Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
Printed: Friday, February 02, 2018 08:57:12 Pacific Standard Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_020118.mdb 02 Feb 2018 08:43:15
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_02-01-18-FULL.cdb 02 Feb 2018 08:56:36

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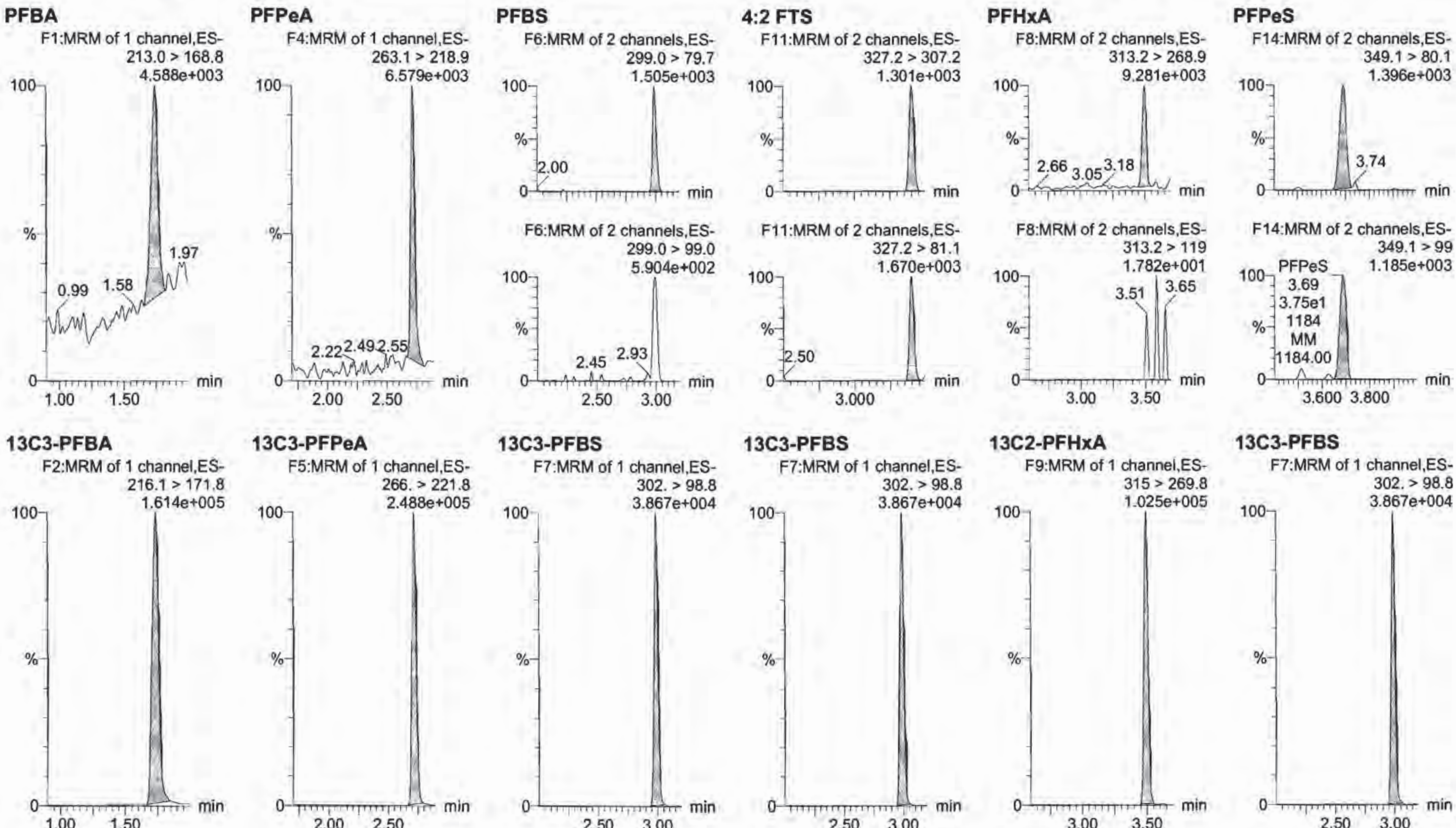

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
Printed: Friday, February 02, 2018 08:57:12 Pacific Standard Time

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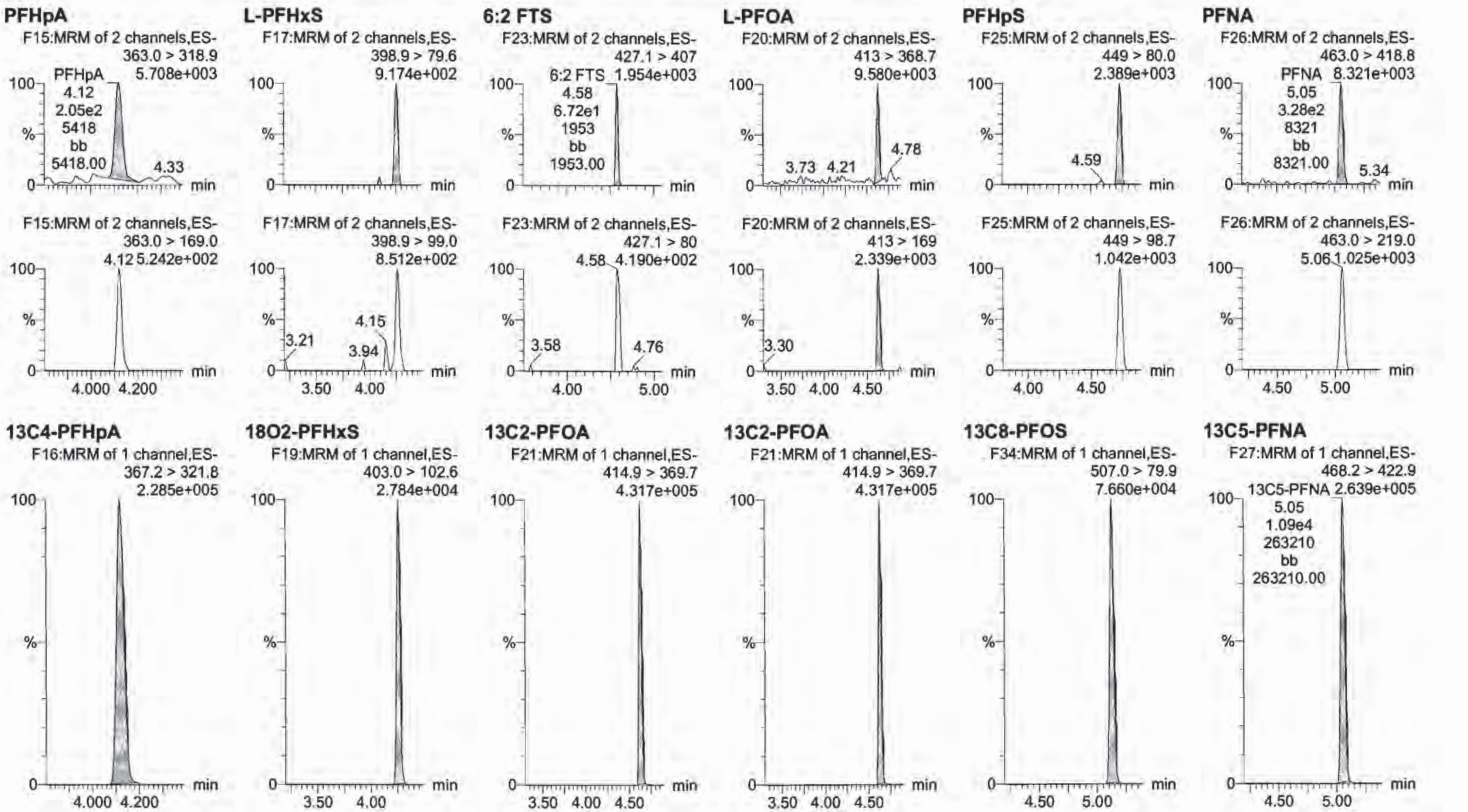

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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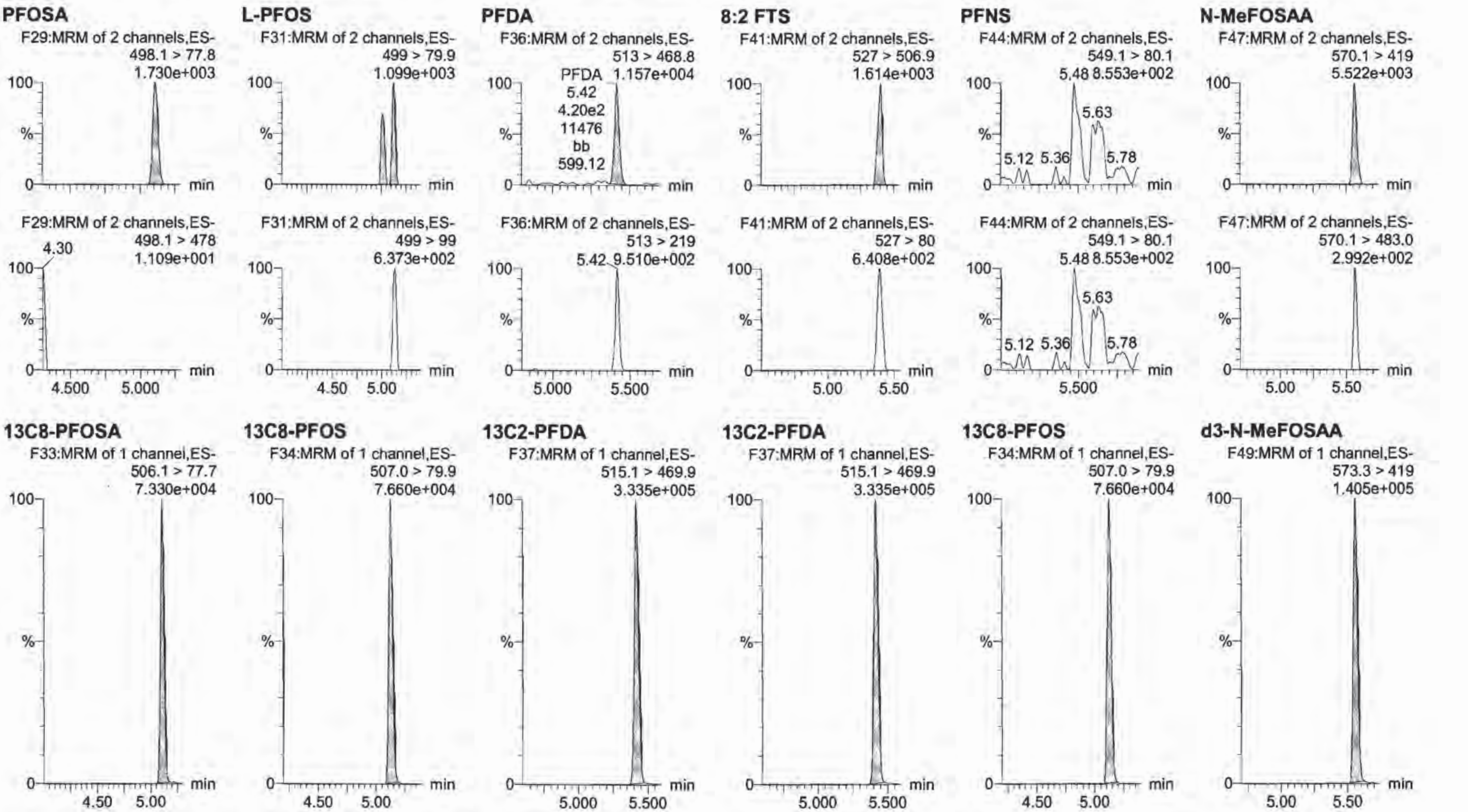

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Printed: Friday, February 02, 2018 08:57:12 Pacific Standard Time

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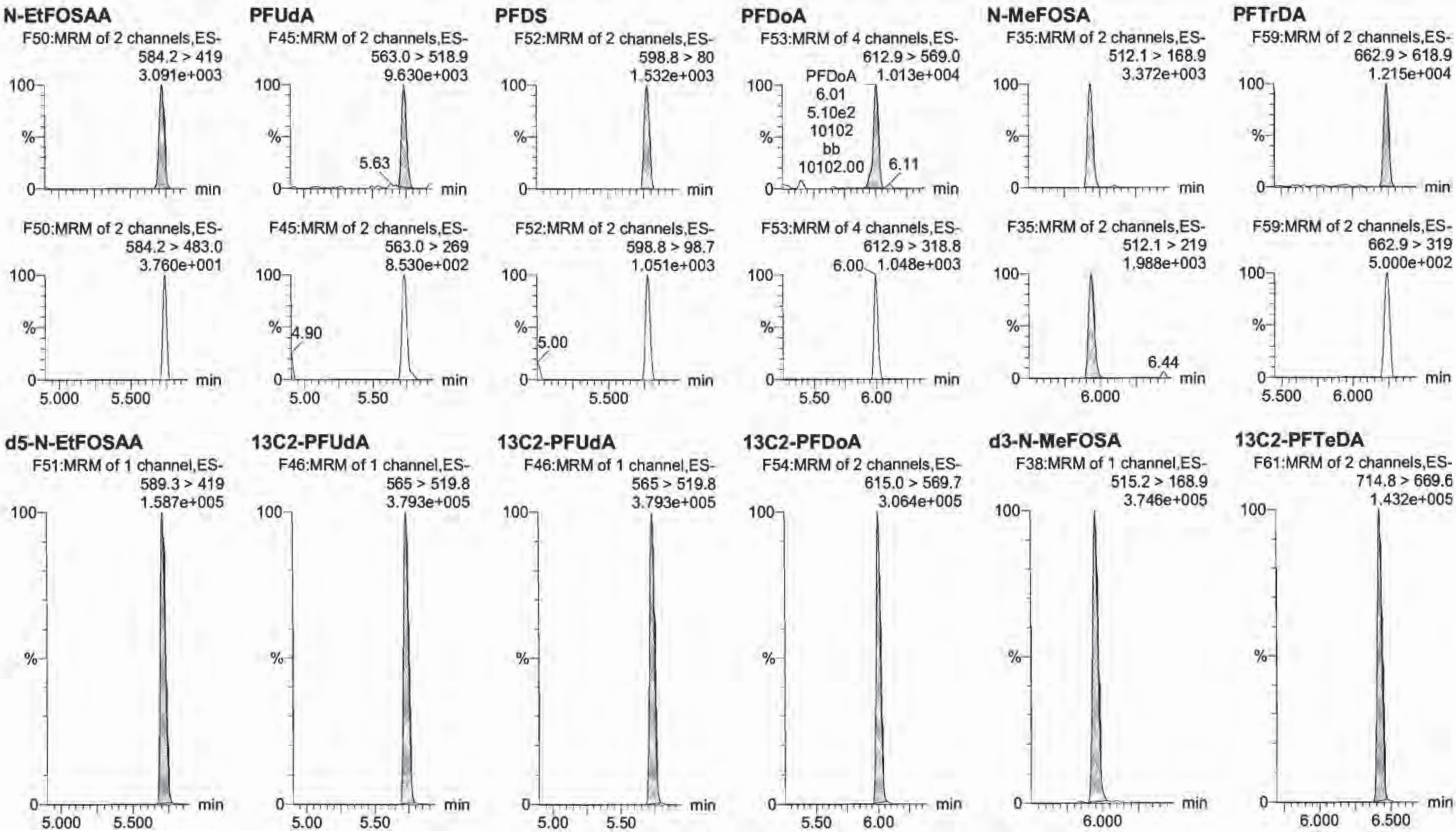

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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Printed: Friday, February 02, 2018 08:57:12 Pacific Standard Time

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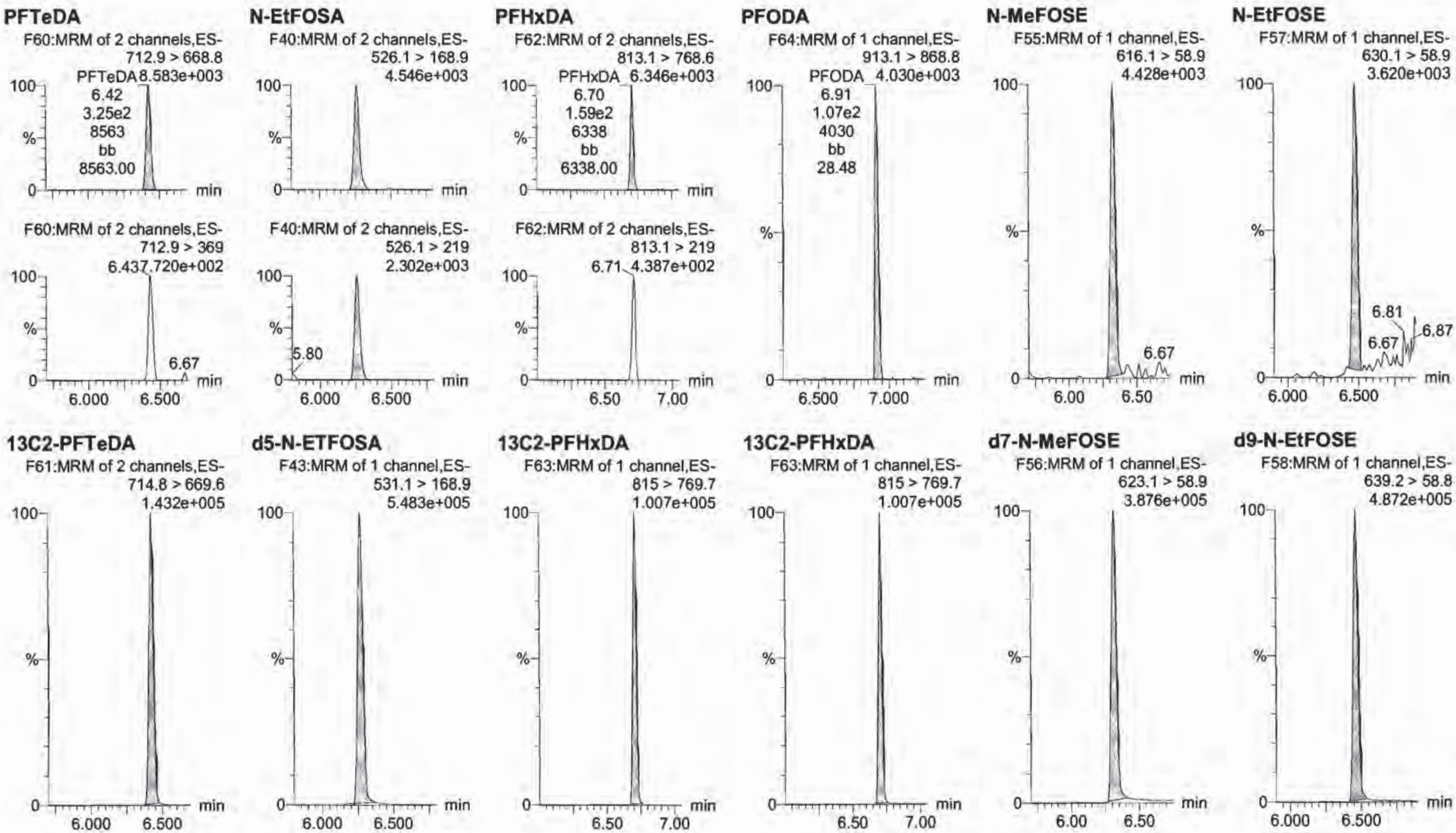

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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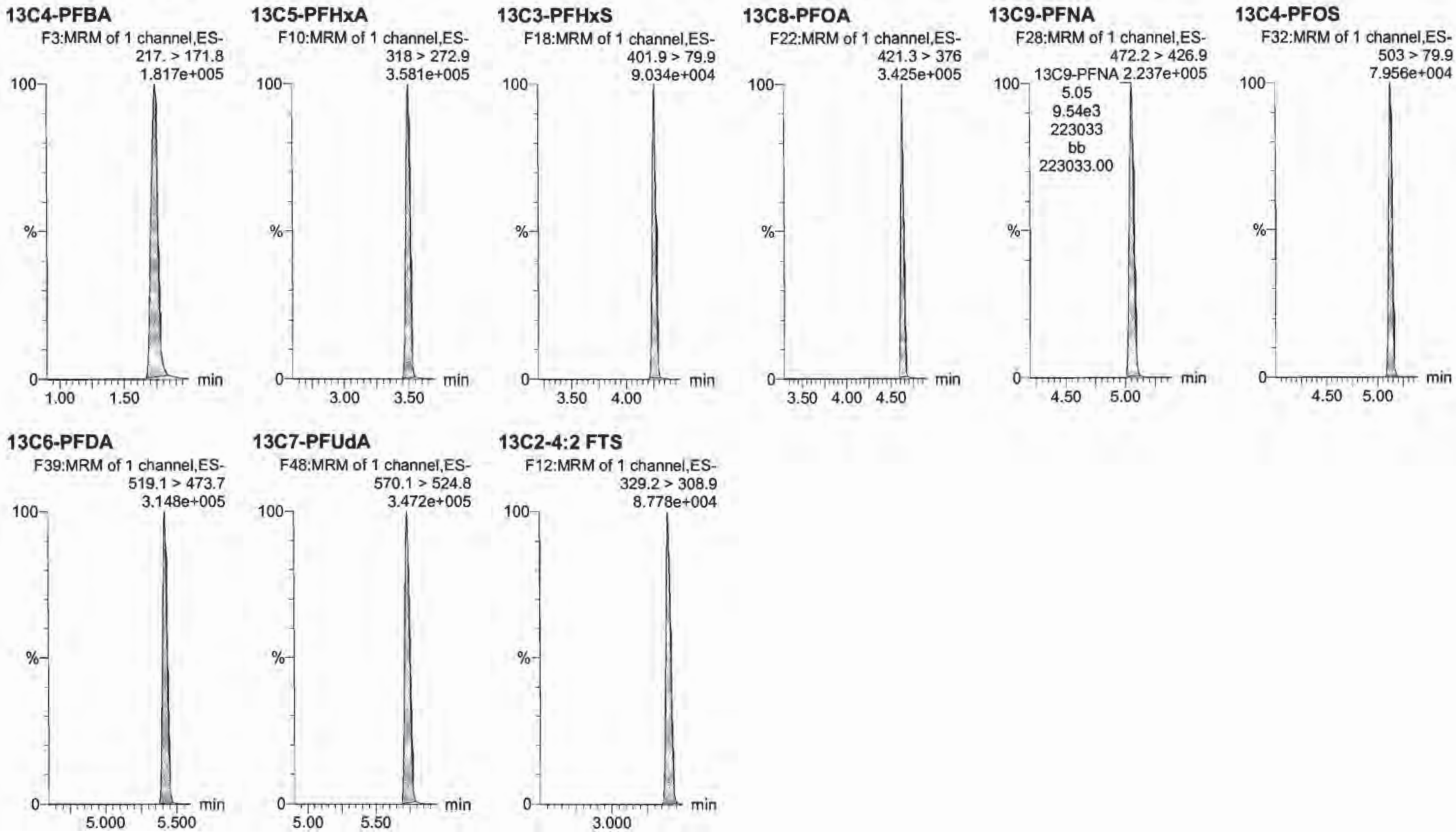

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
Printed: Friday, February 02, 2018 08:57:12 Pacific Standard Time

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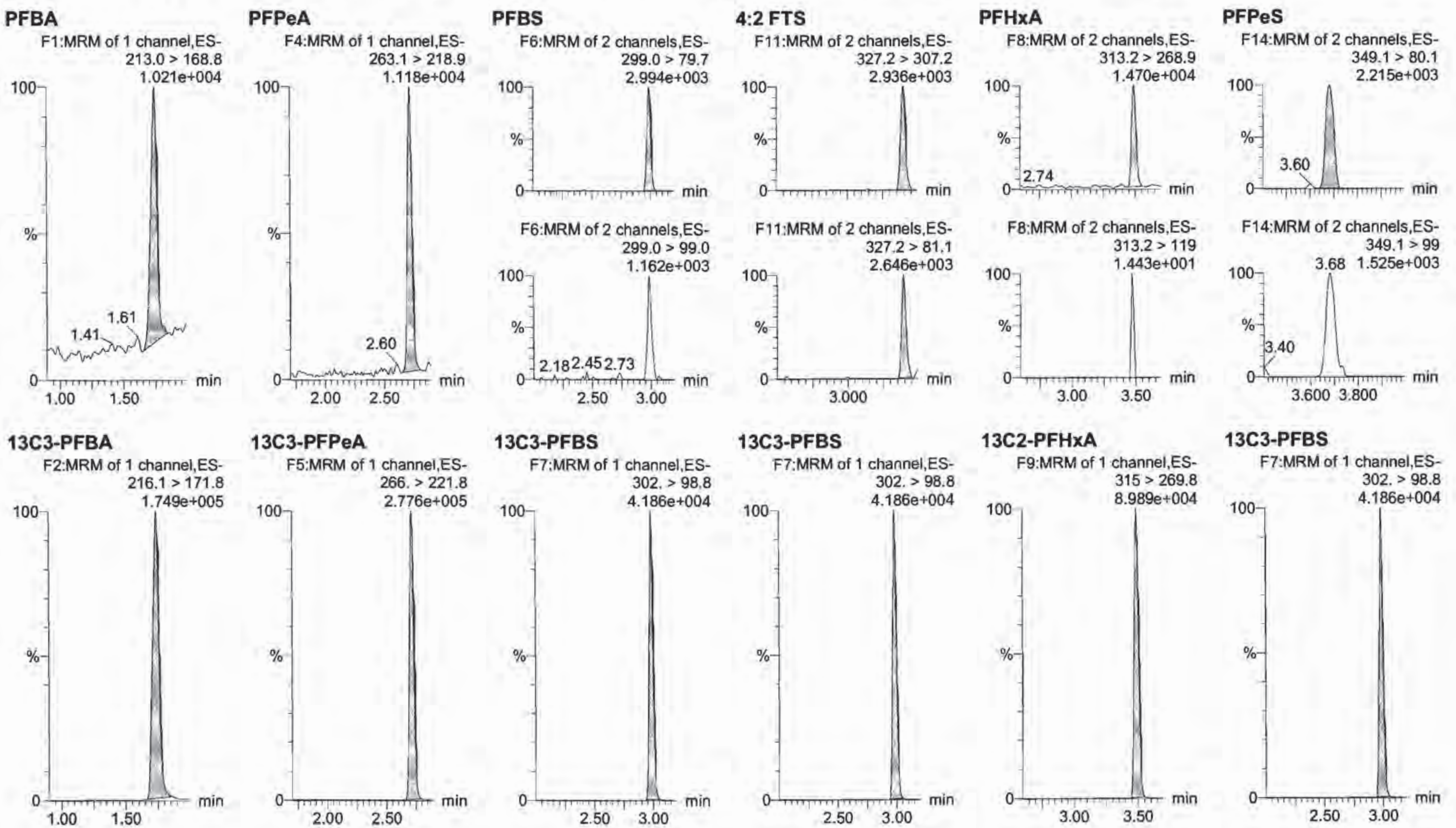

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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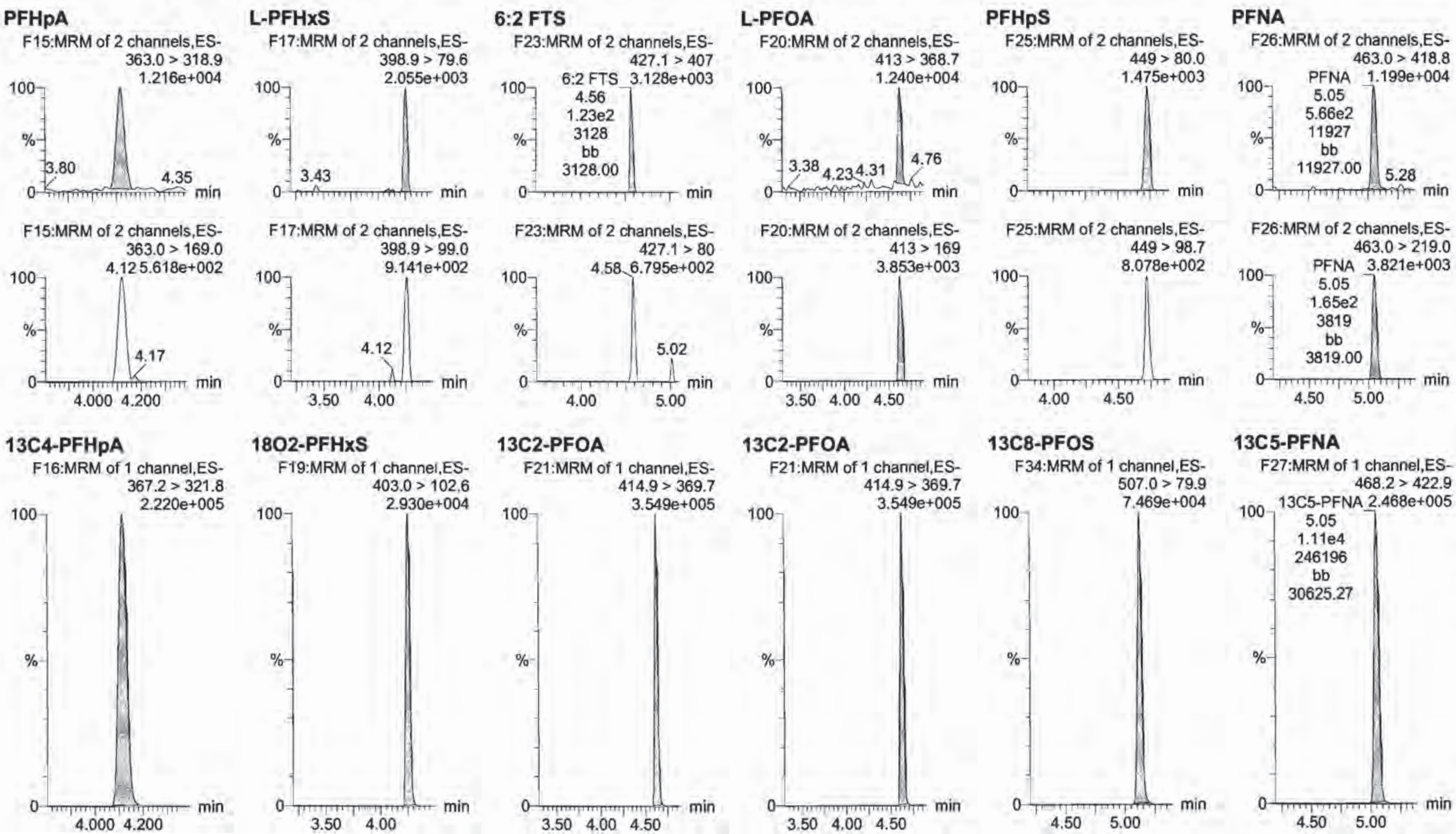

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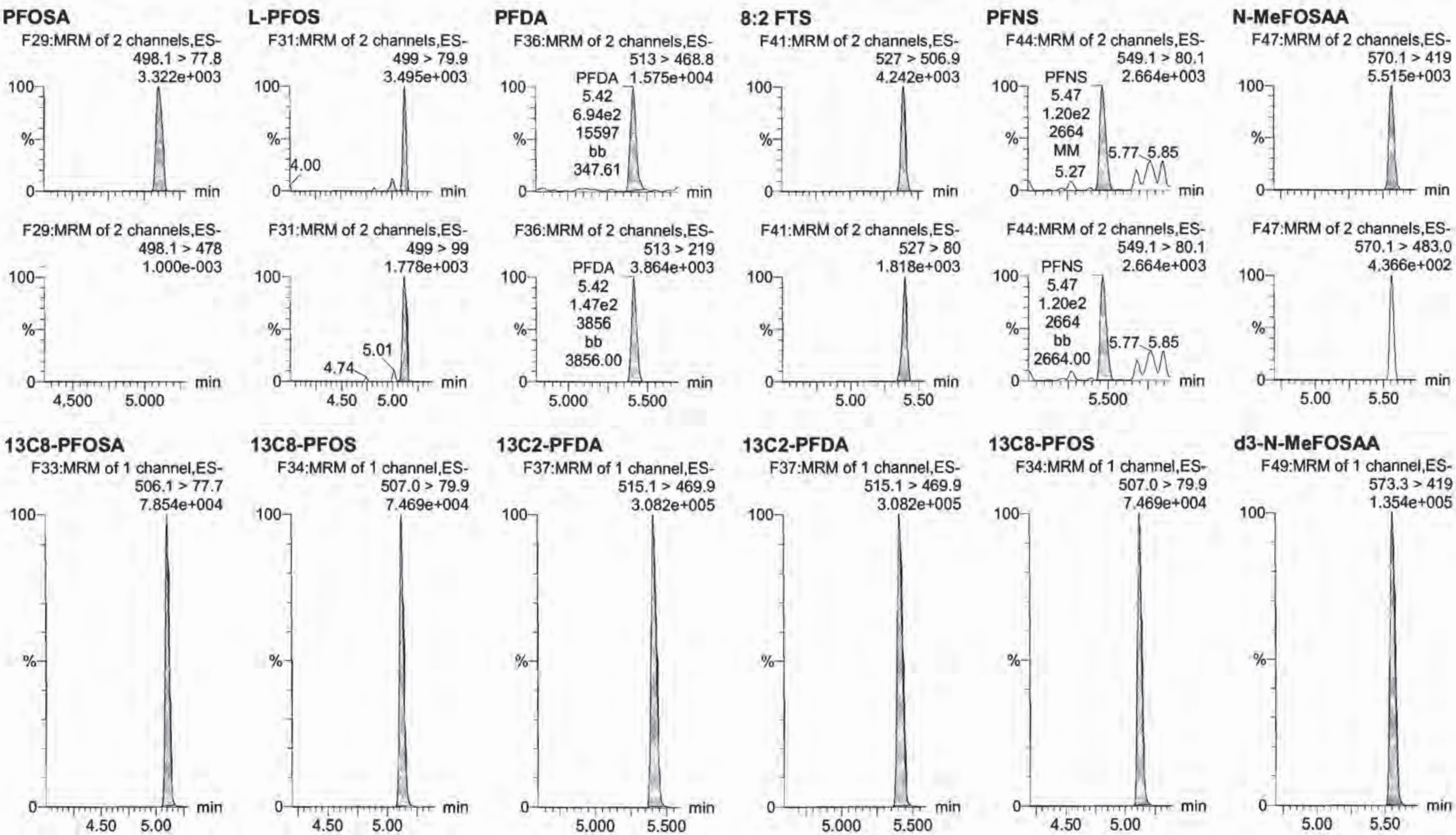

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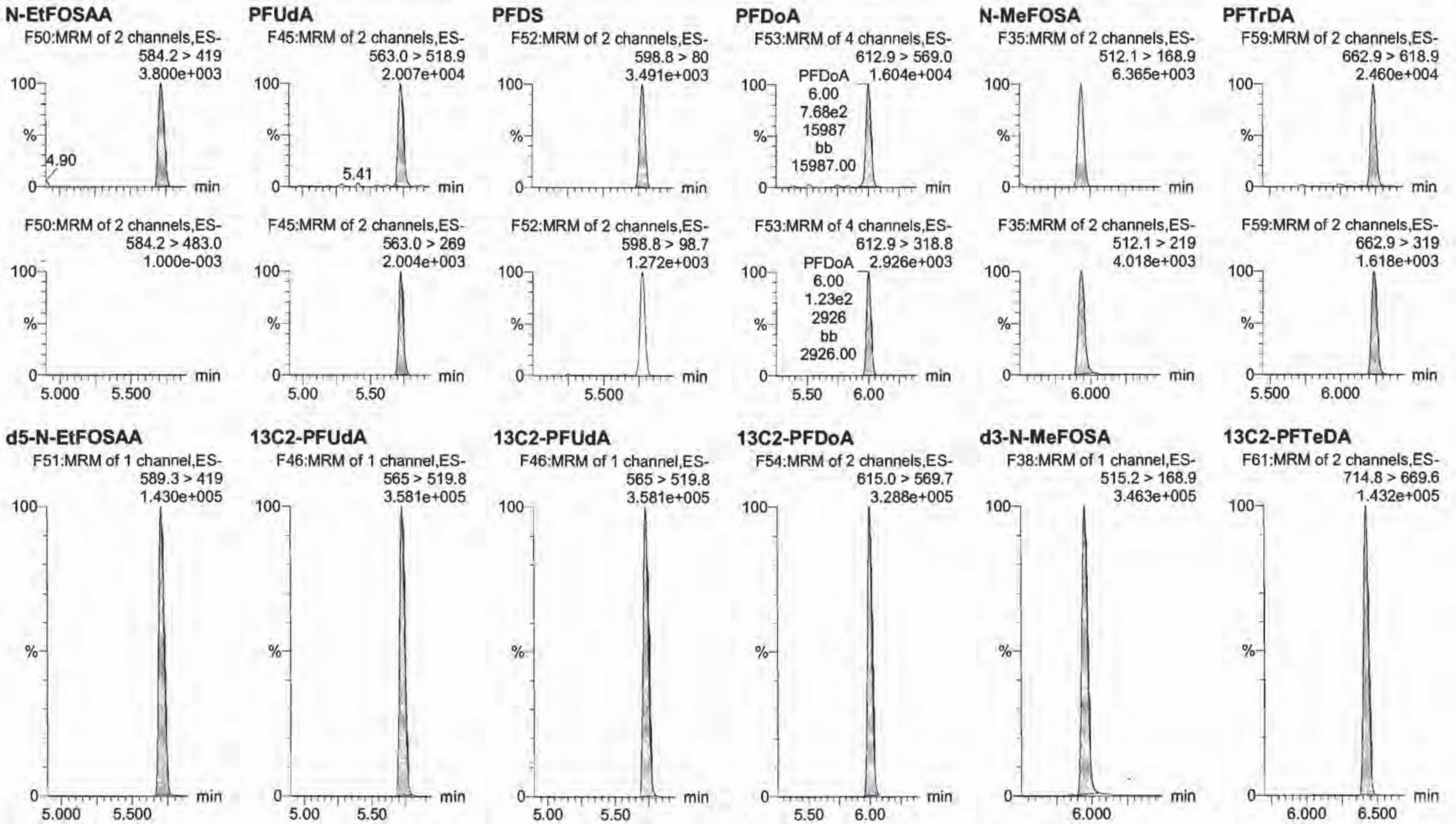

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Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
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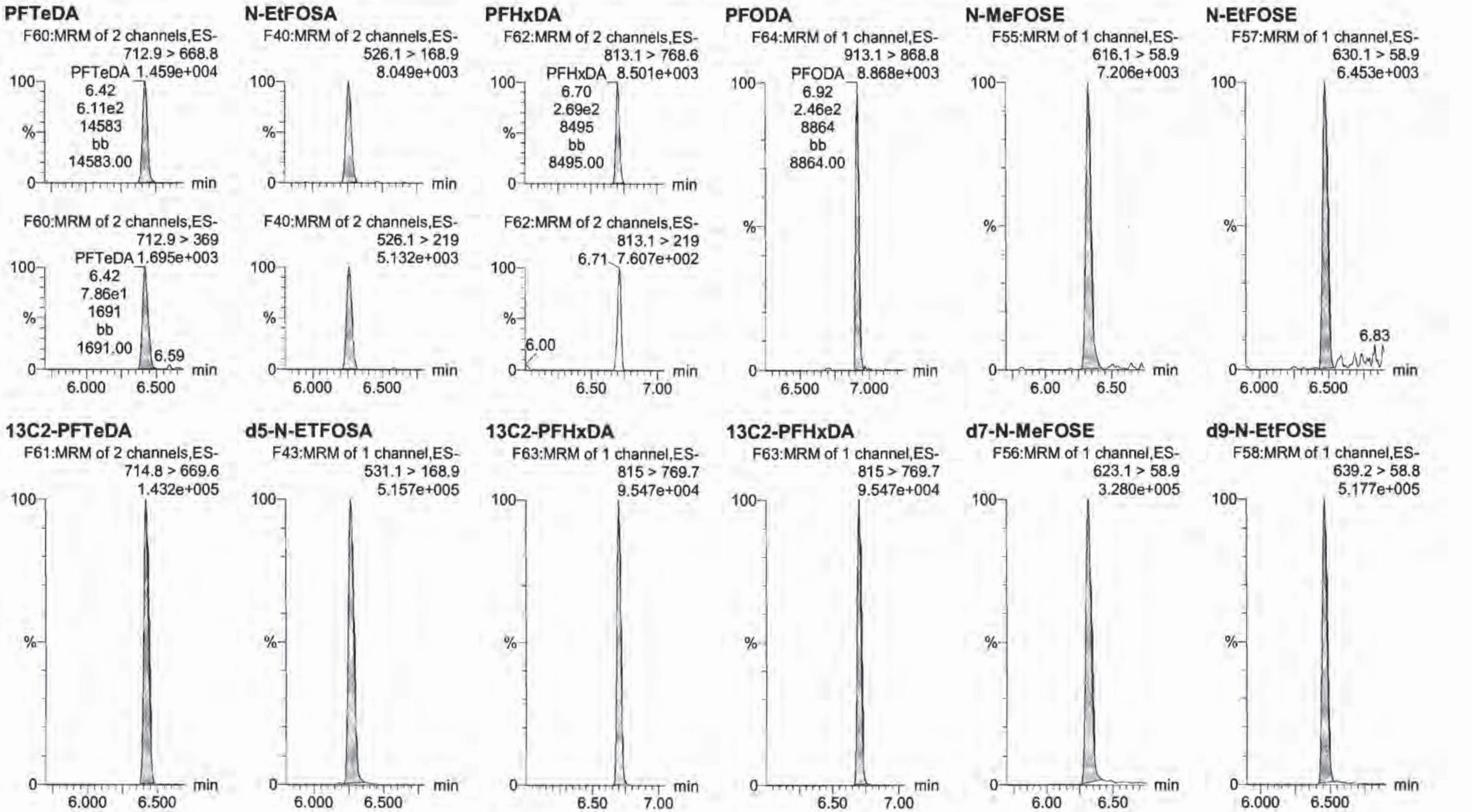

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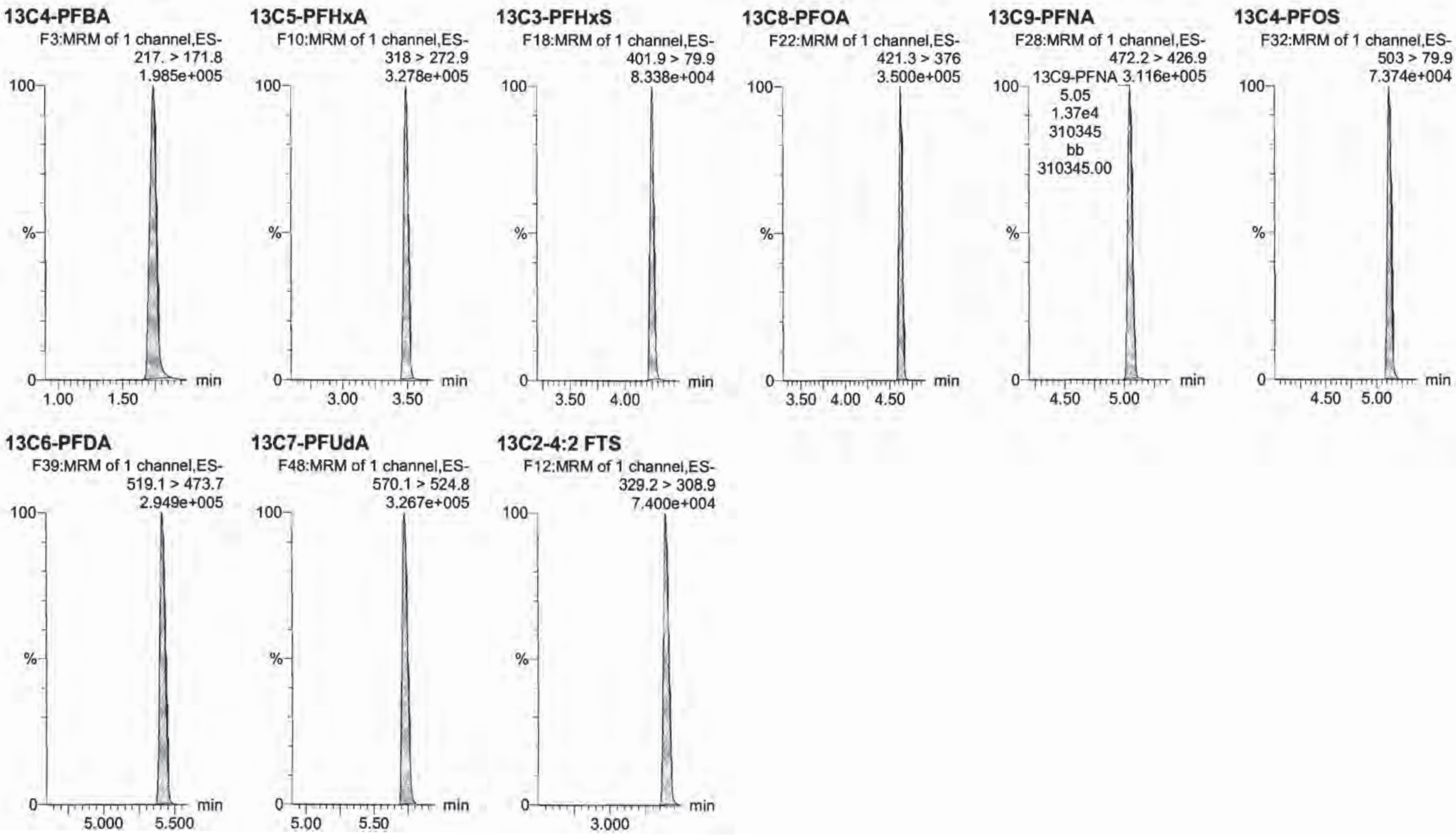

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Printed: Friday, February 02, 2018 08:57:12 Pacific Standard Time

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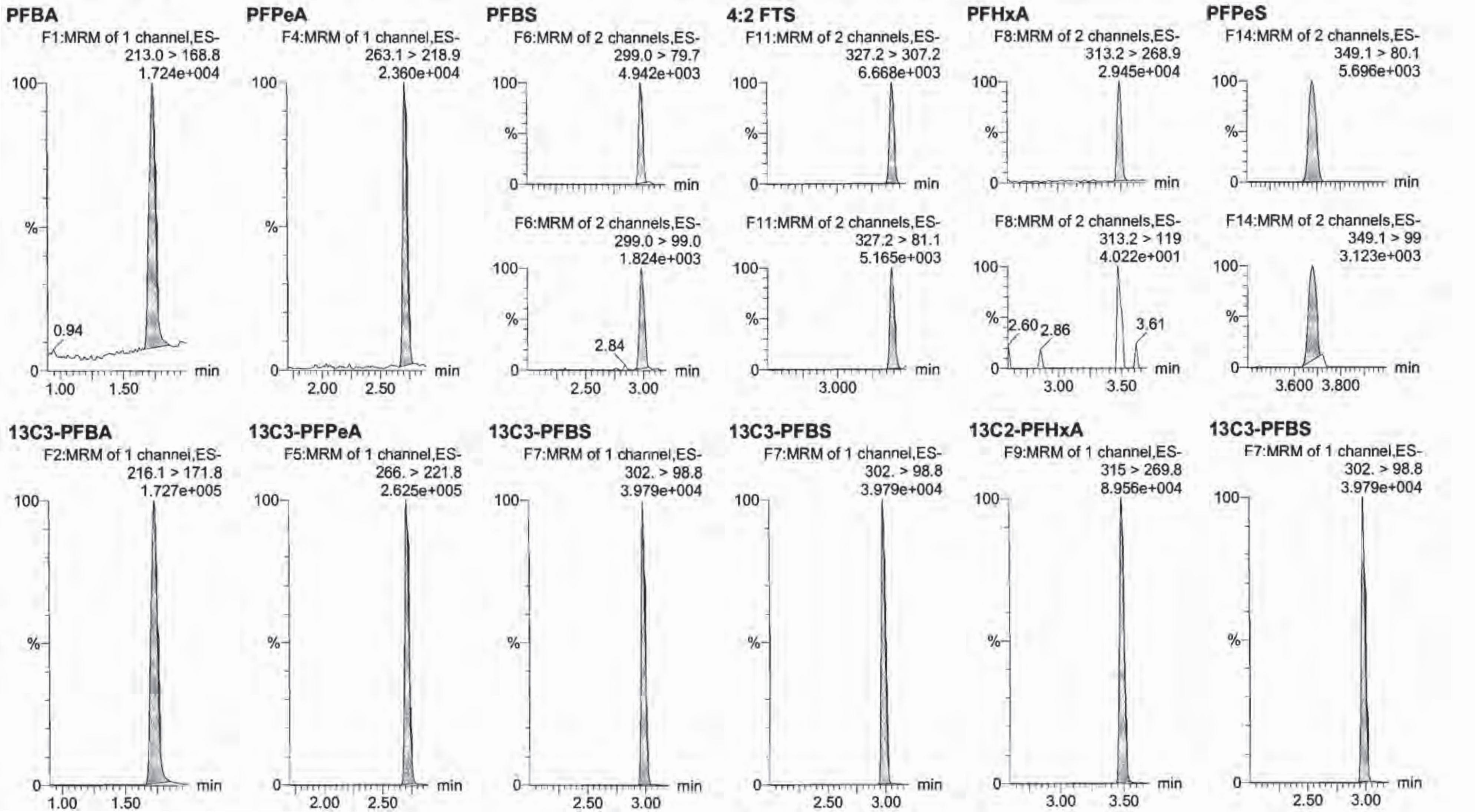

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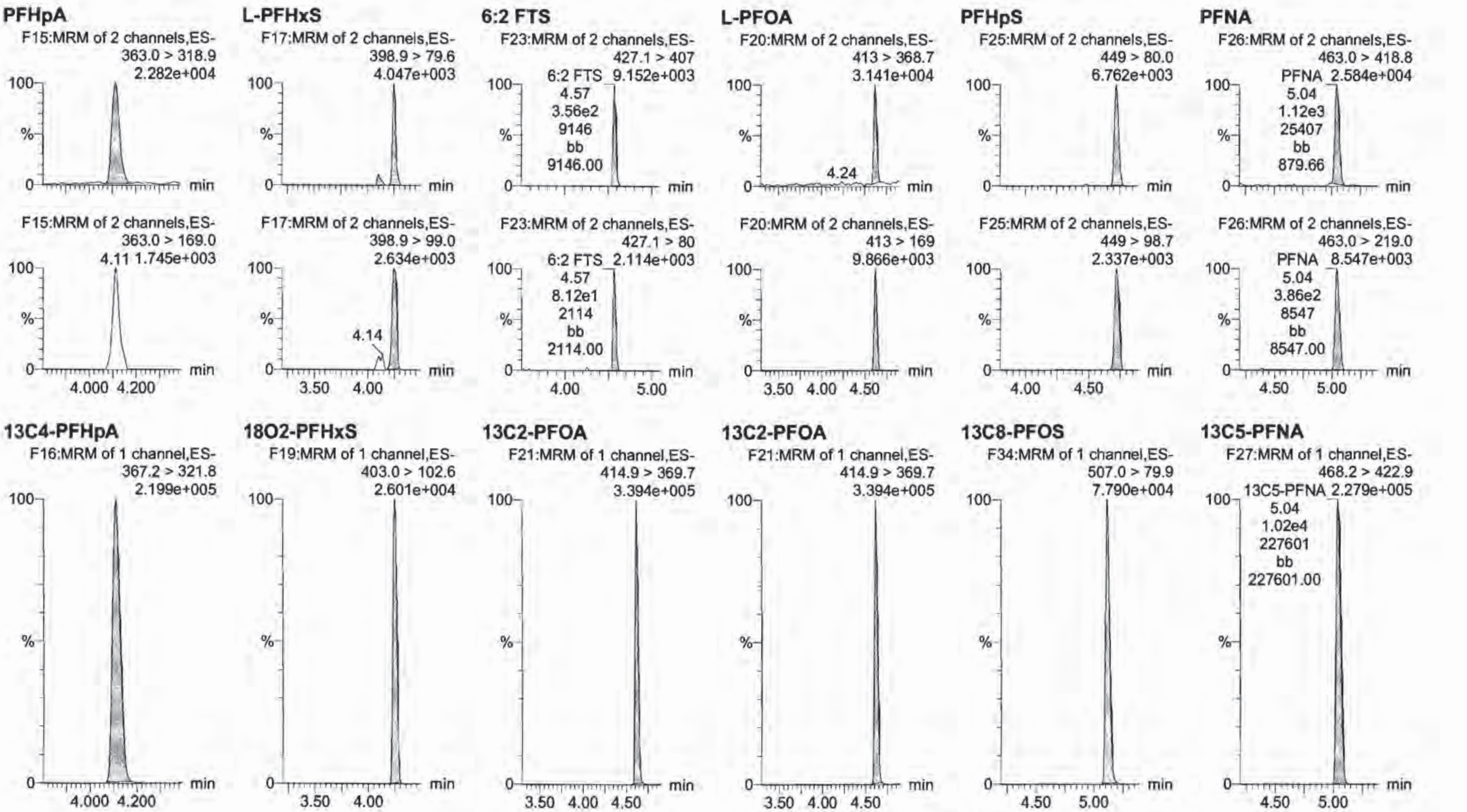

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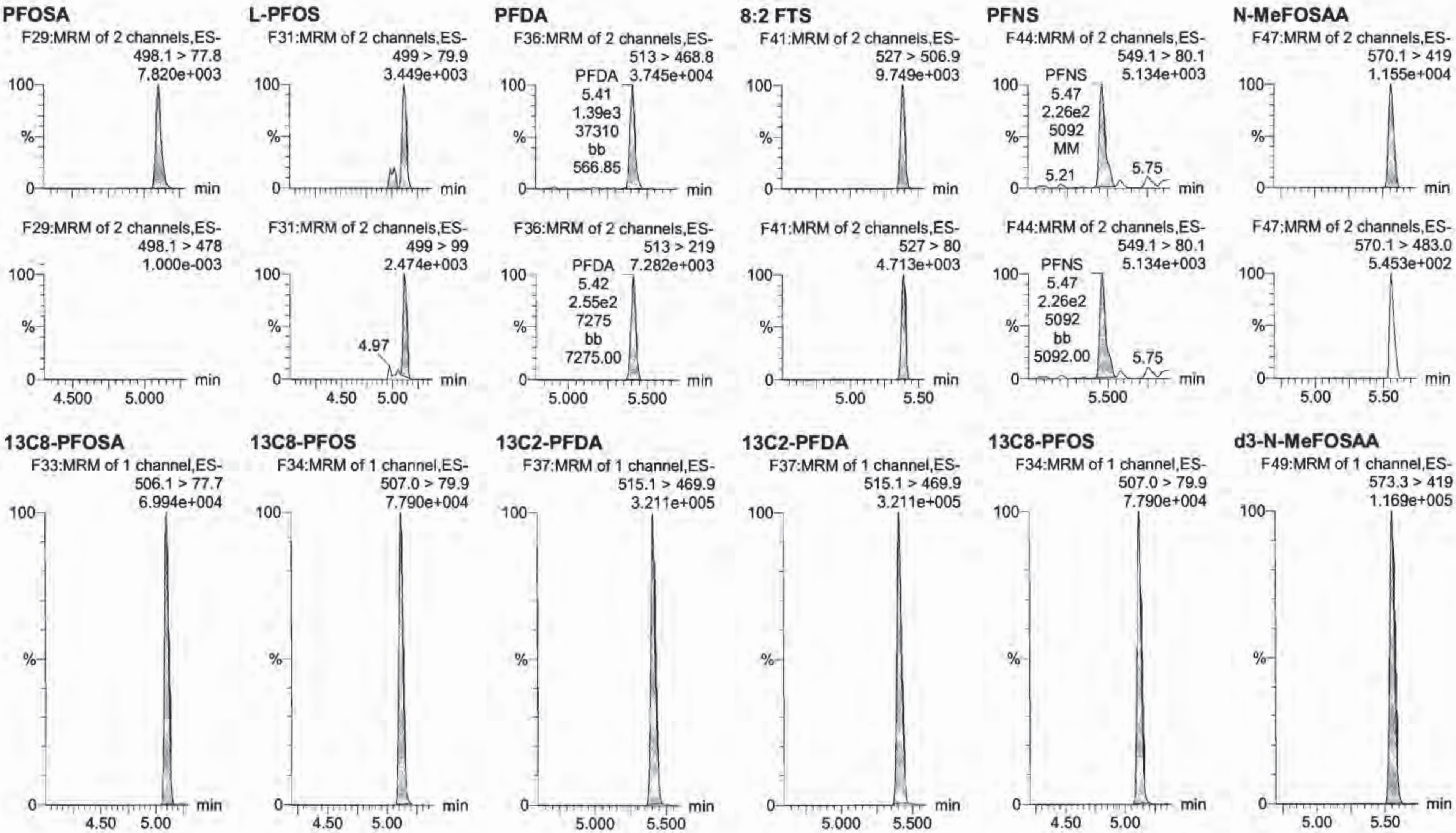

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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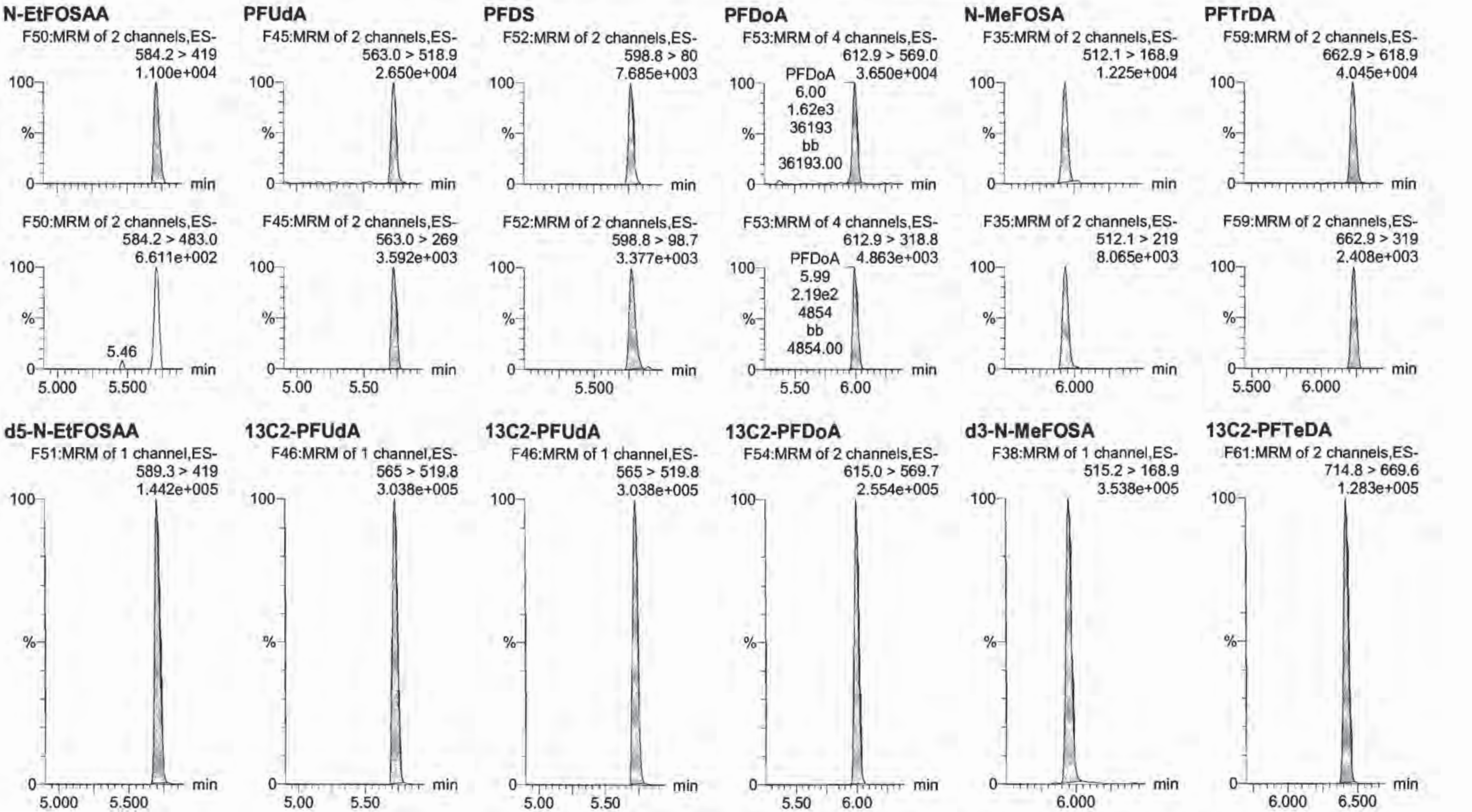

