901661-03RE1 WEF1906180957BRH...	2.95e4	75.5	NO
5	5	13C9-PFNA	1901661-03RE1 WEF1906180957BRH...	2.06e4	76.5	NO
6	6	13C4-PFOS	1901661-03RE1 WEF1906180957BRH...	5.40e3	114.2	NO
7	7	13C6-PFDA	1901661-03RE1 WEF1906180957BRH...	2.67e4	78.3	NO
8	8	13C7-PFUdA	1901661-03RE1 WEF1906180957BRH...	3.33e4	80.1	NO

Name: 190722M1_46, Date: 22-Jul-2019, Time: 19:25:09, ID: 1902105-01 6C Discharge 0.24191, Description: 6C Discharge

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902105-01 6C Discharge 0.24191	1.27e4	119.3	NO
2	2	13C5-PFHxA	1902105-01 6C Discharge 0.24191	2.88e4	92.4	NO
3	3	18O2-PFHxS	1902105-01 6C Discharge 0.24191	2.26e3	110.8	NO
4	4	13C8-PFOA	1902105-01 6C Discharge 0.24191	4.01e4	102.8	NO
5	5	13C9-PFNA	1902105-01 6C Discharge 0.24191	2.88e4	107.3	NO
6	6	13C4-PFOS	1902105-01 6C Discharge 0.24191	5.35e3	113.1	NO
7	7	13C6-PFDA	1902105-01 6C Discharge 0.24191	3.68e4	107.8	NO
8	8	13C7-PFUdA	1902105-01 6C Discharge 0.24191	4.47e4	107.7	NO

Name: 190722M1_47, Date: 22-Jul-2019, Time: 19:35:47, ID: 1902105-02 5A Raw Leachate 0.24309, Description: 5A Raw Leachate

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902105-02 5A Raw Leachate 0.24309	6.28e3	59.2	NO
2	2	13C5-PFHxA	1902105-02 5A Raw Leachate 0.24309	1.30e4	41.7	YES
3	3	18O2-PFHxS	1902105-02 5A Raw Leachate 0.24309	1.83e3	89.8	NO
4	4	13C8-PFOA	1902105-02 5A Raw Leachate 0.24309	2.95e4	75.6	NO
5	5	13C9-PFNA	1902105-02 5A Raw Leachate 0.24309	2.50e4	93.2	NO
6	6	13C4-PFOS	1902105-02 5A Raw Leachate 0.24309	4.98e3	105.3	NO
7	7	13C6-PFDA	1902105-02 5A Raw Leachate 0.24309	3.35e4	98.3	NO
8	8	13C7-PFUdA	1902105-02 5A Raw Leachate 0.24309	4.18e4	100.6	NO

Name: 190722M1_48, Date: 22-Jul-2019, Time: 19:46:21, ID: 1902105-03 Field Blank 0.23889, Description: Field Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902105-03 Field Blank 0.23889	1.66e4	156.2	YES
2	2	13C5-PFHxA	1902105-03 Field Blank 0.23889	3.07e4	98.5	NO
3	3	18O2-PFHxS	1902105-03 Field Blank 0.23889	2.13e3	104.7	NO
4	4	13C8-PFOA	1902105-03 Field Blank 0.23889	3.91e4	100.1	NO
5	5	13C9-PFNA	1902105-03 Field Blank 0.23889	2.61e4	97.0	NO
6	6	13C4-PFOS	1902105-03 Field Blank 0.23889	5.21e3	110.0	NO
7	7	13C6-PFDA	1902105-03 Field Blank 0.23889	3.68e4	108.0	NO
8	8	13C7-PFUdA	1902105-03 Field Blank 0.23889	4.57e4	110.0	NO

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Name: 190722M1_49, Date: 22-Jul-2019, Time: 19:56:59, ID: 1902106-01 WT1907110855SK 0.23917, Description: WT1907110855SK

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902106-01 WT1907110855SK 0.23917	1.49e4	140.4	NO
2	2	13C5-PFHxA	1902106-01 WT1907110855SK 0.23917	2.98e4	95.5	NO
3	3	18O2-PFHxS	1902106-01 WT1907110855SK 0.23917	2.01e3	98.4	NO
4	4	13C8-PFOA	1902106-01 WT1907110855SK 0.23917	3.67e4	94.1	NO
5	5	13C9-PFNA	1902106-01 WT1907110855SK 0.23917	2.47e4	91.7	NO
6	6	13C4-PFOS	1902106-01 WT1907110855SK 0.23917	4.73e3	99.9	NO
7	7	13C6-PFDA	1902106-01 WT1907110855SK 0.23917	3.23e4	94.6	NO
8	8	13C7-PFUdA	1902106-01 WT1907110855SK 0.23917	4.14e4	99.6	NO

Name: 190722M1_50, Date: 22-Jul-2019, Time: 20:07:32, ID: 1902106-02 WR1907110930SK 0.24874, Description: WR1907110930SK

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902106-02 WR1907110930SK 0.24874	1.38e4	130.3	NO
2	2	13C5-PFHxA	1902106-02 WR1907110930SK 0.24874	2.70e4	86.5	NO
3	3	18O2-PFHxS	1902106-02 WR1907110930SK 0.24874	1.68e3	82.3	NO
4	4	13C8-PFOA	1902106-02 WR1907110930SK 0.24874	3.33e4	85.3	NO
5	5	13C9-PFNA	1902106-02 WR1907110930SK 0.24874	2.51e4	93.3	NO
6	6	13C4-PFOS	1902106-02 WR1907110930SK 0.24874	4.48e3	94.6	NO
7	7	13C6-PFDA	1902106-02 WR1907110930SK 0.24874	3.16e4	92.5	NO
8	8	13C7-PFUdA	1902106-02 WR1907110930SK 0.24874	3.93e4	94.5	NO

Name: 190722M1_51, Date: 22-Jul-2019, Time: 20:18:10, ID: B9G0153-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0153-BS1 OPR 0.25	1.47e4	139.0	NO
2	2	13C5-PFHxA	B9G0153-BS1 OPR 0.25	2.75e4	88.2	NO
3	3	18O2-PFHxS	B9G0153-BS1 OPR 0.25	1.70e3	83.5	NO
4	4	13C8-PFOA	B9G0153-BS1 OPR 0.25	3.08e4	78.8	NO
5	5	13C9-PFNA	B9G0153-BS1 OPR 0.25	1.81e4	67.4	NO
6	6	13C4-PFOS	B9G0153-BS1 OPR 0.25	2.85e3	60.1	NO
7	7	13C6-PFDA	B9G0153-BS1 OPR 0.25	1.48e4	43.4	YES
8	8	13C7-PFUdA	B9G0153-BS1 OPR 0.25	5.60e3	13.5	YES

Name: 190722M1_52, Date: 22-Jul-2019, Time: 20:28:44, ID: B9G0153-BSD1 LCSD 0.25, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0153-BSD1 LCSD 0.25	1.36e4	128.3	NO
2	2	13C5-PFHxA	B9G0153-BSD1 LCSD 0.25	2.51e4	80.4	NO
3	3	18O2-PFHxS	B9G0153-BSD1 LCSD 0.25	1.80e3	88.4	NO
4	4	13C8-PFOA	B9G0153-BSD1 LCSD 0.25	2.68e4	68.6	NO
5	5	13C9-PFNA	B9G0153-BSD1 LCSD 0.25	1.56e4	58.0	NO
6	6	13C4-PFOS	B9G0153-BSD1 LCSD 0.25	2.84e3	60.1	NO
7	7	13C6-PFDA	B9G0153-BSD1 LCSD 0.25	1.33e4	38.9	YES
8	8	13C7-PFUdA	B9G0153-BSD1 LCSD 0.25	6.16e3	14.8	YES

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Name: 190722M1_53, Date: 22-Jul-2019, Time: 20:39:22, ID: B9G0153-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0153-BLK1 Method Blank 0.25	1.61e4	151.5	YES
2	2	13C5-PFHxA	B9G0153-BLK1 Method Blank 0.25	2.82e4	90.5	NO
3	3	18O2-PFHxS	B9G0153-BLK1 Method Blank 0.25	1.71e3	83.9	NO
4	4	13C8-PFOA	B9G0153-BLK1 Method Blank 0.25	2.69e4	68.8	NO
5	5	13C9-PFNA	B9G0153-BLK1 Method Blank 0.25	1.48e4	55.1	NO
6	6	13C4-PFOS	B9G0153-BLK1 Method Blank 0.25	2.47e3	52.2	NO
7	7	13C6-PFDA	B9G0153-BLK1 Method Blank 0.25	1.04e4	30.5	YES
8	8	13C7-PFUdA	B9G0153-BLK1 Method Blank 0.25	2.77e3	6.7	YES

Name: 190722M1_54, Date: 22-Jul-2019, Time: 20:49:55, ID: 1902048-10 EB06-070319 0.2586, Description: EB06-070319

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902048-10 EB06-070319 0.2586	1.27e4	119.4	NO
2	2	13C5-PFHxA	1902048-10 EB06-070319 0.2586	2.44e4	78.1	NO
3	3	18O2-PFHxS	1902048-10 EB06-070319 0.2586	1.62e3	79.3	NO
4	4	13C8-PFOA	1902048-10 EB06-070319 0.2586	2.68e4	68.5	NO
5	5	13C9-PFNA	1902048-10 EB06-070319 0.2586	1.59e4	59.0	NO
6	6	13C4-PFOS	1902048-10 EB06-070319 0.2586	2.69e3	56.8	NO
7	7	13C6-PFDA	1902048-10 EB06-070319 0.2586	1.55e4	45.3	YES
8	8	13C7-PFUdA	1902048-10 EB06-070319 0.2586	7.98e3	19.2	YES

Name: 190722M1_55, Date: 22-Jul-2019, Time: 21:00:33, ID: 1902049-03 EB07-070819 0.25547, Description: EB07-070819

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902049-03 EB07-070819 0.25547	1.53e4	144.3	NO
2	2	13C5-PFHxA	1902049-03 EB07-070819 0.25547	2.69e4	86.2	NO
3	3	18O2-PFHxS	1902049-03 EB07-070819 0.25547	1.83e3	89.7	NO
4	4	13C8-PFOA	1902049-03 EB07-070819 0.25547	2.87e4	73.6	NO
5	5	13C9-PFNA	1902049-03 EB07-070819 0.25547	1.78e4	66.1	NO
6	6	13C4-PFOS	1902049-03 EB07-070819 0.25547	2.74e3	57.9	NO
7	7	13C6-PFDA	1902049-03 EB07-070819 0.25547	1.44e4	42.3	YES
8	8	13C7-PFUdA	1902049-03 EB07-070819 0.25547	5.60e3	13.5	YES

Name: 190722M1_56, Date: 22-Jul-2019, Time: 21:11:11, ID: 1902049-12 EB08-070919 0.25637, Description: EB08-070919

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902049-12 EB08-070919 0.25637	1.42e4	134.3	NO
2	2	13C5-PFHxA	1902049-12 EB08-070919 0.25637	2.64e4	84.6	NO
3	3	18O2-PFHxS	1902049-12 EB08-070919 0.25637	1.62e3	79.4	NO
4	4	13C8-PFOA	1902049-12 EB08-070919 0.25637	2.82e4	72.4	NO
5	5	13C9-PFNA	1902049-12 EB08-070919 0.25637	1.65e4	61.3	NO
6	6	13C4-PFOS	1902049-12 EB08-070919 0.25637	2.22e3	47.0	YES
7	7	13C6-PFDA	1902049-12 EB08-070919 0.25637	1.18e4	34.6	YES
8	8	13C7-PFUdA	1902049-12 EB08-070919 0.25637	3.65e3	8.8	YES

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Name: 190722M1_57, Date: 22-Jul-2019, Time: 21:21:45, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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	2.00e1	0.0	YES

Name: 190722M1_58, Date: 22-Jul-2019, Time: 21:32:24, ID: ST190722M1-12 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190722M1-12 PFC CS3 19G1106	1.12e4	105.9	NO
2	2	13C5-PFHxA	ST190722M1-12 PFC CS3 19G1106	3.41e4	109.2	NO
3	3	18O2-PFHxS	ST190722M1-12 PFC CS3 19G1106	2.11e3	103.5	NO
4	4	13C8-PFOA	ST190722M1-12 PFC CS3 19G1106	4.09e4	104.8	NO
5	5	13C9-PFNA	ST190722M1-12 PFC CS3 19G1106	2.80e4	104.1	NO
6	6	13C4-PFOS	ST190722M1-12 PFC CS3 19G1106	5.27e3	111.4	NO
7	7	13C6-PFDA	ST190722M1-12 PFC CS3 19G1106	3.76e4	110.3	NO
8	8	13C7-PFUdA	ST190722M1-12 PFC CS3 19G1106	4.43e4	106.7	NO

Name: 190722M1_59, Date: 22-Jul-2019, Time: 21:43:02, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190722M1_60, Date: 22-Jul-2019, Time: 21:53:36, ID: B9G0134-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0134-BS1 OPR 0.25	1.40e4	131.7	NO
2	2	13C5-PFHxA	B9G0134-BS1 OPR 0.25	2.63e4	84.3	NO
3	3	18O2-PFHxS	B9G0134-BS1 OPR 0.25	1.89e3	92.8	NO
4	4	13C8-PFOA	B9G0134-BS1 OPR 0.25	3.29e4	84.2	NO
5	5	13C9-PFNA	B9G0134-BS1 OPR 0.25	2.39e4	88.8	NO
6	6	13C4-PFOS	B9G0134-BS1 OPR 0.25	4.54e3	96.0	NO
7	7	13C6-PFDA	B9G0134-BS1 OPR 0.25	3.18e4	93.3	NO
8	8	13C7-PFUdA	B9G0134-BS1 OPR 0.25	3.76e4	90.5	NO

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Name: 190722M1_61, Date: 22-Jul-2019, Time: 22:04:14, ID: B9G0134-BSD1 LCSD 0.25, Description: LCSD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0134-BSD1 LCSD 0.25	1.52e4	143.4	NO
2	2	13C5-PFHxA	B9G0134-BSD1 LCSD 0.25	2.92e4	93.5	NO
3	3	18O2-PFHxS	B9G0134-BSD1 LCSD 0.25	1.89e3	92.7	NO
4	4	13C8-PFOA	B9G0134-BSD1 LCSD 0.25	3.50e4	89.7	NO
5	5	13C9-PFNA	B9G0134-BSD1 LCSD 0.25	2.54e4	94.4	NO
6	6	13C4-PFOS	B9G0134-BSD1 LCSD 0.25	4.72e3	99.8	NO
7	7	13C6-PFDA	B9G0134-BSD1 LCSD 0.25	3.40e4	99.8	NO
8	8	13C7-PFUdA	B9G0134-BSD1 LCSD 0.25	3.96e4	95.3	NO

Name: 190722M1_62, Date: 22-Jul-2019, Time: 22:14:52, ID: B9G0134-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0134-BLK1 Method Blank 0.25	1.51e4	142.0	NO
2	2	13C5-PFHxA	B9G0134-BLK1 Method Blank 0.25	2.94e4	94.2	NO
3	3	18O2-PFHxS	B9G0134-BLK1 Method Blank 0.25	2.01e3	98.7	NO
4	4	13C8-PFOA	B9G0134-BLK1 Method Blank 0.25	3.74e4	95.8	NO
5	5	13C9-PFNA	B9G0134-BLK1 Method Blank 0.25	2.62e4	97.5	NO
6	6	13C4-PFOS	B9G0134-BLK1 Method Blank 0.25	4.73e3	99.9	NO
7	7	13C6-PFDA	B9G0134-BLK1 Method Blank 0.25	3.36e4	98.6	NO
8	8	13C7-PFUdA	B9G0134-BLK1 Method Blank 0.25	4.12e4	99.3	NO

Name: 190722M1_63, Date: 22-Jul-2019, Time: 22:25:25, ID: 1902003-01 REEPIN1709FS 0.11638, Description: REEPIN1709FS

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902003-01 REEPIN1709FS 0.11638	1.23e4	116.2	NO
2	2	13C5-PFHxA	1902003-01 REEPIN1709FS 0.11638	2.65e4	84.8	NO
3	3	18O2-PFHxS	1902003-01 REEPIN1709FS 0.11638	2.07e3	101.6	NO
4	4	13C8-PFOA	1902003-01 REEPIN1709FS 0.11638	3.41e4	87.3	NO
5	5	13C9-PFNA	1902003-01 REEPIN1709FS 0.11638	2.38e4	88.7	NO
6	6	13C4-PFOS	1902003-01 REEPIN1709FS 0.11638	4.96e3	104.8	NO
7	7	13C6-PFDA	1902003-01 REEPIN1709FS 0.11638	3.18e4	93.3	NO
8	8	13C7-PFUdA	1902003-01 REEPIN1709FS 0.11638	4.04e4	97.2	NO

Name: 190722M1_64, Date: 22-Jul-2019, Time: 22:36:03, ID: 1902014-03 FRB-07032019 0.11634, Description: FRB-07032019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-03 FRB-07032019 0.11634	1.08e4	102.0	NO
2	2	13C5-PFHxA	1902014-03 FRB-07032019 0.11634	2.48e4	79.4	NO
3	3	18O2-PFHxS	1902014-03 FRB-07032019 0.11634	1.89e3	92.7	NO
4	4	13C8-PFOA	1902014-03 FRB-07032019 0.11634	3.05e4	78.0	NO
5	5	13C9-PFNA	1902014-03 FRB-07032019 0.11634	2.25e4	83.6	NO
6	6	13C4-PFOS	1902014-03 FRB-07032019 0.11634	4.53e3	95.8	NO
7	7	13C6-PFDA	1902014-03 FRB-07032019 0.11634	2.96e4	86.8	NO
8	8	13C7-PFUdA	1902014-03 FRB-07032019 0.11634	3.74e4	90.1	NO

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Name: 190722M1_65, Date: 22-Jul-2019, Time: 22:46:42, ID: 1902014-04 EB-07032019 0.1175, Description: EB-07032019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-04 EB-07032019 0.1175	1.36e4	127.8	NO
2	2	13C5-PFHxA	1902014-04 EB-07032019 0.1175	2.84e4	90.9	NO
3	3	18O2-PFHxS	1902014-04 EB-07032019 0.1175	1.94e3	95.3	NO
4	4	13C8-PFOA	1902014-04 EB-07032019 0.1175	3.56e4	91.2	NO
5	5	13C9-PFNA	1902014-04 EB-07032019 0.1175	2.48e4	92.2	NO
6	6	13C4-PFOS	1902014-04 EB-07032019 0.1175	4.52e3	95.6	NO
7	7	13C6-PFDA	1902014-04 EB-07032019 0.1175	3.29e4	96.5	NO
8	8	13C7-PFUdA	1902014-04 EB-07032019 0.1175	3.97e4	95.5	NO

Name: 190722M1_66, Date: 22-Jul-2019, Time: 22:57:14, ID: 1902014-08 FRB-07082019 0.11724, Description: FRB-07082019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-08 FRB-07082019 0.11724	1.36e4	128.4	NO
2	2	13C5-PFHxA	1902014-08 FRB-07082019 0.11724	2.84e4	90.9	NO
3	3	18O2-PFHxS	1902014-08 FRB-07082019 0.11724	2.01e3	98.8	NO
4	4	13C8-PFOA	1902014-08 FRB-07082019 0.11724	3.52e4	90.2	NO
5	5	13C9-PFNA	1902014-08 FRB-07082019 0.11724	2.56e4	95.2	NO
6	6	13C4-PFOS	1902014-08 FRB-07082019 0.11724	4.97e3	105.1	NO
7	7	13C6-PFDA	1902014-08 FRB-07082019 0.11724	3.49e4	102.2	NO
8	8	13C7-PFUdA	1902014-08 FRB-07082019 0.11724	4.01e4	96.6	NO

Name: 190722M1_67, Date: 22-Jul-2019, Time: 23:07:44, ID: 1902014-09 CAOA-B01-GW 0.12758, Description: CAOA-B01-GW

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-09 CAOA-B01-GW 0.12758	1.07e4	100.8	NO
2	2	13C5-PFHxA	1902014-09 CAOA-B01-GW 0.12758	2.31e4	73.9	NO
3	3	18O2-PFHxS	1902014-09 CAOA-B01-GW 0.12758	2.02e3	99.2	NO
4	4	13C8-PFOA	1902014-09 CAOA-B01-GW 0.12758	3.39e4	87.0	NO
5	5	13C9-PFNA	1902014-09 CAOA-B01-GW 0.12758	2.41e4	89.7	NO
6	6	13C4-PFOS	1902014-09 CAOA-B01-GW 0.12758	4.73e3	99.9	NO
7	7	13C6-PFDA	1902014-09 CAOA-B01-GW 0.12758	3.23e4	94.6	NO
8	8	13C7-PFUdA	1902014-09 CAOA-B01-GW 0.12758	3.95e4	95.1	NO

Name: 190722M1_68, Date: 22-Jul-2019, Time: 23:18:22, ID: 1902014-10 EB-07082019 0.11822, Description: EB-07082019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-10 EB-07082019 0.11822	1.40e4	131.6	NO
2	2	13C5-PFHxA	1902014-10 EB-07082019 0.11822	2.97e4	95.2	NO
3	3	18O2-PFHxS	1902014-10 EB-07082019 0.11822	2.03e3	99.7	NO
4	4	13C8-PFOA	1902014-10 EB-07082019 0.11822	3.72e4	95.3	NO
5	5	13C9-PFNA	1902014-10 EB-07082019 0.11822	2.64e4	98.3	NO
6	6	13C4-PFOS	1902014-10 EB-07082019 0.11822	4.99e3	105.4	NO
7	7	13C6-PFDA	1902014-10 EB-07082019 0.11822	3.48e4	102.1	NO
8	8	13C7-PFUdA	1902014-10 EB-07082019 0.11822	4.32e4	104.1	NO

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Name: 190722M1_69, Date: 22-Jul-2019, Time: 23:28:55, ID: 1902035-01 SWIN1907010900GGA 0.23211, Description: SWIN1907010900GGA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902035-01 SWIN1907010900GGA 0.2...	1.39e4	130.7	NO
2	2	13C5-PFHxA	1902035-01 SWIN1907010900GGA 0.2...	2.59e4	82.9	NO
3	3	18O2-PFHxS	1902035-01 SWIN1907010900GGA 0.2...	1.78e3	87.6	NO
4	4	13C8-PFOA	1902035-01 SWIN1907010900GGA 0.2...	3.19e4	81.7	NO
5	5	13C9-PFNA	1902035-01 SWIN1907010900GGA 0.2...	2.32e4	86.1	NO
6	6	13C4-PFOS	1902035-01 SWIN1907010900GGA 0.2...	4.12e3	87.0	NO
7	7	13C6-PFDA	1902035-01 SWIN1907010900GGA 0.2...	2.91e4	85.4	NO
8	8	13C7-PFUdA	1902035-01 SWIN1907010900GGA 0.2...	3.53e4	85.0	NO

Name: 190722M1_70, Date: 22-Jul-2019, Time: 23:39:34, ID: 1902036-01 SWIN1907011000GGA 0.24039, Description: SWIN1907011000GGA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902036-01 SWIN1907011000GGA 0.2...	1.64e4	154.9	YES
2	2	13C5-PFHxA	1902036-01 SWIN1907011000GGA 0.2...	2.98e4	95.4	NO
3	3	18O2-PFHxS	1902036-01 SWIN1907011000GGA 0.2...	2.00e3	98.3	NO
4	4	13C8-PFOA	1902036-01 SWIN1907011000GGA 0.2...	3.63e4	93.0	NO
5	5	13C9-PFNA	1902036-01 SWIN1907011000GGA 0.2...	2.60e4	96.5	NO
6	6	13C4-PFOS	1902036-01 SWIN1907011000GGA 0.2...	4.67e3	98.6	NO
7	7	13C6-PFDA	1902036-01 SWIN1907011000GGA 0.2...	3.38e4	99.2	NO
8	8	13C7-PFUdA	1902036-01 SWIN1907011000GGA 0.2...	3.99e4	96.0	NO

Name: 190722M1_71, Date: 22-Jul-2019, Time: 23:50:07, ID: 1902037-01 SWIN1907011400GGA 0.23721, Description: SWIN1907011400GGA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902037-01 SWIN1907011400GGA 0.2...	1.46e4	138.1	NO
2	2	13C5-PFHxA	1902037-01 SWIN1907011400GGA 0.2...	2.88e4	92.1	NO
3	3	18O2-PFHxS	1902037-01 SWIN1907011400GGA 0.2...	1.92e3	94.0	NO
4	4	13C8-PFOA	1902037-01 SWIN1907011400GGA 0.2...	3.49e4	89.3	NO
5	5	13C9-PFNA	1902037-01 SWIN1907011400GGA 0.2...	2.40e4	89.2	NO
6	6	13C4-PFOS	1902037-01 SWIN1907011400GGA 0.2...	4.68e3	98.9	NO
7	7	13C6-PFDA	1902037-01 SWIN1907011400GGA 0.2...	3.20e4	93.8	NO
8	8	13C7-PFUdA	1902037-01 SWIN1907011400GGA 0.2...	3.79e4	91.3	NO

Name: 190722M1_72, Date: 23-Jul-2019, Time: 00:00:45, ID: 1902038-01 SWIN1907020900GGA 0.23487, Description: SWIN1907020900GGA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902038-01 SWIN1907020900GGA 0.2...	1.52e4	143.7	NO
2	2	13C5-PFHxA	1902038-01 SWIN1907020900GGA 0.2...	2.98e4	95.6	NO
3	3	18O2-PFHxS	1902038-01 SWIN1907020900GGA 0.2...	2.03e3	99.6	NO
4	4	13C8-PFOA	1902038-01 SWIN1907020900GGA 0.2...	3.66e4	93.8	NO
5	5	13C9-PFNA	1902038-01 SWIN1907020900GGA 0.2...	2.64e4	98.2	NO
6	6	13C4-PFOS	1902038-01 SWIN1907020900GGA 0.2...	4.87e3	102.9	NO
7	7	13C6-PFDA	1902038-01 SWIN1907020900GGA 0.2...	3.41e4	100.0	NO
8	8	13C7-PFUdA	1902038-01 SWIN1907020900GGA 0.2...	3.97e4	95.6	NO

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Name: 190722M1_73, Date: 23-Jul-2019, Time: 00:11:18, ID: 1902039-01 SWIN1907021000GGA 0.22004, Description: SWIN1907021000GGA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902039-01 SWIN1907021000GGA 0.2...	1.58e4	148.8	NO
2	2	13C5-PFHxA	1902039-01 SWIN1907021000GGA 0.2...	2.98e4	95.5	NO
3	3	18O2-PFHxS	1902039-01 SWIN1907021000GGA 0.2...	2.02e3	99.1	NO
4	4	13C8-PFOA	1902039-01 SWIN1907021000GGA 0.2...	3.68e4	94.3	NO
5	5	13C9-PFNA	1902039-01 SWIN1907021000GGA 0.2...	2.57e4	95.4	NO
6	6	13C4-PFOS	1902039-01 SWIN1907021000GGA 0.2...	4.79e3	101.3	NO
7	7	13C6-PFDA	1902039-01 SWIN1907021000GGA 0.2...	3.45e4	101.3	NO
8	8	13C7-PFUdA	1902039-01 SWIN1907021000GGA 0.2...	4.16e4	100.2	NO

Name: 190722M1_74, Date: 23-Jul-2019, Time: 00:21:56, ID: 1902040-01 SWIN1907021100GGA 0.25691, Description: SWIN1907021100GGA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902040-01 SWIN1907021100GGA 0.2...	1.43e4	134.9	NO
2	2	13C5-PFHxA	1902040-01 SWIN1907021100GGA 0.2...	2.74e4	87.8	NO
3	3	18O2-PFHxS	1902040-01 SWIN1907021100GGA 0.2...	1.99e3	97.5	NO
4	4	13C8-PFOA	1902040-01 SWIN1907021100GGA 0.2...	3.55e4	90.9	NO
5	5	13C9-PFNA	1902040-01 SWIN1907021100GGA 0.2...	2.49e4	92.8	NO
6	6	13C4-PFOS	1902040-01 SWIN1907021100GGA 0.2...	4.75e3	100.5	NO
7	7	13C6-PFDA	1902040-01 SWIN1907021100GGA 0.2...	3.42e4	100.2	NO
8	8	13C7-PFUdA	1902040-01 SWIN1907021100GGA 0.2...	4.07e4	97.9	NO

Name: 190722M1_75, Date: 23-Jul-2019, Time: 00:32:34, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190722M1_76, Date: 23-Jul-2019, Time: 00:43:07, ID: ST190722M1-13 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190722M1-13 PFC CS3 19G1106	1.10e4	103.6	NO
2	2	13C5-PFHxA	ST190722M1-13 PFC CS3 19G1106	3.49e4	111.8	NO
3	3	18O2-PFHxS	ST190722M1-13 PFC CS3 19G1106	2.18e3	107.0	NO
4	4	13C8-PFOA	ST190722M1-13 PFC CS3 19G1106	4.01e4	102.9	NO
5	5	13C9-PFNA	ST190722M1-13 PFC CS3 19G1106	2.84e4	105.6	NO
6	6	13C4-PFOS	ST190722M1-13 PFC CS3 19G1106	5.21e3	110.1	NO
7	7	13C6-PFDA	ST190722M1-13 PFC CS3 19G1106	3.60e4	105.4	NO
8	8	13C7-PFUdA	ST190722M1-13 PFC CS3 19G1106	4.36e4	104.9	NO

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Name: 190722M1_77, Date: 23-Jul-2019, Time: 00:53:46, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190722M1_78, Date: 23-Jul-2019, Time: 01:04:19, ID: B9G0114-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0114-BS1 OPR 0.25	1.83e4	172.6	YES
2	2	13C5-PFHxA	B9G0114-BS1 OPR 0.25	3.41e4	109.3	NO
3	3	18O2-PFHxS	B9G0114-BS1 OPR 0.25	2.15e3	105.6	NO
4	4	13C8-PFOA	B9G0114-BS1 OPR 0.25	4.12e4	105.5	NO
5	5	13C9-PFNA	B9G0114-BS1 OPR 0.25	2.80e4	104.1	NO
6	6	13C4-PFOS	B9G0114-BS1 OPR 0.25	5.15e3	108.9	NO
7	7	13C6-PFDA	B9G0114-BS1 OPR 0.25	3.71e4	108.7	NO
8	8	13C7-PFUdA	B9G0114-BS1 OPR 0.25	4.55e4	109.5	NO

Name: 190722M1_79, Date: 23-Jul-2019, Time: 01:14:57, ID: B9G0114-BLK1 Method Blank 0.25, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0114-BLK1 Method Blank 0.25	1.75e4	165.1	YES
2	2	13C5-PFHxA	B9G0114-BLK1 Method Blank 0.25	3.52e4	112.6	NO
3	3	18O2-PFHxS	B9G0114-BLK1 Method Blank 0.25	2.26e3	110.7	NO
4	4	13C8-PFOA	B9G0114-BLK1 Method Blank 0.25	4.26e4	109.3	NO
5	5	13C9-PFNA	B9G0114-BLK1 Method Blank 0.25	2.98e4	110.8	NO
6	6	13C4-PFOS	B9G0114-BLK1 Method Blank 0.25	5.37e3	113.5	NO
7	7	13C6-PFDA	B9G0114-BLK1 Method Blank 0.25	3.80e4	111.3	NO
8	8	13C7-PFUdA	B9G0114-BLK1 Method Blank 0.25	4.66e4	112.2	NO

Name: 190722M1_80, Date: 23-Jul-2019, Time: 01:25:35, ID: 1902005-01 SW1907030930GSC 0.23037, Description: SW1907030930GSC

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902005-01 SW1907030930GSC 0.230...	1.47e4	138.4	NO
2	2	13C5-PFHxA	1902005-01 SW1907030930GSC 0.230...	2.89e4	92.5	NO
3	3	18O2-PFHxS	1902005-01 SW1907030930GSC 0.230...	2.10e3	103.1	NO
4	4	13C8-PFOA	1902005-01 SW1907030930GSC 0.230...	3.62e4	92.8	NO
5	5	13C9-PFNA	1902005-01 SW1907030930GSC 0.230...	2.62e4	97.4	NO
6	6	13C4-PFOS	1902005-01 SW1907030930GSC 0.230...	4.91e3	103.8	NO
7	7	13C6-PFDA	1902005-01 SW1907030930GSC 0.230...	3.48e4	102.0	NO
8	8	13C7-PFUdA	1902005-01 SW1907030930GSC 0.230...	4.12e4	99.1	NO

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Name: 190722M1_81, Date: 23-Jul-2019, Time: 01:36:09, ID: 1902005-02 EB1907030930GSC 0.25182, Description: EB1907030930GSC

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902005-02 EB1907030930GSC 0.25182	1.87e4	176.6	YES
2	2	13C5-PFHxA	1902005-02 EB1907030930GSC 0.25182	3.73e4	119.6	NO
3	3	18O2-PFHxS	1902005-02 EB1907030930GSC 0.25182	2.75e3	135.2	NO
4	4	13C8-PFOA	1902005-02 EB1907030930GSC 0.25182	4.75e4	121.7	NO
5	5	13C9-PFNA	1902005-02 EB1907030930GSC 0.25182	3.39e4	126.1	NO
6	6	13C4-PFOS	1902005-02 EB1907030930GSC 0.25182	6.14e3	129.8	NO
7	7	13C6-PFDA	1902005-02 EB1907030930GSC 0.25182	4.46e4	130.7	NO
8	8	13C7-PFUdA	1902005-02 EB1907030930GSC 0.25182	5.48e4	131.8	NO

Name: 190722M1_82, Date: 23-Jul-2019, Time: 01:46:47, ID: 1902005-03 SW1907030950GSC 0.22959, Description: SW1907030950GSC

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902005-03 SW1907030950GSC 0.229...	1.74e4	163.6	YES
2	2	13C5-PFHxA	1902005-03 SW1907030950GSC 0.229...	3.37e4	107.9	NO
3	3	18O2-PFHxS	1902005-03 SW1907030950GSC 0.229...	2.50e3	122.6	NO
4	4	13C8-PFOA	1902005-03 SW1907030950GSC 0.229...	4.29e4	109.9	NO
5	5	13C9-PFNA	1902005-03 SW1907030950GSC 0.229...	3.01e4	111.8	NO
6	6	13C4-PFOS	1902005-03 SW1907030950GSC 0.229...	5.57e3	117.8	NO
7	7	13C6-PFDA	1902005-03 SW1907030950GSC 0.229...	3.93e4	115.3	NO
8	8	13C7-PFUdA	1902005-03 SW1907030950GSC 0.229...	4.90e4	118.0	NO

Name: 190722M1_83, Date: 23-Jul-2019, Time: 01:57:19, ID: 1902005-04 SW1907031020GSC 0.21921, Description: SW1907031020GSC

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902005-04 SW1907031020GSC 0.219...	1.66e4	156.0	YES
2	2	13C5-PFHxA	1902005-04 SW1907031020GSC 0.219...	3.21e4	102.9	NO
3	3	18O2-PFHxS	1902005-04 SW1907031020GSC 0.219...	2.23e3	109.5	NO
4	4	13C8-PFOA	1902005-04 SW1907031020GSC 0.219...	4.04e4	103.5	NO
5	5	13C9-PFNA	1902005-04 SW1907031020GSC 0.219...	2.91e4	108.2	NO
6	6	13C4-PFOS	1902005-04 SW1907031020GSC 0.219...	5.48e3	115.8	NO
7	7	13C6-PFDA	1902005-04 SW1907031020GSC 0.219...	3.78e4	111.0	NO
8	8	13C7-PFUdA	1902005-04 SW1907031020GSC 0.219...	4.57e4	110.0	NO

Name: 190722M1_84, Date: 23-Jul-2019, Time: 02:07:58, ID: 1902006-01 GWIN1907020935GSC 0.23844, Description: GWIN1907020935GSC

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902006-01 GWIN1907020935GSC 0.2...	1.72e4	161.9	YES
2	2	13C5-PFHxA	1902006-01 GWIN1907020935GSC 0.2...	3.22e4	103.1	NO
3	3	18O2-PFHxS	1902006-01 GWIN1907020935GSC 0.2...	2.07e3	101.8	NO
4	4	13C8-PFOA	1902006-01 GWIN1907020935GSC 0.2...	3.82e4	97.9	NO
5	5	13C9-PFNA	1902006-01 GWIN1907020935GSC 0.2...	2.76e4	102.6	NO
6	6	13C4-PFOS	1902006-01 GWIN1907020935GSC 0.2...	4.74e3	100.2	NO
7	7	13C6-PFDA	1902006-01 GWIN1907020935GSC 0.2...	3.57e4	104.7	NO
8	8	13C7-PFUdA	1902006-01 GWIN1907020935GSC 0.2...	4.26e4	102.6	NO

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Name: 190722M1_85, Date: 23-Jul-2019, Time: 02:18:36, ID: 1902007-01 SWIN1907021055GSC 0.24055, Description: SWIN1907021055GSC

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902007-01 SWIN1907021055GSC 0.2...	1.85e4	174.4	YES
2	2	13C5-PFHxA	1902007-01 SWIN1907021055GSC 0.2...	3.74e4	120.0	NO
3	3	18O2-PFHxS	1902007-01 SWIN1907021055GSC 0.2...	2.30e3	112.9	NO
4	4	13C8-PFOA	1902007-01 SWIN1907021055GSC 0.2...	4.52e4	115.8	NO
5	5	13C9-PFNA	1902007-01 SWIN1907021055GSC 0.2...	3.28e4	121.8	NO
6	6	13C4-PFOS	1902007-01 SWIN1907021055GSC 0.2...	6.11e3	129.2	NO
7	7	13C6-PFDA	1902007-01 SWIN1907021055GSC 0.2...	4.27e4	125.3	NO
8	8	13C7-PFUdA	1902007-01 SWIN1907021055GSC 0.2...	4.97e4	119.7	NO

Name: 190722M1_86, Date: 23-Jul-2019, Time: 02:29:09, ID: 1902008-01 SWIN1907021315GSC 0.24174, Description: SWIN1907021315GSC

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902008-01 SWIN1907021315GSC 0.2...	1.78e4	168.0	YES
2	2	13C5-PFHxA	1902008-01 SWIN1907021315GSC 0.2...	3.34e4	107.0	NO
3	3	18O2-PFHxS	1902008-01 SWIN1907021315GSC 0.2...	2.14e3	105.3	NO
4	4	13C8-PFOA	1902008-01 SWIN1907021315GSC 0.2...	3.89e4	99.8	NO
5	5	13C9-PFNA	1902008-01 SWIN1907021315GSC 0.2...	2.76e4	102.7	NO
6	6	13C4-PFOS	1902008-01 SWIN1907021315GSC 0.2...	5.23e3	110.6	NO
7	7	13C6-PFDA	1902008-01 SWIN1907021315GSC 0.2...	3.72e4	108.9	NO
8	8	13C7-PFUdA	1902008-01 SWIN1907021315GSC 0.2...	4.45e4	107.0	NO

Name: 190722M1_87, Date: 23-Jul-2019, Time: 02:39:48, ID: 1902009-01 SWIN1907021500GSC 0.24302, Description: SWIN1907021500GSC

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902009-01 SWIN1907021500GSC 0.2...	1.88e4	177.7	YES
2	2	13C5-PFHxA	1902009-01 SWIN1907021500GSC 0.2...	3.58e4	114.6	NO
3	3	18O2-PFHxS	1902009-01 SWIN1907021500GSC 0.2...	2.40e3	117.7	NO
4	4	13C8-PFOA	1902009-01 SWIN1907021500GSC 0.2...	4.32e4	110.8	NO
5	5	13C9-PFNA	1902009-01 SWIN1907021500GSC 0.2...	2.99e4	111.3	NO
6	6	13C4-PFOS	1902009-01 SWIN1907021500GSC 0.2...	5.35e3	113.1	NO
7	7	13C6-PFDA	1902009-01 SWIN1907021500GSC 0.2...	3.85e4	112.9	NO
8	8	13C7-PFUdA	1902009-01 SWIN1907021500GSC 0.2...	4.62e4	111.2	NO

Name: 190722M1_88, Date: 23-Jul-2019, Time: 02:50:21, ID: 1902009-02 SWIN1907021500GSC-FD 0.24258, Description: SWIN1907021500GSC-FD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902009-02 SWIN1907021500GSC-FD...	1.85e4	174.1	YES
2	2	13C5-PFHxA	1902009-02 SWIN1907021500GSC-FD...	3.65e4	116.9	NO
3	3	18O2-PFHxS	1902009-02 SWIN1907021500GSC-FD...	2.31e3	113.4	NO
4	4	13C8-PFOA	1902009-02 SWIN1907021500GSC-FD...	4.36e4	111.7	NO
5	5	13C9-PFNA	1902009-02 SWIN1907021500GSC-FD...	3.08e4	114.7	NO
6	6	13C4-PFOS	1902009-02 SWIN1907021500GSC-FD...	5.88e3	124.3	NO
7	7	13C6-PFDA	1902009-02 SWIN1907021500GSC-FD...	3.94e4	115.5	NO
8	8	13C7-PFUdA	1902009-02 SWIN1907021500GSC-FD...	4.91e4	118.1	NO

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Name: 190722M1_89, Date: 23-Jul-2019, Time: 03:01:00, ID: 1902019-01 SWIN1906271100GGA 0.23337, Description: SWIN1906271100GGA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902019-01 SWIN1906271100GGA 0.2...	1.44e4	135.5	NO
2	2	13C5-PFHxA	1902019-01 SWIN1906271100GGA 0.2...	2.84e4	90.9	NO
3	3	18O2-PFHxS	1902019-01 SWIN1906271100GGA 0.2...	1.87e3	91.7	NO
4	4	13C8-PFOA	1902019-01 SWIN1906271100GGA 0.2...	3.46e4	88.7	NO
5	5	13C9-PFNA	1902019-01 SWIN1906271100GGA 0.2...	2.41e4	89.6	NO
6	6	13C4-PFOS	1902019-01 SWIN1906271100GGA 0.2...	4.59e3	97.1	NO
7	7	13C6-PFDA	1902019-01 SWIN1906271100GGA 0.2...	3.15e4	92.5	NO
8	8	13C7-PFUdA	1902019-01 SWIN1906271100GGA 0.2...	3.80e4	91.3	NO

Name: 190722M1_90, Date: 23-Jul-2019, Time: 03:11:33, ID: 1902020-01 SWIN1906271400GGA 0.22976, Description: SWIN1906271400GGA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902020-01 SWIN1906271400GGA 0.2...	1.43e4	135.2	NO
2	2	13C5-PFHxA	1902020-01 SWIN1906271400GGA 0.2...	2.77e4	88.6	NO
3	3	18O2-PFHxS	1902020-01 SWIN1906271400GGA 0.2...	1.69e3	82.8	NO
4	4	13C8-PFOA	1902020-01 SWIN1906271400GGA 0.2...	3.38e4	86.7	NO
5	5	13C9-PFNA	1902020-01 SWIN1906271400GGA 0.2...	2.34e4	87.1	NO
6	6	13C4-PFOS	1902020-01 SWIN1906271400GGA 0.2...	4.66e3	98.4	NO
7	7	13C6-PFDA	1902020-01 SWIN1906271400GGA 0.2...	3.08e4	90.2	NO
8	8	13C7-PFUdA	1902020-01 SWIN1906271400GGA 0.2...	3.93e4	94.6	NO

Name: 190722M1_91, Date: 23-Jul-2019, Time: 03:22:11, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190722M1_92, Date: 23-Jul-2019, Time: 03:32:45, ID: ST190722M1-14 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190722M1-14 PFC CS3 19G1106	1.09e4	103.1	NO
2	2	13C5-PFHxA	ST190722M1-14 PFC CS3 19G1106	3.51e4	112.5	NO
3	3	18O2-PFHxS	ST190722M1-14 PFC CS3 19G1106	2.21e3	108.5	NO
4	4	13C8-PFOA	ST190722M1-14 PFC CS3 19G1106	4.16e4	106.6	NO
5	5	13C9-PFNA	ST190722M1-14 PFC CS3 19G1106	2.92e4	108.8	NO
6	6	13C4-PFOS	ST190722M1-14 PFC CS3 19G1106	5.29e3	111.9	NO
7	7	13C6-PFDA	ST190722M1-14 PFC CS3 19G1106	3.77e4	110.4	NO
8	8	13C7-PFUdA	ST190722M1-14 PFC CS3 19G1106	4.57e4	110.0	NO

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Name: 190722M1_93, Date: 23-Jul-2019, Time: 03:43:23, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: 190722M1_94, Date: 23-Jul-2019, Time: 03:54:01, ID: 1902021-01 SWIN1906280800GGA 0.21775, Description: SWIN1906280800GGA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902021-01 SWIN1906280800GGA 0.2...	1.41e4	132.7	NO
2	2	13C5-PFHxA	1902021-01 SWIN1906280800GGA 0.2...	2.77e4	88.6	NO
3	3	18O2-PFHxS	1902021-01 SWIN1906280800GGA 0.2...	1.78e3	87.2	NO
4	4	13C8-PFOA	1902021-01 SWIN1906280800GGA 0.2...	3.34e4	85.7	NO
5	5	13C9-PFNA	1902021-01 SWIN1906280800GGA 0.2...	2.47e4	91.8	NO
6	6	13C4-PFOS	1902021-01 SWIN1906280800GGA 0.2...	4.46e3	94.2	NO
7	7	13C6-PFDA	1902021-01 SWIN1906280800GGA 0.2...	3.19e4	93.4	NO
8	8	13C7-PFUdA	1902021-01 SWIN1906280800GGA 0.2...	3.64e4	87.5	NO

Name: 190722M1_95, Date: 23-Jul-2019, Time: 04:04:35, ID: 1902022-01 SWIN1906280900GGA 0.2307, Description: SWIN1906280900GGA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902022-01 SWIN1906280900GGA 0.2...	1.41e4	133.2	NO
2	2	13C5-PFHxA	1902022-01 SWIN1906280900GGA 0.2...	2.60e4	83.2	NO
3	3	18O2-PFHxS	1902022-01 SWIN1906280900GGA 0.2...	1.76e3	86.3	NO
4	4	13C8-PFOA	1902022-01 SWIN1906280900GGA 0.2...	3.12e4	79.9	NO
5	5	13C9-PFNA	1902022-01 SWIN1906280900GGA 0.2...	2.28e4	84.9	NO
6	6	13C4-PFOS	1902022-01 SWIN1906280900GGA 0.2...	4.02e3	85.0	NO
7	7	13C6-PFDA	1902022-01 SWIN1906280900GGA 0.2...	2.88e4	84.5	NO
8	8	13C7-PFUdA	1902022-01 SWIN1906280900GGA 0.2...	3.53e4	84.9	NO

Name: 190722M1_96, Date: 23-Jul-2019, Time: 04:15:13, ID: 1902023-01 SWIN1906281400GGA 0.23222, Description: SWIN1906281400GGA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902023-01 SWIN1906281400GGA 0.2...	1.31e4	123.1	NO
2	2	13C5-PFHxA	1902023-01 SWIN1906281400GGA 0.2...	2.54e4	81.3	NO
3	3	18O2-PFHxS	1902023-01 SWIN1906281400GGA 0.2...	1.68e3	82.6	NO
4	4	13C8-PFOA	1902023-01 SWIN1906281400GGA 0.2...	3.11e4	79.7	NO
5	5	13C9-PFNA	1902023-01 SWIN1906281400GGA 0.2...	2.10e4	78.3	NO
6	6	13C4-PFOS	1902023-01 SWIN1906281400GGA 0.2...	3.97e3	83.9	NO
7	7	13C6-PFDA	1902023-01 SWIN1906281400GGA 0.2...	2.87e4	84.2	NO
8	8	13C7-PFUdA	1902023-01 SWIN1906281400GGA 0.2...	3.46e4	83.3	NO

Dataset: Untitled

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Name: 190722M1_97, Date: 23-Jul-2019, Time: 04:25:46, ID: 1902024-01 SWIN1907030900GGA 0.23598, Description: SWIN1907030900GGA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902024-01 SWIN1907030900GGA 0.2...	1.38e4	130.3	NO
2	2	13C5-PFHxA	1902024-01 SWIN1907030900GGA 0.2...	2.65e4	84.8	NO
3	3	18O2-PFHxS	1902024-01 SWIN1907030900GGA 0.2...	1.73e3	84.8	NO
4	4	13C8-PFOA	1902024-01 SWIN1907030900GGA 0.2...	3.35e4	85.8	NO
5	5	13C9-PFNA	1902024-01 SWIN1907030900GGA 0.2...	2.24e4	83.2	NO
6	6	13C4-PFOS	1902024-01 SWIN1907030900GGA 0.2...	4.30e3	90.9	NO
7	7	13C6-PFDA	1902024-01 SWIN1907030900GGA 0.2...	3.00e4	88.0	NO
8	8	13C7-PFUdA	1902024-01 SWIN1907030900GGA 0.2...	3.71e4	89.4	NO

Name: 190722M1_98, Date: 23-Jul-2019, Time: 04:36:24, ID: 1902025-01 SWIN1907031200GGA 0.24424, Description: SWIN1907031200GGA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902025-01 SWIN1907031200GGA 0.2...	1.26e4	119.1	NO
2	2	13C5-PFHxA	1902025-01 SWIN1907031200GGA 0.2...	2.33e4	74.7	NO
3	3	18O2-PFHxS	1902025-01 SWIN1907031200GGA 0.2...	1.51e3	74.1	NO
4	4	13C8-PFOA	1902025-01 SWIN1907031200GGA 0.2...	2.92e4	74.7	NO
5	5	13C9-PFNA	1902025-01 SWIN1907031200GGA 0.2...	2.06e4	76.5	NO
6	6	13C4-PFOS	1902025-01 SWIN1907031200GGA 0.2...	3.62e3	76.6	NO
7	7	13C6-PFDA	1902025-01 SWIN1907031200GGA 0.2...	2.59e4	76.0	NO
8	8	13C7-PFUdA	1902025-01 SWIN1907031200GGA 0.2...	3.17e4	76.3	NO

Name: 190722M1_99, Date: 23-Jul-2019, Time: 04:46:58, ID: 1902025-02 SWIN1907031200GGA-FD 0.23286, Description: SWIN1907031200GGA-FD

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902025-02 SWIN1907031200GGA-FD...	1.31e4	123.9	NO
2	2	13C5-PFHxA	1902025-02 SWIN1907031200GGA-FD...	2.57e4	82.2	NO
3	3	18O2-PFHxS	1902025-02 SWIN1907031200GGA-FD...	1.73e3	84.9	NO
4	4	13C8-PFOA	1902025-02 SWIN1907031200GGA-FD...	3.11e4	79.7	NO
5	5	13C9-PFNA	1902025-02 SWIN1907031200GGA-FD...	2.09e4	77.8	NO
6	6	13C4-PFOS	1902025-02 SWIN1907031200GGA-FD...	4.16e3	87.8	NO
7	7	13C6-PFDA	1902025-02 SWIN1907031200GGA-FD...	2.81e4	82.3	NO
8	8	13C7-PFUdA	1902025-02 SWIN1907031200GGA-FD...	3.44e4	82.9	NO

Name: 190722M1_100, Date: 23-Jul-2019, Time: 04:57:36, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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

Dataset: Untitled

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Name: 190722M1_101, Date: 23-Jul-2019, Time: 05:08:08, ID: ST190722M1-15 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190722M1-15 PFC CS3 19G1106	1.16e4	109.0	NO
2	2	13C5-PFHxA	ST190722M1-15 PFC CS3 19G1106	3.42e4	109.4	NO
3	3	18O2-PFHxS	ST190722M1-15 PFC CS3 19G1106	2.26e3	110.7	NO
4	4	13C8-PFOA	ST190722M1-15 PFC CS3 19G1106	4.04e4	103.5	NO
5	5	13C9-PFNA	ST190722M1-15 PFC CS3 19G1106	2.92e4	108.5	NO
6	6	13C4-PFOS	ST190722M1-15 PFC CS3 19G1106	5.20e3	109.8	NO
7	7	13C6-PFDA	ST190722M1-15 PFC CS3 19G1106	3.78e4	110.8	NO
8	8	13C7-PFUdA	ST190722M1-15 PFC CS3 19G1106	4.67e4	112.4	NO

Name: 190722M1_102, Date: 23-Jul-2019, Time: 05:18:47, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-IB.qld

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Name: 190722M1_14, Date: 22-Jul-2019, Time: 12:12:38, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8		7501.880	1.00					NO		
2	2	PFPrS	248.9 > 79.9		2239.359	1.00					NO		
3	3	3:3 FTCA	240.9 > 176.9		15758.199	1.00					NO		
4	4	PFPeA	263.1 > 218.9		15758.199	1.00					NO		
5	5	PFBS	299.0 > 79.7		2239.359	1.00					NO		
6	6	4:2 FTS	327.0 > 306.9		3672.193	1.00					NO		
7	47	13C3-PFBA	216.1 > 171.8	7501.880	10359.297	1.00	1.16	9.052	12.3	98.7	NO		
8	49	13C3-PFBS	302.0 > 98.8	2239.359	2017.515	1.00	2.45	13.874	13.1	105.0	NO		
9	48	13C3-PFPeA	266.0 > 221.8	15758.199	32014.930	1.00	2.15	6.153	12.4	98.8	NO		
10	48	13C3-PFPeA	266.0 > 221.8	15758.199	32014.930	1.00	2.15	6.153	12.4	98.8	NO		
11	49	13C3-PFBS	302.0 > 98.8	2239.359	2017.515	1.00	2.45	13.874	13.1	105.0	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	3672.193	2017.515	1.00	2.88	22.752	13.8	110.3	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0		12146.366	1.00					NO		
15	8	PFPeS	349.1>80.1		2239.359	1.00					NO		
16	9	HFPO-DA	285.1 > 168.9		1687.480	1.00					NO		
17	10	5:3 FTCA	340.9 > 236.9		15326.061	1.00					NO		
18	11	PFHpA	363.0 > 318.9		15326.061	1.00					NO		
19	12	ADONA	376.8 > 250.9		15326.061	1.00					NO		
20	52	13C2-PFHxA	315.0 > 270.0	12146.366	32014.930	1.00	2.97	4.742	4.9	97.0	NO		
21	49	13C3-PFBS	302.0 > 98.8	2239.359	2017.515	1.00	2.45	13.874	13.1	105.0	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1687.480	32014.930	1.00	3.18	0.659	4.9	98.4	NO		
23	53	13C4-PFHpA	367.2 > 321.8	15326.061	32014.930	1.00	3.59	5.984	12.5	100.0	NO		
24	53	13C4-PFHpA	367.2 > 321.8	15326.061	32014.930	1.00	3.59	5.984	12.5	100.0	NO		
25	53	13C4-PFHpA	367.2 > 321.8	15326.061	32014.930	1.00	3.59	5.984	12.5	100.0	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6		4156.333	1.00					NO		
28	15	6:2 FTS	427.0 > 406.9		2859.432	1.00					NO		
29	16	L-PFOA	412.8 > 368.9	166.629	26409.393	1.00	4.11	0.079	0.0		NO	9.522	YES
30	18	PFecHS	460.8 > 381.0		26409.393	1.00					NO		
31	19	PFHpS	449.0 > 80.0		4842.980	1.00					NO		
32	20	7:3 FTCA	440.9 > 336.9		26906.500	1.00					NO		
33	54	13C3-PFHxS	401.8 > 79.9	4156.333	2017.515	1.00	3.75	25.752	12.7	101.8	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	2859.432	4717.761	1.00	4.06	7.576	14.1	113.0	NO		
35	58	13C2-PFOA	414.9 > 369.7	26409.393	39508.000	1.00	4.12	8.356	12.3	98.1	NO		
36	58	13C2-PFOA	414.9 > 369.7	26409.393	39508.000	1.00	4.12	8.356	12.3	98.1	NO		

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Name: 190722M1_14, Date: 22-Jul-2019, Time: 12:12:38, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	4842.980	4717.761	1.00	4.65	12.832	12.9	103.0	NO		
38	56	13C5-PFNA	468.2 > 422.9	26906.500	27847.467	1.00	4.56	12.078	12.1	96.4	NO		
39	-1												
40	21	PFNA	463.0 > 418.8		26906.500	1.00					NO		
41	22	PFOSA	497.9 > 77.9	8.148	6887.840	1.00	4.61	0.015	0.0		NO	5.678	YES
42	23	L-PFOS	498.9 > 79.9		4842.980	1.00					NO		
43	25	9Cl-PF30NS	530.7 > 350.8		4842.980	1.00					NO		
44	26	PFDA	513 > 468.8		28506.688	1.00					NO		
45	27	8:2 FTS	527.0 > 506.9		2708.716	1.00					NO		
46	56	13C5-PFNA	468.2 > 422.9	26906.500	27847.467	1.00	4.56	12.078	12.1	96.4	NO		
47	57	13C8-PFOSA	506.1 > 77.7	6887.840	40970.465	1.00	4.62	2.101	12.5	100.3	NO		
48	59	13C8-PFOS	507.0 > 79.9	4842.980	4717.761	1.00	4.65	12.832	12.9	103.0	NO		
49	59	13C8-PFOS	507.0 > 79.9	4842.980	4717.761	1.00	4.65	12.832	12.9	103.0	NO		
50	60	13C2-PFDA	515.1 > 469.9	28506.688	34616.977	1.00	4.95	10.294	12.6	100.5	NO		
51	61	13C2-8:2 FTS	529 > 79.9	2708.716	4717.761	1.00	4.91	7.177	12.9	103.2	NO		
52	-1												
53	28	PFNS	549.1 > 80.1		4842.980	1.00					NO		
54	29	L-MeFOSAA	570 > 419	26.518	7441.581	1.00	5.11	0.045	0.1		NO	4.592	YES
55	31	L-EtFOSAA	584.1 > 419	12.900	9624.488	1.00	5.27	0.017	0.1		NO	8.710	YES
56	33	PFUdA	563.0 > 518.9		36902.512	1.00					NO		
57	34	PFDS	598.8 > 79.9		2708.716	1.00					NO		
58	35	11Cl-PF30UdS	632.6 > 452.7		35732.961	1.00					NO		
59	59	13C8-PFOS	507.0 > 79.9	4842.980	4717.761	1.00	4.65	12.832	12.9	103.0	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	7441.581	40970.465	1.00	5.10	2.270	12.8	102.4	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	9624.488	40970.465	1.00	5.26	2.936	13.1	105.0	NO		
62	63	13C2-PFUdA	565 > 519.8	36902.512	40970.465	1.00	5.28	11.259	12.7	101.3	NO		
63	61	13C2-8:2 FTS	529 > 79.9	2708.716	4717.761	1.00	4.91	7.177	12.9	103.2	NO		
64	65	13C2-PFDoA	614.7 > 569.7	35732.961	34616.977	1.00	5.57	12.903	11.9	94.9	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9		2708.716	1.00					NO		
67	37	PFDoA	612.9 > 569.0	88.353	35732.961	1.00	5.55	0.031			NO	72.243	YES
68	38	N-MeFOSA	512.1 > 168.9		18006.295	1.00					NO		
69	39	PFTrDA	662.9 > 618.9		35732.961	1.00					NO		
70	40	PFDoS	698.8 > 79.9		25005.998	1.00					NO		
71	41	PFTeDA	713.0 > 669.0		25005.998	1.00					NO		
72	65	13C2-PFDoA	614.7 > 569.7	35732.961	34616.977	1.00	5.57	12.903	11.9	94.9	NO		

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Name: 190722M1_14, Date: 22-Jul-2019, Time: 12:12:38, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	35732.961	34616.977	1.00	5.57	12.903	11.9	94.9	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	18006.295	40970.465	1.00	5.75	5.494	143.7	95.8	NO		
75	65	13C2-PFDoA	614.7 > 569.7	35732.961	34616.977	1.00	5.57	12.903	11.9	94.9	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	25005.998	40970.465	1.00	6.04	7.629	12.6	101.0	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	25005.998	40970.465	1.00	6.04	7.629	12.6	101.0	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9		21538.303	1.00					NO		
80	43	PFHxDA	813.1 > 768.6	194.032	12818.789	1.00	6.38	0.076	0.1		NO	39.720	YES
81	44	PFODA	913.1 > 868.8	169.569	12818.789	1.00	6.63	0.066	0.0		NO		
82	45	N-MeFOSE	616.1 > 58.9		14477.269	1.00					NO		
83	46	N-EtFOSE	630.1 > 58.9		15601.422	1.00					NO		
84	72	13C4-PFBA	217.0 > 172.0	10359.297	10359.297	1.00	1.16	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	21538.303	40970.465	1.00	6.16	6.571	147.8	98.6	NO		
86	69	13C2-PFHxDA	815 > 769.7	12818.789	40970.465	1.00	6.38	3.911	5.0	99.3	NO		
87	69	13C2-PFHxDA	815 > 769.7	12818.789	40970.465	1.00	6.38	3.911	5.0	99.3	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	14477.269	40970.465	1.00	6.34	4.417	141.1	94.1	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	15601.422	40970.465	1.00	6.49	4.760	144.9	96.6	NO		
90	73	13C5-PFHxA	318.0 > 272.9	32014.930	32014.930	1.00	2.96	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	39508.000	39508.000	1.00	4.12	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	2017.515	2017.515	1.00	3.75	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	27847.467	27847.467	1.00	4.56	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	4717.761	4717.761	1.00	4.65	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	34616.977	34616.977	1.00	4.95	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	40970.465	40970.465	1.00	5.28	12.500	12.5	100.0	NO		

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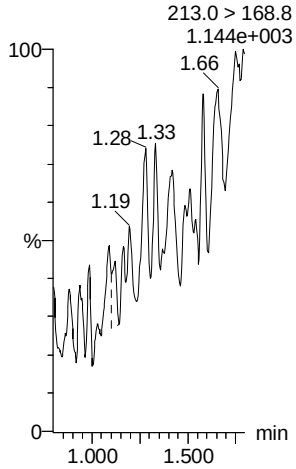
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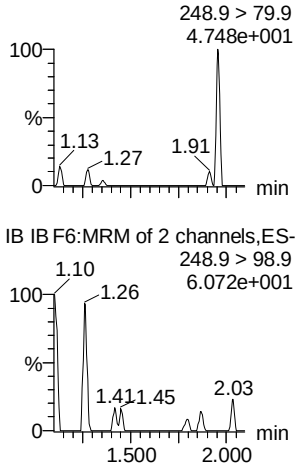
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Name: 190722M1_14, Date: 22-Jul-2019, Time: 12:12:38, ID: IB, Description: IB

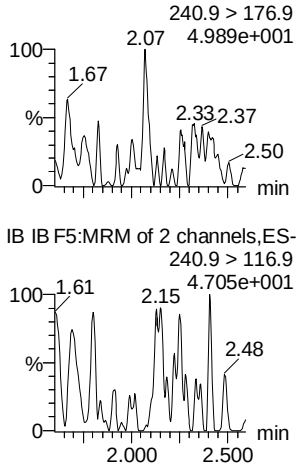
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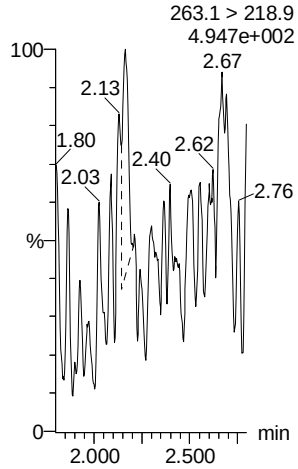
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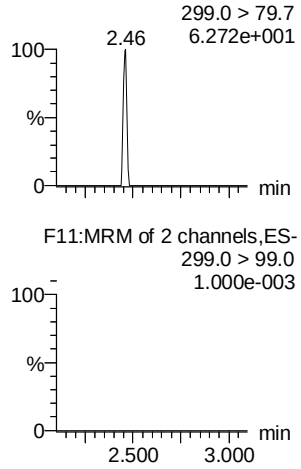
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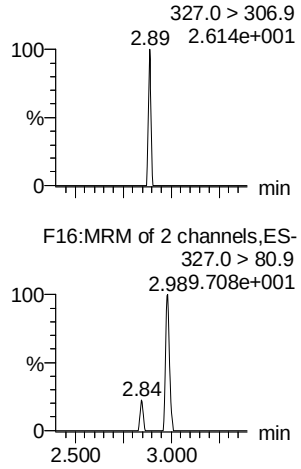
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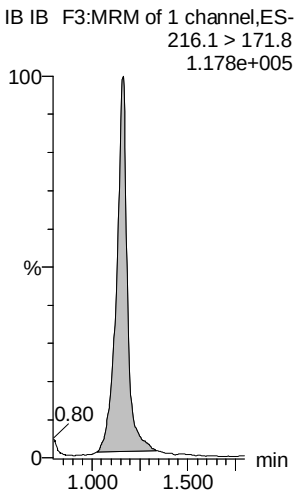
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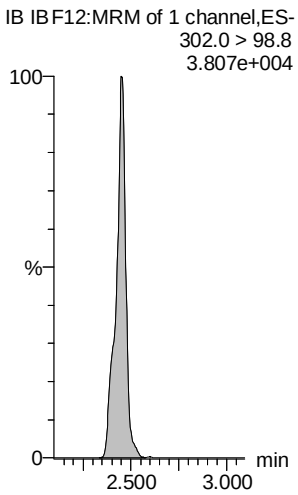
4:2 FTS



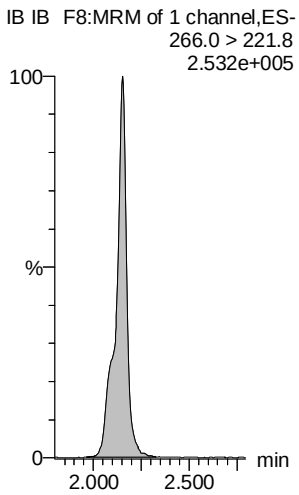
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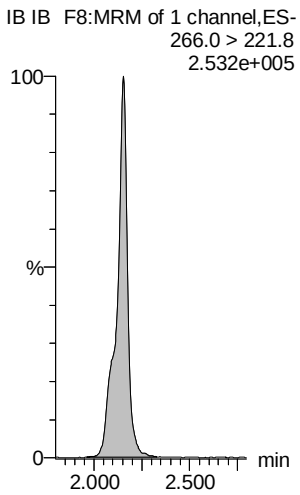
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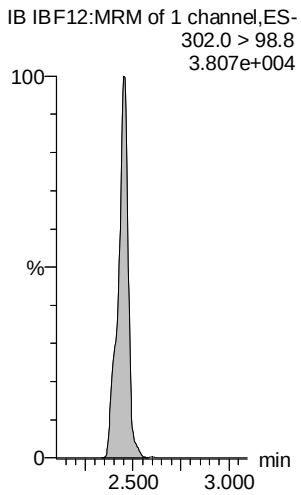
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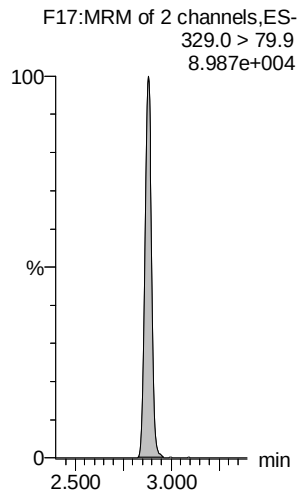
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13C3-PFBS



13C2-4:2 FTS



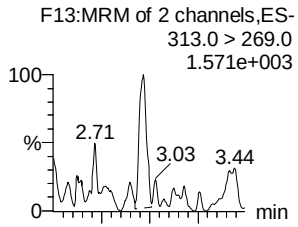
Vista Analytical Laboratory

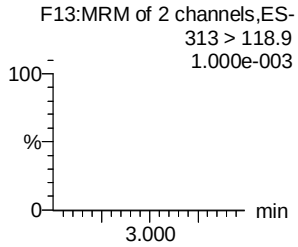
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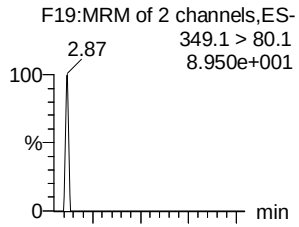
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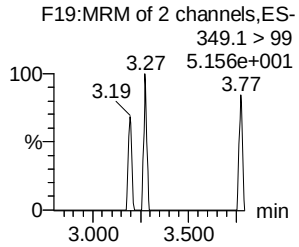
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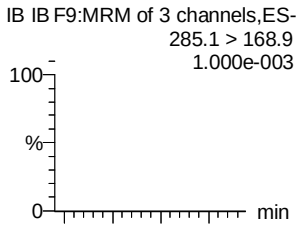


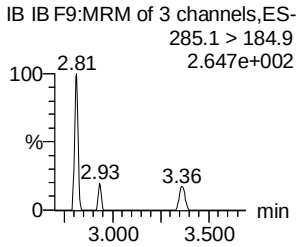
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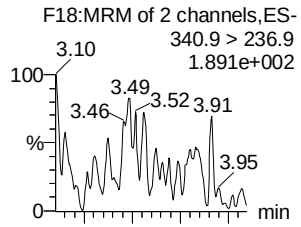


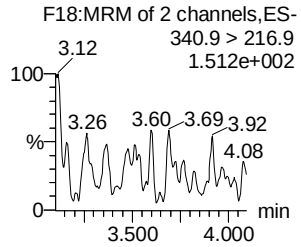
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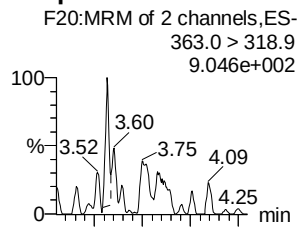


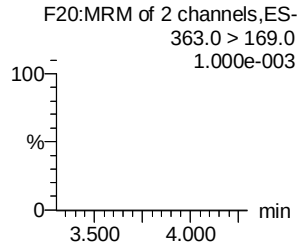
5:3 FTCA



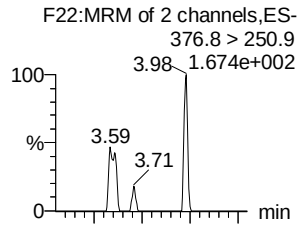


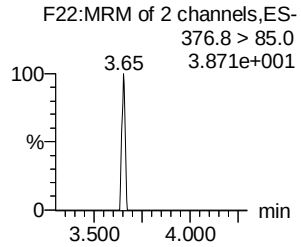
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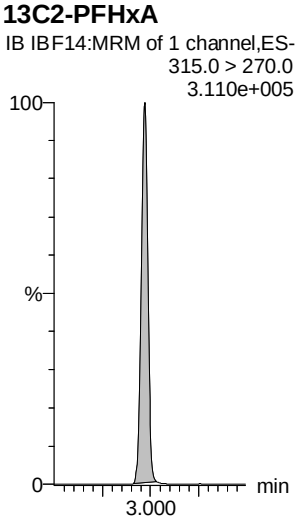


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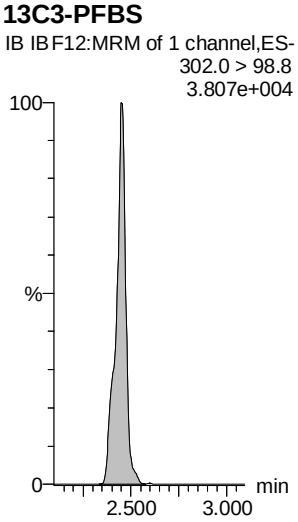




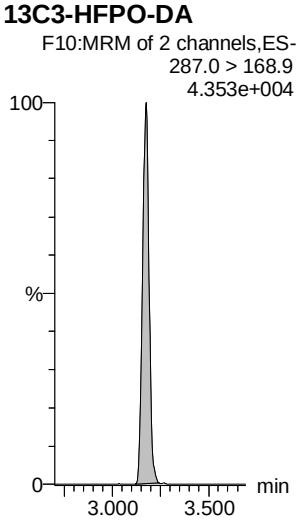
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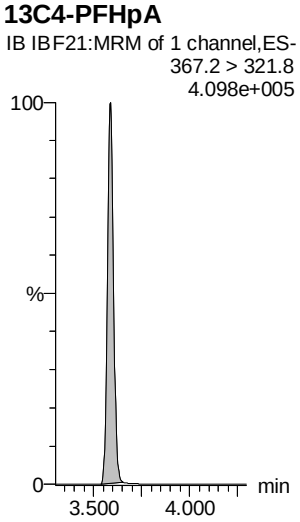
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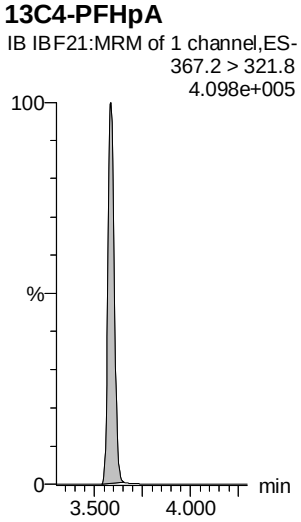
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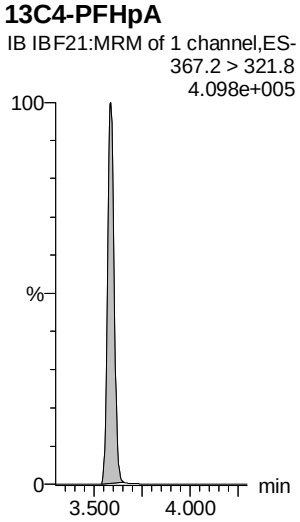
13C4-PFHpA



13C4-PFHpA



13C4-PFHpA

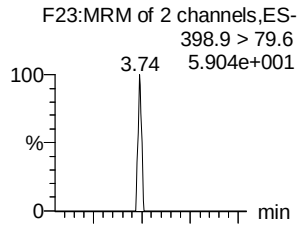


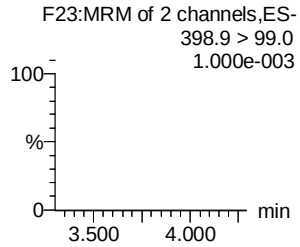
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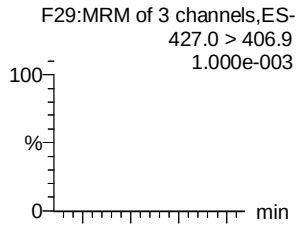
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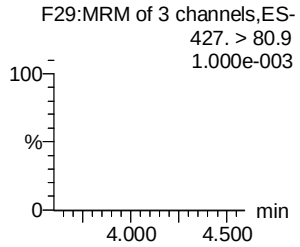
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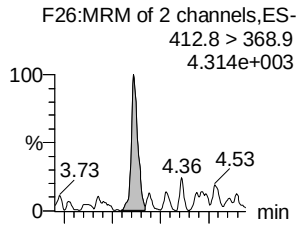


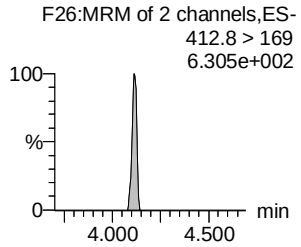
6:2 FTS



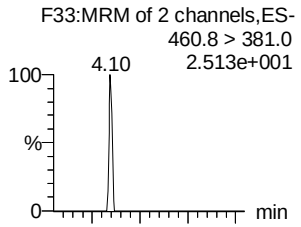


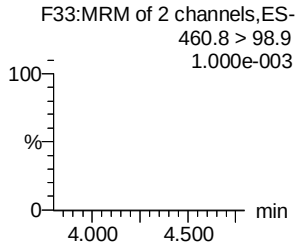
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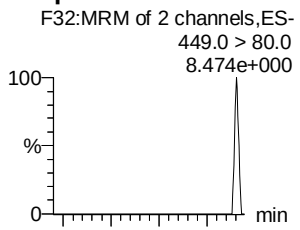


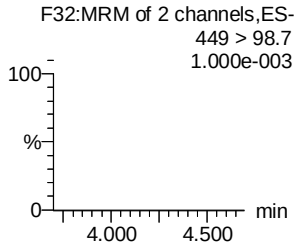
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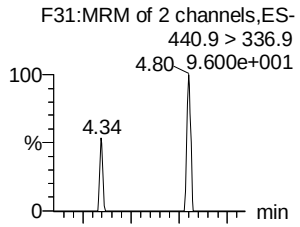


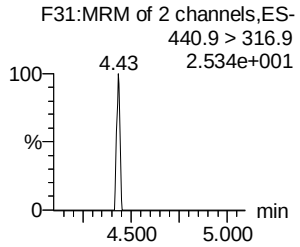
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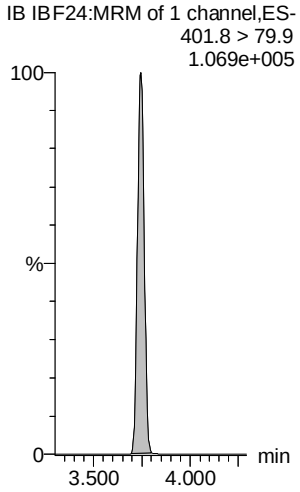


7:3 FTCA

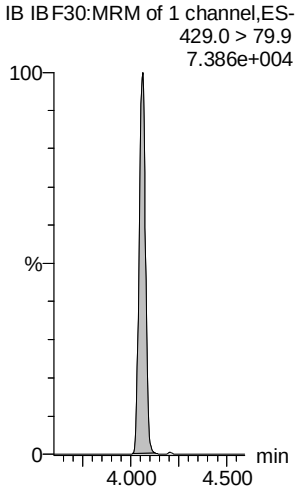




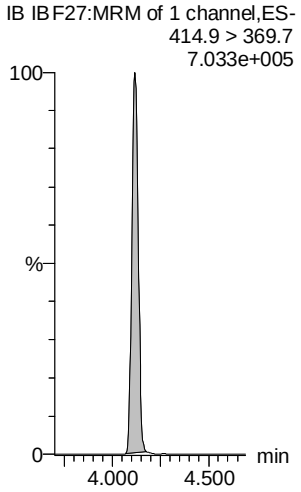
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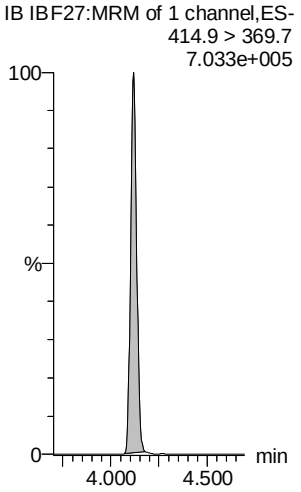
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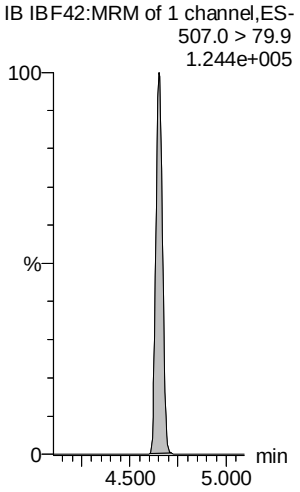
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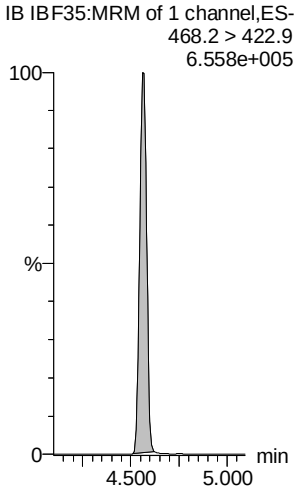
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13C8-PFOS



13C5-PFNA



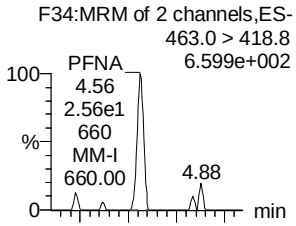
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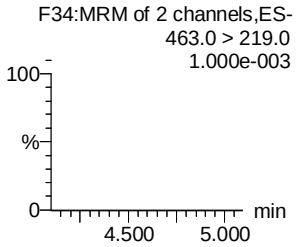
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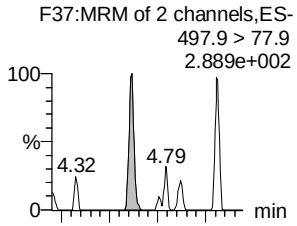
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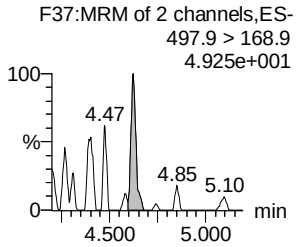
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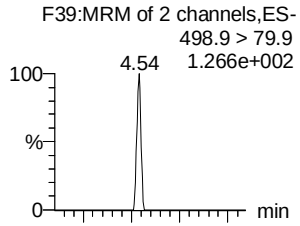


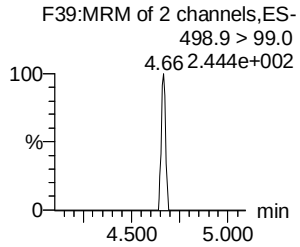
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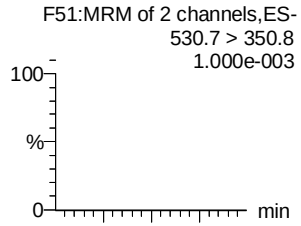


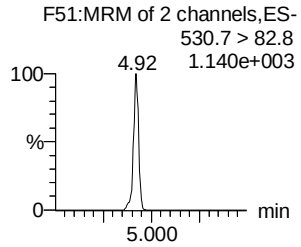
L-PFOS



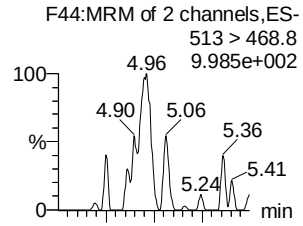


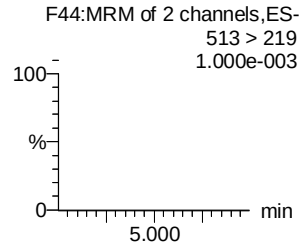
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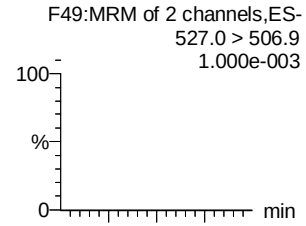


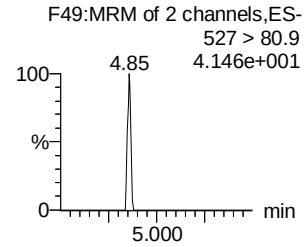
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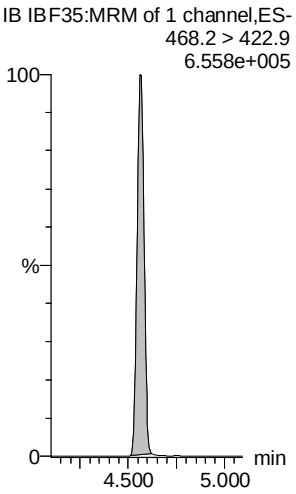


8:2 FTS

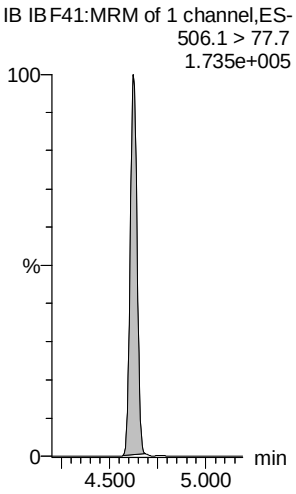




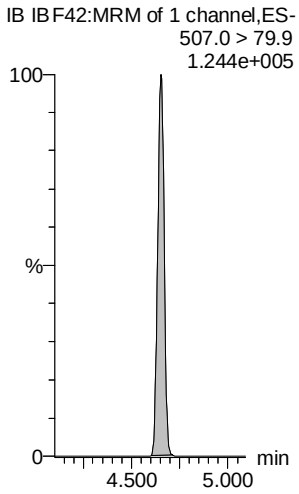
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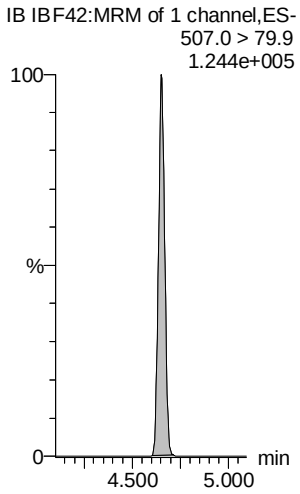
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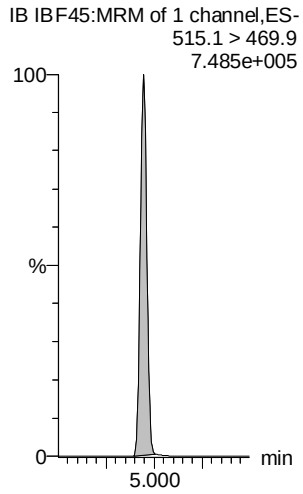
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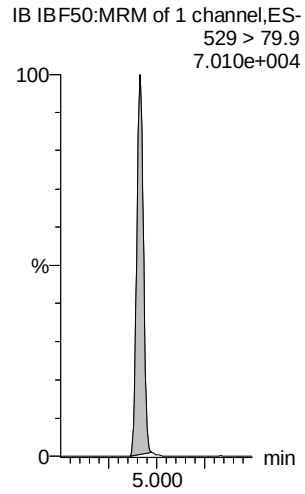
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13C2-PFDA



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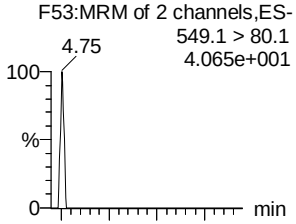


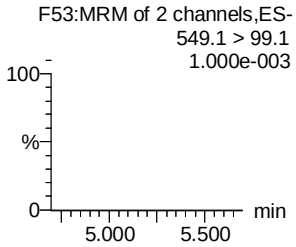
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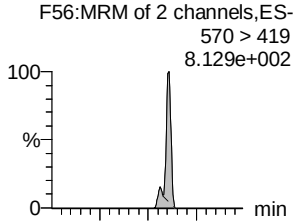
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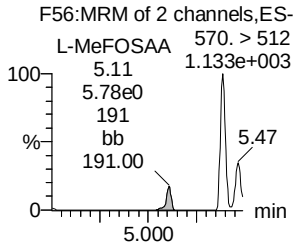
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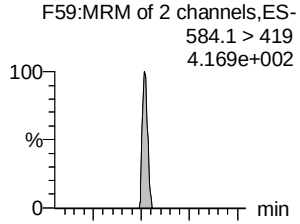


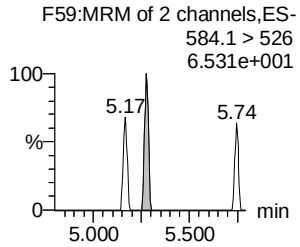
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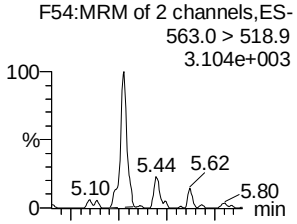


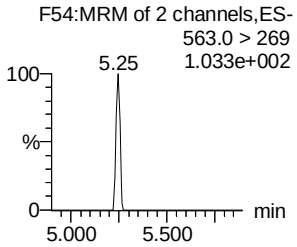
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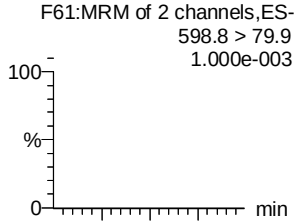


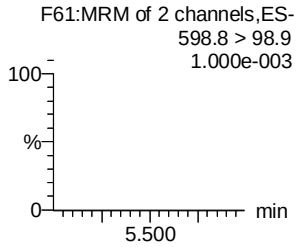
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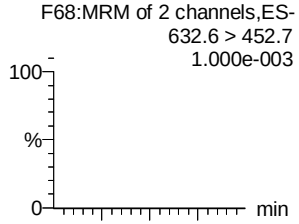


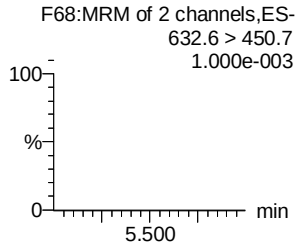
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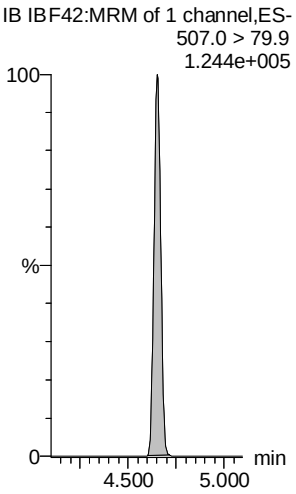


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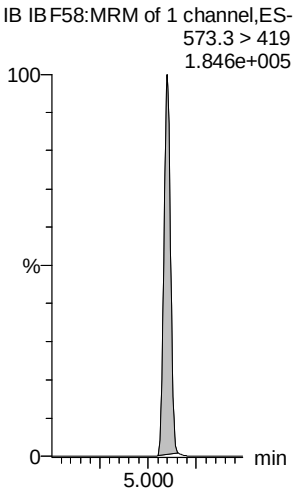




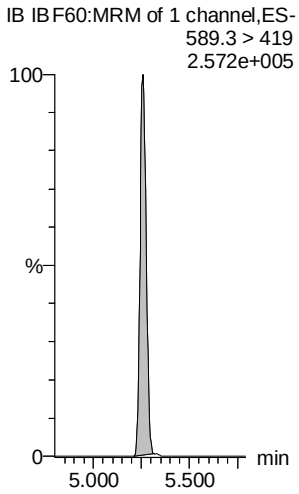
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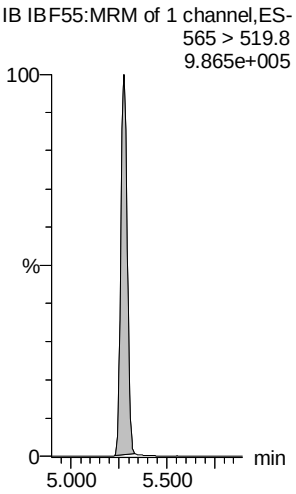
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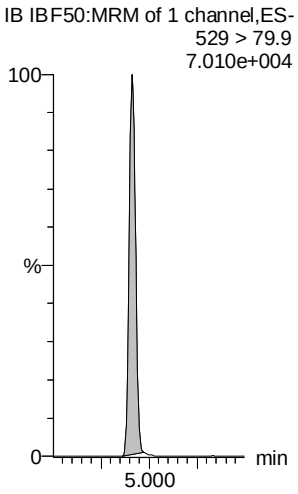
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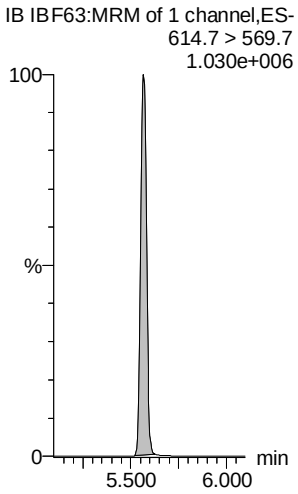
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

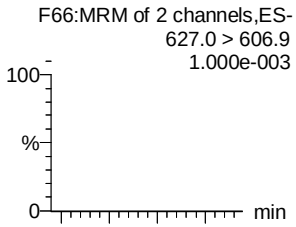


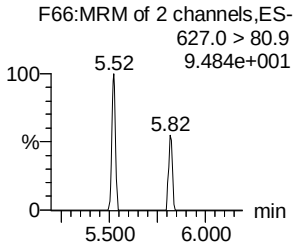
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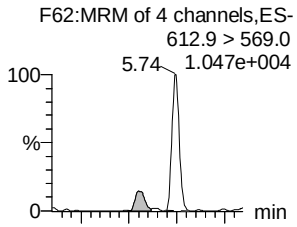
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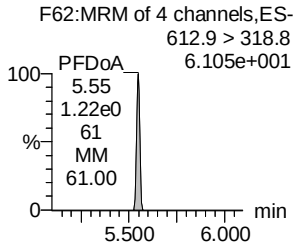
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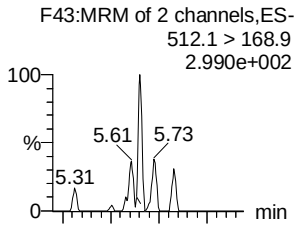


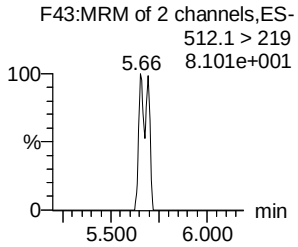
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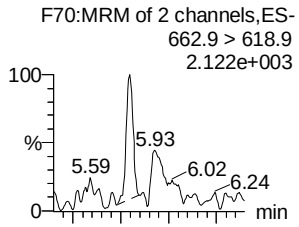


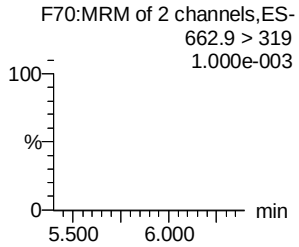
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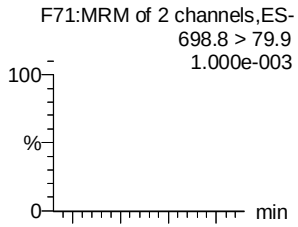


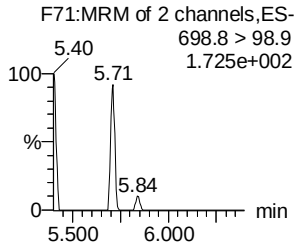
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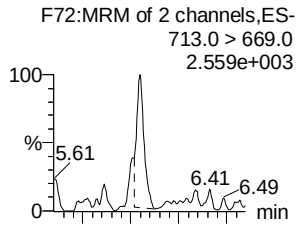


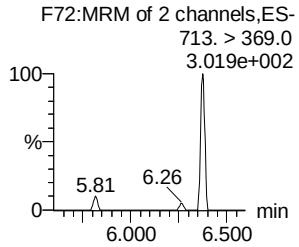
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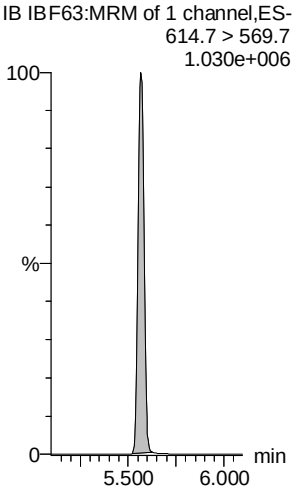


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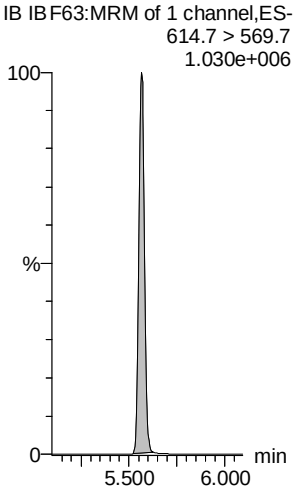




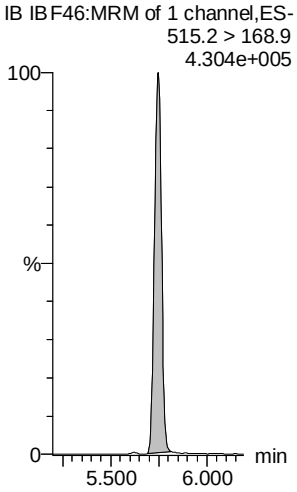
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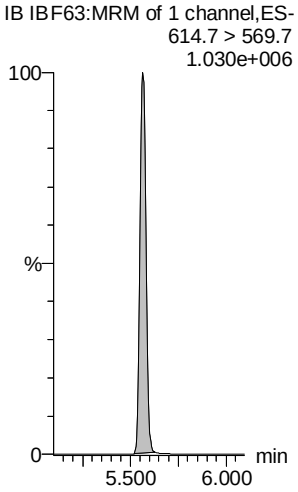
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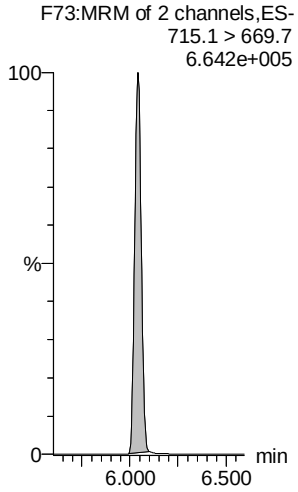
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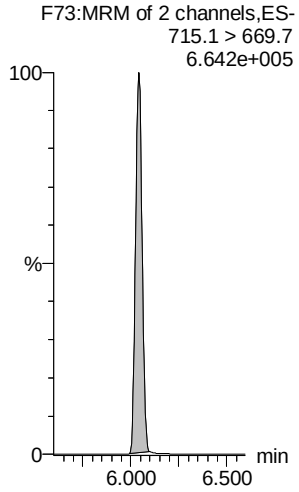
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13C2-PFTeDA



13C2-PFTeDA

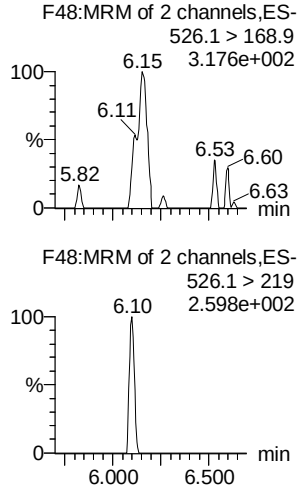


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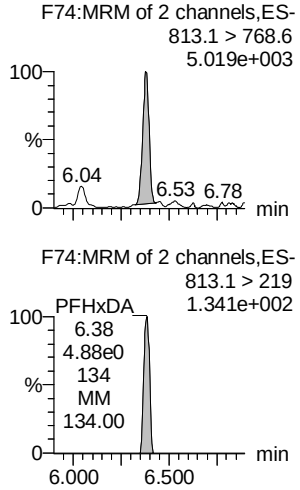
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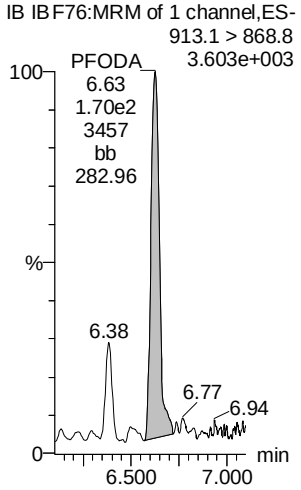
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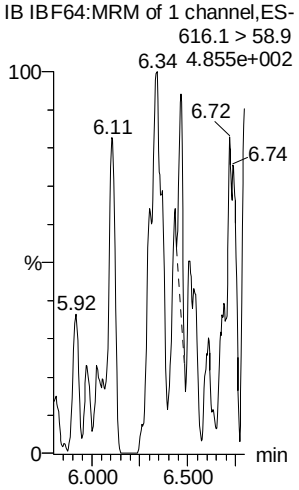
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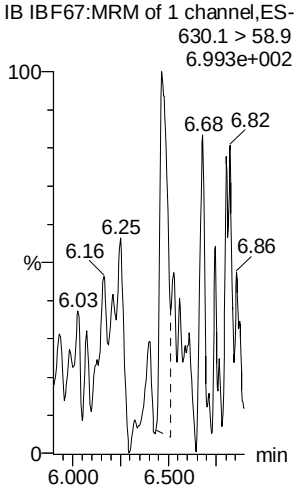
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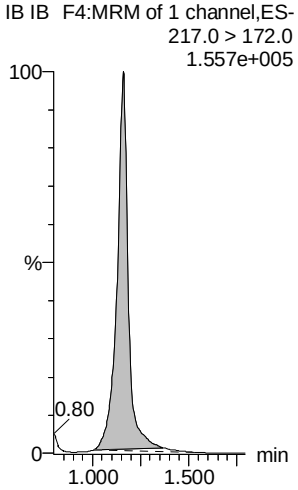
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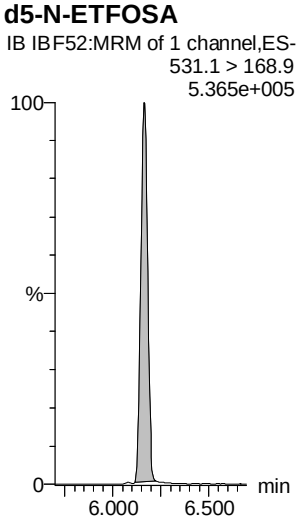
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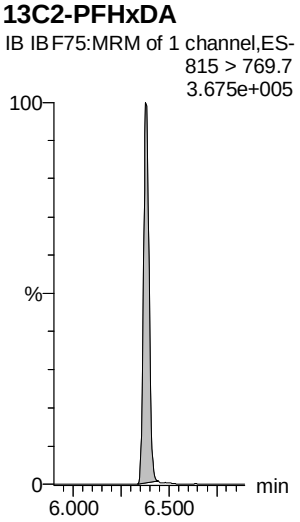
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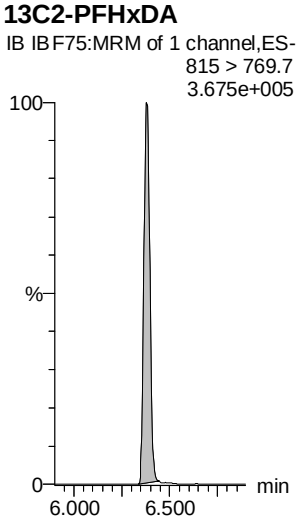
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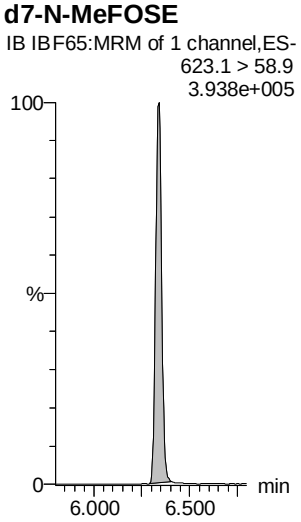
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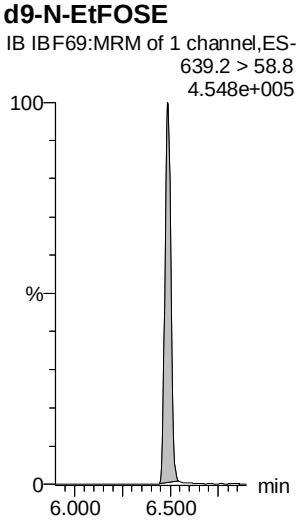
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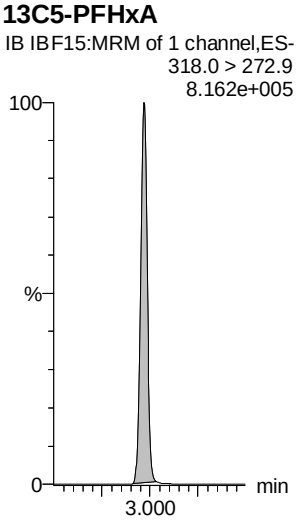
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d9-N-EtFOSE



13C5-PFHxA

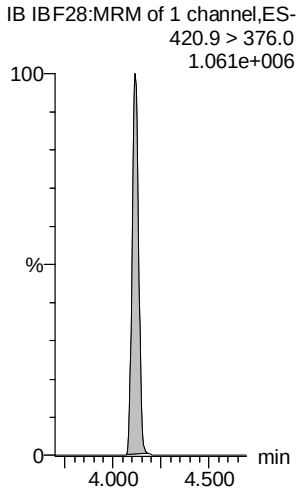


Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-IB.qld

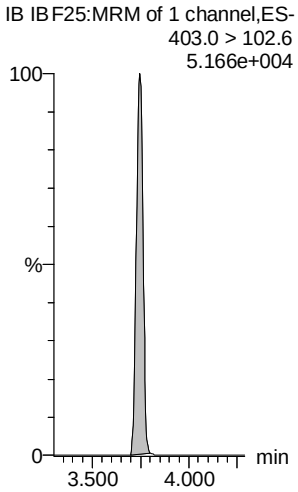
Last Altered: Monday, July 22, 2019 13:50:22 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:50:37 Pacific Daylight Time

Name: 190722M1_14, Date: 22-Jul-2019, Time: 12:12:38, ID: IB, Description: IB

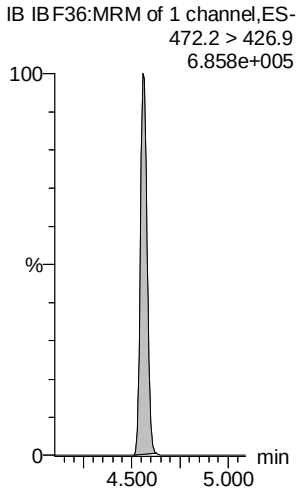
13C8-PFOA



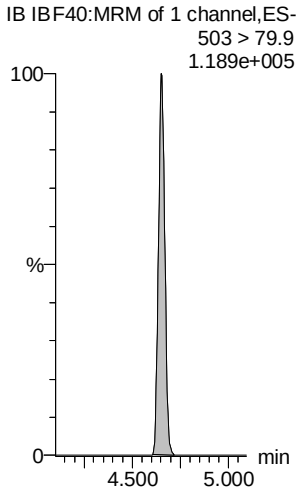
18O2-PFHxS



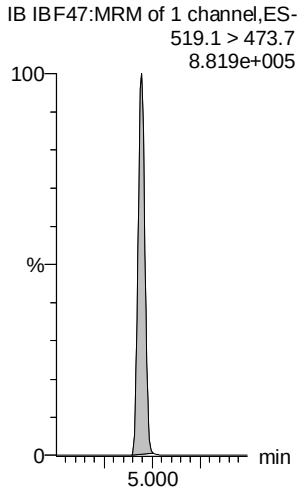
13C9-PFNA



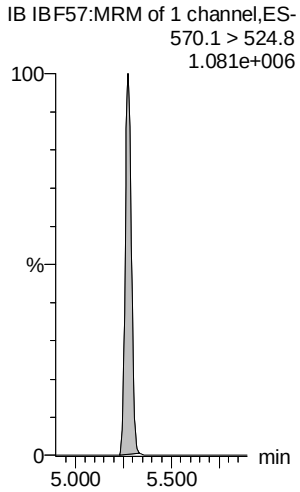
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-58.qld

Last Altered: Tuesday, July 23, 2019 07:53:37 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 07:53:53 Pacific Daylight Time

7/23/19

Name: 190722M1_58, Date: 22-Jul-2019, Time: 21:32:24, ID: ST190722M1-12 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8	8286.527	7885.818	1.00	1.16	13.135	10.5	105.4	NO		
2	2	PFPrS	248.9 > 79.9	1662.946	2293.563	1.00	1.53	9.063	9.7	97.2	NO	2.352	NO
3	3	3:3 FTCA	240.9 > 176.9	381.246	17031.504	1.00	2.00	0.280	8.2	81.7	NO	1.958	NO
4	4	PFPeA	263.1 > 218.9	12476.607	17031.504	1.00	2.16	9.157	9.9	99.0	NO		
5	5	PFBS	299.0 > 79.7	4351.850	2293.563	1.00	2.46	23.718	10.5	104.5	NO	2.910	NO
6	6	4:2 FTS	327.0 > 306.9	7784.966	3774.874	1.00	2.88	25.779	10.2	102.4	NO	1.816	NO
7	47	13C3-PFBA	216.1 > 171.8	7885.818	11057.734	1.00	1.17	8.914	12.2	97.2	NO		
8	49	13C3-PFBS	302.0 > 98.8	2293.563	2108.924	1.00	2.46	13.594	12.9	102.8	NO		
9	48	13C3-PFPeA	266.0 > 221.8	17031.504	34088.047	1.00	2.16	6.245	12.5	100.3	NO		
10	48	13C3-PFPeA	266.0 > 221.8	17031.504	34088.047	1.00	2.16	6.245	12.5	100.3	NO		
11	49	13C3-PFBS	302.0 > 98.8	2293.563	2108.924	1.00	2.46	13.594	12.9	102.8	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	3774.874	2108.924	1.00	2.88	22.374	13.6	108.5	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0	25257.781	13247.978	1.00	2.97	9.533	10.8	108.1	NO	15.417	NO
15	8	PFPeS	349.1>80.1	3236.749	2293.563	1.00	3.18	17.640	11.0	110.1	NO	1.509	NO
16	9	HFPO-DA	285.1 > 168.9	1845.796	1652.745	1.00	3.18	5.584	8.7	87.0	NO	2.128	NO
17	10	5:3 FTCA	340.9 > 236.9	2267.894	15997.944	1.00	3.52	1.772	9.6	96.2	NO	1.531	NO
18	11	PFHpA	363.0 > 318.9	17032.016	15997.944	1.00	3.59	13.308	10.3	102.8	NO	9.902	NO
19	12	ADONA	376.8 > 250.9	42003.906	15997.944	1.00	3.70	32.820	9.3	92.6	NO	3.536	NO
20	52	13C2-PFHxA	315.0 > 270.0	13247.978	34088.047	1.00	2.97	4.858	5.0	99.4	NO		
21	49	13C3-PFBS	302.0 > 98.8	2293.563	2108.924	1.00	2.46	13.594	12.9	102.8	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1652.745	34088.047	1.00	3.18	0.606	4.5	90.5	NO		
23	53	13C4-PFHpA	367.2 > 321.8	15997.944	34088.047	1.00	3.59	5.866	12.3	98.1	NO		
24	53	13C4-PFHpA	367.2 > 321.8	15997.944	34088.047	1.00	3.59	5.866	12.3	98.1	NO		
25	53	13C4-PFHpA	367.2 > 321.8	15997.944	34088.047	1.00	3.59	5.866	12.3	98.1	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6	3480.650	4441.815	1.00	3.75	9.795	10.7	107.4	NO	1.954	NO
28	15	6:2 FTS	427.0 > 406.9	7488.167	2939.487	1.00	4.06	31.843	9.5	94.7	NO	2.225	NO
29	16	L-PFOA	412.8 > 368.9	32752.736	27554.531	1.00	4.12	14.858	9.9	98.7	NO	3.720	NO
30	18	PFecHS	460.8 > 381.0	5416.087	27554.531	1.00	4.14	2.457	10.7	106.6	NO	0.965	NO
31	19	PFHpS	449.0 > 80.0	3750.846	5192.645	1.00	4.24	9.029	10.2	102.5	NO	1.794	NO
32	20	7:3 FTCA	440.9 > 336.9	2504.217	28759.600	1.00	4.55	1.088	9.2	91.8	NO	1.904	NO
33	54	13C3-PFHxS	401.8 > 79.9	4441.815	2108.924	1.00	3.75	26.327	13.0	104.1	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	2939.487	5272.221	1.00	4.06	6.969	13.0	104.0	NO		
35	58	13C2-PFOA	414.9 > 369.7	27554.531	40879.766	1.00	4.12	8.425	12.4	98.9	NO		
36	58	13C2-PFOA	414.9 > 369.7	27554.531	40879.766	1.00	4.12	8.425	12.4	98.9	NO		

CGH 7/23/19

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-58.qld

Last Altered: Tuesday, July 23, 2019 07:53:37 Pacific Daylight Time
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Name: 190722M1_58, Date: 22-Jul-2019, Time: 21:32:24, ID: ST190722M1-12 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	5192.645	5272.221	1.00	4.66	12.311	12.4	98.8	NO		
38	56	13C5-PFNA	468.2 > 422.9	28759.600	27997.697	1.00	4.57	12.840	12.8	102.5	NO		
39	-1												
40	21	PFNA	463.0 > 418.8	28041.582	28759.600	1.00	4.57	12.188	10.6	105.7	NO	3.799	NO
41	22	PFOSA	497.9 > 77.9	5819.400	6881.742	1.00	4.63	10.570	10.4	103.7	NO	27.865	NO
42	23	L-PFOS	498.9 > 79.9	4481.405	5192.645	1.00	4.66	10.788	10.1	101.1	NO	2.082	NO
43	25	9Cl-PF30NS	530.7 > 350.8	9720.886	5192.645	1.00	4.88	23.401	10.7	106.7	NO	16.822	NO
44	26	PFDA	513 > 468.8	31699.670	29833.955	1.00	4.95	13.282	10.3	103.1	NO	5.465	NO
45	27	8:2 FTS	527.0 > 506.9	5296.908	2999.287	1.00	4.92	22.076	10.9	108.6	NO	1.239	NO
46	56	13C5-PFNA	468.2 > 422.9	28759.600	27997.697	1.00	4.57	12.840	12.8	102.5	NO		
47	57	13C8-PFOSA	506.1 > 77.7	6881.742	44327.766	1.00	4.63	1.941	11.6	92.6	NO		
48	59	13C8-PFOS	507.0 > 79.9	5192.645	5272.221	1.00	4.66	12.311	12.4	98.8	NO		
49	59	13C8-PFOS	507.0 > 79.9	5192.645	5272.221	1.00	4.66	12.311	12.4	98.8	NO		
50	60	13C2-PFDA	515.1 > 469.9	29833.955	37624.953	1.00	4.95	9.912	12.1	96.8	NO		
51	61	13C2-8:2 FTS	529 > 79.9	2999.287	5272.221	1.00	4.92	7.111	12.8	102.2	NO		
52	-1												
53	28	PFNS	549.1 > 80.1	3024.822	5192.645	1.00	5.02	7.282	10.2	101.7	NO	1.600	NO
54	29	L-MeFOSAA	570 > 419	12763.692	7316.767	1.00	5.11	21.806	10.1	101.1	NO	2.407	NO
55	31	L-EtFOSAA	584.1 > 419	10474.049	9758.501	1.00	5.27	13.417	10.7	107.4	NO	1.353	NO
56	33	PFUdA	563.0 > 518.9	31124.533	39486.031	1.00	5.28	9.853	10.8	107.8	NO	9.015	NO
57	34	PFDS	598.8 > 79.9	4287.371	2999.287	1.00	5.33	17.868	10.5	104.9	NO	1.750	NO
58	35	11Cl-PF30UdS	632.6 > 452.7	1955.957	40215.344	1.00	5.50	0.608	10.5	105.4	NO	5.433	NO
59	59	13C8-PFOS	507.0 > 79.9	5192.645	5272.221	1.00	4.66	12.311	12.4	98.8	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	7316.767	44327.766	1.00	5.10	2.063	11.6	93.0	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	9758.501	44327.766	1.00	5.26	2.752	12.3	98.4	NO		
62	63	13C2-PFUdA	565 > 519.8	39486.031	44327.766	1.00	5.28	11.135	12.5	100.2	NO		
63	61	13C2-8:2 FTS	529 > 79.9	2999.287	5272.221	1.00	4.92	7.111	12.8	102.2	NO		
64	65	13C2-PFDoA	614.7 > 569.7	40215.344	37624.953	1.00	5.57	13.361	12.3	98.3	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9	6019.877	2999.287	1.00	5.55	25.089	10.4	103.9	NO	1.652	NO
67	37	PFDoA	612.9 > 569.0	34674.137	40215.344	1.00	5.57	10.778	10.1	100.7	NO	8.327	NO
68	38	N-MeFOSA	512.1 > 168.9	7886.267	18513.398	1.00	5.72	63.896	54.2	108.5	NO	1.610	NO
69	39	PFTrDA	662.9 > 618.9	37066.063	40215.344	1.00	5.82	11.521	10.1	100.9	NO	21.001	NO
70	40	PFDoS	698.8 > 79.9	3572.578	27623.846	1.00	5.85	1.617	9.8	97.9	NO	1.730	NO
71	41	PFTeDA	713.0 > 669.0	34181.395	27623.846	1.00	6.05	15.467	10.2	102.1	NO	14.104	NO
72	65	13C2-PFDoA	614.7 > 569.7	40215.344	37624.953	1.00	5.57	13.361	12.3	98.3	NO		

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-58.qld

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Name: 190722M1_58, Date: 22-Jul-2019, Time: 21:32:24, ID: ST190722M1-12 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	40215.344	37624.953	1.00	5.57	13.361	12.3	98.3	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	18513.398	44327.766	1.00	5.75	5.221	136.5	91.0	NO		
75	65	13C2-PFDoA	614.7 > 569.7	40215.344	37624.953	1.00	5.57	13.361	12.3	98.3	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	27623.846	44327.766	1.00	6.05	7.790	12.9	103.1	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	27623.846	44327.766	1.00	6.05	7.790	12.9	103.1	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9	8099.608	22897.434	1.00	6.16	53.060	54.4	108.7	NO	1.694	NO
80	43	PFHxDA	813.1 > 768.6	19560.873	14333.930	1.00	6.38	6.823	10.4	103.8	NO	21.747	NO
81	44	PFODA	913.1 > 868.8	23577.262	14333.930	1.00	6.63	8.224	10.7	107.5	NO		
82	45	N-MeFOSE	616.1 > 58.9	5450.389	14666.055	1.00	6.35	55.745	49.9	99.8	NO		
83	46	N-EtFOSE	630.1 > 58.9	6901.513	15617.139	1.00	6.50	66.288	51.3	102.5	NO		
84	72	13C4-PFBA	217.0 > 172.0	11057.734	11057.734	1.00	1.17	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	22897.434	44327.766	1.00	6.18	6.457	145.3	96.8	NO		
86	69	13C2-PFHxDA	815 > 769.7	14333.930	44327.766	1.00	6.38	4.042	5.1	102.6	NO		
87	69	13C2-PFHxDA	815 > 769.7	14333.930	44327.766	1.00	6.38	4.042	5.1	102.6	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	14666.055	44327.766	1.00	6.34	4.136	132.1	88.1	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	15617.139	44327.766	1.00	6.49	4.404	134.0	89.4	NO		
90	73	13C5-PFHxA	318.0 > 272.9	34088.047	34088.047	1.00	2.97	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	40879.766	40879.766	1.00	4.12	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	2108.924	2108.924	1.00	3.75	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	27997.697	27997.697	1.00	4.57	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	5272.221	5272.221	1.00	4.66	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	37624.953	37624.953	1.00	4.95	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	44327.766	44327.766	1.00	5.28	12.500	12.5	100.0	NO		

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Dataset: Untitled

Last Altered: Tuesday, July 23, 2019 07:54:51 Pacific Daylight Time
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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072219.mdb 22 Jul 2019 13:12:22
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	190722M1_1	IPA	22-Jul-19	09:54:51
2	2	190722M1_2	IPA	22-Jul-19	10:05:26
3	3	190722M1_3	IPA	22-Jul-19	10:16:04
4	4	190722M1_4	ST190722M1-1 PFC CS-2 19G1101	22-Jul-19	10:26:37
5	5	190722M1_5	ST190722M1-2 PFC CS-1 19G1102	22-Jul-19	10:37:15
6	6	190722M1_6	ST190722M1-3 PFC CS0 19G1103	22-Jul-19	10:47:48
7	7	190722M1_7	ST190722M1-4 PFC CS1 19G1104	22-Jul-19	10:58:26
8	8	190722M1_8	ST190722M1-5 PFC CS2 19G1105	22-Jul-19	11:09:04
9	9	190722M1_9	ST190722M1-6 PFC CS3 19G1106	22-Jul-19	11:19:37
10	10	190722M1_10	ST190722M1-7 PFC CS4 19G1107	22-Jul-19	11:30:15
11	11	190722M1_11	ST190722M1-8 PFC CS5 19G1108	22-Jul-19	11:40:48
12	12	190722M1_12	ST190722M1-9 PFC CS6 19G1109	22-Jul-19	11:51:27
13	13	190722M1_13	ST190722M1-10 PFC CS7 19G1110	22-Jul-19	12:02:00
14	14	190722M1_14	IB	22-Jul-19	12:12:38
15	15	190722M1_15	ICV190722M1-1 PFC ICV 19F2422	22-Jul-19	12:23:11
16	16	190722M1_16	IPA	22-Jul-19	12:33:49
17	17	190722M1_17	1901887-01@10X Ivyland Mop Water 0.24039	22-Jul-19	14:12:03
18	18	190722M1_18	B9G0184-BLK1 Method Blank 0.25	22-Jul-19	14:22:44
19	19	190722M1_19	B9G0185-BS1 OPR 0.125	22-Jul-19	14:34:56
20	20	190722M1_20	B9G0185-BSD1 LCSD 0.125	22-Jul-19	14:47:45
21	21	190722M1_21	B9G0185-BLK1 Method Blank 0.125	22-Jul-19	14:58:19
22	22	190722M1_22	1902097-03 SAOA-B10-GW 0.11593	22-Jul-19	15:08:58
23	23	190722M1_23	1902097-04 SAOA-B10-GW-D 0.12246	22-Jul-19	15:19:36
24	24	190722M1_24	1902097-05 EB-07092019 0.11645	22-Jul-19	15:30:10
25	25	190722M1_25	1902097-07 FRB-07092019 0.11539	22-Jul-19	15:40:48
26	26	190722M1_26	1902097-14 EB-07102019 0.11614	22-Jul-19	15:53:08
27	27	190722M1_27	1902097-15 FRB-07102019 0.11594	22-Jul-19	16:03:42
28	28	190722M1_28	1902097-19 EB-07112019 0.11543	22-Jul-19	16:14:14
29	29	190722M1_29	1902097-20 FRB-07112019 0.11658	22-Jul-19	16:24:52
30	30	190722M1_30	B9G0208-BS1 OPR 0.25	22-Jul-19	16:35:25
31	31	190722M1_31	B9G0208-BSD1 LCSD 0.25	22-Jul-19	16:46:04
32	32	190722M1_32	B9G0208-BLK1 Method Blank 0.25	22-Jul-19	16:56:37

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Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
33	33	190722M1_33	1902048-10RE1 EB06-070319 0.25028	22-Jul-19	17:07:15
34	34	190722M1_34	1902049-03RE1 EB07-070819 0.24588	22-Jul-19	17:17:49
35	35	190722M1_35	1902049-12RE1 EB08-070919 0.24611	22-Jul-19	17:28:28
36	36	190722M1_36	1902158-01 REEPAC1734FS 0.1187	22-Jul-19	17:39:06
37	37	190722M1_37	B9G0149-BLK1 Method Blank 1	22-Jul-19	17:49:39
38	38	190722M1_38	IPA	22-Jul-19	18:00:18
39	39	190722M1_39	ST190722M1-11 PFC CS3 19G1106	22-Jul-19	18:10:56
40	40	190722M1_40	IPA	22-Jul-19	18:21:34
41	41	190722M1_41	B9G0183-BS1 OPR 0.25	22-Jul-19	18:32:07
42	42	190722M1_42	B9G0183-BLK1 Method Blank 0.25	22-Jul-19	18:42:46
43	43	190722M1_43	1901661-01RE1 WMP1906180936BRH 0.25118	22-Jul-19	18:53:19
44	44	190722M1_44	1901661-02RE1 WEF1906180942BRH 0.24993	22-Jul-19	19:03:58
45	45	190722M1_45	1901661-03RE1 WEF1906180957BRH 0.25772	22-Jul-19	19:14:36
46	46	190722M1_46	1902105-01 6C Discharge 0.24191	22-Jul-19	19:25:09
47	47	190722M1_47	1902105-02 5A Raw Leachate 0.24309	22-Jul-19	19:35:47
48	48	190722M1_48	1902105-03 Field Blank 0.23889	22-Jul-19	19:46:21
49	49	190722M1_49	1902106-01 WT1907110855SK 0.23917	22-Jul-19	19:56:59
50	50	190722M1_50	1902106-02 WR1907110930SK 0.24874	22-Jul-19	20:07:32
51	51	190722M1_51	B9G0153-BS1 OPR 0.25	22-Jul-19	20:18:10
52	52	190722M1_52	B9G0153-BSD1 LCSD 0.25	22-Jul-19	20:28:44
53	53	190722M1_53	B9G0153-BLK1 Method Blank 0.25	22-Jul-19	20:39:22
54	54	190722M1_54	1902048-10 EB06-070319 0.2586	22-Jul-19	20:49:55
55	55	190722M1_55	1902049-03 EB07-070819 0.25547	22-Jul-19	21:00:33
56	56	190722M1_56	1902049-12 EB08-070919 0.25637	22-Jul-19	21:11:11
57	57	190722M1_57	IPA	22-Jul-19	21:21:45
58	58	190722M1_58	ST190722M1-12 PFC CS3 19G1106	22-Jul-19	21:32:24
59	59	190722M1_59	IPA	22-Jul-19	21:43:02
60	60	190722M1_60	B9G0134-BS1 OPR 0.25	22-Jul-19	21:53:36
61	61	190722M1_61	B9G0134-BSD1 LCSD 0.25	22-Jul-19	22:04:14
62	62	190722M1_62	B9G0134-BLK1 Method Blank 0.25	22-Jul-19	22:14:52
63	63	190722M1_63	1902003-01 REEPIN1709FS 0.11638	22-Jul-19	22:25:25
64	64	190722M1_64	1902014-03 FRB-07032019 0.11634	22-Jul-19	22:36:03
65	65	190722M1_65	1902014-04 EB-07032019 0.1175	22-Jul-19	22:46:42
66	66	190722M1_66	1902014-08 FRB-07082019 0.11724	22-Jul-19	22:57:14
67	67	190722M1_67	1902014-09 CAOA-B01-GW 0.12758	22-Jul-19	23:07:44
68	68	190722M1_68	1902014-10 EB-07082019 0.11822	22-Jul-19	23:18:22

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Dataset: Untitled

Last Altered: Tuesday, July 23, 2019 07:54:51 Pacific Daylight Time
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Compound name: PFBA

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69	69	190722M1_69	1902035-01 SWIN1907010900GGA 0.23211	22-Jul-19	23:28:55
70	70	190722M1_70	1902036-01 SWIN1907011000GGA 0.24039	22-Jul-19	23:39:34
71	71	190722M1_71	1902037-01 SWIN1907011400GGA 0.23721	22-Jul-19	23:50:07
72	72	190722M1_72	1902038-01 SWIN1907020900GGA 0.23487	23-Jul-19	00:00:45
73	73	190722M1_73	1902039-01 SWIN1907021000GGA 0.22004	23-Jul-19	00:11:18
74	74	190722M1_74	1902040-01 SWIN1907021100GGA 0.25691	23-Jul-19	00:21:56
75	75	190722M1_75	IPA	23-Jul-19	00:32:34
76	76	190722M1_76	ST190722M1-13 PFC CS3 19G1106	23-Jul-19	00:43:07
77	77	190722M1_77	IPA	23-Jul-19	00:53:46
78	78	190722M1_78	B9G0114-BS1 OPR 0.25	23-Jul-19	01:04:19
79	79	190722M1_79	B9G0114-BLK1 Method Blank 0.25	23-Jul-19	01:14:57
80	80	190722M1_80	1902005-01 SW1907030930GSC 0.23037	23-Jul-19	01:25:35
81	81	190722M1_81	1902005-02 EB1907030930GSC 0.25182	23-Jul-19	01:36:09
82	82	190722M1_82	1902005-03 SW1907030950GSC 0.22959	23-Jul-19	01:46:47
83	83	190722M1_83	1902005-04 SW1907031020GSC 0.21921	23-Jul-19	01:57:19
84	84	190722M1_84	1902006-01 GWIN1907020935GSC 0.23844	23-Jul-19	02:07:58
85	85	190722M1_85	1902007-01 SWIN1907021055GSC 0.24055	23-Jul-19	02:18:36
86	86	190722M1_86	1902008-01 SWIN1907021315GSC 0.24174	23-Jul-19	02:29:09
87	87	190722M1_87	1902009-01 SWIN1907021500GSC 0.24302	23-Jul-19	02:39:48
88	88	190722M1_88	1902009-02 SWIN1907021500GSC-FD 0.24258	23-Jul-19	02:50:21
89	89	190722M1_89	1902019-01 SWIN1906271100GGA 0.23337	23-Jul-19	03:01:00
90	90	190722M1_90	1902020-01 SWIN1906271400GGA 0.22976	23-Jul-19	03:11:33
91	91	190722M1_91	IPA	23-Jul-19	03:22:11
92	92	190722M1_92	ST190722M1-14 PFC CS3 19G1106	23-Jul-19	03:32:45
93	93	190722M1_93	IPA	23-Jul-19	03:43:23
94	94	190722M1_94	1902021-01 SWIN1906280800GGA 0.21775	23-Jul-19	03:54:01
95	95	190722M1_95	1902022-01 SWIN1906280900GGA 0.2307	23-Jul-19	04:04:35
96	96	190722M1_96	1902023-01 SWIN1906281400GGA 0.23222	23-Jul-19	04:15:13
97	97	190722M1_97	1902024-01 SWIN1907030900GGA 0.23598	23-Jul-19	04:25:46
98	98	190722M1_98	1902025-01 SWIN1907031200GGA 0.24424	23-Jul-19	04:36:24
99	99	190722M1_99	1902025-02 SWIN1907031200GGA-FD 0.23286	23-Jul-19	04:46:58
100	100	190722M1_100	IPA	23-Jul-19	04:57:36
101	101	190722M1_101	ST190722M1-15 PFC CS3 19G1106	23-Jul-19	05:08:08
102	102	190722M1_102	IPA	23-Jul-19	05:18:47

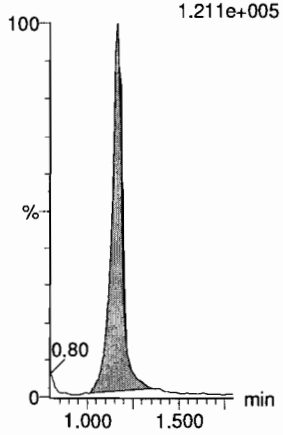
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Printed: Tuesday, July 23, 2019 07:53:53 Pacific Daylight Time

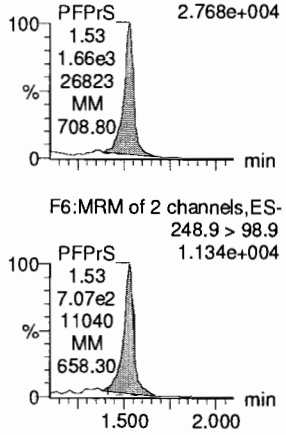
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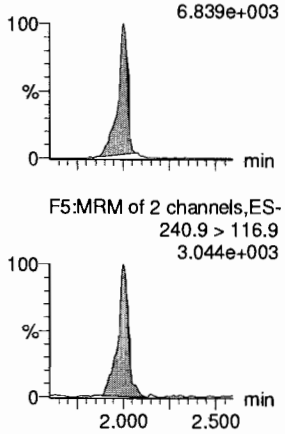
PFBA



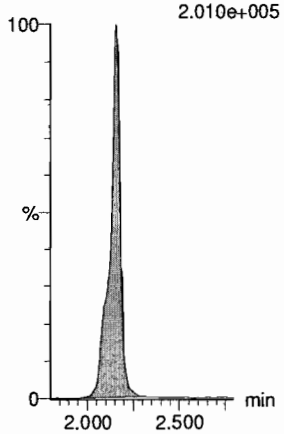
PFPrS



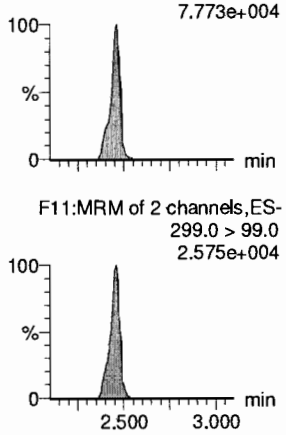
3:3 FTCA



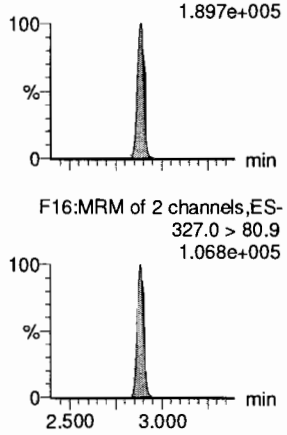
PFPeA



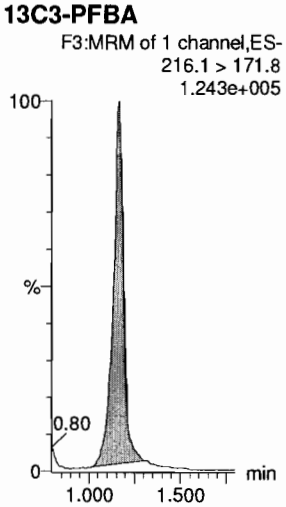
PFBS



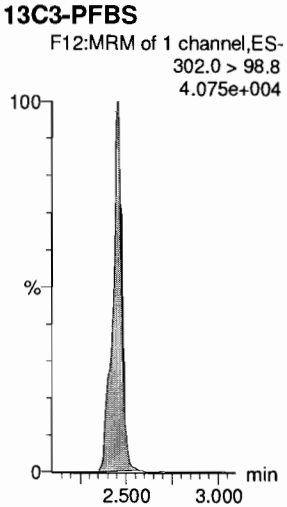
4:2 FTS



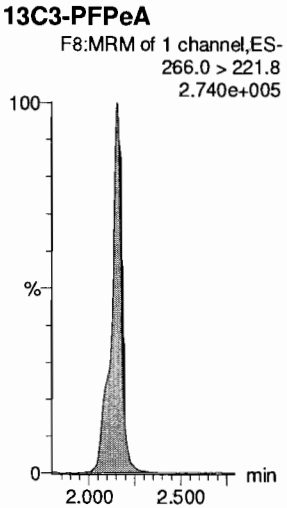
13C3-PFBA



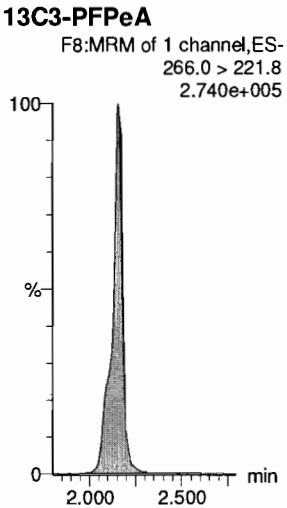
13C3-PFBS



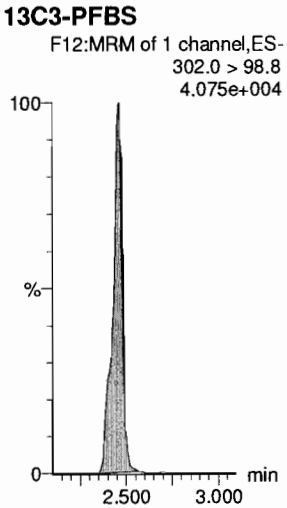
13C3-PFPeA



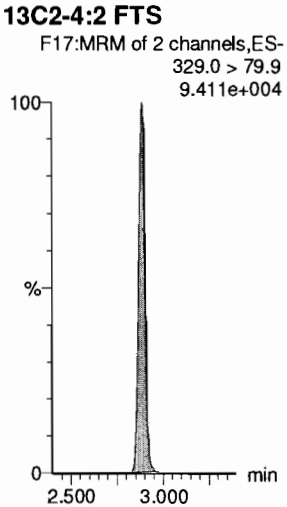
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

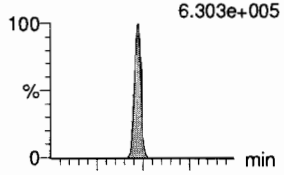


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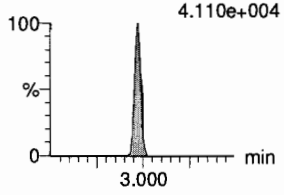
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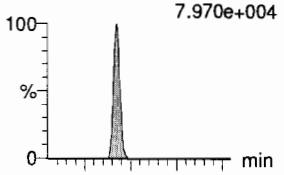
PFHxA
F13:MRM of 2 channels,ES-
313.0 > 269.0
6.303e+005



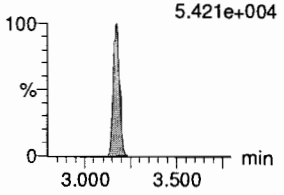
F13:MRM of 2 channels,ES-
313 > 118.9
4.110e+004



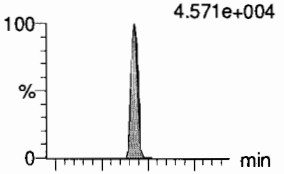
PFPeS
F19:MRM of 2 channels,ES-
349.1 > 80.1
7.970e+004



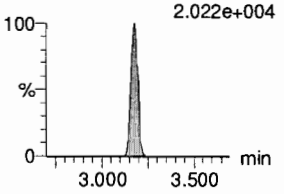
F19:MRM of 2 channels,ES-
349.1 > 99
5.421e+004



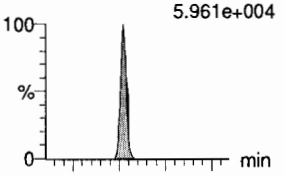
HFPO-DA
F9:MRM of 3 channels,ES-
285.1 > 168.9
4.571e+004



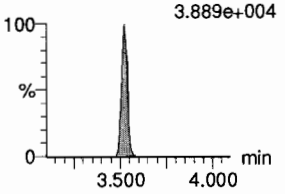
F9:MRM of 3 channels,ES-
285.1 > 184.9
2.022e+004



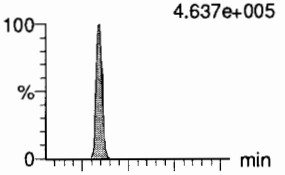
5:3 FTCA
F18:MRM of 2 channels,ES-
340.9 > 236.9
5.961e+004



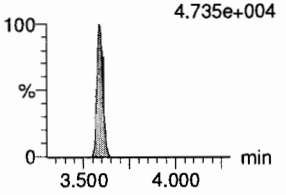
F18:MRM of 2 channels,ES-
340.9 > 216.9
3.889e+004



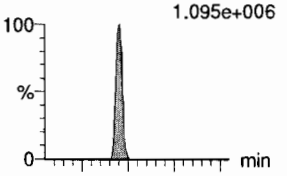
PFHpA
F20:MRM of 2 channels,ES-
363.0 > 318.9
4.637e+005



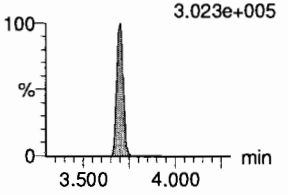
F20:MRM of 2 channels,ES-
363.0 > 169.0
4.735e+004



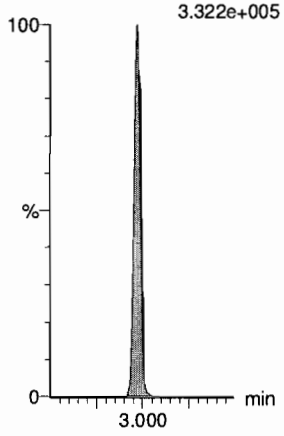
ADONA
F22:MRM of 2 channels,ES-
376.8 > 250.9
1.095e+006



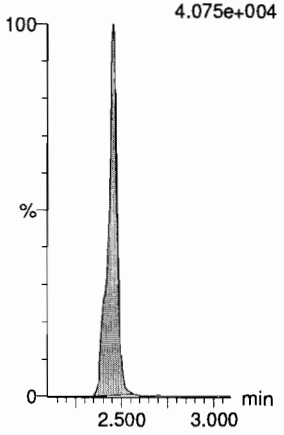
F22:MRM of 2 channels,ES-
376.8 > 85.0
3.023e+005



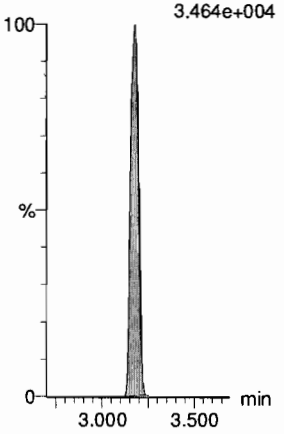
13C2-PFHxA
F14:MRM of 1 channel,ES-
315.0 > 270.0
3.322e+005



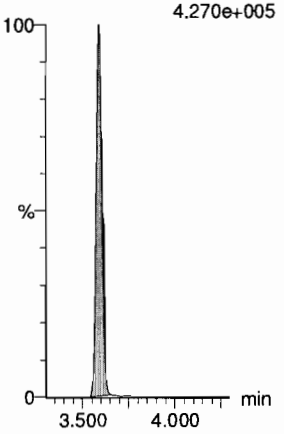
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
4.075e+004



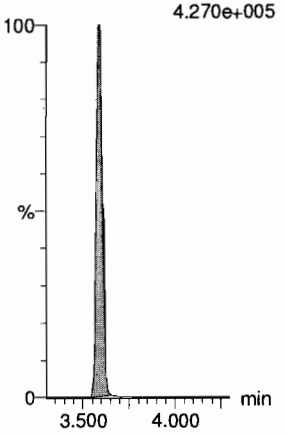
13C3-HFPO-DA
F10:MRM of 2 channels,ES-
287.0 > 168.9
3.464e+004



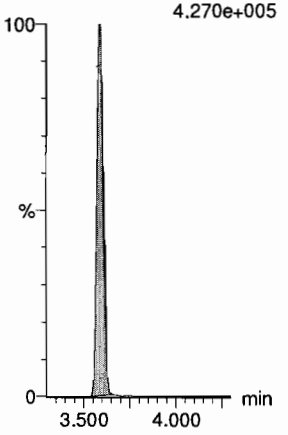
13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
4.270e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
4.270e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
4.270e+005



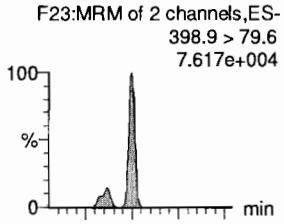
Vista Analytical Laboratory

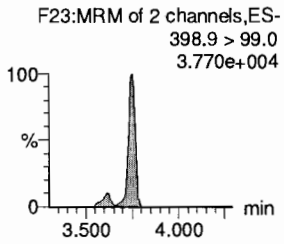
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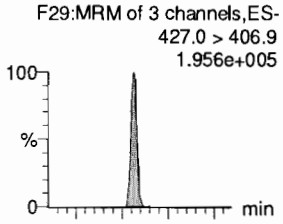
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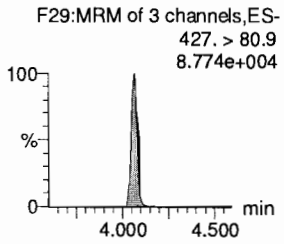
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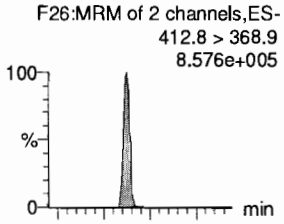


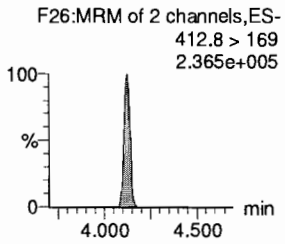
6:2 FTS



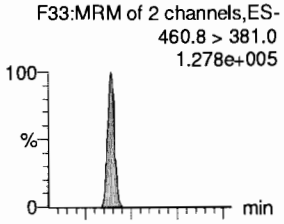


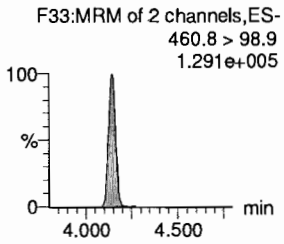
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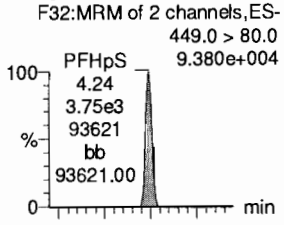


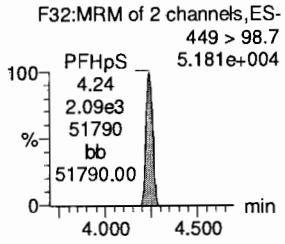
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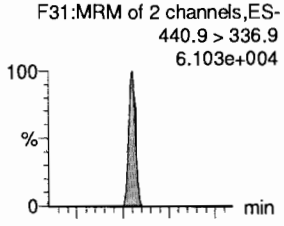


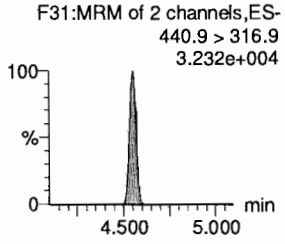
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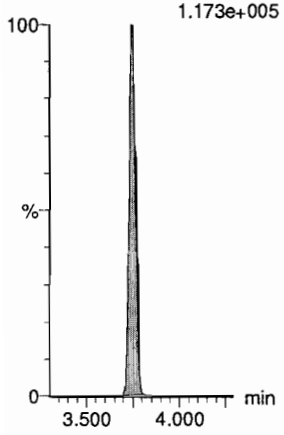


7:3 FTCA

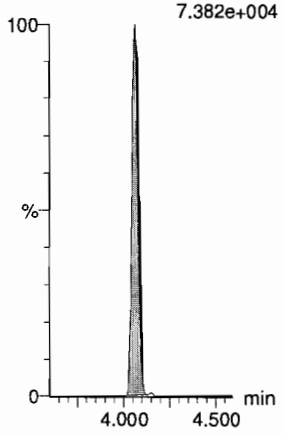




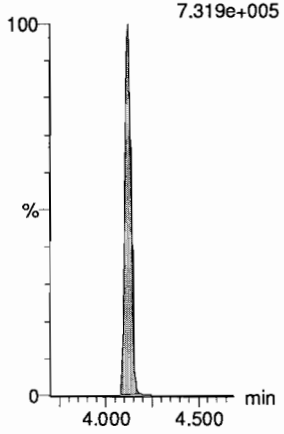
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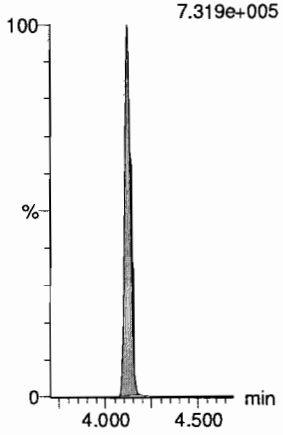
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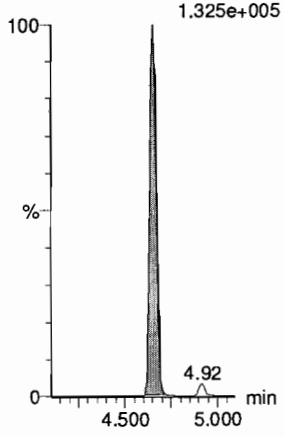
13C2-PFOA



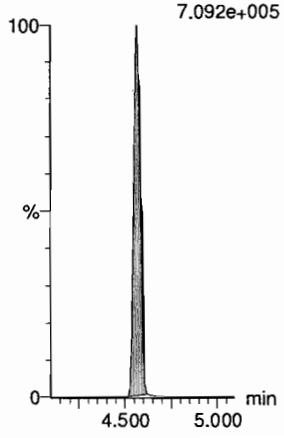
13C2-PFOA



13C8-PFOS



13C5-PFNA

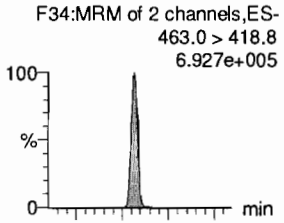


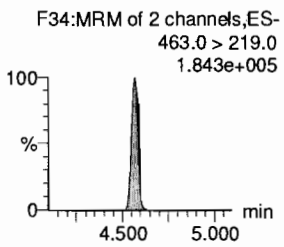
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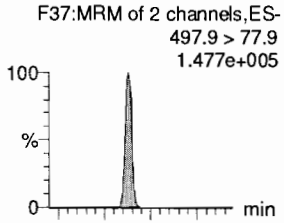
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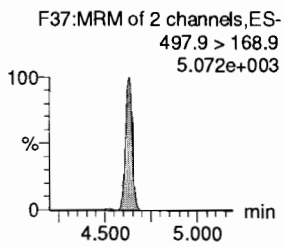
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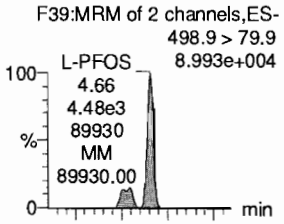


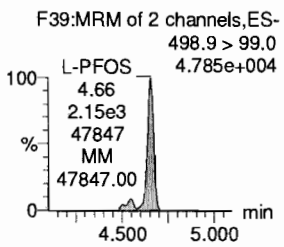
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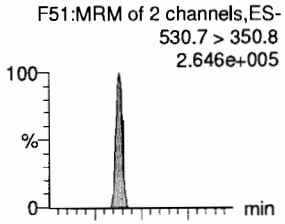


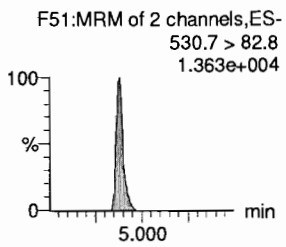
L-PFOS



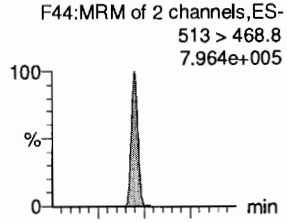


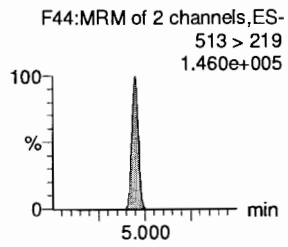
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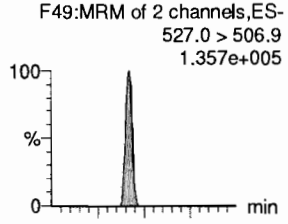


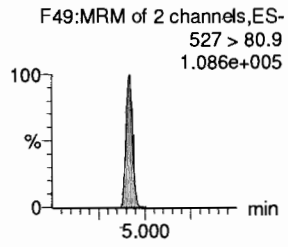
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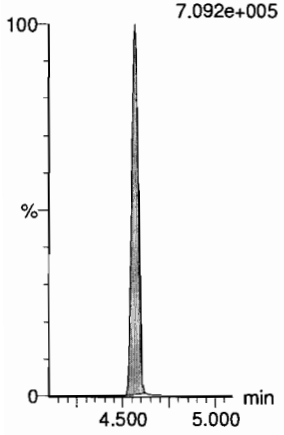


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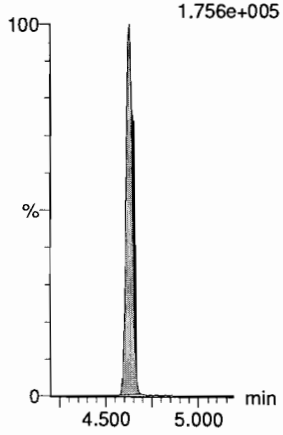




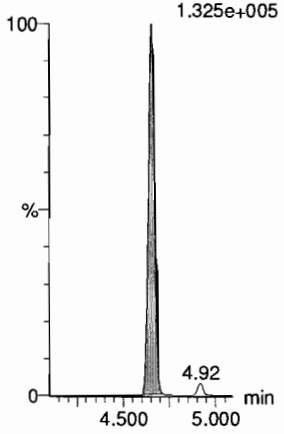
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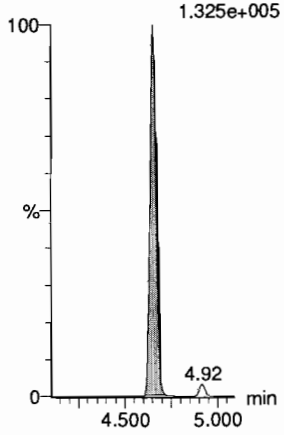
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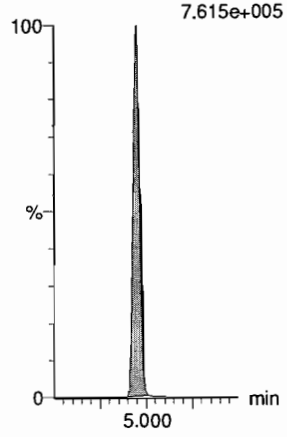
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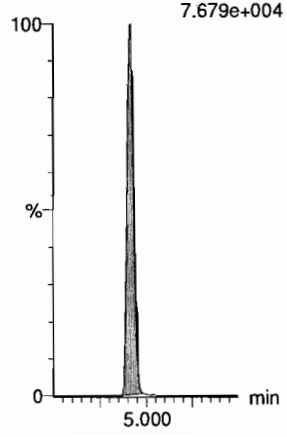
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

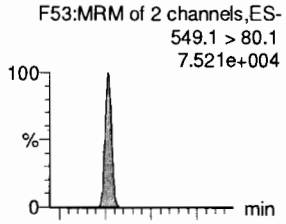


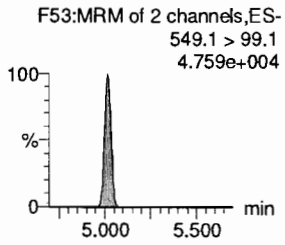
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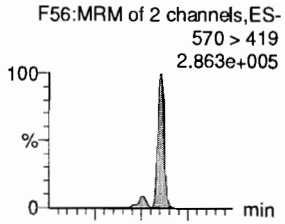
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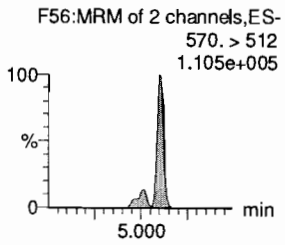
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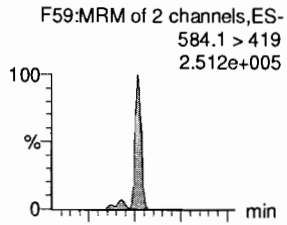


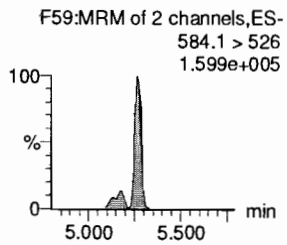
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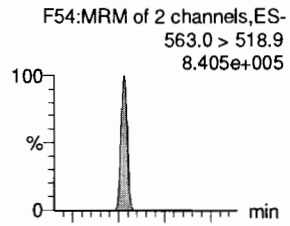


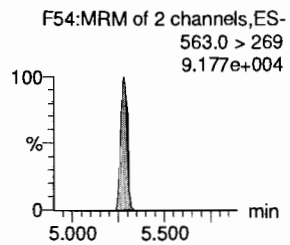
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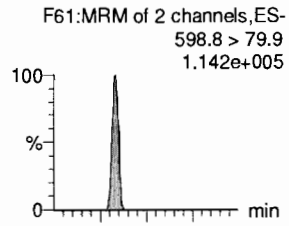


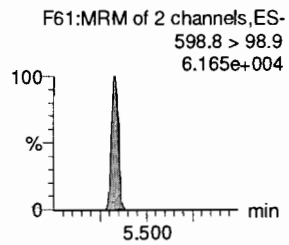
PFUdA



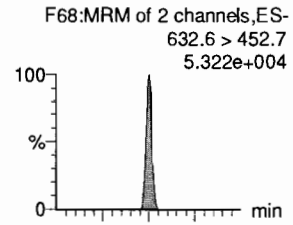


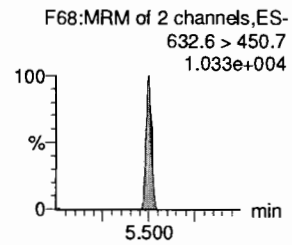
PFDS



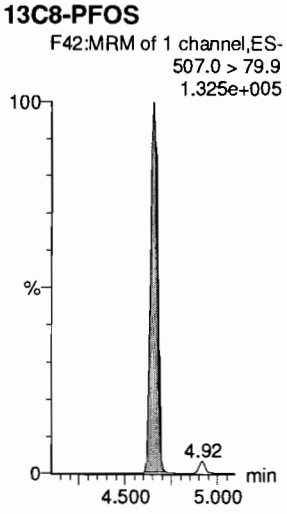


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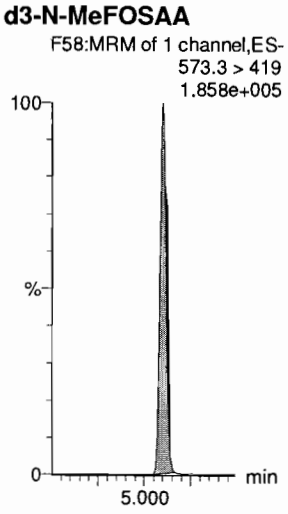




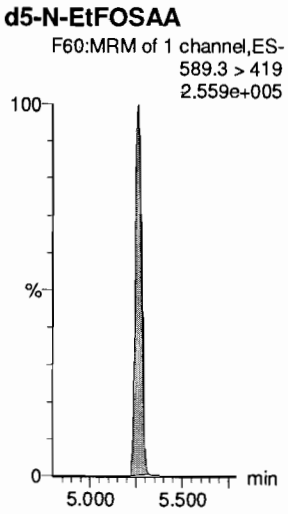
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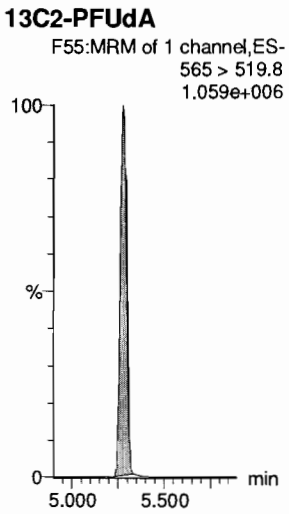
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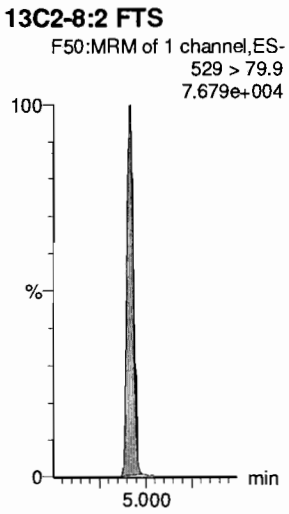
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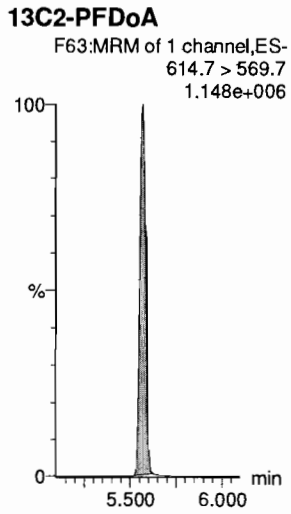
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

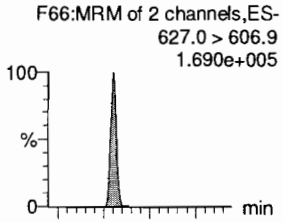


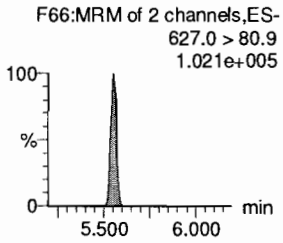
Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-58.qld

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Printed: Tuesday, July 23, 2019 07:53:53 Pacific Daylight Time

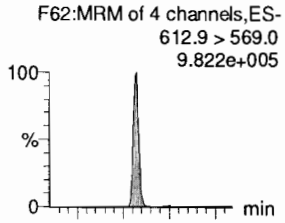
Name: 190722M1_58, Date: 22-Jul-2019, Time: 21:32:24, ID: ST190722M1-12 PFC CS3 19G1106, Description: PFC CS3 19G1106

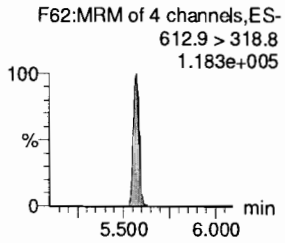
10:2 FTS



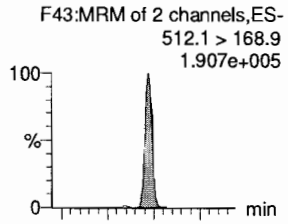


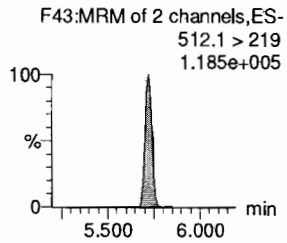
PFDoA



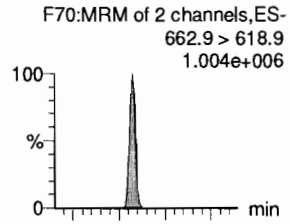


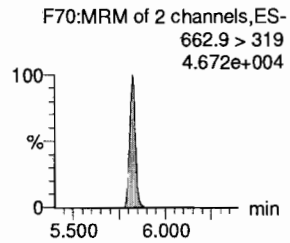
N-MeFOSA



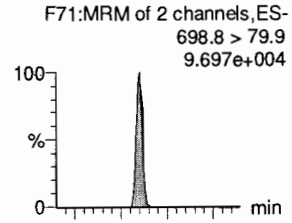


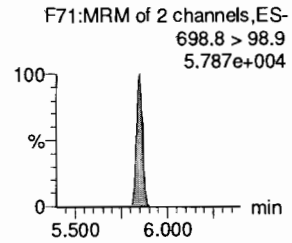
PFTrDA



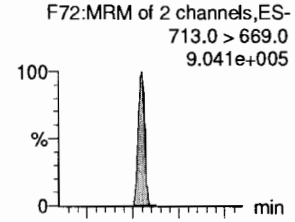


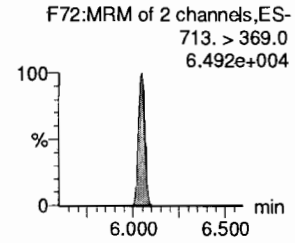
PFDoS



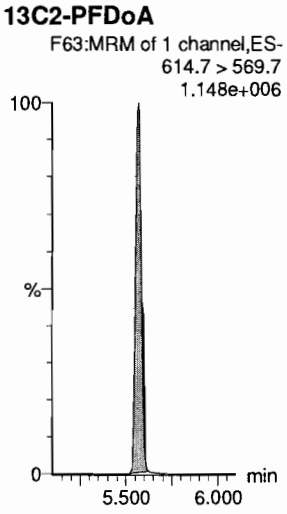


PFTeDA

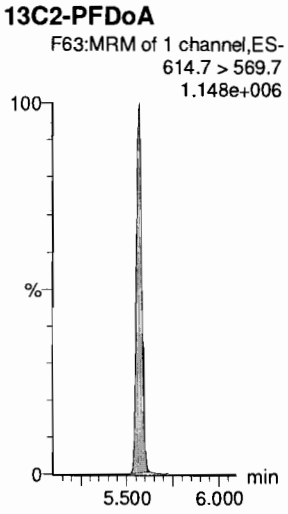




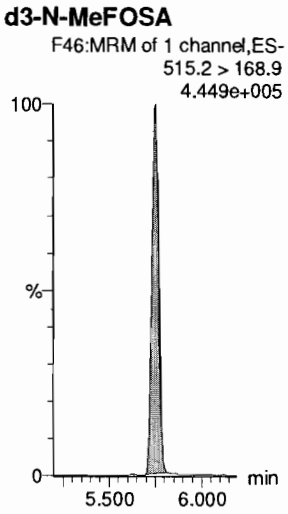
13C2-PFDoA



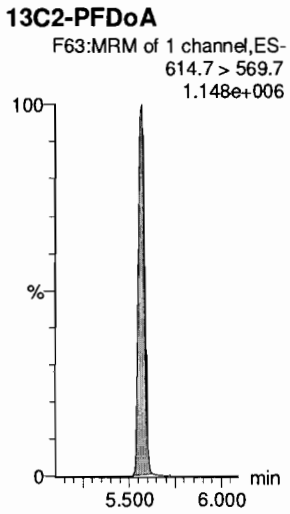
13C2-PFDoA



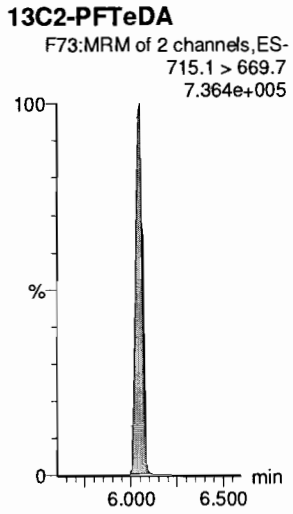
d3-N-MeFOSA



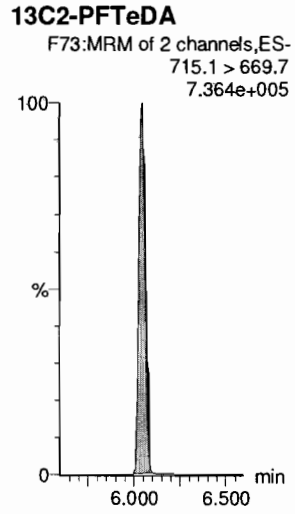
13C2-PFDoA



13C2-PFTeDA



13C2-PFTeDA

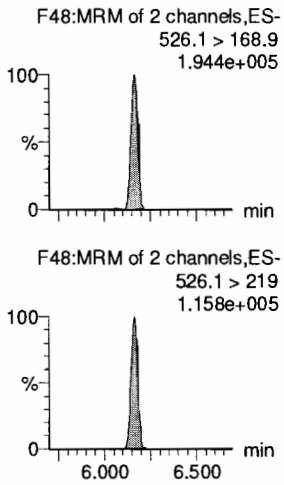


Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-58.qld

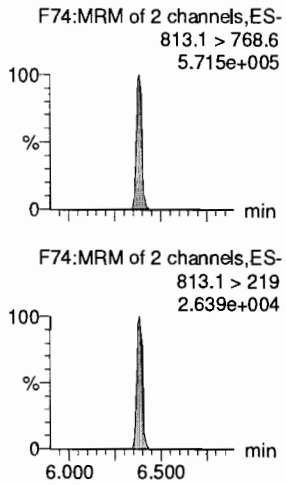
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Printed: Tuesday, July 23, 2019 07:53:53 Pacific Daylight Time

Name: 190722M1_58, Date: 22-Jul-2019, Time: 21:32:24, ID: ST190722M1-12 PFC CS3 19G1106, Description: PFC CS3 19G1106

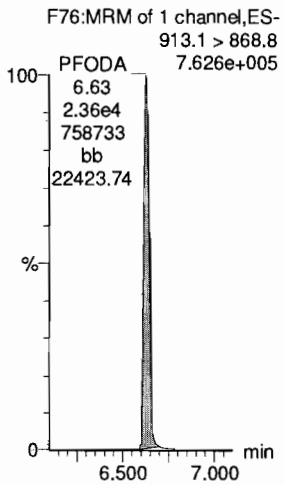
N-EtFOSA



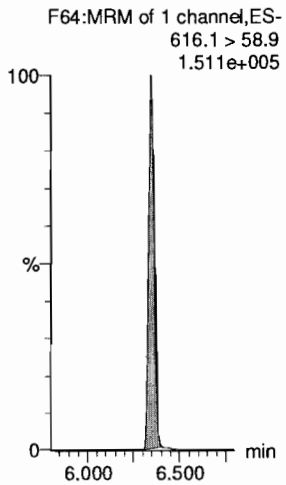
PFHxDA



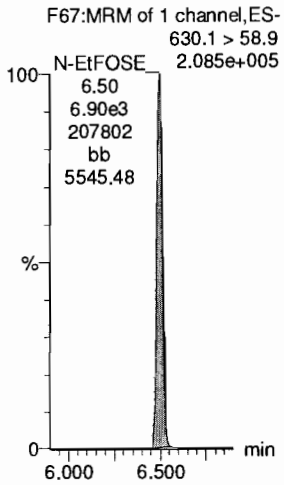
PFODA



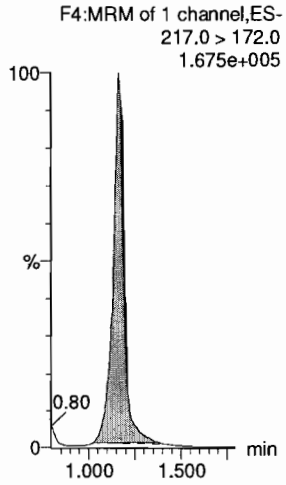
N-MeFOSE



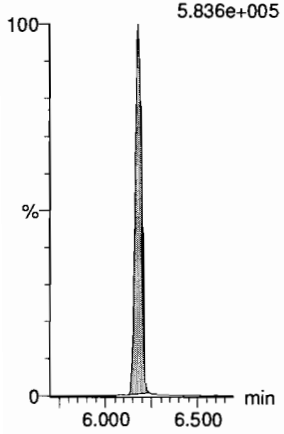
N-EtFOSE



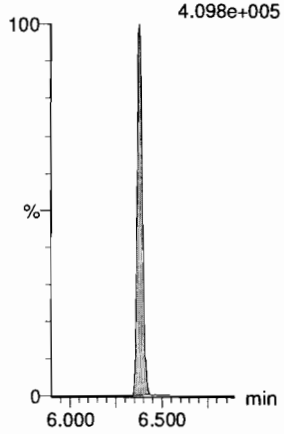
13C4-PFBA



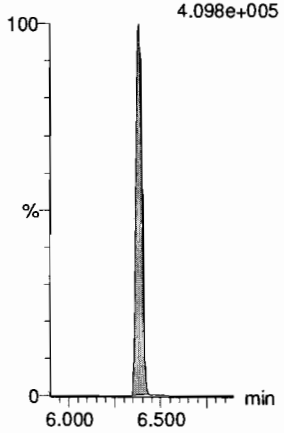
d5-N-ETFOSA



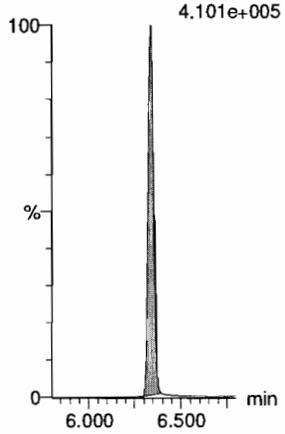
13C2-PFHxDA



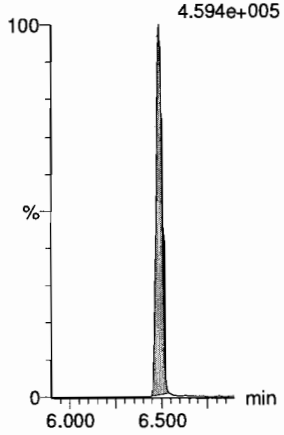
13C2-PFHxDA



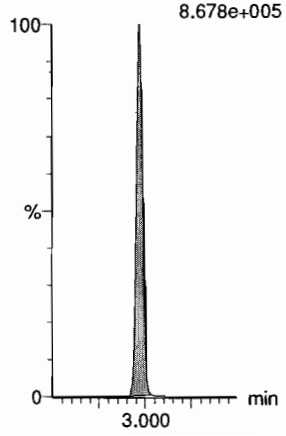
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

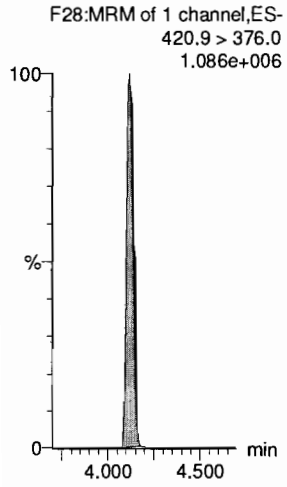


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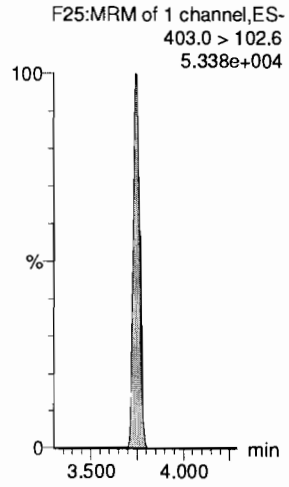
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Printed: Tuesday, July 23, 2019 07:53:53 Pacific Daylight Time

Name: 190722M1_58, Date: 22-Jul-2019, Time: 21:32:24, ID: ST190722M1-12 PFC CS3 19G1106, Description: PFC CS3 19G1106

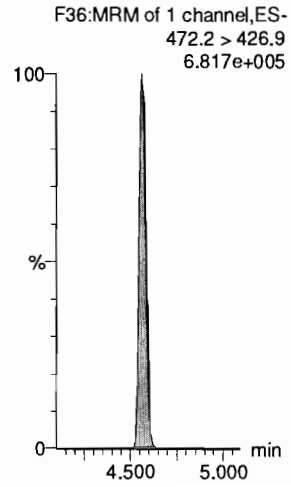
13C8-PFOA



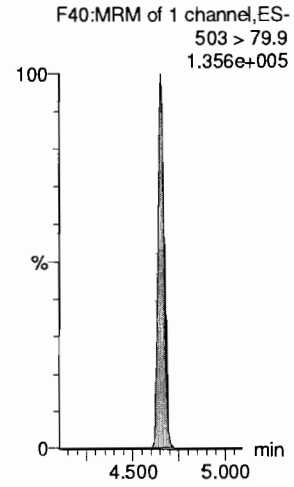
18O2-PFHxS



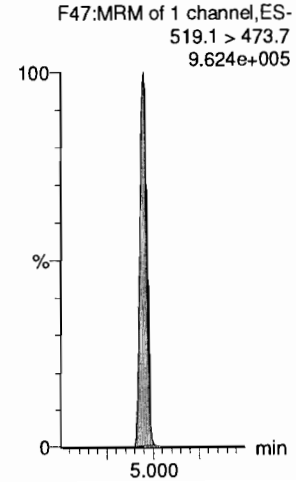
13C9-PFNA



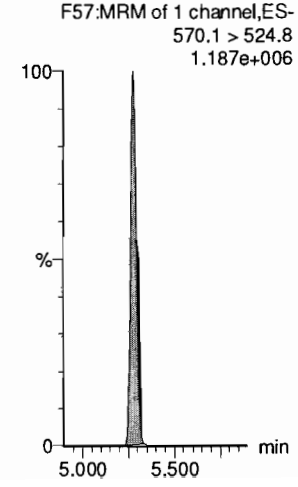
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-76.qld

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JAM 9/22/19

Name: 190722M1_76, Date: 23-Jul-2019, Time: 00:43:07, ID: ST190722M1-13 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8	8257.456	8177.145	1.00	1.17	12.623	10.1	101.3	NO		
2	2	PFPrS	248.9 > 79.9	1467.544	2402.652	1.00	1.53	7.635	8.2	82.2	NO	2.202	NO
3	3	3:3 FTCA	240.9 > 176.9	395.962	17228.277	1.00	2.01	0.287	8.4	83.8	NO	1.725	NO
4	4	PFPeA	263.1 > 218.9	12569.815	17228.277	1.00	2.16	9.120	9.9	98.6	NO		
5	5	PFBS	299.0 > 79.7	4300.651	2402.652	1.00	2.46	22.375	9.9	98.6	NO	2.905	NO
6	6	4:2 FTS	327.0 > 306.9	7452.138	3728.309	1.00	2.89	24.985	9.9	99.3	NO	1.742	NO
7	47	13C3-PFBA	216.1 > 171.8	8177.145	10992.699	1.00	1.17	9.298	12.7	101.4	NO		
8	49	13C3-PFBS	302.0 > 98.8	2402.652	2184.320	1.00	2.46	13.749	13.0	104.0	NO		
9	48	13C3-PFPeA	266.0 > 221.8	17228.277	34897.238	1.00	2.16	6.171	12.4	99.1	NO		
10	48	13C3-PFPeA	266.0 > 221.8	17228.277	34897.238	1.00	2.16	6.171	12.4	99.1	NO		
11	49	13C3-PFBS	302.0 > 98.8	2402.652	2184.320	1.00	2.46	13.749	13.0	104.0	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	3728.309	2184.320	1.00	2.89	21.336	12.9	103.5	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0	25249.801	13535.709	1.00	2.97	9.327	10.6	105.7	NO	15.829	NO
15	8	PFPeS	349.1>80.1	3140.786	2402.652	1.00	3.18	16.340	10.2	102.0	NO	1.510	NO
16	9	HFPO-DA	285.1 > 168.9	1924.352	1389.309	1.00	3.18	6.926	10.8	107.6	NO	1.898	NO
17	10	5:3 FTCA	340.9 > 236.9	2256.897	16158.318	1.00	3.53	1.746	9.5	94.8	NO	1.502	NO
18	11	PFHpA	363.0 > 318.9	16786.994	16158.318	1.00	3.59	12.986	10.0	100.3	NO	9.191	NO
19	12	ADONA	376.8 > 250.9	42572.688	16158.318	1.00	3.70	32.934	9.3	92.9	NO	3.592	NO
20	52	13C2-PFHxA	315.0 > 270.0	13535.709	34897.238	1.00	2.97	4.848	5.0	99.2	NO		
21	49	13C3-PFBS	302.0 > 98.8	2402.652	2184.320	1.00	2.46	13.749	13.0	104.0	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1389.309	34897.238	1.00	3.18	0.498	3.7	74.3	NO		
23	53	13C4-PFHpA	367.2 > 321.8	16158.318	34897.238	1.00	3.59	5.788	12.1	96.8	NO		
24	53	13C4-PFHpA	367.2 > 321.8	16158.318	34897.238	1.00	3.59	5.788	12.1	96.8	NO		
25	53	13C4-PFHpA	367.2 > 321.8	16158.318	34897.238	1.00	3.59	5.788	12.1	96.8	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6	3406.883	4437.089	1.00	3.75	9.598	10.5	105.2	NO	2.000	NO
28	15	6:2 FTS	427.0 > 406.9	7394.667	2782.331	1.00	4.06	33.222	9.9	98.7	NO	2.267	NO
29	16	L-PFOA	412.8 > 368.9	33229.500	27361.988	1.00	4.12	15.181	10.1	100.8	NO	3.733	NO
30	18	PFecHS	460.8 > 381.0	5060.941	27361.988	1.00	4.14	2.312	10.0	100.4	NO	0.916	NO
31	19	PFHpS	449.0 > 80.0	3904.190	5224.043	1.00	4.24	9.342	10.6	106.0	NO	1.734	NO
32	20	7:3 FTCA	440.9 > 336.9	2241.665	29301.979	1.00	4.55	0.956	8.1	80.9	NO	1.631	NO
33	54	13C3-PFHxS	401.8 > 79.9	4437.089	2184.320	1.00	3.75	25.392	12.5	100.4	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	2782.331	5211.642	1.00	4.06	6.673	12.4	99.6	NO		
35	58	13C2-PFOA	414.9 > 369.7	27361.988	40144.887	1.00	4.12	8.520	12.5	100.0	NO		
36	58	13C2-PFOA	414.9 > 369.7	27361.988	40144.887	1.00	4.12	8.520	12.5	100.0	NO		

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Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-76.qld

Last Altered: Tuesday, July 23, 2019 07:58:10 Pacific Daylight Time
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Name: 190722M1_76, Date: 23-Jul-2019, Time: 00:43:07, ID: ST190722M1-13 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	5224.043	5211.642	1.00	4.66	12.530	12.6	100.6	NO		
38	56	13C5-PFNA	468.2 > 422.9	29301.979	28395.895	1.00	4.57	12.899	12.9	103.0	NO		
39	-1												
40	21	PFNA	463.0 > 418.8	27806.543	29301.979	1.00	4.57	11.862	10.3	102.9	NO	3.943	NO
41	22	PFOSA	497.9 > 77.9	5724.838	6946.230	1.00	4.63	10.302	10.1	101.1	NO	27.794	NO
42	23	L-PFOS	498.9 > 79.9	4456.131	5224.043	1.00	4.66	10.663	10.0	99.9	NO	2.203	NO
43	25	9Cl-PF30NS	530.7 > 350.8	8949.543	5224.043	1.00	4.88	21.414	9.8	97.7	NO	16.689	NO
44	26	PFDA	513 > 468.8	32428.193	30196.896	1.00	4.95	13.424	10.4	104.2	NO	5.543	NO
45	27	8:2 FTS	527.0 > 506.9	4876.729	2856.691	1.00	4.92	21.339	10.5	105.0	NO	1.225	NO
46	56	13C5-PFNA	468.2 > 422.9	29301.979	28395.895	1.00	4.57	12.899	12.9	103.0	NO		
47	57	13C8-PFOSA	506.1 > 77.7	6946.230	43577.441	1.00	4.63	1.992	11.9	95.1	NO		
48	59	13C8-PFOS	507.0 > 79.9	5224.043	5211.642	1.00	4.66	12.530	12.6	100.6	NO		
49	59	13C8-PFOS	507.0 > 79.9	5224.043	5211.642	1.00	4.66	12.530	12.6	100.6	NO		
50	60	13C2-PFDA	515.1 > 469.9	30196.896	35958.430	1.00	4.95	10.497	12.8	102.5	NO		
51	61	13C2-8:2 FTS	529 > 79.9	2856.691	5211.642	1.00	4.92	6.852	12.3	98.5	NO		
52	-1												
53	28	PFNS	549.1 > 80.1	3121.684	5224.043	1.00	5.02	7.470	10.4	104.3	NO	1.591	NO
54	29	L-MeFOSAA	570 > 419	13368.010	8118.428	1.00	5.10	20.583	9.6	95.5	NO	2.637	NO
55	31	L-EtFOSAA	584.1 > 419	10267.573	10335.978	1.00	5.27	12.417	9.9	99.5	NO	1.368	NO
56	33	PFUdA	563.0 > 518.9	29953.459	39499.230	1.00	5.28	9.479	10.4	103.7	NO	8.272	NO
57	34	PFDS	598.8 > 79.9	4256.788	2856.691	1.00	5.33	18.626	10.9	109.3	NO	1.656	NO
58	35	11Cl-PF30UdS	632.6 > 452.7	1771.373	37535.020	1.00	5.50	0.590	10.2	102.3	NO	4.689	NO
59	59	13C8-PFOS	507.0 > 79.9	5224.043	5211.642	1.00	4.66	12.530	12.6	100.6	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	8118.428	43577.441	1.00	5.10	2.329	13.1	105.0	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	10335.978	43577.441	1.00	5.26	2.965	13.2	106.0	NO		
62	63	13C2-PFUdA	565 > 519.8	39499.230	43577.441	1.00	5.28	11.330	12.7	102.0	NO		
63	61	13C2-8:2 FTS	529 > 79.9	2856.691	5211.642	1.00	4.92	6.852	12.3	98.5	NO		
64	65	13C2-PFDoA	614.7 > 569.7	37535.020	35958.430	1.00	5.57	13.048	12.0	96.0	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9	5630.486	2856.691	1.00	5.55	24.637	10.2	102.1	NO	1.491	NO
67	37	PFDoA	612.9 > 569.0	33385.684	37535.020	1.00	5.57	11.118	10.4	103.9	NO	8.152	NO
68	38	N-MeFOSA	512.1 > 168.9	7667.171	18554.408	1.00	5.72	61.984	52.6	105.2	NO	1.553	NO
69	39	PFTrDA	662.9 > 618.9	34187.793	37535.020	1.00	5.82	11.385	10.0	99.7	NO	19.010	NO
70	40	PFDoS	698.8 > 79.9	3518.706	25335.500	1.00	5.85	1.736	10.5	105.1	NO	1.780	NO
71	41	PFTeDA	713.0 > 669.0	34437.383	25335.500	1.00	6.05	16.991	11.2	112.3	NO	13.887	NO
72	65	13C2-PFDoA	614.7 > 569.7	37535.020	35958.430	1.00	5.57	13.048	12.0	96.0	NO		

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-76.qld

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Name: 190722M1_76, Date: 23-Jul-2019, Time: 00:43:07, ID: ST190722M1-13 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	37535.020	35958.430	1.00	5.57	13.048	12.0	96.0	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	18554.408	43577.441	1.00	5.75	5.322	139.2	92.8	NO		
75	65	13C2-PFDoA	614.7 > 569.7	37535.020	35958.430	1.00	5.57	13.048	12.0	96.0	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	25335.500	43577.441	1.00	6.05	7.267	12.0	96.2	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	25335.500	43577.441	1.00	6.05	7.267	12.0	96.2	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9	8263.695	24093.463	1.00	6.17	51.448	52.7	105.4	NO	1.697	NO
80	43	PFHxDA	813.1 > 768.6	17279.902	12865.139	1.00	6.41	6.716	10.2	102.1	NO	20.413	NO
81	44	PFODA	913.1 > 868.8	23267.148	12865.139	1.00	6.65	9.043	11.8	118.2	NO		
82	45	N-MeFOSE	616.1 > 58.9	5430.028	14811.938	1.00	6.37	54.990	49.2	98.4	NO		
83	46	N-EtFOSE	630.1 > 58.9	6685.996	15511.131	1.00	6.52	64.657	50.0	100.0	NO		
84	72	13C4-PFBA	217.0 > 172.0	10992.699	10992.699	1.00	1.17	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	24093.463	43577.441	1.00	6.18	6.911	155.5	103.6	NO		
86	69	13C2-PFHxDA	815 > 769.7	12865.139	43577.441	1.00	6.41	3.690	4.7	93.7	NO		
87	69	13C2-PFHxDA	815 > 769.7	12865.139	43577.441	1.00	6.41	3.690	4.7	93.7	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	14811.938	43577.441	1.00	6.36	4.249	135.7	90.5	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	15511.131	43577.441	1.00	6.51	4.449	135.4	90.3	NO		
90	73	13C5-PFHxA	318.0 > 272.9	34897.238	34897.238	1.00	2.97	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	40144.887	40144.887	1.00	4.12	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	2184.320	2184.320	1.00	3.75	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	28395.895	28395.895	1.00	4.57	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	5211.642	5211.642	1.00	4.66	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	35958.430	35958.430	1.00	4.95	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	43577.441	43577.441	1.00	5.28	12.500	12.5	100.0	NO		

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Dataset: Untitled

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072219.mdb 22 Jul 2019 13:12:22
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	190722M1_1	IPA	22-Jul-19	09:54:51
2	2	190722M1_2	IPA	22-Jul-19	10:05:26
3	3	190722M1_3	IPA	22-Jul-19	10:16:04
4	4	190722M1_4	ST190722M1-1 PFC CS-2 19G1101	22-Jul-19	10:26:37
5	5	190722M1_5	ST190722M1-2 PFC CS-1 19G1102	22-Jul-19	10:37:15
6	6	190722M1_6	ST190722M1-3 PFC CS0 19G1103	22-Jul-19	10:47:48
7	7	190722M1_7	ST190722M1-4 PFC CS1 19G1104	22-Jul-19	10:58:26
8	8	190722M1_8	ST190722M1-5 PFC CS2 19G1105	22-Jul-19	11:09:04
9	9	190722M1_9	ST190722M1-6 PFC CS3 19G1106	22-Jul-19	11:19:37
10	10	190722M1_10	ST190722M1-7 PFC CS4 19G1107	22-Jul-19	11:30:15
11	11	190722M1_11	ST190722M1-8 PFC CS5 19G1108	22-Jul-19	11:40:48
12	12	190722M1_12	ST190722M1-9 PFC CS6 19G1109	22-Jul-19	11:51:27
13	13	190722M1_13	ST190722M1-10 PFC CS7 19G1110	22-Jul-19	12:02:00
14	14	190722M1_14	IB	22-Jul-19	12:12:38
15	15	190722M1_15	ICV190722M1-1 PFC ICV 19F2422	22-Jul-19	12:23:11
16	16	190722M1_16	IPA	22-Jul-19	12:33:49
17	17	190722M1_17	1901887-01@10X Ivyland Mop Water 0.24039	22-Jul-19	14:12:03
18	18	190722M1_18	B9G0184-BLK1 Method Blank 0.25	22-Jul-19	14:22:44
19	19	190722M1_19	B9G0185-BS1 OPR 0.125	22-Jul-19	14:34:56
20	20	190722M1_20	B9G0185-BSD1 LCSD 0.125	22-Jul-19	14:47:45
21	21	190722M1_21	B9G0185-BLK1 Method Blank 0.125	22-Jul-19	14:58:19
22	22	190722M1_22	1902097-03 SAOA-B10-GW 0.11593	22-Jul-19	15:08:58
23	23	190722M1_23	1902097-04 SAOA-B10-GW-D 0.12246	22-Jul-19	15:19:36
24	24	190722M1_24	1902097-05 EB-07092019 0.11645	22-Jul-19	15:30:10
25	25	190722M1_25	1902097-07 FRB-07092019 0.11539	22-Jul-19	15:40:48
26	26	190722M1_26	1902097-14 EB-07102019 0.11614	22-Jul-19	15:53:08
27	27	190722M1_27	1902097-15 FRB-07102019 0.11594	22-Jul-19	16:03:42
28	28	190722M1_28	1902097-19 EB-07112019 0.11543	22-Jul-19	16:14:14
29	29	190722M1_29	1902097-20 FRB-07112019 0.11658	22-Jul-19	16:24:52
30	30	190722M1_30	B9G0208-BS1 OPR 0.25	22-Jul-19	16:35:25
31	31	190722M1_31	B9G0208-BSD1 LCSD 0.25	22-Jul-19	16:46:04
32	32	190722M1_32	B9G0208-BLK1 Method Blank 0.25	22-Jul-19	16:56:37

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Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
33	33	190722M1_33	1902048-10RE1 EB06-070319 0.25028	22-Jul-19	17:07:15
34	34	190722M1_34	1902049-03RE1 EB07-070819 0.24588	22-Jul-19	17:17:49
35	35	190722M1_35	1902049-12RE1 EB08-070919 0.24611	22-Jul-19	17:28:28
36	36	190722M1_36	1902158-01 REEPAC1734FS 0.1187	22-Jul-19	17:39:06
37	37	190722M1_37	B9G0149-BLK1 Method Blank 1	22-Jul-19	17:49:39
38	38	190722M1_38	IPA	22-Jul-19	18:00:18
39	39	190722M1_39	ST190722M1-11 PFC CS3 19G1106	22-Jul-19	18:10:56
40	40	190722M1_40	IPA	22-Jul-19	18:21:34
41	41	190722M1_41	B9G0183-BS1 OPR 0.25	22-Jul-19	18:32:07
42	42	190722M1_42	B9G0183-BLK1 Method Blank 0.25	22-Jul-19	18:42:46
43	43	190722M1_43	1901661-01RE1 WMP1906180936BRH 0.25118	22-Jul-19	18:53:19
44	44	190722M1_44	1901661-02RE1 WEF1906180942BRH 0.24993	22-Jul-19	19:03:58
45	45	190722M1_45	1901661-03RE1 WEF1906180957BRH 0.25772	22-Jul-19	19:14:36
46	46	190722M1_46	1902105-01 6C Discharge 0.24191	22-Jul-19	19:25:09
47	47	190722M1_47	1902105-02 5A Raw Leachate 0.24309	22-Jul-19	19:35:47
48	48	190722M1_48	1902105-03 Field Blank 0.23889	22-Jul-19	19:46:21
49	49	190722M1_49	1902106-01 WT1907110855SK 0.23917	22-Jul-19	19:56:59
50	50	190722M1_50	1902106-02 WR1907110930SK 0.24874	22-Jul-19	20:07:32
51	51	190722M1_51	B9G0153-BS1 OPR 0.25	22-Jul-19	20:18:10
52	52	190722M1_52	B9G0153-BSD1 LCSD 0.25	22-Jul-19	20:28:44
53	53	190722M1_53	B9G0153-BLK1 Method Blank 0.25	22-Jul-19	20:39:22
54	54	190722M1_54	1902048-10 EB06-070319 0.2586	22-Jul-19	20:49:55
55	55	190722M1_55	1902049-03 EB07-070819 0.25547	22-Jul-19	21:00:33
56	56	190722M1_56	1902049-12 EB08-070919 0.25637	22-Jul-19	21:11:11
57	57	190722M1_57	IPA	22-Jul-19	21:21:45
58	58	190722M1_58	ST190722M1-12 PFC CS3 19G1106	22-Jul-19	21:32:24
59	59	190722M1_59	IPA	22-Jul-19	21:43:02
60	60	190722M1_60	B9G0134-BS1 OPR 0.25	22-Jul-19	21:53:36
61	61	190722M1_61	B9G0134-BSD1 LCSD 0.25	22-Jul-19	22:04:14
62	62	190722M1_62	B9G0134-BLK1 Method Blank 0.25	22-Jul-19	22:14:52
63	63	190722M1_63	1902003-01 REEPIN1709FS 0.11638	22-Jul-19	22:25:25
64	64	190722M1_64	1902014-03 FRB-07032019 0.11634	22-Jul-19	22:36:03
65	65	190722M1_65	1902014-04 EB-07032019 0.1175	22-Jul-19	22:46:42
66	66	190722M1_66	1902014-08 FRB-07082019 0.11724	22-Jul-19	22:57:14
67	67	190722M1_67	1902014-09 CAOA-B01-GW 0.12758	22-Jul-19	23:07:44
68	68	190722M1_68	1902014-10 EB-07082019 0.11822	22-Jul-19	23:18:22

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Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
69	69	190722M1_69	1902035-01 SWIN1907010900GGA 0.23211	22-Jul-19	23:28:55
70	70	190722M1_70	1902036-01 SWIN1907011000GGA 0.24039	22-Jul-19	23:39:34
71	71	190722M1_71	1902037-01 SWIN1907011400GGA 0.23721	22-Jul-19	23:50:07
72	72	190722M1_72	1902038-01 SWIN1907020900GGA 0.23487	23-Jul-19	00:00:45
73	73	190722M1_73	1902039-01 SWIN1907021000GGA 0.22004	23-Jul-19	00:11:18
74	74	190722M1_74	1902040-01 SWIN1907021100GGA 0.25691	23-Jul-19	00:21:56
75	75	190722M1_75	IPA	23-Jul-19	00:32:34
76	76	190722M1_76	ST190722M1-13 PFC CS3 19G1106	23-Jul-19	00:43:07
77	77	190722M1_77	IPA	23-Jul-19	00:53:46
78	78	190722M1_78	B9G0114-BS1 OPR 0.25	23-Jul-19	01:04:19
79	79	190722M1_79	B9G0114-BLK1 Method Blank 0.25	23-Jul-19	01:14:57
80	80	190722M1_80	1902005-01 SW1907030930GSC 0.23037	23-Jul-19	01:25:35
81	81	190722M1_81	1902005-02 EB1907030930GSC 0.25182	23-Jul-19	01:36:09
82	82	190722M1_82	1902005-03 SW1907030950GSC 0.22959	23-Jul-19	01:46:47
83	83	190722M1_83	1902005-04 SW1907031020GSC 0.21921	23-Jul-19	01:57:19
84	84	190722M1_84	1902006-01 GWIN1907020935GSC 0.23844	23-Jul-19	02:07:58
85	85	190722M1_85	1902007-01 SWIN1907021055GSC 0.24055	23-Jul-19	02:18:36
86	86	190722M1_86	1902008-01 SWIN1907021315GSC 0.24174	23-Jul-19	02:29:09
87	87	190722M1_87	1902009-01 SWIN1907021500GSC 0.24302	23-Jul-19	02:39:48
88	88	190722M1_88	1902009-02 SWIN1907021500GSC-FD 0.24258	23-Jul-19	02:50:21
89	89	190722M1_89	1902019-01 SWIN1906271100GGA 0.23337	23-Jul-19	03:01:00
90	90	190722M1_90	1902020-01 SWIN1906271400GGA 0.22976	23-Jul-19	03:11:33
91	91	190722M1_91	IPA	23-Jul-19	03:22:11
92	92	190722M1_92	ST190722M1-14 PFC CS3 19G1106	23-Jul-19	03:32:45
93	93	190722M1_93	IPA	23-Jul-19	03:43:23
94	94	190722M1_94	1902021-01 SWIN1906280800GGA 0.21775	23-Jul-19	03:54:01
95	95	190722M1_95	1902022-01 SWIN1906280900GGA 0.2307	23-Jul-19	04:04:35
96	96	190722M1_96	1902023-01 SWIN1906281400GGA 0.23222	23-Jul-19	04:15:13
97	97	190722M1_97	1902024-01 SWIN1907030900GGA 0.23598	23-Jul-19	04:25:46
98	98	190722M1_98	1902025-01 SWIN1907031200GGA 0.24424	23-Jul-19	04:36:24
99	99	190722M1_99	1902025-02 SWIN1907031200GGA-FD 0.23286	23-Jul-19	04:46:58
100	100	190722M1_100	IPA	23-Jul-19	04:57:36
101	101	190722M1_101	ST190722M1-15 PFC CS3 19G1106	23-Jul-19	05:08:08
102	102	190722M1_102	IPA	23-Jul-19	05:18:47

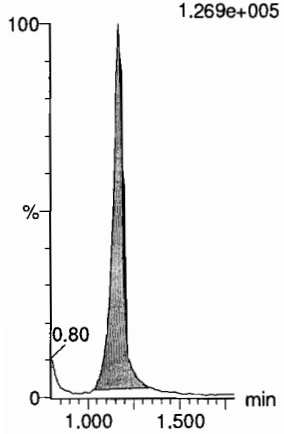
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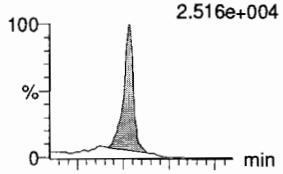
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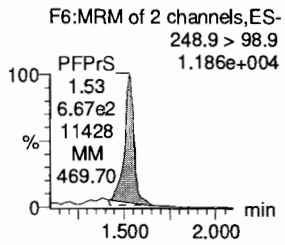
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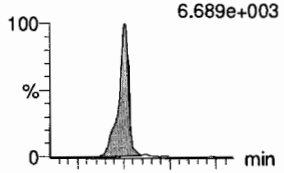
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Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

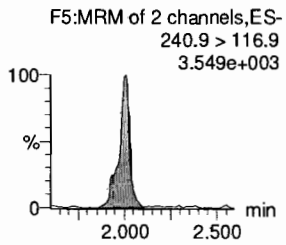
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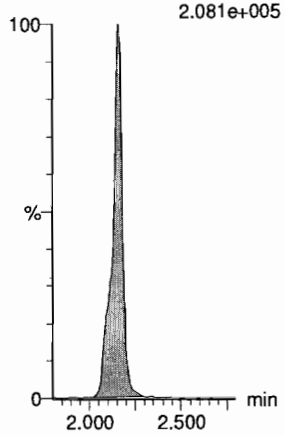
PFBA
F2:MRM of 1 channel,ES-
213.0 > 168.8
1.269e+005


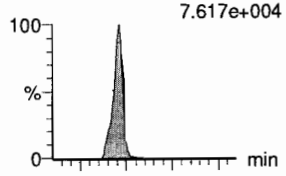
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F6:MRM of 2 channels,ES-
248.9 > 79.9
2.516e+004


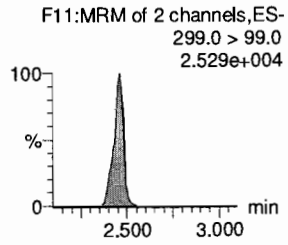
F6:MRM of 2 channels,ES-
248.9 > 98.9
1.186e+004


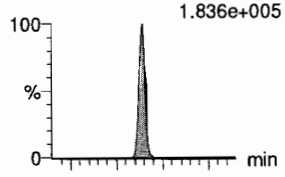
3:3 FTCA
F5:MRM of 2 channels,ES-
240.9 > 176.9
6.689e+003


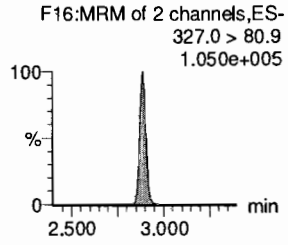
F5:MRM of 2 channels,ES-
240.9 > 116.9
3.549e+003


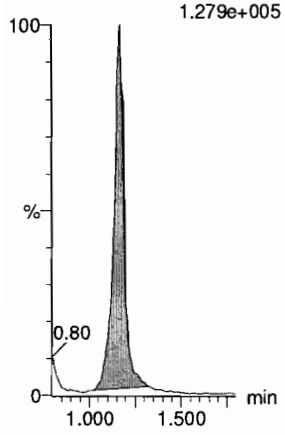
PFPeA
F7:MRM of 1 channel,ES-
263.1 > 218.9
2.081e+005


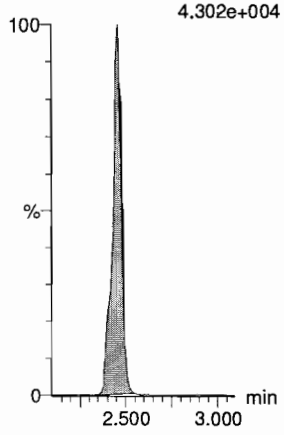
PFBS
F11:MRM of 2 channels,ES-
299.0 > 79.7
7.617e+004


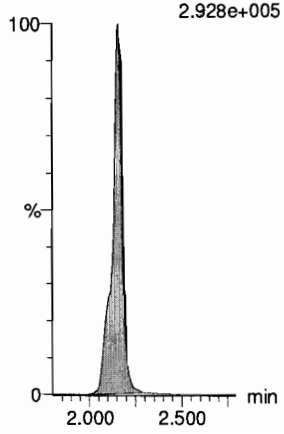
F11:MRM of 2 channels,ES-
299.0 > 99.0
2.529e+004


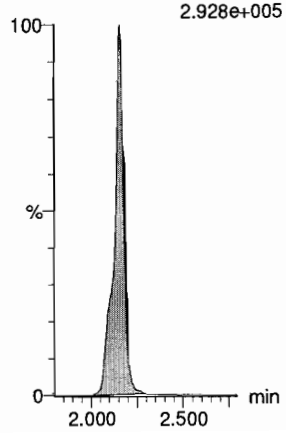
4:2 FTS
F16:MRM of 2 channels,ES-
327.0 > 306.9
1.836e+005


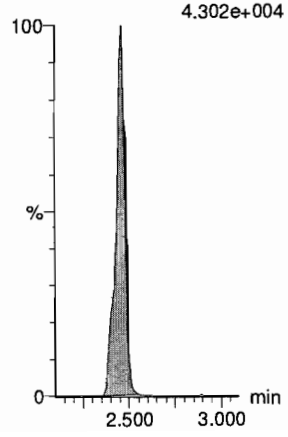
F16:MRM of 2 channels,ES-
327.0 > 80.9
1.050e+005


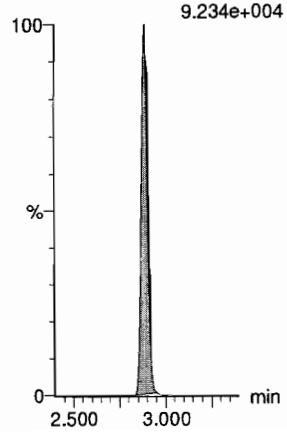
13C3-PFBA
F3:MRM of 1 channel,ES-
216.1 > 171.8
1.279e+005


13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
4.302e+004


13C3-PFPeA
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.928e+005


13C3-PFPeA
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.928e+005


13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
4.302e+004


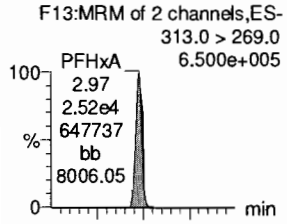
13C2-4:2 FTS
F17:MRM of 2 channels,ES-
329.0 > 79.9
9.234e+004


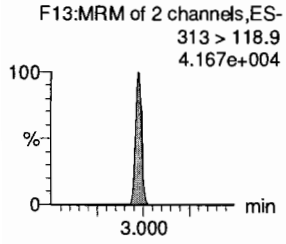
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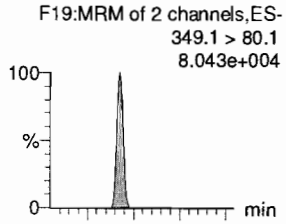
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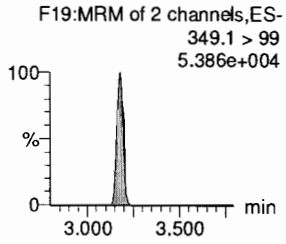
PFHxA



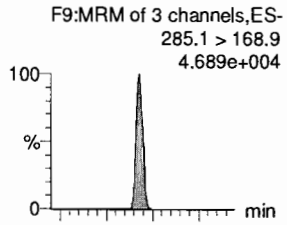


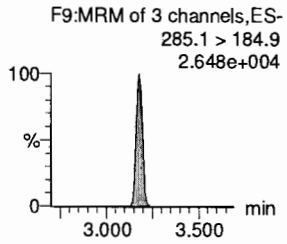
PFPeS



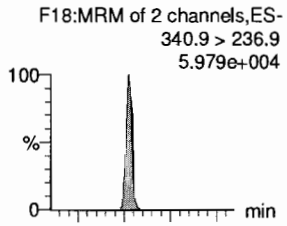


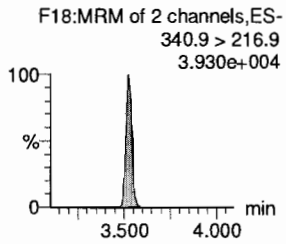
HFPO-DA



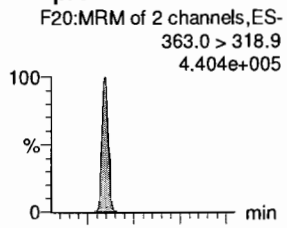


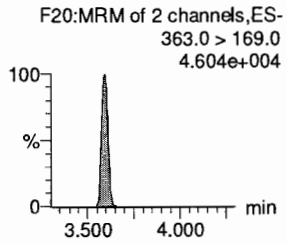
5:3 FTCA



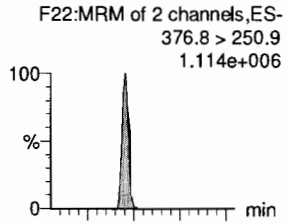


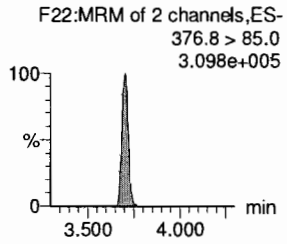
PFHpA



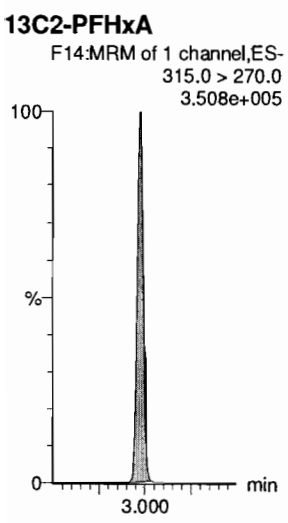


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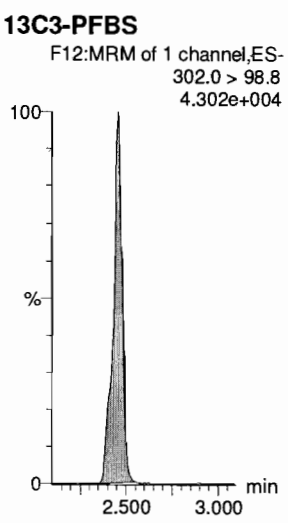




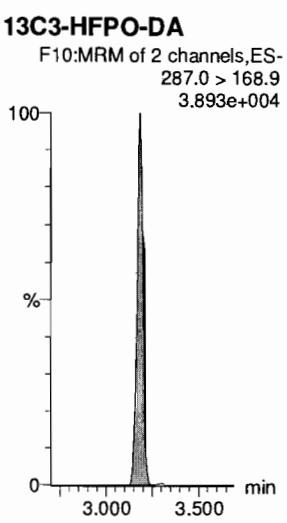
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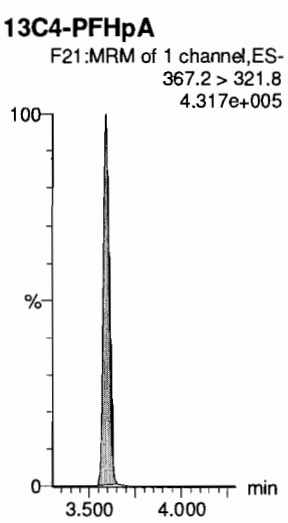
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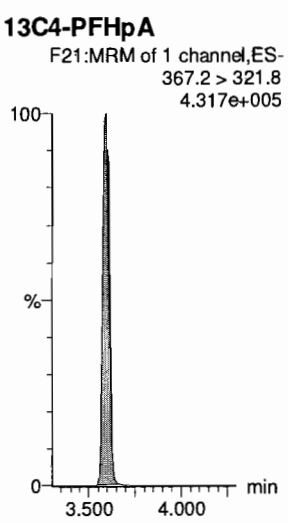
13C3-HFPO-DA



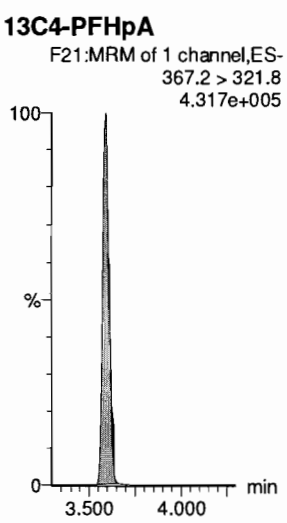
13C4-PFHpA



13C4-PFHpA



13C4-PFHpA

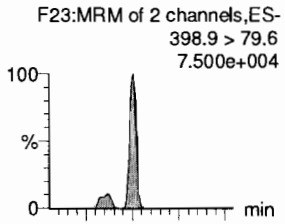


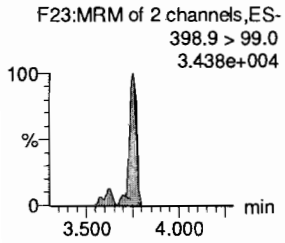
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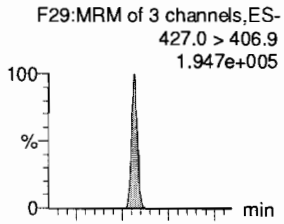
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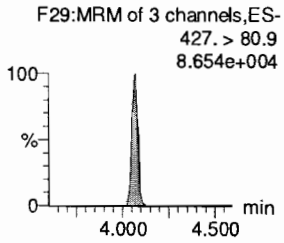
L-PFHxS



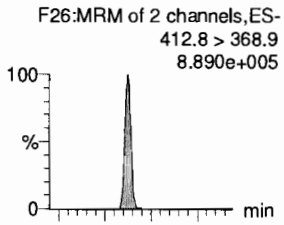


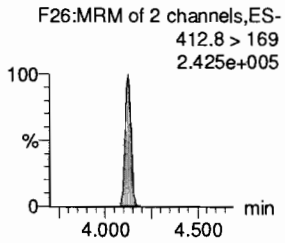
6:2 FTS



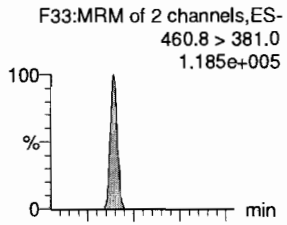


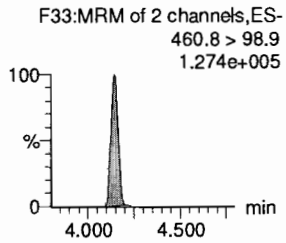
L-PFOA



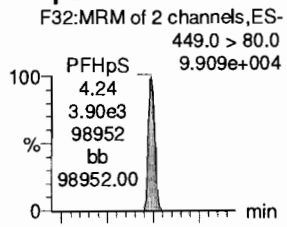


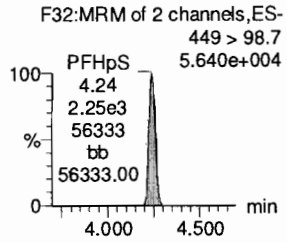
PFEChS



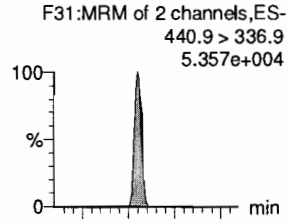


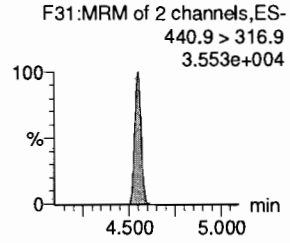
PFHpS



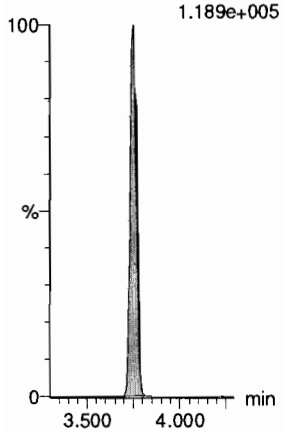


7:3 FTCA

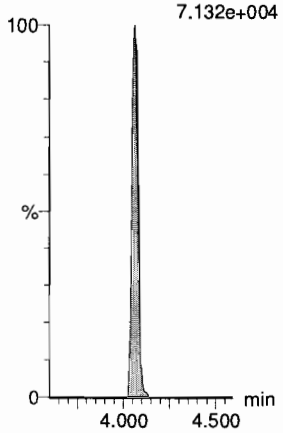




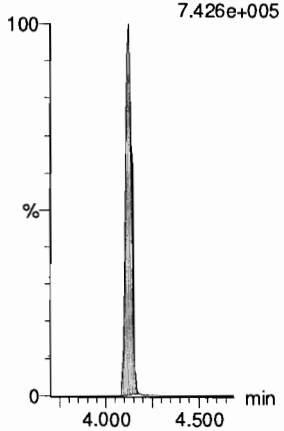
13C3-PFHxS



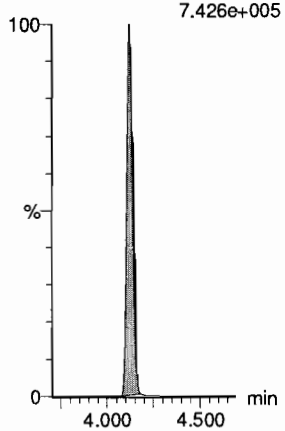
13C2-6:2 FTS



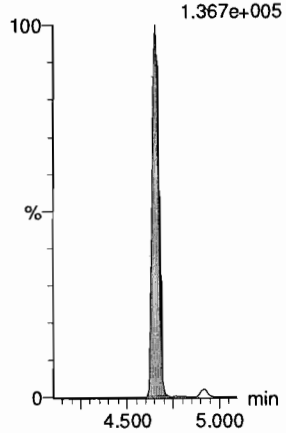
13C2-PFOA



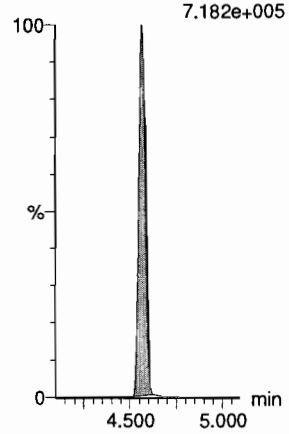
13C2-PFOA



13C8-PFOS



13C5-PFNA

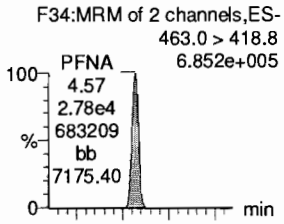


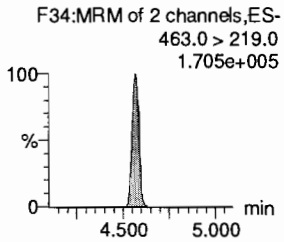
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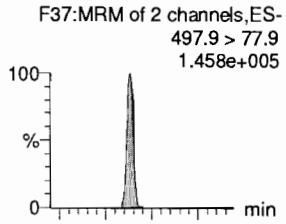
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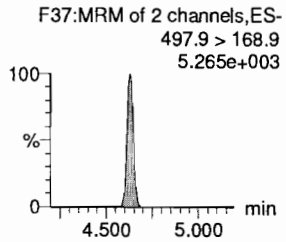
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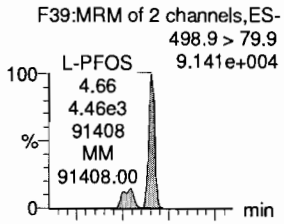


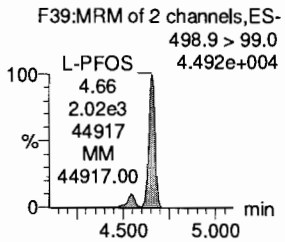
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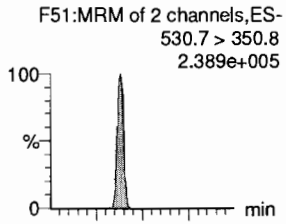


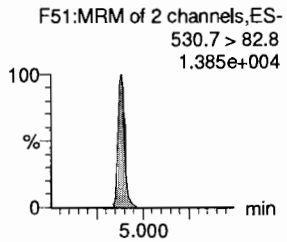
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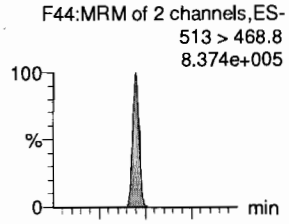


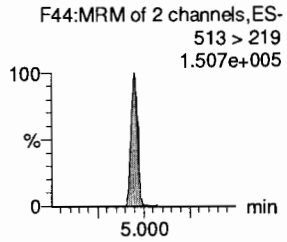
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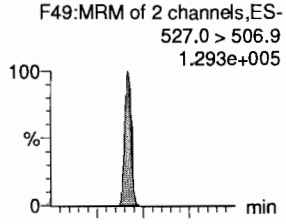


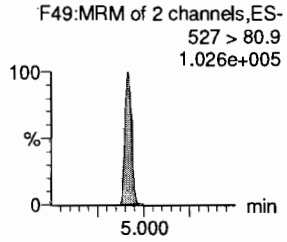
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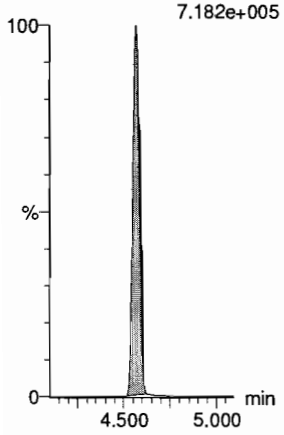


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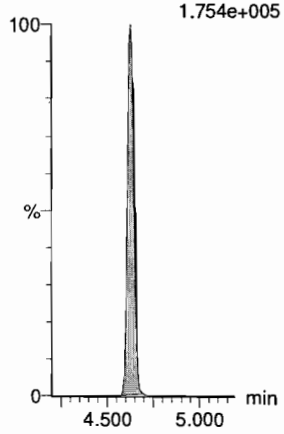




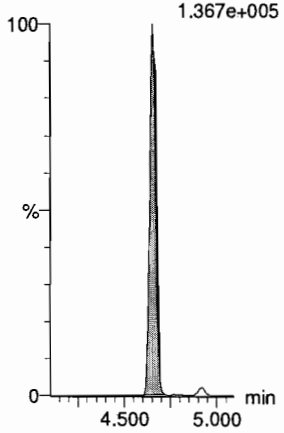
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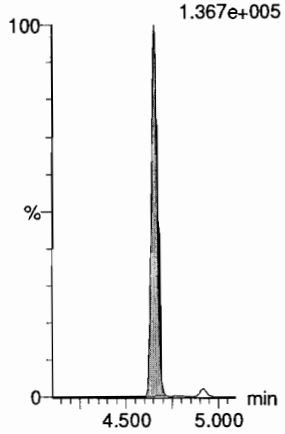
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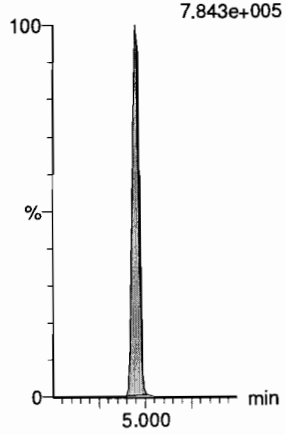
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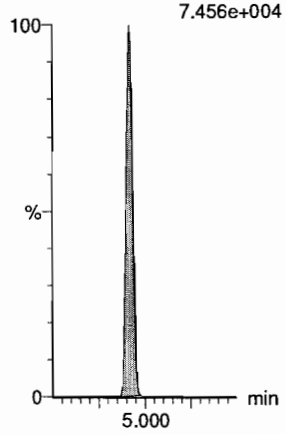
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13C2-PFDA



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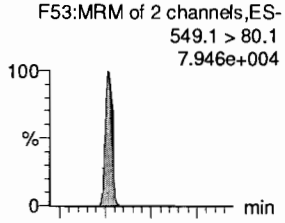


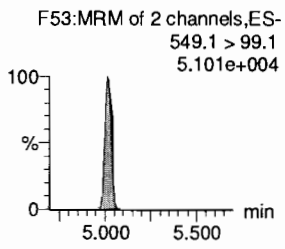
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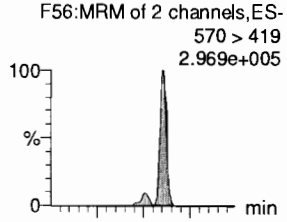
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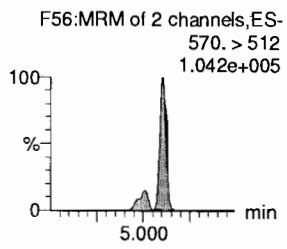
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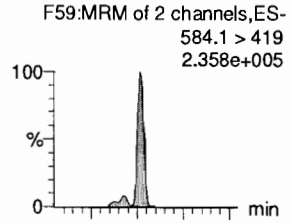


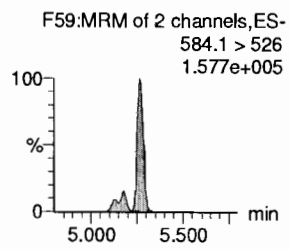
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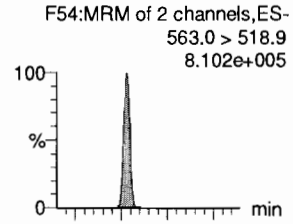


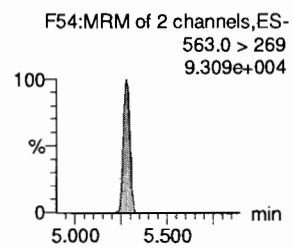
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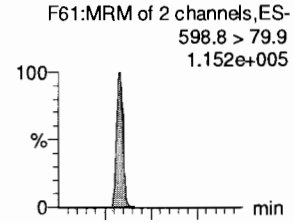


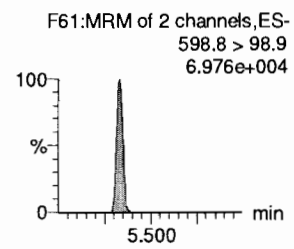
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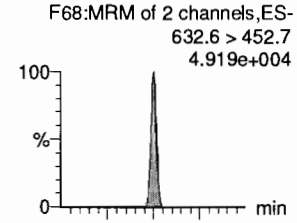


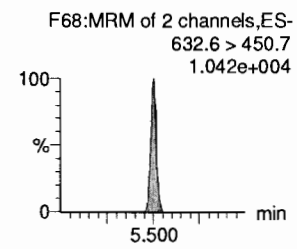
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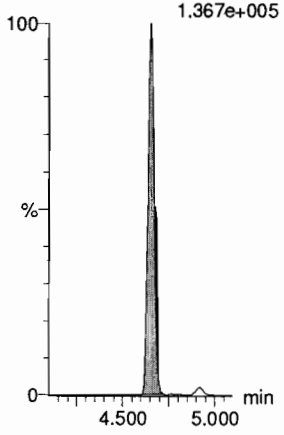


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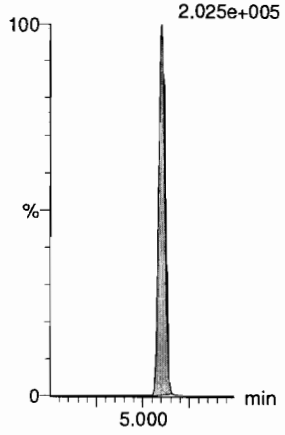




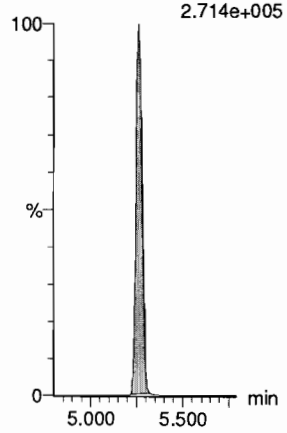
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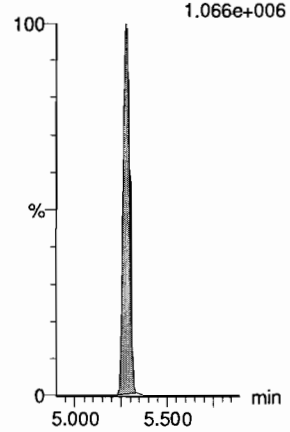
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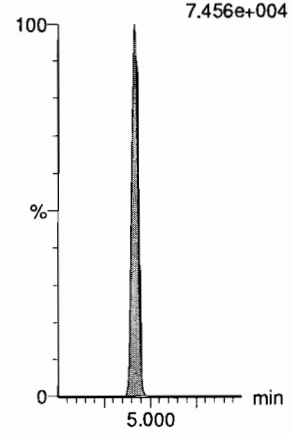
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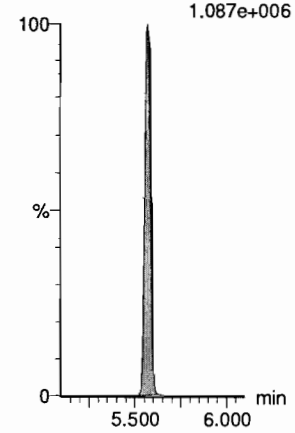
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13C2-8:2 FTS



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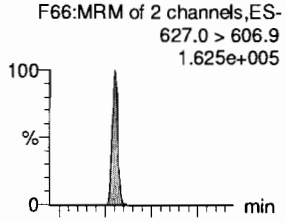


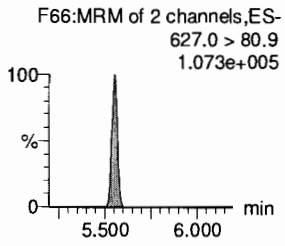
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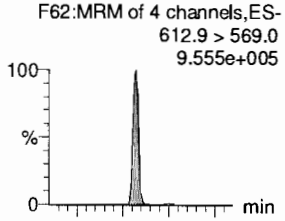
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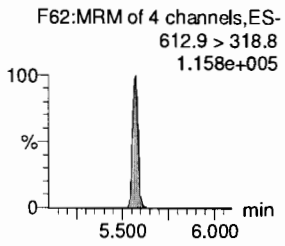
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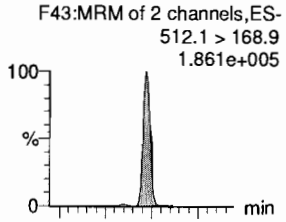


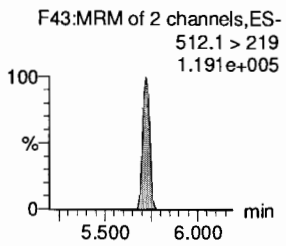
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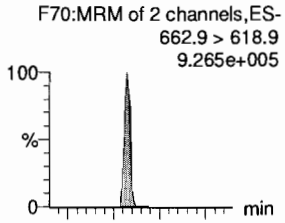


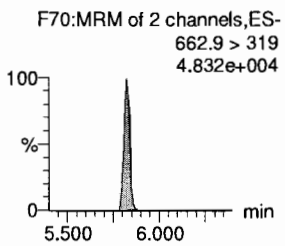
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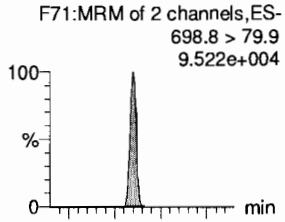


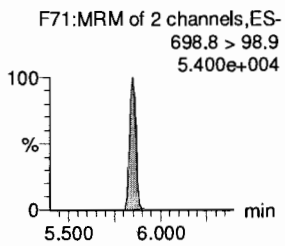
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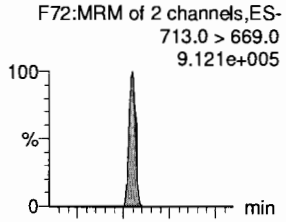


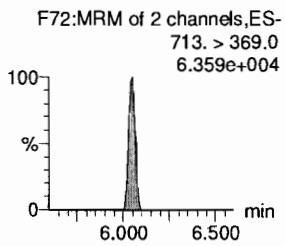
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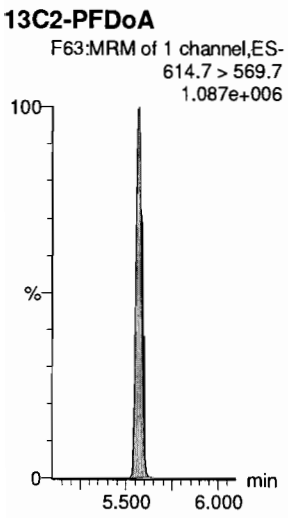


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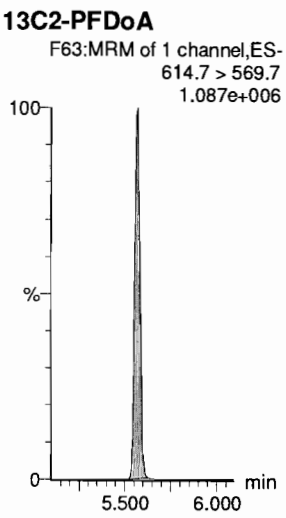




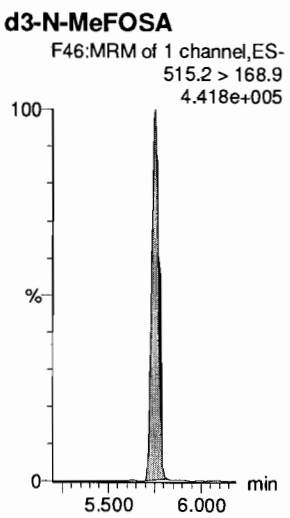
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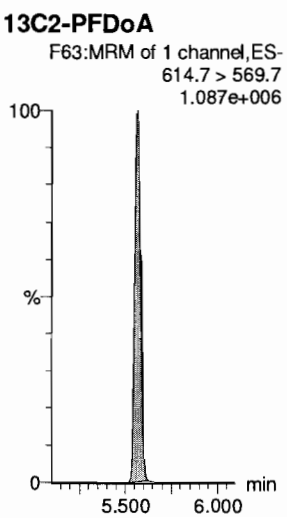
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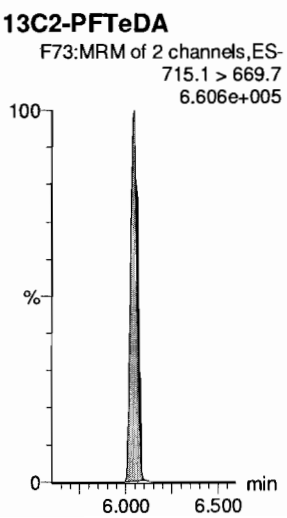
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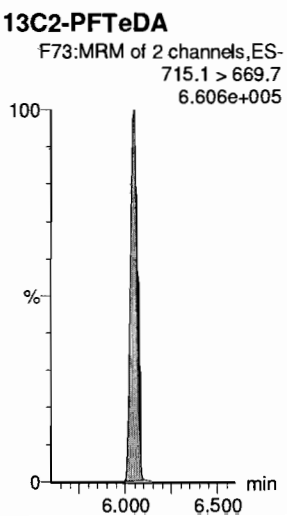
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13C2-PFTeDA



13C2-PFTeDA



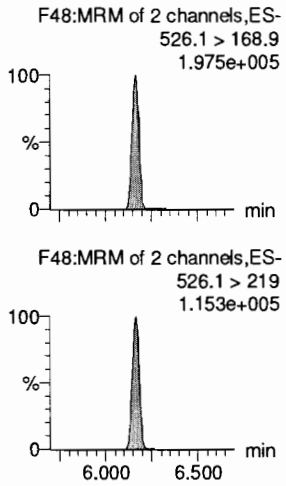
Vista Analytical Laboratory

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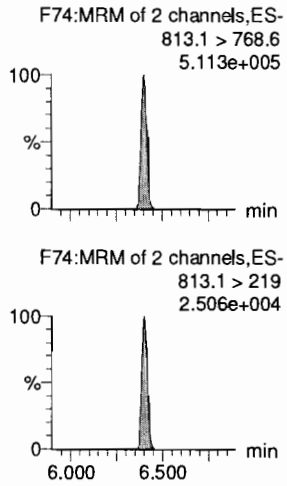
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Printed: Tuesday, July 23, 2019 07:58:46 Pacific Daylight Time

Name: 190722M1_76, Date: 23-Jul-2019, Time: 00:43:07, ID: ST190722M1-13 PFC CS3 19G1106, Description: PFC CS3 19G1106

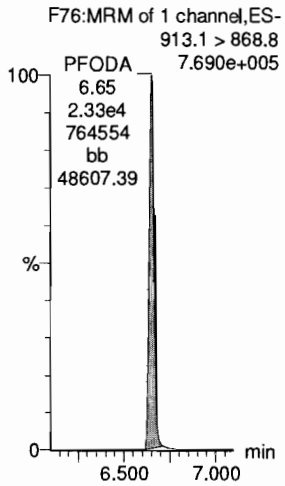
N-EtFOSA



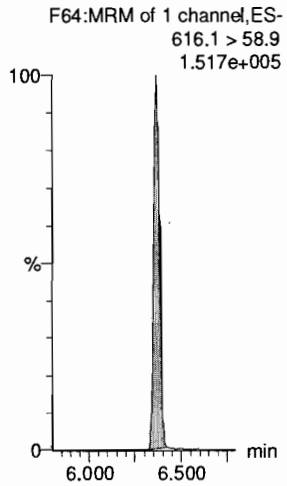
PFHxDA



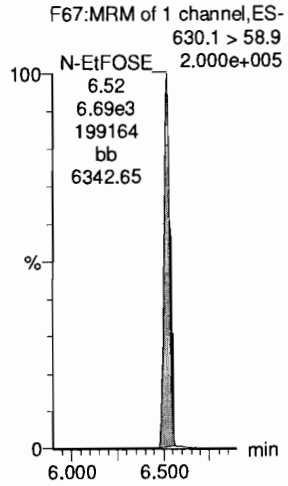
PFODA



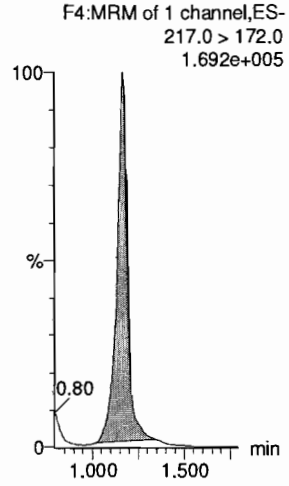
N-MeFOSE



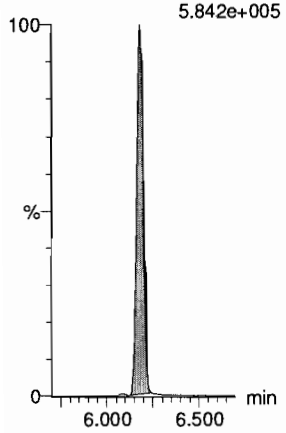
N-EtFOSE



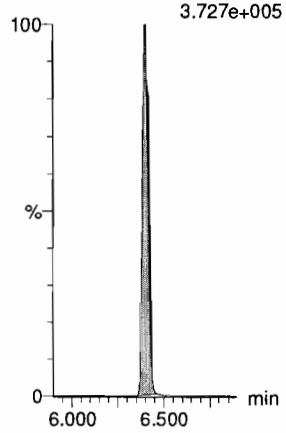
13C4-PFBA



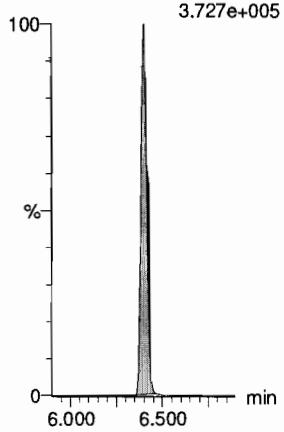
d5-N-ETFOSA



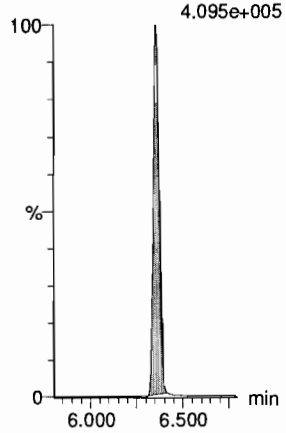
13C2-PFHxDA



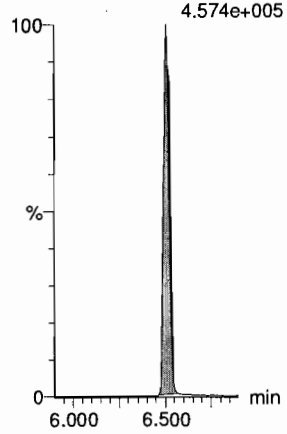
13C2-PFHxDA



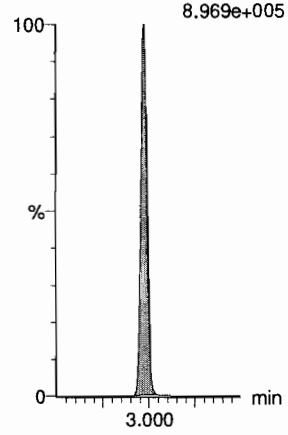
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

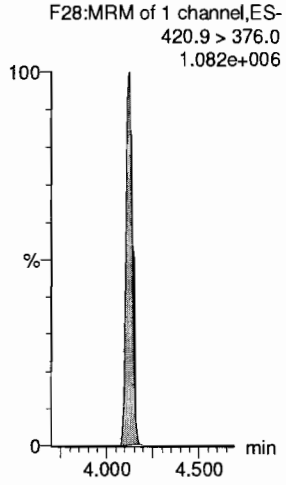


Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-76.qld

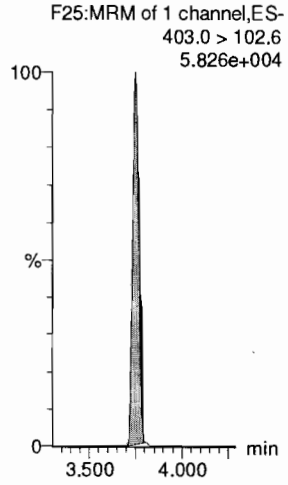
Last Altered: Tuesday, July 23, 2019 07:58:10 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 07:58:46 Pacific Daylight Time

Name: 190722M1_76, Date: 23-Jul-2019, Time: 00:43:07, ID: ST190722M1-13 PFC CS3 19G1106, Description: PFC CS3 19G1106

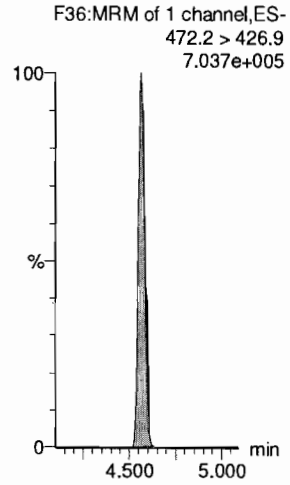
13C8-PFOA



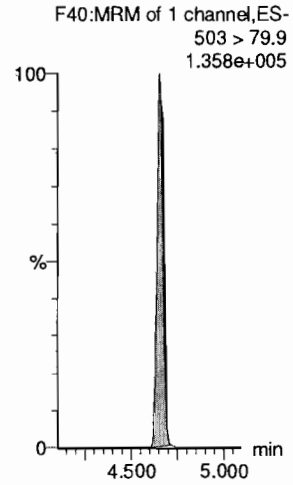
18O2-PFHxS



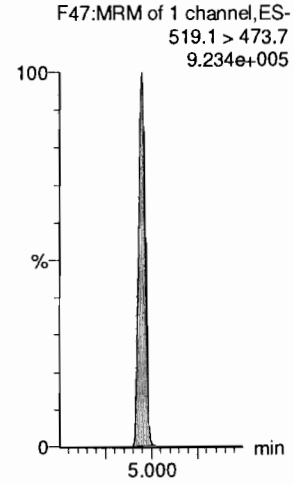
13C9-PFNA



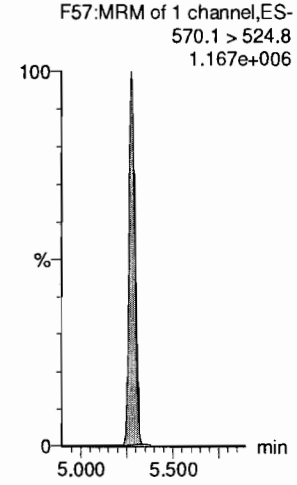
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Tuesday, July 23, 2019 11:41:06 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 11:41:19 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_RS-07-11-19.mdb 11 Jul 2019 15:12:17
Calibration: 23 Jul 2019 11:41:06

Name: 190723M2_2, Date: 23-Jul-2019, Time: 09:38:23, ID: ST190723M2-1 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190723M2-1 PFC CS0 19G1103	1.09e4	100.0	NO
2	2	13C5-PFHxA	ST190723M2-1 PFC CS0 19G1103	3.42e4	100.0	NO
3	3	18O2-PFHxS	ST190723M2-1 PFC CS0 19G1103	2.13e3	100.0	NO
4	4	13C8-PFOA	ST190723M2-1 PFC CS0 19G1103	4.14e4	100.0	NO
5	5	13C9-PFNA	ST190723M2-1 PFC CS0 19G1103	2.95e4	100.0	NO
6	6	13C4-PFOS	ST190723M2-1 PFC CS0 19G1103	4.93e3	100.0	NO
7	7	13C6-PFDA	ST190723M2-1 PFC CS0 19G1103	3.69e4	100.0	NO
8	8	13C7-PFUdA	ST190723M2-1 PFC CS0 19G1103	4.65e4	100.0	NO

Name: 190723M2_3, Date: 23-Jul-2019, Time: 09:48:56, ID: IB, Description: IB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IB	9.73e3	89.3	NO
2	2	13C5-PFHxA	IB	3.26e4	95.4	NO
3	3	18O2-PFHxS	IB	1.95e3	91.4	NO
4	4	13C8-PFOA	IB	3.91e4	94.4	NO
5	5	13C9-PFNA	IB	2.81e4	95.3	NO
6	6	13C4-PFOS	IB	4.94e3	100.2	NO
7	7	13C6-PFDA	IB	3.54e4	95.8	NO
8	8	13C7-PFUdA	IB	4.24e4	91.1	NO

Name: 190723M2_4, Date: 23-Jul-2019, Time: 09:59:37, ID: B9G0208-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0208-BS1 OPR 0.25	1.68e4	154.0	YES
2	2	13C5-PFHxA	B9G0208-BS1 OPR 0.25	3.01e4	88.0	NO
3	3	18O2-PFHxS	B9G0208-BS1 OPR 0.25	2.27e3	106.3	NO
4	4	13C8-PFOA	B9G0208-BS1 OPR 0.25	3.77e4	91.0	NO
5	5	13C9-PFNA	B9G0208-BS1 OPR 0.25	2.75e4	93.3	NO
6	6	13C4-PFOS	B9G0208-BS1 OPR 0.25	5.22e3	105.9	NO
7	7	13C6-PFDA	B9G0208-BS1 OPR 0.25	3.50e4	94.7	NO
8	8	13C7-PFUdA	B9G0208-BS1 OPR 0.25	4.30e4	92.4	NO

Name: 190723M2_5, Date: 23-Jul-2019, Time: 10:11:24, ID: B9G0134-BS1 OPR 0.25, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B9G0134-BS1 OPR 0.25	1.33e4	122.0	NO
2	2	13C5-PFHxA	B9G0134-BS1 OPR 0.25	2.57e4	75.2	NO
3	3	18O2-PFHxS	B9G0134-BS1 OPR 0.25	1.79e3	84.1	NO
4	4	13C8-PFOA	B9G0134-BS1 OPR 0.25	3.29e4	79.5	NO
5	5	13C9-PFNA	B9G0134-BS1 OPR 0.25	2.17e4	73.8	NO
6	6	13C4-PFOS	B9G0134-BS1 OPR 0.25	4.04e3	81.9	NO
7	7	13C6-PFDA	B9G0134-BS1 OPR 0.25	2.93e4	79.4	NO
8	8	13C7-PFUdA	B9G0134-BS1 OPR 0.25	3.59e4	77.2	NO

Dataset: Untitled

Last Altered: Tuesday, July 23, 2019 11:41:06 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 11:41:19 Pacific Daylight Time

Name: 190723M2_6, Date: 23-Jul-2019, Time: 10:24:28, ID: 1902014-08 FRB-07082019 0.11724, Description: FRB-07082019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-08 FRB-07082019 0.11724	1.36e4	125.0	NO
2	2	13C5-PFHxA	1902014-08 FRB-07082019 0.11724	2.76e4	80.8	NO
3	3	18O2-PFHxS	1902014-08 FRB-07082019 0.11724	2.04e3	95.6	NO
4	4	13C8-PFOA	1902014-08 FRB-07082019 0.11724	3.68e4	88.9	NO
5	5	13C9-PFNA	1902014-08 FRB-07082019 0.11724	2.62e4	88.8	NO
6	6	13C4-PFOS	1902014-08 FRB-07082019 0.11724	4.84e3	98.1	NO
7	7	13C6-PFDA	1902014-08 FRB-07082019 0.11724	3.32e4	89.9	NO
8	8	13C7-PFUdA	1902014-08 FRB-07082019 0.11724	4.13e4	88.8	NO

Name: 190723M2_7, Date: 23-Jul-2019, Time: 10:35:01, ID: 1902014-09 CAOA-B01-GW 0.12758, Description: CAOA-B01-GW

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-09 CAOA-B01-GW 0.12758	1.04e4	95.8	NO
2	2	13C5-PFHxA	1902014-09 CAOA-B01-GW 0.12758	2.24e4	65.6	NO
3	3	18O2-PFHxS	1902014-09 CAOA-B01-GW 0.12758	1.92e3	90.1	NO
4	4	13C8-PFOA	1902014-09 CAOA-B01-GW 0.12758	3.20e4	77.4	NO
5	5	13C9-PFNA	1902014-09 CAOA-B01-GW 0.12758	2.41e4	81.8	NO
6	6	13C4-PFOS	1902014-09 CAOA-B01-GW 0.12758	4.55e3	92.2	NO
7	7	13C6-PFDA	1902014-09 CAOA-B01-GW 0.12758	3.02e4	81.9	NO
8	8	13C7-PFUdA	1902014-09 CAOA-B01-GW 0.12758	3.90e4	83.7	NO

Name: 190723M2_8, Date: 23-Jul-2019, Time: 10:45:40, ID: 1902014-10 EB-07082019 0.11822, Description: EB-07082019

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1902014-10 EB-07082019 0.11822	1.44e4	132.4	NO
2	2	13C5-PFHxA	1902014-10 EB-07082019 0.11822	2.83e4	82.7	NO
3	3	18O2-PFHxS	1902014-10 EB-07082019 0.11822	2.12e3	99.2	NO
4	4	13C8-PFOA	1902014-10 EB-07082019 0.11822	3.72e4	89.9	NO
5	5	13C9-PFNA	1902014-10 EB-07082019 0.11822	2.68e4	91.0	NO
6	6	13C4-PFOS	1902014-10 EB-07082019 0.11822	4.68e3	95.0	NO
7	7	13C6-PFDA	1902014-10 EB-07082019 0.11822	3.49e4	94.4	NO
8	8	13C7-PFUdA	1902014-10 EB-07082019 0.11822	4.22e4	90.6	NO

Name: 190723M2_9, Date: 23-Jul-2019, Time: 10:56:13, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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

Dataset: Untitled

Last Altered: Tuesday, July 23, 2019 11:41:06 Pacific Daylight Time
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Name: 190723M2_10, Date: 23-Jul-2019, Time: 11:06:51, ID: ST190723M2-2 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST190723M2-2 PFC CS3 19G1106	1.12e4	102.4	NO
2	2	13C5-PFHxA	ST190723M2-2 PFC CS3 19G1106	3.27e4	95.7	NO
3	3	18O2-PFHxS	ST190723M2-2 PFC CS3 19G1106	2.13e3	99.8	NO
4	4	13C8-PFOA	ST190723M2-2 PFC CS3 19G1106	4.03e4	97.5	NO
5	5	13C9-PFNA	ST190723M2-2 PFC CS3 19G1106	2.91e4	99.0	NO
6	6	13C4-PFOS	ST190723M2-2 PFC CS3 19G1106	5.24e3	106.2	NO
7	7	13C6-PFDA	ST190723M2-2 PFC CS3 19G1106	3.86e4	104.7	NO
8	8	13C7-PFUdA	ST190723M2-2 PFC CS3 19G1106	4.46e4	95.8	NO

Name: 190723M2_11, Date: 23-Jul-2019, Time: 11:17:24, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	18O2-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

Dataset: F:\Projects\PFAS.PRO\Results\190723M2\190723M2-IB.qld

Last Altered: Tuesday, July 23, 2019 11:39:58 Pacific Daylight Time
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Name: 190723M2_3, Date: 23-Jul-2019, Time: 09:48:56, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8		7334.414	1.00					NO		
2	2	PFPrS	248.9 > 79.9		2234.030	1.00					NO		
3	3	3:3 FTCA	240.9 > 176.9		15417.167	1.00					NO		
4	4	PFPeA	263.1 > 218.9		15417.167	1.00					NO		
5	5	PFBS	299.0 > 79.7		2234.030	1.00					NO		
6	6	4:2 FTS	327.0 > 306.9		3833.274	1.00					NO		
7	47	13C3-PFBA	216.1 > 171.8	7334.414	9731.031	1.00	1.17	9.421	12.8	102.7	NO		
8	49	13C3-PFBS	302.0 > 98.8	2234.030	1948.001	1.00	2.46	14.335	13.6	108.4	NO		
9	48	13C3-PFPeA	266.0 > 221.8	15417.167	32641.725	1.00	2.16	5.904	11.9	94.8	NO		
10	48	13C3-PFPeA	266.0 > 221.8	15417.167	32641.725	1.00	2.16	5.904	11.9	94.8	NO		
11	49	13C3-PFBS	302.0 > 98.8	2234.030	1948.001	1.00	2.46	14.335	13.6	108.4	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	3833.274	1948.001	1.00	2.89	24.597	14.9	119.3	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0		12115.146	1.00					NO		
15	8	PFPeS	349.1>80.1		2234.030	1.00					NO		
16	9	HFPO-DA	285.1 > 168.9		1746.255	1.00					NO		
17	10	5:3 FTCA	340.9 > 236.9		15362.537	1.00					NO		
18	11	PFHpA	363.0 > 318.9		15362.537	1.00					NO		
19	12	ADONA	376.8 > 250.9		15362.537	1.00					NO		
20	52	13C2-PFHxA	315.0 > 270.0	12115.146	32641.725	1.00	2.97	4.639	4.7	94.9	NO		
21	49	13C3-PFBS	302.0 > 98.8	2234.030	1948.001	1.00	2.46	14.335	13.6	108.4	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1746.255	32641.725	1.00	3.18	0.669	5.0	99.8	NO		
23	53	13C4-PFHpA	367.2 > 321.8	15362.537	32641.725	1.00	3.59	5.883	12.3	98.4	NO		
24	53	13C4-PFHpA	367.2 > 321.8	15362.537	32641.725	1.00	3.59	5.883	12.3	98.4	NO		
25	53	13C4-PFHpA	367.2 > 321.8	15362.537	32641.725	1.00	3.59	5.883	12.3	98.4	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6	1.840	4130.793	1.00	3.76	0.006	0.0		NO	2.480	NO
28	15	6:2 FTS	427.0 > 406.9		2677.942	1.00					NO		
29	16	L-PFOA	412.8 > 368.9	123.343	26054.779	1.00	4.13	0.059	0.0		NO	3.463	NO
30	18	PFecHS	460.8 > 381.0		26054.779	1.00					NO		
31	19	PFHpS	449.0 > 80.0		4851.601	1.00					NO		
32	20	7:3 FTCA	440.9 > 336.9		27182.754	1.00					NO		
33	54	13C3-PFHxS	401.8 > 79.9	4130.793	1948.001	1.00	3.75	26.507	13.1	104.8	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	2677.942	4937.149	1.00	4.06	6.780	12.6	101.2	NO		
35	58	13C2-PFOA	414.9 > 369.7	26054.779	39227.555	1.00	4.12	8.302	12.2	97.5	NO		
36	58	13C2-PFOA	414.9 > 369.7	26054.779	39227.555	1.00	4.12	8.302	12.2	97.5	NO		

CGH 7/23/2019

Dataset: F:\Projects\PFAS.PRO\Results\190723M2\190723M2-IB.qld

Last Altered: Tuesday, July 23, 2019 11:39:58 Pacific Daylight Time
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Name: 190723M2_3, Date: 23-Jul-2019, Time: 09:48:56, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	4851.601	4937.149	1.00	4.66	12.283	12.3	98.6	NO		
38	56	13C5-PFNA	468.2 > 422.9	27182.754	28063.043	1.00	4.57	12.108	12.1	96.7	NO		
39	-1												
40	21	PFNA	463.0 > 418.8		27182.754	1.00					NO		
41	22	PFOSA	497.9 > 77.9	22.798	6395.649	1.00	4.62	0.045	0.1		NO	296.078	YES
42	23	L-PFOS	498.9 > 79.9		4851.601	1.00					NO		
43	25	9Cl-PF30NS	530.7 > 350.8		4851.601	1.00					NO		
44	26	PFDA	513 > 468.8	9.291	28500.447	1.00	4.95	0.004	0.0		NO	0.675	YES
45	27	8:2 FTS	527.0 > 506.9		2869.692	1.00					NO		
46	56	13C5-PFNA	468.2 > 422.9	27182.754	28063.043	1.00	4.57	12.108	12.1	96.7	NO		
47	57	13C8-PFOSA	506.1 > 77.7	6395.649	42416.449	1.00	4.63	1.885	11.2	90.0	NO		
48	59	13C8-PFOS	507.0 > 79.9	4851.601	4937.149	1.00	4.66	12.283	12.3	98.6	NO		
49	59	13C8-PFOS	507.0 > 79.9	4851.601	4937.149	1.00	4.66	12.283	12.3	98.6	NO		
50	60	13C2-PFDA	515.1 > 469.9	28500.447	35369.445	1.00	4.95	10.072	12.3	98.4	NO		
51	61	13C2-8:2 FTS	529 > 79.9	2869.692	4937.149	1.00	4.91	7.266	13.1	104.4	NO		
52	-1												
53	28	PFNS	549.1 > 80.1		4851.601	1.00					NO		
54	29	L-MeFOSAA	570 > 419		7274.845	1.00					NO		
55	31	L-EtFOSAA	584.1 > 419		9557.013	1.00					NO		
56	33	PFUdA	563.0 > 518.9		37311.535	1.00					NO		
57	34	PFDS	598.8 > 79.9		2869.692	1.00					NO		
58	35	11Cl-PF30UdS	632.6 > 452.7		35996.309	1.00					NO		
59	59	13C8-PFOS	507.0 > 79.9	4851.601	4937.149	1.00	4.66	12.283	12.3	98.6	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	7274.845	42416.449	1.00	5.10	2.144	12.1	96.6	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	9557.013	42416.449	1.00	5.26	2.816	12.6	100.7	NO		
62	63	13C2-PFUdA	565 > 519.8	37311.535	42416.449	1.00	5.28	10.996	12.4	98.9	NO		
63	61	13C2-8:2 FTS	529 > 79.9	2869.692	4937.149	1.00	4.91	7.266	13.1	104.4	NO		
64	65	13C2-PFDoA	614.7 > 569.7	35996.309	35369.445	1.00	5.57	12.722	11.7	93.6	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9		2869.692	1.00					NO		
67	37	PFDoA	612.9 > 569.0		35996.309	1.00					NO		
68	38	N-MeFOSA	512.1 > 168.9		16960.900	1.00					NO		
69	39	PFTrDA	662.9 > 618.9		35996.309	1.00					NO		
70	40	PFDoS	698.8 > 79.9		26086.451	1.00					NO		
71	41	PFTeDA	713.0 > 669.0		26086.451	1.00					NO		
72	65	13C2-PFDoA	614.7 > 569.7	35996.309	35369.445	1.00	5.57	12.722	11.7	93.6	NO		

CGH 7/23/2019

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\190723M2\190723M2-IB.qld

Last Altered: Tuesday, July 23, 2019 11:39:58 Pacific Daylight Time
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Name: 190723M2_3, Date: 23-Jul-2019, Time: 09:48:56, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	35996.309	35369.445	1.00	5.57	12.722	11.7	93.6	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	16960.900	42416.449	1.00	5.76	4.998	130.7	87.1	NO		
75	65	13C2-PFDoA	614.7 > 569.7	35996.309	35369.445	1.00	5.57	12.722	11.7	93.6	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	26086.451	42416.449	1.00	6.04	7.688	12.7	101.8	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	26086.451	42416.449	1.00	6.04	7.688	12.7	101.8	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9		19533.613	1.00					NO		
80	43	PFHxDA	813.1 > 768.6		13059.006	1.00					NO		
81	44	PFODA	913.1 > 868.8	15.290	13059.006	1.00	6.62	0.006			NO		
82	45	N-MeFOSE	616.1 > 58.9		13106.260	1.00					NO		
83	46	N-EtFOSE	630.1 > 58.9		14433.443	1.00					NO		
84	72	13C4-PFBA	217.0 > 172.0	9731.031	9731.031	1.00	1.16	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	19533.613	42416.449	1.00	6.18	5.756	129.5	86.3	NO		
86	69	13C2-PFHxDA	815 > 769.7	13059.006	42416.449	1.00	6.38	3.848	4.9	97.7	NO		
87	69	13C2-PFHxDA	815 > 769.7	13059.006	42416.449	1.00	6.38	3.848	4.9	97.7	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	13106.260	42416.449	1.00	6.34	3.862	123.4	82.3	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	14433.443	42416.449	1.00	6.49	4.253	129.5	86.3	NO		
90	73	13C5-PFHxA	318.0 > 272.9	32641.725	32641.725	1.00	2.97	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	39227.555	39227.555	1.00	4.12	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	1948.001	1948.001	1.00	3.75	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	28063.043	28063.043	1.00	4.57	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	4937.149	4937.149	1.00	4.66	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	35369.445	35369.445	1.00	4.95	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	42416.449	42416.449	1.00	5.28	12.500	12.5	100.0	NO		

Vista Analytical Laboratory

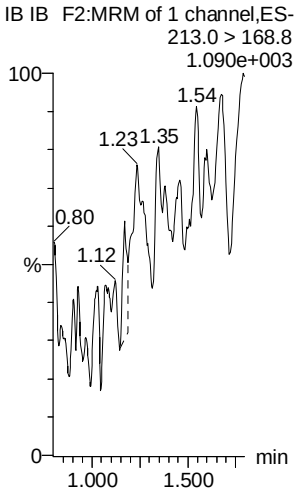
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Printed: Tuesday, July 23, 2019 11:40:11 Pacific Daylight Time

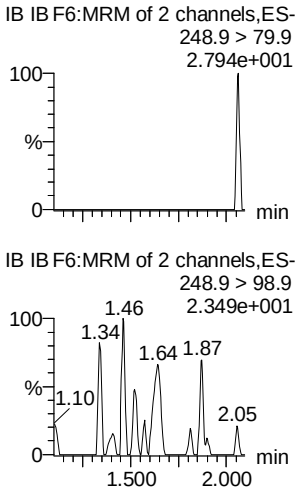
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Name: 190723M2_3, Date: 23-Jul-2019, Time: 09:48:56, ID: IB, Description: IB

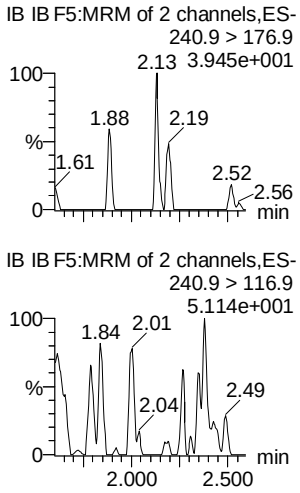
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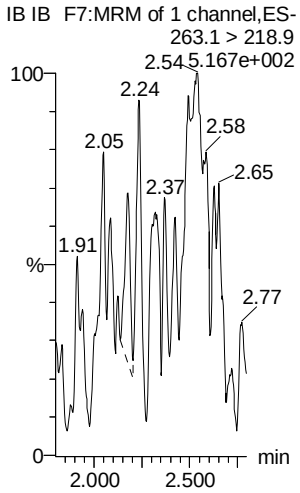
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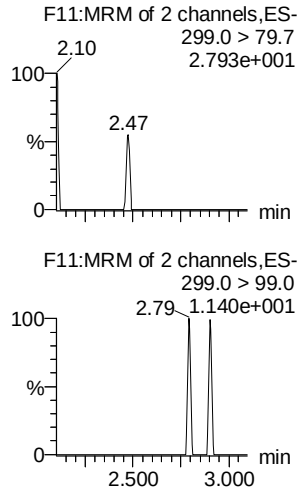
3:3 FTCA



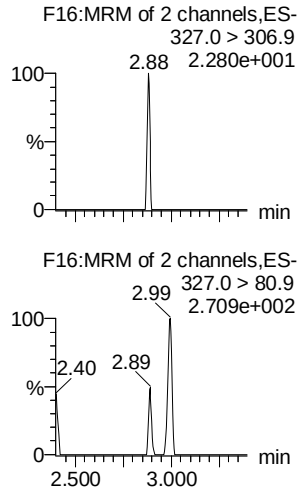
PFPeA



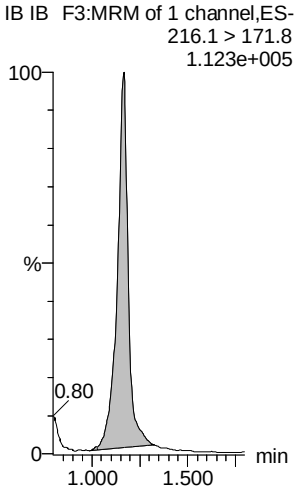
PFBS



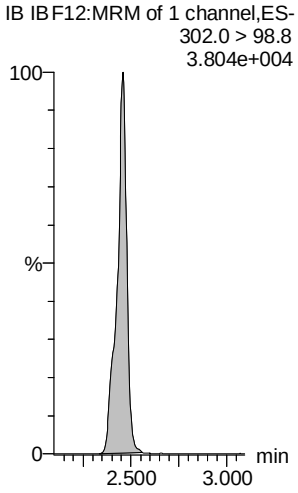
4:2 FTS



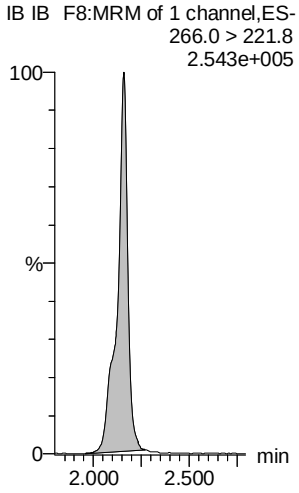
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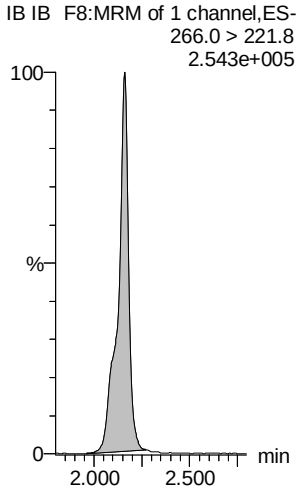
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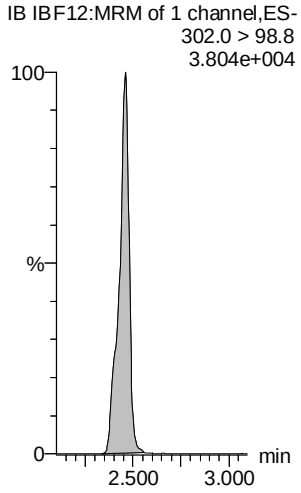
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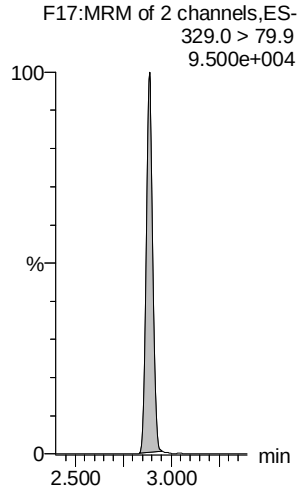
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

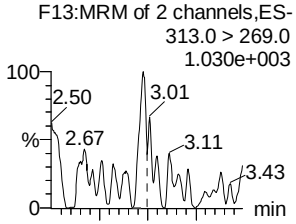


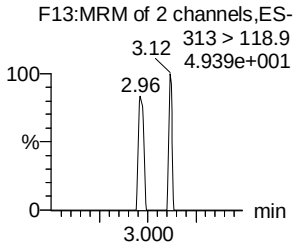
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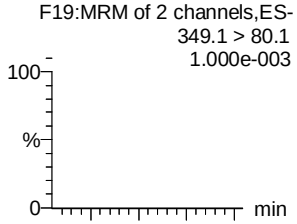
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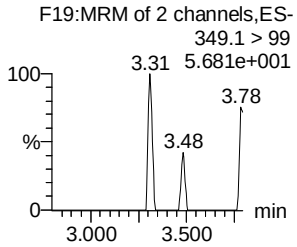
PFHxA



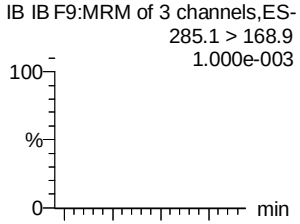


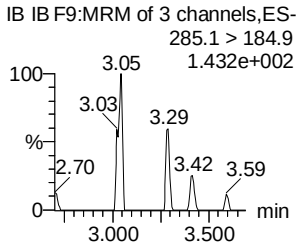
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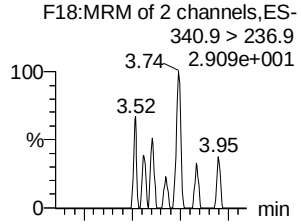


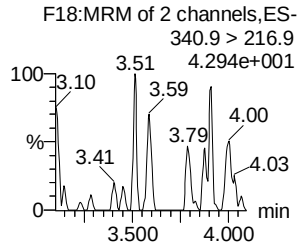
HFPO-DA



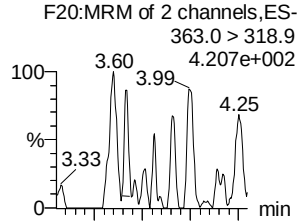


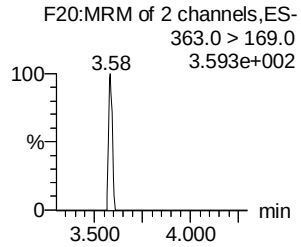
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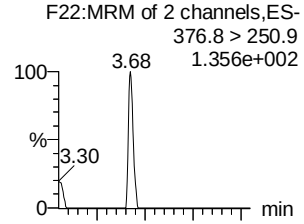


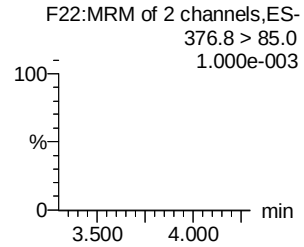
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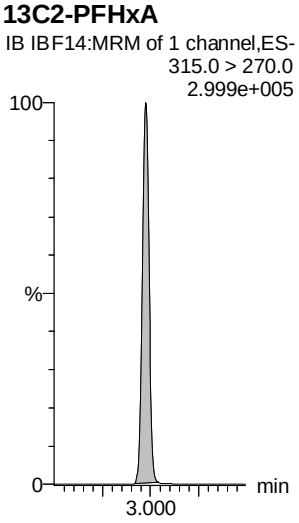


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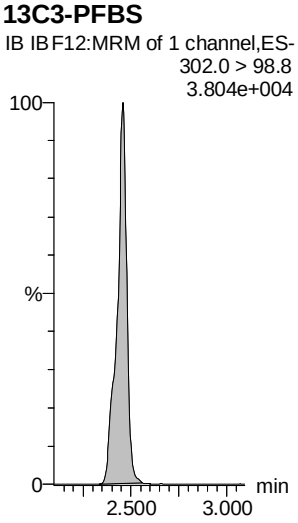




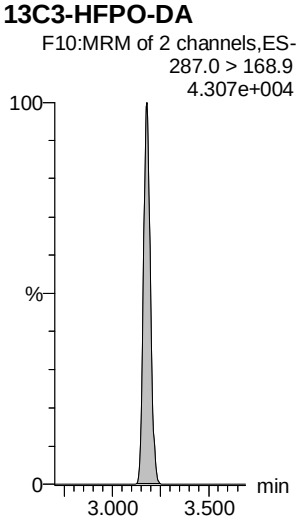
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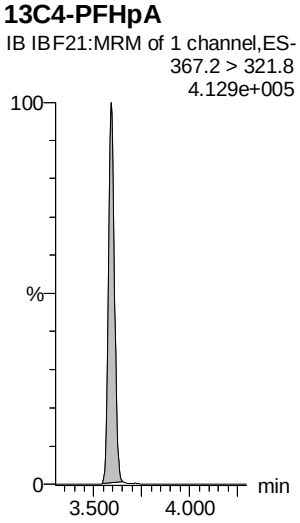
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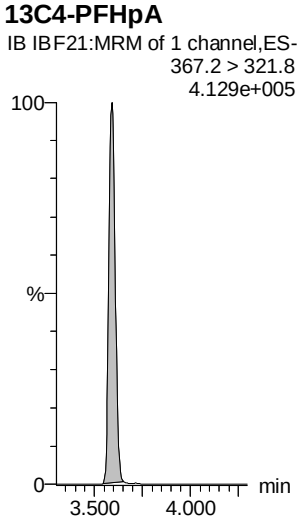
13C3-HFPO-DA



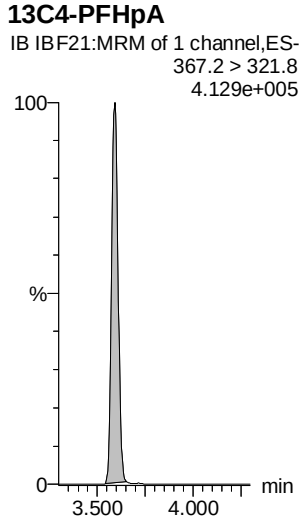
13C4-PFHpA



13C4-PFHpA



13C4-PFHpA

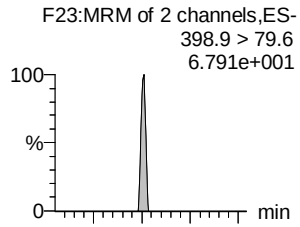


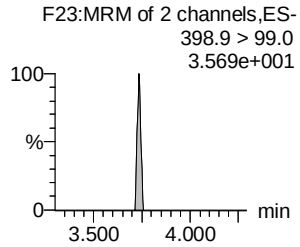
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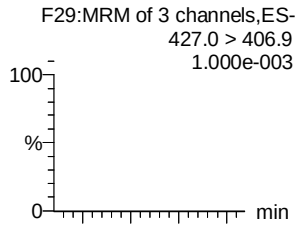
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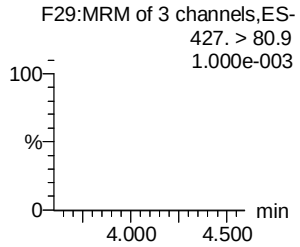
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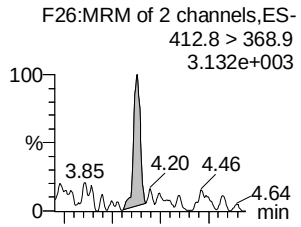


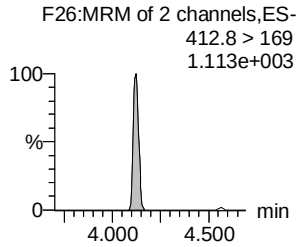
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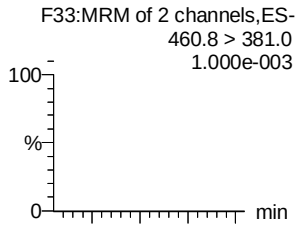


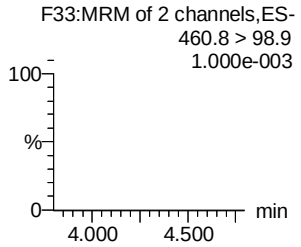
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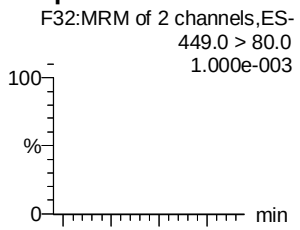


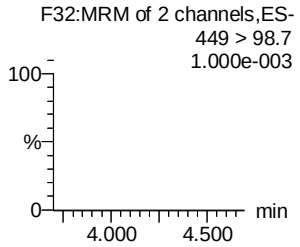
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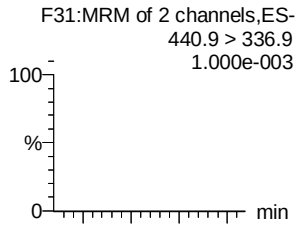


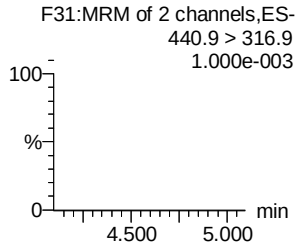
PFHpS



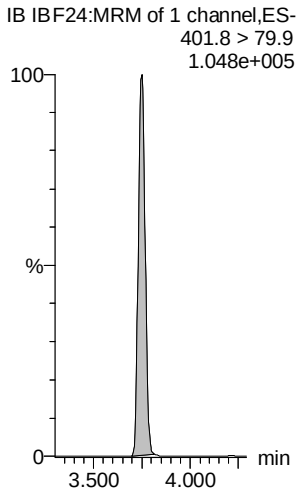


7:3 FTCA

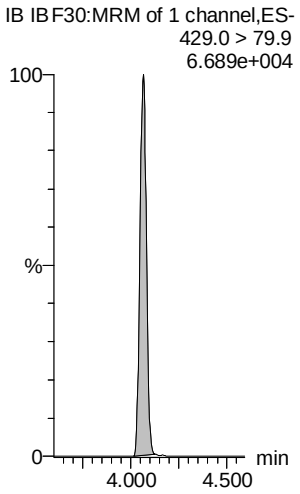




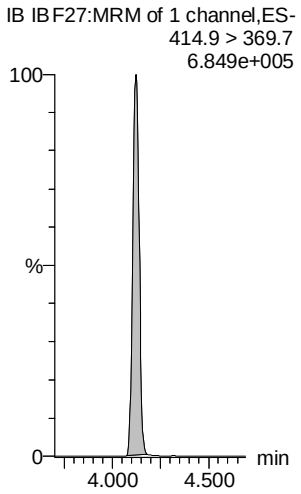
13C3-PFHxS



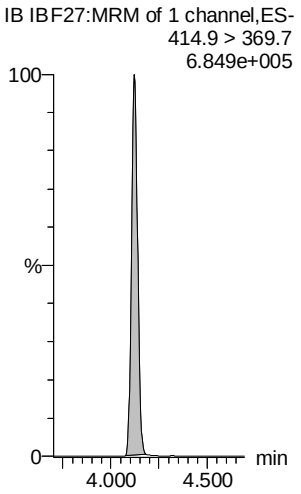
13C2-6:2 FTS



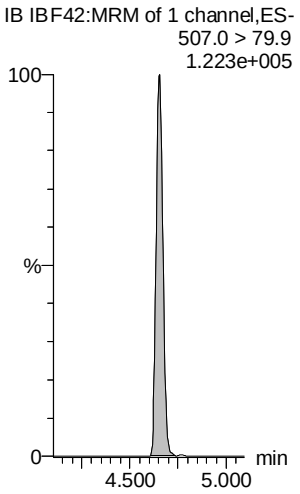
13C2-PFOA



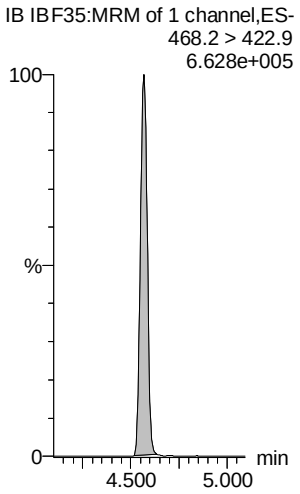
13C2-PFOA



13C8-PFOS



13C5-PFNA



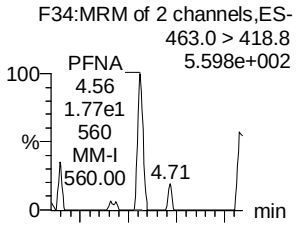
Vista Analytical Laboratory

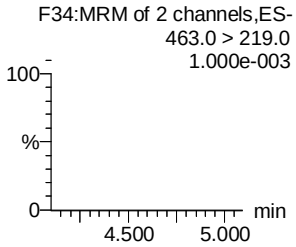
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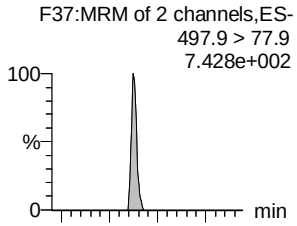
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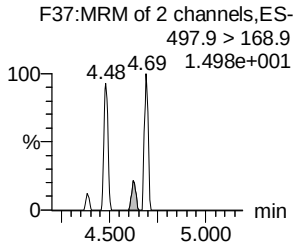
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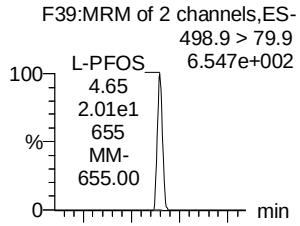


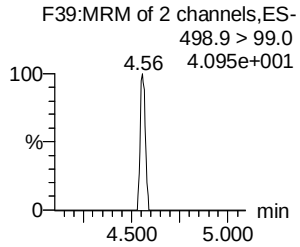
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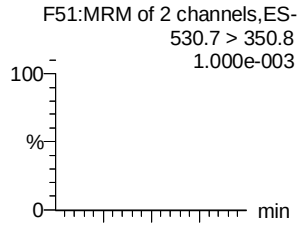


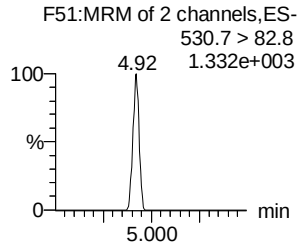
L-PFOS



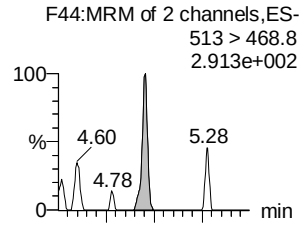


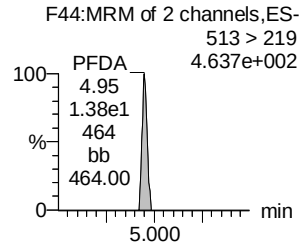
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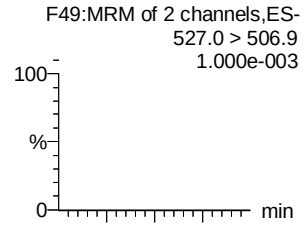


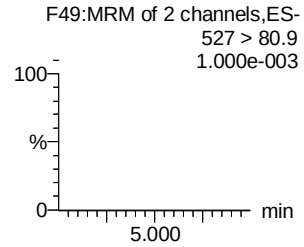
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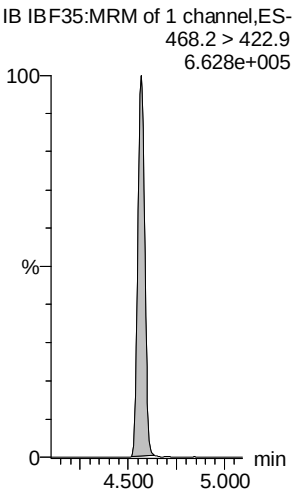


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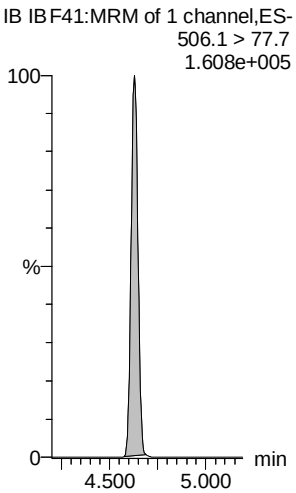




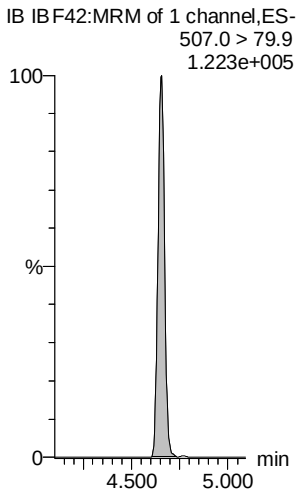
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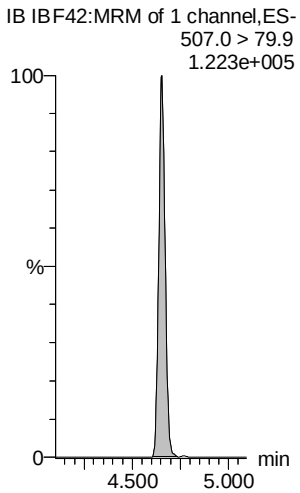
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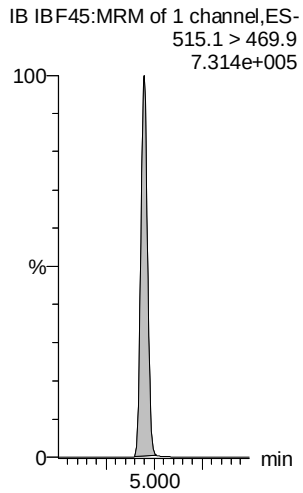
13C8-PFOS



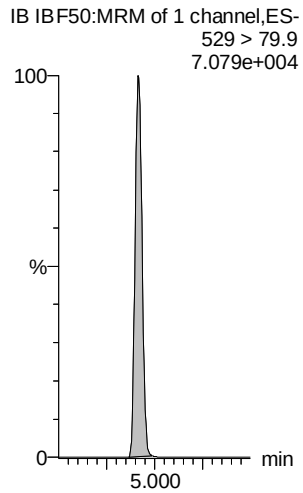
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

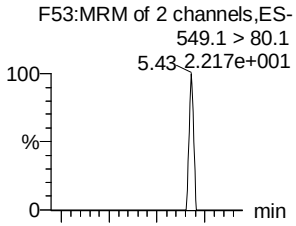


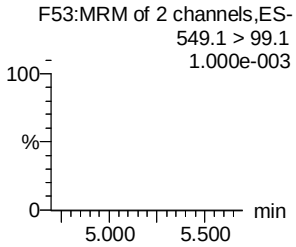
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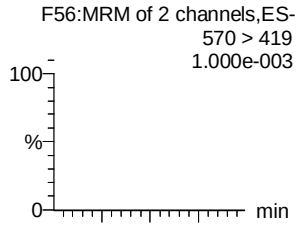
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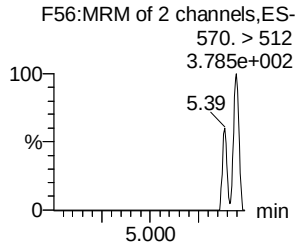
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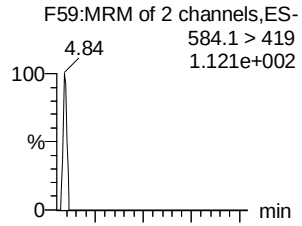


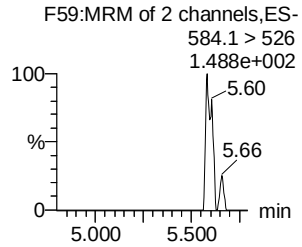
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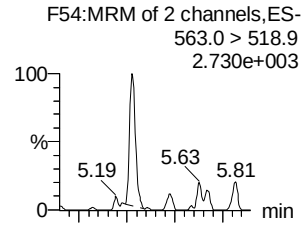


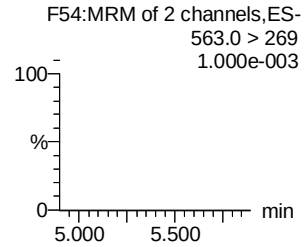
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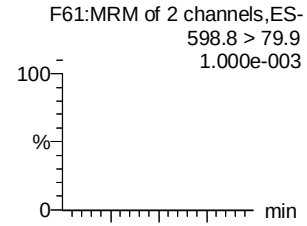


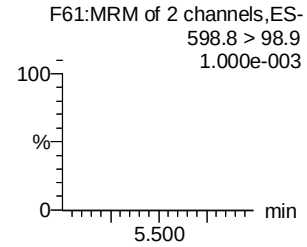
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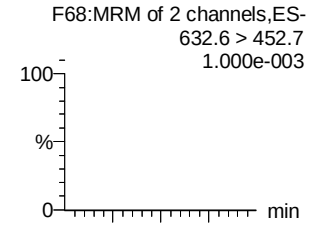


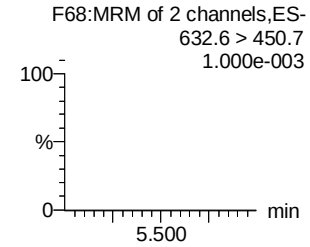
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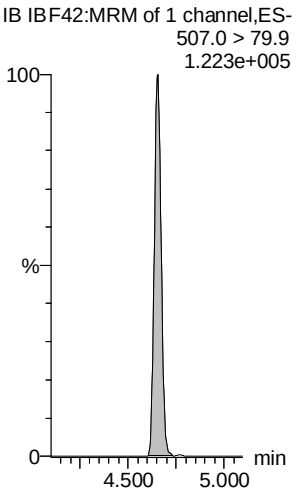


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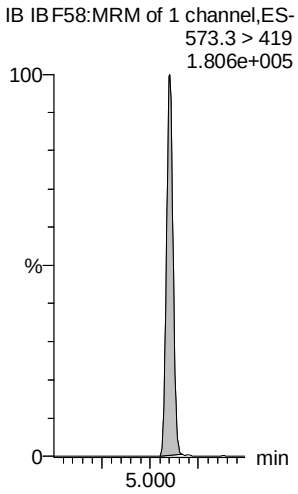




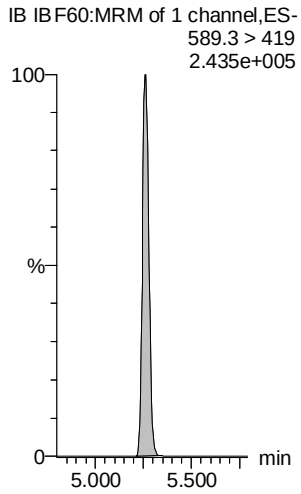
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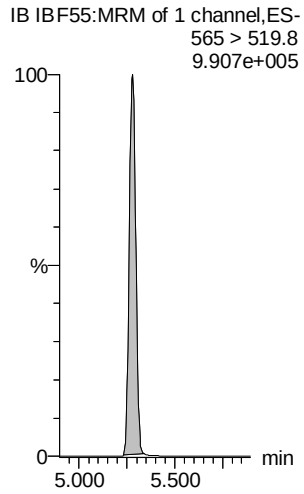
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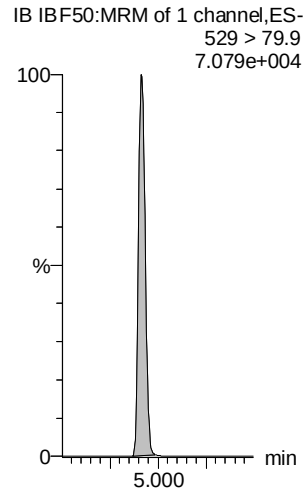
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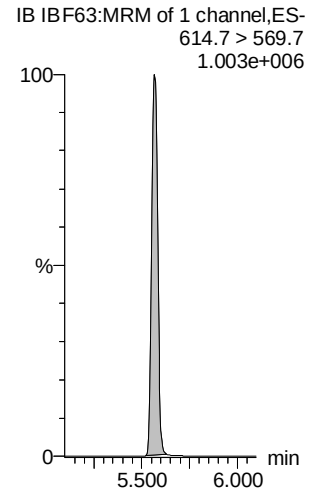
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13C2-8:2 FTS



13C2-PFDoA

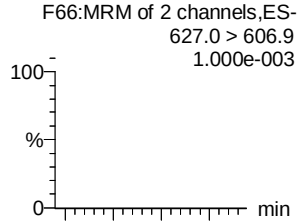


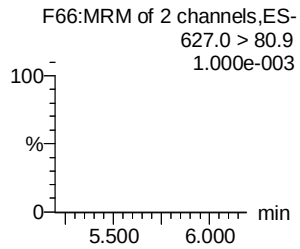
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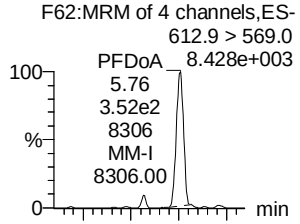
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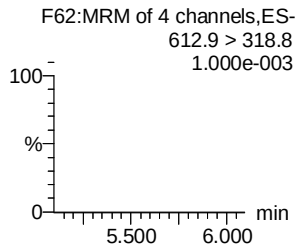
10:2 FTS



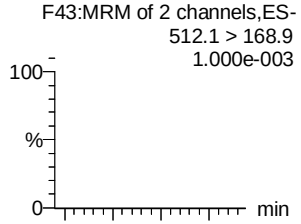


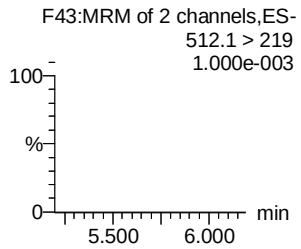
PFDoA



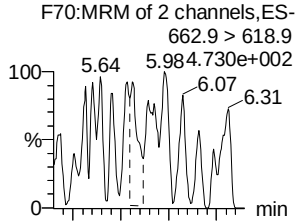


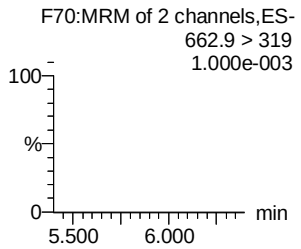
N-MeFOSA



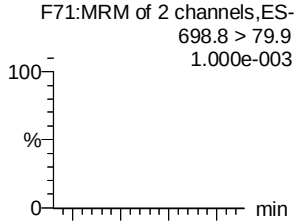


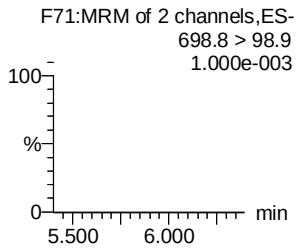
PFTrDA



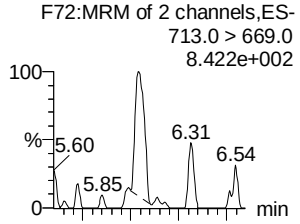


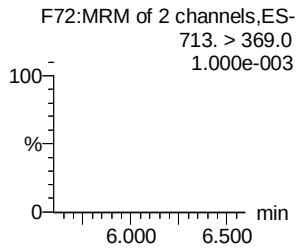
PFDoS



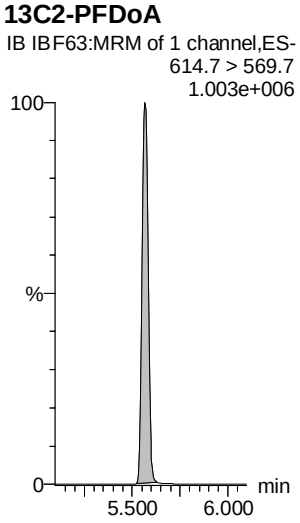


PFTeDA

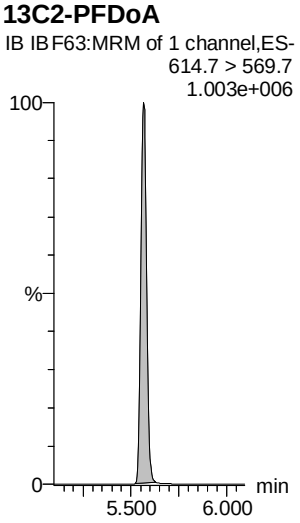




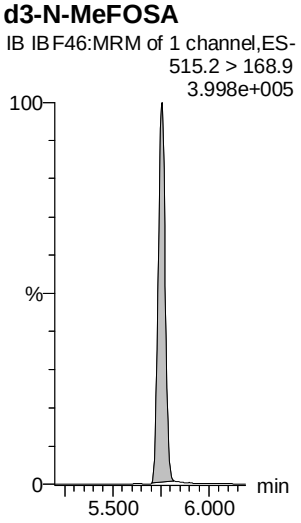
13C2-PFDoA



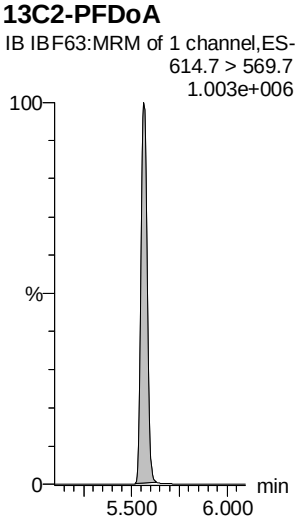
13C2-PFDoA



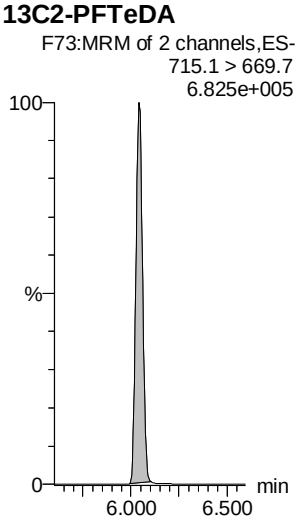
d3-N-MeFOSA



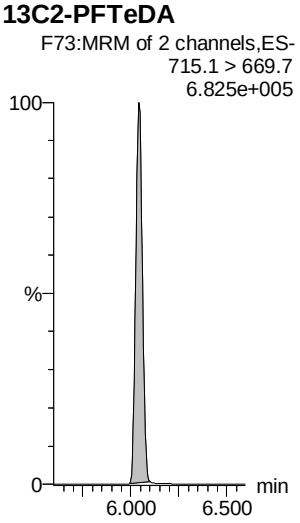
13C2-PFDoA



13C2-PFTeDA



13C2-PFTeDA

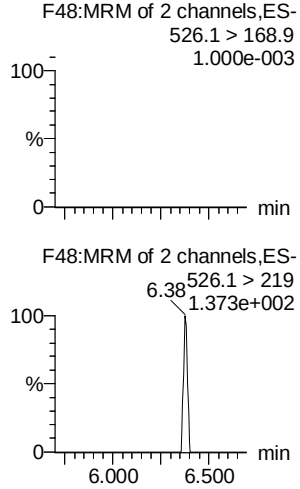


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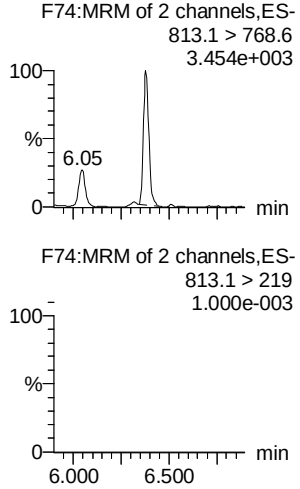
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Printed: Tuesday, July 23, 2019 11:40:11 Pacific Daylight Time

Name: 190723M2_3, Date: 23-Jul-2019, Time: 09:48:56, ID: IB, Description: IB

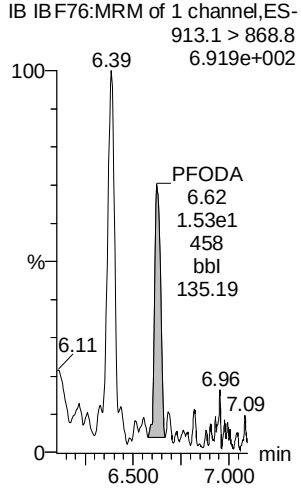
N-EtFOSA



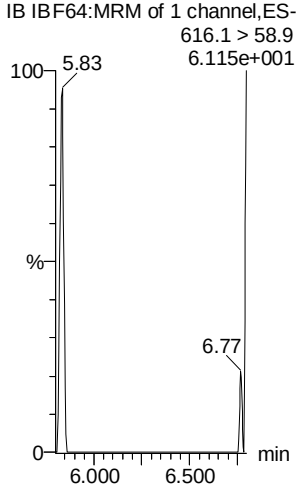
PFHxDA



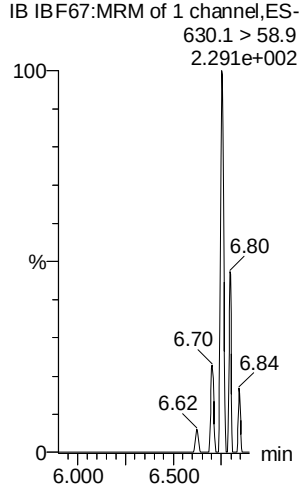
PFODA



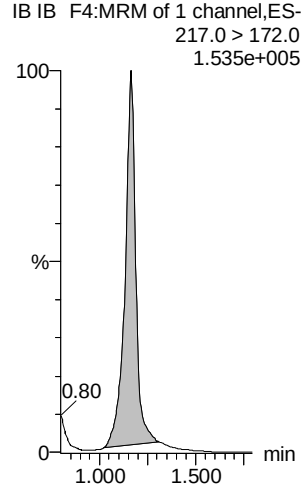
N-MeFOSE



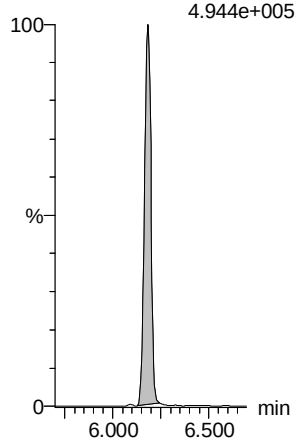
N-EtFOSE



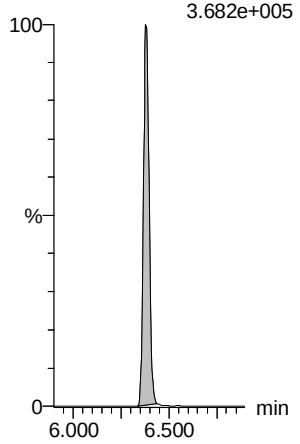
13C4-PFBA



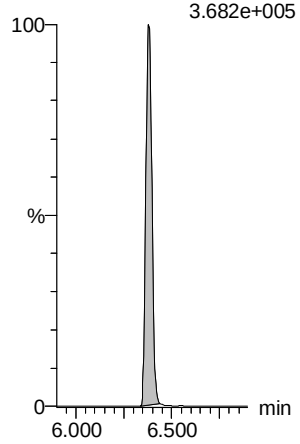
d5-N-ETFOSA



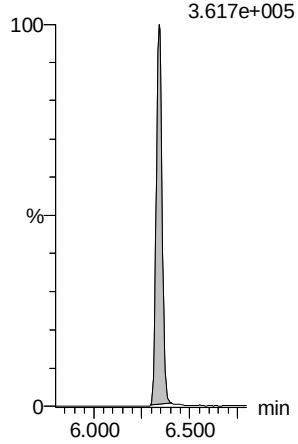
13C2-PFHxDA



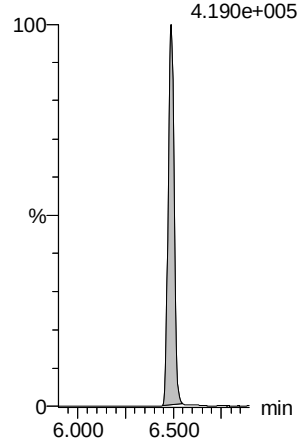
13C2-PFHxDA



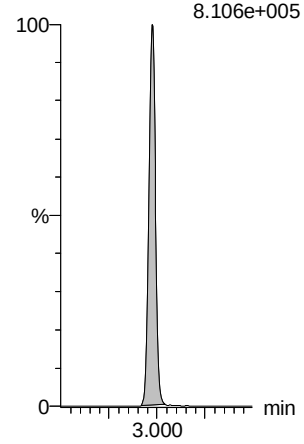
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

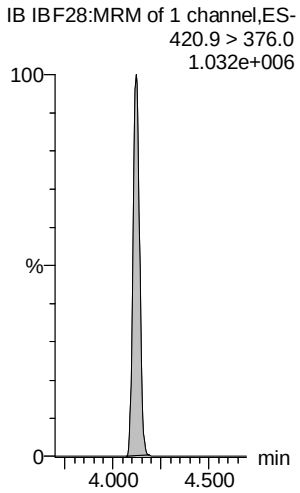


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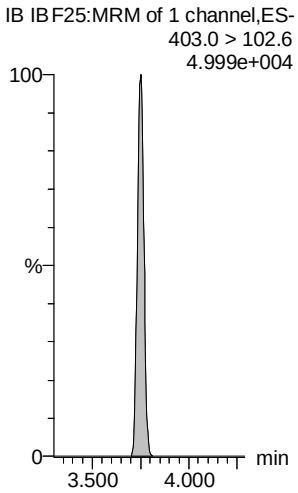
Last Altered: Tuesday, July 23, 2019 11:39:58 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 11:40:11 Pacific Daylight Time

Name: 190723M2_3, Date: 23-Jul-2019, Time: 09:48:56, ID: IB, Description: IB

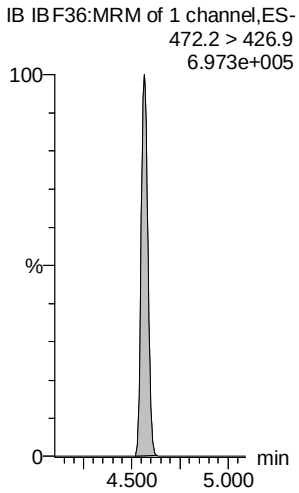
13C8-PFOA



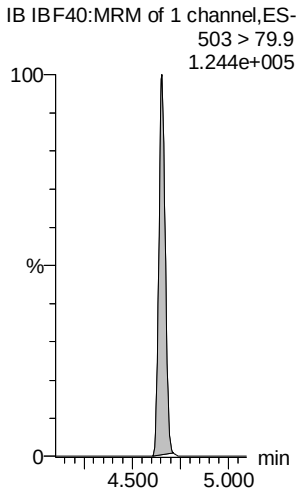
18O2-PFHxS



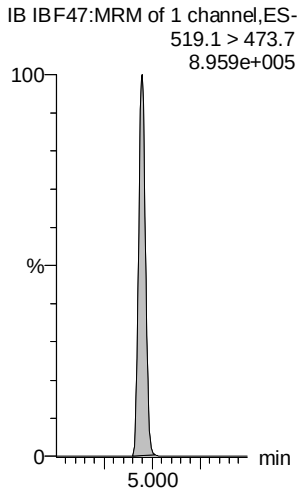
13C9-PFNA



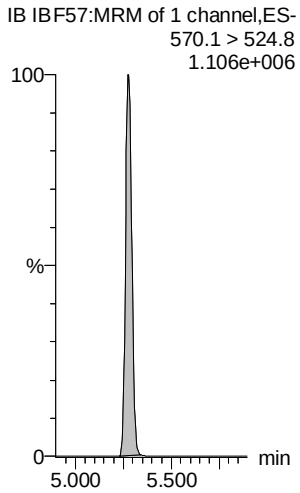
13C4-PFOS



13C6-PFDA



13C7-PFUdA



LC Calibration Standards Review Checklist QY

			ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	N/A
Calibration ID:	ST190723M2-1	L M H	☑	☐	☑	☑	☑	☐	☐
Calibration ID:	↓ -2	L M H	☑	☑	☑	☑	☑	☑	☑
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐ N/A cal 7/23/19	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐
Calibration ID:		L M H	☐	☐	☐	☐	☐	☐	☐

Full Mass Cal. Date: 7/15/19

Run Log Present: ☑

# of Samples per Sequence Checked: ☑

Instrument Blank Saved ☑

All Branches in Acquisition Window ☑

IIS Area Saved ☑

Reviewed By: On 7/23/19
Initials/Date

Comments:

ID: LR - LCSRC *Rev. No.: 2* *Rev. Date: 04/29/2019* *Page: 1 of 1*

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\190723M2\190723M2-10.qld

Last Altered: Tuesday, July 23, 2019 11:28:06 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 11:30:35 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072319.mdb 23 Jul 2019 11:28:05
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Name: 190723M2_10, Date: 23-Jul-2019, Time: 11:06:51, ID: ST190723M2-2 PFC CS3 19G1106, Description: PFC CS3 19G1106

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	PFBA	1.17	1.18			
2	PFPrS	1.54	1.54	2.148	2.148	NO
3	3:3 FTCA	2.03	2.01	2.067	2.067	NO
4	PFPeA	2.17	2.17			
5	PFBS	2.46	2.47	2.952	2.952	NO
6	4:2 FTS	2.89	2.89	1.833	1.833	NO
7	PFHxA	2.97	2.97	15.725	15.725	NO
8	PFPeS	3.18	3.18	1.415	1.415	NO
9	HFPO-DA	3.19	3.19	2.480	2.480	NO
10	5:3 FTCA	3.52	3.53	1.502	1.502	NO
11	PFHpA	3.59	3.59	9.454	9.454	NO
12	ADONA	3.71	3.71	3.472	3.472	NO
13	L-PFHxS	3.75	3.75	2.144	2.144	NO
14	6:2 FTS	4.07	4.07	2.275	2.275	NO
15	L-PFOA	4.12	4.12	3.804	3.804	NO
16	PFecHS	4.14	4.14	0.954	0.954	NO
17	PFHpS	4.24	4.24	1.776	1.776	NO
18	7:3 FTCA	4.56	4.55	1.858	1.858	NO
19	PFNA	4.57	4.57	3.934	3.934	NO
20	PFOSA	4.63	4.63	27.345	27.345	NO
21	L-PFOS	4.65	4.66	2.012	2.012	NO
22	9Cl-PF30NS	4.88	4.88	16.574	16.574	NO
23	PFDA	4.95	4.95	5.580	5.580	NO
24	8:2 FTS	4.92	4.92	1.219	1.219	NO
25	PFNS	5.02	5.02	1.727	1.727	NO
26	L-MeFOSAA	5.11	5.11	2.447	2.447	NO

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\190723M2\190723M2-10.qld

Last Altered: Tuesday, July 23, 2019 11:28:06 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 11:30:53 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072319.mdb 23 Jul 2019 11:28:05
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Name: 190723M2_10, Date: 23-Jul-2019, Time: 11:06:51, ID: ST190723M2-2 PFC CS3 19G1106, Description: PFC CS3 19G1106

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	L-EtFOSAA	5.27	5.27	1.367	1.367	NO
2	PFUdA	5.28	5.28	8.766	8.766	NO
3	PFDS	5.33	5.33	1.883	1.883	NO
4	11Cl-PF30UdS	5.50	5.50	5.861	5.861	NO
5	10:2 FTS	5.55	5.55	1.516	1.516	NO
6	PFDoA	5.57	5.57	9.058	9.058	NO
7	N-MeFOSA	5.73	5.73	1.515	1.515	NO
8	PFTrDA	5.82	5.82	20.874	20.874	NO
9	PFDoS	5.85	5.85	1.859	1.859	NO
10	PFTeDA	6.04	6.04	14.344	14.344	NO
11	N-EtFOSA	6.17	6.17	1.606	1.606	NO
12	PFHxDA	6.38	6.39	21.465	21.465	NO
13	PFODA	6.63	6.63			
14	N-MeFOSE	6.35	6.35			
15	N-EtFOSE	6.50	6.50			

Dataset: F:\Projects\PFAS.PRO\Results\190723M2\190723M2-2.qld

Last Altered: Tuesday, July 23, 2019 11:34:37 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 11:35:16 Pacific Daylight Time

Jan 7/23/19

Name: 190723M2_2, Date: 23-Jul-2019, Time: 09:38:23, ID: ST190723M2-1 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8	742.085	8004.546	1.00	1.15	1.159	0.9	92.8	NO		
2	2	PFPrS	248.9 > 79.9	128.754	2233.653	1.00	1.52	0.721	1.0	95.5	NO	2.288	NO
3	3	3:3 FTCA	240.9 > 176.9	31.681	15740.246	1.00	2.00	0.025	0.8	81.9	NO	1.865	NO
4	4	PFPeA	263.1 > 218.9	1180.804	15740.246	1.00	2.16	0.938	1.0	102.9	NO		
5	5	PFBS	299.0 > 79.7	398.088	2233.653	1.00	2.46	2.228	1.0	101.2	NO	3.482	NO
6	6	4:2 FTS	327.0 > 306.9	736.733	3869.564	1.00	2.89	2.380	1.0	97.9	NO	1.855	NO
7	47	13C3-PFBA	216.1 > 171.8	8004.546	10900.226	1.00	1.15	9.179	12.5	100.1	NO		
8	49	13C3-PFBS	302.0 > 98.8	2233.653	2135.187	1.00	2.46	13.076	12.4	98.9	NO		
9	48	13C3-PFPeA	266.0 > 221.8	15740.246	34202.559	1.00	2.16	5.753	11.5	92.4	NO		
10	48	13C3-PFPeA	266.0 > 221.8	15740.246	34202.559	1.00	2.16	5.753	11.5	92.4	NO		
11	49	13C3-PFBS	302.0 > 98.8	2233.653	2135.187	1.00	2.46	13.076	12.4	98.9	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	3869.564	2135.187	1.00	2.88	22.654	13.7	109.8	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0	2388.287	12936.442	1.00	2.97	0.923	1.0	98.3	NO	16.343	NO
15	8	PFPeS	349.1>80.1	267.523	2233.653	1.00	3.18	1.497	0.9	94.9	NO	1.526	NO
16	9	HFPO-DA	285.1 > 168.9	165.500	1738.549	1.00	3.18	0.476	1.0	100.8	NO	1.897	NO
17	10	5:3 FTCA	340.9 > 236.9	213.264	16020.092	1.00	3.52	0.166	1.0	96.5	NO	1.465	NO
18	11	PFHpA	363.0 > 318.9	1699.625	16020.092	1.00	3.59	1.326	1.0	102.5	NO	12.372	NO
19	12	ADONA	376.8 > 250.9	4134.596	16020.092	1.00	3.70	3.226	1.0	98.5	NO	3.685	NO
20	52	13C2-PFHxA	315.0 > 270.0	12936.442	34202.559	1.00	2.97	4.728	4.8	96.7	NO		
21	49	13C3-PFBS	302.0 > 98.8	2233.653	2135.187	1.00	2.46	13.076	12.4	98.9	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1738.549	34202.559	1.00	3.18	0.635	4.7	94.9	NO		
23	53	13C4-PFHpA	367.2 > 321.8	16020.092	34202.559	1.00	3.59	5.855	12.2	97.9	NO		
24	53	13C4-PFHpA	367.2 > 321.8	16020.092	34202.559	1.00	3.59	5.855	12.2	97.9	NO		
25	53	13C4-PFHpA	367.2 > 321.8	16020.092	34202.559	1.00	3.59	5.855	12.2	97.9	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6	307.633	4353.479	1.00	3.75	0.883	1.0	97.3	NO	2.032	NO
28	15	6:2 FTS	427.0 > 406.9	702.233	2882.938	1.00	4.06	3.045	0.9	95.0	NO	2.045	NO
29	16	L-PFOA	412.8 > 368.9	3361.626	27810.945	1.00	4.12	1.511	1.0	98.1	NO	3.967	NO
30	18	PFecHS	460.8 > 381.0	465.906	27810.945	1.00	4.14	0.209	0.9	92.7	NO	1.043	NO
31	19	PFHpS	449.0 > 80.0	364.182	4996.940	1.00	4.24	0.911	1.0	103.9	NO	2.013	NO
32	20	7:3 FTCA	440.9 > 336.9	255.815	28234.070	1.00	4.55	0.113	1.1	111.9	NO	1.926	NO
33	54	13C3-PFHxS	401.8 > 79.9	4353.479	2135.187	1.00	3.75	25.487	12.6	100.8	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	2882.938	4929.473	1.00	4.06	7.310	13.6	109.1	NO		
35	58	13C2-PFOA	414.9 > 369.7	27810.945	41365.055	1.00	4.12	8.404	12.3	98.7	NO		
36	58	13C2-PFOA	414.9 > 369.7	27810.945	41365.055	1.00	4.12	8.404	12.3	98.7	NO		

CCH 7/23/19

Dataset: F:\Projects\PFAS.PRO\Results\190723M2\190723M2-2.qld

Last Altered: Tuesday, July 23, 2019 11:34:37 Pacific Daylight Time
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Name: 190723M2_2, Date: 23-Jul-2019, Time: 09:38:23, ID: ST190723M2-1 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	4996.940	4929.473	1.00	4.65	12.671	12.7	101.7	NO		
38	56	13C5-PFNA	468.2 > 422.9	28234.070	29453.916	1.00	4.56	11.982	12.0	95.7	NO		
39	-1												
40	21	PFNA	463.0 > 418.8	2699.413	28234.070	1.00	4.56	1.195	1.0	101.4	NO	4.308	NO
41	22	PFOSA	497.9 > 77.9	515.916	6471.938	1.00	4.63	0.996	1.0	98.9	NO	25.965	NO
42	23	L-PFOS	498.9 > 79.9	455.151	4996.940	1.00	4.65	1.139	1.1	108.4	NO	2.386	NO
43	25	9Cl-PF30NS	530.7 > 350.8	825.826	4996.940	1.00	4.88	2.066	1.0	99.4	NO	9.402	NO
44	26	PFDA	513 > 468.8	3113.701	29637.842	1.00	4.95	1.313	1.0	101.6	NO	6.222	NO
45	27	8:2 FTS	527.0 > 506.9	468.161	3079.798	1.00	4.92	1.900	1.0	97.3	NO	1.059	NO
46	56	13C5-PFNA	468.2 > 422.9	28234.070	29453.916	1.00	4.56	11.982	12.0	95.7	NO		
47	57	13C8-PFOSA	506.1 > 77.7	6471.938	46537.668	1.00	4.63	1.738	10.4	83.0	NO		
48	59	13C8-PFOS	507.0 > 79.9	4996.940	4929.473	1.00	4.65	12.671	12.7	101.7	NO		
49	59	13C8-PFOS	507.0 > 79.9	4996.940	4929.473	1.00	4.65	12.671	12.7	101.7	NO		
50	60	13C2-PFDA	515.1 > 469.9	29637.842	36908.715	1.00	4.95	10.038	12.3	98.0	NO		
51	61	13C2-8:2 FTS	529 > 79.9	3079.798	4929.473	1.00	4.92	7.810	14.0	112.3	NO		
52	-1												
53	28	PFNS	549.1 > 80.1	242.629	4996.940	1.00	5.01	0.607	0.8	77.3	NO	1.535	NO
54	29	L-MeFOSAA	570 > 419	1206.926	7790.198	1.00	5.11	1.937	1.0	96.1	NO	2.497	NO
55	31	L-EtFOSAA	584.1 > 419	893.174	10069.540	1.00	5.27	1.109	0.9	92.2	NO	1.302	NO
56	33	PFUdA	563.0 > 518.9	3167.324	38844.832	1.00	5.28	1.019	1.1	106.1	NO	7.255	NO
57	34	PFDS	598.8 > 79.9	365.298	3079.798	1.00	5.33	1.483	0.9	91.6	NO	1.482	NO
58	35	11Cl-PF30UdS	632.6 > 452.7	130.042	38862.906	1.00	5.50	0.042	0.9	92.0	NO	7.066	NO
59	59	13C8-PFOS	507.0 > 79.9	4996.940	4929.473	1.00	4.65	12.671	12.7	101.7	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	7790.198	46537.668	1.00	5.10	2.092	11.8	94.3	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	10069.540	46537.668	1.00	5.26	2.705	12.1	96.7	NO		
62	63	13C2-PFUdA	565 > 519.8	38844.832	46537.668	1.00	5.28	10.434	11.7	93.9	NO		
63	61	13C2-8:2 FTS	529 > 79.9	3079.798	4929.473	1.00	4.92	7.810	14.0	112.3	NO		
64	65	13C2-PFDoA	614.7 > 569.7	38862.906	36908.715	1.00	5.57	13.162	12.1	96.8	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9	611.478	3079.798	1.00	5.55	2.482	1.0	102.6	NO	1.541	NO
67	37	PFDoA	612.9 > 569.0	3209.784	38862.906	1.00	5.57	1.032	0.9	91.0	NO	8.206	NO
68	38	N-MeFOSA	512.1 > 168.9	745.782	17923.717	1.00	5.72	6.241	5.2	104.8	NO	1.563	NO
69	39	PFTrDA	662.9 > 618.9	3366.406	38862.906	1.00	5.82	1.083	0.9	90.1	NO	30.441	NO
70	40	PFDoS	698.8 > 79.9	343.210	27080.408	1.00	5.85	0.158	1.0	98.3	NO	2.434	NO
71	41	PFTeDA	713.0 > 669.0	3616.123	27080.408	1.00	6.04	1.669	1.0	102.0	NO	21.707	YES
72	65	13C2-PFDoA	614.7 > 569.7	38862.906	36908.715	1.00	5.57	13.162	12.1	96.8	NO		

Dataset: F:\Projects\PFAS.PRO\Results\190723M2\190723M2-2.qld

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Name: 190723M2_2, Date: 23-Jul-2019, Time: 09:38:23, ID: ST190723M2-1 PFC CS0 19G1103, Description: PFC CS0 19G1103

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	38862.906	36908.715	1.00	5.57	13.162	12.1	96.8	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	17923.717	46537.668	1.00	5.76	4.814	125.9	83.9	NO		
75	65	13C2-PFDoA	614.7 > 569.7	38862.906	36908.715	1.00	5.57	13.162	12.1	96.8	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	27080.408	46537.668	1.00	6.04	7.274	12.0	96.3	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	27080.408	46537.668	1.00	6.04	7.274	12.0	96.3	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9	670.297	22513.891	1.00	6.17	4.466	4.8	96.8	NO	1.469	NO
80	43	PFHxDA	813.1 > 768.6	1847.029	13879.883	1.00	6.40	0.665	1.0	96.7	NO	17.319	NO
81	44	PFODA	913.1 > 868.8	2183.897	13879.883	1.00	6.65	0.787	1.0	96.4	NO		
82	45	N-MeFOSE	616.1 > 58.9	494.809	13785.733	1.00	6.37	5.384	4.8	96.3	NO		
83	46	N-EtFOSE	630.1 > 58.9	646.843	14460.354	1.00	6.52	6.710	5.2	104.9	NO		
84	72	13C4-PFBA	217.0 > 172.0	10900.226	10900.226	1.00	1.16	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	22513.891	46537.668	1.00	6.18	6.047	136.0	90.7	NO		
86	69	13C2-PFHxDA	815 > 769.7	13879.883	46537.668	1.00	6.40	3.728	4.7	94.7	NO		
87	69	13C2-PFHxDA	815 > 769.7	13879.883	46537.668	1.00	6.40	3.728	4.7	94.7	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	13785.733	46537.668	1.00	6.36	3.703	118.3	78.9	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	14460.354	46537.668	1.00	6.51	3.884	118.2	78.8	NO		
90	73	13C5-PFHxA	318.0 > 272.9	34202.559	34202.559	1.00	2.97	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	41365.055	41365.055	1.00	4.12	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	2135.187	2135.187	1.00	3.75	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	29453.916	29453.916	1.00	4.56	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	4929.473	4929.473	1.00	4.65	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	36908.715	36908.715	1.00	4.95	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	46537.668	46537.668	1.00	5.27	12.500	12.5	100.0	NO		

Vista Analytical Laboratory

Dataset: Untitled

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072319.mdb 23 Jul 2019 11:28:05
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	190723M2_1	IPA	23-Jul-19	09:27:47
2	2	190723M2_2	ST190723M2-1 PFC CS0 19G1103	23-Jul-19	09:38:23
3	3	190723M2_3	IB	23-Jul-19	09:48:56
4	4	190723M2_4	B9G0208-BS1 OPR 0.25	23-Jul-19	09:59:37
5	5	190723M2_5	B9G0134-BS1 OPR 0.25	23-Jul-19	10:11:24
6	6	190723M2_6	1902014-08 FRB-07082019 0.11724	23-Jul-19	10:24:28
7	7	190723M2_7	1902014-09 CAOA-B01-GW 0.12758	23-Jul-19	10:35:01
8	8	190723M2_8	1902014-10 EB-07082019 0.11822	23-Jul-19	10:45:40
9	9	190723M2_9	IPA	23-Jul-19	10:56:13
10	10	190723M2_10	ST190723M2-2 PFC CS3 19G1106	23-Jul-19	11:06:51
11	11	190723M2_11	IPA	23-Jul-19	11:17:24

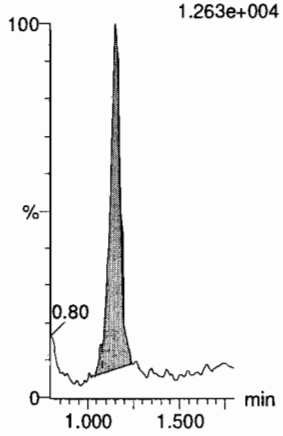
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Printed: Tuesday, July 23, 2019 11:35:16 Pacific Daylight Time

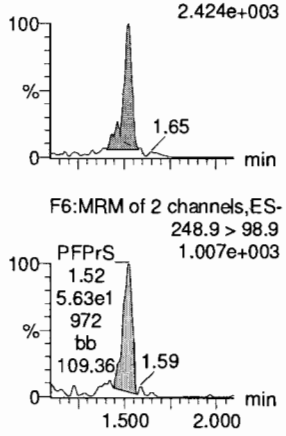
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Name: 190723M2_2, Date: 23-Jul-2019, Time: 09:38:23, ID: ST190723M2-1 PFC CS0 19G1103, Description: PFC CS0 19G1103

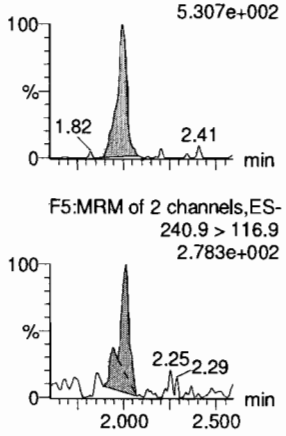
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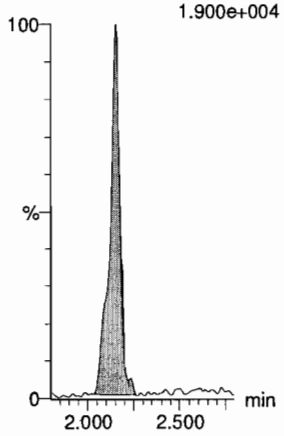
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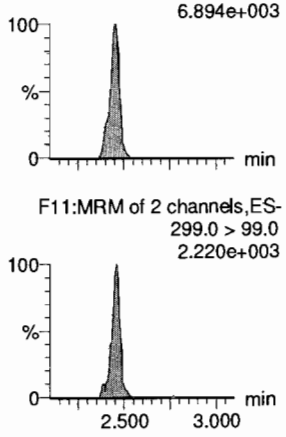
3:3 FTCA



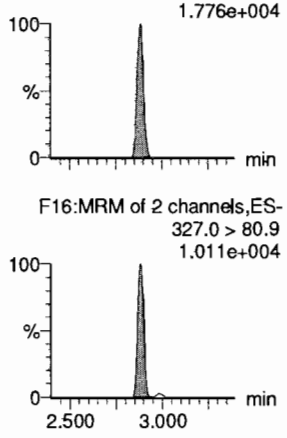
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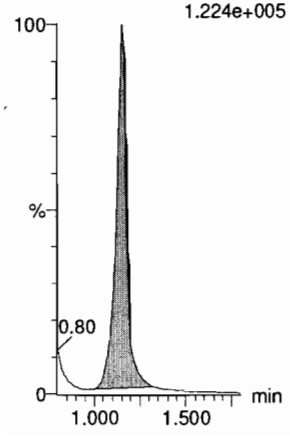
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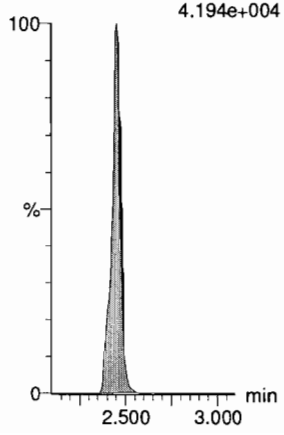
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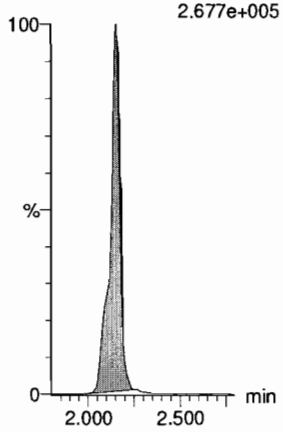
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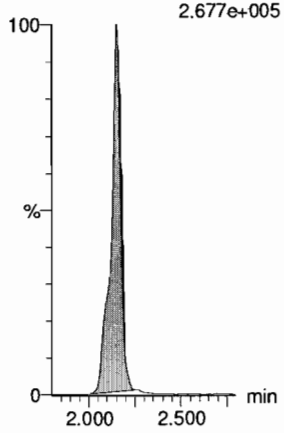
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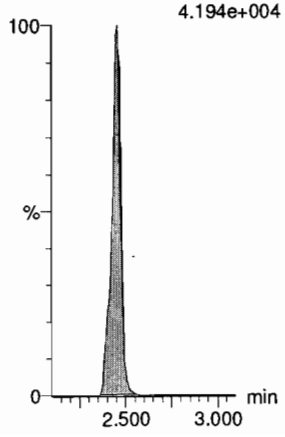
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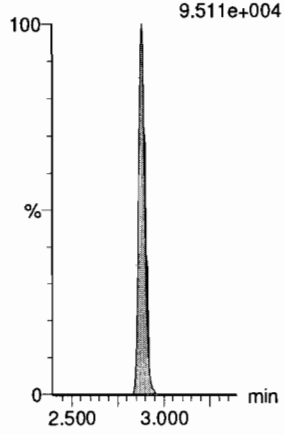
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13C3-PFBS



13C2-4:2 FTS

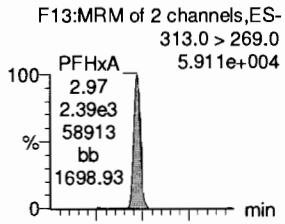


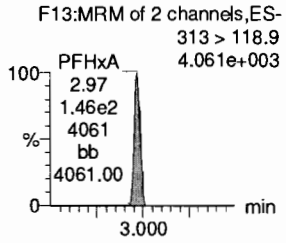
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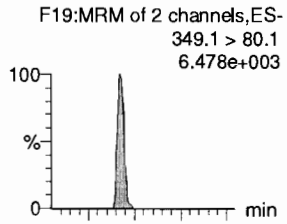
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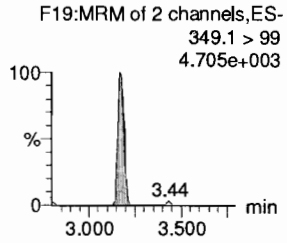
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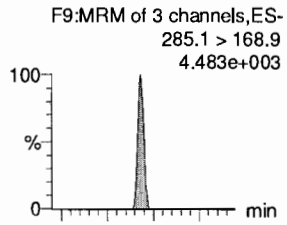


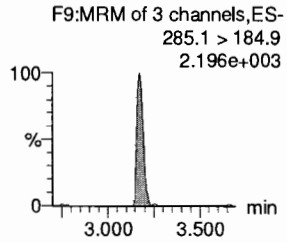
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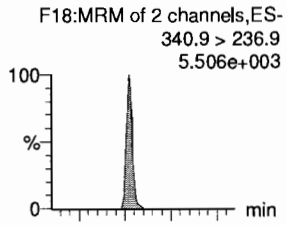


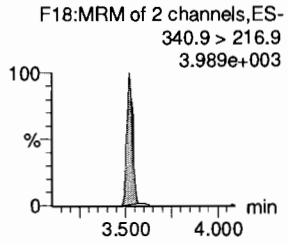
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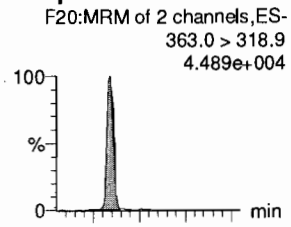


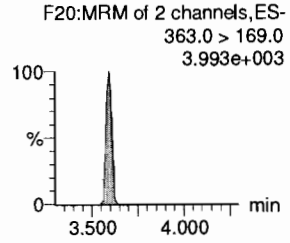
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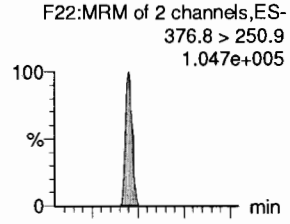


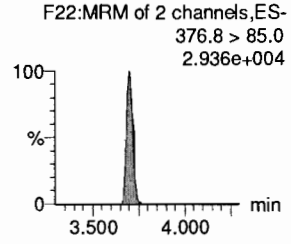
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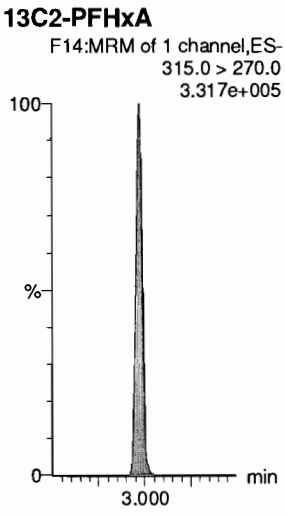


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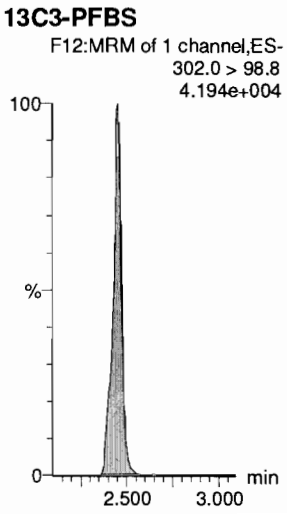




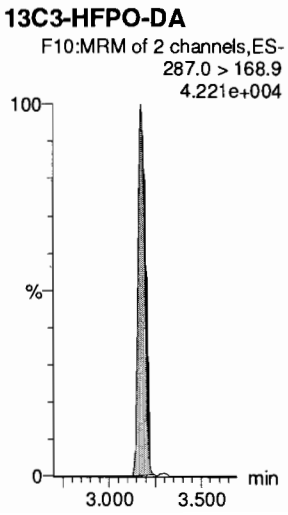
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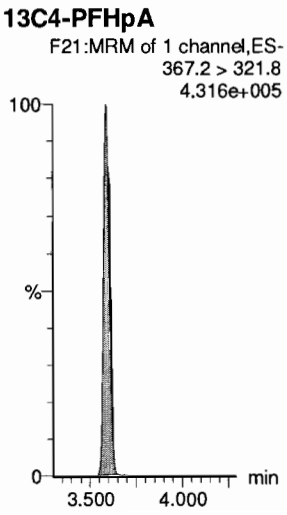
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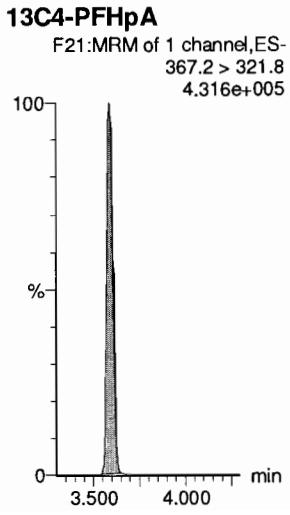
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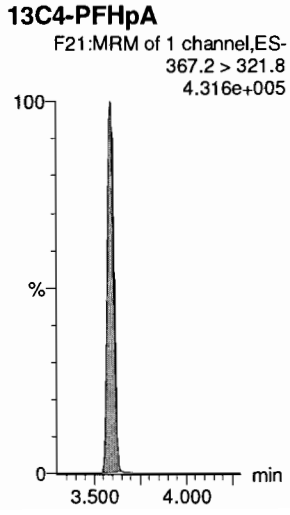
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13C4-PFHpA



13C4-PFHpA

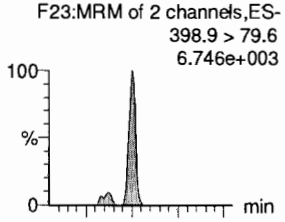


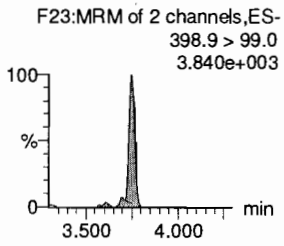
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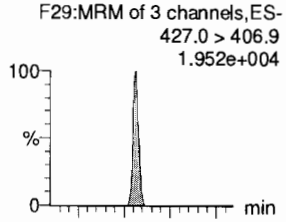
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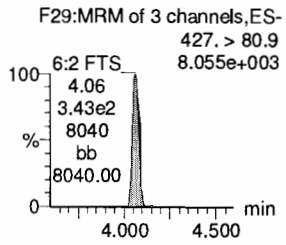
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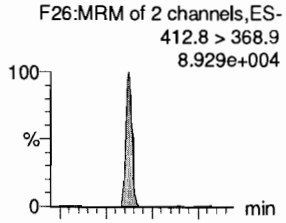


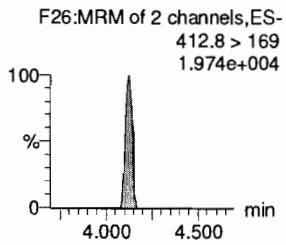
6:2 FTS



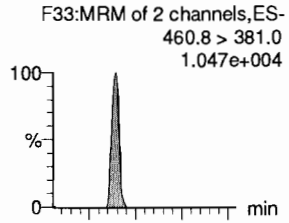


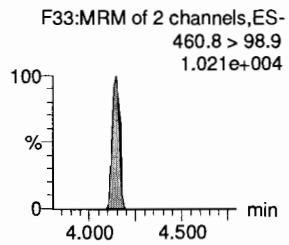
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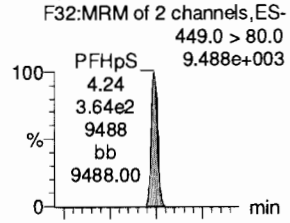


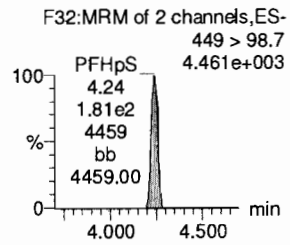
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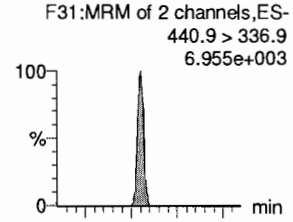


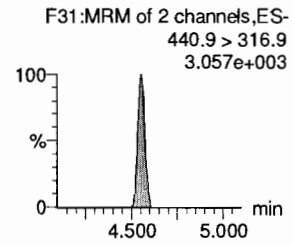
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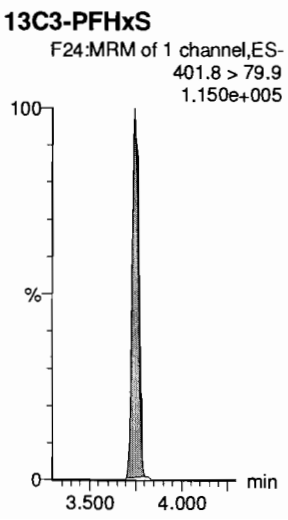


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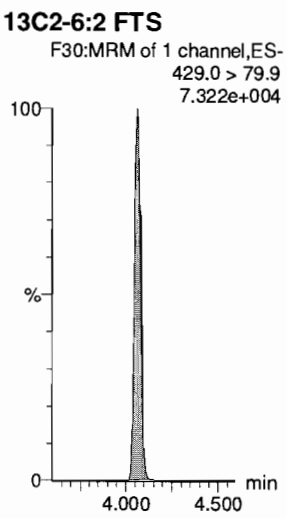




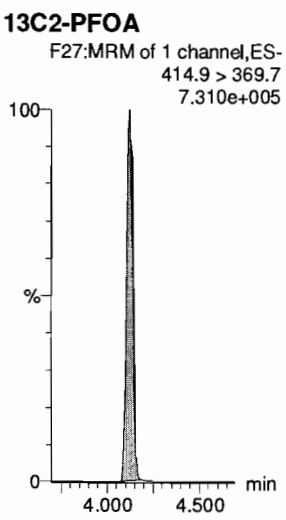
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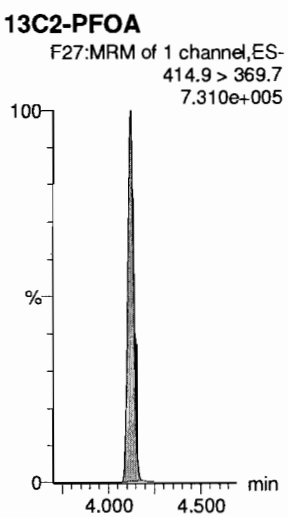
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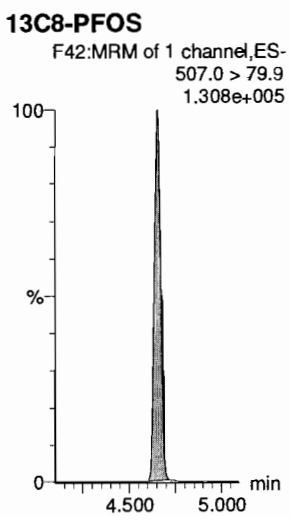
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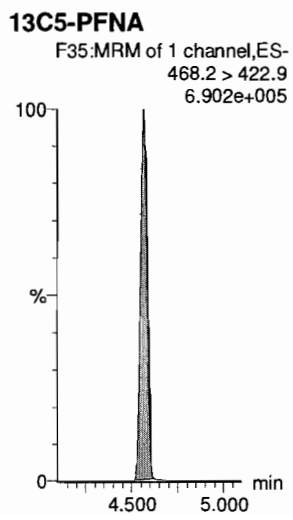
13C2-PFOA



13C8-PFOS



13C5-PFNA

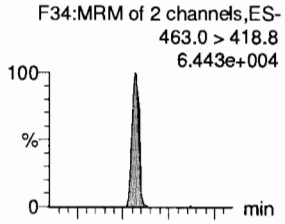


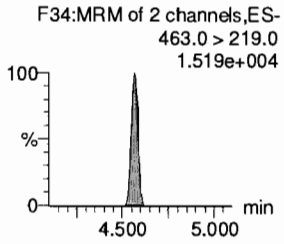
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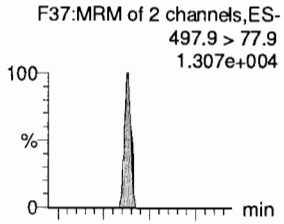
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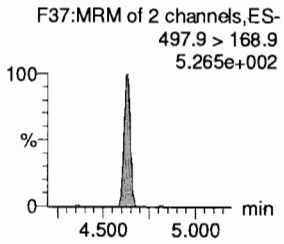
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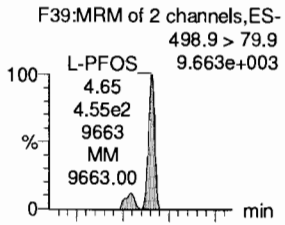


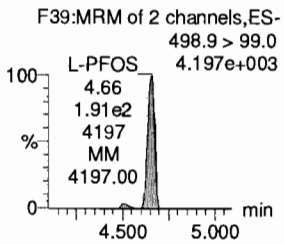
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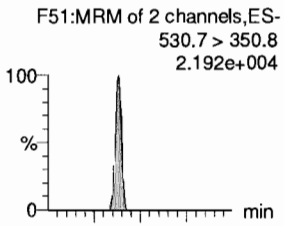


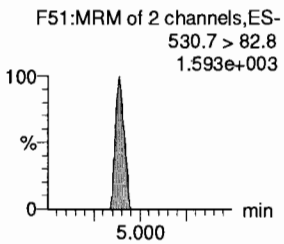
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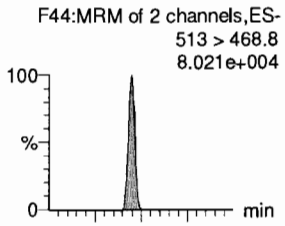


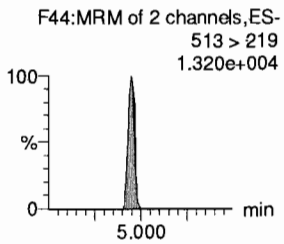
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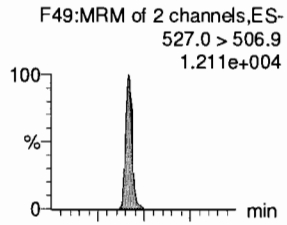


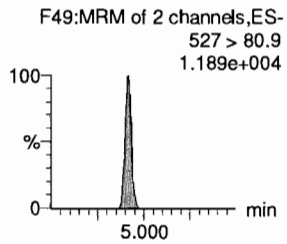
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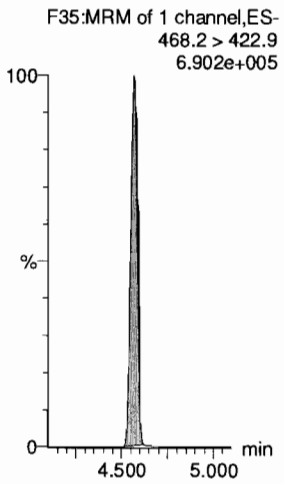


8:2 FTS

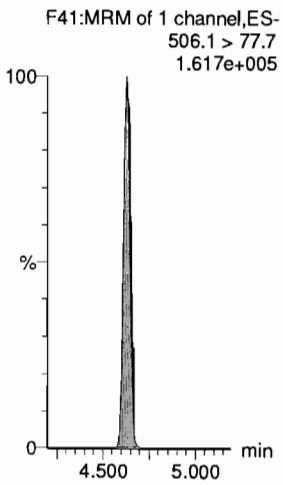




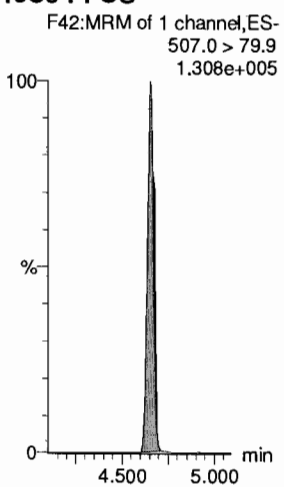
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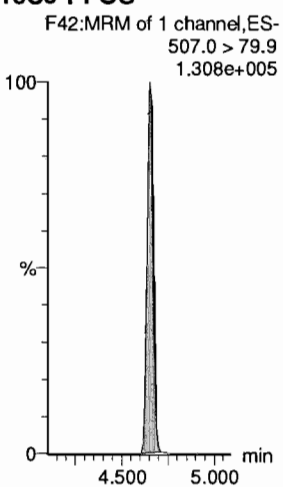
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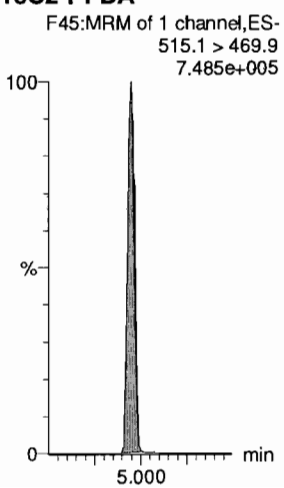
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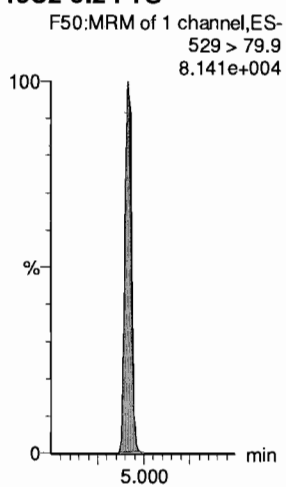
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13C2-PFDA



13C2-8:2 FTS

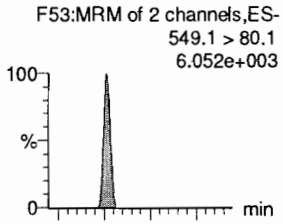


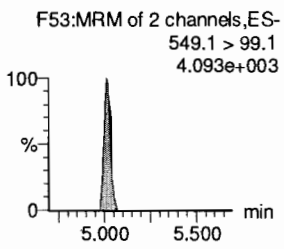
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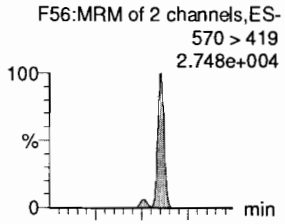
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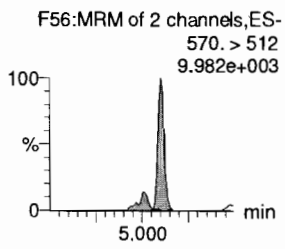
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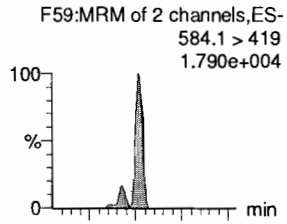


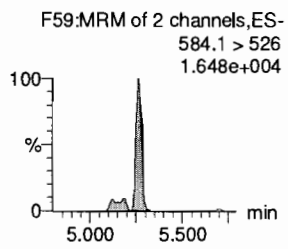
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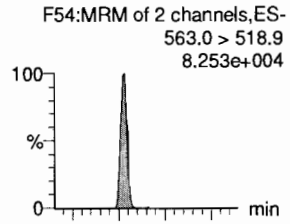


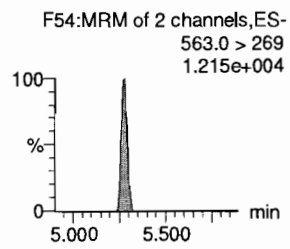
L-EtFOSAA



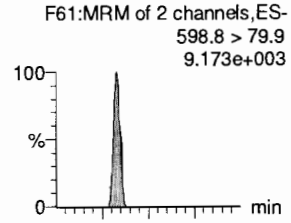


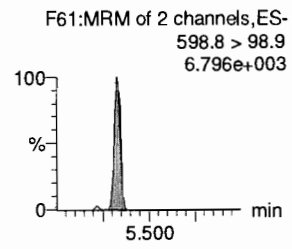
PFUdA



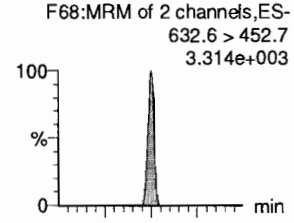


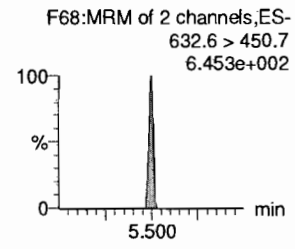
PFDS



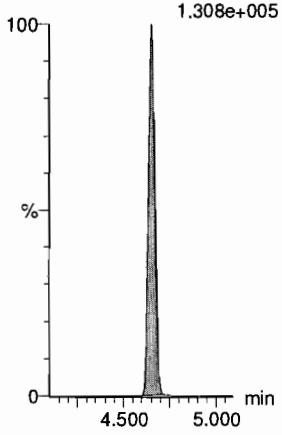


11Cl-PF30UdS

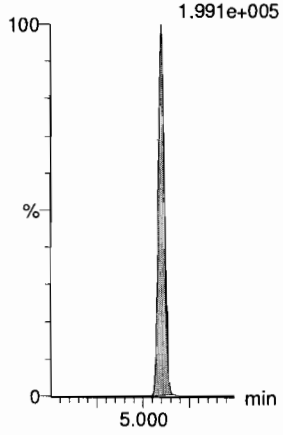




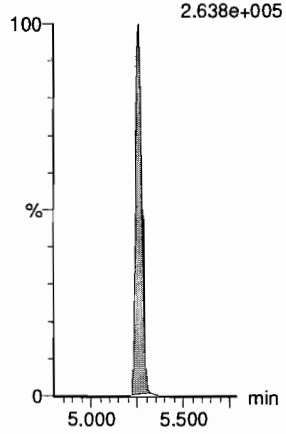
13C8-PFOS



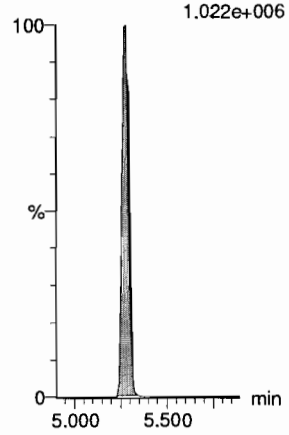
d3-N-MeFOSAA



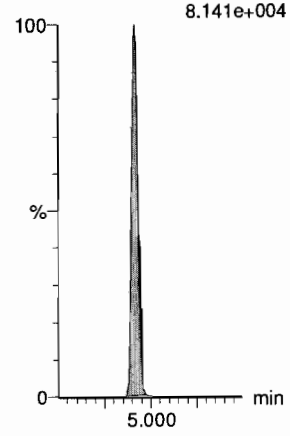
d5-N-EtFOSAA



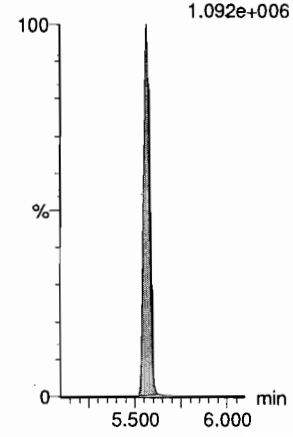
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

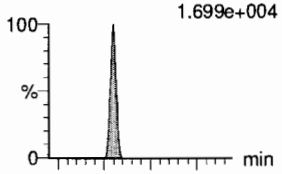


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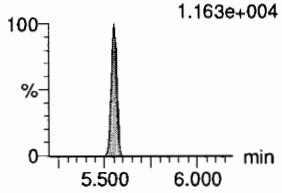
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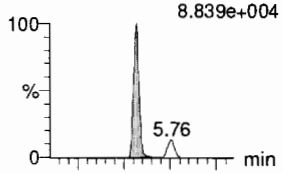
10:2 FTS
F66:MRM of 2 channels,ES-
627.0 > 606.9
1.699e+004



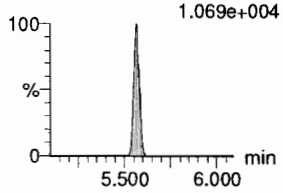
F66:MRM of 2 channels,ES-
627.0 > 80.9
1.163e+004



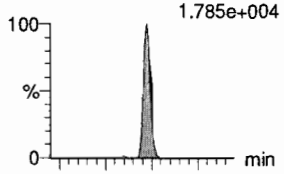
PFDoA
F62:MRM of 4 channels,ES-
612.9 > 569.0
8.839e+004



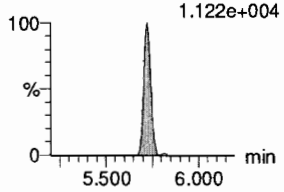
F62:MRM of 4 channels,ES-
612.9 > 318.8
1.069e+004



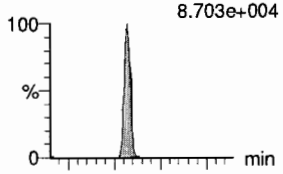
N-MeFOSA
F43:MRM of 2 channels,ES-
512.1 > 168.9
1.785e+004



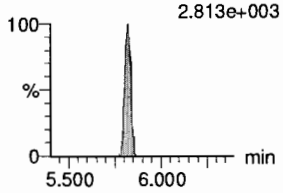
F43:MRM of 2 channels,ES-
512.1 > 219
1.122e+004



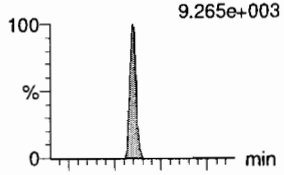
PFTrDA
F70:MRM of 2 channels,ES-
662.9 > 618.9
8.703e+004



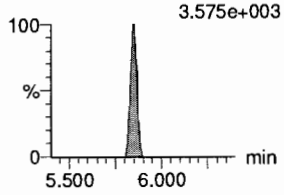
F70:MRM of 2 channels,ES-
662.9 > 319
2.813e+003



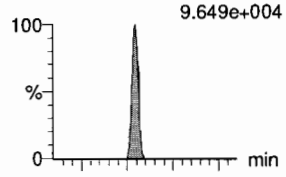
PFDoS
F71:MRM of 2 channels,ES-
698.8 > 79.9
9.265e+003



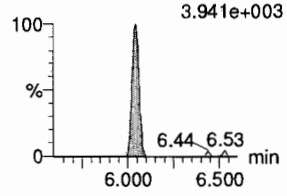
F71:MRM of 2 channels,ES-
698.8 > 98.9
3.575e+003



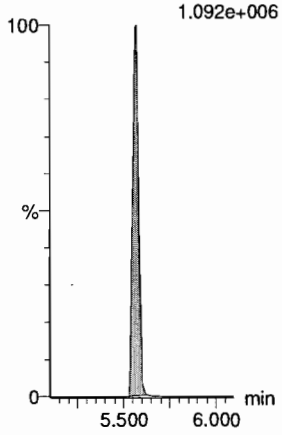
PFTeDA
F72:MRM of 2 channels,ES-
713.0 > 669.0
9.649e+004



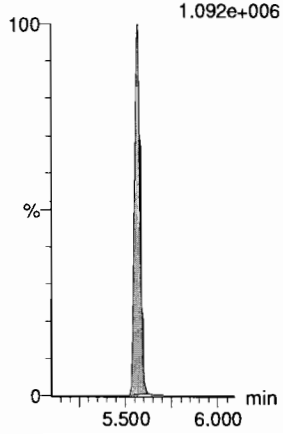
F72:MRM of 2 channels,ES-
713. > 369.0
3.941e+003



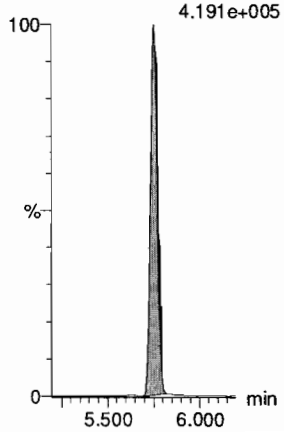
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.092e+006



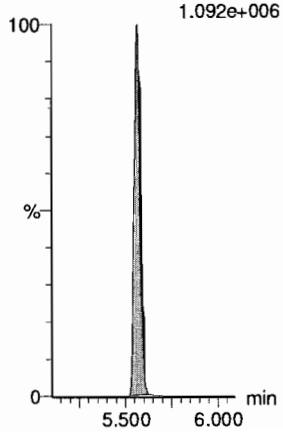
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.092e+006



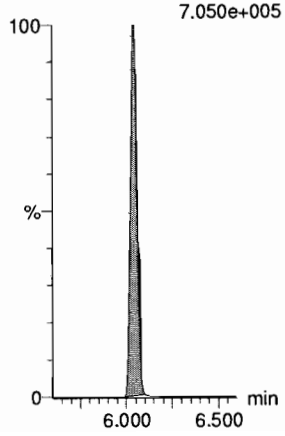
d3-N-MeFOSA
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.191e+005



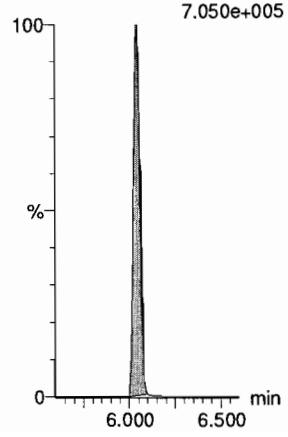
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.092e+006



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
7.050e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
7.050e+005

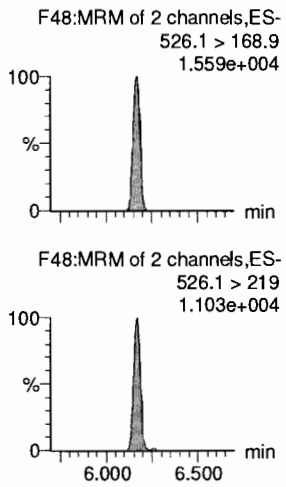


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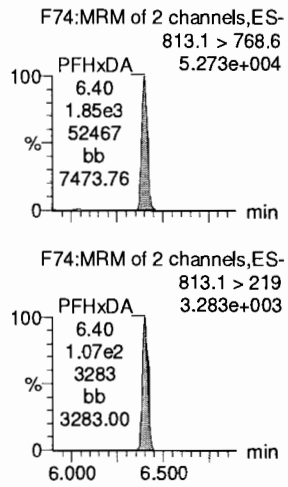
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Name: 190723M2_2, Date: 23-Jul-2019, Time: 09:38:23, ID: ST190723M2-1 PFC CS0 19G1103, Description: PFC CS0 19G1103

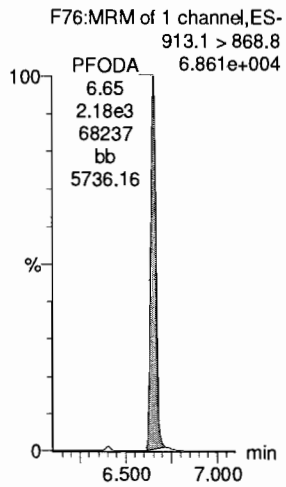
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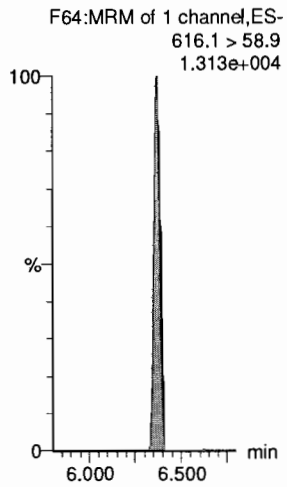
PFHxDA



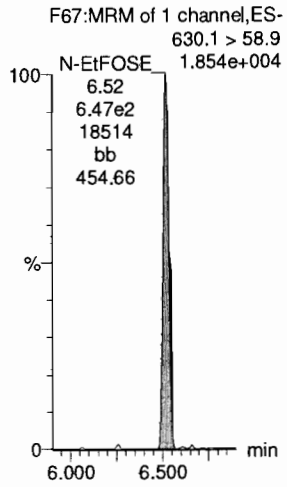
PFODA



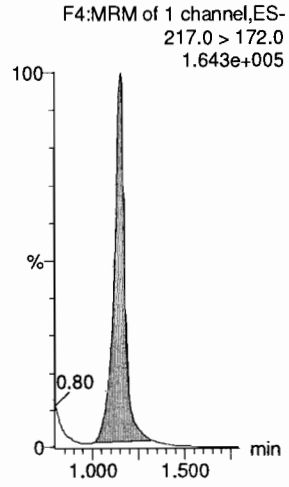
N-MeFOSE



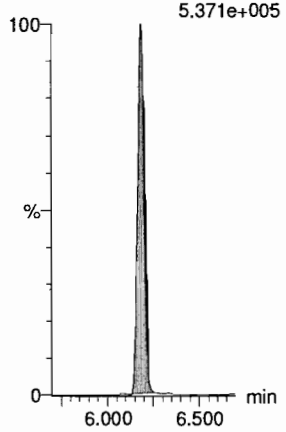
N-EtFOSE



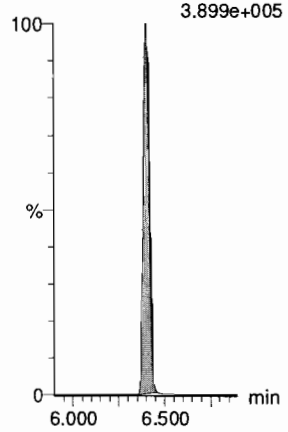
13C4-PFBA



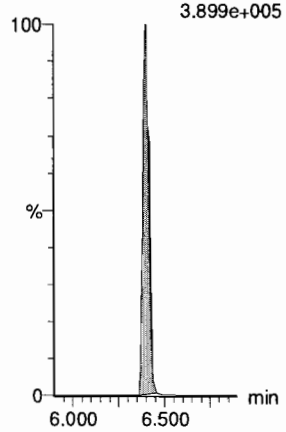
d5-N-ETFOSA



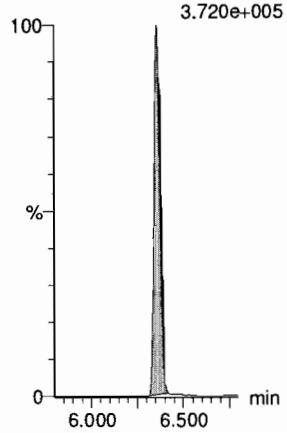
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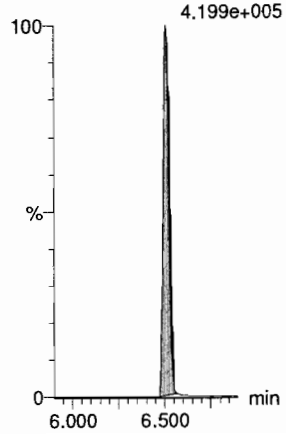
13C2-PFHxDA



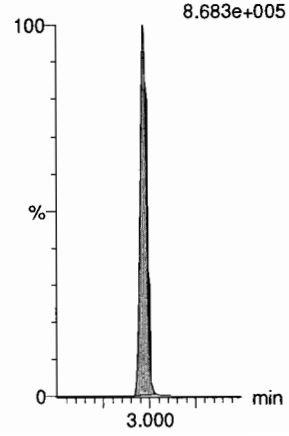
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

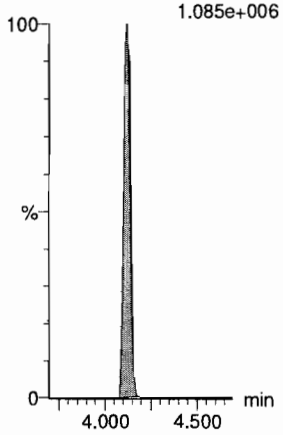


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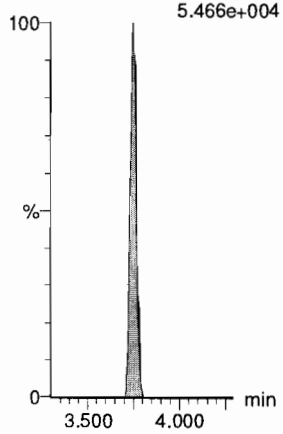
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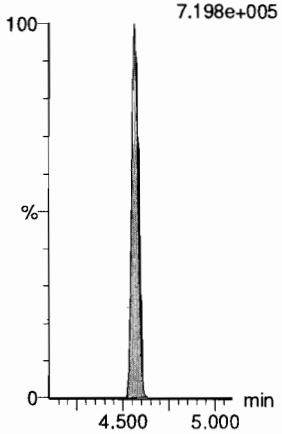
13C8-PFOA



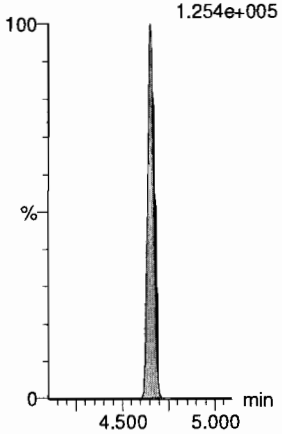
18O2-PFHxS



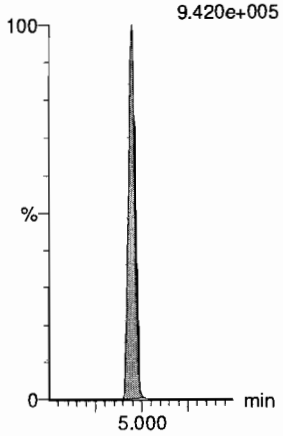
13C9-PFNA



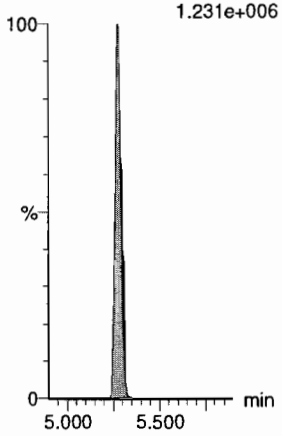
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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JJM 7/23/19

Name: 190723M2_10, Date: 23-Jul-2019, Time: 11:06:51, ID: ST190723M2-2 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8	8152.729	8246.893	1.00	1.18	12.357	9.9	99.2	NO		
2	2	PFPrS	248.9 > 79.9	1750.230	2407.606	1.00	1.54	9.087	9.7	97.4	NO	2.148	NO
3	3	3:3 FTCA	240.9 > 176.9	363.568	16105.731	1.00	2.01	0.282	8.2	82.4	NO	2.067	NO
4	4	PFPeA	263.1 > 218.9	12036.898	16105.731	1.00	2.17	9.342	10.1	101.0	NO		
5	5	PFBS	299.0 > 79.7	4222.561	2407.606	1.00	2.47	21.923	9.7	96.6	NO	2.952	NO
6	6	4:2 FTS	327.0 > 306.9	7580.493	3844.612	1.00	2.89	24.646	9.8	97.9	NO	1.833	NO
7	47	13C3-PFBA	216.1 > 171.8	8246.893	11023.111	1.00	1.17	9.352	12.7	102.0	NO		
8	49	13C3-PFBS	302.0 > 98.8	2407.606	2126.665	1.00	2.46	14.151	13.4	107.1	NO		
9	48	13C3-PFPeA	266.0 > 221.8	16105.731	32727.986	1.00	2.17	6.151	12.3	98.8	NO		
10	48	13C3-PFPeA	266.0 > 221.8	16105.731	32727.986	1.00	2.17	6.151	12.3	98.8	NO		
11	49	13C3-PFBS	302.0 > 98.8	2407.606	2126.665	1.00	2.46	14.151	13.4	107.1	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	3844.612	2126.665	1.00	2.89	22.598	13.7	109.6	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0	24788.836	12852.313	1.00	2.97	9.644	10.9	109.3	NO	15.725	NO
15	8	PFPeS	349.1>80.1	2953.901	2407.606	1.00	3.18	15.336	9.6	95.7	NO	1.415	NO
16	9	HFPO-DA	285.1 > 168.9	2085.798	1963.056	1.00	3.19	5.313	8.3	82.9	NO	2.480	NO
17	10	5:3 FTCA	340.9 > 236.9	2118.135	15560.631	1.00	3.53	1.702	9.2	92.4	NO	1.502	NO
18	11	PFHpA	363.0 > 318.9	16760.137	15560.631	1.00	3.59	13.464	10.4	104.0	NO	9.454	NO
19	12	ADONA	376.8 > 250.9	42253.160	15560.631	1.00	3.71	33.942	9.6	95.7	NO	3.472	NO
20	52	13C2-PFHxA	315.0 > 270.0	12852.313	32727.986	1.00	2.97	4.909	5.0	100.4	NO		
21	49	13C3-PFBS	302.0 > 98.8	2407.606	2126.665	1.00	2.46	14.151	13.4	107.1	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1963.056	32727.986	1.00	3.19	0.750	5.6	111.9	NO		
23	53	13C4-PFHpA	367.2 > 321.8	15560.631	32727.986	1.00	3.59	5.943	12.4	99.4	NO		
24	53	13C4-PFHpA	367.2 > 321.8	15560.631	32727.986	1.00	3.59	5.943	12.4	99.4	NO		
25	53	13C4-PFHpA	367.2 > 321.8	15560.631	32727.986	1.00	3.59	5.943	12.4	99.4	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6	3225.144	4186.627	1.00	3.75	9.629	10.6	105.6	NO	2.144	NO
28	15	6:2 FTS	427.0 > 406.9	7349.368	2846.486	1.00	4.07	32.274	9.6	95.9	NO	2.275	NO
29	16	L-PFOA	412.8 > 368.9	34050.055	26909.195	1.00	4.12	15.817	10.5	105.1	NO	3.804	NO
30	18	PFecHS	460.8 > 381.0	5193.998	26909.195	1.00	4.14	2.413	10.5	104.7	NO	0.954	NO
31	19	PFHpS	449.0 > 80.0	3573.697	5061.372	1.00	4.24	8.826	10.0	100.2	NO	1.776	NO
32	20	7:3 FTCA	440.9 > 336.9	2274.856	28148.992	1.00	4.55	1.010	8.5	85.3	NO	1.858	NO
33	54	13C3-PFHxS	401.8 > 79.9	4186.627	2126.665	1.00	3.75	24.608	12.2	97.3	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	2846.486	5236.325	1.00	4.07	6.795	12.7	101.4	NO		
35	58	13C2-PFOA	414.9 > 369.7	26909.195	40320.934	1.00	4.12	8.342	12.2	98.0	NO		
36	58	13C2-PFOA	414.9 > 369.7	26909.195	40320.934	1.00	4.12	8.342	12.2	98.0	NO		

CGH 7/23/19

Dataset: F:\Projects\PFAS.PRO\Results\190723M2\190723M2-10.qld

Last Altered: Tuesday, July 23, 2019 11:28:06 Pacific Daylight Time
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Name: 190723M2_10, Date: 23-Jul-2019, Time: 11:06:51, ID: ST190723M2-2 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	5061.372	5236.325	1.00	4.65	12.082	12.1	97.0	NO		
38	56	13C5-PFNA	468.2 > 422.9	28148.992	29145.537	1.00	4.57	12.073	12.1	96.4	NO		
39	-1												
40	21	PFNA	463.0 > 418.8	26798.057	28148.992	1.00	4.57	11.900	10.3	103.2	NO	3.934	NO
41	22	PFOSA	497.9 > 77.9	5167.493	6480.807	1.00	4.63	9.967	9.8	97.8	NO	27.345	NO
42	23	L-PFOS	498.9 > 79.9	4139.636	5061.372	1.00	4.66	10.224	9.6	95.8	NO	2.012	NO
43	25	9Cl-PF30NS	530.7 > 350.8	9012.140	5061.372	1.00	4.88	22.257	10.2	101.5	NO	16.574	NO
44	26	PFDA	513 > 468.8	32641.627	29932.188	1.00	4.95	13.631	10.6	105.8	NO	5.580	NO
45	27	8:2 FTS	527.0 > 506.9	5205.675	2719.292	1.00	4.92	23.929	11.8	117.7	NO	1.219	NO
46	56	13C5-PFNA	468.2 > 422.9	28148.992	29145.537	1.00	4.57	12.073	12.1	96.4	NO		
47	57	13C8-PFOSA	506.1 > 77.7	6480.807	44570.262	1.00	4.63	1.818	10.8	86.8	NO		
48	59	13C8-PFOS	507.0 > 79.9	5061.372	5236.325	1.00	4.65	12.082	12.1	97.0	NO		
49	59	13C8-PFOS	507.0 > 79.9	5061.372	5236.325	1.00	4.65	12.082	12.1	97.0	NO		
50	60	13C2-PFDA	515.1 > 469.9	29932.188	38625.875	1.00	4.95	9.687	11.8	94.6	NO		
51	61	13C2-8:2 FTS	529 > 79.9	2719.292	5236.325	1.00	4.92	6.491	11.7	93.3	NO		
52	-1												
53	28	PFNS	549.1 > 80.1	3191.065	5061.372	1.00	5.02	7.881	11.0	110.1	NO	1.727	NO
54	29	L-MeFOSAA	570 > 419	13048.902	7624.838	1.00	5.11	21.392	9.9	99.2	NO	2.447	NO
55	31	L-EtFOSAA	584.1 > 419	10579.349	10383.119	1.00	5.27	12.736	10.2	102.0	NO	1.367	NO
56	33	PFUdA	563.0 > 518.9	30474.082	36199.164	1.00	5.28	10.523	11.5	115.2	NO	8.766	NO
57	34	PFDS	598.8 > 79.9	4176.650	2719.292	1.00	5.33	19.199	11.3	112.5	NO	1.883	NO
58	35	11Cl-PF30UdS	632.6 > 452.7	1735.159	37763.367	1.00	5.50	0.574	10.0	99.7	NO	5.861	NO
59	59	13C8-PFOS	507.0 > 79.9	5061.372	5236.325	1.00	4.65	12.082	12.1	97.0	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	7624.838	44570.262	1.00	5.11	2.138	12.1	96.4	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	10383.119	44570.262	1.00	5.27	2.912	13.0	104.1	NO		
62	63	13C2-PFUdA	565 > 519.8	36199.164	44570.262	1.00	5.28	10.152	11.4	91.4	NO		
63	61	13C2-8:2 FTS	529 > 79.9	2719.292	5236.325	1.00	4.92	6.491	11.7	93.3	NO		
64	65	13C2-PFDoA	614.7 > 569.7	37763.367	38625.875	1.00	5.57	12.221	11.2	89.9	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9	6014.977	2719.292	1.00	5.55	27.650	11.5	114.6	NO	1.516	NO
67	37	PFDoA	612.9 > 569.0	34655.762	37763.367	1.00	5.57	11.471	10.7	107.2	NO	9.058	NO
68	38	N-MeFOSA	512.1 > 168.9	7365.758	17807.756	1.00	5.73	62.044	52.7	105.3	NO	1.515	NO
69	39	PFTrDA	662.9 > 618.9	36639.793	37763.367	1.00	5.82	12.128	10.6	106.3	NO	20.874	NO
70	40	PFDoS	698.8 > 79.9	3552.649	26179.568	1.00	5.85	1.696	10.3	102.7	NO	1.859	NO
71	41	PFTeDA	713.0 > 669.0	33912.926	26179.568	1.00	6.04	16.192	10.7	107.0	NO	14.344	NO
72	65	13C2-PFDoA	614.7 > 569.7	37763.367	38625.875	1.00	5.57	12.221	11.2	89.9	NO		

Dataset: F:\Projects\PFAS.PRO\Results\190723M2\190723M2-10.qld

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Name: 190723M2_10, Date: 23-Jul-2019, Time: 11:06:51, ID: ST190723M2-2 PFC CS3 19G1106, Description: PFC CS3 19G1106

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	37763.367	38625.875	1.00	5.57	12.221	11.2	89.9	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	17807.756	44570.262	1.00	5.76	4.994	130.6	87.1	NO		
75	65	13C2-PFDoA	614.7 > 569.7	37763.367	38625.875	1.00	5.57	12.221	11.2	89.9	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	26179.568	44570.262	1.00	6.04	7.342	12.2	97.2	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	26179.568	44570.262	1.00	6.04	7.342	12.2	97.2	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9	7760.657	21322.695	1.00	6.17	54.594	55.9	111.9	NO	1.606	NO
80	43	PFHxDA	813.1 > 768.6	17757.961	13653.163	1.00	6.39	6.503	9.9	98.9	NO	21.465	NO
81	44	PFODA	913.1 > 868.8	22972.756	13653.163	1.00	6.63	8.413	11.0	109.9	NO		
82	45	N-MeFOSE	616.1 > 58.9	5250.646	14202.546	1.00	6.35	55.455	49.6	99.2	NO		
83	46	N-EtFOSE	630.1 > 58.9	6505.211	15191.785	1.00	6.50	64.231	49.7	99.3	NO		
84	72	13C4-PFBA	217.0 > 172.0	11023.111	11023.111	1.00	1.17	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	21322.695	44570.262	1.00	6.18	5.980	134.5	89.7	NO		
86	69	13C2-PFHxDA	815 > 769.7	13653.163	44570.262	1.00	6.38	3.829	4.9	97.2	NO		
87	69	13C2-PFHxDA	815 > 769.7	13653.163	44570.262	1.00	6.38	3.829	4.9	97.2	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	14202.546	44570.262	1.00	6.34	3.983	127.3	84.8	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	15191.785	44570.262	1.00	6.49	4.261	129.7	86.4	NO		
90	73	13C5-PFHxA	318.0 > 272.9	32727.986	32727.986	1.00	2.97	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	40320.934	40320.934	1.00	4.12	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	2126.665	2126.665	1.00	3.75	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	29145.537	29145.537	1.00	4.57	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	5236.325	5236.325	1.00	4.65	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	38625.875	38625.875	1.00	4.95	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	44570.262	44570.262	1.00	5.28	12.500	12.5	100.0	NO		

Vista Analytical Laboratory

Dataset: Untitled

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072319.mdb 23 Jul 2019 11:28:05
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Compound name: PFBA

	#	Name	ID	Acq.Date	Acq.Time
1	1	190723M2_1	IPA	23-Jul-19	09:27:47
2	2	190723M2_2	ST190723M2-1 PFC CS0 19G1103	23-Jul-19	09:38:23
3	3	190723M2_3	IB	23-Jul-19	09:48:56
4	4	190723M2_4	B9G0208-BS1 OPR 0.25	23-Jul-19	09:59:37
5	5	190723M2_5	B9G0134-BS1 OPR 0.25	23-Jul-19	10:11:24
6	6	190723M2_6	1902014-08 FRB-07082019 0.11724	23-Jul-19	10:24:28
7	7	190723M2_7	1902014-09 CAOA-B01-GW 0.12758	23-Jul-19	10:35:01
8	8	190723M2_8	1902014-10 EB-07082019 0.11822	23-Jul-19	10:45:40
9	9	190723M2_9	IPA	23-Jul-19	10:56:13
10	10	190723M2_10	ST190723M2-2 PFC CS3 19G1106	23-Jul-19	11:06:51
11	11	190723M2_11	IPA	23-Jul-19	11:17:24

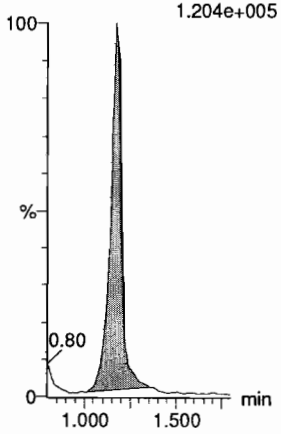
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Last Altered: Tuesday, July 23, 2019 11:28:06 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 11:29:57 Pacific Daylight Time

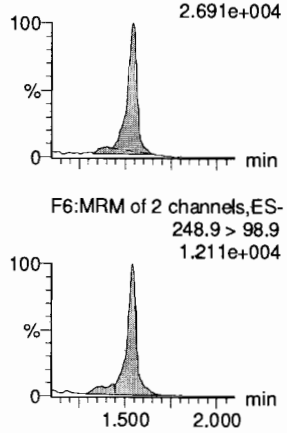
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Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Name: 190723M2_10, Date: 23-Jul-2019, Time: 11:06:51, ID: ST190723M2-2 PFC CS3 19G1106, Description: PFC CS3 19G1106

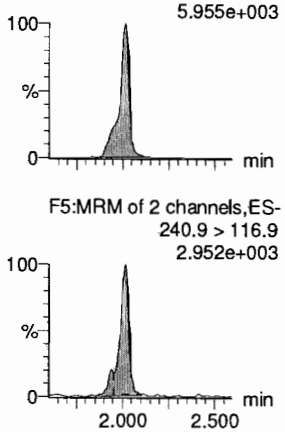
PFBA



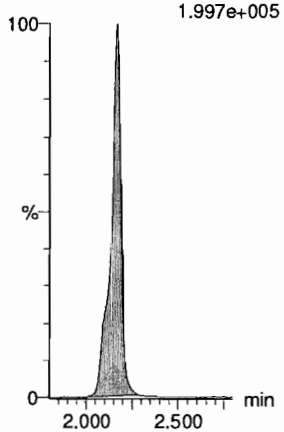
PFPrS



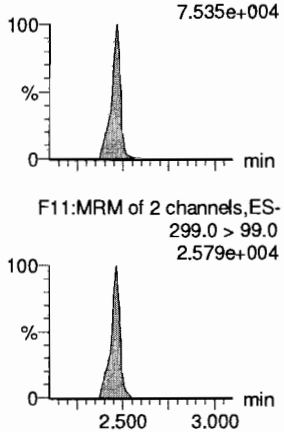
3:3 FTCA



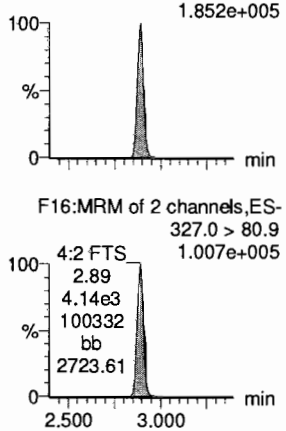
PFPeA



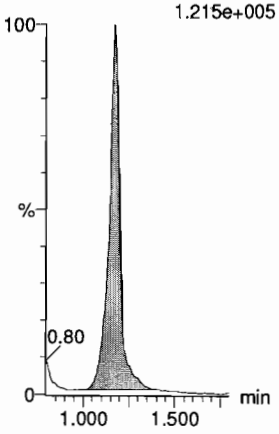
PFBS



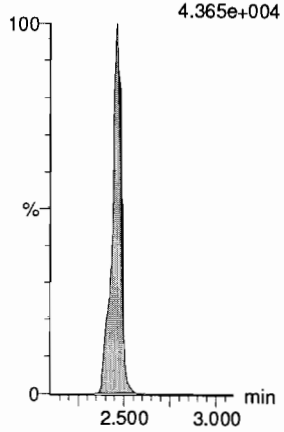
4:2 FTS



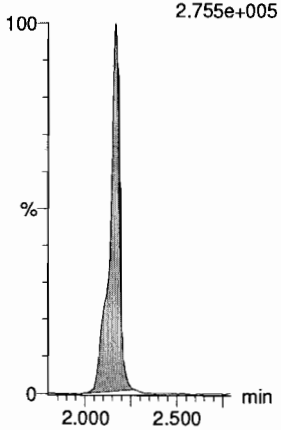
13C3-PFBA



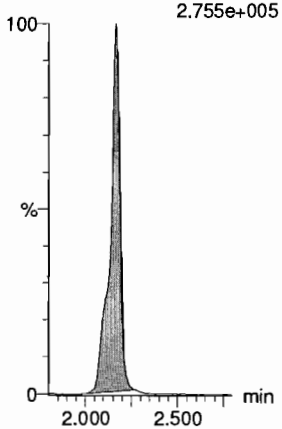
13C3-PFBS



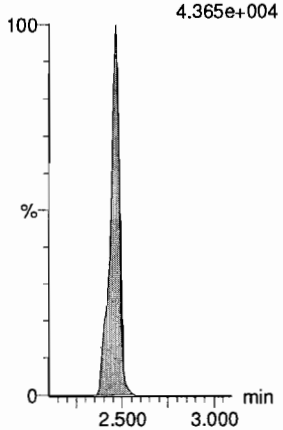
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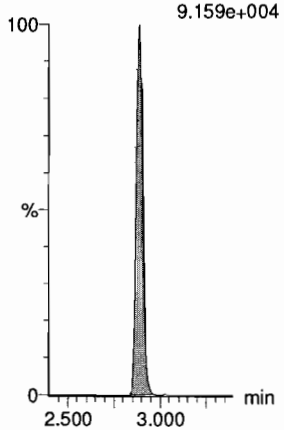
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

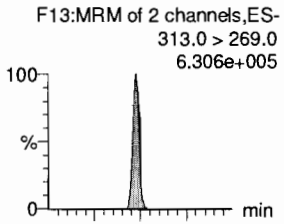


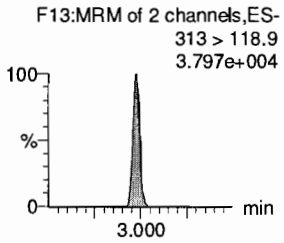
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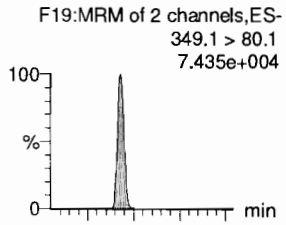
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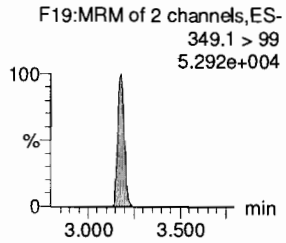
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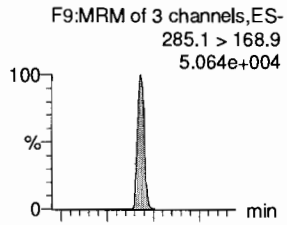


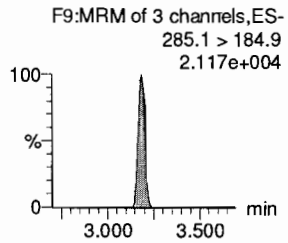
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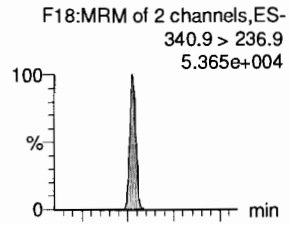


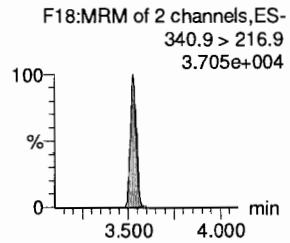
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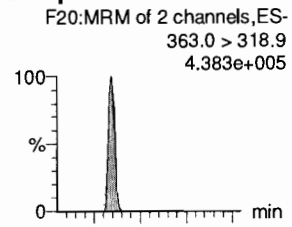


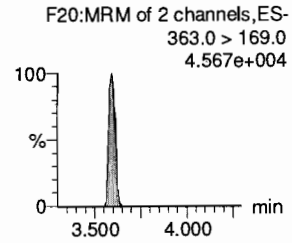
5:3 FTCA



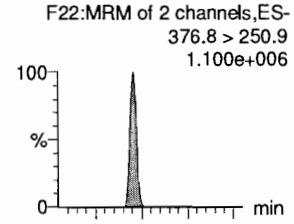


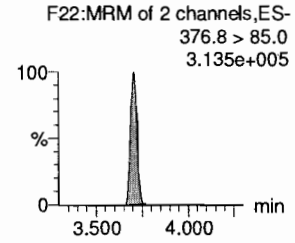
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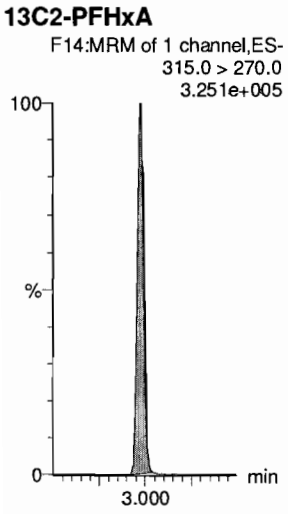


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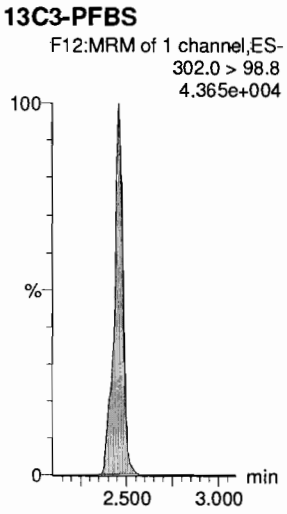




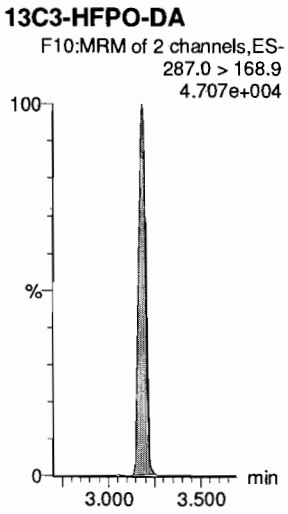
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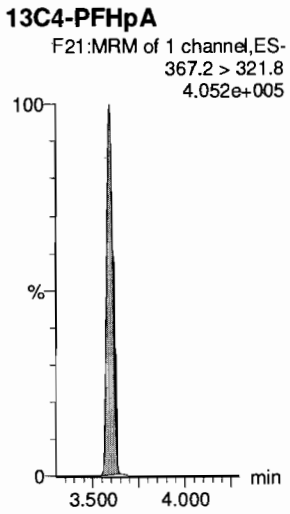
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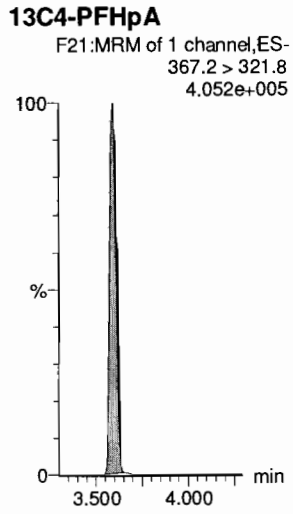
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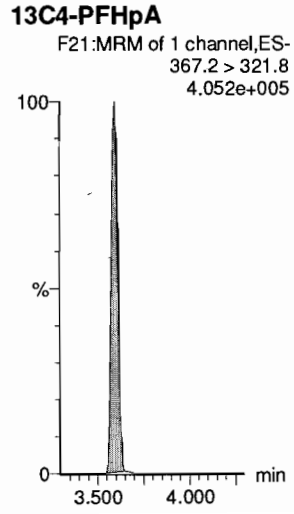
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13C4-PFHpA



13C4-PFHpA

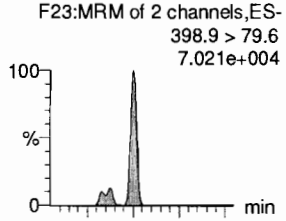


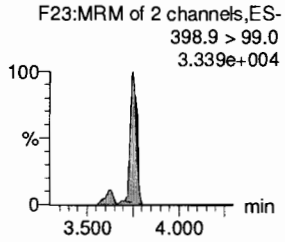
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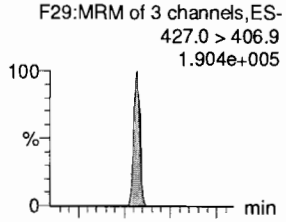
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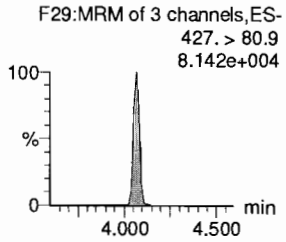
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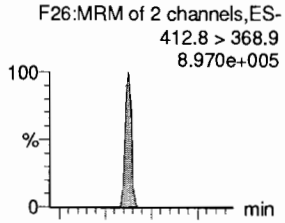


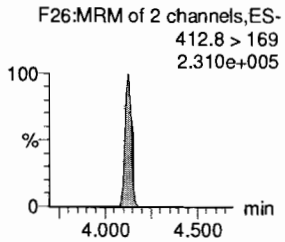
6:2 FTS



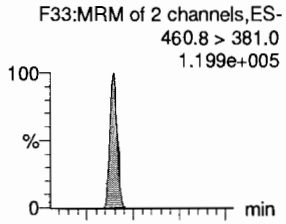


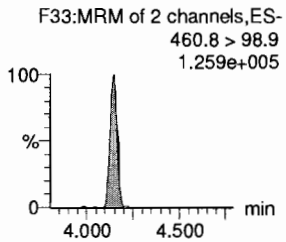
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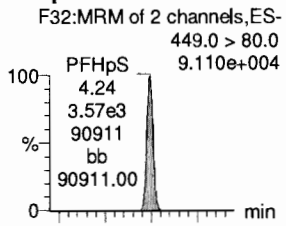


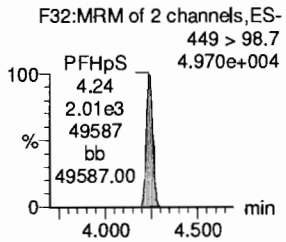
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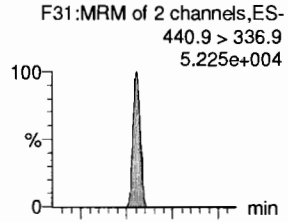


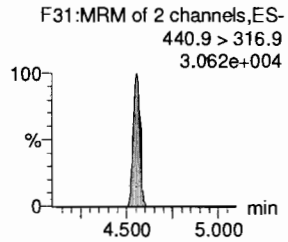
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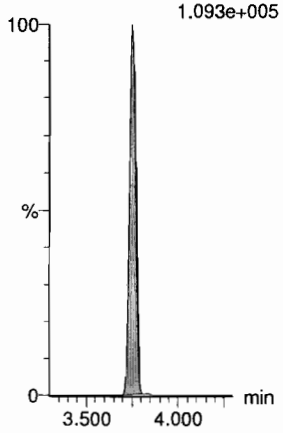


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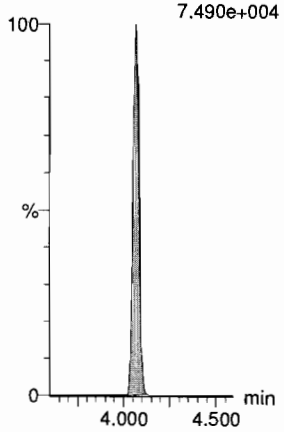




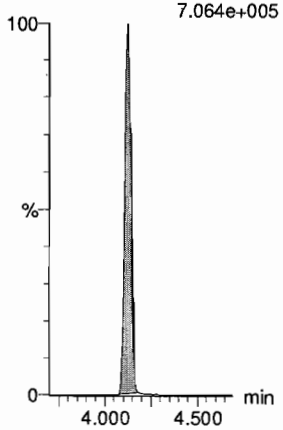
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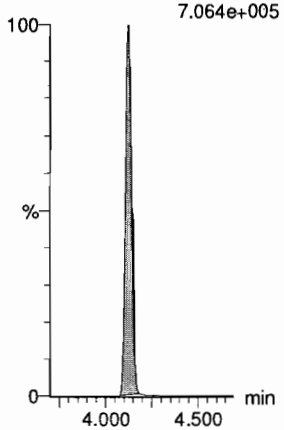
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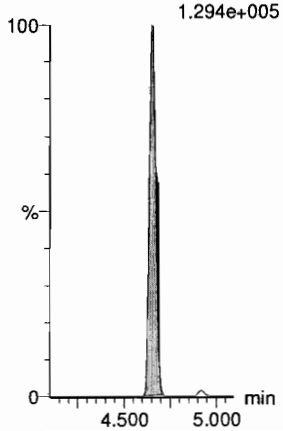
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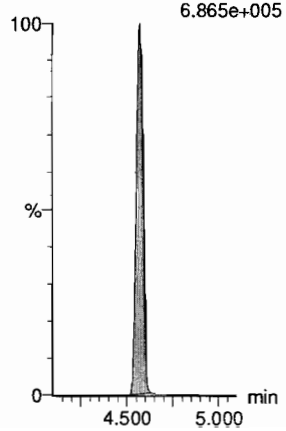
13C2-PFOA



13C8-PFOS



13C5-PFNA

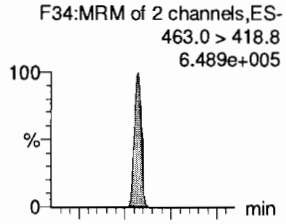


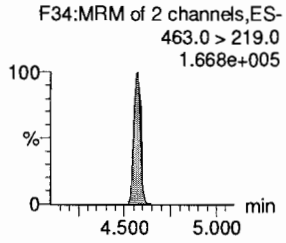
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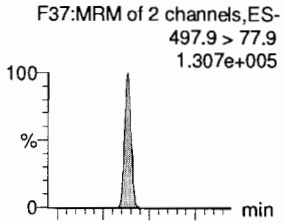
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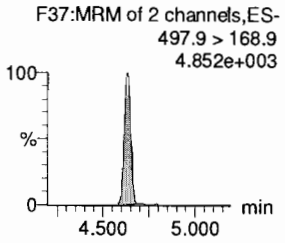
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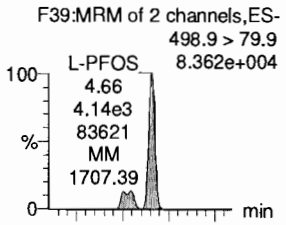


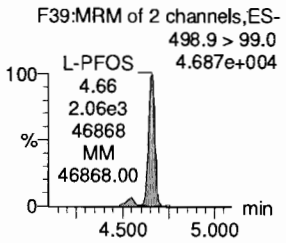
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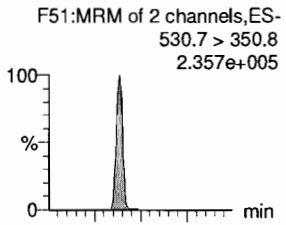


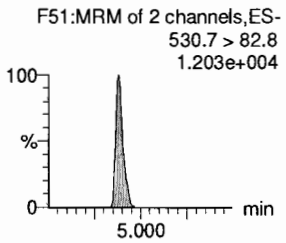
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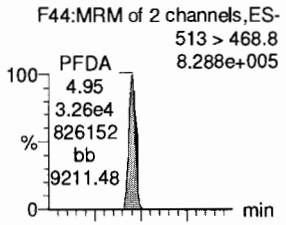


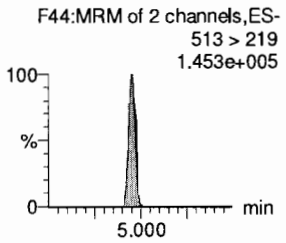
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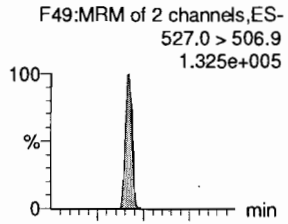


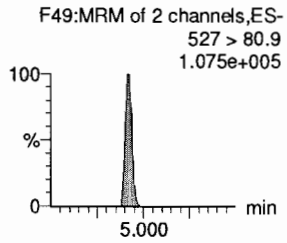
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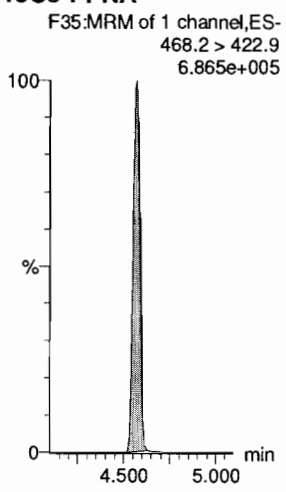


8:2 FTS

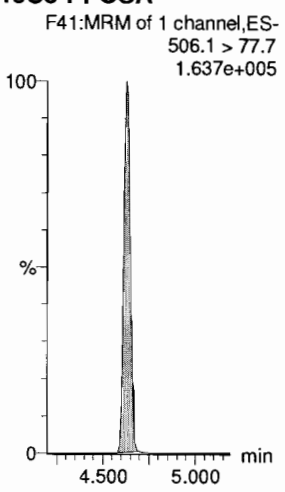




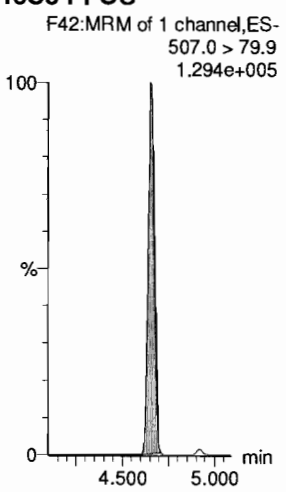
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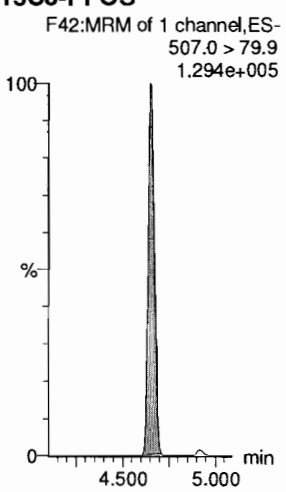
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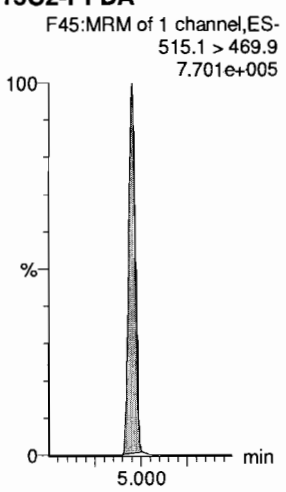
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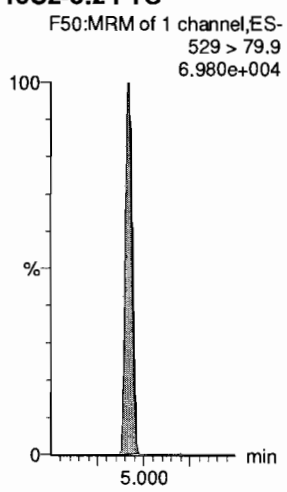
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

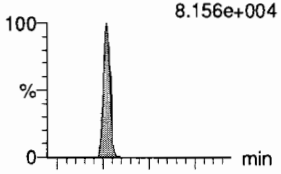


Dataset: F:\Projects\PFAS.PRO\Results\190723M2\190723M2-10.qld

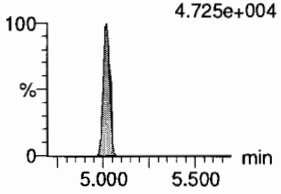
Last Altered: Tuesday, July 23, 2019 11:28:06 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 11:29:57 Pacific Daylight Time

Name: 190723M2_10, Date: 23-Jul-2019, Time: 11:06:51, ID: ST190723M2-2 PFC CS3 19G1106, Description: PFC CS3 19G1106

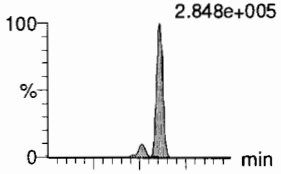
PFNS
F53:MRM of 2 channels,ES-
549.1 > 80.1
8.156e+004



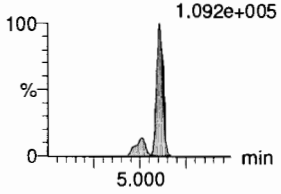
F53:MRM of 2 channels,ES-
549.1 > 99.1
4.725e+004



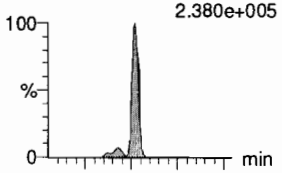
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
2.848e+005



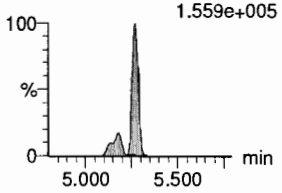
F56:MRM of 2 channels,ES-
570. > 512
1.092e+005



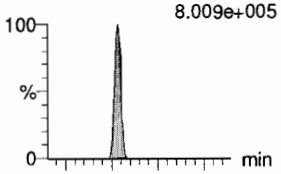
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
2.380e+005



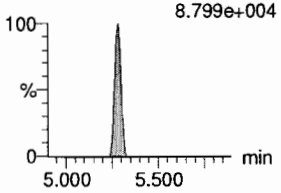
F59:MRM of 2 channels,ES-
584.1 > 526
1.559e+005



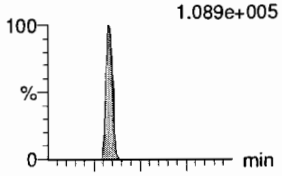
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
8.009e+005



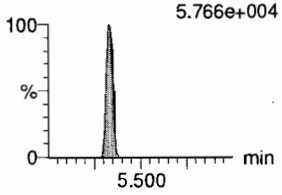
F54:MRM of 2 channels,ES-
563.0 > 269
8.799e+004



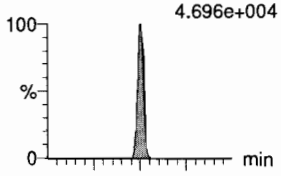
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
1.089e+005



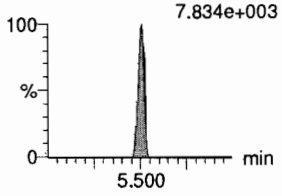
F61:MRM of 2 channels,ES-
598.8 > 98.9
5.766e+004



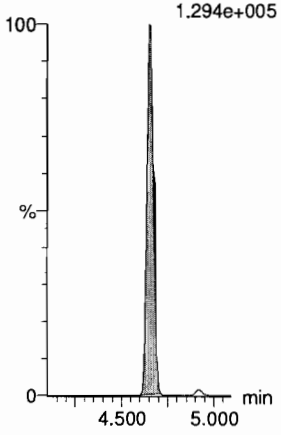
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
4.696e+004



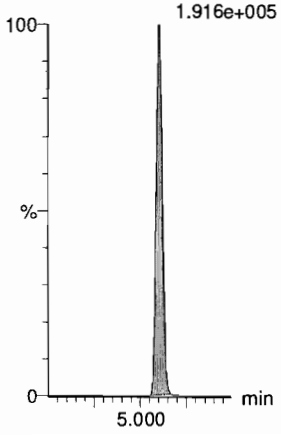
F68:MRM of 2 channels,ES-
632.6 > 450.7
7.834e+003



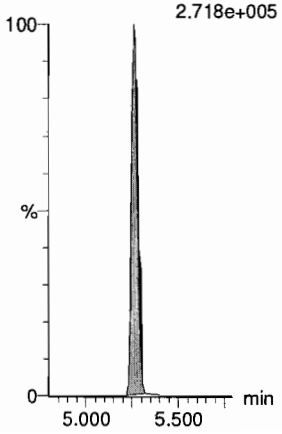
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
1.294e+005



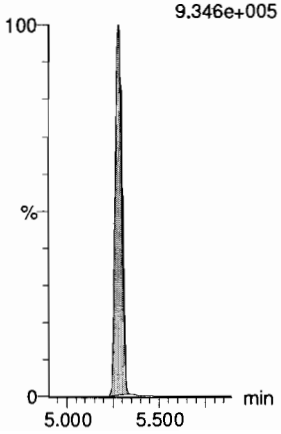
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
1.916e+005



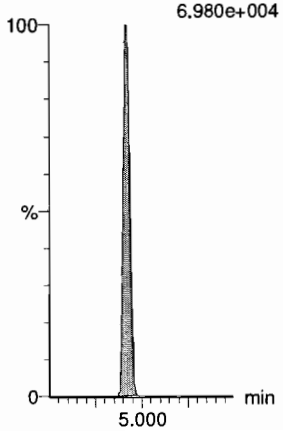
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
2.718e+005



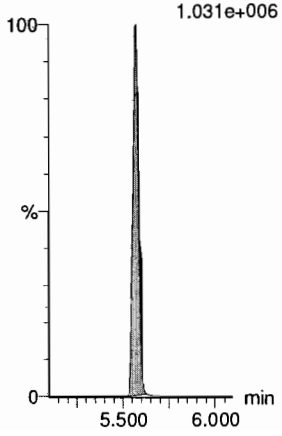
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
9.346e+005



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
6.980e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.031e+006

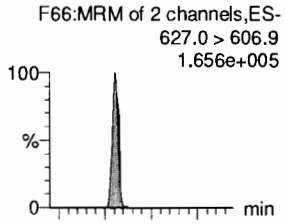


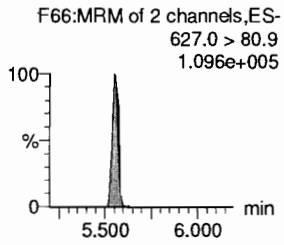
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Printed: Tuesday, July 23, 2019 11:29:57 Pacific Daylight Time

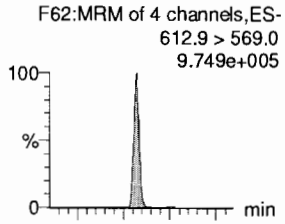
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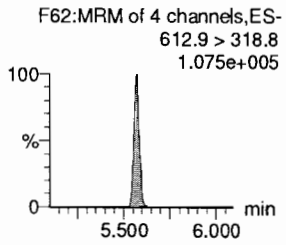
10:2 FTS



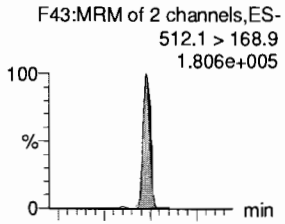


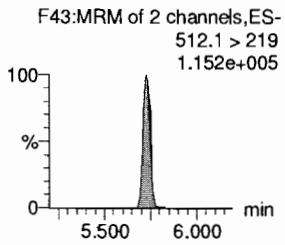
PFDoA



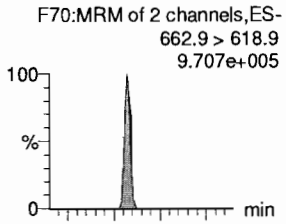


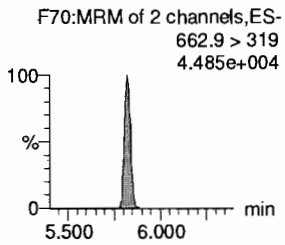
N-MeFOSA



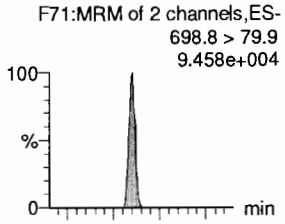


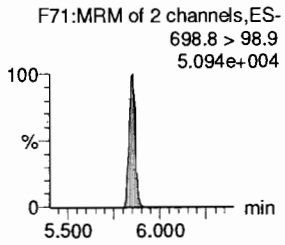
PFTrDA



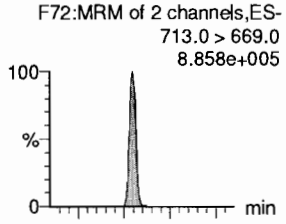


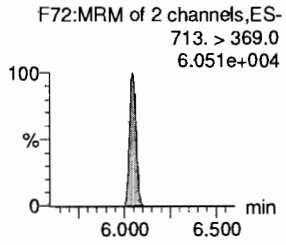
PFDoS



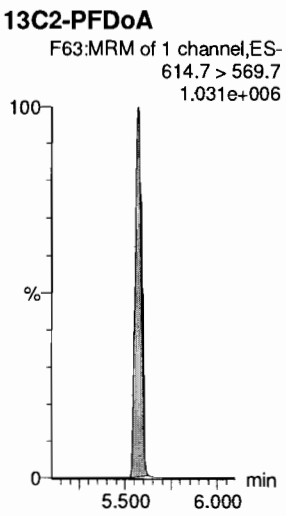


PFTeDA

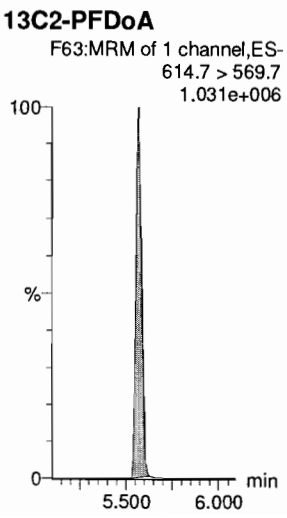




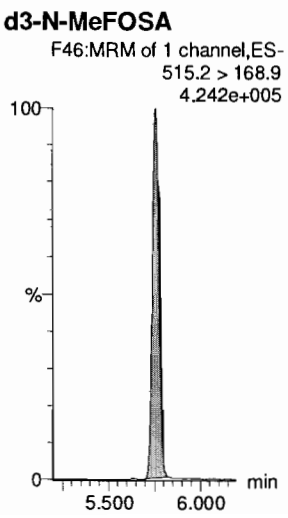
13C2-PFDoA



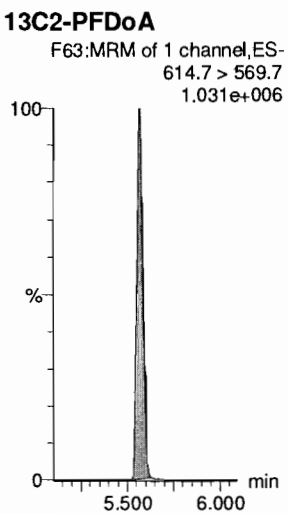
13C2-PFDoA



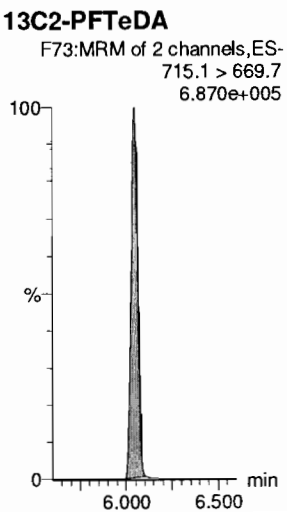
d3-N-MeFOSA



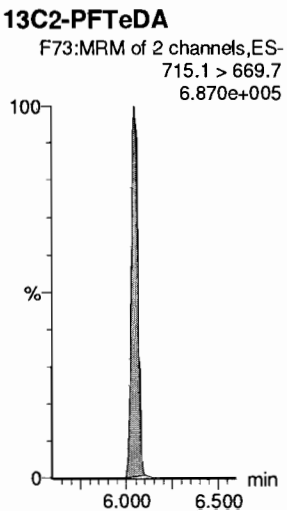
13C2-PFDoA



13C2-PFTeDA



13C2-PFTeDA

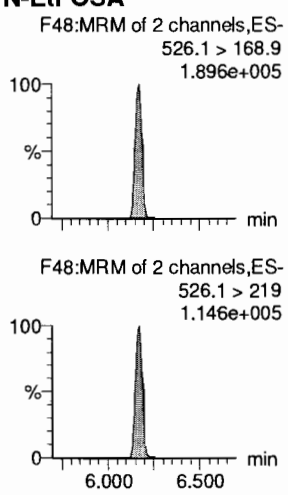


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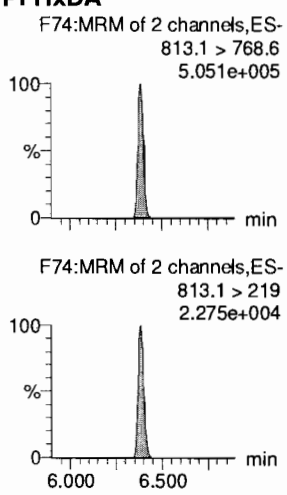
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Name: 190723M2_10, Date: 23-Jul-2019, Time: 11:06:51, ID: ST190723M2-2 PFC CS3 19G1106, Description: PFC CS3 19G1106

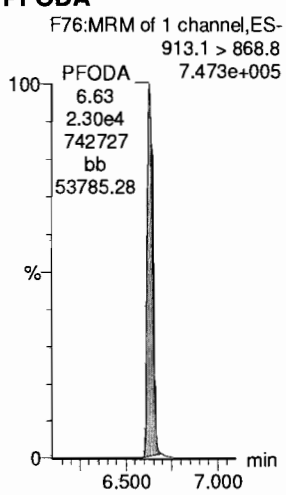
N-EtFOSA



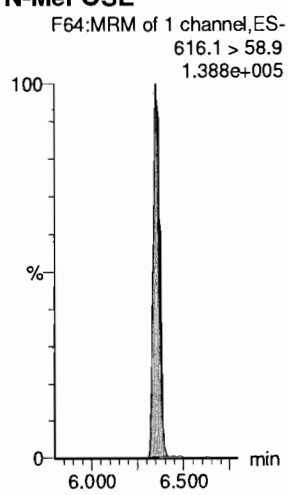
PFHxDA



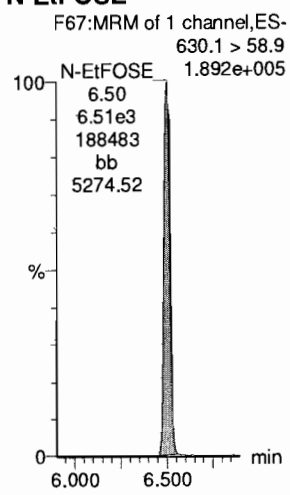
PFODA



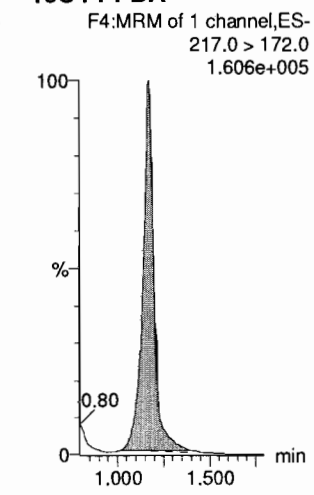
N-MeFOSE



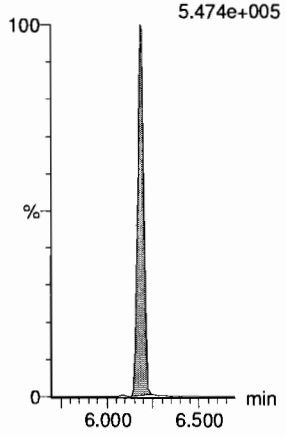
N-EtFOSE



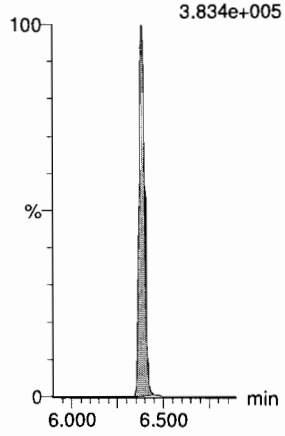
13C4-PFBA



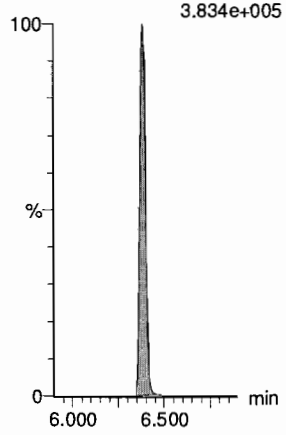
d5-N-ETFOSA



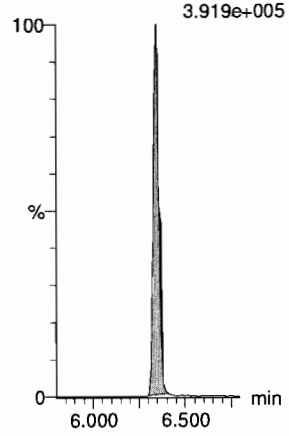
13C2-PFHxDA



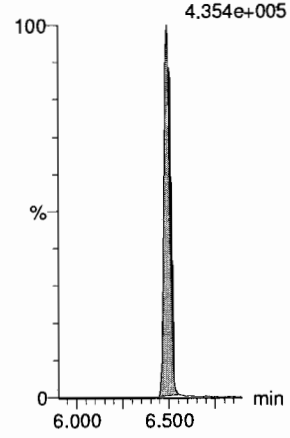
13C2-PFHxDA



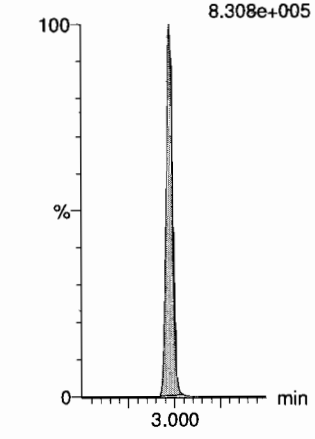
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

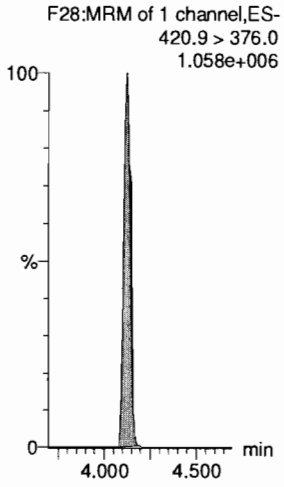


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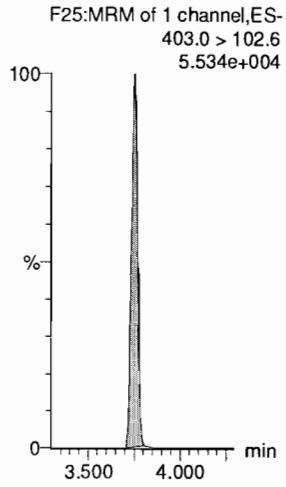
Last Altered: Tuesday, July 23, 2019 11:28:06 Pacific Daylight Time
Printed: Tuesday, July 23, 2019 11:29:57 Pacific Daylight Time

Name: 190723M2_10, Date: 23-Jul-2019, Time: 11:06:51, ID: ST190723M2-2 PFC CS3 19G1106, Description: PFC CS3 19G1106

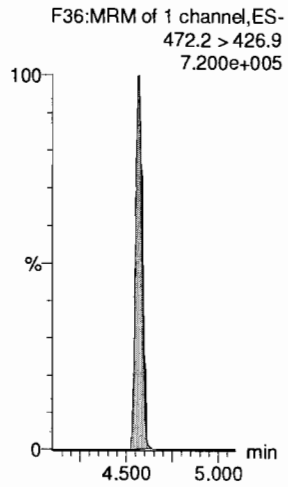
13C8-PFOA



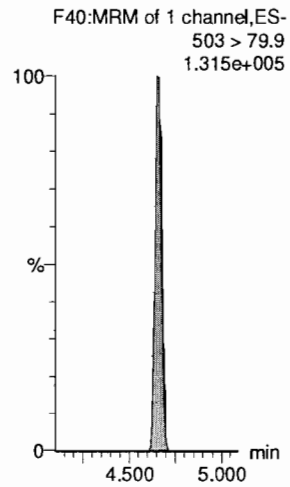
18O2-PFHxS



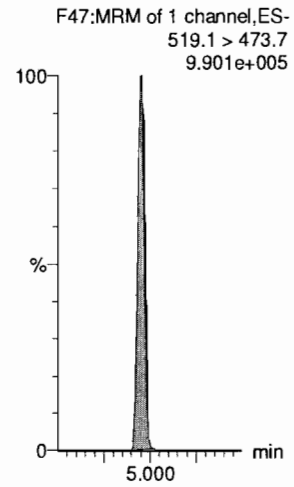
13C9-PFNA



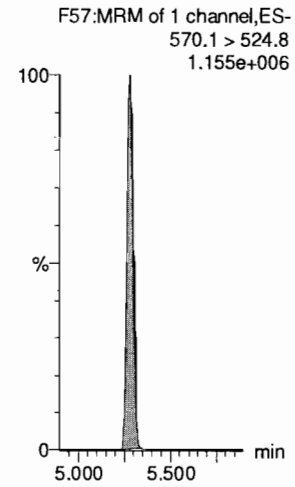
13C4-PFOS



13C6-PFDA



13C7-PFUdA



INITIAL CALIBRATION (ICAL)

INCLUDING ASSOCIATED

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

Low PE
PFHpS = 0.5
7:3 FTCA
PFDS

high PE
3:3 FTCA = 100
5:3 FTCA
7:3 FTCA
PFDS

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:31:56 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_071619.mdb 17 Jul 2019 08:01:43
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

JLM 7/17/19

Compound name: PFBA
Correlation coefficient: r = 0.999915, r^2 = 0.999831
Calibration curve: 1.42867 * x + -0.1474
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	190716M2_4	Standard	0.250	1.21	113.870	5250.216	0.271	0.3	17.2	NO	1.000	NO	bb
2	2	190716M2_5	Standard	0.500	1.21	210.332	5328.377	0.493	0.4	-10.3	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	1.21	502.126	5269.876	1.191	0.9	-6.3	NO	1.000	NO	bb
4	4	190716M2_7	Standard	2.000	1.21	1434.329	6359.378	2.819	2.1	3.8	NO	1.000	NO	MM
5	5	190716M2_8	Standard	5.000	1.21	3068.895	5618.954	6.827	4.9	-2.4	NO	1.000	NO	MM
6	6	190716M2_9	Standard	10.000	1.21	6339.876	5776.047	13.720	9.7	-2.9	NO	1.000	NO	MM
7	7	190716M2_10	Standard	50.000	1.21	31194.816	5541.743	70.363	49.4	-1.3	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	1.21	62478.699	5309.916	147.080	103.1	3.1	NO	1.000	NO	bb
9	9	190716M2_12	Standard	250.000	1.21	159939.031	5651.507	353.753	247.7	-0.9	NO	1.000	NO	bb
10	10	190716M2_13	Standard	500.000	1.21	302121.781	5284.814	714.599	500.3	0.1	NO	1.000	NO	bb

Compound name: PFPrS
Coefficient of Determination: R^2 = 0.999480
Calibration curve: 0.000936354 * x^2 + 1.33594 * x + -0.111459
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	190716M2_4	Standard	0.250	1.57	25.530	1217.658	0.262	0.3	11.8	NO	0.999	NO	MM
2	2	190716M2_5	Standard	0.500	1.58	58.720	1327.414	0.553	0.5	-0.6	NO	0.999	NO	MM
3	3	190716M2_6	Standard	1.000	1.58	127.322	1293.647	1.230	1.0	0.4	NO	0.999	NO	MM
4	4	190716M2_7	Standard	2.000	1.59	335.025	1526.480	2.743	2.1	6.7	NO	0.999	NO	MM
5	5	190716M2_8	Standard	5.000	1.58	560.541	1284.593	5.454	4.2	-16.9	NO	0.999	NO	bb
6	6	190716M2_9	Standard	10.000	1.58	1359.267	1266.196	13.419	10.1	0.6	NO	0.999	NO	MM
7	7	190716M2_10	Standard	50.000	1.58	7199.763	1302.259	69.108	50.1	0.1	NO	0.999	NO	MM
8	8	190716M2_11	Standard	100.000	1.59	13130.788	1204.164	136.306	95.7	-4.3	NO	0.999	NO	MM
9	9	190716M2_12	Standard	250.000	1.58	36295.230	1121.964	404.372	256.6	2.6	NO	0.999	NO	MM
10	10	190716M2_13	Standard	500.000	1.58	70278.086	979.060	897.265	497.9	-0.4	NO	0.999	NO	MM

Cald 7/17/19

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:31:56 Pacific Daylight Time

Compound name: 3:3 FTCA
Coefficient of Determination: R^2 = 0.998534
Calibration curve: 3.62139e-005 * x^2 + 0.0392869 * x + -0.00205845
Response type: Internal Std (Ref 48), 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	190716M2_4	Standard	0.250	2.04	6.411	8139.766	0.010	0.3	21.2	NO	0.999	NO	MM
2	2	190716M2_5	Standard	0.500	2.05	10.025	8487.657	0.015	0.4	-14.4	NO	0.999	NO	MM
3	3	190716M2_6	Standard	1.000	2.05	24.466	8540.586	0.036	1.0	-3.7	NO	0.999	NO	MM
4	4	190716M2_7	Standard	2.000	2.05	50.481	9794.767	0.064	1.7	-15.5	NO	0.999	NO	bb
5	5	190716M2_8	Standard	5.000	2.05	135.095	9157.241	0.184	4.7	-5.5	NO	0.999	NO	MM
6	6	190716M2_9	Standard	10.000	2.05	258.426	8772.721	0.368	9.3	-6.6	NO	0.999	NO	bb
7	7	190716M2_10	Standard	50.000	2.05	1443.406	8395.805	2.149	52.2	4.5	NO	0.999	NO	bd
8	8	190716M2_11	Standard	100.000	2.05	2854.457	8407.112	4.244	99.0	-1.0	NO	0.999	NO	bb
9	9	190716M2_12	Standard	250.000	2.05	1451.441	7824.807	2.319	56.2	-77.5	YES	0.999	NO	bbX
10	10	190716M2_13	Standard	500.000	2.05	3001.529	7333.563	5.116	117.5	-76.5	YES	0.999	NO	bbX

Compound name: PFPeA
Correlation coefficient: r = 0.999924, r^2 = 0.999849
Calibration curve: 0.927355 * x + -0.0458768
Response type: Internal Std (Ref 48), 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	190716M2_4	Standard	0.250	2.21	146.151	8139.766	0.224	0.3	16.6	NO	1.000	NO	bb
2	2	190716M2_5	Standard	0.500	2.20	266.102	8487.657	0.392	0.5	-5.6	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	2.20	555.780	8540.586	0.813	0.9	-7.3	NO	1.000	NO	bb
4	4	190716M2_7	Standard	2.000	2.20	1359.364	9794.767	1.735	1.9	-4.0	NO	1.000	NO	bb
5	5	190716M2_8	Standard	5.000	2.20	3330.216	9157.241	4.546	5.0	-1.0	NO	1.000	NO	bb
6	6	190716M2_9	Standard	10.000	2.20	6411.053	8772.721	9.135	9.9	-1.0	NO	1.000	NO	bb
7	7	190716M2_10	Standard	50.000	2.21	31799.201	8395.805	47.344	51.1	2.2	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	2.21	61938.539	8407.112	92.092	99.4	-0.6	NO	1.000	NO	bb
9	9	190716M2_12	Standard	250.000	2.21	147313.219	7824.807	235.330	253.8	1.5	NO	1.000	NO	bb
10	10	190716M2_13	Standard	500.000	2.21	269837.844	7333.563	459.936	496.0	-0.8	NO	1.000	NO	bb

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Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: PFBS
Correlation coefficient: r = 0.999884, r^2 = 0.999768
Calibration curve: 2.30677 * x + -0.110938
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	190716M2_4	Standard	0.250	2.51	53.706	1217.658	0.551	0.3	14.8	NO	1.000	NO	MM
2	2	190716M2_5	Standard	0.500	2.50	94.244	1327.414	0.887	0.4	-13.4	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	2.50	224.782	1293.647	2.172	1.0	-1.0	NO	1.000	NO	bb
4	4	190716M2_7	Standard	2.000	2.51	518.466	1526.480	4.246	1.9	-5.6	NO	1.000	NO	bb
5	5	190716M2_8	Standard	5.000	2.50	1209.659	1284.593	11.771	5.2	3.0	NO	1.000	NO	bb
6	6	190716M2_9	Standard	10.000	2.50	2447.862	1266.196	24.166	10.5	5.2	NO	1.000	NO	bb
7	7	190716M2_10	Standard	50.000	2.51	11413.048	1302.259	109.550	47.5	-4.9	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	2.51	22519.568	1204.164	233.768	101.4	1.4	NO	1.000	NO	bb
9	9	190716M2_12	Standard	250.000	2.51	52136.813	1121.964	580.865	251.9	0.7	NO	1.000	NO	bb
10	10	190716M2_13	Standard	500.000	2.50	90094.094	979.060	1150.263	498.7	-0.3	NO	1.000	NO	bb

Compound name: 4:2 FTS
Coefficient of Determination: R^2 = 0.999794
Calibration curve: -0.000545681 * x^2 + 2.76987 * x + -0.195009
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	190716M2_4	Standard	0.250	2.92	111.29€	2368.101	0.587	0.3	13.0	NO	1.000	NO	bb
2	2	190716M2_5	Standard	0.500	2.92	235.648	2443.970	1.205	0.5	1.1	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	2.92	472.763	2565.531	2.303	0.9	-9.8	NO	1.000	NO	bb
4	4	190716M2_7	Standard	2.000	2.92	1108.258	2780.059	4.983	1.9	-6.5	NO	1.000	NO	bb
5	5	190716M2_8	Standard	5.000	2.93	2757.442	2645.359	13.030	4.8	-4.4	NO	1.000	NO	bb
6	6	190716M2_9	Standard	10.000	2.92	5291.029	2301.054	28.742	10.5	4.7	NO	1.000	NO	bb
7	7	190716M2_10	Standard	50.000	2.93	24347.969	2186.161	139.216	50.8	1.7	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	2.92	45234.418	2051.804	275.577	101.6	1.6	NO	1.000	NO	bb
9	9	190716M2_12	Standard	250.000	2.93	92767.586	1792.288	646.991	245.5	-1.8	NO	1.000	NO	bb
10	10	190716M2_13	Standard	500.000	2.93	152790.219	1524.474	1252.811	502.0	0.4	NO	1.000	NO	bb

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Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: PFHxA
Correlation coefficient: r = 0.999727, r^2 = 0.999453
Calibration curve: 1.15387 * x + 0.0286354
Response type: Internal Std (Ref 52), 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	190716M2_4	Standard	0.250	3.00	370.779	5765.931	0.322	0.3	1.5	NO	0.999	NO	bb
2	2	190716M2_5	Standard	0.500	3.01	722.401	5965.168	0.606	0.5	-0.0	NO	0.999	NO	bb
3	3	190716M2_6	Standard	1.000	3.01	1308.068	6058.156	1.080	0.9	-8.9	NO	0.999	NO	bb
4	4	190716M2_7	Standard	2.000	3.01	3252.531	6807.611	2.389	2.0	2.3	NO	0.999	NO	bb
5	5	190716M2_8	Standard	5.000	3.01	7726.405	6168.879	6.262	5.4	8.0	NO	0.999	NO	bb
6	6	190716M2_9	Standard	10.000	3.01	14791.380	6334.795	11.675	10.1	0.9	NO	0.999	NO	bb
7	7	190716M2_10	Standard	50.000	3.01	73005.836	5817.504	62.747	54.4	8.7	NO	0.999	NO	bb
8	8	190716M2_11	Standard	100.000	3.01	135841.672	6021.483	112.798	97.7	-2.3	NO	0.999	NO	bb
9	9	190716M2_12	Standard	250.000	3.01	316067.594	5463.366	289.261	250.7	0.3	NO	0.999	NO	bb
10	10	190716M2_13	Standard	500.000	3.01	561253.438	4895.237	573.265	496.8	-0.6	NO	0.999	NO	bb

Compound name: PFPeS
Correlation coefficient: r = 0.996302, r^2 = 0.992617
Calibration curve: 1.4909 * x + 0.128111
Response type: Internal Std (Ref 49), 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	190716M2_4	Standard	0.250	3.22	43.983	1217.658	0.452	0.2	-13.2	NO	0.993	NO	bb
2	2	190716M2_5	Standard	0.500	3.22	69.996	1327.414	0.659	0.4	-28.8	NO	0.993	NO	bb
3	3	190716M2_6	Standard	1.000	3.22	184.341	1293.647	1.781	1.1	10.9	NO	0.993	NO	bb
4	4	190716M2_7	Standard	2.000	3.21	361.291	1526.480	2.959	1.9	-5.1	NO	0.993	NO	bb
5	5	190716M2_8	Standard	5.000	3.21	925.592	1284.593	9.007	6.0	19.1	NO	0.993	NO	bb
6	6	190716M2_9	Standard	10.000	3.21	1916.953	1266.196	18.924	12.6	26.1	NO	0.993	NO	bb
7	7	190716M2_10	Standard	50.000	3.22	8920.266	1302.259	85.623	57.3	14.7	NO	0.993	NO	bb
8	8	190716M2_11	Standard	100.000	3.22	16279.562	1204.164	168.992	113.3	13.3	NO	0.993	NO	bb
9	9	190716M2_12	Standard	250.000	3.22	34964.133	1121.964	389.542	261.2	4.5	NO	0.993	NO	bb
10	10	190716M2_13	Standard	500.000	3.21	54287.621	979.060	693.109	464.8	-7.0	NO	0.993	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: HFPO-DA
Coefficient of Determination: R^2 = 0.999471
Calibration curve: -0.000121204 * x^2 + 0.594869 * x + -0.0711014
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 190716M2_4	Standard	0.250	3.22	33.518	1929.668	0.087	0.3	6.2	NO	0.999	NO	bb
2	2 190716M2_5	Standard	0.500	3.22	76.760	1917.258	0.200	0.5	-8.8	NO	0.999	NO	bb
3	3 190716M2_6	Standard	1.000	3.23	154.725	1494.483	0.518	1.0	-1.0	NO	0.999	NO	bb
4	4 190716M2_7	Standard	2.000	3.21	466.903	2014.792	1.159	2.1	3.4	NO	0.999	NO	bb
5	5 190716M2_8	Standard	5.000	3.22	1020.991	1771.227	2.882	5.0	-0.6	NO	0.999	NO	bb
6	6 190716M2_9	Standard	10.000	3.22	2062.129	1679.165	6.140	10.5	4.6	NO	0.999	NO	bb
7	7 190716M2_10	Standard	50.000	3.22	9261.311	1618.492	28.611	48.7	-2.6	NO	0.999	NO	bb
8	8 190716M2_11	Standard	100.000	3.22	20349.457	1815.201	56.053	96.2	-3.8	NO	0.999	NO	bb
9	9 190716M2_12	Standard	250.000	3.22	45065.574	1550.355	145.340	258.0	3.2	NO	0.999	NO	bb
10	10 190716M2_13	Standard	500.000	3.22	66352.586	1249.913	265.429	496.6	-0.7	NO	0.999	NO	bb

Compound name: 5:3 FTCA
Coefficient of Determination: R^2 = 0.999734
Calibration curve: 0.000207996 * x^2 + 0.276598 * x + -0.0109196
Response type: Internal Std (Ref 53), 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 190716M2_4	Standard	0.250	3.56	33.477	6842.853	0.061	0.3	4.2	NO	1.000	NO	bb
2	2 190716M2_5	Standard	0.500	3.56	85.131	7195.404	0.148	0.6	14.8	NO	1.000	NO	bb
3	3 190716M2_6	Standard	1.000	3.56	136.787	7305.836	0.234	0.9	-11.5	NO	1.000	NO	bb
4	4 190716M2_7	Standard	2.000	3.56	315.322	7894.354	0.499	1.8	-7.9	NO	1.000	NO	bb
5	5 190716M2_8	Standard	5.000	3.56	815.437	7305.663	1.395	5.1	1.3	NO	1.000	NO	bb
6	6 190716M2_9	Standard	10.000	3.56	1517.254	6951.189	2.728	9.8	-1.7	NO	1.000	NO	bb
7	7 190716M2_10	Standard	50.000	3.56	7973.366	6877.049	14.493	50.5	1.0	NO	1.000	NO	bb
8	8 190716M2_11	Standard	100.000	3.56	15824.968	6670.025	29.657	99.8	-0.2	NO	1.000	NO	bb
9	9 190716M2_12	Standard	250.000	3.56	8025.000	6330.190	15.847	55.1	-78.0	YES	1.000	NO	bbX
10	10 190716M2_13	Standard	500.000	3.56	16743.803	5173.783	40.453	133.0	-73.4	YES	1.000	NO	bbX

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: PFHpA
Correlation coefficient: r = 0.999308, r^2 = 0.998617
Calibration curve: 1.26078 * x + -0.0726981
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 190716M2_4	Standard	0.250	3.63	133.624	6842.853	0.244	0.3	0.5	NO	0.999	NO	bb
2	2 190716M2_5	Standard	0.500	3.63	261.975	7195.404	0.455	0.4	-16.3	NO	0.999	NO	bb
3	3 190716M2_6	Standard	1.000	3.63	781.015	7305.836	1.336	1.1	11.8	NO	0.999	NO	bb
4	4 190716M2_7	Standard	2.000	3.63	1573.847	7894.354	2.492	2.0	1.7	NO	0.999	NO	bb
5	5 190716M2_8	Standard	5.000	3.63	3701.843	7305.663	6.334	5.1	1.6	NO	0.999	NO	bb
6	6 190716M2_9	Standard	10.000	3.63	7138.199	6951.189	12.836	10.2	2.4	NO	0.999	NO	bb
7	7 190716M2_10	Standard	50.000	3.63	35673.547	6877.049	64.842	51.5	3.0	NO	0.999	NO	bb
8	8 190716M2_11	Standard	100.000	3.63	65918.953	6670.025	123.536	98.0	-2.0	NO	0.999	NO	bb
9	9 190716M2_12	Standard	250.000	3.63	150807.797	6330.190	297.795	236.3	-5.5	NO	0.999	NO	bb
10	10 190716M2_13	Standard	500.000	3.63	268104.406	5173.783	647.748	513.8	2.8	NO	0.999	NO	bb

Compound name: ADONA
Correlation coefficient: r = 0.999036, r^2 = 0.998072
Calibration curve: 4.7382 * x + -0.341799
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 190716M2_4	Standard	0.250	3.74	524.837	6842.853	0.959	0.3	9.8	NO	0.998	NO	bb
2	2 190716M2_5	Standard	0.500	3.74	1296.194	7195.404	2.252	0.5	9.5	NO	0.998	NO	bb
3	3 190716M2_6	Standard	1.000	3.74	2367.074	7305.836	4.050	0.9	-7.3	NO	0.998	NO	bb
4	4 190716M2_7	Standard	2.000	3.74	5616.569	7894.354	8.893	1.9	-2.5	NO	0.998	NO	bb
5	5 190716M2_8	Standard	5.000	3.74	13437.762	7305.663	22.992	4.9	-1.5	NO	0.998	NO	bb
6	6 190716M2_9	Standard	10.000	3.74	26406.229	6951.189	47.485	10.1	0.9	NO	0.998	NO	bb
7	7 190716M2_10	Standard	50.000	3.75	126103.922	6877.049	229.212	48.4	-3.1	NO	0.998	NO	bb
8	8 190716M2_11	Standard	100.000	3.74	242222.172	6670.025	453.938	95.9	-4.1	NO	0.998	NO	bb
9	9 190716M2_12	Standard	250.000	3.74	566675.000	6330.190	1118.993	236.2	-5.5	NO	0.998	NO	bb
10	10 190716M2_13	Standard	500.000	3.74	1018627.063	5173.783	2461.031	519.5	3.9	NO	0.998	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: L-PFHxS
Coefficient of Determination: R^2 = 0.999740
Calibration curve: 9.02755e-006 * x^2 + 0.999005 * x + -0.0664012
Response type: Internal Std (Ref 54), 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	190716M2_4	Standard	0.250	3.80	35.455	2649.227	0.167	0.2	-6.4	NO	1.000	NO	MM
2	2	190716M2_5	Standard	0.500	3.78	127.470	2871.006	0.555	0.6	24.4	NO	1.000	NO	MM
3	3	190716M2_6	Standard	1.000	3.78	162.564	2758.509	0.737	0.8	-19.6	NO	1.000	NO	MM
4	4	190716M2_7	Standard	2.000	3.79	425.082	3125.209	1.700	1.8	-11.6	NO	1.000	NO	MM
5	5	190716M2_8	Standard	5.000	3.78	984.052	2889.846	4.257	4.3	-13.5	NO	1.000	NO	MM
6	6	190716M2_9	Standard	10.000	3.78	2122.411	2715.657	9.769	9.8	-1.6	NO	1.000	NO	MM
7	7	190716M2_10	Standard	50.000	3.79	10632.028	2617.288	50.778	50.9	1.7	NO	1.000	NO	MM
8	8	190716M2_11	Standard	100.000	3.79	20771.945	2614.037	99.329	99.4	-0.6	NO	1.000	NO	MM
9	9	190716M2_12	Standard	250.000	3.79	48045.816	2384.082	251.909	251.7	0.7	NO	1.000	NO	MM
10	10	190716M2_13	Standard	500.000	3.79	85225.945	2126.796	500.906	499.2	-0.2	NO	1.000	NO	MM

Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.998452
Calibration curve: -0.00124606 * x^2 + 2.92798 * x + -0.170137
Response type: Internal Std (Ref 55), 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	190716M2_4	Standard	0.250	4.10	83.871	1800.087	0.582	0.3	2.8	NO	0.998	NO	bb
2	2	190716M2_5	Standard	0.500	4.10	222.036	1940.428	1.430	0.5	9.3	NO	0.998	NO	bb
3	3	190716M2_6	Standard	1.000	4.10	355.396	1826.766	2.432	0.9	-11.1	NO	0.998	NO	bb
4	4	190716M2_7	Standard	2.000	4.10	936.891	2286.677	5.121	1.8	-9.6	NO	0.998	NO	bb
5	5	190716M2_8	Standard	5.000	4.10	1975.245	1886.190	13.090	4.5	-9.2	NO	0.998	NO	bb
6	6	190716M2_9	Standard	10.000	4.10	4386.374	1994.234	27.494	9.5	-5.1	NO	0.998	NO	bb
7	7	190716M2_10	Standard	50.000	4.10	19656.436	1671.656	146.983	51.4	2.8	NO	0.998	NO	bb
8	8	190716M2_11	Standard	100.000	4.10	34764.398	1662.847	261.332	93.0	-7.0	NO	0.998	NO	bb
9	9	190716M2_12	Standard	250.000	4.10	76087.906	1390.181	684.155	263.2	5.3	NO	0.998	NO	bb
10	10	190716M2_13	Standard	500.000	4.10	128998.742	1413.688	1140.622	493.1	-1.4	NO	0.998	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: L-PFOA
Correlation coefficient: r = 0.999751, r^2 = 0.999501
Calibration curve: 1.99432 * x + 0.0417568
Response type: Internal Std (Ref 58), 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	190716M2_4	Standard	0.250	4.16	594.689	13572.244	0.548	0.3	1.5	NO	1.000	NO	bb
2	2	190716M2_5	Standard	0.500	4.16	1159.956	13363.243	1.085	0.5	4.6	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	4.16	2412.120	13968.624	2.159	1.1	6.1	NO	1.000	NO	bd
4	4	190716M2_7	Standard	2.000	4.16	4998.096	16562.174	3.772	1.9	-6.5	NO	1.000	NO	bb
5	5	190716M2_8	Standard	5.000	4.16	11547.909	14916.217	9.677	4.8	-3.4	NO	1.000	NO	bb
6	6	190716M2_9	Standard	10.000	4.16	22739.014	14115.170	20.137	10.1	0.8	NO	1.000	NO	bb
7	7	190716M2_10	Standard	50.000	4.16	108650.742	13502.623	100.583	50.4	0.8	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	4.16	209437.000	13587.397	192.676	96.6	-3.4	NO	1.000	NO	bb
9	9	190716M2_12	Standard	250.000	4.16	451793.969	11605.829	486.602	244.0	-2.4	NO	1.000	NO	bb
10	10	190716M2_13	Standard	500.000	4.16	746880.000	9193.851	1015.461	509.2	1.8	NO	1.000	NO	bb

Compound name: PFecHS
Coefficient of Determination: R^2 = 0.999769
Calibration curve: 0.000141483 * x^2 + 0.320797 * x + -0.0109297
Response type: Internal Std (Ref 58), 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	190716M2_4	Standard	0.250	4.17	75.318	13572.244	0.069	0.3	0.1	NO	1.000	NO	bb
2	2	190716M2_5	Standard	0.500	4.17	189.492	13363.243	0.177	0.6	17.3	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	4.18	305.372	13968.624	0.273	0.9	-11.4	NO	1.000	NO	bb
4	4	190716M2_7	Standard	2.000	4.18	743.971	16562.174	0.561	1.8	-10.9	NO	1.000	NO	bb
5	5	190716M2_8	Standard	5.000	4.18	1822.587	14916.217	1.527	4.8	-4.3	NO	1.000	NO	bb
6	6	190716M2_9	Standard	10.000	4.18	3888.969	14115.170	3.444	10.7	7.2	NO	1.000	NO	bb
7	7	190716M2_10	Standard	50.000	4.18	18491.213	13502.623	17.118	52.2	4.4	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	4.18	35542.625	13587.397	32.698	97.7	-2.3	NO	1.000	NO	bd
9	9	190716M2_12	Standard	250.000	4.18	82448.891	11605.829	88.801	249.4	-0.2	NO	1.000	NO	bb
10	10	190716M2_13	Standard	500.000	4.18	144125.063	9193.851	195.953	500.4	0.1	NO	1.000	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: PFHpS
Correlation coefficient: r = 0.999872, r^2 = 0.999744
Calibration curve: 0.853266 * x + -0.0542537
Response type: Internal Std (Ref 59), 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	190716M2_4	Standard	0.250	4.28	56.636	2560.069	0.277	0.4	55.1	YES	1.000	NO	bbX
2	2	190716M2_5	Standard	0.500	4.28	83.200	2862.337	0.363	0.5	-2.1	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	4.27	171.643	2829.545	0.758	1.0	-4.8	NO	1.000	NO	bb
4	4	190716M2_7	Standard	2.000	4.27	449.241	2923.945	1.921	2.3	15.7	NO	1.000	NO	bb
5	5	190716M2_8	Standard	5.000	4.27	818.738	2852.252	3.588	4.3	-14.6	NO	1.000	NO	bb
6	6	190716M2_9	Standard	10.000	4.27	1880.769	2702.612	8.699	10.3	2.6	NO	1.000	NO	bb
7	7	190716M2_10	Standard	50.000	4.28	9283.452	2632.202	44.086	51.7	3.5	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	4.28	17681.711	2589.537	85.352	100.1	0.1	NO	1.000	NO	bb
9	9	190716M2_12	Standard	250.000	4.27	41813.230	2451.613	213.192	249.9	-0.0	NO	1.000	NO	bb
10	10	190716M2_13	Standard	500.000	4.27	70917.422	2084.448	425.277	498.5	-0.3	NO	1.000	NO	bb

Compound name: 7:3 FTCA
Coefficient of Determination: R^2 = 0.998142
Calibration curve: 0.000108039 * x^2 + 0.154298 * x + -0.0292777
Response type: Internal Std (Ref 56), 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	190716M2_4	Standard	0.250	4.59	37.368	14513.344	0.032	0.4	59.3	YES	0.998	NO	bbX
2	2	190716M2_5	Standard	0.500	4.58	28.237	14260.563	0.025	0.4	-30.0	NO	0.998	NO	bb
3	3	190716M2_6	Standard	1.000	4.58	151.957	14590.250	0.130	1.0	3.3	NO	0.998	NO	bb
4	4	190716M2_7	Standard	2.000	4.58	449.291	16625.025	0.338	2.4	18.8	NO	0.998	NO	bb
5	5	190716M2_8	Standard	5.000	4.58	930.851	15205.557	0.765	5.1	2.6	NO	0.998	NO	bb
6	6	190716M2_9	Standard	10.000	4.58	2021.163	15199.802	1.662	10.9	8.8	NO	0.998	NO	bb
7	7	190716M2_10	Standard	50.000	4.59	9118.843	15014.631	7.592	47.8	-4.4	NO	0.998	NO	bb
8	8	190716M2_11	Standard	100.000	4.58	17925.949	13460.237	16.647	100.9	0.9	NO	0.998	NO	bb
9	9	190716M2_12	Standard	250.000	4.58	9002.139	12977.360	8.671	54.3	-78.3	YES	0.998	NO	bbX
10	10	190716M2_13	Standard	500.000	4.58	17679.793	11037.246	20.023	119.9	-76.0	YES	0.998	NO	bbX

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Compound name: PFNA
Correlation coefficient: r = 0.999689, r^2 = 0.999379
Calibration curve: 1.03842 * x + -0.0124949
Response type: Internal Std (Ref 56), 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	190716M2_4	Standard	0.250	4.60	274.779	14513.344	0.237	0.2	-4.0	NO	0.999	NO	bd
2	2	190716M2_5	Standard	0.500	4.60	581.618	14260.563	0.510	0.5	0.6	NO	0.999	NO	bb
3	3	190716M2_6	Standard	1.000	4.60	1149.821	14590.250	0.985	1.0	-3.9	NO	0.999	NO	bb
4	4	190716M2_7	Standard	2.000	4.60	2847.761	16625.025	2.141	2.1	3.7	NO	0.999	NO	bb
5	5	190716M2_8	Standard	5.000	4.60	6513.489	15205.557	5.355	5.2	3.4	NO	0.999	NO	bb
6	6	190716M2_9	Standard	10.000	4.60	12534.601	15199.802	10.308	9.9	-0.6	NO	0.999	NO	bb
7	7	190716M2_10	Standard	50.000	4.60	61275.680	15014.631	51.013	49.1	-1.7	NO	0.999	NO	bb
8	8	190716M2_11	Standard	100.000	4.60	117497.953	13460.237	109.116	105.1	5.1	NO	0.999	NO	bb
9	9	190716M2_12	Standard	250.000	4.60	260937.109	12977.360	251.339	242.1	-3.2	NO	0.999	NO	bb
10	10	190716M2_13	Standard	500.000	4.60	461728.094	11037.246	522.920	503.6	0.7	NO	0.999	NO	bb

Compound name: PFOSA
Correlation coefficient: r = 0.999048, r^2 = 0.998097
Calibration curve: 1.153 * x + 0.0481302
Response type: Internal Std (Ref 57), 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	190716M2_4	Standard	0.250	4.67	86.241	3350.814	0.322	0.2	-5.1	NO	0.998	NO	bb
2	2	190716M2_5	Standard	0.500	4.66	188.535	3368.172	0.700	0.6	13.0	NO	0.998	NO	bb
3	3	190716M2_6	Standard	1.000	4.66	322.093	3504.571	1.149	1.0	-4.5	NO	0.998	NO	bb
4	4	190716M2_7	Standard	2.000	4.67	687.243	3948.422	2.176	1.8	-7.7	NO	0.998	NO	bb
5	5	190716M2_8	Standard	5.000	4.66	1526.402	3568.868	5.346	4.6	-8.1	NO	0.998	NO	bb
6	6	190716M2_9	Standard	10.000	4.66	3278.593	3613.479	11.342	9.8	-2.1	NO	0.998	NO	bb
7	7	190716M2_10	Standard	50.000	4.67	16312.180	3317.596	61.461	53.3	6.5	NO	0.998	NO	bb
8	8	190716M2_11	Standard	100.000	4.66	30930.469	3037.439	127.288	110.4	10.4	NO	0.998	NO	bb
9	9	190716M2_12	Standard	250.000	4.66	71286.563	3079.736	289.337	250.9	0.4	NO	0.998	NO	bb
10	10	190716M2_13	Standard	500.000	4.66	128965.836	2875.215	560.679	486.2	-2.8	NO	0.998	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: L-PFOS
Correlation coefficient: r = 0.999643, r^2 = 0.999286
Calibration curve: 1.28716 * x + -0.149993
Response type: Internal Std (Ref 59), 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	190716M2_4	Standard	0.250	4.70	21.740	2560.069	0.106	0.2	-20.4	NO	0.999	NO	MM
2	2	190716M2_5	Standard	0.500	4.69	98.988	2862.337	0.432	0.5	-9.5	NO	0.999	NO	MM
3	3	190716M2_6	Standard	1.000	4.69	234.436	2829.545	1.036	0.9	-7.9	NO	0.999	NO	MM
4	4	190716M2_7	Standard	2.000	4.69	555.761	2923.945	2.376	2.0	-1.9	NO	0.999	NO	MM
5	5	190716M2_8	Standard	5.000	4.69	1359.738	2852.252	5.959	4.7	-5.1	NO	0.999	NO	MM
6	6	190716M2_9	Standard	10.000	4.69	2753.635	2702.612	12.736	10.0	0.1	NO	0.999	NO	MM
7	7	190716M2_10	Standard	50.000	4.69	13652.945	2632.202	64.836	50.5	1.0	NO	0.999	NO	MM
8	8	190716M2_11	Standard	100.000	4.69	26256.494	2589.537	126.743	98.6	-1.4	NO	0.999	NO	MM
9	9	190716M2_12	Standard	250.000	4.69	60818.348	2451.613	310.094	241.0	-3.6	NO	0.999	NO	MM
10	10	190716M2_13	Standard	500.000	4.69	109517.898	2084.448	656.756	510.4	2.1	NO	0.999	NO	MM

Compound name: 9Cl-PF30NS
Coefficient of Determination: R^2 = 0.999676
Calibration curve: 0.000159787 * x^2 + 3.49516 * x + -0.283829
Response type: Internal Std (Ref 59), 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	190716M2_4	Standard	0.250	4.91	153.258	2560.069	0.748	0.3	18.1	NO	1.000	NO	bb
2	2	190716M2_5	Standard	0.500	4.91	308.816	2862.337	1.349	0.5	-6.6	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	4.91	584.611	2829.545	2.583	0.8	-18.0	NO	1.000	NO	bb
4	4	190716M2_7	Standard	2.000	4.91	1631.622	2923.945	6.975	2.1	3.8	NO	1.000	NO	bb
5	5	190716M2_8	Standard	5.000	4.91	3785.395	2852.252	16.590	4.8	-3.5	NO	1.000	NO	bb
6	6	190716M2_9	Standard	10.000	4.91	7676.711	2702.612	35.506	10.2	2.4	NO	1.000	NO	bb
7	7	190716M2_10	Standard	50.000	4.91	38496.941	2632.202	182.817	52.3	4.5	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	4.91	73362.320	2589.537	354.129	100.9	0.9	NO	1.000	NO	bb
9	9	190716M2_12	Standard	250.000	4.91	169483.188	2451.613	864.141	244.6	-2.2	NO	1.000	NO	bb
10	10	190716M2_13	Standard	500.000	4.91	299402.625	2084.448	1795.455	502.2	0.4	NO	1.000	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: PFDA
Correlation coefficient: r = 0.999671, r^2 = 0.999342
Calibration curve: 1.49139 * x + 0.0347273
Response type: Internal Std (Ref 60), 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	190716M2_4	Standard	0.250	4.98	329.767	11766.295	0.350	0.2	-15.4	NO	0.999	NO	bb
2	2	190716M2_5	Standard	0.500	4.98	870.585	13015.248	0.836	0.5	7.5	NO	0.999	NO	bb
3	3	190716M2_6	Standard	1.000	4.98	1491.594	12690.468	1.469	1.0	-3.8	NO	0.999	NO	bb
4	4	190716M2_7	Standard	2.000	4.98	3422.476	14279.605	2.996	2.0	-0.7	NO	0.999	NO	bb
5	5	190716M2_8	Standard	5.000	4.98	7769.942	12898.133	7.530	5.0	0.5	NO	0.999	NO	bb
6	6	190716M2_9	Standard	10.000	4.98	15893.101	12777.451	15.548	10.4	4.0	NO	0.999	NO	bb
7	7	190716M2_10	Standard	50.000	4.98	74911.578	11978.967	78.170	52.4	4.8	NO	0.999	NO	bb
8	8	190716M2_11	Standard	100.000	4.98	142984.328	11595.807	154.134	103.3	3.3	NO	0.999	NO	bb
9	9	190716M2_12	Standard	250.000	4.98	323903.781	10645.857	380.317	255.0	2.0	NO	0.999	NO	bb
10	10	190716M2_13	Standard	500.000	4.98	560203.000	9602.938	729.208	488.9	-2.2	NO	0.999	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.999325
Calibration curve: -0.000958593 * x^2 + 2.47964 * x + -0.143688
Response type: Internal Std (Ref 61), 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	190716M2_4	Standard	0.250	4.95	59.831	1874.440	0.399	0.2	-12.5	NO	0.999	NO	bb
2	2	190716M2_5	Standard	0.500	4.95	150.977	1941.452	0.972	0.5	-10.0	NO	0.999	NO	bb
3	3	190716M2_6	Standard	1.000	4.95	305.681	2006.244	1.905	0.8	-17.4	NO	0.999	NO	bb
4	4	190716M2_7	Standard	2.000	4.95	827.650	2158.142	4.794	2.0	-0.4	NO	0.999	NO	bb
5	5	190716M2_8	Standard	5.000	4.95	2148.152	1785.584	15.038	6.1	22.7	NO	0.999	NO	bb
6	6	190716M2_9	Standard	10.000	4.95	3587.832	1965.913	22.813	9.3	-7.1	NO	0.999	NO	bb
7	7	190716M2_10	Standard	50.000	4.95	17650.756	1800.880	122.515	50.5	0.9	NO	0.999	NO	bb
8	8	190716M2_11	Standard	100.000	4.95	31499.047	1623.002	242.599	101.9	1.9	NO	0.999	NO	bb
9	9	190716M2_12	Standard	250.000	4.95	65872.641	1496.847	550.095	245.1	-1.9	NO	0.999	NO	bb
10	10	190716M2_13	Standard	500.000	4.95	105229.313	1310.212	1003.934	502.6	0.5	NO	0.999	NO	bb

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Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: PFNS
Correlation coefficient: r = 0.999644, r^2 = 0.999287
Calibration curve: 0.809985 * x + -0.0612442
Response type: Internal Std (Ref 59), 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 190716M2_4	Standard	0.250	5.04	23.942	2560.069	0.117	0.2	-12.0	NO	0.999	NO	bb
2	2 190716M2_5	Standard	0.500	5.05	69.244	2862.337	0.302	0.4	-10.2	NO	0.999	NO	bb
3	3 190716M2_6	Standard	1.000	5.04	164.254	2829.545	0.726	1.0	-2.9	NO	0.999	NO	bb
4	4 190716M2_7	Standard	2.000	5.05	377.288	2923.945	1.613	2.1	3.3	NO	0.999	NO	bb
5	5 190716M2_8	Standard	5.000	5.05	936.759	2852.252	4.105	5.1	2.9	NO	0.999	NO	bb
6	6 190716M2_9	Standard	10.000	5.05	1919.171	2702.612	8.876	11.0	10.3	NO	0.999	NO	bb
7	7 190716M2_10	Standard	50.000	5.05	9035.668	2632.202	42.909	53.1	6.1	NO	0.999	NO	bb
8	8 190716M2_11	Standard	100.000	5.05	17361.830	2589.537	83.808	103.5	3.5	NO	0.999	NO	bb
9	9 190716M2_12	Standard	250.000	5.05	40037.840	2451.613	204.140	252.1	0.8	NO	0.999	NO	bb
10	10 190716M2_13	Standard	500.000	5.05	66196.125	2084.448	396.964	490.2	-2.0	NO	0.999	NO	bb

Compound name: L-MeFOSAA
Coefficient of Determination: R^2 = 0.999601
Calibration curve: 0.000237887 * x^2 + 2.97436 * x + -0.227255
Response type: Internal Std (Ref 62), 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 190716M2_4	Standard	0.250	5.14	114.111	2752.921	0.518	0.3	0.2	NO	1.000	NO	MM
2	2 190716M2_5	Standard	0.500	5.14	344.610	3317.640	1.298	0.5	2.6	NO	1.000	NO	MM
3	3 190716M2_6	Standard	1.000	5.13	680.721	3109.208	2.737	1.0	-0.4	NO	1.000	NO	MM
4	4 190716M2_7	Standard	2.000	5.13	1540.008	3422.082	5.625	2.0	-1.6	NO	1.000	NO	MM
5	5 190716M2_8	Standard	5.000	5.13	4001.700	3397.729	14.722	5.0	0.5	NO	1.000	NO	MM
6	6 190716M2_9	Standard	10.000	5.14	7356.463	3170.235	29.006	9.8	-1.8	NO	1.000	NO	MM
7	7 190716M2_10	Standard	50.000	5.14	36964.152	3185.552	145.046	48.7	-2.7	NO	1.000	NO	MM
8	8 190716M2_11	Standard	100.000	5.14	71972.836	2864.724	314.048	104.8	4.8	NO	1.000	NO	MM
9	9 190716M2_12	Standard	250.000	5.14	163148.953	2743.262	743.408	245.2	-1.9	NO	1.000	NO	MM
10	10 190716M2_13	Standard	500.000	5.14	280910.125	2263.416	1551.362	501.5	0.3	NO	1.000	NO	MM

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Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_071619.mdb 17 Jul 2019 08:01:43
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Compound name: L-EtFOSAA
Correlation coefficient: r = 0.999611, r^2 = 0.999222
Calibration curve: 1.58212 * x + -0.12102
Response type: Internal Std (Ref 64), 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	190716M2_4	Standard	0.250	5.30	100.113	4382.477	0.286	0.3	2.8	NO	0.999	NO	MM
2	2	190716M2_5	Standard	0.500	5.30	233.723	4672.816	0.625	0.5	-5.7	NO	0.999	NO	MM
3	3	190716M2_6	Standard	1.000	5.30	447.498	4749.938	1.178	0.8	-17.9	NO	0.999	NO	MM
4	4	190716M2_7	Standard	2.000	5.30	1146.387	5235.998	2.737	1.8	-9.7	NO	0.999	NO	MM
5	5	190716M2_8	Standard	5.000	5.30	2726.194	4677.258	7.286	4.7	-6.4	NO	0.999	NO	MM
6	6	190716M2_9	Standard	10.000	5.30	5697.081	4507.100	15.800	10.1	0.6	NO	0.999	NO	MM
7	7	190716M2_10	Standard	50.000	5.30	27119.498	4108.569	82.509	52.2	4.5	NO	0.999	NO	MM
8	8	190716M2_11	Standard	100.000	5.30	51538.180	4089.635	157.527	99.6	-0.4	NO	0.999	NO	MM
9	9	190716M2_12	Standard	250.000	5.30	110792.938	3383.189	409.351	258.8	3.5	NO	0.999	NO	MM
10	10	190716M2_13	Standard	500.000	5.30	182114.672	2937.076	775.068	490.0	-2.0	NO	0.999	NO	MM

Compound name: PFUdA
Correlation coefficient: r = 0.999845, r^2 = 0.999691
Calibration curve: 0.890447 * x + 0.0369886
Response type: Internal Std (Ref 63), 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	190716M2_4	Standard	0.250	5.31	348.114	19391.289	0.224	0.2	-15.8	NO	1.000	NO	bb
2	2	190716M2_5	Standard	0.500	5.31	776.417	20610.738	0.471	0.5	-2.5	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	5.31	1630.996	20375.676	1.001	1.1	8.2	NO	1.000	NO	bb
4	4	190716M2_7	Standard	2.000	5.31	3385.574	23458.041	1.804	2.0	-0.8	NO	1.000	NO	bb
5	5	190716M2_8	Standard	5.000	5.31	7757.311	21196.357	4.575	5.1	1.9	NO	1.000	NO	bb
6	6	190716M2_9	Standard	10.000	5.31	15653.796	20632.117	9.484	10.6	6.1	NO	1.000	NO	bb
7	7	190716M2_10	Standard	50.000	5.31	73954.508	20106.721	45.976	51.6	3.2	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	5.31	139548.141	19772.203	88.222	99.0	-1.0	NO	1.000	NO	bb
9	9	190716M2_12	Standard	250.000	5.31	313362.219	17261.473	226.923	254.8	1.9	NO	1.000	NO	bb
10	10	190716M2_13	Standard	500.000	5.31	528523.563	15022.118	439.788	493.9	-1.2	NO	1.000	NO	bb

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Compound name: PFDS
Coefficient of Determination: R^2 = 0.999905
Calibration curve: 0.00300667 * x^2 + 1.83523 * x
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: Null, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	190716M2_4	Standard	0.250	5.36	47.960	1874.440	0.320	0.2	-30.3	YES	1.000	NO	bbX
2	2	190716M2_5	Standard	0.500	5.36	116.647	1941.452	0.751	0.4	-18.2	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	5.36	279.544	2006.244	1.742	0.9	-5.2	NO	1.000	NO	bb
4	4	190716M2_7	Standard	2.000	5.36	607.358	2158.142	3.518	1.9	-4.5	NO	1.000	NO	bb
5	5	190716M2_8	Standard	5.000	5.36	1561.544	1785.584	10.932	5.9	18.0	NO	1.000	NO	bb
6	6	190716M2_9	Standard	10.000	5.36	3039.760	1965.913	19.328	10.4	3.6	NO	1.000	NO	bb
7	7	190716M2_10	Standard	50.000	5.37	14224.968	1800.880	98.736	49.7	-0.5	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	5.36	27748.760	1623.002	213.715	100.1	0.1	NO	1.000	NO	bb
9	9	190716M2_12	Standard	250.000	5.36	61731.820	1496.847	515.515	209.2	-16.3	NO	1.000	NO	bbX
10	10	190716M2_13	Standard	500.000	5.36	109672.938	1310.212	1046.328	359.0	-28.2	NO	1.000	NO	bbX

Compound name: 11Cl-PF30UdS
Coefficient of Determination: R^2 = 0.999725
Calibration curve: -9.8975e-006 * x^2 + 0.0601237 * x + -0.0105611
Response type: Internal Std (Ref 65), 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	190716M2_4	Standard	0.250	5.54	6.481	23077.104	0.004	0.2	-6.4	NO	1.000	NO	db
2	2	190716M2_5	Standard	0.500	5.53	35.698	23241.320	0.019	0.5	-1.0	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	5.52	85.886	23476.844	0.046	0.9	-6.4	NO	1.000	NO	bb
4	4	190716M2_7	Standard	2.000	5.53	271.982	27474.750	0.124	2.2	11.7	NO	1.000	NO	bb
5	5	190716M2_8	Standard	5.000	5.53	596.794	24369.986	0.306	5.3	5.4	NO	1.000	NO	bb
6	6	190716M2_9	Standard	10.000	5.53	1037.699	22803.961	0.569	9.7	-3.5	NO	1.000	NO	bb
7	7	190716M2_10	Standard	50.000	5.53	5680.299	24371.867	2.913	49.0	-1.9	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	5.53	11201.158	22996.840	6.088	103.2	3.2	NO	1.000	NO	bb
9	9	190716M2_12	Standard	250.000	5.53	25873.496	22777.449	14.199	246.3	-1.5	NO	1.000	NO	bb
10	10	190716M2_13	Standard	500.000	5.53	47783.430	21604.184	27.647	501.4	0.3	NO	1.000	NO	bb

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Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: 10:2 FTS
Coefficient of Determination: R^2 = 0.999477
Calibration curve: -0.00117687 * x^2 + 2.46159 * x + 0.0884414
Response type: Internal Std (Ref 61), 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	190716M2_4	Standard	0.250	5.58	84.171	1874.440	0.561	0.2	-23.2	NO	0.999	NO	bb
2	2	190716M2_5	Standard	0.500	5.58	205.749	1941.452	1.325	0.5	0.5	NO	0.999	NO	bb
3	3	190716M2_6	Standard	1.000	5.58	405.641	2006.244	2.527	1.0	-0.9	NO	0.999	NO	bb
4	4	190716M2_7	Standard	2.000	5.58	910.819	2158.142	5.275	2.1	5.5	NO	0.999	NO	bb
5	5	190716M2_8	Standard	5.000	5.58	1969.635	1785.584	13.788	5.6	11.6	NO	0.999	NO	bb
6	6	190716M2_9	Standard	10.000	5.58	4064.778	1965.913	25.845	10.5	5.2	NO	0.999	NO	bb
7	7	190716M2_10	Standard	50.000	5.59	17667.330	1800.880	122.630	51.0	2.1	NO	0.999	NO	bb
8	8	190716M2_11	Standard	100.000	5.58	30913.566	1623.002	238.089	101.6	1.6	NO	0.999	NO	bb
9	9	190716M2_12	Standard	250.000	5.58	63026.793	1496.847	526.330	241.7	-3.3	NO	0.999	NO	bb
10	10	190716M2_13	Standard	500.000	5.58	98891.445	1310.212	943.468	505.3	1.1	NO	0.999	NO	bb

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999836
Calibration curve: -0.000479463 * x^2 + 0.967819 * x + 0.00978606
Response type: Internal Std (Ref 65), 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	190716M2_4	Standard	0.250	5.60	445.690	23077.104	0.241	0.2	-4.3	NO	1.000	NO	bb
2	2	190716M2_5	Standard	0.500	5.60	931.296	23241.320	0.501	0.5	1.5	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	5.60	1812.786	23476.844	0.965	1.0	-1.2	NO	1.000	NO	bb
4	4	190716M2_7	Standard	2.000	5.60	4133.091	27474.750	1.880	1.9	-3.3	NO	1.000	NO	bb
5	5	190716M2_8	Standard	5.000	5.60	9390.638	24369.986	4.817	5.0	-0.4	NO	1.000	NO	bb
6	6	190716M2_9	Standard	10.000	5.60	19063.174	22803.961	10.449	10.8	8.5	NO	1.000	NO	bb
7	7	190716M2_10	Standard	50.000	5.60	91129.391	24371.867	46.739	49.5	-1.0	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	5.60	170791.625	22996.840	92.834	101.0	1.0	NO	1.000	NO	bb
9	9	190716M2_12	Standard	250.000	5.60	382845.406	22777.449	210.101	247.4	-1.0	NO	1.000	NO	bb
10	10	190716M2_13	Standard	500.000	5.60	630609.375	21604.184	364.865	501.7	0.3	NO	1.000	NO	bb

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Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.999231
Calibration curve: -9.80896e-005 * x^2 + 1.09978 * x + -0.278582
Response type: Internal Std (Ref 66), 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	190716M2_4	Standard	1.250	5.75	39.108	7475.726	0.785	1.0	-22.6	NO	0.999	NO	bb
2	2	190716M2_5	Standard	2.500	5.76	105.661	8074.101	1.963	2.0	-18.5	NO	0.999	NO	bb
3	3	190716M2_6	Standard	5.000	5.76	302.495	7997.124	5.674	5.4	8.3	NO	0.999	NO	bb
4	4	190716M2_7	Standard	10.000	5.75	651.980	8941.918	10.937	10.2	2.1	NO	0.999	NO	bb
5	5	190716M2_8	Standard	25.000	5.75	1555.336	8183.855	28.507	26.2	4.9	NO	0.999	NO	bb
6	6	190716M2_9	Standard	50.000	5.75	3093.317	8144.981	56.967	52.3	4.6	NO	0.999	NO	bb
7	7	190716M2_10	Standard	250.000	5.76	14428.993	8135.270	266.045	247.6	-0.9	NO	0.999	NO	bb
8	8	190716M2_11	Standard	500.000	5.75	28075.475	7676.667	548.587	523.5	4.7	NO	0.999	NO	bb
9	9	190716M2_12	Standard	1250.000	5.75	62401.227	7927.308	1180.752	1202.9	-3.8	NO	0.999	NO	bb
10	10	190716M2_13	Standard	2500.000	5.75	107522.320	7495.267	2151.804	2525.9	1.0	NO	0.999	NO	bb

Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998928
Calibration curve: -0.000522055 * x^2 + 1.01699 * x + 0.0837362
Response type: Internal Std (Ref 65), 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	190716M2_4	Standard	0.250	5.85	574.189	23077.104	0.311	0.2	-10.6	NO	0.999	NO	bb
2	2	190716M2_5	Standard	0.500	5.85	987.235	23241.320	0.531	0.4	-12.0	NO	0.999	NO	bb
3	3	190716M2_6	Standard	1.000	5.85	2173.712	23476.844	1.157	1.1	5.6	NO	0.999	NO	bb
4	4	190716M2_7	Standard	2.000	5.85	4519.814	27474.750	2.056	1.9	-2.9	NO	0.999	NO	bb
5	5	190716M2_8	Standard	5.000	5.85	10306.606	24369.986	5.287	5.1	2.6	NO	0.999	NO	bb
6	6	190716M2_9	Standard	10.000	5.85	21377.408	22803.961	11.718	11.5	15.1	NO	0.999	NO	bb
7	7	190716M2_10	Standard	50.000	5.85	100379.914	24371.867	51.483	51.9	3.9	NO	0.999	NO	bb
8	8	190716M2_11	Standard	100.000	5.85	180390.531	22996.840	98.052	101.6	1.6	NO	0.999	NO	bb
9	9	190716M2_12	Standard	250.000	5.85	387998.500	22777.449	212.929	238.5	-4.6	NO	0.999	NO	bb
10	10	190716M2_13	Standard	500.000	5.85	660117.188	21604.184	381.938	507.9	1.6	NO	0.999	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: PFDoS
Coefficient of Determination: R^2 = 0.999652
Calibration curve: -7.05884e-005 * x^2 + 0.276171 * x + -0.010428
Response type: Internal Std (Ref 67), 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	190716M2_4	Standard	0.250	5.87	57.371	10497.242	0.068	0.3	14.1	NO	1.000	NO	bb
2	2	190716M2_5	Standard	0.500	5.87	91.196	11020.220	0.103	0.4	-17.5	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	5.87	246.349	10610.182	0.290	1.1	8.9	NO	1.000	NO	bb
4	4	190716M2_7	Standard	2.000	5.88	532.823	12677.837	0.525	1.9	-3.0	NO	1.000	NO	bb
5	5	190716M2_8	Standard	5.000	5.87	1212.557	11271.638	1.345	4.9	-1.7	NO	1.000	NO	bb
6	6	190716M2_9	Standard	10.000	5.88	2369.109	10596.440	2.795	10.2	1.8	NO	1.000	NO	bb
7	7	190716M2_10	Standard	50.000	5.88	11533.369	10772.325	13.383	49.1	-1.8	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	5.88	21338.314	10195.131	26.162	97.2	-2.8	NO	1.000	NO	bb
9	9	190716M2_12	Standard	250.000	5.88	49829.371	9409.979	66.192	256.5	2.6	NO	1.000	NO	bb
10	10	190716M2_13	Standard	500.000	5.88	86895.000	9065.700	119.813	497.0	-0.6	NO	1.000	NO	bb

Compound name: PFTeDA
Correlation coefficient: r = 0.998844, r^2 = 0.997689
Calibration curve: 1.76508 * x + 0.0801765
Response type: Internal Std (Ref 67), 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	190716M2_4	Standard	0.250	6.07	360.402	10497.242	0.429	0.2	-20.9	NO	0.998	NO	bb
2	2	190716M2_5	Standard	0.500	6.07	820.039	11020.220	0.930	0.5	-3.7	NO	0.998	NO	bb
3	3	190716M2_6	Standard	1.000	6.07	1588.859	10610.182	1.872	1.0	1.5	NO	0.998	NO	bb
4	4	190716M2_7	Standard	2.000	6.07	3573.230	12677.837	3.523	2.0	-2.5	NO	0.998	NO	bb
5	5	190716M2_8	Standard	5.000	6.07	8487.400	11271.638	9.412	5.3	5.7	NO	0.998	NO	bb
6	6	190716M2_9	Standard	10.000	6.07	16592.592	10596.440	19.573	11.0	10.4	NO	0.998	NO	bb
7	7	190716M2_10	Standard	50.000	6.07	78283.719	10772.325	90.839	51.4	2.8	NO	0.998	NO	bb
8	8	190716M2_11	Standard	100.000	6.07	152011.016	10195.131	186.377	105.5	5.5	NO	0.998	NO	bb
9	9	190716M2_12	Standard	250.000	6.07	349785.094	9409.979	464.646	263.2	5.3	NO	0.998	NO	bb
10	10	190716M2_13	Standard	500.000	6.07	612742.188	9065.700	844.863	478.6	-4.3	NO	0.998	NO	db

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999912
Calibration curve: -4.13621e-005 * x^2 + 0.947973 * x + -0.406479
Response type: Internal Std (Ref 68), 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	190716M2_4	Standard	1.250	6.18	56.733	9225.188	0.922	1.4	12.2	NO	1.000	NO	bb
2	2	190716M2_5	Standard	2.500	6.19	118.887	10081.924	1.769	2.3	-8.2	NO	1.000	NO	bb
3	3	190716M2_6	Standard	5.000	6.19	284.805	9985.410	4.278	4.9	-1.1	NO	1.000	NO	bb
4	4	190716M2_7	Standard	10.000	6.18	643.698	11029.992	8.754	9.7	-3.3	NO	1.000	NO	bb
5	5	190716M2_8	Standard	25.000	6.19	1577.497	10302.103	22.969	24.7	-1.3	NO	1.000	NO	bb
6	6	190716M2_9	Standard	50.000	6.18	3110.637	9660.796	48.298	51.5	3.0	NO	1.000	NO	bb
7	7	190716M2_10	Standard	250.000	6.19	14688.143	9655.712	228.178	243.7	-2.5	NO	1.000	NO	bb
8	8	190716M2_11	Standard	500.000	6.18	28370.465	9060.403	469.689	507.1	1.4	NO	1.000	NO	bb
9	9	190716M2_12	Standard	1250.000	6.19	62755.035	8413.997	1118.761	1248.6	-0.1	NO	1.000	NO	bb
10	10	190716M2_13	Standard	2500.000	6.19	104844.641	7450.346	2110.868	2499.8	-0.0	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.999779
Calibration curve: -0.00028338 * x^2 + 0.639324 * x + 0.0135475
Response type: Internal Std (Ref 69), 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	190716M2_4	Standard	0.250	6.42	273.625	7072.392	0.193	0.3	12.6	NO	1.000	NO	bb
2	2	190716M2_5	Standard	0.500	6.42	452.497	6672.632	0.339	0.5	1.9	NO	1.000	NO	bb
3	3	190716M2_6	Standard	1.000	6.42	958.504	7229.321	0.663	1.0	1.6	NO	1.000	NO	bb
4	4	190716M2_7	Standard	2.000	6.42	1999.464	8161.924	1.225	1.9	-5.2	NO	1.000	NO	bb
5	5	190716M2_8	Standard	5.000	6.42	4387.629	7361.861	2.980	4.6	-7.0	NO	1.000	NO	bb
6	6	190716M2_9	Standard	10.000	6.42	8981.172	7229.127	6.212	9.7	-2.6	NO	1.000	NO	bb
7	7	190716M2_10	Standard	50.000	6.43	44296.273	7210.365	30.717	49.1	-1.8	NO	1.000	NO	bb
8	8	190716M2_11	Standard	100.000	6.42	81356.516	6717.620	60.555	99.0	-1.0	NO	1.000	NO	bb
9	9	190716M2_12	Standard	250.000	6.42	185595.266	6406.448	144.850	255.5	2.2	NO	1.000	NO	bb
10	10	190716M2_13	Standard	500.000	6.42	319761.813	6456.068	247.644	496.7	-0.7	NO	1.000	NO	bb

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Compound name: PFODA
Correlation coefficient: r = 0.996365, r^2 = 0.992744
Calibration curve: 0.742459 * x + 0.0633986
Response type: Internal Std (Ref 69), 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	190716M2_4	Standard	0.250	6.67	285.180	7072.392	0.202	0.2	-25.5	NO	0.993	NO	bb
2	2	190716M2_5	Standard	0.500	6.67	615.434	6672.632	0.461	0.5	7.1	NO	0.993	NO	bb
3	3	190716M2_6	Standard	1.000	6.67	1195.321	7229.321	0.827	1.0	2.8	NO	0.993	NO	bb
4	4	190716M2_7	Standard	2.000	6.67	2629.301	8161.924	1.611	2.1	4.2	NO	0.993	NO	bb
5	5	190716M2_8	Standard	5.000	6.67	6158.378	7361.861	4.183	5.5	11.0	NO	0.993	NO	MM
6	6	190716M2_9	Standard	10.000	6.67	12046.513	7229.127	8.332	11.1	11.4	NO	0.993	NO	bb
7	7	190716M2_10	Standard	50.000	6.67	59506.012	7210.365	41.264	55.5	11.0	NO	0.993	NO	bb
8	8	190716M2_11	Standard	100.000	6.67	112315.727	6717.620	83.598	112.5	12.5	NO	0.993	NO	bb
9	9	190716M2_12	Standard	250.000	6.67	255332.469	6406.448	199.278	268.3	7.3	NO	0.993	NO	bb
10	10	190716M2_13	Standard	500.000	6.67	442904.125	6456.068	343.014	461.9	-7.6	NO	0.993	NO	bb

Compound name: N-MeFOSE
Correlation coefficient: r = 0.999685, r^2 = 0.999371
Calibration curve: 1.08739 * x + -0.181625
Response type: Internal Std (Ref 70), 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	190716M2_4	Standard	1.250	6.37	67.320	7791.255	1.296	1.4	8.7	NO	0.999	NO	bb
2	2	190716M2_5	Standard	2.500	6.37	128.840	8446.939	2.288	2.3	-9.2	NO	0.999	NO	bb
3	3	190716M2_6	Standard	5.000	6.37	313.097	8864.888	5.298	5.0	0.8	NO	0.999	NO	bb
4	4	190716M2_7	Standard	10.000	6.37	647.759	9626.937	10.093	9.4	-5.5	NO	0.999	NO	bb
5	5	190716M2_8	Standard	25.000	6.37	1558.482	8664.948	26.979	25.0	-0.1	NO	0.999	NO	bb
6	6	190716M2_9	Standard	50.000	6.37	3136.165	8884.275	52.950	48.9	-2.3	NO	0.999	NO	bb
7	7	190716M2_10	Standard	250.000	6.37	15723.265	8180.129	288.319	265.3	6.1	NO	0.999	NO	bb
8	8	190716M2_11	Standard	500.000	6.37	30725.904	8408.601	548.116	504.2	0.8	NO	0.999	NO	bb
9	9	190716M2_12	Standard	1250.000	6.37	78350.203	8433.074	1393.624	1281.8	2.5	NO	0.999	NO	bb
10	10	190716M2_13	Standard	2500.000	6.37	152805.125	8602.599	2664.400	2450.4	-2.0	NO	0.999	NO	bb

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999860, r^2 = 0.999720
Calibration curve: 1.34418 * x + -0.390824
Response type: Internal Std (Ref 71), 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 190716M2_4	Standard	1.250	6.52	73.363	8260.143	1.332	1.3	2.5	NO	1.000	NO	bb
2	2 190716M2_5	Standard	2.500	6.52	172.722	8651.297	2.995	2.5	0.7	NO	1.000	NO	bb
3	3 190716M2_6	Standard	5.000	6.52	325.441	9013.724	5.416	4.3	-13.6	NO	1.000	NO	bb
4	4 190716M2_7	Standard	10.000	6.52	922.205	9637.981	14.353	11.0	9.7	NO	1.000	NO	bb
5	5 190716M2_8	Standard	25.000	6.52	2001.651	9121.854	32.915	24.8	-0.9	NO	1.000	NO	bb
6	6 190716M2_9	Standard	50.000	6.52	4059.282	8819.154	69.042	51.7	3.3	NO	1.000	NO	bb
7	7 190716M2_10	Standard	250.000	6.52	19235.451	8949.539	322.398	240.1	-3.9	NO	1.000	NO	bb
8	8 190716M2_11	Standard	500.000	6.52	39017.164	8613.880	679.435	505.8	1.2	NO	1.000	NO	bb
9	9 190716M2_12	Standard	1250.000	6.52	96615.672	8474.301	1710.153	1272.6	1.8	NO	1.000	NO	bb
10	10 190716M2_13	Standard	2500.000	6.52	189765.344	8540.626	3332.871	2479.8	-0.8	NO	1.000	NO	bb

Compound name: 13C3-PFBA
Response Factor: 0.671527
RRF SD: 0.0157567, Relative SD: 2.3464
Response type: Internal Std (Ref 72), 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 190716M2_4	Standard	12.500	1.21	5250.216	7881.823	8.326	12.4	-0.8	NO		NO	bb
2	2 190716M2_5	Standard	12.500	1.21	5328.377	7949.934	8.378	12.5	-0.2	NO		NO	bb
3	3 190716M2_6	Standard	12.500	1.21	5269.876	8142.781	8.090	12.0	-3.6	NO		NO	bb
4	4 190716M2_7	Standard	12.500	1.21	6359.378	9233.128	8.609	12.8	2.6	NO		NO	bb
5	5 190716M2_8	Standard	12.500	1.21	5618.954	8279.655	8.483	12.6	1.1	NO		NO	bb
6	6 190716M2_9	Standard	12.500	1.21	5776.047	8847.535	8.161	12.2	-2.8	NO		NO	MM
7	7 190716M2_10	Standard	12.500	1.21	5541.743	8359.938	8.286	12.3	-1.3	NO		NO	MM
8	8 190716M2_11	Standard	12.500	1.21	5309.916	7976.345	8.321	12.4	-0.9	NO		NO	MM
9	9 190716M2_12	Standard	12.500	1.21	5651.507	8143.944	8.674	12.9	3.3	NO		NO	MM
10	10 190716M2_13	Standard	12.500	1.21	5284.814	7670.998	8.612	12.8	2.6	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 0.453127
RRF SD: 0.0191203, Relative SD: 4.21964
Response type: Internal Std (Ref 73), 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	190716M2_4	Standard	12.500	2.20	8139.766	19577.564	5.197	11.5	-8.2	NO		NO	bb
2	2	190716M2_5	Standard	12.500	2.20	8487.657	18927.377	5.605	12.4	-1.0	NO		NO	bb
3	3	190716M2_6	Standard	12.500	2.20	8540.586	19359.209	5.515	12.2	-2.6	NO		NO	bb
4	4	190716M2_7	Standard	12.500	2.21	9794.767	21305.883	5.747	12.7	1.5	NO		NO	bb
5	5	190716M2_8	Standard	12.500	2.20	9157.241	19771.020	5.790	12.8	2.2	NO		NO	bb
6	6	190716M2_9	Standard	12.500	2.20	8772.721	18933.750	5.792	12.8	2.3	NO		NO	bb
7	7	190716M2_10	Standard	12.500	2.21	8395.805	19115.057	5.490	12.1	-3.1	NO		NO	bb
8	8	190716M2_11	Standard	12.500	2.21	8407.112	18766.617	5.600	12.4	-1.1	NO		NO	bb
9	9	190716M2_12	Standard	12.500	2.21	7824.807	16777.020	5.830	12.9	2.9	NO		NO	bb
10	10	190716M2_13	Standard	12.500	2.21	7333.563	15087.500	6.076	13.4	7.3	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 1.03448
RRF SD: 0.0603696, Relative SD: 5.83574
Response type: Internal Std (Ref 74), 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	190716M2_4	Standard	12.500	2.50	1217.658	1114.146	13.661	13.2	5.6	NO		NO	bb
2	2	190716M2_5	Standard	12.500	2.50	1327.414	1306.998	12.695	12.3	-1.8	NO		NO	bb
3	3	190716M2_6	Standard	12.500	2.50	1293.647	1312.777	12.318	11.9	-4.7	NO		NO	bb
4	4	190716M2_7	Standard	12.500	2.50	1526.480	1393.132	13.696	13.2	5.9	NO		NO	bb
5	5	190716M2_8	Standard	12.500	2.50	1284.593	1392.759	11.529	11.1	-10.8	NO		NO	bb
6	6	190716M2_9	Standard	12.500	2.50	1266.196	1265.964	12.502	12.1	-3.3	NO		NO	bb
7	7	190716M2_10	Standard	12.500	2.50	1302.259	1153.314	14.114	13.6	9.2	NO		NO	bb
8	8	190716M2_11	Standard	12.500	2.50	1204.164	1157.976	12.999	12.6	0.5	NO		NO	bb
9	9	190716M2_12	Standard	12.500	2.50	1121.964	1079.388	12.993	12.6	0.5	NO		NO	bb
10	10	190716M2_13	Standard	12.500	2.50	979.060	955.986	12.802	12.4	-1.0	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: 13C3-HFPO-DA
Response Factor: 0.226637
RRF SD: 0.0188919, Relative SD: 8.33575
Response type: Internal Std (Ref 73), 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 190716M2_4	Standard	5.000	3.22	1929.668	19577.564	1.232	5.4	8.7	NO		NO	bb
2	2 190716M2_5	Standard	5.000	3.21	1917.258	18927.377	1.266	5.6	11.7	NO		NO	bb
3	3 190716M2_6	Standard	5.000	3.21	1494.483	19359.209	0.965	4.3	-14.8	NO		NO	bb
4	4 190716M2_7	Standard	5.000	3.21	2014.792	21305.883	1.182	5.2	4.3	NO		NO	bb
5	5 190716M2_8	Standard	5.000	3.22	1771.227	19771.020	1.120	4.9	-1.2	NO		NO	bb
6	6 190716M2_9	Standard	5.000	3.22	1679.165	18933.750	1.109	4.9	-2.2	NO		NO	bb
7	7 190716M2_10	Standard	5.000	3.22	1618.492	19115.057	1.058	4.7	-6.6	NO		NO	bb
8	8 190716M2_11	Standard	5.000	3.22	1815.201	18766.617	1.209	5.3	6.7	NO		NO	bb
9	9 190716M2_12	Standard	5.000	3.21	1550.355	16777.020	1.155	5.1	1.9	NO		NO	bb
10	10 190716M2_13	Standard	5.000	3.22	1249.913	15087.500	1.036	4.6	-8.6	NO		NO	bb

Compound name: 13C2-4:2 FTS
Response Factor: 1.85848
RRF SD: 0.156492, Relative SD: 8.42046
Response type: Internal Std (Ref 74), 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 190716M2_4	Standard	12.500	2.92	2368.101	1114.146	26.569	14.3	14.4	NO		NO	bb
2	2 190716M2_5	Standard	12.500	2.92	2443.970	1306.998	23.374	12.6	0.6	NO		NO	bb
3	3 190716M2_6	Standard	12.500	2.92	2565.531	1312.777	24.428	13.1	5.2	NO		NO	bb
4	4 190716M2_7	Standard	12.500	2.92	2780.059	1393.132	24.944	13.4	7.4	NO		NO	bb
5	5 190716M2_8	Standard	12.500	2.93	2645.359	1392.759	23.742	12.8	2.2	NO		NO	bb
6	6 190716M2_9	Standard	12.500	2.92	2301.054	1265.964	22.720	12.2	-2.2	NO		NO	bb
7	7 190716M2_10	Standard	12.500	2.93	2186.161	1153.314	23.694	12.7	2.0	NO		NO	bb
8	8 190716M2_11	Standard	12.500	2.92	2051.804	1157.976	22.149	11.9	-4.7	NO		NO	bb
9	9 190716M2_12	Standard	12.500	2.93	1792.288	1079.388	20.756	11.2	-10.7	NO		NO	bb
10	10 190716M2_13	Standard	12.500	2.92	1524.474	955.986	19.933	10.7	-14.2	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.791007
RRF SD: 0.0284732, Relative SD: 3.59962
Response type: Internal Std (Ref 73), 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	190716M2_4	Standard	5.000	3.01	5765.931	19577.564	3.681	4.7	-6.9	NO		NO	bb
2	2	190716M2_5	Standard	5.000	3.01	5965.168	18927.377	3.940	5.0	-0.4	NO		NO	bb
3	3	190716M2_6	Standard	5.000	3.01	6058.156	19359.209	3.912	4.9	-1.1	NO		NO	bb
4	4	190716M2_7	Standard	5.000	3.01	6807.611	21305.883	3.994	5.0	1.0	NO		NO	bb
5	5	190716M2_8	Standard	5.000	3.01	6168.879	19771.020	3.900	4.9	-1.4	NO		NO	bb
6	6	190716M2_9	Standard	5.000	3.01	6334.795	18933.750	4.182	5.3	5.7	NO		NO	bb
7	7	190716M2_10	Standard	5.000	3.01	5817.504	19115.057	3.804	4.8	-3.8	NO		NO	bb
8	8	190716M2_11	Standard	5.000	3.01	6021.483	18766.617	4.011	5.1	1.4	NO		NO	bb
9	9	190716M2_12	Standard	5.000	3.01	5463.366	16777.020	4.071	5.1	2.9	NO		NO	bb
10	10	190716M2_13	Standard	5.000	3.01	4895.237	15087.500	4.056	5.1	2.5	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.364966
RRF SD: 0.012633, Relative SD: 3.46143
Response type: Internal Std (Ref 73), 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	190716M2_4	Standard	12.500	3.63	6842.853	19577.564	4.369	12.0	-4.2	NO		NO	bb
2	2	190716M2_5	Standard	12.500	3.63	7195.404	18927.377	4.752	13.0	4.2	NO		NO	bb
3	3	190716M2_6	Standard	12.500	3.63	7305.836	19359.209	4.717	12.9	3.4	NO		NO	bb
4	4	190716M2_7	Standard	12.500	3.63	7894.354	21305.883	4.632	12.7	1.5	NO		NO	bb
5	5	190716M2_8	Standard	12.500	3.63	7305.663	19771.020	4.619	12.7	1.2	NO		NO	bb
6	6	190716M2_9	Standard	12.500	3.63	6951.189	18933.750	4.589	12.6	0.6	NO		NO	bb
7	7	190716M2_10	Standard	12.500	3.63	6877.049	19115.057	4.497	12.3	-1.4	NO		NO	bb
8	8	190716M2_11	Standard	12.500	3.63	6670.025	18766.617	4.443	12.2	-2.6	NO		NO	bb
9	9	190716M2_12	Standard	12.500	3.63	6330.190	16777.020	4.716	12.9	3.4	NO		NO	bb
10	10	190716M2_13	Standard	12.500	3.63	5173.783	15087.500	4.286	11.7	-6.0	NO		NO	bb

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Compound name: 13C3-PFHxS
Response Factor: 2.20993
RRF SD: 0.0880129, Relative SD: 3.98261
Response type: Internal Std (Ref 74), 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 190716M2_4	Standard	12.500	3.78	2649.227	1114.14€	29.723	13.4	7.6	NO		NO	bb
2	2 190716M2_5	Standard	12.500	3.78	2871.006	1306.998	27.458	12.4	-0.6	NO		NO	bb
3	3 190716M2_6	Standard	12.500	3.78	2758.509	1312.777	26.266	11.9	-4.9	NO		NO	bb
4	4 190716M2_7	Standard	12.500	3.78	3125.209	1393.132	28.041	12.7	1.5	NO		NO	bb
5	5 190716M2_8	Standard	12.500	3.78	2889.846	1392.759	25.936	11.7	-6.1	NO		NO	bb
6	6 190716M2_9	Standard	12.500	3.78	2715.657	1265.964	26.814	12.1	-2.9	NO		NO	bb
7	7 190716M2_10	Standard	12.500	3.79	2617.288	1153.314	28.367	12.8	2.7	NO		NO	bb
8	8 190716M2_11	Standard	12.500	3.79	2614.037	1157.976	28.218	12.8	2.1	NO		NO	bb
9	9 190716M2_12	Standard	12.500	3.79	2384.082	1079.388	27.609	12.5	-0.1	NO		NO	bb
10	10 190716M2_13	Standard	12.500	3.78	2126.796	955.986	27.809	12.6	0.7	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.682382
RRF SD: 0.0604509, Relative SD: 8.8588
Response type: Internal Std (Ref 77), 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 190716M2_4	Standard	12.500	4.10	1800.087	2546.740	8.835	12.9	3.6	NO		NO	bb
2	2 190716M2_5	Standard	12.500	4.10	1940.428	2512.891	9.652	14.1	13.2	NO		NO	bb
3	3 190716M2_6	Standard	12.500	4.10	1826.766	2750.044	8.303	12.2	-2.7	NO		NO	bb
4	4 190716M2_7	Standard	12.500	4.10	2286.677	2978.896	9.595	14.1	12.5	NO		NO	bb
5	5 190716M2_8	Standard	12.500	4.10	1886.190	2734.924	8.621	12.6	1.1	NO		NO	bb
6	6 190716M2_9	Standard	12.500	4.10	1994.234	2902.983	8.587	12.6	0.7	NO		NO	bb
7	7 190716M2_10	Standard	12.500	4.10	1671.656	2586.302	8.079	11.8	-5.3	NO		NO	bb
8	8 190716M2_11	Standard	12.500	4.10	1662.847	2480.703	8.379	12.3	-1.8	NO		NO	bb
9	9 190716M2_12	Standard	12.500	4.10	1390.181	2473.838	7.024	10.3	-17.6	NO		NO	bb
10	10 190716M2_13	Standard	12.500	4.10	1413.688	2149.525	8.221	12.0	-3.6	NO		NO	bb

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Compound name: 13C5-PFNA
Response Factor: 0.997858
RRF SD: 0.0459403, Relative SD: 4.60389
Response type: Internal Std (Ref 76), 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	190716M2_4	Standard	12.500	4.60	14513.344	15534.052	11.679	11.7	-6.4	NO		NO	bb
2	2	190716M2_5	Standard	12.500	4.60	14260.563	14548.625	12.253	12.3	-1.8	NO		NO	bb
3	3	190716M2_6	Standard	12.500	4.60	14590.250	15524.611	11.748	11.8	-5.8	NO		NO	bb
4	4	190716M2_7	Standard	12.500	4.60	16625.025	15787.939	13.163	13.2	5.5	NO		NO	bb
5	5	190716M2_8	Standard	12.500	4.60	15205.557	15010.626	12.662	12.7	1.5	NO		NO	bb
6	6	190716M2_9	Standard	12.500	4.60	15199.802	15069.935	12.608	12.6	1.1	NO		NO	bb
7	7	190716M2_10	Standard	12.500	4.60	15014.631	14098.217	13.313	13.3	6.7	NO		NO	bb
8	8	190716M2_11	Standard	12.500	4.60	13460.237	13827.684	12.168	12.2	-2.4	NO		NO	bb
9	9	190716M2_12	Standard	12.500	4.60	12977.360	12453.309	13.026	13.1	4.4	NO		NO	bb
10	10	190716M2_13	Standard	12.500	4.60	11037.246	11388.683	12.114	12.1	-2.9	NO		NO	bb

Compound name: 13C8-PFOSA
Response Factor: 0.138656
RRF SD: 0.00970524, Relative SD: 6.99951
Response type: Internal Std (Ref 79), 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	190716M2_4	Standard	12.500	4.66	3350.814	26243.453	1.596	11.5	-7.9	NO		NO	bb
2	2	190716M2_5	Standard	12.500	4.66	3368.172	24727.238	1.703	12.3	-1.8	NO		NO	bb
3	3	190716M2_6	Standard	12.500	4.66	3504.571	25934.816	1.689	12.2	-2.5	NO		NO	bb
4	4	190716M2_7	Standard	12.500	4.66	3948.422	28505.965	1.731	12.5	-0.1	NO		NO	bb
5	5	190716M2_8	Standard	12.500	4.66	3568.868	26046.080	1.713	12.4	-1.2	NO		NO	bb
6	6	190716M2_9	Standard	12.500	4.66	3613.479	25295.672	1.786	12.9	3.0	NO		NO	bb
7	7	190716M2_10	Standard	12.500	4.66	3317.596	24737.219	1.676	12.1	-3.3	NO		NO	bb
8	8	190716M2_11	Standard	12.500	4.66	3037.439	23855.199	1.592	11.5	-8.2	NO		NO	bb
9	9	190716M2_12	Standard	12.500	4.66	3079.736	20862.021	1.845	13.3	6.5	NO		NO	bb
10	10	190716M2_13	Standard	12.500	4.66	2875.215	17960.467	2.001	14.4	15.5	NO		NO	bb

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Compound name: 13C2-PFOA
Response Factor: 0.509066
RRF SD: 0.0179028, Relative SD: 3.5168
Response type: Internal Std (Ref 75), 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	190716M2_4	Standard	12.500	4.15	13572.244	28350.359	5.984	11.8	-6.0	NO		NO	bb
2	2	190716M2_5	Standard	12.500	4.16	13363.243	27333.705	6.111	12.0	-4.0	NO		NO	bb
3	3	190716M2_6	Standard	12.500	4.16	13968.624	27652.361	6.314	12.4	-0.8	NO		NO	bb
4	4	190716M2_7	Standard	12.500	4.16	16562.174	30949.543	6.689	13.1	5.1	NO		NO	bb
5	5	190716M2_8	Standard	12.500	4.16	14916.217	28702.553	6.496	12.8	2.1	NO		NO	bb
6	6	190716M2_9	Standard	12.500	4.16	14115.170	28015.330	6.298	12.4	-1.0	NO		NO	bb
7	7	190716M2_10	Standard	12.500	4.16	13502.623	26766.959	6.306	12.4	-0.9	NO		NO	bb
8	8	190716M2_11	Standard	12.500	4.16	13587.397	25473.691	6.667	13.1	4.8	NO		NO	bb
9	9	190716M2_12	Standard	12.500	4.16	11605.829	22408.676	6.474	12.7	1.7	NO		NO	bb
10	10	190716M2_13	Standard	12.500	4.16	9193.851	18260.951	6.293	12.4	-1.1	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 1.0151
RRF SD: 0.0558799, Relative SD: 5.50487
Response type: Internal Std (Ref 77), 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	190716M2_4	Standard	12.500	4.69	2560.069	2546.740	12.565	12.4	-1.0	NO		NO	bb
2	2	190716M2_5	Standard	12.500	4.69	2862.337	2512.891	14.238	14.0	12.2	NO		NO	bd
3	3	190716M2_6	Standard	12.500	4.69	2829.545	2750.044	12.861	12.7	1.4	NO		NO	bb
4	4	190716M2_7	Standard	12.500	4.69	2923.945	2978.896	12.269	12.1	-3.3	NO		NO	bb
5	5	190716M2_8	Standard	12.500	4.69	2852.252	2734.924	13.036	12.8	2.7	NO		NO	bb
6	6	190716M2_9	Standard	12.500	4.69	2702.612	2902.983	11.637	11.5	-8.3	NO		NO	bb
7	7	190716M2_10	Standard	12.500	4.69	2632.202	2586.302	12.722	12.5	0.3	NO		NO	bb
8	8	190716M2_11	Standard	12.500	4.69	2589.537	2480.703	13.048	12.9	2.8	NO		NO	MM
9	9	190716M2_12	Standard	12.500	4.69	2451.613	2473.838	12.388	12.2	-2.4	NO		NO	MM
10	10	190716M2_13	Standard	12.500	4.69	2084.448	2149.525	12.122	11.9	-4.5	NO		NO	MM

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Compound name: 13C2-PFDA
Response Factor: 0.669016
RRF SD: 0.016255, Relative SD: 2.42969
Response type: Internal Std (Ref 78), 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 190716M2_4	Standard	12.500	4.98	11766.295	18568.271	7.921	11.8	-5.3	NO		NO	bb
2	2 190716M2_5	Standard	12.500	4.98	13015.248	18862.154	8.625	12.9	3.1	NO		NO	bb
3	3 190716M2_6	Standard	12.500	4.98	12690.468	18663.980	8.499	12.7	1.6	NO		NO	bb
4	4 190716M2_7	Standard	12.500	4.98	14279.605	21557.105	8.280	12.4	-1.0	NO		NO	bb
5	5 190716M2_8	Standard	12.500	4.98	12898.133	19358.965	8.328	12.4	-0.4	NO		NO	bb
6	6 190716M2_9	Standard	12.500	4.98	12777.451	19113.262	8.356	12.5	-0.1	NO		NO	bb
7	7 190716M2_10	Standard	12.500	4.99	11978.967	18183.154	8.235	12.3	-1.5	NO		NO	bb
8	8 190716M2_11	Standard	12.500	4.98	11595.807	17424.977	8.318	12.4	-0.5	NO		NO	bb
9	9 190716M2_12	Standard	12.500	4.98	10645.857	15503.073	8.584	12.8	2.6	NO		NO	bb
10	10 190716M2_13	Standard	12.500	4.98	9602.938	14155.768	8.480	12.7	1.4	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.685788
RRF SD: 0.0558376, Relative SD: 8.1421
Response type: Internal Std (Ref 77), 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 190716M2_4	Standard	12.500	4.95	1874.440	2546.740	9.200	13.4	7.3	NO		NO	bb
2	2 190716M2_5	Standard	12.500	4.95	1941.452	2512.891	9.657	14.1	12.7	NO		NO	bb
3	3 190716M2_6	Standard	12.500	4.95	2006.244	2750.044	9.119	13.3	6.4	NO		NO	bb
4	4 190716M2_7	Standard	12.500	4.95	2158.142	2978.896	9.056	13.2	5.6	NO		NO	bb
5	5 190716M2_8	Standard	12.500	4.95	1785.584	2734.924	8.161	11.9	-4.8	NO		NO	bb
6	6 190716M2_9	Standard	12.500	4.95	1965.913	2902.983	8.465	12.3	-1.3	NO		NO	bb
7	7 190716M2_10	Standard	12.500	4.95	1800.880	2586.302	8.704	12.7	1.5	NO		NO	bb
8	8 190716M2_11	Standard	12.500	4.95	1623.002	2480.703	8.178	11.9	-4.6	NO		NO	bb
9	9 190716M2_12	Standard	12.500	4.95	1496.847	2473.838	7.563	11.0	-11.8	NO		NO	bb
10	10 190716M2_13	Standard	12.500	4.95	1310.212	2149.525	7.619	11.1	-11.1	NO		NO	bb

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Compound name: d3-N-MeFOSAA
Response Factor: 0.124116
RRF SD: 0.00844867, Relative SD: 6.80707
Response type: Internal Std (Ref 79), 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	190716M2_4	Standard	12.500	5.13	2752.921	26243.453	1.311	10.6	-15.5	NO		NO	bb
2	2	190716M2_5	Standard	12.500	5.13	3317.640	24727.238	1.677	13.5	8.1	NO		NO	bb
3	3	190716M2_6	Standard	12.500	5.13	3109.208	25934.816	1.499	12.1	-3.4	NO		NO	bb
4	4	190716M2_7	Standard	12.500	5.13	3422.082	28505.965	1.501	12.1	-3.3	NO		NO	bb
5	5	190716M2_8	Standard	12.500	5.13	3397.729	26046.080	1.631	13.1	5.1	NO		NO	bb
6	6	190716M2_9	Standard	12.500	5.13	3170.235	25295.672	1.567	12.6	1.0	NO		NO	bb
7	7	190716M2_10	Standard	12.500	5.13	3185.552	24737.219	1.610	13.0	3.8	NO		NO	bb
8	8	190716M2_11	Standard	12.500	5.13	2864.724	23855.199	1.501	12.1	-3.2	NO		NO	bb
9	9	190716M2_12	Standard	12.500	5.13	2743.262	20862.021	1.644	13.2	5.9	NO		NO	bb
10	10	190716M2_13	Standard	12.500	5.13	2263.416	17960.467	1.575	12.7	1.5	NO		NO	bb

Compound name: 13C2-PFUdA
Response Factor: 0.81159
RRF SD: 0.0293491, Relative SD: 3.61625
Response type: Internal Std (Ref 79), 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	190716M2_4	Standard	12.500	5.31	19391.289	26243.453	9.236	11.4	-9.0	NO		NO	bb
2	2	190716M2_5	Standard	12.500	5.31	20610.738	24727.238	10.419	12.8	2.7	NO		NO	bb
3	3	190716M2_6	Standard	12.500	5.31	20375.676	25934.816	9.821	12.1	-3.2	NO		NO	bb
4	4	190716M2_7	Standard	12.500	5.31	23458.041	28505.965	10.286	12.7	1.4	NO		NO	bb
5	5	190716M2_8	Standard	12.500	5.31	21196.357	26046.080	10.173	12.5	0.3	NO		NO	bb
6	6	190716M2_9	Standard	12.500	5.31	20632.117	25295.672	10.195	12.6	0.5	NO		NO	bb
7	7	190716M2_10	Standard	12.500	5.31	20106.721	24737.219	10.160	12.5	0.2	NO		NO	bb
8	8	190716M2_11	Standard	12.500	5.31	19772.203	23855.199	10.361	12.8	2.1	NO		NO	bb
9	9	190716M2_12	Standard	12.500	5.31	17261.473	20862.021	10.343	12.7	1.9	NO		NO	bb
10	10	190716M2_13	Standard	12.500	5.31	15022.118	17960.467	10.455	12.9	3.1	NO		NO	bb

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Compound name: d5-N-EtFOSAA
Response Factor: 0.174377
RRF SD: 0.00952546, Relative SD: 5.46255
Response type: Internal Std (Ref 79), 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	190716M2_4	Standard	12.500	5.29	4382.477	26243.453	2.087	12.0	-4.2	NO		NO	bb
2	2	190716M2_5	Standard	12.500	5.29	4672.816	24727.238	2.362	13.5	8.4	NO		NO	bb
3	3	190716M2_6	Standard	12.500	5.29	4749.938	25934.816	2.289	13.1	5.0	NO		NO	bb
4	4	190716M2_7	Standard	12.500	5.29	5235.998	28505.965	2.296	13.2	5.3	NO		NO	bb
5	5	190716M2_8	Standard	12.500	5.29	4677.258	26046.080	2.245	12.9	3.0	NO		NO	bb
6	6	190716M2_9	Standard	12.500	5.29	4507.100	25295.672	2.227	12.8	2.2	NO		NO	bb
7	7	190716M2_10	Standard	12.500	5.30	4108.569	24737.219	2.076	11.9	-4.8	NO		NO	bb
8	8	190716M2_11	Standard	12.500	5.29	4089.635	23855.199	2.143	12.3	-1.7	NO		NO	bb
9	9	190716M2_12	Standard	12.500	5.29	3383.189	20862.021	2.027	11.6	-7.0	NO		NO	bb
10	10	190716M2_13	Standard	12.500	5.29	2937.076	17960.467	2.044	11.7	-6.2	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 1.31148
RRF SD: 0.10745, Relative SD: 8.19299
Response type: Internal Std (Ref 78), 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	190716M2_4	Standard	12.500	5.60	23077.104	18568.271	15.535	11.8	-5.2	NO		NO	bb
2	2	190716M2_5	Standard	12.500	5.60	23241.320	18862.154	15.402	11.7	-6.0	NO		NO	bb
3	3	190716M2_6	Standard	12.500	5.60	23476.844	18663.980	15.723	12.0	-4.1	NO		NO	bb
4	4	190716M2_7	Standard	12.500	5.60	27474.750	21557.105	15.931	12.1	-2.8	NO		NO	bb
5	5	190716M2_8	Standard	12.500	5.60	24369.986	19358.965	15.736	12.0	-4.0	NO		NO	bb
6	6	190716M2_9	Standard	12.500	5.60	22803.961	19113.262	14.914	11.4	-9.0	NO		NO	bb
7	7	190716M2_10	Standard	12.500	5.60	24371.867	18183.154	16.754	12.8	2.2	NO		NO	bb
8	8	190716M2_11	Standard	12.500	5.60	22996.840	17424.977	16.497	12.6	0.6	NO		NO	bb
9	9	190716M2_12	Standard	12.500	5.60	22777.449	15503.073	18.365	14.0	12.0	NO		NO	bb
10	10	190716M2_13	Standard	12.500	5.60	21604.184	14155.768	19.077	14.5	16.4	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.0276467
RRF SD: 0.00319854, Relative SD: 11.5693
Response type: Internal Std (Ref 79), 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	190716M2_4	Standard	150.000	5.78	7475.726	26243.453	3.561	128.8	-14.1	NO		NO	bb
2	2	190716M2_5	Standard	150.000	5.78	8074.101	24727.238	4.082	147.6	-1.6	NO		NO	bb
3	3	190716M2_6	Standard	150.000	5.78	7997.124	25934.816	3.854	139.4	-7.1	NO		NO	bb
4	4	190716M2_7	Standard	150.000	5.78	8941.918	28505.965	3.921	141.8	-5.4	NO		NO	bb
5	5	190716M2_8	Standard	150.000	5.78	8183.855	26046.080	3.928	142.1	-5.3	NO		NO	bb
6	6	190716M2_9	Standard	150.000	5.78	8144.981	25295.672	4.025	145.6	-2.9	NO		NO	bb
7	7	190716M2_10	Standard	150.000	5.78	8135.270	24737.219	4.111	148.7	-0.9	NO		NO	bb
8	8	190716M2_11	Standard	150.000	5.78	7676.667	23855.199	4.023	145.5	-3.0	NO		NO	bb
9	9	190716M2_12	Standard	150.000	5.78	7927.308	20862.021	4.750	171.8	14.5	NO		NO	bb
10	10	190716M2_13	Standard	150.000	5.78	7495.267	17960.467	5.217	188.7	25.8	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.436984
RRF SD: 0.0288901, Relative SD: 6.61124
Response type: Internal Std (Ref 79), 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	190716M2_4	Standard	12.500	6.07	10497.242	26243.453	5.000	11.4	-8.5	NO		NO	bb
2	2	190716M2_5	Standard	12.500	6.07	11020.220	24727.238	5.571	12.7	2.0	NO		NO	bb
3	3	190716M2_6	Standard	12.500	6.07	10610.182	25934.816	5.114	11.7	-6.4	NO		NO	bb
4	4	190716M2_7	Standard	12.500	6.07	12677.837	28505.965	5.559	12.7	1.8	NO		NO	bb
5	5	190716M2_8	Standard	12.500	6.07	11271.638	26046.080	5.409	12.4	-1.0	NO		NO	bb
6	6	190716M2_9	Standard	12.500	6.07	10596.440	25295.672	5.236	12.0	-4.1	NO		NO	bb
7	7	190716M2_10	Standard	12.500	6.07	10772.325	24737.219	5.443	12.5	-0.3	NO		NO	bb
8	8	190716M2_11	Standard	12.500	6.07	10195.131	23855.199	5.342	12.2	-2.2	NO		NO	bb
9	9	190716M2_12	Standard	12.500	6.07	9409.979	20862.021	5.638	12.9	3.2	NO		NO	bb
10	10	190716M2_13	Standard	12.500	6.07	9065.700	17960.467	6.309	14.4	15.5	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.0324744
RRF SD: 0.00147541, Relative SD: 4.5433
Response type: Internal Std (Ref 79), 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 190716M2_4	Standard	150.000	6.20	9225.188	26243.453	4.394	135.3	-9.8	NO		NO	bb
2	2 190716M2_5	Standard	150.000	6.20	10081.924	24727.238	5.097	156.9	4.6	NO		NO	bb
3	3 190716M2_6	Standard	150.000	6.20	9985.410	25934.816	4.813	148.2	-1.2	NO		NO	bb
4	4 190716M2_7	Standard	150.000	6.20	11029.992	28505.965	4.837	148.9	-0.7	NO		NO	bb
5	5 190716M2_8	Standard	150.000	6.20	10302.103	26046.080	4.944	152.2	1.5	NO		NO	bb
6	6 190716M2_9	Standard	150.000	6.20	9660.796	25295.672	4.774	147.0	-2.0	NO		NO	bb
7	7 190716M2_10	Standard	150.000	6.21	9655.712	24737.219	4.879	150.2	0.2	NO		NO	bb
8	8 190716M2_11	Standard	150.000	6.20	9060.403	23855.199	4.748	146.2	-2.5	NO		NO	bb
9	9 190716M2_12	Standard	150.000	6.21	8413.997	20862.021	5.041	155.2	3.5	NO		NO	bb
10	10 190716M2_13	Standard	150.000	6.21	7450.346	17960.467	5.185	159.7	6.4	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.728118
RRF SD: 0.0656822, Relative SD: 9.02082
Response type: Internal Std (Ref 79), 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 190716M2_4	Standard	5.000	6.42	7072.392	26243.453	3.369	4.6	-7.5	NO		NO	bb
2	2 190716M2_5	Standard	5.000	6.42	6672.632	24727.238	3.373	4.6	-7.3	NO		NO	bb
3	3 190716M2_6	Standard	5.000	6.42	7229.321	25934.816	3.484	4.8	-4.3	NO		NO	bb
4	4 190716M2_7	Standard	5.000	6.42	8161.924	28505.965	3.579	4.9	-1.7	NO		NO	bb
5	5 190716M2_8	Standard	5.000	6.42	7361.861	26046.080	3.533	4.9	-3.0	NO		NO	bb
6	6 190716M2_9	Standard	5.000	6.42	7229.127	25295.672	3.572	4.9	-1.9	NO		NO	bb
7	7 190716M2_10	Standard	5.000	6.42	7210.365	24737.219	3.643	5.0	0.1	NO		NO	bb
8	8 190716M2_11	Standard	5.000	6.42	6717.620	23855.199	3.520	4.8	-3.3	NO		NO	bb
9	9 190716M2_12	Standard	5.000	6.42	6406.448	20862.021	3.839	5.3	5.4	NO		NO	bb
10	10 190716M2_13	Standard	5.000	6.42	6456.068	17960.467	4.493	6.2	23.4	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.0297357
RRF SD: 0.00420351, Relative SD: 14.1362
Response type: Internal Std (Ref 79), 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 190716M2_4	Standard	150.000	6.36	7791.255	26243.453	3.711	124.8	-16.8	NO		NO	bb
2	2 190716M2_5	Standard	150.000	6.36	8446.939	24727.238	4.270	143.6	-4.3	NO		NO	bb
3	3 190716M2_6	Standard	150.000	6.36	8864.888	25934.816	4.273	143.7	-4.2	NO		NO	bb
4	4 190716M2_7	Standard	150.000	6.36	9626.937	28505.965	4.221	142.0	-5.4	NO		NO	bb
5	5 190716M2_8	Standard	150.000	6.36	8664.948	26046.080	4.158	139.8	-6.8	NO		NO	bb
6	6 190716M2_9	Standard	150.000	6.36	8884.275	25295.672	4.390	147.6	-1.6	NO		NO	bb
7	7 190716M2_10	Standard	150.000	6.36	8180.129	24737.219	4.134	139.0	-7.3	NO		NO	bb
8	8 190716M2_11	Standard	150.000	6.36	8408.601	23855.199	4.406	148.2	-1.2	NO		NO	bb
9	9 190716M2_12	Standard	150.000	6.36	8433.074	20862.021	5.053	169.9	13.3	NO		NO	bb
10	10 190716M2_13	Standard	150.000	6.36	8602.599	17960.467	5.987	201.3	34.2	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.0304479
RRF SD: 0.00374799, Relative SD: 12.3095
Response type: Internal Std (Ref 79), 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 190716M2_4	Standard	150.000	6.51	8260.143	26243.453	3.934	129.2	-13.9	NO		NO	bb
2	2 190716M2_5	Standard	150.000	6.51	8651.297	24727.238	4.373	143.6	-4.2	NO		NO	bb
3	3 190716M2_6	Standard	150.000	6.51	9013.724	25934.816	4.344	142.7	-4.9	NO		NO	bb
4	4 190716M2_7	Standard	150.000	6.51	9637.981	28505.965	4.226	138.8	-7.5	NO		NO	bb
5	5 190716M2_8	Standard	150.000	6.51	9121.854	26046.080	4.378	143.8	-4.1	NO		NO	bb
6	6 190716M2_9	Standard	150.000	6.51	8819.154	25295.672	4.358	143.1	-4.6	NO		NO	bb
7	7 190716M2_10	Standard	150.000	6.51	8949.539	24737.219	4.522	148.5	-1.0	NO		NO	bb
8	8 190716M2_11	Standard	150.000	6.51	8613.880	23855.199	4.514	148.2	-1.2	NO		NO	bb
9	9 190716M2_12	Standard	150.000	6.51	8474.301	20862.021	5.078	166.8	11.2	NO		NO	bb
10	10 190716M2_13	Standard	150.000	6.51	8540.626	17960.467	5.944	195.2	30.1	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 72), 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	190716M2_4	Standard	12.500	1.21	7881.823	7881.823	12.500	12.5	0.0	NO		NO	bb
2	2	190716M2_5	Standard	12.500	1.21	7949.934	7949.934	12.500	12.5	0.0	NO		NO	bb
3	3	190716M2_6	Standard	12.500	1.21	8142.781	8142.781	12.500	12.5	0.0	NO		NO	bb
4	4	190716M2_7	Standard	12.500	1.21	9233.128	9233.128	12.500	12.5	0.0	NO		NO	bb
5	5	190716M2_8	Standard	12.500	1.21	8279.655	8279.655	12.500	12.5	0.0	NO		NO	bb
6	6	190716M2_9	Standard	12.500	1.21	8847.535	8847.535	12.500	12.5	0.0	NO		NO	MM
7	7	190716M2_10	Standard	12.500	1.21	8359.938	8359.938	12.500	12.5	0.0	NO		NO	bb
8	8	190716M2_11	Standard	12.500	1.22	7976.345	7976.345	12.500	12.5	0.0	NO		NO	bb
9	9	190716M2_12	Standard	12.500	1.21	8143.944	8143.944	12.500	12.5	0.0	NO		NO	bb
10	10	190716M2_13	Standard	12.500	1.21	7670.998	7670.998	12.500	12.5	0.0	NO		NO	MM

Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 73), 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	190716M2_4	Standard	12.500	3.00	19577.564	19577.564	12.500	12.5	0.0	NO		NO	bb
2	2	190716M2_5	Standard	12.500	3.01	18927.377	18927.377	12.500	12.5	0.0	NO		NO	bb
3	3	190716M2_6	Standard	12.500	3.01	19359.209	19359.209	12.500	12.5	0.0	NO		NO	bb
4	4	190716M2_7	Standard	12.500	3.01	21305.883	21305.883	12.500	12.5	0.0	NO		NO	bb
5	5	190716M2_8	Standard	12.500	3.01	19771.020	19771.020	12.500	12.5	0.0	NO		NO	bb
6	6	190716M2_9	Standard	12.500	3.01	18933.750	18933.750	12.500	12.5	0.0	NO		NO	bb
7	7	190716M2_10	Standard	12.500	3.01	19115.057	19115.057	12.500	12.5	0.0	NO		NO	bb
8	8	190716M2_11	Standard	12.500	3.01	18766.617	18766.617	12.500	12.5	0.0	NO		NO	bb
9	9	190716M2_12	Standard	12.500	3.01	16777.020	16777.020	12.500	12.5	0.0	NO		NO	bb
10	10	190716M2_13	Standard	12.500	3.01	15087.500	15087.500	12.500	12.5	0.0	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Compound name: 18O2-PFHxS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 74), 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	190716M2_4	Standard	12.500	3.78	1114.14€	1114.14€	12.500	12.5	0.0	NO		NO	bb
2	2	190716M2_5	Standard	12.500	3.78	1306.998	1306.998	12.500	12.5	0.0	NO		NO	bb
3	3	190716M2_6	Standard	12.500	3.78	1312.777	1312.777	12.500	12.5	0.0	NO		NO	bb
4	4	190716M2_7	Standard	12.500	3.78	1393.132	1393.132	12.500	12.5	0.0	NO		NO	bb
5	5	190716M2_8	Standard	12.500	3.78	1392.759	1392.759	12.500	12.5	0.0	NO		NO	bb
6	6	190716M2_9	Standard	12.500	3.78	1265.964	1265.964	12.500	12.5	0.0	NO		NO	bb
7	7	190716M2_10	Standard	12.500	3.79	1153.314	1153.314	12.500	12.5	0.0	NO		NO	bb
8	8	190716M2_11	Standard	12.500	3.79	1157.976	1157.976	12.500	12.5	0.0	NO		NO	bb
9	9	190716M2_12	Standard	12.500	3.79	1079.388	1079.388	12.500	12.5	0.0	NO		NO	bb
10	10	190716M2_13	Standard	12.500	3.78	955.986	955.986	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 75), 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	190716M2_4	Standard	12.500	4.15	28350.359	28350.359	12.500	12.5	0.0	NO		NO	bb
2	2	190716M2_5	Standard	12.500	4.16	27333.705	27333.705	12.500	12.5	0.0	NO		NO	bb
3	3	190716M2_6	Standard	12.500	4.16	27652.361	27652.361	12.500	12.5	0.0	NO		NO	bb
4	4	190716M2_7	Standard	12.500	4.16	30949.543	30949.543	12.500	12.5	0.0	NO		NO	bb
5	5	190716M2_8	Standard	12.500	4.16	28702.553	28702.553	12.500	12.5	0.0	NO		NO	bb
6	6	190716M2_9	Standard	12.500	4.16	28015.330	28015.330	12.500	12.5	0.0	NO		NO	bb
7	7	190716M2_10	Standard	12.500	4.16	26766.959	26766.959	12.500	12.5	0.0	NO		NO	bb
8	8	190716M2_11	Standard	12.500	4.16	25473.691	25473.691	12.500	12.5	0.0	NO		NO	bb
9	9	190716M2_12	Standard	12.500	4.16	22408.676	22408.676	12.500	12.5	0.0	NO		NO	bb
10	10	190716M2_13	Standard	12.500	4.16	18260.951	18260.951	12.500	12.5	0.0	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 76), 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	190716M2_4	Standard	12.500	4.60	15534.052	15534.052	12.500	12.5	0.0	NO		NO	bb
2	2	190716M2_5	Standard	12.500	4.60	14548.625	14548.625	12.500	12.5	0.0	NO		NO	bb
3	3	190716M2_6	Standard	12.500	4.60	15524.611	15524.611	12.500	12.5	0.0	NO		NO	bb
4	4	190716M2_7	Standard	12.500	4.60	15787.939	15787.939	12.500	12.5	0.0	NO		NO	bb
5	5	190716M2_8	Standard	12.500	4.60	15010.626	15010.626	12.500	12.5	0.0	NO		NO	bb
6	6	190716M2_9	Standard	12.500	4.60	15069.935	15069.935	12.500	12.5	0.0	NO		NO	bb
7	7	190716M2_10	Standard	12.500	4.60	14098.217	14098.217	12.500	12.5	0.0	NO		NO	bb
8	8	190716M2_11	Standard	12.500	4.60	13827.684	13827.684	12.500	12.5	0.0	NO		NO	bb
9	9	190716M2_12	Standard	12.500	4.60	12453.309	12453.309	12.500	12.5	0.0	NO		NO	bb
10	10	190716M2_13	Standard	12.500	4.60	11388.683	11388.683	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 77), 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	190716M2_4	Standard	12.500	4.69	2546.740	2546.740	12.500	12.5	0.0	NO		NO	bb
2	2	190716M2_5	Standard	12.500	4.69	2512.891	2512.891	12.500	12.5	0.0	NO		NO	bb
3	3	190716M2_6	Standard	12.500	4.69	2750.044	2750.044	12.500	12.5	0.0	NO		NO	bb
4	4	190716M2_7	Standard	12.500	4.69	2978.896	2978.896	12.500	12.5	0.0	NO		NO	bb
5	5	190716M2_8	Standard	12.500	4.69	2734.924	2734.924	12.500	12.5	0.0	NO		NO	bb
6	6	190716M2_9	Standard	12.500	4.69	2902.983	2902.983	12.500	12.5	0.0	NO		NO	bb
7	7	190716M2_10	Standard	12.500	4.69	2586.302	2586.302	12.500	12.5	0.0	NO		NO	bb
8	8	190716M2_11	Standard	12.500	4.69	2480.703	2480.703	12.500	12.5	0.0	NO		NO	bb
9	9	190716M2_12	Standard	12.500	4.69	2473.838	2473.838	12.500	12.5	0.0	NO		NO	bb
10	10	190716M2_13	Standard	12.500	4.69	2149.525	2149.525	12.500	12.5	0.0	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:33:06 Pacific Daylight Time

Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 78), 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	190716M2_4	Standard	12.500	4.98	18568.271	18568.271	12.500	12.5	0.0	NO		NO	bb
2	2	190716M2_5	Standard	12.500	4.98	18862.154	18862.154	12.500	12.5	0.0	NO		NO	bb
3	3	190716M2_6	Standard	12.500	4.98	18663.980	18663.980	12.500	12.5	0.0	NO		NO	bb
4	4	190716M2_7	Standard	12.500	4.98	21557.105	21557.105	12.500	12.5	0.0	NO		NO	bb
5	5	190716M2_8	Standard	12.500	4.98	19358.965	19358.965	12.500	12.5	0.0	NO		NO	bb
6	6	190716M2_9	Standard	12.500	4.98	19113.262	19113.262	12.500	12.5	0.0	NO		NO	bb
7	7	190716M2_10	Standard	12.500	4.98	18183.154	18183.154	12.500	12.5	0.0	NO		NO	bb
8	8	190716M2_11	Standard	12.500	4.98	17424.977	17424.977	12.500	12.5	0.0	NO		NO	bb
9	9	190716M2_12	Standard	12.500	4.98	15503.073	15503.073	12.500	12.5	0.0	NO		NO	bb
10	10	190716M2_13	Standard	12.500	4.98	14155.768	14155.768	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 79), 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	190716M2_4	Standard	12.500	5.31	26243.453	26243.453	12.500	12.5	0.0	NO		NO	bb
2	2	190716M2_5	Standard	12.500	5.31	24727.238	24727.238	12.500	12.5	0.0	NO		NO	bb
3	3	190716M2_6	Standard	12.500	5.31	25934.816	25934.816	12.500	12.5	0.0	NO		NO	bb
4	4	190716M2_7	Standard	12.500	5.31	28505.965	28505.965	12.500	12.5	0.0	NO		NO	bb
5	5	190716M2_8	Standard	12.500	5.31	26046.080	26046.080	12.500	12.5	0.0	NO		NO	bb
6	6	190716M2_9	Standard	12.500	5.31	25295.672	25295.672	12.500	12.5	0.0	NO		NO	bb
7	7	190716M2_10	Standard	12.500	5.31	24737.219	24737.219	12.500	12.5	0.0	NO		NO	bb
8	8	190716M2_11	Standard	12.500	5.31	23855.199	23855.199	12.500	12.5	0.0	NO		NO	bb
9	9	190716M2_12	Standard	12.500	5.31	20862.021	20862.021	12.500	12.5	0.0	NO		NO	bb
10	10	190716M2_13	Standard	12.500	5.31	17960.467	17960.467	12.500	12.5	0.0	NO		NO	bb

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Dataset: Untitled

Last Altered: Wednesday, July 17, 2019 08:47:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:48:32 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_071619.mdb 17 Jul 2019 08:01:43
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Compound name: PFBA

	# Name	ID	Acq.Date	Acq.Time	
1	1 190716M2_1	IPA	16-Jul-19	16:34:07	
2	2 190716M2_2	IPA	16-Jul-19	16:44:50	
3	3 190716M2_3	IPA	16-Jul-19	16:55:20	
4	4 190716M2_4	ST190716M2-1 PFC CS-2 19G1101	16-Jul-19	17:05:59	
5	5 190716M2_5	ST190716M2-2 PFC CS-1 19G1102	16-Jul-19	17:16:31	
6	6 190716M2_6	ST190716M2-3 PFC CS0 19G1103	16-Jul-19	17:27:02	
7	7 190716M2_7	ST190716M2-4 PFC CS1 19G1104	16-Jul-19	17:37:40	
8	8 190716M2_8	ST190716M2-5 PFC CS2 19G1105	16-Jul-19	17:48:13	
9	9 190716M2_9	ST190716M2-6 PFC CS3 19G1106	16-Jul-19	17:58:51	
10	10 190716M2_10	ST190716M2-7 PFC CS4 19G1107	16-Jul-19	18:09:24	
11	11 190716M2_11	ST190716M2-8 PFC CS5 19G1108	16-Jul-19	18:20:03	
12	12 190716M2_12	ST190716M2-9 PFC CS6 19G1109	16-Jul-19	18:30:36	
13	13 190716M2_13	ST190716M2-10 PFC CS7 19G1110	16-Jul-19	18:41:14	
14	14 190716M2_14	IB	16-Jul-19	18:51:48	
15	15 190716M2_15	ICV190716M2-1 PFC ICV 19G1111	16-Jul-19	19:02:26	ICV190716M2-1 NOT USED
16	16 190716M2_16	ICV190716M2-2 PFC ICV 19F2922	16-Jul-19	19:13:05	
17	17 190716M2_17	IPA	16-Jul-19	19:23:37	

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Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:35:41 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_071619.mdb 17 Jul 2019 08:01:43
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Name: 190716M2_4, Date: 16-Jul-2019, Time: 17:05:59, ID: ST190716M2-1 PFC CS-2 19G1101, Description: PFC CS-2 19G1101

	#	Name	IS#	CoD	CoD Flag	%RSD
1	1	PFBA	47	0.9998	NO	
2	2	PFPrS	49	0.9995	NO	
3	3	3:3 FTCA	48	0.9985	NO	
4	4	PFPeA	48	0.9998	NO	
5	5	PFBS	49	0.9998	NO	
6	6	4:2 FTS	51	0.9998	NO	
7	7	PFHxA	52	0.9995	NO	
8	8	PFPeS	49	0.9926	NO	
9	9	HFPO-DA	50	0.9995	NO	
10	10	5:3 FTCA	53	0.9997	NO	
11	11	PFHpA	53	0.9986	NO	
12	12	ADONA	53	0.9981	NO	
13	13	L-PFHxS	54	0.9997	NO	
14	15	6:2 FTS	55	0.9985	NO	
15	16	L-PFOA	58	0.9995	NO	
16	18	PFecHS	58	0.9998	NO	
17	19	PFHpS	59	0.9997	NO	
18	20	7:3 FTCA	56	0.9981	NO	
19	21	PFNA	56	0.9994	NO	
20	22	PFOSA	57	0.9981	NO	
21	23	L-PFOS	59	0.9993	NO	
22	25	9Cl-PF30NS	59	0.9997	NO	
23	26	PFDA	60	0.9993	NO	
24	27	8:2 FTS	61	0.9993	NO	
25	28	PFNS	59	0.9993	NO	
26	29	L-MeFOSAA	62	0.9996	NO	

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Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_071619.mdb 17 Jul 2019 08:01:43
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Name: 190716M2_4, Date: 16-Jul-2019, Time: 17:05:59, ID: ST190716M2-1 PFC CS-2 19G1101, Description: PFC CS-2 19G1101

	#	Name	IS#	CoD	CoD Flag	%RSD
1	31	L-EtFOSAA	64	0.9992	NO	
2	33	PFUdA	63	0.9997	NO	
3	34	PFDS	61	0.9999	NO	
4	35	11Cl-PF30UdS	65	0.9997	NO	
5	36	10:2 FTS	61	0.9995	NO	
6	37	PFDoA	65	0.9998	NO	
7	38	N-MeFOSA	66	0.9992	NO	
8	39	PFTrDA	65	0.9989	NO	
9	40	PFDoS	67	0.9997	NO	
10	41	PFTeDA	67	0.9977	NO	
11	42	N-EtFOSA	68	0.9999	NO	
12	43	PFHxDA	69	0.9998	NO	
13	44	PFODA	69	0.9927	NO	
14	45	N-MeFOSE	70	0.9994	NO	
15	46	N-EtFOSE	71	0.9997	NO	
16	47	13C3-PFBA	72		NO	2.346
17	48	13C3-PFPeA	73		NO	4.220
18	49	13C3-PFBS	74		NO	5.836
19	50	13C3-HFPO-DA	73		NO	8.336
20	51	13C2-4:2 FTS	74		NO	8.420
21	52	13C2-PFHxA	73		NO	3.600
22	53	13C4-PFHpA	73		NO	3.461
23	54	13C3-PFHxS	74		NO	3.983
24	55	13C2-6:2 FTS	77		NO	8.859
25	56	13C5-PFNA	76		NO	4.604
26	57	13C8-PFOSA	79		NO	7.000
27	58	13C2-PFOA	75		NO	3.517
28	59	13C8-PFOS	77		NO	5.505
29	60	13C2-PFDA	78		NO	2.430
30	61	13C2-8:2 FTS	77		NO	8.142
31	62	d3-N-MeFOSAA	79		NO	6.807
32	63	13C2-PFUdA	79		NO	3.616

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:35:54 Pacific Daylight Time

Name: 190716M2_4, Date: 16-Jul-2019, Time: 17:05:59, ID: ST190716M2-1 PFC CS-2 19G1101, Description: PFC CS-2 19G1101

	#	Name	IS#	CoD	CoD Flag	%RSD
33	64	d5-N-EtFOSAA	79		NO	5.463
34	65	13C2-PFDoA	78		NO	8.193
35	66	d3-N-MeFOSA	79		NO	11.569
36	67	13C2-PFTeDA	79		NO	6.611
37	68	d5-N-ETFOSA	79		NO	4.543
38	69	13C2-PFHxDA	79		NO	9.021
39	70	d7-N-MeFOSE	79		NO	14.136
40	71	d9-N-EtFOSE	79		NO	12.310
41	72	13C4-PFBA	72		NO	0.000
42	73	13C5-PFHxA	73		NO	0.000
43	74	18O2-PFHxS	74		NO	0.000
44	75	13C8-PFOA	75		NO	0.000
45	76	13C9-PFNA	76		NO	0.000
46	77	13C4-PFOS	77		NO	0.000
47	78	13C6-PFDA	78		NO	0.000
48	79	13C7-PFUdA	79		NO	0.000

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:37:10 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_071619.mdb 17 Jul 2019 08:01:43
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Name: 190716M2_9, Date: 16-Jul-2019, Time: 17:58:51, ID: ST190716M2-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	PFBA	1.21	1.21			
2	PFPrS	1.58	1.58	2.285	2.285	NO
3	3:3 FTCA	2.06	2.05	1.808	1.808	NO
4	PFPeA	2.20	2.20			
5	PFBS	2.50	2.50	3.067	3.067	NO
6	4:2 FTS	2.92	2.92	1.900	1.900	NO
7	PFHxA	3.01	3.01	15.031	15.031	NO
8	PFPeS	3.21	3.21	1.457	1.457	NO
9	HFPO-DA	3.22	3.22	2.172	2.172	NO
10	5:3 FTCA	3.55	3.56	1.452	1.452	NO
11	PFHpA	3.63	3.63	4.545	4.545	NO
12	ADONA	3.74	3.74	3.380	3.380	NO
13	L-PFHxS	3.78	3.78	2.211	2.211	NO
14	6:2 FTS	4.10	4.10	2.138	2.138	NO
15	L-PFOA	4.16	4.16	3.908	3.908	NO
16	PFecHS	4.18	4.18	1.059	1.059	NO
17	PFHpS	4.27	4.27	1.697	1.697	NO
18	7:3 FTCA	4.59	4.58	2.510	2.510	NO
19	PFNA	4.60	4.60	2.745	2.745	NO
20	PFOSA	4.66	4.66	31.248	31.248	NO
21	L-PFOS	4.69	4.69	2.148	2.148	NO
22	9Cl-PF30NS	4.91	4.91	18.468	18.468	NO
23	PFDA	4.98	4.98	4.126	4.126	NO
24	8:2 FTS	4.95	4.95	1.368	1.368	NO
25	PFNS	5.05	5.05	1.748	1.748	NO
26	L-MeFOSAA	5.13	5.14	2.644	2.644	NO

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:37:25 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_071619.mdb 17 Jul 2019 08:01:43
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Name: 190716M2_9, Date: 16-Jul-2019, Time: 17:58:51, ID: ST190716M2-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	L-EtFOSAA	5.29	5.30	1.420	1.420	NO
2	PFUdA	5.31	5.31	5.896	5.896	NO
3	PFDS	5.36	5.36	1.764	1.764	NO
4	11Cl-PF30UdS	5.53	5.53	4.277	4.277	NO
5	10:2 FTS	5.58	5.58	1.463	1.463	NO
6	PFDoA	5.60	5.60	7.476	7.476	NO
7	N-MeFOSA	5.75	5.75	1.855	1.855	NO
8	PFTrDA	5.85	5.85	14.266	14.266	NO
9	PFDoS	5.88	5.88	1.897	1.897	NO
10	PFTeDA	6.07	6.07	14.736	14.736	NO
11	N-EtFOSA	6.18	6.18	2.062	2.062	NO
12	PFHxDA	6.42	6.42	9.880	9.880	NO
13	PFODA	6.67	6.67			
14	N-MeFOSE	6.37	6.37			
15	N-EtFOSE	6.52	6.52			

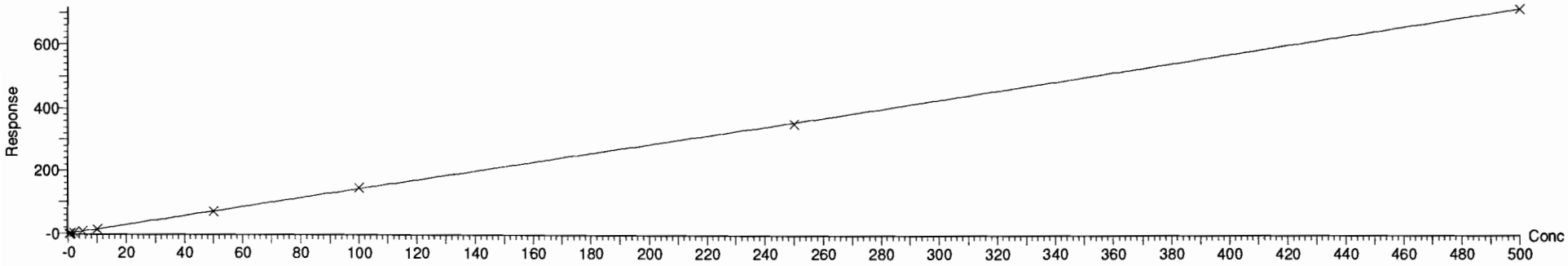
Vista Analytical Laboratory Q1

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

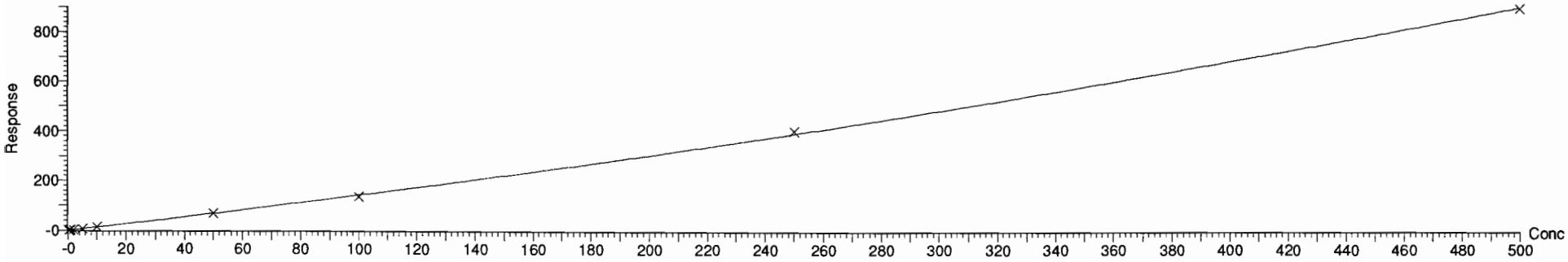
Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:11 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_071619.mdb 17 Jul 2019 08:01:43
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Compound name: PFBA
Correlation coefficient: r = 0.999915, r^2 = 0.999831
Calibration curve: 1.42867 * x + -0.1474
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



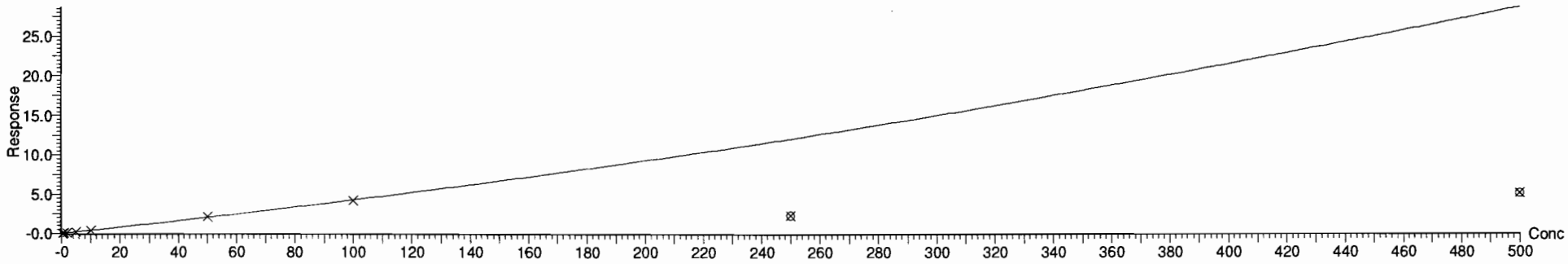
Compound name: PFPrS
Coefficient of Determination: R^2 = 0.999480
Calibration curve: 0.000936354 * x^2 + 1.33594 * x + -0.111459
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



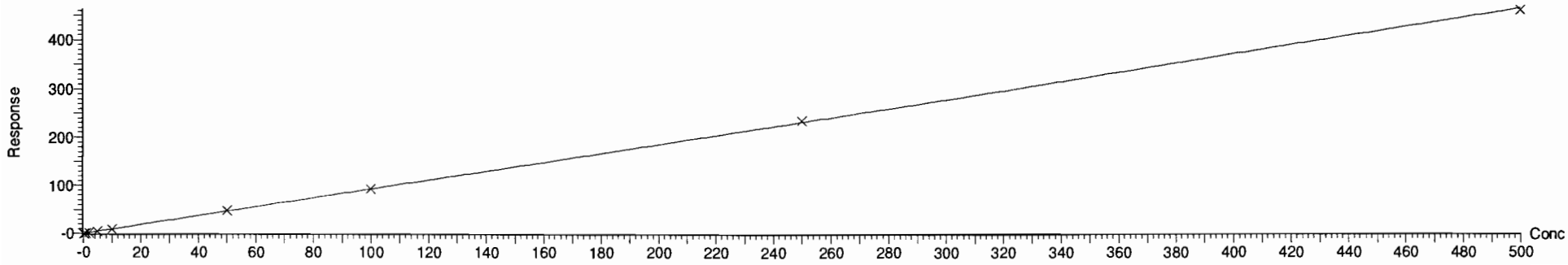
Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:11 Pacific Daylight Time

Compound name: 3:3 FTCA
Coefficient of Determination: R^2 = 0.998534
Calibration curve: 3.62139e-005 * x^2 + 0.0392869 * x + -0.00205845
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



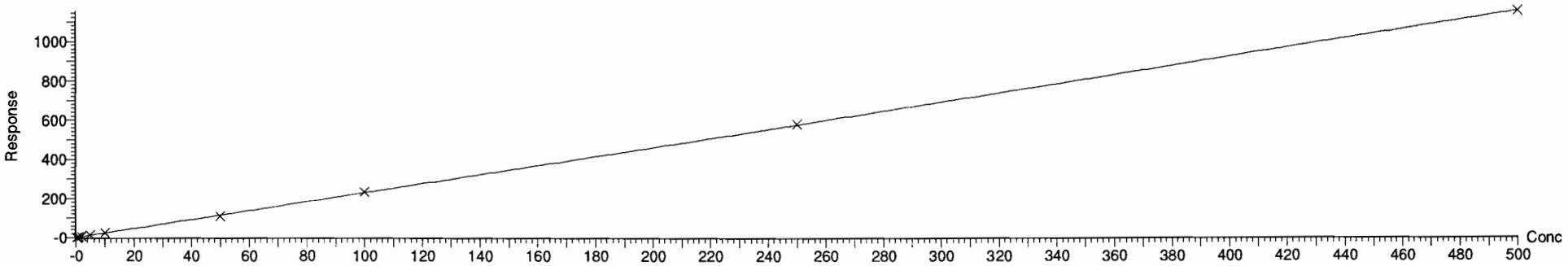
Compound name: PFPeA
Correlation coefficient: r = 0.999924, r^2 = 0.999849
Calibration curve: 0.927355 * x + -0.0458768
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



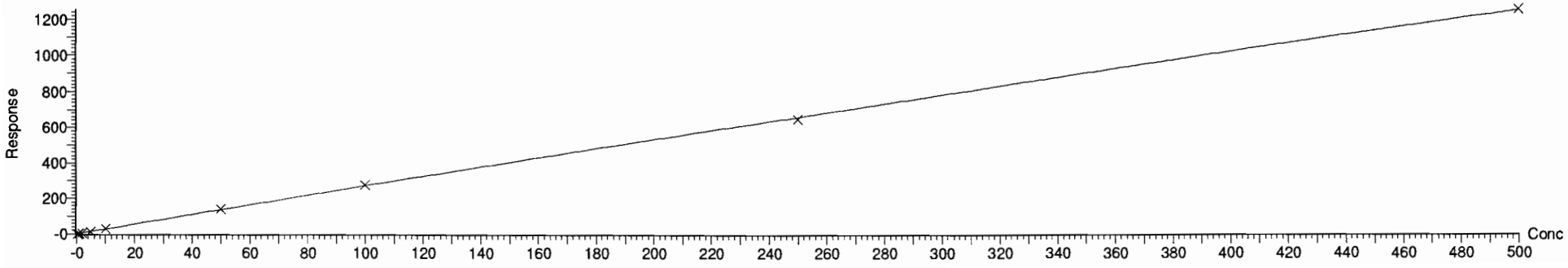
Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:11 Pacific Daylight Time

Compound name: PFBS
Correlation coefficient: r = 0.999884, r^2 = 0.999768
Calibration curve: 2.30677 * x + -0.110938
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



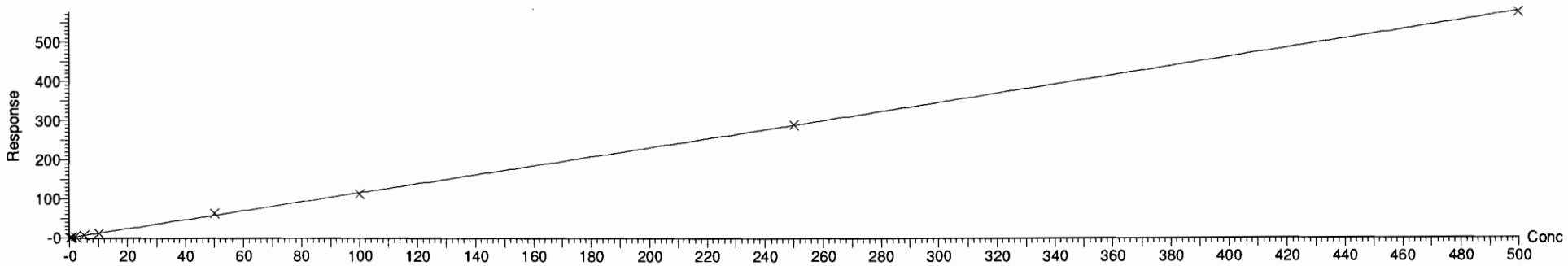
Compound name: 4:2 FTS
Coefficient of Determination: R^2 = 0.999794
Calibration curve: -0.000545681 * x^2 + 2.76987 * x + -0.195009
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



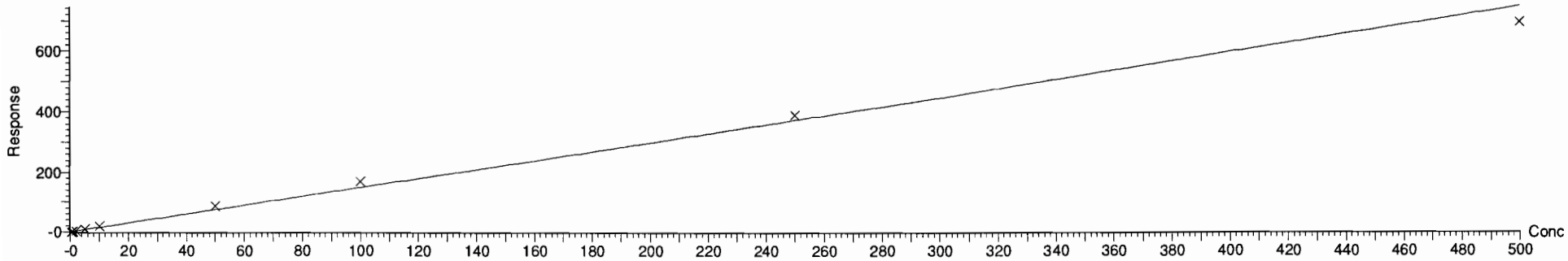
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Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:11 Pacific Daylight Time

Compound name: PFHxA
Correlation coefficient: r = 0.999727, r^2 = 0.999453
Calibration curve: 1.15387 * x + 0.0286354
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



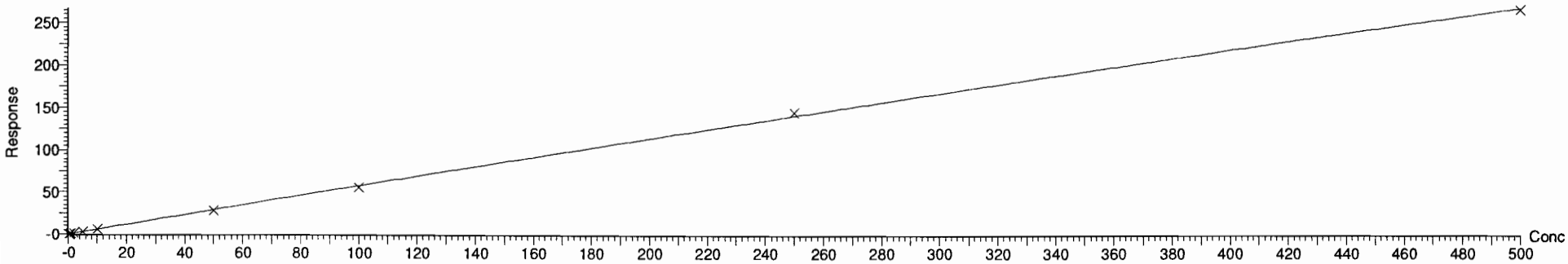
Compound name: PFPeS
Correlation coefficient: r = 0.996302, r^2 = 0.992617
Calibration curve: 1.4909 * x + 0.128111
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



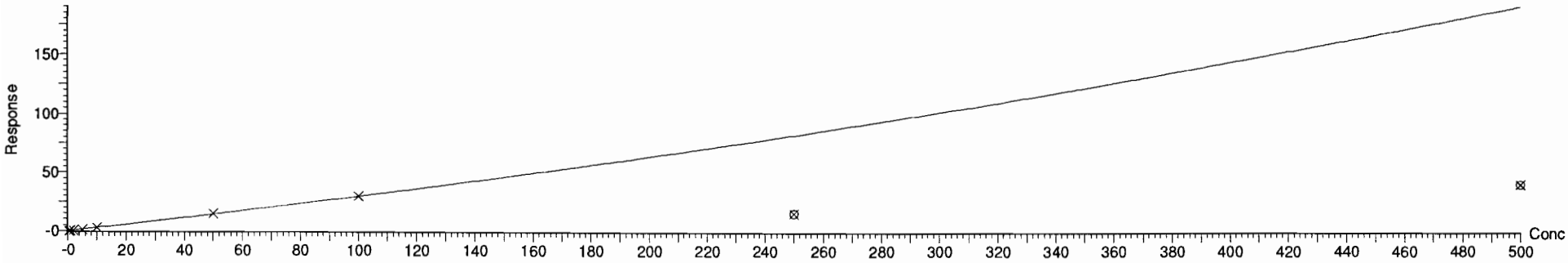
Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:11 Pacific Daylight Time

Compound name: HFPO-DA
Coefficient of Determination: R^2 = 0.999471
Calibration curve: -0.000121204 * x^2 + 0.594869 * x + -0.0711014
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



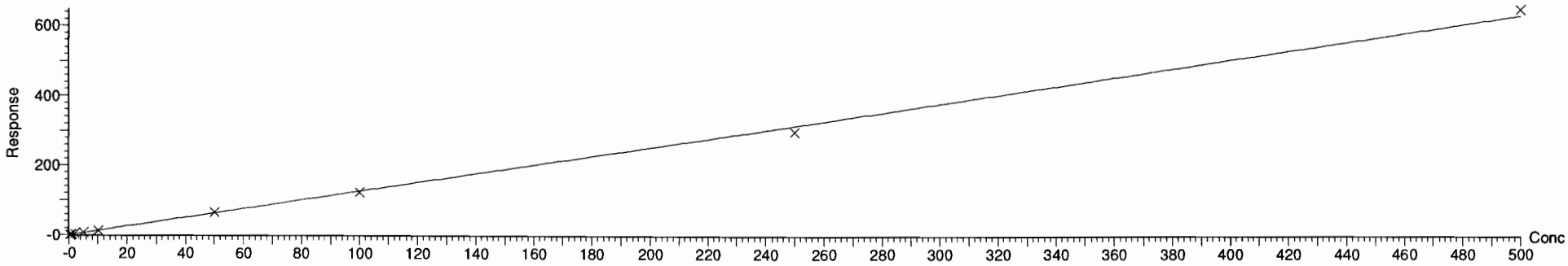
Compound name: 5:3 FTCA
Coefficient of Determination: R^2 = 0.999734
Calibration curve: 0.000207996 * x^2 + 0.276598 * x + -0.0109196
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



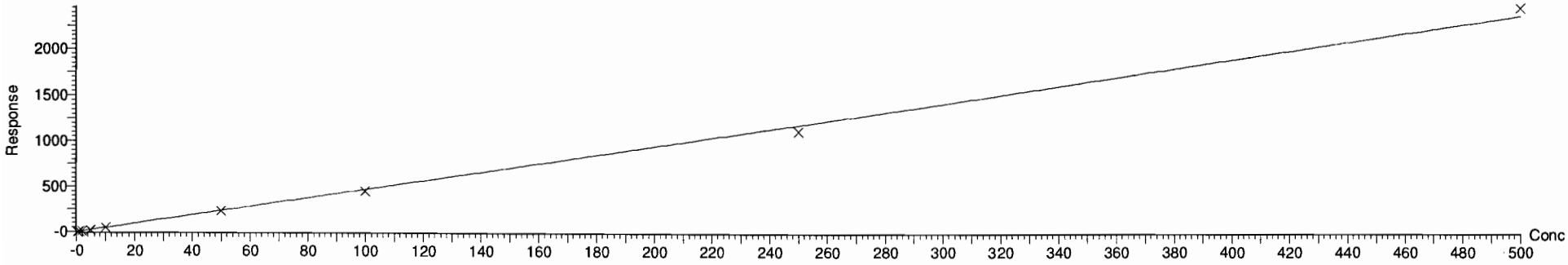
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Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:11 Pacific Daylight Time

Compound name: PFHpA
Correlation coefficient: r = 0.999308, r^2 = 0.998617
Calibration curve: 1.26078 * x + -0.0726981
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



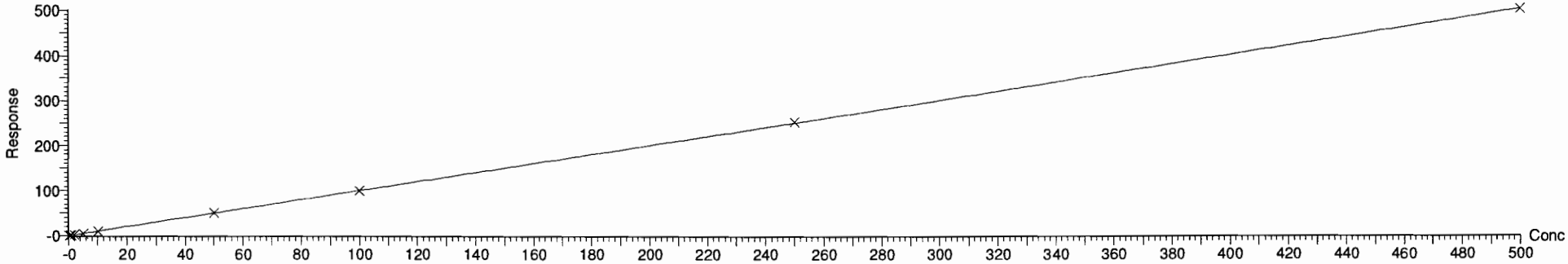
Compound name: ADONA
Correlation coefficient: r = 0.999036, r^2 = 0.998072
Calibration curve: 4.7382 * x + -0.341799
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



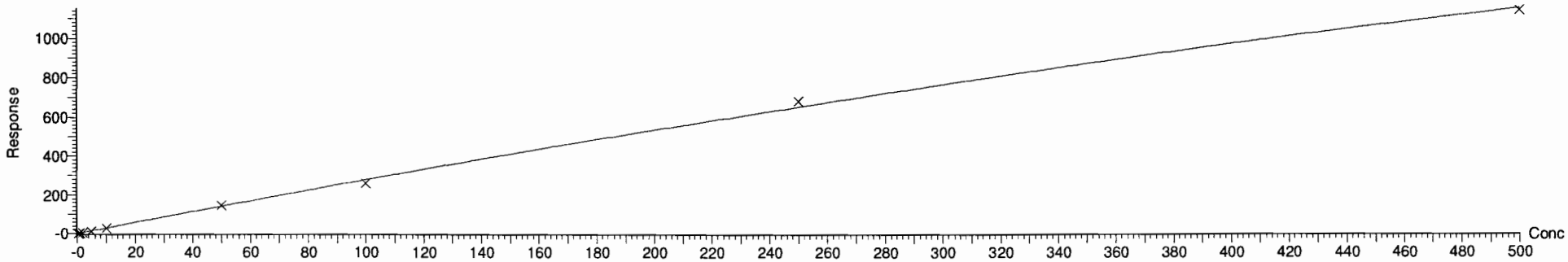
Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:11 Pacific Daylight Time

Compound name: L-PFHxS
Coefficient of Determination: R^2 = 0.999740
Calibration curve: 9.02755e-006 * x^2 + 0.999005 * x + -0.0664012
Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



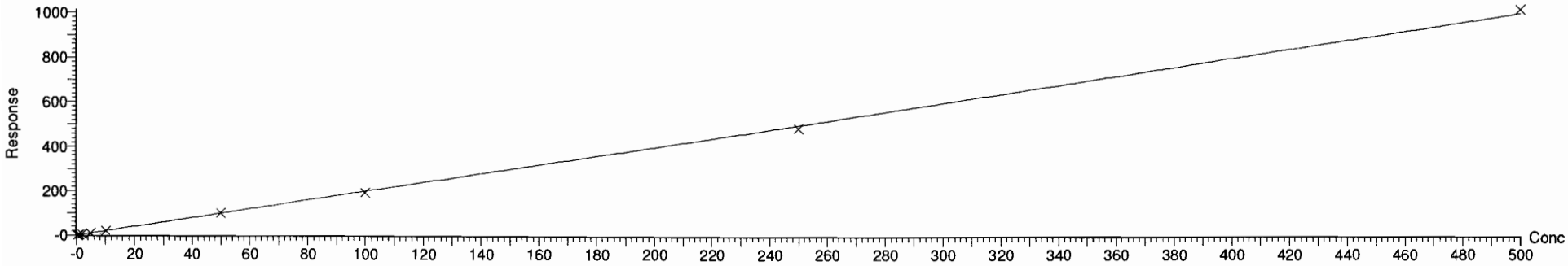
Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.998452
Calibration curve: -0.00124606 * x^2 + 2.92798 * x + -0.170137
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



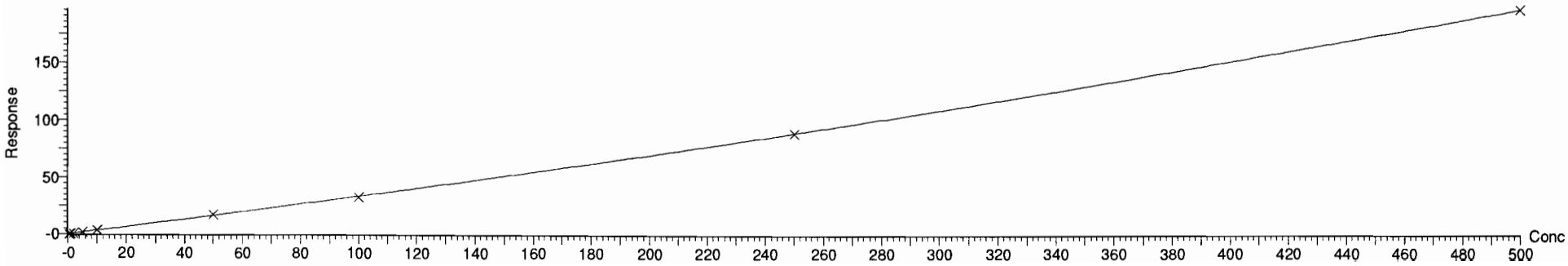
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Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:11 Pacific Daylight Time

Compound name: L-PFOA
Correlation coefficient: r = 0.999751, r^2 = 0.999501
Calibration curve: 1.99432 * x + 0.0417568
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



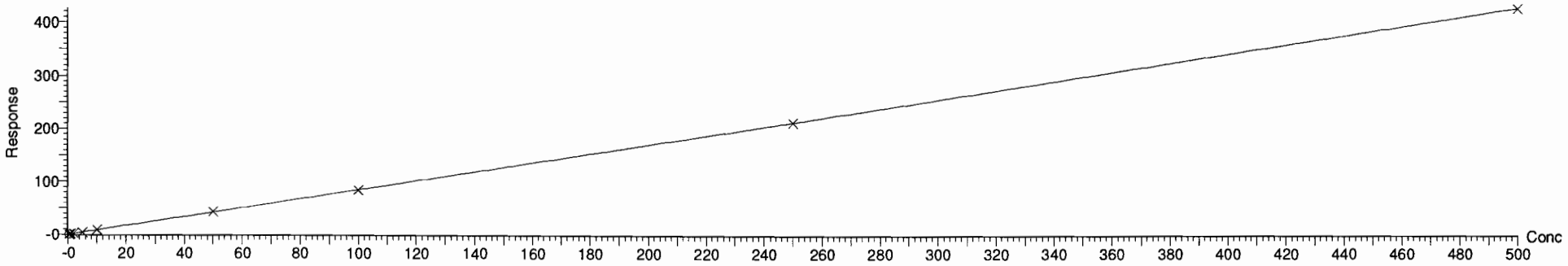
Compound name: PFecHS
Coefficient of Determination: R^2 = 0.999769
Calibration curve: 0.000141483 * x^2 + 0.320797 * x + -0.0109297
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



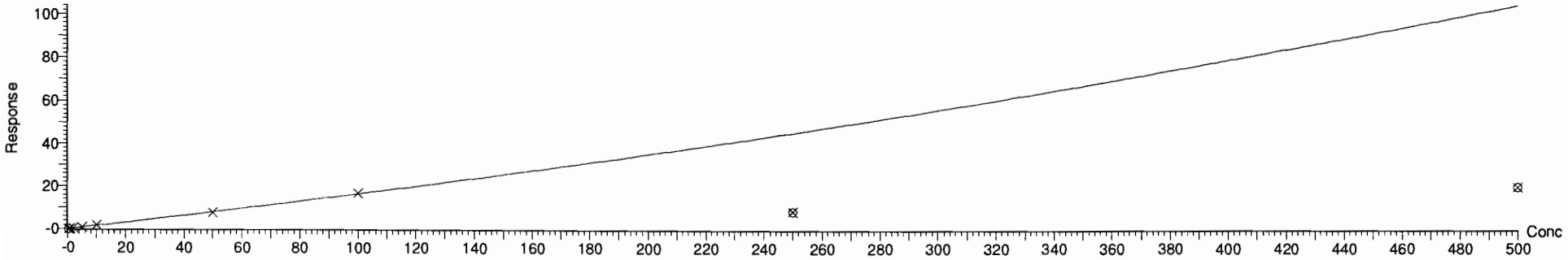
Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:11 Pacific Daylight Time

Compound name: PFHpS
Correlation coefficient: r = 0.999872, r^2 = 0.999744
Calibration curve: 0.853266 * x + -0.0542537
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



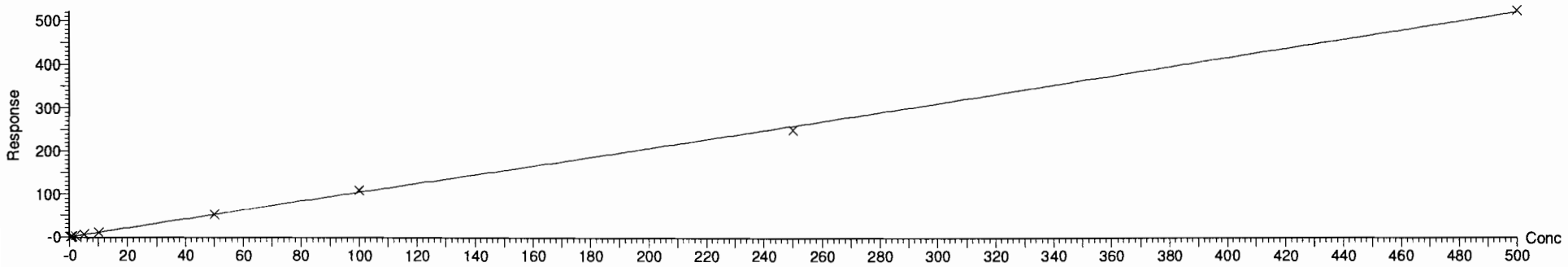
Compound name: 7:3 FTCA
Coefficient of Determination: R^2 = 0.998142
Calibration curve: 0.000108039 * x^2 + 0.154298 * x + -0.0292777
Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



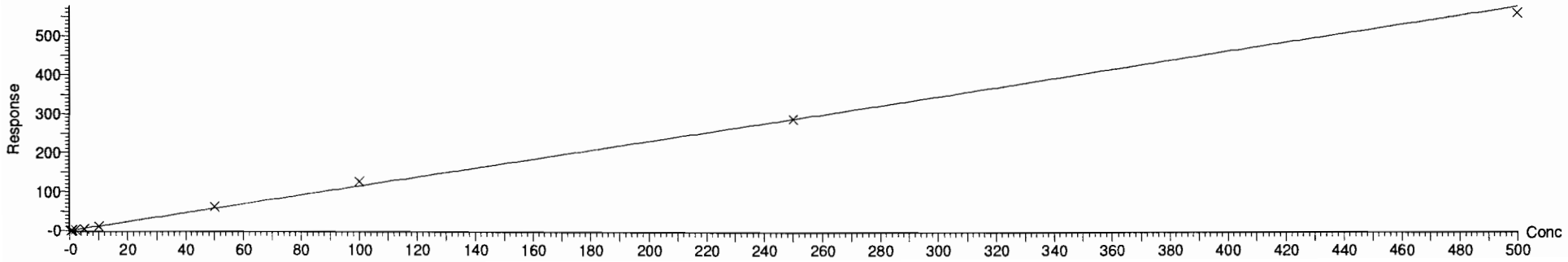
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Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:11 Pacific Daylight Time

Compound name: PFNA
Correlation coefficient: r = 0.999689, r^2 = 0.999379
Calibration curve: 1.03842 * x + -0.0124949
Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



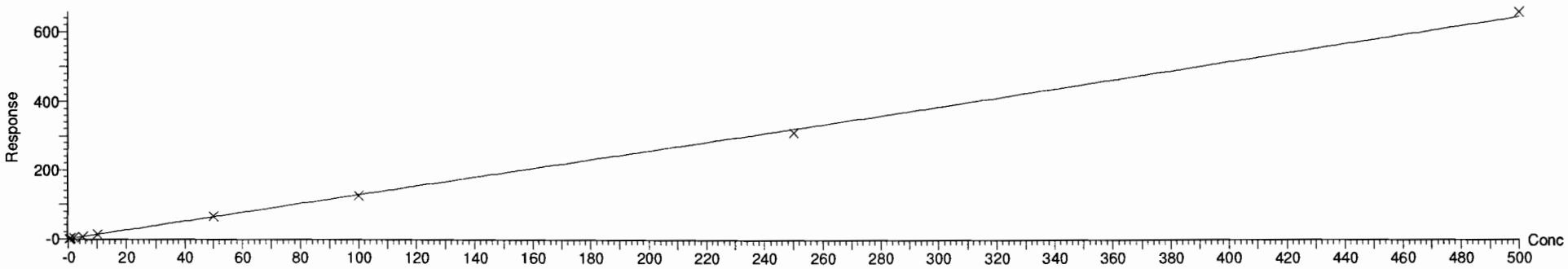
Compound name: PFOSA
Correlation coefficient: r = 0.999048, r^2 = 0.998097
Calibration curve: 1.153 * x + 0.0481302
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



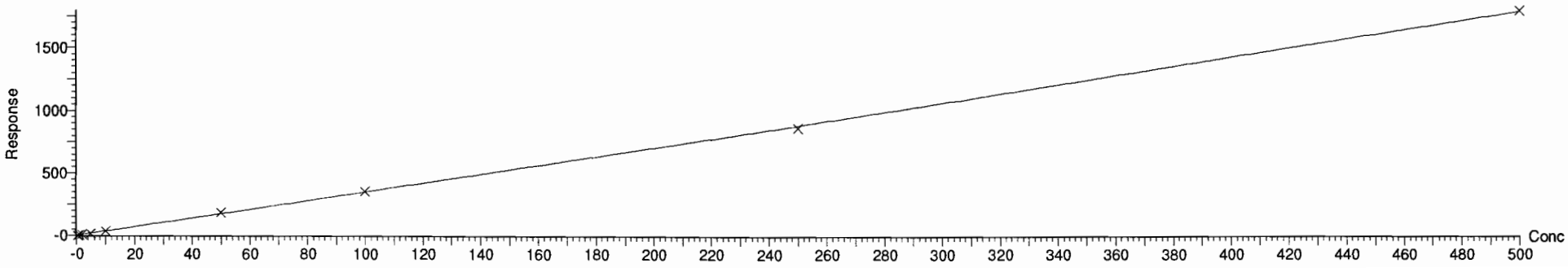
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Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:11 Pacific Daylight Time

Compound name: L-PFOS
Correlation coefficient: r = 0.999643, r^2 = 0.999286
Calibration curve: 1.28716 * x + -0.149993
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



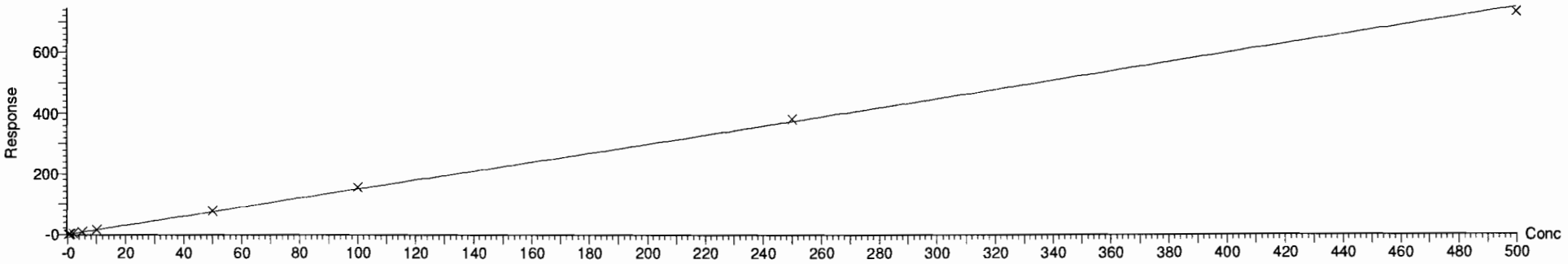
Compound name: 9Cl-PF30NS
Coefficient of Determination: R^2 = 0.999676
Calibration curve: 0.000159787 * x^2 + 3.49516 * x + -0.283829
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



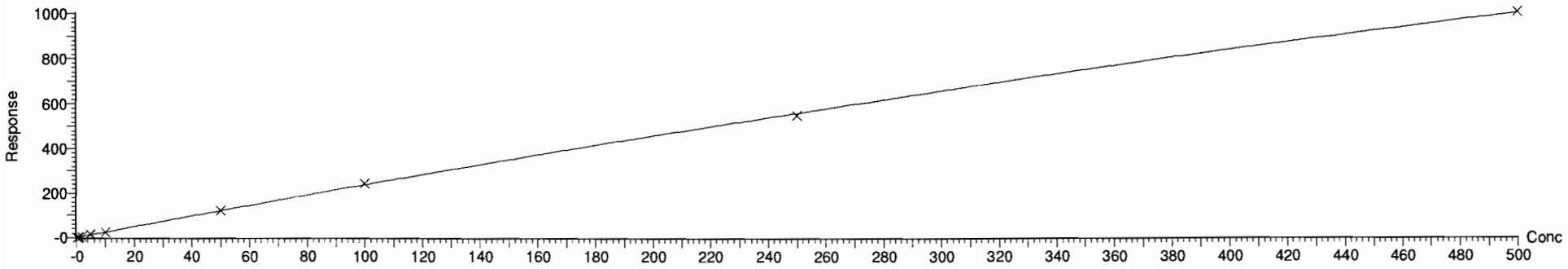
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Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:11 Pacific Daylight Time

Compound name: PFDA
Correlation coefficient: r = 0.999671, r^2 = 0.999342
Calibration curve: 1.49139 * x + 0.0347273
Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



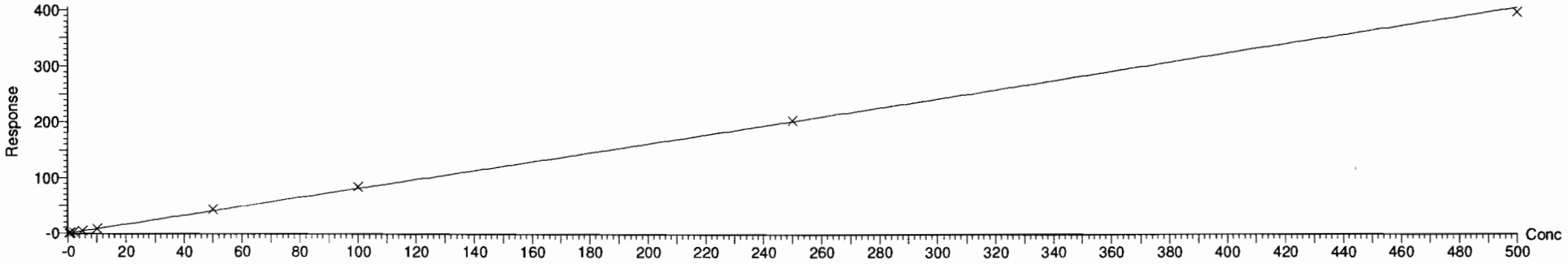
Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.999325
Calibration curve: -0.000958593 * x^2 + 2.47964 * x + -0.143688
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



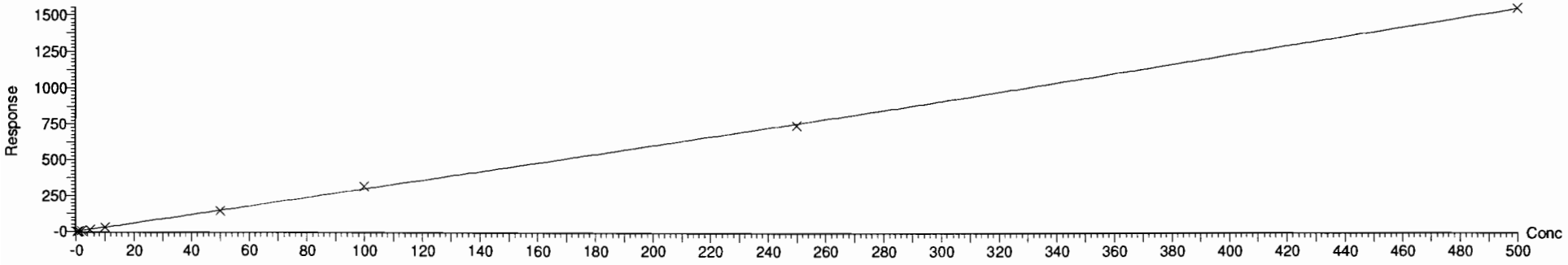
Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:11 Pacific Daylight Time

Compound name: PFNS
Correlation coefficient: r = 0.999644, r^2 = 0.999287
Calibration curve: 0.809985 * x + -0.0612442
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: L-MeFOSAA
Coefficient of Determination: R^2 = 0.999601
Calibration curve: 0.000237887 * x^2 + 2.97436 * x + -0.227255
Response type: Internal Std (Ref 62), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



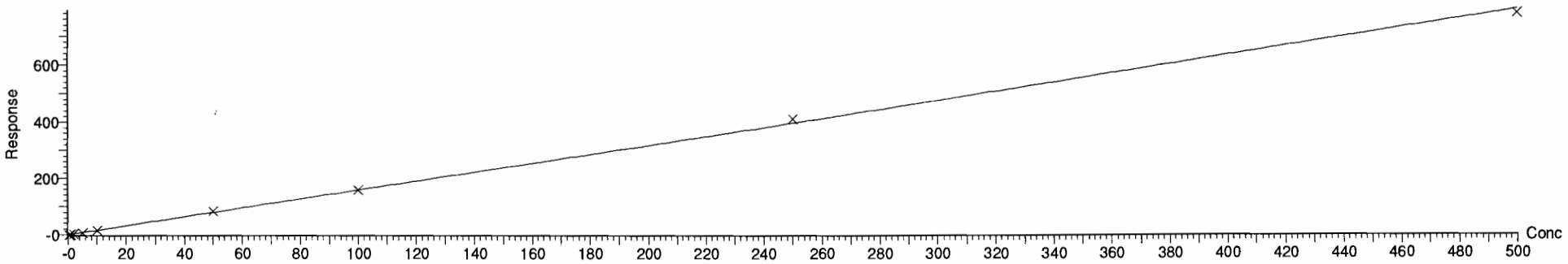
Vista Analytical Laboratory Q1

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

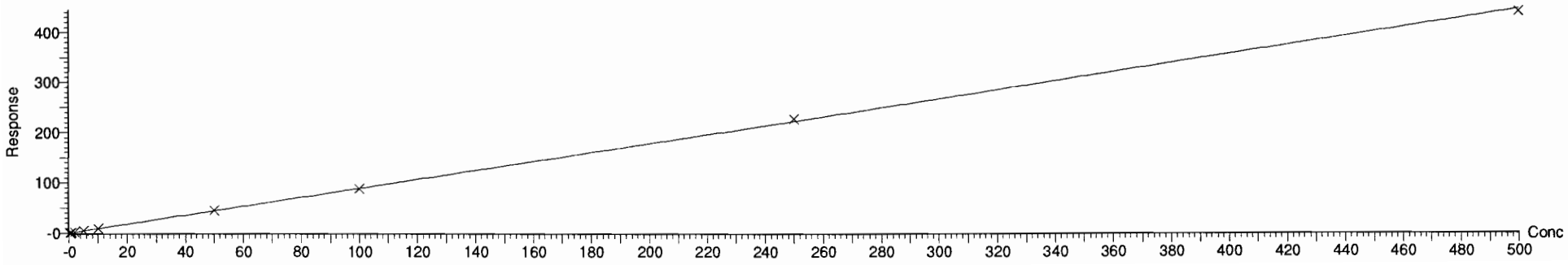
Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:23 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_071619.mdb 17 Jul 2019 08:01:43
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Compound name: L-EtFOSAA
Correlation coefficient: r = 0.999611, r^2 = 0.999222
Calibration curve: 1.58212 * x + -0.12102
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



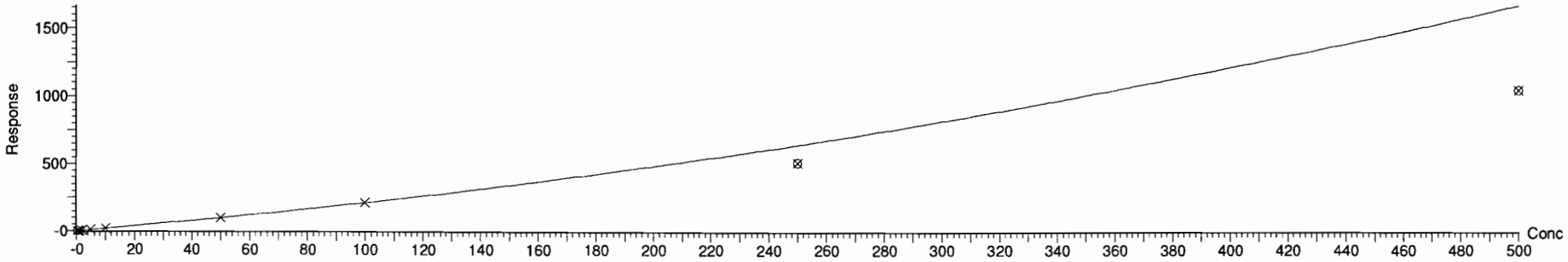
Compound name: PFUdA
Correlation coefficient: r = 0.999845, r^2 = 0.999691
Calibration curve: 0.890447 * x + 0.0369886
Response type: Internal Std (Ref 63), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



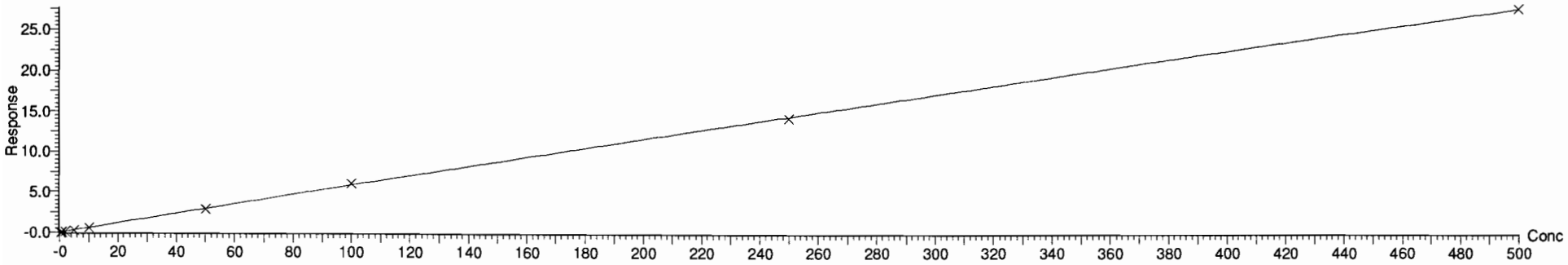
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Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:23 Pacific Daylight Time

Compound name: PFDS
Coefficient of Determination: R^2 = 0.999905
Calibration curve: 0.00300667 * x^2 + 1.83523 * x
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: Null, Axis trans: None



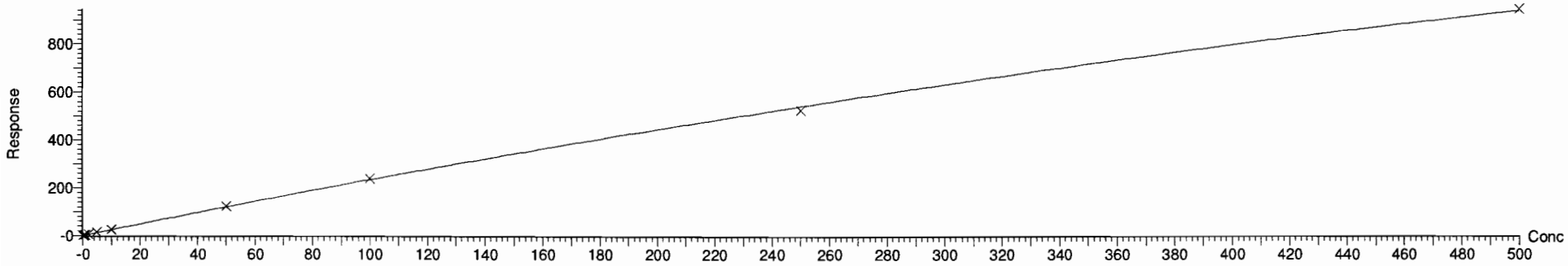
Compound name: 11Cl-PF30UdS
Coefficient of Determination: R^2 = 0.999725
Calibration curve: -9.8975e-006 * x^2 + 0.0601237 * x + -0.0105611
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



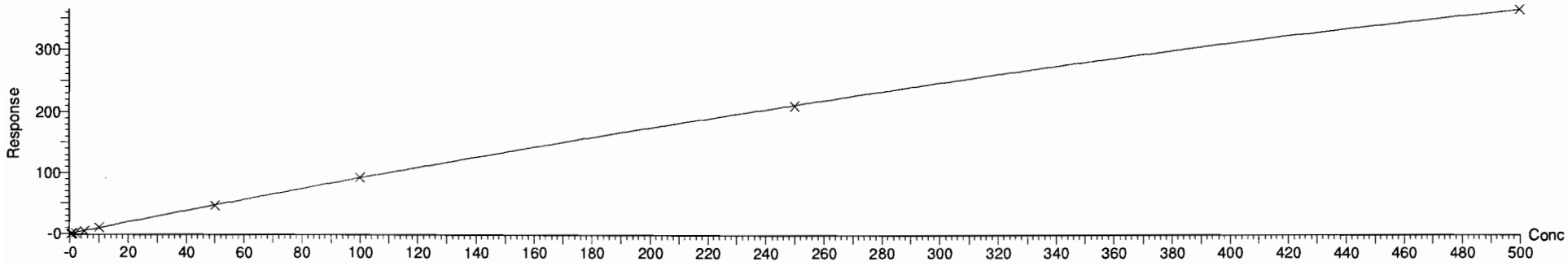
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Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:38:23 Pacific Daylight Time

Compound name: 10:2 FTS
Coefficient of Determination: R^2 = 0.999477
Calibration curve: -0.00117687 * x^2 + 2.46159 * x + 0.0884414
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



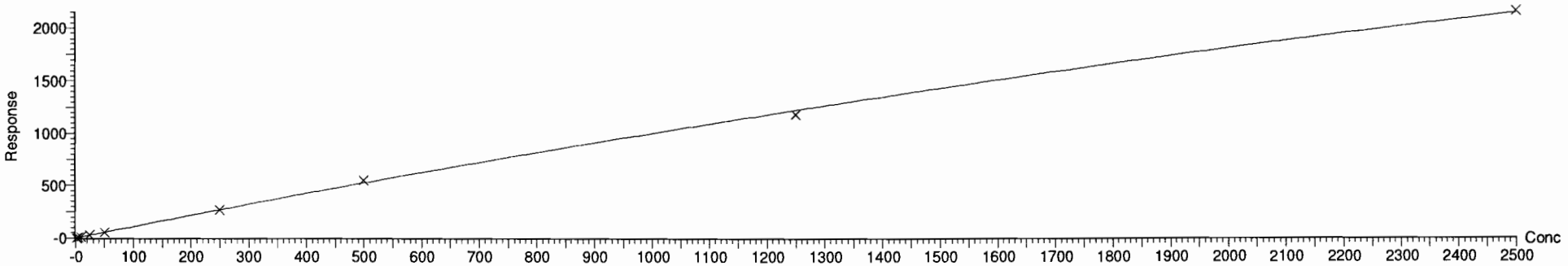
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999836
Calibration curve: -0.000479463 * x^2 + 0.967819 * x + 0.00978606
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



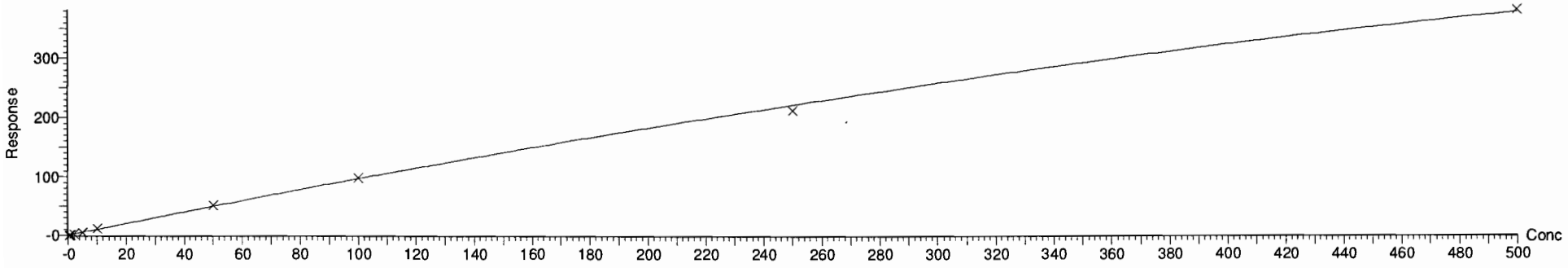
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Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
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Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.999231
Calibration curve: -9.80896e-005 * x^2 + 1.09978 * x + -0.278582
Response type: Internal Std (Ref 66), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



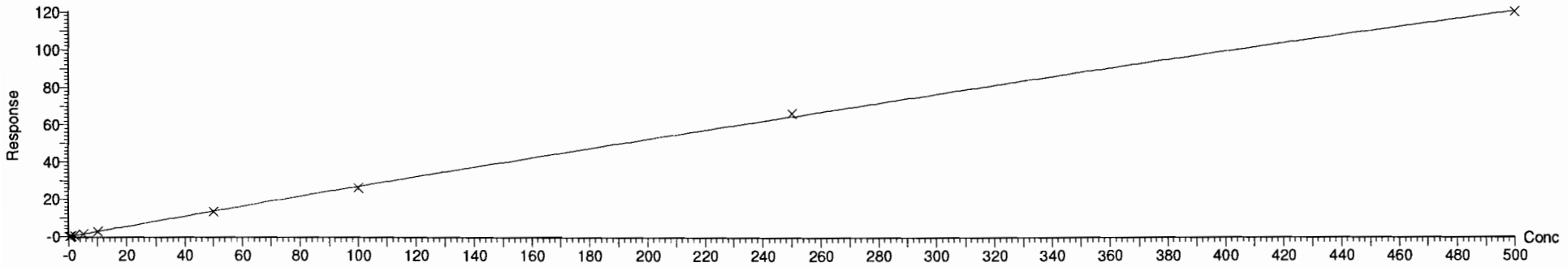
Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998928
Calibration curve: -0.000522055 * x^2 + 1.01699 * x + 0.0837362
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



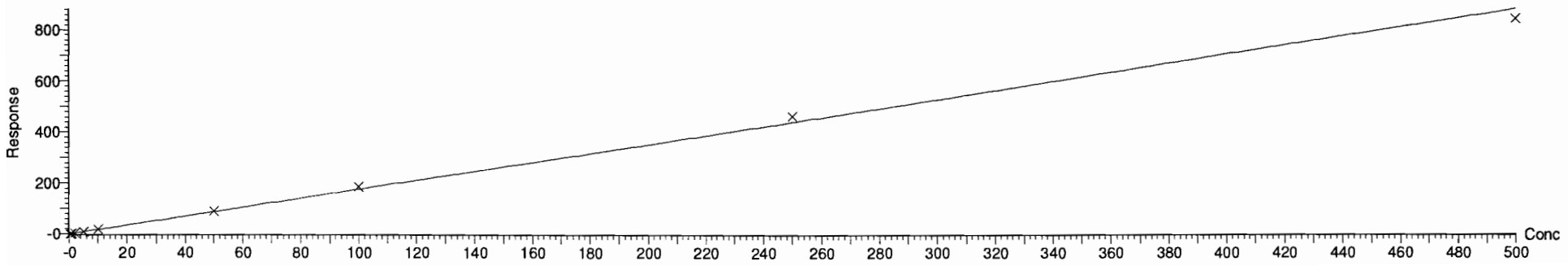
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Compound name: PFDoS
Coefficient of Determination: R^2 = 0.999652
Calibration curve: -7.05884e-005 * x^2 + 0.276171 * x + -0.010428
Response type: Internal Std (Ref 67), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



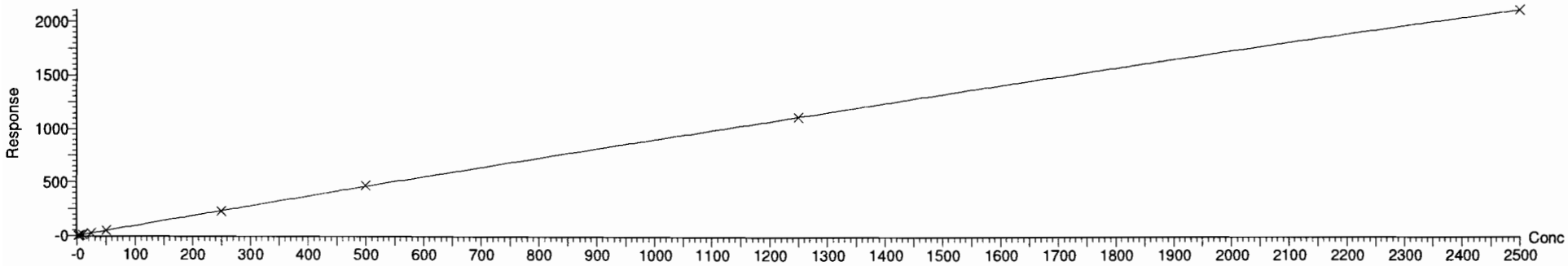
Compound name: PFTeDA
Correlation coefficient: r = 0.998844, r^2 = 0.997689
Calibration curve: 1.76508 * x + 0.0801765
Response type: Internal Std (Ref 67), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



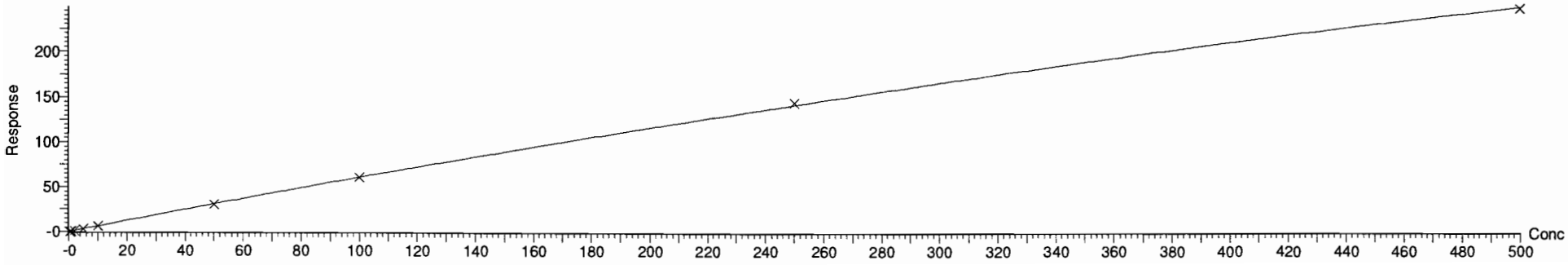
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Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999912
Calibration curve: -4.13621e-005 * x^2 + 0.947973 * x + -0.406479
Response type: Internal Std (Ref 68), Area * (IS Conc. / IS Area)
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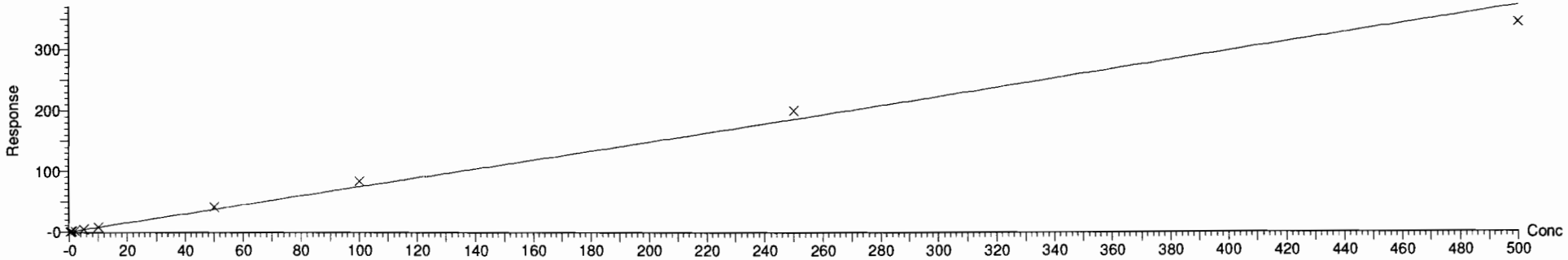
Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.999779
Calibration curve: -0.00028338 * x^2 + 0.639324 * x + 0.0135475
Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



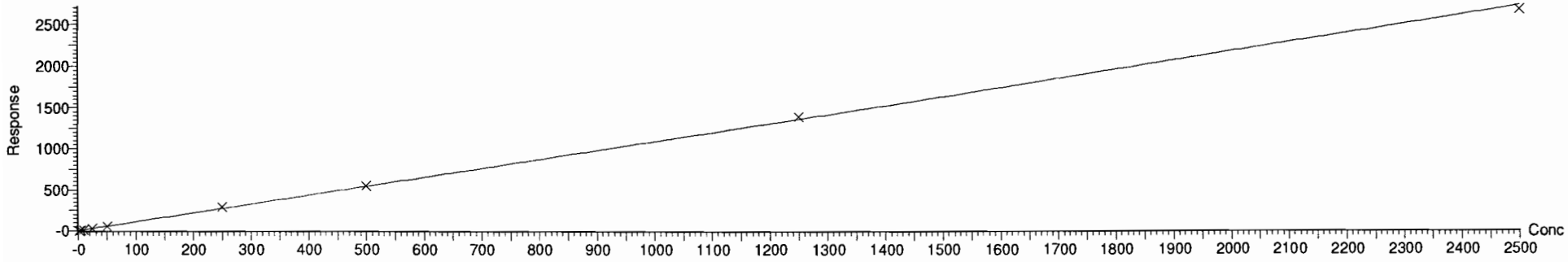
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Compound name: PFODA
Correlation coefficient: r = 0.996365, r^2 = 0.992744
Calibration curve: 0.742459 * x + 0.0633986
Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



Compound name: N-MeFOSE
Correlation coefficient: r = 0.999685, r^2 = 0.999371
Calibration curve: 1.08739 * x + -0.181625
Response type: Internal Std (Ref 70), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

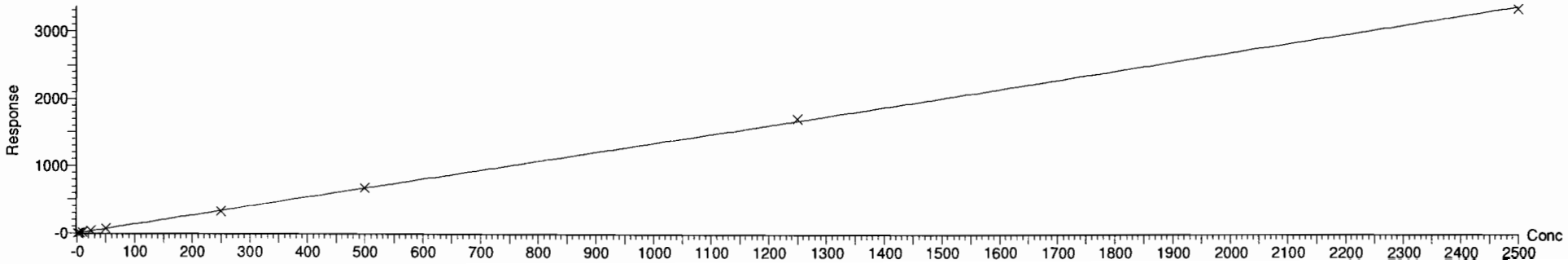


Vista Analytical Laboratory Q1

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999860, r^2 = 0.999720
Calibration curve: 1.34418 * x + -0.390824
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



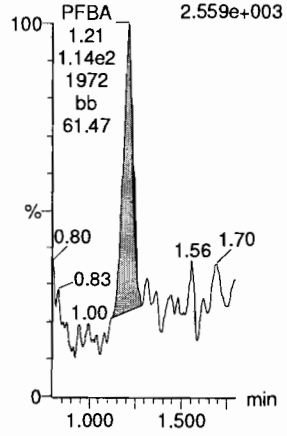
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Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

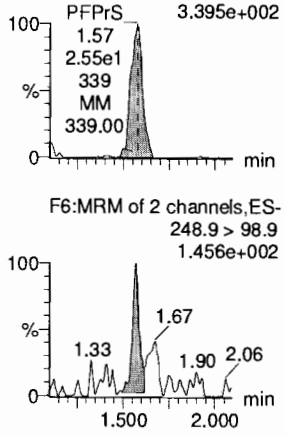
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Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-16-19.cdb 17 Jul 2019 08:22:43

Name: 190716M2_4, Date: 16-Jul-2019, Time: 17:05:59, ID: ST190716M2-1 PFC CS-2 19G1101, Description: PFC CS-2 19G1101

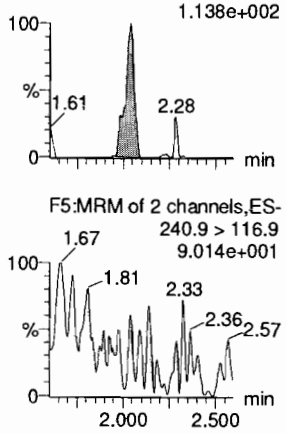
PFBA



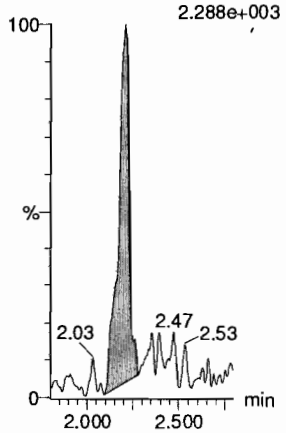
PFPrS



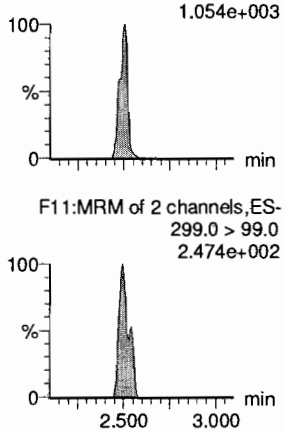
3:3 FTCA



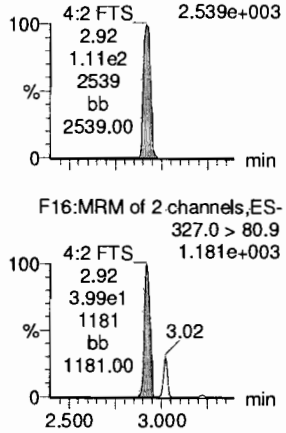
PFPeA



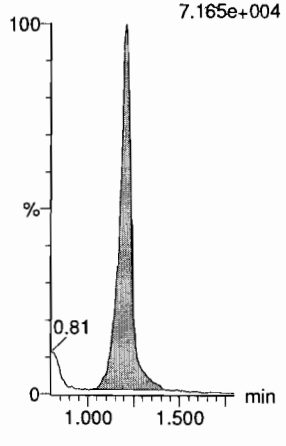
PFBS



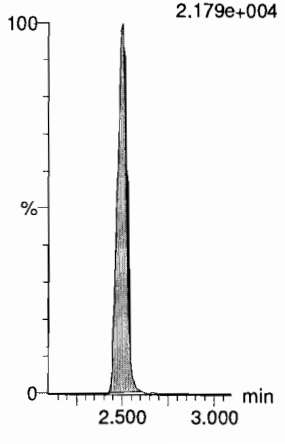
4:2 FTS



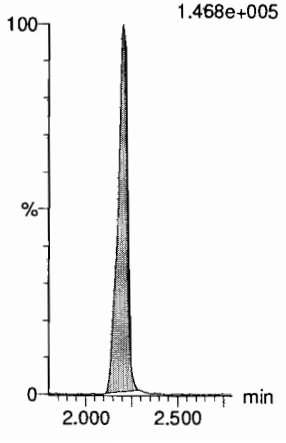
13C3-PFBA



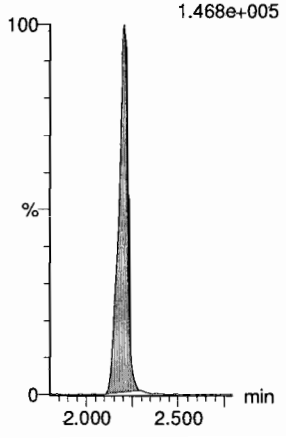
13C3-PFBS



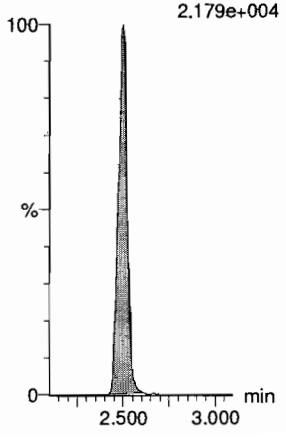
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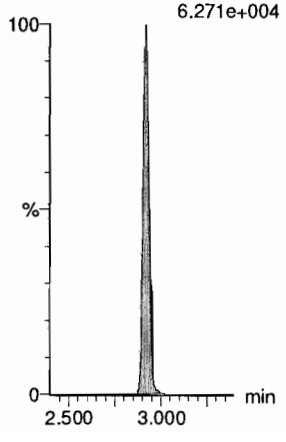
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

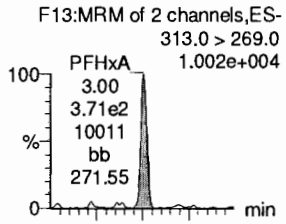


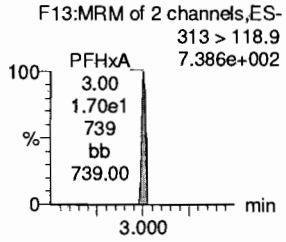
Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

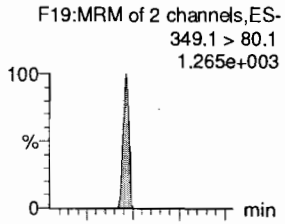
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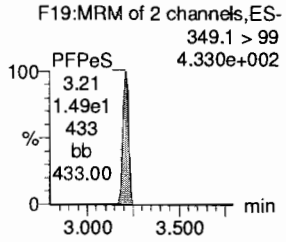
PFHxA



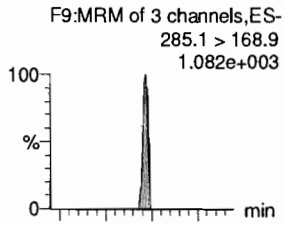


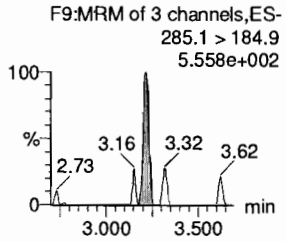
PFPeS



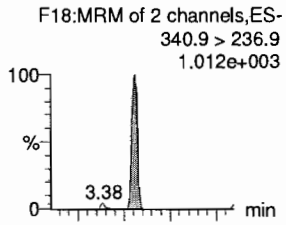


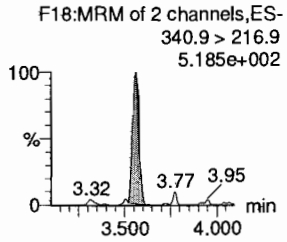
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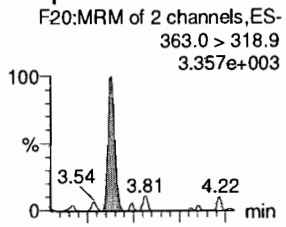


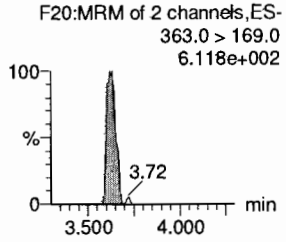
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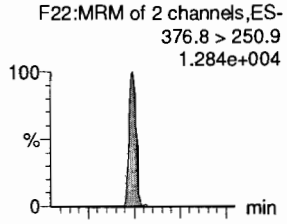


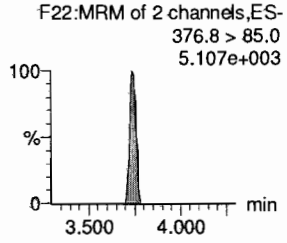
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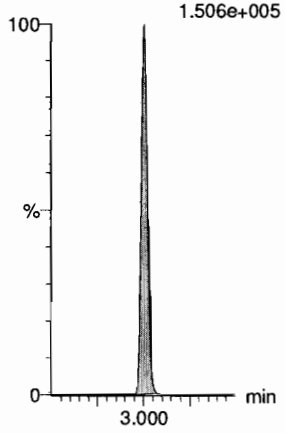


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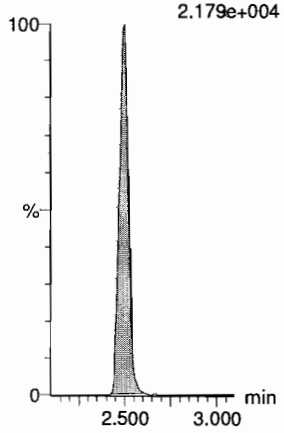




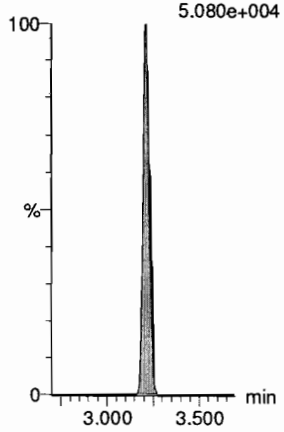
13C2-PFHxA



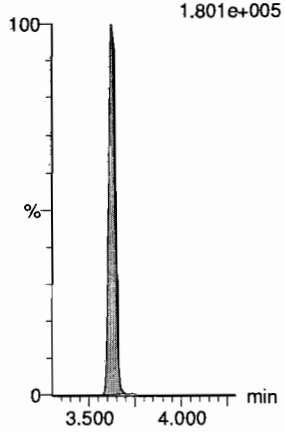
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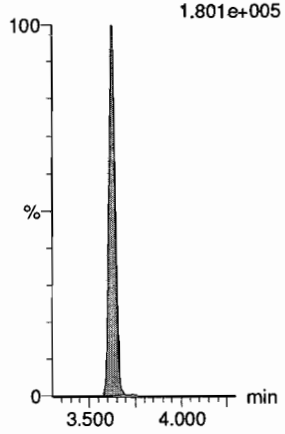
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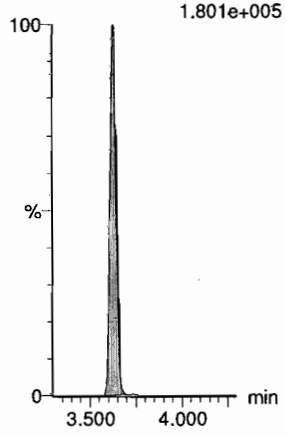
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13C4-PFHpA



13C4-PFHpA

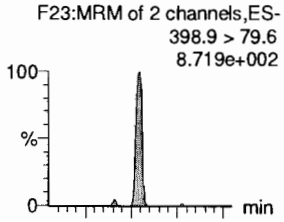


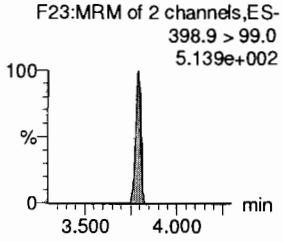
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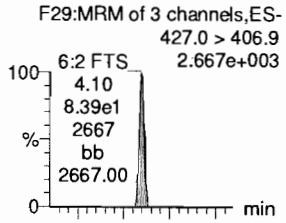
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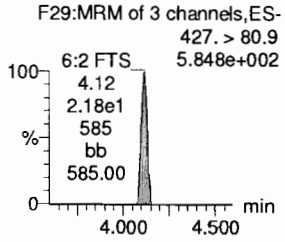
L-PFHxS



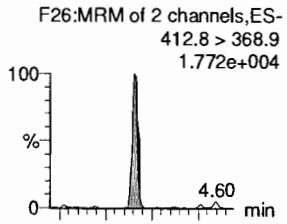


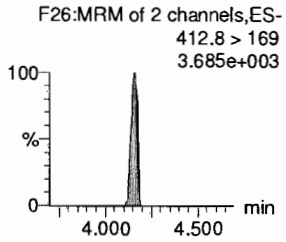
6:2 FTS



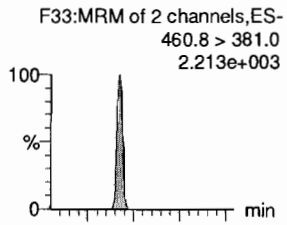


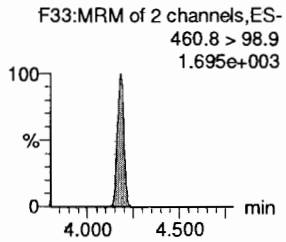
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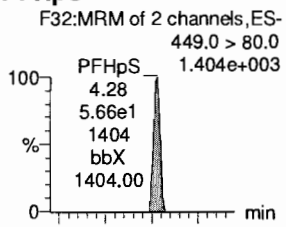


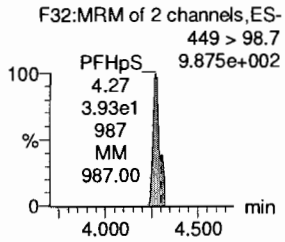
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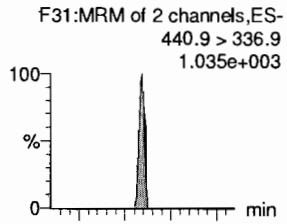


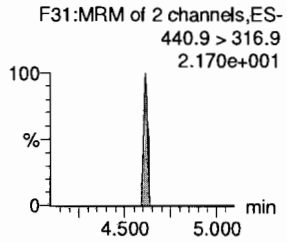
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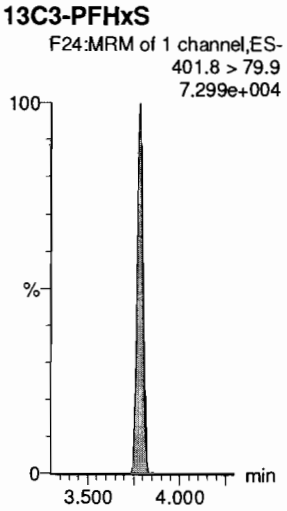


7:3 FTCA

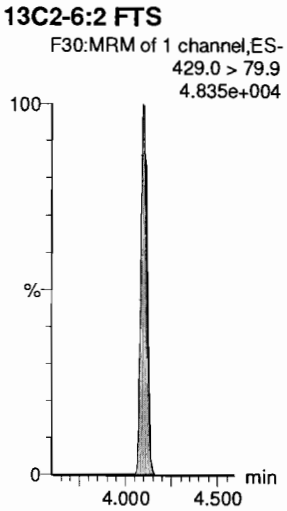




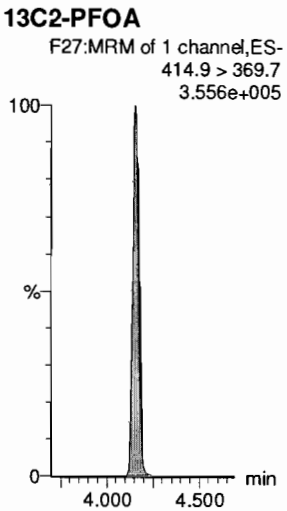
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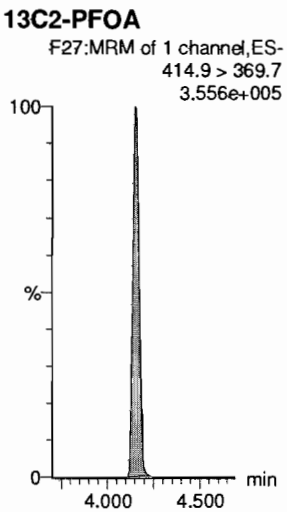
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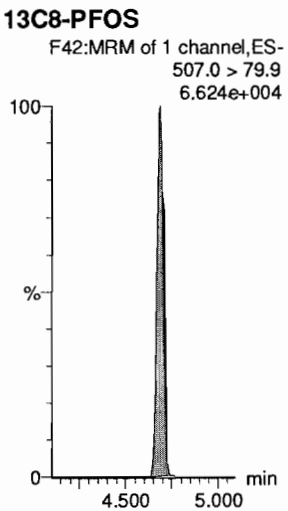
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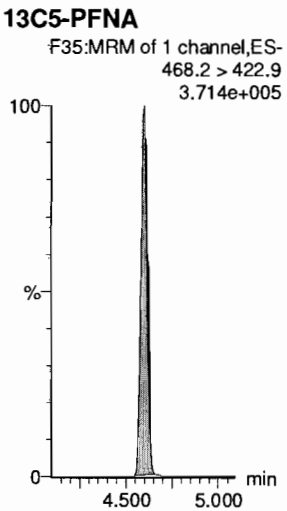
13C2-PFOA



13C8-PFOS



13C5-PFNA

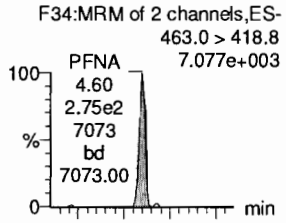


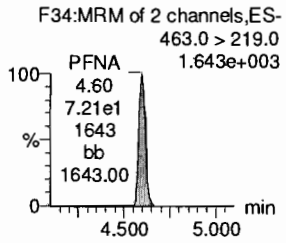
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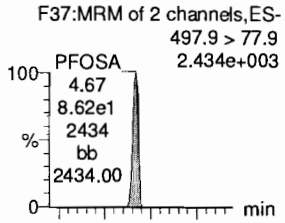
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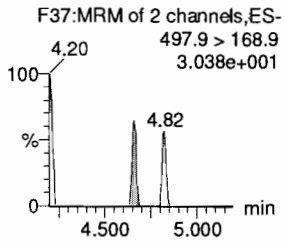
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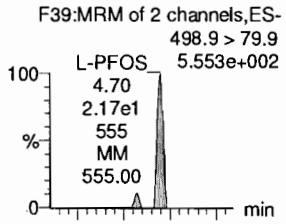


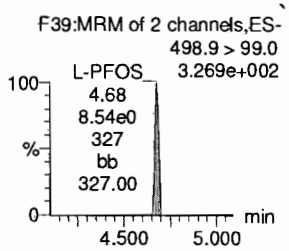
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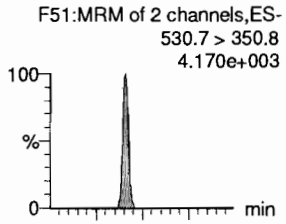


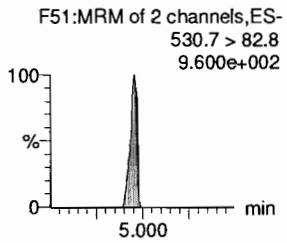
L-PFOS



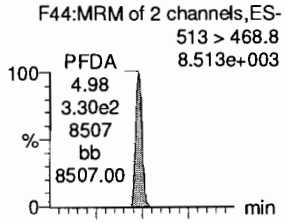


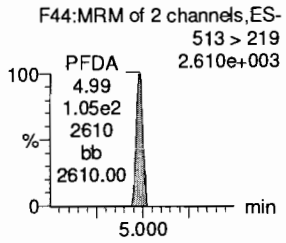
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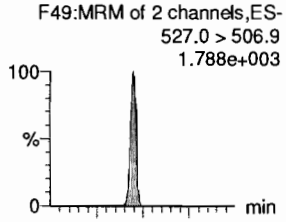


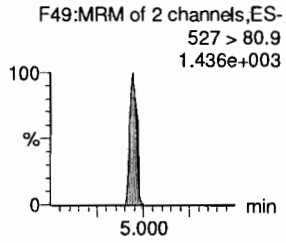
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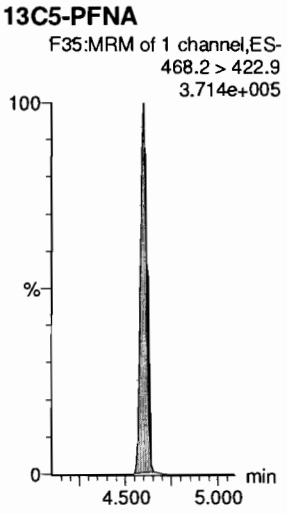


8:2 FTS

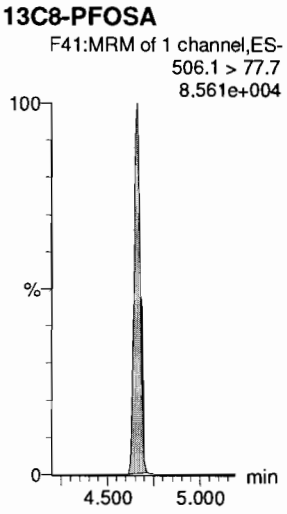




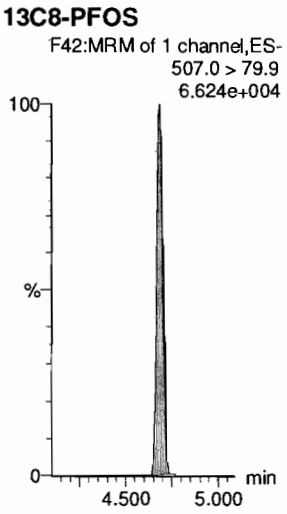
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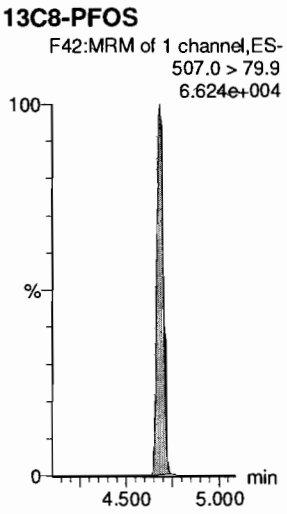
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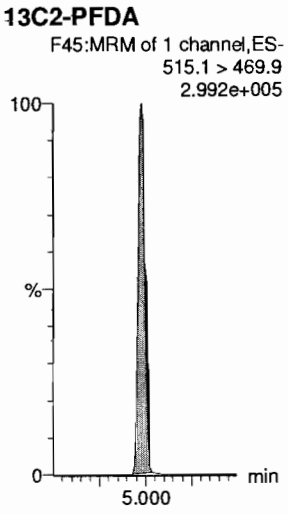
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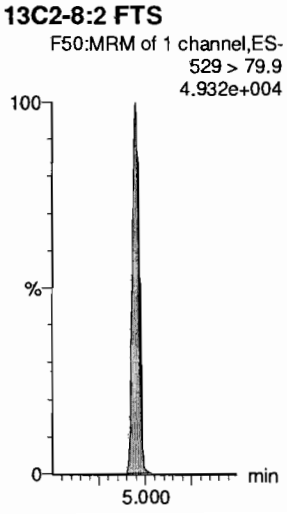
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

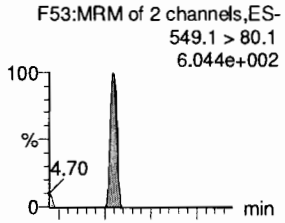


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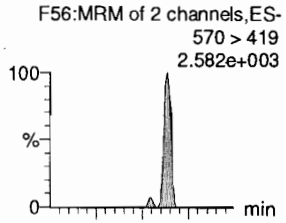
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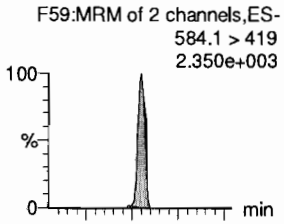
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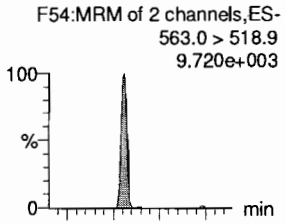
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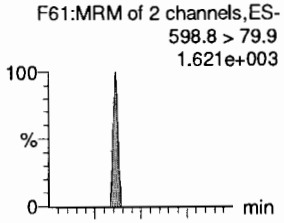
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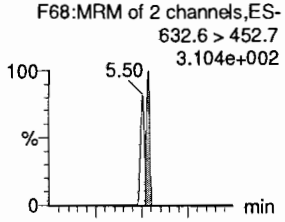
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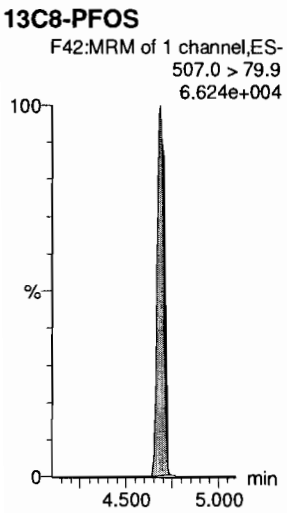
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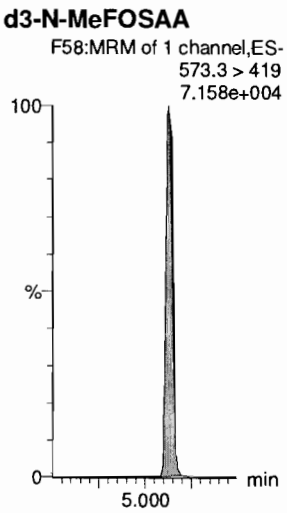
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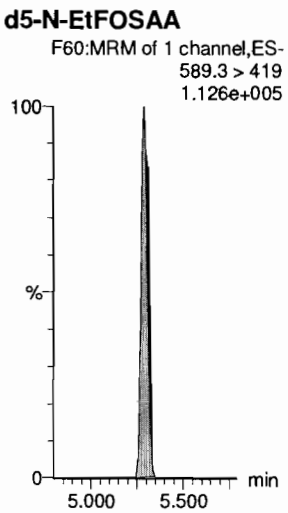
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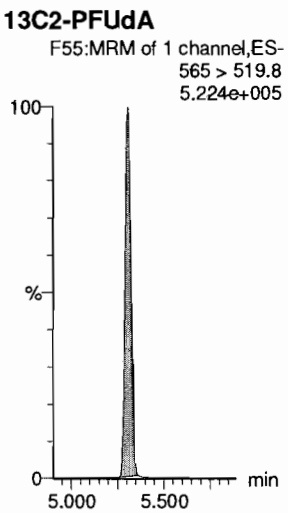
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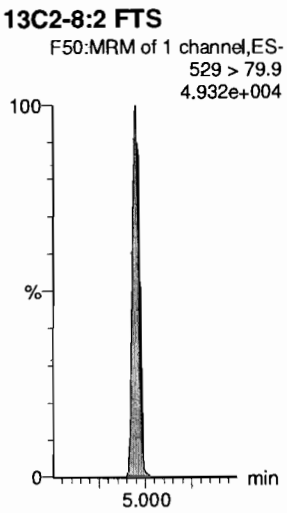
d5-N-EtFOSAA



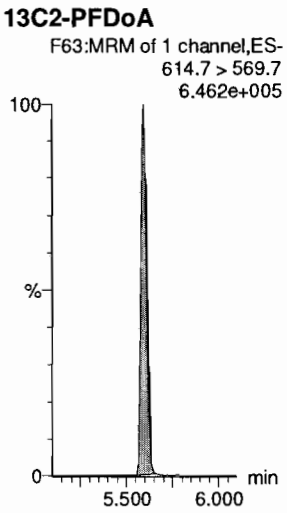
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

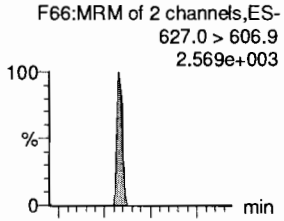


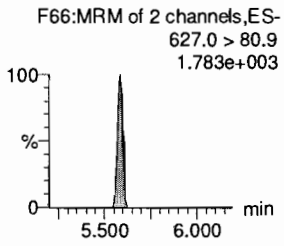
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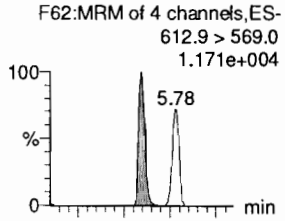
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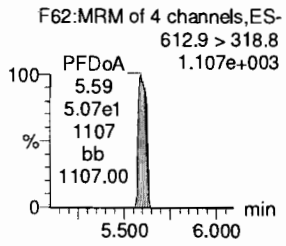
10:2 FTS



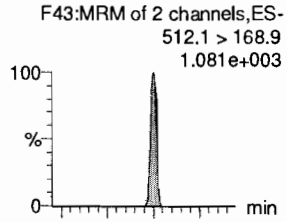


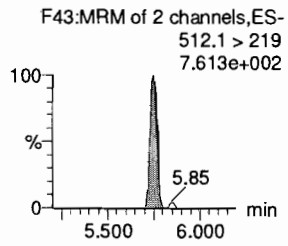
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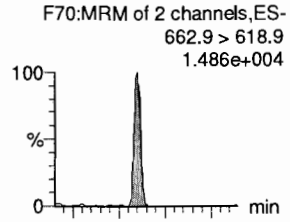


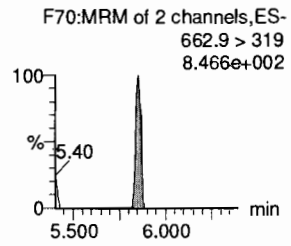
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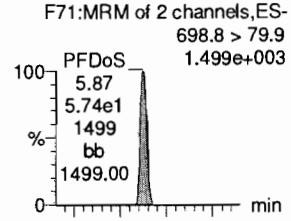


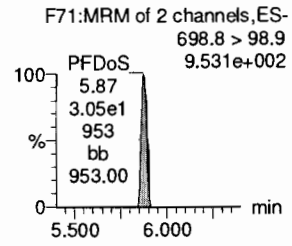
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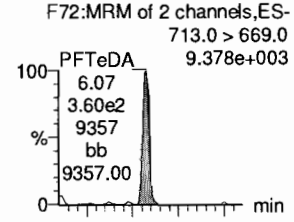


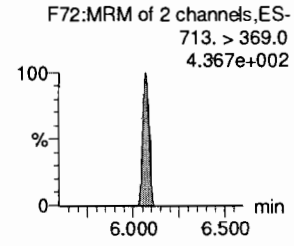
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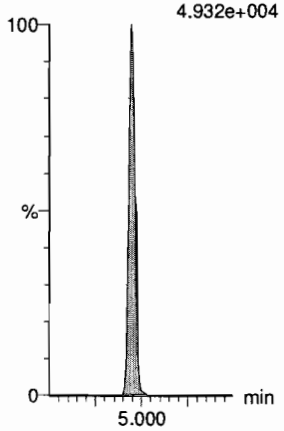


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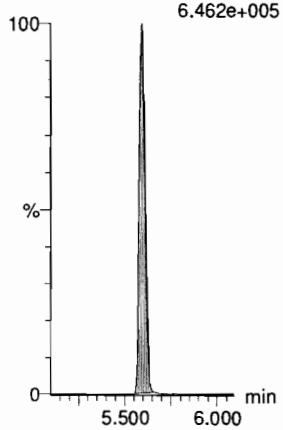




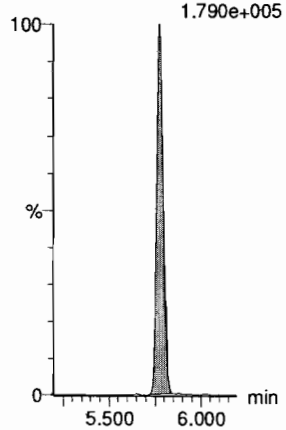
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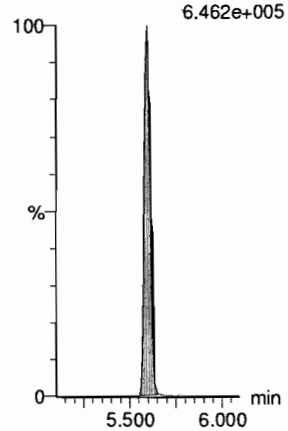
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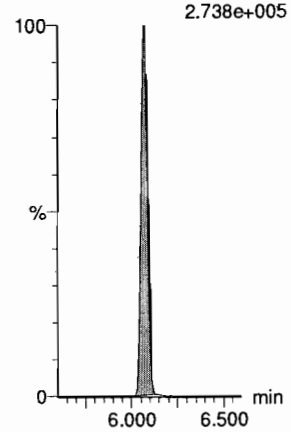
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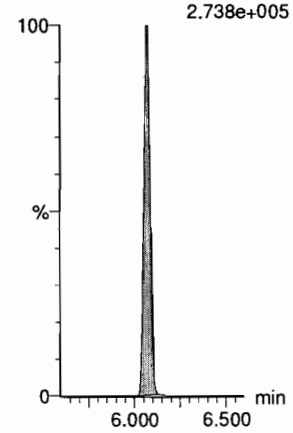
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13C2-PFTeDA



13C2-PFTeDA

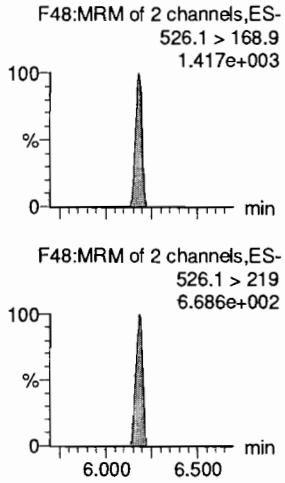


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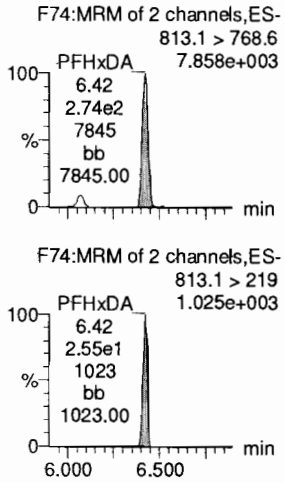
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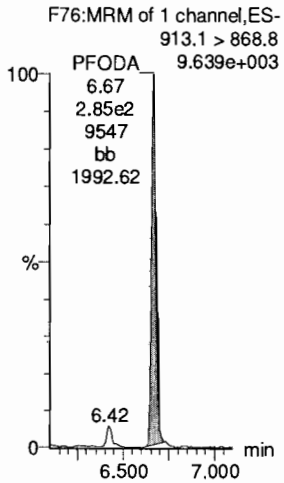
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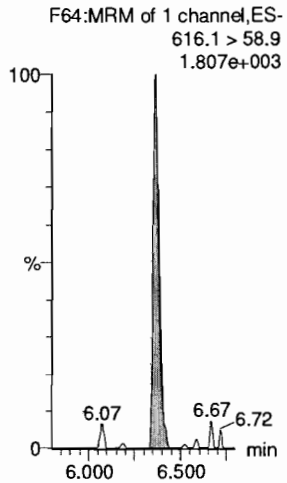
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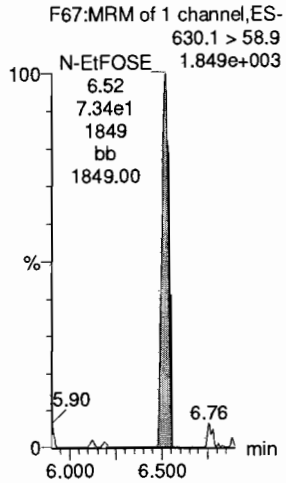
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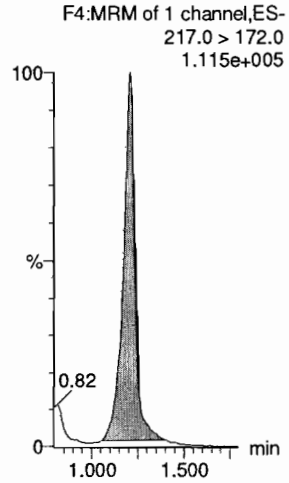
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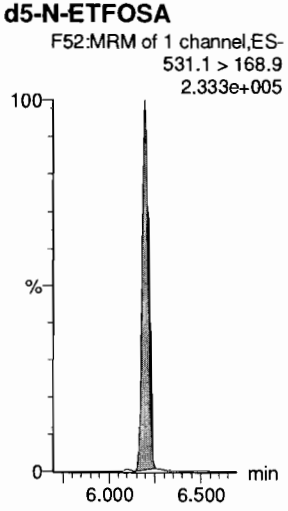
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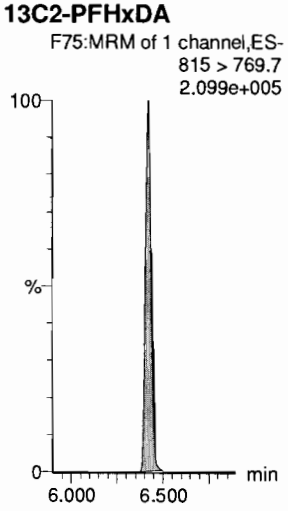
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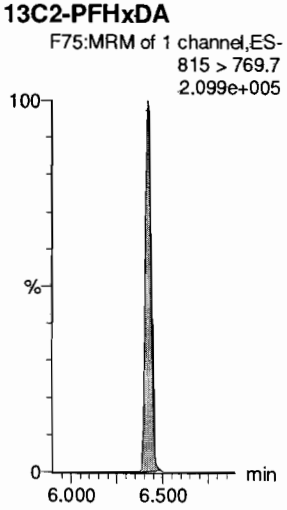
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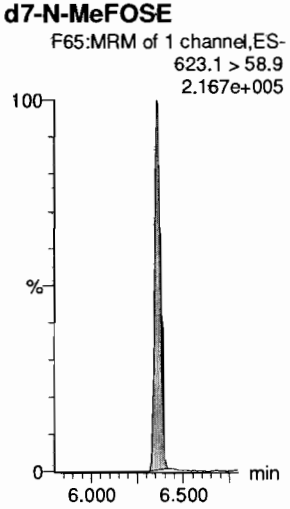
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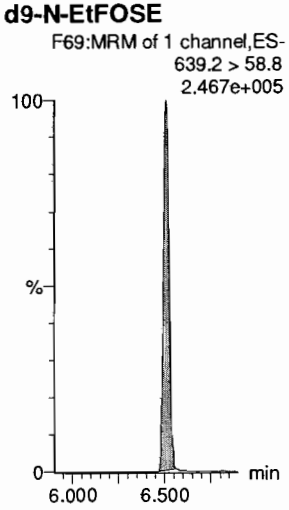
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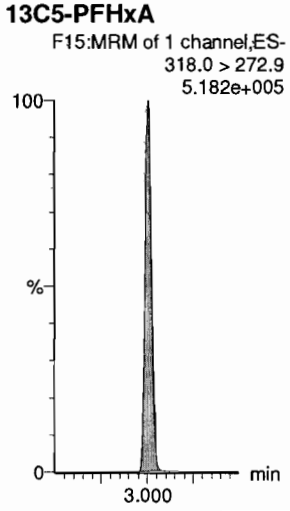
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d9-N-EtFOSE



13C5-PFHxA

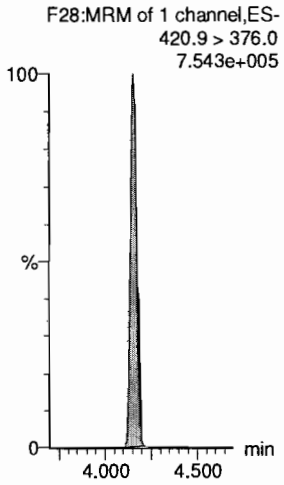


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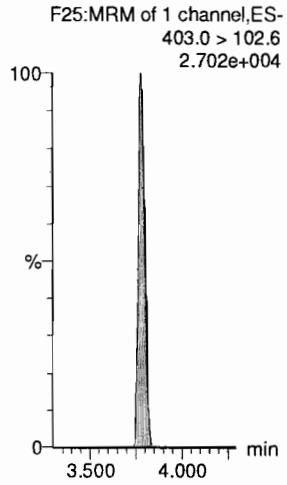
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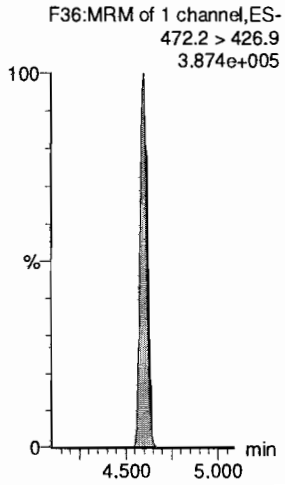
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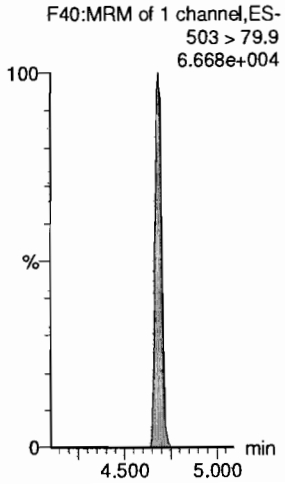
18O2-PFHxS



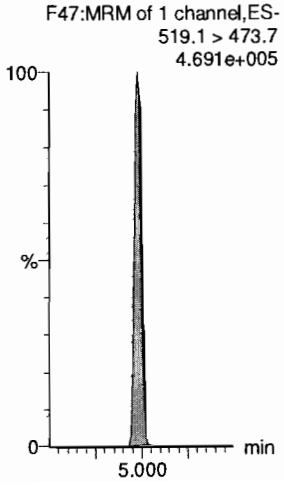
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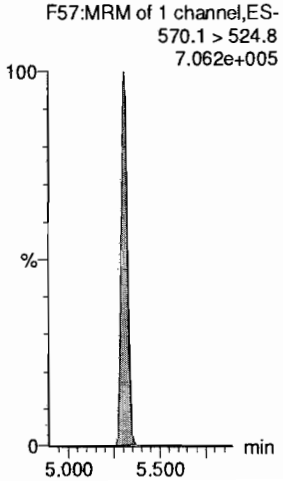
13C4-PFOS



13C6-PFDA



13C7-PFUdA

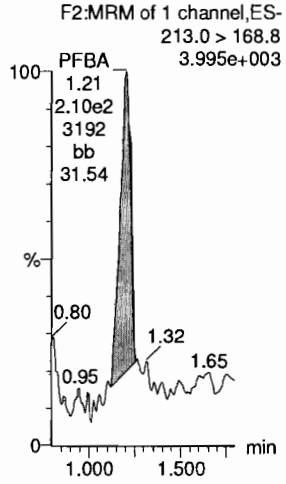


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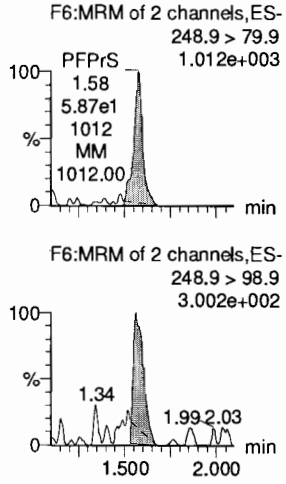
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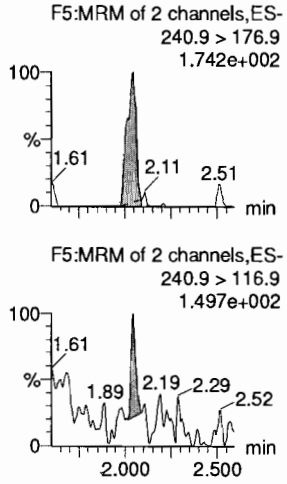
PFBA



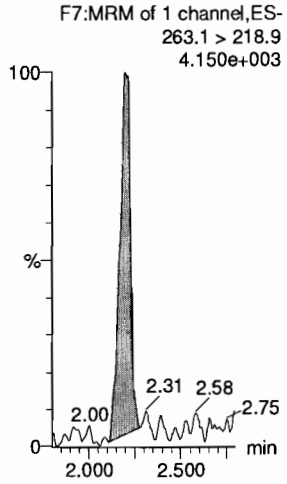
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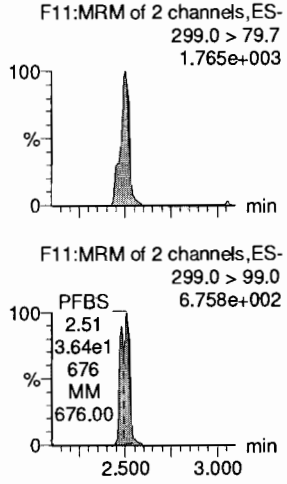
3:3 FTCA



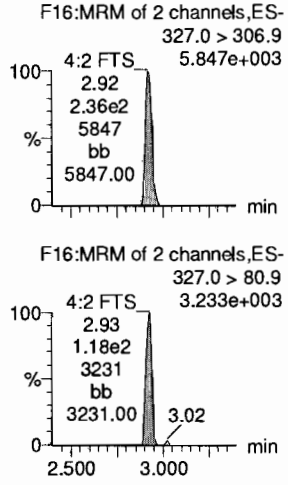
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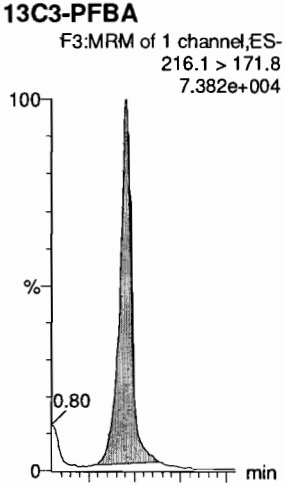
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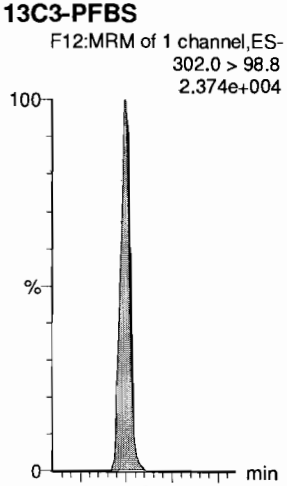
4:2 FTS



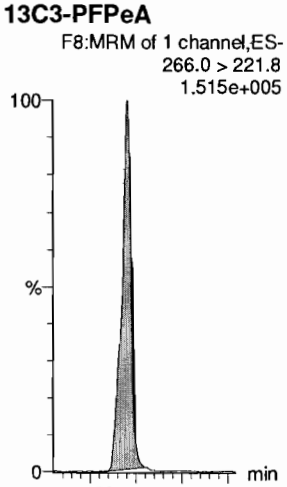
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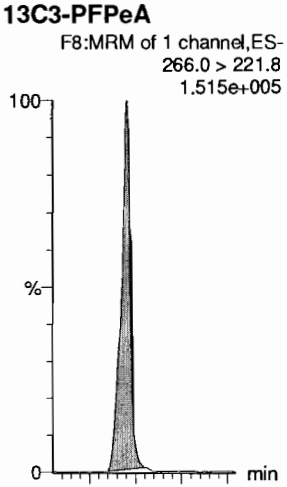
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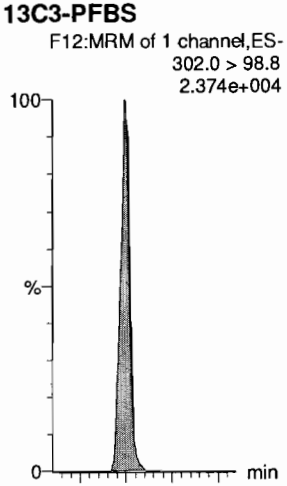
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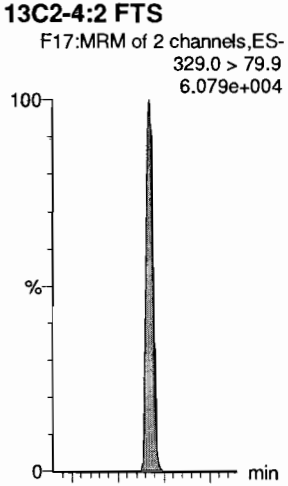
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13C3-PFBS



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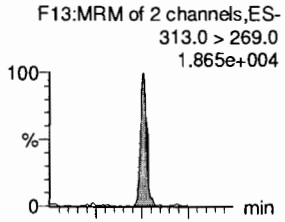


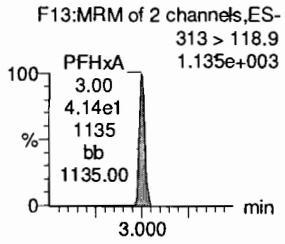
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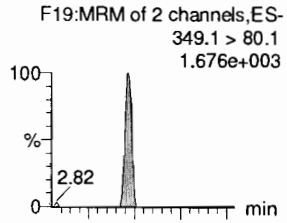
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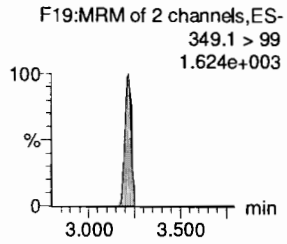
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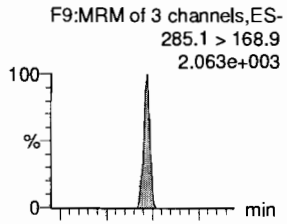


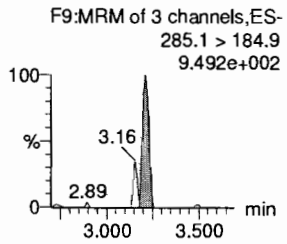
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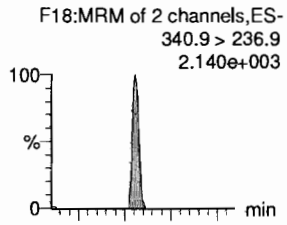


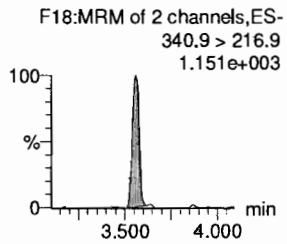
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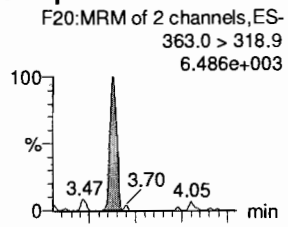


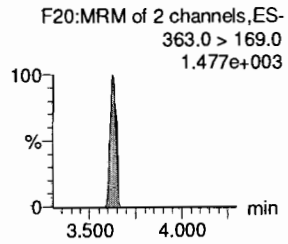
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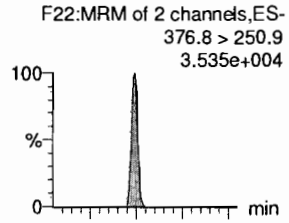


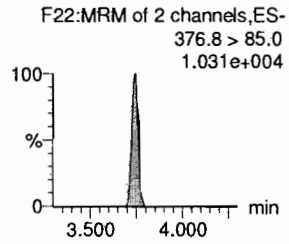
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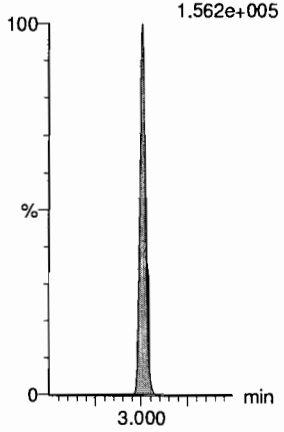


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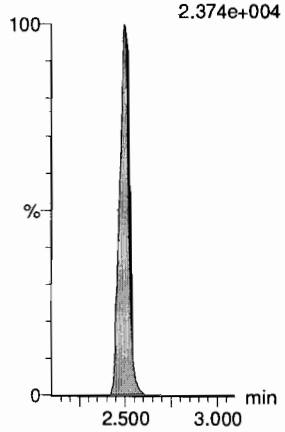




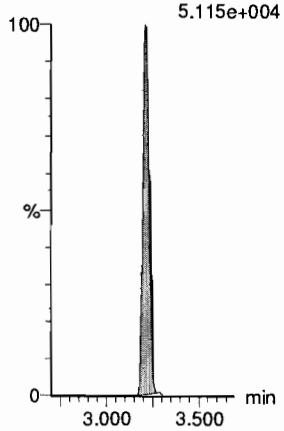
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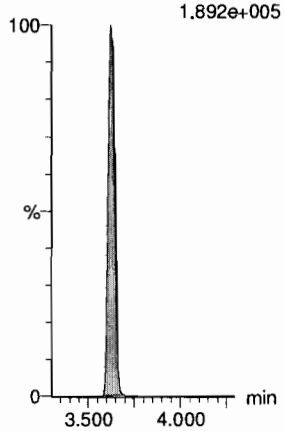
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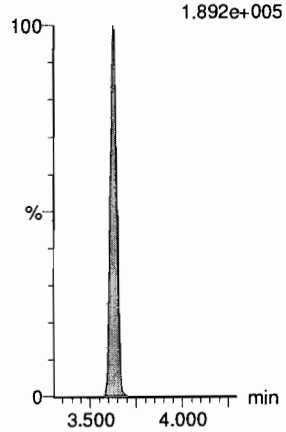
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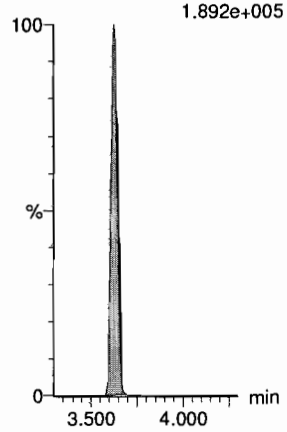
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13C4-PFHpA



13C4-PFHpA

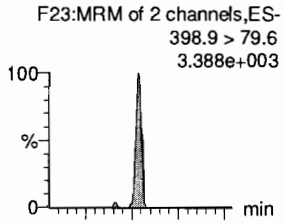


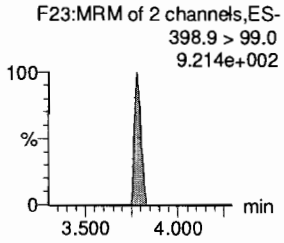
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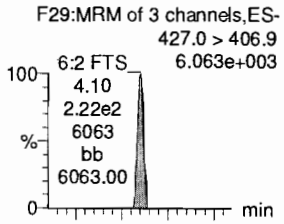
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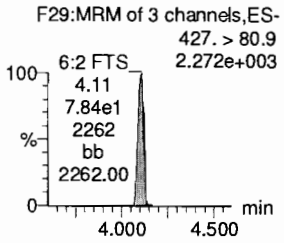
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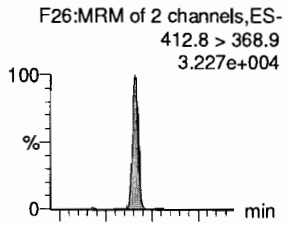


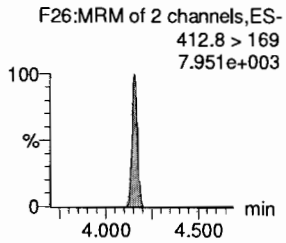
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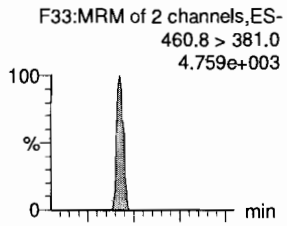


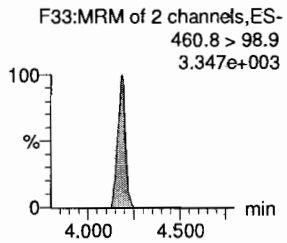
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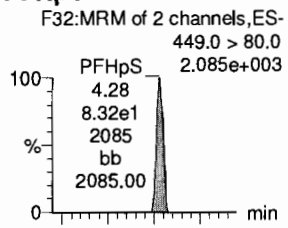


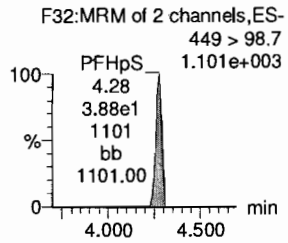
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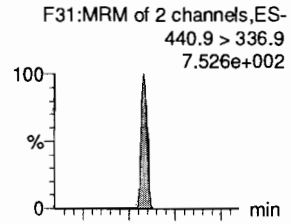


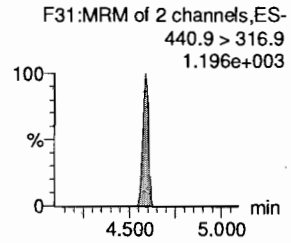
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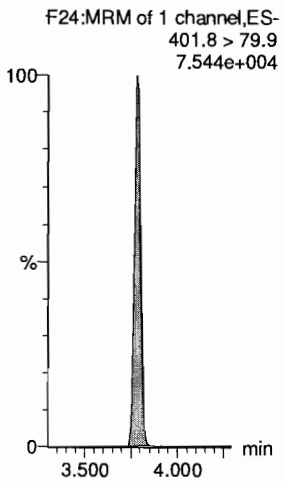


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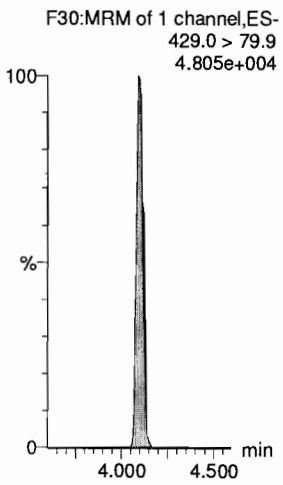




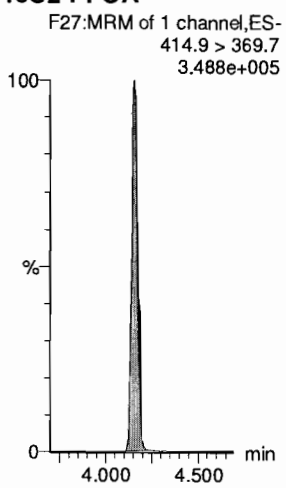
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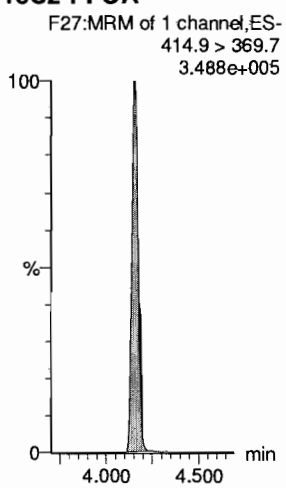
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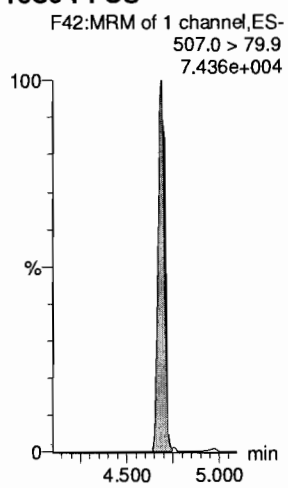
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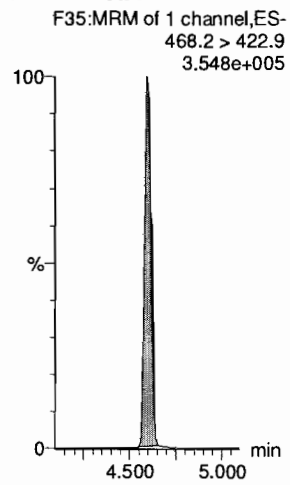
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13C8-PFOS



13C5-PFNA

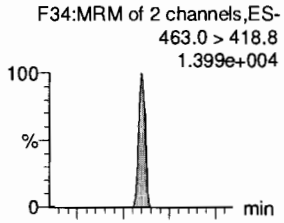


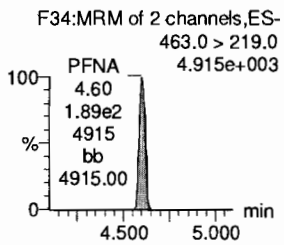
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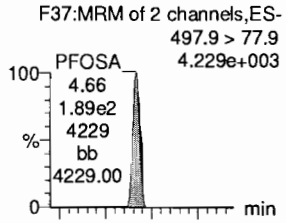
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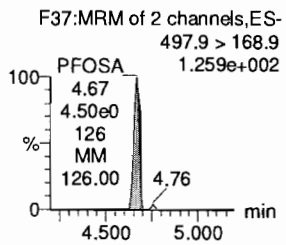
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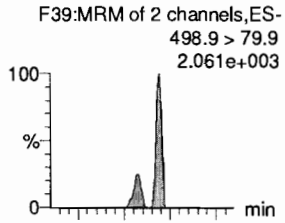


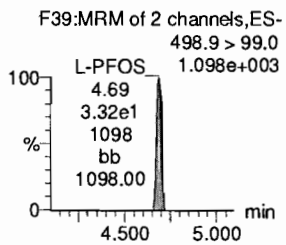
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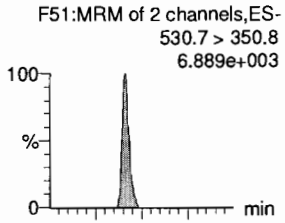


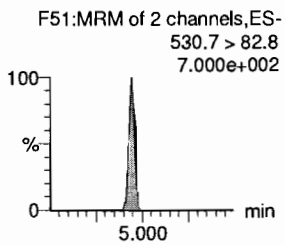
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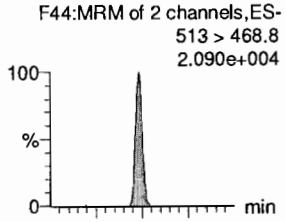


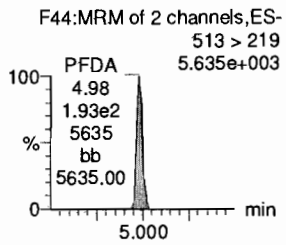
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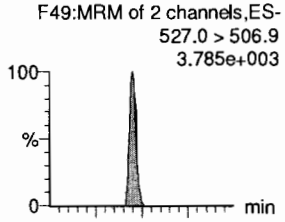


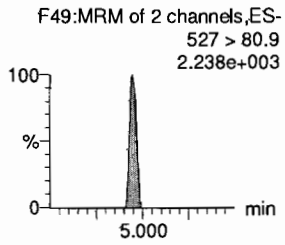
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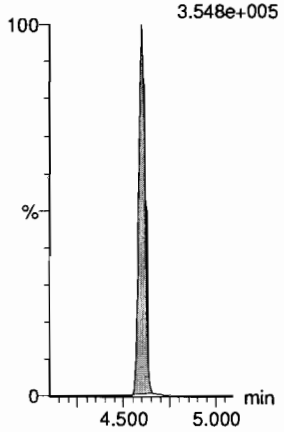


8:2 FTS

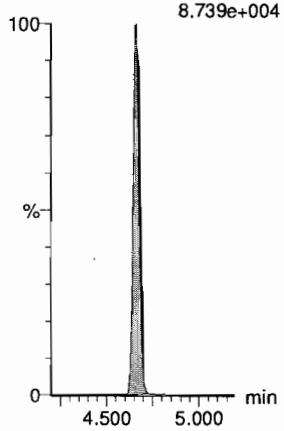




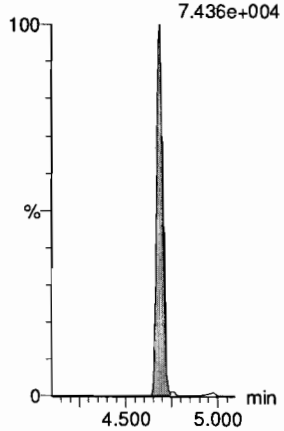
13C5-PFNA



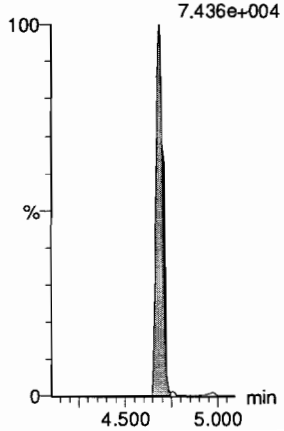
13C8-PFOSA



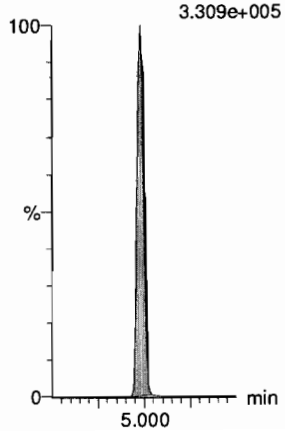
13C8-PFOS



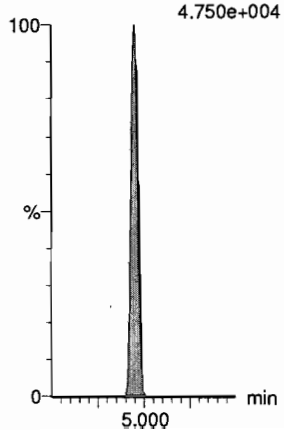
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

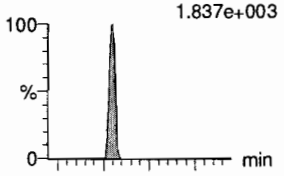


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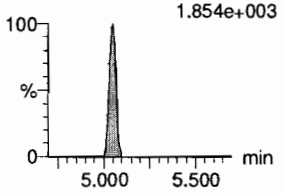
Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_5, Date: 16-Jul-2019, Time: 17:16:31, ID: ST190716M2-2 PFC CS-1 19G1102, Description: PFC CS-1 19G1102

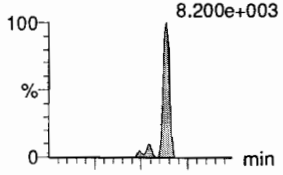
PFNS
F53:MRM of 2 channels,ES-
549.1 > 80.1
1.837e+003



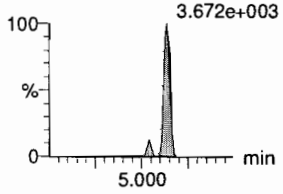
F53:MRM of 2 channels,ES-
549.1 > 99.1
1.854e+003



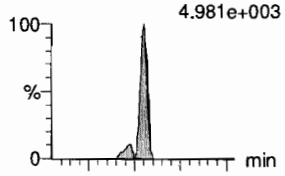
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
8.200e+003



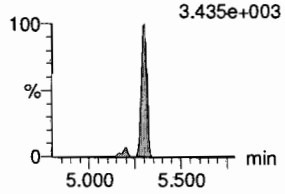
F56:MRM of 2 channels,ES-
570. > 512
3.672e+003



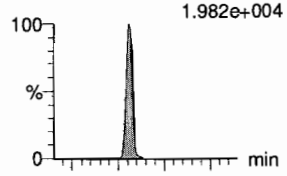
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
4.981e+003



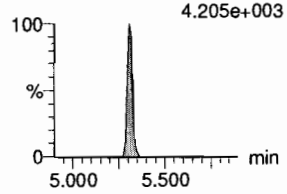
F59:MRM of 2 channels,ES-
584.1 > 526
3.435e+003



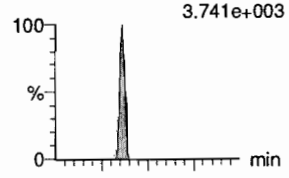
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
1.982e+004



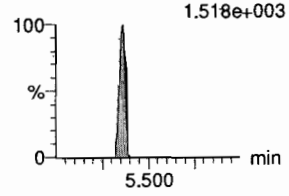
F54:MRM of 2 channels,ES-
563.0 > 269
4.205e+003



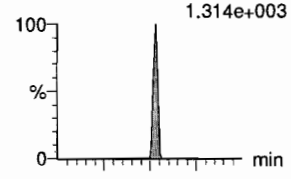
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
3.741e+003



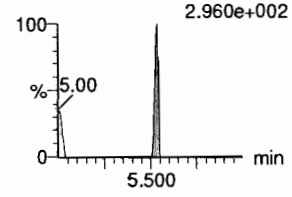
F61:MRM of 2 channels,ES-
598.8 > 98.9
1.518e+003



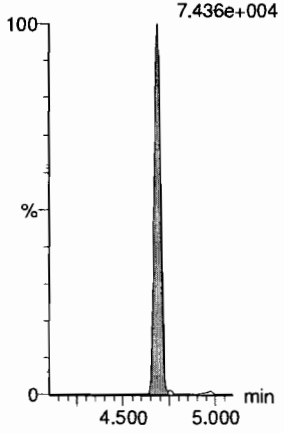
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
1.314e+003



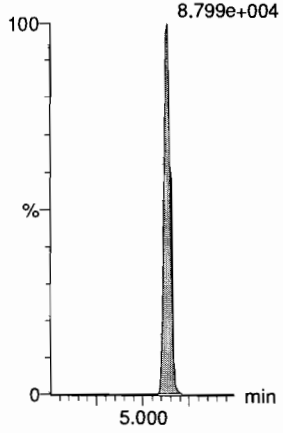
F68:MRM of 2 channels,ES-
632.6 > 450.7
2.960e+002



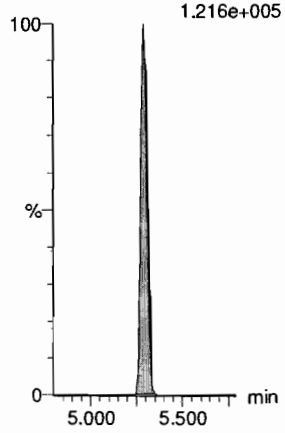
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
7.436e+004



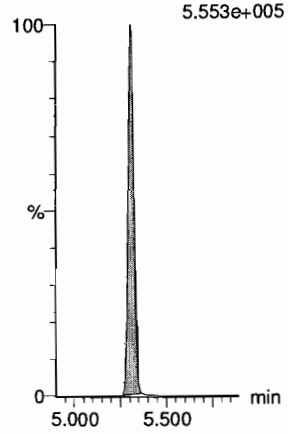
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
8.799e+004



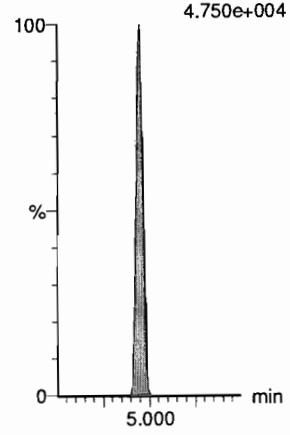
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
1.216e+005



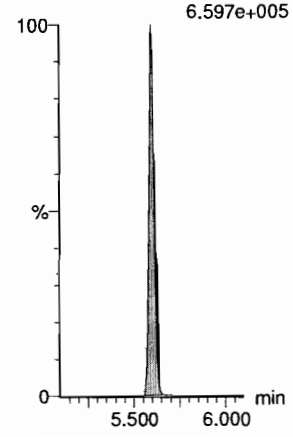
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
5.553e+005



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
4.750e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
6.597e+005

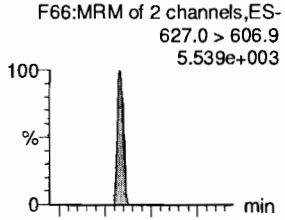


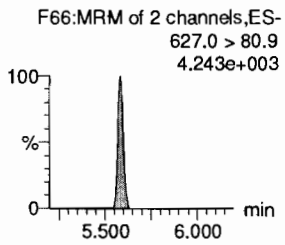
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

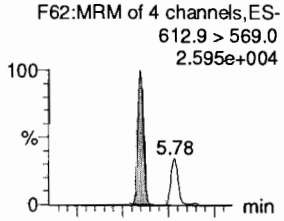
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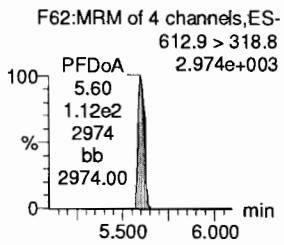
10:2 FTS



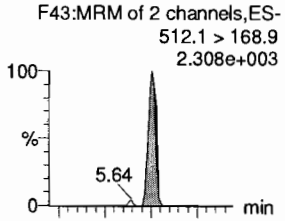


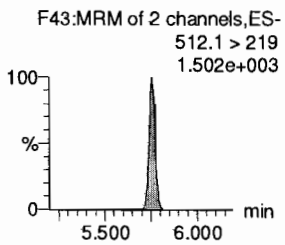
PFDoA



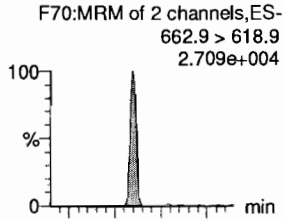


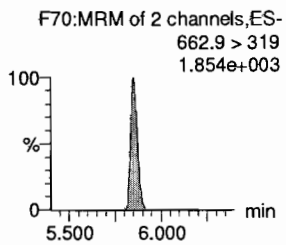
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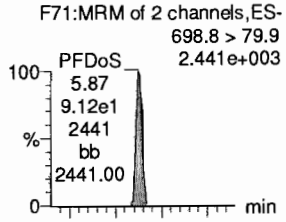


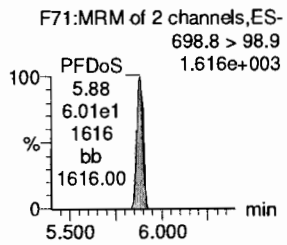
PFTrDA



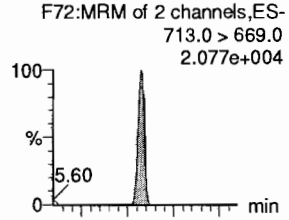


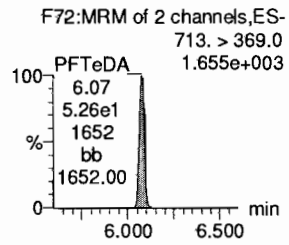
PFDoS



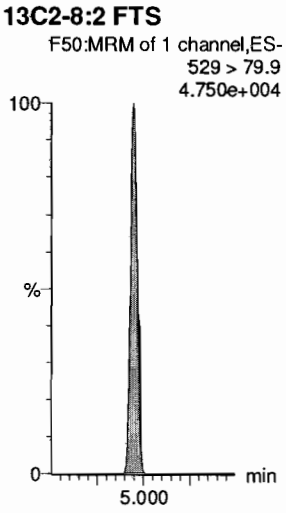


PFTeDA

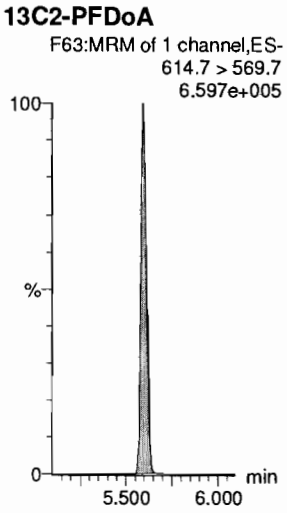




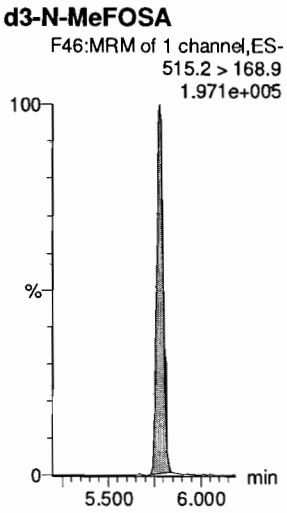
13C2-8:2 FTS



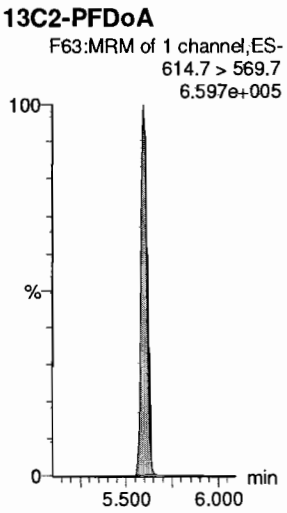
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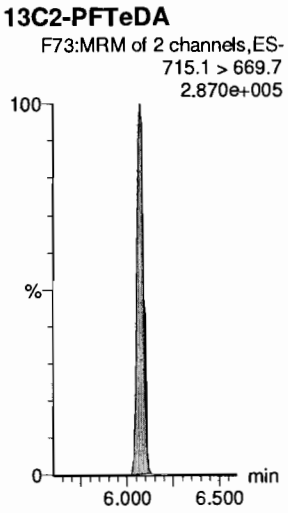
d3-N-MeFOSA



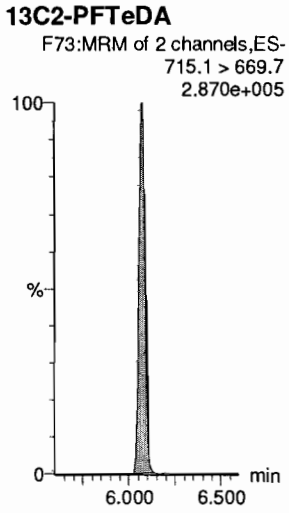
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13C2-PFTeDA



13C2-PFTeDA

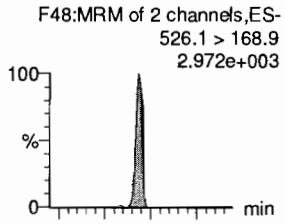


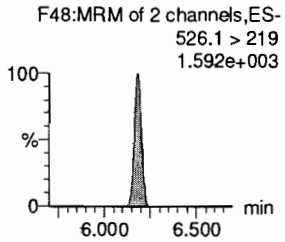
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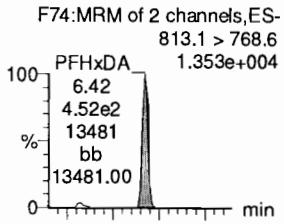
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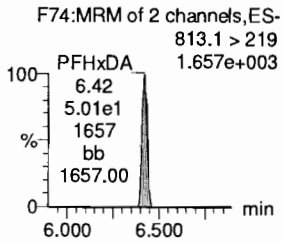
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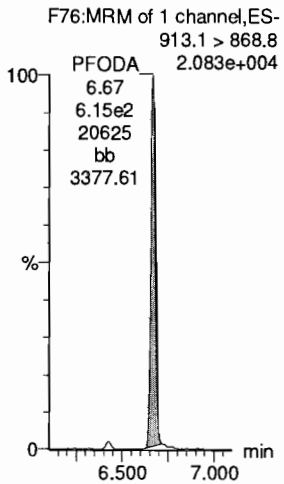


PFHxDA

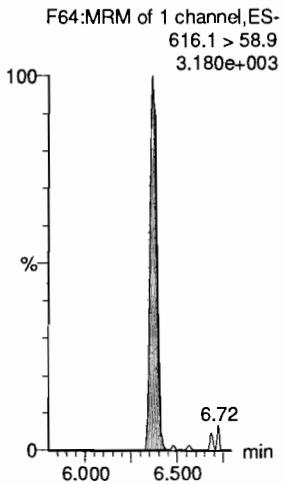




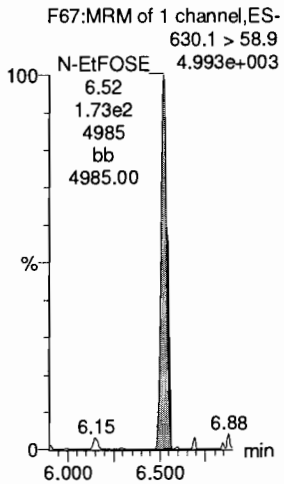
PFODA



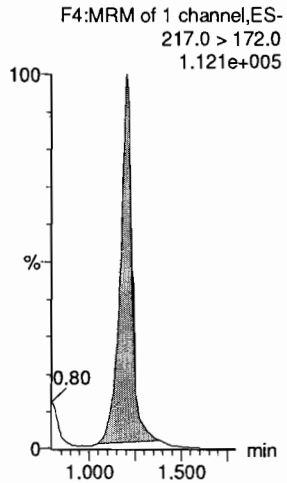
N-MeFOSE



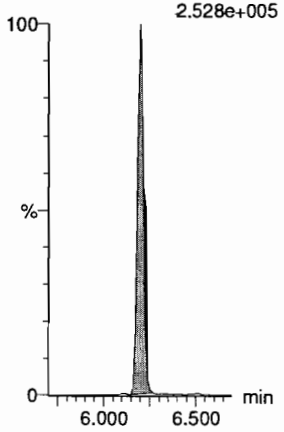
N-EtFOSE



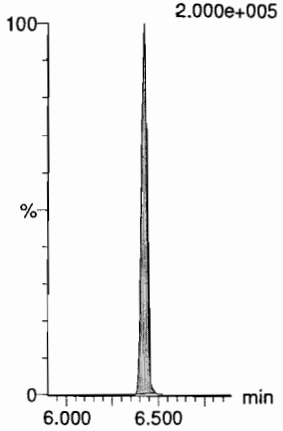
13C4-PFBA



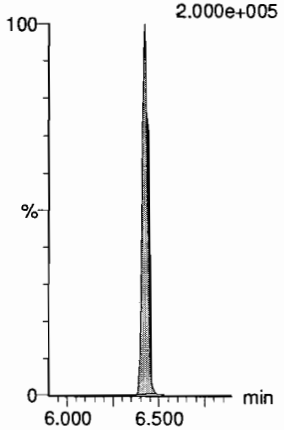
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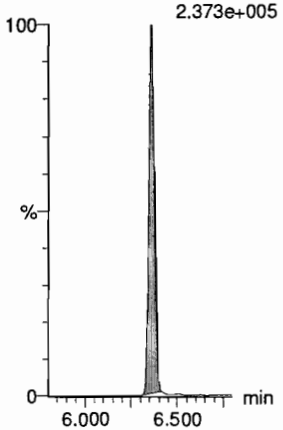
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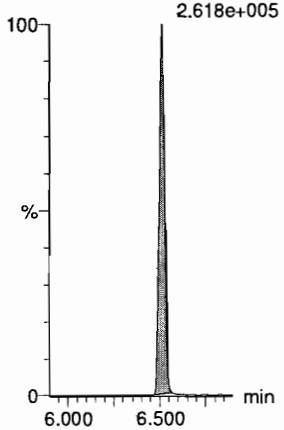
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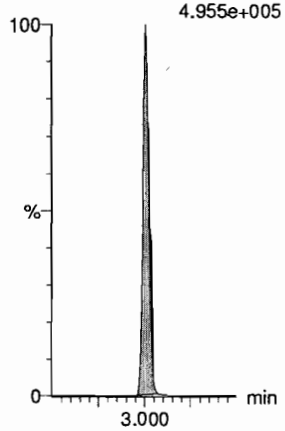
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d9-N-EtFOSE



13C5-PFHxA

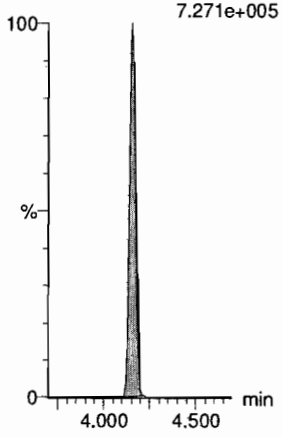


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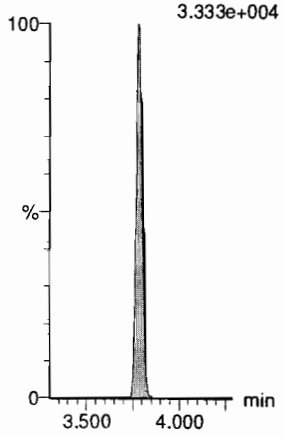
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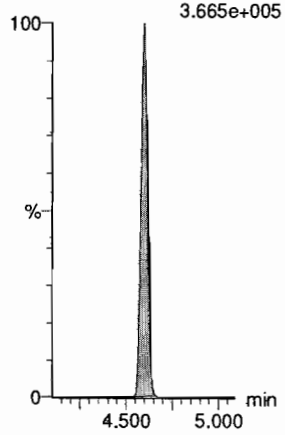
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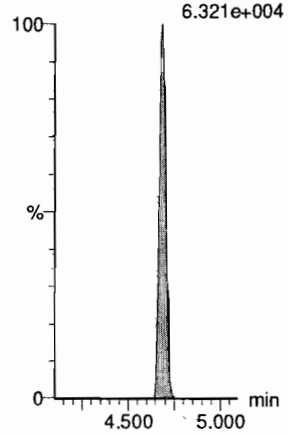
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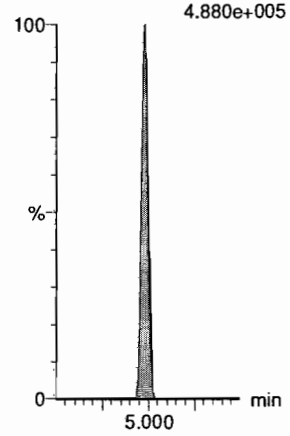
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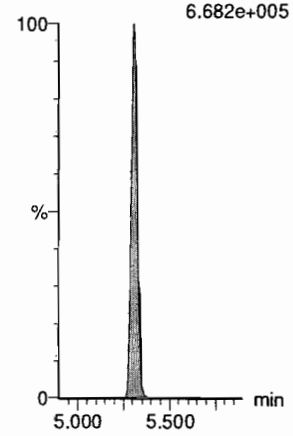
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13C6-PFDA



13C7-PFUdA

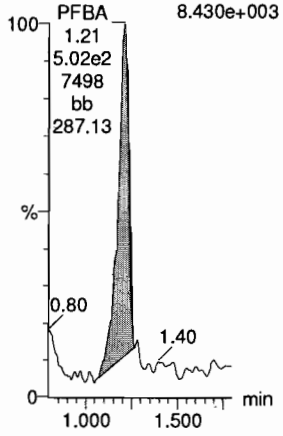


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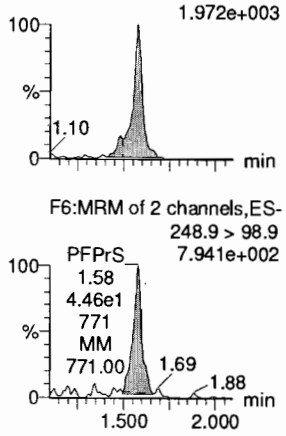
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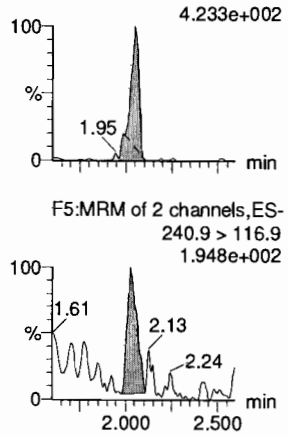
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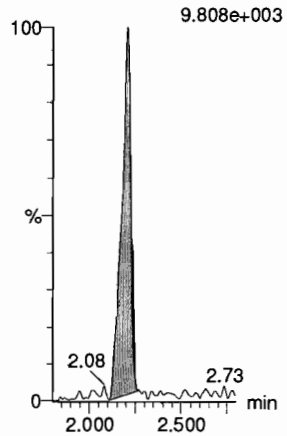
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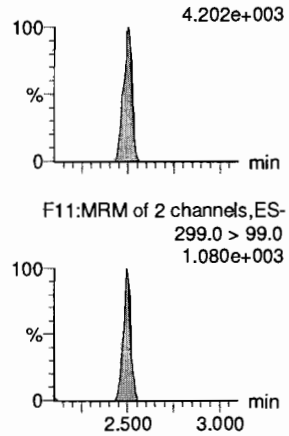
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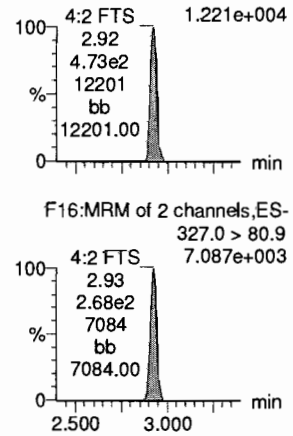
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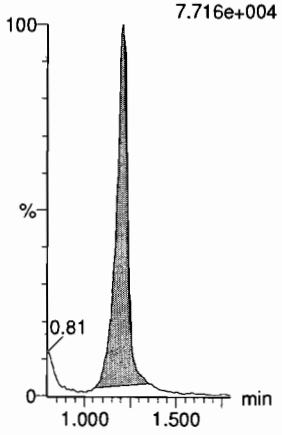
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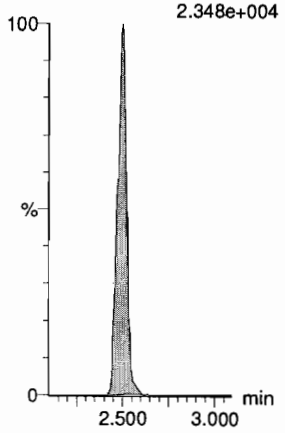
4:2 FTS



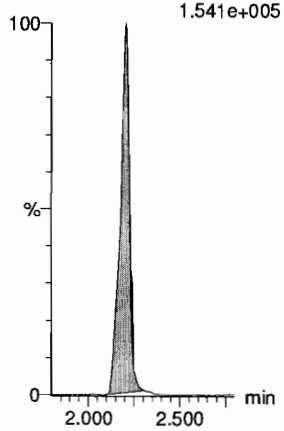
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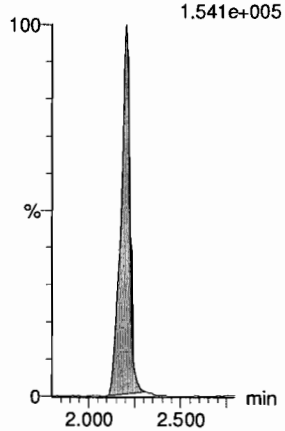
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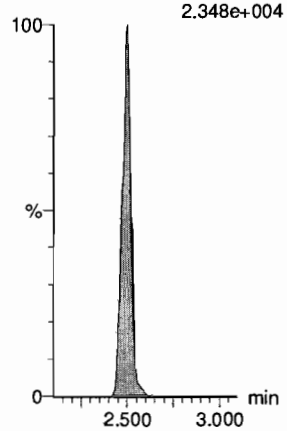
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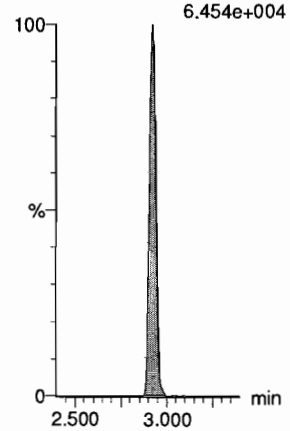
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13C3-PFBS



13C2-4:2 FTS

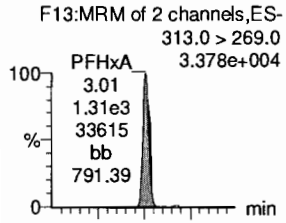


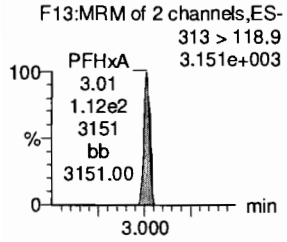
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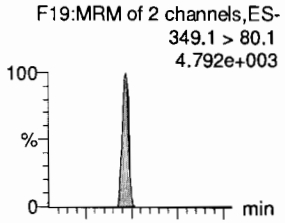
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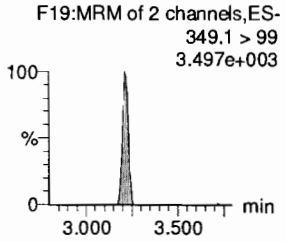
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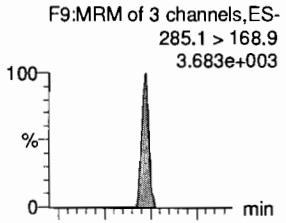


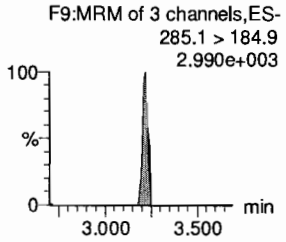
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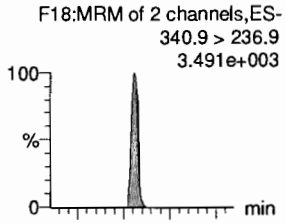


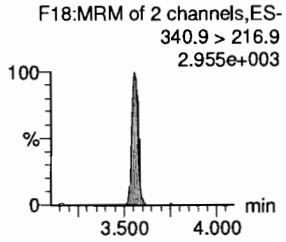
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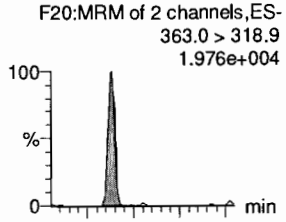


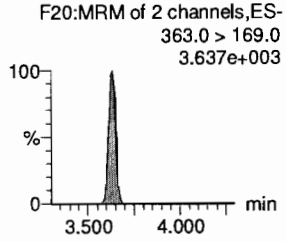
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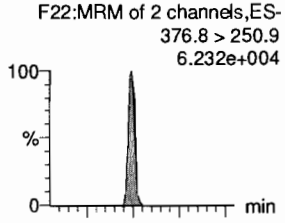


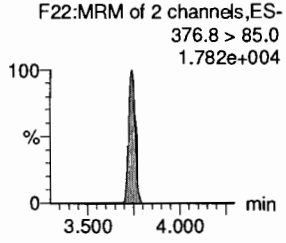
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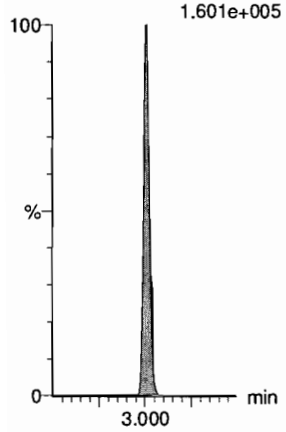


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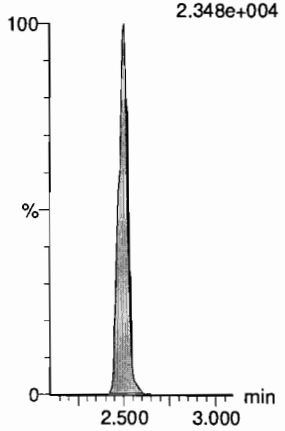




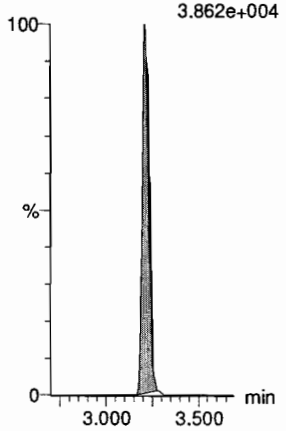
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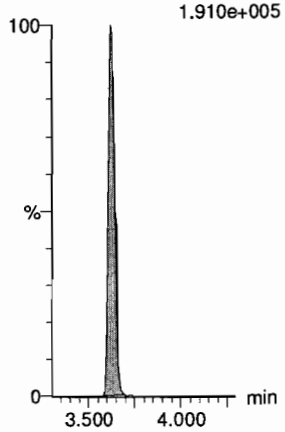
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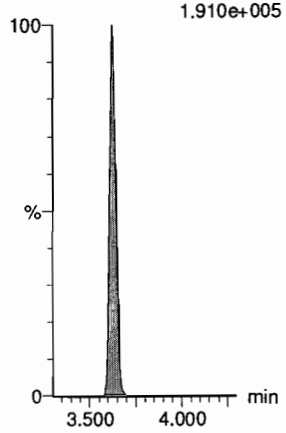
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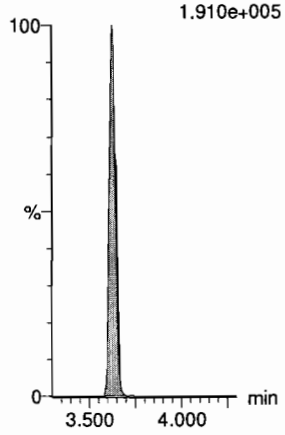
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13C4-PFHpA



13C4-PFHpA

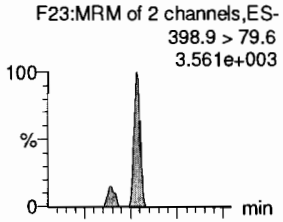


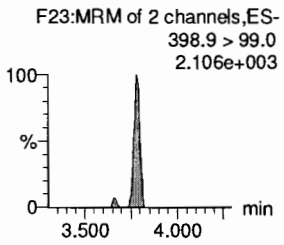
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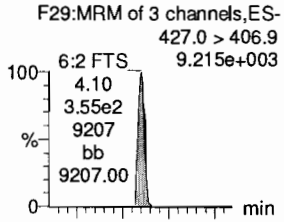
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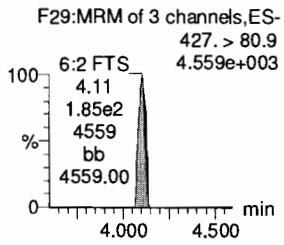
L-PFHxS



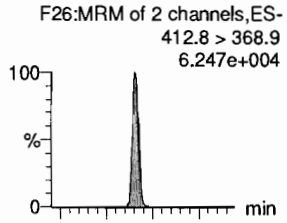


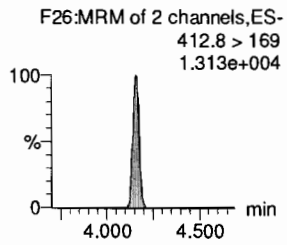
6:2 FTS



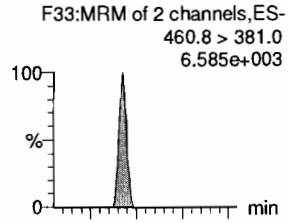


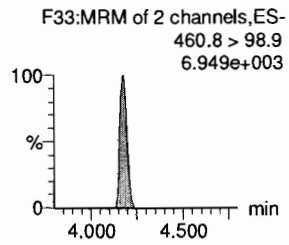
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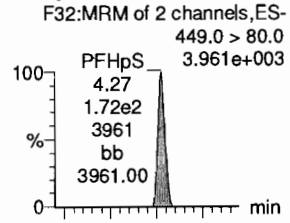


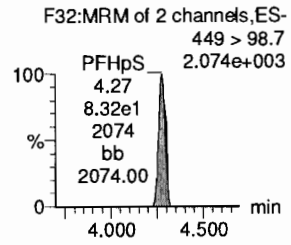
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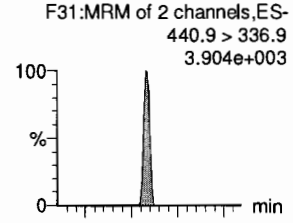


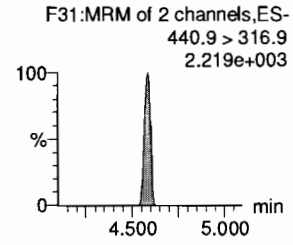
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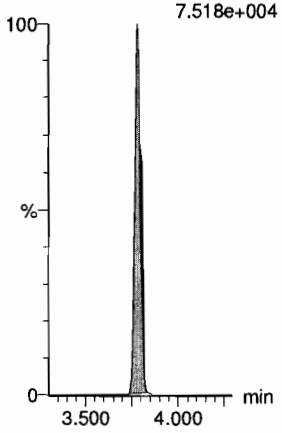


7:3 FTCA

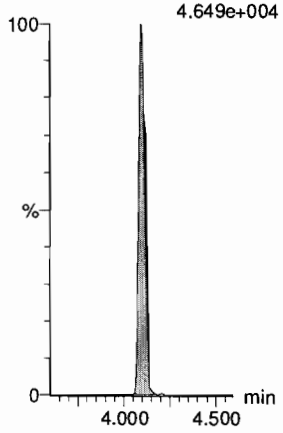




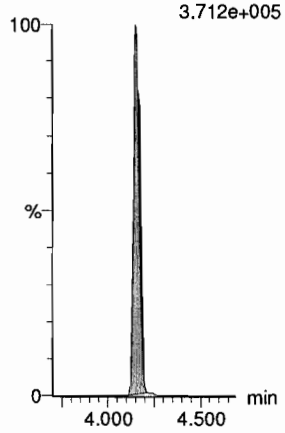
13C3-PFHxS



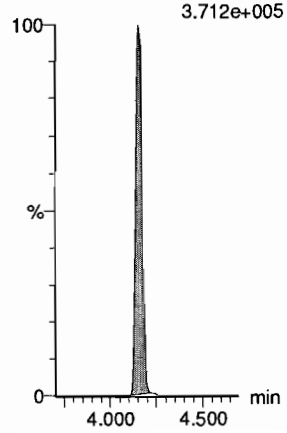
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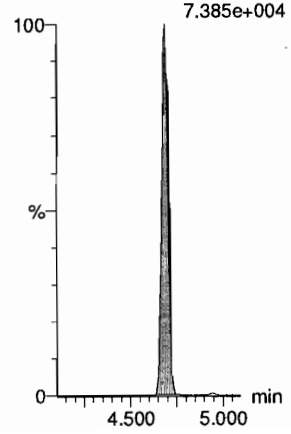
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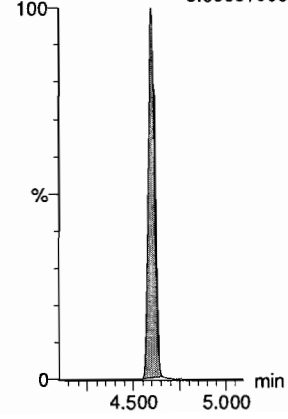
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13C8-PFOS



13C5-PFNA

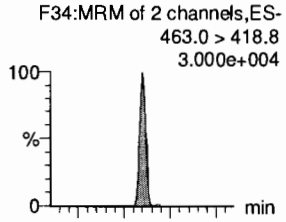


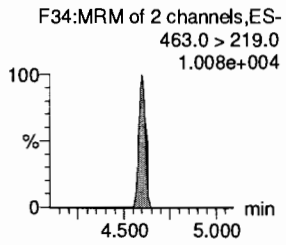
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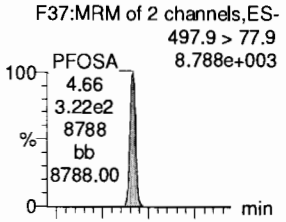
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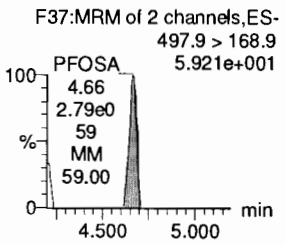
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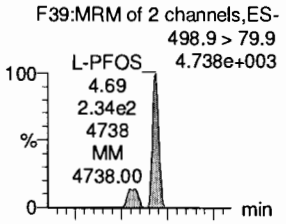


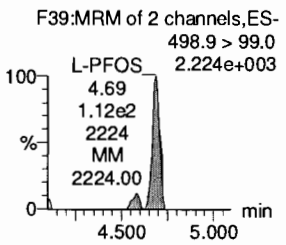
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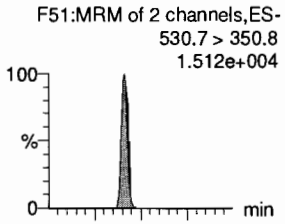


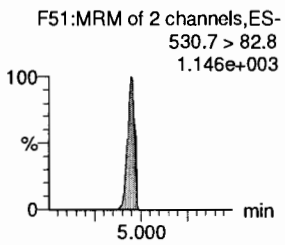
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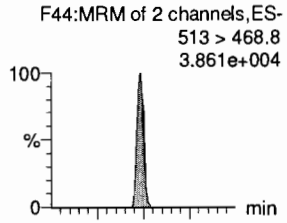


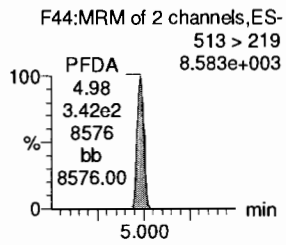
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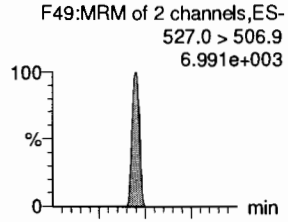


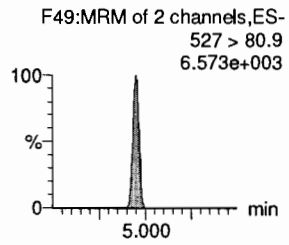
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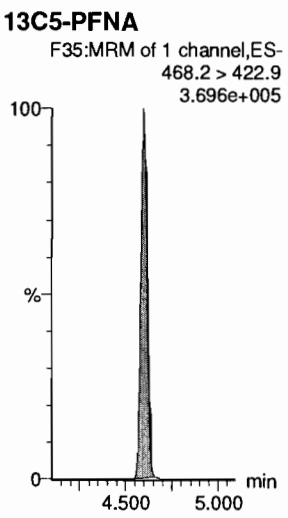


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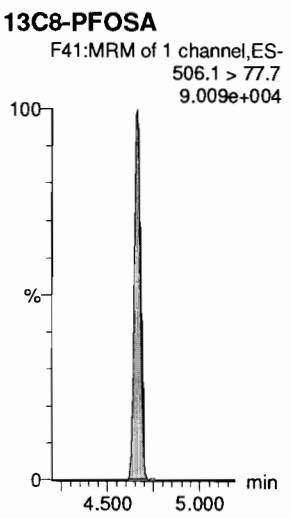




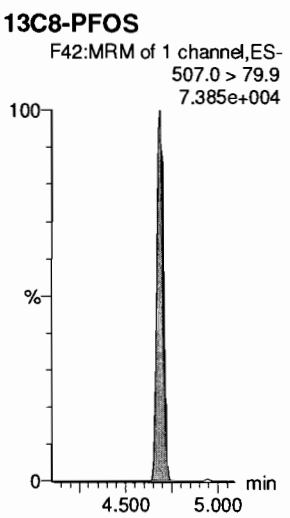
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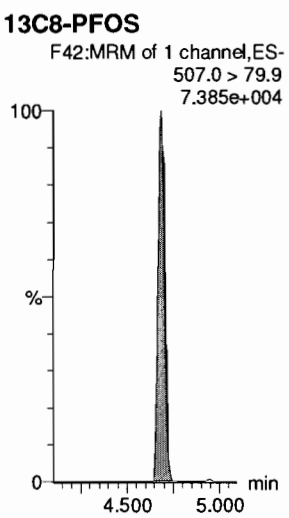
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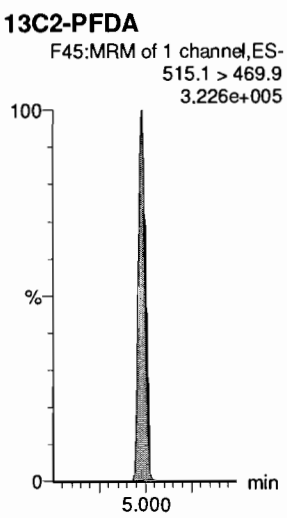
13C8-PFOS



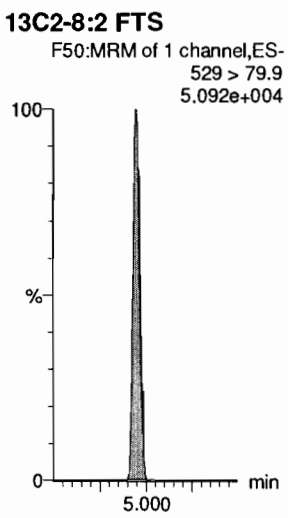
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

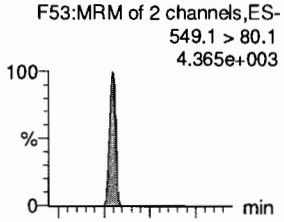


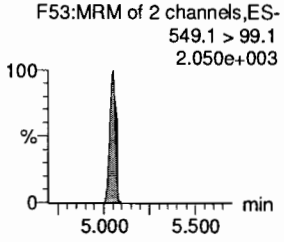
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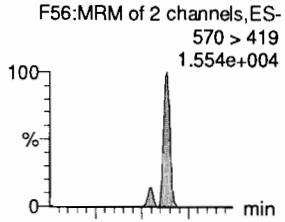
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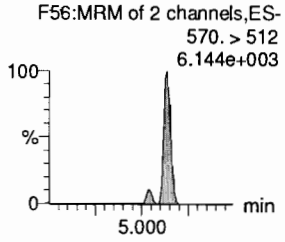
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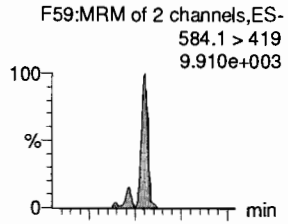


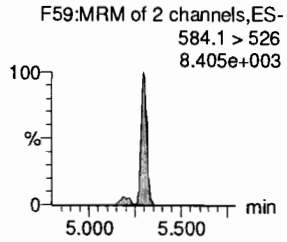
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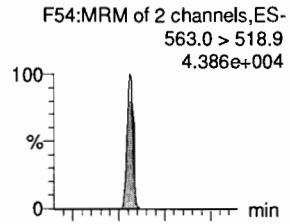


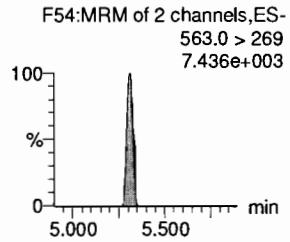
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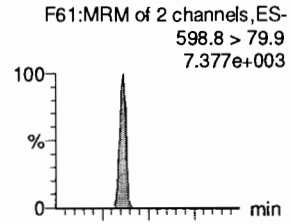


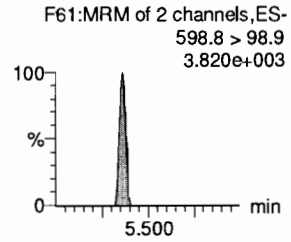
PFUdA



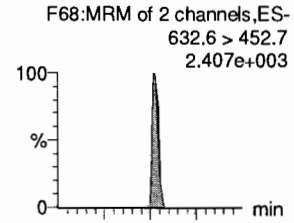


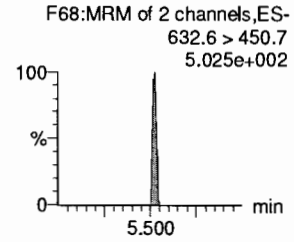
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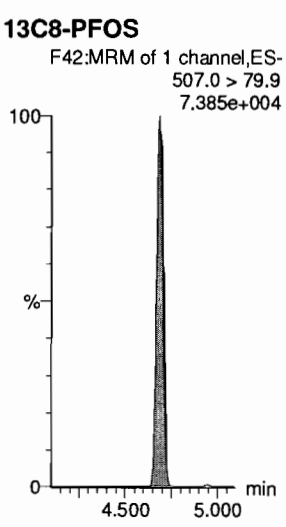


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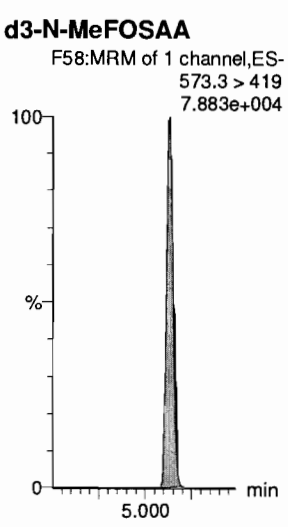




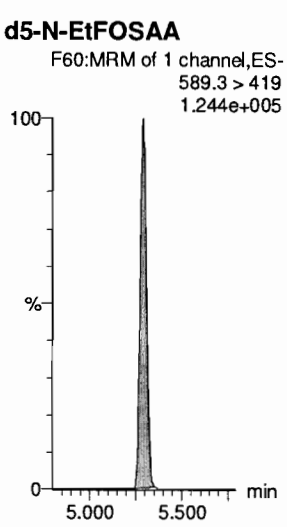
13C8-PFOS



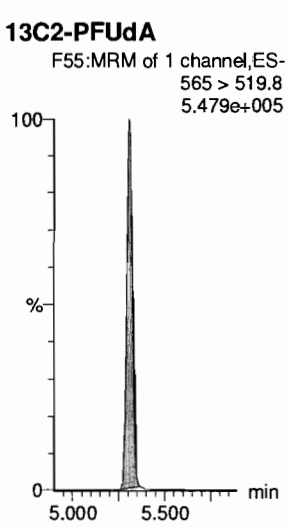
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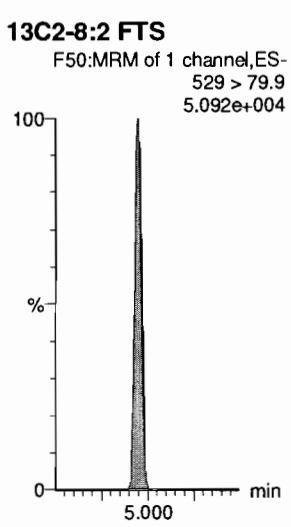
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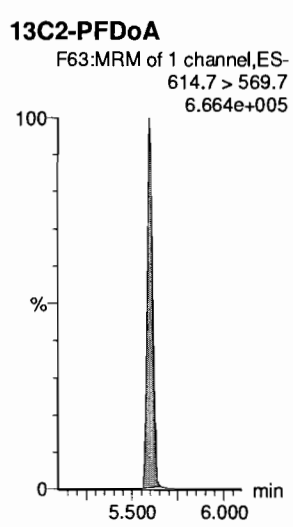
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13C2-8:2 FTS



13C2-PFDoA

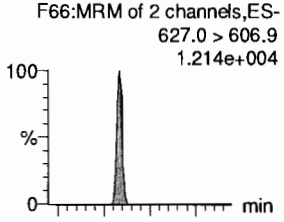


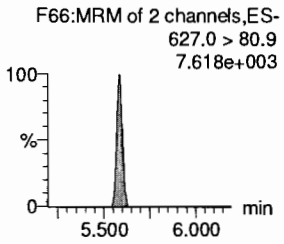
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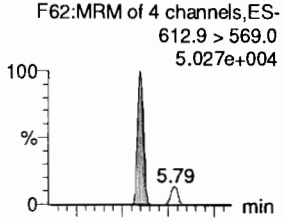
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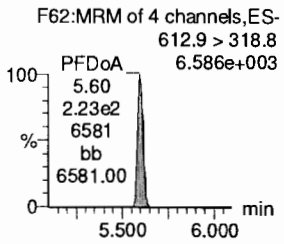
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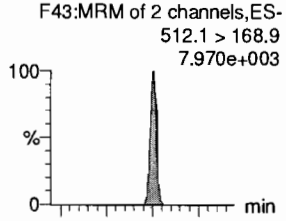


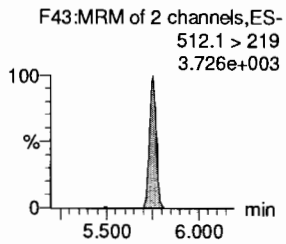
PFDoA



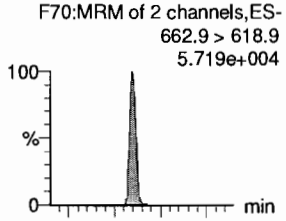


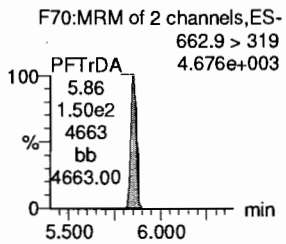
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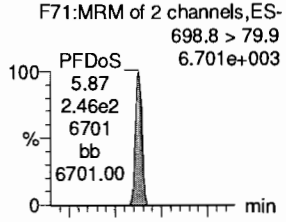


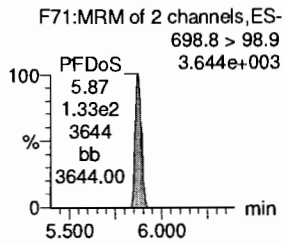
PFTrDA



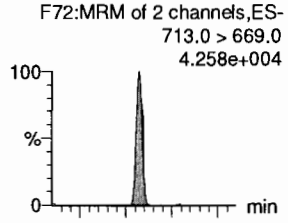


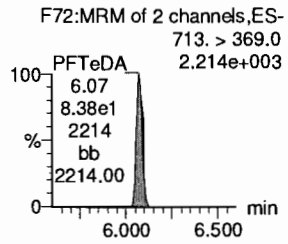
PFDoS



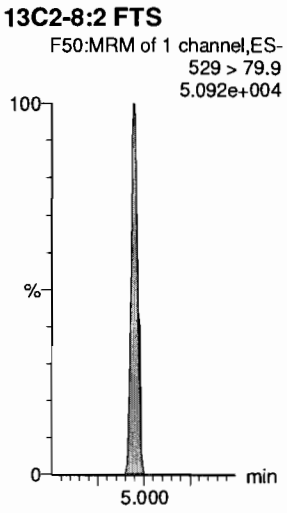


PFTeDA

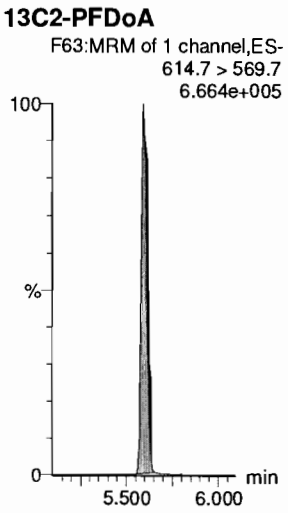




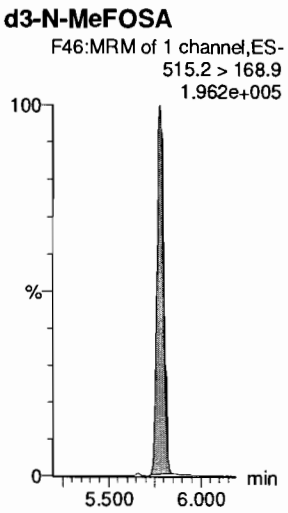
13C2-8:2 FTS



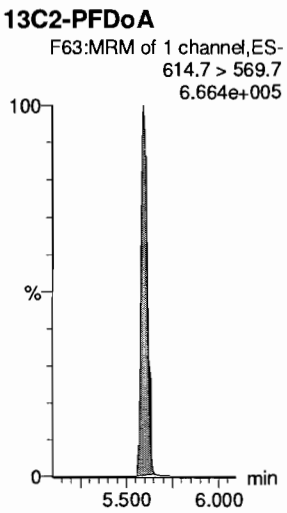
13C2-PFDoA



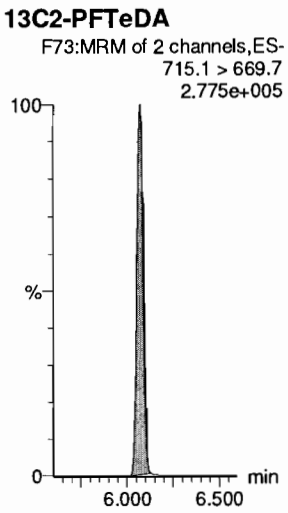
d3-N-MeFOSA



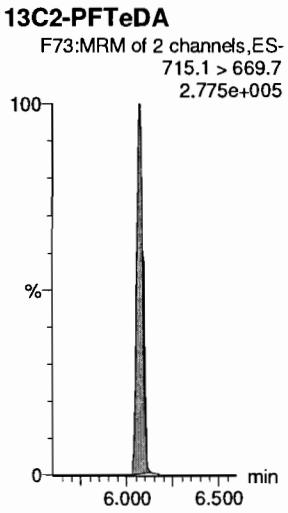
13C2-PFDoA



13C2-PFTeDA



13C2-PFTeDA

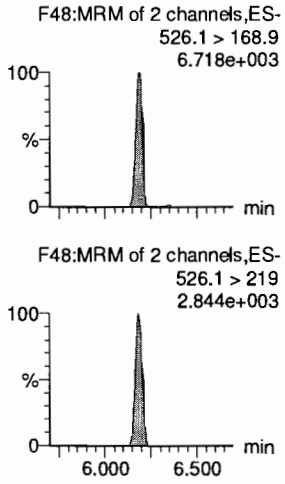


Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

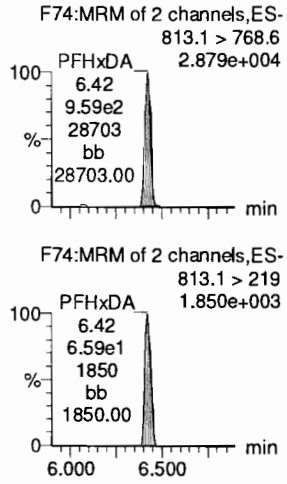
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_6, Date: 16-Jul-2019, Time: 17:27:02, ID: ST190716M2-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

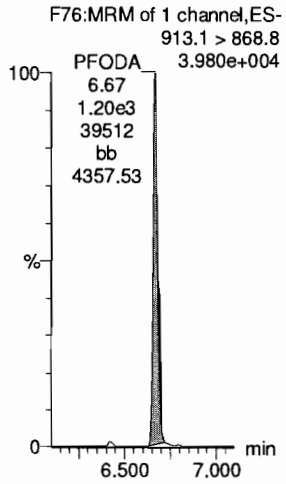
N-EtFOSA



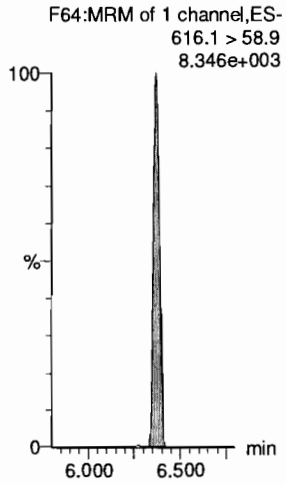
PFHxDA



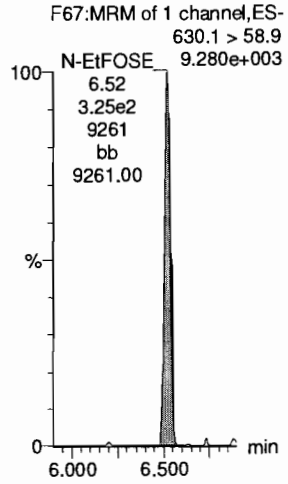
PFODA



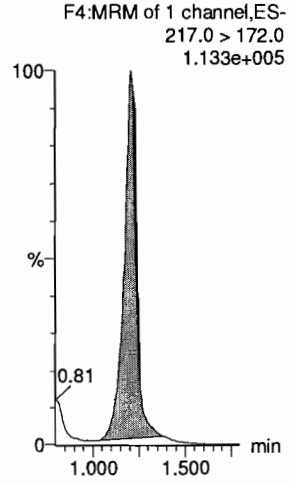
N-MeFOSE



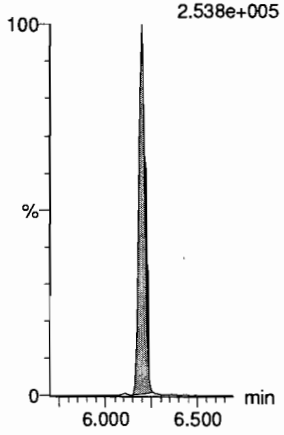
N-EtFOSE



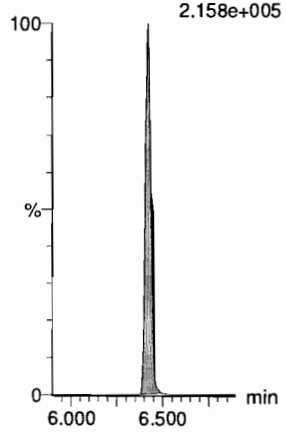
13C4-PFBA



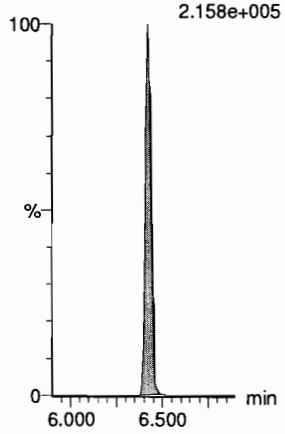
d5-N-ETFOSA



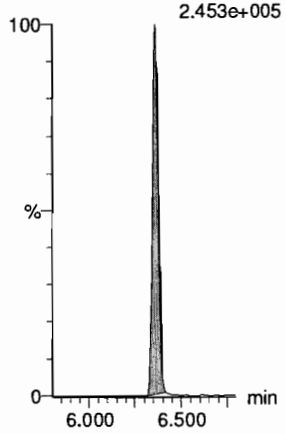
13C2-PFHxDA



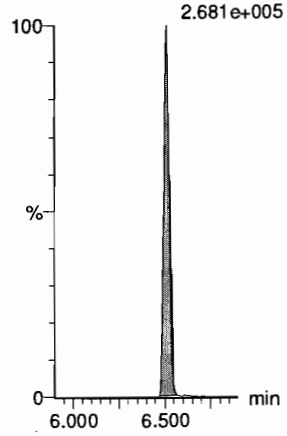
13C2-PFHxDA



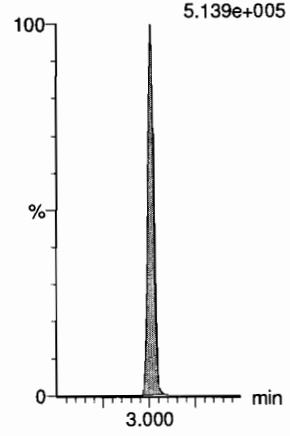
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

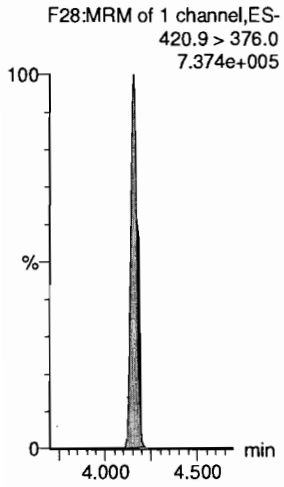


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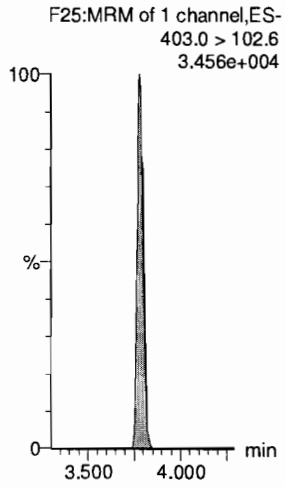
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Name: 190716M2_6, Date: 16-Jul-2019, Time: 17:27:02, ID: ST190716M2-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

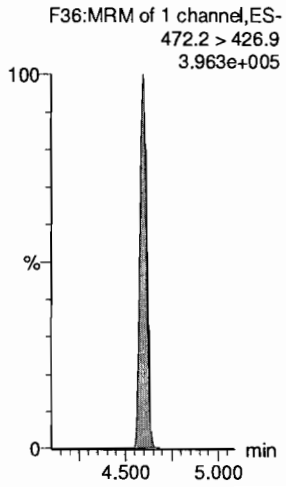
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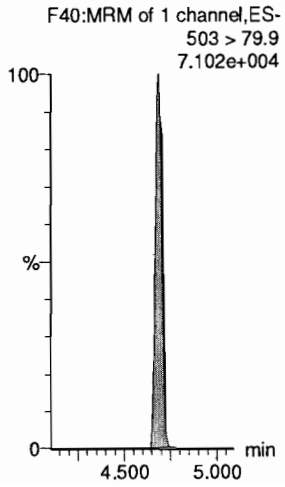
18O2-PFHxS



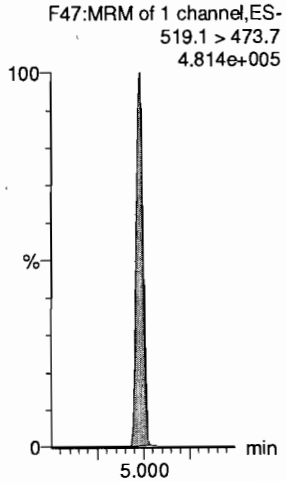
13C9-PFNA



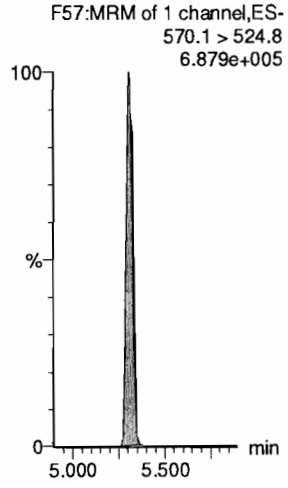
13C4-PFOS



13C6-PFDA



13C7-PFUdA

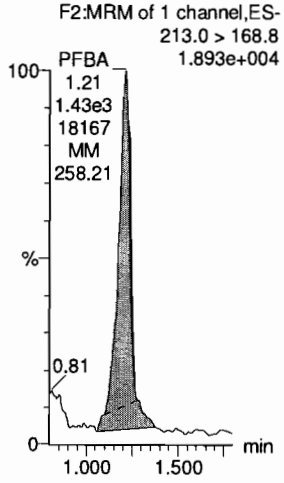


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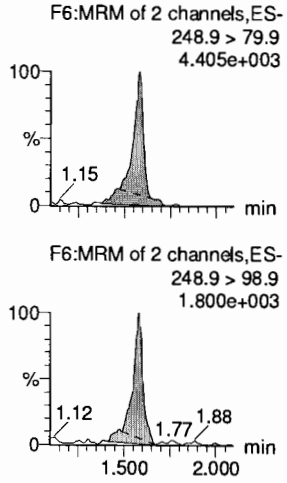
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Name: 190716M2_7, Date: 16-Jul-2019, Time: 17:37:40, ID: ST190716M2-4 PFC CS1 19G1104, Description: PFC CS1 19G1104