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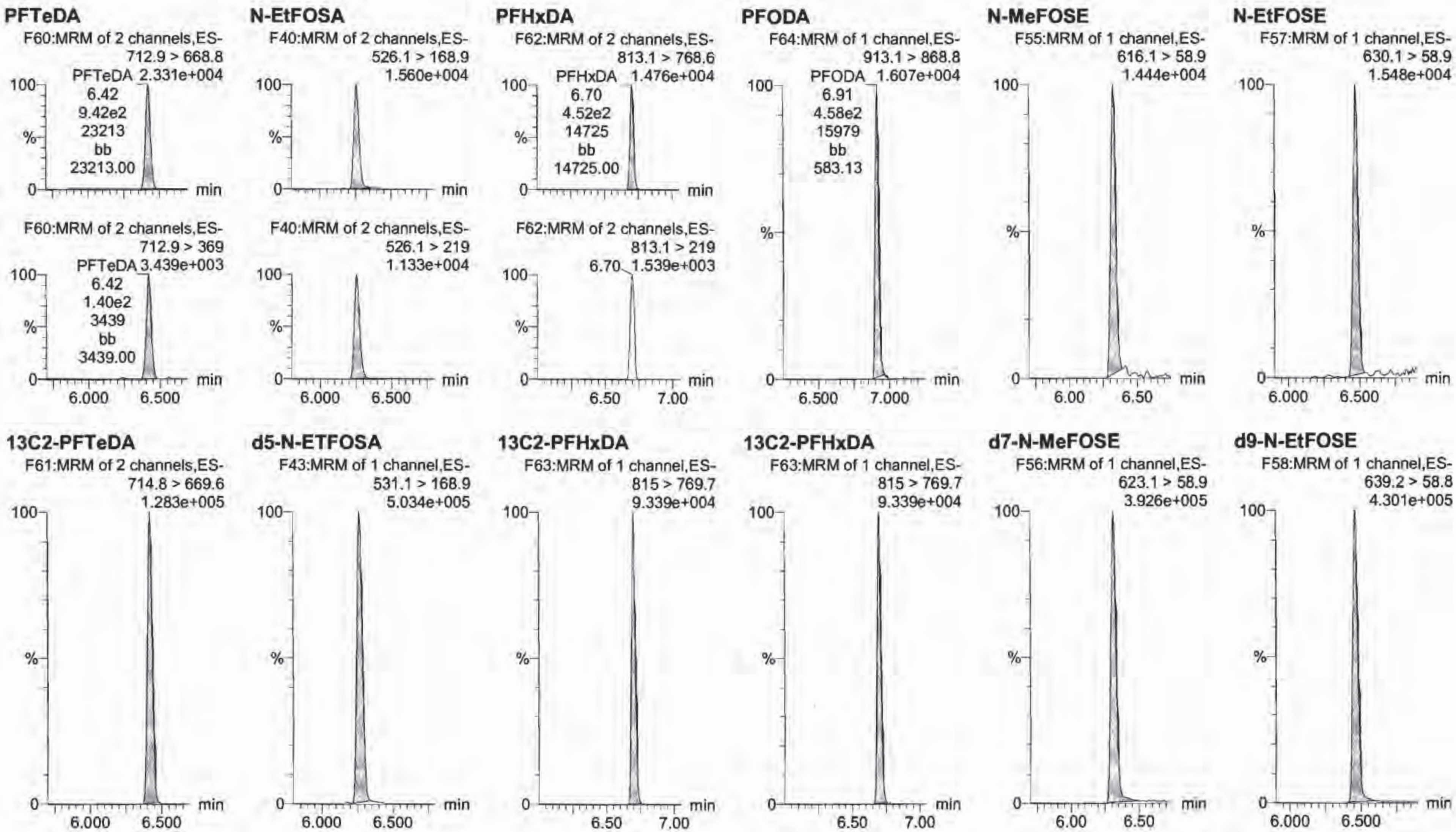

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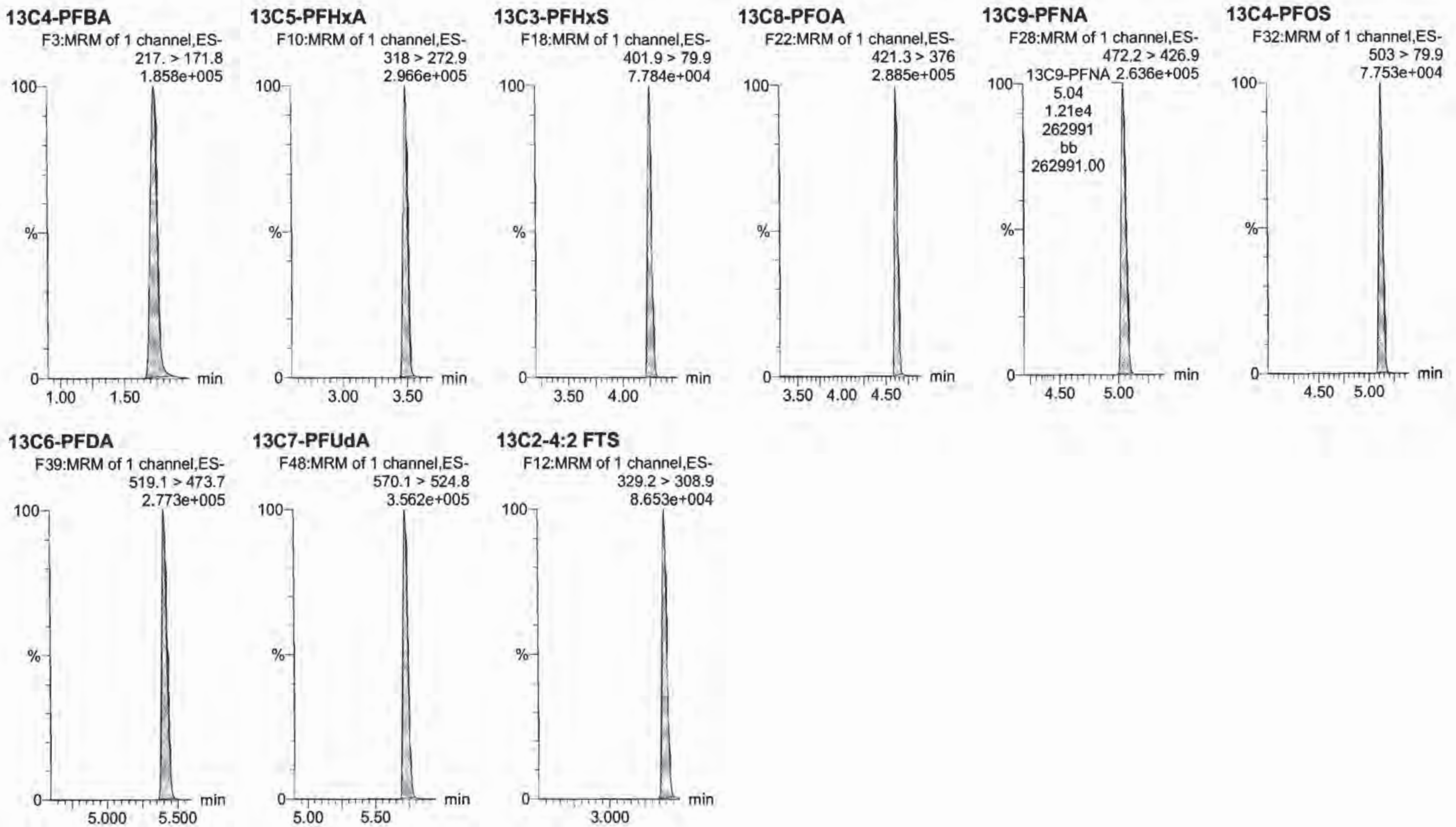

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Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
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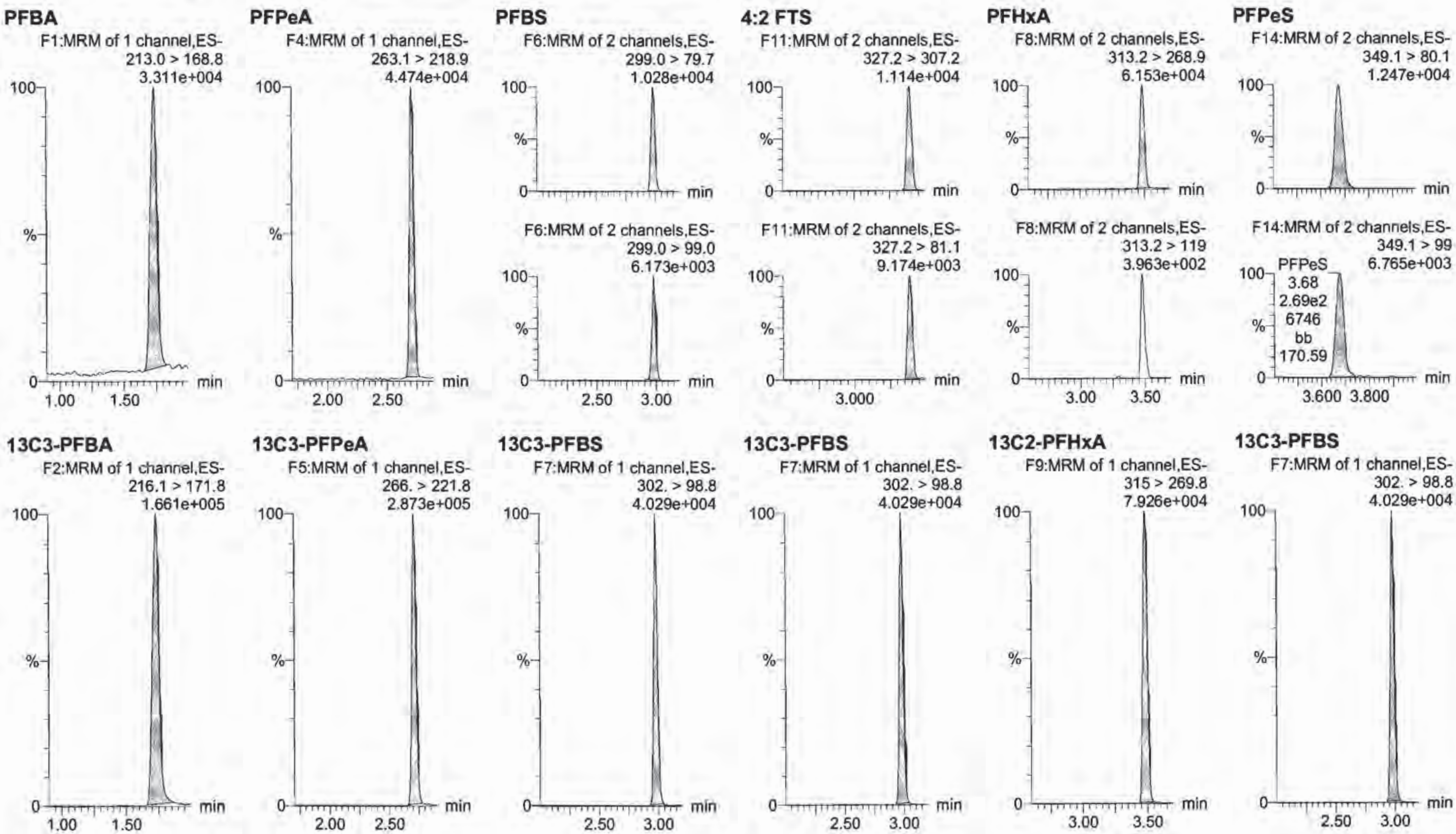

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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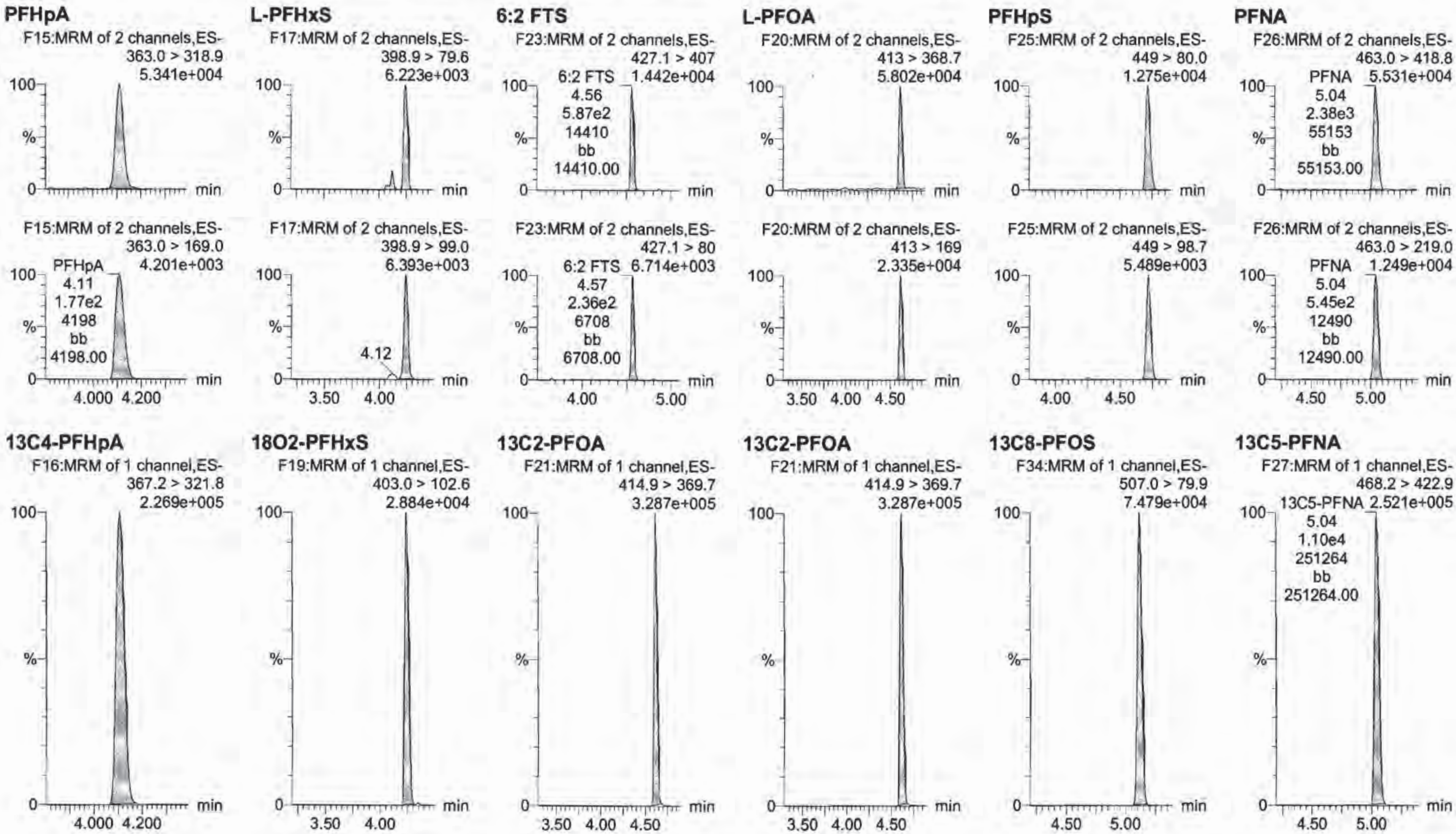

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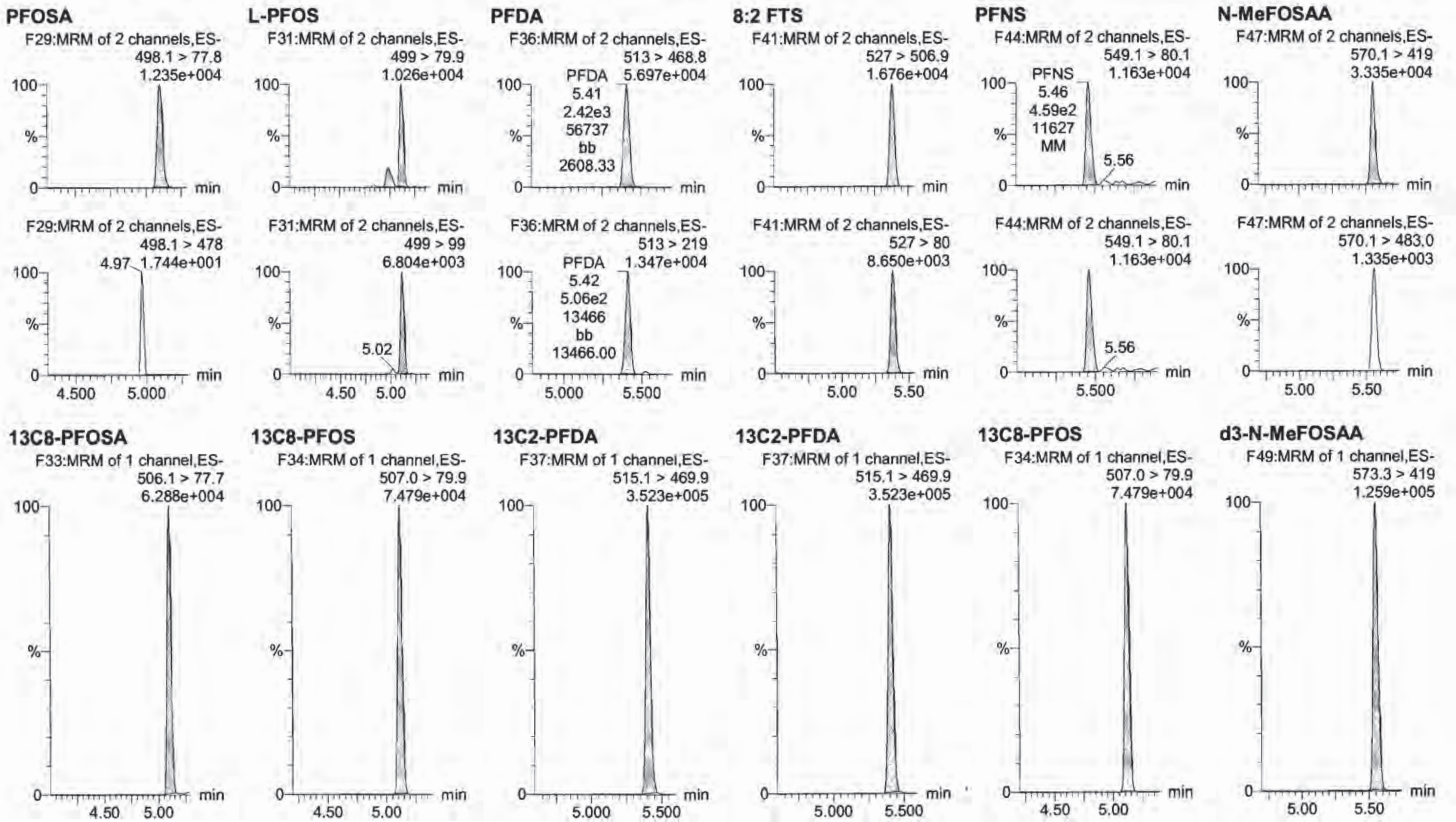

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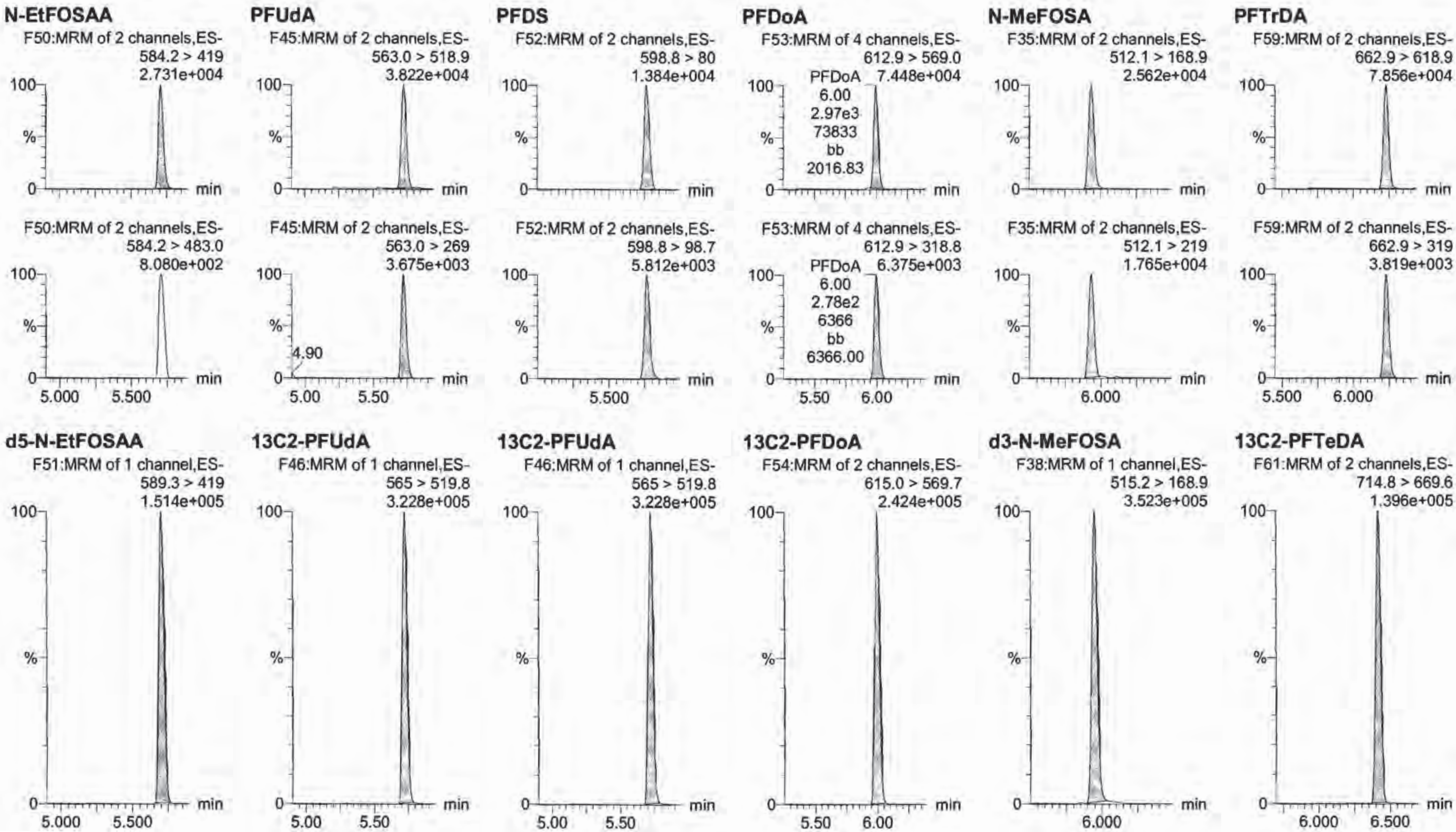

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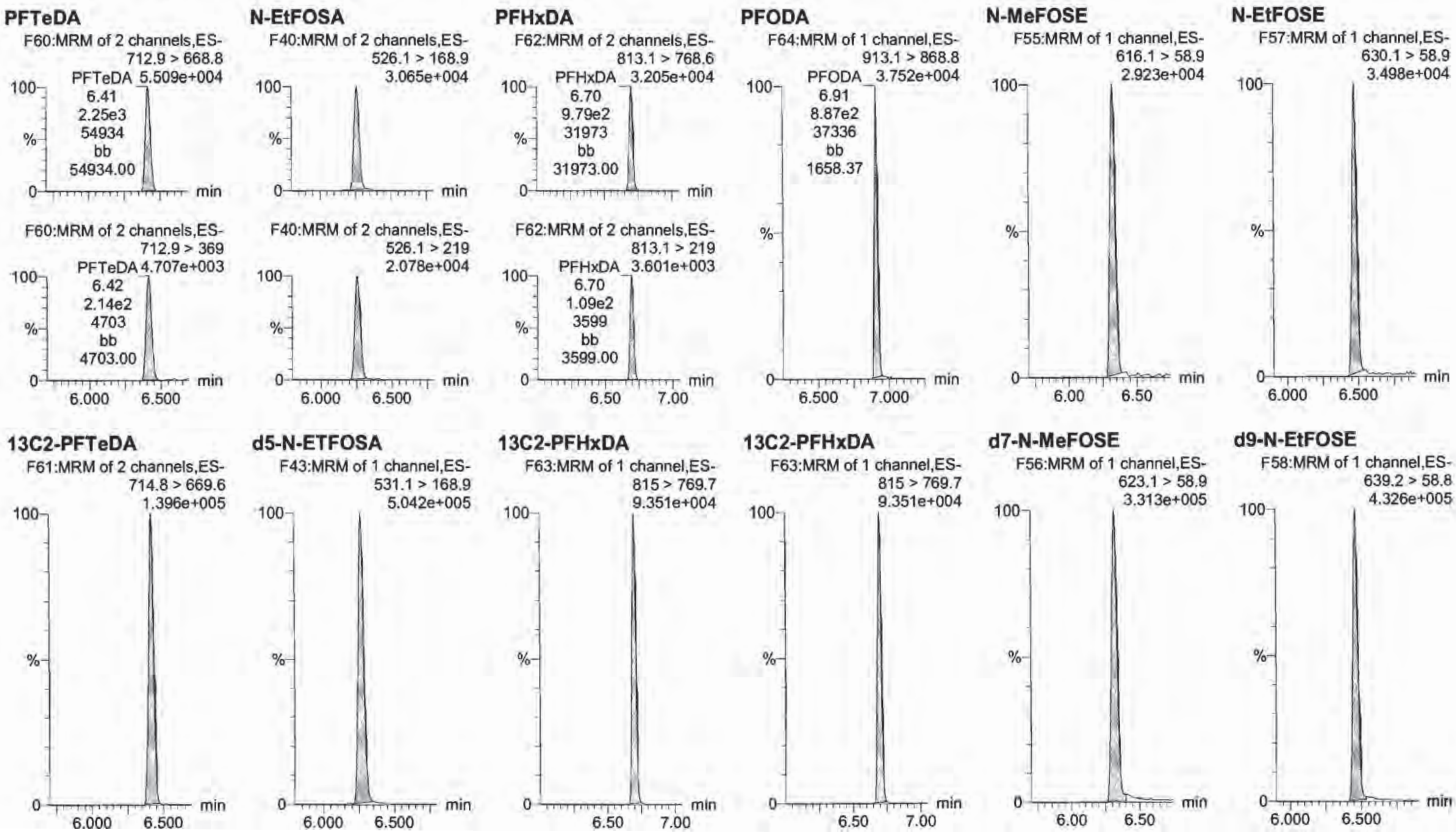

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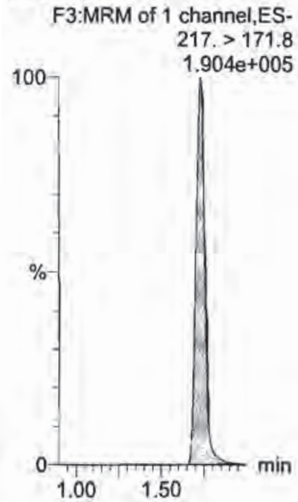
13C4-PFBA



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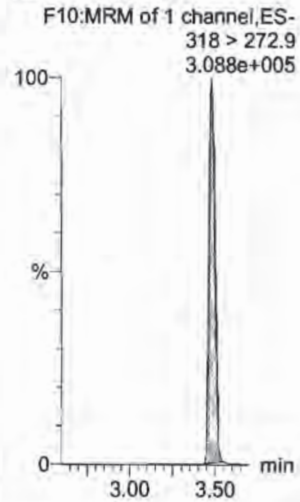

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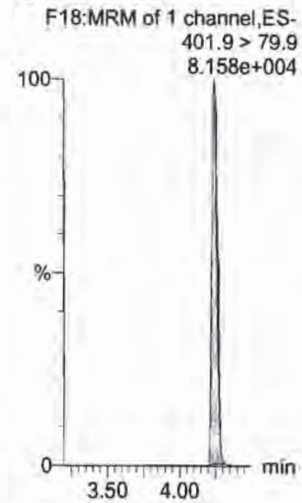

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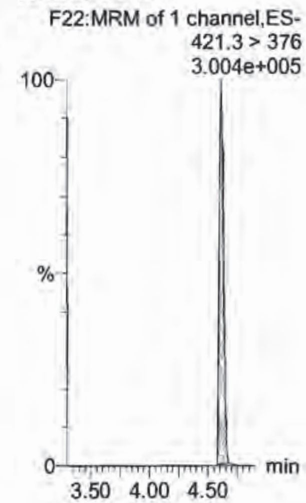

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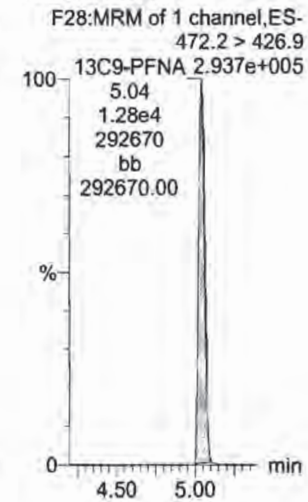

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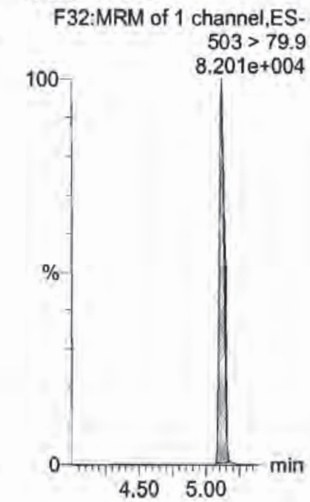

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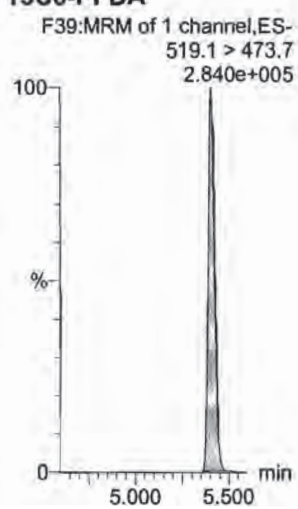

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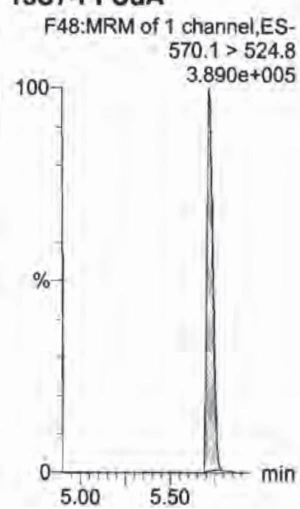
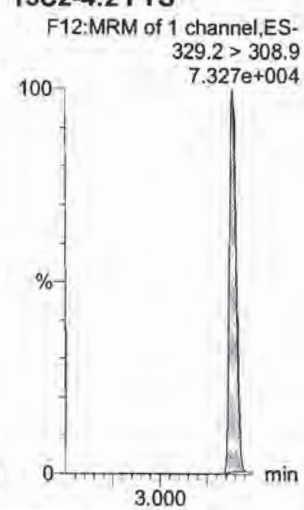


13C2-4:2 FTS



Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
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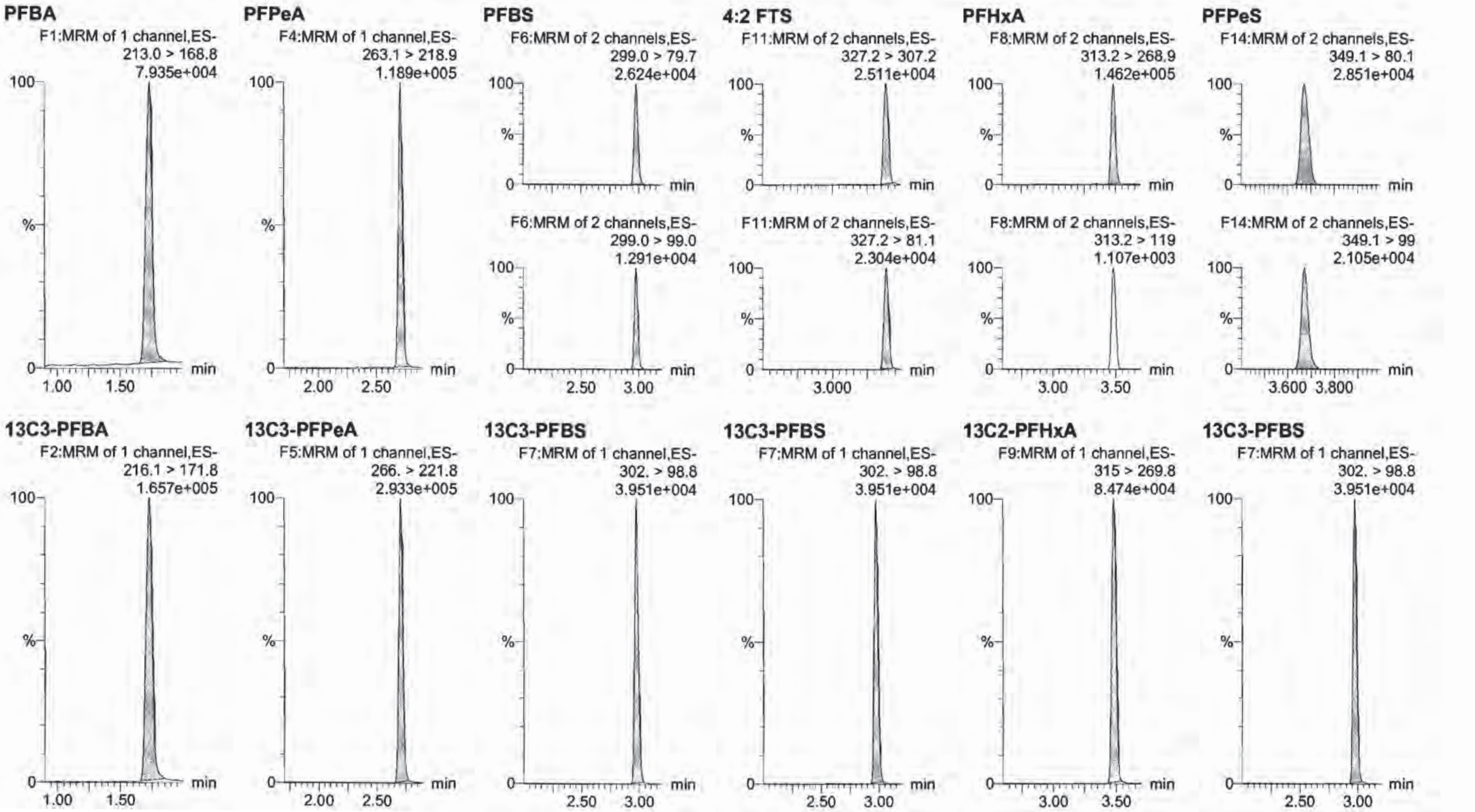

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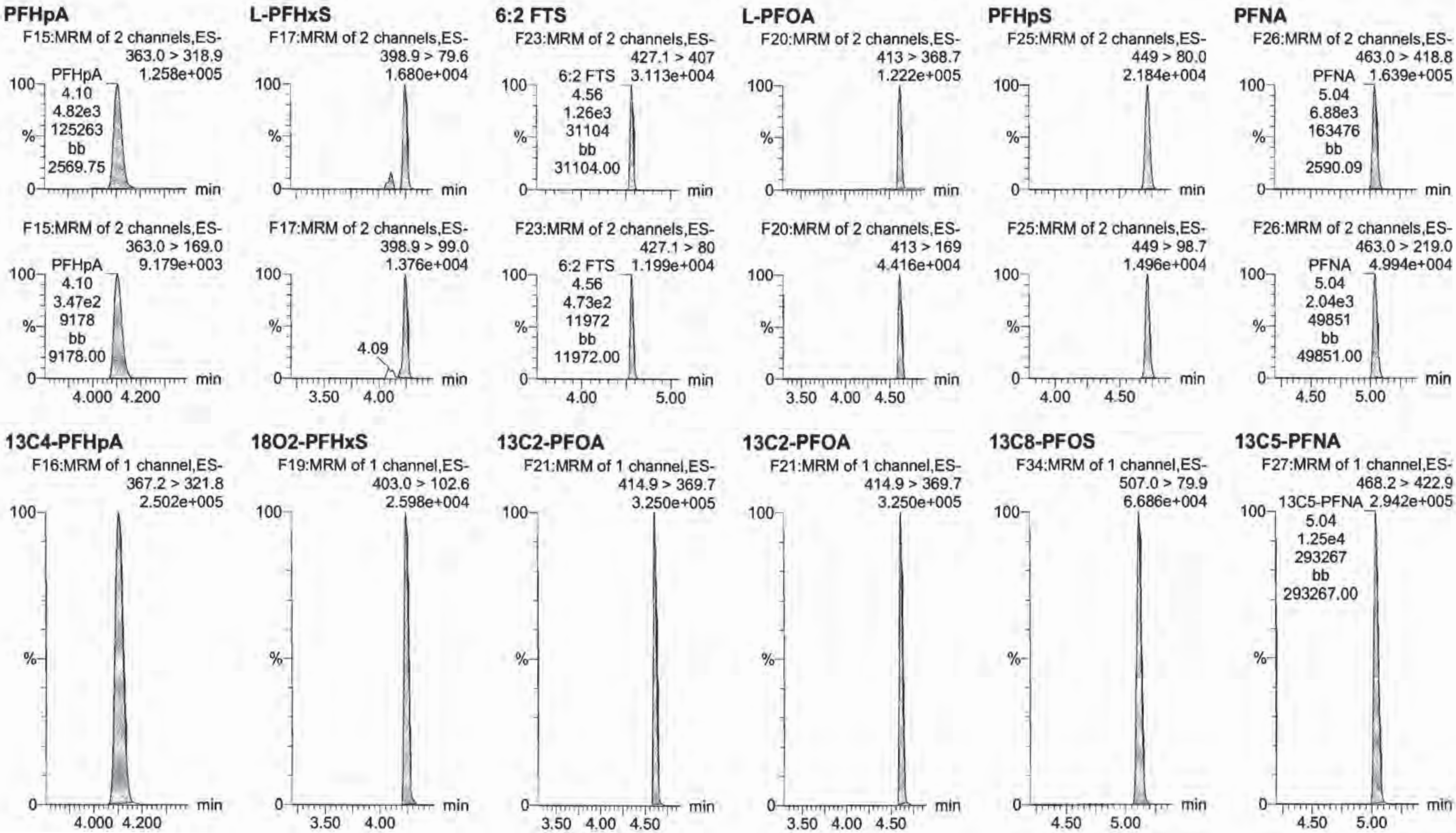

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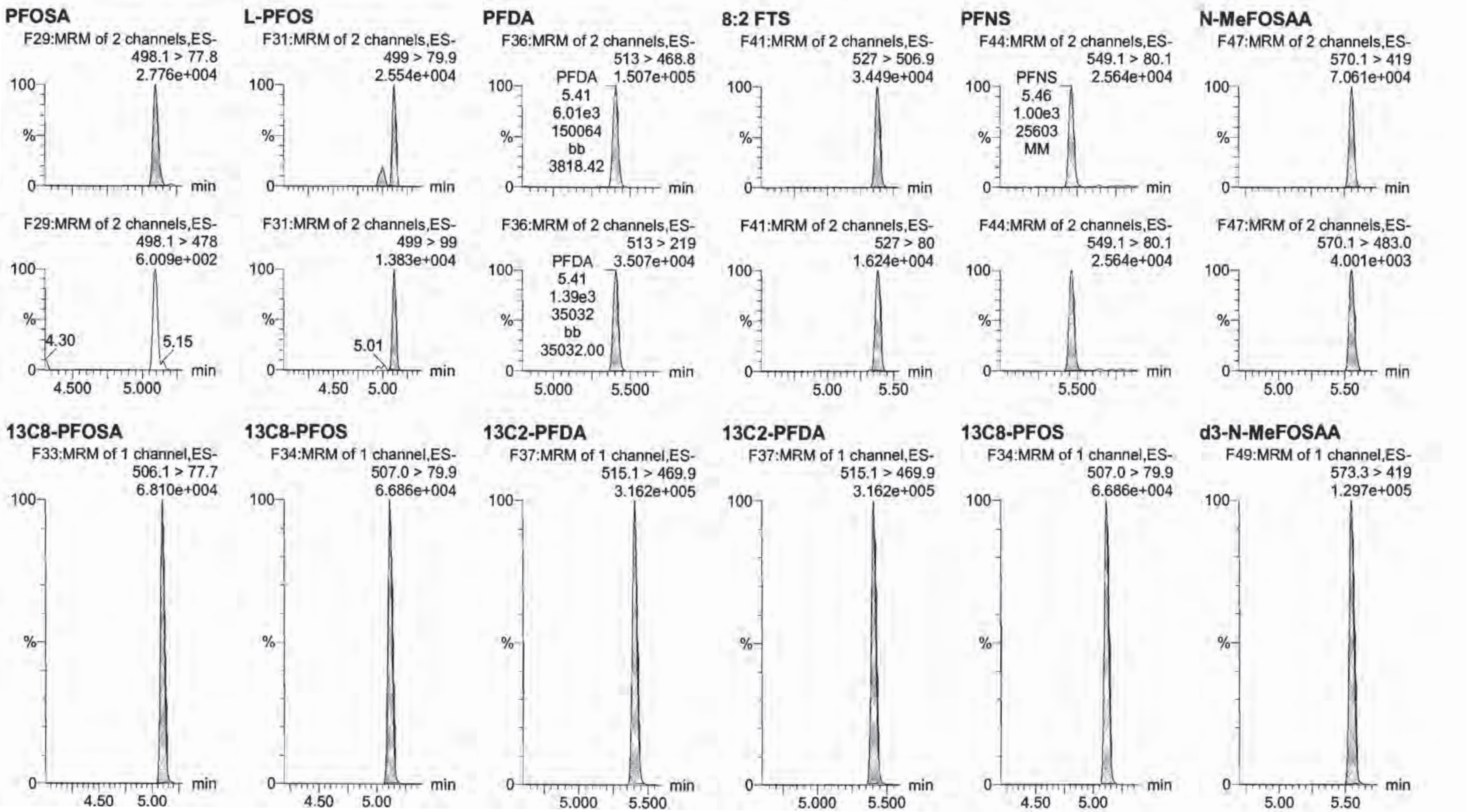

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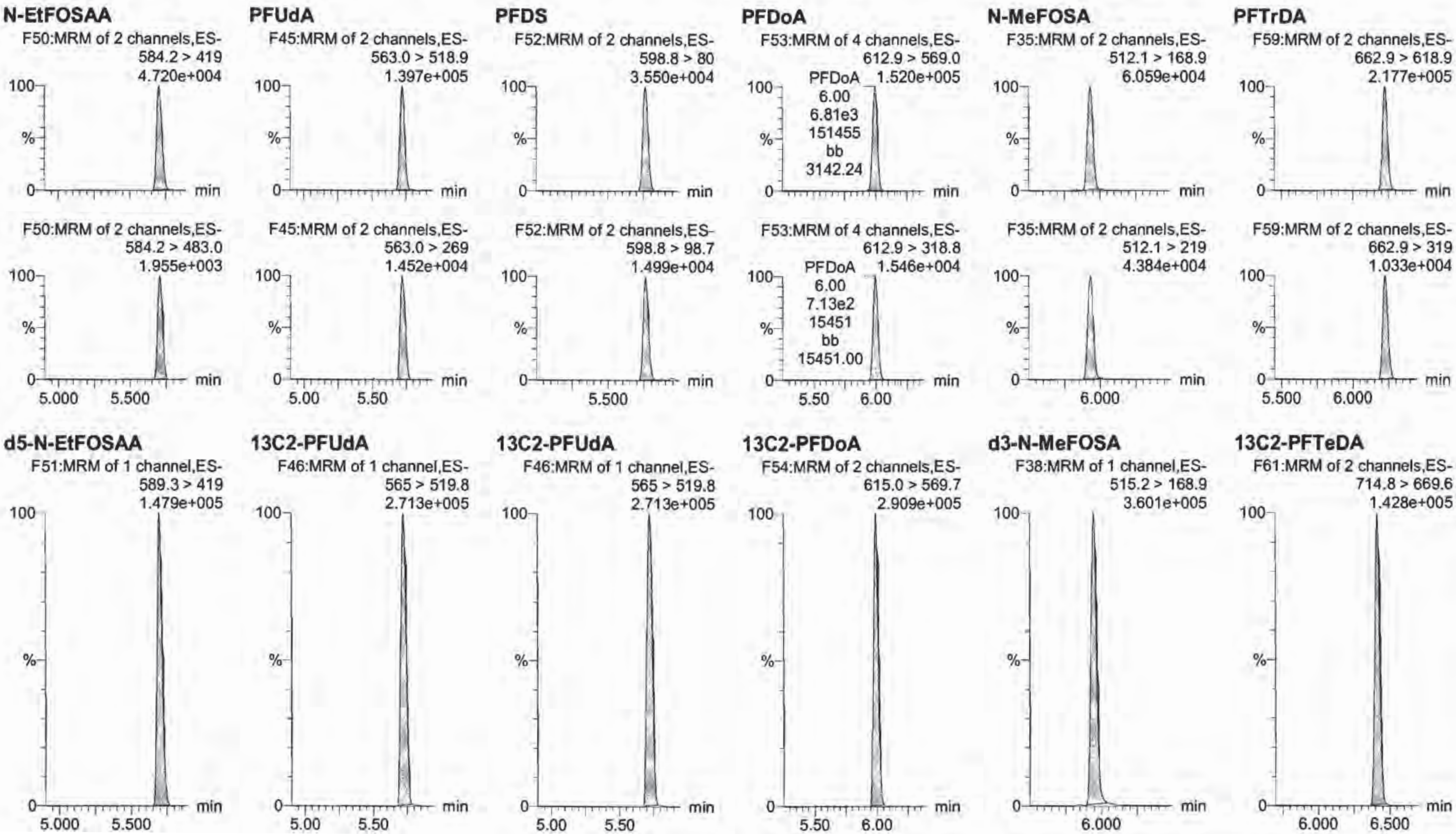

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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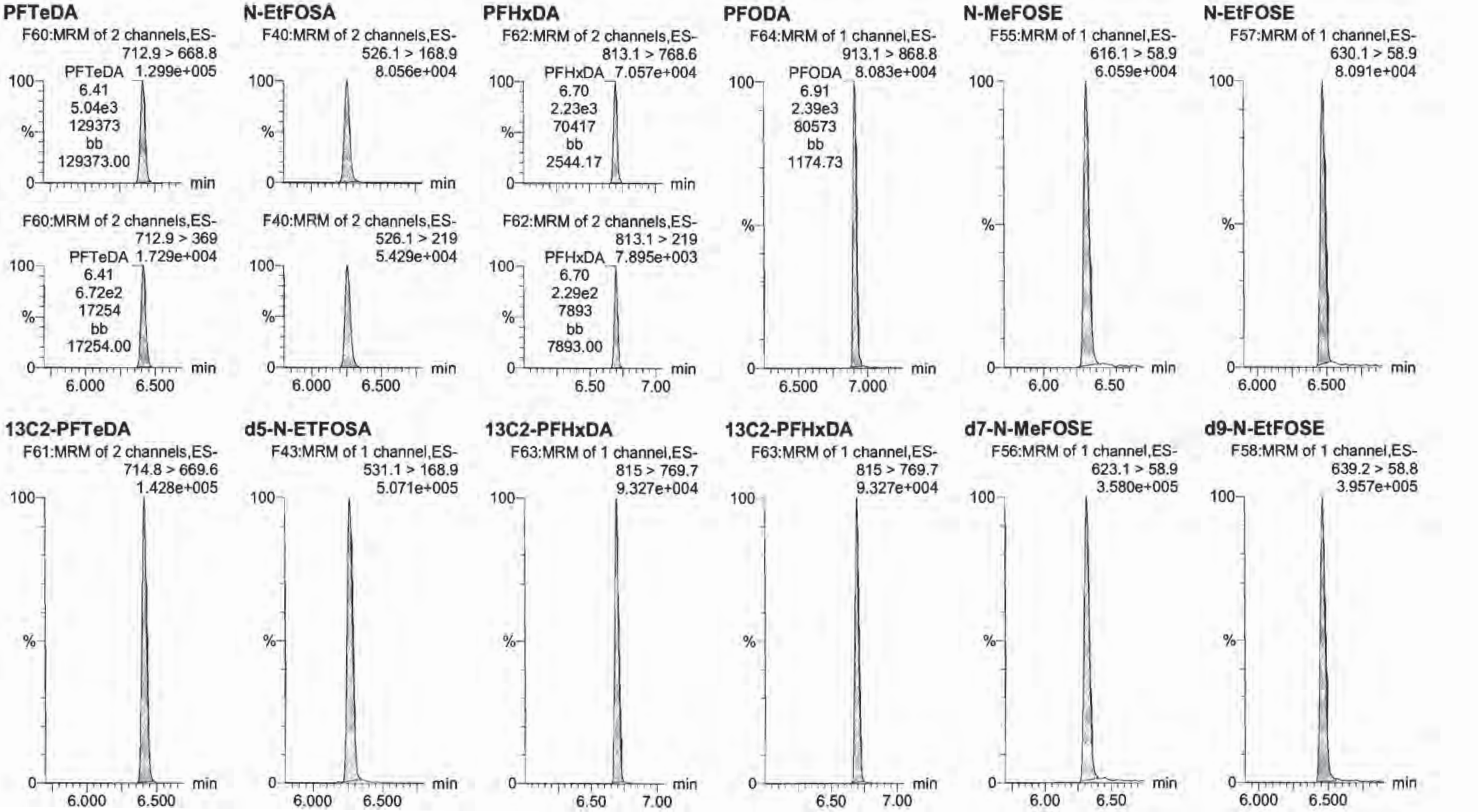

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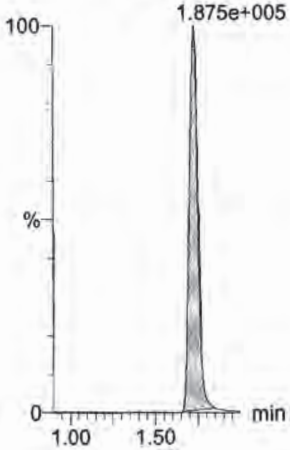
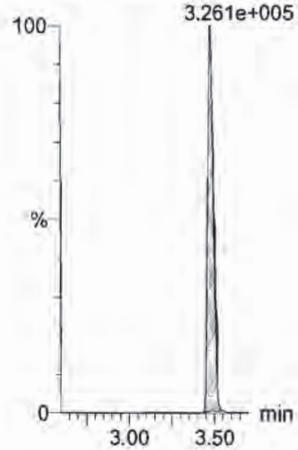
Name: 180201M2_6, Date: 01-Feb-2018, Time: 11:38:09, ID: ST180201M2-5 PFC CS2 18A3011, Description: PFC CS2 18A3011

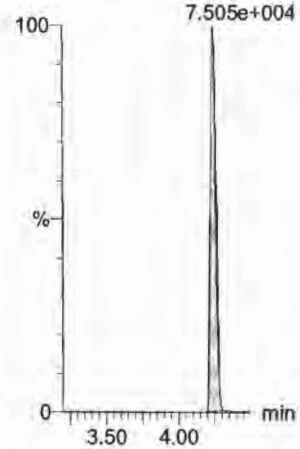
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.875e+005



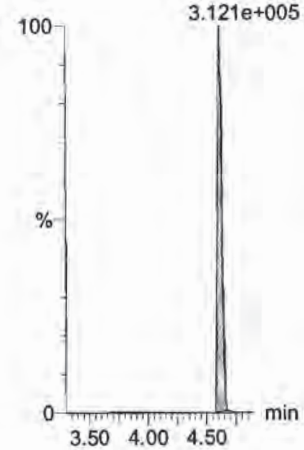
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.261e+005



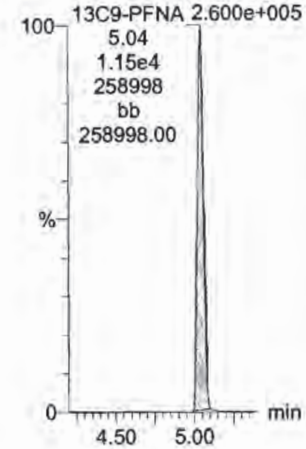
13C3-PFHxS
F18:MRM of 1 channel,ES-
401.9 > 79.9
7.505e+004



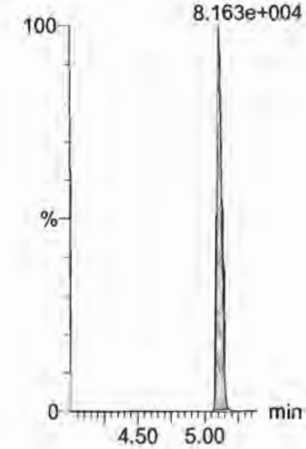
13C8-PFOA
F22:MRM of 1 channel,ES-
421.3 > 376
3.121e+005



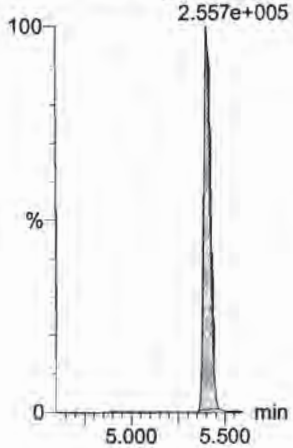
13C9-PFNA
F28:MRM of 1 channel,ES-
472.2 > 426.9
13C9-PFNA 2.600e+005



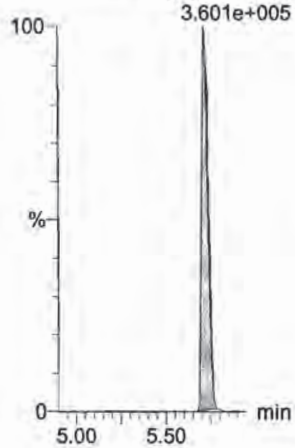
13C4-PFOS
F32:MRM of 1 channel,ES-
503 > 79.9
8.163e+004



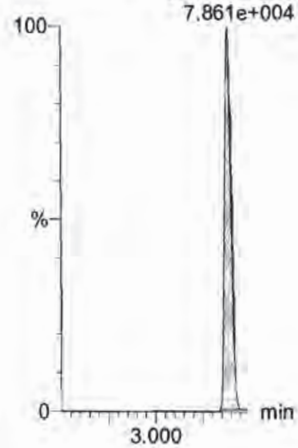
13C6-PFDA
F39:MRM of 1 channel,ES-
519.1 > 473.7
2.557e+005



13C7-PFUdA
F48:MRM of 1 channel,ES-
570.1 > 524.8
3.601e+005



13C2-4:2 FTS
F12:MRM of 1 channel,ES-
329.2 > 308.9
7.861e+004



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Printed: Friday, February 02, 2018 08:57:12 Pacific Standard Time

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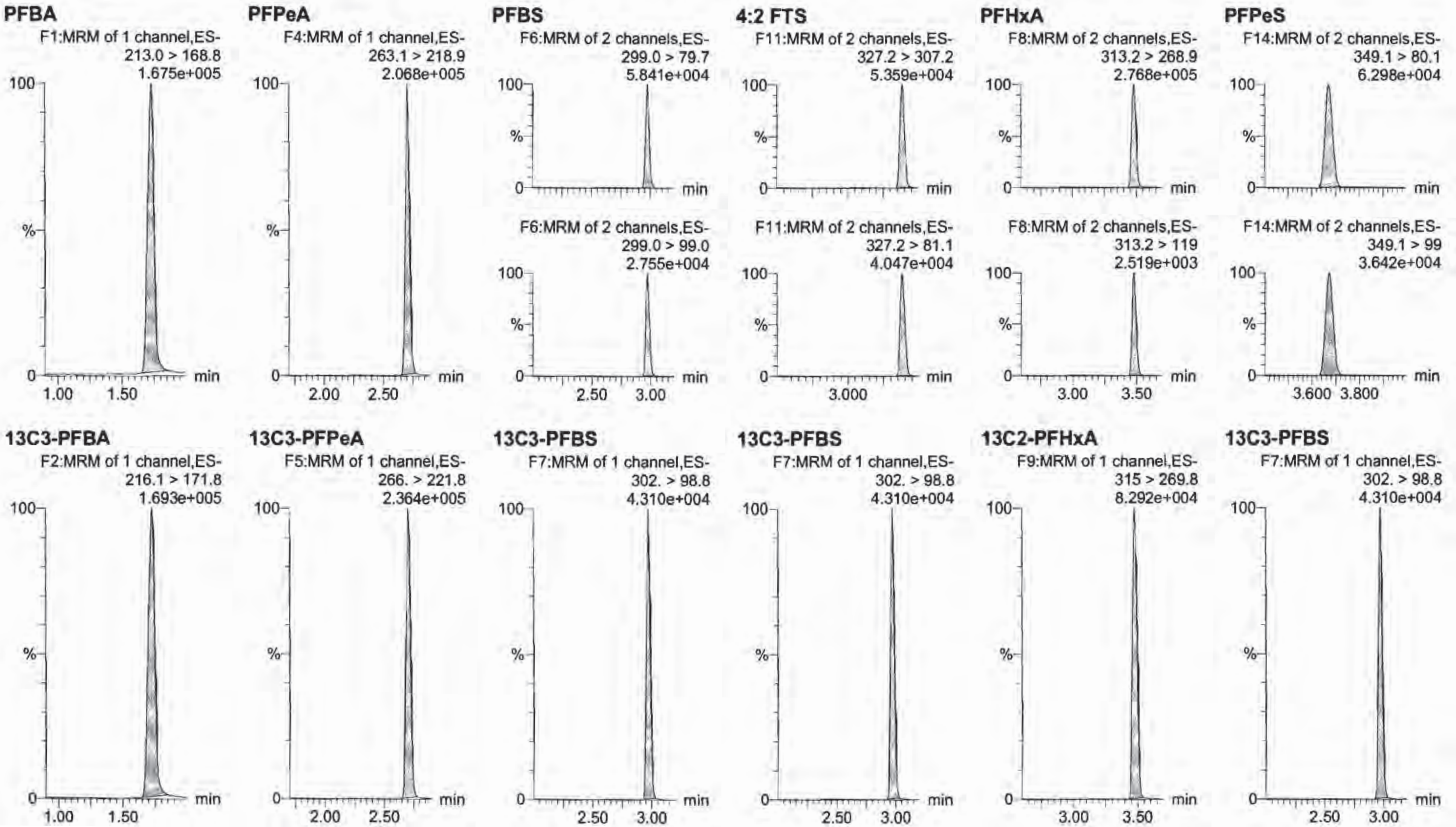