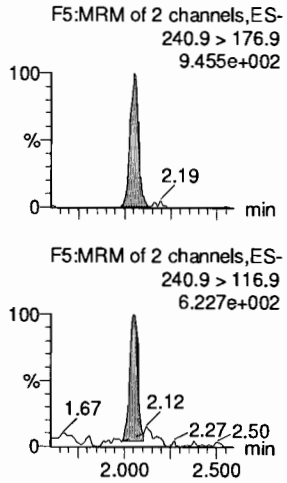
PFBA



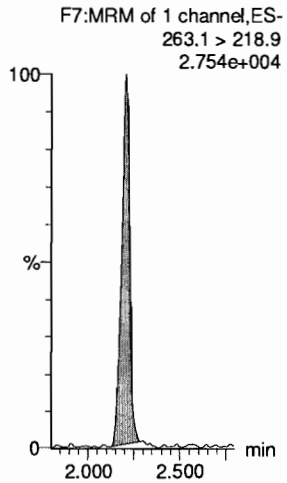
PFPrS



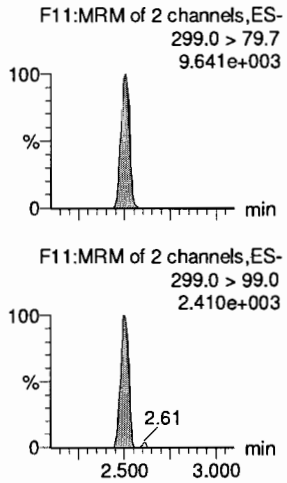
3:3 FTCA



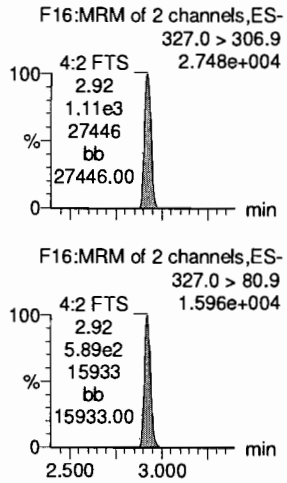
PFPeA



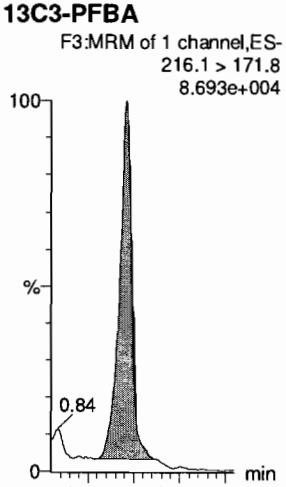
PFBS



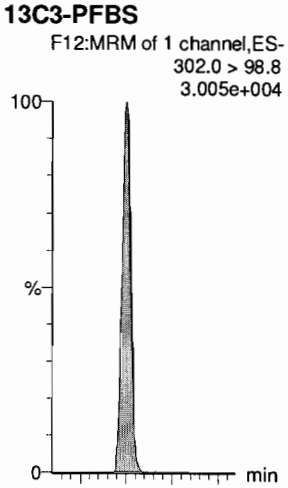
4:2 FTS



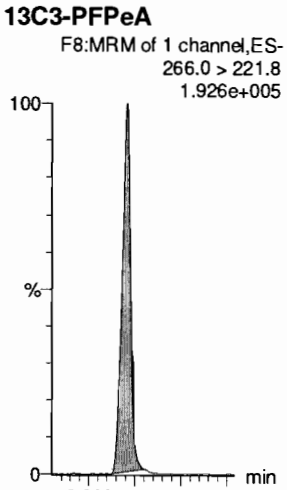
13C3-PFBA



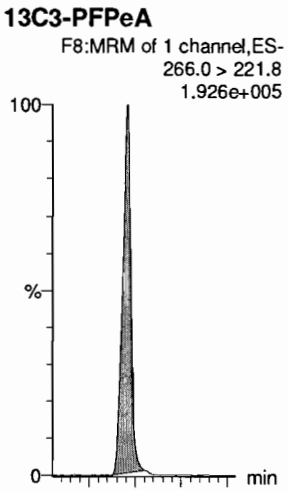
13C3-PFBS



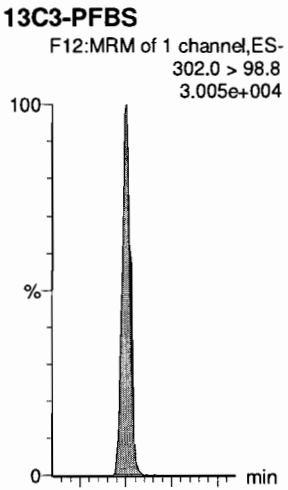
13C3-PFPeA



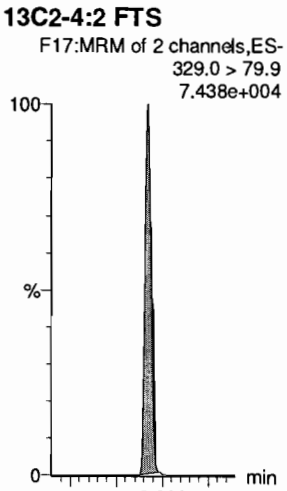
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

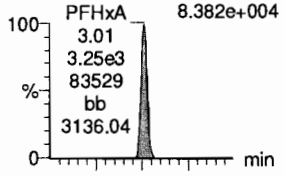


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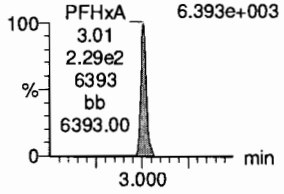
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_7, Date: 16-Jul-2019, Time: 17:37:40, ID: ST190716M2-4 PFC CS1 19G1104, Description: PFC CS1 19G1104

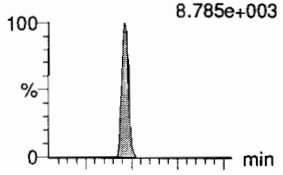
PFHxA
F13:MRM of 2 channels,ES-
313.0 > 269.0
8.382e+004
PFHxA
3.01
3.25e3
83529
bb
3136.04



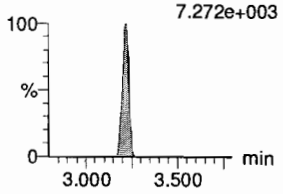
F13:MRM of 2 channels,ES-
313 > 118.9
6.393e+003
PFHxA
3.01
2.29e2
6393
bb
6393.00



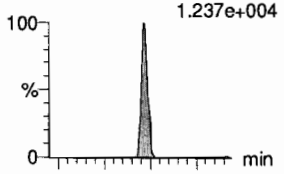
PFPeS
F19:MRM of 2 channels,ES-
349.1 > 80.1
8.785e+003



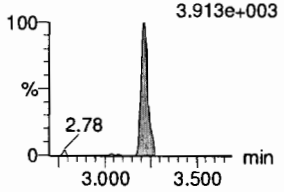
F19:MRM of 2 channels,ES-
349.1 > 99
7.272e+003



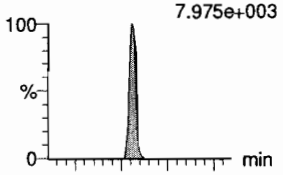
HFPO-DA
F9:MRM of 3 channels,ES-
285.1 > 168.9
1.237e+004



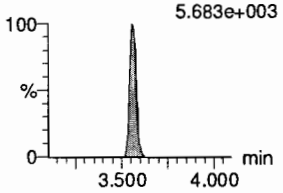
F9:MRM of 3 channels,ES-
285.1 > 184.9
3.913e+003



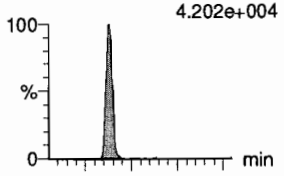
5:3 FTCA
F18:MRM of 2 channels,ES-
340.9 > 236.9
7.975e+003



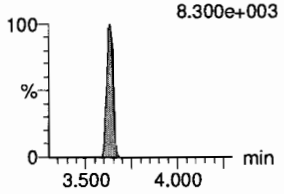
F18:MRM of 2 channels,ES-
340.9 > 216.9
5.683e+003



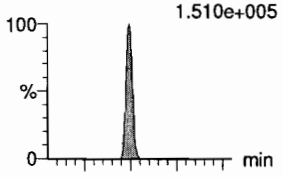
PFHpA
F20:MRM of 2 channels,ES-
363.0 > 318.9
4.202e+004



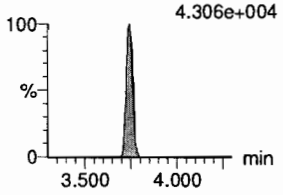
F20:MRM of 2 channels,ES-
363.0 > 169.0
8.300e+003



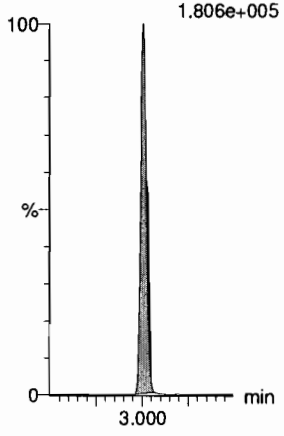
ADONA
F22:MRM of 2 channels,ES-
376.8 > 250.9
1.510e+005



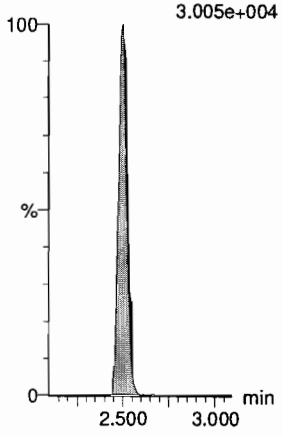
F22:MRM of 2 channels,ES-
376.8 > 85.0
4.306e+004



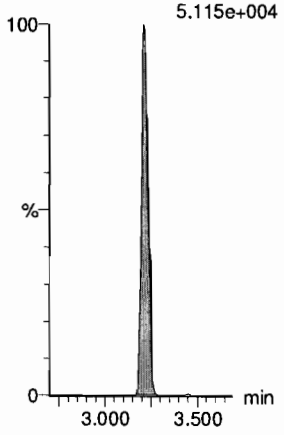
13C2-PFHxA
F14:MRM of 1 channel,ES-
315.0 > 270.0
1.806e+005



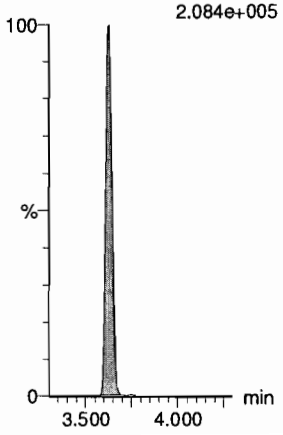
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.005e+004



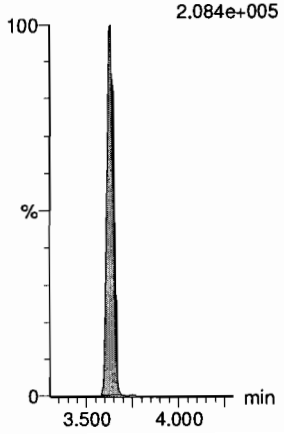
13C3-HFPO-DA
F10:MRM of 2 channels,ES-
287.0 > 168.9
5.115e+004



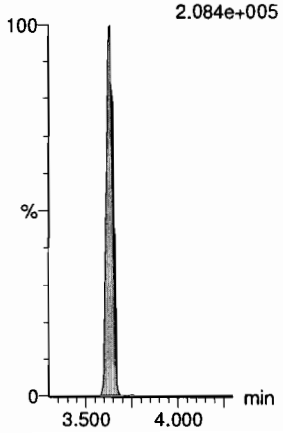
13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
2.084e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
2.084e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
2.084e+005

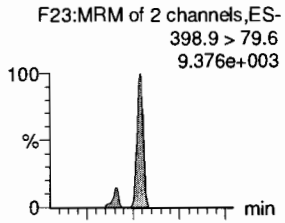


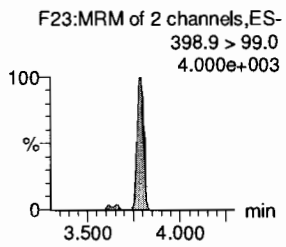
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

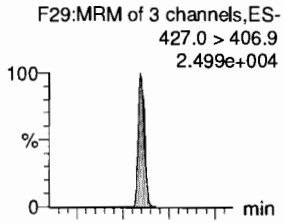
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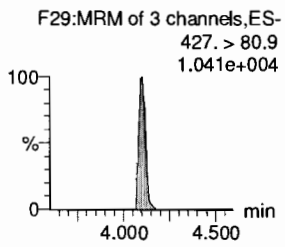
L-PFHxS



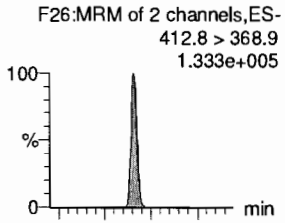


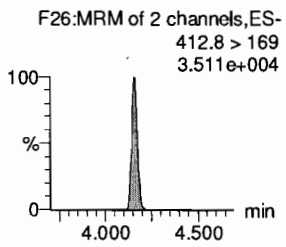
6:2 FTS



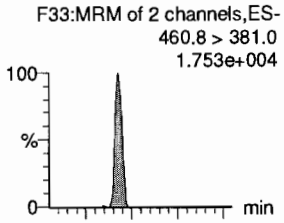


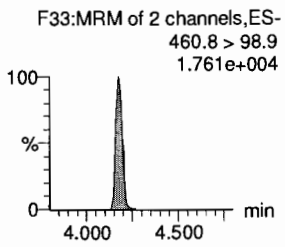
L-PFOA



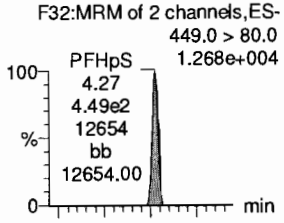


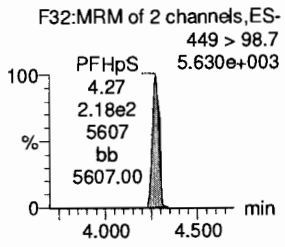
PFEChS



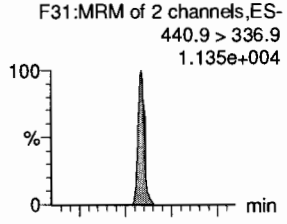


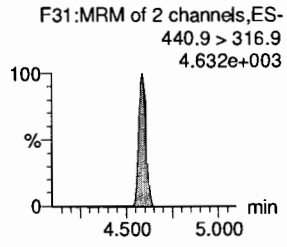
PFHpS



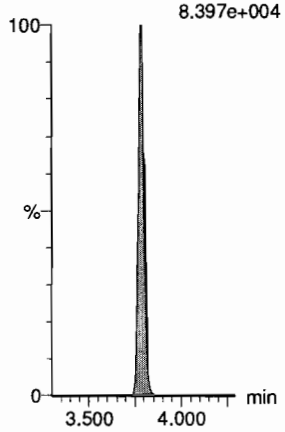


7:3 FTCA

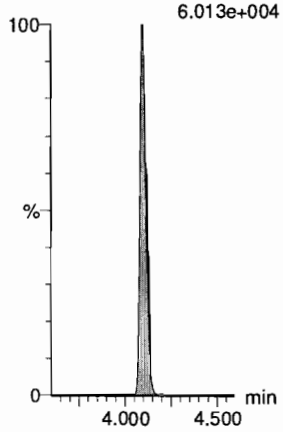




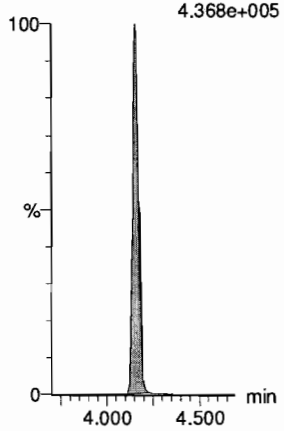
13C3-PFHxS



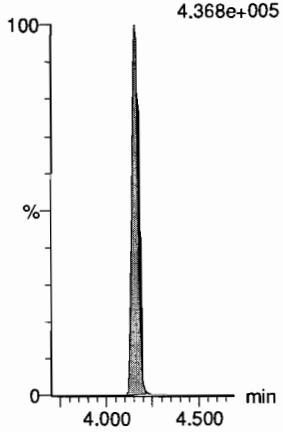
13C2-6:2 FTS



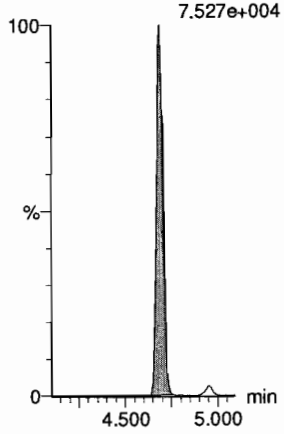
13C2-PFOA



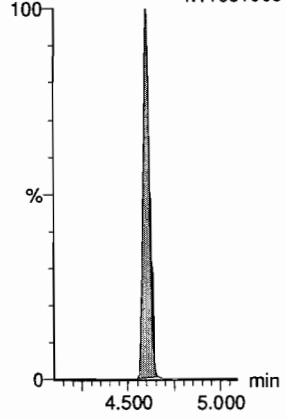
13C2-PFOA



13C8-PFOS



13C5-PFNA

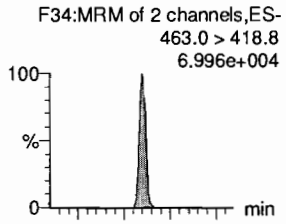


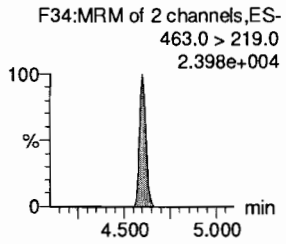
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

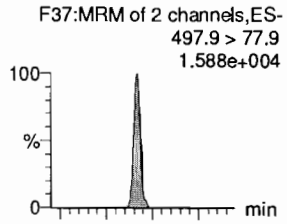
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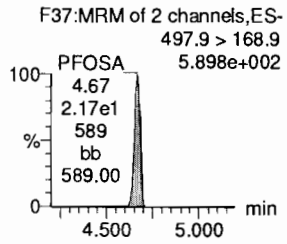
PFNA



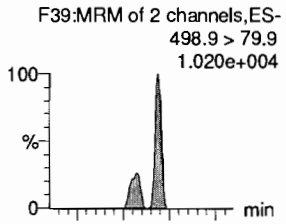


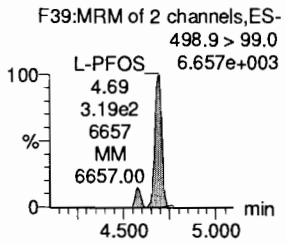
PFOSA



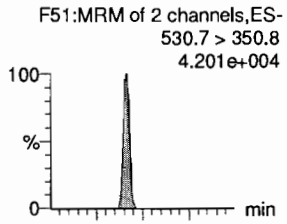


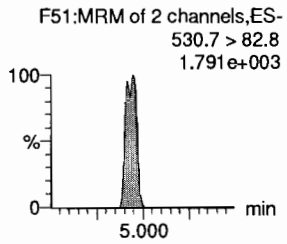
L-PFOS



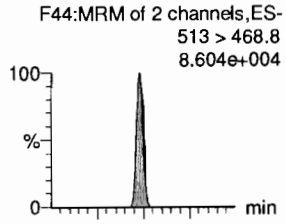


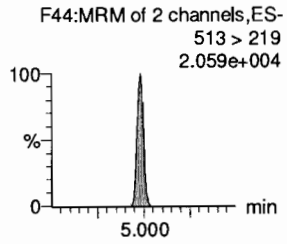
9Cl-PF30NS



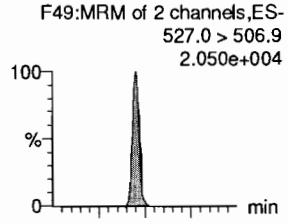


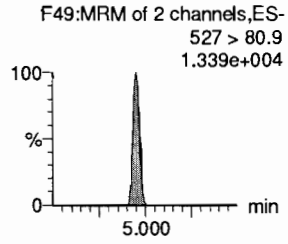
PFDA



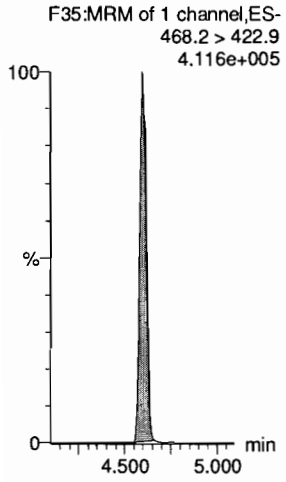


8:2 FTS

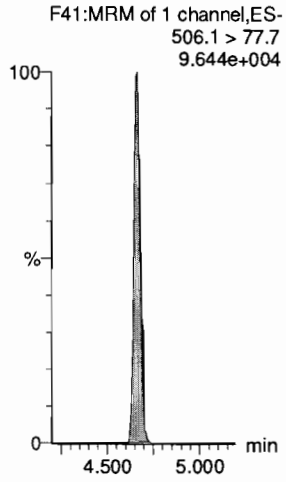




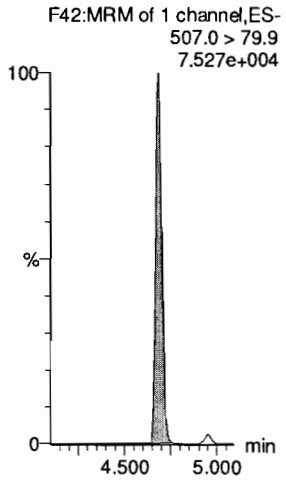
13C5-PFNA



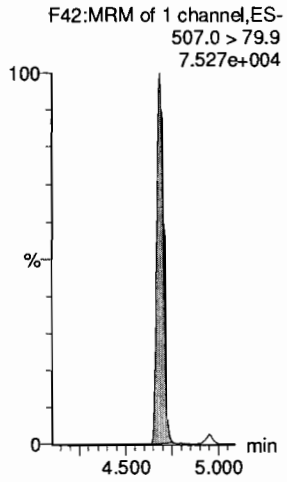
13C8-PFOSA



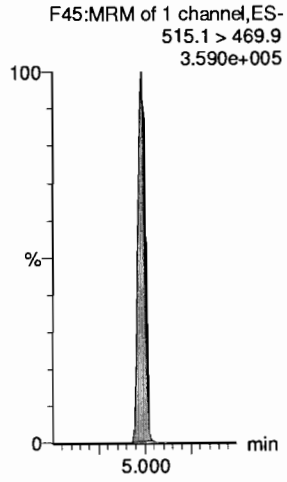
13C8-PFOS



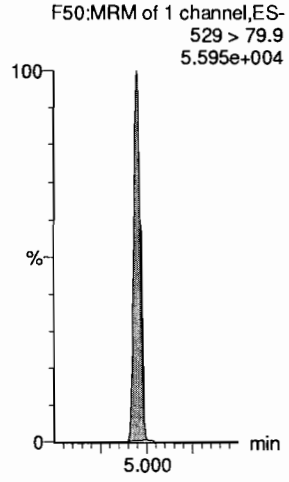
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

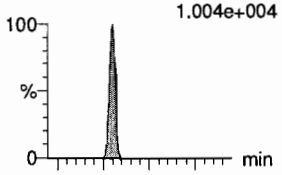


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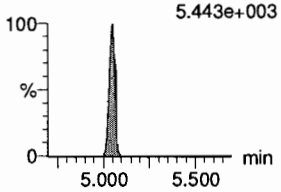
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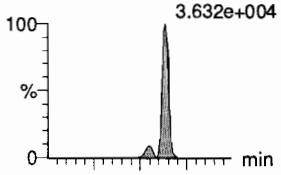
PFNS
F53:MRM of 2 channels,ES-
549.1 > 80.1
1.004e+004



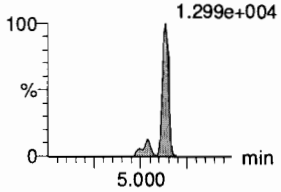
F53:MRM of 2 channels,ES-
549.1 > 99.1
5.443e+003



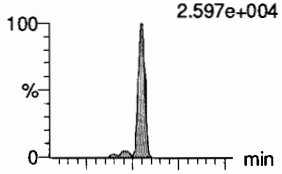
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
3.632e+004



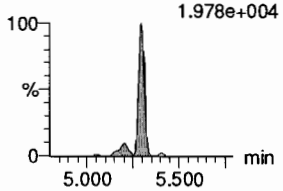
F56:MRM of 2 channels,ES-
570. > 512
1.299e+004



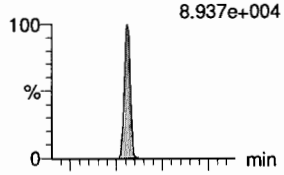
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
2.597e+004



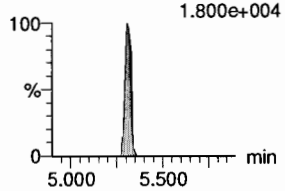
F59:MRM of 2 channels,ES-
584.1 > 526
1.978e+004



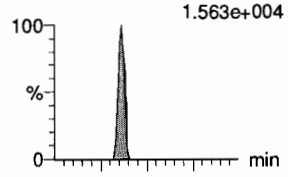
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
8.937e+004



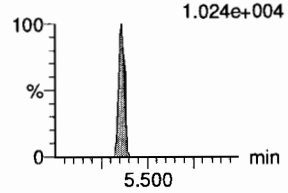
F54:MRM of 2 channels,ES-
563.0 > 269
1.800e+004



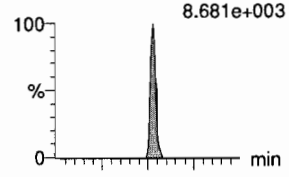
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
1.563e+004



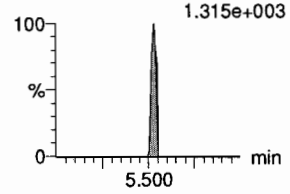
F61:MRM of 2 channels,ES-
598.8 > 98.9
1.024e+004



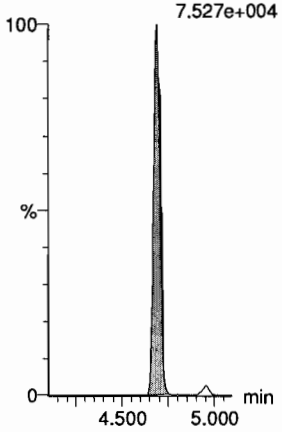
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
8.681e+003



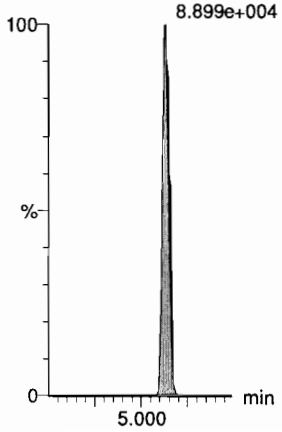
F68:MRM of 2 channels,ES-
632.6 > 450.7
1.315e+003



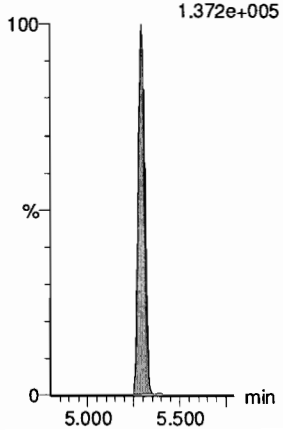
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
7.527e+004



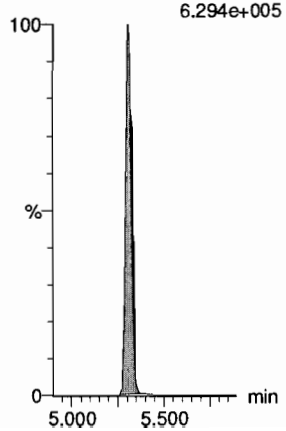
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
8.899e+004



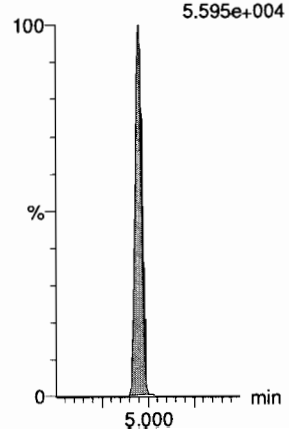
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
1.372e+005



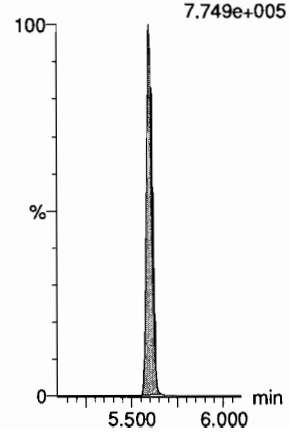
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
6.294e+005



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
5.595e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
7.749e+005

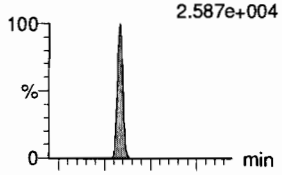


Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

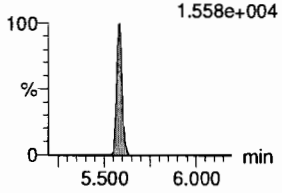
Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_7, Date: 16-Jul-2019, Time: 17:37:40, ID: ST190716M2-4 PFC CS1 19G1104, Description: PFC CS1 19G1104

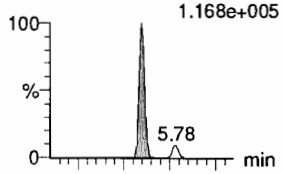
10:2 FTS
F66:MRM of 2 channels,ES-
627.0 > 606.9
2.587e+004



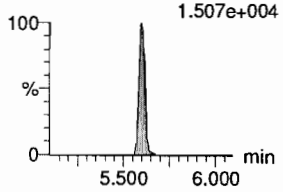
F66:MRM of 2 channels,ES-
627.0 > 80.9
1.558e+004



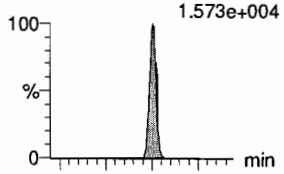
PFDoA
F62:MRM of 4 channels,ES-
612.9 > 569.0
1.168e+005



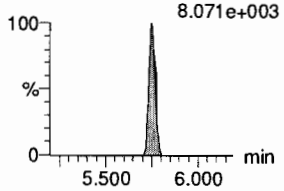
F62:MRM of 4 channels,ES-
612.9 > 318.8
1.507e+004



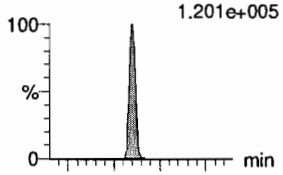
N-MeFOSA
F43:MRM of 2 channels,ES-
512.1 > 168.9
1.573e+004



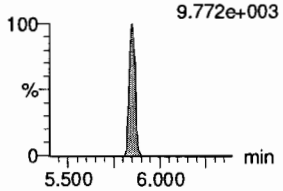
F43:MRM of 2 channels,ES-
512.1 > 219
8.071e+003



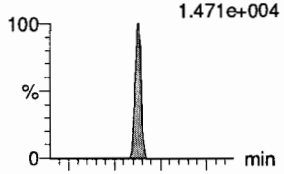
PFTrDA
F70:MRM of 2 channels,ES-
662.9 > 618.9
1.201e+005



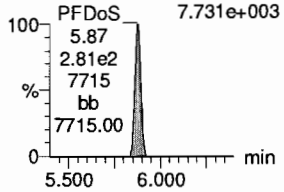
F70:MRM of 2 channels,ES-
662.9 > 319
9.772e+003



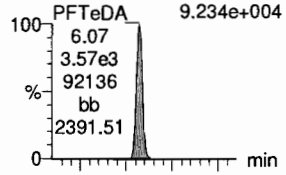
PFDoS
F71:MRM of 2 channels,ES-
698.8 > 79.9
1.471e+004



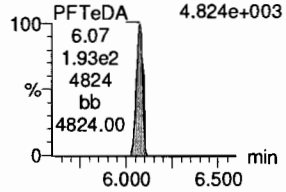
F71:MRM of 2 channels,ES-
698.8 > 98.9
7.731e+003



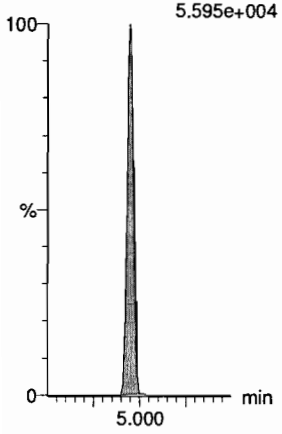
PFTeDA
F72:MRM of 2 channels,ES-
713.0 > 669.0
9.234e+004



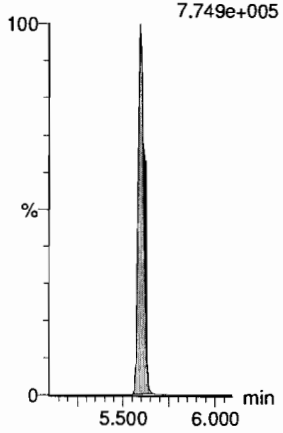
F72:MRM of 2 channels,ES-
713. > 369.0
4.824e+003



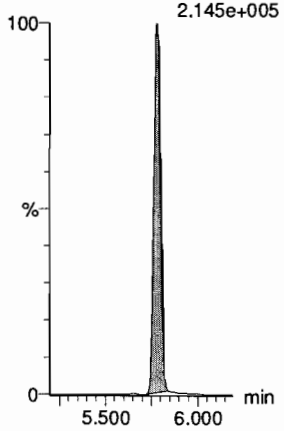
13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
5.595e+004



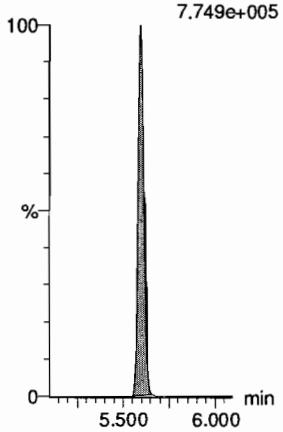
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
7.749e+005



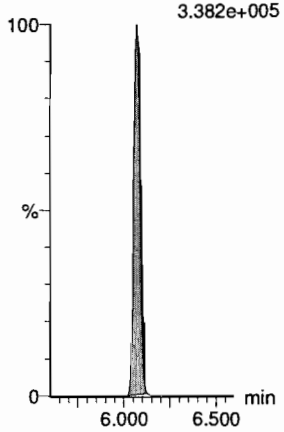
d3-N-MeFOSA
F46:MRM of 1 channel,ES-
515.2 > 168.9
2.145e+005



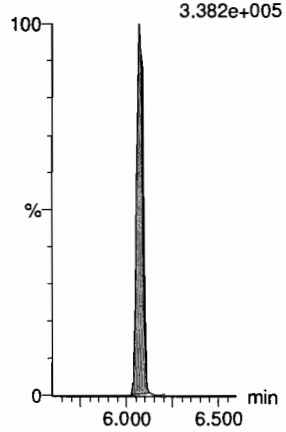
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
7.749e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
3.382e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
3.382e+005

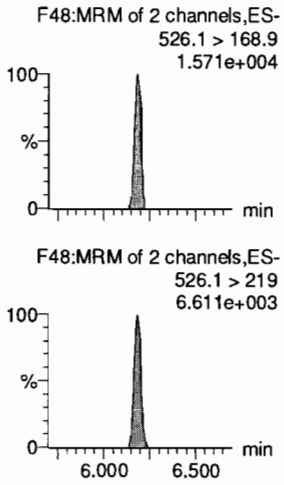


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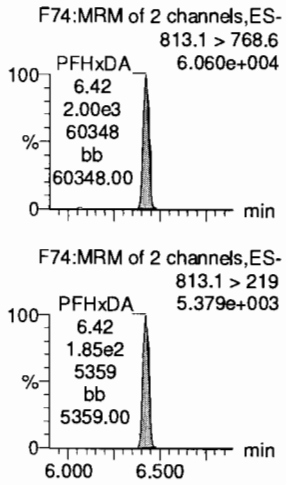
Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_7, Date: 16-Jul-2019, Time: 17:37:40, ID: ST190716M2-4 PFC CS1 19G1104, Description: PFC CS1 19G1104

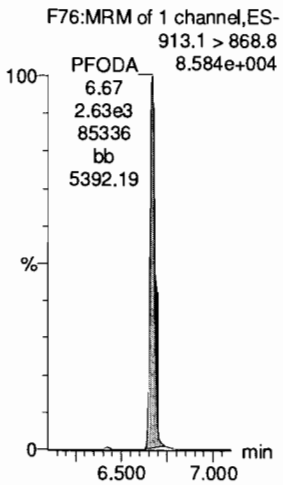
N-EtFOSA



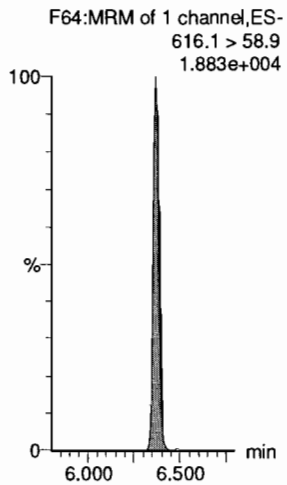
PFHxDA



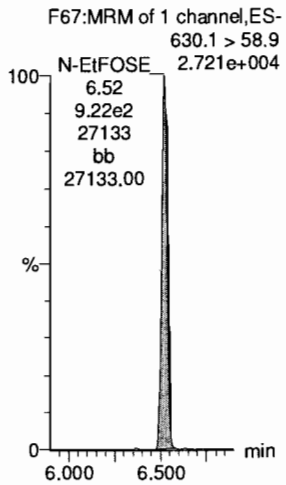
PFODA



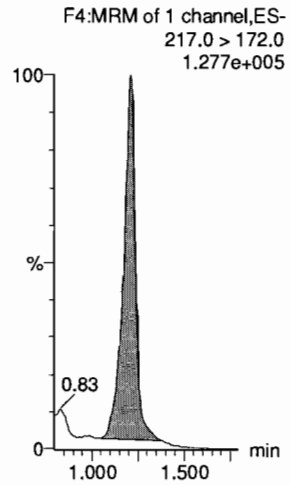
N-MeFOSE



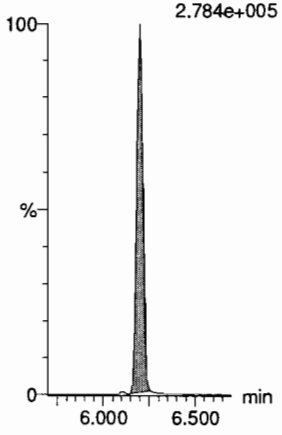
N-EtFOSE



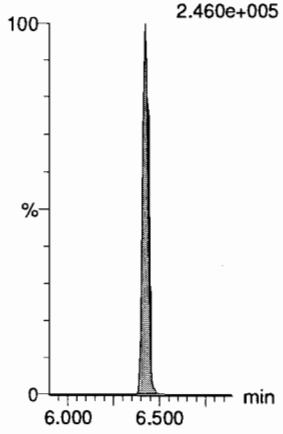
13C4-PFBA



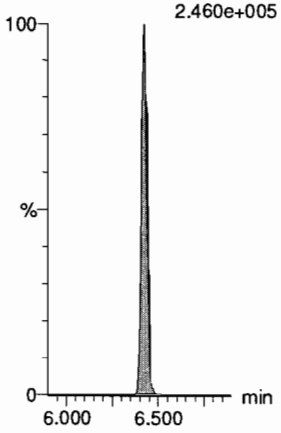
d5-N-ETFOSA



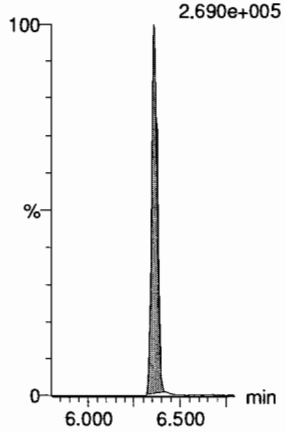
13C2-PFHxDA



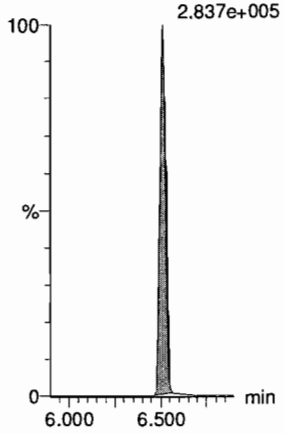
13C2-PFHxDA



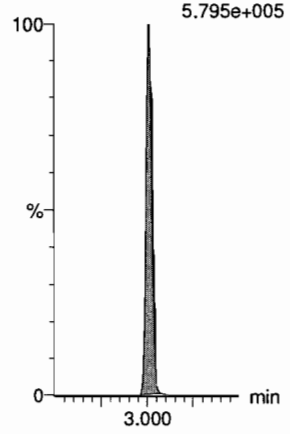
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

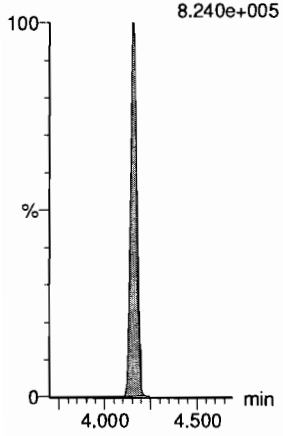


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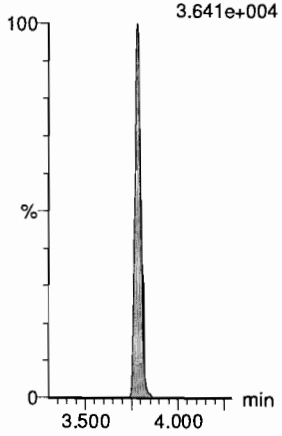
Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_7, Date: 16-Jul-2019, Time: 17:37:40, ID: ST190716M2-4 PFC CS1 19G1104, Description: PFC CS1 19G1104

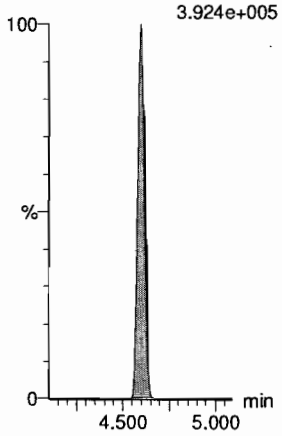
13C8-PFOA



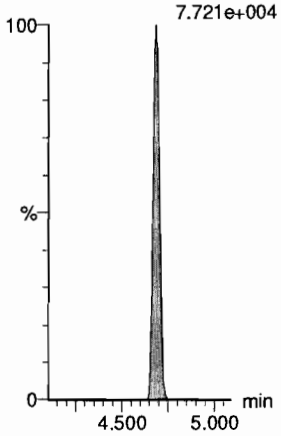
18O2-PFHxS



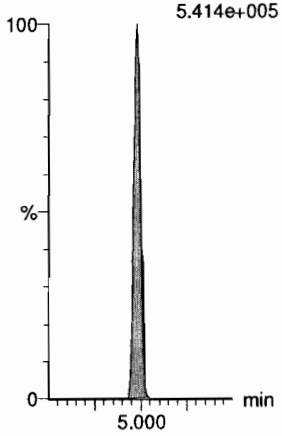
13C9-PFNA



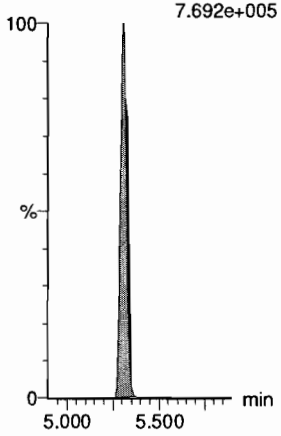
13C4-PFOS



13C6-PFDA



13C7-PFUdA

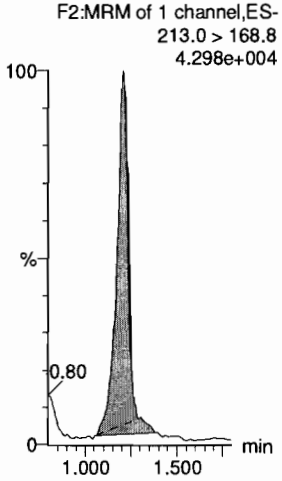


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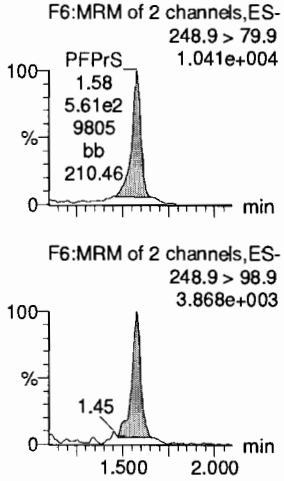
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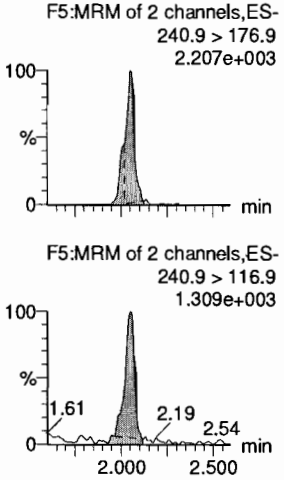
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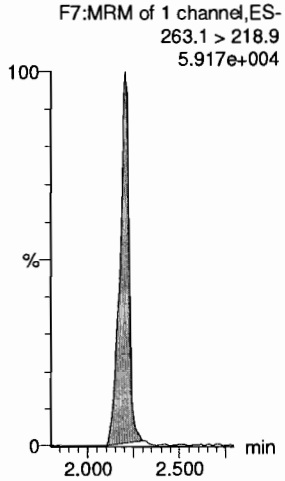
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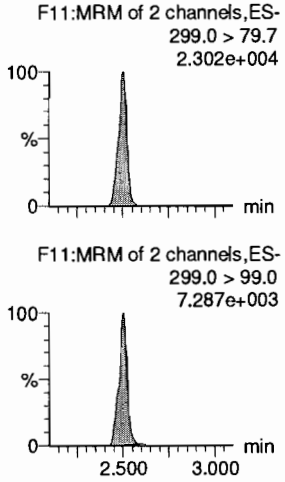
3:3 FTCA



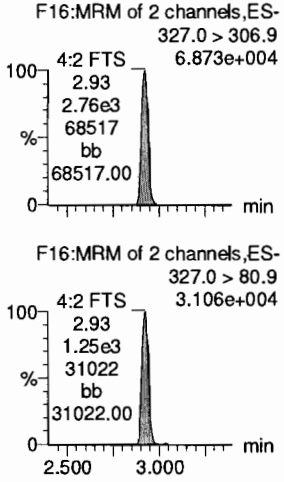
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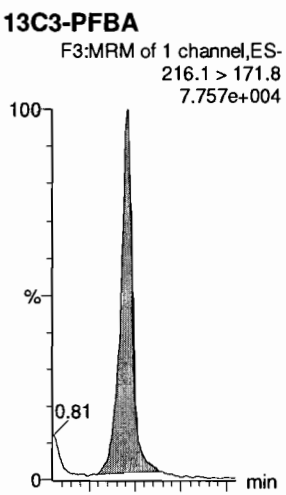
PFBS



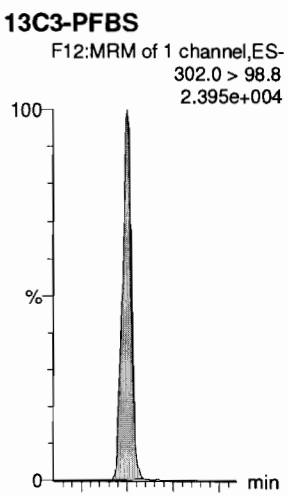
4:2 FTS



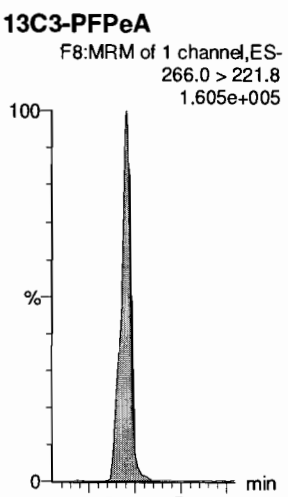
13C3-PFBA



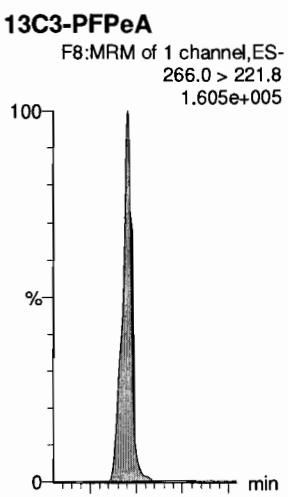
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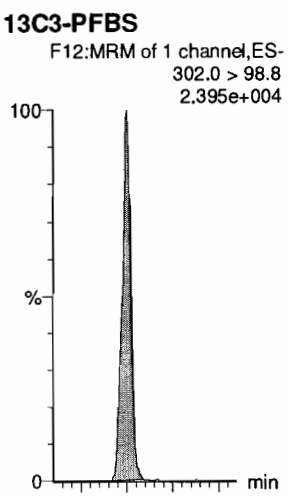
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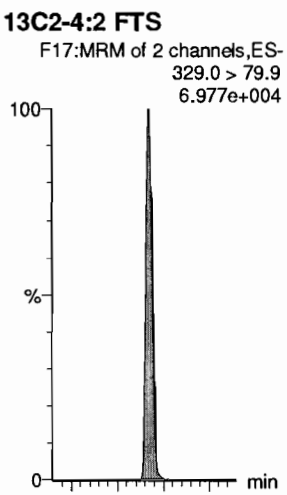
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13C3-PFBS



13C2-4:2 FTS

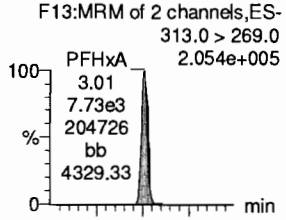


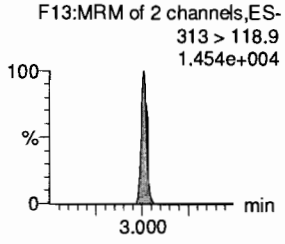
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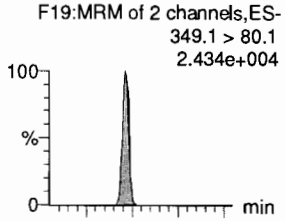
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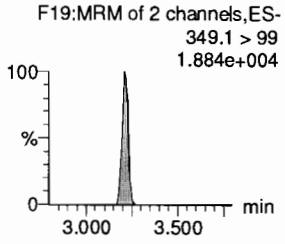
PFHxA



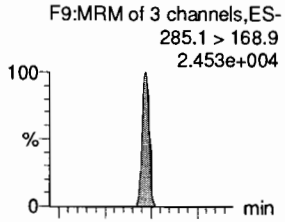


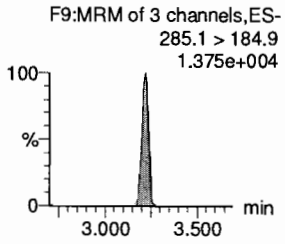
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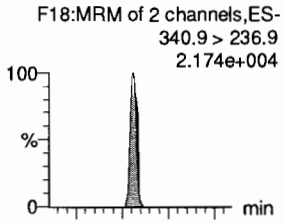


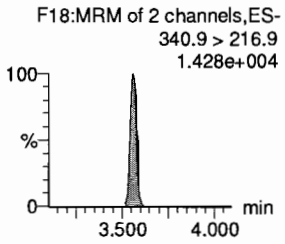
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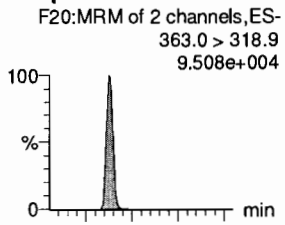


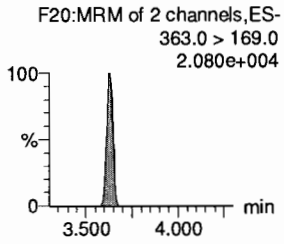
5:3 FTCA



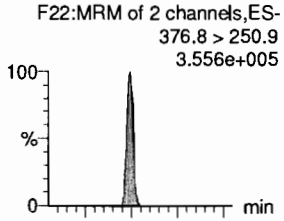


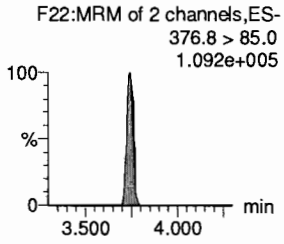
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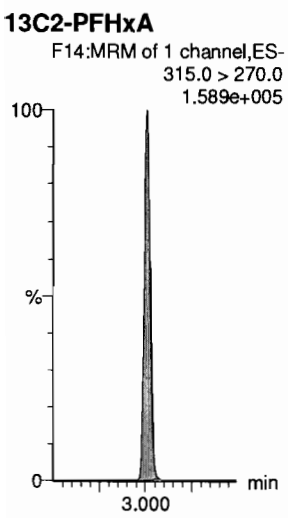


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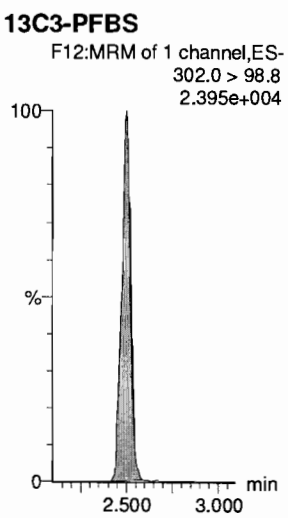




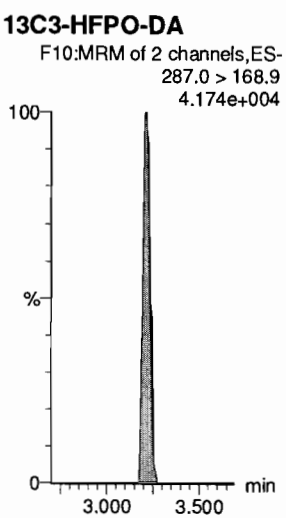
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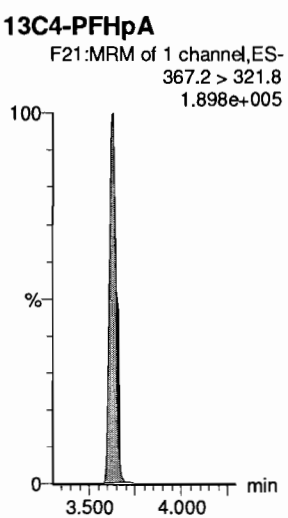
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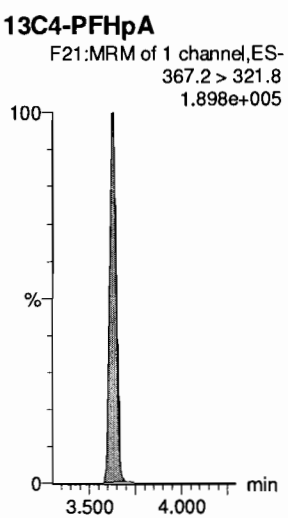
13C3-HFPO-DA



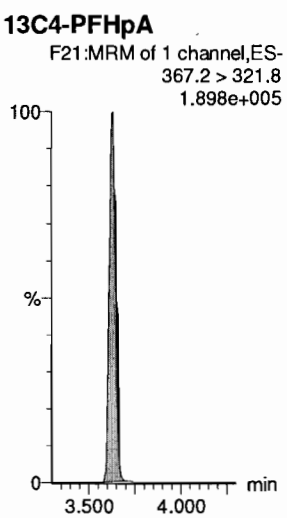
13C4-PFHpA



13C4-PFHpA



13C4-PFHpA

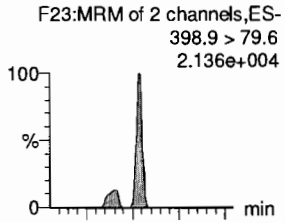


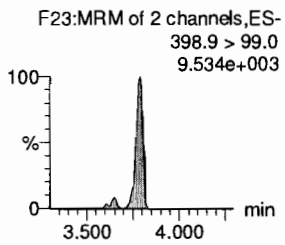
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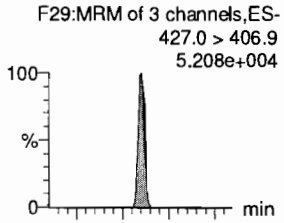
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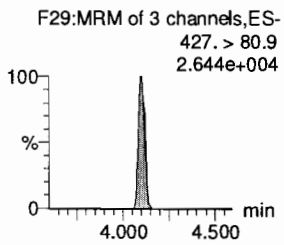
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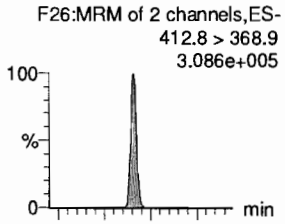


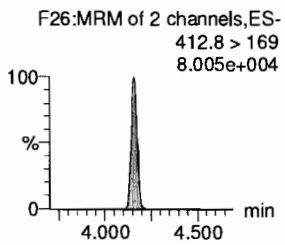
6:2 FTS



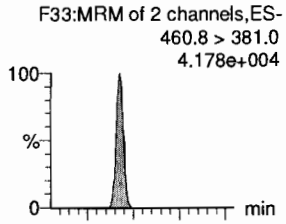


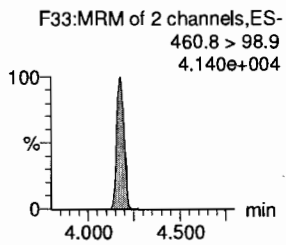
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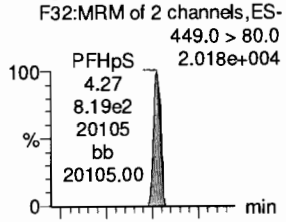


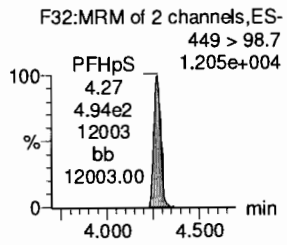
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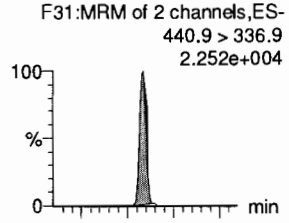


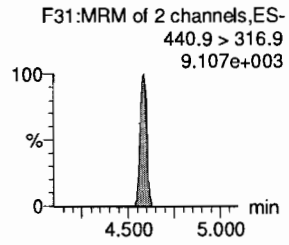
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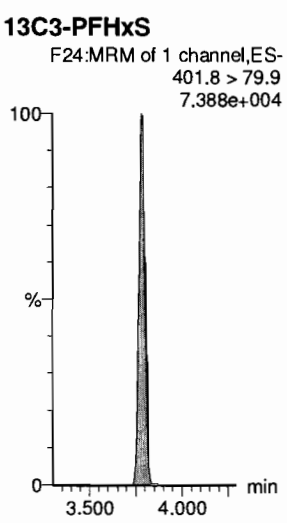


7:3 FTCA

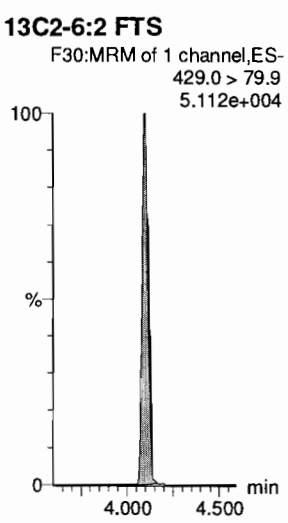




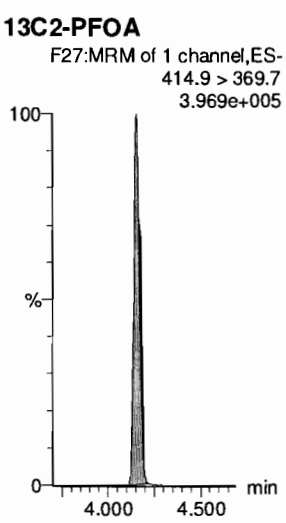
13C3-PFHxS



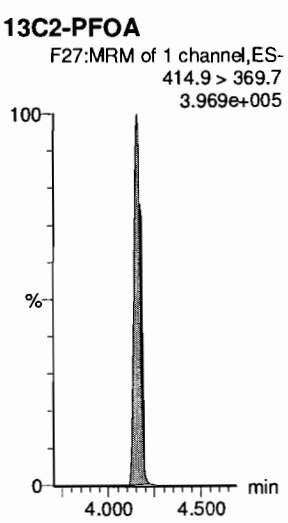
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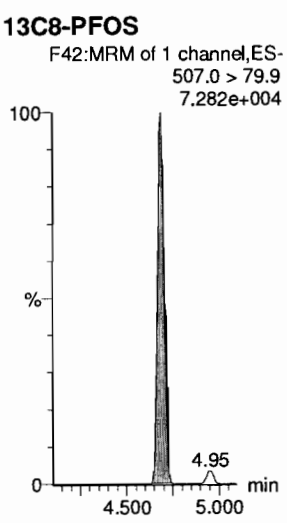
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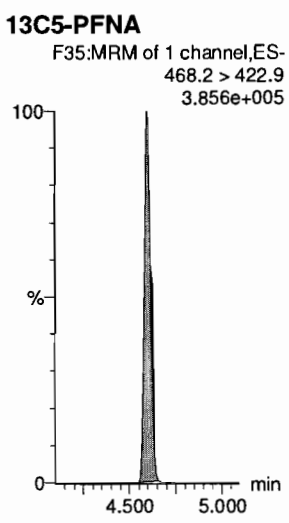
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13C8-PFOS



13C5-PFNA

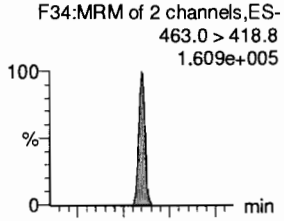


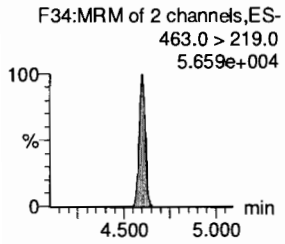
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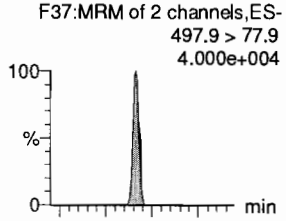
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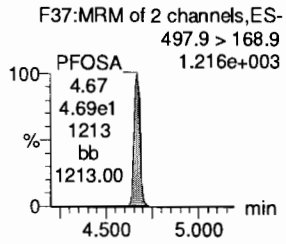
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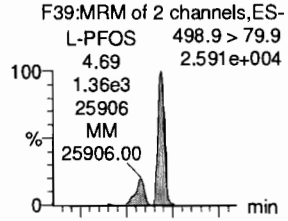


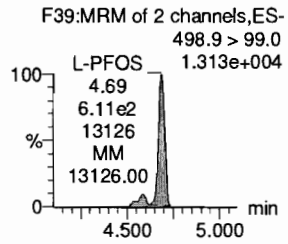
PFOSA



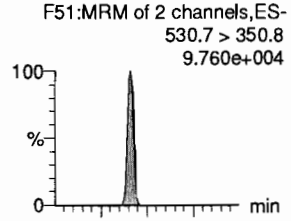


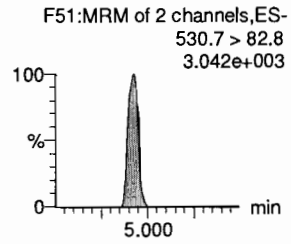
L-PFOS



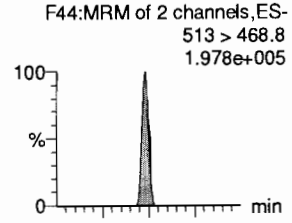


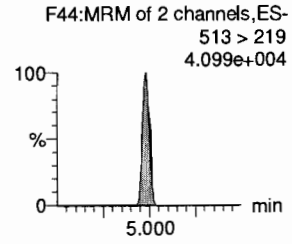
9Cl-PF30NS



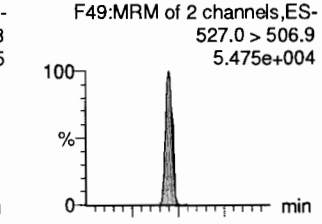


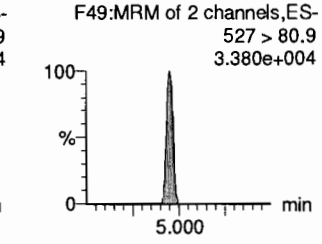
PFDA



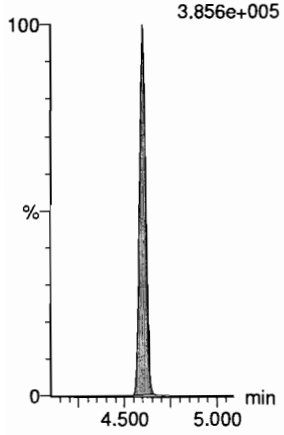


8:2 FTS

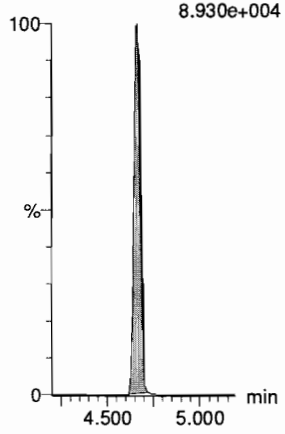




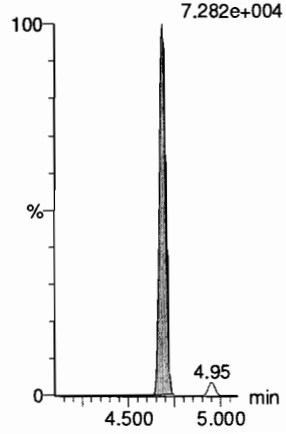
13C5-PFNA



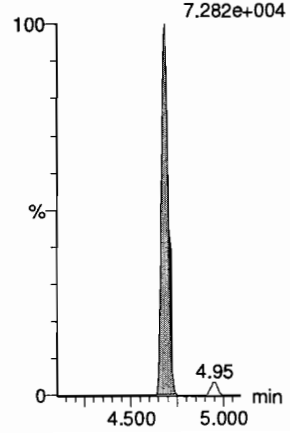
13C8-PFOSA



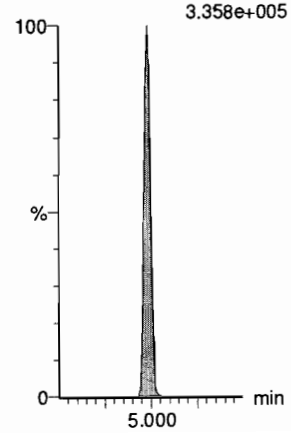
13C8-PFOS



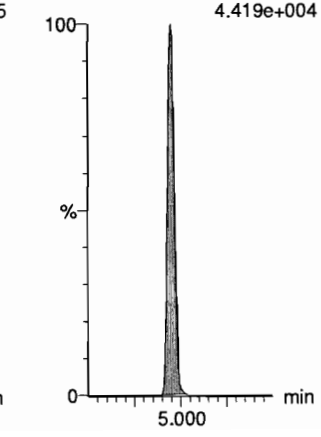
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

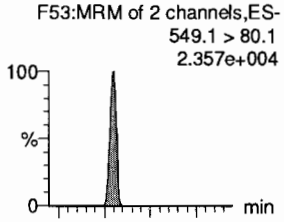


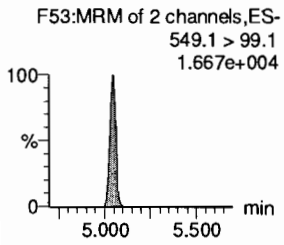
Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

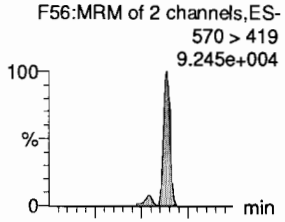
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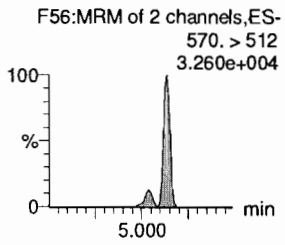
PFNS



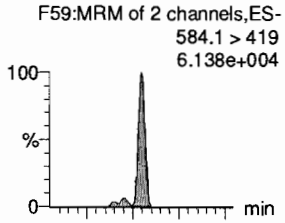


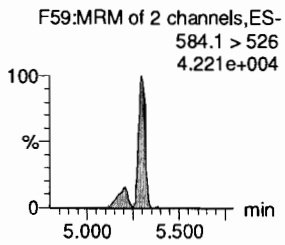
L-MeFOSAA



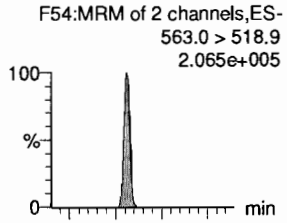


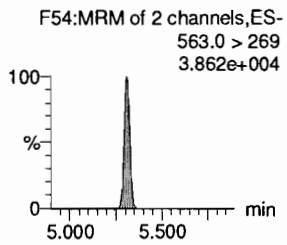
L-EtFOSAA



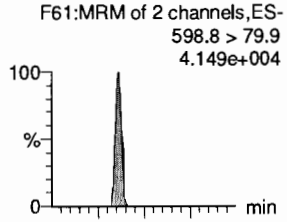


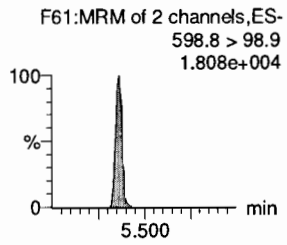
PFUdA



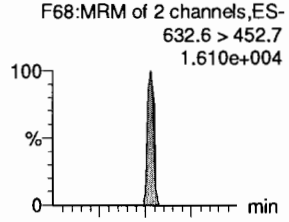


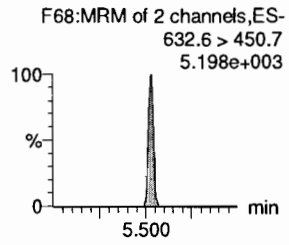
PFDS



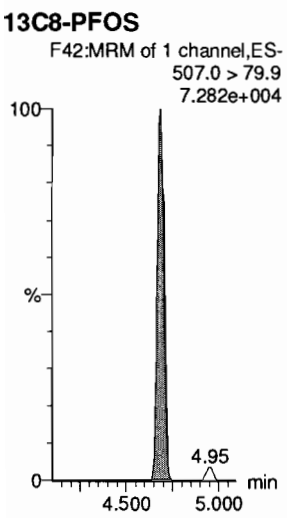


11Cl-PF30UdS

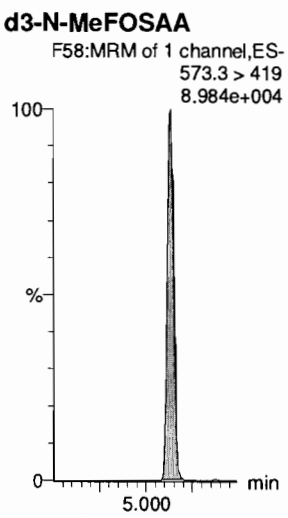




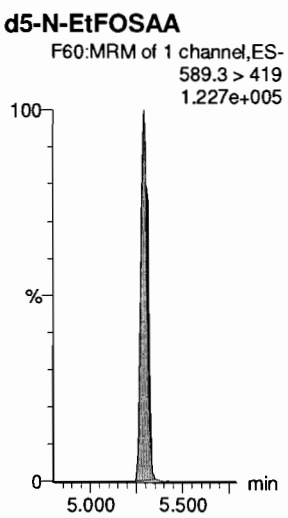
13C8-PFOS



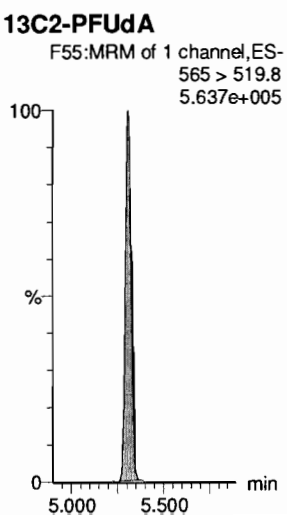
d3-N-MeFOSAA



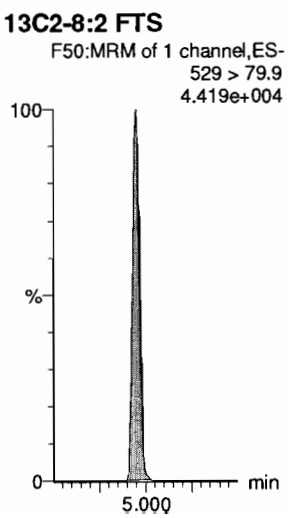
d5-N-EtFOSAA



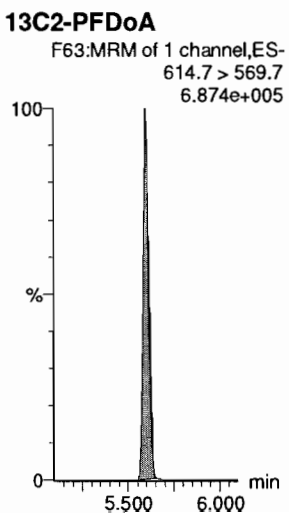
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

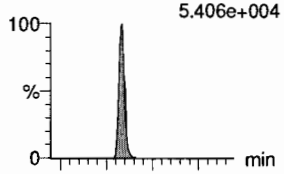


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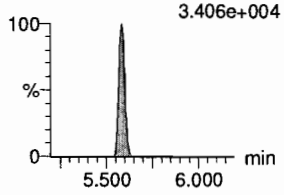
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Name: 190716M2_8, Date: 16-Jul-2019, Time: 17:48:13, ID: ST190716M2-5 PFC CS2 19G1105, Description: PFC CS2 19G1105

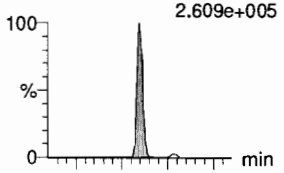
10:2 FTS
F66:MRM of 2 channels,ES-
627.0 > 606.9
5.406e+004



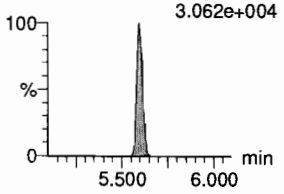
F66:MRM of 2 channels,ES-
627.0 > 80.9
3.406e+004



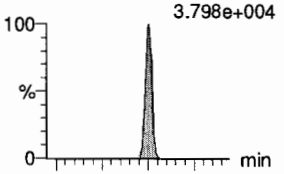
PFDoA
F62:MRM of 4 channels,ES-
612.9 > 569.0
2.609e+005



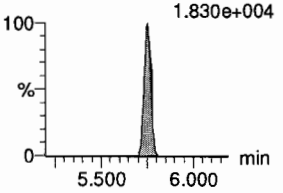
F62:MRM of 4 channels,ES-
612.9 > 318.8
3.062e+004



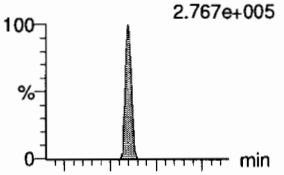
N-MeFOSA
F43:MRM of 2 channels,ES-
512.1 > 168.9
3.798e+004



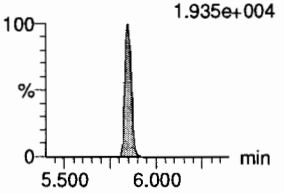
F43:MRM of 2 channels,ES-
512.1 > 219
1.830e+004



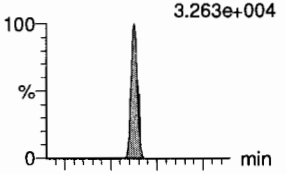
PFTrDA
F70:MRM of 2 channels,ES-
662.9 > 618.9
2.767e+005



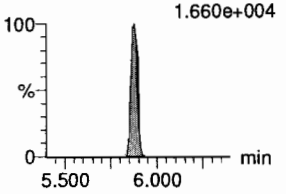
F70:MRM of 2 channels,ES-
662.9 > 319
1.935e+004



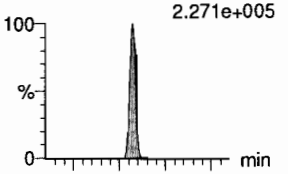
PFDoS
F71:MRM of 2 channels,ES-
698.8 > 79.9
3.263e+004



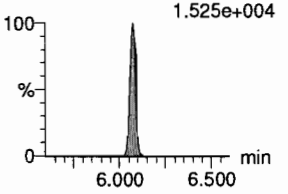
F71:MRM of 2 channels,ES-
698.8 > 98.9
1.660e+004



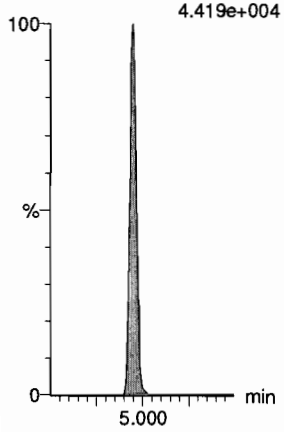
PFTeDA
F72:MRM of 2 channels,ES-
713.0 > 669.0
2.271e+005



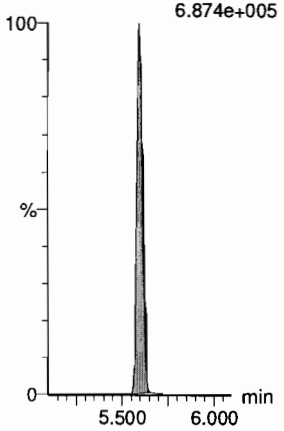
F72:MRM of 2 channels,ES-
713. > 369.0
1.525e+004



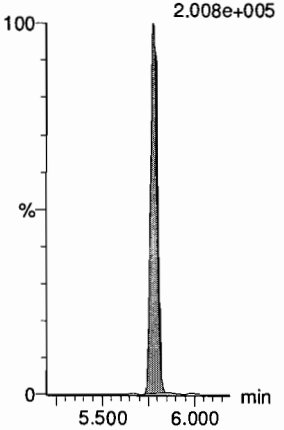
13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
4.419e+004



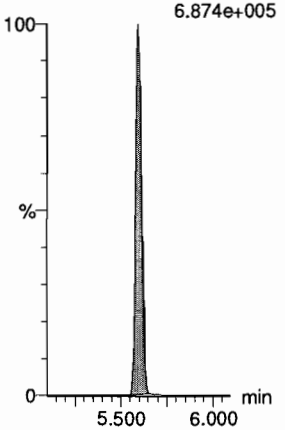
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
6.874e+005



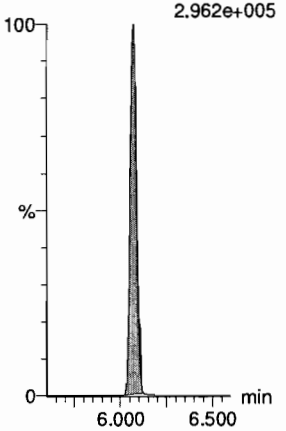
d3-N-MeFOSA
F46:MRM of 1 channel,ES-
515.2 > 168.9
2.008e+005



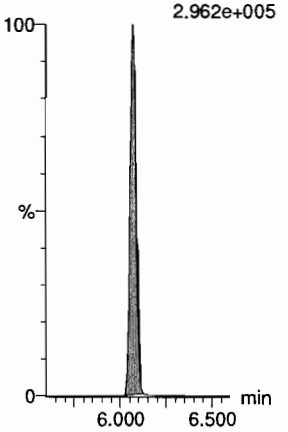
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
6.874e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
2.962e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
2.962e+005

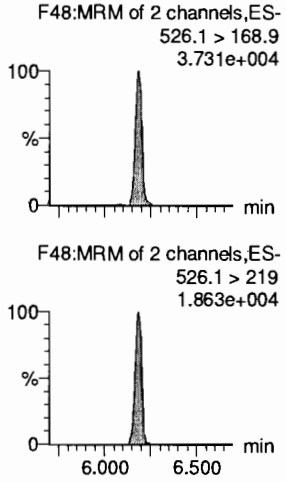


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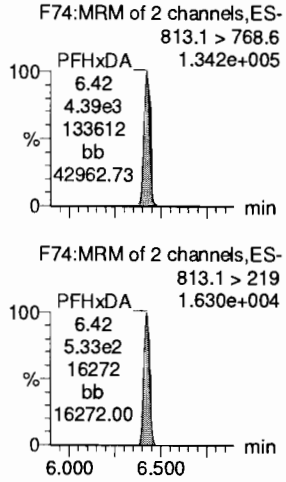
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_8, Date: 16-Jul-2019, Time: 17:48:13, ID: ST190716M2-5 PFC CS2 19G1105, Description: PFC CS2 19G1105

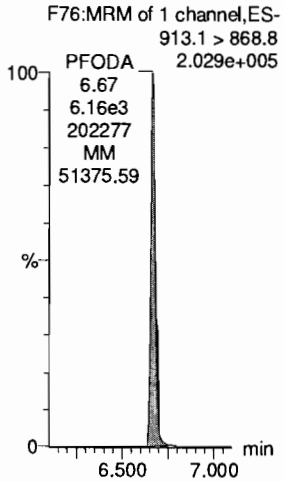
N-EtFOSA



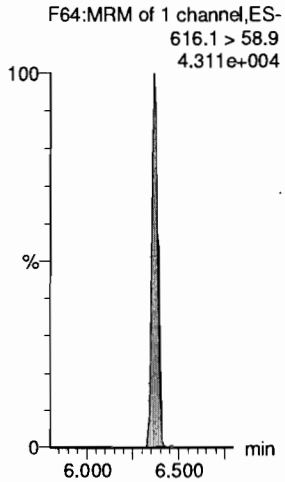
PFHxDA



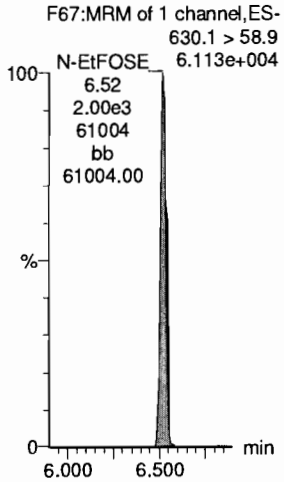
PFODA



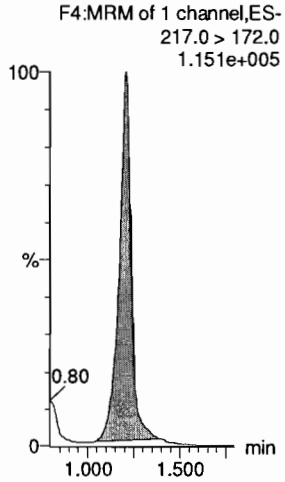
N-MeFOSE



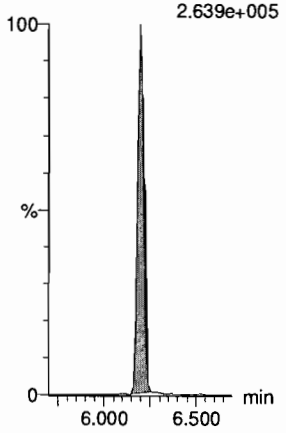
N-EtFOSE



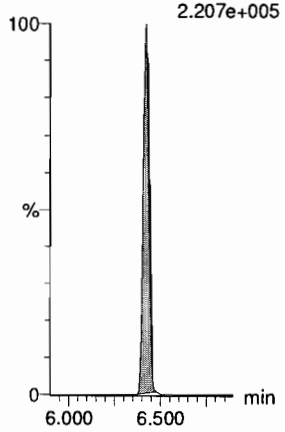
13C4-PFBA



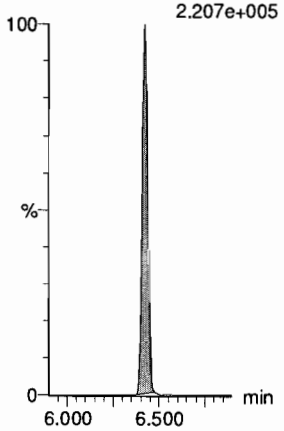
d5-N-ETFOSA



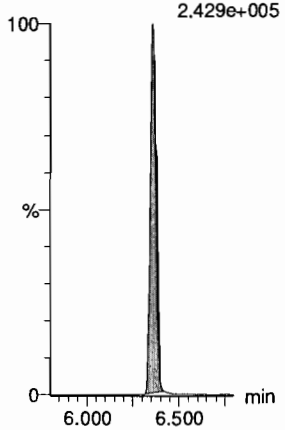
13C2-PFHxDA



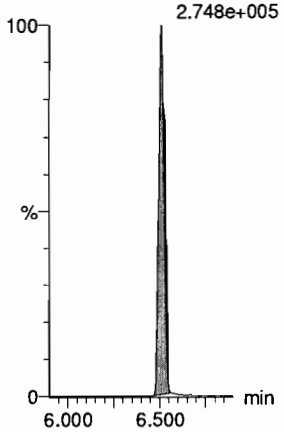
13C2-PFHxDA



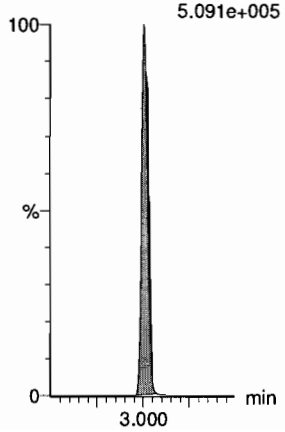
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

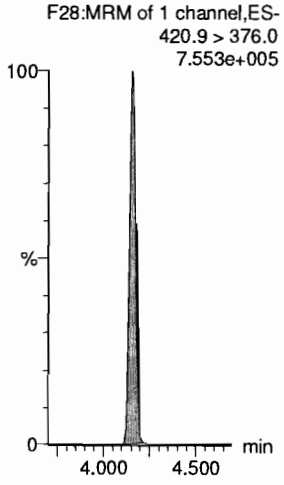


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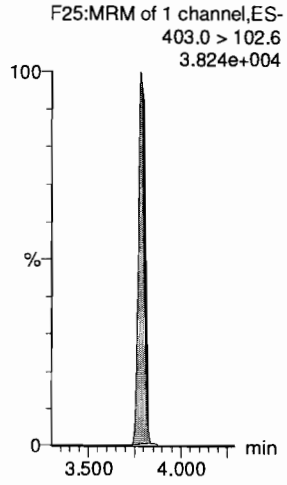
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_8, Date: 16-Jul-2019, Time: 17:48:13, ID: ST190716M2-5 PFC CS2 19G1105, Description: PFC CS2 19G1105

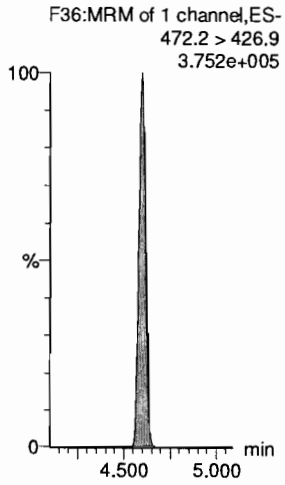
13C8-PFOA



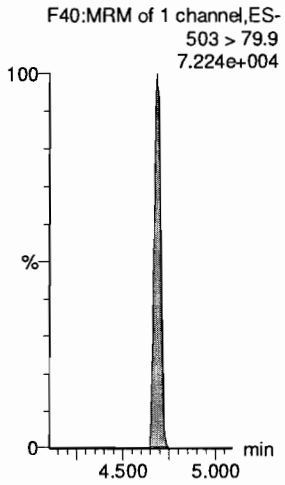
18O2-PFHxS



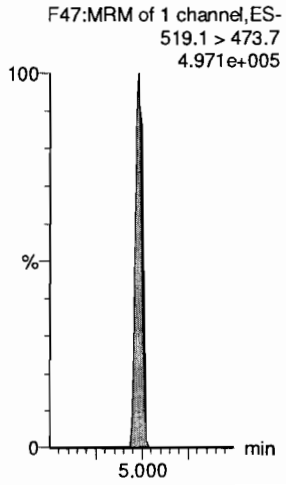
13C9-PFNA



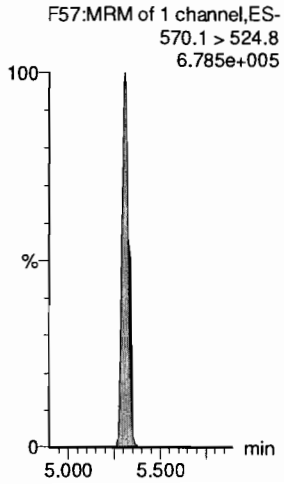
13C4-PFOS



13C6-PFDA



13C7-PFUdA

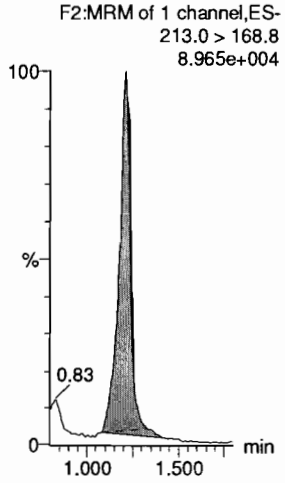


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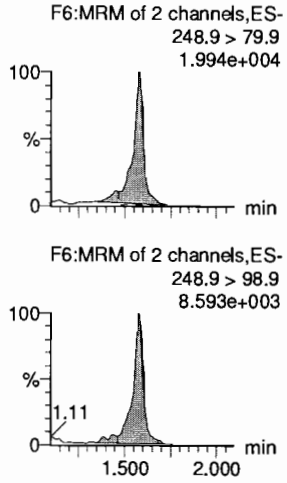
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Name: 190716M2_9, Date: 16-Jul-2019, Time: 17:58:51, ID: ST190716M2-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

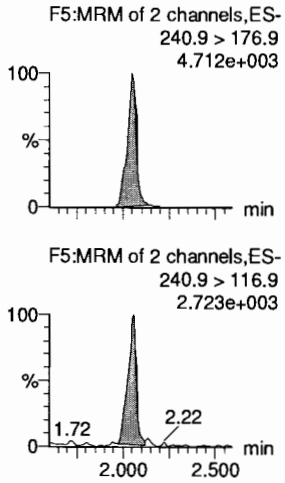
PFBA



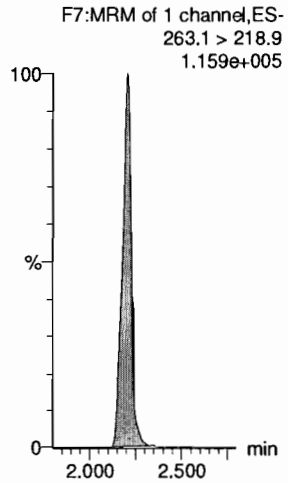
PFPrS



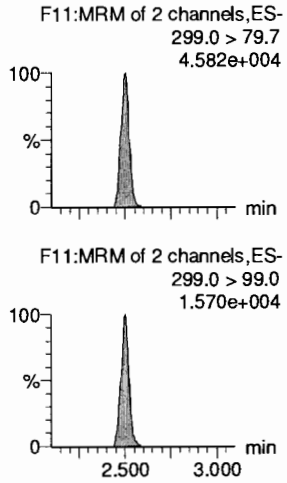
3:3 FTCA



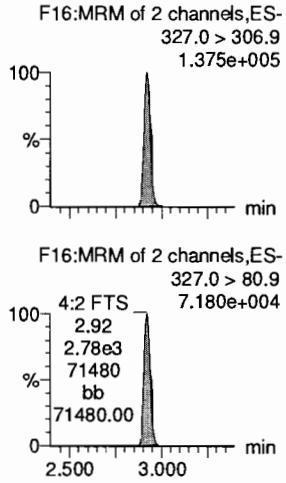
PFPeA



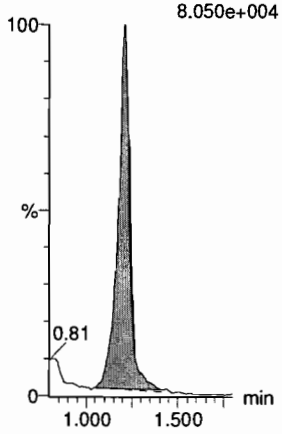
PFBS



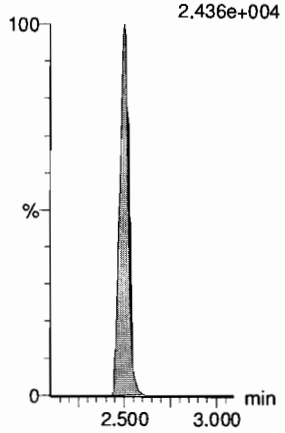
4:2 FTS



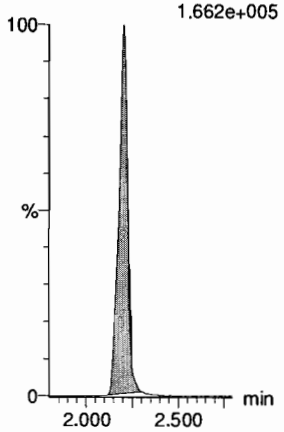
13C3-PFBA



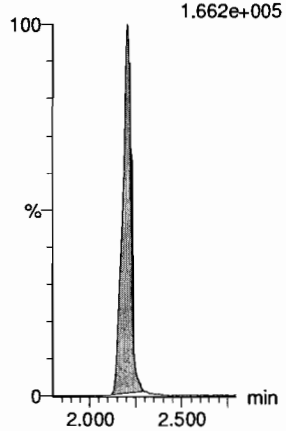
13C3-PFBS



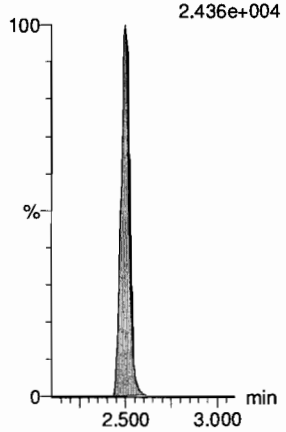
13C3-PFPeA



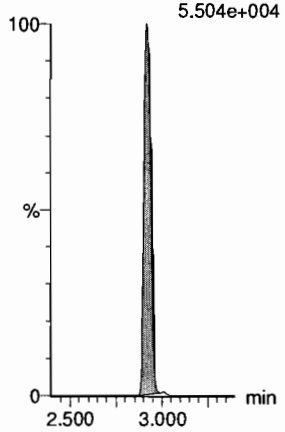
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

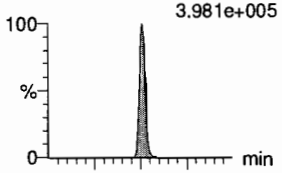


Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

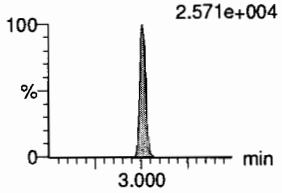
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_9, Date: 16-Jul-2019, Time: 17:58:51, ID: ST190716M2-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

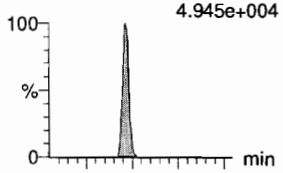
PFHxA
F13:MRM of 2 channels,ES-
313.0 > 269.0
3.981e+005



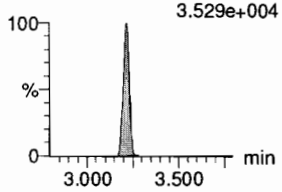
F13:MRM of 2 channels,ES-
313 > 118.9
2.571e+004



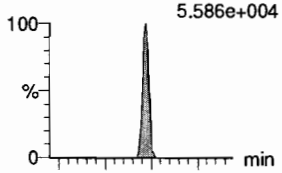
PFPeS
F19:MRM of 2 channels,ES-
349.1 > 80.1
4.945e+004



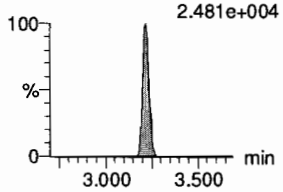
F19:MRM of 2 channels,ES-
349.1 > 99
3.529e+004



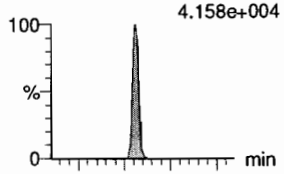
HFPO-DA
F9:MRM of 3 channels,ES-
285.1 > 168.9
5.586e+004



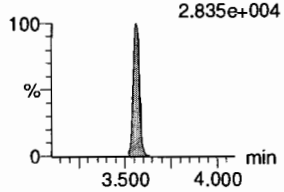
F9:MRM of 3 channels,ES-
285.1 > 184.9
2.481e+004



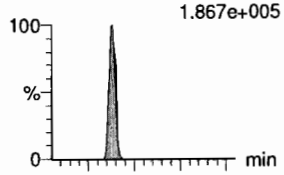
5:3 FTCA
F18:MRM of 2 channels,ES-
340.9 > 236.9
4.158e+004



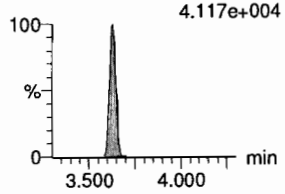
F18:MRM of 2 channels,ES-
340.9 > 216.9
2.835e+004



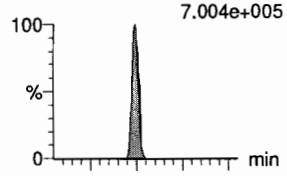
PFHpA
F20:MRM of 2 channels,ES-
363.0 > 318.9
1.867e+005



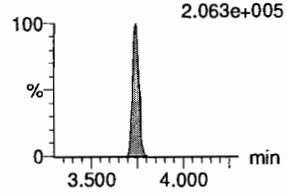
F20:MRM of 2 channels,ES-
363.0 > 169.0
4.117e+004



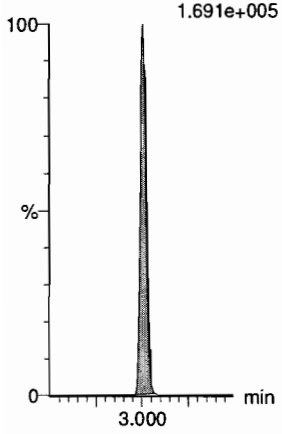
ADONA
F22:MRM of 2 channels,ES-
376.8 > 250.9
7.004e+005



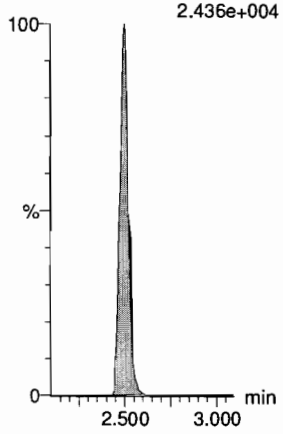
F22:MRM of 2 channels,ES-
376.8 > 85.0
2.063e+005



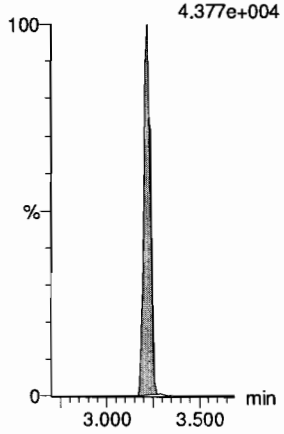
13C2-PFHxA
F14:MRM of 1 channel,ES-
315.0 > 270.0
1.691e+005



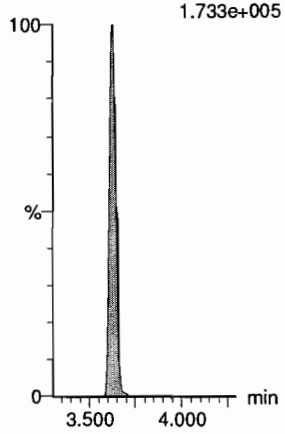
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
2.436e+004



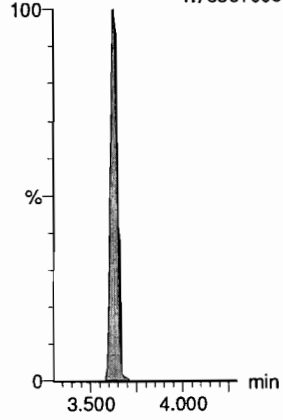
13C3-HFPO-DA
F10:MRM of 2 channels,ES-
287.0 > 168.9
4.377e+004



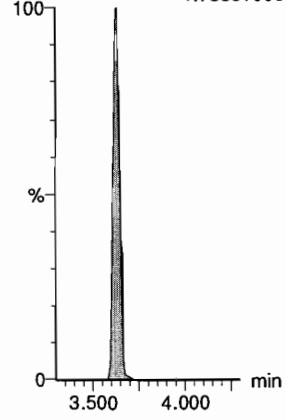
13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.733e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.733e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.733e+005

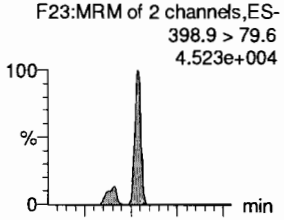


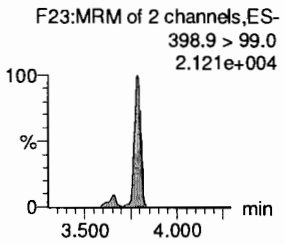
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

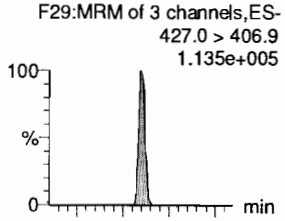
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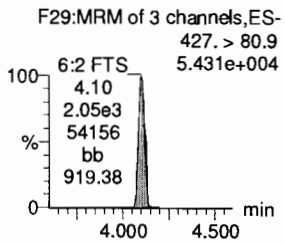
L-PFHxS



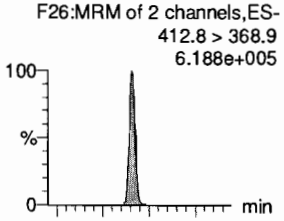


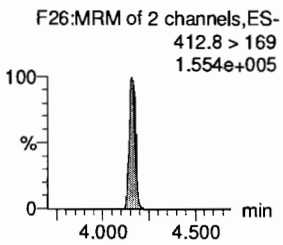
6:2 FTS



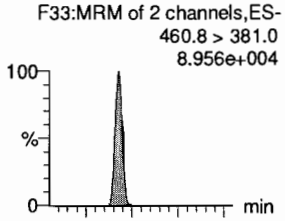


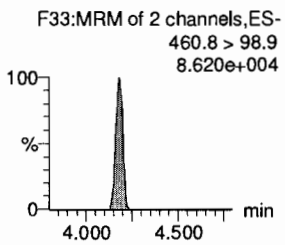
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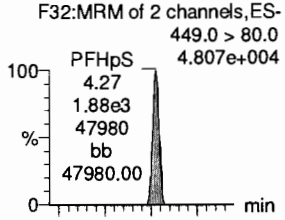


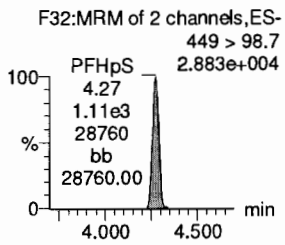
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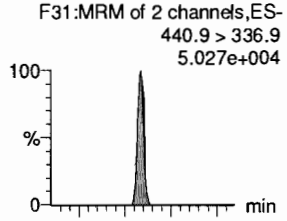


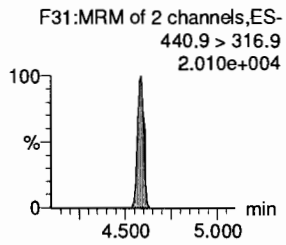
PFHpS



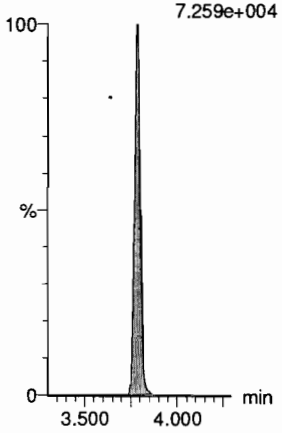


7:3 FTCA

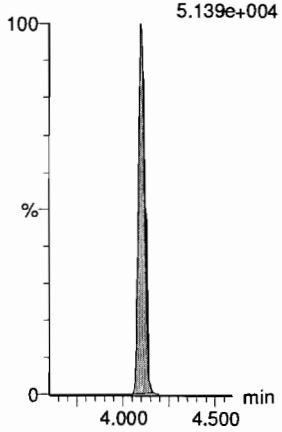




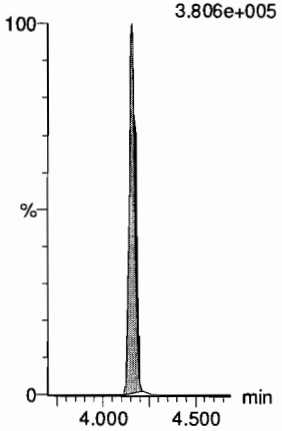
13C3-PFHxS



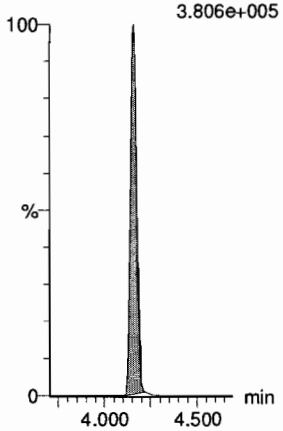
13C2-6:2 FTS



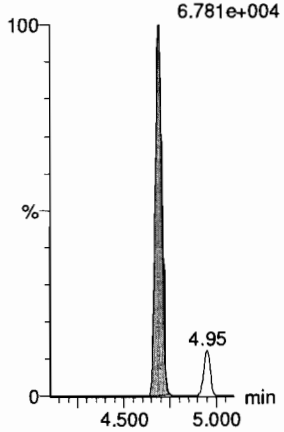
13C2-PFOA



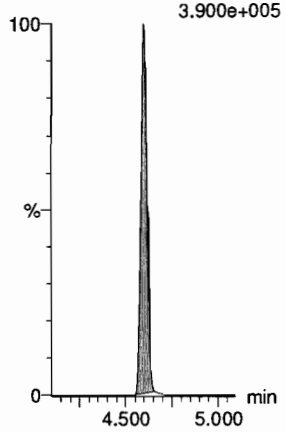
13C2-PFOA



13C8-PFOS



13C5-PFNA

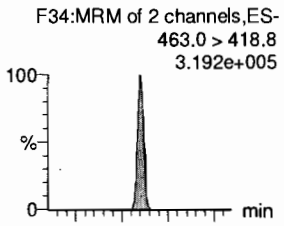


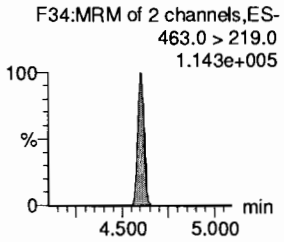
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

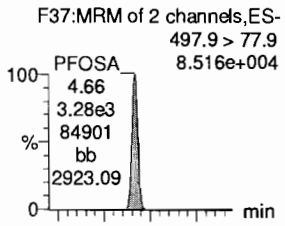
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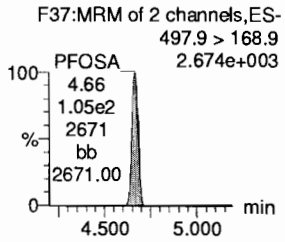
PFNA



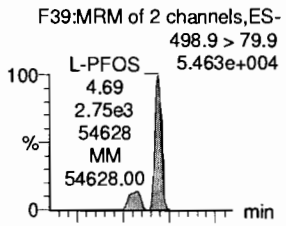


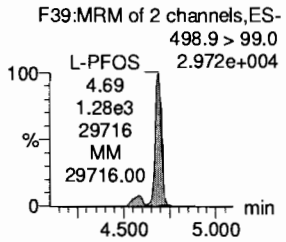
PFOSA



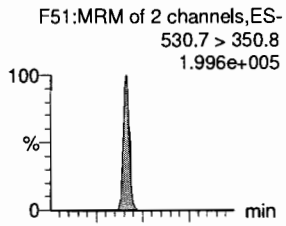


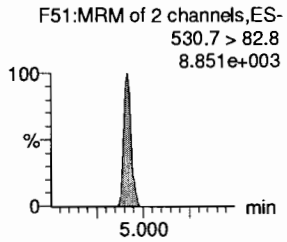
L-PFOS



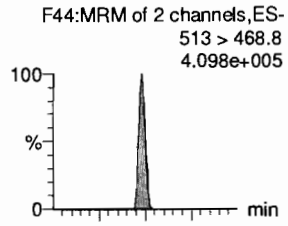


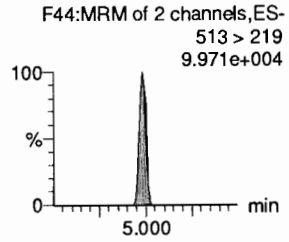
9Cl-PF30NS



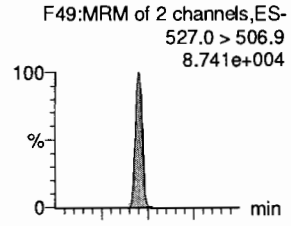


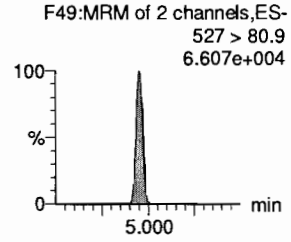
PFDA



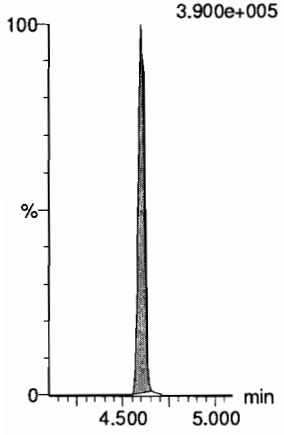


8:2 FTS

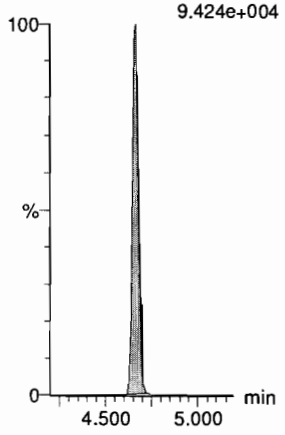




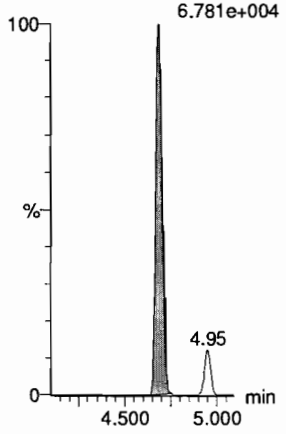
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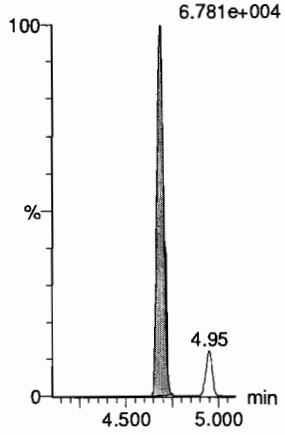
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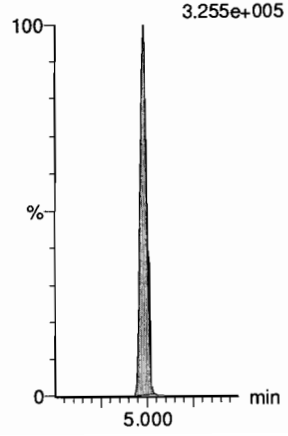
13C8-PFOS



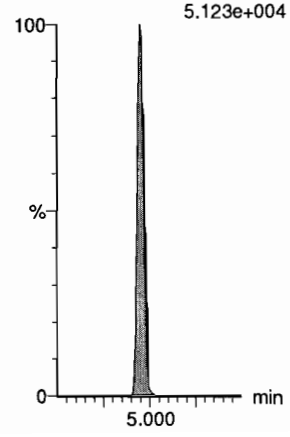
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

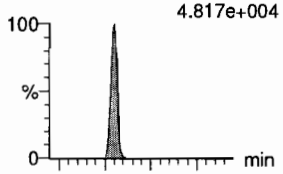


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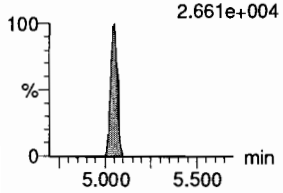
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Name: 190716M2_9, Date: 16-Jul-2019, Time: 17:58:51, ID: ST190716M2-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

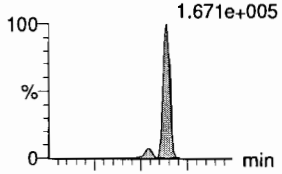
PFNS
F53:MRM of 2 channels,ES-
549.1 > 80.1
4.817e+004



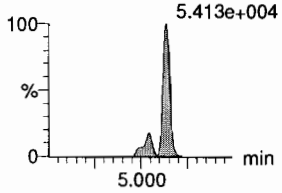
F53:MRM of 2 channels,ES-
549.1 > 99.1
2.661e+004



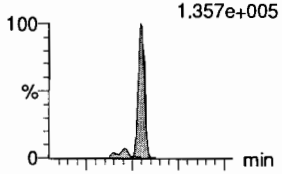
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
1.671e+005



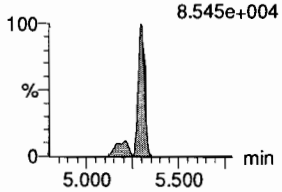
F56:MRM of 2 channels,ES-
570. > 512
5.413e+004



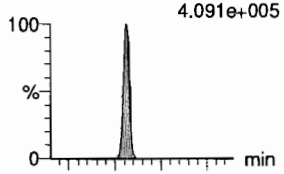
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
1.357e+005



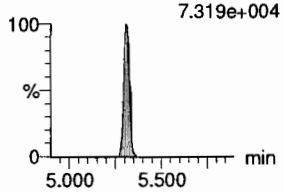
F59:MRM of 2 channels,ES-
584.1 > 526
8.545e+004



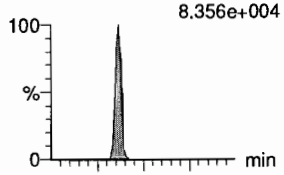
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
4.091e+005



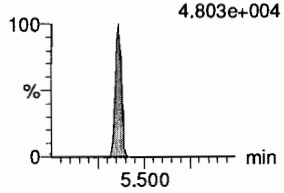
F54:MRM of 2 channels,ES-
563.0 > 269
7.319e+004



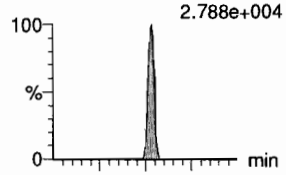
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
8.356e+004



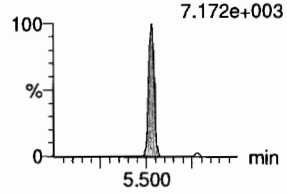
F61:MRM of 2 channels,ES-
598.8 > 98.9
4.803e+004



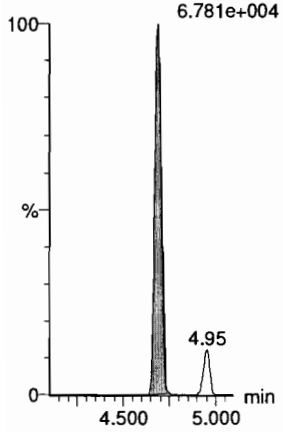
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
2.788e+004



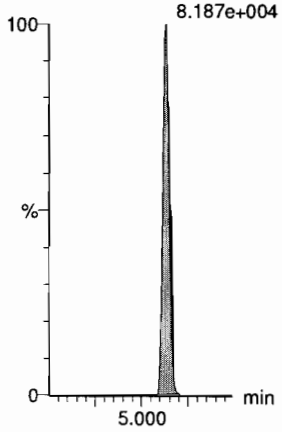
F68:MRM of 2 channels,ES-
632.6 > 450.7
7.172e+003



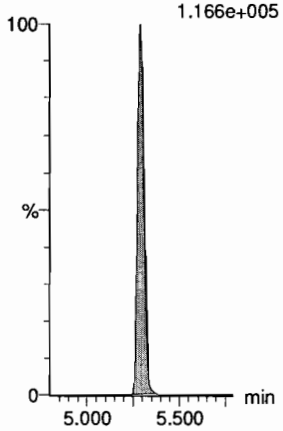
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
6.781e+004



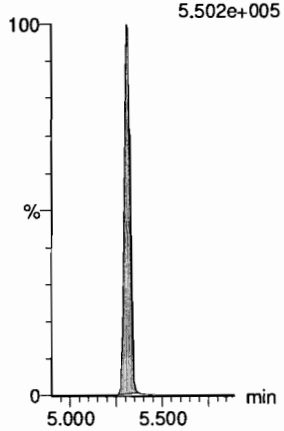
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
8.187e+004



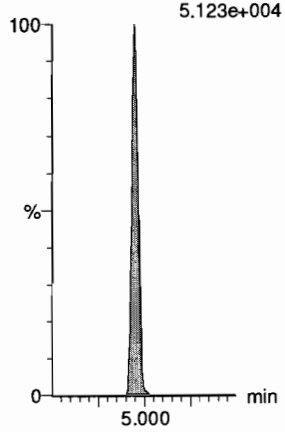
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
1.166e+005



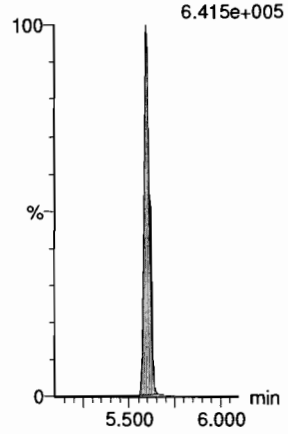
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
5.502e+005



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
5.123e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
6.415e+005

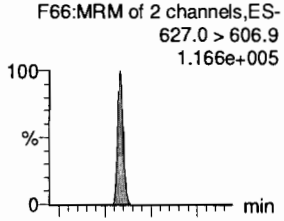


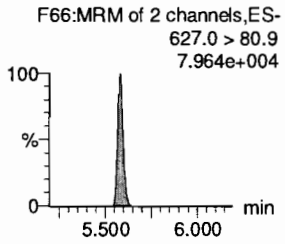
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

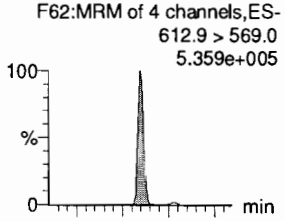
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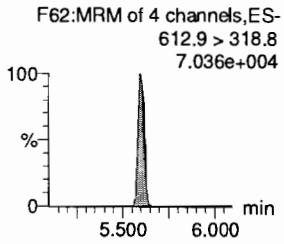
10:2 FTS



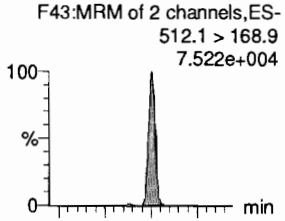


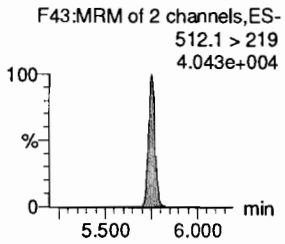
PFDoA



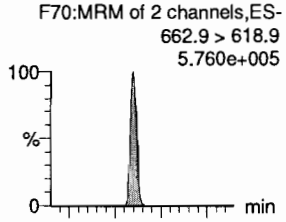


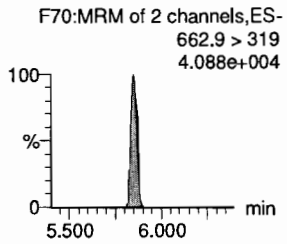
N-MeFOSA



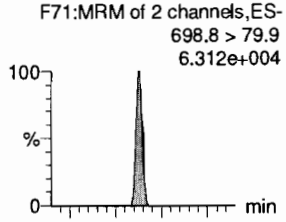


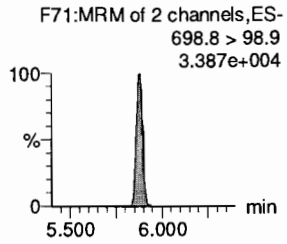
PFTrDA



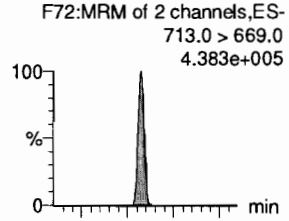


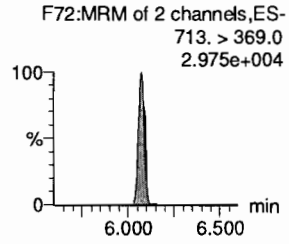
PFDoS



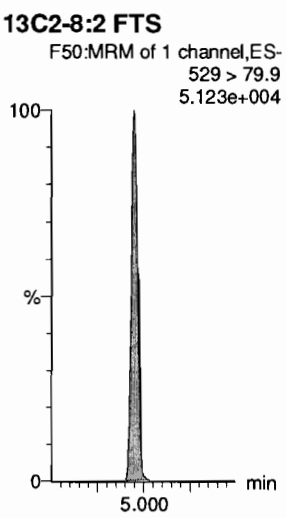


PFTeDA

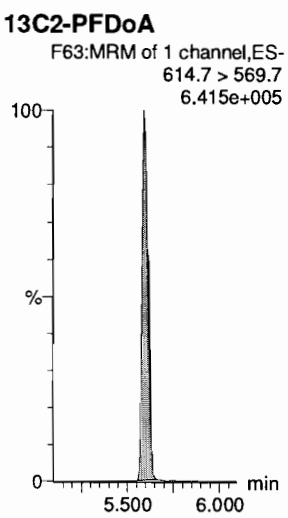




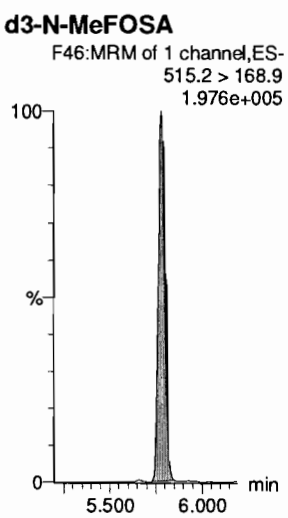
13C2-8:2 FTS



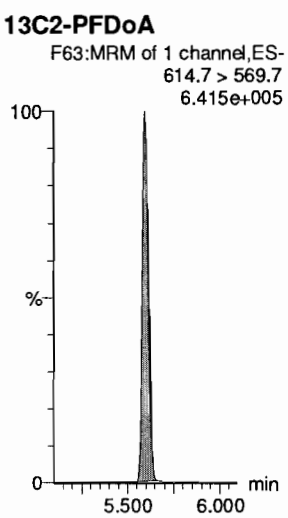
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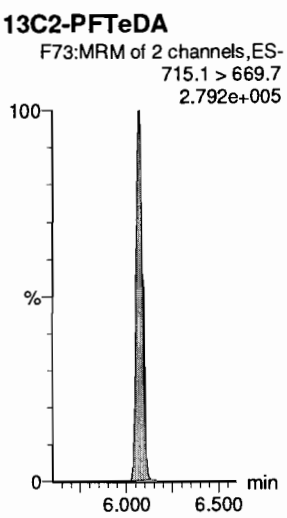
d3-N-MeFOSA



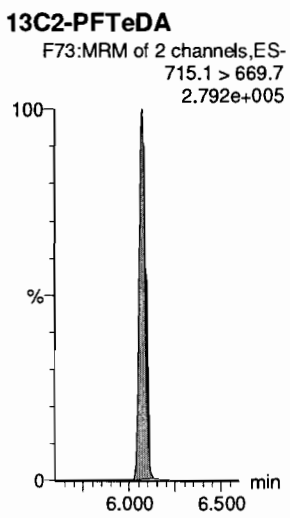
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13C2-PFTeDA



13C2-PFTeDA

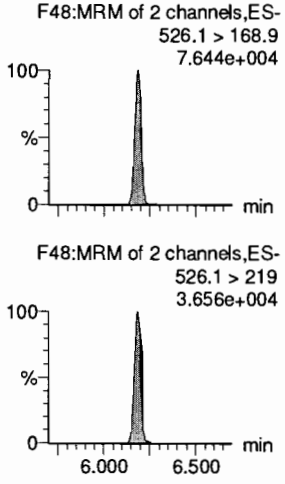


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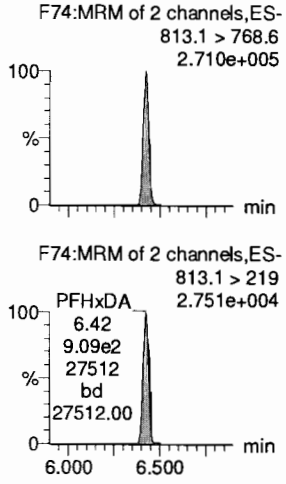
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Name: 190716M2_9, Date: 16-Jul-2019, Time: 17:58:51, ID: ST190716M2-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

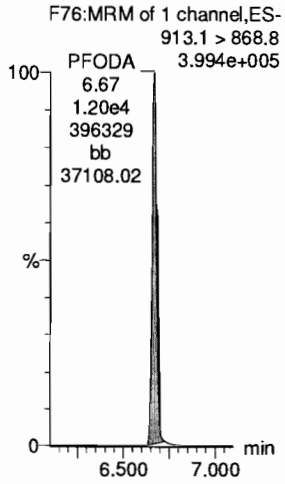
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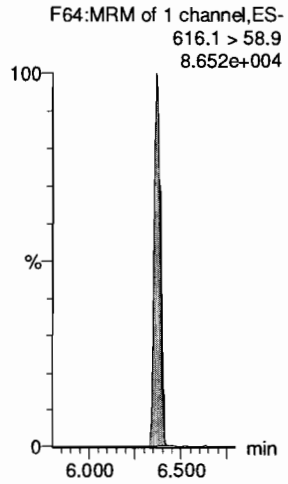
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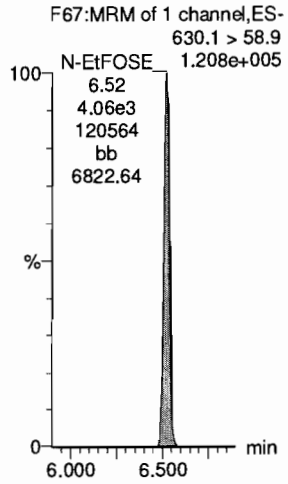
PFODA



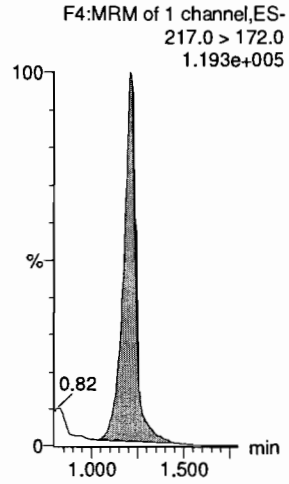
N-MeFOSE



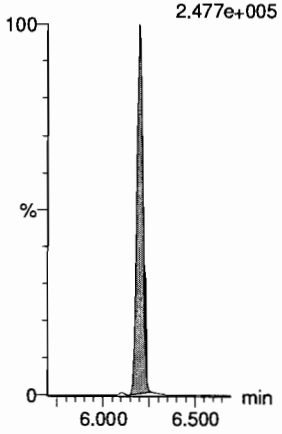
N-EtFOSE



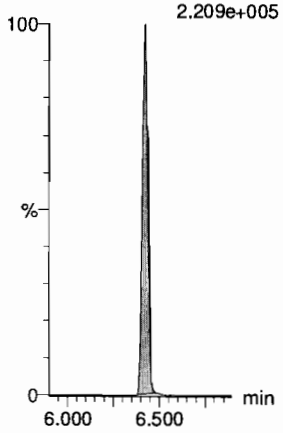
13C4-PFBA



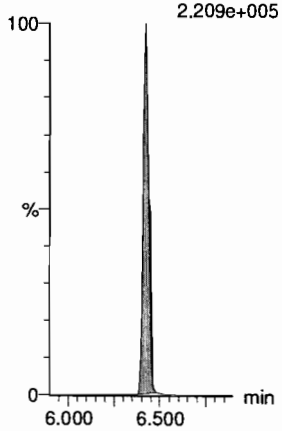
d5-N-ETFOSA



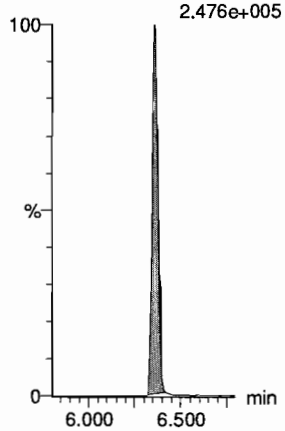
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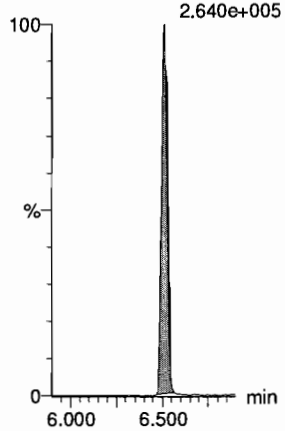
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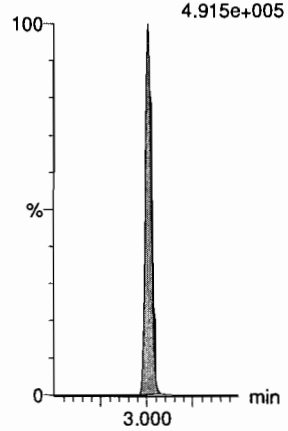
d7-N-MeFOSE



d9-N-EtFOSE



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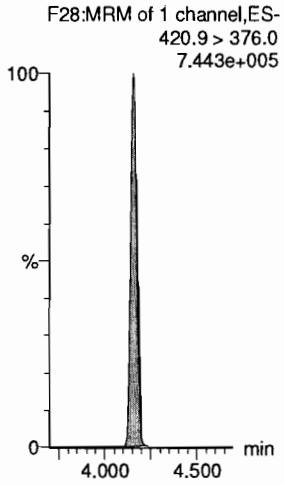


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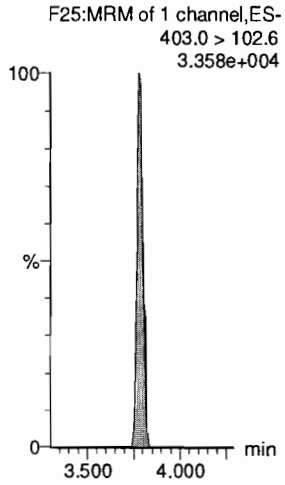
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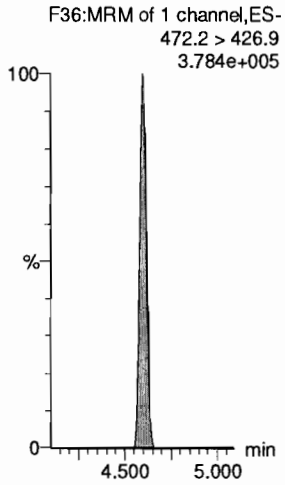
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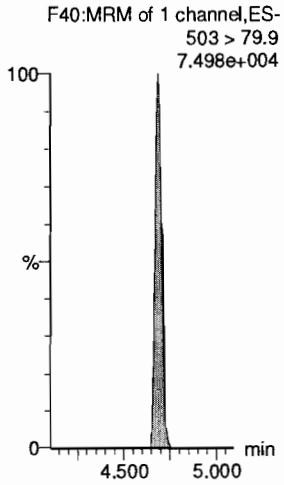
18O2-PFHxS



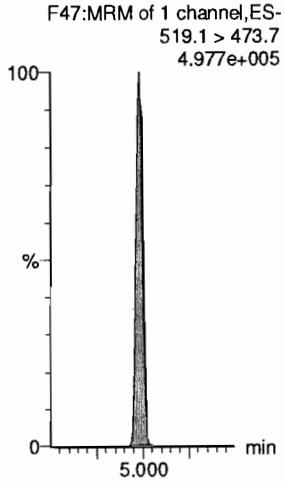
13C9-PFNA



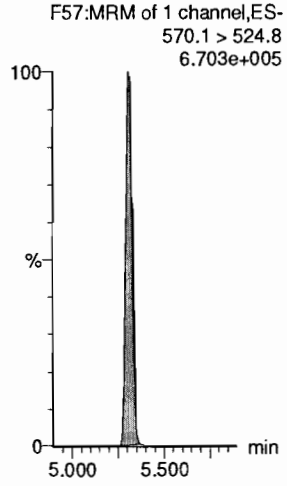
13C4-PFOS



13C6-PFDA



13C7-PFUdA

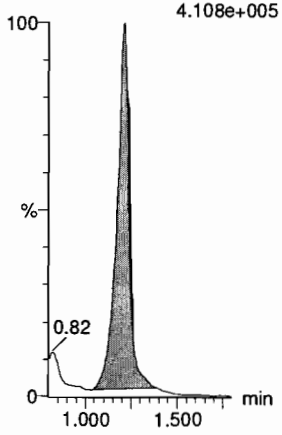


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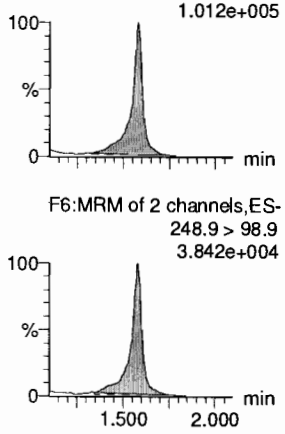
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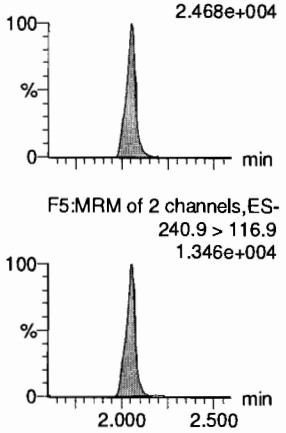
PFBA



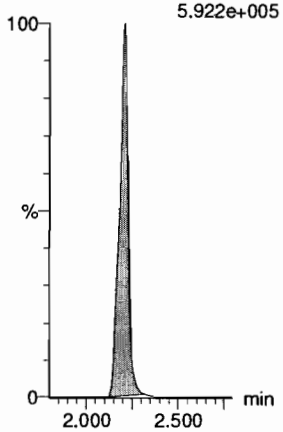
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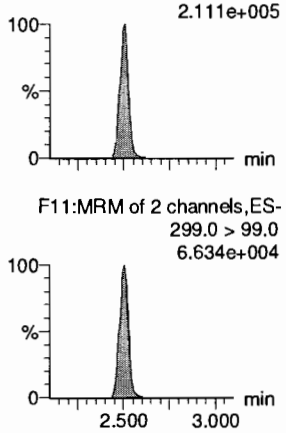
3:3 FTCA



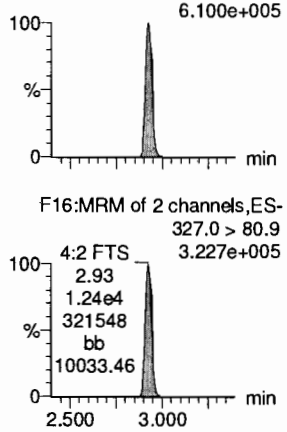
PFPeA



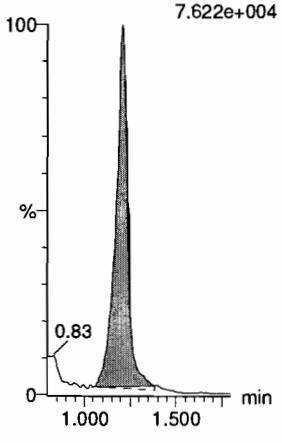
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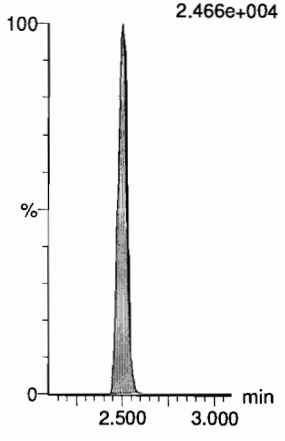
4:2 FTS



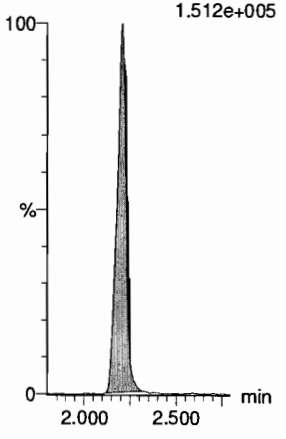
13C3-PFBA



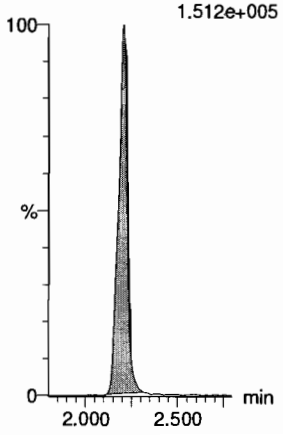
13C3-PFBS



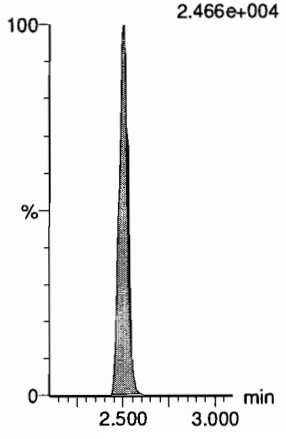
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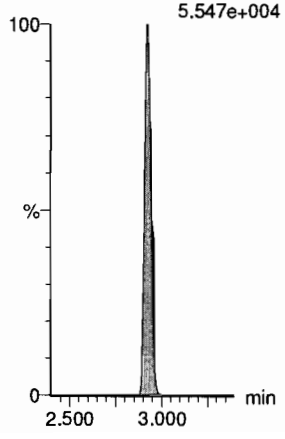
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

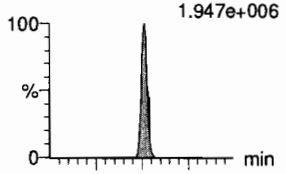


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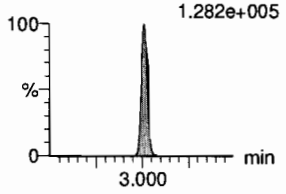
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_10, Date: 16-Jul-2019, Time: 18:09:24, ID: ST190716M2-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

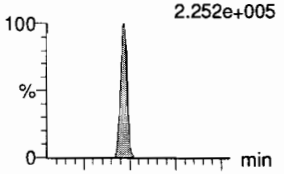
PFHxA
F13:MRM of 2 channels,ES-
313.0 > 269.0
1.947e+006



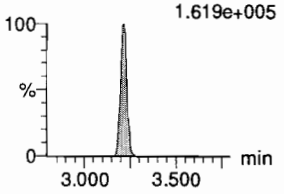
F13:MRM of 2 channels,ES-
313 > 118.9
1.282e+005



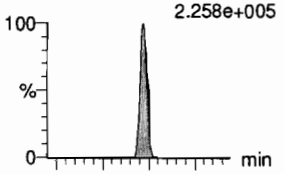
PFPeS
F19:MRM of 2 channels,ES-
349.1 > 80.1
2.252e+005



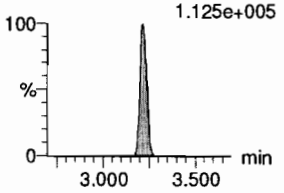
F19:MRM of 2 channels,ES-
349.1 > 99
1.619e+005



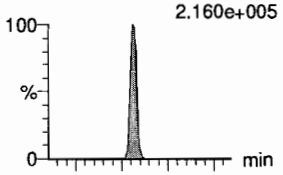
HFPO-DA
F9:MRM of 3 channels,ES-
285.1 > 168.9
2.258e+005



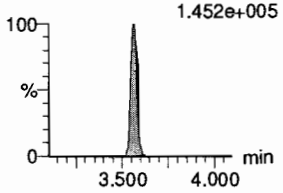
F9:MRM of 3 channels,ES-
285.1 > 184.9
1.125e+005



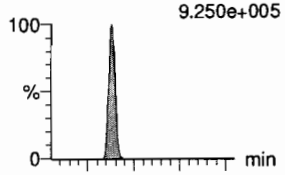
5:3 FTCA
F18:MRM of 2 channels,ES-
340.9 > 236.9
2.160e+005



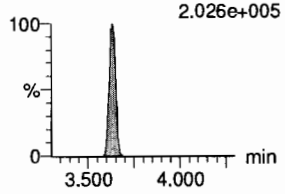
F18:MRM of 2 channels,ES-
340.9 > 216.9
1.452e+005



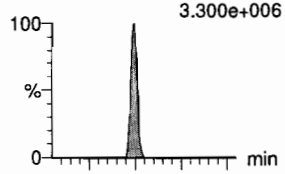
PFHpA
F20:MRM of 2 channels,ES-
363.0 > 318.9
9.250e+005



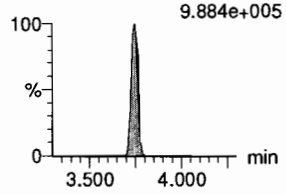
F20:MRM of 2 channels,ES-
363.0 > 169.0
2.026e+005



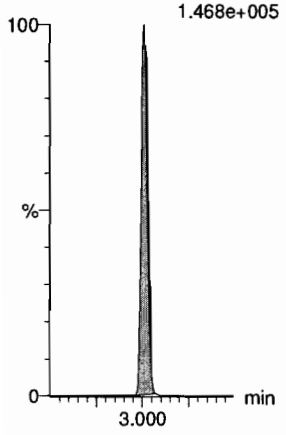
ADONA
F22:MRM of 2 channels,ES-
376.8 > 250.9
3.300e+006



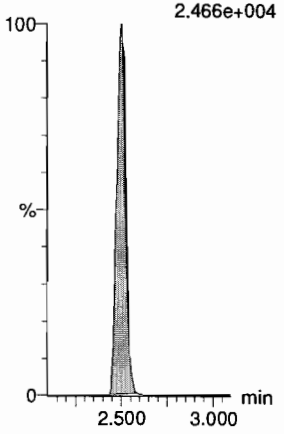
F22:MRM of 2 channels,ES-
376.8 > 85.0
9.884e+005



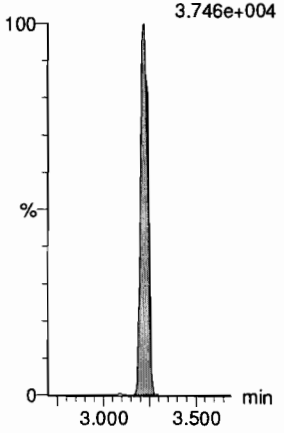
13C2-PFHxA
F14:MRM of 1 channel,ES-
315.0 > 270.0
1.468e+005



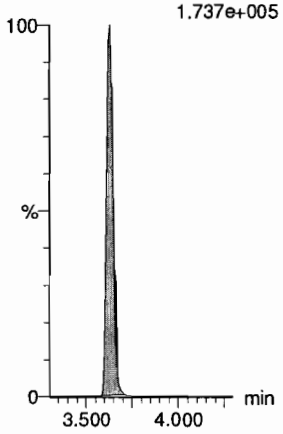
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
2.466e+004



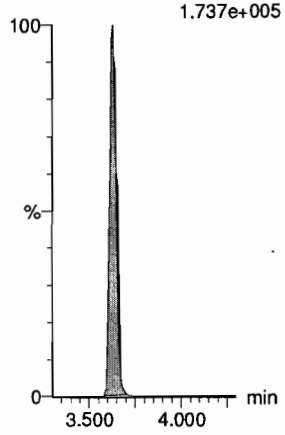
13C3-HFPO-DA
F10:MRM of 2 channels,ES-
287.0 > 168.9
3.746e+004



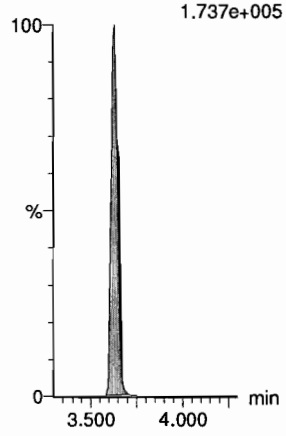
13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.737e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.737e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.737e+005

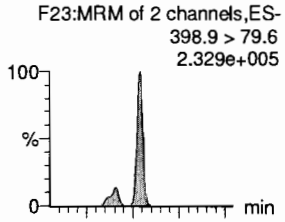


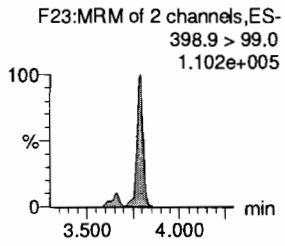
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

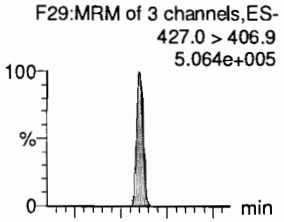
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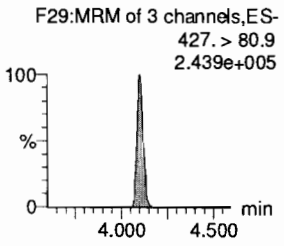
L-PFHxS



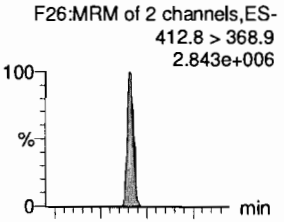


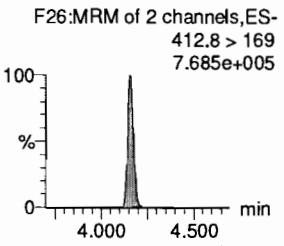
6:2 FTS



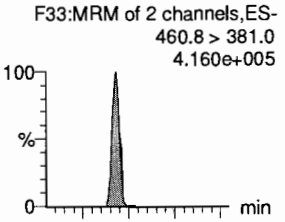


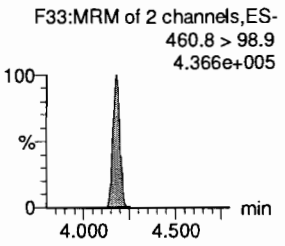
L-PFOA



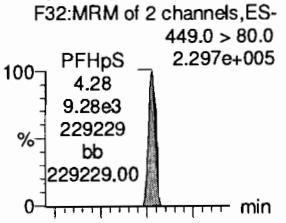


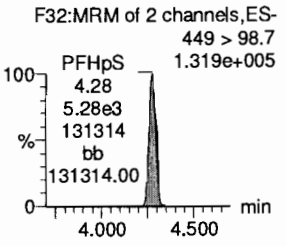
PFEChS



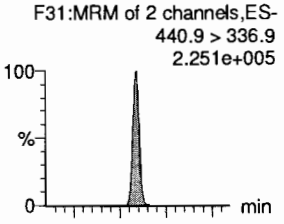


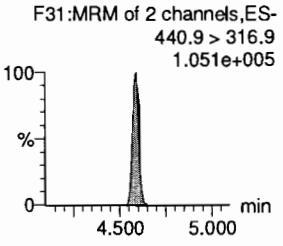
PFHpS



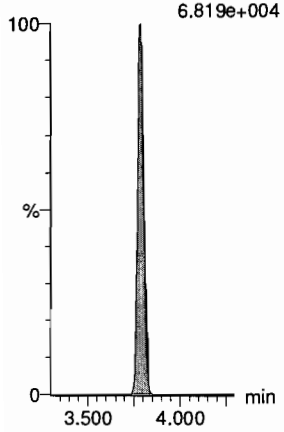


7:3 FTCA

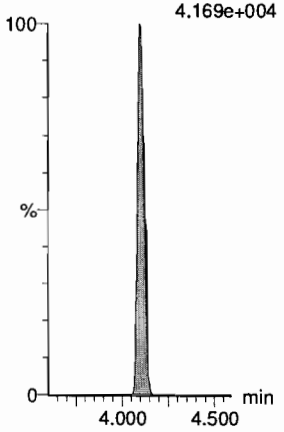




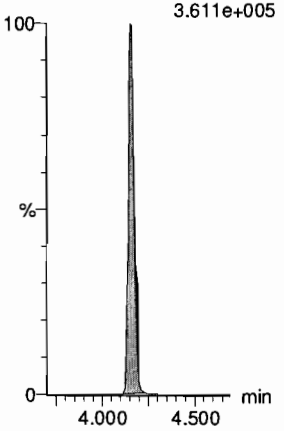
13C3-PFHxS



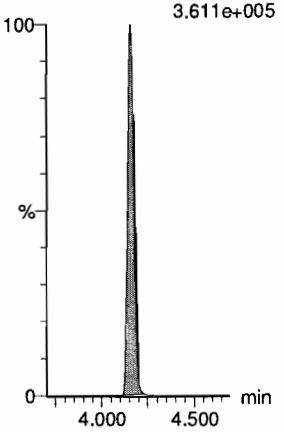
13C2-6:2 FTS



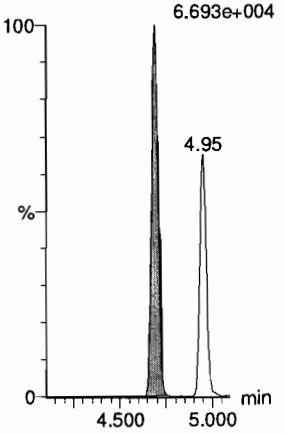
13C2-PFOA



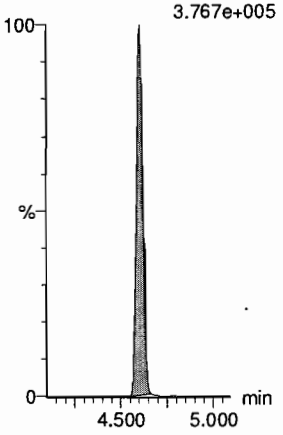
13C2-PFOA



13C8-PFOS



13C5-PFNA

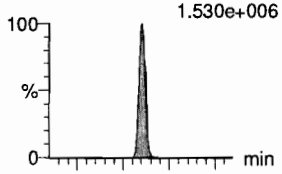


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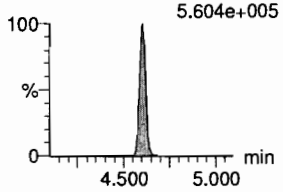
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_10, Date: 16-Jul-2019, Time: 18:09:24, ID: ST190716M2-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

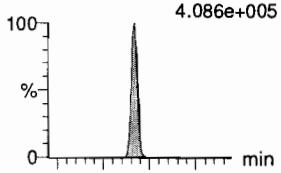
PFNA
F34:MRM of 2 channels,ES-
463.0 > 418.8
1.530e+006



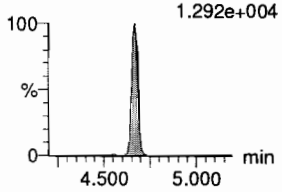
F34:MRM of 2 channels,ES-
463.0 > 219.0
5.604e+005



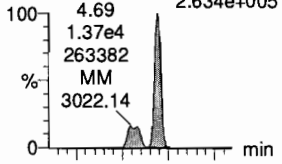
PFOSA
F37:MRM of 2 channels,ES-
497.9 > 77.9
4.086e+005



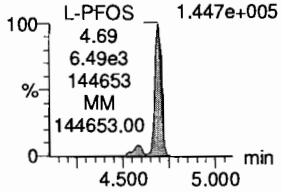
F37:MRM of 2 channels,ES-
497.9 > 168.9
1.292e+004



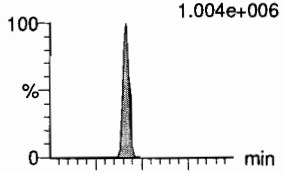
L-PFOS
F39:MRM of 2 channels,ES-
498.9 > 79.9
2.634e+005



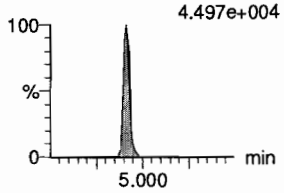
F39:MRM of 2 channels,ES-
498.9 > 99.0
1.447e+005



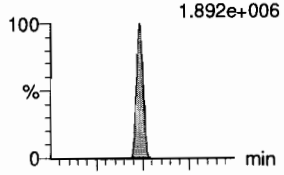
9Cl-PF30NS
F51:MRM of 2 channels,ES-
530.7 > 350.8
1.004e+006



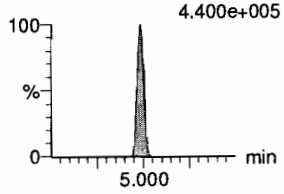
F51:MRM of 2 channels,ES-
530.7 > 82.8
4.497e+004



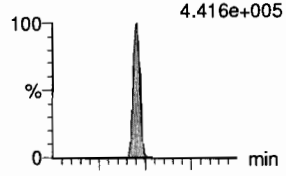
PFDA
F44:MRM of 2 channels,ES-
513 > 468.8
1.892e+006



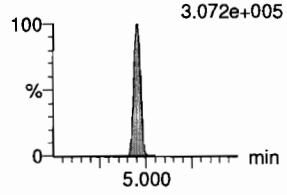
F44:MRM of 2 channels,ES-
513 > 219
4.400e+005



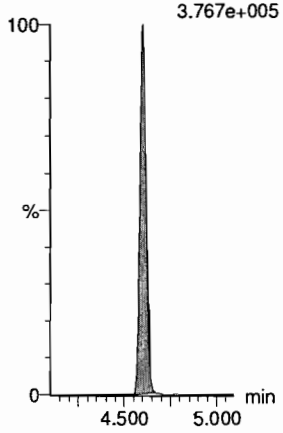
8:2 FTS
F49:MRM of 2 channels,ES-
527.0 > 506.9
4.416e+005



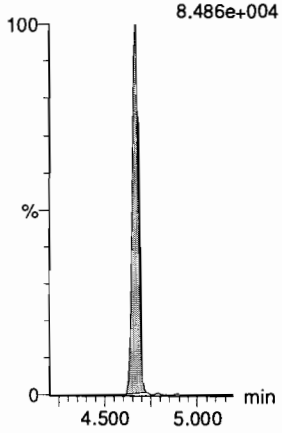
F49:MRM of 2 channels,ES-
527 > 80.9
3.072e+005



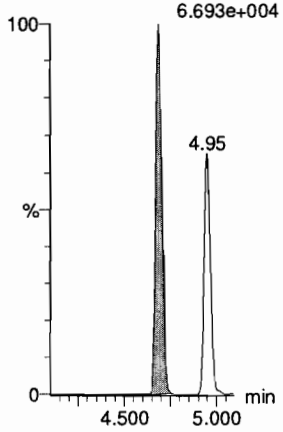
13C5-PFNA
F35:MRM of 1 channel,ES-
468.2 > 422.9
3.767e+005



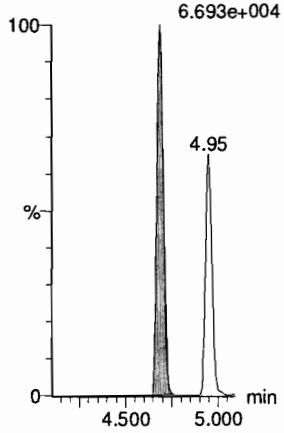
13C8-PFOSA
F41:MRM of 1 channel,ES-
506.1 > 77.7
8.486e+004



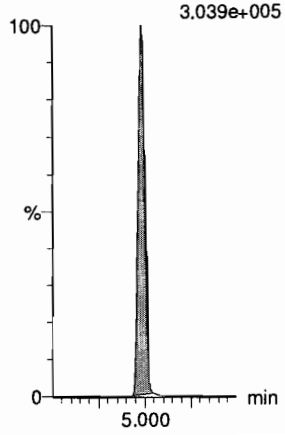
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
6.693e+004



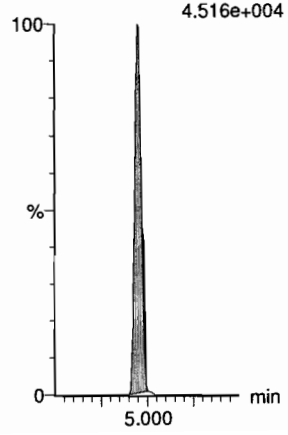
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
6.693e+004



13C2-PFDA
F45:MRM of 1 channel,ES-
515.1 > 469.9
3.039e+005



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
4.516e+004

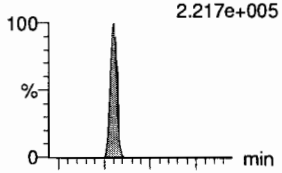


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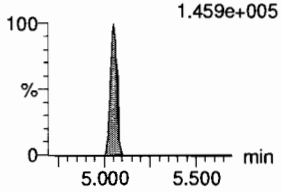
Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_10, Date: 16-Jul-2019, Time: 18:09:24, ID: ST190716M2-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

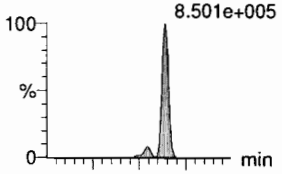
PFNS
F53:MRM of 2 channels,ES-
549.1 > 80.1
2.217e+005



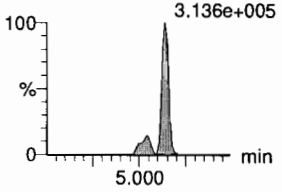
F53:MRM of 2 channels,ES-
549.1 > 99.1
1.459e+005



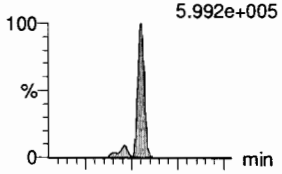
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
8.501e+005



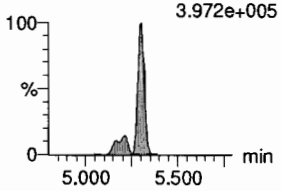
F56:MRM of 2 channels,ES-
570. > 512
3.136e+005



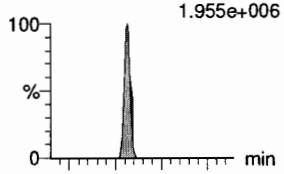
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
5.992e+005



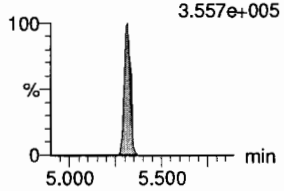
F59:MRM of 2 channels,ES-
584.1 > 526
3.972e+005



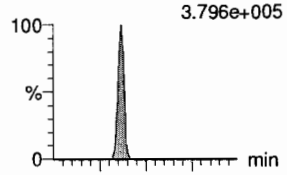
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
1.955e+006



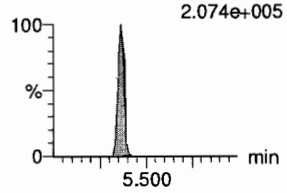
F54:MRM of 2 channels,ES-
563.0 > 269
3.557e+005



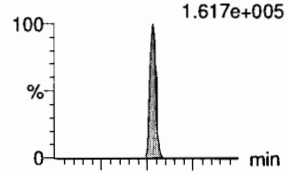
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
3.796e+005



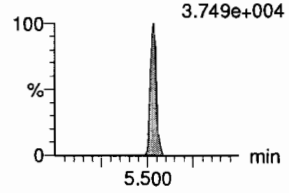
F61:MRM of 2 channels,ES-
598.8 > 98.9
2.074e+005



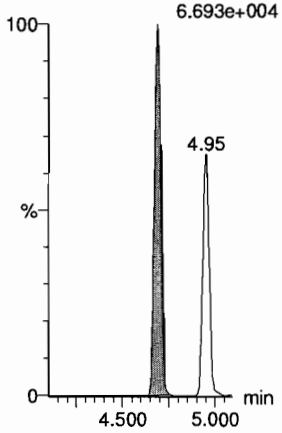
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
1.617e+005



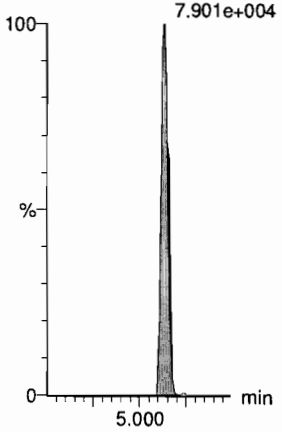
F68:MRM of 2 channels,ES-
632.6 > 450.7
3.749e+004



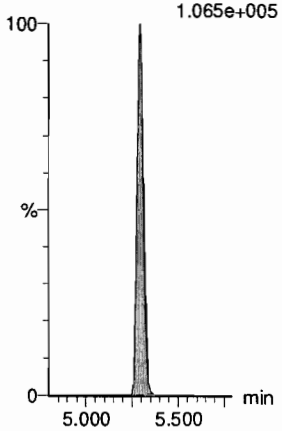
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
6.693e+004



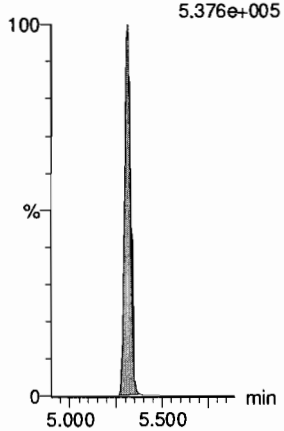
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
7.901e+004



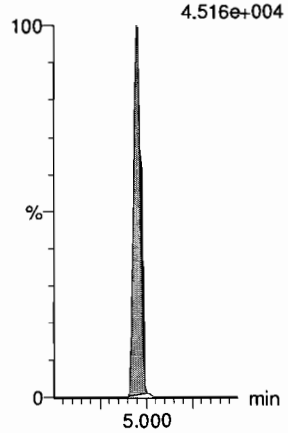
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
1.065e+005



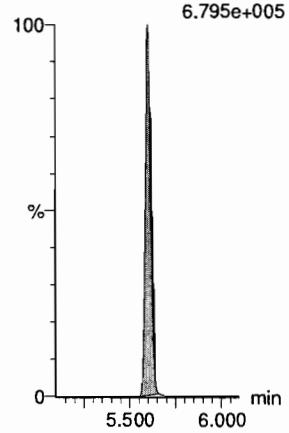
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
5.376e+005



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
4.516e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
6.795e+005

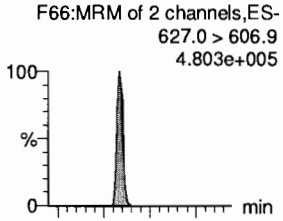


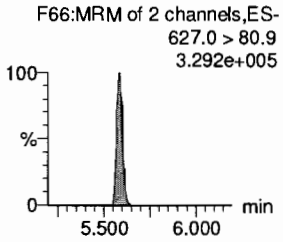
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Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

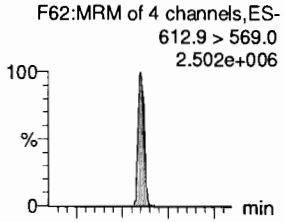
Name: 190716M2_10, Date: 16-Jul-2019, Time: 18:09:24, ID: ST190716M2-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

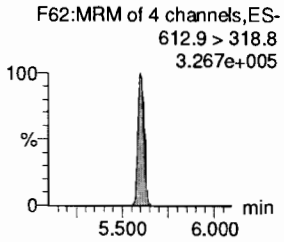
10:2 FTS



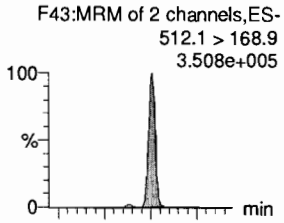


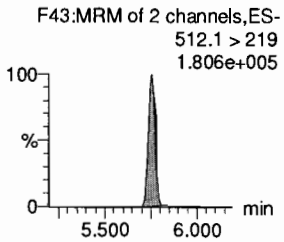
PFDoA



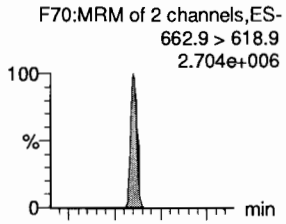


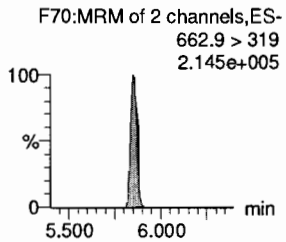
N-MeFOSA



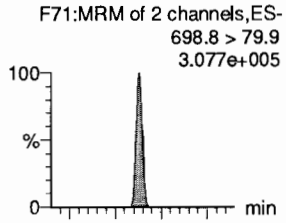


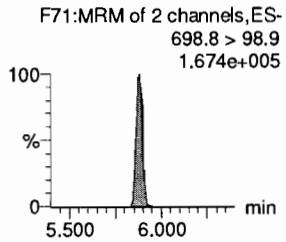
PFTrDA



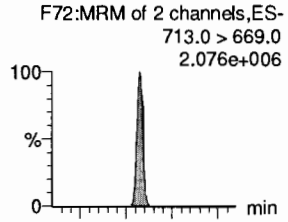


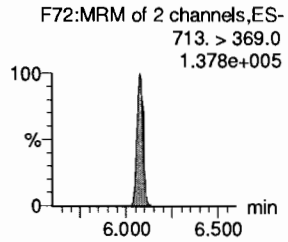
PFDoS



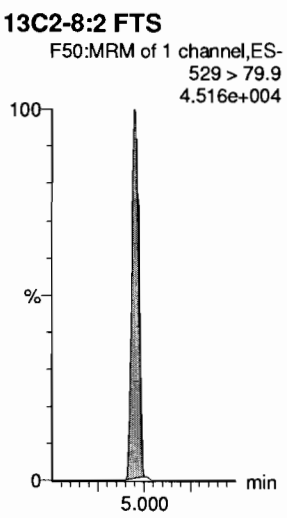


PFTeDA

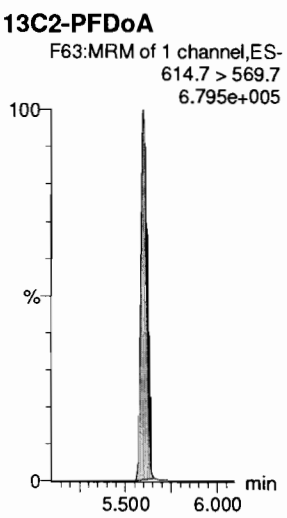




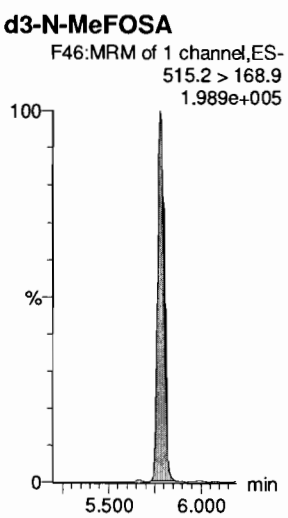
13C2-8:2 FTS



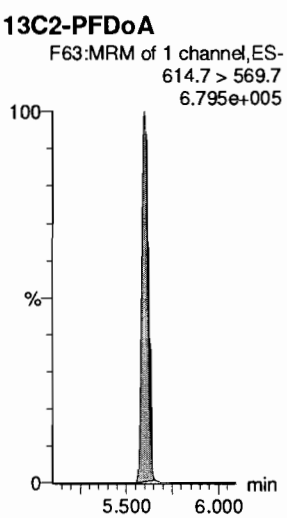
13C2-PFDoA



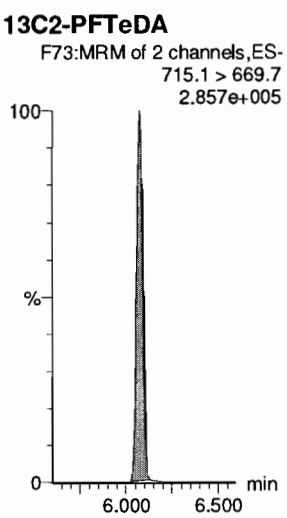
d3-N-MeFOSA



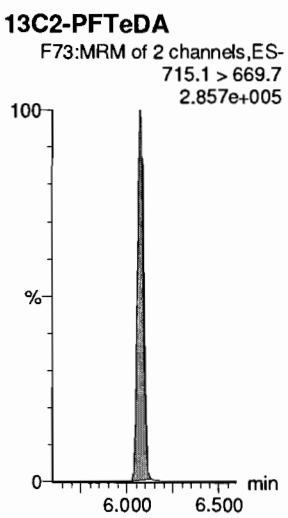
13C2-PFDoA



13C2-PFTeDA



13C2-PFTeDA

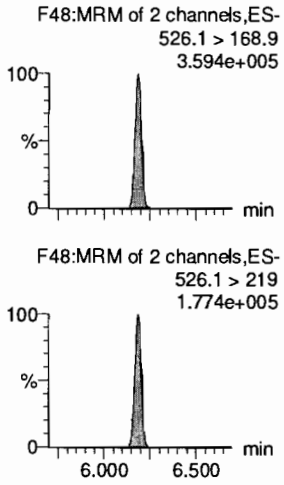


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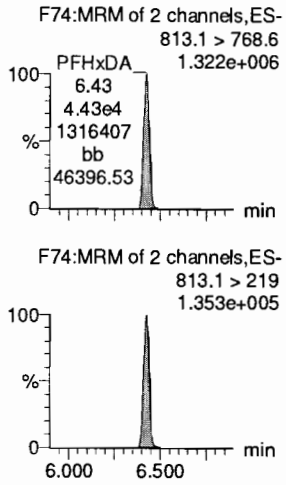
Last Altered: Wednesday, July 17, 2019 08:22:43 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_10, Date: 16-Jul-2019, Time: 18:09:24, ID: ST190716M2-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

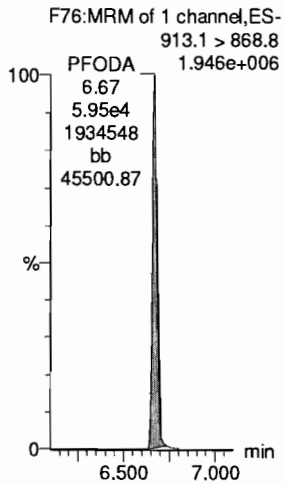
N-EtFOSA



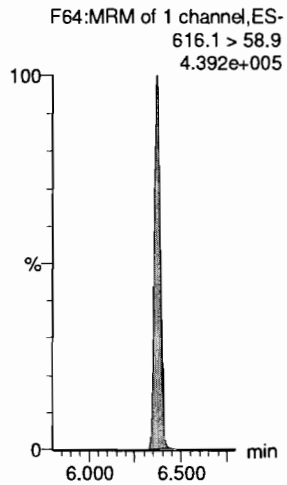
PFHxDA



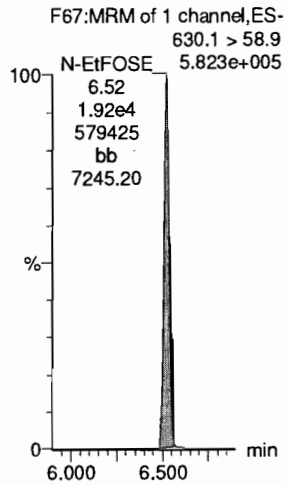
PFODA



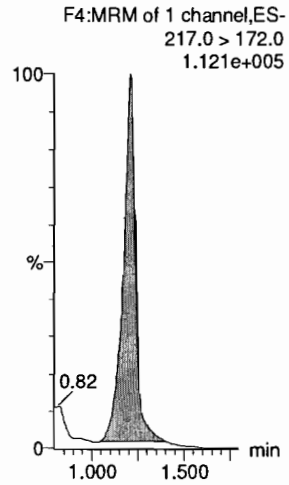
N-MeFOSE



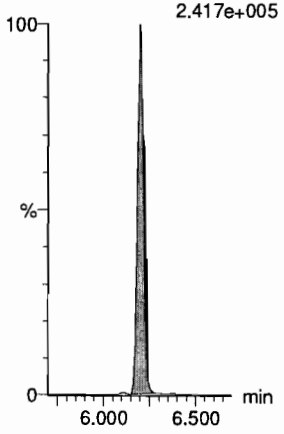
N-EtFOSE



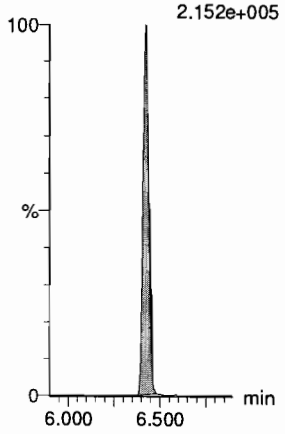
13C4-PFBA



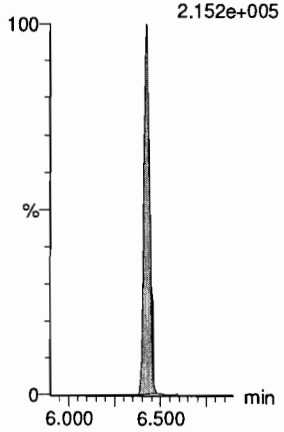
d5-N-ETFOSA



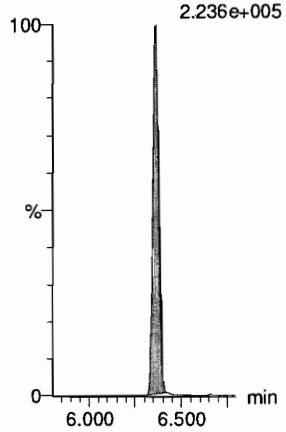
13C2-PFHxDA



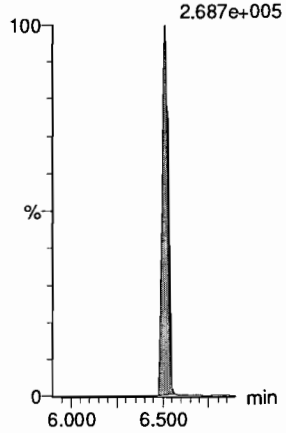
13C2-PFHxDA



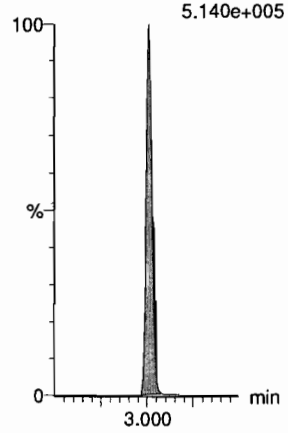
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

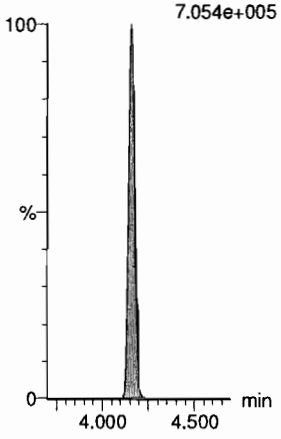


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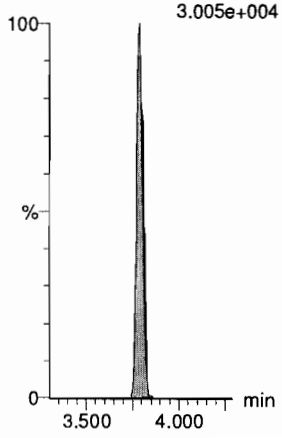
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Name: 190716M2_10, Date: 16-Jul-2019, Time: 18:09:24, ID: ST190716M2-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

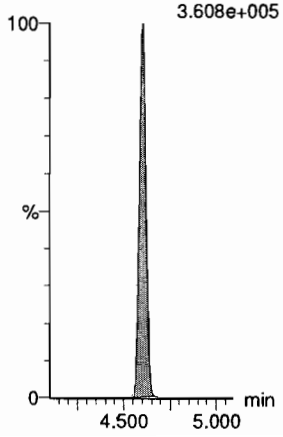
13C8-PFOA
F28:MRM of 1 channel,ES-
420.9 > 376.0
7.054e+005



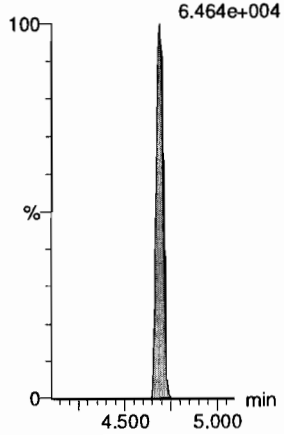
18O2-PFHxS
F25:MRM of 1 channel,ES-
403.0 > 102.6
3.005e+004



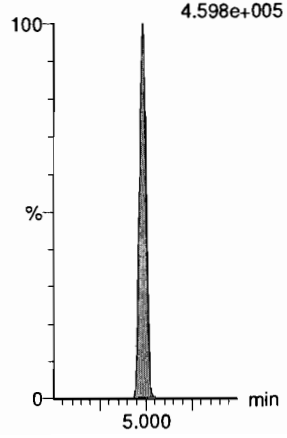
13C9-PFNA
F36:MRM of 1 channel,ES-
472.2 > 426.9
3.608e+005



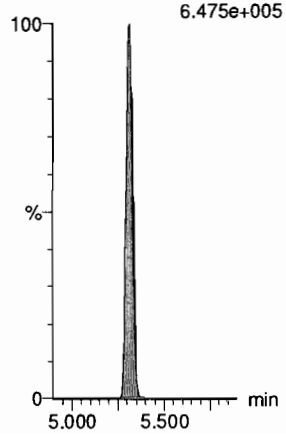
13C4-PFOS
F40:MRM of 1 channel,ES-
503 > 79.9
6.464e+004



13C6-PFDA
F47:MRM of 1 channel,ES-
519.1 > 473.7
4.598e+005



13C7-PFUdA
F57:MRM of 1 channel,ES-
570.1 > 524.8
6.475e+005

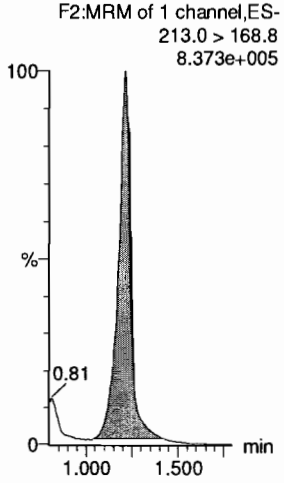


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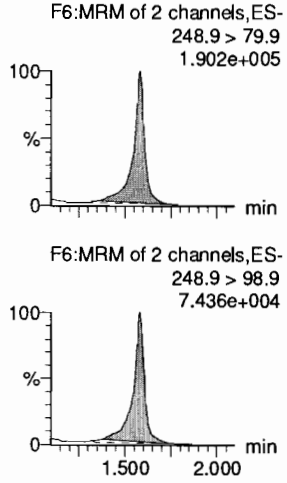
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Name: 190716M2_11, Date: 16-Jul-2019, Time: 18:20:03, ID: ST190716M2-8 PFC CS5 19G1108, Description: PFC CS5 19G1108

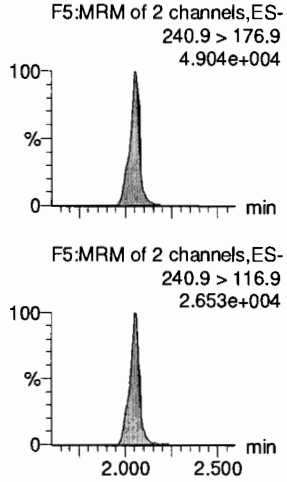
PFBA



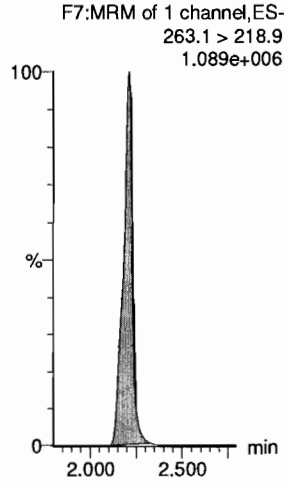
PFPrS



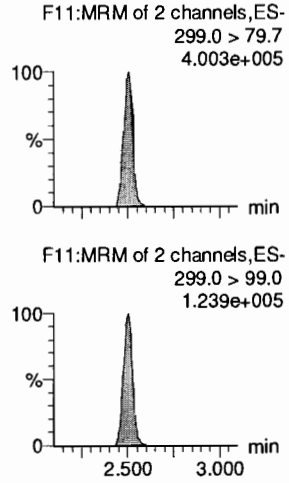
3:3 FTCA



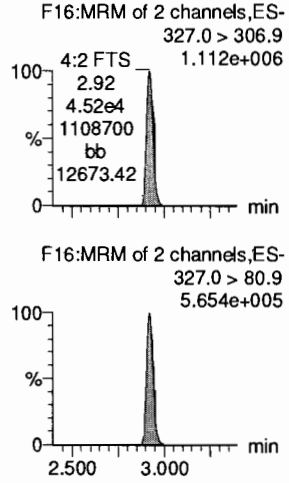
PFPeA



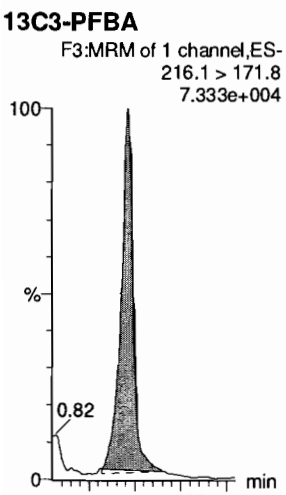
PFBS



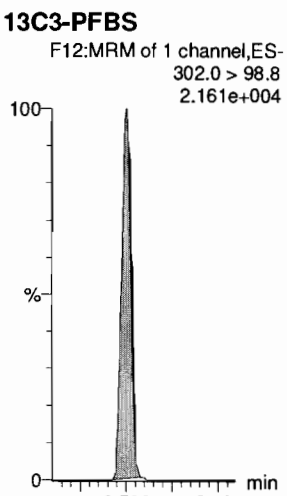
4:2 FTS



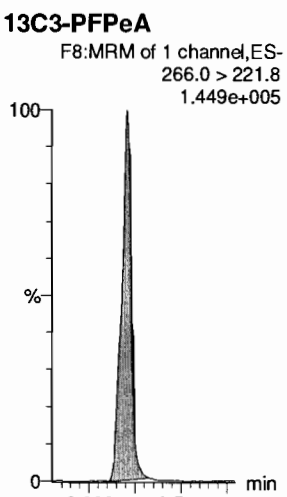
13C3-PFBA



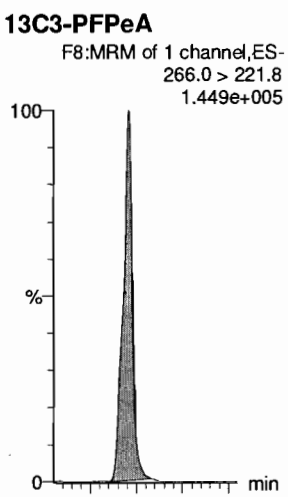
13C3-PFBS



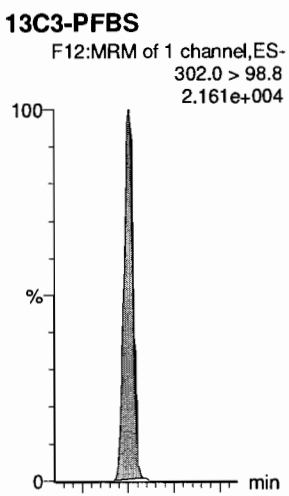
13C3-PFPeA



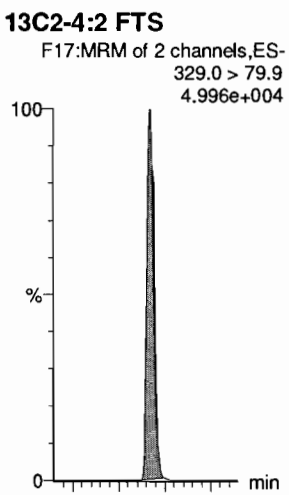
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

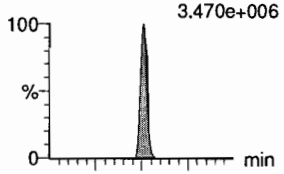


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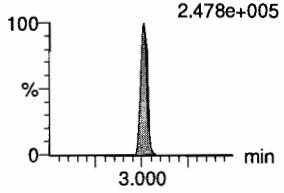
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Name: 190716M2_11, Date: 16-Jul-2019, Time: 18:20:03, ID: ST190716M2-8 PFC CS5 19G1108, Description: PFC CS5 19G1108

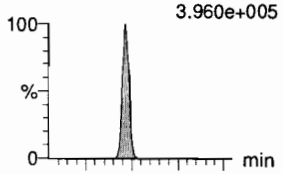
PFHxA
F13:MRM of 2 channels,ES-
313.0 > 269.0
3.470e+006



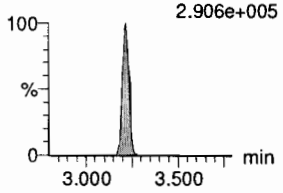
F13:MRM of 2 channels,ES-
313 > 118.9
2.478e+005



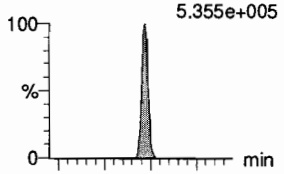
PFPeS
F19:MRM of 2 channels,ES-
349.1 > 80.1
3.960e+005



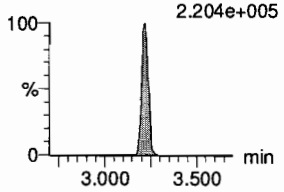
F19:MRM of 2 channels,ES-
349.1 > 99
2.906e+005



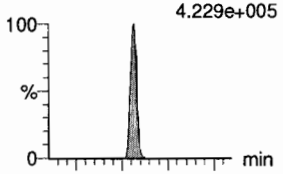
HFPO-DA
F9:MRM of 3 channels,ES-
285.1 > 168.9
5.355e+005



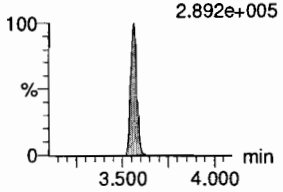
F9:MRM of 3 channels,ES-
285.1 > 184.9
2.204e+005



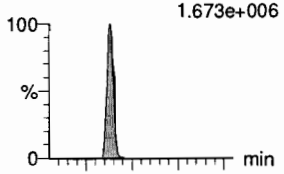
5:3 FTCA
F18:MRM of 2 channels,ES-
340.9 > 236.9
4.229e+005



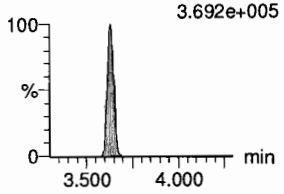
F18:MRM of 2 channels,ES-
340.9 > 216.9
2.892e+005



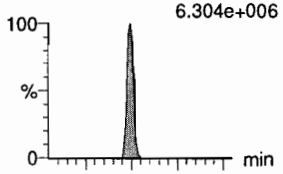
PFHpA
F20:MRM of 2 channels,ES-
363.0 > 318.9
1.673e+006



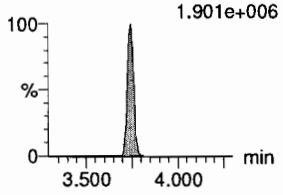
F20:MRM of 2 channels,ES-
363.0 > 169.0
3.692e+005



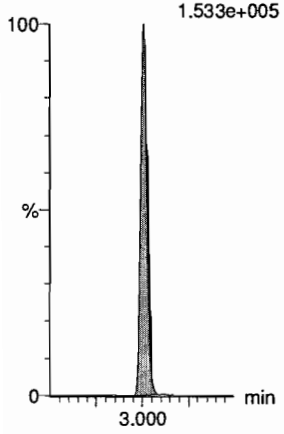
ADONA
F22:MRM of 2 channels,ES-
376.8 > 250.9
6.304e+006



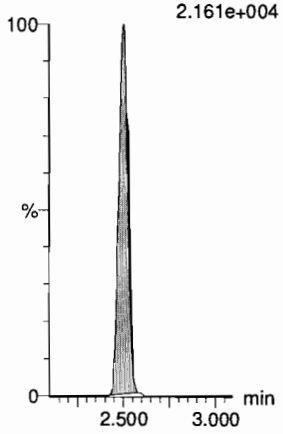
F22:MRM of 2 channels,ES-
376.8 > 85.0
1.901e+006



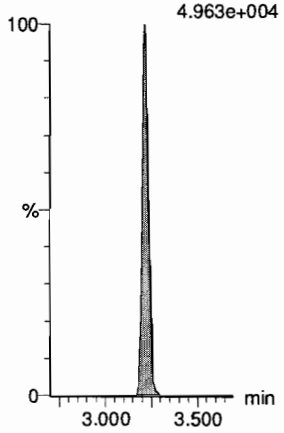
13C2-PFHxA
F14:MRM of 1 channel,ES-
315.0 > 270.0
1.533e+005



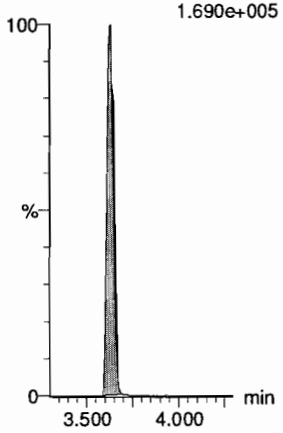
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
2.161e+004



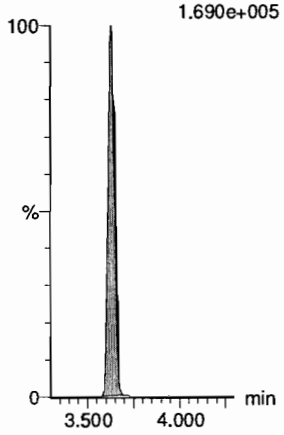
13C3-HFPO-DA
F10:MRM of 2 channels,ES-
287.0 > 168.9
4.963e+004



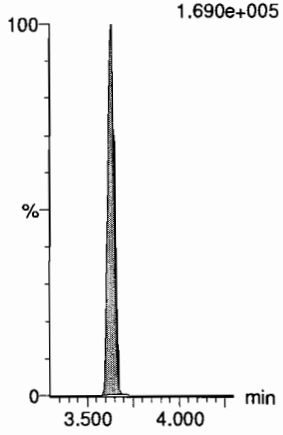
13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.690e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.690e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.690e+005

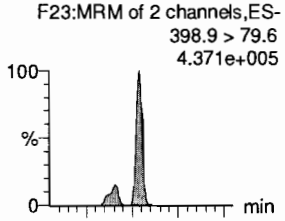


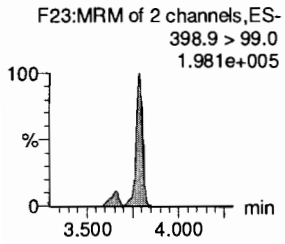
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

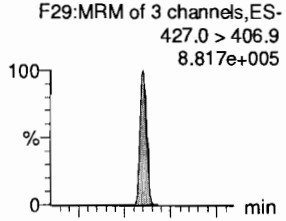
Name: 190716M2_11, Date: 16-Jul-2019, Time: 18:20:03, ID: ST190716M2-8 PFC CS5 19G1108, Description: PFC CS5 19G1108

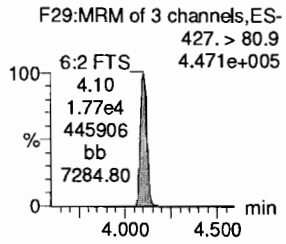
L-PFHxS



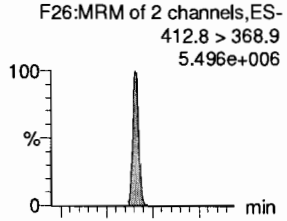


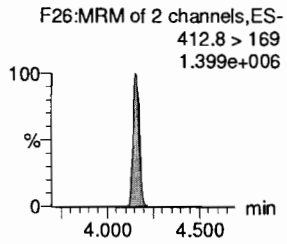
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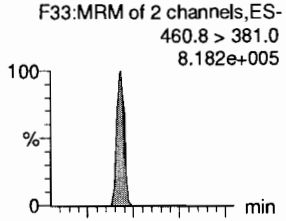


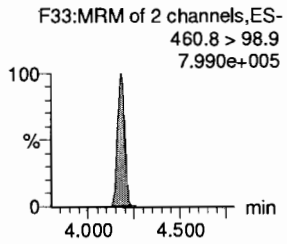
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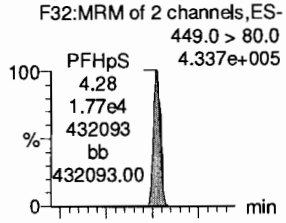


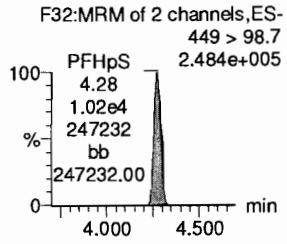
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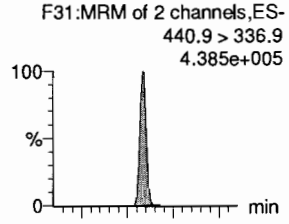


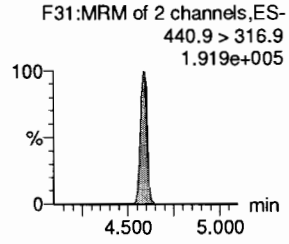
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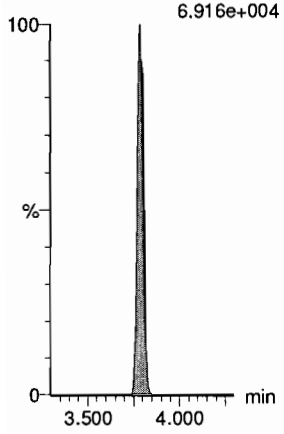


7:3 FTCA

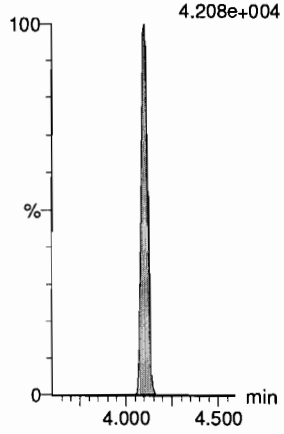




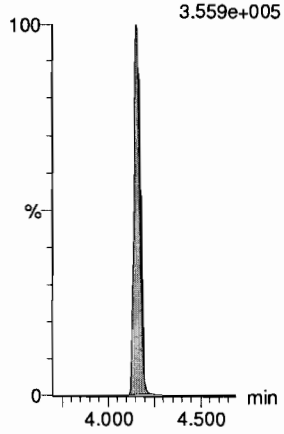
13C3-PFHxS



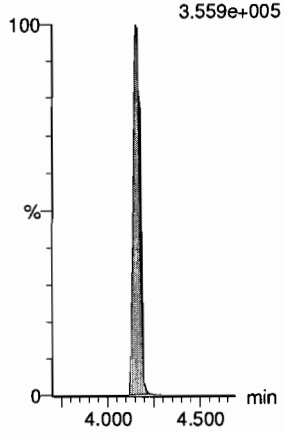
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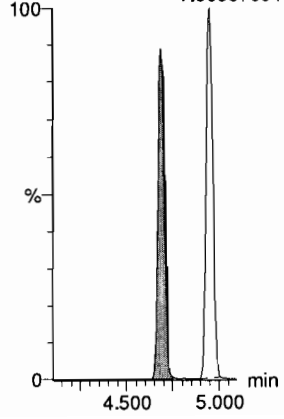
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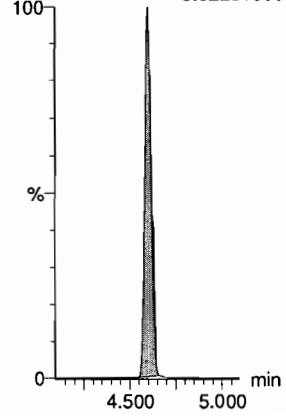
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13C8-PFOS



13C5-PFNA

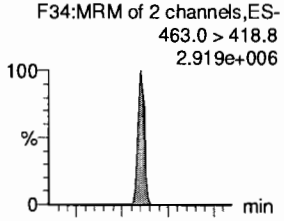


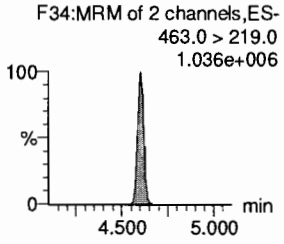
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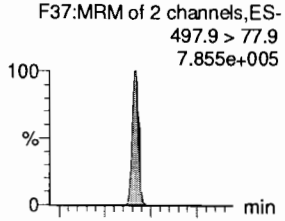
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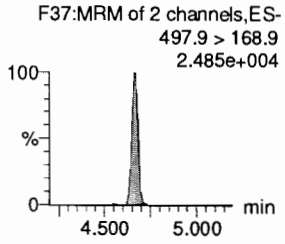
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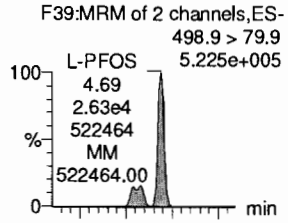


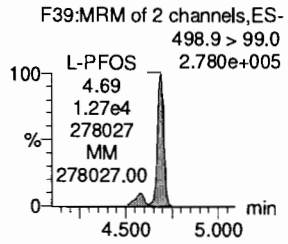
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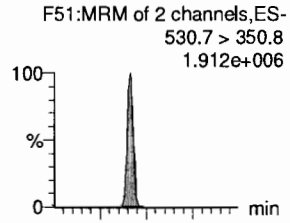


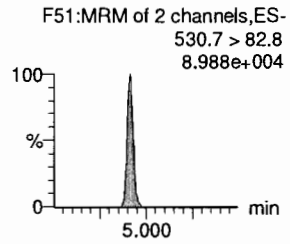
L-PFOS



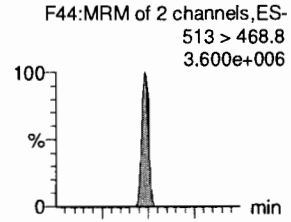


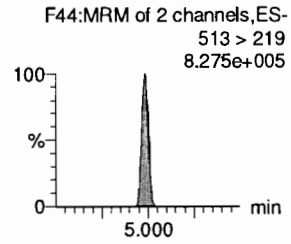
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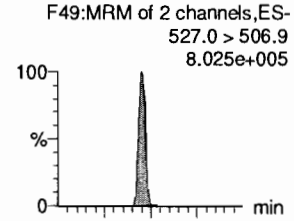


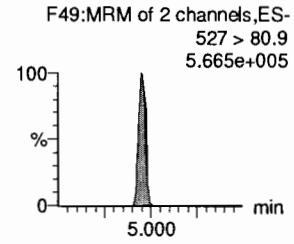
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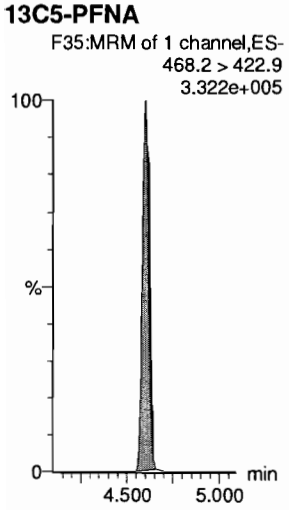


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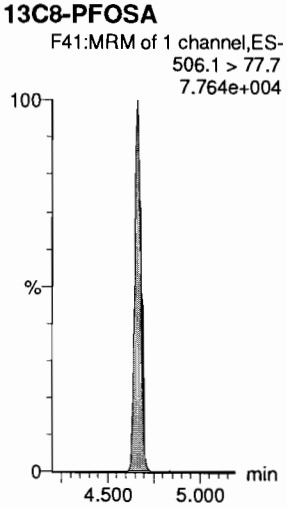




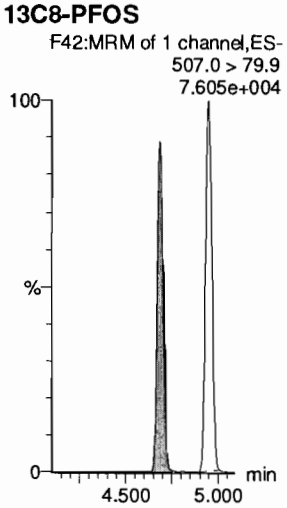
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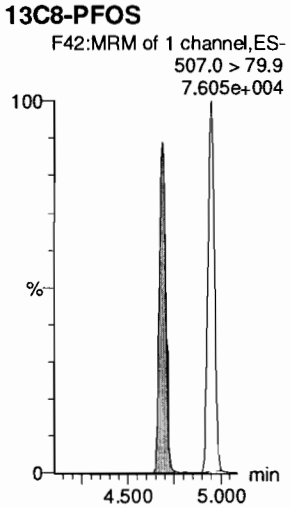
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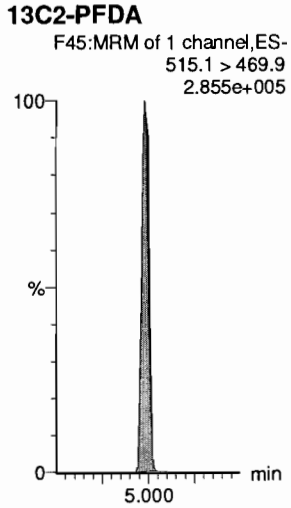
13C8-PFOS



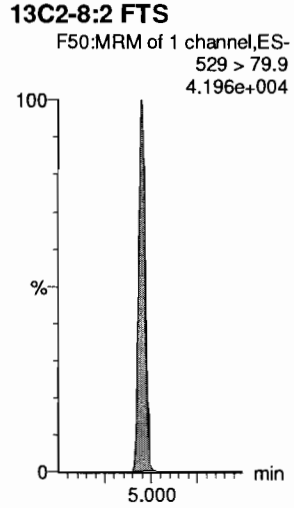
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

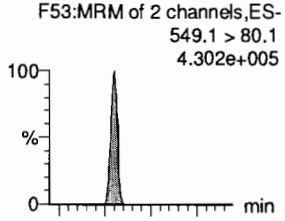


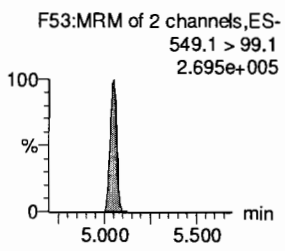
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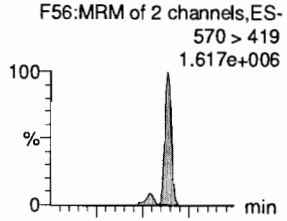
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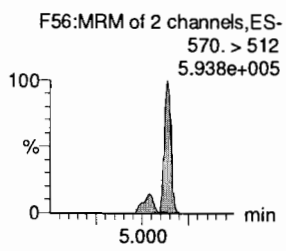
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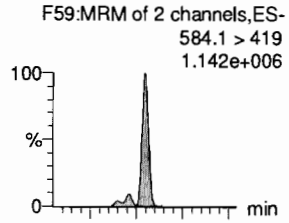


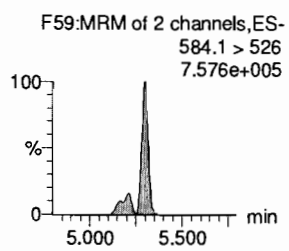
L-MeFOSAA



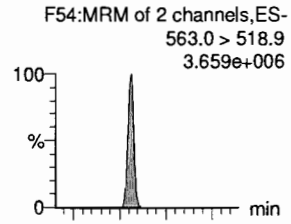


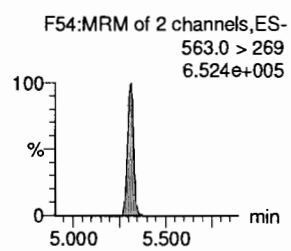
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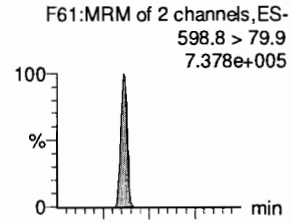


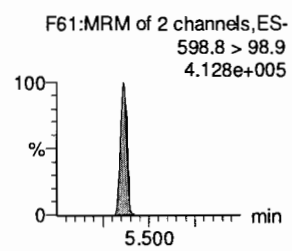
PFUdA



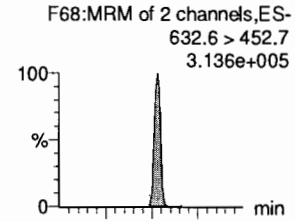


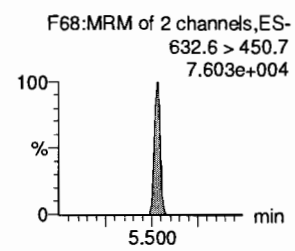
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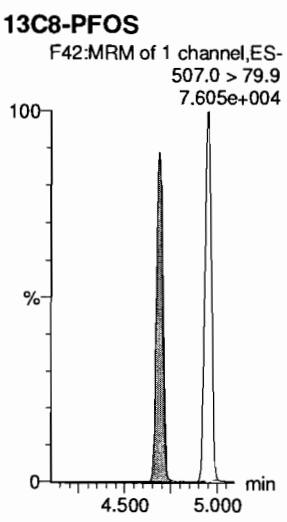


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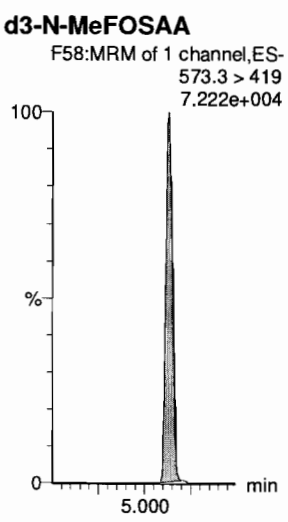




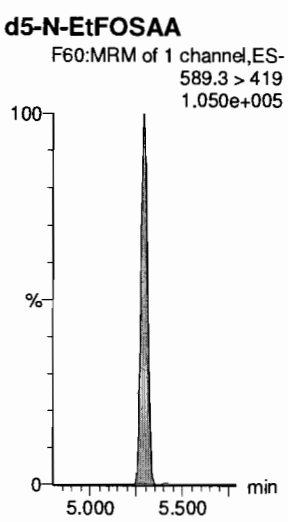
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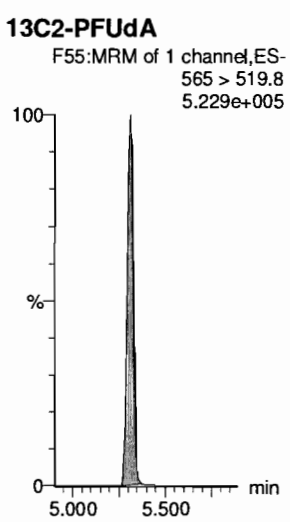
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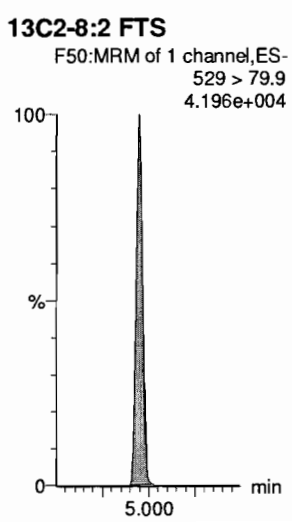
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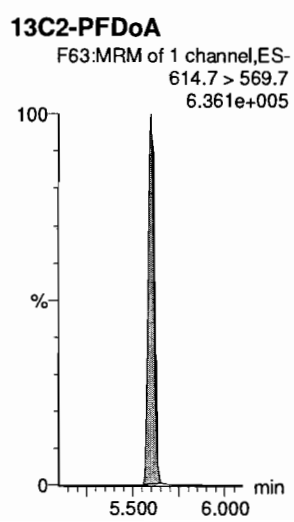
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13C2-8:2 FTS



13C2-PFDoA

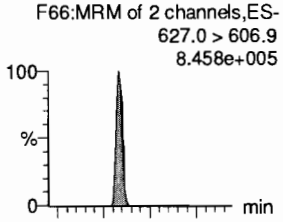


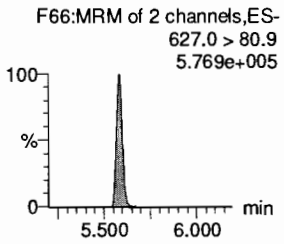
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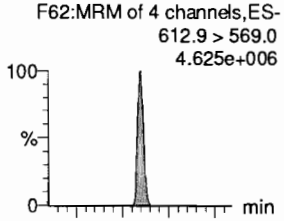
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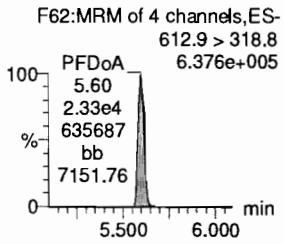
10:2 FTS



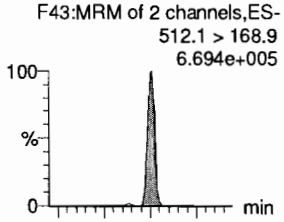


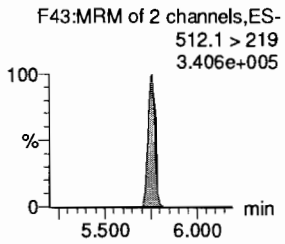
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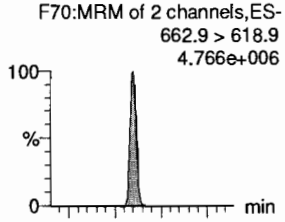


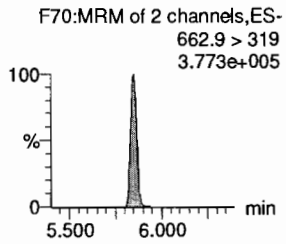
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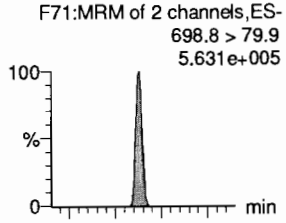


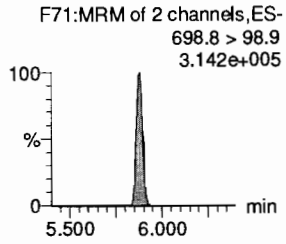
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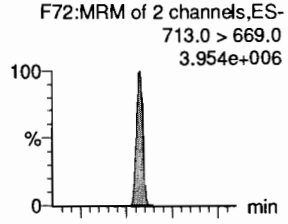


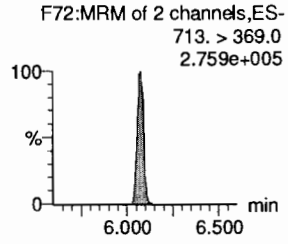
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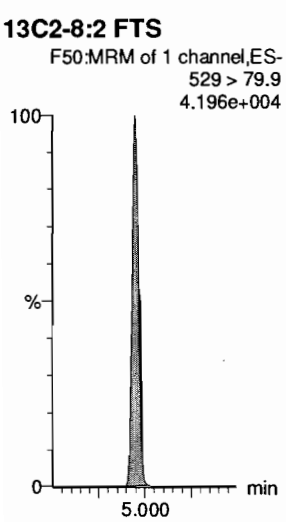


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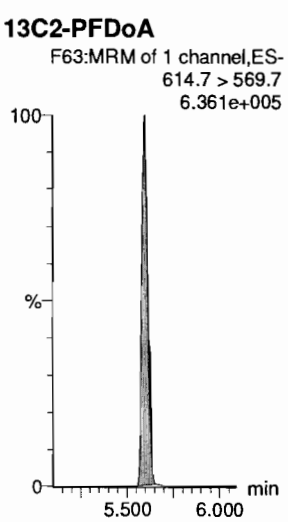




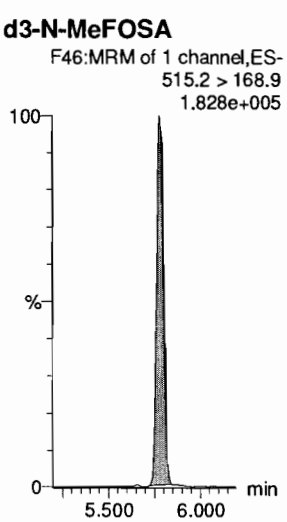
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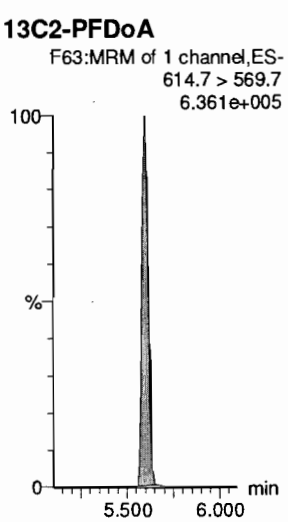
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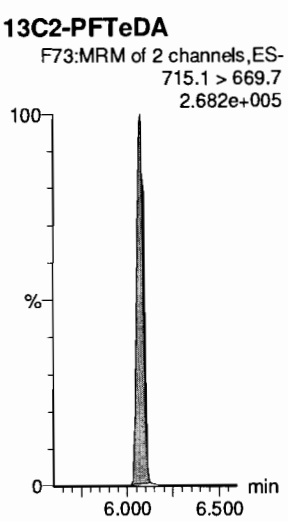
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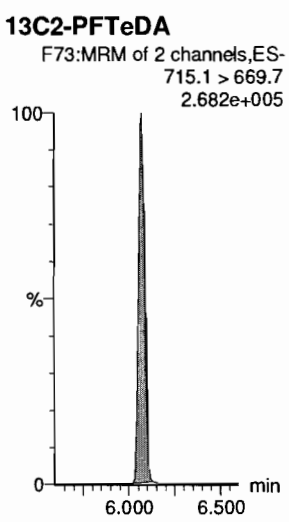
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13C2-PFTeDA



13C2-PFTeDA

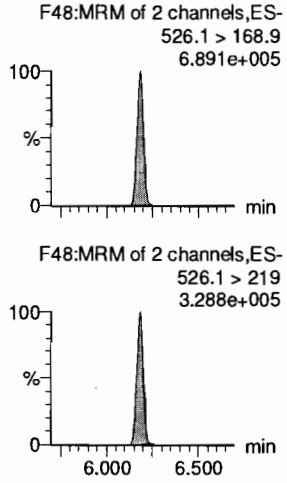


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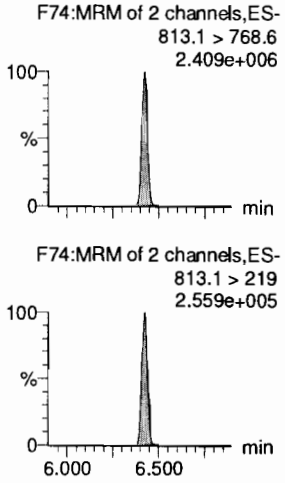
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Name: 190716M2_11, Date: 16-Jul-2019, Time: 18:20:03, ID: ST190716M2-8 PFC CS5 19G1108, Description: PFC CS5 19G1108

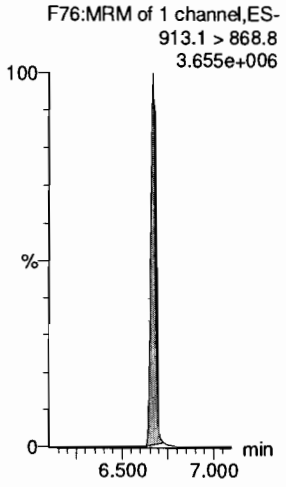
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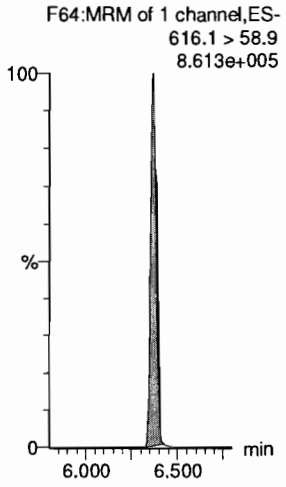
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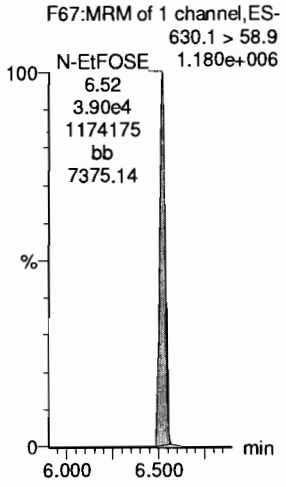
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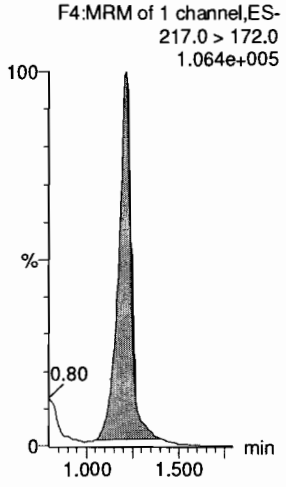
N-MeFOSE



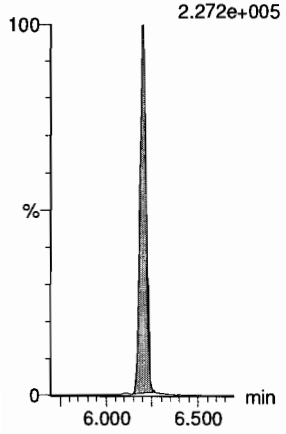
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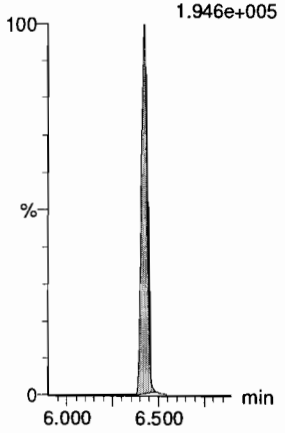
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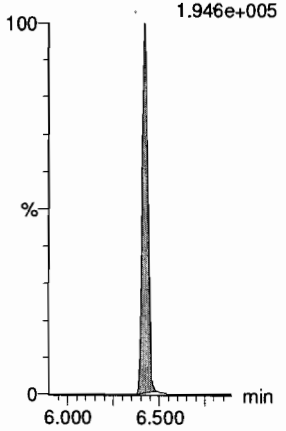
d5-N-ETFOSA



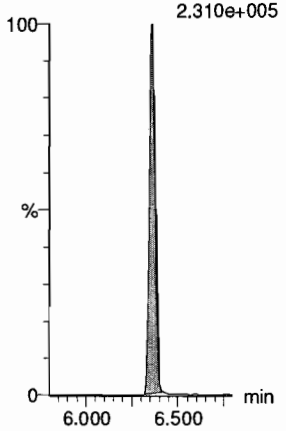
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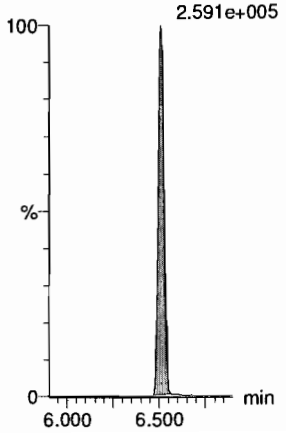
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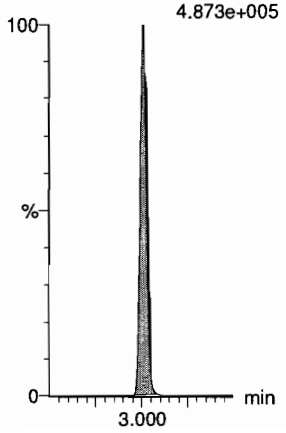
d7-N-MeFOSE



d9-N-EtFOSE



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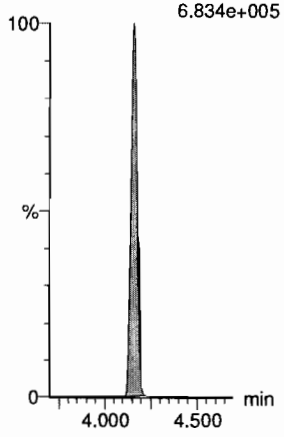


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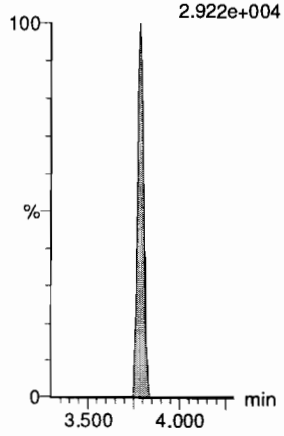
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Name: 190716M2_11, Date: 16-Jul-2019, Time: 18:20:03, ID: ST190716M2-8 PFC CS5 19G1108, Description: PFC CS5 19G1108

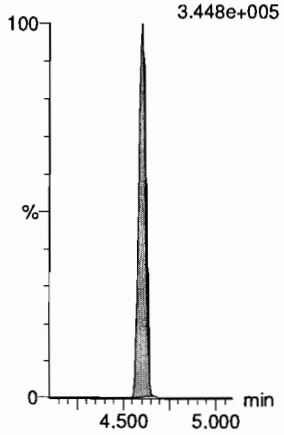
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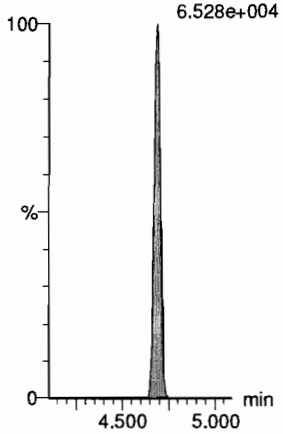
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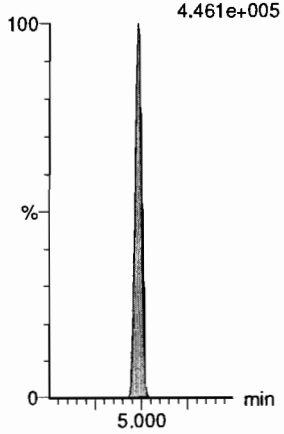
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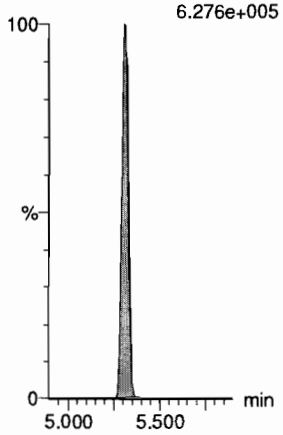
13C4-PFOS



13C6-PFDA



13C7-PFUdA

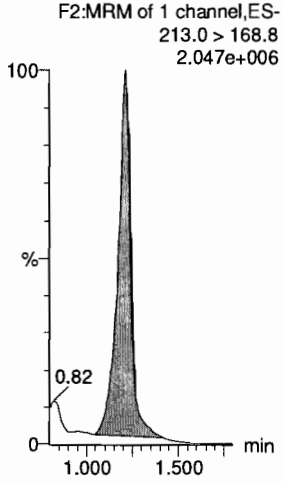


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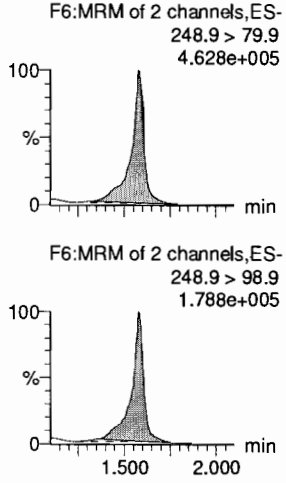
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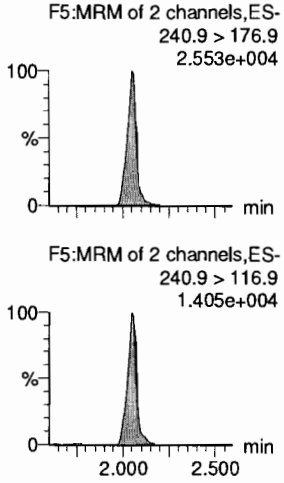
PFBA



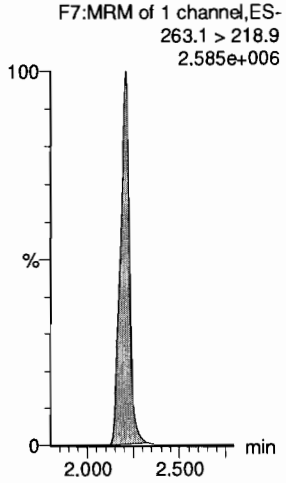
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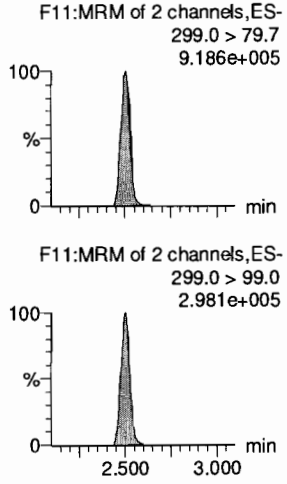
3:3 FTCA



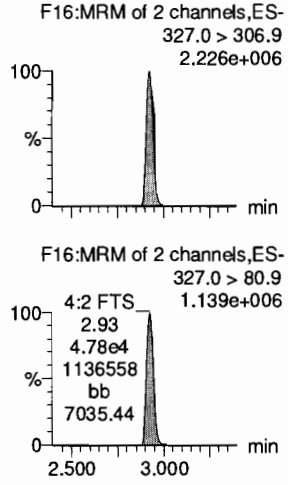
PFPeA



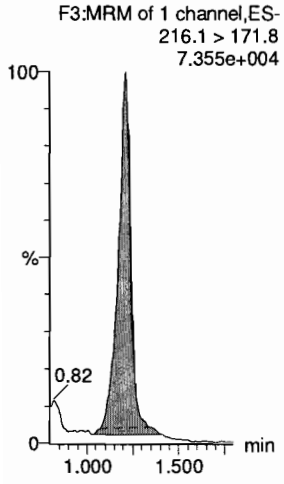
PFBS



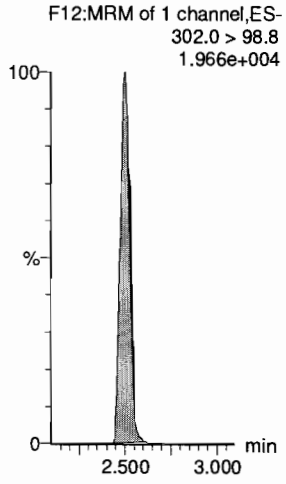
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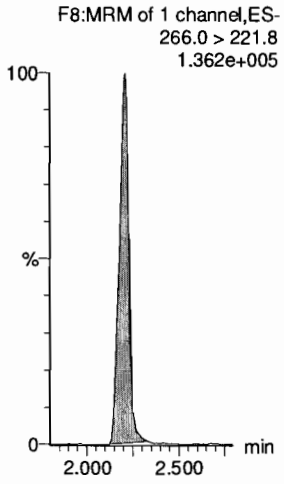
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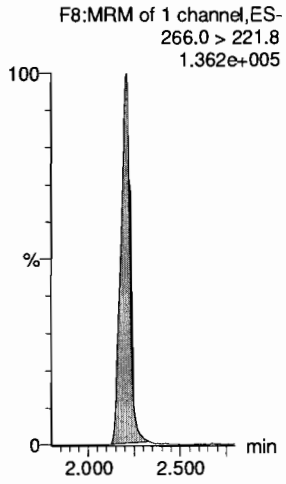
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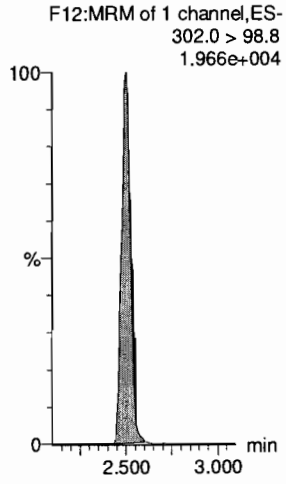
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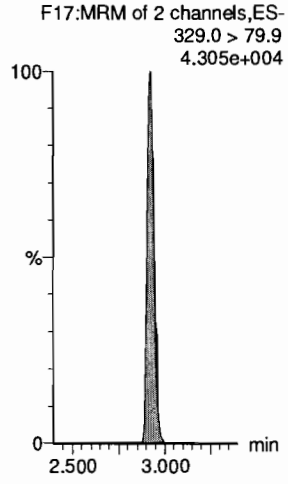
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

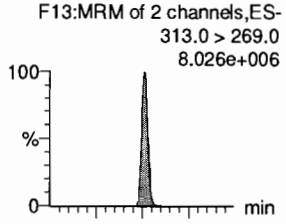


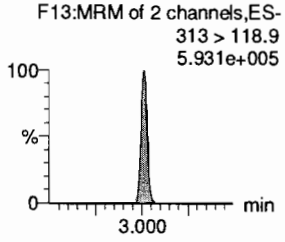
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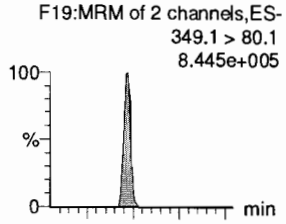
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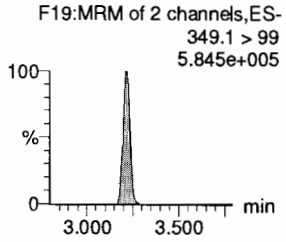
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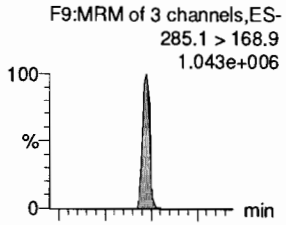


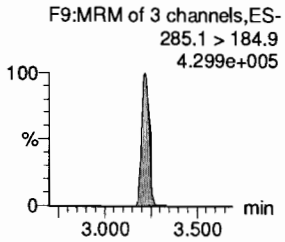
PFPeS



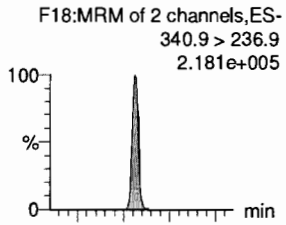


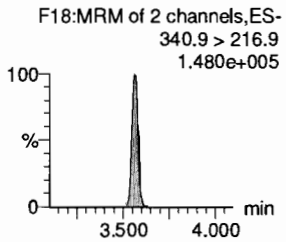
HFPO-DA



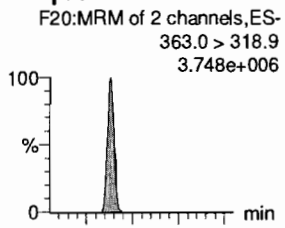


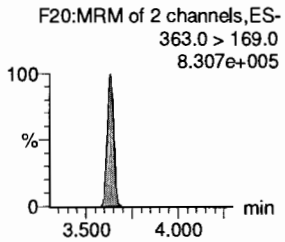
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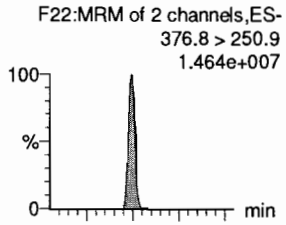


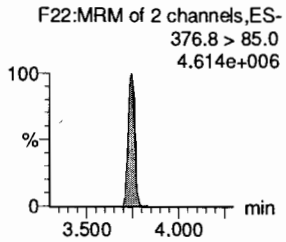
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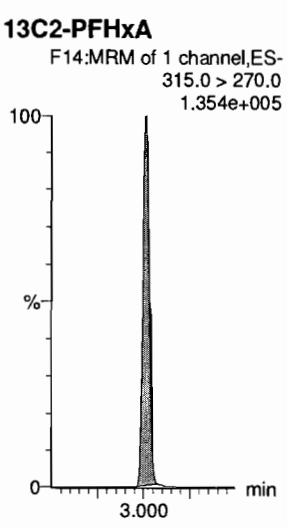


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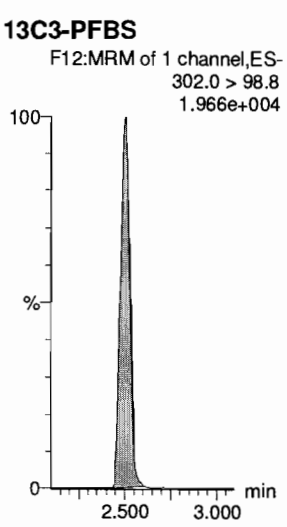




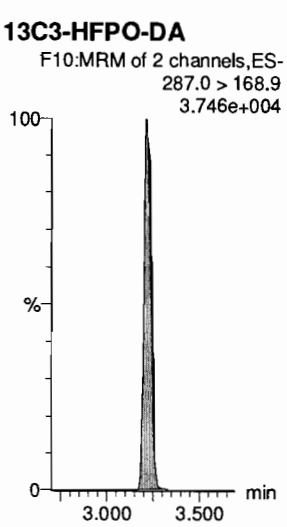
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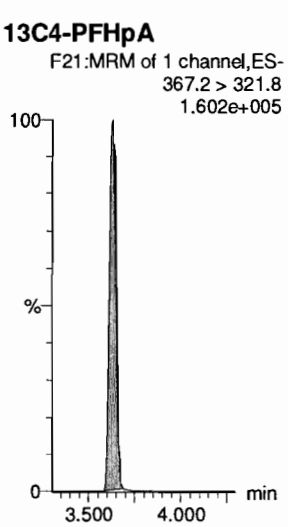
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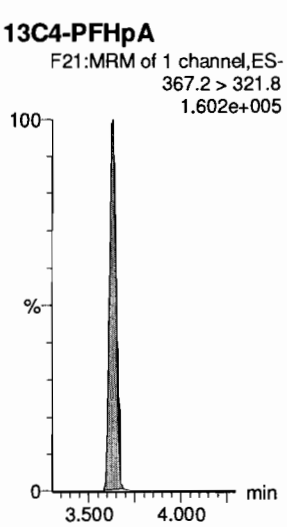
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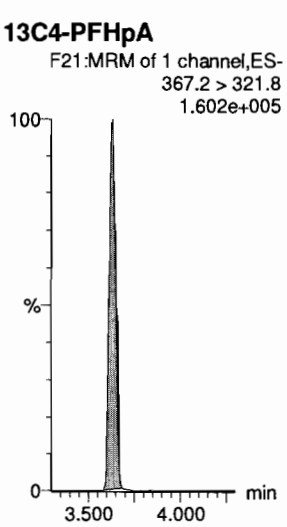
13C4-PFHpA



13C4-PFHpA



13C4-PFHpA

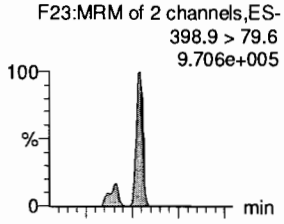


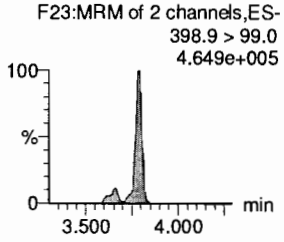
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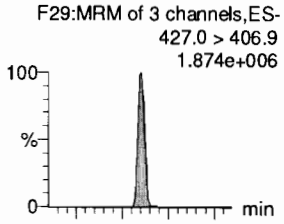
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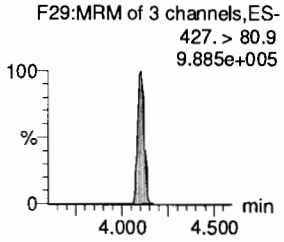
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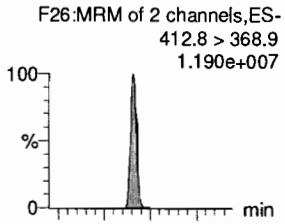


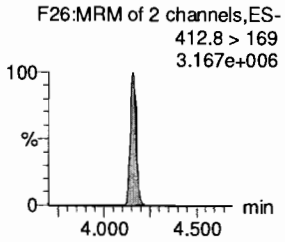
6:2 FTS



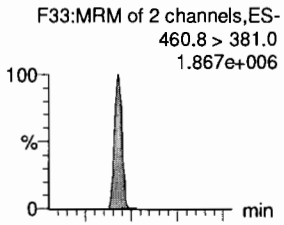


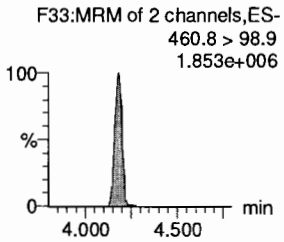
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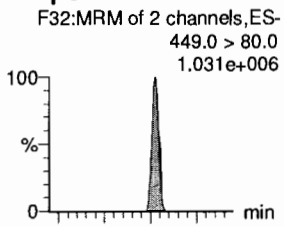


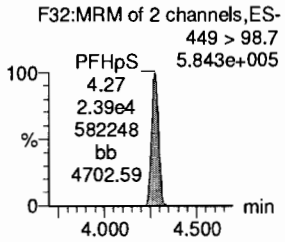
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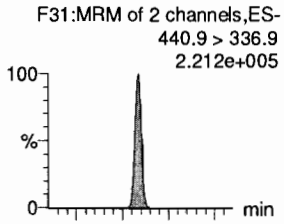


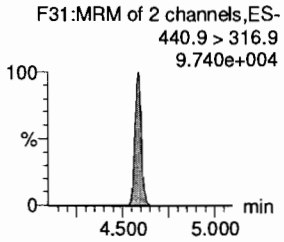
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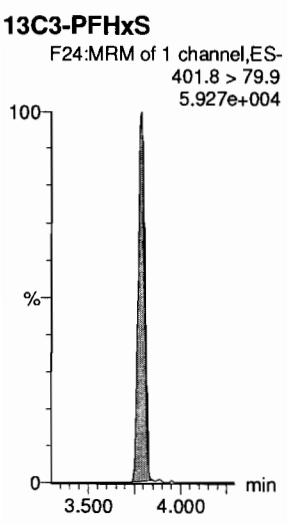


7:3 FTCA

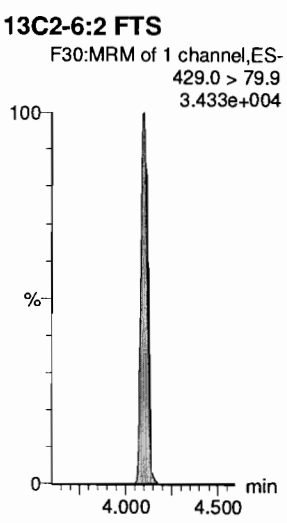




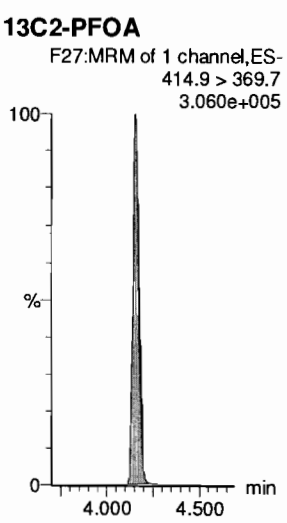
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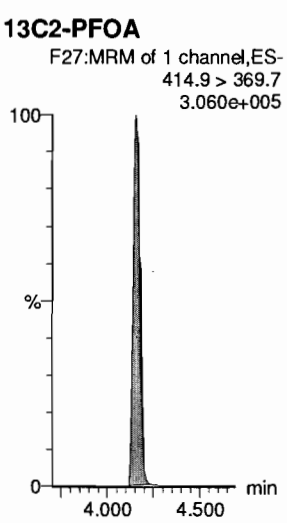
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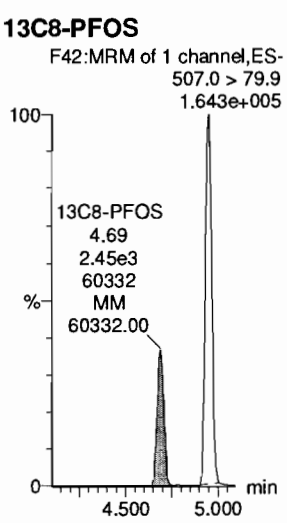
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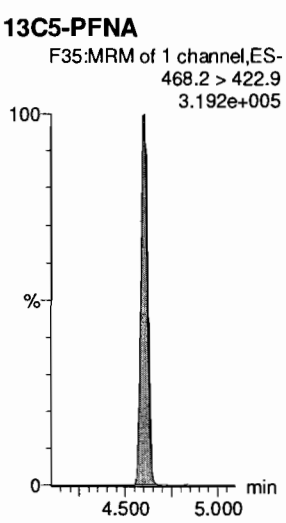
13C2-PFOA



13C8-PFOS



13C5-PFNA

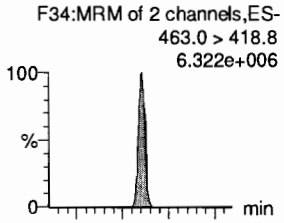


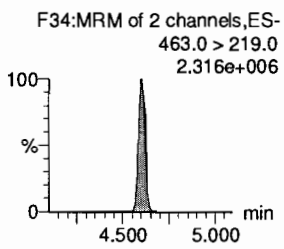
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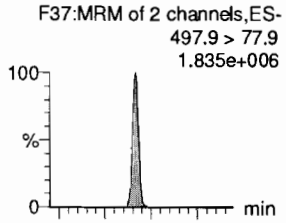
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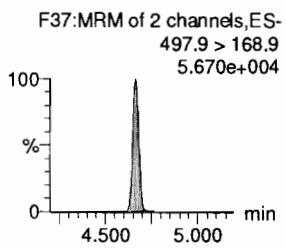
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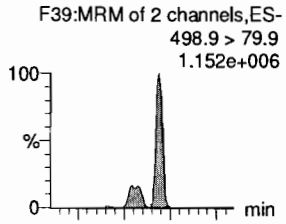


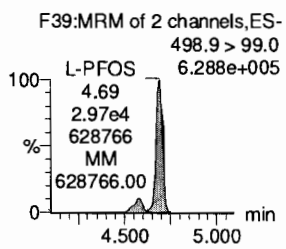
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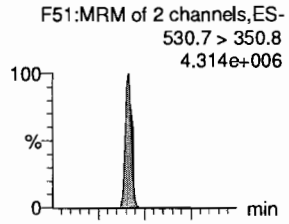


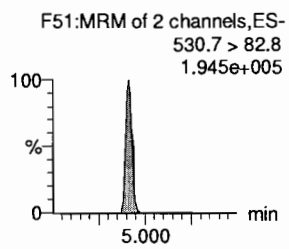
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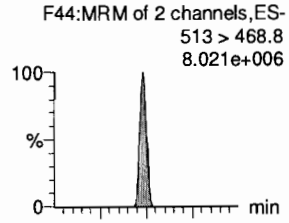


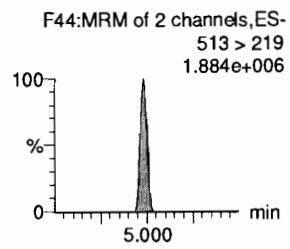
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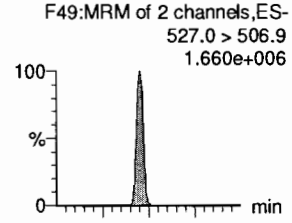


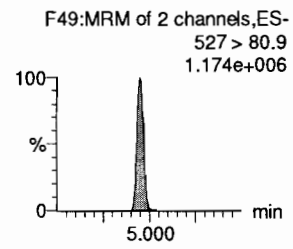
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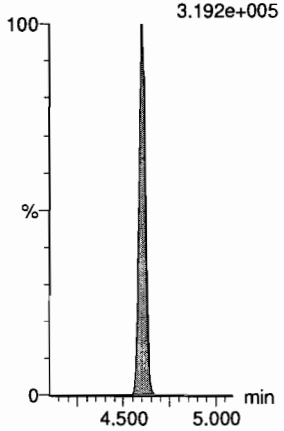


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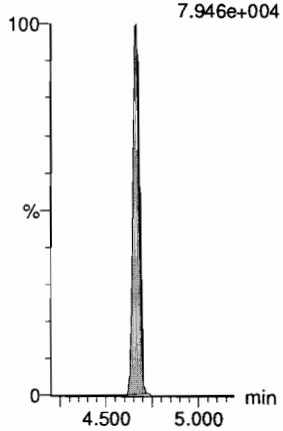




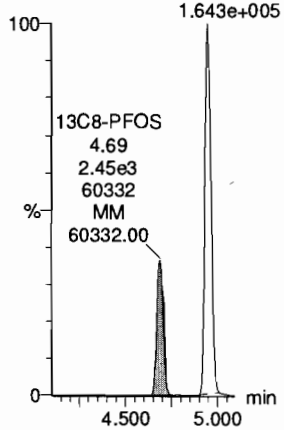
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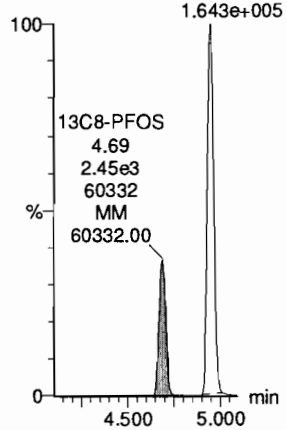
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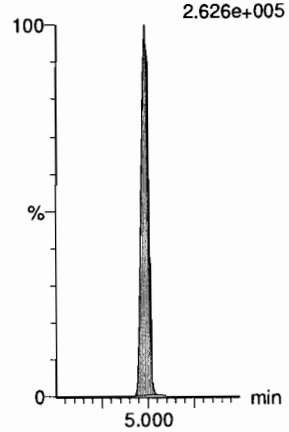
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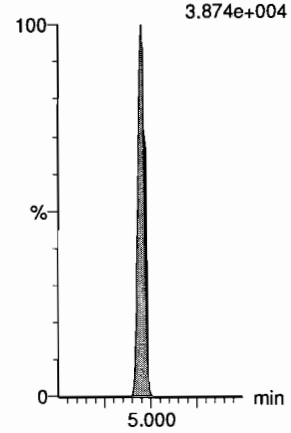
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

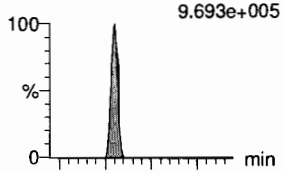


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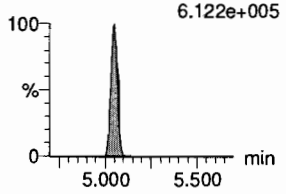
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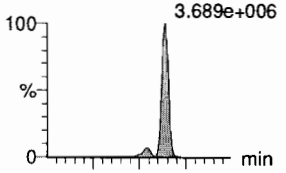
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F53:MRM of 2 channels,ES-
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9.693e+005



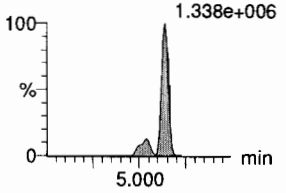
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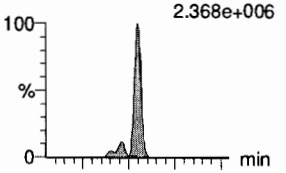
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F56:MRM of 2 channels,ES-
570 > 419
3.689e+006



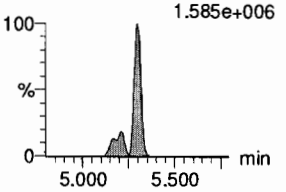
F56:MRM of 2 channels,ES-
570. > 512
1.338e+006



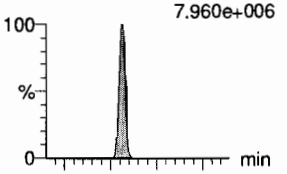
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
2.368e+006



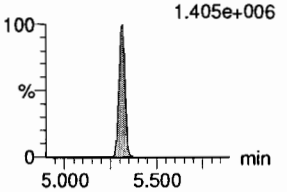
F59:MRM of 2 channels,ES-
584.1 > 526
1.585e+006



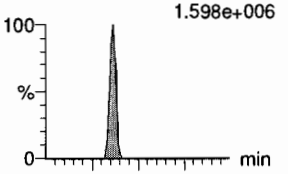
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
7.960e+006



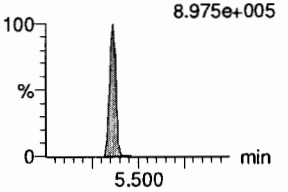
F54:MRM of 2 channels,ES-
563.0 > 269
1.405e+006



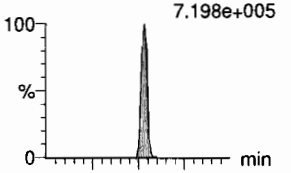
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
1.598e+006



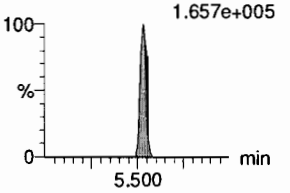
F61:MRM of 2 channels,ES-
598.8 > 98.9
8.975e+005



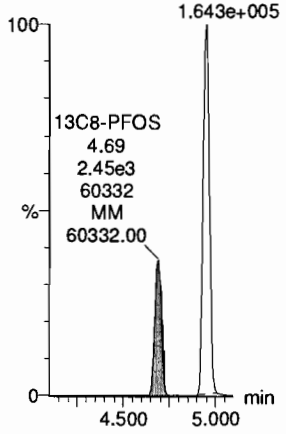
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
7.198e+005



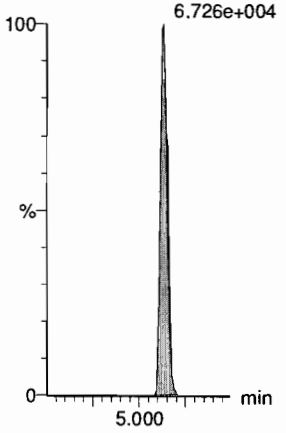
F68:MRM of 2 channels,ES-
632.6 > 450.7
1.657e+005



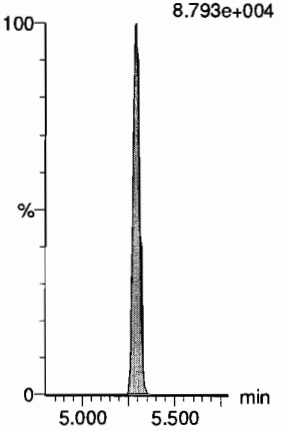
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
1.643e+005



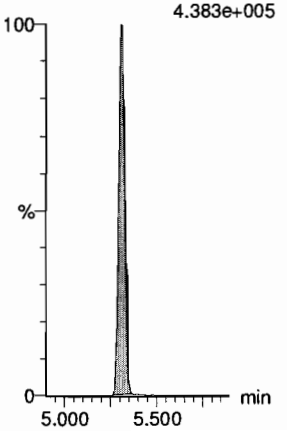
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
6.726e+004



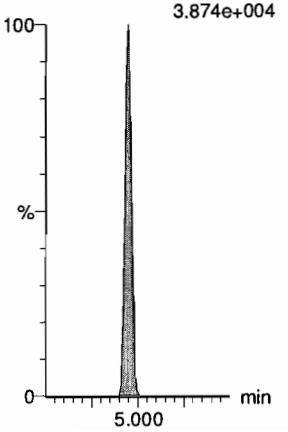
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
8.793e+004



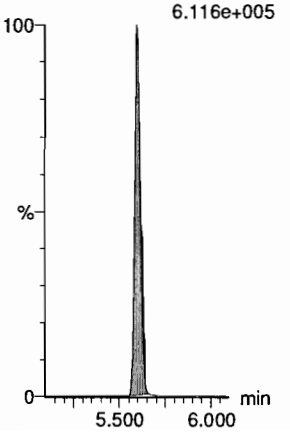
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
4.383e+005



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
3.874e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
6.116e+005

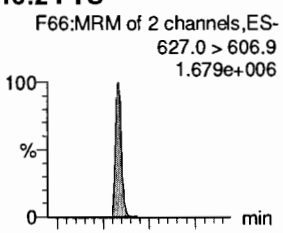


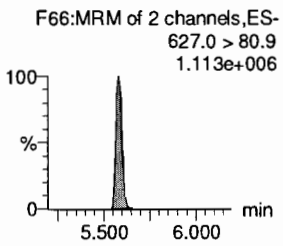
Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

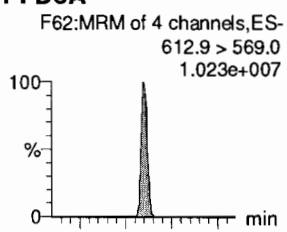
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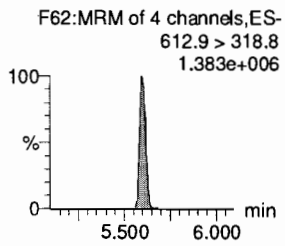
10:2 FTS



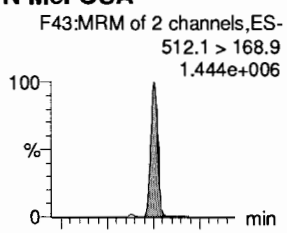


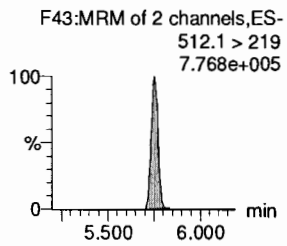
PFDoA



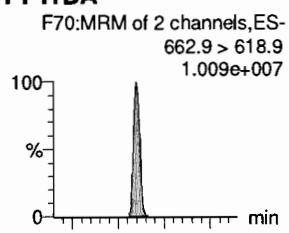


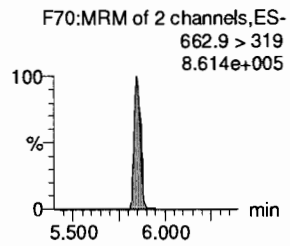
N-MeFOSA



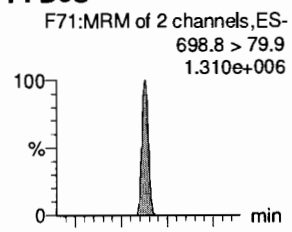


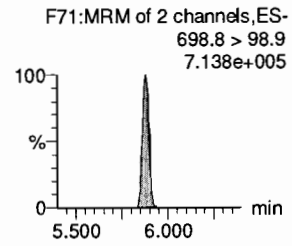
PFTrDA



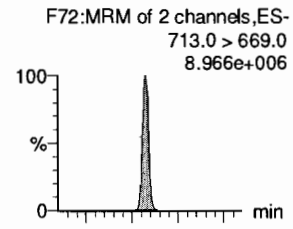


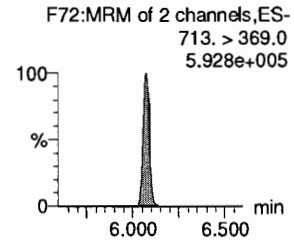
PFDoS



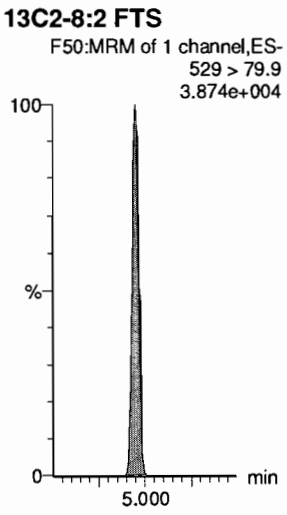


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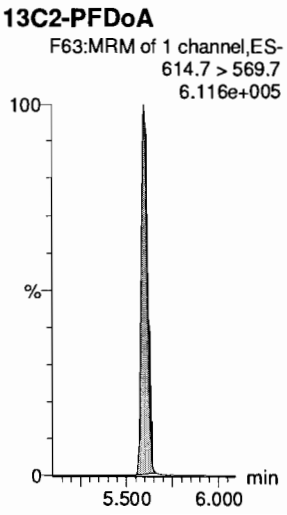




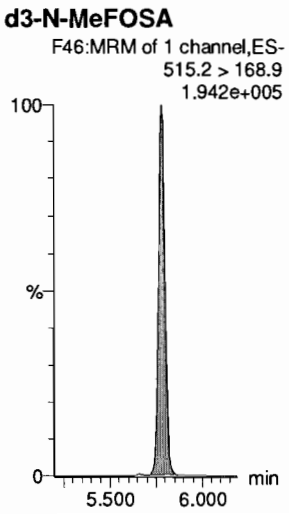
13C2-8:2 FTS



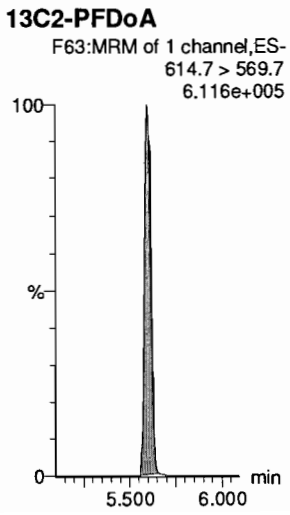
13C2-PFDoA



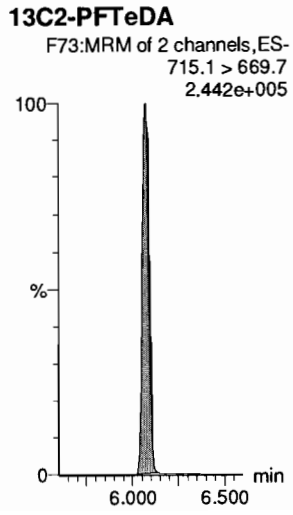
d3-N-MeFOSA



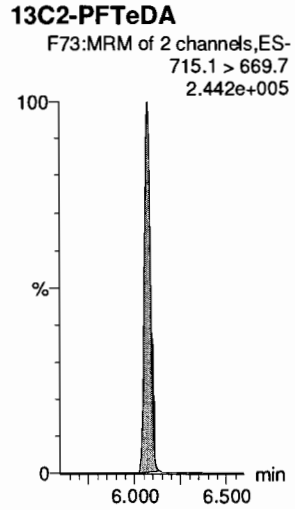
13C2-PFDoA



13C2-PFTeDA



13C2-PFTeDA

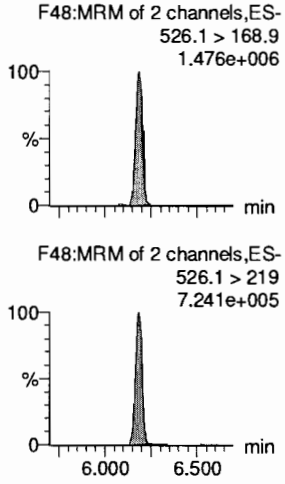


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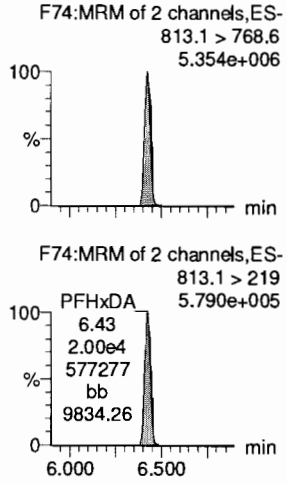
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_12, Date: 16-Jul-2019, Time: 18:30:36, ID: ST190716M2-9 PFC CS6 19G1109, Description: PFC CS6 19G1109

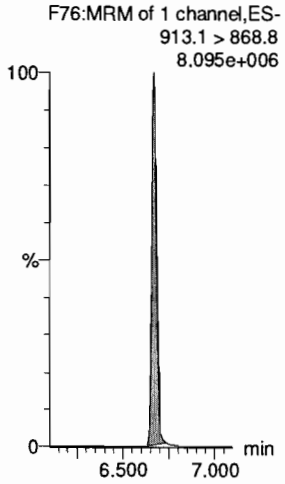
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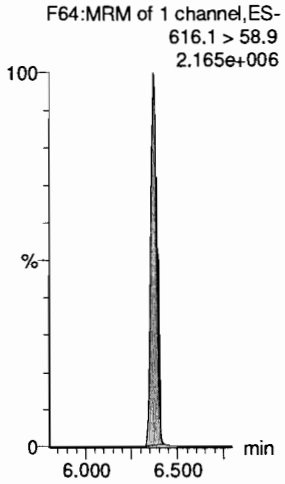
PFHxDA



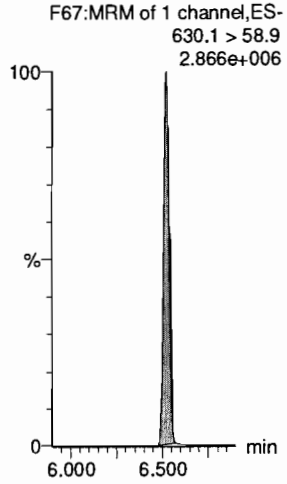
PFODA



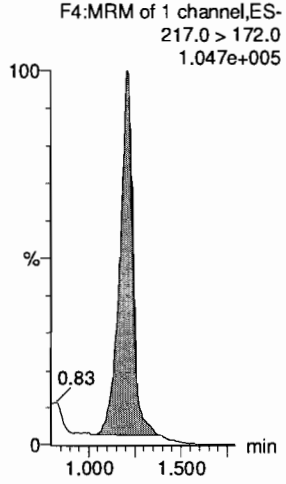
N-MeFOSE



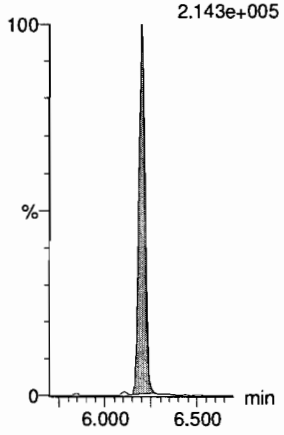
N-EtFOSE



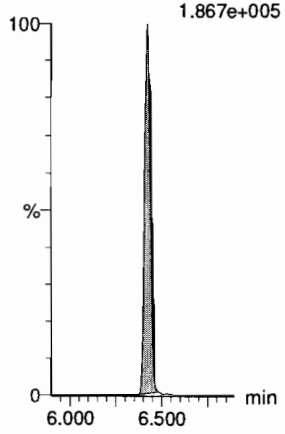
13C4-PFBA



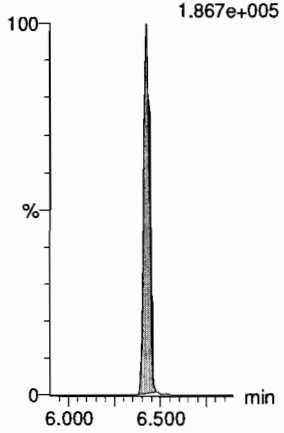
d5-N-ETFOSA



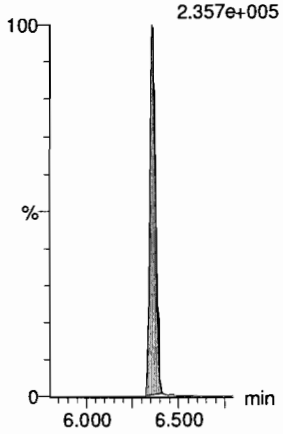
13C2-PFHxDA



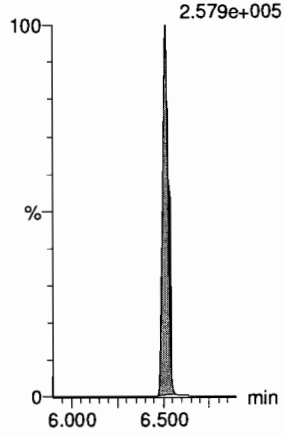
13C2-PFHxDA



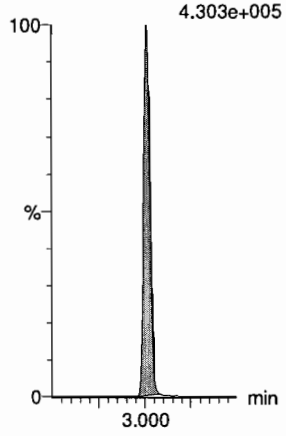
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

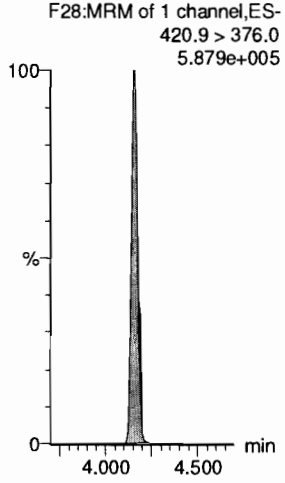


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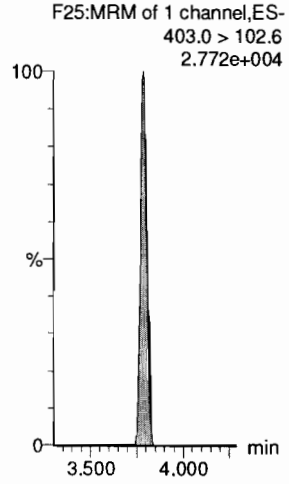
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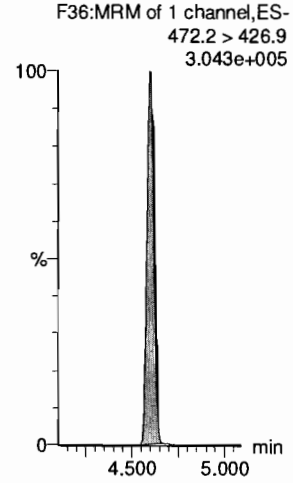
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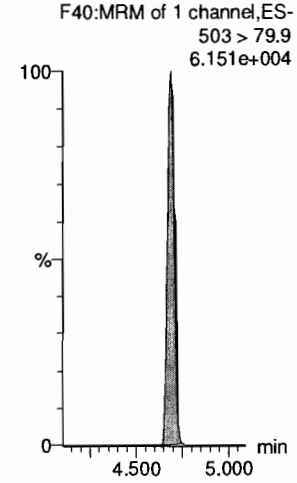
18O2-PFHxS



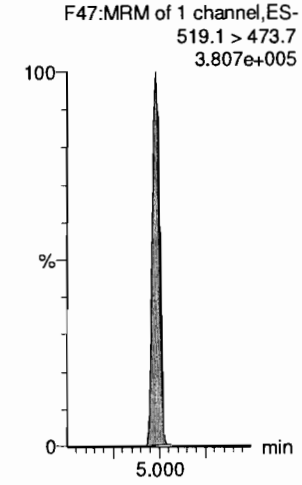
13C9-PFNA



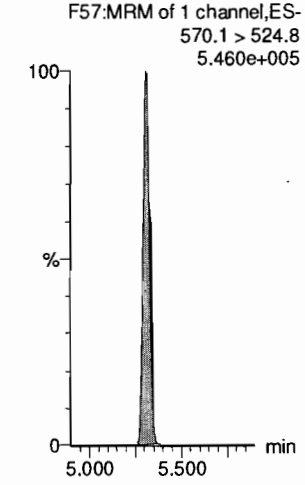
13C4-PFOS



13C6-PFDA



13C7-PFUdA

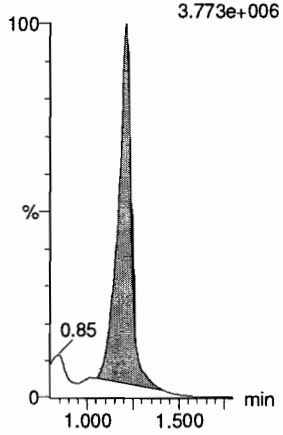


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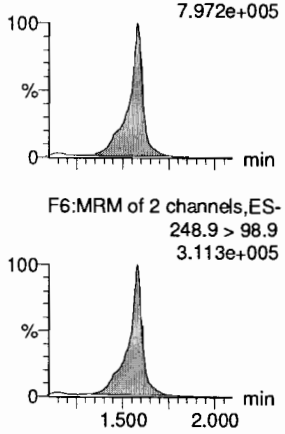
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_13, Date: 16-Jul-2019, Time: 18:41:14, ID: ST190716M2-10 PFC CS7 19G1110, Description: PFC CS7 19G1110

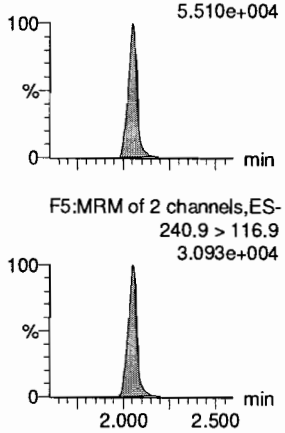
PFBA



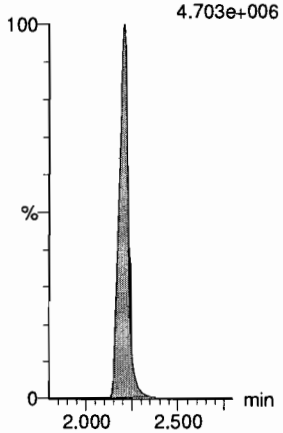
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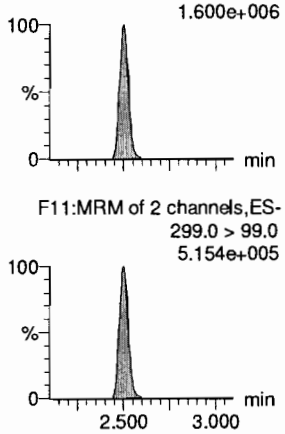
3:3 FTCA



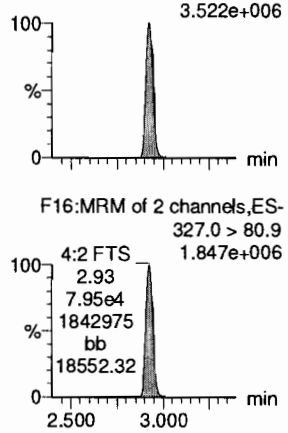
PFPeA



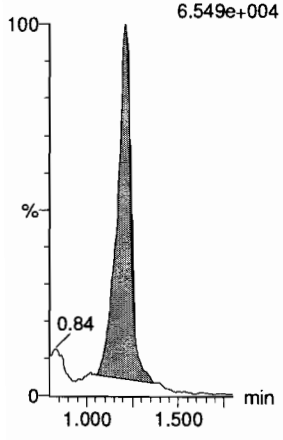
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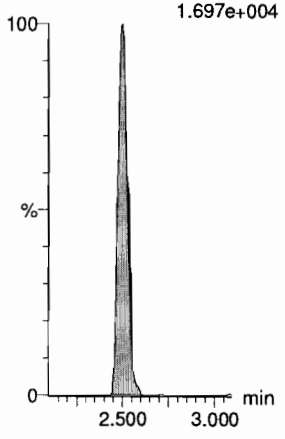
4:2 FTS



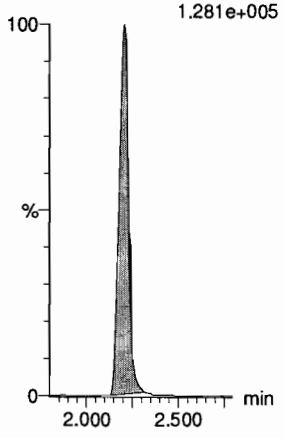
13C3-PFBA



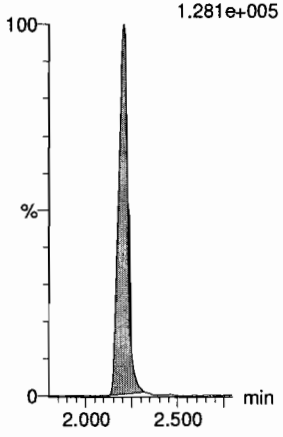
13C3-PFBS



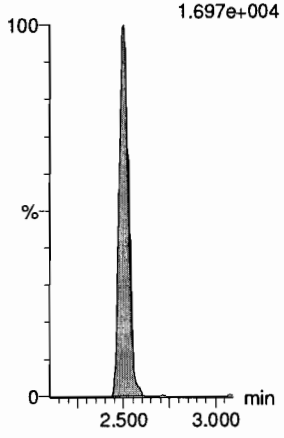
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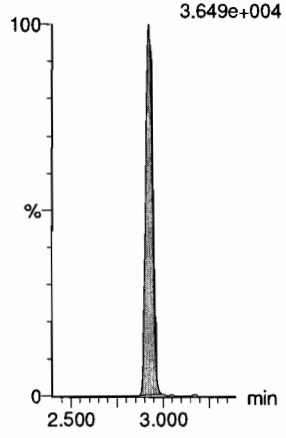
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13C3-PFBS



13C2-4:2 FTS

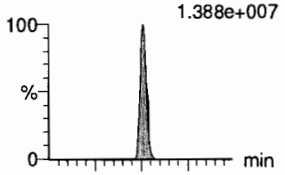


Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

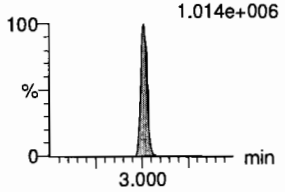
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_13, Date: 16-Jul-2019, Time: 18:41:14, ID: ST190716M2-10 PFC CS7 19G1110, Description: PFC CS7 19G1110

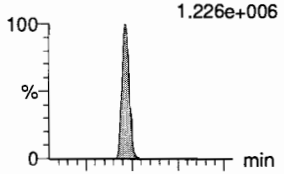
PFHxA
F13:MRM of 2 channels,ES-
313.0 > 269.0
1.388e+007



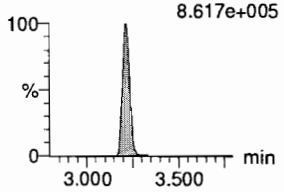
F13:MRM of 2 channels,ES-
313 > 118.9
1.014e+006



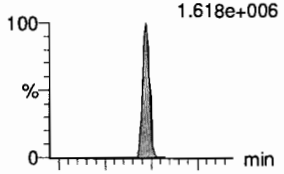
PFPeS
F19:MRM of 2 channels,ES-
349.1 > 80.1
1.226e+006



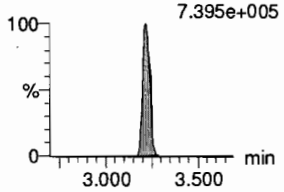
F19:MRM of 2 channels,ES-
349.1 > 99
8.617e+005



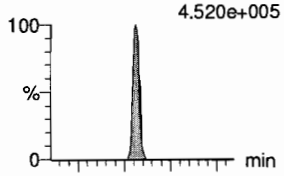
HFPO-DA
F9:MRM of 3 channels,ES-
285.1 > 168.9
1.618e+006



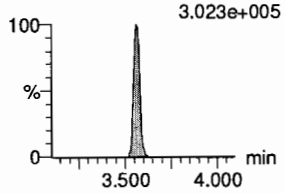
F9:MRM of 3 channels,ES-
285.1 > 184.9
7.395e+005



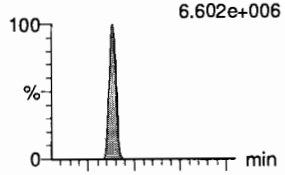
5:3 FTCA
F18:MRM of 2 channels,ES-
340.9 > 236.9
4.520e+005



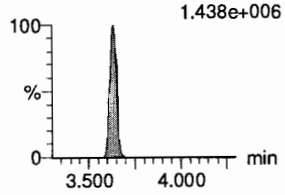
F18:MRM of 2 channels,ES-
340.9 > 216.9
3.023e+005



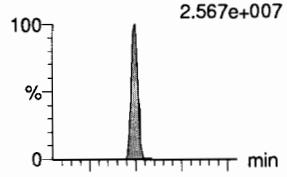
PFHpA
F20:MRM of 2 channels,ES-
363.0 > 318.9
6.602e+006



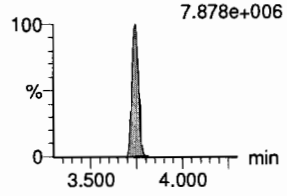
F20:MRM of 2 channels,ES-
363.0 > 169.0
1.438e+006



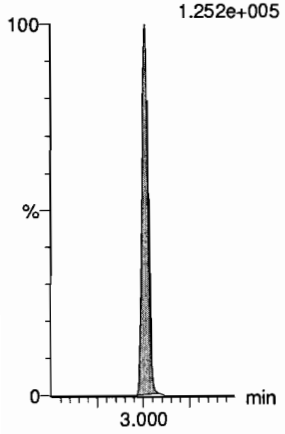
ADONA
F22:MRM of 2 channels,ES-
376.8 > 250.9
2.567e+007



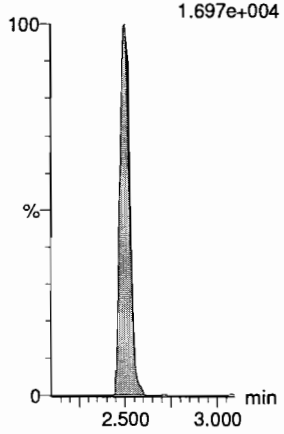
F22:MRM of 2 channels,ES-
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7.878e+006



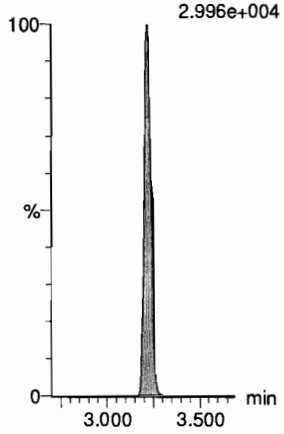
13C2-PFHxA
F14:MRM of 1 channel,ES-
315.0 > 270.0
1.252e+005



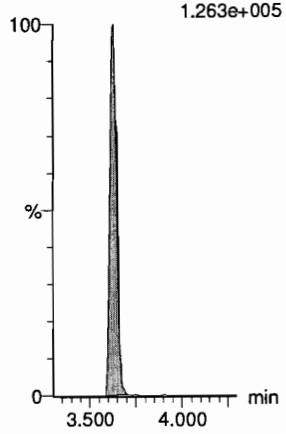
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
1.697e+004



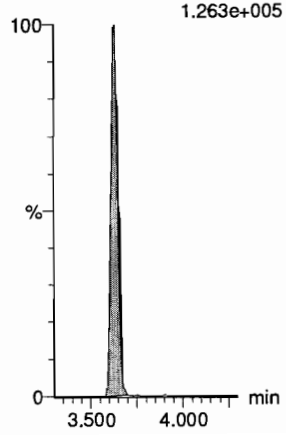
13C3-HFPO-DA
F10:MRM of 2 channels,ES-
287.0 > 168.9
2.996e+004



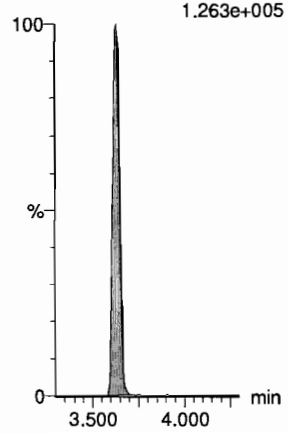
13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.263e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.263e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
1.263e+005

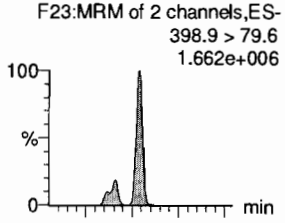


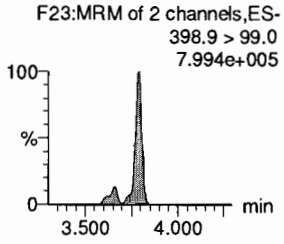
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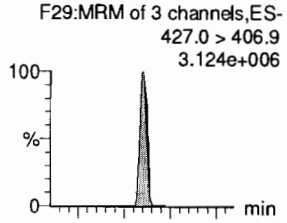
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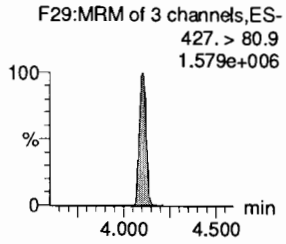
L-PFHxS



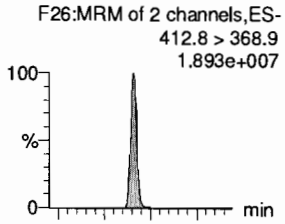


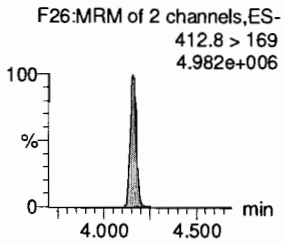
6:2 FTS



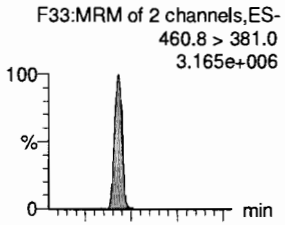


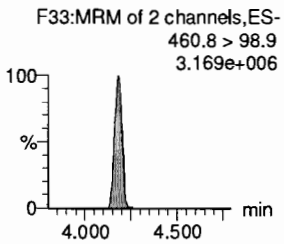
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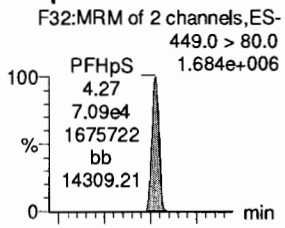


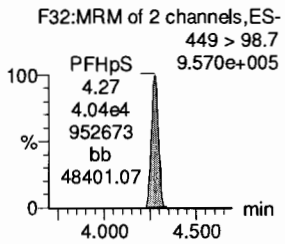
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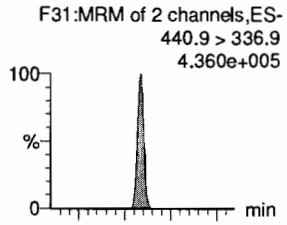


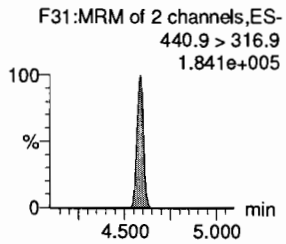
PFHpS



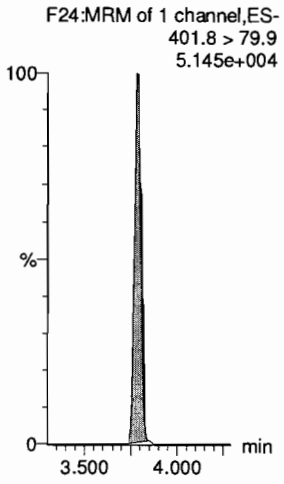


7:3 FTCA

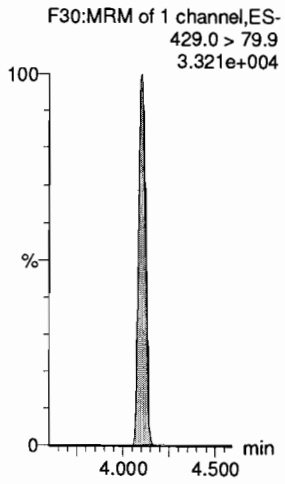




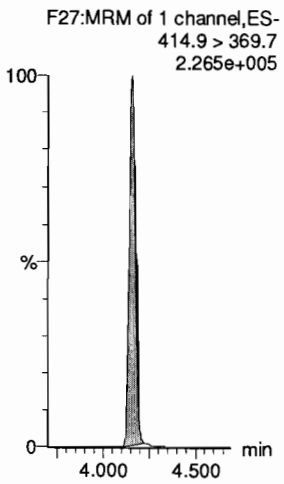
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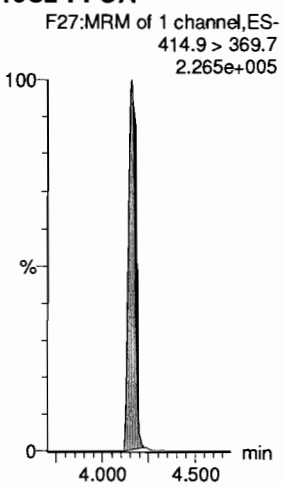
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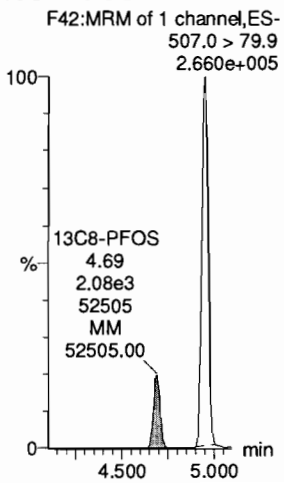
13C2-PFOA



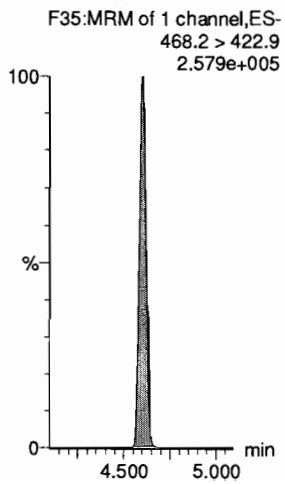
13C2-PFOA



13C8-PFOS



13C5-PFNA

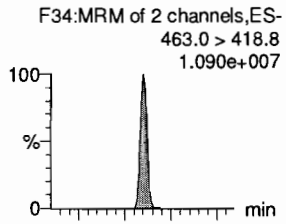


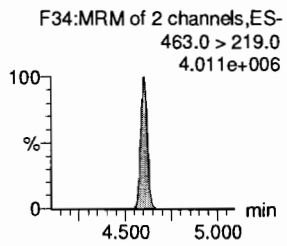
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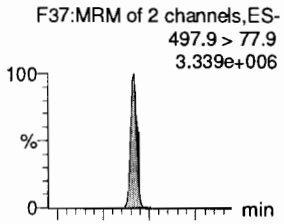
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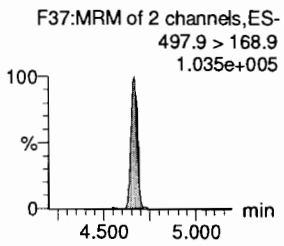
PFNA



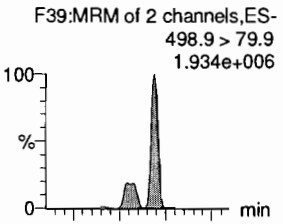


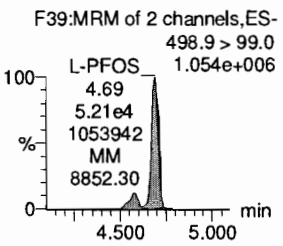
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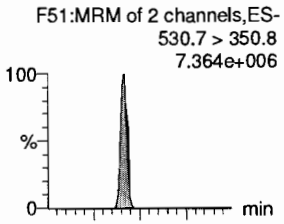


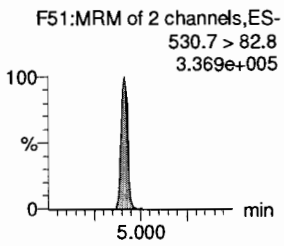
L-PFOS



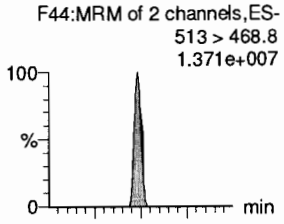


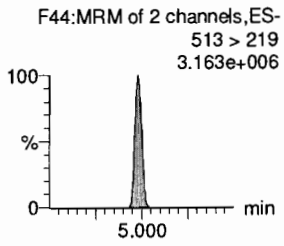
9Cl-PF30NS



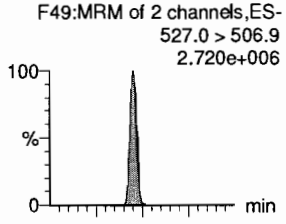


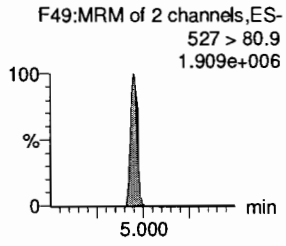
PFDA



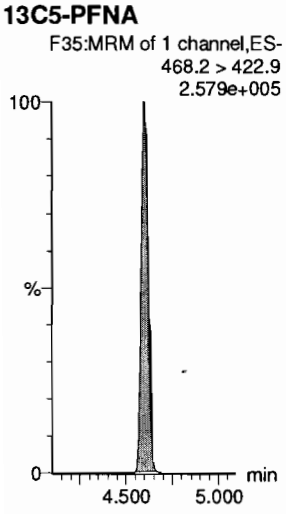


8:2 FTS

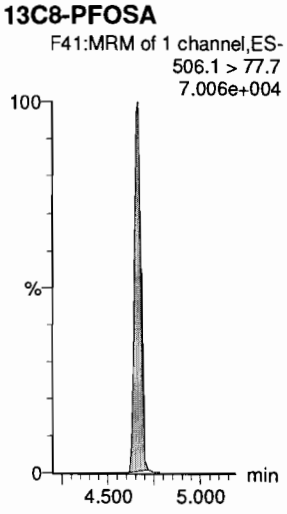




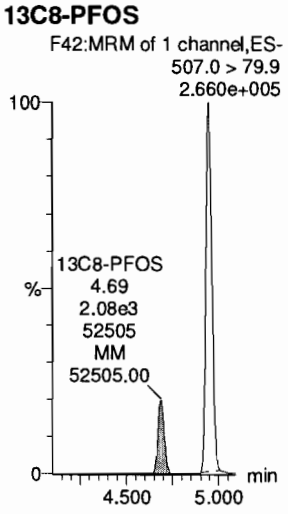
13C5-PFNA



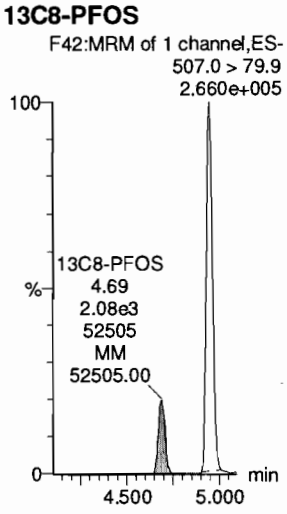
13C8-PFOSA



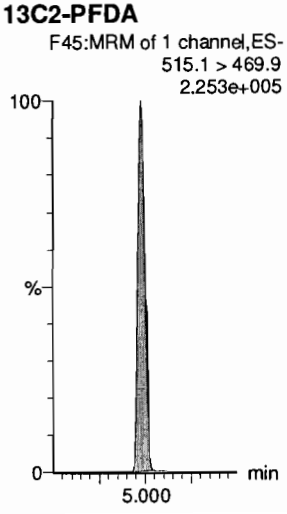
13C8-PFOS



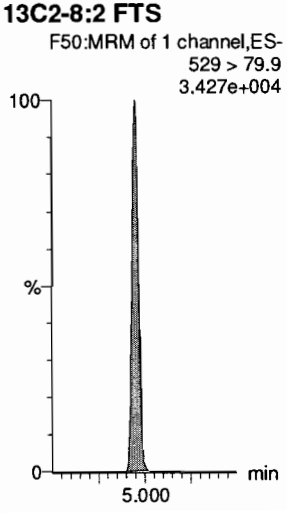
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

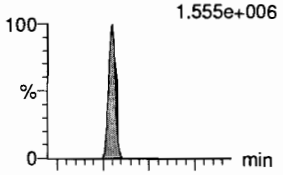


Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

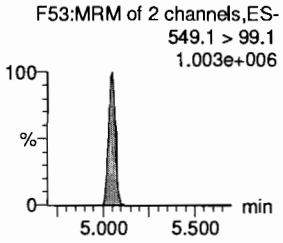
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Name: 190716M2_13, Date: 16-Jul-2019, Time: 18:41:14, ID: ST190716M2-10 PFC CS7 19G1110, Description: PFC CS7 19G1110

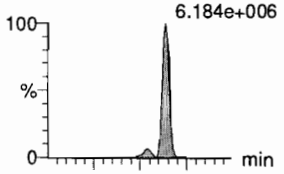
PFNS
F53:MRM of 2 channels,ES-
549.1 > 80.1
1.555e+006



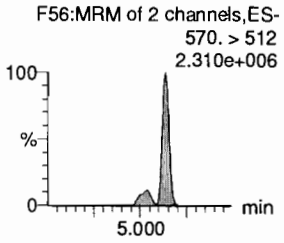
F53:MRM of 2 channels,ES-
549.1 > 99.1
1.003e+006



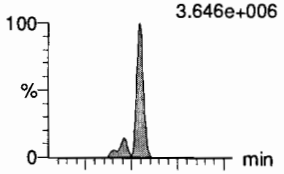
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
6.184e+006



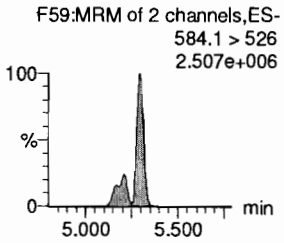
F56:MRM of 2 channels,ES-
570. > 512
2.310e+006



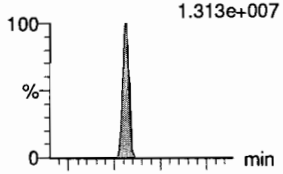
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
3.646e+006



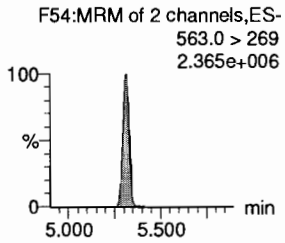
F59:MRM of 2 channels,ES-
584.1 > 526
2.507e+006



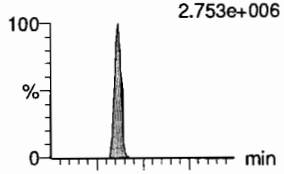
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
1.313e+007



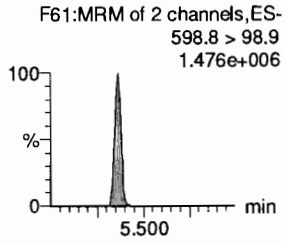
F54:MRM of 2 channels,ES-
563.0 > 269
2.365e+006



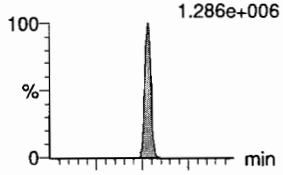
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
2.753e+006



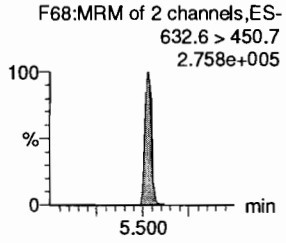
F61:MRM of 2 channels,ES-
598.8 > 98.9
1.476e+006



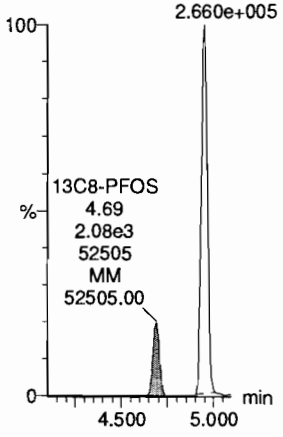
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
1.286e+006



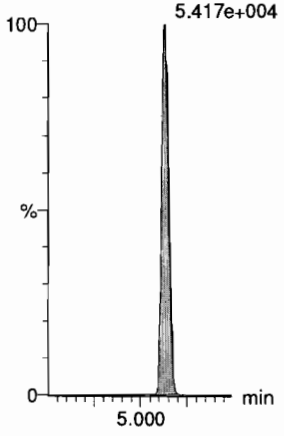
F68:MRM of 2 channels,ES-
632.6 > 450.7
2.758e+005



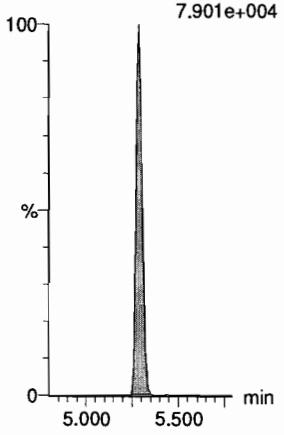
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
2.660e+005



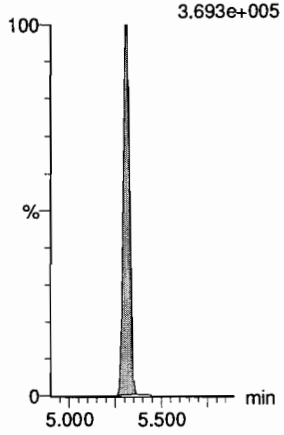
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
5.417e+004



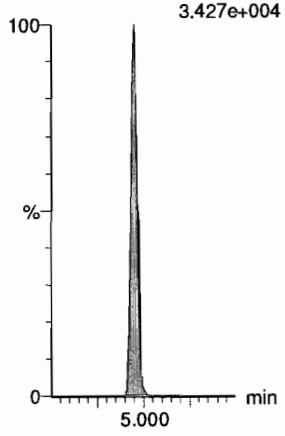
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
7.901e+004



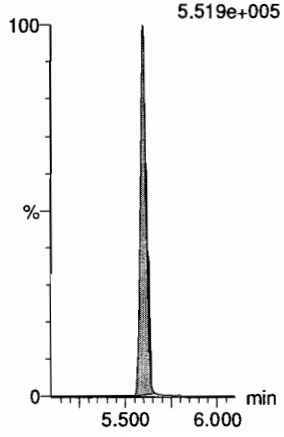
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
3.693e+005



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
3.427e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
5.519e+005

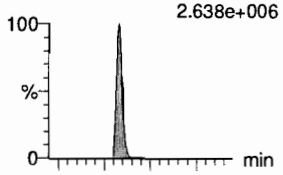


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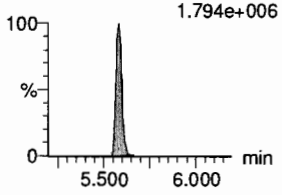
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Name: 190716M2_13, Date: 16-Jul-2019, Time: 18:41:14, ID: ST190716M2-10 PFC CS7 19G1110, Description: PFC CS7 19G1110

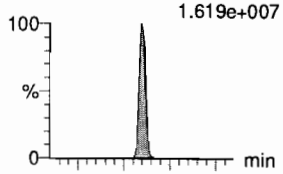
10:2 FTS
F66:MRM of 2 channels,ES-
627.0 > 606.9
2.638e+006



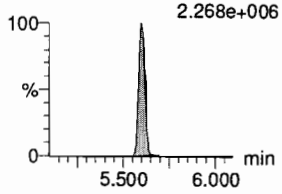
F66:MRM of 2 channels,ES-
627.0 > 80.9
1.794e+006



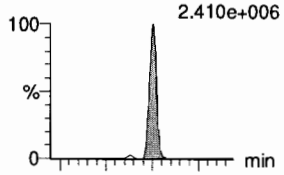
PFDoA
F62:MRM of 4 channels,ES-
612.9 > 569.0
1.619e+007



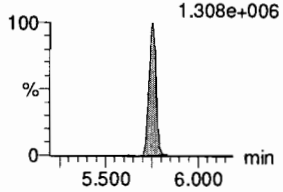
F62:MRM of 4 channels,ES-
612.9 > 318.8
2.268e+006



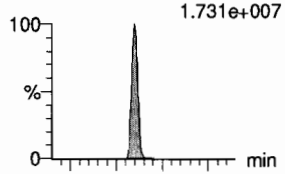
N-MeFOSA
F43:MRM of 2 channels,ES-
512.1 > 168.9
2.410e+006



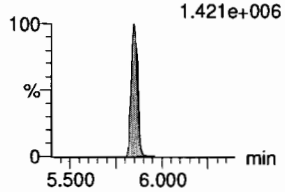
F43:MRM of 2 channels,ES-
512.1 > 219
1.308e+006



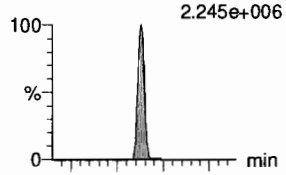
PFTrDA
F70:MRM of 2 channels,ES-
662.9 > 618.9
1.731e+007



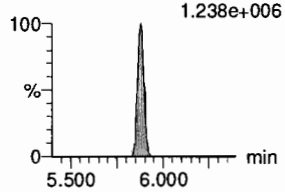
F70:MRM of 2 channels,ES-
662.9 > 319
1.421e+006



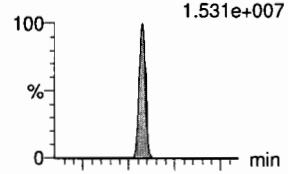
PFDoS
F71:MRM of 2 channels,ES-
698.8 > 79.9
2.245e+006



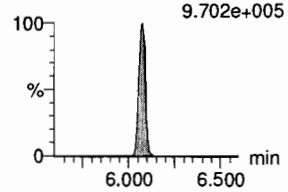
F71:MRM of 2 channels,ES-
698.8 > 98.9
1.238e+006



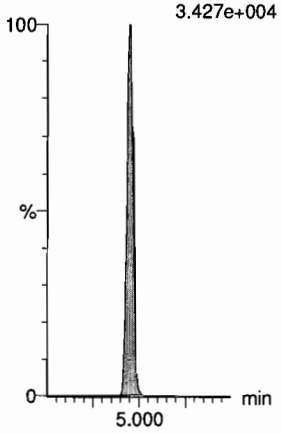
PFTeDA
F72:MRM of 2 channels,ES-
713.0 > 669.0
1.531e+007



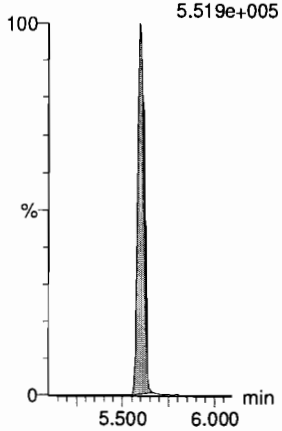
F72:MRM of 2 channels,ES-
713. > 369.0
9.702e+005



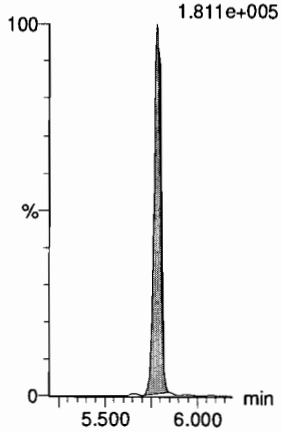
13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
3.427e+004



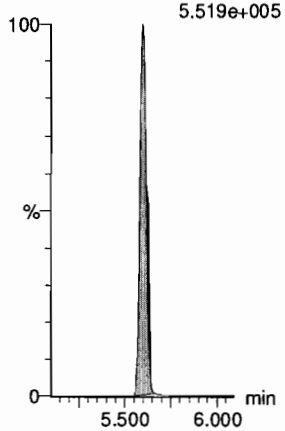
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
5.519e+005



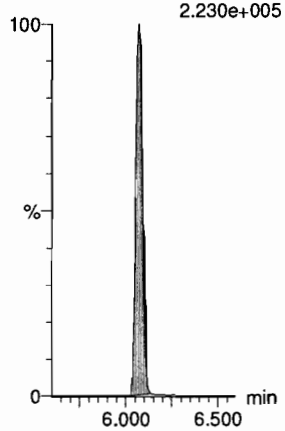
d3-N-MeFOSA
F46:MRM of 1 channel,ES-
515.2 > 168.9
1.811e+005



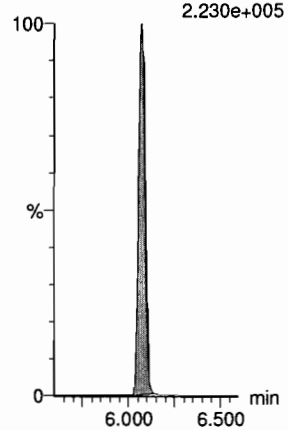
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
5.519e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
2.230e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
2.230e+005

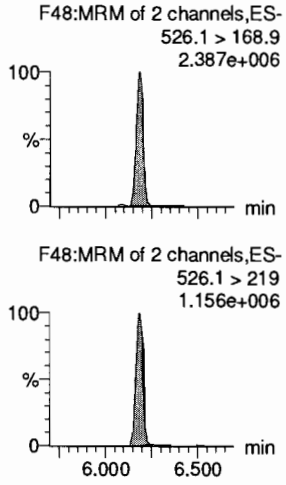


Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

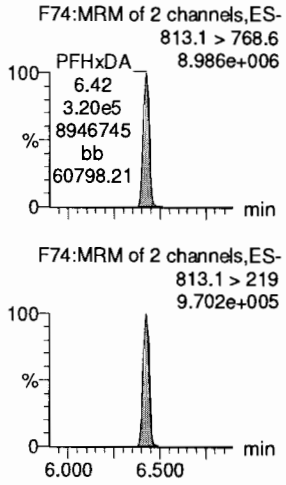
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Name: 190716M2_13, Date: 16-Jul-2019, Time: 18:41:14, ID: ST190716M2-10 PFC CS7 19G1110, Description: PFC CS7 19G1110

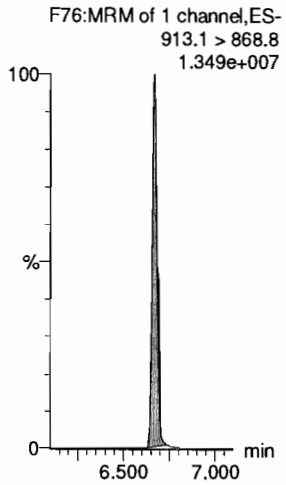
N-EtFOSA



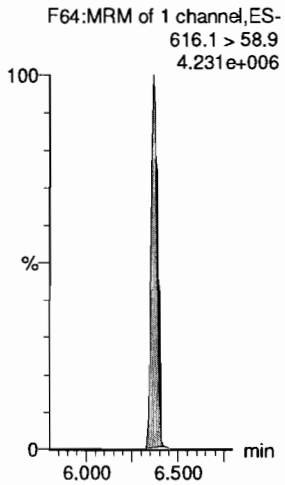
PFHxDA



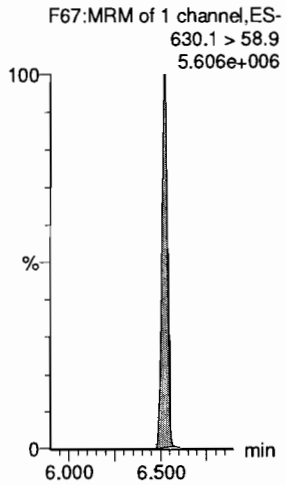
PFODA



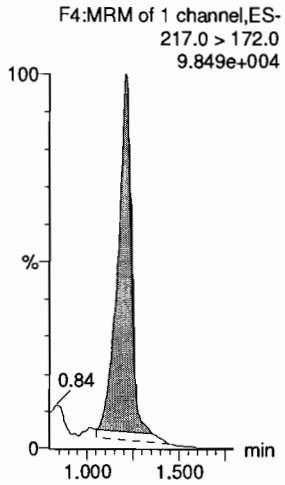
N-MeFOSE



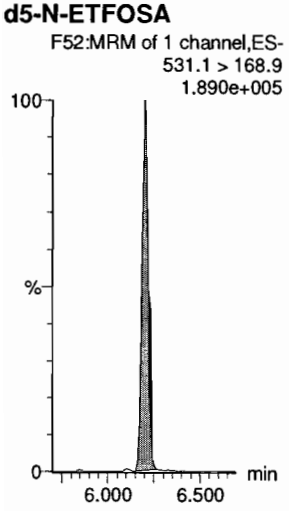
N-EtFOSE



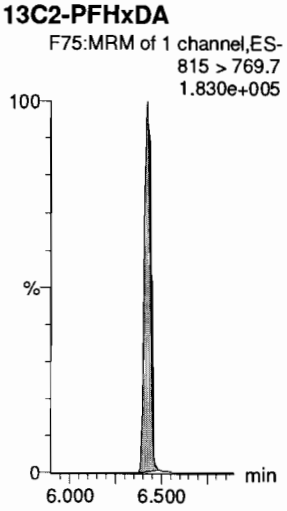
13C4-PFBA



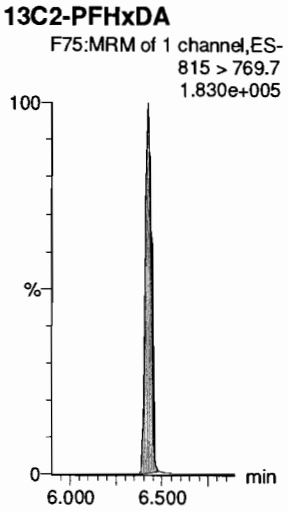
d5-N-ETFOSA



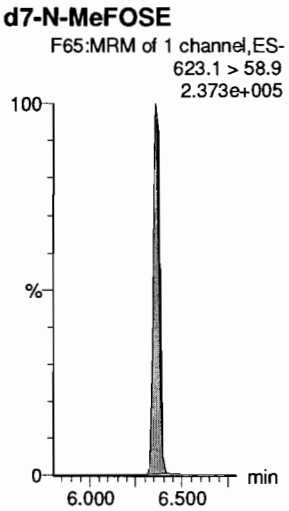
13C2-PFHxDA



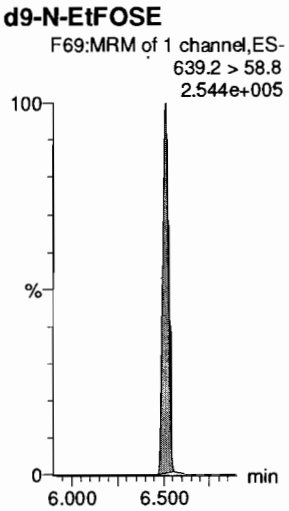
13C2-PFHxDA



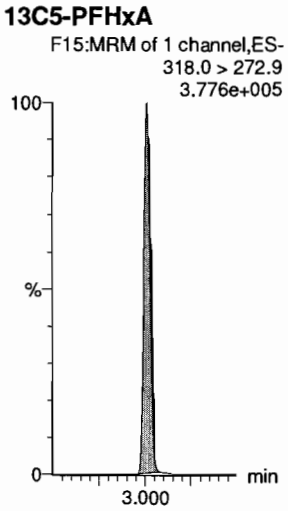
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

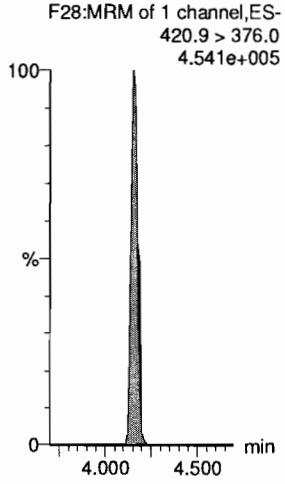


Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-CRV.qld

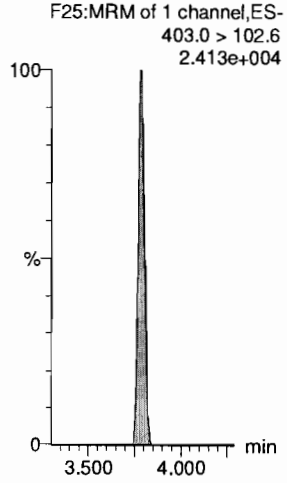
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Printed: Wednesday, July 17, 2019 08:27:25 Pacific Daylight Time

Name: 190716M2_13, Date: 16-Jul-2019, Time: 18:41:14, ID: ST190716M2-10 PFC CS7 19G1110, Description: PFC CS7 19G1110

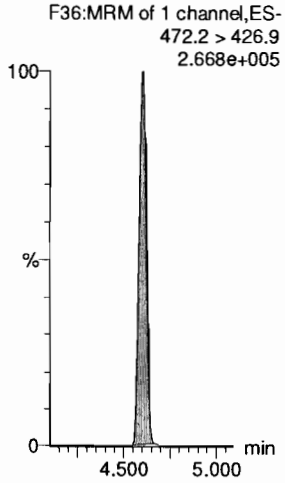
13C8-PFOA



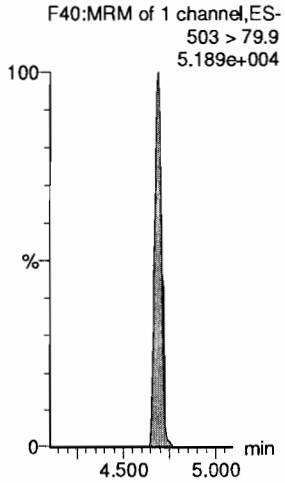
18O2-PFHxS



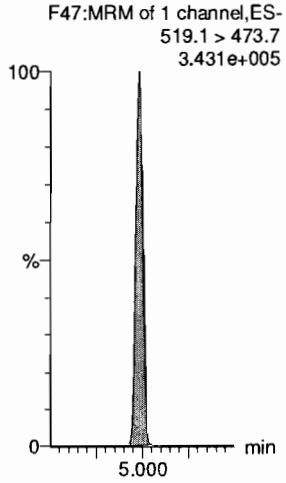
13C9-PFNA



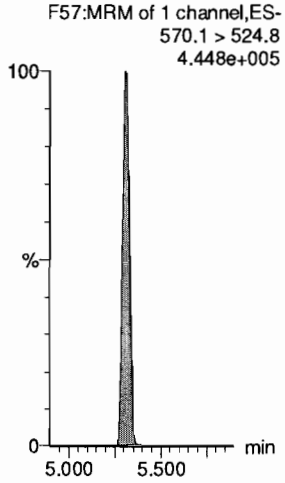
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-ICV.qld

Ⓐ Compounds not present in ICV

Last Altered: Wednesday, July 17, 2019 08:52:17 Pacific Daylight Time
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✓ KM 7/17/19

Name: 190716M2_16, Date: 16-Jul-2019, Time: 19:13:05, ID: ICV190716M2-2 PFC ICV 19F2922, Description: PFC ICV 19F2922

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8	4363.565	4926.459	1.00	1.21	11.072	7.9	78.5	NO		
2	2	PFPrS	248.9 > 79.9		1253.513	1.00				Ⓐ	NO		
3	3	3:3 FTCA	240.9 > 176.9		7963.219	1.00				↓	NO		
4	4	PFPeA	263.1 > 218.9	4726.042	7963.219	1.00	2.21	7.419	8.0	80.5	NO		
5	5	PFBS	299.0 > 79.7	1519.645	1253.513	1.00	2.51	15.154	6.6	74.9	NO	3.722	NO
6	6	4:2 FTS	327.0 > 306.9	3442.900	2298.010	1.00	2.93	18.728	6.8	73.1	NO	1.939	NO
7	47	13C3-PFBA	216.1 > 171.8	4926.459	7524.424	1.00	1.21	8.184	12.2	97.5	NO		
8	49	13C3-PFBS	302.0 > 98.8	1253.513	1173.605	1.00	2.51	13.351	12.9	103.2	NO		
9	48	13C3-PFPeA	266.0 > 221.8	7963.219	17868.363	1.00	2.21	5.571	12.3	98.4	NO		
10	48	13C3-PFPeA	266.0 > 221.8	7963.219	17868.363	1.00	2.21	5.571	12.3	98.4	NO		
11	49	13C3-PFBS	302.0 > 98.8	1253.513	1173.605	1.00	2.51	13.351	12.9	103.2	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	2298.010	1173.605	1.00	2.93	24.476	13.2	105.4	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0	11246.001	5516.453	1.00	3.01	10.193	8.8	88.1	NO	15.477	NO
15	8	PFPeS	349.1>80.1	1129.023	1253.513	1.00	3.22	11.259	7.5	74.7	NO	1.383	NO
16	9	HFPO-DA	285.1 > 168.9		1730.130	1.00				Ⓐ	NO		
17	10	5:3 FTCA	340.9 > 236.9		6624.121	1.00				↓	NO		
18	11	PFHpA	363.0 > 318.9	5131.471	6624.121	1.00	3.63	9.683	7.7	77.4	NO	4.273	NO
19	12	ADONA	376.8 > 250.9		6624.121	1.00				Ⓐ	NO		
20	52	13C2-PFHxA	315.0 > 270.0	5516.453	17868.363	1.00	3.01	3.859	4.9	97.6	NO		
21	49	13C3-PFBS	302.0 > 98.8	1253.513	1173.605	1.00	2.51	13.351	12.9	103.2	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1730.130	17868.363	1.00	3.22	1.210	5.3	106.8	NO		
23	53	13C4-PFHpA	367.2 > 321.8	6624.121	17868.363	1.00	3.63	4.634	12.7	101.6	NO		
24	53	13C4-PFHpA	367.2 > 321.8	6624.121	17868.363	1.00	3.63	4.634	12.7	101.6	NO		
25	53	13C4-PFHpA	367.2 > 321.8	6624.121	17868.363	1.00	3.63	4.634	12.7	101.6	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6	1490.313	2543.976	1.00	3.79	7.323	7.4	81.1	NO	2.737	NO
28	15	6:2 FTS	427.0 > 406.9	2742.435	1749.315	1.00	4.11	19.596	6.8	71.1	NO	1.831	NO
29	16	L-PFOA	412.8 > 368.9	16411.793	13819.985	1.00	4.17	14.844	7.4	74.2	NO	3.770	NO
30	18	PFecHS	460.8 > 381.0		13819.985	1.00				Ⓐ	NO		
31	19	PFHpS	449.0 > 80.0	1171.383	2594.266	1.00	4.28	5.644	6.7	70.2	NO	1.967	NO
32	20	7:3 FTCA	440.9 > 336.9		14447.843	1.00				Ⓐ	NO		
33	54	13C3-PFHxS	401.8 > 79.9	2543.976	1173.605	1.00	3.79	27.096	12.3	98.1	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	1749.315	2688.253	1.00	4.11	8.134	11.9	95.4	NO		
35	58	13C2-PFOA	414.9 > 369.7	13819.985	25522.281	1.00	4.16	6.769	13.3	106.4	NO		
36	58	13C2-PFOA	414.9 > 369.7	13819.985	25522.281	1.00	4.16	6.769	13.3	106.4	NO		

Calc 7/17/19

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-ICV.qld

Last Altered: Wednesday, July 17, 2019 08:52:17 Pacific Daylight Time
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Name: 190716M2_16, Date: 16-Jul-2019, Time: 19:13:05, ID: ICV190716M2-2 PFC ICV 19F2922, Description: PFC ICV 19F2922

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	2594.266	2688.253	1.00	4.70	12.063	11.9	95.1	NO		
38	56	13C5-PFNA	468.2 > 422.9	14447.843	13964.532	1.00	4.60	12.933	13.0	103.7	NO		
39	-1												
40	21	PFNA	463.0 > 418.8	9405.347	14447.843	1.00	4.61	8.137	7.8	78.5	NO	2.872	NO
41	22	PFOSA	497.9 > 77.9	2243.404	3075.545	1.00	4.67	9.118	7.9	78.7	NO	29.541	NO
42	23	L-PFOS	498.9 > 79.9	1882.771	2594.266	1.00	4.69	9.072	7.2	77.5	NO	2.380	NO
43	25	9Cl-PF30NS	530.7 > 350.8		2594.266	1.00				A	NO		
44	26	PFDA	513 > 468.8	11317.940	11547.107	1.00	4.99	12.252	8.2	81.9	NO	4.410	NO
45	27	8:2 FTS	527.0 > 506.9	2491.488	1854.353	1.00	4.95	16.795	6.8	71.3	NO	1.508	NO
46	56	13C5-PFNA	468.2 > 422.9	14447.843	13964.532	1.00	4.60	12.933	13.0	103.7	NO		
47	57	13C8-PFOSA	506.1 > 77.7	3075.545	23646.482	1.00	4.67	1.626	11.7	93.8	NO		
48	59	13C8-PFOS	507.0 > 79.9	2594.266	2688.253	1.00	4.70	12.063	11.9	95.1	NO		
49	59	13C8-PFOS	507.0 > 79.9	2594.266	2688.253	1.00	4.70	12.063	11.9	95.1	NO		
50	60	13C2-PFDA	515.1 > 469.9	11547.107	17476.191	1.00	4.99	8.259	12.3	98.8	NO		
51	61	13C2-8:2 FTS	529 > 79.9	1854.353	2688.253	1.00	4.95	8.622	12.6	100.6	NO		
52	-1												
53	28	PFNS	549.1 > 80.1	1203.337	2594.266	1.00	5.05	5.798	7.2	75.4	NO	1.614	NO
54	29	L-MeFOSAA	570 > 419	6217.467	2901.036	1.00	5.14	26.790	9.1	90.8	NO	2.821	NO
55	31	L-EtFOSAA	584.1 > 419	4897.610	4092.577	1.00	5.30	14.959	9.5	95.3	NO	1.441	NO
56	33	PFUdA	563.0 > 518.9	11064.234	19076.258	1.00	5.32	7.250	8.1	81.0	NO	5.245	NO
57	34	PFDS	598.8 > 79.9	1921.170	1854.353	1.00	5.36	12.950	7.0	72.4	NO	1.722	NO
58	35	11Cl-PF30UdS	632.6 > 452.7		21896.582	1.00				A	NO		
59	59	13C8-PFOS	507.0 > 79.9	2594.266	2688.253	1.00	4.70	12.063	11.9	95.1	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	2901.036	23646.482	1.00	5.14	1.534	12.4	98.8	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	4092.577	23646.482	1.00	5.30	2.163	12.4	99.3	NO		
62	63	13C2-PFUdA	565 > 519.8	19076.258	23646.482	1.00	5.32	10.084	12.4	99.4	NO		
63	61	13C2-8:2 FTS	529 > 79.9	1854.353	2688.253	1.00	4.95	8.622	12.6	100.6	NO		
64	65	13C2-PFDoA	614.7 > 569.7	21896.582	17476.191	1.00	5.60	15.662	11.9	95.5	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9		1854.353	1.00				A	NO		
67	37	PFDoA	612.9 > 569.0	13978.540	21896.582	1.00	5.60	7.980	8.3	82.7	NO	7.466	NO
68	38	N-MeFOSA	512.1 > 168.9		7472.431	1.00				A	NO		
69	39	PFTrDA	662.9 > 618.9	14609.241	21896.582	1.00	5.86	8.340	8.2	81.5	NO	12.779	NO
70	40	PFDoS	698.8 > 79.9		10114.721	1.00				A	NO		
71	41	PFTeDA	713.0 > 669.0	11397.718	10114.721	1.00	6.08	14.086	7.9	79.3	NO	14.844	NO
72	65	13C2-PFDoA	614.7 > 569.7	21896.582	17476.191	1.00	5.60	15.662	11.9	95.5	NO		

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-ICV.qld

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Name: 190716M2_16, Date: 16-Jul-2019, Time: 19:13:05, ID: ICV190716M2-2 PFC ICV 19F2922, Description: PFC ICV 19F2922

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	21896.582	17476.191	1.00	5.60	15.662	11.9	95.5	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	7472.431	23646.482	1.00	5.79	3.950	142.9	95.3	NO		
75	65	13C2-PFDoA	614.7 > 569.7	21896.582	17476.191	1.00	5.60	15.662	11.9	95.5	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	10114.721	23646.482	1.00	6.08	5.347	12.2	97.9	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	10114.721	23646.482	1.00	6.08	5.347	12.2	97.9	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9		9028.043	1.00					NO		
80	43	PFHxDA	813.1 > 768.6		6618.411	1.00					NO		
81	44	PFODA	913.1 > 868.8		6618.411	1.00					NO		
82	45	N-MeFOSE	616.1 > 58.9		7808.417	1.00					NO		
83	46	N-EtFOSE	630.1 > 58.9		8195.822	1.00					NO		
84	72	13C4-PFBA	217.0 > 172.0	7524.424	7524.424	1.00	1.22	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	9028.043	23646.482	1.00	6.20	4.772	147.0	98.0	NO		
86	69	13C2-PFHxDA	815 > 769.7	6618.411	23646.482	1.00	6.43	3.499	4.8	96.1	NO		
87	69	13C2-PFHxDA	815 > 769.7	6618.411	23646.482	1.00	6.43	3.499	4.8	96.1	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	7808.417	23646.482	1.00	6.36	4.128	138.8	92.5	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	8195.822	23646.482	1.00	6.51	4.332	142.3	94.9	NO		
90	73	13C5-PFHxA	318.0 > 272.9	17868.363	17868.363	1.00	3.01	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	25522.281	25522.281	1.00	4.16	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	1173.605	1173.605	1.00	3.79	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	13964.532	13964.532	1.00	4.60	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	2688.253	2688.253	1.00	4.70	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	17476.191	17476.191	1.00	4.99	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	23646.482	23646.482	1.00	5.31	12.500	12.5	100.0	NO		

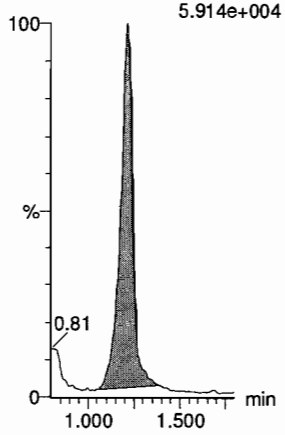
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Printed: Wednesday, July 17, 2019 08:52:22 Pacific Daylight Time

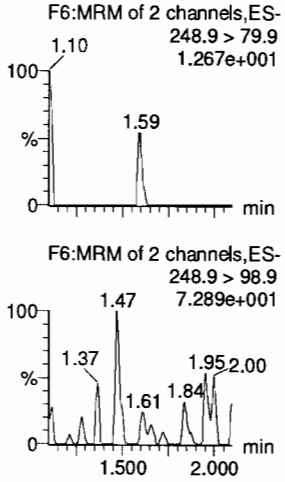
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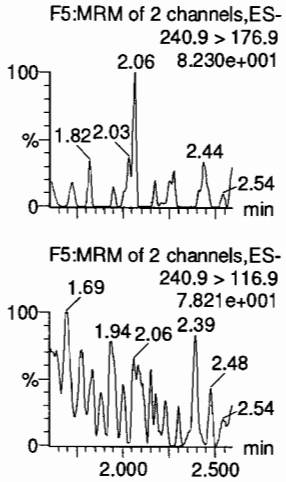
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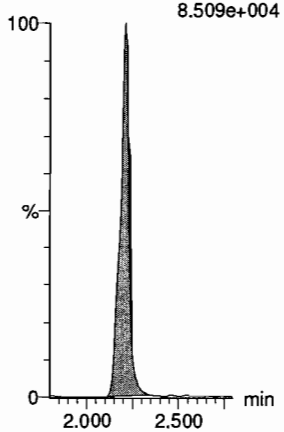
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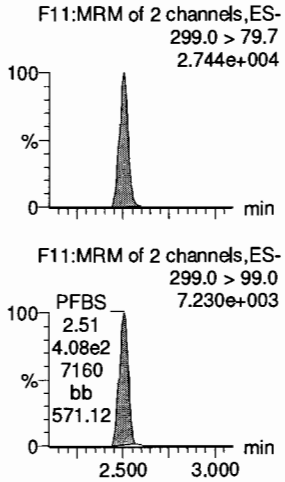
3:3 FTCA



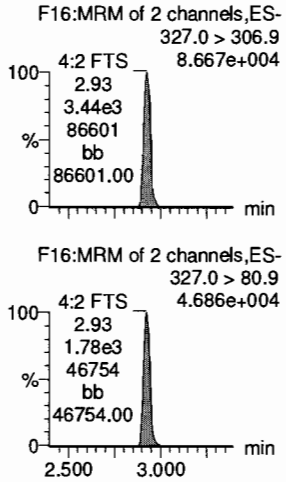
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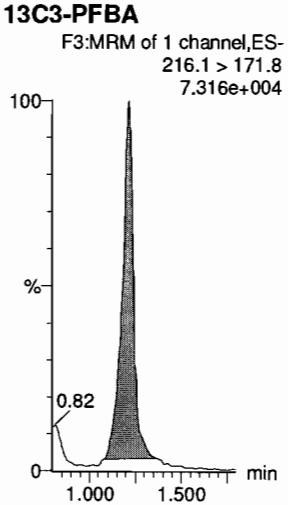
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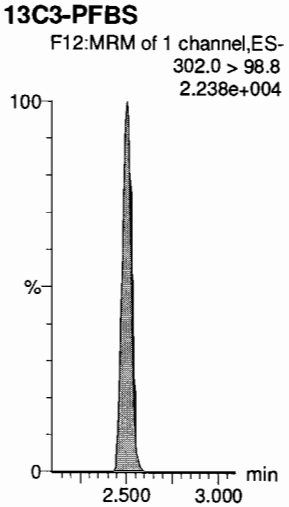
4:2 FTS



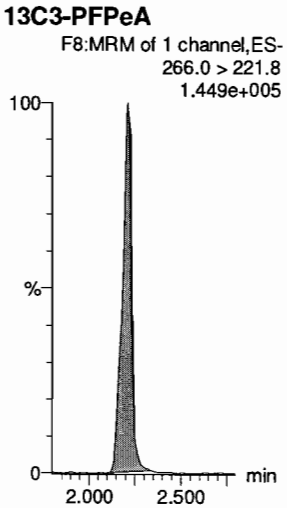
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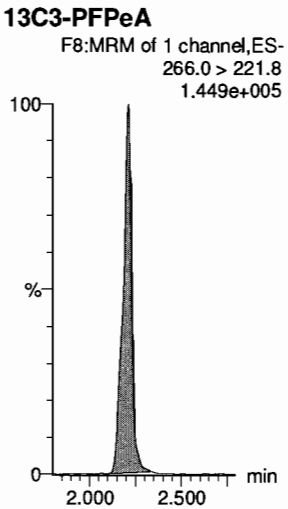
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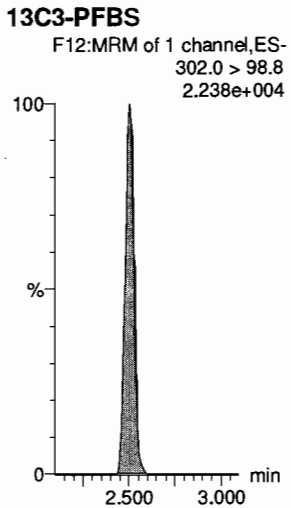
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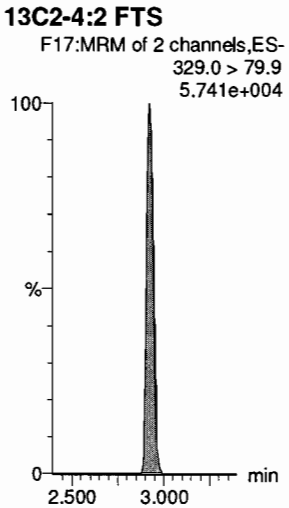
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13C3-PFBS



13C2-4:2 FTS

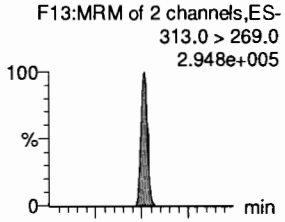


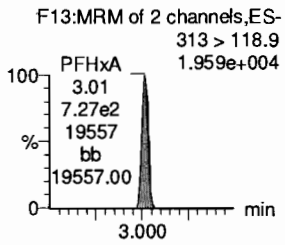
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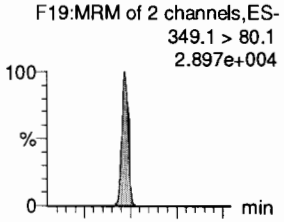
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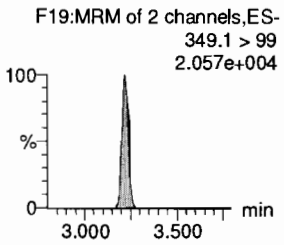
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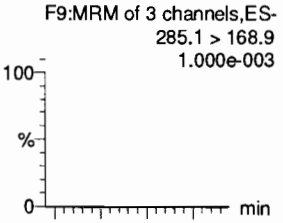


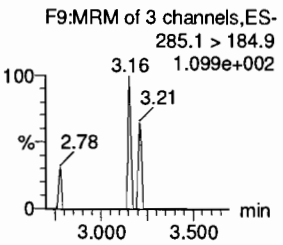
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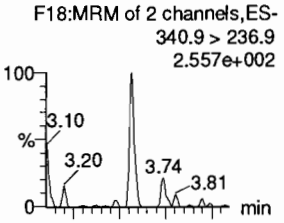


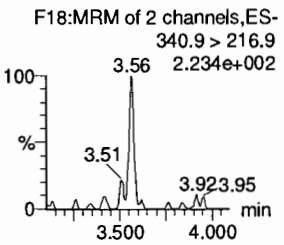
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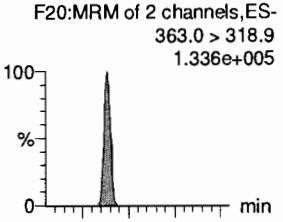


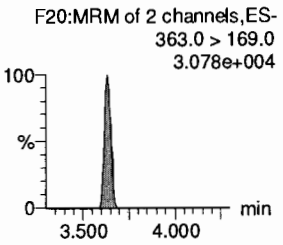
5:3 FTCA



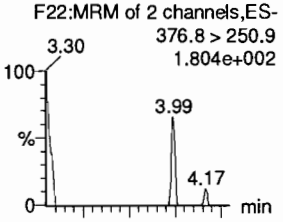


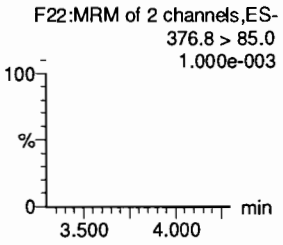
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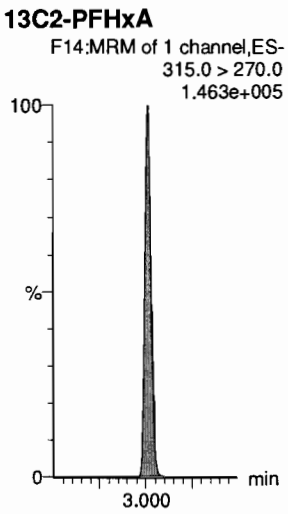


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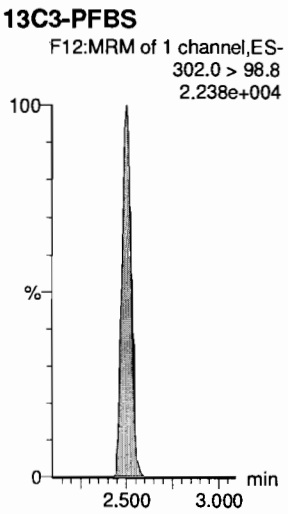




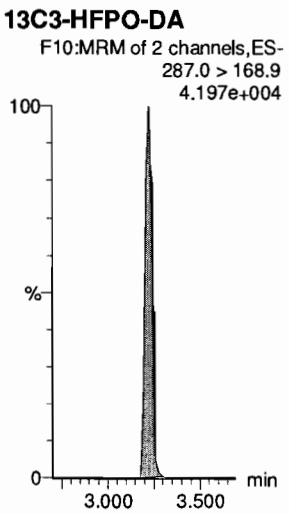
13C2-PFHxA



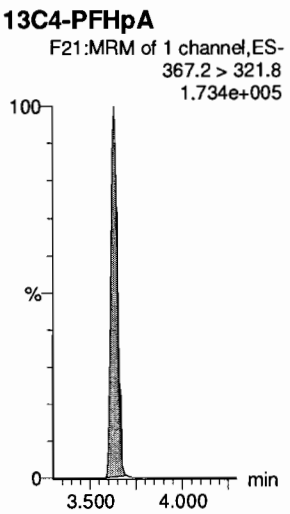
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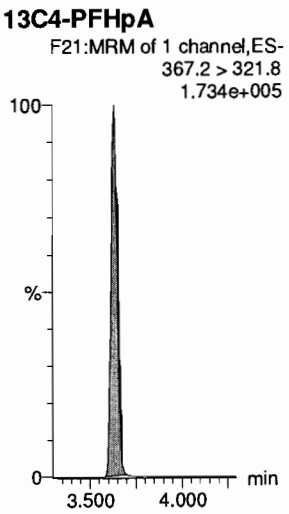
13C3-HFPO-DA



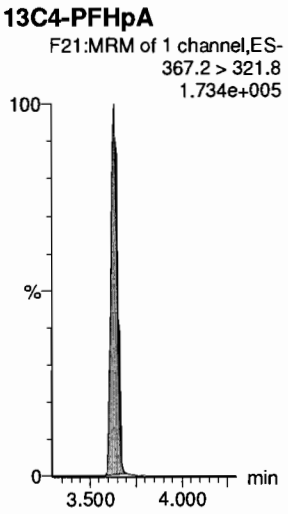
13C4-PFHpA



13C4-PFHpA



13C4-PFHpA

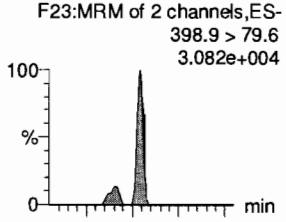


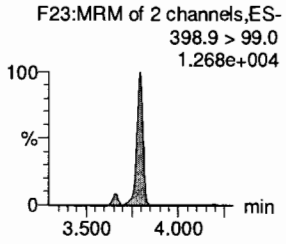
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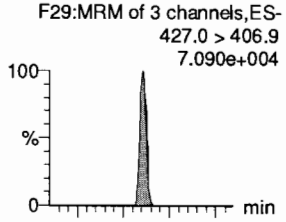
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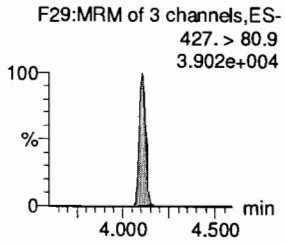
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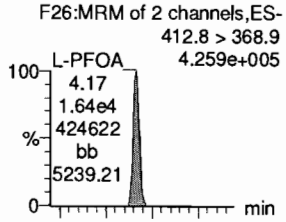


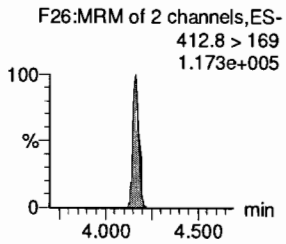
6:2 FTS



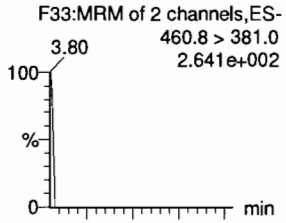


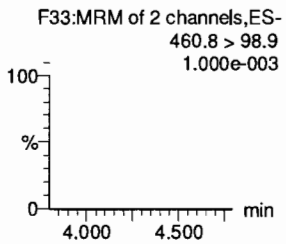
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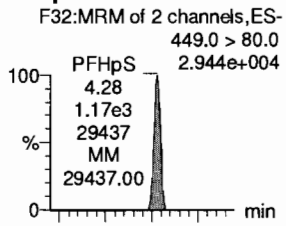


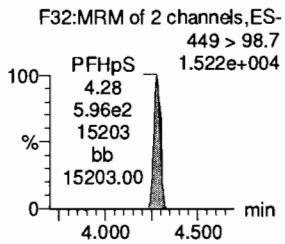
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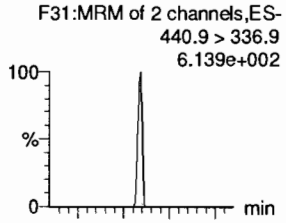


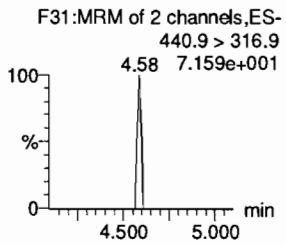
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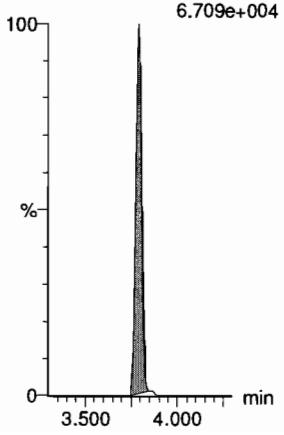


7:3 FTCA

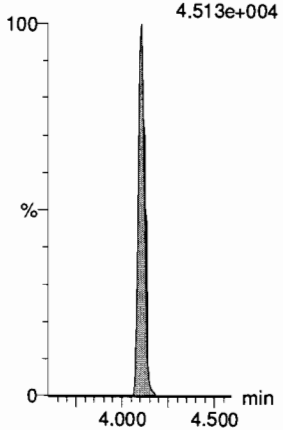




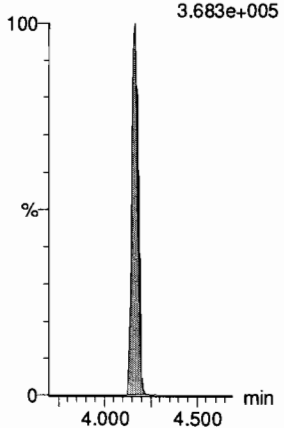
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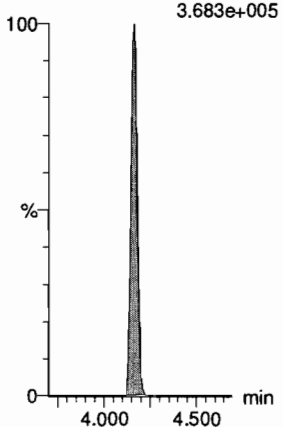
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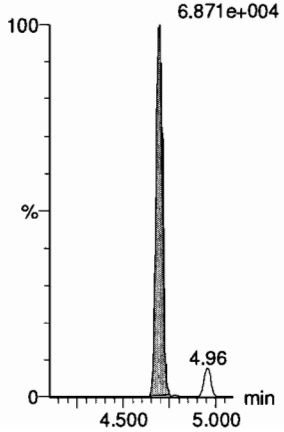
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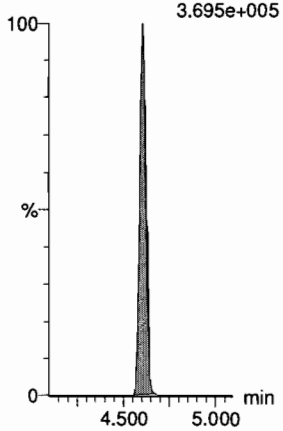
13C2-PFOA



13C8-PFOS



13C5-PFNA

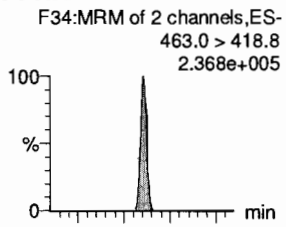


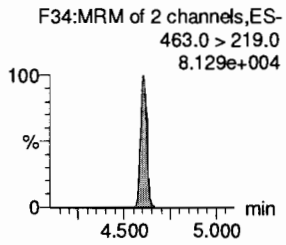
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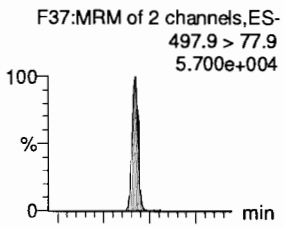
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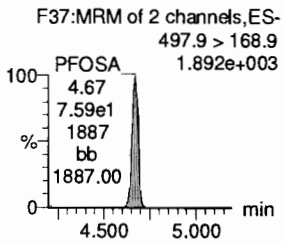
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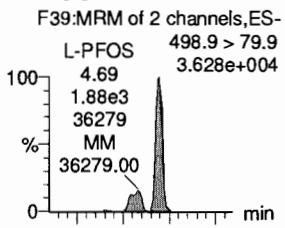


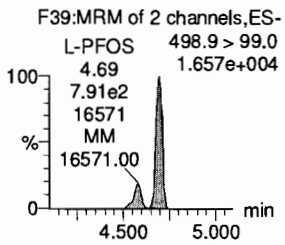
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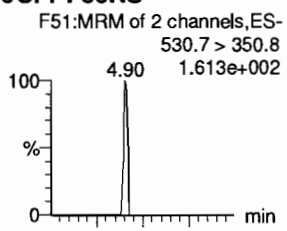


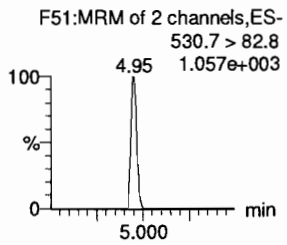
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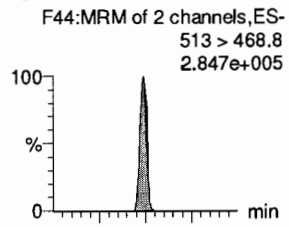


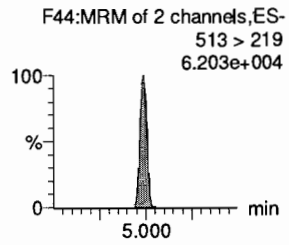
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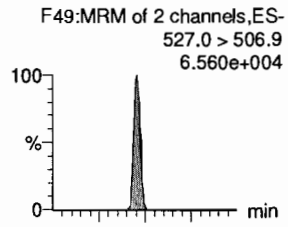


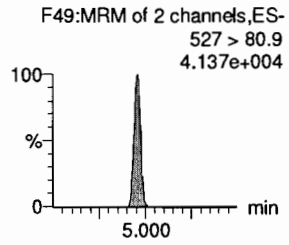
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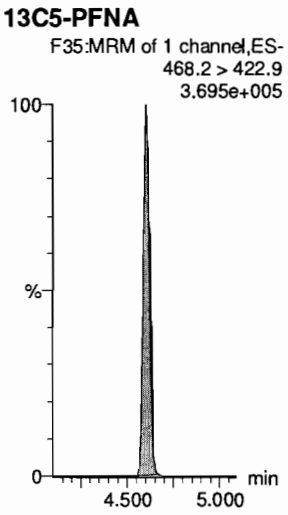


8:2 FTS

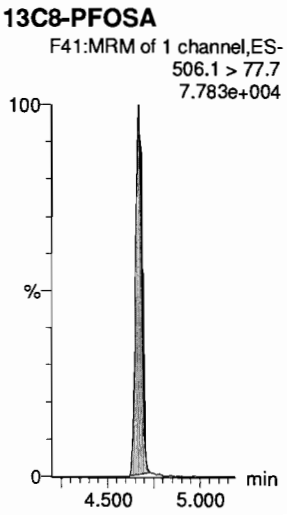




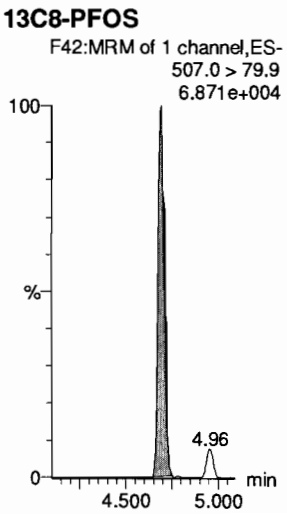
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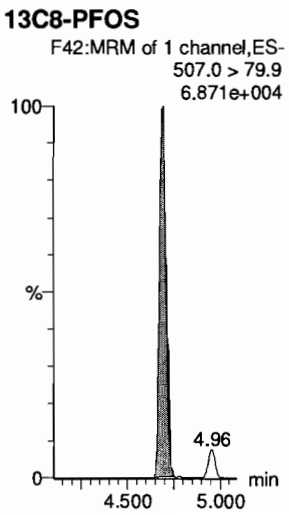
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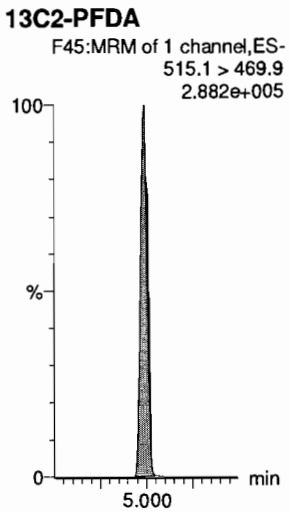
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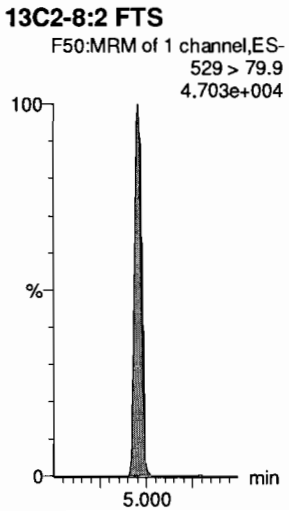
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13C2-PFDA



13C2-8:2 FTS

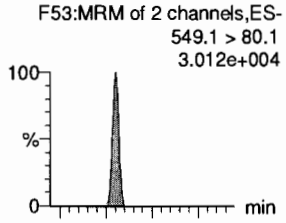


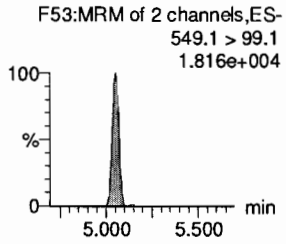
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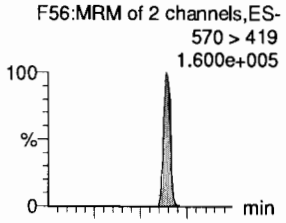
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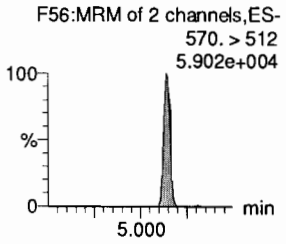
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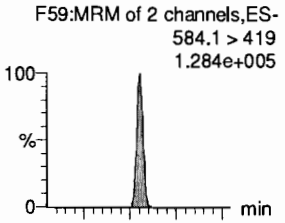


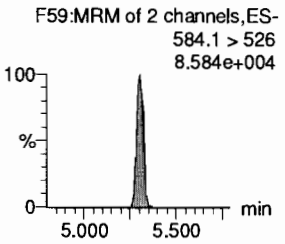
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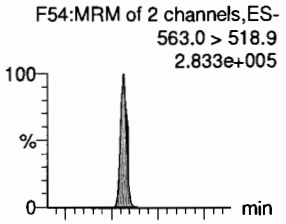


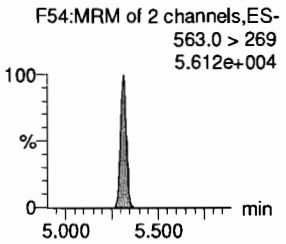
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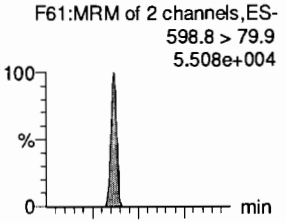


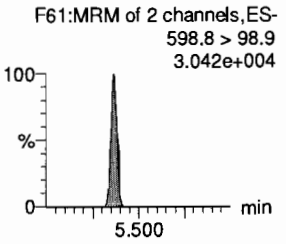
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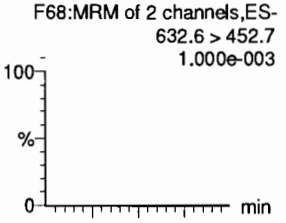


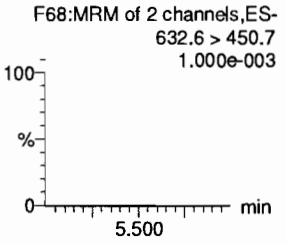
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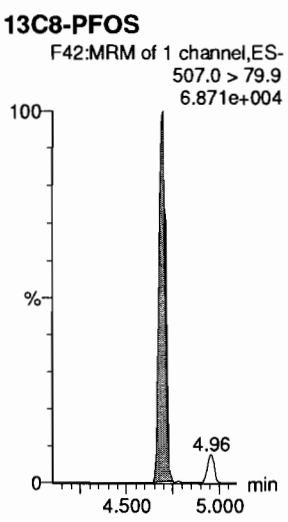


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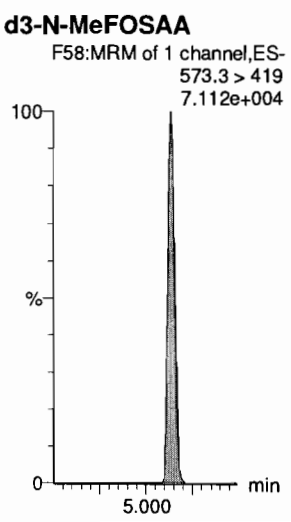




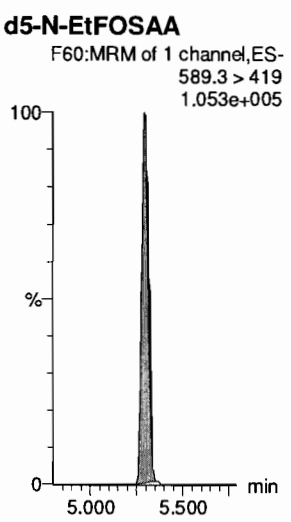
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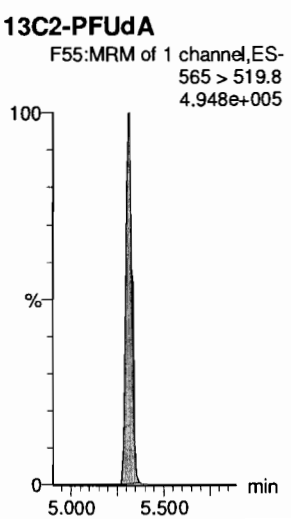
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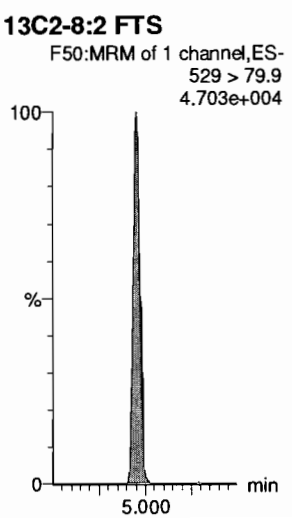
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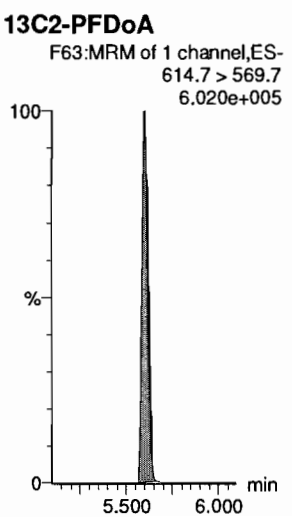
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

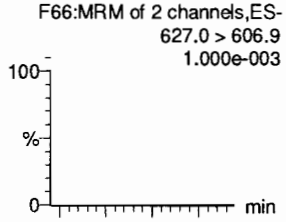


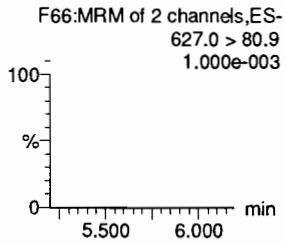
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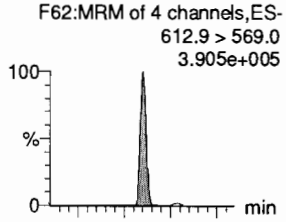
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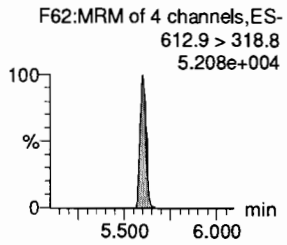
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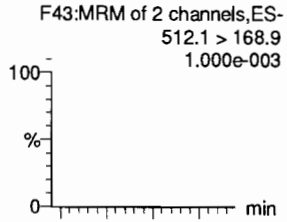


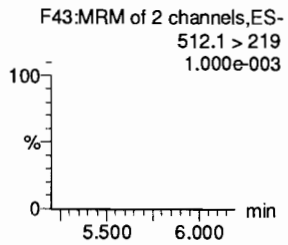
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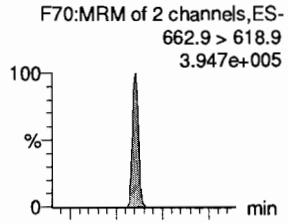


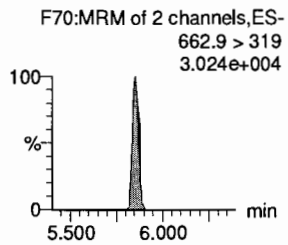
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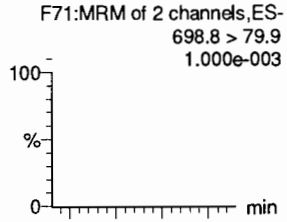


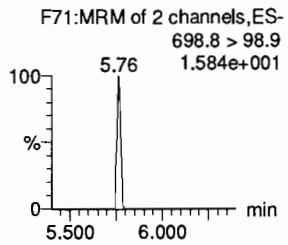
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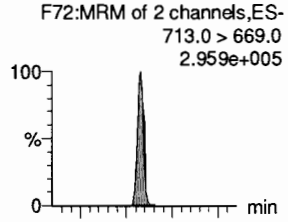


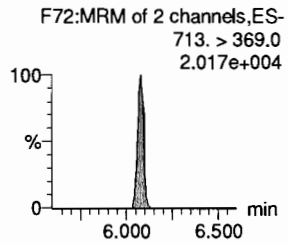
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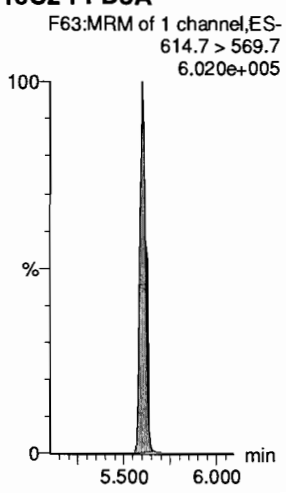


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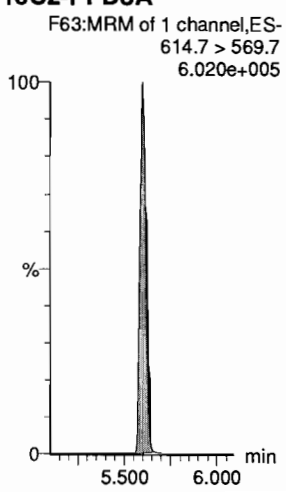




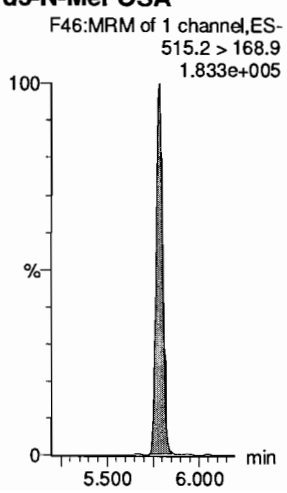
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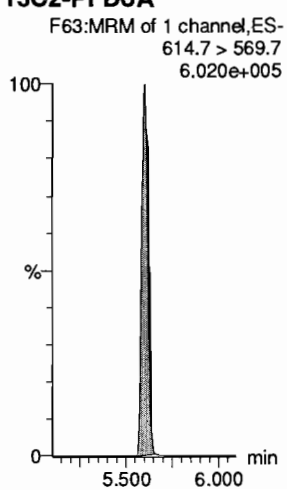
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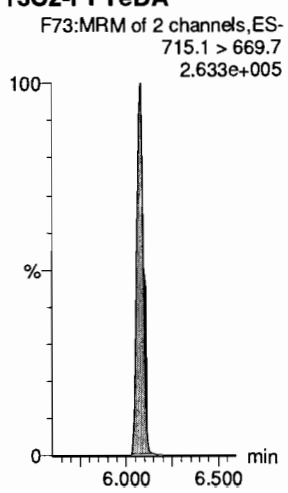
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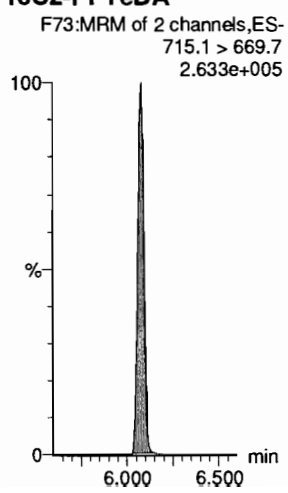
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13C2-PFTeDA



13C2-PFTeDA

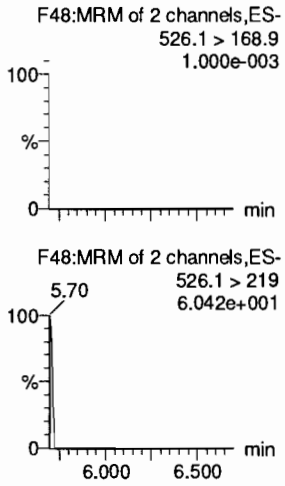


Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-ICV.qld

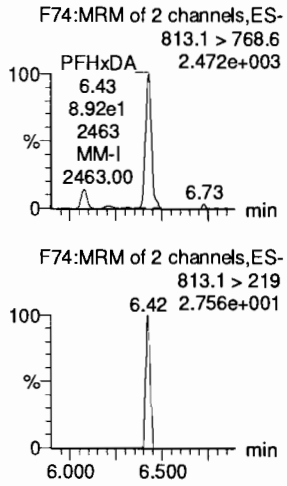
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Name: 190716M2_16, Date: 16-Jul-2019, Time: 19:13:05, ID: ICV190716M2-2 PFC ICV 19F2922, Description: PFC ICV 19F2922

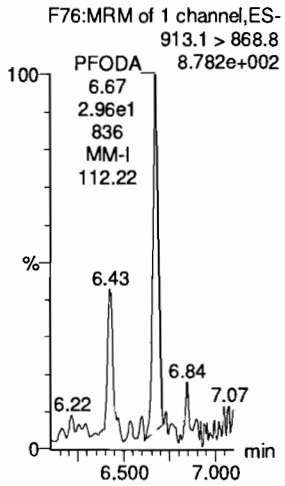
N-EtFOSA



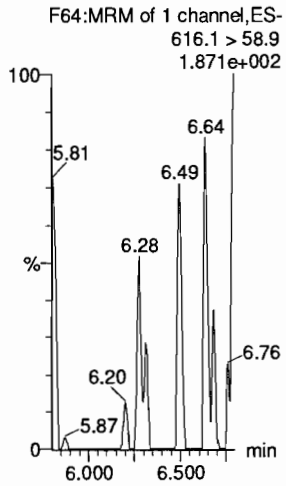
PFHxDA



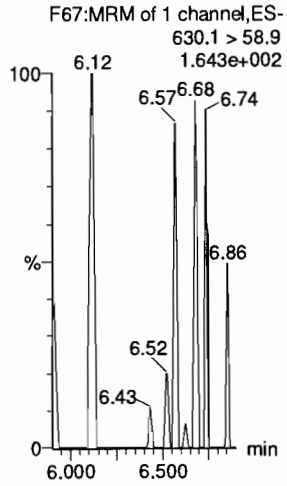
PFODA



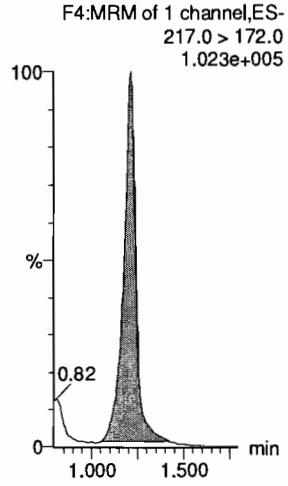
N-MeFOSE



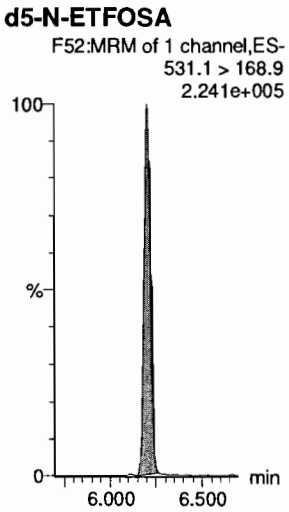
N-EtFOSE



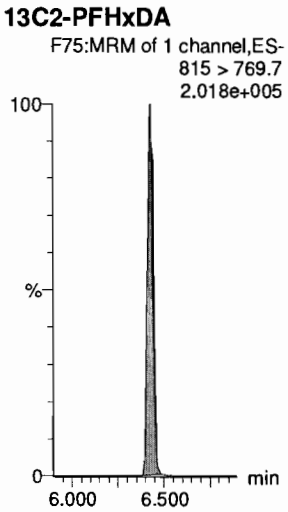
13C4-PFBA



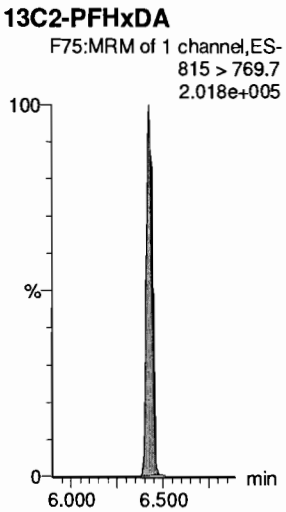
d5-N-ETFOSA



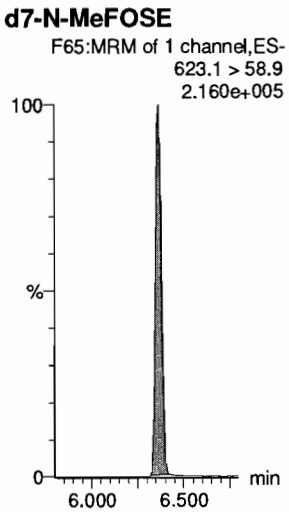
13C2-PFHxDA



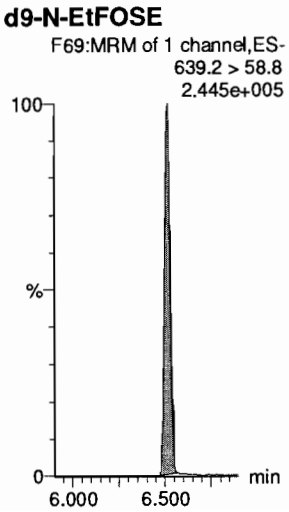
13C2-PFHxDA



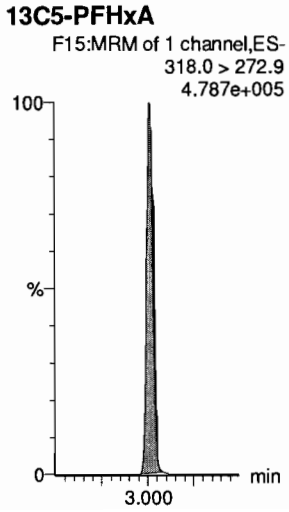
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

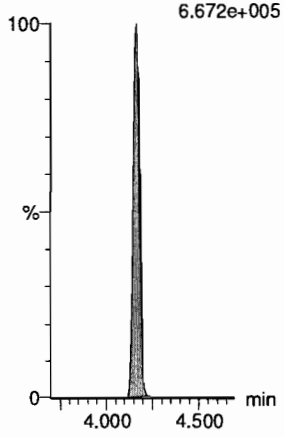


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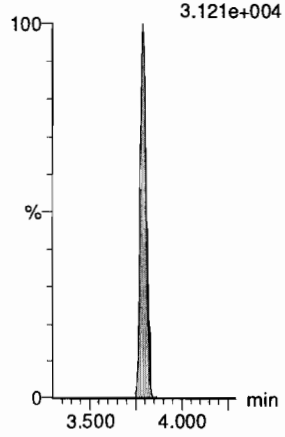
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Name: 190716M2_16, Date: 16-Jul-2019, Time: 19:13:05, ID: ICV190716M2-2 PFC ICV 19F2922, Description: PFC ICV 19F2922

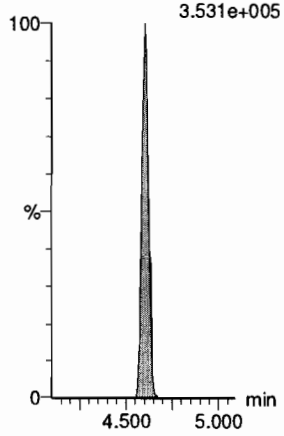
13C8-PFOA



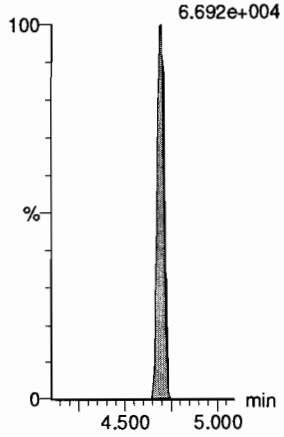
18O2-PFHxS



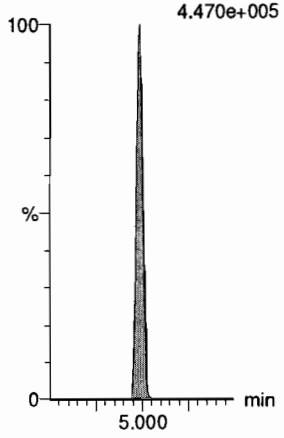
13C9-PFNA



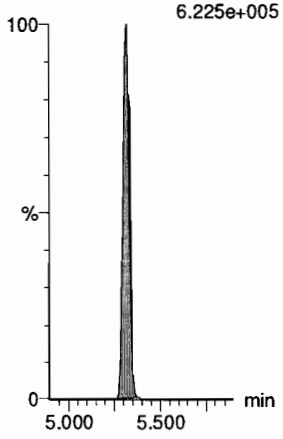
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-IB.qld