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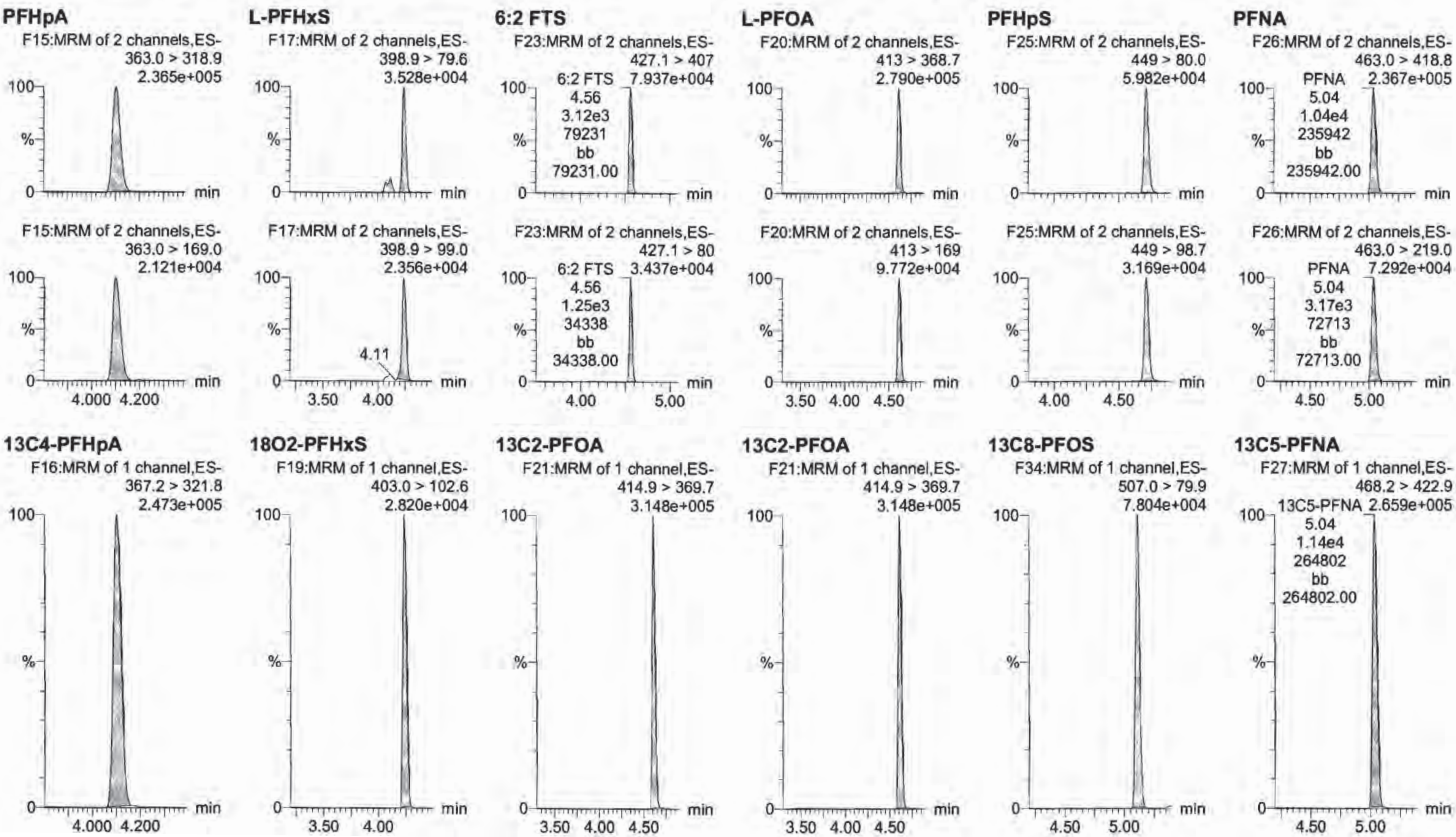

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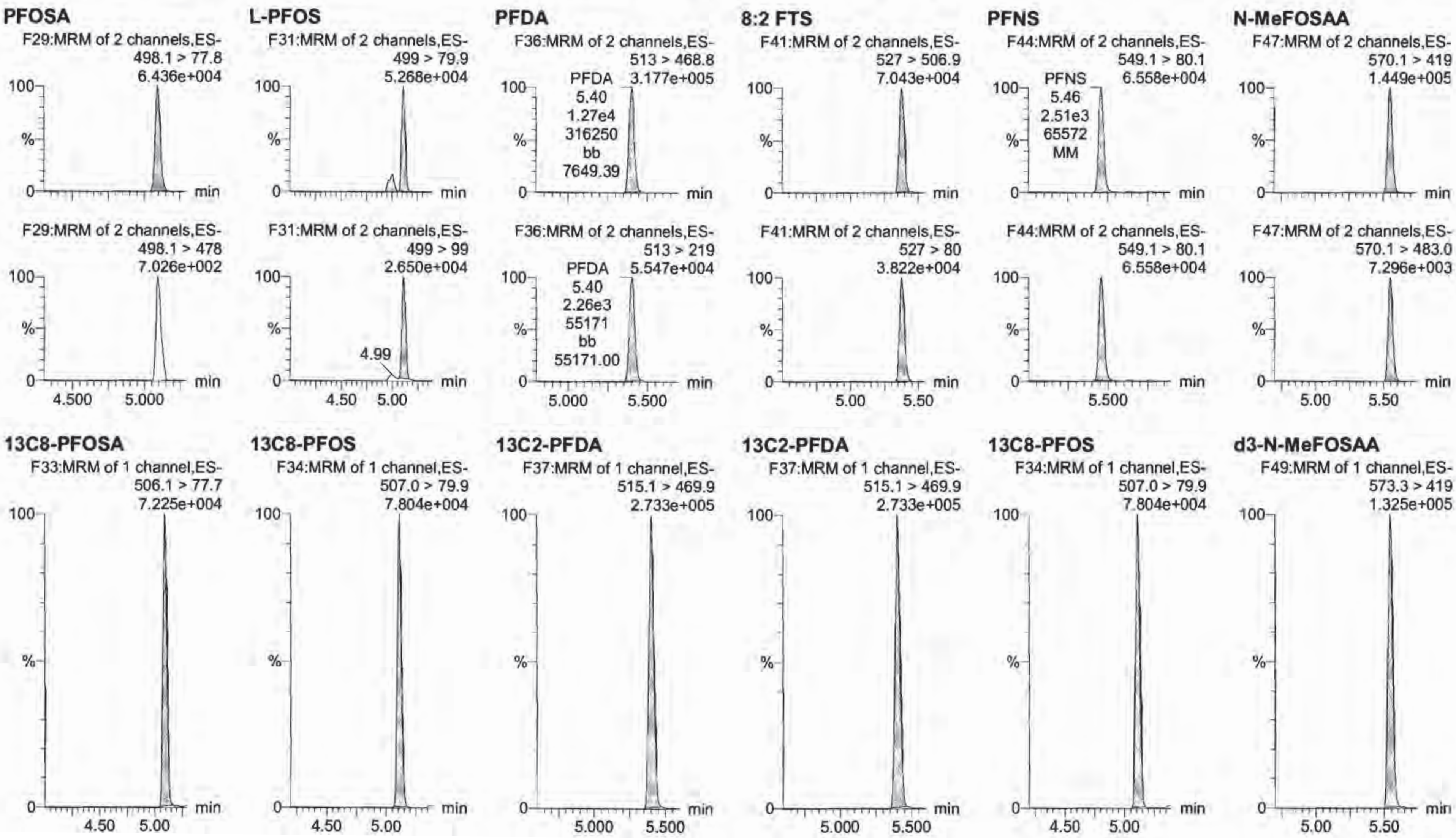

Vista Analytical Laboratory

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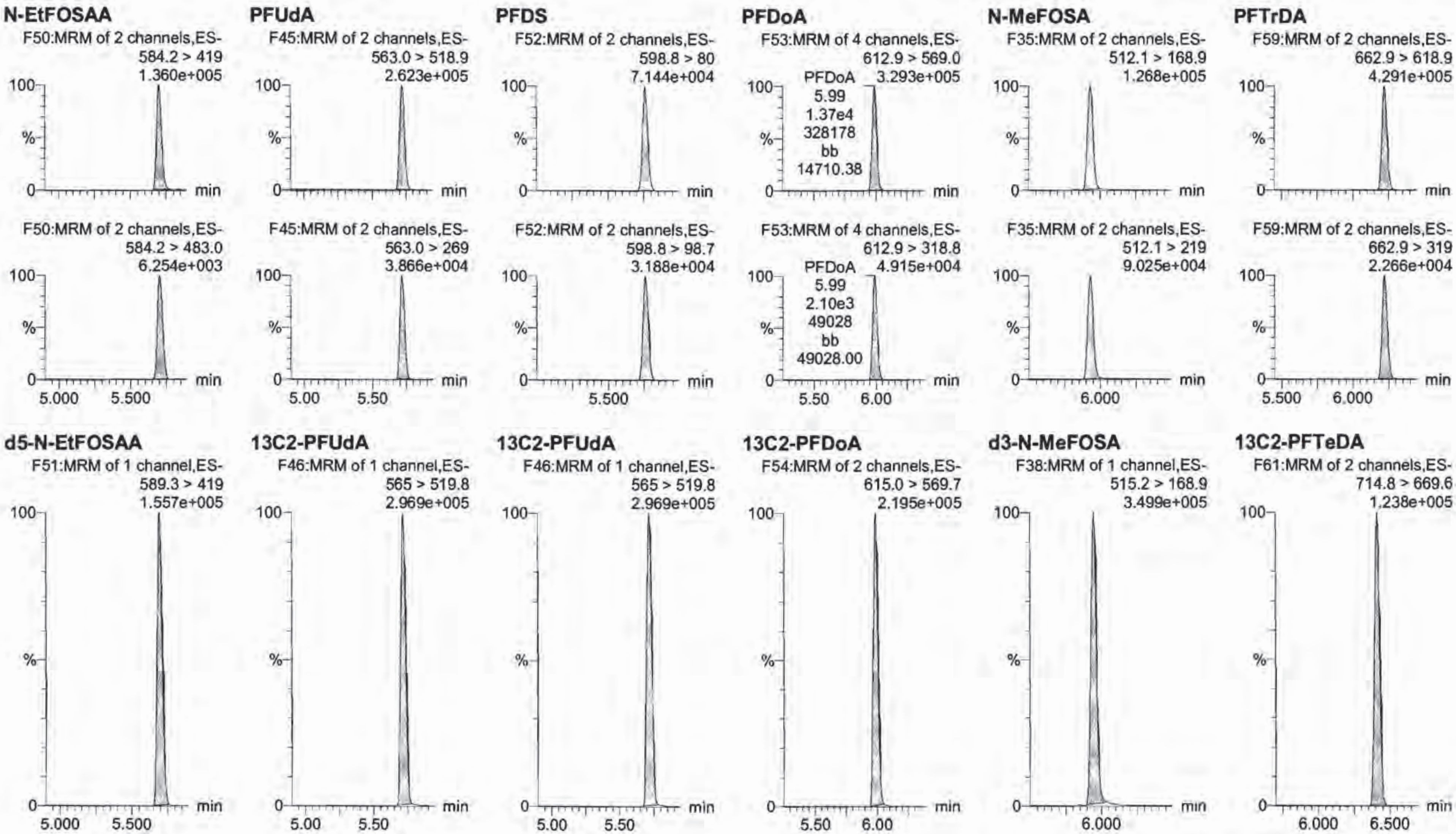

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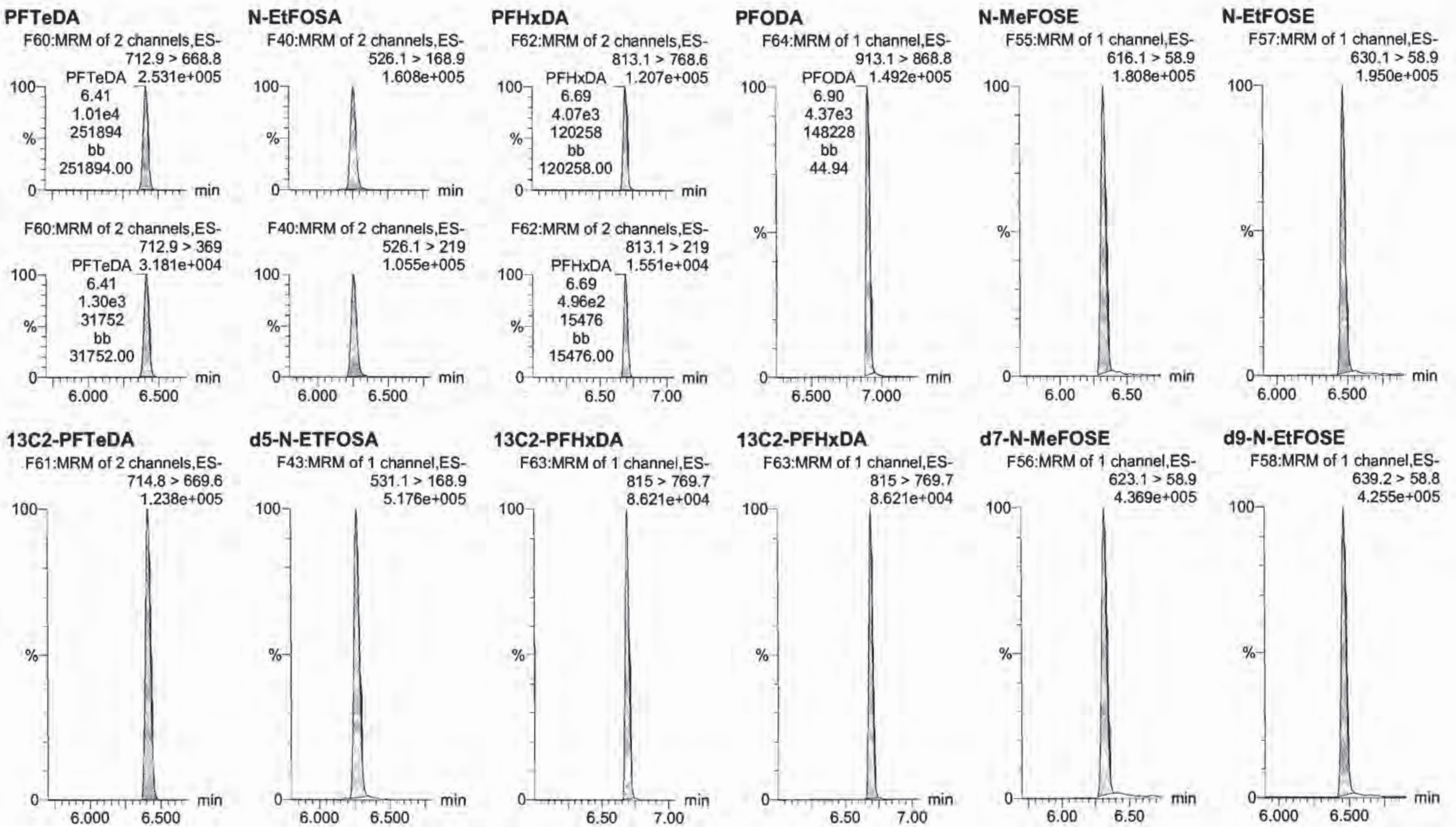

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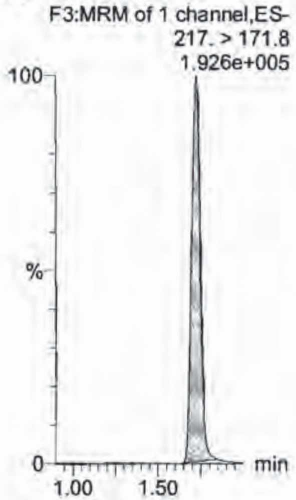
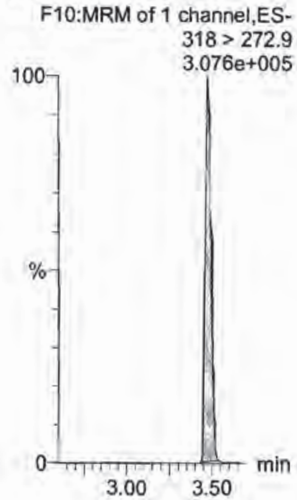
Name: 180201M2_7, Date: 01-Feb-2018, Time: 11:49:38, ID: ST180201M2-6 PFC CS3 18A3012, Description: PFC CS3 18A3012

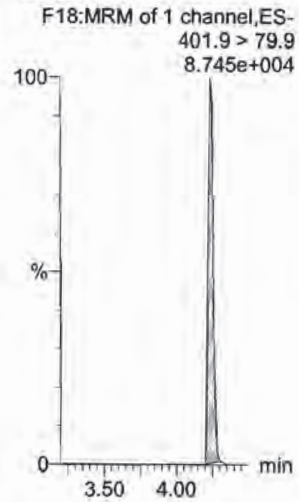
13C4-PFBA



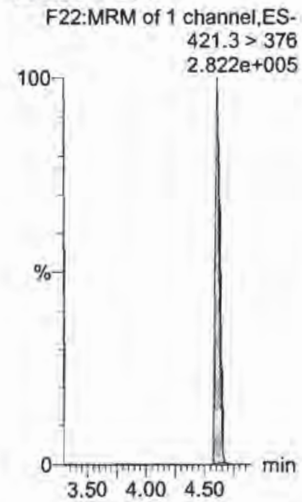
13C5-PFHxA



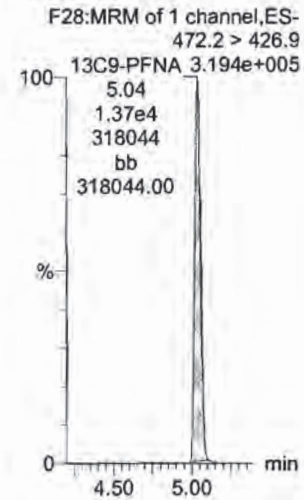
13C3-PFHxS



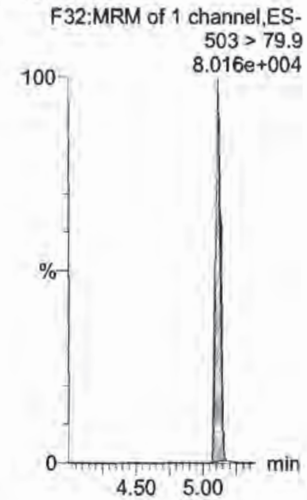
13C8-PFOA



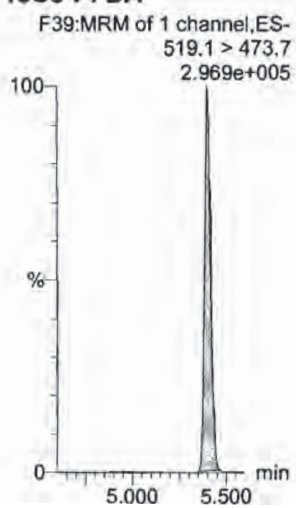
13C9-PFNA



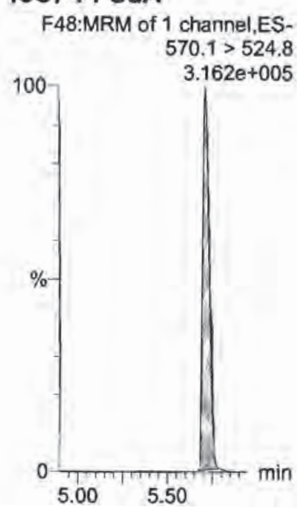
13C4-PFOS



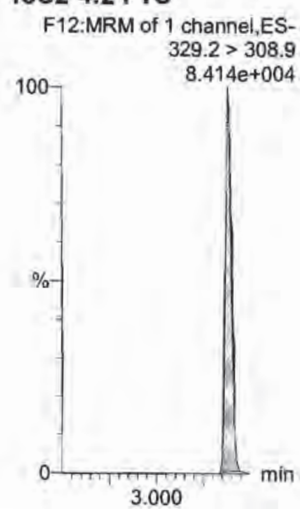
13C6-PFDA



13C7-PFUdA



13C2-4:2 FTS



Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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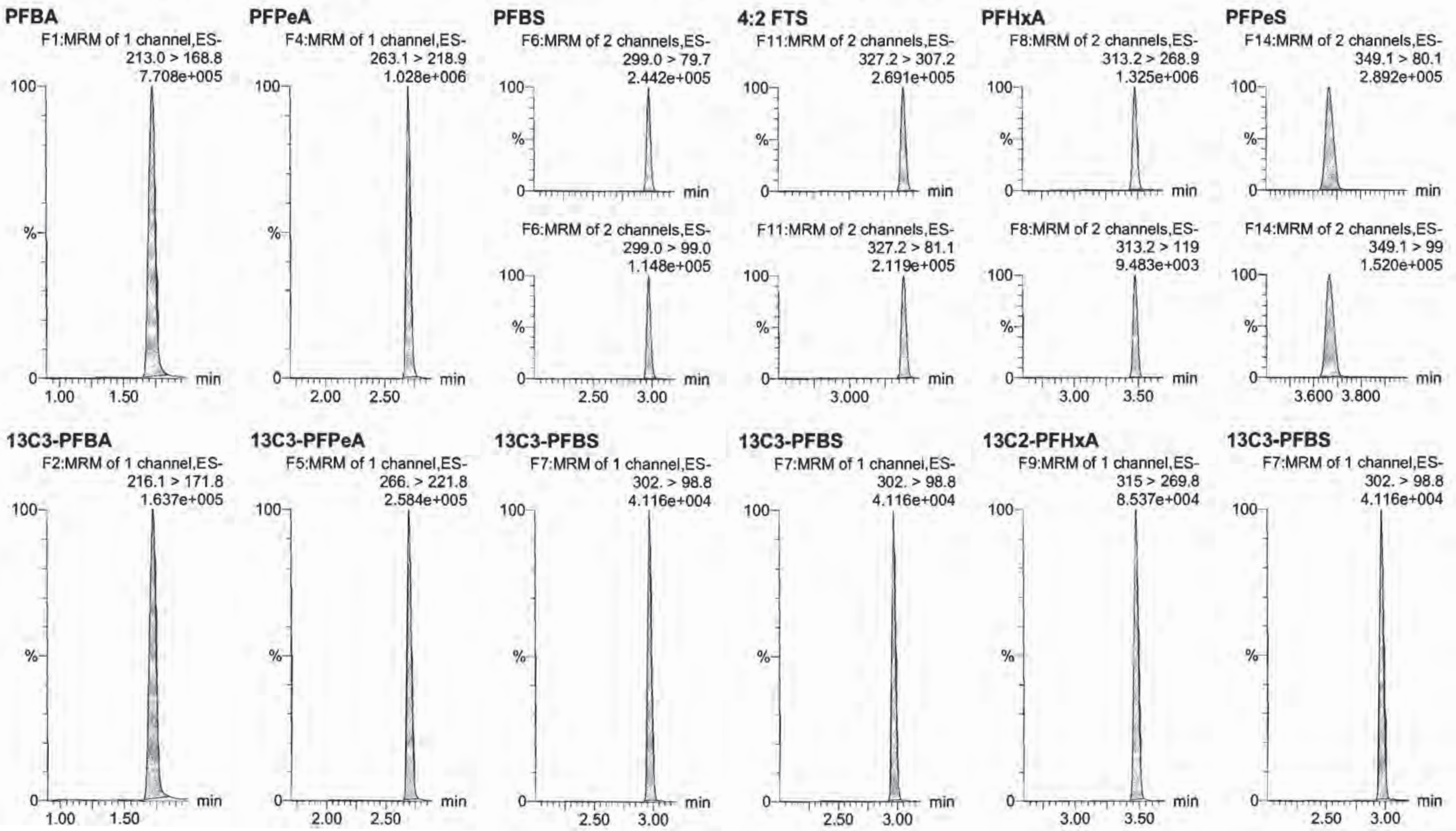

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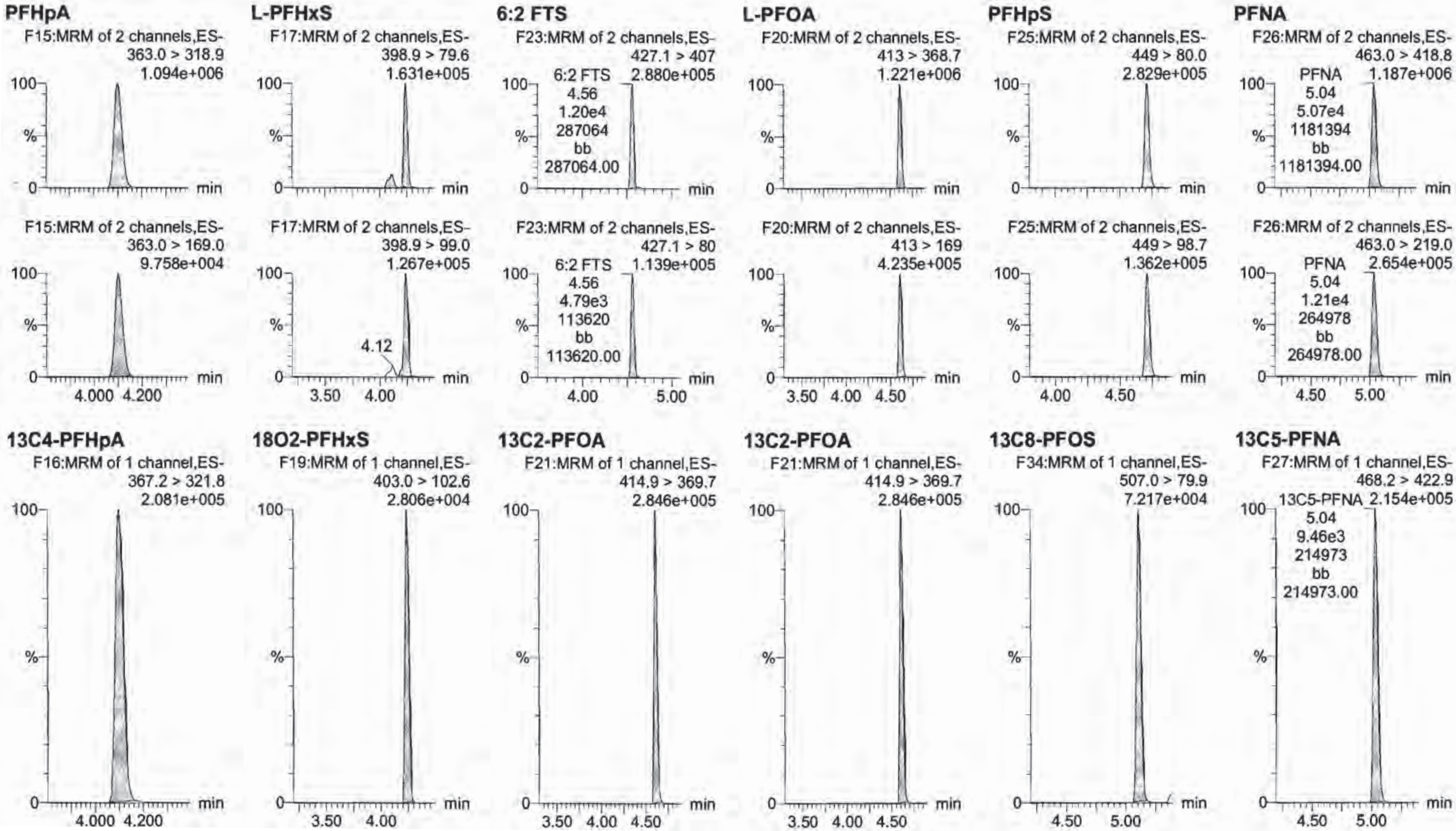

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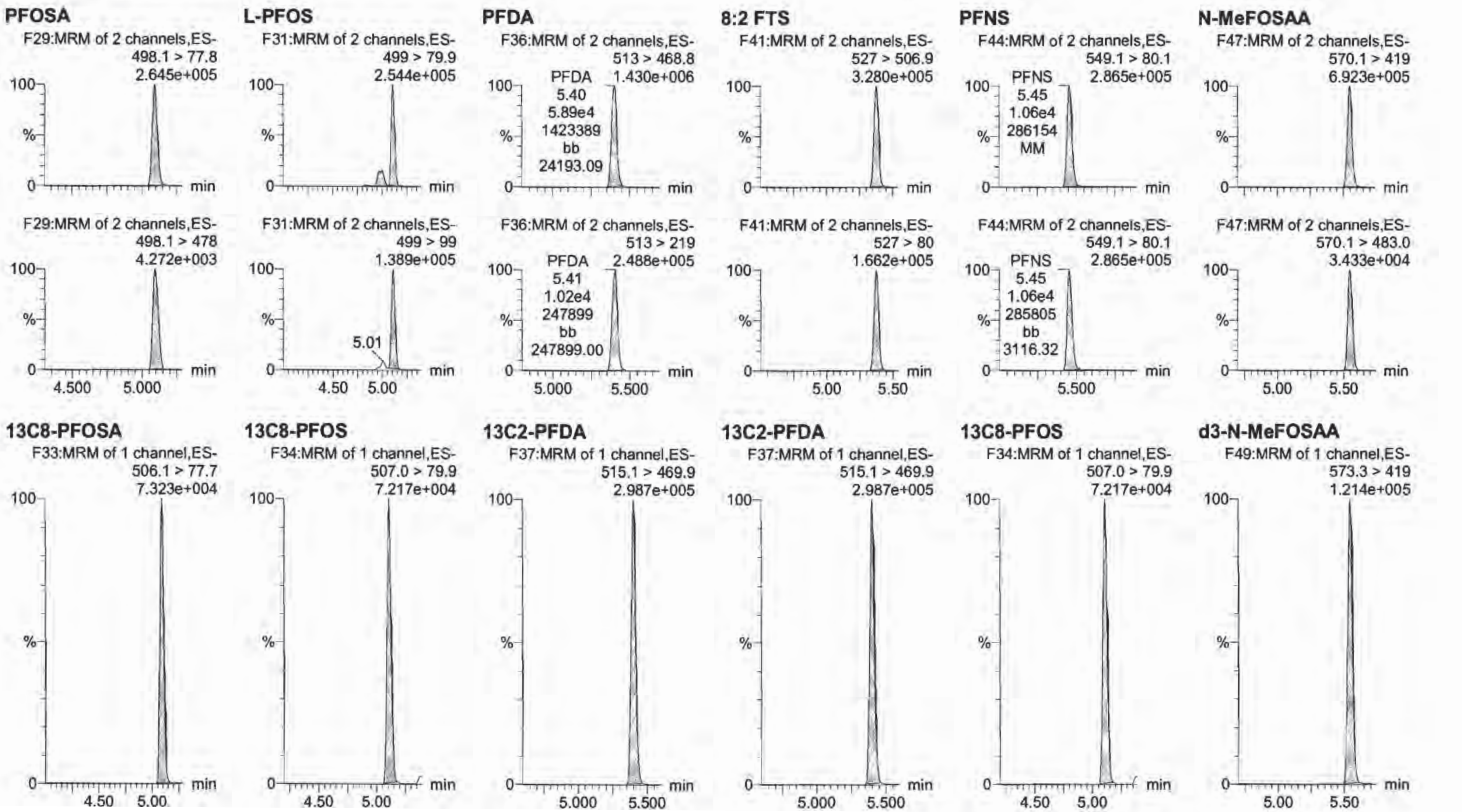

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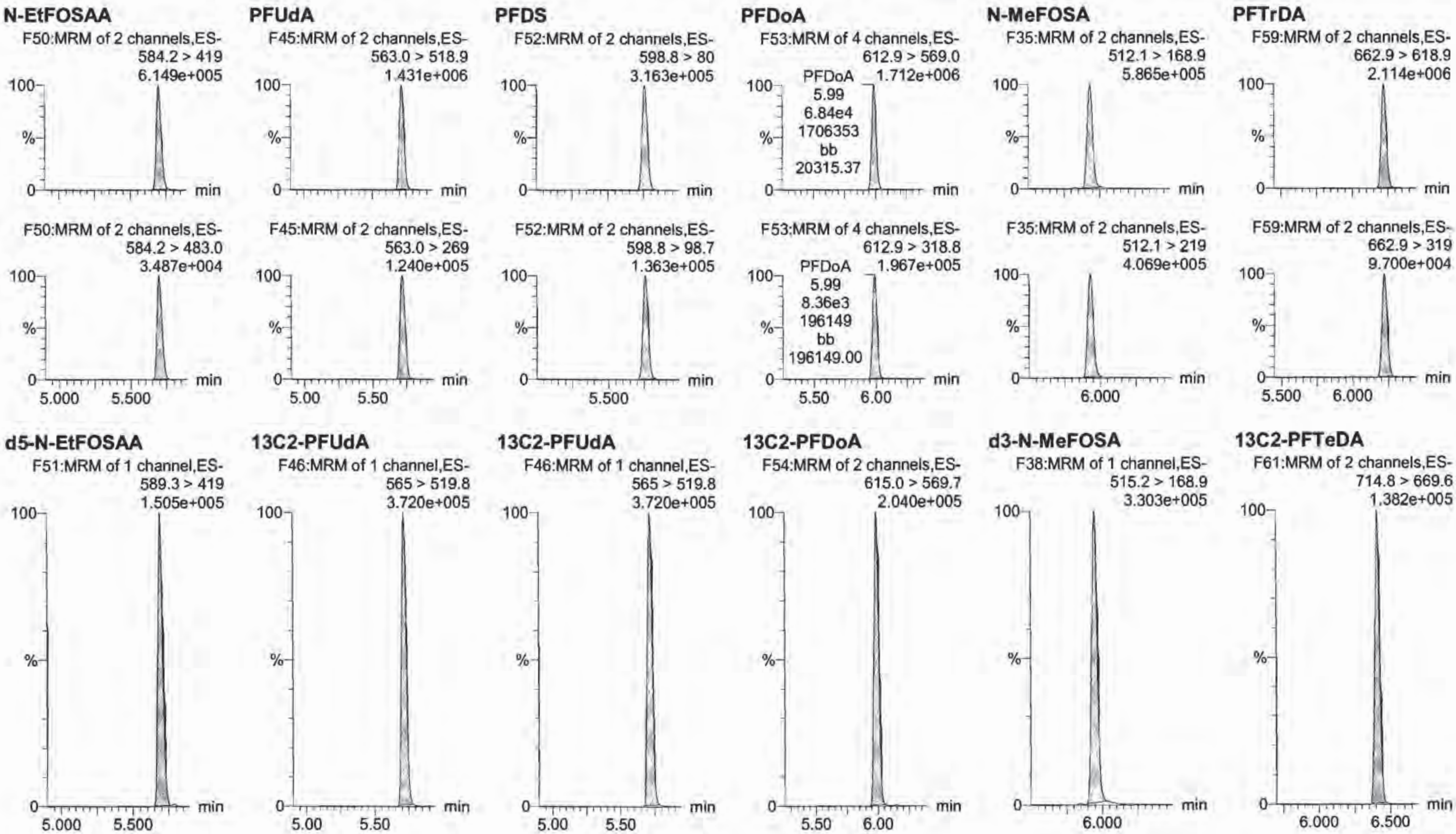

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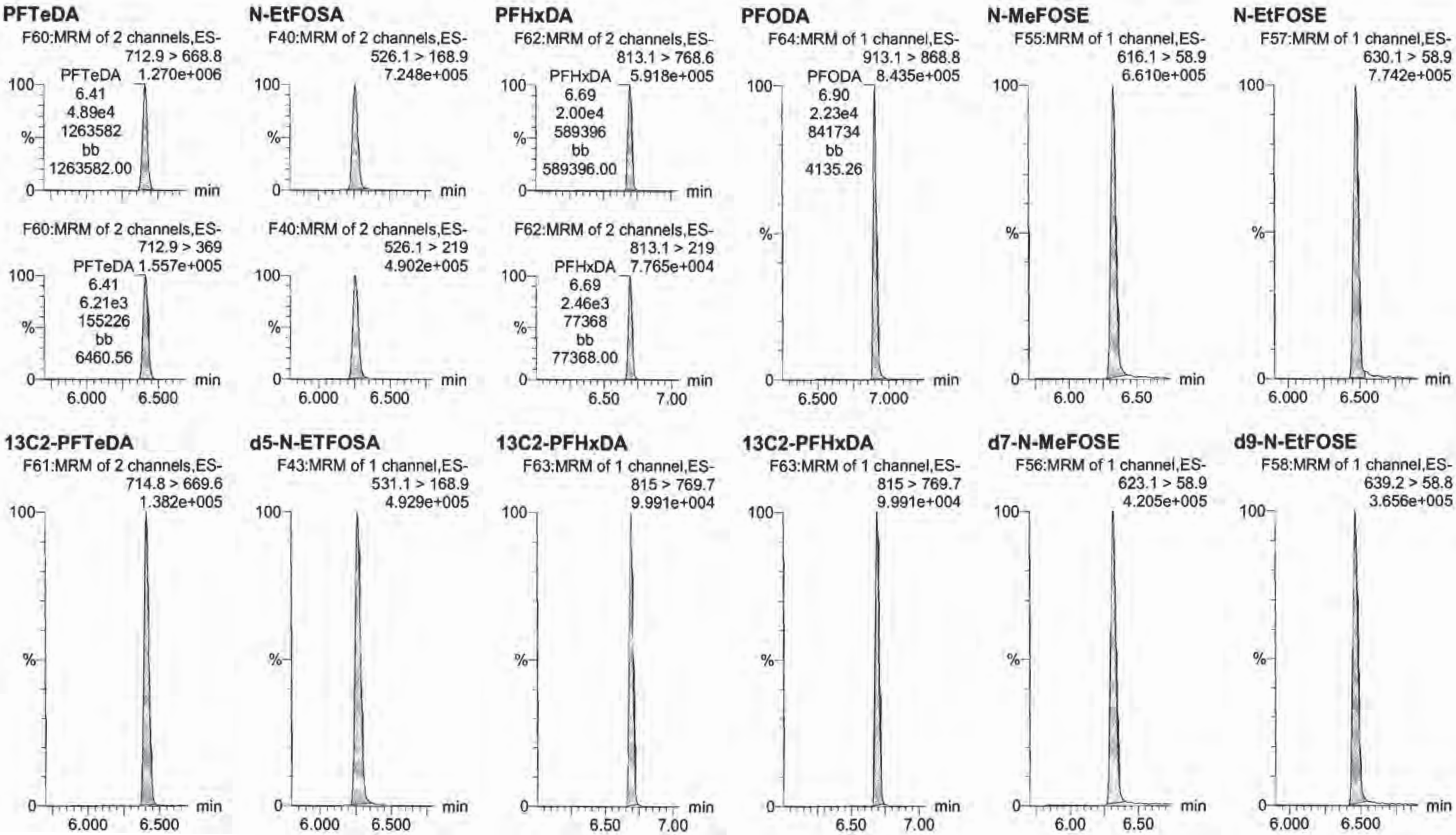

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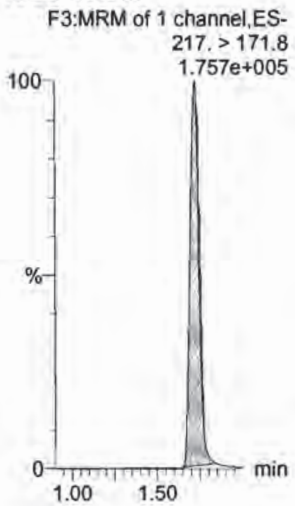
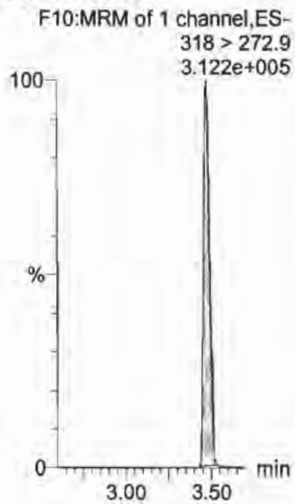
Name: 180201M2_8, Date: 01-Feb-2018, Time: 12:01:08, ID: ST180201M2-7 PFC CS4 18A3013, Description: PFC CS4 18A3013

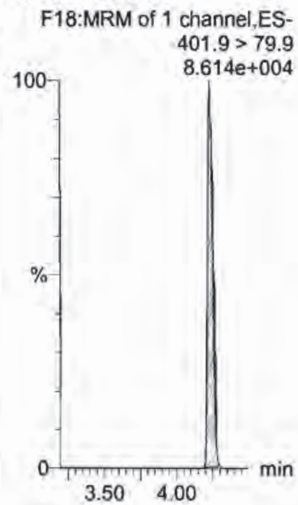
13C4-PFBA



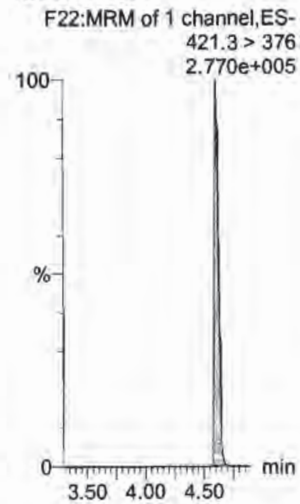
13C5-PFHxA



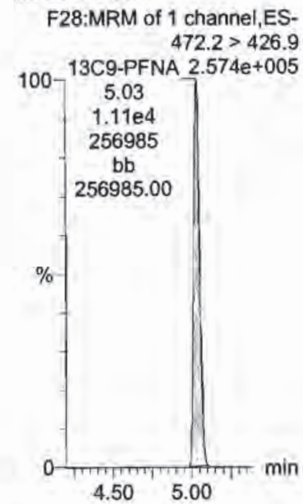
13C3-PFHxS



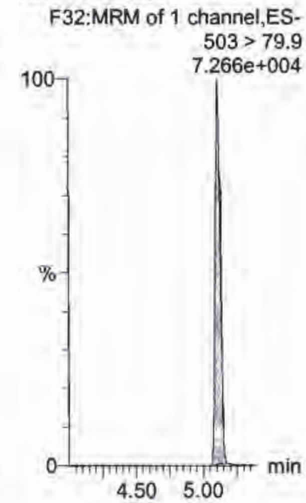
13C8-PFOA



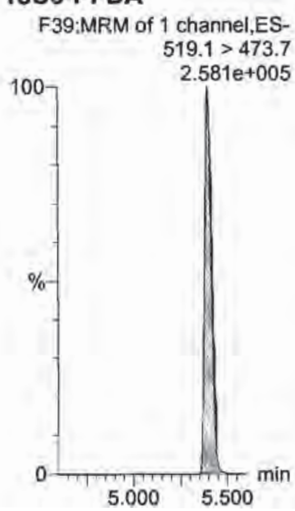
13C9-PFNA



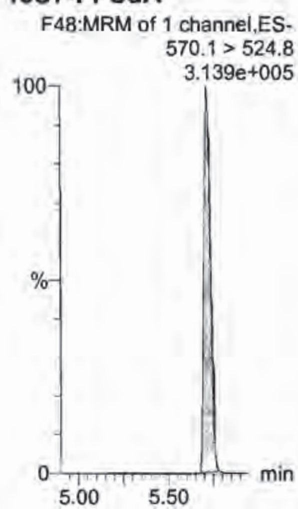
13C4-PFOS



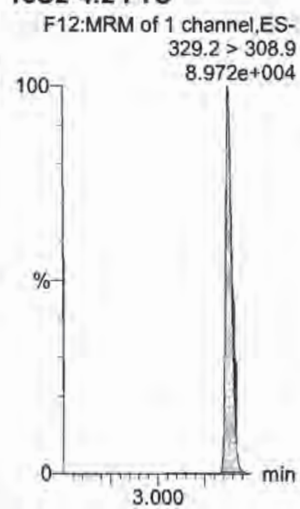
13C6-PFDA



13C7-PFUdA



13C2-4:2 FTS



Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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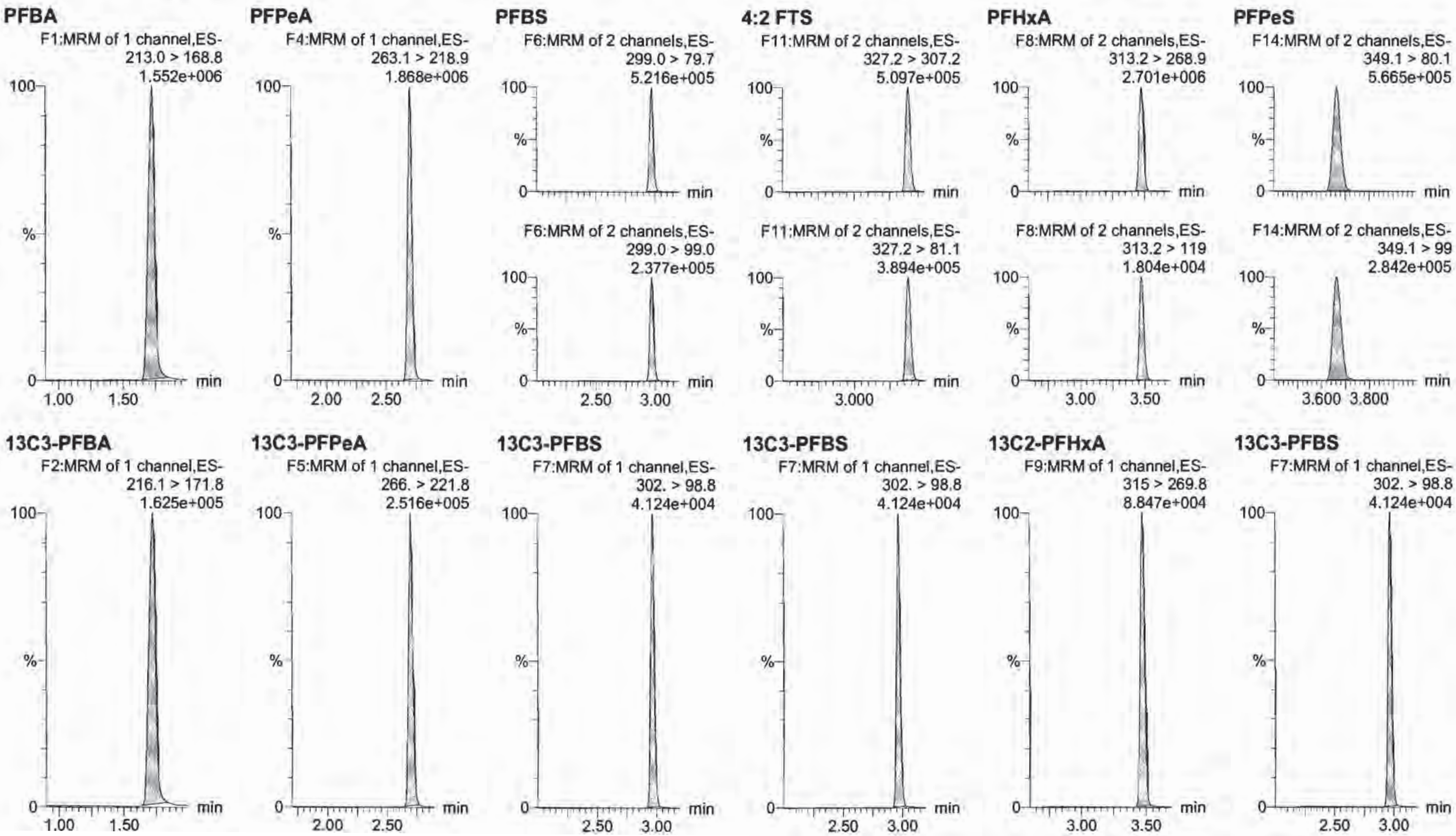

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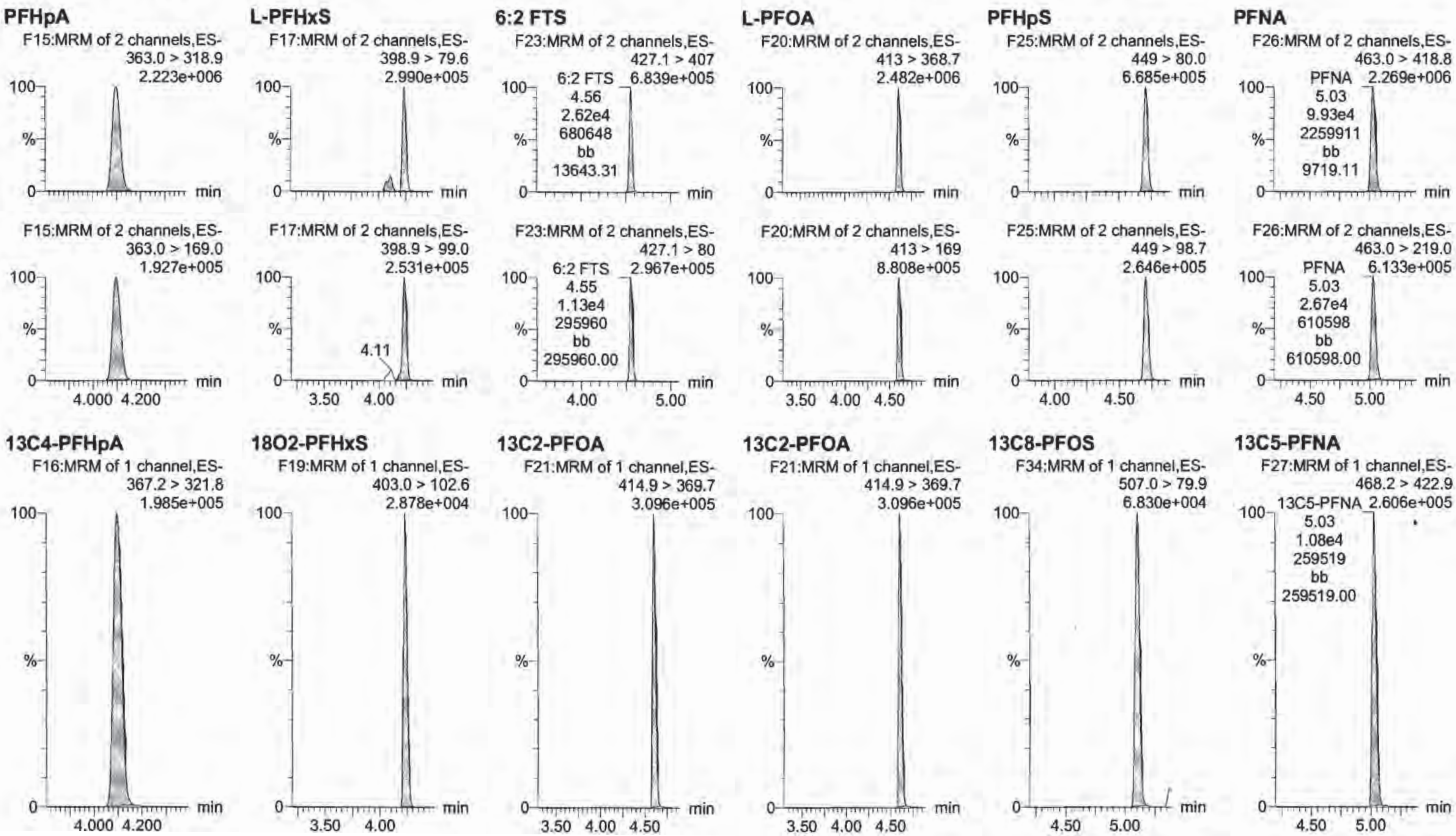

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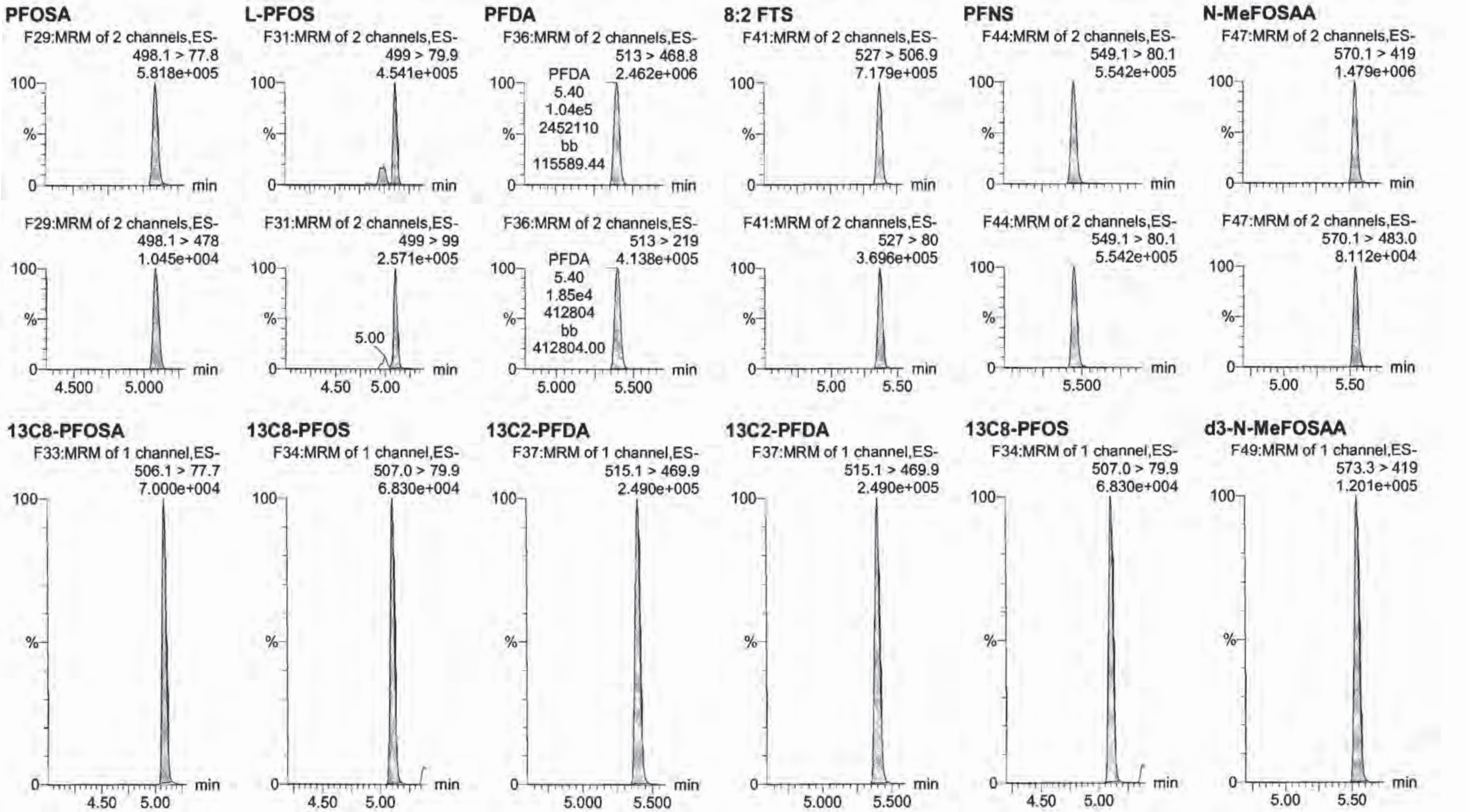

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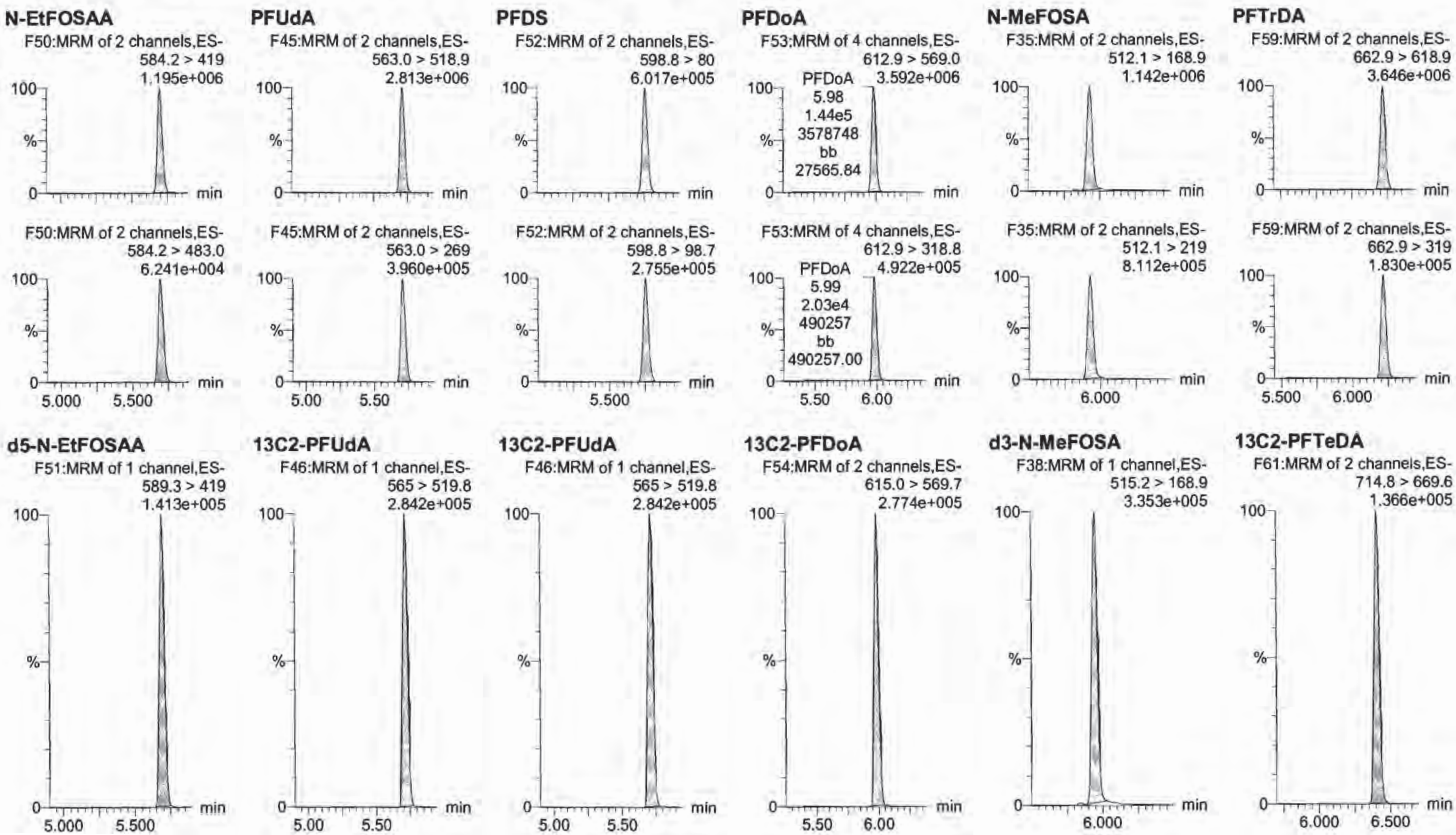

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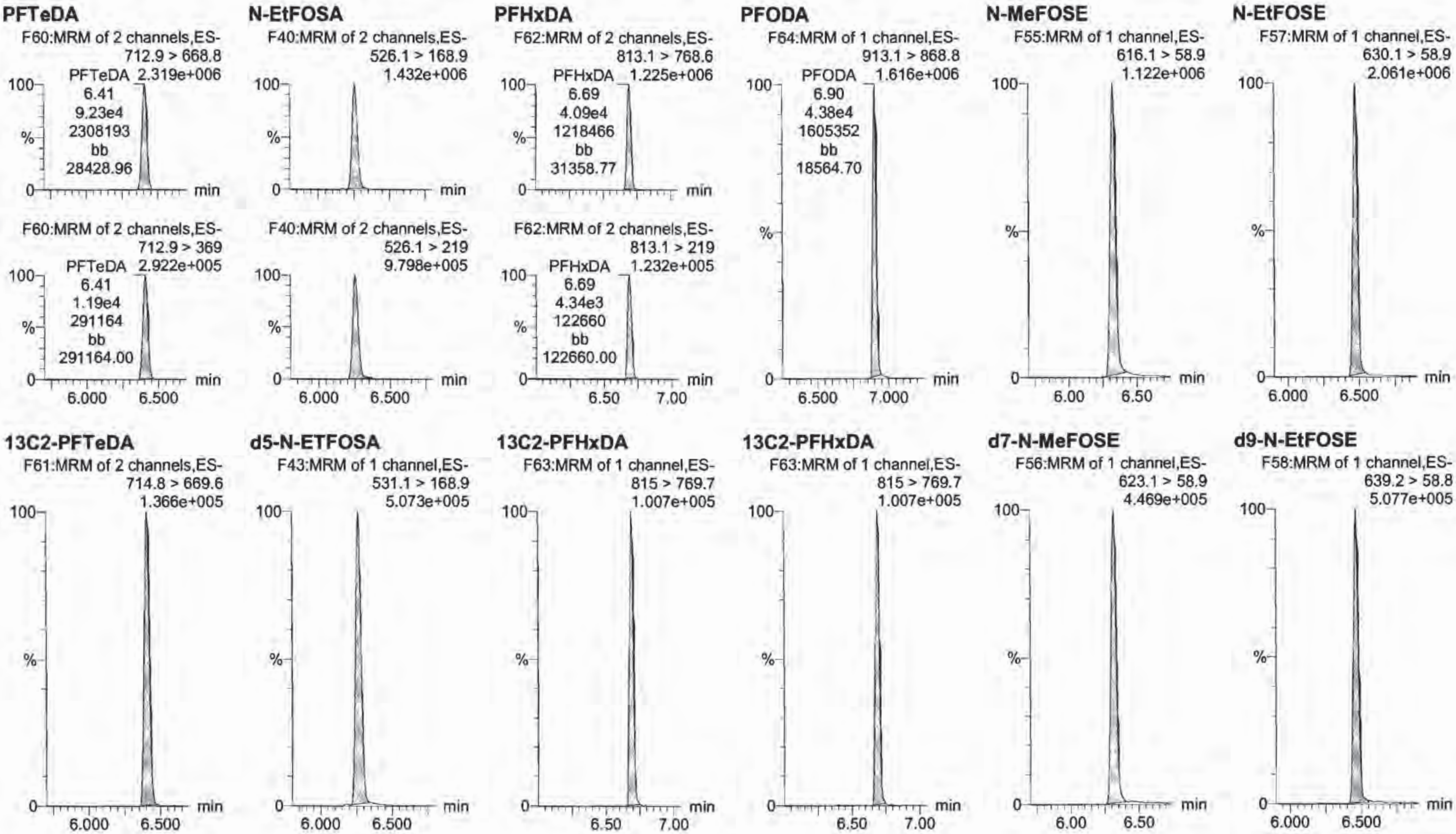

Vista Analytical Laboratory

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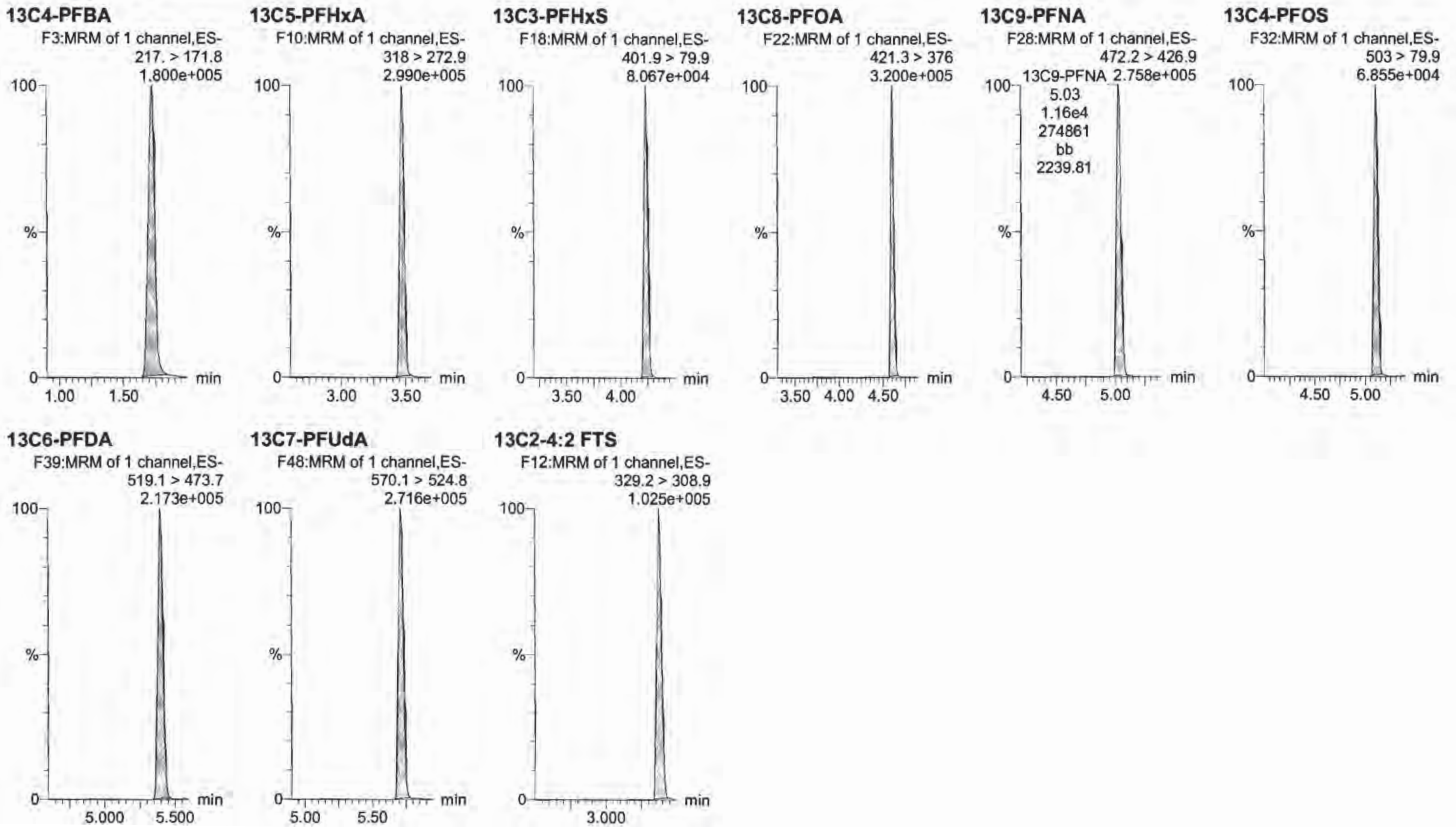

Vista Analytical Laboratory

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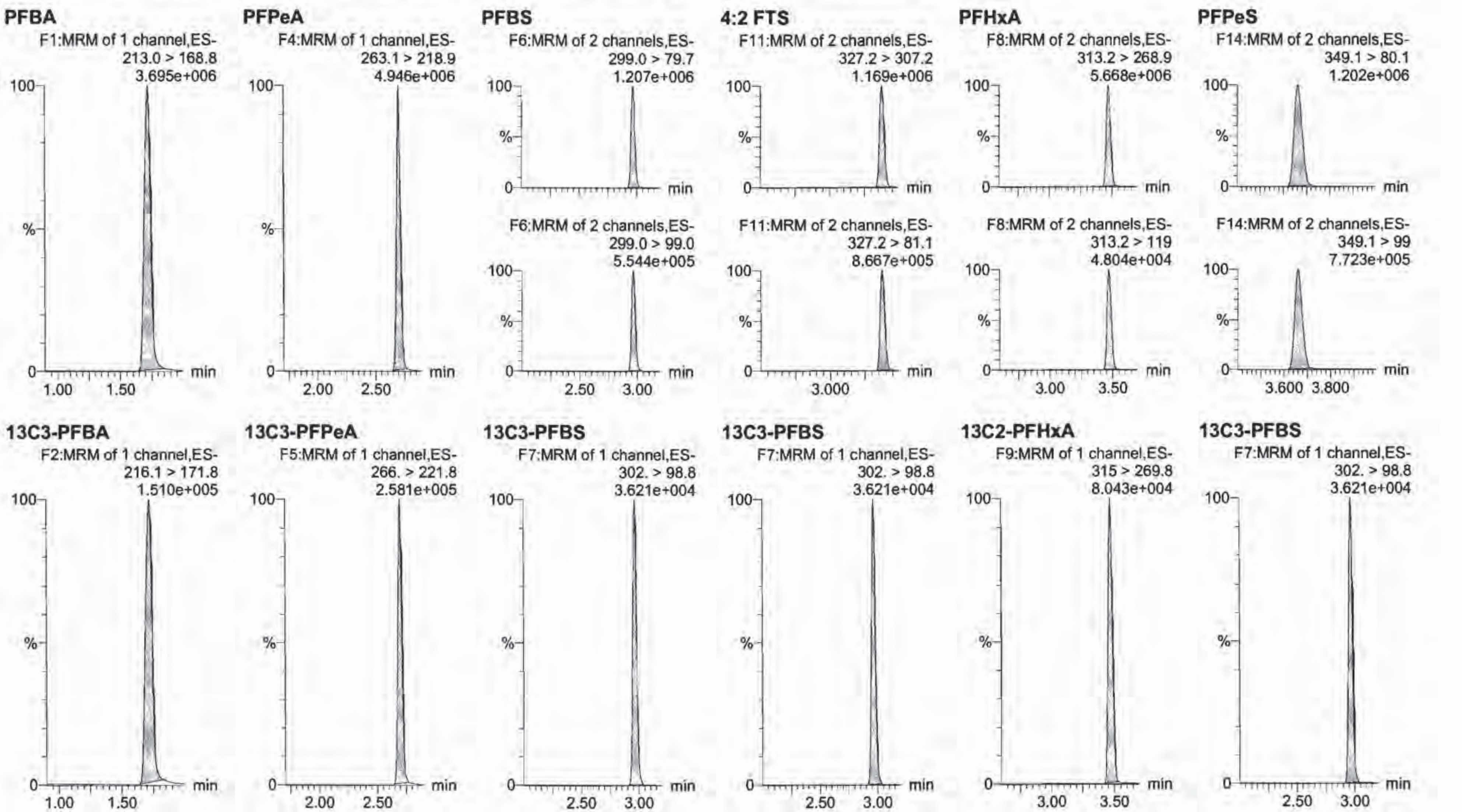

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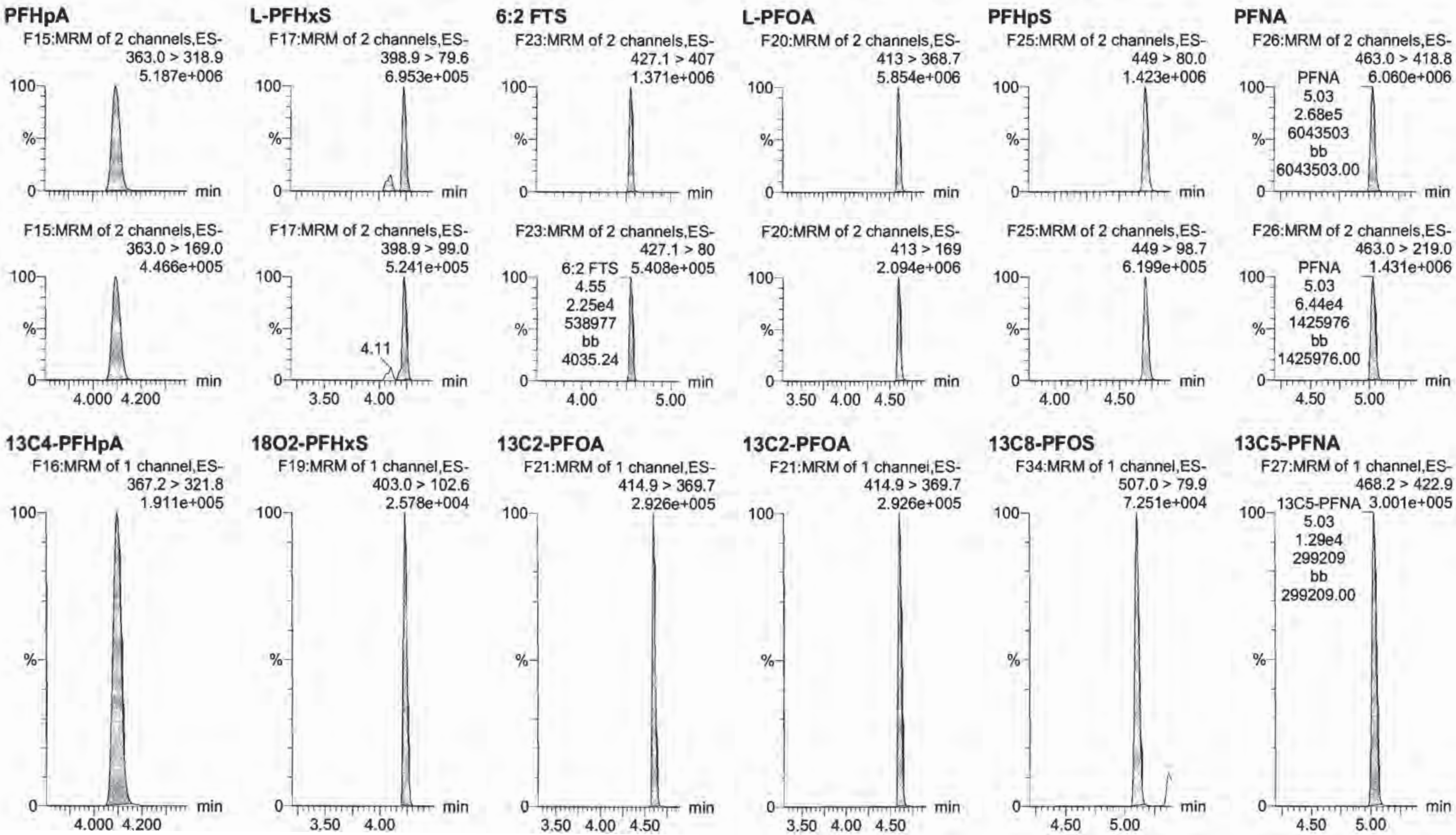

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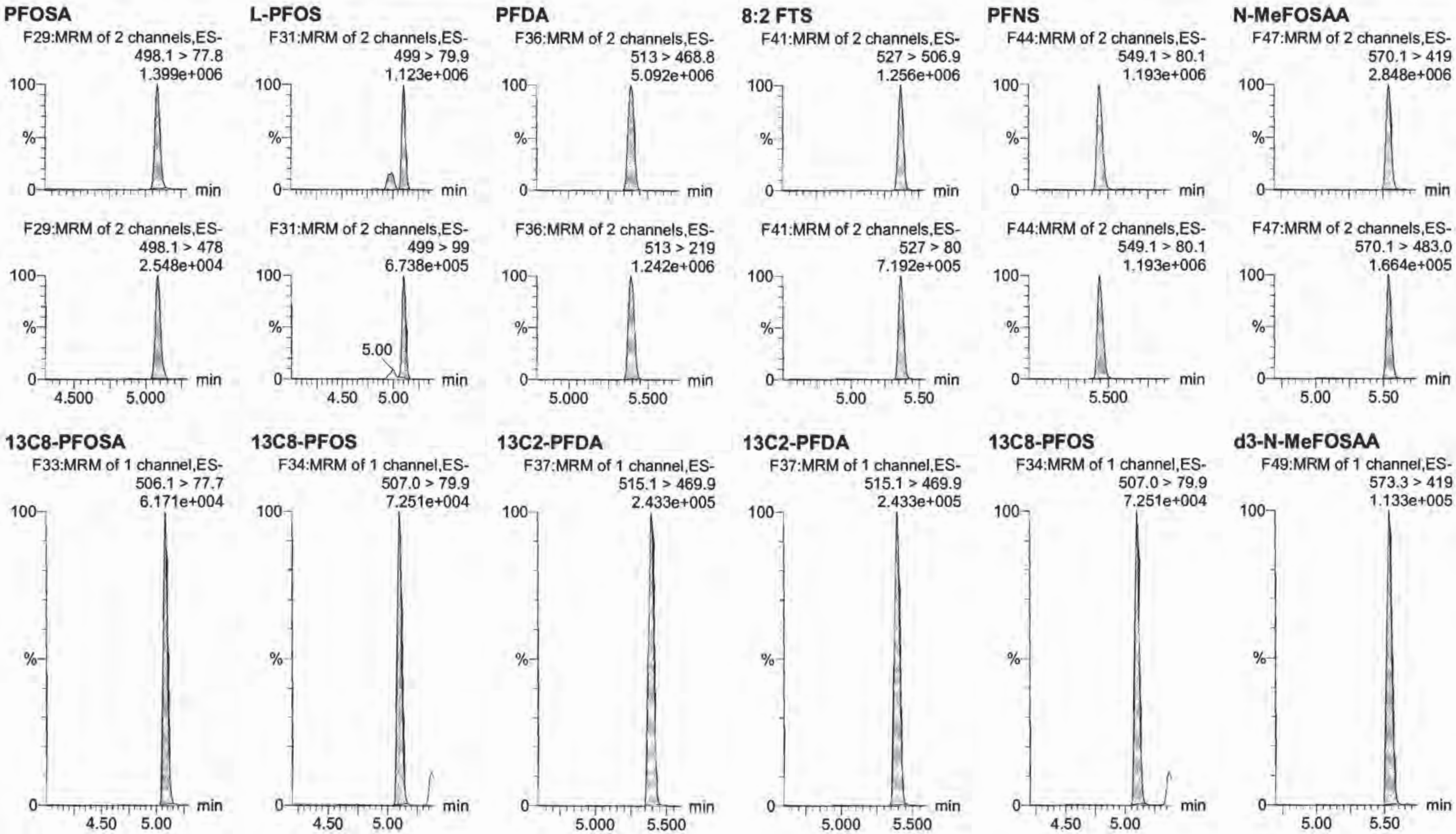

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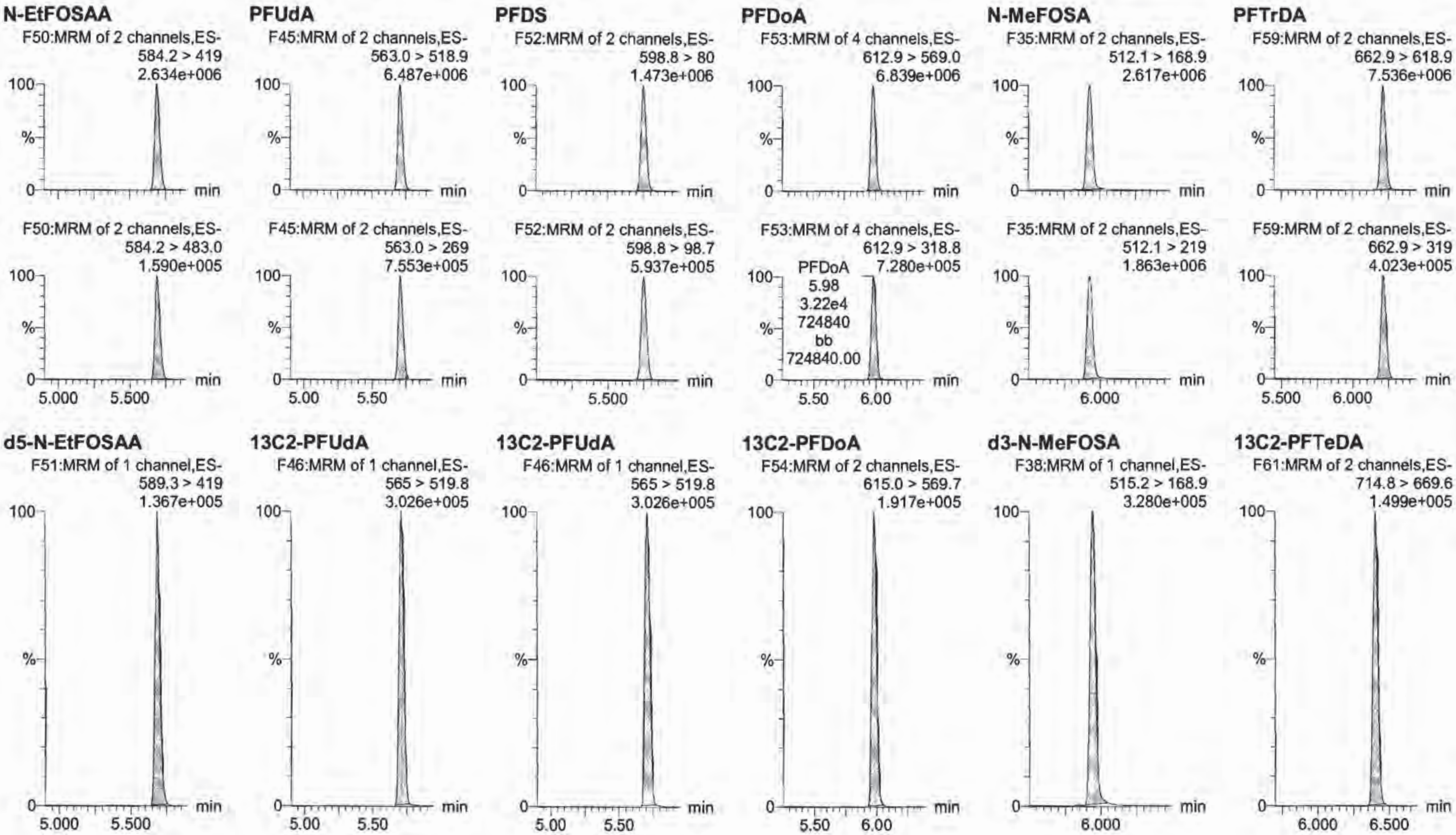

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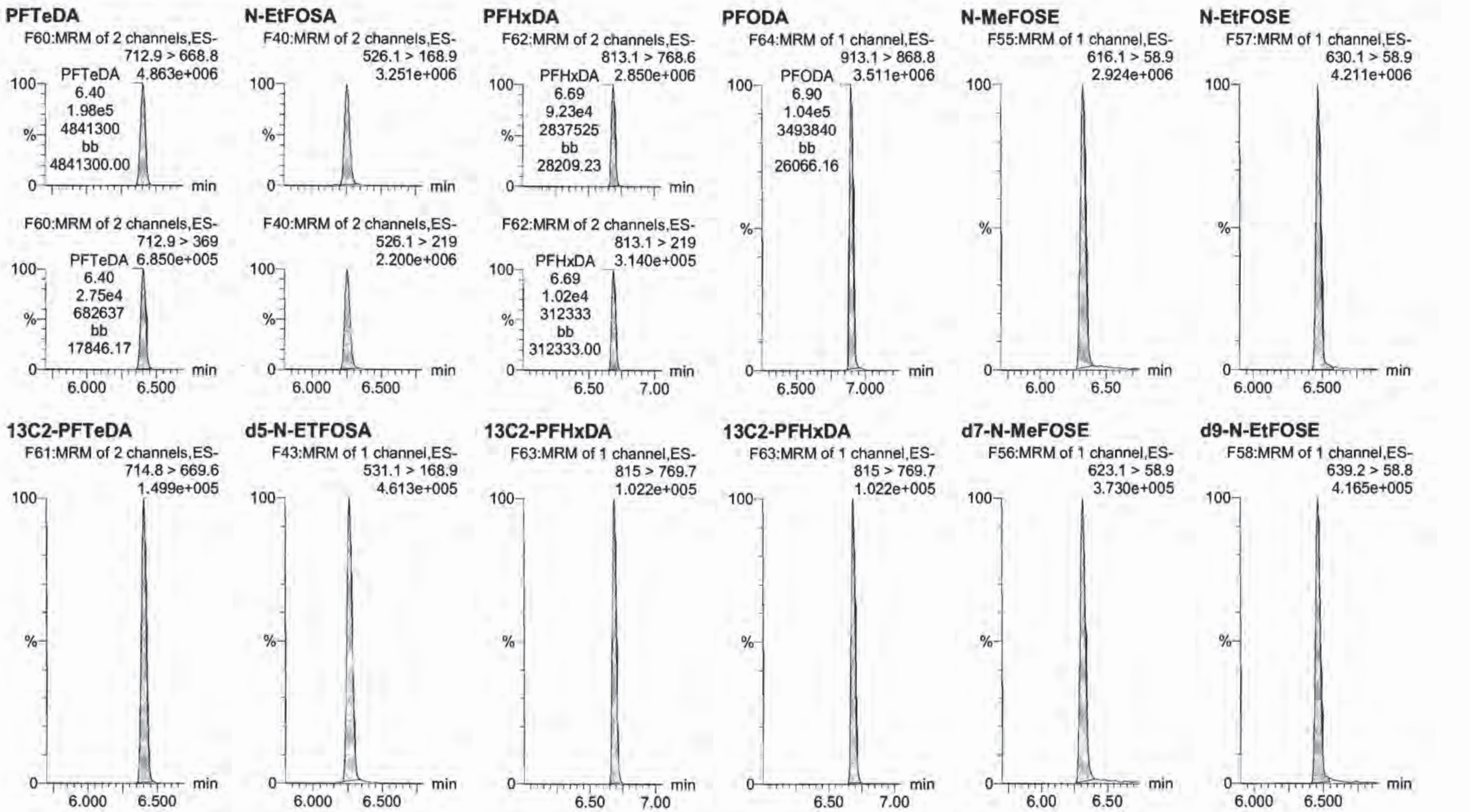

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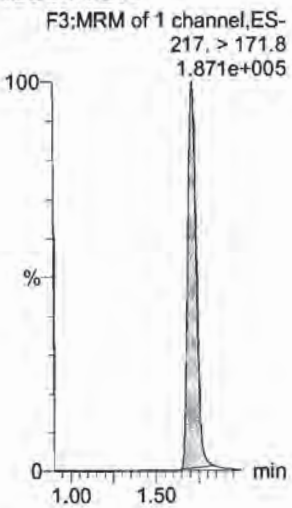
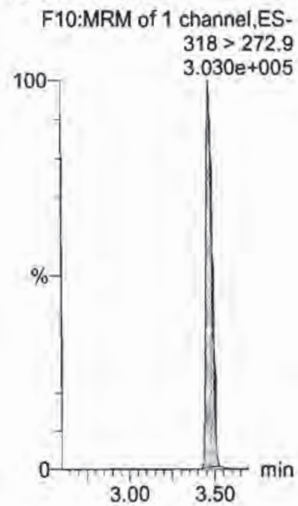
Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
Printed: Friday, February 02, 2018 08:57:12 Pacific Standard Time

Name: 180201M2_10, Date: 01-Feb-2018, Time: 12:24:05, ID: ST180201M2-9 PFC CS6 18A3015, Description: PFC CS6 18A3015

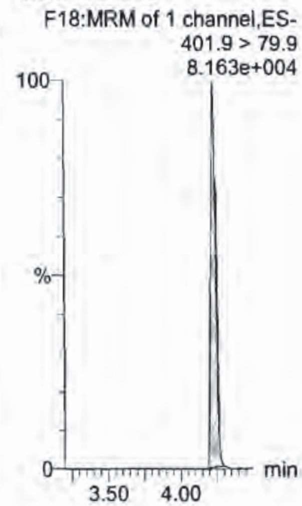
13C4-PFBA



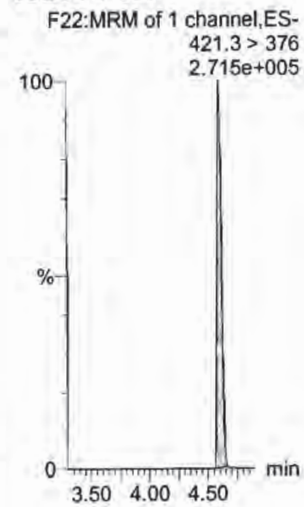
13C5-PFHxA



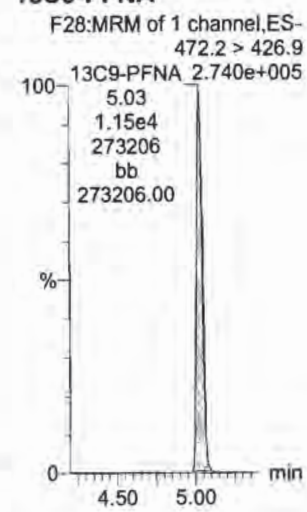
13C3-PFHxS



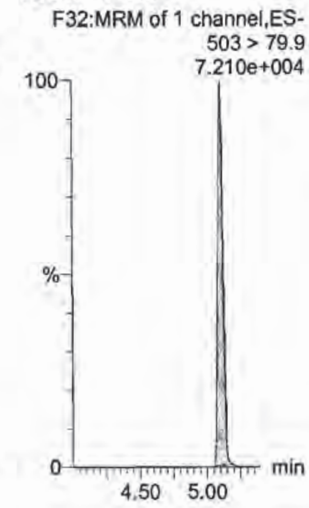
13C8-PFOA



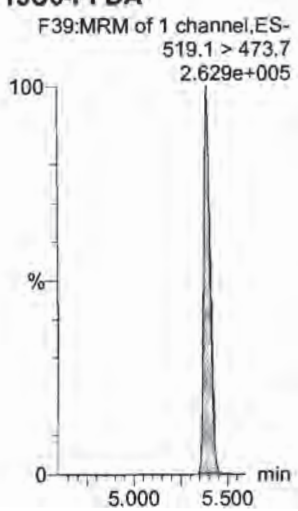
13C9-PFNA



13C4-PFOS



13C6-PFDA



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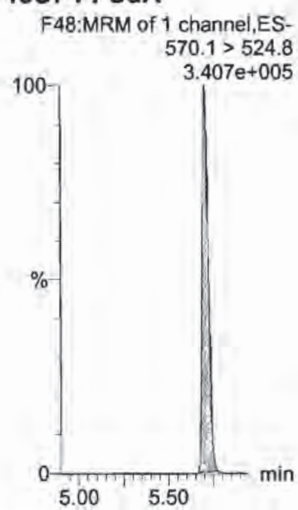
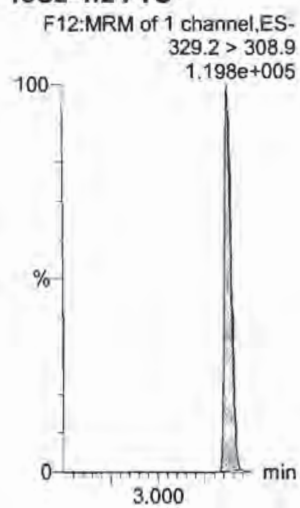


13C2-4:2 FTS



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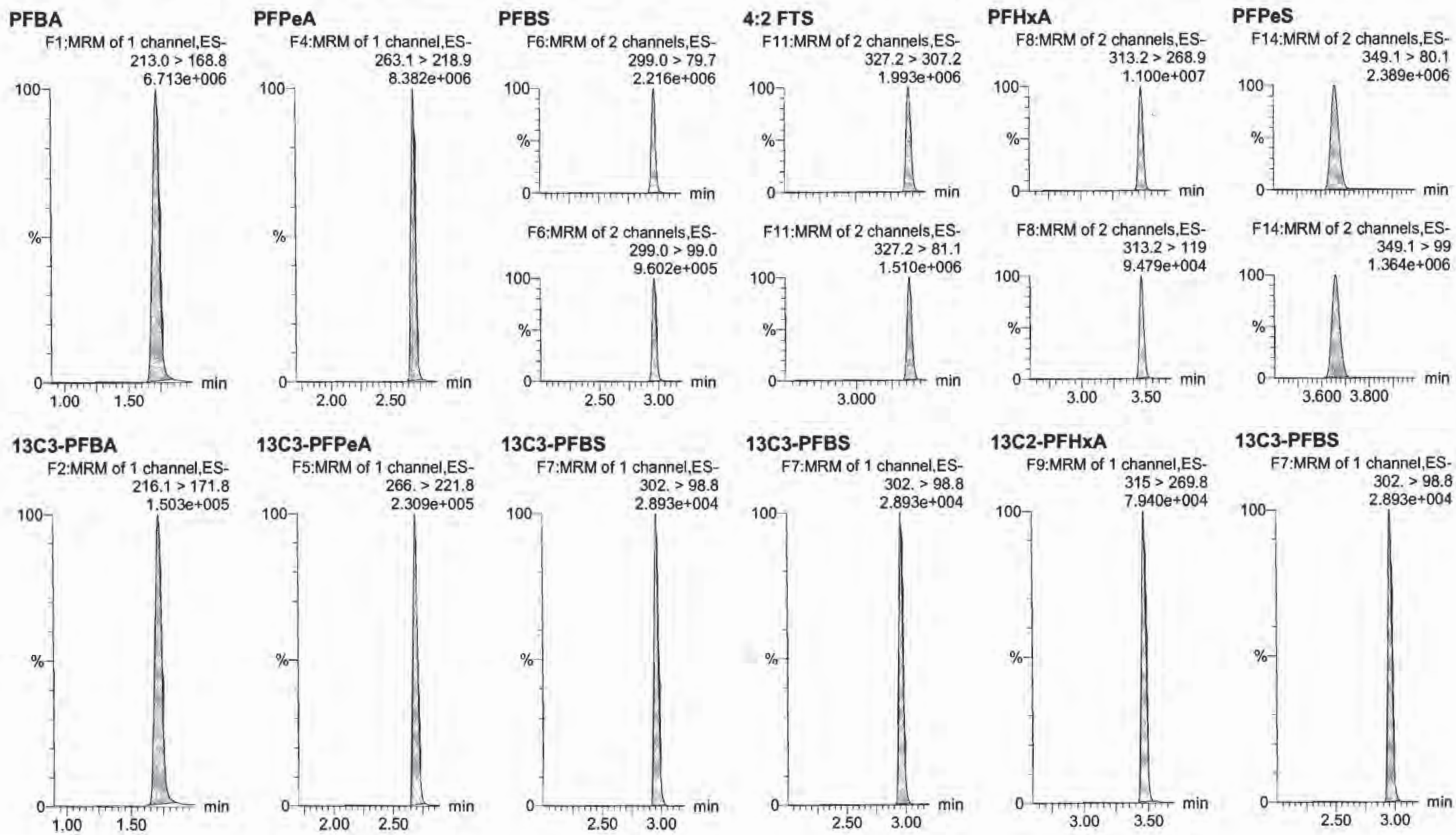

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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Printed: Friday, February 02, 2018 08:57:12 Pacific Standard Time

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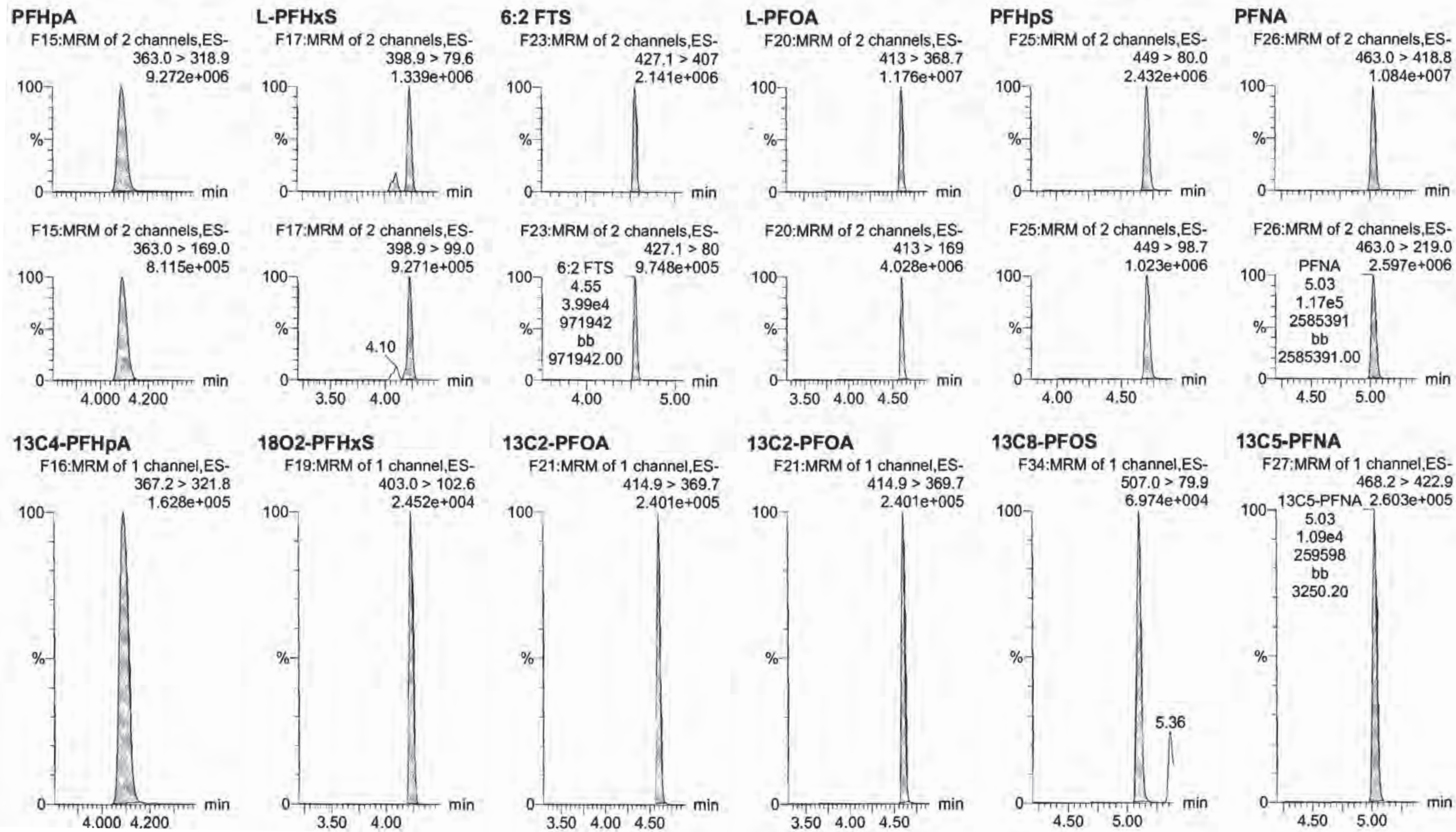

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Printed: Friday, February 02, 2018 08:57:12 Pacific Standard Time

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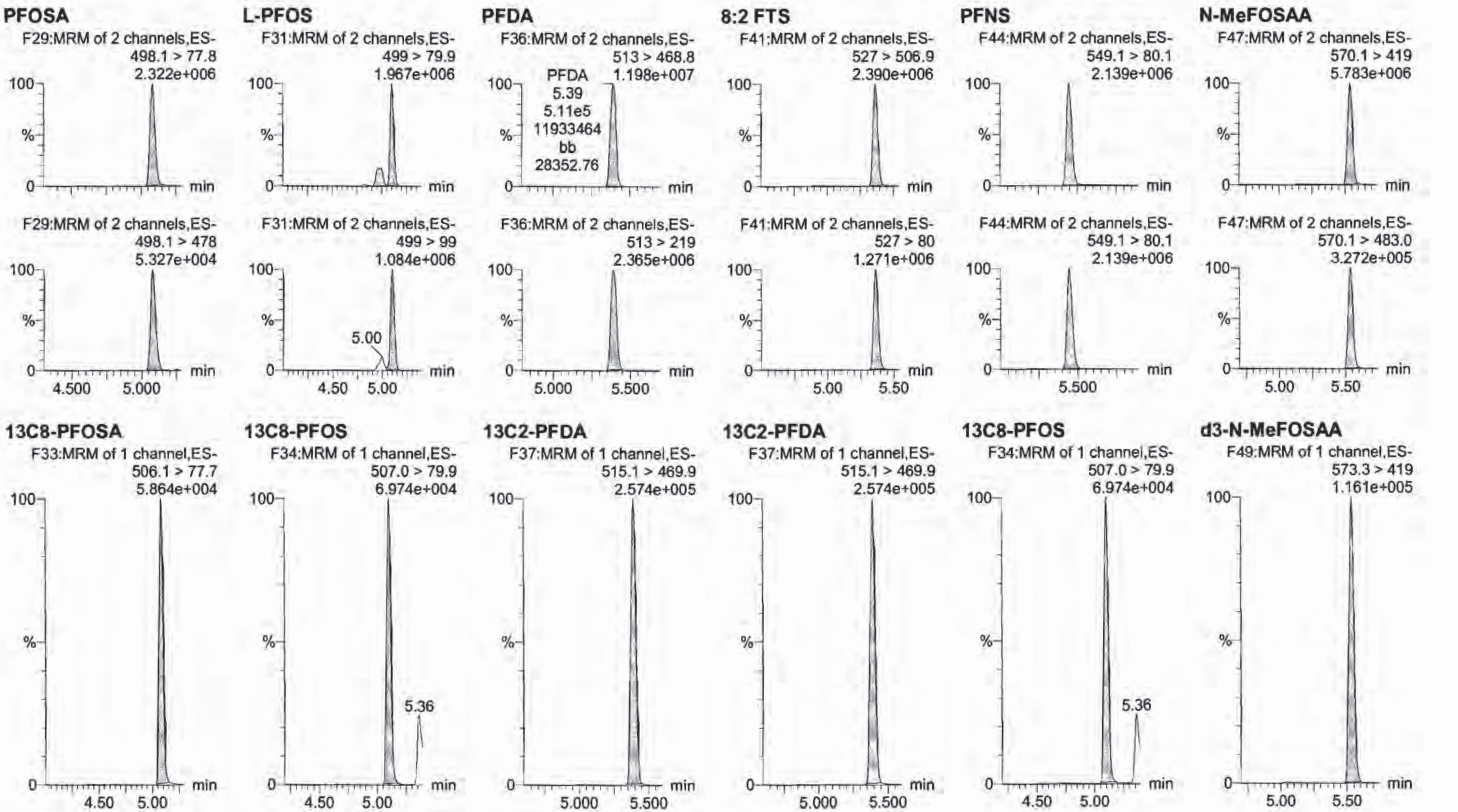

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Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
Printed: Friday, February 02, 2018 08:57:12 Pacific Standard Time

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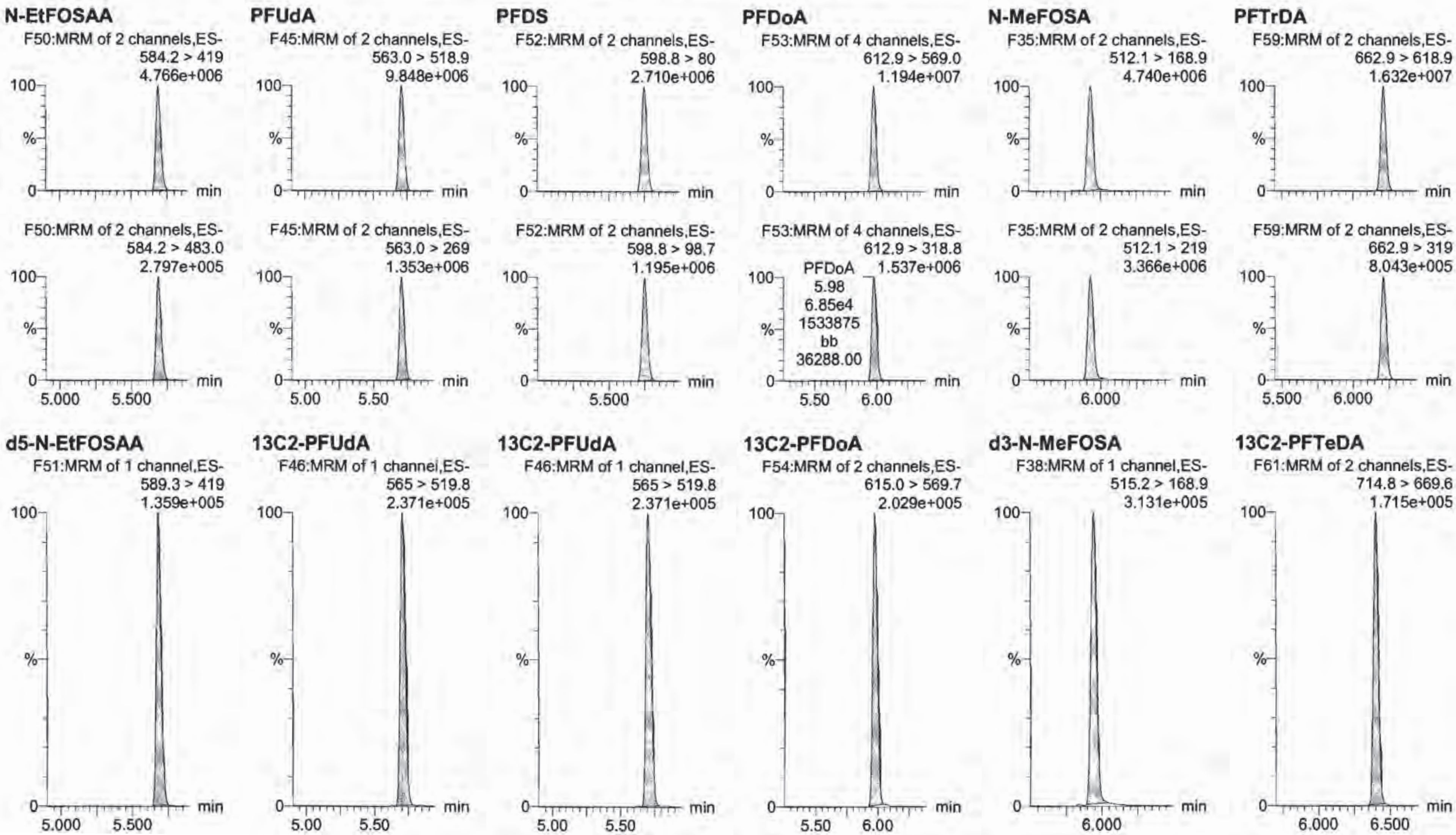

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Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
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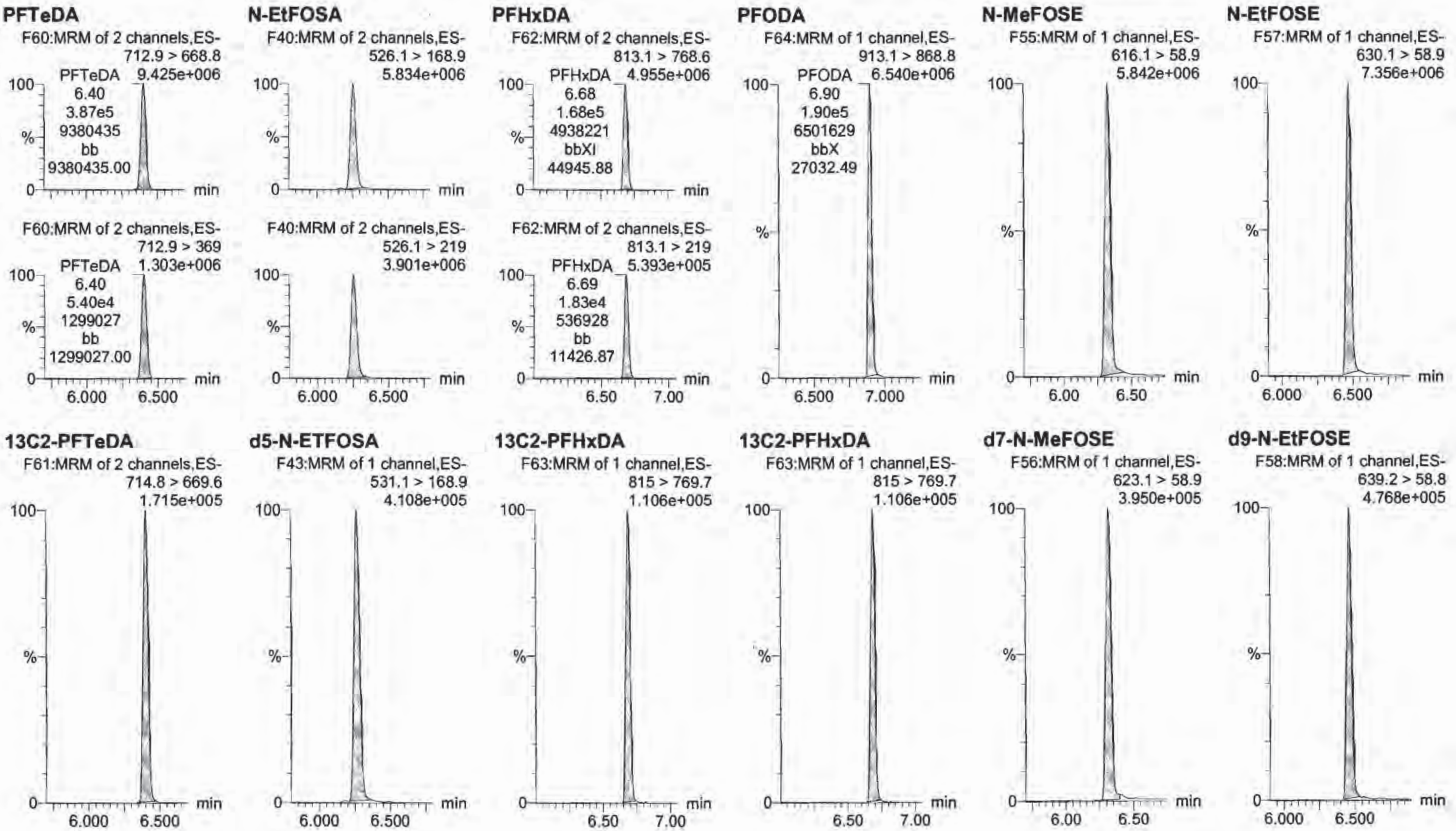

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Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
Printed: Friday, February 02, 2018 08:57:12 Pacific Standard Time

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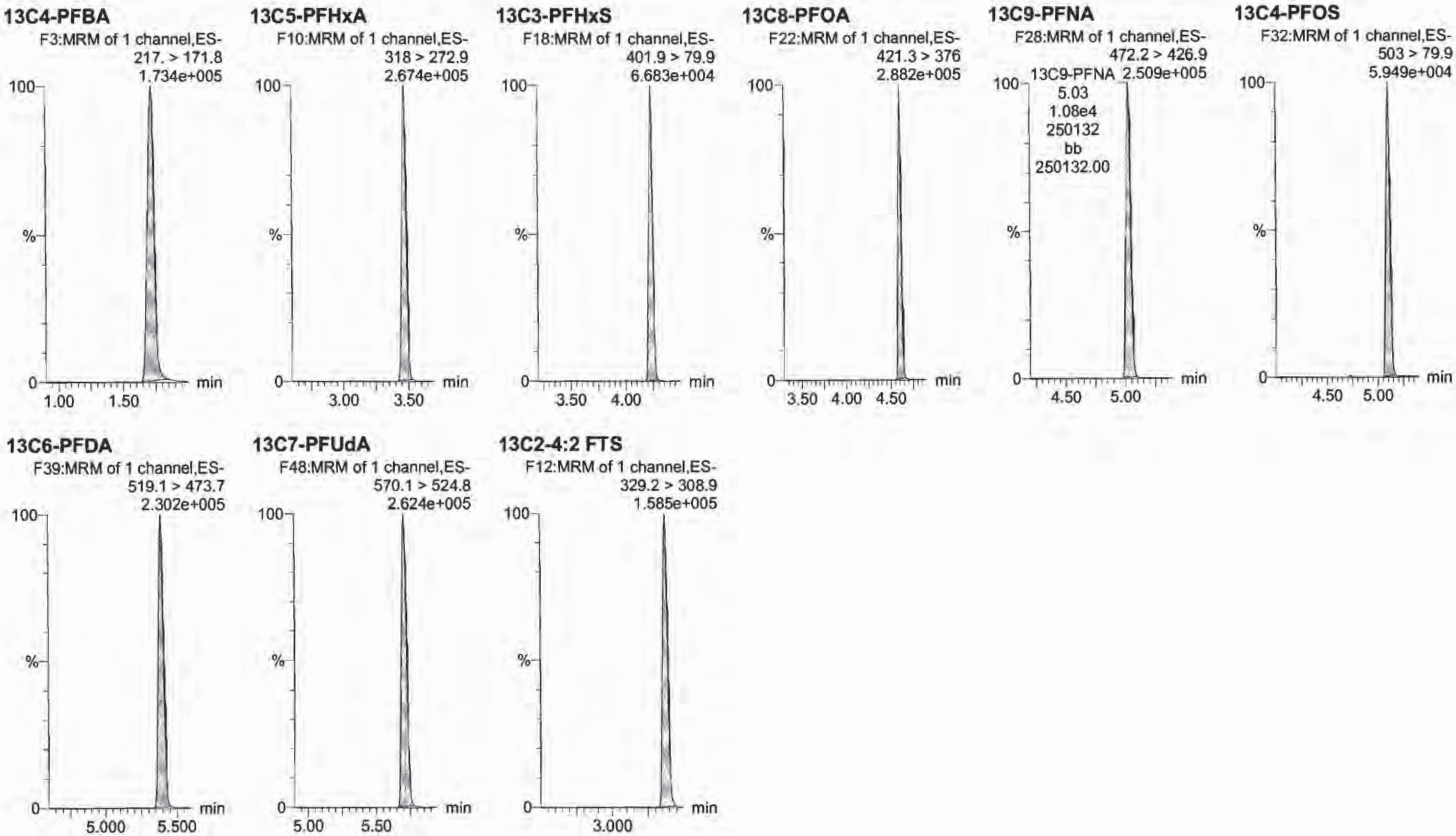

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-13.qld

Ⓐ No SS available.