Last Altered: Wednesday, July 17, 2019 09:04:24 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 09:04:46 Pacific Daylight Time

Name: 190716M2_14, Date: 16-Jul-2019, Time: 18:51:48, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8		5113.750	1.00					NO		
2	2	PFPrS	248.9 > 79.9		1282.185	1.00					NO		
3	3	3:3 FTCA	240.9 > 176.9		8320.054	1.00					NO		
4	4	PFPeA	263.1 > 218.9		8320.054	1.00					NO		
5	5	PFBS	299.0 > 79.7		1282.185	1.00					NO		
6	6	4:2 FTS	327.0 > 306.9		2365.948	1.00					NO		
7	47	13C3-PFBA	216.1 > 171.8	5113.750	7656.683	1.00	1.21	8.349	12.4	99.5	NO		
8	49	13C3-PFBS	302.0 > 98.8	1282.185	1247.576	1.00	2.50	12.847	12.4	99.3	NO		
9	48	13C3-PFPeA	266.0 > 221.8	8320.054	19207.180	1.00	2.21	5.415	11.9	95.6	NO		
10	48	13C3-PFPeA	266.0 > 221.8	8320.054	19207.180	1.00	2.21	5.415	11.9	95.6	NO		
11	49	13C3-PFBS	302.0 > 98.8	1282.185	1247.576	1.00	2.50	12.847	12.4	99.3	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	2365.948	1247.576	1.00	2.92	23.705	12.8	102.0	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0		5651.475	1.00					NO		
15	8	PFPeS	349.1>80.1		1282.185	1.00					NO		
16	9	HFPO-DA	285.1 > 168.9		1839.802	1.00					NO		
17	10	5:3 FTCA	340.9 > 236.9		6770.303	1.00					NO		
18	11	PFHpA	363.0 > 318.9		6770.303	1.00					NO		
19	12	ADONA	376.8 > 250.9		6770.303	1.00					NO		
20	52	13C2-PFHxA	315.0 > 270.0	5651.475	19207.180	1.00	3.01	3.678	4.6	93.0	NO		
21	49	13C3-PFBS	302.0 > 98.8	1282.185	1247.576	1.00	2.50	12.847	12.4	99.3	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1839.802	19207.180	1.00	3.22	1.197	5.3	105.7	NO		
23	53	13C4-PFHpA	367.2 > 321.8	6770.303	19207.180	1.00	3.63	4.406	12.1	96.6	NO		
24	53	13C4-PFHpA	367.2 > 321.8	6770.303	19207.180	1.00	3.63	4.406	12.1	96.6	NO		
25	53	13C4-PFHpA	367.2 > 321.8	6770.303	19207.180	1.00	3.63	4.406	12.1	96.6	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6		2625.818	1.00					NO		
28	15	6:2 FTS	427.0 > 406.9		1819.089	1.00					NO		
29	16	L-PFOA	412.8 > 368.9	108.783	14228.129	1.00	4.16	0.096	0.0		NO	12.175	YES
30	18	PFecHS	460.8 > 381.0		14228.129	1.00					NO		
31	19	PFHpS	449.0 > 80.0		2643.491	1.00					NO		
32	20	7:3 FTCA	440.9 > 336.9		14342.804	1.00					NO		
33	54	13C3-PFHxS	401.8 > 79.9	2625.818	1247.576	1.00	3.78	26.309	11.9	95.2	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	1819.089	2556.150	1.00	4.10	8.896	13.0	104.3	NO		
35	58	13C2-PFOA	414.9 > 369.7	14228.129	26935.404	1.00	4.16	6.603	13.0	103.8	NO		
36	58	13C2-PFOA	414.9 > 369.7	14228.129	26935.404	1.00	4.16	6.603	13.0	103.8	NO		

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Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-IB.qld

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Printed: Wednesday, July 17, 2019 09:04:46 Pacific Daylight Time

Name: 190716M2_14, Date: 16-Jul-2019, Time: 18:51:48, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	2643.491	2556.150	1.00	4.69	12.927	12.7	101.9	NO		
38	56	13C5-PFNA	468.2 > 422.9	14342.804	14352.137	1.00	4.60	12.492	12.5	100.1	NO		
39	-1												
40	21	PFNA	463.0 > 418.8		14342.804	1.00					NO		
41	22	PFOSA	497.9 > 77.9		3429.524	1.00					NO		
42	23	L-PFOS	498.9 > 79.9		2643.491	1.00					NO		
43	25	9Cl-PF30NS	530.7 > 350.8		2643.491	1.00					NO		
44	26	PFDA	513 > 468.8		11656.171	1.00					NO		
45	27	8:2 FTS	527.0 > 506.9		1854.000	1.00					NO		
46	56	13C5-PFNA	468.2 > 422.9	14342.804	14352.137	1.00	4.60	12.492	12.5	100.1	NO		
47	57	13C8-PFOSA	506.1 > 77.7	3429.524	24937.297	1.00	4.66	1.719	12.4	99.2	NO		
48	59	13C8-PFOS	507.0 > 79.9	2643.491	2556.150	1.00	4.69	12.927	12.7	101.9	NO		
49	59	13C8-PFOS	507.0 > 79.9	2643.491	2556.150	1.00	4.69	12.927	12.7	101.9	NO		
50	60	13C2-PFDA	515.1 > 469.9	11656.171	17999.309	1.00	4.98	8.095	12.1	96.8	NO		
51	61	13C2-8:2 FTS	529 > 79.9	1854.000	2556.150	1.00	4.95	9.066	13.2	105.8	NO		
52	-1												
53	28	PFNS	549.1 > 80.1		2643.491	1.00					NO		
54	29	L-MeFOSAA	570 > 419		3077.407	1.00					NO		
55	31	L-EtFOSAA	584.1 > 419		4362.194	1.00					NO		
56	33	PFUdA	563.0 > 518.9		20018.008	1.00					NO		
57	34	PFDS	598.8 > 79.9		1854.000	1.00					NO		
58	35	11Cl-PF30UdS	632.6 > 452.7		22167.055	1.00					NO		
59	59	13C8-PFOS	507.0 > 79.9	2643.491	2556.150	1.00	4.69	12.927	12.7	101.9	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	3077.407	24937.297	1.00	5.13	1.543	12.4	99.4	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	4362.194	24937.297	1.00	5.29	2.187	12.5	100.3	NO		
62	63	13C2-PFUdA	565 > 519.8	20018.008	24937.297	1.00	5.31	10.034	12.4	98.9	NO		
63	61	13C2-8:2 FTS	529 > 79.9	1854.000	2556.150	1.00	4.95	9.066	13.2	105.8	NO		
64	65	13C2-PFDoA	614.7 > 569.7	22167.055	17999.309	1.00	5.60	15.394	11.7	93.9	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9		1854.000	1.00					NO		
67	37	PFDoA	612.9 > 569.0		22167.055	1.00					NO		
68	38	N-MeFOSA	512.1 > 168.9		7672.123	1.00					NO		
69	39	PFTrDA	662.9 > 618.9		22167.055	1.00					NO		
70	40	PFDoS	698.8 > 79.9		10168.024	1.00					NO		
71	41	PFTeDA	713.0 > 669.0		10168.024	1.00					NO		
72	65	13C2-PFDoA	614.7 > 569.7	22167.055	17999.309	1.00	5.60	15.394	11.7	93.9	NO		

CGH 7/17/2019

Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-IB.qld

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Printed: Wednesday, July 17, 2019 09:04:46 Pacific Daylight Time

Name: 190716M2_14, Date: 16-Jul-2019, Time: 18:51:48, ID: IB, Description: IB

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73	65	13C2-PFDoA	614.7 > 569.7	22167.055	17999.309	1.00	5.60	15.394	11.7	93.9	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	7672.123	24937.297	1.00	5.78	3.846	139.1	92.7	NO		
75	65	13C2-PFDoA	614.7 > 569.7	22167.055	17999.309	1.00	5.60	15.394	11.7	93.9	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	10168.024	24937.297	1.00	6.07	5.097	11.7	93.3	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	10168.024	24937.297	1.00	6.07	5.097	11.7	93.3	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9		9534.104	1.00					NO		
80	43	PFHxDA	813.1 > 768.6	98.527	6637.449	1.00	6.42	0.074	0.1		NO	9.602	NO
81	44	PFODA	913.1 > 868.8	75.754	6637.449	1.00	6.67	0.057			NO		
82	45	N-MeFOSE	616.1 > 58.9		8062.253	1.00					NO		
83	46	N-EtFOSE	630.1 > 58.9		8250.367	1.00					NO		
84	72	13C4-PFBA	217.0 > 172.0	7656.683	7656.683	1.00	1.21	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	9534.104	24937.297	1.00	6.20	4.779	147.2	98.1	NO		
86	69	13C2-PFHxDA	815 > 769.7	6637.449	24937.297	1.00	6.42	3.327	4.6	91.4	NO		
87	69	13C2-PFHxDA	815 > 769.7	6637.449	24937.297	1.00	6.42	3.327	4.6	91.4	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	8062.253	24937.297	1.00	6.36	4.041	135.9	90.6	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	8250.367	24937.297	1.00	6.51	4.136	135.8	90.5	NO		
90	73	13C5-PFHxA	318.0 > 272.9	19207.180	19207.180	1.00	3.01	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	26935.404	26935.404	1.00	4.16	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	1247.576	1247.576	1.00	3.79	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	14352.137	14352.137	1.00	4.60	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	2556.150	2556.150	1.00	4.69	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	17999.309	17999.309	1.00	4.98	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	24937.297	24937.297	1.00	5.31	12.500	12.5	100.0	NO		

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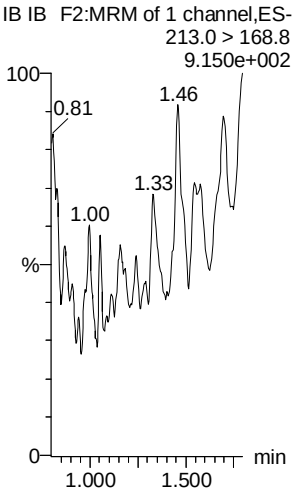
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Printed: Wednesday, July 17, 2019 09:04:46 Pacific Daylight Time

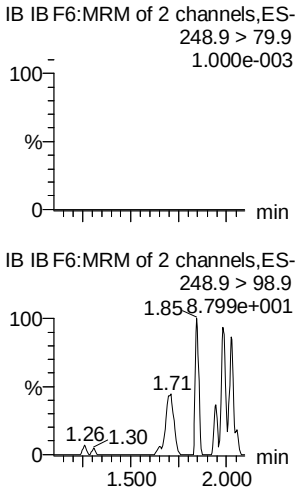
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Name: 190716M2_14, Date: 16-Jul-2019, Time: 18:51:48, ID: IB, Description: IB

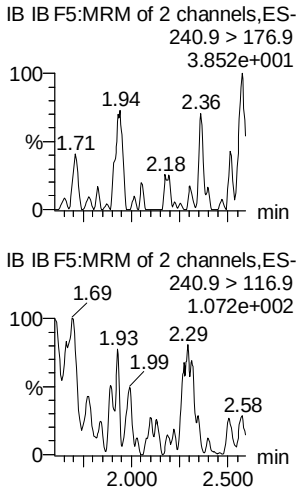
PFBA



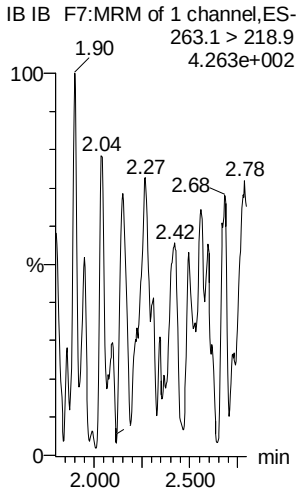
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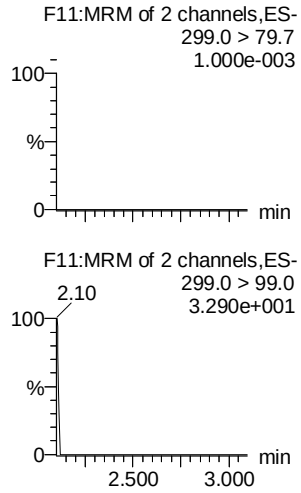
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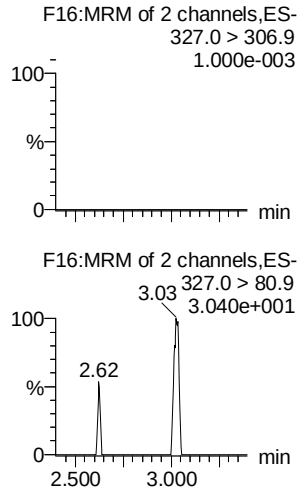
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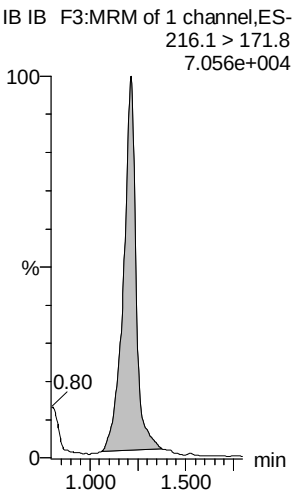
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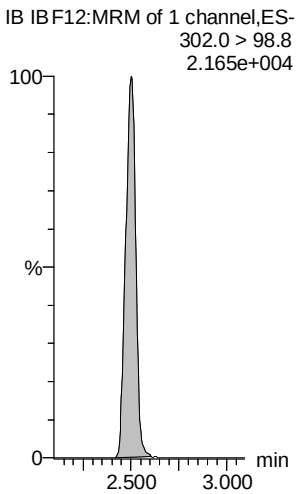
4:2 FTS



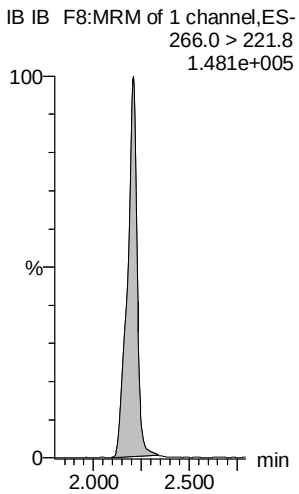
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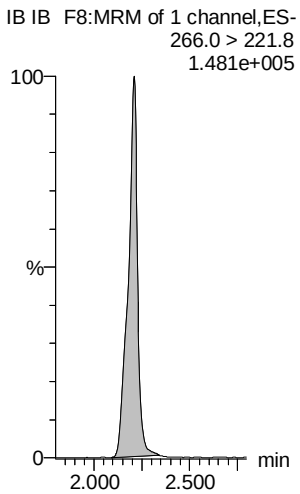
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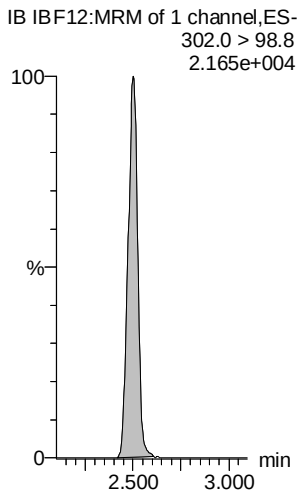
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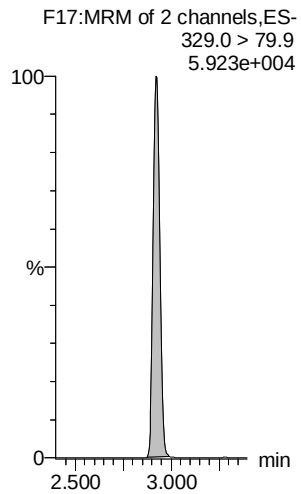
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13C3-PFBS



13C2-4:2 FTS



CGH 7/17/2019

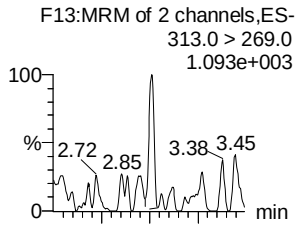
Vista Analytical Laboratory

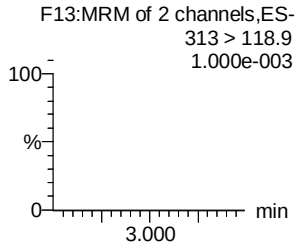
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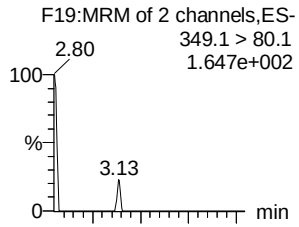
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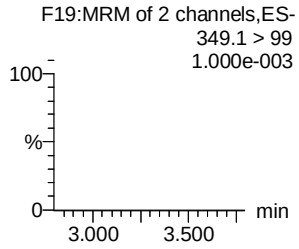
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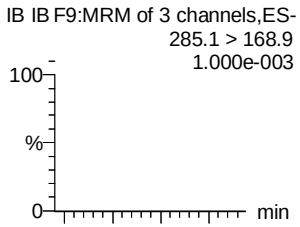


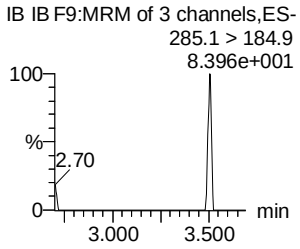
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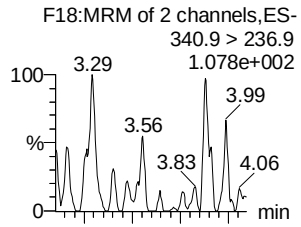


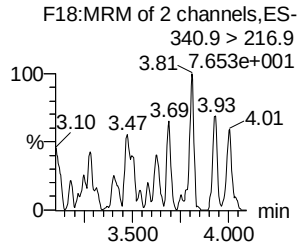
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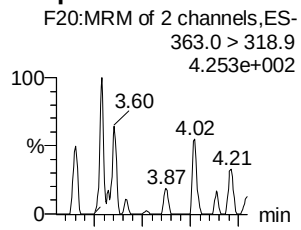


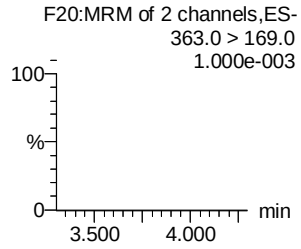
5:3 FTCA



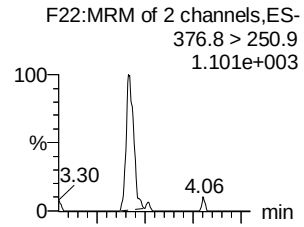


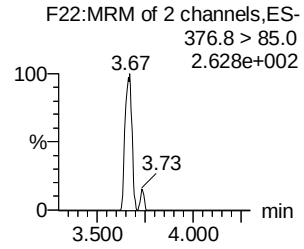
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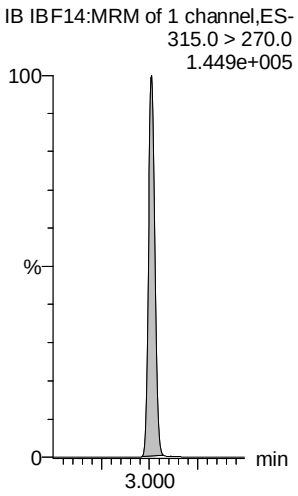


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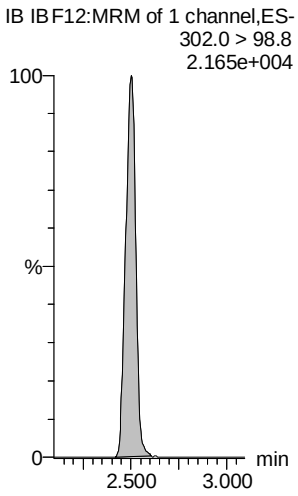




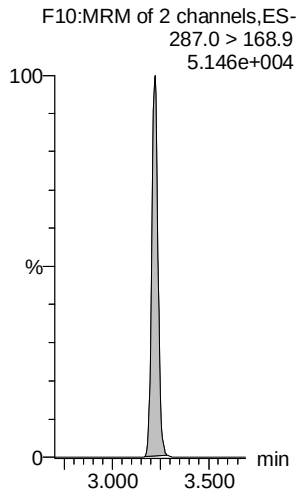
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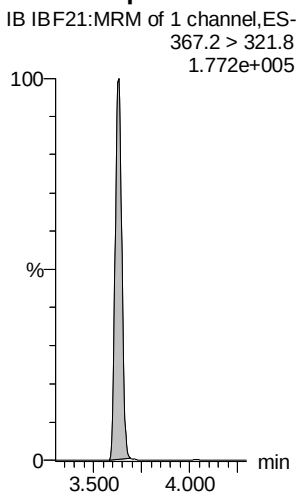
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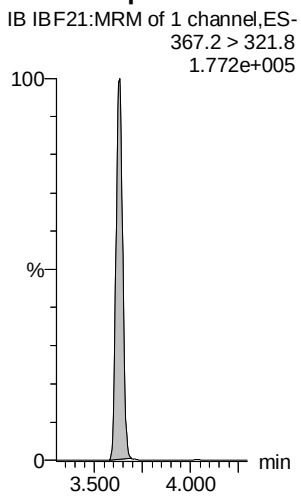
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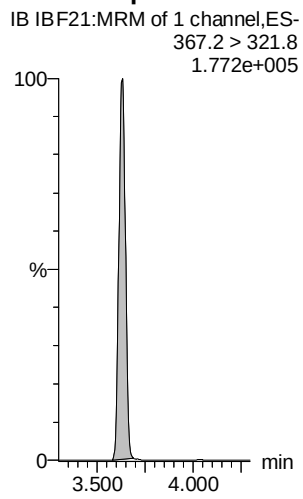
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13C4-PFHpA



13C4-PFHpA

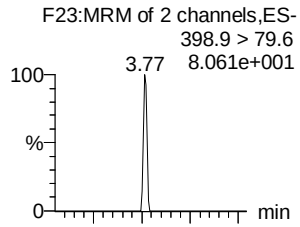


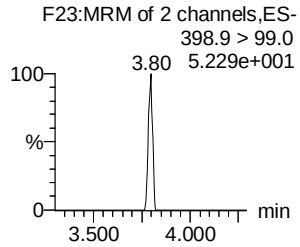
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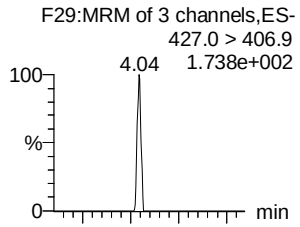
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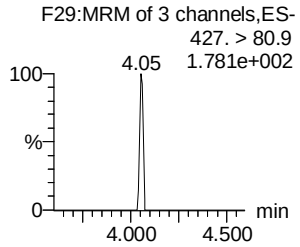
L-PFHxS



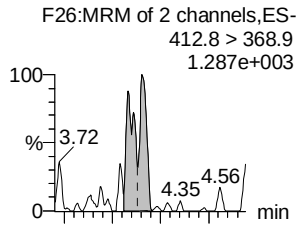


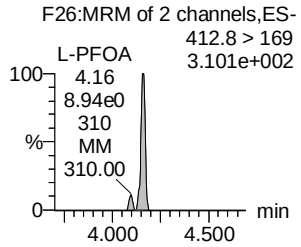
6:2 FTS



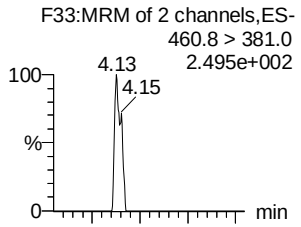


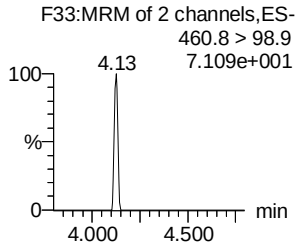
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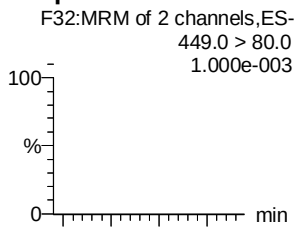


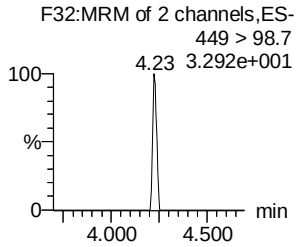
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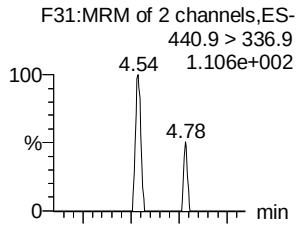


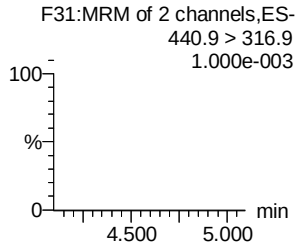
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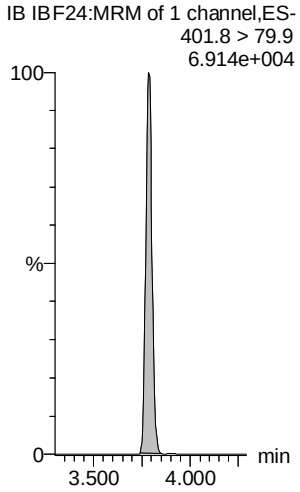


7:3 FTCA

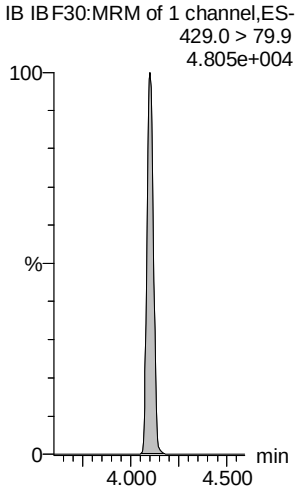




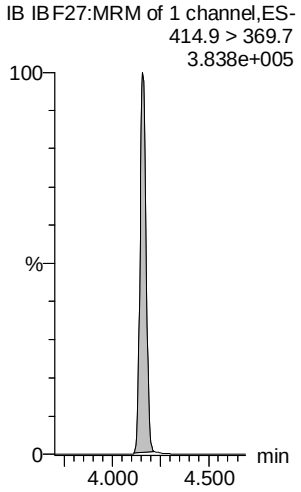
13C3-PFHxS



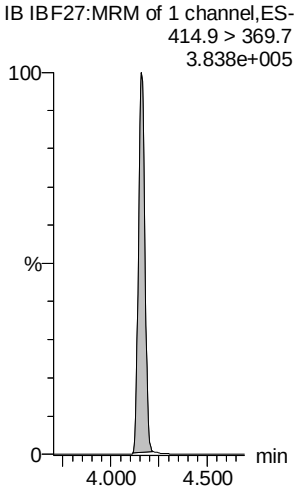
13C2-6:2 FTS



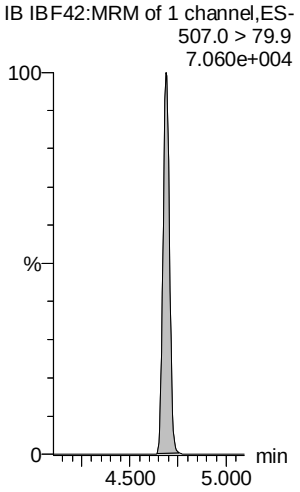
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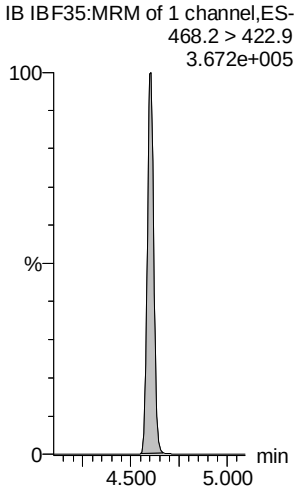
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13C8-PFOS



13C5-PFNA



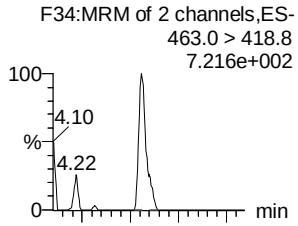
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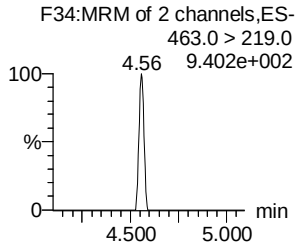
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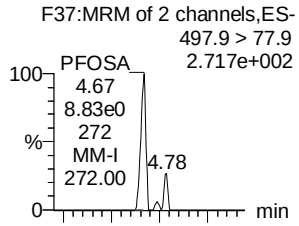
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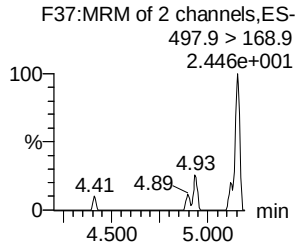
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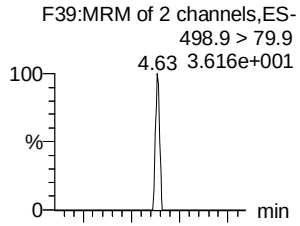


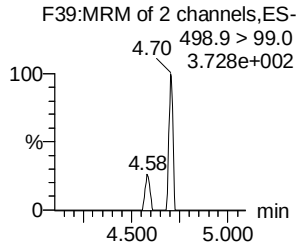
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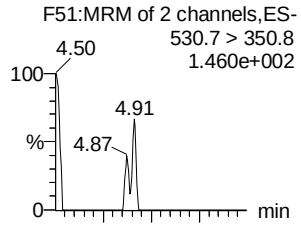


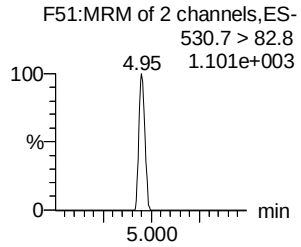
L-PFOS



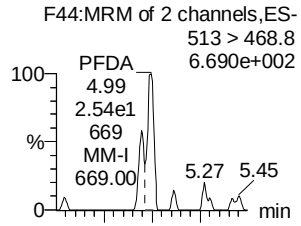


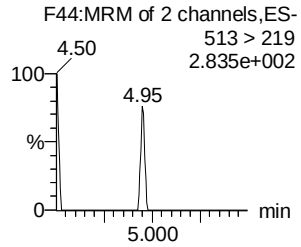
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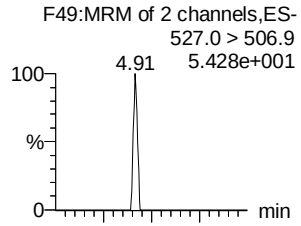


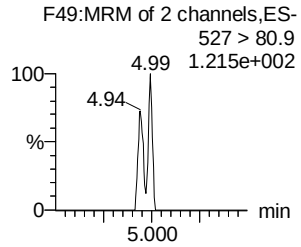
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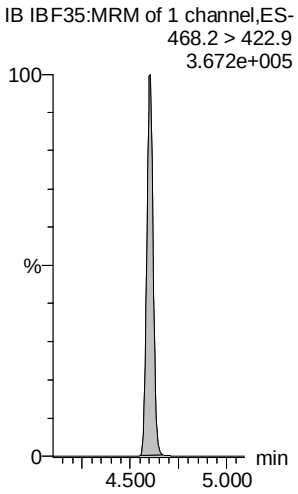


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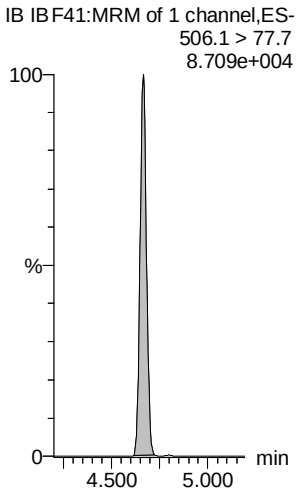




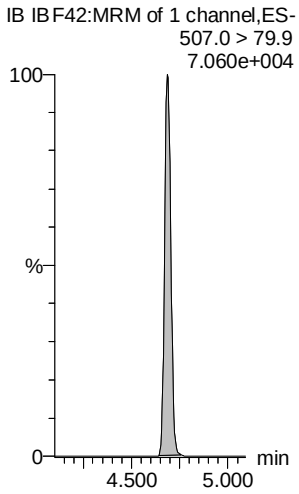
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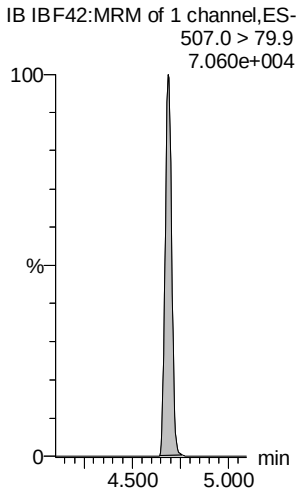
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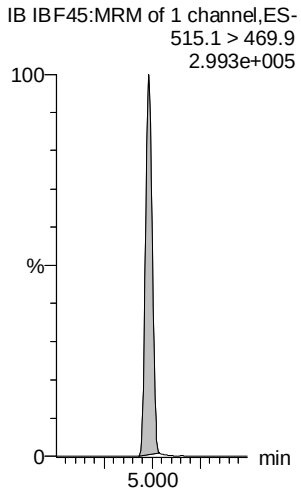
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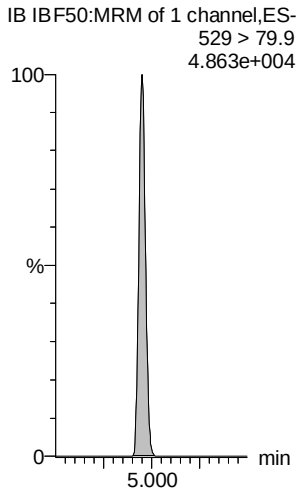
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13C2-PFDA



13C2-8:2 FTS

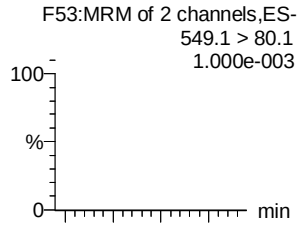


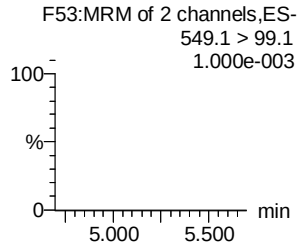
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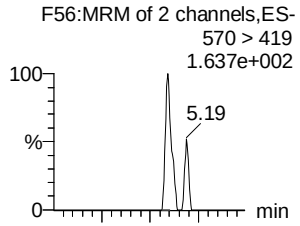
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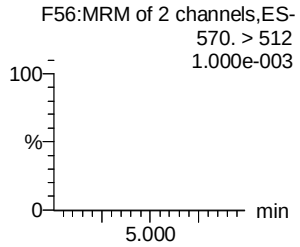
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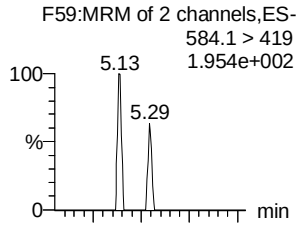


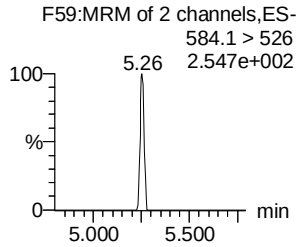
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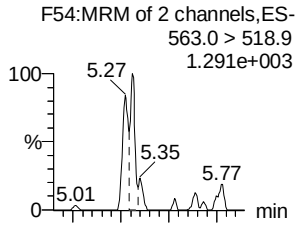


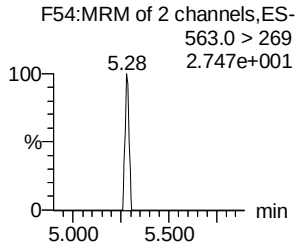
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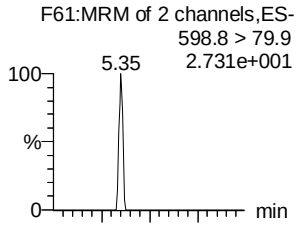


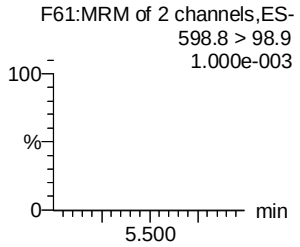
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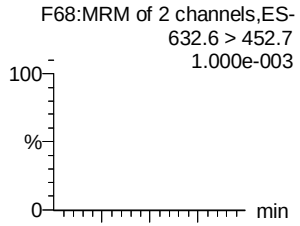


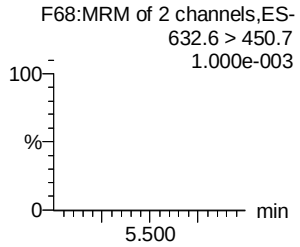
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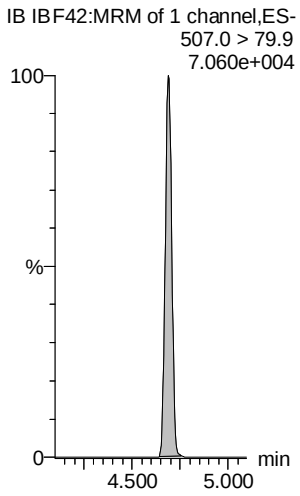


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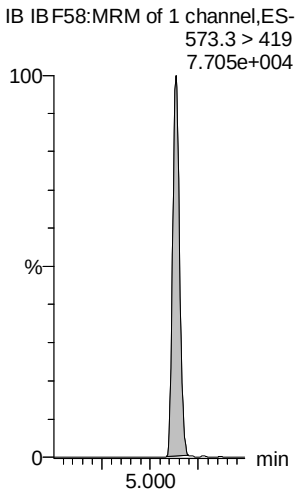




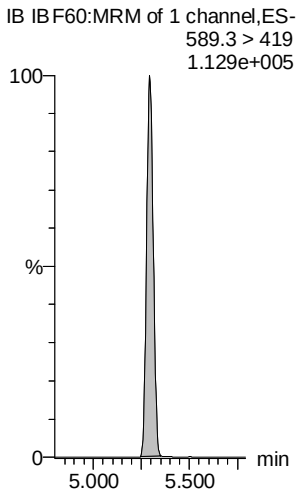
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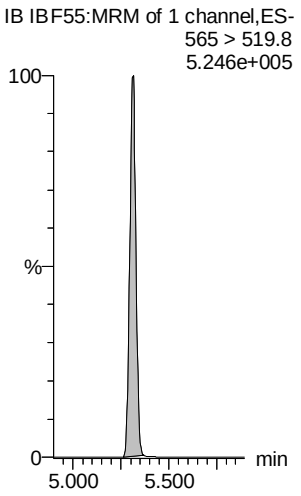
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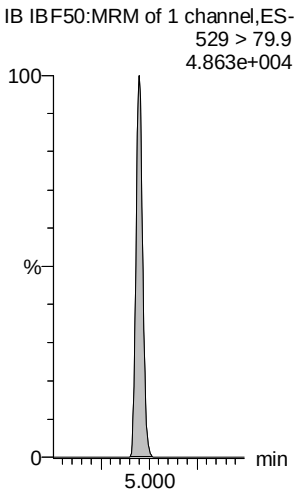
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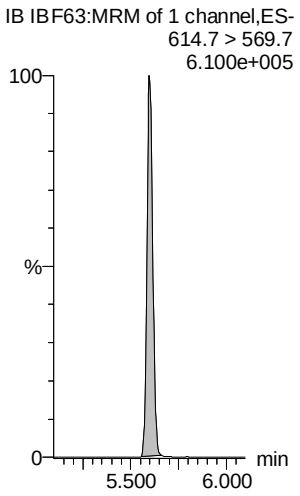
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

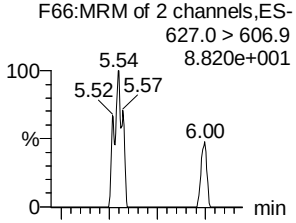


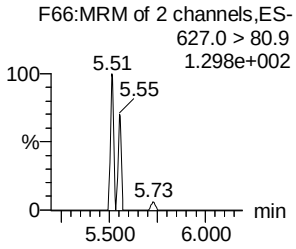
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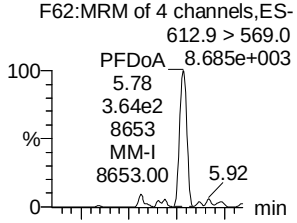
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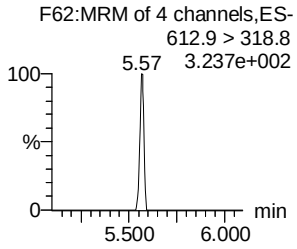
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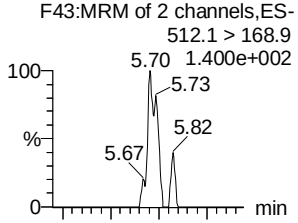


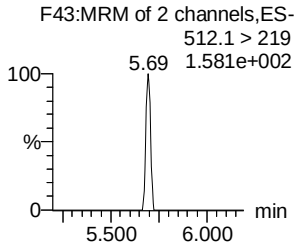
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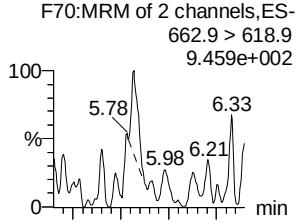


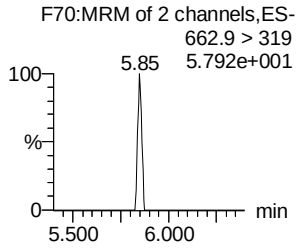
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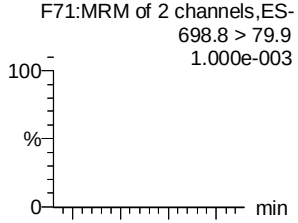


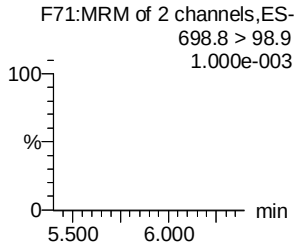
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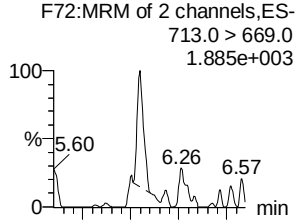


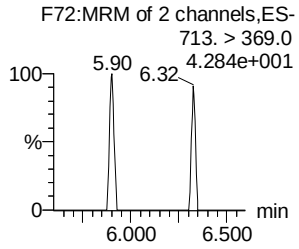
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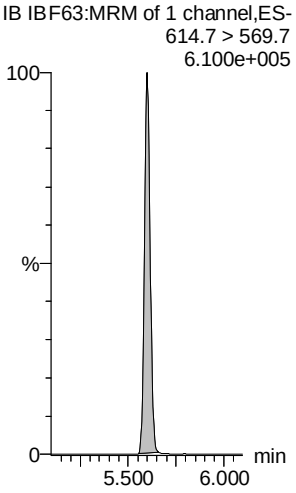


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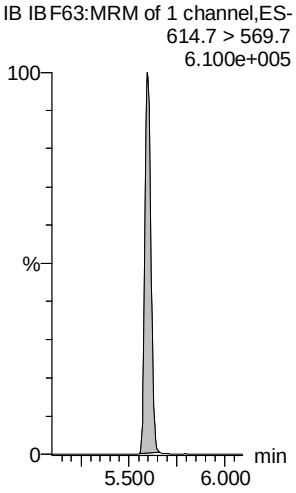




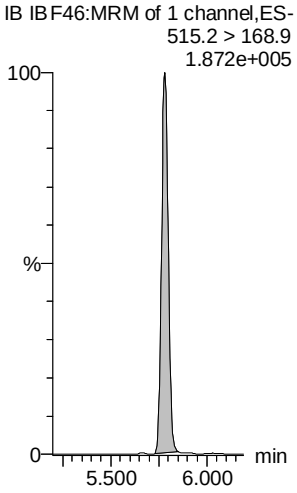
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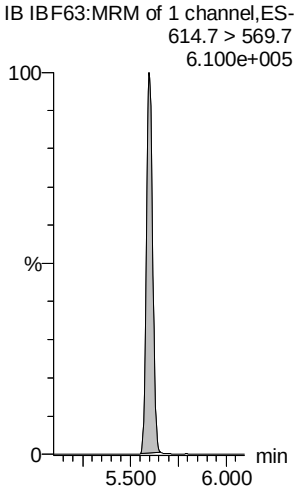
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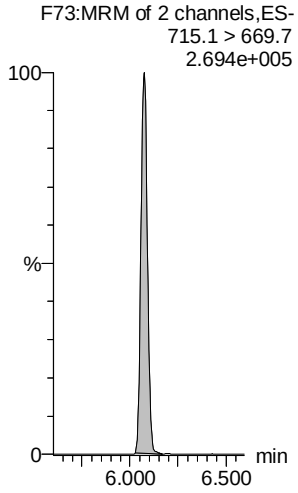
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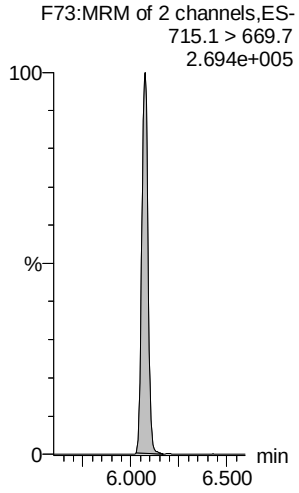
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13C2-PFTeDA



13C2-PFTeDA

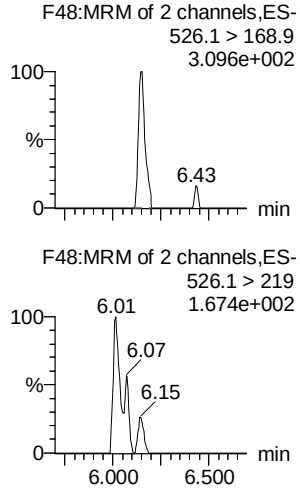


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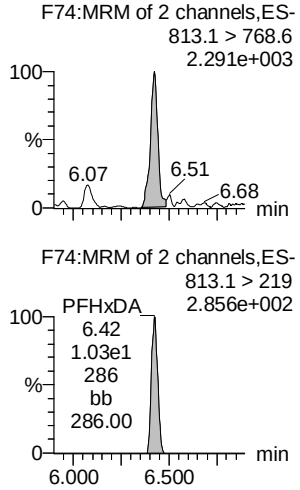
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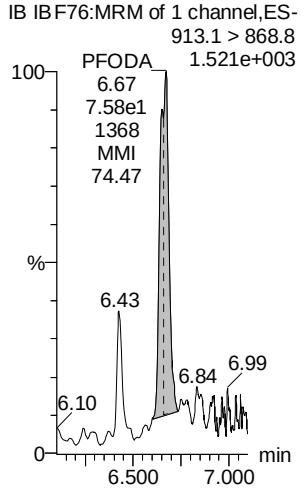
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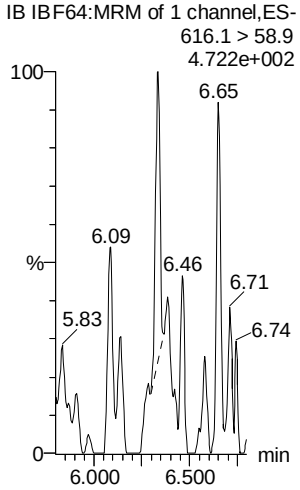
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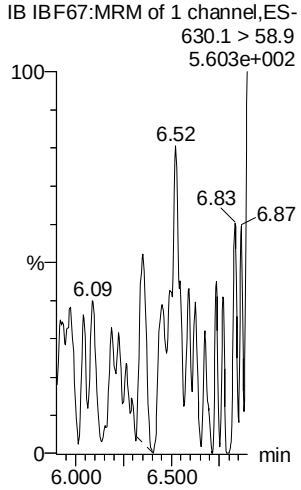
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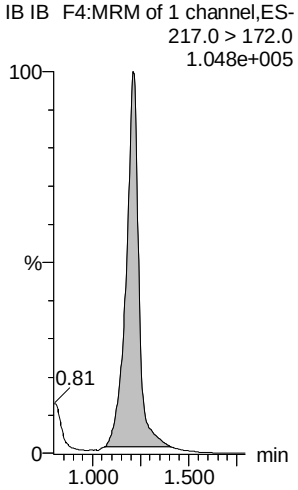
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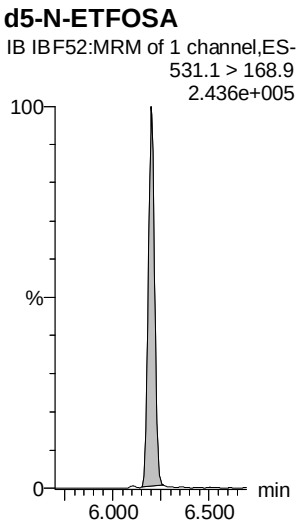
N-EtFOSE



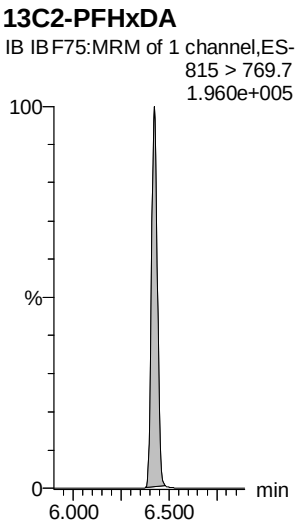
13C4-PFBA



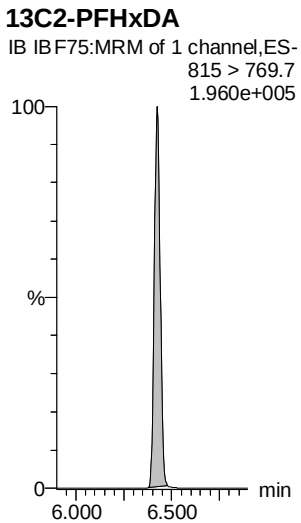
d5-N-ETFOSA



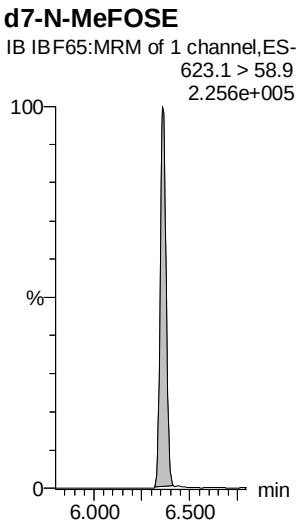
13C2-PFHxDA



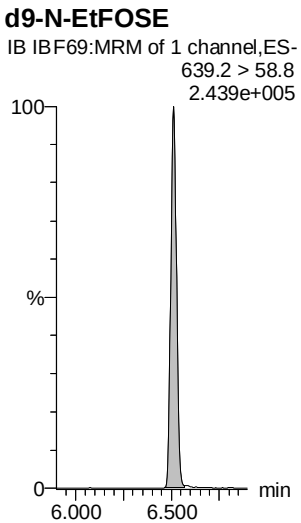
13C2-PFHxDA



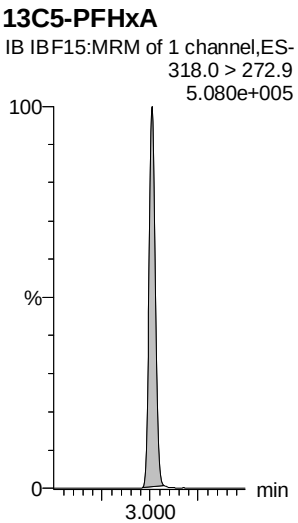
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

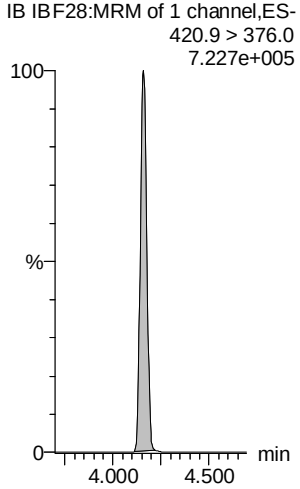


Dataset: F:\Projects\PFAS.PRO\Results\190716M2\190716M2-IB.qld

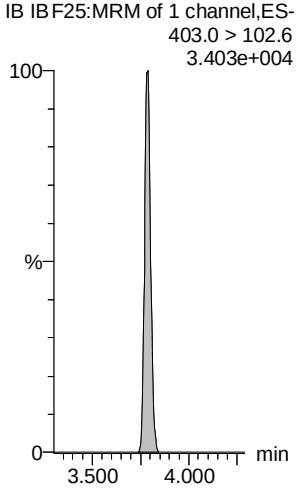
Last Altered: Wednesday, July 17, 2019 09:04:24 Pacific Daylight Time
Printed: Wednesday, July 17, 2019 09:04:46 Pacific Daylight Time

Name: 190716M2_14, Date: 16-Jul-2019, Time: 18:51:48, ID: IB, Description: IB

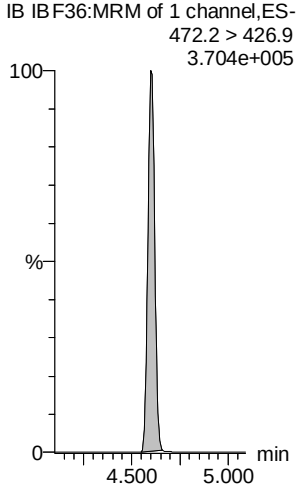
13C8-PFOA



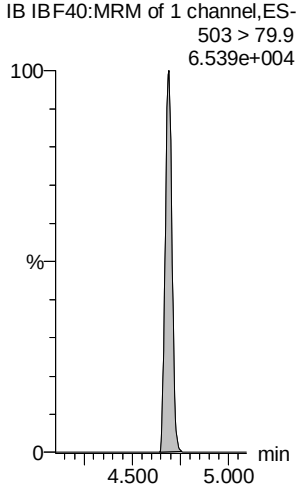
18O2-PFHxS



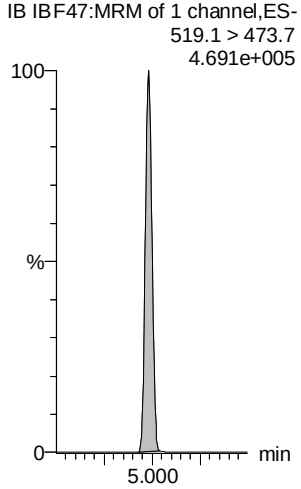
13C9-PFNA



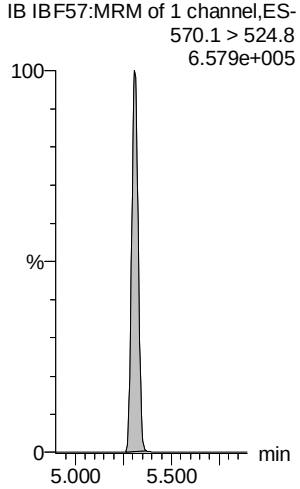
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

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High PE
HFPO-DA = 250
7:3 FTCA ↓
3:3 FTCA = 100
5:3 FTCA ↓
PFDS

Low PE
HFPO-DA = 1

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072219.mdb 22 Jul 2019 13:12:22
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

JM 7/22/19

Compound name: PFBA
Correlation coefficient: r = 0.999866, r^2 = 0.999732
Calibration curve: 1.24607 * x + 0.00199996
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	190722M1_4	Standard	0.250	1.15	205.691	7535.072	0.341	0.3	8.9	NO	1.000	NO	bb
2	2	190722M1_5	Standard	0.500	1.15	374.673	7667.957	0.611	0.5	-2.3	NO	1.000	NO	MM
3	3	190722M1_6	Standard	1.000	1.16	697.877	7940.078	1.099	0.9	-12.0	NO	1.000	NO	MM
4	4	190722M1_7	Standard	2.000	1.16	1497.573	7913.104	2.366	1.9	-5.2	NO	1.000	NO	MM
5	5	190722M1_8	Standard	5.000	1.16	4112.893	8268.948	6.217	5.0	-0.2	NO	1.000	NO	bb
6	6	190722M1_9	Standard	10.000	1.15	8275.571	7860.292	13.160	10.6	5.6	NO	1.000	NO	bb
7	7	190722M1_10	Standard	50.000	1.16	40213.590	7803.057	64.420	51.7	3.4	NO	1.000	NO	bb
8	8	190722M1_11	Standard	100.000	1.16	81006.617	7935.086	127.608	102.4	2.4	NO	1.000	NO	bb
9	9	190722M1_12	Standard	250.000	1.16	194562.391	7764.940	313.207	251.4	0.5	NO	1.000	NO	bb
10	10	190722M1_13	Standard	500.000	1.16	381731.438	7748.437	615.820	494.2	-1.2	NO	1.000	NO	bb

Compound name: PFPrS
Coefficient of Determination: R^2 = 0.999175
Calibration curve: 0.000485085 * x^2 + 0.946971 * x + -0.183868
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	190722M1_4	Standard	0.250	1.52	20.361	2236.356	0.114	0.3	25.7	NO	0.999	NO	MM
2	2	190722M1_5	Standard	0.500	1.51	50.173	2328.057	0.269	0.5	-4.3	NO	0.999	NO	MM
3	3	190722M1_6	Standard	1.000	1.53	130.598	2135.009	0.765	1.0	0.1	NO	0.999	NO	MM
4	4	190722M1_7	Standard	2.000	1.52	302.588	2286.379	1.654	1.9	-3.0	NO	0.999	NO	bb
5	5	190722M1_8	Standard	5.000	1.52	795.707	2378.276	4.182	4.6	-8.0	NO	0.999	NO	MM
6	6	190722M1_9	Standard	10.000	1.52	1540.571	2169.553	8.876	9.5	-4.8	NO	0.999	NO	MM
7	7	190722M1_10	Standard	50.000	1.52	7635.215	2223.375	42.926	44.5	-11.0	NO	0.999	NO	bb
8	8	190722M1_11	Standard	100.000	1.52	16993.711	2050.346	103.603	104.1	4.1	NO	0.999	NO	MM
9	9	190722M1_12	Standard	250.000	1.52	39975.602	1839.875	271.592	254.0	1.6	NO	0.999	NO	MM
10	10	190722M1_13	Standard	500.000	1.52	79009.047	1668.475	591.926	498.2	-0.4	NO	0.999	NO	MM

CdH 7/22/19

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
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Compound name: 3:3 FTCA
Coefficient of Determination: R^2 = 0.999283
Calibration curve: 2.19065e-005 * x^2 + 0.034454 * x + -0.00306612
Response type: Internal Std (Ref 48), 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	190722M1_4	Standard	0.250	1.97	8.341	15615.620	0.007	0.3	13.1	NO	0.999	NO	MM
2	2	190722M1_5	Standard	0.500	1.99	17.697	15644.763	0.014	0.5	-0.2	NO	0.999	NO	bb
3	3	190722M1_6	Standard	1.000	1.99	38.693	15402.321	0.031	1.0	-0.0	NO	0.999	NO	bb
4	4	190722M1_7	Standard	2.000	1.99	82.801	16573.887	0.062	1.9	-5.0	NO	0.999	NO	MM
5	5	190722M1_8	Standard	5.000	2.00	210.851	16136.088	0.163	4.8	-3.7	NO	0.999	NO	bb
6	6	190722M1_9	Standard	10.000	1.99	398.344	15546.884	0.320	9.3	-6.7	NO	0.999	NO	bb
7	7	190722M1_10	Standard	50.000	2.00	2297.046	15661.723	1.833	51.6	3.2	NO	0.999	NO	db
8	8	190722M1_11	Standard	100.000	2.00	4508.315	15504.576	3.635	99.3	-0.7	NO	0.999	NO	bb
9	9	190722M1_12	Standard	250.000	2.00	11063.976	14045.382	9.847	247.1	-1.2	NO	0.999	NO	bbX
10	10	190722M1_13	Standard	500.000	1.99	4674.946	13207.372	4.425	119.4	-76.1	YES	0.999	NO	bbX

Compound name: PFPeA
Correlation coefficient: r = 0.999912, r^2 = 0.999823
Calibration curve: 0.926196 * x + -0.0150139
Response type: Internal Std (Ref 48), 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	190722M1_4	Standard	0.250	2.15	296.510	15615.620	0.237	0.3	9.0	NO	1.000	NO	MM
2	2	190722M1_5	Standard	0.500	2.15	522.050	15644.763	0.417	0.5	-6.7	NO	1.000	NO	bb
3	3	190722M1_6	Standard	1.000	2.15	1074.948	15402.321	0.872	1.0	-4.2	NO	1.000	NO	bb
4	4	190722M1_7	Standard	2.000	2.15	2381.022	16573.887	1.796	2.0	-2.2	NO	1.000	NO	bb
5	5	190722M1_8	Standard	5.000	2.15	6167.493	16136.088	4.778	5.2	3.5	NO	1.000	NO	MM
6	6	190722M1_9	Standard	10.000	2.15	11428.299	15546.884	9.189	9.9	-0.6	NO	1.000	NO	MM
7	7	190722M1_10	Standard	50.000	2.15	59268.148	15661.723	47.303	51.1	2.2	NO	1.000	NO	bb
8	8	190722M1_11	Standard	100.000	2.15	115296.305	15504.576	92.953	100.4	0.4	NO	1.000	NO	bb
9	9	190722M1_12	Standard	250.000	2.15	255015.141	14045.382	226.956	245.1	-2.0	NO	1.000	NO	bb
10	10	190722M1_13	Standard	500.000	2.15	492677.250	13207.372	466.290	503.5	0.7	NO	1.000	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

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Compound name: PFBS
Correlation coefficient: r = 0.999795, r^2 = 0.999590
Calibration curve: 2.27622 * x + -0.0754669
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	190722M1_4	Standard	0.250	2.45	92.299	2236.356	0.516	0.3	3.9	NO	1.000	NO	bb
2	2	190722M1_5	Standard	0.500	2.44	193.730	2328.057	1.040	0.5	-2.0	NO	1.000	NO	bb
3	3	190722M1_6	Standard	1.000	2.45	342.157	2135.009	2.003	0.9	-8.7	NO	1.000	NO	bb
4	4	190722M1_7	Standard	2.000	2.45	815.520	2286.379	4.459	2.0	-0.4	NO	1.000	NO	bb
5	5	190722M1_8	Standard	5.000	2.45	2109.984	2378.276	11.090	4.9	-1.9	NO	1.000	NO	bb
6	6	190722M1_9	Standard	10.000	2.45	4125.201	2169.553	23.768	10.5	4.7	NO	1.000	NO	bb
7	7	190722M1_10	Standard	50.000	2.45	20523.697	2223.375	115.386	50.7	1.5	NO	1.000	NO	bb
8	8	190722M1_11	Standard	100.000	2.45	39162.527	2050.346	238.756	104.9	4.9	NO	1.000	NO	bb
9	9	190722M1_12	Standard	250.000	2.45	82227.227	1839.875	558.647	245.5	-1.8	NO	1.000	NO	bb
10	10	190722M1_13	Standard	500.000	2.45	151478.656	1668.475	1134.859	498.6	-0.3	NO	1.000	NO	bb

Compound name: 4:2 FTS
Coefficient of Determination: R^2 = 0.999884
Calibration curve: -0.000681037 * x^2 + 2.53383 * x + -0.100616
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	190722M1_4	Standard	0.250	2.88	156.029	3670.744	0.531	0.2	-0.2	NO	1.000	NO	bb
2	2	190722M1_5	Standard	0.500	2.87	421.413	3757.099	1.402	0.6	18.6	NO	1.000	NO	bb
3	3	190722M1_6	Standard	1.000	2.88	622.423	3580.179	2.173	0.9	-10.2	NO	1.000	NO	bb
4	4	190722M1_7	Standard	2.000	2.88	1453.074	3900.635	4.657	1.9	-6.1	NO	1.000	NO	bb
5	5	190722M1_8	Standard	5.000	2.88	3772.077	3671.611	12.842	5.1	2.3	NO	1.000	NO	bb
6	6	190722M1_9	Standard	10.000	2.88	6978.543	3615.187	24.129	9.6	-4.1	NO	1.000	NO	bb
7	7	190722M1_10	Standard	50.000	2.88	32919.199	3349.761	122.842	49.2	-1.7	NO	1.000	NO	bb
8	8	190722M1_11	Standard	100.000	2.88	61643.371	3083.802	249.868	101.4	1.4	NO	1.000	NO	bb
9	9	190722M1_12	Standard	250.000	2.88	118444.344	2504.447	591.170	250.2	0.1	NO	1.000	NO	bb
10	10	190722M1_13	Standard	500.000	2.88	203093.719	2316.492	1095.912	499.7	-0.1	NO	1.000	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

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Compound name: PFHxA
Correlation coefficient: r = 0.999007, r^2 = 0.998015
Calibration curve: 0.876467 * x + 0.0616289
Response type: Internal Std (Ref 52), 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	190722M1_4	Standard	0.250	2.96	635.012	12177.271	0.261	0.2	-9.1	NO	0.998	NO	bb
2	2	190722M1_5	Standard	0.500	2.96	1326.920	12908.381	0.514	0.5	3.2	NO	0.998	NO	bb
3	3	190722M1_6	Standard	1.000	2.97	2297.481	11943.897	0.962	1.0	2.7	NO	0.998	NO	bb
4	4	190722M1_7	Standard	2.000	2.96	4823.463	13020.162	1.852	2.0	2.2	NO	0.998	NO	bb
5	5	190722M1_8	Standard	5.000	2.96	12505.828	13060.069	4.788	5.4	7.8	NO	0.998	NO	bb
6	6	190722M1_9	Standard	10.000	2.96	22780.172	12196.678	9.339	10.6	5.8	NO	0.998	NO	bb
7	7	190722M1_10	Standard	50.000	2.96	118417.344	12268.250	48.262	55.0	10.0	NO	0.998	NO	bb
8	8	190722M1_11	Standard	100.000	2.97	227961.234	11871.380	96.013	109.5	9.5	NO	0.998	NO	bb
9	9	190722M1_12	Standard	250.000	2.97	476333.875	11058.899	215.362	245.6	-1.7	NO	0.998	NO	bb
10	10	190722M1_13	Standard	500.000	2.97	860983.375	10046.051	428.518	488.8	-2.2	NO	0.998	NO	bb

Compound name: PFPeS
Coefficient of Determination: R^2 = 0.999023
Calibration curve: -0.000714377 * x^2 + 1.61311 * x + -0.0331084
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	190722M1_4	Standard	0.250	3.17	65.437	2236.356	0.366	0.2	-1.1	NO	0.999	NO	bb
2	2	190722M1_5	Standard	0.500	3.17	137.134	2328.057	0.736	0.5	-4.6	NO	0.999	NO	bb
3	3	190722M1_6	Standard	1.000	3.17	239.597	2135.009	1.403	0.9	-11.0	NO	0.999	NO	bb
4	4	190722M1_7	Standard	2.000	3.17	564.167	2286.379	3.084	1.9	-3.3	NO	0.999	NO	bb
5	5	190722M1_8	Standard	5.000	3.17	1674.088	2378.276	8.799	5.5	9.8	NO	0.999	NO	bb
6	6	190722M1_9	Standard	10.000	3.17	3014.743	2169.553	17.370	10.8	8.4	NO	0.999	NO	bd
7	7	190722M1_10	Standard	50.000	3.17	14162.873	2223.375	79.625	50.5	1.0	NO	0.999	NO	bb
8	8	190722M1_11	Standard	100.000	3.17	26272.701	2050.346	160.172	104.1	4.1	NO	0.999	NO	bb
9	9	190722M1_12	Standard	250.000	3.17	50629.770	1839.875	343.976	238.4	-4.6	NO	0.999	NO	bb
10	10	190722M1_13	Standard	500.000	3.17	84613.969	1668.475	633.917	506.7	1.3	NO	0.999	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

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Compound name: HFPO-DA
Coefficient of Determination: R^2 = 0.991970
Calibration curve: -0.00118486 * x^2 + 0.675421 * x + -0.203895
Response type: Internal Std (Ref 50), 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	190722M1_4	Standard	0.250	3.18	34.880	1911.858	0.091	0.4	74.9	YES	0.992	NO	bbX
2	2	190722M1_5	Standard	0.500	3.17	133.862	1900.246	0.352	0.8	64.9	YES	0.992	NO	bbX
3	3	190722M1_6	Standard	1.000	3.18	122.225	1798.144	0.340	0.8	-19.4	NO	0.992	NO	bb
4	4	190722M1_7	Standard	2.000	3.17	425.952	1502.926	1.417	2.4	20.5	NO	0.992	NO	bb
5	5	190722M1_8	Standard	5.000	3.17	980.957	1823.471	2.690	4.3	-13.7	NO	0.992	NO	bb
6	6	190722M1_9	Standard	10.000	3.18	1479.204	1583.915	4.669	7.3	-26.9	NO	0.992	NO	bb
7	7	190722M1_10	Standard	50.000	3.17	10338.313	1516.116	34.095	56.4	12.7	NO	0.992	NO	bb
8	8	190722M1_11	Standard	100.000	3.18	17605.830	1625.359	54.160	97.0	-3.0	NO	0.992	NO	bb
9	9	190722M1_12	Standard	250.000	3.17	32582.572	1723.773	94.509	249.0	-0.4	NO	0.992	NO	bb
10	10	190722M1_13	Standard	500.000	3.18	59665.297	1164.100	256.272			NO	0.992	NO	bbXI

Compound name: 5:3 FTCA
Coefficient of Determination: R^2 = 0.999954
Calibration curve: 0.000276123 * x^2 + 0.182638 * x + -0.0100687
Response type: Internal Std (Ref 53), 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	190722M1_4	Standard	0.250	3.52	46.653	15466.499	0.038	0.3	4.6	NO	1.000	NO	bb
2	2	190722M1_5	Standard	0.500	3.52	103.871	16469.510	0.079	0.5	-2.7	NO	1.000	NO	bb
3	3	190722M1_6	Standard	1.000	3.52	204.981	15694.526	0.163	0.9	-5.2	NO	1.000	NO	bb
4	4	190722M1_7	Standard	2.000	3.52	468.877	16354.851	0.358	2.0	0.6	NO	1.000	NO	bb
5	5	190722M1_8	Standard	5.000	3.52	1240.769	16565.537	0.936	5.1	2.8	NO	1.000	NO	bb
6	6	190722M1_9	Standard	10.000	3.52	2221.937	15015.037	1.850	10.0	0.3	NO	1.000	NO	bb
7	7	190722M1_10	Standard	50.000	3.52	12012.357	15372.816	9.768	49.8	-0.4	NO	1.000	NO	bb
8	8	190722M1_11	Standard	100.000	3.52	24231.244	14399.047	21.035	100.1	0.1	NO	1.000	NO	bb
9	9	190722M1_12	Standard	250.000	3.52	60118.285	12478.941	60.220	241.6	-3.4	NO	1.000	NO	bbX
10	10	190722M1_13	Standard	500.000	3.52	24303.627	10512.502	28.898	132.0	-73.6	YES	1.000	NO	bbX

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Compound name: PFHpA
Correlation coefficient: r = 0.999631, r^2 = 0.999262
Calibration curve: 1.29462 * x + -0.00115138
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	190722M1_4	Standard	0.250	3.59	400.932	15466.499	0.324	0.3	0.5	NO	0.999	NO	bb
2	2	190722M1_5	Standard	0.500	3.58	873.613	16469.510	0.663	0.5	2.6	NO	0.999	NO	bb
3	3	190722M1_6	Standard	1.000	3.59	1554.342	15694.526	1.238	1.0	-4.3	NO	0.999	NO	bb
4	4	190722M1_7	Standard	2.000	3.58	3381.580	16354.851	2.585	2.0	-0.1	NO	0.999	NO	bb
5	5	190722M1_8	Standard	5.000	3.59	8588.707	16565.537	6.481	5.0	0.1	NO	0.999	NO	bb
6	6	190722M1_9	Standard	10.000	3.59	15734.628	15015.037	13.099	10.1	1.2	NO	0.999	NO	bb
7	7	190722M1_10	Standard	50.000	3.59	79713.648	15372.816	64.817	50.1	0.1	NO	0.999	NO	bb
8	8	190722M1_11	Standard	100.000	3.59	152997.594	14399.047	132.819	102.6	2.6	NO	0.999	NO	bb
9	9	190722M1_12	Standard	250.000	3.59	309129.594	12478.941	309.651	239.2	-4.3	NO	0.999	NO	bb
10	10	190722M1_13	Standard	500.000	3.59	553162.063	10512.502	657.743	508.1	1.6	NO	0.999	NO	bb

Compound name: ADONA
Correlation coefficient: r = 0.998584, r^2 = 0.997170
Calibration curve: 3.57793 * x + -0.298634
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	190722M1_4	Standard	0.250	3.70	1011.495	15466.499	0.817	0.3	24.8	NO	0.997	NO	bb
2	2	190722M1_5	Standard	0.500	3.70	2058.825	16469.510	1.563	0.5	4.0	NO	0.997	NO	bb
3	3	190722M1_6	Standard	1.000	3.70	4235.072	15694.526	3.373	1.0	2.6	NO	0.997	NO	bb
4	4	190722M1_7	Standard	2.000	3.70	8444.851	16354.851	6.454	1.9	-5.6	NO	0.997	NO	bb
5	5	190722M1_8	Standard	5.000	3.70	21530.680	16565.537	16.247	4.6	-7.5	NO	0.997	NO	bb
6	6	190722M1_9	Standard	10.000	3.70	39734.527	15015.037	33.079	9.3	-6.7	NO	0.997	NO	bb
7	7	190722M1_10	Standard	50.000	3.70	205867.641	15372.816	167.396	46.9	-6.3	NO	0.997	NO	bb
8	8	190722M1_11	Standard	100.000	3.70	396448.875	14399.047	344.162	96.3	-3.7	NO	0.997	NO	bb
9	9	190722M1_12	Standard	250.000	3.70	835964.125	12478.941	837.375	234.1	-6.4	NO	0.997	NO	bb
10	10	190722M1_13	Standard	500.000	3.70	1575840.875	10512.502	1873.770	523.8	4.8	NO	0.997	NO	bb

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Compound name: L-PFHxS
Coefficient of Determination: R^2 = 0.997745
Calibration curve: 0.000357574 * x^2 + 0.908432 * x + -0.00114983
Response type: Internal Std (Ref 54), 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	190722M1_4	Standard	0.250	3.74	82.299	4237.713	0.243	0.3	7.4	NO	0.998	NO	MM
2	2	190722M1_5	Standard	0.500	3.74	141.278	4295.812	0.411	0.5	-9.3	NO	0.998	NO	MM
3	3	190722M1_6	Standard	1.000	3.74	277.821	4291.999	0.809	0.9	-10.8	NO	0.998	NO	MM
4	4	190722M1_7	Standard	2.000	3.75	690.540	4626.274	1.866	2.1	2.7	NO	0.998	NO	MM
5	5	190722M1_8	Standard	5.000	3.75	1641.185	4549.954	4.509	5.0	-0.9	NO	0.998	NO	MM
6	6	190722M1_9	Standard	10.000	3.75	3159.205	4222.706	9.352	10.3	2.5	NO	0.998	NO	MM
7	7	190722M1_10	Standard	50.000	3.75	16693.316	4304.553	48.476	52.3	4.6	NO	0.998	NO	MM
8	8	190722M1_11	Standard	100.000	3.75	32262.391	3916.082	102.980	108.7	8.7	NO	0.998	NO	MM
9	9	190722M1_12	Standard	250.000	3.74	66965.891	3613.687	231.640	233.5	-6.6	NO	0.998	NO	MM
10	10	190722M1_13	Standard	500.000	3.75	125607.516	2851.692	550.583	505.5	1.1	NO	0.998	NO	MM

Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.998968
Calibration curve: -0.00125899 * x^2 + 3.39476 * x + -0.177829
Response type: Internal Std (Ref 55), 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	190722M1_4	Standard	0.250	4.05	183.284	2786.472	0.822	0.3	17.8	NO	0.999	NO	bb
2	2	190722M1_5	Standard	0.500	4.06	269.130	2769.114	1.215	0.4	-17.9	NO	0.999	NO	bb
3	3	190722M1_6	Standard	1.000	4.06	611.911	2622.355	2.917	0.9	-8.8	NO	0.999	NO	bb
4	4	190722M1_7	Standard	2.000	4.06	1492.028	2784.607	6.698	2.0	1.3	NO	0.999	NO	bb
5	5	190722M1_8	Standard	5.000	4.06	3586.114	2891.434	15.503	4.6	-7.5	NO	0.999	NO	bb
6	6	190722M1_9	Standard	10.000	4.06	7000.691	2648.652	33.039	9.8	-1.8	NO	0.999	NO	bb
7	7	190722M1_10	Standard	50.000	4.06	32527.863	2695.782	150.828	45.2	-9.5	NO	0.999	NO	bb
8	8	190722M1_11	Standard	100.000	4.06	60900.770	2231.852	341.089	104.6	4.6	NO	0.999	NO	bb
9	9	190722M1_12	Standard	250.000	4.06	121717.750	1952.420	779.275	253.4	1.4	NO	0.999	NO	bb
10	10	190722M1_13	Standard	500.000	4.06	211075.703	1916.864	1376.439	497.2	-0.6	NO	0.999	NO	bb

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Compound name: L-PFOA
Correlation coefficient: r = 0.999592, r^2 = 0.999184
Calibration curve: 1.50207 * x + 0.037722
Response type: Internal Std (Ref 58), 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	190722M1_4	Standard	0.250	4.12	861.843	27227.115	0.396	0.2	-4.7	NO	0.999	NO	bb
2	2	190722M1_5	Standard	0.500	4.11	1844.344	27747.313	0.831	0.5	5.6	NO	0.999	NO	bb
3	3	190722M1_6	Standard	1.000	4.12	3152.319	27237.805	1.447	0.9	-6.2	NO	0.999	NO	bb
4	4	190722M1_7	Standard	2.000	4.11	6736.039	28255.654	2.980	2.0	-2.1	NO	0.999	NO	bd
5	5	190722M1_8	Standard	5.000	4.12	17974.145	28378.357	7.917	5.2	4.9	NO	0.999	NO	bb
6	6	190722M1_9	Standard	10.000	4.12	31805.338	26171.531	15.191	10.1	0.9	NO	0.999	NO	bb
7	7	190722M1_10	Standard	50.000	4.12	163728.203	26058.307	78.539	52.3	4.5	NO	0.999	NO	bb
8	8	190722M1_11	Standard	100.000	4.12	298594.438	24945.002	149.626	99.6	-0.4	NO	0.999	NO	bb
9	9	190722M1_12	Standard	250.000	4.12	597642.625	20788.729	359.355	239.2	-4.3	NO	0.999	NO	bb
10	10	190722M1_13	Standard	500.000	4.12	1048031.875	17144.352	764.123	508.7	1.7	NO	0.999	NO	bb

Compound name: PFecHS
Coefficient of Determination: R^2 = 0.999810
Calibration curve: 9.03021e-005 * x^2 + 0.229813 * x + -0.00373897
Response type: Internal Std (Ref 58), 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	190722M1_4	Standard	0.250	4.14	123.901	27227.115	0.057	0.3	5.5	NO	1.000	NO	bb
2	2	190722M1_5	Standard	0.500	4.13	236.827	27747.313	0.107	0.5	-3.9	NO	1.000	NO	bb
3	3	190722M1_6	Standard	1.000	4.13	495.991	27237.805	0.228	1.0	0.6	NO	1.000	NO	bb
4	4	190722M1_7	Standard	2.000	4.14	981.958	28255.654	0.434	1.9	-4.7	NO	1.000	NO	bb
5	5	190722M1_8	Standard	5.000	4.14	2528.496	28378.357	1.114	4.9	-2.9	NO	1.000	NO	db
6	6	190722M1_9	Standard	10.000	4.14	5000.771	26171.531	2.388	10.4	3.7	NO	1.000	NO	bd
7	7	190722M1_10	Standard	50.000	4.14	24590.592	26058.307	11.796	50.3	0.7	NO	1.000	NO	bb
8	8	190722M1_11	Standard	100.000	4.14	48923.926	24945.002	24.516	102.6	2.6	NO	1.000	NO	bb
9	9	190722M1_12	Standard	250.000	4.14	102896.813	20788.729	61.871	245.5	-1.8	NO	1.000	NO	bb
10	10	190722M1_13	Standard	500.000	4.14	189209.188	17144.352	137.953	501.5	0.3	NO	1.000	NO	dd

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.998959
Calibration curve: -7.37908e-005 * x^2 + 0.882414 * x + -0.00582201
Response type: Internal Std (Ref 59), 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	190722M1_4	Standard	0.250	4.23	84.198	4610.178	0.228	0.3	6.1	NO	0.999	NO	bb
2	2	190722M1_5	Standard	0.500	4.23	121.930	5023.074	0.303	0.4	-29.9	NO	0.999	NO	bb
3	3	190722M1_6	Standard	1.000	4.24	368.541	4689.497	0.982	1.1	12.0	NO	0.999	NO	bb
4	4	190722M1_7	Standard	2.000	4.24	657.160	5125.605	1.603	1.8	-8.8	NO	0.999	NO	bb
5	5	190722M1_8	Standard	5.000	4.24	1957.946	5130.050	4.771	5.4	8.3	NO	0.999	NO	bb
6	6	190722M1_9	Standard	10.000	4.24	3634.027	4812.441	9.439	10.7	7.1	NO	0.999	NO	bb
7	7	190722M1_10	Standard	50.000	4.24	17634.732	4677.291	47.129	53.7	7.3	NO	0.999	NO	bb
8	8	190722M1_11	Standard	100.000	4.24	34034.559	4807.745	88.489	101.1	1.1	NO	0.999	NO	bb
9	9	190722M1_12	Standard	250.000	4.23	70228.125	4240.362	207.023	239.4	-4.2	NO	0.999	NO	bb
10	10	190722M1_13	Standard	500.000	4.24	126428.977	3703.672	426.701	504.9	1.0	NO	0.999	NO	bb

Compound name: 7:3 FTCA
Coefficient of Determination: R^2 = 0.999889
Calibration curve: 7.49055e-005 * x^2 + 0.120249 * x + -0.0213933
Response type: Internal Std (Ref 56), 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	190722M1_4	Standard	0.250	4.55	12.665	26994.145	0.006	0.2	-9.3	NO	1.000	NO	bb
2	2	190722M1_5	Standard	0.500	4.54	107.918	28537.123	0.047	0.6	14.2	NO	1.000	NO	bb
3	3	190722M1_6	Standard	1.000	4.55	219.952	27063.857	0.102	1.0	2.2	NO	1.000	NO	bb
4	4	190722M1_7	Standard	2.000	4.55	444.789	28643.977	0.194	1.8	-10.5	NO	1.000	NO	bb
5	5	190722M1_8	Standard	5.000	4.55	1461.054	29767.006	0.614	5.3	5.3	NO	1.000	NO	bb
6	6	190722M1_9	Standard	10.000	4.55	2445.753	26302.541	1.162	9.8	-2.2	NO	1.000	NO	bb
7	7	190722M1_10	Standard	50.000	4.55	13245.152	26637.002	6.216	50.3	0.6	NO	1.000	NO	bb
8	8	190722M1_11	Standard	100.000	4.55	26571.656	26110.186	12.721	99.8	-0.2	NO	1.000	NO	bb
9	9	190722M1_12	Standard	250.000	4.54	63821.262	22971.619	34.728	250.0	0.0	NO	1.000	NO	bb
10	10	190722M1_13	Standard	500.000	4.55	24601.760	19516.545	15.757	122.0	-75.6	YES	1.000	NO	bbX

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Compound name: PFNA
Correlation coefficient: r = 0.999807, r^2 = 0.999613
Calibration curve: 1.14988 * x + 0.0288971
Response type: Internal Std (Ref 56), 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	190722M1_4	Standard	0.250	4.56	655.582	26994.145	0.304	0.2	-4.4	NO	1.000	NO	bb
2	2	190722M1_5	Standard	0.500	4.56	1454.727	28537.123	0.637	0.5	5.8	NO	1.000	NO	bb
3	3	190722M1_6	Standard	1.000	4.56	2287.259	27063.857	1.056	0.9	-10.6	NO	1.000	NO	bb
4	4	190722M1_7	Standard	2.000	4.56	5189.672	28643.977	2.265	1.9	-2.8	NO	1.000	NO	bb
5	5	190722M1_8	Standard	5.000	4.57	14142.527	29767.006	5.939	5.1	2.8	NO	1.000	NO	bb
6	6	190722M1_9	Standard	10.000	4.57	25065.055	26302.541	11.912	10.3	3.3	NO	1.000	NO	bb
7	7	190722M1_10	Standard	50.000	4.56	128361.867	26637.002	60.237	52.4	4.7	NO	1.000	NO	bb
8	8	190722M1_11	Standard	100.000	4.57	248376.781	26110.186	118.908	103.4	3.4	NO	1.000	NO	bb
9	9	190722M1_12	Standard	250.000	4.57	518254.094	22971.619	282.008	245.2	-1.9	NO	1.000	NO	bb
10	10	190722M1_13	Standard	500.000	4.56	895385.313	19516.545	573.478	498.7	-0.3	NO	1.000	NO	bb

Compound name: PFOSA
Correlation coefficient: r = 0.999693, r^2 = 0.999385
Calibration curve: 1.02057 * x + -0.0126471
Response type: Internal Std (Ref 57), 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	190722M1_4	Standard	0.250	4.62	136.594	6999.135	0.244	0.3	0.6	NO	0.999	NO	bb
2	2	190722M1_5	Standard	0.500	4.62	269.574	7118.328	0.473	0.5	-4.8	NO	0.999	NO	bb
3	3	190722M1_6	Standard	1.000	4.62	568.882	6954.864	1.022	1.0	1.4	NO	0.999	NO	bb
4	4	190722M1_7	Standard	2.000	4.62	1132.273	7591.014	1.864	1.8	-8.0	NO	0.999	NO	bb
5	5	190722M1_8	Standard	5.000	4.63	2989.764	7228.312	5.170	5.1	1.6	NO	0.999	NO	bb
6	6	190722M1_9	Standard	10.000	4.62	5779.850	6895.285	10.478	10.3	2.8	NO	0.999	NO	bb
7	7	190722M1_10	Standard	50.000	4.62	28954.313	6874.020	52.652	51.6	3.2	NO	0.999	NO	bb
8	8	190722M1_11	Standard	100.000	4.63	55011.758	6363.656	108.058	105.9	5.9	NO	0.999	NO	bb
9	9	190722M1_12	Standard	250.000	4.62	118284.742	5928.815	249.385	244.4	-2.3	NO	0.999	NO	bb
10	10	190722M1_13	Standard	500.000	4.62	209728.141	5158.861	508.175	497.9	-0.4	NO	0.999	NO	bb

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Compound name: L-PFOS
Correlation coefficient: r = 0.999829, r^2 = 0.999659
Calibration curve: 1.069 * x + -0.0197497
Response type: Internal Std (Ref 59), 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	190722M1_4	Standard	0.250	4.65	87.493	4610.178	0.237	0.2	-3.8	NO	1.000	NO	MM
2	2	190722M1_5	Standard	0.500	4.65	256.232	5023.074	0.638	0.6	23.0	NO	1.000	NO	MM
3	3	190722M1_6	Standard	1.000	4.65	328.538	4689.497	0.876	0.8	-16.2	NO	1.000	NO	MM
4	4	190722M1_7	Standard	2.000	4.65	806.201	5125.605	1.966	1.9	-7.1	NO	1.000	NO	MM
5	5	190722M1_8	Standard	5.000	4.66	2077.277	5130.050	5.062	4.8	-4.9	NO	1.000	NO	MM
6	6	190722M1_9	Standard	10.000	4.65	4085.001	4812.441	10.611	9.9	-0.6	NO	1.000	NO	MM
7	7	190722M1_10	Standard	50.000	4.65	20823.443	4677.291	55.650	52.1	4.2	NO	1.000	NO	MM
8	8	190722M1_11	Standard	100.000	4.66	40854.531	4807.745	106.221	99.4	-0.6	NO	1.000	NO	MM
9	9	190722M1_12	Standard	250.000	4.65	88769.234	4240.362	261.679	244.8	-2.1	NO	1.000	NO	MM
10	10	190722M1_13	Standard	500.000	4.65	159705.578	3703.672	539.011	504.2	0.8	NO	1.000	NO	MM

Compound name: 9Cl-PF30NS
Coefficient of Determination: R^2 = 0.999728
Calibration curve: -0.000193459 * x^2 + 2.20675 * x + -0.126796
Response type: Internal Std (Ref 59), 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	190722M1_4	Standard	0.250	4.87	208.557	4610.178	0.565	0.3	25.5	NO	1.000	NO	bb
2	2	190722M1_5	Standard	0.500	4.88	369.193	5023.074	0.919	0.5	-5.2	NO	1.000	NO	bb
3	3	190722M1_6	Standard	1.000	4.88	795.714	4689.497	2.121	1.0	1.9	NO	1.000	NO	bb
4	4	190722M1_7	Standard	2.000	4.88	1574.958	5125.605	3.841	1.8	-10.1	NO	1.000	NO	bb
5	5	190722M1_8	Standard	5.000	4.88	4053.867	5130.050	9.878	4.5	-9.3	NO	1.000	NO	bb
6	6	190722M1_9	Standard	10.000	4.88	7873.354	4812.441	20.451	9.3	-6.7	NO	1.000	NO	bb
7	7	190722M1_10	Standard	50.000	4.88	42565.520	4677.291	113.756	51.8	3.7	NO	1.000	NO	bb
8	8	190722M1_11	Standard	100.000	4.88	85014.930	4807.745	221.036	101.1	1.1	NO	1.000	NO	bb
9	9	190722M1_12	Standard	250.000	4.88	181110.500	4240.362	533.889	247.4	-1.1	NO	1.000	NO	bb
10	10	190722M1_13	Standard	500.000	4.88	313130.656	3703.672	1056.825	501.0	0.2	NO	1.000	NO	bb

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Compound name: PFDA
Correlation coefficient: r = 0.998937, r^2 = 0.997875
Calibration curve: 1.28827 * x + 0.00394215
Response type: Internal Std (Ref 60), 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 190722M1_4	Standard	0.250	4.94	706.530	28932.621	0.305	0.2	-6.4	NO	0.998	NO	bb
2	2 190722M1_5	Standard	0.500	4.95	1490.683	29286.775	0.636	0.5	-1.8	NO	0.998	NO	bb
3	3 190722M1_6	Standard	1.000	4.95	2814.813	28506.883	1.234	1.0	-4.5	NO	0.998	NO	bb
4	4 190722M1_7	Standard	2.000	4.95	5909.950	29915.926	2.469	1.9	-4.3	NO	0.998	NO	bb
5	5 190722M1_8	Standard	5.000	4.95	16046.202	30566.777	6.562	5.1	1.8	NO	0.998	NO	bb
6	6 190722M1_9	Standard	10.000	4.95	29158.875	27265.137	13.368	10.4	3.7	NO	0.998	NO	bb
7	7 190722M1_10	Standard	50.000	4.95	153864.938	27453.689	70.057	54.4	8.8	NO	0.998	NO	bb
8	8 190722M1_11	Standard	100.000	4.94	288292.406	27625.471	130.447	101.3	1.3	NO	0.998	NO	bb
9	9 190722M1_12	Standard	250.000	4.94	581797.875	21413.232	339.625	263.6	5.4	NO	0.998	NO	bb
10	10 190722M1_13	Standard	500.000	4.95	1051522.625	21236.443	618.938	480.4	-3.9	NO	0.998	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.998024
Calibration curve: -0.000533984 * x^2 + 2.04701 * x + -0.0915481
Response type: Internal Std (Ref 61), 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 190722M1_4	Standard	0.250	4.90	110.757	2766.790	0.500	0.3	15.7	NO	0.998	NO	bb
2	2 190722M1_5	Standard	0.500	4.91	173.893	2888.167	0.753	0.4	-17.5	NO	0.998	NO	bb
3	3 190722M1_6	Standard	1.000	4.91	385.577	2645.313	1.822	0.9	-6.5	NO	0.998	NO	bb
4	4 190722M1_7	Standard	2.000	4.91	928.443	3030.817	3.829	1.9	-4.2	NO	0.998	NO	bb
5	5 190722M1_8	Standard	5.000	4.91	2416.494	3163.601	9.548	4.7	-5.7	NO	0.998	NO	bb
6	6 190722M1_9	Standard	10.000	4.91	4479.246	2857.208	19.596	9.6	-3.6	NO	0.998	NO	bb
7	7 190722M1_10	Standard	50.000	4.91	22408.156	2815.214	99.496	49.3	-1.4	NO	0.998	NO	bb
8	8 190722M1_11	Standard	100.000	4.91	40346.457	2314.112	217.937	109.6	9.6	NO	0.998	NO	bb
9	9 190722M1_12	Standard	250.000	4.91	76411.969	2102.109	454.377	236.6	-5.4	NO	0.998	NO	bb
10	10 190722M1_13	Standard	500.000	4.91	125294.570	1743.485	898.305	505.6	1.1	NO	0.998	NO	bb

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Compound name: PFNS
Correlation coefficient: r = 0.999413, r^2 = 0.998826
Calibration curve: 0.710501 * x + 0.0578804
Response type: Internal Std (Ref 59), 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	190722M1_4	Standard	0.250	5.01	76.965	4610.178	0.209	0.2	-15.1	NO	0.999	NO	bb
2	2	190722M1_5	Standard	0.500	5.01	154.358	5023.074	0.384	0.5	-8.2	NO	0.999	NO	bb
3	3	190722M1_6	Standard	1.000	5.02	293.746	4689.497	0.783	1.0	2.1	NO	0.999	NO	bb
4	4	190722M1_7	Standard	2.000	5.01	569.291	5125.605	1.388	1.9	-6.4	NO	0.999	NO	bb
5	5	190722M1_8	Standard	5.000	5.02	1622.471	5130.050	3.953	5.5	9.7	NO	0.999	NO	bb
6	6	190722M1_9	Standard	10.000	5.02	2895.744	4812.441	7.522	10.5	5.0	NO	0.999	NO	bb
7	7	190722M1_10	Standard	50.000	5.01	14917.650	4677.291	39.867	56.0	12.1	NO	0.999	NO	bb
8	8	190722M1_11	Standard	100.000	5.02	28168.828	4807.745	73.238	103.0	3.0	NO	0.999	NO	bb
9	9	190722M1_12	Standard	250.000	5.01	60019.738	4240.362	176.930	248.9	-0.4	NO	0.999	NO	bb
10	10	190722M1_13	Standard	500.000	5.01	103429.375	3703.672	349.077	491.2	-1.8	NO	0.999	NO	bb

Compound name: L-MeFOSAA
Coefficient of Determination: R^2 = 0.999838
Calibration curve: -0.00045633 * x^2 + 2.17563 * x + -0.152941
Response type: Internal Std (Ref 62), 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	190722M1_4	Standard	0.250	5.10	302.604	7508.583	0.504	0.3	20.7	NO	1.000	NO	MM
2	2	190722M1_5	Standard	0.500	5.10	524.329	7723.352	0.849	0.5	-7.9	NO	1.000	NO	MM
3	3	190722M1_6	Standard	1.000	5.10	1147.273	7195.815	1.993	1.0	-1.3	NO	1.000	NO	MM
4	4	190722M1_7	Standard	2.000	5.10	2406.323	8090.056	3.718	1.8	-11.0	NO	1.000	NO	MM
5	5	190722M1_8	Standard	5.000	5.10	6349.284	7347.870	10.801	5.0	0.8	NO	1.000	NO	MM
6	6	190722M1_9	Standard	10.000	5.10	12182.312	7043.111	21.621	10.0	0.3	NO	1.000	NO	MM
7	7	190722M1_10	Standard	50.000	5.10	60937.957	7339.405	103.786	48.3	-3.5	NO	1.000	NO	MM
8	8	190722M1_11	Standard	100.000	5.10	118437.289	6841.495	216.395	101.7	1.7	NO	1.000	NO	MM!
9	9	190722M1_12	Standard	250.000	5.10	250235.344	6051.563	516.882	250.8	0.3	NO	1.000	NO	MM
10	10	190722M1_13	Standard	500.000	5.10	451872.156	5808.625	972.416	499.3	-0.1	NO	1.000	NO	MM

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072219.mdb 22 Jul 2019 13:12:22
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Compound name: L-EtFOSAA
Correlation coefficient: r = 0.999854, r^2 = 0.999709
Calibration curve: 1.25319 * x + -0.0468414
Response type: Internal Std (Ref 64), 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 190722M1_4	Standard	0.250	5.26	209.329	9726.823	0.269	0.3	0.8	NO	1.000	NO	MM
2	2 190722M1_5	Standard	0.500	5.26	367.940	10142.089	0.453	0.4	-20.2	NO	1.000	NO	MM
3	3 190722M1_6	Standard	1.000	5.27	853.498	9553.568	1.117	0.9	-7.2	NO	1.000	NO	MM
4	4 190722M1_7	Standard	2.000	5.26	1914.901	10224.499	2.341	1.9	-4.7	NO	1.000	NO	MM
5	5 190722M1_8	Standard	5.000	5.27	5078.784	9695.443	6.548	5.3	5.2	NO	1.000	NO	MM
6	6 190722M1_9	Standard	10.000	5.27	9915.943	9396.261	13.191	10.6	5.6	NO	1.000	NO	MM
7	7 190722M1_10	Standard	50.000	5.26	49266.070	9432.823	65.285	52.1	4.3	NO	1.000	NO	MM
8	8 190722M1_11	Standard	100.000	5.26	88595.930	8632.457	128.289	102.4	2.4	NO	1.000	NO	MM
9	9 190722M1_12	Standard	250.000	5.26	179814.375	7214.774	311.538	248.6	-0.5	NO	1.000	NO	MM
10	10 190722M1_13	Standard	500.000	5.26	307620.938	6183.431	621.865	496.3	-0.7	NO	1.000	NO	MM

Compound name: PFUdA
Correlation coefficient: r = 0.999517, r^2 = 0.999034
Calibration curve: 0.909039 * x + 0.0548594
Response type: Internal Std (Ref 63), 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 190722M1_4	Standard	0.250	5.27	684.426	37046.383	0.231	0.2	-22.5	NO	0.999	NO	bb
2	2 190722M1_5	Standard	0.500	5.28	1527.451	39610.082	0.482	0.5	-6.0	NO	0.999	NO	bb
3	3 190722M1_6	Standard	1.000	5.28	2974.016	37227.707	0.999	1.0	3.8	NO	0.999	NO	bb
4	4 190722M1_7	Standard	2.000	5.28	5931.248	38478.953	1.927	2.1	3.0	NO	0.999	NO	bb
5	5 190722M1_8	Standard	5.000	5.28	15590.236	39406.758	4.945	5.4	7.6	NO	0.999	NO	bb
6	6 190722M1_9	Standard	10.000	5.28	28181.031	36519.961	9.646	10.6	5.5	NO	0.999	NO	bb
7	7 190722M1_10	Standard	50.000	5.28	142554.828	37910.305	47.004	51.6	3.3	NO	0.999	NO	bb
8	8 190722M1_11	Standard	100.000	5.28	269610.375	34466.223	97.781	107.5	7.5	NO	0.999	NO	bb
9	9 190722M1_12	Standard	250.000	5.27	540219.250	29777.729	226.772	249.4	-0.2	NO	0.999	NO	bb
10	10 190722M1_13	Standard	500.000	5.28	946828.000	26540.064	445.943	490.5	-1.9	NO	0.999	NO	bb

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Compound name: PFDS
Coefficient of Determination: R^2 = 0.998705
Calibration curve: 0.00481559 * x^2 + 1.65576 * x + -0.0379245
Response type: Internal Std (Ref 61), 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	190722M1_4	Standard	0.250	5.33	77.698	2766.790	0.351	0.2	-6.1	NO	0.999	NO	bb
2	2	190722M1_5	Standard	0.500	5.33	152.467	2888.167	0.660	0.4	-15.8	NO	0.999	NO	bb
3	3	190722M1_6	Standard	1.000	5.33	383.908	2645.313	1.814	1.1	11.5	NO	0.999	NO	bb
4	4	190722M1_7	Standard	2.000	5.33	792.289	3030.817	3.268	2.0	-0.8	NO	0.999	NO	bb
5	5	190722M1_8	Standard	5.000	5.33	2174.896	3163.601	8.593	5.1	2.7	NO	0.999	NO	bb
6	6	190722M1_9	Standard	10.000	5.33	4347.829	2857.208	19.021	11.1	11.5	NO	0.999	NO	bb
7	7	190722M1_10	Standard	50.000	5.33	20425.785	2815.214	90.694	48.1	-3.8	NO	0.999	NO	bb
8	8	190722M1_11	Standard	100.000	5.33	39900.316	2314.112	215.527	100.7	0.7	NO	0.999	NO	bb
9	9	190722M1_12	Standard	250.000	5.33	84654.648	2102.109	503.391	194.3	-22.3	NO	0.999	NO	bbX
10	10	190722M1_13	Standard	500.000	5.33	145620.469	1743.485	1044.033	324.4	-35.1	YES	0.999	NO	bbX

Compound name: 11Cl-PF30UdS
Coefficient of Determination: R^2 = 0.999161
Calibration curve: -1.71422e-005 * x^2 + 0.0590622 * x + -0.0125033
Response type: Internal Std (Ref 65), 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	190722M1_4	Standard	0.250	5.49	11.491	35866.102	0.004	0.3	11.8	NO	0.999	NO	bb
2	2	190722M1_5	Standard	0.500	5.51	29.405	37689.852	0.010	0.4	-24.6	NO	0.999	NO	bb
3	3	190722M1_6	Standard	1.000	5.50	164.117	35187.121	0.058	1.2	19.9	NO	0.999	NO	bb
4	4	190722M1_7	Standard	2.000	5.50	289.377	37205.660	0.097	1.9	-7.1	NO	0.999	NO	bb
5	5	190722M1_8	Standard	5.000	5.50	910.253	39748.355	0.286	5.1	1.3	NO	0.999	NO	bb
6	6	190722M1_9	Standard	10.000	5.50	1605.836	35560.168	0.564	9.8	-2.0	NO	0.999	NO	bb
7	7	190722M1_10	Standard	50.000	5.50	8178.276	36397.934	2.809	48.4	-3.1	NO	0.999	NO	bb
8	8	190722M1_11	Standard	100.000	5.50	16827.803	34719.320	6.059	106.1	6.1	NO	0.999	NO	bb
9	9	190722M1_12	Standard	250.000	5.50	35951.047	33727.715	13.324	242.9	-2.8	NO	0.999	NO	bb
10	10	190722M1_13	Standard	500.000	5.50	65402.414	32244.893	25.354	502.9	0.6	NO	0.999	NO	bb

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Compound name: 10:2 FTS
Coefficient of Determination: R^2 = 0.998548
Calibration curve: -0.00085294 * x^2 + 2.4229 * x + -0.00234078
Response type: Internal Std (Ref 61), 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	190722M1_4	Standard	0.250	5.55	122.475	2766.790	0.553	0.2	-8.3	NO	0.999	NO	bb
2	2	190722M1_5	Standard	0.500	5.55	229.287	2888.167	0.992	0.4	-17.9	NO	0.999	NO	bb
3	3	190722M1_6	Standard	1.000	5.55	596.665	2645.313	2.819	1.2	16.5	NO	0.999	NO	bb
4	4	190722M1_7	Standard	2.000	5.55	1263.802	3030.817	5.212	2.2	7.7	NO	0.999	NO	bb
5	5	190722M1_8	Standard	5.000	5.55	3019.520	3163.601	11.931	4.9	-1.3	NO	0.999	NO	bb
6	6	190722M1_9	Standard	10.000	5.55	5627.917	2857.208	24.622	10.2	2.0	NO	0.999	NO	bb
7	7	190722M1_10	Standard	50.000	5.55	26066.559	2815.214	115.740	48.6	-2.8	NO	0.999	NO	bb
8	8	190722M1_11	Standard	100.000	5.55	46486.160	2314.112	251.102	107.7	7.7	NO	0.999	NO	bb
9	9	190722M1_12	Standard	250.000	5.55	88947.906	2102.109	528.921	238.3	-4.7	NO	0.999	NO	bb
10	10	190722M1_13	Standard	500.000	5.55	140428.281	1743.485	1006.807	505.5	1.1	NO	0.999	NO	bb

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999221
Calibration curve: -0.000477513 * x^2 + 1.06929 * x + 0.0599682
Response type: Internal Std (Ref 65), 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	190722M1_4	Standard	0.250	5.57	857.407	35866.102	0.299	0.2	-10.6	NO	0.999	NO	bb
2	2	190722M1_5	Standard	0.500	5.57	1682.580	37689.852	0.558	0.5	-6.8	NO	0.999	NO	bb
3	3	190722M1_6	Standard	1.000	5.57	3274.479	35187.121	1.163	1.0	3.2	NO	0.999	NO	bb
4	4	190722M1_7	Standard	2.000	5.57	6802.266	37205.660	2.285	2.1	4.2	NO	0.999	NO	bb
5	5	190722M1_8	Standard	5.000	5.57	17300.143	39748.355	5.441	5.0	0.9	NO	0.999	NO	bb
6	6	190722M1_9	Standard	10.000	5.57	32060.010	35560.168	11.270	10.5	5.3	NO	0.999	NO	bb
7	7	190722M1_10	Standard	50.000	5.57	159734.281	36397.934	54.857	52.5	5.0	NO	0.999	NO	bb
8	8	190722M1_11	Standard	100.000	5.57	289545.406	34719.320	104.245	102.1	2.1	NO	0.999	NO	bb
9	9	190722M1_12	Standard	250.000	5.57	616340.063	33727.715	228.425	239.1	-4.4	NO	0.999	NO	bb
10	10	190722M1_13	Standard	500.000	5.57	1081389.000	32244.893	419.209	506.6	1.3	NO	0.999	NO	bb

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Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.998673
Calibration curve: -0.000110043 * x^2 + 1.18315 * x + 0.0436442
Response type: Internal Std (Ref 66), 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	190722M1_4	Standard	1.250	5.71	174.801	17841.740	1.470	1.2	-3.6	NO	0.999	NO	bb
2	2	190722M1_5	Standard	2.500	5.71	320.574	18678.113	2.574	2.1	-14.4	NO	0.999	NO	bb
3	3	190722M1_6	Standard	5.000	5.71	708.257	17820.547	5.962	5.0	0.1	NO	0.999	NO	bb
4	4	190722M1_7	Standard	10.000	5.71	1565.639	19170.096	12.251	10.3	3.3	NO	0.999	NO	bb
5	5	190722M1_8	Standard	25.000	5.72	4077.216	19158.625	31.922	27.0	8.0	NO	0.999	NO	bb
6	6	190722M1_9	Standard	50.000	5.72	7394.622	17939.484	61.830	52.5	5.0	NO	0.999	NO	bb
7	7	190722M1_10	Standard	250.000	5.71	37861.758	18666.406	304.251	263.6	5.4	NO	0.999	NO	bb
8	8	190722M1_11	Standard	500.000	5.72	70620.945	18195.252	582.193	516.9	3.4	NO	0.999	NO	bb
9	9	190722M1_12	Standard	1250.000	5.71	144867.422	17519.146	1240.364	1177.2	-5.8	NO	0.999	NO	bb
10	10	190722M1_13	Standard	2500.000	5.72	258953.250	16901.072	2298.256	2544.8	1.8	NO	0.999	NO	bb

Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998149
Calibration curve: -0.000612217 * x^2 + 1.14249 * x + 0.0539235
Response type: Internal Std (Ref 65), 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	190722M1_4	Standard	0.250	5.82	880.319	35866.102	0.307	0.2	-11.5	NO	0.998	NO	bb
2	2	190722M1_5	Standard	0.500	5.82	1951.640	37689.852	0.647	0.5	3.9	NO	0.998	NO	bb
3	3	190722M1_6	Standard	1.000	5.82	3383.408	35187.121	1.202	1.0	0.5	NO	0.998	NO	bb
4	4	190722M1_7	Standard	2.000	5.82	6987.166	37205.660	2.347	2.0	0.5	NO	0.998	NO	bb
5	5	190722M1_8	Standard	5.000	5.82	17986.393	39748.355	5.656	4.9	-1.7	NO	0.998	NO	bb
6	6	190722M1_9	Standard	10.000	5.82	33628.137	35560.168	11.821	10.4	3.6	NO	0.998	NO	bb
7	7	190722M1_10	Standard	50.000	5.82	166447.047	36397.934	57.162	51.4	2.8	NO	0.998	NO	bb
8	8	190722M1_11	Standard	100.000	5.82	319759.031	34719.320	115.123	106.8	6.8	NO	0.998	NO	bb
9	9	190722M1_12	Standard	250.000	5.82	628585.875	33727.715	232.963	232.9	-6.8	NO	0.998	NO	bb
10	10	190722M1_13	Standard	500.000	5.82	1093546.375	32244.893	423.922	510.8	2.2	NO	0.998	NO	bb

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Compound name: PFDoS
Coefficient of Determination: R^2 = 0.999315
Calibration curve: -2.75261e-005 * x^2 + 0.165938 * x + -0.00469544
Response type: Internal Std (Ref 67), 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	190722M1_4	Standard	0.250	5.85	86.251	24533.617	0.044	0.3	17.3	NO	0.999	NO	bb
2	2	190722M1_5	Standard	0.500	5.84	150.285	25057.908	0.075	0.5	-4.0	NO	0.999	NO	bb
3	3	190722M1_6	Standard	1.000	5.84	300.318	24546.381	0.153	1.0	-5.0	NO	0.999	NO	bb
4	4	190722M1_7	Standard	2.000	5.85	627.501	25520.283	0.307	1.9	-5.9	NO	0.999	NO	bb
5	5	190722M1_8	Standard	5.000	5.85	1641.982	27030.195	0.759	4.6	-7.8	NO	0.999	NO	bb
6	6	190722M1_9	Standard	10.000	5.85	3334.150	24462.900	1.704	10.3	3.1	NO	0.999	NO	bb
7	7	190722M1_10	Standard	50.000	5.84	16404.707	25008.195	8.200	49.9	-0.3	NO	0.999	NO	bb
8	8	190722M1_11	Standard	100.000	5.85	32527.031	23699.754	17.156	105.3	5.3	NO	0.999	NO	bb
9	9	190722M1_12	Standard	250.000	5.85	67222.758	21808.348	38.530	241.9	-3.2	NO	0.999	NO	bb
10	10	190722M1_13	Standard	500.000	5.85	120324.617	19652.904	76.531	503.2	0.6	NO	0.999	NO	bb

Compound name: PFTeDA
Correlation coefficient: r = 0.999147, r^2 = 0.998295
Calibration curve: 1.50077 * x + 0.138175
Response type: Internal Std (Ref 67), 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	190722M1_4	Standard	0.250	6.04	866.865	24533.617	0.442	0.2	-19.1	NO	0.998	NO	bb
2	2	190722M1_5	Standard	0.500	6.04	1744.283	25057.908	0.870	0.5	-2.5	NO	0.998	NO	bb
3	3	190722M1_6	Standard	1.000	6.04	3219.788	24546.381	1.640	1.0	0.0	NO	0.998	NO	db
4	4	190722M1_7	Standard	2.000	6.04	6134.377	25520.283	3.005	1.9	-4.5	NO	0.998	NO	bb
5	5	190722M1_8	Standard	5.000	6.04	17214.193	27030.195	7.961	5.2	4.2	NO	0.998	NO	bb
6	6	190722M1_9	Standard	10.000	6.05	32397.947	24462.900	16.555	10.9	9.4	NO	0.998	NO	bb
7	7	190722M1_10	Standard	50.000	6.04	163116.328	25008.195	81.531	54.2	8.5	NO	0.998	NO	bb
8	8	190722M1_11	Standard	100.000	6.05	308826.531	23699.754	162.885	108.4	8.4	NO	0.998	NO	bb
9	9	190722M1_12	Standard	250.000	6.04	631381.125	21808.348	361.892	241.0	-3.6	NO	0.998	NO	bb
10	10	190722M1_13	Standard	500.000	6.04	1168848.375	19652.904	743.432	495.3	-0.9	NO	0.998	NO	bb

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999316
Calibration curve: -4.39453e-005 * x^2 + 0.983871 * x + -0.292612
Response type: Internal Std (Ref 68), 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	190722M1_4	Standard	1.250	6.15	101.507	21304.605	0.715	1.0	-18.1	NO	0.999	NO	bb
2	2	190722M1_5	Standard	2.500	6.16	355.757	23668.131	2.255	2.6	3.6	NO	0.999	NO	bb
3	3	190722M1_6	Standard	5.000	6.15	704.680	21497.307	4.917	5.3	5.9	NO	0.999	NO	bb
4	4	190722M1_7	Standard	10.000	6.15	1535.194	23583.982	9.764	10.2	2.3	NO	0.999	NO	bb
5	5	190722M1_8	Standard	25.000	6.15	3849.927	23549.482	24.522	25.3	1.0	NO	0.999	NO	bb
6	6	190722M1_9	Standard	50.000	6.15	7349.969	22318.830	49.398	50.6	1.2	NO	0.999	NO	bb
7	7	190722M1_10	Standard	250.000	6.15	37530.723	22303.699	252.407	259.9	3.9	NO	0.999	NO	bb
8	8	190722M1_11	Standard	500.000	6.15	68166.070	20623.604	495.787	516.1	3.2	NO	0.999	NO	bb
9	9	190722M1_12	Standard	1250.000	6.15	138086.688	18540.406	1117.182	1200.1	-4.0	NO	0.999	NO	bb
10	10	190722M1_13	Standard	2500.000	6.15	240326.031	16366.620	2202.587	2523.4	0.9	NO	0.999	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.999962
Calibration curve: -0.00028136 * x^2 + 0.657654 * x + 0.0293459
Response type: Internal Std (Ref 69), 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	190722M1_4	Standard	0.250	6.38	513.778	11797.870	0.218	0.3	14.6	NO	1.000	NO	bb
2	2	190722M1_5	Standard	0.500	6.40	893.050	13134.137	0.340	0.5	-5.5	NO	1.000	NO	bb
3	3	190722M1_6	Standard	1.000	6.38	1684.509	12505.977	0.673	1.0	-2.0	NO	1.000	NO	bb
4	4	190722M1_7	Standard	2.000	6.38	3461.457	13630.720	1.270	1.9	-5.6	NO	1.000	NO	bb
5	5	190722M1_8	Standard	5.000	6.38	9031.181	14086.746	3.206	4.8	-3.2	NO	1.000	NO	bb
6	6	190722M1_9	Standard	10.000	6.38	16027.866	11944.516	6.709	10.2	2.0	NO	1.000	NO	bb
7	7	190722M1_10	Standard	50.000	6.38	83977.273	13095.914	32.062	49.8	-0.5	NO	1.000	NO	bb
8	8	190722M1_11	Standard	100.000	6.38	155073.625	12310.342	62.985	100.0	0.0	NO	1.000	NO	bb
9	9	190722M1_12	Standard	250.000	6.38	336614.219	11431.851	147.226	250.7	0.3	NO	1.000	NO	bb
10	10	190722M1_13	Standard	500.000	6.38	585571.063	11333.142	258.345	499.5	-0.1	NO	1.000	NO	bb

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Compound name: PFODA
Correlation coefficient: r = 0.997667, r^2 = 0.995340
Calibration curve: 0.760337 * x + 0.0535536
Response type: Internal Std (Ref 69), 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	190722M1_4	Standard	0.250	6.63	541.114	11797.870	0.229	0.2	-7.5	NO	0.995	NO	bb
2	2	190722M1_5	Standard	0.500	6.65	1068.658	13134.137	0.407	0.5	-7.1	NO	0.995	NO	bb
3	3	190722M1_6	Standard	1.000	6.63	2030.675	12505.977	0.812	1.0	-0.3	NO	0.995	NO	bb
4	4	190722M1_7	Standard	2.000	6.63	4374.636	13630.720	1.605	2.0	2.0	NO	0.995	NO	bb
5	5	190722M1_8	Standard	5.000	6.63	11379.397	14086.746	4.039	5.2	4.8	NO	0.995	NO	bb
6	6	190722M1_9	Standard	10.000	6.63	21262.186	11944.516	8.900	11.6	16.4	NO	0.995	NO	bb
7	7	190722M1_10	Standard	50.000	6.63	109864.828	13095.914	41.946	55.1	10.2	NO	0.995	NO	bb
8	8	190722M1_11	Standard	100.000	6.63	207847.906	12310.342	84.420	111.(	11.0	NO	0.995	NO	bb
9	9	190722M1_12	Standard	250.000	6.63	454528.688	11431.851	198.799	261.4	4.6	NO	0.995	NO	bb
10	10	190722M1_13	Standard	500.000	6.63	811311.75(	11333.142	357.938	470.7	-5.9	NO	0.995	NO	bb

Compound name: N-MeFOSE
Correlation coefficient: r = 0.999814, r^2 = 0.999627
Calibration curve: 1.11748 * x + 0.0028163
Response type: Internal Std (Ref 70), 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	190722M1_4	Standard	1.250	6.35	142.945	14114.705	1.519	1.4	8.6	NO	1.000	NO	bb
2	2	190722M1_5	Standard	2.500	6.36	275.433	15183.258	2.721	2.4	-2.7	NO	1.000	NO	bb
3	3	190722M1_6	Standard	5.000	6.35	489.998	14793.784	4.968	4.4	-11.1	NO	1.000	NO	bb
4	4	190722M1_7	Standard	10.000	6.35	1189.149	15722.974	11.345	10.1	1.5	NO	1.000	NO	bb
5	5	190722M1_8	Standard	25.000	6.35	2783.181	15649.076	26.677	23.9	-4.5	NO	1.000	NO	bb
6	6	190722M1_9	Standard	50.000	6.35	5900.228	14921.587	59.312	53.1	6.1	NO	1.000	NO	bd
7	7	190722M1_10	Standard	250.000	6.35	28270.703	14648.056	289.500	259.1	3.6	NO	1.000	NO	bb
8	8	190722M1_11	Standard	500.000	6.35	55998.887	14981.688	560.673	501.7	0.3	NO	1.000	NO	bb
9	9	190722M1_12	Standard	1250.000	6.35	130194.523	14359.571	1360.011	1217.0	-2.6	NO	1.000	NO	bb
10	10	190722M1_13	Standard	2500.000	6.35	267832.500	14262.917	2816.736	2520.6	0.8	NO	1.000	NO	bb

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999619, r^2 = 0.999239
Calibration curve: 1.29498 * x + -0.0851508
Response type: Internal Std (Ref 71), 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	190722M1_4	Standard	1.250	6.50	137.647	15632.325	1.321	1.1	-13.1	NO	0.999	NO	bb
2	2	190722M1_5	Standard	2.500	6.51	380.815	15954.395	3.580	2.8	13.2	NO	0.999	NO	bb
3	3	190722M1_6	Standard	5.000	6.50	642.558	15644.520	6.161	4.8	-3.5	NO	0.999	NO	bb
4	4	190722M1_7	Standard	10.000	6.50	1396.000	16621.113	12.598	9.8	-2.1	NO	0.999	NO	bb
5	5	190722M1_8	Standard	25.000	6.50	3454.849	16588.672	31.240	24.2	-3.2	NO	0.999	NO	bb
6	6	190722M1_9	Standard	50.000	6.50	6699.854	15590.012	64.463	49.8	-0.3	NO	0.999	NO	bb
7	7	190722M1_10	Standard	250.000	6.50	35302.969	15657.459	338.206	261.2	4.5	NO	0.999	NO	bb
8	8	190722M1_11	Standard	500.000	6.50	70170.711	15222.166	691.466	534.0	6.8	NO	0.999	NO	bb
9	9	190722M1_12	Standard	1250.000	6.50	156135.172	14605.532	1603.521	1238.3	-0.9	NO	0.999	NO	bb
10	10	190722M1_13	Standard	2500.000	6.50	315517.375	14811.076	3195.420	2467.6	-1.3	NO	0.999	NO	bb

Compound name: 13C3-PFBA
Response Factor: 0.733681
RRF SD: 0.0177614, Relative SD: 2.42086
Response type: Internal Std (Ref 72), 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	190722M1_4	Standard	12.500	1.15	7535.072	10850.134	8.681	11.8	-5.3	NO		NO	bb
2	2	190722M1_5	Standard	12.500	1.15	7667.957	10409.271	9.208	12.6	0.4	NO		NO	MM
3	3	190722M1_6	Standard	12.500	1.16	7940.078	10719.811	9.259	12.6	1.0	NO		NO	bb
4	4	190722M1_7	Standard	12.500	1.16	7913.104	10464.392	9.452	12.9	3.1	NO		NO	bb
5	5	190722M1_8	Standard	12.500	1.16	8268.948	11249.724	9.188	12.5	0.2	NO		NO	MM
6	6	190722M1_9	Standard	12.500	1.15	7860.292	10605.924	9.264	12.6	1.0	NO		NO	bb
7	7	190722M1_10	Standard	12.500	1.16	7803.057	10757.842	9.067	12.4	-1.1	NO		NO	bb
8	8	190722M1_11	Standard	12.500	1.16	7935.086	10641.384	9.321	12.7	1.6	NO		NO	MM
9	9	190722M1_12	Standard	12.500	1.16	7764.940	10847.547	8.948	12.2	-2.4	NO		NO	bb
10	10	190722M1_13	Standard	12.500	1.16	7748.437	10389.314	9.323	12.7	1.7	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 0.498108
RRF SD: 0.0236712, Relative SD: 4.75223
Response type: Internal Std (Ref 73), 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 190722M1_4	Standard	12.500	2.14	15615.620	33051.543	5.906	11.9	-5.1	NO		NO	bb
2	2 190722M1_5	Standard	12.500	2.15	15644.763	33461.480	5.844	11.7	-6.1	NO		NO	bb
3	3 190722M1_6	Standard	12.500	2.15	15402.321	30822.049	6.246	12.5	0.3	NO		NO	bb
4	4 190722M1_7	Standard	12.500	2.15	16573.887	32740.182	6.328	12.7	1.6	NO		NO	bb
5	5 190722M1_8	Standard	12.500	2.15	16136.088	34149.691	5.906	11.9	-5.1	NO		NO	bb
6	6 190722M1_9	Standard	12.500	2.15	15546.884	31217.115	6.225	12.5	-0.0	NO		NO	MM
7	7 190722M1_10	Standard	12.500	2.15	15661.723	31695.689	6.177	12.4	-0.8	NO		NO	MM
8	8 190722M1_11	Standard	12.500	2.15	15504.576	30821.445	6.288	12.6	1.0	NO		NO	bd
9	9 190722M1_12	Standard	12.500	2.15	14045.382	26753.777	6.562	13.2	5.4	NO		NO	bb
10	10 190722M1_13	Standard	12.500	2.15	13207.372	24348.354	6.780	13.6	8.9	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 1.05751
RRF SD: 0.0337229, Relative SD: 3.18889
Response type: Internal Std (Ref 74), 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 190722M1_4	Standard	12.500	2.45	2236.356	2116.563	13.207	12.5	-0.1	NO		NO	bb
2	2 190722M1_5	Standard	12.500	2.44	2328.057	2194.463	13.261	12.5	0.3	NO		NO	bb
3	3 190722M1_6	Standard	12.500	2.45	2135.009	2131.238	12.522	11.8	-5.3	NO		NO	bb
4	4 190722M1_7	Standard	12.500	2.45	2286.379	2123.718	13.457	12.7	1.8	NO		NO	bb
5	5 190722M1_8	Standard	12.500	2.45	2378.276	2183.460	13.615	12.9	3.0	NO		NO	bb
6	6 190722M1_9	Standard	12.500	2.45	2169.553	2036.903	13.314	12.6	0.7	NO		NO	bb
7	7 190722M1_10	Standard	12.500	2.45	2223.375	2117.294	13.126	12.4	-0.7	NO		NO	bb
8	8 190722M1_11	Standard	12.500	2.45	2050.346	2008.983	12.757	12.1	-3.5	NO		NO	bb
9	9 190722M1_12	Standard	12.500	2.45	1839.875	1777.154	12.941	12.2	-2.1	NO		NO	bb
10	10 190722M1_13	Standard	12.500	2.45	1668.475	1491.091	13.987	13.2	5.8	NO		NO	bb

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Compound name: 13C3-HFPO-DA
Response Factor: 0.133956
RRF SD: 0.014504, Relative SD: 10.8275
Response type: Internal Std (Ref 73), 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 190722M1_4	Standard	5.000	3.17	1911.858	33051.543	0.723	5.4	8.0	NO		NO	bb
2	2 190722M1_5	Standard	5.000	3.18	1900.246	33461.480	0.710	5.3	6.0	NO		NO	bb
3	3 190722M1_6	Standard	5.000	3.17	1798.144	30822.049	0.729	5.4	8.9	NO		NO	bb
4	4 190722M1_7	Standard	5.000	3.17	1502.926	32740.182	0.574	4.3	-14.3	NO		NO	bb
5	5 190722M1_8	Standard	5.000	3.17	1823.471	34149.691	0.667	5.0	-0.3	NO		NO	bb
6	6 190722M1_9	Standard	5.000	3.17	1583.915	31217.115	0.634	4.7	-5.3	NO		NO	bb
7	7 190722M1_10	Standard	5.000	3.17	1516.116	31695.689	0.598	4.5	-10.7	NO		NO	bb
8	8 190722M1_11	Standard	5.000	3.17	1625.359	30821.445	0.659	4.9	-1.6	NO		NO	bb
9	9 190722M1_12	Standard	5.000	3.17	1723.773	26753.777	0.805	6.0	20.2	NO		NO	bb
10	10 190722M1_13	Standard	5.000	3.18	1164.100	24348.354	0.598	4.5	-10.8	NO		NO	bb

Compound name: 13C2-4:2 FTS
Response Factor: 1.64992
RRF SD: 0.128404, Relative SD: 7.78244
Response type: Internal Std (Ref 74), 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 190722M1_4	Standard	12.500	2.88	3670.744	2116.563	21.679	13.1	5.1	NO		NO	bb
2	2 190722M1_5	Standard	12.500	2.88	3757.099	2194.463	21.401	13.0	3.8	NO		NO	bb
3	3 190722M1_6	Standard	12.500	2.88	3580.179	2131.238	20.998	12.7	1.8	NO		NO	bb
4	4 190722M1_7	Standard	12.500	2.88	3900.635	2123.718	22.959	13.9	11.3	NO		NO	bb
5	5 190722M1_8	Standard	12.500	2.88	3671.611	2183.460	21.019	12.7	1.9	NO		NO	bb
6	6 190722M1_9	Standard	12.500	2.88	3615.187	2036.903	22.186	13.4	7.6	NO		NO	bb
7	7 190722M1_10	Standard	12.500	2.88	3349.761	2117.294	19.776	12.0	-4.1	NO		NO	bb
8	8 190722M1_11	Standard	12.500	2.88	3083.802	2008.983	19.188	11.6	-7.0	NO		NO	bb
9	9 190722M1_12	Standard	12.500	2.88	2504.447	1777.154	17.616	10.7	-14.6	NO		NO	bb
10	10 190722M1_13	Standard	12.500	2.88	2316.492	1491.091	19.419	11.8	-5.8	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.97768
RRF SD: 0.0341838, Relative SD: 3.49642
Response type: Internal Std (Ref 73), 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	190722M1_4	Standard	5.000	2.96	12177.271	33051.543	4.605	4.7	-5.8	NO		NO	bb
2	2	190722M1_5	Standard	5.000	2.96	12908.381	33461.480	4.822	4.9	-1.4	NO		NO	bb
3	3	190722M1_6	Standard	5.000	2.97	11943.897	30822.049	4.844	5.0	-0.9	NO		NO	bb
4	4	190722M1_7	Standard	5.000	2.96	13020.162	32740.182	4.971	5.1	1.7	NO		NO	bb
5	5	190722M1_8	Standard	5.000	2.96	13060.069	34149.691	4.780	4.9	-2.2	NO		NO	bb
6	6	190722M1_9	Standard	5.000	2.96	12196.678	31217.115	4.884	5.0	-0.1	NO		NO	bb
7	7	190722M1_10	Standard	5.000	2.96	12268.250	31695.689	4.838	4.9	-1.0	NO		NO	bb
8	8	190722M1_11	Standard	5.000	2.97	11871.380	30821.445	4.815	4.9	-1.5	NO		NO	bb
9	9	190722M1_12	Standard	5.000	2.96	11058.899	26753.777	5.167	5.3	5.7	NO		NO	bb
10	10	190722M1_13	Standard	5.000	2.97	10046.051	24348.354	5.157	5.3	5.5	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.478533
RRF SD: 0.021691, Relative SD: 4.53282
Response type: Internal Std (Ref 73), 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	190722M1_4	Standard	12.500	3.58	15466.499	33051.543	5.849	12.2	-2.2	NO		NO	bb
2	2	190722M1_5	Standard	12.500	3.58	16469.510	33461.480	6.152	12.9	2.9	NO		NO	bb
3	3	190722M1_6	Standard	12.500	3.58	15694.526	30822.049	6.365	13.3	6.4	NO		NO	bb
4	4	190722M1_7	Standard	12.500	3.58	16354.851	32740.182	6.244	13.0	4.4	NO		NO	bb
5	5	190722M1_8	Standard	12.500	3.59	16565.537	34149.691	6.064	12.7	1.4	NO		NO	bb
6	6	190722M1_9	Standard	12.500	3.59	15015.037	31217.115	6.012	12.6	0.5	NO		NO	bd
7	7	190722M1_10	Standard	12.500	3.58	15372.816	31695.689	6.063	12.7	1.4	NO		NO	bb
8	8	190722M1_11	Standard	12.500	3.59	14399.047	30821.445	5.840	12.2	-2.4	NO		NO	bb
9	9	190722M1_12	Standard	12.500	3.59	12478.941	26753.777	5.830	12.2	-2.5	NO		NO	bb
10	10	190722M1_13	Standard	12.500	3.59	10512.502	24348.354	5.397	11.3	-9.8	NO		NO	bb

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Compound name: 13C3-PFHxS
Response Factor: 2.02371
RRF SD: 0.0767424, Relative SD: 3.79216
Response type: Internal Std (Ref 74), 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 190722M1_4	Standard	12.500	3.74	4237.713	2116.563	25.027	12.4	-1.1	NO		NO	bb
2	2 190722M1_5	Standard	12.500	3.74	4295.812	2194.463	24.470	12.1	-3.3	NO		NO	bb
3	3 190722M1_6	Standard	12.500	3.74	4291.999	2131.238	25.173	12.4	-0.5	NO		NO	bb
4	4 190722M1_7	Standard	12.500	3.74	4626.274	2123.718	27.230	13.5	7.6	NO		NO	bb
5	5 190722M1_8	Standard	12.500	3.75	4549.954	2183.460	26.048	12.9	3.0	NO		NO	bb
6	6 190722M1_9	Standard	12.500	3.75	4222.706	2036.903	25.914	12.8	2.4	NO		NO	bb
7	7 190722M1_10	Standard	12.500	3.74	4304.553	2117.294	25.413	12.6	0.5	NO		NO	bb
8	8 190722M1_11	Standard	12.500	3.75	3916.082	2008.983	24.366	12.0	-3.7	NO		NO	bb
9	9 190722M1_12	Standard	12.500	3.74	3613.687	1777.154	25.418	12.6	0.5	NO		NO	bb
10	10 190722M1_13	Standard	12.500	3.75	2851.692	1491.091	23.906	11.8	-5.5	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.536222
RRF SD: 0.0352734, Relative SD: 6.57812
Response type: Internal Std (Ref 77), 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 190722M1_4	Standard	12.500	4.05	2786.472	4991.087	6.979	13.0	4.1	NO		NO	bb
2	2 190722M1_5	Standard	12.500	4.06	2769.114	5000.113	6.923	12.9	3.3	NO		NO	bb
3	3 190722M1_6	Standard	12.500	4.06	2622.355	4901.221	6.688	12.5	-0.2	NO		NO	bb
4	4 190722M1_7	Standard	12.500	4.06	2784.607	5073.991	6.860	12.8	2.3	NO		NO	bb
5	5 190722M1_8	Standard	12.500	4.06	2891.434	5015.092	7.207	13.4	7.5	NO		NO	bb
6	6 190722M1_9	Standard	12.500	4.06	2648.652	4731.726	6.997	13.0	4.4	NO		NO	bb
7	7 190722M1_10	Standard	12.500	4.06	2695.782	4823.493	6.986	13.0	4.2	NO		NO	bb
8	8 190722M1_11	Standard	12.500	4.06	2231.852	4686.748	5.953	11.1	-11.2	NO		NO	bb
9	9 190722M1_12	Standard	12.500	4.06	1952.420	4103.574	5.947	11.1	-11.3	NO		NO	bb
10	10 190722M1_13	Standard	12.500	4.06	1916.864	3692.703	6.489	12.1	-3.2	NO		NO	bb

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Compound name: 13C5-PFNA
Response Factor: 1.00185
RRF SD: 0.0211068, Relative SD: 2.10677
Response type: Internal Std (Ref 76), 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 190722M1_4	Standard	12.500	4.56	26994.145	28154.537	11.985	12.0	-4.3	NO		NO	bb
2	2 190722M1_5	Standard	12.500	4.56	28537.123	28146.664	12.673	12.6	1.2	NO		NO	bb
3	3 190722M1_6	Standard	12.500	4.56	27063.857	27420.799	12.337	12.3	-1.5	NO		NO	bb
4	4 190722M1_7	Standard	12.500	4.56	28643.977	28130.104	12.728	12.7	1.6	NO		NO	bb
5	5 190722M1_8	Standard	12.500	4.57	29767.006	29337.896	12.683	12.7	1.3	NO		NO	bb
6	6 190722M1_9	Standard	12.500	4.56	26302.541	26887.838	12.228	12.2	-2.4	NO		NO	bb
7	7 190722M1_10	Standard	12.500	4.56	26637.002	26248.543	12.685	12.7	1.3	NO		NO	bb
8	8 190722M1_11	Standard	12.500	4.57	26110.186	25464.787	12.817	12.8	2.3	NO		NO	bb
9	9 190722M1_12	Standard	12.500	4.57	22971.619	22748.998	12.622	12.6	0.8	NO		NO	bb
10	10 190722M1_13	Standard	12.500	4.56	19516.545	19558.701	12.473	12.4	-0.4	NO		NO	bb

Compound name: 13C8-PFOSA
Response Factor: 0.167568
RRF SD: 0.00800781, Relative SD: 4.77885
Response type: Internal Std (Ref 79), 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 190722M1_4	Standard	12.500	4.62	6999.135	43120.508	2.029	12.1	-3.1	NO		NO	bb
2	2 190722M1_5	Standard	12.500	4.62	7118.328	43671.777	2.037	12.2	-2.7	NO		NO	bb
3	3 190722M1_6	Standard	12.500	4.62	6954.864	42805.195	2.031	12.1	-3.0	NO		NO	bb
4	4 190722M1_7	Standard	12.500	4.62	7591.014	42829.859	2.215	13.2	5.8	NO		NO	bb
5	5 190722M1_8	Standard	12.500	4.62	7228.312	44973.254	2.009	12.0	-4.1	NO		NO	bb
6	6 190722M1_9	Standard	12.500	4.62	6895.285	41544.137	2.075	12.4	-1.0	NO		NO	bb
7	7 190722M1_10	Standard	12.500	4.62	6874.020	42856.988	2.005	12.0	-4.3	NO		NO	bb
8	8 190722M1_11	Standard	12.500	4.62	6363.656	38711.184	2.055	12.3	-1.9	NO		NO	bb
9	9 190722M1_12	Standard	12.500	4.62	5928.815	33419.641	2.218	13.2	5.9	NO		NO	bb
10	10 190722M1_13	Standard	12.500	4.62	5158.861	28382.182	2.272	13.6	8.5	NO		NO	bb

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Compound name: 13C2-PFOA
Response Factor: 0.681271
RRF SD: 0.0136294, Relative SD: 2.00058
Response type: Internal Std (Ref 75), 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 190722M1_4	Standard	12.500	4.11	27227.115	40893.055	8.323	12.2	-2.3	NO		NO	bb
2	2 190722M1_5	Standard	12.500	4.11	27747.313	40528.070	8.558	12.6	0.5	NO		NO	bb
3	3 190722M1_6	Standard	12.500	4.12	27237.805	38705.680	8.796	12.9	3.3	NO		NO	bb
4	4 190722M1_7	Standard	12.500	4.12	28255.654	40013.352	8.827	13.0	3.7	NO		NO	bb
5	5 190722M1_8	Standard	12.500	4.12	28378.357	41990.711	8.448	12.4	-0.8	NO		NO	bb
6	6 190722M1_9	Standard	12.500	4.12	26171.531	39024.754	8.383	12.3	-1.6	NO		NO	bb
7	7 190722M1_10	Standard	12.500	4.12	26058.307	38312.750	8.502	12.5	-0.2	NO		NO	bb
8	8 190722M1_11	Standard	12.500	4.12	24945.002	37224.391	8.377	12.3	-1.6	NO		NO	bb
9	9 190722M1_12	Standard	12.500	4.12	20788.729	30588.471	8.495	12.5	-0.2	NO		NO	bb
10	10 190722M1_13	Standard	12.500	4.12	17144.352	25360.734	8.450	12.4	-0.8	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 0.996704
RRF SD: 0.0353208, Relative SD: 3.54376
Response type: Internal Std (Ref 77), 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 190722M1_4	Standard	12.500	4.65	4610.178	4991.087	11.546	11.6	-7.3	NO		NO	bb
2	2 190722M1_5	Standard	12.500	4.65	5023.074	5000.113	12.557	12.6	0.8	NO		NO	bb
3	3 190722M1_6	Standard	12.500	4.65	4689.497	4901.221	11.960	12.0	-4.0	NO		NO	bb
4	4 190722M1_7	Standard	12.500	4.65	5125.605	5073.991	12.627	12.7	1.4	NO		NO	bb
5	5 190722M1_8	Standard	12.500	4.66	5130.050	5015.092	12.787	12.8	2.6	NO		NO	bb
6	6 190722M1_9	Standard	12.500	4.65	4812.441	4731.726	12.713	12.8	2.0	NO		NO	bb
7	7 190722M1_10	Standard	12.500	4.65	4677.291	4823.493	12.121	12.2	-2.7	NO		NO	bb
8	8 190722M1_11	Standard	12.500	4.65	4807.745	4686.748	12.823	12.9	2.9	NO		NO	bb
9	9 190722M1_12	Standard	12.500	4.65	4240.362	4103.574	12.917	13.0	3.7	NO		NO	bb
10	10 190722M1_13	Standard	12.500	4.65	3703.672	3692.703	12.537	12.6	0.6	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 0.819019
RRF SD: 0.0323728, Relative SD: 3.95263
Response type: Internal Std (Ref 78), 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 190722M1_4	Standard	12.500	4.94	28932.621	36615.000	9.877	12.1	-3.5	NO		NO	bb
2	2 190722M1_5	Standard	12.500	4.95	29286.775	35343.969	10.358	12.6	1.2	NO		NO	bb
3	3 190722M1_6	Standard	12.500	4.95	28506.883	33592.953	10.607	13.0	3.6	NO		NO	bb
4	4 190722M1_7	Standard	12.500	4.95	29915.926	35678.215	10.481	12.8	2.4	NO		NO	bb
5	5 190722M1_8	Standard	12.500	4.95	30566.777	37235.199	10.261	12.5	0.2	NO		NO	bb
6	6 190722M1_9	Standard	12.500	4.95	27265.137	34106.059	9.993	12.2	-2.4	NO		NO	bb
7	7 190722M1_10	Standard	12.500	4.94	27453.689	34011.199	10.090	12.3	-1.4	NO		NO	bb
8	8 190722M1_11	Standard	12.500	4.95	27625.471	33321.129	10.363	12.7	1.2	NO		NO	bb
9	9 190722M1_12	Standard	12.500	4.94	21413.232	28304.783	9.457	11.5	-7.6	NO		NO	bb
10	10 190722M1_13	Standard	12.500	4.95	21236.443	24376.801	10.890	13.3	6.4	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.556548
RRF SD: 0.0515422, Relative SD: 9.26104
Response type: Internal Std (Ref 77), 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 190722M1_4	Standard	12.500	4.91	2766.790	4991.087	6.929	12.5	-0.4	NO		NO	bb
2	2 190722M1_5	Standard	12.500	4.91	2888.167	5000.113	7.220	13.0	3.8	NO		NO	bb
3	3 190722M1_6	Standard	12.500	4.91	2645.313	4901.221	6.747	12.1	-3.0	NO		NO	bb
4	4 190722M1_7	Standard	12.500	4.91	3030.817	5073.991	7.467	13.4	7.3	NO		NO	bb
5	5 190722M1_8	Standard	12.500	4.91	3163.601	5015.092	7.885	14.2	13.3	NO		NO	bb
6	6 190722M1_9	Standard	12.500	4.91	2857.208	4731.726	7.548	13.6	8.5	NO		NO	bb
7	7 190722M1_10	Standard	12.500	4.91	2815.214	4823.493	7.296	13.1	4.9	NO		NO	bb
8	8 190722M1_11	Standard	12.500	4.91	2314.112	4686.748	6.172	11.1	-11.3	NO		NO	bb
9	9 190722M1_12	Standard	12.500	4.91	2102.109	4103.574	6.403	11.5	-8.0	NO		NO	bb
10	10 190722M1_13	Standard	12.500	4.91	1743.485	3692.703	5.902	10.6	-15.2	NO		NO	bb

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Compound name: d3-N-MeFOSAA
Response Factor: 0.177461
RRF SD: 0.0119369, Relative SD: 6.72646
Response type: Internal Std (Ref 79), 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 190722M1_4	Standard	12.500	5.09	7508.583	43120.508	2.177	12.3	-1.9	NO		NO	bb
2	2 190722M1_5	Standard	12.500	5.10	7723.352	43671.777	2.211	12.5	-0.3	NO		NO	bb
3	3 190722M1_6	Standard	12.500	5.10	7195.815	42805.195	2.101	11.8	-5.3	NO		NO	bb
4	4 190722M1_7	Standard	12.500	5.10	8090.056	42829.859	2.361	13.3	6.4	NO		NO	bb
5	5 190722M1_8	Standard	12.500	5.10	7347.870	44973.254	2.042	11.5	-7.9	NO		NO	bb
6	6 190722M1_9	Standard	12.500	5.10	7043.111	41544.137	2.119	11.9	-4.5	NO		NO	bb
7	7 190722M1_10	Standard	12.500	5.10	7339.405	42856.988	2.141	12.1	-3.5	NO		NO	bb
8	8 190722M1_11	Standard	12.500	5.10	6841.495	38711.184	2.209	12.4	-0.4	NO		NO	bb
9	9 190722M1_12	Standard	12.500	5.10	6051.563	33419.641	2.263	12.8	2.0	NO		NO	bb
10	10 190722M1_13	Standard	12.500	5.10	5808.625	28382.182	2.558	14.4	15.3	NO		NO	bb

Compound name: 13C2-PFUdA
Response Factor: 0.889058
RRF SD: 0.0213149, Relative SD: 2.39747
Response type: Internal Std (Ref 79), 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 190722M1_4	Standard	12.500	5.28	37046.383	43120.508	10.739	12.1	-3.4	NO		NO	bb
2	2 190722M1_5	Standard	12.500	5.28	39610.082	43671.777	11.337	12.8	2.0	NO		NO	bb
3	3 190722M1_6	Standard	12.500	5.28	37227.707	42805.195	10.871	12.2	-2.2	NO		NO	bb
4	4 190722M1_7	Standard	12.500	5.28	38478.953	42829.859	11.230	12.6	1.1	NO		NO	bb
5	5 190722M1_8	Standard	12.500	5.28	39406.758	44973.254	10.953	12.3	-1.4	NO		NO	bb
6	6 190722M1_9	Standard	12.500	5.28	36519.961	41544.137	10.988	12.4	-1.1	NO		NO	bb
7	7 190722M1_10	Standard	12.500	5.28	37910.305	42856.988	11.057	12.4	-0.5	NO		NO	bb
8	8 190722M1_11	Standard	12.500	5.28	34466.223	38711.184	11.129	12.5	0.1	NO		NO	bb
9	9 190722M1_12	Standard	12.500	5.27	29777.729	33419.641	11.138	12.5	0.2	NO		NO	bb
10	10 190722M1_13	Standard	12.500	5.28	26540.064	28382.182	11.689	13.1	5.2	NO		NO	bb

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Compound name: d5-N-EtFOSAA
Response Factor: 0.223832
RRF SD: 0.00732405, Relative SD: 3.27212
Response type: Internal Std (Ref 79), 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 190722M1_4	Standard	12.500	5.26	9726.823	43120.508	2.820	12.6	0.8	NO		NO	bb
2	2 190722M1_5	Standard	12.500	5.26	10142.089	43671.777	2.903	13.0	3.8	NO		NO	bb
3	3 190722M1_6	Standard	12.500	5.26	9553.568	42805.195	2.790	12.5	-0.3	NO		NO	bb
4	4 190722M1_7	Standard	12.500	5.26	10224.499	42829.859	2.984	13.3	6.7	NO		NO	bb
5	5 190722M1_8	Standard	12.500	5.26	9695.443	44973.254	2.695	12.0	-3.7	NO		NO	bb
6	6 190722M1_9	Standard	12.500	5.26	9396.261	41544.137	2.827	12.6	1.0	NO		NO	bb
7	7 190722M1_10	Standard	12.500	5.26	9432.823	42856.988	2.751	12.3	-1.7	NO		NO	bb
8	8 190722M1_11	Standard	12.500	5.26	8632.457	38711.184	2.787	12.5	-0.4	NO		NO	bb
9	9 190722M1_12	Standard	12.500	5.26	7214.774	33419.641	2.699	12.1	-3.6	NO		NO	bb
10	10 190722M1_13	Standard	12.500	5.26	6183.431	28382.182	2.723	12.2	-2.7	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 1.08728
RRF SD: 0.0981349, Relative SD: 9.02572
Response type: Internal Std (Ref 78), 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 190722M1_4	Standard	12.500	5.57	35866.102	36615.000	12.244	11.3	-9.9	NO		NO	bb
2	2 190722M1_5	Standard	12.500	5.57	37689.852	35343.969	13.330	12.3	-1.9	NO		NO	bb
3	3 190722M1_6	Standard	12.500	5.57	35187.121	33592.953	13.093	12.0	-3.7	NO		NO	bb
4	4 190722M1_7	Standard	12.500	5.57	37205.660	35678.215	13.035	12.0	-4.1	NO		NO	bb
5	5 190722M1_8	Standard	12.500	5.57	39748.355	37235.199	13.344	12.3	-1.8	NO		NO	bb
6	6 190722M1_9	Standard	12.500	5.57	35560.168	34106.059	13.033	12.0	-4.1	NO		NO	bb
7	7 190722M1_10	Standard	12.500	5.56	36397.934	34011.199	13.377	12.3	-1.6	NO		NO	bb
8	8 190722M1_11	Standard	12.500	5.57	34719.320	33321.129	13.025	12.0	-4.2	NO		NO	bb
9	9 190722M1_12	Standard	12.500	5.57	33727.715	28304.783	14.895	13.7	9.6	NO		NO	bb
10	10 190722M1_13	Standard	12.500	5.57	32244.893	24376.801	16.535	15.2	21.7	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.0382371
RRF SD: 0.00483988, Relative SD: 12.6575
Response type: Internal Std (Ref 79), 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	190722M1_4	Standard	150.000	5.74	17841.740	43120.508	5.172	135.3	-9.8	NO		NO	bb
2	2	190722M1_5	Standard	150.000	5.74	18678.113	43671.777	5.346	139.8	-6.8	NO		NO	bb
3	3	190722M1_6	Standard	150.000	5.74	17820.547	42805.195	5.204	136.1	-9.3	NO		NO	bb
4	4	190722M1_7	Standard	150.000	5.74	19170.096	42829.859	5.595	146.3	-2.5	NO		NO	bb
5	5	190722M1_8	Standard	150.000	5.75	19158.625	44973.254	5.325	139.3	-7.2	NO		NO	bb
6	6	190722M1_9	Standard	150.000	5.75	17939.484	41544.137	5.398	141.2	-5.9	NO		NO	bb
7	7	190722M1_10	Standard	150.000	5.74	18666.406	42856.988	5.444	142.4	-5.1	NO		NO	bb
8	8	190722M1_11	Standard	150.000	5.75	18195.252	38711.184	5.875	153.7	2.4	NO		NO	bb
9	9	190722M1_12	Standard	150.000	5.75	17519.146	33419.641	6.553	171.4	14.2	NO		NO	bd
10	10	190722M1_13	Standard	150.000	5.75	16901.072	28382.182	7.444	194.7	29.8	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.604264
RRF SD: 0.0395048, Relative SD: 6.53767
Response type: Internal Std (Ref 79), 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	190722M1_4	Standard	12.500	6.04	24533.617	43120.508	7.112	11.8	-5.8	NO		NO	bb
2	2	190722M1_5	Standard	12.500	6.04	25057.908	43671.777	7.172	11.9	-5.0	NO		NO	bb
3	3	190722M1_6	Standard	12.500	6.04	24546.381	42805.195	7.168	11.9	-5.1	NO		NO	bb
4	4	190722M1_7	Standard	12.500	6.04	25520.283	42829.859	7.448	12.3	-1.4	NO		NO	bb
5	5	190722M1_8	Standard	12.500	6.04	27030.195	44973.254	7.513	12.4	-0.5	NO		NO	bb
6	6	190722M1_9	Standard	12.500	6.05	24462.900	41544.137	7.361	12.2	-2.6	NO		NO	bb
7	7	190722M1_10	Standard	12.500	6.04	25008.195	42856.988	7.294	12.1	-3.4	NO		NO	bb
8	8	190722M1_11	Standard	12.500	6.05	23699.754	38711.184	7.653	12.7	1.3	NO		NO	bb
9	9	190722M1_12	Standard	12.500	6.04	21808.348	33419.641	8.157	13.5	8.0	NO		NO	bb
10	10	190722M1_13	Standard	12.500	6.04	19652.904	28382.182	8.655	14.3	14.6	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.0444529
RRF SD: 0.00205939, Relative SD: 4.63274
Response type: Internal Std (Ref 79), 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 190722M1_4	Standard	150.000	6.16	21304.605	43120.508	6.176	138.9	-7.4	NO		NO	bb
2	2 190722M1_5	Standard	150.000	6.18	23668.131	43671.777	6.774	152.4	1.6	NO		NO	bb
3	3 190722M1_6	Standard	150.000	6.17	21497.307	42805.195	6.278	141.2	-5.9	NO		NO	bb
4	4 190722M1_7	Standard	150.000	6.16	23583.982	42829.859	6.883	154.8	3.2	NO		NO	bb
5	5 190722M1_8	Standard	150.000	6.17	23549.482	44973.254	6.545	147.2	-1.8	NO		NO	bb
6	6 190722M1_9	Standard	150.000	6.17	22318.830	41544.137	6.715	151.1	0.7	NO		NO	bb
7	7 190722M1_10	Standard	150.000	6.16	22303.699	42856.988	6.505	146.3	-2.4	NO		NO	bb
8	8 190722M1_11	Standard	150.000	6.17	20623.604	38711.184	6.659	149.8	-0.1	NO		NO	bb
9	9 190722M1_12	Standard	150.000	6.16	18540.406	33419.641	6.935	156.0	4.0	NO		NO	bb
10	10 190722M1_13	Standard	150.000	6.17	16366.620	28382.182	7.208	162.2	8.1	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.787613
RRF SD: 0.0879779, Relative SD: 11.1702
Response type: Internal Std (Ref 79), 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 190722M1_4	Standard	5.000	6.38	11797.870	43120.508	3.420	4.3	-13.2	NO		NO	bb
2	2 190722M1_5	Standard	5.000	6.40	13134.137	43671.777	3.759	4.8	-4.5	NO		NO	bb
3	3 190722M1_6	Standard	5.000	6.38	12505.977	42805.195	3.652	4.6	-7.3	NO		NO	bb
4	4 190722M1_7	Standard	5.000	6.38	13630.720	42829.859	3.978	5.1	1.0	NO		NO	bb
5	5 190722M1_8	Standard	5.000	6.38	14086.746	44973.254	3.915	5.0	-0.6	NO		NO	bb
6	6 190722M1_9	Standard	5.000	6.38	11944.516	41544.137	3.594	4.6	-8.7	NO		NO	bb
7	7 190722M1_10	Standard	5.000	6.38	13095.914	42856.988	3.820	4.8	-3.0	NO		NO	bb
8	8 190722M1_11	Standard	5.000	6.38	12310.342	38711.184	3.975	5.0	0.9	NO		NO	bb
9	9 190722M1_12	Standard	5.000	6.38	11431.851	33419.641	4.276	5.4	8.6	NO		NO	bb
10	10 190722M1_13	Standard	5.000	6.38	11333.142	28382.182	4.991	6.3	26.7	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.0312988
RRF SD: 0.00442916, Relative SD: 14.1512
Response type: Internal Std (Ref 79), 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 190722M1_4	Standard	150.000	6.34	14114.705	43120.508	4.092	130.7	-12.8	NO		NO	bb
2	2 190722M1_5	Standard	150.000	6.36	15183.258	43671.777	4.346	138.9	-7.4	NO		NO	bb
3	3 190722M1_6	Standard	150.000	6.34	14793.784	42805.195	4.320	138.0	-8.0	NO		NO	bb
4	4 190722M1_7	Standard	150.000	6.34	15722.974	42829.859	4.589	146.6	-2.3	NO		NO	bb
5	5 190722M1_8	Standard	150.000	6.34	15649.076	44973.254	4.350	139.0	-7.4	NO		NO	bb
6	6 190722M1_9	Standard	150.000	6.34	14921.587	41544.137	4.490	143.4	-4.4	NO		NO	bb
7	7 190722M1_10	Standard	150.000	6.33	14648.056	42856.988	4.272	136.5	-9.0	NO		NO	bb
8	8 190722M1_11	Standard	150.000	6.34	14981.688	38711.184	4.838	154.6	3.0	NO		NO	bb
9	9 190722M1_12	Standard	150.000	6.34	14359.571	33419.641	5.371	171.6	14.4	NO		NO	bb
10	10 190722M1_13	Standard	150.000	6.34	14262.917	28382.182	6.282	200.7	33.8	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.0328581
RRF SD: 0.0041816, Relative SD: 12.7262
Response type: Internal Std (Ref 79), 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 190722M1_4	Standard	150.000	6.49	15632.325	43120.508	4.532	137.9	-8.1	NO		NO	bb
2	2 190722M1_5	Standard	150.000	6.50	15954.395	43671.777	4.567	139.0	-7.3	NO		NO	bb
3	3 190722M1_6	Standard	150.000	6.49	15644.520	42805.195	4.569	139.0	-7.3	NO		NO	bb
4	4 190722M1_7	Standard	150.000	6.49	16621.113	42829.859	4.851	147.6	-1.6	NO		NO	bb
5	5 190722M1_8	Standard	150.000	6.49	16588.672	44973.254	4.611	140.3	-6.5	NO		NO	bb
6	6 190722M1_9	Standard	150.000	6.49	15590.012	41544.137	4.691	142.8	-4.8	NO		NO	bb
7	7 190722M1_10	Standard	150.000	6.49	15657.459	42856.988	4.567	139.0	-7.3	NO		NO	bb
8	8 190722M1_11	Standard	150.000	6.49	15222.166	38711.184	4.915	149.6	-0.3	NO		NO	bb
9	9 190722M1_12	Standard	150.000	6.49	14605.532	33419.641	5.463	166.3	10.8	NO		NO	bb
10	10 190722M1_13	Standard	150.000	6.49	14811.076	28382.182	6.523	198.5	32.3	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

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Compound name: 13C4-PFBA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 72), 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	190722M1_4	Standard	12.500	1.15	10850.134	10850.134	12.500	12.5	0.0	NO		NO	MM
2	2	190722M1_5	Standard	12.500	1.15	10409.271	10409.271	12.500	12.5	0.0	NO		NO	bb
3	3	190722M1_6	Standard	12.500	1.16	10719.811	10719.811	12.500	12.5	0.0	NO		NO	bb
4	4	190722M1_7	Standard	12.500	1.16	10464.392	10464.392	12.500	12.5	0.0	NO		NO	bb
5	5	190722M1_8	Standard	12.500	1.16	11249.724	11249.724	12.500	12.5	0.0	NO		NO	bb
6	6	190722M1_9	Standard	12.500	1.16	10605.924	10605.924	12.500	12.5	0.0	NO		NO	bb
7	7	190722M1_10	Standard	12.500	1.16	10757.842	10757.842	12.500	12.5	0.0	NO		NO	MM
8	8	190722M1_11	Standard	12.500	1.16	10641.384	10641.384	12.500	12.5	0.0	NO		NO	bb
9	9	190722M1_12	Standard	12.500	1.16	10847.547	10847.547	12.500	12.5	0.0	NO		NO	bb
10	10	190722M1_13	Standard	12.500	1.16	10389.314	10389.314	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 73), 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	190722M1_4	Standard	12.500	2.96	33051.543	33051.543	12.500	12.5	0.0	NO		NO	bb
2	2	190722M1_5	Standard	12.500	2.96	33461.480	33461.480	12.500	12.5	0.0	NO		NO	bb
3	3	190722M1_6	Standard	12.500	2.96	30822.049	30822.049	12.500	12.5	0.0	NO		NO	bb
4	4	190722M1_7	Standard	12.500	2.96	32740.182	32740.182	12.500	12.5	0.0	NO		NO	bb
5	5	190722M1_8	Standard	12.500	2.96	34149.691	34149.691	12.500	12.5	0.0	NO		NO	bb
6	6	190722M1_9	Standard	12.500	2.96	31217.115	31217.115	12.500	12.5	0.0	NO		NO	bb
7	7	190722M1_10	Standard	12.500	2.96	31695.689	31695.689	12.500	12.5	0.0	NO		NO	bb
8	8	190722M1_11	Standard	12.500	2.96	30821.445	30821.445	12.500	12.5	0.0	NO		NO	bb
9	9	190722M1_12	Standard	12.500	2.97	26753.777	26753.777	12.500	12.5	0.0	NO		NO	bb
10	10	190722M1_13	Standard	12.500	2.96	24348.354	24348.354	12.500	12.5	0.0	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

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Compound name: 18O2-PFHxS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 74), 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 190722M1_4	Standard	12.500	3.74	2116.563	2116.563	12.500	12.5	0.0	NO		NO	bb
2	2 190722M1_5	Standard	12.500	3.74	2194.463	2194.463	12.500	12.5	0.0	NO		NO	bb
3	3 190722M1_6	Standard	12.500	3.74	2131.238	2131.238	12.500	12.5	0.0	NO		NO	bb
4	4 190722M1_7	Standard	12.500	3.74	2123.718	2123.718	12.500	12.5	0.0	NO		NO	bb
5	5 190722M1_8	Standard	12.500	3.75	2183.460	2183.460	12.500	12.5	0.0	NO		NO	bb
6	6 190722M1_9	Standard	12.500	3.75	2036.903	2036.903	12.500	12.5	0.0	NO		NO	bb
7	7 190722M1_10	Standard	12.500	3.74	2117.294	2117.294	12.500	12.5	0.0	NO		NO	bb
8	8 190722M1_11	Standard	12.500	3.75	2008.983	2008.983	12.500	12.5	0.0	NO		NO	bb
9	9 190722M1_12	Standard	12.500	3.74	1777.154	1777.154	12.500	12.5	0.0	NO		NO	bb
10	10 190722M1_13	Standard	12.500	3.75	1491.091	1491.091	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 75), 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 190722M1_4	Standard	12.500	4.11	40893.055	40893.055	12.500	12.5	0.0	NO		NO	bb
2	2 190722M1_5	Standard	12.500	4.11	40528.070	40528.070	12.500	12.5	0.0	NO		NO	bb
3	3 190722M1_6	Standard	12.500	4.12	38705.680	38705.680	12.500	12.5	0.0	NO		NO	bb
4	4 190722M1_7	Standard	12.500	4.11	40013.352	40013.352	12.500	12.5	0.0	NO		NO	bb
5	5 190722M1_8	Standard	12.500	4.12	41990.711	41990.711	12.500	12.5	0.0	NO		NO	bb
6	6 190722M1_9	Standard	12.500	4.12	39024.754	39024.754	12.500	12.5	0.0	NO		NO	bb
7	7 190722M1_10	Standard	12.500	4.12	38312.750	38312.750	12.500	12.5	0.0	NO		NO	bb
8	8 190722M1_11	Standard	12.500	4.12	37224.391	37224.391	12.500	12.5	0.0	NO		NO	bb
9	9 190722M1_12	Standard	12.500	4.12	30588.471	30588.471	12.500	12.5	0.0	NO		NO	bb
10	10 190722M1_13	Standard	12.500	4.12	25360.734	25360.734	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 76), 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 190722M1_4	Standard	12.500	4.56	28154.537	28154.537	12.500	12.5	0.0	NO		NO	bb
2	2 190722M1_5	Standard	12.500	4.56	28146.664	28146.664	12.500	12.5	0.0	NO		NO	bb
3	3 190722M1_6	Standard	12.500	4.56	27420.799	27420.799	12.500	12.5	0.0	NO		NO	bb
4	4 190722M1_7	Standard	12.500	4.56	28130.104	28130.104	12.500	12.5	0.0	NO		NO	bb
5	5 190722M1_8	Standard	12.500	4.57	29337.896	29337.896	12.500	12.5	0.0	NO		NO	bb
6	6 190722M1_9	Standard	12.500	4.56	26887.838	26887.838	12.500	12.5	0.0	NO		NO	bb
7	7 190722M1_10	Standard	12.500	4.56	26248.543	26248.543	12.500	12.5	0.0	NO		NO	bb
8	8 190722M1_11	Standard	12.500	4.56	25464.787	25464.787	12.500	12.5	0.0	NO		NO	bb
9	9 190722M1_12	Standard	12.500	4.56	22748.998	22748.998	12.500	12.5	0.0	NO		NO	bb
10	10 190722M1_13	Standard	12.500	4.56	19558.701	19558.701	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 77), 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 190722M1_4	Standard	12.500	4.65	4991.087	4991.087	12.500	12.5	0.0	NO		NO	bb
2	2 190722M1_5	Standard	12.500	4.65	5000.113	5000.113	12.500	12.5	0.0	NO		NO	bb
3	3 190722M1_6	Standard	12.500	4.65	4901.221	4901.221	12.500	12.5	0.0	NO		NO	bb
4	4 190722M1_7	Standard	12.500	4.65	5073.991	5073.991	12.500	12.5	0.0	NO		NO	bb
5	5 190722M1_8	Standard	12.500	4.66	5015.092	5015.092	12.500	12.5	0.0	NO		NO	bb
6	6 190722M1_9	Standard	12.500	4.65	4731.726	4731.726	12.500	12.5	0.0	NO		NO	bb
7	7 190722M1_10	Standard	12.500	4.65	4823.493	4823.493	12.500	12.5	0.0	NO		NO	bb
8	8 190722M1_11	Standard	12.500	4.65	4686.748	4686.748	12.500	12.5	0.0	NO		NO	bb
9	9 190722M1_12	Standard	12.500	4.65	4103.574	4103.574	12.500	12.5	0.0	NO		NO	bb
10	10 190722M1_13	Standard	12.500	4.65	3692.703	3692.703	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 78), 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	190722M1_4	Standard	12.500	4.94	36615.000	36615.000	12.500	12.5	0.0	NO		NO	bb
2	2	190722M1_5	Standard	12.500	4.95	35343.969	35343.969	12.500	12.5	0.0	NO		NO	bb
3	3	190722M1_6	Standard	12.500	4.95	33592.953	33592.953	12.500	12.5	0.0	NO		NO	bb
4	4	190722M1_7	Standard	12.500	4.95	35678.215	35678.215	12.500	12.5	0.0	NO		NO	bb
5	5	190722M1_8	Standard	12.500	4.95	37235.199	37235.199	12.500	12.5	0.0	NO		NO	bb
6	6	190722M1_9	Standard	12.500	4.95	34106.059	34106.059	12.500	12.5	0.0	NO		NO	bb
7	7	190722M1_10	Standard	12.500	4.94	34011.199	34011.199	12.500	12.5	0.0	NO		NO	bb
8	8	190722M1_11	Standard	12.500	4.95	33321.129	33321.129	12.500	12.5	0.0	NO		NO	bb
9	9	190722M1_12	Standard	12.500	4.94	28304.783	28304.783	12.500	12.5	0.0	NO		NO	bb
10	10	190722M1_13	Standard	12.500	4.95	24376.801	24376.801	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 79), 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	190722M1_4	Standard	12.500	5.27	43120.508	43120.508	12.500	12.5	0.0	NO		NO	bb
2	2	190722M1_5	Standard	12.500	5.28	43671.777	43671.777	12.500	12.5	0.0	NO		NO	bb
3	3	190722M1_6	Standard	12.500	5.28	42805.195	42805.195	12.500	12.5	0.0	NO		NO	bb
4	4	190722M1_7	Standard	12.500	5.28	42829.859	42829.859	12.500	12.5	0.0	NO		NO	bb
5	5	190722M1_8	Standard	12.500	5.28	44973.254	44973.254	12.500	12.5	0.0	NO		NO	bb
6	6	190722M1_9	Standard	12.500	5.28	41544.137	41544.137	12.500	12.5	0.0	NO		NO	bb
7	7	190722M1_10	Standard	12.500	5.28	42856.988	42856.988	12.500	12.5	0.0	NO		NO	bb
8	8	190722M1_11	Standard	12.500	5.28	38711.184	38711.184	12.500	12.5	0.0	NO		NO	bb
9	9	190722M1_12	Standard	12.500	5.27	33419.641	33419.641	12.500	12.5	0.0	NO		NO	bb
10	10	190722M1_13	Standard	12.500	5.28	28382.182	28382.182	12.500	12.5	0.0	NO		NO	bb

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Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072219.mdb 22 Jul 2019 13:12:22
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Name: 190722M1_4, Date: 22-Jul-2019, Time: 10:26:37, ID: ST190722M1-1 PFC CS-2 19G1101, Description: PFC CS-2 19G1101

	#	Name	IS#	CoD	CoD Flag	%RSD
1	1	PFBA	47	0.9997	NO	
2	2	PFPrS	49	0.9992	NO	
3	3	3:3 FTCA	48	0.9993	NO	
4	4	PFPeA	48	0.9998	NO	
5	5	PFBS	49	0.9996	NO	
6	6	4:2 FTS	51	0.9999	NO	
7	7	PFHxA	52	0.9980	NO	
8	8	PFPeS	49	0.9990	NO	
9	9	HFPO-DA	50	0.9920	NO	
10	10	5:3 FTCA	53	1.0000	NO	
11	11	PFHpA	53	0.9993	NO	
12	12	ADONA	53	0.9972	NO	
13	13	L-PFHxS	54	0.9977	NO	
14	15	6:2 FTS	55	0.9990	NO	
15	16	L-PFOA	58	0.9992	NO	
16	18	PFecHS	58	0.9998	NO	
17	19	PFHpS	59	0.9990	NO	
18	20	7:3 FTCA	56	0.9999	NO	
19	21	PFNA	56	0.9996	NO	
20	22	PFOSA	57	0.9994	NO	
21	23	L-PFOS	59	0.9997	NO	
22	25	9Cl-PF30NS	59	0.9997	NO	
23	26	PFDA	60	0.9979	NO	
24	27	8:2 FTS	61	0.9980	NO	
25	28	PFNS	59	0.9988	NO	
26	29	L-MeFOSAA	62	0.9998	NO	

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Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072219.mdb 22 Jul 2019 13:12:22
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Name: 190722M1_4, Date: 22-Jul-2019, Time: 10:26:37, ID: ST190722M1-1 PFC CS-2 19G1101, Description: PFC CS-2 19G1101

	#	Name	IS#	CoD	CoD Flag	%RSD
1	31	L-EtFOSAA	64	0.9997	NO	
2	33	PFUdA	63	0.9990	NO	
3	34	PFDS	61	0.9987	NO	
4	35	11Cl-PF30UdS	65	0.9992	NO	
5	36	10:2 FTS	61	0.9985	NO	
6	37	PFDoA	65	0.9992	NO	
7	38	N-MeFOSA	66	0.9987	NO	
8	39	PFTrDA	65	0.9981	NO	
9	40	PFDoS	67	0.9993	NO	
10	41	PFTeDA	67	0.9983	NO	
11	42	N-EtFOSA	68	0.9993	NO	
12	43	PFHxDA	69	1.0000	NO	
13	44	PFODA	69	0.9953	NO	
14	45	N-MeFOSE	70	0.9996	NO	
15	46	N-EtFOSE	71	0.9992	NO	
16	47	13C3-PFBA	72		NO	2.421
17	48	13C3-PFPeA	73		NO	4.752
18	49	13C3-PFBS	74		NO	3.189
19	50	13C3-HFPO-DA	73		NO	10.828
20	51	13C2-4:2 FTS	74		NO	7.782
21	52	13C2-PFHxA	73		NO	3.496
22	53	13C4-PFHpA	73		NO	4.533
23	54	13C3-PFHxS	74		NO	3.792
24	55	13C2-6:2 FTS	77		NO	6.578
25	56	13C5-PFNA	76		NO	2.107
26	57	13C8-PFOSA	79		NO	4.779
27	58	13C2-PFOA	75		NO	2.001
28	59	13C8-PFOS	77		NO	3.544
29	60	13C2-PFDA	78		NO	3.953
30	61	13C2-8:2 FTS	77		NO	9.261
31	62	d3-N-MeFOSAA	79		NO	6.726
32	63	13C2-PFUdA	79		NO	2.397

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

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Name: 190722M1_4, Date: 22-Jul-2019, Time: 10:26:37, ID: ST190722M1-1 PFC CS-2 19G1101, Description: PFC CS-2 19G1101

	#	Name	IS#	CoD	CoD Flag	%RSD
33	64	d5-N-EtFOSAA	79		NO	3.272
34	65	13C2-PFDoA	78		NO	9.026
35	66	d3-N-MeFOSA	79		NO	12.658
36	67	13C2-PFTeDA	79		NO	6.538
37	68	d5-N-ETFOSA	79		NO	4.633
38	69	13C2-PFHxDA	79		NO	11.170
39	70	d7-N-MeFOSE	79		NO	14.151
40	71	d9-N-EtFOSE	79		NO	12.726
41	72	13C4-PFBA	72		NO	0.000
42	73	13C5-PFHxA	73		NO	0.000
43	74	18O2-PFHxS	74		NO	0.000
44	75	13C8-PFOA	75		NO	0.000
45	76	13C9-PFNA	76		NO	0.000
46	77	13C4-PFOS	77		NO	0.000
47	78	13C6-PFDA	78		NO	0.000
48	79	13C7-PFUdA	79		NO	0.000

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Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:33:08 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072219.mdb 22 Jul 2019 13:12:22
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Name: 190722M1_9, Date: 22-Jul-2019, Time: 11:19:37, ID: ST190722M1-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	PFBA	1.15	1.15			
2	PFPrS	1.52	1.52	2.586	2.586	NO
3	3:3 FTCA	2.01	1.99	2.003	2.003	NO
4	PFPeA	2.15	2.15			
5	PFBS	2.45	2.45	3.211	3.211	NO
6	4:2 FTS	2.88	2.88	1.727	1.727	NO
7	PFHxA	2.96	2.96	15.186	15.186	NO
8	PFPeS	3.17	3.17	1.506	1.506	NO
9	HFPO-DA	3.17	3.18	1.803	1.803	NO
10	5:3 FTCA	3.51	3.52	1.508	1.508	NO
11	PFHpA	3.59	3.59	9.441	9.441	NO
12	ADONA	3.70	3.70	3.494	3.494	NO
13	L-PFHxS	3.75	3.75	2.079	2.079	NO
14	6:2 FTS	4.06	4.06	2.153	2.153	NO
15	L-PFOA	4.12	4.12	3.932	3.932	NO
16	PFecHS	4.14	4.14	0.991	0.991	NO
17	PFHpS	4.24	4.24	1.767	1.767	NO
18	7:3 FTCA	4.55	4.55	1.941	1.941	NO
19	PFNA	4.56	4.57	4.083	4.083	NO
20	PFOSA	4.62	4.62	28.891	28.891	NO
21	L-PFOS	4.65	4.65	2.063	2.063	NO
22	9Cl-PF30NS	4.88	4.88	15.835	15.835	NO
23	PFDA	4.95	4.95	5.518	5.518	NO
24	8:2 FTS	4.91	4.91	1.148	1.148	NO
25	PFNS	5.02	5.02	1.631	1.631	NO
26	L-MeFOSAA	5.10	5.10	2.463	2.463	NO

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:33:39 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072219.mdb 22 Jul 2019 13:12:22
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Name: 190722M1_9, Date: 22-Jul-2019, Time: 11:19:37, ID: ST190722M1-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

	Name	Pred.RT	RT	Pred. Ratio	Ion Ratio	Ratio out?
1	L-EtFOSAA	5.26	5.27	1.423	1.423	NO
2	PFUdA	5.28	5.28	9.202	9.202	NO
3	PFDS	5.33	5.33	1.987	1.987	NO
4	11Cl-PF30UdS	5.50	5.50	4.568	4.568	NO
5	10:2 FTS	5.55	5.55	1.560	1.560	NO
6	PFDoA	5.57	5.57	8.441	8.441	NO
7	N-MeFOSA	5.72	5.72	1.572	1.572	NO
8	PFTrDA	5.82	5.82	18.945	18.945	NO
9	PFDoS	5.85	5.85	1.847	1.847	NO
10	PFTeDA	6.05	6.05	14.484	14.484	NO
11	N-EtFOSA	6.15	6.15	1.577	1.577	NO
12	PFHxDA	6.38	6.38	19.231	19.231	NO
13	PFODA	6.63	6.63			
14	N-MeFOSE	6.35	6.35			
15	N-EtFOSE	6.50	6.50			

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, July 22, 2019 13:37:06 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:37:12 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072219.mdb 22 Jul 2019 13:12:22
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Compound name: PFBA

	# Name	ID	Acq.Date	Acq.Time
1	1 190722M1_1	IPA	22-Jul-19	09:54:51
2	2 190722M1_2	IPA	22-Jul-19	10:05:26
3	3 190722M1_3	IPA	22-Jul-19	10:16:04
4	4 190722M1_4	ST190722M1-1 PFC CS-2 19G1101	22-Jul-19	10:26:37
5	5 190722M1_5	ST190722M1-2 PFC CS-1 19G1102	22-Jul-19	10:37:15
6	6 190722M1_6	ST190722M1-3 PFC CS0 19G1103	22-Jul-19	10:47:48
7	7 190722M1_7	ST190722M1-4 PFC CS1 19G1104	22-Jul-19	10:58:26
8	8 190722M1_8	ST190722M1-5 PFC CS2 19G1105	22-Jul-19	11:09:04
9	9 190722M1_9	ST190722M1-6 PFC CS3 19G1106	22-Jul-19	11:19:37
10	10 190722M1_10	ST190722M1-7 PFC CS4 19G1107	22-Jul-19	11:30:15
11	11 190722M1_11	ST190722M1-8 PFC CS5 19G1108	22-Jul-19	11:40:48
12	12 190722M1_12	ST190722M1-9 PFC CS6 19G1109	22-Jul-19	11:51:27
13	13 190722M1_13	ST190722M1-10 PFC CS7 19G1110	22-Jul-19	12:02:00
14	14 190722M1_14	IB	22-Jul-19	12:12:38
15	15 190722M1_15	ICV190722M1-1 PFC ICV 19F2422	22-Jul-19	12:23:11
16	16 190722M1_16	IPA	22-Jul-19	12:33:49

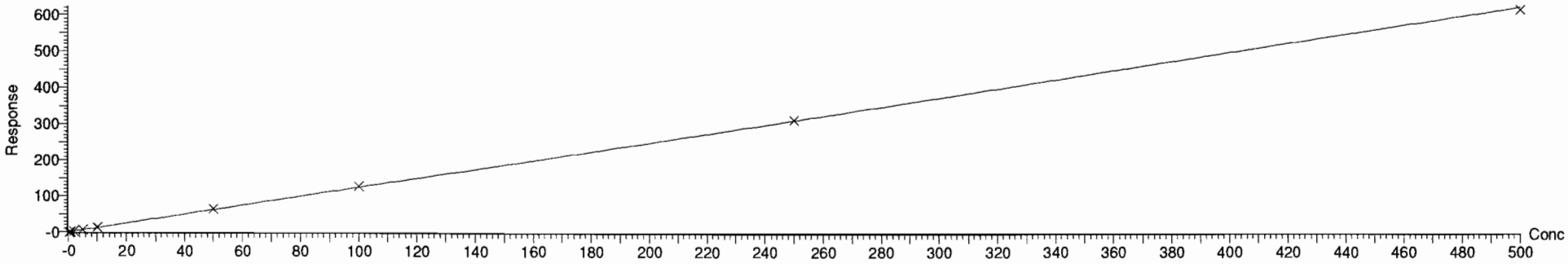
Vista Analytical Laboratory Q1

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

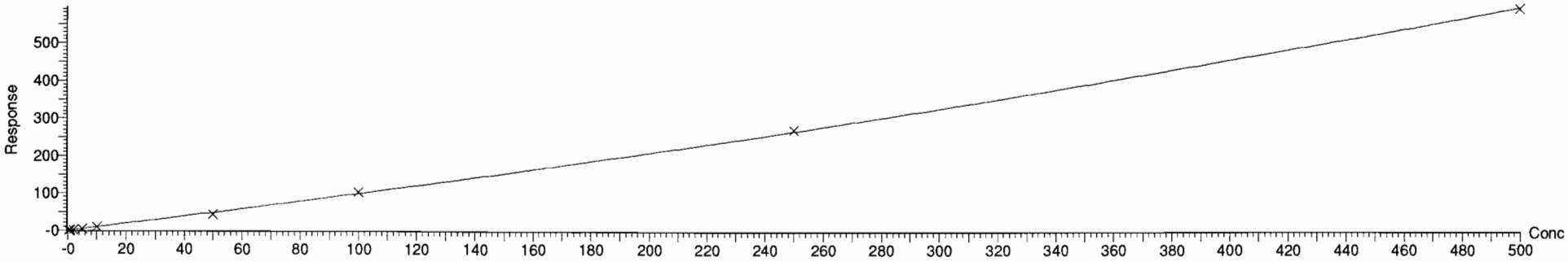
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:16 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072219.mdb 22 Jul 2019 13:12:22
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Compound name: PFBA
Correlation coefficient: r = 0.999866, r^2 = 0.999732
Calibration curve: 1.24607 * x + 0.00199996
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



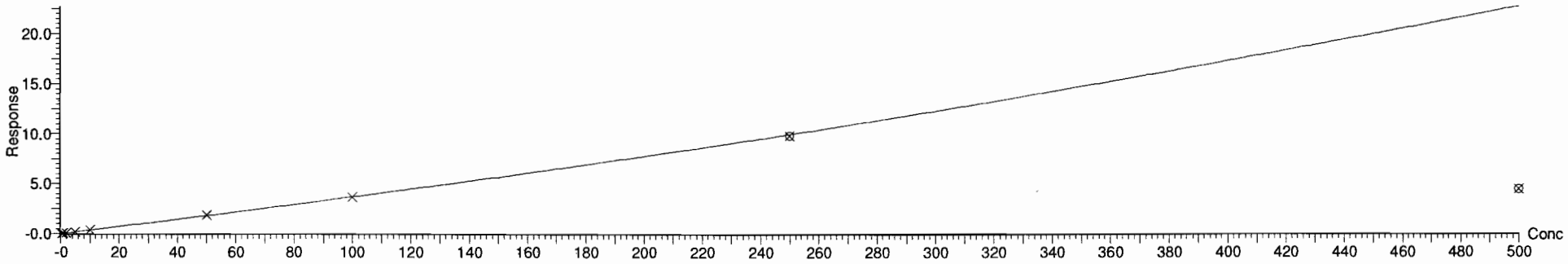
Compound name: PFPrS
Coefficient of Determination: R^2 = 0.999175
Calibration curve: 0.000485085 * x^2 + 0.946971 * x + -0.183868
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



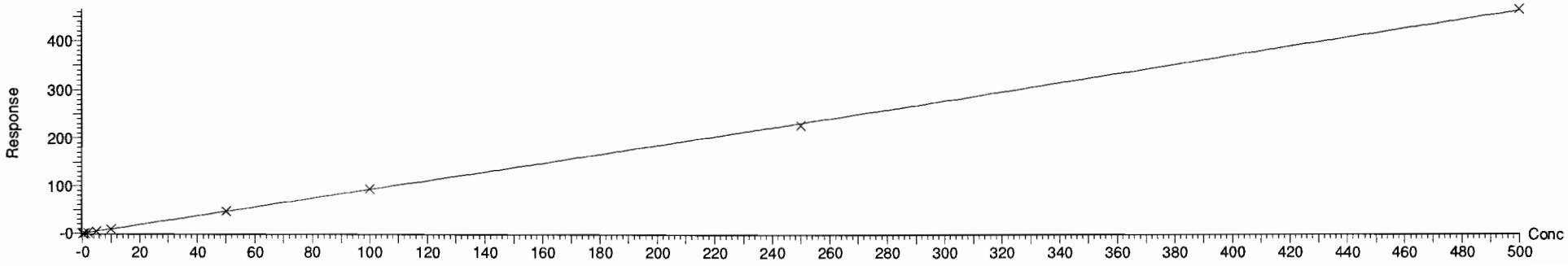
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:16 Pacific Daylight Time

Compound name: 3:3 FTCA
Coefficient of Determination: R^2 = 0.999283
Calibration curve: 2.19065e-005 * x^2 + 0.034454 * x + -0.00306612
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



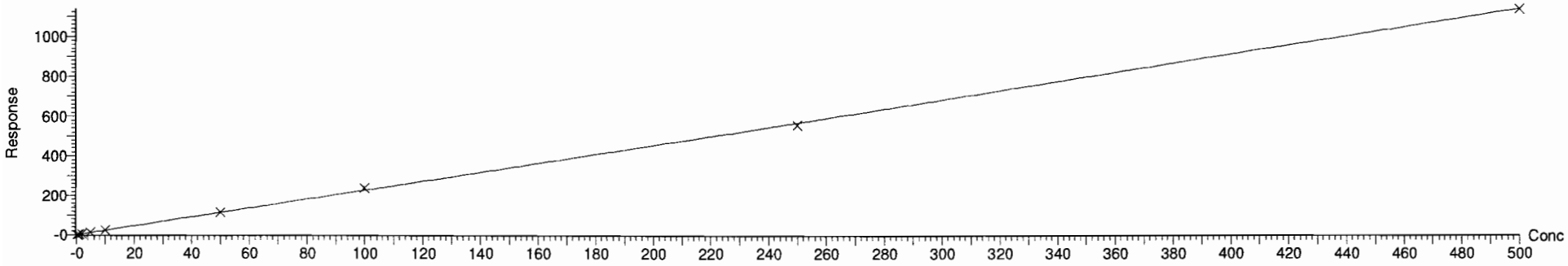
Compound name: PFPeA
Correlation coefficient: r = 0.999912, r^2 = 0.999823
Calibration curve: 0.926196 * x + -0.0150139
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



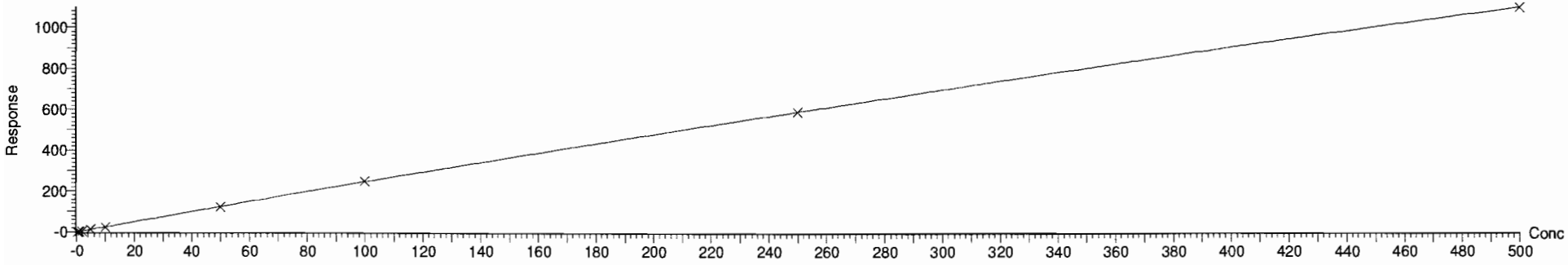
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:16 Pacific Daylight Time

Compound name: PFBS
Correlation coefficient: r = 0.999795, r^2 = 0.999590
Calibration curve: 2.27622 * x + -0.0754669
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



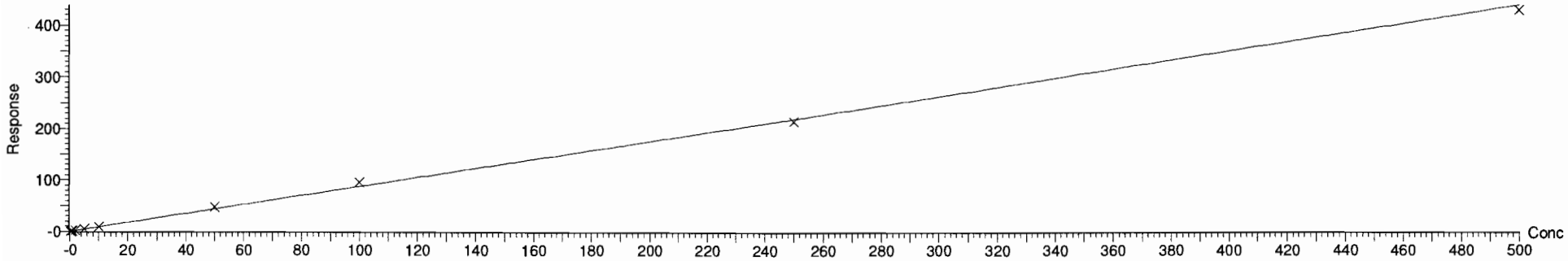
Compound name: 4:2 FTS
Coefficient of Determination: R^2 = 0.999884
Calibration curve: -0.000681037 * x^2 + 2.53383 * x + -0.100616
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



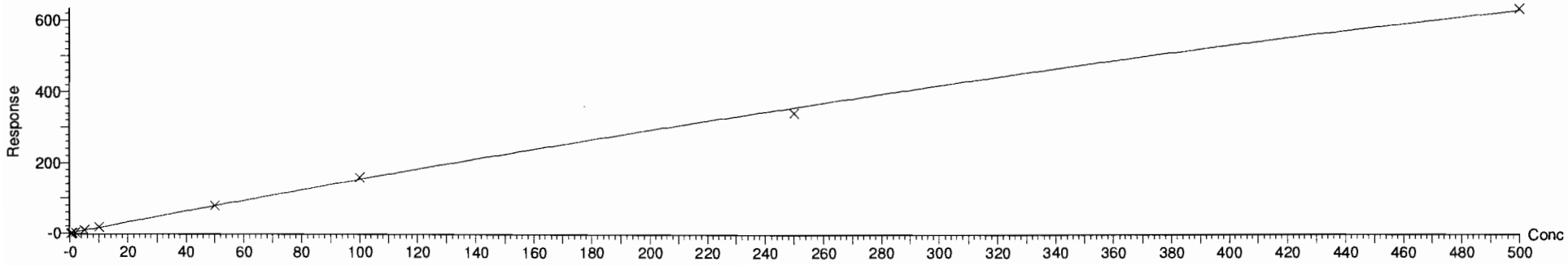
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:16 Pacific Daylight Time

Compound name: PFHxA
Correlation coefficient: r = 0.999007, r^2 = 0.998015
Calibration curve: 0.876467 * x + 0.0616289
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



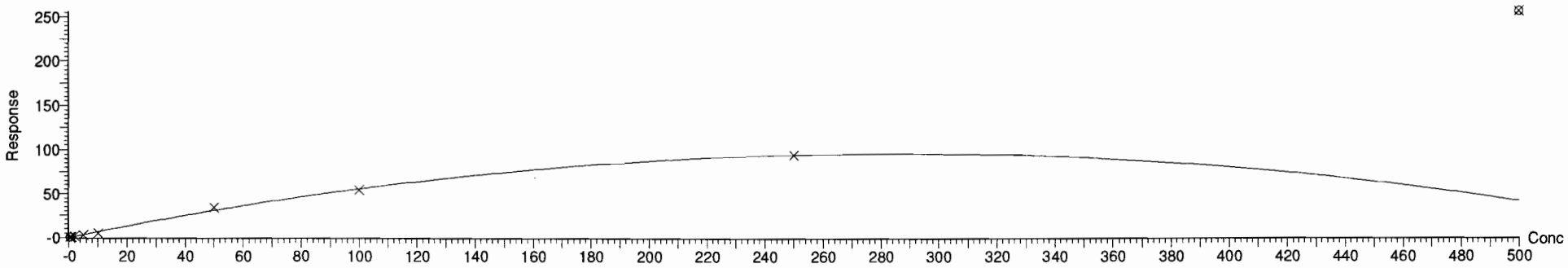
Compound name: PFPeS
Coefficient of Determination: R^2 = 0.999023
Calibration curve: -0.000714377 * x^2 + 1.61311 * x + -0.0331084
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



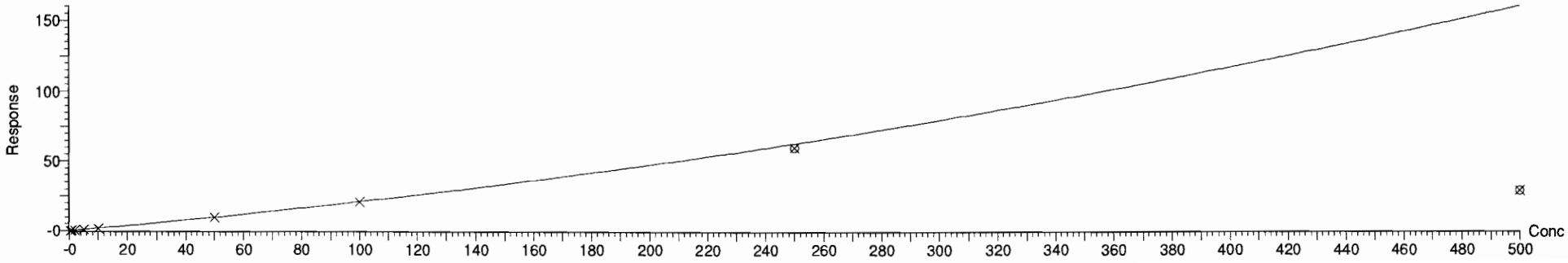
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:16 Pacific Daylight Time

Compound name: HFPO-DA
Coefficient of Determination: R^2 = 0.991970
Calibration curve: -0.00118486 * x^2 + 0.675421 * x + -0.203895
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



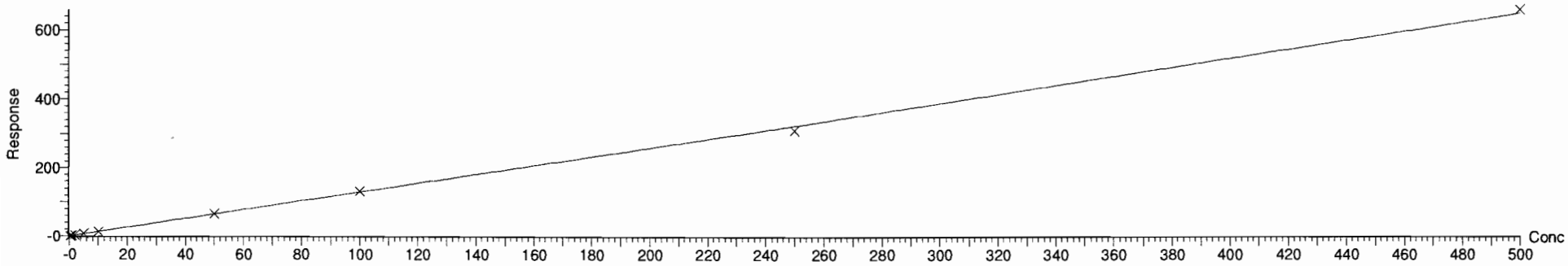
Compound name: 5:3 FTCA
Coefficient of Determination: R^2 = 0.999954
Calibration curve: 0.000276123 * x^2 + 0.182638 * x + -0.0100687
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



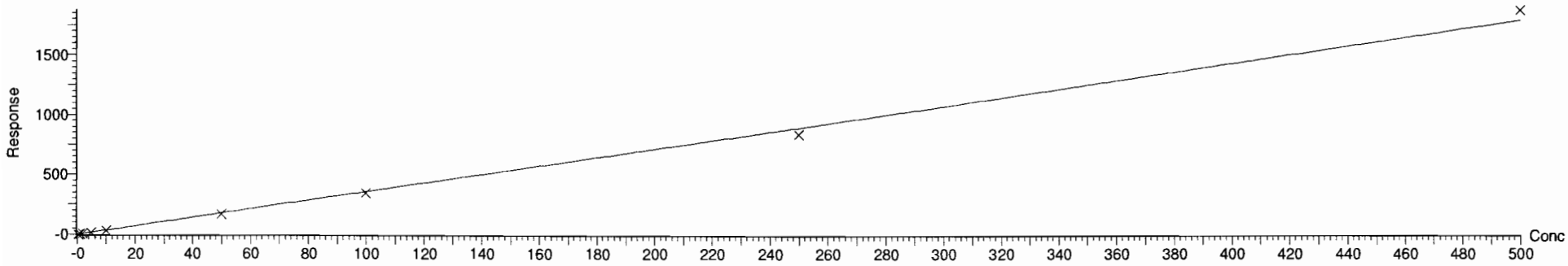
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:16 Pacific Daylight Time

Compound name: PFHpA
Correlation coefficient: r = 0.999631, r^2 = 0.999262
Calibration curve: 1.29462 * x + -0.00115138
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



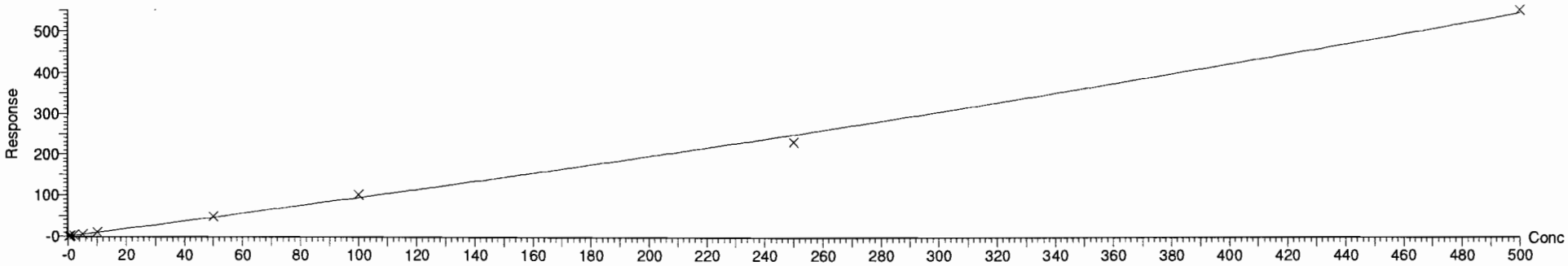
Compound name: ADONA
Correlation coefficient: r = 0.998584, r^2 = 0.997170
Calibration curve: 3.57793 * x + -0.298634
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



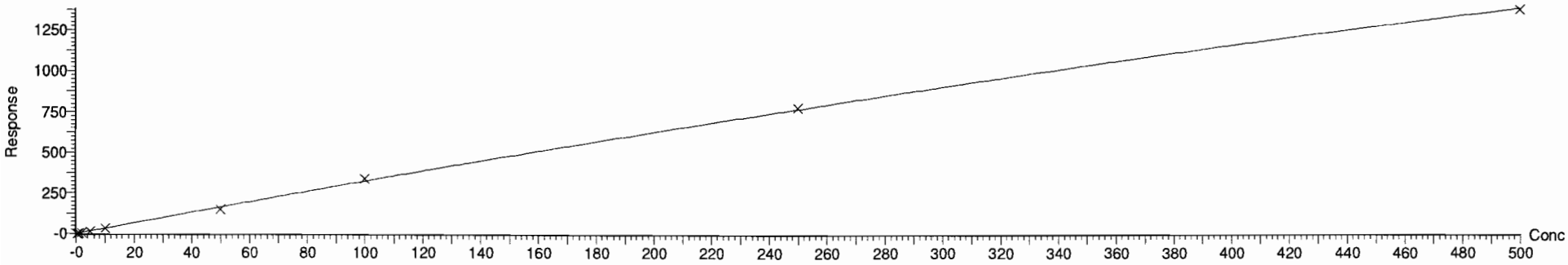
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:16 Pacific Daylight Time

Compound name: L-PFHxS
Coefficient of Determination: R^2 = 0.997745
Calibration curve: 0.000357574 * x^2 + 0.908432 * x + -0.00114983
Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



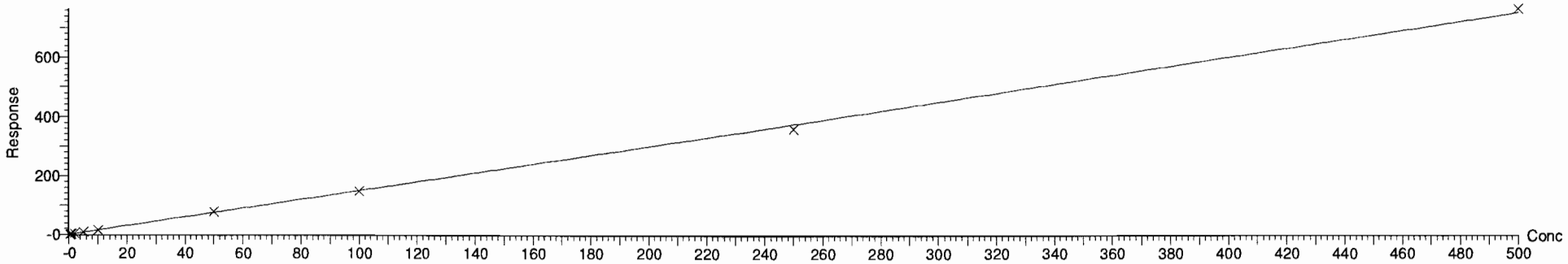
Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.998968
Calibration curve: -0.00125899 * x^2 + 3.39476 * x + -0.177829
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



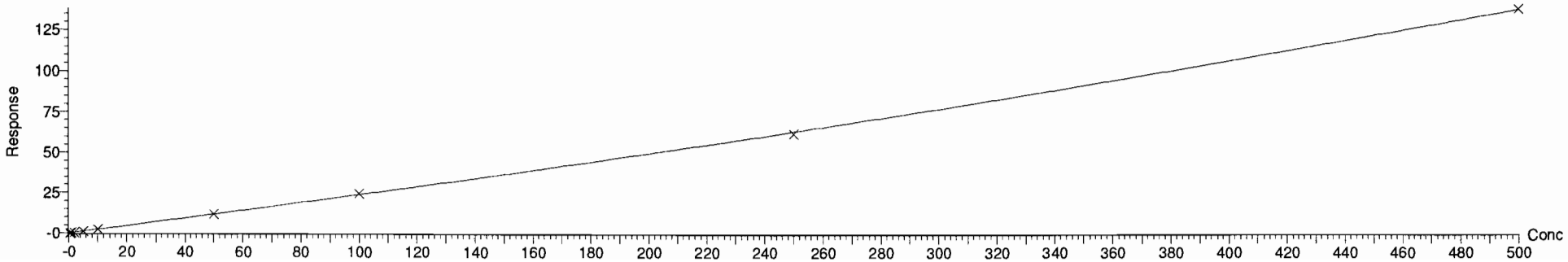
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:16 Pacific Daylight Time

Compound name: L-PFOA
Correlation coefficient: r = 0.999592, r^2 = 0.999184
Calibration curve: 1.50207 * x + 0.037722
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



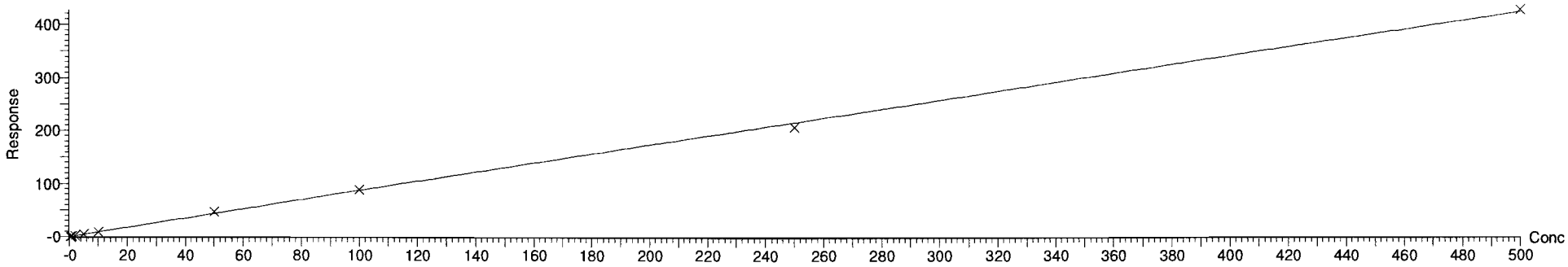
Compound name: PFecHS
Coefficient of Determination: R^2 = 0.999810
Calibration curve: 9.03021e-005 * x^2 + 0.229813 * x + -0.00373897
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



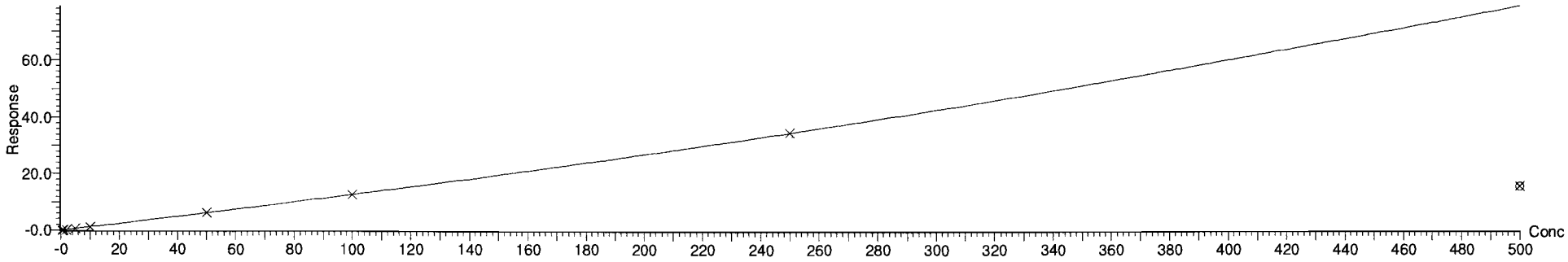
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:16 Pacific Daylight Time

Compound name: PFHpS
Coefficient of Determination: R^2 = 0.998959
Calibration curve: -7.37908e-005 * x^2 + 0.882414 * x + -0.00582201
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



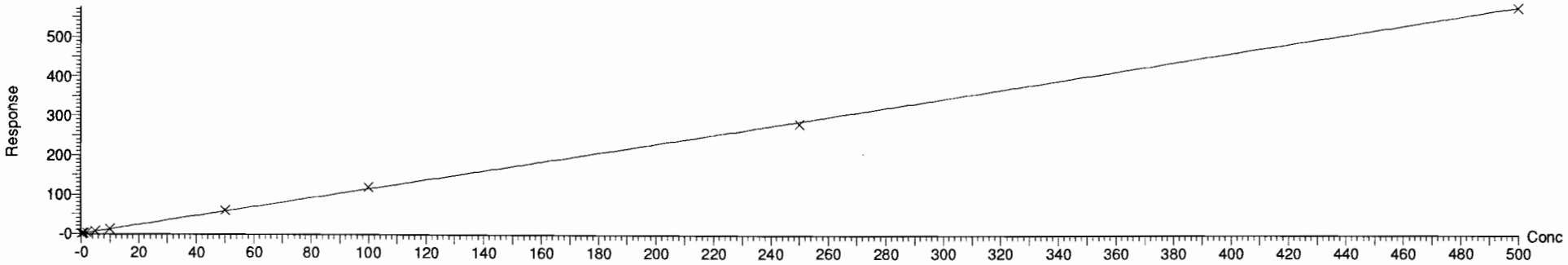
Compound name: 7:3 FTCA
Coefficient of Determination: R^2 = 0.999889
Calibration curve: 7.49055e-005 * x^2 + 0.120249 * x + -0.0213933
Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



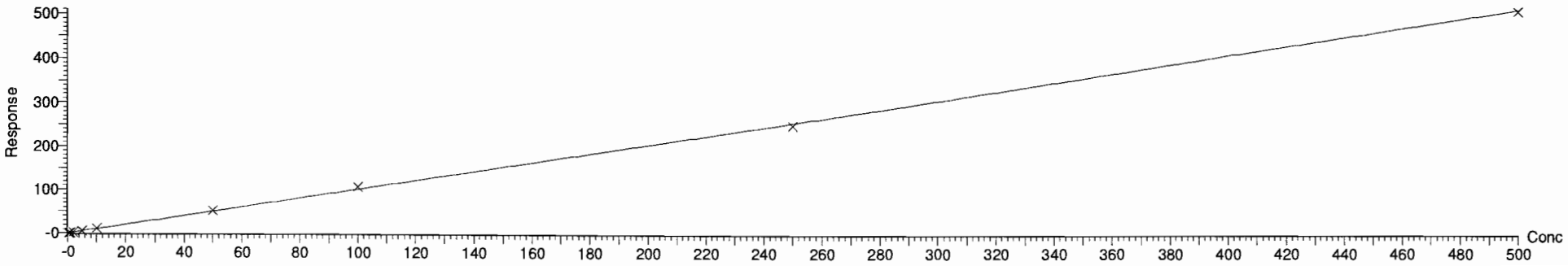
Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:16 Pacific Daylight Time

Compound name: PFNA
Correlation coefficient: r = 0.999807, r^2 = 0.999613
Calibration curve: 1.14988 * x + 0.0288971
Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



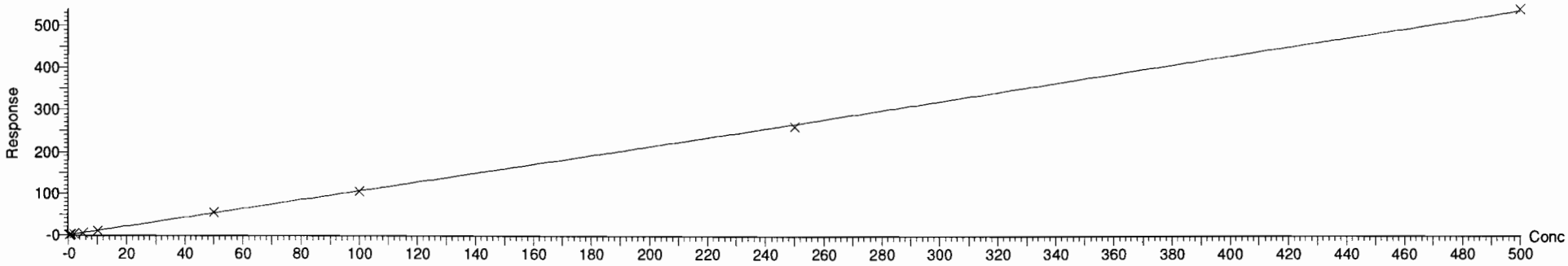
Compound name: PFOSA
Correlation coefficient: r = 0.999693, r^2 = 0.999385
Calibration curve: 1.02057 * x + -0.0126471
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



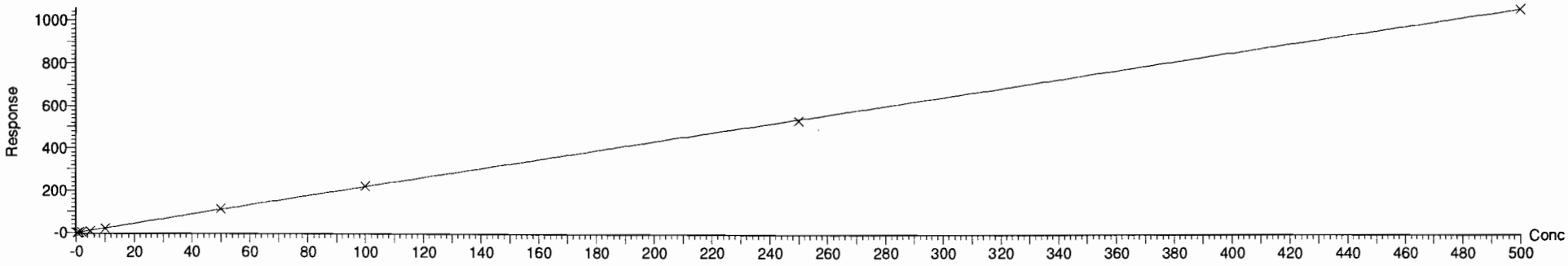
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:16 Pacific Daylight Time

Compound name: L-PFOS
Correlation coefficient: r = 0.999829, r^2 = 0.999659
Calibration curve: 1.069 * x + -0.0197497
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



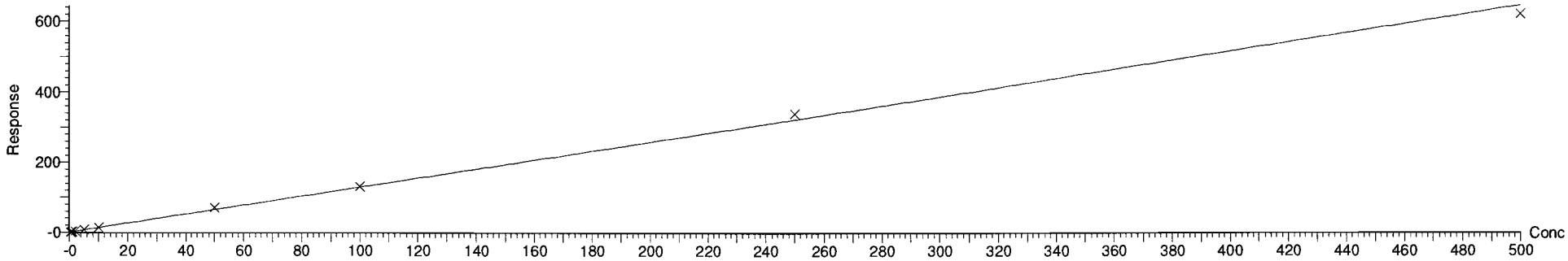
Compound name: 9Cl-PF30NS
Coefficient of Determination: R^2 = 0.999728
Calibration curve: -0.000193459 * x^2 + 2.20675 * x + -0.126796
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



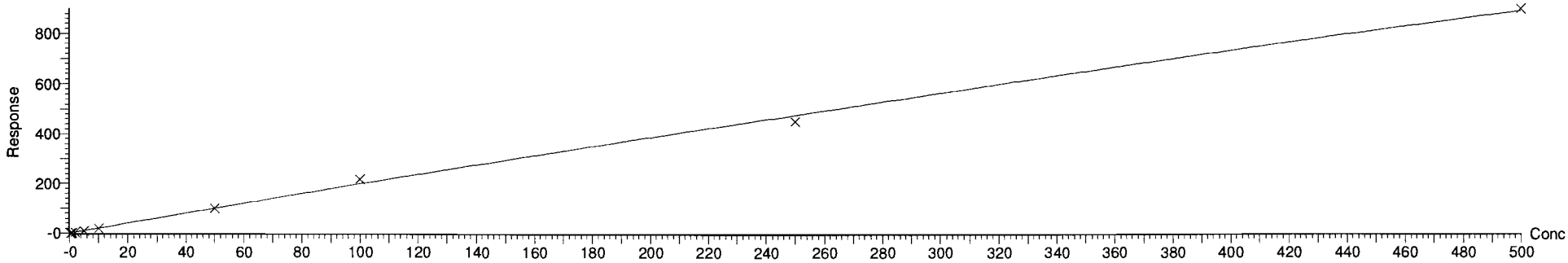
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:16 Pacific Daylight Time

Compound name: PFDA
Correlation coefficient: r = 0.998937, r^2 = 0.997875
Calibration curve: 1.28827 * x + 0.00394215
Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.998024
Calibration curve: -0.000533984 * x^2 + 2.04701 * x + -0.0915481
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

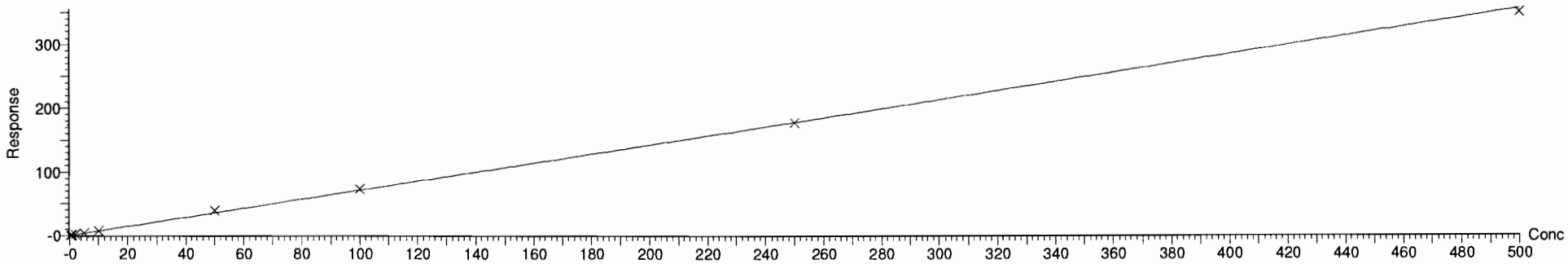


Vista Analytical Laboratory Q1

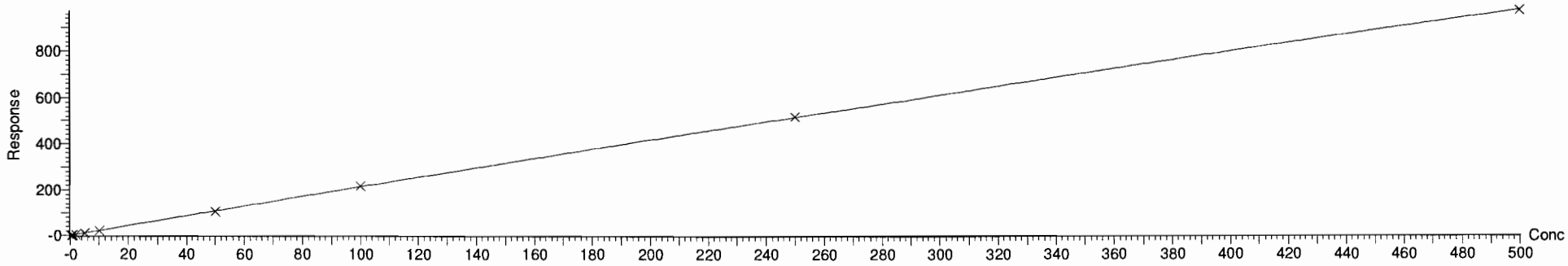
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:16 Pacific Daylight Time

Compound name: PFNS
Correlation coefficient: r = 0.999413, r^2 = 0.998826
Calibration curve: 0.710501 * x + 0.0578804
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: L-MeFOSAA
Coefficient of Determination: R^2 = 0.999838
Calibration curve: -0.00045633 * x^2 + 2.17563 * x + -0.152941
Response type: Internal Std (Ref 62), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



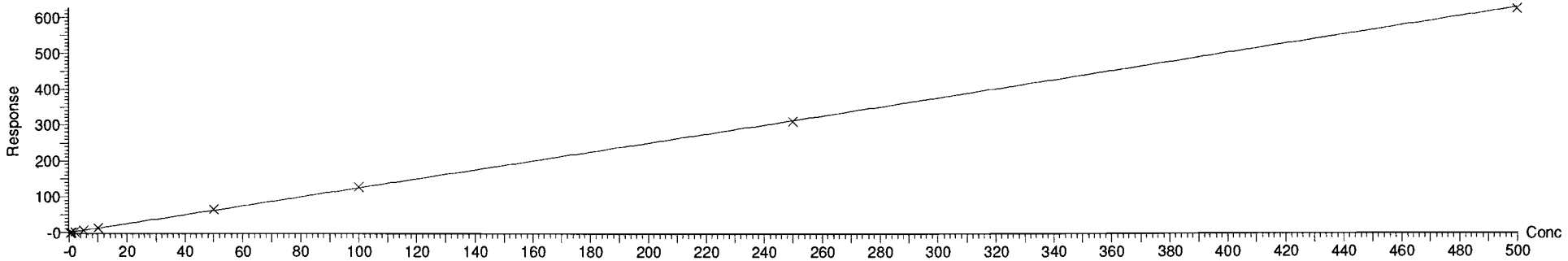
Vista Analytical Laboratory Q1

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

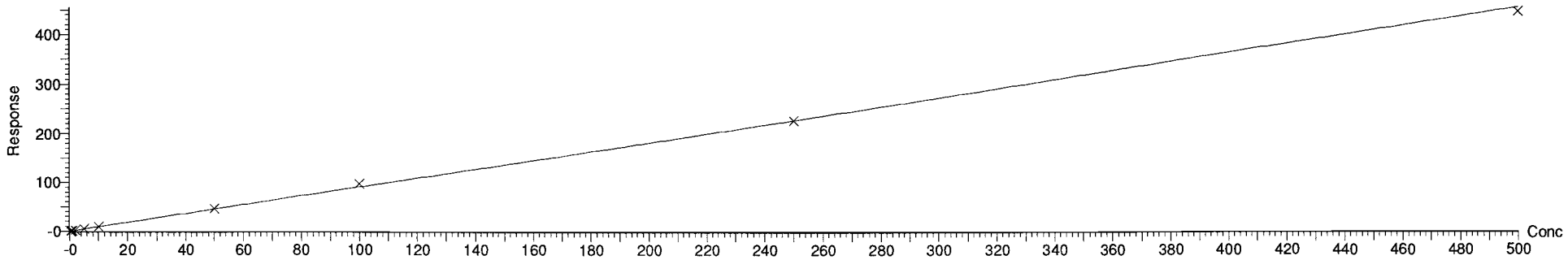
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:30 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_072219.mdb 22 Jul 2019 13:12:22
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Compound name: L-EtFOSAA
Correlation coefficient: r = 0.999854, r^2 = 0.999709
Calibration curve: 1.25319 * x + -0.0468414
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



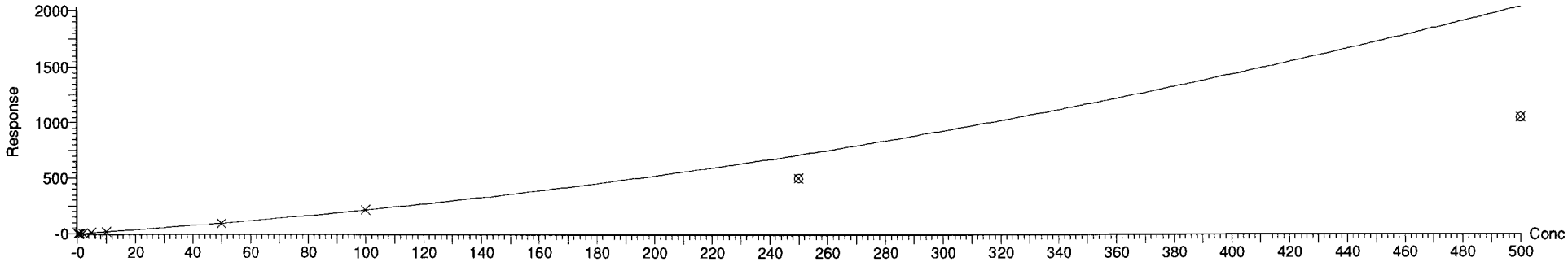
Compound name: PFUdA
Correlation coefficient: r = 0.999517, r^2 = 0.999034
Calibration curve: 0.909039 * x + 0.0548594
Response type: Internal Std (Ref 63), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



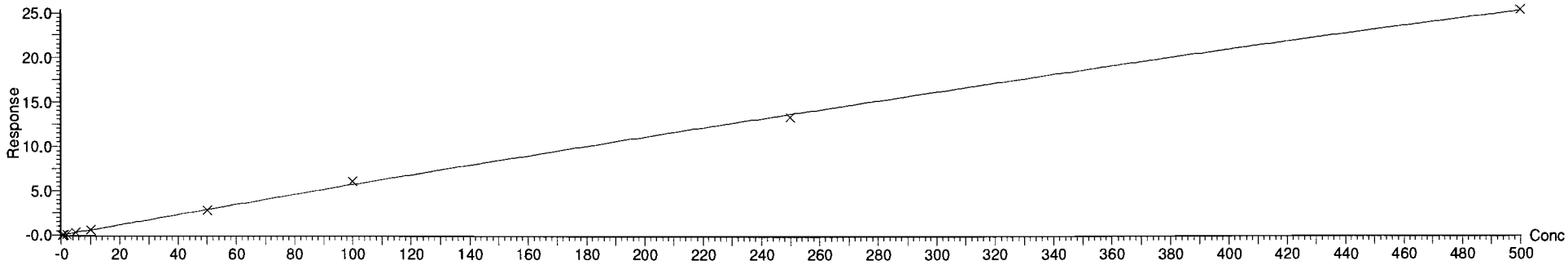
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:30 Pacific Daylight Time

Compound name: PFDS
Coefficient of Determination: R^2 = 0.998705
Calibration curve: 0.00481559 * x^2 + 1.65576 * x + -0.0379245
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



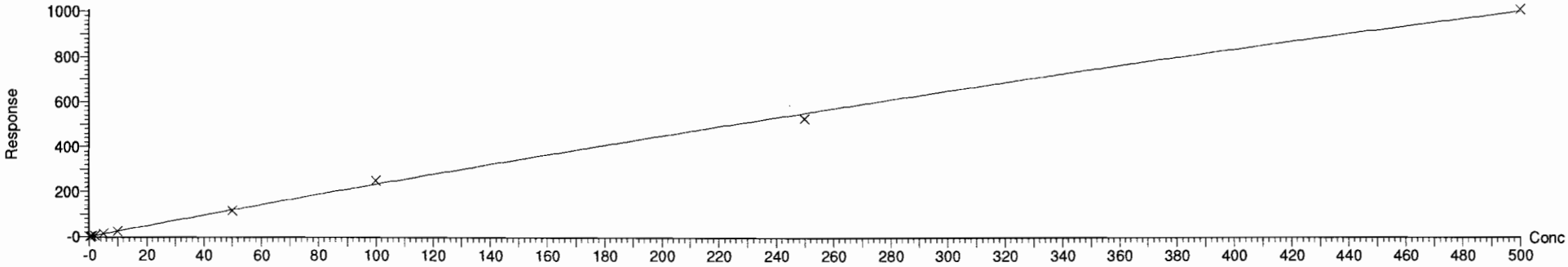
Compound name: 11Cl-PF30UdS
Coefficient of Determination: R^2 = 0.999161
Calibration curve: -1.71422e-005 * x^2 + 0.0590622 * x + -0.0125033
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



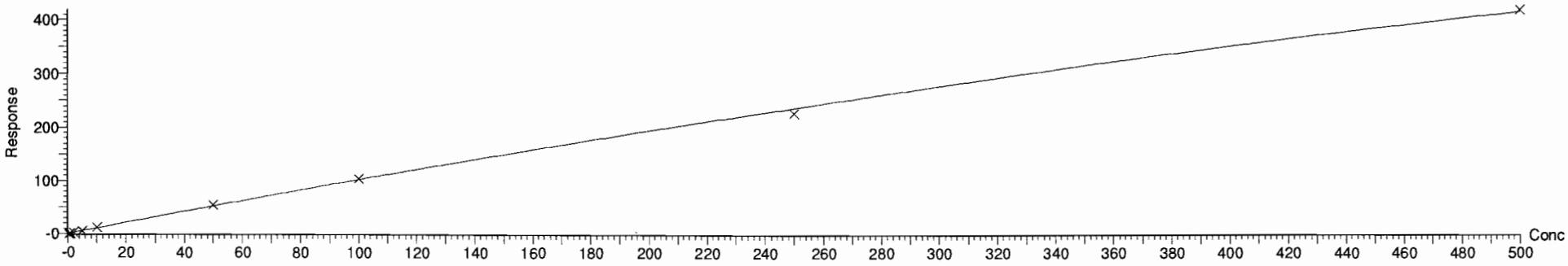
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:30 Pacific Daylight Time

Compound name: 10:2 FTS
Coefficient of Determination: R^2 = 0.998548
Calibration curve: -0.00085294 * x^2 + 2.4229 * x + -0.00234078
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999221
Calibration curve: -0.000477513 * x^2 + 1.06929 * x + 0.0599682
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

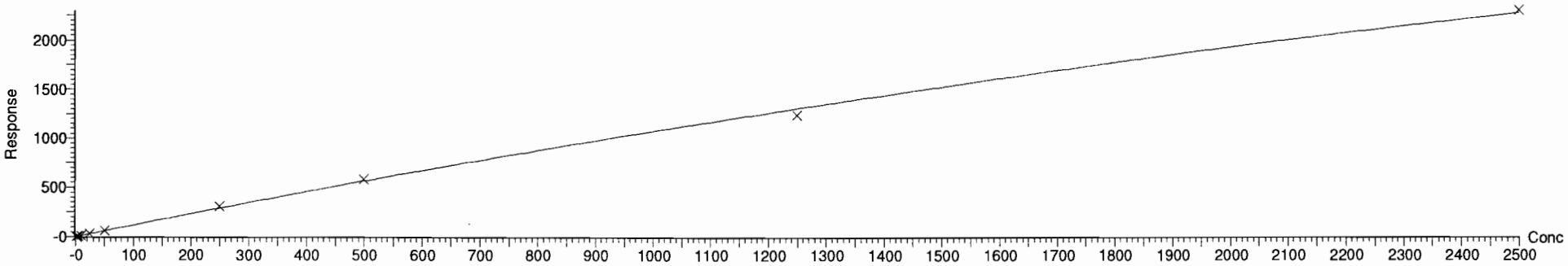


Vista Analytical Laboratory Q1

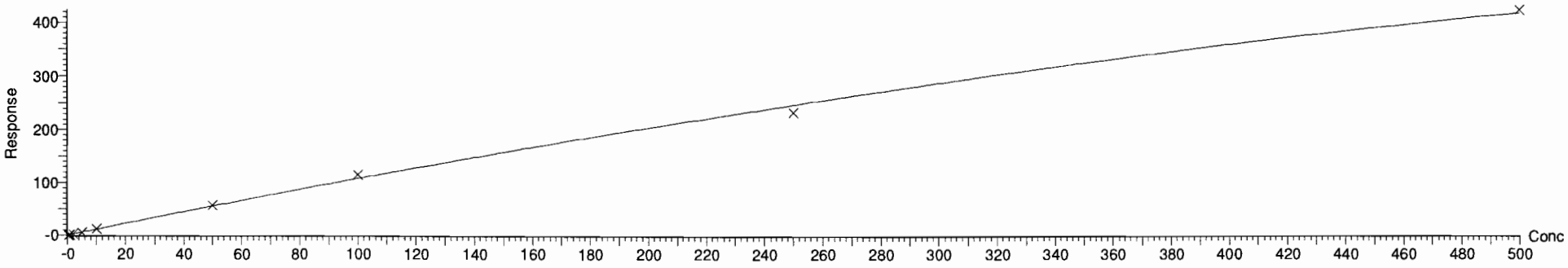
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:30 Pacific Daylight Time

Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.998673
Calibration curve: -0.000110043 * x^2 + 1.18315 * x + 0.0436442
Response type: Internal Std (Ref 66), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



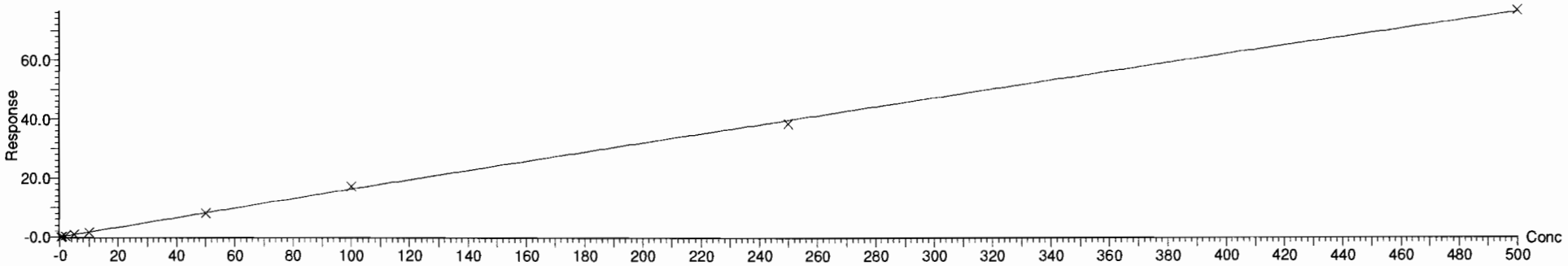
Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998149
Calibration curve: -0.000612217 * x^2 + 1.14249 * x + 0.0539235
Response type: Internal Std (Ref 65), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



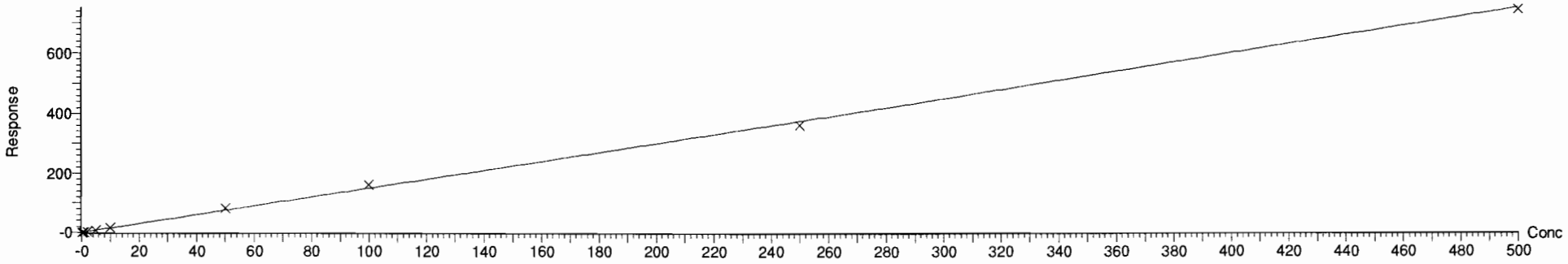
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:30 Pacific Daylight Time

Compound name: PFDoS
Coefficient of Determination: R^2 = 0.999315
Calibration curve: -2.75261e-005 * x^2 + 0.165938 * x + -0.00469544
Response type: Internal Std (Ref 67), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Compound name: PFTeDA
Correlation coefficient: r = 0.999147, r^2 = 0.998295
Calibration curve: 1.50077 * x + 0.138175
Response type: Internal Std (Ref 67), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

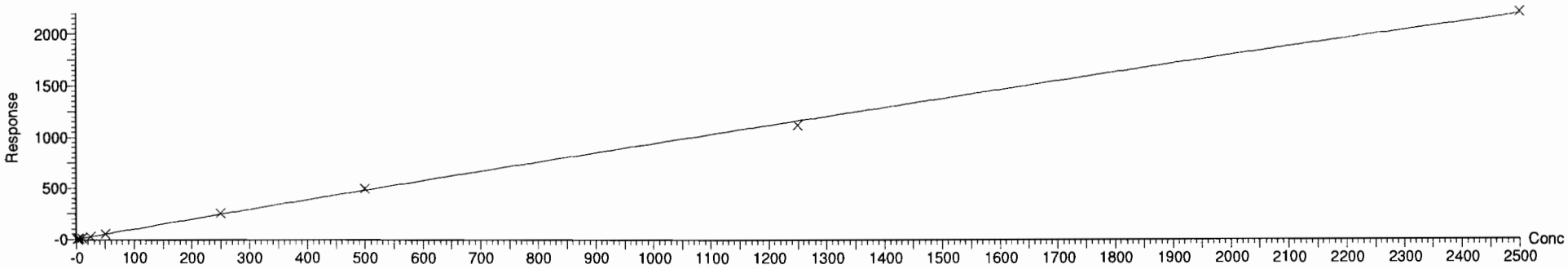


Vista Analytical Laboratory Q1

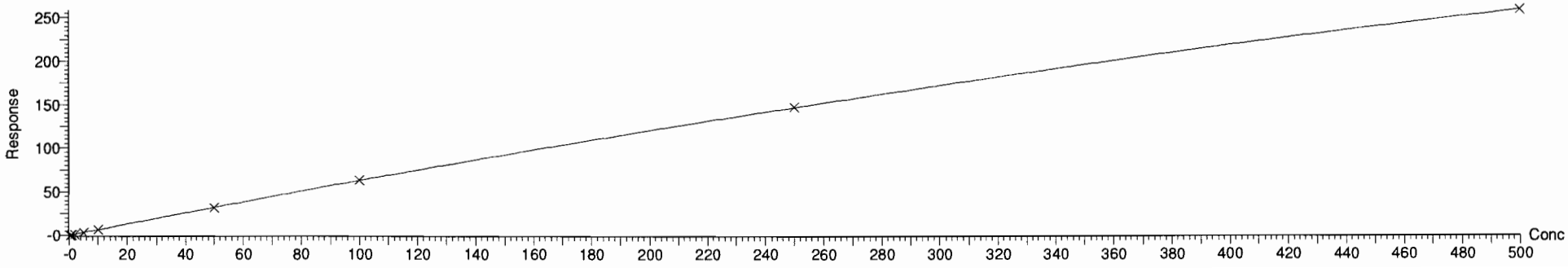
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:35:30 Pacific Daylight Time

Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999316
Calibration curve: -4.39453e-005 * x^2 + 0.983871 * x + -0.292612
Response type: Internal Std (Ref 68), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



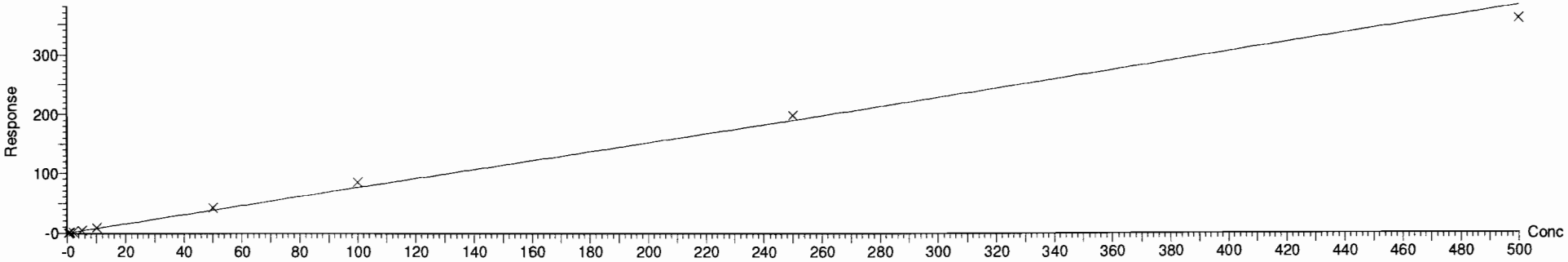
Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.999962
Calibration curve: -0.00028136 * x^2 + 0.657654 * x + 0.0293459
Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



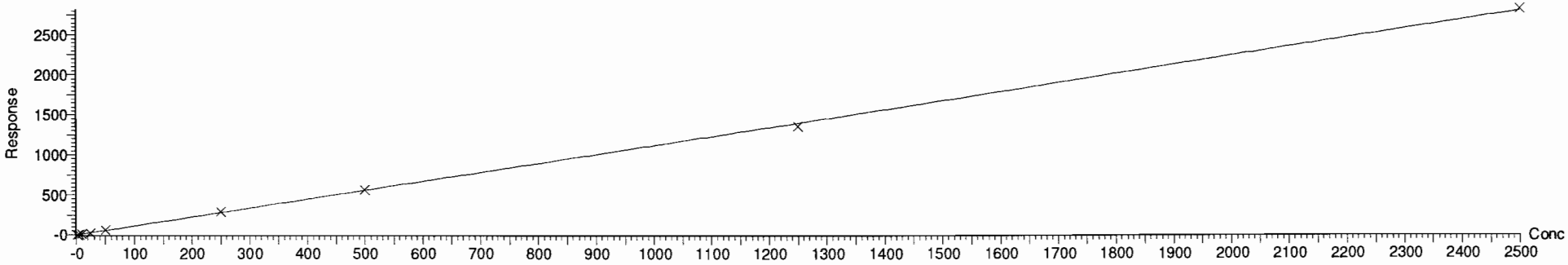
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Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
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Compound name: PFODA
Correlation coefficient: r = 0.997667, r^2 = 0.995340
Calibration curve: 0.760337 * x + 0.0535536
Response type: Internal Std (Ref 69), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



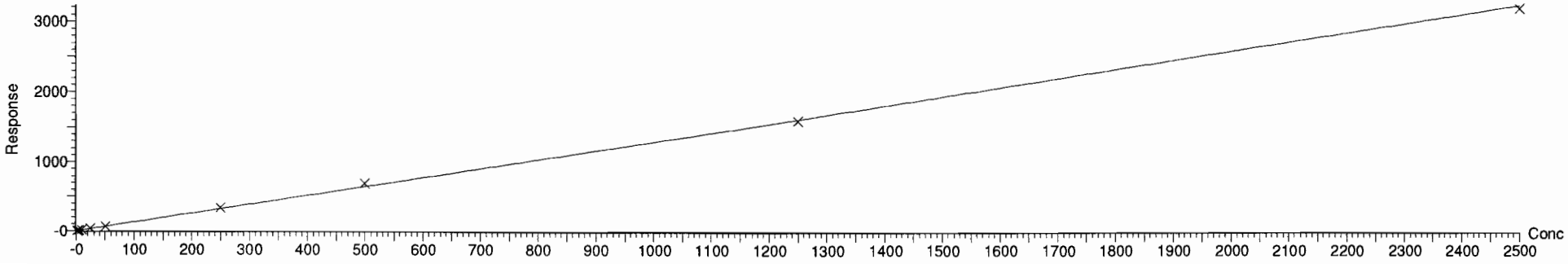
Compound name: N-MeFOSE
Correlation coefficient: r = 0.999814, r^2 = 0.999627
Calibration curve: 1.11748 * x + 0.0028163
Response type: Internal Std (Ref 70), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999619, r^2 = 0.999239
Calibration curve: 1.29498 * x + -0.0851508
Response type: Internal Std (Ref 71), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



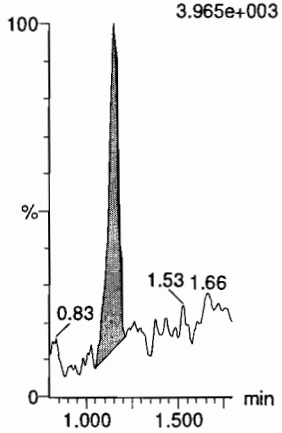
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

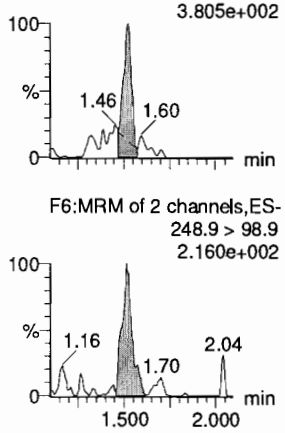
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Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_07-22-19.cdb 22 Jul 2019 13:13:35

Name: 190722M1_4, Date: 22-Jul-2019, Time: 10:26:37, ID: ST190722M1-1 PFC CS-2 19G1101, Description: PFC CS-2 19G1101

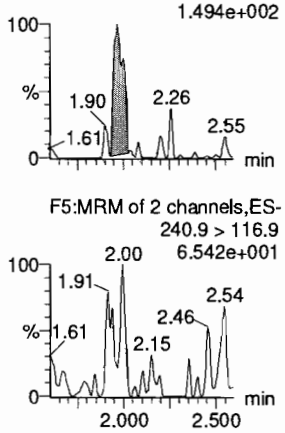
PFBA



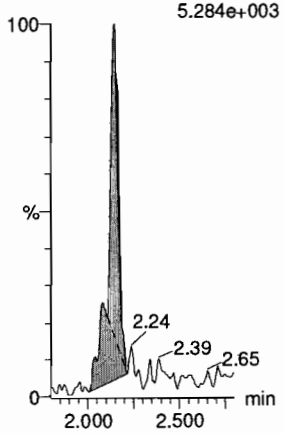
PFPrS



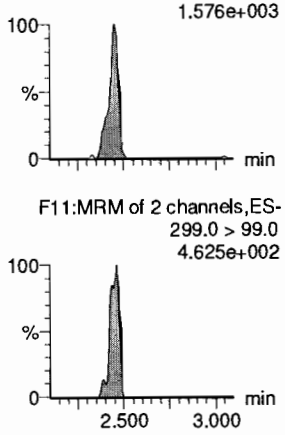
3:3 FTCA



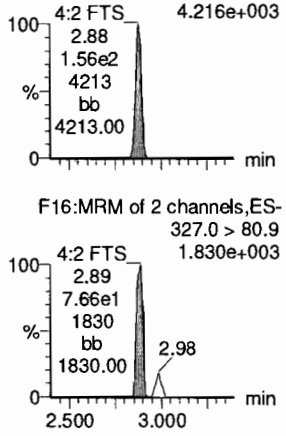
PFPeA



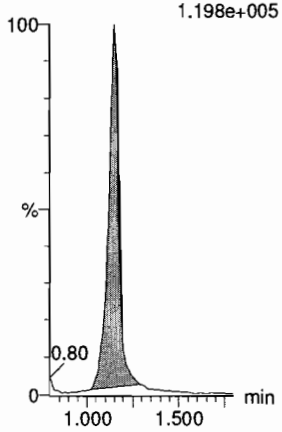
PFBS



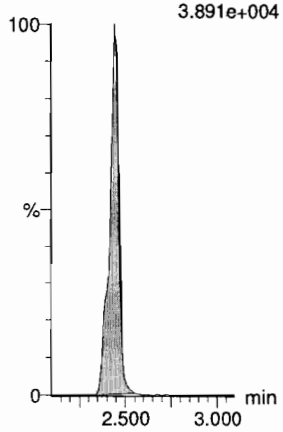
4:2 FTS



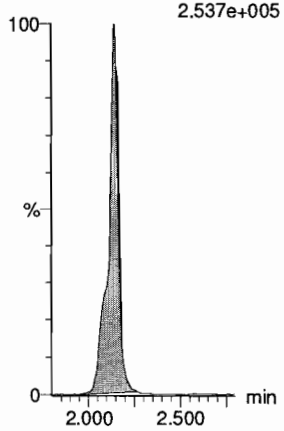
13C3-PFBA



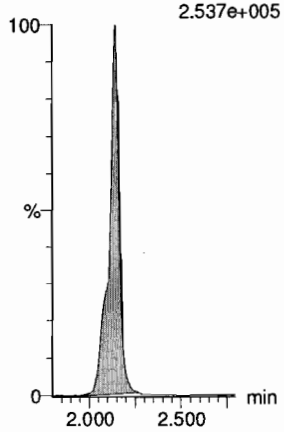
13C3-PFBS



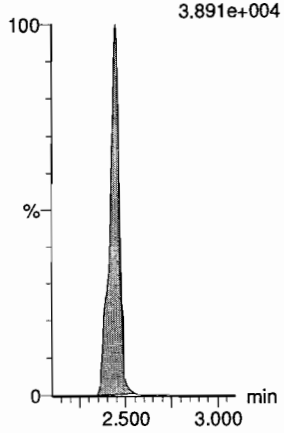
13C3-PFPeA



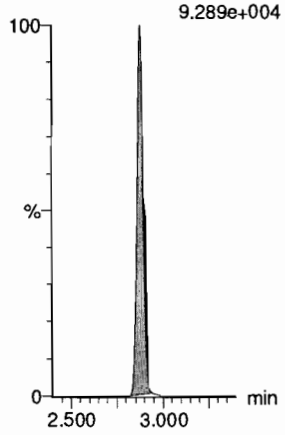
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

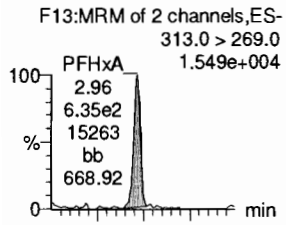


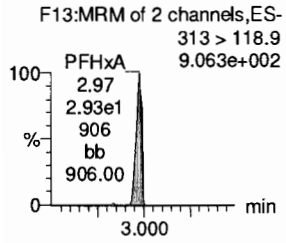
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

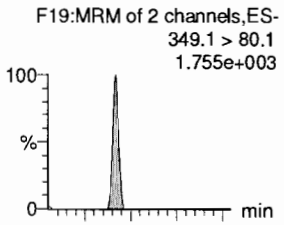
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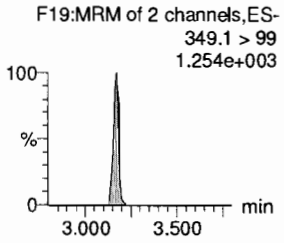
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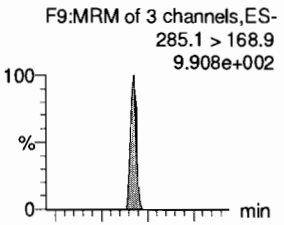


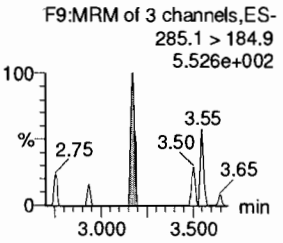
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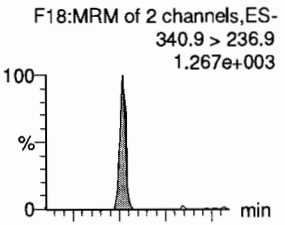


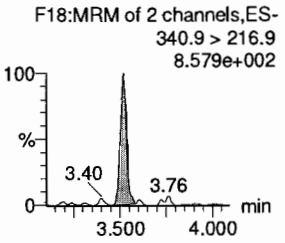
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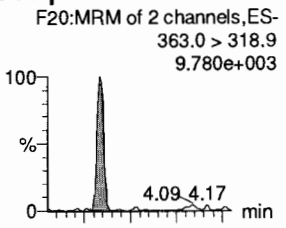


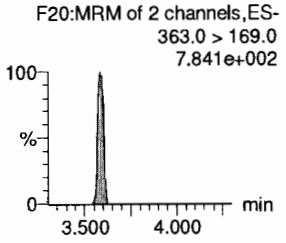
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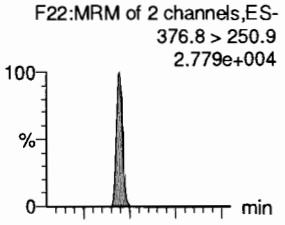


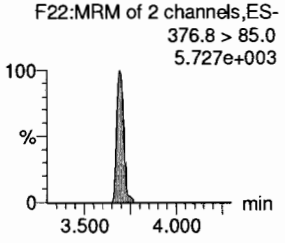
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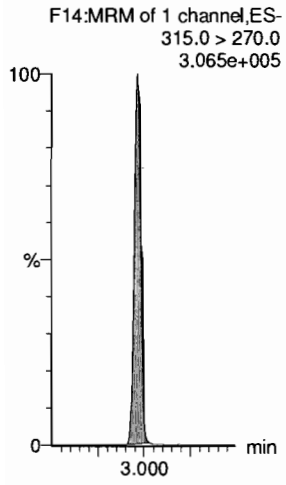


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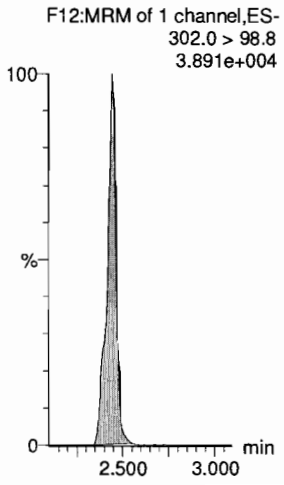




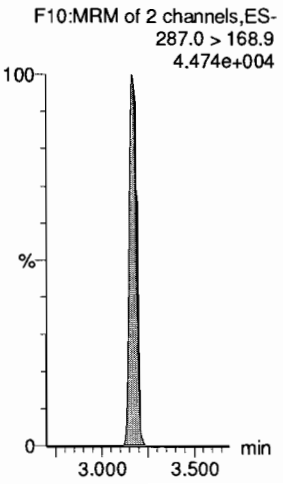
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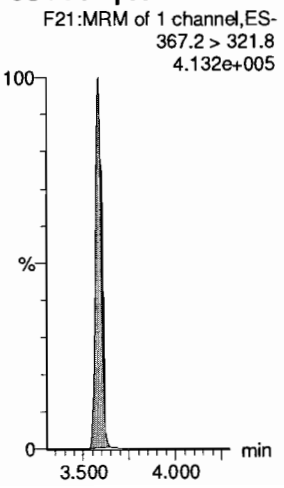
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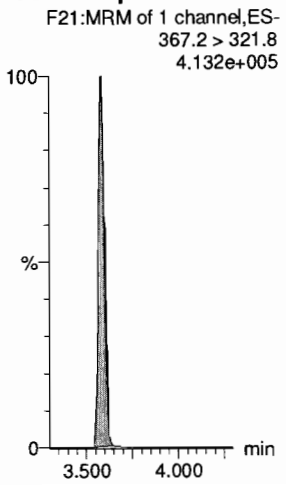
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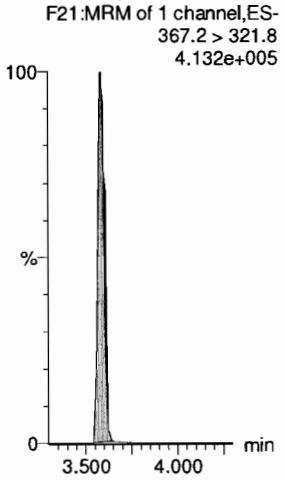
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13C4-PFHpA



13C4-PFHpA

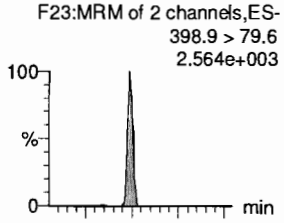


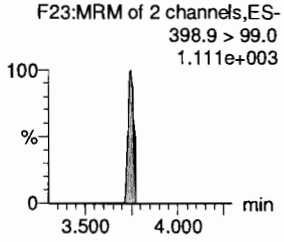
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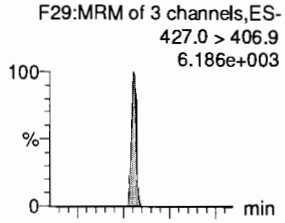
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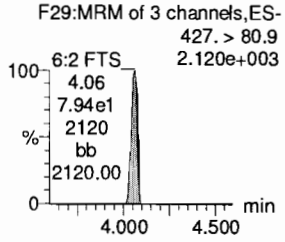
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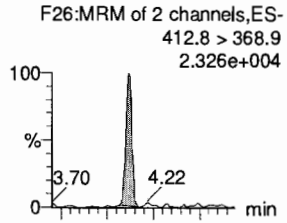


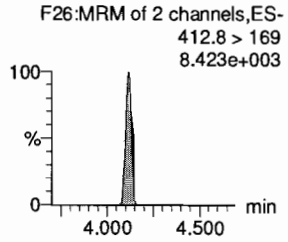
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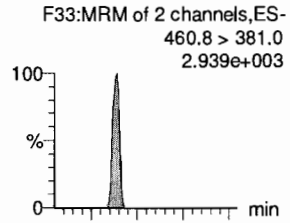


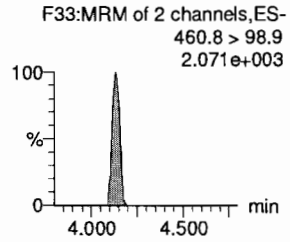
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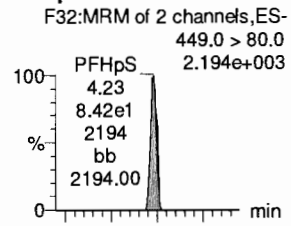


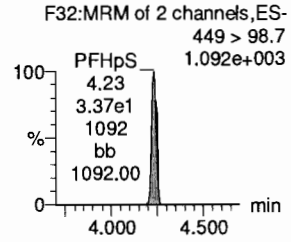
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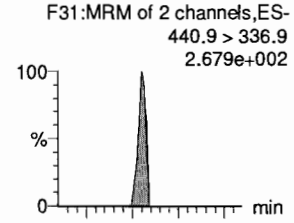


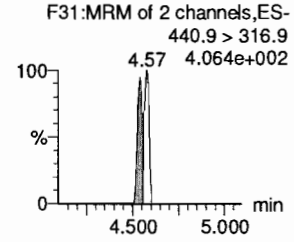
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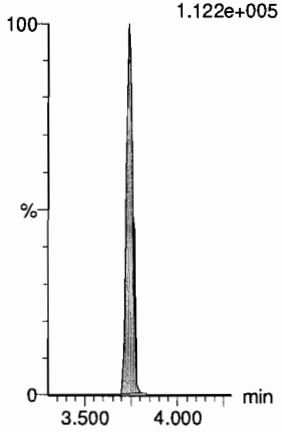


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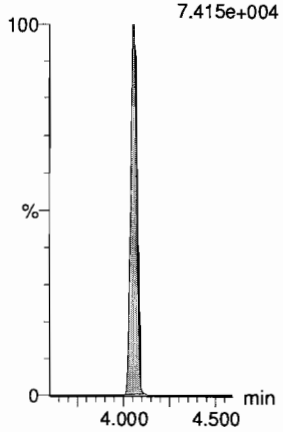




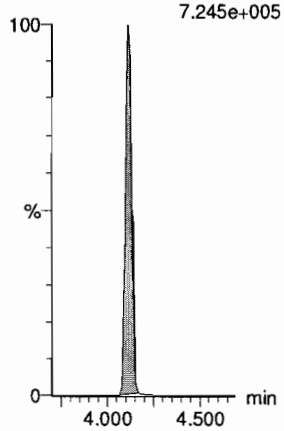
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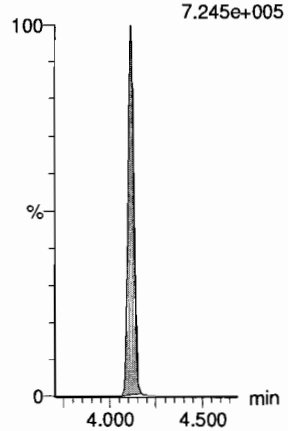
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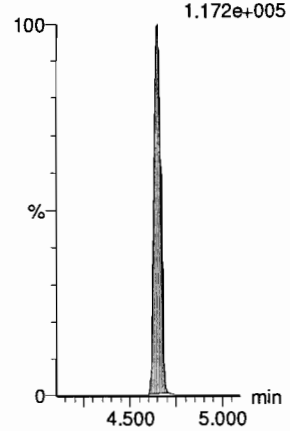
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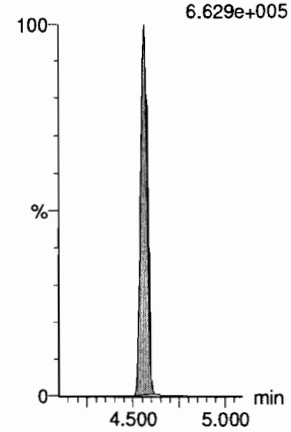
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13C8-PFOS



13C5-PFNA

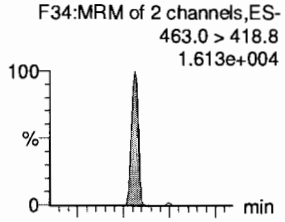


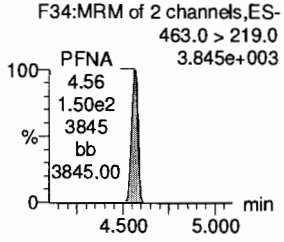
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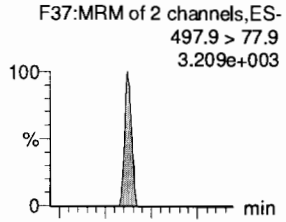
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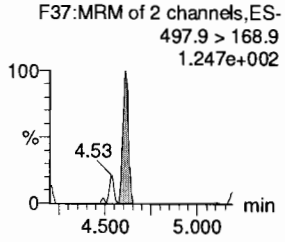
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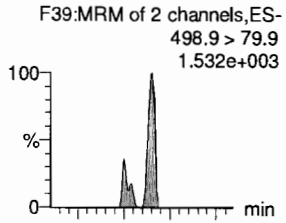


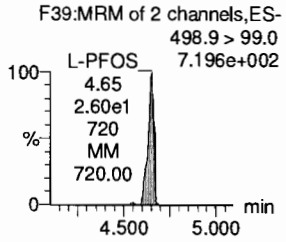
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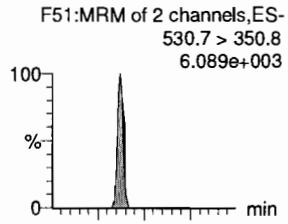


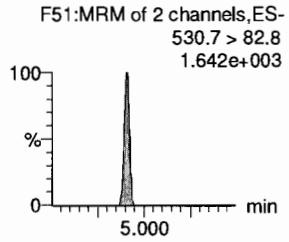
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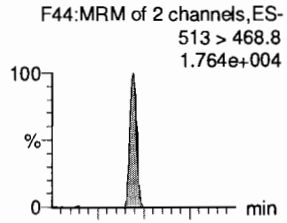


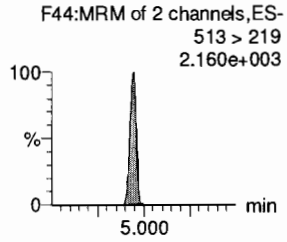
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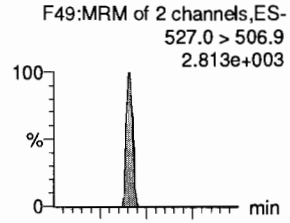


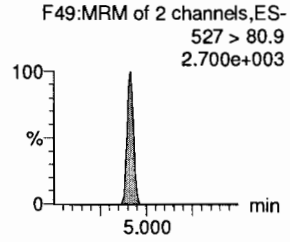
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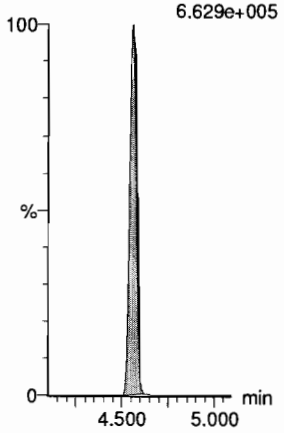


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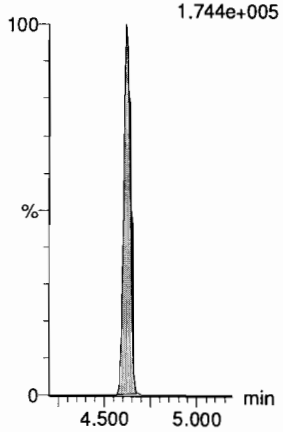




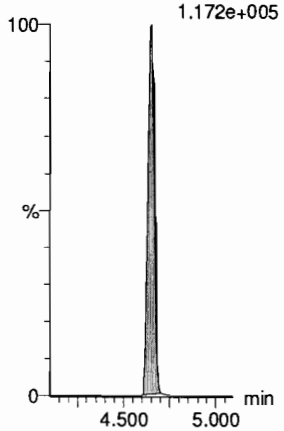
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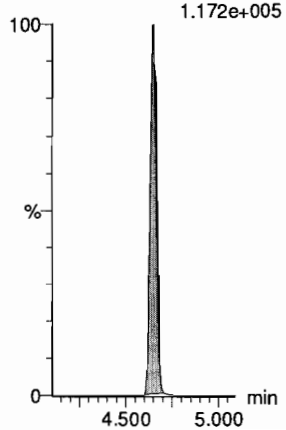
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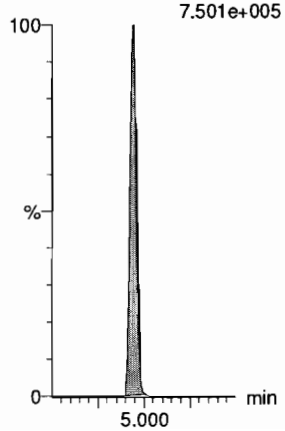
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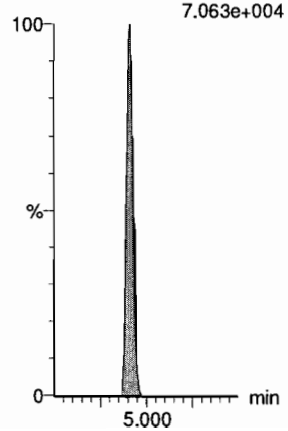
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13C2-PFDA



13C2-8:2 FTS

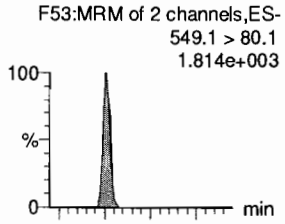


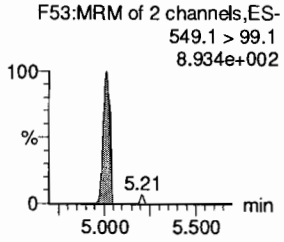
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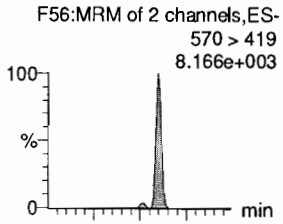
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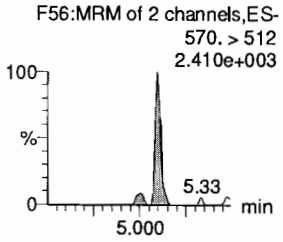
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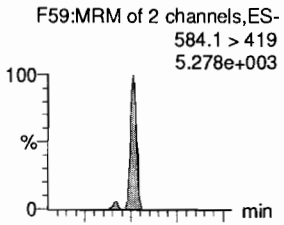


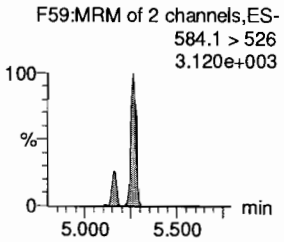
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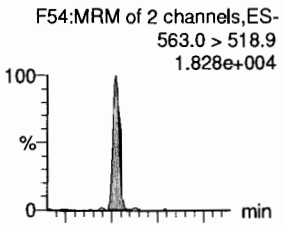


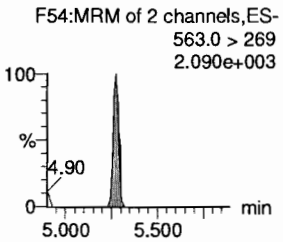
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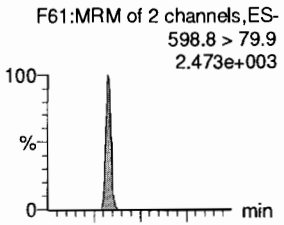


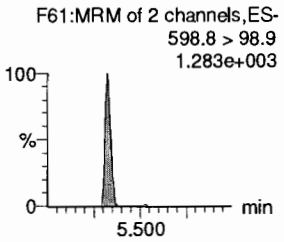
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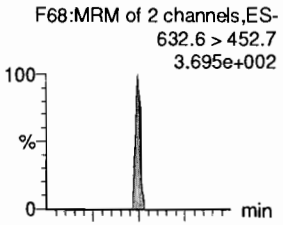


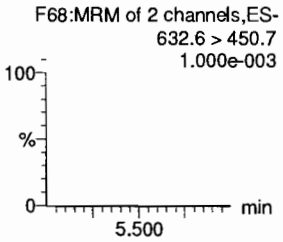
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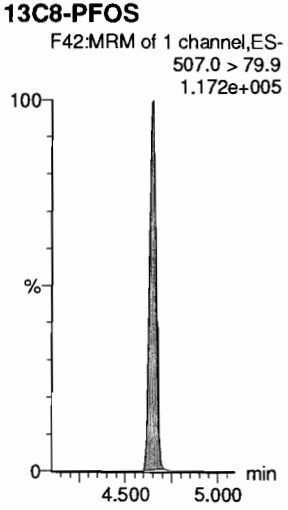


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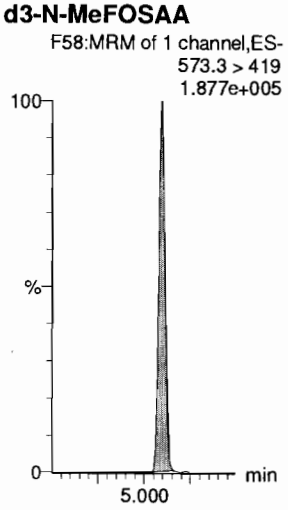




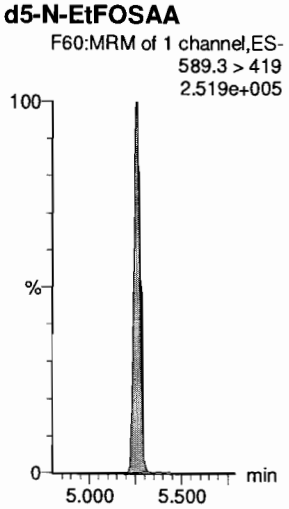
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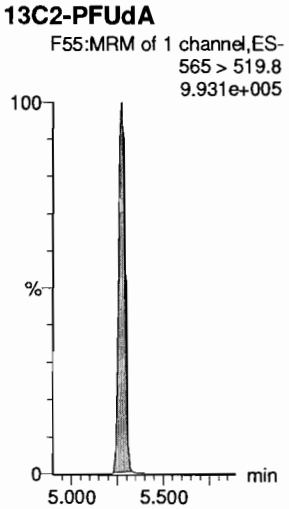
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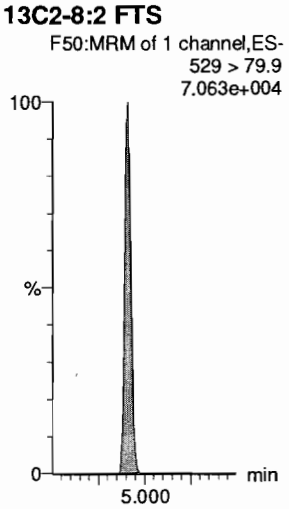
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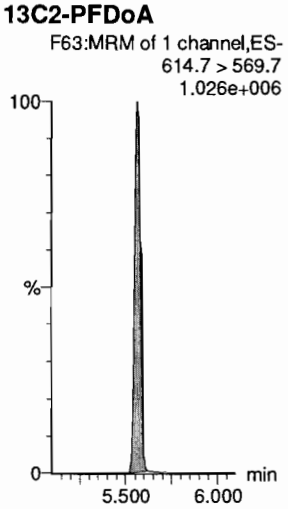
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

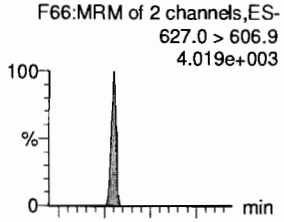


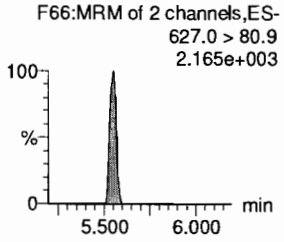
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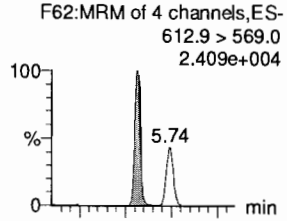
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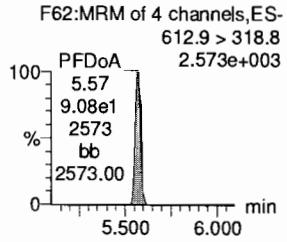
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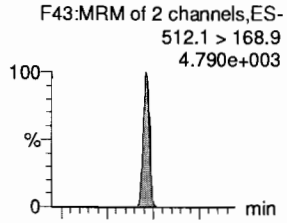


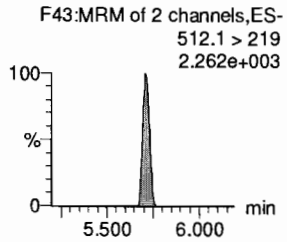
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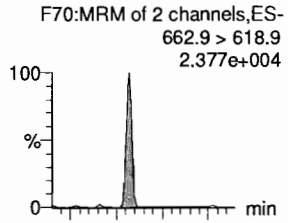


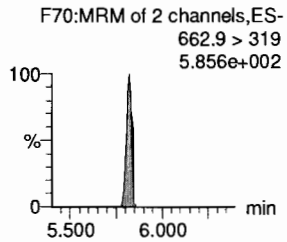
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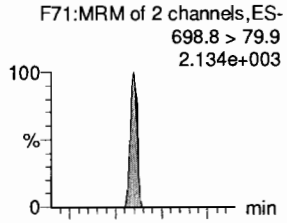


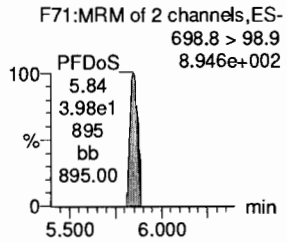
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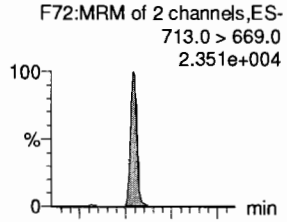


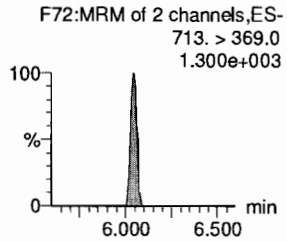
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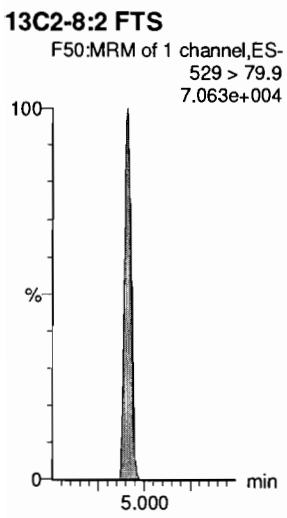


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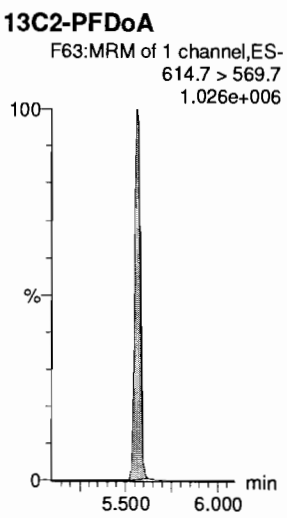




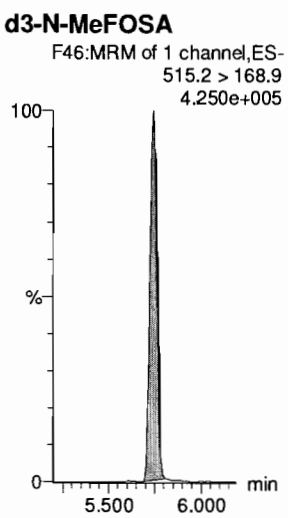
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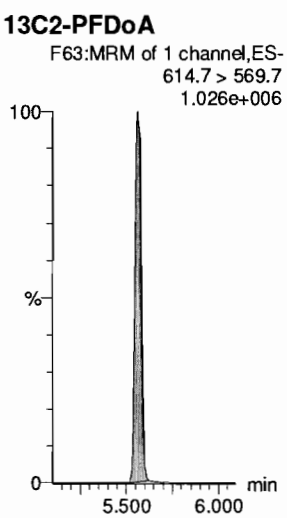
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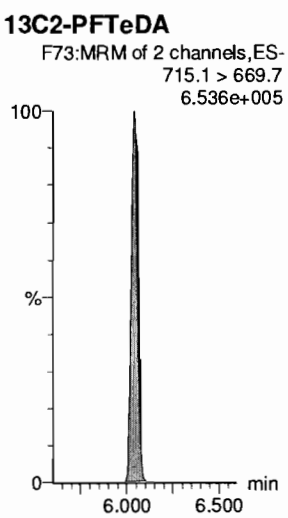
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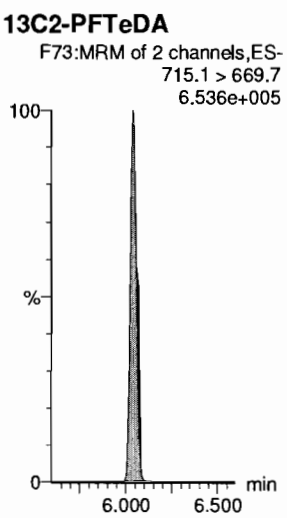
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13C2-PFTeDA



13C2-PFTeDA

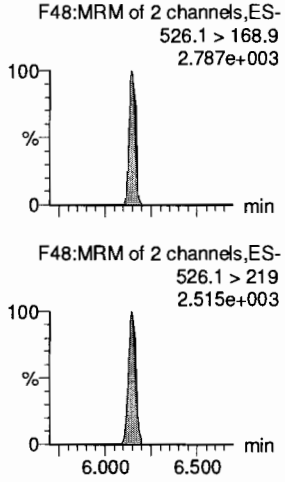


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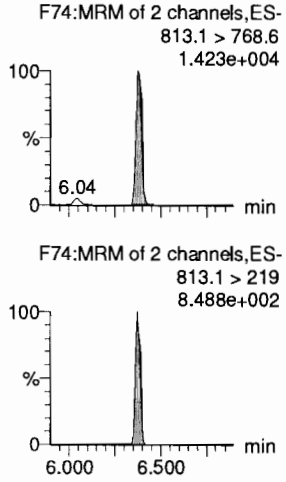
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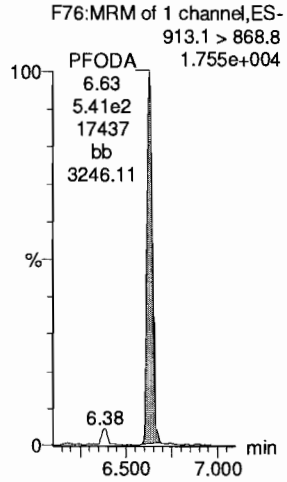
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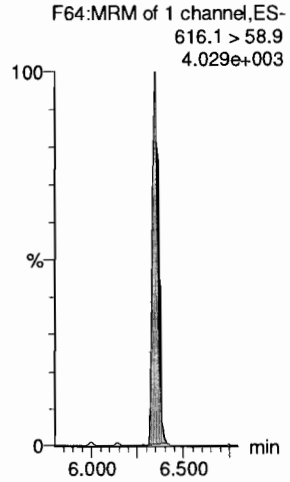
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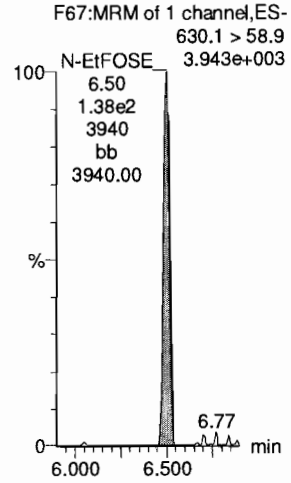
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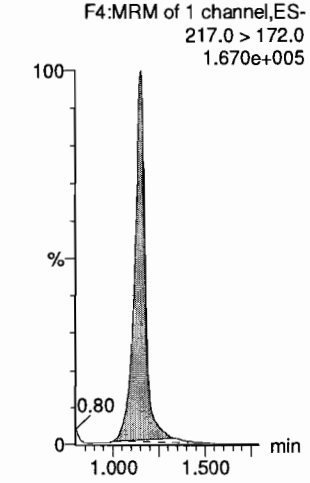
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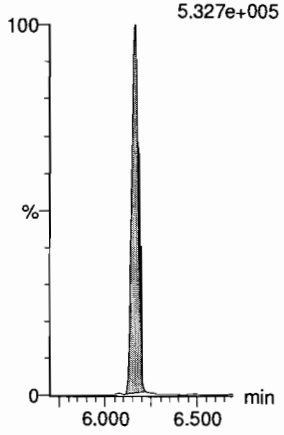
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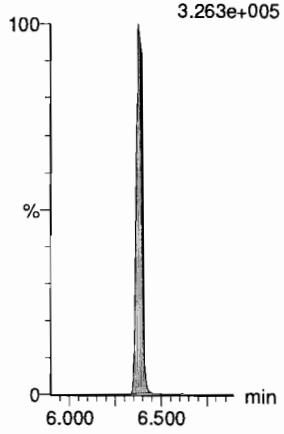
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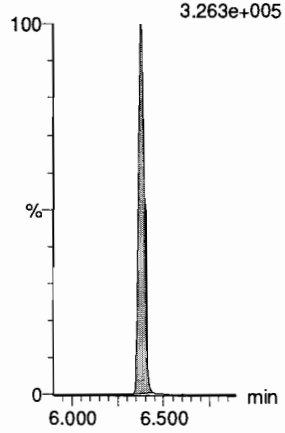
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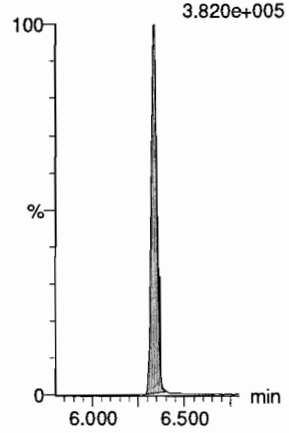
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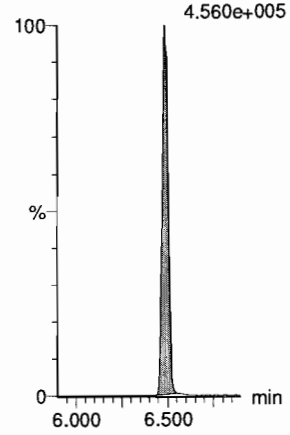
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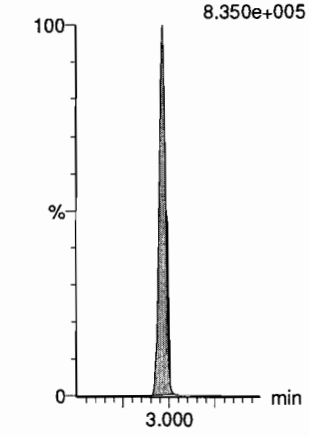
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d9-N-EtFOSE



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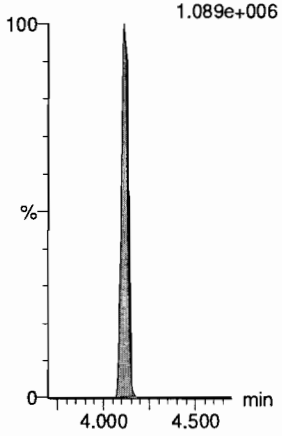


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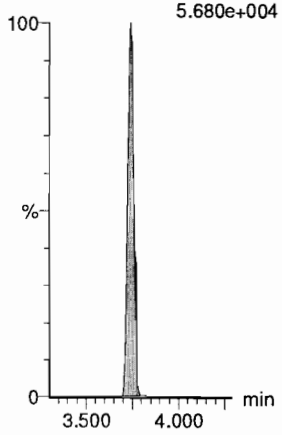
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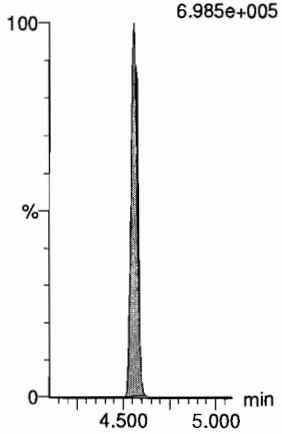
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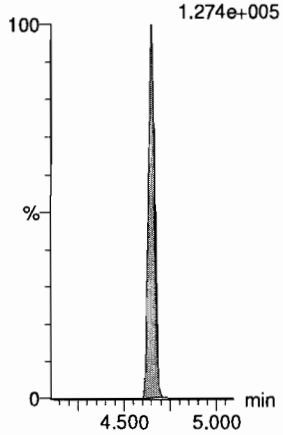
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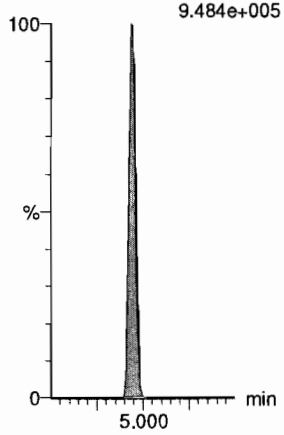
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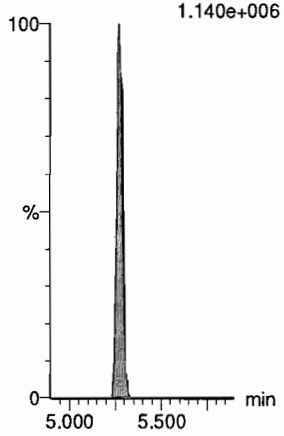
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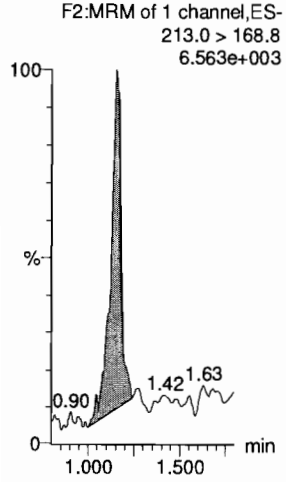


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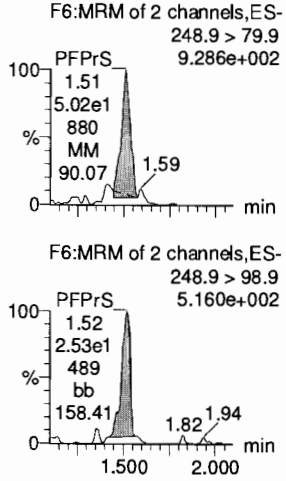
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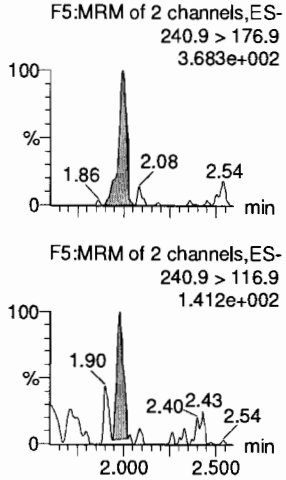
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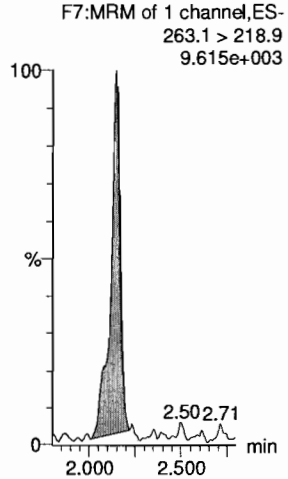
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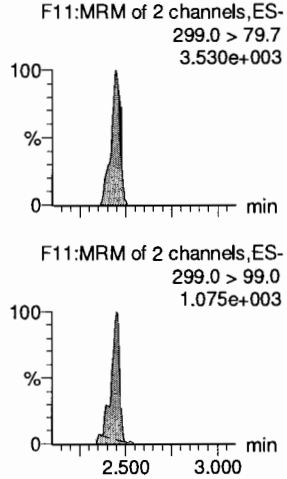
3:3 FTCA



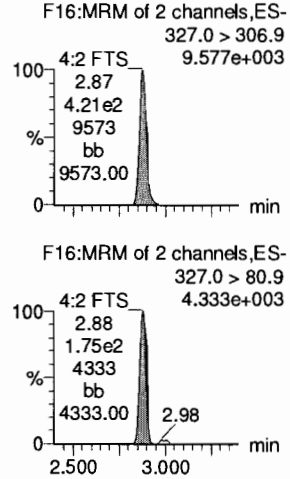
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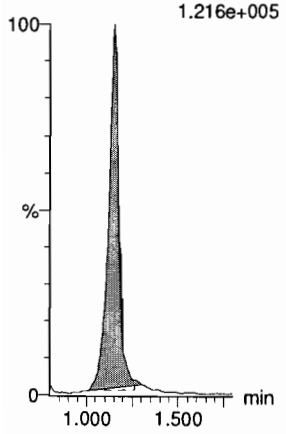
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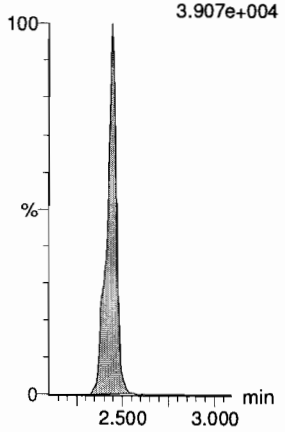
4:2 FTS



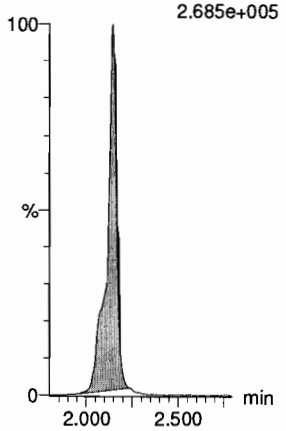
13C3-PFBA



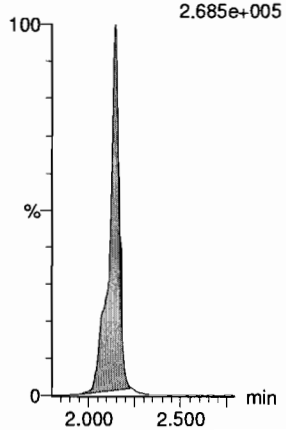
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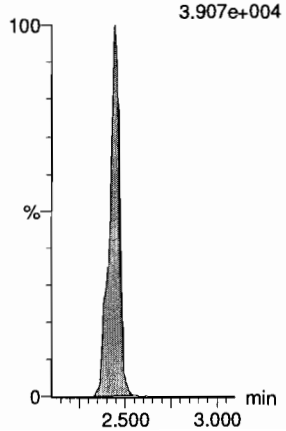
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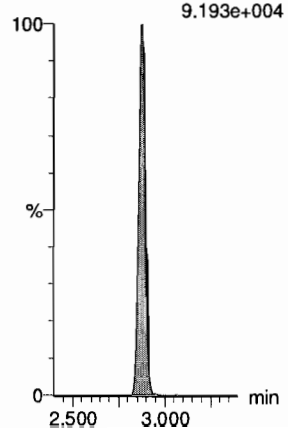
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13C3-PFBS



13C2-4:2 FTS

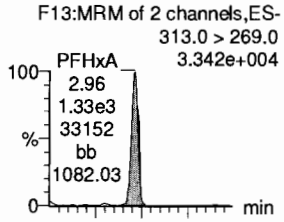


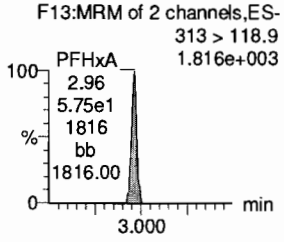
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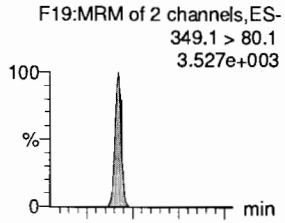
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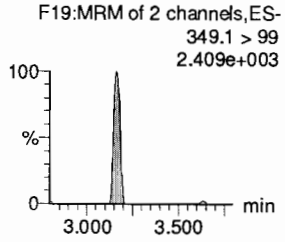
PFHxA



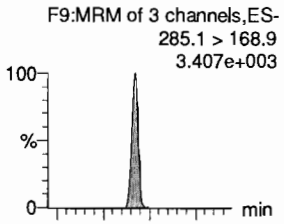


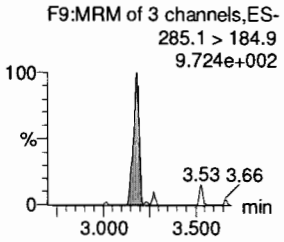
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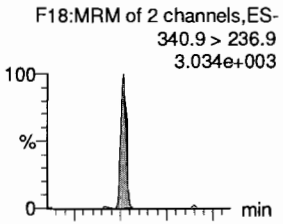


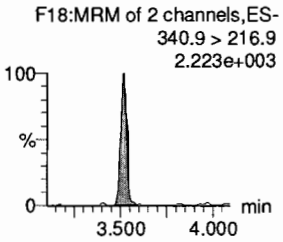
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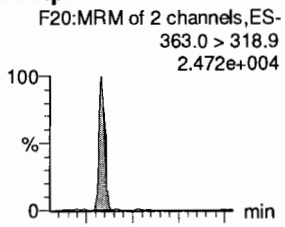


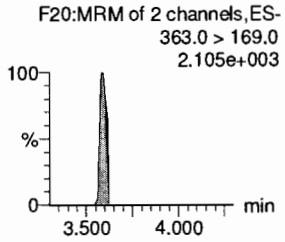
5:3 FTCA



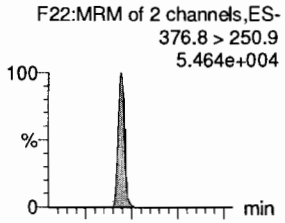


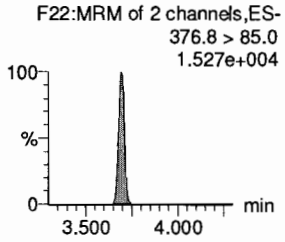
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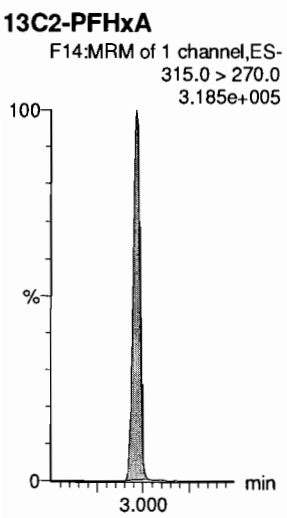


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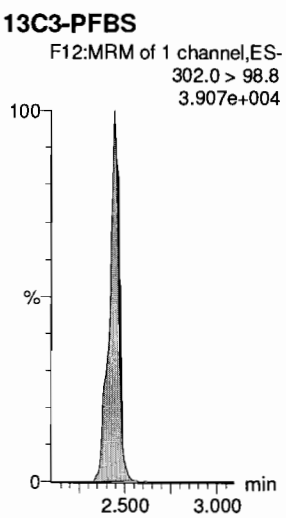




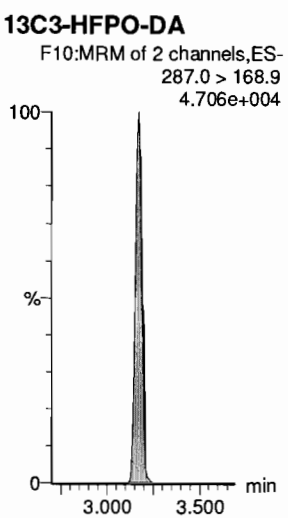
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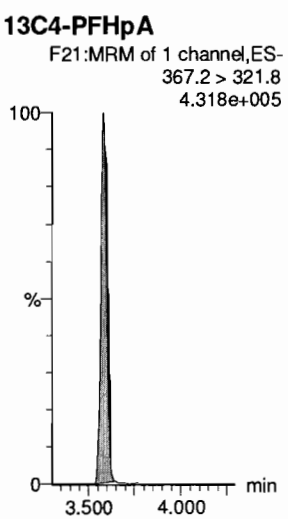
13C3-PFBS



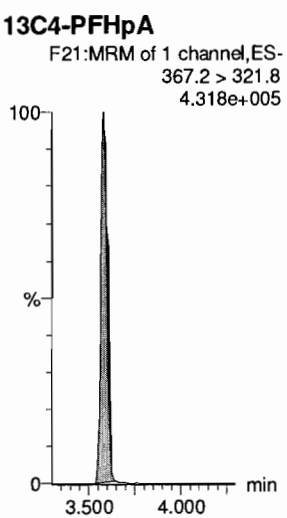
13C3-HFPO-DA



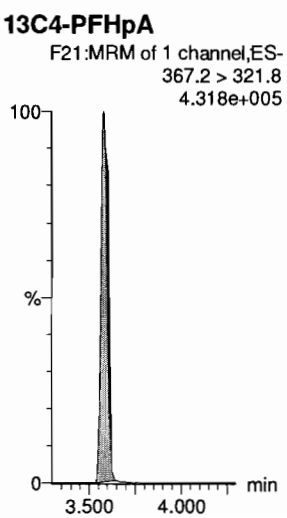
13C4-PFHpA



13C4-PFHpA



13C4-PFHpA

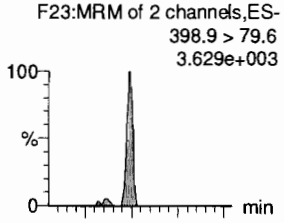


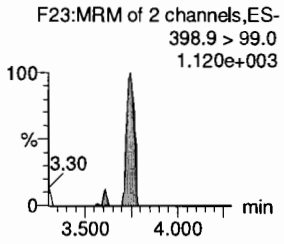
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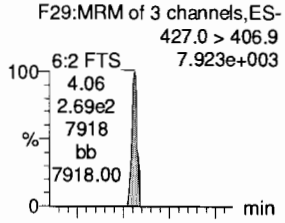
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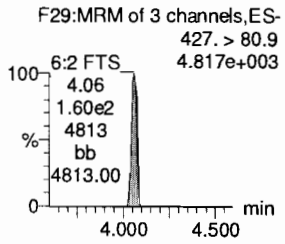
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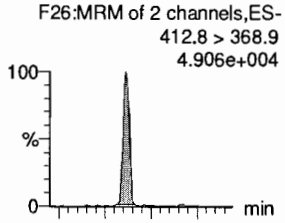


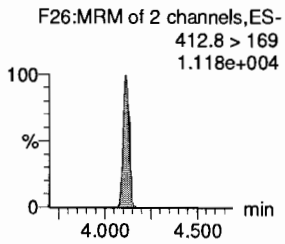
6:2 FTS



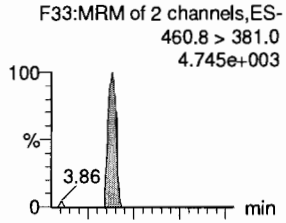


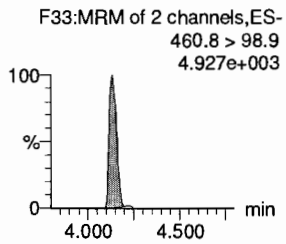
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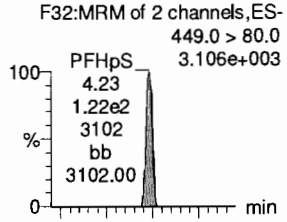


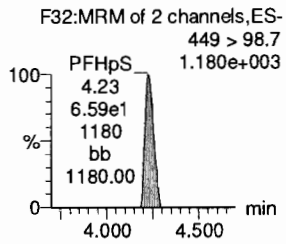
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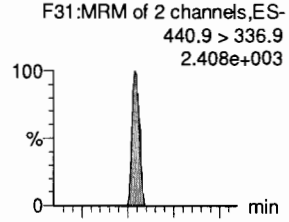


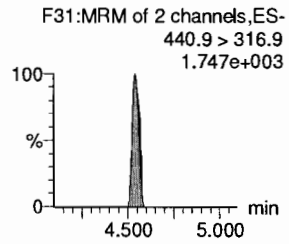
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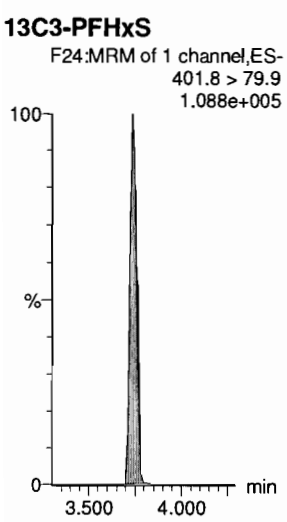


7:3 FTCA

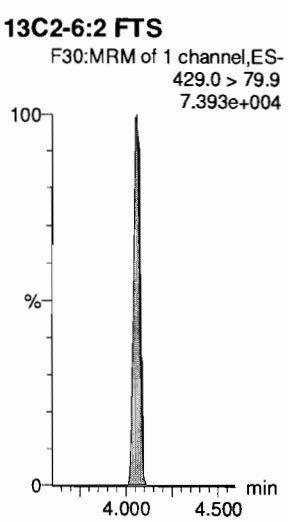




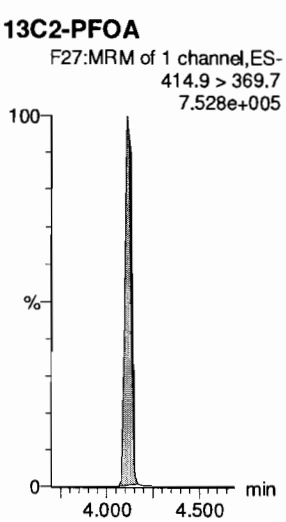
13C3-PFHxS



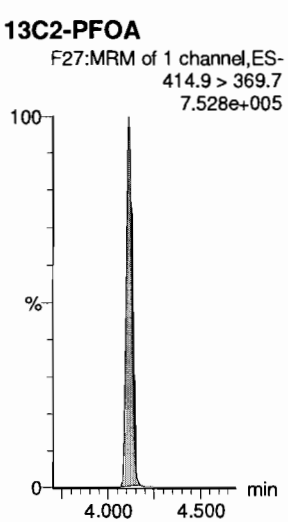
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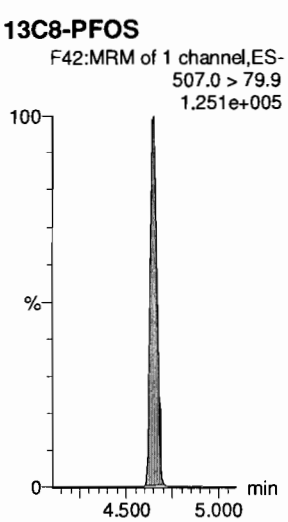
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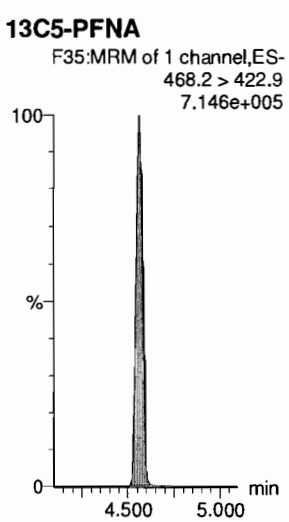
13C2-PFOA



13C8-PFOS



13C5-PFNA

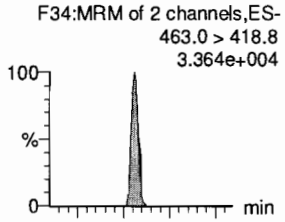


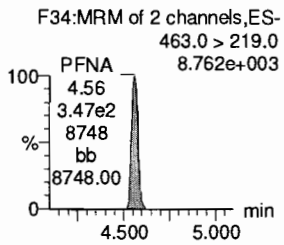
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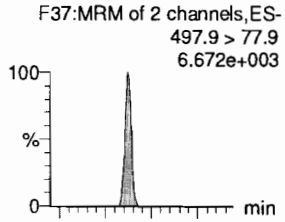
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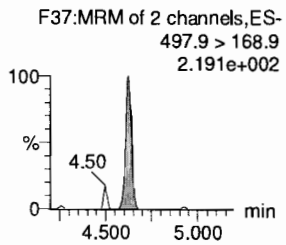
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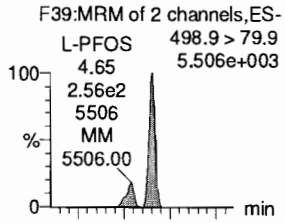


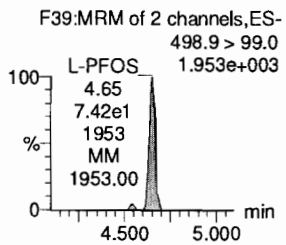
PFOSA



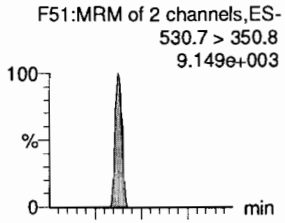


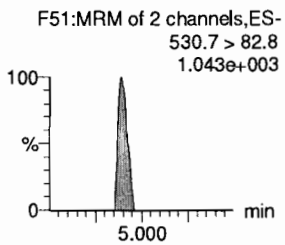
L-PFOS



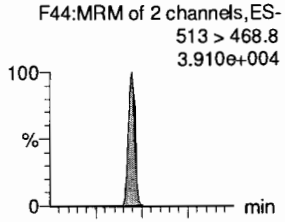


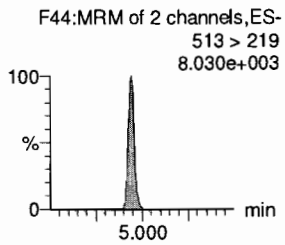
9Cl-PF30NS



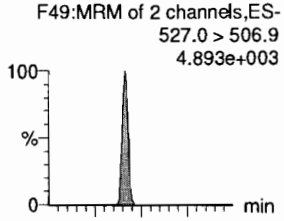


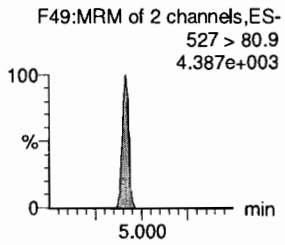
PFDA



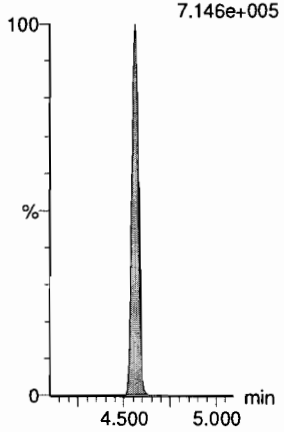


8:2 FTS

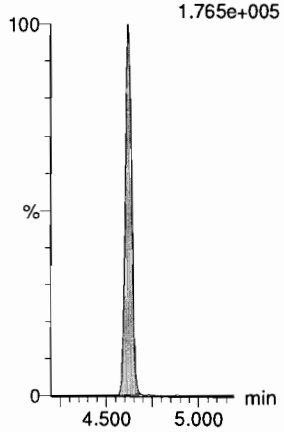




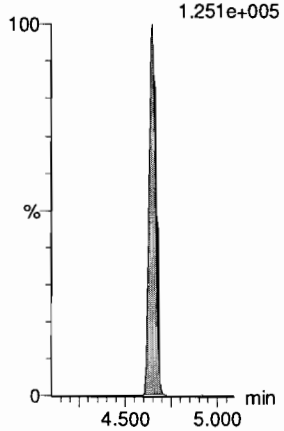
13C5-PFNA



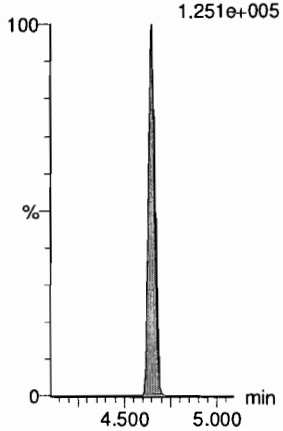
13C8-PFOSA



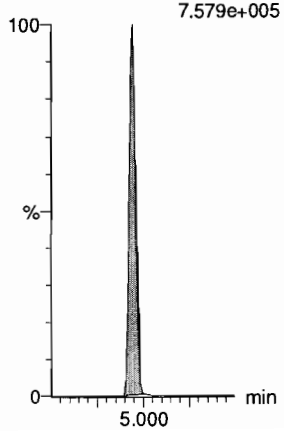
13C8-PFOS



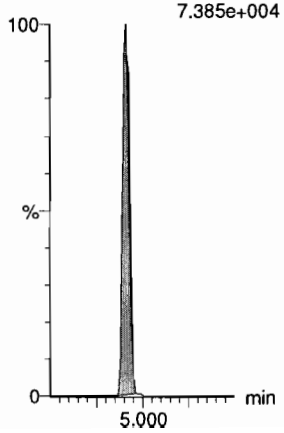
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

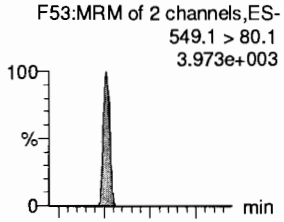


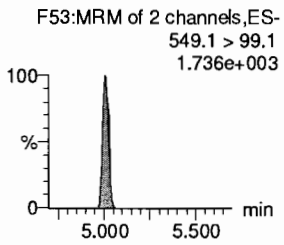
Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

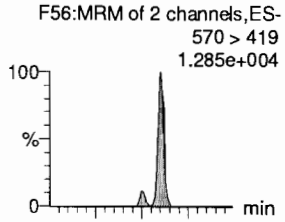
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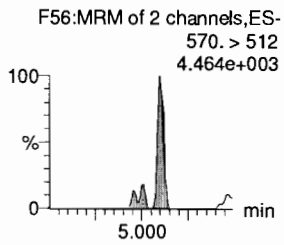
PFNS



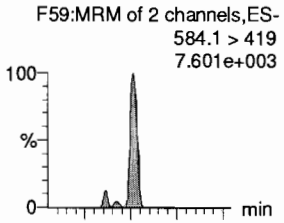


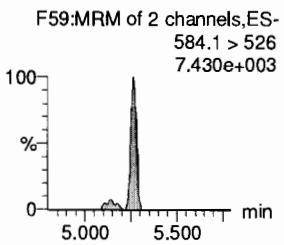
L-MeFOSAA



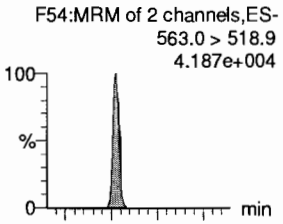


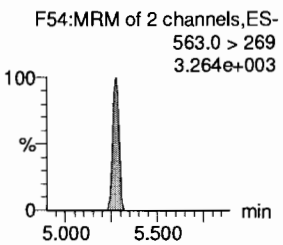
L-EtFOSAA



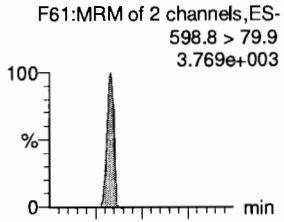


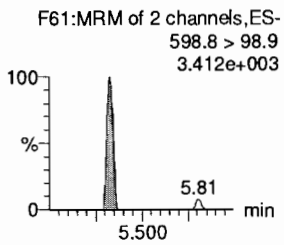
PFUdA



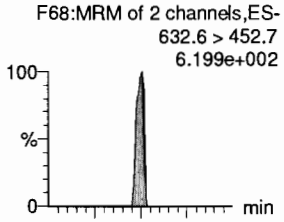


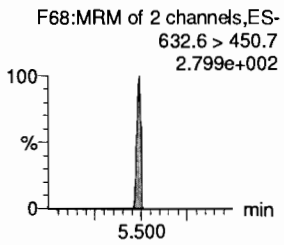
PFDS



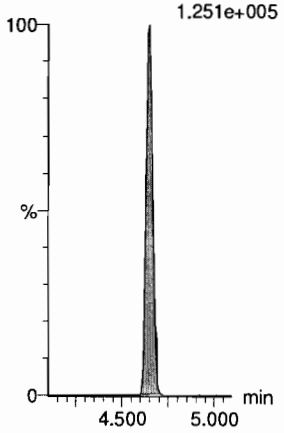


11Cl-PF30UdS

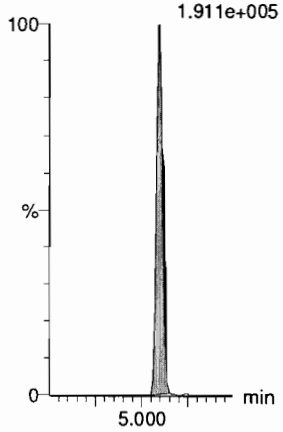




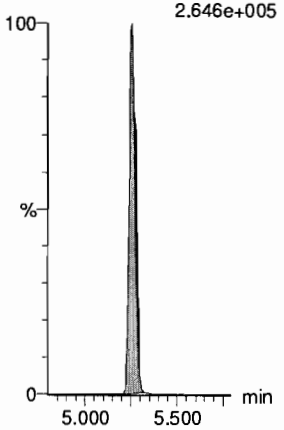
13C8-PFOS



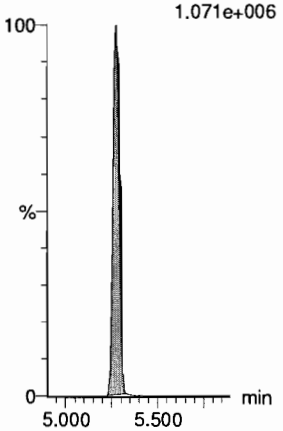
d3-N-MeFOSAA



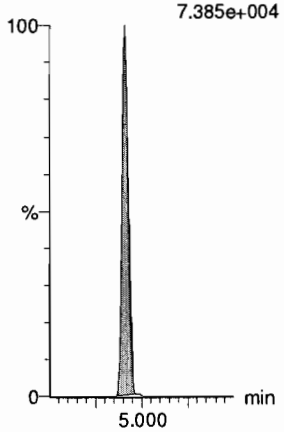
d5-N-EtFOSAA



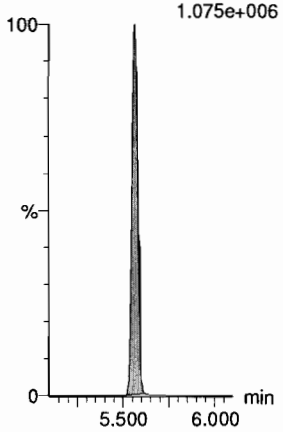
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

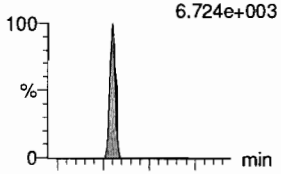


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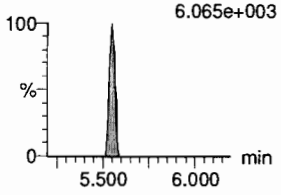
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Name: 190722M1_5, Date: 22-Jul-2019, Time: 10:37:15, ID: ST190722M1-2 PFC CS-1 19G1102, Description: PFC CS-1 19G1102

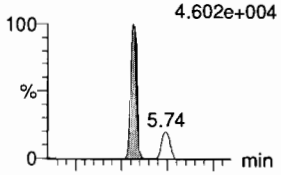
10:2 FTS
F66:MRM of 2 channels,ES-
627.0 > 606.9
6.724e+003



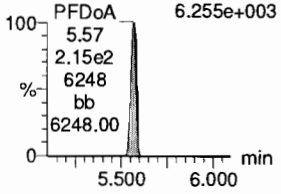
F66:MRM of 2 channels,ES-
627.0 > 80.9
6.065e+003



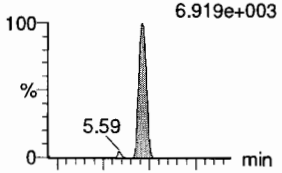
PFDoA
F62:MRM of 4 channels,ES-
612.9 > 569.0
4.602e+004



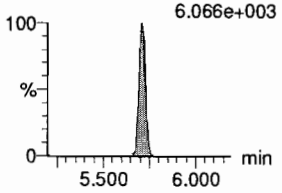
F62:MRM of 4 channels,ES-
612.9 > 318.8
6.255e+003



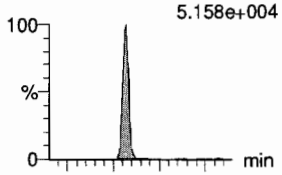
N-MeFOSA
F43:MRM of 2 channels,ES-
512.1 > 168.9
6.919e+003



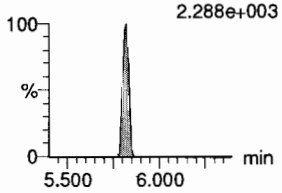
F43:MRM of 2 channels,ES-
512.1 > 219
6.066e+003



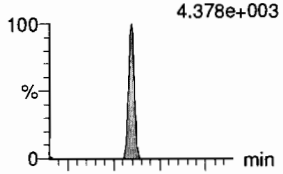
PFTrDA
F70:MRM of 2 channels,ES-
662.9 > 618.9
5.158e+004



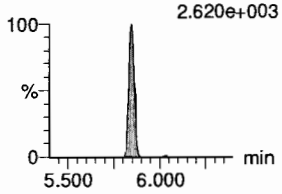
F70:MRM of 2 channels,ES-
662.9 > 319
2.288e+003



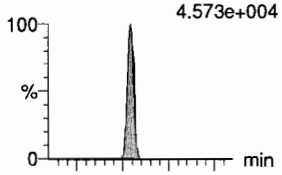
PFDoS
F71:MRM of 2 channels,ES-
698.8 > 79.9
4.378e+003



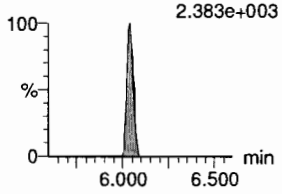
F71:MRM of 2 channels,ES-
698.8 > 98.9
2.620e+003



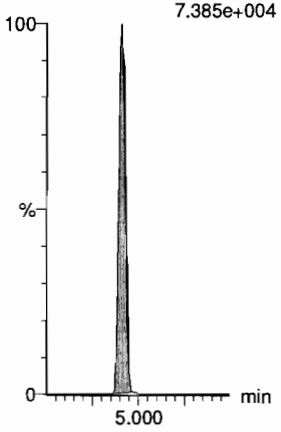
PFTeDA
F72:MRM of 2 channels,ES-
713.0 > 669.0
4.573e+004



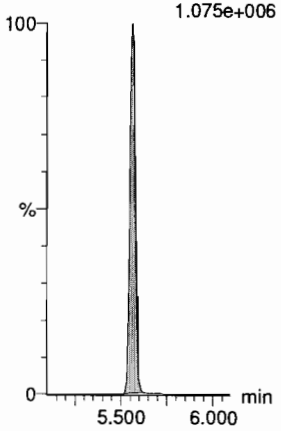
F72:MRM of 2 channels,ES-
713. > 369.0
2.383e+003



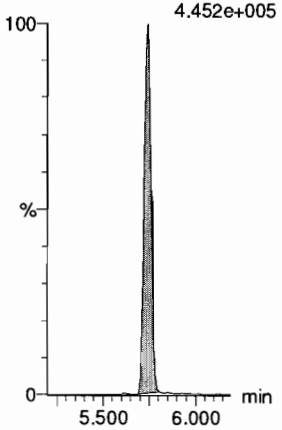
13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
7.385e+004



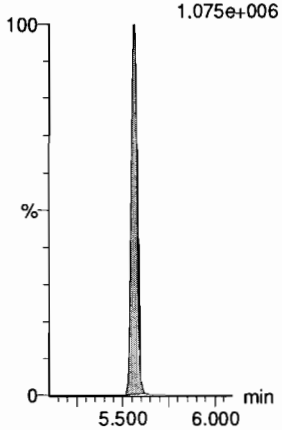
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.075e+006



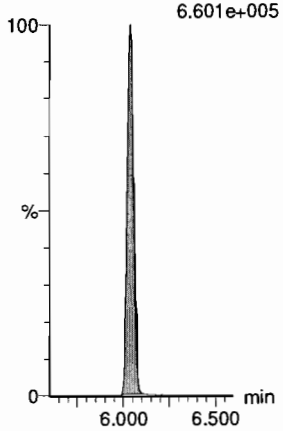
d3-N-MeFOSA
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.452e+005



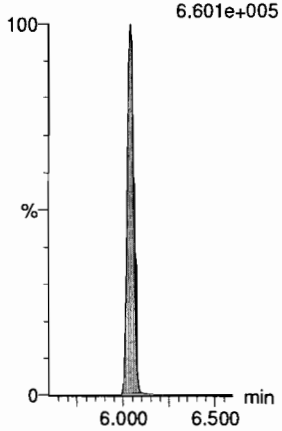
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.075e+006



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
6.601e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
6.601e+005

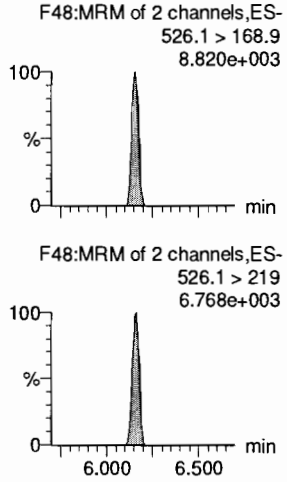


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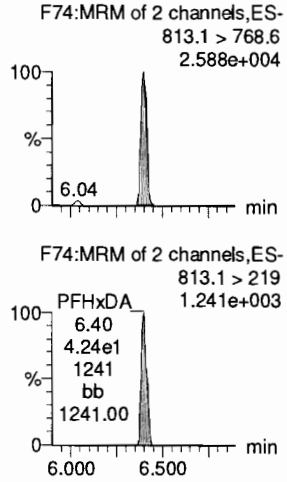
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_5, Date: 22-Jul-2019, Time: 10:37:15, ID: ST190722M1-2 PFC CS-1 19G1102, Description: PFC CS-1 19G1102

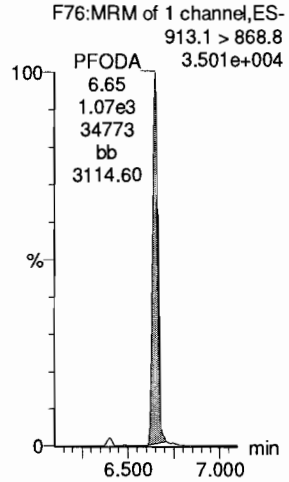
N-EtFOSA



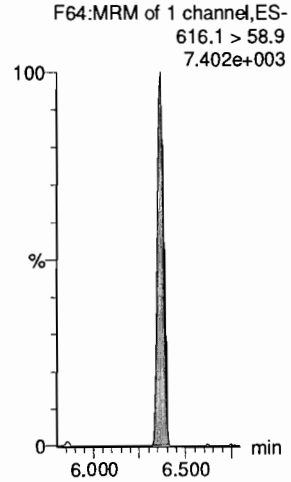
PFHxDA



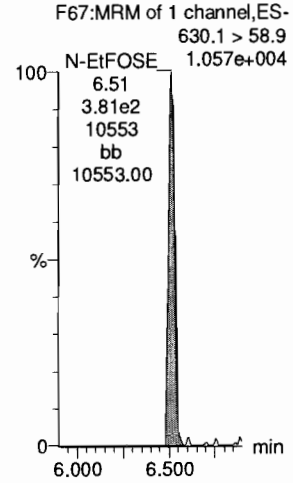
PFODA



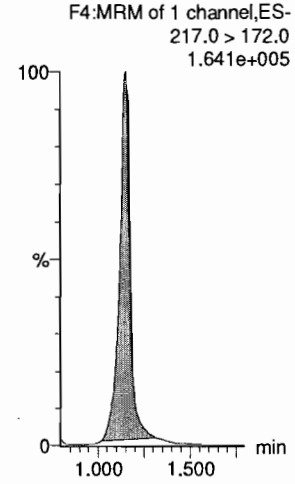
N-MeFOSE



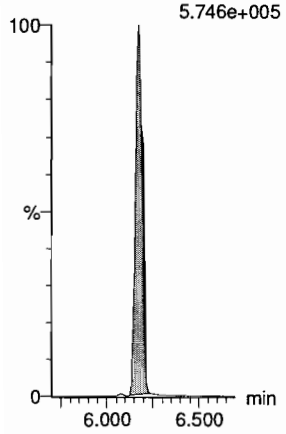
N-EtFOSE



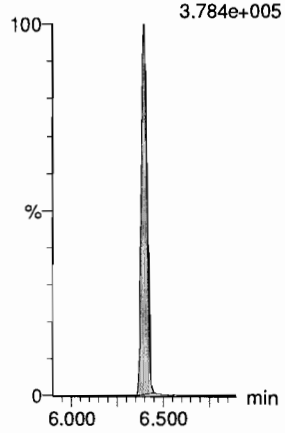
13C4-PFBA



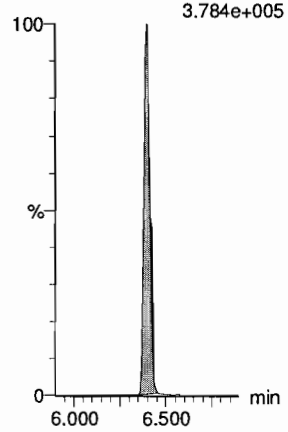
d5-N-ETFOSA



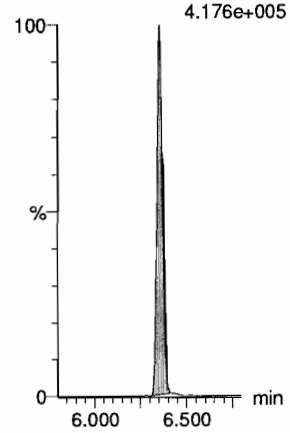
13C2-PFHxDA



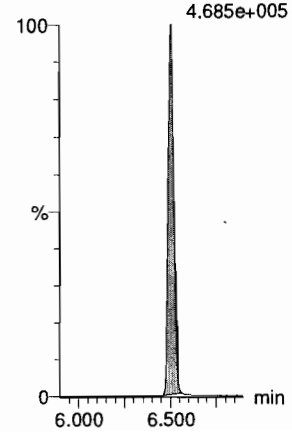
13C2-PFHxDA



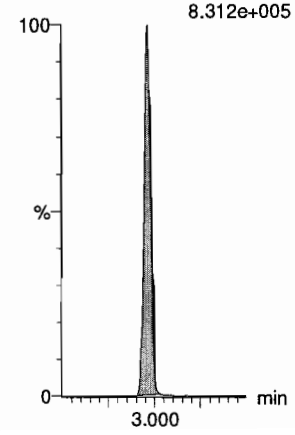
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

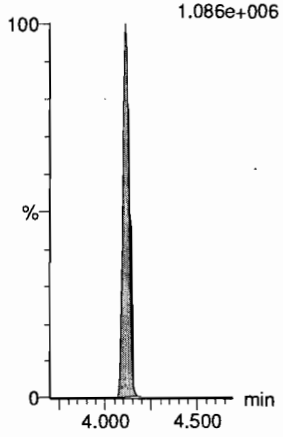


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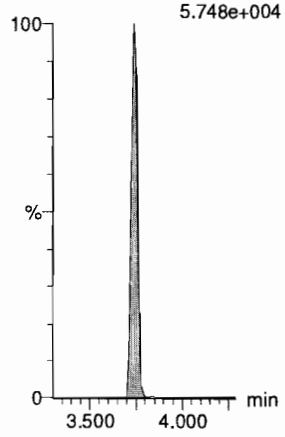
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_5, Date: 22-Jul-2019, Time: 10:37:15, ID: ST190722M1-2 PFC CS-1 19G1102, Description: PFC CS-1 19G1102

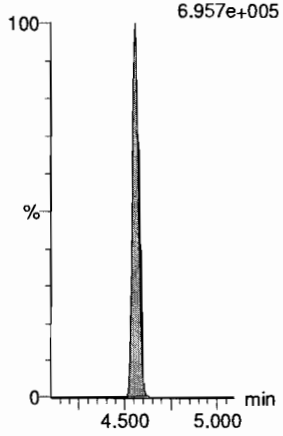
13C8-PFOA



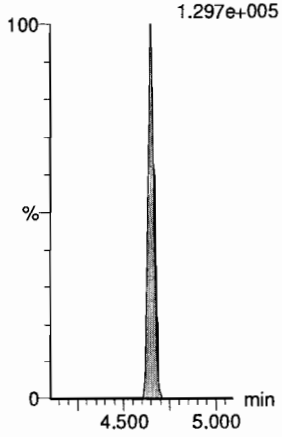
18O2-PFHxS



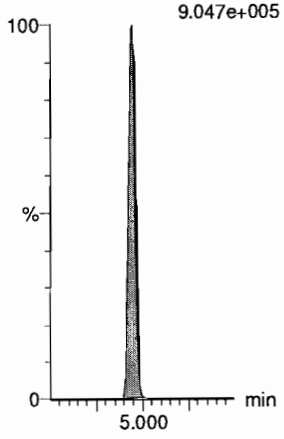
13C9-PFNA



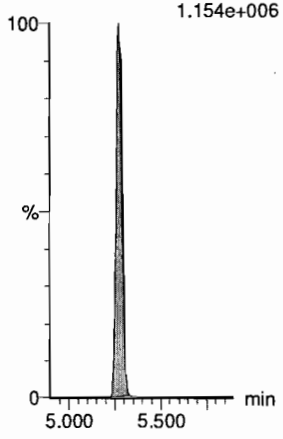
13C4-PFOS



13C6-PFDA



13C7-PFUdA

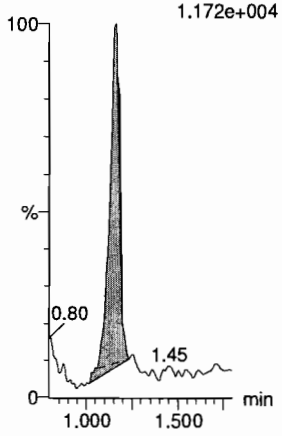


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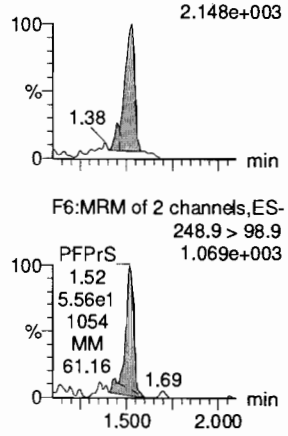
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_6, Date: 22-Jul-2019, Time: 10:47:48, ID: ST190722M1-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

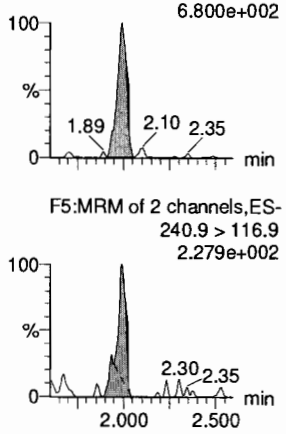
PFBA



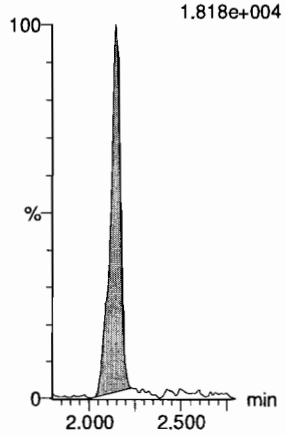
PFPrS



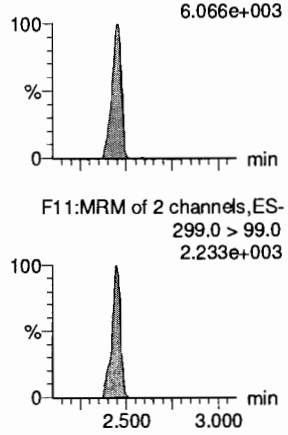
3:3 FTCA



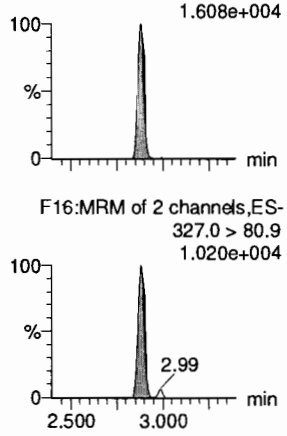
PFPeA



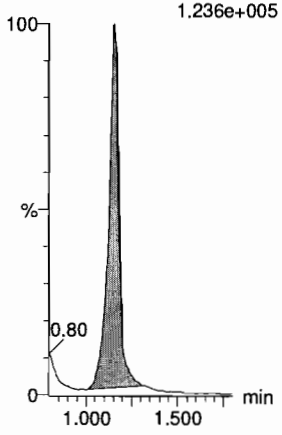
PFBS



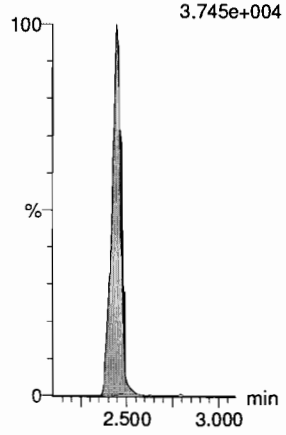
4:2 FTS



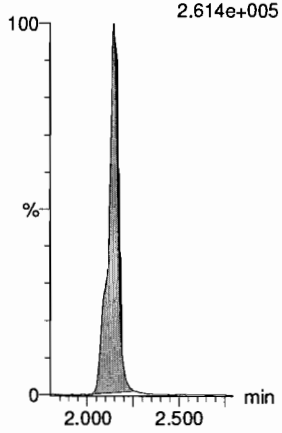
13C3-PFBA



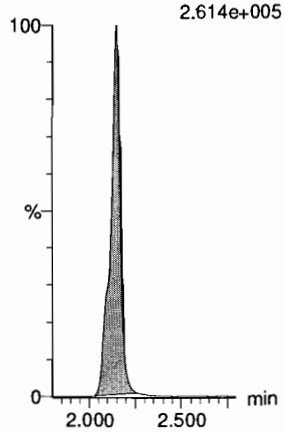
13C3-PFBS



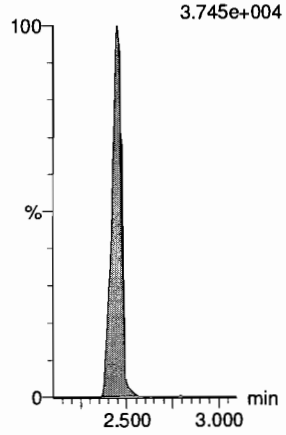
13C3-PFPeA



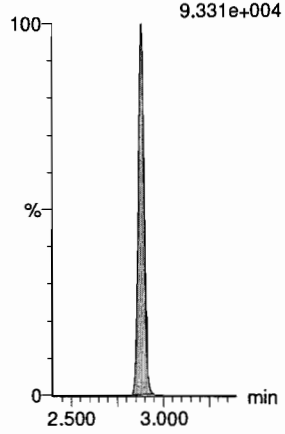
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

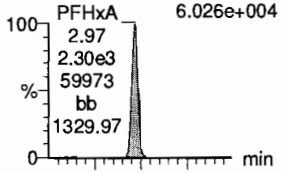


Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

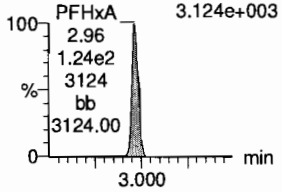
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_6, Date: 22-Jul-2019, Time: 10:47:48, ID: ST190722M1-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

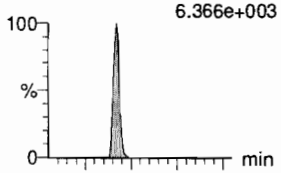
PFHxA
F13:MRM of 2 channels,ES-
313.0 > 269.0
6.026e+004
PFHxA
2.97
2.30e3
59973
bb
1329.97



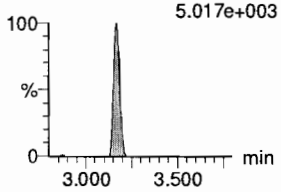
F13:MRM of 2 channels,ES-
313 > 118.9
3.124e+003
PFHxA
2.96
1.24e2
3124
bb
3124.00



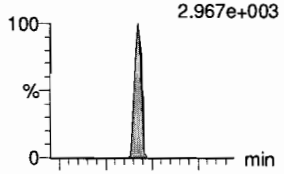
PFPeS
F19:MRM of 2 channels,ES-
349.1 > 80.1
6.366e+003



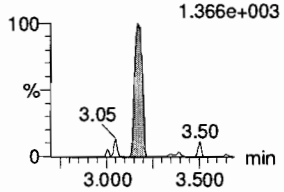
F19:MRM of 2 channels,ES-
349.1 > 99
5.017e+003



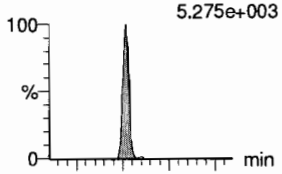
HFPO-DA
F9:MRM of 3 channels,ES-
285.1 > 168.9
2.967e+003



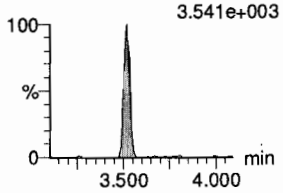
F9:MRM of 3 channels,ES-
285.1 > 184.9
1.366e+003



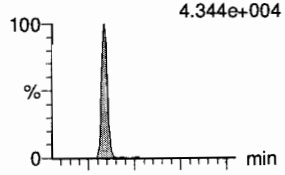
5:3 FTCA
F18:MRM of 2 channels,ES-
340.9 > 236.9
5.275e+003



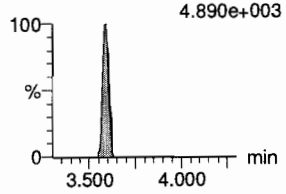
F18:MRM of 2 channels,ES-
340.9 > 216.9
3.541e+003



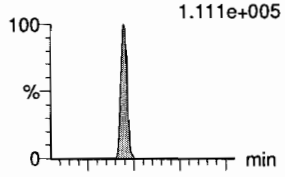
PFHpA
F20:MRM of 2 channels,ES-
363.0 > 318.9
4.344e+004



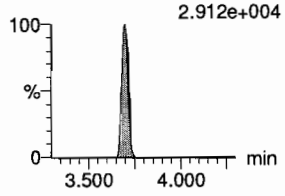
F20:MRM of 2 channels,ES-
363.0 > 169.0
4.890e+003



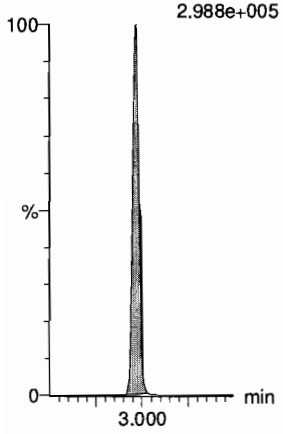
ADONA
F22:MRM of 2 channels,ES-
376.8 > 250.9
1.111e+005



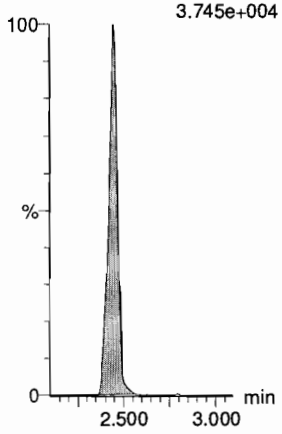
F22:MRM of 2 channels,ES-
376.8 > 85.0
2.912e+004



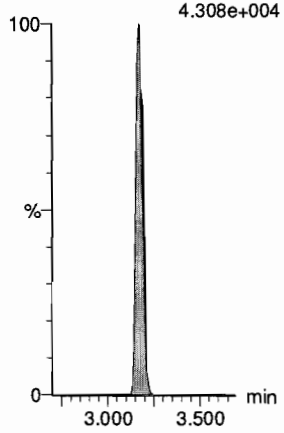
13C2-PFHxA
F14:MRM of 1 channel,ES-
315.0 > 270.0
2.988e+005



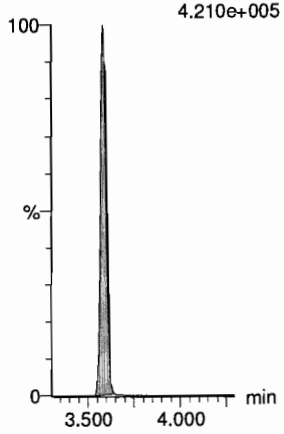
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.745e+004



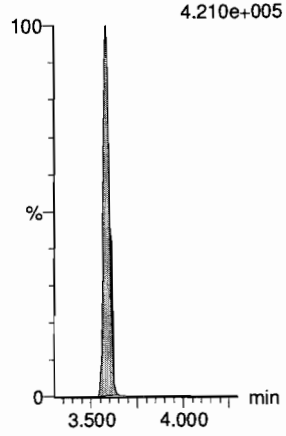
13C3-HFPO-DA
F10:MRM of 2 channels,ES-
287.0 > 168.9
4.308e+004



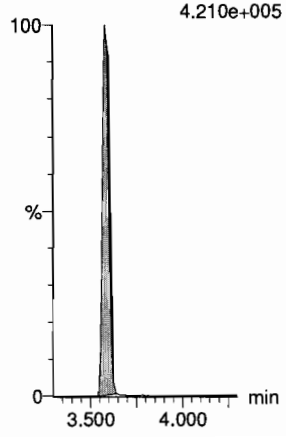
13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
4.210e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
4.210e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
4.210e+005

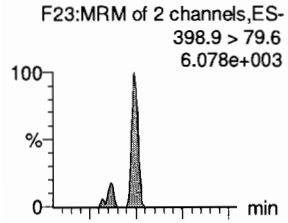


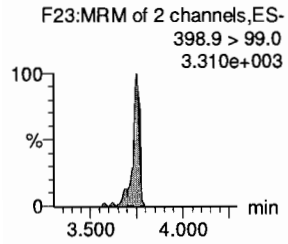
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

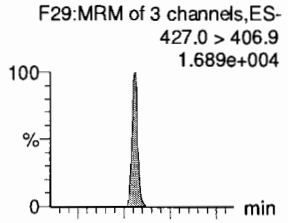
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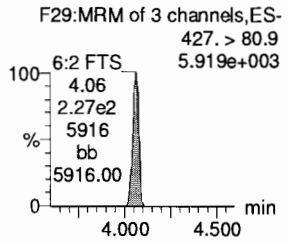
L-PFHxS



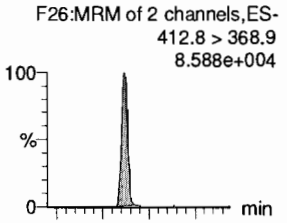


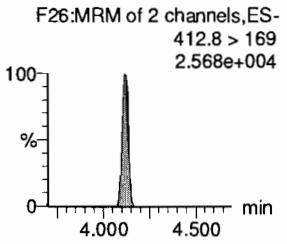
6:2 FTS



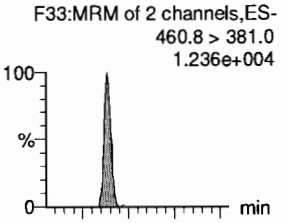


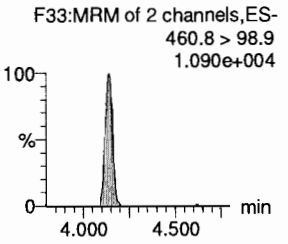
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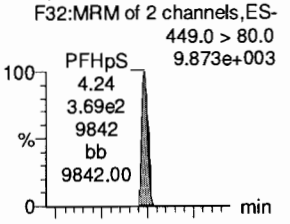


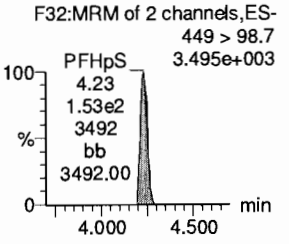
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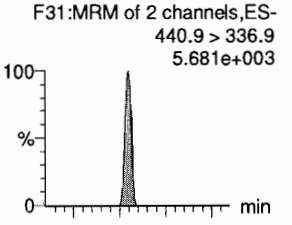


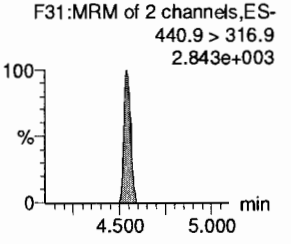
PFHpS



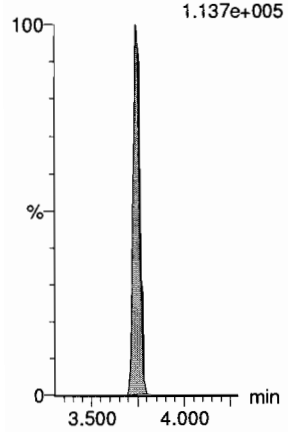


7:3 FTCA

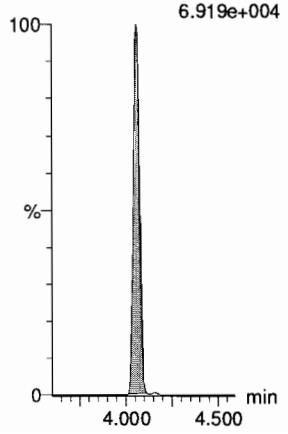




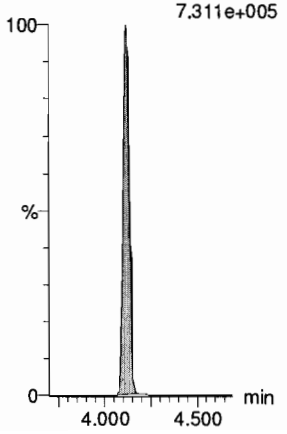
13C3-PFHxS



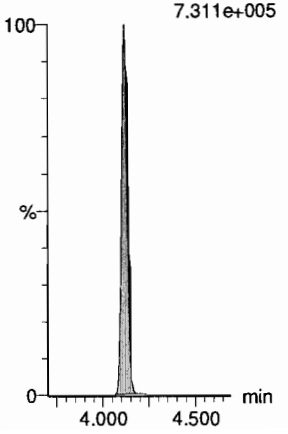
13C2-6:2 FTS



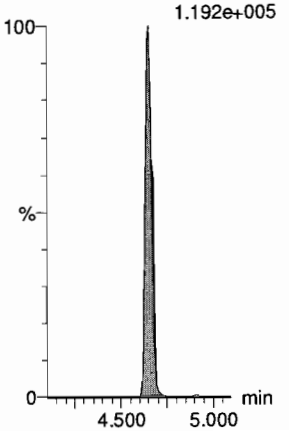
13C2-PFOA



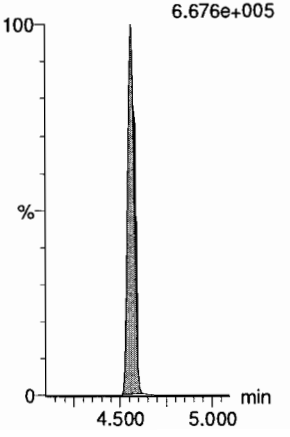
13C2-PFOA



13C8-PFOS



13C5-PFNA

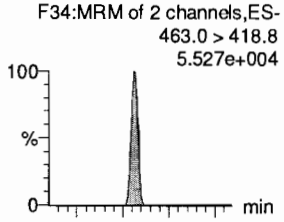


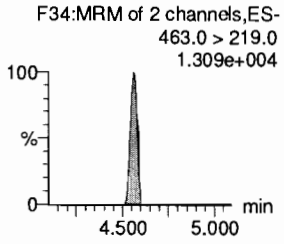
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

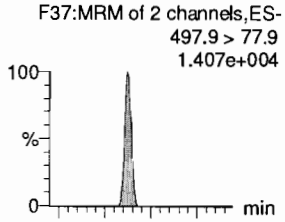
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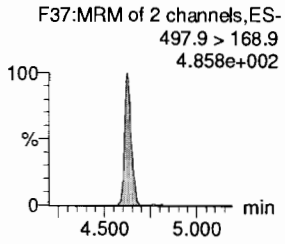
PFNA



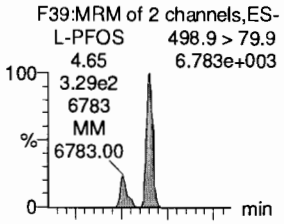


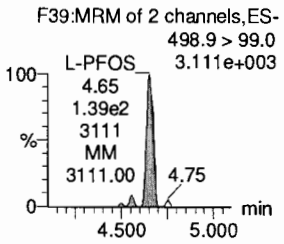
PFOSA



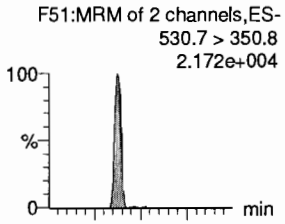


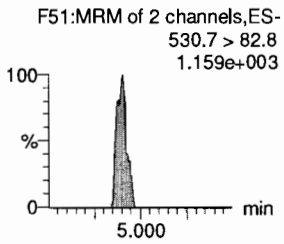
L-PFOS



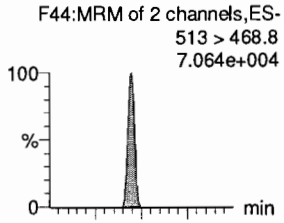


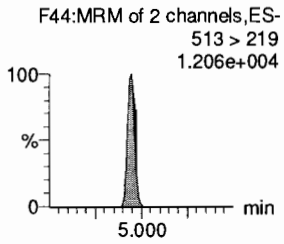
9Cl-PF30NS



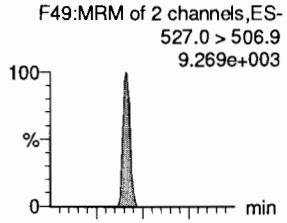


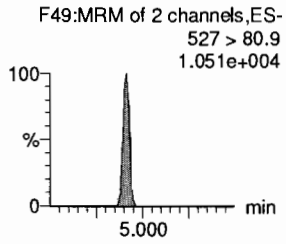
PFDA



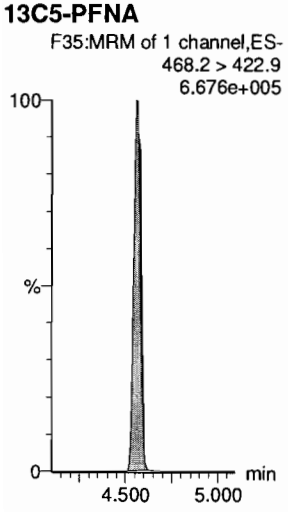


8:2 FTS

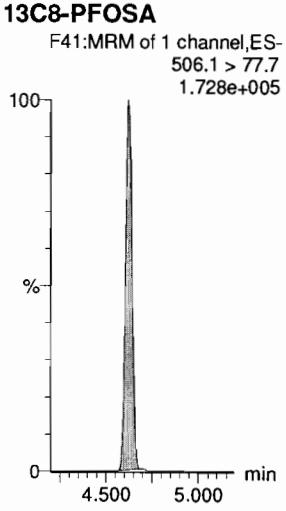




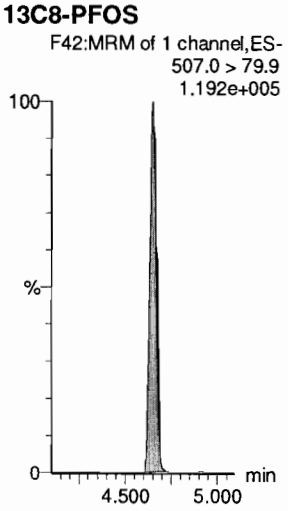
13C5-PFNA



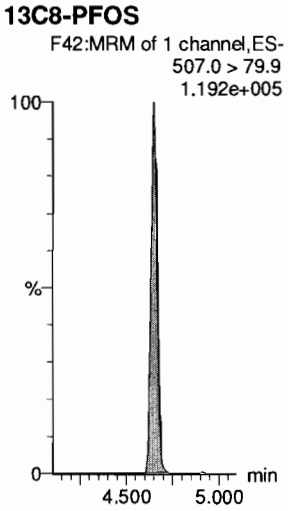
13C8-PFOSA



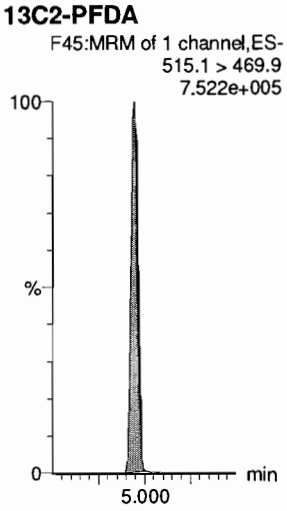
13C8-PFOS



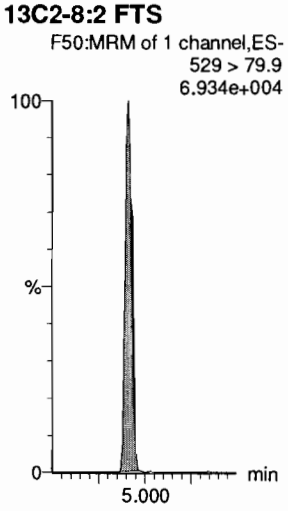
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

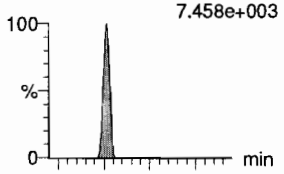


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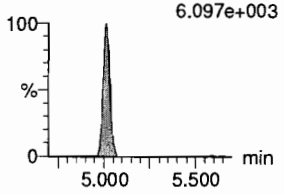
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Name: 190722M1_6, Date: 22-Jul-2019, Time: 10:47:48, ID: ST190722M1-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

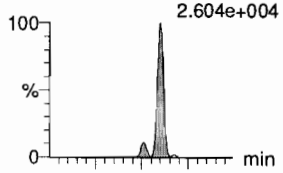
PFNS
F53:MRM of 2 channels,ES-
549.1 > 80.1
7.458e+003



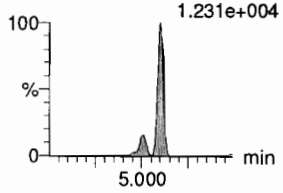
F53:MRM of 2 channels,ES-
549.1 > 99.1
6.097e+003



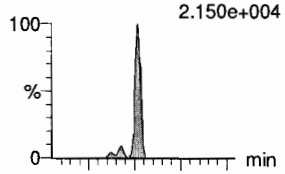
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
2.604e+004



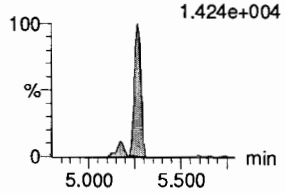
F56:MRM of 2 channels,ES-
570. > 512
1.231e+004



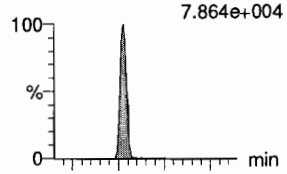
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
2.150e+004



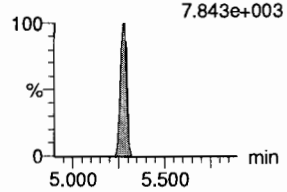
F59:MRM of 2 channels,ES-
584.1 > 526
1.424e+004



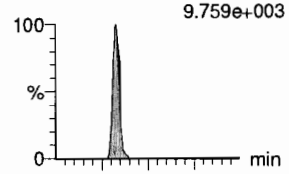
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
7.864e+004



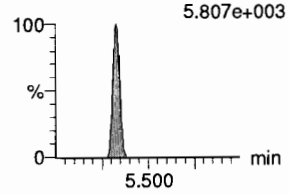
F54:MRM of 2 channels,ES-
563.0 > 269
7.843e+003



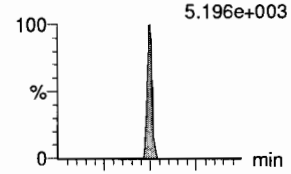
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
9.759e+003



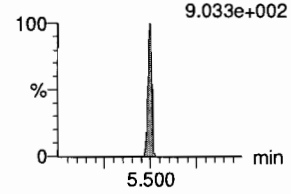
F61:MRM of 2 channels,ES-
598.8 > 98.9
5.807e+003



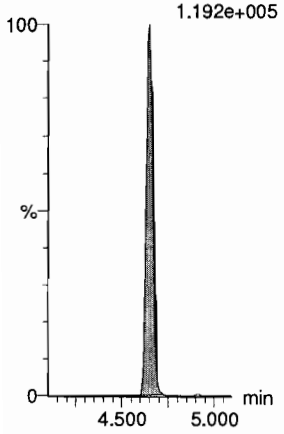
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
5.196e+003



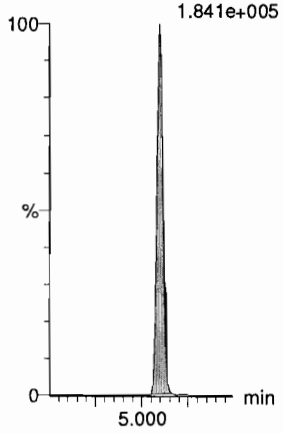
F68:MRM of 2 channels,ES-
632.6 > 450.7
9.033e+002



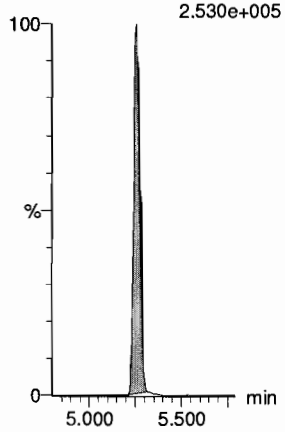
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
1.192e+005



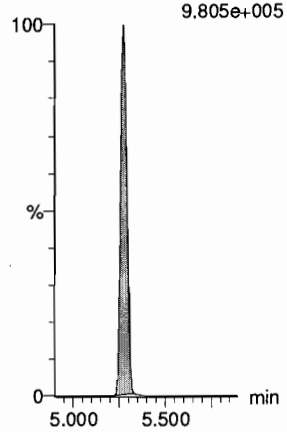
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
1.841e+005



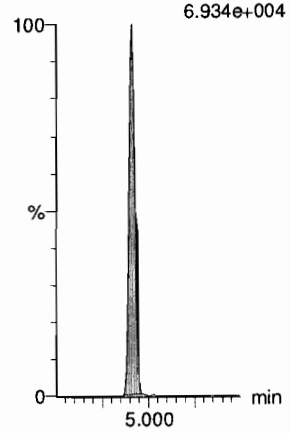
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
2.530e+005



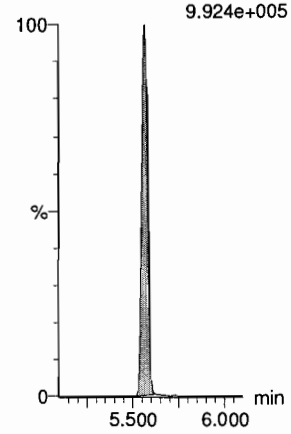
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
9.805e+005



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
6.934e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
9.924e+005

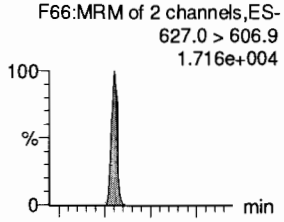


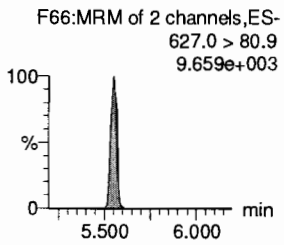
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

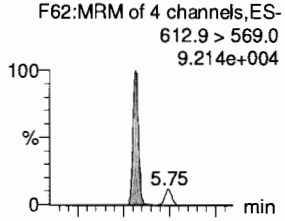
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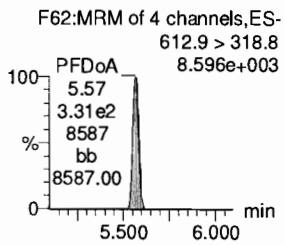
10:2 FTS



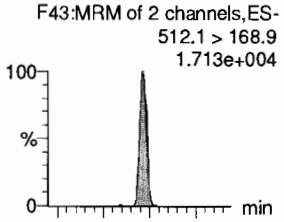


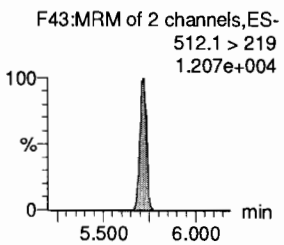
PFDoA



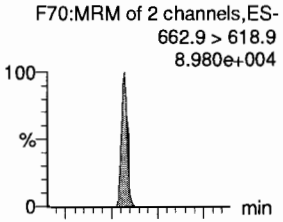


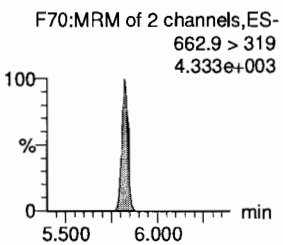
N-MeFOSA



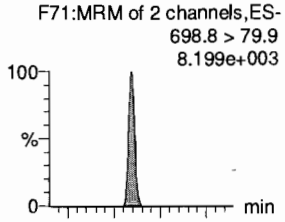


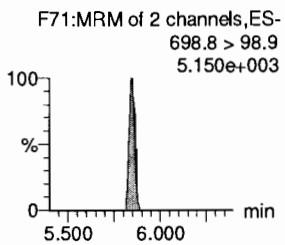
PFTrDA



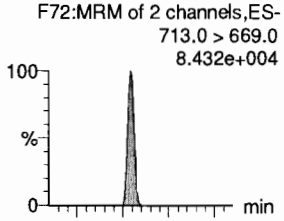


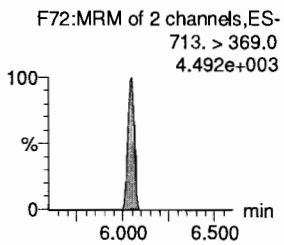
PFDoS



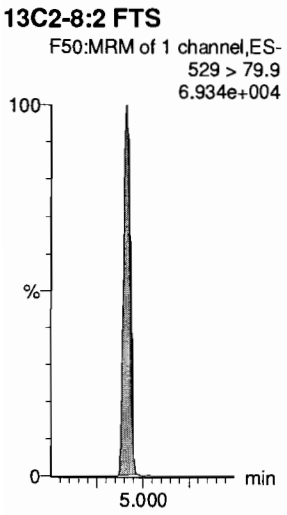


PFTeDA

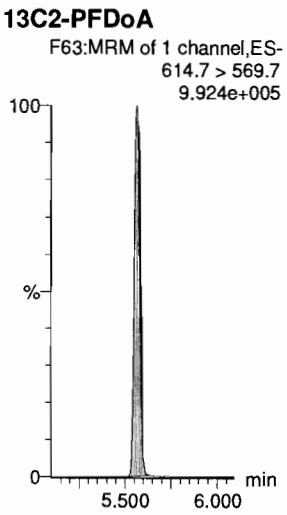




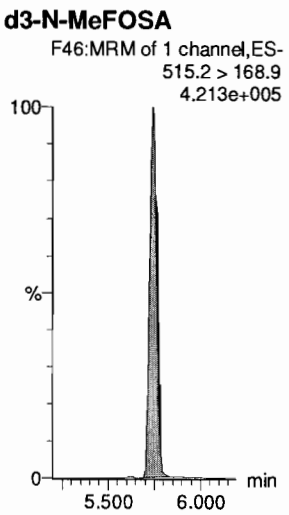
13C2-8:2 FTS



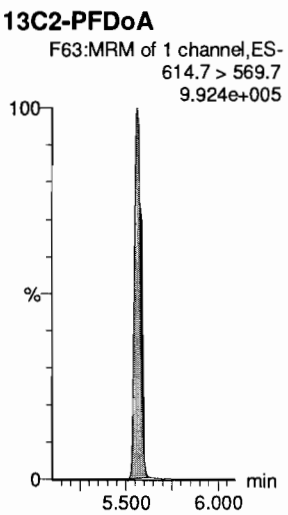
13C2-PFDoA



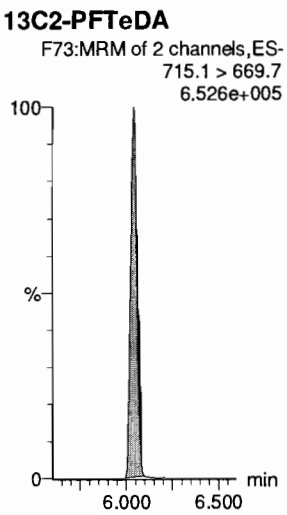
d3-N-MeFOSA



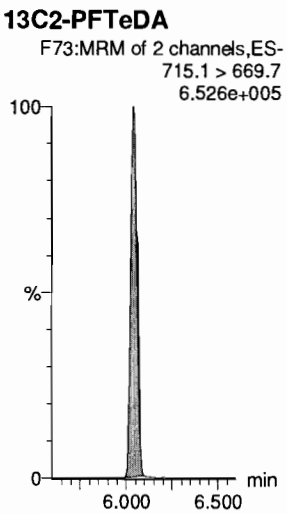
13C2-PFDoA



13C2-PFTeDA



13C2-PFTeDA

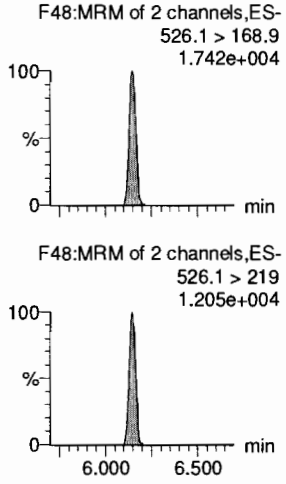


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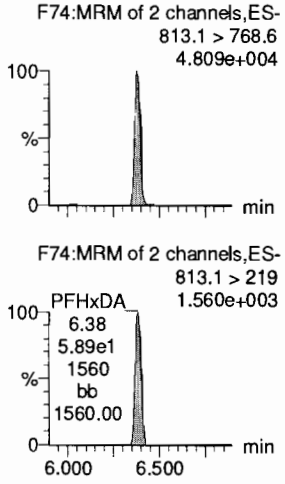
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Name: 190722M1_6, Date: 22-Jul-2019, Time: 10:47:48, ID: ST190722M1-3 PFC CS0 19G1103, Description: PFC CS0 19G1103

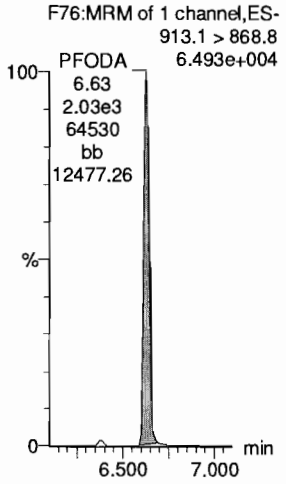
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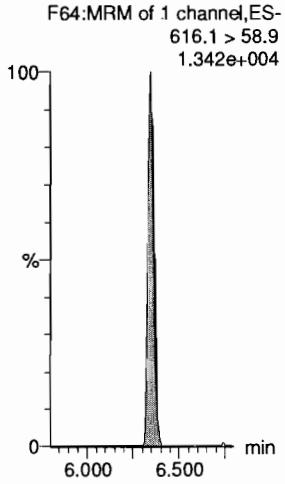
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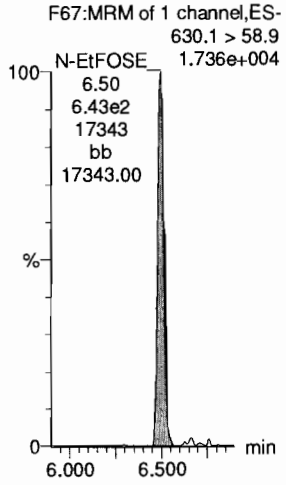
PFODA



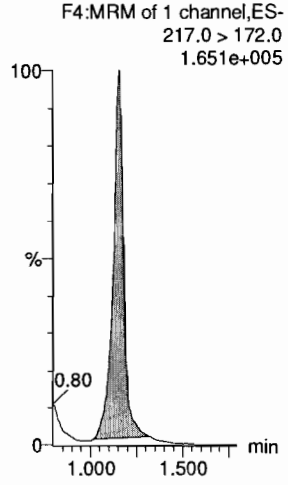
N-MeFOSE



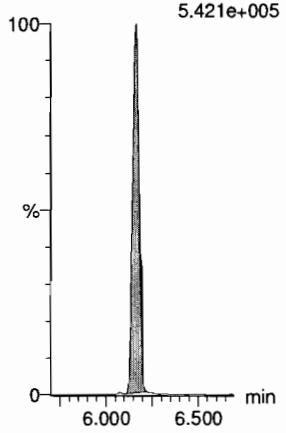
N-EtFOSE



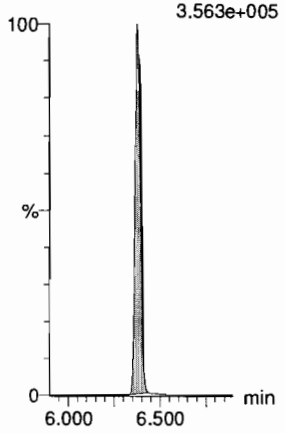
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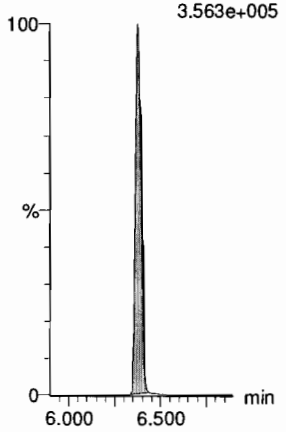
d5-N-ETFOSA



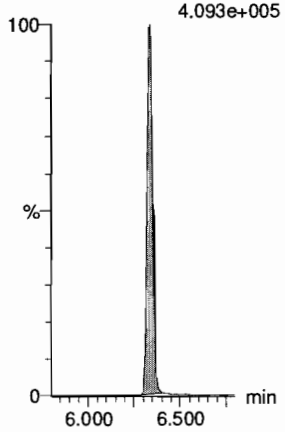
13C2-PFHxDA



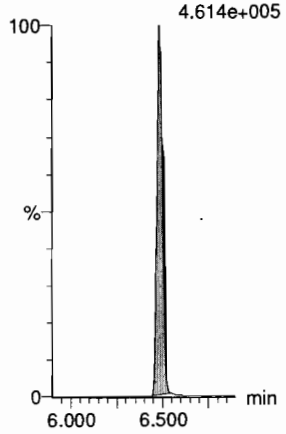
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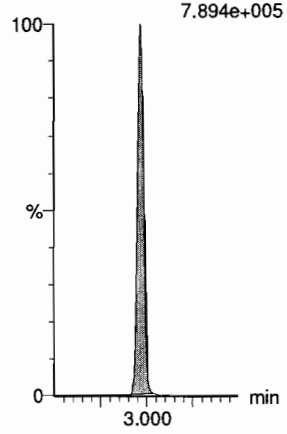
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

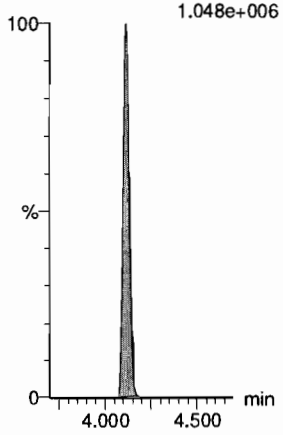


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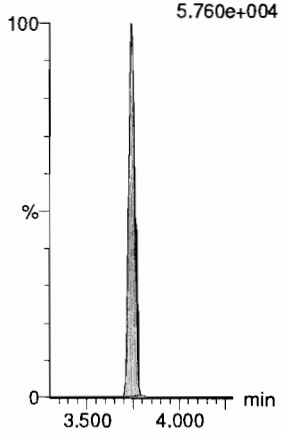
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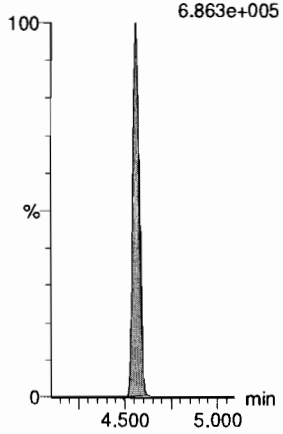
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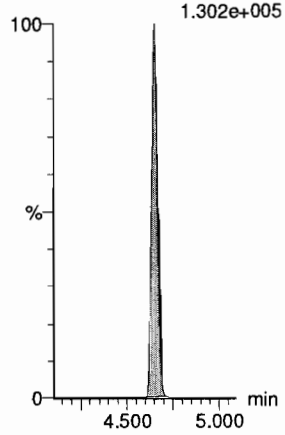
18O2-PFHxS



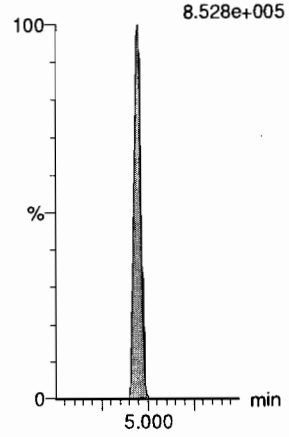
13C9-PFNA



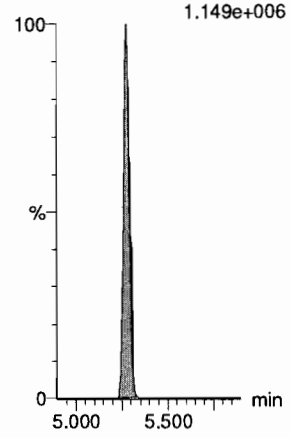
13C4-PFOS



13C6-PFDA



13C7-PFUdA

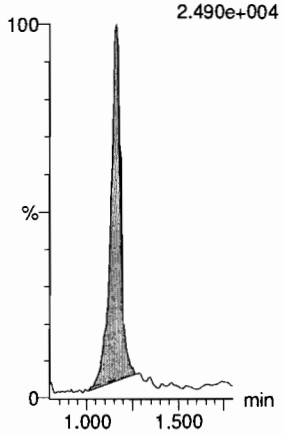


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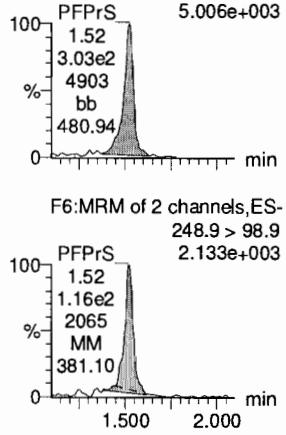
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Name: 190722M1_7, Date: 22-Jul-2019, Time: 10:58:26, ID: ST190722M1-4 PFC CS1 19G1104, Description: PFC CS1 19G1104

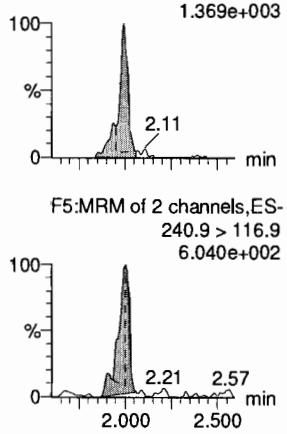
PFBA



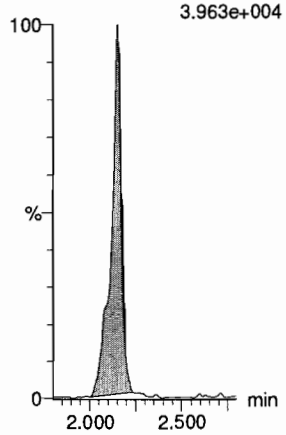
PFPrS



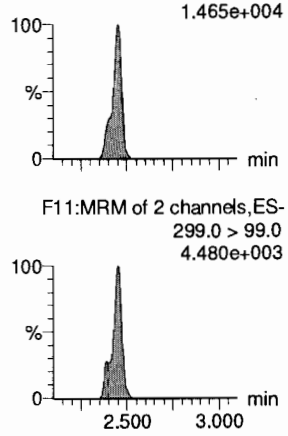
3:3 FTCA



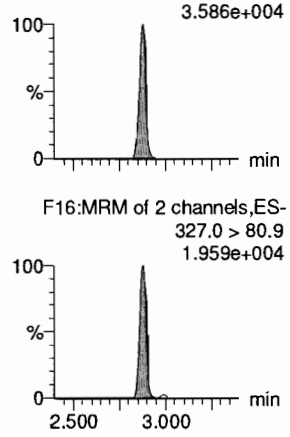
PFPeA



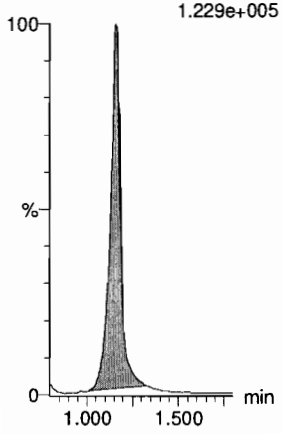
PFBS



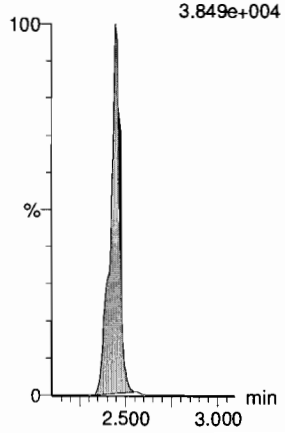
4:2 FTS



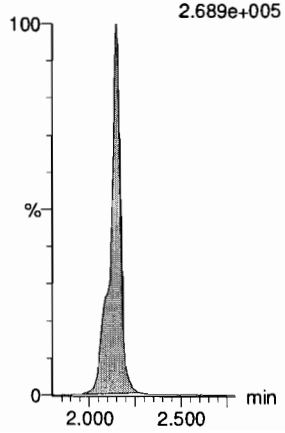
13C3-PFBA



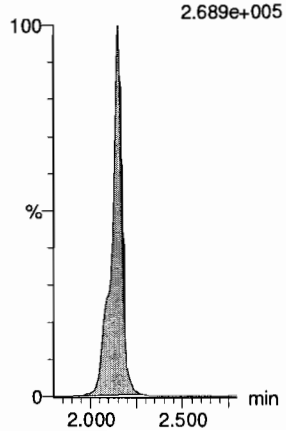
13C3-PFBS



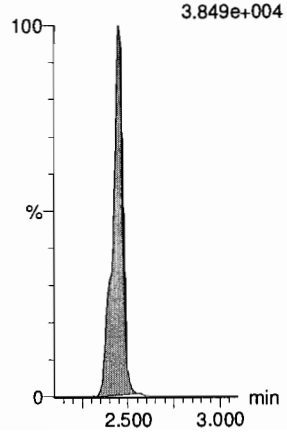
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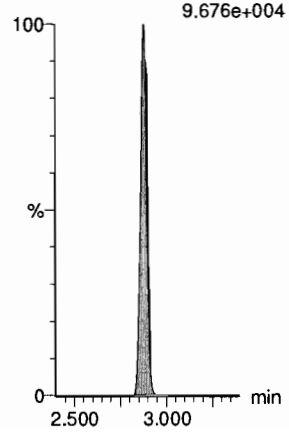
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

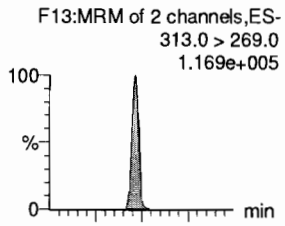


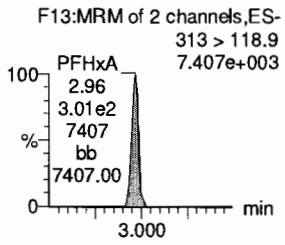
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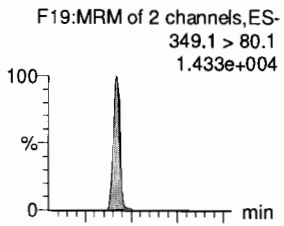
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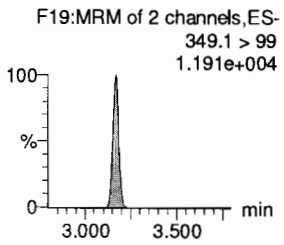
PFHxA



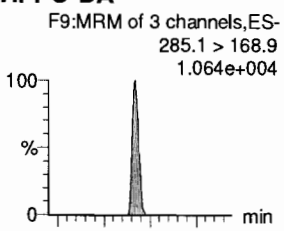


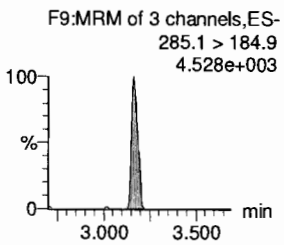
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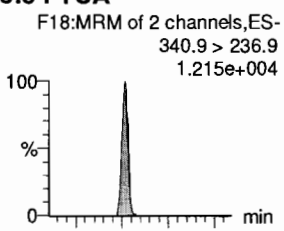


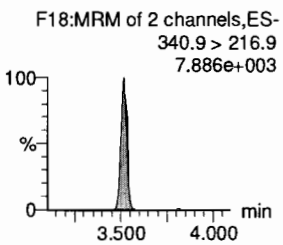
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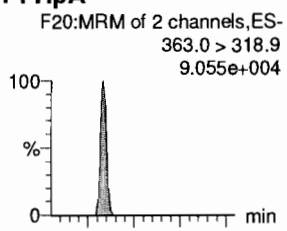


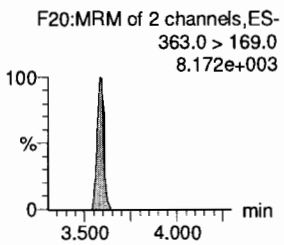
5:3 FTCA



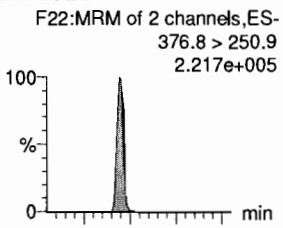


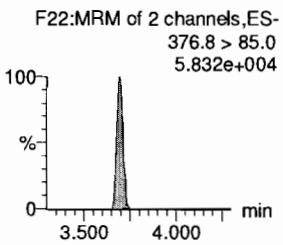
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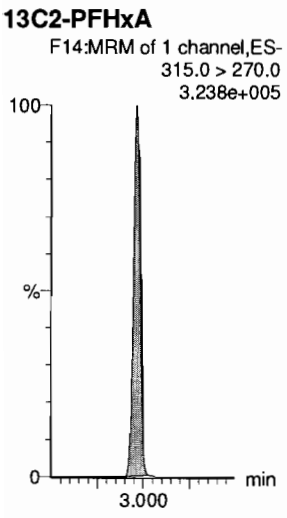


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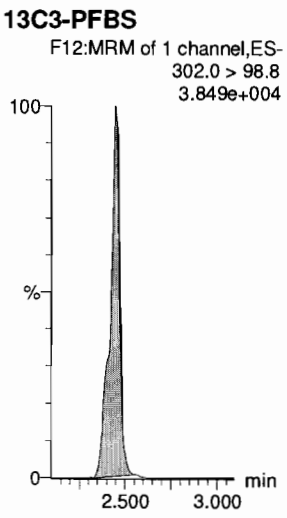




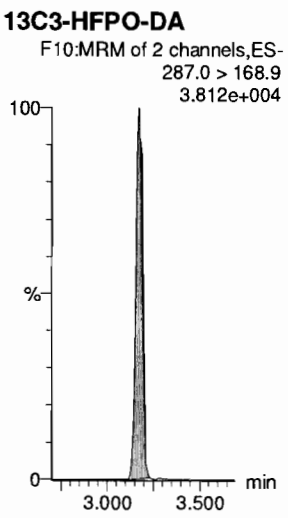
13C2-PFHxA



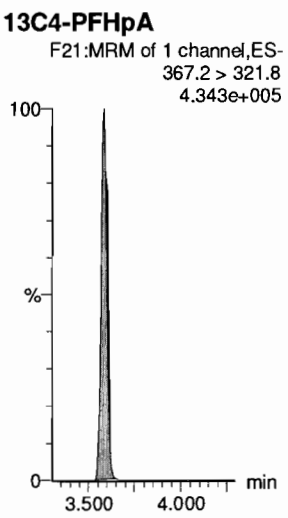
13C3-PFBS



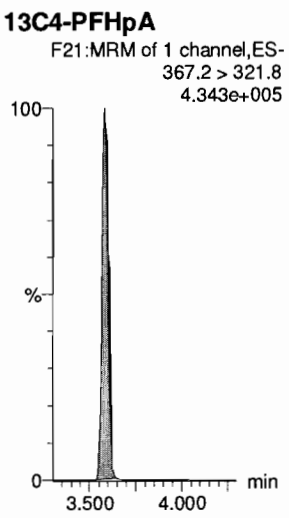
13C3-HFPO-DA



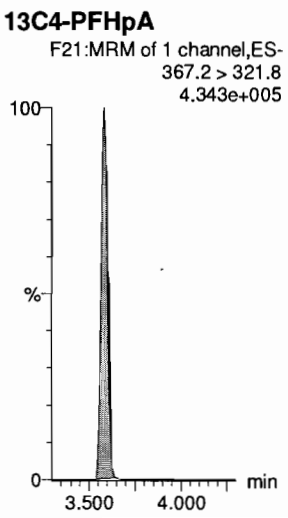
13C4-PFHpA



13C4-PFHpA



13C4-PFHpA

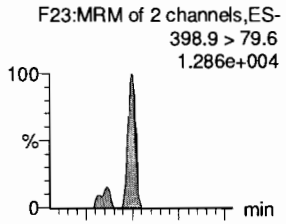


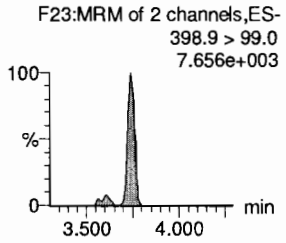
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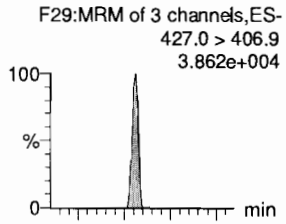
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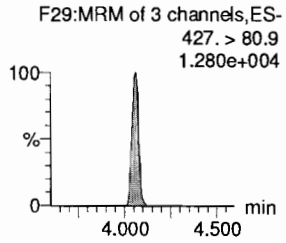
L-PFHxS



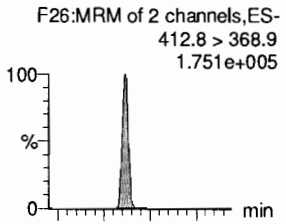


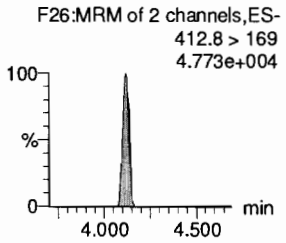
6:2 FTS



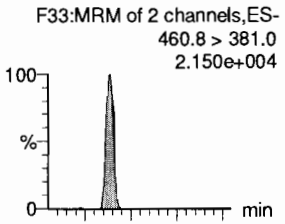


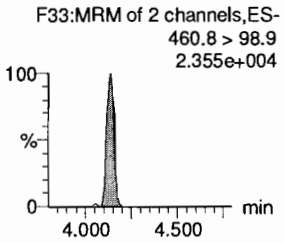
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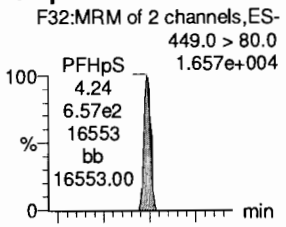


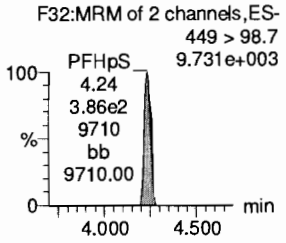
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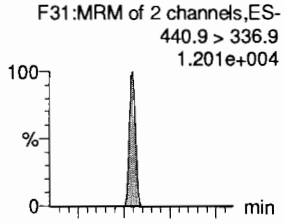


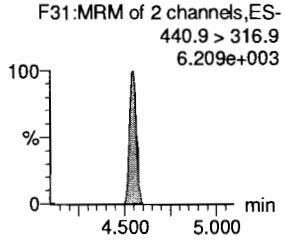
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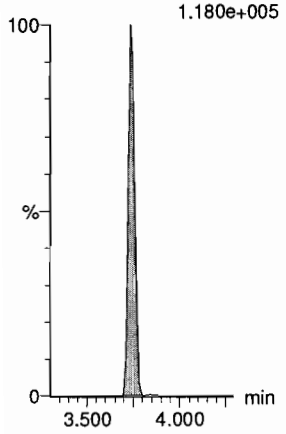


7:3 FTCA

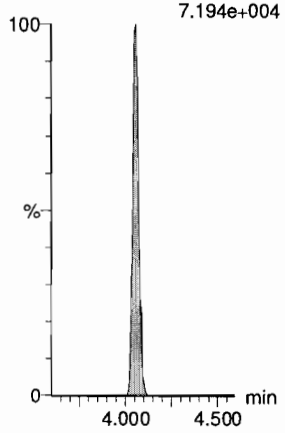




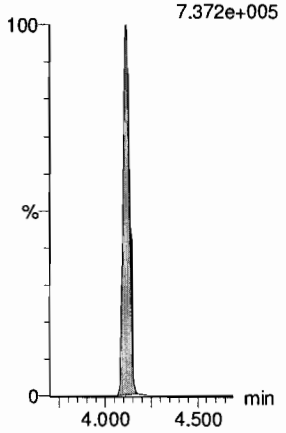
13C3-PFHxS



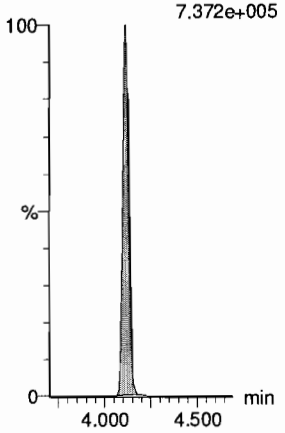
13C2-6:2 FTS



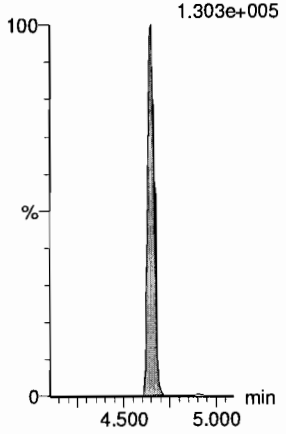
13C2-PFOA



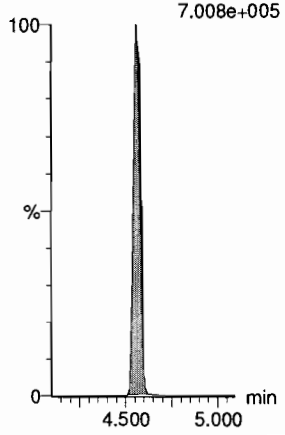
13C2-PFOA



13C8-PFOS



13C5-PFNA

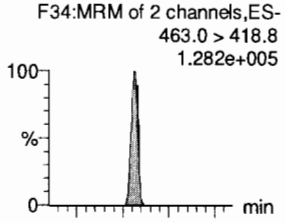


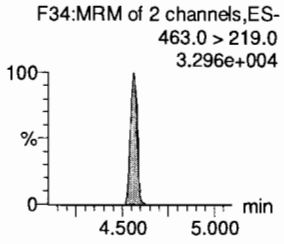
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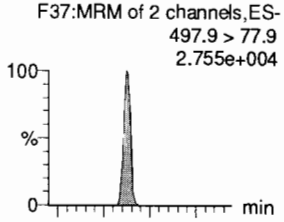
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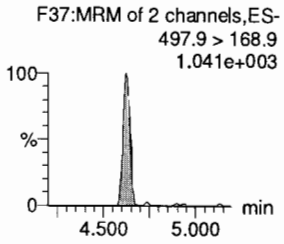
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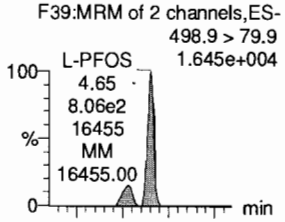


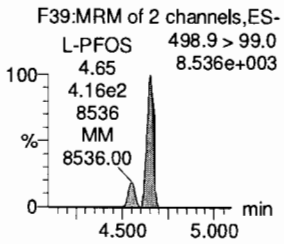
PFOSA



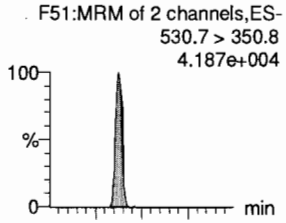


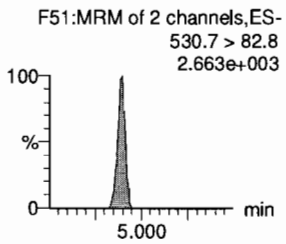
L-PFOS



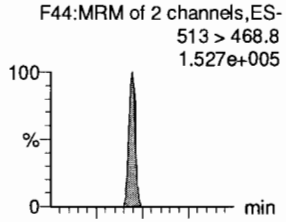


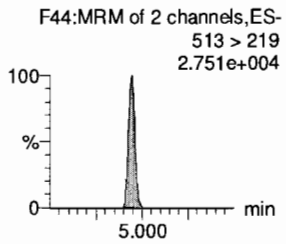
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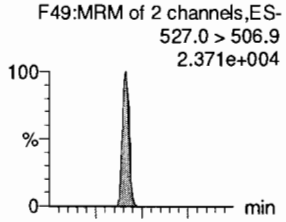


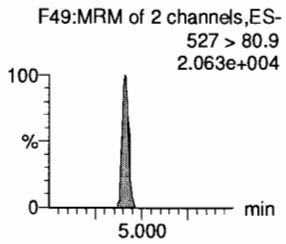
PFDA



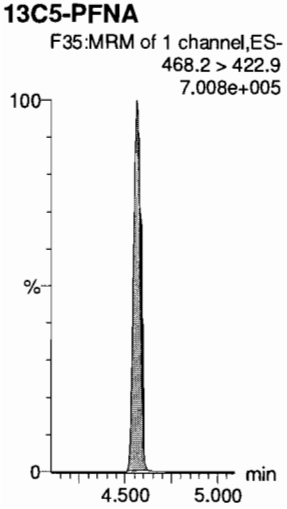


8:2 FTS

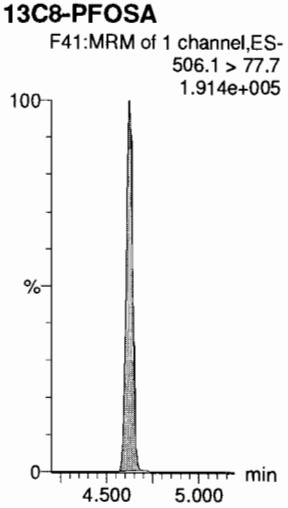




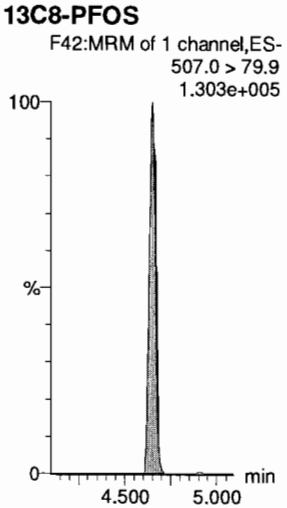
13C5-PFNA



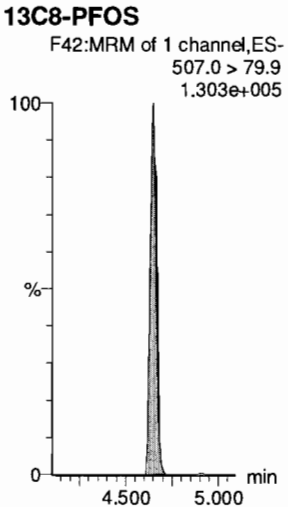
13C8-PFOSA



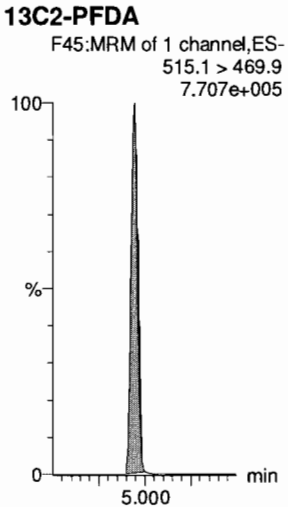
13C8-PFOS



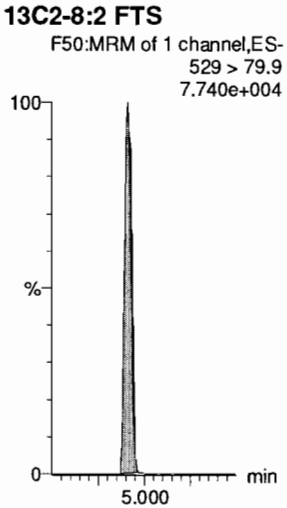
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

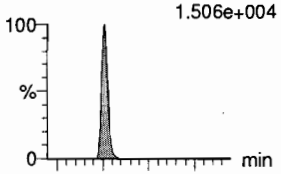


Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

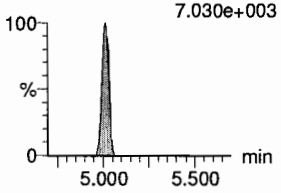
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_7, Date: 22-Jul-2019, Time: 10:58:26, ID: ST190722M1-4 PFC CS1 19G1104, Description: PFC CS1 19G1104

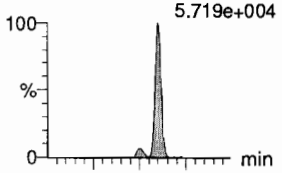
PFNS
F53:MRM of 2 channels,ES-
549.1 > 80.1
1.506e+004



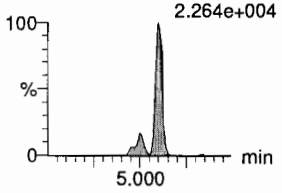
F53:MRM of 2 channels,ES-
549.1 > 99.1
7.030e+003



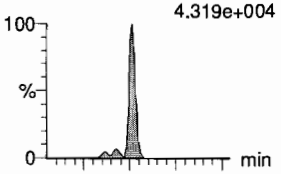
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
5.719e+004



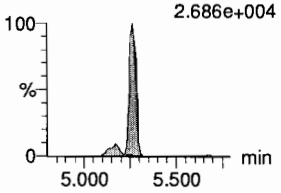
F56:MRM of 2 channels,ES-
570. > 512
2.264e+004



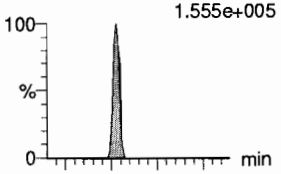
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
4.319e+004



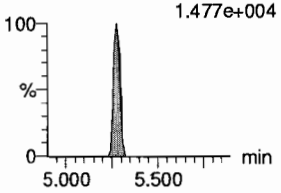
F59:MRM of 2 channels,ES-
584.1 > 526
2.686e+004



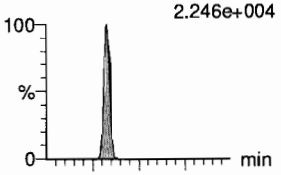
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
1.555e+005



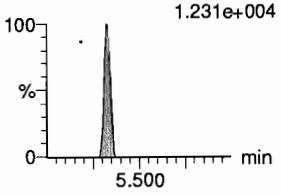
F54:MRM of 2 channels,ES-
563.0 > 269
1.477e+004



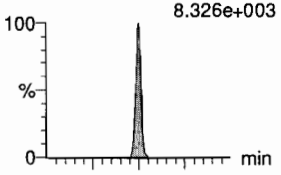
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
2.246e+004



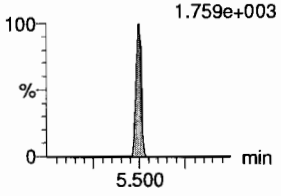
F61:MRM of 2 channels,ES-
598.8 > 98.9
1.231e+004



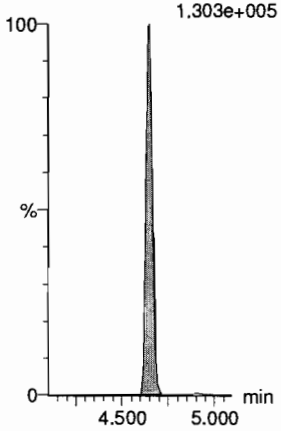
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
8.326e+003



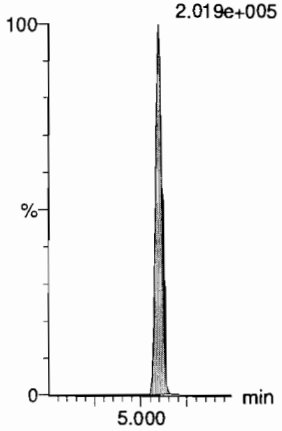
F68:MRM of 2 channels,ES-
632.6 > 450.7
1.759e+003



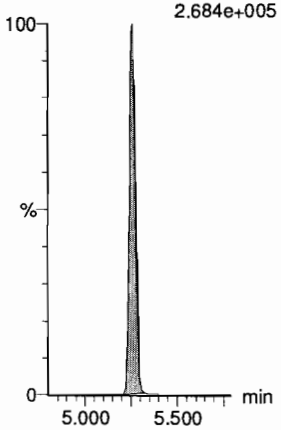
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
1.303e+005



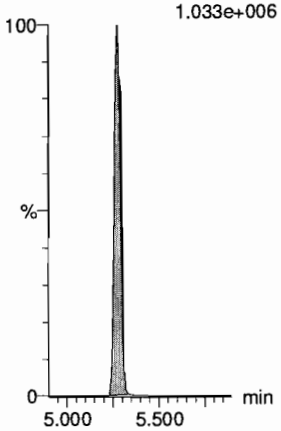
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
2.019e+005



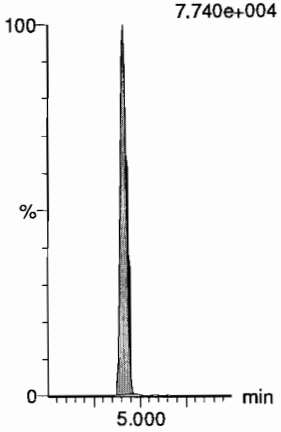
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
2.684e+005



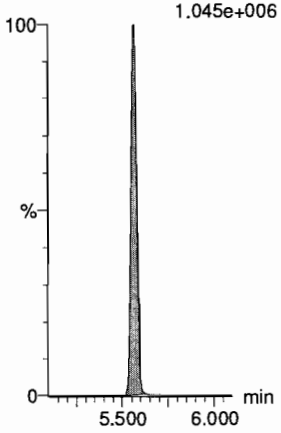
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
1.033e+006



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
7.740e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.045e+006

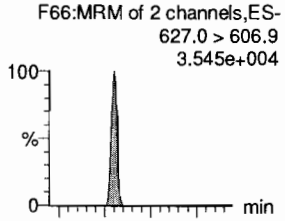


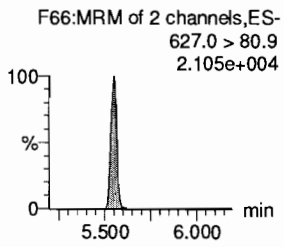
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

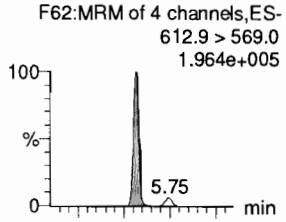
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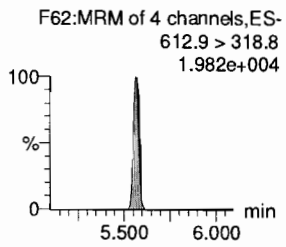
10:2 FTS



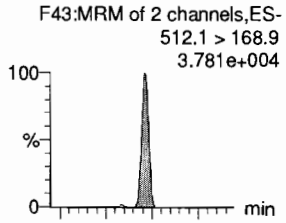


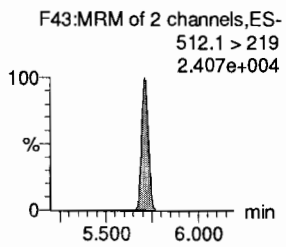
PFDoA



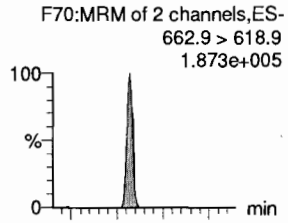


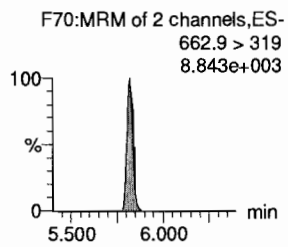
N-MeFOSA



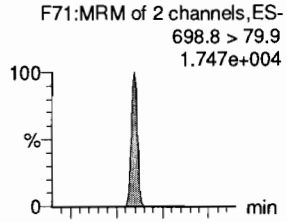


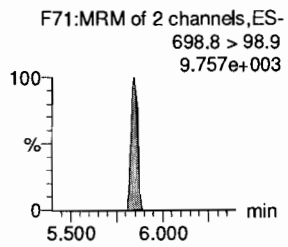
PFTrDA



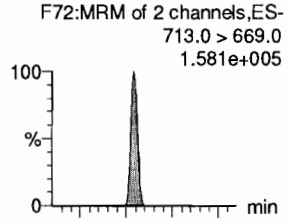


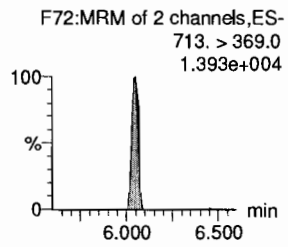
PFDoS



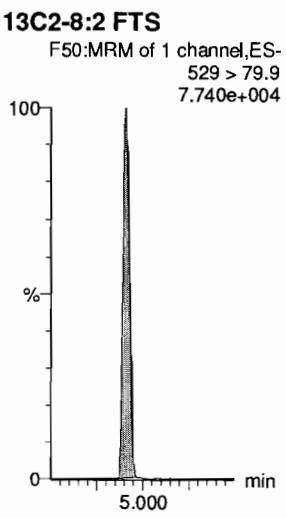


PFTeDA

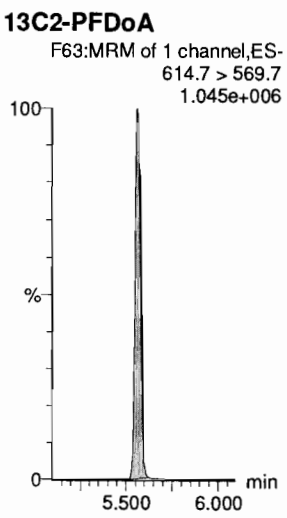




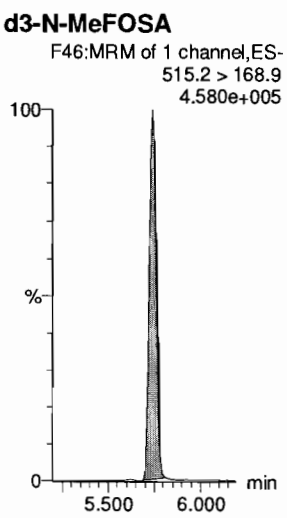
13C2-8:2 FTS



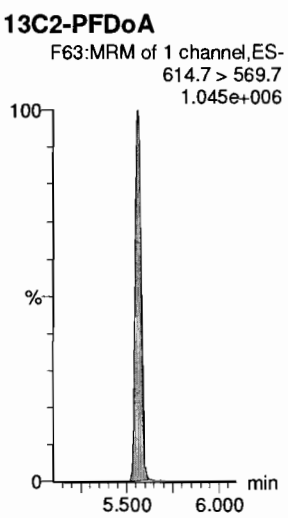
13C2-PFDoA



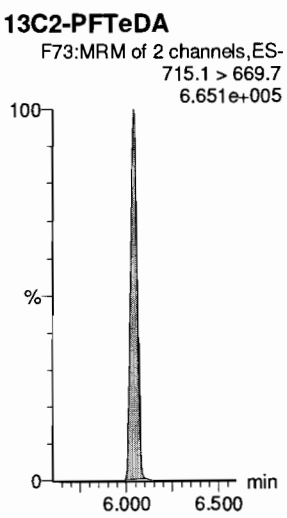
d3-N-MeFOSA



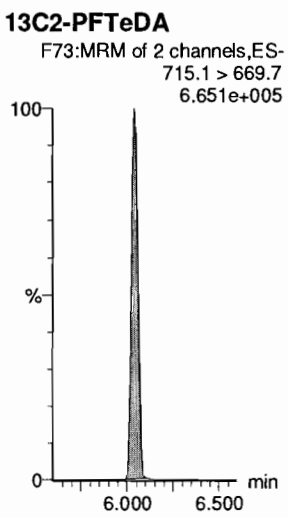
13C2-PFDoA



13C2-PFTeDA



13C2-PFTeDA

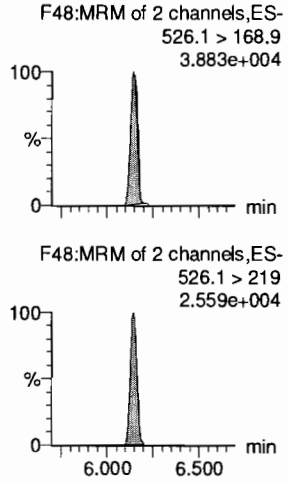


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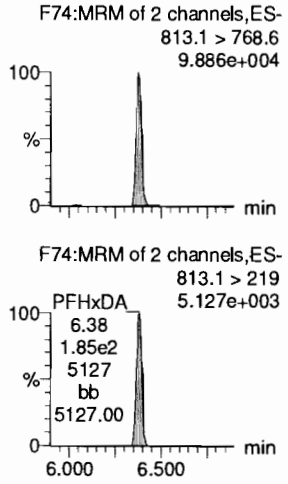
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Name: 190722M1_7, Date: 22-Jul-2019, Time: 10:58:26, ID: ST190722M1-4 PFC CS1 19G1104, Description: PFC CS1 19G1104

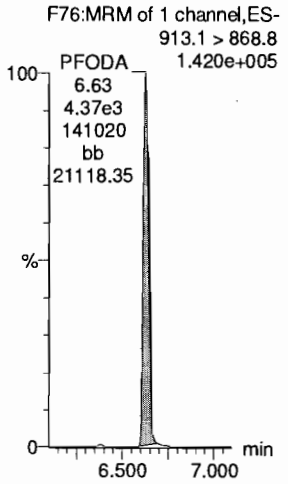
N-EtFOSA



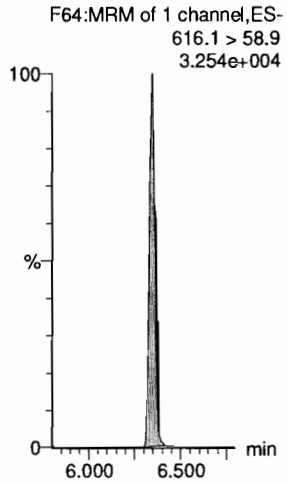
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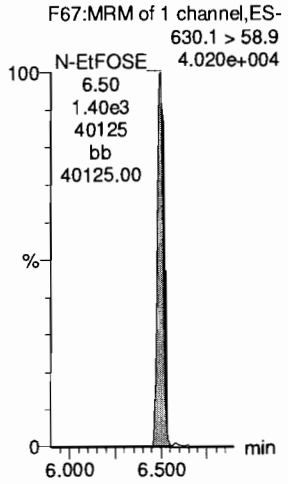
PFODA



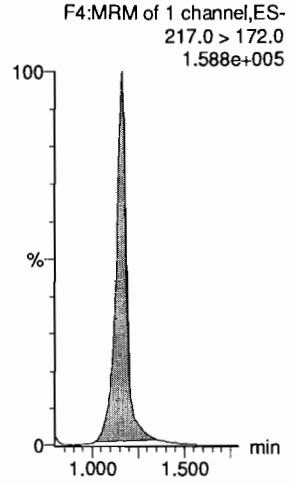
N-MeFOSE



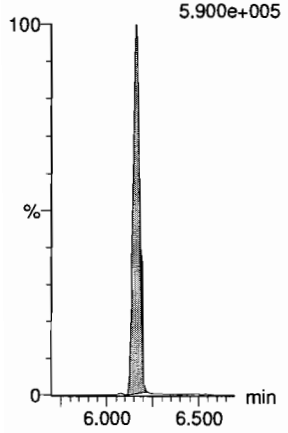
N-EtFOSE



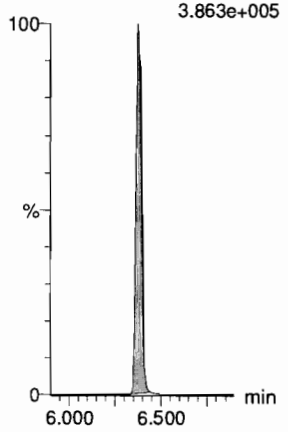
13C4-PFBA



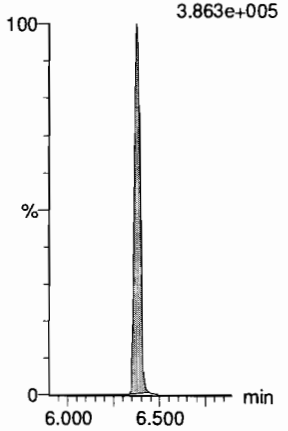
d5-N-ETFOSA



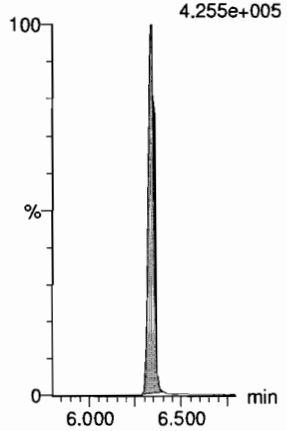
13C2-PFHxDA



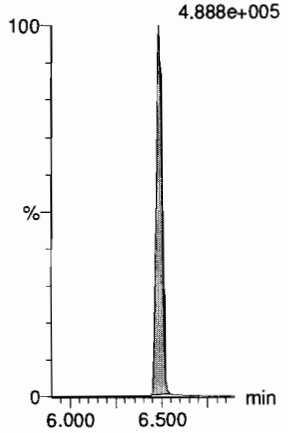
13C2-PFHxDA



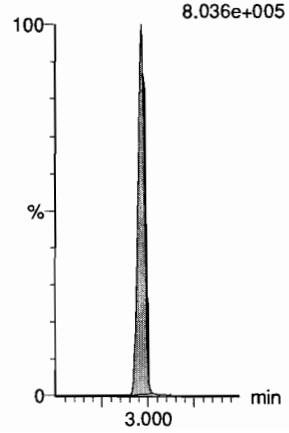
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

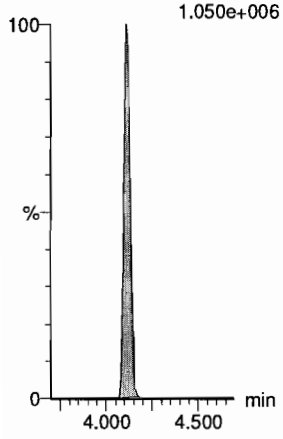


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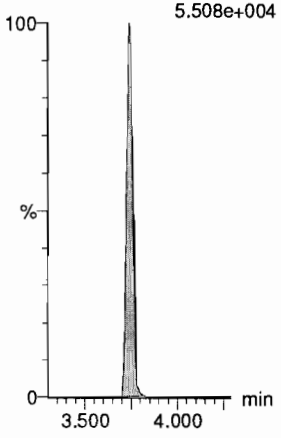
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_7, Date: 22-Jul-2019, Time: 10:58:26, ID: ST190722M1-4 PFC CS1 19G1104, Description: PFC CS1 19G1104

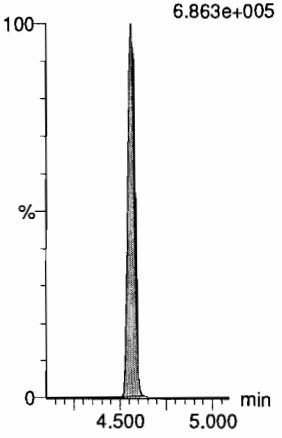
13C8-PFOA
F28:MRM of 1 channel,ES-
420.9 > 376.0
1.050e+006



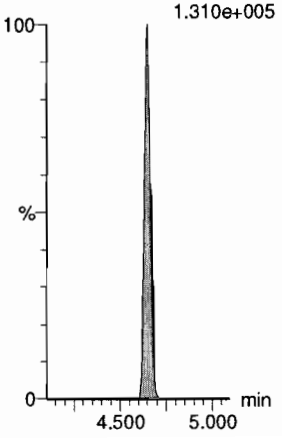
18O2-PFHxS
F25:MRM of 1 channel,ES-
403.0 > 102.6
5.508e+004



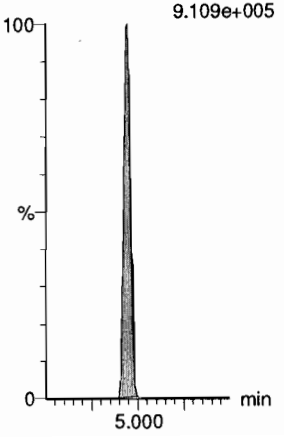
13C9-PFNA
F36:MRM of 1 channel,ES-
472.2 > 426.9
6.863e+005



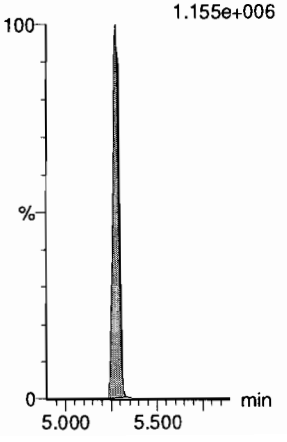
13C4-PFOS
F40:MRM of 1 channel,ES-
503 > 79.9
1.310e+005



13C6-PFDA
F47:MRM of 1 channel,ES-
519.1 > 473.7
9.109e+005



13C7-PFUdA
F57:MRM of 1 channel,ES-
570.1 > 524.8
1.155e+006

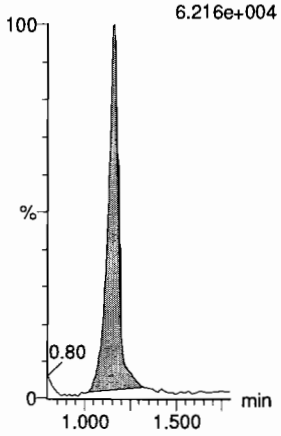


Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

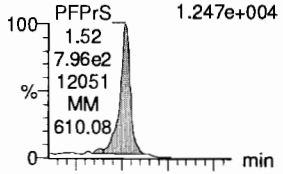
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_8, Date: 22-Jul-2019, Time: 11:09:04, ID: ST190722M1-5 PFC CS2 19G1105, Description: PFC CS2 19G1105

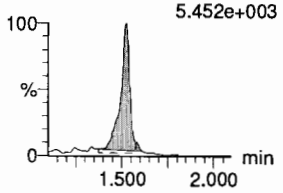
PFBA
F2:MRM of 1 channel,ES-
213.0 > 168.8
6.216e+004



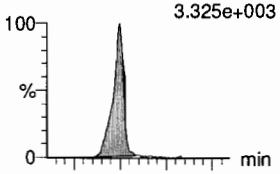
PFPrS
F6:MRM of 2 channels,ES-
248.9 > 79.9
1.247e+004



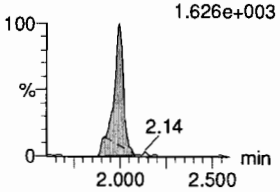
F6:MRM of 2 channels,ES-
248.9 > 98.9
5.452e+003



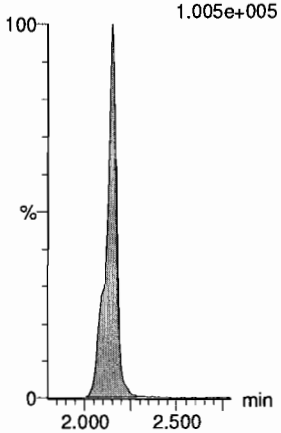
3:3 FTCA
F5:MRM of 2 channels,ES-
240.9 > 176.9
3.325e+003



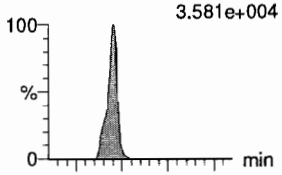
F5:MRM of 2 channels,ES-
240.9 > 116.9
1.626e+003



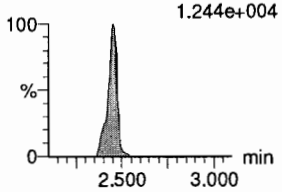
PFPeA
F7:MRM of 1 channel,ES-
263.1 > 218.9
1.005e+005



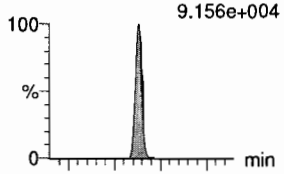
PFBS
F11:MRM of 2 channels,ES-
299.0 > 79.7
3.581e+004



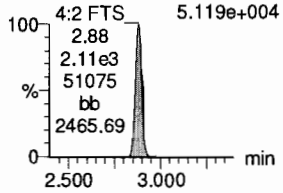
F11:MRM of 2 channels,ES-
299.0 > 99.0
1.244e+004



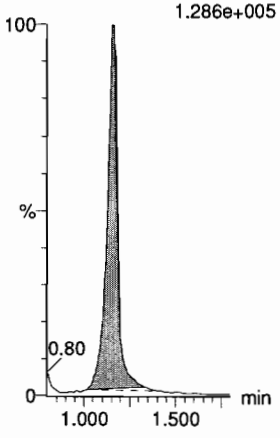
4:2 FTS
F16:MRM of 2 channels,ES-
327.0 > 306.9
9.156e+004



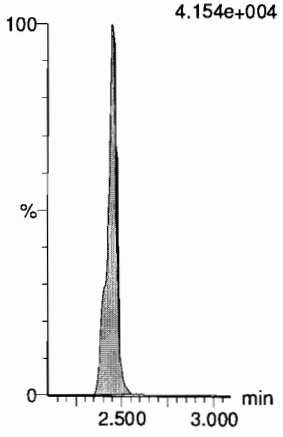
F16:MRM of 2 channels,ES-
327.0 > 80.9
5.119e+004



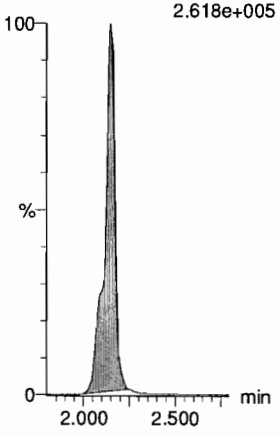
13C3-PFBA
F3:MRM of 1 channel,ES-
216.1 > 171.8
1.286e+005



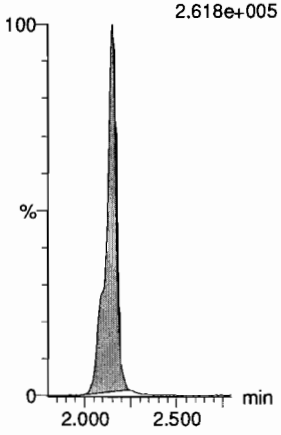
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
4.154e+004



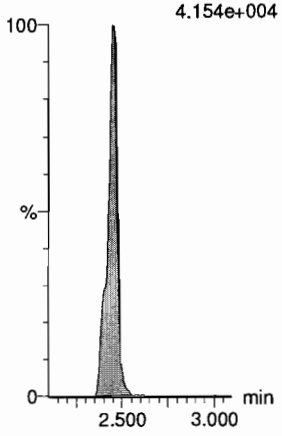
13C3-PFPeA
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.618e+005



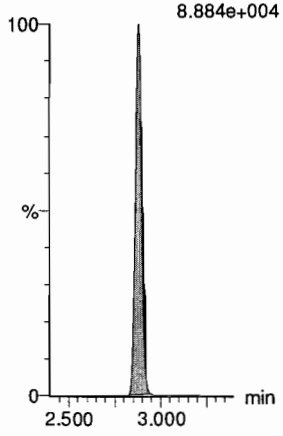
13C3-PFPeA
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.618e+005



13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
4.154e+004



13C2-4:2 FTS
F17:MRM of 2 channels,ES-
329.0 > 79.9
8.884e+004

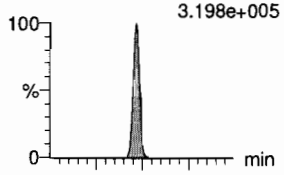


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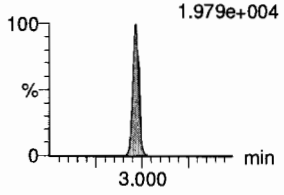
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_8, Date: 22-Jul-2019, Time: 11:09:04, ID: ST190722M1-5 PFC CS2 19G1105, Description: PFC CS2 19G1105

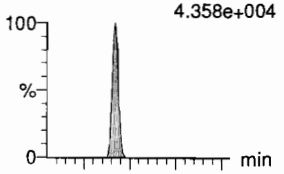
PFHxA
F13:MRM of 2 channels,ES-
313.0 > 269.0
3.198e+005



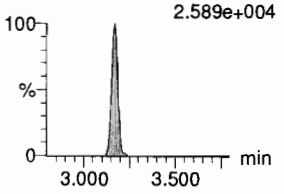
F13:MRM of 2 channels,ES-
313 > 118.9
1.979e+004



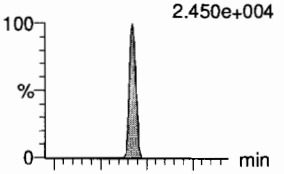
PFPeS
F19:MRM of 2 channels,ES-
349.1 > 80.1
4.358e+004



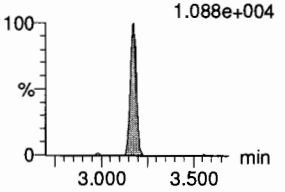
F19:MRM of 2 channels,ES-
349.1 > 99
2.589e+004



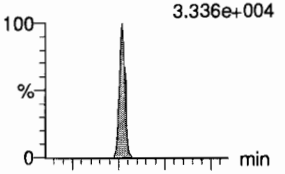
HFPO-DA
F9:MRM of 3 channels,ES-
285.1 > 168.9
2.450e+004



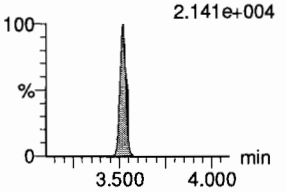
F9:MRM of 3 channels,ES-
285.1 > 184.9
1.088e+004



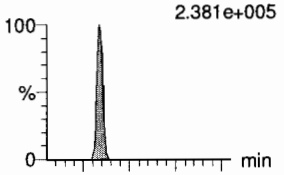
5:3 FTCA
F18:MRM of 2 channels,ES-
340.9 > 236.9
3.336e+004



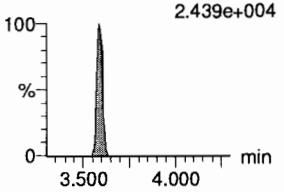
F18:MRM of 2 channels,ES-
340.9 > 216.9
2.141e+004



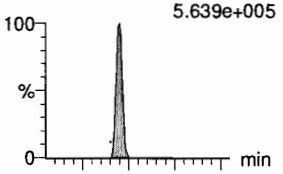
PFHpA
F20:MRM of 2 channels,ES-
363.0 > 318.9
2.381e+005



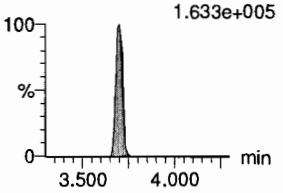
F20:MRM of 2 channels,ES-
363.0 > 169.0
2.439e+004



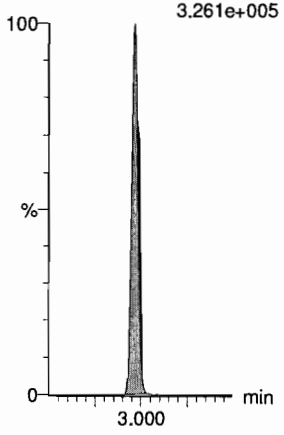
ADONA
F22:MRM of 2 channels,ES-
376.8 > 250.9
5.639e+005



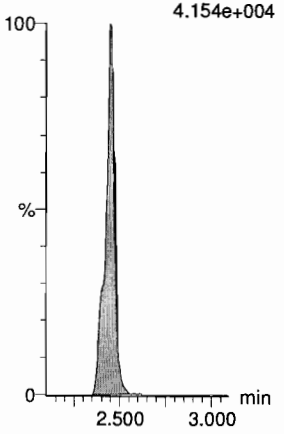
F22:MRM of 2 channels,ES-
376.8 > 85.0
1.633e+005



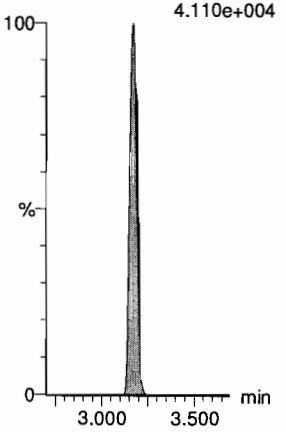
13C2-PFHxA
F14:MRM of 1 channel,ES-
315.0 > 270.0
3.261e+005



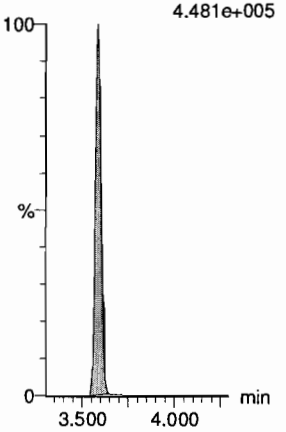
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
4.154e+004



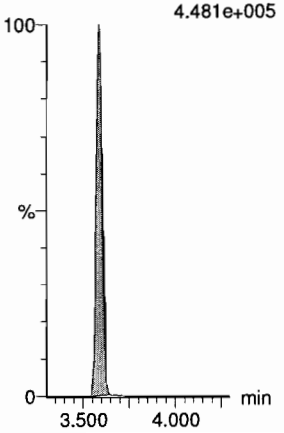
13C3-HFPO-DA
F10:MRM of 2 channels,ES-
287.0 > 168.9
4.110e+004



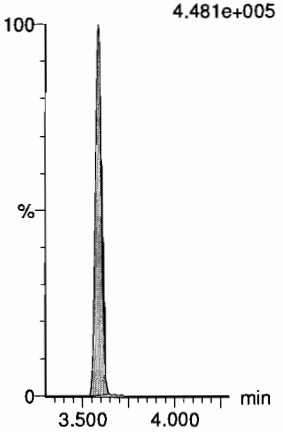
13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
4.481e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
4.481e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
4.481e+005

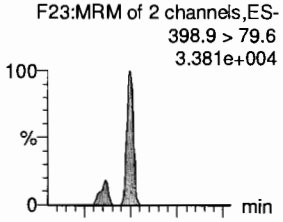


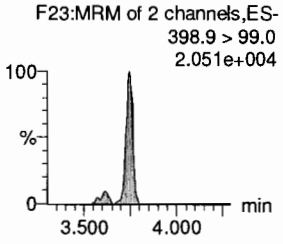
Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

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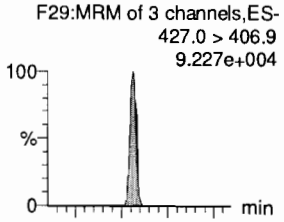
Name: 190722M1_8, Date: 22-Jul-2019, Time: 11:09:04, ID: ST190722M1-5 PFC CS2 19G1105, Description: PFC CS2 19G1105

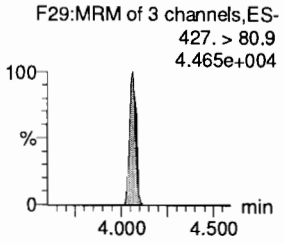
L-PFHxS



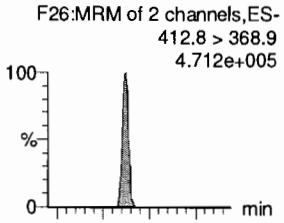


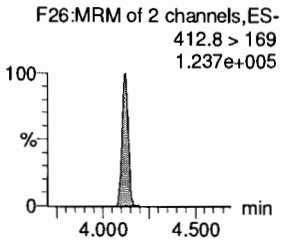
6:2 FTS



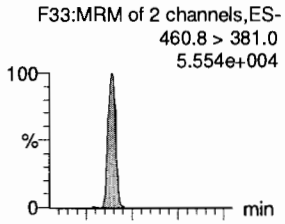


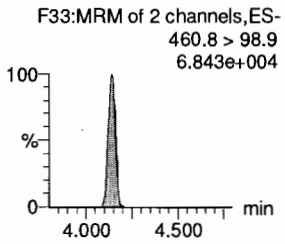
L-PFOA



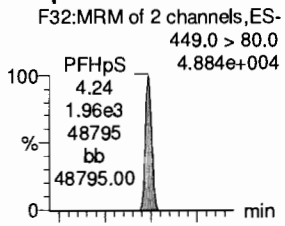


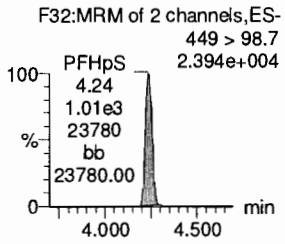
PFEChS



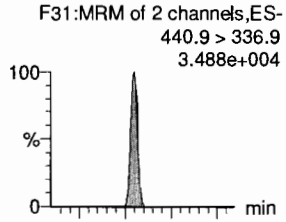


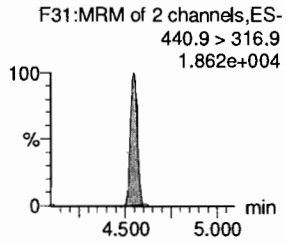
PFHpS



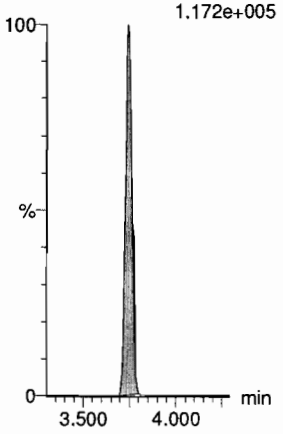


7:3 FTCA

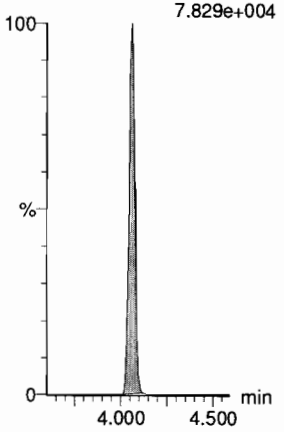




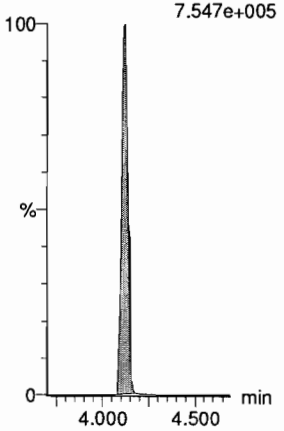
13C3-PFHxS



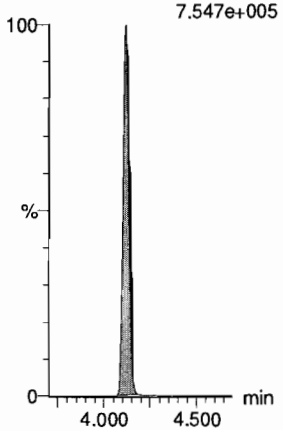
13C2-6:2 FTS



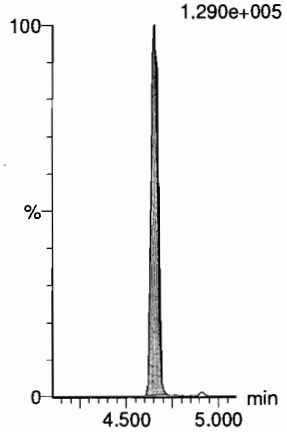
13C2-PFOA



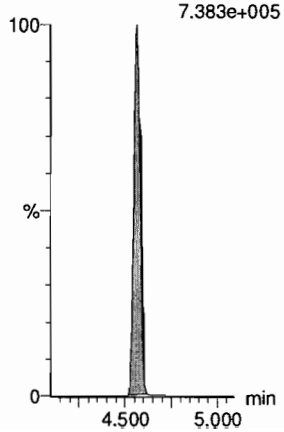
13C2-PFOA



13C8-PFOS



13C5-PFNA

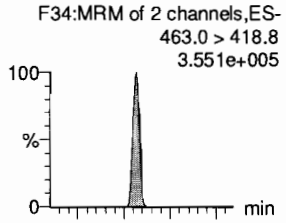


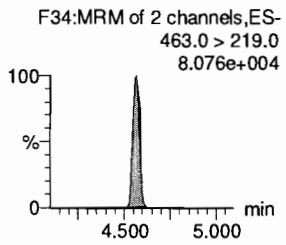
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

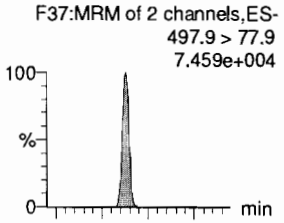
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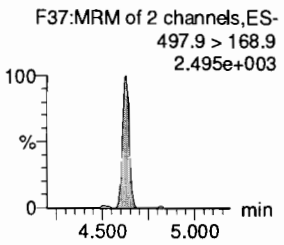
PFNA



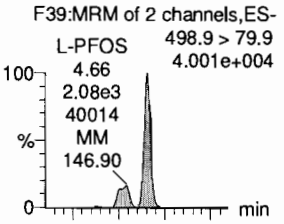


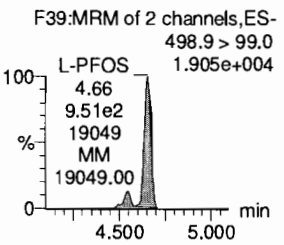
PFOSA



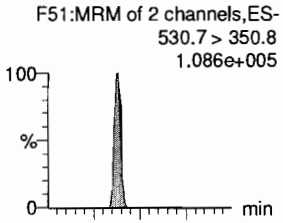


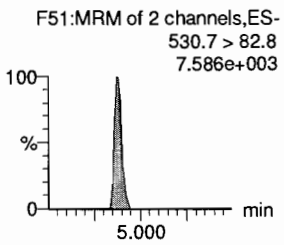
L-PFOS



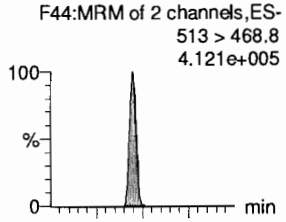


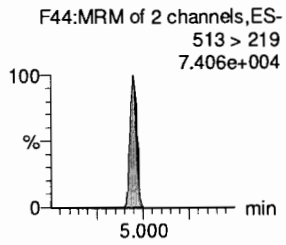
9Cl-PF30NS



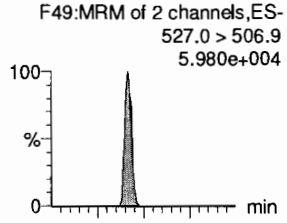


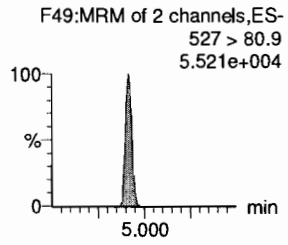
PFDA



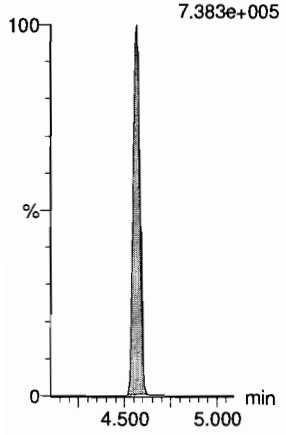


8:2 FTS

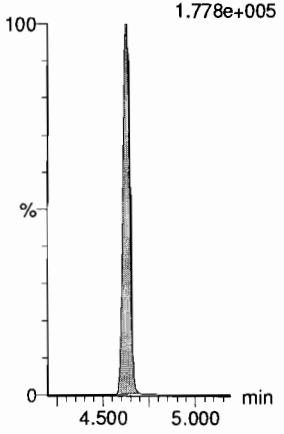




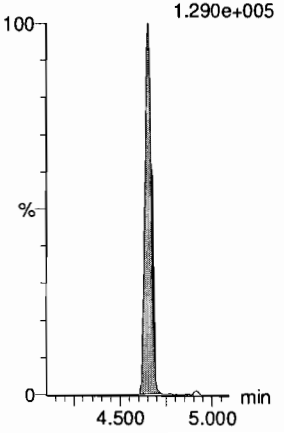
13C5-PFNA



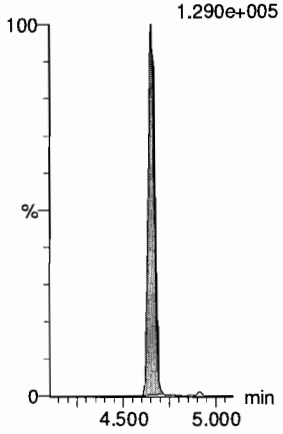
13C8-PFOSA



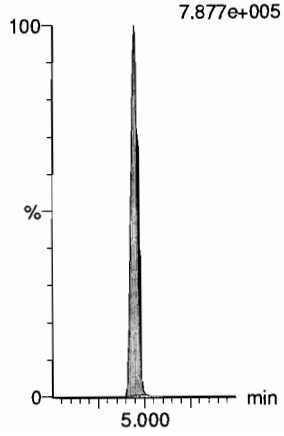
13C8-PFOS



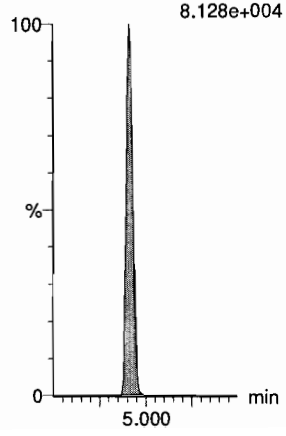
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

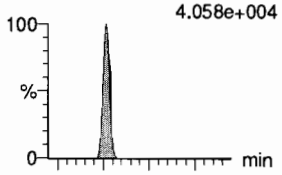


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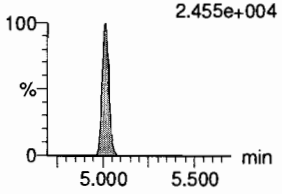
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Name: 190722M1_8, Date: 22-Jul-2019, Time: 11:09:04, ID: ST190722M1-5 PFC CS2 19G1105, Description: PFC CS2 19G1105

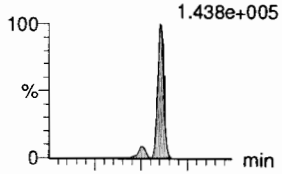
PFNS
F53:MRM of 2 channels,ES-
549.1 > 80.1
4.058e+004



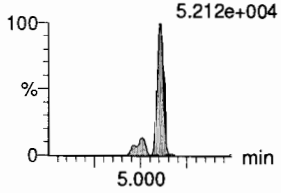
F53:MRM of 2 channels,ES-
549.1 > 99.1
2.455e+004



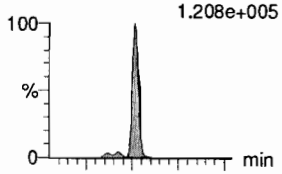
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
1.438e+005



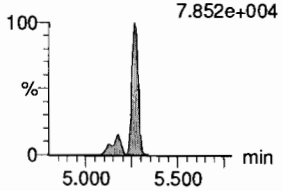
F56:MRM of 2 channels,ES-
570. > 512
5.212e+004



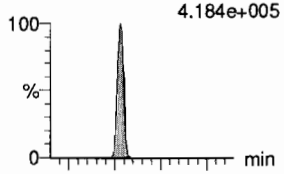
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
1.208e+005



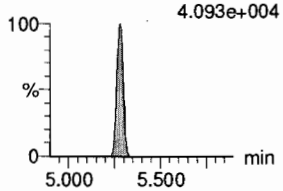
F59:MRM of 2 channels,ES-
584.1 > 526
7.852e+004



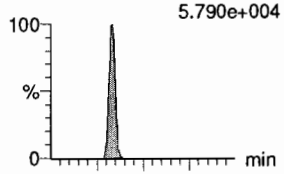
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
4.184e+005



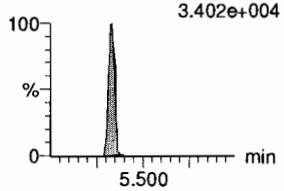
F54:MRM of 2 channels,ES-
563.0 > 269
4.093e+004



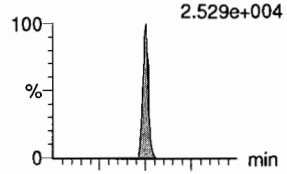
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
5.790e+004



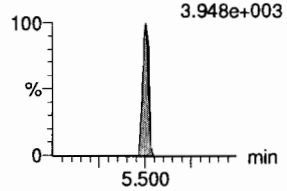
F61:MRM of 2 channels,ES-
598.8 > 98.9
3.402e+004



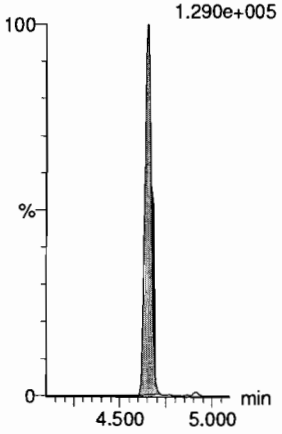
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
2.529e+004



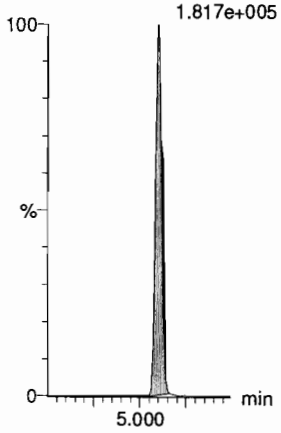
F68:MRM of 2 channels,ES-
632.6 > 450.7
3.948e+003



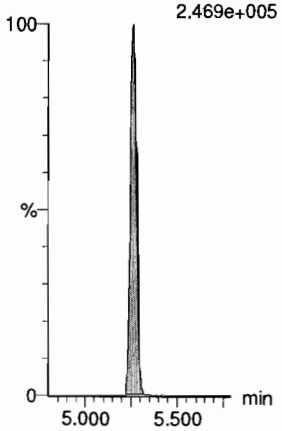
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
1.290e+005



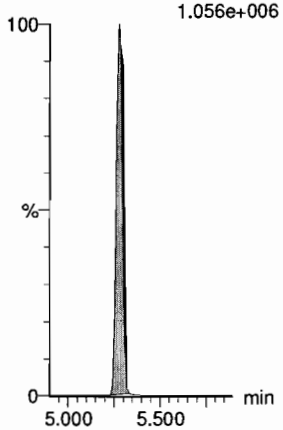
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
1.817e+005



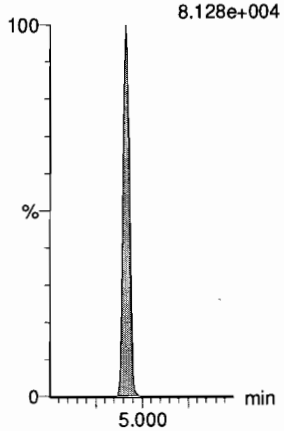
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
2.469e+005



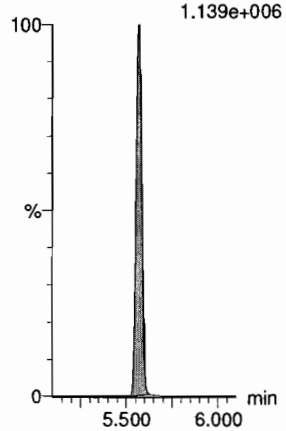
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
1.056e+006



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
8.128e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.139e+006

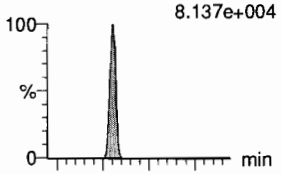


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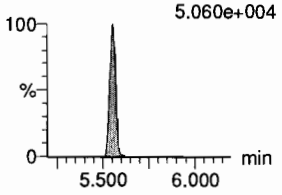
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_8, Date: 22-Jul-2019, Time: 11:09:04, ID: ST190722M1-5 PFC CS2 19G1105, Description: PFC CS2 19G1105

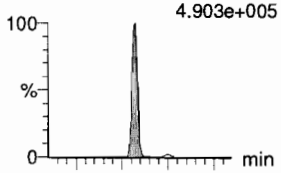
10:2 FTS
F66:MRM of 2 channels,ES-
627.0 > 606.9
8.137e+004



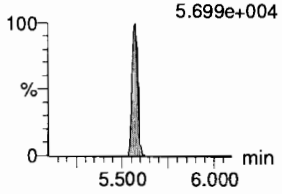
F66:MRM of 2 channels,ES-
627.0 > 80.9
5.060e+004



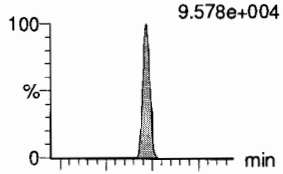
PFDoA
F62:MRM of 4 channels,ES-
612.9 > 569.0
4.903e+005



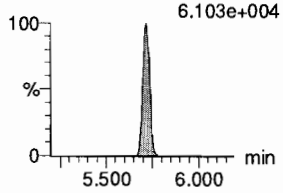
F62:MRM of 4 channels,ES-
612.9 > 318.8
5.699e+004



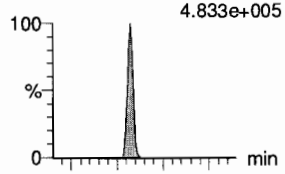
N-MeFOSA
F43:MRM of 2 channels,ES-
512.1 > 168.9
9.578e+004



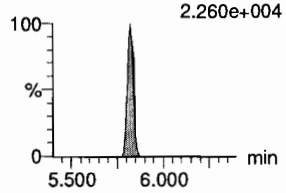
F43:MRM of 2 channels,ES-
512.1 > 219
6.103e+004



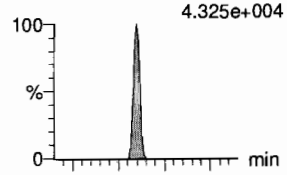
PFTrDA
F70:MRM of 2 channels,ES-
662.9 > 618.9
4.833e+005



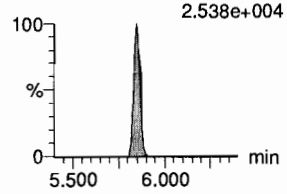
F70:MRM of 2 channels,ES-
662.9 > 319
2.260e+004



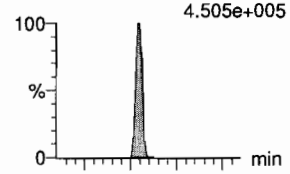
PFDoS
F71:MRM of 2 channels,ES-
698.8 > 79.9
4.325e+004



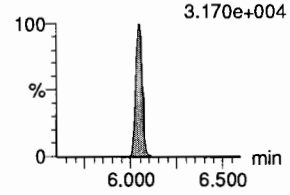
F71:MRM of 2 channels,ES-
698.8 > 98.9
2.538e+004



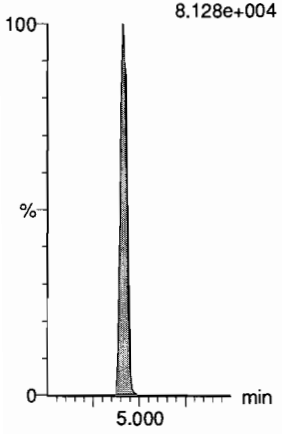
PFTeDA
F72:MRM of 2 channels,ES-
713.0 > 669.0
4.505e+005



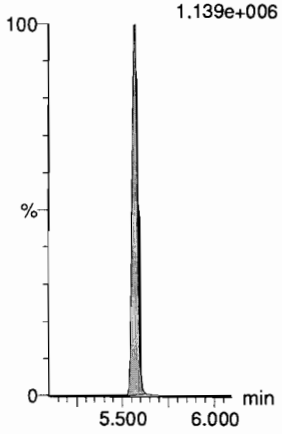
F72:MRM of 2 channels,ES-
713. > 369.0
3.170e+004



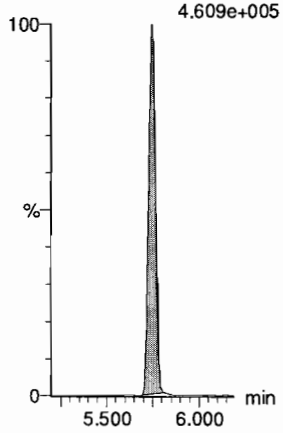
13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
8.128e+004



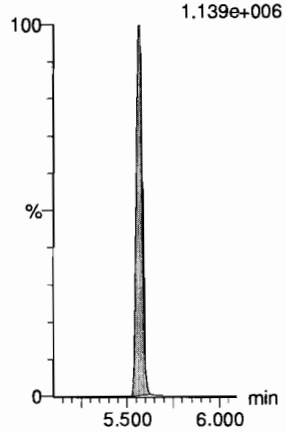
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.139e+006



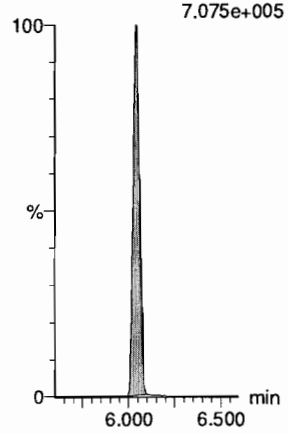
d3-N-MeFOSA
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.609e+005



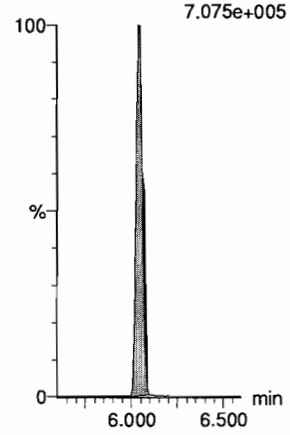
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.139e+006



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
7.075e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
7.075e+005

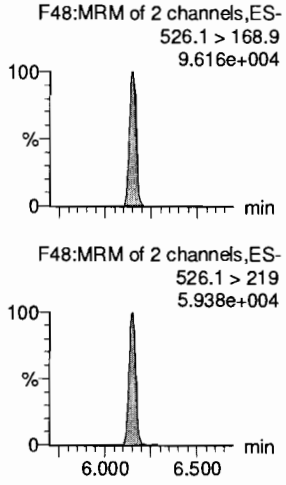


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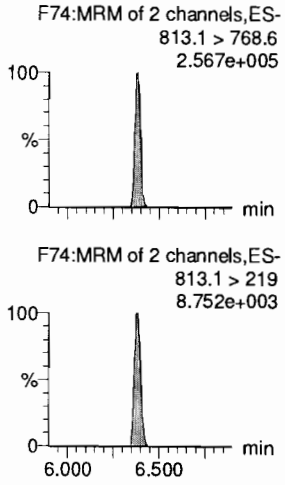
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_8, Date: 22-Jul-2019, Time: 11:09:04, ID: ST190722M1-5 PFC CS2 19G1105, Description: PFC CS2 19G1105

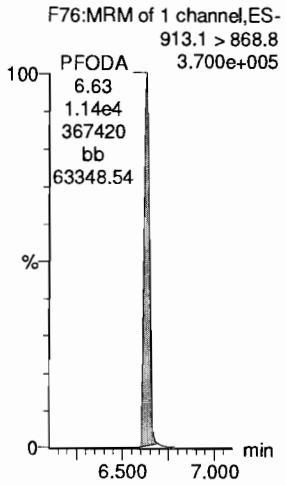
N-EtFOSA



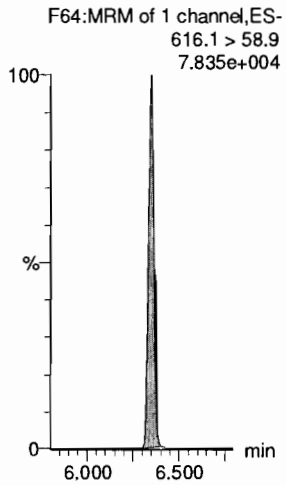
PFHxDA



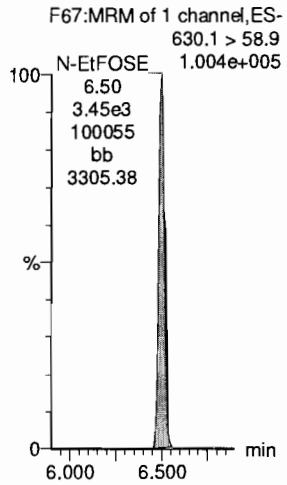
PFODA



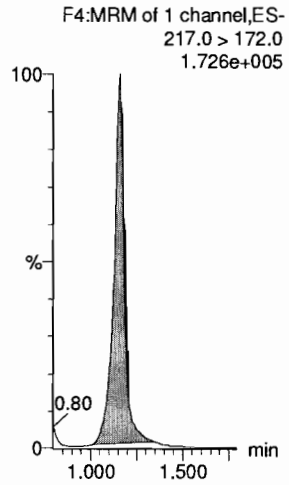
N-MeFOSE



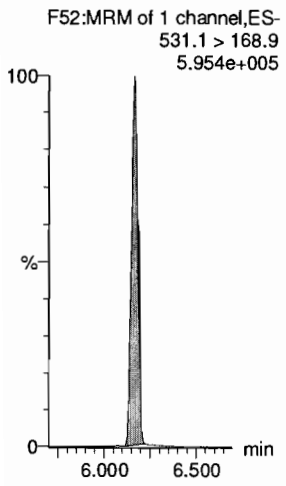
N-EtFOSE



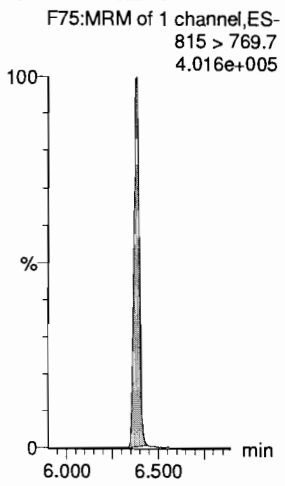
13C4-PFBA



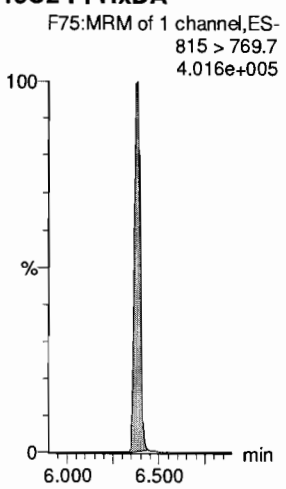
d5-N-ETFOSA



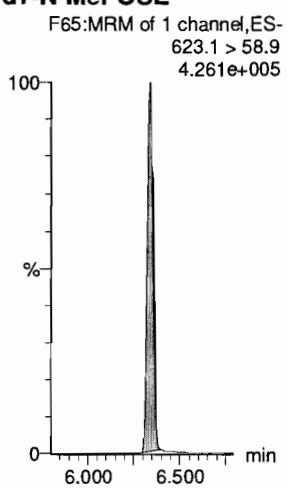
13C2-PFHxDA



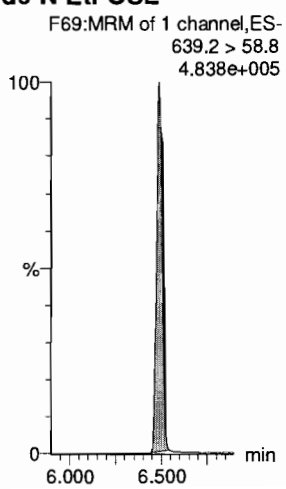
13C2-PFHxDA



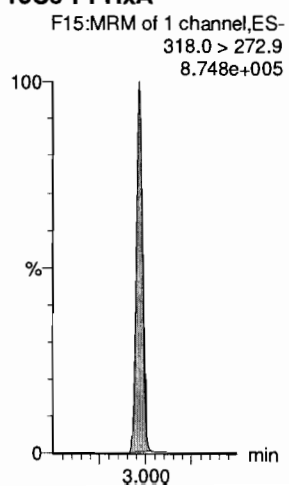
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

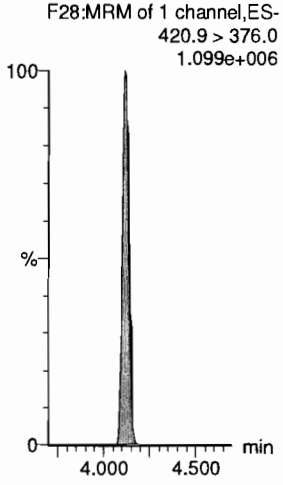


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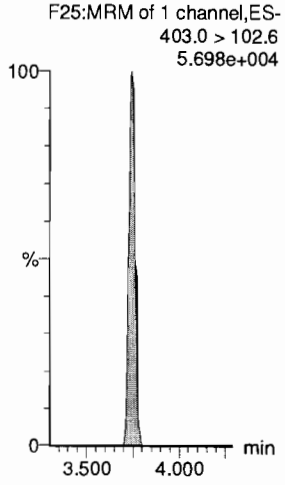
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Name: 190722M1_8, Date: 22-Jul-2019, Time: 11:09:04, ID: ST190722M1-5 PFC CS2 19G1105, Description: PFC CS2 19G1105

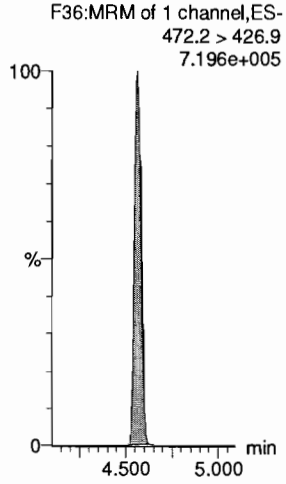
13C8-PFOA



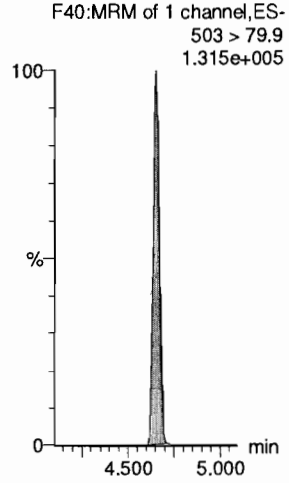
18O2-PFHxS



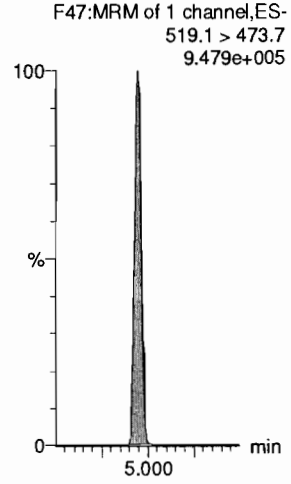
13C9-PFNA



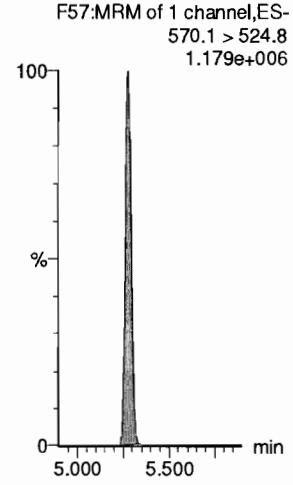
13C4-PFOS



13C6-PFDA



13C7-PFUdA

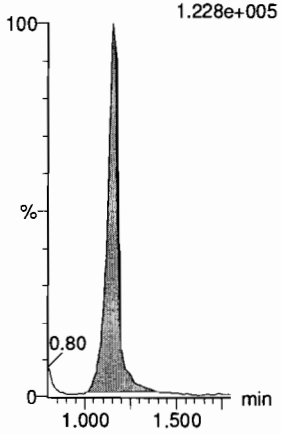


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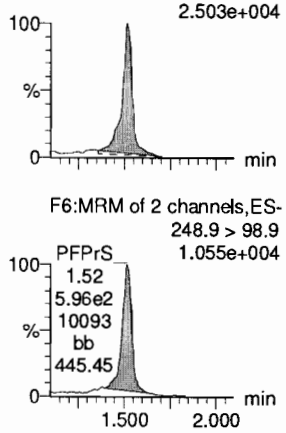
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Name: 190722M1_9, Date: 22-Jul-2019, Time: 11:19:37, ID: ST190722M1-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

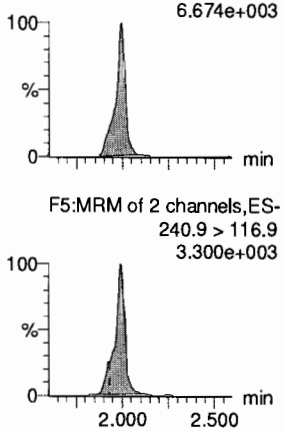
PFBA



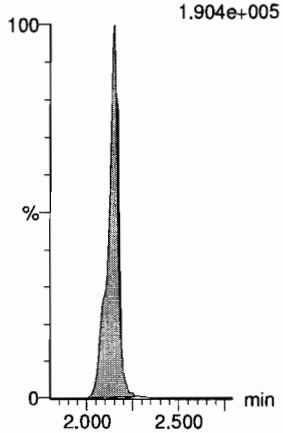
PFPrS



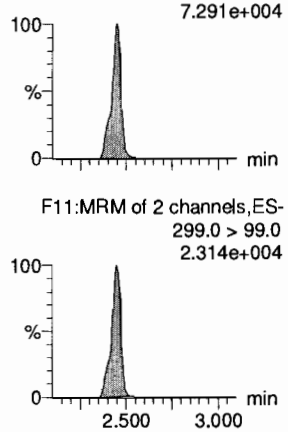
3:3 FTCA



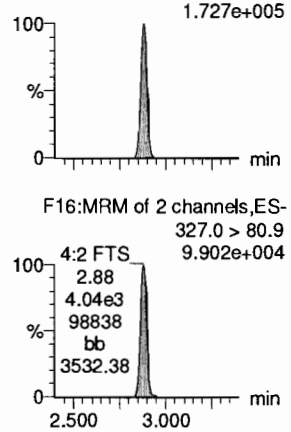
PFPeA



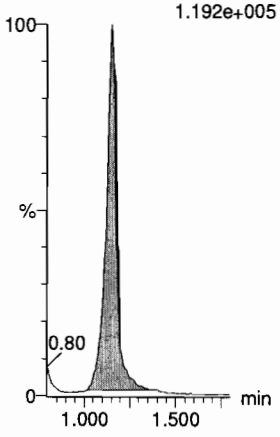
PFBS



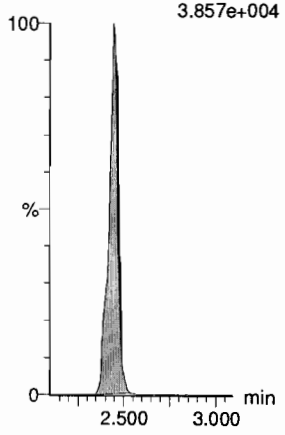
4:2 FTS



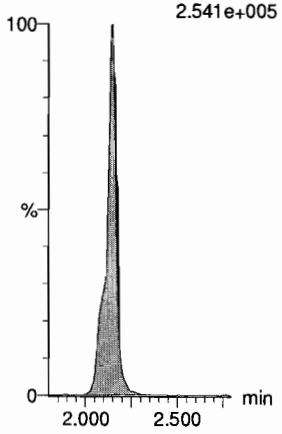
13C3-PFBA



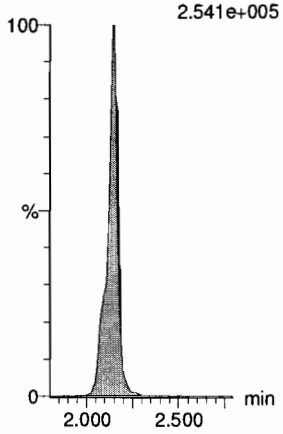
13C3-PFBS



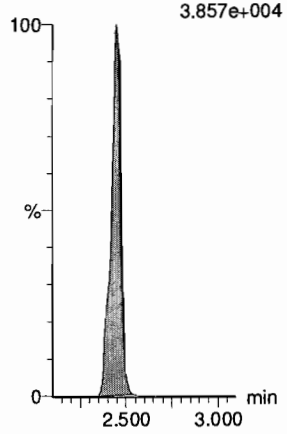
13C3-PFPeA



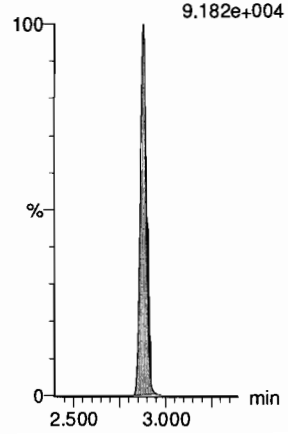
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

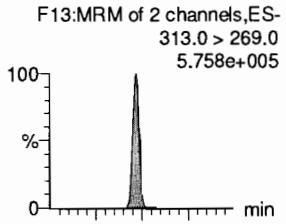


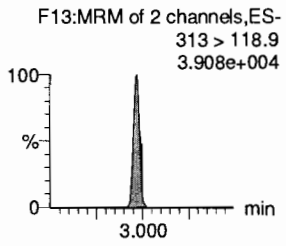
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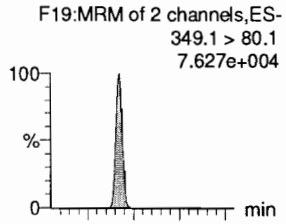
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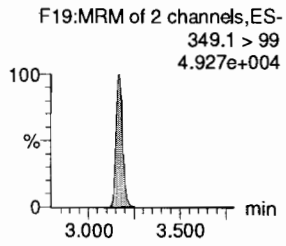
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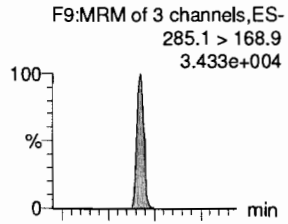


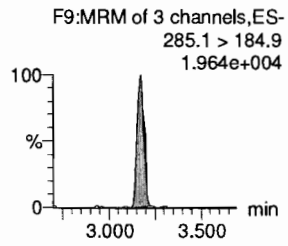
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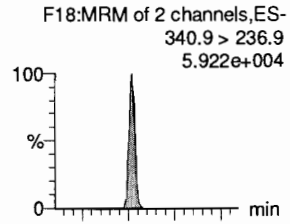


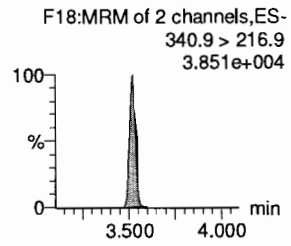
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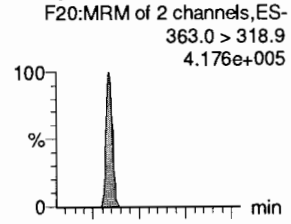


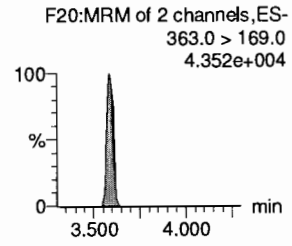
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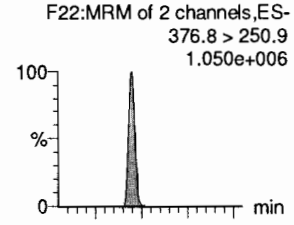


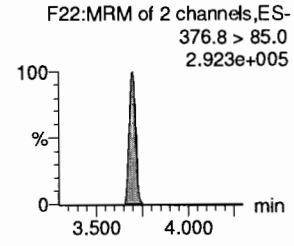
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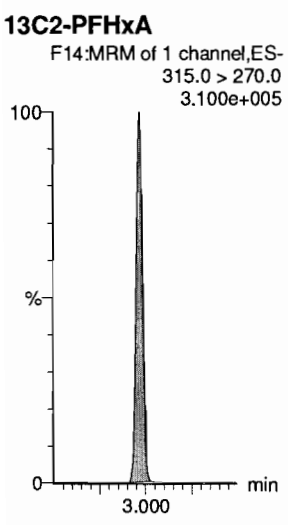


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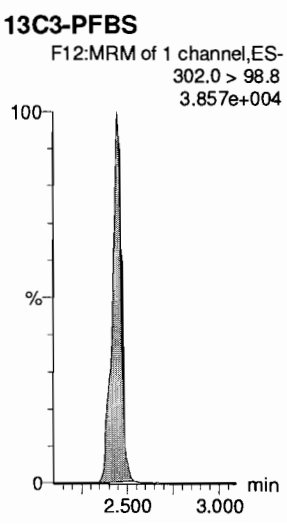




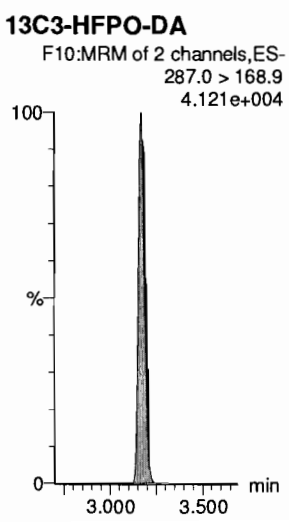
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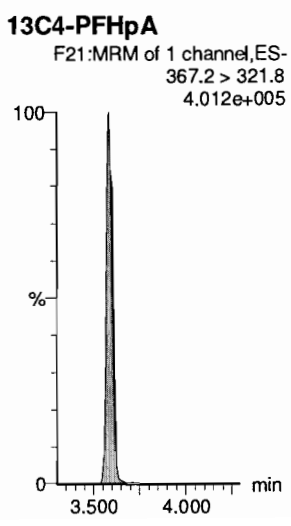
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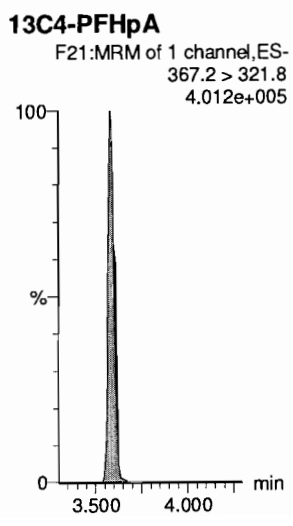
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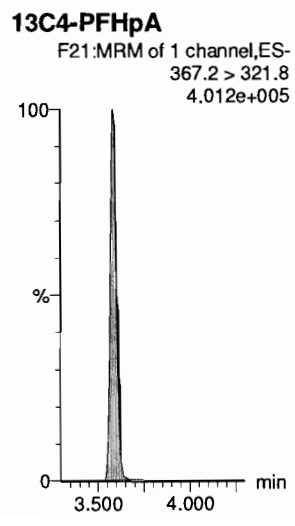
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13C4-PFHpA



13C4-PFHpA

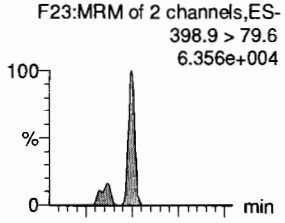


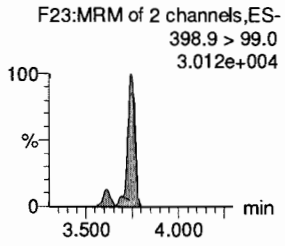
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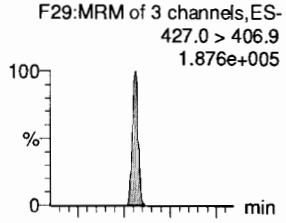
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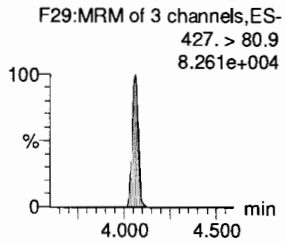
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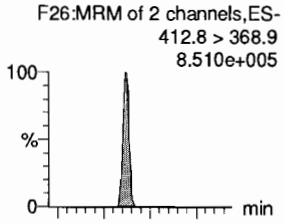


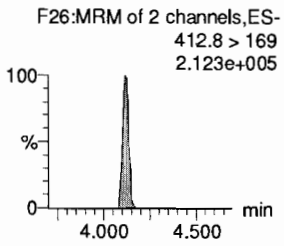
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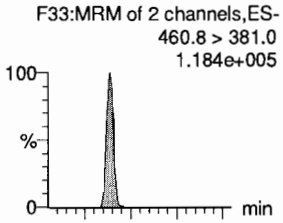


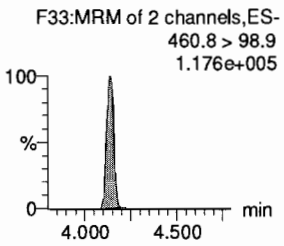
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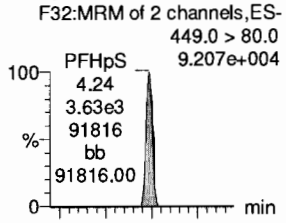


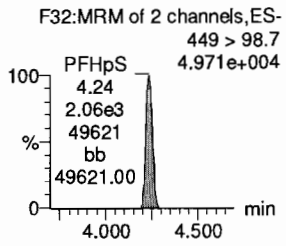
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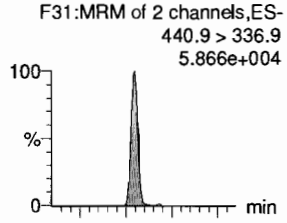


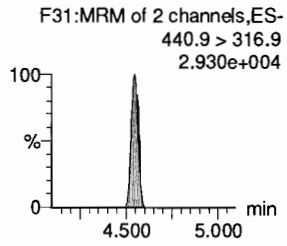
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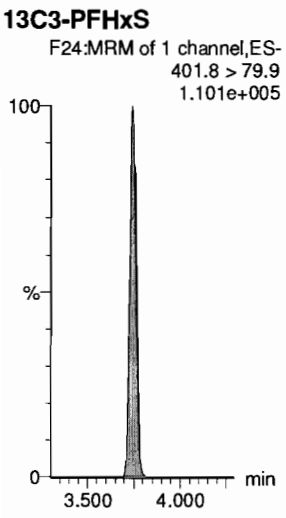


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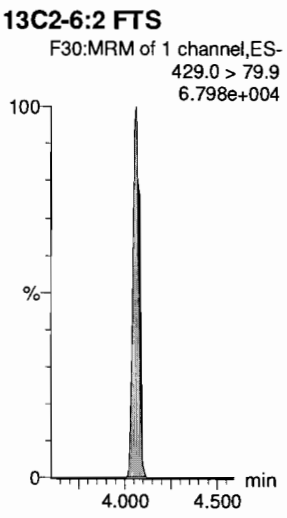




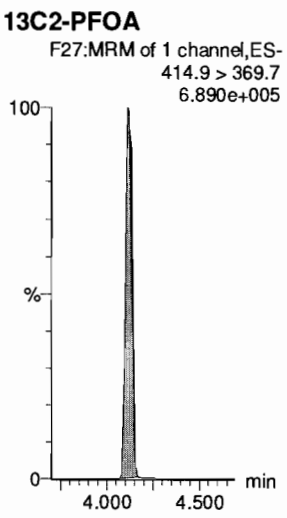
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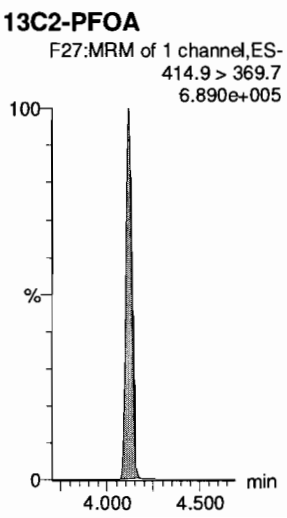
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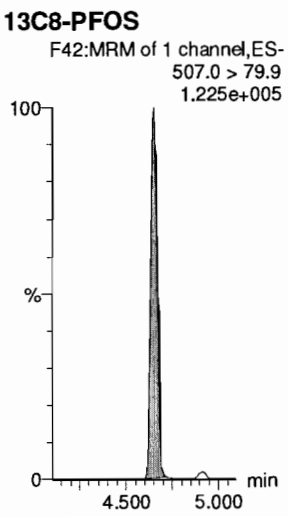
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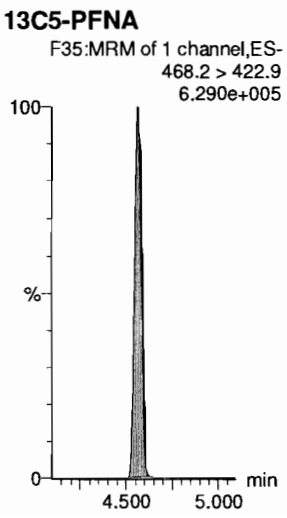
13C2-PFOA



13C8-PFOS



13C5-PFNA

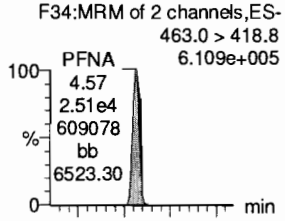


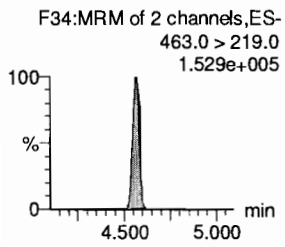
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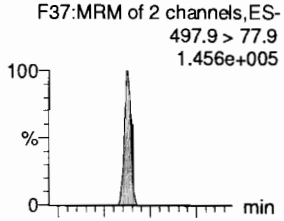
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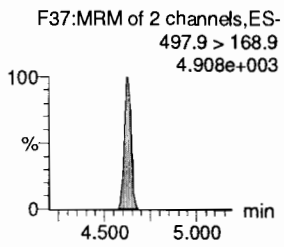
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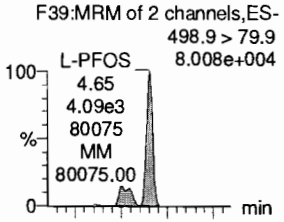


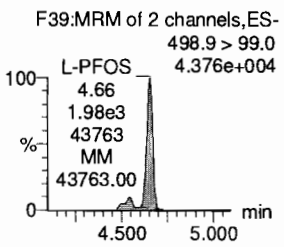
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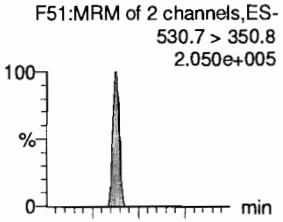


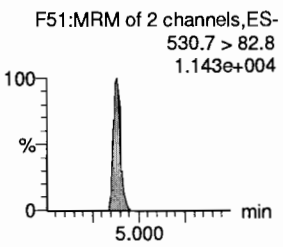
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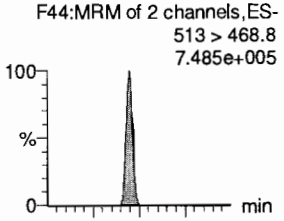


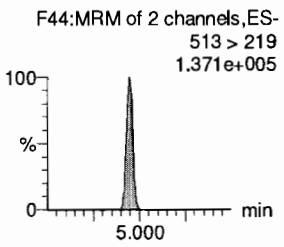
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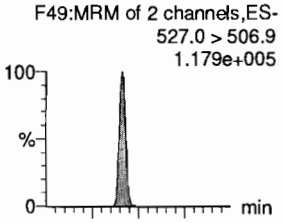


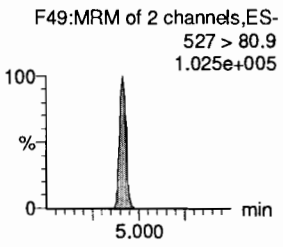
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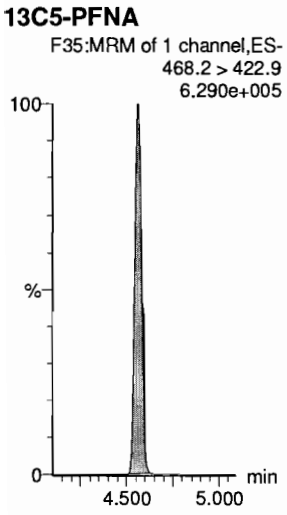


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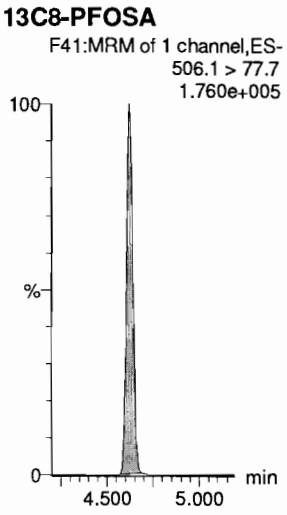




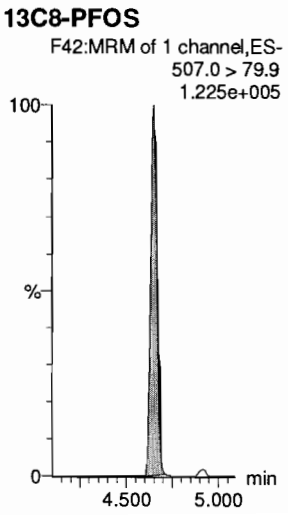
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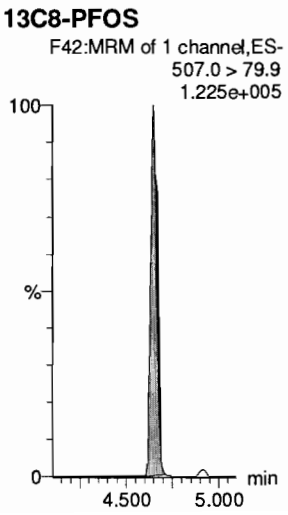
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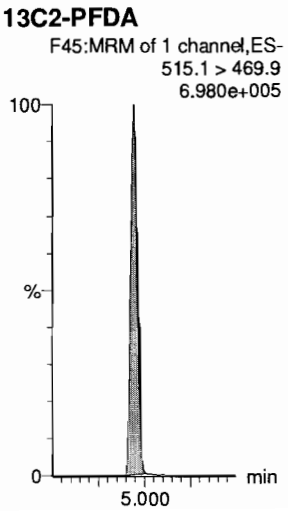
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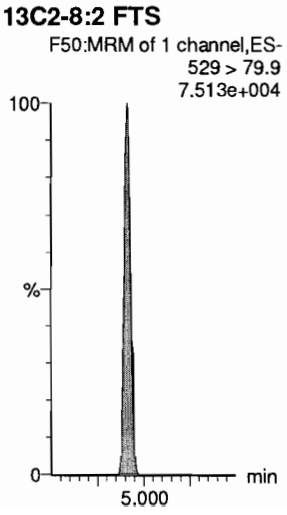
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13C2-PFDA



13C2-8:2 FTS

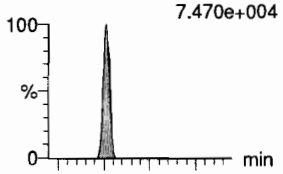


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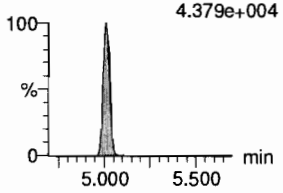
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_9, Date: 22-Jul-2019, Time: 11:19:37, ID: ST190722M1-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

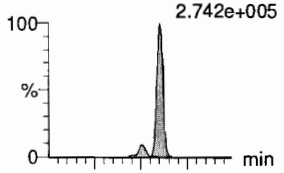
PFNS
F53:MRM of 2 channels,ES-
549.1 > 80.1
7.470e+004



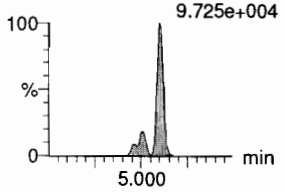
F53:MRM of 2 channels,ES-
549.1 > 99.1
4.379e+004



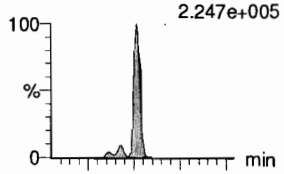
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
2.742e+005



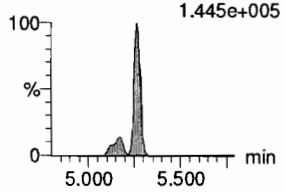
F56:MRM of 2 channels,ES-
570. > 512
9.725e+004



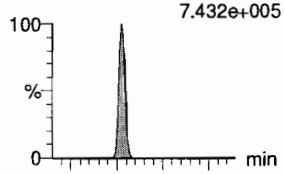
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
2.247e+005



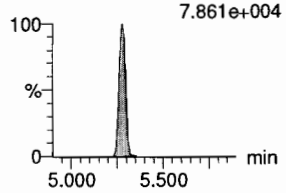
F59:MRM of 2 channels,ES-
584.1 > 526
1.445e+005



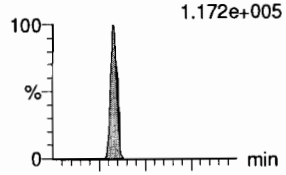
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
7.432e+005



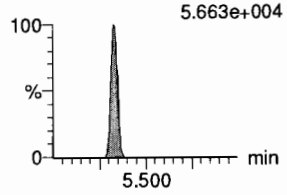
F54:MRM of 2 channels,ES-
563.0 > 269
7.861e+004



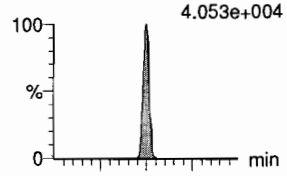
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
1.172e+005



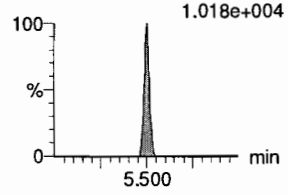
F61:MRM of 2 channels,ES-
598.8 > 98.9
5.663e+004



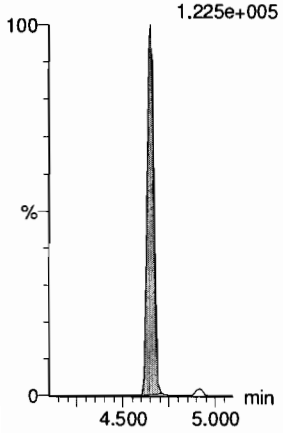
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
4.053e+004



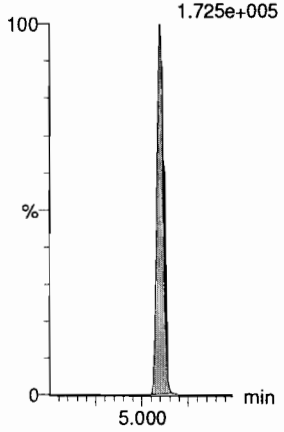
F68:MRM of 2 channels,ES-
632.6 > 450.7
1.018e+004



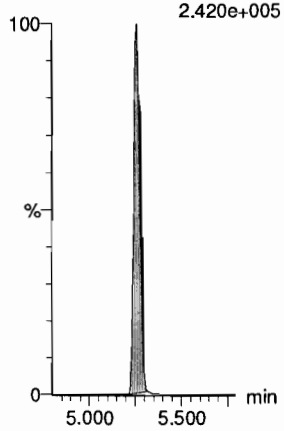
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
1.225e+005



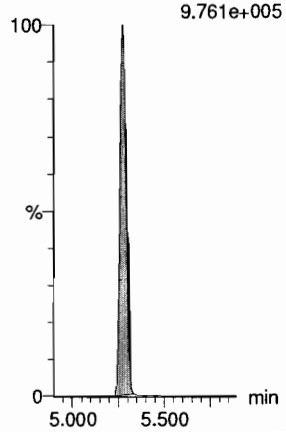
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
1.725e+005



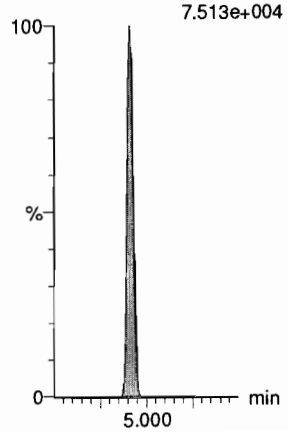
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
2.420e+005



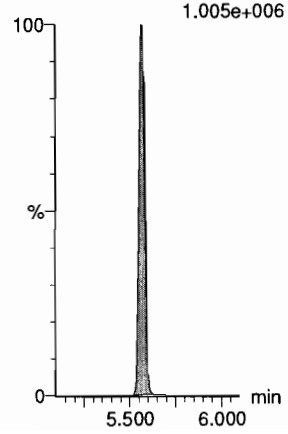
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
9.761e+005



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
7.513e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.005e+006

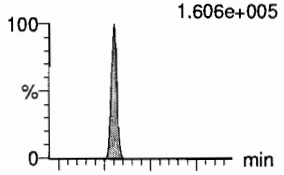


Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

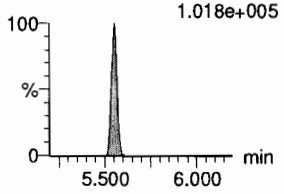
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_9, Date: 22-Jul-2019, Time: 11:19:37, ID: ST190722M1-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

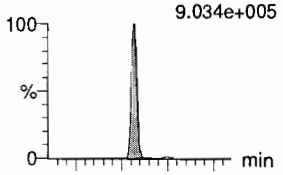
10:2 FTS
F66:MRM of 2 channels,ES-
627.0 > 606.9
1.606e+005



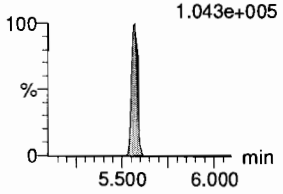
F66:MRM of 2 channels,ES-
627.0 > 80.9
1.018e+005



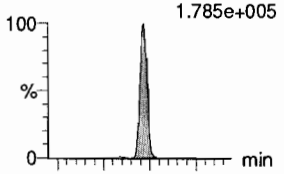
PFDoA
F62:MRM of 4 channels,ES-
612.9 > 569.0
9.034e+005



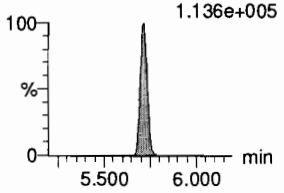
F62:MRM of 4 channels,ES-
612.9 > 318.8
1.043e+005



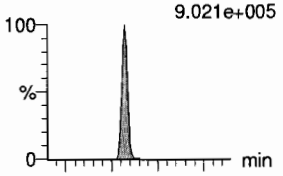
N-MeFOSA
F43:MRM of 2 channels,ES-
512.1 > 168.9
1.785e+005



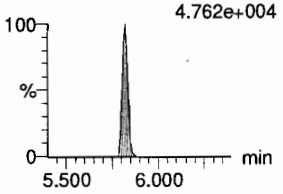
F43:MRM of 2 channels,ES-
512.1 > 219
1.136e+005



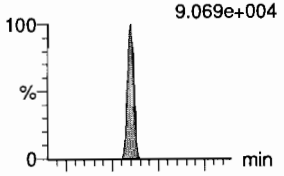
PFTrDA
F70:MRM of 2 channels,ES-
662.9 > 618.9
9.021e+005



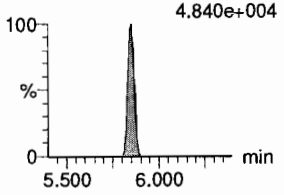
F70:MRM of 2 channels,ES-
662.9 > 319
4.762e+004



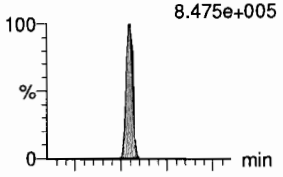
PFDoS
F71:MRM of 2 channels,ES-
698.8 > 79.9
9.069e+004



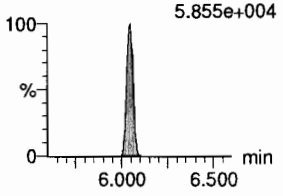
F71:MRM of 2 channels,ES-
698.8 > 98.9
4.840e+004



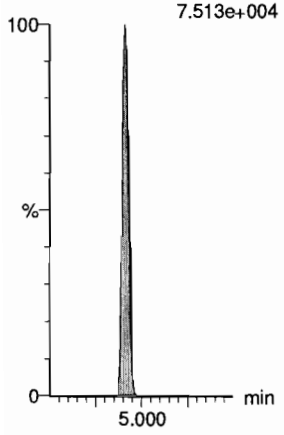
PFTeDA
F72:MRM of 2 channels,ES-
713.0 > 669.0
8.475e+005



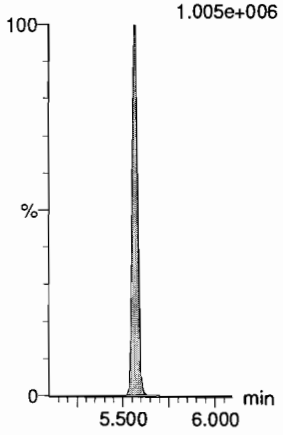
F72:MRM of 2 channels,ES-
713. > 369.0
5.855e+004



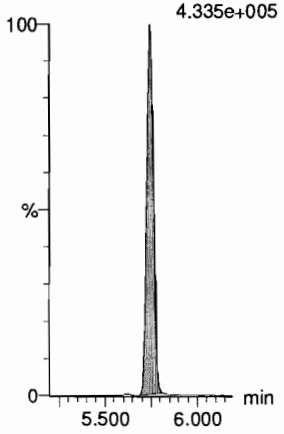
13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
7.513e+004



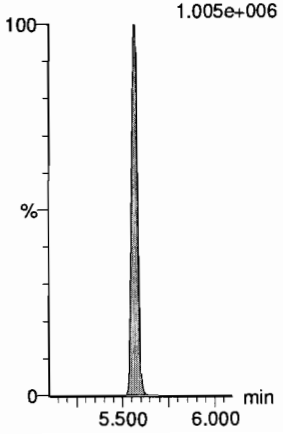
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.005e+006



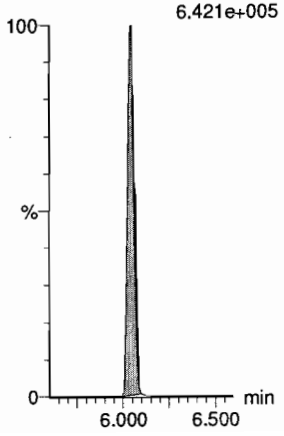
d3-N-MeFOSA
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.335e+005



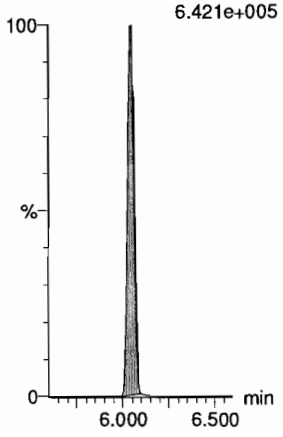
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.005e+006



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
6.421e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
6.421e+005

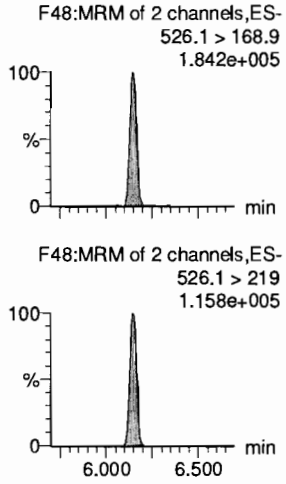


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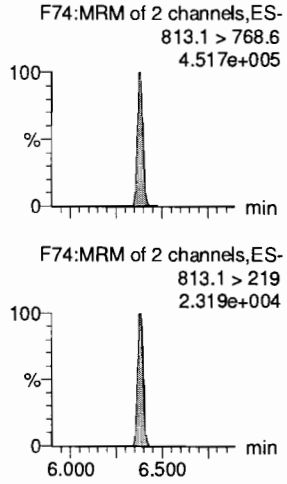
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Name: 190722M1_9, Date: 22-Jul-2019, Time: 11:19:37, ID: ST190722M1-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

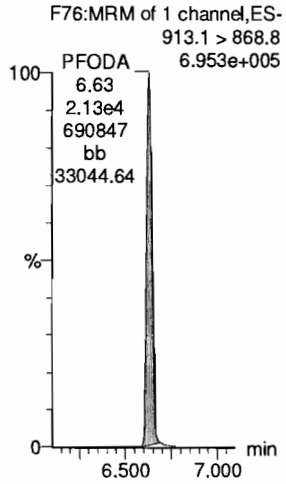
N-EtFOSA



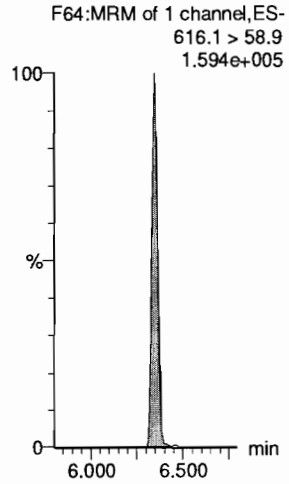
PFHxDA



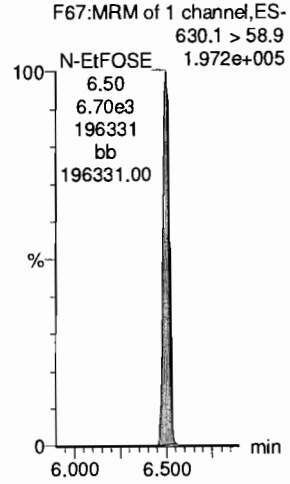
PFODA



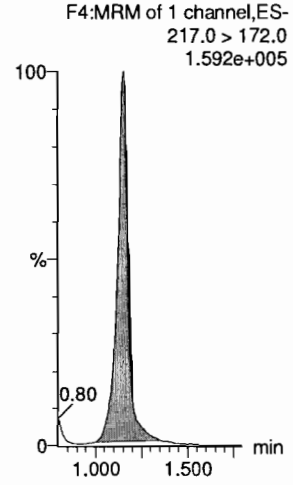
N-MeFOSE



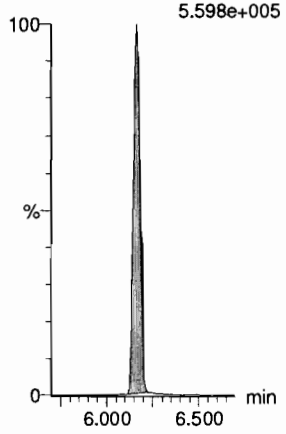
N-EtFOSE



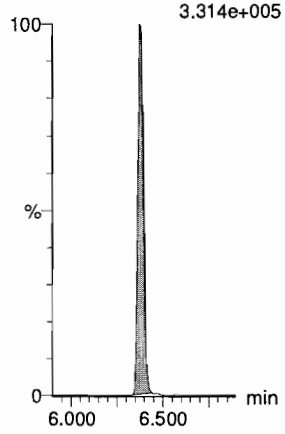
13C4-PFBA



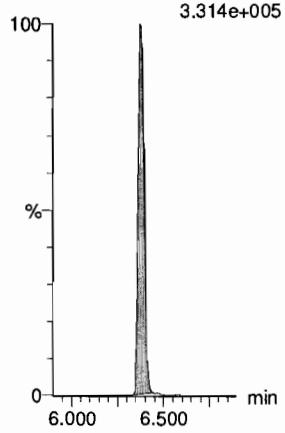
d5-N-ETFOSA



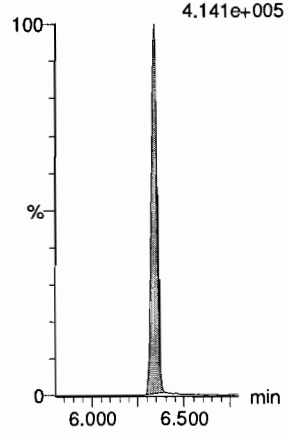
13C2-PFHxDA



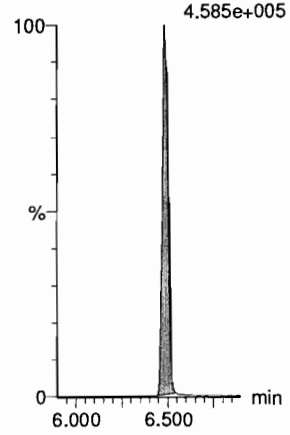
13C2-PFHxDA



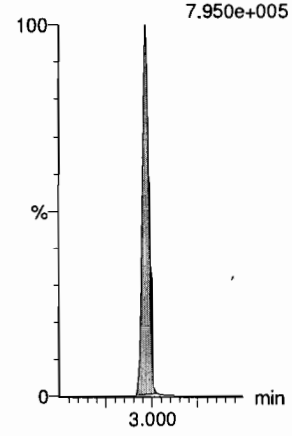
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

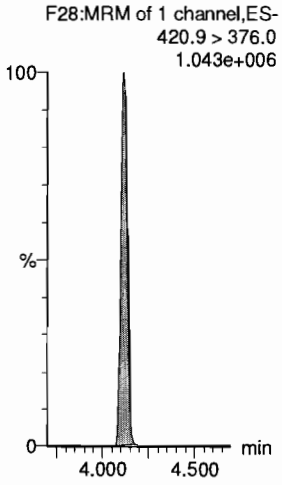


Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

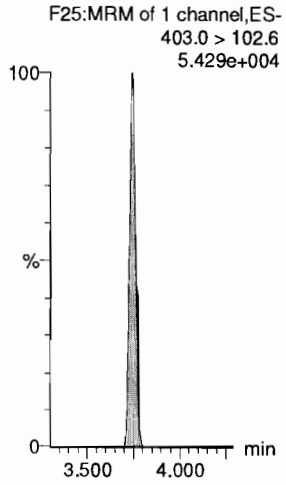
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_9, Date: 22-Jul-2019, Time: 11:19:37, ID: ST190722M1-6 PFC CS3 19G1106, Description: PFC CS3 19G1106

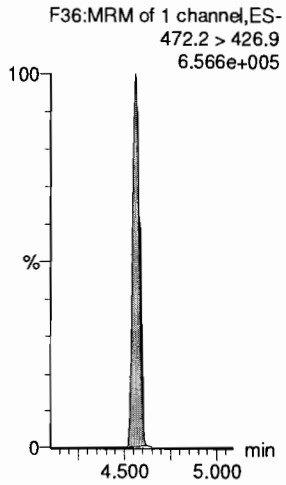
13C8-PFOA



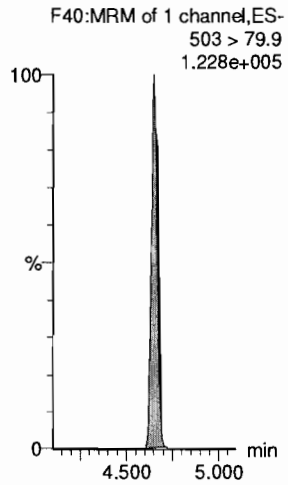
18O2-PFHxS



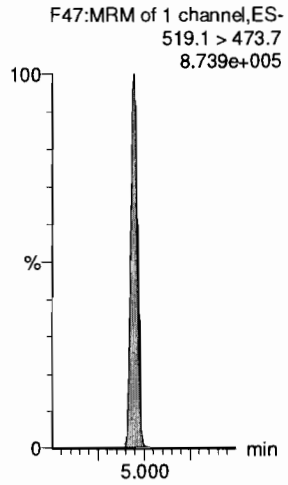
13C9-PFNA



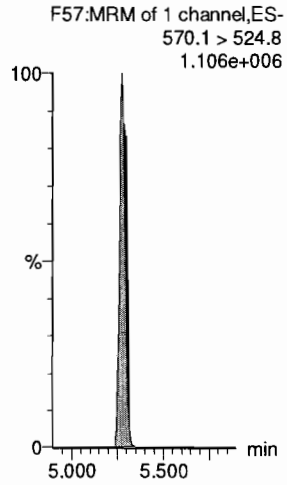
13C4-PFOS



13C6-PFDA



13C7-PFUdA

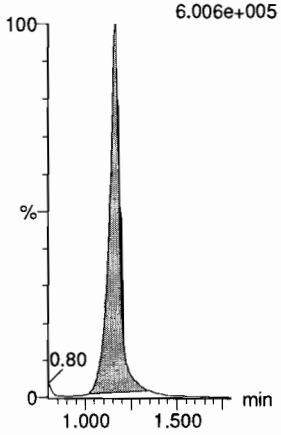


Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

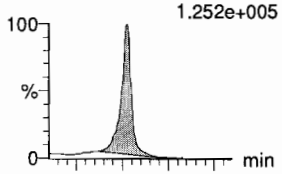
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Name: 190722M1_10, Date: 22-Jul-2019, Time: 11:30:15, ID: ST190722M1-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

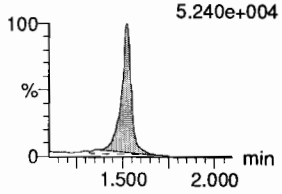
PFBA
F2:MRM of 1 channel,ES-
213.0 > 168.8
6.006e+005



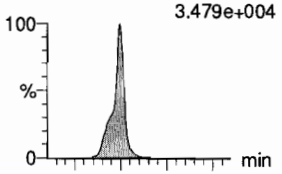
PFPrS
F6:MRM of 2 channels,ES-
248.9 > 79.9
1.252e+005



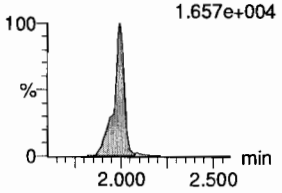
F6:MRM of 2 channels,ES-
248.9 > 98.9
5.240e+004



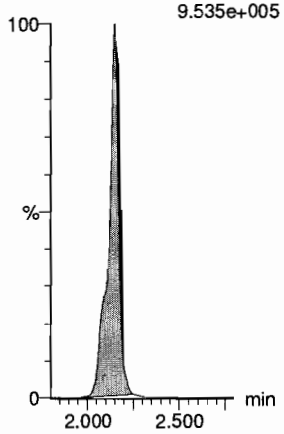
3:3 FTCA
F5:MRM of 2 channels,ES-
240.9 > 176.9
3.479e+004



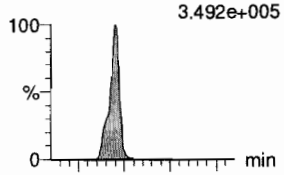
F5:MRM of 2 channels,ES-
240.9 > 116.9
1.657e+004



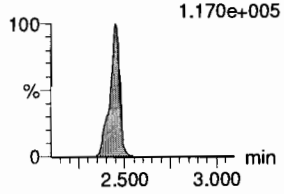
PFPeA
F7:MRM of 1 channel,ES-
263.1 > 218.9
9.535e+005



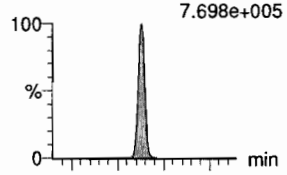
PFBS
F11:MRM of 2 channels,ES-
299.0 > 79.7
3.492e+005



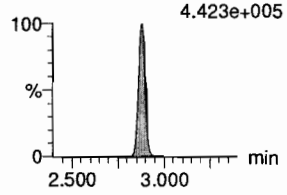
F11:MRM of 2 channels,ES-
299.0 > 99.0
1.170e+005



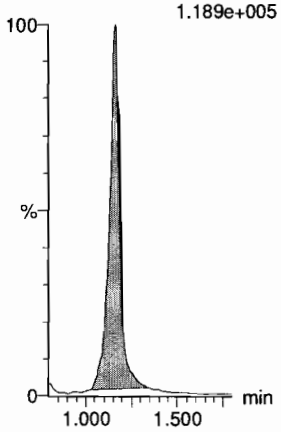
4:2 FTS
F16:MRM of 2 channels,ES-
327.0 > 306.9
7.698e+005



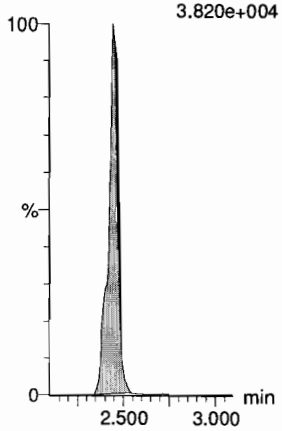
F16:MRM of 2 channels,ES-
327.0 > 80.9
4.423e+005



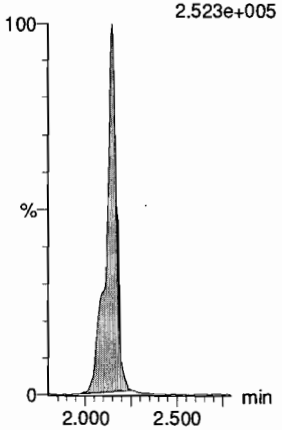
13C3-PFBA
F3:MRM of 1 channel,ES-
216.1 > 171.8
1.189e+005



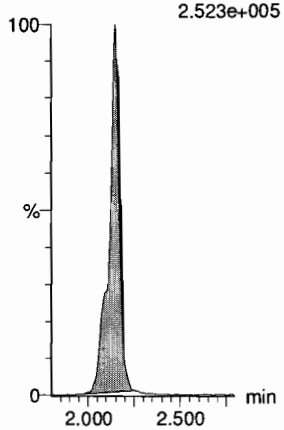
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.820e+004



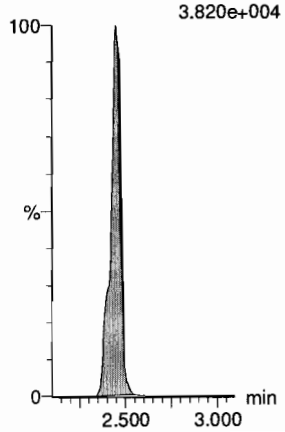
13C3-PFPeA
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.523e+005



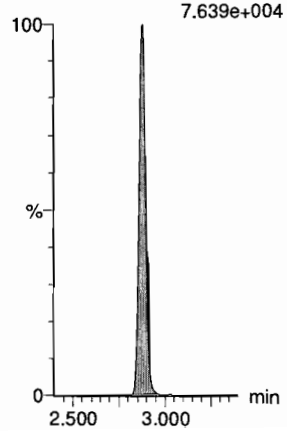
13C3-PFPeA
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.523e+005



13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.820e+004



13C2-4:2 FTS
F17:MRM of 2 channels,ES-
329.0 > 79.9
7.639e+004

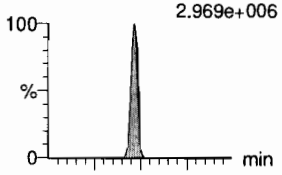


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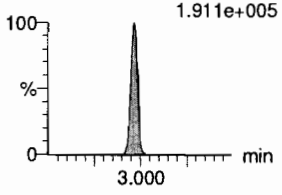
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_10, Date: 22-Jul-2019, Time: 11:30:15, ID: ST190722M1-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

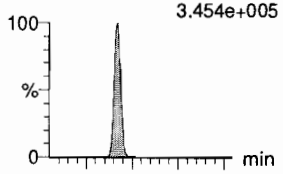
PFHxA
F13:MRM of 2 channels,ES-
313.0 > 269.0
2.969e+006



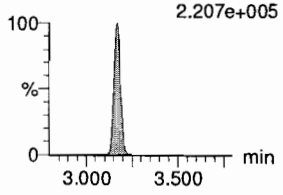
F13:MRM of 2 channels,ES-
313 > 118.9
1.911e+005



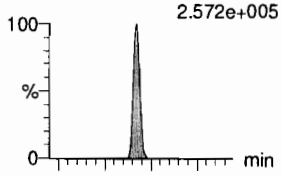
PFPeS
F19:MRM of 2 channels,ES-
349.1 > 80.1
3.454e+005



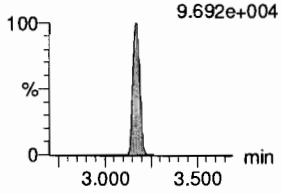
F19:MRM of 2 channels,ES-
349.1 > 99
2.207e+005



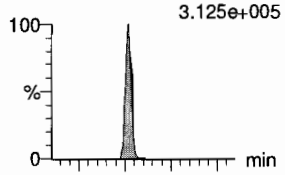
HFPO-DA
F9:MRM of 3 channels,ES-
285.1 > 168.9
2.572e+005



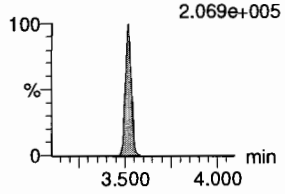
F9:MRM of 3 channels,ES-
285.1 > 184.9
9.692e+004



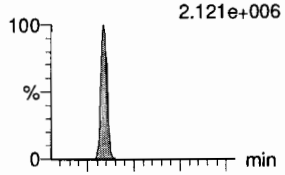
5:3 FTCA
F18:MRM of 2 channels,ES-
340.9 > 236.9
3.125e+005



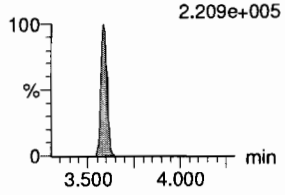
F18:MRM of 2 channels,ES-
340.9 > 216.9
2.069e+005



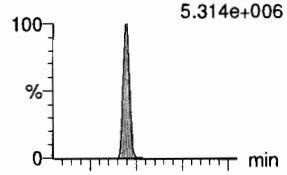
PFHpA
F20:MRM of 2 channels,ES-
363.0 > 318.9
2.121e+006



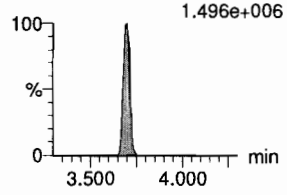
F20:MRM of 2 channels,ES-
363.0 > 169.0
2.209e+005



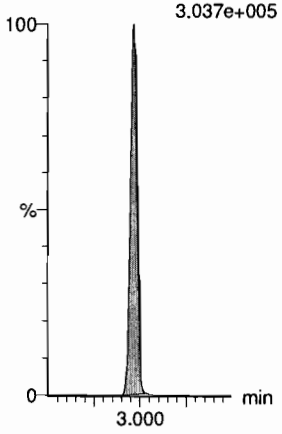
ADONA
F22:MRM of 2 channels,ES-
376.8 > 250.9
5.314e+006



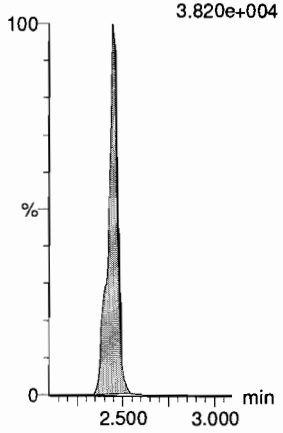
F22:MRM of 2 channels,ES-
376.8 > 85.0
1.496e+006



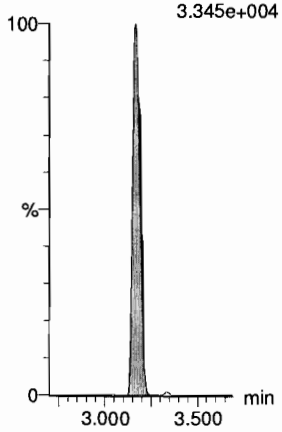
13C2-PFHxA
F14:MRM of 1 channel,ES-
315.0 > 270.0
3.037e+005



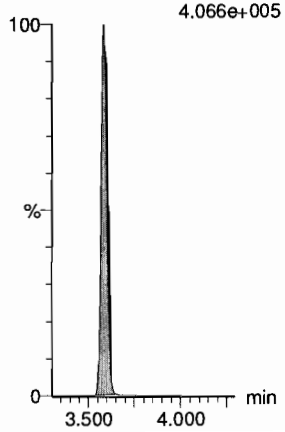
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.820e+004



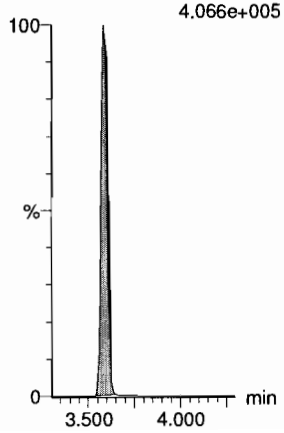
13C3-HFPO-DA
F10:MRM of 2 channels,ES-
287.0 > 168.9
3.345e+004



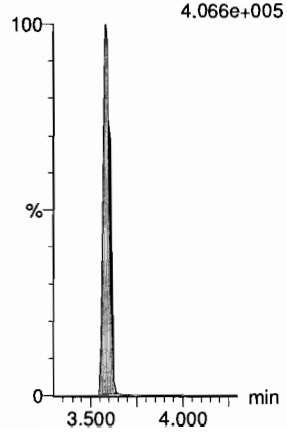
13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
4.066e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
4.066e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
4.066e+005

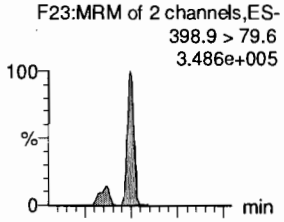


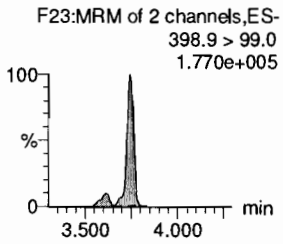
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

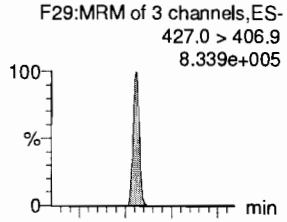
Name: 190722M1_10, Date: 22-Jul-2019, Time: 11:30:15, ID: ST190722M1-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

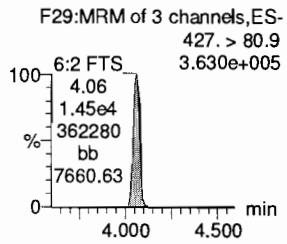
L-PFHxS



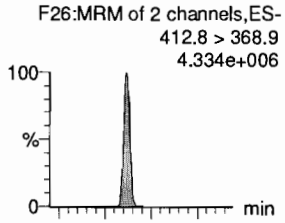


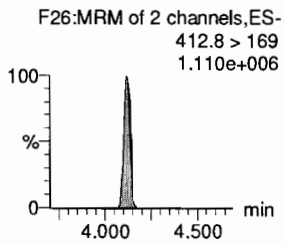
6:2 FTS



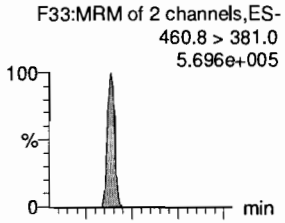


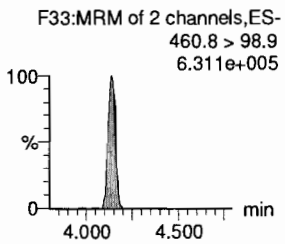
L-PFOA



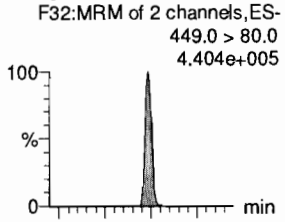


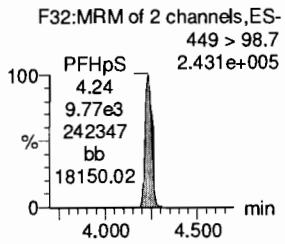
PFEChS



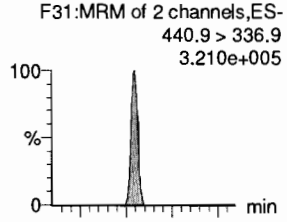


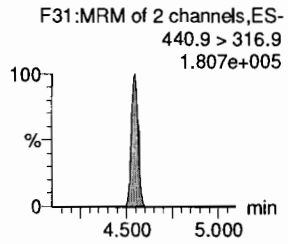
PFHpS



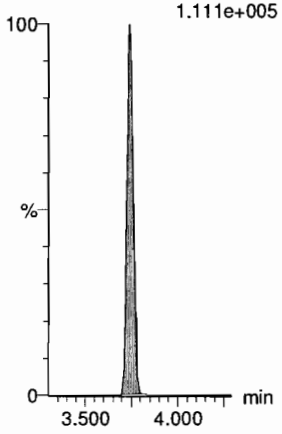


7:3 FTCA

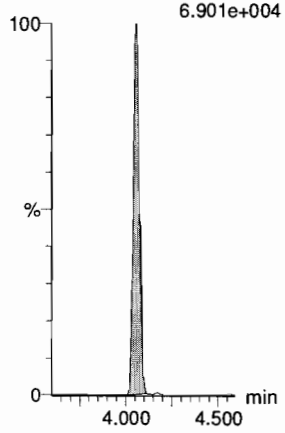




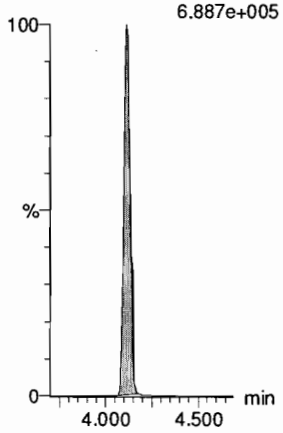
13C3-PFHxS



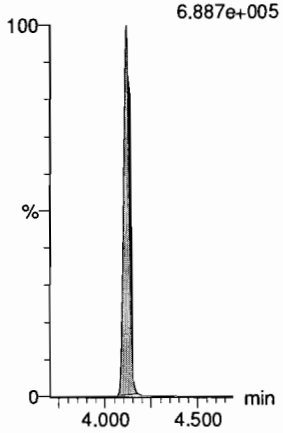
13C2-6:2 FTS



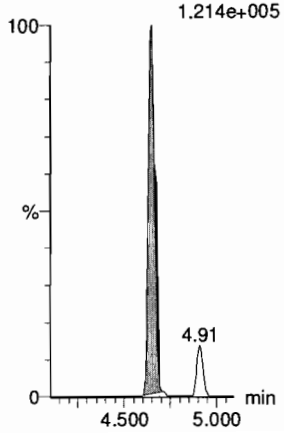
13C2-PFOA



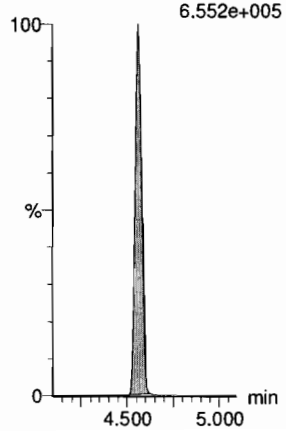
13C2-PFOA



13C8-PFOS



13C5-PFNA

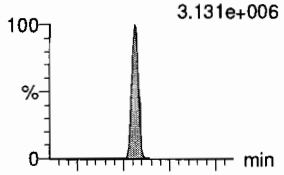


Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

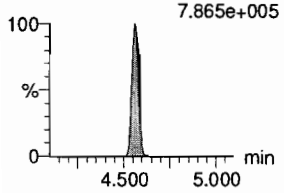
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Name: 190722M1_10, Date: 22-Jul-2019, Time: 11:30:15, ID: ST190722M1-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

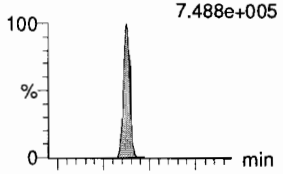
PFNA
F34:MRM of 2 channels,ES-
463.0 > 418.8
3.131e+006



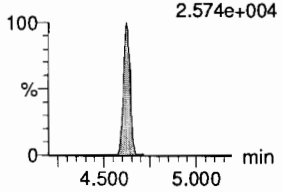
F34:MRM of 2 channels,ES-
463.0 > 219.0
7.865e+005



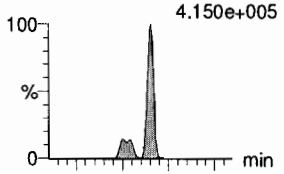
PFOSA
F37:MRM of 2 channels,ES-
497.9 > 77.9
7.488e+005



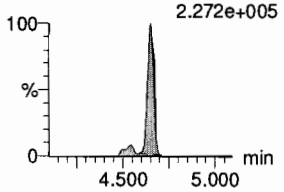
F37:MRM of 2 channels,ES-
497.9 > 168.9
2.574e+004



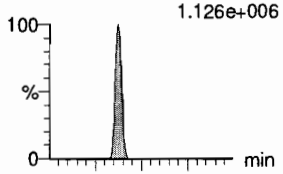
L-PFOS
F39:MRM of 2 channels,ES-
498.9 > 79.9
4.150e+005



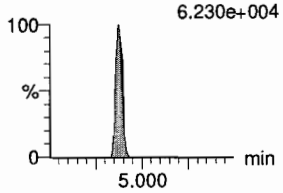
F39:MRM of 2 channels,ES-
498.9 > 99.0
2.272e+005



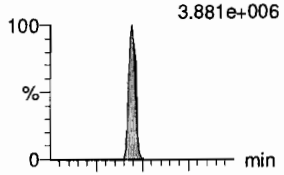
9Cl-PF30NS
F51:MRM of 2 channels,ES-
530.7 > 350.8
1.126e+006



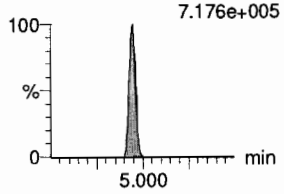
F51:MRM of 2 channels,ES-
530.7 > 82.8
6.230e+004



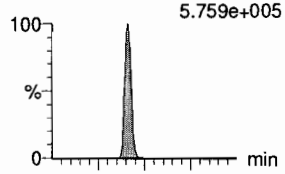
PFDA
F44:MRM of 2 channels,ES-
513 > 468.8
3.881e+006



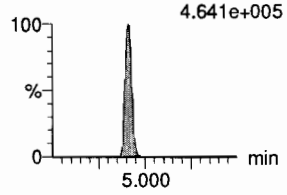
F44:MRM of 2 channels,ES-
513 > 219
7.176e+005



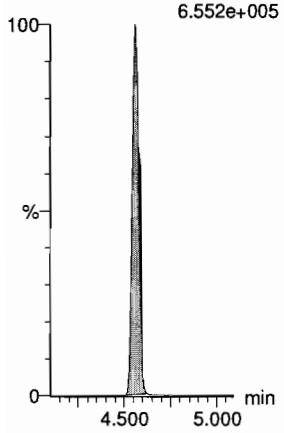
8:2 FTS
F49:MRM of 2 channels,ES-
527.0 > 506.9
5.759e+005



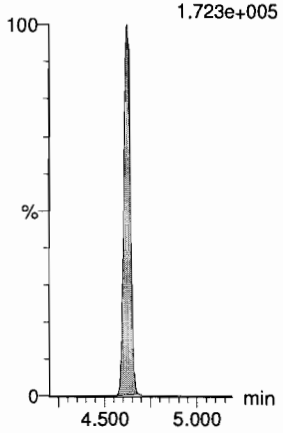
F49:MRM of 2 channels,ES-
527 > 80.9
4.641e+005



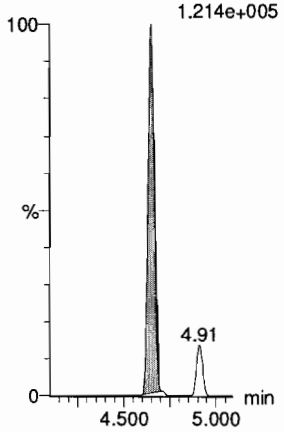
13C5-PFNA
F35:MRM of 1 channel,ES-
468.2 > 422.9
6.552e+005



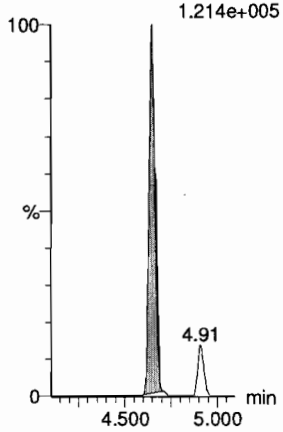
13C8-PFOSA
F41:MRM of 1 channel,ES-
506.1 > 77.7
1.723e+005



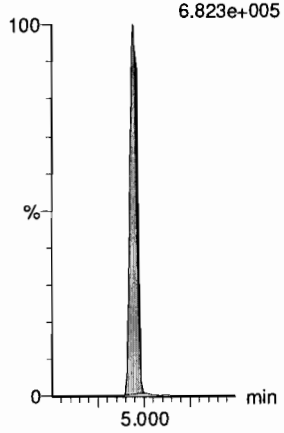
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
1.214e+005



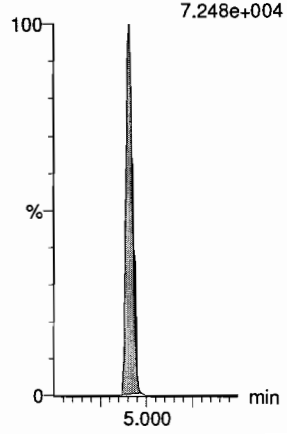
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
1.214e+005



13C2-PFDA
F45:MRM of 1 channel,ES-
515.1 > 469.9
6.823e+005



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
7.248e+004

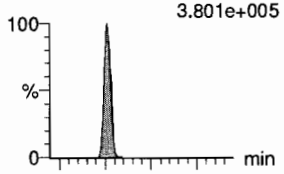


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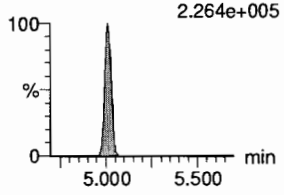
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_10, Date: 22-Jul-2019, Time: 11:30:15, ID: ST190722M1-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

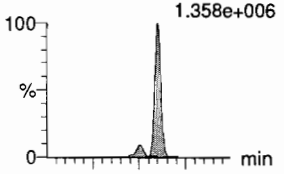
PFNS
F53:MRM of 2 channels,ES-
549.1 > 80.1
3.801e+005



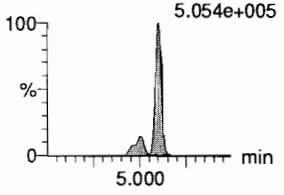
F53:MRM of 2 channels,ES-
549.1 > 99.1
2.264e+005



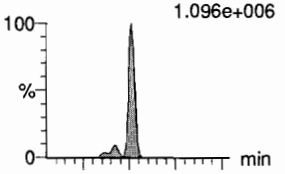
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
1.358e+006



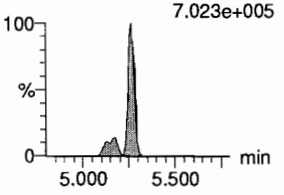
F56:MRM of 2 channels,ES-
570. > 512
5.054e+005



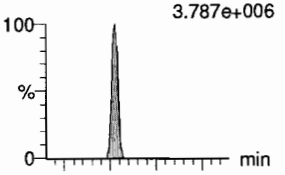
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
1.096e+006



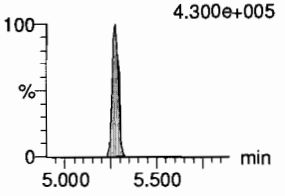
F59:MRM of 2 channels,ES-
584.1 > 526
7.023e+005



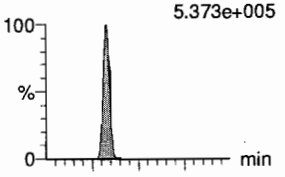
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
3.787e+006



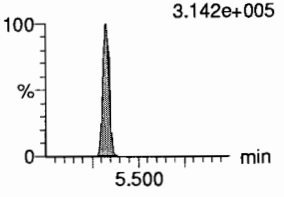
F54:MRM of 2 channels,ES-
563.0 > 269
4.300e+005



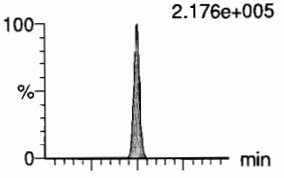
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
5.373e+005



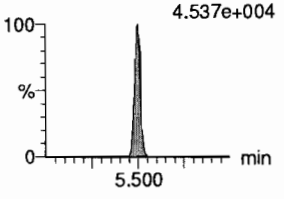
F61:MRM of 2 channels,ES-
598.8 > 98.9
3.142e+005



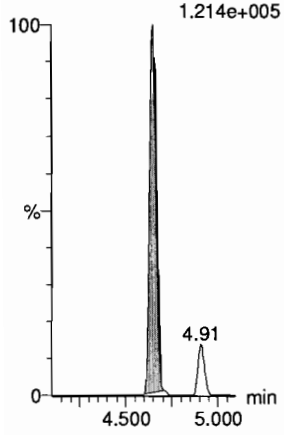
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
2.176e+005



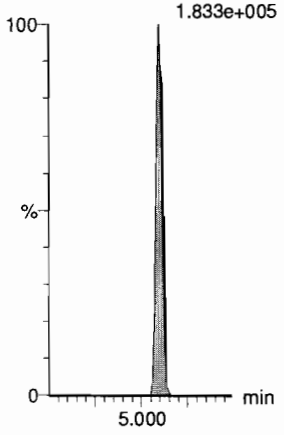
F68:MRM of 2 channels,ES-
632.6 > 450.7
4.537e+004



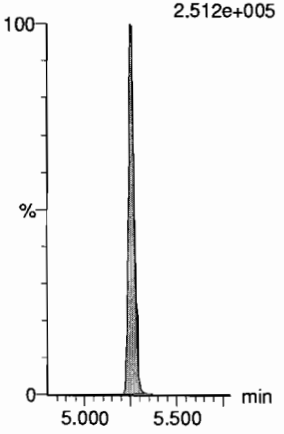
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
1.214e+005



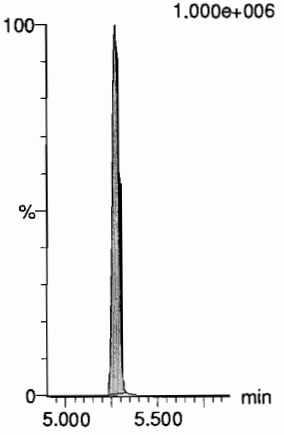
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
1.833e+005



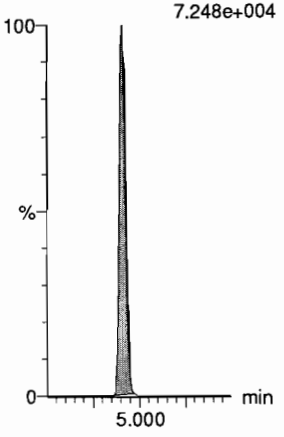
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
2.512e+005



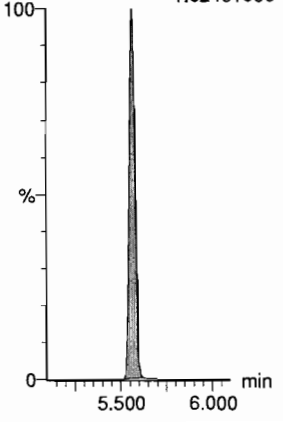
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
1.000e+006



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
7.248e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
1.024e+006

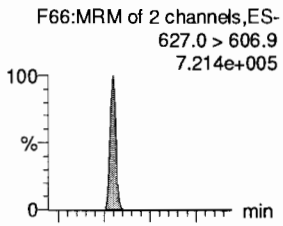


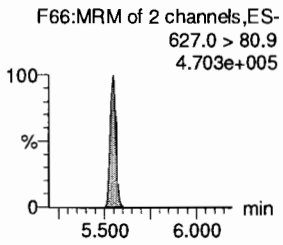
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

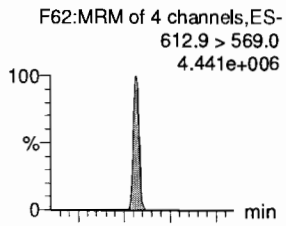
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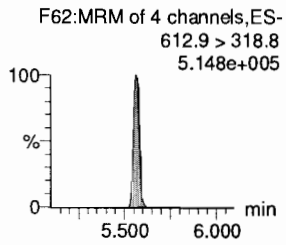
10:2 FTS



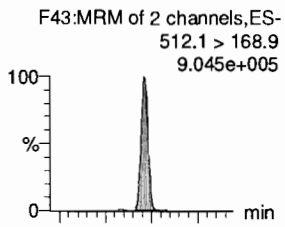


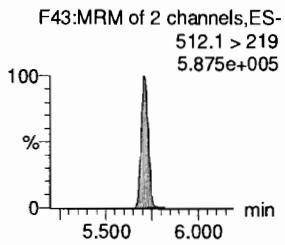
PFDoA



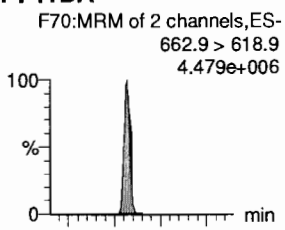


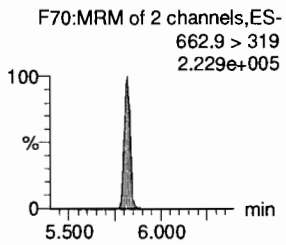
N-MeFOSA



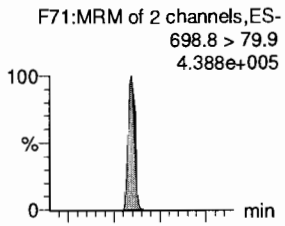


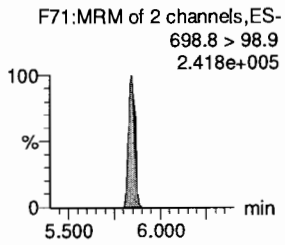
PFTrDA



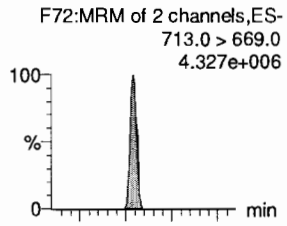


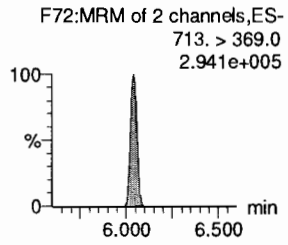
PFDoS



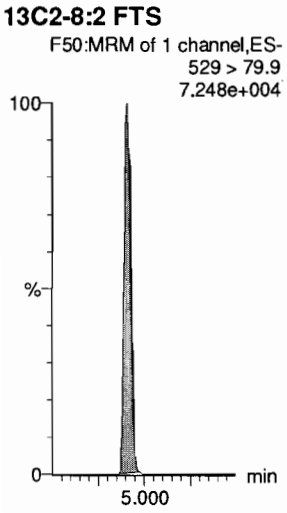


PFTeDA

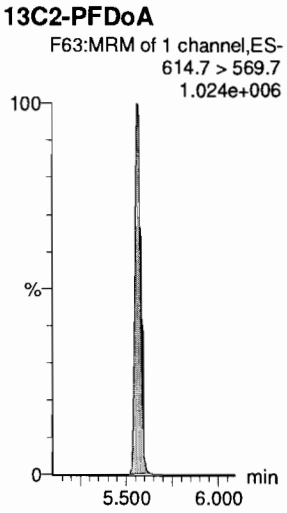




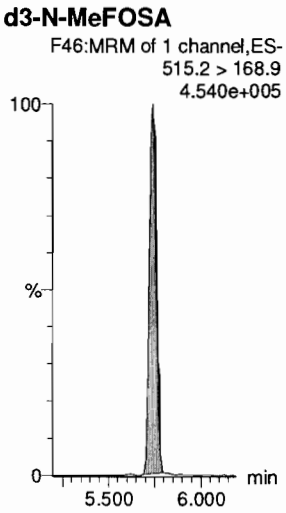
13C2-8:2 FTS



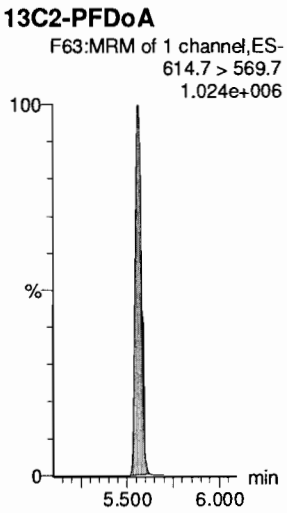
13C2-PFDoA



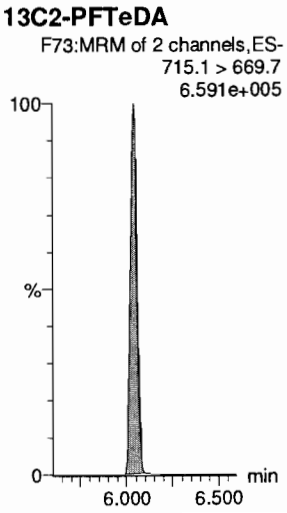
d3-N-MeFOSA



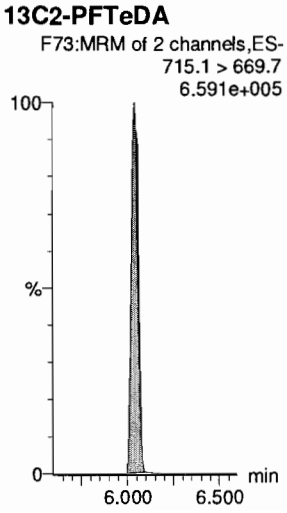
13C2-PFDoA



13C2-PFTeDA



13C2-PFTeDA

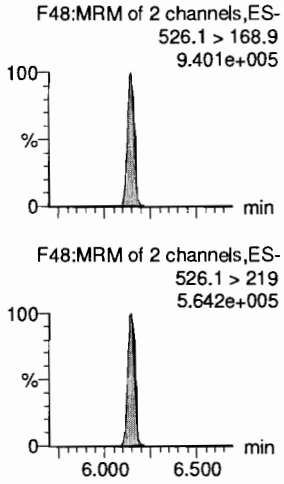


Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-CRV.qld

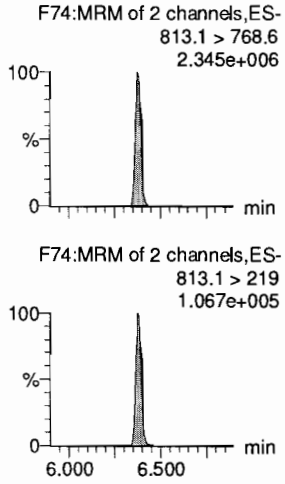
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_10, Date: 22-Jul-2019, Time: 11:30:15, ID: ST190722M1-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

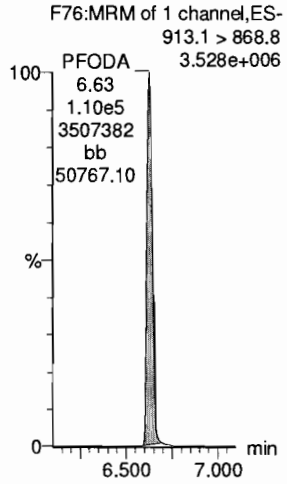
N-EtFOSA



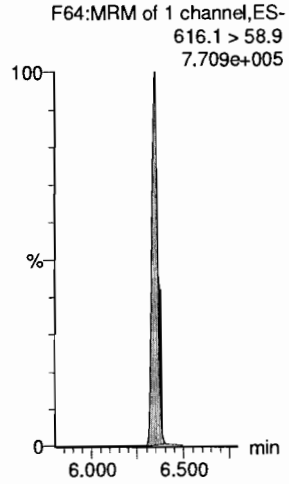
PFHxDA



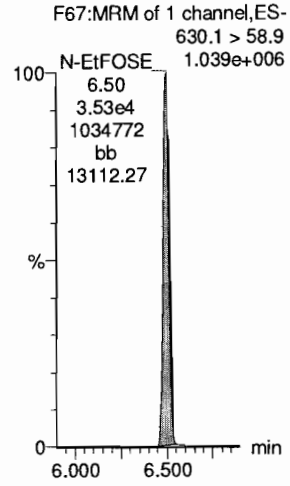
PFODA



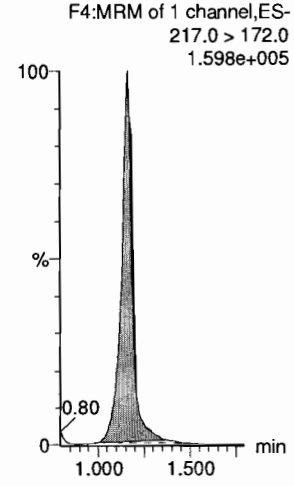
N-MeFOSE



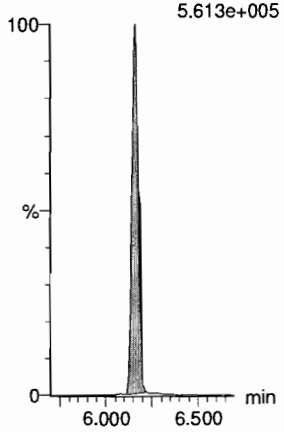
N-EtFOSE



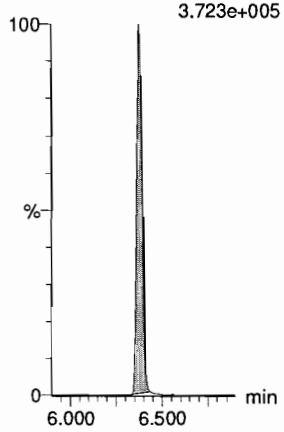
13C4-PFBA



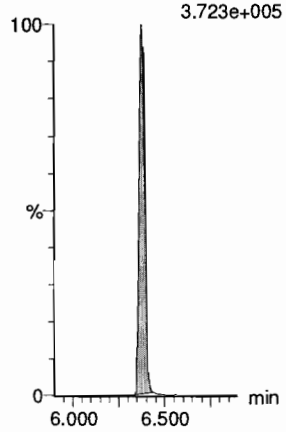
d5-N-ETFOSA



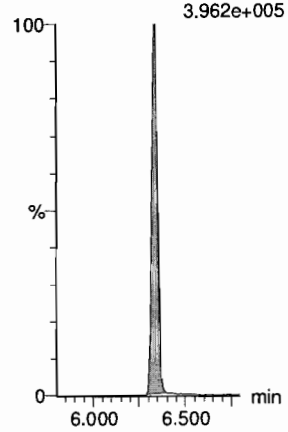
13C2-PFHxDA



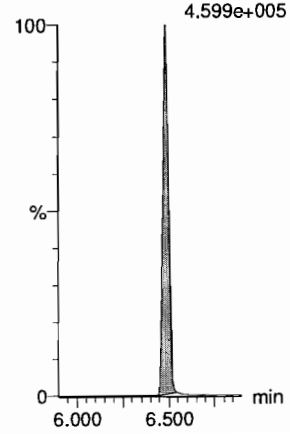
13C2-PFHxDA



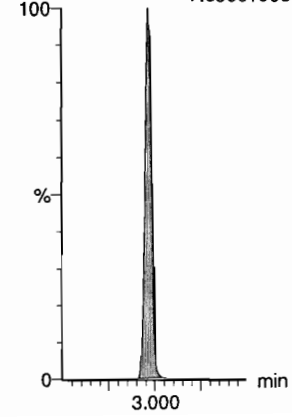
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

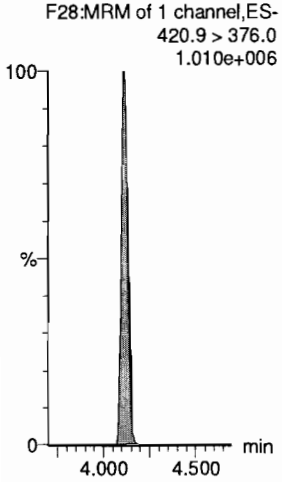


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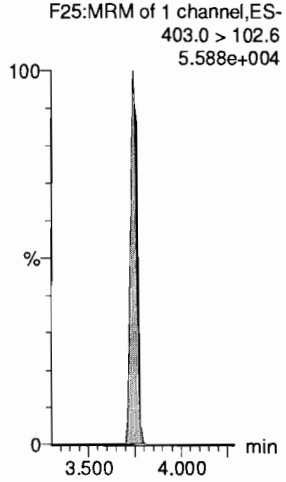
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Name: 190722M1_10, Date: 22-Jul-2019, Time: 11:30:15, ID: ST190722M1-7 PFC CS4 19G1107, Description: PFC CS4 19G1107

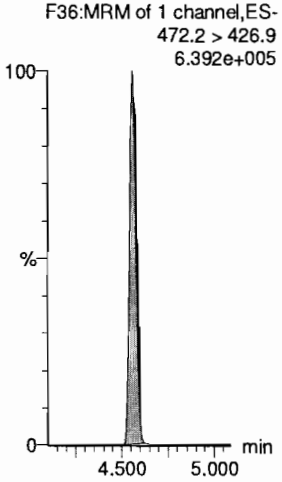
13C8-PFOA



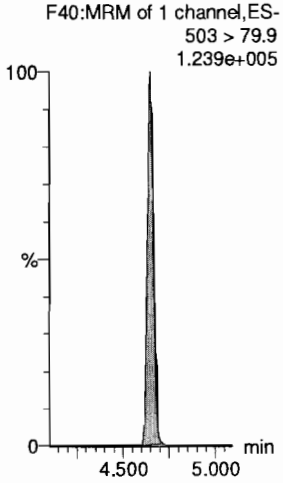
18O2-PFHxS



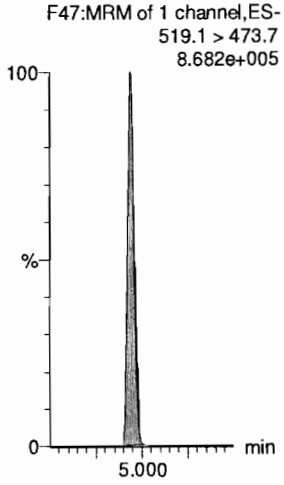
13C9-PFNA



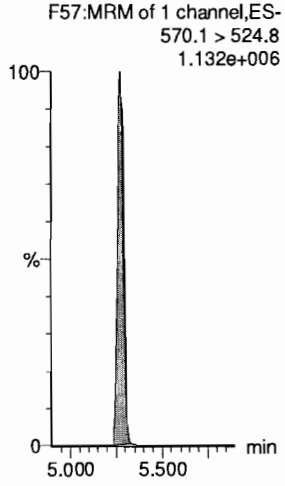
13C4-PFOS



13C6-PFDA



13C7-PFUdA

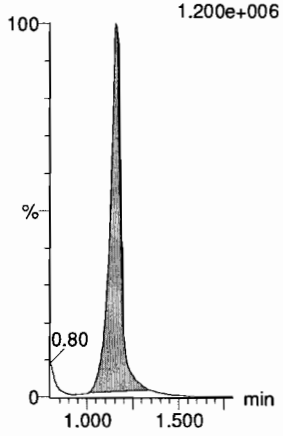


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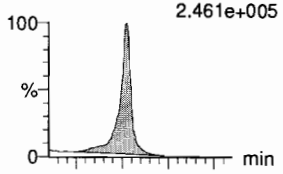
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Name: 190722M1_11, Date: 22-Jul-2019, Time: 11:40:48, ID: ST190722M1-8 PFC CS5 19G1108, Description: PFC CS5 19G1108

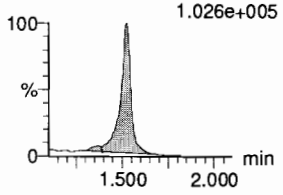
PFBA
F2:MRM of 1 channel,ES-
213.0 > 168.8
1.200e+006



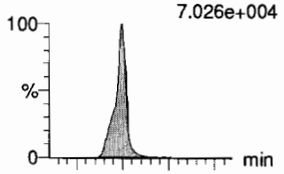
PFPrS
F6:MRM of 2 channels,ES-
248.9 > 79.9
2.461e+005



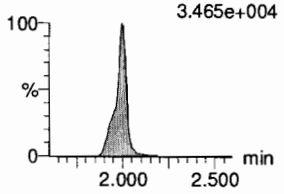
F6:MRM of 2 channels,ES-
248.9 > 98.9
1.026e+005



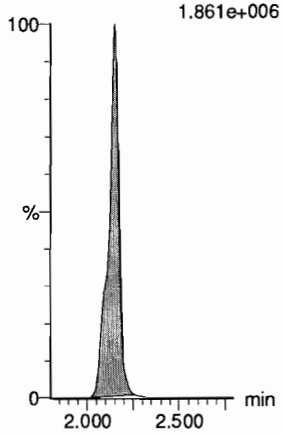
3:3 FTCA
F5:MRM of 2 channels,ES-
240.9 > 176.9
7.026e+004



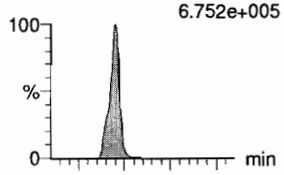
F5:MRM of 2 channels,ES-
240.9 > 116.9
3.465e+004



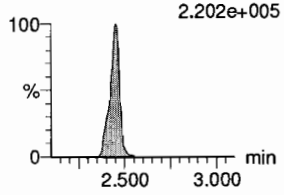
PFPeA
F7:MRM of 1 channel,ES-
263.1 > 218.9
1.861e+006



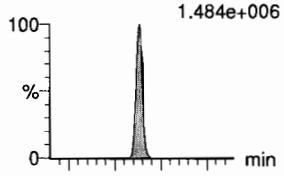
PFBS
F11:MRM of 2 channels,ES-
299.0 > 79.7
6.752e+005



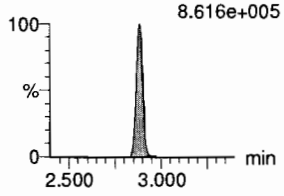
F11:MRM of 2 channels,ES-
299.0 > 99.0
2.202e+005



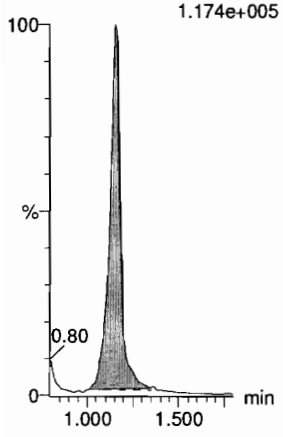
4:2 FTS
F16:MRM of 2 channels,ES-
327.0 > 306.9
1.484e+006



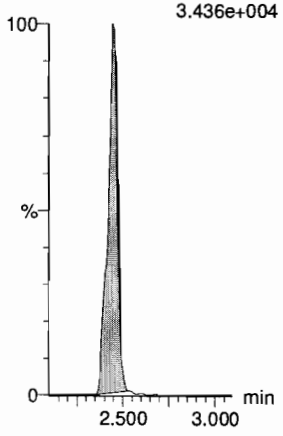
F16:MRM of 2 channels,ES-
327.0 > 80.9
8.616e+005



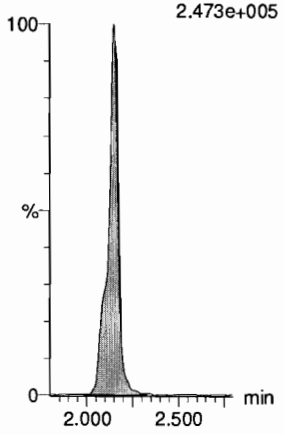
13C3-PFBA
F3:MRM of 1 channel,ES-
216.1 > 171.8
1.174e+005



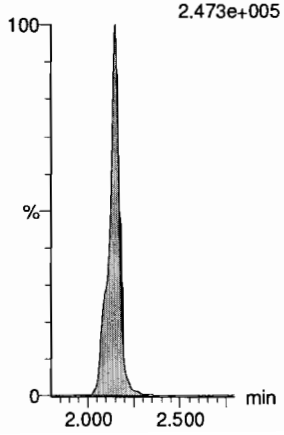
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.436e+004



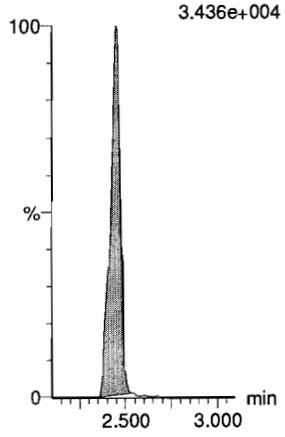
13C3-PFPeA
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.473e+005



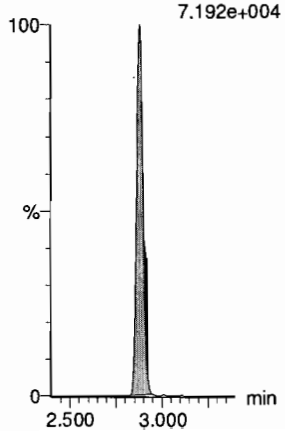
13C3-PFPeA
F8:MRM of 1 channel,ES-
266.0 > 221.8
2.473e+005



13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.436e+004



13C2-4:2 FTS
F17:MRM of 2 channels,ES-
329.0 > 79.9
7.192e+004

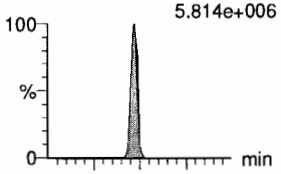


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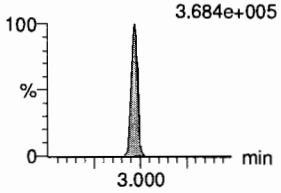
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Name: 190722M1_11, Date: 22-Jul-2019, Time: 11:40:48, ID: ST190722M1-8 PFC CS5 19G1108, Description: PFC CS5 19G1108

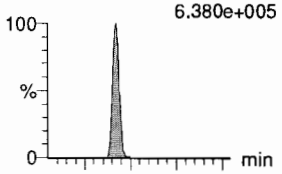
PFHxA
F13:MRM of 2 channels,ES-
313.0 > 269.0
5.814e+006



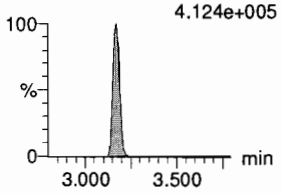
F13:MRM of 2 channels,ES-
313 > 118.9
3.684e+005



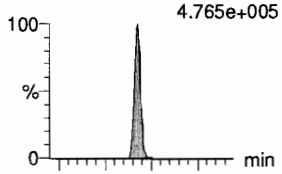
PFPeS
F19:MRM of 2 channels,ES-
349.1 > 80.1
6.380e+005



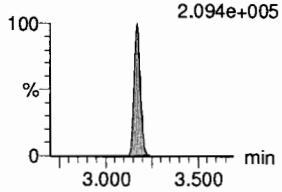
F19:MRM of 2 channels,ES-
349.1 > 99
4.124e+005



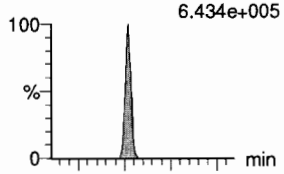
HFPO-DA
F9:MRM of 3 channels,ES-
285.1 > 168.9
4.765e+005



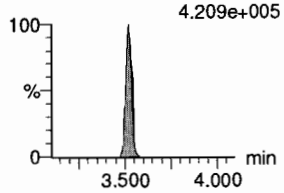
F9:MRM of 3 channels,ES-
285.1 > 184.9
2.094e+005



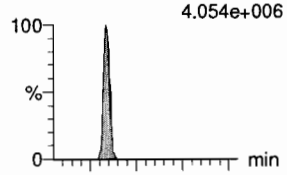
5:3 FTCA
F18:MRM of 2 channels,ES-
340.9 > 236.9
6.434e+005



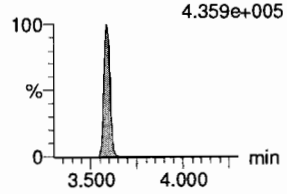
F18:MRM of 2 channels,ES-
340.9 > 216.9
4.209e+005



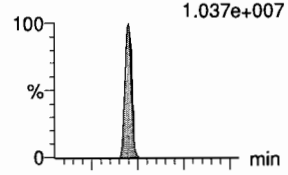
PFHpA
F20:MRM of 2 channels,ES-
363.0 > 318.9
4.054e+006



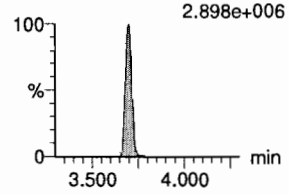
F20:MRM of 2 channels,ES-
363.0 > 169.0
4.359e+005



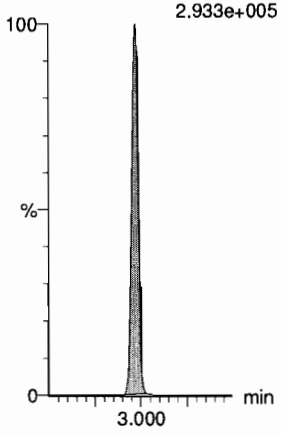
ADONA
F22:MRM of 2 channels,ES-
376.8 > 250.9
1.037e+007



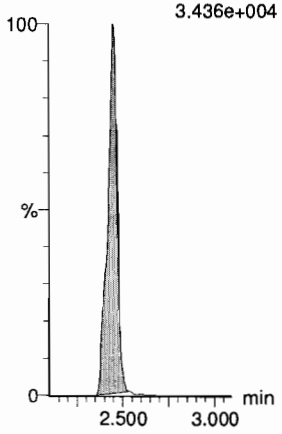
F22:MRM of 2 channels,ES-
376.8 > 85.0
2.898e+006



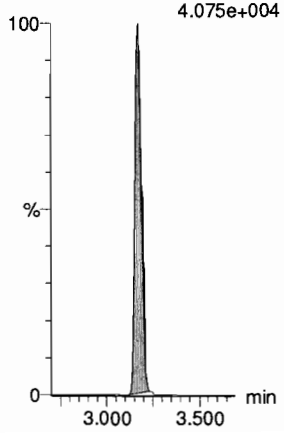
13C2-PFHxA
F14:MRM of 1 channel,ES-
315.0 > 270.0
2.933e+005



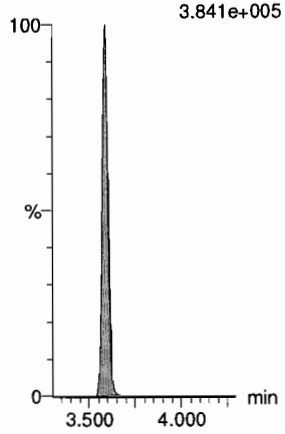
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.436e+004



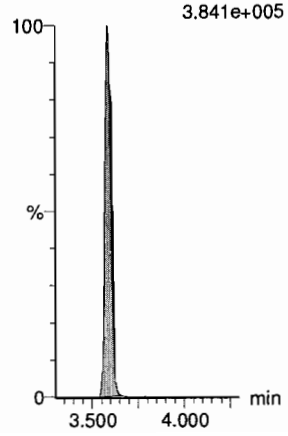
13C3-HFPO-DA
F10:MRM of 2 channels,ES-
287.0 > 168.9
4.075e+004



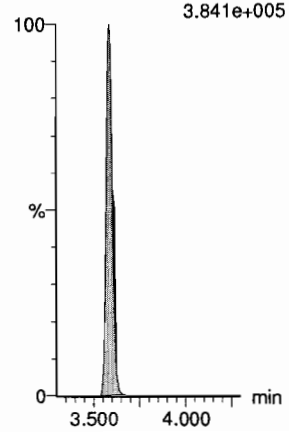
13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.841e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.841e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.841e+005

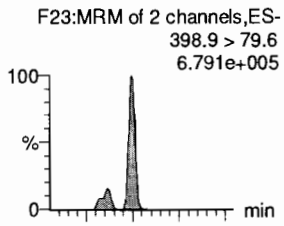


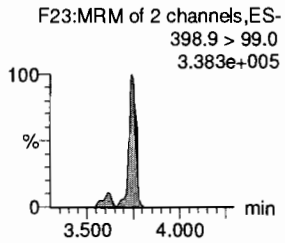
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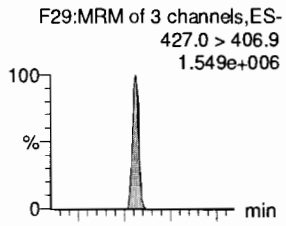
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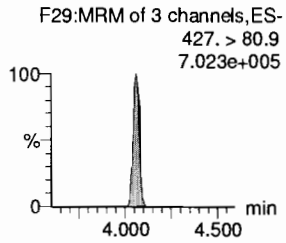
L-PFHxS



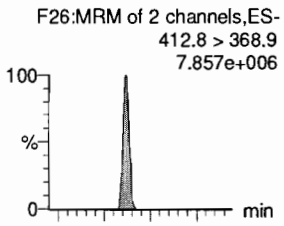


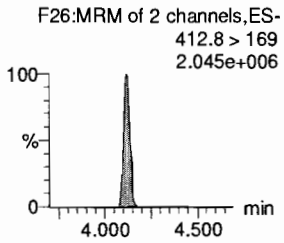
6:2 FTS



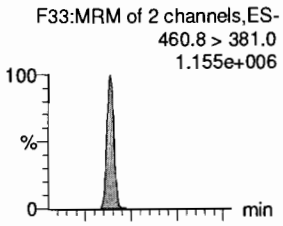


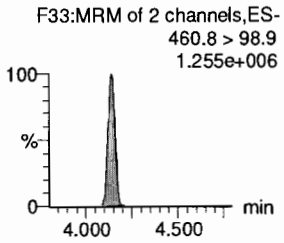
L-PFOA



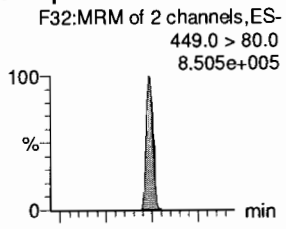


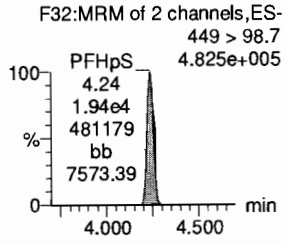
PFEChS



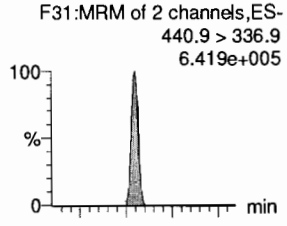


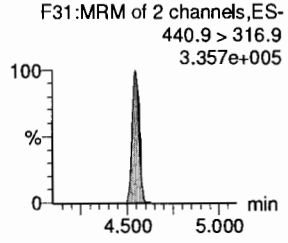
PFHpS



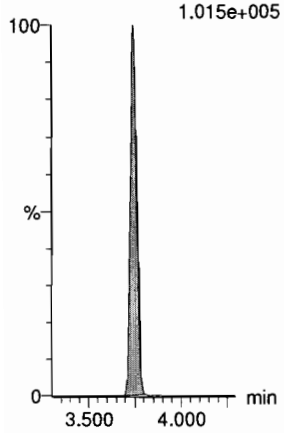


7:3 FTCA

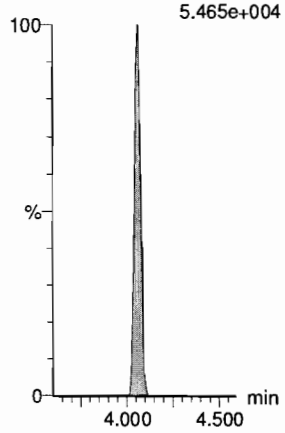




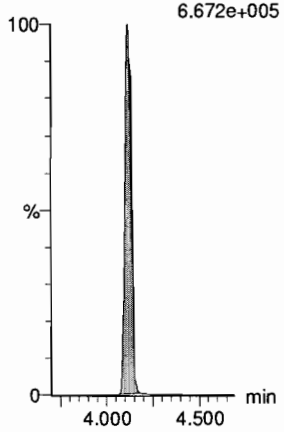
13C3-PFHxS



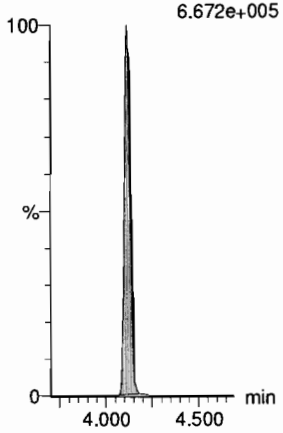
13C2-6:2 FTS



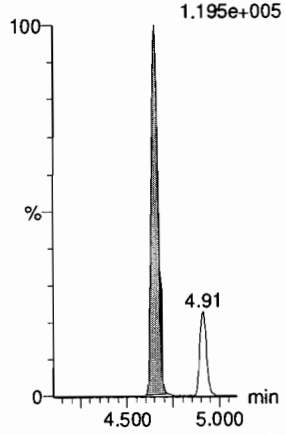
13C2-PFOA



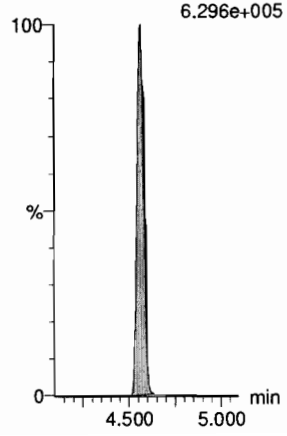
13C2-PFOA



13C8-PFOS



13C5-PFNA

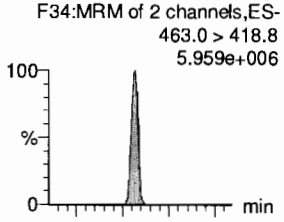


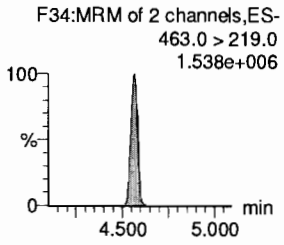
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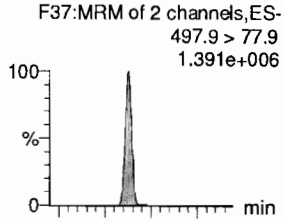
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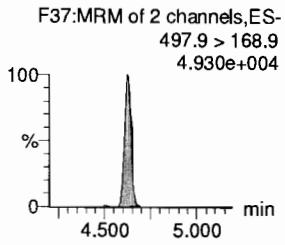
PFNA



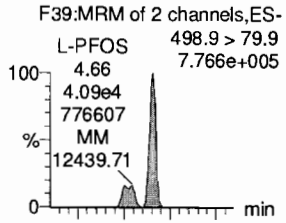


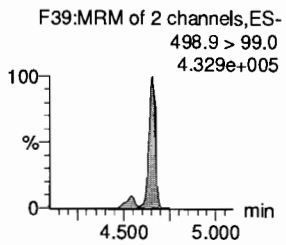
PFOSA



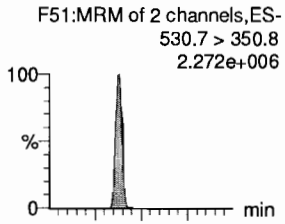


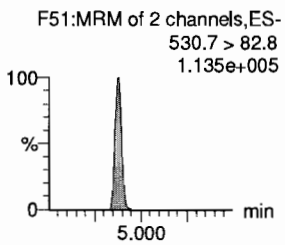
L-PFOS



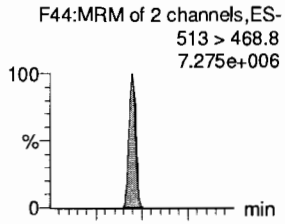


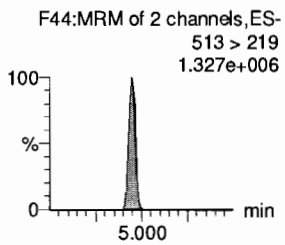
9Cl-PF30NS



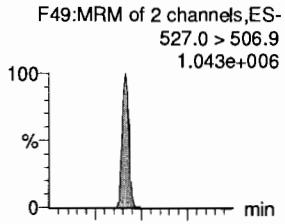


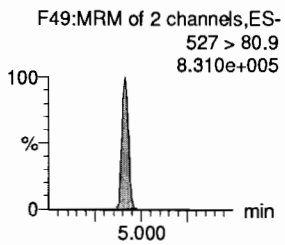
PFDA



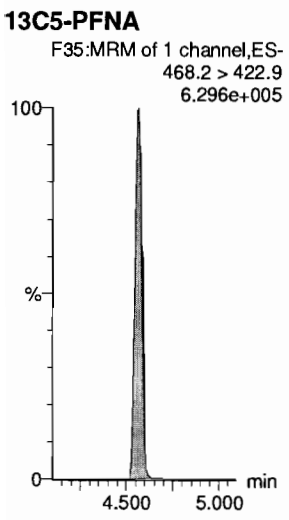


8:2 FTS

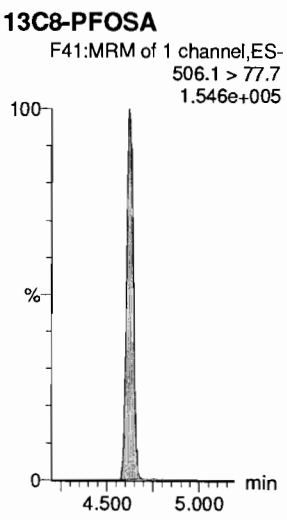




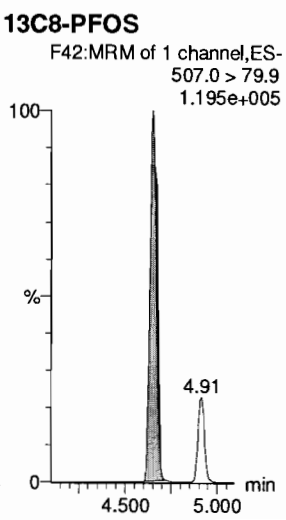
13C5-PFNA



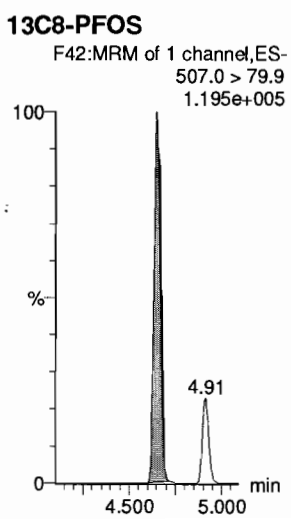
13C8-PFOSA



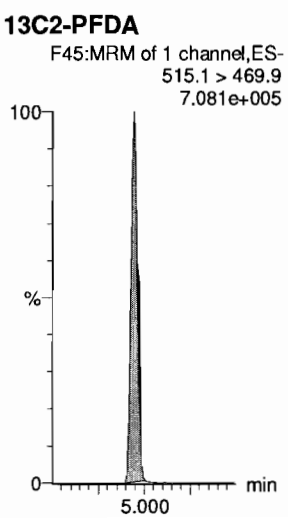
13C8-PFOS



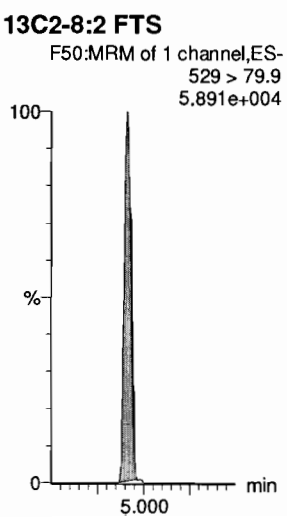
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

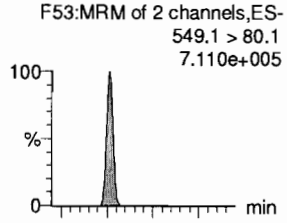


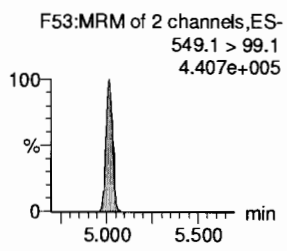
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

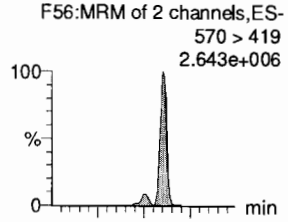
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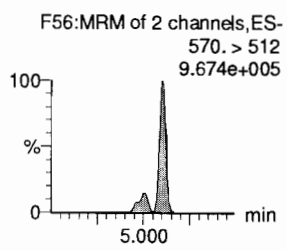
PFNS



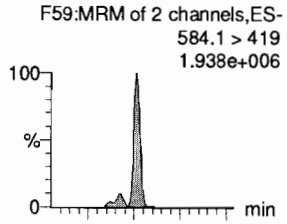


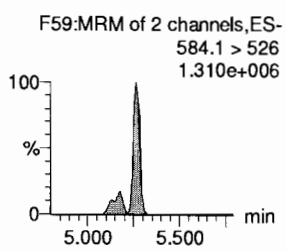
L-MeFOSAA



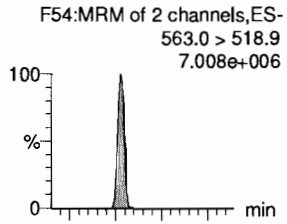


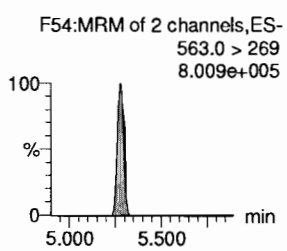
L-EtFOSAA



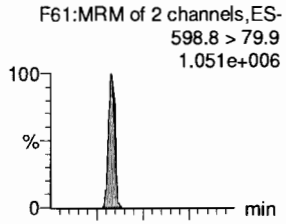


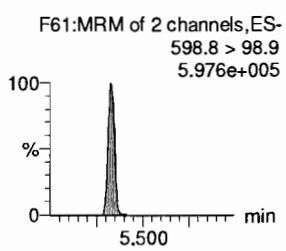
PFUdA



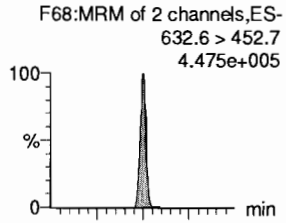


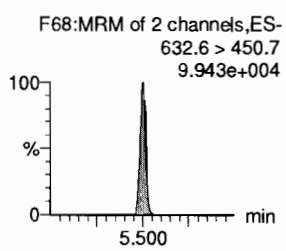
PFDS



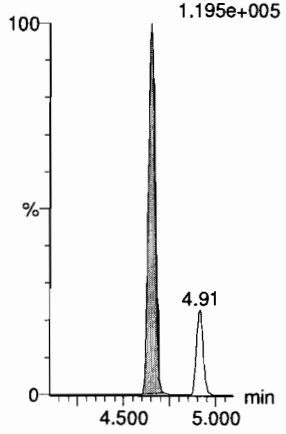


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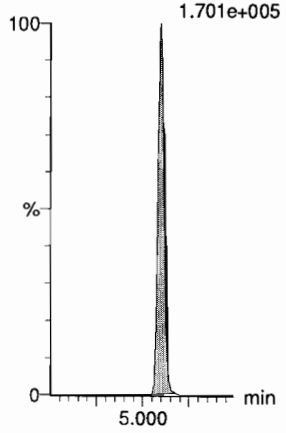




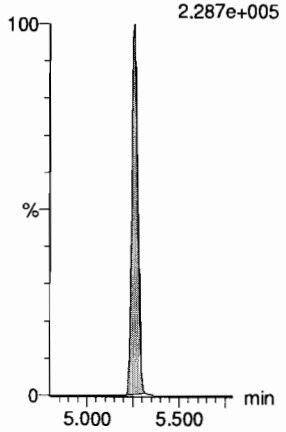
13C8-PFOS



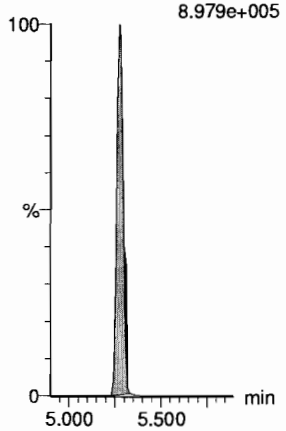
d3-N-MeFOSAA



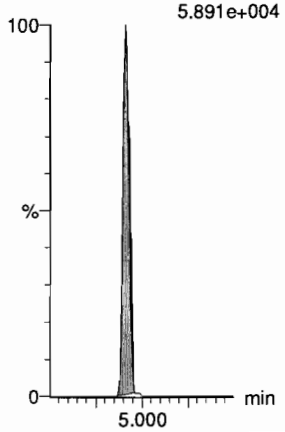
d5-N-EtFOSAA



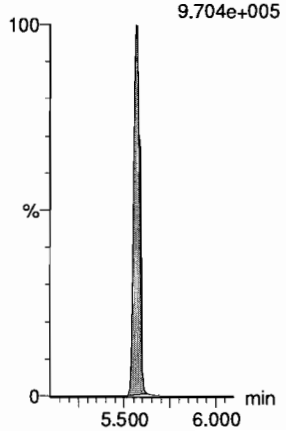
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

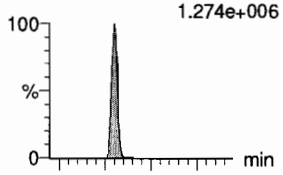


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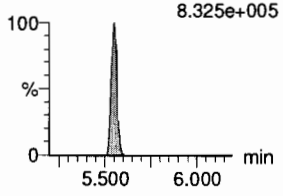
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Name: 190722M1_11, Date: 22-Jul-2019, Time: 11:40:48, ID: ST190722M1-8 PFC CS5 19G1108, Description: PFC CS5 19G1108

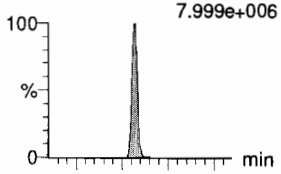
10:2 FTS
F66:MRM of 2 channels,ES-
627.0 > 606.9
1.274e+006



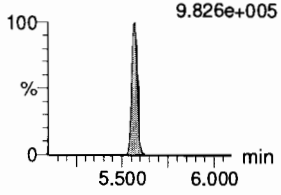
F66:MRM of 2 channels,ES-
627.0 > 80.9
8.325e+005



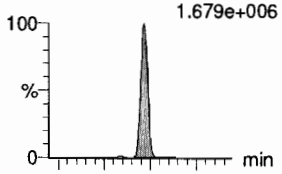
PFDoA
F62:MRM of 4 channels,ES-
612.9 > 569.0
7.999e+006



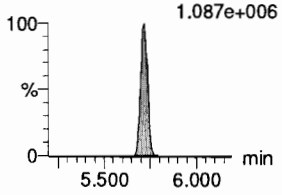
F62:MRM of 4 channels,ES-
612.9 > 318.8
9.826e+005



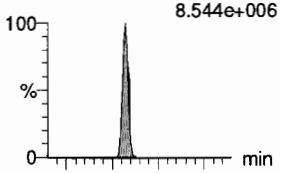
N-MeFOSA
F43:MRM of 2 channels,ES-
512.1 > 168.9
1.679e+006



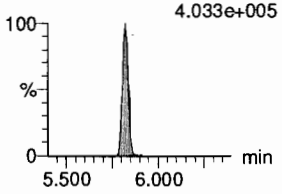
F43:MRM of 2 channels,ES-
512.1 > 219
1.087e+006



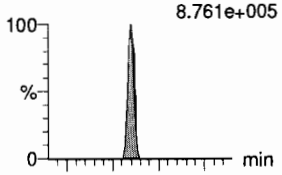
PFTrDA
F70:MRM of 2 channels,ES-
662.9 > 618.9
8.544e+006



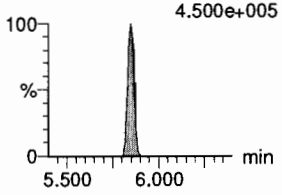
F70:MRM of 2 channels,ES-
662.9 > 319
4.033e+005



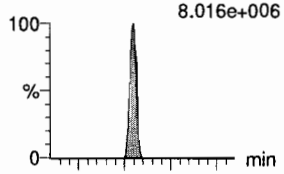
PFDoS
F71:MRM of 2 channels,ES-
698.8 > 79.9
8.761e+005



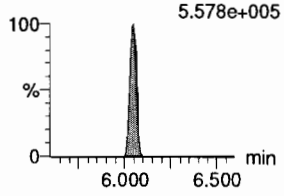
F71:MRM of 2 channels,ES-
698.8 > 98.9
4.500e+005



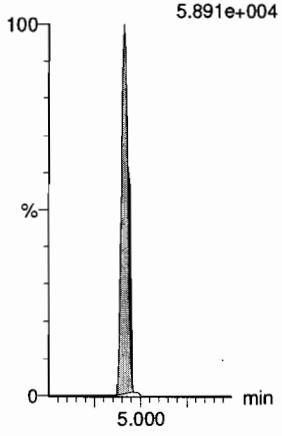
PFTeDA
F72:MRM of 2 channels,ES-
713.0 > 669.0
8.016e+006



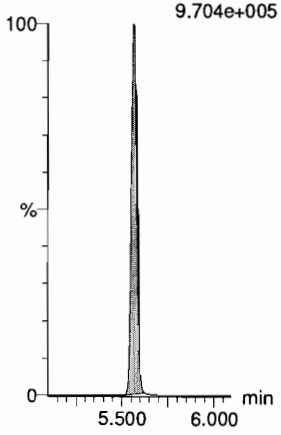
F72:MRM of 2 channels,ES-
713. > 369.0
5.578e+005



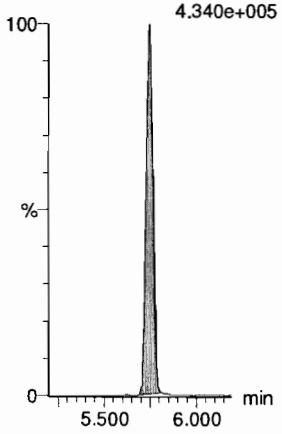
13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
5.891e+004



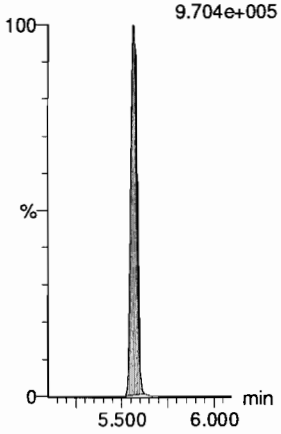
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
9.704e+005



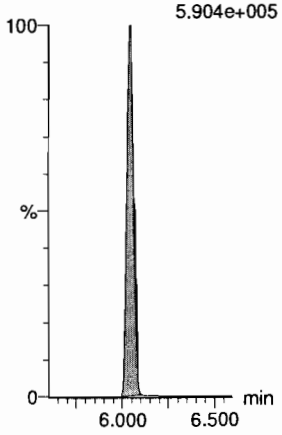
d3-N-MeFOSA
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.340e+005



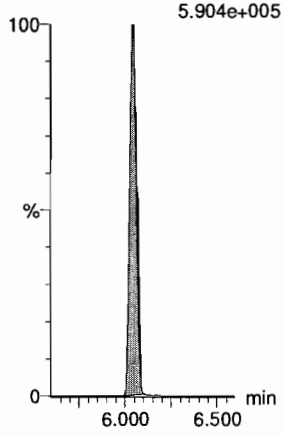
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
9.704e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
5.904e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
5.904e+005

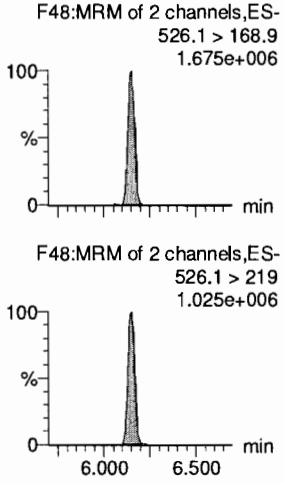


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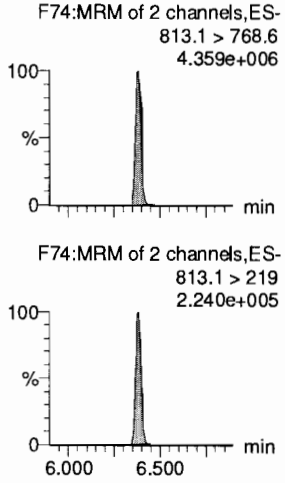
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Name: 190722M1_11, Date: 22-Jul-2019, Time: 11:40:48, ID: ST190722M1-8 PFC CS5 19G1108, Description: PFC CS5 19G1108

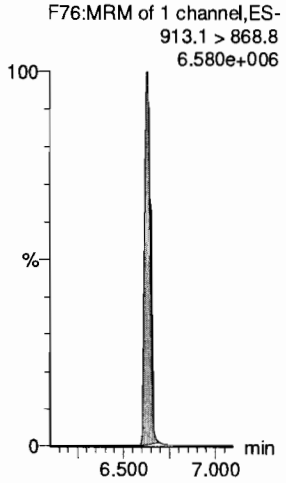
N-EtFOSA



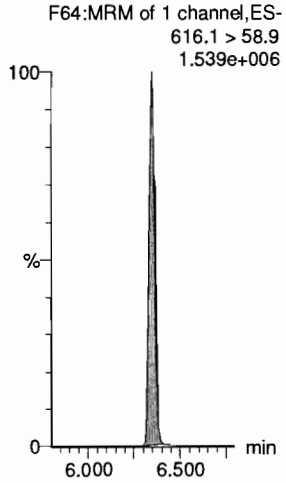
PFHxDA



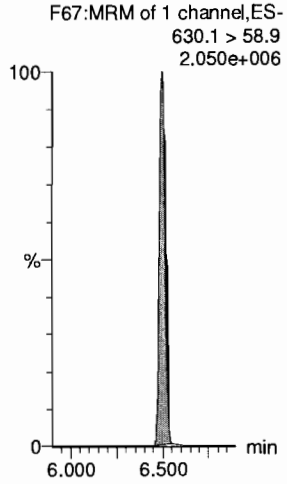
PFODA



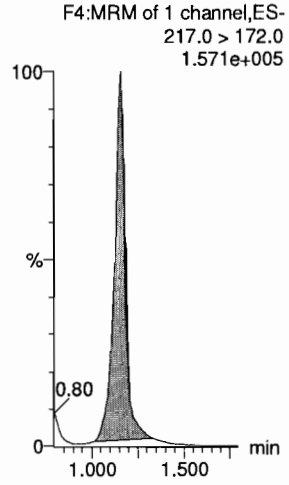
N-MeFOSE



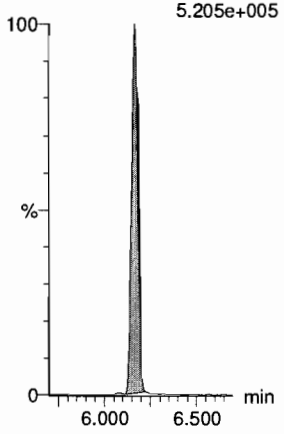
N-EtFOSE



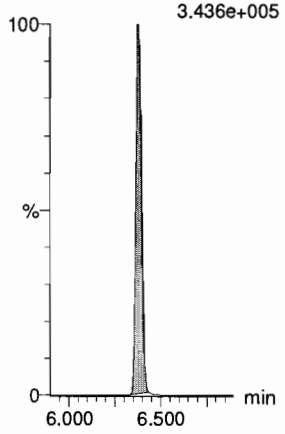
13C4-PFBA



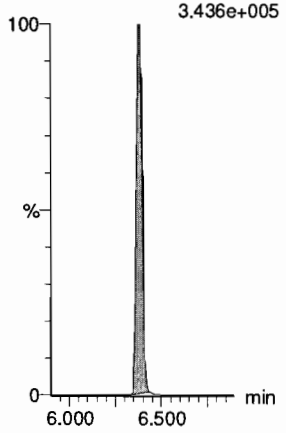
d5-N-ETFOSA



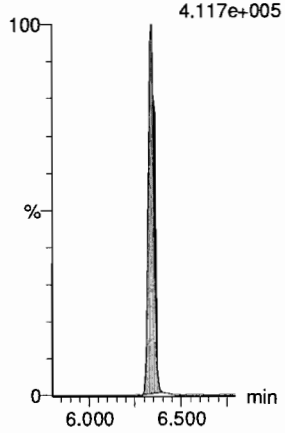
13C2-PFHxDA



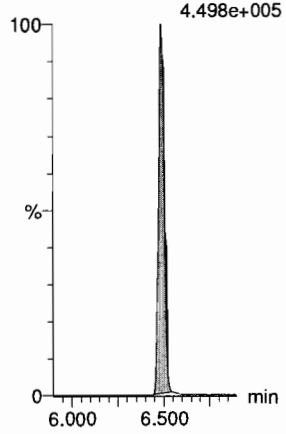
13C2-PFHxDA



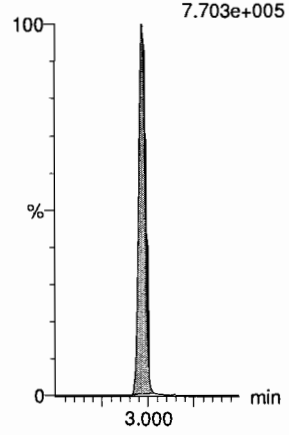
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

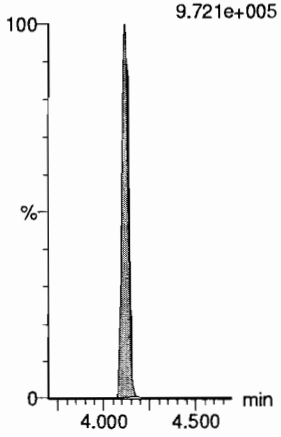


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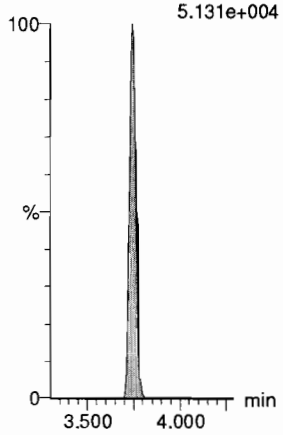
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_11, Date: 22-Jul-2019, Time: 11:40:48, ID: ST190722M1-8 PFC CS5 19G1108, Description: PFC CS5 19G1108

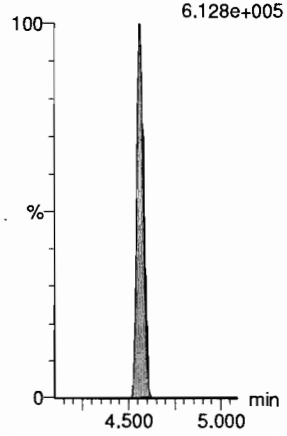
13C8-PFOA



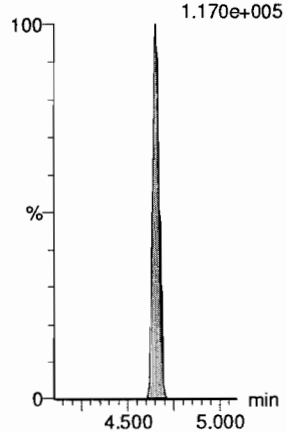
18O2-PFHxS



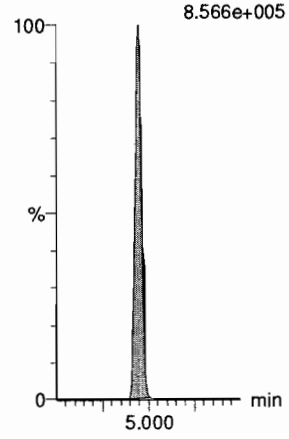
13C9-PFNA



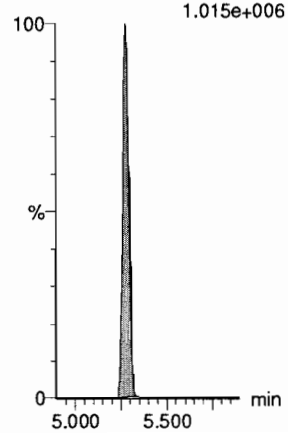
13C4-PFOS



13C6-PFDA



13C7-PFUdA

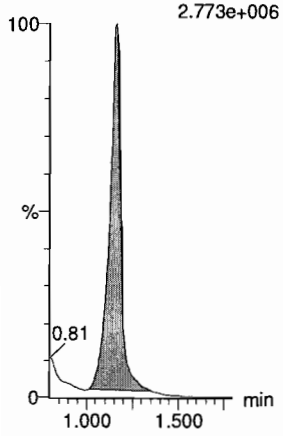


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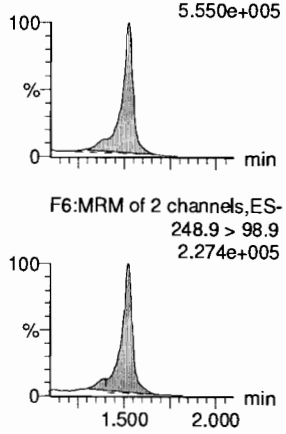
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Name: 190722M1_12, Date: 22-Jul-2019, Time: 11:51:27, ID: ST190722M1-9 PFC CS6 19G1109, Description: PFC CS6 19G1109

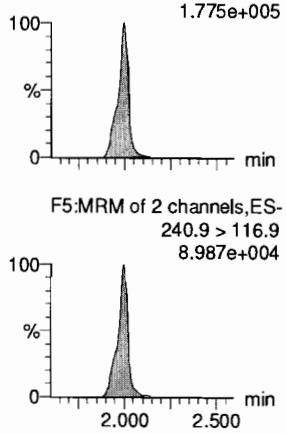
PFBA



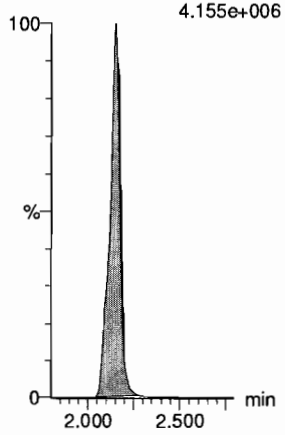
PFPrS



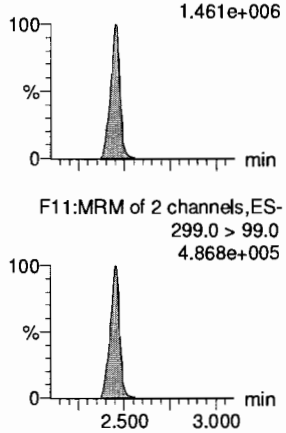
3:3 FTCA



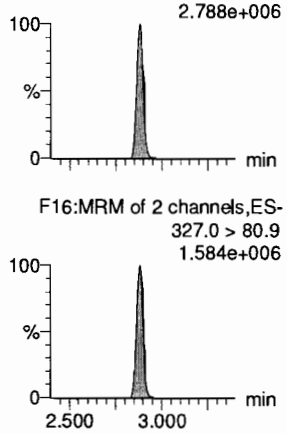
PFPeA



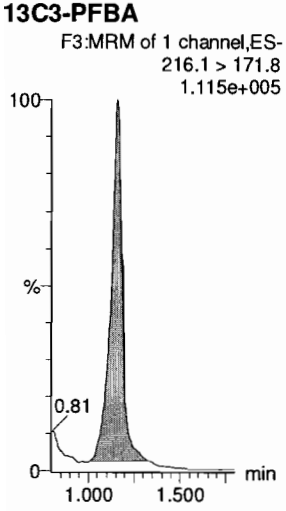
PFBS



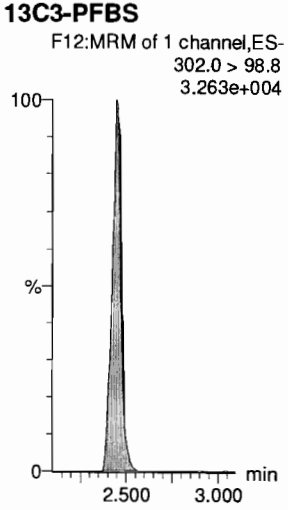
4:2 FTS



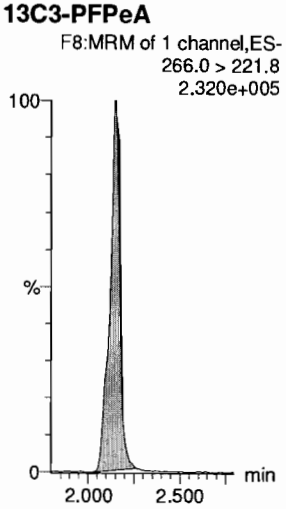
13C3-PFBA



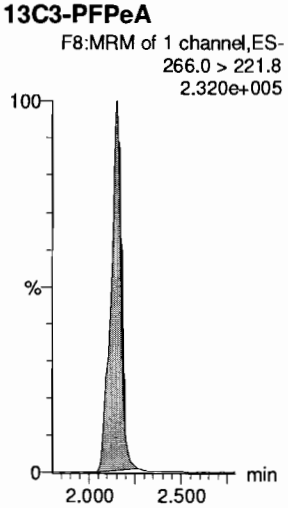
13C3-PFBS



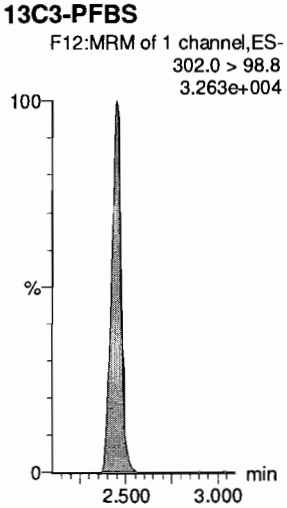
13C3-PFPeA



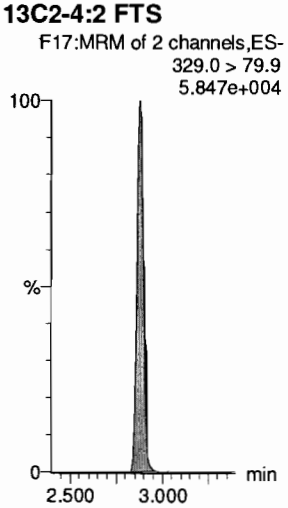
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

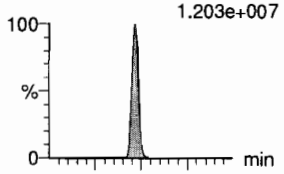


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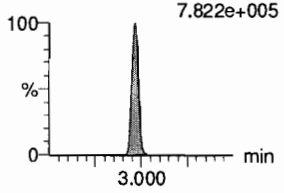
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Name: 190722M1_12, Date: 22-Jul-2019, Time: 11:51:27, ID: ST190722M1-9 PFC CS6 19G1109, Description: PFC CS6 19G1109

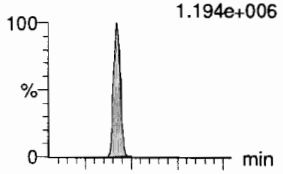
PFHxA
F13:MRM of 2 channels,ES-
313.0 > 269.0
1.203e+007



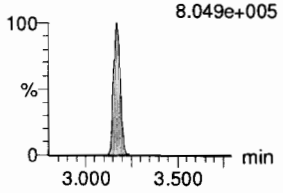
F13:MRM of 2 channels,ES-
313 > 118.9
7.822e+005



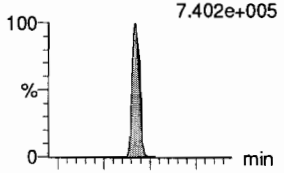
PFPeS
F19:MRM of 2 channels,ES-
349.1 > 80.1
1.194e+006



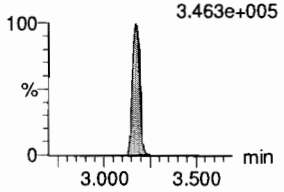
F19:MRM of 2 channels,ES-
349.1 > 99
8.049e+005



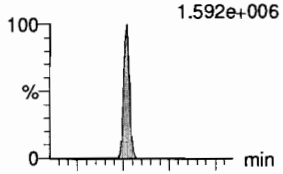
HFPO-DA
F9:MRM of 3 channels,ES-
285.1 > 168.9
7.402e+005



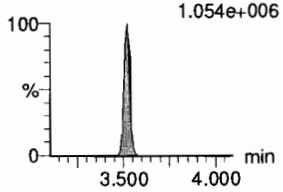
F9:MRM of 3 channels,ES-
285.1 > 184.9
3.463e+005



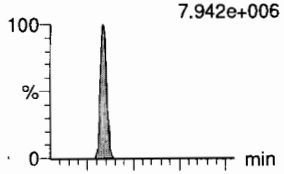
5:3 FTCA
F18:MRM of 2 channels,ES-
340.9 > 236.9
1.592e+006



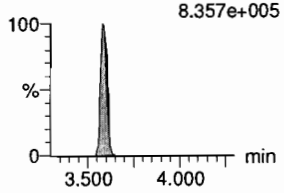
F18:MRM of 2 channels,ES-
340.9 > 216.9
1.054e+006



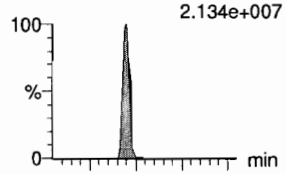
PFHpA
F20:MRM of 2 channels,ES-
363.0 > 318.9
7.942e+006



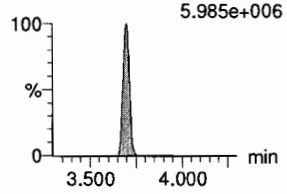
F20:MRM of 2 channels,ES-
363.0 > 169.0
8.357e+005



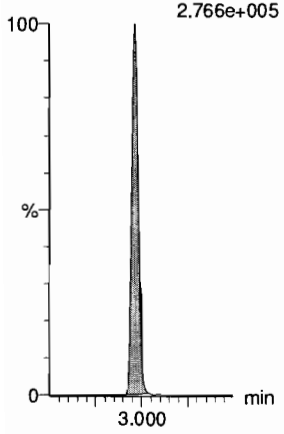
ADONA
F22:MRM of 2 channels,ES-
376.8 > 250.9
2.134e+007



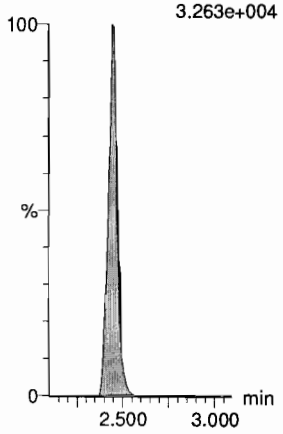
F22:MRM of 2 channels,ES-
376.8 > 85.0
5.985e+006



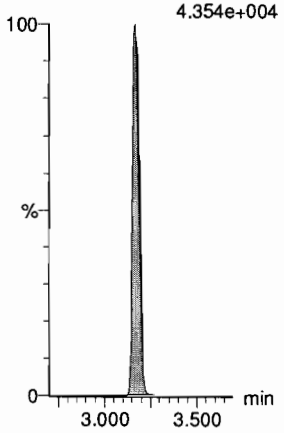
13C2-PFHxA
F14:MRM of 1 channel,ES-
315.0 > 270.0
2.766e+005



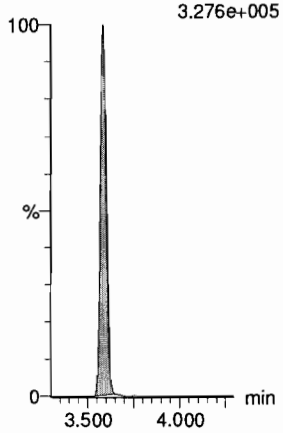
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
3.263e+004



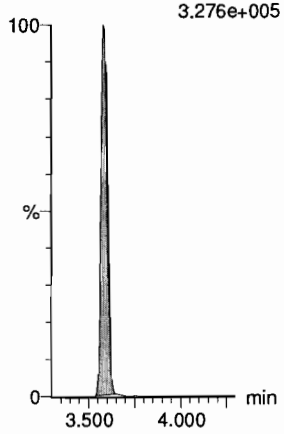
13C3-HFPO-DA
F10:MRM of 2 channels,ES-
287.0 > 168.9
4.354e+004



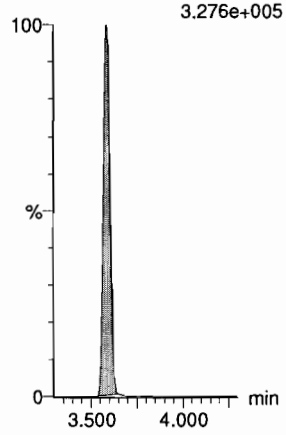
13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.276e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.276e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
3.276e+005

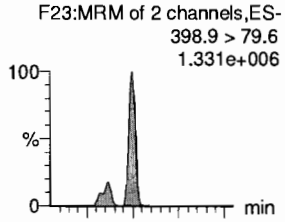


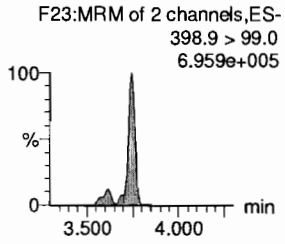
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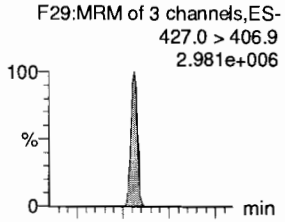
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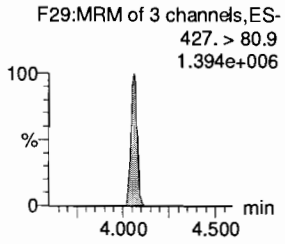
L-PFHxS



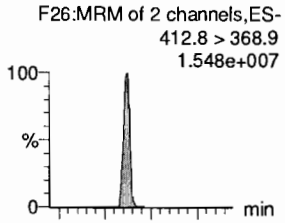


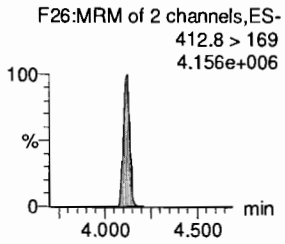
6:2 FTS



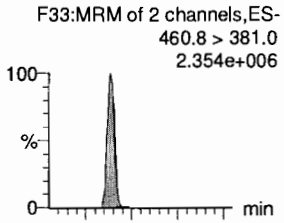


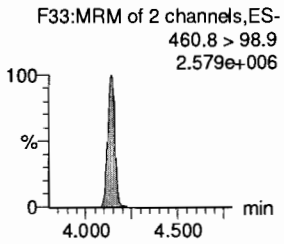
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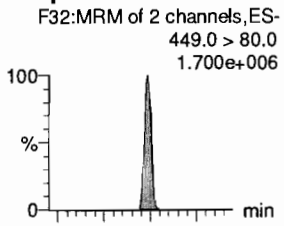


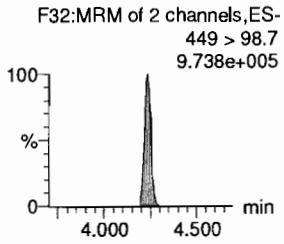
PFEChS



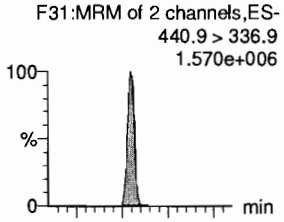


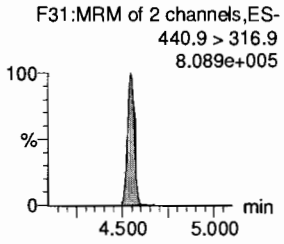
PFHpS



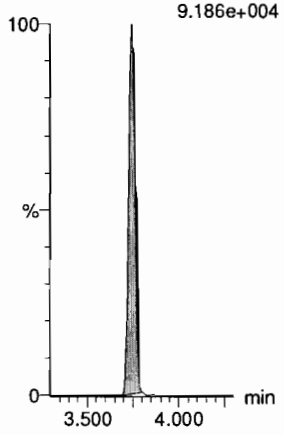


7:3 FTCA

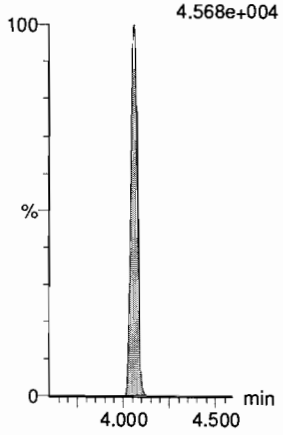




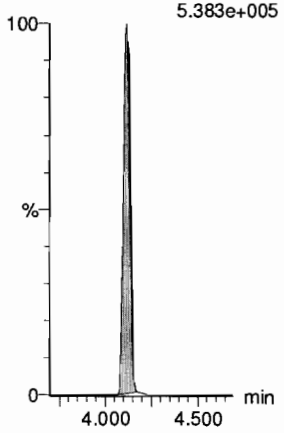
13C3-PFHxS



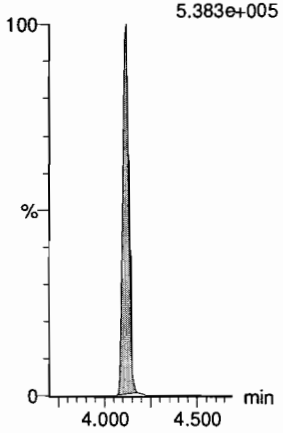
13C2-6:2 FTS



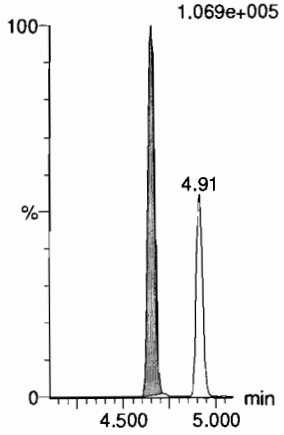
13C2-PFOA



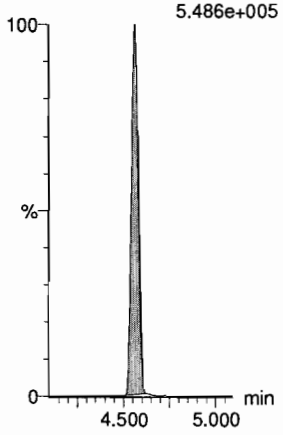
13C2-PFOA



13C8-PFOS



13C5-PFNA

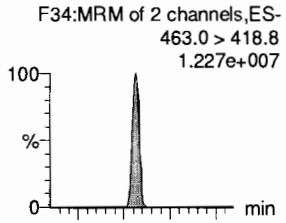


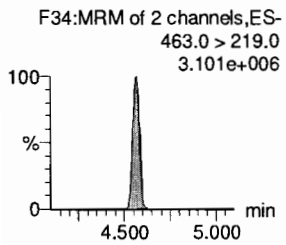
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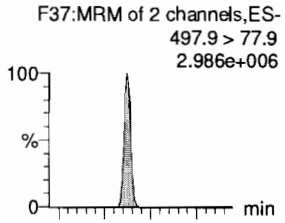
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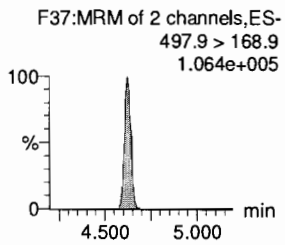
PFNA



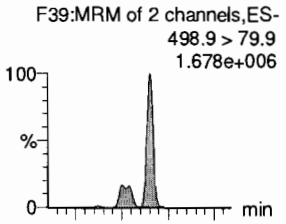


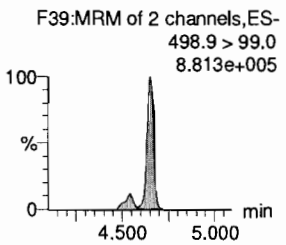
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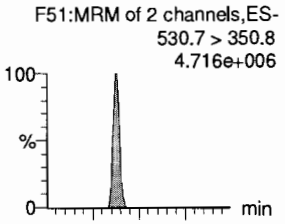


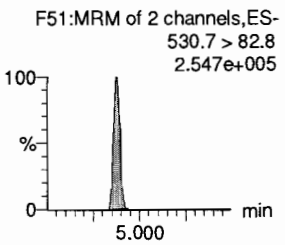
L-PFOS



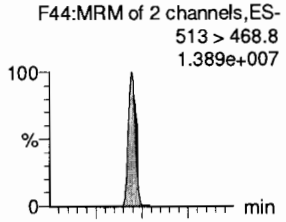


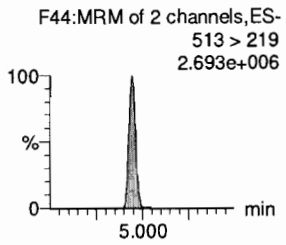
9Cl-PF30NS



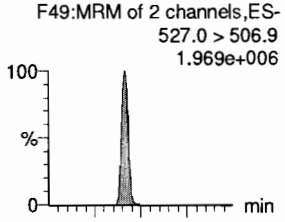


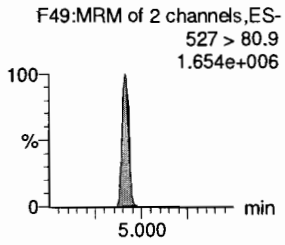
PFDA



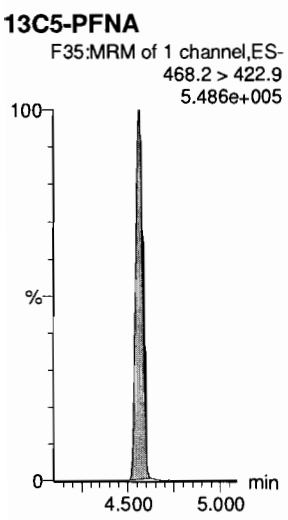


8:2 FTS

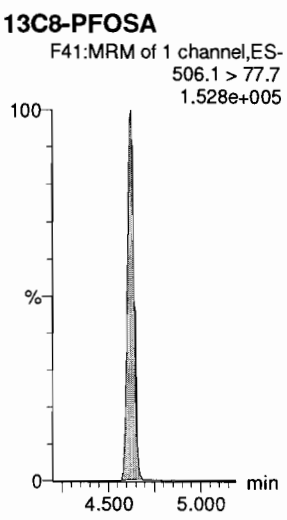




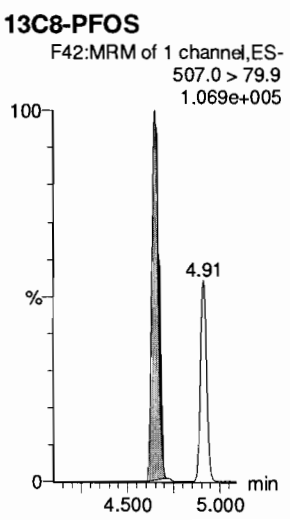
13C5-PFNA



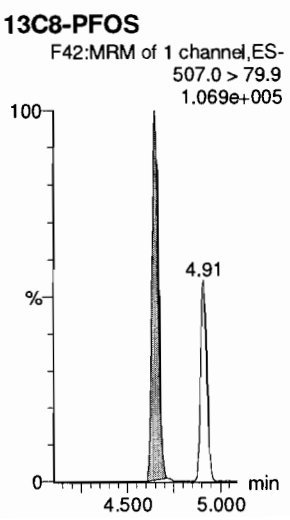
13C8-PFOSA



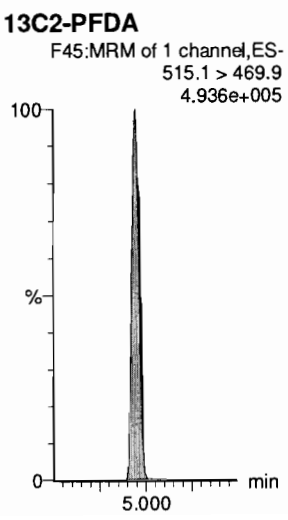
13C8-PFOS



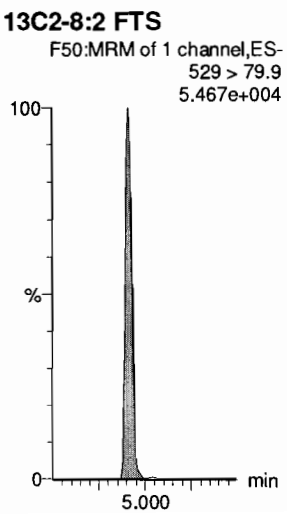
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS

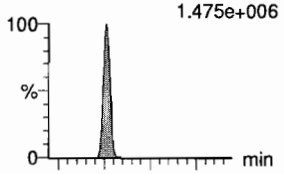


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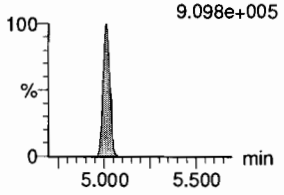
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Name: 190722M1_12, Date: 22-Jul-2019, Time: 11:51:27, ID: ST190722M1-9 PFC CS6 19G1109, Description: PFC CS6 19G1109

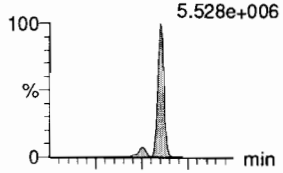
PFNS
F53:MRM of 2 channels,ES-
549.1 > 80.1
1.475e+006



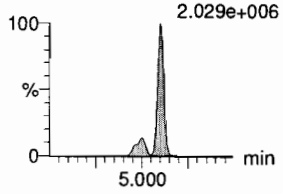
F53:MRM of 2 channels,ES-
549.1 > 99.1
9.098e+005



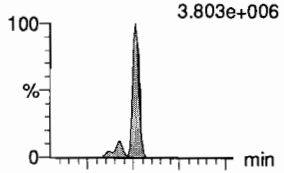
L-MeFOSAA
F56:MRM of 2 channels,ES-
570 > 419
5.528e+006



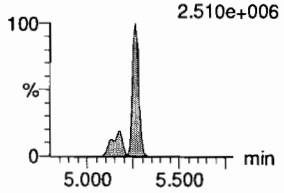
F56:MRM of 2 channels,ES-
570. > 512
2.029e+006



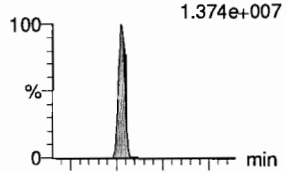
L-EtFOSAA
F59:MRM of 2 channels,ES-
584.1 > 419
3.803e+006



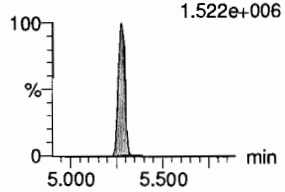
F59:MRM of 2 channels,ES-
584.1 > 526
2.510e+006



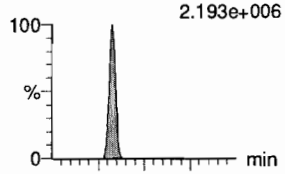
PFUdA
F54:MRM of 2 channels,ES-
563.0 > 518.9
1.374e+007



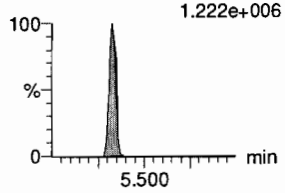
F54:MRM of 2 channels,ES-
563.0 > 269
1.522e+006



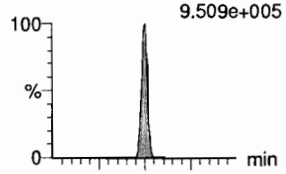
PFDS
F61:MRM of 2 channels,ES-
598.8 > 79.9
2.193e+006



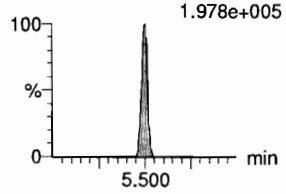
F61:MRM of 2 channels,ES-
598.8 > 98.9
1.222e+006



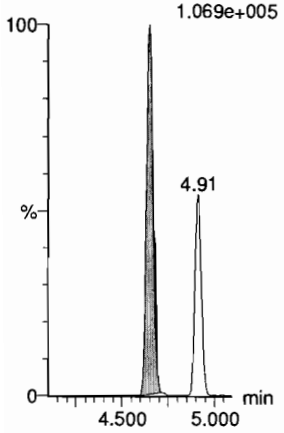
11Cl-PF30UdS
F68:MRM of 2 channels,ES-
632.6 > 452.7
9.509e+005



F68:MRM of 2 channels,ES-
632.6 > 450.7
1.978e+005



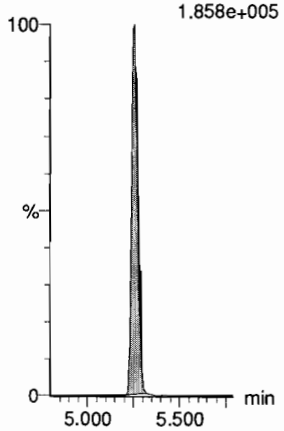
13C8-PFOS
F42:MRM of 1 channel,ES-
507.0 > 79.9
1.069e+005



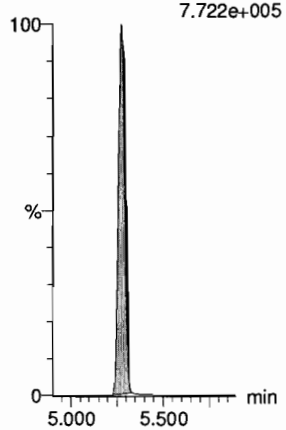
d3-N-MeFOSAA
F58:MRM of 1 channel,ES-
573.3 > 419
1.517e+005



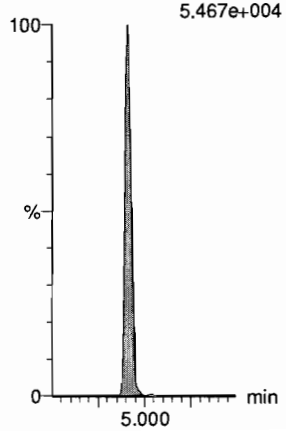
d5-N-EtFOSAA
F60:MRM of 1 channel,ES-
589.3 > 419
1.858e+005



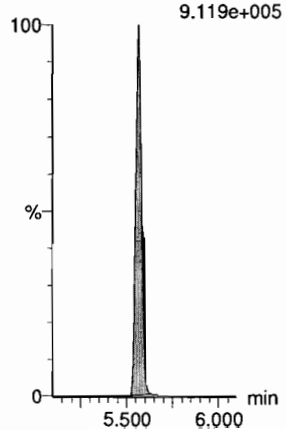
13C2-PFUdA
F55:MRM of 1 channel,ES-
565 > 519.8
7.722e+005



13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
5.467e+004



13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
9.119e+005

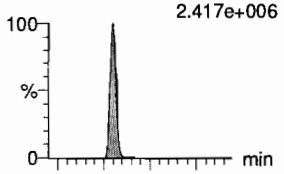


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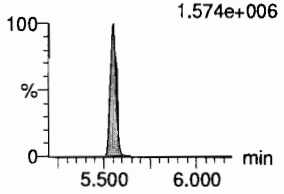
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_12, Date: 22-Jul-2019, Time: 11:51:27, ID: ST190722M1-9 PFC CS6 19G1109, Description: PFC CS6 19G1109

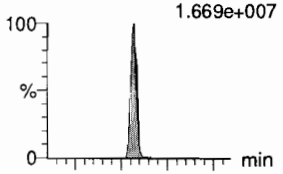
10:2 FTS
F66:MRM of 2 channels,ES-
627.0 > 606.9
2.417e+006



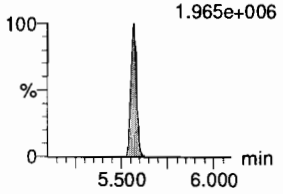
F66:MRM of 2 channels,ES-
627.0 > 80.9
1.574e+006



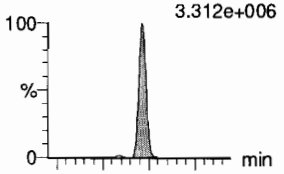
PFDoA
F62:MRM of 4 channels,ES-
612.9 > 569.0
1.669e+007



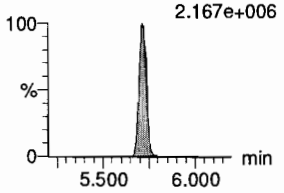
F62:MRM of 4 channels,ES-
612.9 > 318.8
1.965e+006



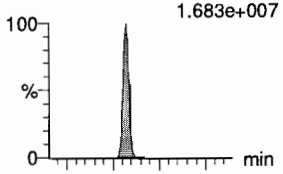
N-MeFOSA
F43:MRM of 2 channels,ES-
512.1 > 168.9
3.312e+006



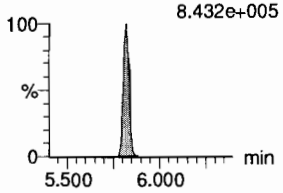
F43:MRM of 2 channels,ES-
512.1 > 219
2.167e+006



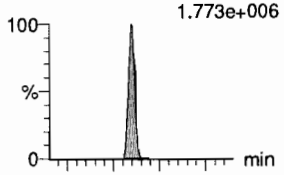
PFTrDA
F70:MRM of 2 channels,ES-
662.9 > 618.9
1.683e+007



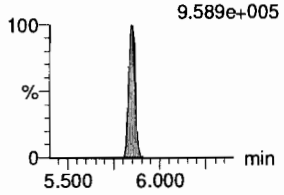
F70:MRM of 2 channels,ES-
662.9 > 319
8.432e+005



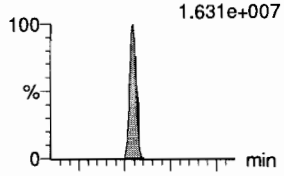
PFDoS
F71:MRM of 2 channels,ES-
698.8 > 79.9
1.773e+006



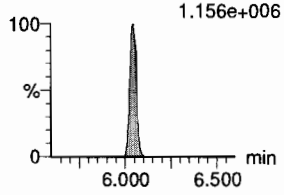
F71:MRM of 2 channels,ES-
698.8 > 98.9
9.589e+005



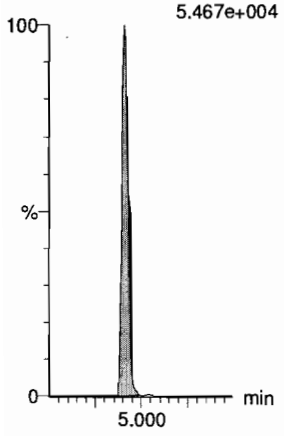
PFTeDA
F72:MRM of 2 channels,ES-
713.0 > 669.0
1.631e+007



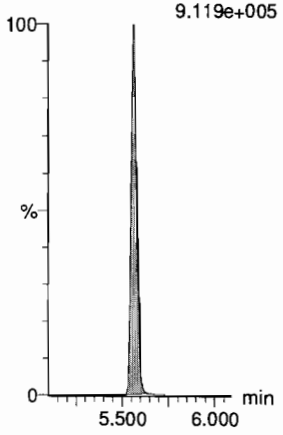
F72:MRM of 2 channels,ES-
713. > 369.0
1.156e+006



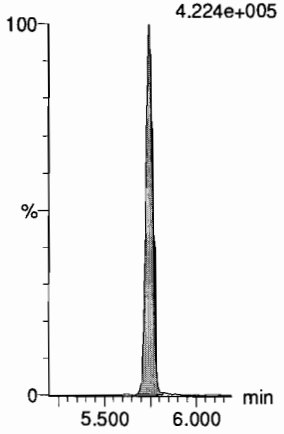
13C2-8:2 FTS
F50:MRM of 1 channel,ES-
529 > 79.9
5.467e+004



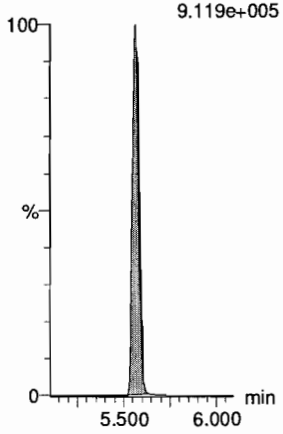
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
9.119e+005



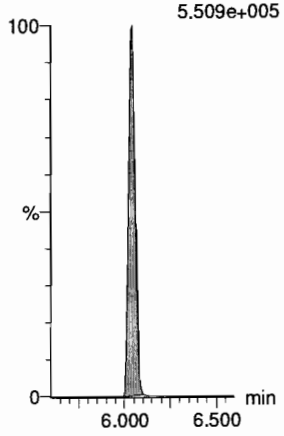
d3-N-MeFOSA
F46:MRM of 1 channel,ES-
515.2 > 168.9
4.224e+005



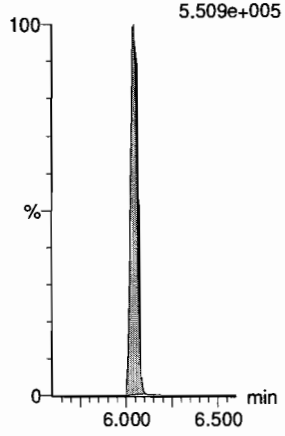
13C2-PFDoA
F63:MRM of 1 channel,ES-
614.7 > 569.7
9.119e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
5.509e+005



13C2-PFTeDA
F73:MRM of 2 channels,ES-
715.1 > 669.7
5.509e+005

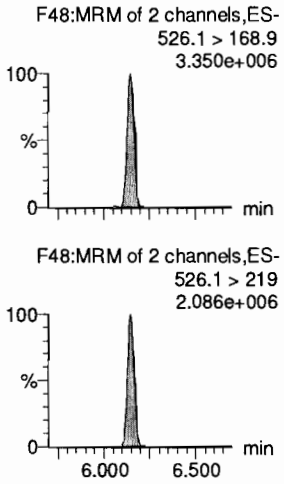


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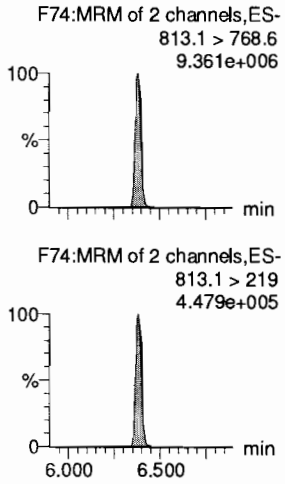
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_12, Date: 22-Jul-2019, Time: 11:51:27, ID: ST190722M1-9 PFC CS6 19G1109, Description: PFC CS6 19G1109

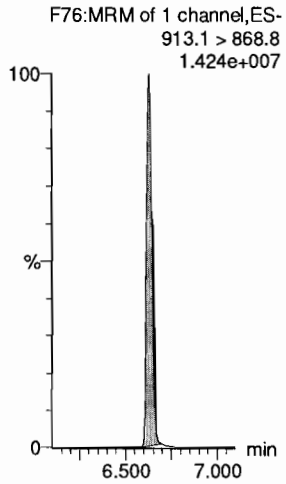
N-EtFOSA



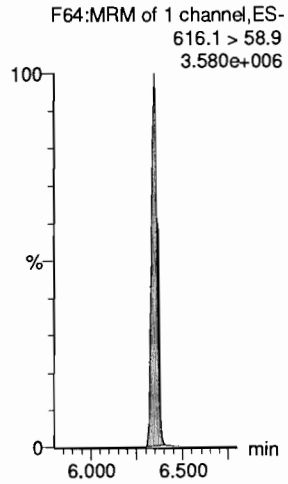
PFHxDA



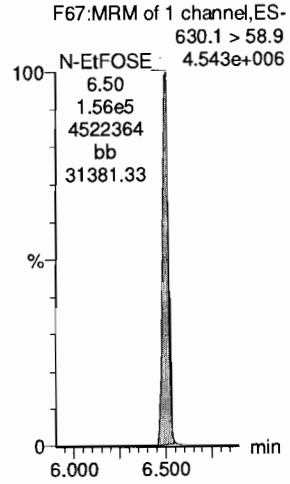
PFODA



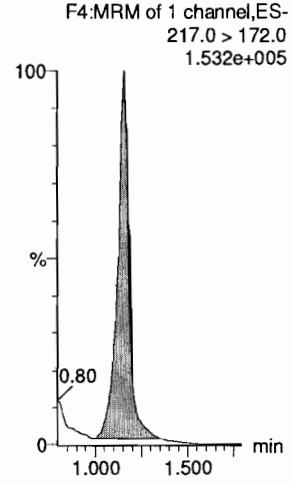
N-MeFOSE



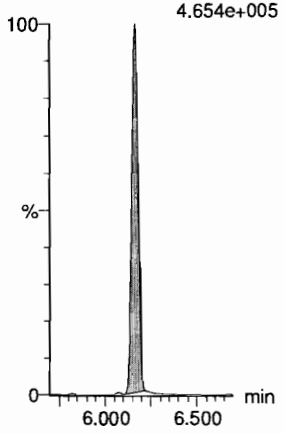
N-EtFOSE



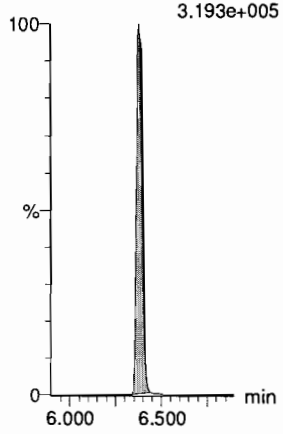
13C4-PFBA



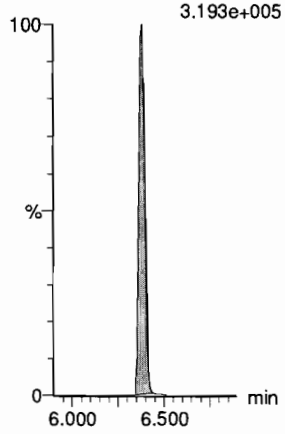
d5-N-ETFOSA



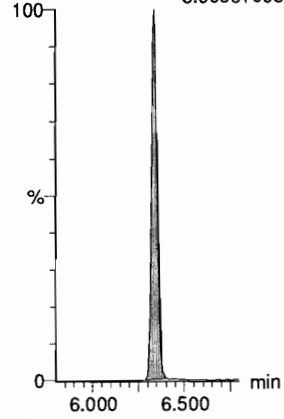
13C2-PFHxDA



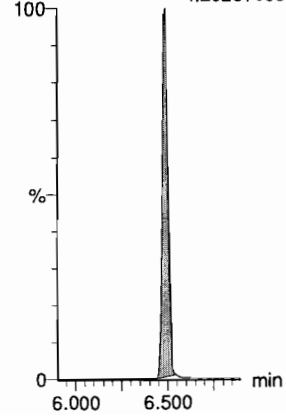
13C2-PFHxDA



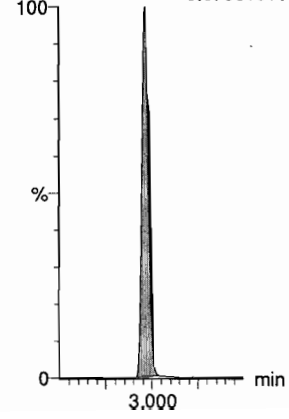
d7-N-MeFOSE



d9-N-EtFOSE



13C5-PFHxA

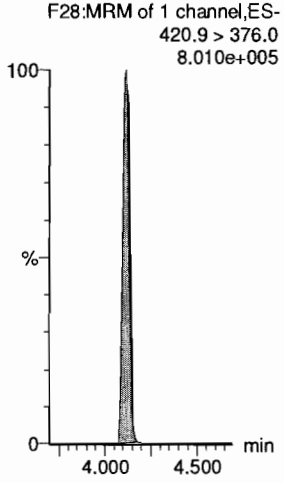


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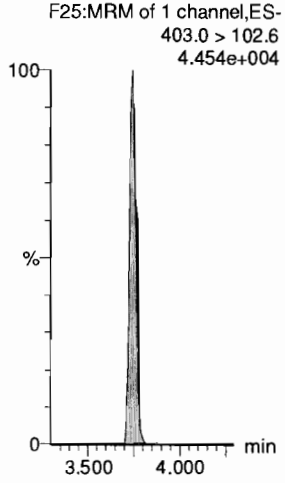
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_12, Date: 22-Jul-2019, Time: 11:51:27, ID: ST190722M1-9 PFC CS6 19G1109, Description: PFC CS6 19G1109

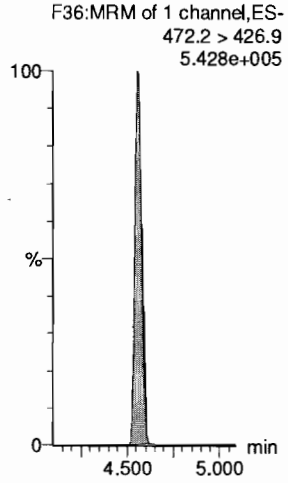
13C8-PFOA



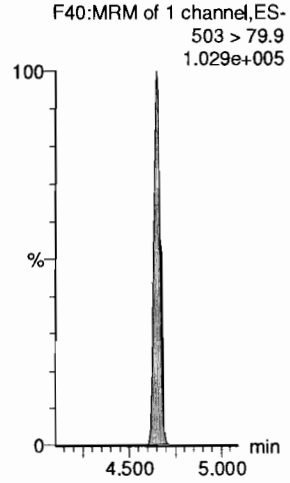
18O2-PFHxS



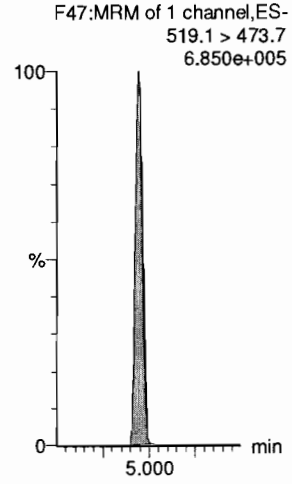
13C9-PFNA



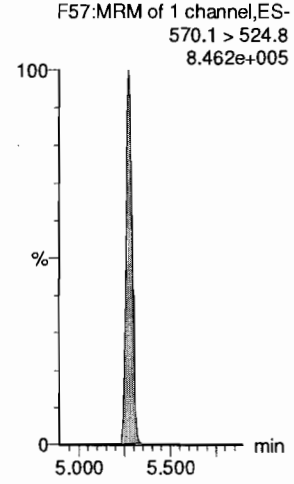
13C4-PFOS



13C6-PFDA



13C7-PFUdA

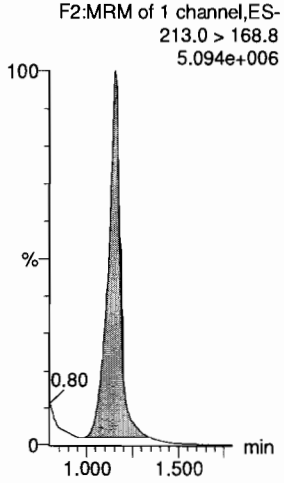


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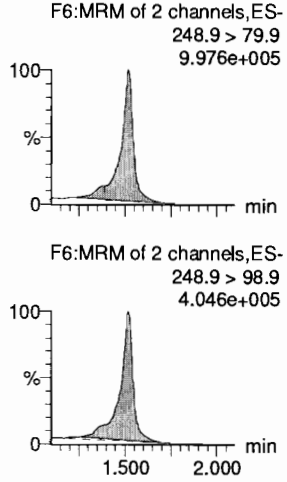
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Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_13, Date: 22-Jul-2019, Time: 12:02:00, ID: ST190722M1-10 PFC CS7 19G1110, Description: PFC CS7 19G1110

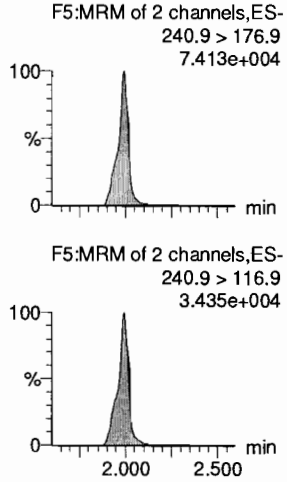
PFBA



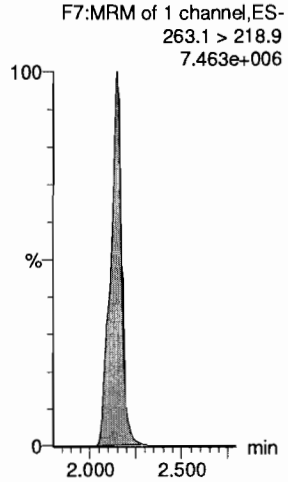
PFPrS



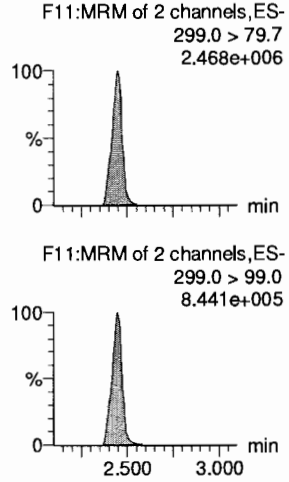
3:3 FTCA



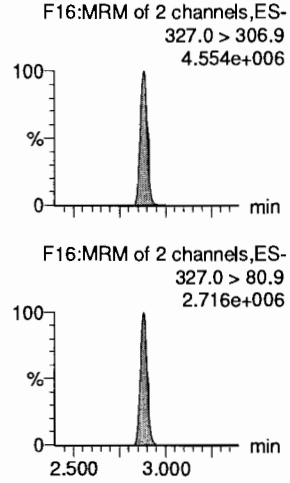
PFPeA



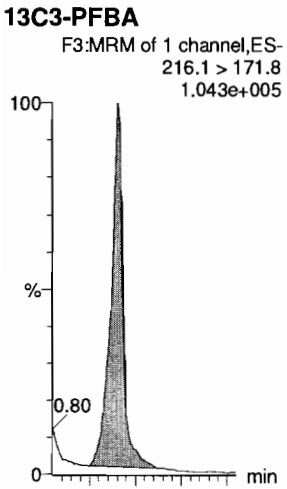
PFBS



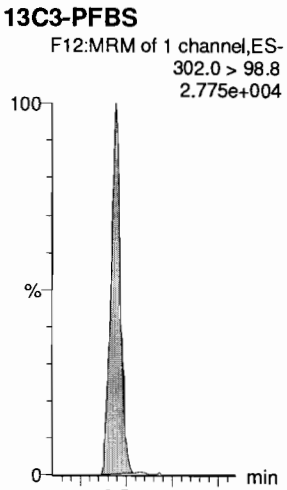
4:2 FTS



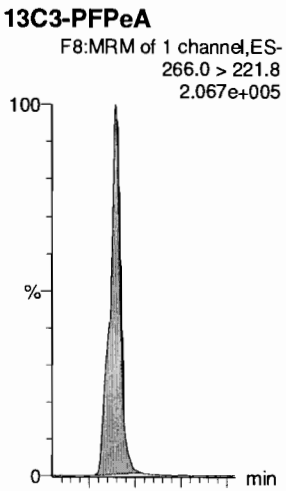
13C3-PFBA



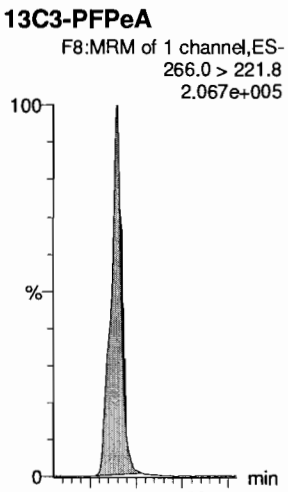
13C3-PFBS



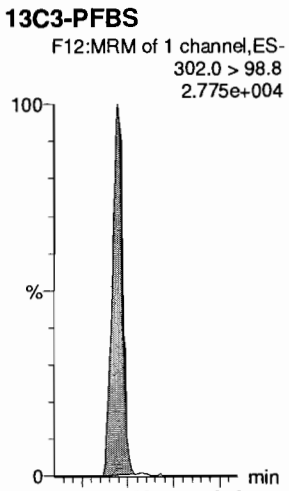
13C3-PFPeA



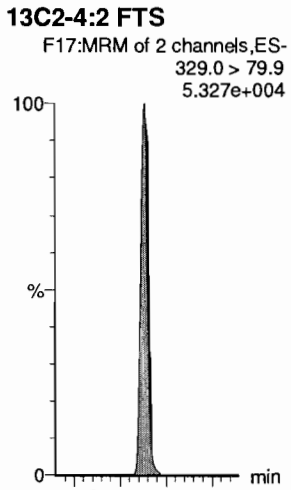
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

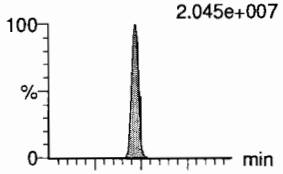


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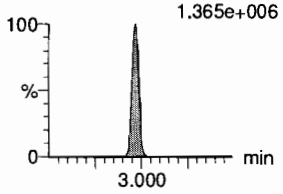
Last Altered: Monday, July 22, 2019 13:13:35 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:14:27 Pacific Daylight Time

Name: 190722M1_13, Date: 22-Jul-2019, Time: 12:02:00, ID: ST190722M1-10 PFC CS7 19G1110, Description: PFC CS7 19G1110

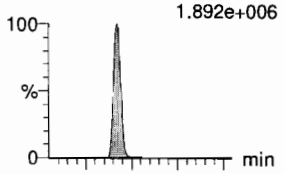
PFHxA
F13:MRM of 2 channels,ES-
313.0 > 269.0
2.045e+007



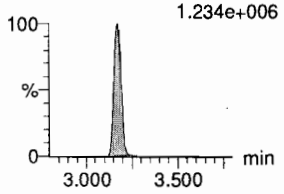
F13:MRM of 2 channels,ES-
313 > 118.9
1.365e+006



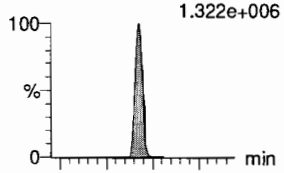
PFPeS
F19:MRM of 2 channels,ES-
349.1 > 80.1
1.892e+006



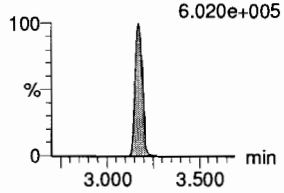
F19:MRM of 2 channels,ES-
349.1 > 99
1.234e+006



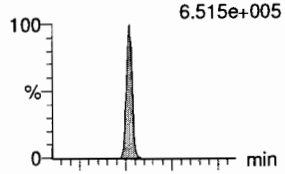
HFPO-DA
F9:MRM of 3 channels,ES-
285.1 > 168.9
1.322e+006



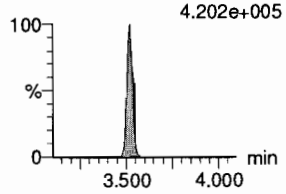
F9:MRM of 3 channels,ES-
285.1 > 184.9
6.020e+005



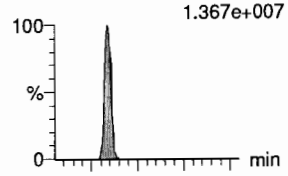
5:3 FTCA
F18:MRM of 2 channels,ES-
340.9 > 236.9
6.515e+005



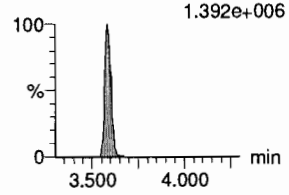
F18:MRM of 2 channels,ES-
340.9 > 216.9
4.202e+005



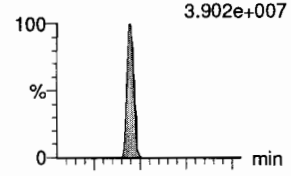
PFHpA
F20:MRM of 2 channels,ES-
363.0 > 318.9
1.367e+007



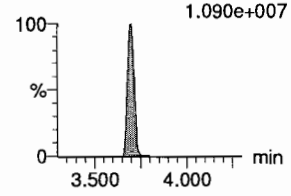
F20:MRM of 2 channels,ES-
363.0 > 169.0
1.392e+006



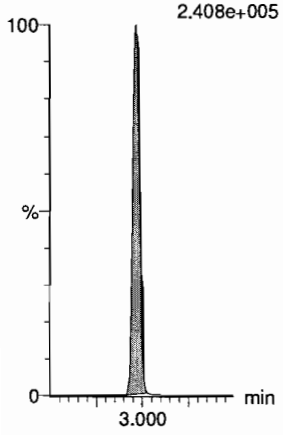
ADONA
F22:MRM of 2 channels,ES-
376.8 > 250.9
3.902e+007



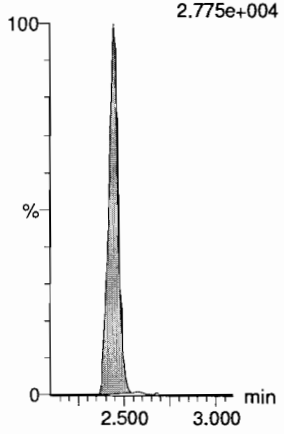
F22:MRM of 2 channels,ES-
376.8 > 85.0
1.090e+007



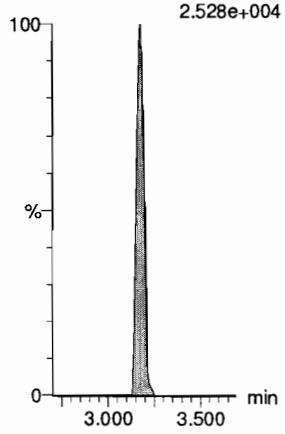
13C2-PFHxA
F14:MRM of 1 channel,ES-
315.0 > 270.0
2.408e+005



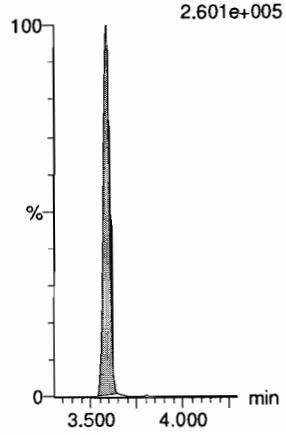
13C3-PFBS
F12:MRM of 1 channel,ES-
302.0 > 98.8
2.775e+004



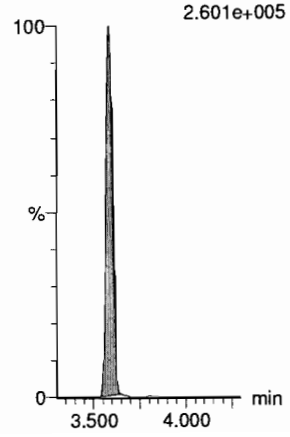
13C3-HFPO-DA
F10:MRM of 2 channels,ES-
287.0 > 168.9
2.528e+004



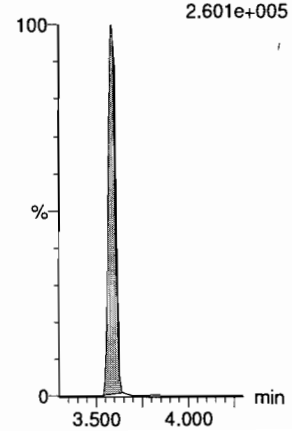
13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
2.601e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
2.601e+005



13C4-PFHpA
F21:MRM of 1 channel,ES-
367.2 > 321.8
2.601e+005

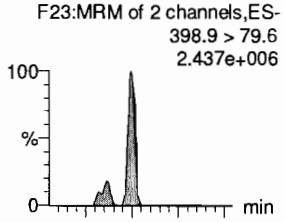


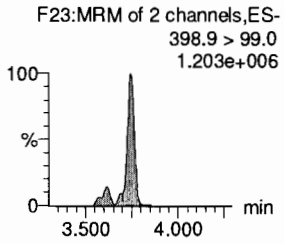
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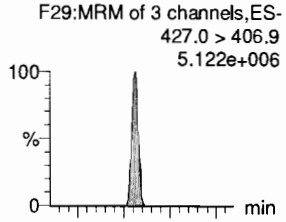
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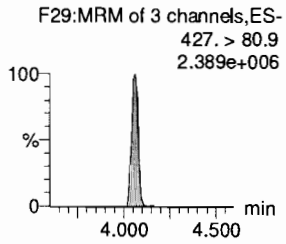
L-PFHxS



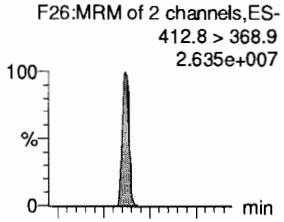


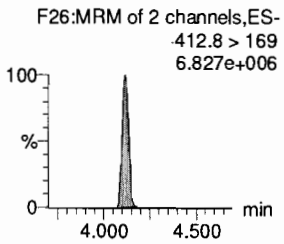
6:2 FTS



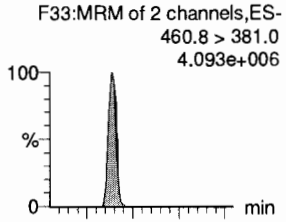


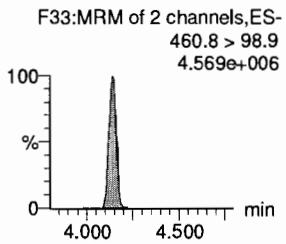
L-PFOA



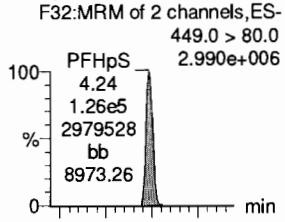


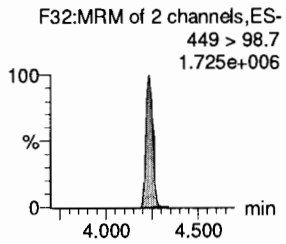
PFEChS



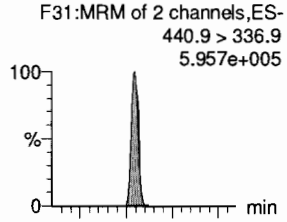


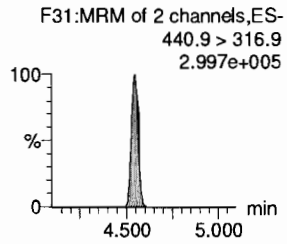
PFHpS



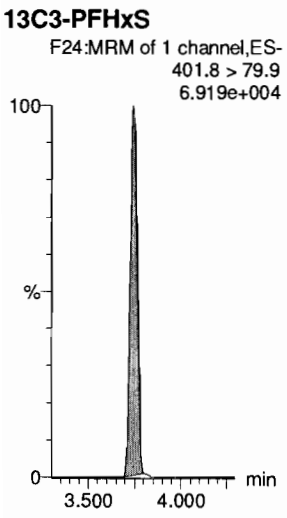


7:3 FTCA

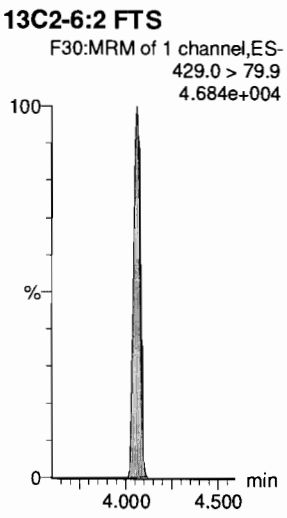




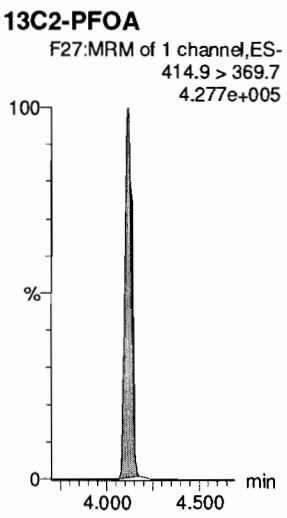
13C3-PFHxS



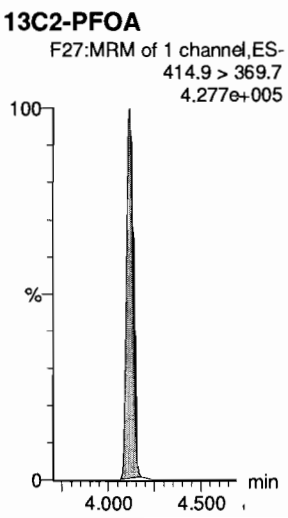
13C2-6:2 FTS



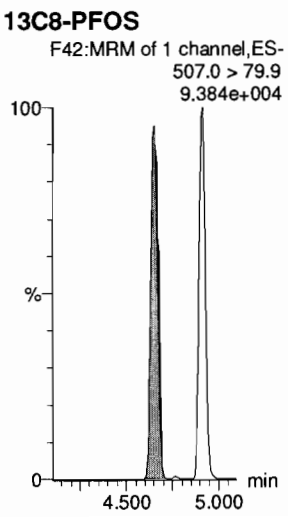
13C2-PFOA



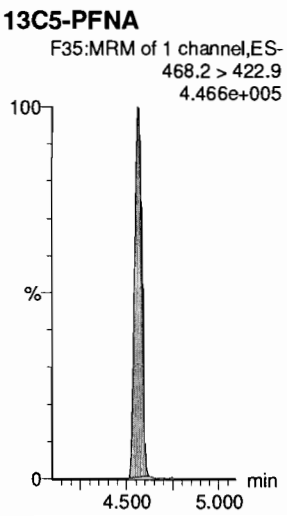
13C2-PFOA



13C8-PFOS



13C5-PFNA

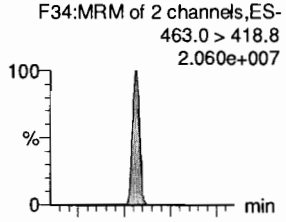


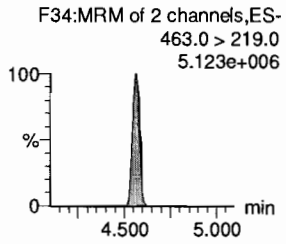
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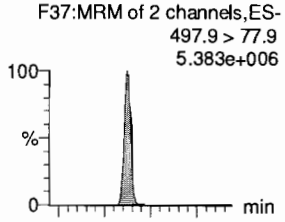
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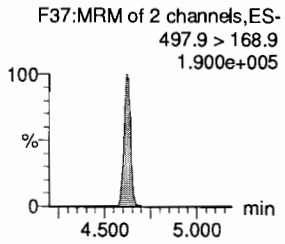
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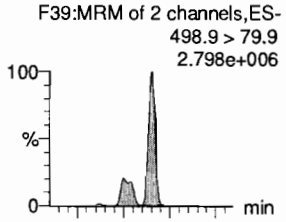


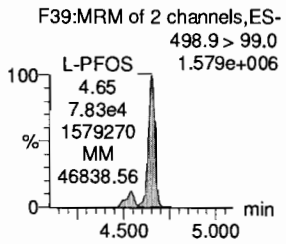
PFOSA



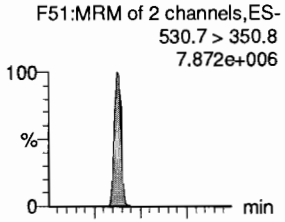


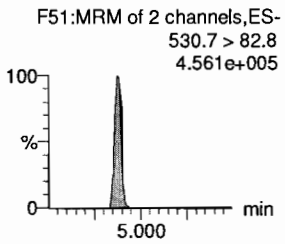
L-PFOS



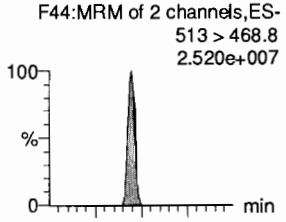


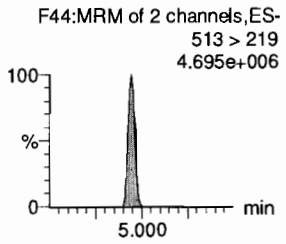
9Cl-PF30NS



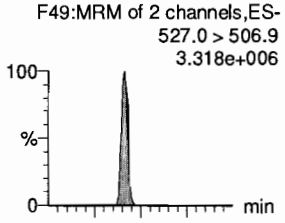


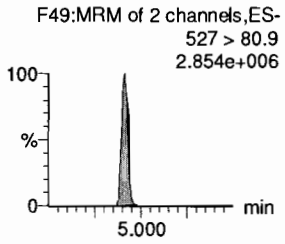
PFDA



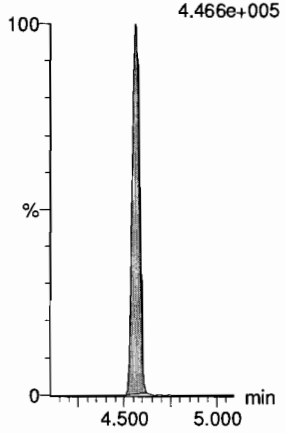


8:2 FTS

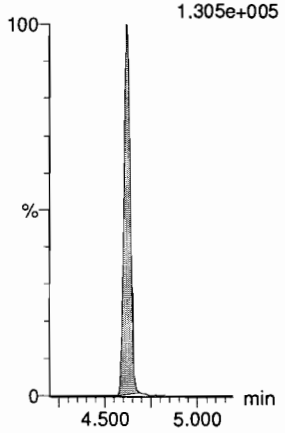




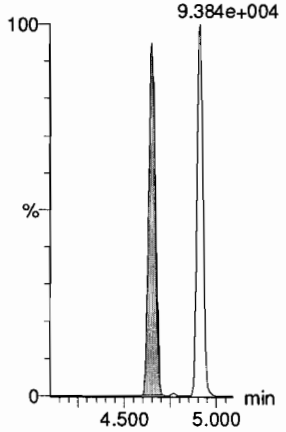
13C5-PFNA



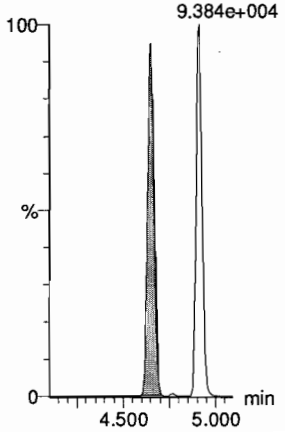
13C8-PFOSA



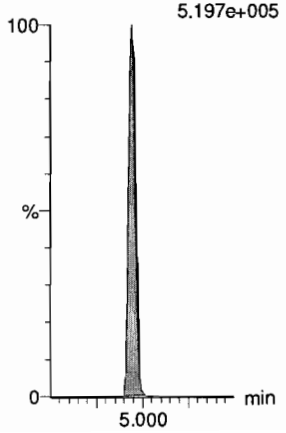
13C8-PFOS



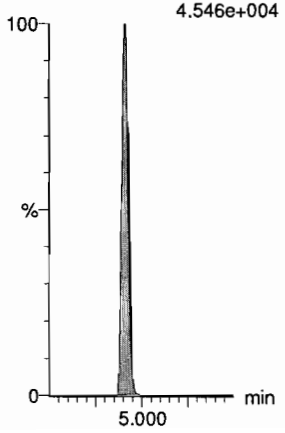
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13C2-PFDA



13C2-8:2 FTS

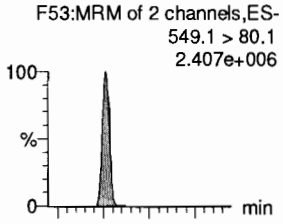


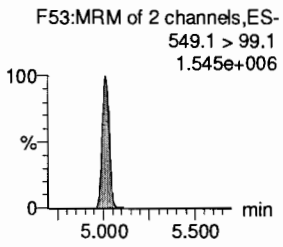
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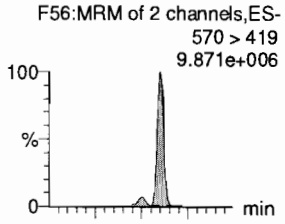
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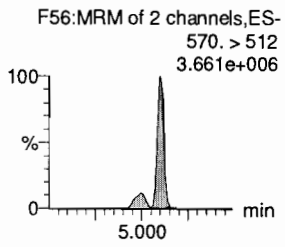
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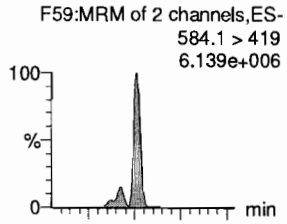


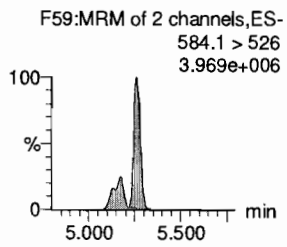
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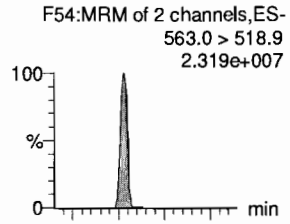


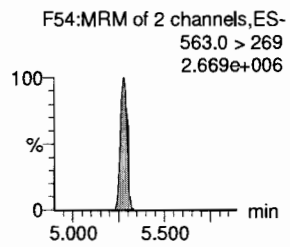
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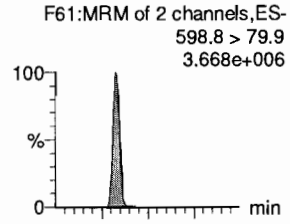


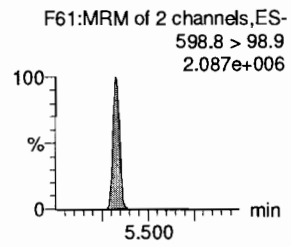
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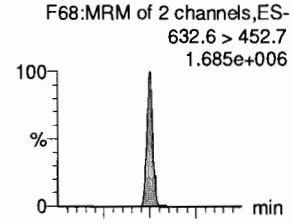


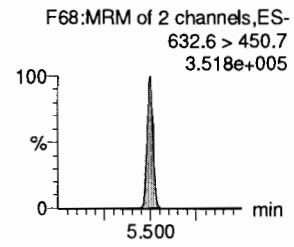
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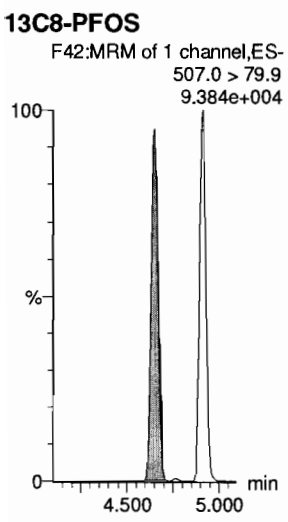


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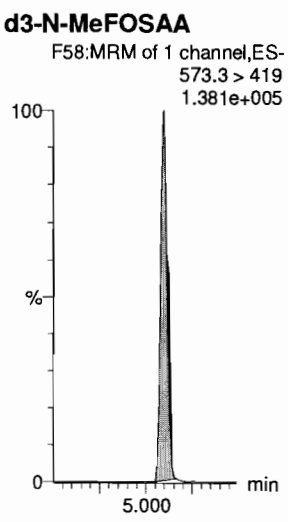




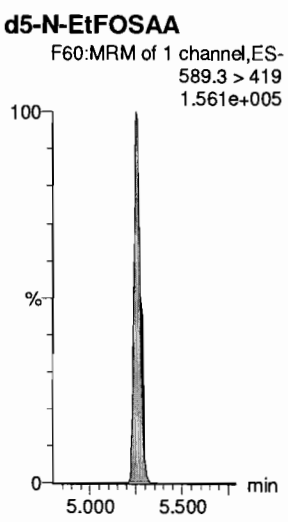
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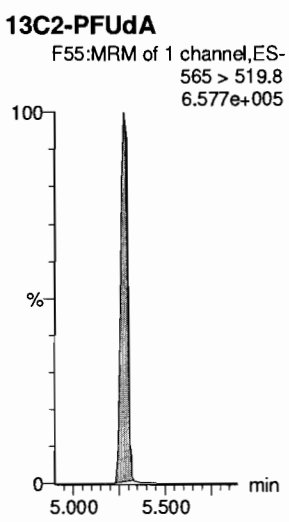
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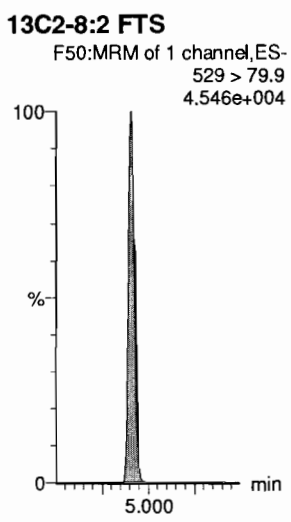
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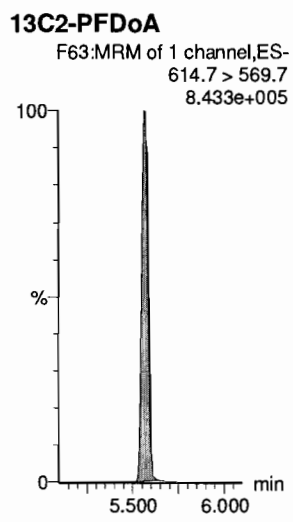
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

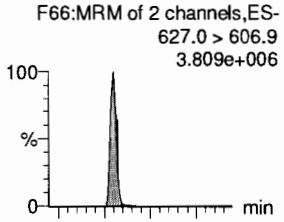


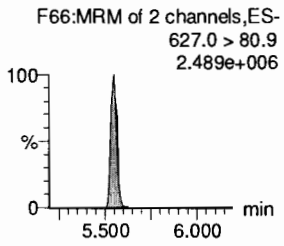
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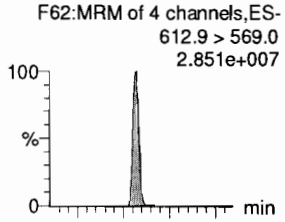
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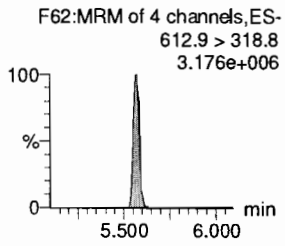
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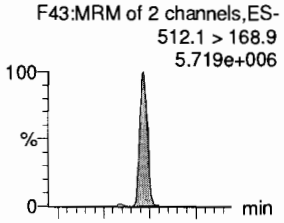


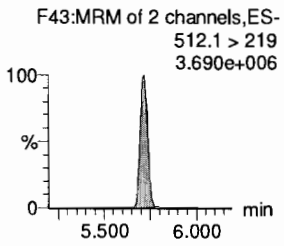
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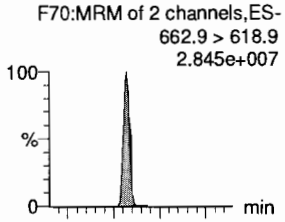


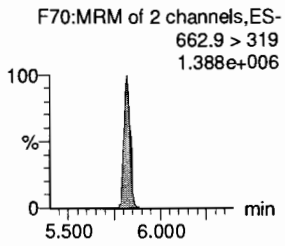
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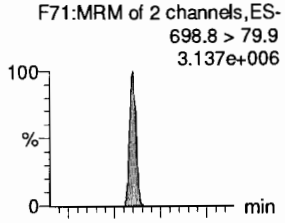


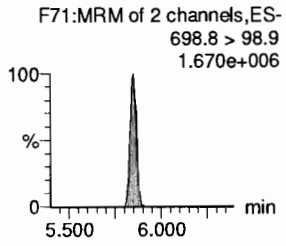
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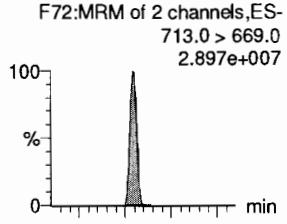


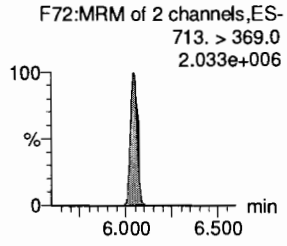
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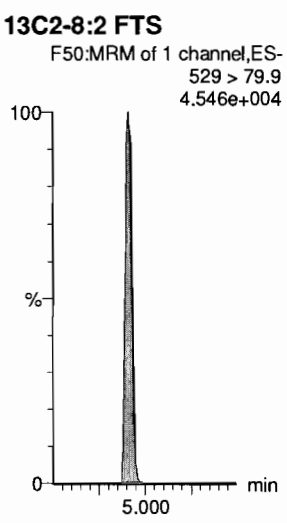


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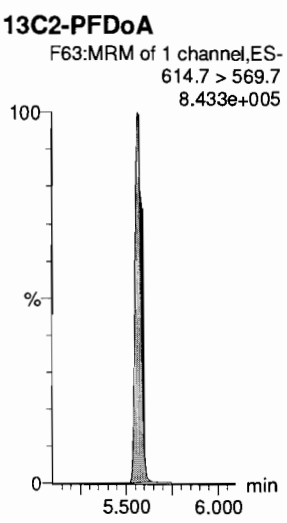




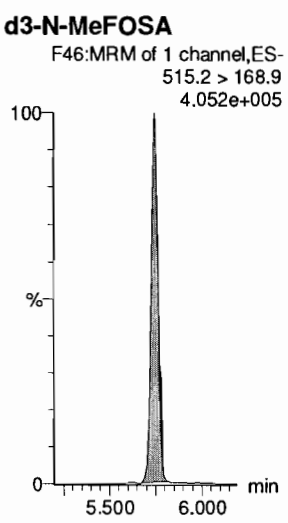
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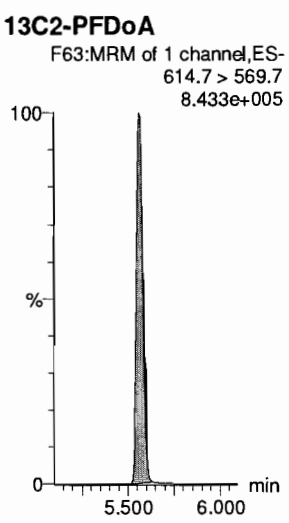
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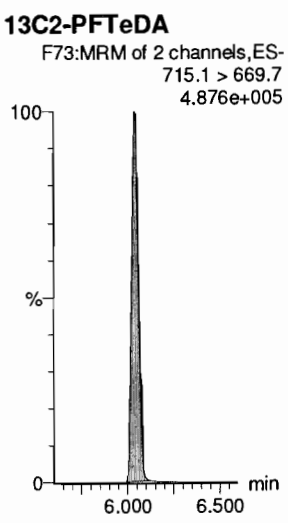
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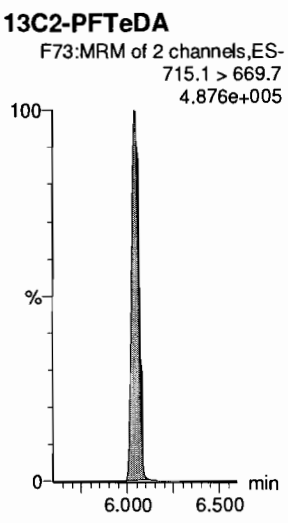
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13C2-PFTeDA



13C2-PFTeDA

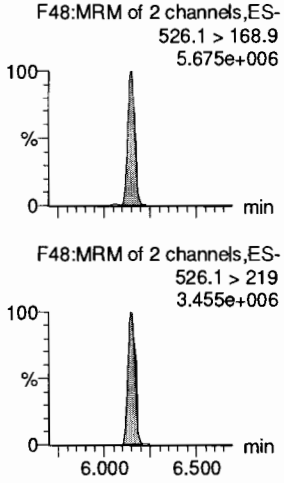


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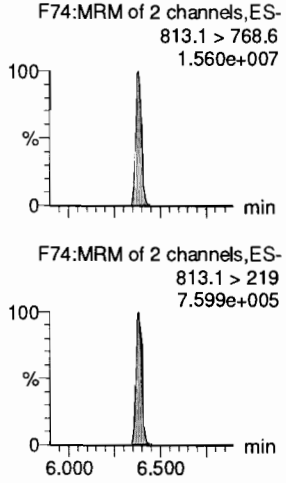
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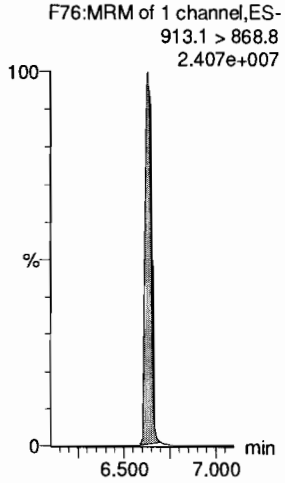
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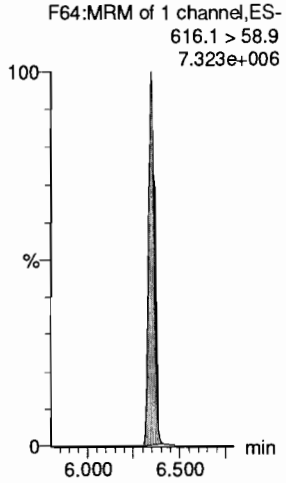
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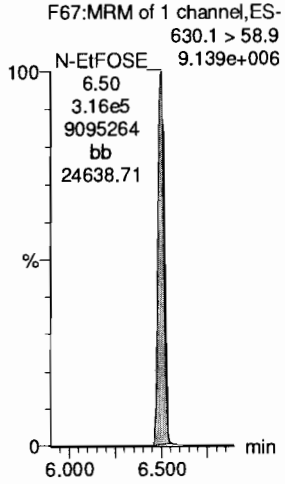
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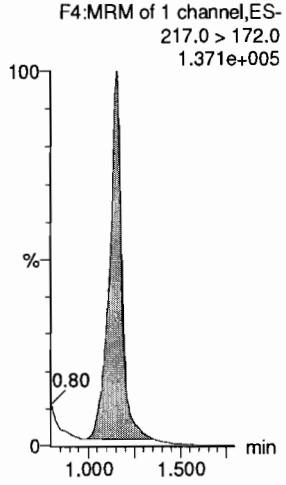
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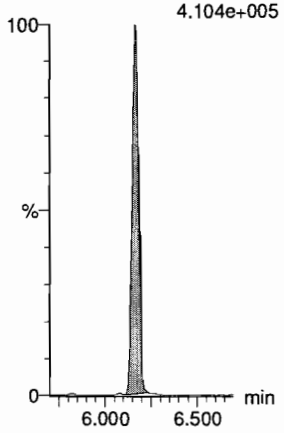
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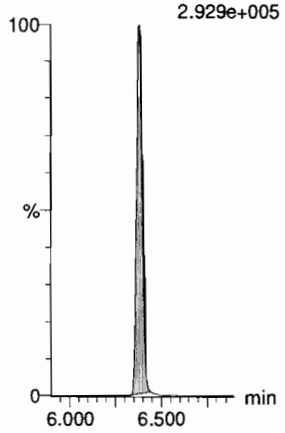
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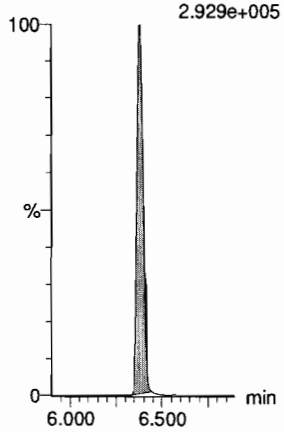
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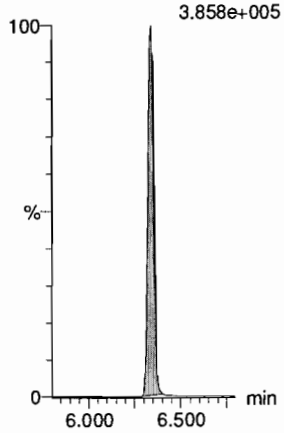
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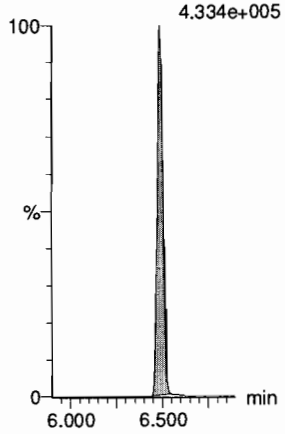
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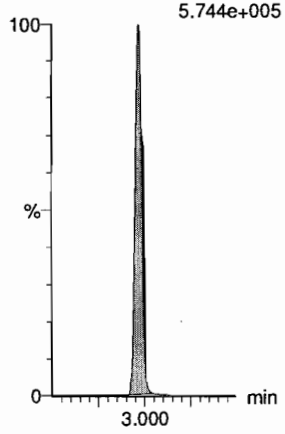
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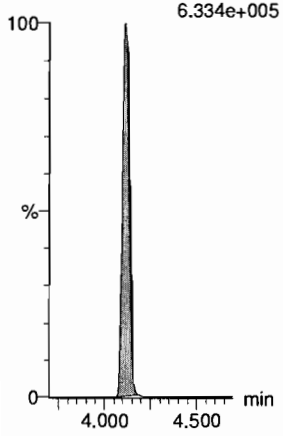


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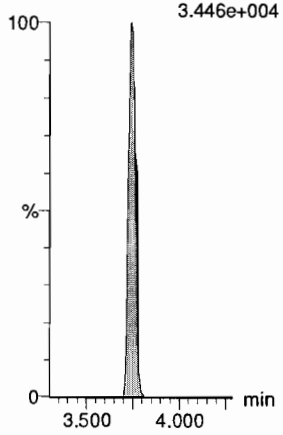
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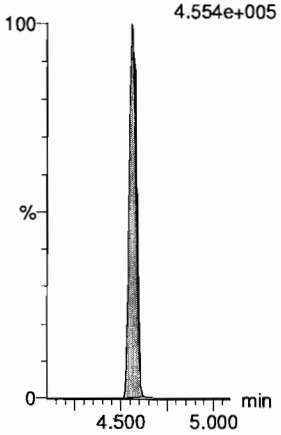
13C8-PFOA



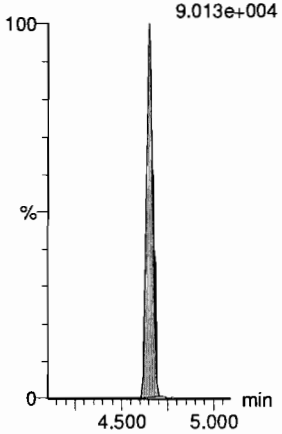
18O2-PFHxS



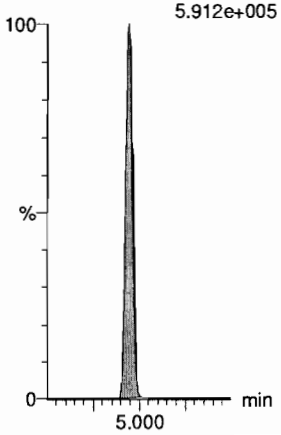
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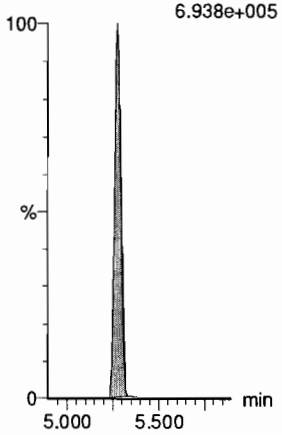
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Ⓐ Not in ICV. am 7/22/19

√ am 7/22/19

Name: 190722M1_15, Date: 22-Jul-2019, Time: 12:23:11, ID: ICV190722M1-1 PFC ICV 19F2422, Description: PFC ICV 19F2422

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8	5885.253	7293.780	1.00	1.16	10.086	8.1	80.9	NO		
2	2	PFPrS	248.9 > 79.9		2119.419	1.00				Ⓐ	NO		
3	3	3:3 FTCA	240.9 > 176.9		15295.130	1.00				↓	NO		
4	4	PFPeA	263.1 > 218.9	8974.616	15295.130	1.00	2.15	7.335	7.9	79.4	NO		
5	5	PFBS	299.0 > 79.7	2634.274	2119.419	1.00	2.45	15.537	6.9	77.6	NO	3.018	NO
6	6	4:2 FTS	327.0 > 306.9	4613.261	3495.006	1.00	2.88	16.499	6.6	70.1	NO	1.768	NO
7	47	13C3-PFBA	216.1 > 171.8	7293.780	10457.095	1.00	1.15	8.719	11.9	95.1	NO		
8	49	13C3-PFBS	302.0 > 98.8	2119.419	2062.495	1.00	2.45	12.845	12.1	97.2	NO		
9	48	13C3-PFPeA	266.0 > 221.8	15295.130	31027.588	1.00	2.15	6.162	12.4	99.0	NO		
10	48	13C3-PFPeA	266.0 > 221.8	15295.130	31027.588	1.00	2.15	6.162	12.4	99.0	NO		
11	49	13C3-PFBS	302.0 > 98.8	2119.419	2062.495	1.00	2.45	12.845	12.1	97.2	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	3495.006	2062.495	1.00	2.88	21.182	12.8	102.7	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0	18502.215	12247.888	1.00	2.97	7.553	8.5	85.5	NO	15.871	NO
15	8	PFPeS	349.1>80.1	2062.867	2119.419	1.00	3.17	12.166	7.6	75.9	NO	1.549	NO
16	9	HFPO-DA	285.1 > 168.9		1668.646	1.00				Ⓐ	NO		
17	10	5:3 FTCA	340.9 > 236.9		14865.786	1.00				↓	NO		
18	11	PFHpA	363.0 > 318.9	11995.425	14865.786	1.00	3.59	10.086	7.8	77.9	NO	9.958	NO
19	12	ADONA	376.8 > 250.9		14865.786	1.00				Ⓐ	NO		
20	52	13C2-PFHxA	315.0 > 270.0	12247.888	31027.588	1.00	2.97	4.934	5.0	100.9	NO		
21	49	13C3-PFBS	302.0 > 98.8	2119.419	2062.495	1.00	2.45	12.845	12.1	97.2	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1668.646	31027.588	1.00	3.18	0.672	5.0	100.4	NO		
23	53	13C4-PFHpA	367.2 > 321.8	14865.786	31027.588	1.00	3.58	5.989	12.5	100.1	NO		
24	53	13C4-PFHpA	367.2 > 321.8	14865.786	31027.588	1.00	3.58	5.989	12.5	100.1	NO		
25	53	13C4-PFHpA	367.2 > 321.8	14865.786	31027.588	1.00	3.58	5.989	12.5	100.1	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6	2166.916	4112.836	1.00	3.75	6.586	7.2	79.3	NO	1.987	NO
28	15	6:2 FTS	427.0 > 406.9	5098.015	2671.291	1.00	4.06	23.856	7.1	74.6	NO	2.236	NO
29	16	L-PFOA	412.8 > 368.9	23680.609	26262.436	1.00	4.12	11.271	7.5	74.8	NO	3.786	NO
30	18	PFecHS	460.8 > 381.0		26262.436	1.00				Ⓐ	NO		
31	19	PFHpS	449.0 > 80.0	2342.036	4801.937	1.00	4.24	6.097	6.9	72.7	NO	1.790	NO
32	20	7:3 FTCA	440.9 > 336.9		27080.490	1.00				Ⓐ	NO		
33	54	13C3-PFHxS	401.8 > 79.9	4112.836	2062.495	1.00	3.75	24.926	12.3	98.5	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	2671.291	4721.010	1.00	4.06	7.073	13.2	105.5	NO		
35	58	13C2-PFOA	414.9 > 369.7	26262.436	37707.742	1.00	4.12	8.706	12.8	102.2	NO		
36	58	13C2-PFOA	414.9 > 369.7	26262.436	37707.742	1.00	4.12	8.706	12.8	102.2	NO		

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Name: 190722M1_15, Date: 22-Jul-2019, Time: 12:23:11, ID: ICV190722M1-1 PFC ICV 19F2422, Description: PFC ICV 19F2422

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	4801.937	4721.010	1.00	4.65	12.714	12.8	102.1	NO		
38	56	13C5-PFNA	468.2 > 422.9	27080.490	26355.076	1.00	4.56	12.844	12.8	102.6	NO		
39	-1												
40	21	PFNA	463.0 > 418.8	20120.248	27080.490	1.00	4.57	9.287	8.1	80.5	NO	3.967	NO
41	22	PFOSA	497.9 > 77.9	4313.999	6760.520	1.00	4.62	7.976	7.8	78.3	NO	29.945	NO
42	23	L-PFOS	498.9 > 79.9	3069.618	4801.937	1.00	4.65	7.991	7.5	81.1	NO	2.323	NO
43	25	9Cl-PF30NS	530.7 > 350.8		4801.937	1.00				(A)	NO		
44	26	PFDA	513 > 468.8	22746.180	26558.148	1.00	4.95	10.706	8.3	83.1	NO	5.476	NO
45	27	8:2 FTS	527.0 > 506.9	3092.541	2730.731	1.00	4.91	14.156	7.0	72.6	NO	1.189	NO
46	56	13C5-PFNA	468.2 > 422.9	27080.490	26355.076	1.00	4.56	12.844	12.8	102.6	NO		
47	57	13C8-PFOSA	506.1 > 77.7	6760.520	41415.102	1.00	4.62	2.040	12.2	97.4	NO		
48	59	13C8-PFOS	507.0 > 79.9	4801.937	4721.010	1.00	4.65	12.714	12.8	102.1	NO		
49	59	13C8-PFOS	507.0 > 79.9	4801.937	4721.010	1.00	4.65	12.714	12.8	102.1	NO		
50	60	13C2-PFDA	515.1 > 469.9	26558.148	33583.023	1.00	4.95	9.885	12.1	96.6	NO		
51	61	13C2-8:2 FTS	529 > 79.9	2730.731	4721.010	1.00	4.91	7.230	13.0	103.9	NO		
52	-1												
53	28	PFNS	549.1 > 80.1	1992.607	4801.937	1.00	5.01	5.187	7.2	75.2	NO	1.703	NO
54	29	L-MeFOSAA	570 > 419	10354.914	7529.787	1.00	5.10	17.190	8.0	79.8	NO	2.632	NO
55	31	L-EtFOSAA	584.1 > 419	8840.546	9362.071	1.00	5.27	11.804	9.5	94.6	NO	1.526	NO
56	33	PFUdA	563.0 > 518.9	22042.572	35757.984	1.00	5.28	7.705	8.4	84.2	NO	8.688	NO
57	34	PFDS	598.8 > 79.9	2769.991	2730.731	1.00	5.33	12.680	7.5	78.0	NO	1.639	NO
58	35	11Cl-PF30UdS	632.6 > 452.7		35147.676	1.00				(A)	NO		
59	59	13C8-PFOS	507.0 > 79.9	4801.937	4721.010	1.00	4.65	12.714	12.8	102.1	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	7529.787	41415.102	1.00	5.10	2.273	12.8	102.5	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	9362.071	41415.102	1.00	5.26	2.826	12.6	101.0	NO		
62	63	13C2-PFUdA	565 > 519.8	35757.984	41415.102	1.00	5.28	10.793	12.1	97.1	NO		
63	61	13C2-8:2 FTS	529 > 79.9	2730.731	4721.010	1.00	4.91	7.230	13.0	103.9	NO		
64	65	13C2-PFDoA	614.7 > 569.7	35147.676	33583.023	1.00	5.57	13.082	12.0	96.3	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9		2730.731	1.00				(A)	NO		
67	37	PFDoA	612.9 > 569.0	24860.330	35147.676	1.00	5.57	8.841	8.2	82.4	NO	8.995	NO
68	38	N-MeFOSA	512.1 > 168.9		17756.953	1.00				(A)	NO		
69	39	PFTrDA	662.9 > 618.9	25488.238	35147.676	1.00	5.82	9.065	7.9	79.2	NO	20.547	NO
70	40	PFDoS	698.8 > 79.9		24285.611	1.00				(A)	NO		
71	41	PFTeDA	713.0 > 669.0	23946.617	24285.611	1.00	6.04	12.326	8.1	81.2	NO	14.136	NO
72	65	13C2-PFDoA	614.7 > 569.7	35147.676	33583.023	1.00	5.57	13.082	12.0	96.3	NO		

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Name: 190722M1_15, Date: 22-Jul-2019, Time: 12:23:11, ID: ICV190722M1-1 PFC ICV 19F2422, Description: PFC ICV 19F2422

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	35147.676	33583.023	1.00	5.57	13.082	12.0	96.3	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	17756.953	41415.102	1.00	5.75	5.359	140.2	93.4	NO		
75	65	13C2-PFDoA	614.7 > 569.7	35147.676	33583.023	1.00	5.57	13.082	12.0	96.3	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	24285.611	41415.102	1.00	6.04	7.330	12.1	97.0	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	24285.611	41415.102	1.00	6.04	7.330	12.1	97.0	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9		21070.906	1.00					NO		
80	43	PFHxDA	813.1 > 768.6		12230.875	1.00					NO		
81	44	PFODA	913.1 > 868.8		12230.875	1.00					NO		
82	45	N-MeFOSE	616.1 > 58.9		14150.497	1.00					NO		
83	46	N-EtFOSE	630.1 > 58.9		15211.849	1.00					NO		
84	72	13C4-PFBA	217.0 > 172.0	10457.095	10457.095	1.00	1.16	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	21070.906	41415.102	1.00	6.17	6.360	143.1	95.4	NO		
86	69	13C2-PFHxDA	815 > 769.7	12230.875	41415.102	1.00	6.38	3.692	4.7	93.7	NO		
87	69	13C2-PFHxDA	815 > 769.7	12230.875	41415.102	1.00	6.38	3.692	4.7	93.7	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	14150.497	41415.102	1.00	6.34	4.271	136.5	91.0	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	15211.849	41415.102	1.00	6.49	4.591	139.7	93.2	NO		
90	73	13C5-PFHxA	318.0 > 272.9	31027.588	31027.588	1.00	2.97	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	37707.742	37707.742	1.00	4.12	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	2062.495	2062.495	1.00	3.75	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	26355.076	26355.076	1.00	4.56	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	4721.010	4721.010	1.00	4.65	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	33583.023	33583.023	1.00	4.95	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	41415.102	41415.102	1.00	5.28	12.500	12.5	100.0	NO		

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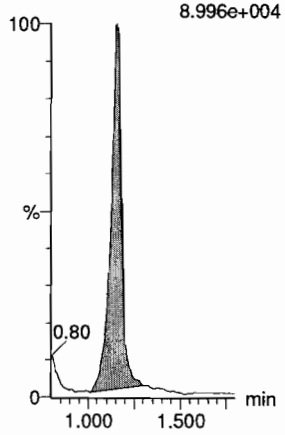
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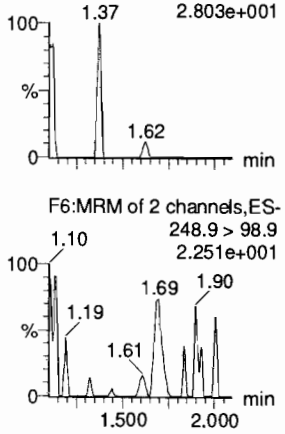
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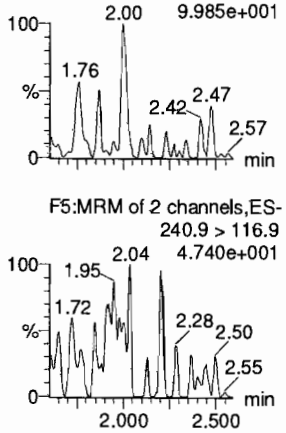
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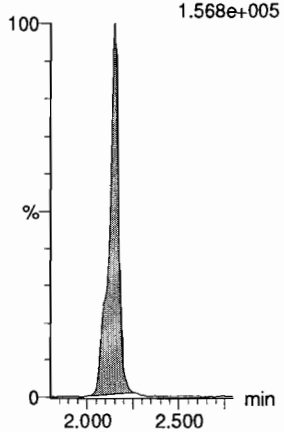
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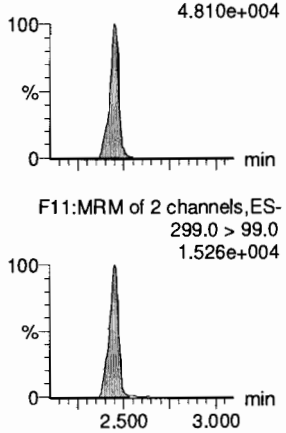
3:3 FTCA



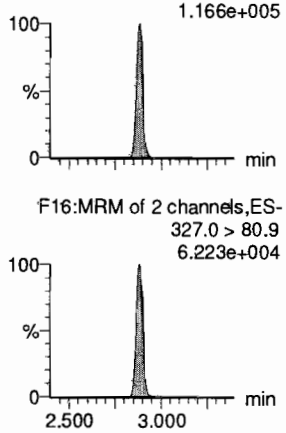
PFPeA



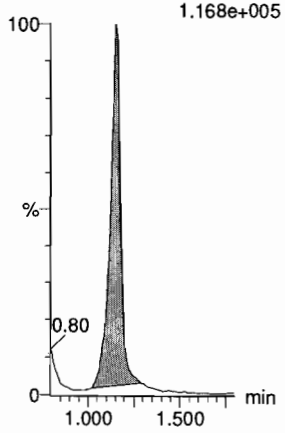
PFBS



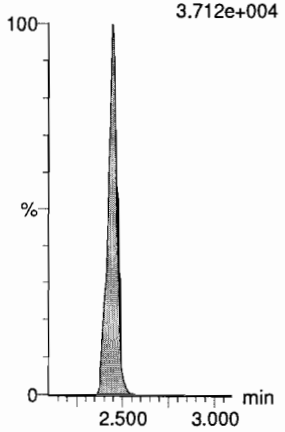
4:2 FTS



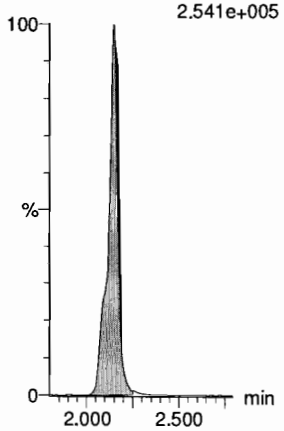
13C3-PFBA



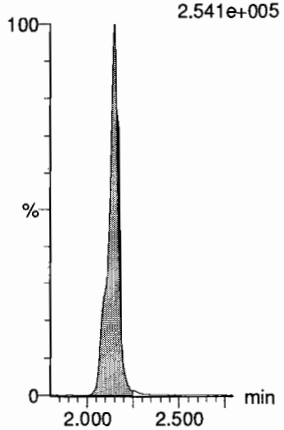
13C3-PFBS



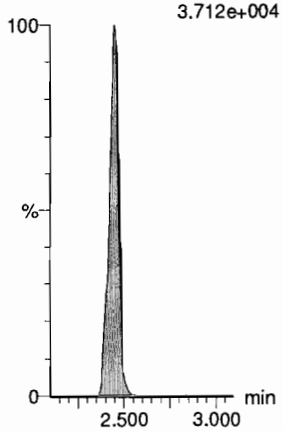
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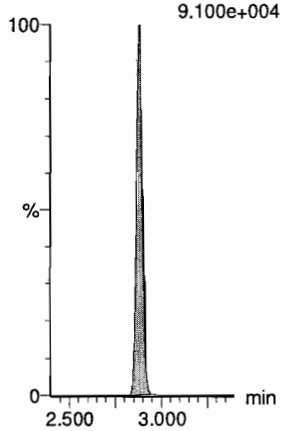
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS

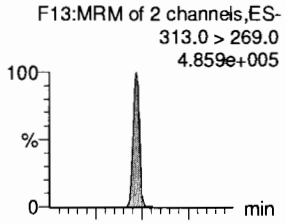


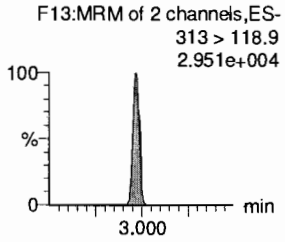
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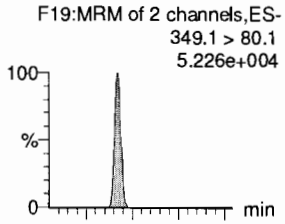
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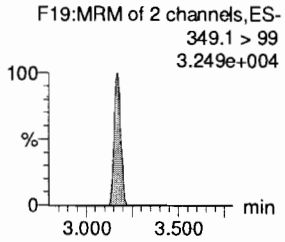
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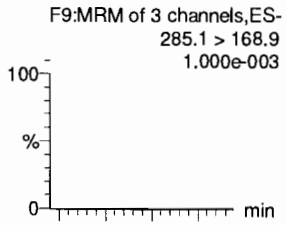


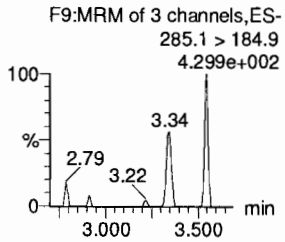
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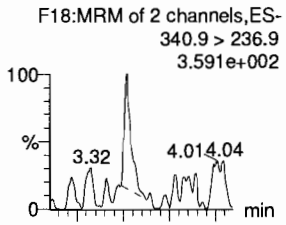


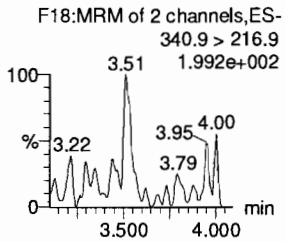
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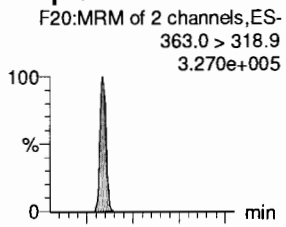


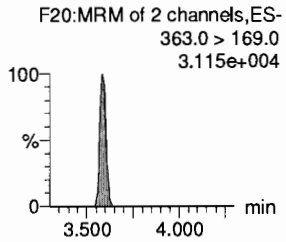
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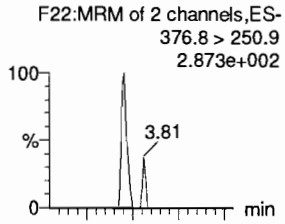


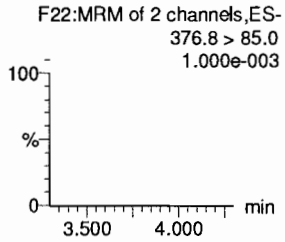
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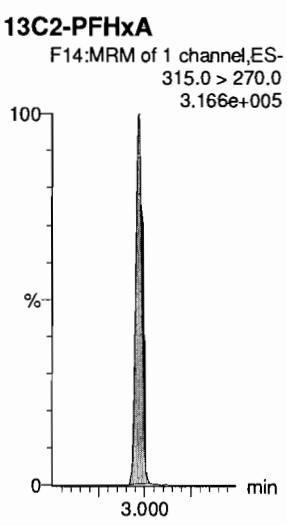


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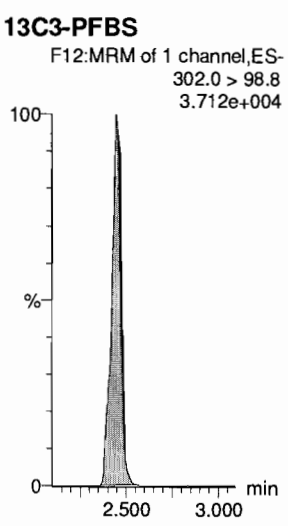




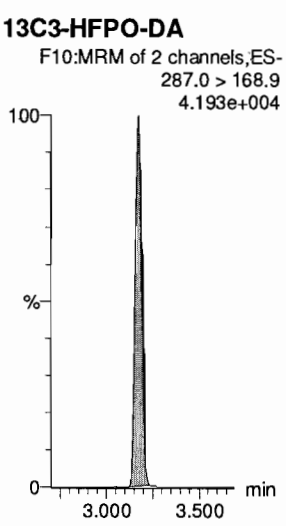
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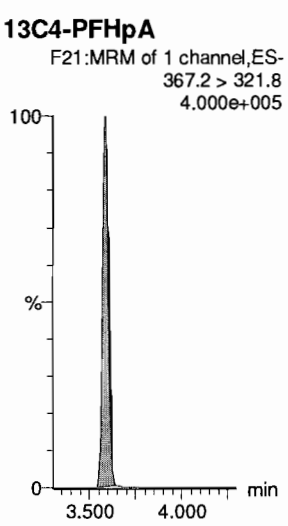
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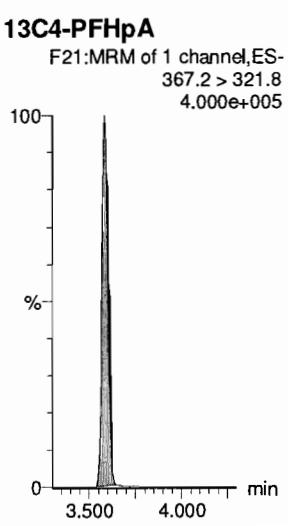
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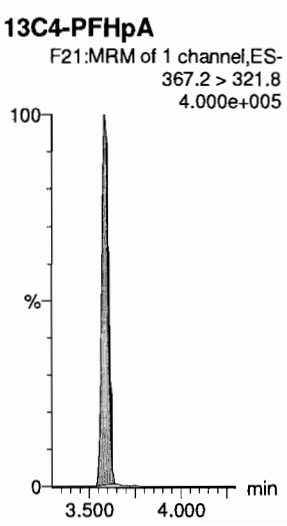
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13C4-PFHpA



13C4-PFHpA

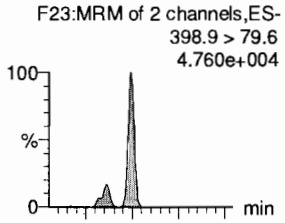


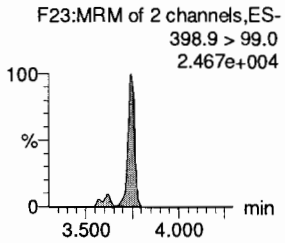
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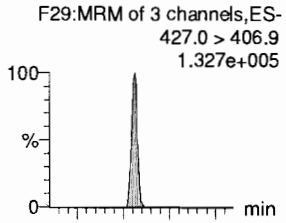
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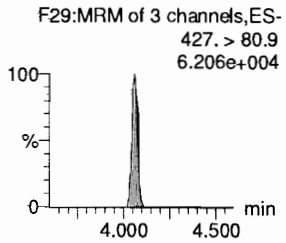
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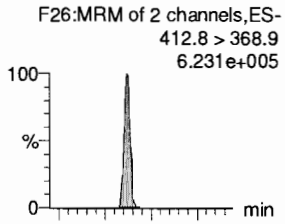


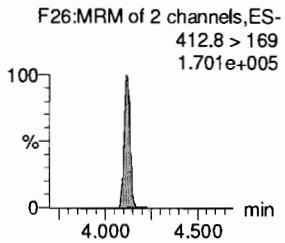
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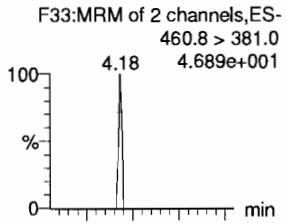


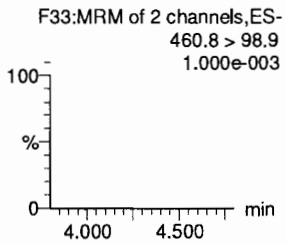
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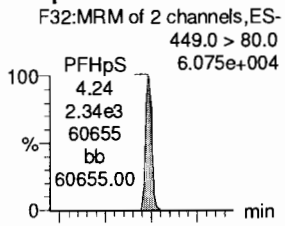


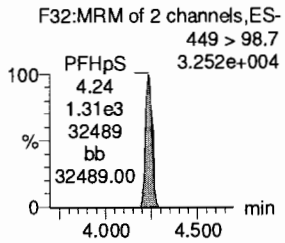
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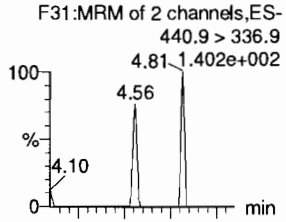


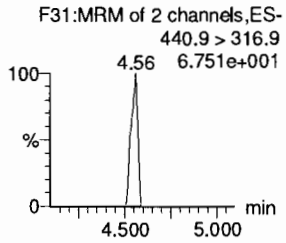
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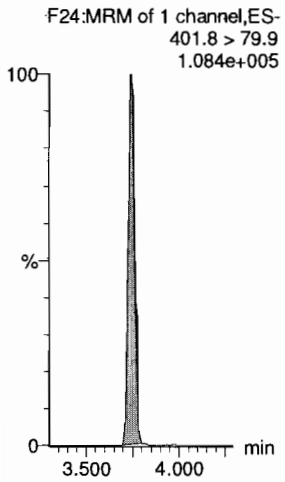


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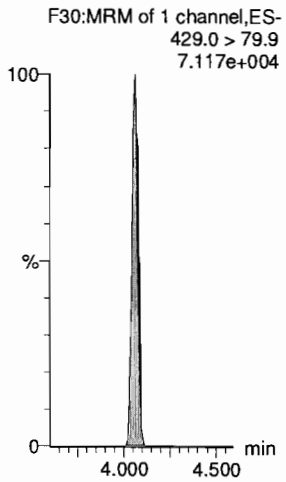




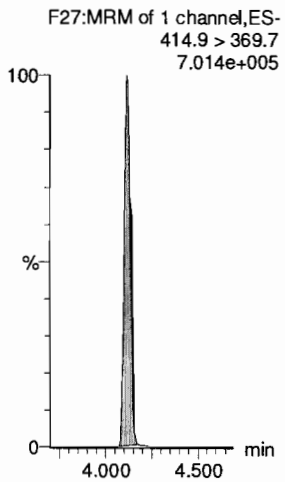
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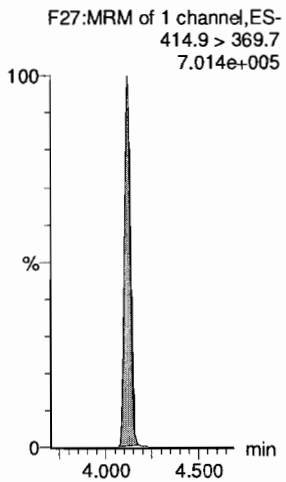
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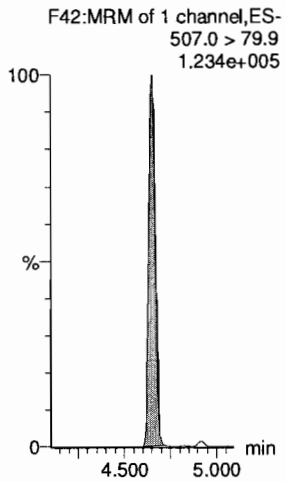
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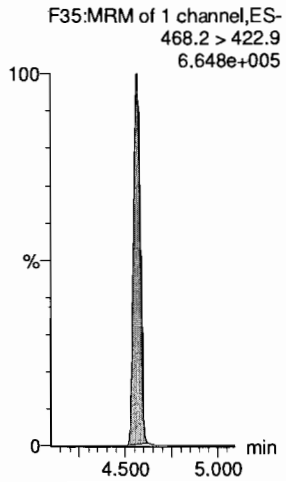
13C2-PFOA



13C8-PFOS



13C5-PFNA

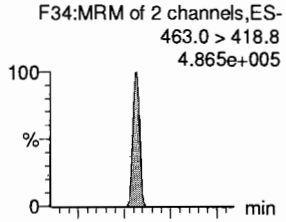


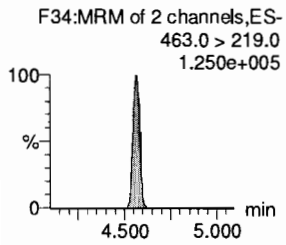
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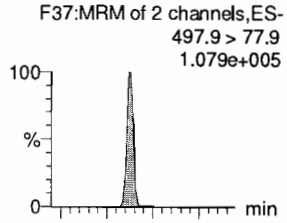
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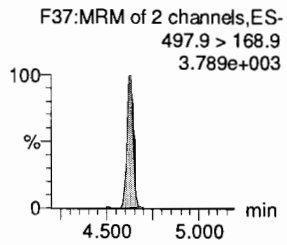
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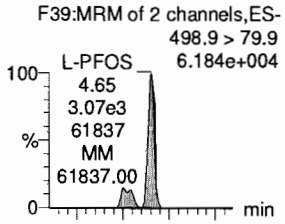


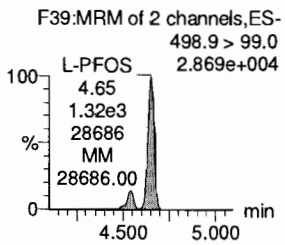
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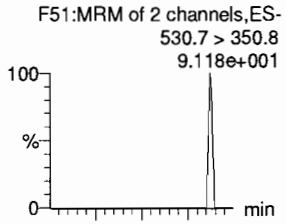


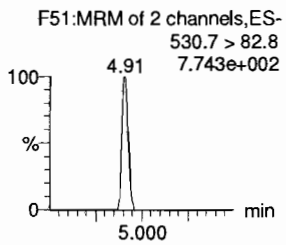
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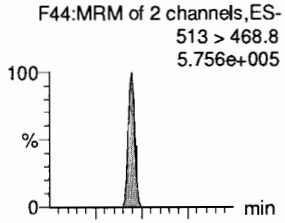


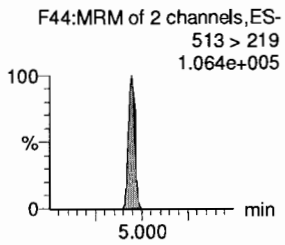
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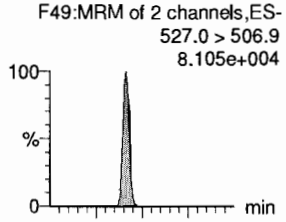


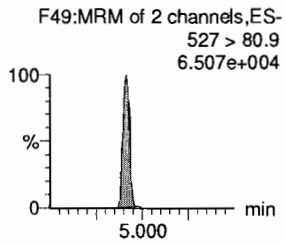
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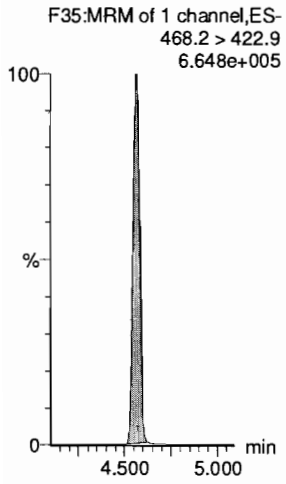


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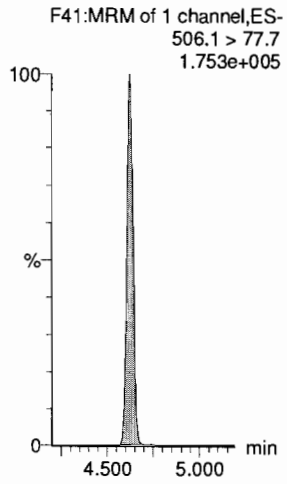




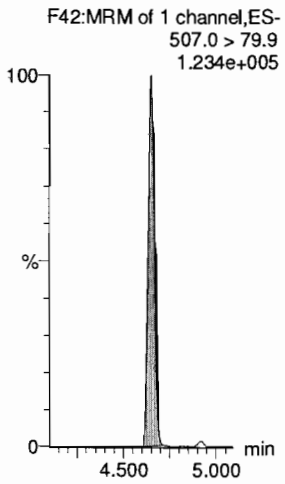
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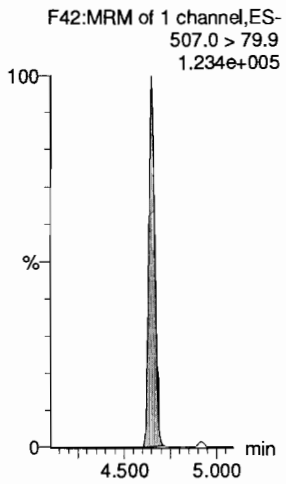
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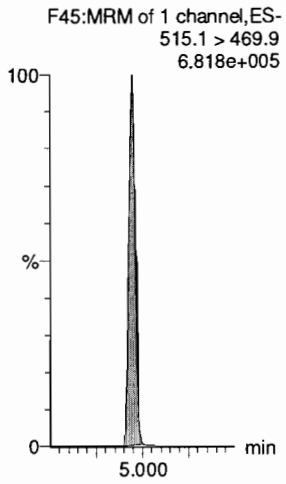
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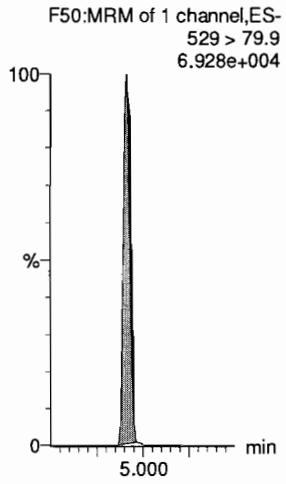
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13C2-PFDA



13C2-8:2 FTS

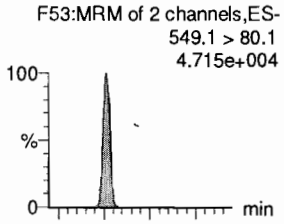


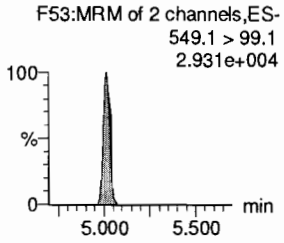
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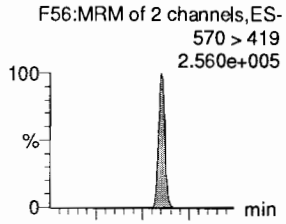
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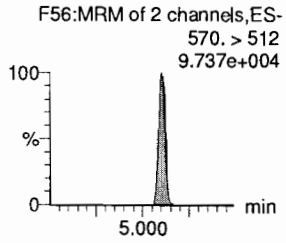
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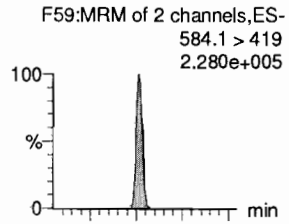


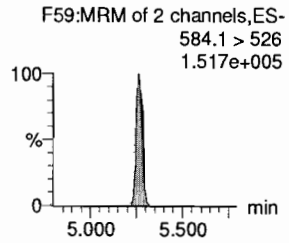
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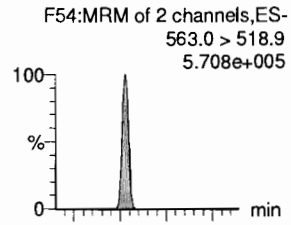


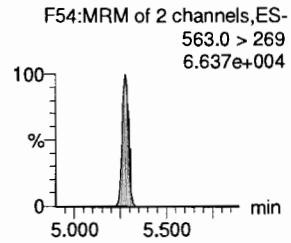
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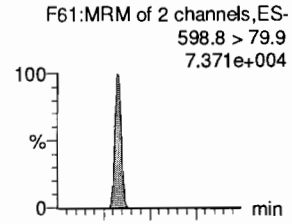


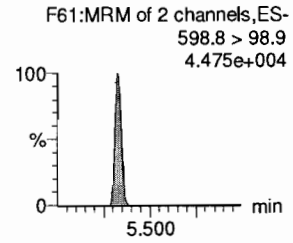
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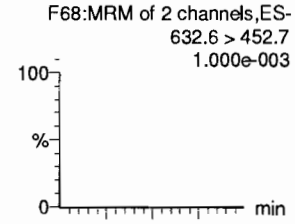


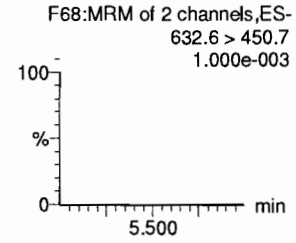
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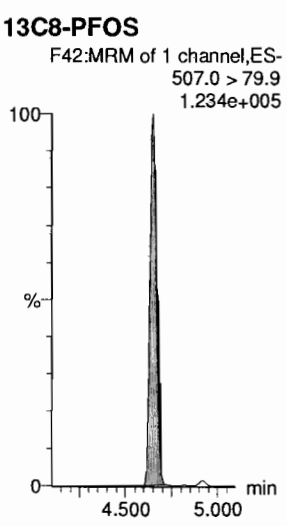


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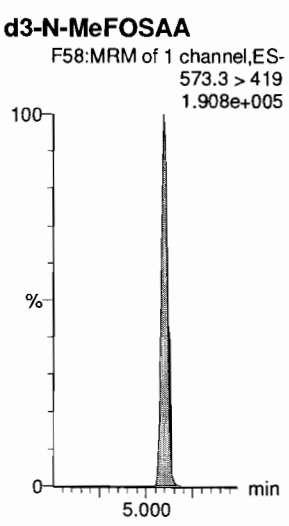




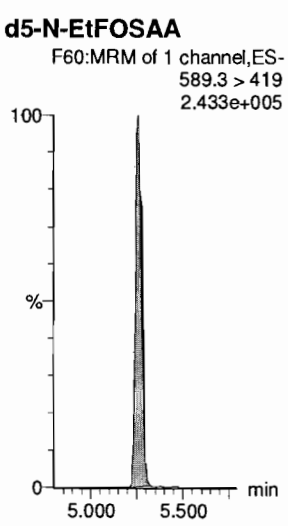
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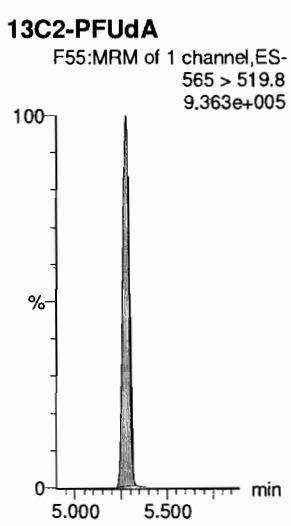
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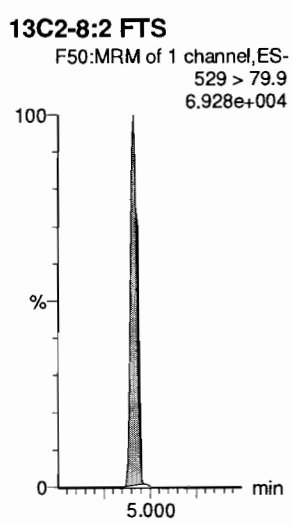
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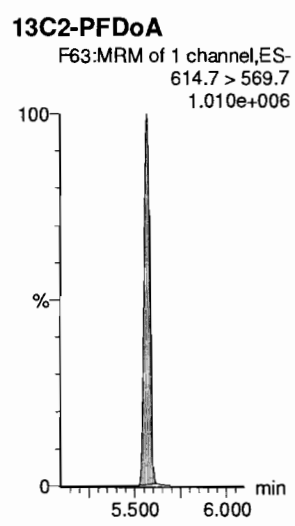
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

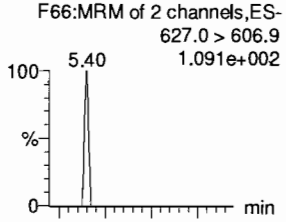


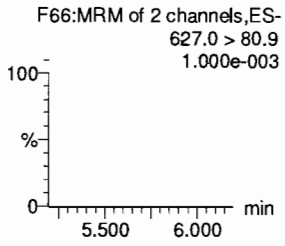
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Printed: Monday, July 22, 2019 13:40:39 Pacific Daylight Time

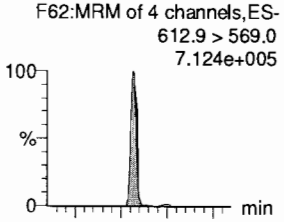
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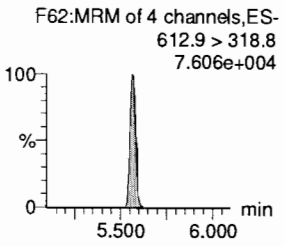
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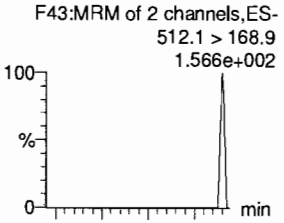


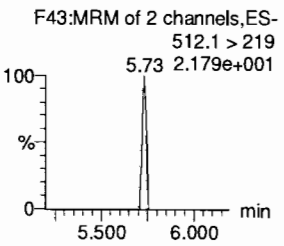
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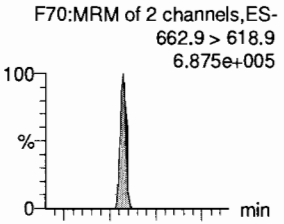


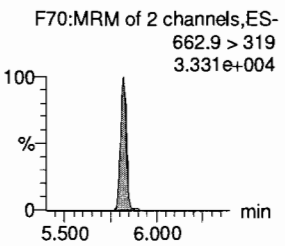
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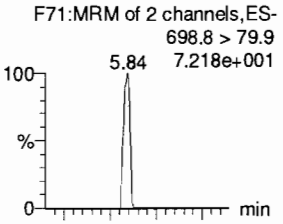


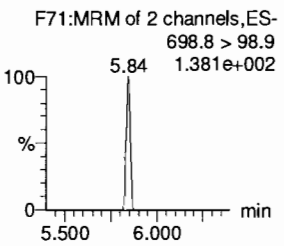
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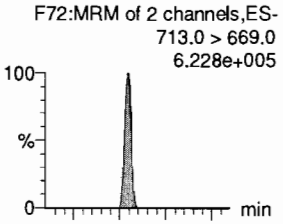


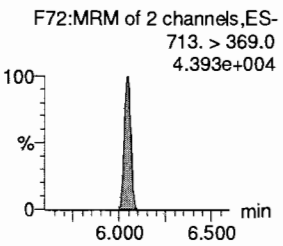
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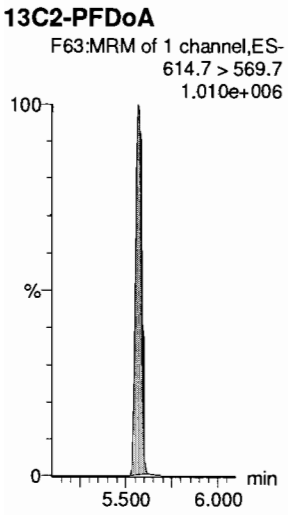


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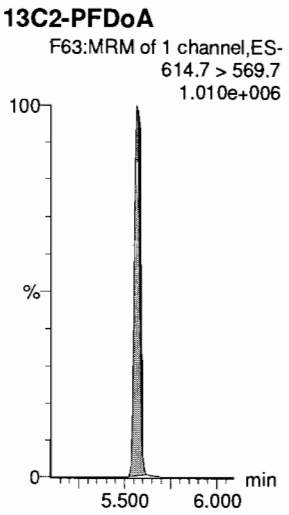




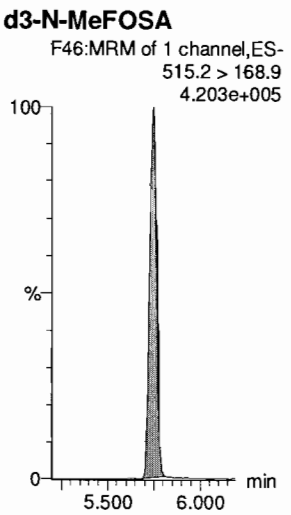
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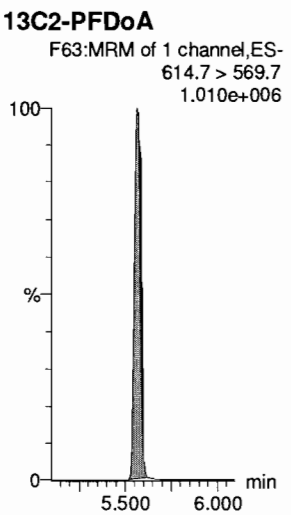
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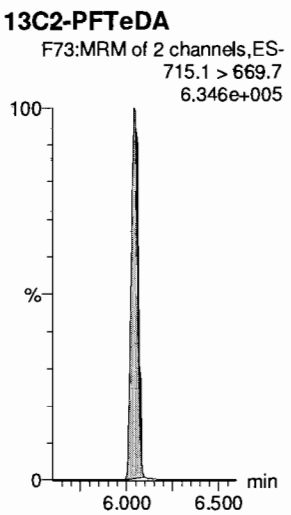
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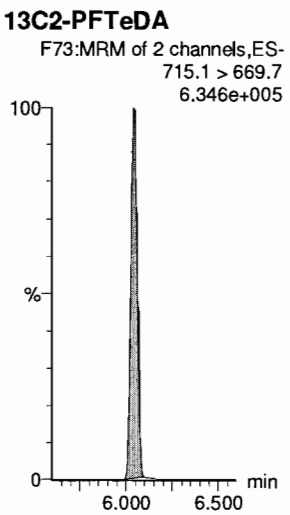
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13C2-PFTeDA



13C2-PFTeDA

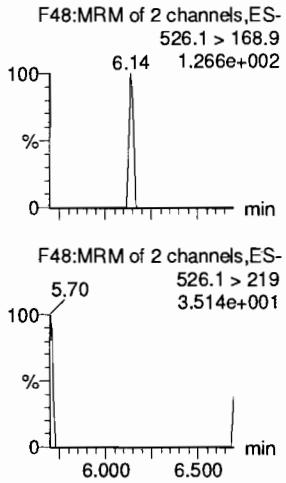


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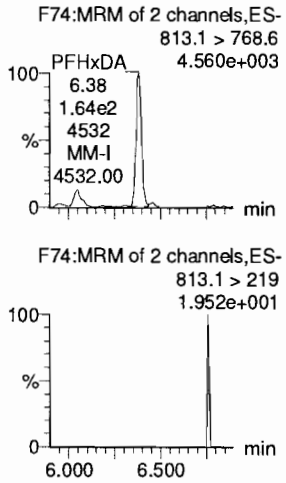
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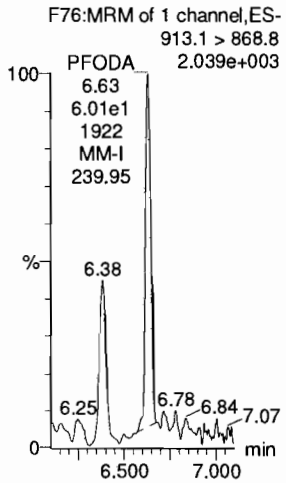
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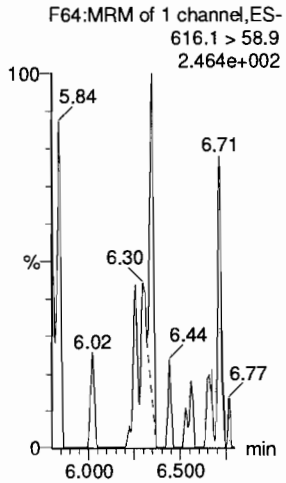
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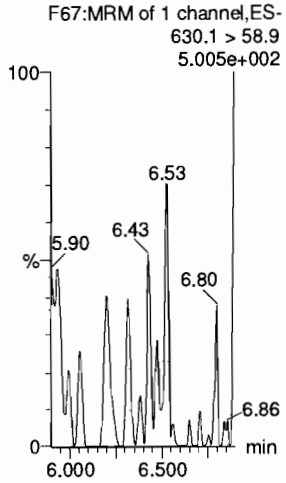
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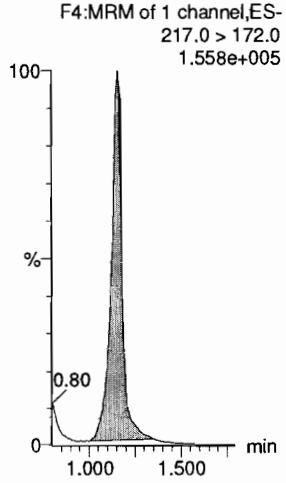
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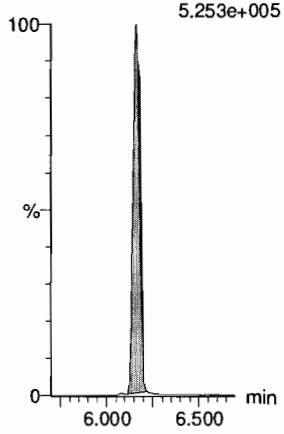
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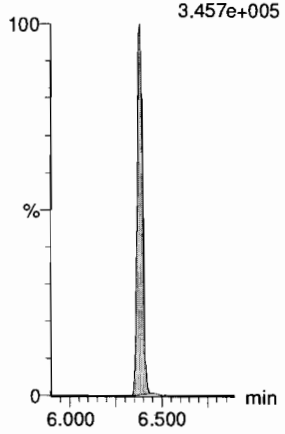
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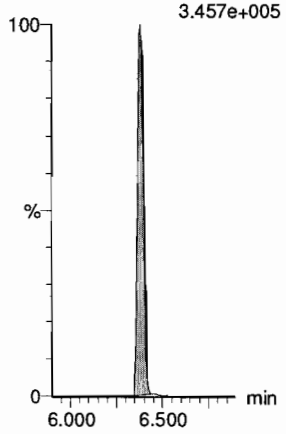
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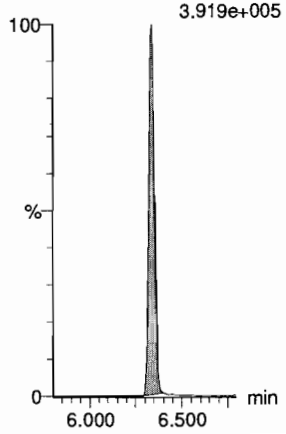
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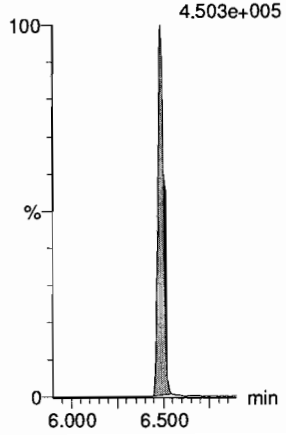
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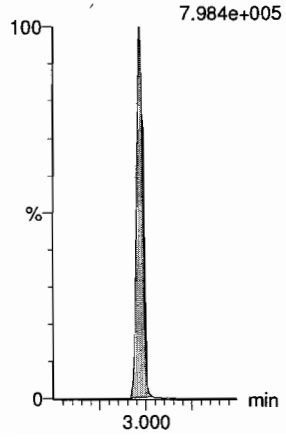
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d9-N-EtFOSE