Last Altered: Friday, February 02, 2018 09:04:08 Pacific Standard Time
Printed: Friday, February 02, 2018 09:25:15 Pacific Standard Time

AC 2/2/18

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_020118.mdb 02 Feb 2018 09:02:54
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_02-01-18-FULL.cdb 02 Feb 2018 08:56:36

JA. 02/02/2018

Name: 180201M2_13, Date: 01-Feb-2018, Time: 12:58:32, ID: ICV180201M2-1 PFC ICV 18A3006, Description: PFC ICV 18A3006

	#	Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	9.45e3	9.30e3		1.0000	1.73	1.71	12.7	10.99	109.9 70-130
2	2	PFPeA	263.1 > 218.9	9.30e3	1.10e4		1.0000	2.70	2.69	10.6	11.34	113.4
3	3	PFBS	299.0 > 79.7	2.02e3	1.44e3		1.0000	2.98	2.96	17.5	11.43	114.3
4	4	4:2 FTS	327.2>307.2	2.30e3	1.44e3		1.0000	3.38	3.37	20.0	12.23	122.3
5	5	PFHxA	313.2 > 268.9	1.14e4	3.43e3		1.0000	3.48	3.46	16.6	10.93	109.3
6	6	PFPeS	349.1>80.1	2.42e3	1.44e3		1.0000	3.67	3.65	21.0	10.97	109.7
7	7	PFHpA	363.0 > 318.9	8.90e3	8.26e3		1.0000	4.10	4.09	13.5	10.08	100.8
8	8	L-PFHxS	398.9 > 79.6	1.35e3	1.02e3		1.0000	4.24	4.23	16.5	9.826	98.3
9	10	6:2 FTS	427.1 > 407	3.02e3	1.18e4		1.0000	4.56	4.54	3.19	12.15	121.5
10	11	L-PFOA	413 > 368.7	1.00e4	1.18e4		1.0000	4.61	4.59	10.6	10.85	108.5
11	13	PFHpS	449 > 80.0	2.65e3	3.11e3		1.0000	4.71	4.69	10.6	10.52	105.2
12	14	PFNA	463.0 > 418.8	1.20e4	1.14e4		1.0000	5.04	5.02	13.2	11.15	111.5
13	15	PFOSA	498.1 > 77.8	2.46e3	2.90e3		1.0000	5.09	5.08	10.6	10.05	100.5
14	16	L-PFOS	499 > 79.9	2.09e3	3.11e3		1.0000	5.11	5.10	8.38	7.667	76.7
15	18	PFDA	513 > 468.8	1.20e4	1.21e4		1.0000	5.40	5.39	12.4	10.23	102.3
16	19	8:2 FTS	527 > 506.9	2.83e3	1.18e4		1.0000	5.38	5.36	2.99	9.336	93.4
17	20	PFNS	549.1>80.1	2.29e3	3.11e3		1.0000	5.46	5.44	9.20	10.33	103.3
18	21	N-MeFOSAA	570.1 > 419	5.70e3	5.45e3		1.0000	5.55	5.53	13.1	9.233	92.3
19	22	N-EtFOSAA	584.2 > 419	5.54e3	6.15e3		1.0000	5.70	5.68	11.3	10.49	104.9
20	23	PFUdA	563.0 > 518.9	9.71e3	1.25e4		1.0000	5.72	5.70	9.70	8.562	85.6
21	24	PFDS	598.8 > 80	2.74e3	8.02e3		1.0000	5.76	5.75	4.27	12.36	123.6
22	25	PFDoA	612.9 > 569.0	1.18e4	8.02e3		1.0000	5.99	5.98	18.4	10.11	101.1
23	26	N-MeFOSA	512.1 > 168.9		1.50e4		1.0000	5.93				Ⓐ
24	27	PFTrDA	662.9 > 618.9	1.65e4	5.58e3		1.0000	6.22	6.21	37.1	9.032	90.3
25	28	PFTeDA	712.9 > 668.8	1.05e4	5.58e3		1.0000	6.41	6.40	23.4	10.87	108.7
26	29	N-EtFOSA	526.1 > 168.9		2.29e4		1.0000	6.25				Ⓐ
27	30	PFHxDA	813.1 > 768.6		3.02e3		1.0000	6.69				
28	31	PFODA	913.1 > 868.8		3.02e3		1.0000	6.90				
29	32	N-MeFOSE	616.1 > 58.9		1.51e4		1.0000	6.31				
30	33	N-EtFOSE	630.1 > 58.9		1.95e4		1.0000	6.45				
31	[illegible]	[illegible]	216.1 > 171.8	9.30e3	1.12e4	0.880	1.0000	1.73	1.71	10.4	11.80	[illegible]

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-13.qld

Last Altered: Friday, February 02, 2018 09:04:08 Pacific Standard Time
Printed: Friday, February 02, 2018 09:25:15 Pacific Standard Time

Name: 180201M2_13, Date: 01-Feb-2018, Time: 12:58:32, ID: ICV180201M2-1 PFC ICV 18A3006, Description: PFC ICV 18A3006

	# Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35 13C3-PFPeA	266. > 221.8	1.10e4	1.16e4	0.894	1.0000	2.70	2.69	11.8	13.20	105.6
33	36 13C3-PFBS	302. > 98.8	1.44e3	1.16e4	0.120	1.0000	2.98	2.96	1.55	12.88	103.1
34	37 13C2-PFHxA	315 > 269.8	3.43e3	1.16e4	0.700	1.0000	3.48	3.46	3.68	5.260	105.2
35	38 13C4-PFHpA	367.2 > 321.8	8.26e3	1.16e4	0.693	1.0000	4.10	4.09	8.86	12.79	102.3
36	39 18O2-PFHxS	403.0 > 102.6	1.02e3	2.77e3	0.343	1.0000	4.24	4.22	4.60	13.44	107.5
37	40 13C2-6:2 FTS	429.1 > 408.9	3.31e3	1.01e4	0.262	1.0000	4.56	4.54	4.10	15.63	125.1
38	41 13C2-PFOA	414.9 > 369.7	1.18e4	1.01e4	1.064	1.0000	4.61	4.59	14.7	13.80	110.4
39	42 13C5-PFNA	468.2 > 422.9	1.14e4	1.16e4	0.949	1.0000	5.04	5.02	12.3	12.95	103.6
40	43 13C8-PFOSA	506.1 > 77.7	2.90e3	1.32e4	0.211	1.0000	5.09	5.08	2.74	12.98	103.9
41	44 13C8-PFOS	507.0 > 79.9	3.11e3	2.64e3	1.014	1.0000	5.11	5.10	14.7	14.54	116.3
42	45 13C2-PFDA	515.1 > 469.9	1.21e4	1.20e4	1.099	1.0000	5.40	5.39	12.6	11.49	91.9
43	46 13C2-8:2 FTS	529.1 > 508.7	2.39e3	1.16e4	0.194	1.0000	5.38	5.36	2.57	13.22	105.8
44	47 d3-N-MeFOSAA	573.3 > 419	5.45e3	1.32e4	0.381	1.0000	5.55	5.53	5.16	13.54	108.3
45	48 d5-N-EtFOSAA	589.3 > 419	6.15e3	1.32e4	0.430	1.0000	5.70	5.68	5.83	13.56	108.5
46	49 13C2-PFUdA	565 > 519.8	1.25e4	1.32e4	0.966	1.0000	5.72	5.70	11.8	12.27	98.1
47	50 13C2-PFDoA	615.0 > 569.7	8.02e3	1.32e4	0.767	1.0000	5.99	5.98	7.60	9.904	79.2
48	51 d3-N-MeFOSA	515.2 > 168.9	1.50e4	1.32e4	0.094	1.0000	5.93	5.94	14.2	151.1	100.7
49	52 13C2-PFTeDA	714.8 > 669.6	5.58e3	1.32e4	0.413	1.0000	6.41	6.40	5.29	12.80	102.4
50	53 d5-N-ETFOSA	531.1 > 168.9	2.29e4	1.32e4	0.134	1.0000	6.25	6.26	21.7	162.0	108.0
51	54 13C2-PFHxDA	815 > 769.7	3.02e3	1.32e4	0.555	1.0000	6.69	6.68	2.87	5.160	103.2
52	55 d7-N-MeFOSE	623.1 > 58.9	1.51e4	1.32e4	0.107	1.0000	6.31	6.31	14.3	134.1	89.4
53	56 d9-N-EtFOSE	639.2 > 58.8	1.95e4	1.32e4	0.107	1.0000	6.45	6.46	18.5	172.5	115.0
54	57 13C4-PFBA	217. > 171.8	1.12e4	1.12e4	1.000	1.0000	1.73	1.71	12.5	12.50	100.0
55	58 13C5-PFHxA	318 > 272.9	1.16e4	1.16e4	1.000	1.0000	3.48	3.46	12.5	12.50	100.0
56	59 13C3-PFHxS	401.9 > 79.9	2.77e3	2.77e3	1.000	1.0000	4.24	4.23	12.5	12.50	100.0
57	60 13C8-PFOA	421.3 > 376	1.01e4	1.01e4	1.000	1.0000	4.61	4.59	12.5	12.50	100.0
58	61 13C9-PFNA	472.2 > 426.9	1.16e4	1.16e4	1.000	1.0000	5.04	5.02	12.5	12.50	100.0
59	62 13C4-PFOS	503 > 79.9	2.64e3	2.64e3	1.000	1.0000	5.11	5.09	12.5	12.50	100.0
60	63 13C6-PFDA	519.1 > 473.7	1.20e4	1.20e4	1.000	1.0000	5.40	5.38	12.5	12.50	100.0
61	64 13C7-PFUdA	570.1 > 524.8	1.32e4	1.32e4	1.000	1.0000	5.72	5.70	12.5	12.50	100.0
62	72 13C2-4:2 FTS	329.2>308.9	3.08e3	1.16e4	0.312	1.0000	3.38	3.37	3.30	10.59	84.7

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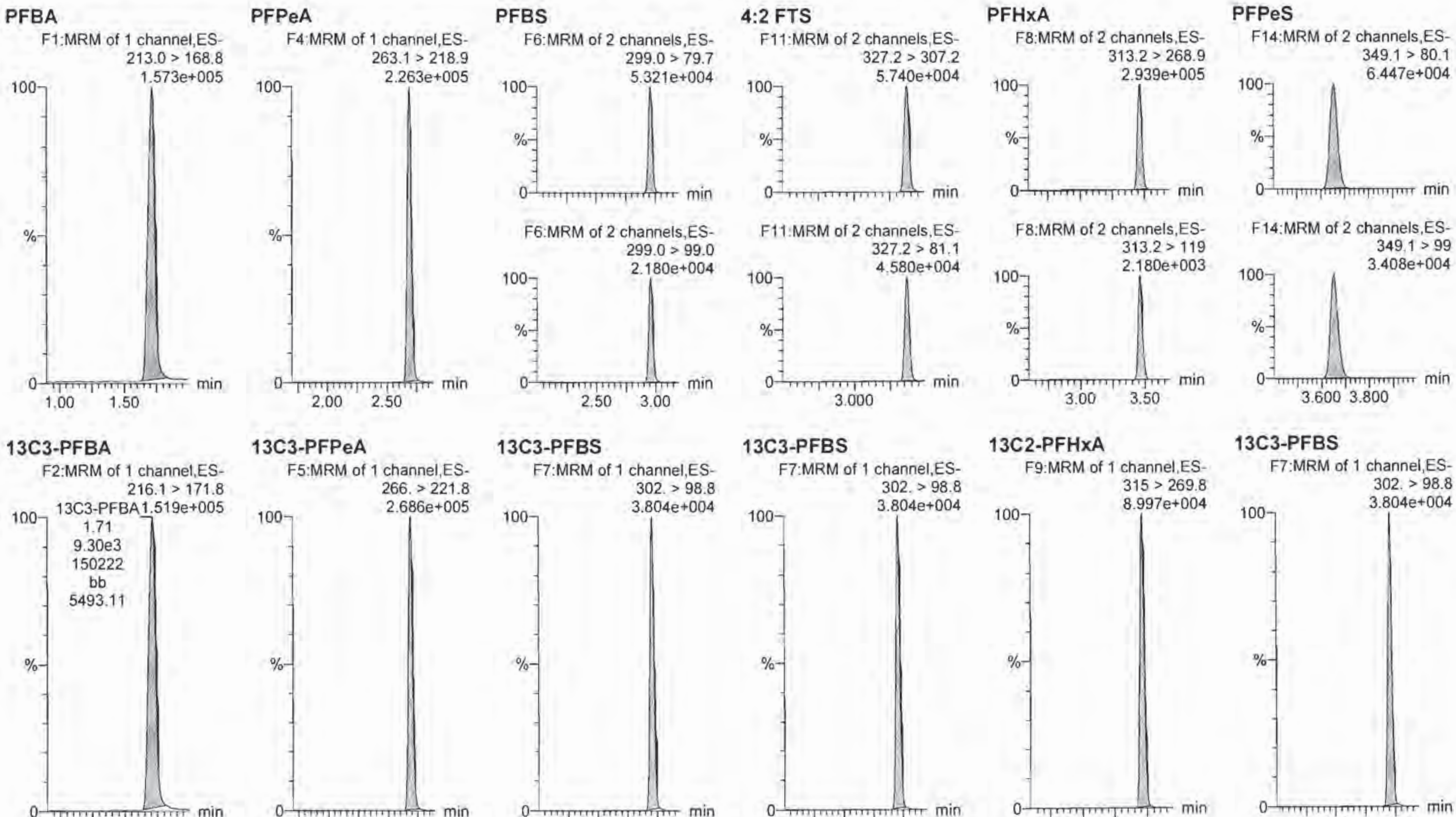
Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-13.qld

Last Altered: Friday, February 02, 2018 09:04:08 Pacific Standard Time
Printed: Friday, February 02, 2018 09:25:15 Pacific Standard Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_020118.mdb 02 Feb 2018 09:02:54
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_02-01-18-FULL.cdb 02 Feb 2018 08:56:36

Name: 180201M2_13, Date: 01-Feb-2018, Time: 12:58:32, ID: ICV180201M2-1 PFC ICV 18A3006, Description: PFC ICV 18A3006



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Printed: Friday, February 02, 2018 09:25:15 Pacific Standard Time

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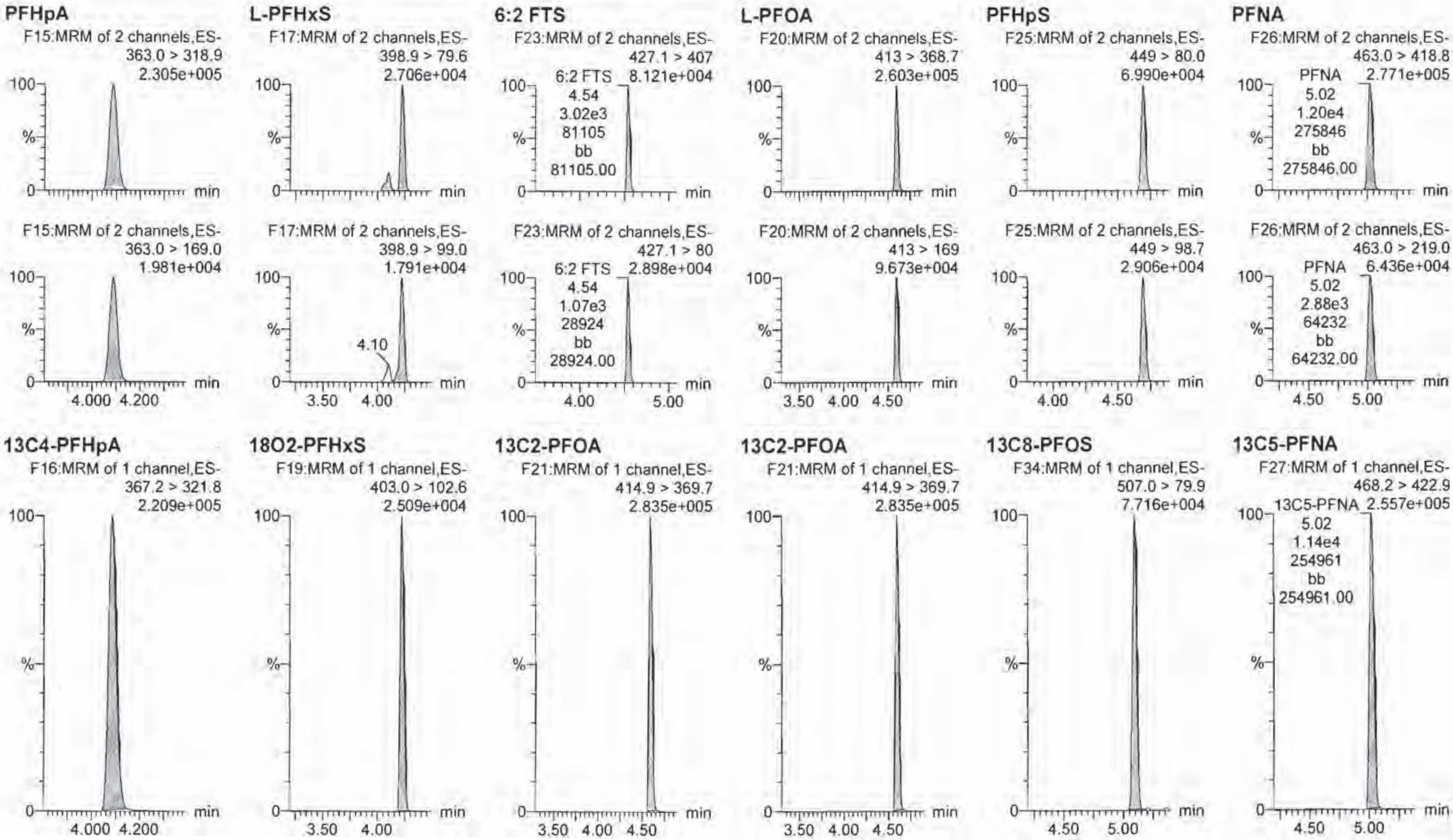

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Printed: Friday, February 02, 2018 09:25:15 Pacific Standard Time

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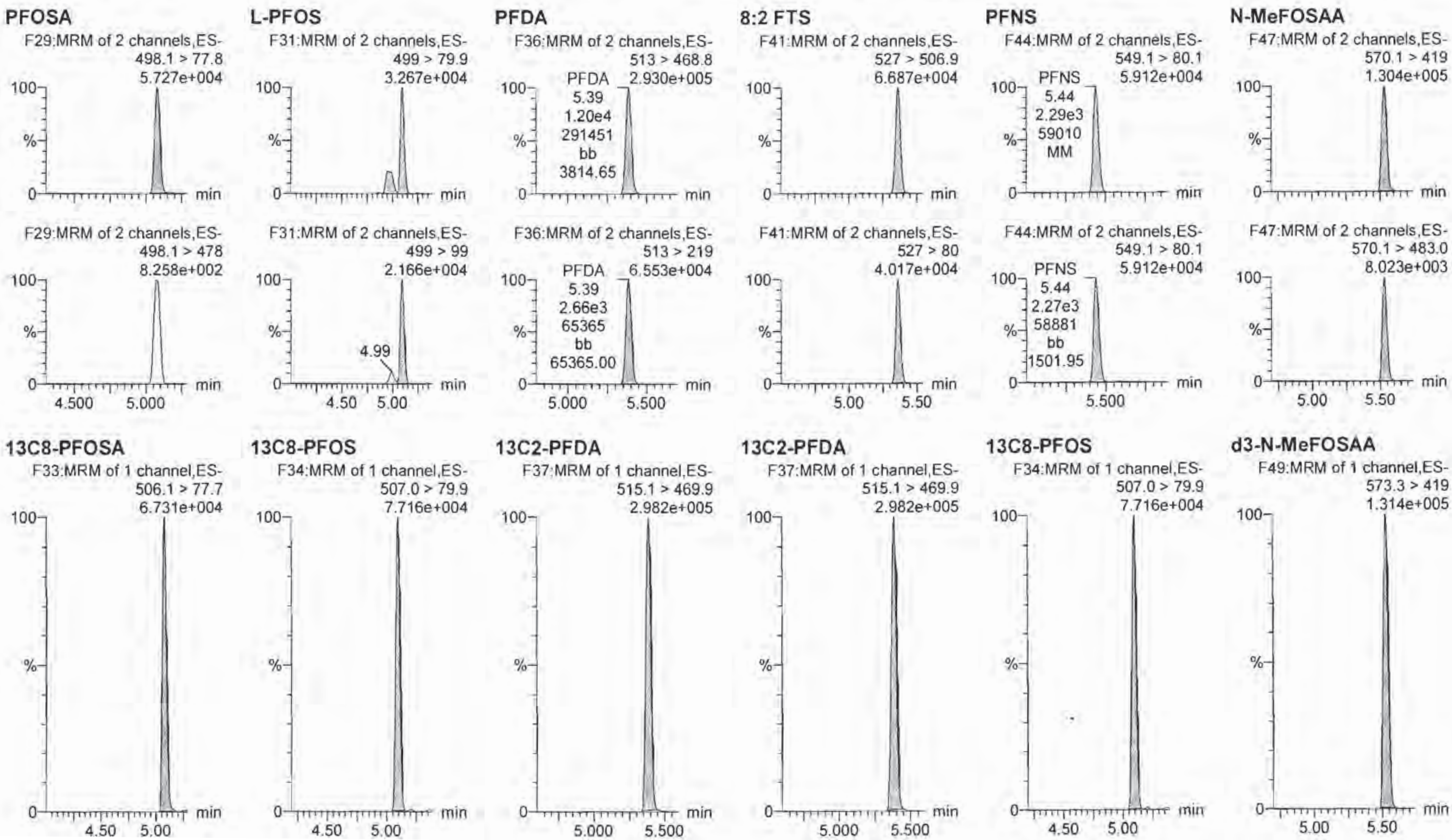

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Last Altered: Friday, February 02, 2018 09:04:08 Pacific Standard Time
Printed: Friday, February 02, 2018 09:25:15 Pacific Standard Time

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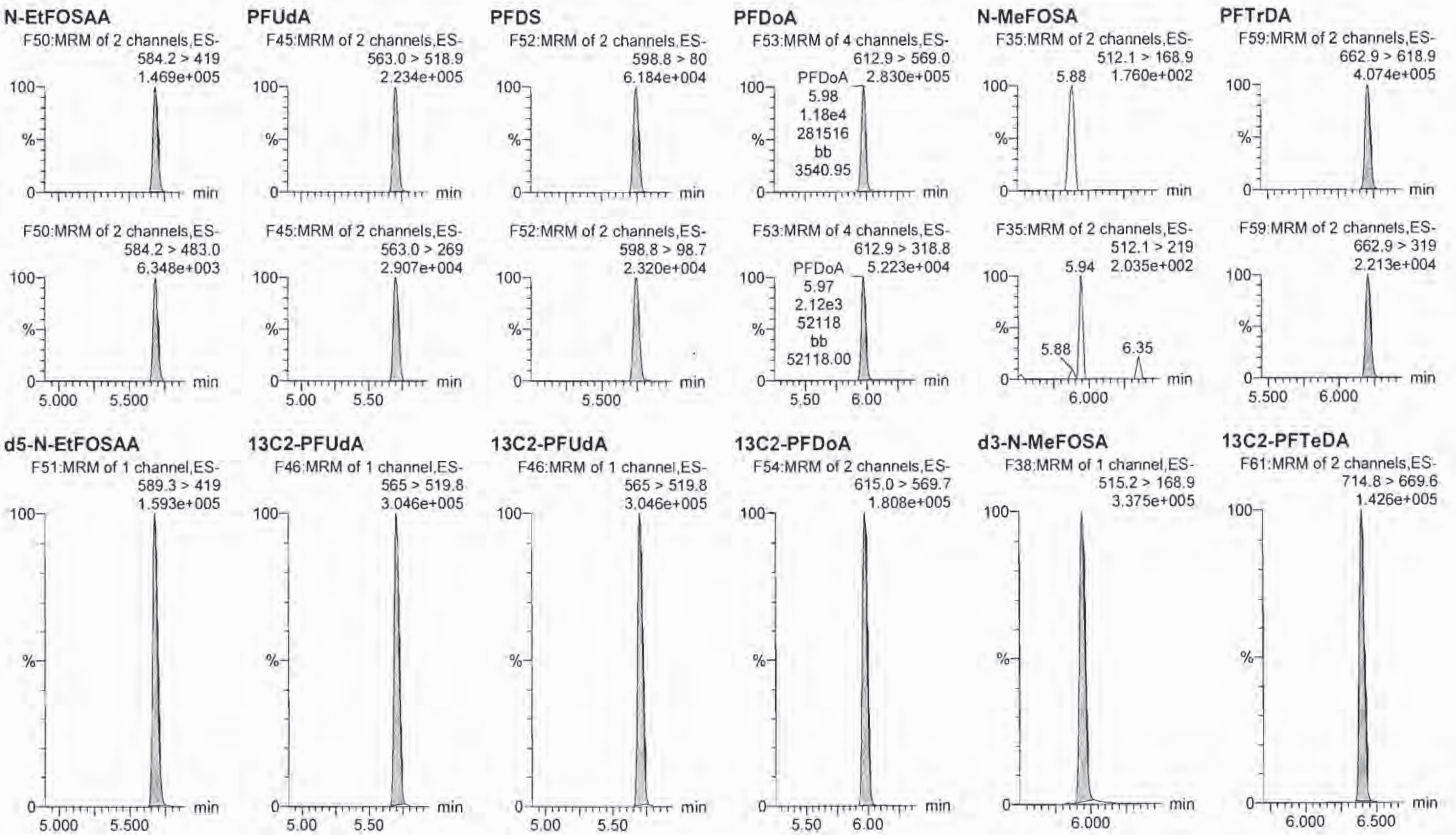

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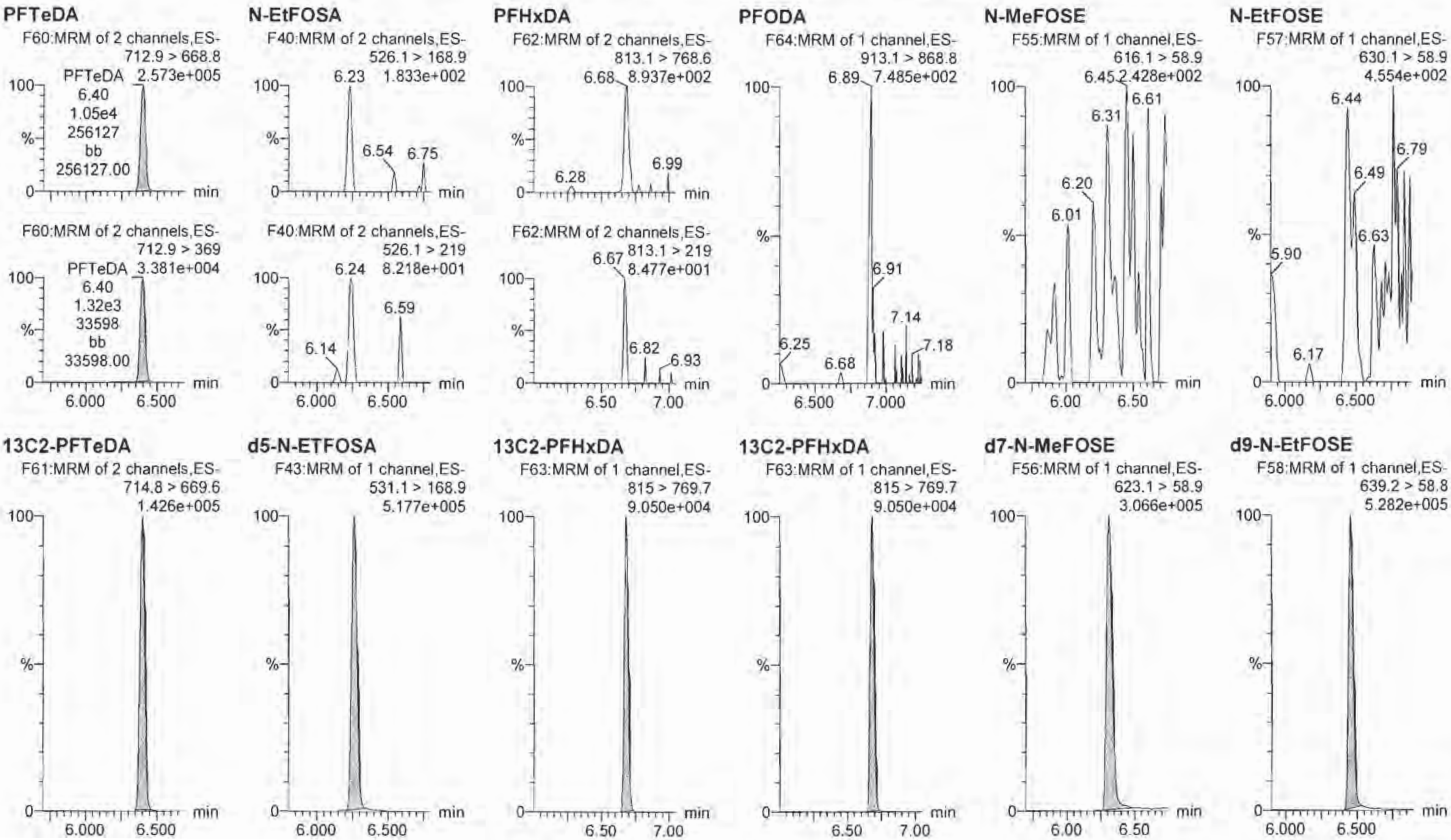

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Printed: Friday, February 02, 2018 09:25:15 Pacific Standard Time

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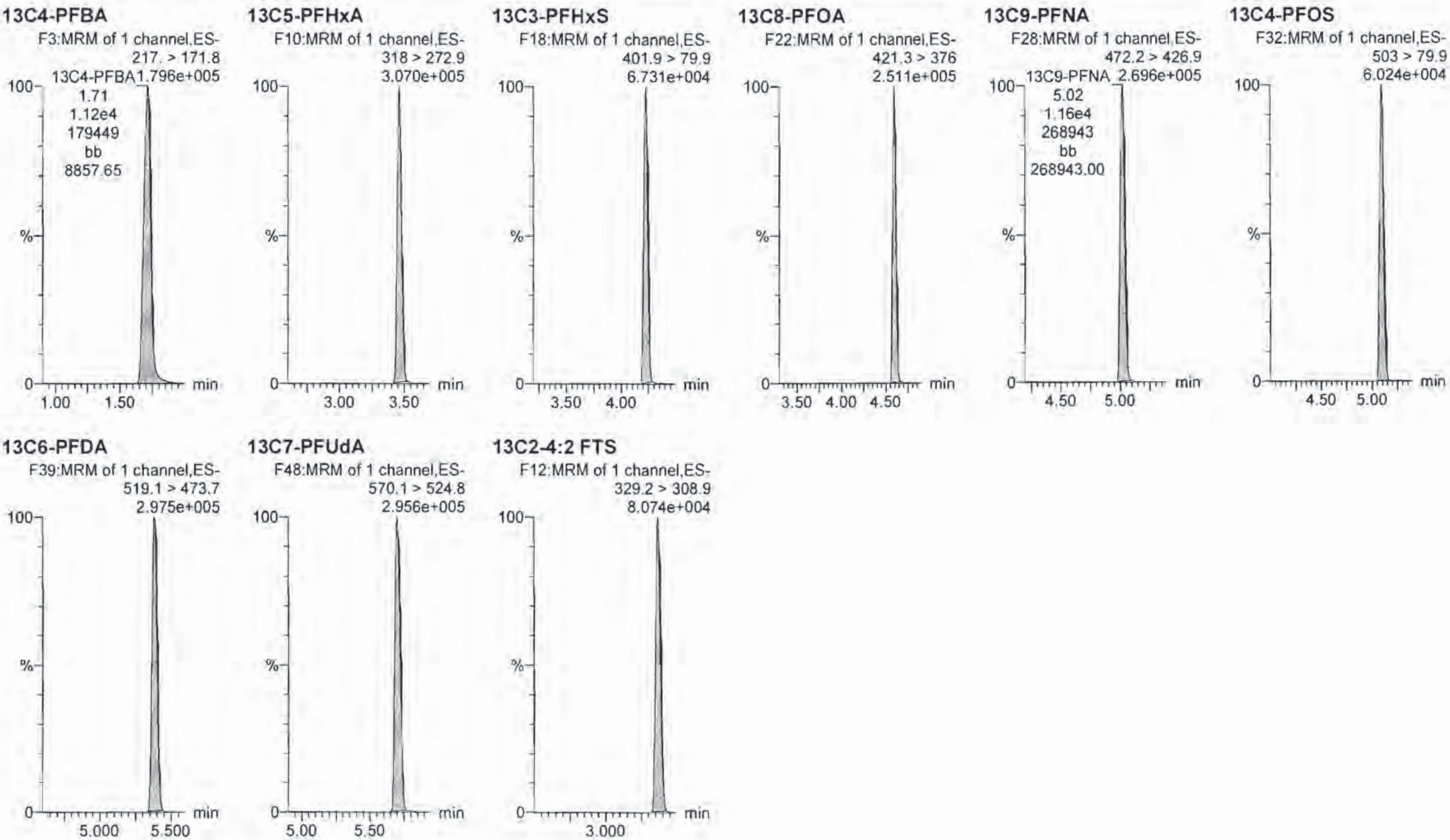

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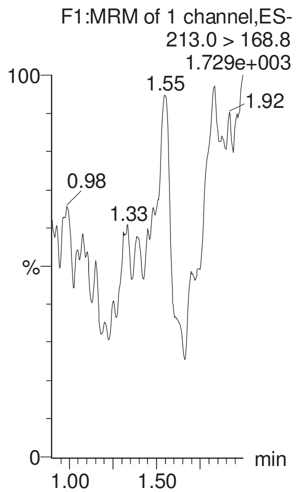
Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-12.qld

Last Altered: Friday, February 02, 2018 09:29:53 Pacific Standard Time
Printed: Friday, February 02, 2018 09:30:13 Pacific Standard Time

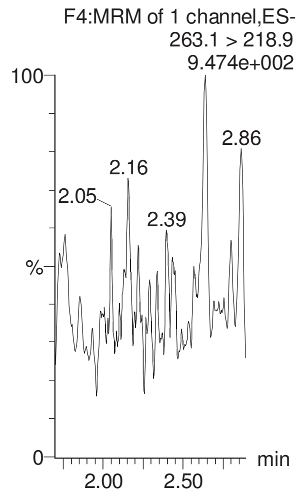
Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_020118.mdb 02 Feb 2018 09:02:54
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_02-01-18-FULL.cdb 02 Feb 2018 08:56:36

Name: 180201M2_12, Date: 01-Feb-2018, Time: 12:47:03, ID: IPA, Description: IPA

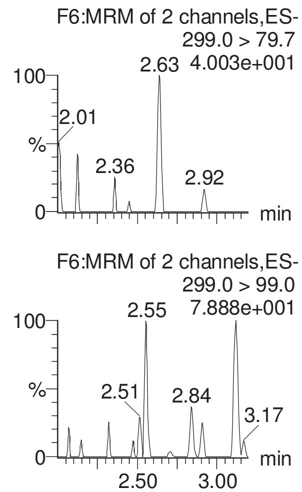
PFBA



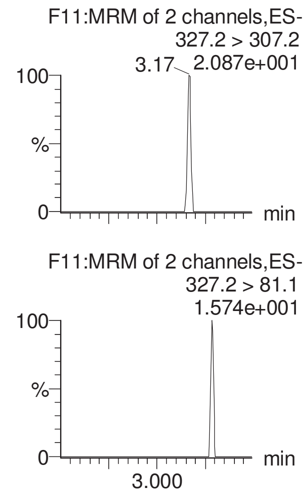
PFPeA



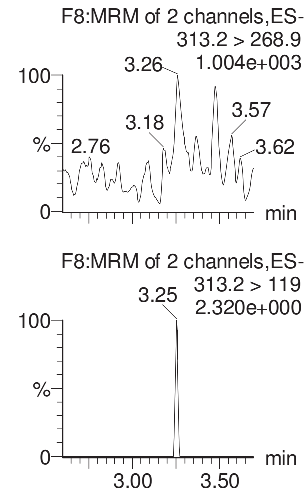
PFBS



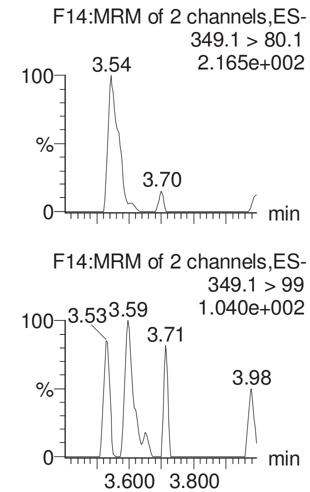
4:2 FTS



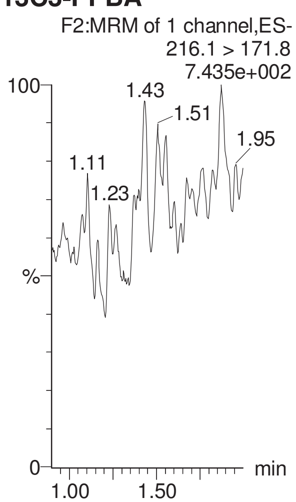
PFHxA



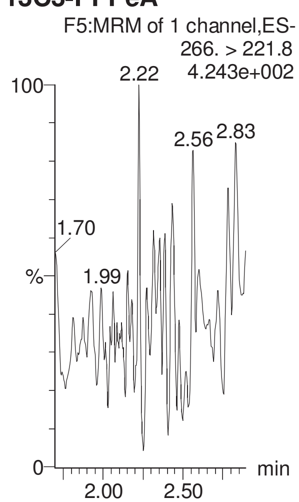
PFPeS



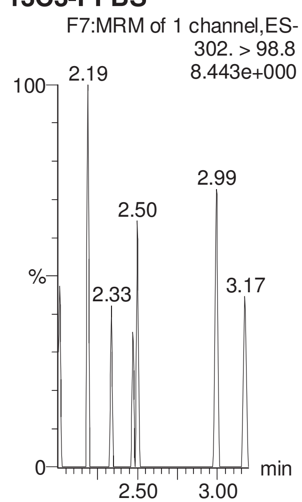
13C3-PFBA



13C3-PFPeA



13C3-PFBS



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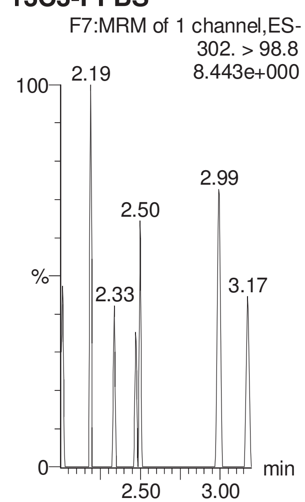
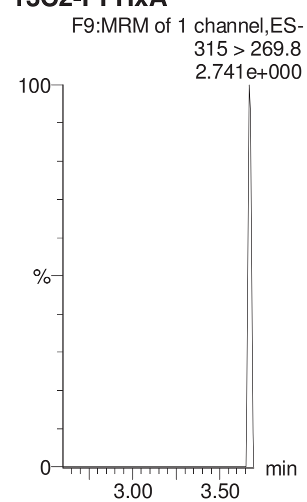
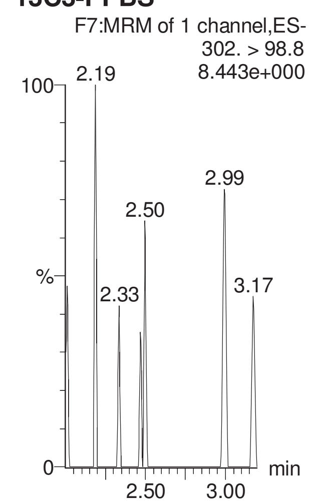


13C2-PFHxA



13C3-PFBS



AC 2/2/2018

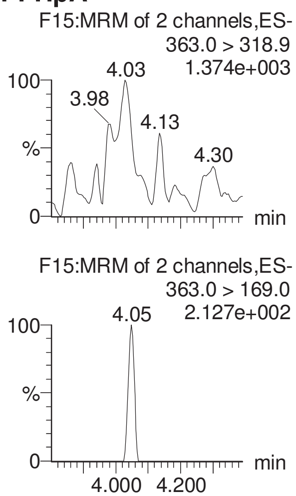
Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-12.qld

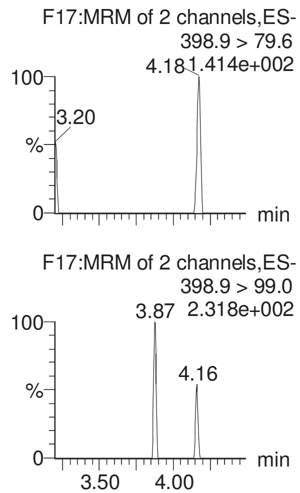
Last Altered: Friday, February 02, 2018 09:29:53 Pacific Standard Time
Printed: Friday, February 02, 2018 09:30:13 Pacific Standard Time

Name: 180201M2_12, Date: 01-Feb-2018, Time: 12:47:03, ID: IPA, Description: IPA

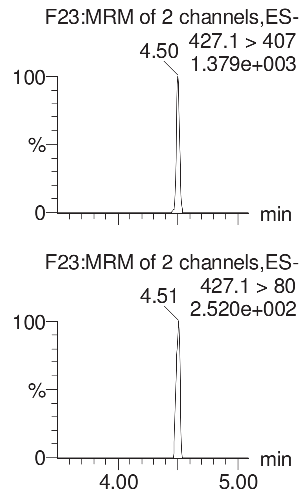
PFHpA



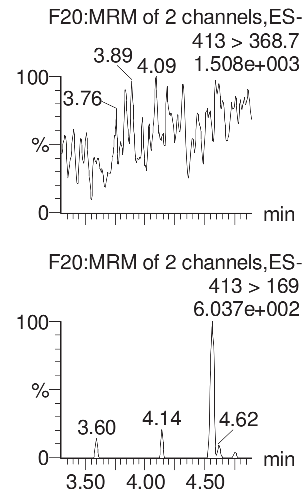
L-PFHxS



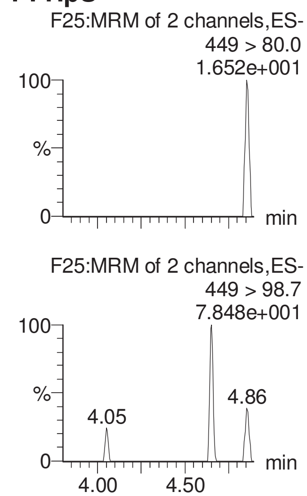
6:2 FTS



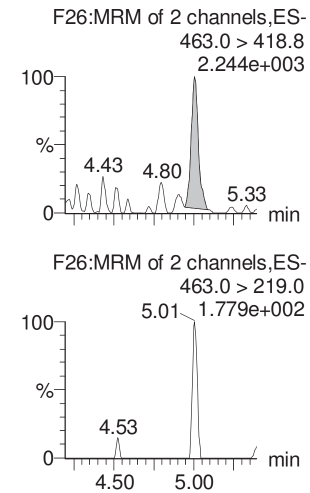
L-PFOA



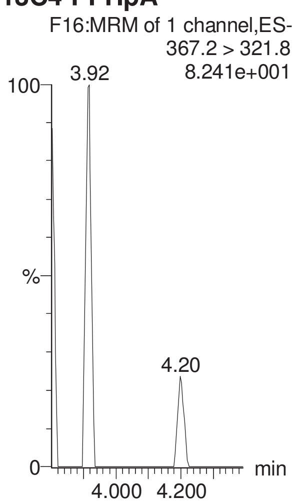
PFHpS



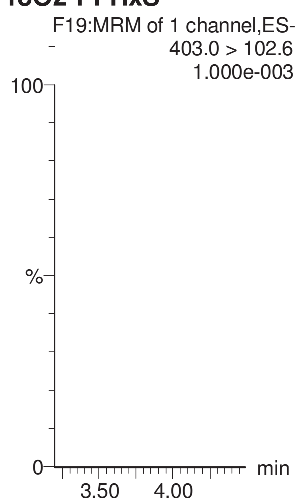
PFNA



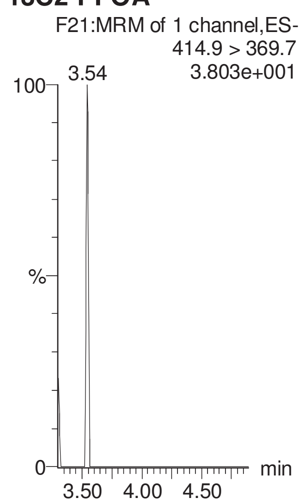
13C4-PFHpA



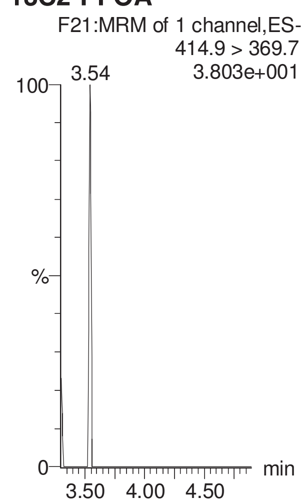
18O2-PFHxS



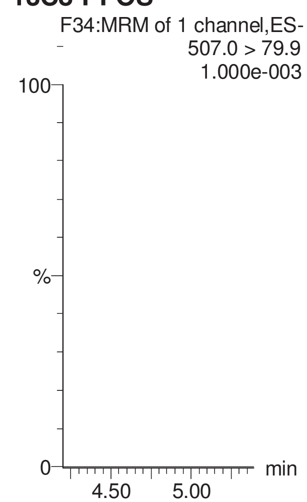
13C2-PFOA



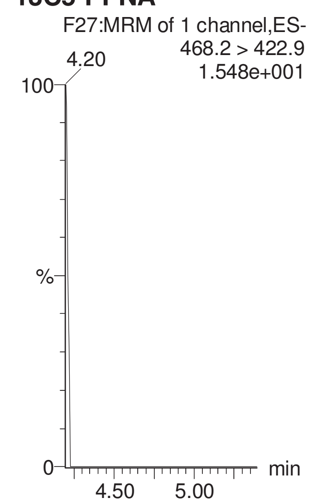
13C2-PFOA



13C8-PFOS



13C5-PFNA

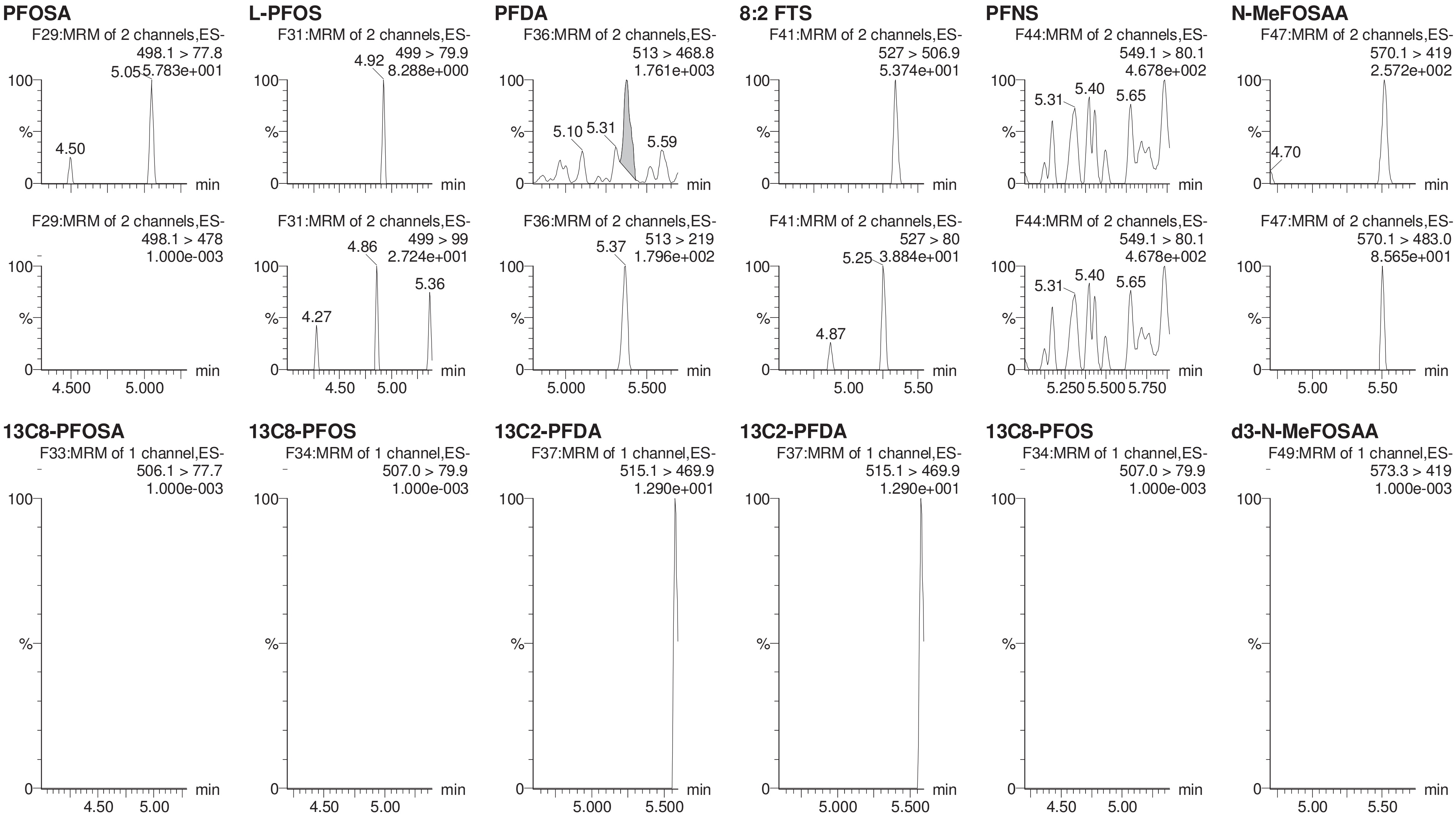


AC 2/2/2018

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-12.qld

Last Altered: Friday, February 02, 2018 09:29:53 Pacific Standard Time
Printed: Friday, February 02, 2018 09:30:13 Pacific Standard Time

Name: 180201M2_12, Date: 01-Feb-2018, Time: 12:47:03, ID: IPA, Description: IPA



AC 2/2/2018

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Printed: Friday, February 02, 2018 09:30:13 Pacific Standard Time

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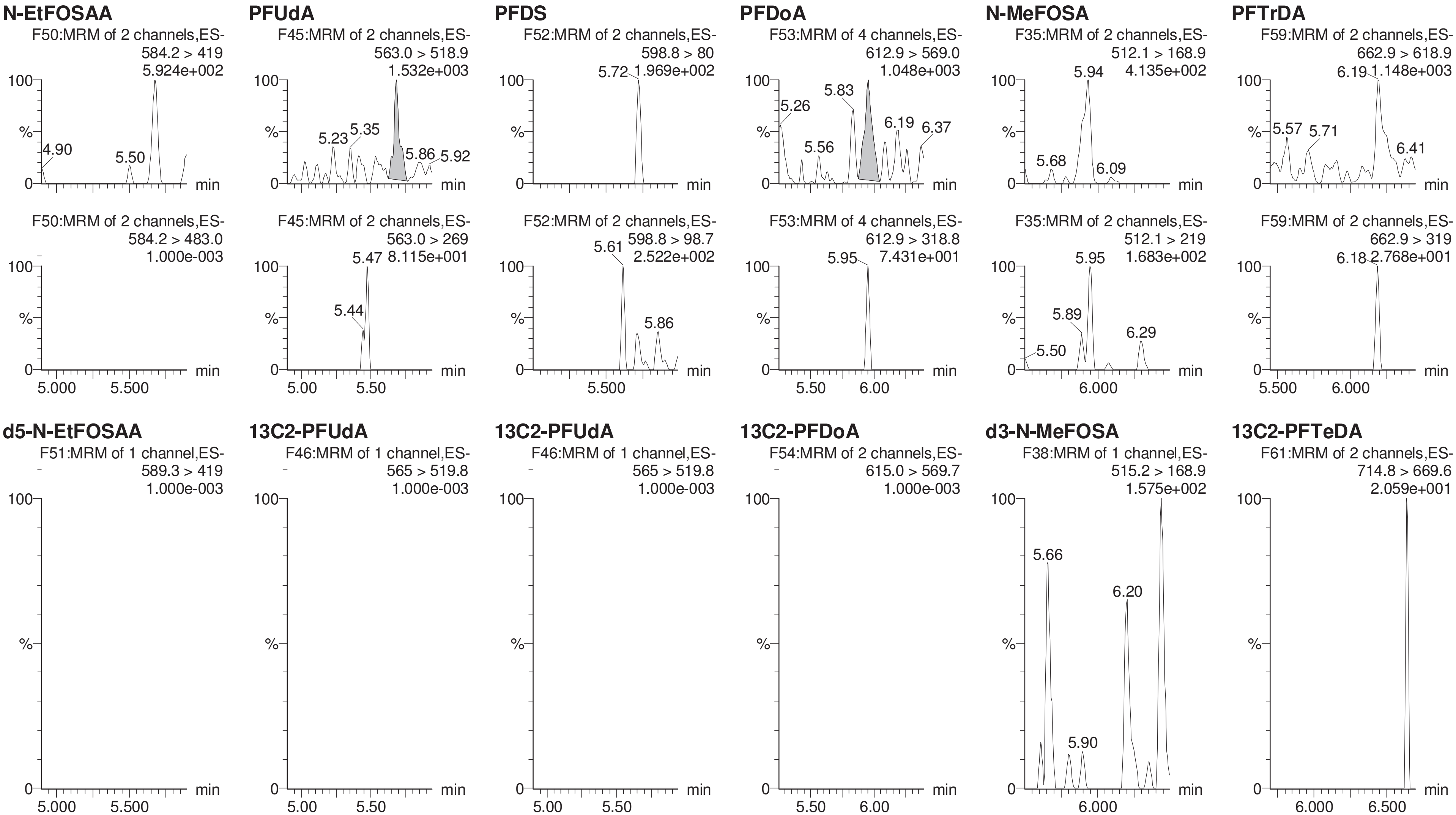

AC 2/2/2018

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-12.qld

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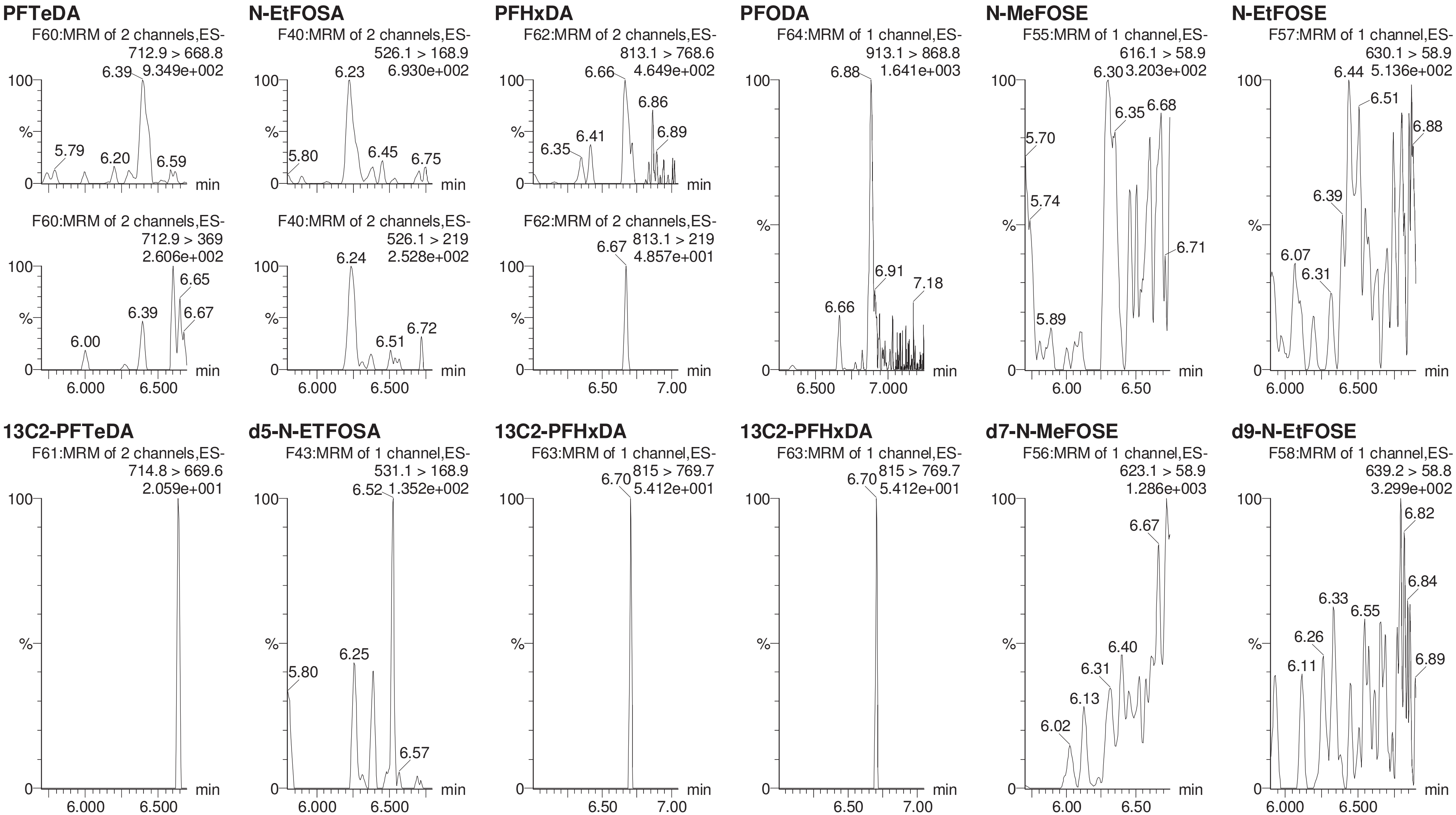

AC 2/2/2018

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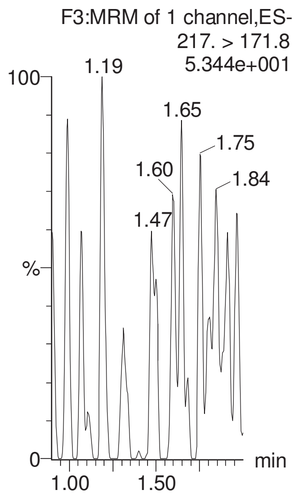
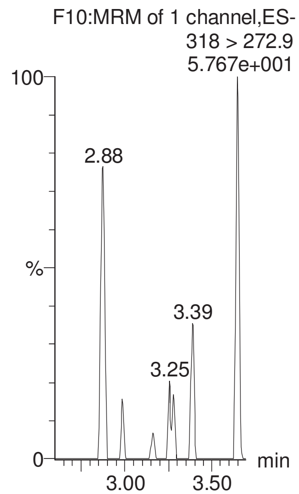
Last Altered: Friday, February 02, 2018 09:29:53 Pacific Standard Time
Printed: Friday, February 02, 2018 09:30:13 Pacific Standard Time

Name: 180201M2_12, Date: 01-Feb-2018, Time: 12:47:03, ID: IPA, Description: IPA

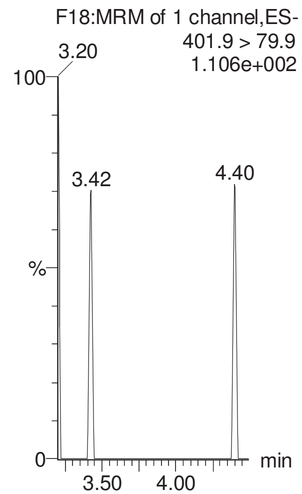
13C4-PFBA



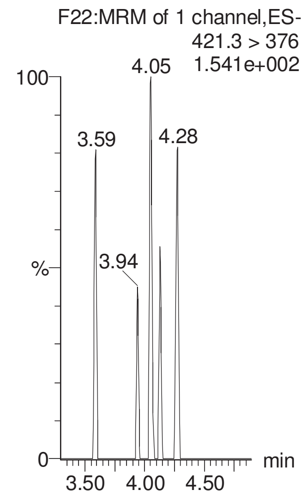
13C5-PFHxA



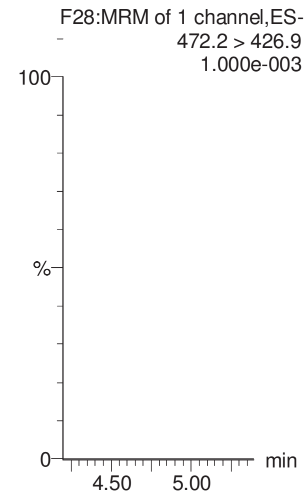
13C3-PFHxS



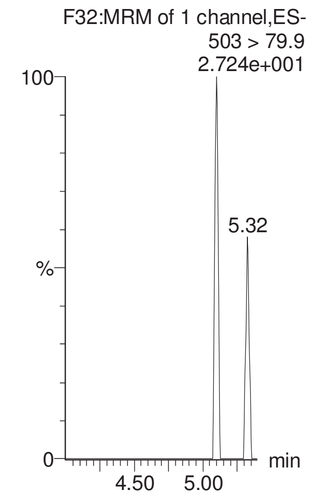
13C8-PFOA



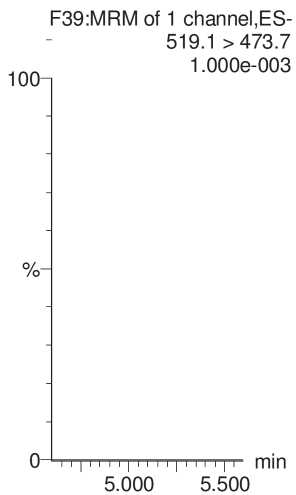
13C9-PFNA



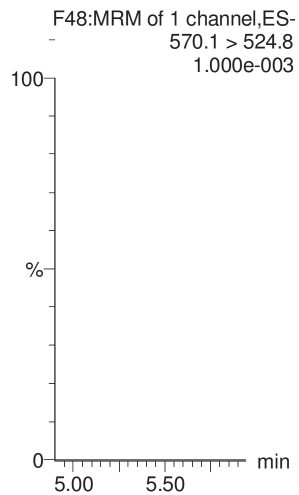
13C4-PFOS



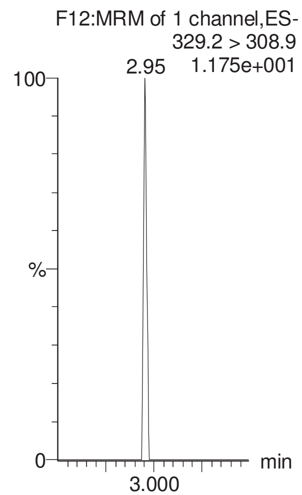
13C6-PFDA



13C7-PFUdA



13C2-4:2 FTS



AC 2/2/2018

Analytical Standard Record

Vista Analytical Laboratory

17J1820

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
16G1221	br-PFOSK anion	12-Jul-16	** Vendor **	14-Oct-20	19-Oct-17 08:16 by INJ	0.431
17G1209	FOSA-I	12-Jul-17	** Vendor **	30-Sep-21	13-Jul-17 09:08 by INJ	0.4
17G1312	PFTeDA	13-Jul-17	** Vendor **	30-Sep-21	17-Jul-17 16:23 by INJ	0.4
17G1313	PFTrDA	13-Jul-17	** Vendor **	02-May-22	17-Jul-17 16:22 by INJ	0.4
17G1323	br-PFHxSK	13-Jul-17	** Vendor **	04-Jan-22	17-Jul-17 16:16 by INJ	0.44
17G1325	L-PFDS	13-Jul-17	** Vendor **	17-Feb-22	17-Jul-17 16:11 by INJ	0.415
17G1326	L-PFHpS	13-Jul-17	** Vendor **	18-Oct-21	17-Jul-17 16:08 by INJ	0.42
17G1805	PFDA	18-Jul-17	** Vendor **	31-May-21	18-Jul-17 12:37 by INJ	0.4
17G1806	PFHxA	18-Jul-17	** Vendor **	02-Dec-21	18-Jul-17 12:37 by INJ	0.4
17G1807	MeFOSAA	18-Jul-17	** Vendor **	11-Jan-22	18-Jul-17 12:37 by INJ	0.4
17G1808	EtFOSAA	18-Jul-17	** Vendor **	11-Jan-22	18-Jul-17 12:37 by INJ	0.4
17G1809	PFBA	18-Jul-17	** Vendor **	29-May-22	18-Jul-17 12:37 by INJ	0.4
17G1810	PFODA	18-Jul-17	** Vendor **	29-Apr-21	18-Jul-17 12:37 by INJ	0.4
17G1811	L-PFBS	18-Jul-17	** Vendor **	02-Dec-21	18-Jul-17 12:37 by INJ	0.454
17G1812	8:2FTS	18-Jul-17	** Vendor **	12-Dec-21	18-Jul-17 12:37 by INJ	0.418
17G1813	6:2FTS	18-Jul-17	** Vendor **	20-Apr-22	18-Jul-17 12:36 by INJ	0.422
17H0820	PFDoA	08-Aug-17	** Vendor **	31-May-21	08-Aug-17 11:02 by INJ	0.4
17H0821	PFNA	08-Aug-17	** Vendor **	30-Sep-21	08-Aug-17 11:03 by INJ	0.4
17H0822	PFPeA	08-Aug-17	** Vendor **	14-Jun-22	08-Aug-17 11:05 by INJ	0.4
17H0823	PFOA	08-Aug-17	** Vendor **	17-Feb-22	08-Aug-17 11:06 by INJ	0.4
17H0824	PFUdA	08-Aug-17	** Vendor **	18-Oct-21	08-Aug-17 11:08 by INJ	0.4
17H0825	PFHxDA	08-Aug-17	** Vendor **	25-May-21	08-Aug-17 11:09 by INJ	0.4
17H0826	PFHpA	08-Aug-17	** Vendor **	02-Dec-21	08-Aug-17 11:12 by INJ	0.4
17H0827	N-EtFOSA-M	08-Aug-17	** Vendor **	05-Jul-22	08-Aug-17 11:13 by INJ	2
17H0828	N-MeFOSA-M	08-Aug-17	** Vendor **	05-Jul-22	08-Aug-17 11:15 by INJ	2
17H0829	N-EtFOSE-M	08-Aug-17	** Vendor **	24-Apr-22	08-Aug-17 11:16 by INJ	2
17H0830	N-MeFOSE-M	08-Aug-17	** Vendor **	24-Apr-22	08-Aug-17 11:17 by INJ	2