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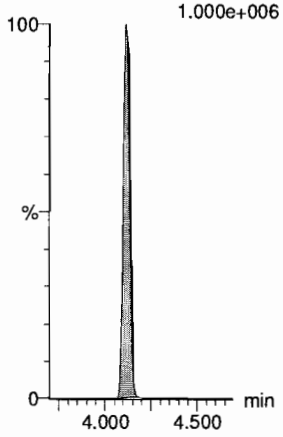


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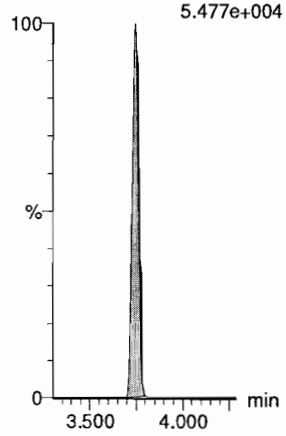
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Name: 190722M1_15, Date: 22-Jul-2019, Time: 12:23:11, ID: ICV190722M1-1 PFC ICV 19F2422, Description: PFC ICV 19F2422

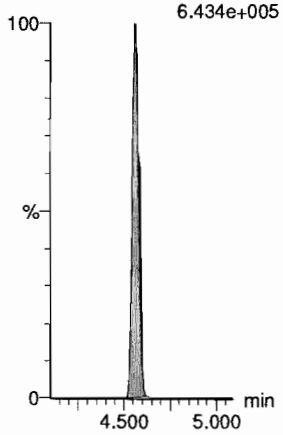
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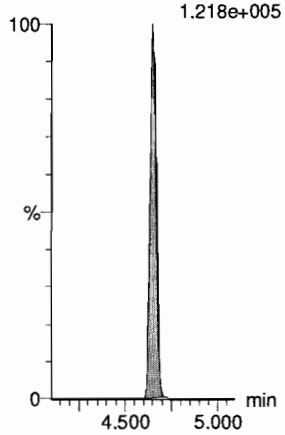
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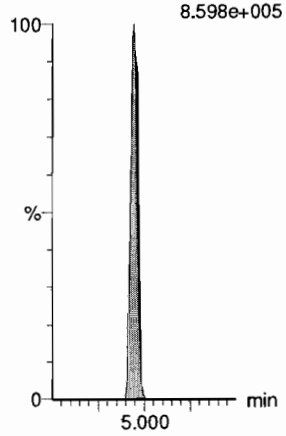
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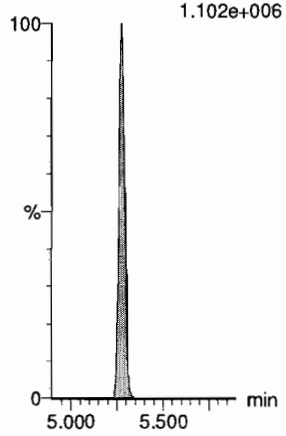
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-IB.qld

Last Altered: Monday, July 22, 2019 13:50:22 Pacific Daylight Time
Printed: Monday, July 22, 2019 13:50:37 Pacific Daylight Time

Name: 190722M1_14, Date: 22-Jul-2019, Time: 12:12:38, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
1	1	PFBA	213.0 > 168.8		7501.880	1.00					NO		
2	2	PFPrS	248.9 > 79.9		2239.359	1.00					NO		
3	3	3:3 FTCA	240.9 > 176.9		15758.199	1.00					NO		
4	4	PFPeA	263.1 > 218.9		15758.199	1.00					NO		
5	5	PFBS	299.0 > 79.7		2239.359	1.00					NO		
6	6	4:2 FTS	327.0 > 306.9		3672.193	1.00					NO		
7	47	13C3-PFBA	216.1 > 171.8	7501.880	10359.297	1.00	1.16	9.052	12.3	98.7	NO		
8	49	13C3-PFBS	302.0 > 98.8	2239.359	2017.515	1.00	2.45	13.874	13.1	105.0	NO		
9	48	13C3-PFPeA	266.0 > 221.8	15758.199	32014.930	1.00	2.15	6.153	12.4	98.8	NO		
10	48	13C3-PFPeA	266.0 > 221.8	15758.199	32014.930	1.00	2.15	6.153	12.4	98.8	NO		
11	49	13C3-PFBS	302.0 > 98.8	2239.359	2017.515	1.00	2.45	13.874	13.1	105.0	NO		
12	51	13C2-4:2 FTS	329.0 >79.9	3672.193	2017.515	1.00	2.88	22.752	13.8	110.3	NO		
13	-1												
14	7	PFHxA	313.0 > 269.0		12146.366	1.00					NO		
15	8	PFPeS	349.1>80.1		2239.359	1.00					NO		
16	9	HFPO-DA	285.1 > 168.9		1687.480	1.00					NO		
17	10	5:3 FTCA	340.9 > 236.9		15326.061	1.00					NO		
18	11	PFHpA	363.0 > 318.9		15326.061	1.00					NO		
19	12	ADONA	376.8 > 250.9		15326.061	1.00					NO		
20	52	13C2-PFHxA	315.0 > 270.0	12146.366	32014.930	1.00	2.97	4.742	4.9	97.0	NO		
21	49	13C3-PFBS	302.0 > 98.8	2239.359	2017.515	1.00	2.45	13.874	13.1	105.0	NO		
22	50	13C3-HFPO-DA	287.0 > 168.9	1687.480	32014.930	1.00	3.18	0.659	4.9	98.4	NO		
23	53	13C4-PFHpA	367.2 > 321.8	15326.061	32014.930	1.00	3.59	5.984	12.5	100.0	NO		
24	53	13C4-PFHpA	367.2 > 321.8	15326.061	32014.930	1.00	3.59	5.984	12.5	100.0	NO		
25	53	13C4-PFHpA	367.2 > 321.8	15326.061	32014.930	1.00	3.59	5.984	12.5	100.0	NO		
26	-1												
27	13	L-PFHxS	398.9 > 79.6		4156.333	1.00					NO		
28	15	6:2 FTS	427.0 > 406.9		2859.432	1.00					NO		
29	16	L-PFOA	412.8 > 368.9	166.629	26409.393	1.00	4.11	0.079	0.0		NO	9.522	YES
30	18	PFecHS	460.8 > 381.0		26409.393	1.00					NO		
31	19	PFHpS	449.0 > 80.0		4842.980	1.00					NO		
32	20	7:3 FTCA	440.9 > 336.9		26906.500	1.00					NO		
33	54	13C3-PFHxS	401.8 > 79.9	4156.333	2017.515	1.00	3.75	25.752	12.7	101.8	NO		
34	55	13C2-6:2 FTS	429.0 >79.9	2859.432	4717.761	1.00	4.06	7.576	14.1	113.0	NO		
35	58	13C2-PFOA	414.9 > 369.7	26409.393	39508.000	1.00	4.12	8.356	12.3	98.1	NO		
36	58	13C2-PFOA	414.9 > 369.7	26409.393	39508.000	1.00	4.12	8.356	12.3	98.1	NO		

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Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-IB.qld

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Name: 190722M1_14, Date: 22-Jul-2019, Time: 12:12:38, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
37	59	13C8-PFOS	507.0 > 79.9	4842.980	4717.761	1.00	4.65	12.832	12.9	103.0	NO		
38	56	13C5-PFNA	468.2 > 422.9	26906.500	27847.467	1.00	4.56	12.078	12.1	96.4	NO		
39	-1												
40	21	PFNA	463.0 > 418.8		26906.500	1.00					NO		
41	22	PFOSA	497.9 > 77.9	8.148	6887.840	1.00	4.61	0.015	0.0		NO	5.678	YES
42	23	L-PFOS	498.9 > 79.9		4842.980	1.00					NO		
43	25	9Cl-PF30NS	530.7 > 350.8		4842.980	1.00					NO		
44	26	PFDA	513 > 468.8		28506.688	1.00					NO		
45	27	8:2 FTS	527.0 > 506.9		2708.716	1.00					NO		
46	56	13C5-PFNA	468.2 > 422.9	26906.500	27847.467	1.00	4.56	12.078	12.1	96.4	NO		
47	57	13C8-PFOSA	506.1 > 77.7	6887.840	40970.465	1.00	4.62	2.101	12.5	100.3	NO		
48	59	13C8-PFOS	507.0 > 79.9	4842.980	4717.761	1.00	4.65	12.832	12.9	103.0	NO		
49	59	13C8-PFOS	507.0 > 79.9	4842.980	4717.761	1.00	4.65	12.832	12.9	103.0	NO		
50	60	13C2-PFDA	515.1 > 469.9	28506.688	34616.977	1.00	4.95	10.294	12.6	100.5	NO		
51	61	13C2-8:2 FTS	529 > 79.9	2708.716	4717.761	1.00	4.91	7.177	12.9	103.2	NO		
52	-1												
53	28	PFNS	549.1 > 80.1		4842.980	1.00					NO		
54	29	L-MeFOSAA	570 > 419	26.518	7441.581	1.00	5.11	0.045	0.1		NO	4.592	YES
55	31	L-EtFOSAA	584.1 > 419	12.900	9624.488	1.00	5.27	0.017	0.1		NO	8.710	YES
56	33	PFUdA	563.0 > 518.9		36902.512	1.00					NO		
57	34	PFDS	598.8 > 79.9		2708.716	1.00					NO		
58	35	11Cl-PF30UdS	632.6 > 452.7		35732.961	1.00					NO		
59	59	13C8-PFOS	507.0 > 79.9	4842.980	4717.761	1.00	4.65	12.832	12.9	103.0	NO		
60	62	d3-N-MeFOSAA	573.3 > 419	7441.581	40970.465	1.00	5.10	2.270	12.8	102.4	NO		
61	64	d5-N-EtFOSAA	589.3 > 419	9624.488	40970.465	1.00	5.26	2.936	13.1	105.0	NO		
62	63	13C2-PFUdA	565 > 519.8	36902.512	40970.465	1.00	5.28	11.259	12.7	101.3	NO		
63	61	13C2-8:2 FTS	529 > 79.9	2708.716	4717.761	1.00	4.91	7.177	12.9	103.2	NO		
64	65	13C2-PFDoA	614.7 > 569.7	35732.961	34616.977	1.00	5.57	12.903	11.9	94.9	NO		
65	-1												
66	36	10:2 FTS	627.0 > 606.9		2708.716	1.00					NO		
67	37	PFDoA	612.9 > 569.0	88.353	35732.961	1.00	5.55	0.031			NO	72.243	YES
68	38	N-MeFOSA	512.1 > 168.9		18006.295	1.00					NO		
69	39	PFTrDA	662.9 > 618.9		35732.961	1.00					NO		
70	40	PFDoS	698.8 > 79.9		25005.998	1.00					NO		
71	41	PFTeDA	713.0 > 669.0		25005.998	1.00					NO		
72	65	13C2-PFDoA	614.7 > 569.7	35732.961	34616.977	1.00	5.57	12.903	11.9	94.9	NO		

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Dataset: F:\Projects\PFAS.PRO\Results\190722M1\190722M1-IB.qld

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Name: 190722M1_14, Date: 22-Jul-2019, Time: 12:12:38, ID: IB, Description: IB

	#	Name	Trace	Area	IS Area	wt/vol	RT	Response	Conc.	%Rec	Recovery ...	Ion Ratio	Ratio Out?
73	65	13C2-PFDoA	614.7 > 569.7	35732.961	34616.977	1.00	5.57	12.903	11.9	94.9	NO		
74	66	d3-N-MeFOSA	515.2 > 168.9	18006.295	40970.465	1.00	5.75	5.494	143.7	95.8	NO		
75	65	13C2-PFDoA	614.7 > 569.7	35732.961	34616.977	1.00	5.57	12.903	11.9	94.9	NO		
76	67	13C2-PFTeDA	715.1 > 669.7	25005.998	40970.465	1.00	6.04	7.629	12.6	101.0	NO		
77	67	13C2-PFTeDA	715.1 > 669.7	25005.998	40970.465	1.00	6.04	7.629	12.6	101.0	NO		
78	-1												
79	42	N-EtFOSA	526.1 > 168.9		21538.303	1.00					NO		
80	43	PFHxDA	813.1 > 768.6	194.032	12818.789	1.00	6.38	0.076	0.1		NO	39.720	YES
81	44	PFODA	913.1 > 868.8	169.569	12818.789	1.00	6.63	0.066	0.0		NO		
82	45	N-MeFOSE	616.1 > 58.9		14477.269	1.00					NO		
83	46	N-EtFOSE	630.1 > 58.9		15601.422	1.00					NO		
84	72	13C4-PFBA	217.0 > 172.0	10359.297	10359.297	1.00	1.16	12.500	12.5	100.0	NO		
85	68	d5-N-ETFOSA	531.1 > 168.9	21538.303	40970.465	1.00	6.16	6.571	147.8	98.6	NO		
86	69	13C2-PFHxDA	815 > 769.7	12818.789	40970.465	1.00	6.38	3.911	5.0	99.3	NO		
87	69	13C2-PFHxDA	815 > 769.7	12818.789	40970.465	1.00	6.38	3.911	5.0	99.3	NO		
88	70	d7-N-MeFOSE	623.1 > 58.9	14477.269	40970.465	1.00	6.34	4.417	141.1	94.1	NO		
89	71	d9-N-EtFOSE	639.2 > 58.8	15601.422	40970.465	1.00	6.49	4.760	144.9	96.6	NO		
90	73	13C5-PFHxA	318.0 > 272.9	32014.930	32014.930	1.00	2.96	12.500	12.5	100.0	NO		
91	-1												
92	75	13C8-PFOA	420.9 > 376.0	39508.000	39508.000	1.00	4.12	12.500	12.5	100.0	NO		
93	74	18O2-PFHxS	403.0 > 102.6	2017.515	2017.515	1.00	3.75	12.500	12.5	100.0	NO		
94	76	13C9-PFNA	472.2 > 426.9	27847.467	27847.467	1.00	4.56	12.500	12.5	100.0	NO		
95	77	13C4-PFOS	503 > 79.9	4717.761	4717.761	1.00	4.65	12.500	12.5	100.0	NO		
96	78	13C6-PFDA	519.1 > 473.7	34616.977	34616.977	1.00	4.95	12.500	12.5	100.0	NO		
97	79	13C7-PFUdA	570.1 > 524.8	40970.465	40970.465	1.00	5.28	12.500	12.5	100.0	NO		

Vista Analytical Laboratory

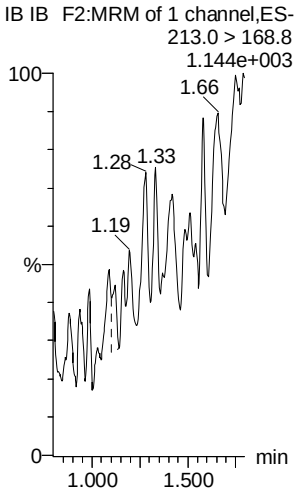
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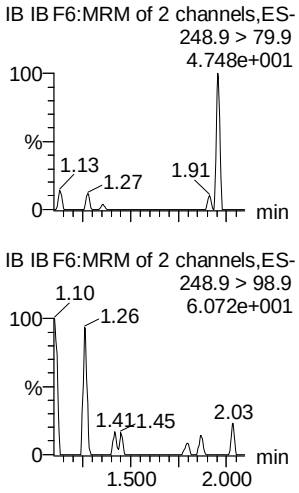
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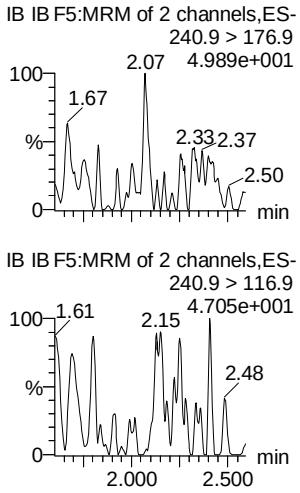
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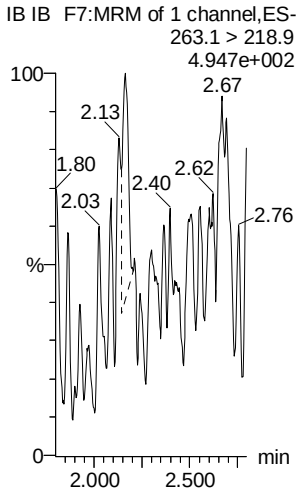
PFPrS



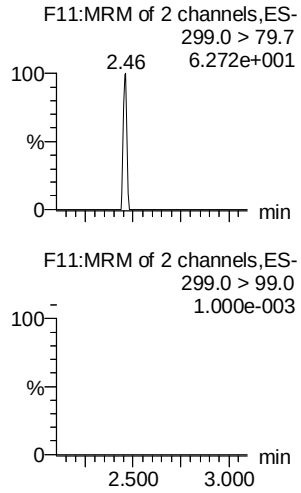
3:3 FTCA



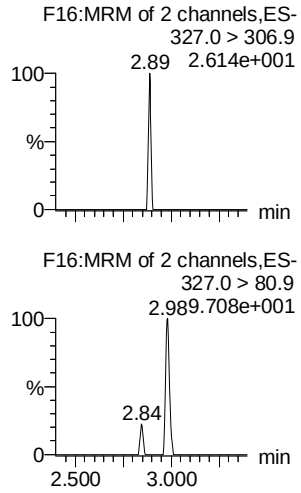
PFPeA



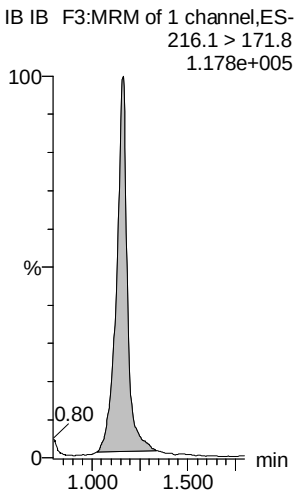
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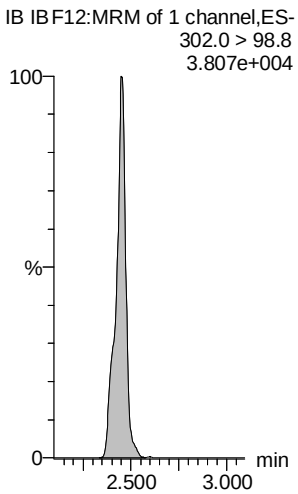
4:2 FTS



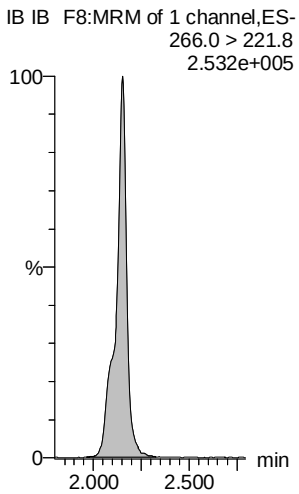
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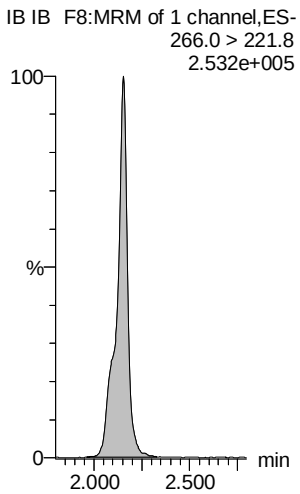
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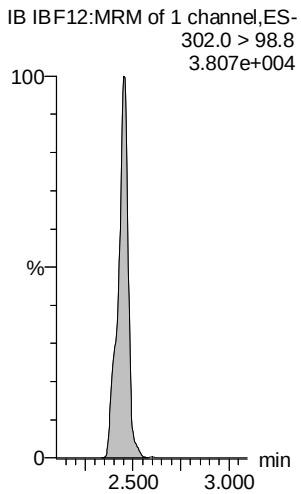
13C3-PFPeA



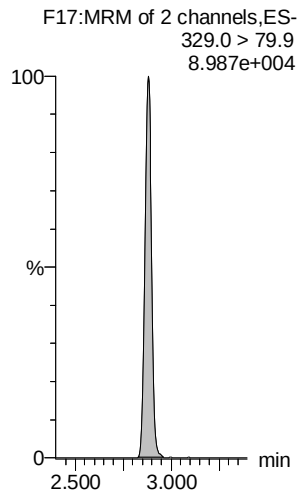
13C3-PFPeA



13C3-PFBS



13C2-4:2 FTS



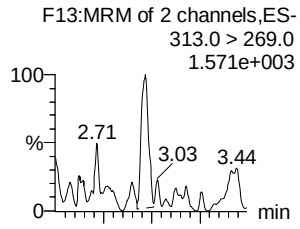
CGH 7/22/2019

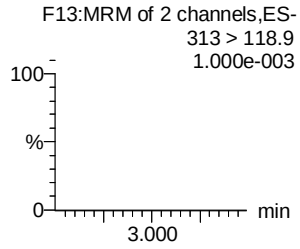
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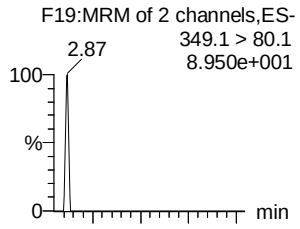
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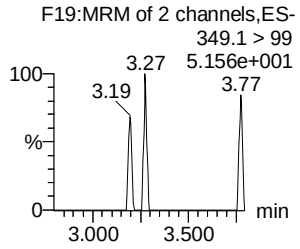
PFHxA



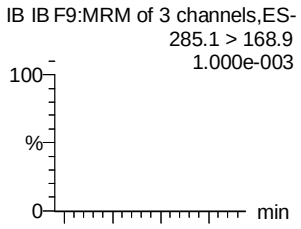


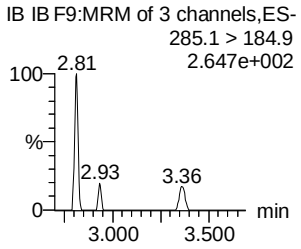
PFPeS



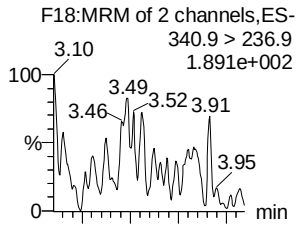


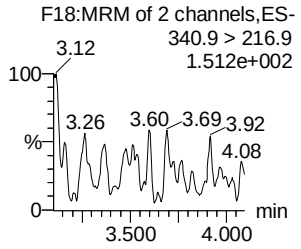
HFPO-DA



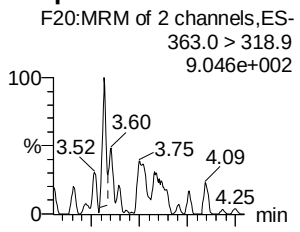


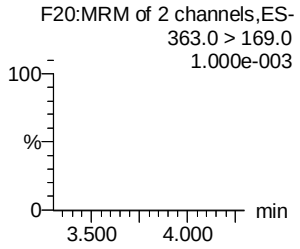
5:3 FTCA



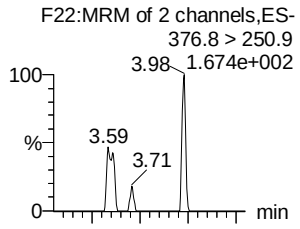


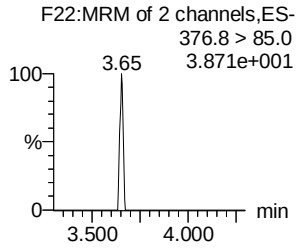
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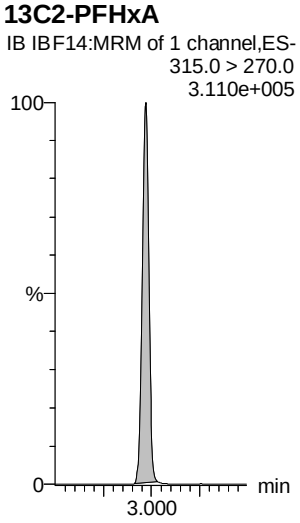


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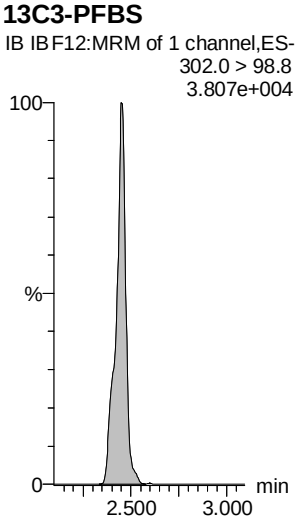




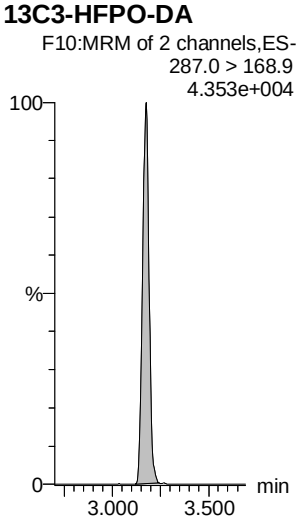
13C2-PFHxA



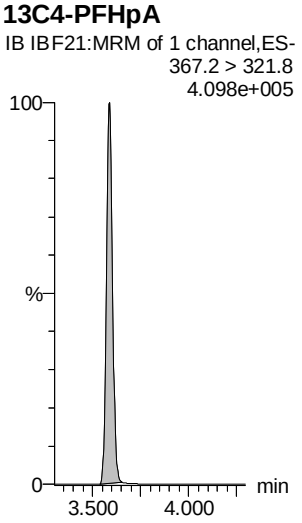
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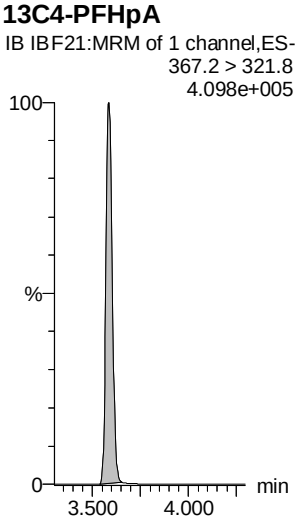
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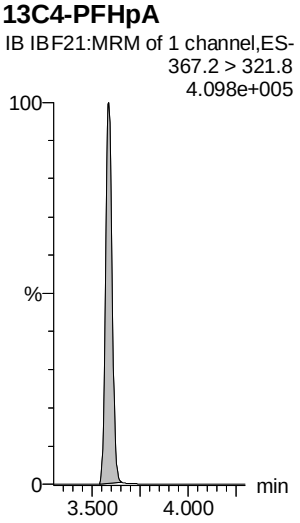
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13C4-PFHpA



13C4-PFHpA

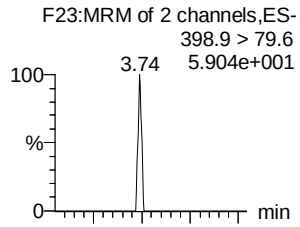


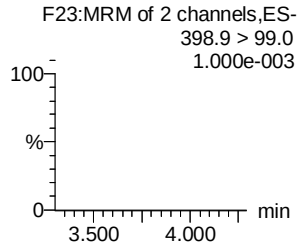
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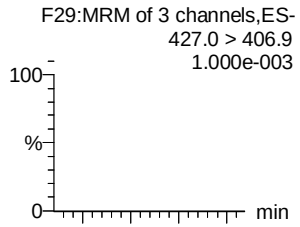
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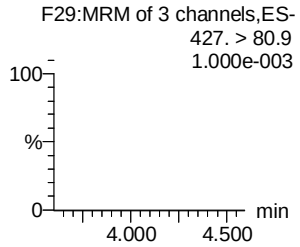
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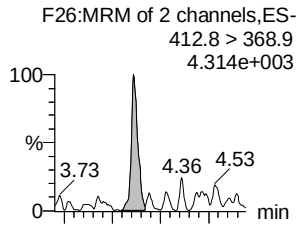


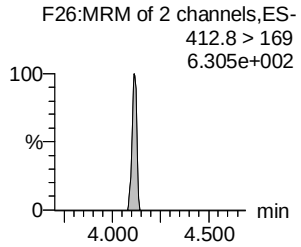
6:2 FTS



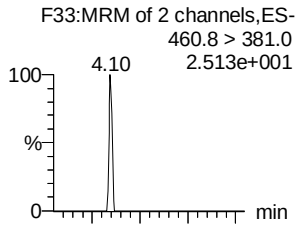


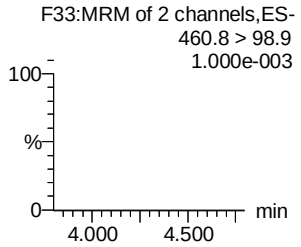
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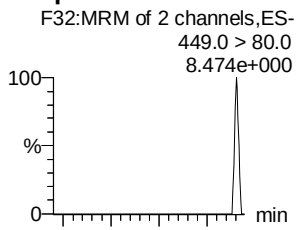


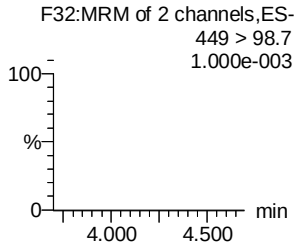
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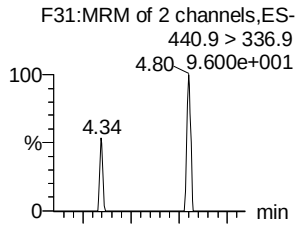


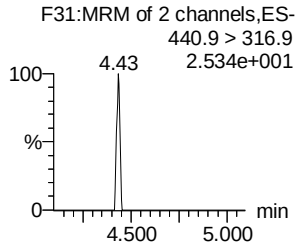
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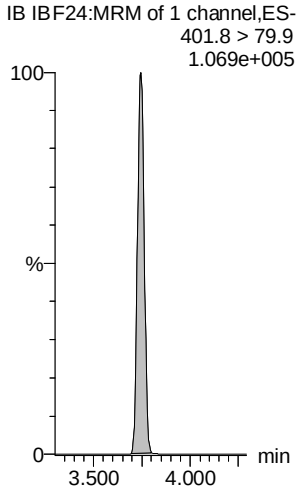


7:3 FTCA

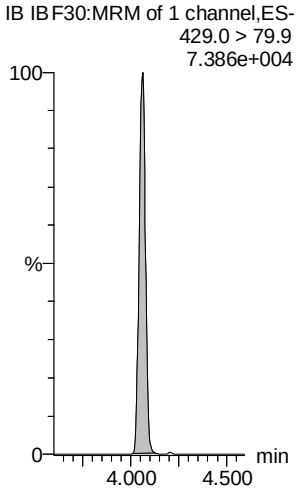




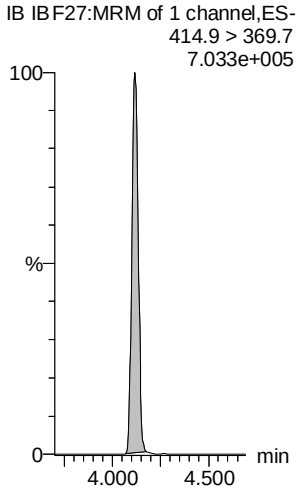
13C3-PFHxS



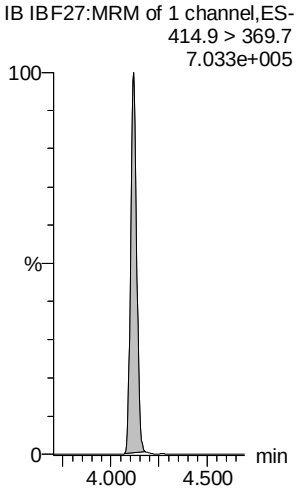
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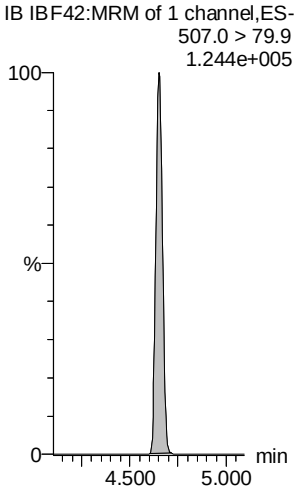
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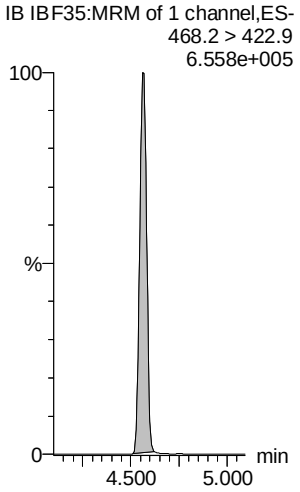
13C2-PFOA



13C8-PFOS



13C5-PFNA



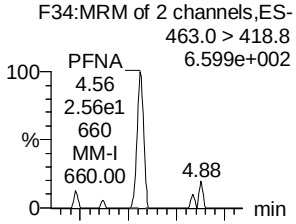
Vista Analytical Laboratory

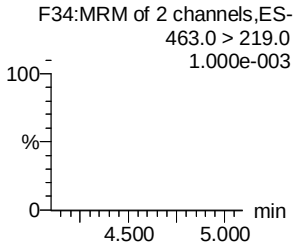
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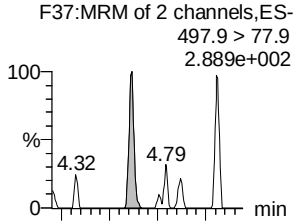
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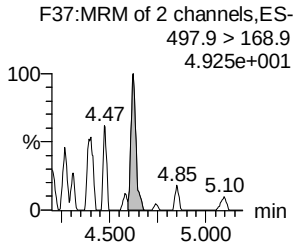
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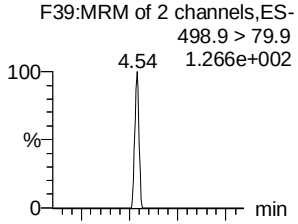


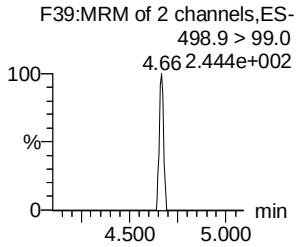
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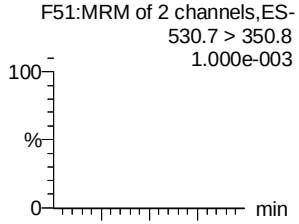


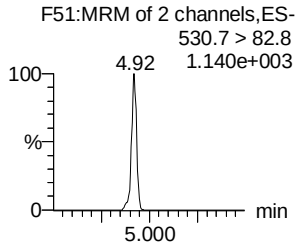
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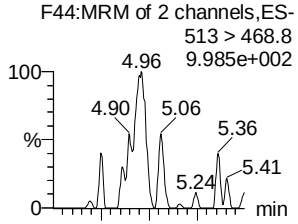


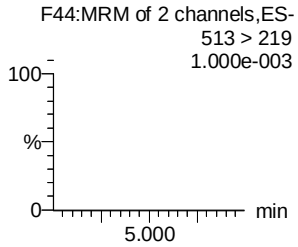
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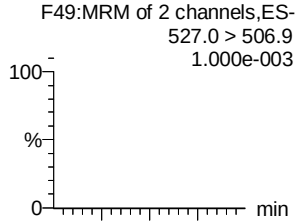


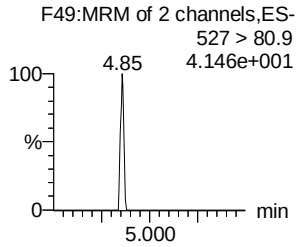
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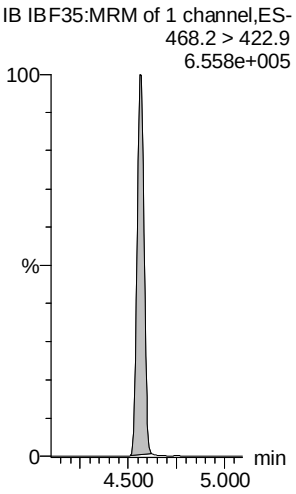


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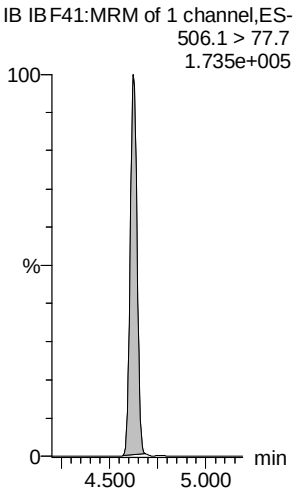




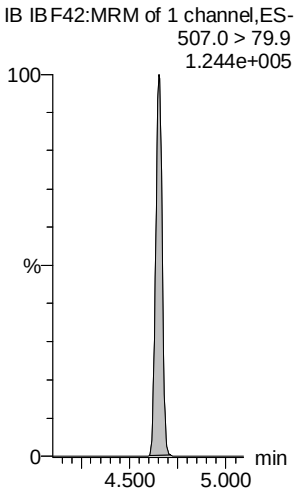
13C5-PFNA



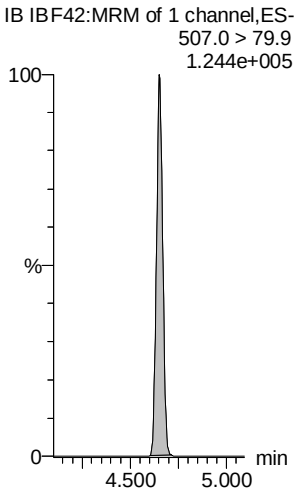
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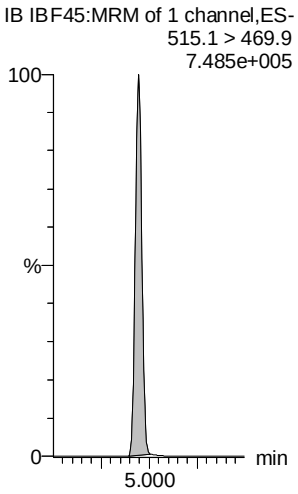
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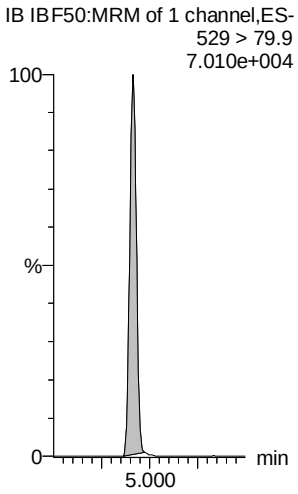
13C8-PFOS



13C2-PFDA



13C2-8:2 FTS



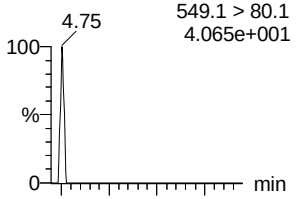
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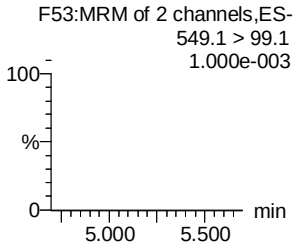
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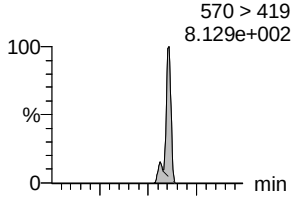
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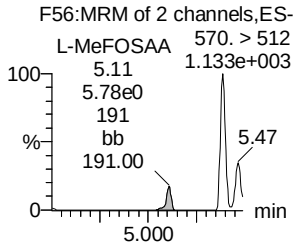
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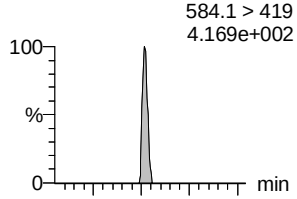


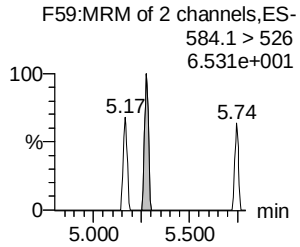
L-MeFOSAA



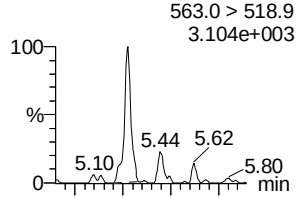


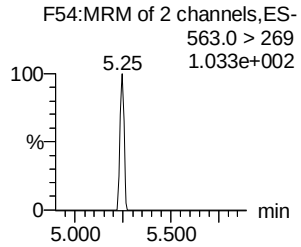
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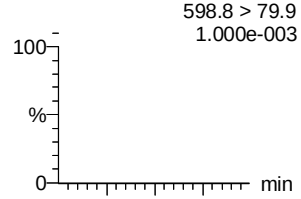


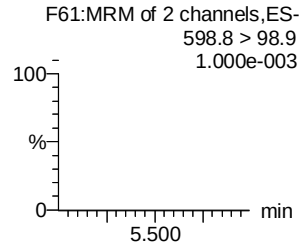
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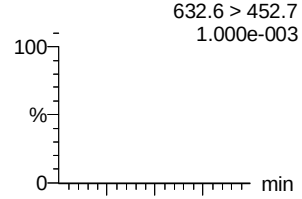


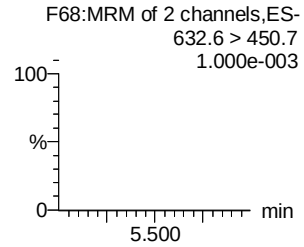
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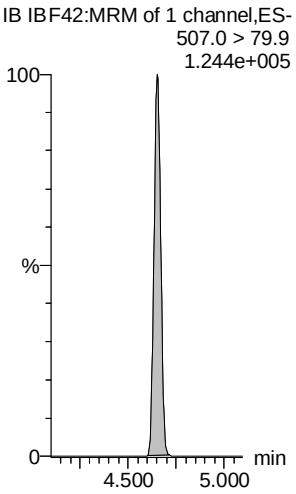


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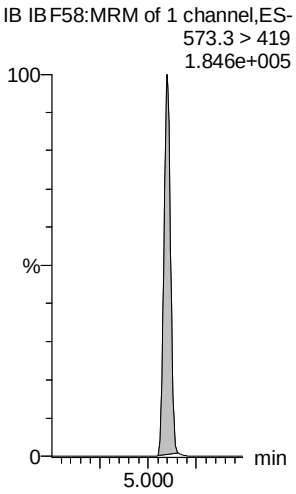




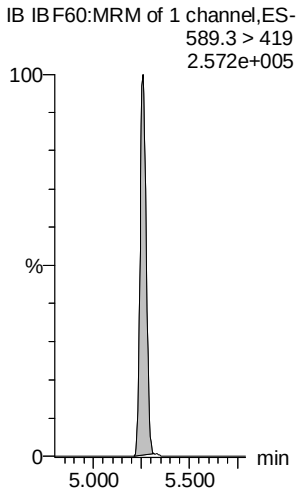
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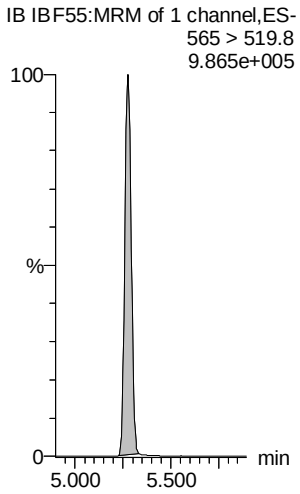
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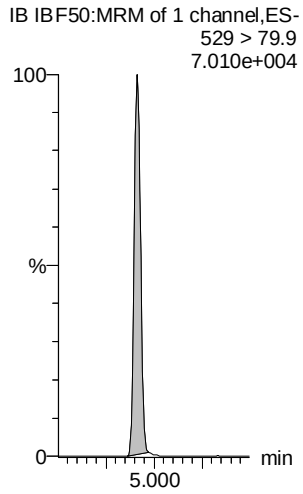
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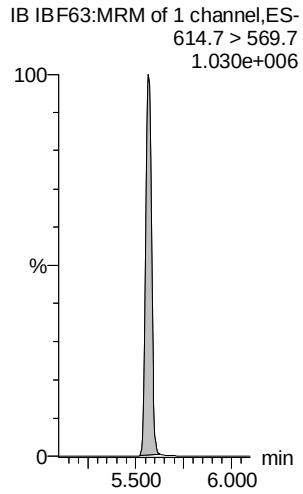
13C2-PFUdA



13C2-8:2 FTS



13C2-PFDoA

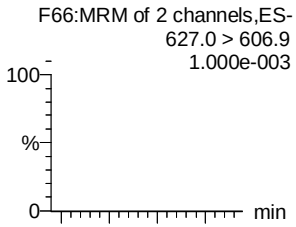


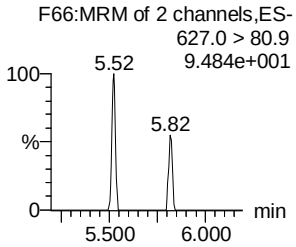
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Printed: Monday, July 22, 2019 13:50:37 Pacific Daylight Time

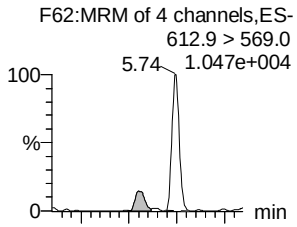
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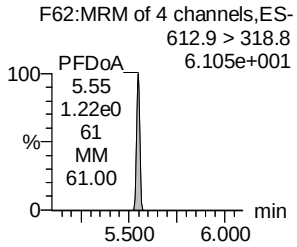
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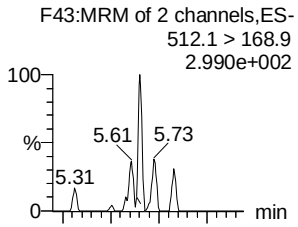


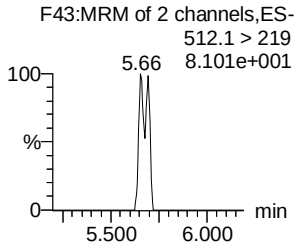
PFDoA



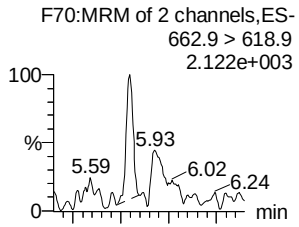


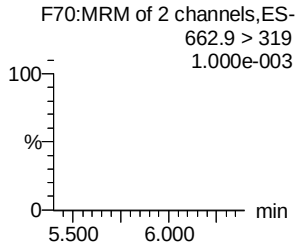
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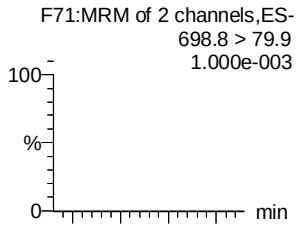


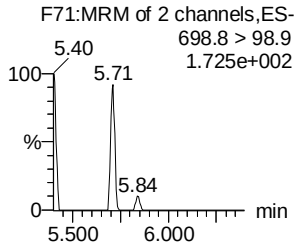
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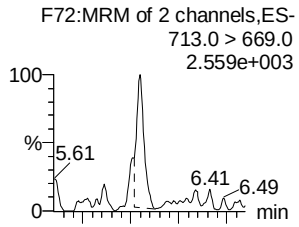


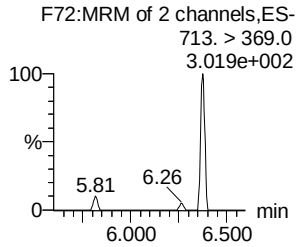
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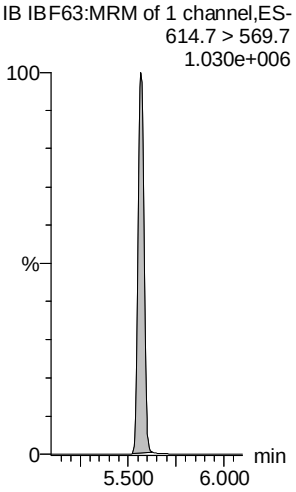


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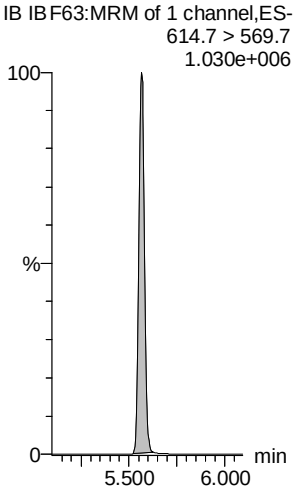




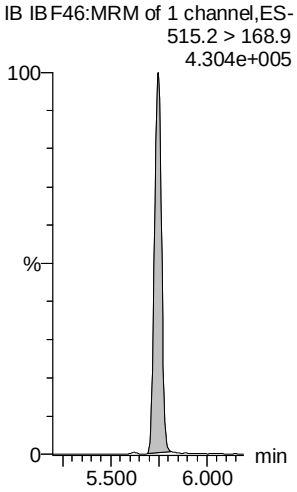
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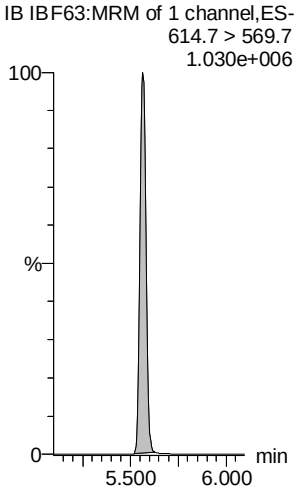
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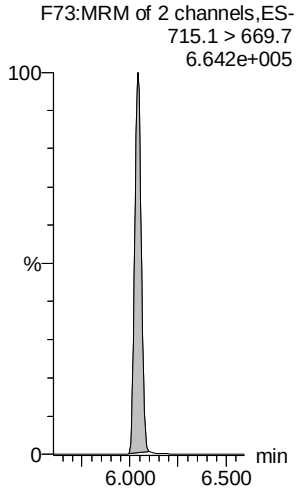
d3-N-MeFOSA



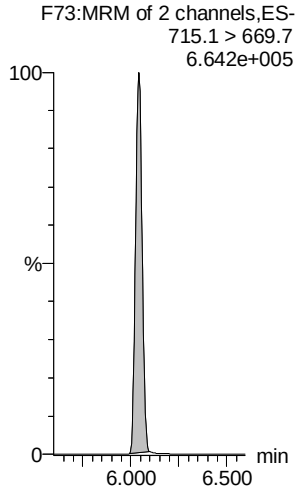
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13C2-PFTeDA



13C2-PFTeDA

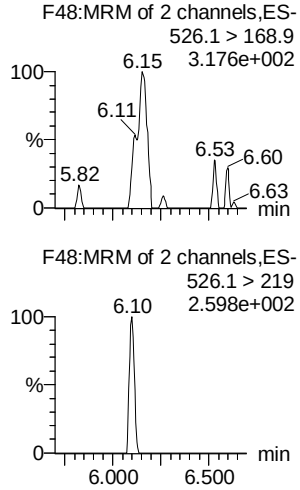


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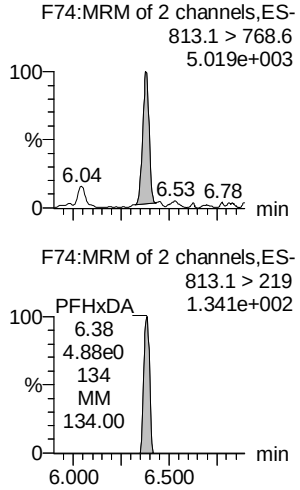
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Name: 190722M1_14, Date: 22-Jul-2019, Time: 12:12:38, ID: IB, Description: IB

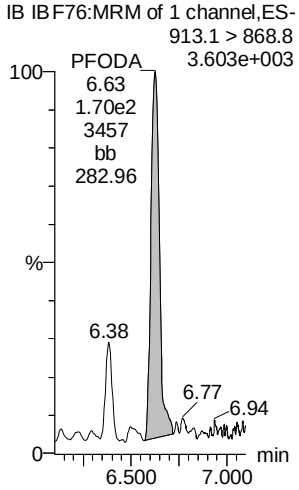
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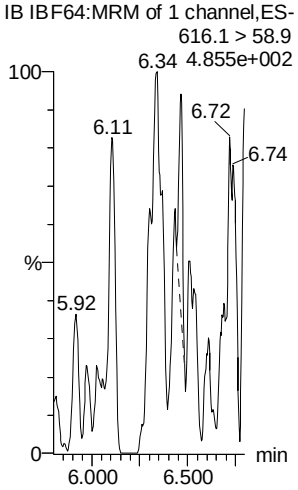
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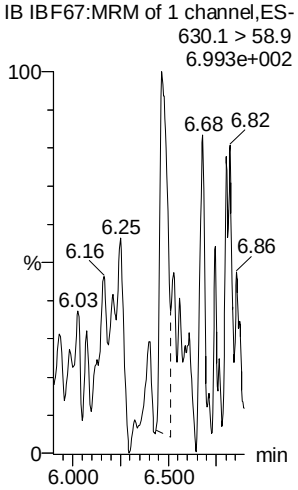
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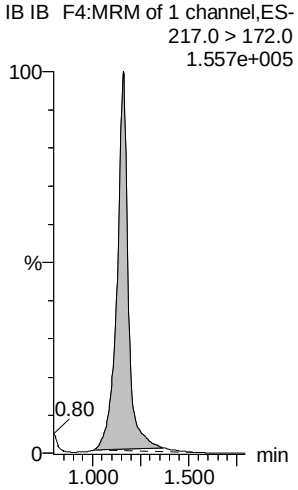
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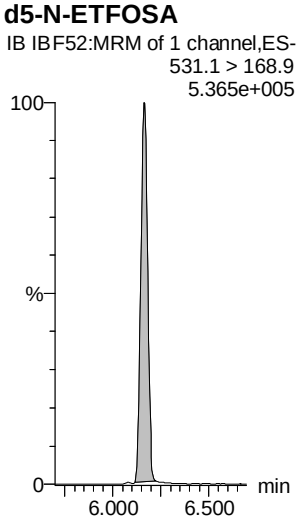
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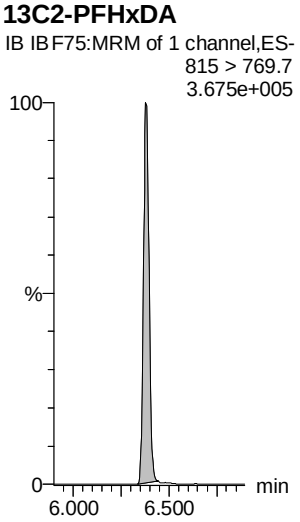
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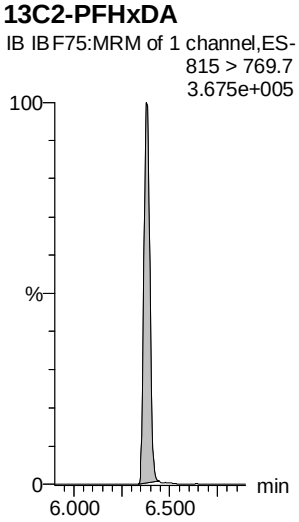
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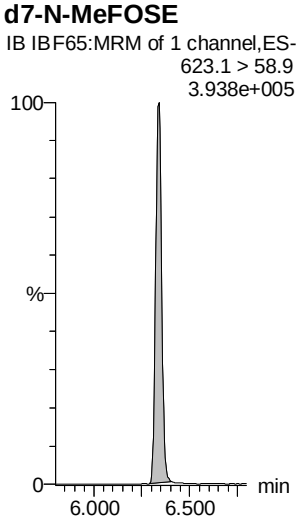
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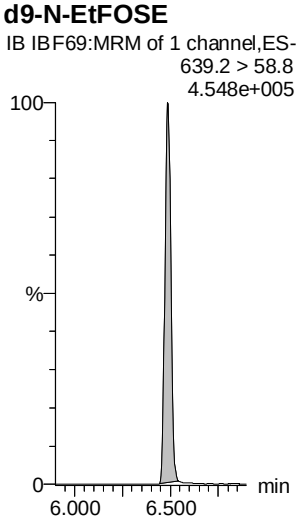
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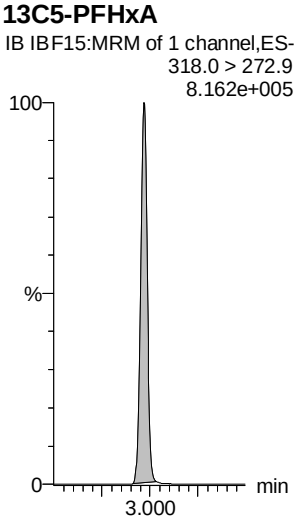
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d9-N-EtFOSE



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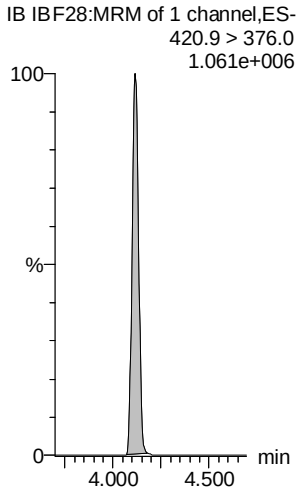


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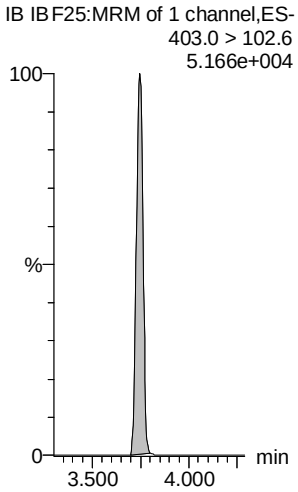
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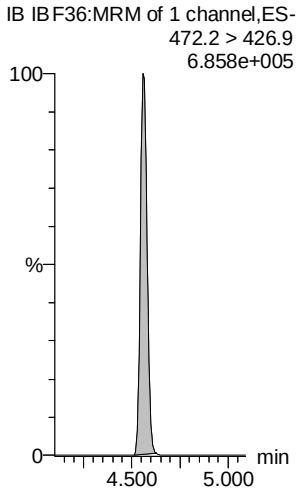
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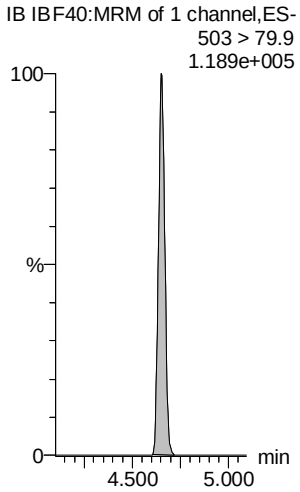
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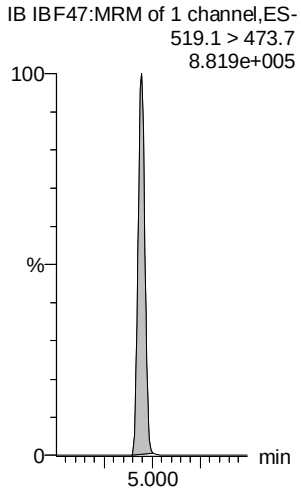
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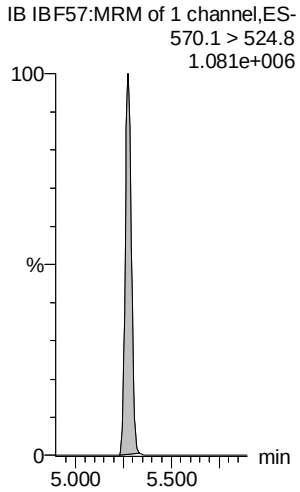
13C4-PFOS



13C6-PFDA



13C7-PFUdA



TUNE CHECKS

Q4(M) 07-16-19

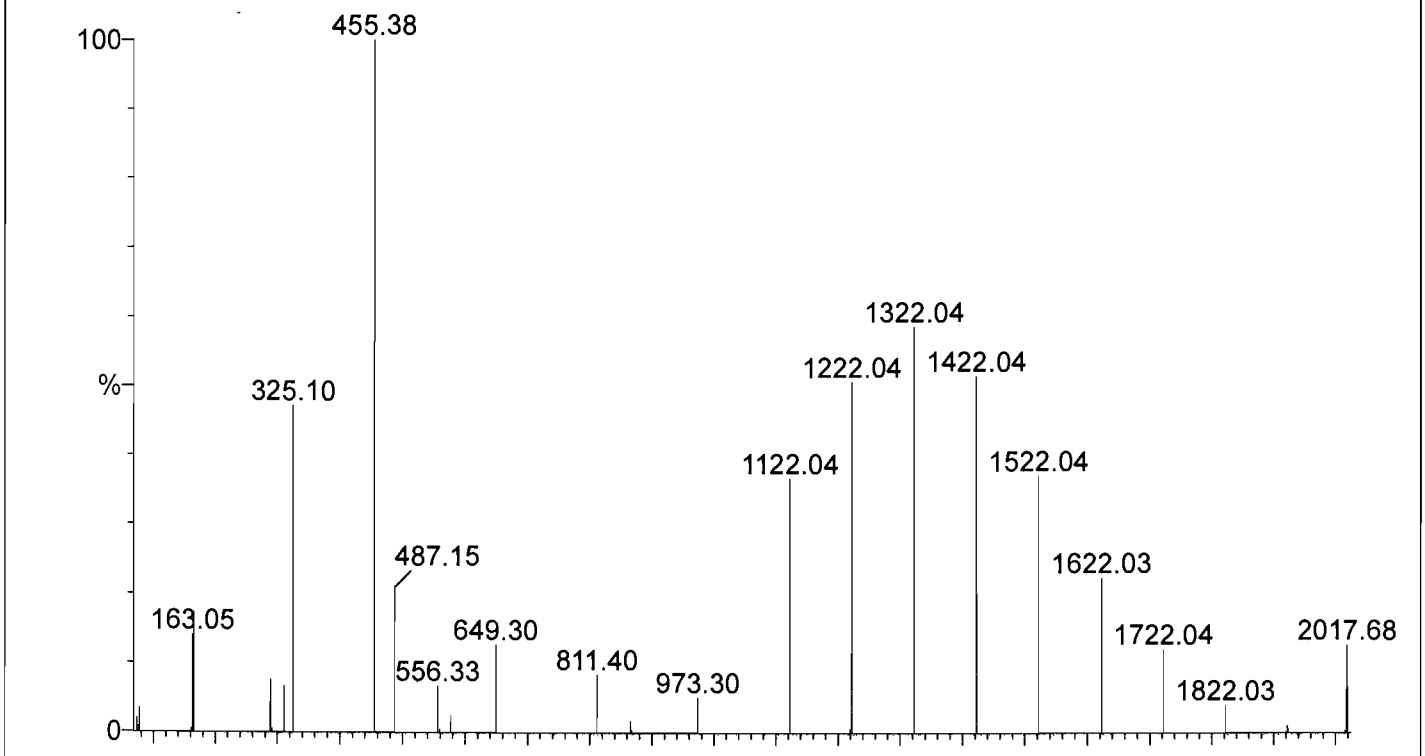
07/15/19 CG LT 7/16/19

Calibration Verification Report - MS1 Static

Printed: **Tue Jul 16 08:50:38 2019**

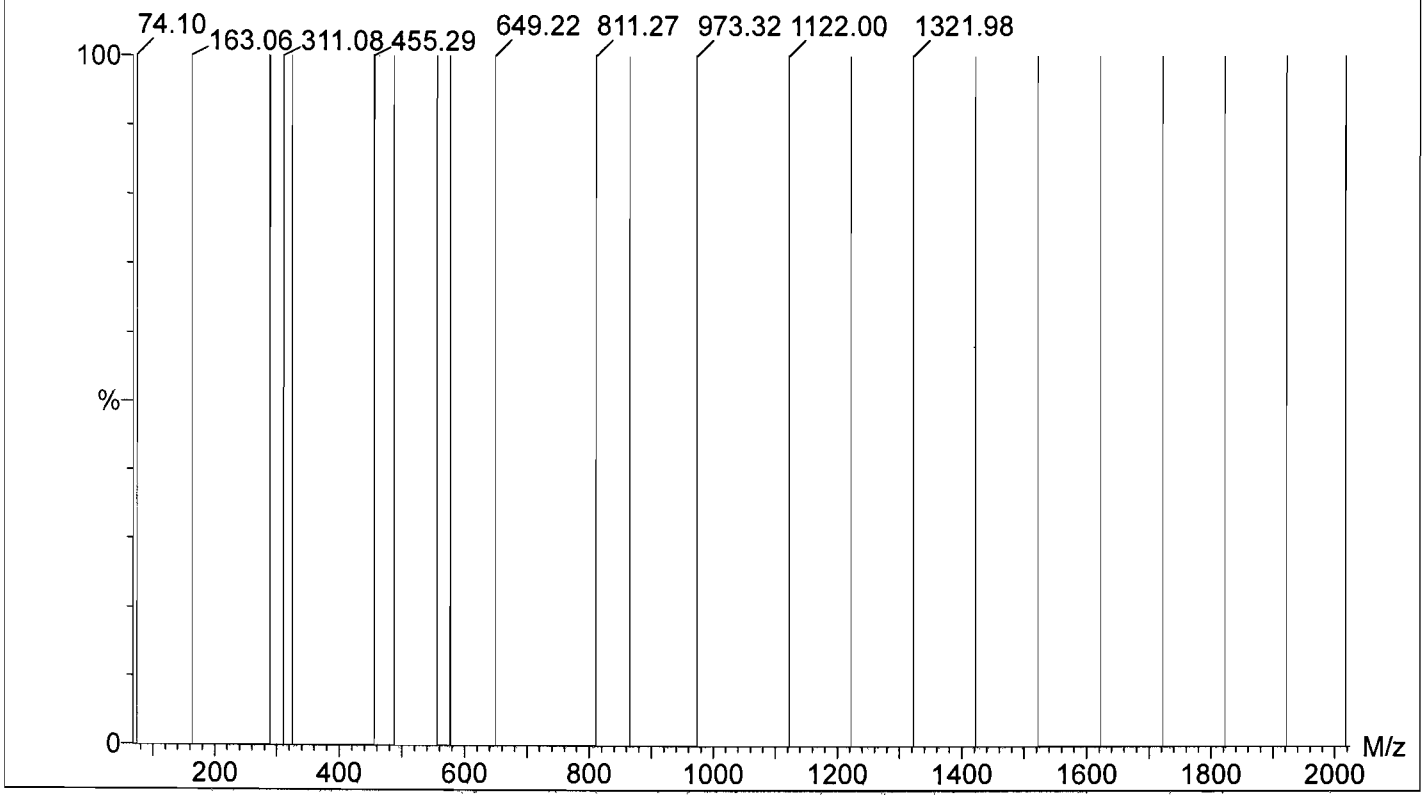
Data file: STATMS1V - Calibrated

23 matches of 23 tested references

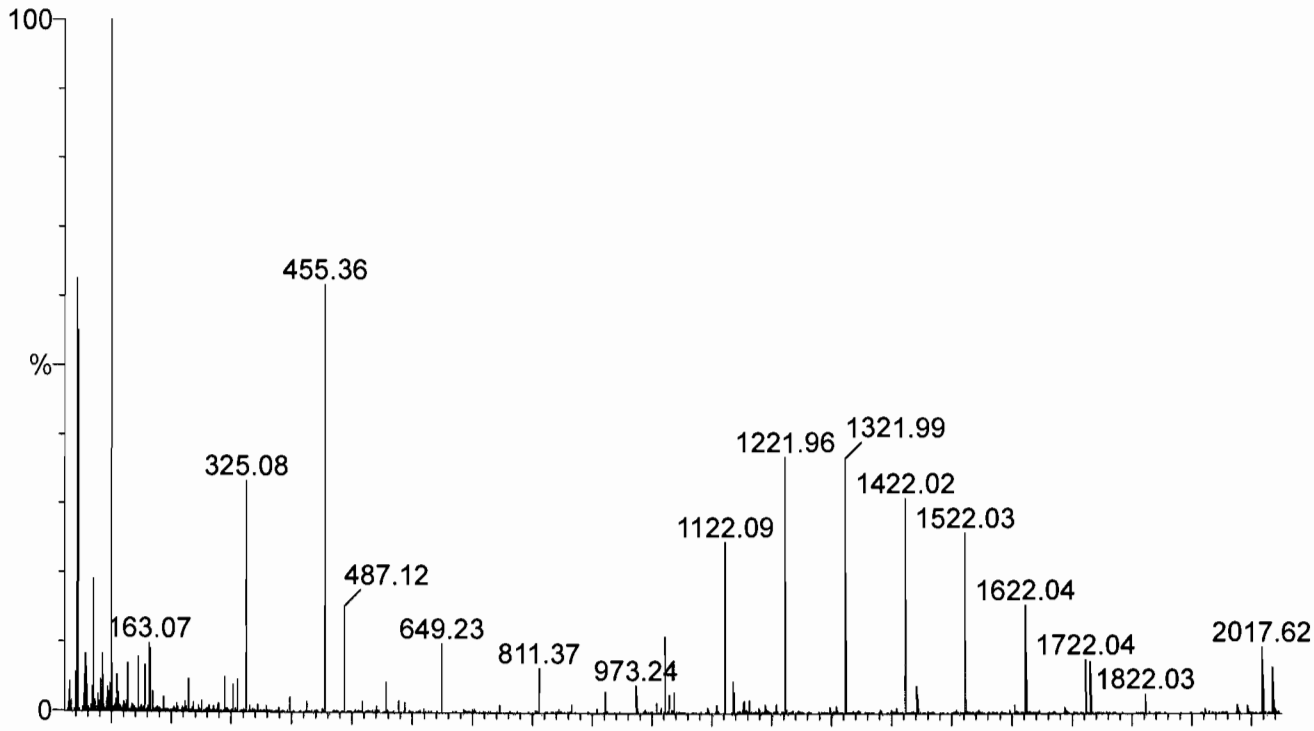


Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref

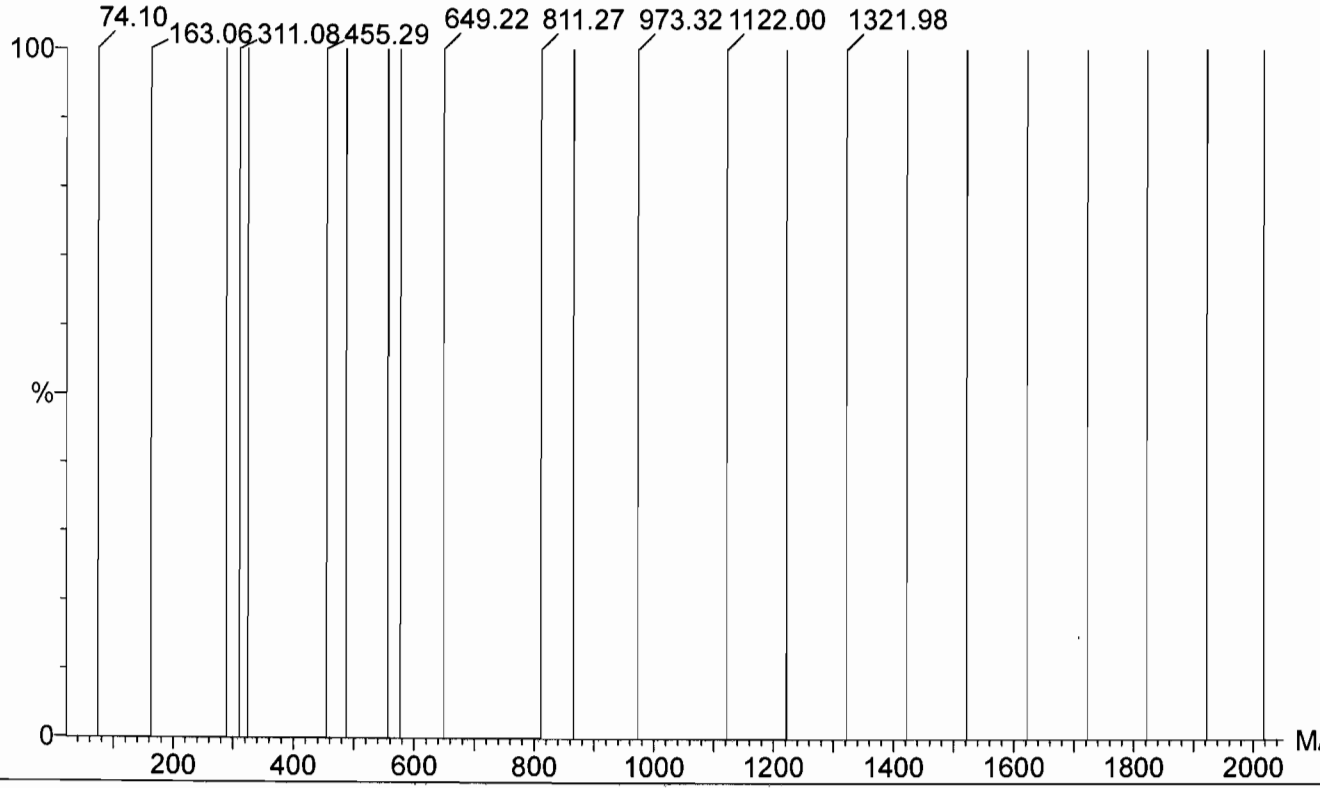
Mean residual = 0.0542 amu



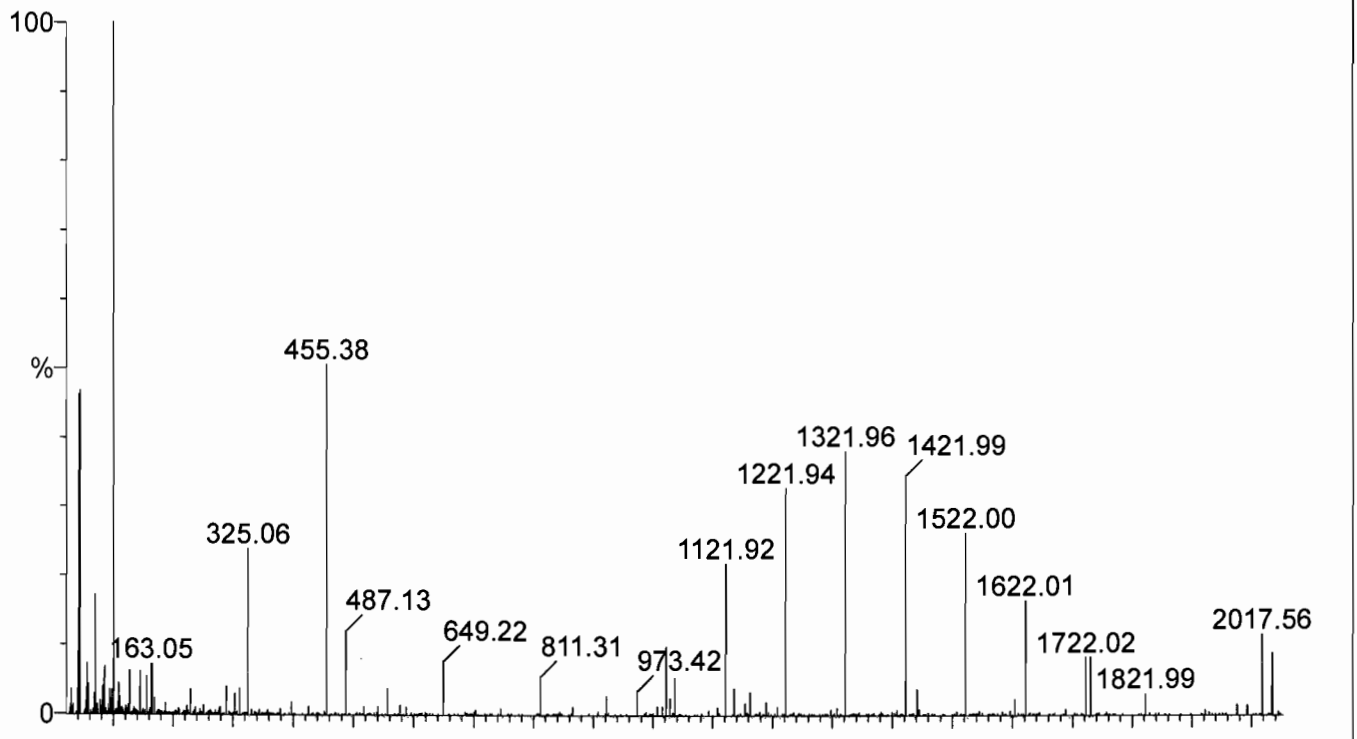
Data file: SCNMS1V - Calibrated 23 matches of 23 tested references



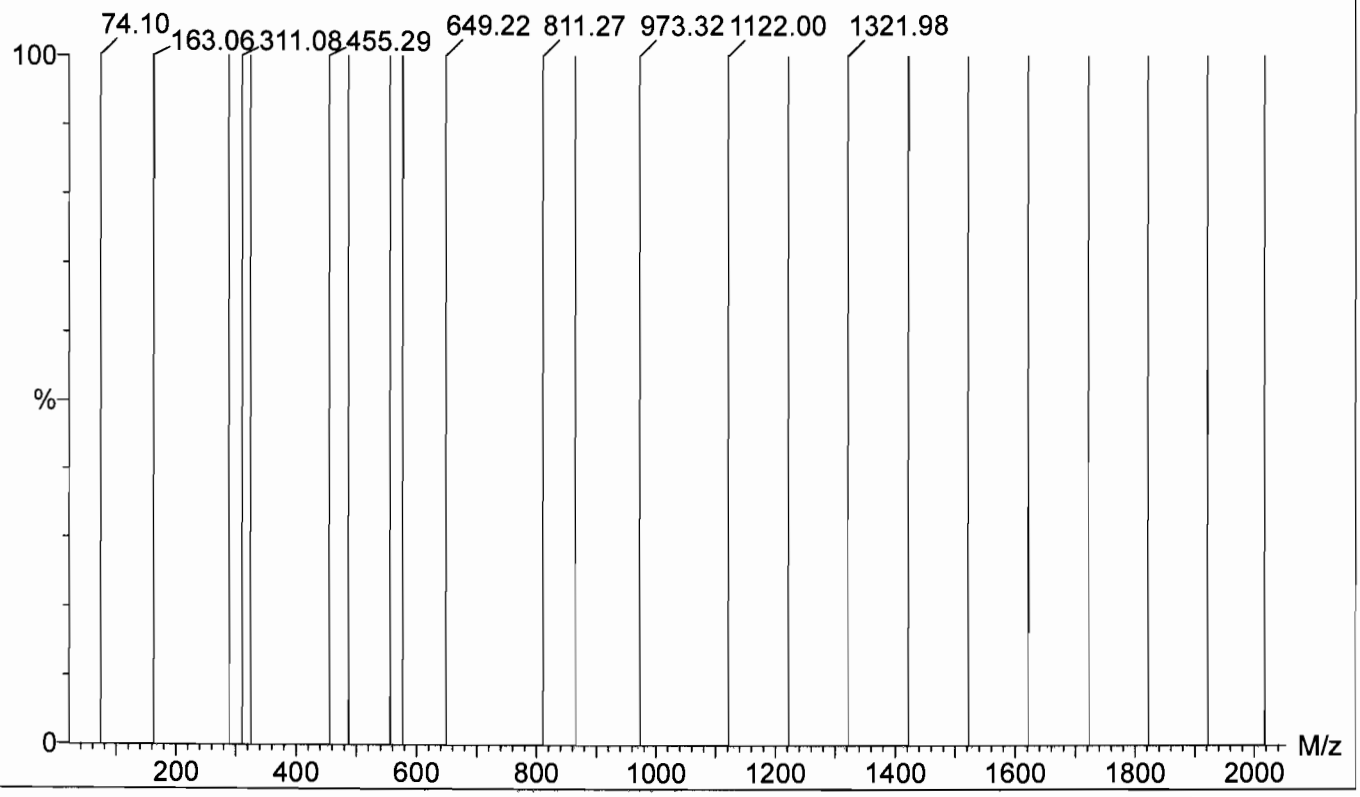
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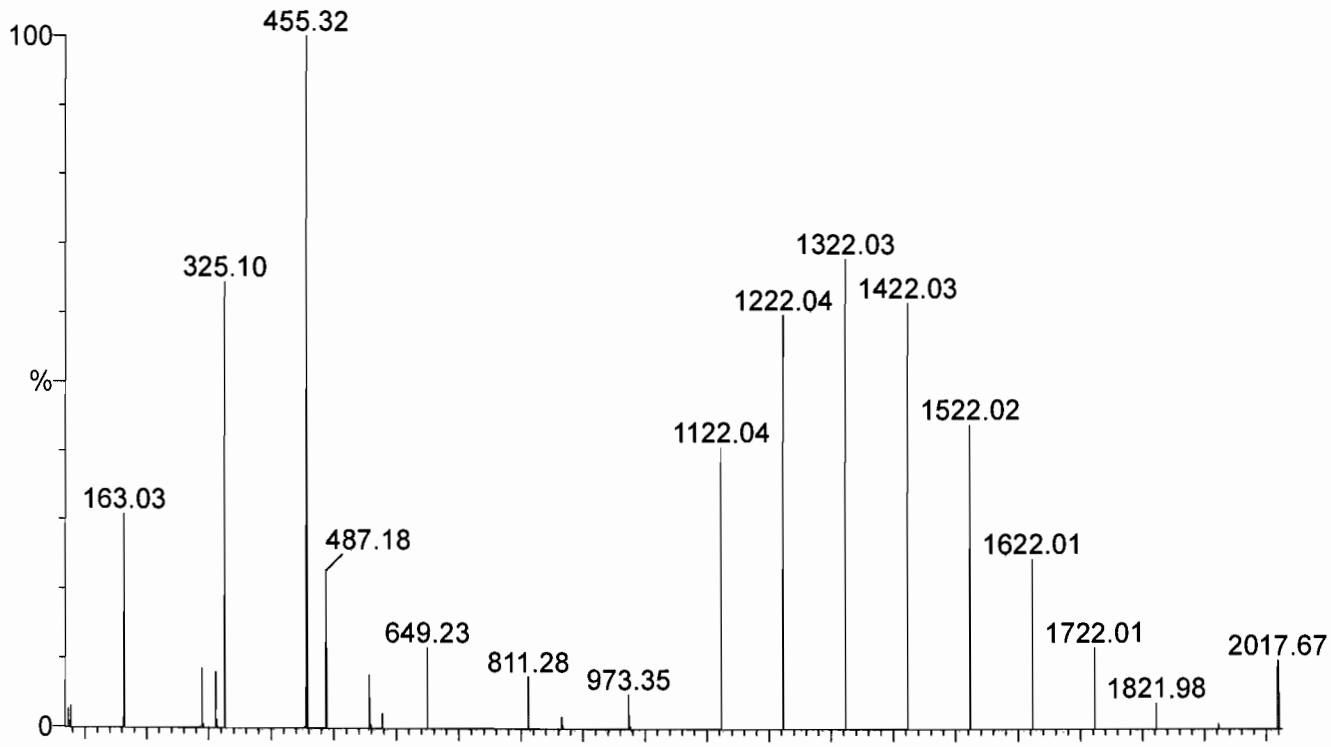
Data file: FASTMS1V - Calibrated 23 matches of 23 tested references



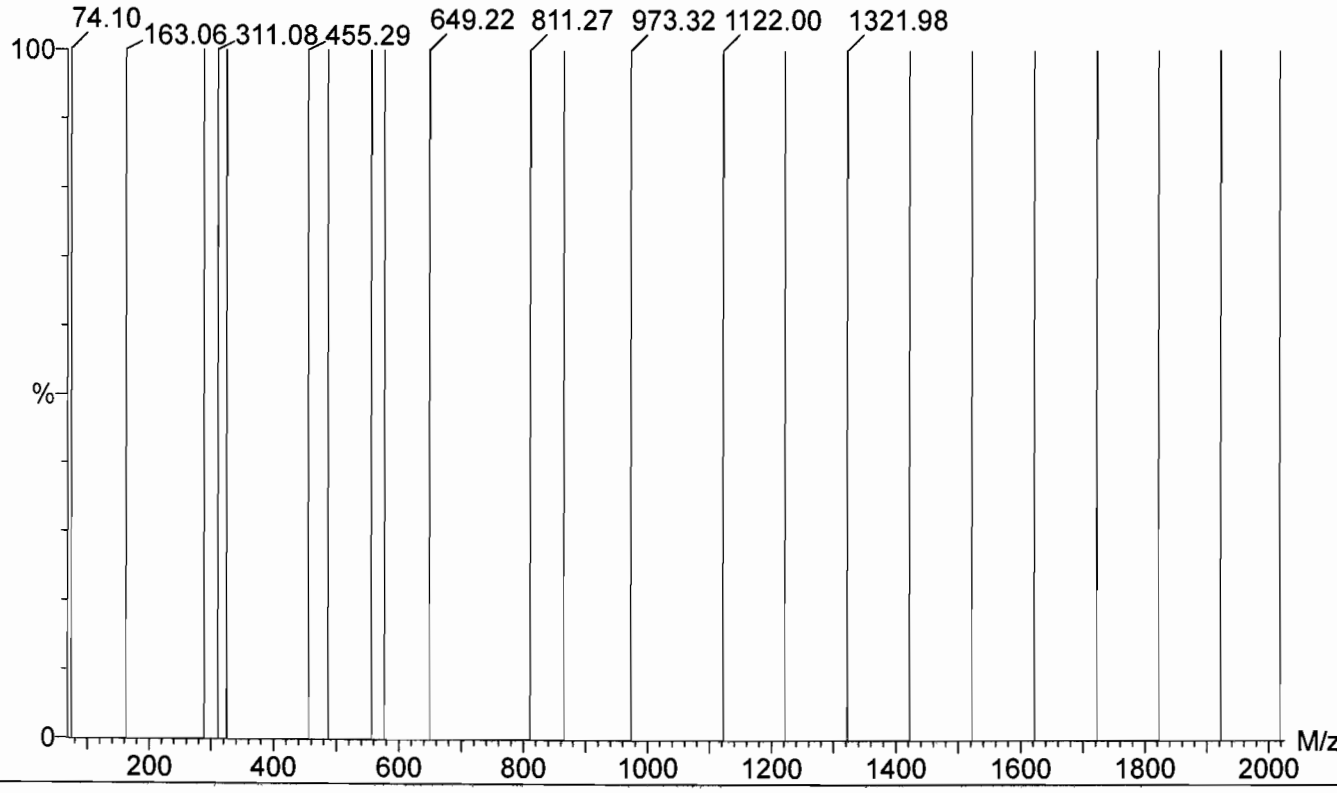
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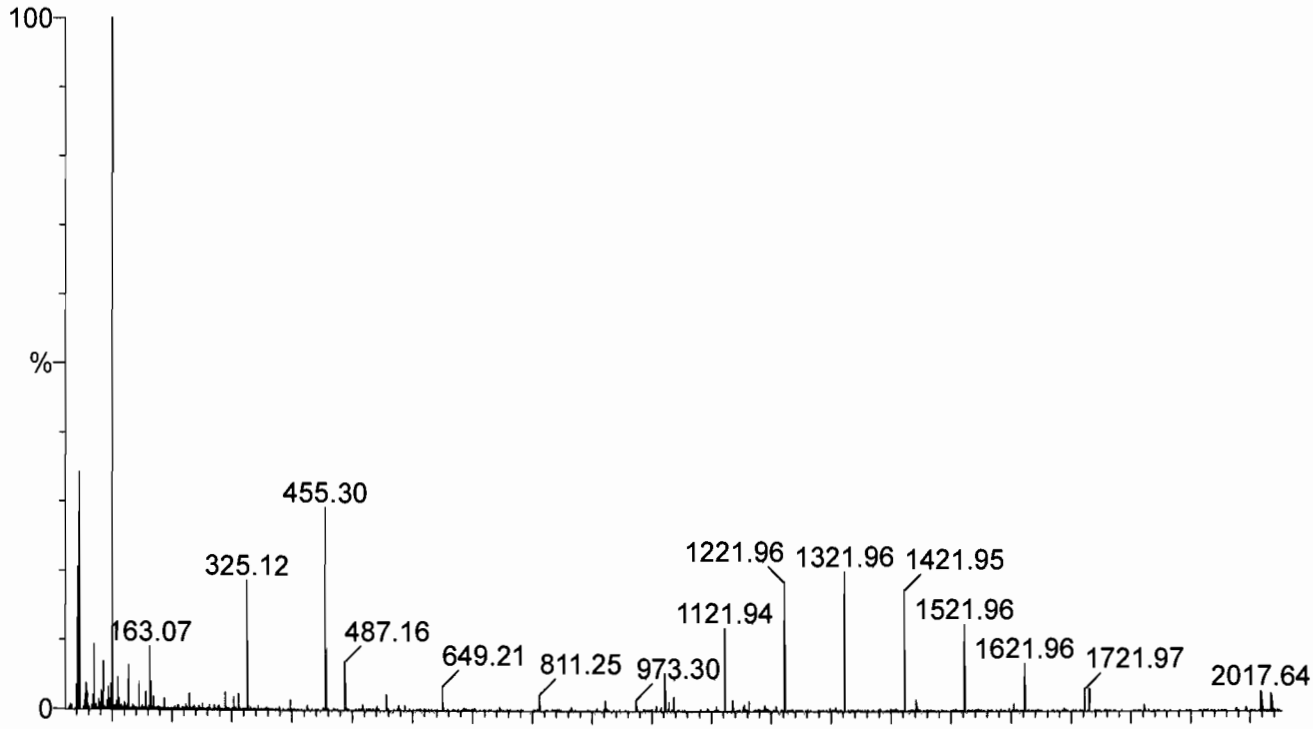
Data file: STATMS2V - Calibrated 23 matches of 23 tested references



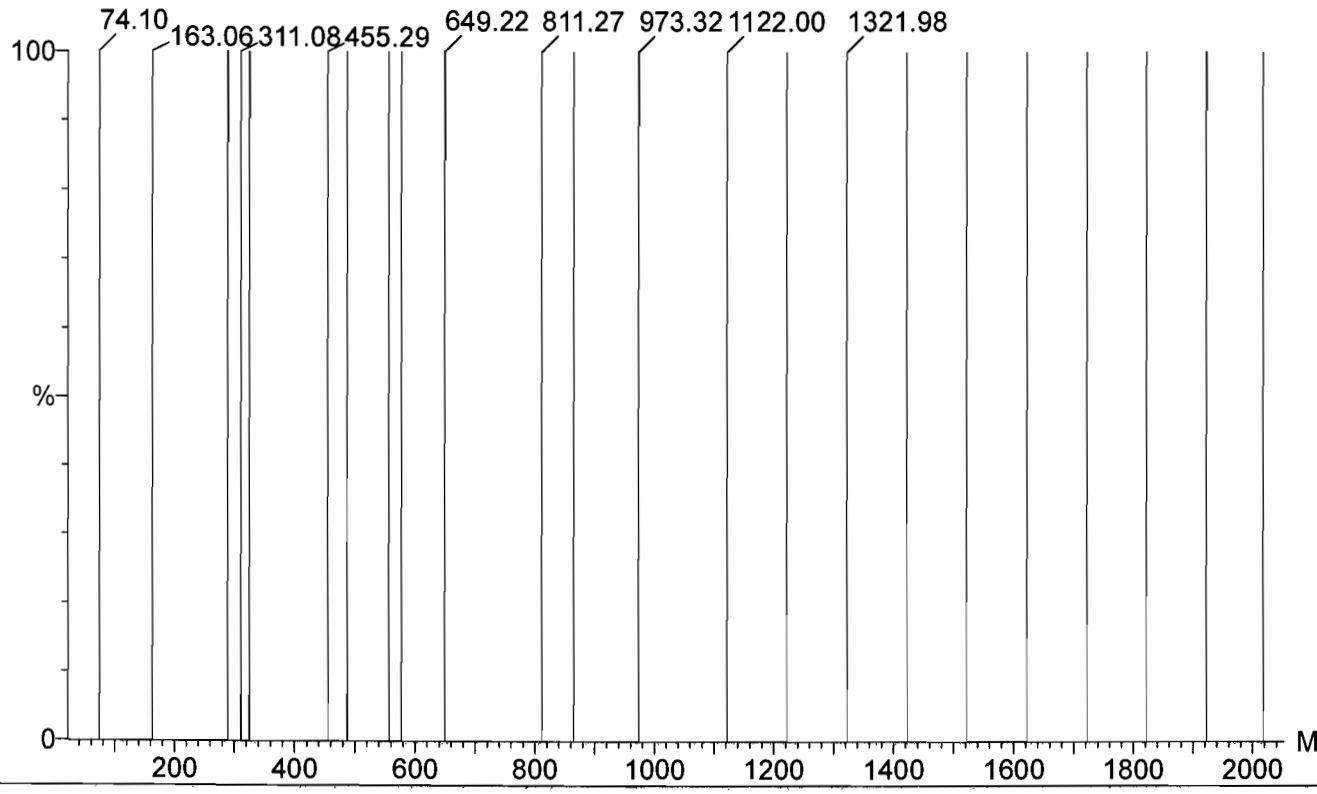
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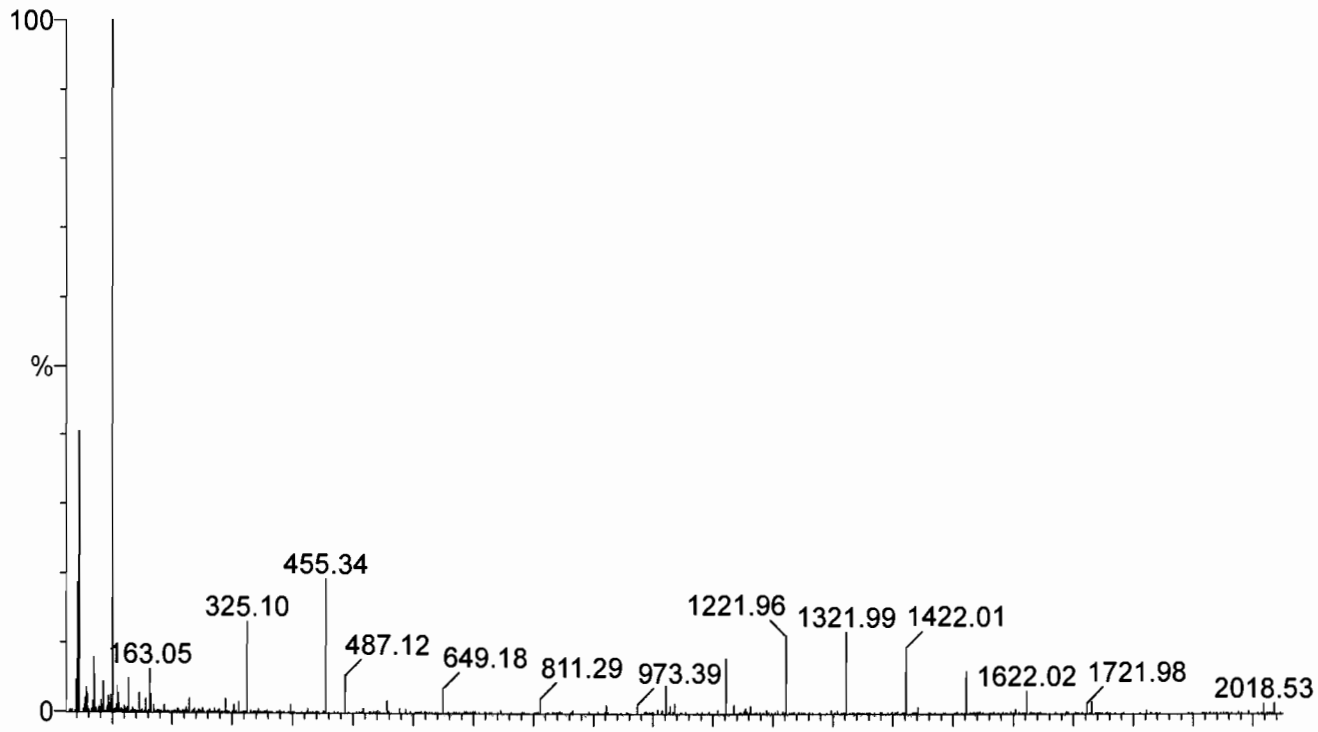
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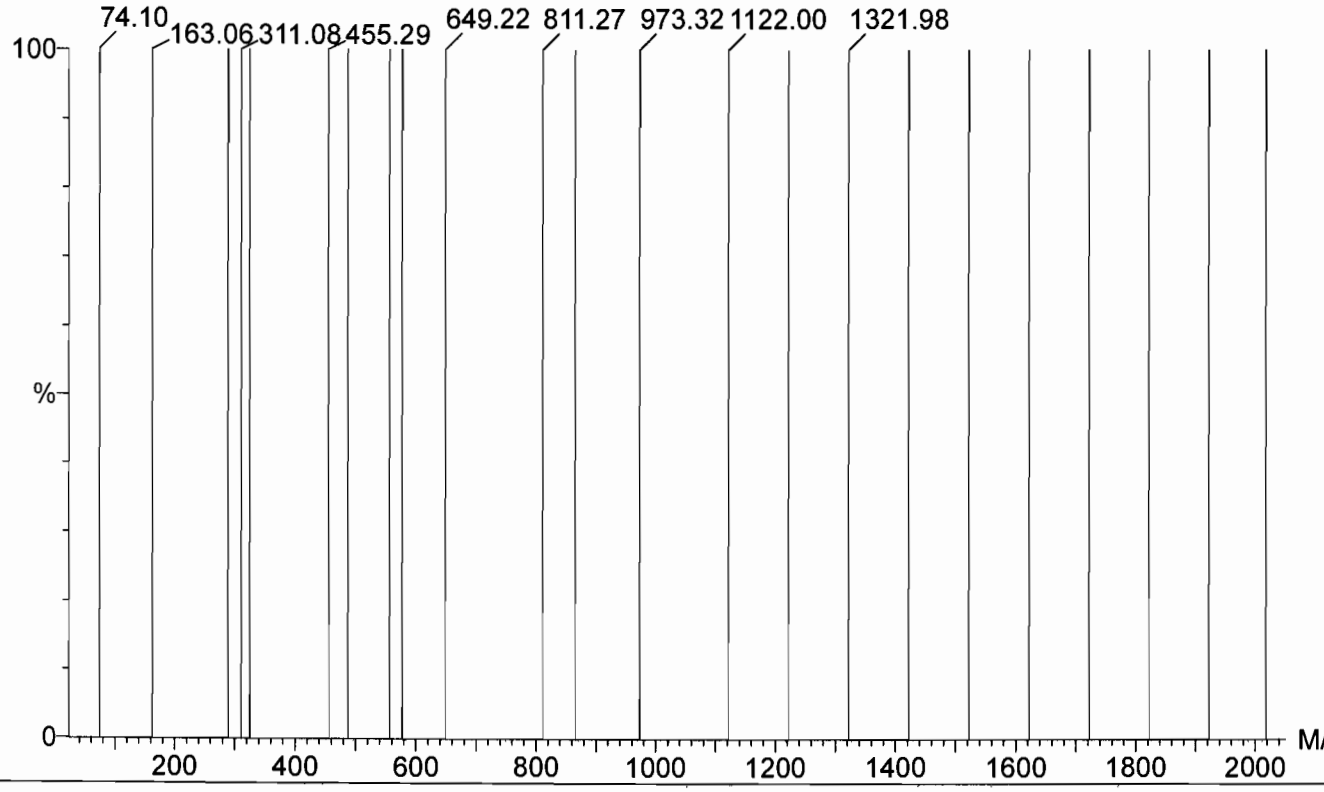
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Data file: FASTMS2V - Calibrated 23 matches of 23 tested references



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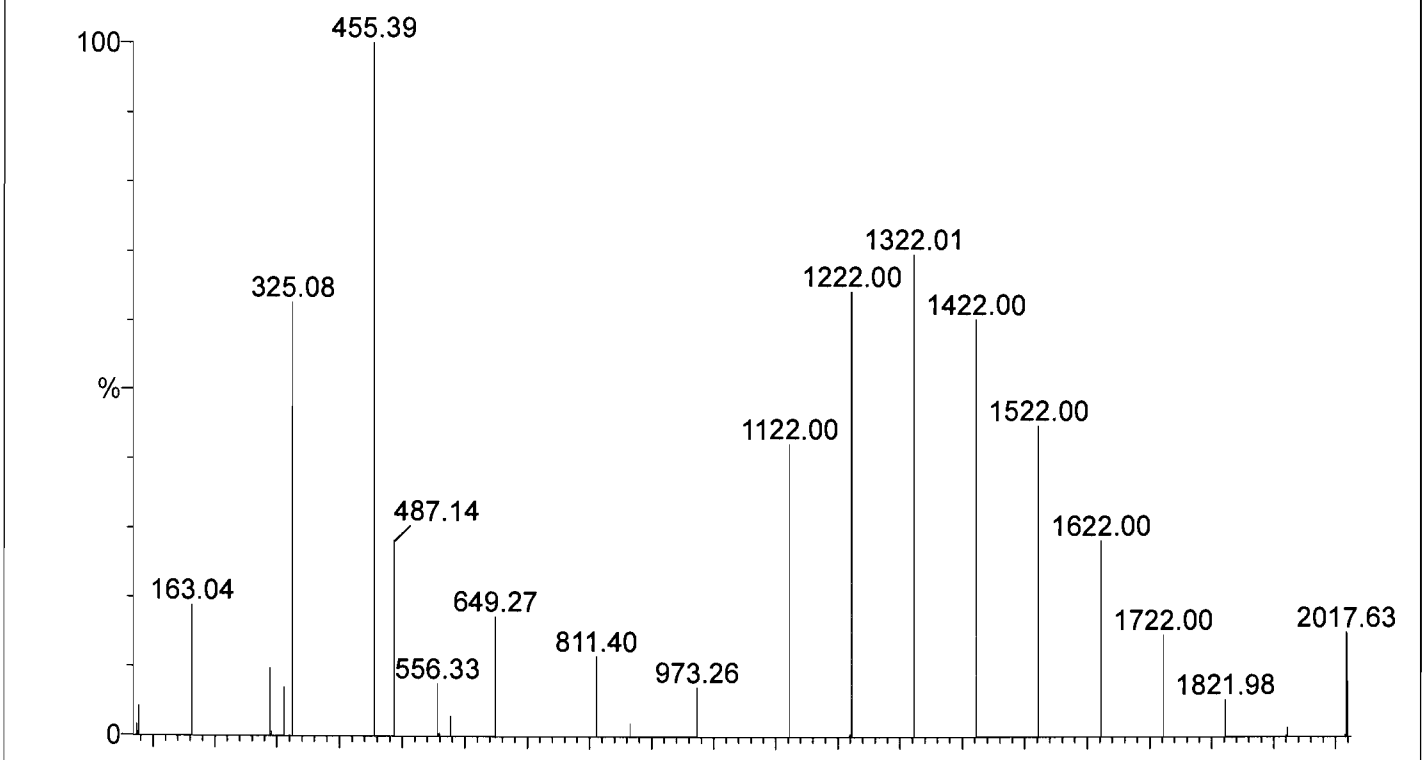
(M) Q4_07-19-19

07/19/19 Cell 7/19/19

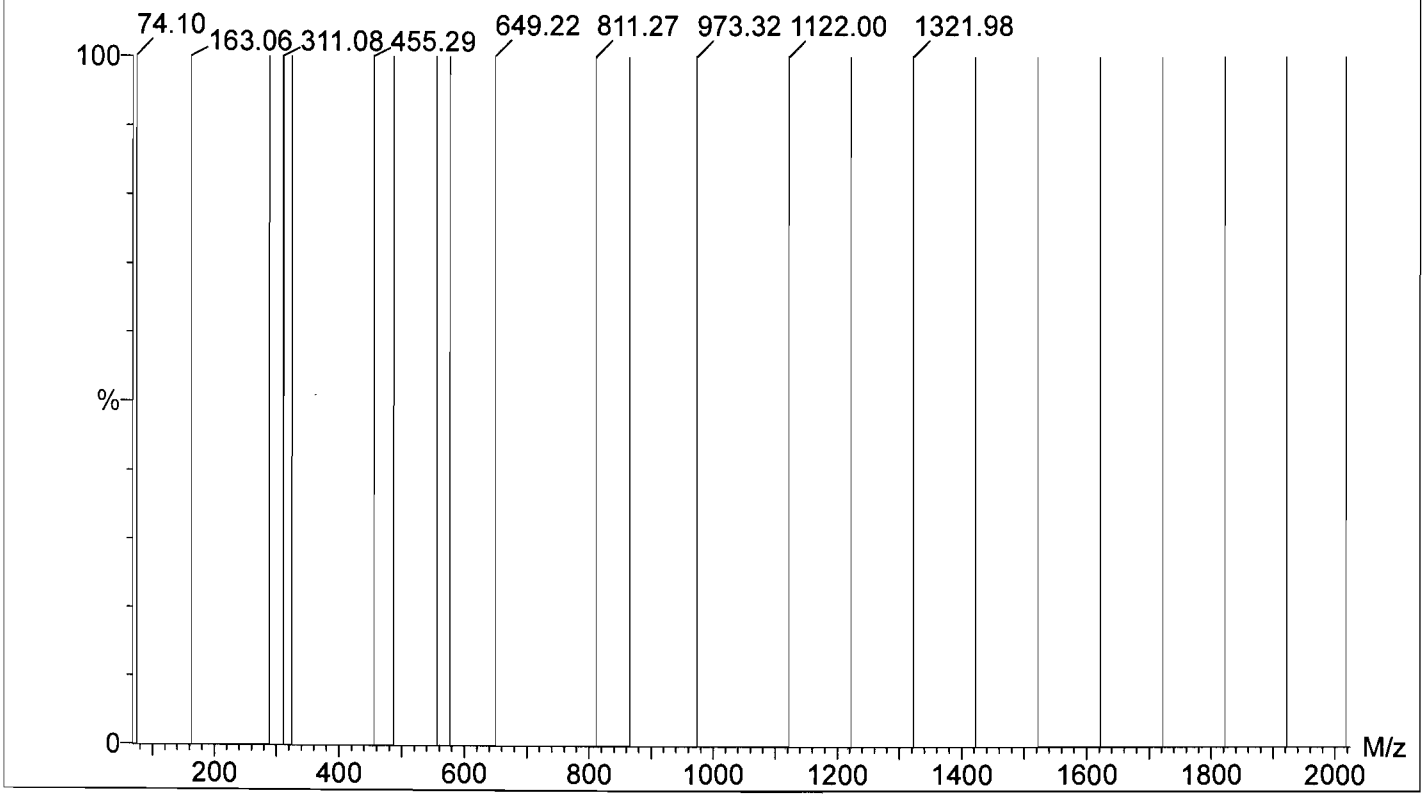
Calibration Verification Report - MS1 Static

Printed: **Fri Jul 19 07:48:03 2019**

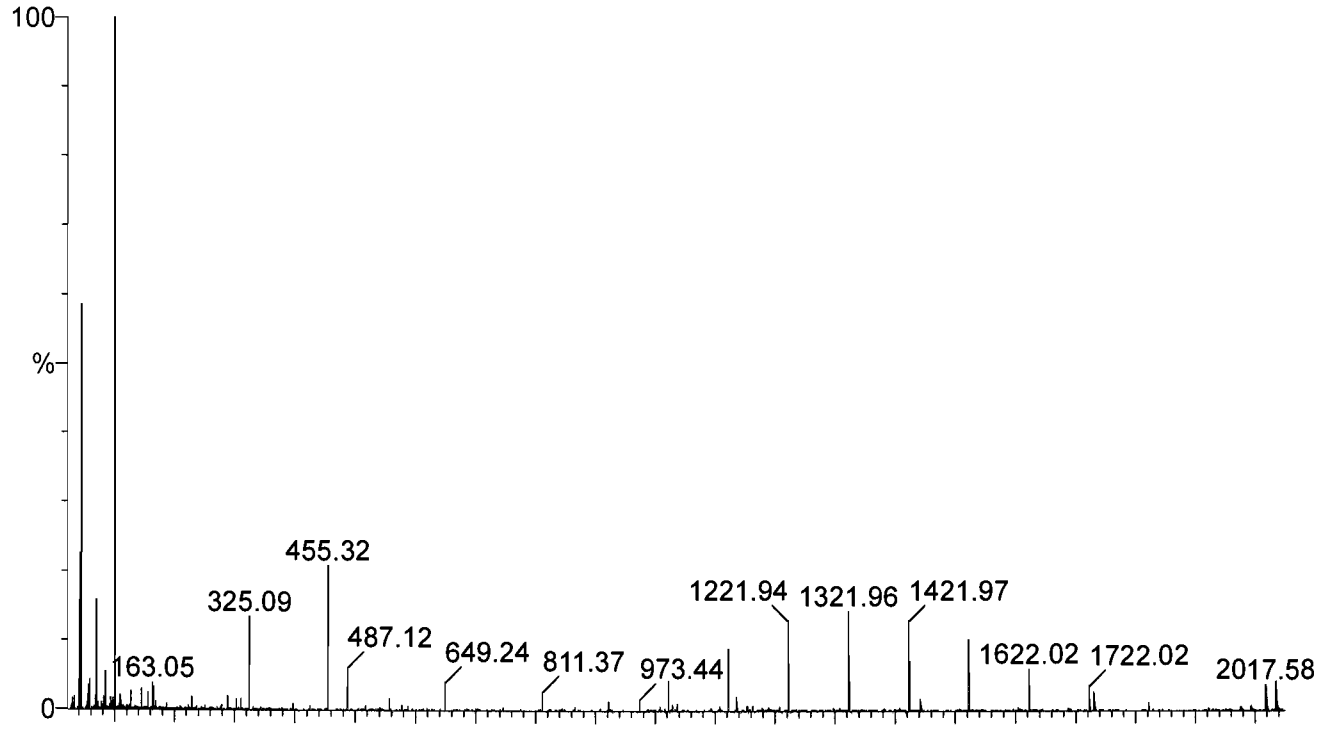
Data file: STATMS1V - Calibrated 23 matches of 23 tested references



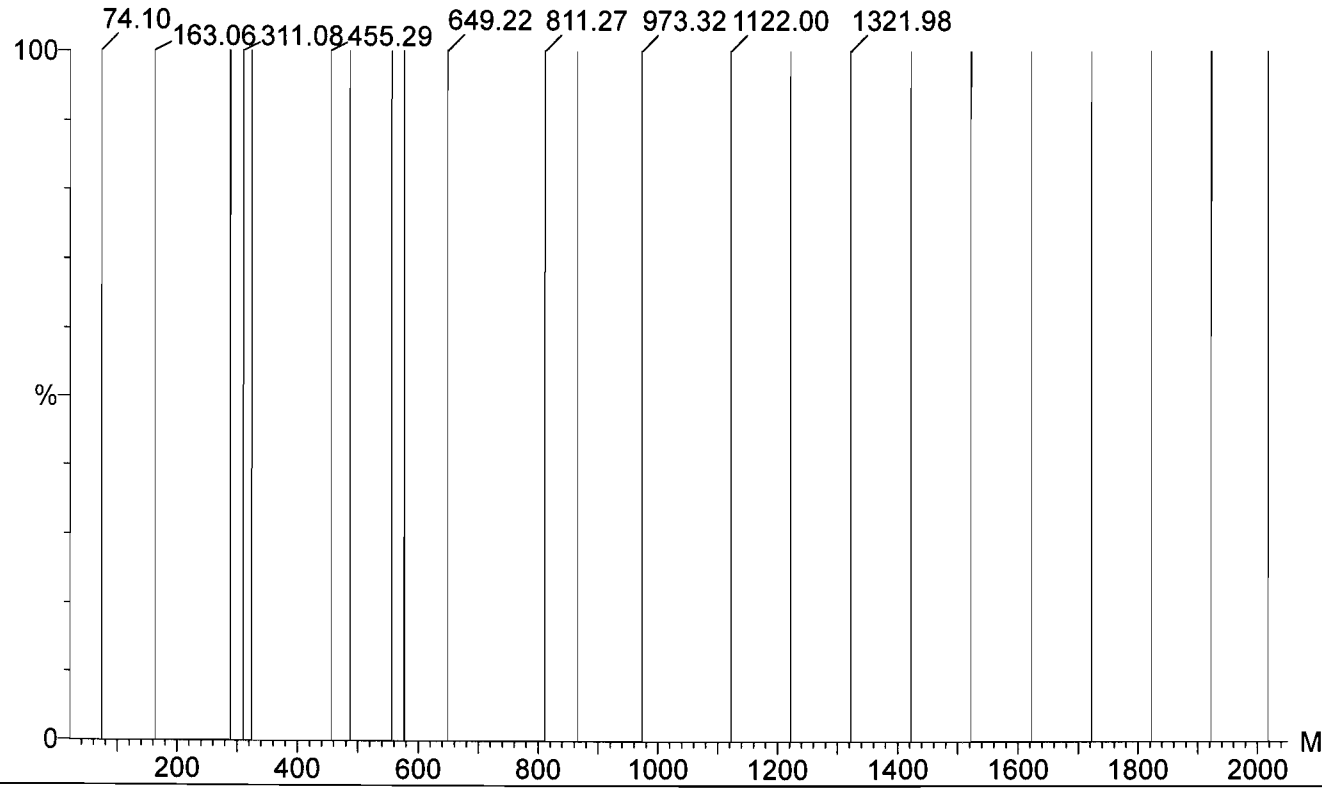
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0379 amu



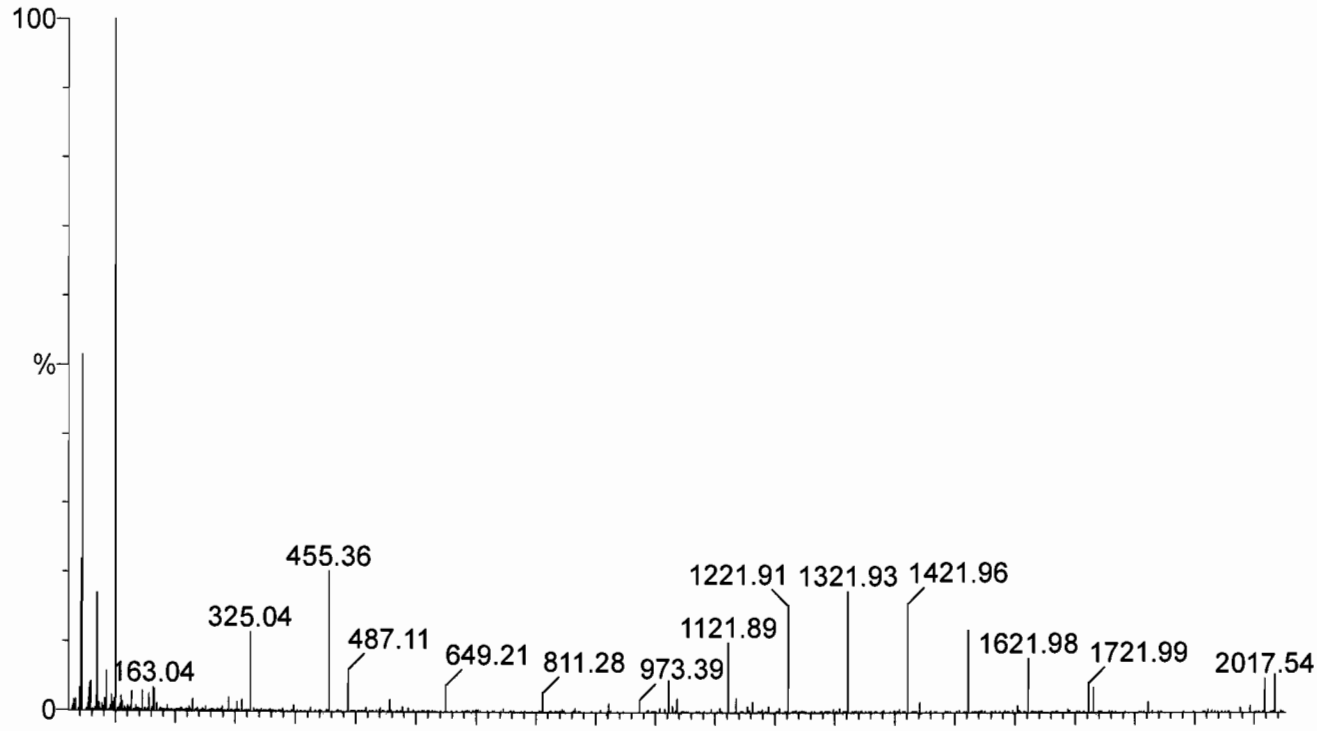
Data file: SCNMS1V - Calibrated 23 matches of 23 tested references



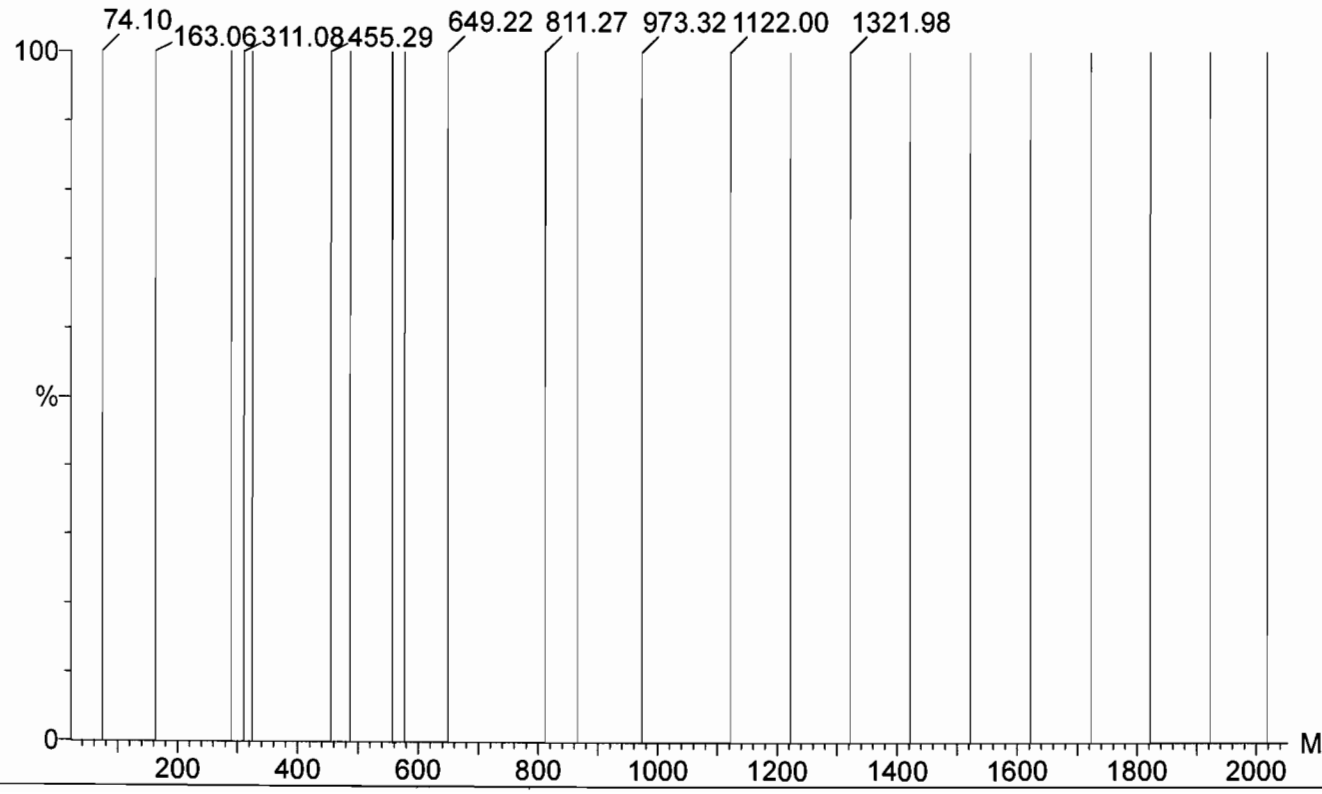
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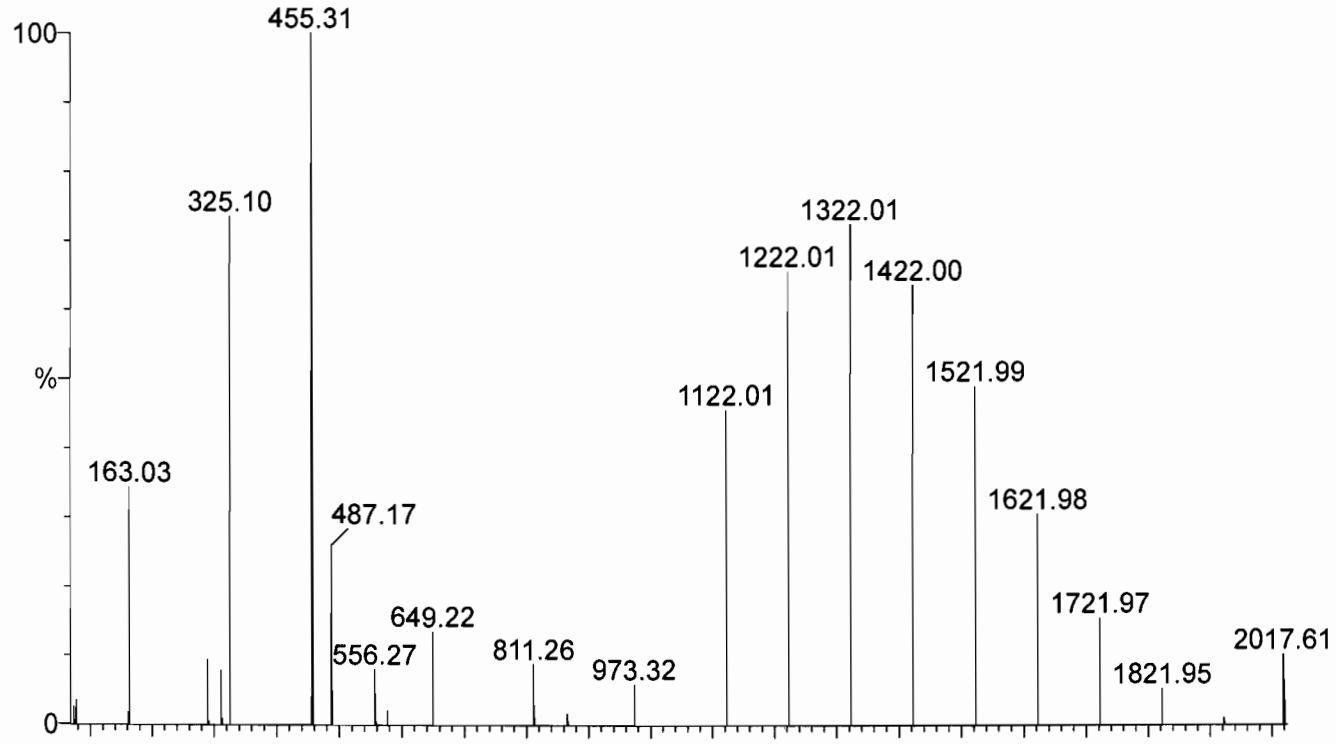
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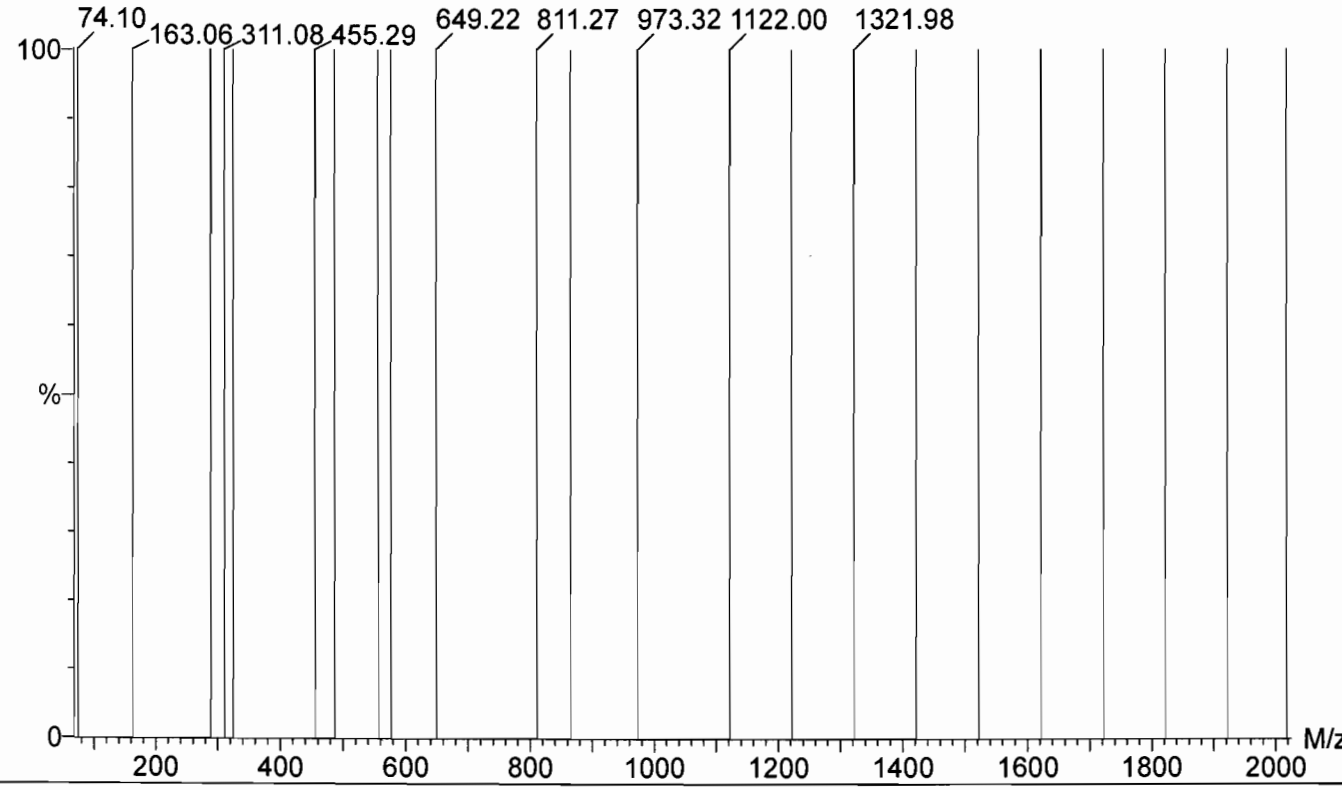
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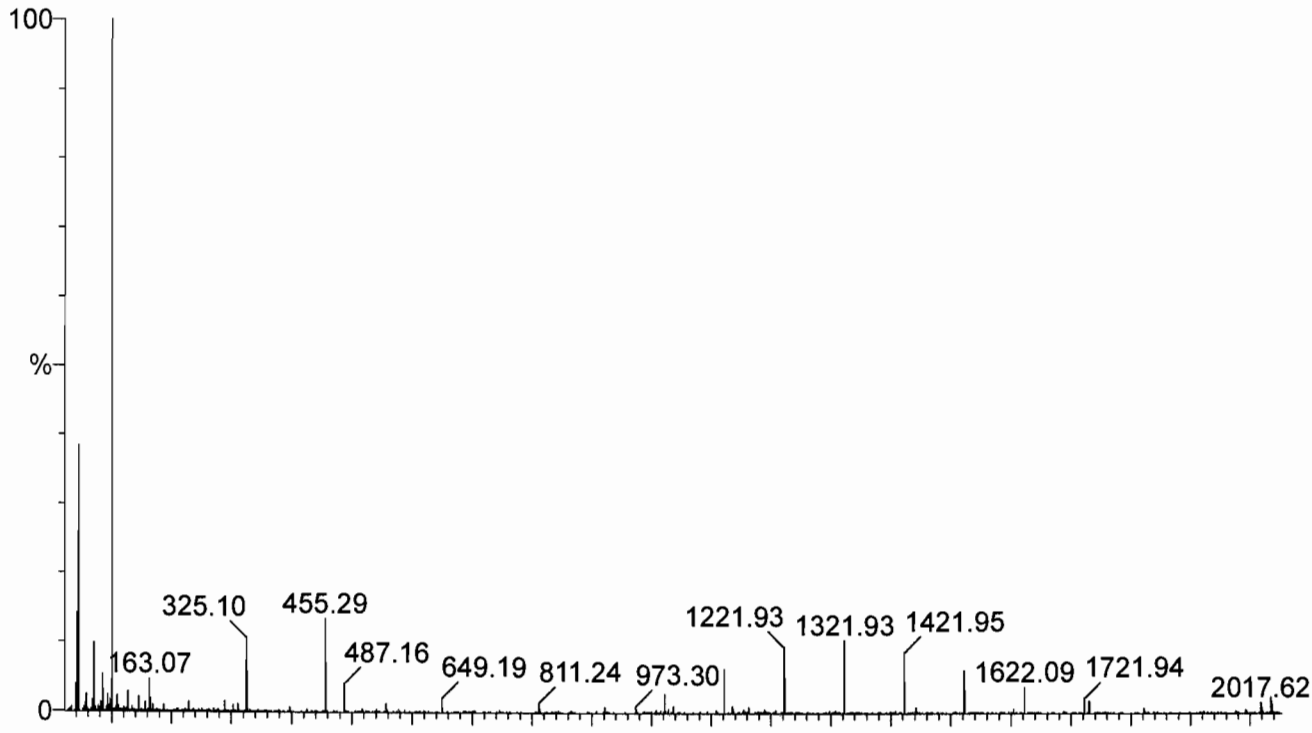
Data file: STATMS2V - Calibrated 23 matches of 23 tested references



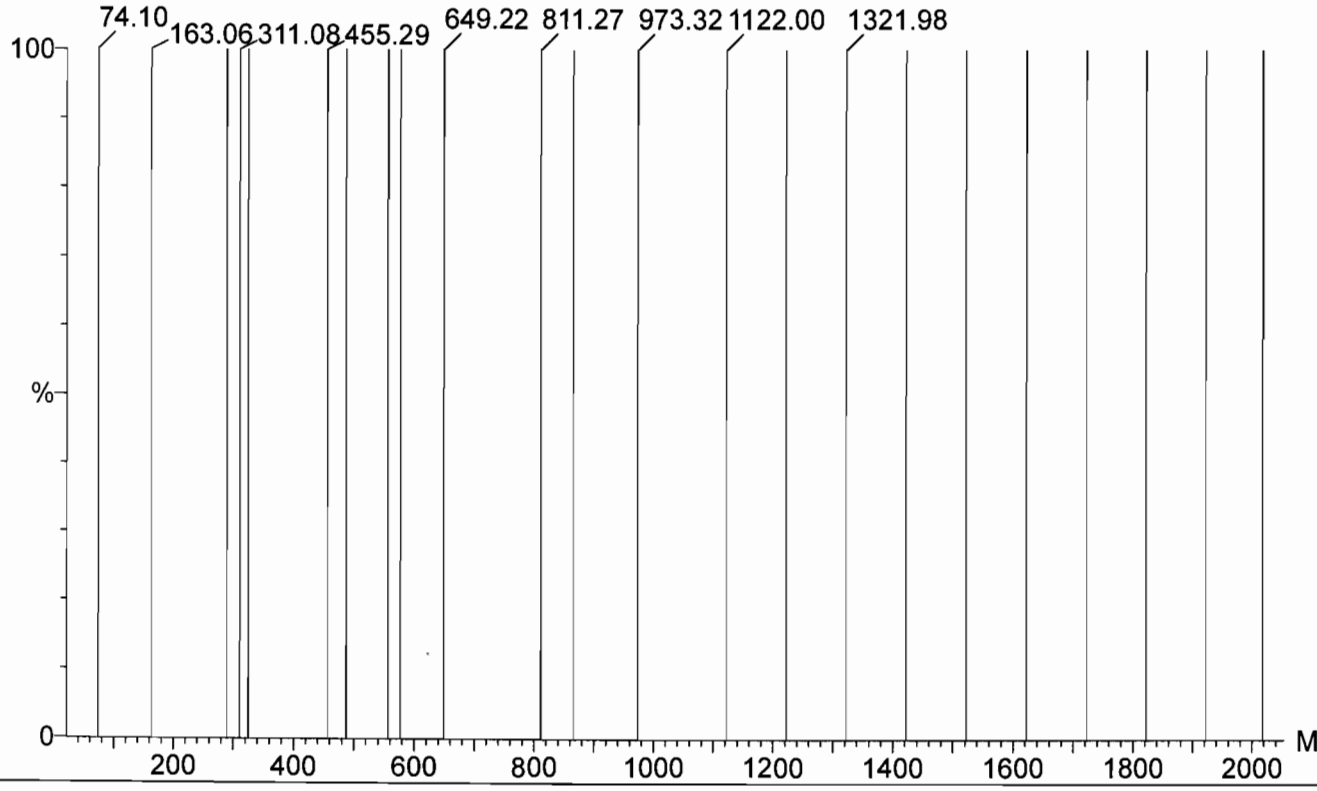
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Data file: SCNMS2V - Calibrated 23 matches of 23 tested references

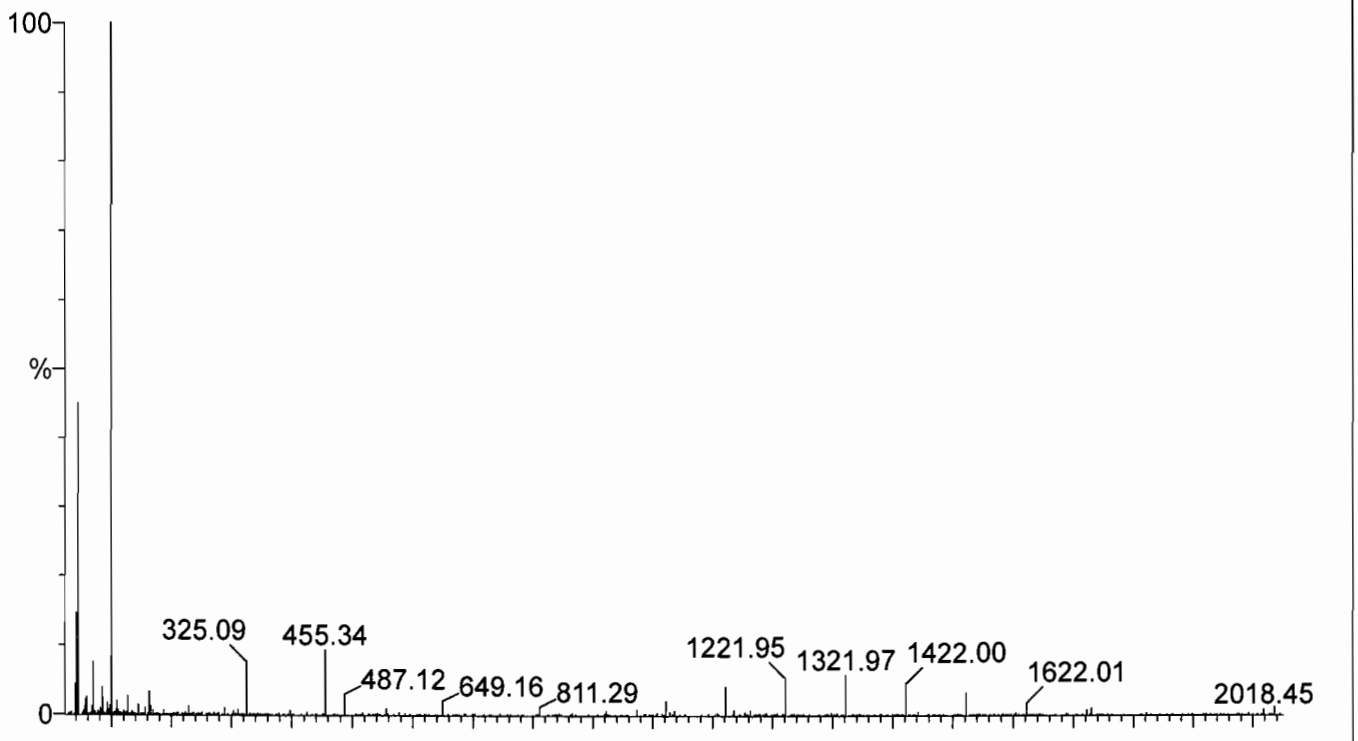


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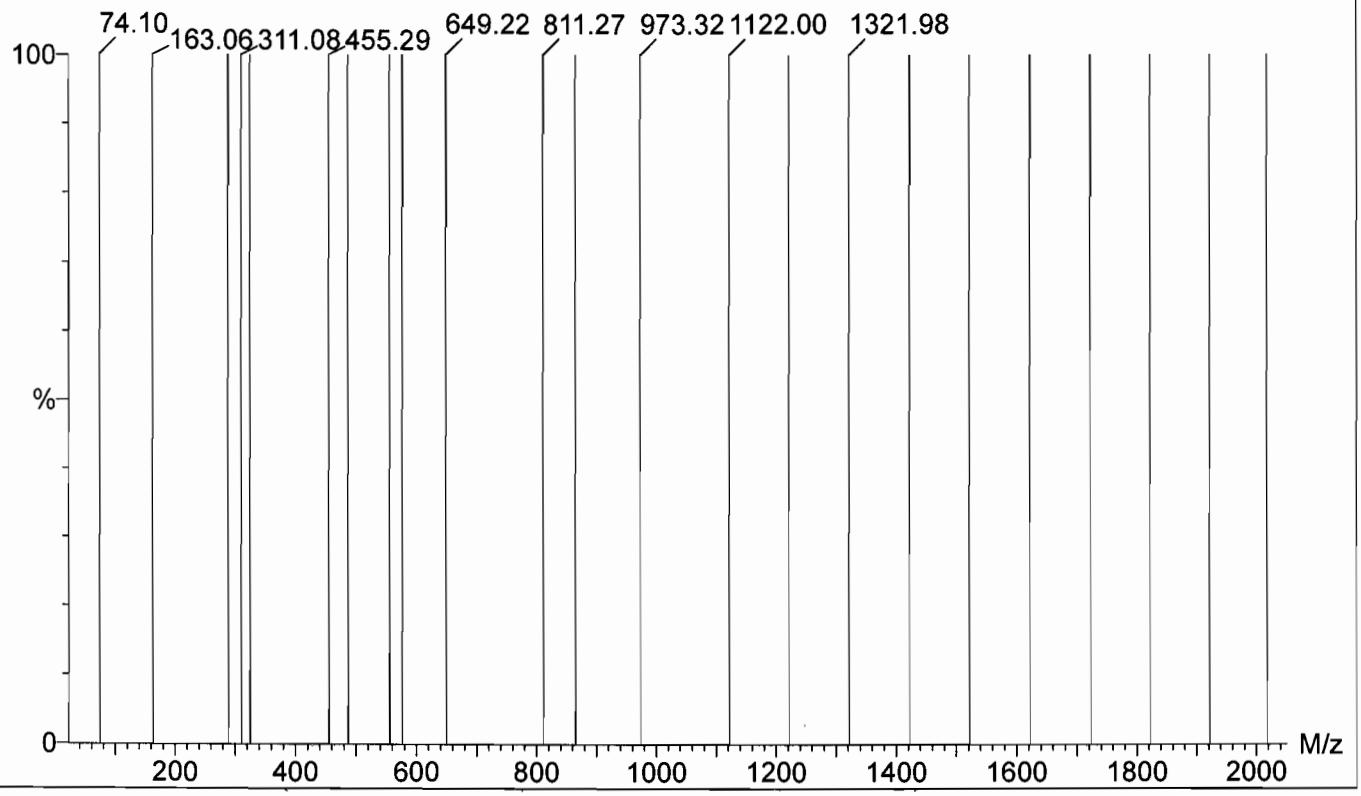


Printed: **Fri Jul 19 07:54:06 2019**

Data file: FASTMS2V - Calibrated 23 matches of 23 tested references



Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0729 amu



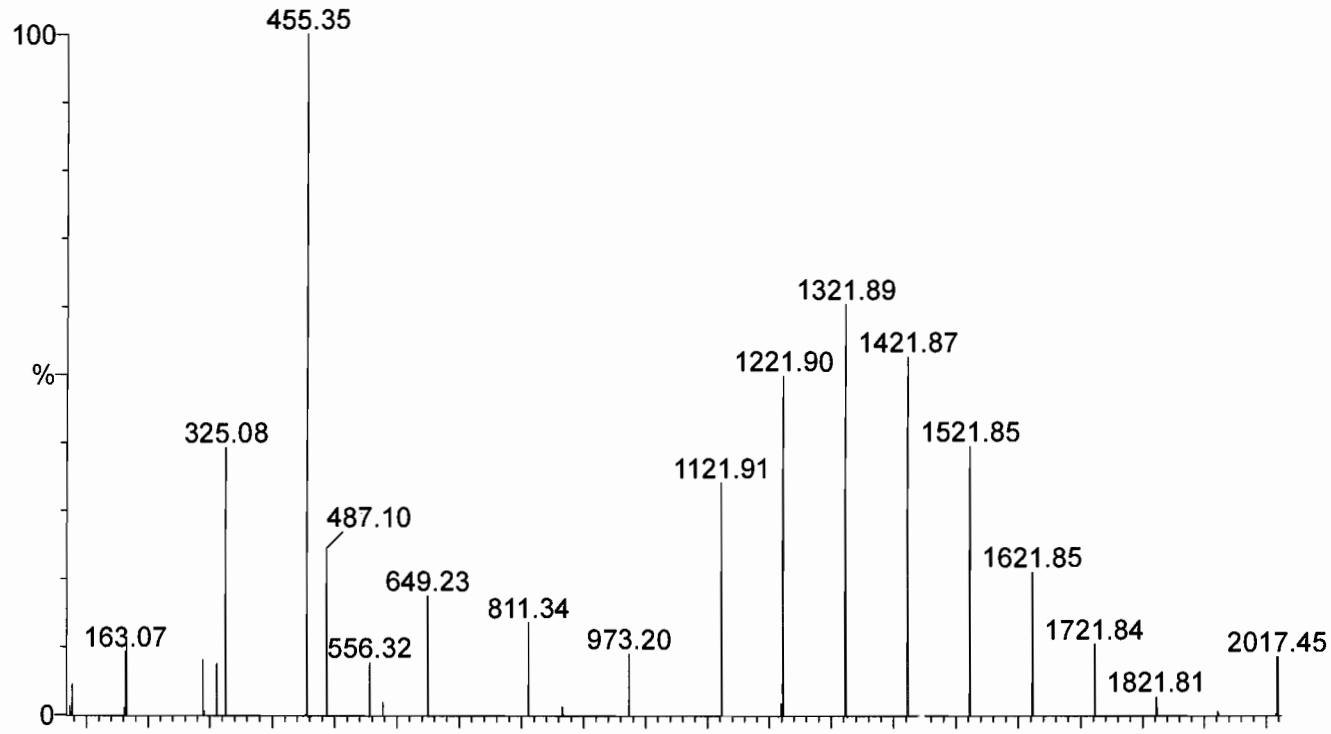
Q4 Tune check 07-249

20190715a

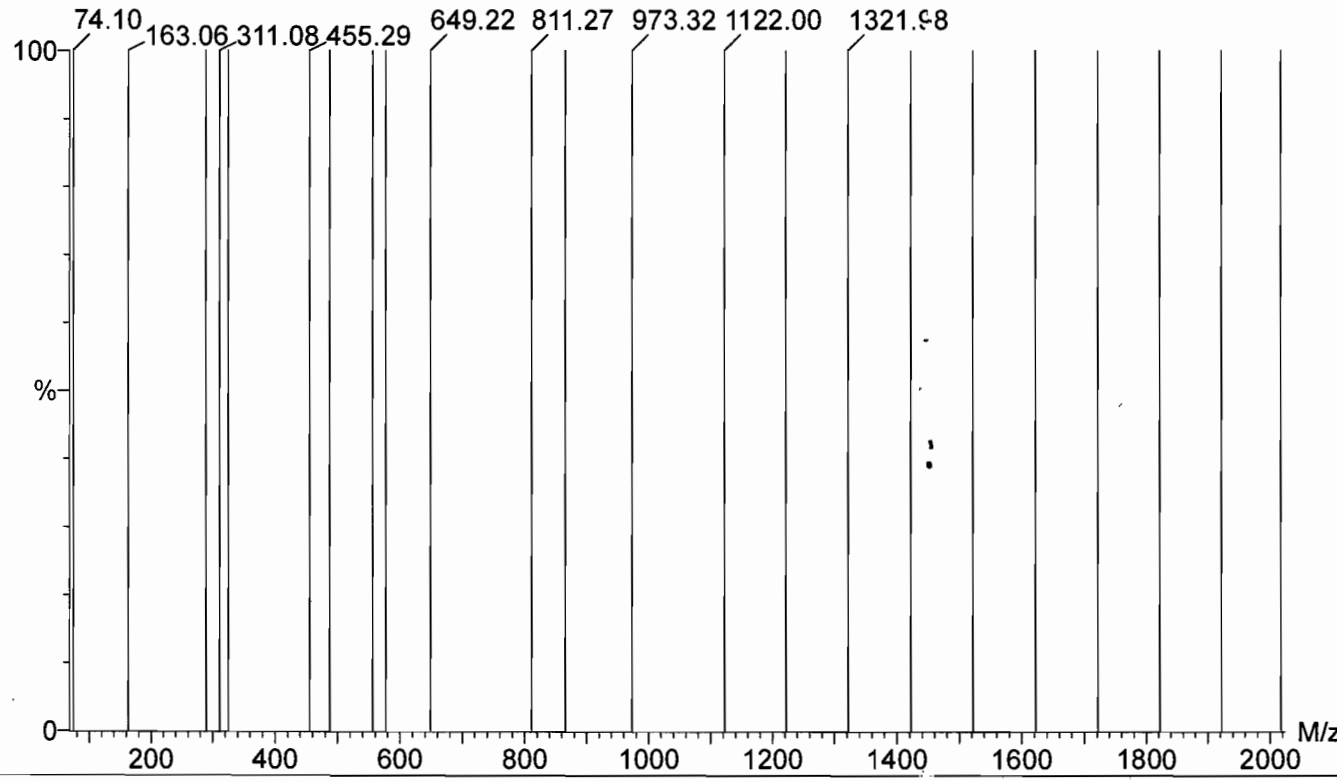
Calibration Verification Report - MS1 Static

Printed: **Sun Jul 21 18:18:30 2019**

Data file: STATMS1V - Calibrated 23 matches of 23 tested references

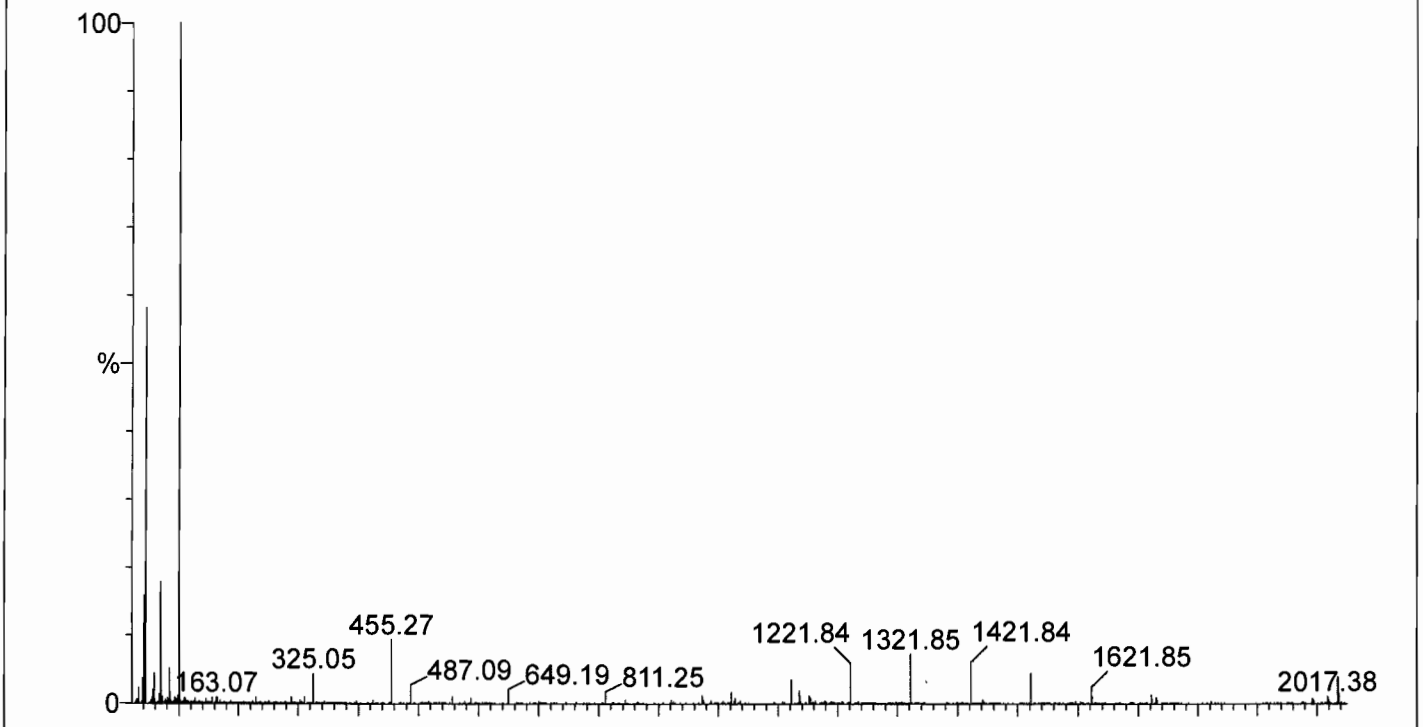


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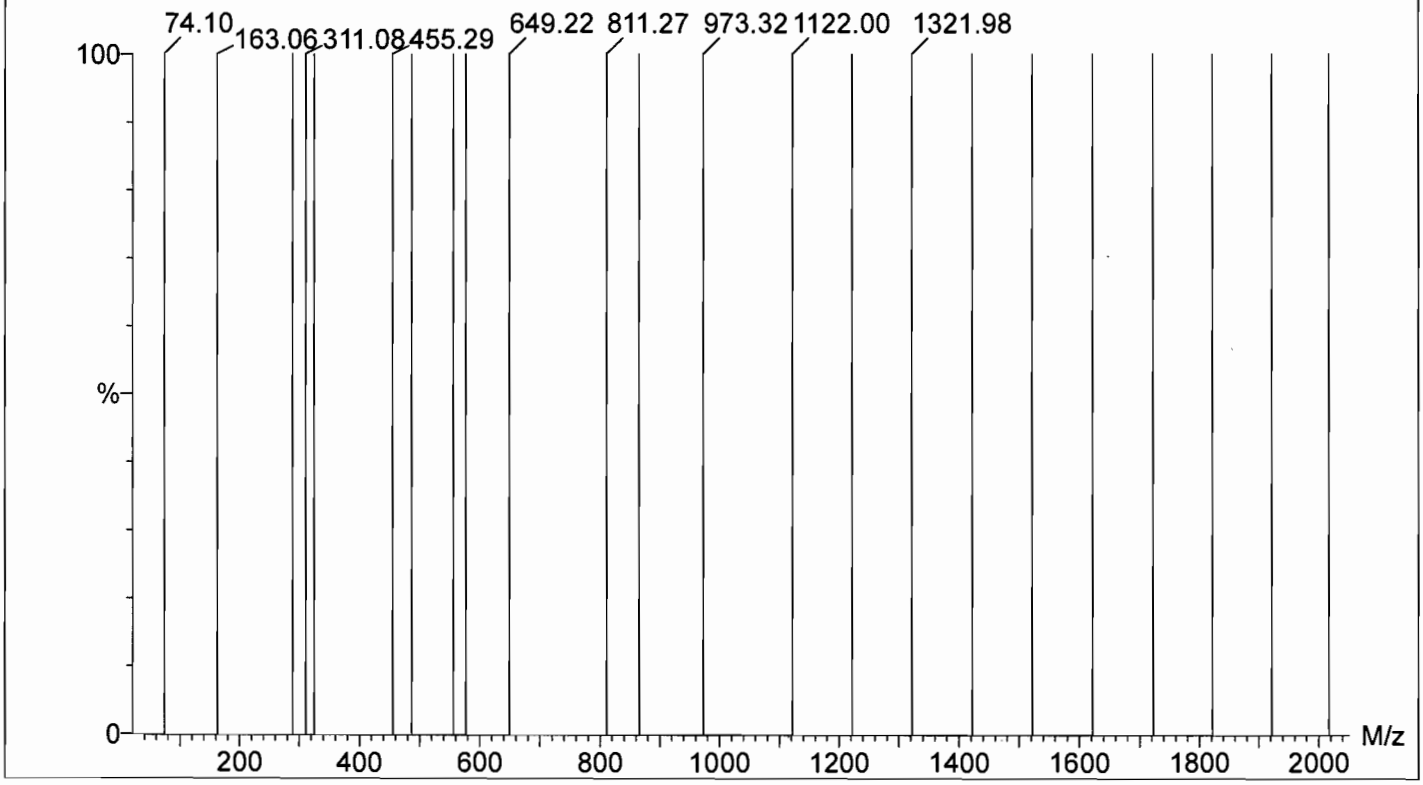


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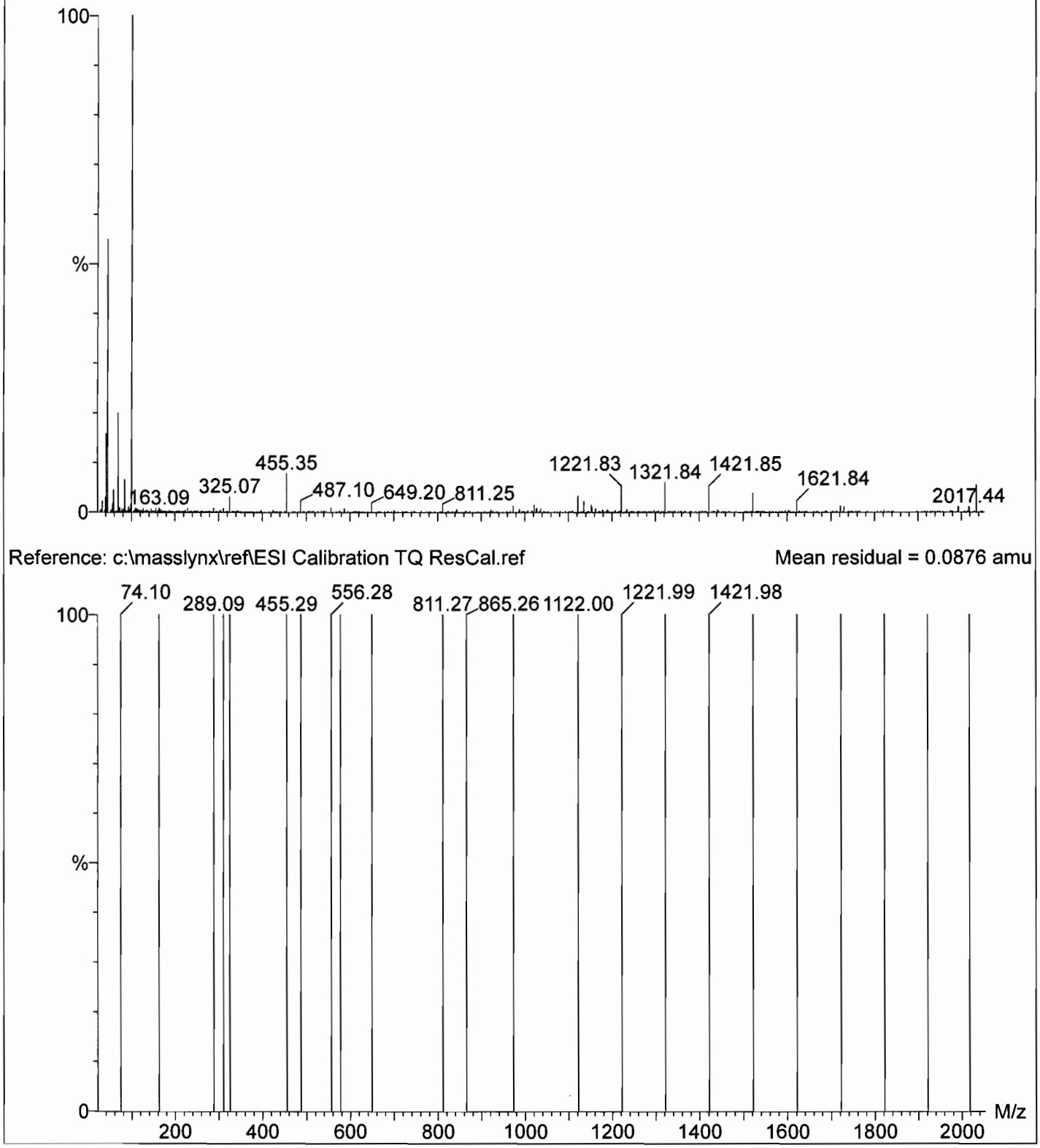


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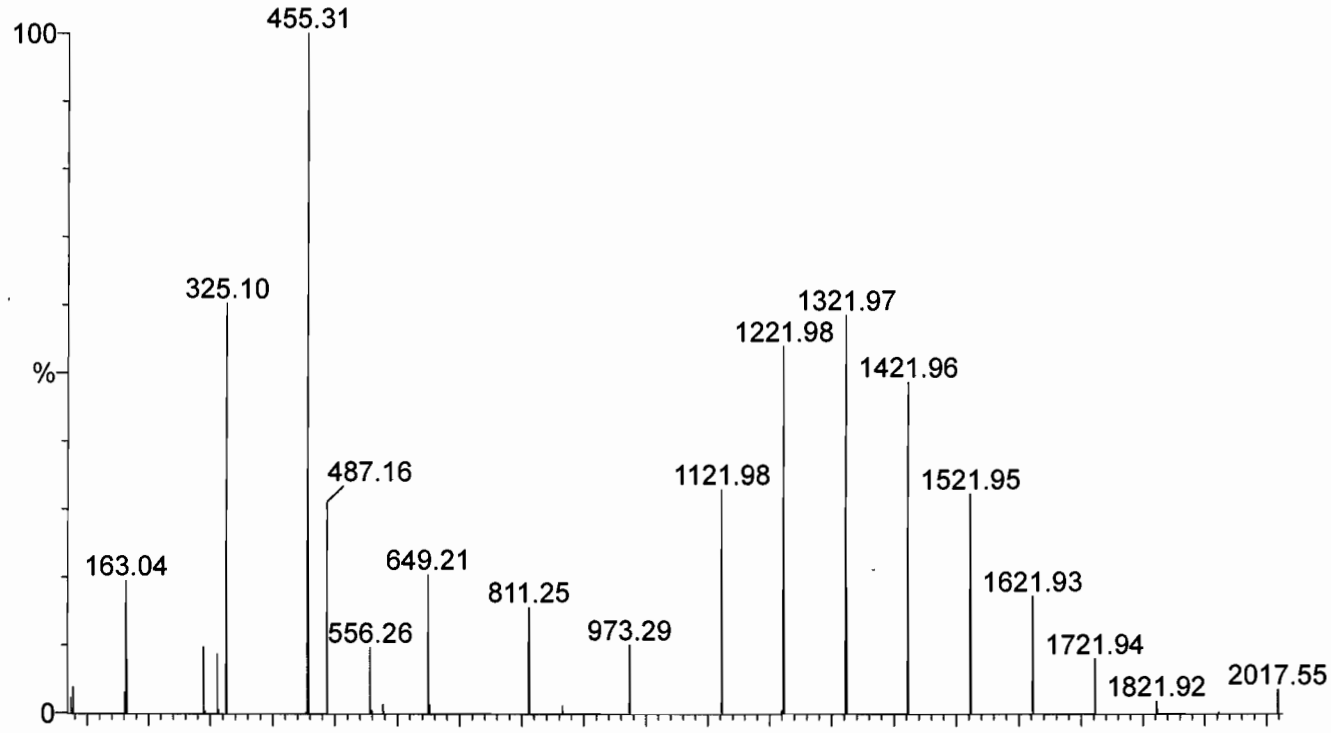


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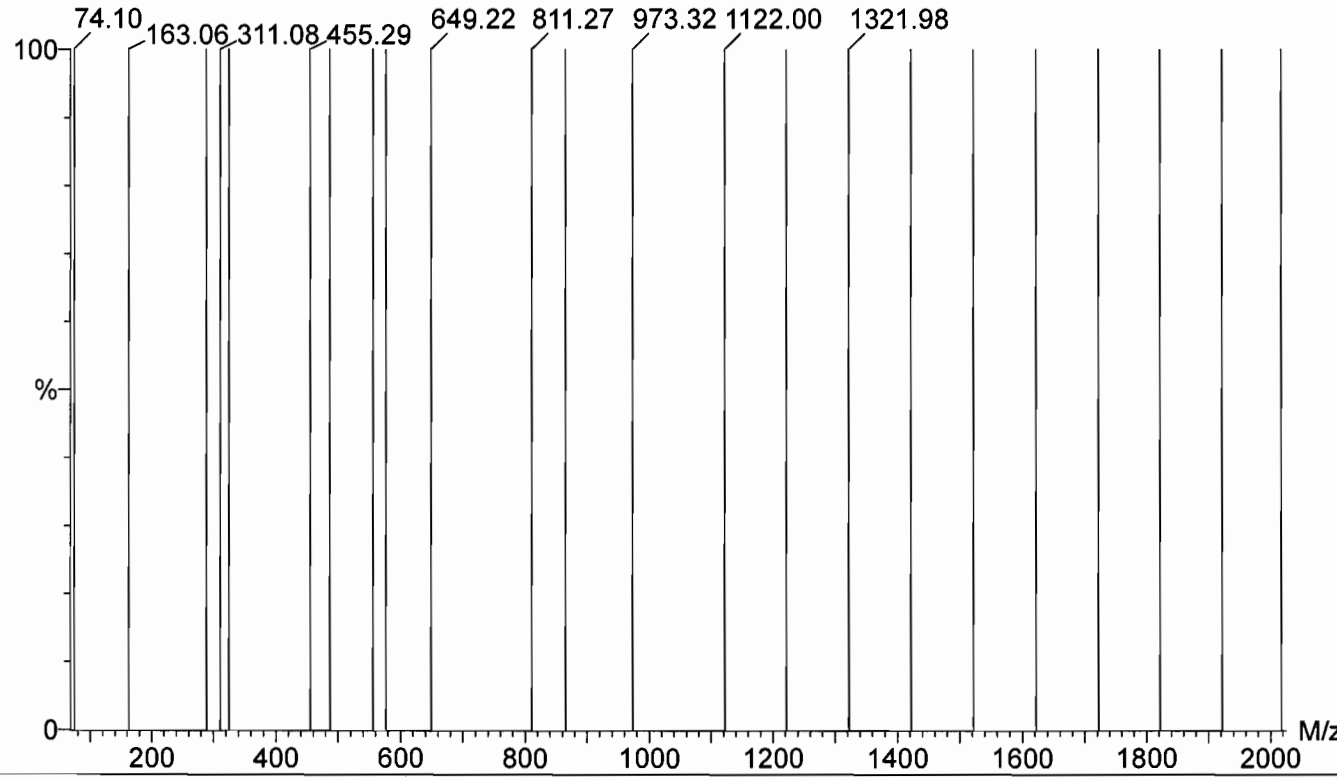
Data file: FASTMS1V - Calibrated 23 matches of 23 tested references



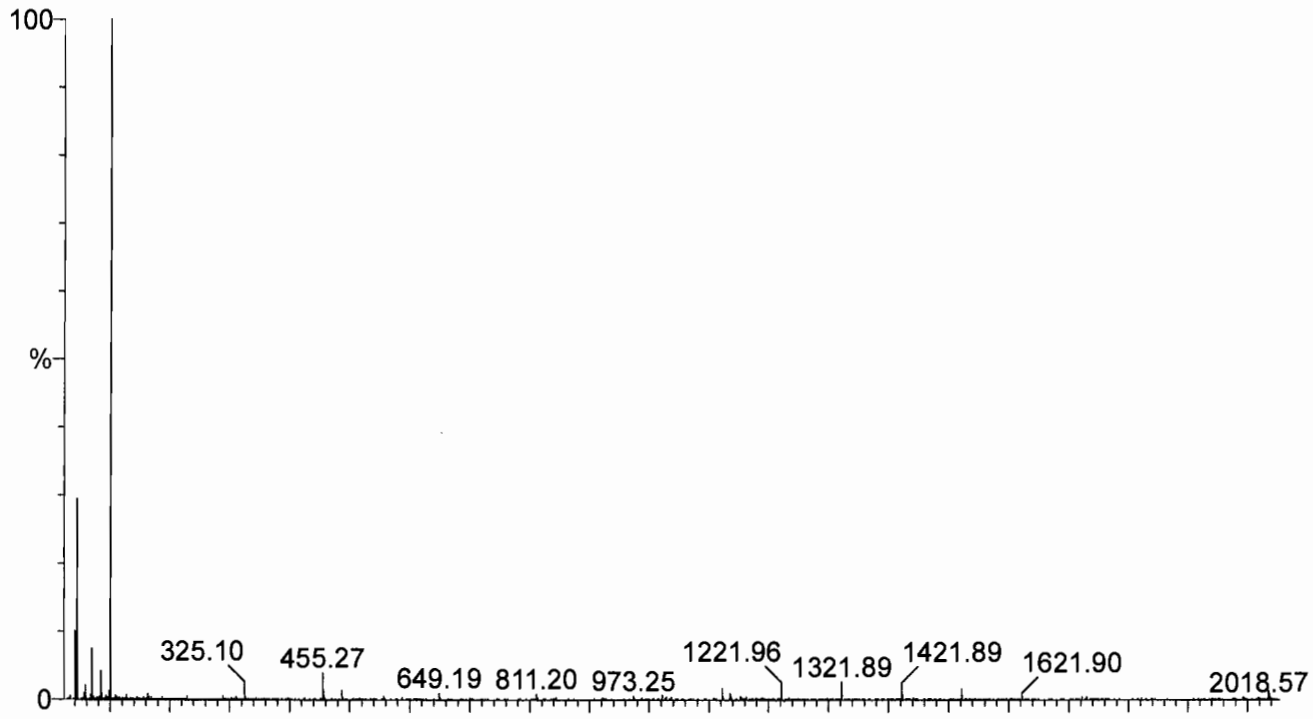
Data file: STATMS2V - Calibrated 23 matches of 23 tested references



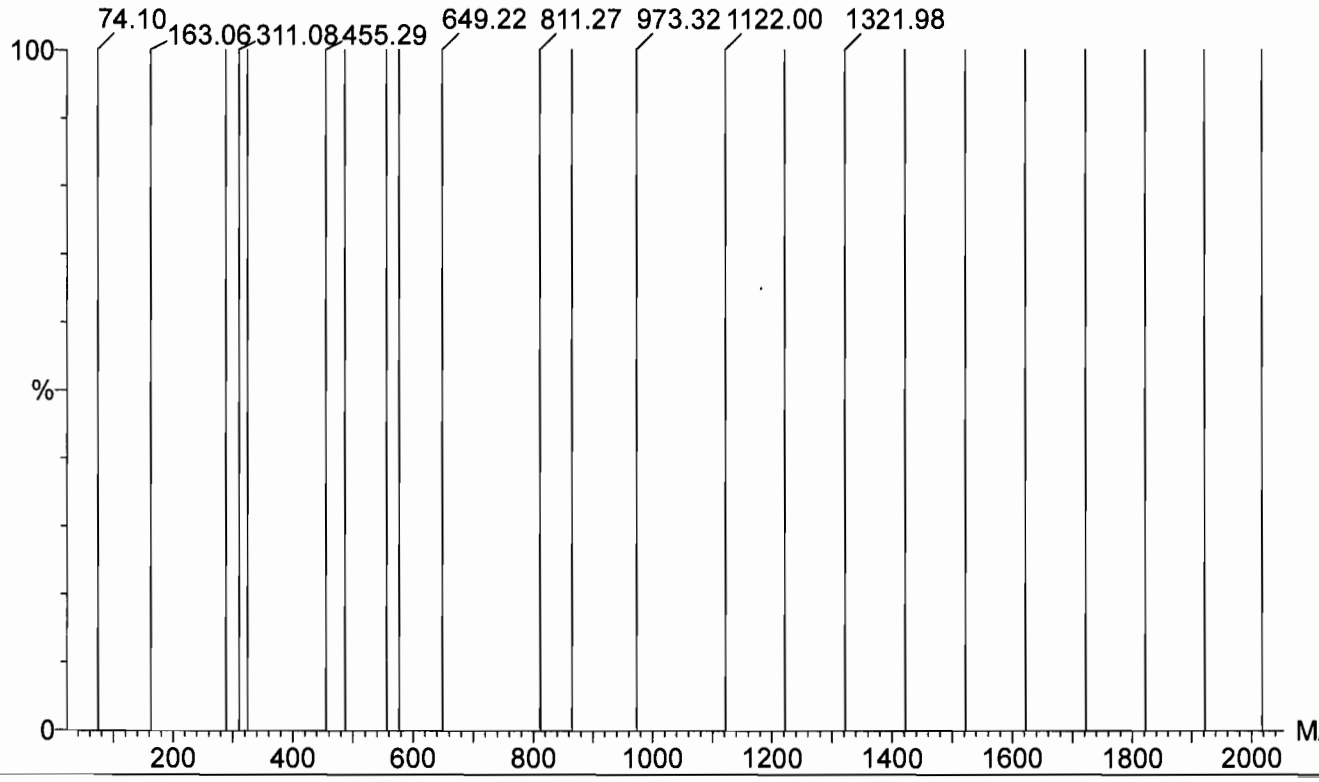
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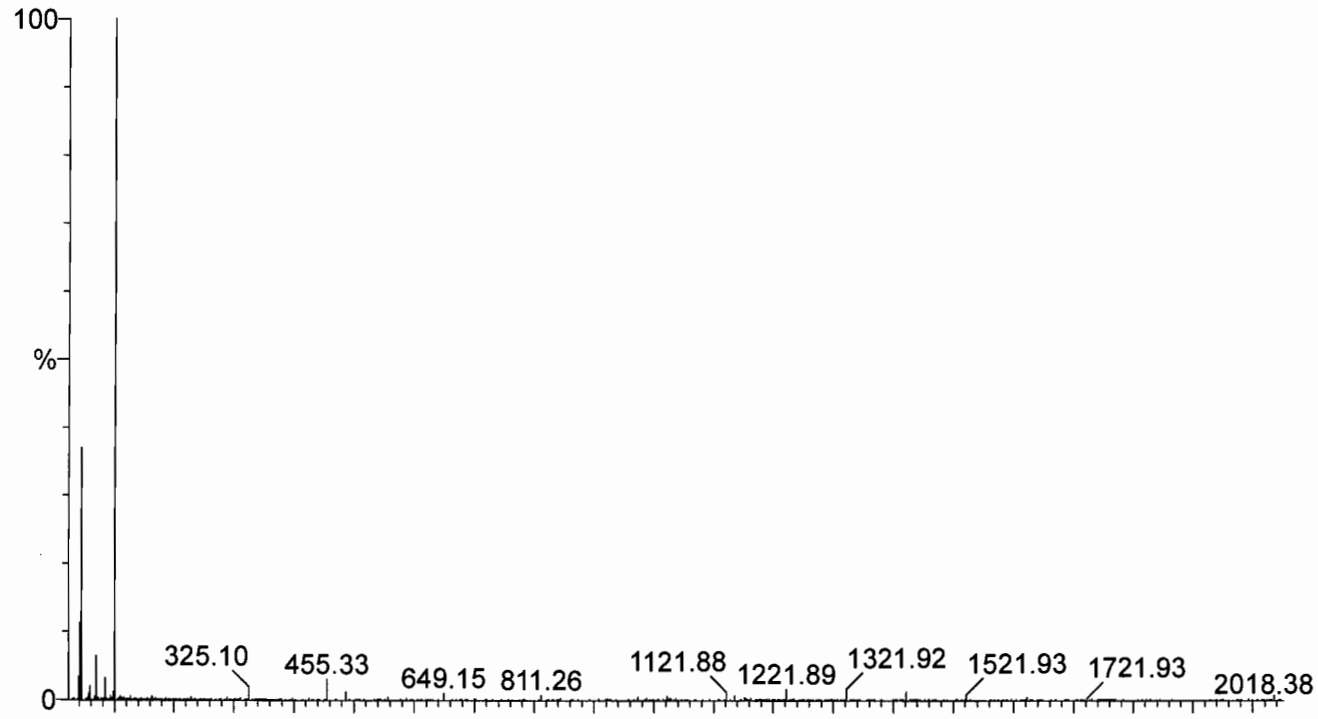
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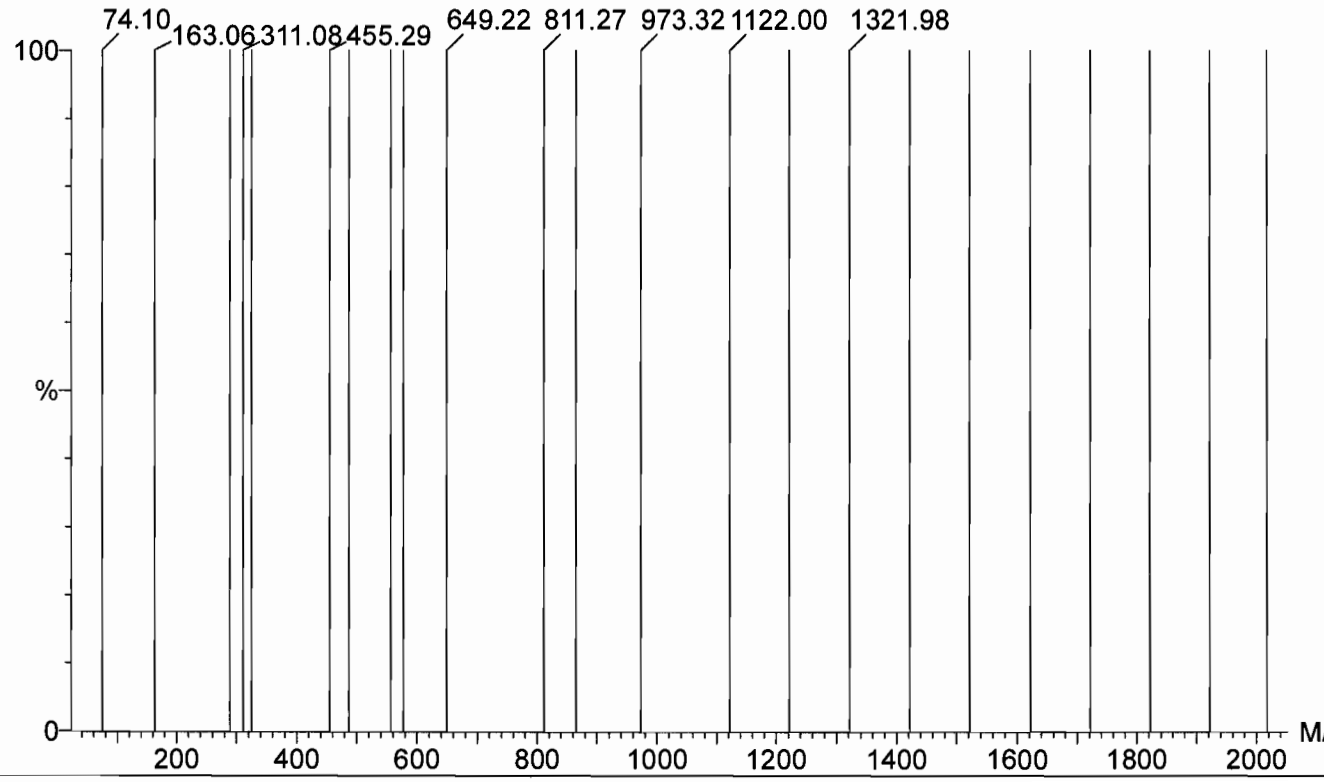
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Data file: FASTMS2V - Calibrated 22 matches of 23 tested references



Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0858 amu



Q4(M) 07-22-19

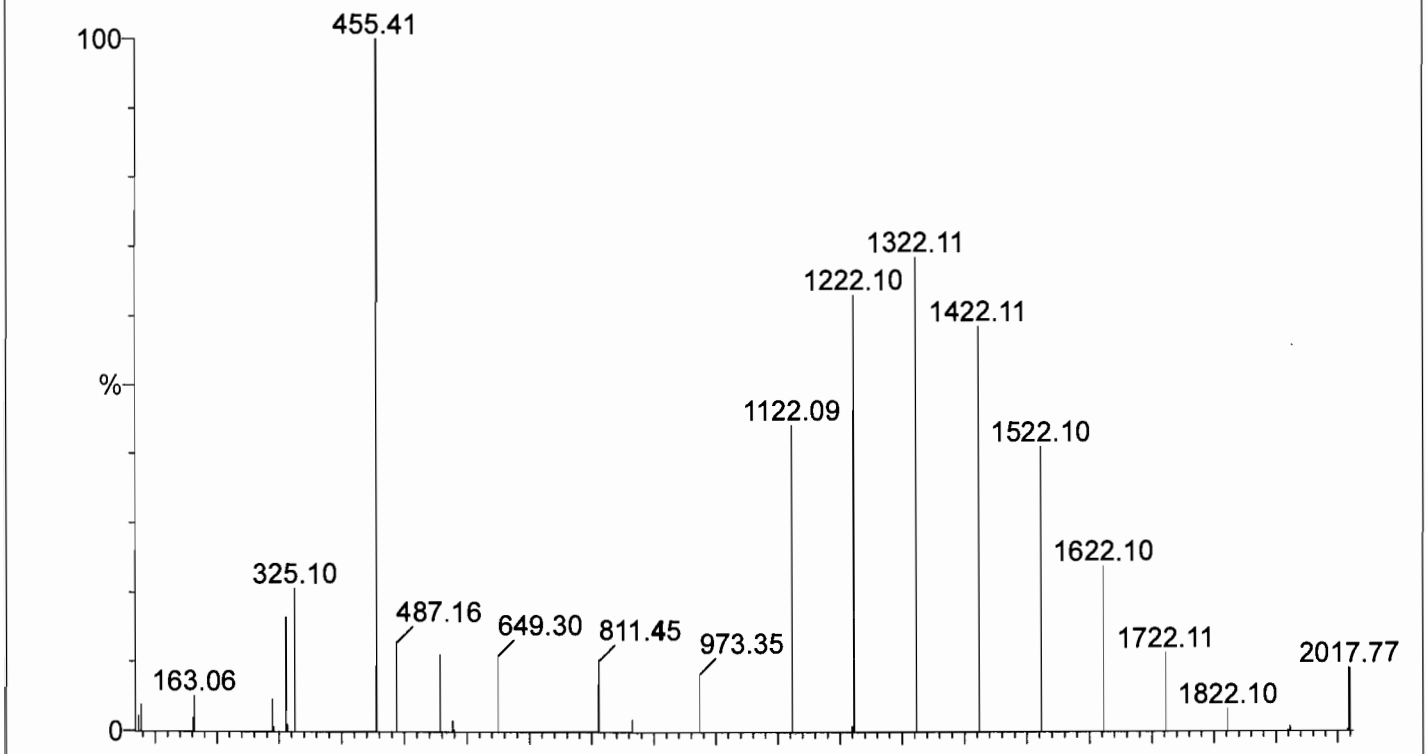
07/15/19 CCH 7/22/19

Calibration Verification Report - MS1 Static

Printed: **Mon Jul 22 09:46:06 2019**

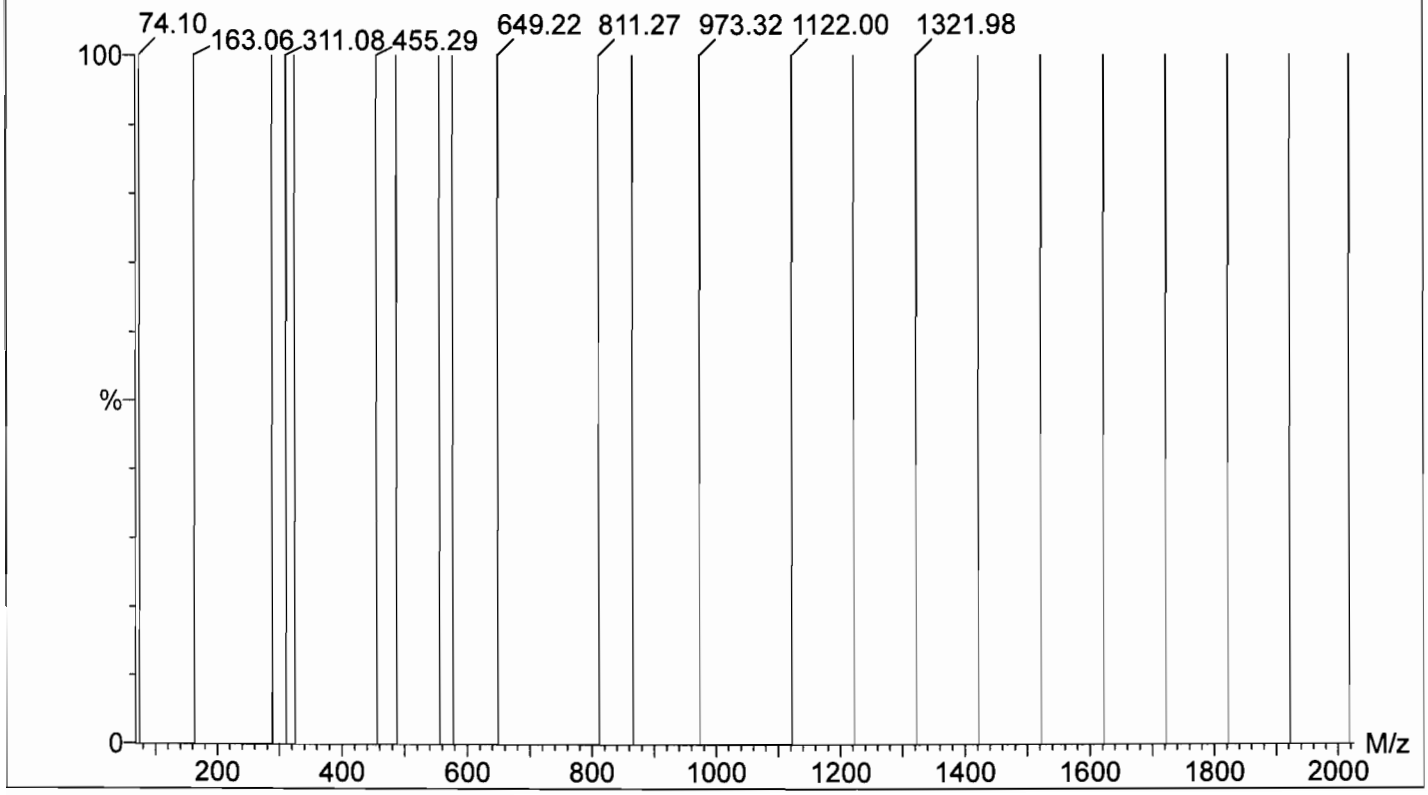
Data file: STATMS1V - Calibrated

23 matches of 23 tested references

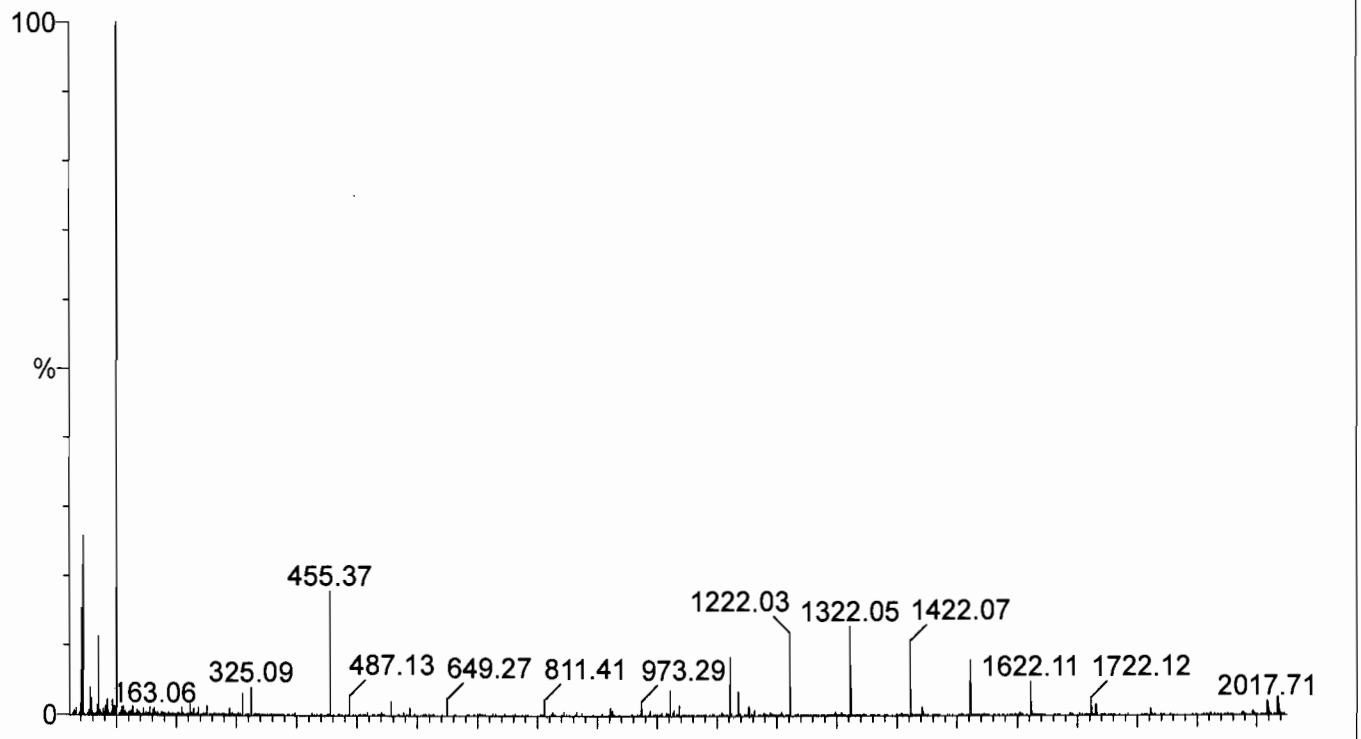


Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref

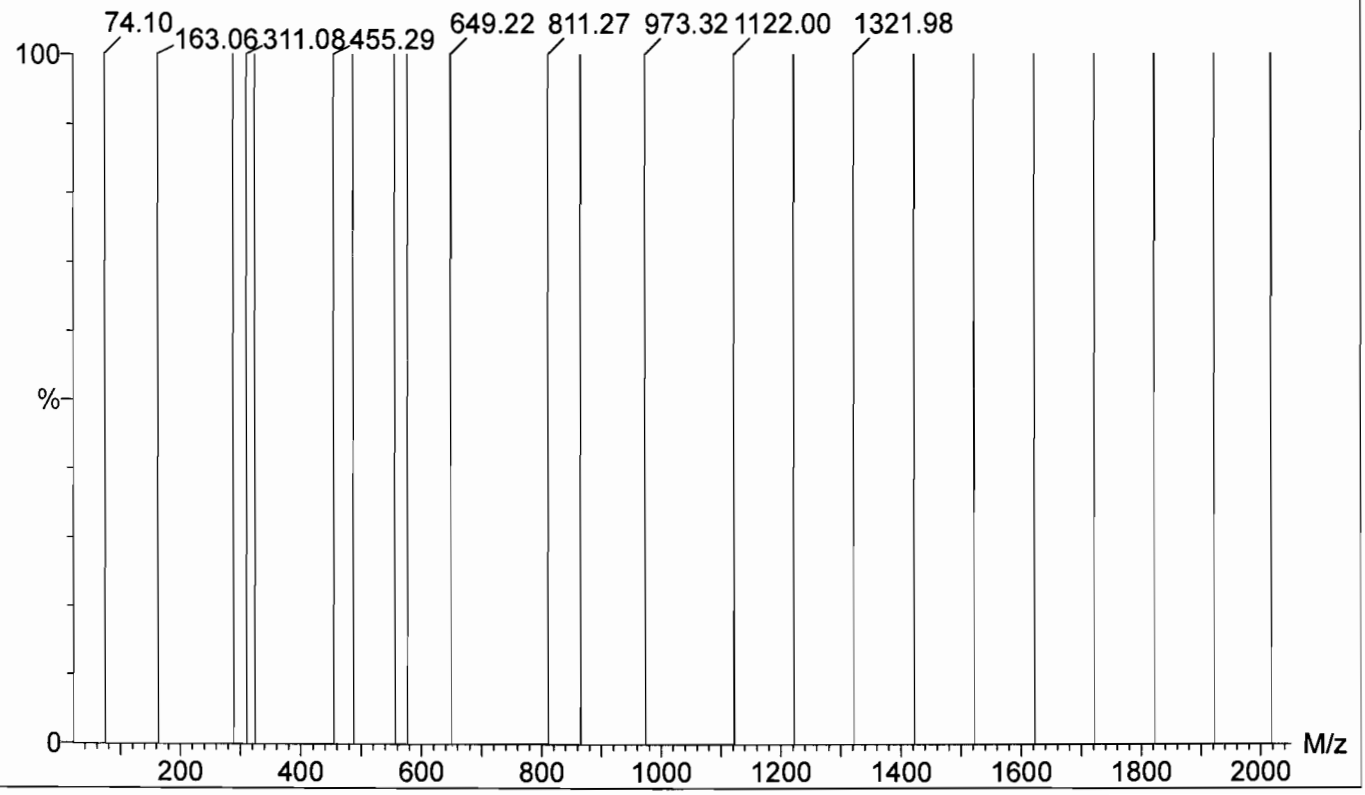
Mean residual = 0.0882 amu



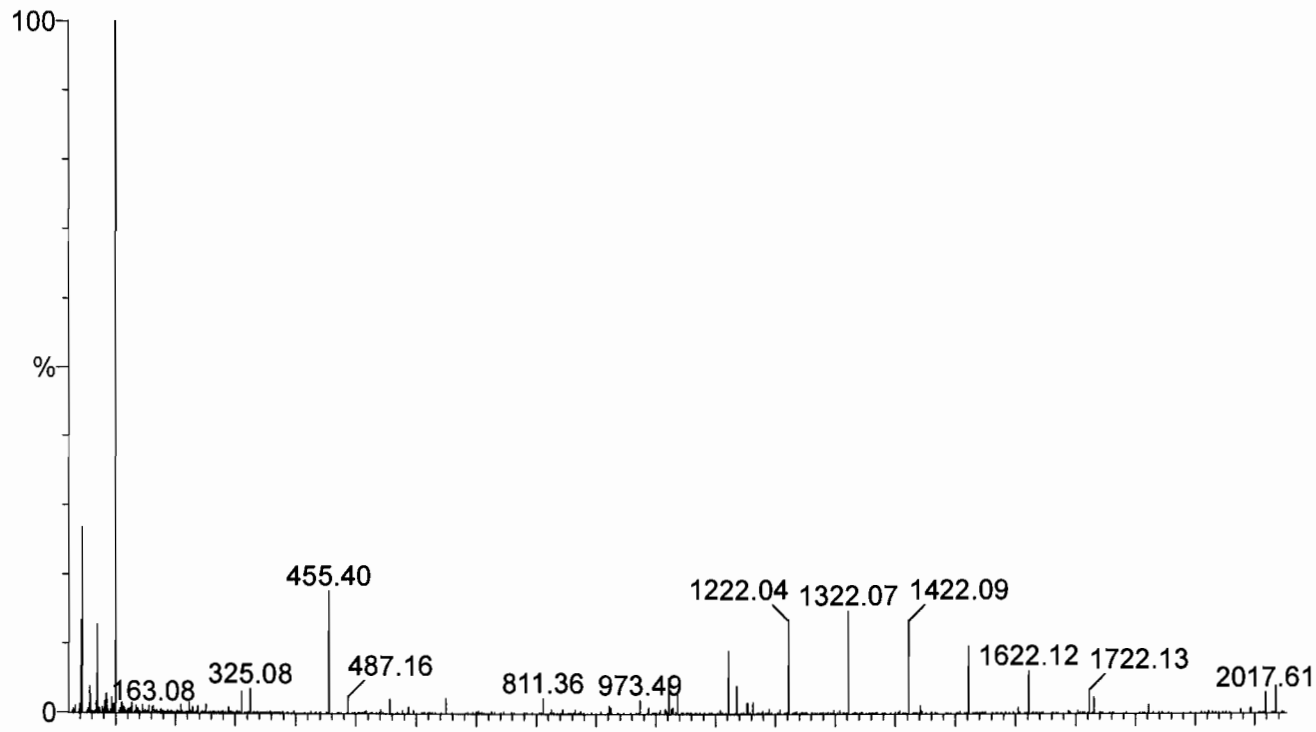
Data file: SCNMS1V - Calibrated 23 matches of 23 tested references



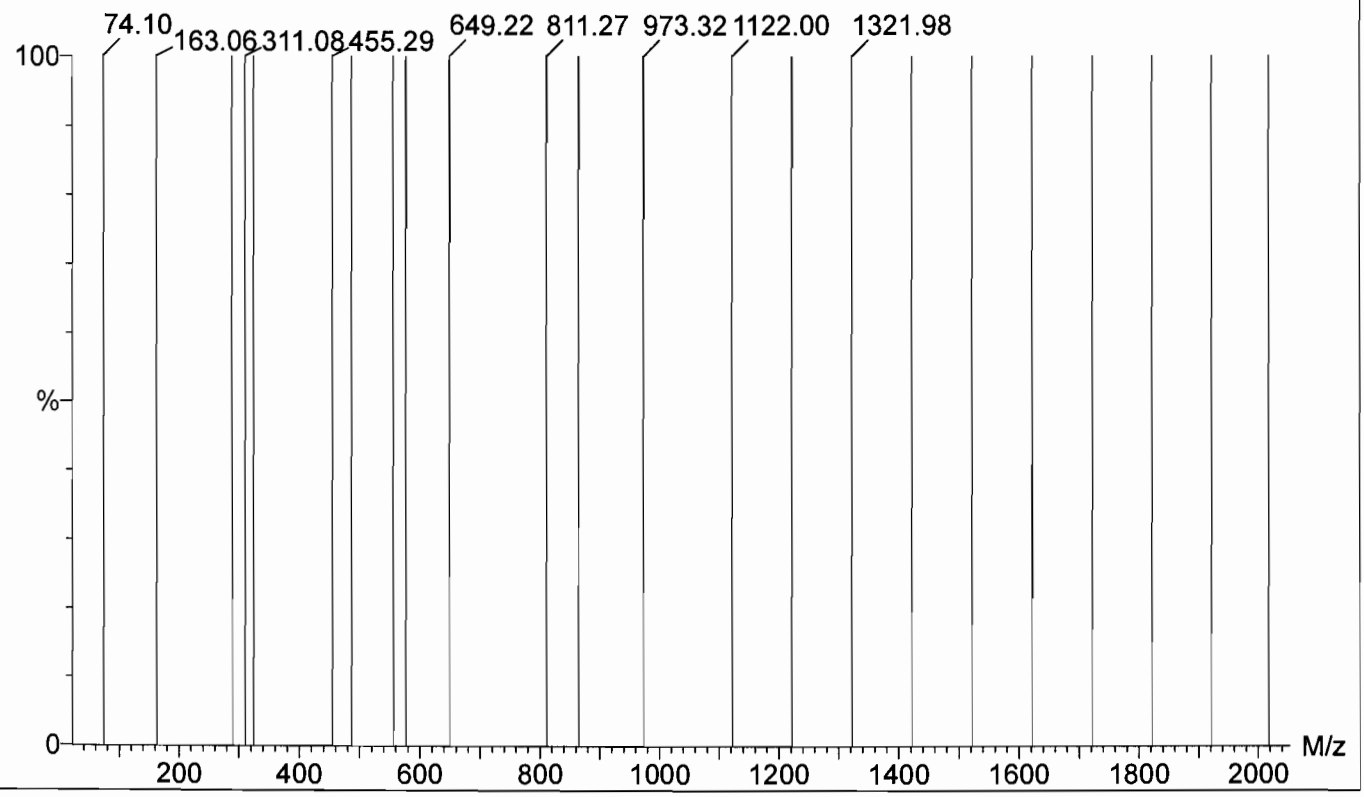
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0782 amu



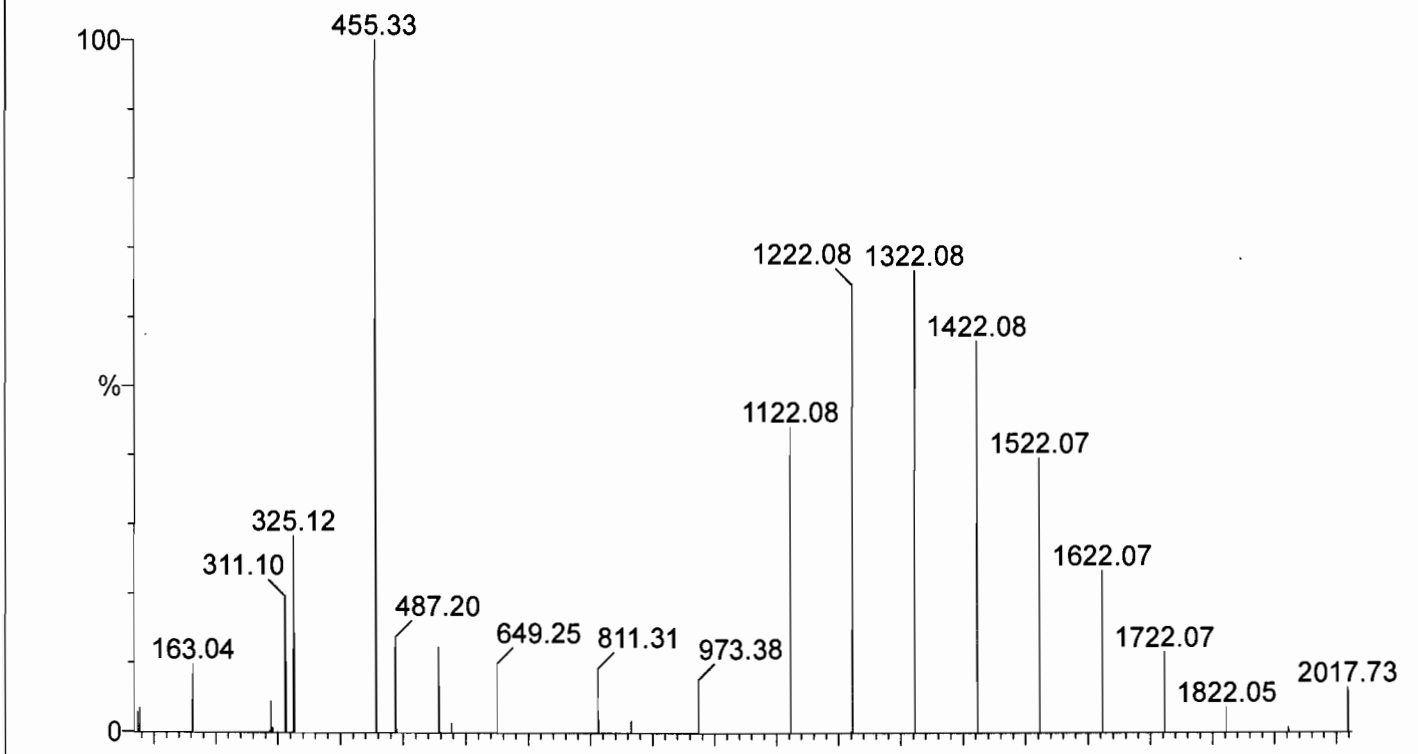
Data file: FASTMS1V - Calibrated 23 matches of 23 tested references



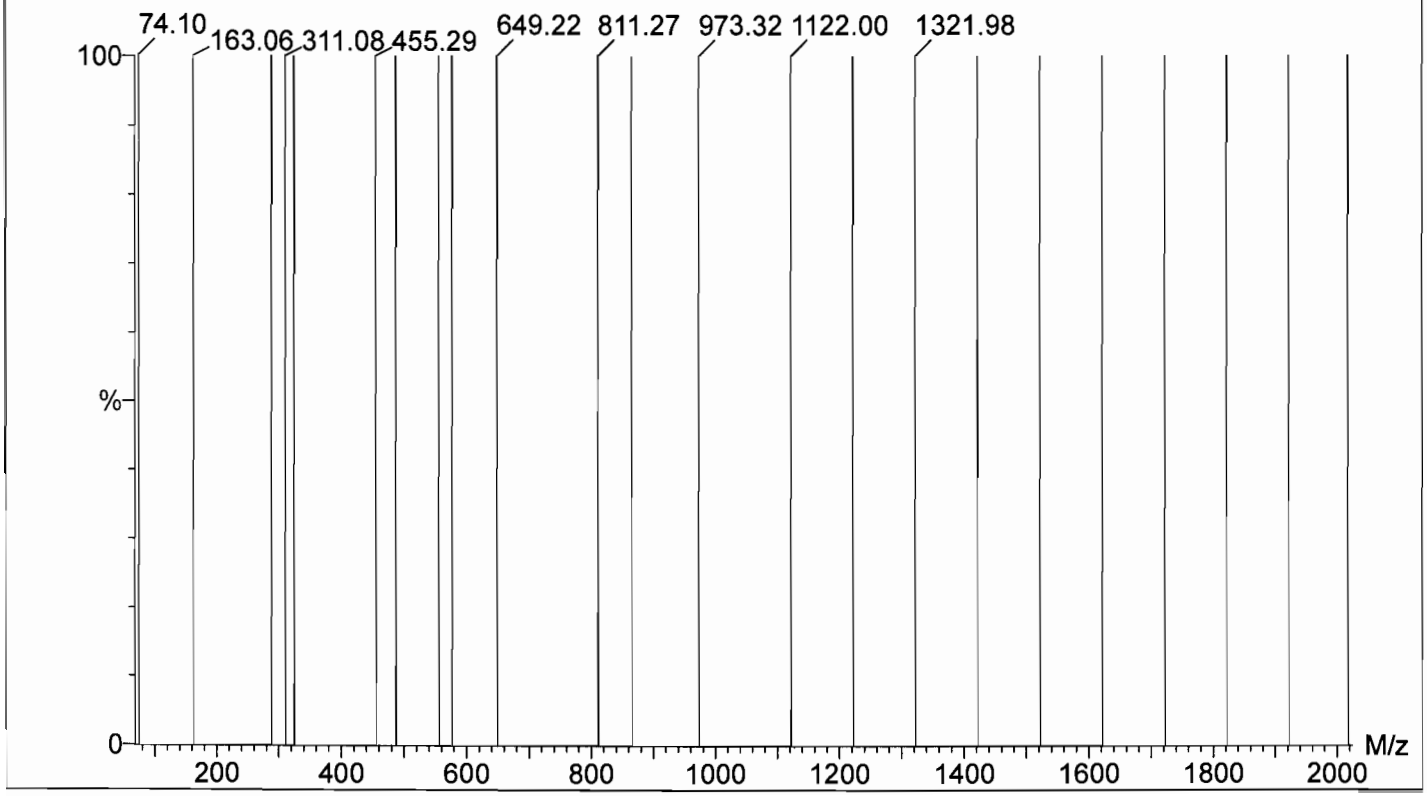
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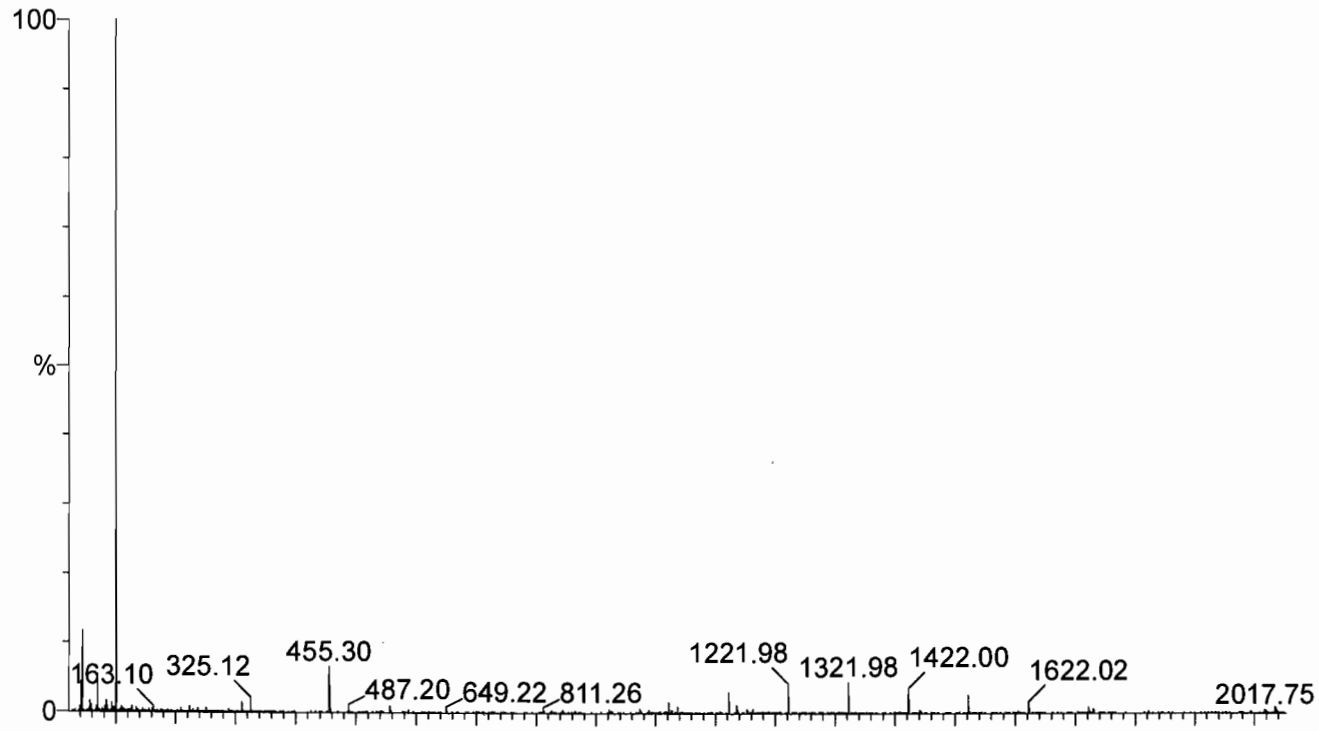
Data file: STATMS2V - Calibrated 23 matches of 23 tested references



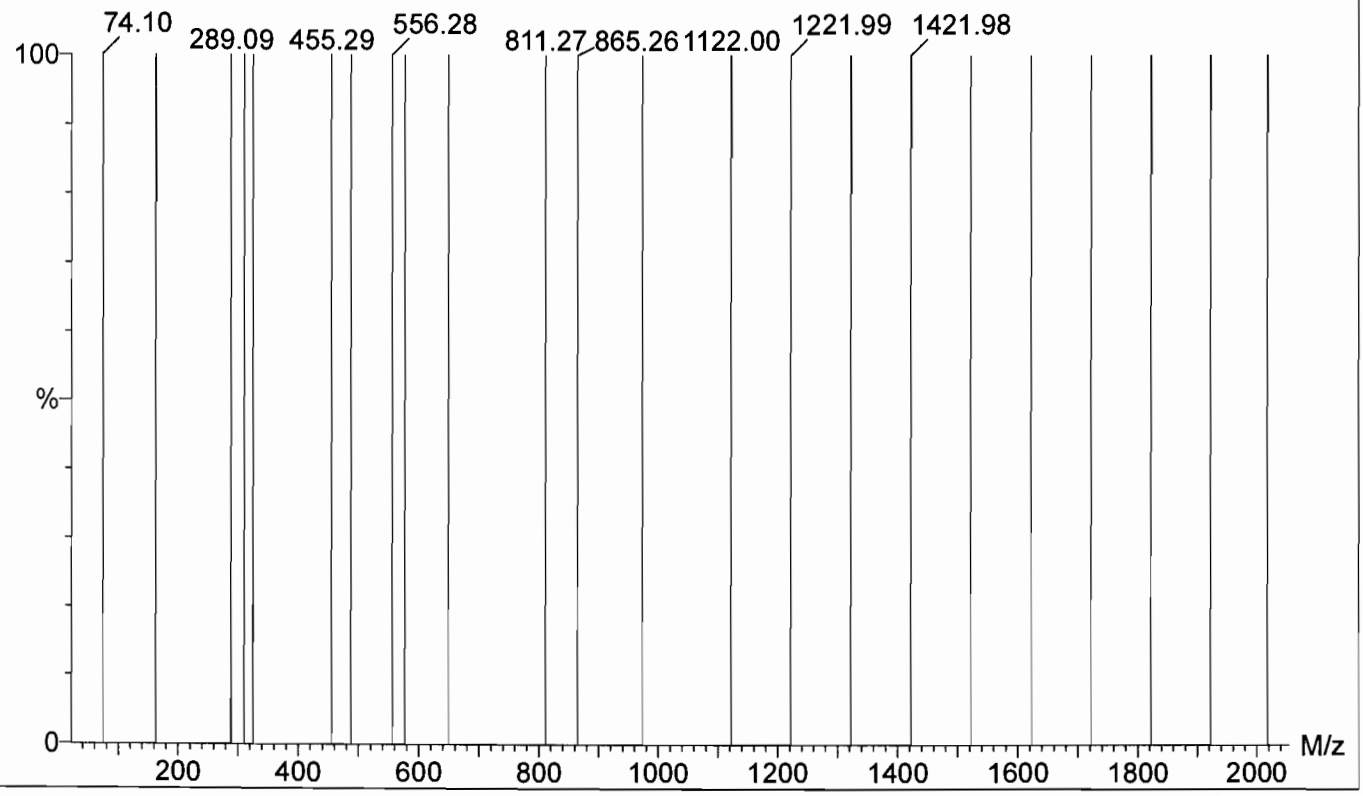
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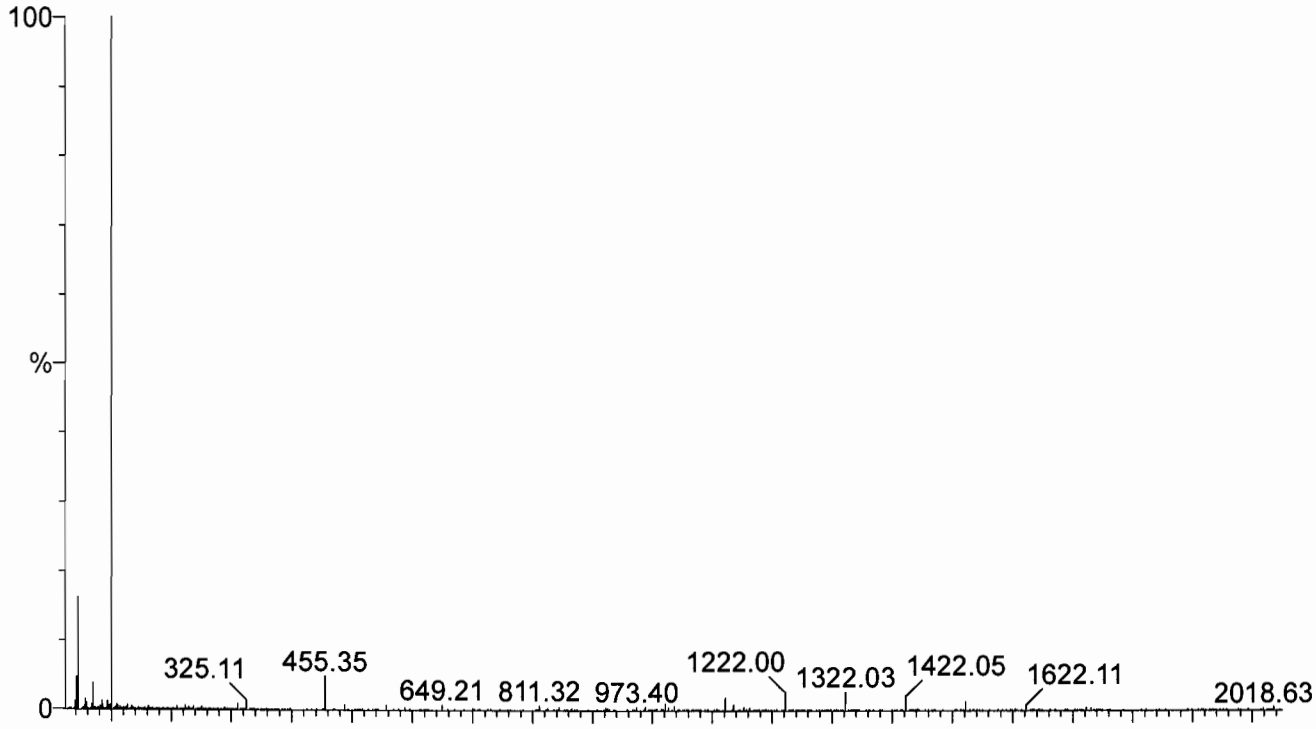
Data file: SCNMS2V - Calibrated 23 matches of 23 tested references



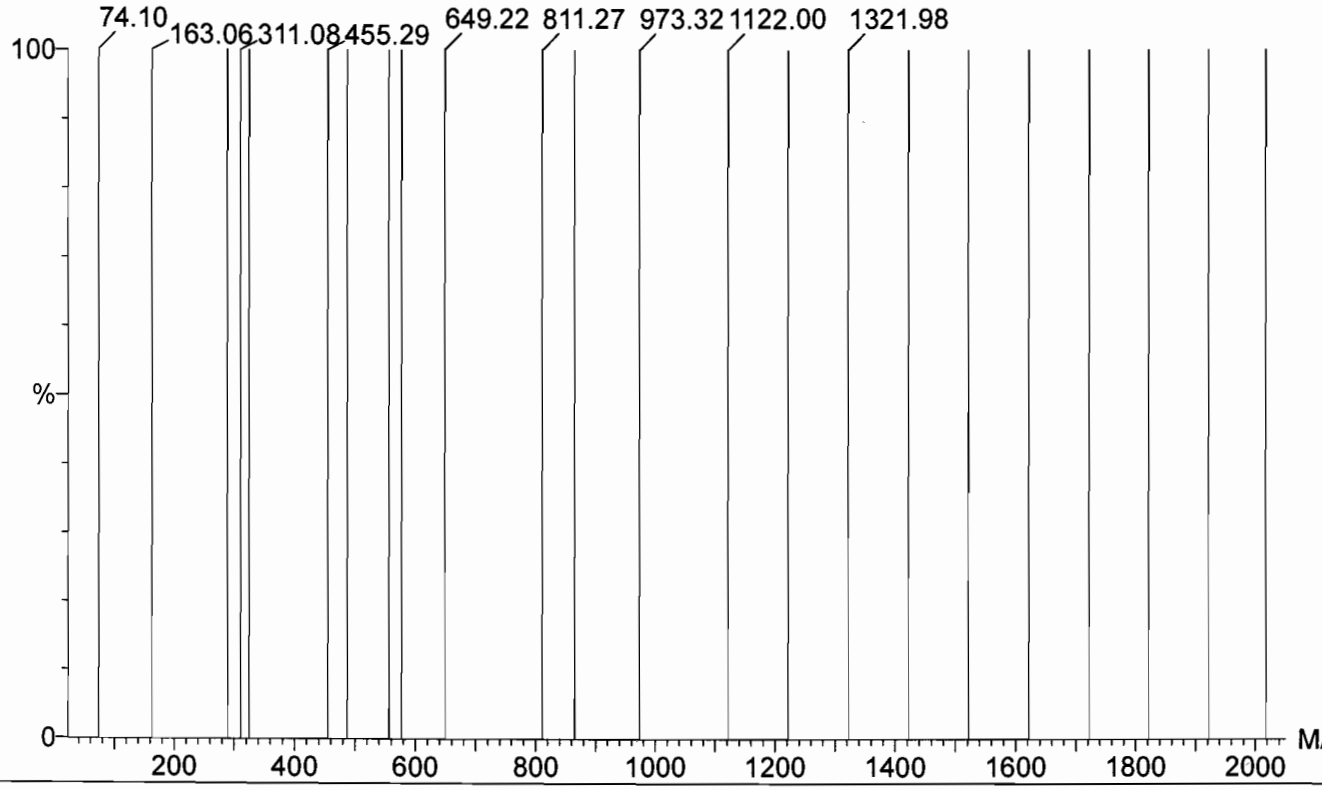
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0334 amu



Data file: FASTMS2V - Calibrated 23 matches of 23 tested references



Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0885 amu



Q4(M) 07-23-19

07/15/19

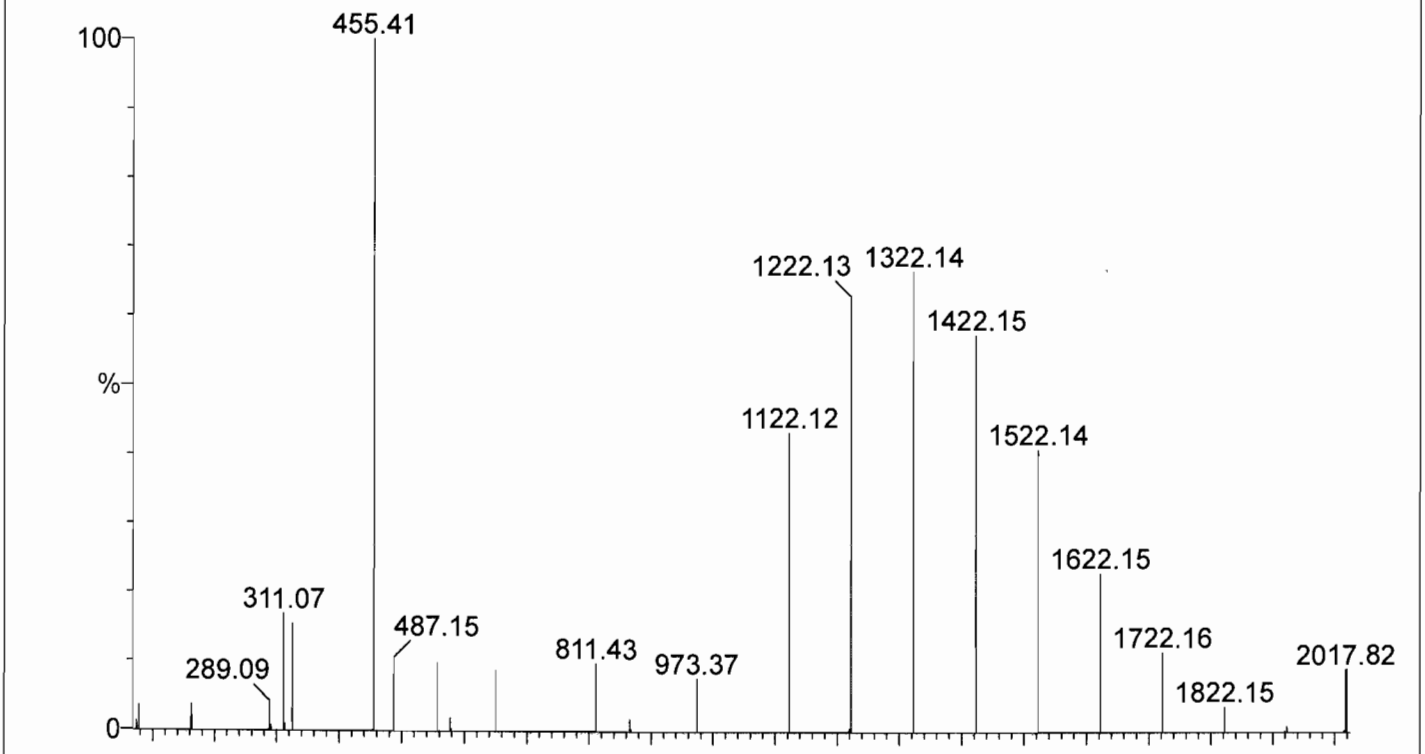
CAH 7/23/19

Calibration Verification Report - MS1 Static

Printed: **Tue Jul 23 07:19:36 2019**

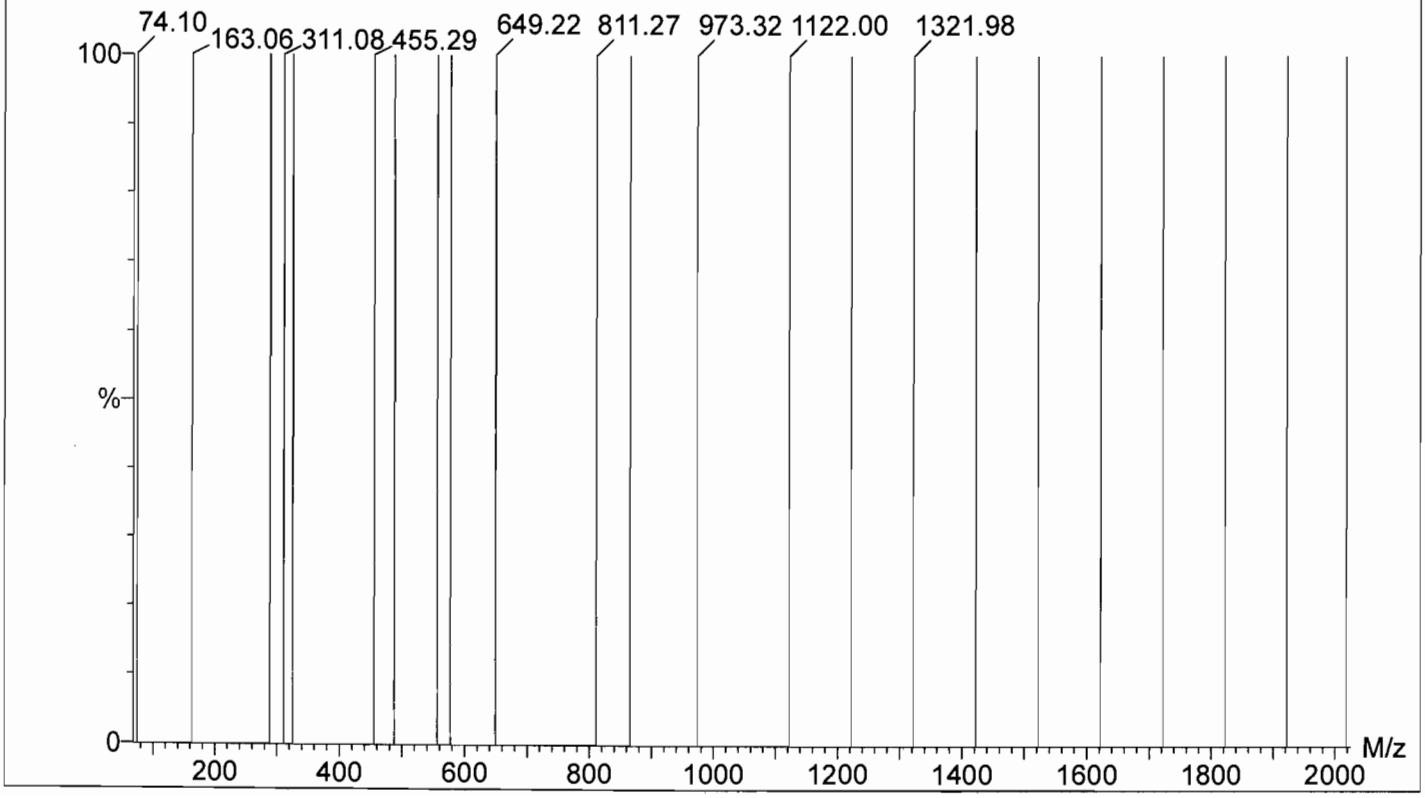
Data file: STATMS1V - Calibrated

23 matches of 23 tested references

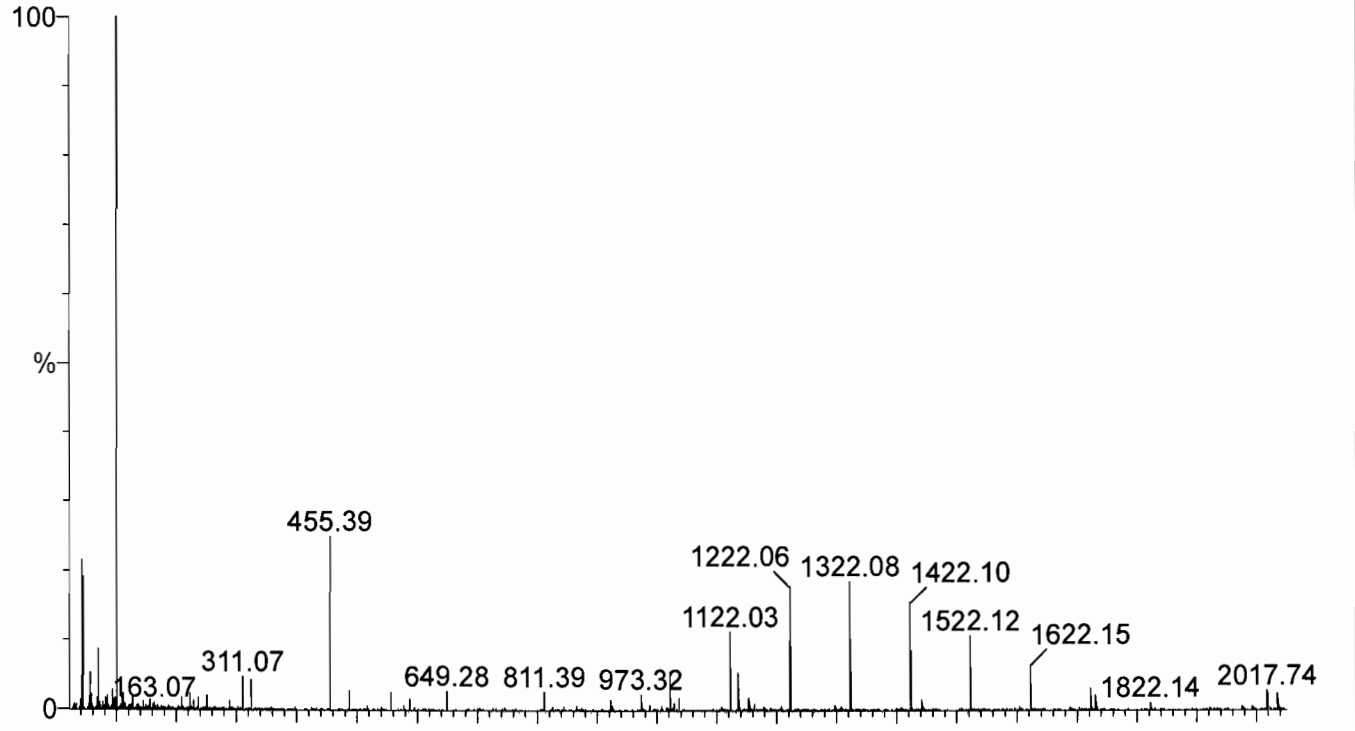


Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref

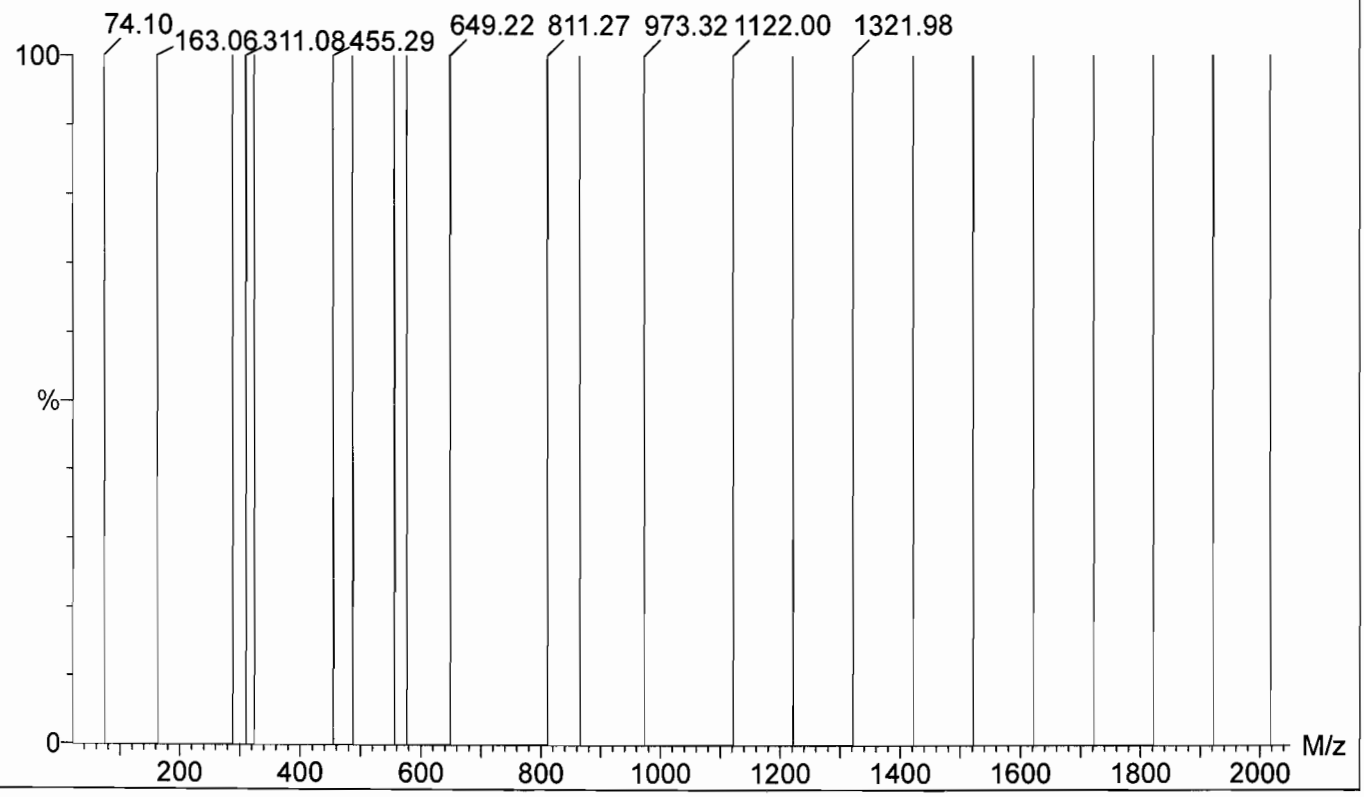
Mean residual = 0.106 amu



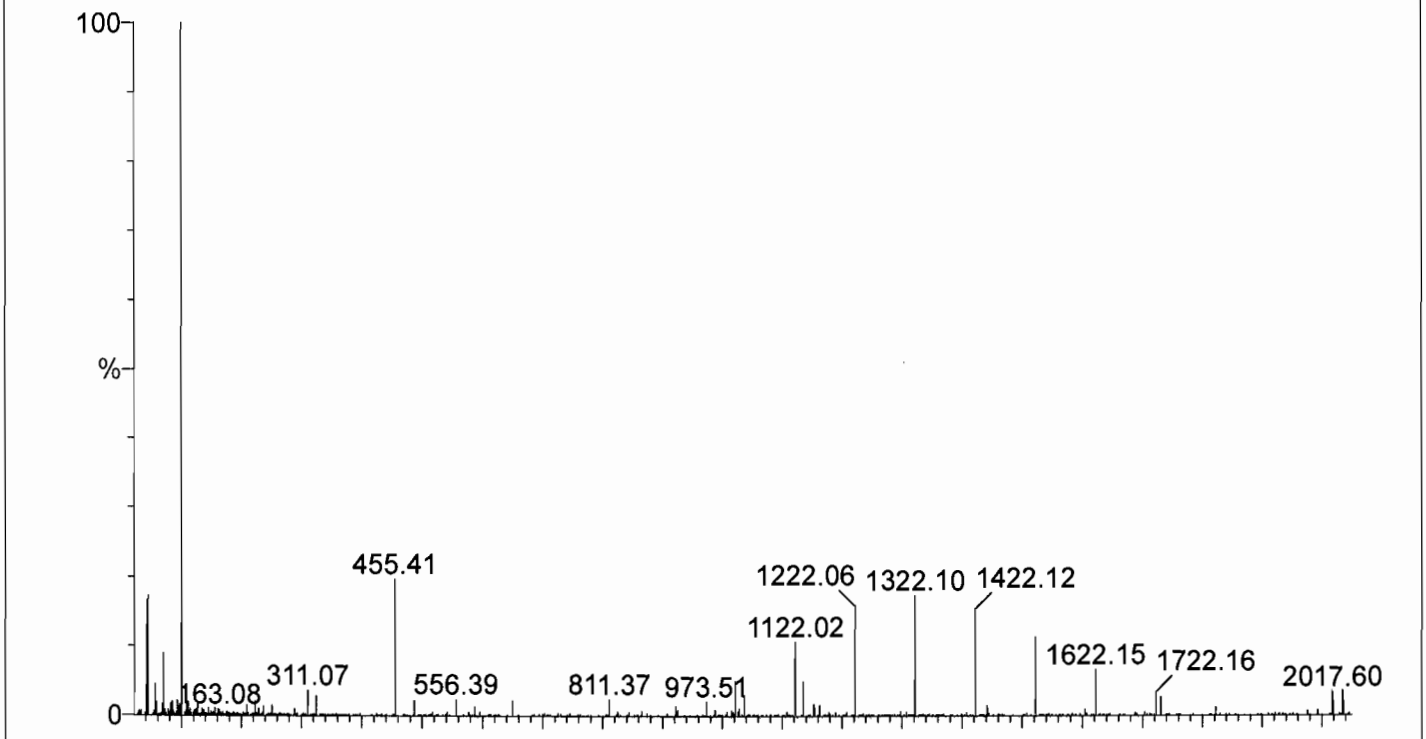
Data file: SCNMS1V - Calibrated 23 matches of 23 tested references



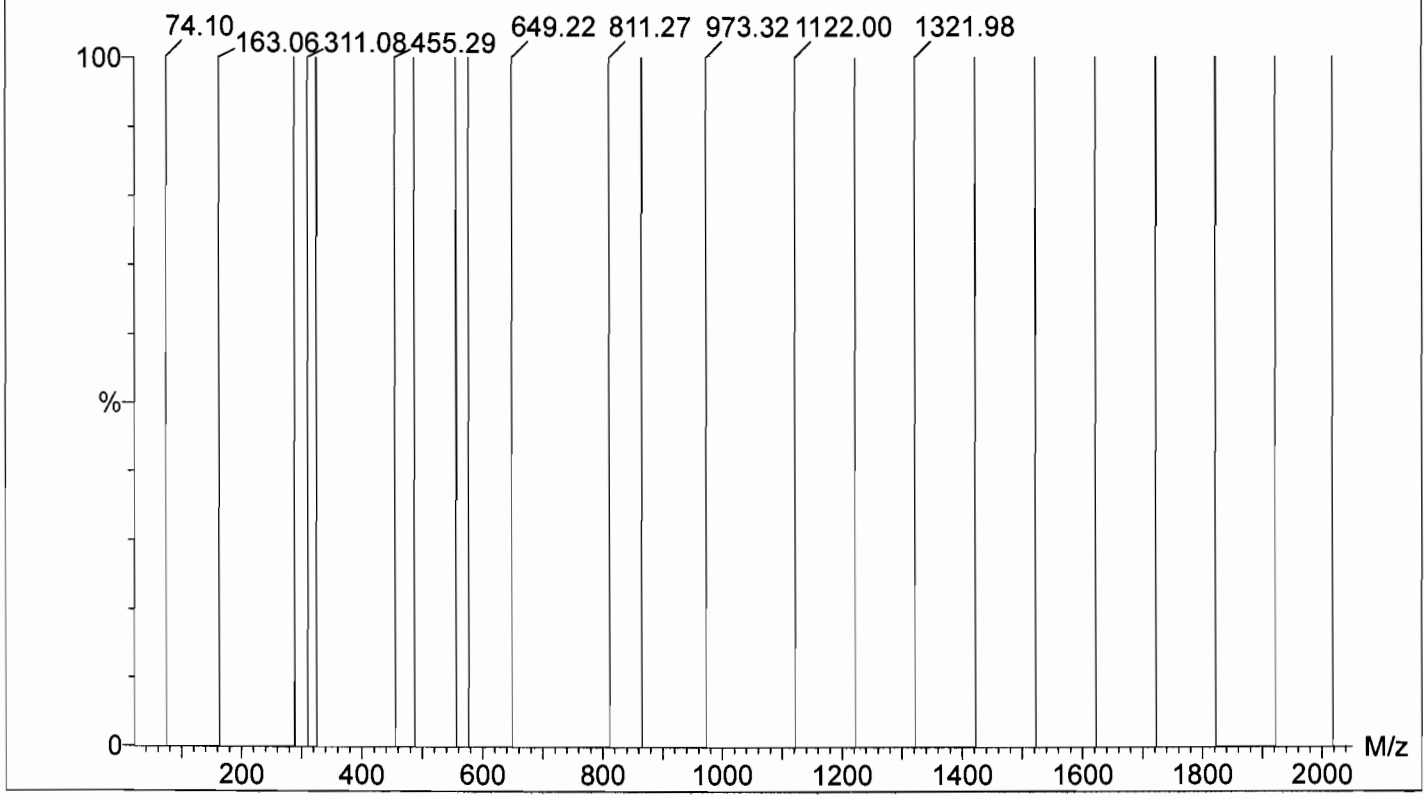
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0828 amu



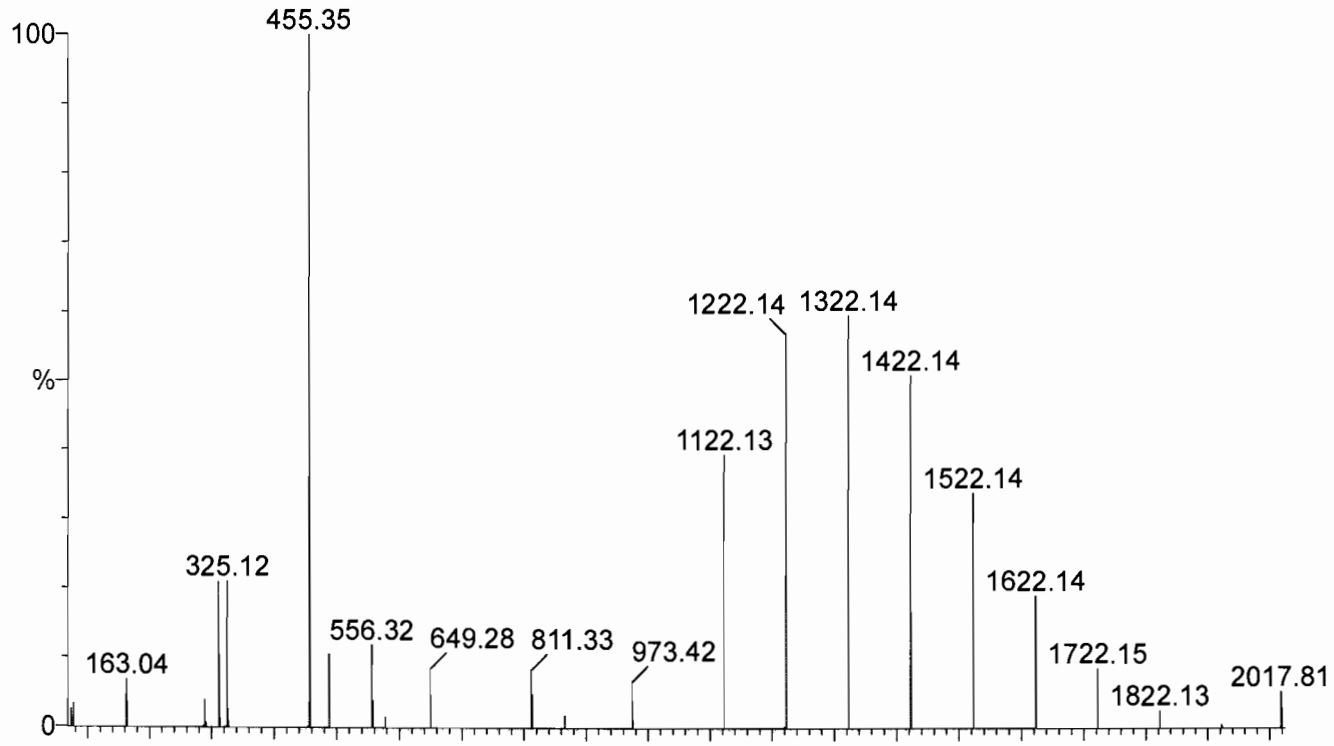
Data file: FASTMS1V - Calibrated 23 matches of 23 tested references



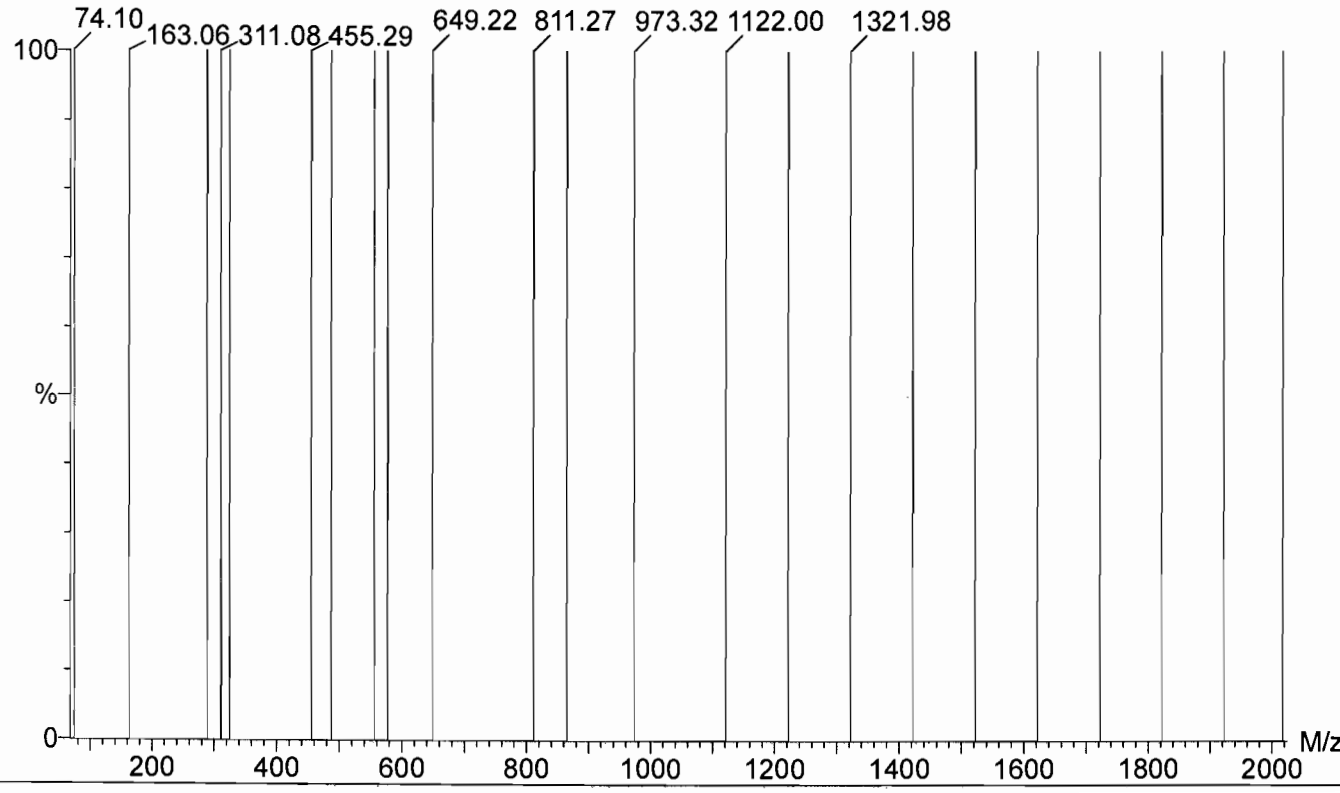
Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.0902 amu



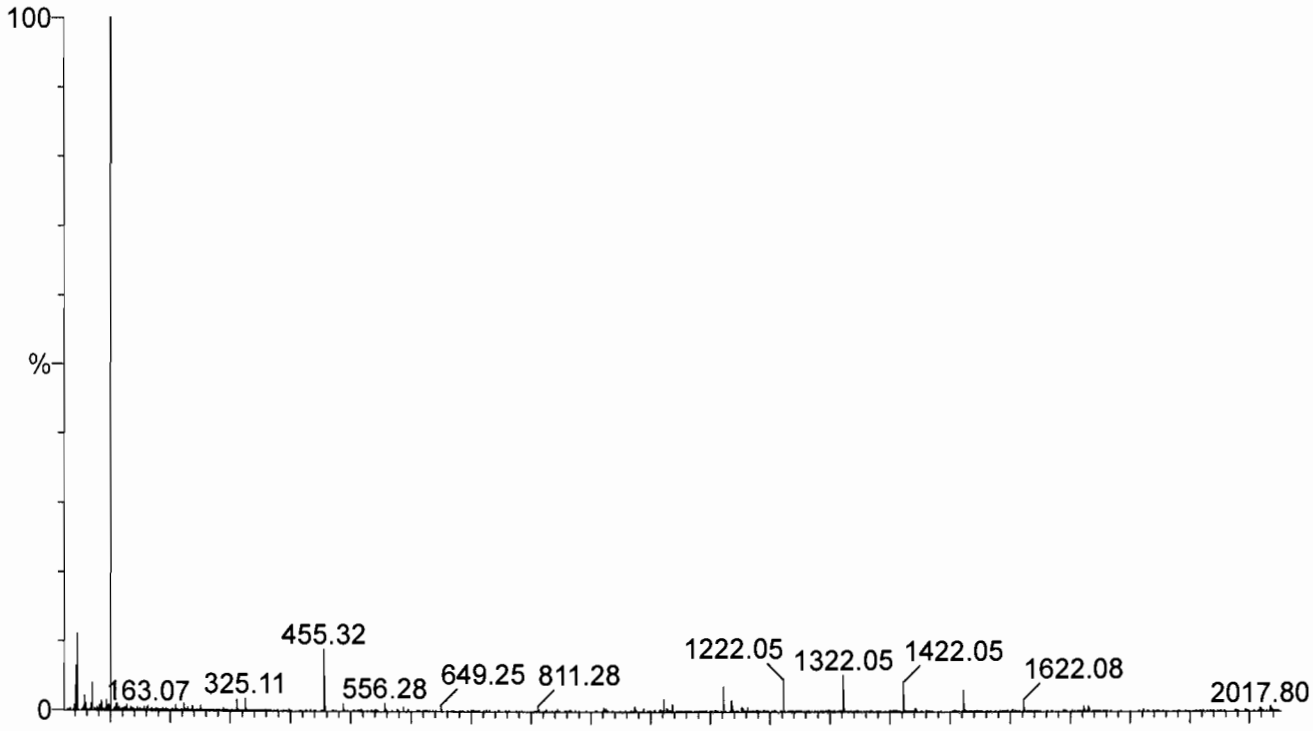
Data file: STATMS2V - Calibrated 23 matches of 23 tested references



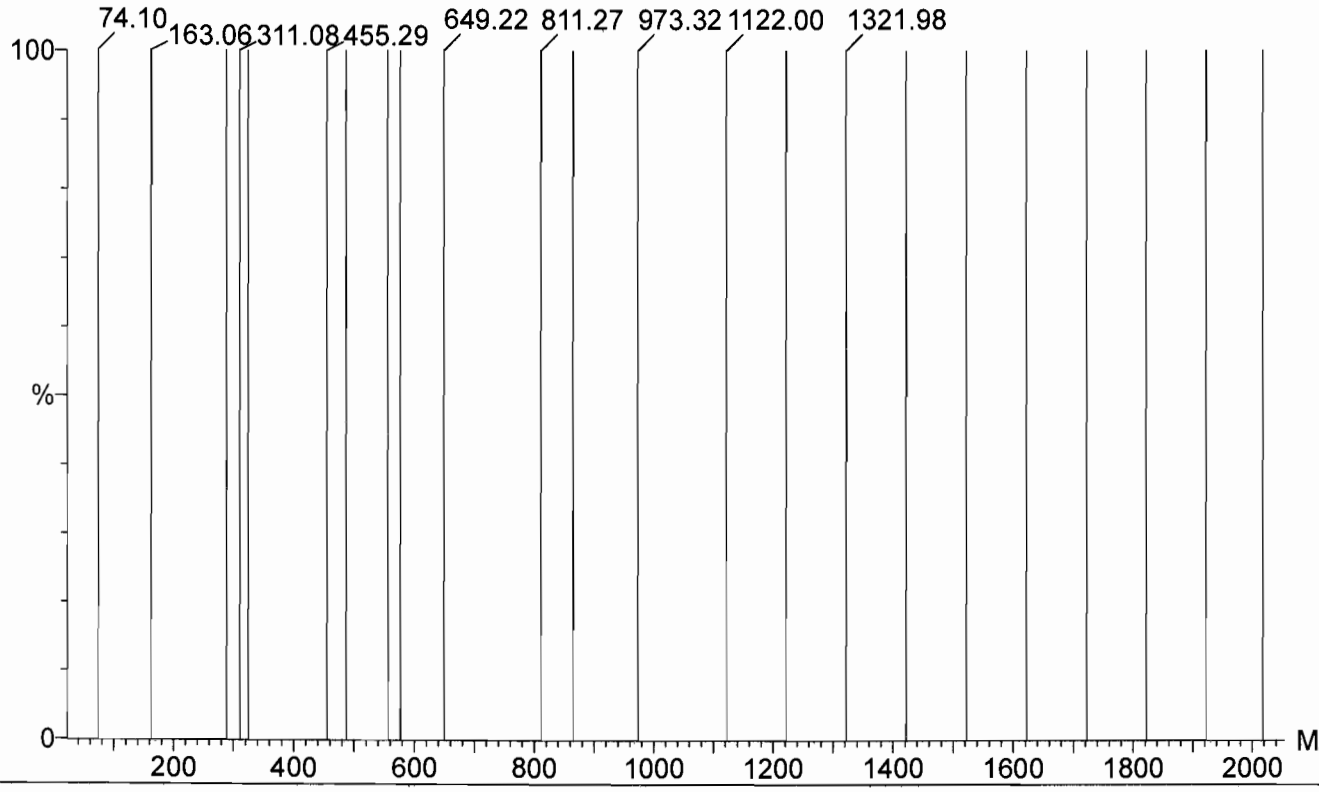
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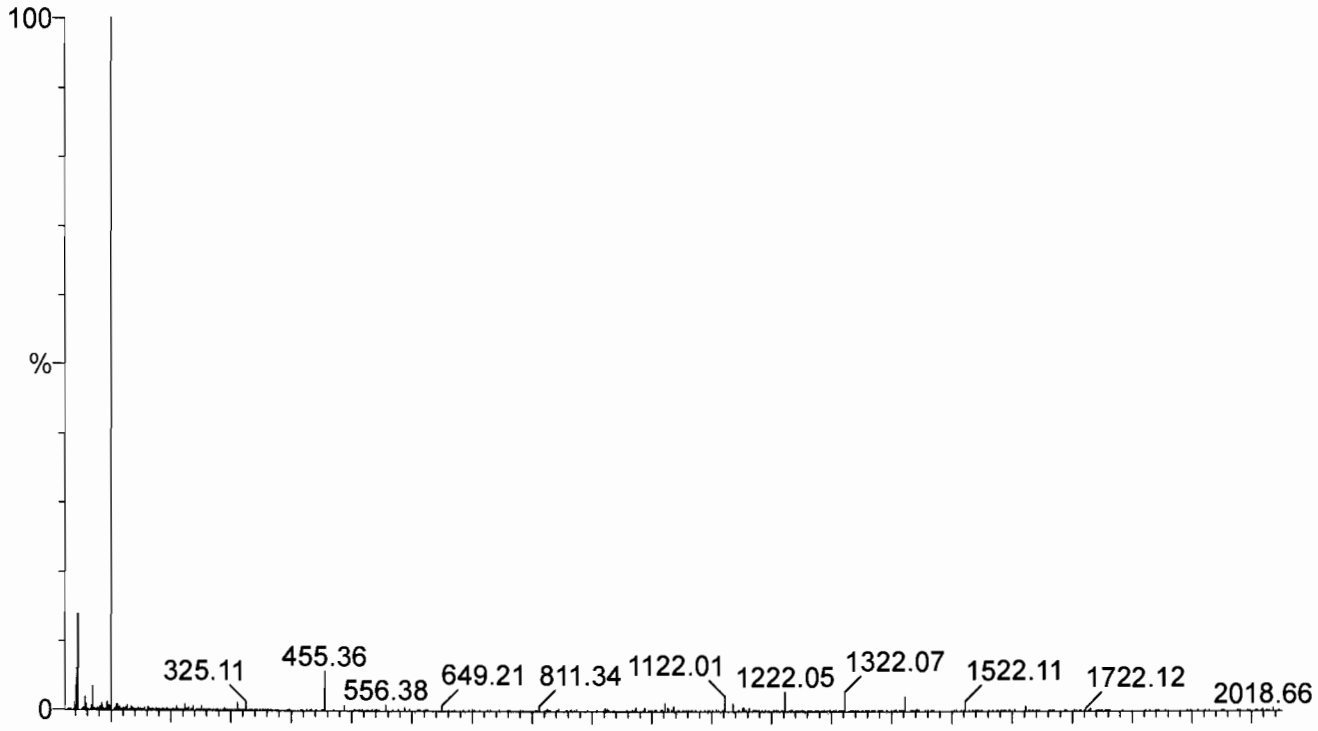
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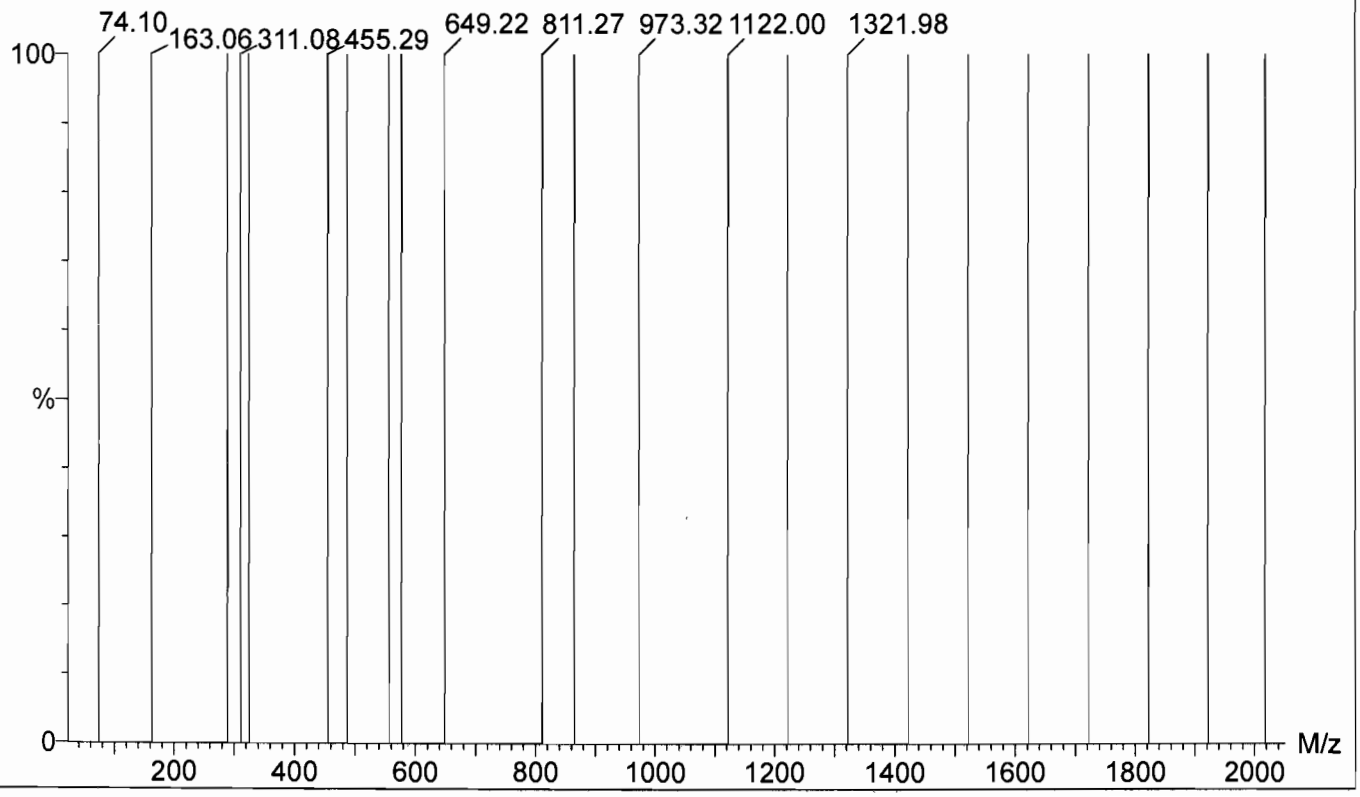
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Data file: FASTMS2V - Calibrated 23 matches of 23 tested references



Reference: c:\masslynx\ref\ESI Calibration TQ ResCal.ref Mean residual = 0.113 amu



STANDARDS

Analytical Standard Record

Vista Analytical Laboratory

19E2201

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	(mls)
18L2001	13C2-4:2 FTS	20-Dec-18	** Vendor **	01-Sep-22	1.07
18L2002	13C2-6:2 FTS	20-Dec-18	** Vendor **	22-Nov-23	1.05
18L2003	13C2-8:2 FTS	20-Dec-18	** Vendor **	24-Jan-23	1.04
18L2004	13C3-PFBA	20-Dec-18	** Vendor **	14-Dec-22	1
18L2005	13C2-PFDA	20-Dec-18	** Vendor **	06-Dec-23	1
18L2006	13C2-PFUdA	20-Dec-18	** Vendor **	11-May-23	1
18L2007	13C2-PFTeDA	20-Dec-18	** Vendor **	30-Nov-22	1
18L2008	13C5-PFNA	20-Dec-18	** Vendor **	14-Dec-22	1
18L2009	13C2-PFDoA	20-Dec-18	** Vendor **	16-Feb-23	1
18L2010	13C4-PFHpA	20-Dec-18	** Vendor **	06-Jul-23	1
18L2011	13C2-PFOA	20-Dec-18	** Vendor **	10-Oct-23	1
18L2012	13C3-PFPeA	20-Dec-18	** Vendor **	20-Apr-22	1
18L2013	13C8-FOSA-I	20-Dec-18	** Vendor **	10-Oct-23	1
18L2014	d3-N-Me-FOSAA	20-Dec-18	** Vendor **	23-Aug-23	1
18L2015	d5-N-EtFOSAA	20-Dec-18	** Vendor **	23-Aug-23	1
18L2016	13C3-PFBS	20-Dec-18	** Vendor **	10-Dec-23	1.075
18L2017	13C8-PFOS	20-Dec-18	** Vendor **	20-Sep-23	1.045
18L2019	13C2-PFHxA	20-Dec-18	** Vendor **	22-May-23	0.4
18L2020	13C2-PFHxDA	20-Dec-18	** Vendor **	11-Oct-23	0.4
18L2027	13C3-PFHxS	20-Dec-18	** Vendor **	20-Jun-23	1.06
18L2077	13C3-HFPO-DA	20-Dec-18	** Vendor **	24-Oct-21	1

Description:	PFC - IS	Expires:	28-May-21
Standard Type:	Reagent	Prepared:	28-May-19
Solvent:	MeOH	Prepared By:	Giana R. Bilotta
Final Volume (mls):	40	Department:	LCMS
Vials:	1	Last Edit:	28-May-19 09:02 by GRB

Analyte	CAS Number	Concentration	Units
13C3-PFBA		1.25	ug/mL
13C2-6:2 FTS		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
13C2-4:2 FTS		1.25	ug/mL
13C3-HFPO-DA		1.25	ug/mL
d5-EtFOSAA		1.25	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

19E2201

Description:	PFC - IS	Expires:	28-May-21
Standard Type:	Reagent	Prepared:	28-May-19
Solvent:	MeOH	Prepared By:	Giana R. Bilotta
Final Volume (mls):	40	Department:	LCMS
Vials:	1	Last Edit:	28-May-19 09:02 by GRB

Analyte	CAS Number	Concentration	Units
13C3-PFBS		1.25	ug/mL
13C3-PFHxS		1.25	ug/mL
13C3-PFPeA		1.25	ug/mL
13C4-PFHpA		1.25	ug/mL
13C5-PFNA		1.25	ug/mL
13C8-PFOS		1.25	ug/mL
13C8-PFOSA		1.25	ug/mL
d3-MeFOSAA		1.25	ug/mL
13C2-PFUnA		1.25	ug/mL

18L2001

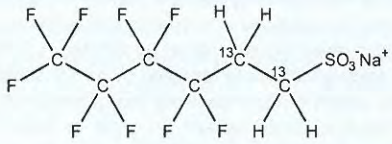
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-4:2FTS **LOT NUMBER:** M242FTS0817

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]hexane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_4H_4F_9SO_3Na$	**MOLECULAR WEIGHT:**	352.12
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	46.7 ± 2.3 µg/ml (M2-4:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	09/01/2017		
EXPIRY DATE: (mm/dd/yyyy)	09/01/2022		
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 4:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 4:2FTS and M2-4:2FTS will produce signals in the m/z 329 to m/z 309 channel during SRM analysis. We recommend using the m/z 329 to m/z 81 transition to monitor for M2-4:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

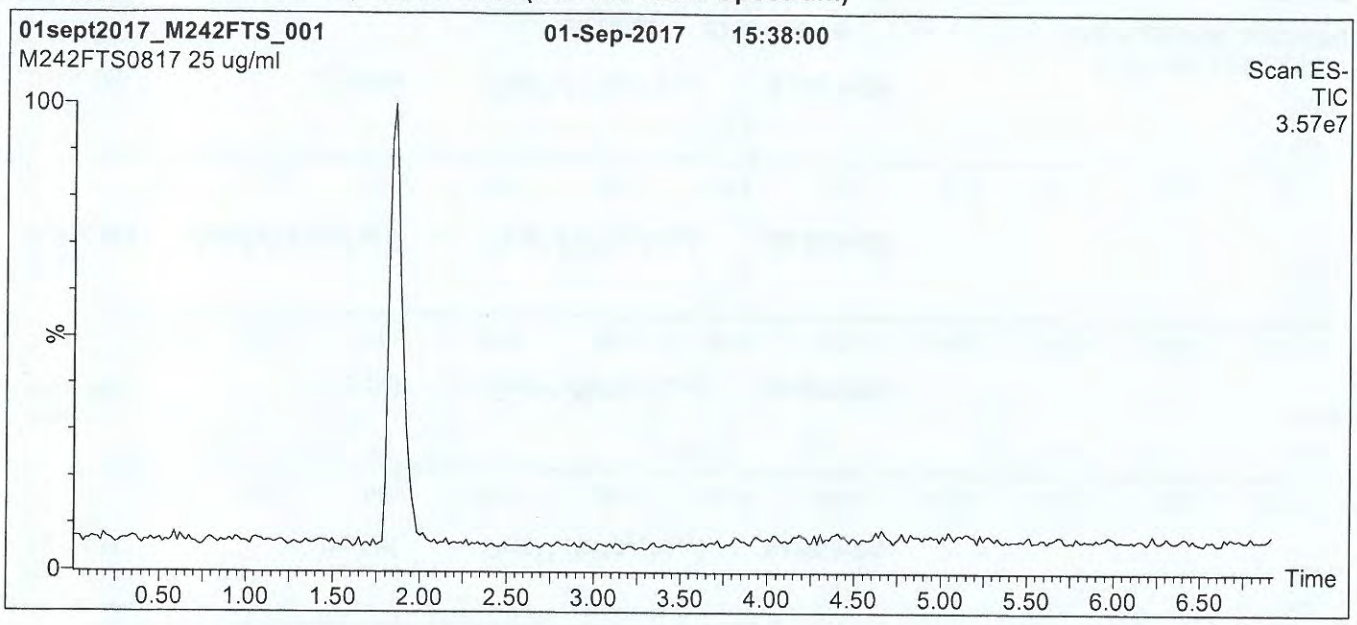
FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

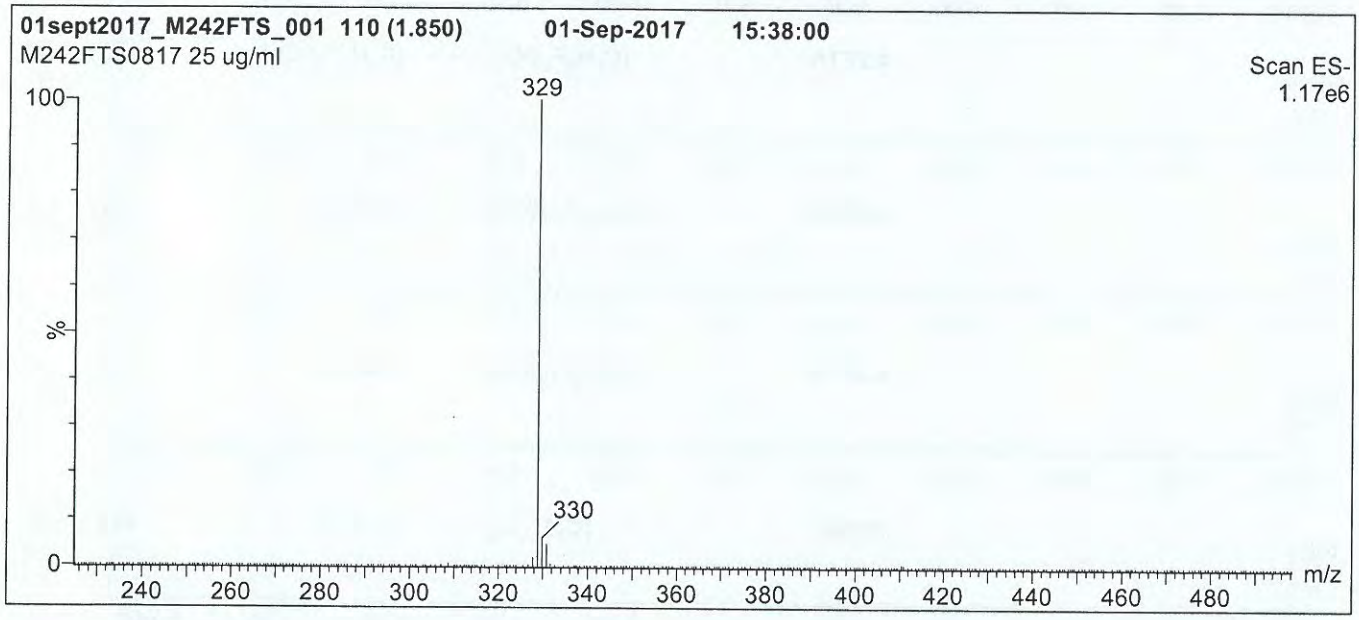
Certified By: _____ **Date:** 09/29/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

18L2001

Figure 1: **M2-4:2FTS; 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) = 25.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

18L2001

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).

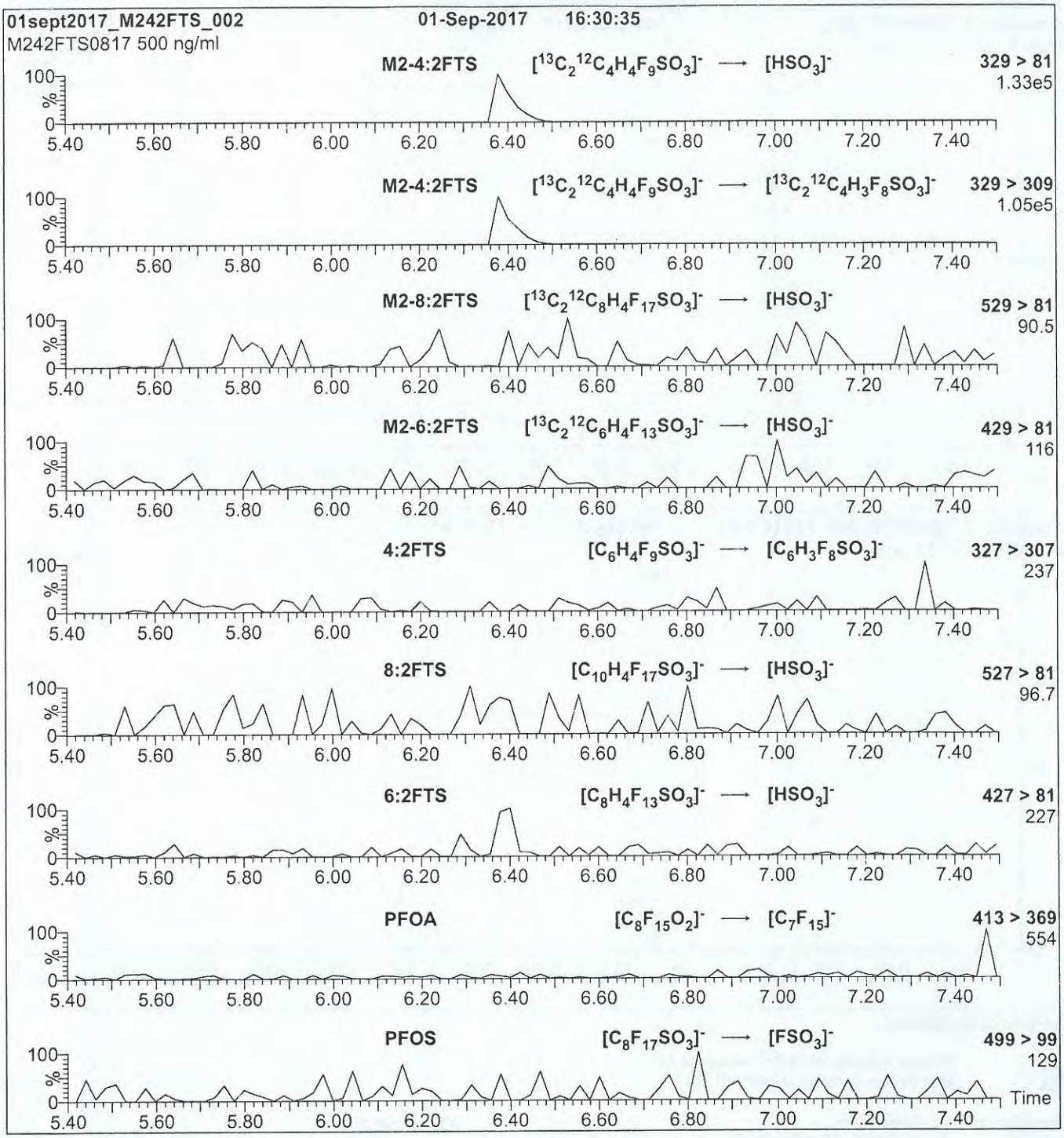
CALA Testing Accreditation No. A 1226

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

1812001

Figure 2: **M2-4:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2-4:2FTS)

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) = 25

18L2002

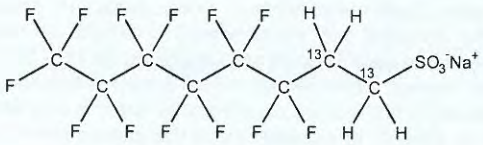
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-6:2FTS **LOT NUMBER:** M262FTS1118

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)	11/22/2018		
EXPIRY DATE: (mm/dd/yyyy)	11/22/2023		
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: _____ **Date:** 11/26/2018 (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

18L2002

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

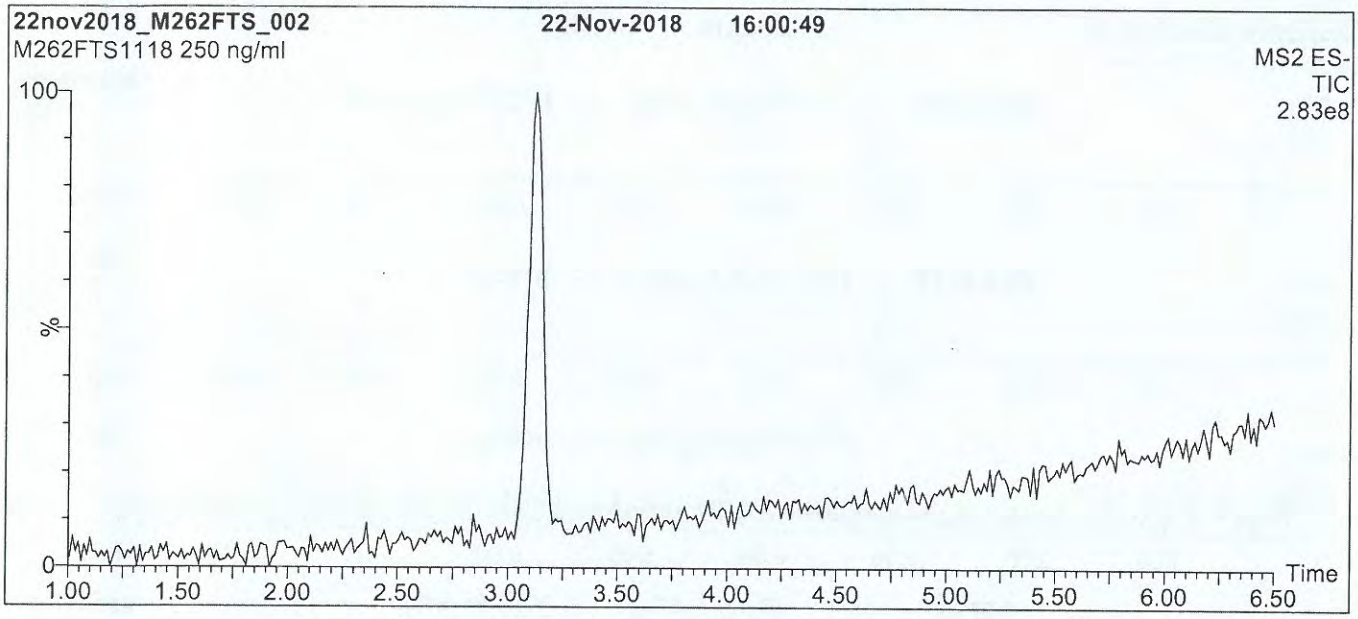
CALA Testing Accreditation No. A1226

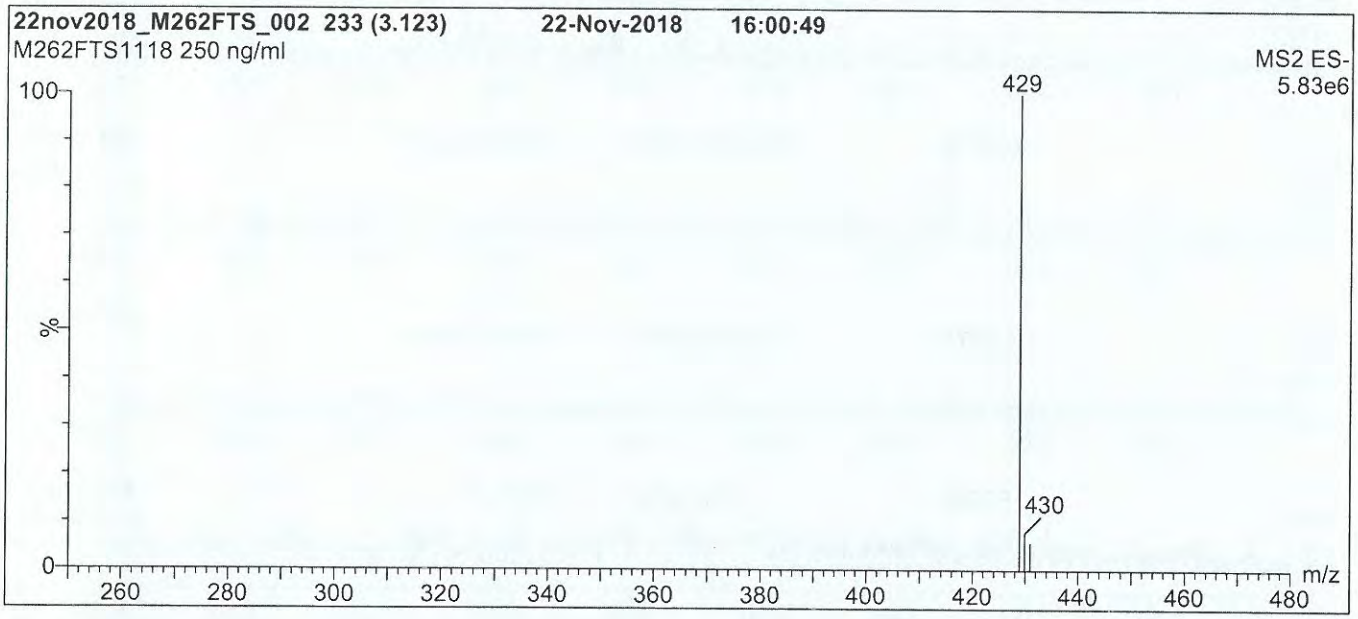
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

18L2002

Figure 1: **M2-6:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

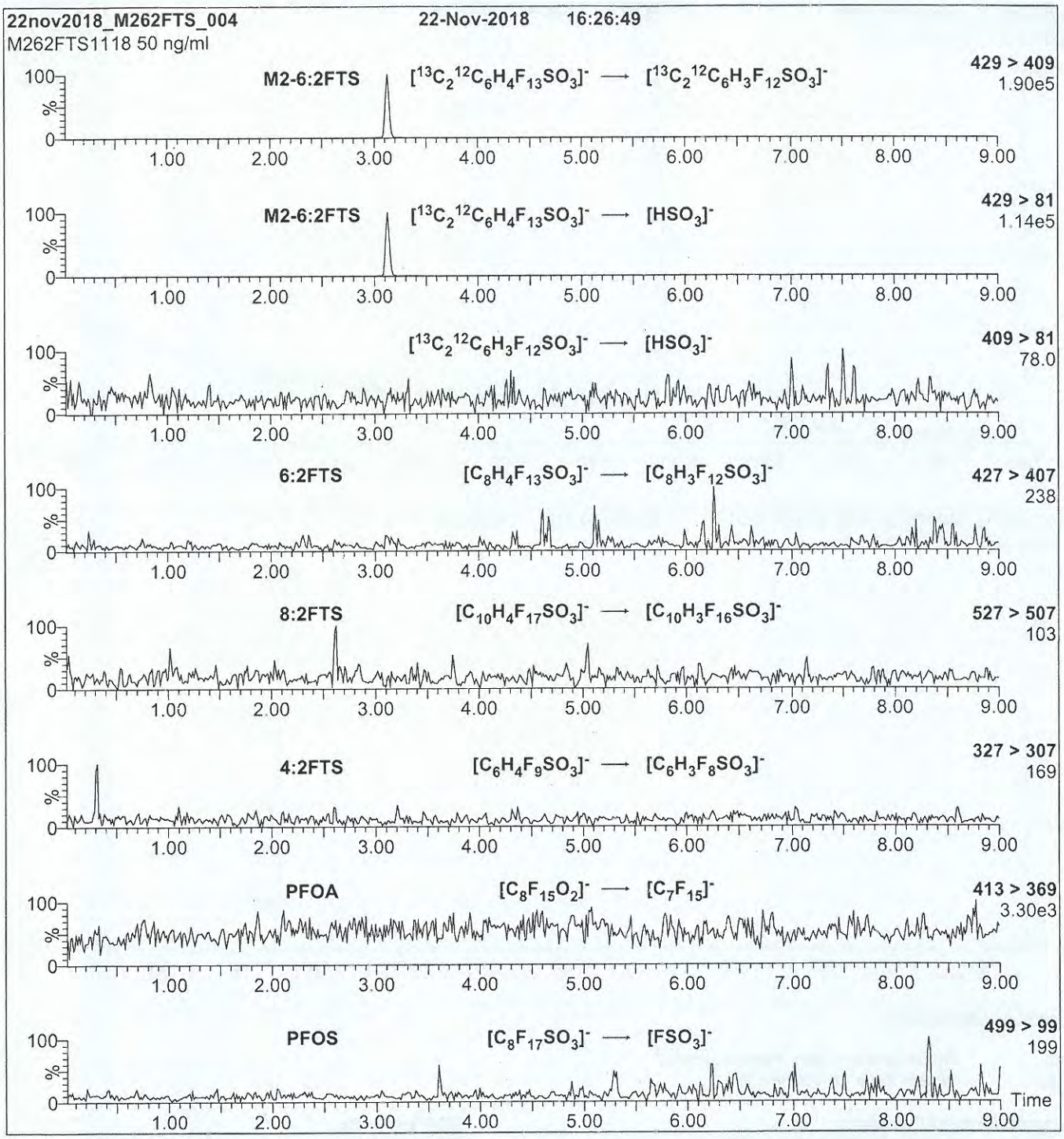
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 25.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1812002

Figure 2: **M2-6:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M2-6:2FTS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.97e-3
Collision Energy (eV) = 20

18L2003

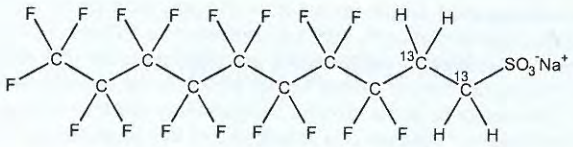
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-8:2FTS **LOT NUMBER:** M282FTS0118

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)	01/24/2018		
EXPIRY DATE: (mm/dd/yyyy)	01/24/2023		
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:** 01/26/2018 (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

Form#:27, Issued 2004-11-10
Revision#:5, Revised 2018-01-22

18L2003

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

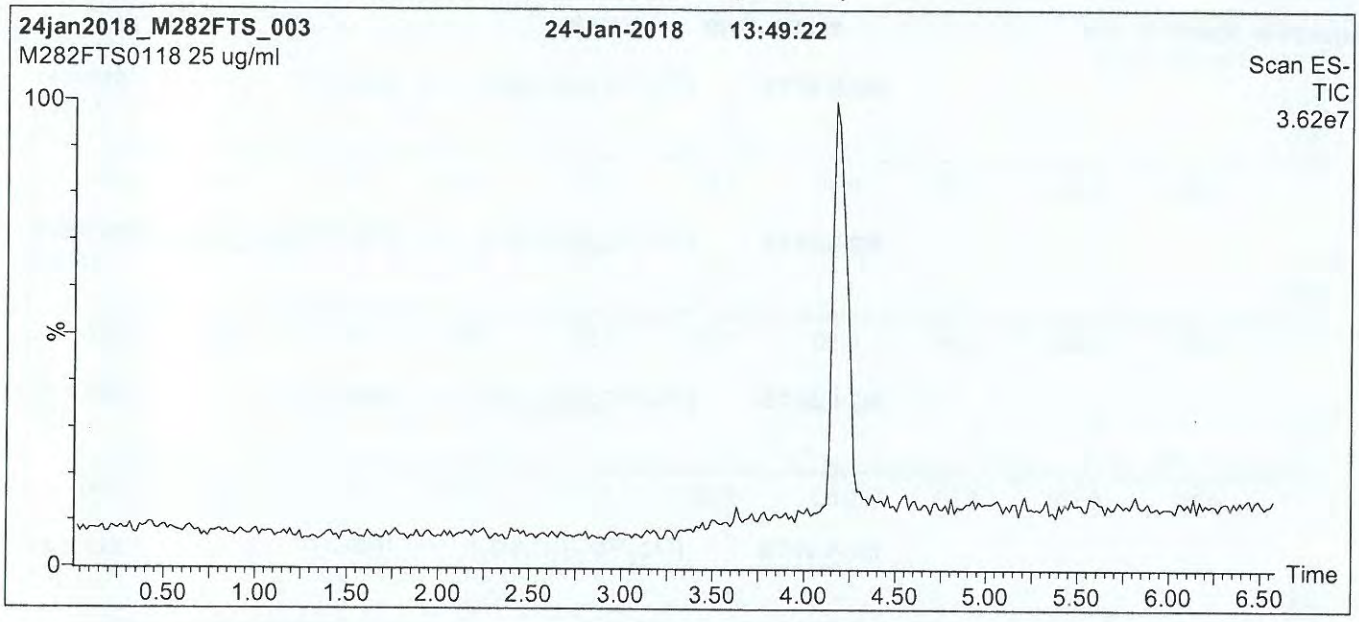
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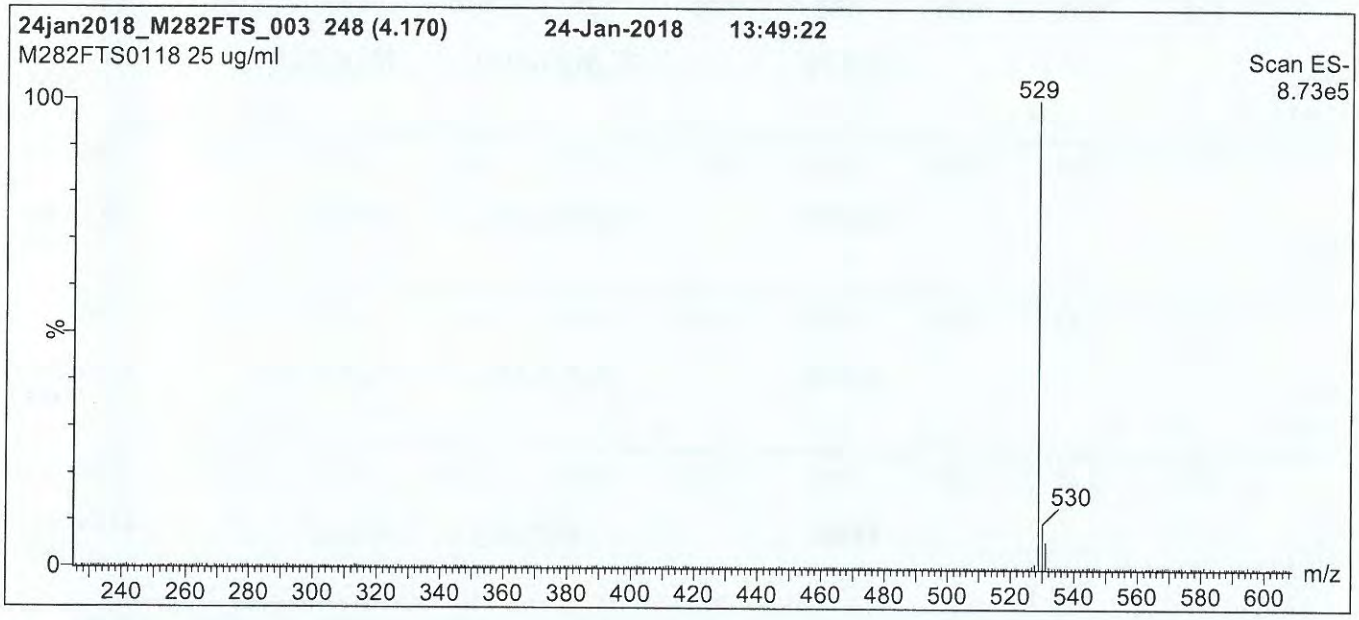
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

1812003

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: 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

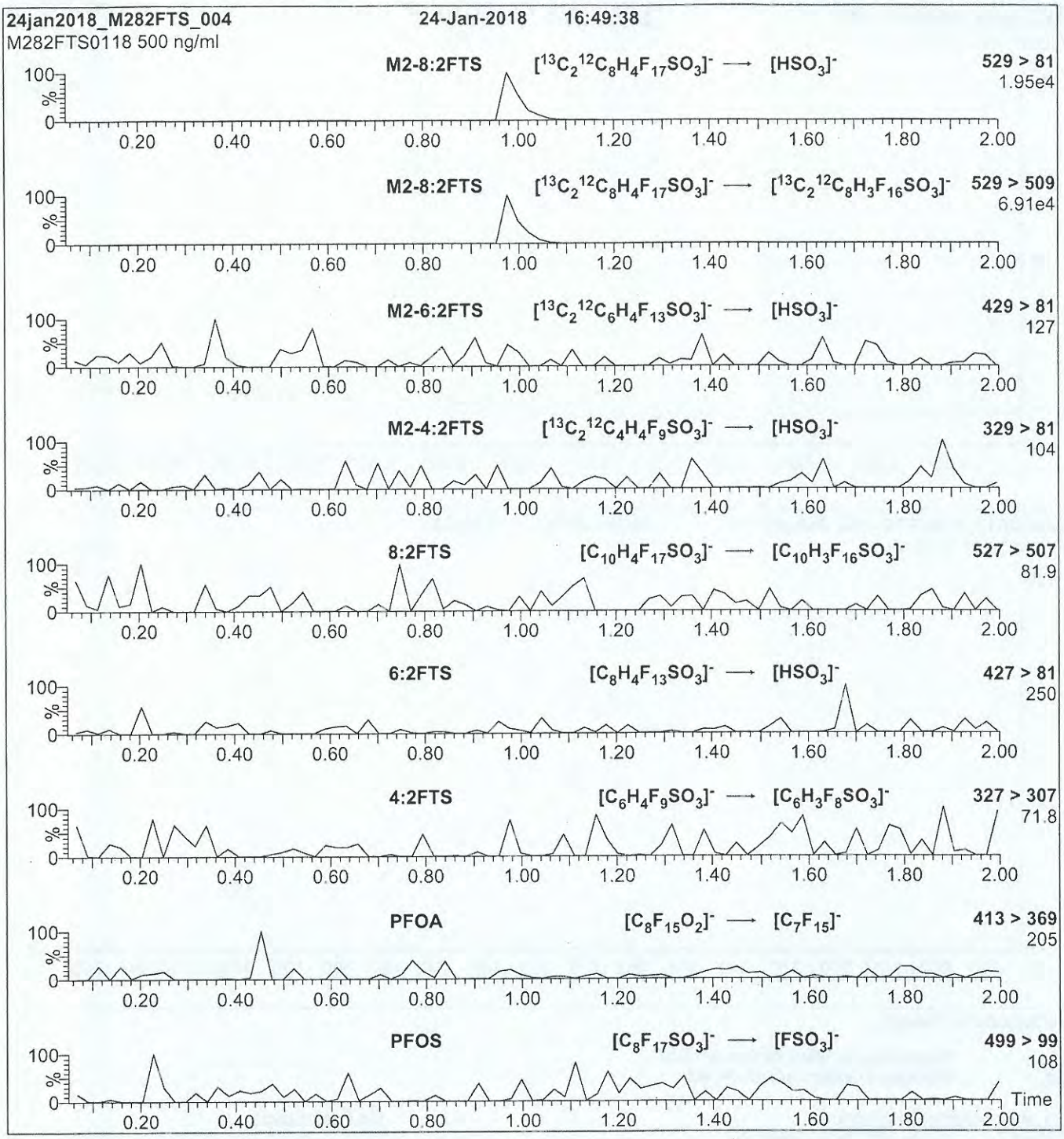
MS Parameters

Experiment: Full Scan (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

1812003

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) = 3.43e-3
Collision Energy (eV) = 25

18L2004

WELLINGTON LABORATORIES

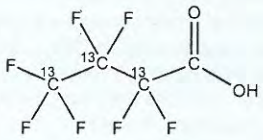
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFBA
COMPOUND: Perfluoro-n-[2,3,4-$^{13}C_3$]butanoic acid

LOT NUMBER: M3PFBA1217

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)	12/14/2017		
EXPIRY DATE: (mm/dd/yyyy)	12/14/2022		
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 ~ 0.2% 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:** 12/22/2017 (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

18L2004

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

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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.

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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 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).

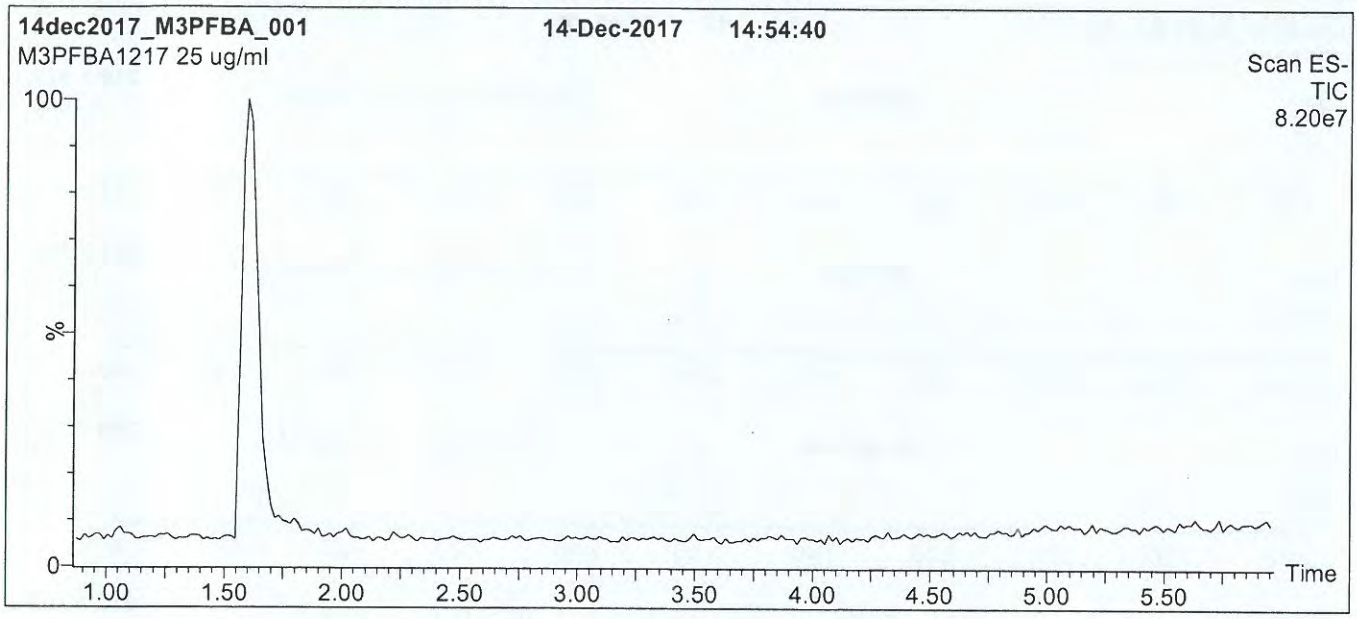
CALA Testing Accreditation No. A 1226

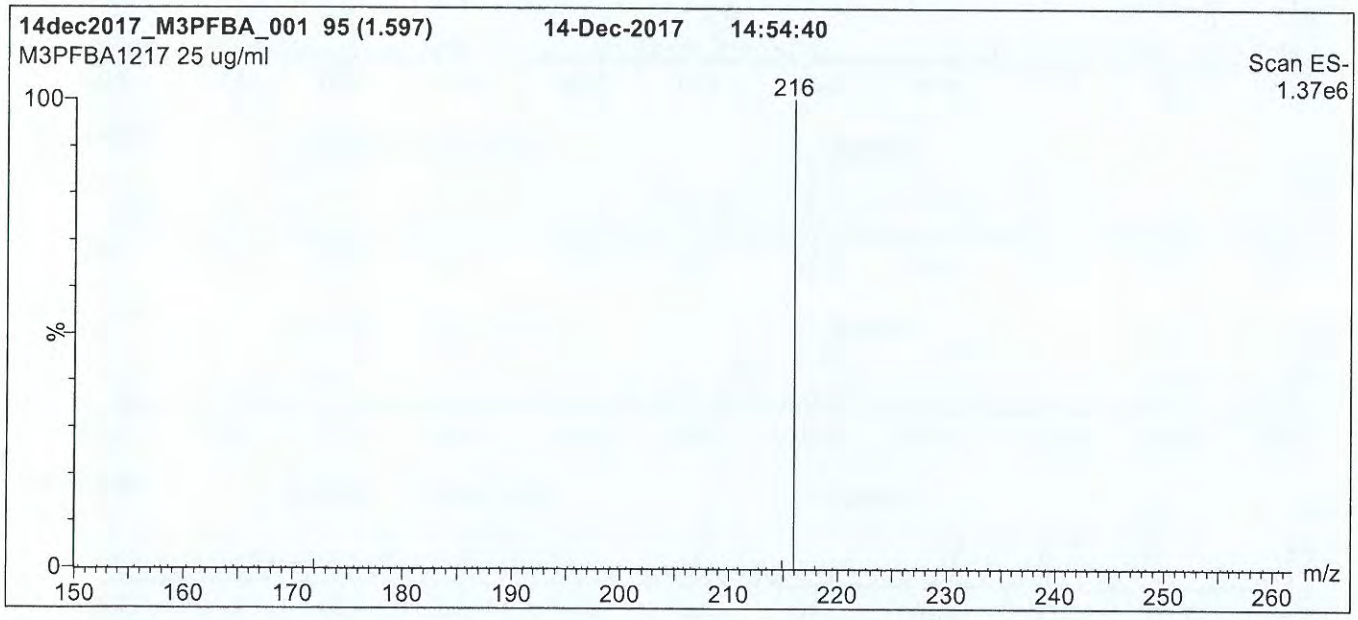
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1812004

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

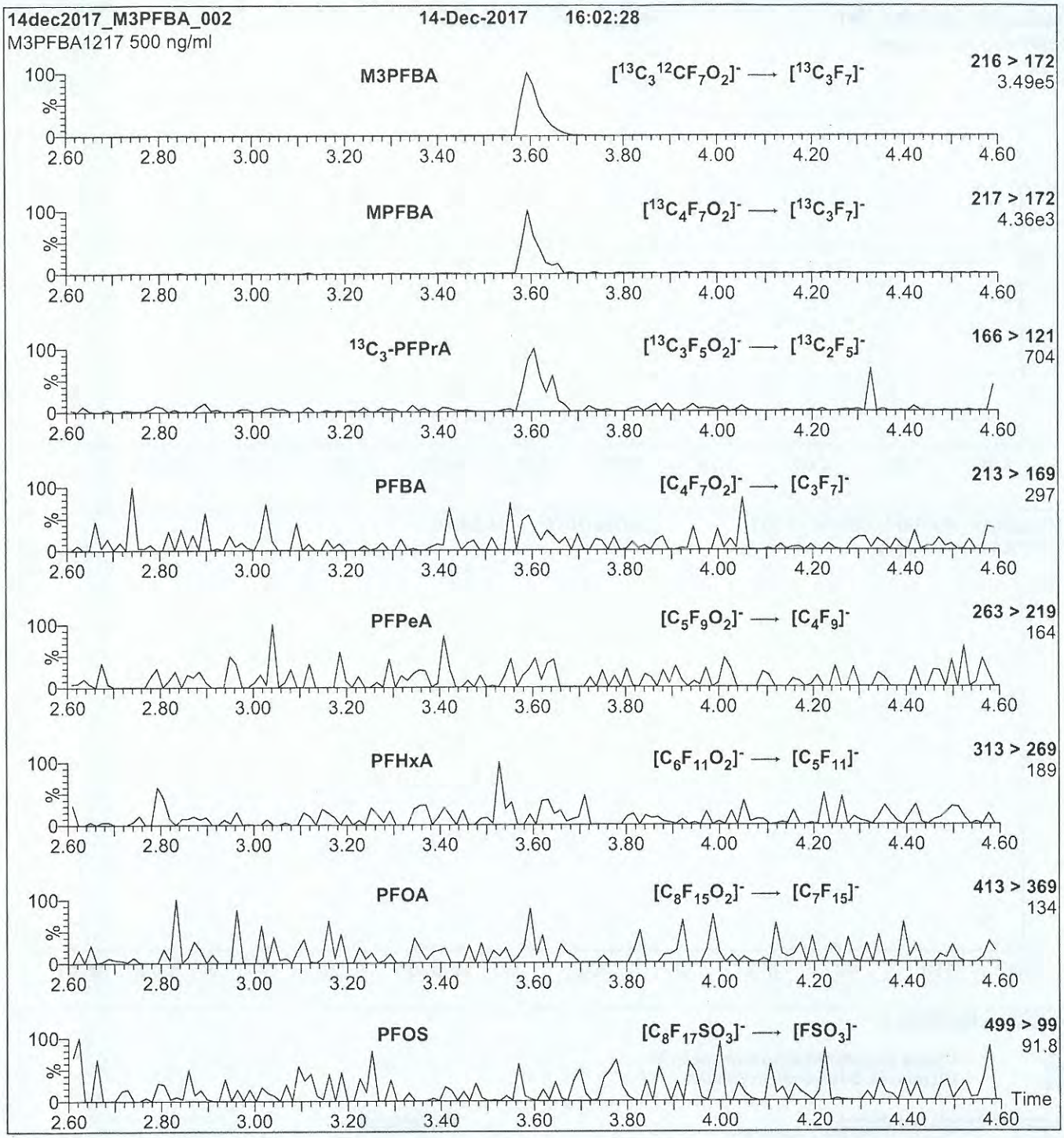
MS Parameters

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

18L2004

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

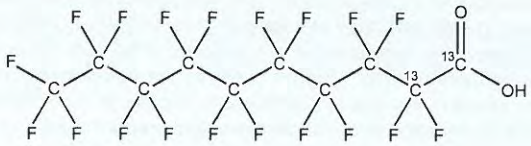
Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 10

18L2005

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFDA	**LOT NUMBER:**	MPFDA1218
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-$^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	12/06/2018		
EXPIRY DATE: (mm/dd/yyyy)	12/06/2023		
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:** 12/10/2018 (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

1812005

INTENDED USE:

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HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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.

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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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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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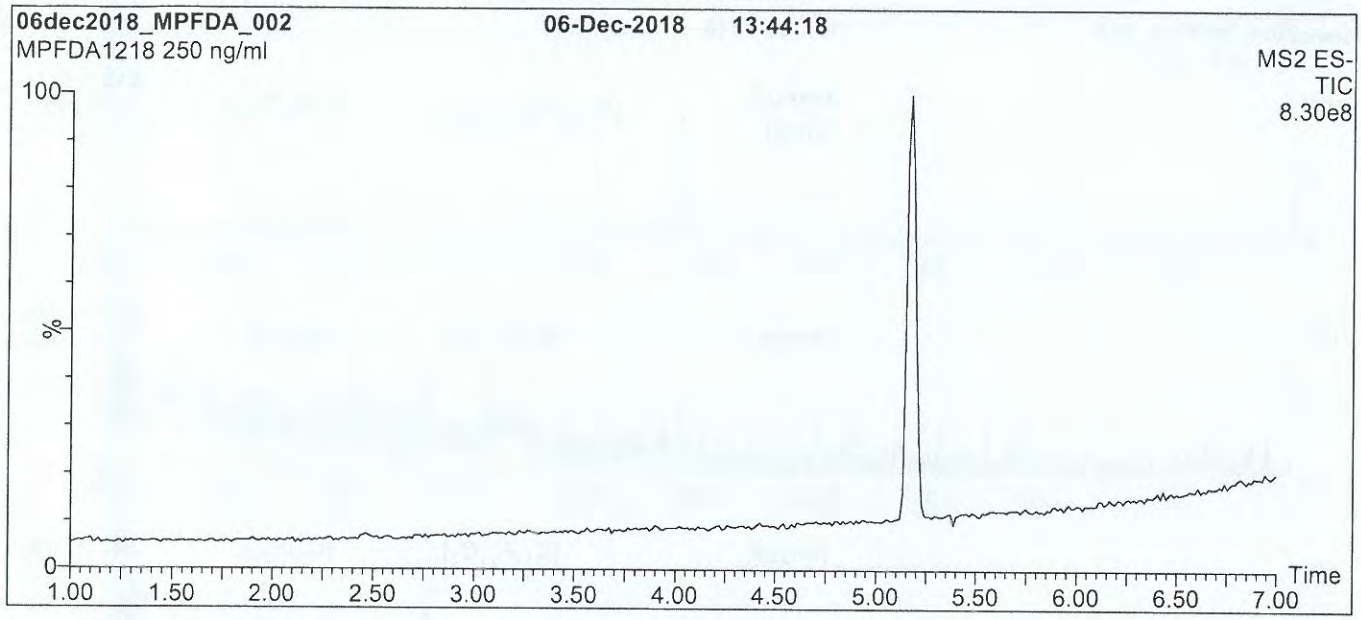
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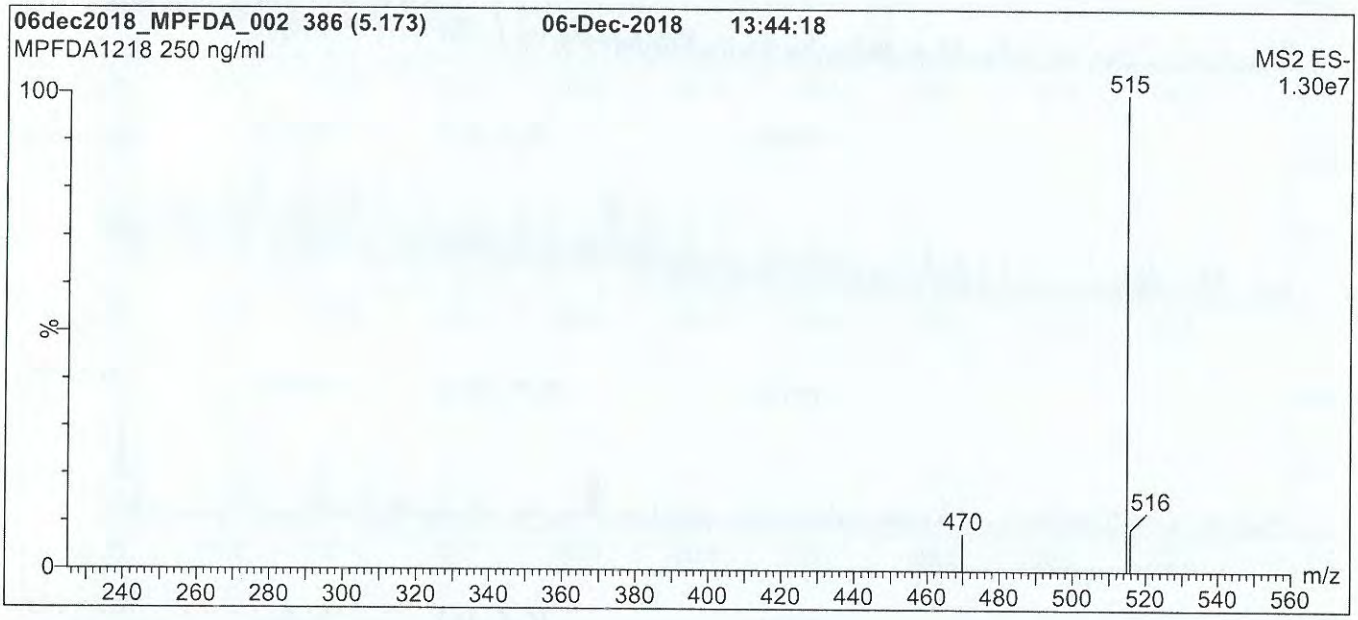
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

1812005

Figure 1: **MPFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

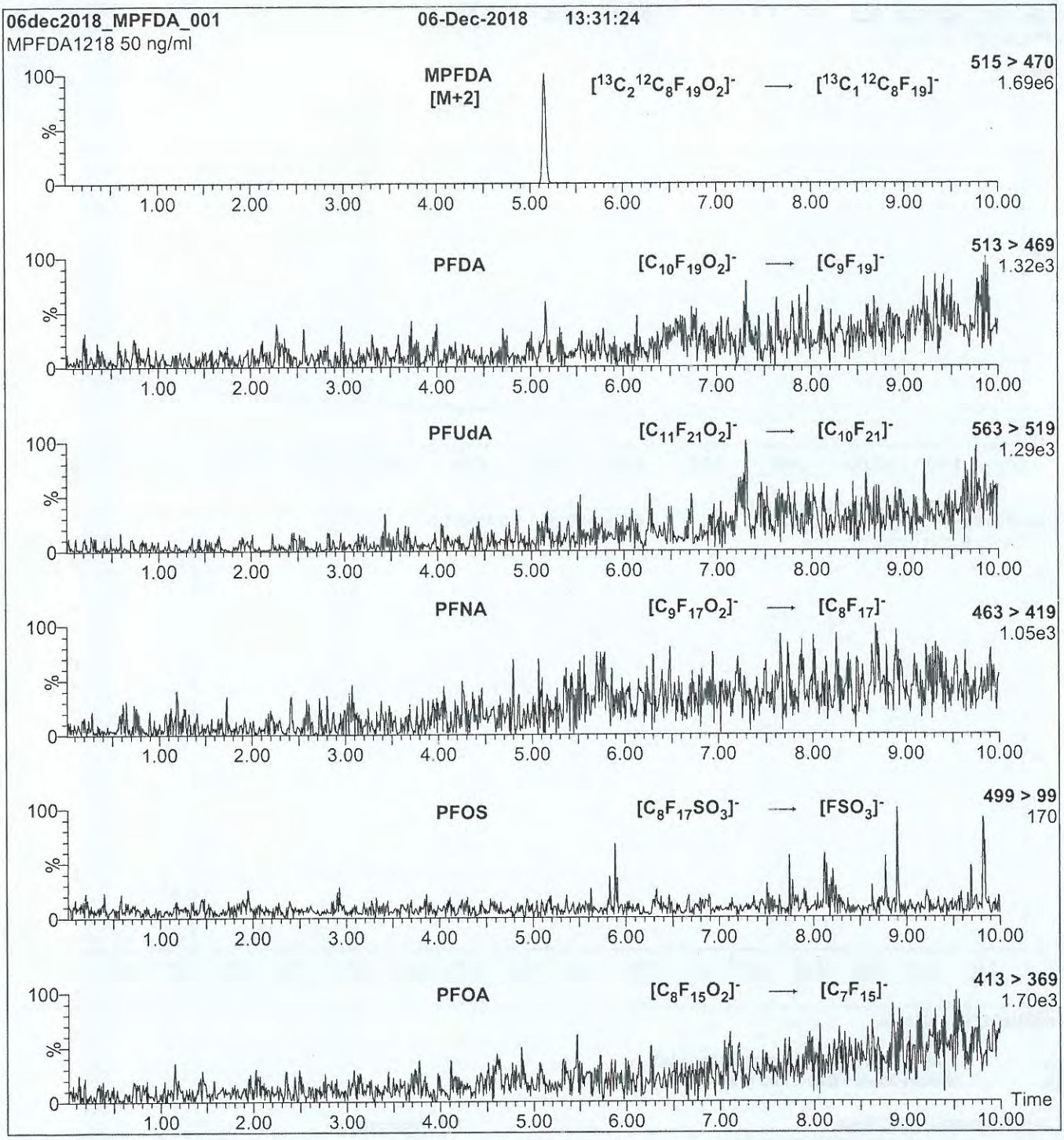
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

1812005

Figure 2: **MPFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFDA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

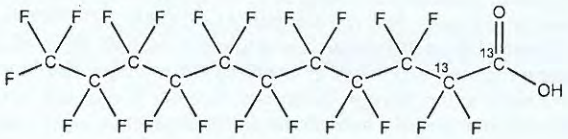
Collision Gas (mbar) = 3.27e-3
Collision Energy (eV) = 10

18L2006

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFUdA	**LOT NUMBER:**	MPFUdA0518
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]undecanoic acid		
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)	05/11/2018		
EXPIRY DATE: (mm/dd/yyyy)	05/11/2023		
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: _____ **Date:** 05/25/2018 (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

1812006

INTENDED USE:

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HANDLING:

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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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

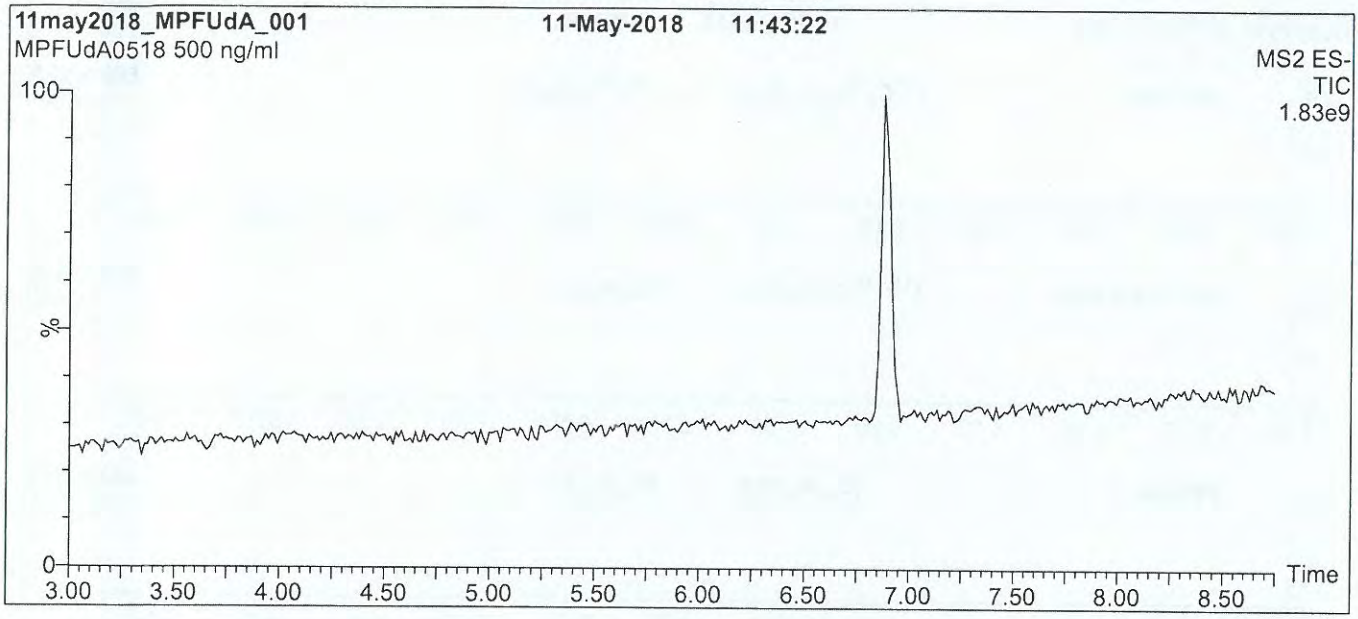
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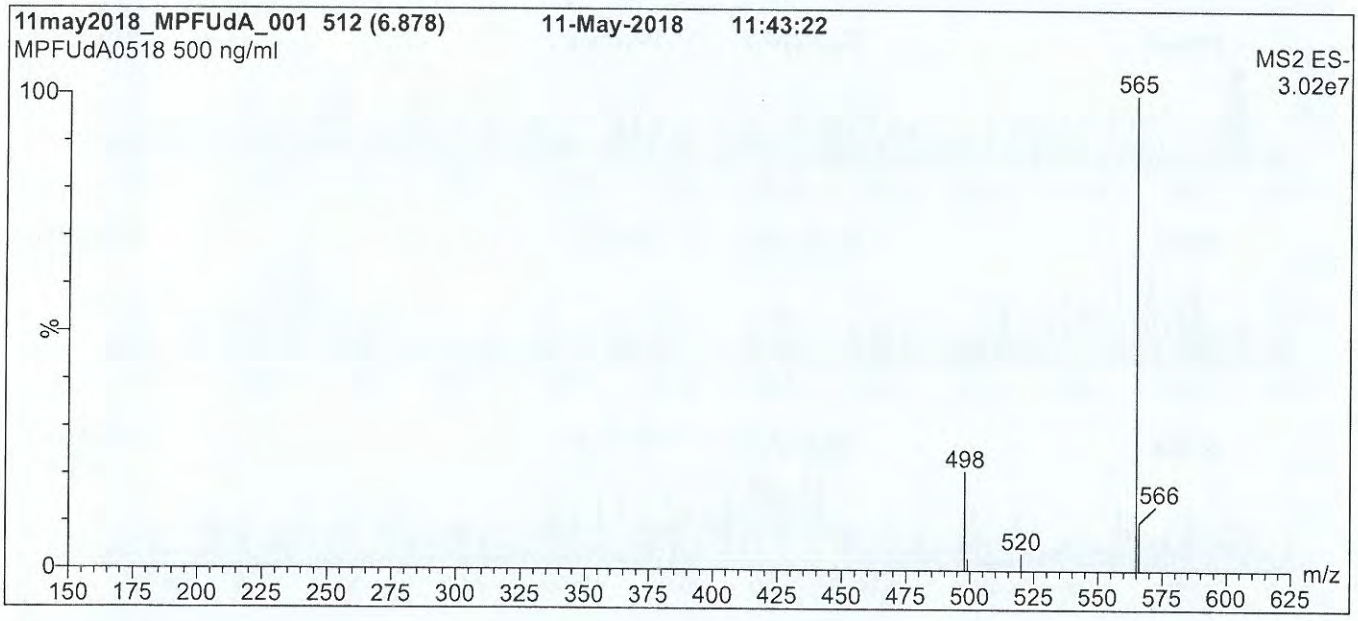
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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18L2006

Figure 1: **MPFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

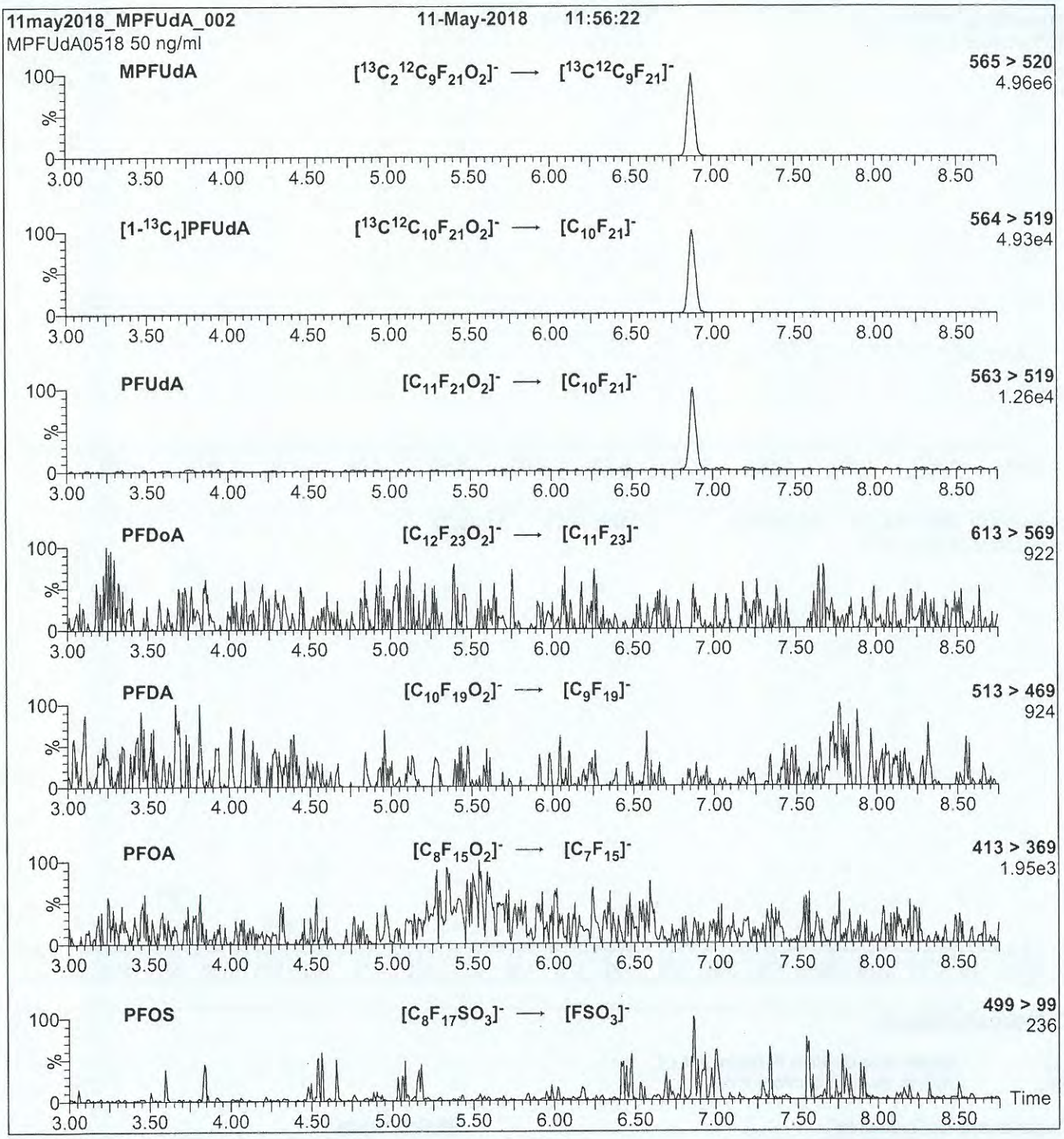
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

18L2006

Figure 2: **MPFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFUdA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

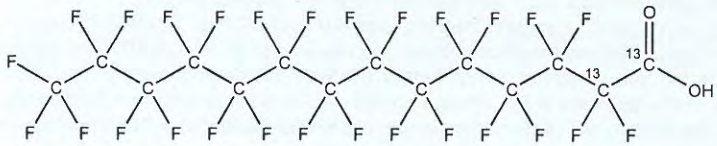
Collision Gas (mbar) = 3.51e-3
Collision Energy (eV) = 12

18L2007

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M2PFTeDA	**LOT NUMBER:**	M2PFTeDA1117
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid		
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)	11/30/2017		
EXPIRY DATE: (mm/dd/yyyy)	11/30/2022		
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:** 12/01/2017 (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

1812007

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:

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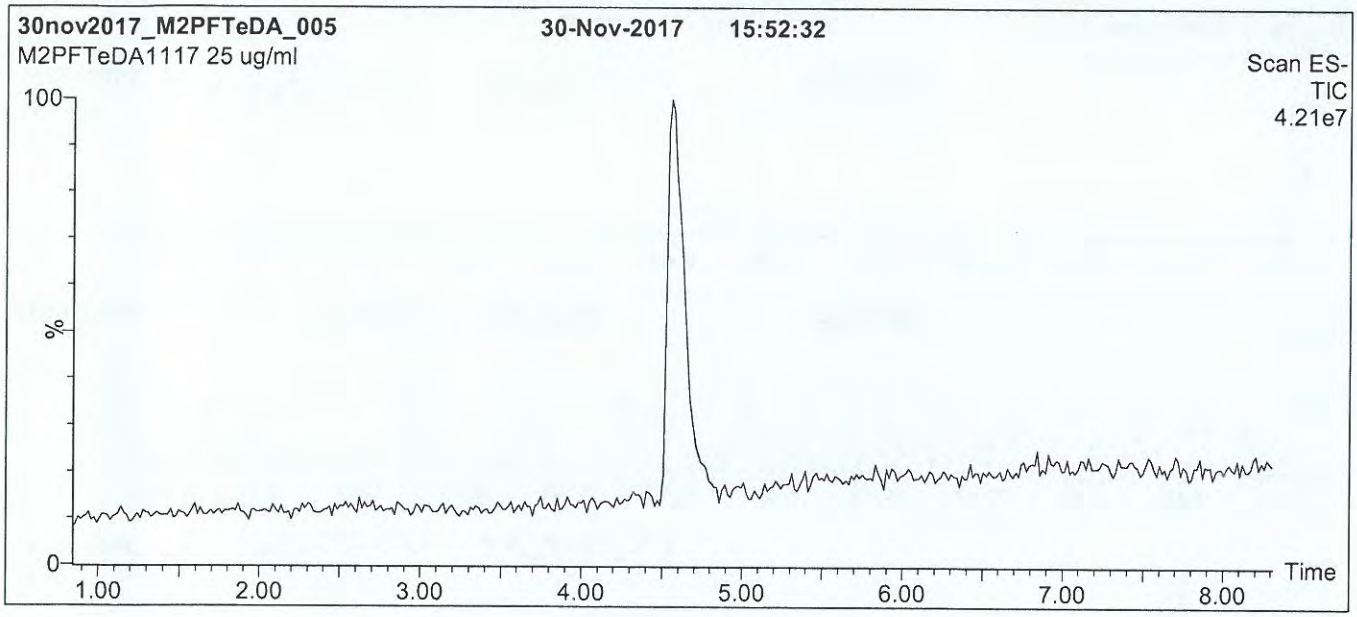
CALA Testing Accreditation No. A1226

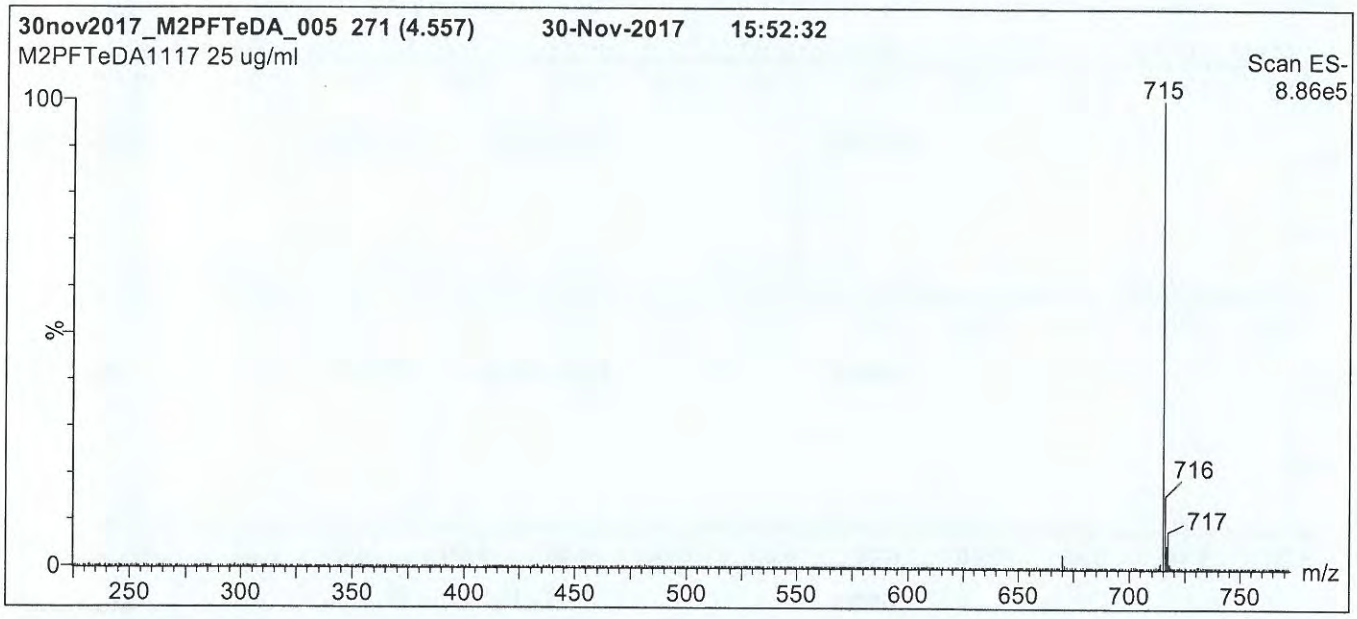
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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1862007

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

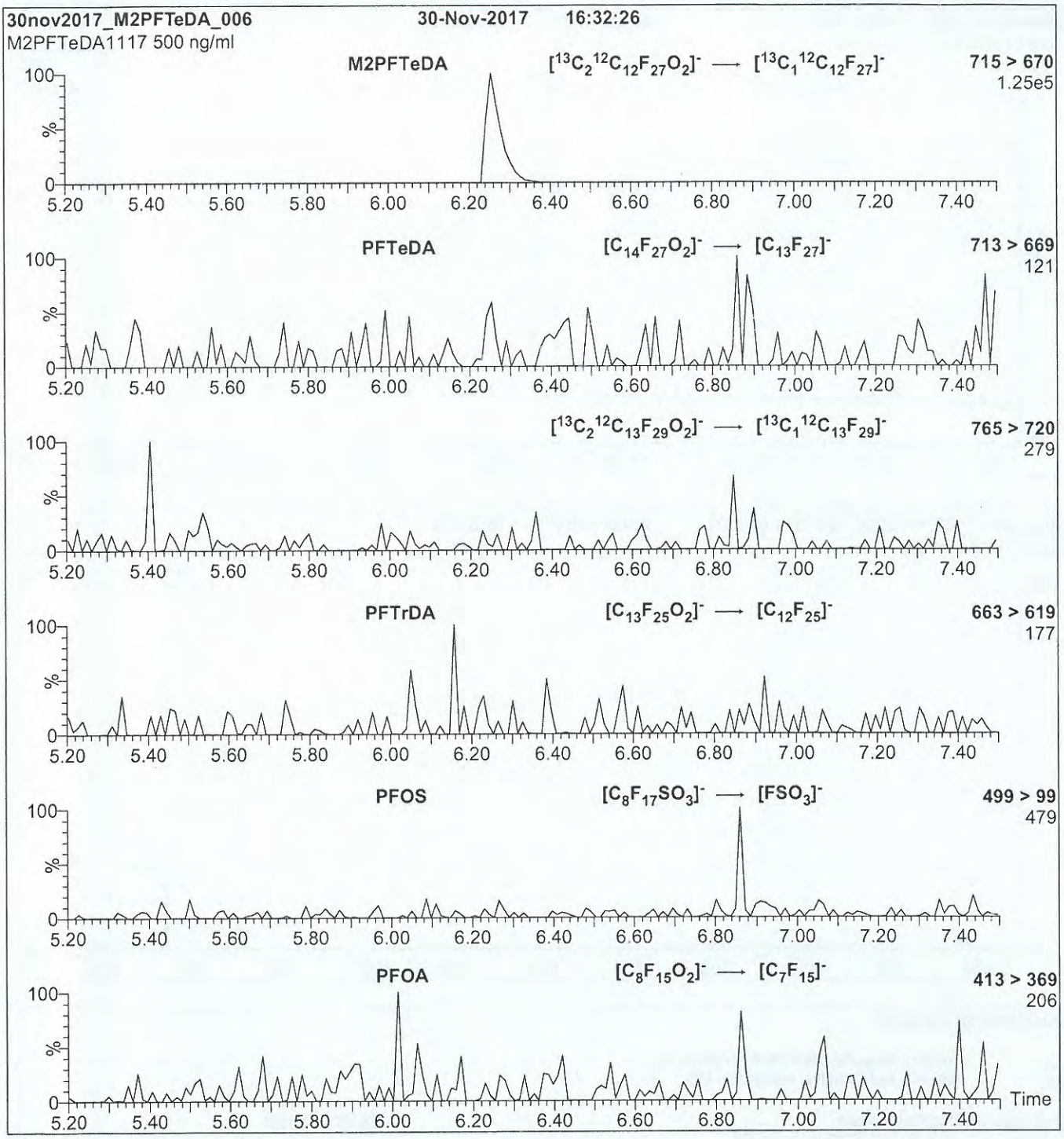
MS Parameters

Experiment: Full Scan (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

1812007

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

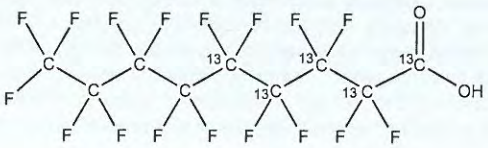
Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 14

1812008

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFNA	**LOT NUMBER:**	MPFNA1217
COMPOUND:	Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid		
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)	12/14/2017		
EXPIRY DATE: (mm/dd/yyyy)	12/14/2022		
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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 12/19/2017 (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

1812008

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:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

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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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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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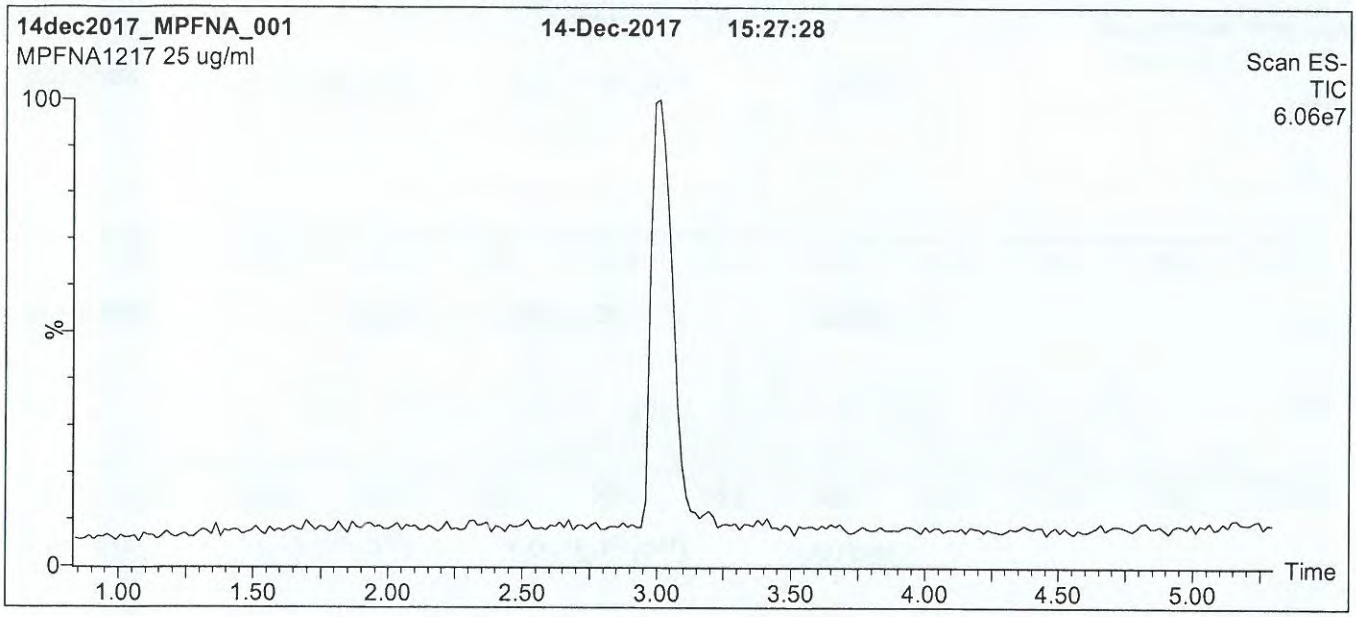
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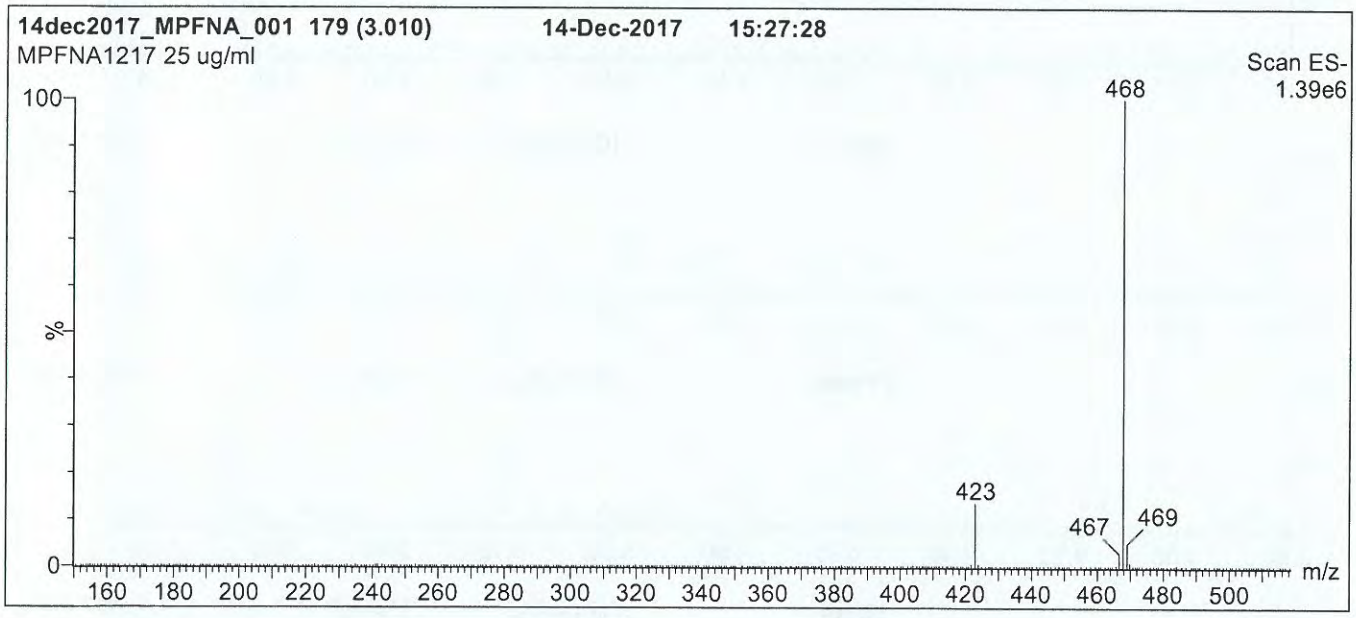
ANAB ACCREDITED ISO 17025 ISO 17034 REFERENCE MATERIAL PRODUCER

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1812008

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: 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

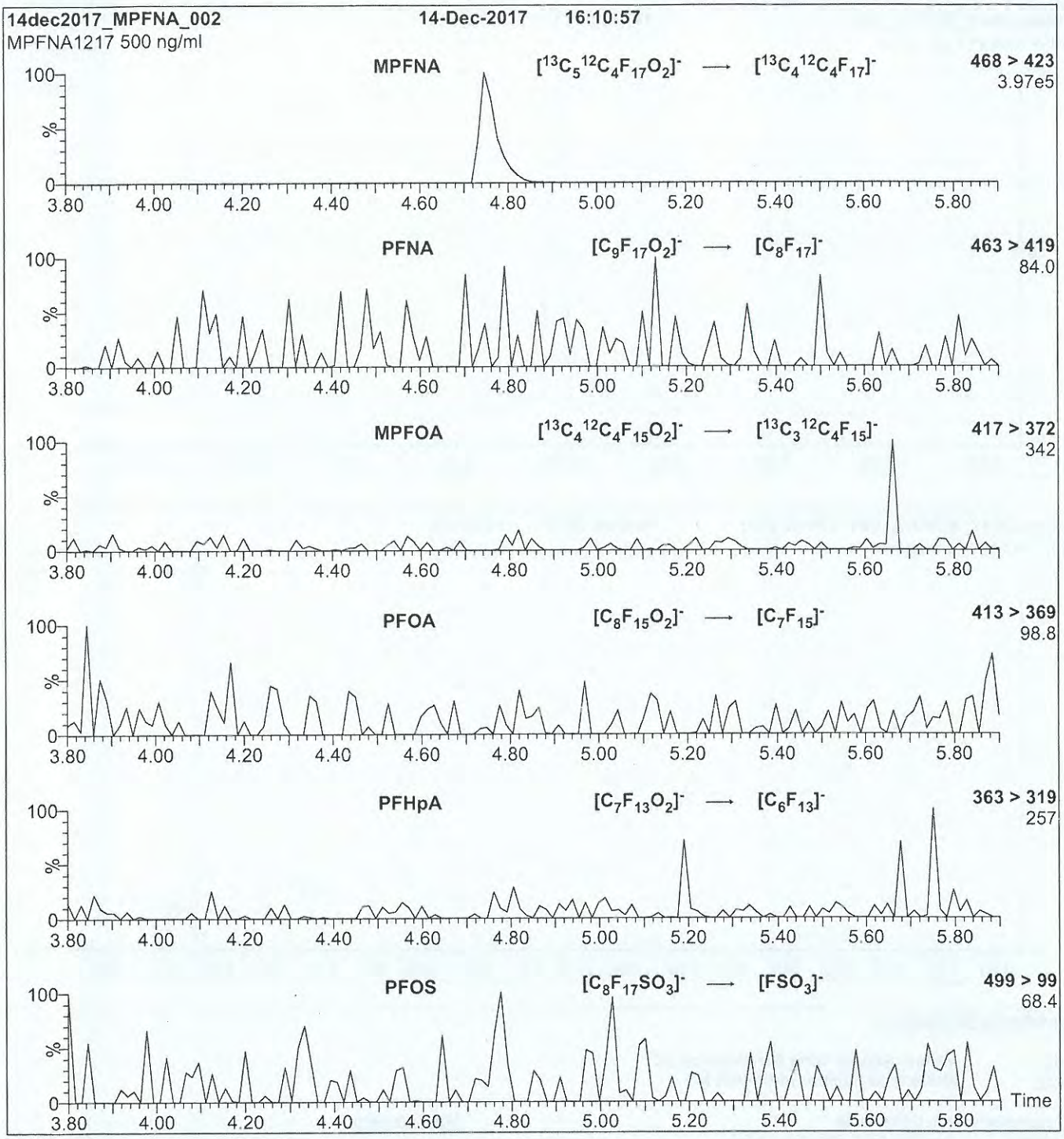
MS Parameters

Experiment: Full Scan (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

18L2008

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) = 3.43e-3
Collision Energy (eV) = 11

18L2009

WELLINGTON LABORATORIES

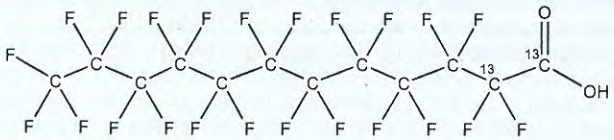
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFDoA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid

LOT NUMBER: MPFDoA0218

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{10}HF_{23}O_2$	**MOLECULAR WEIGHT:**	616.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	02/16/2018		
EXPIRY DATE: (mm/dd/yyyy)	02/16/2023		
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:** 02/23/2018 (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

18L2009

INTENDED USE:

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HANDLING:

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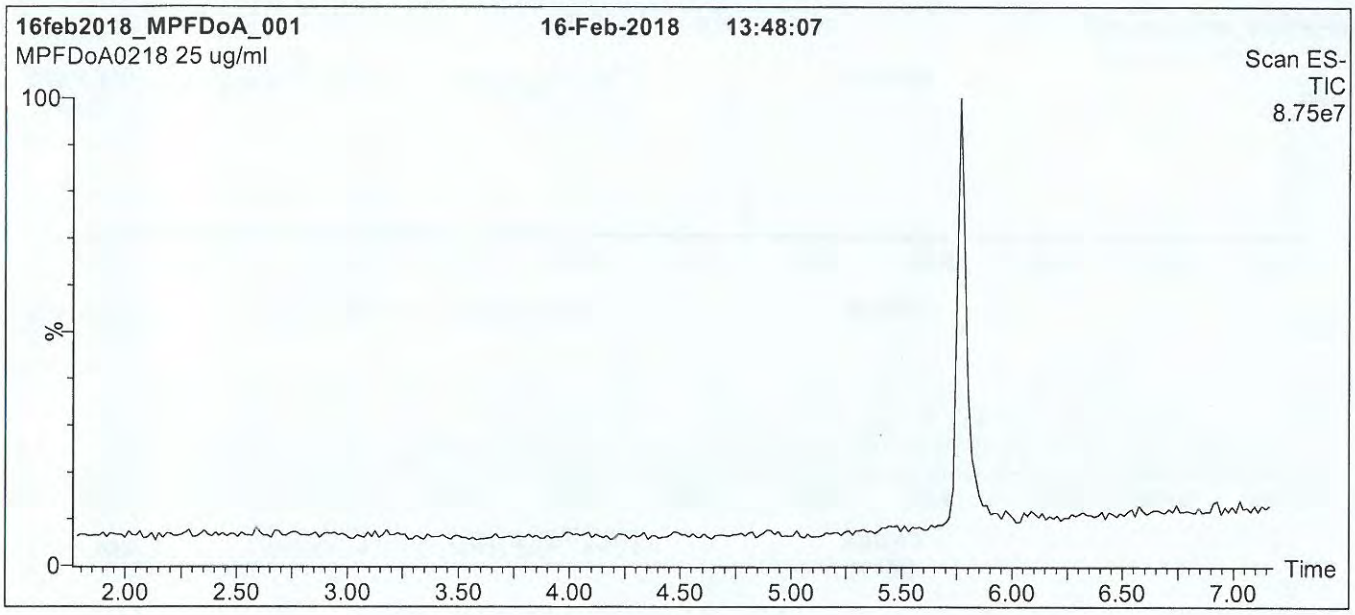
CALA Testing Accreditation No. A 1226

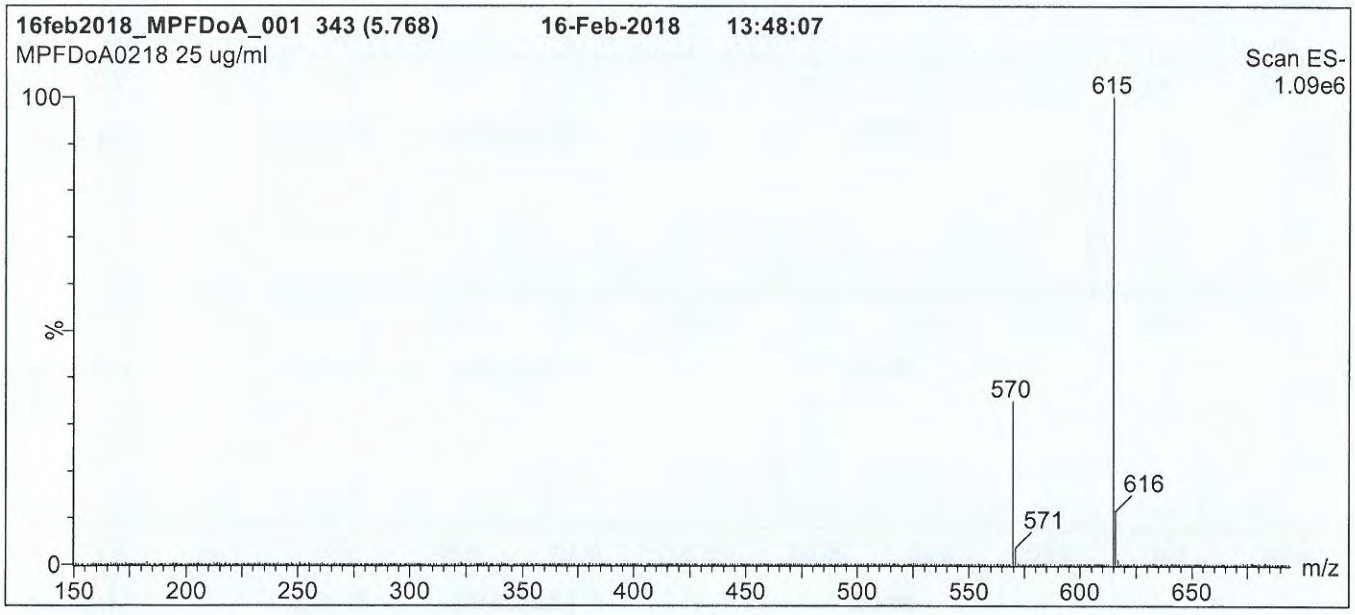
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1862009

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: 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

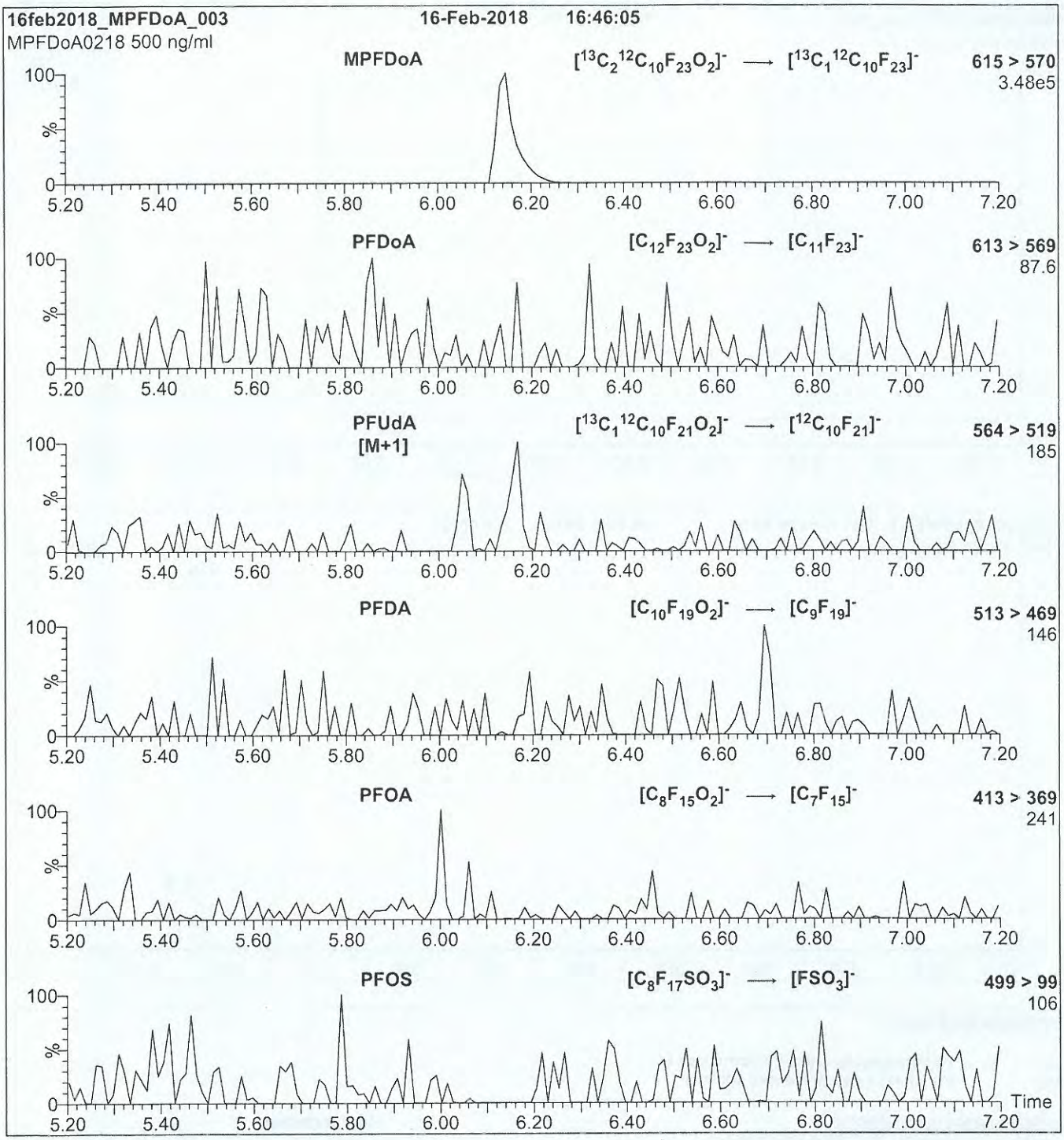
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 20.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

1812009

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

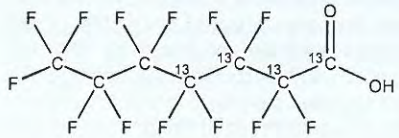
Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 13

18L2010

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M4PFHpA	**LOT NUMBER:**	M4PFHpA0618
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 ($1,2,3,4\text{-}^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	07/06/2018		
EXPIRY DATE: (mm/dd/yyyy)	07/06/2023		
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 ~ 0.04% of perfluoro-n-heptanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/09/2018 (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

18L2010

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

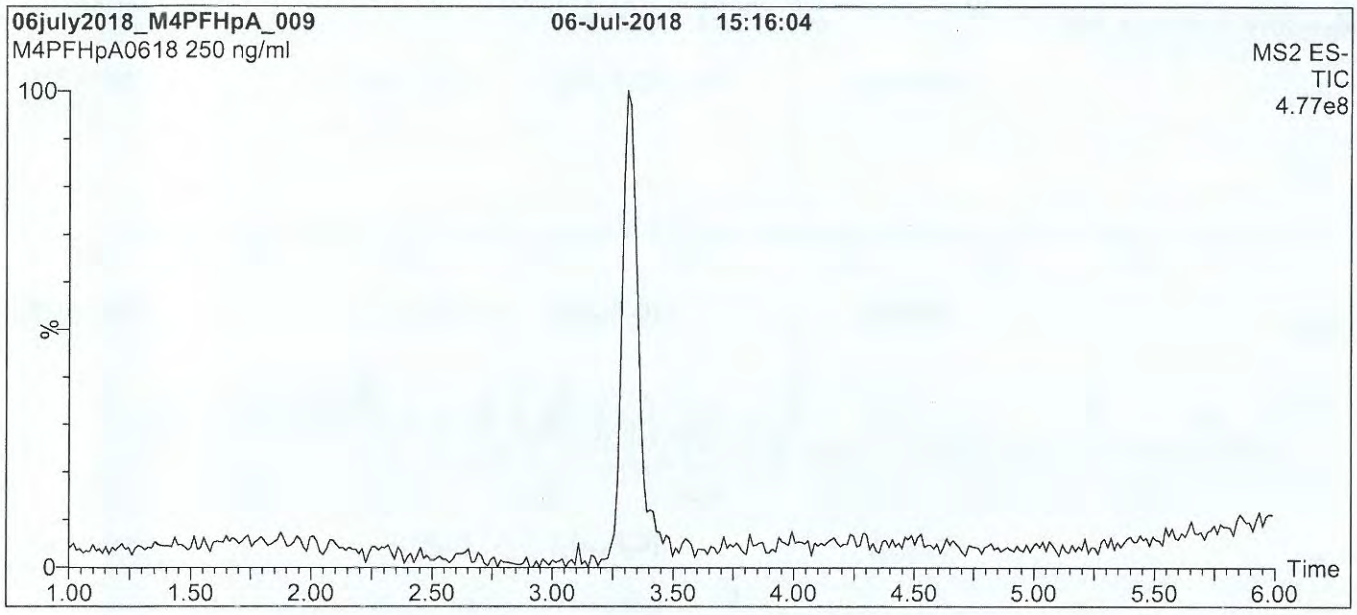
CALA Testing Accreditation No. A 1226

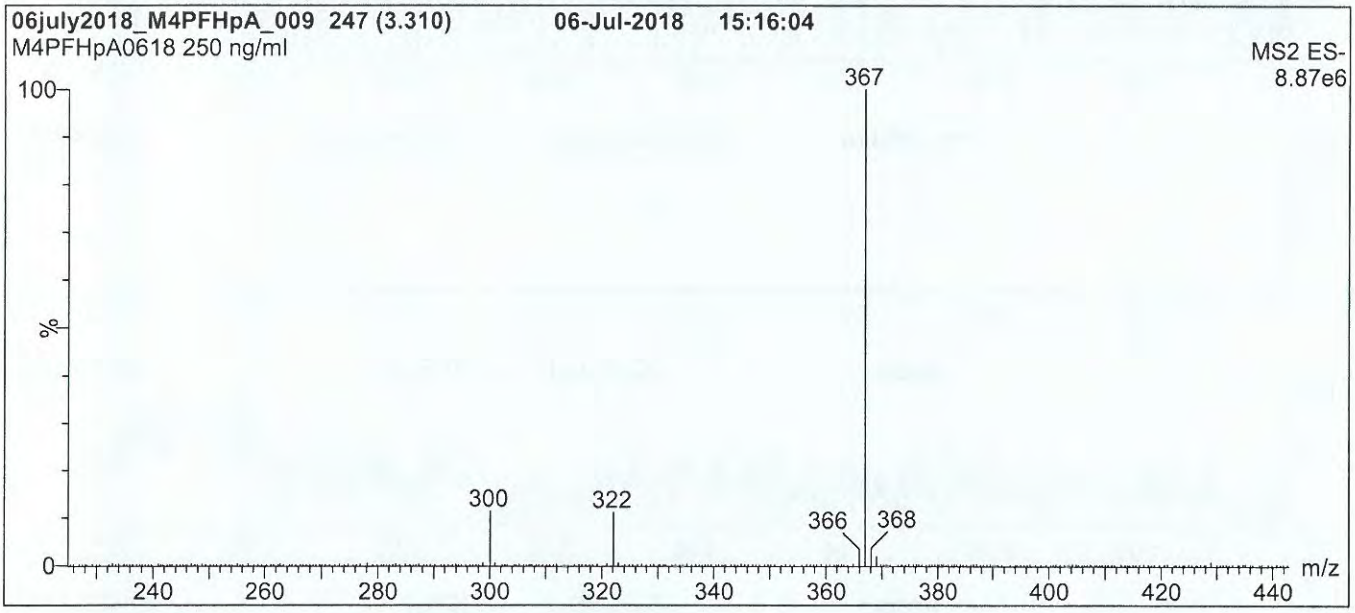
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1862010

Figure 1: **M4PFHpA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

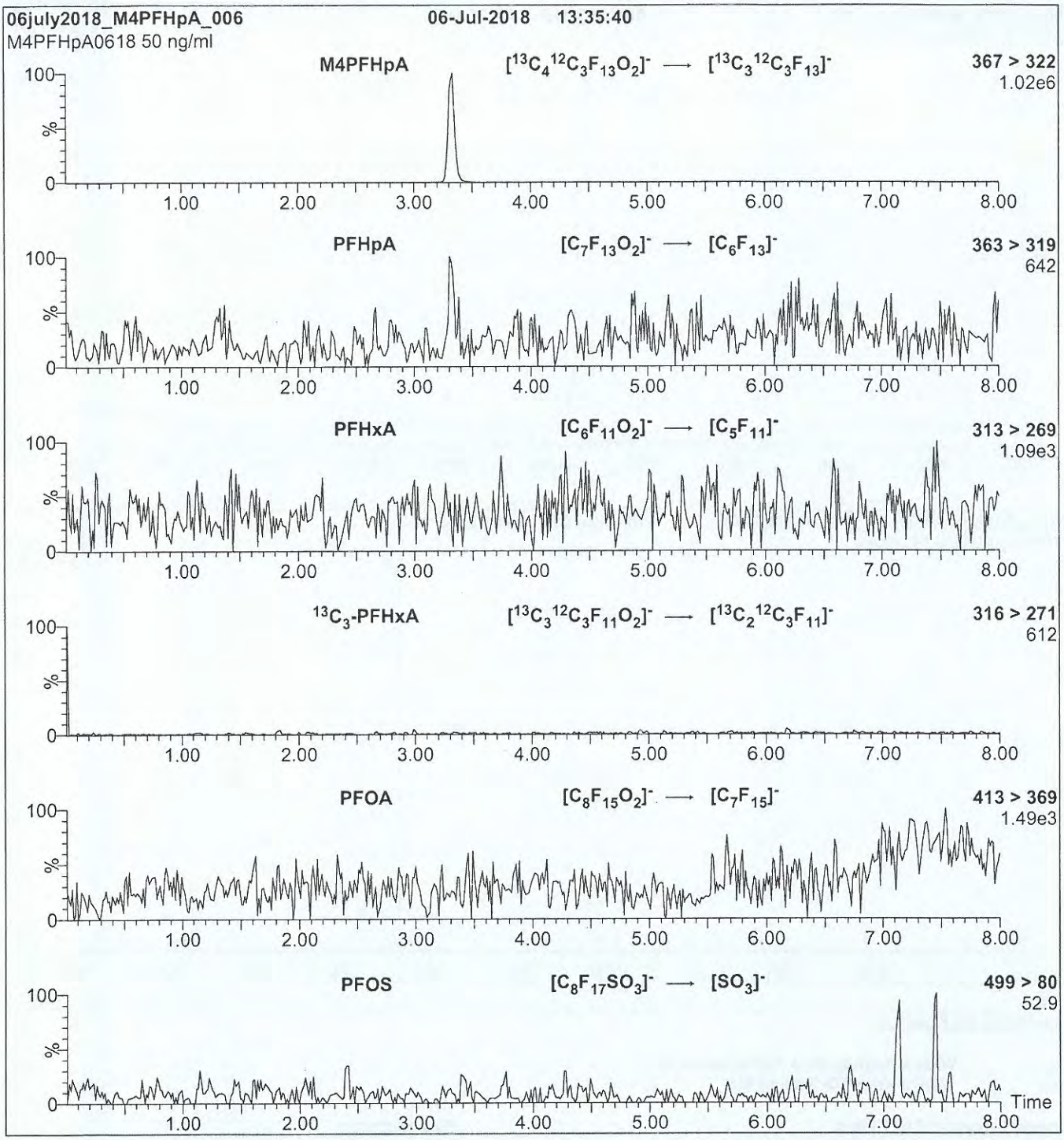
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1862010

Figure 2: **M4PFHpA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M4PFHpA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

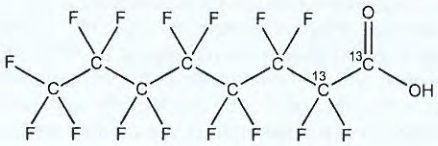
Collision Gas (mbar) = 3.89e-3
Collision Energy (eV) = 8

18L2011

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M2PFOA	**LOT NUMBER:**	M2PFOA1018
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-$^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	10/10/2018		
EXPIRY DATE: (mm/dd/yyyy)	10/10/2023		
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-[$^{13}C_1$]heptanoic acid ($^{13}C_1$-PFHpA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/17/2018 (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

18L2011

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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:

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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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

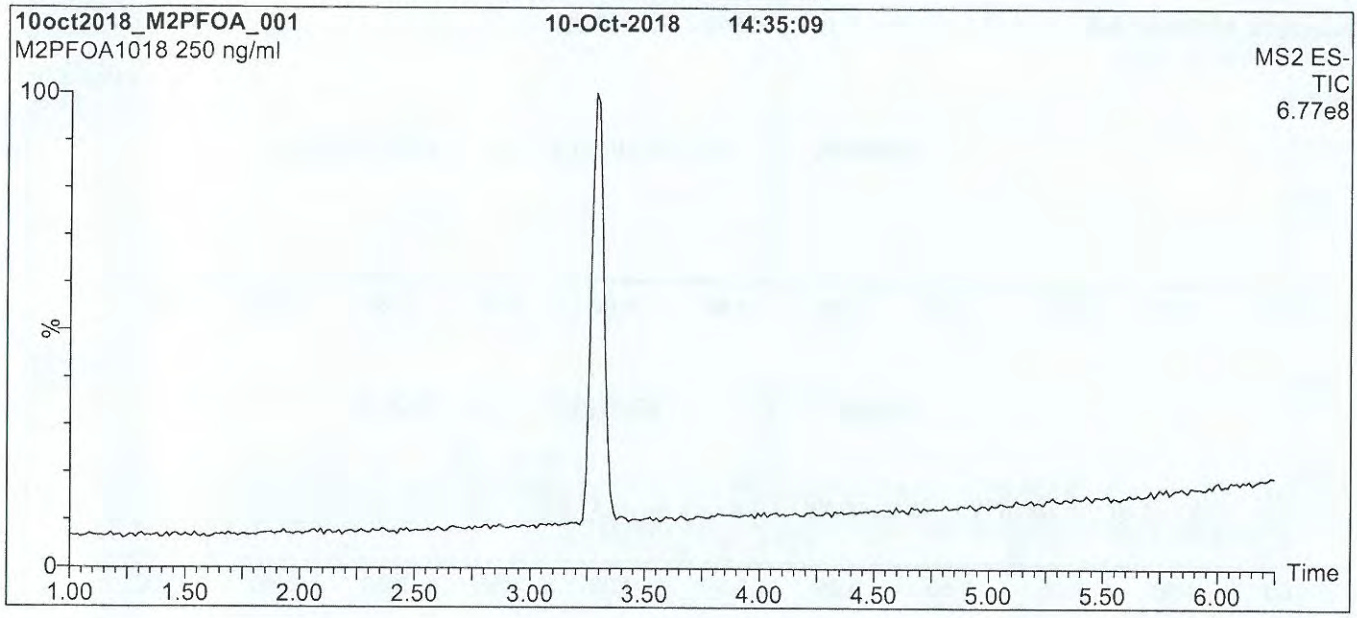
CALA Testing Accreditation No. A1226

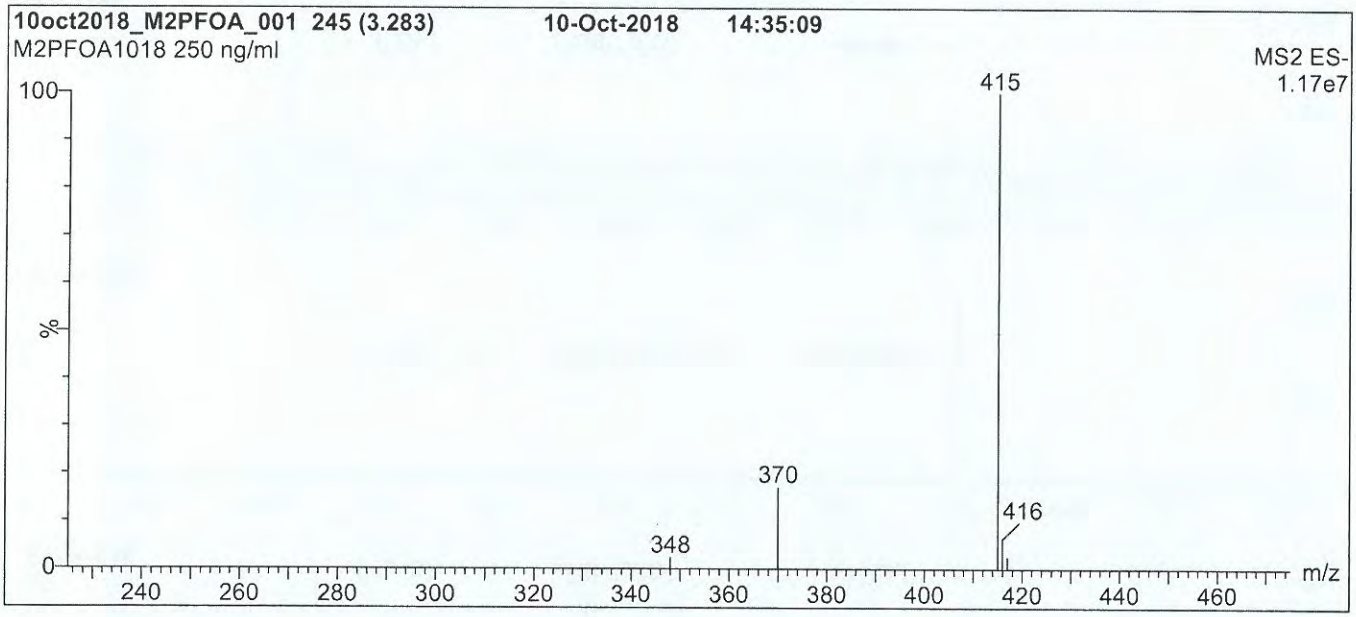
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18L2011

Figure 1: **M2PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

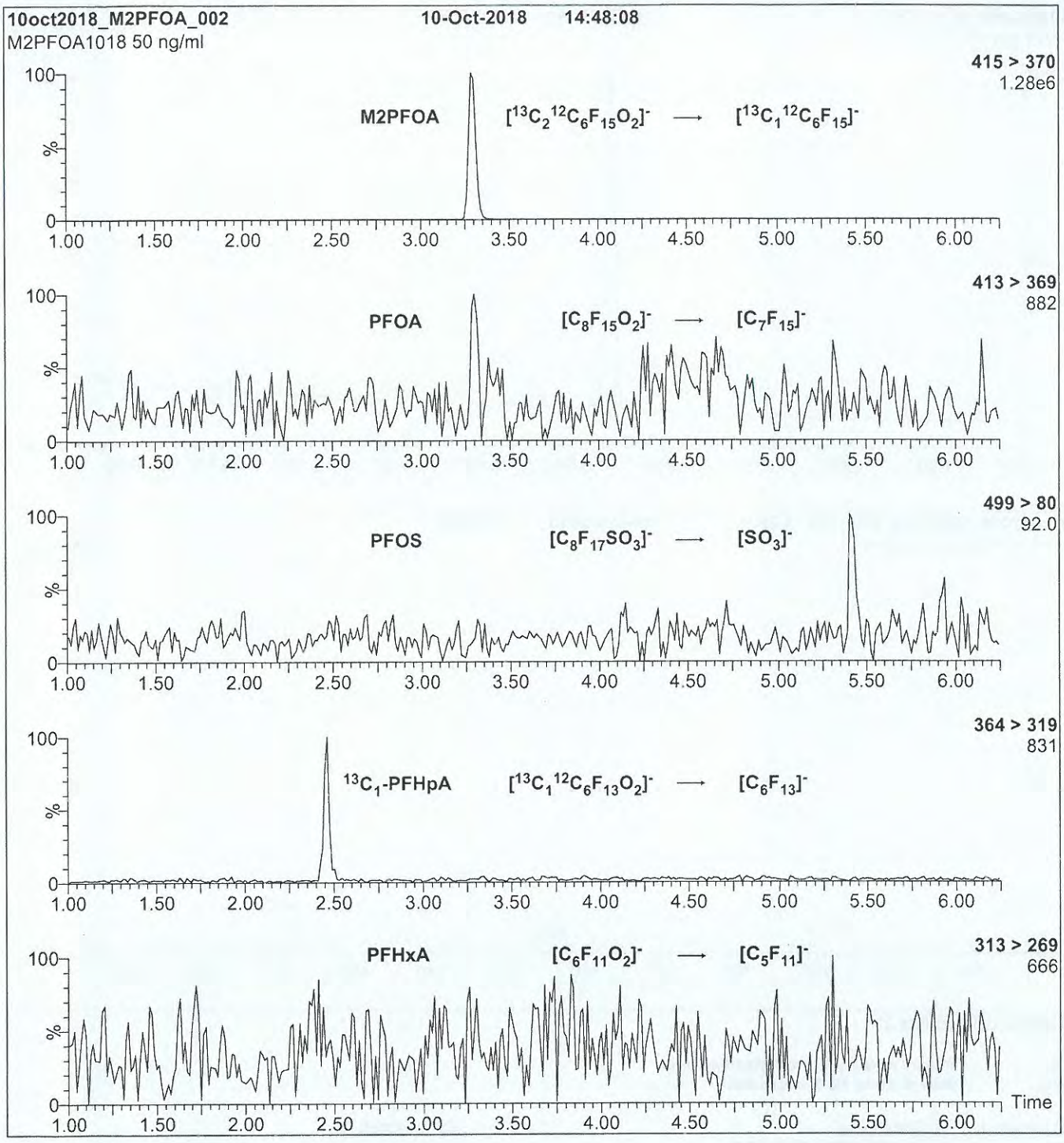
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

1812011

Figure 2: **M2PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M2PFOA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

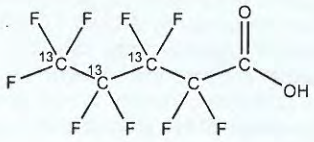
Collision Gas (mbar) = 2.97e-3
Collision Energy (eV) = 8

18/2012

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M3PFPeA	**LOT NUMBER:**	M3PFPeA0417
COMPOUND:	Perfluoro-n-[3,4,5-$^{13}C_3$]pentanoic acid		
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

18L2012

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.