Description:	PFC NS Stock	Expires:	18-Oct-19
Standard Type:	Analyte Spike	Prepared:	18-Oct-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	19-Oct-17 08:19 by INJ

PFOS and PFHxS linear and branched components

Analyte	CAS Number	Concentration	Units
L-PFDS		1	ug/mL
6:2 FTS	27619-97-2	1	ug/mL
L-PFTeDA		1	ug/mL
L-PFPeA		1	ug/mL
L-PFOSA		1	ug/mL
L-PFOS		0.789	ug/mL
L-PFODA		1	ug/mL
L-PFOA		1	ug/mL
L-PFNA		1	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

17J1820

Description:	PFC NS Stock	Expires:	18-Oct-19
Standard Type:	Analyte Spike	Prepared:	18-Oct-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	19-Oct-17 08:19 by INJ

PFOS and PFHxS linear and branched components

Analyte	CAS Number	Concentration	Units
L-PFHxS		0.812	ug/mL
L-PFHxDA		1	ug/mL
L-PFHxA		1	ug/mL
L-PFUnA		1	ug/mL
L-PFHpA		1	ug/mL
MeFOSA	31506-32-8	5	ug/mL
L-PFDoA		1	ug/mL
L-PFDA		1	ug/mL
L-PFBS		1	ug/mL
L-PFBA		1	ug/mL
L-8:2FTS		1	ug/mL
L-6:2 FTS		1	ug/mL
EtFOSE	1691-99-2	5	ug/mL
EtFOSAA	2991-50-6	1	ug/mL
EtFOSA	4151-50-2	5	ug/mL
Br-PFHxS	3871-99-6	0.189	ug/mL
8:2 FTS	39108-34-4	1	ug/mL
L-PFHpS		1	ug/mL
PFHxS	355-46-4	1	ug/mL
Total PFHxS		1	ug/mL
Total PFHpS		1	ug/mL
Total PFDS		1	ug/mL
Total 6:2 FTS		1	ug/mL
PFUnA	2058-94-8	1	ug/mL
PFTrDA	72629-94-8	1	ug/mL
PFTeDA	376-06-7	1	ug/mL
PFPeA	2706-90-3	1	ug/mL
PFOSA	754-91-6	1	ug/mL
PFOS	1763-23-1	1	ug/mL
PFODA	16517-11-6	1	ug/mL
L-PFTrDA		1	ug/mL
PFNA	375-95-1	1	ug/mL
Total PFUnA		1	ug/mL
PFHxDA	67905-19-5	1	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

17J1820

Description:	PFC NS Stock	Expires:	18-Oct-19
Standard Type:	Analyte Spike	Prepared:	18-Oct-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	19-Oct-17 08:19 by INJ

PFOS and PFHxS linear and branched components

Analyte	CAS Number	Concentration	Units
PFHxA	307-24-4	1	ug/mL
PFHpS	375-92-8	1	ug/mL
PFHpA	375-85-9	1	ug/mL
PFDS	335-77-3	1	ug/mL
PFDoA	307-55-1	1	ug/mL
PFDA	335-76-2	1	ug/mL
PFBS	375-73-5	1	ug/mL
PFBA	375-22-4	1	ug/mL
MeFOSE	24448-09-7	5	ug/mL
MeFOSAA	2355-31-9	1	ug/mL
PFOA	335-67-1	1	ug/mL

1661221

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate
Solution/Mixture of Linear and
Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK1015
CONCENTRATION:	50 ± 2.5 µg/ml (total potassium salt)
	46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	10/13/2015
LAST TESTED: (mm/dd/yyyy)	10/14/2015
EXPIRY DATE: (mm/dd/yyyy)	10/14/2020
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer; potassium salt).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA

ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

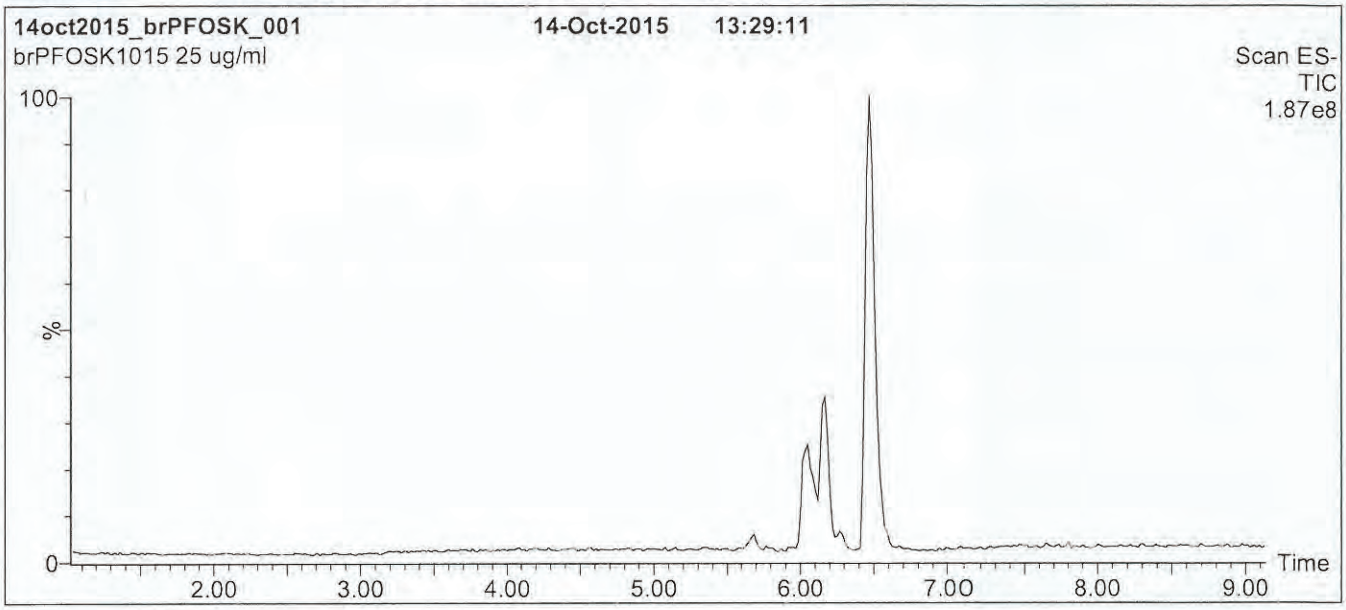
Table A: br-PFOSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)*

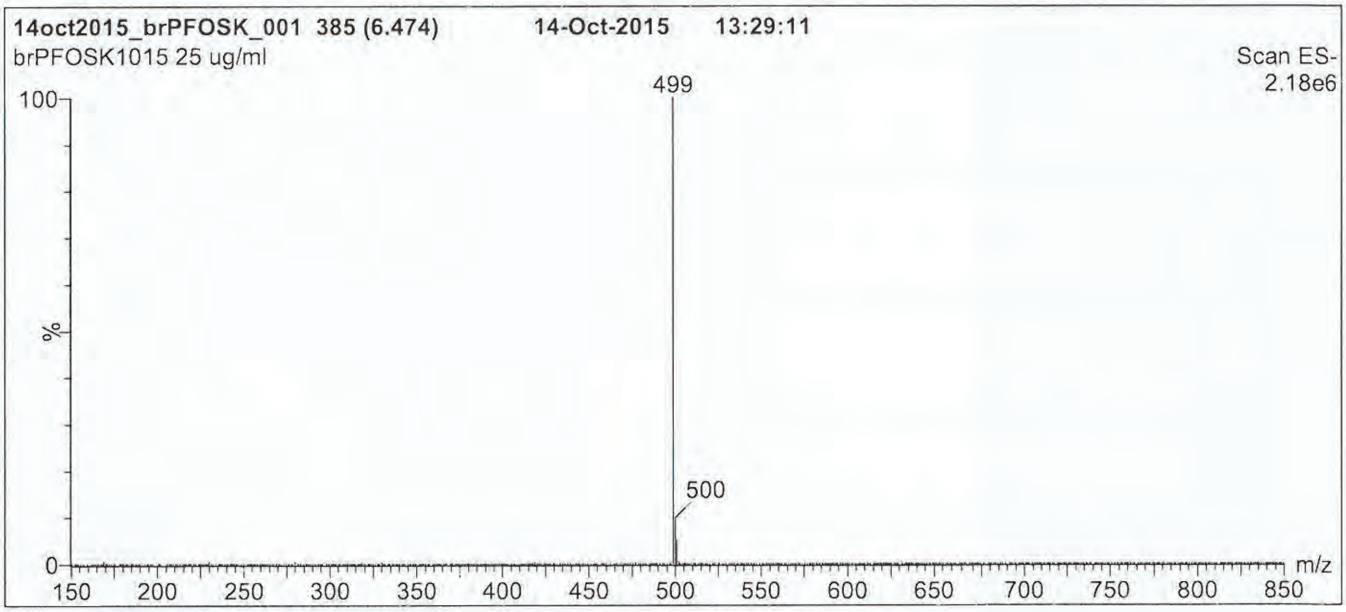
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-octanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$CF_3CF_2CF_2CF_2CF_2CF_2CFSO_3^-K^+$ CF_3	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF_2CFCF_2SO_3^-K^+$ CF_3	0.6
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CFCF_2CF_2SO_3^-K^+$ CF_3	1.9
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CFCF_2CF_2CF_2SO_3^-K^+$ CF_3	2.2
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CFCF_2CF_2CF_2CF_2SO_3^-K^+$ CF_3	4.5
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$CF_3CFCF_2CF_2CF_2CF_2CF_2SO_3^-K^+$ CF_3	10.0
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	CF_3 $CF_3-CCF_2CF_2CF_2CF_2SO_3^-K^+$ CF_3	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	CF_3 $CF_3CF_2-C-CF_2CF_2CF_2SO_3^-K^+$ CF_3	0.03
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3-CF-CF-CF_2CF_2CF_2SO_3^-K^+$ CF_3 CF_3	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3-CF-CF_2-CF-CF_2CF_2SO_3^-K^+$ CF_3 CF_3	0.07

* Percent of total perfluorooctanesulfonate isomers only. Isomers are labelled in Figure 2.
** Systematic Name: Potassium perfluorooctane-2-sulfonate.

Certified By: B.G. Chittim **Date:** 10/15/2015 (mm/dd/yyyy)

Figure 1: br-PFOSK; LC/MS Data (TIC and Mass Spectrum)





Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 45% (80:20 MeOH:ACN) / 55% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 12 min and hold for 2 min.
Return to initial conditions over 0.5 min.
Time: 16 min

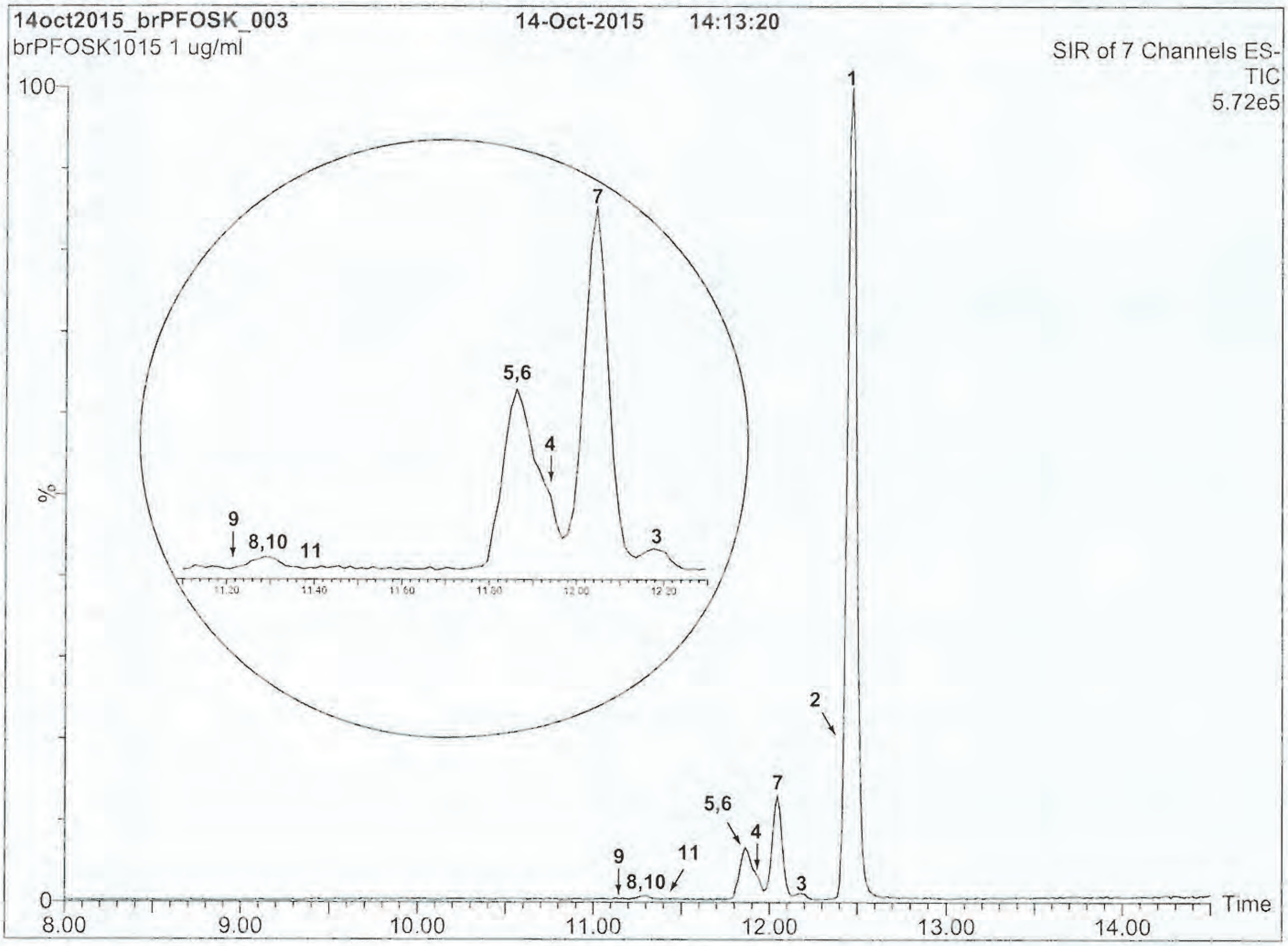
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **br-PFOSK; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions:

Column: Acquity UPLC BEH Shield RP_{18} (1.7 µm, 2.1 x 100 mm)

Injection: 1.0 µg/ml of br-PFOSK

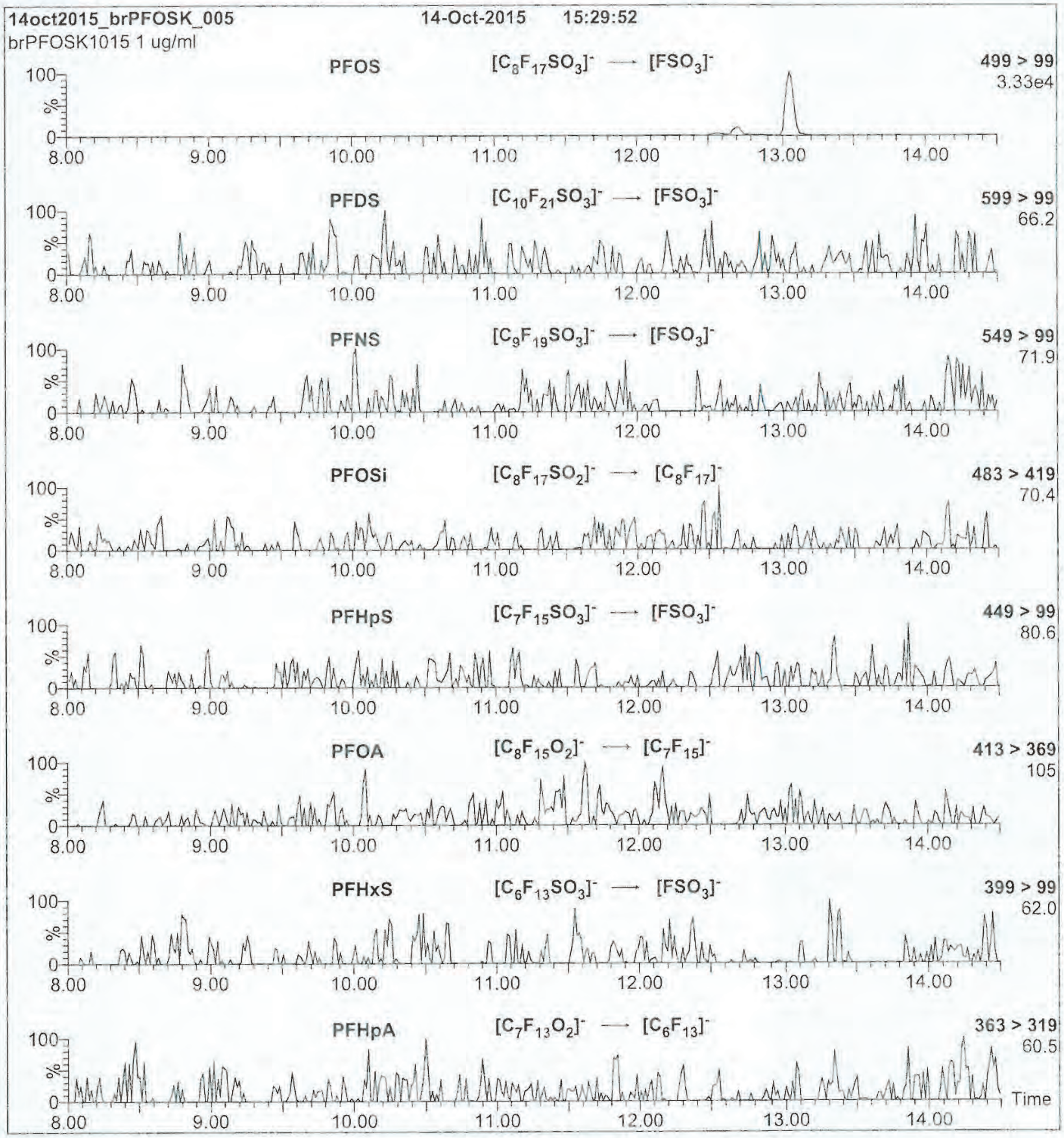
Mobile Phase: Gradient
45% (80:20 MeOH:ACN) / 55% H_2O (both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 15 min and hold for 3 min.
Return to initial conditions over 1 min.
Time: 20 min

Flow: 300 µl/min

MS Conditions:

SIR (ES^-)
Source = 110 °C
Desolvation = 325 °C
Cone Voltage = 60V

Figure 3: br-PFOSK; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 3:

Injection: On-column

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.06e-3
Collision Energy (eV) = 11-50 (variable)

17G1209

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

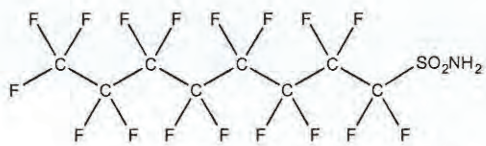
PRODUCT CODE: FOSA-I

COMPOUND: Perfluoro-1-octanesulfonamide

LOT NUMBER: FOSA0916I

STRUCTURE:

CAS #: 754-91-6



MOLECULAR FORMULA: $C_8H_2F_{17}NO_2S$

CONCENTRATION: 50 ± 2.5 µg/ml

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 09/30/2016

EXPIRY DATE: (mm/dd/yyyy) 09/30/2021

RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 499.14

SOLVENT(S): Isopropanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/07/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1209

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

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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:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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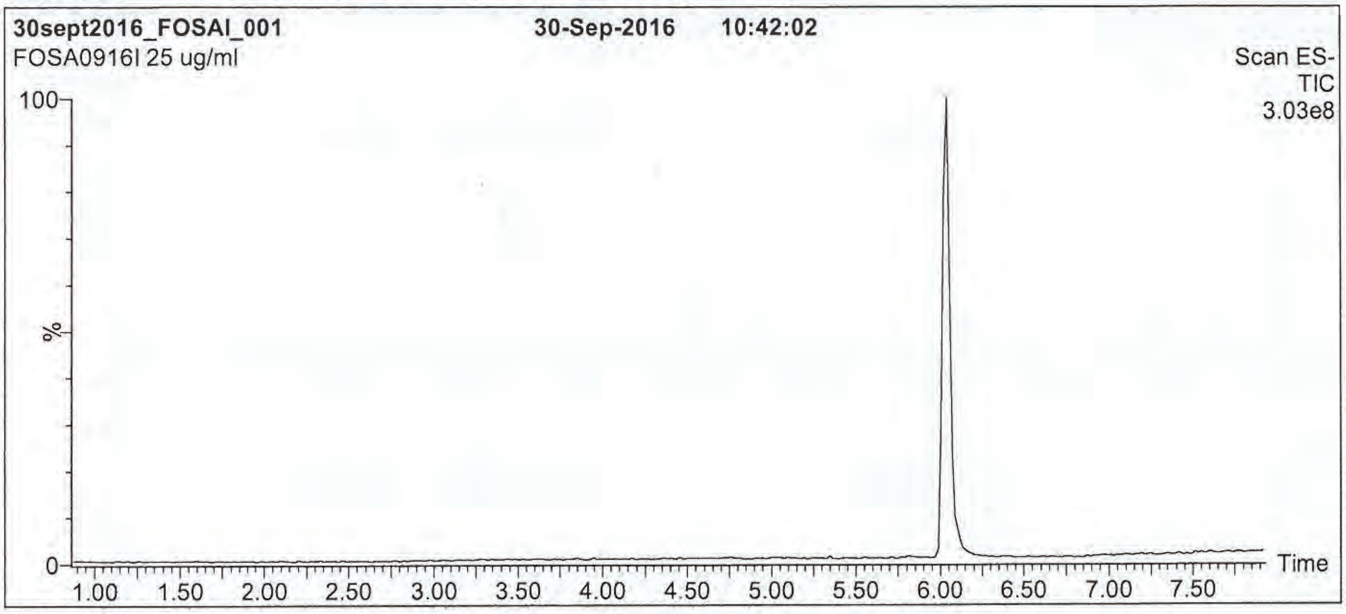
CALA

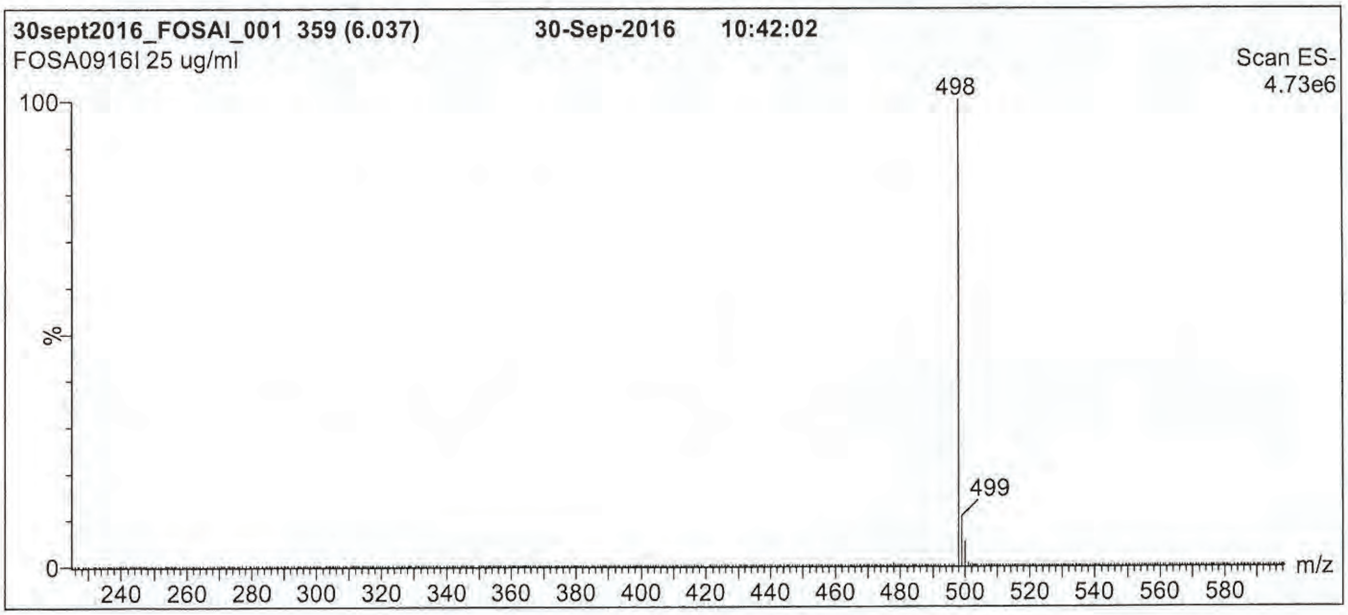
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

1761209

Figure 1: **FOSA-I; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

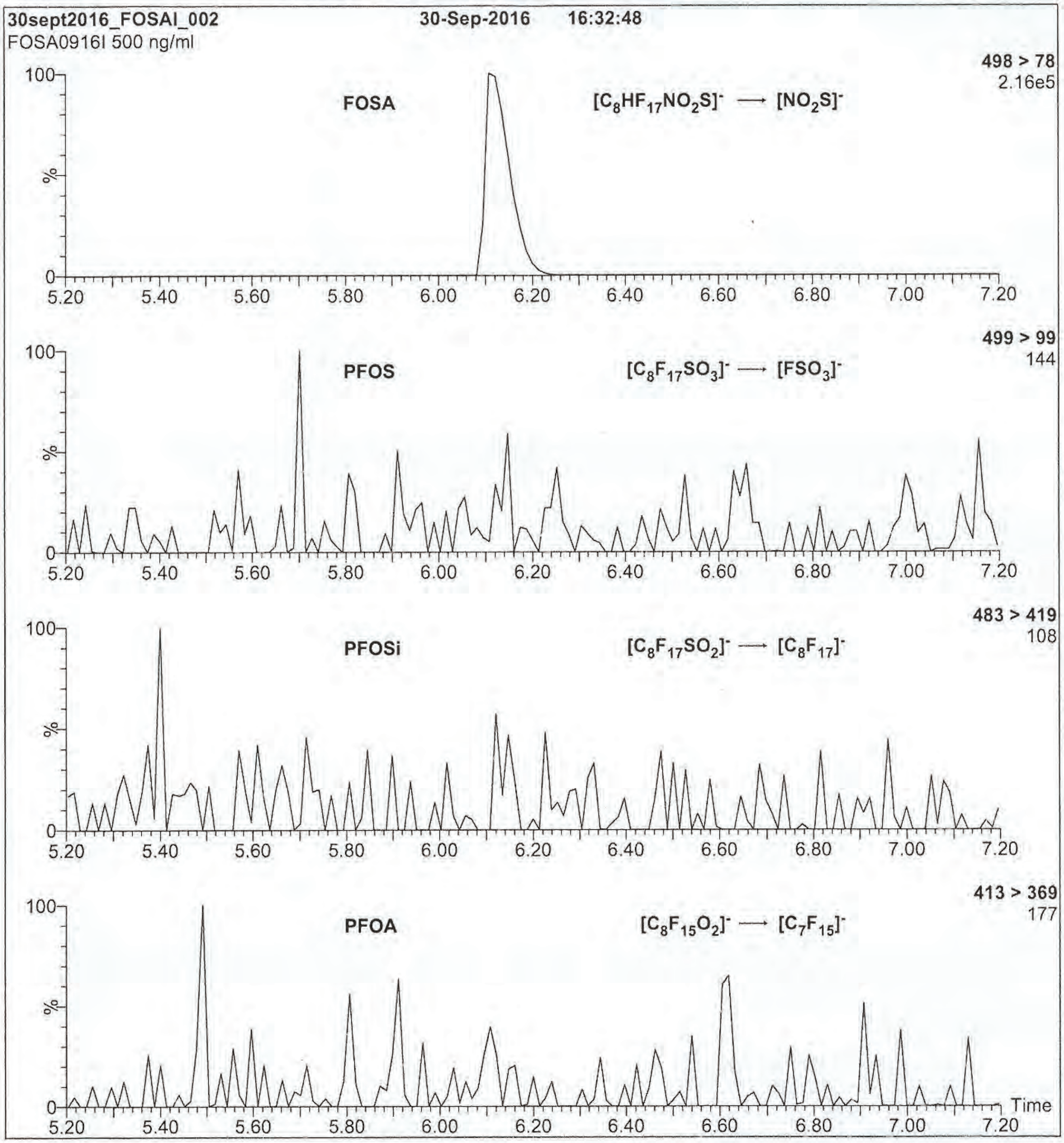
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1209

Figure 2: **FOSA-I; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml FOSA-I)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 30

17G1312

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

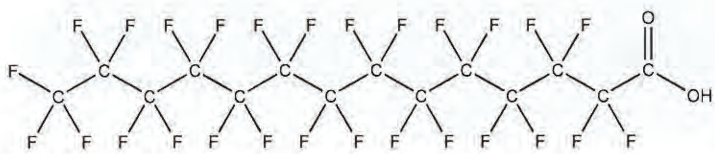
PRODUCT CODE: PFTeDA

LOT NUMBER: PFTeDA0916

COMPOUND: Perfluoro-n-tetradecanoic acid

STRUCTURE:

CAS #: 376-06-7



MOLECULAR FORMULA: $C_{14}HF_{27}O_2$

MOLECULAR WEIGHT: 714.11

CONCENTRATION: 50 ± 2.5 µg/ml

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 09/30/2016

EXPIRY DATE: (mm/dd/yyyy) 09/30/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of PFDoA ($C_{12}HF_{23}O_2$) and ~ 0.2% of PFPeDA ($C_{15}HF_{29}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim

Date: 10/05/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1312

INTENDED USE:

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HAZARDS:

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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.

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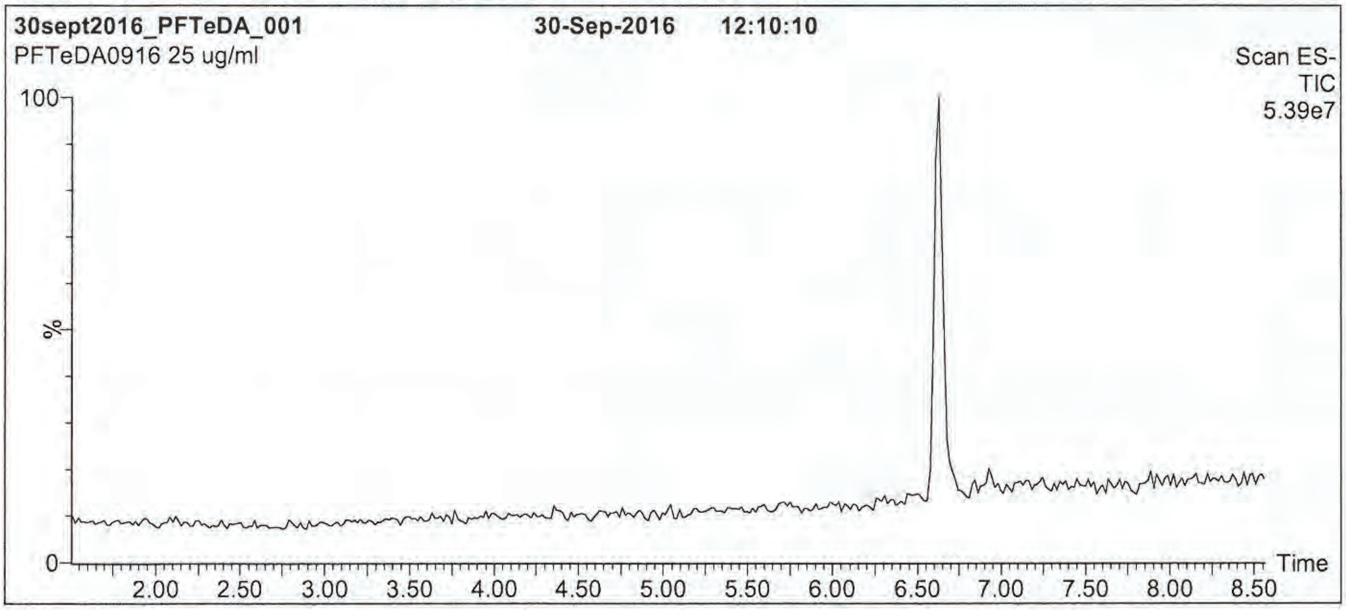
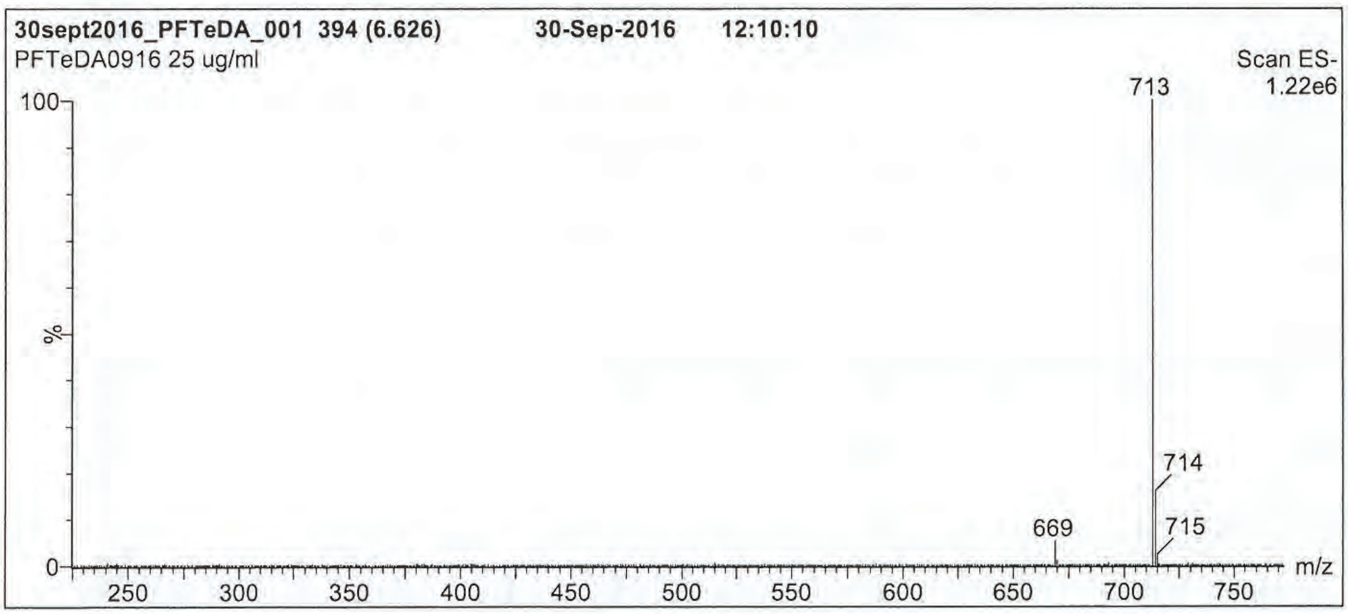
17G1312

Figure 1: PFTeDA; LC/MS Data (TIC and Mass Spectrum)





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

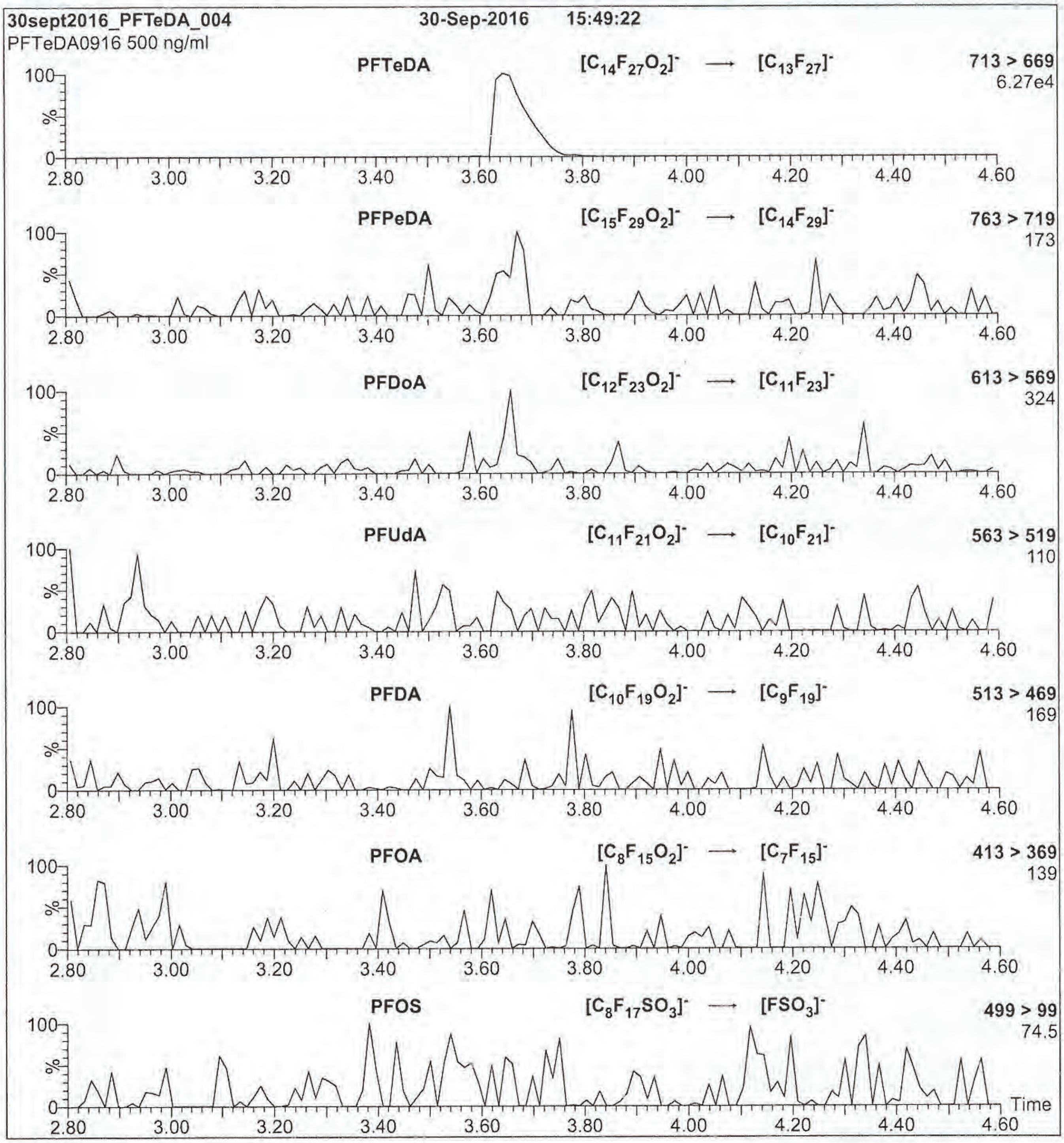
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17G1312

Figure 2: **PFTeDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml PFTeDA)
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 14

17G1313

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

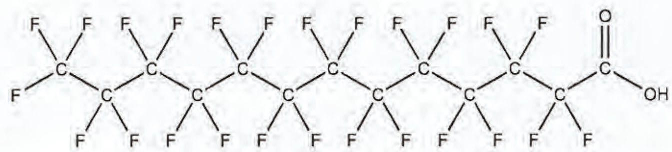
PRODUCT CODE: PFTrDA

LOT NUMBER: PFTrDA0517

COMPOUND: Perfluoro-n-tridecanoic acid

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) 05/02/2017

EXPIRY DATE: (mm/dd/yyyy) 05/02/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of PFUdA ($C_{11}HF_{21}O_2$), ~ 0.4% of PFDoA ($C_{12}HF_{23}O_2$), and ~ 0.1% of PFTeDA ($C_{14}HF_{27}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim, General Manager

Date: 05/04/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1313

INTENDED USE:

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

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where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using 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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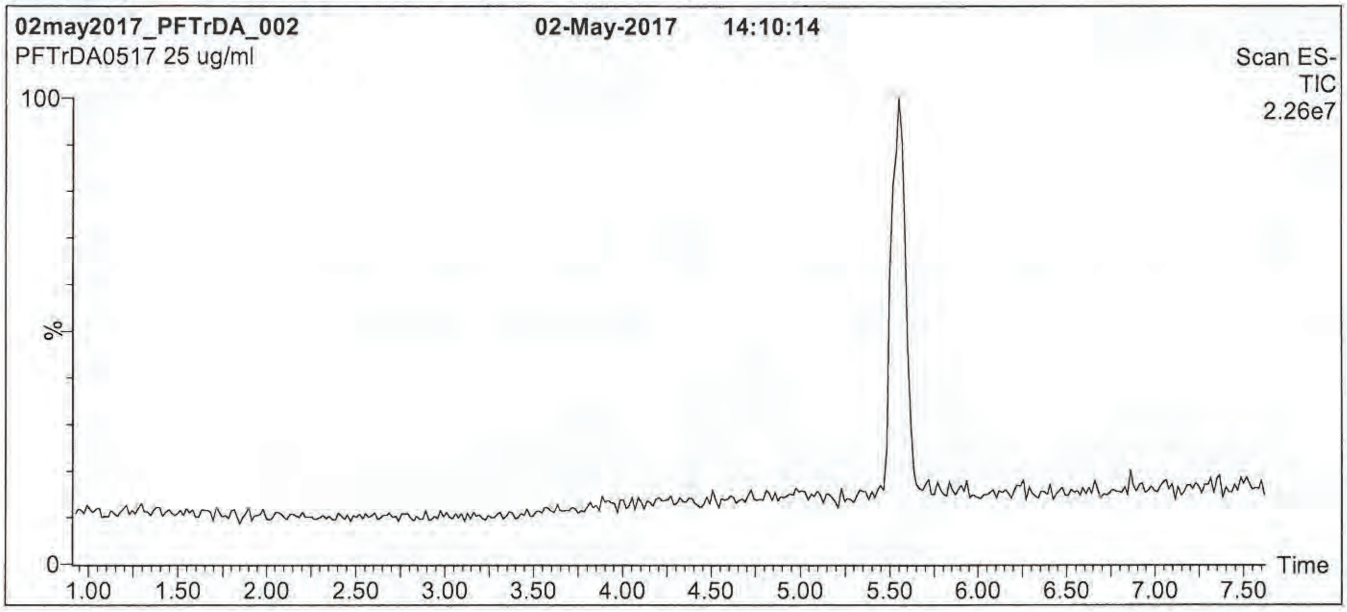
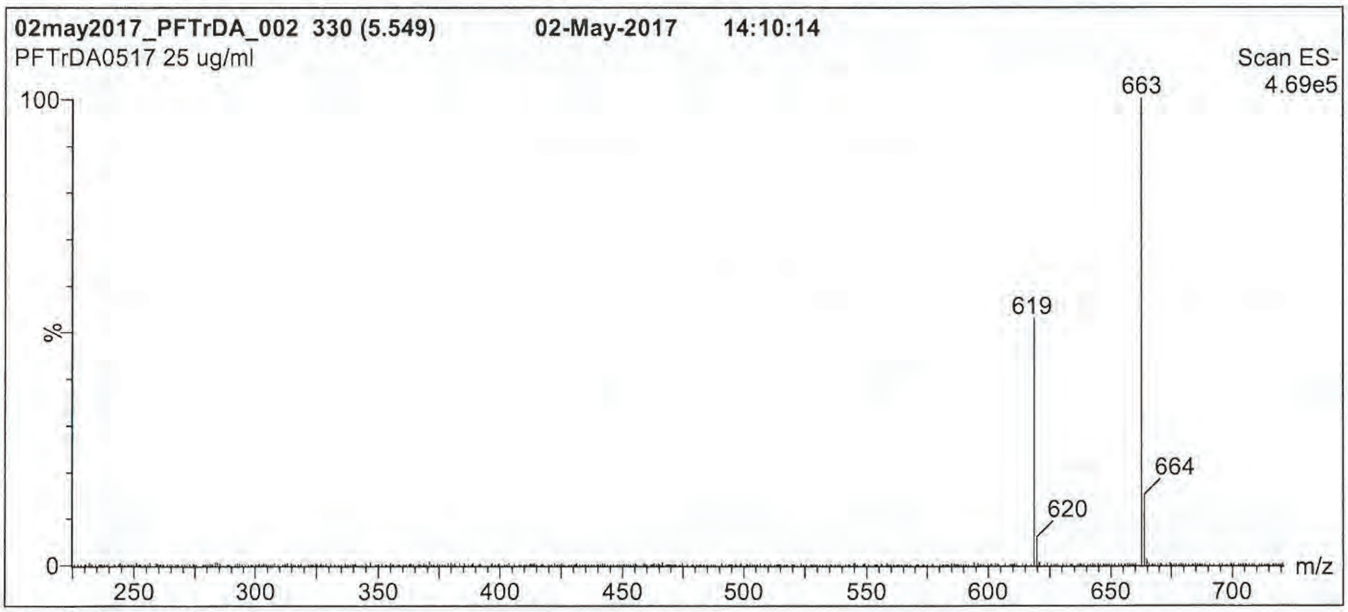
17G1313

Figure 1: **PFTrDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

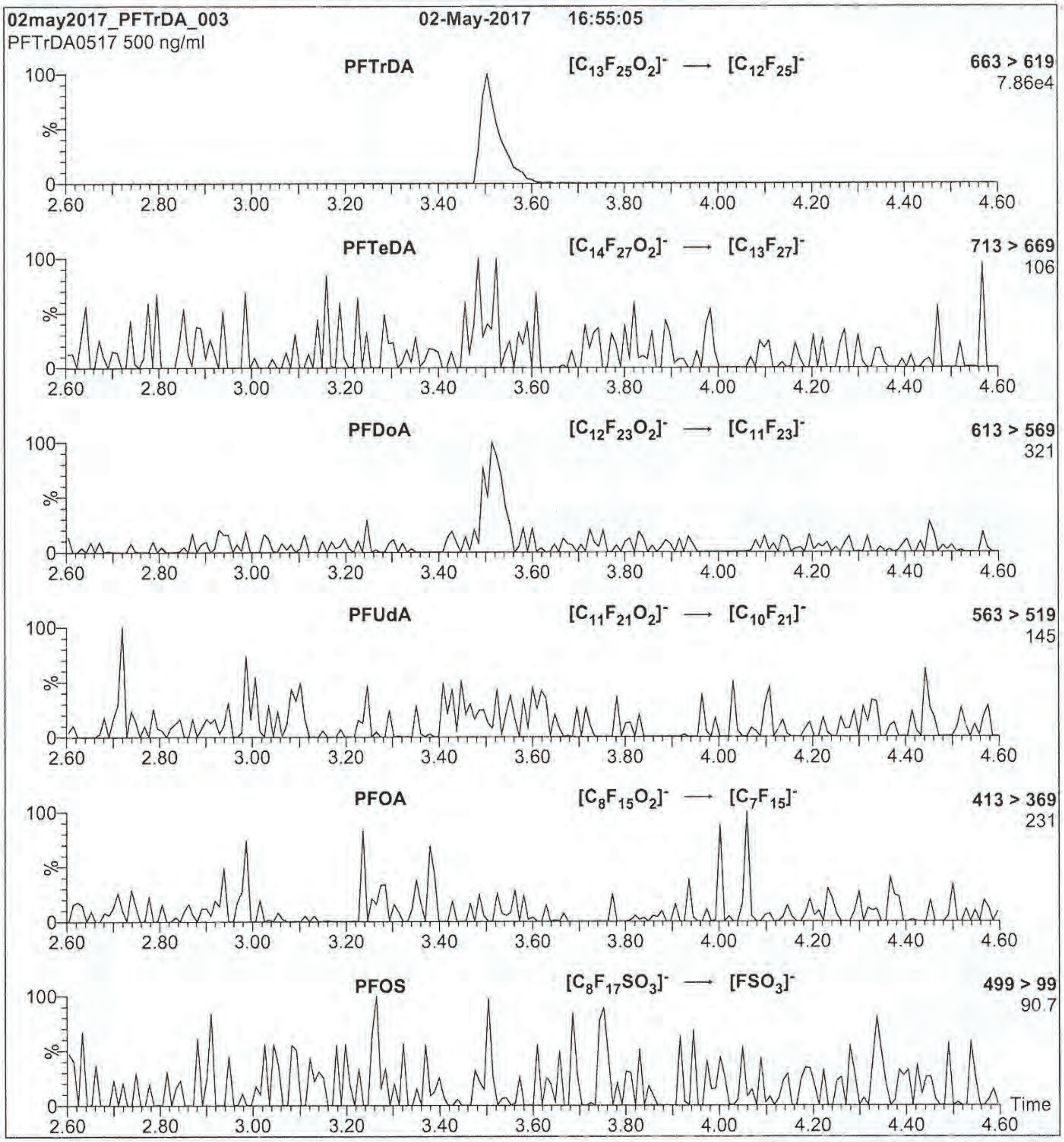
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 22.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 650

17G1313

Figure 2: **PFTrDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFTrDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.17e-3
Collision Energy (eV) = 15

17G 1323

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFHxSK
LOT NUMBER:	brPFHxSK0117
CONCENTRATION:	50.0 ± 2.5 µg/ml (total potassium salt)
	45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	01/03/2017
LAST TESTED: (mm/dd/yyyy)	01/04/2017
EXPIRY DATE: (mm/dd/yyyy)	01/04/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

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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.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

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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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17G1323

Table A: **br-PFHxSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	1.4
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	5.0
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	8.9
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$CF_3C(CF_3)_2CF_2CF_2SO_3^-K^+$	0.2
7	Other Unidentified Isomers		0.5

* Percent of total perfluorohexanesulfonate isomers only.
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

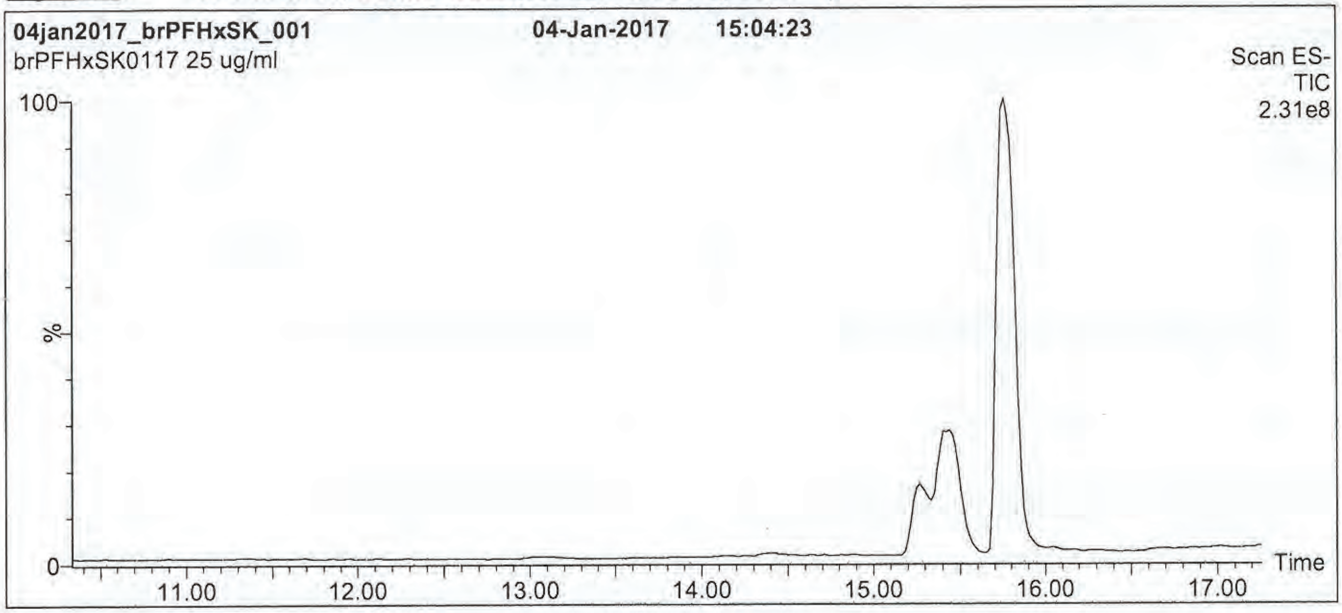
Certified By: B.G. Chittim **Date:** 01/20/2017 (mm/dd/yyyy)

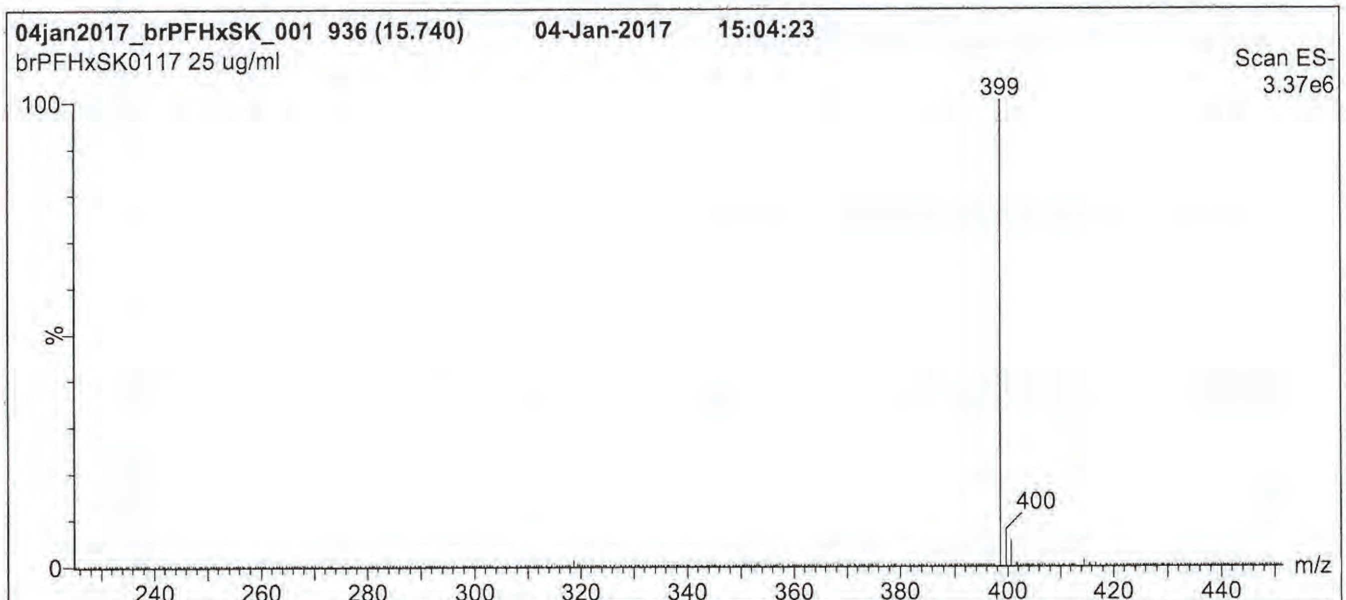
Form#:13, Issued 2004-11-10
Revision#:3, Revised 2015-03-24

brPFHxSK0117 (3 of 6)
rev0

17G1323

Figure 1: **br-PFHxSK; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to 90% organic over 3 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 20 min

Flow: 300 µl/min

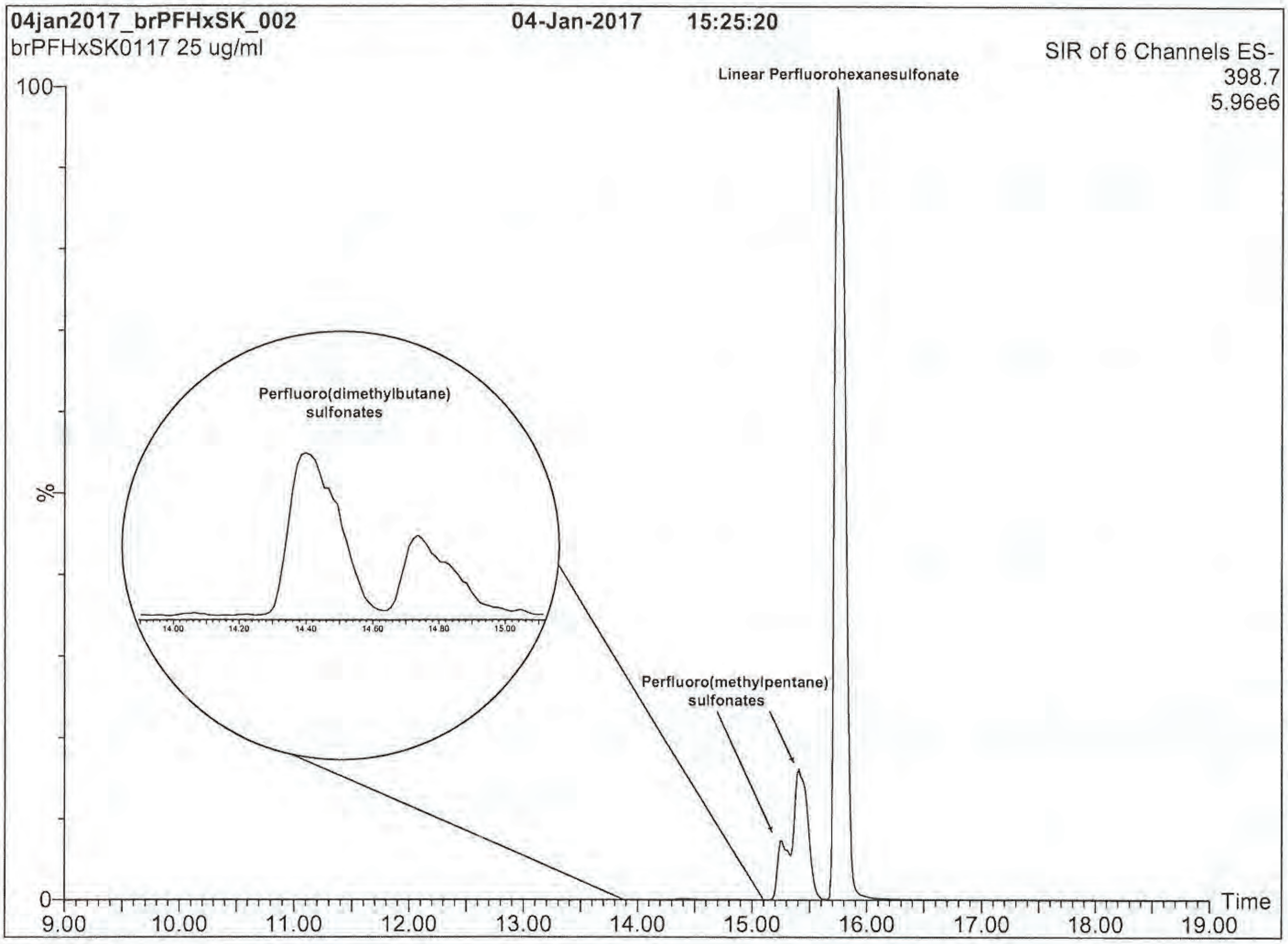
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17G1323