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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 calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

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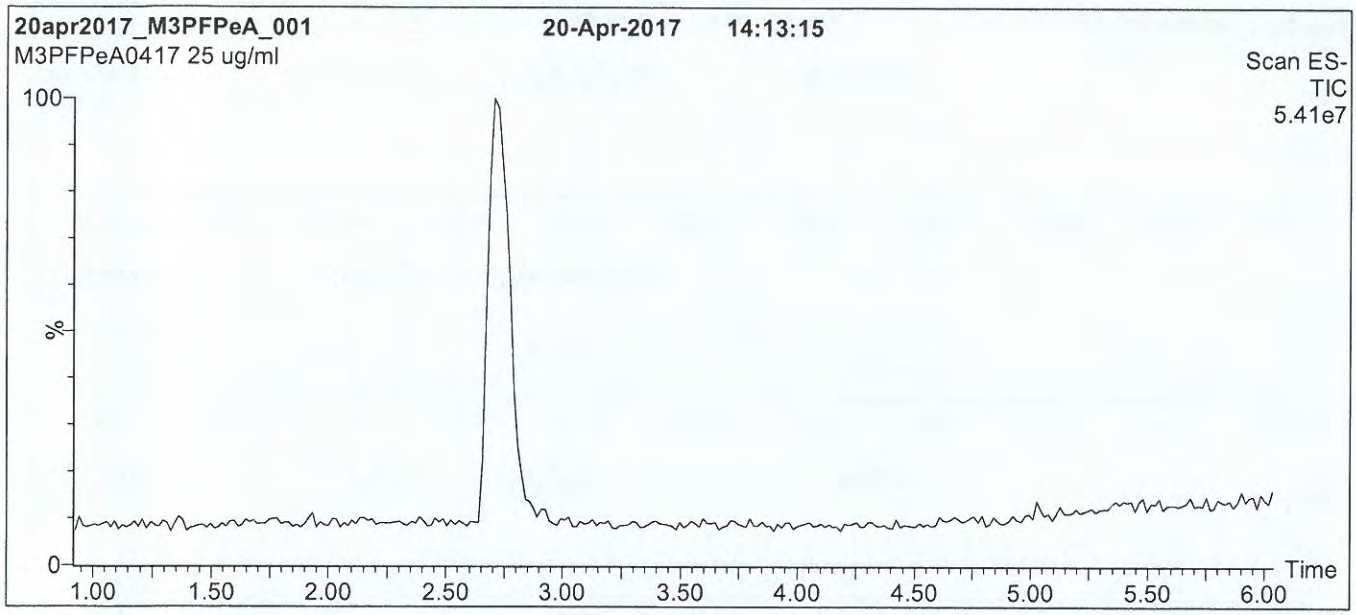
CALA Testing Accreditation No. A 1226

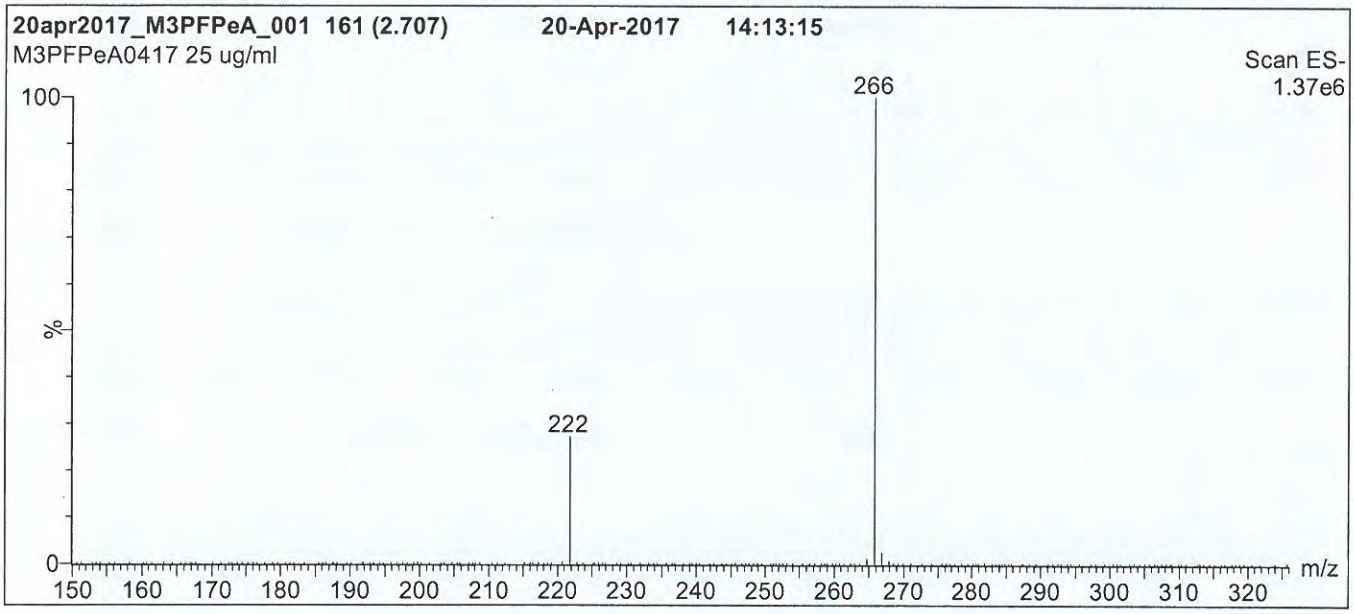
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18L2012

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

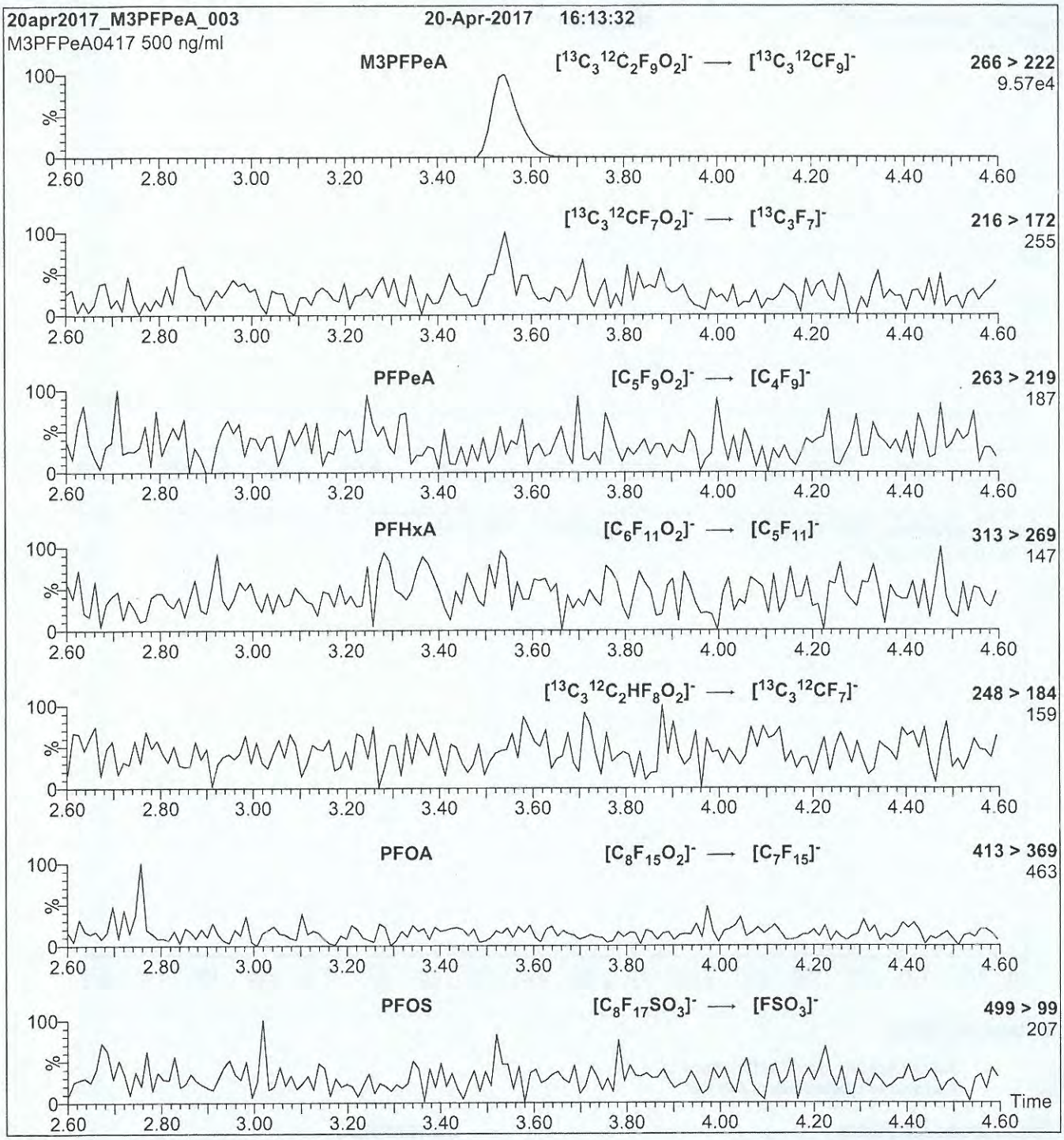
MS Parameters

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

1/8/2012

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

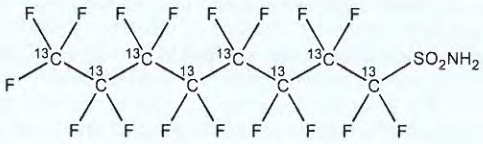
Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 9

1812013

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M8FOSA-I	**LOT NUMBER:**	M8FOSA1018I
COMPOUND:	Perfluoro-1-[$^{13}C_8$]octanesulfonamide		
STRUCTURE:		**CAS #:**	1365803-60-6



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)	10/10/2018		
EXPIRY DATE: (mm/dd/yyyy)	10/10/2023		
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, ~ 0.5% of perfluoro-n-[$^{13}C_8$]octanoic acid (M8PFOA), and ~ 0.02% of perfluoro-1-[$^{13}C_7$]heptanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/15/2018 (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

1812013

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

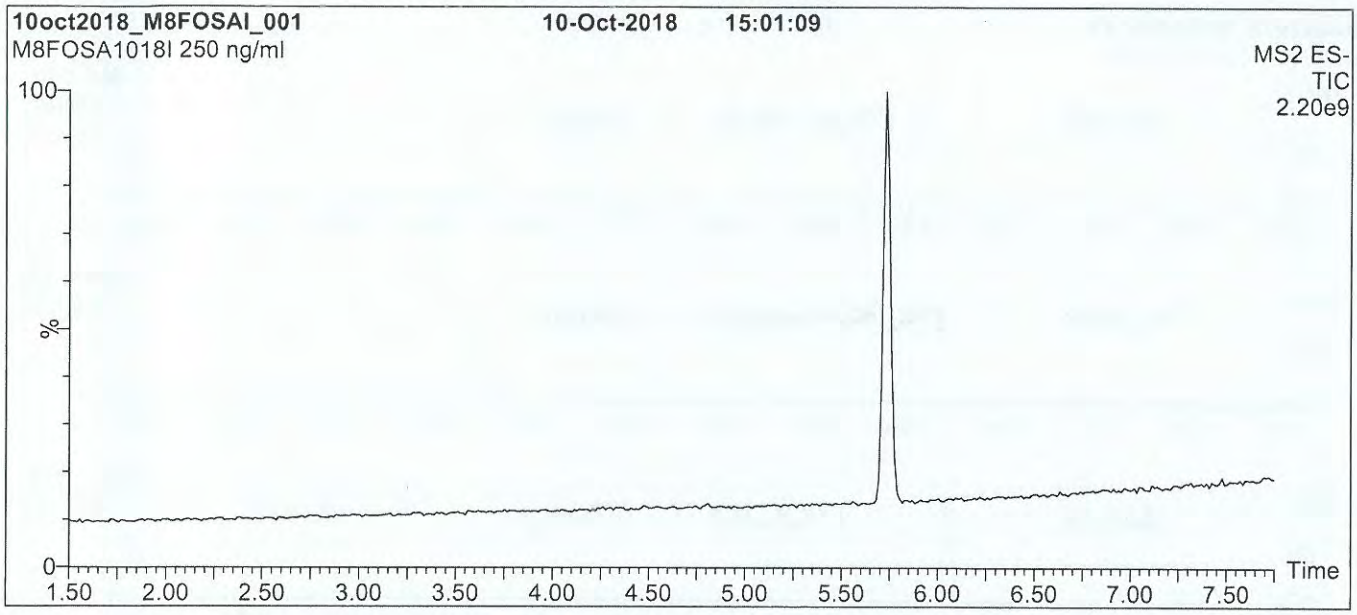
CALA Testing Accreditation No. A1226

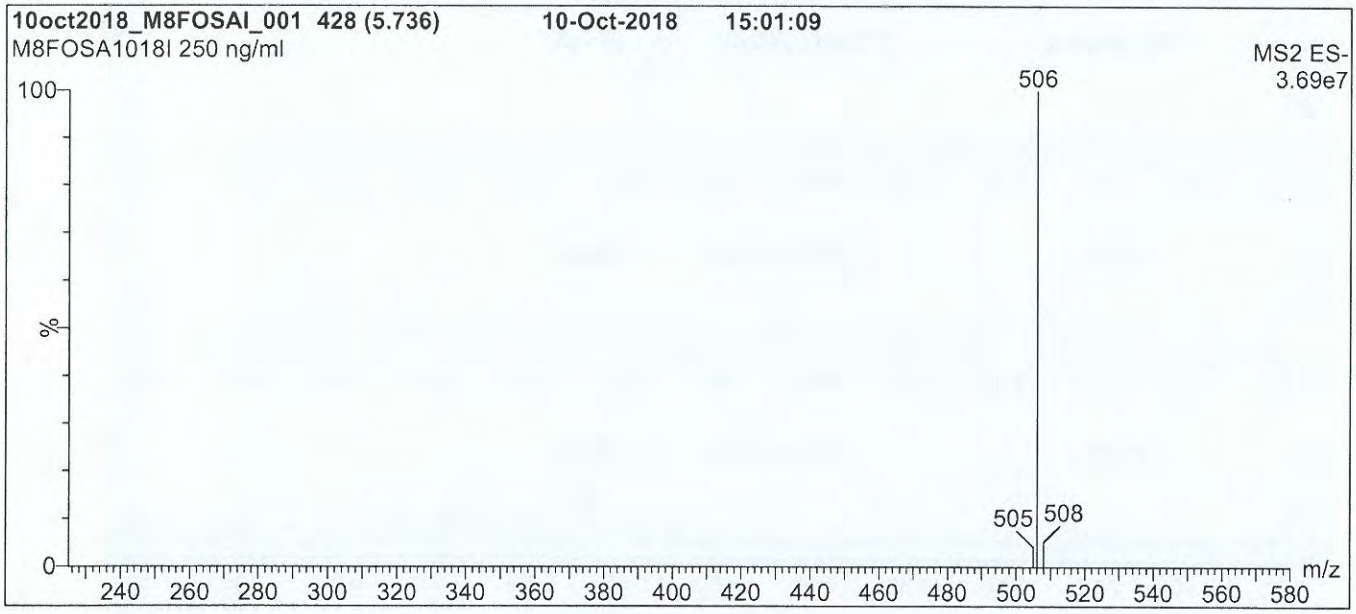
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1812013

Figure 1: **M8FOSA-I; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

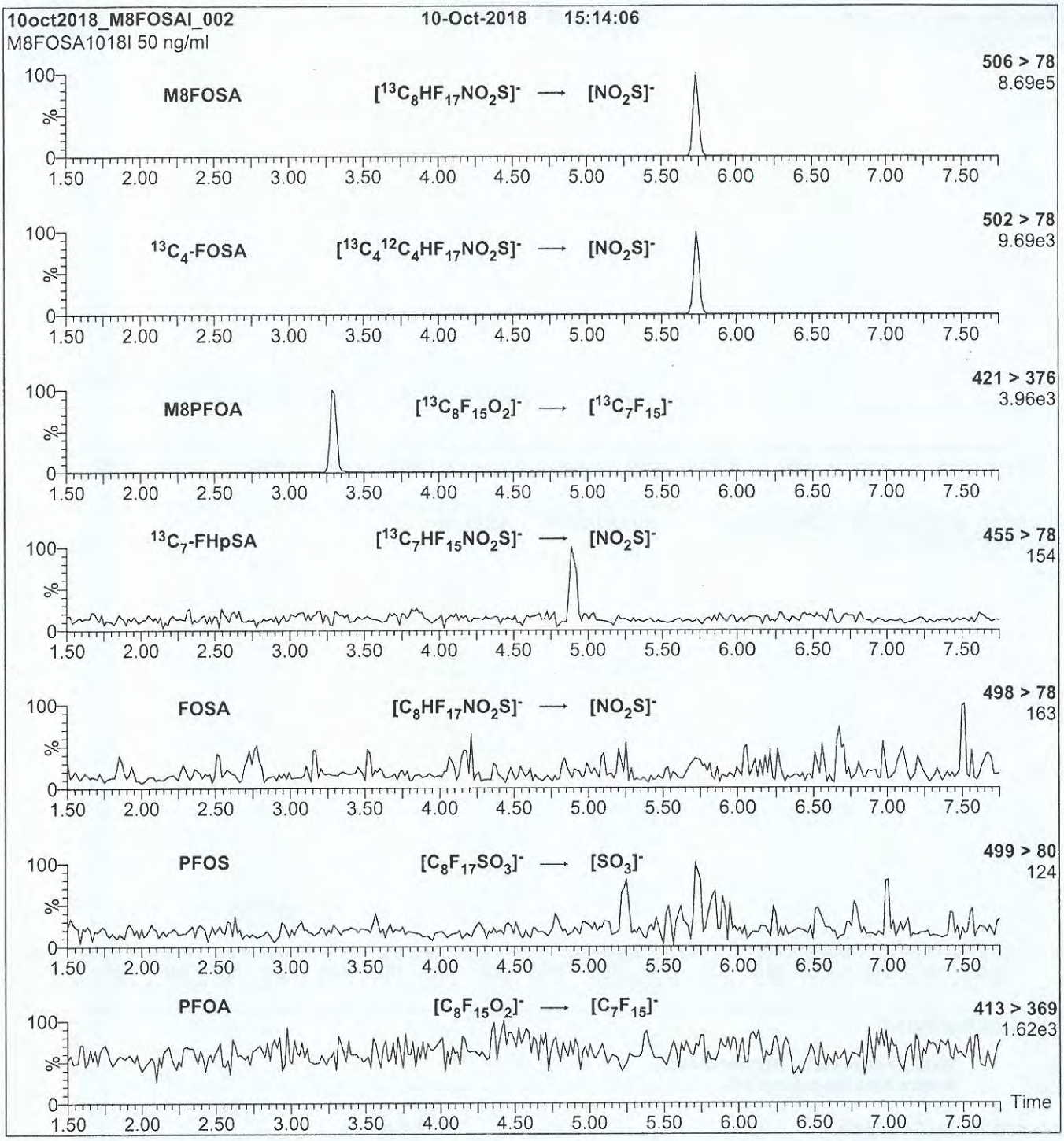
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 20.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

18L2013

Figure 2: **M8FOSA-I; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M8FOSA-I)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.97e-3
Collision Energy (eV) = 30

1812014

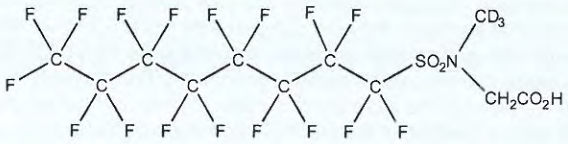
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMeFOSAA0818

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)	08/23/2018		
EXPIRY DATE: (mm/dd/yyyy)	08/23/2023		
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:** 08/24/2018 (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

1812014

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

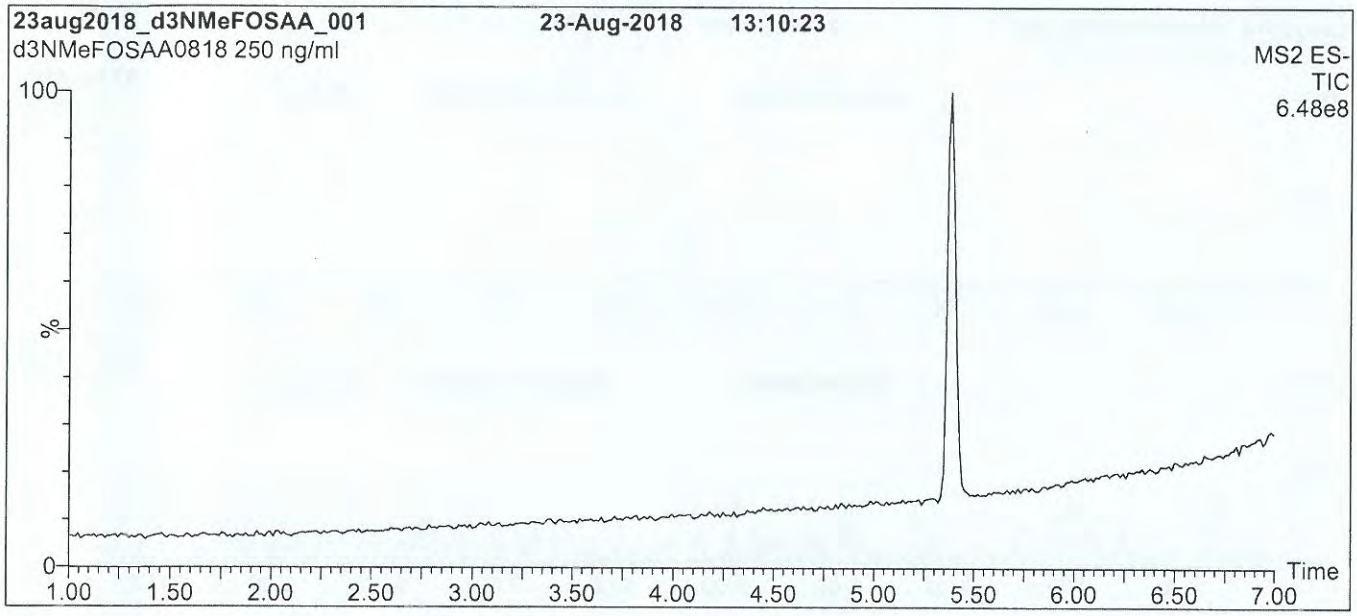
CALA Testing Accreditation No. A 1226

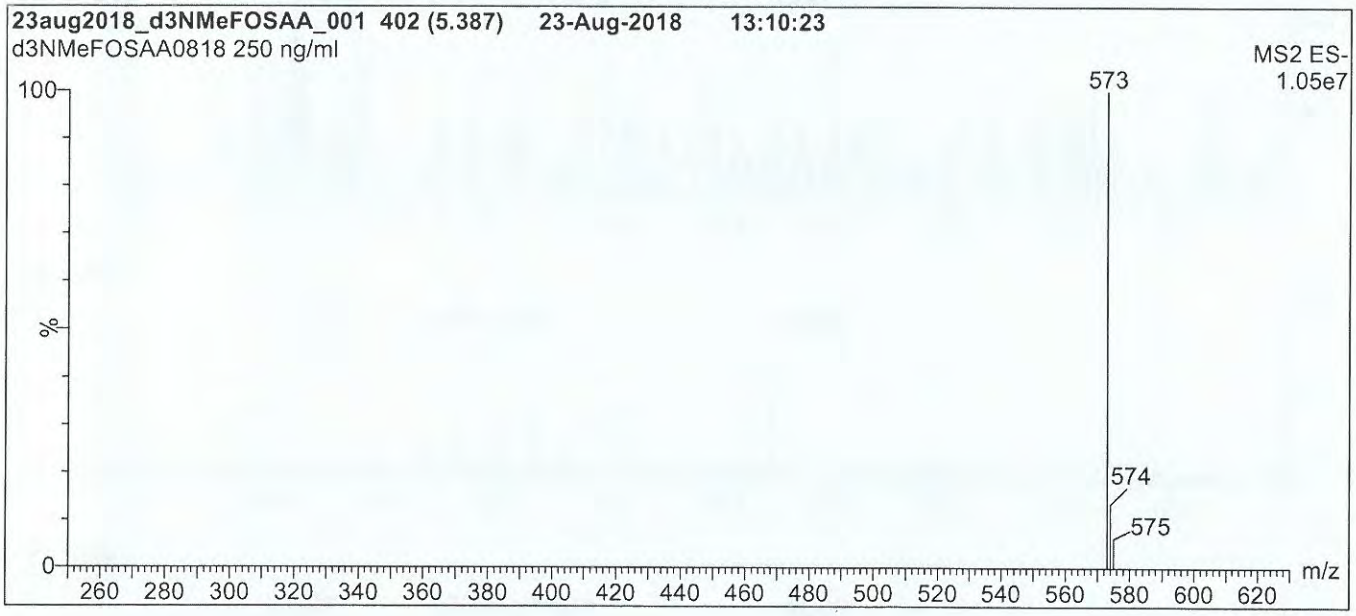
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18L2014

Figure 1: **d3-N-MeFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

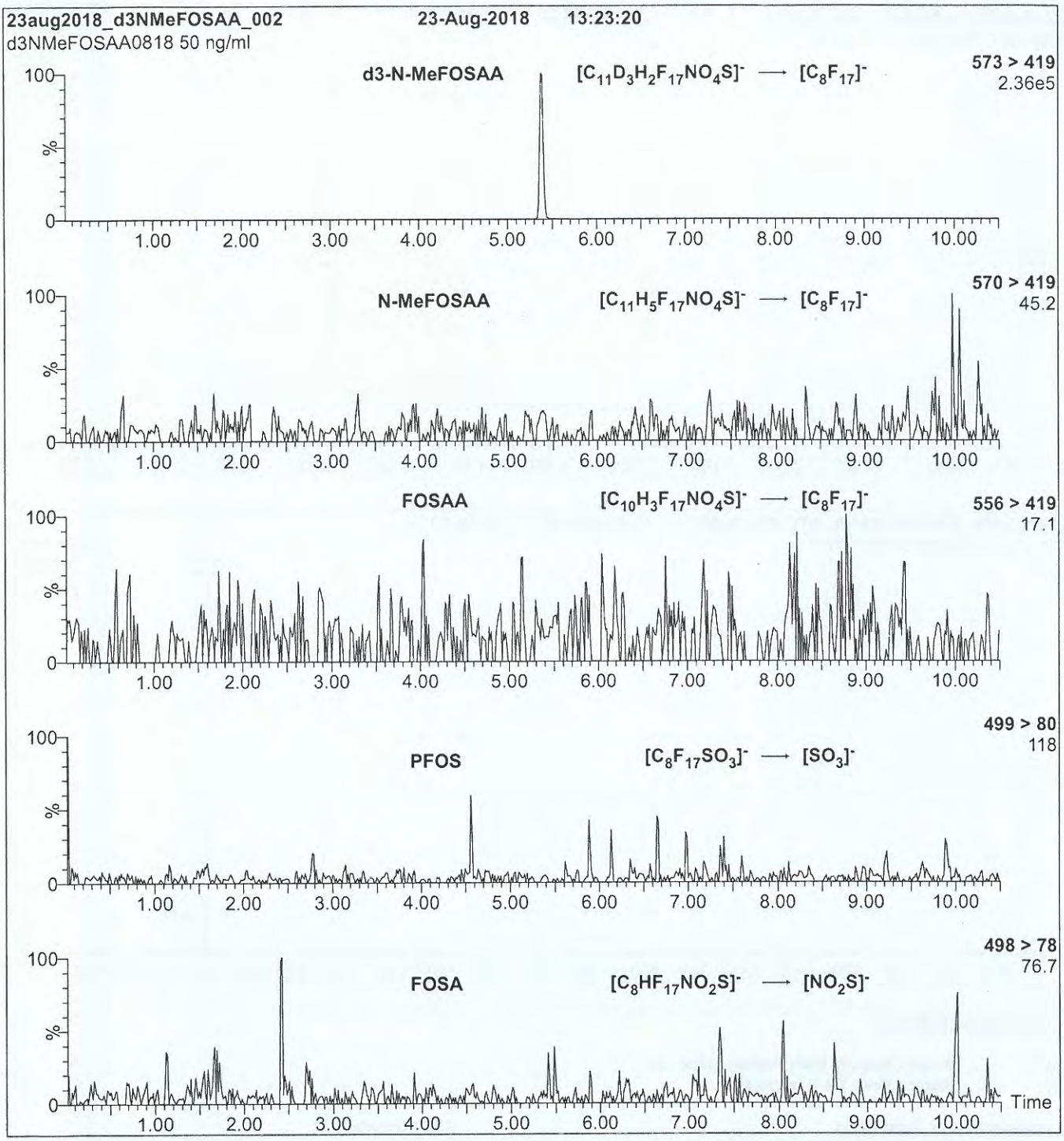
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

18L2014

Figure 2: **d3-N-MeFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (d3-N-MeFOSAA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

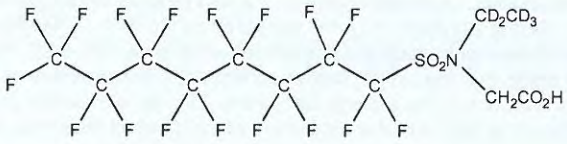
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 18

18L2015

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	d5-N-EtFOSAA	**LOT NUMBER:**	d5NEtFOSAA0818
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)	08/23/2018		
EXPIRY DATE: (mm/dd/yyyy)	08/23/2023		
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:** 08/28/2018 (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

18L2015

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where x is expressed as a relative standard uncertainty of the individual parameter.

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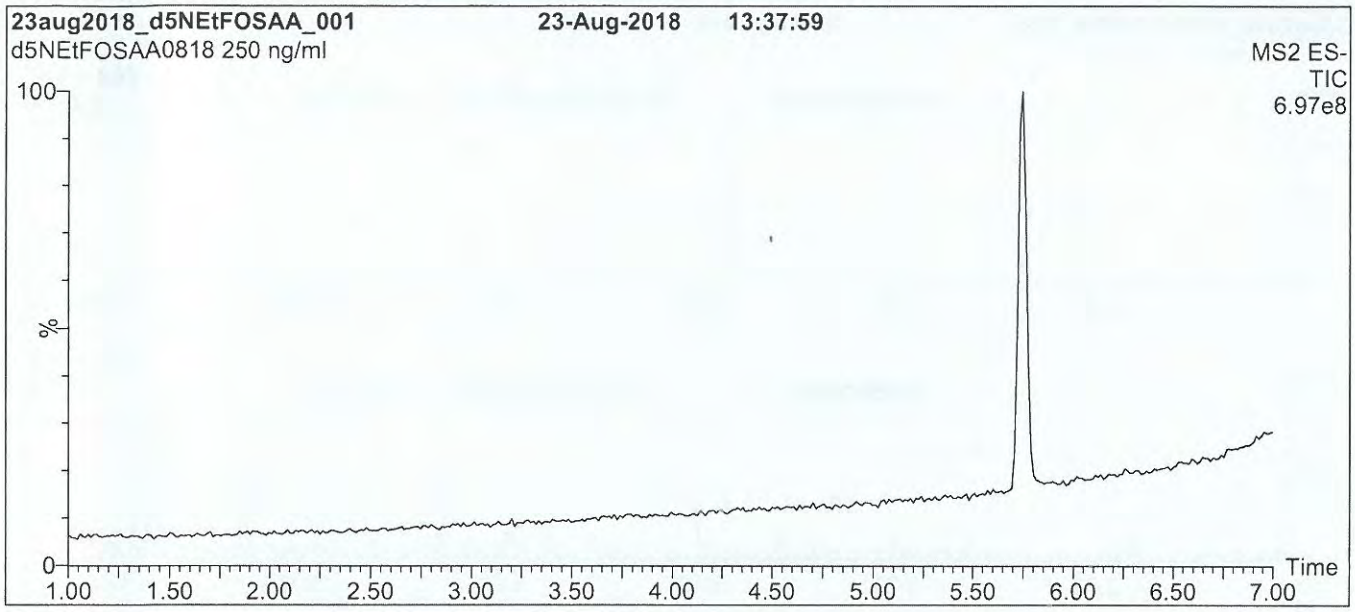
CALA Testing Accreditation No. A1226

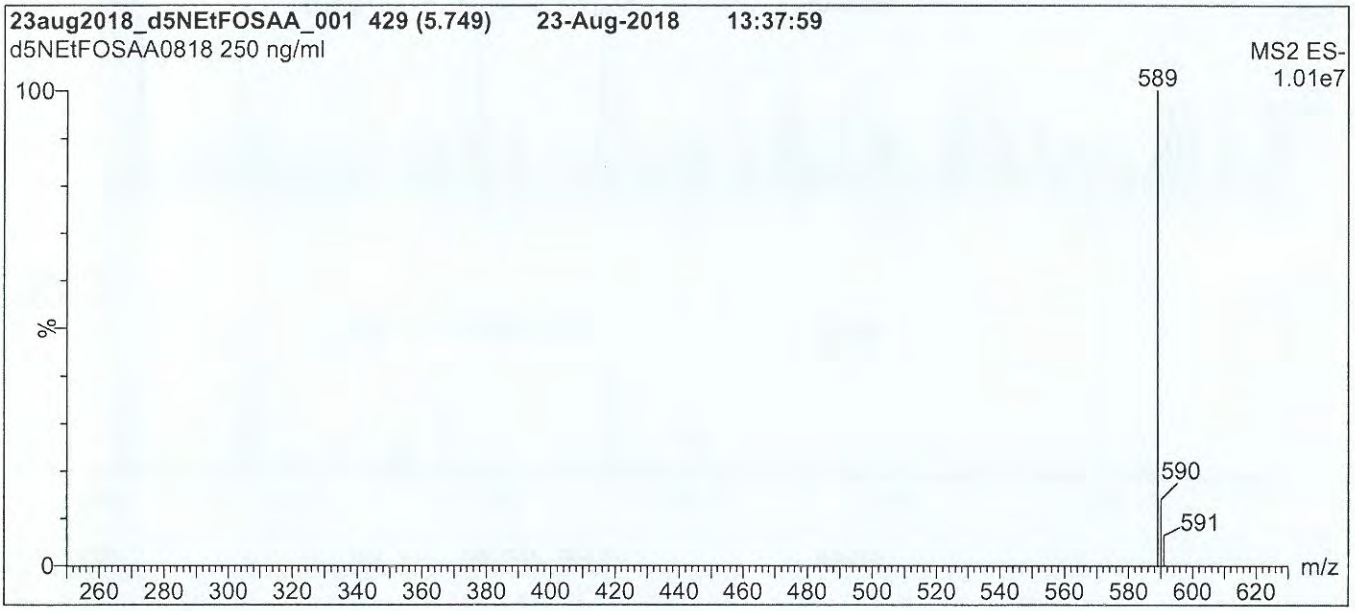
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1862015

Figure 1: **d5-N-EtFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

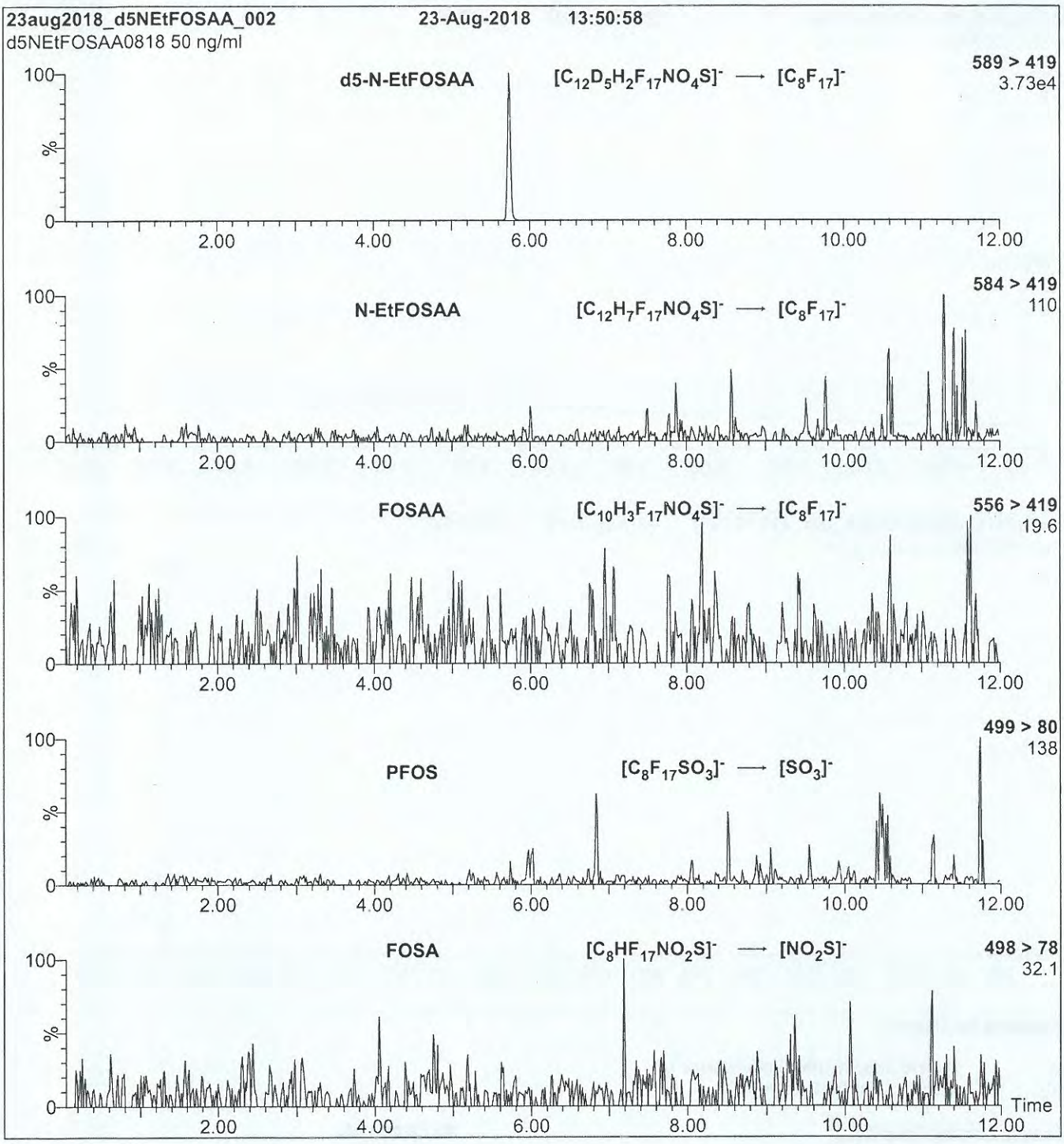
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

18L2015

Figure 2: **d5-N-EtFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (d5-N-EtFOSAA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 18

18L2016

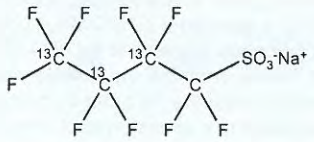
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M3PFBS **LOT NUMBER:** M3PFBS1218

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)	12/10/2018		
EXPIRY DATE: (mm/dd/yyyy)	12/10/2023		
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:** 12/13/2018 (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

1812016

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

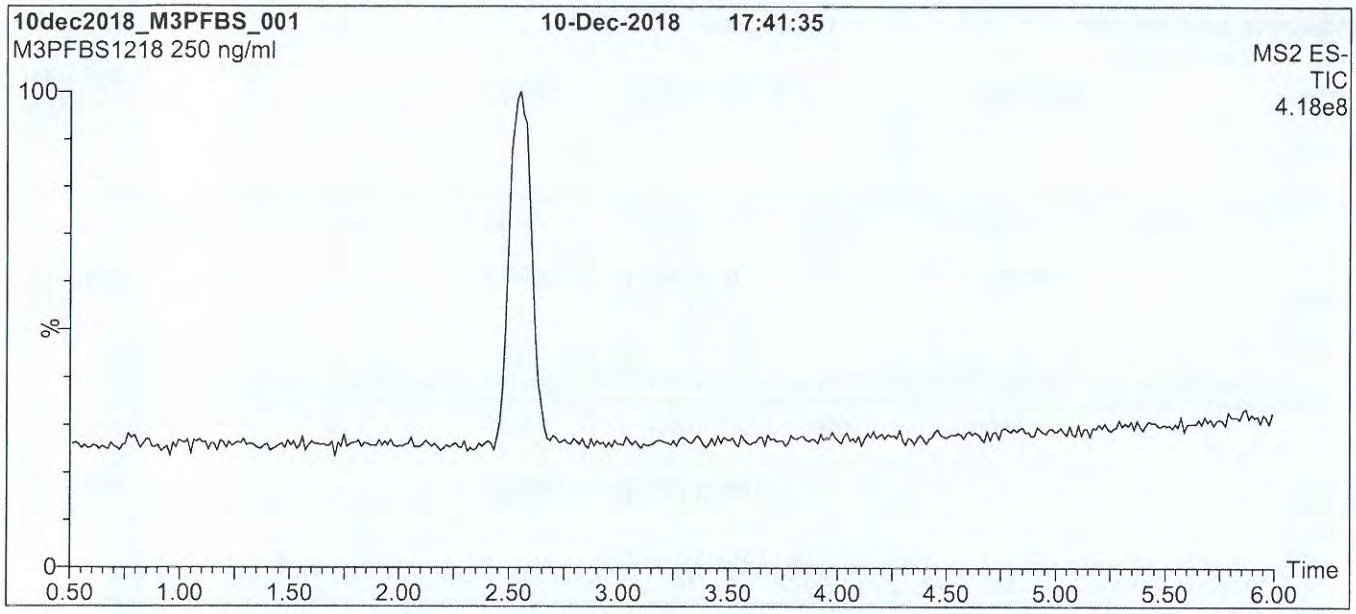
CALA Testing Accreditation No. A 1226

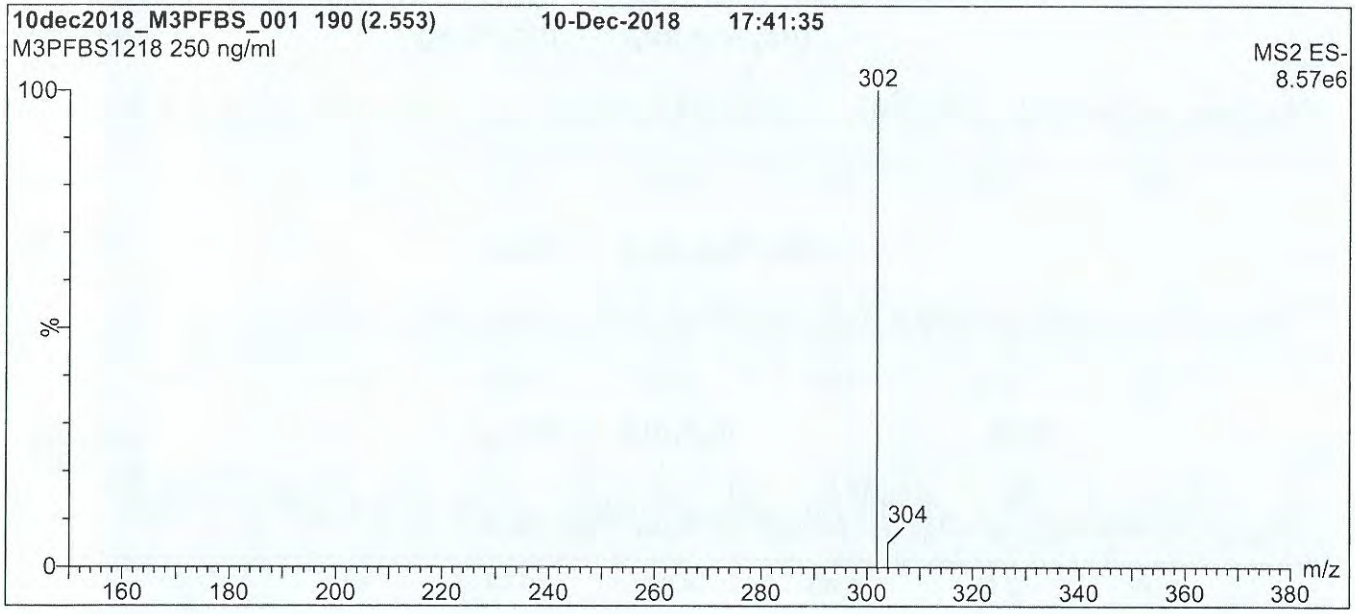
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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18L2016

Figure 1: **M3PFBS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

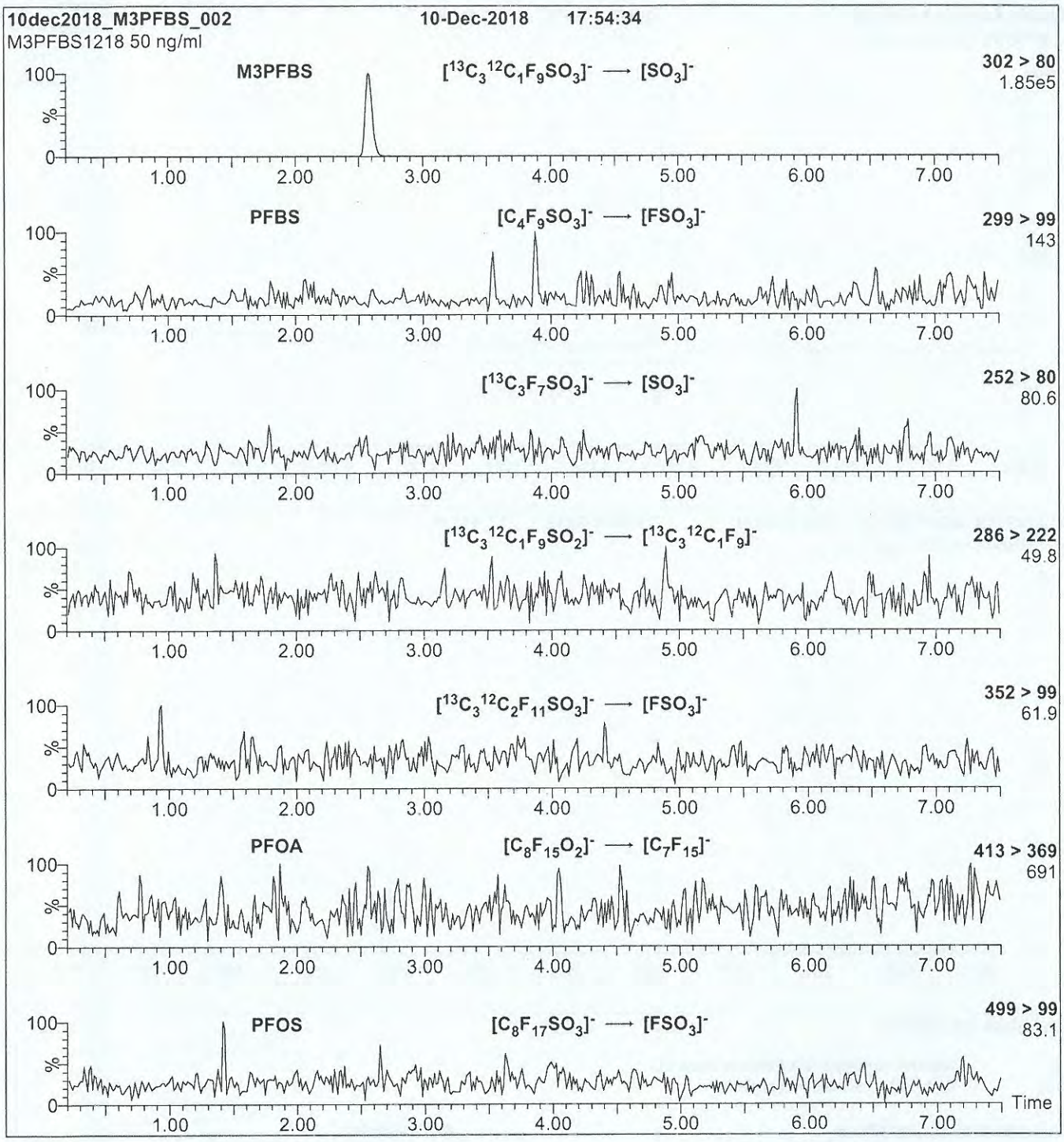
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

18L2016

Figure 2: **M3PFBS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M3PFBS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

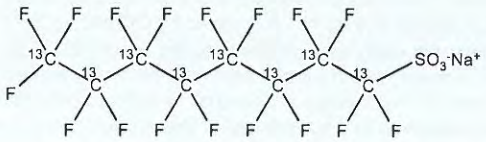
Collision Gas (mbar) = 2.90e-3
Collision Energy (eV) = 30

1812017

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M8PFOS	**LOT NUMBER:**	M8PFOS0918
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:	50.0 ± 2.5 µg/ml (Na salt) 47.8 ± 2.4 µg/ml (M8PFOS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	>99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	09/20/2018		
EXPIRY DATE: (mm/dd/yyyy)	09/20/2023		
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 sodium perfluoro-1-[$^{13}C_7$]heptanesulfonate ($^{13}C_7$-PFHpS) and ~ 1.0% of sodium perfluoro-1-[$^{13}C_4$]octanesulfonate (MPFOS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 09/24/2018 (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

1812017

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

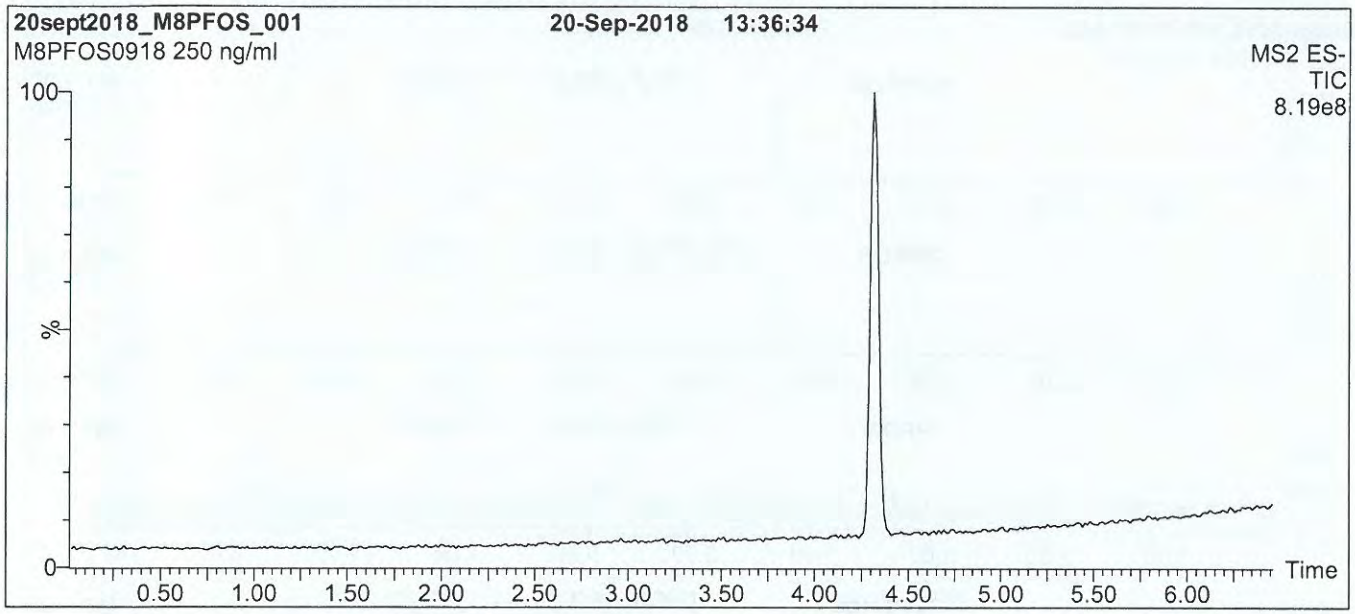
CALA Testing Accreditation No. A 1226

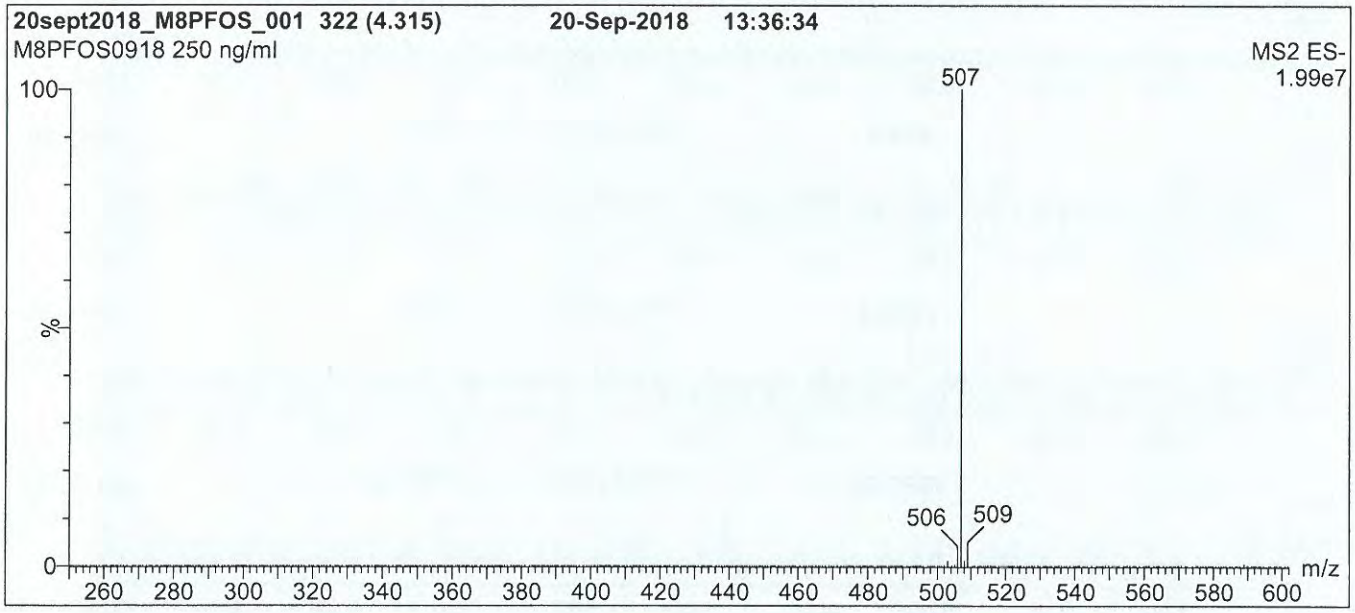
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1812017

Figure 1: **M8PFOS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

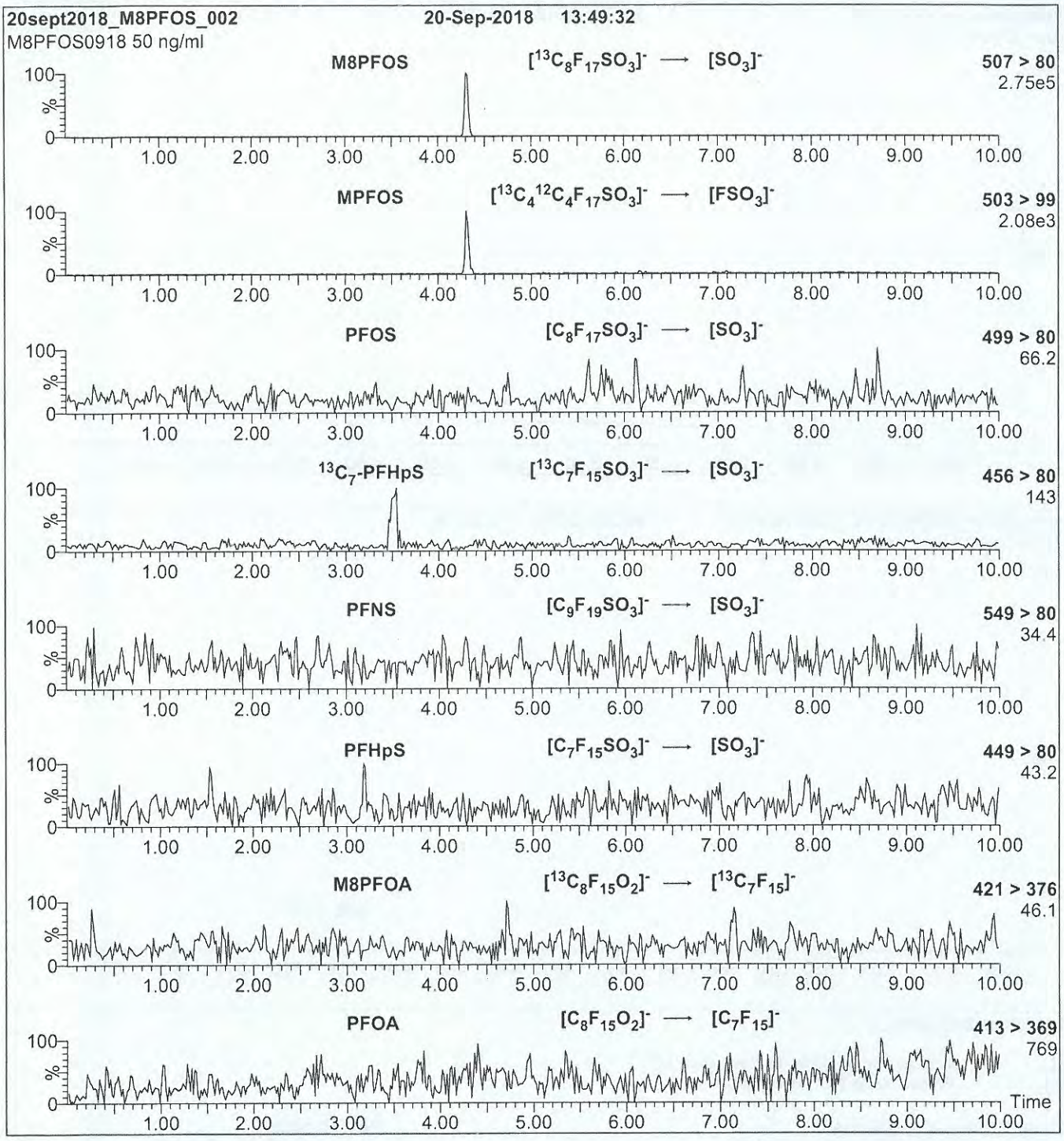
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

18L2017

Figure 2: **M8PFOS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M8PFOS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.97e-3
Collision Energy (eV) = 42

18L2019

WELLINGTON LABORATORIES

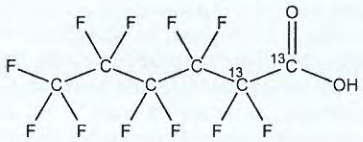
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFHxA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid

LOT NUMBER: MPFHxA0518

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_4HF_{11}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/22/2018
EXPIRY DATE: (mm/dd/yyyy) 05/22/2023
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 316.04
SOLVENT(S): Methanol
Water (<1%)

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 perfluoro-n-hexanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/30/2018 (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

1812019

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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:

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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:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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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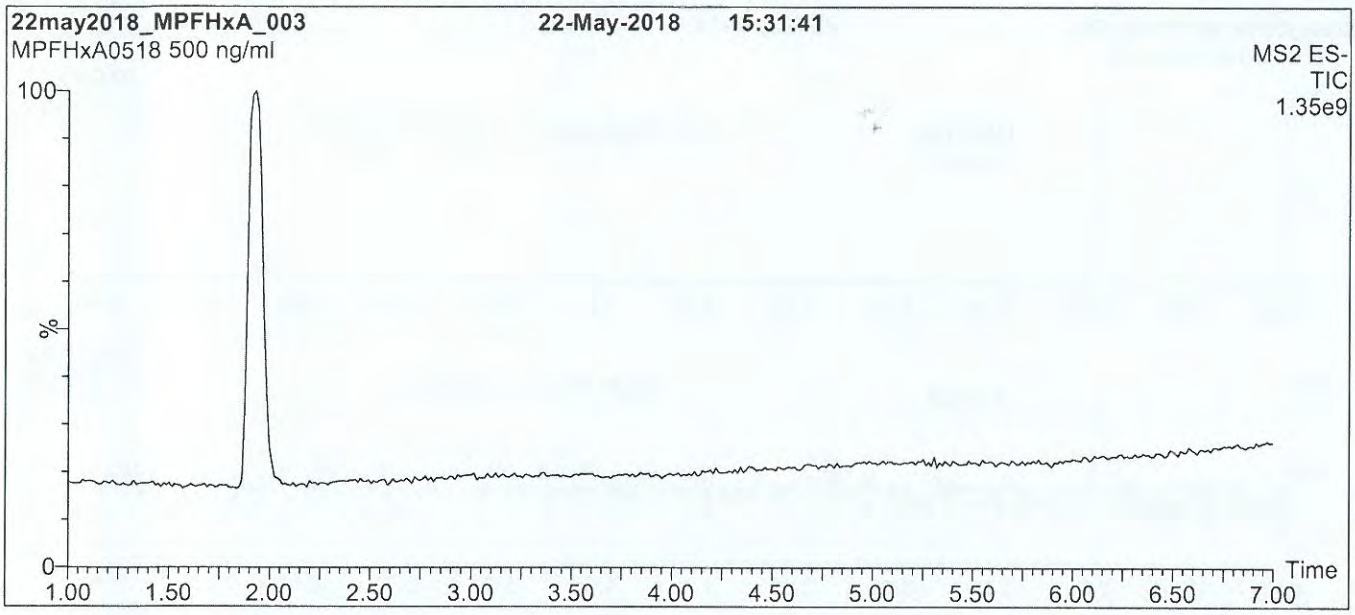
CALA Testing Accreditation No. A 1226

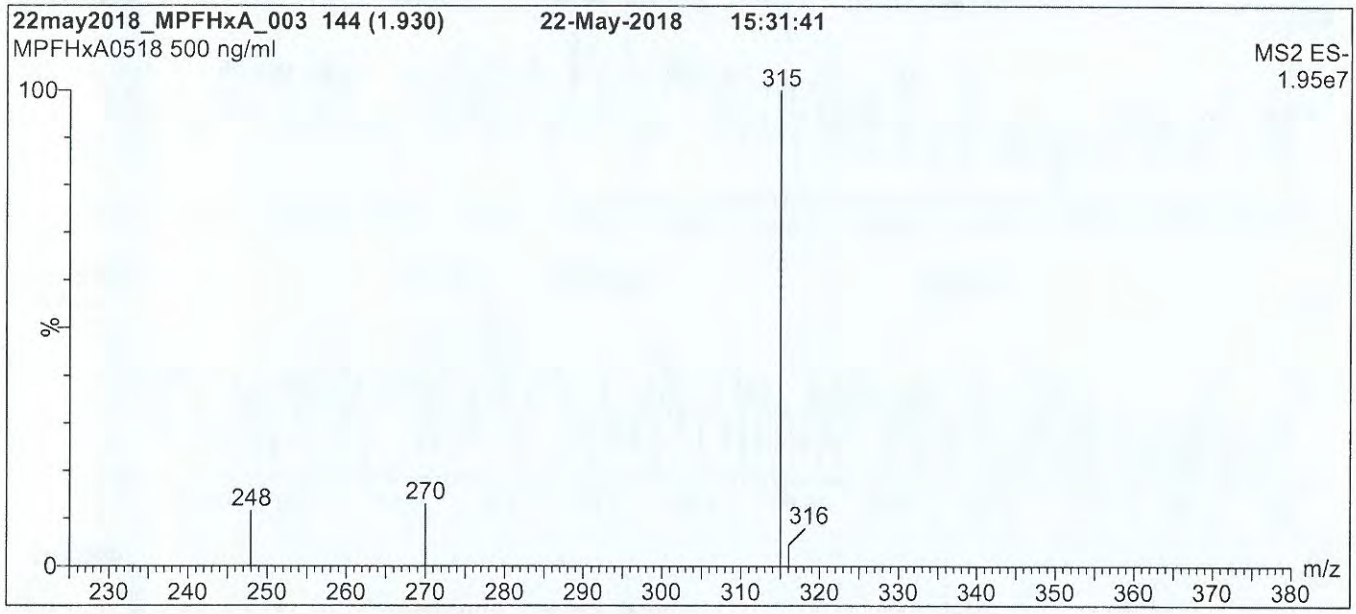
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18L2019

Figure 1: **MPFHxA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

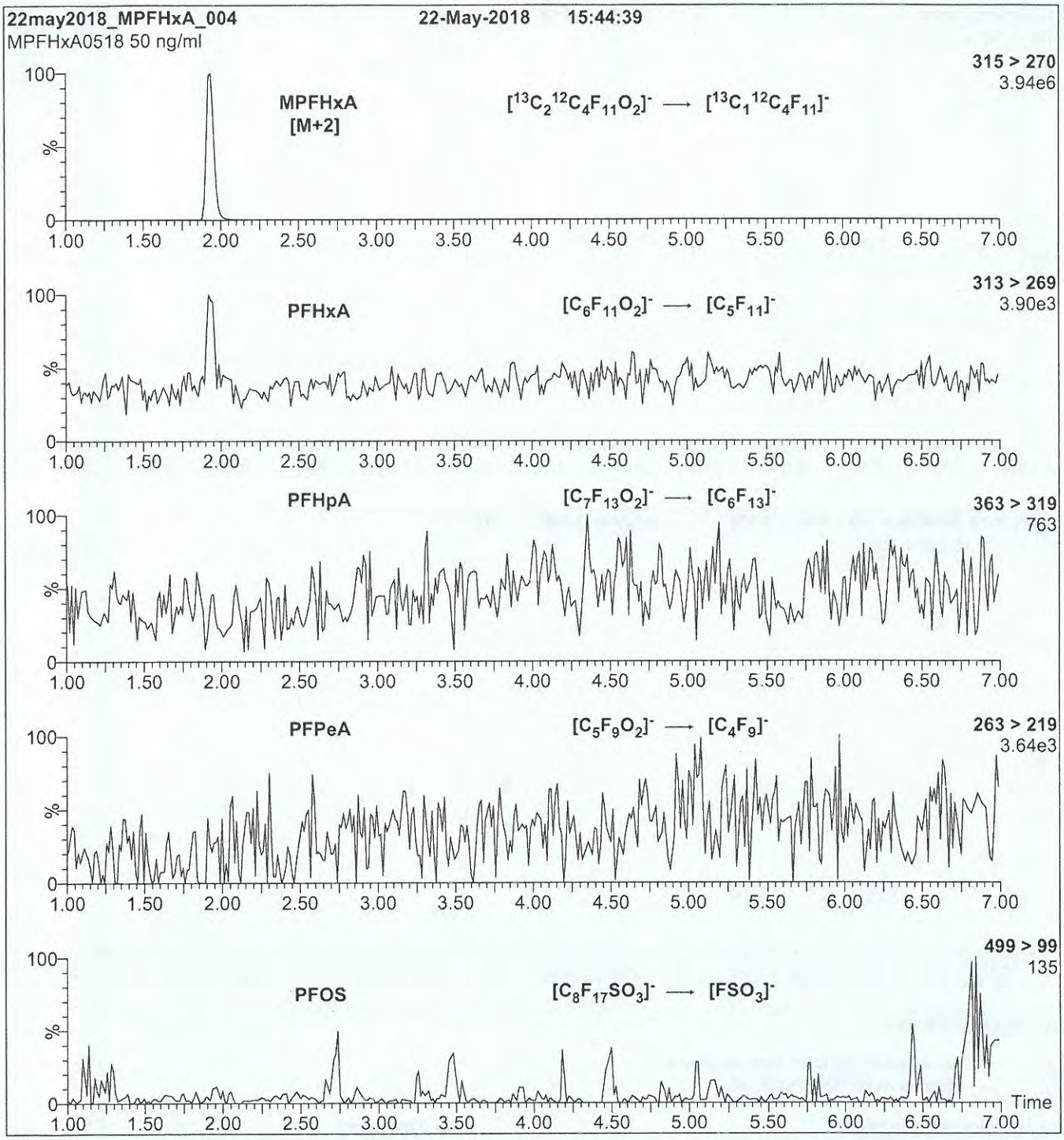
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

18L2019

Figure 2: **MPFHxA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFHxA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

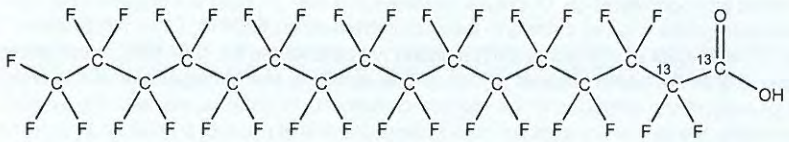
Collision Gas (mbar) = 3.55e-3
Collision Energy (eV) = 8

1812020

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M2PFHxDA	**LOT NUMBER:**	M2PFHxDA1018
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)	10/11/2018		
EXPIRY DATE: (mm/dd/yyyy)	10/11/2023		
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 and ~ 0.2% of perfluoro-n-[$^{13}C_1$]pentadecanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/19/2018 (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

18L2020

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.

HANDLING:

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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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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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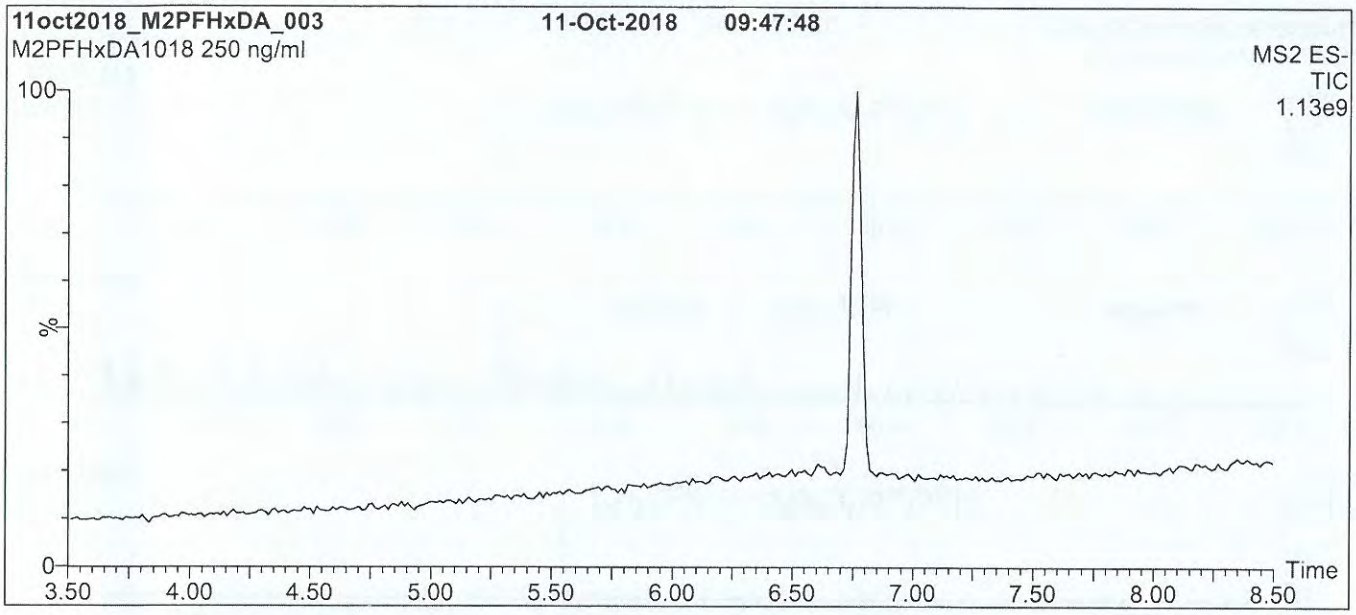
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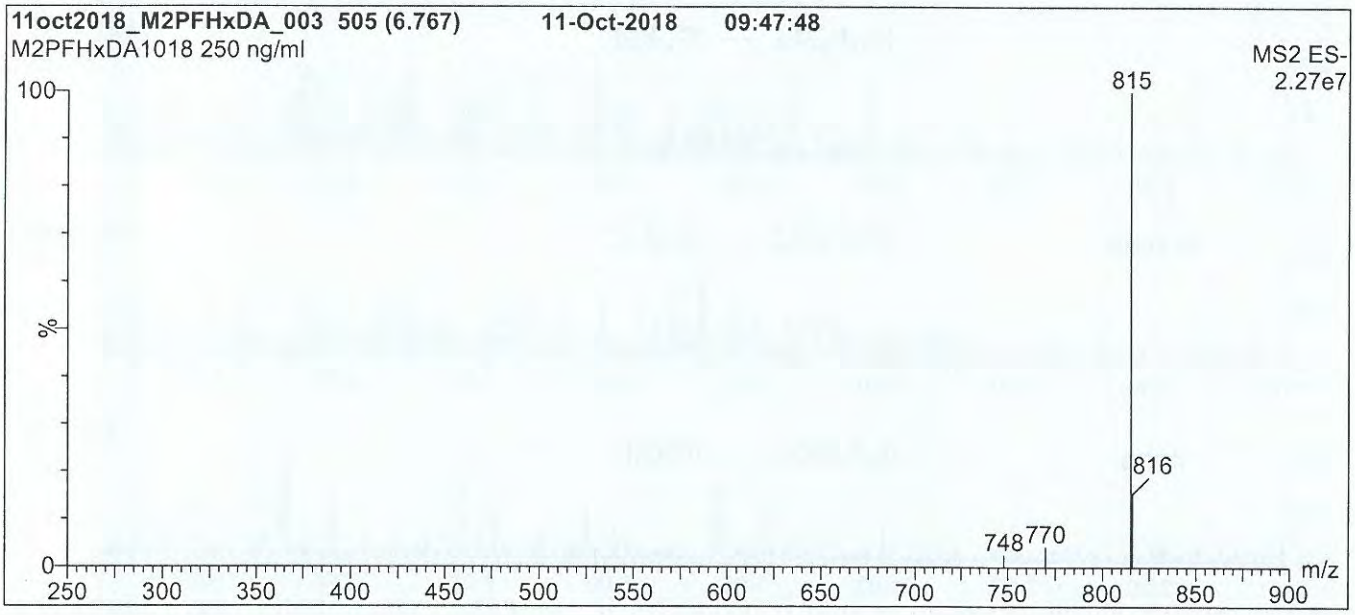
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

18L2020

Figure 1: **M2PFHxDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

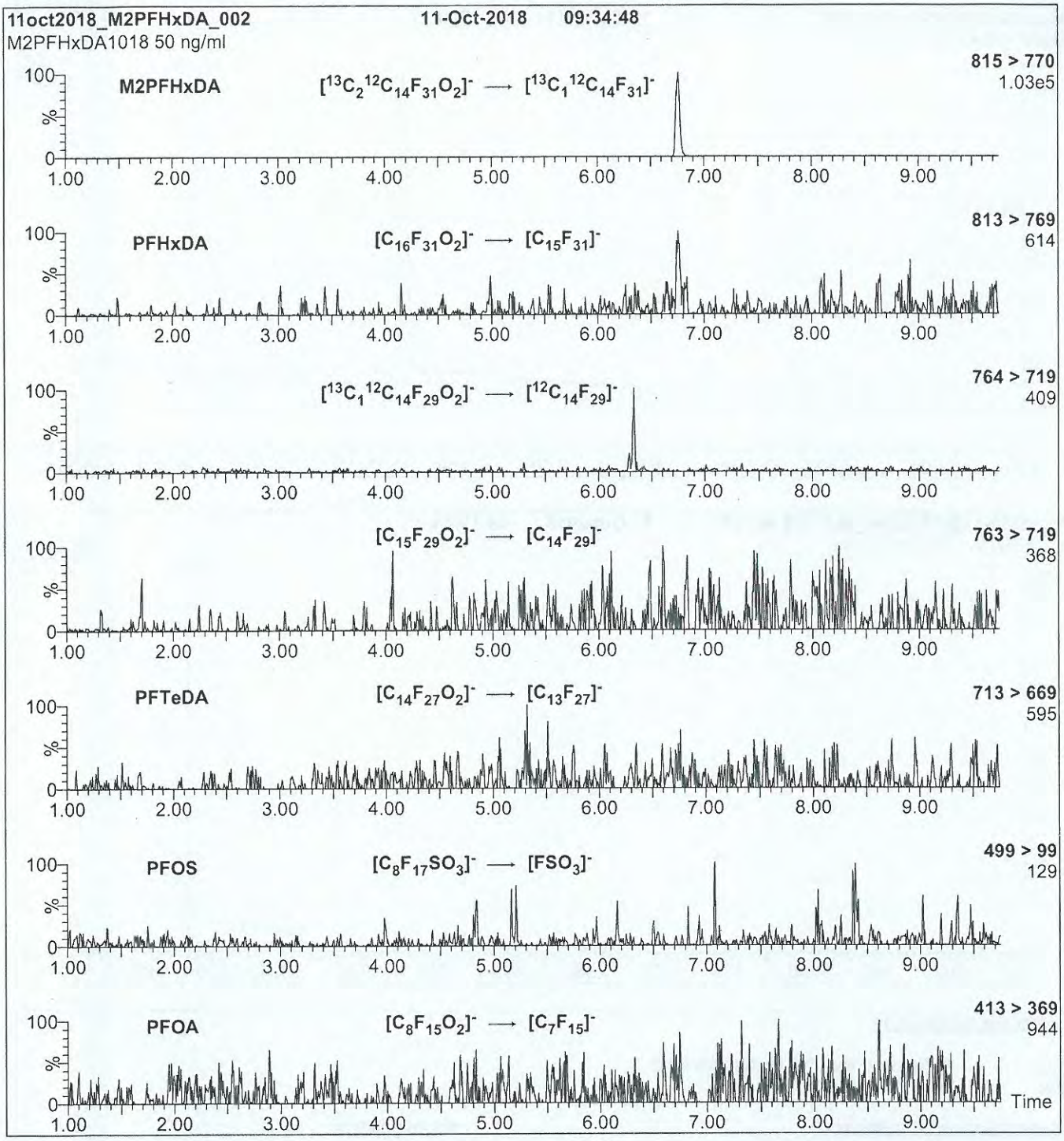
MS Parameters

Experiment: Full Scan (250 - 1200 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

18L2020

Figure 2: **M2PFHxDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M2PFHxDA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.97e-3
Collision Energy (eV) = 15

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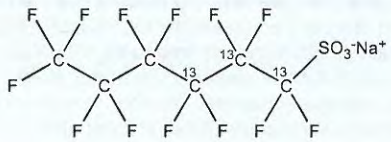
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M3PFHxS **LOT NUMBER:** M3PFHxS0618

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)	06/20/2018		
EXPIRY DATE: (mm/dd/yyyy)	06/20/2023		
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 ~ 0.1% perfluoro-1-[1,2-$^{13}C_2$]pentanesulfonate, ~ 0.1% perfluoro-1-octanesulfonate, and ~ 0.05% of perfluoro-1-hexanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 06/29/2018 (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

1812027

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.

HANDLING:

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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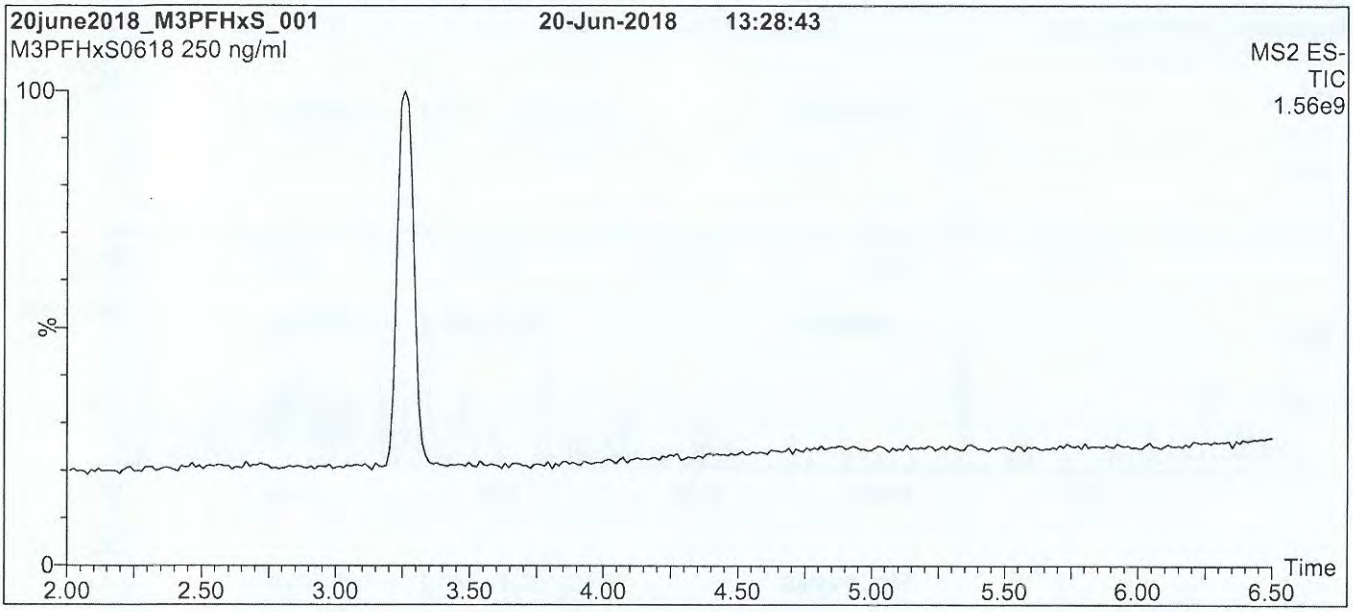
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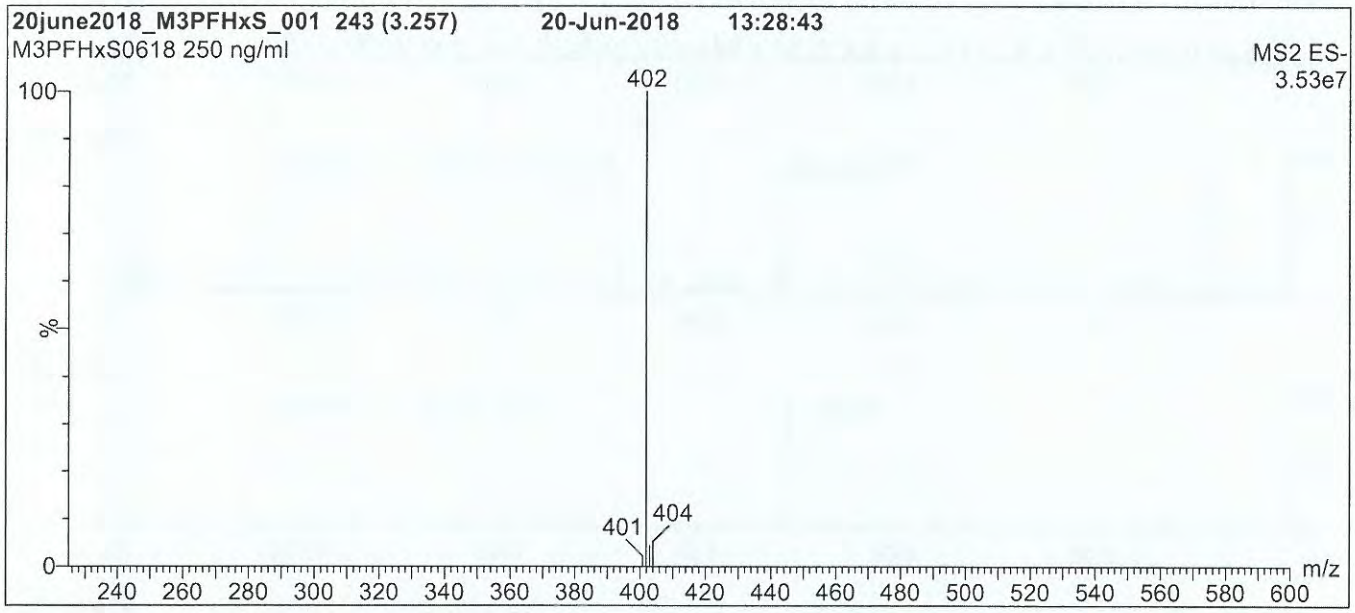
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1812027

Figure 1: **M3PFHxS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

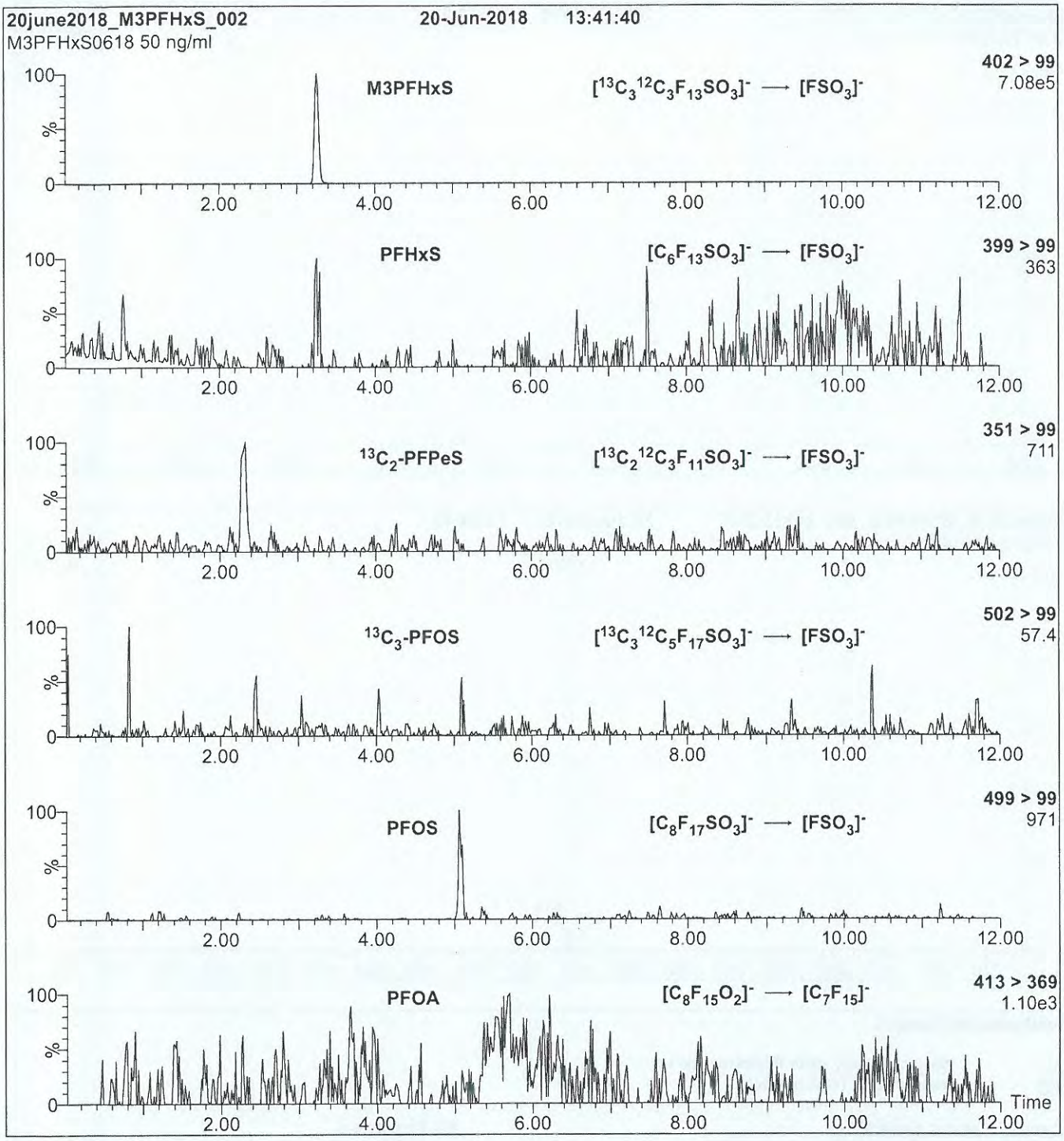
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1812027

Figure 2: **M3PFHxS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M3PFHxS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 36

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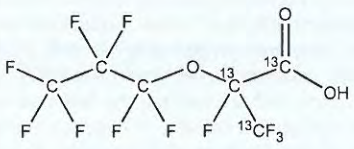
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3HFPO-DA **LOT NUMBER:** M3HFPODA1018

COMPOUND: 2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-$^{13}C_3$-propanoic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}C_3HF_{11}O_3$	**MOLECULAR WEIGHT:**	333.03
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	10/24/2018		
EXPIRY DATE: (mm/dd/yyyy)	10/24/2021		
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 ~ 1.9% of the linear M3HFPO-DA isomer.
- Product is commercially known as GenX.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/31/2018 (mm/dd/yyyy)

B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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18L2077

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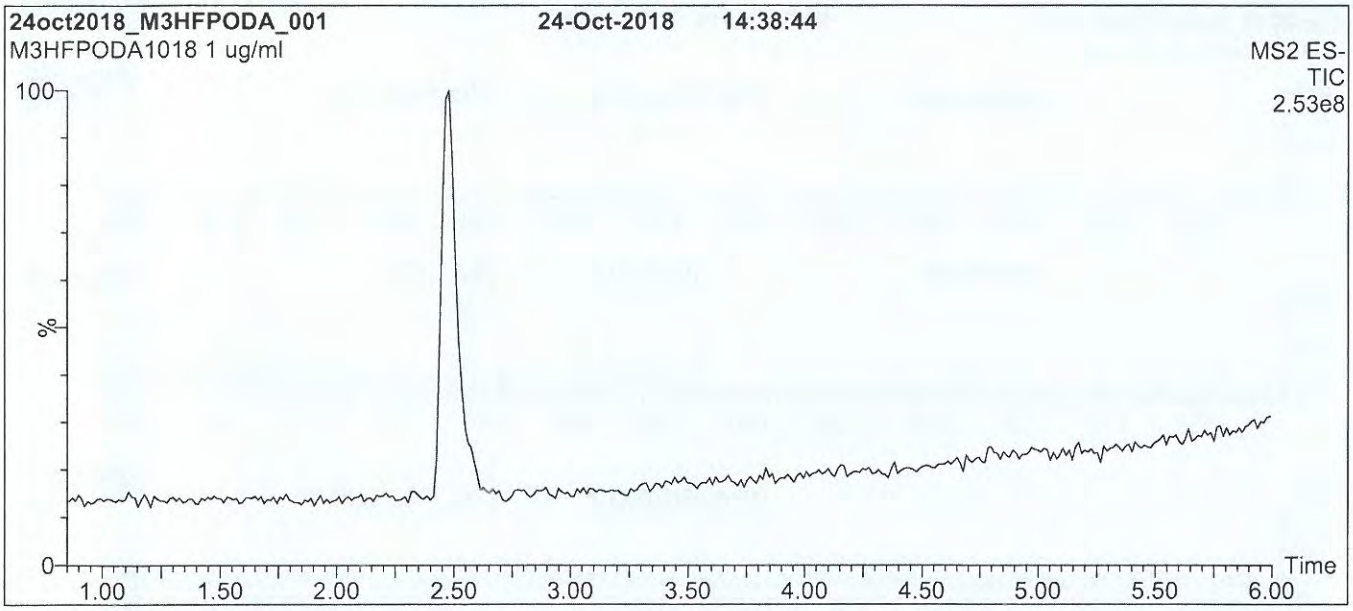
CALA Testing Accreditation No. A 1226

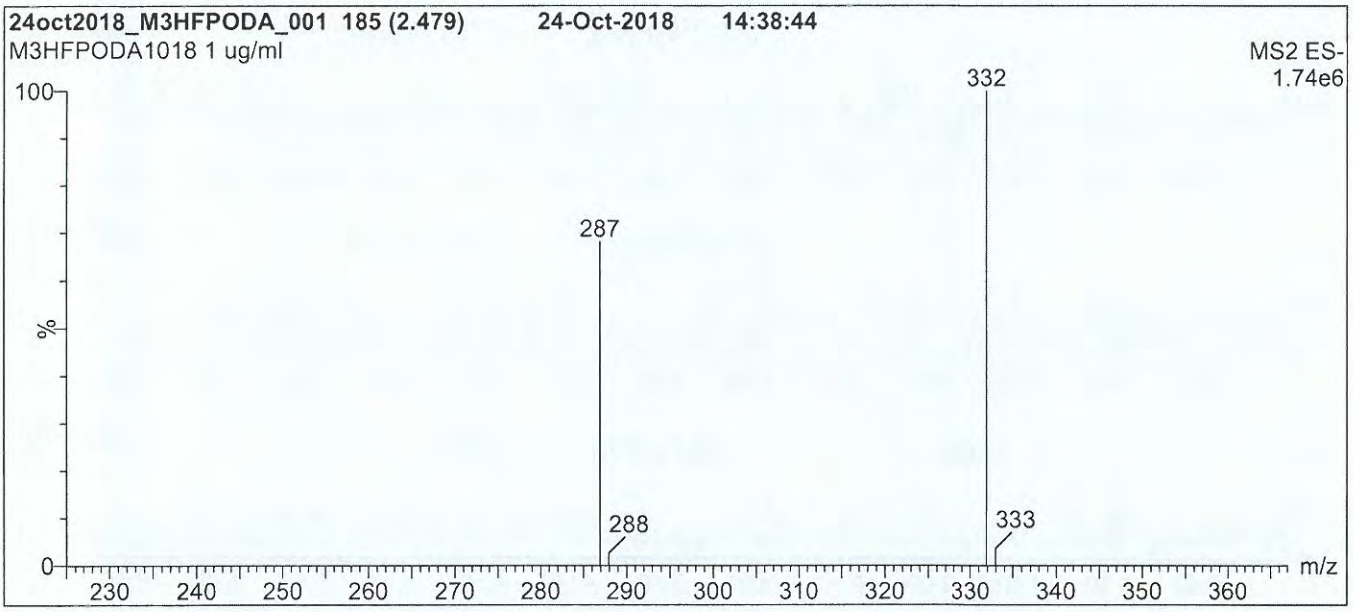
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18L2077

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1.7 µm, 2.1 x 100 mm

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(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

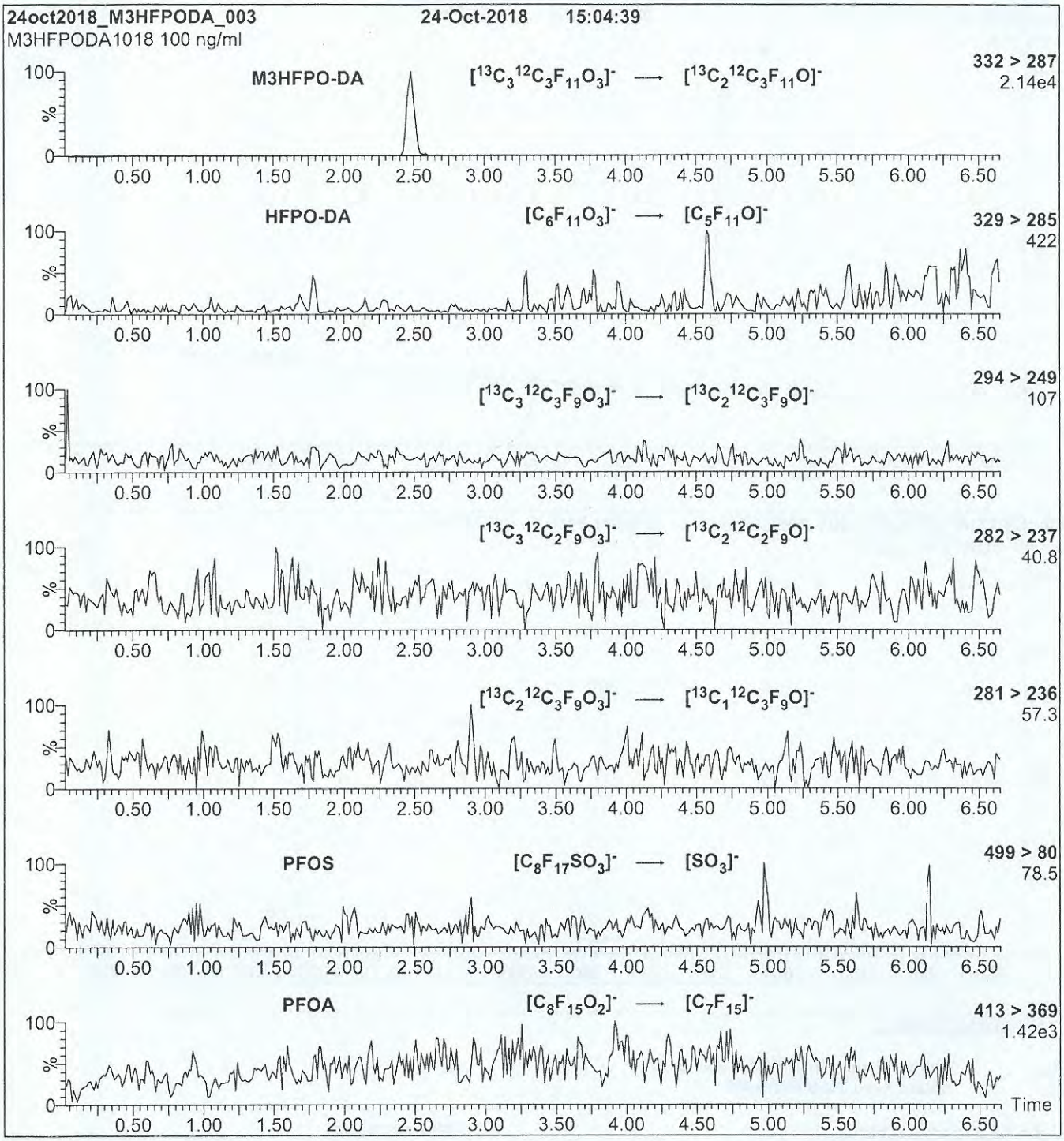
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Desolvation Temperature (°C) = 325
Desolvation Gas Flow (l/hr) = 1000

1812077

Figure 2: **M3HFPO-DA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M3HFPO-DA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.02e-3
Collision Energy (eV) = 6

Analytical Standard Record

Vista Analytical Laboratory

19E2204

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	(mls)
18C0911	PFECHS	09-Mar-18	** Vendor **	20-Feb-22	0.435
18L2034	PFDoA	20-Dec-18	** Vendor **	18-Apr-23	0.4
18L2035	PFBA	20-Dec-18	** Vendor **	28-Nov-23	0.4
18L2036	PFPeA	20-Dec-18	** Vendor **	16-Feb-23	0.4
18L2037	PFHxA	20-Dec-18	** Vendor **	18-May-23	0.4
18L2038	PFDA	20-Dec-18	** Vendor **	12-Nov-23	0.4
18L2039	PFUdA	20-Dec-18	** Vendor **	23-Aug-23	0.4
18L2040	PFTrDA	20-Dec-18	** Vendor **	16-Feb-23	0.4
18L2041	PFHpA	20-Dec-18	** Vendor **	12-Jul-23	0.4
18L2042	PFOA	20-Dec-18	** Vendor **	23-Aug-23	0.4
18L2043	PFNA	20-Dec-18	** Vendor **	16-Feb-23	0.4
18L2044	PFTeDA	20-Dec-18	** Vendor **	23-Aug-23	0.4
18L2045	PFHxDA	20-Dec-18	** Vendor **	13-Jul-22	0.4
18L2046	PFODA	20-Dec-18	** Vendor **	13-Jul-22	0.4
18L2047	L-PFBS	20-Dec-18	** Vendor **	04-May-23	0.454
18L2048	L-PFPeS	20-Dec-18	** Vendor **	12-Jul-23	0.428
18L2049	L-PFHpS	20-Dec-18	** Vendor **	04-May-23	0.42
18L2050	L-PFNS	20-Dec-18	** Vendor **	13-Jul-23	0.418
18L2051	L-PFDS	20-Dec-18	** Vendor **	05-Oct-23	0.415
18L2052	br-PFHxSK	20-Dec-18	** Vendor **	02-Oct-23	0.44
18L2053	br-PFOSK anion	20-Dec-18	** Vendor **	18-Apr-23	0.431
18L2054	4:2 FTS	20-Dec-18	** Vendor **	03-Jul-23	0.43
18L2055	6:2FTS	20-Dec-18	** Vendor **	03-Apr-23	0.422
18L2056	8:2FTS	20-Dec-18	** Vendor **	28-Nov-23	0.418
18L2057	FOSA-I	20-Dec-18	** Vendor **	20-Jun-23	0.4
18L2058	br-NMeFOSAA	20-Dec-18	** Vendor **	17-Jan-23	0.4
18L2059	br-NEtFOSAA	20-Dec-18	** Vendor **	26-Jul-23	0.4
18L2060	N-MeFOSA-M	20-Dec-18	** Vendor **	31-May-23	2
18L2061	N-EtFOSA-M	20-Dec-18	** Vendor **	31-May-23	2
18L2062	N-MeFOSE-M	20-Dec-18	** Vendor **	17-May-23	2
18L2063	N-EtFOSE-M	20-Dec-18	** Vendor **	04-Jun-23	2
18L2071	HFPO-DA	20-Dec-18	** Vendor **	24-Oct-21	0.4
18L2072	11Cl-PF3OUdS	20-Dec-18	** Vendor **	23-Nov-23	0.425
18L2073	9Cl-PF3ONS	20-Dec-18	** Vendor **	22-Nov-23	0.43
18L2074	NaDONA	20-Dec-18	** Vendor **	26-Mar-23	0.4
18L2076	L-PFPrS	20-Dec-18	** Vendor **	14-Dec-22	0.438
18L2078	10:2FTS	20-Dec-18	** Vendor **	13-Jul-21	0.415
19B0712	L-PFDoS	07-Feb-19	** Vendor **	30-Sep-21	0.415

Analytical Standard Record

Vista Analytical Laboratory

19E2204

Description:	PFC NS Stock	Expires:	29-May-21
Standard Type:	Analyte Spike	Prepared:	29-May-19
Solvent:	MeOH	Prepared By:	Giana R. Bilotta
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	28-May-19 09:03 by GRB

Analyte	CAS Number	Concentration	Units
L-PFHpA		1	ug/mL
10:2 FTS	120226-60-0	1	ug/mL
L-MeFOSA	31506-32-8	5	ug/mL
L-MeFOSAA	2355-31-9	0.76	ug/mL
L-MeFOSE	24448-09-7	5	ug/mL
L-PFBA		1	ug/mL
L-PFBS		1	ug/mL
L-PFDA		1	ug/mL
L-PFDoA		1	ug/mL
L-EtFOSAA	2991-50-6	0.776	ug/mL
L-PFDS		1	ug/mL
L-EtFOSA	4151-50-2	5	ug/mL
L-PFHpS		1	ug/mL
L-PFHxA		1	ug/mL
L-PFHxDA		1	ug/mL
L-PFHxS		0.812	ug/mL
L-PFNA		1	ug/mL
L-PFNS	68259-12-1	1	ug/mL
L-PFOA		1	ug/mL
L-PFODA		1	ug/mL
L-PFDoS		1	ug/mL
EtFOSAA	2991-50-6	1	ug/mL
4:2 FTS	757124-72-4	1	ug/mL
6:2 FTS	27619-97-2	1	ug/mL
8:2 FTS	39108-34-4	1	ug/mL
ADONA	919005-14-4	1	ug/mL
Br-EtFOSAA		0.224	ug/mL
Br-MeFOSAA		0.24	ug/mL
Br-PFHxS	3871-99-6	0.189	ug/mL
Br-PFOS	2795-39-3	0.211	ug/mL
L-EtFOSE	1691-99-2	5	ug/mL
EtFOSA	4151-50-2	5	ug/mL
L-PFPeA		1	ug/mL
EtFOSE	1691-99-2	5	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

19E2204

Description:	PFC NS Stock	Expires:	29-May-21
Standard Type:	Analyte Spike	Prepared:	29-May-19
Solvent:	MeOH	Prepared By:	Giana R. Bilotta
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	28-May-19 09:03 by GRB

Analyte	CAS Number	Concentration	Units
F-53B Major (9Cl-PF3ONS)	756426-58-1	1	ug/mL
F-53B Minor (11Cl-PF3OUdS)	763051-92-9	1	ug/mL
F-53B Total		2	ug/mL
HFPO-DA (GenX)	13252-13-6	1	ug/mL
L-4:2 FTS	75124-72-4	1	ug/mL
L-6:2 FTS		1	ug/mL
L-8:2FTS		1	ug/mL
cis-PFECHS		0.668	ug/mL
Total 6:2 FTS		1	ug/mL
PFOA	335-67-1	1	ug/mL
PFODA	16517-11-6	1	ug/mL
PFOS	1763-23-1	1	ug/mL
PFOSA	754-91-6	1	ug/mL
PFPeA	2706-90-3	1	ug/mL
PFPeS	2706-91-4	1	ug/mL
PFPrS	423-41-6	1	ug/mL
PFTeDA	376-06-7	1	ug/mL
L-PFOS		0.789	ug/mL
PFUnA	2058-94-8	1	ug/mL
PFHxS	355-46-4	1	ug/mL
Total EtFOSAA		1	ug/mL
Total MeFOSAA		1	ug/mL
Total PFDS		1	ug/mL
Total PFHpS		1	ug/mL
Total PFHxS		1	ug/mL
Total PFOA		1	ug/mL
Total PFOS		1	ug/mL
Total PFUnA		1	ug/mL
PFTrDA	72629-94-8	1	ug/mL
PFDA	335-76-2	1	ug/mL
trans-PFECHS		0.335	ug/mL
L-PFPeS	2706-91-4	1	ug/mL
L-PFTeDA		1	ug/mL
L-PFTrDA		1	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

19E2204

Description:	PFC NS Stock	Expires:	29-May-21
Standard Type:	Analyte Spike	Prepared:	29-May-19
Solvent:	MeOH	Prepared By:	Giana R. Bilotta
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	28-May-19 09:03 by GRB

Analyte	CAS Number	Concentration	Units
L-PFUnA		1	ug/mL
MeFOSA	31506-32-8	5	ug/mL
MeFOSAA	2355-31-9	1	ug/mL
MeFOSE	24448-09-7	5	ug/mL
PFNS	68259-12-1	1	ug/mL
PFBS	375-73-5	1	ug/mL
PFNA	375-95-1	1	ug/mL
PFDoA	307-55-1	1	ug/mL
PFDoS	79780-39-5	1	ug/mL
PFDS	335-77-3	1	ug/mL
PFecHS	646-83-3	1	ug/mL
PFHpA	375-85-9	1	ug/mL
PFHpS	375-92-8	1	ug/mL
PFHxA	307-24-4	1	ug/mL
PFHxDA	67905-19-5	1	ug/mL
L-PFOSA		1	ug/mL
PFBA	375-22-4	1	ug/mL

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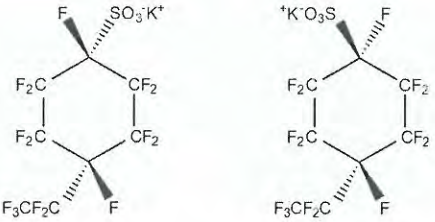
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFECHS **LOT NUMBER:** PFECHS0217

COMPOUND: Potassium perfluoro-4-ethylcyclohexanesulfonate (isomeric mixture)

STRUCTURE:



cis-isomer *trans*-isomer

CAS #: 67584-42-3

MOLECULAR FORMULA:	$C_8F_{15}SO_3K$	**MOLECULAR WEIGHT:**	500.22
CONCENTRATION:	50.0 ± 2.5 µg/ml (K salt)	**SOLVENT(S):**	Methanol
	46.1 ± 2.3 µg/ml (PFECHS anion)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	02/20/2017		
EXPIRY DATE: (mm/dd/yyyy)	02/20/2022		
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 a mixture of the *cis*/*trans* isomers of PFECHS at a ratio of 2:3 (*cis*:*trans*).
- Contains ~ 1.5% of other isomeric impurities.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 08/15/2017 (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

18C0911

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:

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

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).

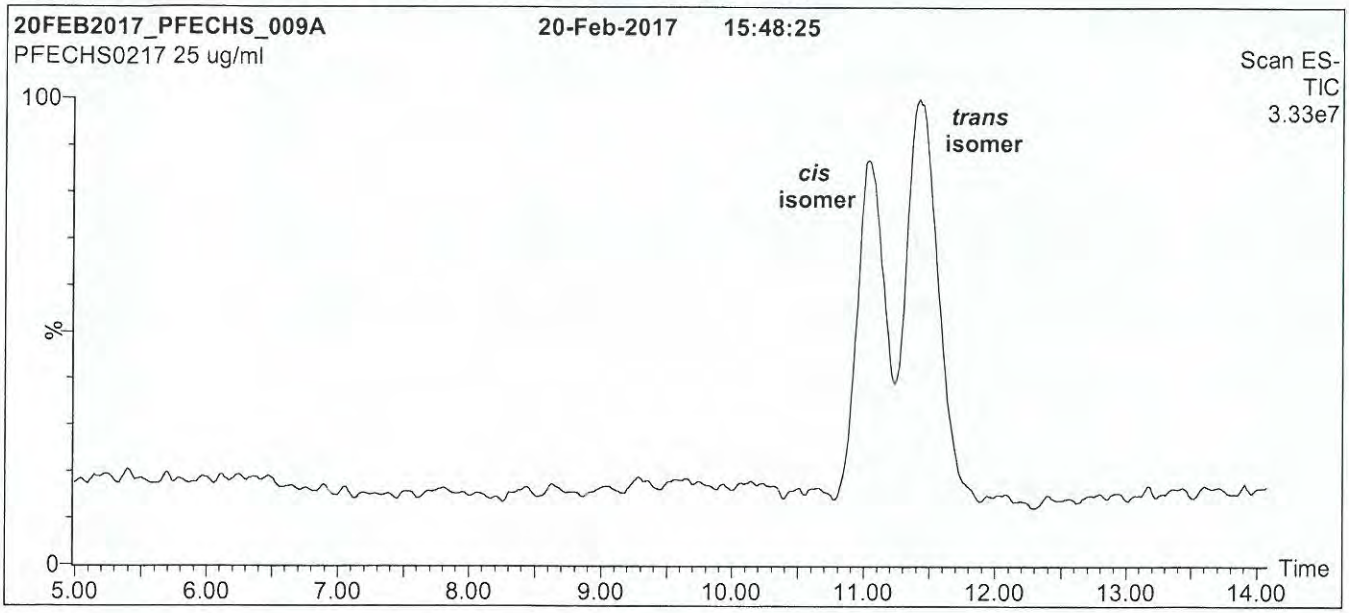
CALA

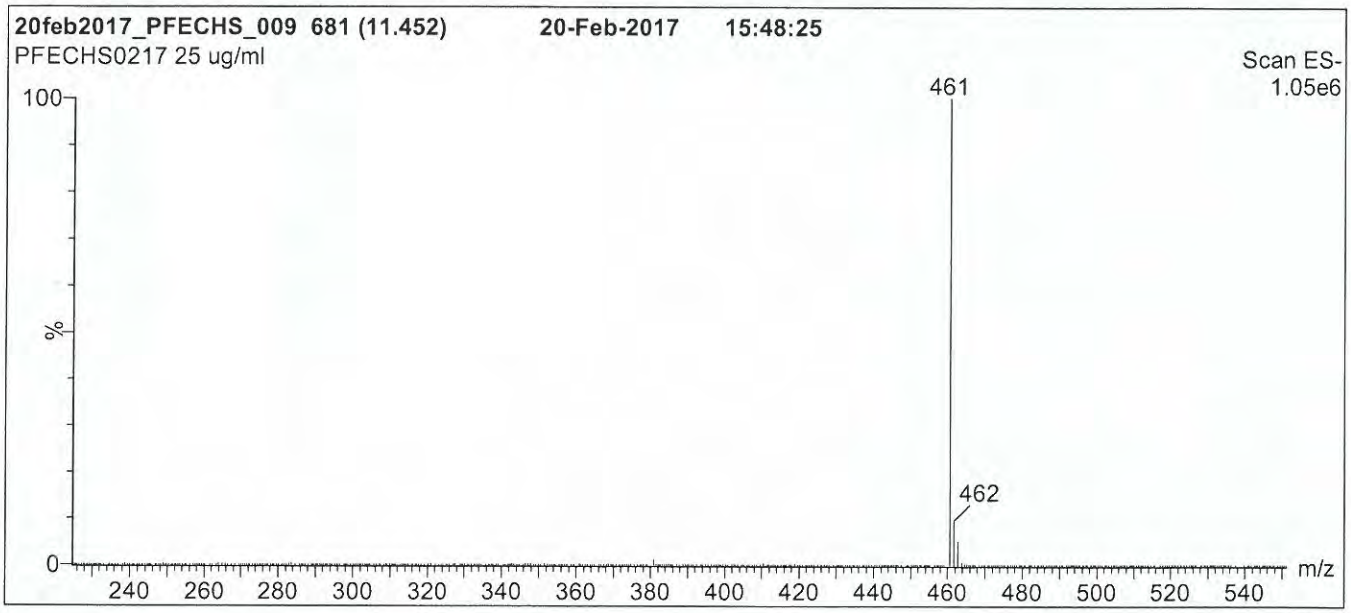
ANAB ACCREDITED

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

1802911

Figure 1: **PFECHS; 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 CSH Fluoro-Phenyl
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 35% (80:20 MeOH:ACN) / 65% H_2O
(both with 10 mM NH_4OAc buffer)
Hold for 13 min. Ramp to 50% organic over 1.5 min and hold for 2.5 min. Ramp to 80% organic over 1 min and hold for 1 min before returning to initial conditions in 0.5 min.
Time: 20 min

Flow: 300 µl/min

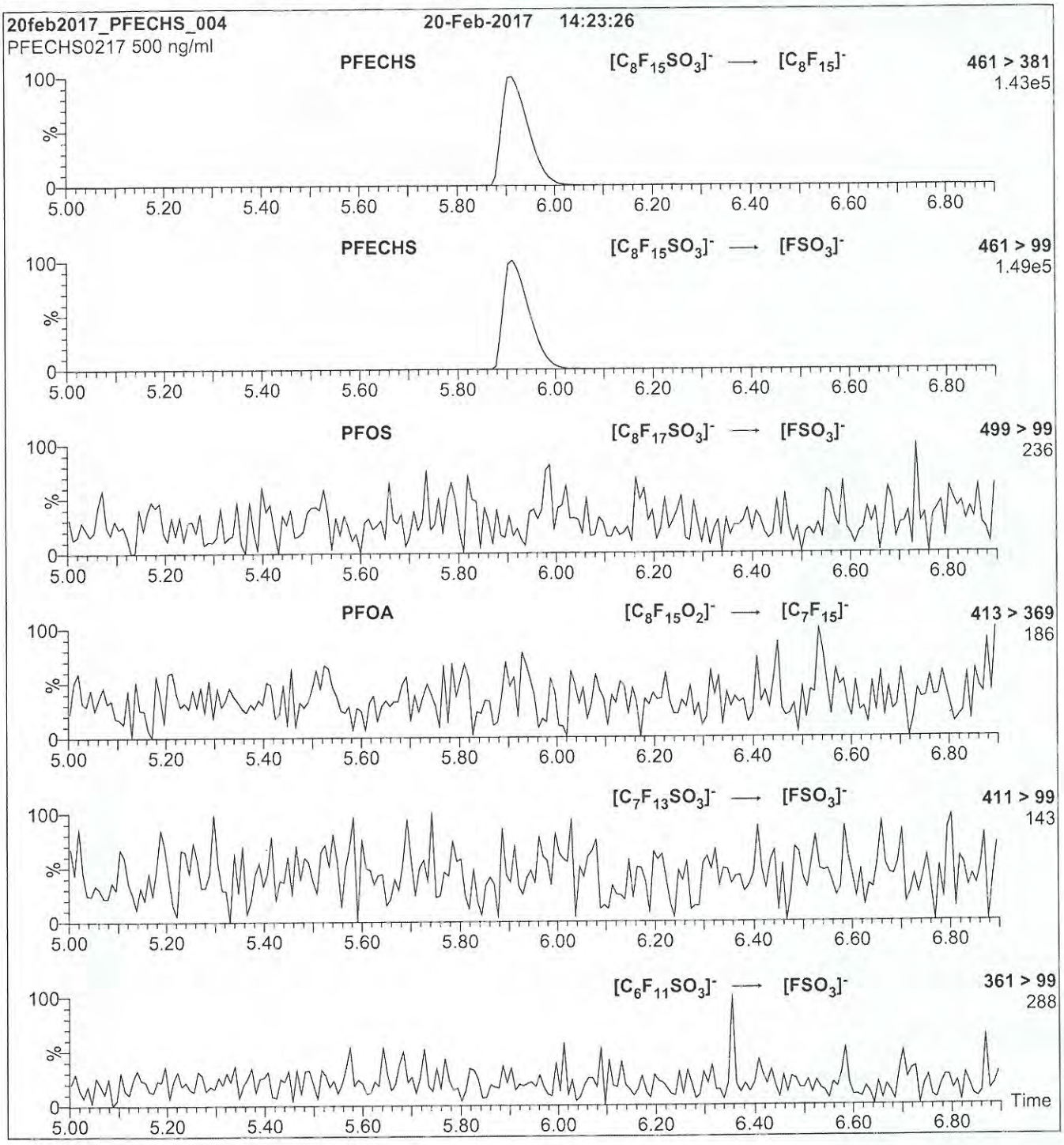
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.50
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

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Figure 2: **PFECHS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFECHS)

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) = 25

18L2034

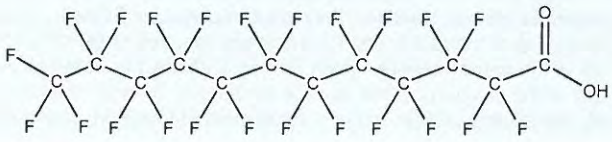
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFDoA
COMPOUND: Perfluoro-n-dodecanoic acid
LOT NUMBER: PFDoA0418

STRUCTURE:

CAS #: 307-55-1



MOLECULAR FORMULA: $C_{12}HF_{23}O_2$
MOLECULAR WEIGHT: 614.10
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 04/18/2018
EXPIRY DATE: (mm/dd/yyyy) 04/18/2023
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (SIR)
Figure 2: LC/MS Data (Mass Spectrum)
Figure 3: 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:** 04/24/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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INTENDED USE:

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

18L2034

Figure 1: **PFDoA; LC/MS Data (SIR)**

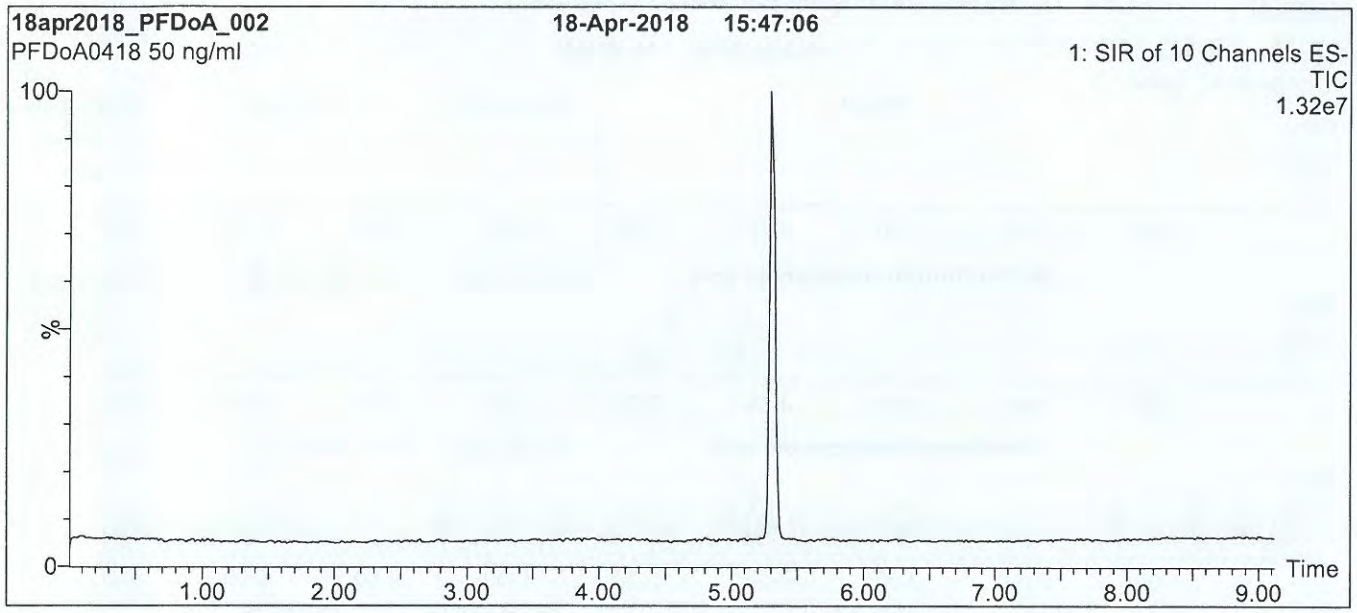
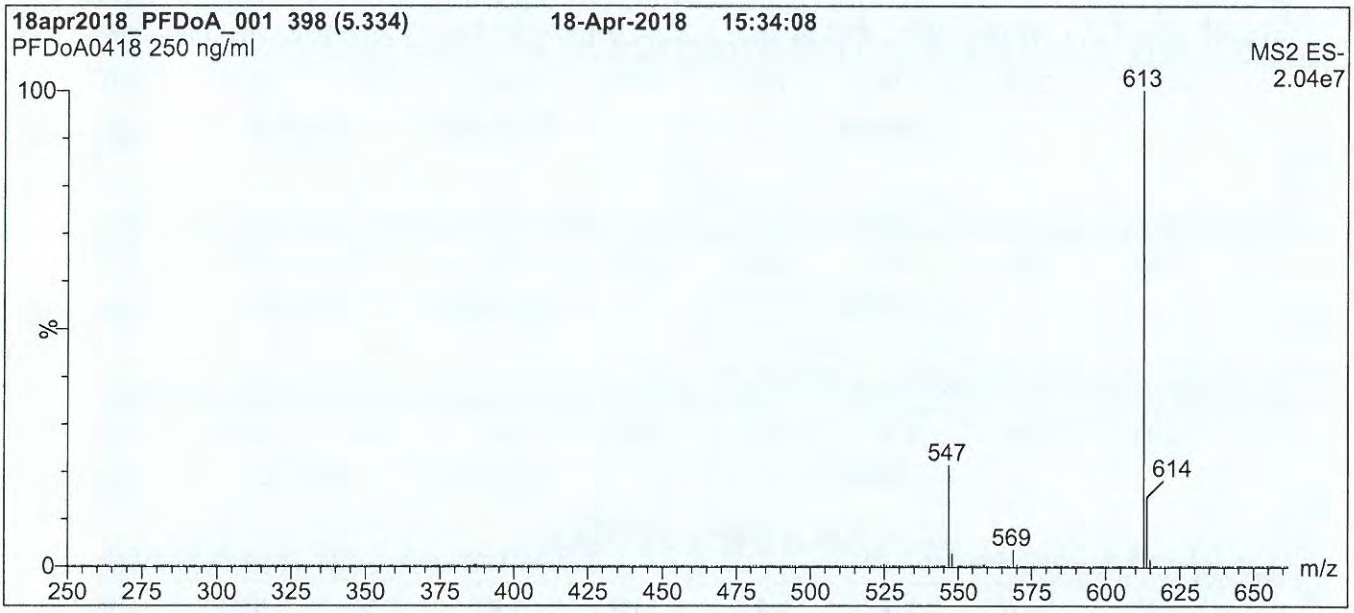


Figure 2: **PFDoA; LC/MS Data (Mass Spectrum)**



Conditions for Figures 1 & 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 85% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

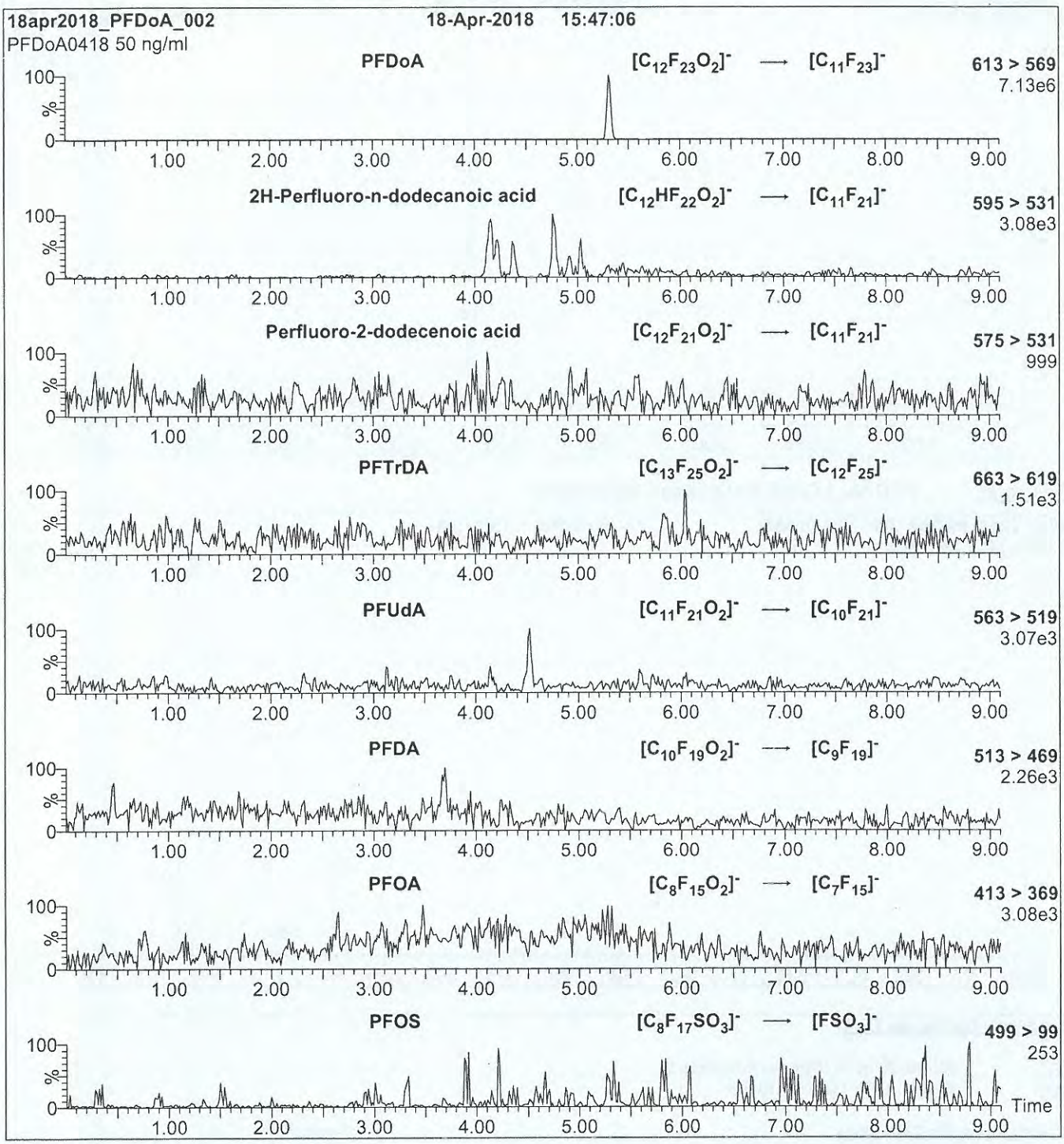
Flow: 300 µl/min

MS Parameters

Experiments: SIR of 10 channels
Full Scan (250 - 850 amu)
Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 5 (variable for SIR (2-12))
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

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Figure 3: **PFDoA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: On-column (PFDoA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.47e-3

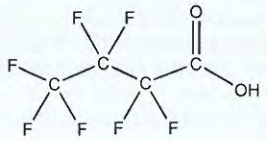
Collision Energy (eV) = 12

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WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	PFBA	**LOT NUMBER:**	PFBA1118
COMPOUND:	Perfluoro-n-butanoic acid		
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)	11/28/2018		
EXPIRY DATE: (mm/dd/yyyy)	11/28/2023		
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:** 11/29/2018 (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

1802035

INTENDED USE:

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HANDLING:

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TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

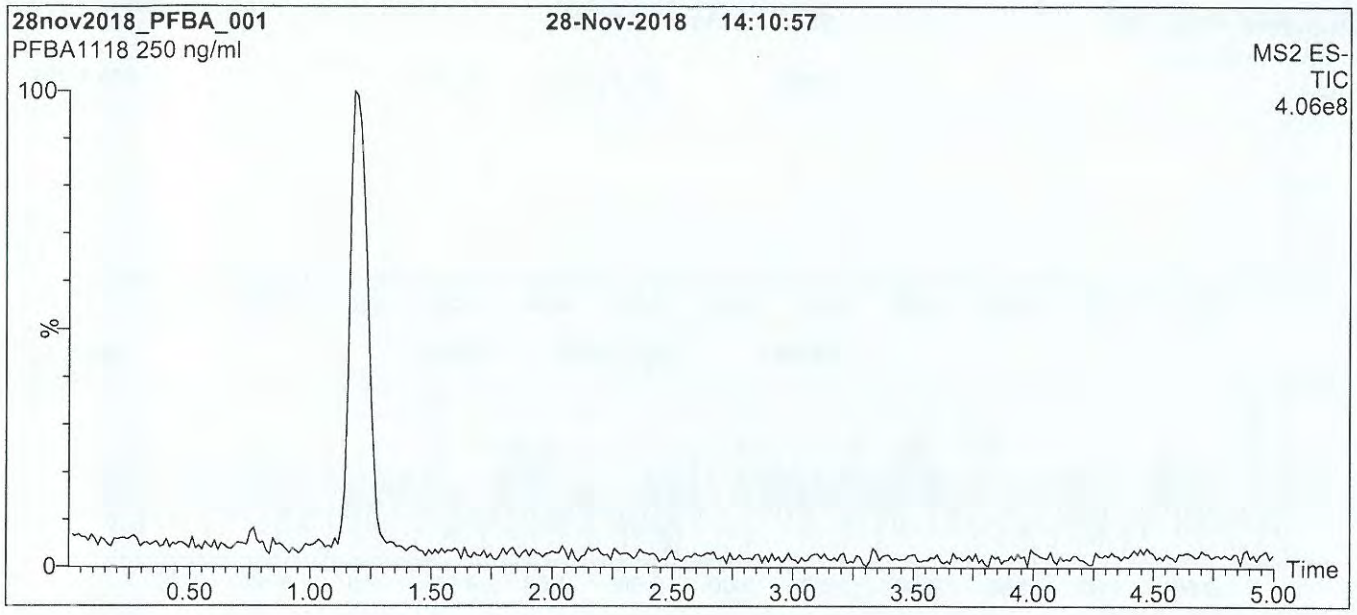
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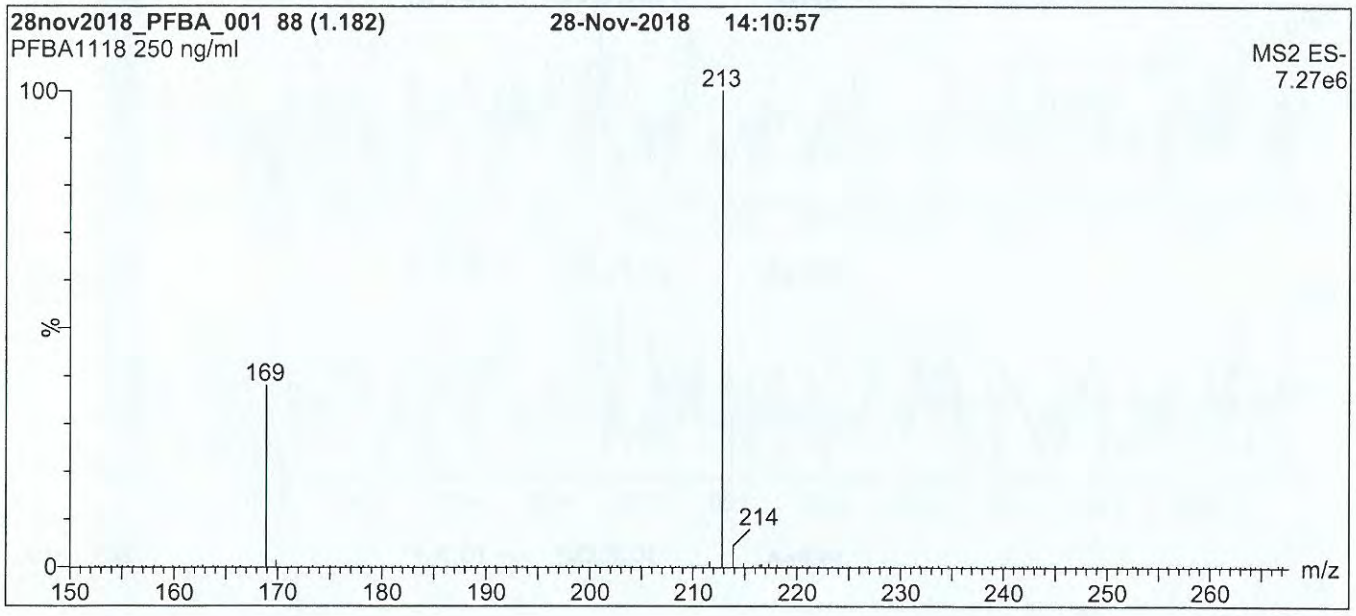
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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Figure 1: **PFBA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

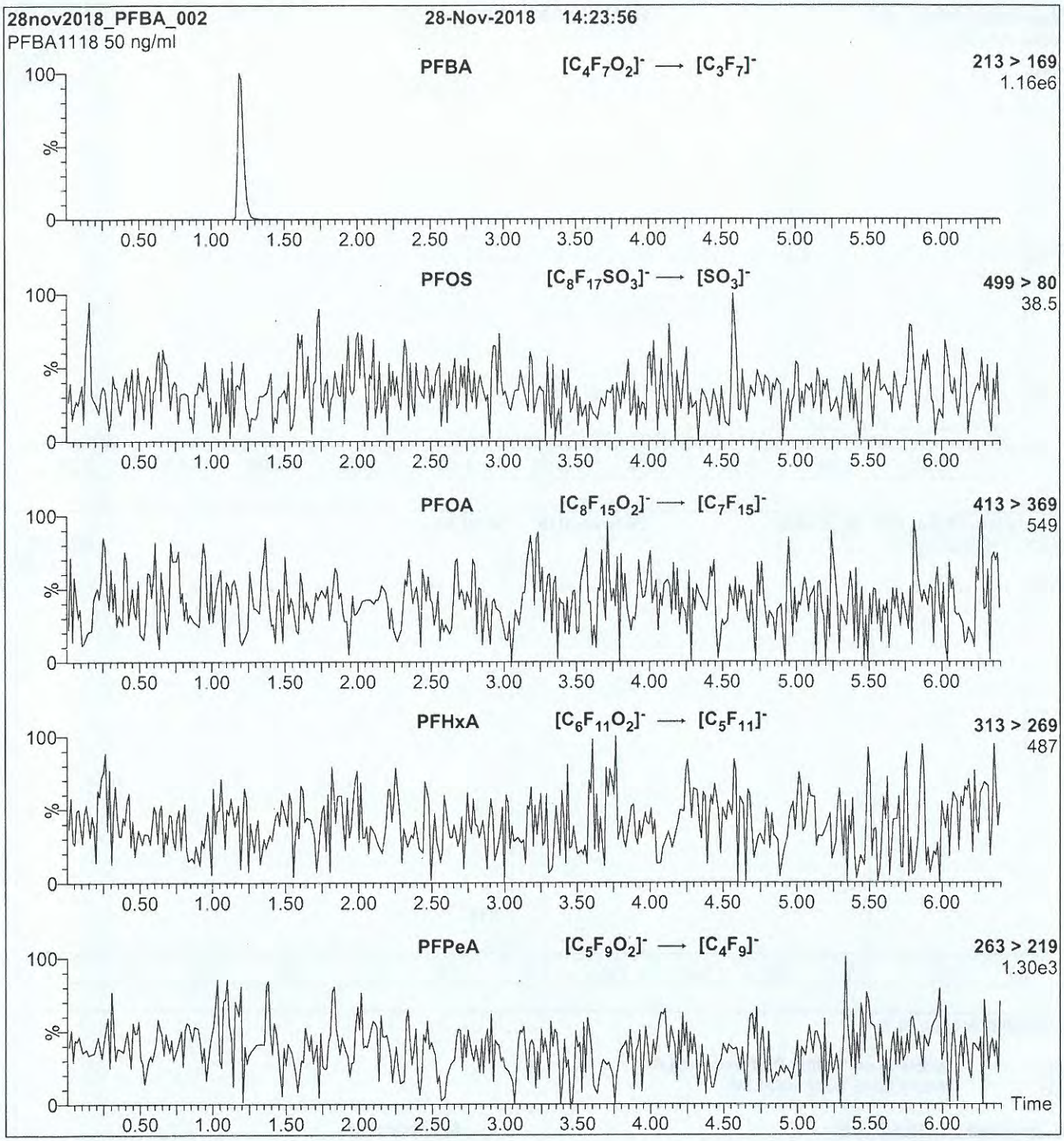
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

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Figure 2: **PFBA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFBA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.79e-3
Collision Energy (eV) = 8

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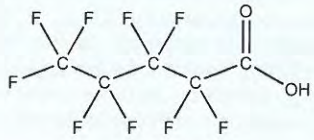
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFPeA
COMPOUND: Perfluoro-n-pentanoic acid
LOT NUMBER: PFPeA0218

STRUCTURE:

CAS #: 2706-90-3



MOLECULAR FORMULA: $C_5HF_9O_2$
MOLECULAR WEIGHT: 264.05
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 02/16/2018
EXPIRY DATE: (mm/dd/yyyy) 02/16/2023
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:** 02/20/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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INTENDED USE:

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

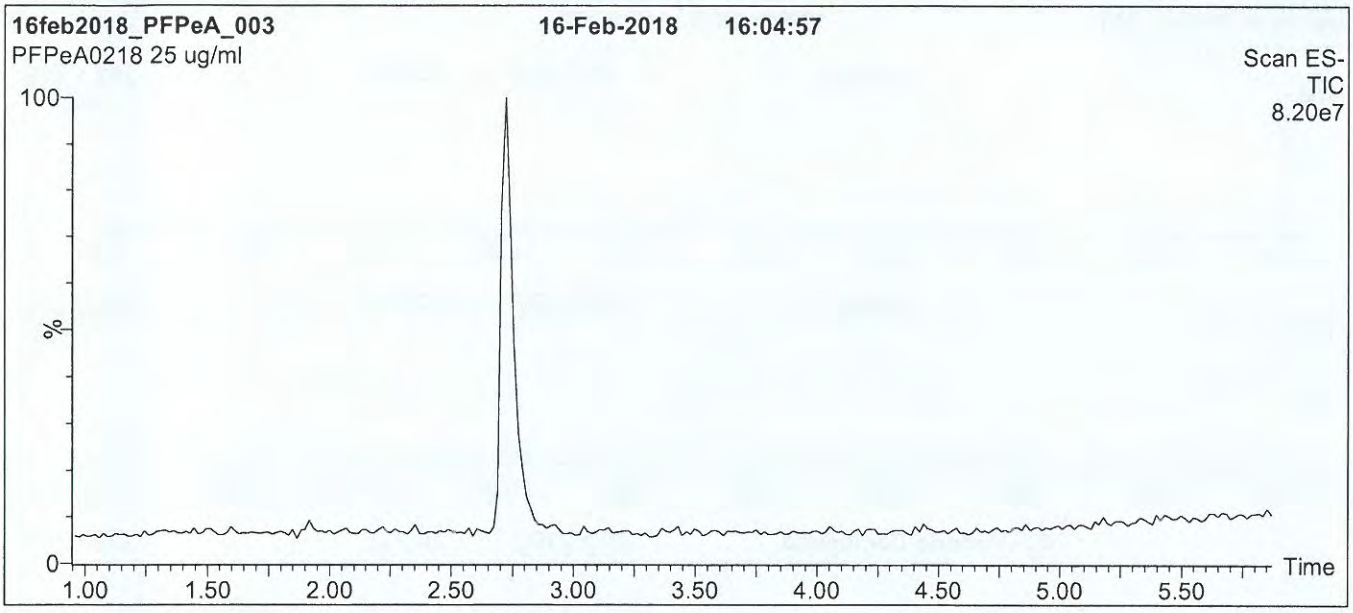
CALA Testing Accreditation No. A 1226

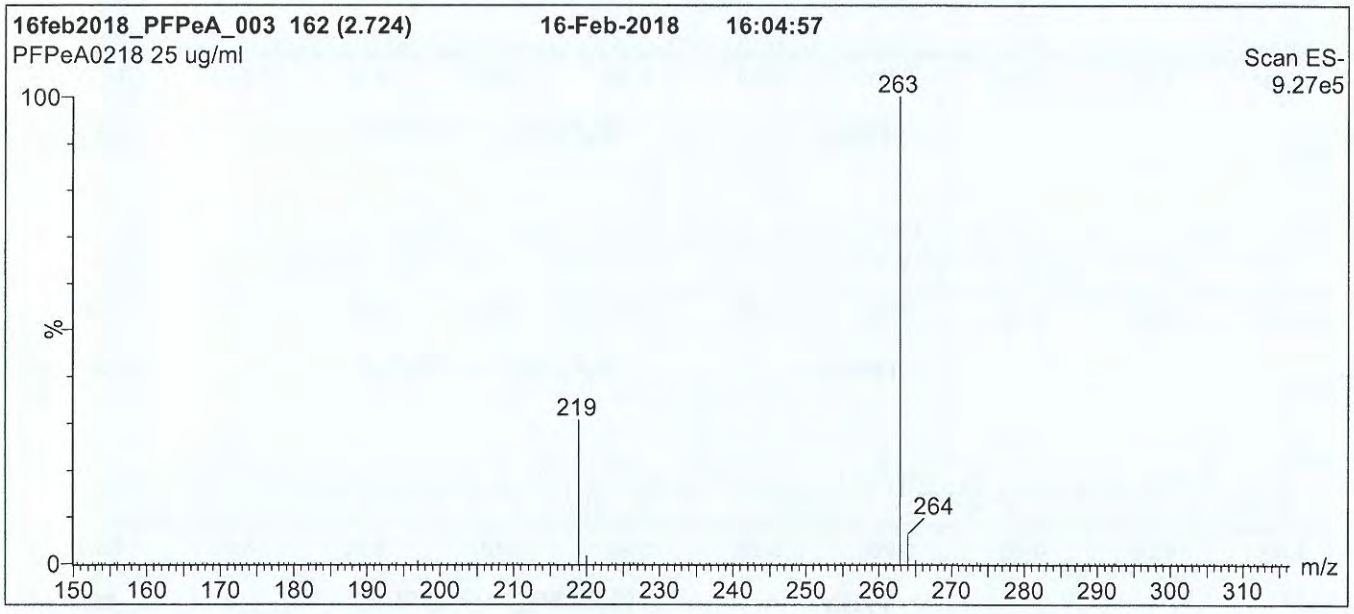
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18L2036

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

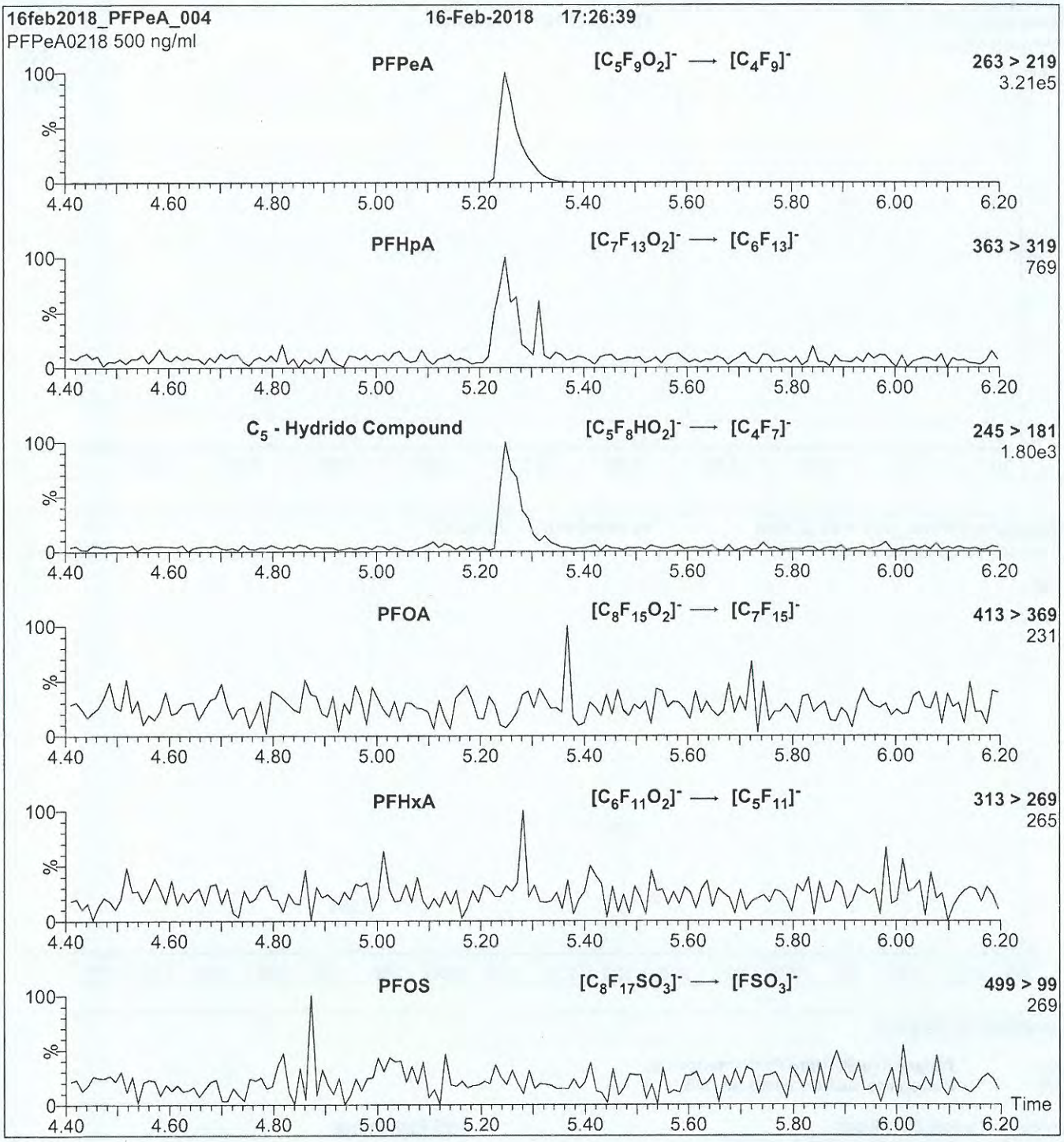
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

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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

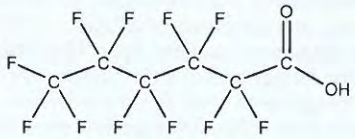
Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 9

18L2037

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	PFHxA	**LOT NUMBER:**	PFHxA0518
COMPOUND:	Perfluoro-n-hexanoic acid		
STRUCTURE:		**CAS #:**	307-24-4



MOLECULAR FORMULA:	$C_6HF_{11}O_2$	**MOLECULAR WEIGHT:**	314.05
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/18/2018		
EXPIRY DATE: (mm/dd/yyyy)	05/18/2023		
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: _____ **Date:** 05/30/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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INTENDED USE:

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HANDLING:

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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. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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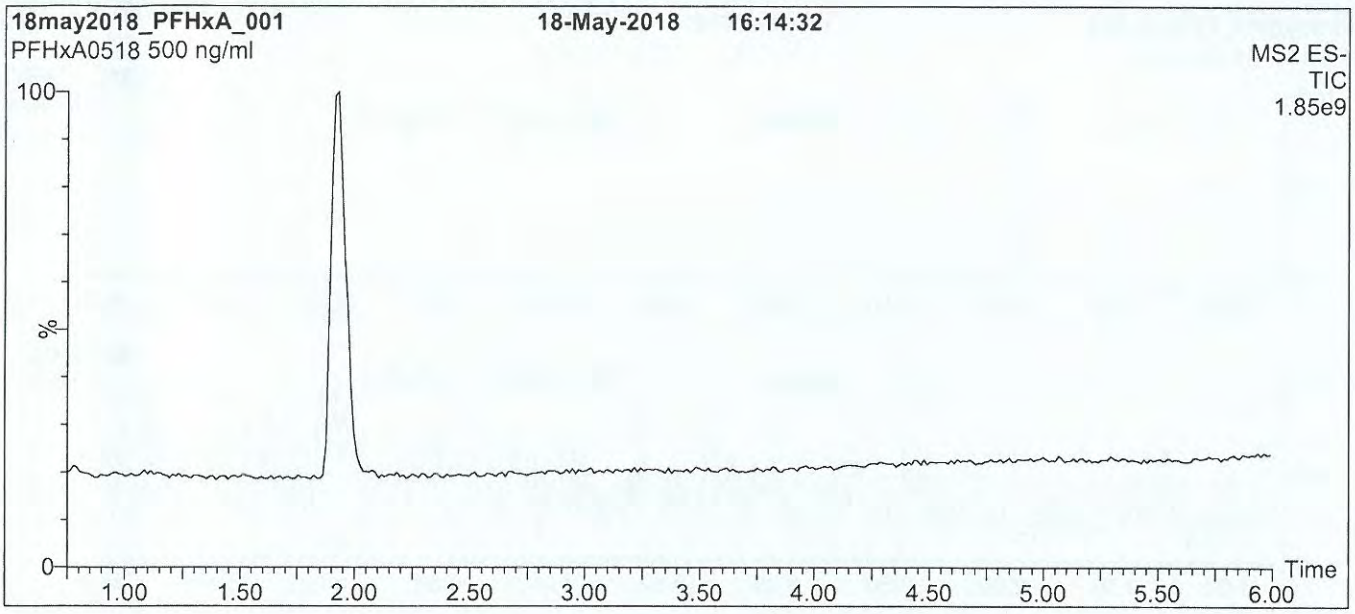
CALA Testing Accreditation No. A 1226

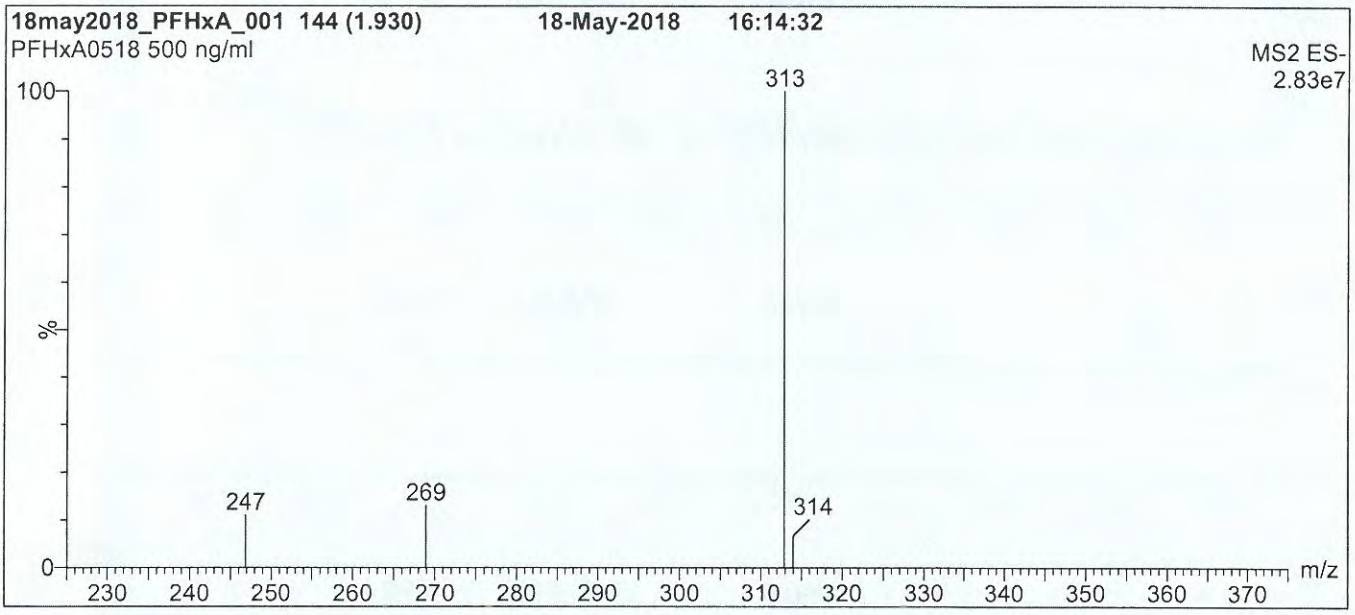
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1812037

Figure 1: **PFHxA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

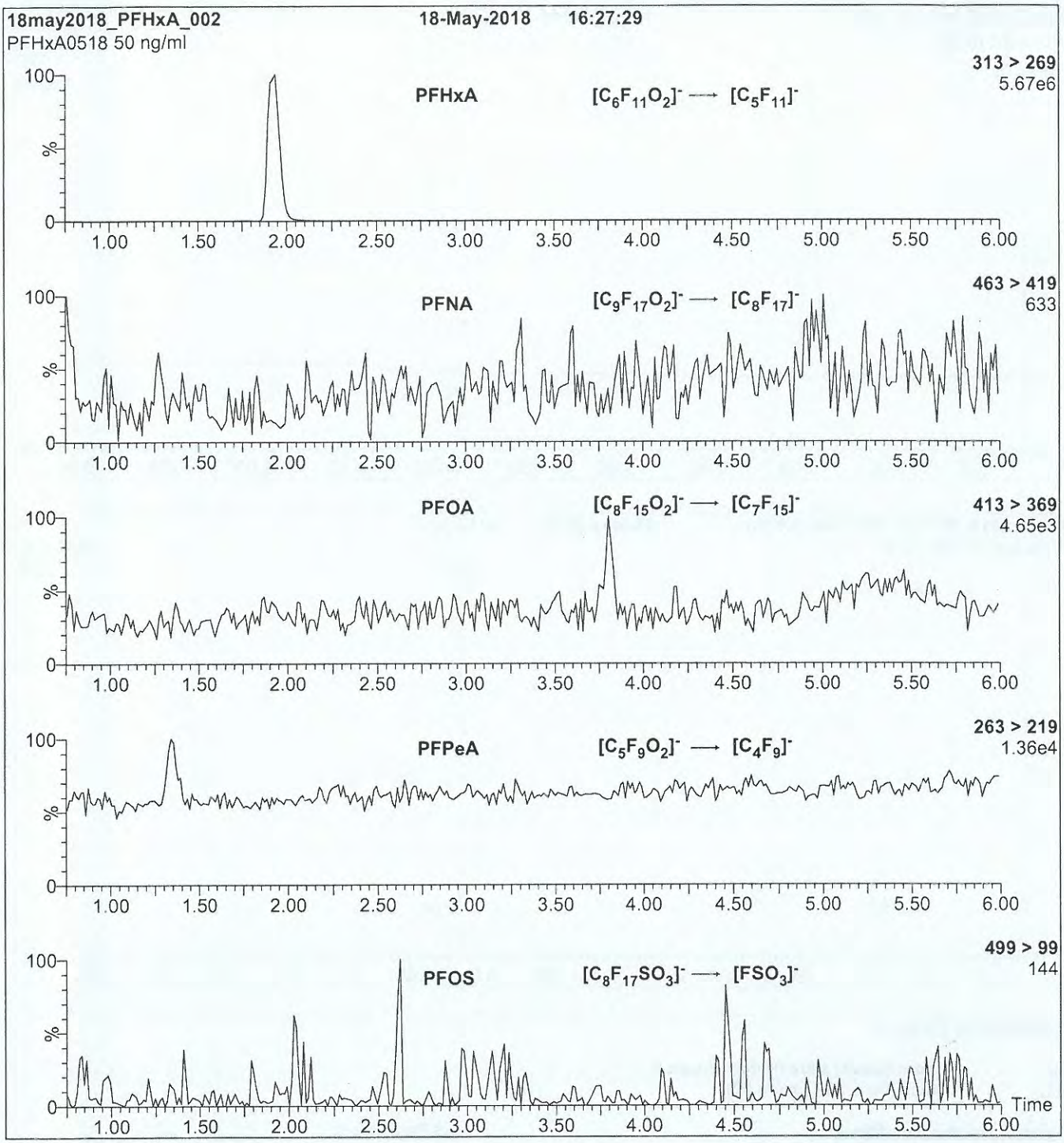
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

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Figure 2: **PFHxA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFHxA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

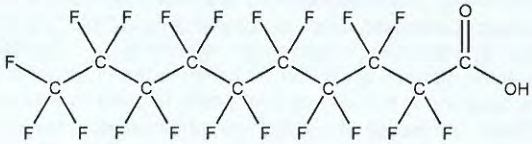
Collision Gas (mbar) = 3.50e-3
Collision Energy (eV) = 8

1812038

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFDA	**LOT NUMBER:**	PFDA1118
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)	11/12/2018		
EXPIRY DATE: (mm/dd/yyyy)	11/12/2023		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-nonanoic acid (PFNA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/15/2018 (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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TRACEABILITY:

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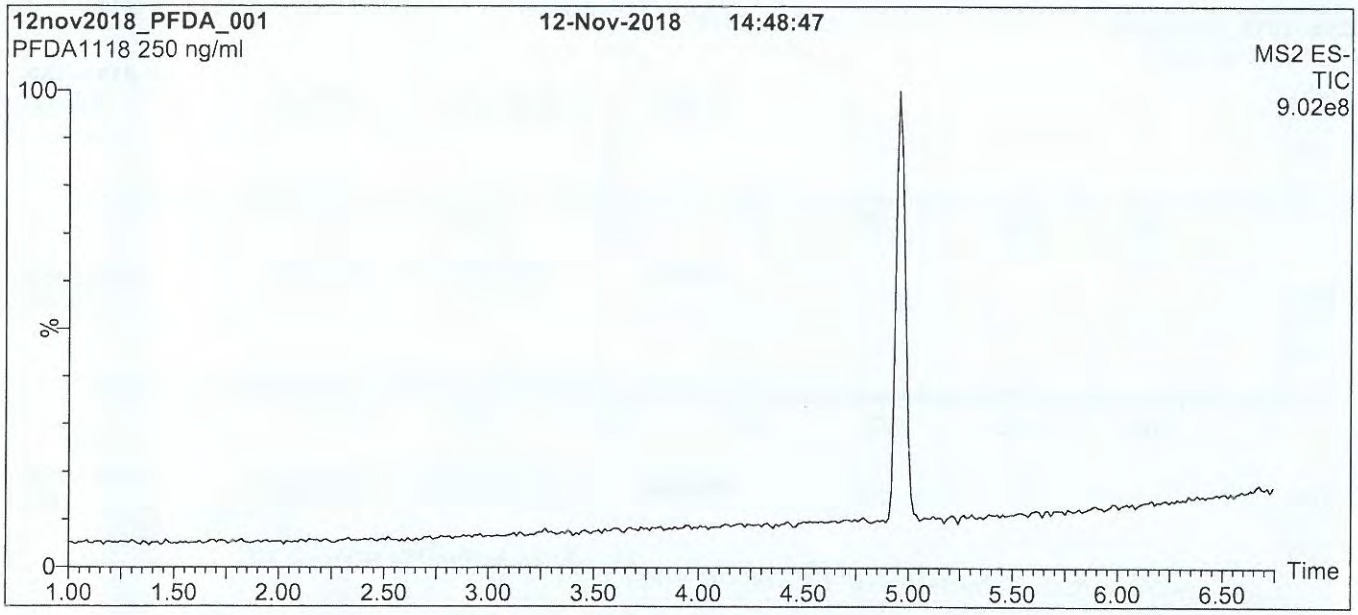
CALA Testing Accreditation No. A 1226

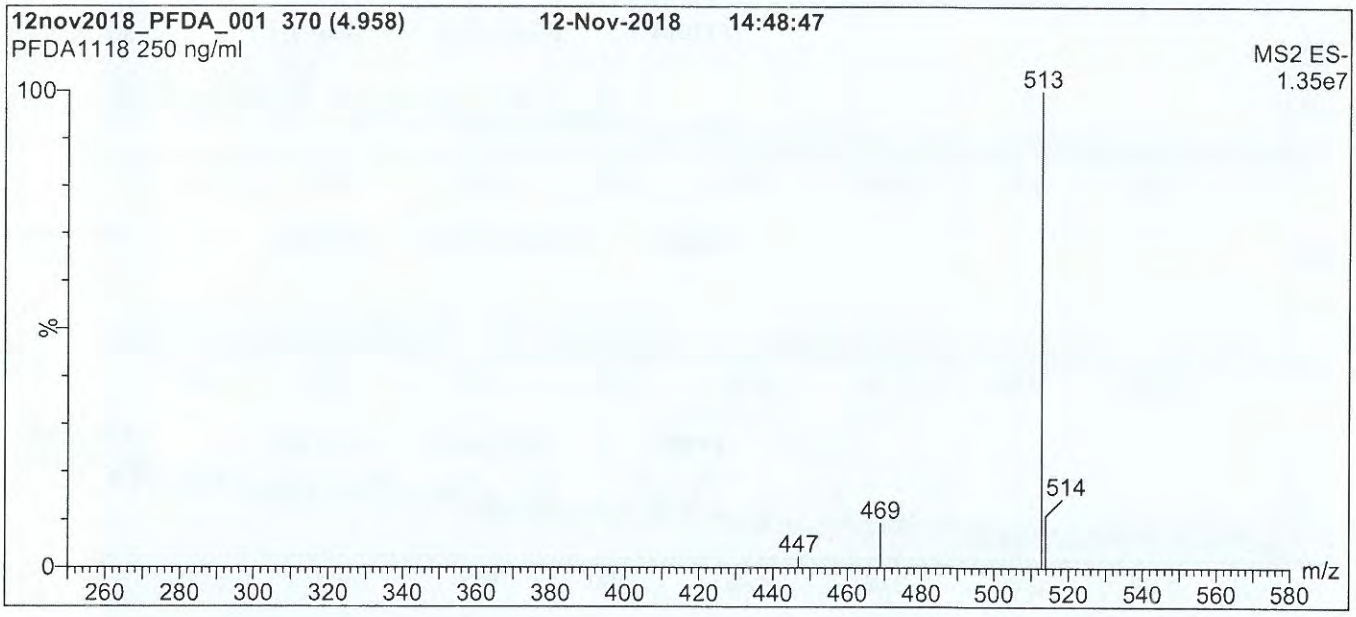
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1812038

Figure 1: **PFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

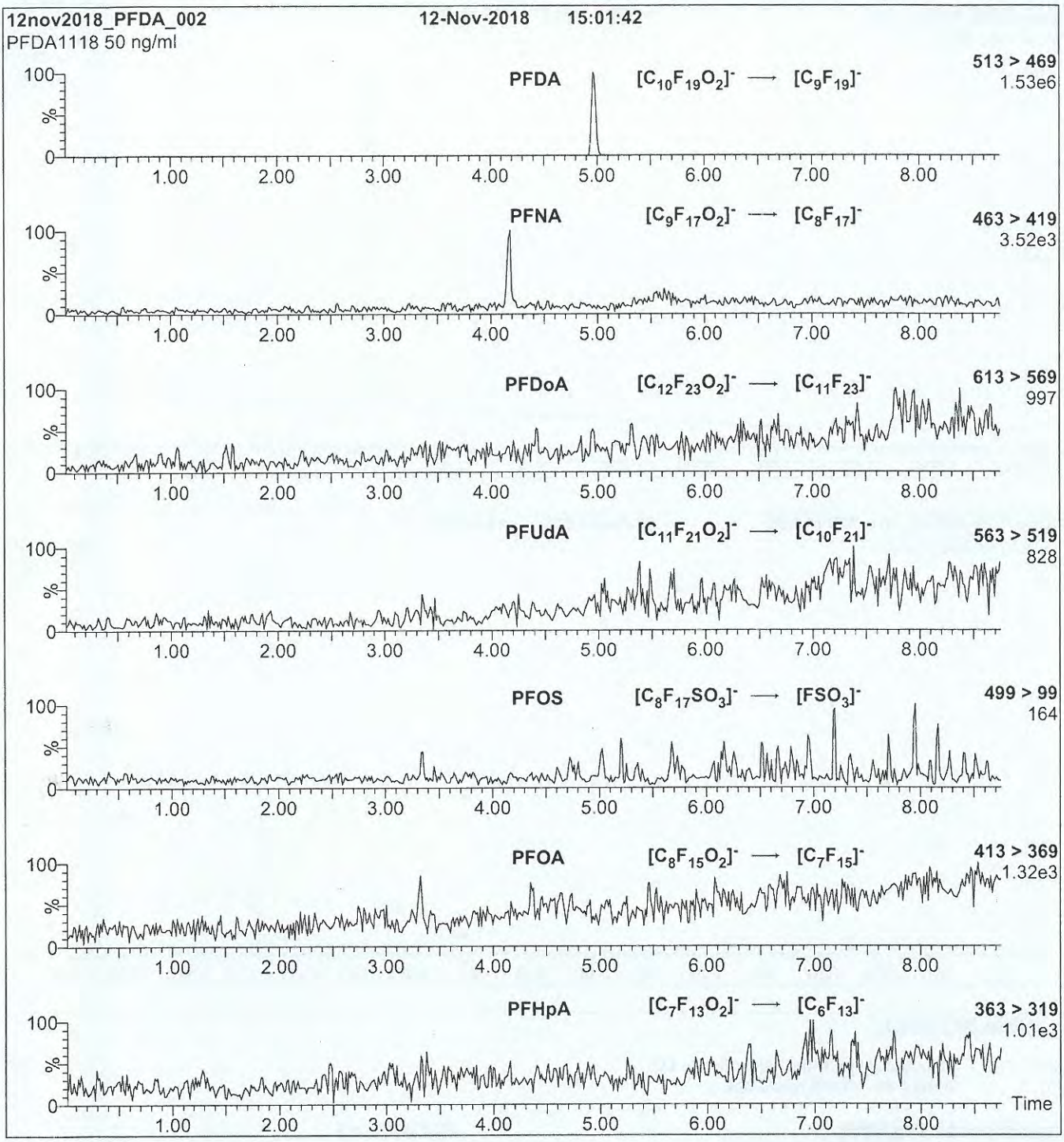
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

1812038

Figure 2: **PFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFDA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.04e-3
Collision Energy (eV) = 10

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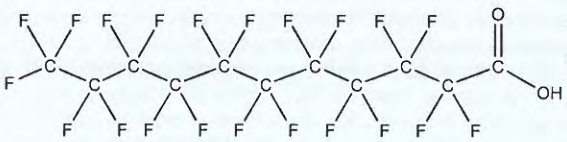
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFUdA
COMPOUND: Perfluoro-n-undecanoic acid

LOT NUMBER: PFUdA0818

STRUCTURE:

CAS #: 2058-94-8



MOLECULAR FORMULA: $C_{11}HF_{21}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 564.09
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 08/23/2018
EXPIRY DATE: (mm/dd/yyyy) 08/23/2023
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:** 08/24/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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INTENDED USE:

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

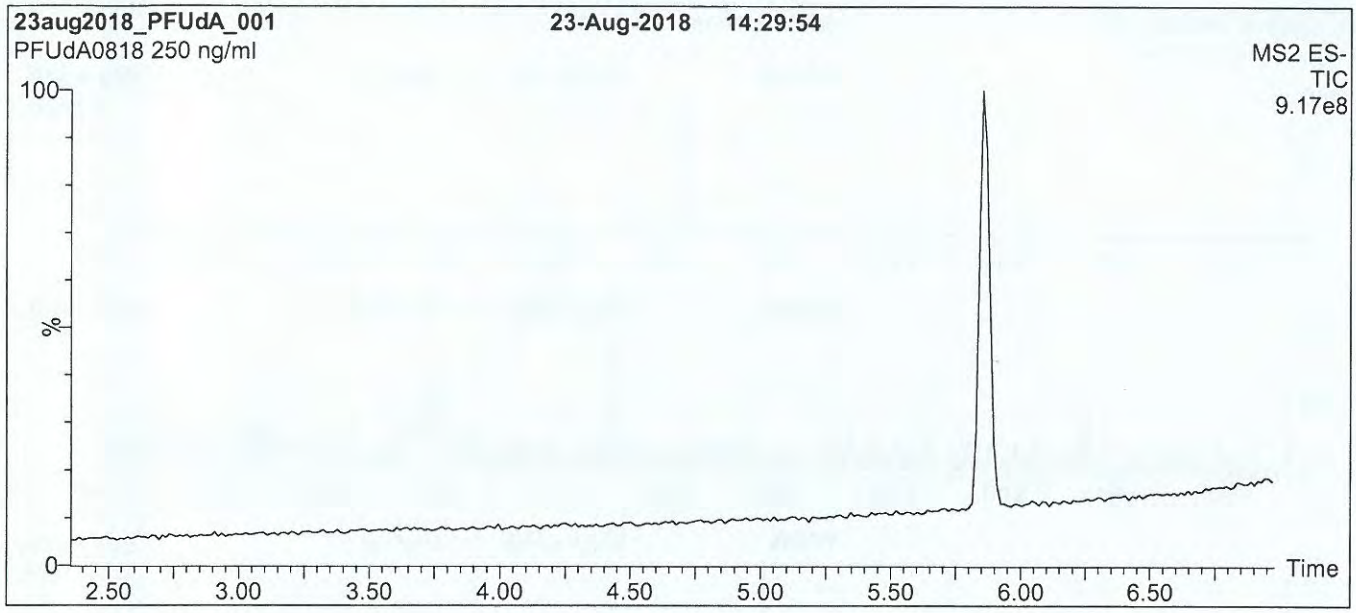
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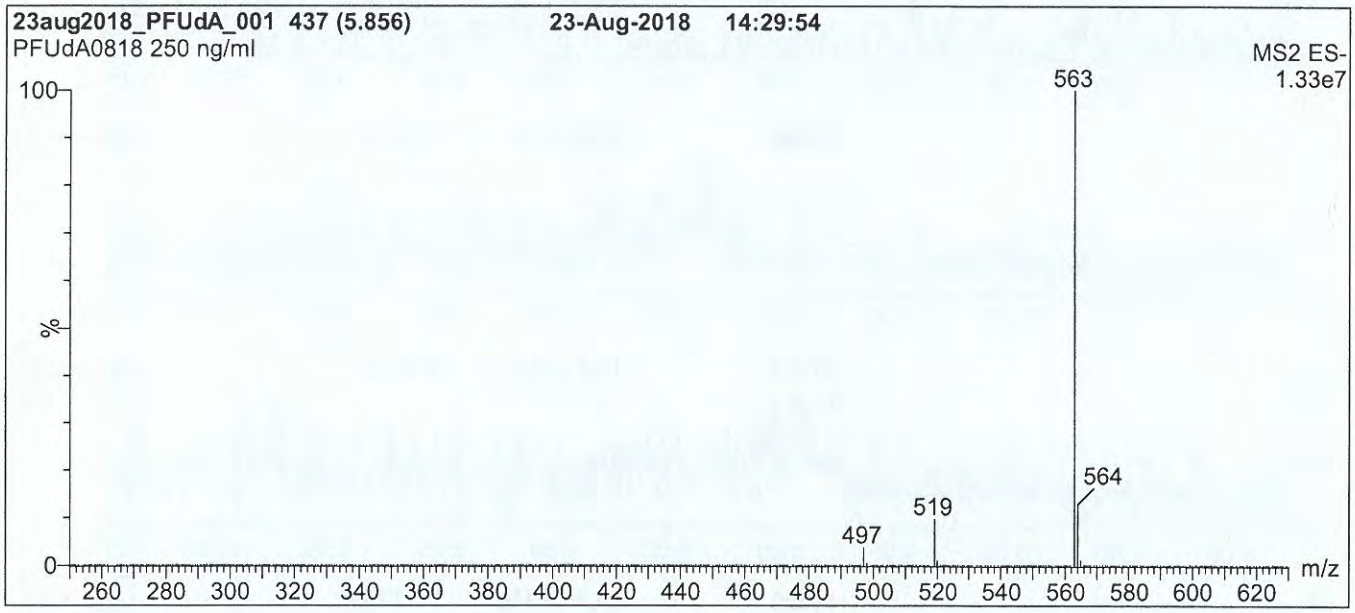
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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18L2039

Figure 1: **PFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

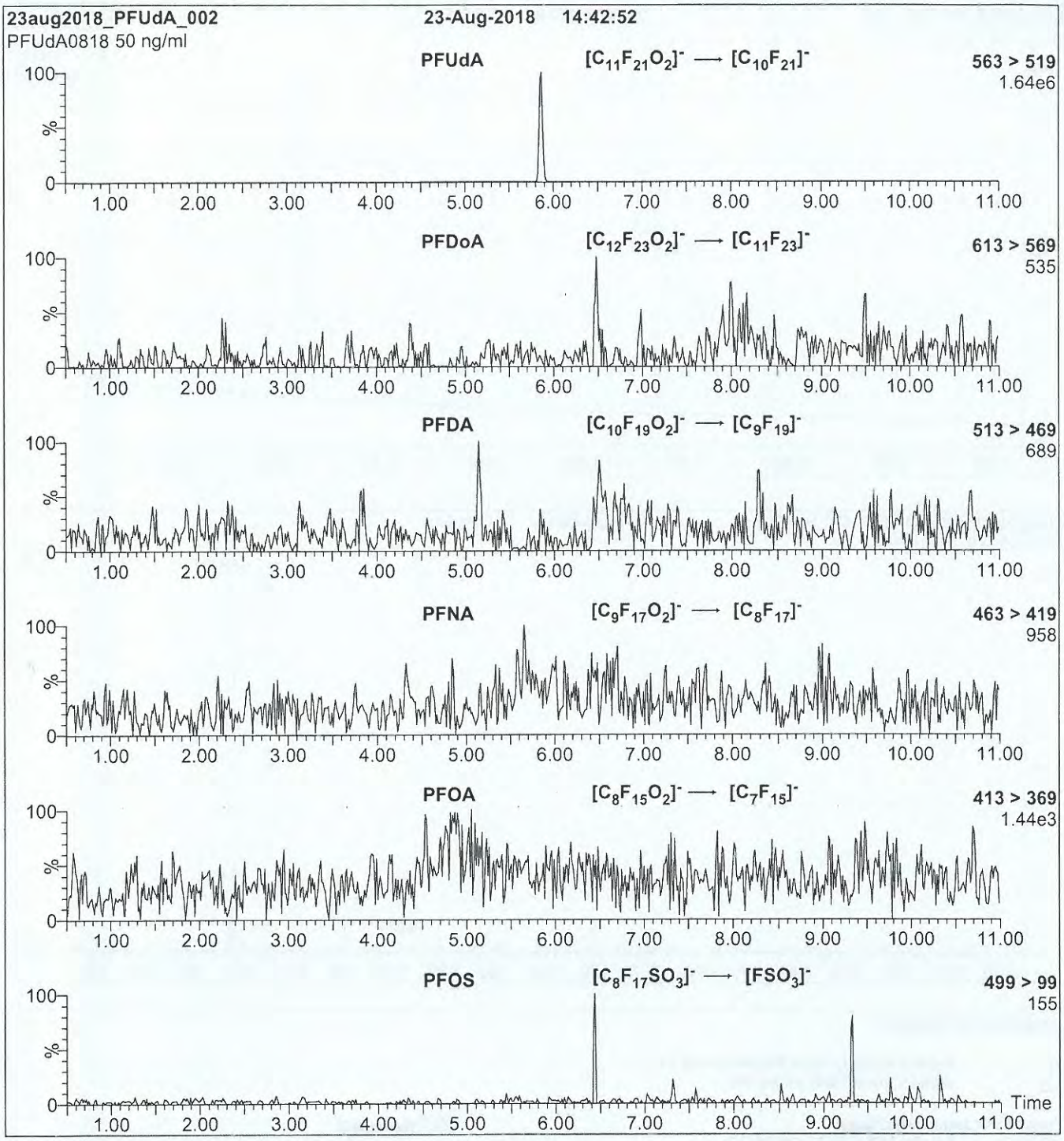
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

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Figure 2: **PFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFUdA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.45e-3
Collision Energy (eV) = 12

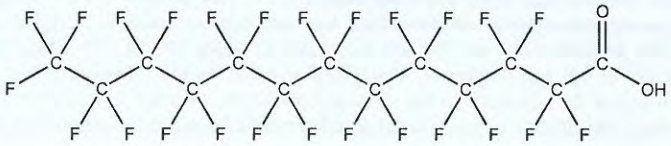
18L2040

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFTrDA
COMPOUND: Perfluoro-n-tridecanoic acid
LOT NUMBER: PFTrDA0218

STRUCTURE:
CAS #: 72629-94-8



MOLECULAR FORMULA: $C_{13}HF_{25}O_2$
MOLECULAR WEIGHT: 664.11
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 02/16/2018
EXPIRY DATE: (mm/dd/yyyy) 02/16/2023
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: _____ **Date:** 02/20/2018 (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

1812040

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

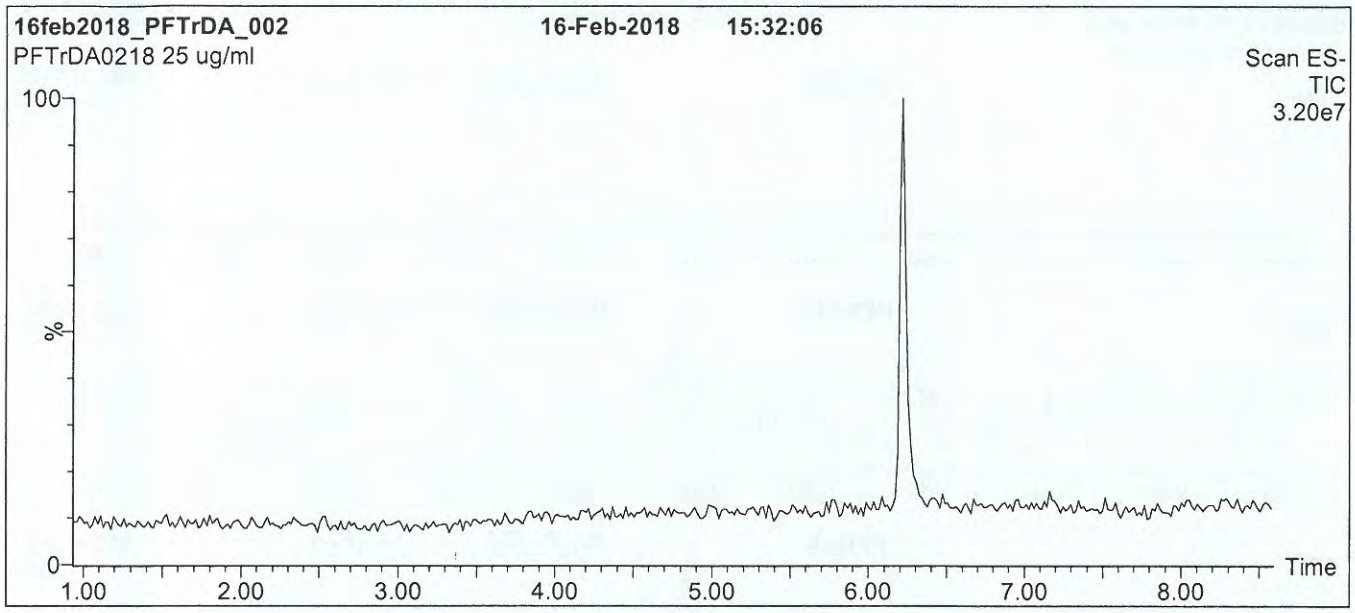
CALA Testing Accreditation No. A1226

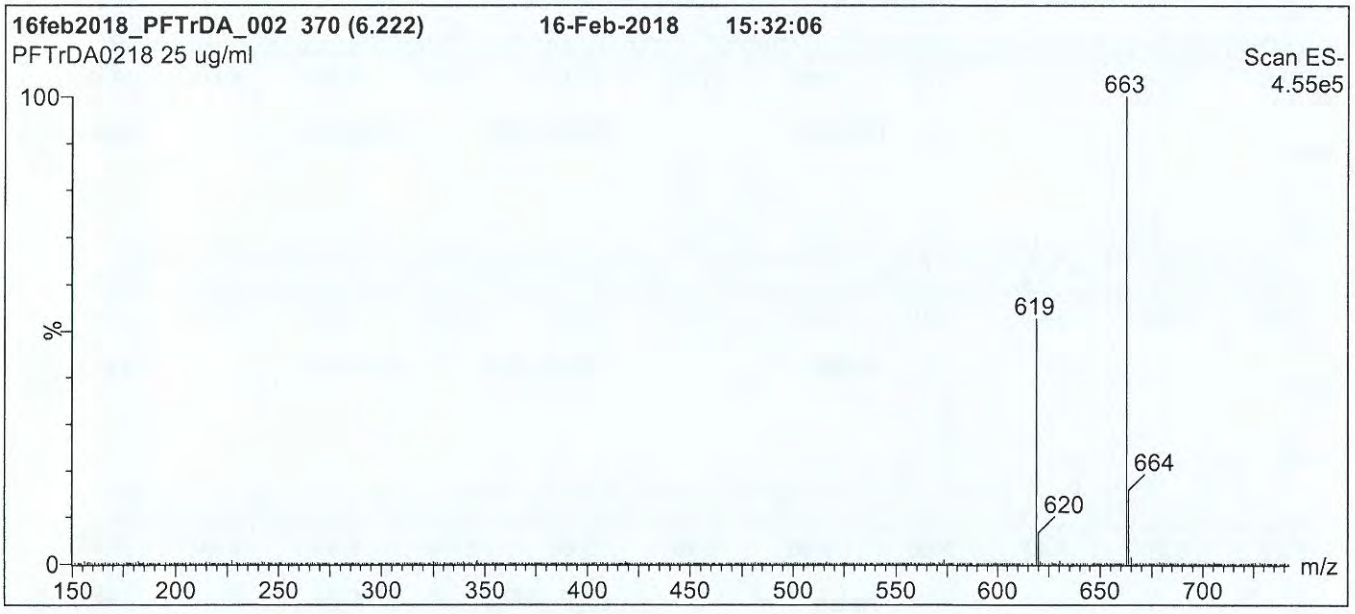
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18L2040

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: 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

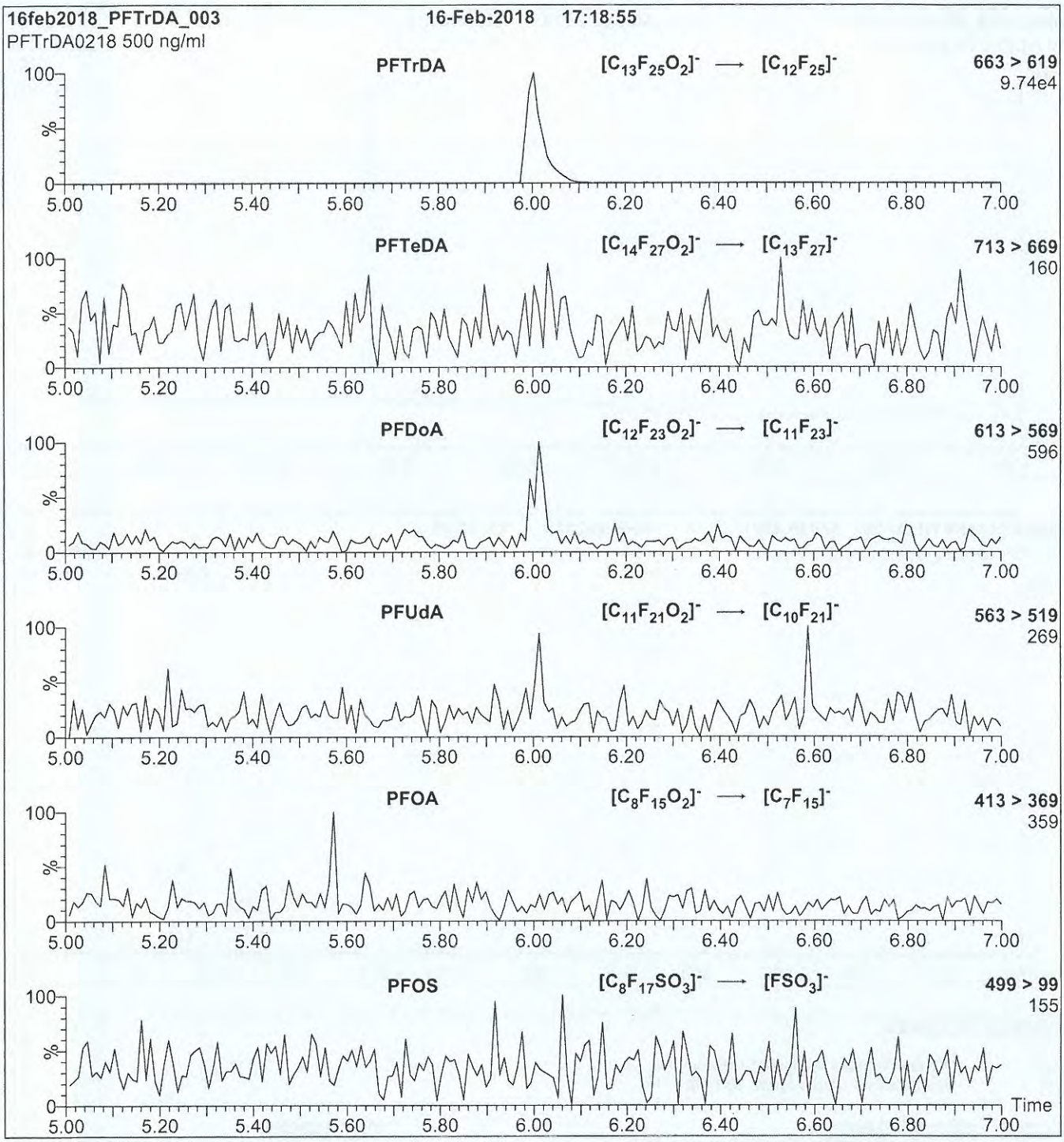
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 22.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 650

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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) = 3.43e-3
Collision Energy (eV) = 15

1812041

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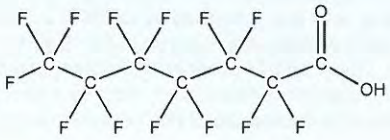
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHpA
COMPOUND: Perfluoro-n-heptanoic acid

LOT NUMBER: PFHpA0718

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) 07/12/2018
EXPIRY DATE: (mm/dd/yyyy) 07/12/2023
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:** 07/18/2018 (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

1812041

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HANDLING:

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EXPIRY DATE / PERIOD OF VALIDITY:

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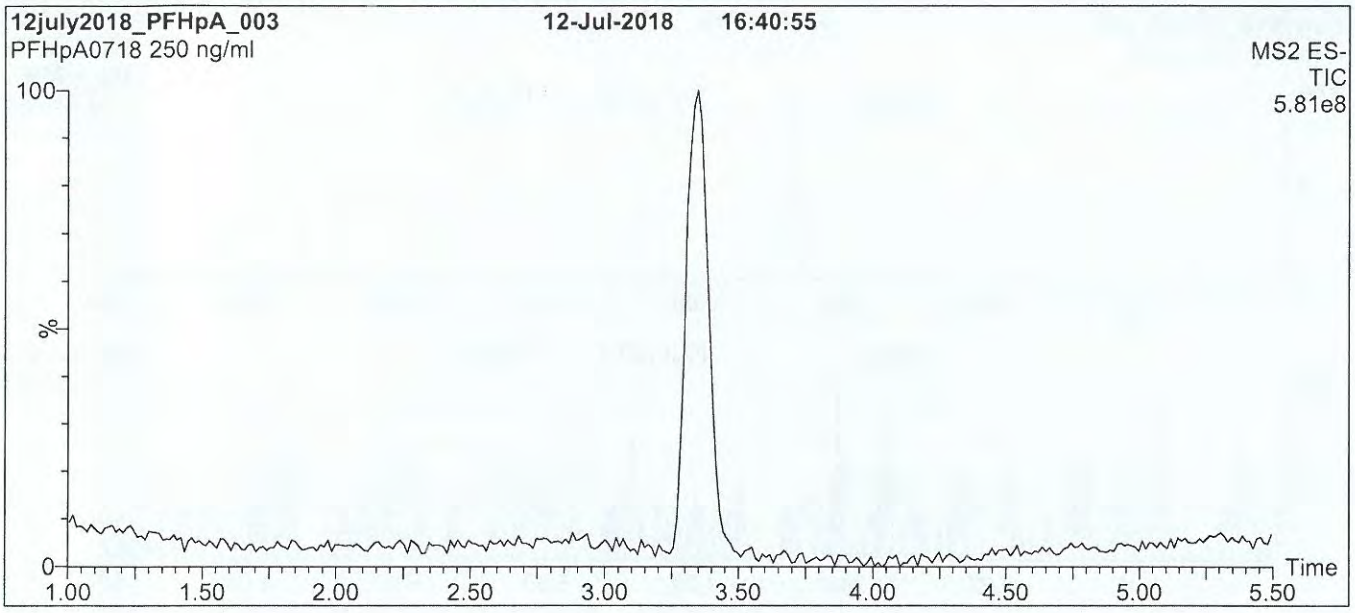
CALA Testing Accreditation No. A1226

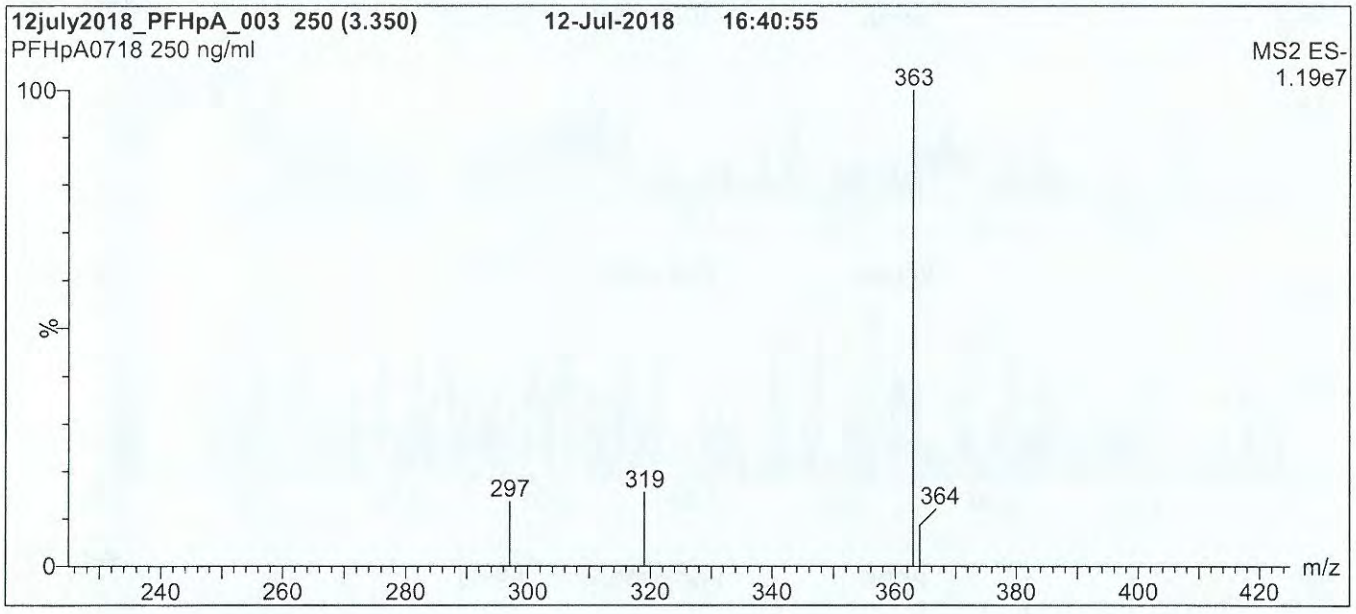
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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18L2041

Figure 1: **PFHpA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

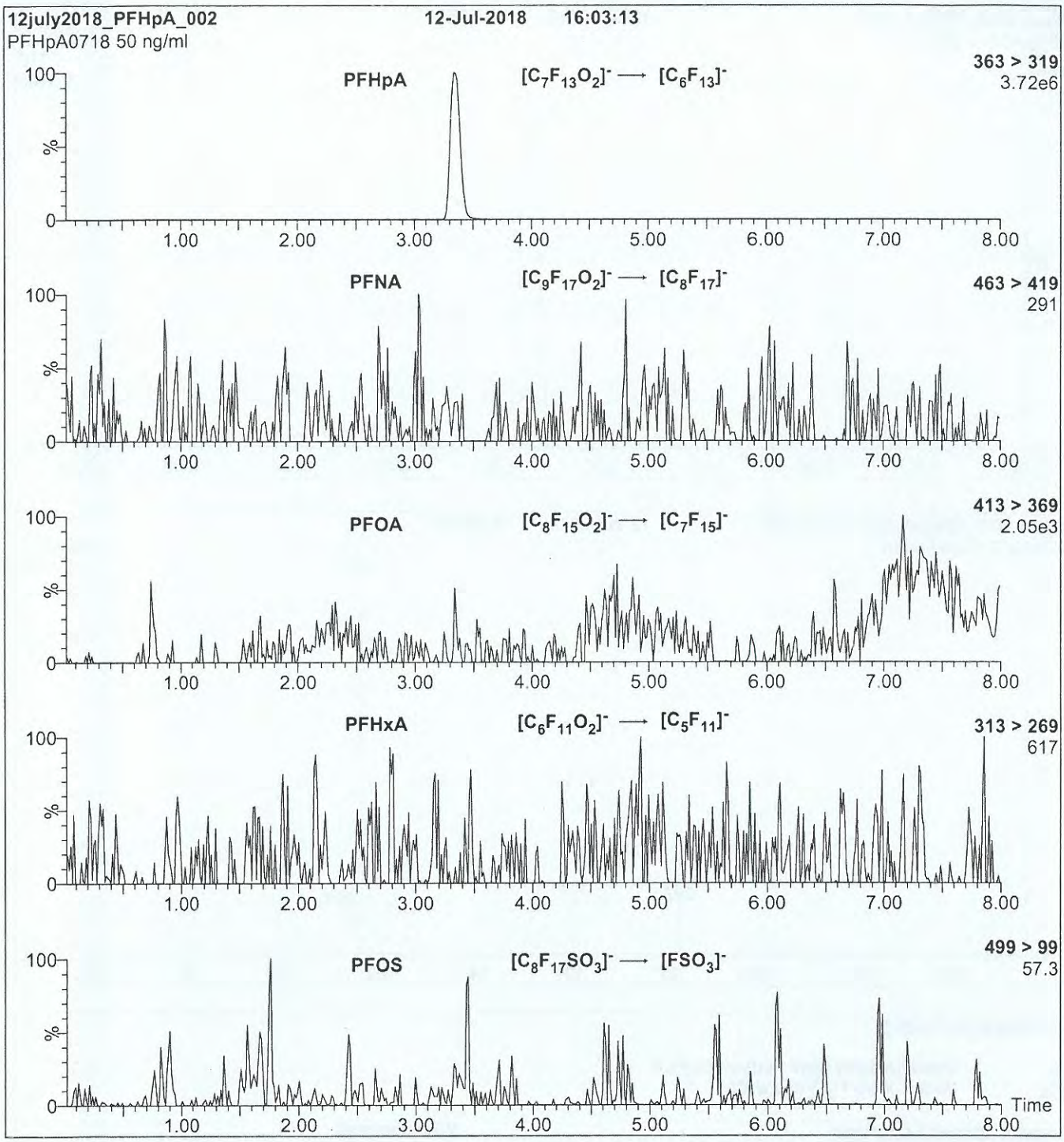
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

18L2041

Figure 2: **PFHpA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFHpA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.47e-3
Collision Energy (eV) = 8

18L2042

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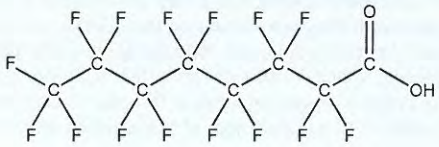
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFOA
COMPOUND: Perfluoro-n-octanoic acid

LOT NUMBER: PFOA0818

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) 08/23/2018
EXPIRY DATE: (mm/dd/yyyy) 08/23/2023
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:** 08/24/2018 (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

1812042

INTENDED USE:

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HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

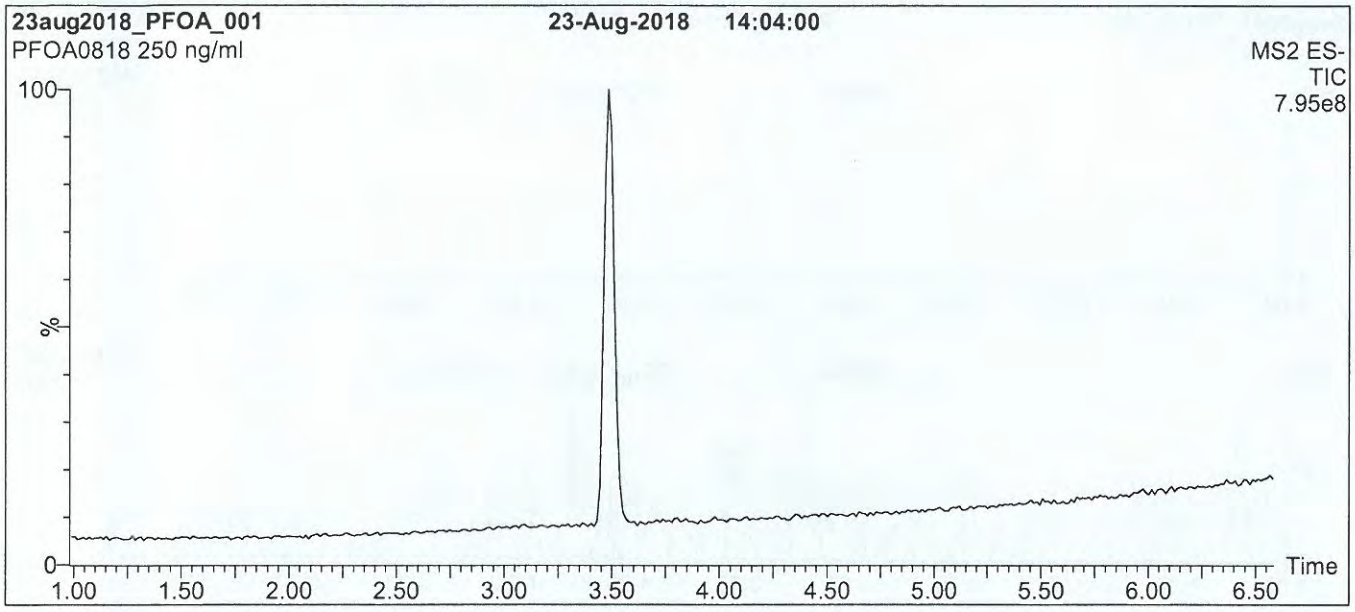
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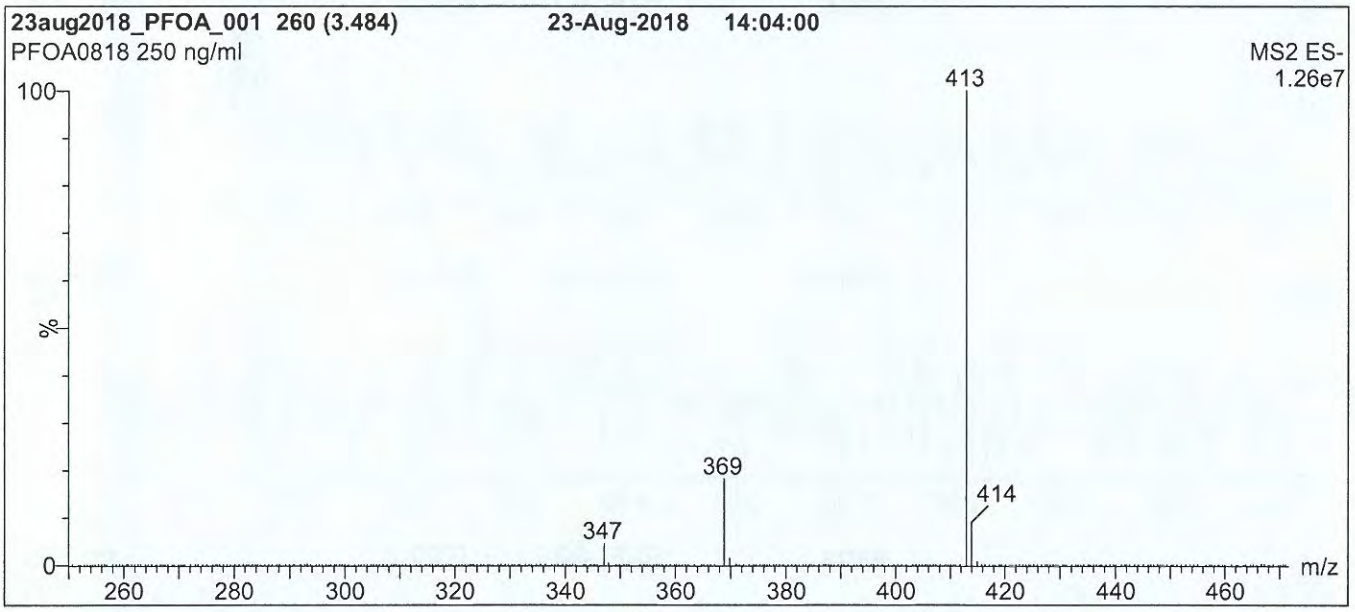
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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18L2042

Figure 1: **PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

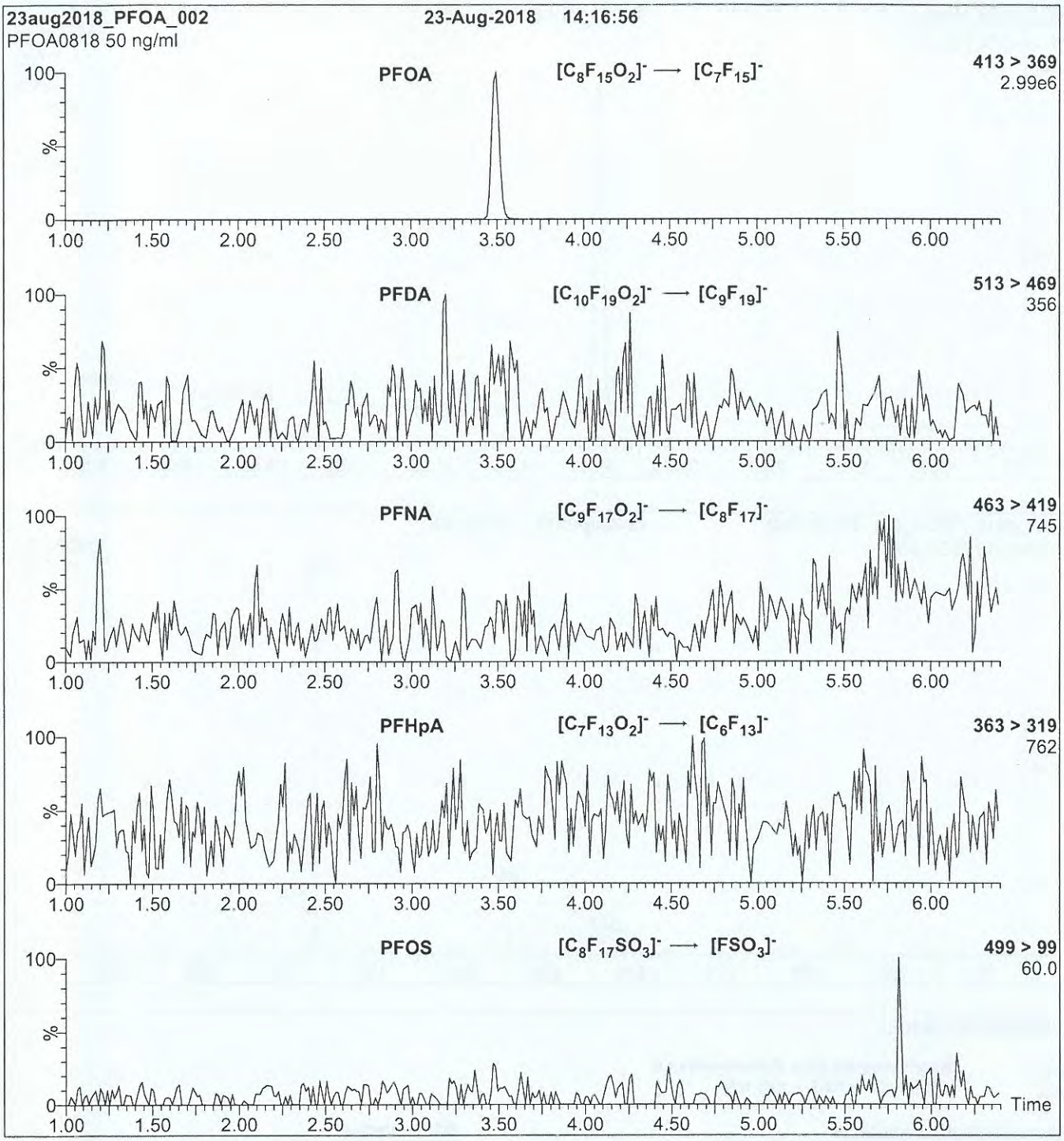
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

1812042

Figure 2: **PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFOA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.45e-3
Collision Energy (eV) = 8

1812043

WELLINGTON LABORATORIES

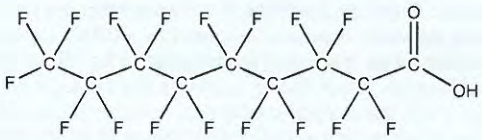
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFNA
COMPOUND: Perfluoro-n-nonanoic acid

LOT NUMBER: PFNA0218

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) 02/16/2018
EXPIRY DATE: (mm/dd/yyyy) 02/16/2023
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-octanoic acid (PFOA), < 0.1% of perfluoro-n-heptanoic acid (PFHpA), and < 0.1% of perfluoro-n-undecanoic acid (PFUdA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 02/20/2018 (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

18L2043

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

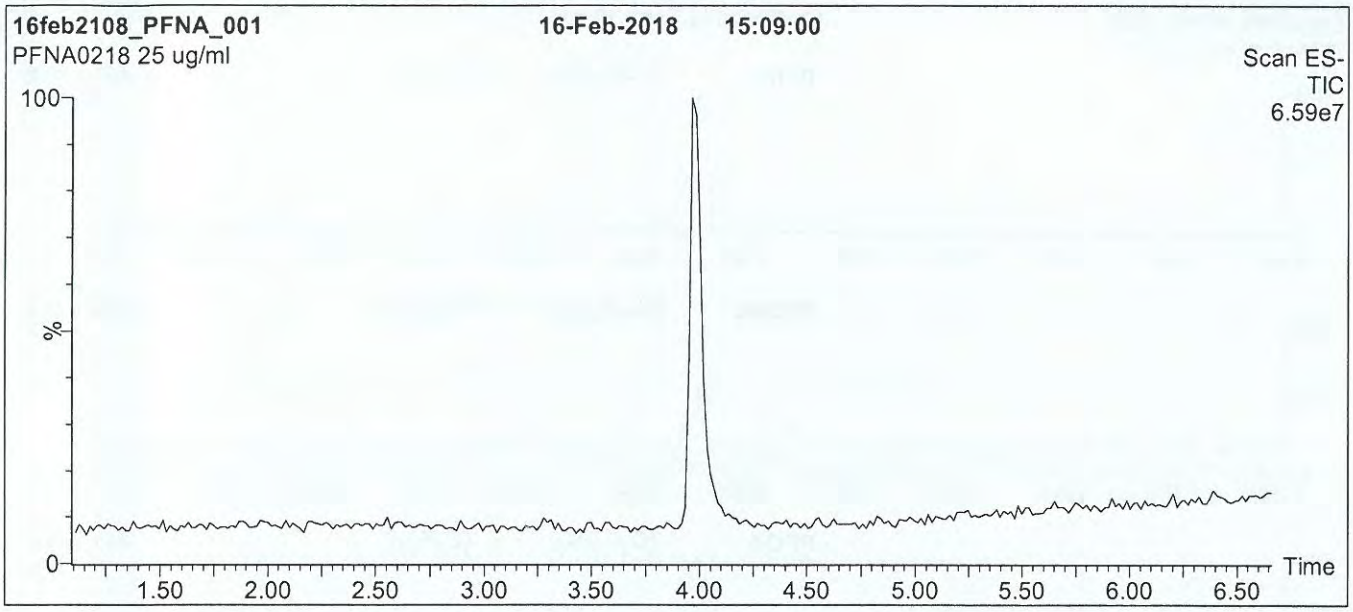
CALA Testing Accreditation No. A 1226

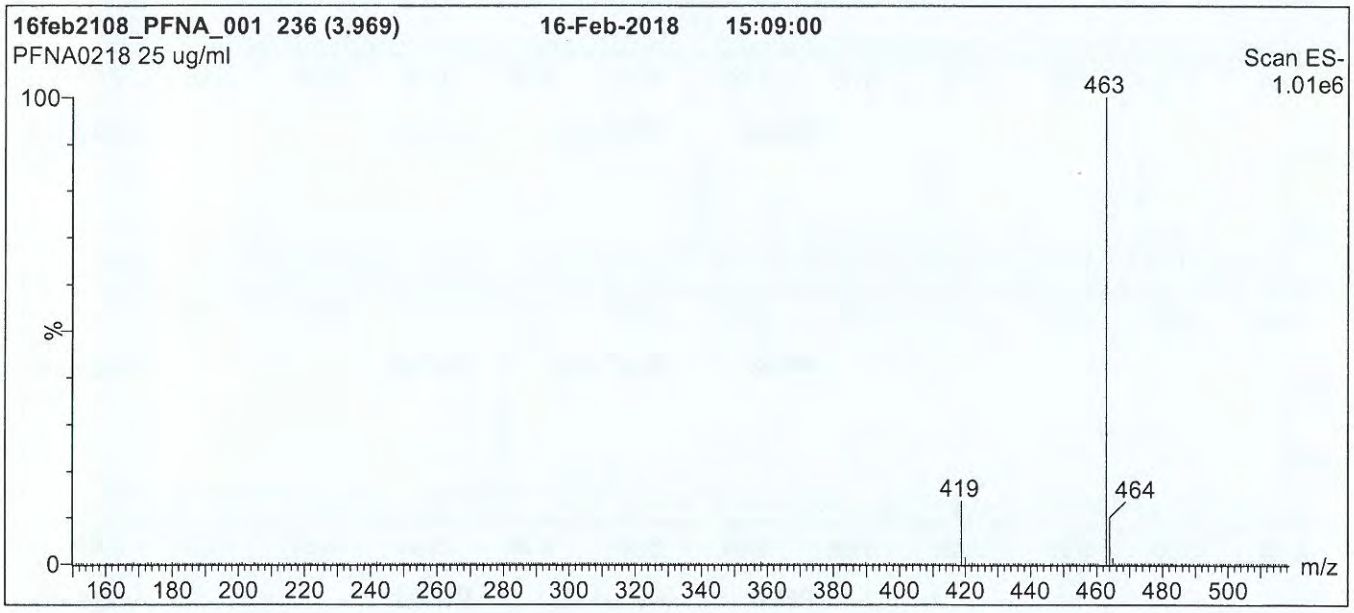
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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18L2043

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
2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

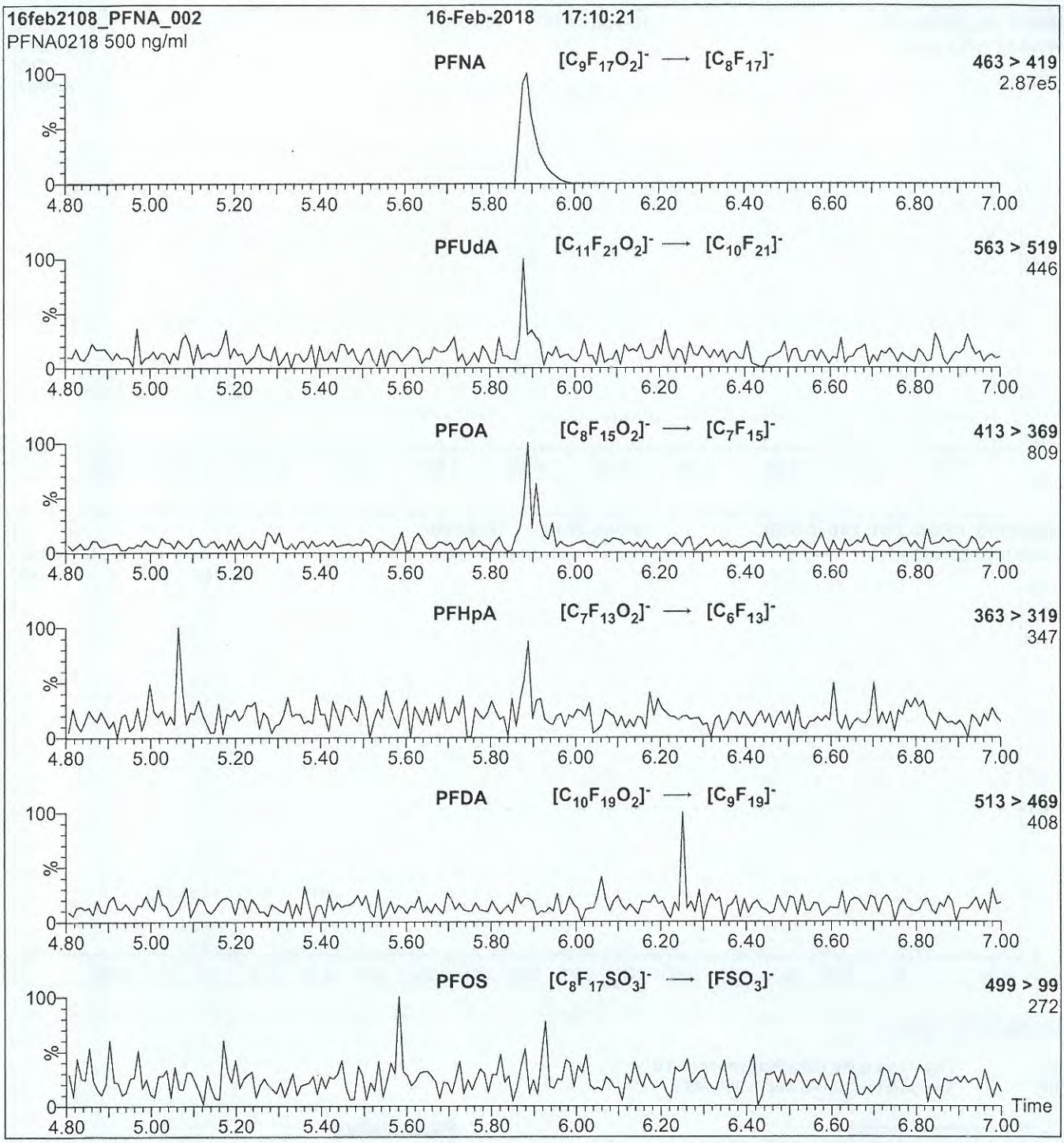
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

1812043

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

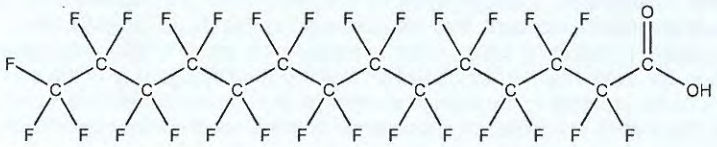
18L2044

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFTeDA
COMPOUND: Perfluoro-n-tetradecanoic acid
LOT NUMBER: PFTeDA0818

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) 08/23/2018
EXPIRY DATE: (mm/dd/yyyy) 08/23/2023
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 PFDoA ($C_{12}HF_{23}O_2$), ~ 0.1% of PFTrDA ($C_{13}HF_{25}O_2$), and ~ 0.1% of PFPeDA ($C_{15}HF_{29}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 09/05/2018 (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

18L2044

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.

HANDLING:

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:

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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:

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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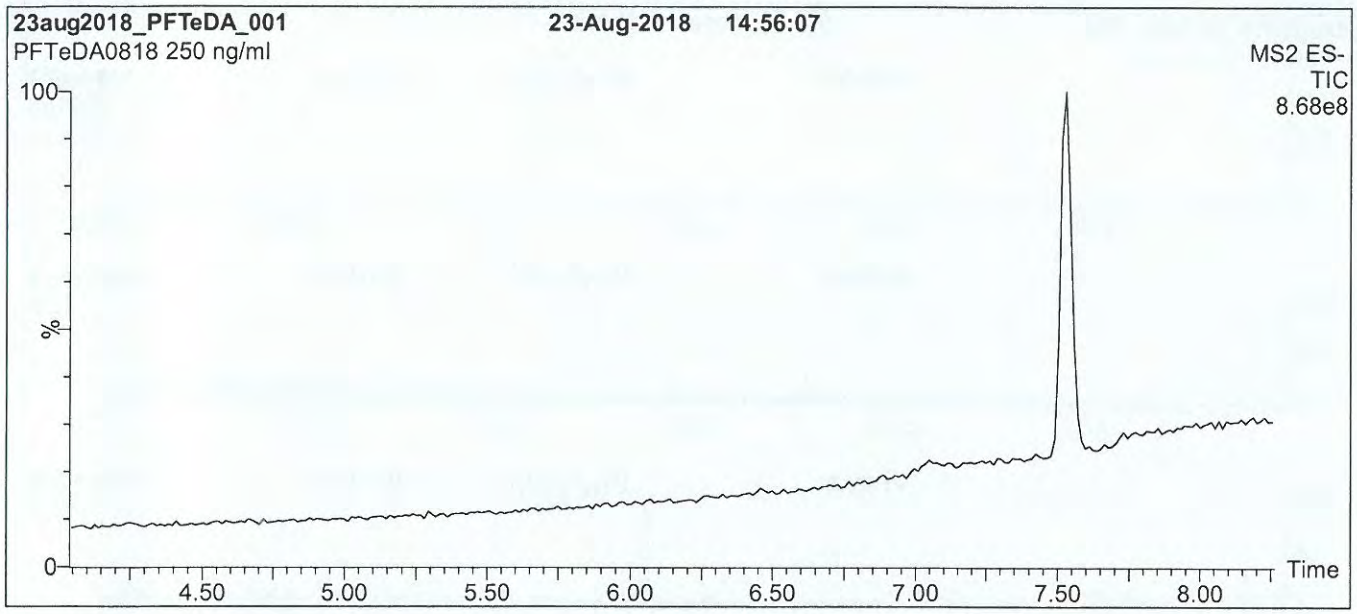
CALA Testing Accreditation No. A 1226

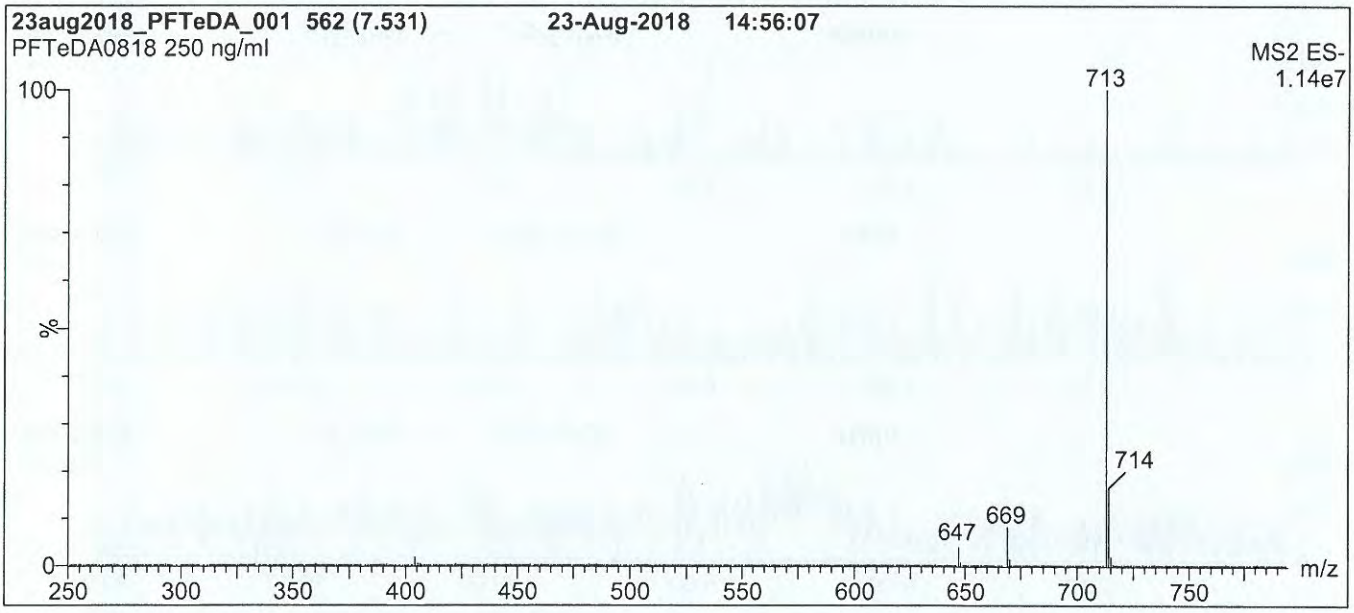
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1812044

Figure 1: **PFTeDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

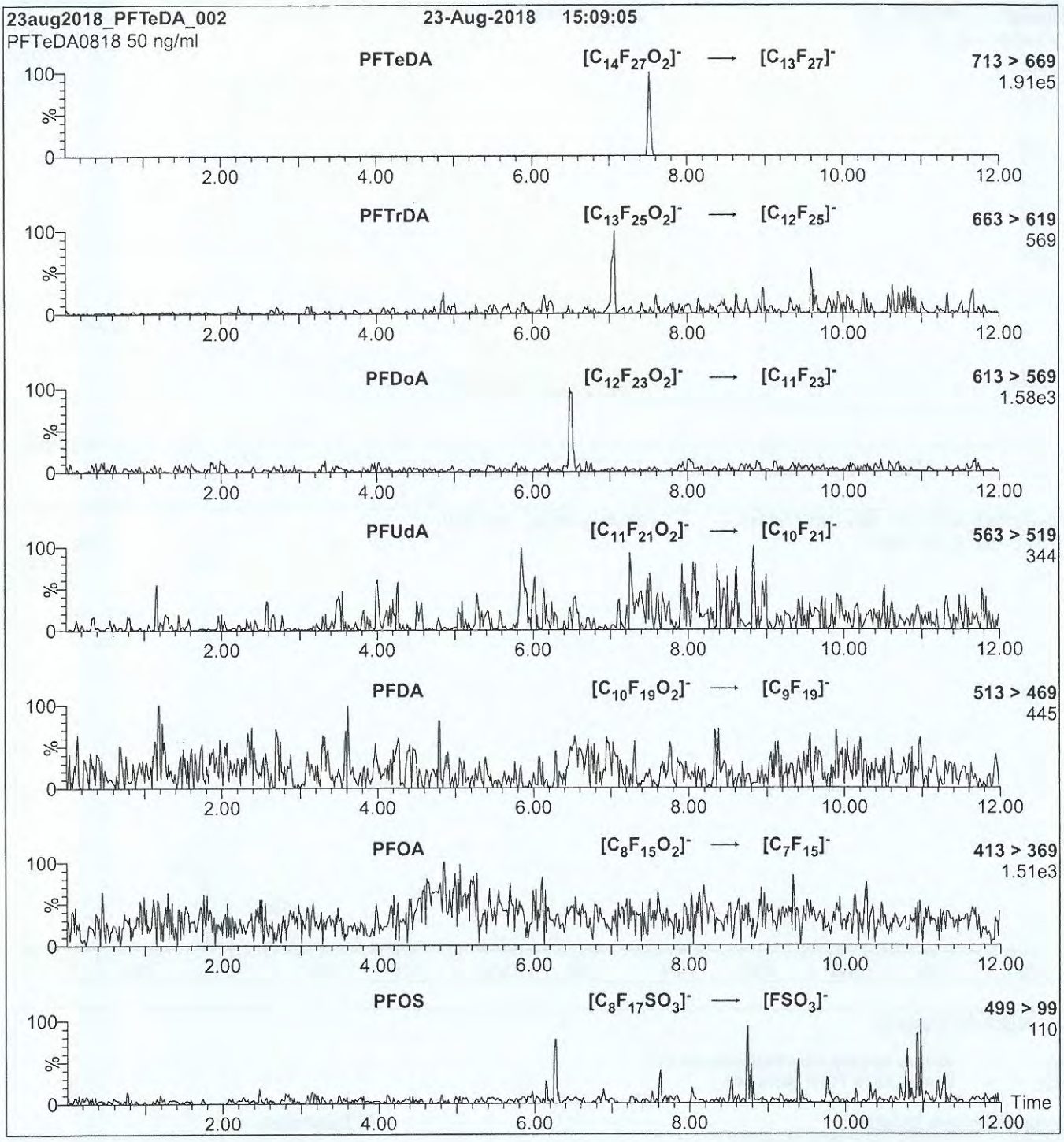
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

18L2044

Figure 2: **PFTeDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (PFTeDA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

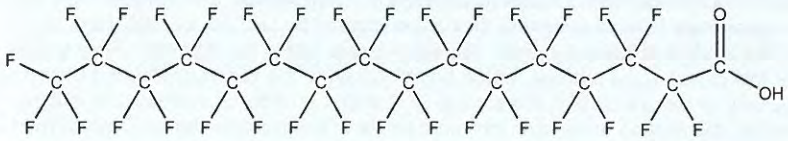
Collision Gas (mbar) = 3.45e-3
Collision Energy (eV) = 12

1812045

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	PFHxDA	**LOT NUMBER:**	PFHxDA0717
COMPOUND:	Perfluoro-n-hexadecanoic acid		
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)	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.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 08/04/2017 (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

1812045

INTENDED USE:

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HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

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TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

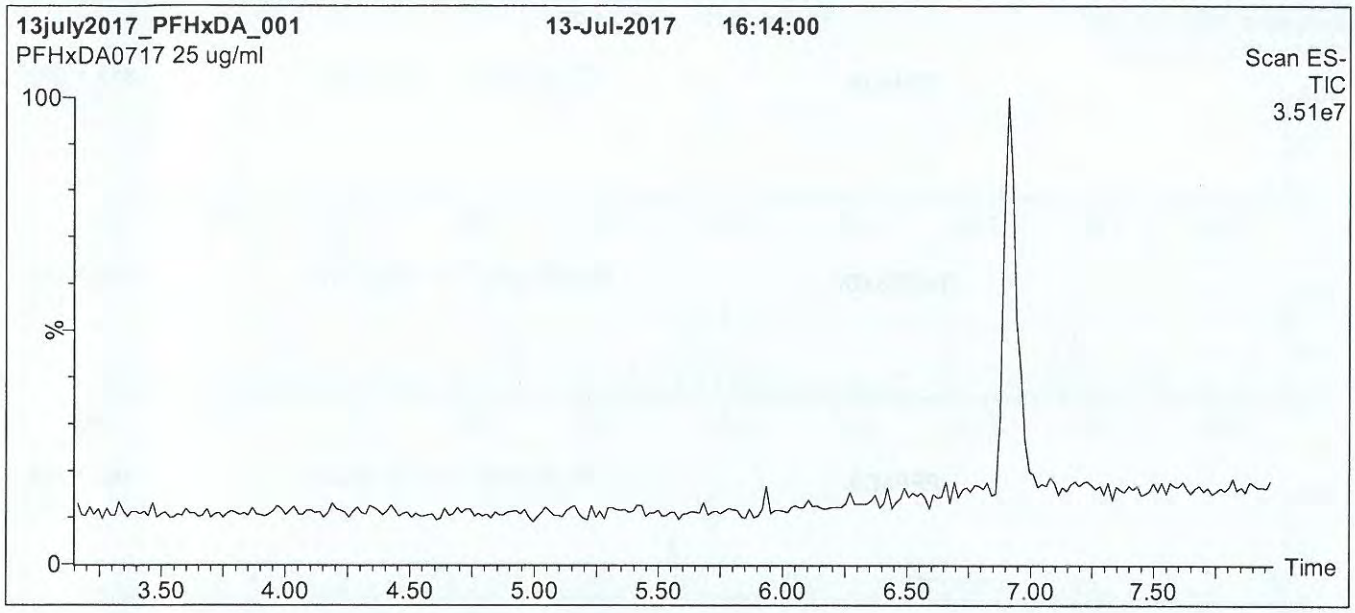
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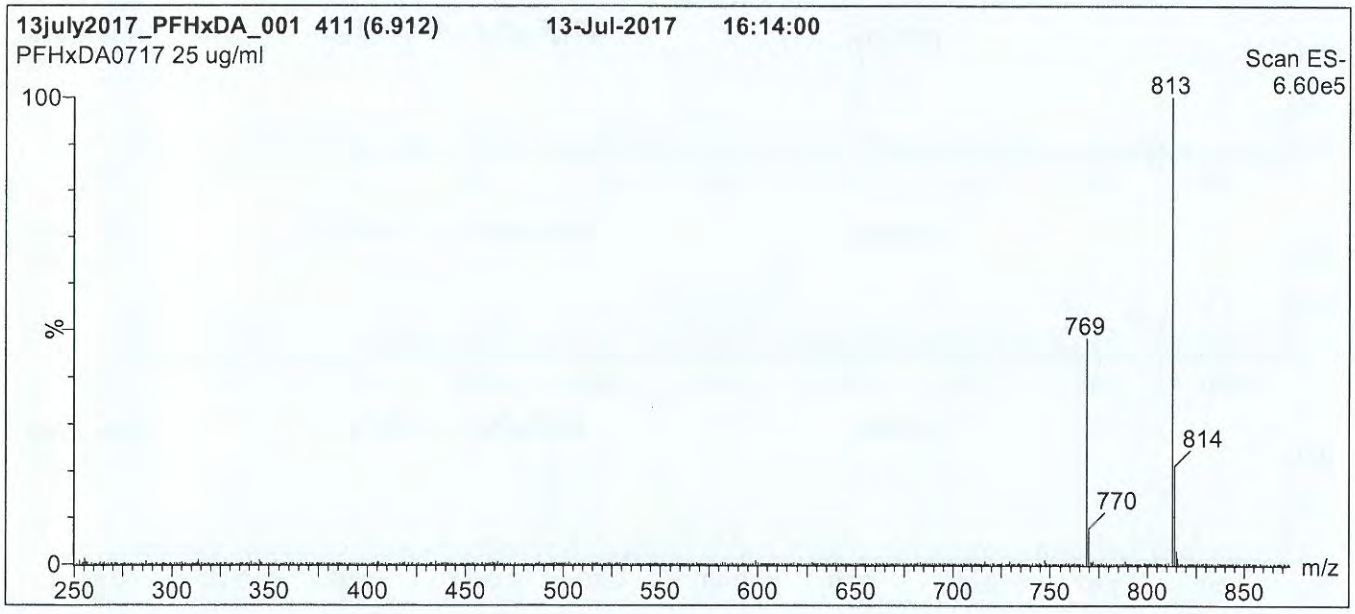
ANAB ACCREDITED Reference Material Producer

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

18L2045

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: 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

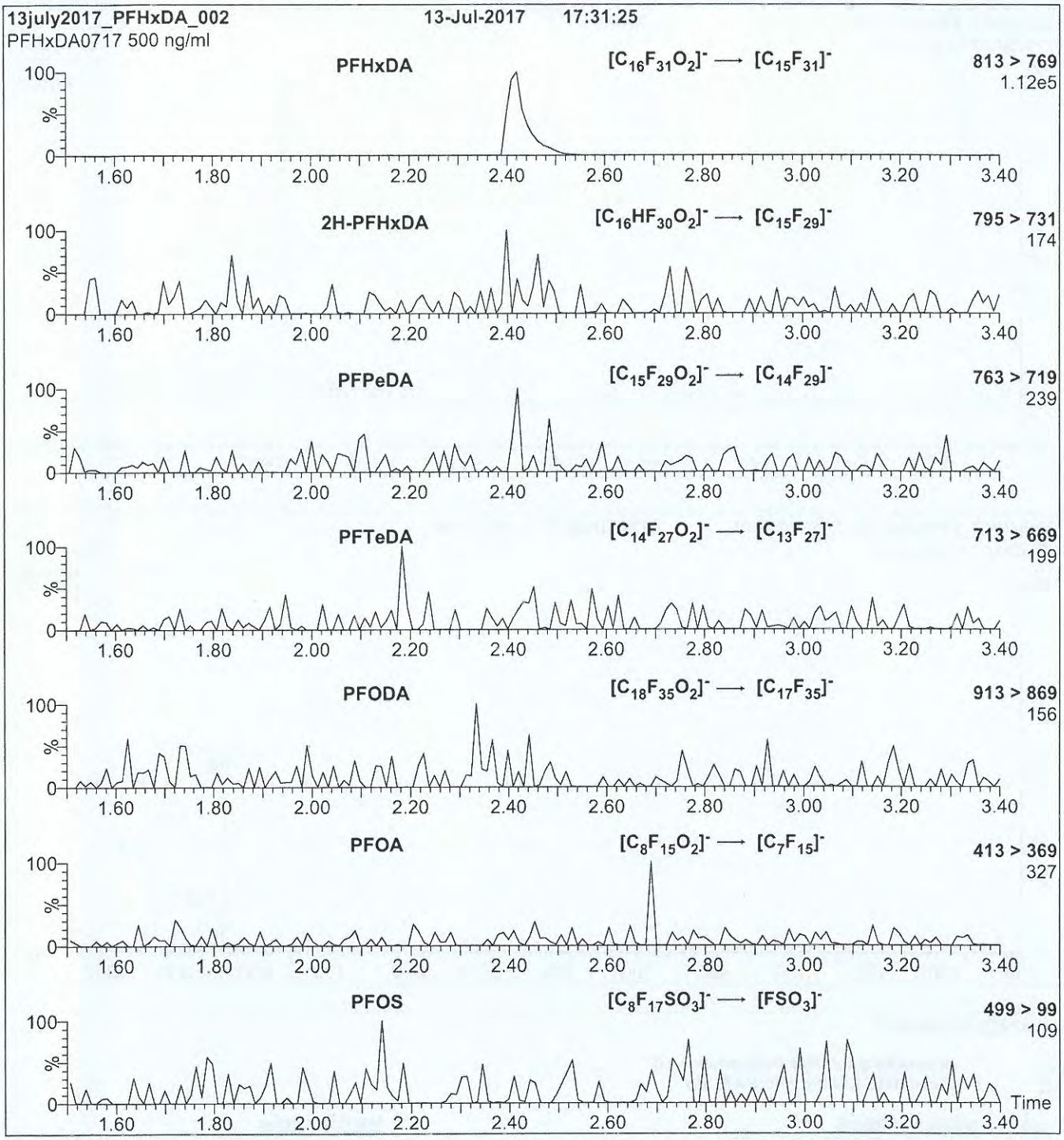
MS Parameters

Experiment: Full Scan (250 - 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

1802045

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) = 3.13e-3
Collision Energy (eV) = 15

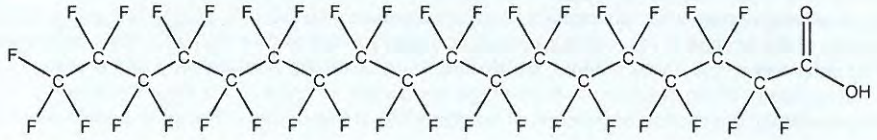
18L2046

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFODA
COMPOUND: Perfluoro-n-octadecanoic acid
LOT NUMBER: PFODA0717

STRUCTURE:
CAS #: 16517-11-6



MOLECULAR FORMULA: $C_{18}HF_{35}O_2$
MOLECULAR WEIGHT: 914.14
CONCENTRATION: 50 ± 2.5 µg/ml
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

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

18L2046

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).

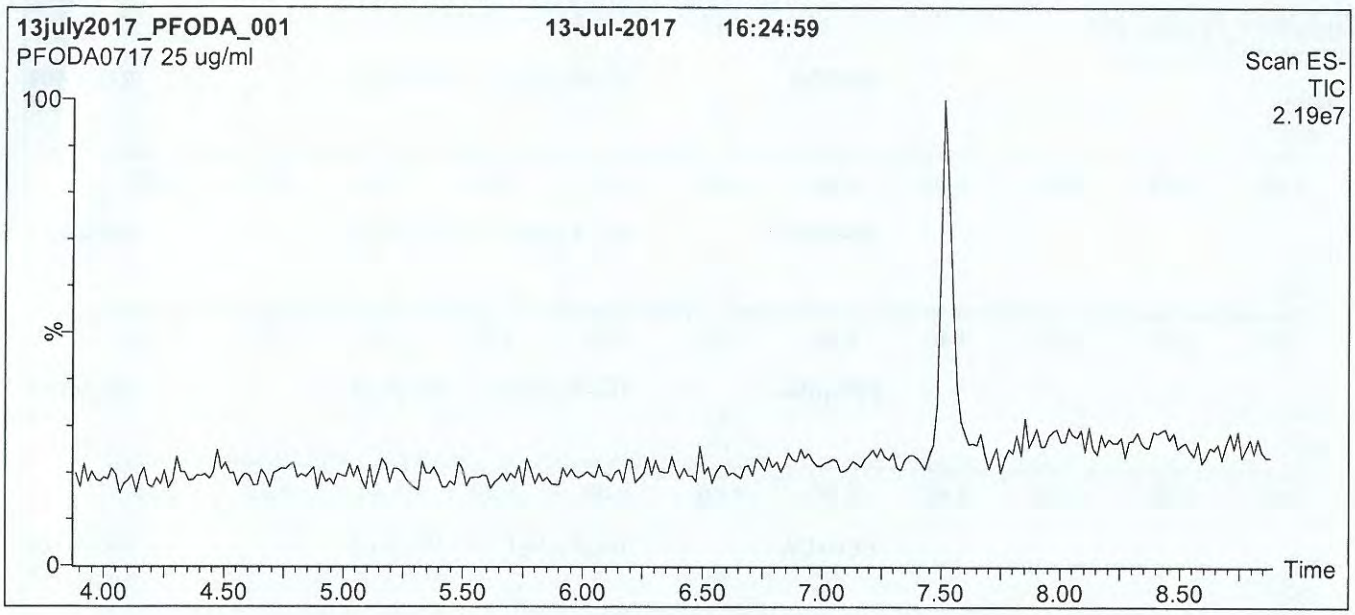
CALA Testing Accreditation No. A 1226

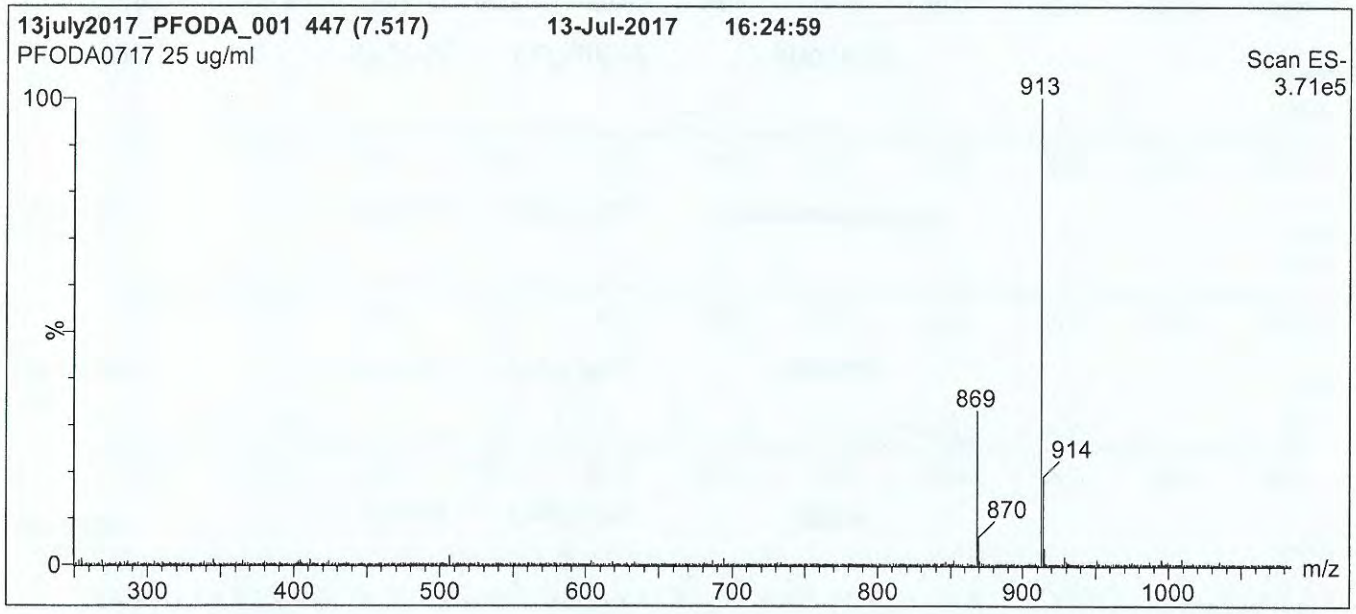
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1802046

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: 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

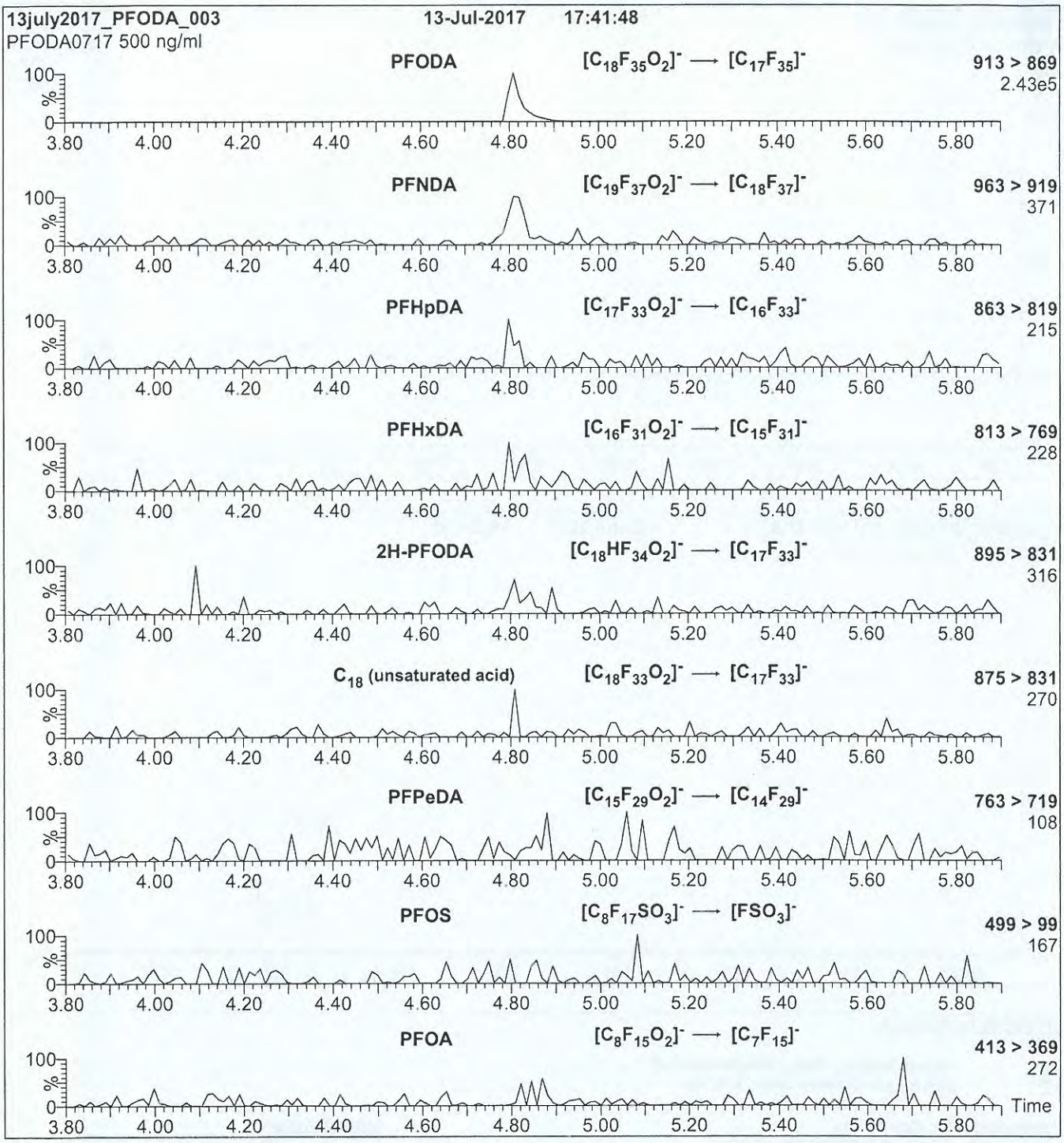
MS Parameters

Experiment: Full Scan (250 - 1250 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

18L2046

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 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

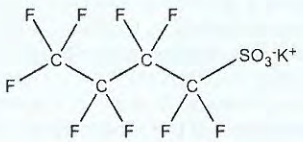
Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 15

1812047

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	L-PFBS	**LOT NUMBER:**	LPFBS0418
COMPOUND:	Potassium perfluoro-1-butanesulfonate		
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)	05/04/2018		
EXPIRY DATE: (mm/dd/yyyy)	05/04/2023		
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:** 05/25/2018 (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

1812047

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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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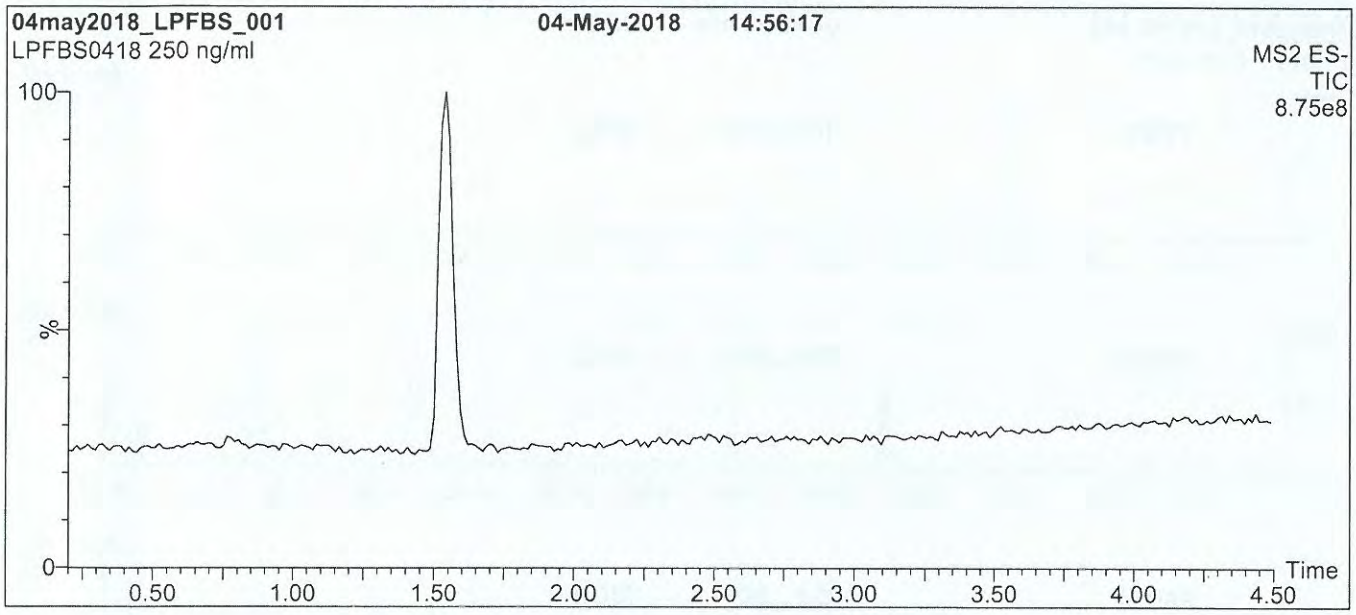
CALA Testing Accreditation No. A1226

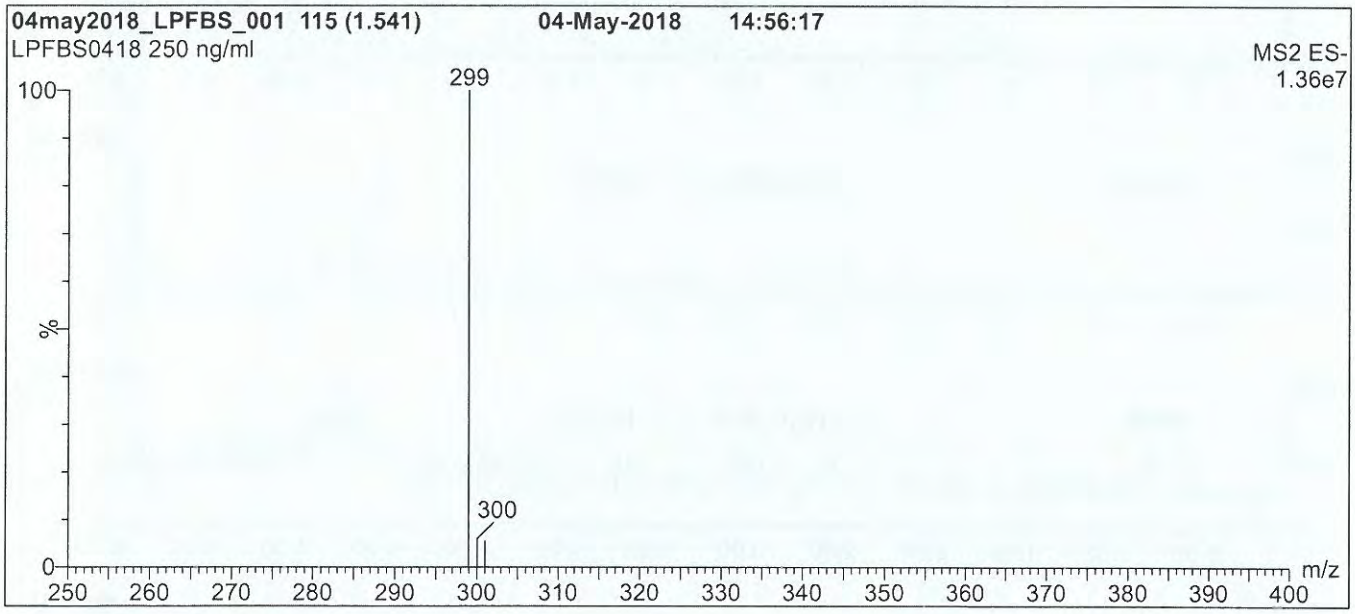
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

18L2047

Figure 1: **L-PFBS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

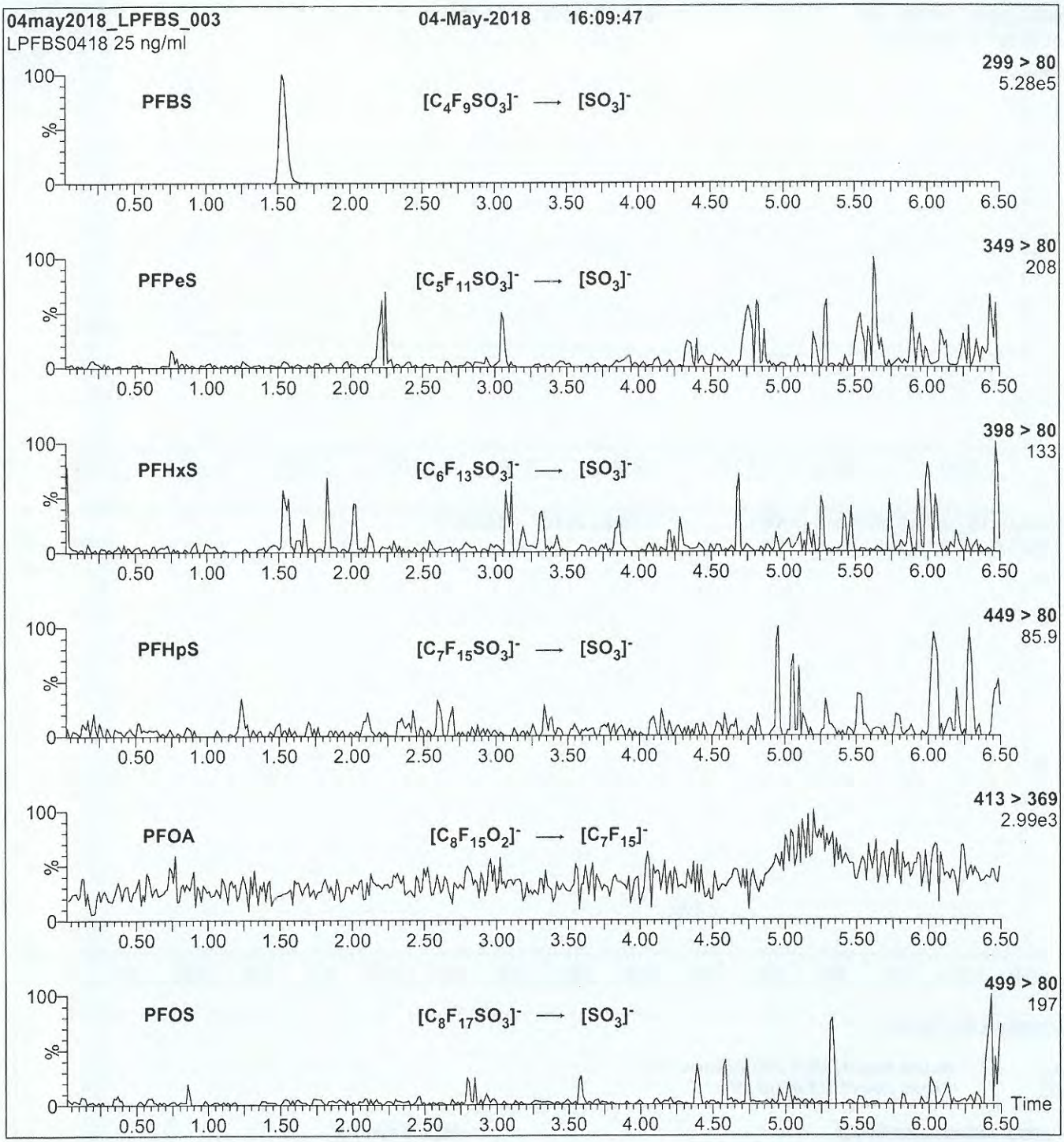
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1902047

Figure 2: **L-PFBS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (L-PFBS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

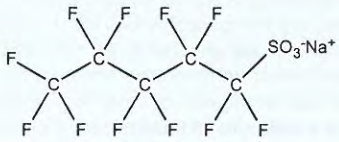
Collision Gas (mbar) = 3.45e-3
Collision Energy (eV) = 30

1812048

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	L-PFPeS	**LOT NUMBER:**	LPFPeS0718
COMPOUND:	Sodium perfluoro-1-pentanesulfonate		
STRUCTURE:		**CAS #:**	630402-22-1



MOLECULAR FORMULA:	$C_5F_{11}SO_3Na$	**MOLECULAR WEIGHT:**	372.09
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 46.9 ± 2.3 µg/ml (PFPeS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/12/2018		
EXPIRY DATE: (mm/dd/yyyy)	07/12/2023		
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:** 07/18/2018 (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

1812048

INTENDED USE:

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HANDLING:

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Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. 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.

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TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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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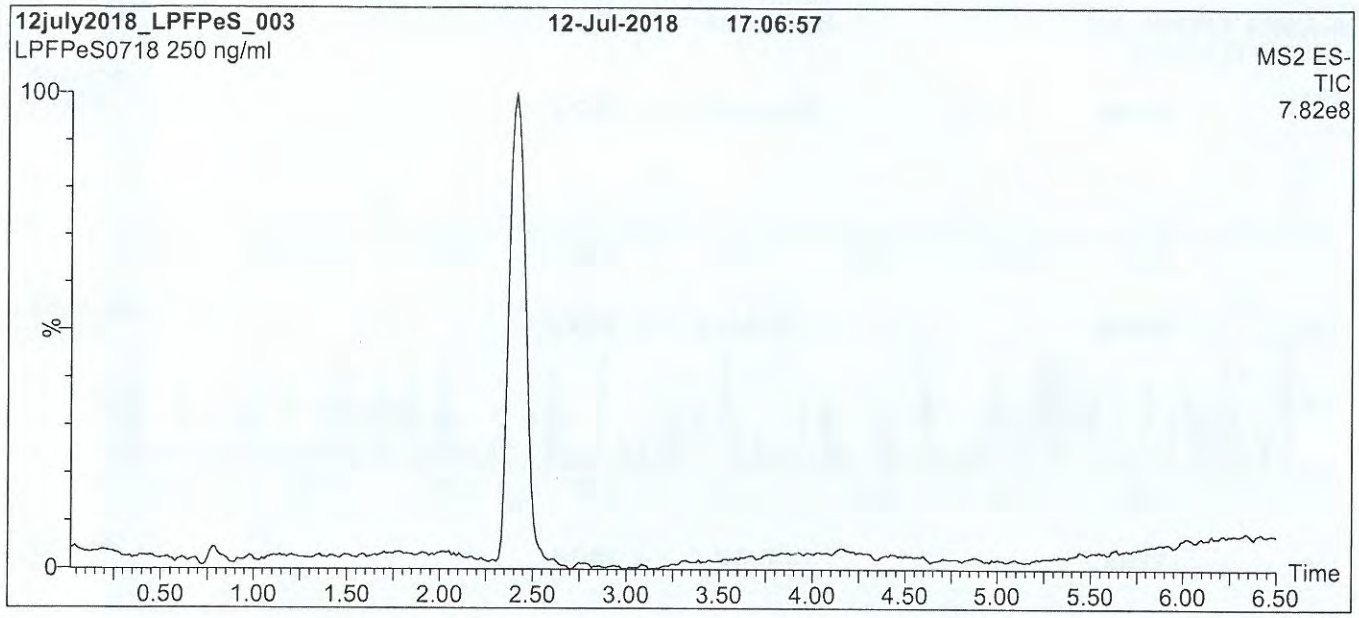
CALA Testing Accreditation No. A 1226

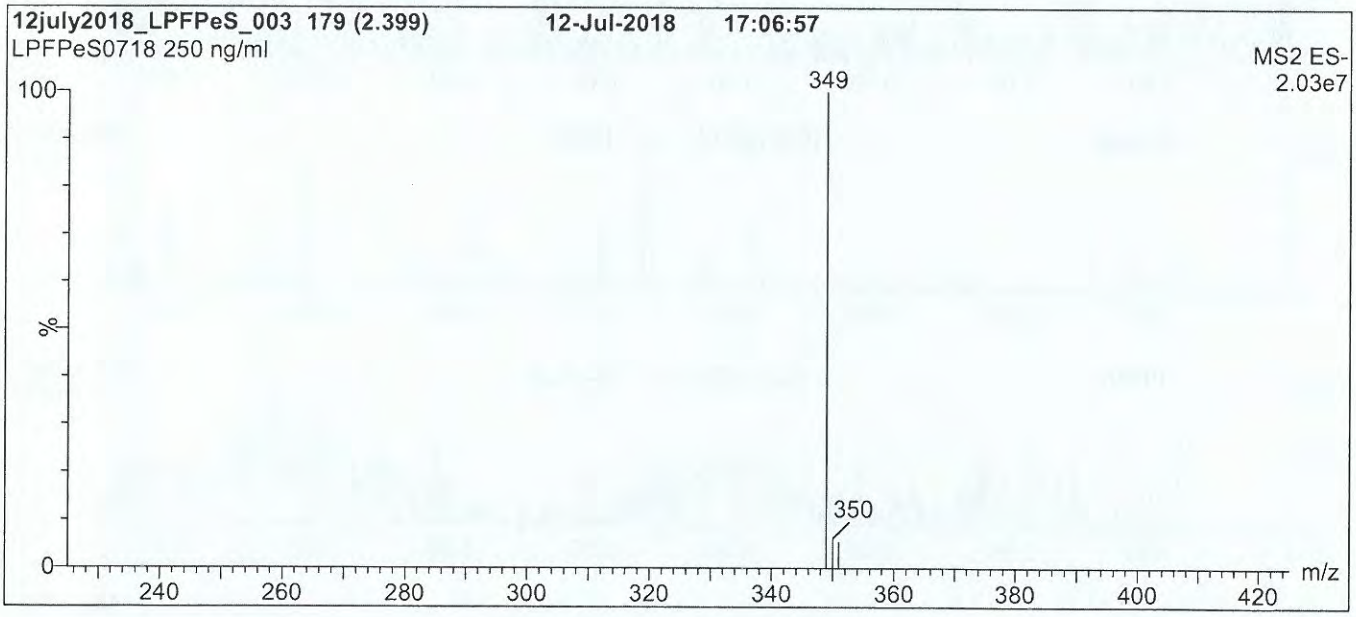
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

18L2048

Figure 1: **L-PFPeS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

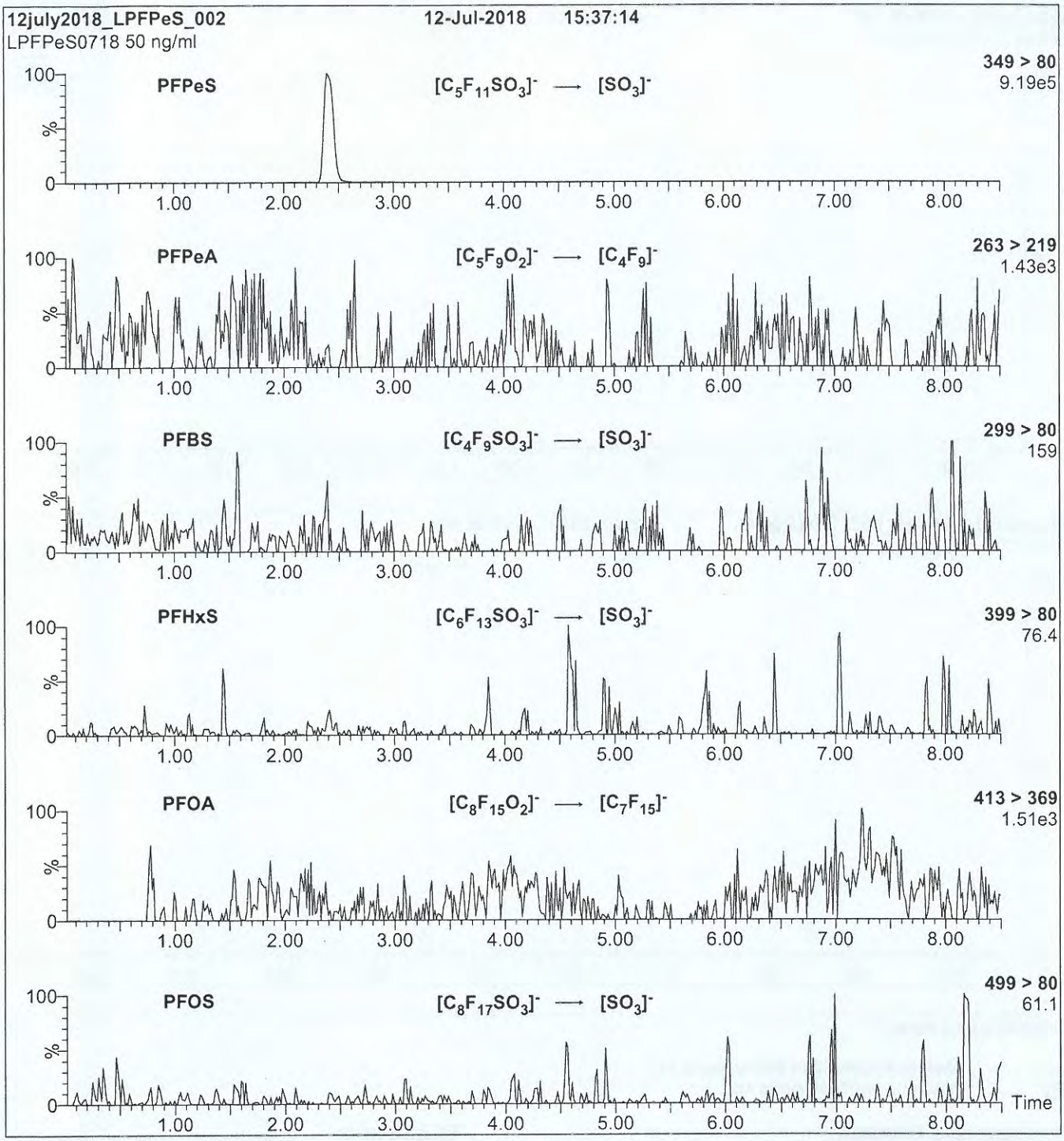
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

1812048

Figure 2: **L-PFPeS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (L-PFPeS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.47e-3
Collision Energy (eV) = 32

18L2049

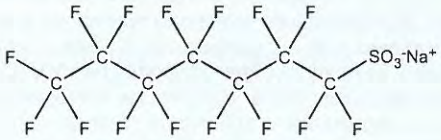
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFHpS
COMPOUND: Sodium perfluoro-1-heptanesulfonate
LOT NUMBER: LPFHpS0418

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)	05/04/2018		
EXPIRY DATE: (mm/dd/yyyy)	05/04/2023		
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: _____ **Date:** 05/17/2018 (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

1812049

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

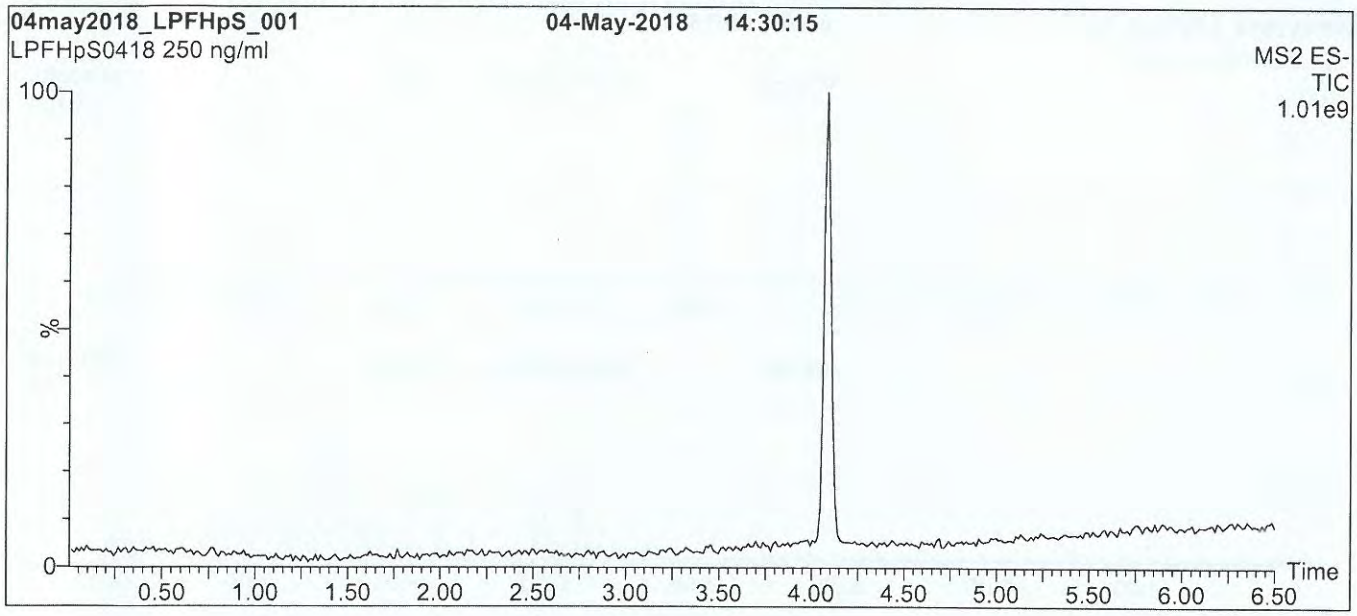
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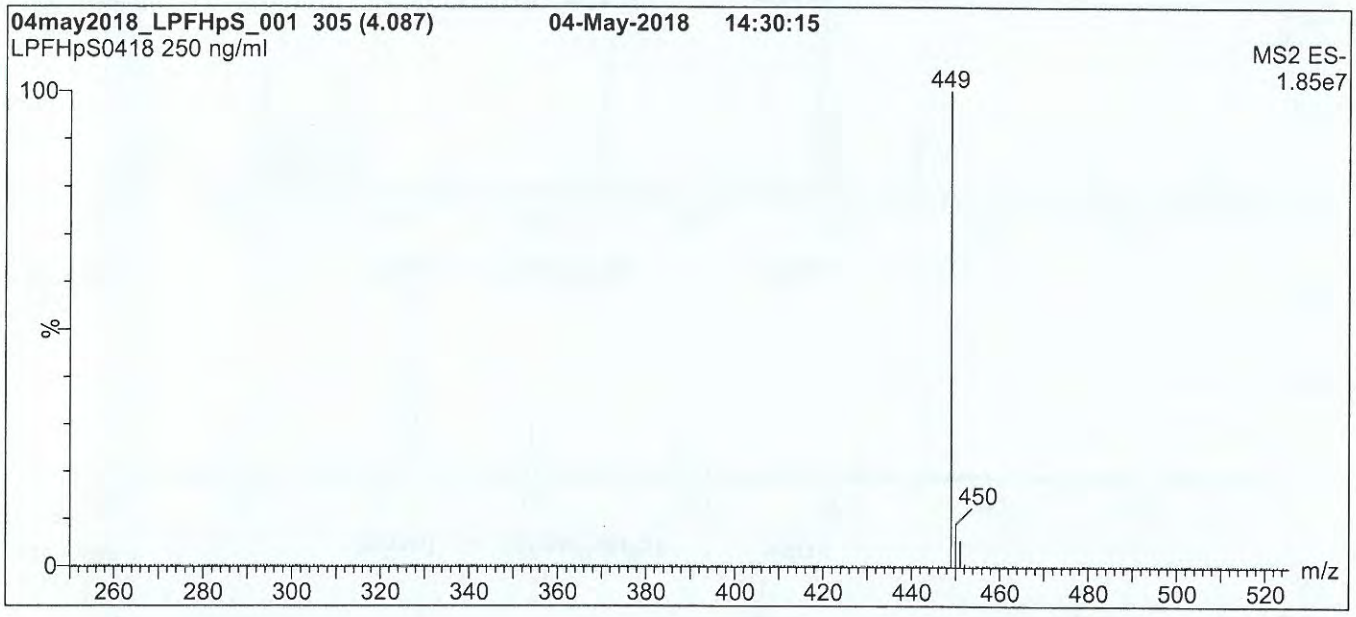
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

18L2049

Figure 1: **L-PFHpS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

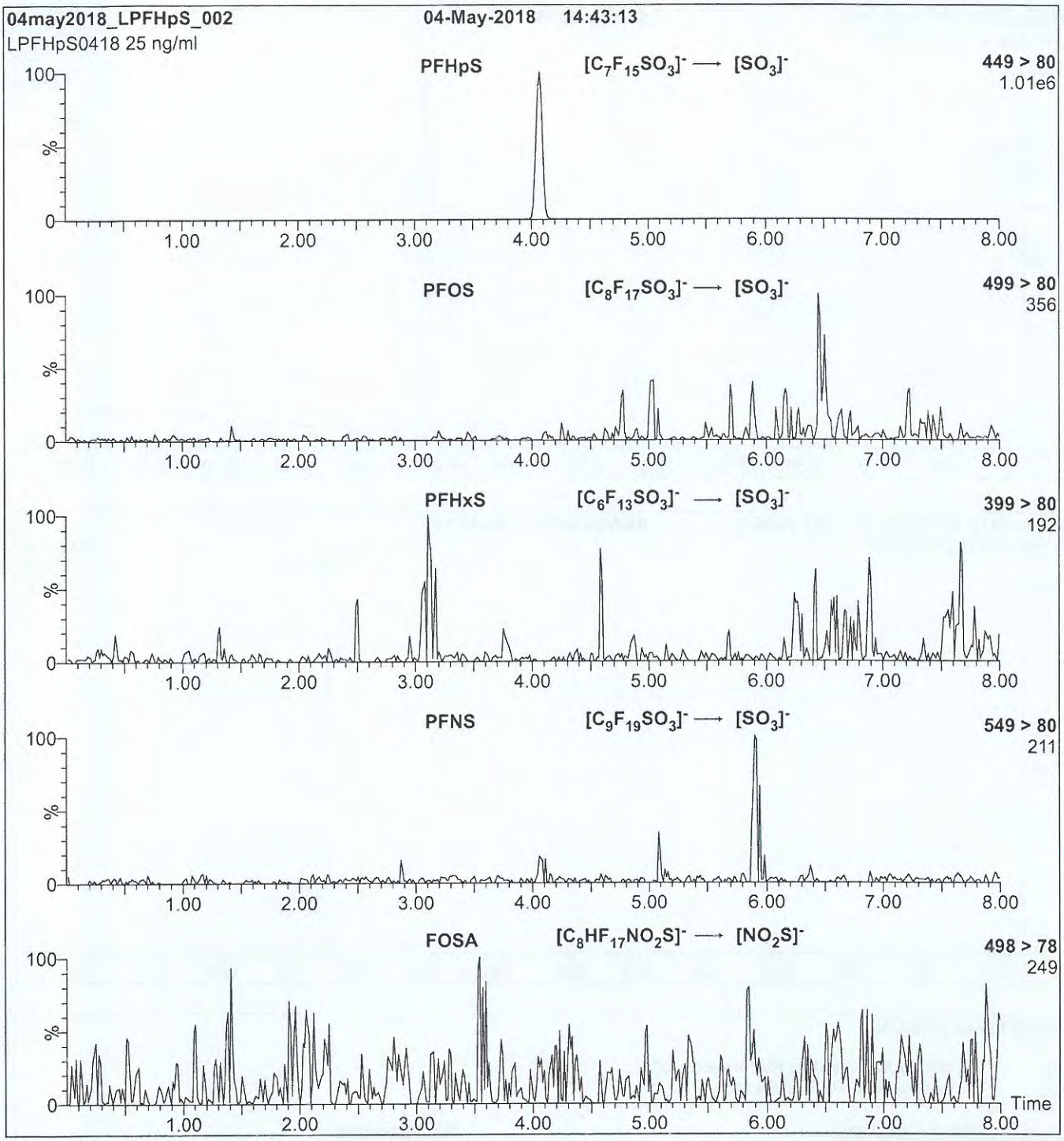
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

18L2049

Figure 2: **L-PFHpS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (L-PFHpS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

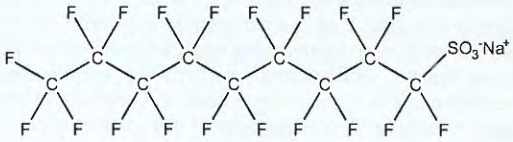
MS Parameters
Collision Gas (mbar) = 3.45e-3
Collision Energy (eV) = 42

18L2050

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	L-PFNS	**LOT NUMBER:**	LPFNS0718
COMPOUND:	Sodium perfluoro-1-nonanesulfonate		
STRUCTURE:		**CAS #:**	98789-57-2



MOLECULAR FORMULA:	$C_9F_{19}SO_3Na$	**MOLECULAR WEIGHT:**	572.12
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 48.0 ± 2.4 µg/ml (PFNS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/13/2018		
EXPIRY DATE: (mm/dd/yyyy)	07/13/2023		
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:** 07/18/2018 (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

18L2050

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

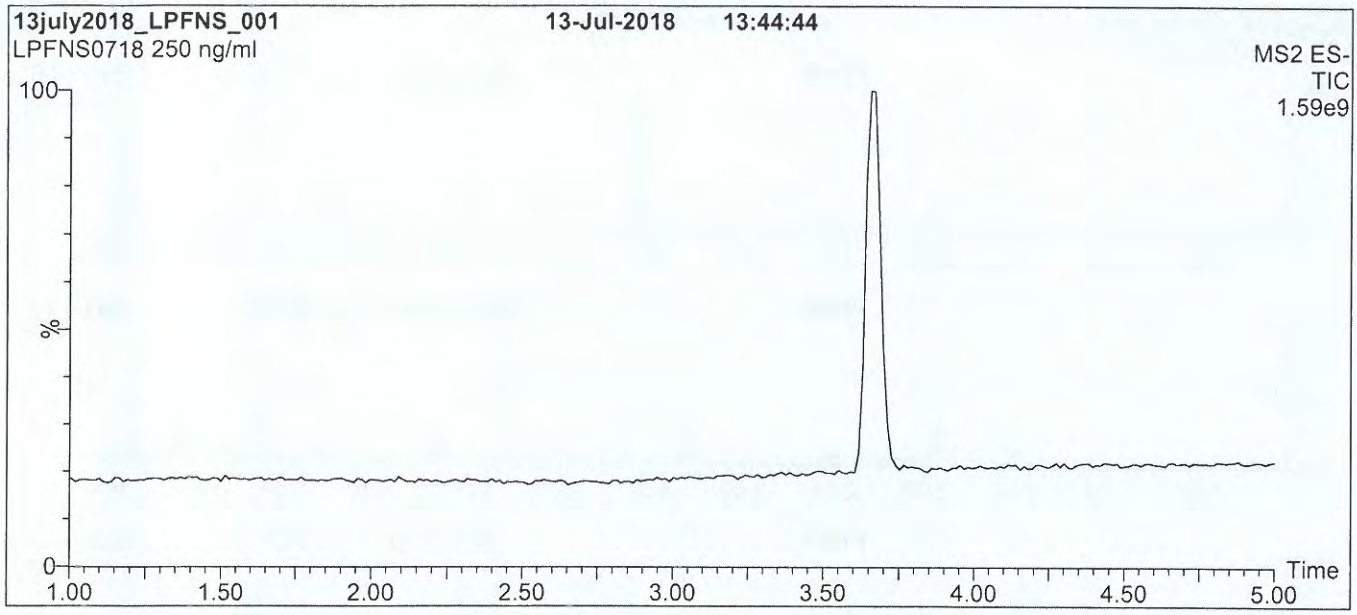
CALA Testing Accreditation No. A 1226

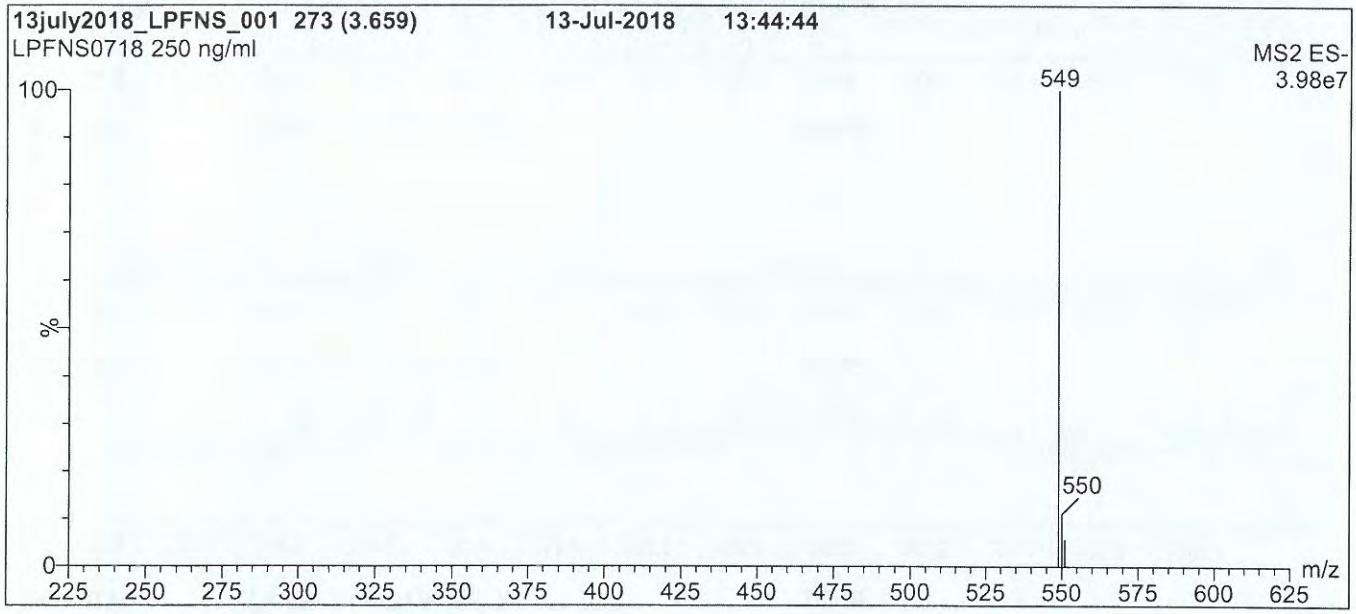
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1812050

Figure 1: **L-PFNS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

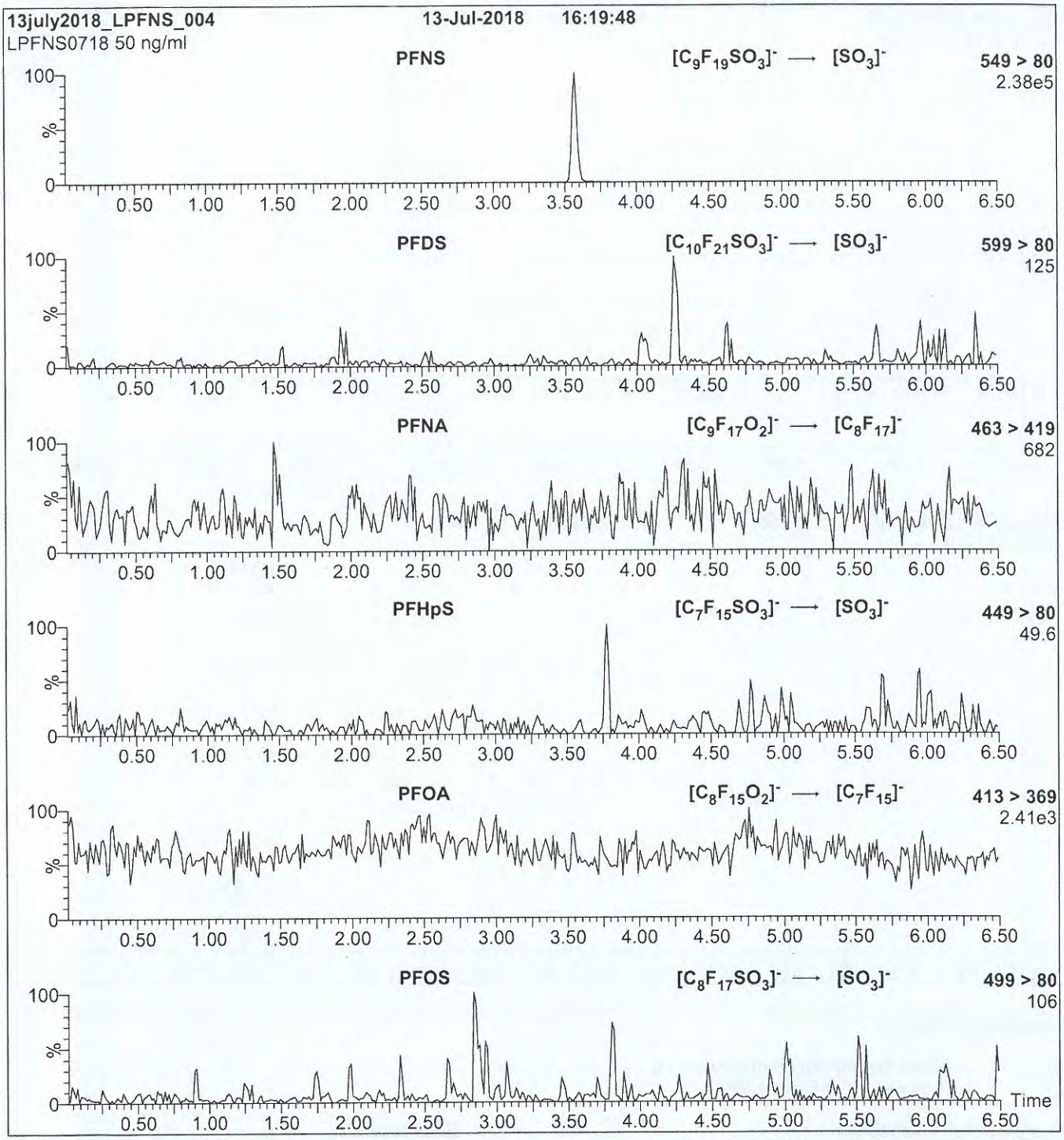
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

1812050

Figure 2: **L-PFNS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (L-PFNS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.45e-3
Collision Energy (eV) = 64

1812057

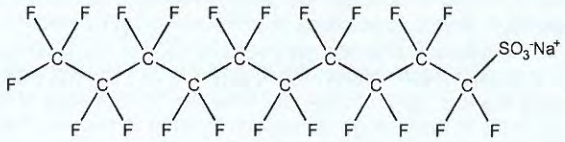
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFDS
LOT NUMBER: LPFDS1018
COMPOUND: Sodium perfluoro-1-decanesulfonate

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)	10/05/2018
EXPIRY DATE: (mm/dd/yyyy)	10/05/2023
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: _____ **Date:** 10/09/2018 (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

1812057

INTENDED USE:

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HANDLING:

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TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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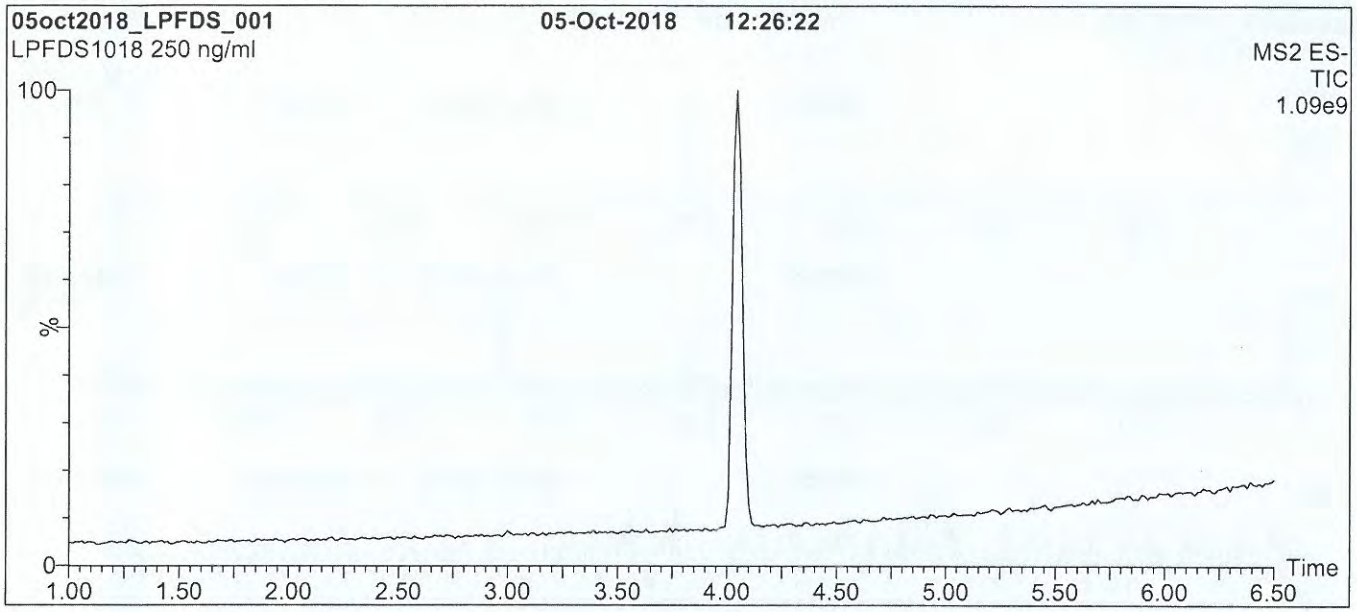
CALA Testing Accreditation No. A 1226

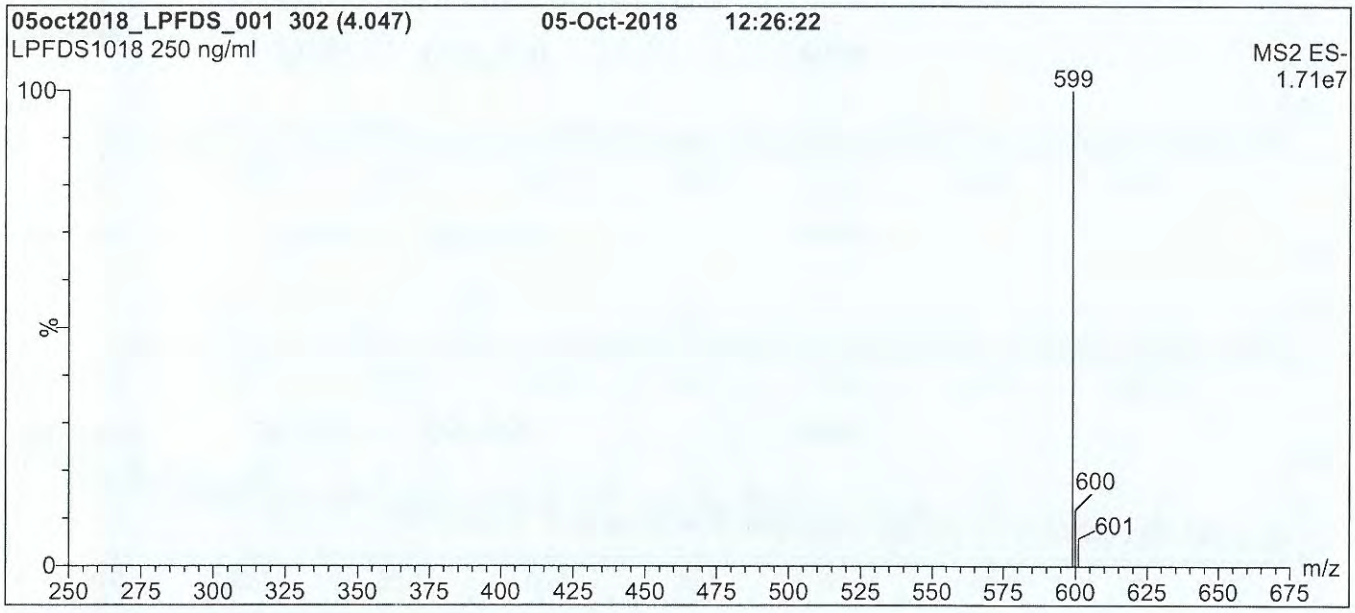
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1812051

Figure 1: **L-PFDS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

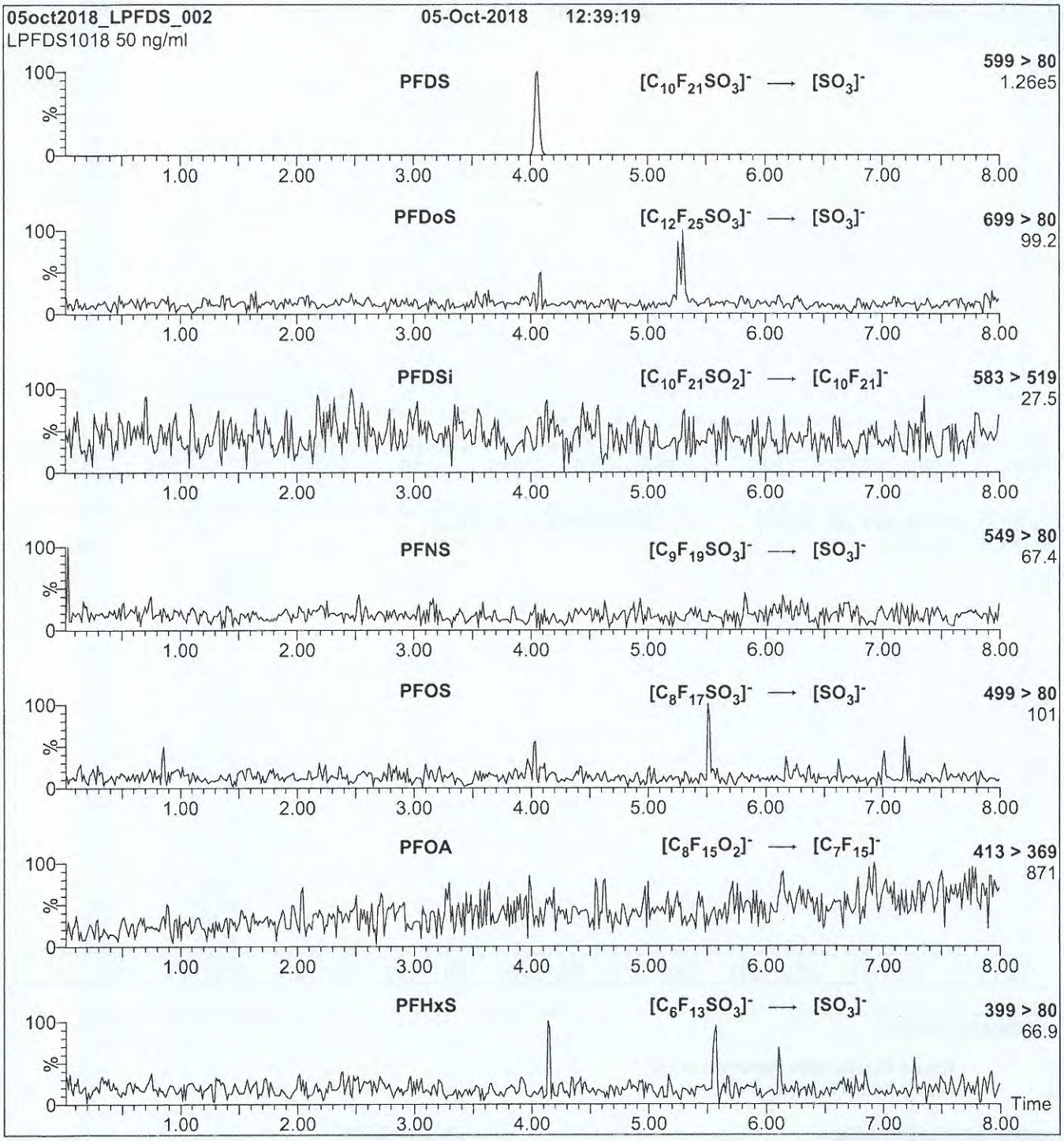
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

1862057

Figure 2: **L-PFDS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (L-PFDS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.97e-3
Collision Energy (eV) = 56

1812052

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate
Solution/Mixture of Linear and
Branched Isomers

PRODUCT CODE:	br-PFHxSK
LOT NUMBER:	brPFHxSK1018
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)	10/01/2018
LAST TESTED: (mm/dd/yyyy)	10/02/2018
EXPIRY DATE: (mm/dd/yyyy)	10/02/2023
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 ~ 0.3% of perfluoro-n-hexanoic acid and ~ 0.15% of perfluoro-1-pentanesulfonate.
- CAS#: 3871-99-6 (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

1812052

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

1802052

Table A: **br-PFHxSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

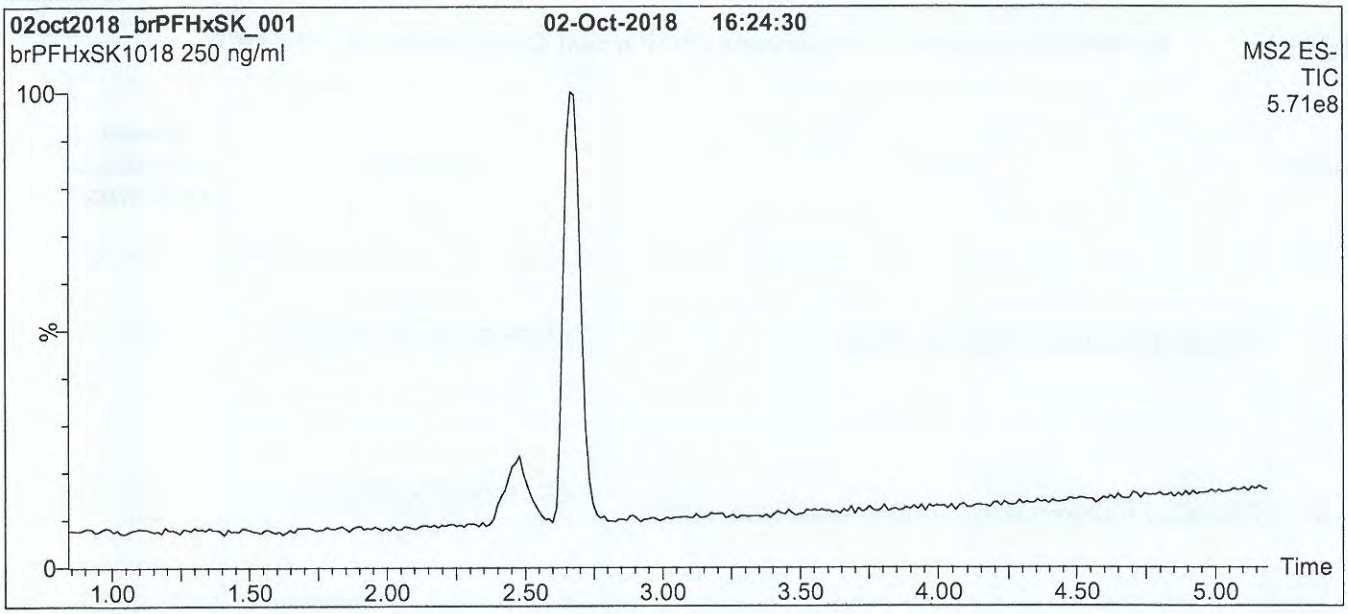
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	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

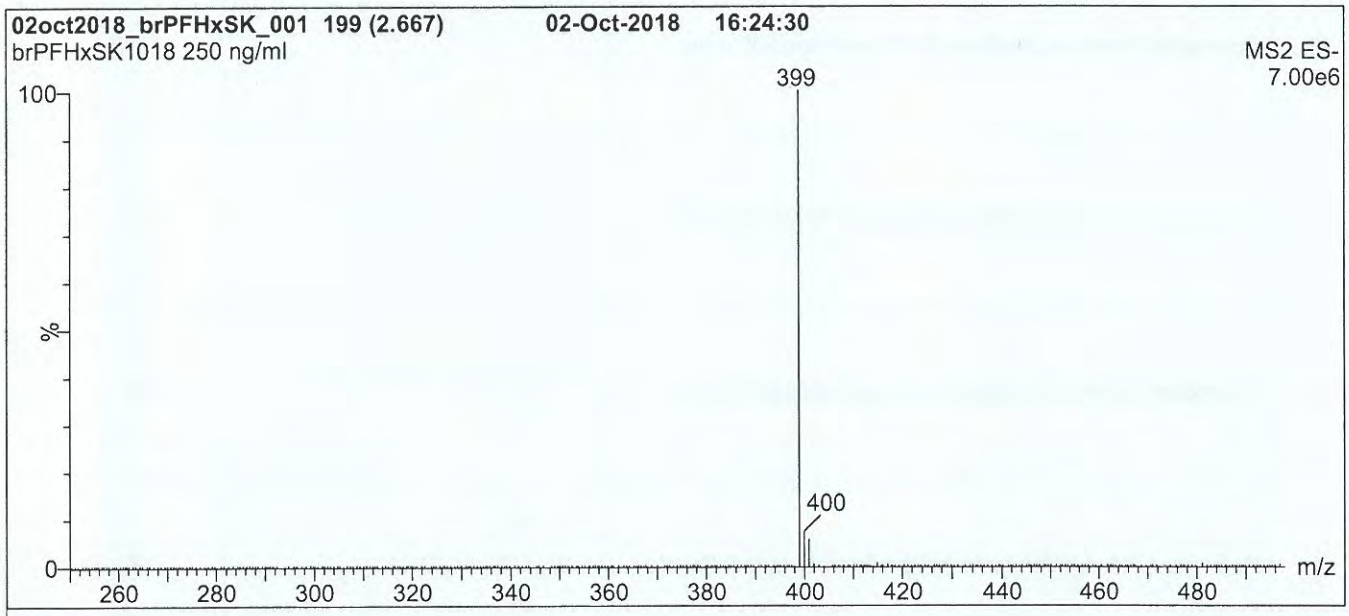
* Percent of total perfluorohexanesulfonate isomers only.
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

Certified By: _____ **Date:** 10/05/2018
(mm/dd/yyyy)
B.G. Chittim, General Manager

1902052

Figure 1: **br-PFHxSK; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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. Hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

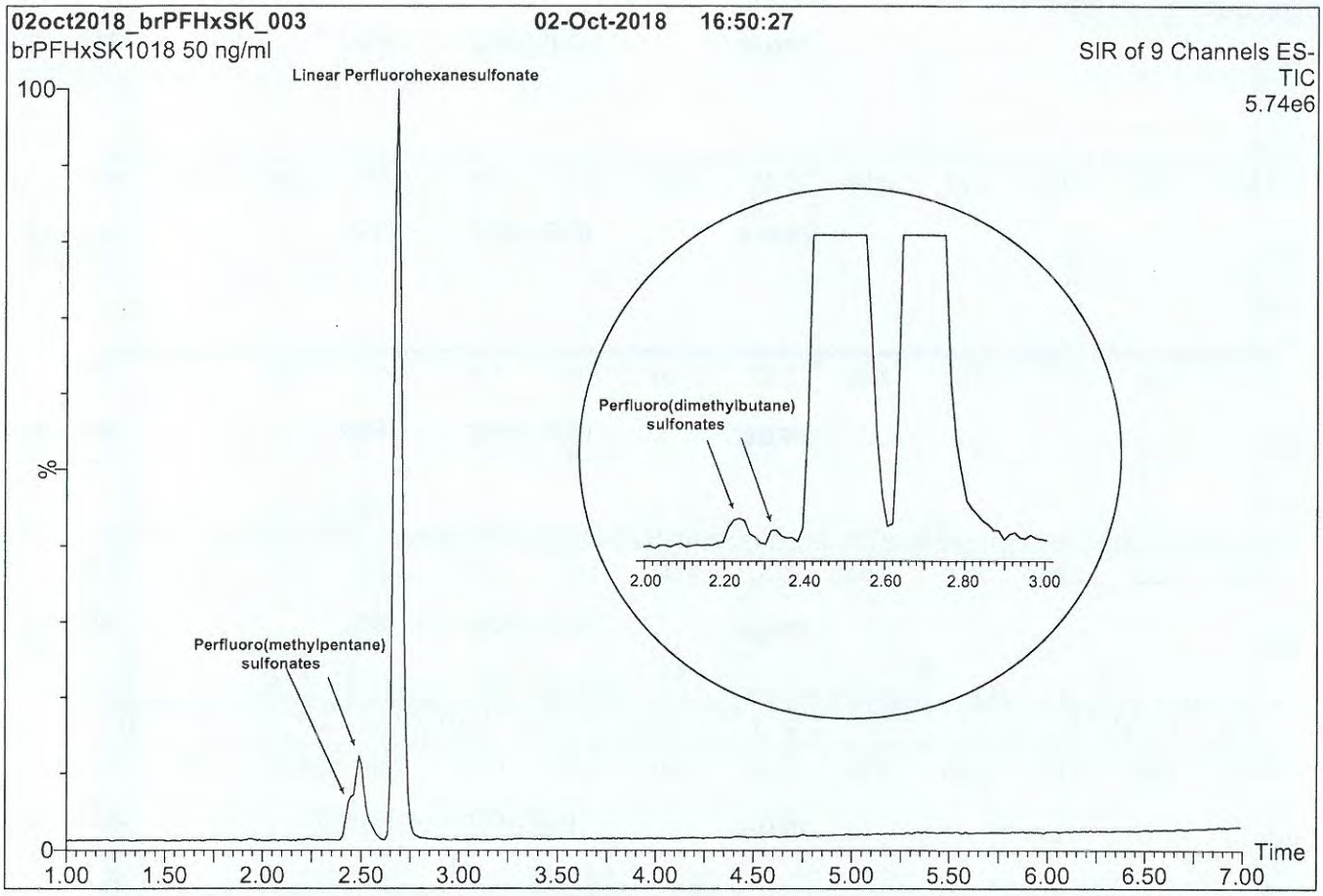
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

1812052

Figure 2: **br-PFHxSK; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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. Hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

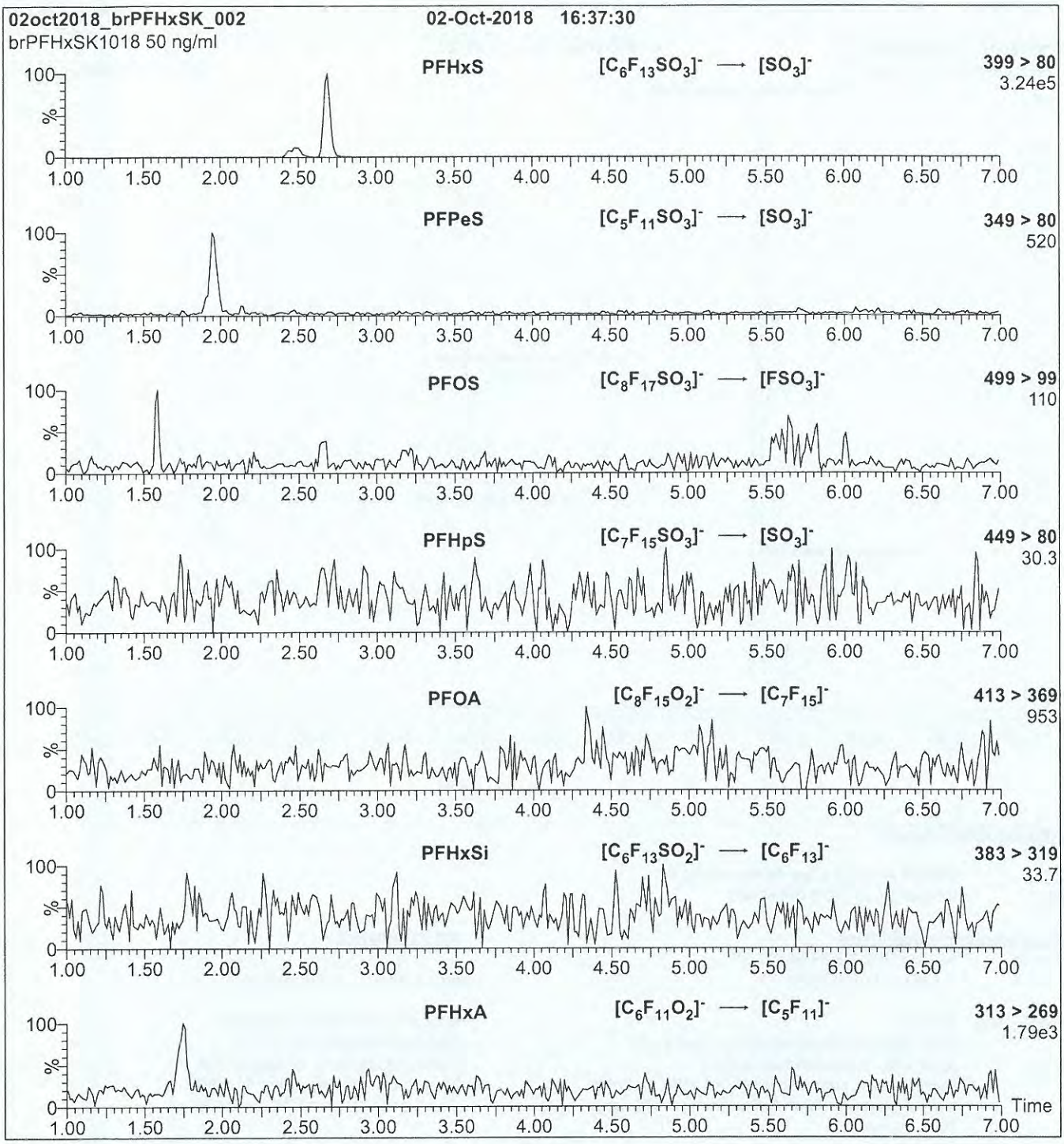
MS Parameters

Experiment: SIR (9 channels)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = variable (2 - 6)
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

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Figure 3: **br-PFHxSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: On-column (br-PFHxSK)

Mobile phase: Same as Figures 1 and 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.87e-3
Collision Energy (eV) = 42

1812053

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK0418
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)	04/09/2018
LAST TESTED: (mm/dd/yyyy)	04/18/2018
EXPIRY DATE: (mm/dd/yyyy)	04/18/2023
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer; potassium salt).

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Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

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.

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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1812053

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	$CF_3CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF(CF_3)CF_2CF(CF_3)CF_2SO_3^-K^+$	0.07

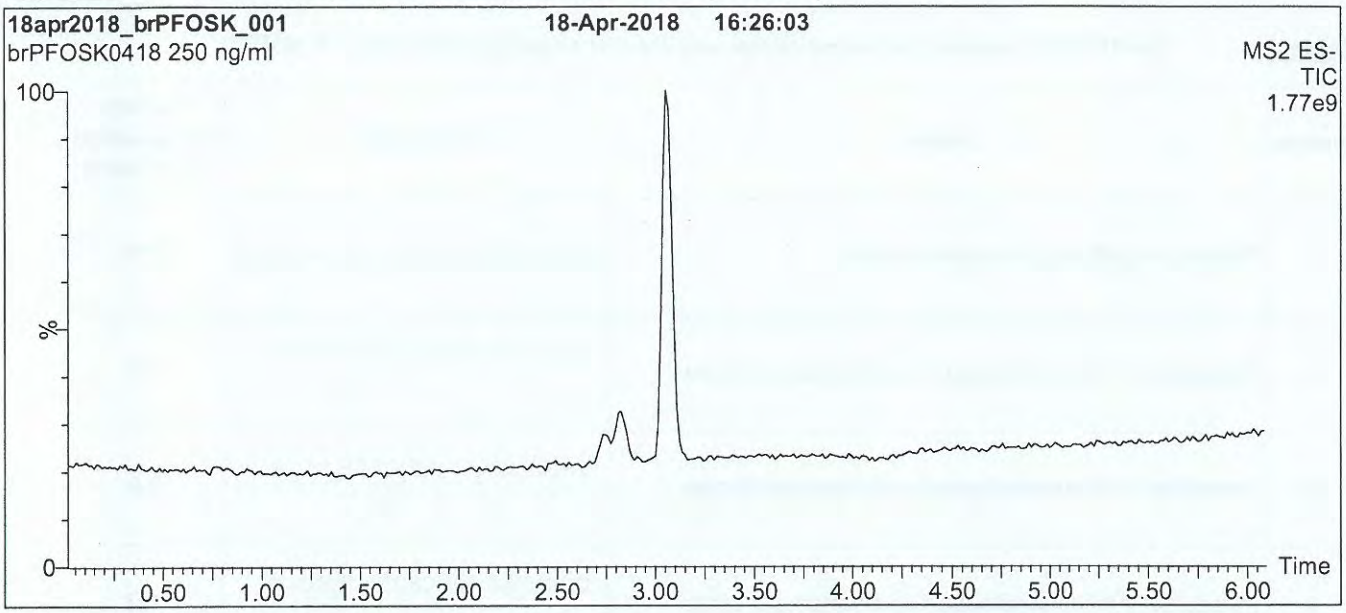
* Percent of total perfluorooctanesulfonate isomers only. Isomers are labelled in Figure 2.
** Systematic Name: Potassium perfluorooctane-2-sulfonate.

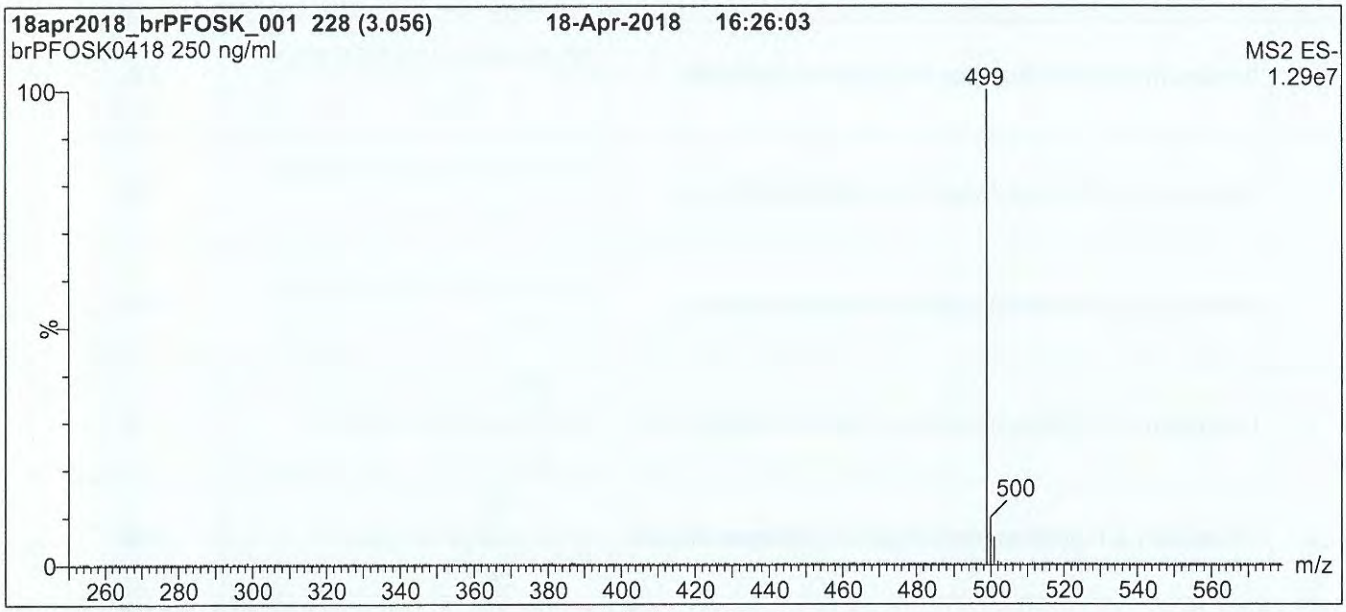
Certified By: _____ **Date:** 04/23/2018 (mm/dd/yyyy)

B.G. Chittim, General Manager

1812053

Figure 1: **br-PFOSK; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 85% organic over 7 min and hold for 3 min.
Return to initial conditions over 0.75 min.
Time: 12 min

Flow: 300 µl/min

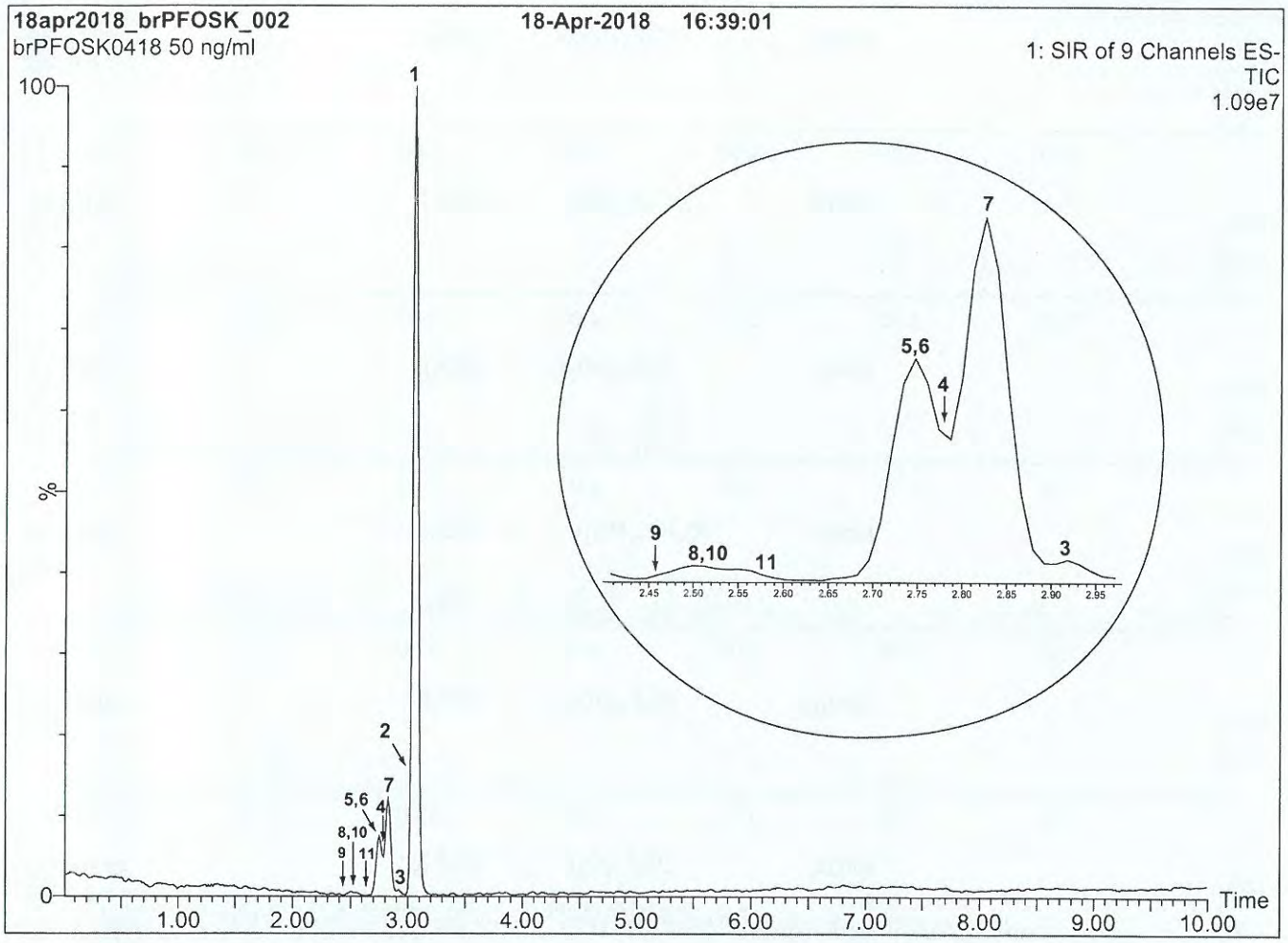
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

18L2053

Figure 2: **br-PFOSK; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro MS**

Chromatographic Conditions:

Column: Acquity UPLC BEH Shield RP_{18} (1.7 µm, 2.1 x 100 mm)

Injection: 50 ng/ml of br-PFOSK

Mobile Phase: Gradient
60% (80:20 MeOH:ACN) / 40% H_2O (both with 10 mM NH_4OAc buffer)
Ramp to 85% organic over 7 min and hold for 3 min.
Return to initial conditions over 0.75 min.
Time: 12 min

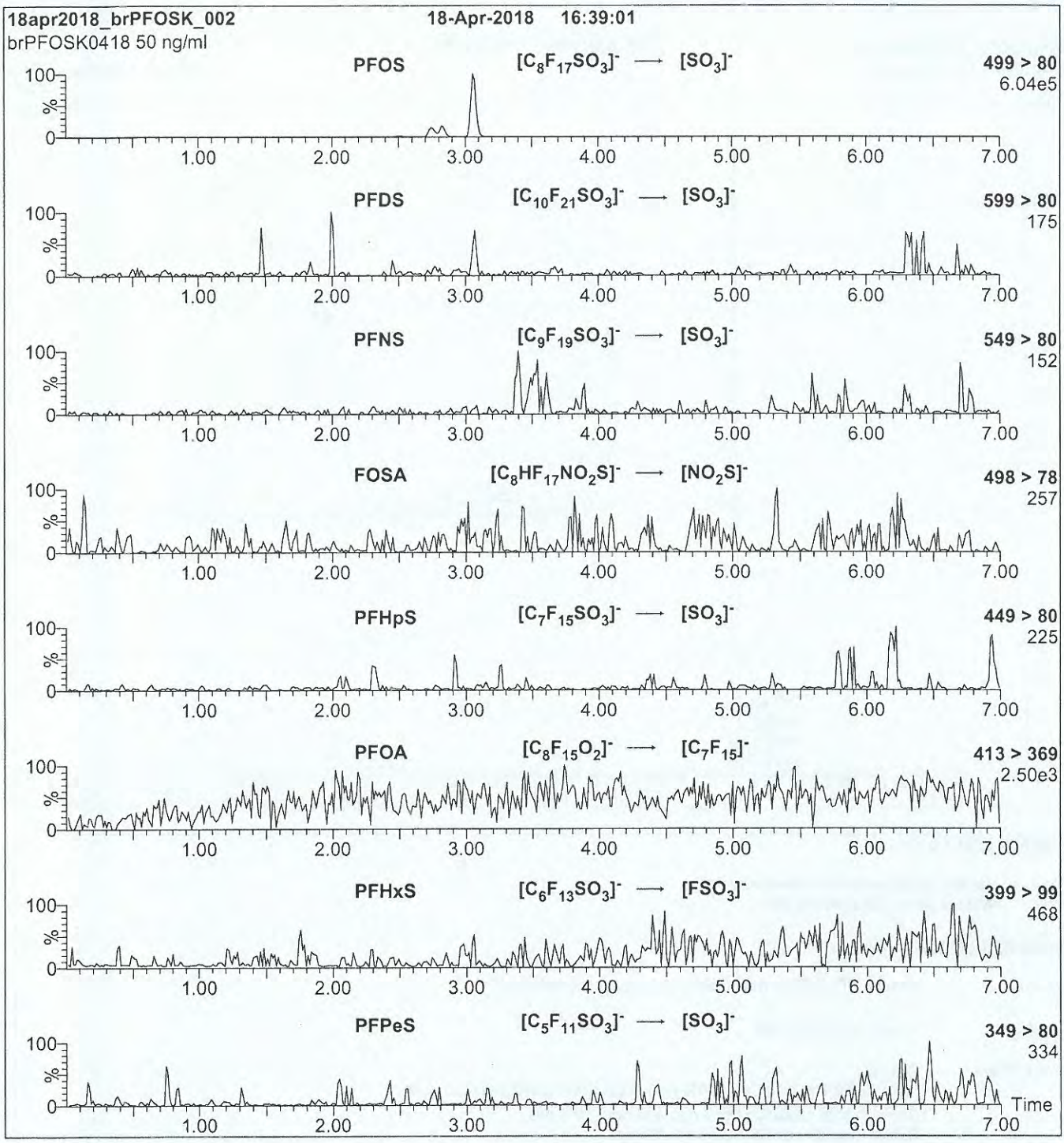
Flow: 300 µl/min

MS Conditions:

SIR (ES^-)
Source = 150 °C
Desolvation = 500 °C
Cone Voltage = 2 - 20V (variable)

18L2053

Figure 3: **br-PFOSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: On-column (br-PFOSK)

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.47e-3
Collision Energy (eV) = 64

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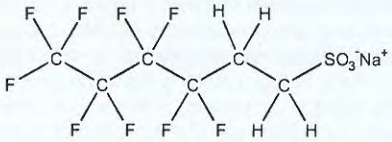
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: 4:2FTS **LOT NUMBER:** 42FTS0718

COMPOUND: Sodium 1H,1H,2H,2H-perfluorohexane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_6H_4F_9SO_3Na$	**MOLECULAR WEIGHT:**	350.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	46.7 ± 2.3 µg/ml (4:2FTS anion)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/03/2018		
EXPIRY DATE: (mm/dd/yyyy)	07/03/2023		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (SIR)
Figure 2: LC/MS Data (Mass Spectrum)
Figure 3: 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:** 07/05/2018 (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

1812054

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.

HANDLING:

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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.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1812054

Figure 1: 4:2FTS; LC/MS Data (SIR)

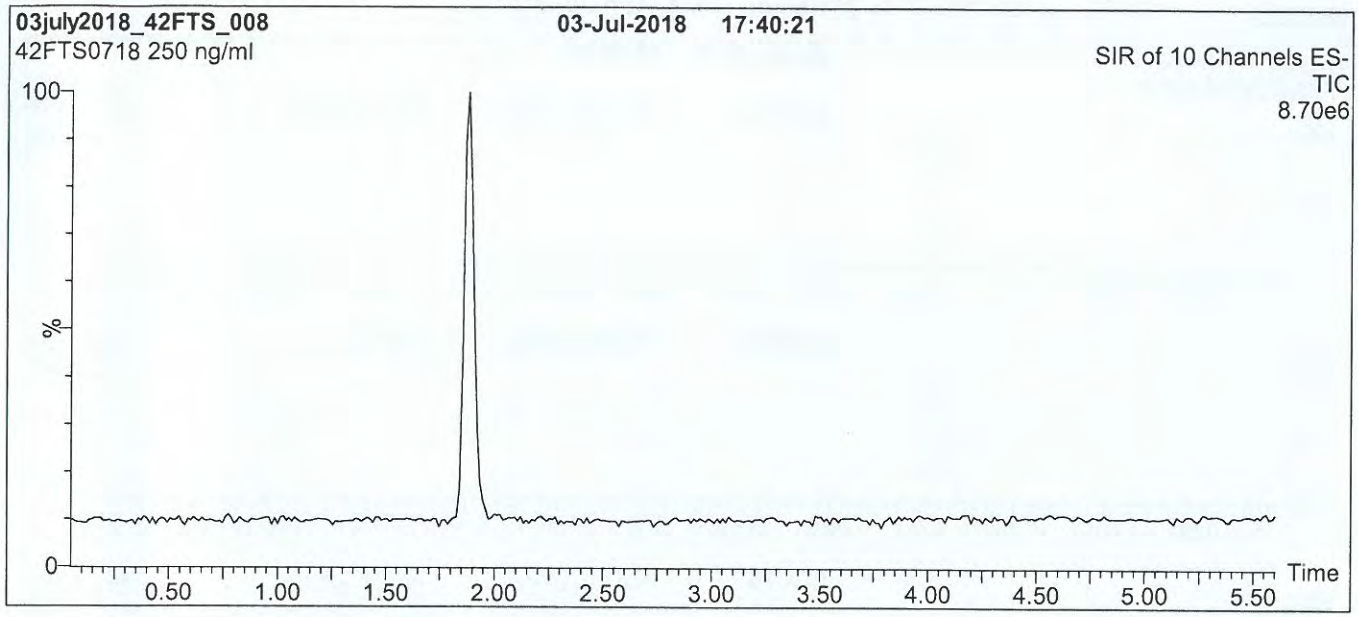
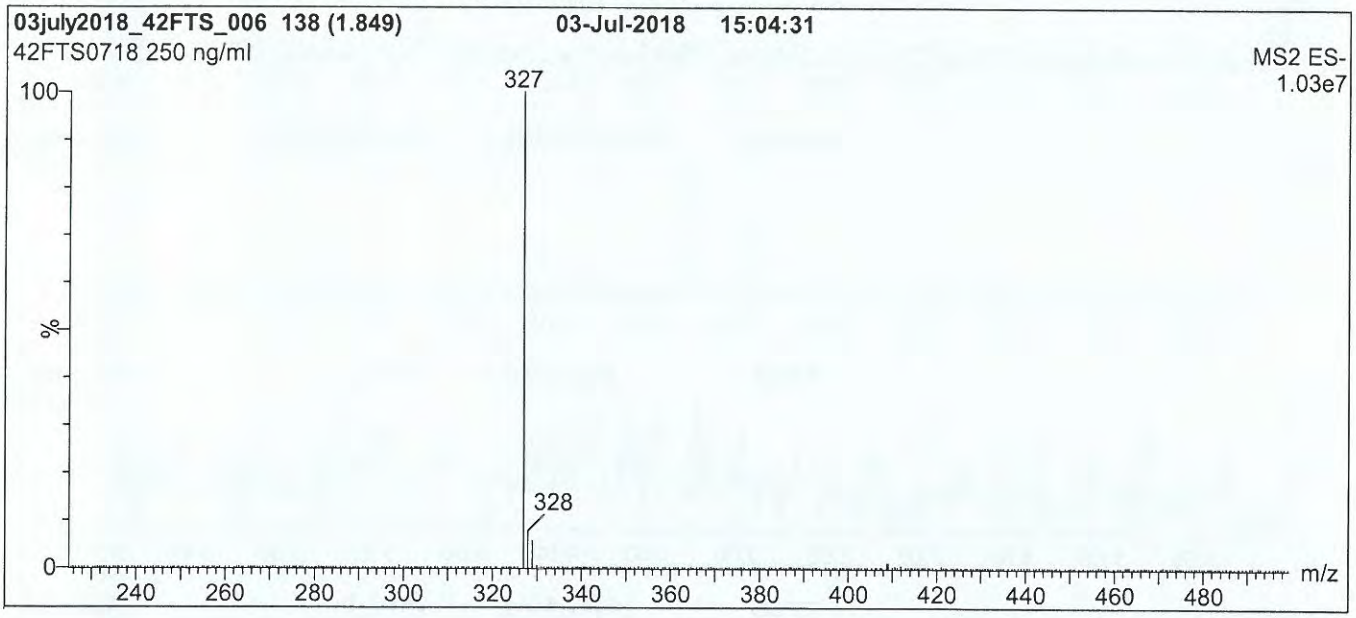


Figure 2: 4:2FTS; LC/MS Data (Mass Spectrum)



Conditions for Figures 1 & 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

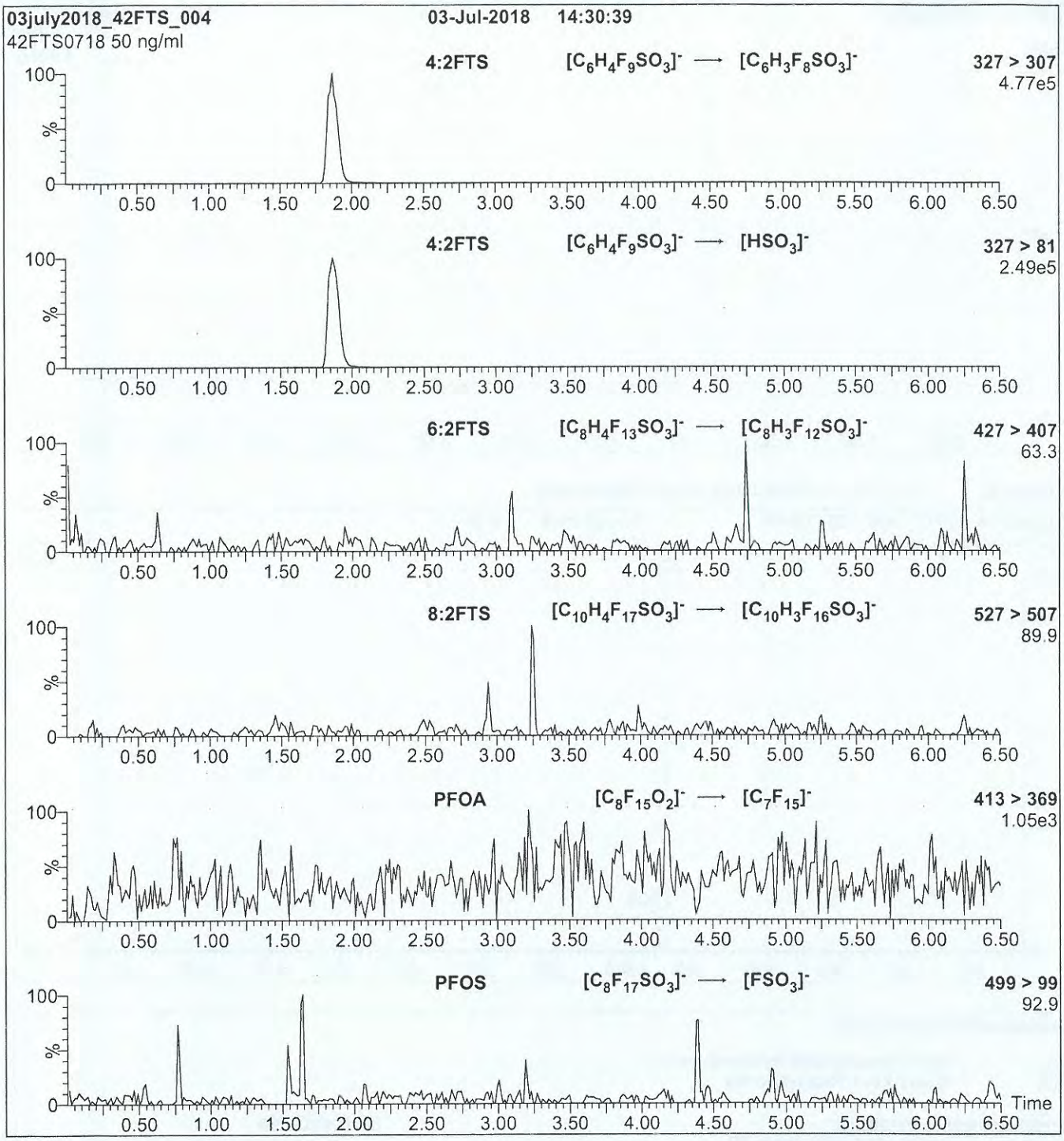
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 25 (variable for SIR (2-20))
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1812054

Figure 3: **4:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: On-column (4:2FTS)

Mobile phase: Same as Figures 1 & 2

Flow: 300 µl/min

MS Parameters
Collision Gas (mbar) = 3.55e-3
Collision Energy (eV) = 18

1812655

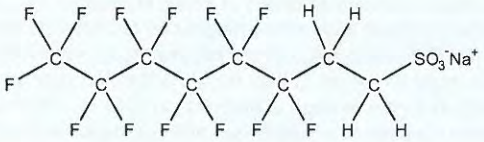
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 6:2FTS **LOT NUMBER:** 62FTS0418

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)	04/03/2018			
EXPIRY DATE: (mm/dd/yyyy)	04/03/2023			
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 ~ 0.3% of sodium 1H,1H,2H,2H-perfluorodecane sulfonate (8:2FTS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/09/2018 (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

18L2055

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

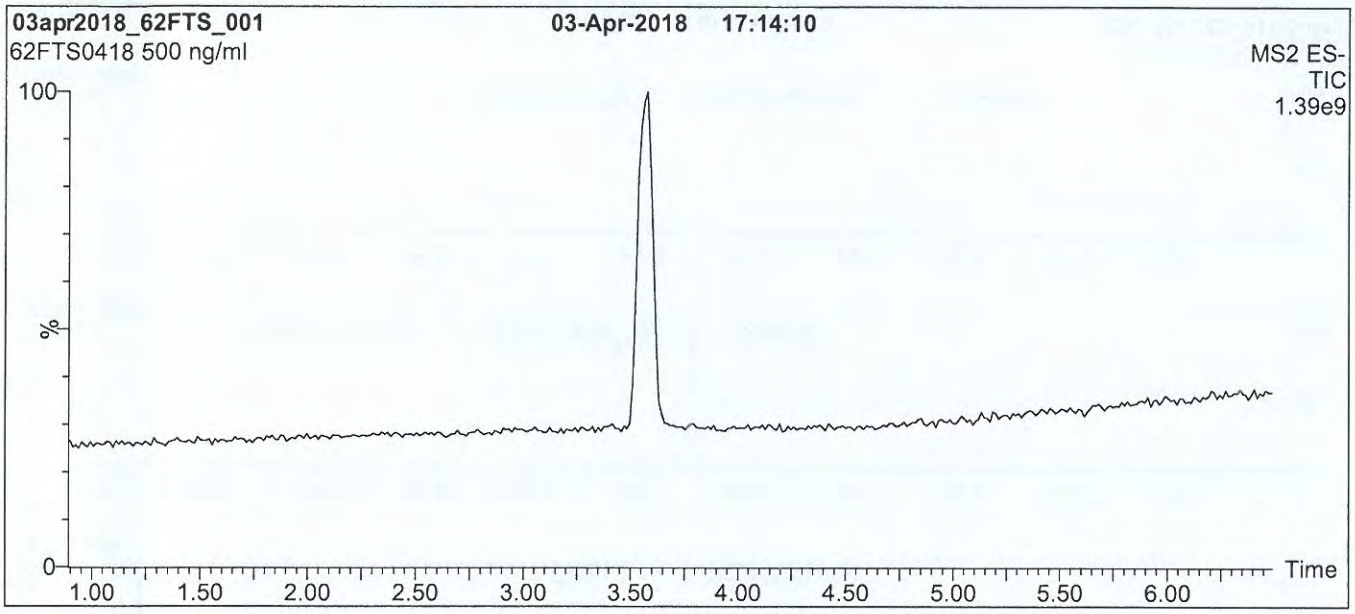
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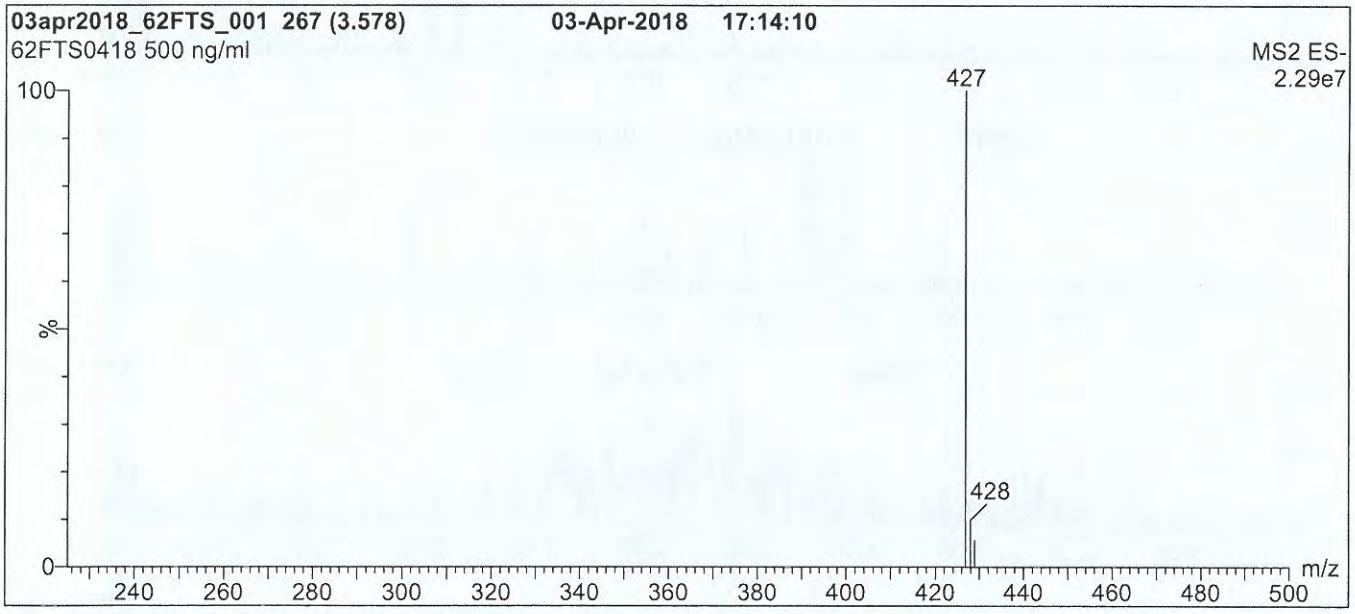
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

1802055

Figure 1: **6:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

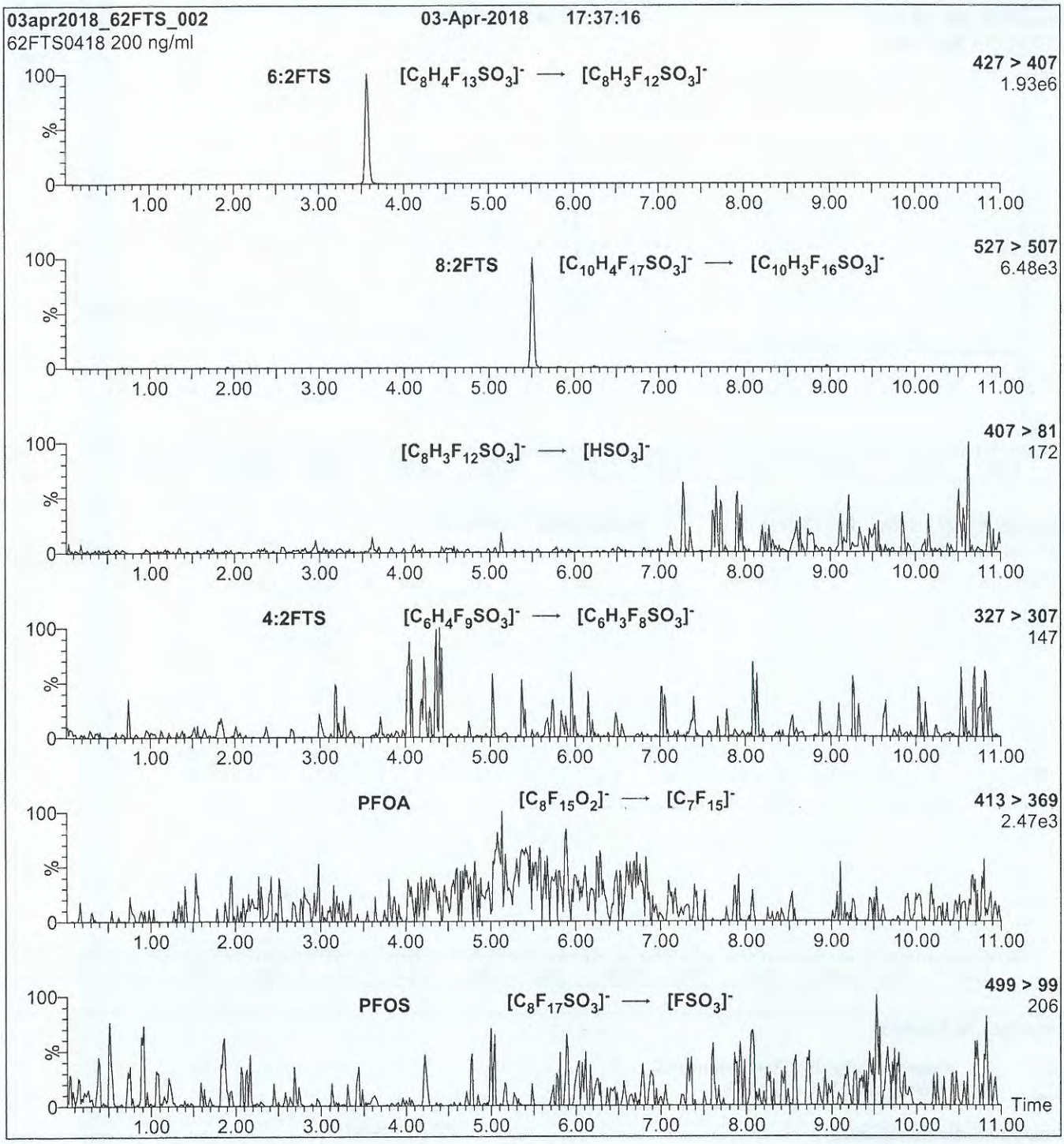
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 25.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1812055

Figure 2: **6:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (6:2FTS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 20

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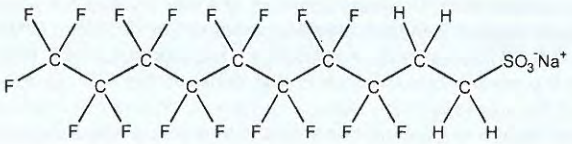
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 8:2FTS **LOT NUMBER:** 82FTS1118

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)	11/28/2018			
EXPIRY DATE: (mm/dd/yyyy)	11/28/2023			
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:** 11/29/2018 (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

1812056

INTENDED USE:

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HANDLING:

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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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LIMITED WARRANTY:

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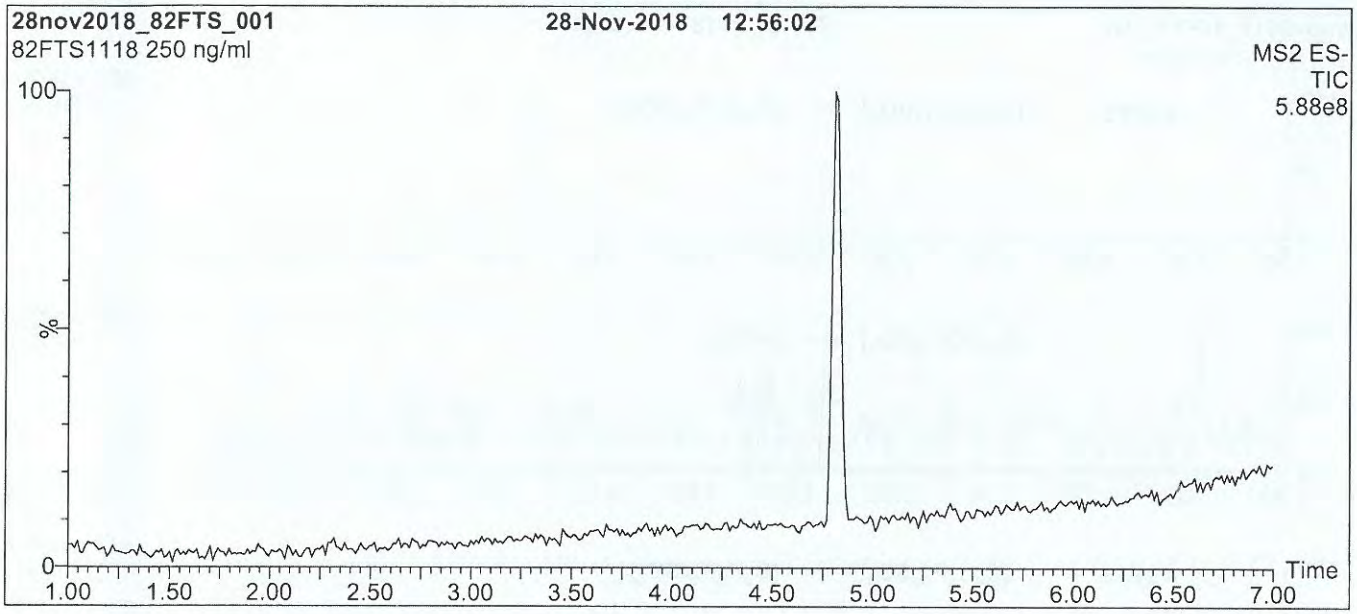
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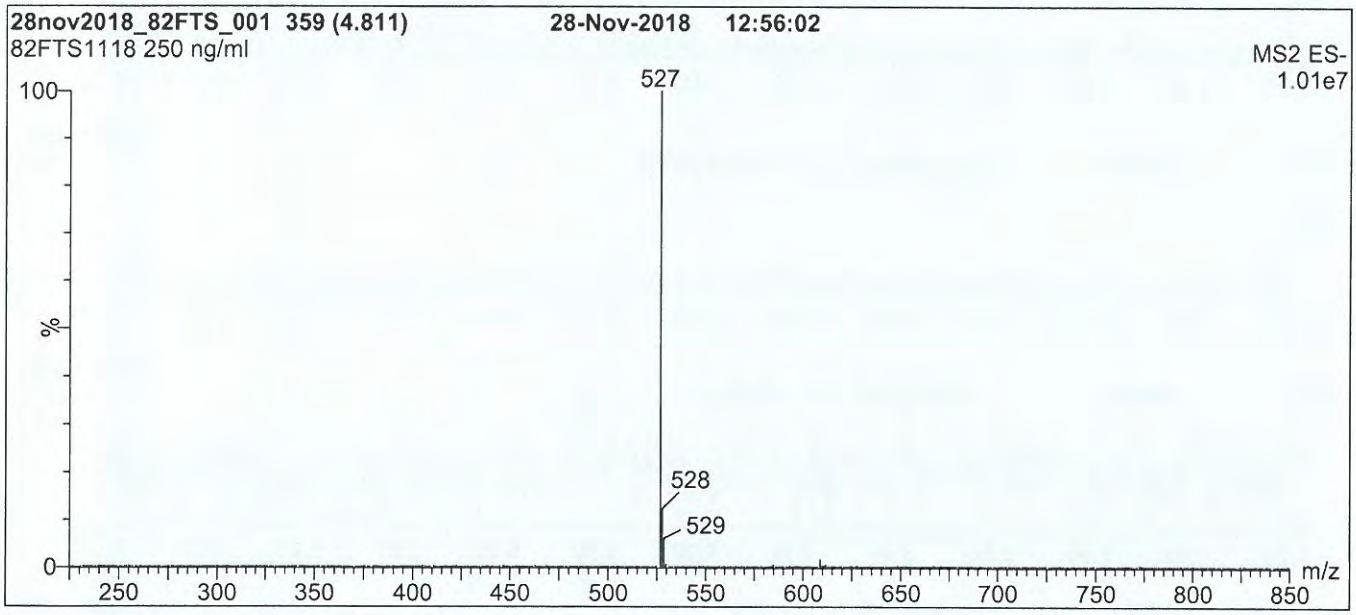
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1812056

Figure 1: **8:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

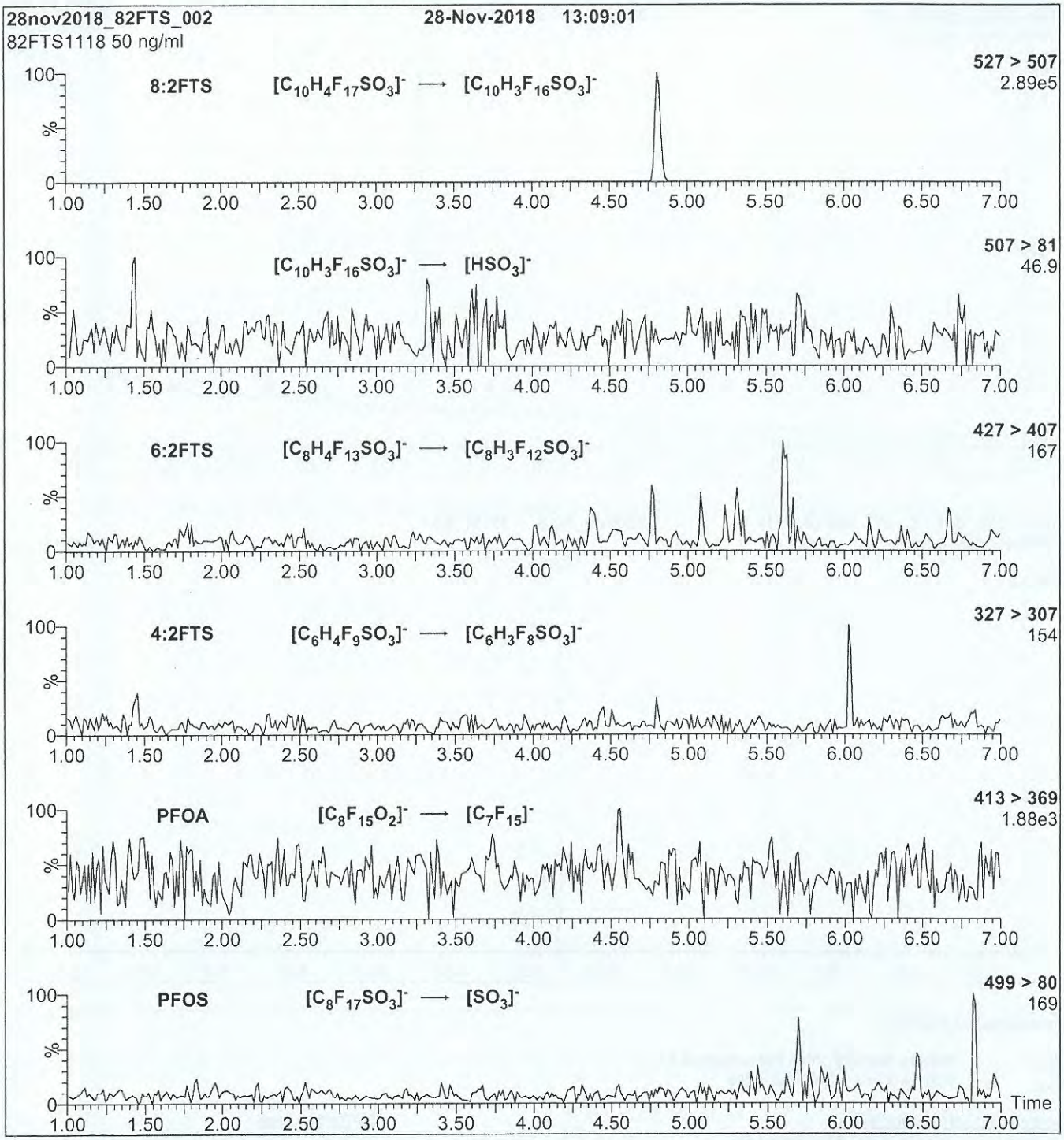
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 25.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

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Figure 2: **8:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (8:2FTS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.74e-3
Collision Energy (eV) = 26

1812057

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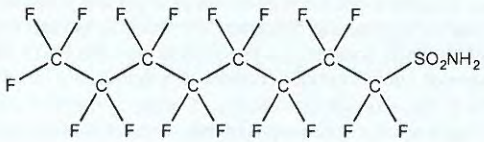
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: FOSA-I
COMPOUND: Perfluoro-1-octanesulfonamide

LOT NUMBER: FOSA0618I

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)	06/20/2018		
EXPIRY DATE: (mm/dd/yyyy)	06/20/2023		
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:** 06/25/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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1812057

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TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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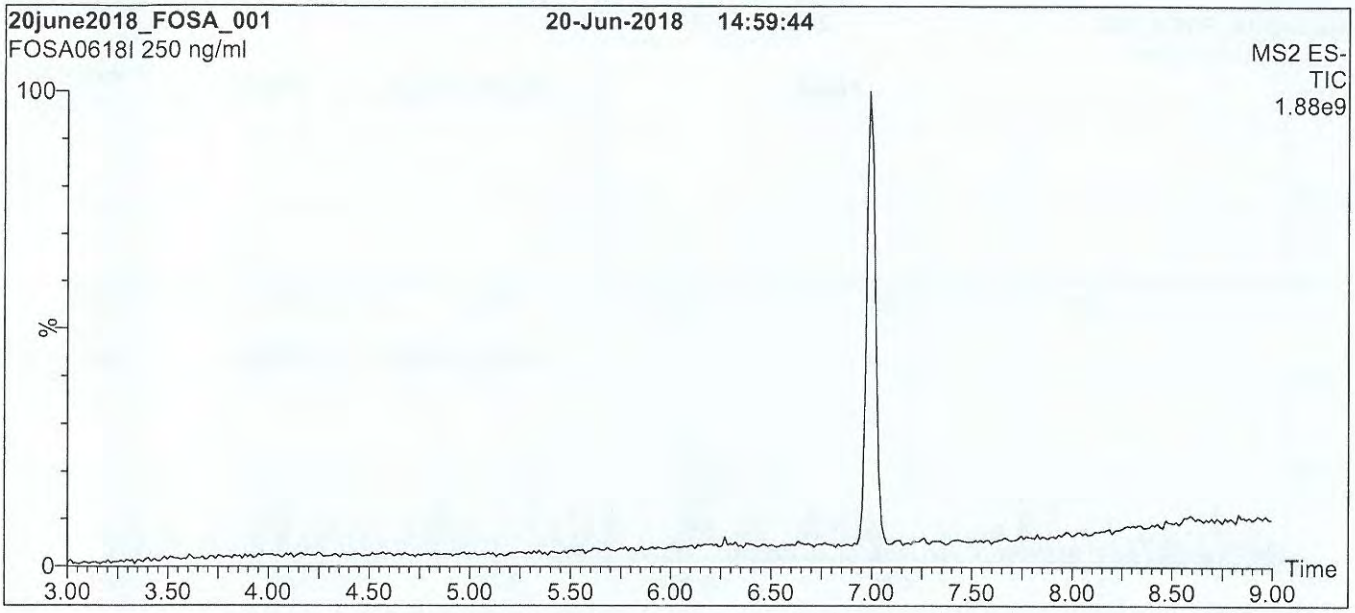
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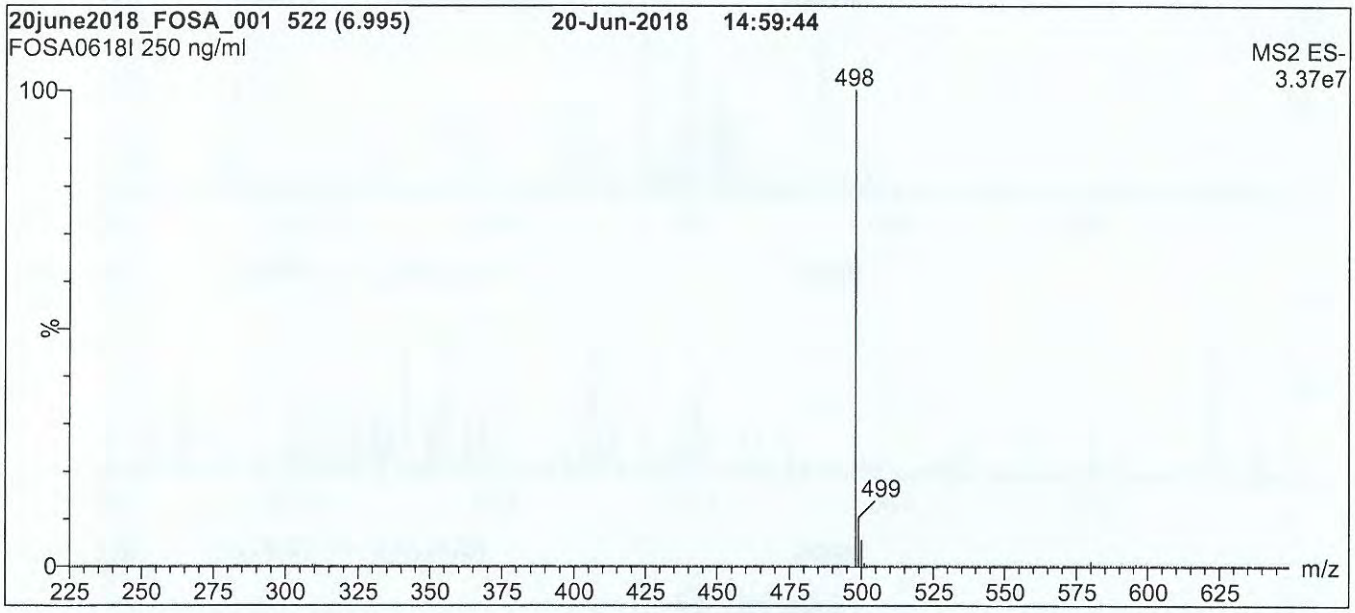
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1812057

Figure 1: **FOSA-I; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 8 min and hold for 2 min
before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

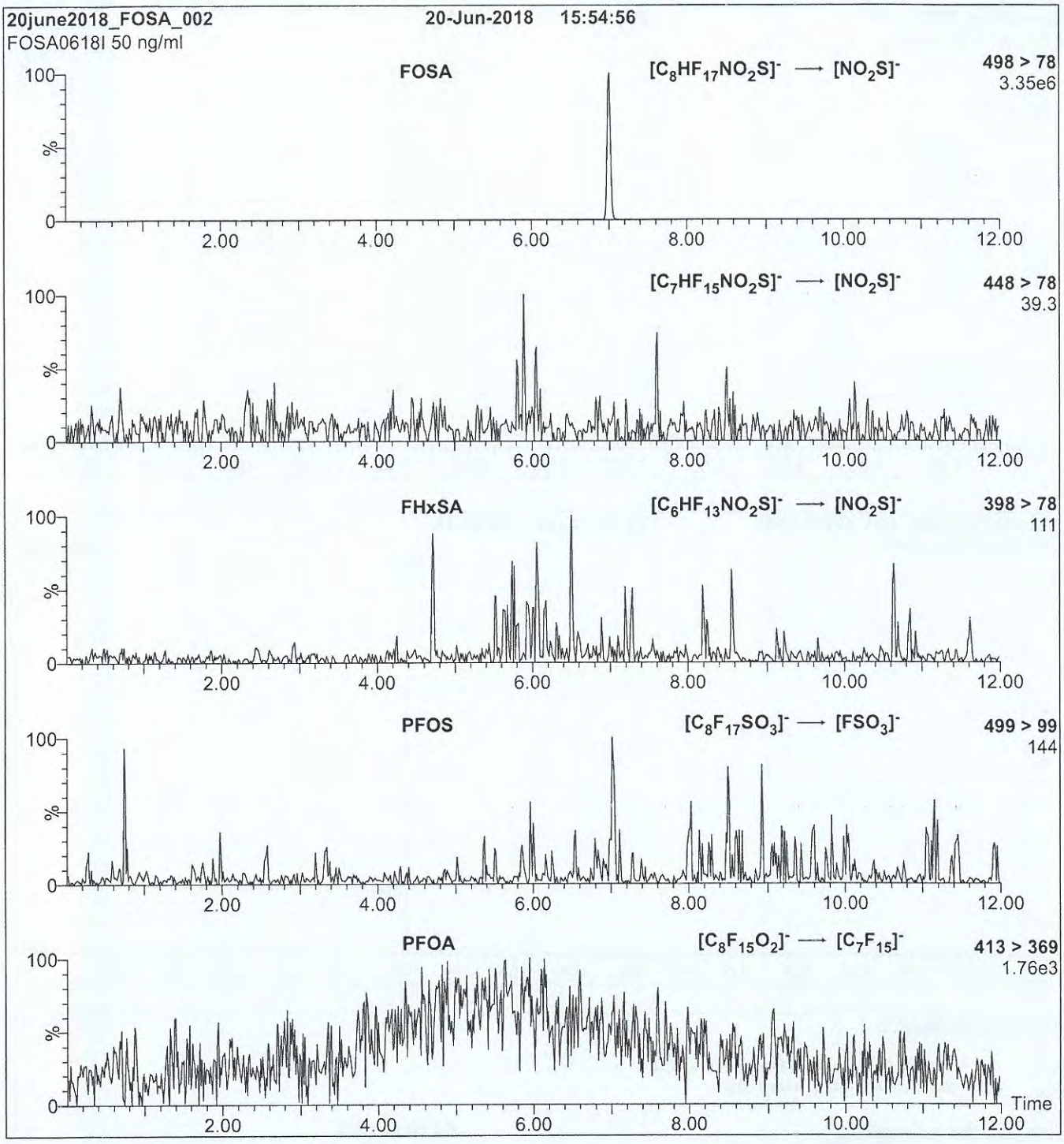
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 20.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1862057

Figure 2: **FOSA-I; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (FOSA-I)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3

Collision Energy (eV) = 30

1812058

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

br-NMeFOSAA

N-Methylperfluorooctanesulfonamidoacetic Acid Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-NMeFOSAA
LOT NUMBER:	brNMeFOSAA0118
CONCENTRATION:	50.0 ± 2.5 µg/ml
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	01/10/2018
LAST TESTED: (mm/dd/yyyy)	01/17/2018
EXPIRY DATE: (mm/dd/yyyy)	01/17/2023
RECOMMENDED STORAGE:	Refrigerate ampoule

DESCRIPTION:

The chemical purity has been determined to be ≥98% N-methylperfluorooctanesulfonamidoacetic acid (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 4 mole eq. of NaOH to prevent conversion of the acetic acid moiety to its respective methyl ester.

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Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

18L2058

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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, as well as mixtures and calibration solutions, are compared to older lots in a similar manner. This 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:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

1862058

Table A: **br-NMeFOSAA; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	N-methylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2N(CH_3)CH_2CO_2H$	76.0
2	N-methylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3CF(CF_3)(CF_2)_2SO_2N(CH_3)CH_2CO_2H$	0.7
3	N-methylperfluoro-4-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_2CF(CF_3)(CF_2)_3SO_2N(CH_3)CH_2CO_2H$	2.0
4	N-methylperfluoro-5-methylheptanesulfonamidoacetic acid	$CF_3CF_2CF(CF_3)(CF_2)_4SO_2N(CH_3)CH_2CO_2H$	6.0
5	N-methylperfluoro-6-methylheptanesulfonamidoacetic acid	$CF_3CF(CF_3)(CF_2)_5SO_2N(CH_3)CH_2CO_2H$	14.0
6	N-methylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$CF_3C(CF_3)_2(CF_2)_4SO_2N(CH_3)CH_2CO_2H$	0.2
7	Other Unidentified Isomers		1.1

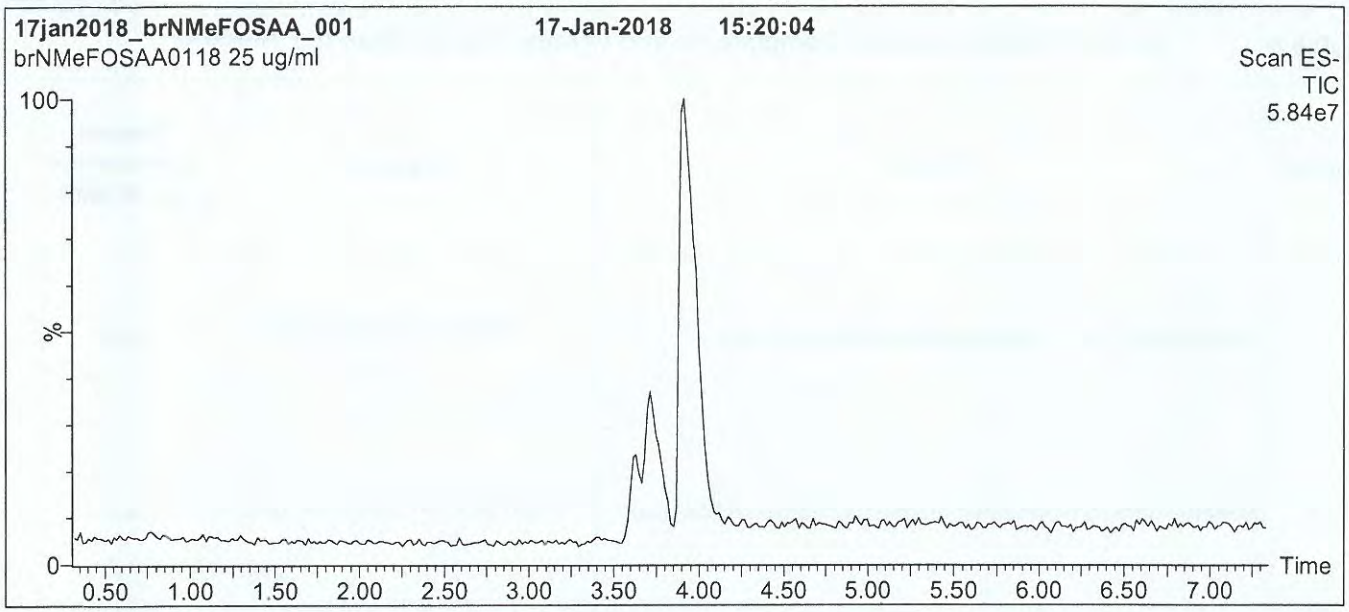
* Percent of total N-methylperfluorooctanesulfonamidoacetic acid isomers only.

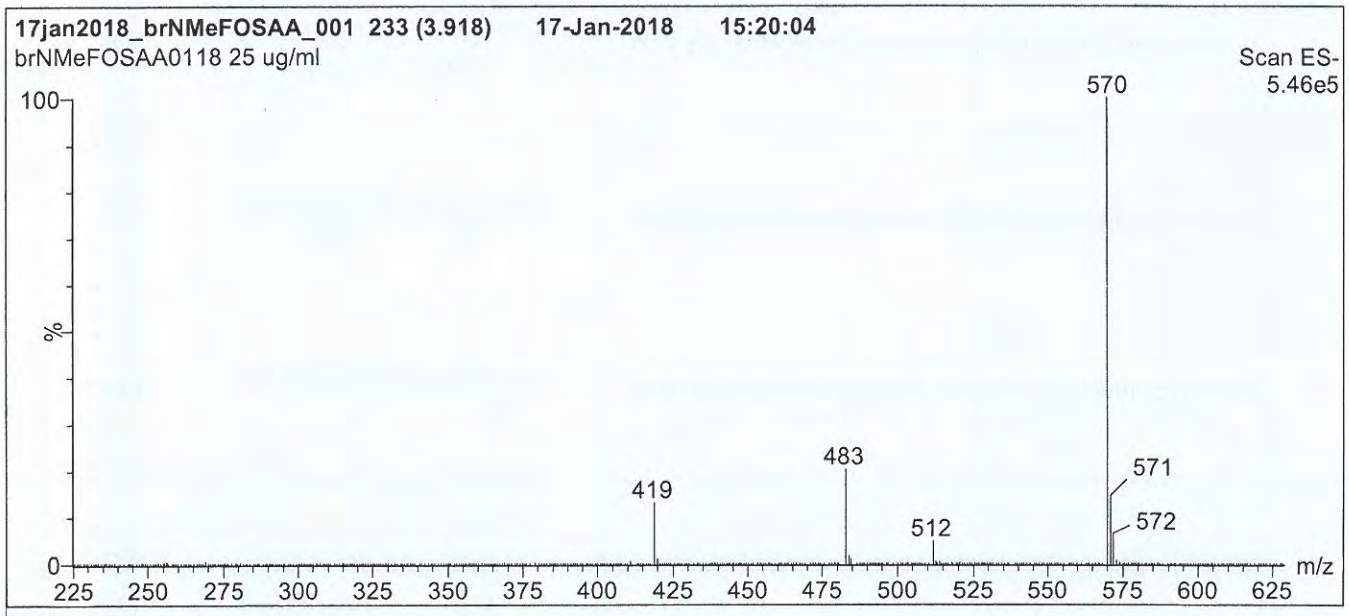
Certified By: _____ **Date:** 03/22/2018 (mm/dd/yyyy)

B.G. Chittim, General Manager

18L2058

Figure 1: **br-NMeFOSAA; 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

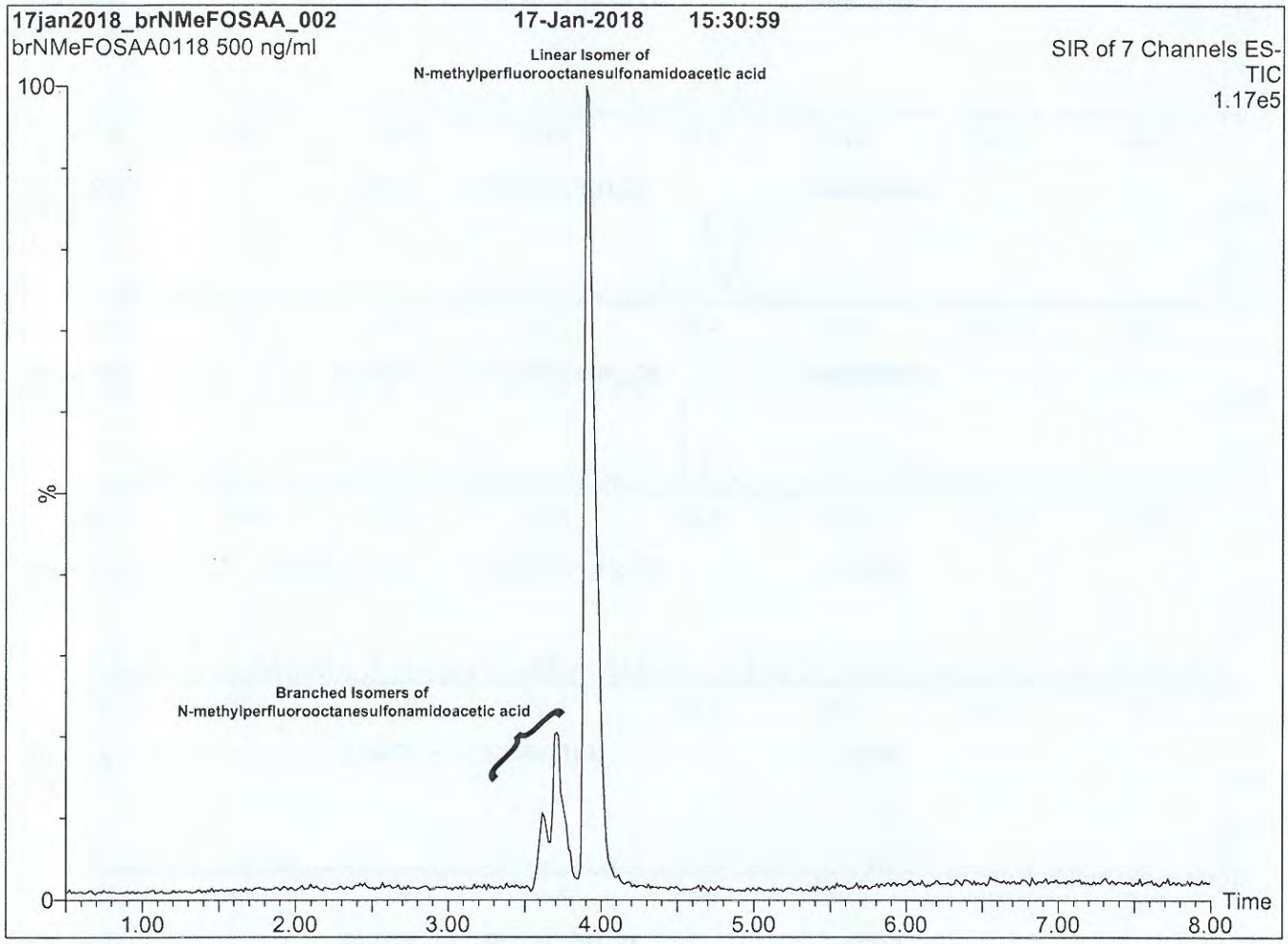
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

1812058

Figure 2: **br-NMeFOSAA; 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: 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

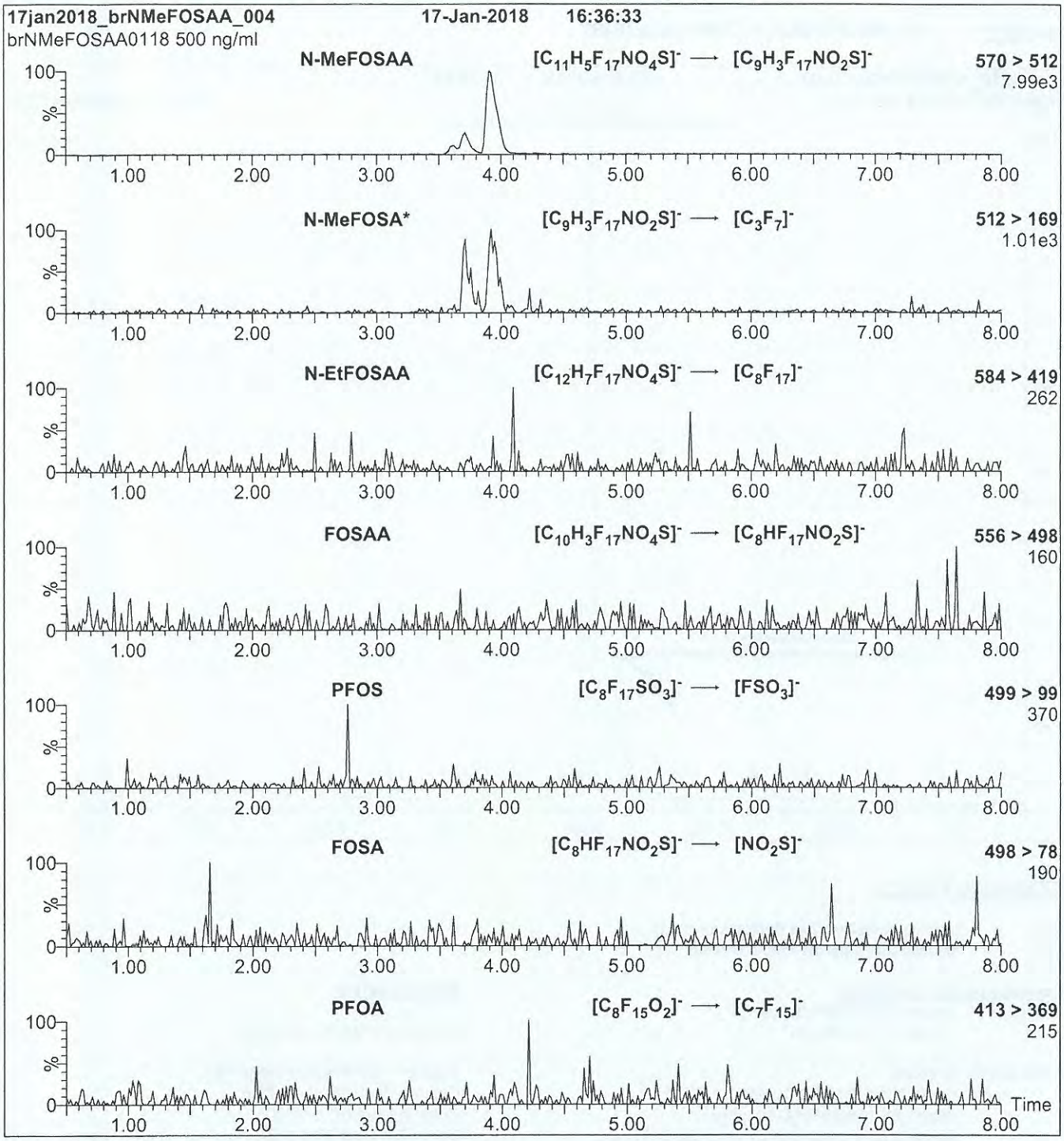
MS Parameters

Experiment: SIR (7 channels)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15-60
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

1812058

Figure 3: **br-NMeFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



***Note**: N-MeFOSA is formed by in-source fragmentation.

Conditions for Figure 3:

Injection: On-column

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 11-40 (variable)

1812059

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-NEtFOSAA

N-Ethylperfluorooctanesulfonamidoacetic Acid Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-NEtFOSAA
LOT NUMBER:	brNEtFOSAA0718
CONCENTRATION:	50.0 ± 2.5 µg/ml
SOLVENT(S):	Methanol/Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	07/25/2018
LAST TESTED: (mm/dd/yyyy)	07/26/2018
EXPIRY DATE: (mm/dd/yyyy)	07/26/2023
RECOMMENDED STORAGE:	Refrigerate ampoule

DESCRIPTION:

The chemical purity has been determined to be ≥98% N-ethylperfluorooctanesulfonamidoacetic acid (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 4 mole eq. of NaOH to prevent conversion of the acetic acid moiety to its respective methyl ester.
- Contains ~ 0.6% of perfluoro-n-octanoic acid.

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

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INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HANDLING:

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SYNTHESIS / CHARACTERIZATION:

Our products are synthesized using single-product unambiguous routes whenever possible. 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:

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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.

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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QUALITY MANAGEMENT:

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CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1862059

Table A: **br-NEtFOSAA; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	N-ethylperfluoro-1-octanesulfonamidoacetic acid	$CF_3(CF_2)_7SO_2N(C_2H_5)CH_2CO_2H$	77.5
2	N-ethylperfluoro-3-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_3CF(CF_3)(CF_2)_2SO_2N(C_2H_5)CH_2CO_2H$	2.3
3	N-ethylperfluoro-4-methylheptanesulfonamidoacetic acid	$CF_3(CF_2)_2CF(CF_3)(CF_2)_3SO_2N(C_2H_5)CH_2CO_2H$	2.2
4	N-ethylperfluoro-5-methylheptanesulfonamidoacetic acid	$CF_3CF_2CF(CF_3)(CF_2)_4SO_2N(C_2H_5)CH_2CO_2H$	5.4
5	N-ethylperfluoro-6-methylheptanesulfonamidoacetic acid	$CF_3CF(CF_3)(CF_2)_5SO_2N(C_2H_5)CH_2CO_2H$	10.4
6	N-ethylperfluoro-5,5-dimethylhexanesulfonamidoacetic acid	$CF_3C(CF_3)_2(CF_2)_4SO_2N(C_2H_5)CH_2CO_2H$	0.3
7	N-ethylperfluoro-4,5-dimethylhexanesulfonamidoacetic acid	$CF_3CF(CF_3)CF(CF_2)_3SO_2N(C_2H_5)CH_2CO_2H$	0.3
8	N-ethylperfluoro-3,5-dimethylhexanesulfonamidoacetic acid	$CF_3CF(CF_3)CF_2CF(CF_2)_2SO_2N(C_2H_5)CH_2CO_2H$	0.3
9	Other Unidentified Isomers		1.3

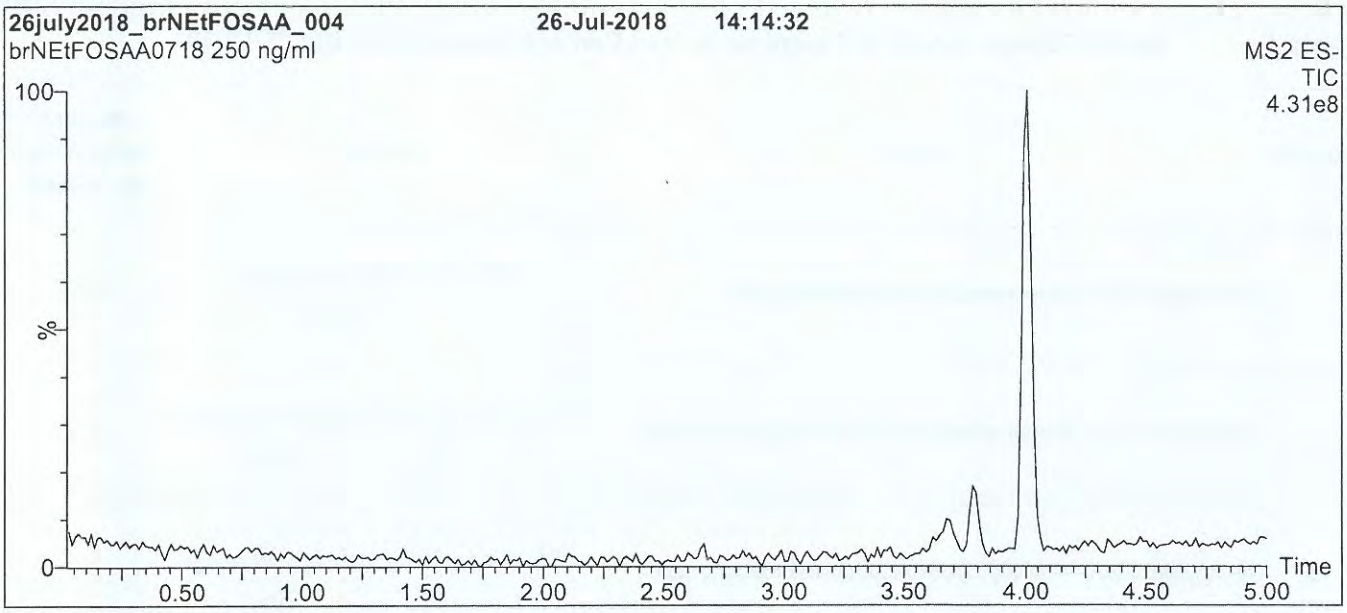
* Percent of total N-ethylperfluorooctanesulfonamidoacetic acid isomers only.

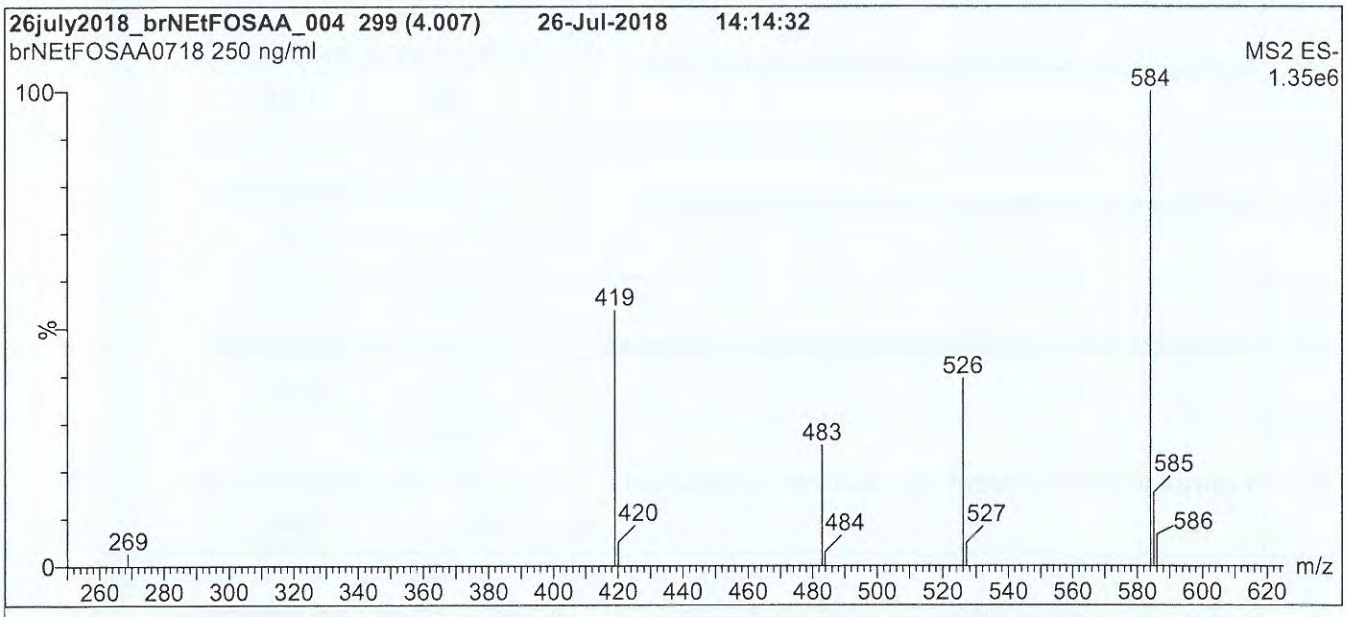
Certified By: _____ **Date:** 07/27/2018 (mm/dd/yyyy)

B.G. Chittim, General Manager

1812059

Figure 1: **br-NEtFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

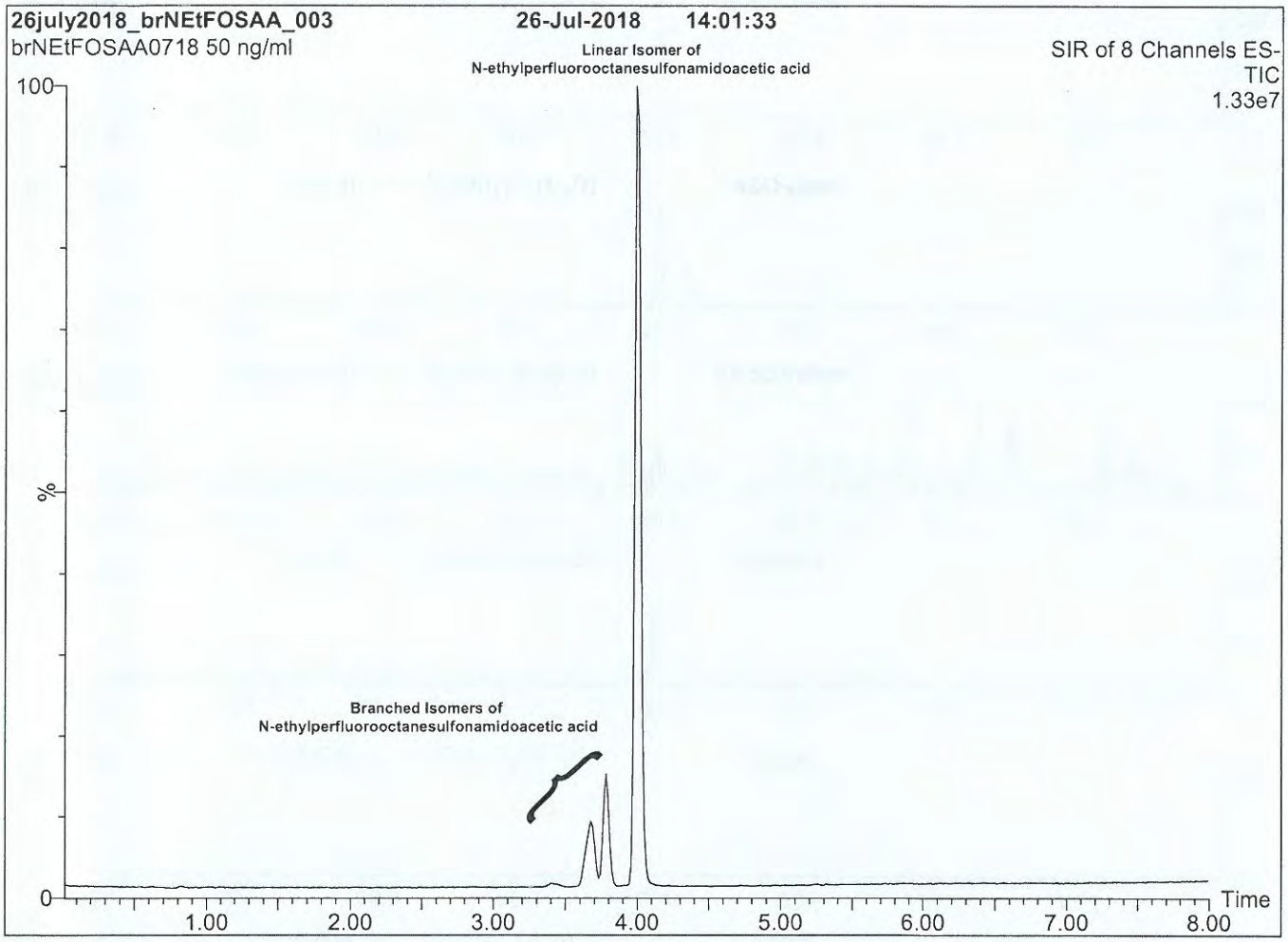
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 64
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

18L2059

Figure 2: **br-NEtFOSAA; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

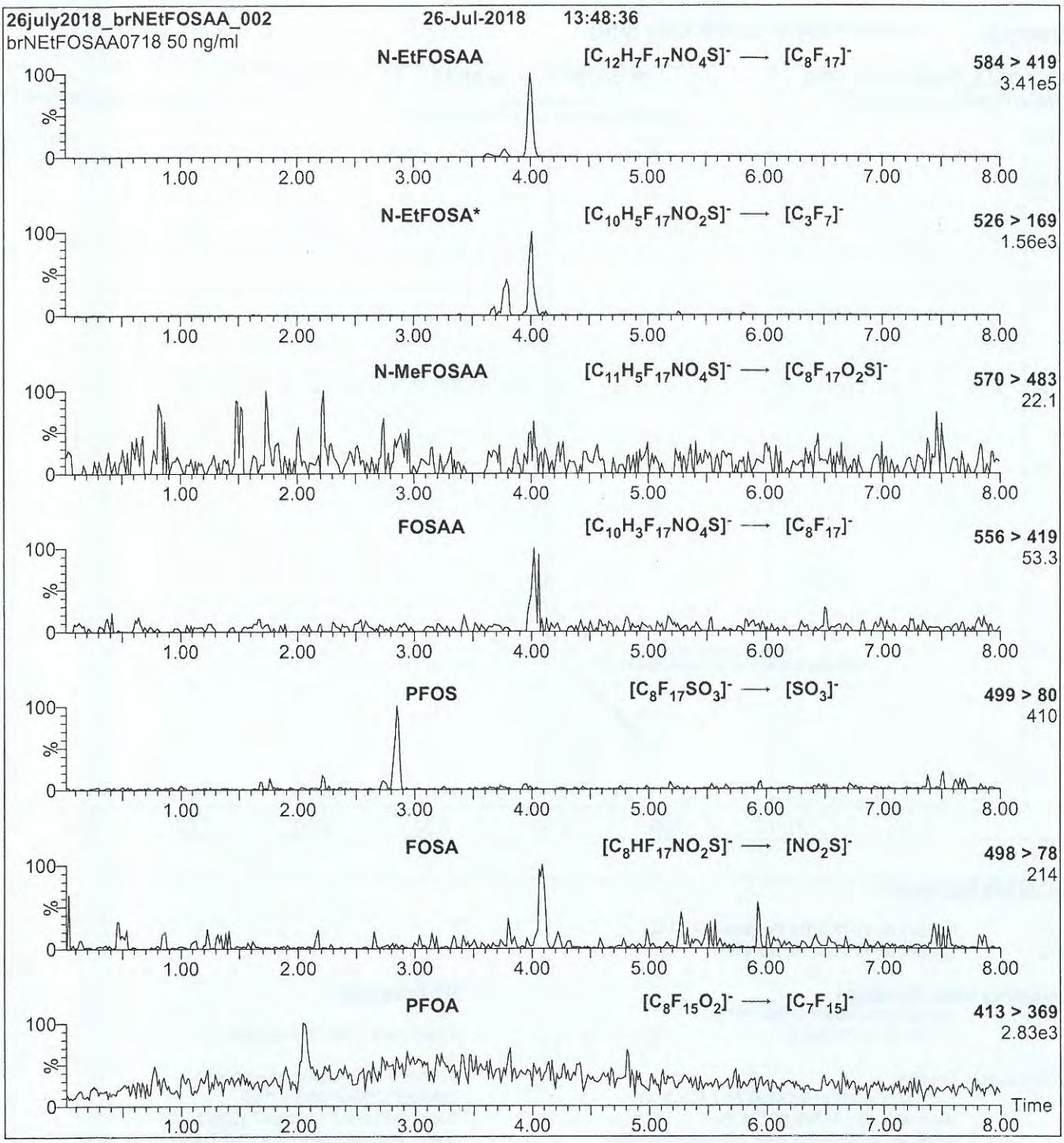
MS Parameters

Experiment: SIR (8 channels)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = variable (2-64)
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1802059

Figure 3: **br-NEtFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



*__Note__: N-EtFOSA is formed by in-source fragmentation.

Conditions for Figure 3:

Injection: On-column (br-NEtFOSAA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

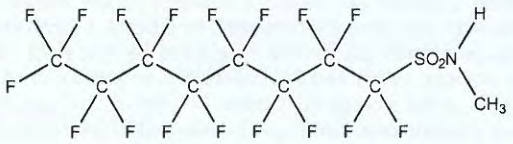
Collision Gas (mbar) = 3.76e-3
Collision Energy (eV) = 18

1812060

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	N-MeFOSA-M	**LOT NUMBER:**	NMeFOSA0518M
COMPOUND:	N-methylperfluoro-1-octanesulfonamide		
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)	05/31/2018		
EXPIRY DATE: (mm/dd/yyyy)	05/31/2023		
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:** 06/07/2018 (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

18L2060

INTENDED USE:

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HANDLING:

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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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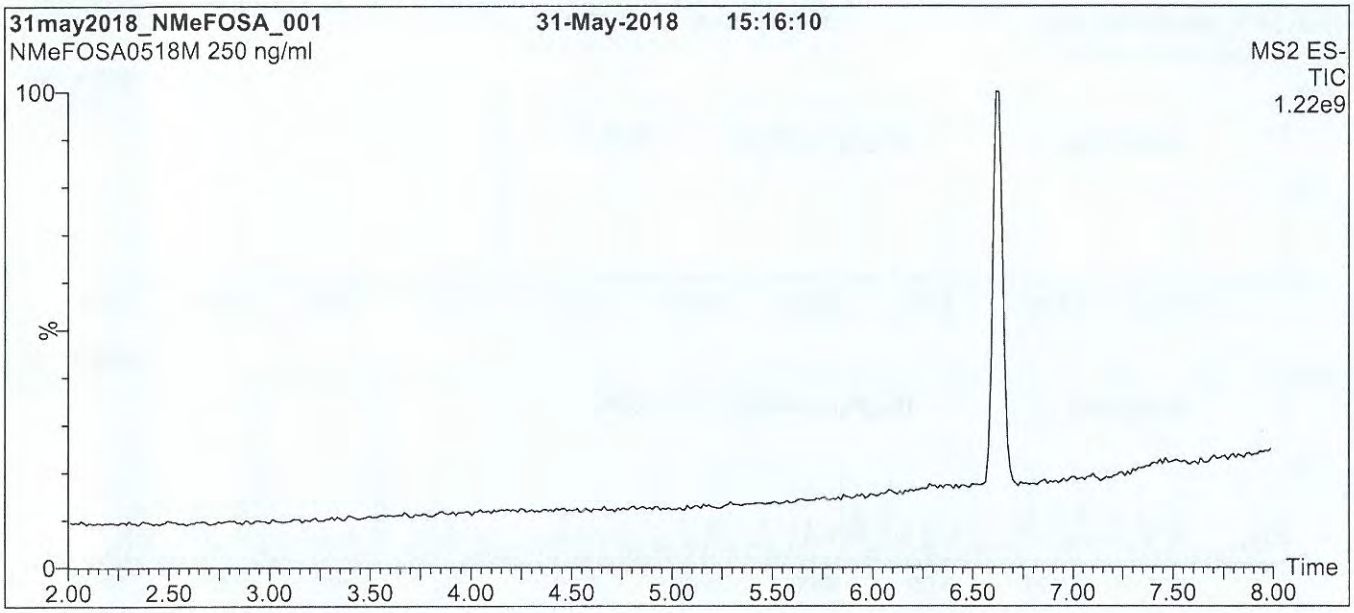
CALA Testing Accreditation No. A 1226

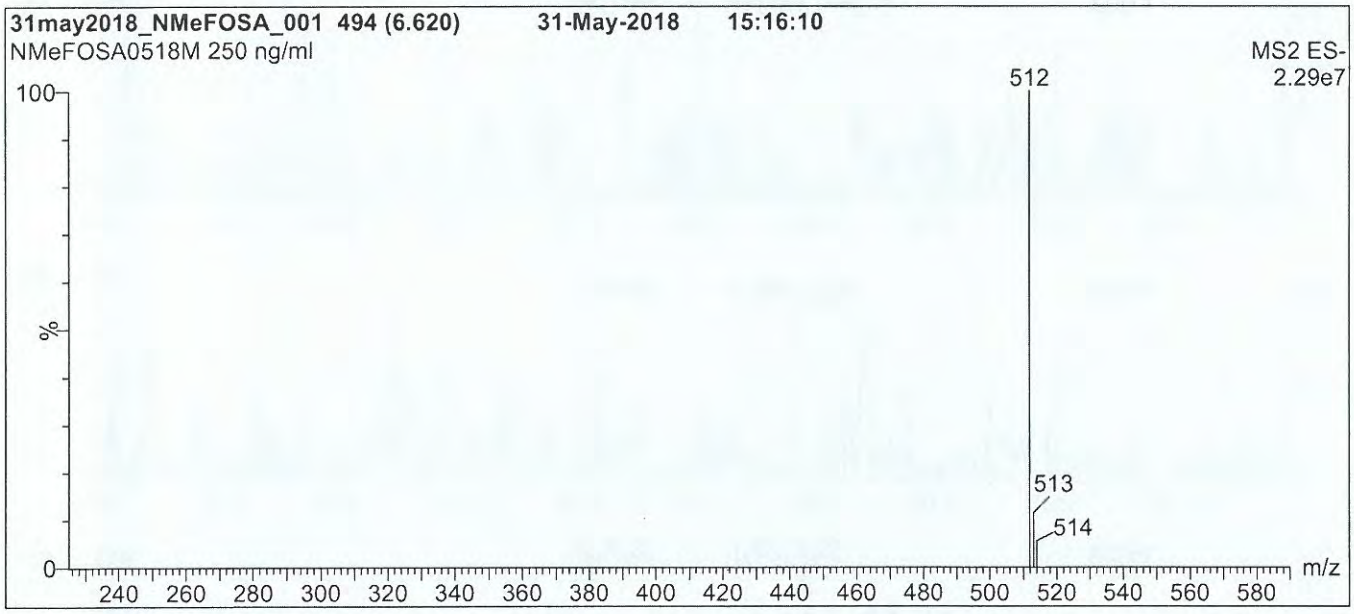
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1812000

Figure 1: **N-MeFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro MS**

Chromatographic Conditions

Column: Acquity UPLC BEH C_{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 85% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

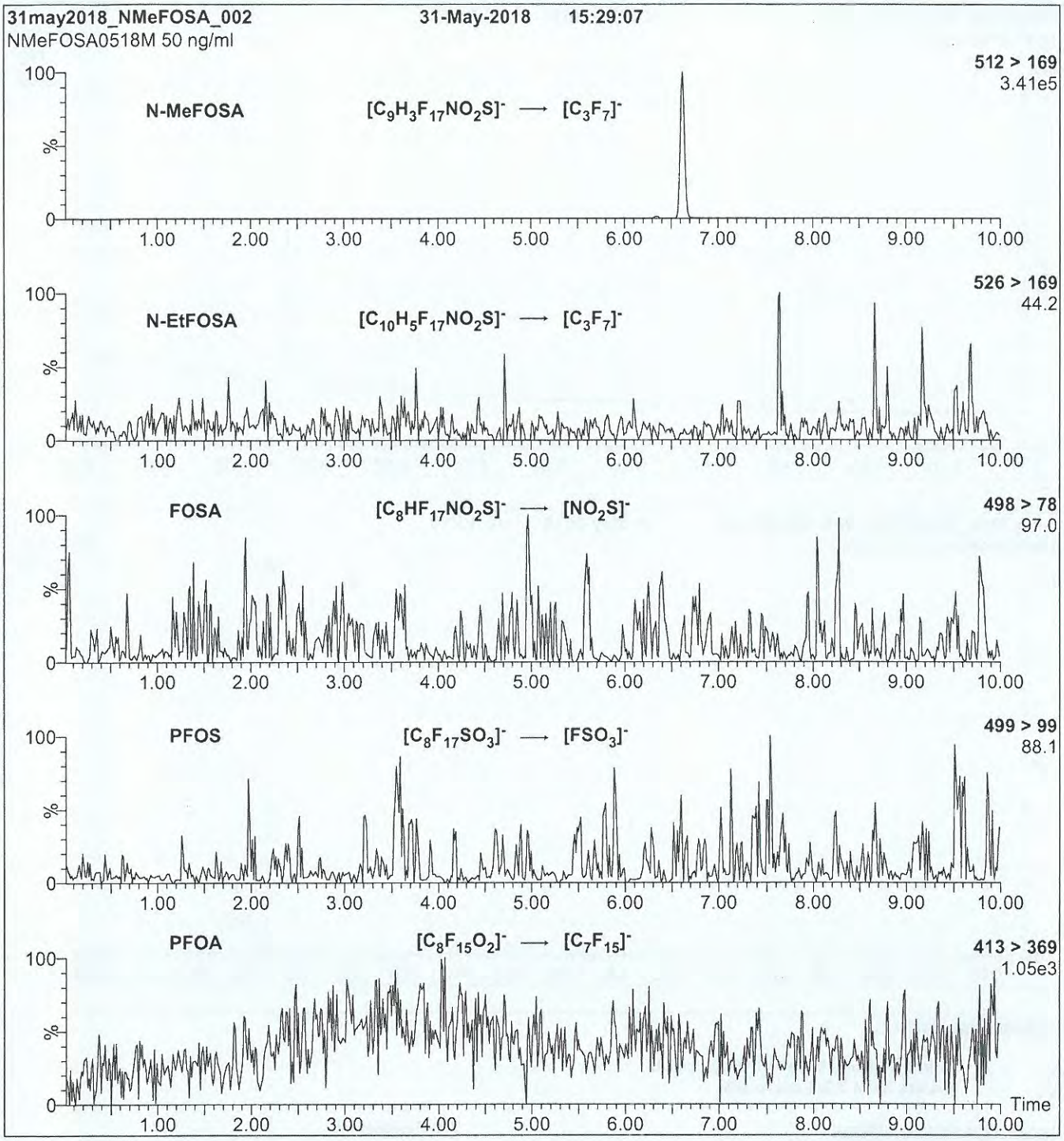
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 1.00
Cone Voltage (V) = 44.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1812060

Figure 2: **N-MeFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (N-MeFOSA-M)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

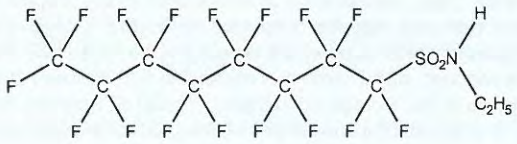
Collision Gas (mbar) = 3.37e-3
Collision Energy (eV) = 24

1812061

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	N-EtFOSA-M	**LOT NUMBER:**	NEtFOSA0518M
COMPOUND:	N-ethylperfluoro-1-octanesulfonamide		
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)	05/31/2018		
EXPIRY DATE: (mm/dd/yyyy)	05/31/2023		
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 ~ 0.5% branched isomers of N-ethylperfluorooctanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 06/12/2018 (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

1820601

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.

HANDLING:

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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

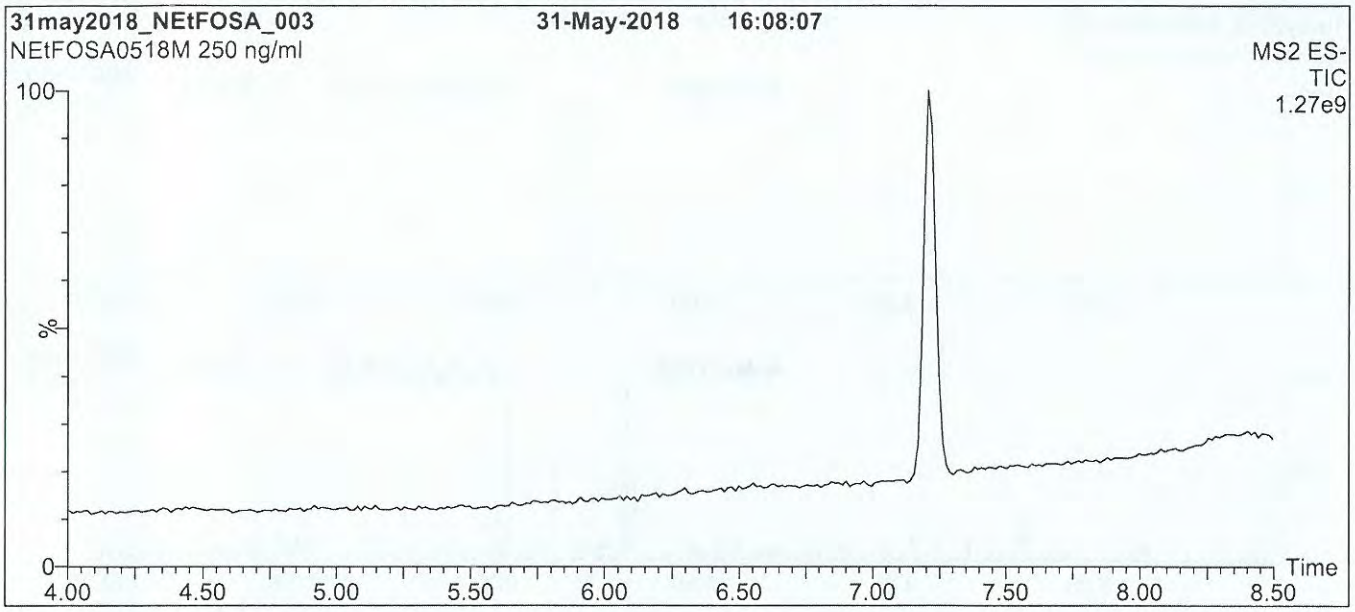
CALA Testing Accreditation No. A 1226

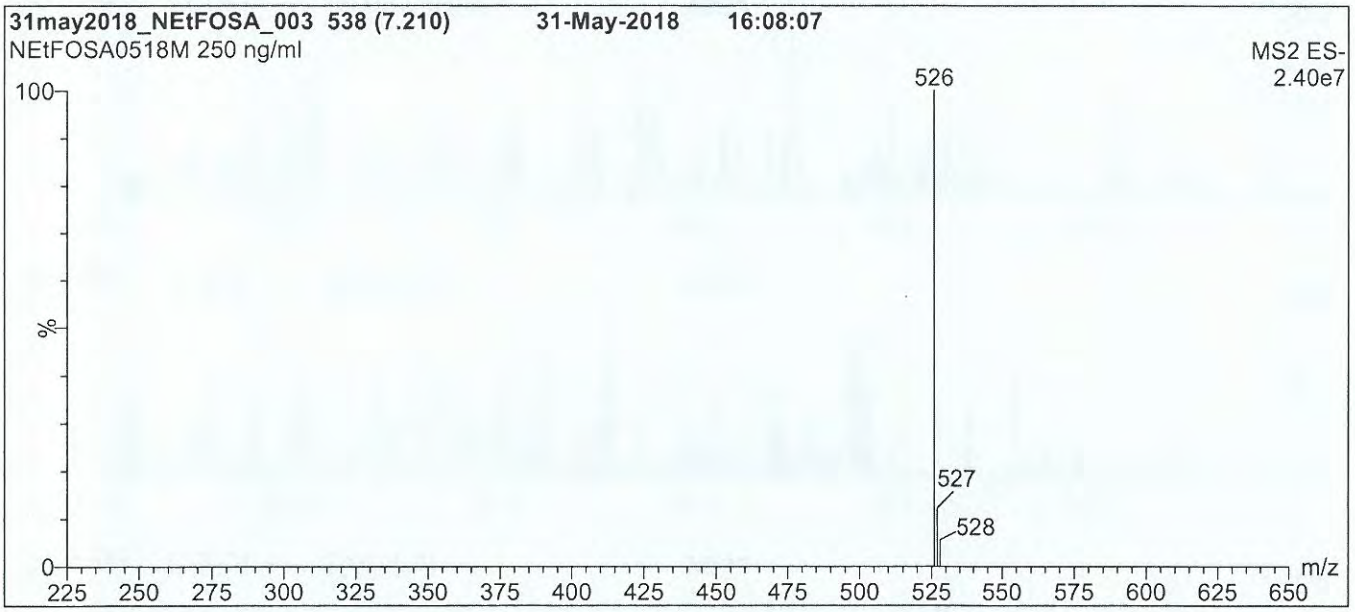
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

1902061

Figure 1: **N-EtFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro MS**

Chromatographic Conditions

Column: Acquity UPLC BEH C_{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 85% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

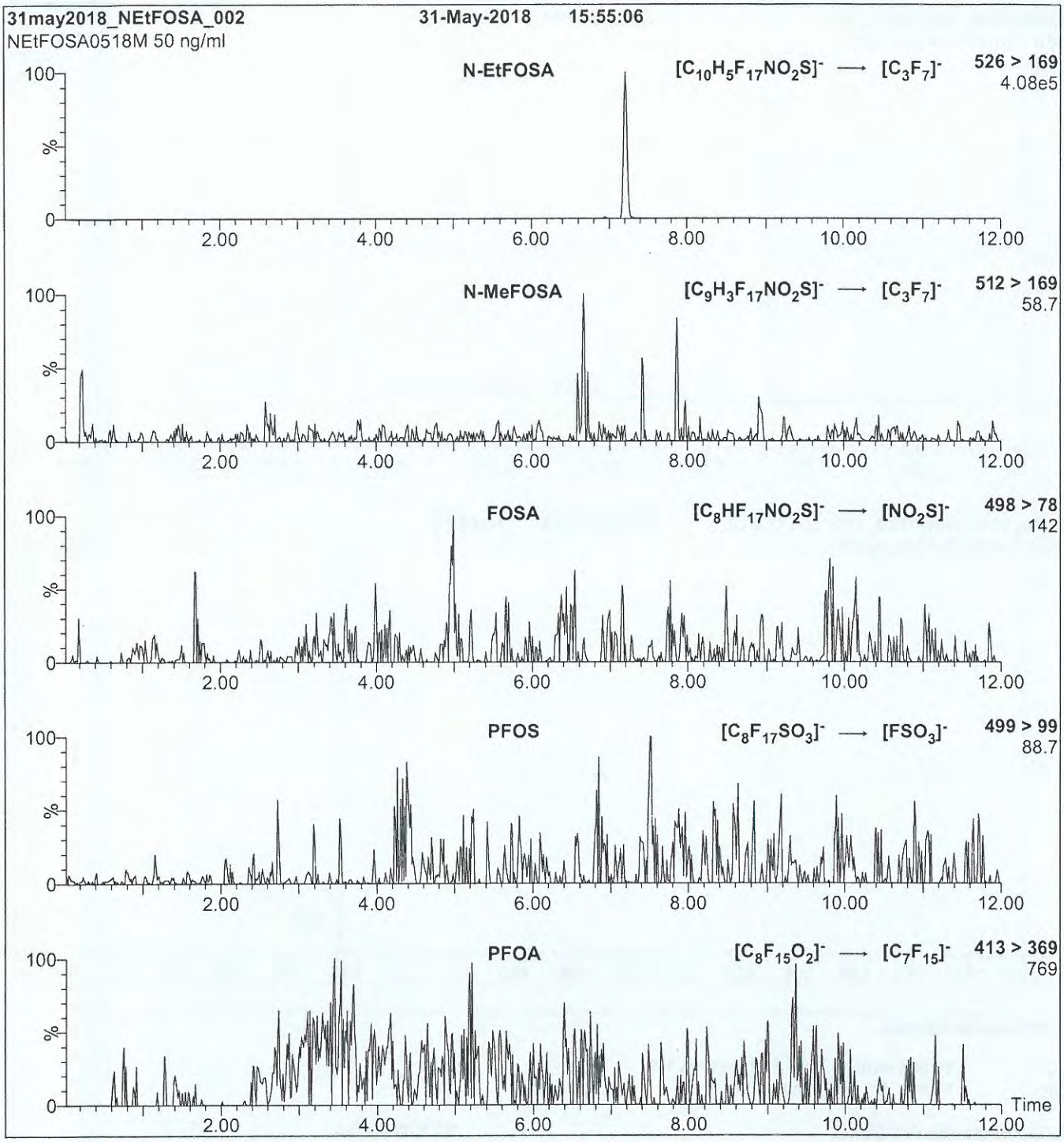
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 1.00
Cone Voltage (V) = 44.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

18L2061

Figure 2: **N-EtFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (N-EtFOSA-M)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.37e-3
Collision Energy (eV) = 24

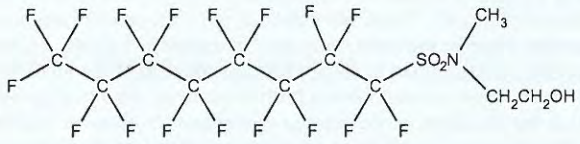
1812062

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSE-M **LOT NUMBER:** NMeFOSE0418M
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)	05/17/2018 (HRGC/LRMS) 05/03/2018 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	05/17/2023		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/25/2018 (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

1812062

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

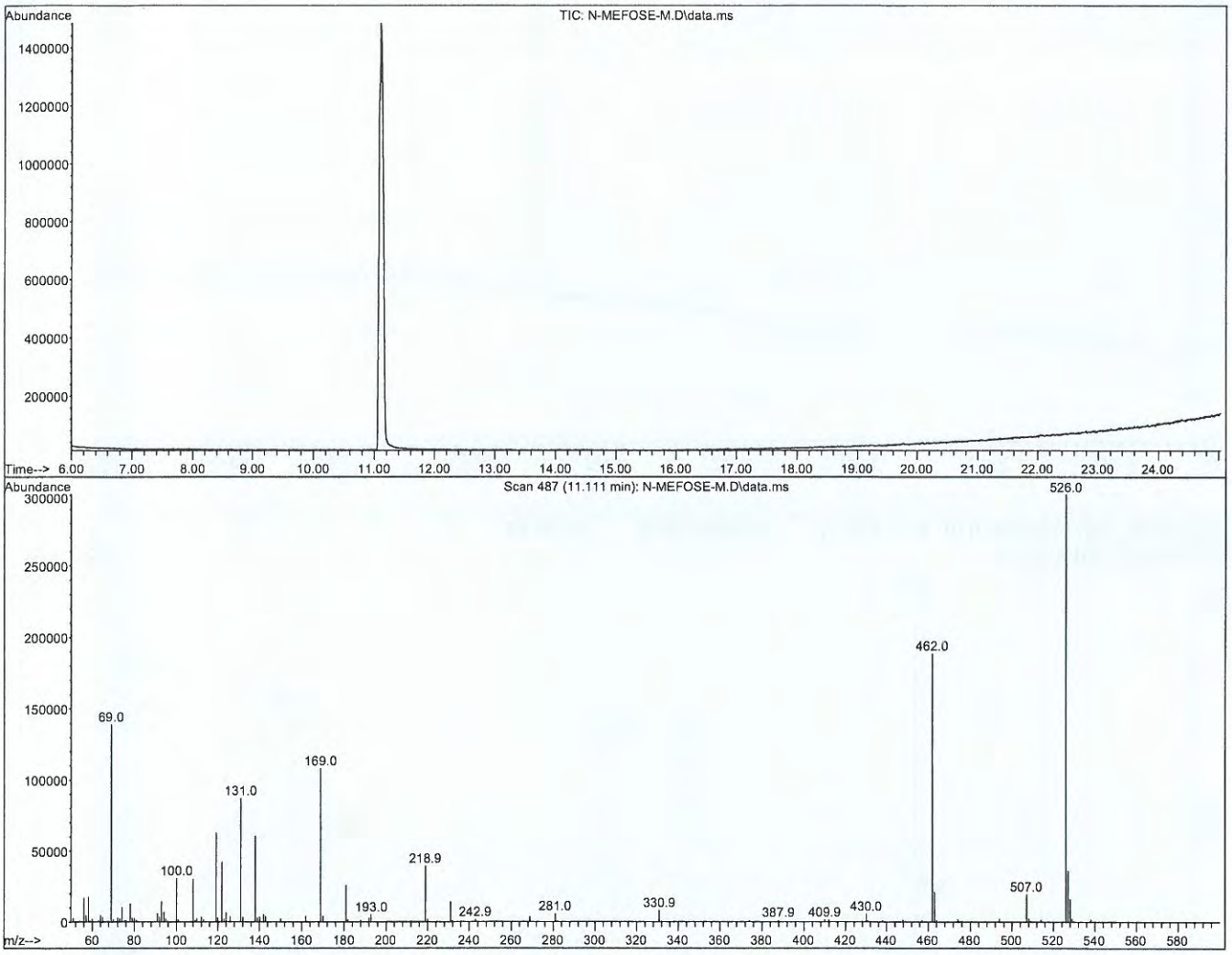
CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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18L2062

Figure 1: **N-MeFOSE-M; HRGC/LRMS Data (TIC and Mass Spectrum)**



HRGC/LRMS:

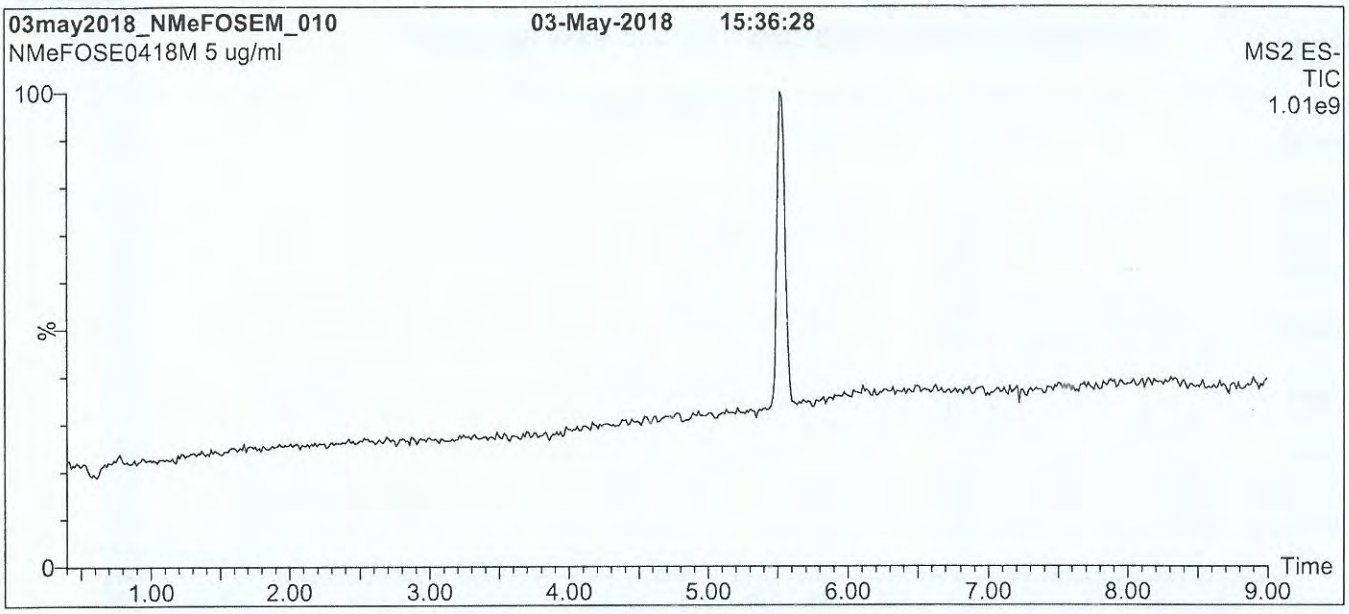
Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

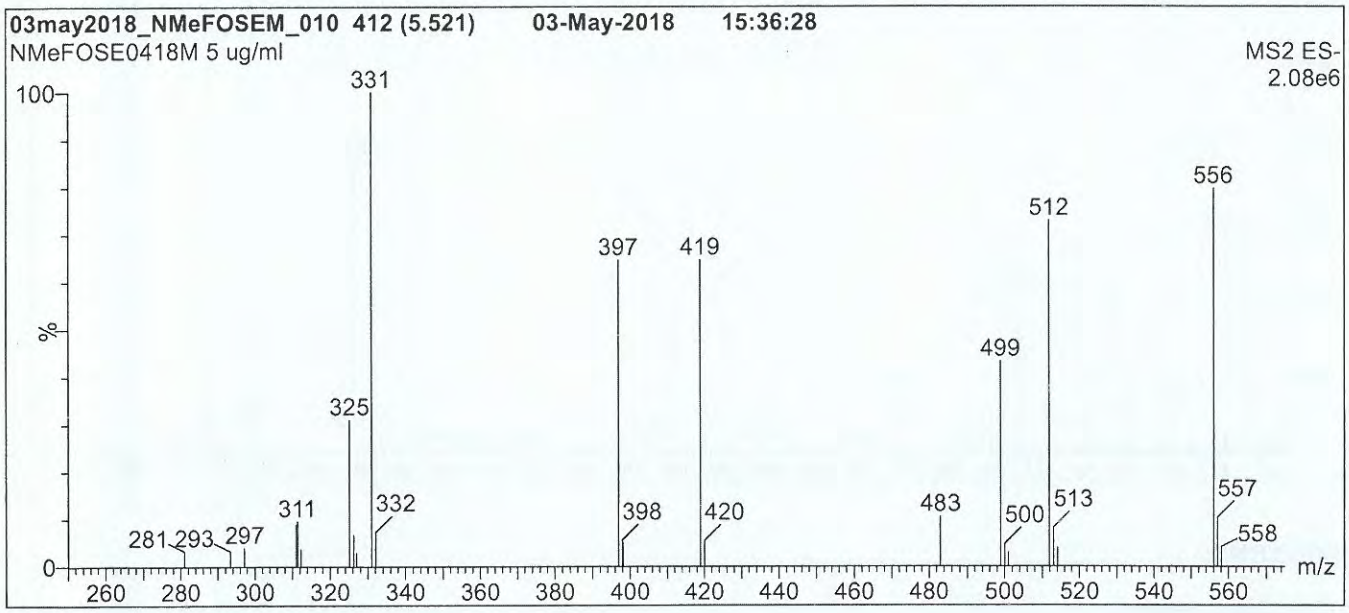
Chromatographic Conditions:

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)

~~1812062~~ GRB 01/15/19
1812062

Figure 2: **N-MeFOSE-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% MeOH / 35% H_2O
Ramp to 85% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

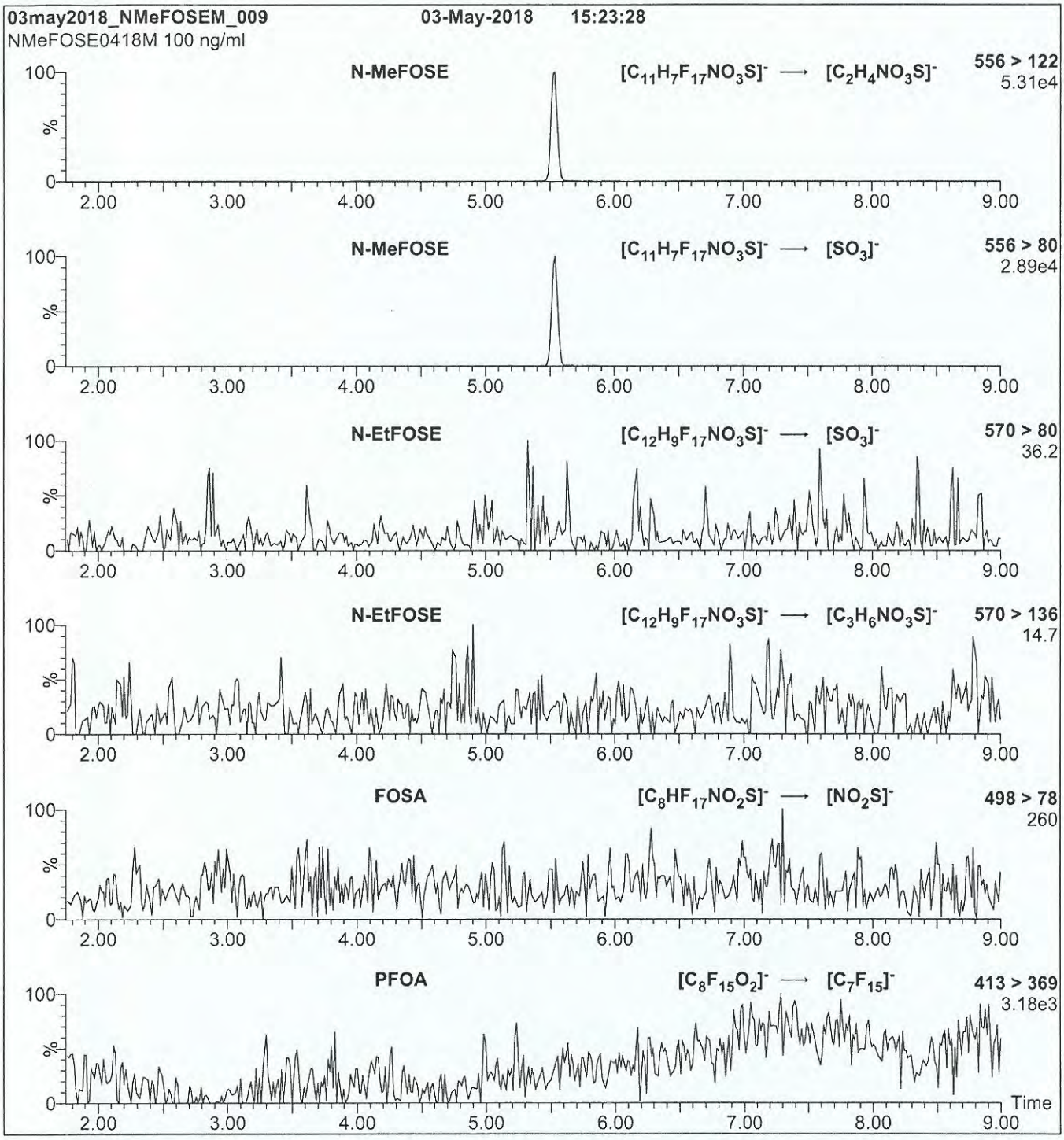
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 65.00
Desolvation Temperature (°C) = 450
Desolvation Gas Flow (l/hr) = 750

1802062

Figure 3: **N-MeFOSE-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: On-column (N-MeFOSE-M)

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.47e-3
Collision Energy (eV) = 36

1812063

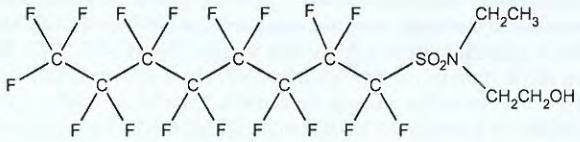
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSE-M **LOT NUMBER:** NEtFOSE0518M

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)	06/04/2018 (HRGC/LRMS) 05/30/2018 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	06/04/2023		
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:** 06/04/2018 (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

1812063

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where x is expressed as a relative standard uncertainty of the individual parameter.

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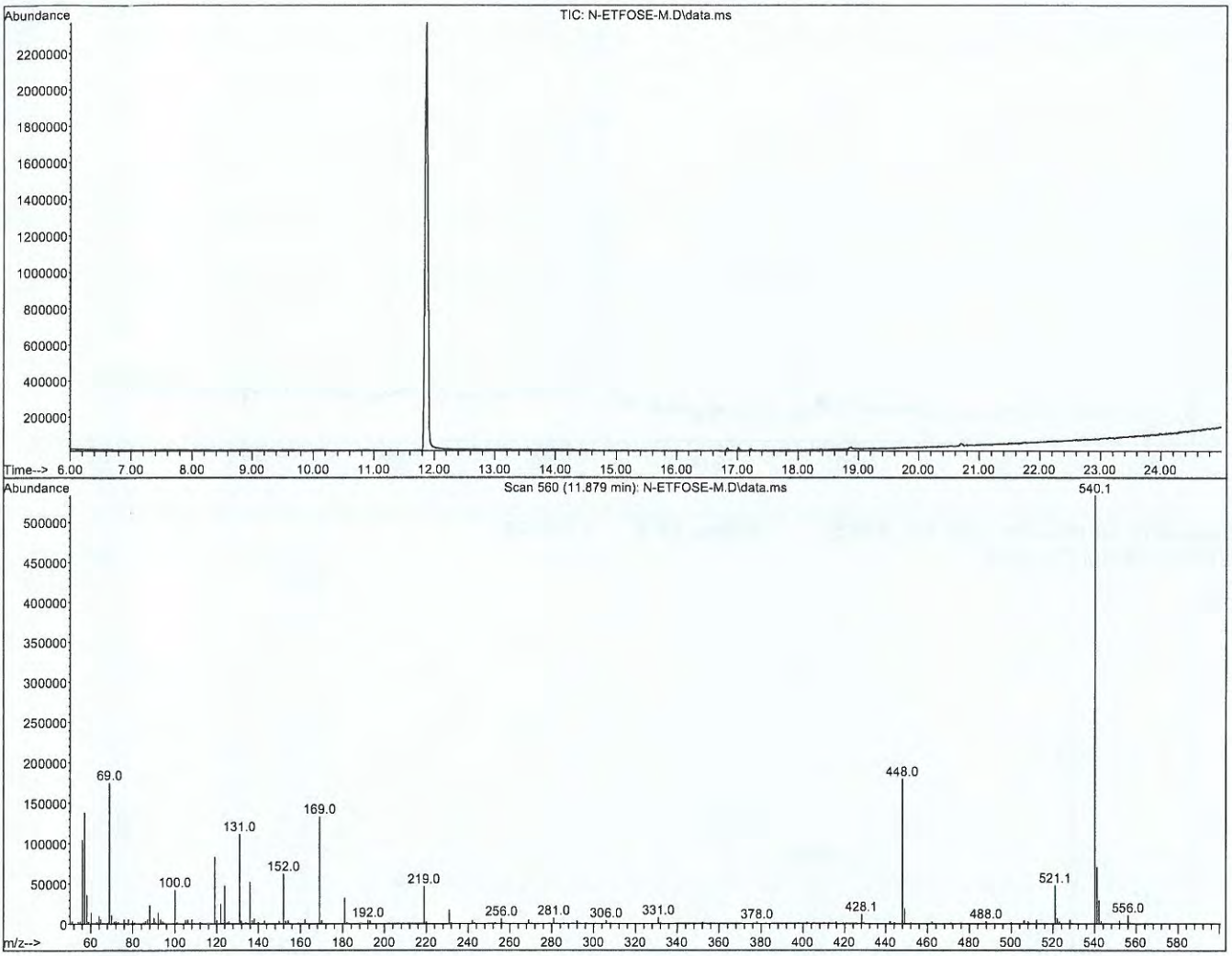
CALA Testing Accreditation No. A 1226

ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

1902063

Figure 1: **N-EtFOSE-M; HRGC/LRMS Data (TIC and Mass Spectrum)**



HRGC/LRMS:

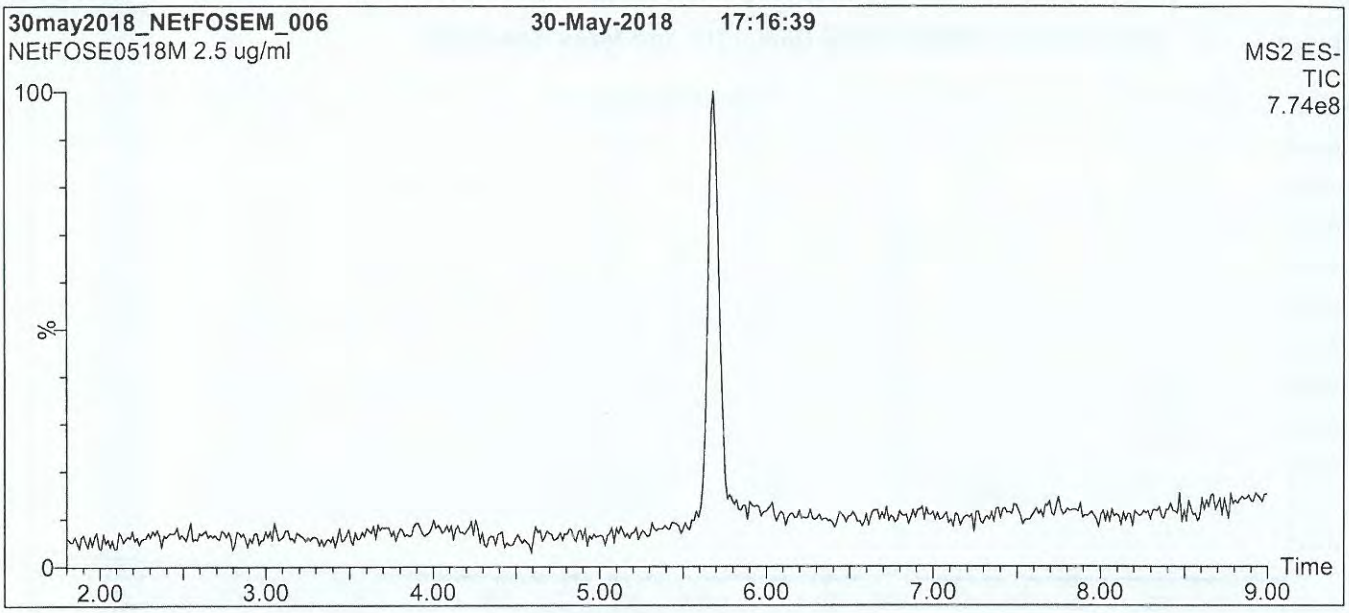
Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

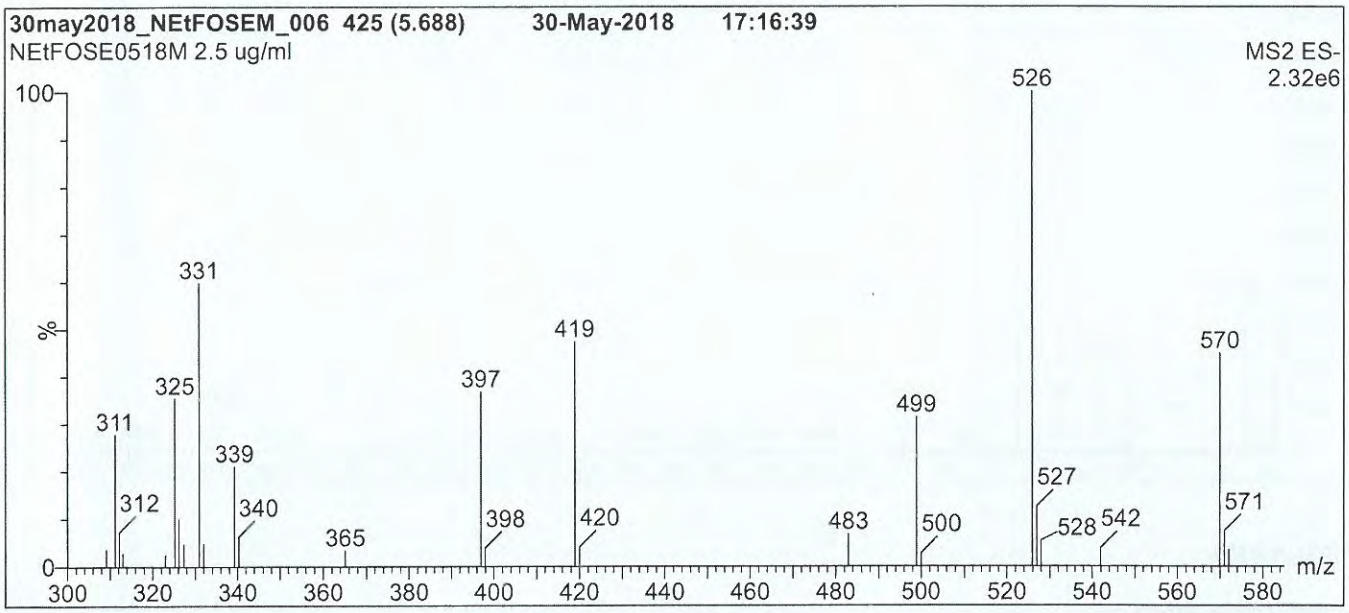
Chromatographic Conditions:

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)

1812063

Figure 2: **N-EtFOSE-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro MS**

Chromatographic Conditions

Column: Acquity UPLC BEH C_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 70% MeOH / 30% H_2O
Ramp to 85% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

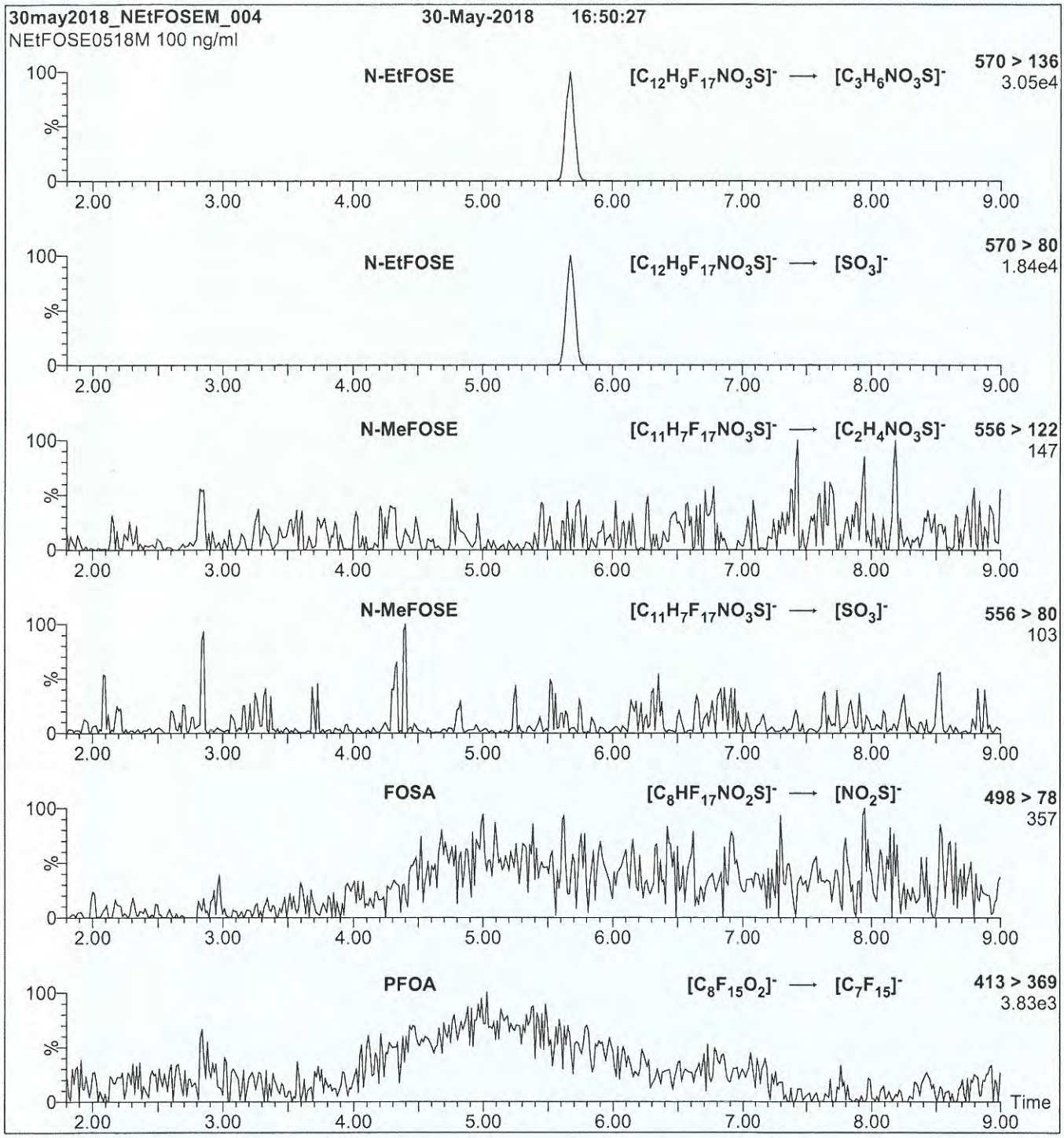
MS Parameters

Experiment: Full Scan (300 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 65.00
Desolvation Temperature (°C) = 450
Desolvation Gas Flow (l/hr) = 750

18L2063

Figure 3: **N-EtFOSE-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: On-column (N-EtFOSE-M)

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.45e-3
Collision Energy (eV) = 32

18L2071

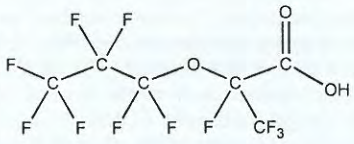
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: HFPO-DA **LOT NUMBER:** HFPODA1018

COMPOUND: 2,3,3,3-Tetrafluoro-2-(1,1,2,2,3,3,3-heptafluoropropoxy)-propanoic acid

STRUCTURE: **CAS #:** 13252-13-6



MOLECULAR FORMULA:	$C_6HF_{11}O_3$	**MOLECULAR WEIGHT:**	330.05
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	10/24/2018		
EXPIRY DATE: (mm/dd/yyyy)	10/24/2021		
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.
- Product is commercially known as GenX.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/29/2018 (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

1812071

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

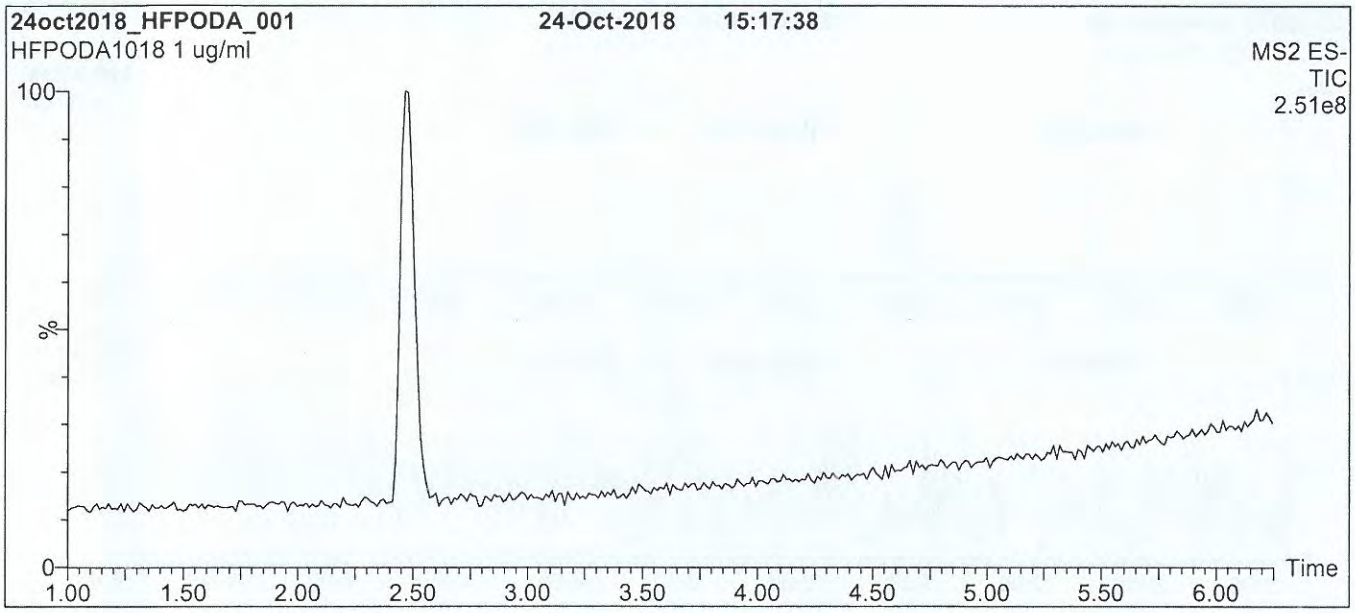
CALA Testing Accreditation No. A 1226

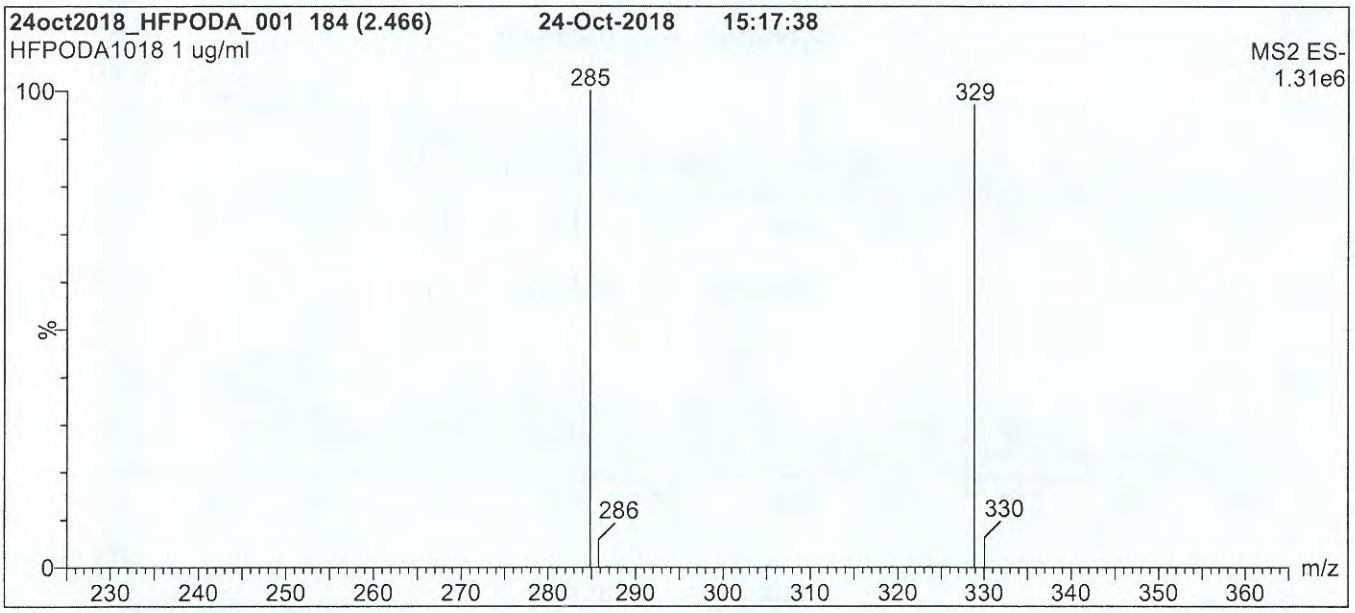
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

18L2071

Figure 1: **HFPO-DA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

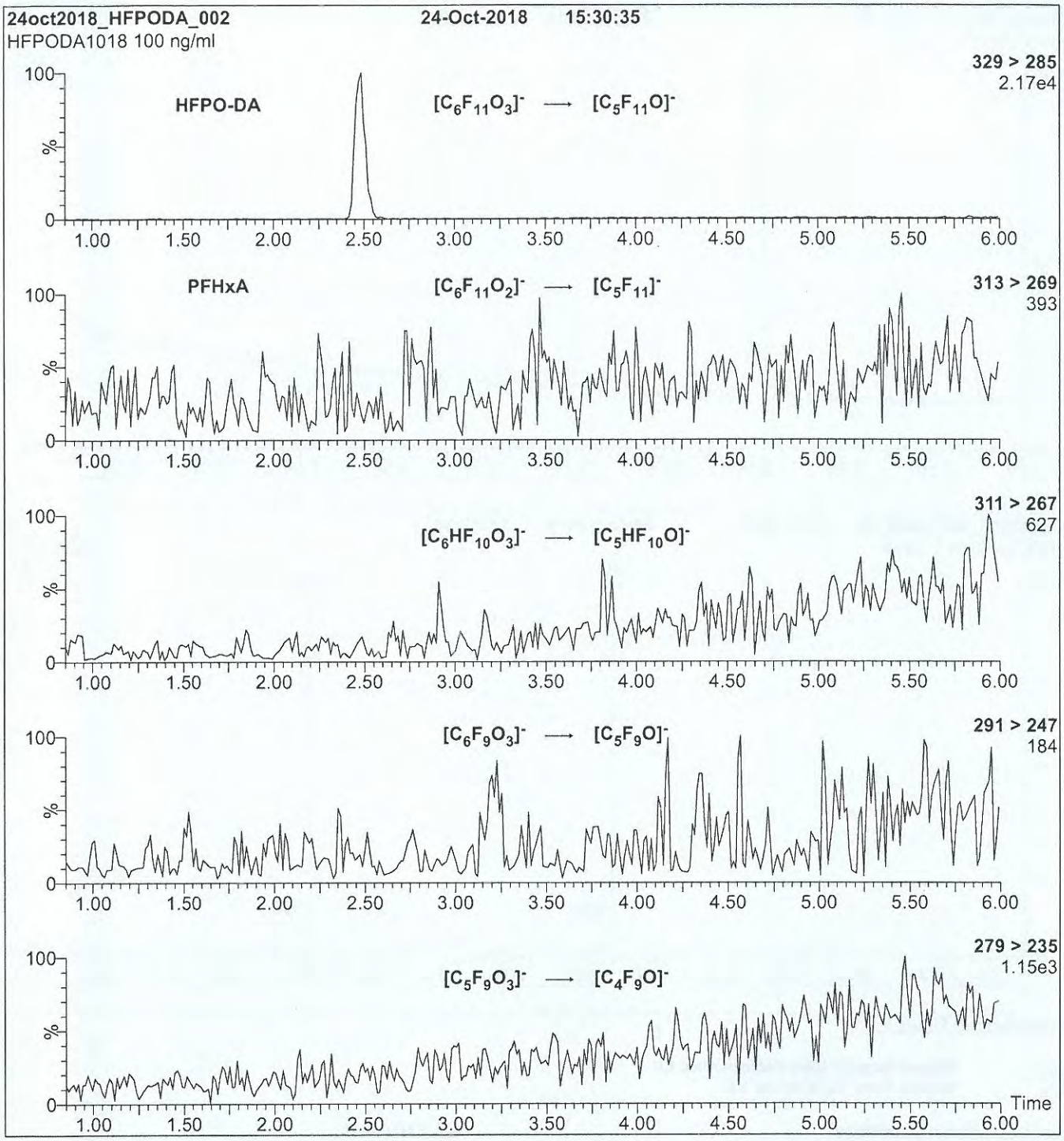
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Desolvation Temperature (°C) = 325
Desolvation Gas Flow (l/hr) = 1000

1812071

Figure 2: **HFPO-DA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (HFPO-DA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.02e-3
Collision Energy (eV) = 6

1812072

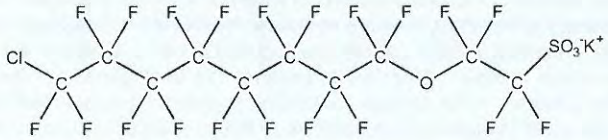
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 11Cl-PF3OUdS **LOT NUMBER:** 11ClPF3OUdS1118

COMPOUND: Potassium 11-chloroeicosafluoro-3-oxaundecane-1-sulfonate

STRUCTURE: **CAS #:** 83329-89-9



MOLECULAR FORMULA:	$C_{10}F_{20}ClSO_4K$	**MOLECULAR WEIGHT:**	670.69
CONCENTRATION:	50.0 ± 2.5 µg/ml (K Salt)	**SOLVENT(S):**	Methanol
	47.1 ± 2.4 µg/ml (11Cl-PF3OUdS anion)		
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	11/23/2018		
EXPIRY DATE: (mm/dd/yyyy)	11/23/2023		
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.
- This compound is a minor component of the commercial formulation known as F-53B.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/28/2018 (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

1812072

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

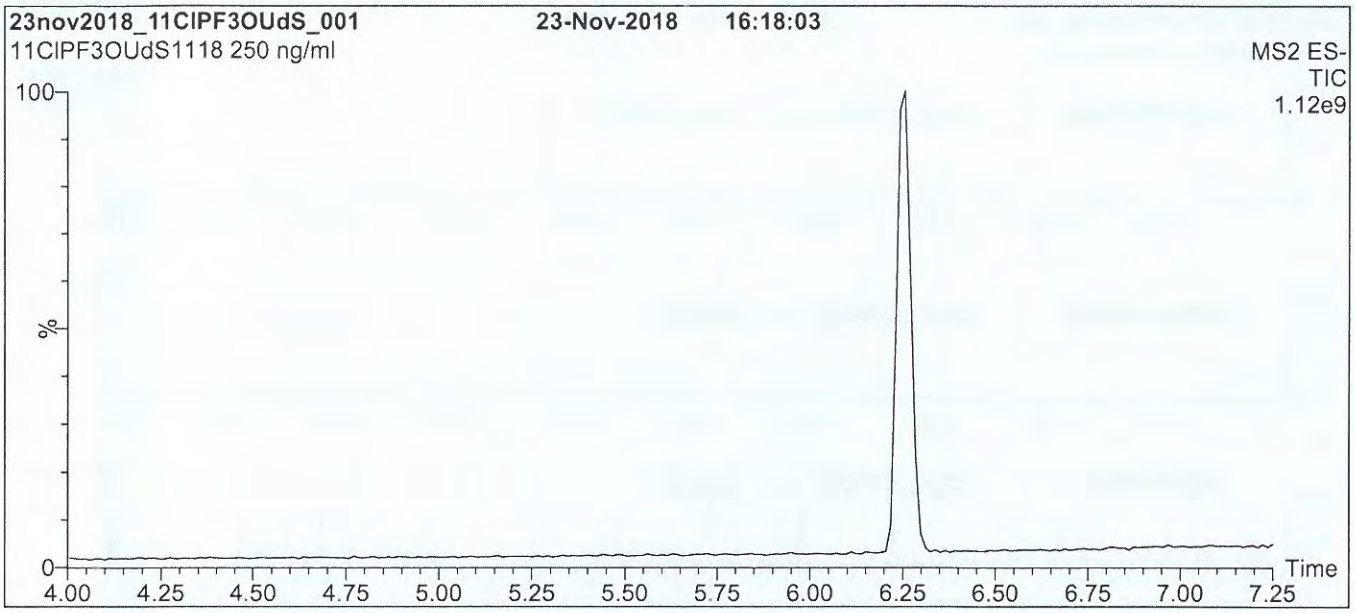
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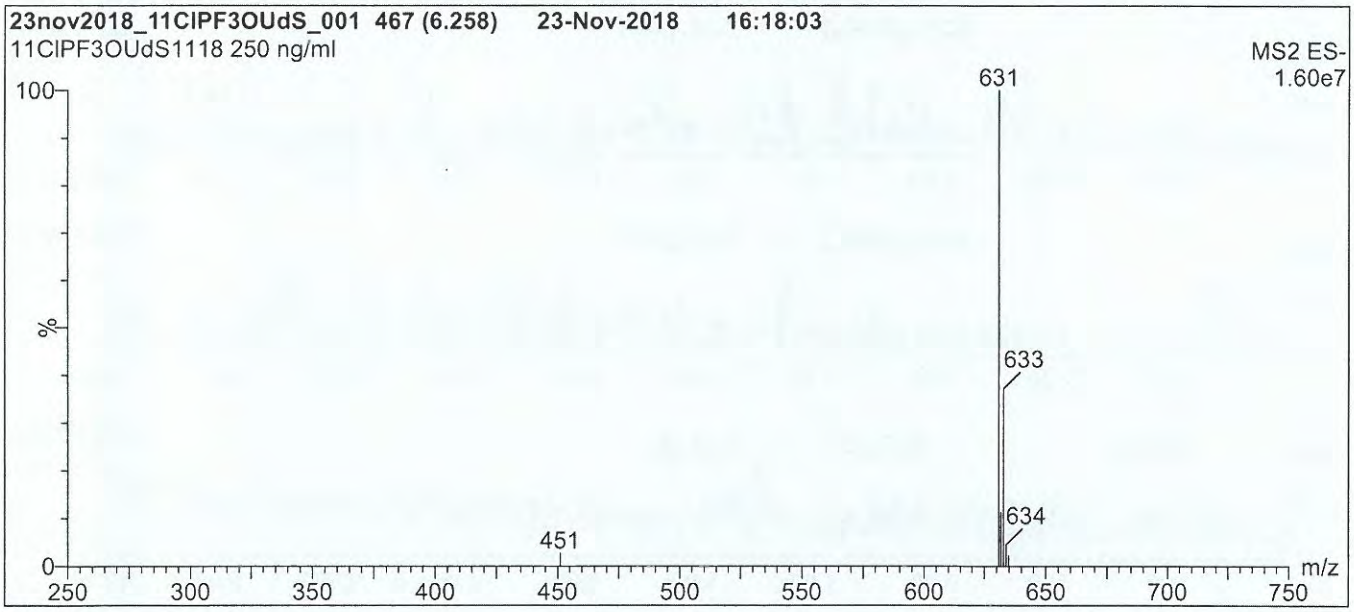
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1812072

Figure 1: **11Cl-PF3OUdS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

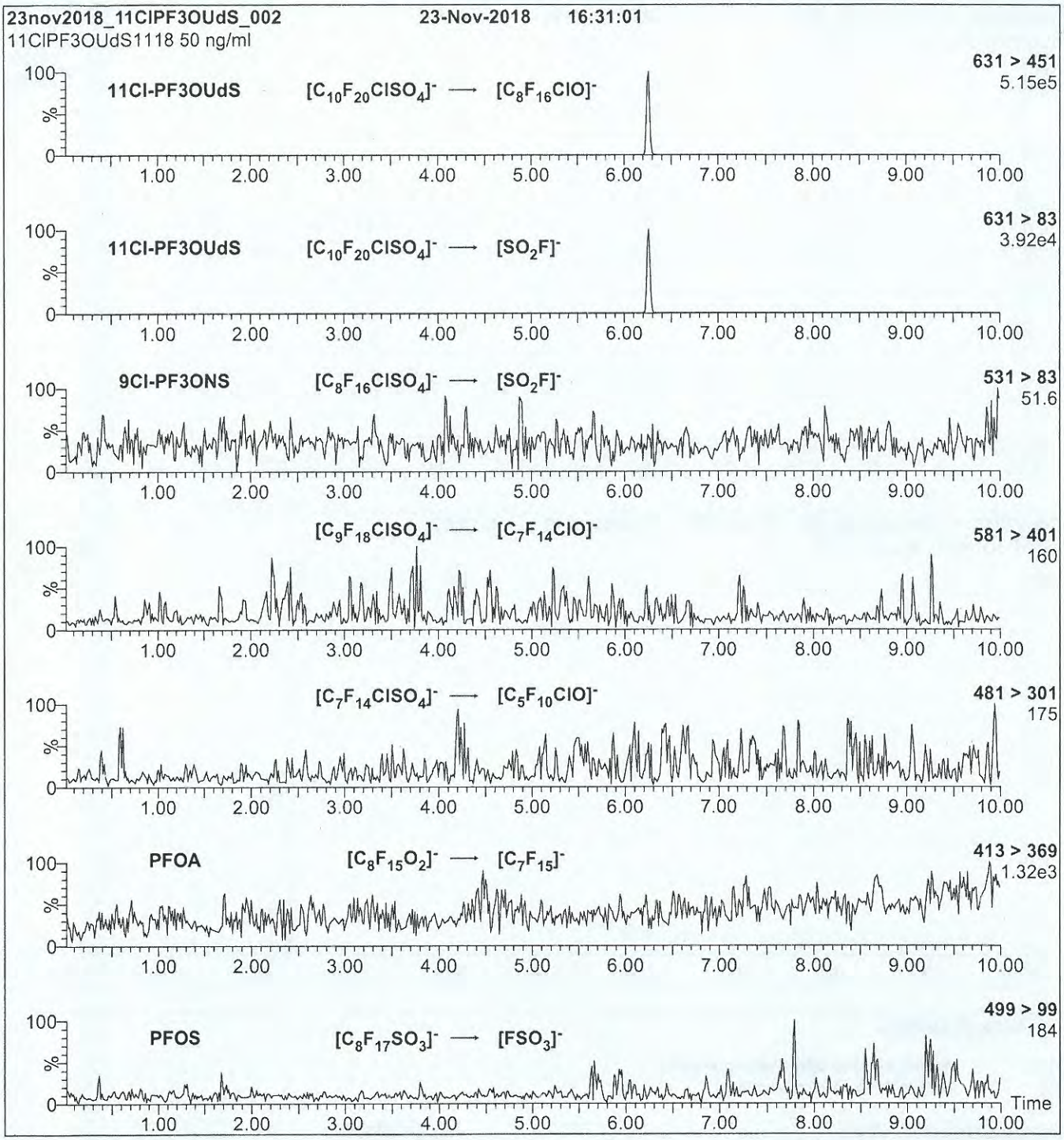
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 70.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1812072

Figure 2: **11Cl-PF3OUdS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (11Cl-PF3OUdS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

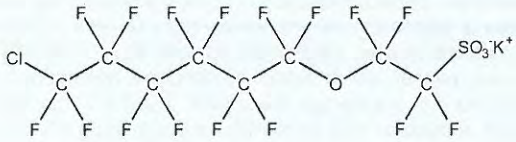
Collision Gas (mbar) = 2.84e-3
Collision Energy (eV) = 24

18L2073

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	9Cl-PF3ONS	**LOT NUMBER:**	9ClPF3ONS1118
COMPOUND:	Potassium 9-chlorohexadecafluoro-3-oxanonane-1-sulfonate		
STRUCTURE:		**CAS #:**	73606-19-6



MOLECULAR FORMULA:	$C_8F_{16}ClSO_4K$	**MOLECULAR WEIGHT:**	570.67
CONCENTRATION:	50.0 ± 2.5 µg/ml (K Salt) 46.6 ± 2.3 µg/ml (9Cl-PF3ONS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	11/22/2018		
EXPIRY DATE: (mm/dd/yyyy)	11/22/2023		
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.
- This compound is the major component of the commercial formulation known as F-53B.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 11/23/2018 (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

1812073

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.

HANDLING:

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SYNTHESIS / CHARACTERIZATION:

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Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. 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.

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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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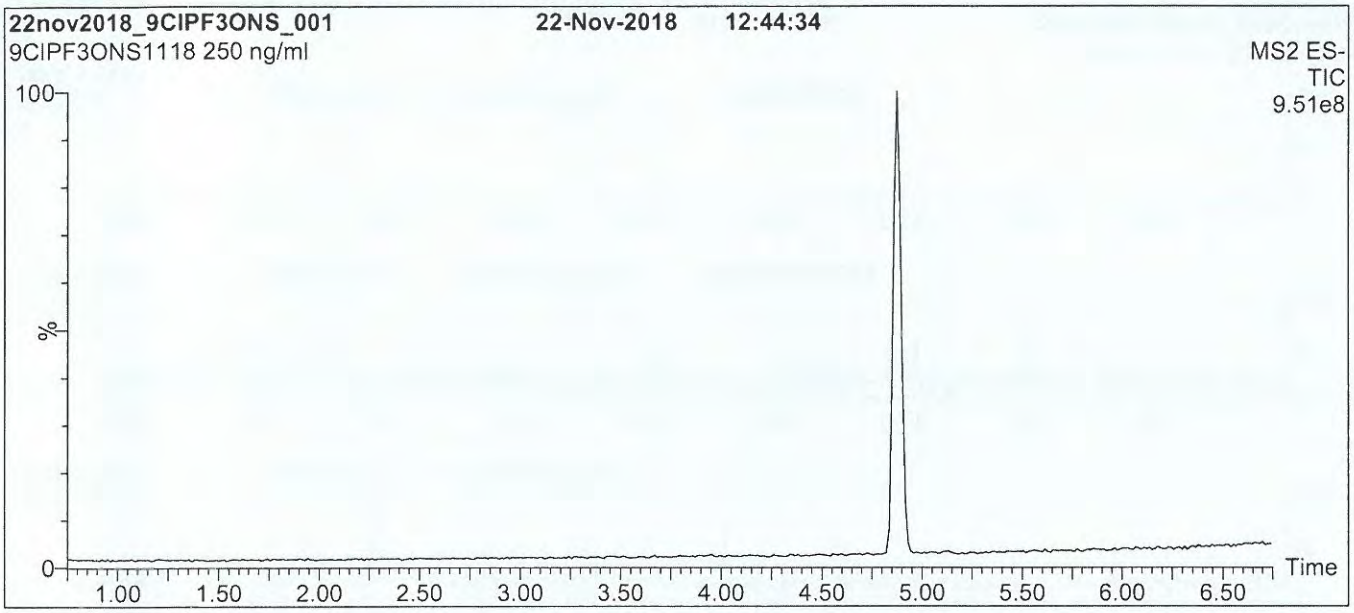
CALA Testing Accreditation No. A 1226

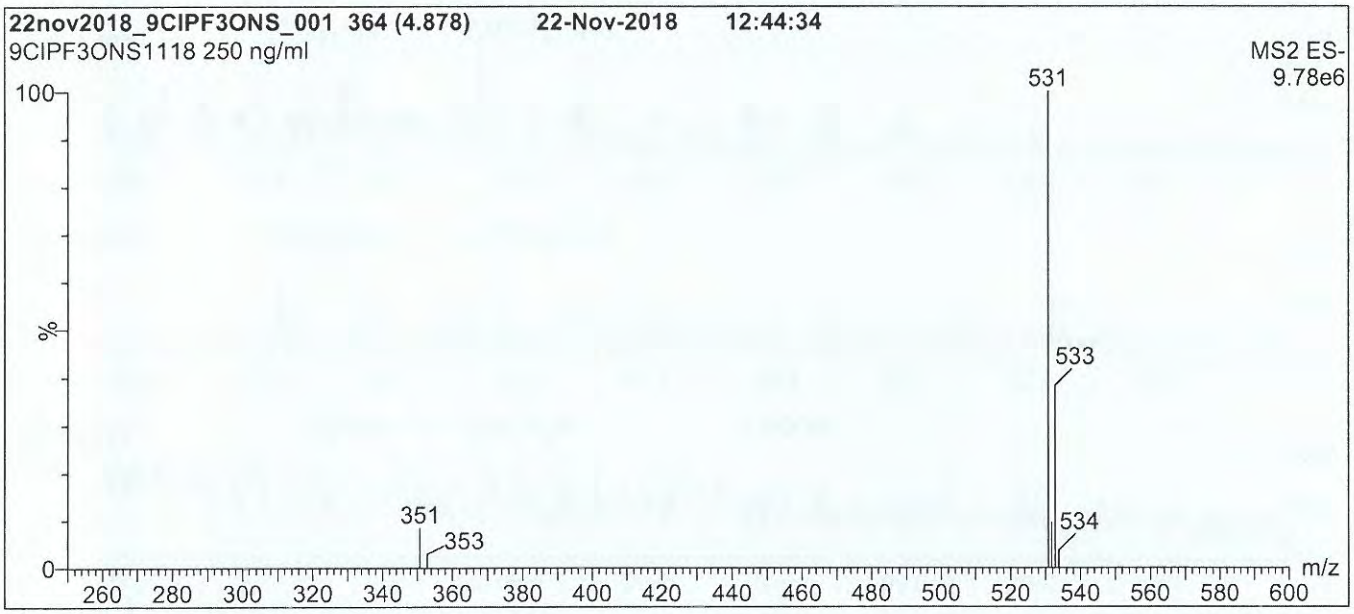
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1812073

Figure 1: **9Cl-PF3ONS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

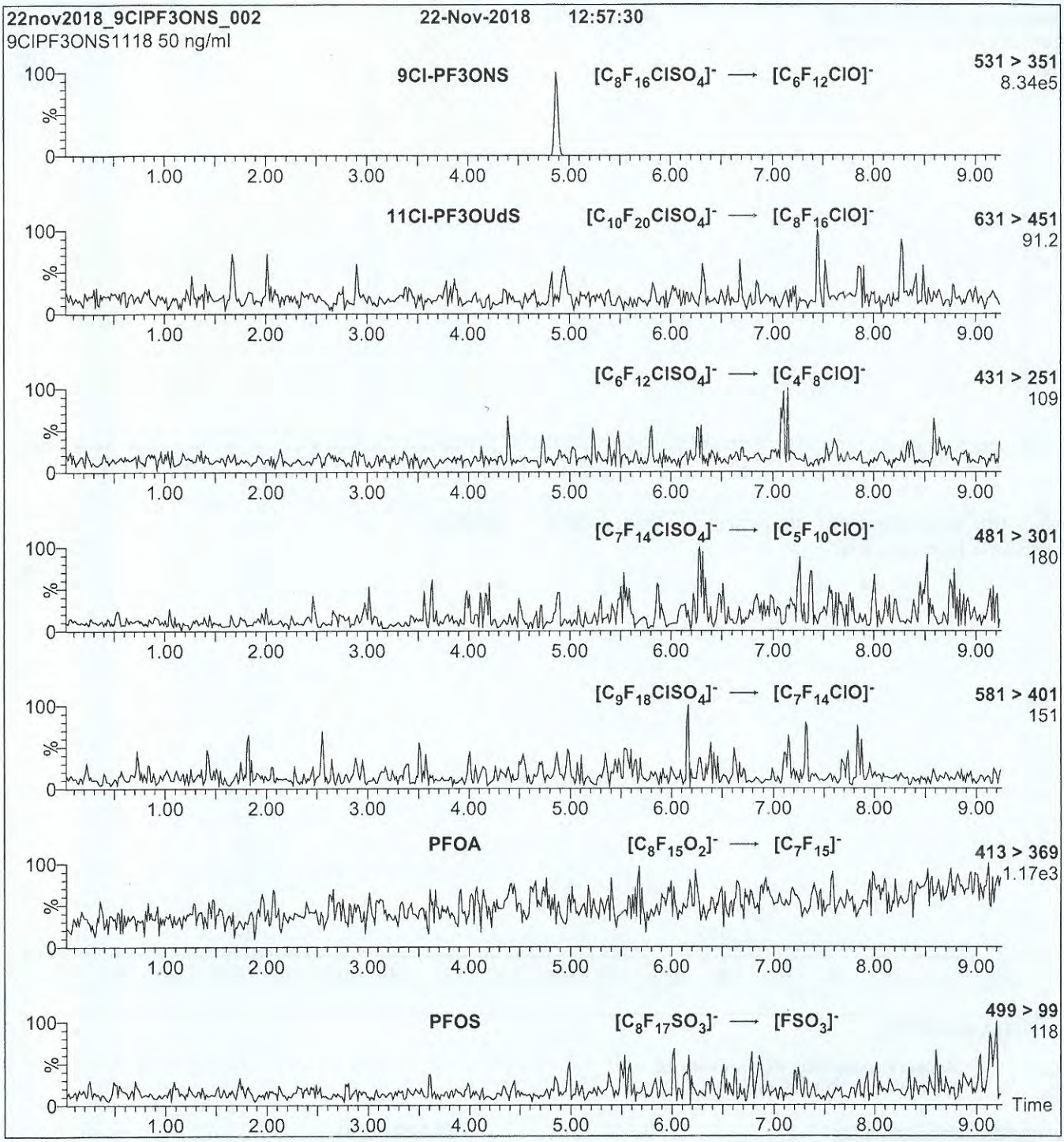
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 70.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1812073

Figure 2: **9Cl-PF3ONS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (9Cl-PF3ONS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.16e-3
Collision Energy (eV) = 20

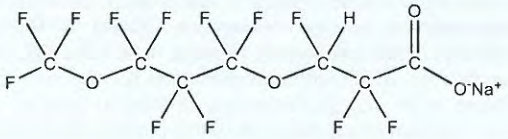
18L2074

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: NaDONA
LOT NUMBER: NaDONA0318
COMPOUND: Sodium dodecafluoro-3H-4,8-dioxanonanoate

STRUCTURE:



CAS #: 958445-44-8 (ammonium salt)

MOLECULAR FORMULA:	$C_7HF_{12}O_4Na$	**MOLECULAR WEIGHT:**	400.05
CONCENTRATION:	50 ± 2.5 µg/ml (Na Salt)	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	03/26/2018		
EXPIRY DATE: (mm/dd/yyyy)	03/26/2023		
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.
- Product is commercially known as ADONA.
- 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:** 03/27/2018 (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

1812074

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

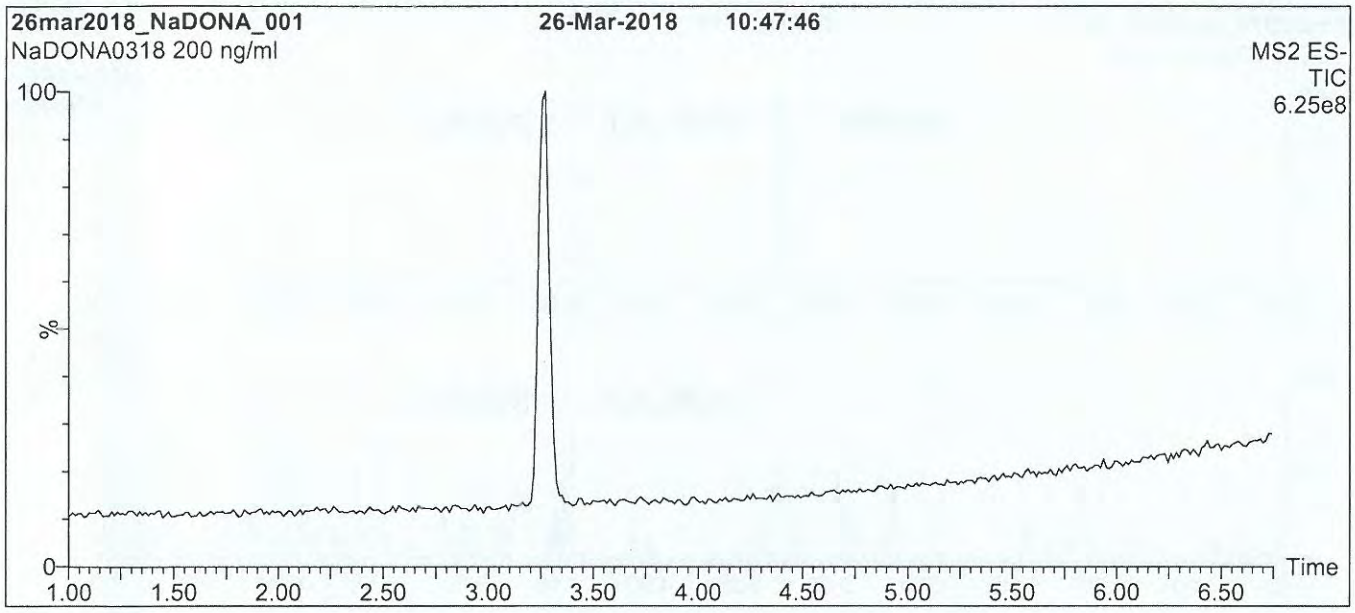
CALA Testing Accreditation No. A 1226

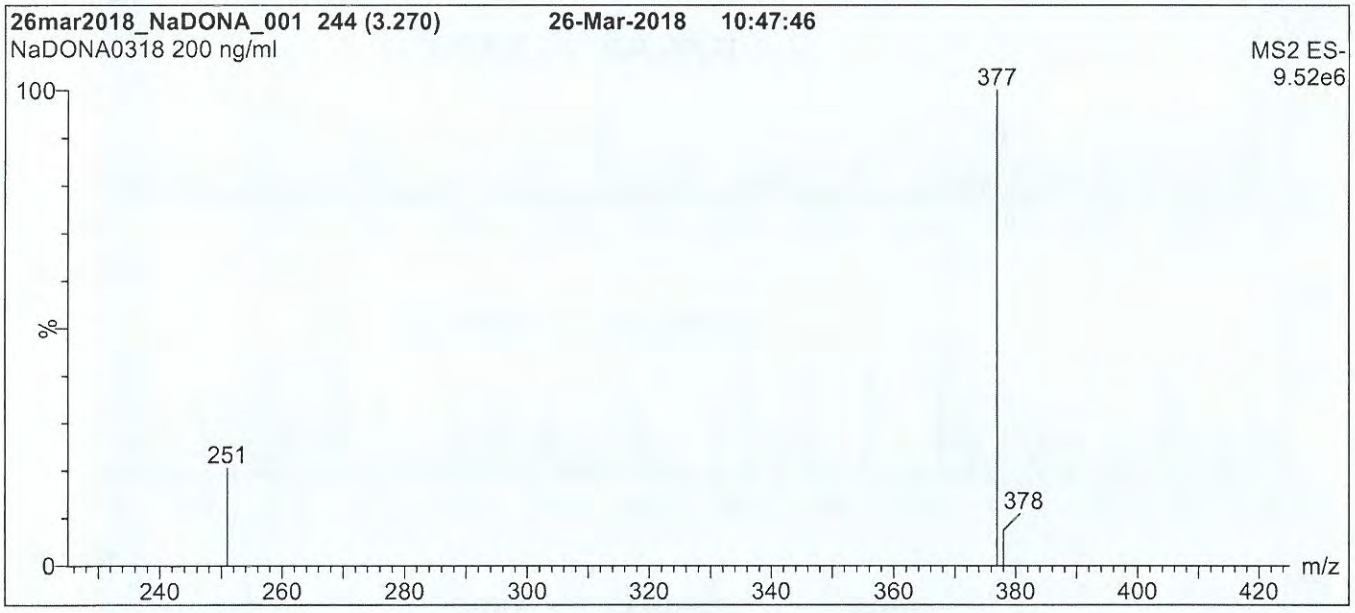
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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1902074

Figure 1: **NaDONA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 7 min and hold for
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

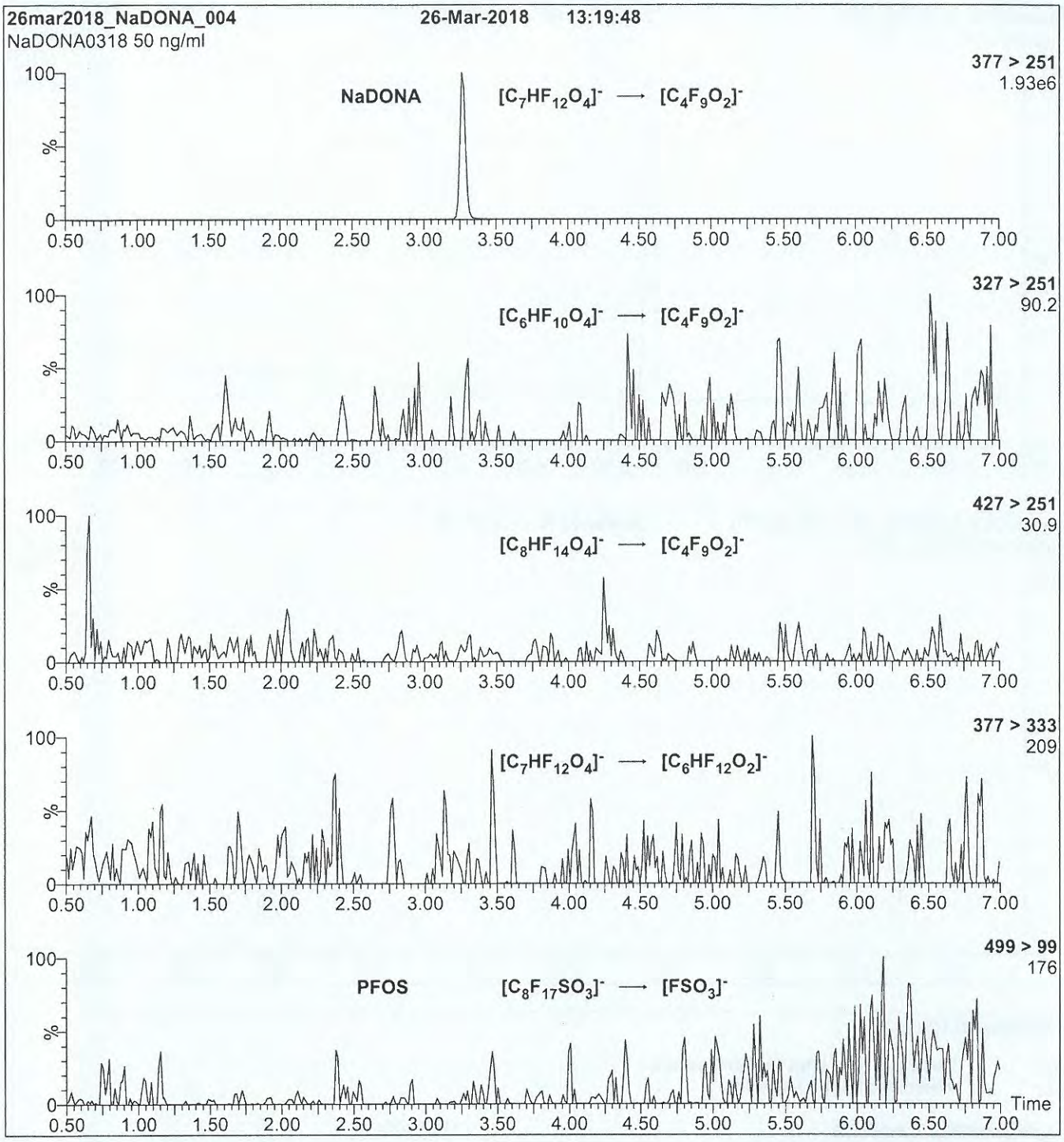
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.70
Cone Voltage (V) = 20.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1812074

Figure 2: **NaDONA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (NaDONA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

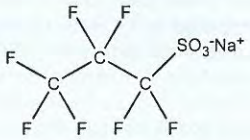
Collision Gas (mbar) = 3.65e-3
Collision Energy (eV) = 10

18L2076

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	L-PFPrS	**LOT NUMBER:**	LPFPrS1217
COMPOUND:	Sodium perfluoro-1-propanesulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$C_3F_7SO_3Na$	**MOLECULAR WEIGHT:**	272.07
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 45.8 ± 2.3 µg/ml (PFPrS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	12/14/2017		
EXPIRY DATE: (mm/dd/yyyy)	12/14/2022		
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.

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Certified By: _____ **Date:** 12/18/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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1812076

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TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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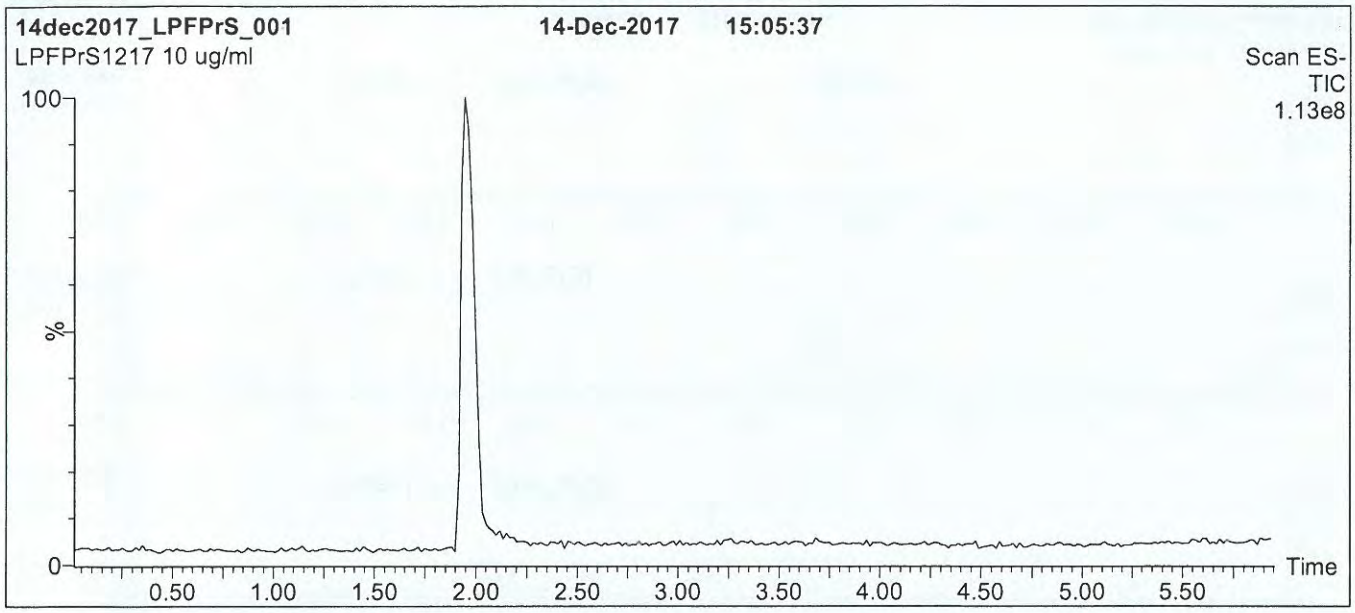
CALA Testing Accreditation No. A 1226

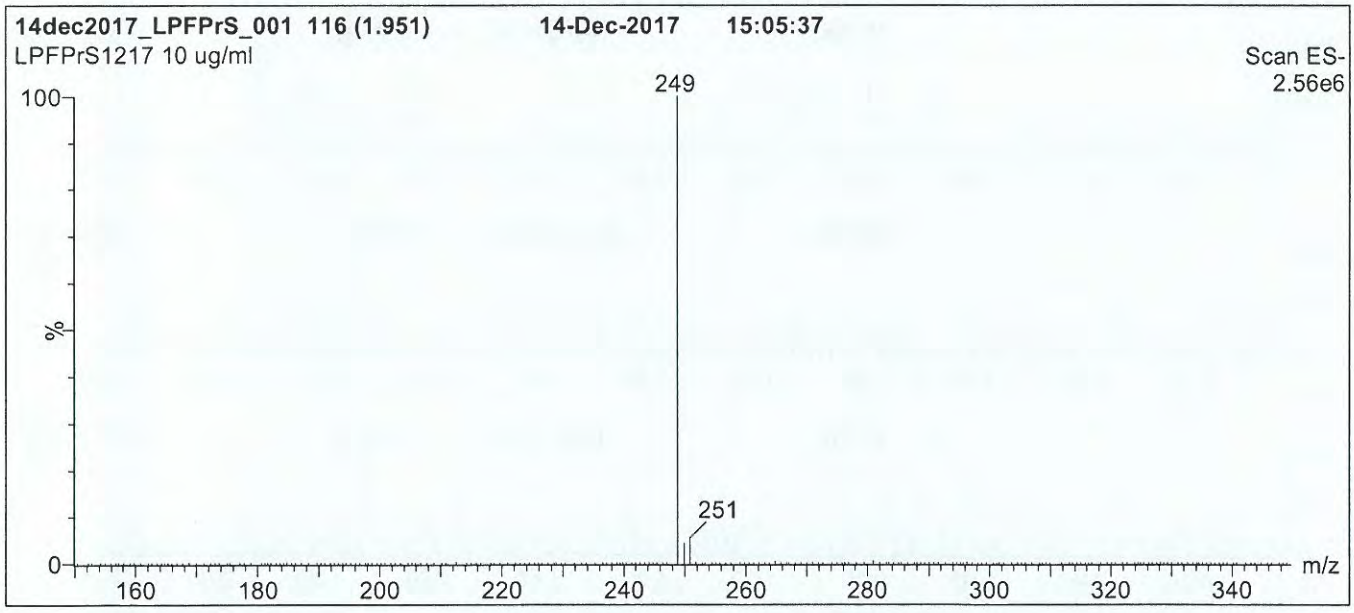
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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1812076

Figure 1: **L-PFPrS; 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 over 0.5 min.
Time: 10 min

Flow: 300 µl/min

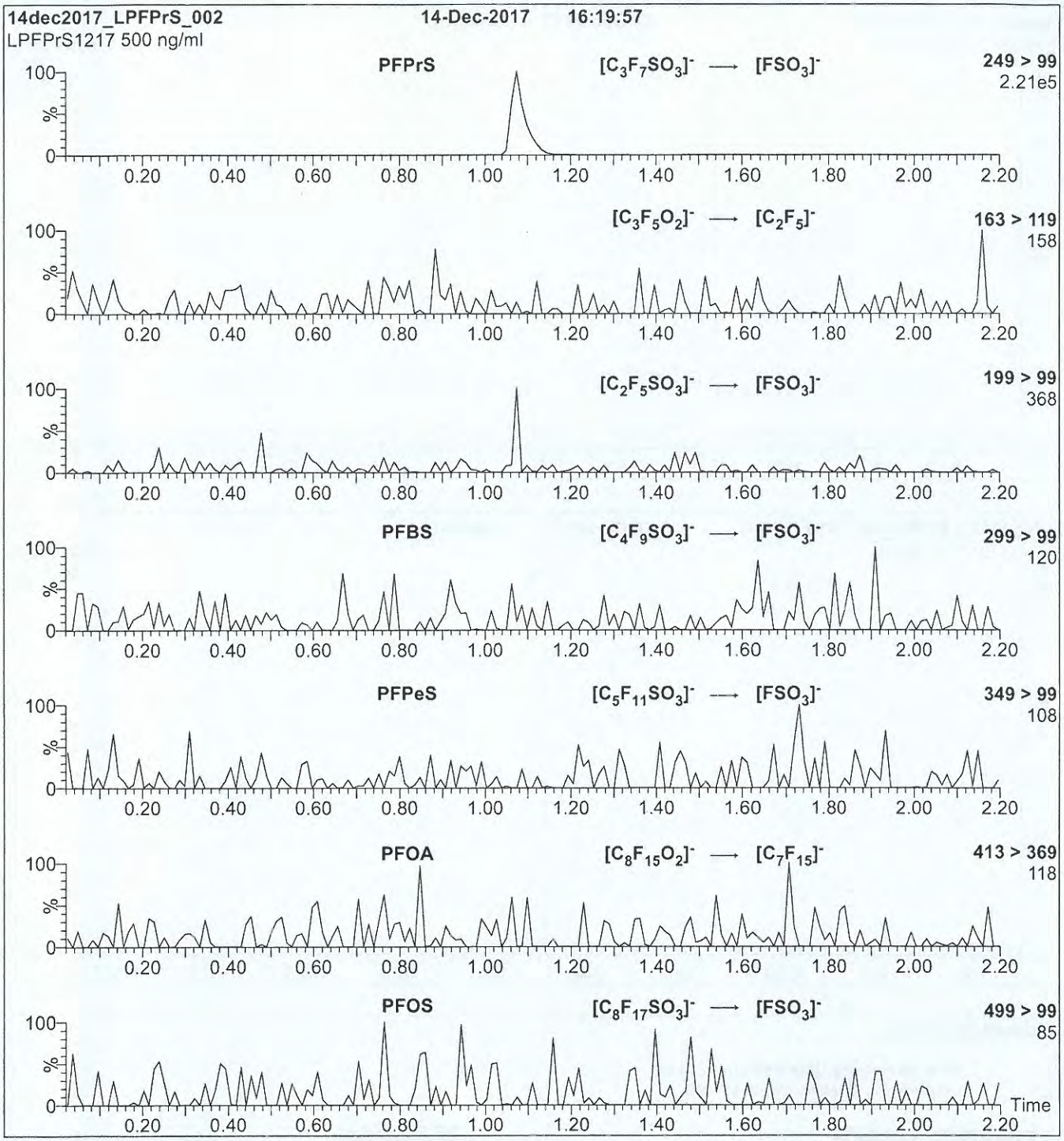
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

1812076

Figure 2: **L-PFPrS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFPrS)

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) = 25

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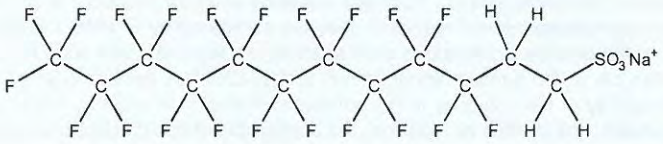
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 10:2FTS **LOT NUMBER:** 102FTS0718

COMPOUND: Sodium 1H,1H,2H,2H-perfluorododecane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{12}H_4F_{21}SO_3Na$		**MOLECULAR WEIGHT:**	650.18
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	48.2 ± 2.4 µg/ml	(10:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	07/13/2018			
EXPIRY DATE: (mm/dd/yyyy)	07/13/2021			
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: _____ **Date:** 07/16/2018 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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18L2078

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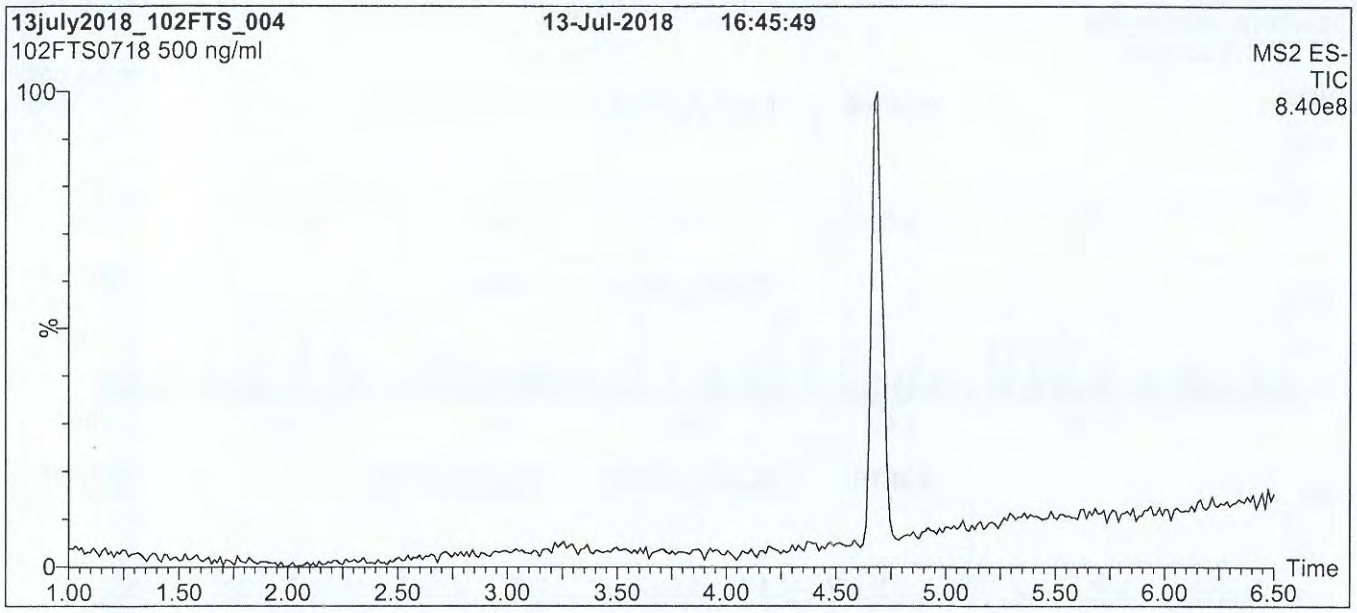
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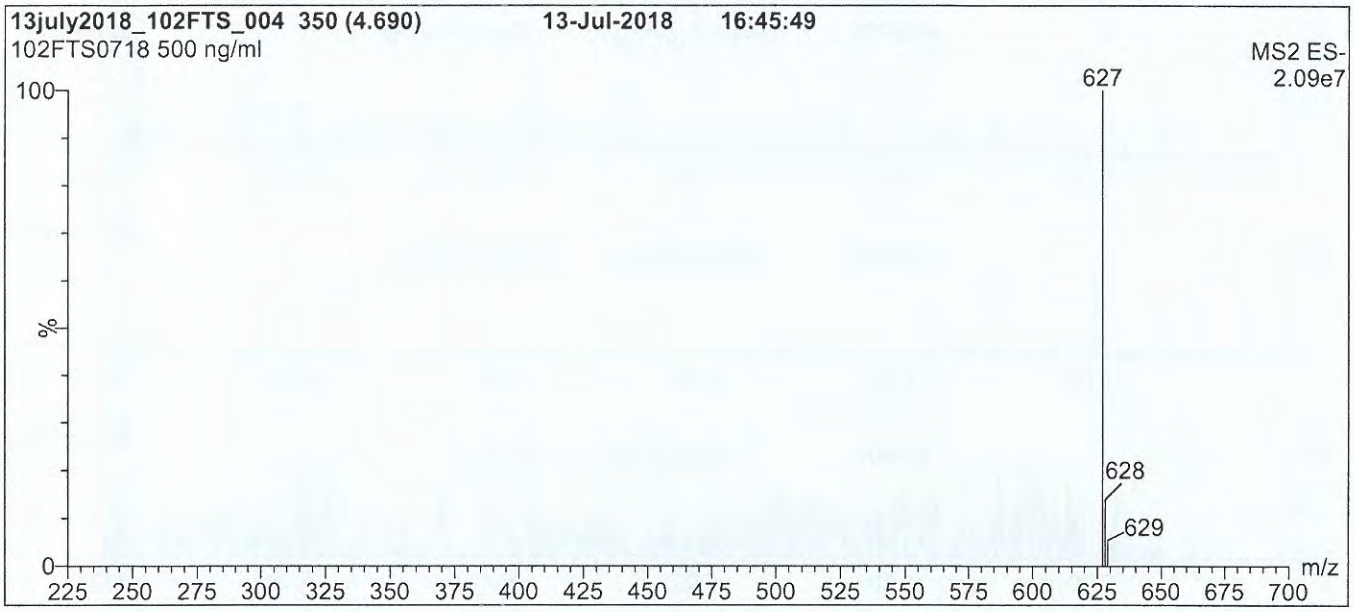
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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18L2078

Figure 1: **10:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

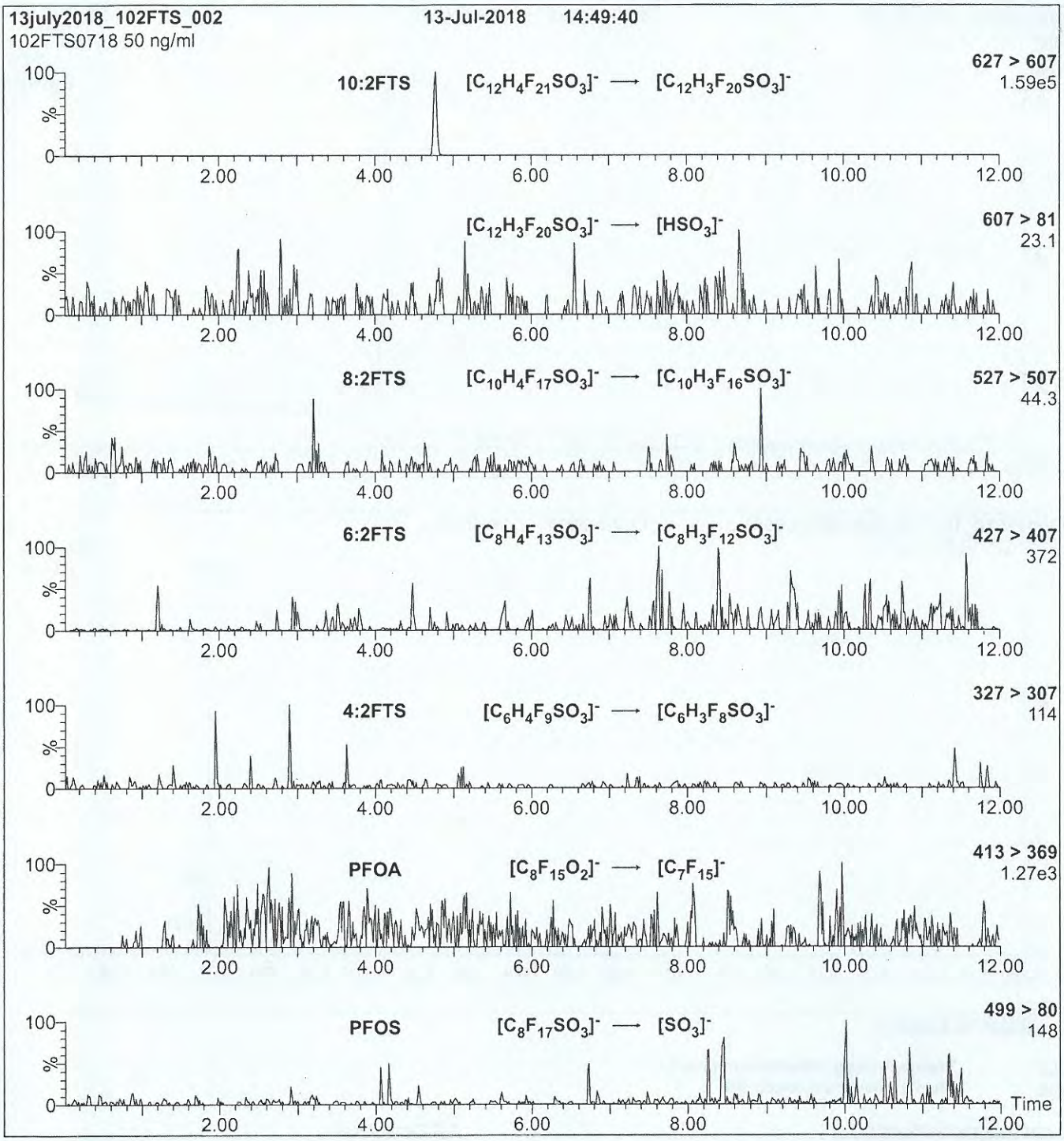
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 25.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1812078

Figure 2: **10:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (10:2FTS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.47e-3
Collision Energy (eV) = 25

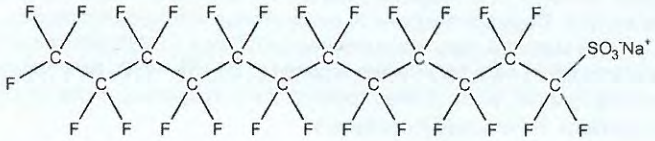
19B0712

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFDoS
LOT NUMBER: LPFDoS0916
COMPOUND: Sodium perfluoro-1-dodecanesulfonate

STRUCTURE:
CAS #: Not available



MOLECULAR FORMULA:	$C_{12}F_{25}SO_3Na$	**MOLECULAR WEIGHT:**	722.14
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 48.4 ± 2.4 µg/ml (PFDoS anion)	**SOLVENT(S):**	Methanol
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 ~ 0.7% of sodium perfluoro-1-tetradecanesulfonate and ~ 0.7% of perfluoro-n-dodecanoic acid (PFDoA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/17/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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19B0712

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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).

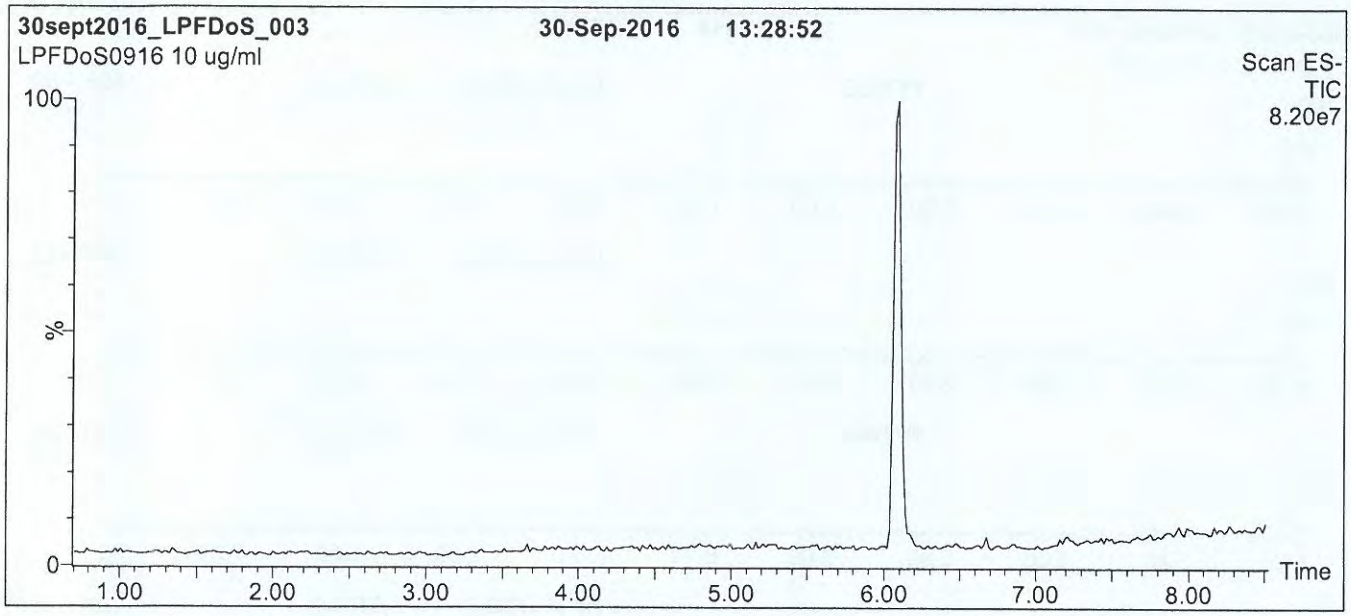
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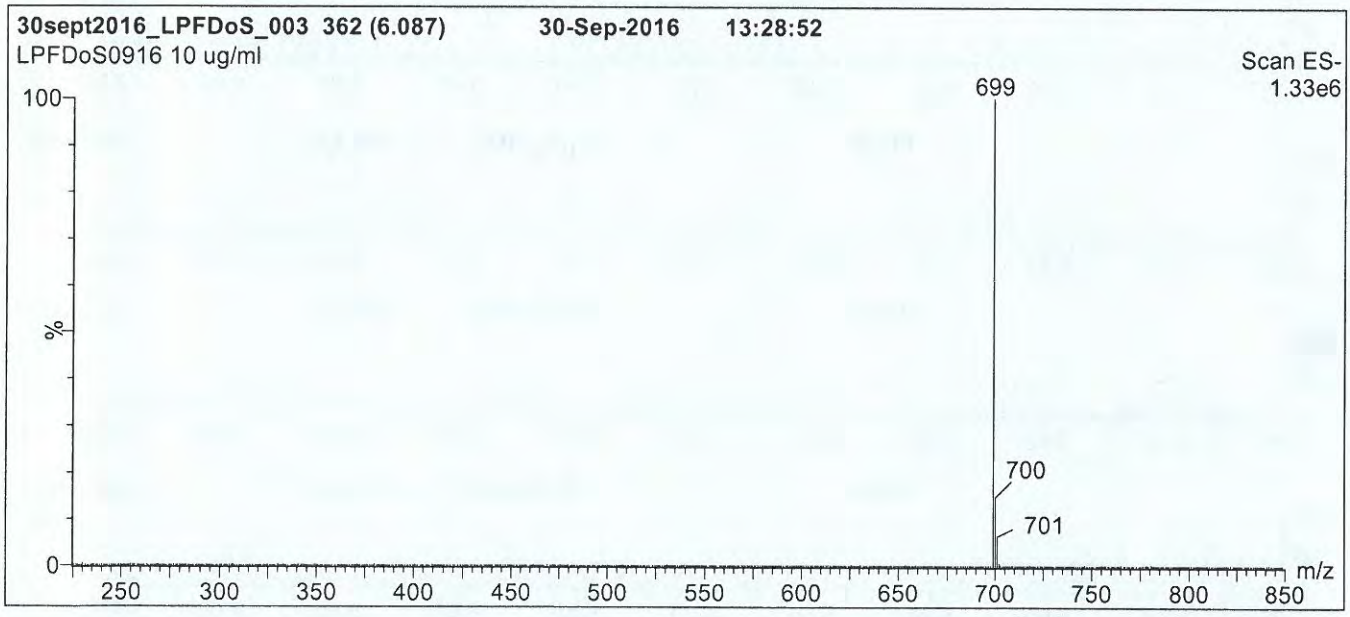
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

19B0712

Figure 1: **L-PFDoS; 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

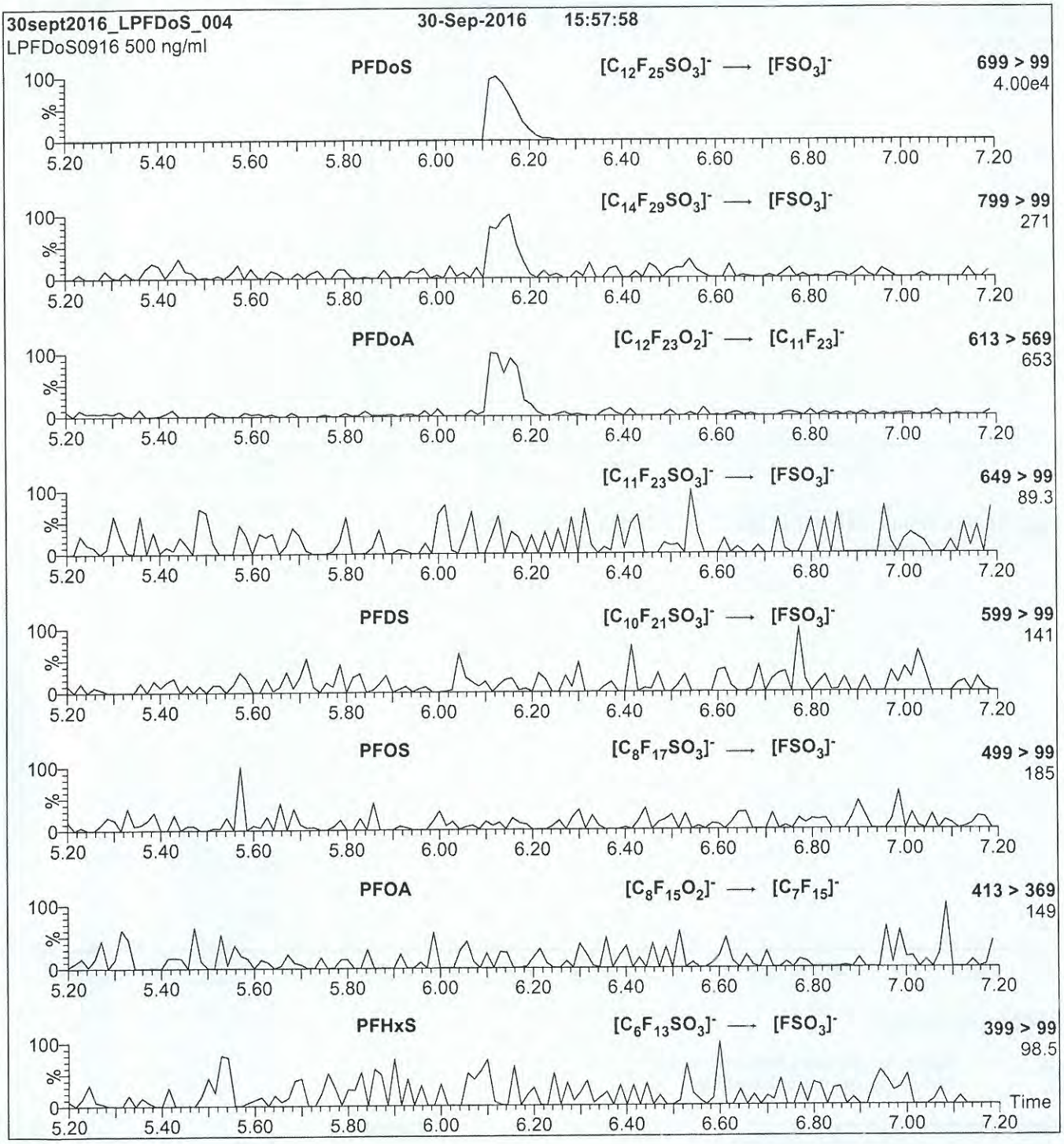
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 80.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

19B0712

Figure 2: **L-PFDoS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFDoS)

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) = 50

Analytical Standard Record

Vista Analytical Laboratory

19E2202

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	(mls)
18L2018	18O2-PFHxS	20-Dec-18	** Vendor **	22-Mar-23	1.06
18L2021	13C2-FOUEA	20-Dec-18	** Vendor **	14-Nov-19	1
18L2022	13C4-PFBA	20-Dec-18	** Vendor **	16-Feb-23	1
18L2023	13C6-PFDA	20-Dec-18	** Vendor **	20-Sep-23	1
18L2024	13C9-PFNA	20-Dec-18	** Vendor **	23-May-22	1
18L2025	13C7-PFUdA	20-Dec-18	** Vendor **	20-Sep-23	1
18L2026	13C5-PFHxA	20-Dec-18	** Vendor **	27-Sep-23	1
18L2028	13C4-PFOS	20-Dec-18	** Vendor **	11-Sep-23	1.05
18L2029	13C8-PFOA	20-Dec-18	** Vendor **	29-Jun-23	1.02

Description:	PFC-RS	Expires:	14-Nov-19
Standard Type:	Reagent	Prepared:	23-May-19
Solvent:	MeOH	Prepared By:	Giana R. Bilotta
Final Volume (mls):	40	Department:	LCMS
Vials:	1	Last Edit:	28-May-19 09:02 by GRB

Expiration date set to expiration date of standard being used to create this one. GRB 05/22/19
18L2021 13C2-FOUEA EXP. 11/14/19

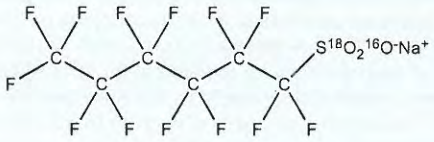
Analyte	CAS Number	Concentration	Units
18O2-PFHxS		1.25	ug/mL
13C9-PFNA		1.25	ug/mL
13C8-PFOA		1.25	ug/mL
13C7-PFUnA		1.25	ug/mL
13C6-PFDA		1.25	ug/mL
13C5-PFHxA		1.25	ug/mL
13C4-PFOS		1.25	ug/mL
13C4-PFBA		1.25	ug/mL
13C2-FOUEA		1.25	ug/mL

18L2018

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFHxS	**LOT NUMBER:**	MPFHxS0318
COMPOUND:	Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate		
STRUCTURE:		**CAS #:**	1585941-14-5



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)	03/22/2018		
EXPIRY DATE: (mm/dd/yyyy)	03/22/2023		
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) and ~ 0.3% of sodium perfluoro-1-heptane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFHpS).
- 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:** 06/07/2018 (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

18L2018

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

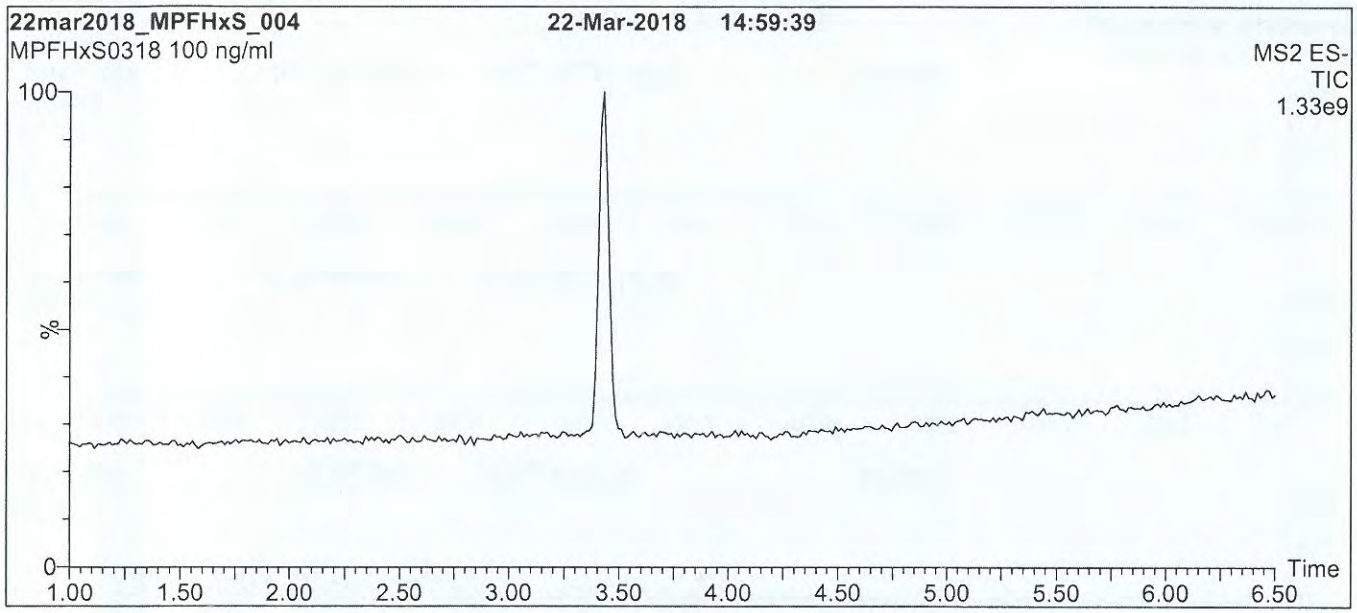
CALA Testing Accreditation No. A-1226

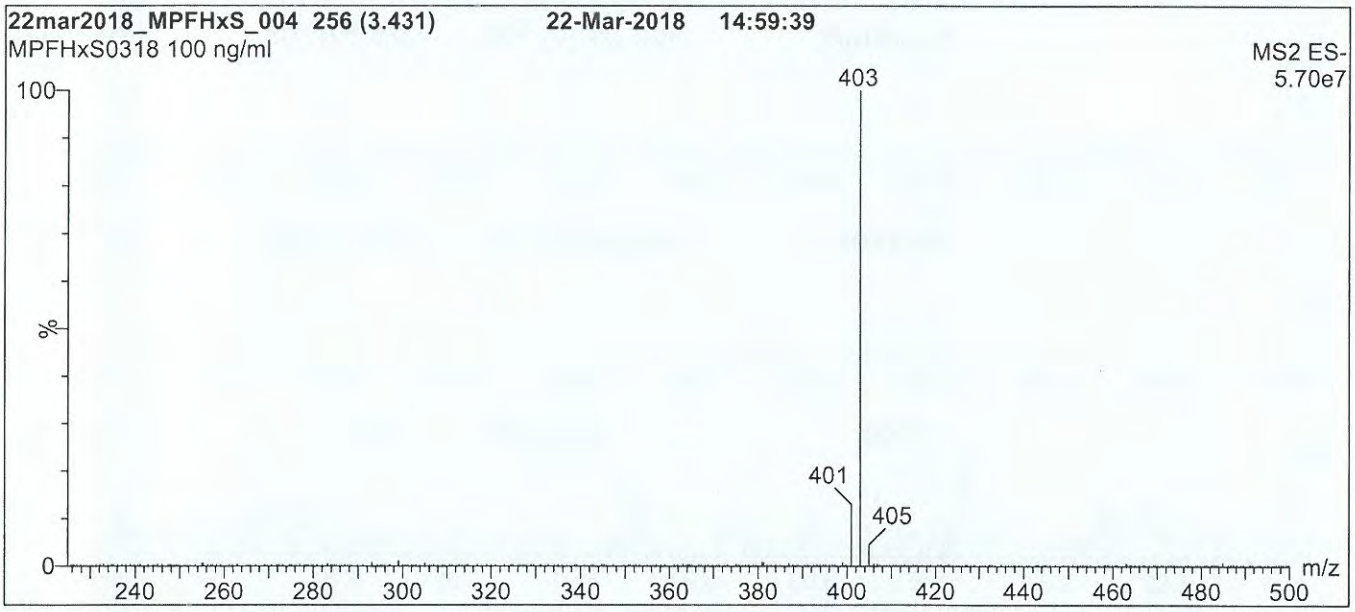
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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18L2018

Figure 1: **MPFHxS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 7 min and hold for 3 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

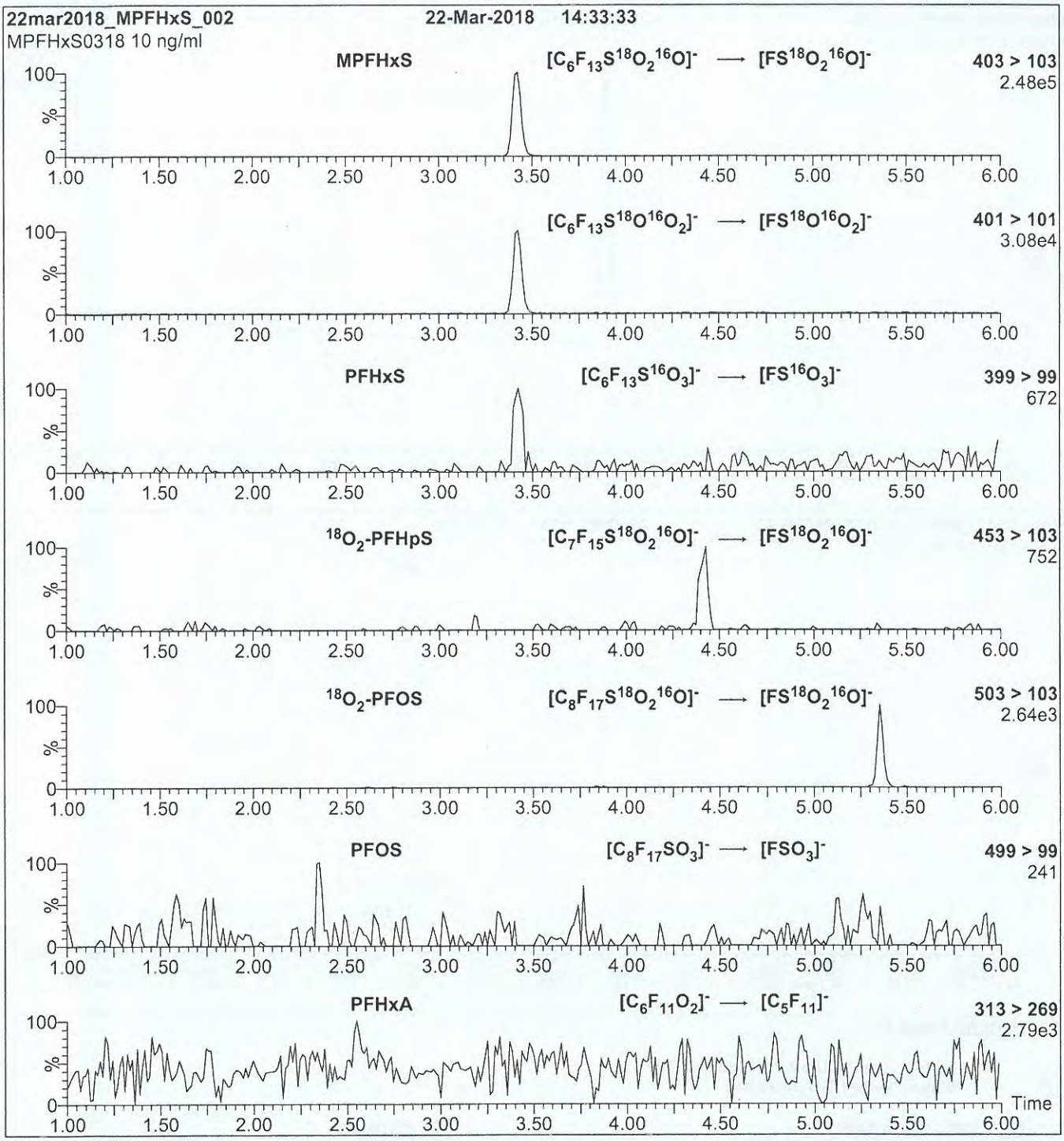
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 5.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

18L2018

Figure 2: **MPFHxS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFHxS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.64e-3

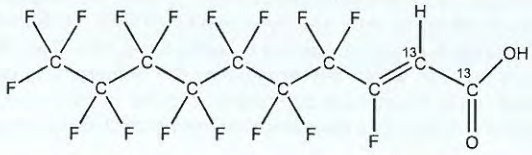
Collision Energy (eV) = 32

18L2021

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MFOUEA	**LOT NUMBER:**	MFOUEA1117
COMPOUND:	2H-Perfluoro-[1,2-$^{13}C_2$]-2-decenoic acid		
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)	11/14/2017		
EXPIRY DATE: (mm/dd/yyyy)	11/14/2019		
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: _____ **Date:** 11/15/2017 (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

1812021

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.

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EXPIRY DATE / PERIOD OF VALIDITY:

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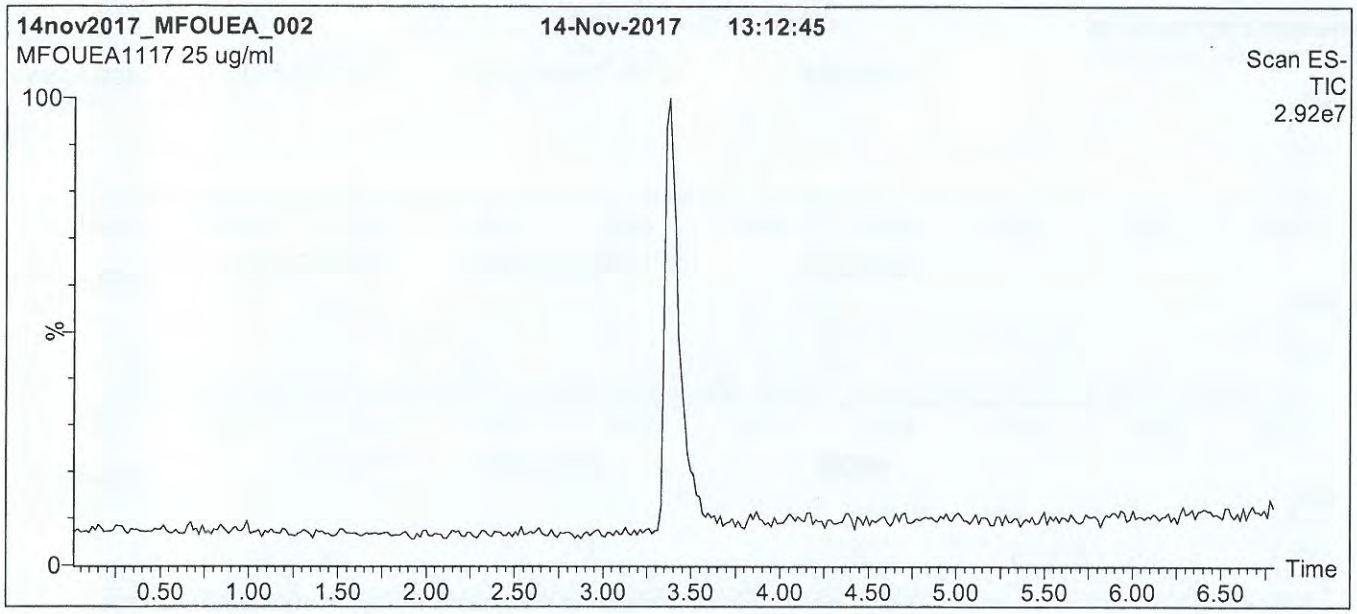
CALA Testing Accreditation No. A 1226

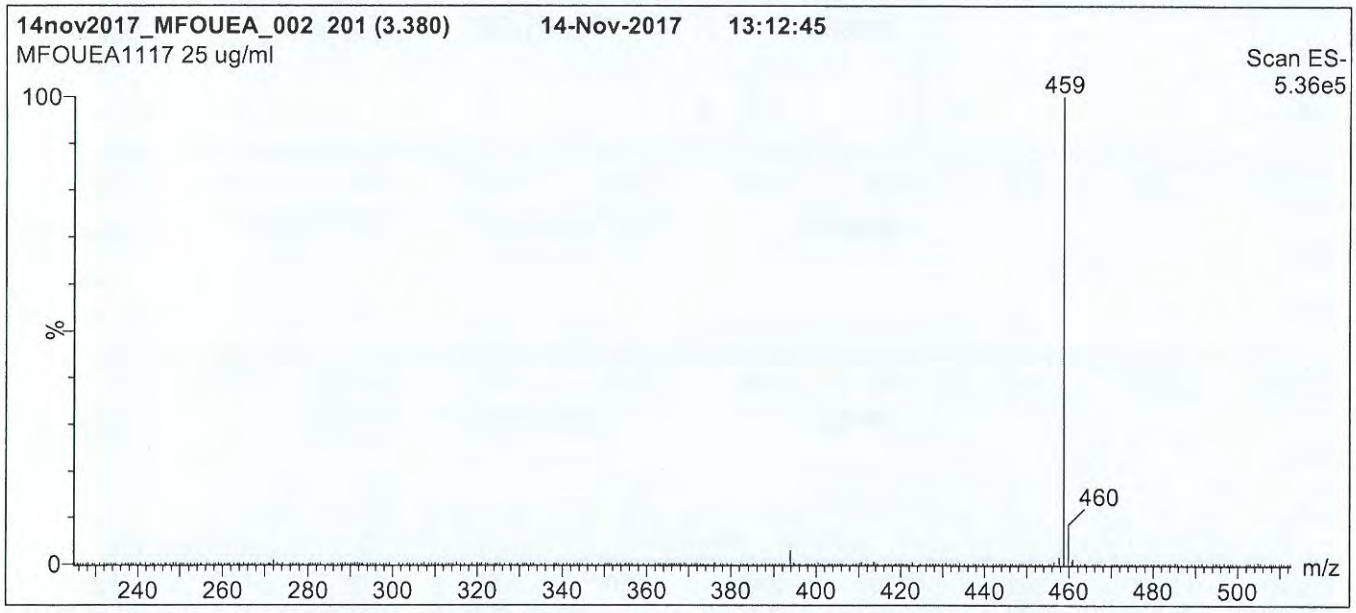
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18L2021

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: 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

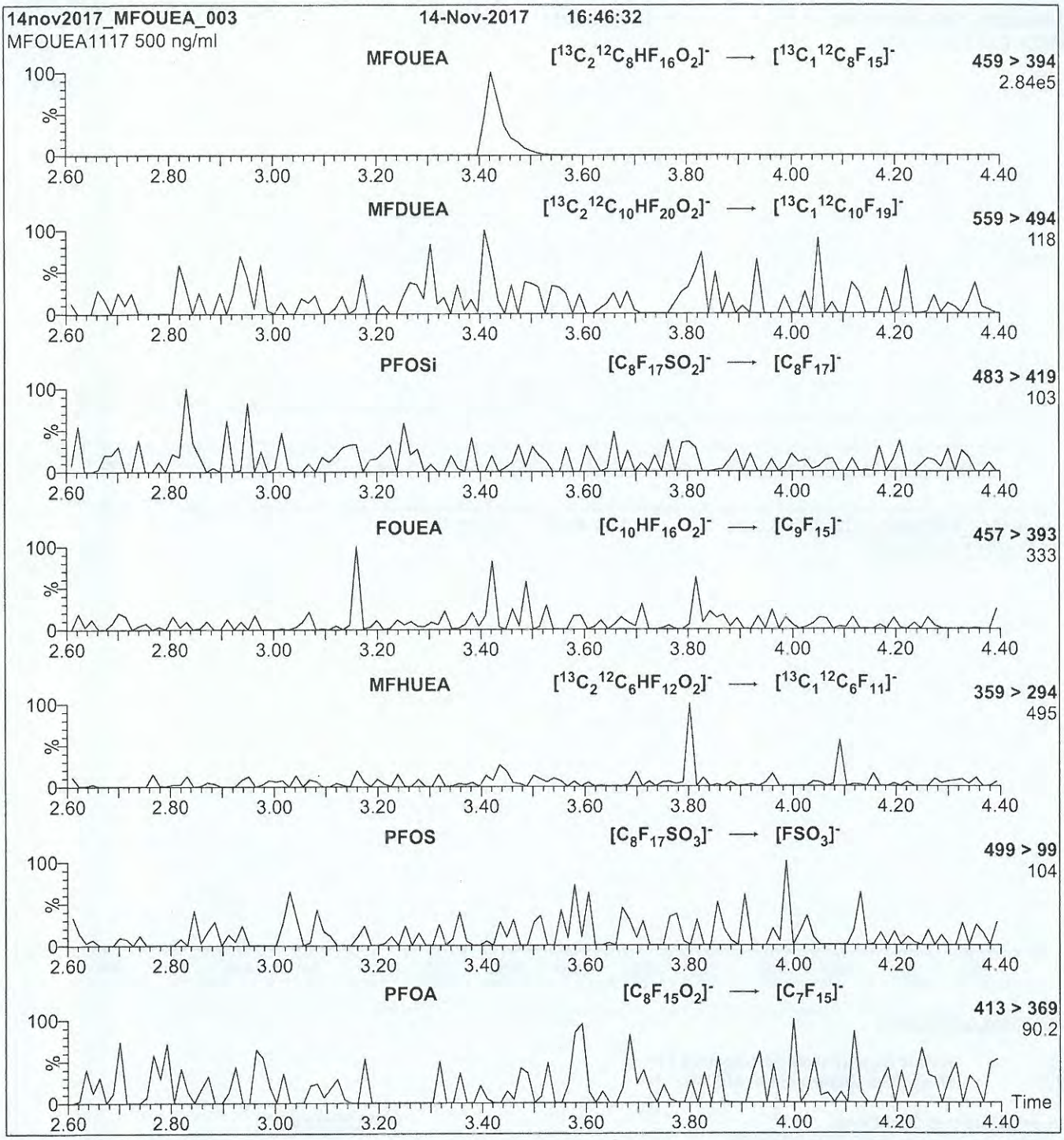
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 14.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

1/8/2021

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

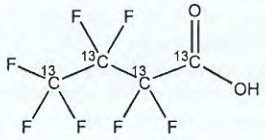
Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 21

1812022

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFBA	**LOT NUMBER:**	MPFBA0218
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)	02/16/2018		
EXPIRY DATE: (mm/dd/yyyy)	02/16/2023		
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:** 02/22/2018 (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

18L2022

INTENDED USE:

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Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS, and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

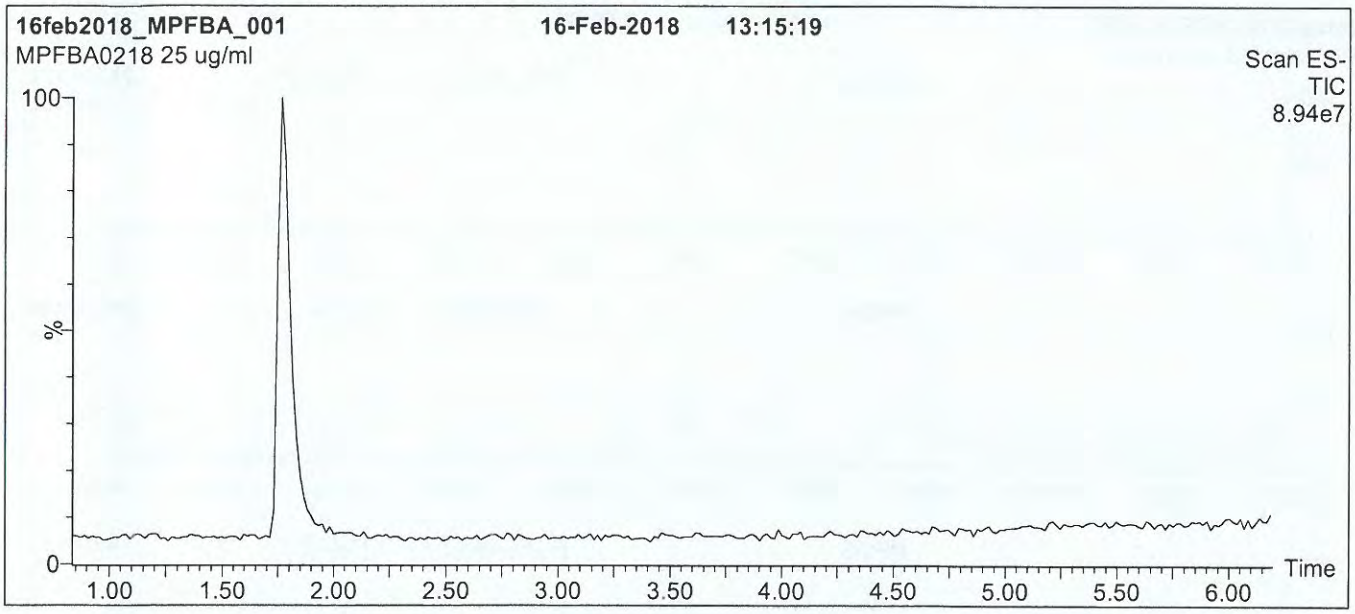
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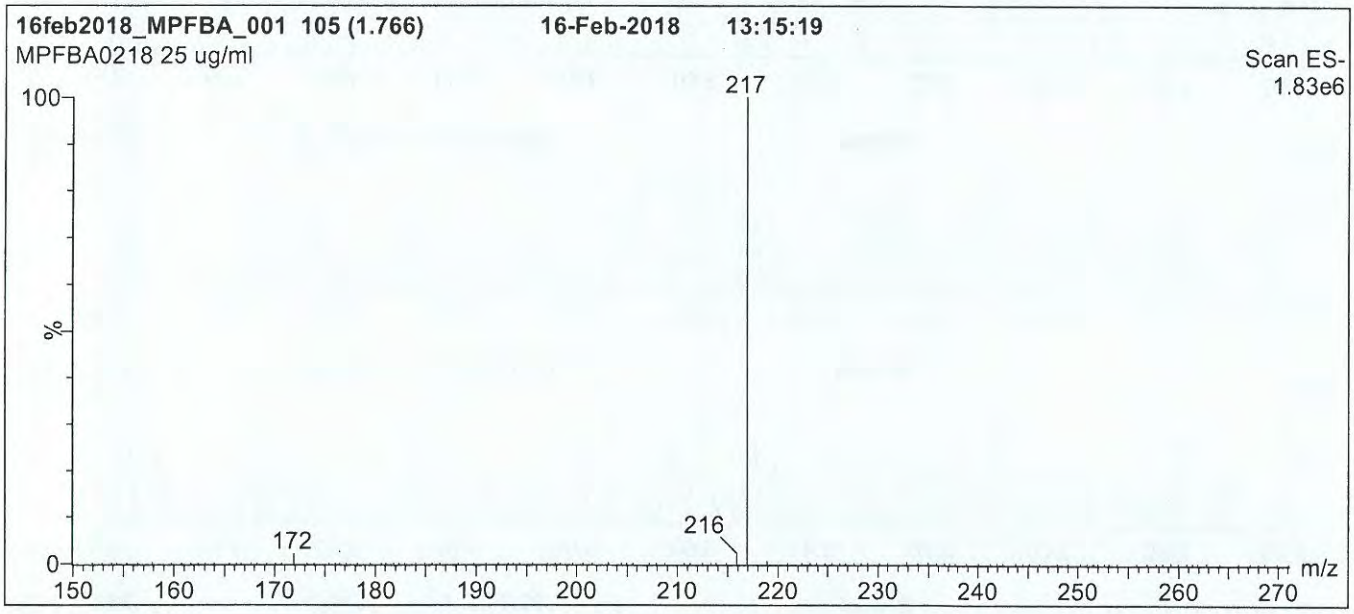
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

18L2022

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

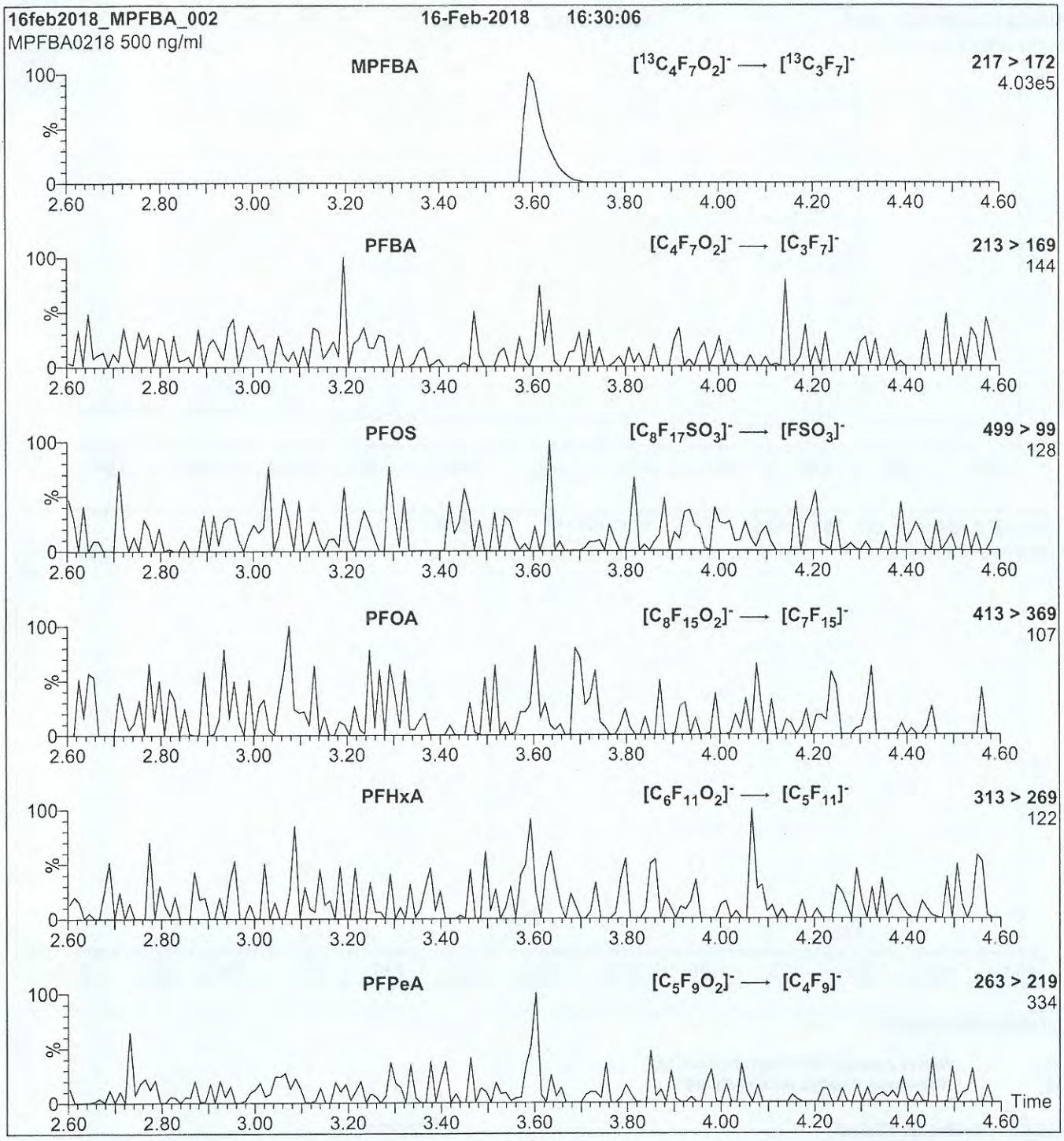
MS Parameters

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

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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

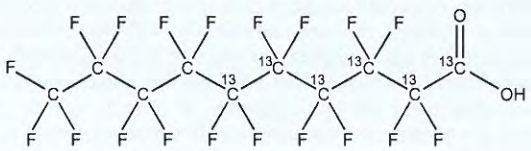
Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 10

18L2023

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M6PFDA	**LOT NUMBER:**	M6PFDA0918
COMPOUND:	Perfluoro-n-[1,2,3,4,5,6-$^{13}C_6$]decanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_6{}^{12}C_4HF_{19}O_2$	**MOLECULAR WEIGHT:**	520.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C
LAST TESTED: (mm/dd/yyyy)	09/20/2018		(1,2,3,4,5,6-$^{13}C_6$)
EXPIRY DATE: (mm/dd/yyyy)	09/20/2023		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/03/2018 (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

18L2023

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

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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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

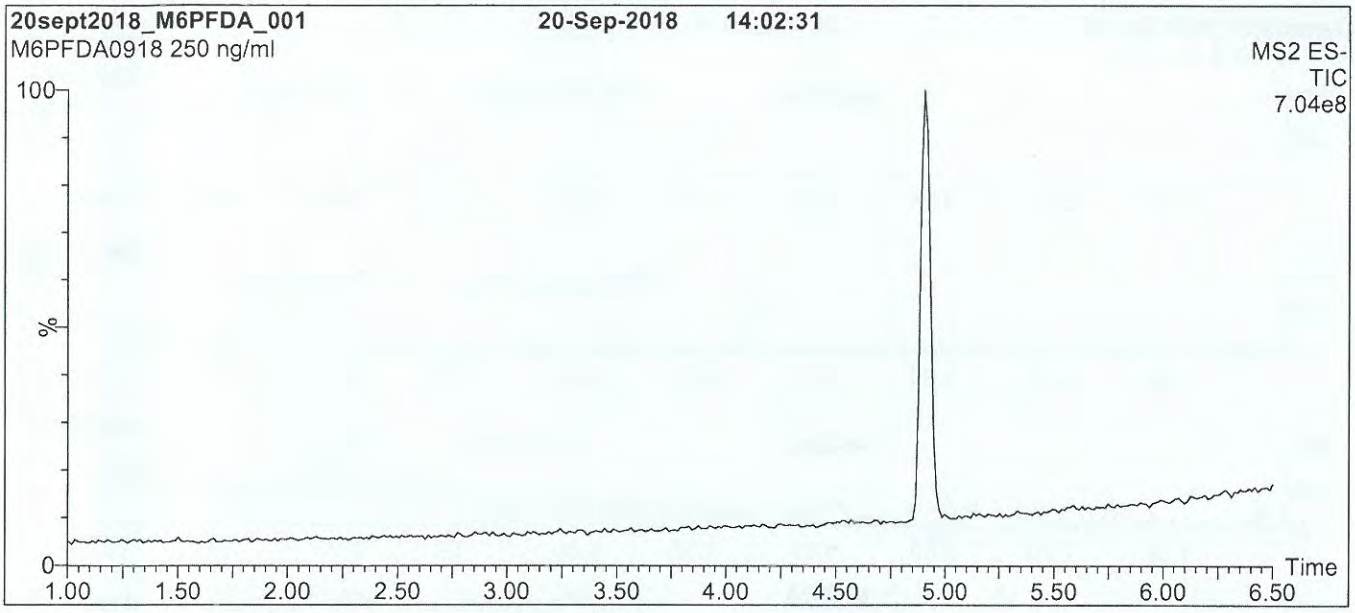
CALA Testing Accreditation No. A1226

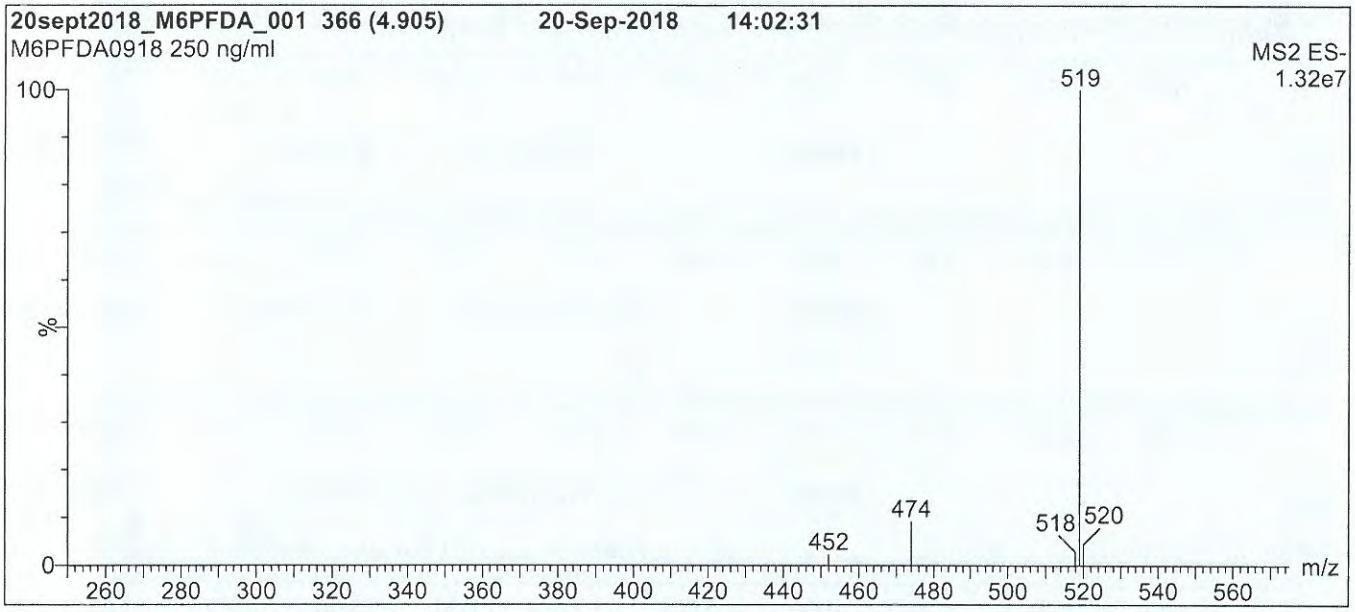
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

18L2023

Figure 1: **M6PFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

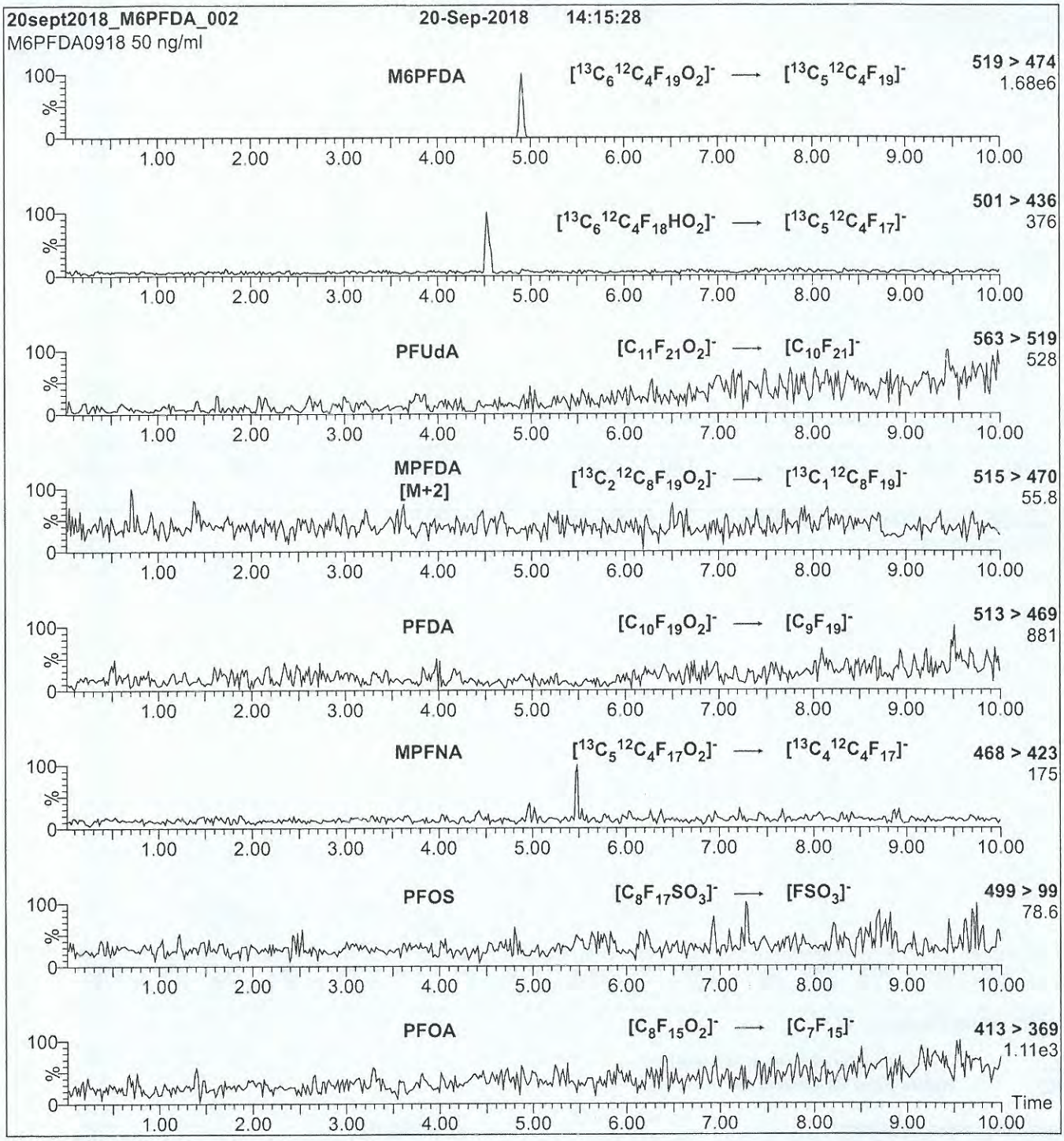
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

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Figure 2: **M6PFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M6PFDA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

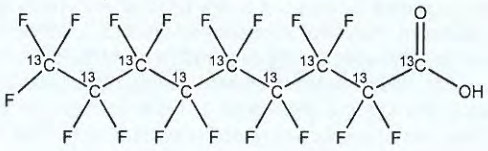
Collision Gas (mbar) = 2.97e-3
Collision Energy (eV) = 10

18L2024

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M9PFNA	**LOT NUMBER:**	M9PFNA0517
COMPOUND:	Perfluoro-n-[$^{13}C_9$]nonanoic acid		
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

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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. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

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where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using 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).

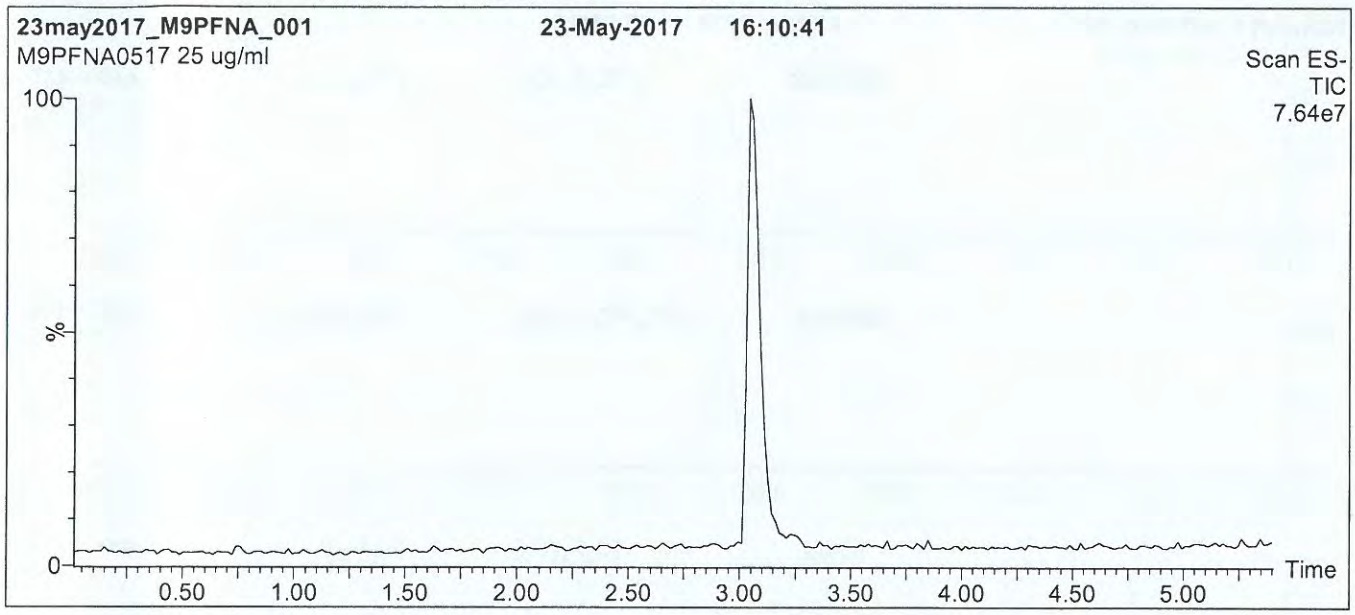
CALA Testing Accreditation No. A 1226

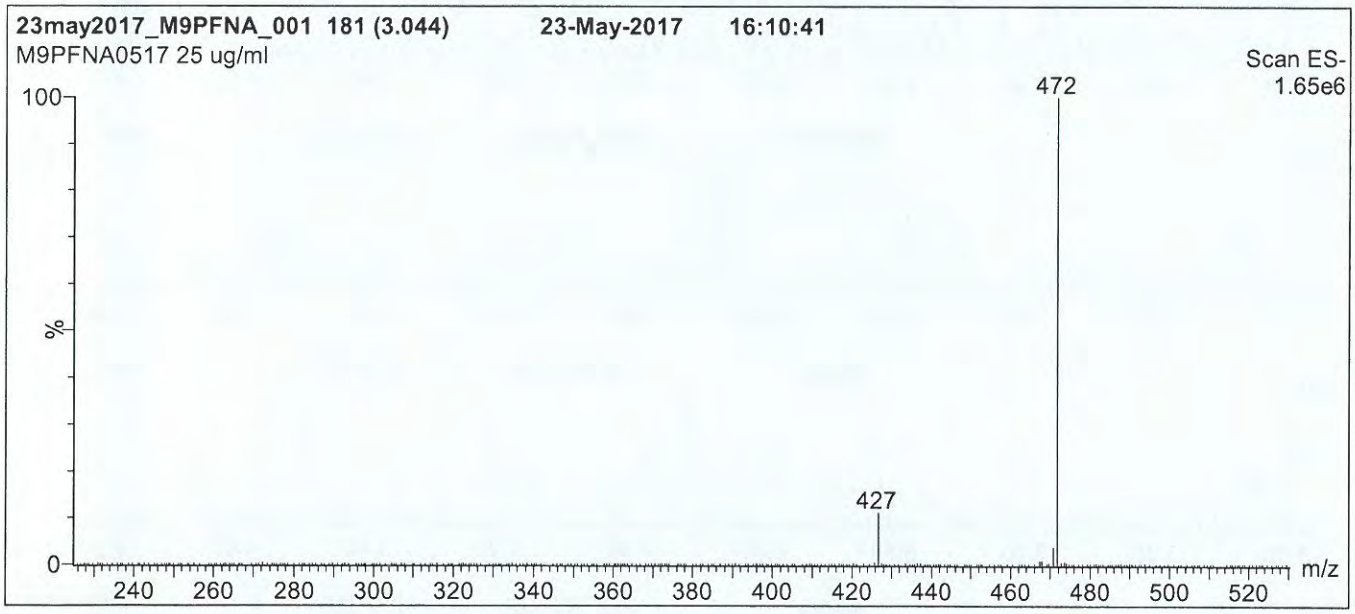
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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18L2024

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

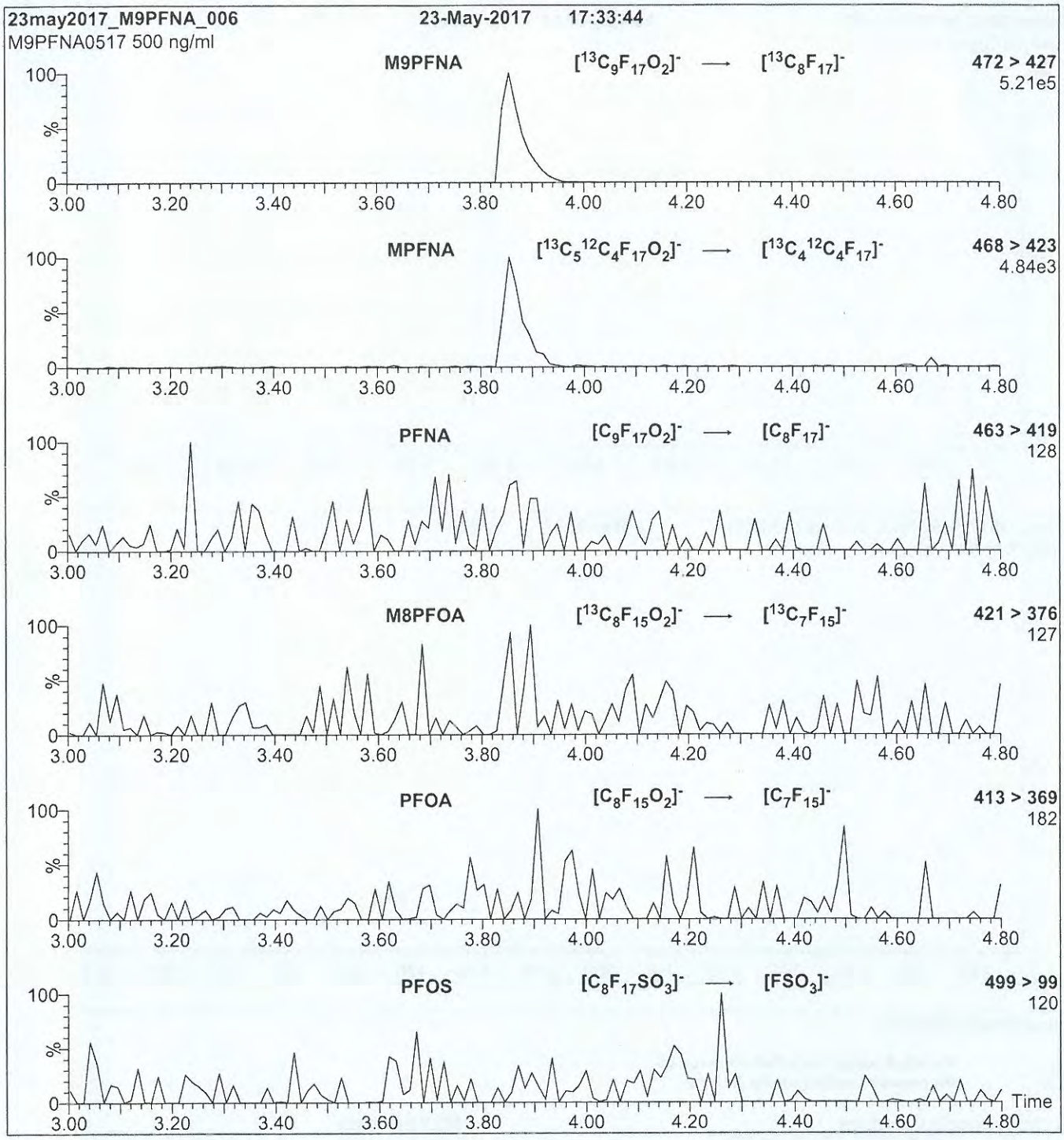
MS Parameters

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

18L2024

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

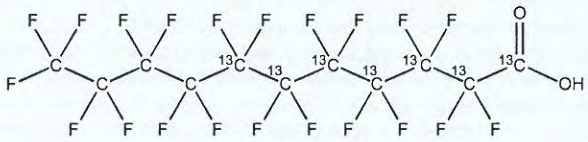
Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 11

18L2025

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M7PFUdA	**LOT NUMBER:**	M7PFUdA0918
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 (1,2,3,4,5,6,7-$^{13}C_7$)
LAST TESTED: (mm/dd/yyyy)	09/20/2018		
EXPIRY DATE: (mm/dd/yyyy)	09/20/2023		
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:** 09/27/2018 (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

18L2025

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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 17034 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

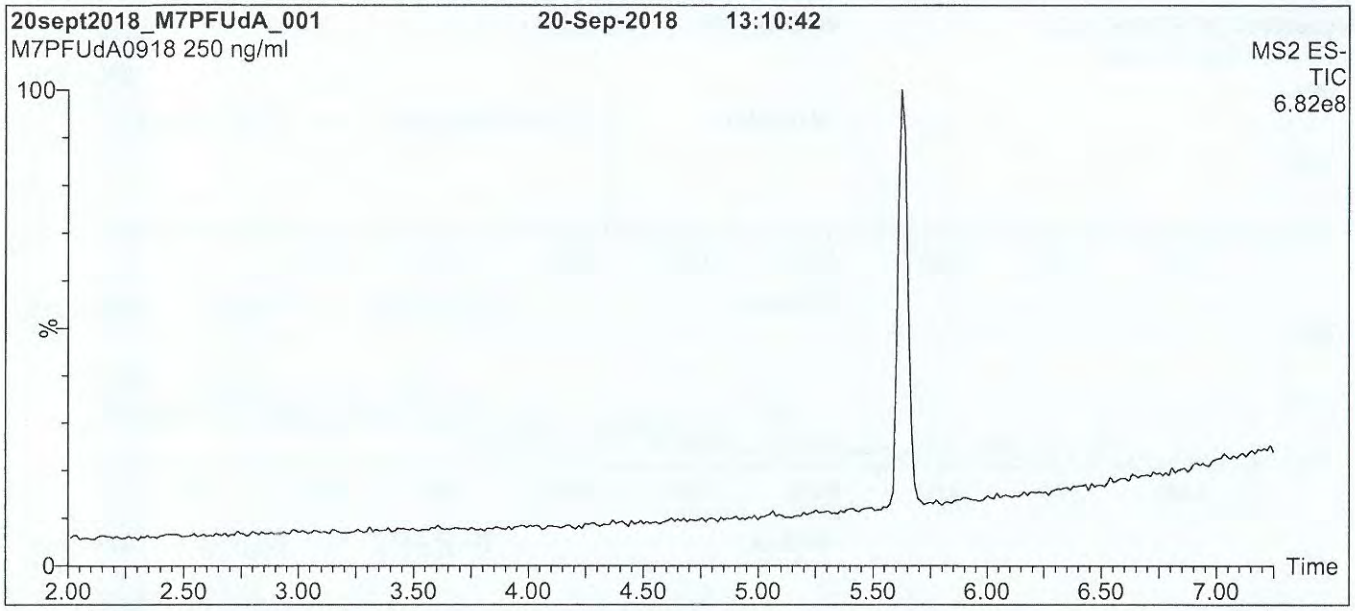
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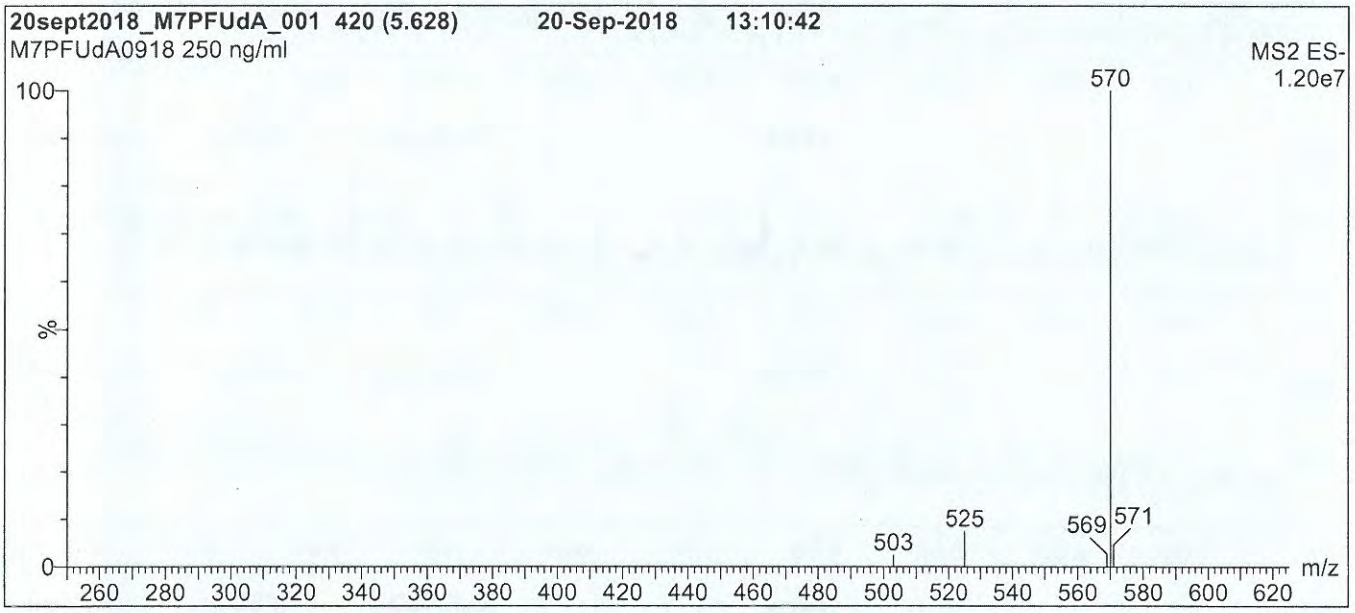
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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18L2025

Figure 1: **M7PFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

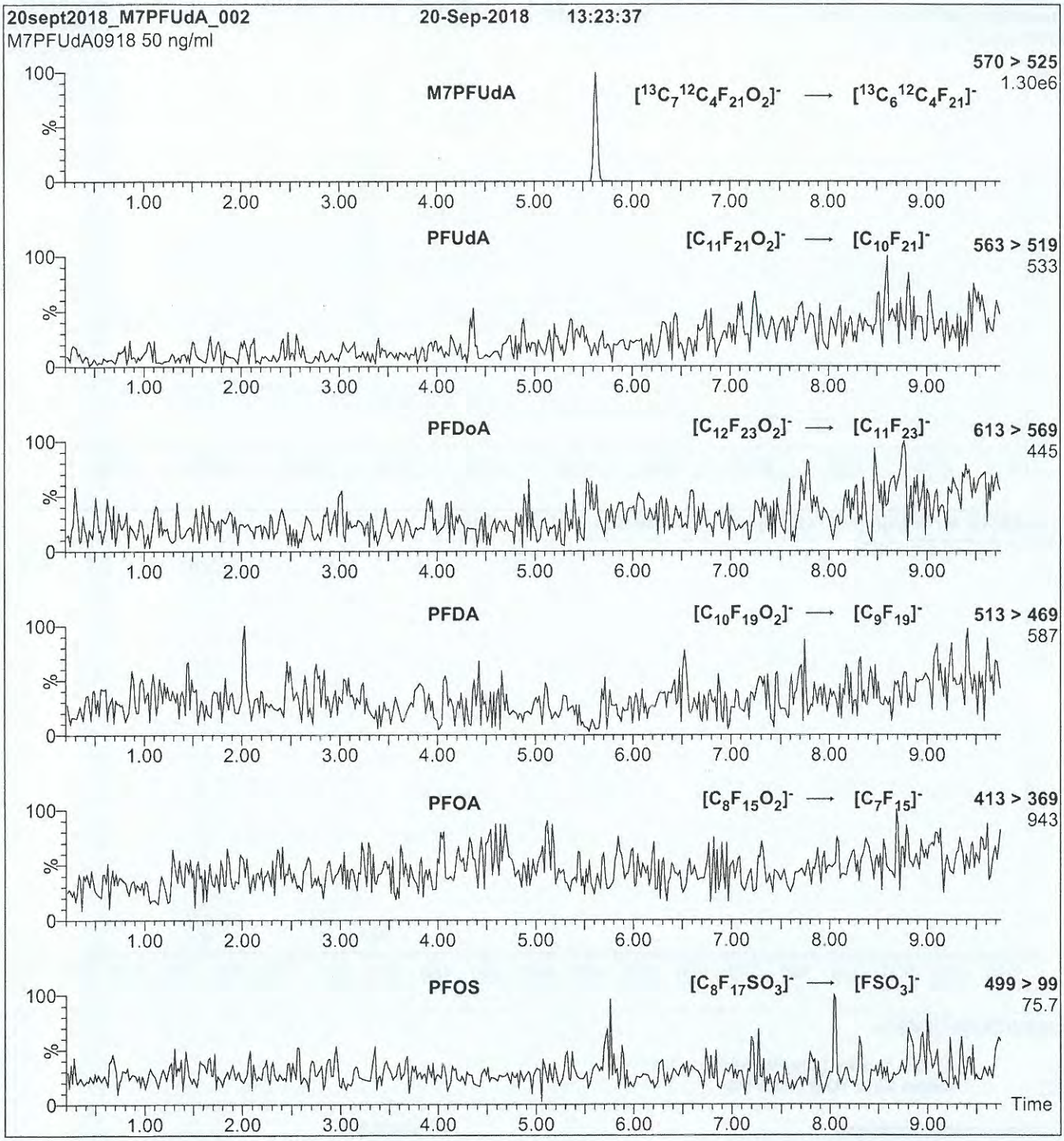
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

18L2025

Figure 2: **M7PFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M7PFUdA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

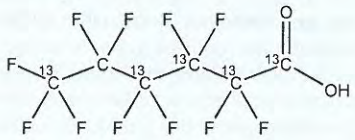
Collision Gas (mbar) = 2.97e-3
Collision Energy (eV) = 12

18L2026

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M5PFHxA	**LOT NUMBER:**	M5PFHxA0918
COMPOUND:	Perfluoro-n-[1,2,3,4,6-$^{13}C_5$]hexanoic acid		
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)	09/27/2018		
EXPIRY DATE: (mm/dd/yyyy)	09/27/2023		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/01/2018 (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

18L2026

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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 calibrated by an external ISO/IEC 17025 accredited laboratory. In addition, their calibration is verified prior to each weighing using calibrated external weights traceable to an ISO/IEC 17025 accredited laboratory. All volumetric glassware used is calibrated, of Class A tolerance, and traceable to an ISO/IEC 17025 accredited laboratory. 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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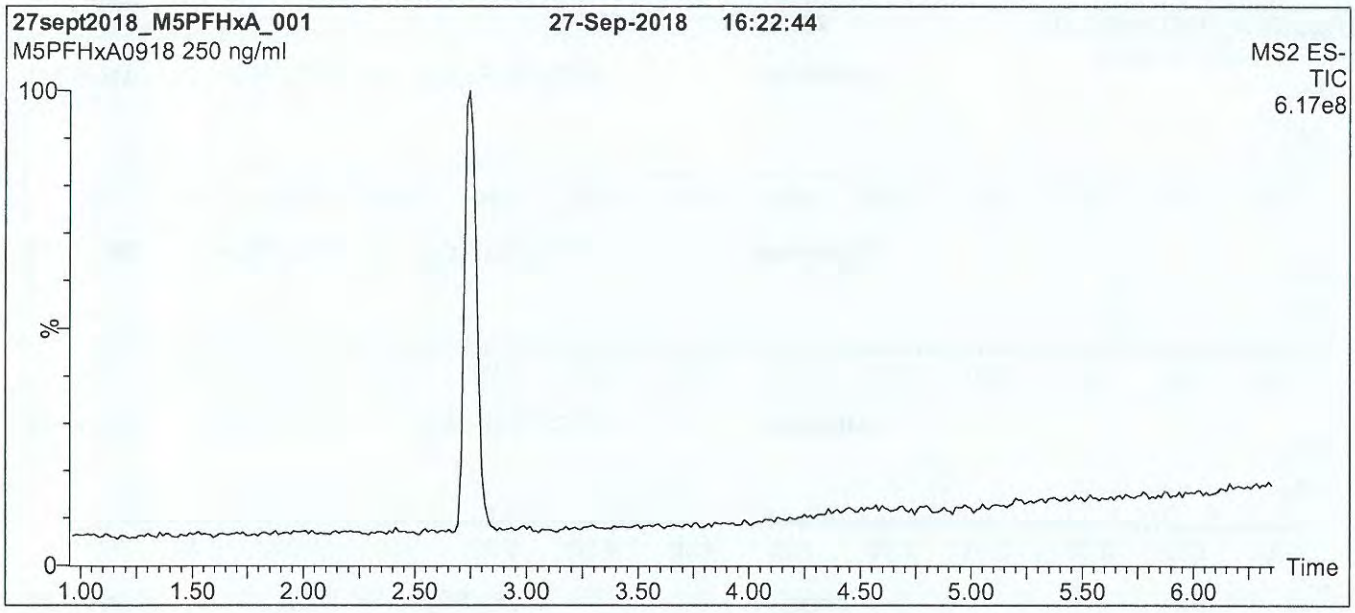
CALA Testing Accreditation No. A 1226

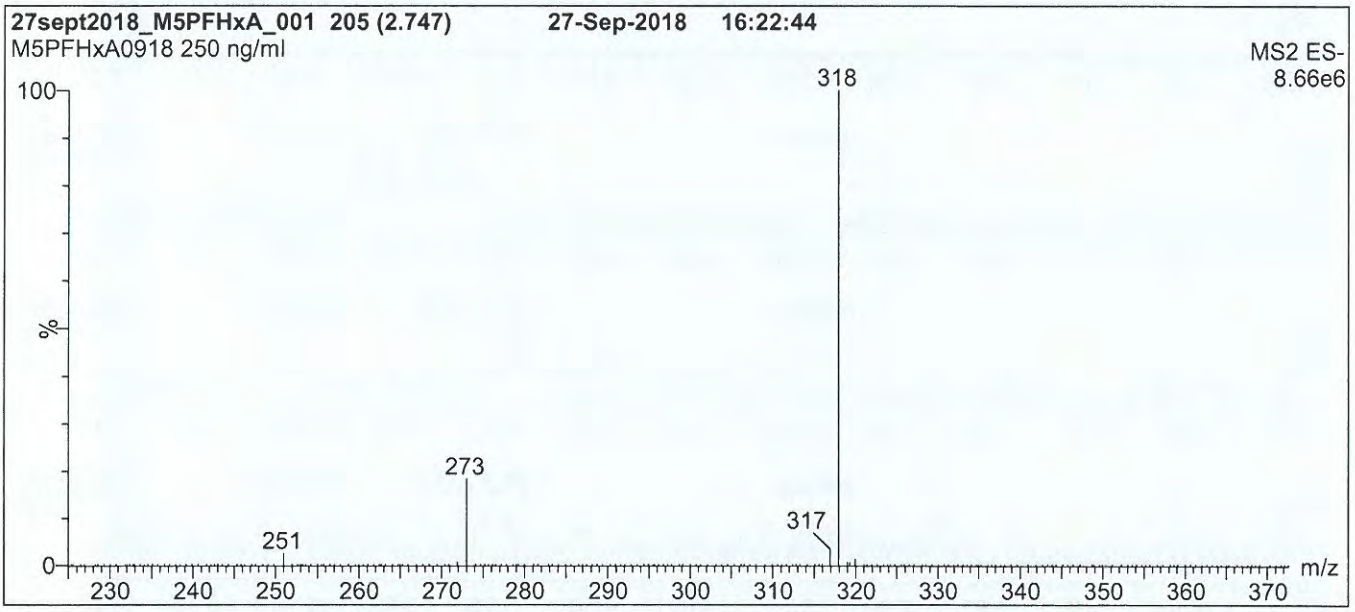
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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18L2026

Figure 1: **M5PFHxA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 8 min and hold for 2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

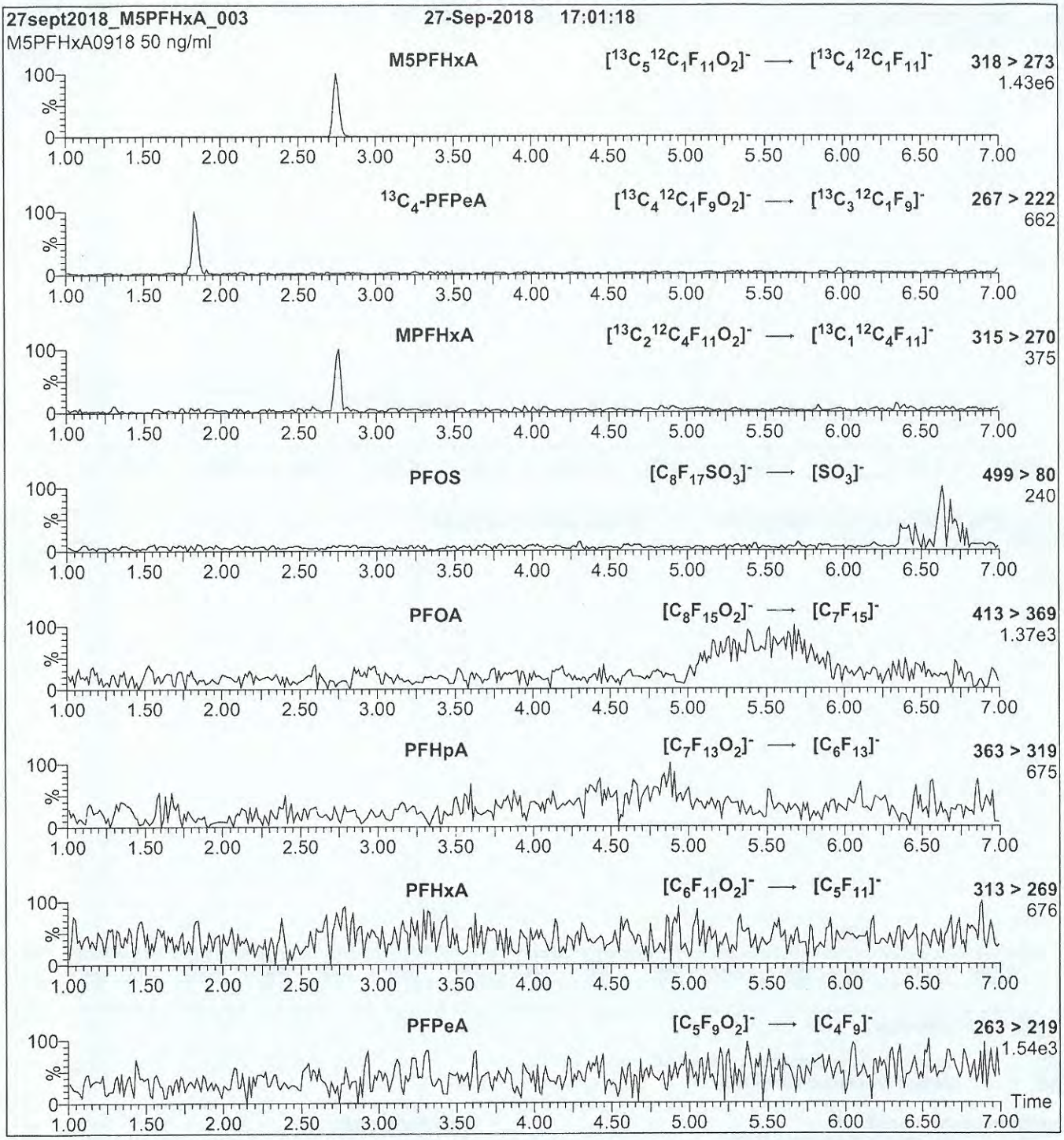
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

1812026

Figure 2: **M5PFHxA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M5PFHxA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.97e-3
Collision Energy (eV) = 8

18L2028

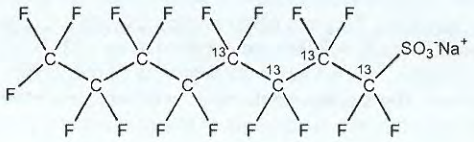
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS0918

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 ($1,2,3,4\text{-}^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	09/11/2018		
EXPIRY DATE: (mm/dd/yyyy)	09/11/2023		
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 ~ 0.3% Sodium perfluoro-1-[1,2,3-$^{13}C_3$]heptanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 09/14/2018 (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

18L2028

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.

HANDLING:

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:

Our products are synthesized using single-product unambiguous routes whenever possible. 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.

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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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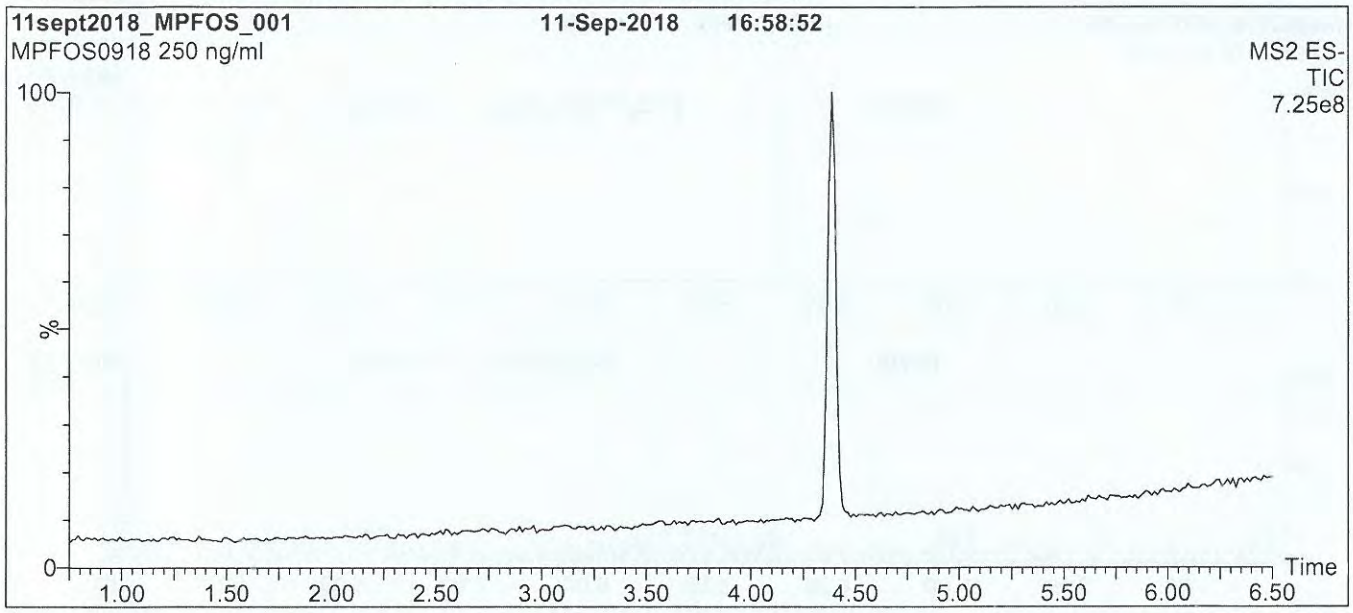
CALA Testing Accreditation No. A1226

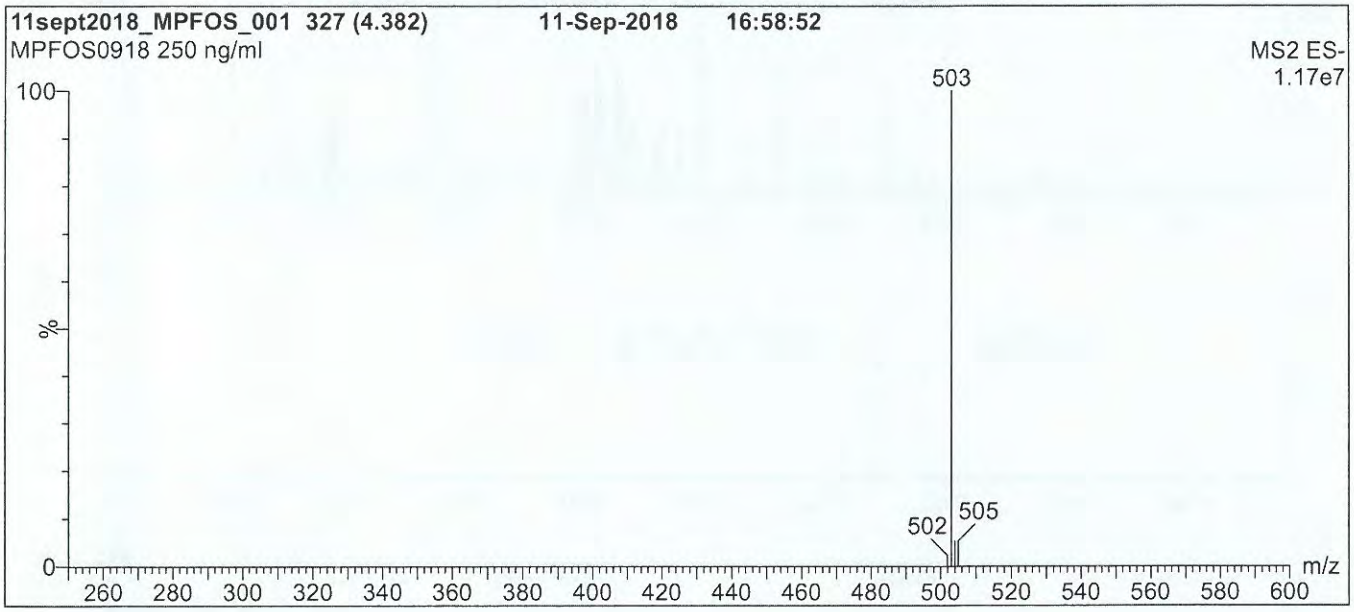
ANAB ACCREDITED ISO 17034 REFERENCE MATERIAL PRODUCER

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18L2028

Figure 1: **MPFOS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

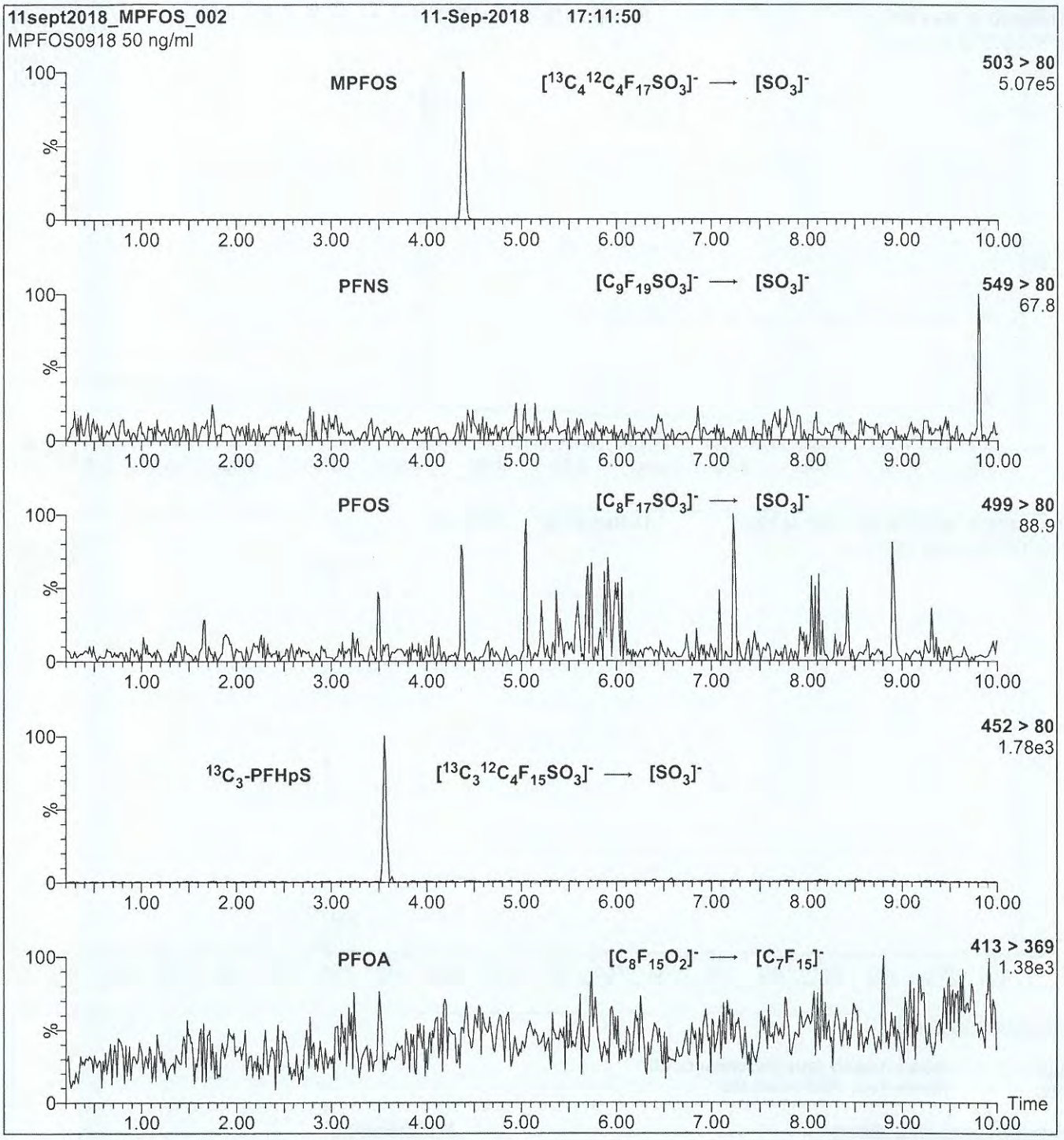
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 10.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 1000

1812028

Figure 2: **MPFOS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (MPFOS)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 2.99e-3
Collision Energy (eV) = 42

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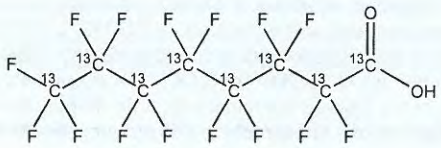
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M8PFOA
COMPOUND: Perfluoro-n-[$^{13}C_8$]octanoic acid

LOT NUMBER: M8PFOA0618

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) 06/29/2018
EXPIRY DATE: (mm/dd/yyyy) 06/29/2023
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 ~ 1.9% of [M+4] perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/03/2018 (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

1812029

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where x is expressed as a relative standard uncertainty of the individual parameter.

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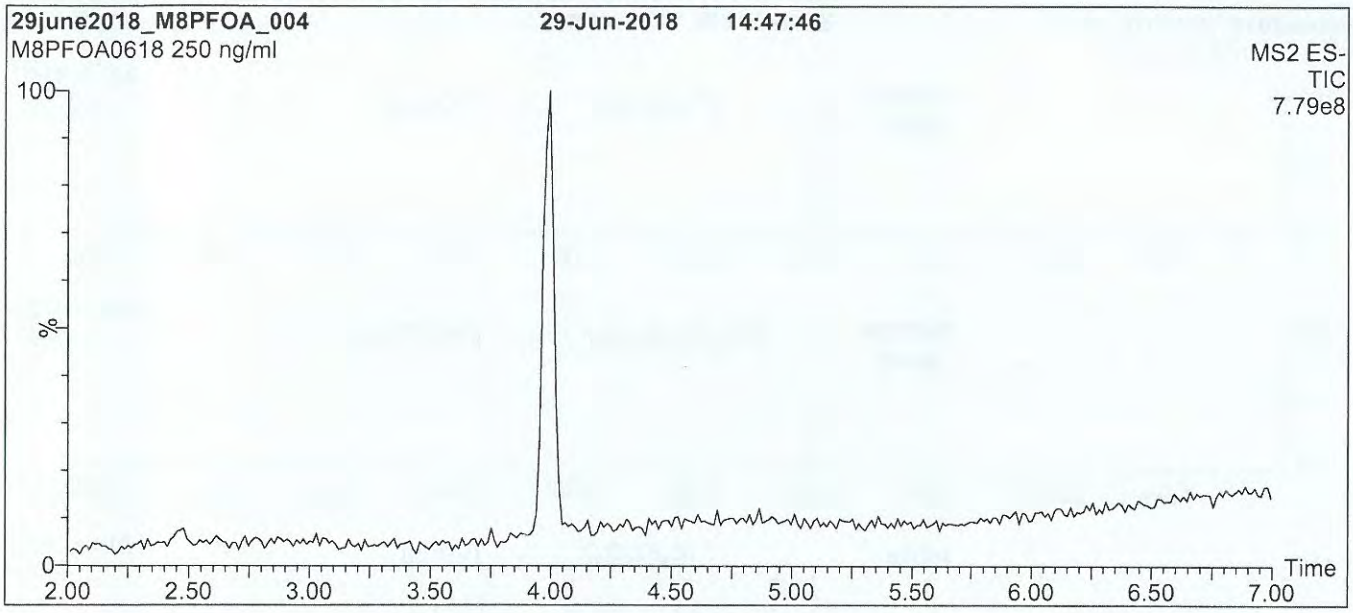
CALA Testing Accreditation No. A 1226

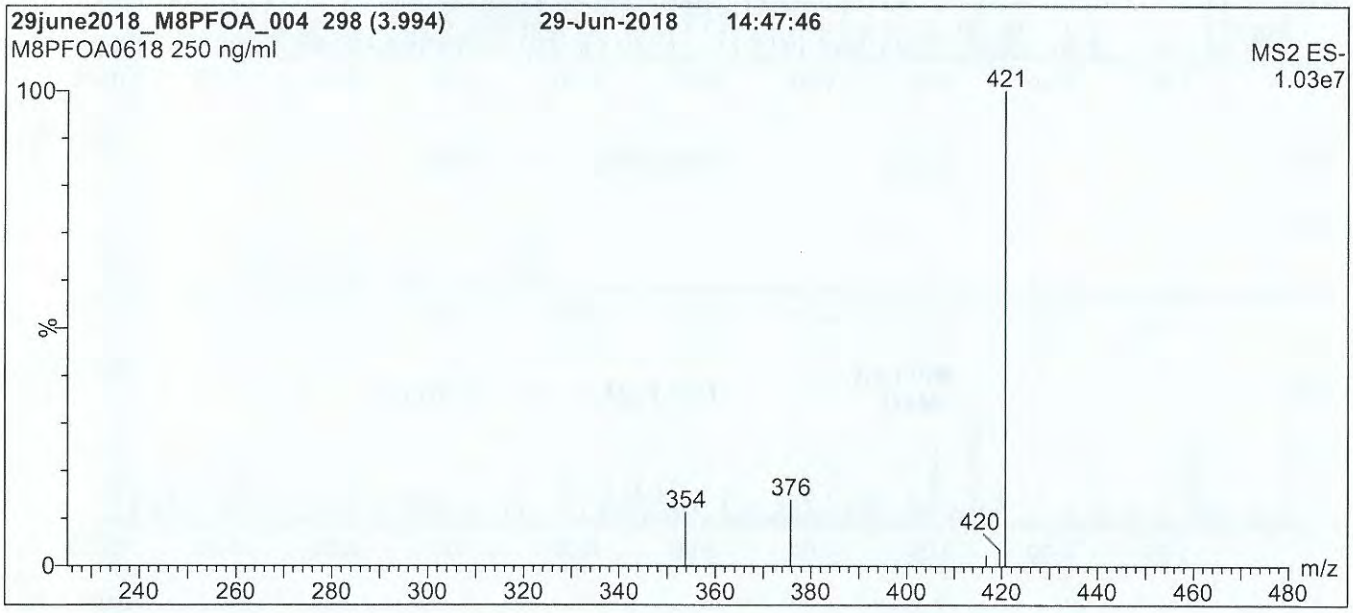
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1812029

Figure 1: **M8PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Waters Xevo TQ-S micro 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 80% organic over 8 min and hold for
2 min before returning to initial conditions in 0.75 min.
Time: 12 min

Flow: 300 µl/min

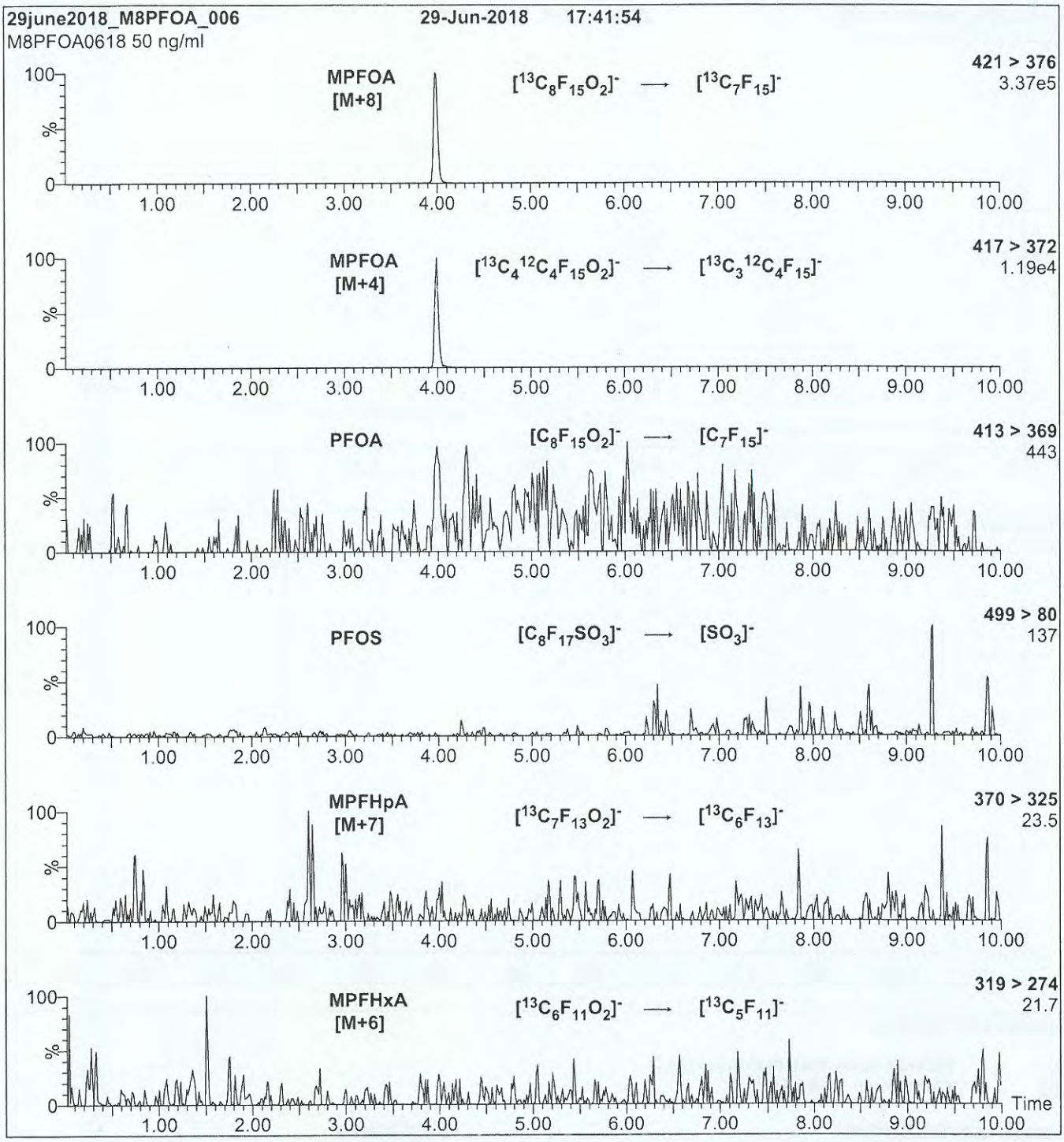
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 0.50
Cone Voltage (V) = 14.00
Desolvation Temperature (°C) = 500
Desolvation Gas Flow (l/hr) = 750

1812029

Figure 2: **M8PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: On-column (M8PFOA)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 8

"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","375-73-
5","PFBS","0.967","ug/kg","J","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","307-24-
4","PFHxA","110","ug/kg","","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","375-85-
9","PFHpA","7.71","ug/kg","","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","355-46-
4","PFHxS","24.9","ug/kg","","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","335-67-
1","PFOA","51.5","ug/kg","","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","375-95-
1","PFNA","0.871","ug/kg","J","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","1763-23-
1","PFOS","185","ug/kg","","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","335-76-
2","PFDA","4.62","ug/kg","","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","2355-31-
9","NMeFOSAA","0.999","ug/kg","U","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","2991-50-
6","NEtFOSAA","0.999","ug/kg","U","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","2058-94-
8","PFUnA","0.999","ug/kg","U","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","307-55-
1","PFDoA","1.14","ug/kg","J","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","72629-94-
8","PFTrDA","0.999","ug/kg","U","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","376-06-
7","PFTeDA","0.999","ug/kg","U","0.999","CRDL","","TRG","","","2.00","CRDL","YES","0.844"
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","13C3-PFBS","13C3-
PFBS","52.7","%R","","","CRDL","","IS","52.7","","","CRDL","",""
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","13C2-PFHxA","13C2-
PFHxA","80.6","%R","","","CRDL","","IS","80.6","","","CRDL","",""
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","13C4-PFHpA","13C4-
PFHpA","86.6","%R","","","CRDL","","IS","86.6","","","CRDL","",""
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","13C3-PFHxS","13C3-
PFHxS","71.9","%R","","","CRDL","","IS","71.9","","","CRDL","",""
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","13C2-PFOA","13C2-
PFOA","75.9","%R","","","CRDL","","IS","75.9","","","CRDL","",""
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","13C5-PFNA","13C5-
PFNA","70.7","%R","","","CRDL","","IS","70.7","","","CRDL","",""
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","13C8-PFOS","13C8-
PFOS","74.7","%R","","","CRDL","","IS","74.7","","","CRDL","",""
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","13C2-PFDA","13C2-
PFDA","61.7","%R","","","CRDL","","IS","61.7","","","CRDL","",""
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","d3-MeFOSAA","d3-
MeFOSAA","42.2","%R","H","","CRDL","","IS","42.2","","","CRDL","",""
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","d5-EtFOSAA","d5-
EtFOSAA","46.3","%R","H","","CRDL","","IS","46.3","","","CRDL","",""
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","13C2-PFUnA","13C2-
PFUnA","54.6","%R","","","CRDL","","IS","54.6","","","CRDL","",""
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","13C2-PFDoA","13C2-
PFDoA","49.5","%R","H","","CRDL","","IS","49.5","","","CRDL","",""
"CAOA-B03-SO-4-4.5","537 MOD","RES","1902014-01","Vista","13C2-PFTeDA","13C2-

PFTeDA","64.6","%R","","","CRDL","","IS","64.6","","","CRDL","",""
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","375-73-
5","PFBS","1.22","ug/kg","J","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","307-24-
4","PFHxA","103","ug/kg","","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","375-85-
9","PFHpA","5.56","ug/kg","","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","355-46-
4","PFHxS","19.4","ug/kg","","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","335-67-
1","PFOA","18.5","ug/kg","","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","375-95-
1","PFNA","0.987","ug/kg","J","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","1763-23-
1","PFOS","434","ug/kg","","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","335-76-
2","PFDA","3.81","ug/kg","","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","2355-31-
9","NMeFOSAA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","2991-50-
6","NEtFOSAA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","2058-94-
8","PFUnA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","307-55-
1","PFDoA","1.24","ug/kg","J","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","72629-94-
8","PFTrDA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","376-06-
7","PFTeDA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.847"
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","13C3-PFBS","13C3-
PFBS","68.7","%R","","","CRDL","","IS","68.7","","","CRDL","",""
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","13C2-PFHxA","13C2-
PFHxA","105","%R","","","CRDL","","IS","105","","","CRDL","",""
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","13C4-PFHpA","13C4-
PFHpA","125","%R","","","CRDL","","IS","125","","","CRDL","",""
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","13C3-PFHxS","13C3-
PFHxS","74.7","%R","","","CRDL","","IS","74.7","","","CRDL","",""
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","13C2-PFOA","13C2-
PFOA","108","%R","","","CRDL","","IS","108","","","CRDL","",""
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","13C5-PFNA","13C5-
PFNA","79.1","%R","","","CRDL","","IS","79.1","","","CRDL","",""
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","13C8-PFOS","13C8-
PFOS","83.2","%R","","","CRDL","","IS","83.2","","","CRDL","",""
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","13C2-PFDA","13C2-
PFDA","78.5","%R","","","CRDL","","IS","78.5","","","CRDL","",""
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","d3-MeFOSAA","d3-
MeFOSAA","66.3","%R","","","CRDL","","IS","66.3","","","CRDL","",""
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","d5-EtFOSAA","d5-
EtFOSAA","55.3","%R","","","CRDL","","IS","55.3","","","CRDL","",""
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","13C2-PFUnA","13C2-
PFUnA","66.3","%R","","","CRDL","","IS","66.3","","","CRDL","",""
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","13C2-PFDoA","13C2-
PFDoA","43.2","%R","H","","CRDL","","IS","43.2","","","CRDL","",""
"CAOA-B03-SO-20-20.5","537 MOD","RES","1902014-02","Vista","13C2-PFTeDA","13C2-

PFTeDA","30.5","%R","H","","CRDL","","IS","30.5","","","CRDL","",""
"FRB-07032019","537 MOD","RES","1902014-03","Vista","375-73-
5","PFBS","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","307-24-
4","PFHxA","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","375-85-
9","PFHpA","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","355-46-
4","PFHxS","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","335-67-
1","PFOA","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","375-95-
1","PFNA","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","1763-23-
1","PFOS","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","335-76-
2","PFDA","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","2355-31-
9","NMeFOSAA","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","2991-50-
6","NEtFOSAA","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","2058-94-
8","PFUnA","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","307-55-
1","PFDoA","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","72629-94-
8","PFTrDA","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","376-06-
7","PFTeDA","0.00431","ug/L","U","0.00431","CRDL","","TRG","","","0.00860","CRDL","YES","0.00294"
"FRB-07032019","537 MOD","RES","1902014-03","Vista","13C3-PFBS","13C3-
PFBS","102","%R","","","CRDL","","IS","102","","","CRDL","",""
"FRB-07032019","537 MOD","RES","1902014-03","Vista","13C2-PFHxA","13C2-
PFHxA","95.6","%R","","","CRDL","","IS","95.6","","","CRDL","",""
"FRB-07032019","537 MOD","RES","1902014-03","Vista","13C4-PFHpA","13C4-
PFHpA","96.0","%R","","","CRDL","","IS","96.0","","","CRDL","",""
"FRB-07032019","537 MOD","RES","1902014-03","Vista","13C3-PFHxS","13C3-
PFHxS","102","%R","","","CRDL","","IS","102","","","CRDL","",""
"FRB-07032019","537 MOD","RES","1902014-03","Vista","13C2-PFOA","13C2-
PFOA","99.4","%R","","","CRDL","","IS","99.4","","","CRDL","",""
"FRB-07032019","537 MOD","RES","1902014-03","Vista","13C5-PFNA","13C5-
PFNA","92.5","%R","","","CRDL","","IS","92.5","","","CRDL","",""
"FRB-07032019","537 MOD","RES","1902014-03","Vista","13C8-PFOS","13C8-
PFOS","93.3","%R","","","CRDL","","IS","93.3","","","CRDL","",""
"FRB-07032019","537 MOD","RES","1902014-03","Vista","13C2-PFDA","13C2-
PFDA","78.5","%R","","","CRDL","","IS","78.5","","","CRDL","",""
"FRB-07032019","537 MOD","RES","1902014-03","Vista","d3-MeFOSAA","d3-
MeFOSAA","60.4","%R","","","CRDL","","IS","60.4","","","CRDL","",""
"FRB-07032019","537 MOD","RES","1902014-03","Vista","d5-EtFOSAA","d5-
EtFOSAA","64.2","%R","","","CRDL","","IS","64.2","","","CRDL","",""
"FRB-07032019","537 MOD","RES","1902014-03","Vista","13C2-PFUnA","13C2-
PFUnA","67.9","%R","","","CRDL","","IS","67.9","","","CRDL","",""
"FRB-07032019","537 MOD","RES","1902014-03","Vista","13C2-PFDoA","13C2-
PFDoA","67.0","%R","","","CRDL","","IS","67.0","","","CRDL","",""
"FRB-07032019","537 MOD","RES","1902014-03","Vista","13C2-PFTeDA","13C2-

PFTeDA","79.8","%R","","","CRDL","","IS","79.8","","","CRDL","",""
"EB-07032019","537 MOD","RES","1902014-04","Vista","375-73-
5","PFBS","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","307-24-
4","PFHxA","0.00623","ug/L","J","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","375-85-
9","PFHpA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","355-46-
4","PFHxS","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","335-67-
1","PFOA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","375-95-
1","PFNA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","1763-23-
1","PFOS","0.0852","ug/L","","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","335-76-
2","PFDA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","2355-31-
9","NMeFOSAA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","2991-50-
6","NEtFOSAA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","2058-94-
8","PFUnA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","307-55-
1","PFDoA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","72629-94-
8","PFTrDA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","376-06-
7","PFTeDA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00851","CRDL","YES","0.00291"
"EB-07032019","537 MOD","RES","1902014-04","Vista","13C3-PFBS","13C3-
PFBS","101","%R","","","CRDL","","IS","101","","","CRDL","",""
"EB-07032019","537 MOD","RES","1902014-04","Vista","13C2-PFHxA","13C2-
PFHxA","98.3","%R","","","CRDL","","IS","98.3","","","CRDL","",""
"EB-07032019","537 MOD","RES","1902014-04","Vista","13C4-PFHpA","13C4-
PFHpA","99.4","%R","","","CRDL","","IS","99.4","","","CRDL","",""
"EB-07032019","537 MOD","RES","1902014-04","Vista","13C3-PFHxS","13C3-
PFHxS","98.5","%R","","","CRDL","","IS","98.5","","","CRDL","",""
"EB-07032019","537 MOD","RES","1902014-04","Vista","13C2-PFOA","13C2-
PFOA","98.7","%R","","","CRDL","","IS","98.7","","","CRDL","",""
"EB-07032019","537 MOD","RES","1902014-04","Vista","13C5-PFNA","13C5-
PFNA","94.9","%R","","","CRDL","","IS","94.9","","","CRDL","",""
"EB-07032019","537 MOD","RES","1902014-04","Vista","13C8-PFOS","13C8-
PFOS","101","%R","","","CRDL","","IS","101","","","CRDL","",""
"EB-07032019","537 MOD","RES","1902014-04","Vista","13C2-PFDA","13C2-
PFDA","83.2","%R","","","CRDL","","IS","83.2","","","CRDL","",""
"EB-07032019","537 MOD","RES","1902014-04","Vista","d3-MeFOSAA","d3-
MeFOSAA","68.0","%R","","","CRDL","","IS","68.0","","","CRDL","",""
"EB-07032019","537 MOD","RES","1902014-04","Vista","d5-EtFOSAA","d5-
EtFOSAA","78.6","%R","","","CRDL","","IS","78.6","","","CRDL","",""
"EB-07032019","537 MOD","RES","1902014-04","Vista","13C2-PFUnA","13C2-
PFUnA","79.3","%R","","","CRDL","","IS","79.3","","","CRDL","",""
"EB-07032019","537 MOD","RES","1902014-04","Vista","13C2-PFDoA","13C2-
PFDoA","77.6","%R","","","CRDL","","IS","77.6","","","CRDL","",""
"EB-07032019","537 MOD","RES","1902014-04","Vista","13C2-PFTeDA","13C2-

PFTeDA","85.3","%R","","","CRDL","","IS","85.3","","","CRDL","",""
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","375-73-
5","PFBS","0.993","ug/kg","U","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","307-24-
4","PFHxA","0.993","ug/kg","U","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","375-85-
9","PFHpA","0.993","ug/kg","U","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","355-46-
4","PFHxS","0.993","ug/kg","U","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","335-67-
1","PFOA","0.993","ug/kg","U","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","375-95-
1","PFNA","0.993","ug/kg","U","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","1763-23-
1","PFOS","1.15","ug/kg","J","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","335-76-
2","PFDA","0.993","ug/kg","U","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","2355-31-
9","NMeFOSAA","0.993","ug/kg","U","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","2991-50-
6","NEtFOSAA","0.993","ug/kg","U","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","2058-94-
8","PFUnA","0.993","ug/kg","U","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","307-55-
1","PFDoA","0.993","ug/kg","U","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","72629-94-
8","PFTrDA","0.993","ug/kg","U","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","376-06-
7","PFTeDA","0.993","ug/kg","U","0.993","CRDL","","TRG","","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","13C3-PFBS","13C3-
PFBS","69.6","%R","","","CRDL","","IS","69.6","","","CRDL","",""
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","13C2-PFHxA","13C2-
PFHxA","108","%R","","","CRDL","","IS","108","","","CRDL","",""
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","13C4-PFHpA","13C4-
PFHpA","115","%R","","","CRDL","","IS","115","","","CRDL","",""
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","13C3-PFHxS","13C3-
PFHxS","81.7","%R","","","CRDL","","IS","81.7","","","CRDL","",""
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","13C2-PFOA","13C2-
PFOA","108","%R","","","CRDL","","IS","108","","","CRDL","",""
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","13C5-PFNA","13C5-
PFNA","71.8","%R","","","CRDL","","IS","71.8","","","CRDL","",""
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","13C8-PFOS","13C8-
PFOS","75.8","%R","","","CRDL","","IS","75.8","","","CRDL","",""
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","13C2-PFDA","13C2-
PFDA","70.4","%R","","","CRDL","","IS","70.4","","","CRDL","",""
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","d3-MeFOSAA","d3-
MeFOSAA","54.6","%R","","","CRDL","","IS","54.6","","","CRDL","",""
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","d5-EtFOSAA","d5-
EtFOSAA","53.6","%R","","","CRDL","","IS","53.6","","","CRDL","",""
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","13C2-PFUnA","13C2-
PFUnA","55.5","%R","","","CRDL","","IS","55.5","","","CRDL","",""
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","13C2-PFDoA","13C2-
PFDoA","43.6","%R","H","","CRDL","","IS","43.6","","","CRDL","",""
"CAOA-B01-SO-0-0.5","537 MOD","RES","1902014-05","Vista","13C2-PFTeDA","13C2-

PFTeDA","80.9","%R","","","CRDL","","IS","80.9","","","CRDL","",""
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","375-73-
5","PFBS","0.990","ug/kg","U","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","307-24-
4","PFHxA","0.990","ug/kg","U","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","375-85-
9","PFHpA","0.990","ug/kg","U","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","355-46-
4","PFHxS","0.990","ug/kg","U","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","335-67-
1","PFOA","0.990","ug/kg","U","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","375-95-1","PFNA","1.22","ug/kg","J,
Q","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","1763-23-
1","PFOS","3.30","ug/kg","","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","335-76-
2","PFDA","10.5","ug/kg","","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","2355-31-
9","NMeFOSAA","0.990","ug/kg","U","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","2991-50-
6","NEtFOSAA","0.990","ug/kg","U","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","2058-94-
8","PFUnA","17.0","ug/kg","","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","307-55-
1","PFDoA","5.07","ug/kg","","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","72629-94-
8","PFTrDA","0.990","ug/kg","U","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","376-06-
7","PFTeDA","0.990","ug/kg","U","0.990","CRDL","","TRG","","","1.98","CRDL","YES","0.836"
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","13C3-PFBS","13C3-
PFBS","74.3","%R","","","CRDL","","IS","74.3","","","CRDL","",""
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","13C2-PFHxA","13C2-
PFHxA","86.7","%R","","","CRDL","","IS","86.7","","","CRDL","",""
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","13C4-PFHpA","13C4-
PFHpA","84.7","%R","","","CRDL","","IS","84.7","","","CRDL","",""
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","13C3-PFHxS","13C3-
PFHxS","89.7","%R","","","CRDL","","IS","89.7","","","CRDL","",""
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","13C2-PFOA","13C2-
PFOA","86.1","%R","","","CRDL","","IS","86.1","","","CRDL","",""
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","13C5-PFNA","13C5-
PFNA","73.3","%R","","","CRDL","","IS","73.3","","","CRDL","",""
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","13C8-PFOS","13C8-
PFOS","77.8","%R","","","CRDL","","IS","77.8","","","CRDL","",""
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","13C2-PFDA","13C2-
PFDA","62.5","%R","","","CRDL","","IS","62.5","","","CRDL","",""
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","d3-MeFOSAA","d3-
MeFOSAA","48.3","%R","H","","CRDL","","IS","48.3","","","CRDL","",""
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","d5-EtFOSAA","d5-
EtFOSAA","52.2","%R","","","CRDL","","IS","52.2","","","CRDL","",""
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","13C2-PFUnA","13C2-
PFUnA","66.2","%R","","","CRDL","","IS","66.2","","","CRDL","",""
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","13C2-PFDoA","13C2-
PFDoA","60.7","%R","","","CRDL","","IS","60.7","","","CRDL","",""
"CAOA-B04-SO-0-0.5","537 MOD","RES","1902014-06","Vista","13C2-PFTeDA","13C2-

PFTeDA","74.9","%R","","","CRDL","","IS","74.9","","","CRDL","",""
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","375-73-
5","PFBS","0.997","ug/kg","U","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","307-24-
4","PFHxA","0.997","ug/kg","U","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","375-85-
9","PFHpA","0.997","ug/kg","U","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","355-46-
4","PFHxS","0.997","ug/kg","U","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","335-67-
1","PFOA","0.997","ug/kg","U","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","375-95-
1","PFNA","0.997","ug/kg","U","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","1763-23-
1","PFOS","0.878","ug/kg","J","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","335-76-
2","PFDA","0.997","ug/kg","U","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","2355-31-
9","NMeFOSAA","0.997","ug/kg","U","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","2991-50-
6","NEtFOSAA","0.997","ug/kg","U","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","2058-94-
8","PFUnA","0.997","ug/kg","U","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","307-55-
1","PFDoA","0.997","ug/kg","U","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","72629-94-
8","PFTrDA","0.997","ug/kg","U","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","376-06-
7","PFTeDA","0.997","ug/kg","U","0.997","CRDL","","TRG","","","1.99","CRDL","YES","0.843"
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","13C3-PFBS","13C3-
PFBS","48.9","%R","H","","CRDL","","IS","48.9","","","CRDL","",""
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","13C2-PFHxA","13C2-
PFHxA","78.6","%R","","","CRDL","","IS","78.6","","","CRDL","",""
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","13C4-PFHpA","13C4-
PFHpA","79.6","%R","","","CRDL","","IS","79.6","","","CRDL","",""
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","13C3-PFHxS","13C3-
PFHxS","66.0","%R","","","CRDL","","IS","66.0","","","CRDL","",""
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","13C2-PFOA","13C2-
PFOA","84.2","%R","","","CRDL","","IS","84.2","","","CRDL","",""
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","13C5-PFNA","13C5-
PFNA","77.0","%R","","","CRDL","","IS","77.0","","","CRDL","",""
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","13C8-PFOS","13C8-
PFOS","70.9","%R","","","CRDL","","IS","70.9","","","CRDL","",""
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","13C2-PFDA","13C2-
PFDA","65.2","%R","","","CRDL","","IS","65.2","","","CRDL","",""
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","d3-MeFOSAA","d3-
MeFOSAA","36.1","%R","H","","CRDL","","IS","36.1","","","CRDL","",""
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","d5-EtFOSAA","d5-
EtFOSAA","37.5","%R","H","","CRDL","","IS","37.5","","","CRDL","",""
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","13C2-PFUnA","13C2-
PFUnA","54.9","%R","","","CRDL","","IS","54.9","","","CRDL","",""
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","13C2-PFDoA","13C2-
PFDoA","42.8","%R","H","","CRDL","","IS","42.8","","","CRDL","",""
"CAOA-B01-SO-20-20.5","537 MOD","RES","1902014-07","Vista","13C2-PFTeDA","13C2-

PFTeDA","51.0","%R","","","CRDL","","IS","51.0","","","CRDL","",""
"FRB-07082019","537 MOD","RES","1902014-08","Vista","375-73-
5","PFBS","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","307-24-
4","PFHxA","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","375-85-
9","PFHpA","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","355-46-
4","PFHxS","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","335-67-
1","PFOA","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","375-95-
1","PFNA","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","1763-23-
1","PFOS","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","335-76-
2","PFDA","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","2355-31-
9","NMeFOSAA","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","2991-50-
6","NEtFOSAA","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","2058-94-
8","PFUnA","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","307-55-
1","PFDoA","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","72629-94-
8","PFTrDA","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","376-06-
7","PFTeDA","0.00427","ug/L","U","0.00427","CRDL","","TRG","","","0.00853","CRDL","YES","0.00292"
"FRB-07082019","537 MOD","RES","1902014-08","Vista","13C3-PFBS","13C3-
PFBS","102","%R","","","CRDL","","IS","102","","","CRDL","",""
"FRB-07082019","537 MOD","RES","1902014-08","Vista","13C2-PFHxA","13C2-
PFHxA","103","%R","","","CRDL","","IS","103","","","CRDL","",""
"FRB-07082019","537 MOD","RES","1902014-08","Vista","13C4-PFHpA","13C4-
PFHpA","105","%R","","","CRDL","","IS","105","","","CRDL","",""
"FRB-07082019","537 MOD","RES","1902014-08","Vista","13C3-PFHxS","13C3-
PFHxS","103","%R","","","CRDL","","IS","103","","","CRDL","",""
"FRB-07082019","537 MOD","RES","1902014-08","Vista","13C2-PFOA","13C2-
PFOA","96.1","%R","","","CRDL","","IS","96.1","","","CRDL","",""
"FRB-07082019","537 MOD","RES","1902014-08","Vista","13C5-PFNA","13C5-
PFNA","96.3","%R","","","CRDL","","IS","96.3","","","CRDL","",""
"FRB-07082019","537 MOD","RES","1902014-08","Vista","13C8-PFOS","13C8-
PFOS","105","%R","","","CRDL","","IS","105","","","CRDL","",""
"FRB-07082019","537 MOD","RES","1902014-08","Vista","13C2-PFDA","13C2-
PFDA","86.2","%R","","","CRDL","","IS","86.2","","","CRDL","",""
"FRB-07082019","537 MOD","RES","1902014-08","Vista","d3-MeFOSAA","d3-
MeFOSAA","73.9","%R","","","CRDL","","IS","73.9","","","CRDL","",""
"FRB-07082019","537 MOD","RES","1902014-08","Vista","d5-EtFOSAA","d5-
EtFOSAA","77.0","%R","","","CRDL","","IS","77.0","","","CRDL","",""
"FRB-07082019","537 MOD","RES","1902014-08","Vista","13C2-PFUnA","13C2-
PFUnA","76.4","%R","","","CRDL","","IS","76.4","","","CRDL","",""
"FRB-07082019","537 MOD","RES","1902014-08","Vista","13C2-PFDoA","13C2-
PFDoA","74.6","%R","","","CRDL","","IS","74.6","","","CRDL","",""
"FRB-07082019","537 MOD","RES","1902014-08","Vista","13C2-PFTeDA","13C2-

PFTeDA","81.8","%R","","","CRDL","","IS","81.8","","","CRDL","",""
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","375-73-
5","PFBS","0.152","ug/L","","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","307-24-
4","PFHxA","0.417","ug/L","","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","375-85-
9","PFHpA","0.0317","ug/L","","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","355-46-
4","PFHxS","0.160","ug/L","","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","335-67-
1","PFOA","0.0278","ug/L","","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","375-95-
1","PFNA","0.00304","ug/L","J","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","1763-23-
1","PFOS","0.0946","ug/L","","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","335-76-
2","PFDA","0.00391","ug/L","U","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","2355-31-
9","NMeFOSAA","0.00391","ug/L","U","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","2991-50-
6","NEtFOSAA","0.00391","ug/L","U","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","2058-94-
8","PFUnA","0.00391","ug/L","U","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","307-55-
1","PFDoA","0.00391","ug/L","U","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","72629-94-
8","PFTrDA","0.00391","ug/L","U","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","376-06-
7","PFTeDA","0.00391","ug/L","U","0.00391","CRDL","","TRG","","","0.00784","CRDL","YES","0.00268"
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","13C3-PFBS","13C3-
PFBS","94.4","%R","","","CRDL","","IS","94.4","","","CRDL","",""
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","13C2-PFHxA","13C2-
PFHxA","94.7","%R","","","CRDL","","IS","94.7","","","CRDL","",""
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","13C4-PFHpA","13C4-
PFHpA","101","%R","","","CRDL","","IS","101","","","CRDL","",""
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","13C3-PFHxS","13C3-
PFHxS","99.6","%R","","","CRDL","","IS","99.6","","","CRDL","",""
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","13C2-PFOA","13C2-
PFOA","93.8","%R","","","CRDL","","IS","93.8","","","CRDL","",""
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","13C5-PFNA","13C5-
PFNA","89.1","%R","","","CRDL","","IS","89.1","","","CRDL","",""
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","13C8-PFOS","13C8-
PFOS","90.0","%R","","","CRDL","","IS","90.0","","","CRDL","",""
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","13C2-PFDA","13C2-
PFDA","84.4","%R","","","CRDL","","IS","84.4","","","CRDL","",""
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","d3-MeFOSAA","d3-
MeFOSAA","65.1","%R","","","CRDL","","IS","65.1","","","CRDL","",""
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","d5-EtFOSAA","d5-
EtFOSAA","63.5","%R","","","CRDL","","IS","63.5","","","CRDL","",""
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","13C2-PFUnA","13C2-
PFUnA","67.8","%R","","","CRDL","","IS","67.8","","","CRDL","",""
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","13C2-PFDoA","13C2-
PFDoA","57.7","%R","","","CRDL","","IS","57.7","","","CRDL","",""
"CAOA-B01-GW","537 MOD","RES","1902014-09","Vista","13C2-PFTeDA","13C2-

PFTeDA","32.4","%R","H","","CRDL","","IS","32.4","","","CRDL","",""
"EB-07082019","537 MOD","RES","1902014-10","Vista","375-73-
5","PFBS","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","307-24-
4","PFHxA","0.0164","ug/L","","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","375-85-
9","PFHpA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","355-46-
4","PFHxS","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","335-67-
1","PFOA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","375-95-
1","PFNA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","1763-23-
1","PFOS","0.0217","ug/L","","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","335-76-
2","PFDA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","2355-31-
9","NMeFOSAA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","2991-50-
6","NEtFOSAA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","2058-94-
8","PFUnA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","307-55-
1","PFDoA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","72629-94-
8","PFTrDA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","376-06-
7","PFTeDA","0.00424","ug/L","U","0.00424","CRDL","","TRG","","","0.00846","CRDL","YES","0.00290"
"EB-07082019","537 MOD","RES","1902014-10","Vista","13C3-PFBS","13C3-
PFBS","94.1","%R","","","CRDL","","IS","94.1","","","CRDL","",""
"EB-07082019","537 MOD","RES","1902014-10","Vista","13C2-PFHxA","13C2-
PFHxA","90.5","%R","","","CRDL","","IS","90.5","","","CRDL","",""
"EB-07082019","537 MOD","RES","1902014-10","Vista","13C4-PFHpA","13C4-
PFHpA","95.5","%R","","","CRDL","","IS","95.5","","","CRDL","",""
"EB-07082019","537 MOD","RES","1902014-10","Vista","13C3-PFHxS","13C3-
PFHxS","92.2","%R","","","CRDL","","IS","92.2","","","CRDL","",""
"EB-07082019","537 MOD","RES","1902014-10","Vista","13C2-PFOA","13C2-
PFOA","91.5","%R","","","CRDL","","IS","91.5","","","CRDL","",""
"EB-07082019","537 MOD","RES","1902014-10","Vista","13C5-PFNA","13C5-
PFNA","85.8","%R","","","CRDL","","IS","85.8","","","CRDL","",""
"EB-07082019","537 MOD","RES","1902014-10","Vista","13C8-PFOS","13C8-
PFOS","99.6","%R","","","CRDL","","IS","99.6","","","CRDL","",""
"EB-07082019","537 MOD","RES","1902014-10","Vista","13C2-PFDA","13C2-
PFDA","74.0","%R","","","CRDL","","IS","74.0","","","CRDL","",""
"EB-07082019","537 MOD","RES","1902014-10","Vista","d3-MeFOSAA","d3-
MeFOSAA","63.6","%R","","","CRDL","","IS","63.6","","","CRDL","",""
"EB-07082019","537 MOD","RES","1902014-10","Vista","d5-EtFOSAA","d5-
EtFOSAA","64.9","%R","","","CRDL","","IS","64.9","","","CRDL","",""
"EB-07082019","537 MOD","RES","1902014-10","Vista","13C2-PFUnA","13C2-
PFUnA","65.6","%R","","","CRDL","","IS","65.6","","","CRDL","",""
"EB-07082019","537 MOD","RES","1902014-10","Vista","13C2-PFDoA","13C2-
PFDoA","61.0","%R","","","CRDL","","IS","61.0","","","CRDL","",""
"EB-07082019","537 MOD","RES","1902014-10","Vista","13C2-PFTeDA","13C2-

PFTeDA","74.6","%R","","","CRDL","","IS","74.6","","","CRDL","",""
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","375-73-
5","PFBS","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","307-24-
4","PFHxA","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","375-85-
9","PFHpA","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","355-46-
4","PFHxS","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","335-67-
1","PFOA","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","375-95-
1","PFNA","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","1763-23-
1","PFOS","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","335-76-
2","PFDA","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","2355-31-
9","NMeFOSAA","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","2991-50-
6","NEtFOSAA","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","2058-94-
8","PFUnA","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","307-55-
1","PFDoA","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","72629-94-
8","PFTrDA","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","376-06-
7","PFTeDA","0.00200","ug/L","U","0.00200","CRDL","","TRG","","","0.00400","CRDL","YES","0.00137"
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","13C3-PFBS","13C3-
PFBS","107","%R","","","CRDL","","IS","107","","","CRDL","",""
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","13C2-PFHxA","13C2-
PFHxA","98.2","%R","","","CRDL","","IS","98.2","","","CRDL","",""
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","13C4-PFHpA","13C4-
PFHpA","95.1","%R","","","CRDL","","IS","95.1","","","CRDL","",""
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","13C3-PFHxS","13C3-
PFHxS","98.4","%R","","","CRDL","","IS","98.4","","","CRDL","",""
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","13C2-PFOA","13C2-
PFOA","93.6","%R","","","CRDL","","IS","93.6","","","CRDL","",""
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","13C5-PFNA","13C5-
PFNA","88.0","%R","","","CRDL","","IS","88.0","","","CRDL","",""
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","13C8-PFOS","13C8-
PFOS","93.0","%R","","","CRDL","","IS","93.0","","","CRDL","",""
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","13C2-PFDA","13C2-
PFDA","82.9","%R","","","CRDL","","IS","82.9","","","CRDL","",""
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","d3-MeFOSAA","d3-
MeFOSAA","72.5","%R","","","CRDL","","IS","72.5","","","CRDL","",""
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","d5-EtFOSAA","d5-
EtFOSAA","70.8","%R","","","CRDL","","IS","70.8","","","CRDL","",""
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","13C2-PFUnA","13C2-
PFUnA","84.1","%R","","","CRDL","","IS","84.1","","","CRDL","",""
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","13C2-PFDoA","13C2-
PFDoA","81.7","%R","","","CRDL","","IS","81.7","","","CRDL","",""
"B9G0134-BLK1","537 MOD","RES","B9G0134-BLK1","Vista","13C2-PFTeDA","13C2-

PFTeDA","79.6","%R","","","CRDL","","IS","79.6","","","CRDL","",""
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","375-73-
5","PFBS","0.0403","ug/L","","0.00200","CRDL","","SPK","101","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","307-24-
4","PFHxA","0.0420","ug/L","","0.00200","CRDL","","SPK","105","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","375-85-
9","PFHpA","0.0391","ug/L","","0.00200","CRDL","","SPK","97.7","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","355-46-
4","PFHxS","0.0444","ug/L","","0.00200","CRDL","","SPK","111","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","335-67-
1","PFOA","0.0410","ug/L","","0.00200","CRDL","","SPK","103","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","375-95-
1","PFNA","0.0423","ug/L","","0.00200","CRDL","","SPK","106","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","1763-23-
1","PFOS","0.0401","ug/L","","0.00200","CRDL","","SPK","100","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","335-76-
2","PFDA","0.0414","ug/L","","0.00200","CRDL","","SPK","103","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","2355-31-
9","NMeFOSAA","0.0402","ug/L","","0.00200","CRDL","","SPK","101","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","2991-50-
6","NEtFOSAA","0.0400","ug/L","","0.00200","CRDL","","SPK","100","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","2058-94-
8","PFUnA","0.0435","ug/L","","0.00200","CRDL","","SPK","109","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","307-55-
1","PFDoA","0.0381","ug/L","","0.00200","CRDL","","SPK","95.2","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","72629-94-
8","PFTrDA","0.0369","ug/L","","0.00200","CRDL","","SPK","92.3","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","376-06-
7","PFTeDA","0.0399","ug/L","","0.00200","CRDL","","SPK","99.8","","0.00400","CRDL","YES","0.00137"
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","13C3-PFBS","13C3-
PFBS","101","%R","","","CRDL","","IS","101","","","CRDL","",""
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","13C2-PFHxA","13C2-
PFHxA","101","%R","","","CRDL","","IS","101","","","CRDL","",""
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","13C4-PFHpA","13C4-
PFHpA","102","%R","","","CRDL","","IS","102","","","CRDL","",""
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","13C3-PFHxS","13C3-
PFHxS","102","%R","","","CRDL","","IS","102","","","CRDL","",""
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","13C2-PFOA","13C2-
PFOA","91.3","%R","","","CRDL","","IS","91.3","","","CRDL","",""
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","13C5-PFNA","13C5-
PFNA","88.6","%R","","","CRDL","","IS","88.6","","","CRDL","",""
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","13C8-PFOS","13C8-
PFOS","93.1","%R","","","CRDL","","IS","93.1","","","CRDL","",""
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","13C2-PFDA","13C2-
PFDA","85.0","%R","","","CRDL","","IS","85.0","","","CRDL","",""
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","d3-MeFOSAA","d3-
MeFOSAA","80.1","%R","","","CRDL","","IS","80.1","","","CRDL","",""
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","d5-EtFOSAA","d5-
EtFOSAA","81.7","%R","","","CRDL","","IS","81.7","","","CRDL","",""
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","13C2-PFUnA","13C2-
PFUnA","85.1","%R","","","CRDL","","IS","85.1","","","CRDL","",""
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","13C2-PFDoA","13C2-
PFDoA","83.7","%R","","","CRDL","","IS","83.7","","","CRDL","",""
"B9G0134-BS1","537 MOD","RES","B9G0134-BS1","Vista","13C2-PFTeDA","13C2-

PFTeDA","83.8","%R","","","CRDL","","IS","83.8","","","CRDL","",""
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","375-73-
5","PFBS","0.0426","ug/L","","0.00200","CRDL","","SPK","106","5.39","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","307-24-
4","PFHxA","0.0436","ug/L","","0.00200","CRDL","","SPK","109","3.87","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","375-85-
9","PFHpA","0.0423","ug/L","","0.00200","CRDL","","SPK","106","7.95","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","355-46-
4","PFHxS","0.0471","ug/L","","0.00200","CRDL","","SPK","118","5.98","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","335-67-
1","PFOA","0.0399","ug/L","","0.00200","CRDL","","SPK","99.8","2.70","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","375-95-
1","PFNA","0.0441","ug/L","","0.00200","CRDL","","SPK","110","4.26","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","1763-23-
1","PFOS","0.0425","ug/L","","0.00200","CRDL","","SPK","106","5.93","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","335-76-
2","PFDA","0.0460","ug/L","","0.00200","CRDL","","SPK","115","10.7","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","2355-31-
9","NMeFOSAA","0.0443","ug/L","","0.00200","CRDL","","SPK","111","9.67","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","2991-50-
6","NEtFOSAA","0.0463","ug/L","","0.00200","CRDL","","SPK","116","14.6","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","2058-94-
8","PFUnA","0.0445","ug/L","","0.00200","CRDL","","SPK","111","2.39","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","307-55-
1","PFDoA","0.0434","ug/L","","0.00200","CRDL","","SPK","109","13.1","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","72629-94-
8","PFTrDA","0.0397","ug/L","","0.00200","CRDL","","SPK","99.3","7.36","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","376-06-
7","PFTeDA","0.0447","ug/L","","0.00200","CRDL","","SPK","112","11.3","0.00400","CRDL","YES","0.00137"
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","13C3-PFBS","13C3-
PFBS","102","%R","","","CRDL","","IS","102","","","CRDL","",""
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","13C2-PFHxA","13C2-
PFHxA","96.5","%R","","","CRDL","","IS","96.5","","","CRDL","",""
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","13C4-PFHpA","13C4-
PFHpA","90.7","%R","","","CRDL","","IS","90.7","","","CRDL","",""
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","13C3-PFHxS","13C3-
PFHxS","100","%R","","","CRDL","","IS","100","","","CRDL","",""
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","13C2-PFOA","13C2-
PFOA","94.0","%R","","","CRDL","","IS","94.0","","","CRDL","",""
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","13C5-PFNA","13C5-
PFNA","85.9","%R","","","CRDL","","IS","85.9","","","CRDL","",""
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","13C8-PFOS","13C8-
PFOS","90.1","%R","","","CRDL","","IS","90.1","","","CRDL","",""
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","13C2-PFDA","13C2-
PFDA","77.6","%R","","","CRDL","","IS","77.6","","","CRDL","",""
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","d3-MeFOSAA","d3-
MeFOSAA","68.6","%R","","","CRDL","","IS","68.6","","","CRDL","",""
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","d5-EtFOSAA","d5-
EtFOSAA","73.7","%R","","","CRDL","","IS","73.7","","","CRDL","",""
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","13C2-PFUnA","13C2-
PFUnA","80.9","%R","","","CRDL","","IS","80.9","","","CRDL","",""
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","13C2-PFDoA","13C2-
PFDoA","74.9","%R","","","CRDL","","IS","74.9","","","CRDL","",""
"B9G0134-BSD1","537 MOD","RES","B9G0134-BSD1","Vista","13C2-PFTeDA","13C2-

PFTeDA","71.5","%R","","","CRDL","","IS","71.5","","","CRDL","",""
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","375-73-
5","PFBS","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","307-24-
4","PFHxA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","375-85-
9","PFHpA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","355-46-
4","PFHxS","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","335-67-
1","PFOA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","375-95-
1","PFNA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","1763-23-
1","PFOS","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","335-76-
2","PFDA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","2355-31-
9","NMeFOSAA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","2991-50-
6","NEtFOSAA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","2058-94-
8","PFUnA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","307-55-
1","PFDoA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","72629-94-
8","PFTrDA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","376-06-
7","PFTeDA","1.00","ug/kg","U","1.00","CRDL","","TRG","","","2.00","CRDL","YES","0.845"
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","13C3-PFBS","13C3-
PFBS","88.6","%R","","","CRDL","","IS","88.6","","","CRDL","",""
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","13C2-PFHxA","13C2-
PFHxA","85.9","%R","","","CRDL","","IS","85.9","","","CRDL","",""
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","13C4-PFHpA","13C4-
PFHpA","81.7","%R","","","CRDL","","IS","81.7","","","CRDL","",""
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","13C3-PFHxS","13C3-
PFHxS","92.4","%R","","","CRDL","","IS","92.4","","","CRDL","",""
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","13C2-PFOA","13C2-
PFOA","77.6","%R","","","CRDL","","IS","77.6","","","CRDL","",""
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","13C5-PFNA","13C5-
PFNA","80.6","%R","","","CRDL","","IS","80.6","","","CRDL","",""
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","13C8-PFOS","13C8-
PFOS","78.5","%R","","","CRDL","","IS","78.5","","","CRDL","",""
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","13C2-PFDA","13C2-
PFDA","58.8","%R","","","CRDL","","IS","58.8","","","CRDL","",""
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","d3-MeFOSAA","d3-
MeFOSAA","35.4","%R","H","","CRDL","","IS","35.4","","","CRDL","",""
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","d5-EtFOSAA","d5-
EtFOSAA","41.5","%R","H","","CRDL","","IS","41.5","","","CRDL","",""
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","13C2-PFUnA","13C2-
PFUnA","51.2","%R","","","CRDL","","IS","51.2","","","CRDL","",""
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","13C2-PFDoA","13C2-
PFDoA","42.6","%R","H","","CRDL","","IS","42.6","","","CRDL","",""
"B9G0189-BLK1","537 MOD","RES","B9G0189-BLK1","Vista","13C2-PFTeDA","13C2-

PFTeDA","55.6","%R","","","CRDL","","IS","55.6","","","CRDL","",""
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","375-73-
5","PFBS","10.4","ug/kg","","1.00","CRDL","","SPK","104","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","307-24-
4","PFHxA","10.7","ug/kg","","1.00","CRDL","","SPK","107","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","375-85-
9","PFHpA","10.4","ug/kg","","1.00","CRDL","","SPK","104","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","355-46-
4","PFHxS","8.60","ug/kg","","1.00","CRDL","","SPK","86.0","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","335-67-
1","PFOA","10.4","ug/kg","","1.00","CRDL","","SPK","104","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","375-95-
1","PFNA","10.9","ug/kg","","1.00","CRDL","","SPK","109","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","1763-23-
1","PFOS","8.91","ug/kg","","1.00","CRDL","","SPK","89.1","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","335-76-
2","PFDA","10.3","ug/kg","","1.00","CRDL","","SPK","103","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","2355-31-
9","NMeFOSAA","9.72","ug/kg","","1.00","CRDL","","SPK","97.2","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","2991-50-
6","NEtFOSAA","10.3","ug/kg","","1.00","CRDL","","SPK","103","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","2058-94-
8","PFUnA","10.3","ug/kg","","1.00","CRDL","","SPK","103","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","307-55-
1","PFDoA","10.5","ug/kg","","1.00","CRDL","","SPK","105","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","72629-94-
8","PFTrDA","11.6","ug/kg","","1.00","CRDL","","SPK","116","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","376-06-
7","PFTeDA","9.88","ug/kg","","1.00","CRDL","","SPK","98.8","","2.00","CRDL","YES","0.845"
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","13C3-PFBS","13C3-
PFBS","46.0","%R","H","","CRDL","","IS","46.0","","","CRDL","",""
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","13C2-PFHxA","13C2-
PFHxA","83.4","%R","","","CRDL","","IS","83.4","","","CRDL","",""
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","13C4-PFHpA","13C4-
PFHpA","80.8","%R","","","CRDL","","IS","80.8","","","CRDL","",""
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","13C3-PFHxS","13C3-
PFHxS","74.7","%R","","","CRDL","","IS","74.7","","","CRDL","",""
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","13C2-PFOA","13C2-
PFOA","78.6","%R","","","CRDL","","IS","78.6","","","CRDL","",""
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","13C5-PFNA","13C5-
PFNA","78.9","%R","","","CRDL","","IS","78.9","","","CRDL","",""
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","13C8-PFOS","13C8-
PFOS","80.6","%R","","","CRDL","","IS","80.6","","","CRDL","",""
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","13C2-PFDA","13C2-
PFDA","57.4","%R","","","CRDL","","IS","57.4","","","CRDL","",""
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","d3-MeFOSAA","d3-
MeFOSAA","33.4","%R","H","","CRDL","","IS","33.4","","","CRDL","",""
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","d5-EtFOSAA","d5-
EtFOSAA","32.2","%R","H","","CRDL","","IS","32.2","","","CRDL","",""
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","13C2-PFUnA","13C2-
PFUnA","54.6","%R","","","CRDL","","IS","54.6","","","CRDL","",""
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","13C2-PFDoA","13C2-
PFDoA","43.1","%R","H","","CRDL","","IS","43.1","","","CRDL","",""
"B9G0189-BS1","537 MOD","RES","B9G0189-BS1","Vista","13C2-PFTeDA","13C2-

PFTeDA","59.4","%R","","","CRDL","","IS","59.4","","","CRDL","",""
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","375-73-
5","PFBS","9.37","ug/kg","","0.993","CRDL","","SPK","93.8","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","307-24-
4","PFHxA","10.9","ug/kg","","0.993","CRDL","","SPK","105","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","375-85-
9","PFHpA","10.9","ug/kg","","0.993","CRDL","","SPK","107","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","355-46-
4","PFHxS","9.27","ug/kg","","0.993","CRDL","","SPK","91.6","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","335-67-
1","PFOA","10.4","ug/kg","","0.993","CRDL","","SPK","103","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","375-95-
1","PFNA","10.3","ug/kg","","0.993","CRDL","","SPK","102","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","1763-23-
1","PFOS","11.0","ug/kg","","0.993","CRDL","","SPK","98.9","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","335-76-
2","PFDA","9.97","ug/kg","","0.993","CRDL","","SPK","100","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","2355-31-
9","NMeFOSAA","9.50","ug/kg","","0.993","CRDL","","SPK","95.7","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","2991-50-
6","NEtFOSAA","10.1","ug/kg","","0.993","CRDL","","SPK","101","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","2058-94-
8","PFUnA","10.5","ug/kg","","0.993","CRDL","","SPK","106","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","307-55-
1","PFDoA","10.3","ug/kg","","0.993","CRDL","","SPK","104","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","72629-94-
8","PFTrDA","11.4","ug/kg","","0.993","CRDL","","SPK","114","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","376-06-
7","PFTeDA","10.1","ug/kg","","0.993","CRDL","","SPK","102","","1.99","CRDL","YES","0.839"
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","13C3-PFBS","13C3-
PFBS","76.1","%R","","","CRDL","","IS","76.1","","","CRDL","",""
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","13C2-PFHxA","13C2-
PFHxA","86.3","%R","","","CRDL","","IS","86.3","","","CRDL","",""
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","13C4-PFHpA","13C4-
PFHpA","81.9","%R","","","CRDL","","IS","81.9","","","CRDL","",""
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","13C3-PFHxS","13C3-
PFHxS","88.8","%R","","","CRDL","","IS","88.8","","","CRDL","",""
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","13C2-PFOA","13C2-
PFOA","84.2","%R","","","CRDL","","IS","84.2","","","CRDL","",""
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","13C5-PFNA","13C5-
PFNA","78.5","%R","","","CRDL","","IS","78.5","","","CRDL","",""
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","13C8-PFOS","13C8-
PFOS","79.8","%R","","","CRDL","","IS","79.8","","","CRDL","",""
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","13C2-PFDA","13C2-
PFDA","65.5","%R","","","CRDL","","IS","65.5","","","CRDL","",""
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","d3-MeFOSAA","d3-
MeFOSAA","38.7","%R","H","","CRDL","","IS","38.7","","","CRDL","",""
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","d5-EtFOSAA","d5-
EtFOSAA","38.8","%R","H","","CRDL","","IS","38.8","","","CRDL","",""
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","13C2-PFUnA","13C2-
PFUnA","54.6","%R","","","CRDL","","IS","54.6","","","CRDL","",""
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","13C2-PFDoA","13C2-
PFDoA","50.5","%R","","","CRDL","","IS","50.5","","","CRDL","",""
"CAOA-B01-SO-0-0.5MS","537 MOD","RES","B9G0189-MS1","Vista","13C2-PFTeDA","13C2-

PFTeDA","63.3","%R","","","CRDL","","IS","63.3","","","CRDL","",""
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","375-73-
5","PFBS","9.44","ug/kg","","0.984","CRDL","","SPK","95.4","1.69","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","307-24-
4","PFHxA","11.4","ug/kg","","0.984","CRDL","","SPK","110","4.65","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","375-85-
9","PFHpA","10.9","ug/kg","","0.984","CRDL","","SPK","107","0","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","355-46-
4","PFHxS","10.5","ug/kg","","0.984","CRDL","","SPK","105","13.6","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","335-67-
1","PFOA","10.8","ug/kg","","0.984","CRDL","","SPK","108","4.74","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","375-95-
1","PFNA","10.6","ug/kg","","0.984","CRDL","","SPK","105","2.90","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","1763-23-
1","PFOS","10.7","ug/kg","","0.984","CRDL","","SPK","97.3","1.63","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","335-76-
2","PFDA","10.7","ug/kg","","0.984","CRDL","","SPK","108","7.69","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","2355-31-
9","NMeFOSAA","10.9","ug/kg","","0.984","CRDL","","SPK","111","14.8","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","2991-50-
6","NEtFOSAA","9.98","ug/kg","","0.984","CRDL","","SPK","101","0","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","2058-94-
8","PFUnA","10.3","ug/kg","","0.984","CRDL","","SPK","105","0.948","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","307-55-
1","PFDoA","10.7","ug/kg","","0.984","CRDL","","SPK","108","3.77","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","72629-94-
8","PFTrDA","12.3","ug/kg","","0.984","CRDL","","SPK","125","9.21","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","376-06-
7","PFTeDA","11.0","ug/kg","","0.984","CRDL","","SPK","112","9.35","1.97","CRDL","YES","0.831"
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","13C3-PFBS","13C3-
PFBS","59.5","%R","","","CRDL","","IS","59.5","","","CRDL","",""
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","13C2-PFHxA","13C2-
PFHxA","82.2","%R","","","CRDL","","IS","82.2","","","CRDL","",""
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","13C4-PFHpA","13C4-
PFHpA","78.8","%R","","","CRDL","","IS","78.8","","","CRDL","",""
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","13C3-PFHxS","13C3-
PFHxS","74.8","%R","","","CRDL","","IS","74.8","","","CRDL","",""
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","13C2-PFOA","13C2-
PFOA","80.8","%R","","","CRDL","","IS","80.8","","","CRDL","",""
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","13C5-PFNA","13C5-
PFNA","79.3","%R","","","CRDL","","IS","79.3","","","CRDL","",""
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","13C8-PFOS","13C8-
PFOS","74.8","%R","","","CRDL","","IS","74.8","","","CRDL","",""
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","13C2-PFDA","13C2-
PFDA","60.5","%R","","","CRDL","","IS","60.5","","","CRDL","",""
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","d3-MeFOSAA","d3-
MeFOSAA","41.4","%R","H","","CRDL","","IS","41.4","","","CRDL","",""
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","d5-EtFOSAA","d5-
EtFOSAA","45.9","%R","H","","CRDL","","IS","45.9","","","CRDL","",""
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","13C2-PFUnA","13C2-
PFUnA","54.2","%R","","","CRDL","","IS","54.2","","","CRDL","",""
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","13C2-PFDoA","13C2-
PFDoA","46.3","%R","H","","CRDL","","IS","46.3","","","CRDL","",""
"CAOA-B01-SO-0-0.5MSD","537 MOD","RES","B9G0189-MSD1","Vista","13C2-PFTeDA","13C2-

PFTeDA","62.6","%R","","","CRDL","","IS","62.6","","","CRDL","",""
"4663.3803","CTO 17F3803 Yuma","CAOA-B03-SO-4-4.5","07/03/2019 08:10","SO","1902014-01","","","","537 MOD","Gen Prep","RES","07/18/2019 13:49","07/19/2019 17:30","Vista","COA","DRY","","1","","","","7.28","B9G0189","B9G0189","S9G0047","S9G0047","1902014","07/09/2019 09:30","07/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","CAOA-B03-SO-20-20.5","07/03/2019 08:40","SO","1902014-02","","","","537 MOD","Gen Prep","RES","07/18/2019 13:49","07/22/2019 00:51","Vista","COA","DRY","","1","","","","8.44","B9G0189","B9G0189","S9G0047","S9G0047","1902014","07/09/2019 09:30","07/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","FRB-07032019","07/03/2019 11:05","AQ","1902014-03","","","","537 MOD","Gen Prep","RES","07/15/2019 06:14","07/22/2019 22:36","Vista","COA","","","1","","","","","B9G0134","B9G0134","S9G0056","S9G0056","1902014","07/09/2019 09:30","07/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","EB-07032019","07/03/2019 13:20","AQ","1902014-04","","","","537 MOD","Gen Prep","RES","07/15/2019 06:14","07/22/2019 22:46","Vista","COA","","","1","","","","","B9G0134","B9G0134","S9G0056","S9G0056","1902014","07/09/2019 09:30","07/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","CAOA-B01-SO-0-0.5","07/08/2019 12:10","SO","1902014-05","","","","537 MOD","Gen Prep","RES","07/18/2019 13:49","07/22/2019 01:23","Vista","COA","DRY","","1","","","","5.87","B9G0189","B9G0189","S9G0047","S9G0047","1902014","07/09/2019 09:30","07/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","CAOA-B04-SO-0-0.5","07/08/2019 12:20","SO","1902014-06","","","","537 MOD","Gen Prep","RES","07/18/2019 13:49","07/19/2019 18:02","Vista","COA","DRY","","1","","","","1.90","B9G0189","B9G0189","S9G0047","S9G0047","1902014","07/09/2019 09:30","07/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","CAOA-B01-SO-20-20.5","07/08/2019 12:40","SO","1902014-07","","","","537 MOD","Gen Prep","RES","07/18/2019 13:49","07/19/2019 18:45","Vista","COA","DRY","","1","","","","16.40","B9G0189","B9G0189","S9G0047","S9G0047","1902014","07/09/2019 09:30","07/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","FRB-07082019","07/08/2019 15:00","AQ","1902014-08","","","","537 MOD","Gen Prep","RES","07/15/2019 06:14","07/23/2019 10:24","Vista","COA","","","1","","","","","B9G0134","B9G0134","S9G0056","S9G0056","1902014","07/09/2019 09:30","07/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","CAOA-B01-GW","07/08/2019 15:20","AQ","1902014-09","","","","537 MOD","Gen Prep","RES","07/15/2019 06:14","07/23/2019 10:35","Vista","COA","","","1","","","","","B9G0134","B9G0134","S9G0056","S9G0056","1902014","07/09/2019 09:30","07/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","EB-07082019","07/08/2019 15:25","AQ","1902014-10","","","","537 MOD","Gen Prep","RES","07/15/2019 06:14","07/23/2019 10:45","Vista","COA","","","1","","","","","B9G0134","B9G0134","S9G0056","S9G0056","1902014","07/09/2019 09:30","07/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","B9G0134-BLK1","","AQ","B9G0134-BLK1","MB","","","537 MOD","Gen Prep","RES","07/15/2019 06:14","07/22/2019 22:14","Vista","COA","","","1","","","","","B9G0134","B9G0134","S9G0056","S9G0056","1902014","","07/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","B9G0134-BS1","","AQ","B9G0134-BS1","LCS","","","537 MOD","Gen Prep","RES","07/15/2019 06:14","07/22/2019 21:53","Vista","COA","","","1","","","","","B9G0134","B9G0134","S9G0056","S9G0056","1902014","","07/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","B9G0134-BSD1","","AQ","B9G0134-BSD1","LCSD","","","537 MOD","Gen Prep","RES","07/15/2019 06:14","07/22/2019 22:04","Vista","COA","","","1","","","","","B9G0134","B9G0134","S9G0056","S9G0056","1902014","","07/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","B9G0189-BLK1","","SO","B9G0189-BLK1","MB","","","537 MOD","Gen

Prep","RES","07/18/2019 13:49","07/19/2019
17:20","Vista","COA","DRY","","1","","","","100.00","B9G0189","B9G0189","S9G0047","S9G0047","1902014","","0
7/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","B9G0189-BS1","","SO","B9G0189-BS1","LCS","","","537 MOD","Gen
Prep","RES","07/18/2019 13:49","07/19/2019
16:48","Vista","COA","DRY","","1","","","","100.00","B9G0189","B9G0189","S9G0047","S9G0047","1902014","","0
7/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","CAOA-B01-SO-0-0.5MS","07/18/2019 13:49","SO","B9G0189-
MS1","MS","","","537 MOD","Gen Prep","RES","07/18/2019 13:49","07/19/2019
16:58","Vista","COA","DRY","","1","","","","100.00","B9G0189","B9G0189","S9G0047","S9G0047","1902014","","0
7/23/2019 00:00"
"4663.3803","CTO 17F3803 Yuma","CAOA-B01-SO-0-0.5MSD","07/18/2019 13:49","SO","B9G0189-
MSD1","MSD","","","537 MOD","Gen Prep","RES","07/18/2019 13:49","07/19/2019
17:09","Vista","COA","DRY","","1","","","","100.00","B9G0189","B9G0189","S9G0047","S9G0047","1902014","","0
7/23/2019 00:00"

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Tetra Tech EC, Inc.
17885 Von Karman Avenue, Suite 500
Irvine, CA 92614
ATTN: Ms. Lisa Bienkowski
Lisa.Bienkowski@tetratech.com

August 26, 2019

SUBJECT: Revised MCAS Yuma, CTO 17F3803, Data Validation

Dear Ms. Bienkowski,

Enclosed is the revised validation report for the fraction listed below. Please replace the previously submitted report with the enclosed revised report.

- Corrected the sample ID

LDC Project #45706RV1:

SDG #	Fraction
1902014	Perfluoroalkyl & Polyfluoroalkyl Substances

The data validation was performed under Stage 4 guidelines. The analyses were validated using the following documents, as applicable to each method:

- Final Sampling and Analysis Plan, Field Sampling Plan and Quality Assurance Project Plan, Site Inspection for Per- and Polyfluoroalkyl Substances, Marine Corps Air Station Yuma, Arizona; May 2019
- U.S. Department of Defense Quality Systems Manual for Environmental Laboratories, Version 5.1; 2017
- USEPA National Functional Guidelines for Superfund Organic Methods Data Review; January 2017

Please feel free to contact us if you have any questions.

Sincerely,

Christina Rink

Christina Rink
crink@lab-data.com
Project Manager/Senior Chemist

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Tetra Tech EC, Inc.
17885 Von Karman Avenue, Suite 500
Irvine, CA 92614
ATTN: Ms. Lisa Bienkowski
Lisa.Bienkowski@tetratech.com

August 23, 2019

SUBJECT: MCAS Yuma, CTO 17F3803, Data Validation

Dear Ms. Bienkowski,

Enclosed are the final validation reports for the fraction listed below. These SDGs were received on August 12, 2019. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project #45706:

SDG #	Fraction
1902014, 1902097 1902189	Perfluoroalkyl & Polyfluoroalkyl Substances

The data validation was performed under Stage 4 guidelines. The analyses were validated using the following documents, as applicable to each method:

- Final Sampling and Analysis Plan, Field Sampling Plan and Quality Assurance Project Plan, Site Inspection for Per- and Polyfluoroalkyl Substances, Marine Corps Air Station Yuma, Arizona; May 2019
- U.S. Department of Defense Quality Systems Manual for Environmental Laboratories, Version 5.1; 2017
- USEPA National Functional Guidelines for Superfund Organic Methods Data Review; January 2017

Please feel free to contact us if you have any questions.

Sincerely,

Christina Rink

Christina Rink
crink@lab-data.com
Project Manager/Senior Chemist

4,149 pages-ADV 2 WEEK TAT Attachment 1

Stage 4 **LDC #45706 (Tetra Tech-EC, Inc.-Irvine, CA / MCAS Yuma, CTO 3803)** **PO# 1164819**

LDC	SDG#	DATE REC'D	(3) DATE DUE	PFAs (537)																																	
Matrix:	Water/Soil			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	1902014	08/12/19	08/26/19	5	5																																
B	1902097	08/12/19	08/26/19	8	12																																
C	1902189	08/12/19	08/26/19	11	9																																
Total	T/CR			24	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50

Shaded cells indicate Stage 4 validation (all other cells are Stage 2B validation).

L:\TTEMI-Irvine\Yuma\45706ST-3803-1164819.wpd

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: MCAS Yuma, CTO 17F3803

LDC Report Date: August 26, 2019

Parameters: Perfluoroalkyl & Polyfluoroalkyl Substances

Validation Level: Stage 4

Laboratory: Vista Analytical Laboratory

Sample Delivery Group (SDG): 1902014

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
CAOA-B03-SO-4-4.5	1902014-01	Soil	07/03/19
CAOA-B03-SO-20-20.5	1902014-02	Soil	07/03/19
FRB-07032019	1902014-03	Water	07/03/19
EB-07032019	1902014-04	Water	07/03/19
CAOA-B01-SO-0-0.5	1902014-05	Soil	07/08/19
CAOA-B04-SO-0-0.5	1902014-06	Soil	07/08/19
CAOA-B01-SO-20-20.5	1902014-07	Soil	07/08/19
FRB-07082019	1902014-08	Water	07/08/19
CAOA-B01-GW	1902014-09	Water	07/08/19
EB-07082019	1902014-10	Water	07/08/19
CAOA-B01-SO-0-0.5MS	1902014-05MS	Soil	07/08/19
CAOA-B01-SO-0-0.5MSD	1902014-05MSD	Soil	07/08/19

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan), Site Inspection for Per- and Polyfluoroalkyl Substances, Marine Corps Air Station Yuma, Arizona (May 2019), the U.S. Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.1 (2017), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) by Environmental Protection Agency (EPA) Method 537 Modified

All sample results were subjected to Stage 4 data validation, which is comprised of the quality control (QC) summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.

U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).

UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.

R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. LC/MS Instrument Performance Check

Instrument performance was checked and the requirements were met.

III. Initial Calibration and Initial Calibration Verification

Initial calibration was performed as required by the method.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990.

For each calibration standard, all compounds were within 70-130% of their true value.

The signal to noise (S/N) ratio was within validation criteria for all compounds.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds.

The signal to noise (S/N) ratio was within validation criteria for all compounds.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

VI. Field Blanks

Samples EB-07032019 and EB-07082019 were identified as equipment blanks. No contaminants were found with the following exceptions:

Blank ID	Collection Date	Compound	Concentration	Associated Samples in this SDG
EB-07032019	07/03/19	PFHxA PFOS	0.00623 ug/L 0.0852 ug/L	CAOA-B03-SO-4-4.5
EB-07082019	07/08/19	PFHxA PFOS	0.0164 ug/L 0.0217 ug/L	CAOA-B01-SO-0-0.5 CAOA-B04-SO-0-0.5

Samples FRB-07032019 and FRB-07082019 were identified as field reagent blanks. No contaminants were found.

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X for contaminants) than the concentrations found in the associated field blanks.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples/Ongoing Precision Recovery

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

Ongoing precision recovery (OPR) samples were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Labeled Compounds

All percent recoveries (%R) for labeled compounds used to quantitate target compounds were within QC limits with the following exceptions:

Sample	Labeled Compound	%R (Limits)	Affected Compound	Flag	A or P
CAOA-B03-SO-4-4.5	d3-MeFOSAA d5-EtFOSAA 13C2-PFDoA	42.2 (50-150) 46.3 (50-150) 49.5 (50-150)	PFDoA PFTrDA MeFOSAA EtFOSAA	J (all detects) UJ (all non-detects)	P

Sample	Labeled Compound	%R (Limits)	Affected Compound	Flag	A or P
CAOA-B03-SO-20-20.5	13C2-PFDoA 13C2-PFTeDA	43.2 (50-150) 30.5 (50-150)	PFDoA PFTrDA PFTeDA	J (all detects) UJ (all non-detects)	P
CAOA-B01-SO-0-0.5	13C2-PFDoA	43.6 (50-150)	PFDoA PFTrDA	UJ (all non-detects) UJ (all non-detects)	P
CAOA-B04-SO-0-0.5	d3-MeFOSAA	48.3 (50-150)	MeFOSAA	UJ (all non-detects)	P
CAOA-B01-SO-20-20.5	13C3-PFBS d3-MeFOSAA d5-EtFOSAA 13C2-PFDoA	48.9 (50-150) 36.1 (50-150) 37.5 (50-150) 42.8 (50-150)	PFBS PFDoA PFTrDA MeFOSAA EtFOSAA	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P
CAOA-B01-GW	13C2-PFTeDA	32.4 (50-150)	PFTeDA	UJ (all non-detects)	P

XI. Compound Quantitation

All compound quantitations met validation criteria.

All compounds reported below the limit of quantitation (LOQ) were qualified as follows:

Sample	Finding	Flag	A or P
CAOA-B03-SO-4-4.5 CAOA-B03-SO-20-20.5 EB-07032019 CAOA-B01-SO-0-0.5 CAOA-B04-SO-0-0.5 CAOA-B01-SO-20-20.5 CAOA-B01-GW	All compounds reported below the LOQ.	J (all detects)	A

XII. Target Compound Identifications

All target compound identifications met validation criteria.

XIII. System Performance

The system performance was acceptable.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to labeled compound %R and results below the LOQ, data were qualified as estimated in seven samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable.

MCAS Yuma, CTO 17F3803
Perfluoroalkyl & Polyfluoroalkyl Substances - Data Qualification Summary - SDG 1902014

Sample	Compound	Flag	A or P	Reason
CAOA-B03-SO-4-4.5	PFDoA PFTrDA MeFOSAA EtFOSAA	J (all detects) UJ (all non-detects)	P	Labeled compounds (%R)
CAOA-B03-SO-20-20.5	PFDoA PFTrDA PFTeDA	J (all detects) UJ (all non-detects)	P	Labeled compounds (%R)
CAOA-B01-SO-0-0.5	PFDoA PFTrDA	UJ (all non-detects) UJ (all non-detects)	P	Labeled compounds (%R)
CAOA-B04-SO-0-0.5	MeFOSAA	UJ (all non-detects)	P	Labeled compounds (%R)
CAOA-B01-SO-20-20.5	PFBS PFDoA PFTrDA MeFOSAA EtFOSAA	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Labeled compounds (%R)
CAOA-B01-GW	PFTeDA	UJ (all non-detects)	P	Labeled compounds (%R)
CAOA-B03-SO-4-4.5 CAOA-B03-SO-20-20.5 EB-07032019 CAOA-B01-SO-0-0.5 CAOA-B04-SO-0-0.5 CAOA-B01-SO-20-20.5 CAOA-B01-GW	All compounds reported below the LOQ.	J (all detects)	A	Compound quantitation

MCAS Yuma, CTO 17F3803
Perfluoroalkyl & Polyfluoroalkyl Substances - Laboratory Blank Data Qualification Summary - SDG 1902014

No Sample Data Qualified in this SDG

MCAS Yuma, CTO 17F3803
Perfluoroalkyl & Polyfluoroalkyl Substances - Field Blank Data Qualification Summary - SDG 1902014

No Sample Data Qualified in this SDG

LDC #: 45706A96 **VALIDATION COMPLETENESS WORKSHEET** Date: 08/20/19
SDG #: 1902014 Stage 4 Page: 1 of 1
Laboratory: Vista Analytical Laboratory Reviewer: VIe
2nd Reviewer:

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537(M))

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A/A	
II.	LC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A/A	r² Individual ≤ 30% IAV ≤ 30%
IV.	Continuing calibration/ISC	A	CCV ≤ 30%
V.	Laboratory Blanks	A	
VI.	Field blanks	SW	FRB = 3, 8 EB = 4, 10
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS/D, OPR
IX.	Field duplicates	N	
X.	Labeled Compounds	SW	
XI.	Compound quantitation RL/LOQ/LODs	A	
XII.	Target compound identification	A	
XIII.	System performance	A	
XIV.	Overall assessment of data	A	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank; SB=Source blank; OTHER:

	Client ID	Lab ID	Matrix	Date
1	CAOA-B03-SO-4-4.5	1902014-01	Soil	07/03/19
2	CAOA-B03-SO-20-20.5	1902014-02	Soil	07/03/19
3	FRB-07032019	1902014-03	Water	07/03/19
4	EB-07032019	1902014-04	Water	07/03/19
5	CAOA-B01-SO-0-0.5	1902014-05	Soil	07/08/19
6	CAOA-B04-SO-0-0.5	1902014-06	Soil	07/08/19
7	CAOA-B04-SO-20-20.5	1902014-07	Soil	07/08/19
8	FRB-07082019	1902014-08	Water	07/08/19
9	CAOA-B01-GW	1902014-09	Water	07/08/19
10	EB-07082019	1902014-10	Water	07/08/19
11	CAOA-B01-SO-0-0.5MS	1902014-05MS	Soil	07/08/19
12	CAOA-B01-SO-0-0.5MSD	1902014-05MSD	Soil	07/08/19
13				
14				
15	B9G0189-BLK1			
	B9G0134-			

LDC #: 45706 A96

VALIDATION FINDINGS CHECKLIST

Reviewer: JVG
2nd Reviewer:

Method: LCMS (EPA Method 537 Modified)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?	✓			
Was cooler temperature criteria met?	✓			
II. LC/MS Instrument performance check				
Were the instrument performance reviewed and found to be within the validation criteria?	✓			
IIIa. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	✓			
Was a curve fit used for evaluation? If yes, did the initial calibration meet the curve fit criteria of ≥ 0.990?	✓			
Were all analytes within 70-130% or percent differences (%D) ≤30% of their true value for each calibration standard?	✓			
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	✓			
IIIb. Initial Calibration Verification				
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?	✓			
Were all percent differences (%D) ≤ 30%?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed prior to sample analysis, after every 10 samples and at the end of the analytical sequence?	✓			
Were all percent differences (%D) of the continuing calibration ≤ 30%?	✓			
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	✓			
Were all percent differences (%D) of the Instrument Sensitivity Check ≤ 30%?	✓			
V. Laboratory Blanks				
Was a laboratory blank associated with every sample in this SDG?	✓			
Was a laboratory blank analyzed for each matrix and concentration?	✓			
Was there contamination in the laboratory blanks?		✓		
VI. Field blanks				
Were field blanks identified in this SDG?	✓			
Were target compounds detected in the field blanks?	✓			
VIII. Matrix spike/Matrix spike duplicates				
Were matrix spike (MS) and matrix spike duplicate (MSD) analyzed in this SDG?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			

LDC #: 45706 A96

VALIDATION FINDINGS CHECKLIST

Reviewer: JVG
2nd Reviewer:

Validation Area	Yes	No	NA	Findings/Comments
IX. Laboratory control samples				
Was an LCS analyzed per extraction batch for this SDG?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
X. Field duplicates				
Were field duplicate pairs identified in this SDG?			✓	
Were target compounds detected in the field duplicates?			✓	
XI. Labeled compounds				
Were labeled compound percent recoveries (%R) within the QC limits?		✓		
XII. Compound quantitation				
Did the laboratory reporting limits (RL) meet the QAPP RLs?	✓			
Did reported results include both branched and linear isomers?	✓			
Were the correct ion transition, labeled compound and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Target compound identification				
Were two transitions and the ion transition ratio per analyte monitored and documented with the exception of PFBA and PFPeA?	✓			
XIV. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			

VALIDATION FINDINGS WORKSHEET

METHOD: Perfluorinated Alkyl Acids (EPA Method 537)

A. PFBA	375-22-4
B. PFPeA	2706-90-3
C. PFBS	375-73-5
D. PFHxA	307-24-4
E. PFHpA	375-85-9
F. PFHxS	355-46-4
G. PFOA	335-67-1
H. PFHpS	375-92-8
I. PFNA	375-95-1
J. PFOSA	754-91-6
K. PFOS	1763-23-1
L. PFDA	335-76-2
M. PFUnA	2058-94-8
N. PFDS	335-77-3
O. PFDoA	307-55-1
P. MeFOSA	31506-32-8
Q. PFTrDA	72629-94-8
R. PFTeDA	376-06-7
S. EtFOSA	4151-50-2
T. MeFOSE	24448-09-7
U. EtFOSE	1691-99-2
V. MeFOSAA	2355-31-9
W. EtFOSAA	2991-50-6

Notes:_____

LDC #: 45706 A96

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFAS (EPA Method 537)

Y N N/A Were field blanks identified in this SDG?

Y N N/A Were target compounds detected in the field blanks?

Blank units: ug/L **Associated sample units:** ug/kg

Sampling date: 07/03/19

Field blank type: (circle one) Trip Blank/Field Blank / Rinsate / Other: EB Associated Samples: 1 (75%)

	Compound	Blank ID	Sample Identification								
		4									
C	D	0.00623									
7	K	0.0852									

Blank units: ug/L **Associated sample units:** ug/kg

Sampling date: 07/08/19

Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: 5, 6 (75%)

	Compound	Blank ID	Sample Identification								
		10	(5%)								
7	D	0.0164	0.082								
7	K	0.0217	0.1085								

LDC #: 45706A96

VALIDATION FINDINGS WORKSHEET
Labeled Compound

Page: 1 of 1
Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFAS (EPA Method 537M)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y (N) N/A Were all labeled compounds within -50 to +150% of the associated calibration standard?

#	Date	Sample ID	Labeled Compound	%R	Limits (%)	Qualifications
		1 (ND)	d3-V	42.2	50-150	J (NJ P (qual V)
		↓	d5-W	46.3		W
		(ND, Det)	13C2-O	49.5		O, Q
		2 (ND Det)	13C2-O	43.2		O, Q
		(ND)	13C2-R	30.5		R
		5 (ND)	13C2-O	43.6		O, Q
		6 (ND)	d3-V	48.3		V
		7 (ND)	13C3-C	48.9		C
		↓	d3-V	36.1		V
			d5-W	37.5		W
		↓	13C2-O	42.8		O, Q
		9 (ND)	13C2-R	32.4		R
		BG60189-BLK1	d3-V	35.4		V
			d5-W	41.5		W
			13C2-O	42.6		O, Q
		11	d3-V	38.8		NQ (QC)
			d5-W	38.8		
		12	d3-V	41.4		
			d5-W	45.9		
			13C2-O	46.3		

LDC#: 45706A96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
7/16/2019	SCN945	PFOA	0.25	0.04382	3.125
			0.5	0.08680	6.250
	190716M2-CRV		1	0.17268	12.500
		13C2-PFOA	2	0.30178	25.000
			5	0.77418	62.500
			10	1.61096	125.000
			50	8.04664	625.000
			100	15.41406	1250.000
			250	38.92819	3125.000
			500	81.23690	6250.000

Regression Output	Calculated	Reported WLR
Constant	-0.164148	0.041757
Std Err of Y Est		
R Squared	0.999672	0.999501
Degrees of Freedom		
X Coefficient(s)	0.01290950	1.994320
Std Err of Coef.		
Correlation Coefficient	0.999836	
Coefficient of Determination (r^2)	0.999672	0.999501

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
7/16/2019	SCN945	PFOS	0.25	0.00849	3.125
			0.5	0.03458	6.250
			1	0.08285	12.500
	190716M2-CRV	13C8-PFOS	2	0.19007	25.000
			5	0.47672	62.500
			10	1.01888	125.000
			50	5.18689	625.000
			100	10.13946	1250.000
			250	24.80748	3125.000
			500	52.54048	6250.000

Regression Output	Calculated	Reported WLR
Constant	-0.122693	-0.149993
Std Err of Y Est		
R Squared	0.999493	0.999286
Degrees of Freedom		
X Coefficient(s)	0.00833418	1.287160
Std Err of Coef.		
Correlation Coefficient	0.999747	
Coefficient of Determination (r^2)	0.999493	0.999286

LDC#: 45706A96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
7/22/2019	SCN945	PFOA	0.25	0.03165	3.125
			0.5	0.06647	6.250
	190722M1-CRV		1	0.11573	12.500
		13C2-PFOA	2	0.23840	25.000
			5	0.63338	62.500
			10	1.21526	125.000
			50	6.28315	625.000
			100	11.97011	1250.000
			250	28.74840	3125.000
			500	61.12986	6250.000

Regression Output	Calculated	Reported WLR
Constant	-0.075937	0.037722
Std Err of Y Est		
R Squared	0.999429	0.999184
Degrees of Freedom		
X Coefficient(s)	0.00968201	1.502070
Std Err of Coef.		
Correlation Coefficient	0.999714	
Coefficient of Determination (r^2)	0.999429	0.999184

LDC#: 45706A96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
7/22/2019	SCN945	PFOS	0.25	0.01898	3.125
			0.5	0.05101	6.250
	190722M1-CRV		1	0.07006	12.500
		13C8-PFOS	2	0.15729	25.000
			5	0.40492	62.500
			10	0.84884	125.000
			50	4.45203	625.000
			100	8.49765	1250.000
			250	20.93435	3125.000
			500	43.12088	6250.000

Regression Output	Calculated	Reported WLR
Constant	-0.029639	-0.019750
Std Err of Y Est		
R Squared	0.999855	0.999659
Degrees of Freedom		
X Coefficient(s)	0.00686606	1.069000
Std Err of Coef.		
Correlation Coefficient	0.999927	
Coefficient of Determination (r^2)	0.999855	0.999659

LDC # 45706A96

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFCs (EPA Method 537Mod)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = (Ax)(Cis)/(Ais)(Cx)

Where:
ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
Ax = Area of compound
Cx = Concentration of compound,
Ais = Area of associated internal standard
Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound	(IS)	Conc	Reported	Recalculated	Reported % R	Recalculated % R
1	190719M1-39	7/19/2019	PFOA	(13C2-PFOA)	1.000	1.007	1.007	100.7	100.7
	ISC		PFOS	(13C8-PFOS)	1.000	0.910	0.910	91.0	91.0
2	190719M1-57	7/19/2019	PFOA	(13C2-PFOA)	10.000	9.758	9.758	97.6	97.6
	CS3		PFOS	(13C8-PFOS)	10.000	8.996	8.996	90.0	90.0
3	090721M2-6	7/21/2019	PFOA	(13C2-PFOA)	1.000	0.771	0.771	77.1	77.1
	ISC		PFOS	(13C8-PFOS)	1.000	0.866	0.866	86.6	86.6
4	090722M1-58	7/22/2019	PFOA	(13C2-PFOA)	10.000	9.867	9.867	98.7	98.7
	CS3		PFOS	(13C8-PFOS)	10.000	10.110	10.110	101.1	101.1

LDC #: 45706 A96

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFAS (EPA Method 537Mod)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = | MSC - MSC | * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 11/12

Compound	Spike Added (ug/kg)		Sample Conc (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	-----	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalc
PFOA	9.936	9.89	0	10.93	10.8	103	105	108	110	4.74	4.74
PFOS	↓	↓	1.154	11.003	10.76	98.9	99.2	97.3	97.6	1.63	1.63

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

NOTE 1. RPD based on %R
2. Rounding off issues

LDC #: 45706 A96

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFAS (EPA Method 537M)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: BQG0189-BS1 (OPR)

Compound	Spike Added (ng/kg)		Spike Concentration (ng/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
PFOA	10.0	NA	10.4	NA	104	104				
PFOS	↓	↓	8.91	↓	89.1	89.1				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 45706A96

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: JVG
2nd reviewer:

METHOD: LC/MS PFAS (EPA Method 537M)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. 5, PFOS:

Conc. = $\frac{\left[\left(\frac{322}{2990} \times 12.5\right) - (-0.14993)\right]}{(1.28716)} = 1.1624$

final conc. = $\frac{(1.1624)(1\ mL)}{(1.07\ g)(0.941)}$

= 1.154 ng/kg

#	Sample ID	Compound	Reported Concentration (ng/kg)	Calculated Concentration ( )	Qualification
			1.15		

LDC Report# 45706B96

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: MCAS Yuma, CTO 17F3803

LDC Report Date: August 23, 2019

Parameters: Perfluoroalkyl & Polyfluoroalkyl Substances

Validation Level: Stage 4

Laboratory: Vista Analytical Laboratory

Sample Delivery Group (SDG): 1902097

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SAOA-B10-SO-1-1.5	1902097-01	Soil	07/09/19
SAOA-B10-SO-20-20.5	1902097-02	Soil	07/09/19
SAOA-B10-GW	1902097-03	Water	07/09/19
SAOA-B10-GW-D	1902097-04	Water	07/09/19
EB-07092019	1902097-05	Water	07/09/19
NON-B02-SO-1-1.5	1902097-06	Soil	07/09/19
FRB-07092019	1902097-07	Water	07/09/19
NON-B02-SO-15-15.5	1902097-08	Soil	07/09/19
SAOA-B01-SO-5-5.5	1902097-09	Soil	07/10/19
SAOA-B01-SO-20-20.5	1902097-10	Soil	07/10/19
SAOA-B01-SO-36-36.5	1902097-11	Soil	07/10/19
NON-B01-SO-1-1.5	1902097-12	Soil	07/10/19
NON-B01-SO-15-15.5	1902097-13	Soil	07/10/19
EB-07102019	1902097-14	Water	07/10/19
FRB-07102019	1902097-15	Water	07/10/19
NON-B01-SO-73-73.5	1902097-16	Soil	07/11/19
NON-B04-SO-0.5-1	1902097-17	Soil	07/11/19
NON-B04-SO-4.5-5	1902097-18	Soil	07/11/19
EB-07112019	1902097-19	Water	07/11/19
FRB-07112019	1902097-20	Water	07/11/19
NON-B02-SO-1-1.5MS	1902097-06MS	Soil	07/09/19
NON-B02-SO-1-1.5MSD	1902097-06MSD	Soil	07/09/19

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan), Site Inspection for Per- and Polyfluoroalkyl Substances, Marine Corps Air Station Yuma, Arizona (May 2019), the U.S. Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.1 (2017), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) by Environmental Protection Agency (EPA) Method 537 Modified

All sample results were subjected to Stage 4 data validation, which is comprised of the quality control (QC) summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.

U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).

UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.

R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. LC/MS Instrument Performance Check

Instrument performance was checked and the requirements were met.

III. Initial Calibration and Initial Calibration Verification

Initial calibration was performed as required by the method.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990.

For each calibration standard, all compounds were within 70-130% of their true value.

The signal to noise (S/N) ratio was within validation criteria for all compounds.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds.

The signal to noise (S/N) ratio was within validation criteria for all compounds.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

VI. Field Blanks

Samples EB-07092019, EB-07102019, and EB-07112019 were identified as equipment blanks. No contaminants were found with the following exceptions:

Blank ID	Collection Date	Compound	Concentration	Associated Samples in this SDG
EB-07102019	07/10/19	PFHxA PFHpA PFHxS PFOA PFOS	0.0594 ug/L 0.0185 ug/L 0.0122 ug/L 0.00671 ug/L 0.0706 ug/L	SAOA-B01-SO-5-5.5 NON-B01-SO-1-1.5
EB-07112019	07/11/19	PFOS	0.0201 ug/L	NON-B04-SO-0.5-1 NON-B04-SO-4.5-5

Samples FRB-07092019, FRB-07102019, and FRB-07112019 were identified as field reagent blanks. No contaminants were found.

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X for contaminants) than the concentrations found in the associated field blanks.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples/Ongoing Precision Recovery

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

Ongoing precision recovery (OPR) samples were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

IX. Field Duplicates

Samples SAOA-B10-GW and SAOA-B10-GW-D were identified as field duplicates. No results were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	SAOA-B10-GW	SAOA-B10-GW-D			
PFHxA	0.0401	0.0275	Not calculable	-	-
PFHpA	0.00352	0.00817U	Not calculable	-	-
PFHxS	0.0422	0.0365	Not calculable	-	-

Compound	Concentration (ug/L)		RPD (Limits)	Flag	A or P
	SAOA-B10-GW	SAOA-B10-GW-D			
PFOA	0.00776	0.00604	Not calculable	-	-
PFOS	0.180	0.144	22 (≤30)	-	-

Not calculable = One or both results were less than 5x the limit of quantitation.

X. Labeled Compounds

All percent recoveries (%R) for labeled compounds used to quantitate target compounds were within QC limits with the following exceptions:

Sample	Labeled Compound	%R (Limits)	Affected Compound	Flag	A or P
SAOA-B10-GW	13C2-PFTeDA	20.1 (50-150)	PFTeDA	UJ (all non-detects)	P
SAOA-B10-GW-D	13C2-PFTeDA	28.0 (50-150)	PFTeDA	UJ (all non-detects)	P
NON-B01-SO-15-15.5	d3-MeFOSAA 13C2-PFDoA	44.0 (50-150) 46.2 (50-150)	MeFOSAA PFDoA PFTrDA	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P

XI. Compound Quantitation

All compound quantitations met validation criteria.

All compounds reported below the limit of quantitation (LOQ) were qualified as follows:

Sample	Finding	Flag	A or P
SAOA-B10-SO-1-1.5 SAOA-B10-SO-20-20.5 SAOA-B10-GW SAOA-B10-GW-D NON-B02-SO-15-15.5 SAOA-B01-SO-5-5.5 SAOA-B01-SO-20-20.5 NON-B01-SO-15-15.5 EB-07102019 NON-B01-SO-73-73.5 NON-B04-SO-0.5-1 NON-B04-SO-4.5-5	All compounds reported below the LOQ.	J (all detects)	A

XII. Target Compound Identifications

All target compound identifications met validation criteria.

XIII. System Performance

The system performance was acceptable.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to labeled compound %R and results below the LOQ, data were qualified as estimated in twelve samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable.

MCAS Yuma, CTO 17F3803
Perfluoroalkyl & Polyfluoroalkyl Substances - Data Qualification Summary - SDG 1902097

Sample	Compound	Flag	A or P	Reason
SAOA-B10-GW SAOA-B10-GW-D	PFTeDA	UJ (all non-detects)	P	Labeled compounds (%R)
NON-B01-SO-15-15.5	MeFOSAA PFDoA PFTrDA	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Labeled compounds (%R)
SAOA-B10-SO-1-1.5 SAOA-B10-SO-20-20.5 SAOA-B10-GW SAOA-B10-GW-D NON-B02-SO-15-15.5 SAOA-B01-SO-5-5.5 SAOA-B01-SO-20-20.5 NON-B01-SO-15-15.5 EB-07102019 NON-B01-SO-73-73.5 NON-B04-SO-0.5-1 NON-B04-SO-4.5-5	All compounds reported below the LOQ.	J (all detects)	A	Compound quantitation

MCAS Yuma, CTO 17F3803
Perfluoroalkyl & Polyfluoroalkyl Substances - Laboratory Blank Data Qualification Summary - SDG 1902097

No Sample Data Qualified in this SDG

MCAS Yuma, CTO 17F3803
Perfluoroalkyl & Polyfluoroalkyl Substances - Field Blank Data Qualification Summary - SDG 1902097

No Sample Data Qualified in this SDG

LDC #: 45706B96 **VALIDATION COMPLETENESS WORKSHEET** Date: 08/19/19

SDG #: 1902097 Stage 4 Page: 1 of 2

Laboratory: Vista Analytical Laboratory Reviewer: JV6

2nd Reviewer:

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / A	
II.	LC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A / A	r² Individual ≤30% ICV ≤30%
IV.	Continuing calibration/ISC	A	CCV ≤30%
V.	Laboratory Blanks	A	
VI.	Field blanks	SW	EB = 5*, 14, 19 FRB = 7, 15, 20
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS(D), OPR
IX.	Field duplicates	SW	D = 3/4
X.	Labeled Compounds	SW	
XI.	Compound quantitation RL/LOQ/LODs	A	
XII.	Target compound identification	A	
XIII.	System performance	A	
XIV.	Overall assessment of data	A	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; * ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank; SB=Source blank; OTHER:

	Client ID		Lab ID	Matrix	Date
1	SAOA-B10-SO-1-1.5		1902097-01	Soil	07/09/19
2	SAOA-B10-SO-20-20.5		1902097-02	Soil	07/09/19
3	SAOA-B10-GW	D	1902097-03	Water	07/09/19
4	SAOA-B10-GW-D	D	1902097-04	Water	07/09/19
5	EB-07092019		1902097-05	Water	07/09/19
6	NON-B02-SO-1-1.5		1902097-06	Soil	07/09/19
7	FRB-07092019		1902097-07	Water	07/09/19
8	NON-B02-SO-15-15.5		1902097-08	Soil	07/09/19
9	SAOA-B01-SO-5-5.5		1902097-09	Soil	07/10/19
10	SAOA-B01-SO-20-20.5		1902097-10	Soil	07/10/19
11	SAOA-B01-SO-36-36.5		1902097-11	Soil	07/10/19
12	NON-~~N1~~B01-SO-1-1.5		1902097-12	Soil	07/10/19
13	NON-B01-SO-15-15.5		1902097-13	Soil	07/10/19
14	EB-07102019		1902097-14	Water	07/10/19
15	FRB-07102019		1902097-15	Water	07/10/19

x/6X IX/6X

LDC #: 45706B96 **VALIDATION COMPLETENESS WORKSHEET** Date: 08/19/19
SDG #: 1902097 Stage 4 Page: 2 of 2
Laboratory: Vista Analytical Laboratory Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537)

	Client ID	Lab ID	Matrix	Date
16 1	NON-B01-SO-73-73.5	1902097-16	Soil	07/11/19
17 1	NON-B04-SO-0.5-1	1902097-17	Soil	07/11/19
18 1	NON-B04-SO-4.5-5	1902097-18	Soil	07/11/19
19	EB-07112019	1902097-19	Water	07/11/19
20	FRB-07112019	1902097-20	Water	07/11/19
21	NON-B02-SO-1-1.5MS	1902097-06MS	Soil	07/09/19
22	NON-B02-SO-1-1.5MSD	1902097-06MSD	Soil	07/09/19
23				
24				
25				
26				
27				

Notes:

-1	B9 G0190-BLK1						
-2	B9 G0185- 1						

LDC #: 45706 #96

VALIDATION FINDINGS CHECKLIST

Reviewer: JVG
2nd Reviewer:

Method: LCMS (EPA Method 537 Modified)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?	✓			
Was cooler temperature criteria met?	✓			
II. LC/MS Instrument performance check				
Were the instrument performance reviewed and found to be within the validation criteria?	✓			
IIIa. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?	W		✓	
Was a curve fit used for evaluation? If yes, did the initial calibration meet the curve fit criteria of ≥ 0.990?	✓			
Were all analytes within 70-130% or percent differences (%D) ≤30% of their true value for each calibration standard?	✓			
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	✓			
IIIb. Initial Calibration Verification				
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?	✓			
Were all percent differences (%D) ≤ 30%?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed prior to sample analysis, after every 10 samples and at the end of the analytical sequence?	✓			
Were all percent differences (%D) of the continuing calibration ≤ 30%?	✓			
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	✓			
Were all percent differences (%D) of the Instrument Sensitivity Check ≤ 30%?	✓			
V. Laboratory Blanks				
Was a laboratory blank associated with every sample in this SDG?	✓			
Was a laboratory blank analyzed for each matrix and concentration?	✓			
Was there contamination in the laboratory blanks?		✓		
VI. Field blanks				
Were field blanks identified in this SDG?	✓			
Were target compounds detected in the field blanks?	✓			
VIII. Matrix spike/Matrix spike duplicates				
Were matrix spike (MS) and matrix spike duplicate (MSD) analyzed in this SDG?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			

Validation Area	Yes	No	NA	Findings/Comments
IX. Laboratory control samples				
Was an LCS analyzed per extraction batch for this SDG?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
X. Field duplicates				
Were field duplicate pairs identified in this SDG?	✓			
Were target compounds detected in the field duplicates?	✓			
XI. Labeled compounds				
Were labeled compound percent recoveries (%R) within the QC limits?		✓		
XII. Compound quantitation				
Did the laboratory reporting limits (RL) meet the QAPP RLs?	✓			
Did reported results include both branched and linear isomers?	✓			
Were the correct ion transition, labeled compound and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Target compound identification				
Were two transitions and the ion transition ratio per analyte monitored and documented with the exception of PFBA and PFPeA?	✓			
XIV. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			

VALIDATION FINDINGS WORKSHEET

METHOD: Perfluorinated Alkyl Acids (EPA Method 537)

A. PFBA	375-22-4
B. PFPeA	2706-90-3
C. PFBS	375-73-5
D. PFHxA	307-24-4
E. PFHpA	375-85-9
F. PFHxS	355-46-4
G. PFOA	335-67-1
H. PFHpS	375-92-8
I. PFNA	375-95-1
J. PFOSA	754-91-6
K. PFOS	1763-23-1
L. PFDA	335-76-2
M. PFUnA	2058-94-8
N. PFDS	335-77-3
O. PFDoA	307-55-1
P. MeFOSA	31506-32-8
Q. PFTrDA	72629-94-8
R. PFTeDA	376-06-7
S. EtFOSA	4151-50-2
T. MeFOSE	24448-09-7
U. EtFOSE	1691-99-2
V. MeFOSAA	2355-31-9
W. EtFOSAA	2991-50-6

Notes:_____

LDC #: 45706 B96

VALIDATION FINDINGS WORKSHEET
Field Blanks

Page: 1 of 1
Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFAS (EPA Method 537)

Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?

Blank units: ug/L **Associated sample units:** ug/kg
Sampling date: 07/10/19
Field blank type: (circle one) Trip Blank/Field Blank / Rinsate / Other: EB Associated Samples: 9, 12 (>5x)

Compound	Blank ID	Sample Identification								
	14	(5x)								
D	0.0594	0.297								
E	0.0185	0.0925								
F	0.0122	0.061 ~~0.0244~~								
G	0.00671	0.03355								
K	0.0706	0.0141								

Blank units: ug/L **Associated sample units:** ug/kg
Sampling date: 07/11/19
Field blank type: (circle one) Field Blank / Rinsate / Other: EB Associated Samples: 17, 18 (>5x)

Compound	Blank ID	Sample Identification								
	19	(5x)								
K	0.0201	0.1005								

LDC#: 45706B96

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: JVG
2nd Reviewer:

METHOD: LCMS PFAS (EPA Method 537M)
Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (ug/L)		RPD (≤30%)	Qualifications (Parent only)
	3	4		
D	0.0401	0.0275	NC	
E	0.00352	0.00817U	NC	
F	0.0422	0.0365	NC	
G	0.00776	0.00604	NC	
K	0.180	0.144	22	

NC (<5XLOQ)

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LDC #: 45706B96

VALIDATION FINDINGS WORKSHEET
Labeled Compound

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFAS (EPA Method 537M)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y (N) N/A Were all labeled compounds within -50 to +150% of the associated calibration standard?

#	Date	Sample ID	Labeled Compound	%R	Limits (%)	Qualifications
		3 (MB)	13C2-R	20.1	50-150	J/UJ/R (qual R)
		4		28.0		R
		13	d3-V	44.0		V
			13C2-O	46.2		O,Q
		B9G0185_BLK1	13C2-R	41.5		R
		B9G0190-BLK1	d3-~~R~~V	47.8		V
			d5- W	48.4		W
			13C2-M	48.3		M
			13C2-O	46.4		O,Q

LDC#: 45706B96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
7/22/2019	SCN945	PFOA	0.25	0.03165	3.125
			0.5	0.06647	6.250
	190722M1-CRV		1	0.11573	12.500
		13C2-PFOA	2	0.23840	25.000
			5	0.63338	62.500
			10	1.21526	125.000
			50	6.28315	625.000
			100	11.97011	1250.000
			250	28.74840	3125.000
			500	61.12986	6250.000

Regression Output	Calculated	Reported WLR
Constant	-0.075937	0.037722
Std Err of Y Est		
R Squared	0.999429	0.999184
Degrees of Freedom		
X Coefficient(s)	0.00968201	1.502070
Std Err of Coef.		
Correlation Coefficient	0.999714	
Coefficient of Determination (r^2)	0.999429	0.999184

LDC#: 45706B96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
7/22/2019	SCN945	PFOS	0.25	0.01898	3.125
			0.5	0.05101	6.250
	190722M1-CRV		1	0.07006	12.500
		13C8-PFOS	2	0.15729	25.000
			5	0.40492	62.500
			10	0.84884	125.000
			50	4.45203	625.000
			100	8.49765	1250.000
			250	20.93435	3125.000
			500	43.12088	6250.000

Regression Output	Calculated	Reported WLR
Constant	-0.029639	-0.019750
Std Err of Y Est		
R Squared	0.999855	0.999659
Degrees of Freedom		
X Coefficient(s)	0.00686606	1.069000
Std Err of Coef.		
Correlation Coefficient	0.999927	
Coefficient of Determination (r^2)	0.999855	0.999659

LDC # _45706A96_

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFCs (EPA Method 537Mod)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = (Ax)(Cis)/(Ais)(Cx)

Where:
ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
Ax = Area of compound
Cx = Concentration of compound,
Ais = Area of associated internal standard
Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound	(IS)	Conc	Reported	Recalculated	Reported % R	Recalculated % R
1	190722M1-15 ICV	7/22/2019	PFOA	(13C2-PFOA)	10.000	7.479	7.479	74.8	74.8
			PFOS	(13C8-PFOS)	9.240	7.500	7.559	81.1	81.8
2	190723M2-26 CS3	7/23/2019	PFOA	(13C2-PFOA)	10.000	10.038	10.038	100.4	100.4
			PFOS	(13C8-PFOS)	10.000	9.871	9.871	98.7	98.7
3	190724M1-6 ISC	7/24/2019	PFOA	(13C2-PFOA)	10.000	10.073	10.073	100.7	100.7
			PFOS	(13C8-PFOS)	10.000	9.968	9.968	99.7	99.7

LDC #: 45706B96

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Page: 1 of 1
Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFAS (EPA Method 537Mod)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = I MSC - MSC I * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 21/22

Compound	Spike Added (ug/kg)		Sample Conc (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalc
PFOA	10.0	10.0	3.02	12.8	13.5	97.8	97.8	105	105	7.10	7.10
PFOS	↓	↓	2.57	12.7	13.9	101	101	114	113	12.1	12.1

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

RPD based on %R

LDC #: 45706B96

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFAS (EPA Method 537M)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = I LCSC - LCSDC I * 2/(LCSC + LCSDC) LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: B9G0155-BS1/BSD1

Compound	Spike Added (ug/L)		Spike Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
PFOA	0.08	0.08	0.0791	0.0855	98.9	98.9	107	107	7.67	7.87
PFOS	↓	↓	0.0776	0.0899	96.9	96.9	112	112	14.7	14.5

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 45706B96

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: JVG
2nd reviewer:

METHOD: LC/MS PFAS (EPA Method 537M)

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. 12, PFOS:

Conc. = $\frac{\left[\left(\frac{45200}{5720} \times 12.5\right) - (-0.01975)\right]}{(1.069)} = 924.02$

final conc. = $\frac{(924.02)(1\,ml)}{(1.19g)(0.847)} = 916.7\ ug/kg$

#	Sample ID	Compound	Reported Concentration (ug/kg)	Calculated Concentration ( )	Qualification
			916		

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: MCAS Yuma, CTO 17F3803

LDC Report Date: August 23, 2019

Parameters: Perfluoroalkyl & Polyfluoroalkyl Substances

Validation Level: Stage 4

Laboratory: Vista Analytical Laboratory

Sample Delivery Group (SDG): 1902189

Sample Identification	Laboratory Sample Identification	Matrix	Collection Date
SAOA-B03-SO-5-5.5	1902189-01	Soil	07/11/19
SAOA-B03-SO-20-20.5	1902189-02	Soil	07/11/19
SAOA-B03-SO-56-56.5	1902189-03	Soil	07/11/19
SAOA-B03-GW	1902189-04	Water	07/11/19
NAOA-B03-GW	1902189-05	Water	07/15/19
EB-07152019-GW	1902189-06	Water	07/15/19
FRB-07152019	1902189-07	Water	07/15/19
NON-B03-SO-1-1.5	1902189-08	Soil	07/16/19
NON-B03-SO-15-15.5	1902189-09	Soil	07/16/19
NON-B03-GW	1902189-10	Water	07/16/19
EB-07162019-GW	1902189-11	Water	07/16/19
NAOA-B06-GW	1902189-12	Water	07/16/19
FRB-07162019	1902189-13	Water	07/16/19
EB-07162019	1902189-14	Water	07/16/19
NAOA-B04-SO-69-69.5	1902189-15	Soil	07/17/19
SAOA-B02-SO-5-5.5	1902189-16	Soil	07/17/19
SAOA-B02-SO-20-20.5	1902189-17	Soil	07/17/19
SAOA-B02-SO-56-56.5	1902189-18	Soil	07/17/19
FRB-07172019	1902189-19	Water	07/17/19
EB-07172019	1902189-20	Water	07/17/19
NON-B03-SO-1-1.5MS	1902189-08MS	Soil	07/16/19
NON-B03-SO-1-1.5MSD	1902189-08MSD	Soil	07/16/19

Introduction

This Data Validation Report (DVR) presents data validation findings and results for the associated samples listed on the cover page. Data validation was performed in accordance with the Final Sampling and Analysis Plan (Field Sampling Plan and Quality Assurance Project Plan), Site Inspection for Per- and Polyfluoroalkyl Substances, Marine Corps Air Station Yuma, Arizona (May 2019), the U.S. Department of Defense (DoD) Quality Systems Manual (QSM) for Environmental Laboratories, Version 5.1 (2017), and a modified outline of the USEPA National Functional Guidelines (NFG) for Organic Superfund Methods Data Review (January 2017). Where specific guidance was not available, the data has been evaluated in a conservative manner consistent with industry standards using professional experience.

The analyses were performed by the following method:

Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) by Environmental Protection Agency (EPA) Method 537 Modified

All sample results were subjected to Stage 4 data validation, which is comprised of the quality control (QC) summary forms as well as the raw data, to confirm sample quantitation and identification.

The following are definitions of the data qualifiers utilized during data validation:

J (Estimated): The compound or analyte was analyzed for and positively identified by the laboratory; however the reported concentration is estimated due to non-conformances discovered during data validation.

U (Non-detected): The compound or analyte was analyzed for and positively identified by the laboratory; however the compound or analyte should be considered non-detected at the reported concentration due to the presence of contaminants detected in the associated blank(s).

UJ (Non-detected estimated): The compound or analyte was reported as not detected by the laboratory; however the reported quantitation/detection limit is estimated due to non-conformances discovered during data validation.

R (Rejected): The sample results were rejected due to gross non-conformances discovered during data validation. Data qualified as rejected is not usable.

NA (Not Applicable): The non-conformance discovered during data validation demonstrates a high bias, while the affected compound or analyte in the associated sample(s) was reported as not detected by the laboratory and did not warrant the qualification of the data.

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

I. Sample Receipt and Technical Holding Times

All samples were received in good condition and cooler temperatures upon receipt met validation criteria.

All technical holding time requirements were met.

II. LC/MS Instrument Performance Check

Instrument performance was checked and the requirements were met.

III. Initial Calibration and Initial Calibration Verification

Initial calibration was performed as required by the method.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990.

For each calibration standard, all compounds were within 70-130% of their true value.

The signal to noise (S/N) ratio was within validation criteria for all compounds.

The percent differences (%D) of the initial calibration verification (ICV) standard were less than or equal to 30.0% for all compounds.

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds.

The signal to noise (S/N) ratio was within validation criteria for all compounds.

V. Laboratory Blanks

Laboratory blanks were analyzed as required by the method. No contaminants were found in the laboratory blanks.

VI. Field Blanks

Samples EB-07152019-GW, EB-07162019-GW, EB-07162019, EB-07172019, and EB-07112019 (from SDG 1902097) were identified as equipment blanks. No contaminants were found with the following exceptions:

Blank ID	Collection Date	Compound	Concentration	Associated Samples in this SDG
EB-07172019	07/17/19	PFOS	0.0123 ug/L	SAOA-B02-SO-5-5.5
EB-07112019	07/11/19	PFOS	0.0201 ug/L	SAOA-B03-SO-5-5.5

Samples FRB-07152019, FRB-07162019, and FRB-07172019 were identified as field reagent blanks. No contaminants were found.

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X for contaminants) than the concentrations found in the associated field blanks.

VII. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) sample analysis was performed on an associated project sample. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

VIII. Laboratory Control Samples/Ongoing Precision Recovery

Laboratory control samples (LCS) and laboratory control samples duplicates (LCSD) were analyzed as required by the method. Percent recoveries (%R) were within QC limits. Relative percent differences (RPD) were within QC limits.

Ongoing precision recovery (OPR) samples were analyzed as required by the method. Percent recoveries (%R) were within QC limits.

IX. Field Duplicates

No field duplicates were identified in this SDG.

X. Labeled Compounds

All percent recoveries (%R) for labeled compounds used to quantitate target compounds were within QC limits with the following exceptions:

Sample	Labeled Compound	%R (Limits)	Affected Compound	Flag	A or P
SAOA-B03-SO-20-20.5	13C2-PFDoA	47.7 (50-150)	PFDoA PFTrDA	UJ (all non-detects) UJ (all non-detects)	P
SAOA-B03-SO-56-56.5	d3-MeFOSAA 13C2-PFDoA	49.7 (50-150) 46.9 (50-150)	MeFOSAA PFDoA PFTrDA	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P

Sample	Labeled Compound	%R (Limits)	Affected Compound	Flag	A or P
NON-B03-GW	13C2-PFDoA 13C2-PFTeDA	41.6 (50-150) 27.2 (50-150)	PFDoA PFTrDA PFTeDA	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P
NAOA-B06-GW	13C2-PFTeDA	31.0 (50-150)	PFTeDA	UJ (all non-detects)	P
NAOA-B04-SO-69-69.5	d3-MeFOSAA 13C2-PFDoA	47.8 (50-150) 47.4 (50-150)	MeFOSAA PFDoA PFTrDA	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P
SAOA-B02-SO-5-5.5	13C2-PFDA 13C2-PFDoA	49.8 (50-150) 49.1 (50-150)	PFDA PFDoA PFTrDA	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P
SAOA-B02-SO-56-56.5	13C2-PFDoA	45.8 (50-150)	PFDoA PFTrDA	UJ (all non-detects) UJ (all non-detects)	P

XI. Compound Quantitation

All compound quantitations met validation criteria.

All compounds reported below the limit of quantitation (LOQ) were qualified as follows:

Sample	Finding	Flag	A or P
SAOA-B03-SO-5-5.5 SAOA-B03-SO-20-20.5 NAOA-B03-GW NON-B03-SO-1-1.5 NON-B03-SO-15-15.5 NON-B03-GW SAOA-B02-SO-5-5.5 SAOA-B02-SO-20-20.5 SAOA-B02-SO-56-56.5	All compounds reported below the LOQ.	J (all detects)	A

XII. Target Compound Identifications

All target compound identifications met validation criteria.

XIII. System Performance

The system performance was acceptable.

XIV. Overall Assessment of Data

The analysis was conducted within all specifications of the method. No results were rejected in this SDG.

Due to labeled compound %R and results below the LOQ, data were qualified as estimated in twelve samples.

The quality control criteria reviewed, other than those discussed above, were met and are considered acceptable.

MCAS Yuma, CTO 17F3803
Perfluoroalkyl & Polyfluoroalkyl Substances - Data Qualification Summary - SDG 1902189

Sample	Compound	Flag	A or P	Reason
SAOA-B03-SO-20-20.5 SAOA-B02-SO-56-56.5	PFDoA PFTrDA	UJ (all non-detects) UJ (all non-detects)	P	Labeled compounds (%R)
SAOA-B03-SO-56-56.5 NAOA-B04-SO-69-69.5	MeFOSAA PFDoA PFTrDA	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Labeled compounds (%R)
NON-B03-GW	PFDoA PFTrDA PFTeDA	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Labeled compounds (%R)
NAOA-B06-GW	PFTeDA	UJ (all non-detects)	P	Labeled compounds (%R)
SAOA-B02-SO-5-5.5	PFDA PFDoA PFTrDA	UJ (all non-detects) UJ (all non-detects) UJ (all non-detects)	P	Labeled compounds (%R)
SAOA-B03-SO-5-5.5 SAOA-B03-SO-20-20.5 NAOA-B03-GW NON-B03-SO-1-1.5 NON-B03-SO-15-15.5 NON-B03-GW SAOA-B02-SO-5-5.5 SAOA-B02-SO-20-20.5 SAOA-B02-SO-56-56.5	All compounds reported below the LOQ.	J (all detects)	A	Compound quantitation

MCAS Yuma, CTO 17F3803
Perfluoroalkyl & Polyfluoroalkyl Substances - Laboratory Blank Data Qualification Summary - SDG 1902189

No Sample Data Qualified in this SDG

MCAS Yuma, CTO 17F3803
Perfluoroalkyl & Polyfluoroalkyl Substances - Field Blank Data Qualification Summary - SDG 1902189

No Sample Data Qualified in this SDG

LDC #: 45706C96 **VALIDATION COMPLETENESS WORKSHEET** Date: 08/30/19
SDG #: 1902189 Stage 4 Page: 1 of 2
Laboratory: Vista Analytical Laboratory Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537(M))

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Sample receipt/Technical holding times	A / SW	
II.	LC/MS Instrument performance check	A	
III.	Initial calibration/ICV	A / A	r Individual ≤ 30% IA ≤ 30%
IV.	Continuing calibration/ISC	A	CA ≤ 30%
V.	Laboratory Blanks	A	
VI.	Field blanks	SW	EB = 6, 11, 14, 20 FRB = 7, 13, 19 EB 07112019 (1902097)
VII.	Matrix spike/Matrix spike duplicates	A	
VIII.	Laboratory control samples	A	LCS/D, OPR
IX.	Field duplicates	N	
X.	Labeled Compounds	SW	
XI.	Compound quantitation RL/LOQ/LODs	A	
XII.	Target compound identification	A	
XIII.	System performance	A	
XIV.	Overall assessment of data	A	

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; * ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank; SB=Source blank; OTHER:

	Client ID	Lab ID	Matrix	Date
1	SAOA-B03-SO-5-5.5	1902189-01	Soil	07/11/19
2	SAOA-B03-SO-20-20.5	1902189-02	Soil	07/11/19
3	SAOA-B03-SO-56-56.5	1902189-03	Soil	07/11/19
4	SAOA-B03-GW	1902189-04	Water	07/11/19
5	NAOA-B03-GW	1902189-05	Water	07/15/19
6	EB-07152019-GW ✓	1902189-06	Water	07/15/19
7	FRB-07152019	1902189-07	Water	07/15/19
8	NON-B03-SO-1-1.5	1902189-08	Soil	07/16/19
9	NON-B03-SO-15-15.5	1902189-09	Soil	07/16/19
10	NON-B03-GW	1902189-10	Water	07/16/19
11	EB-07162019-GW	1902189-11	Water	07/16/19
12	NAOA-B06-GW	1902189-12	Water	07/16/19
13	FRB-07162019	1902189-13	Water	07/16/19
14	EB-07162019	1902189-14	Water	07/16/19
15	NAOA-B04-SO-69-69.5	1902189-15	Soil	07/17/19

1X/5X

LDC #: 45706C96 **VALIDATION COMPLETENESS WORKSHEET** Date: 08/20/19
SDG #: 1902189 Stage 4 Page: 2 of 2
Laboratory: Vista Analytical Laboratory Reviewer: SVG
2nd Reviewer:

METHOD: LC/MS Perfluoroalkyl & Polyfluoroalkyl Substances (EPA Method 537)

	Client ID	Lab ID	Matrix	Date
+ 16	SAOA-B02-SO-5-5.5	1902189-16	Soil	07/17/19
+ 17	SAOA-B02-SO-20-20.5	1902189-17	Soil	07/17/19
+ 18	SAOA-B02-SO-56-56.5	1902189-18	Soil	07/17/19
- 19	FRB-07172019	1902189-19	Water	07/17/19
+ 20	EB-07172019	1902189-20	Water	07/17/19
21	NON-B03-SO-1-1.5MS	1902189-08MS	Soil	07/16/19
22	NON-B03-SO-1-1.5MSD	1902189-08MSD	Soil	07/16/19
23				
24				
25				
26				
27				

Notes:

-1	B9G0264- BLK1						
-2	B9G0224-						
-3	B9G0251-						

(extracted w/in 14 days)

LDC #: 45706C96

VALIDATION FINDINGS CHECKLIST

Reviewer: JVG
2nd Reviewer:

Method: LCMS (EPA Method 537 Modified)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
Were all technical holding times met?	✓			
Was cooler temperature criteria met?	✓			
II. LC/MS Instrument performance check				
Were the instrument performance reviewed and found to be within the validation criteria?	✓			
IIIa. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?			✓	
Was a curve fit used for evaluation? If yes, did the initial calibration meet the curve fit criteria of ≥ 0.990?	✓			
Were all analytes within 70-130% or percent differences (%D) ≤30% of their true value for each calibration standard?	✓			
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	✓			
IIIb. Initial Calibration Verification				
Was an initial calibration verification standard analyzed after each initial calibration for each instrument?	✓			
Were all percent differences (%D) ≤ 30%?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed prior to sample analysis, after every 10 samples and at the end of the analytical sequence?	✓			
Were all percent differences (%D) of the continuing calibration ≤ 30%?	✓			
Was the signal to noise (S/N) ratio for all compounds within the validation criteria?	✓			
Were all percent differences (%D) of the Instrument Sensitivity Check ≤ 30%?	✓			
V. Laboratory Blanks				
Was a laboratory blank associated with every sample in this SDG?	✓			
Was a laboratory blank analyzed for each matrix and concentration?	✓			
Was there contamination in the laboratory blanks?		✓		
VI. Field blanks				
Were field blanks identified in this SDG?	✓			
Were target compounds detected in the field blanks?	✓			
VIII. Matrix spike/Matrix spike duplicates				
Were matrix spike (MS) and matrix spike duplicate (MSD) analyzed in this SDG?	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?	✓			

Validation Area	Yes	No	NA	Findings/Comments
IX. Laboratory control samples				
Was an LCS analyzed per extraction batch for this SDG?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
X. Field duplicates				
Were field duplicate pairs identified in this SDG?		✓		
Were target compounds detected in the field duplicates?			✓	
XI. Labeled compounds				
Were labeled compound percent recoveries (%R) within the QC limits?		✓		
XII. Compound quantitation				
Did the laboratory reporting limits (RL) meet the QAPP RLs?	✓			
Did reported results include both branched and linear isomers?	✓			
Were the correct ion transition, labeled compound and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XIII. Target compound identification				
Were two transitions and the ion transition ratio per analyte monitored and documented with the exception of PFBA and PFPeA?	✓			
XIV. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			

VALIDATION FINDINGS WORKSHEET

METHOD: Perfluorinated Alkyl Acids (EPA Method 537)

A. PFBA	375-22-4
B. PFPeA	2706-90-3
C. PFBS	375-73-5
D. PFHxA	307-24-4
E. PFHpA	375-85-9
F. PFHxS	355-46-4
G. PFOA	335-67-1
H. PFHpS	375-92-8
I. PFNA	375-95-1
J. PFOSA	754-91-6
K. PFOS	1763-23-1
L. PFDA	335-76-2
M. PFUnA	2058-94-8
N. PFDS	335-77-3
O. PFDoA	307-55-1
P. MeFOSA	31506-32-8
Q. PFTrDA	72629-94-8
R. PFTeDA	376-06-7
S. EtFOSA	4151-50-2
T. MeFOSE	24448-09-7
U. EtFOSE	1691-99-2
V. MeFOSAA	2355-31-9
W. EtFOSAA	2991-50-6

Notes:_____

LDC #: 45706 CQ6

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFAS (EPA Method 537)

Y N N/A Were field blanks identified in this SDG?
Y N N/A Were target compounds detected in the field blanks?

Blank units: ug/L **Associated sample units:** ug/kg
Sampling date: 07/17/19
Field blank type: (circle one) Trip Blank/Field Blank / Rinsate / Other: EB Associated Samples: ~~15-18~~ 16 (ND or >5x)

Compound	Blank ID	Sample Identification								
	20									
K	0.0123									

Blank units: ug/L **Associated sample units:** ug/kg
Sampling date: 7/11/19
Field blank type: (circle one) Field Blank / Rinsate / Other: Associated Samples: 1 (75x)

Compound	Blank ID	Sample Identification								
	EB-07112019									
K	0.0201									

LDC #: 45706 C96

VALIDATION FINDINGS WORKSHEET
Labeled Compound

Page: 1 of 1
Reviewer: JVG
2nd Reviewer: ✓

METHOD: LC/MS PFAS (EPA Method 537M)

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".
Y (N) N/A Were all labeled compounds within -50 to +150% of the associated calibration standard?

#	Date	Sample ID	Labeled Compound	%R	Limits (%)	Qualifications
		2 (MD)	13C2-O	47.7	50-150	J (UJ/P (qual Q,O)
		3	d3-V	49.7		V
			13C2-O	46.9		O,Q
		10	13C2-O	41.6		O,Q
			13C2-R	27.2		R
		12	13C2-R	31.0		R
		15	d3-V	47.8		V
			13C2-O	47.4		O,Q
		16	13C2-L	49.8		L
			13C2-O	49.1		O,Q
		18	13C2-O	45.8		O,Q
		BQG0264-BLK1	13C2-O	49.6		O,Q

LDC#: 45706C96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
7/22/2019	SCN945	PFOA	0.25	0.03165	3.125
			0.5	0.06647	6.250
	190722M1-CRV		1	0.11573	12.500
		13C2-PFOA	2	0.23840	25.000
			5	0.63338	62.500
			10	1.21526	125.000
			50	6.28315	625.000
			100	11.97011	1250.000
			250	28.74840	3125.000
			500	61.12986	6250.000

Regression Output	Calculated	Reported WLR
Constant	-0.075937	0.037722
Std Err of Y Est		
R Squared	0.999429	0.999184
Degrees of Freedom		
X Coefficient(s)	0.00968201	1.502070
Std Err of Coef.		
Correlation Coefficient	0.999714	
Coefficient of Determination (r^2)	0.999429	0.999184

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
7/22/2019	SCN945	PFOS	0.25	0.01898	3.125
			0.5	0.05101	6.250
	190722M1-CRV		1	0.07006	12.500
		13C8-PFOS	2	0.15729	25.000
			5	0.40492	62.500
			10	0.84884	125.000
			50	4.45203	625.000
			100	8.49765	1250.000
			250	20.93435	3125.000
			500	43.12088	6250.000

Regression Output	Calculated	Reported WLR
Constant	-0.029639	-0.019750
Std Err of Y Est		
R Squared	0.999855	0.999659
Degrees of Freedom		
X Coefficient(s)	0.00686606	1.069000
Std Err of Coef.		
Correlation Coefficient	0.999927	
Coefficient of Determination (r^2)	0.999855	0.999659

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
7/28/2019	SCN945	PFOA	0.25	0.03296	3.125
			0.5	0.06066	6.250
	190728M1-CRV		1	0.12264	12.500
		13C2-PFOA	2	0.24413	25.000
			5	0.59743	62.500
			10	1.26346	125.000
			50	5.75055	625.000
			100	12.09280	1250.000
			250	27.48101	3125.000
			500	57.22712	6250.000

Regression Output	Calculated	Reported WLR
Constant	0.044209	0.101179
Std Err of Y Est		
R Squared	0.999626	0.999104
Degrees of Freedom		
X Coefficient(s)	0.00909328	1.425740
Std Err of Coef.		
Correlation Coefficient	0.999813	
Coefficient of Determination (r^2)	0.999626	0.999104

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
7/28/2019	SCN945	PFOS	0.25	0.01731	3.125
			0.5	0.03195	6.250
	190728M1-CRV		1	0.08040	12.500
		13C8-PFOS	2	0.17206	25.000
			5	0.39523	62.500
			10	0.86270	125.000
			50	4.40816	625.000
			100	9.07360	1250.000
			250	21.45917	3125.000
			500	43.77193	6250.000

Regression Output	Calculated	Reported WLR
Constant	0.006692	-0.0602577
Std Err of Y Est		
R Squared	0.999891	0.999675
Degrees of Freedom		
X Coefficient(s)	0.00698389	1.092800
Std Err of Coef.		
Correlation Coefficient	0.999945	
Coefficient of Determination (r^2)	0.999891	0.999675

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
8/2/2019	SCN945	PFOA	0.25	0.04358	3.125
			0.5	0.07776	6.250
	190802M1-CRV		1	0.13222	12.500
		13C2-PFOA	2	0.29802	25.000
			5	0.75591	62.500
			10	1.51881	125.000
			50	7.32513	625.000
			100	14.71139	1250.000
			250	37.14547	3125.000
			500	74.48904	6250.000

Regression Output	Calculated	Reported WLR
Constant	-0.032022	0.031716
Std Err of Y Est		
R Squared	0.999993	0.999947
Degrees of Freedom		
X Coefficient(s)	0.01191336	1.856760
Std Err of Coef.		
Correlation Coefficient	0.999996	
Coefficient of Determination (r^2)	0.999993	0.999947

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
8/2/2019	SCN945	PFOS	0.25	0.03165	3.125
			0.5	0.02844	6.250
	190802M1-CRV		1	0.08730	12.500
		13C8-PFOS	2	0.19110	25.000
			5	0.47341	62.500
			10	0.93333	125.000
			50	4.90193	625.000
			100	9.82558	1250.000
			250	23.44797	3125.000
			500	55.35387	6250.000

Regression Output	Calculated	Reported WLR
Constant	-0.405593	-0.2277060
Std Err of Y Est		
R Squared	0.995896	0.994423
Degrees of Freedom		
X Coefficient(s)	0.00864919	1.298410
Std Err of Coef.		
Correlation Coefficient	0.997946	
Coefficient of Determination (r^2)	0.995896	0.994423

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
8/6/2019	SCN945	PFOA	0.25	0.03014	3.125
			0.5	0.05590	6.250
	190806M1-CRV		1	0.11413	12.500
		13C2-PFOA	2	0.22835	25.000
			5	0.56072	62.500
			10	1.12453	125.000
			50	5.30908	625.000
			100	11.15698	1250.000
			250	27.54228	3125.000
			500	54.94986	6250.000

Regression Output	Calculated	Reported WLR
Constant	0.004342	0.037145
Std Err of Y Est		
R Squared	0.999983	0.999901
Degrees of Freedom		
X Coefficient(s)	0.00879704	1.374720
Std Err of Coef.		
Correlation Coefficient	0.999992	
Coefficient of Determination (r^2)	0.999983	0.999901

LDC#: 45706C96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFCs (EPA Method 537Mod)

Calibration Date	System	Compound	Standard	(Y) Area ratio	(X) Conc ratio
8/6/2019	SCN945	PFOS	0.25	0.01937	3.125
			0.5	0.04171	6.250
	190806M1-CRV		1	0.06852	12.500
		13C8-PFOS	2	0.17654	25.000
			5	0.42663	62.500
			10	0.77173	125.000
			50	3.98623	625.000
			100	8.45885	1250.000
			250	21.61890	3125.000
			500	44.36255	6250.000

Regression Output	Calculated	Reported WLR
Constant	-0.135582	-0.0536139
Std Err of Y Est		
R Squared	0.999773	0.999142
Degrees of Freedom		
X Coefficient(s)	0.00707804	1.088080
Std Err of Coef.		
Correlation Coefficient	0.999886	
Coefficient of Determination (r^2)	0.999773	0.999142

LDC # 45706C96

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Calculation Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFCs (EPA Method 537Mod)

The percent difference (%D) of the initial calibration average Relative Response Factors (RRFs) and the continuing calibration RRFs were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. RRF - RRF)/ave. RRF
RRF = (Ax)(Cis)/(Ais)(Cx)

Where:
ave. RRF = initial calibration average RRF
RRF = continuing calibration RRF
Ax = Area of compound
Cx = Concentration of compound,
Ais = Area of associated internal standard
Cis = Concentration of internal standard

#	Standard ID	Calibration Date	Compound	(IS)	Conc	Reported	Recalculated	Reported % R	Recalculated % R
1	190726M1-4 ISC	7/26/2019	PFOA	(13C2-PFOA)	1.000	0.950	0.950	95.0	95.0
			PFOS	(13C8-PFOS)	1.000	0.991	0.991	99.1	99.1
2	190728M1-33 CS3	7/28/2019	PFOA	(13C2-PFOA)	10.000	10.906	10.906	109.1	109.1
			PFOS	(13C8-PFOS)	10.000	9.673	9.673	96.7	96.7
3	190805M1-22 CS3	8/5/2019	PFOA	(13C2-PFOA)	10.000	10.868	10.868	108.7	108.7
			PFOS	(13C8-PFOS)	10.000	8.845	8.845	88.5	88.5
4	090806M1-19 CS3	8/6/2019	PFOA	(13C2-PFOA)	10.000	8.000	8.000	80.0	80.0
			PFOS	(13C8-PFOS)	9.240	7.036	7.036	76.2	76.2

LDC #: 45706 C96

VALIDATION FINDINGS WORKSHEET
Matrix Spike/Matrix Spike Duplicates Results Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFAS (EPA Method 537Mod)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the matrix spike and matrix spike duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SSC - SC)/SA Where: SSC = Spiked sample concentration; SA = Spike added; SC = Sample concentation

RPD = I MSC - MSC I * 2/(MSC + MSDC) MSC = Matrix spike concentration MSDC = Matrix spike duplicate concentration

MS/MSD samples: 21/22

Compound	Spike Added (ug/kg)		Sample Conc (ug/kg)	Spiked Sample Concentration (ug/kg)		Matrix Spike Percent Recovery		Matrix Spike Duplicate Percent Recovery		MS/MSD RPD	
	MS	MSD	------	MS	MSD	Reported	Recalc	Reported	Recalc	Reported	Recalc
PFOA	9.98	9.88	0	9.996	10.237	99.2	100	107	107	2.78	78
PFOS	↓	↓	1.27	10.2167	10.293	89.8	89.6	91.3	91.3	1.66	1.66

Comments: Refer to Matrix Spike/Matrix Spike Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

- RPDs based on %R
- Rounding off issues

LDC #: 45706 CQ6

VALIDATION FINDINGS WORKSHEET

Laboratory Control Sample/Laboratory Control Sample Duplicates Results Verification

Reviewer: JVG
2nd Reviewer:

METHOD: LC/MS PFAS (EPA Method 537M)

The percent recoveries (%R) and Relative Percent Difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100 * (SC/SA Where: SSC = Spike concentration
SA = Spike added

RPD = | LCSC - LCSDC | * 2/(LCSC + LCSDC) LCSC = Laboratory control sample concentration LCSDC = Laboratory control sample duplicate concentration

LCS/LCSD samples: BQG0264-BS1

Compound	Spike Added (ng/kg)		Spike Concentration (ng/kg)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
PFOA	10.0	NA	11.2	NA	112	112				
PFOS	↓	↓	9.24	↓	92.4	92.4				

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicates findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 45706 C96

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: JVG
2nd reviewer:

METHOD: LC/MS PFCs (EPA Method 537Mod)

(Y) N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10.0% of the reported results?

Concentration = $\frac{(A_x)(I_s)(V_t)(DF)(2.0)}{(A_{is})(RRF)(V_o)(V_i)(\%S)}$

A_x	=	Area of the characteristic ion (EICP) for the compound to be measured
A_{is}	=	Area of the characteristic ion (EICP) for the specific internal standard
I_s	=	Amount of internal standard added in nanograms (ng)
V_o	=	Volume or weight of sample extract in milliliters (ml) or grams (g).
V_i	=	Volume of extract injected in microliters (ul)
V_t	=	Volume of the concentrated extract in microliters (ul)
Df	=	Dilution Factor.
%S	=	Percent solids, applicable to soil and solid matrices only.
2.0	=	Factor of 2 to account for GPC cleanup

Example:

Sample I.D. 1 , PFOS :

Conc. = $\frac{\left[\left(\frac{(4480)(12.5)}{(3210)}\right) - (-0.0536)\right]}{(1.08808)} = 16.0825$

final conc. = $\frac{(16.0825)(1\,000\ mL)}{(1.08\ g)(0.943)(1000)} = 15.79$

≈ 15.8 ug/kg

#	Sample ID	Compound	Reported Concentration (ug/kg)	Calculated Concentration ( )	Qualification
			15.8		

LOCATION-NAME	SITE_NAME	INSTALLATION_ID	LOCATION_TYPE	LOCATION_TYPE_DESC	SDG	COORD_X	COORD_Y	ANALYTICAL_METHOD_GRP_DESC	SAMPLE_NAME	SAMPLE_MATRIX	SAMPLE_MATRIC_DESC
CAOA-B01	SITE 00019	YUMA_MCAS	BH	BOREHOLE	1902014	439091.921	603156.624	Perfluoroalkyl Compounds	CAOA-B01-GW	WG	GROUNDWATER

COLLECT_DATE
7/8/2019