Figure 2: **br-PFHxSK; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to 90% organic over 3 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 20 min

Flow: 300 µl/min

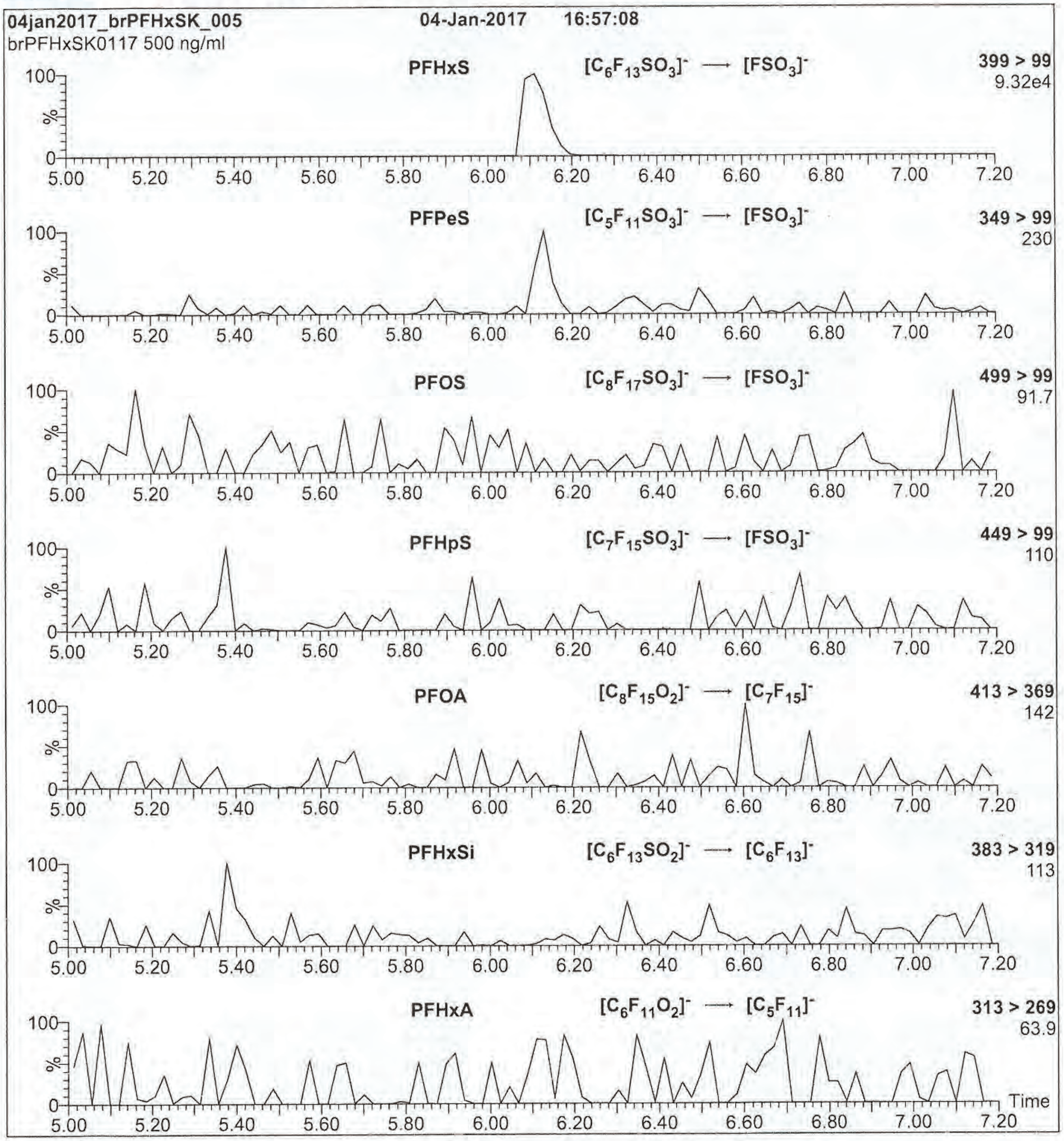
MS Parameters

Experiment: SIR (6 channels)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = variable (15-62)
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17G1323

Figure 3: **br-PFHxSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: Direct loop injection
10 µl (500 ng/ml br-PFHxSK)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 30

17G1325

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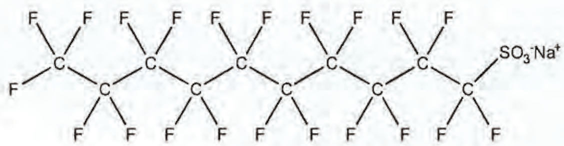
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFDS

LOT NUMBER: LPFDS0217

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) 02/17/2017

EXPIRY DATE: (mm/dd/yyyy) 02/17/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.9% of sodium perfluoro-1-dodecanesulfonate (L-PFDoS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 02/22/2017 (mm/dd/yyyy)

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INTENDED USE:

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HAZARDS:

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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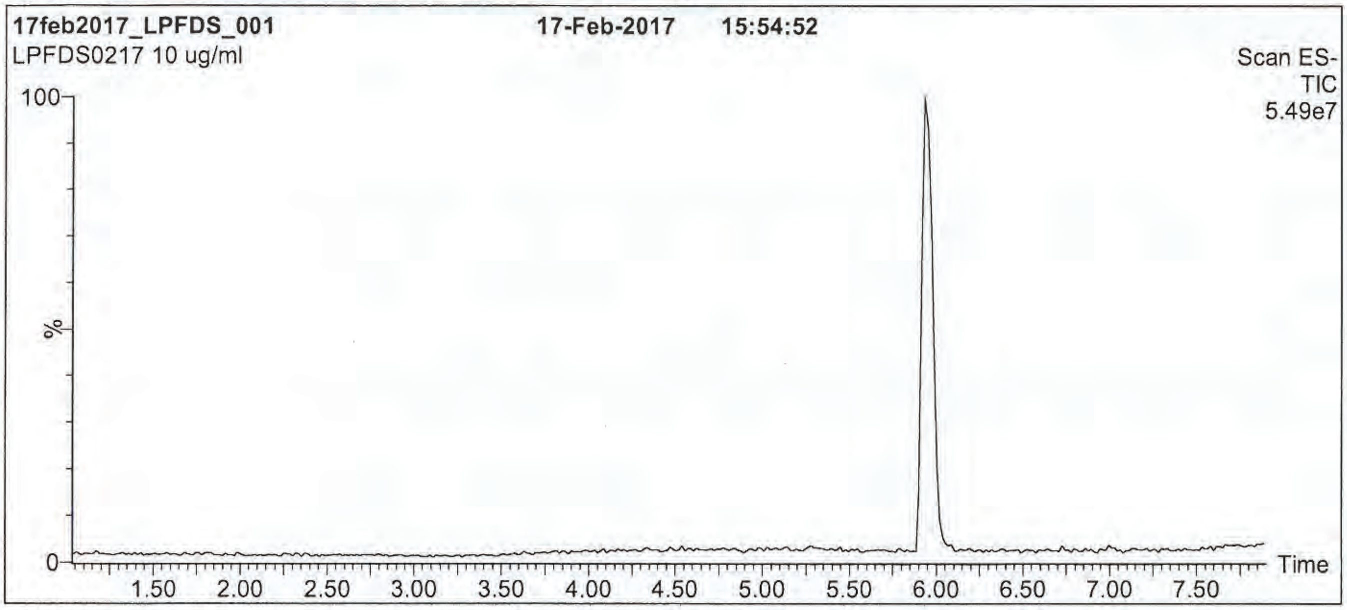
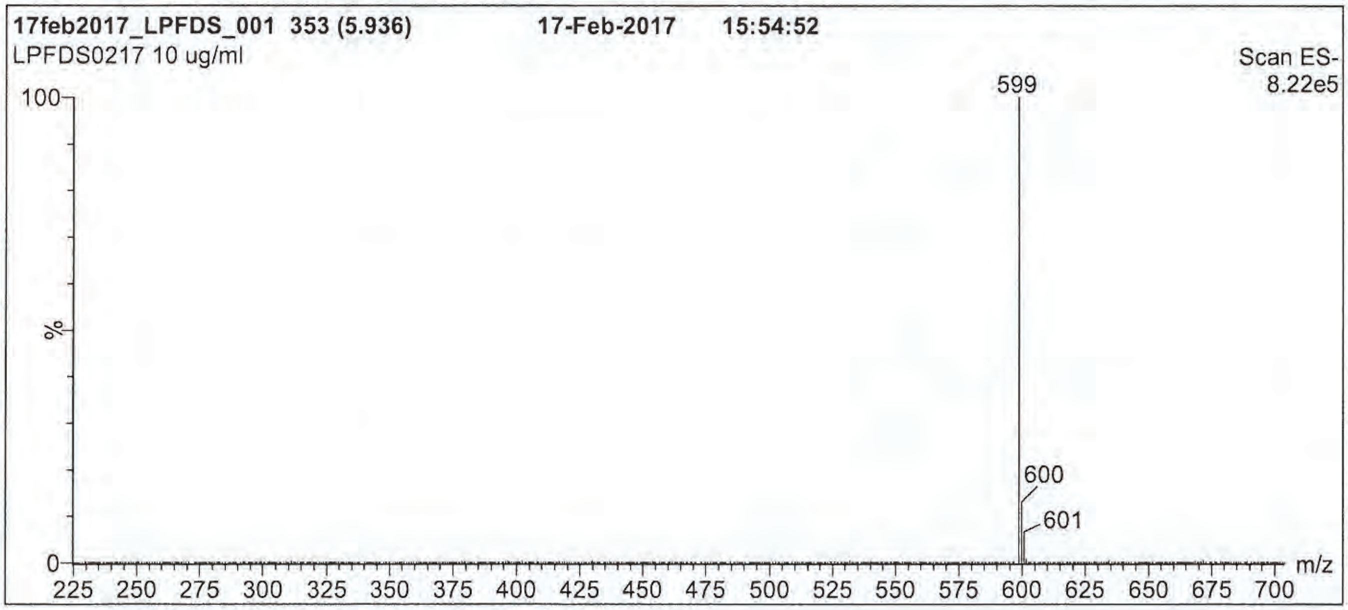
17G1325

Figure 1: **L-PFDS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
1 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

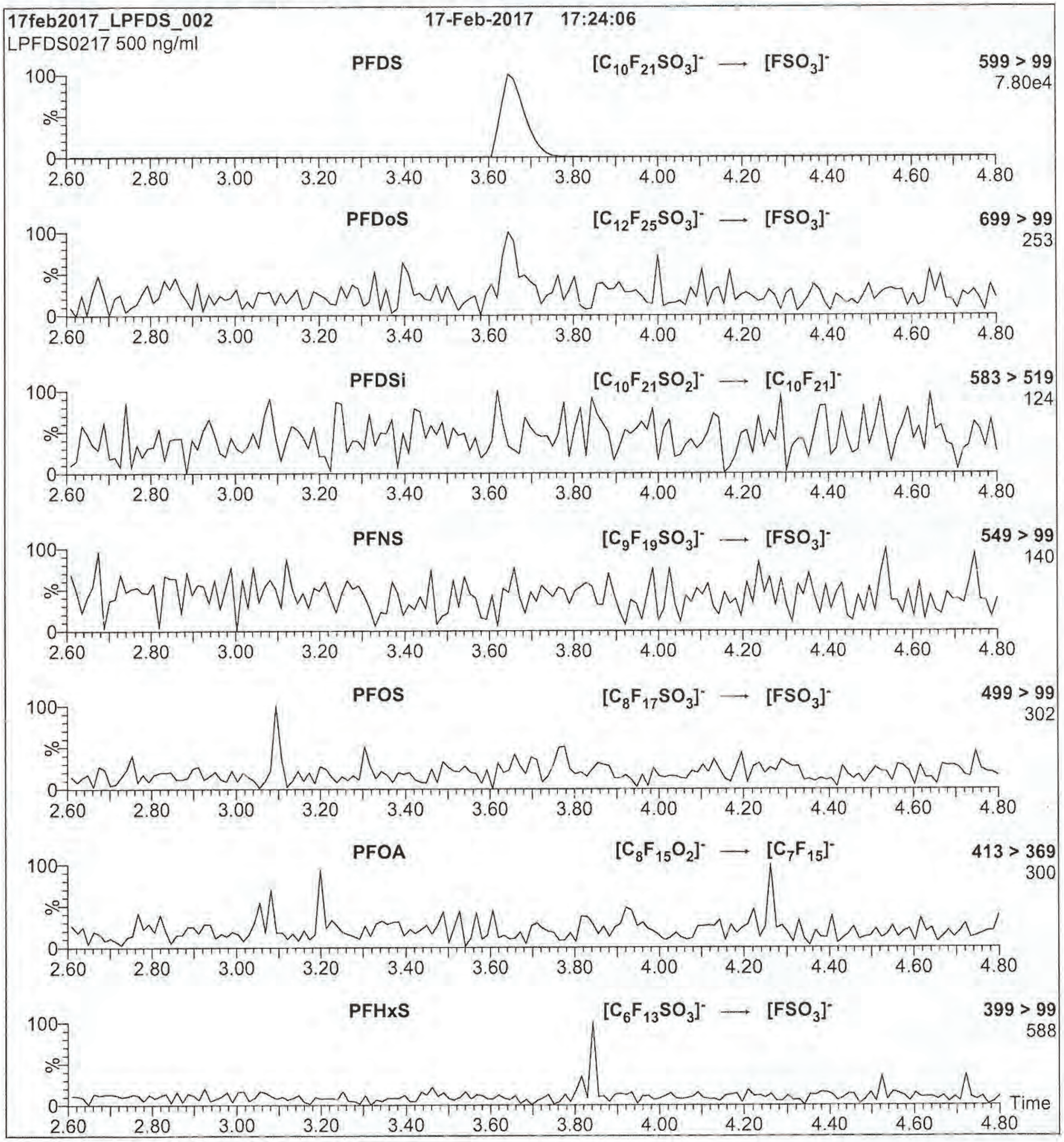
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 70.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1325

Figure 2: **L-PFDS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFDS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 50

17G1326

WELLINGTON LABORATORIES

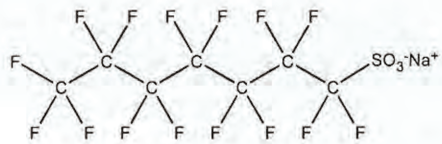
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFHpS

COMPOUND: Sodium perfluoro-1-heptanesulfonate

LOT NUMBER: LPFHpS1016

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $C_7F_{15}SO_3Na$

CONCENTRATION: 50.0 ± 2.5 μg/ml (Na salt)
47.6 ± 2.4 μg/ml (PFHpS anion)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 10/18/2016

EXPIRY DATE: (mm/dd/yyyy) 10/18/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 472.10

SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.2% of L-PFHxS ($C_6F_{13}SO_3Na$) and ~ 0.1% of L-PFOS ($C_8F_{17}SO_3Na$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/20/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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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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CALA

ANAB ACCREDITED

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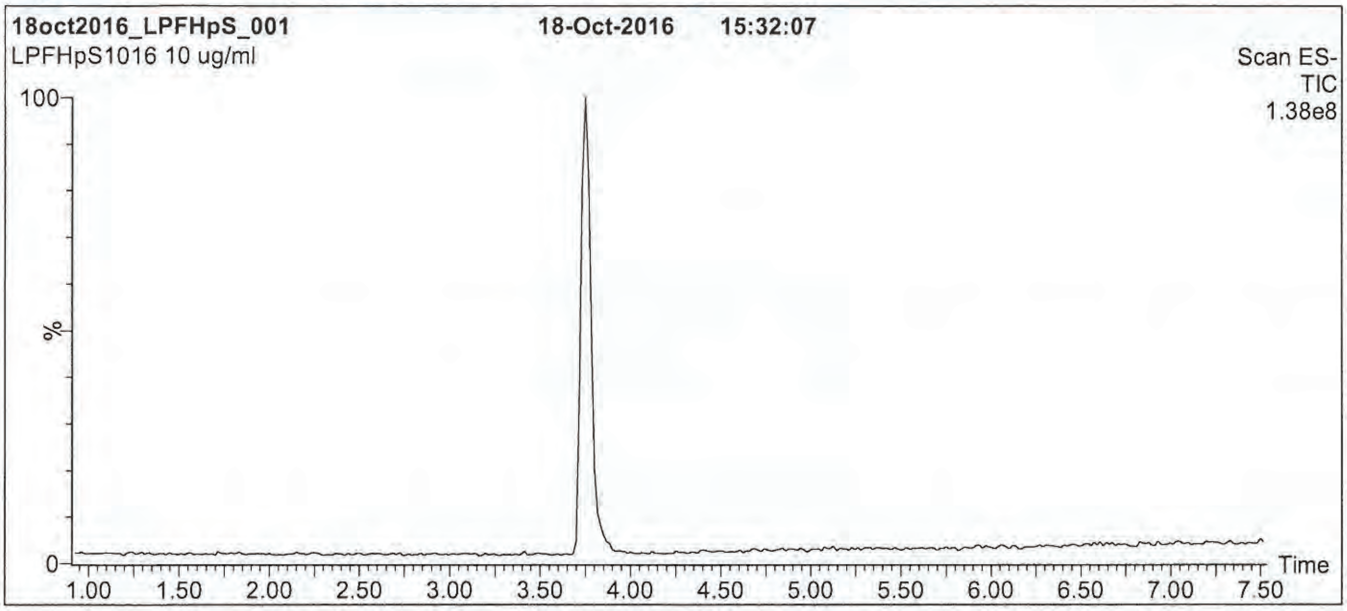
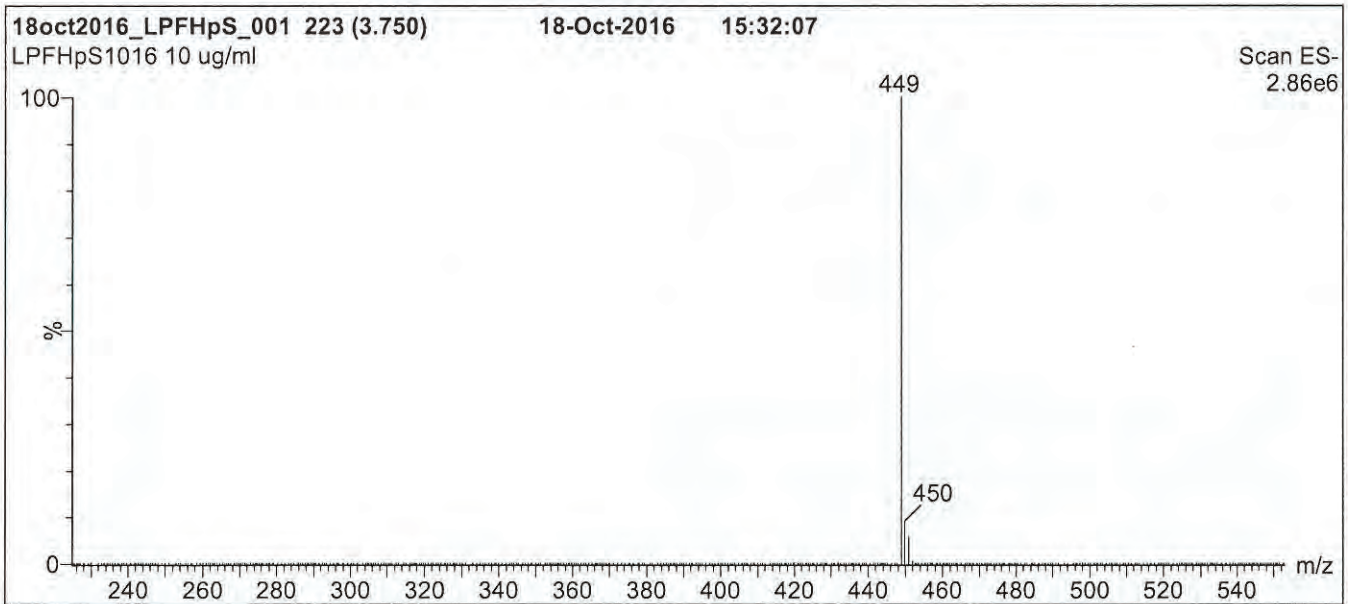
17G1326

Figure 1: **L-PFHpS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold
for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

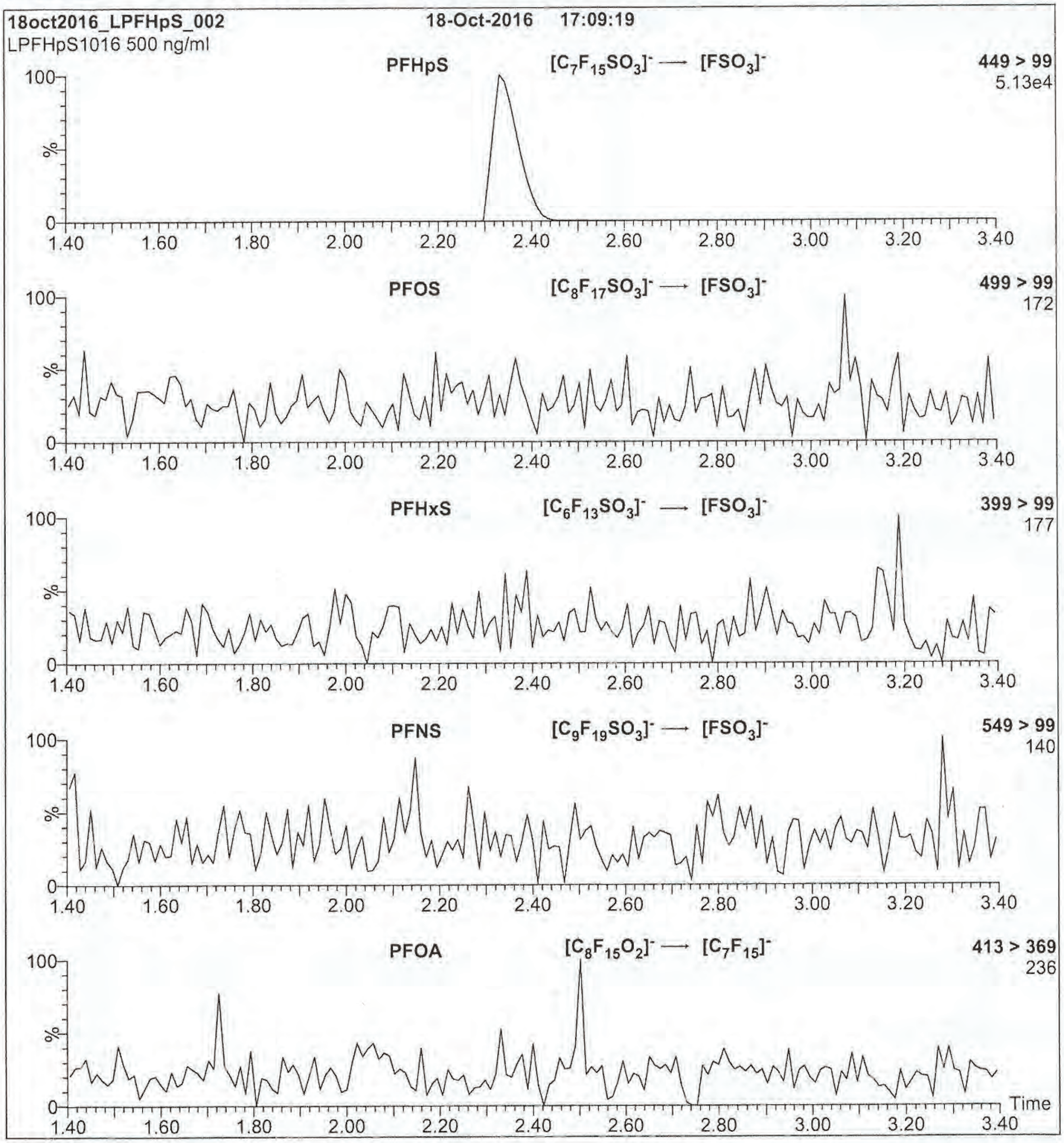
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17G1326

Figure 2: **L-PFHpS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml L-PFHpS)
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 35

17G1805

WELLINGTON LABORATORIES

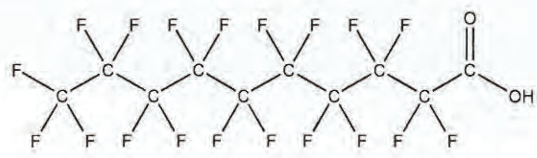
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFDA

LOT NUMBER: PFDA0516

COMPOUND: Perfluoro-n-decanoic acid

STRUCTURE:



CAS #: 335-76-2

MOLECULAR FORMULA: $C_{10}HF_{19}O_2$

MOLECULAR WEIGHT: 514.08

CONCENTRATION: 50 ± 2.5 µg/ml

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 05/31/2016

EXPIRY DATE: (mm/dd/yyyy) 05/31/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of Perfluoro-n-nonanoic acid (PFNA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 06/13/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1805

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2,...x_n$ on which it depends is:

$$u_c(y(x_1, x_2,...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

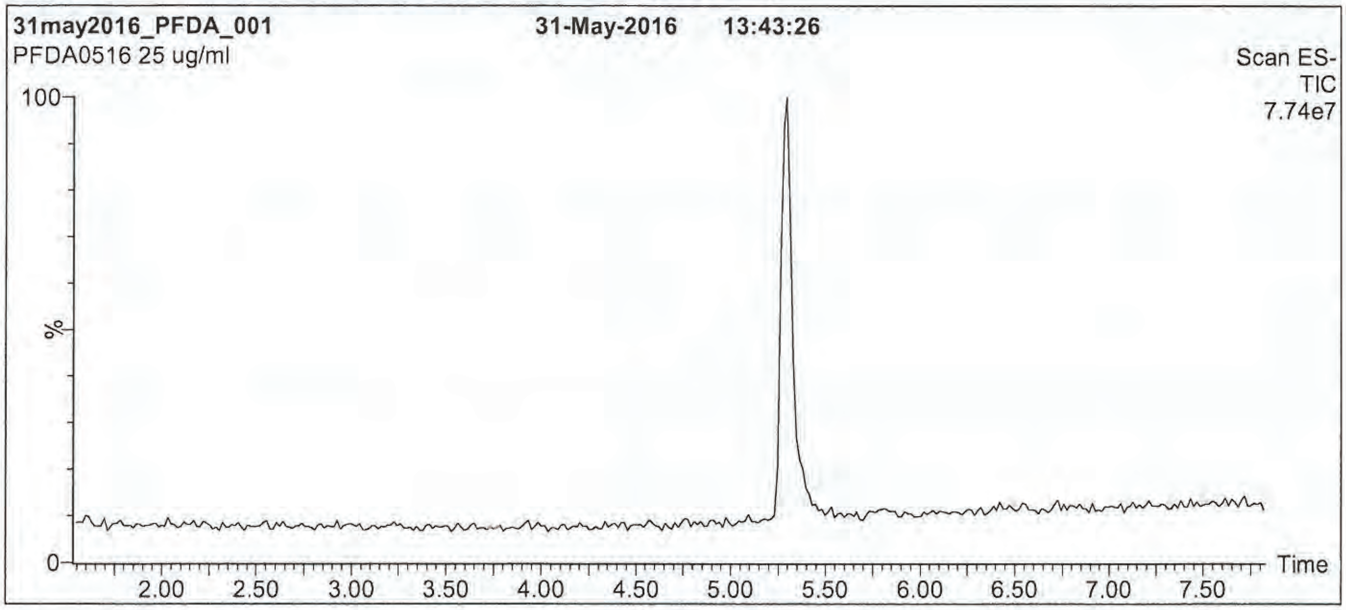
CALA

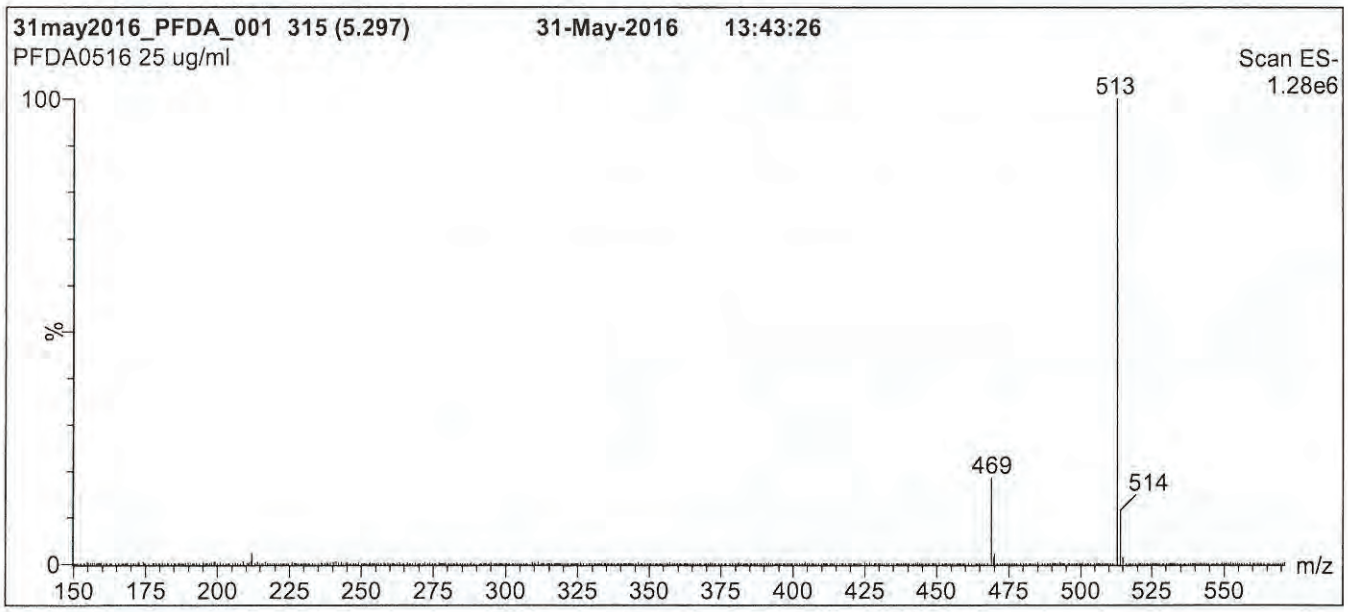
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17G1805

Figure 1: **PFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

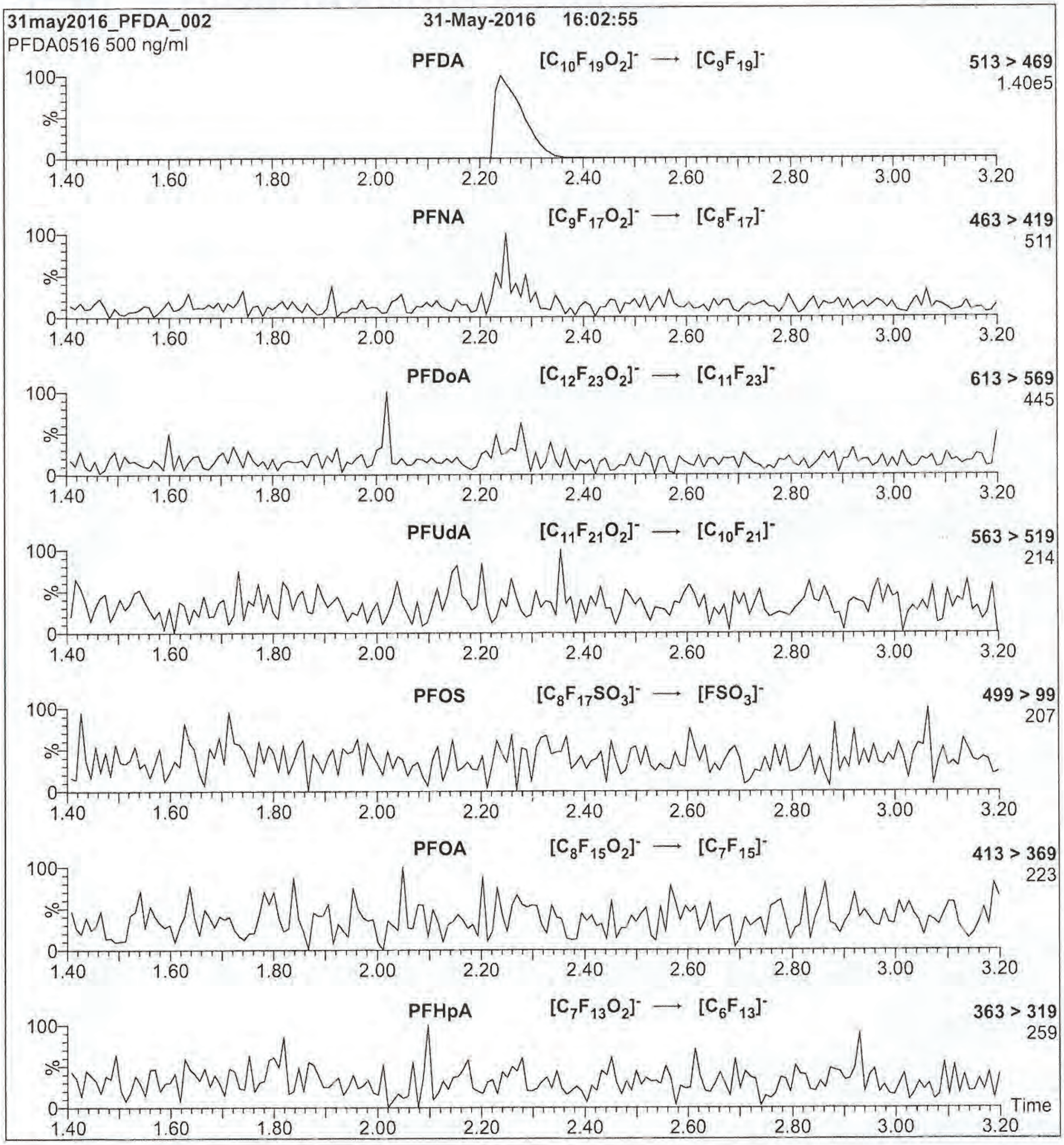
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1805

Figure 2: **PFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml PFDA)
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 13

17G1806

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

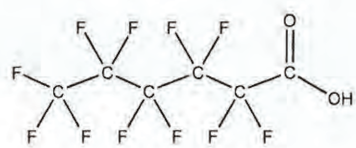
PRODUCT CODE: PFHxA

COMPOUND: Perfluoro-n-hexanoic acid

LOT NUMBER: PFHxA1216

STRUCTURE:

CAS #: 307-24-4



MOLECULAR FORMULA: $C_6HF_{11}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 314.05

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 12/02/2016

EXPIRY DATE: (mm/dd/yyyy) 12/02/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 1.0% of branched isomers.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/07/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1806

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

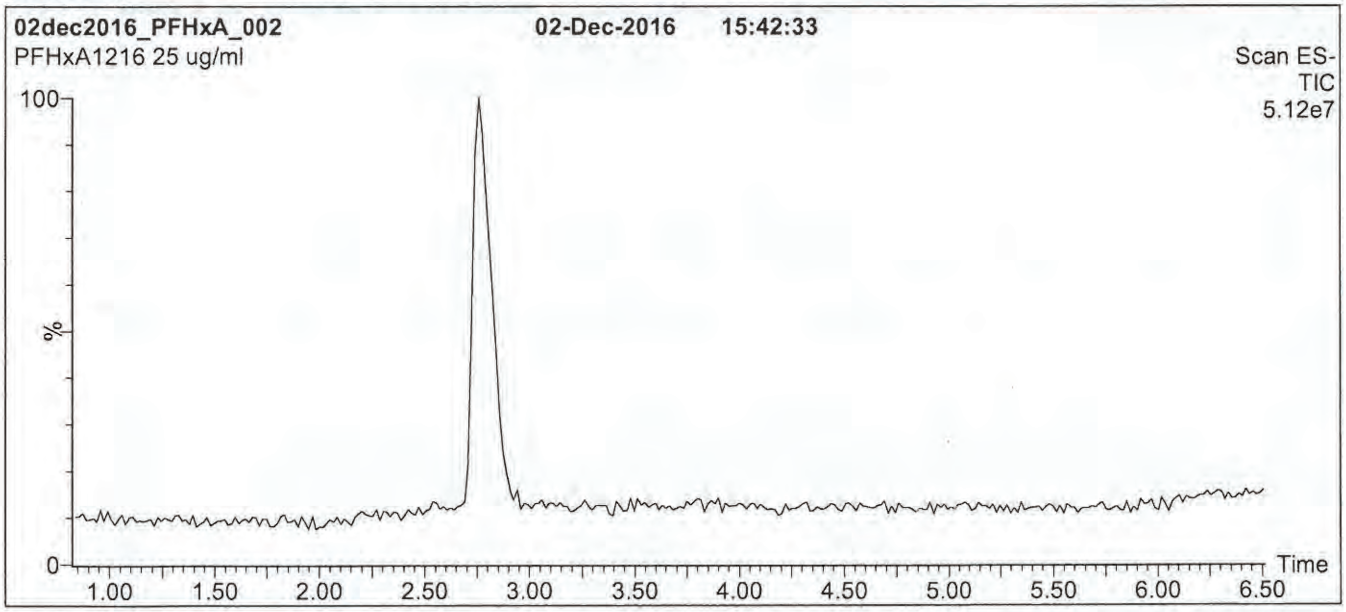
CALA

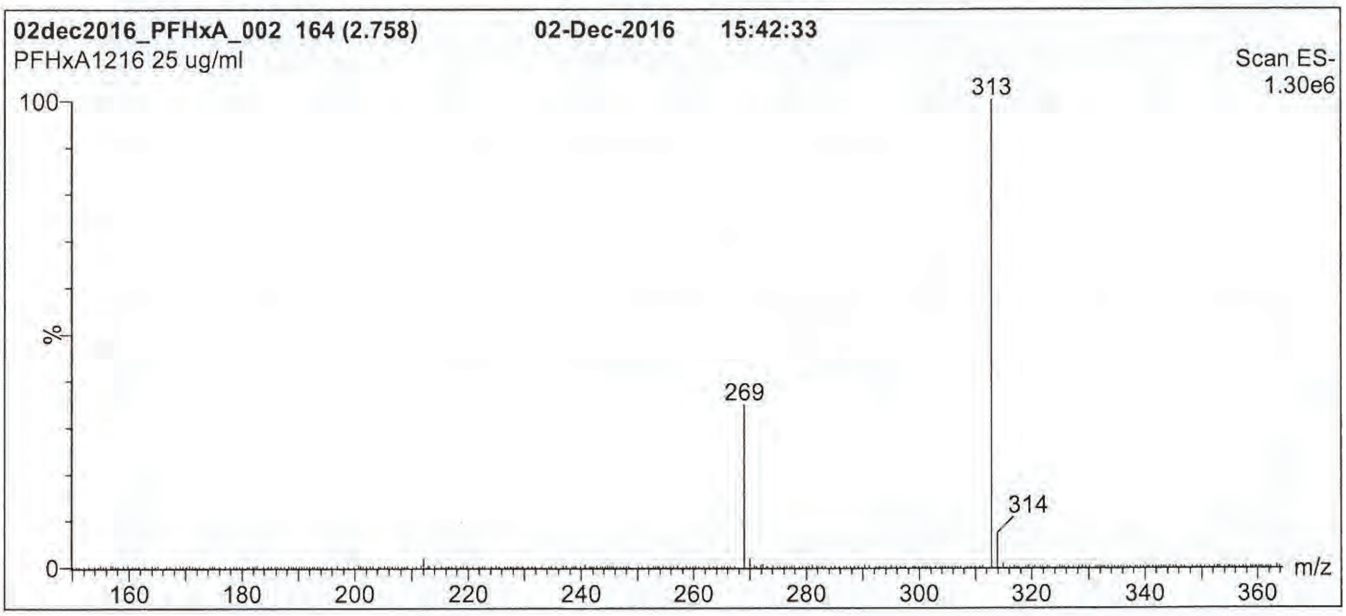
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17G1806

Figure 1: **PFHxA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

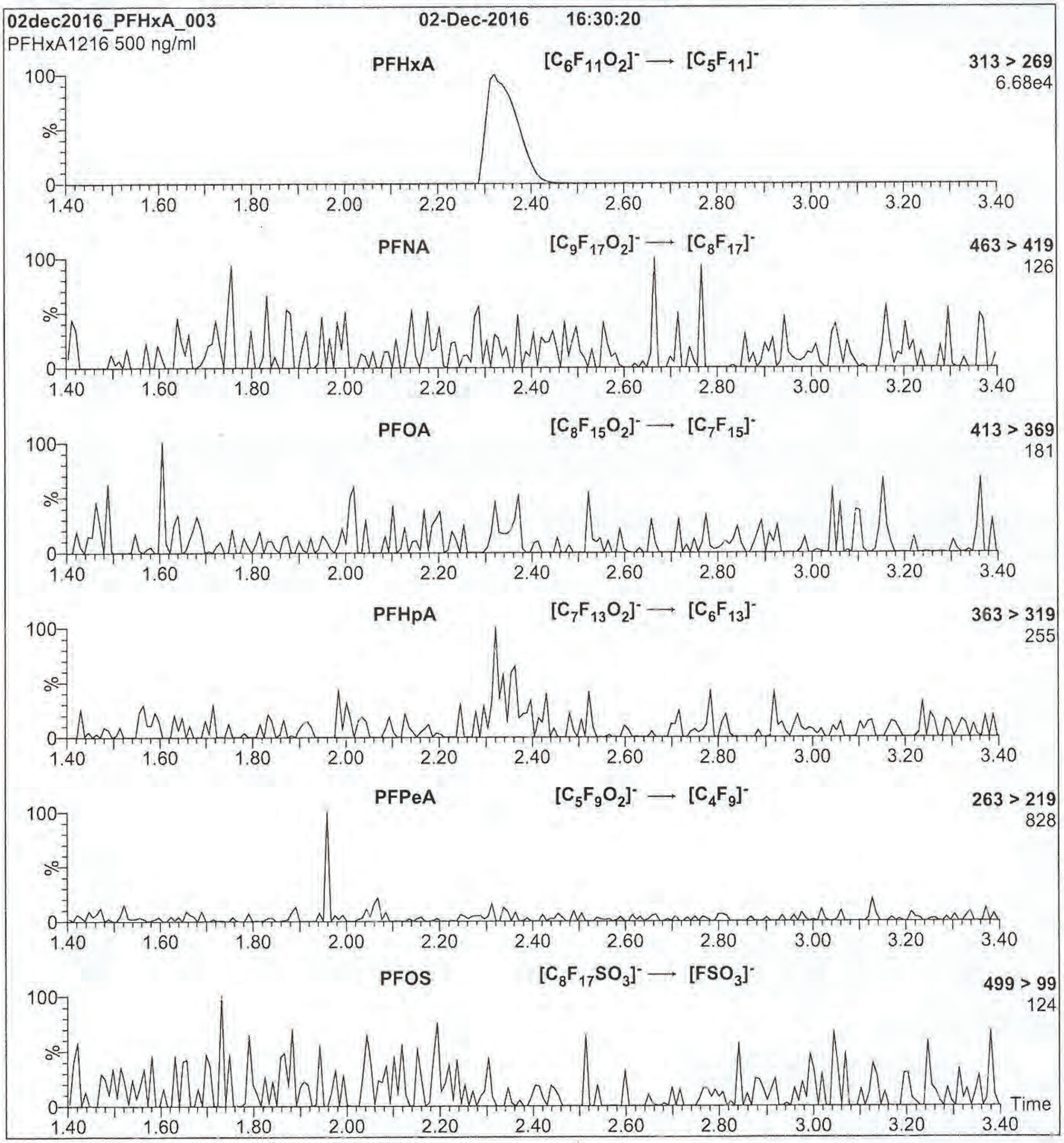
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17G1806

Figure 2: **PFHxA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFHxA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 10

17G1807

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

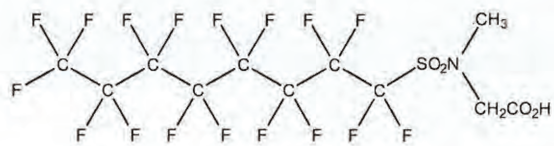
PRODUCT CODE: N-MeFOSAA

LOT NUMBER: NMeFOSAA0117

COMPOUND: N-methylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE:

CAS #: 2355-31-9



MOLECULAR FORMULA: $C_{11}H_6F_{17}NO_4S$

MOLECULAR WEIGHT: 571.21

CONCENTRATION: 50 ± 2.5 µg/ml

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 01/11/2017

EXPIRY DATE: (mm/dd/yyyy) 01/11/2022

RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim

Date: 01/12/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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17G1867

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2,...x_n$ on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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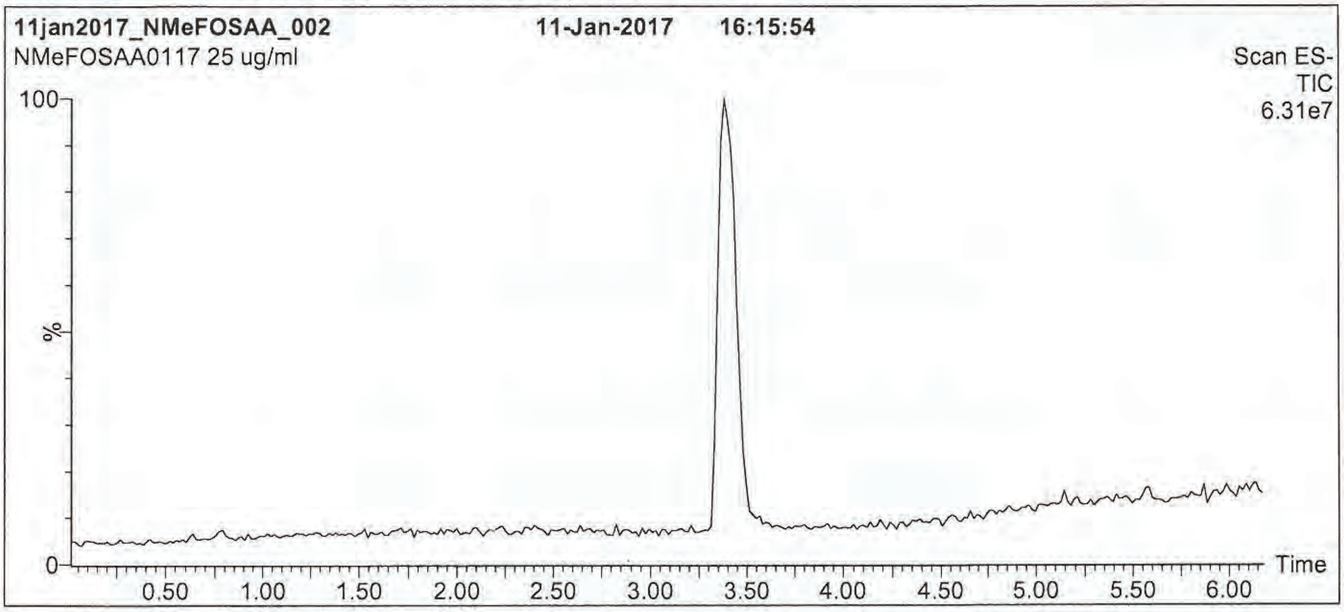
CALA

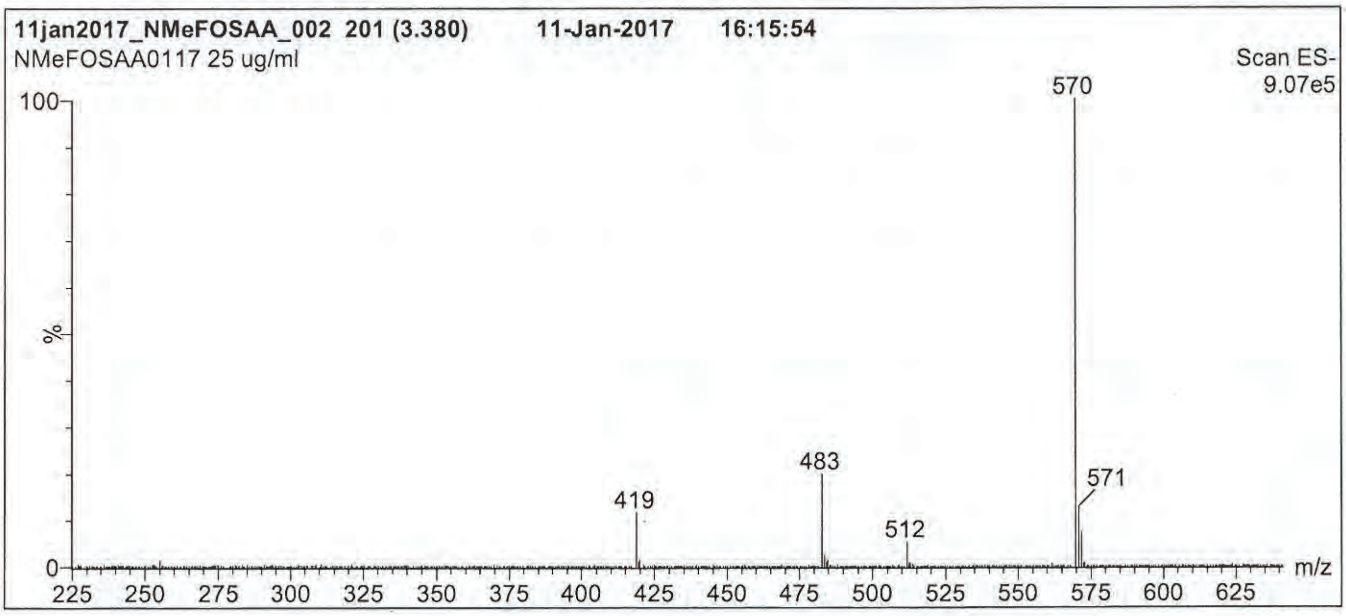
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17G1807

Figure 1: **N-MeFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

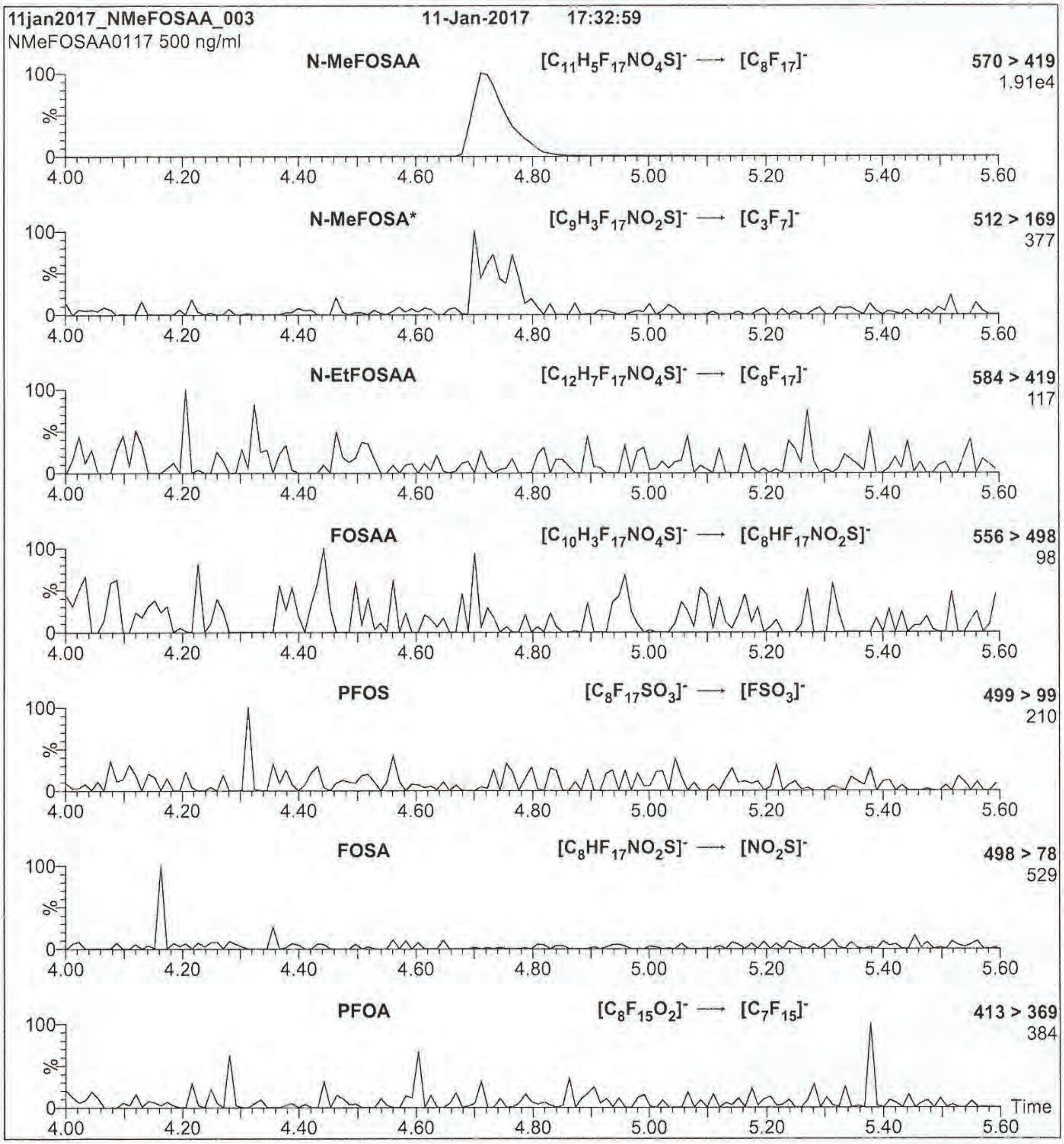
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1807

Figure 2: N-MeFOSAA; LC/MS/MS Data (Selected MRM Transitions)



***Note**: N-MeFOSA is formed by in-source fragmentation.

Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-MeFOSAA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 20

17G1808

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

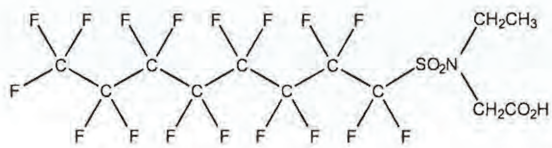
PRODUCT CODE: N-EtFOSAA

LOT NUMBER: NEtFOSAA0117

COMPOUND: N-ethylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE:

CAS #: 2991-50-6



MOLECULAR FORMULA:	$C_{12}H_8F_{17}NO_4S$	**MOLECULAR WEIGHT:**	585.23
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 01/11/2017

EXPIRY DATE: (mm/dd/yyyy) 01/11/2022

RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 01/12/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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17G1808

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.

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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:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA

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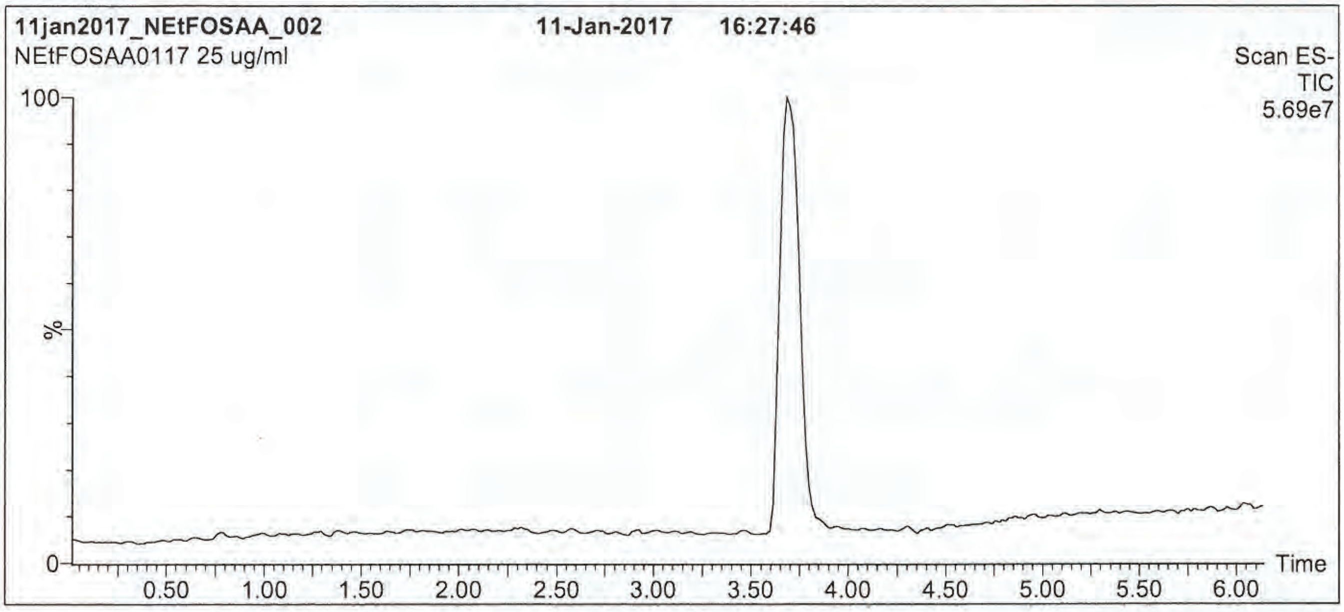
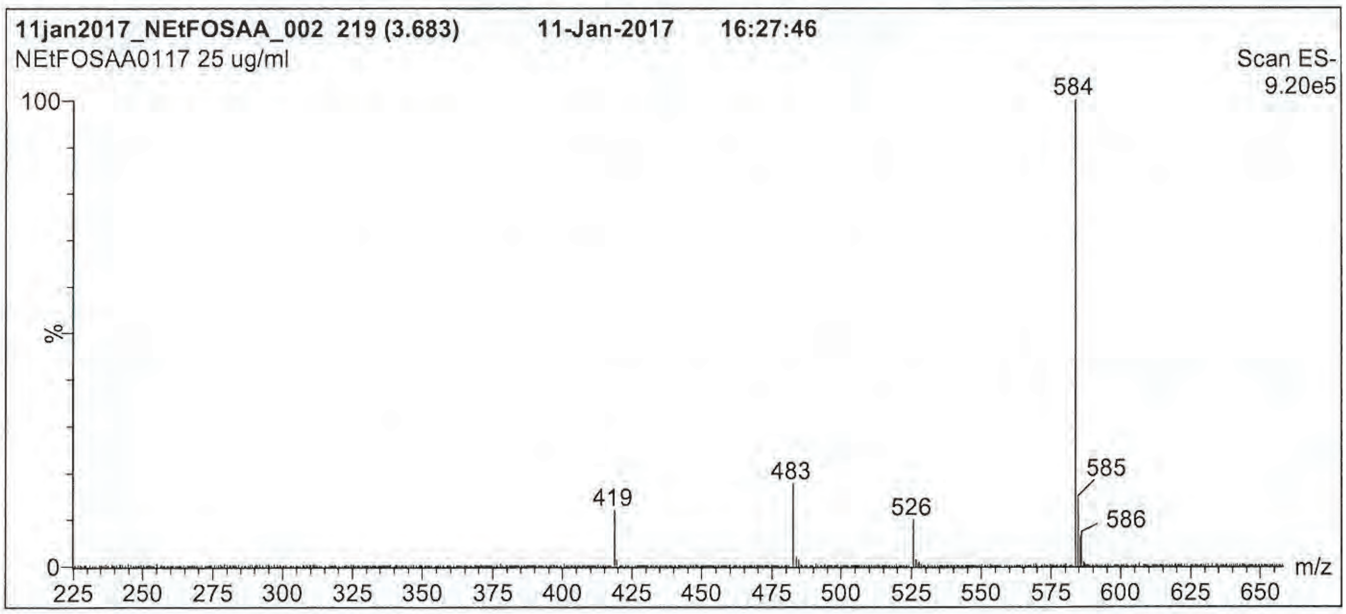
17G1808

Figure 1: **N-EtFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

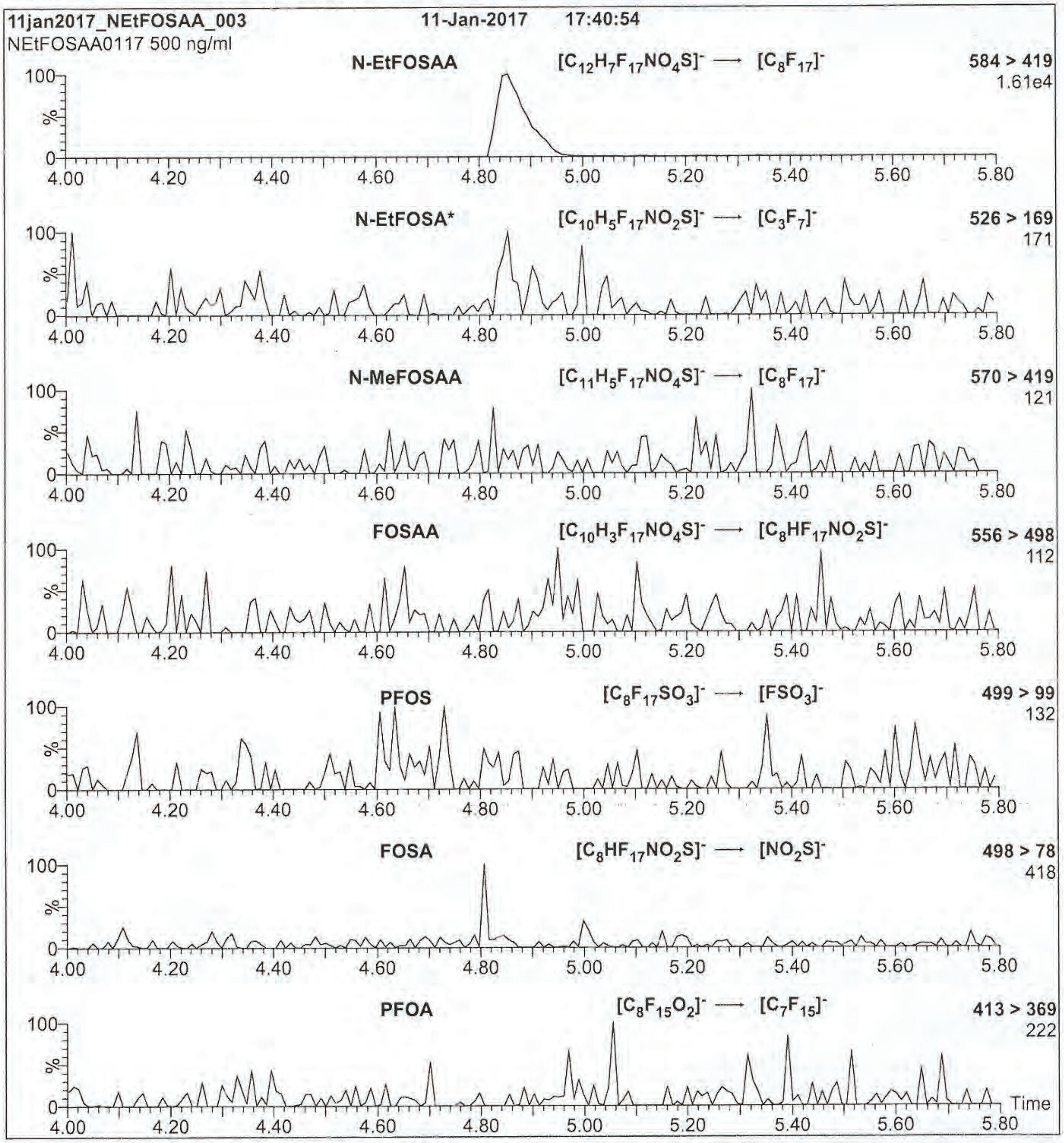
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1808

Figure 2: **N-EtFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Note: N-EtFOSA is formed by fragmentation of N-EtFOSAA.

Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml N-EtFOSAA)	**MS Parameters**
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	Collision Gas (mbar) = 3.28e-3 Collision Energy (eV) = 20
Flow:	300 µl/min	

17G1809

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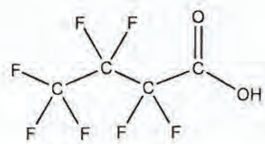
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFBA

COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA0517

STRUCTURE:



CAS #: 375-22-4

MOLECULAR FORMULA: $C_4HF_7O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 214.04

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 05/29/2017

EXPIRY DATE: (mm/dd/yyyy) 05/29/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: [signature]
B.G. Chittim, General Manager

Date: 05/30/2017
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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INTENDED USE:

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.

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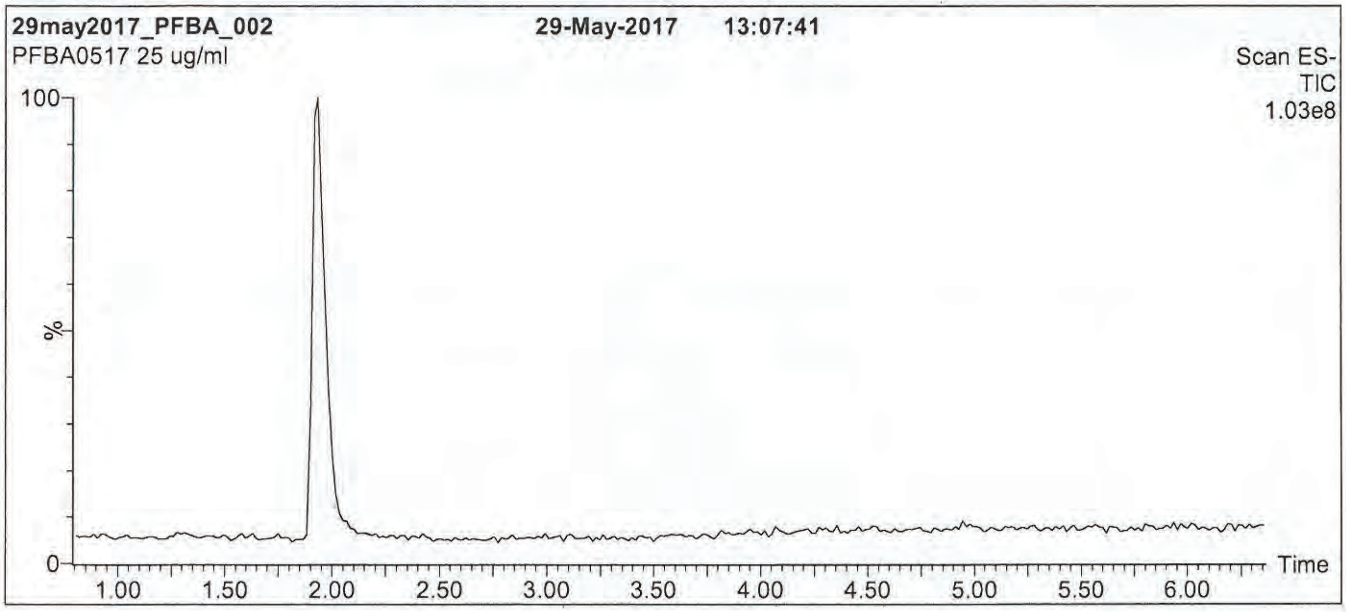
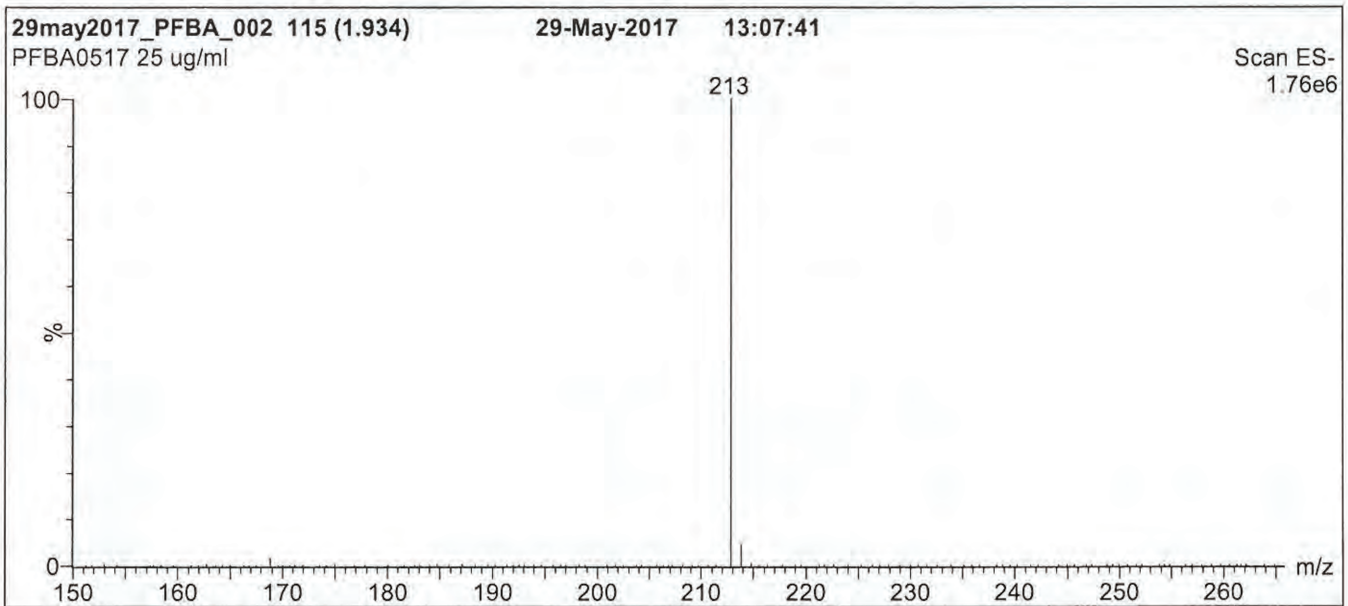
17G1809

Figure 1: **PFBA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

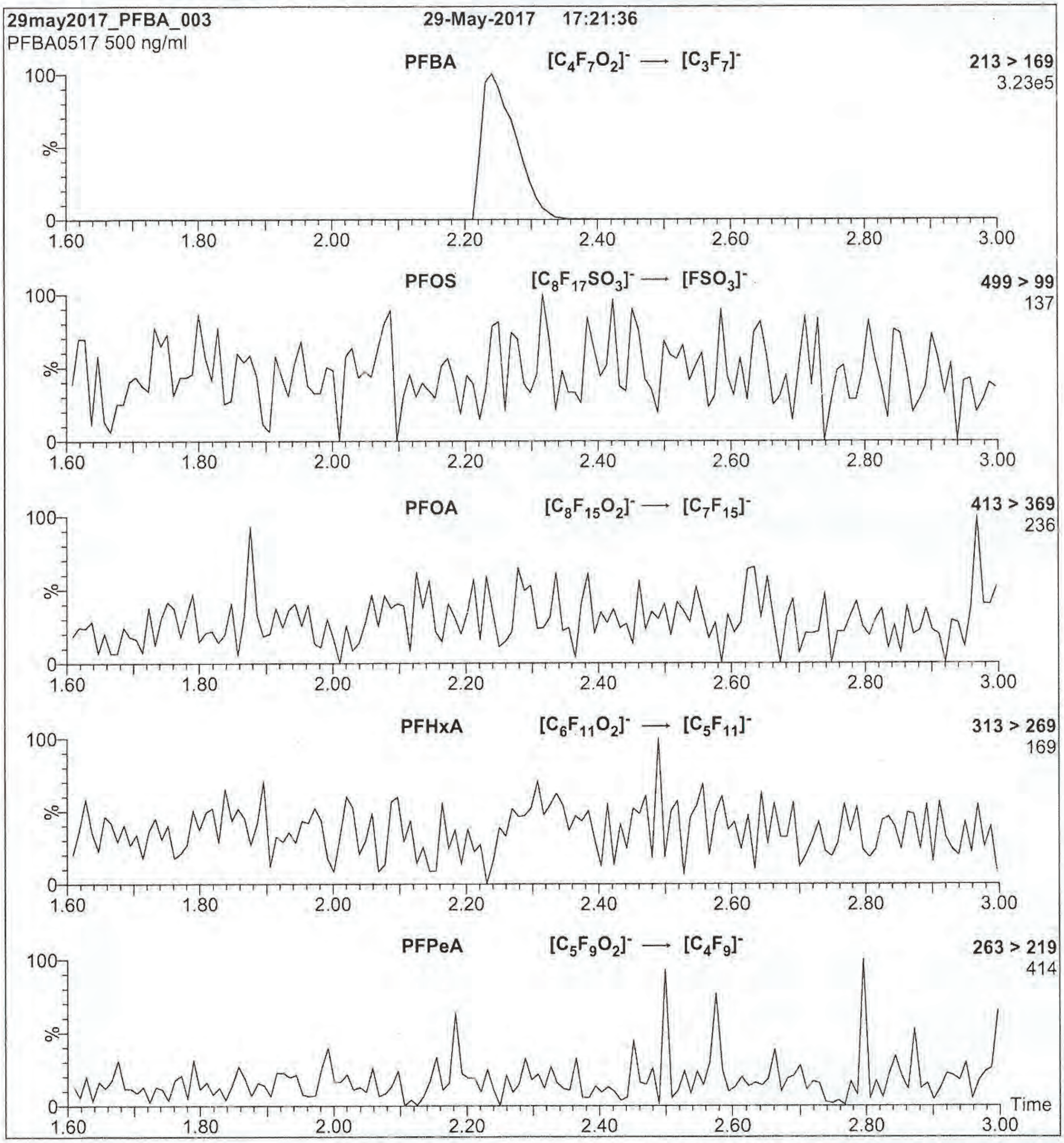
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17 G 1809

Figure 2: **PFBA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml PFBA)	**MS Parameters**
		Collision Gas (mbar) = 3.39e-3 Collision Energy (eV) = 10
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	
Flow:	300 µl/min	

17G1810

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

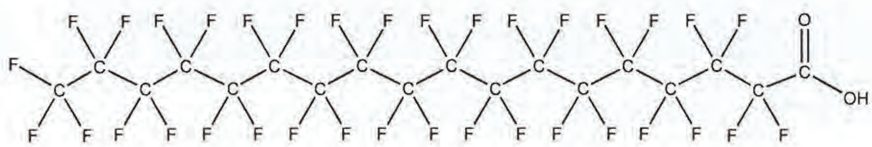
PRODUCT CODE: PFODA

COMPOUND: Perfluoro-n-octadecanoic acid

LOT NUMBER: PFODA0416

STRUCTURE:

CAS #: 16517-11-6



MOLECULAR FORMULA: $C_{18}HF_{35}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 914.14

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 04/29/2016

EXPIRY DATE: (mm/dd/yyyy) 04/29/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 05/20/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1810

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ANAB ACCREDITED

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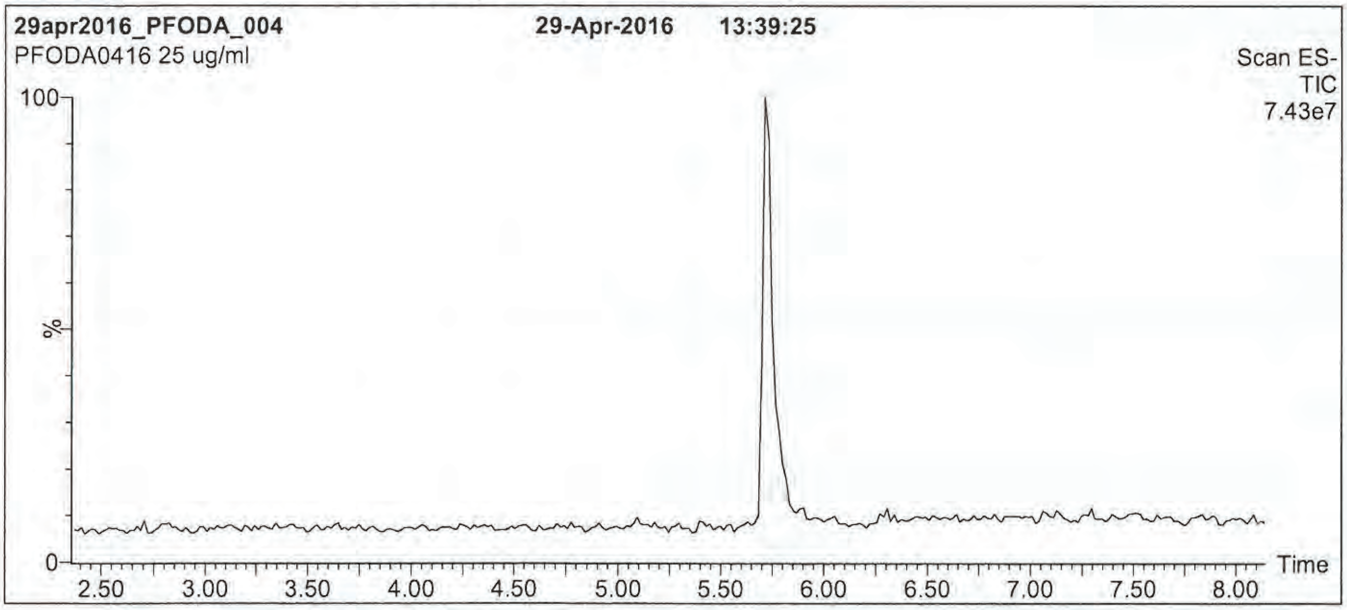
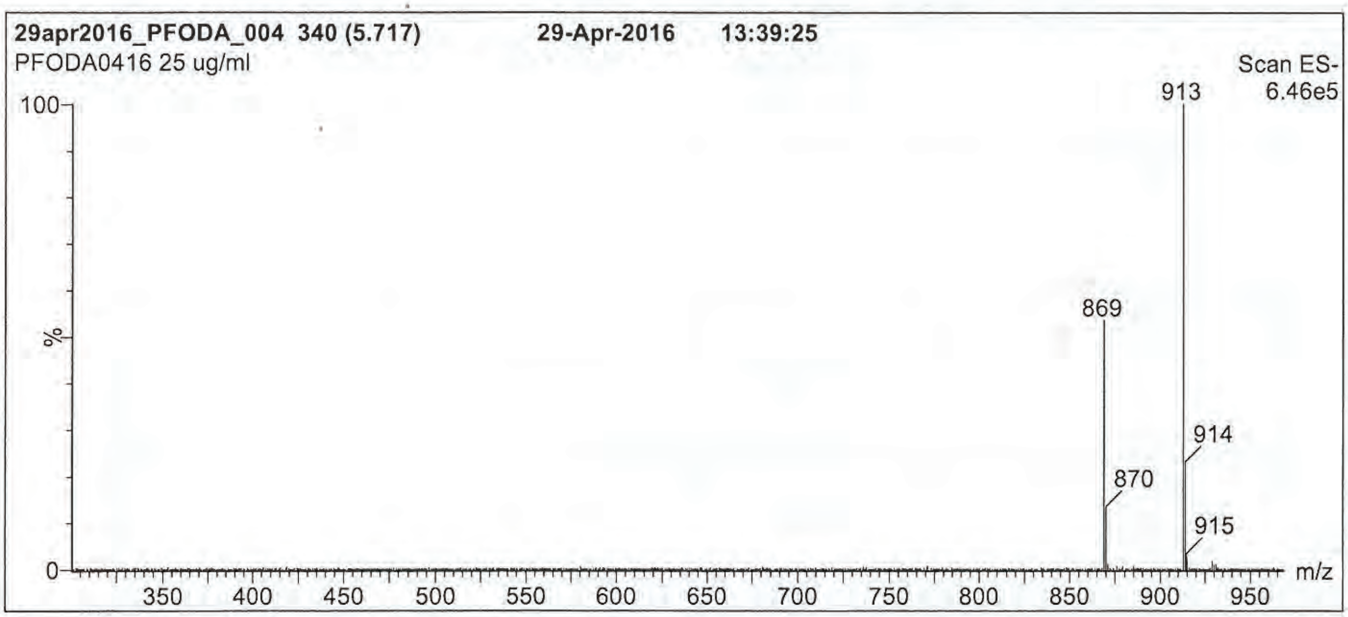
1761810

Figure 1: **PFODA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 70% (80:20 MeOH:ACN) / 30% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 95% organic over 6 min and hold for
2.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

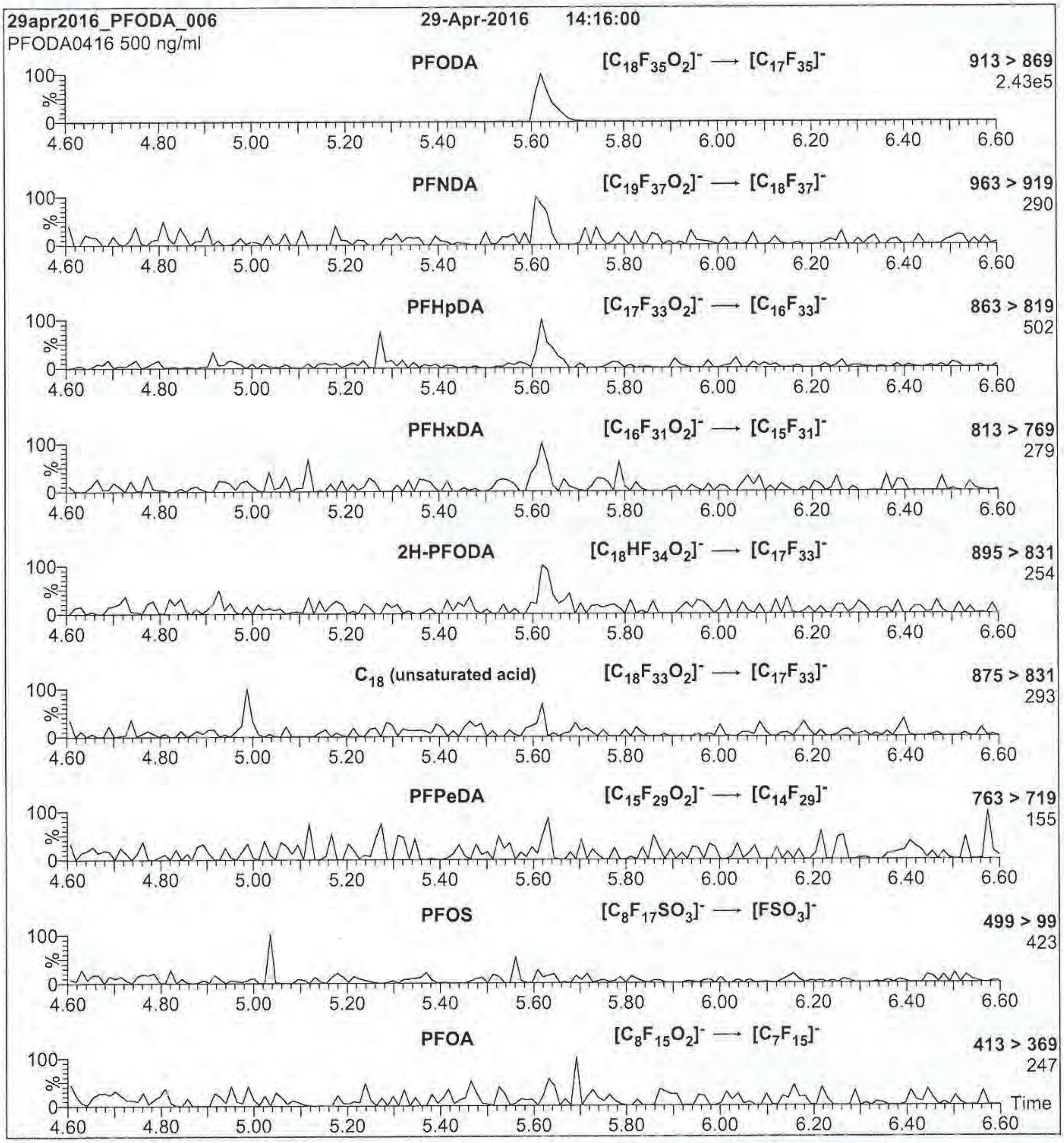
MS Parameters

Experiment: Full Scan (250 - 1000 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1810

Figure 2: **PFODA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFODA)

Mobile phase: Isocratic 90% (80:20 MeOH:ACN) / 10% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 15

17G1811

WELLINGTON LABORATORIES

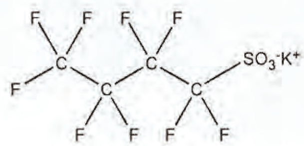
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFBS

LOT NUMBER: LPFBS1116

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) 12/02/2016

EXPIRY DATE: (mm/dd/yyyy) 12/02/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim

Date: 12/05/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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17G1811

INTENDED USE:

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17G1811

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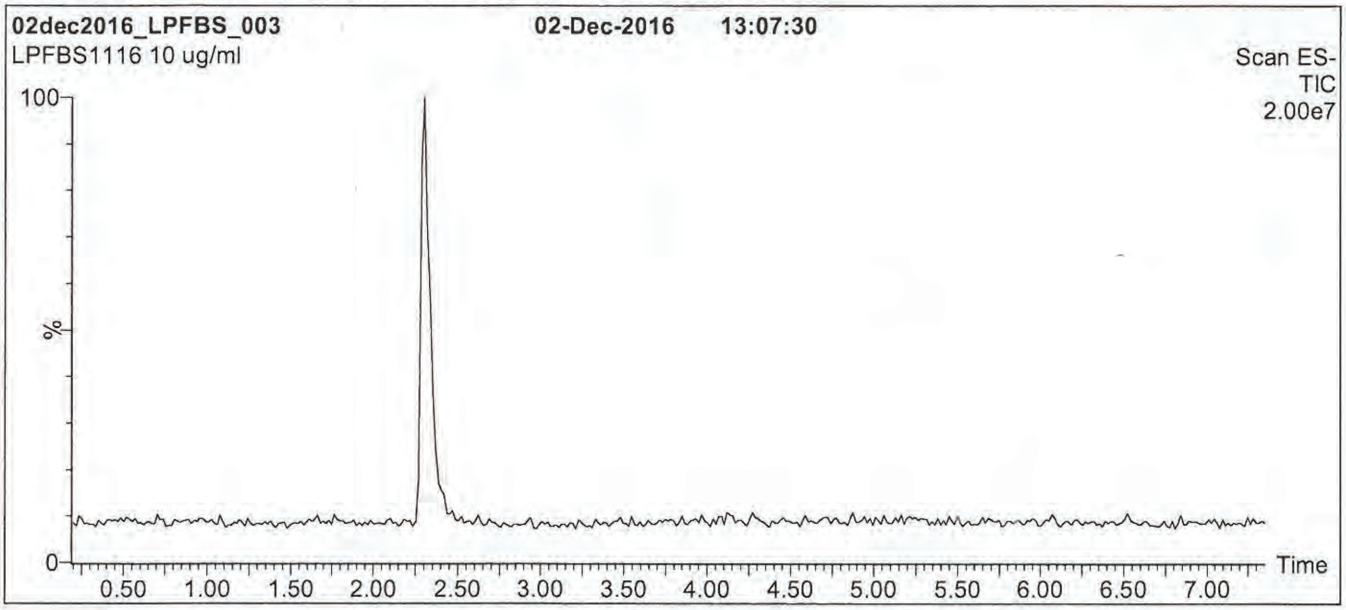

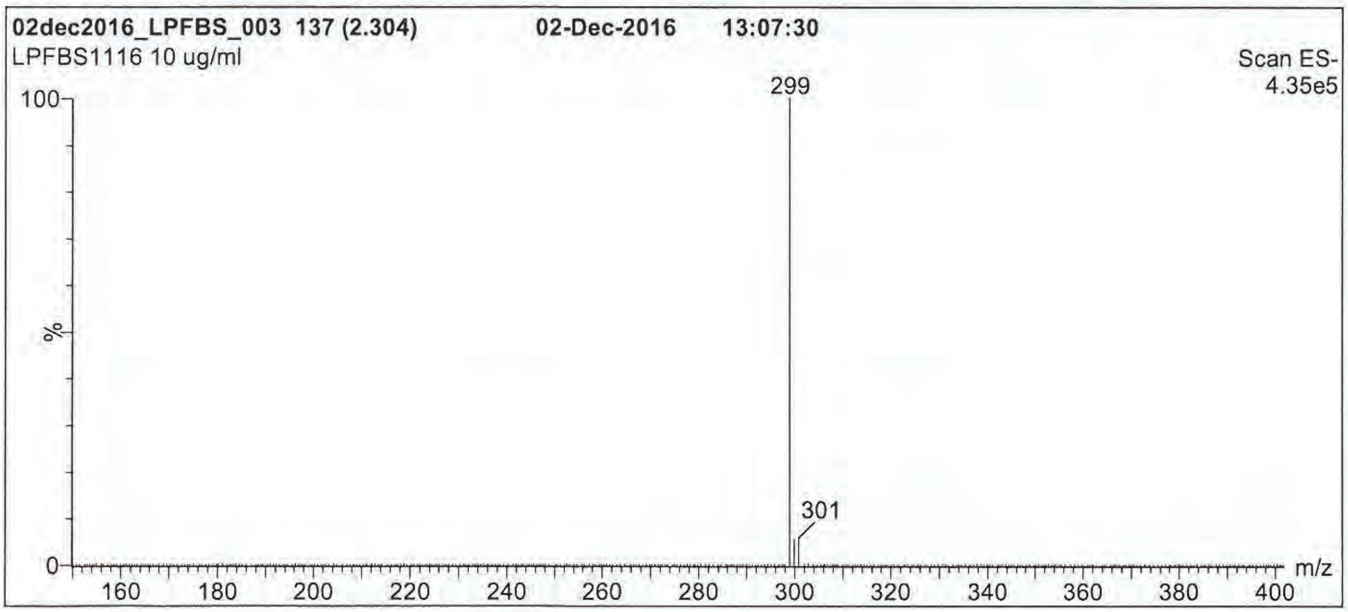

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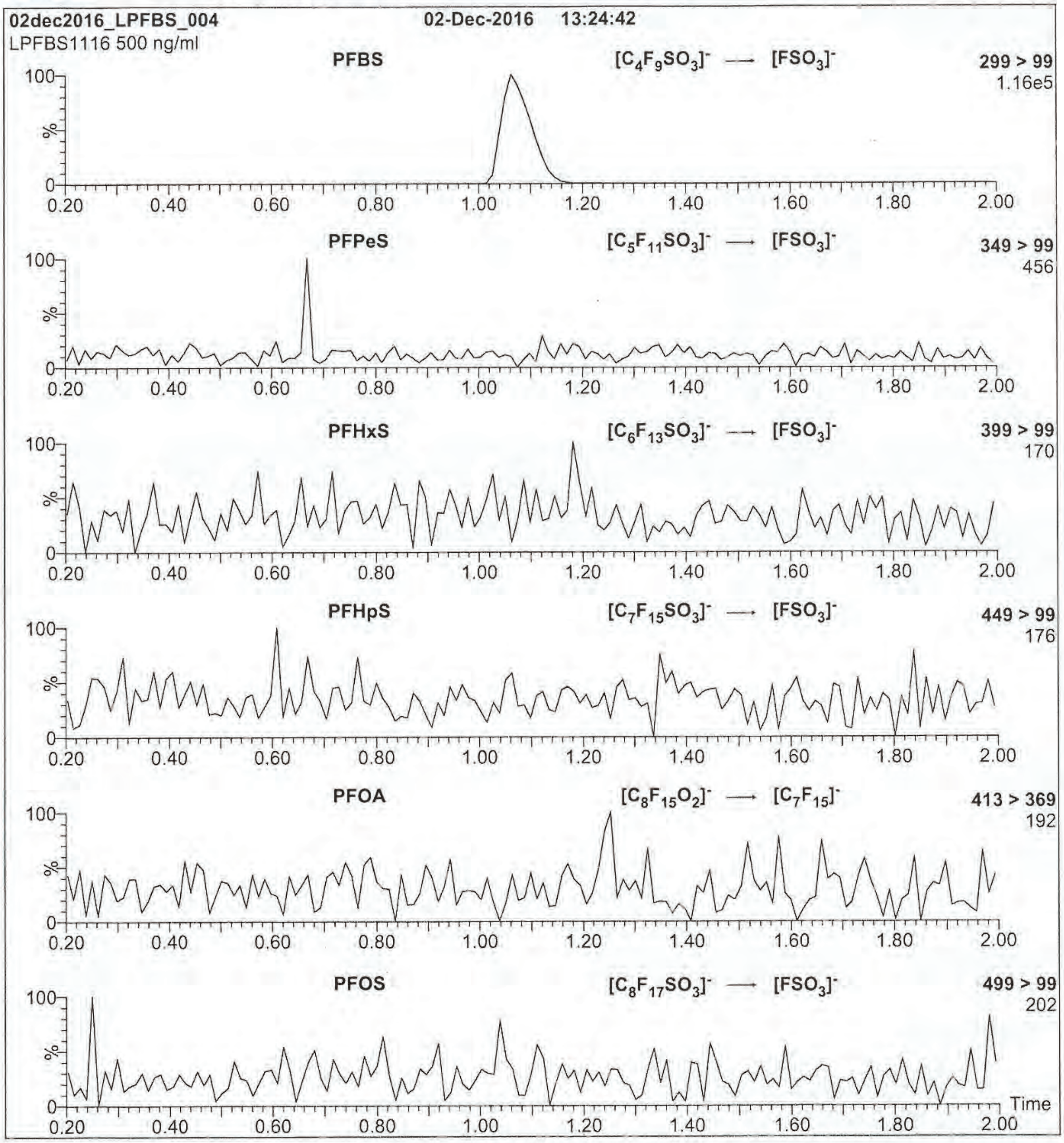
Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1811

Figure 2: **L-PFBS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml L-PFBS)	**MS Parameters**
		Collision Gas (mbar) = 3.28e-3 Collision Energy (eV) = 25
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	
Flow:	300 µl/min	

17G1812

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

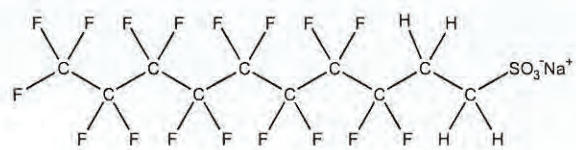
PRODUCT CODE: 8:2FTS

LOT NUMBER: 82FTS1216

COMPOUND: Sodium 1H,1H,2H,2H-perfluorodecane sulfonate

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $C_{10}H_4F_{17}SO_3Na$

MOLECULAR WEIGHT: 550.16

CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.9 ± 2.4 µg/ml (8:2FTS anion)

SOLVENT(S): Methanol

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 12/12/2016

EXPIRY DATE: (mm/dd/yyyy) 12/12/2021

RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim

Date: 12/21/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1812

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2,...x_n$ on which it depends is:

$$u_c(y(x_1, x_2,...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

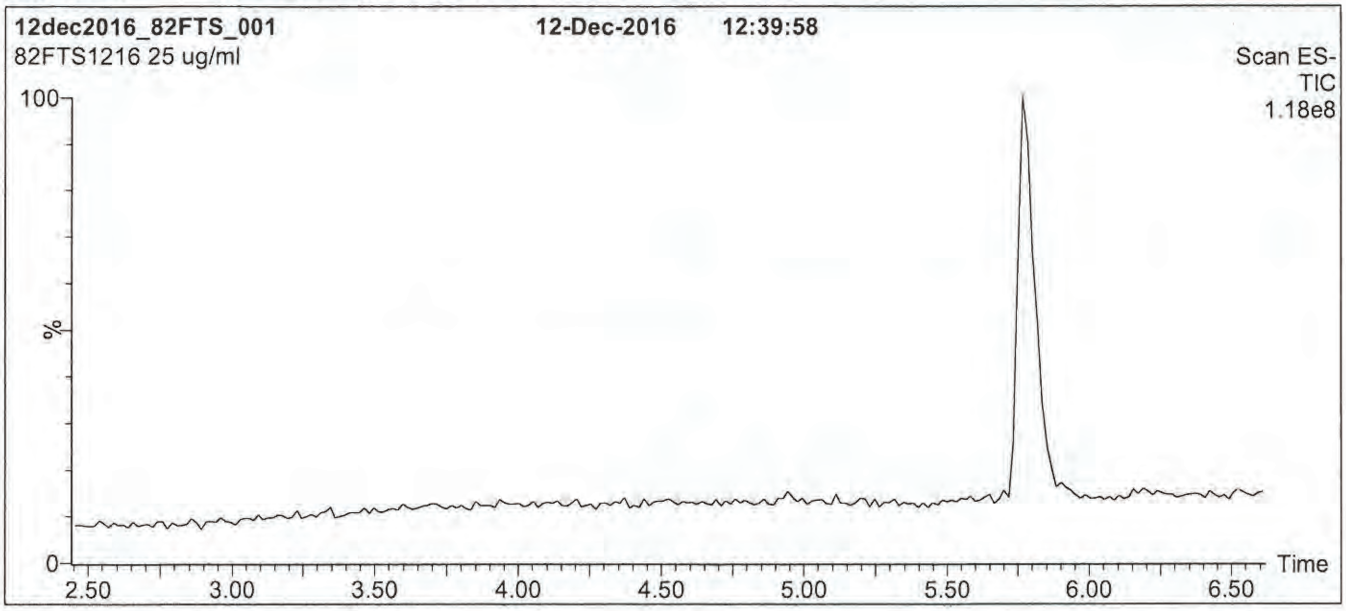
CALA

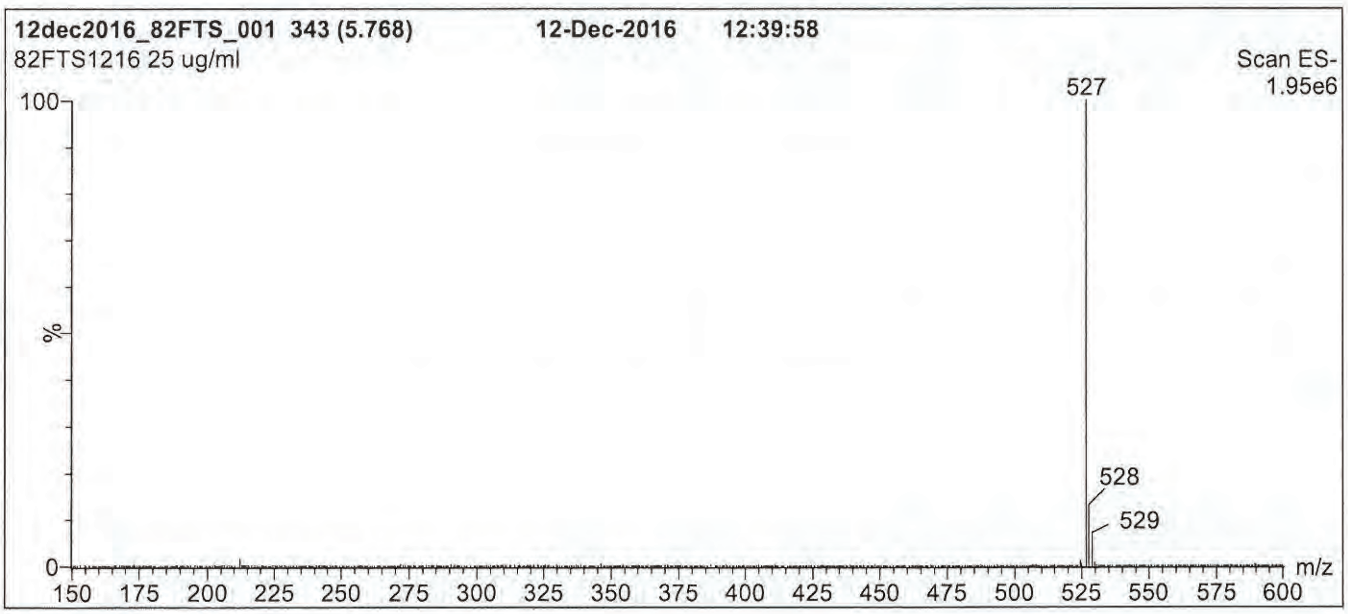
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17G1812

Figure 1: **8:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 85% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

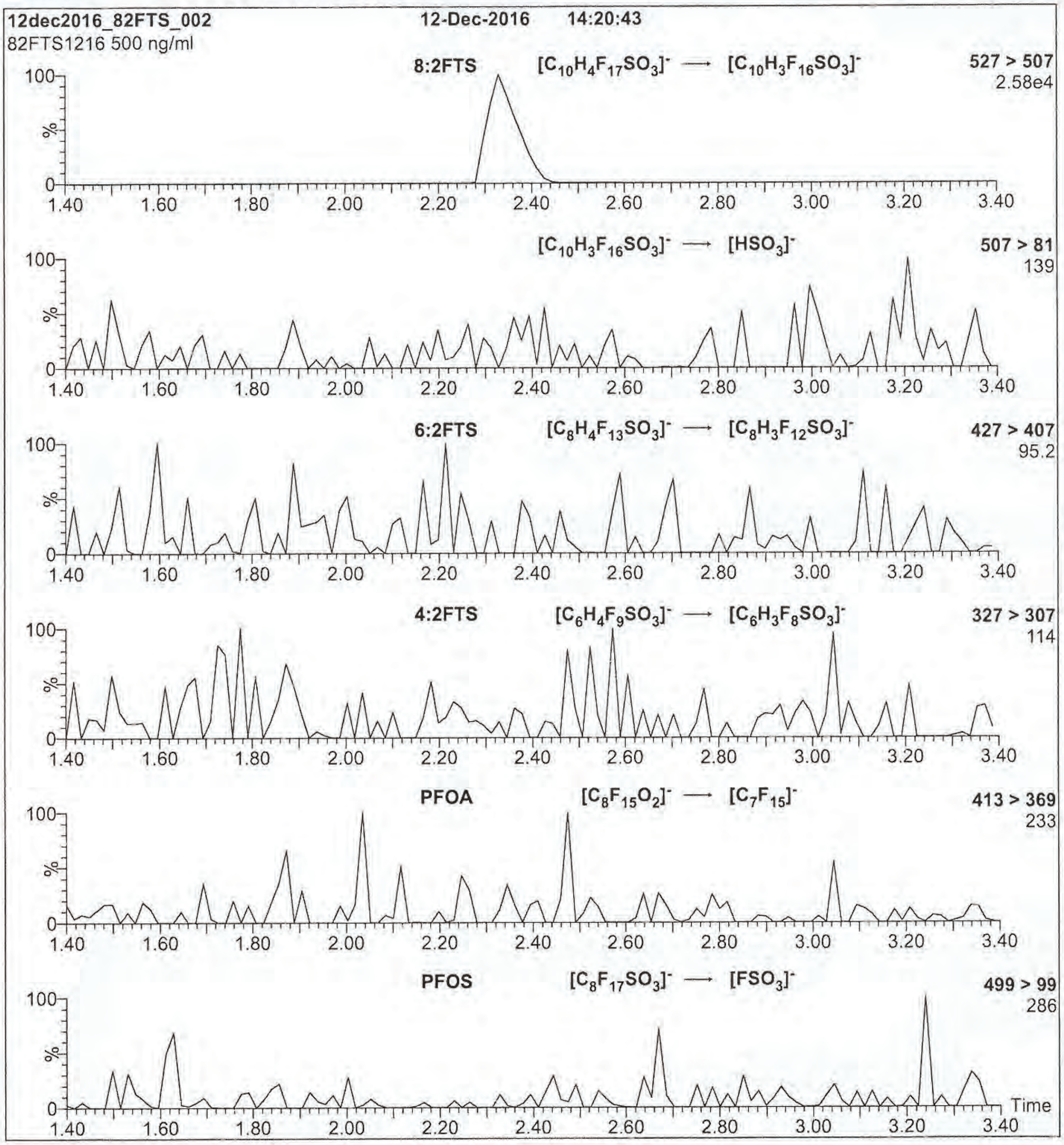
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17G1812

Figure 2: 8:2FTS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml 8:2FTS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 30

17G1813

WELLINGTON LABORATORIES

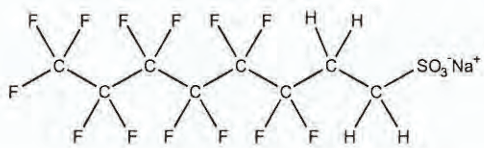
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: 6:2FTS

LOT NUMBER: 62FTS0417

COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctane sulfonate

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $C_8H_4F_{13}SO_3Na$

MOLECULAR WEIGHT: 450.15

CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.4 ± 2.4 µg/ml (6:2FTS anion)

SOLVENT(S): Methanol

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 04/20/2017

EXPIRY DATE: (mm/dd/yyyy) 04/20/2022

RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: [signature]
B.G. Chittim, General Manager

Date: 04/24/2017
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1813

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

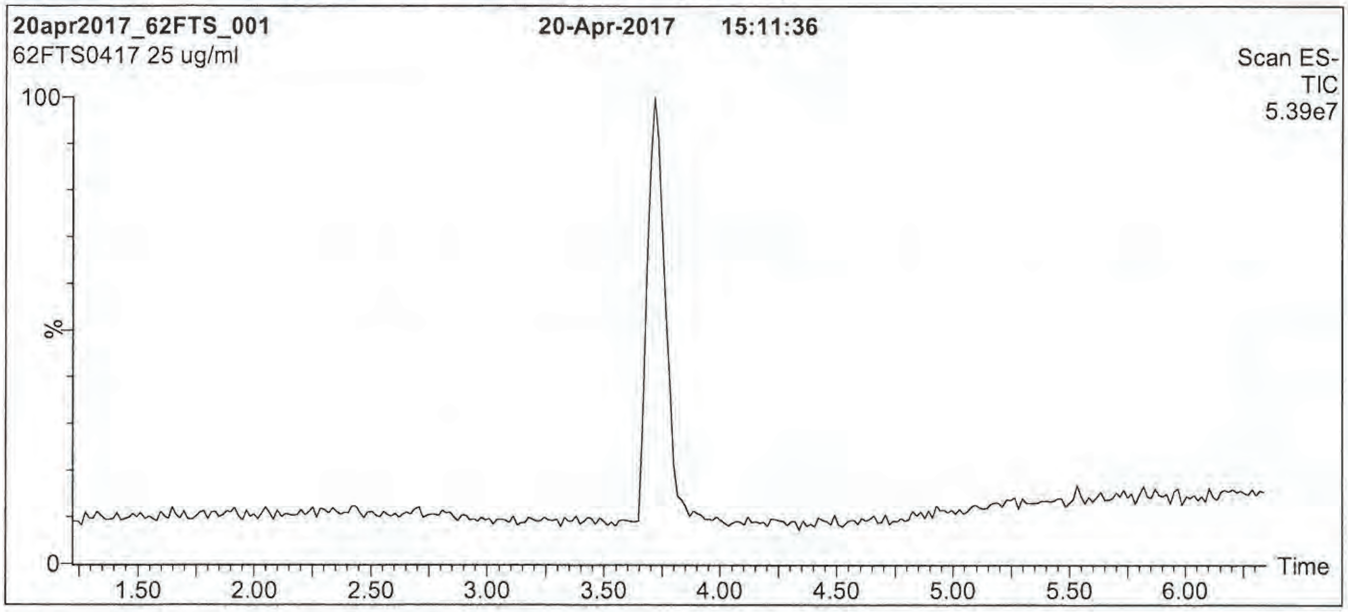
CALA

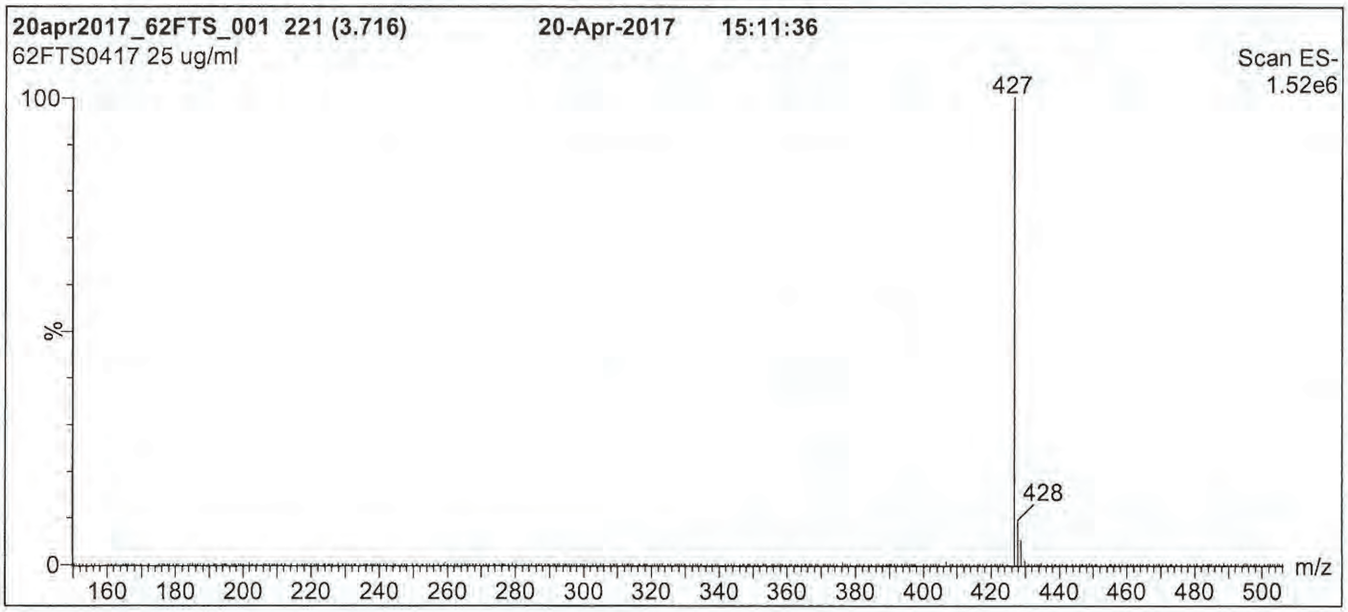
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17G1813

Figure 1: 6:2FTS; LC/MS Data (TIC and Mass Spectrum)





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 85% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

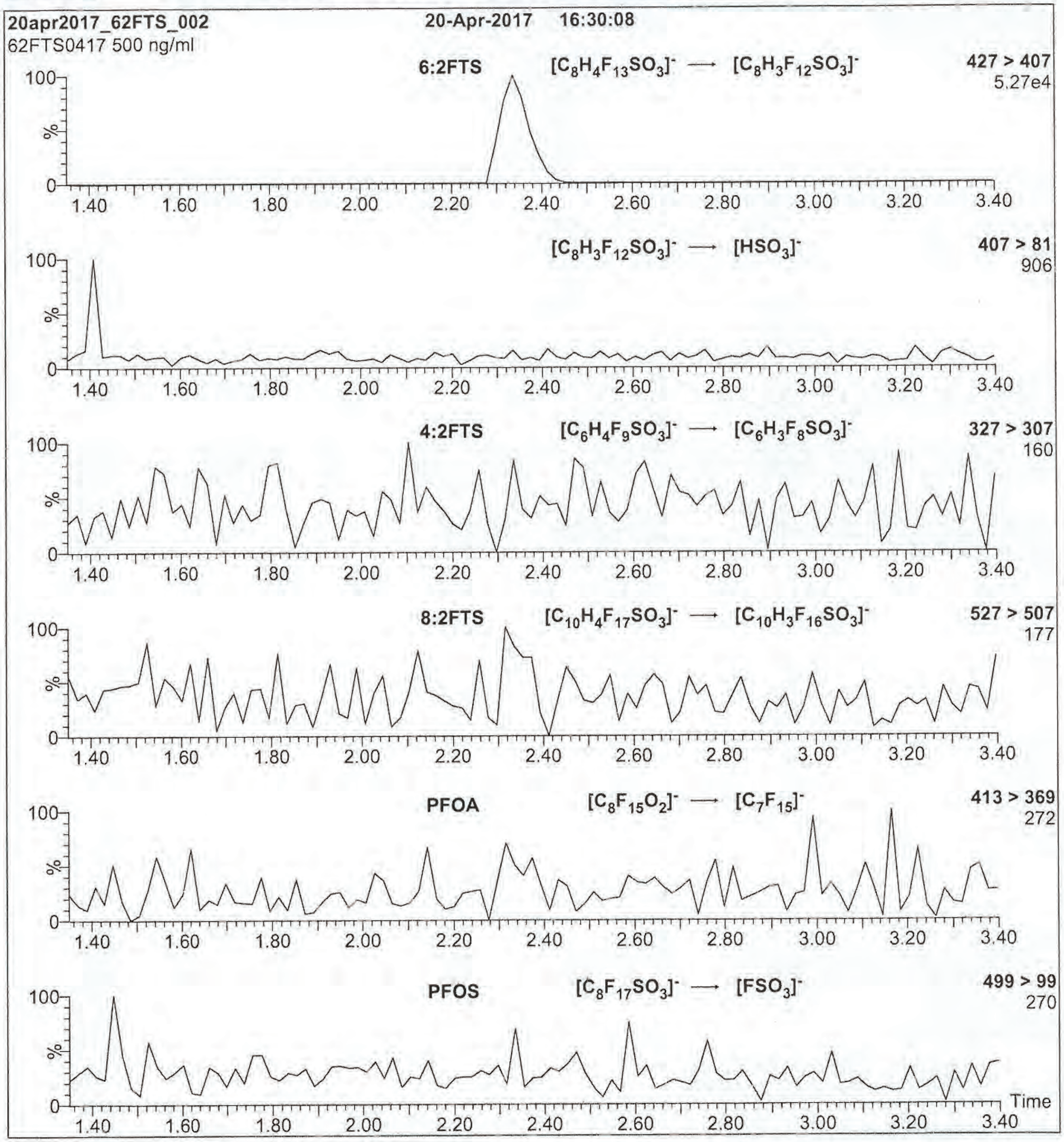
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1813

Figure 2: **6:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml 6:2FTS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 25

17H0820

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

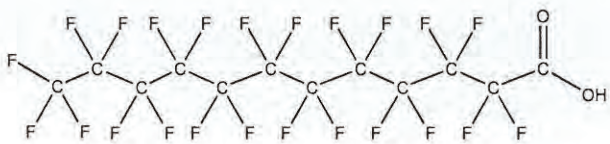
PRODUCT CODE: PFDoA

COMPOUND: Perfluoro-n-dodecanoic acid

LOT NUMBER: PFDoA0516

STRUCTURE:

CAS #: 307-55-1



MOLECULAR FORMULA: $C_{12}HF_{23}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 614.10

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 05/31/2016

EXPIRY DATE: (mm/dd/yyyy) 05/31/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim

Date: 06/02/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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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:

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SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

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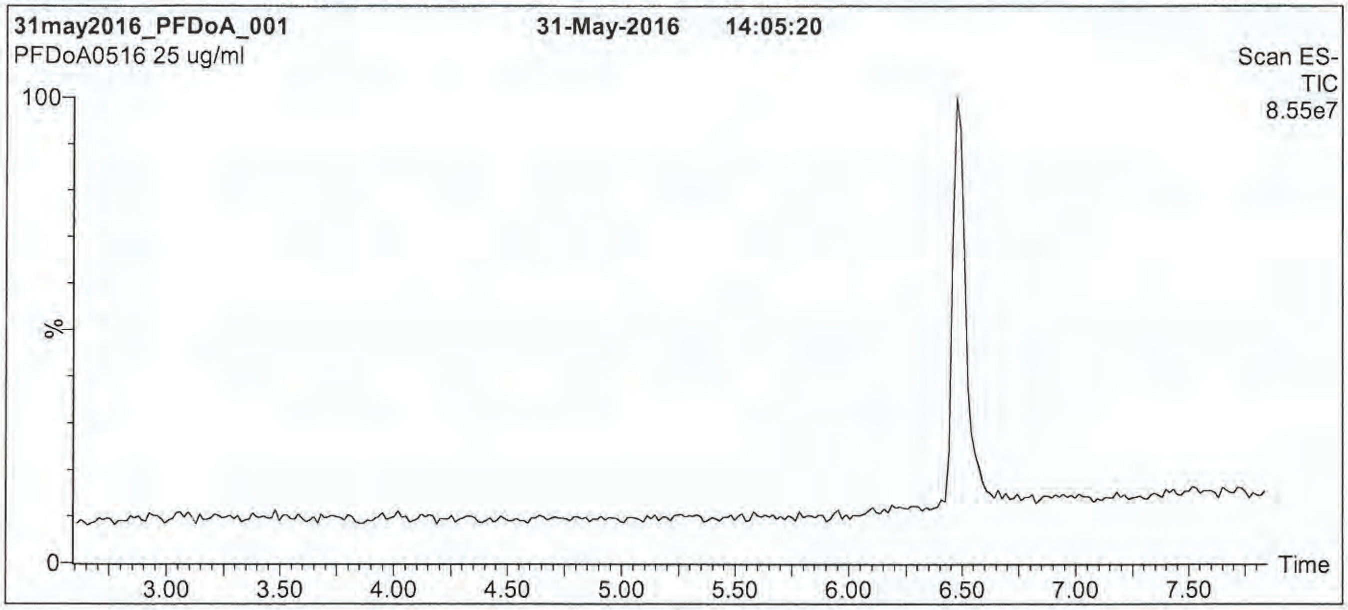
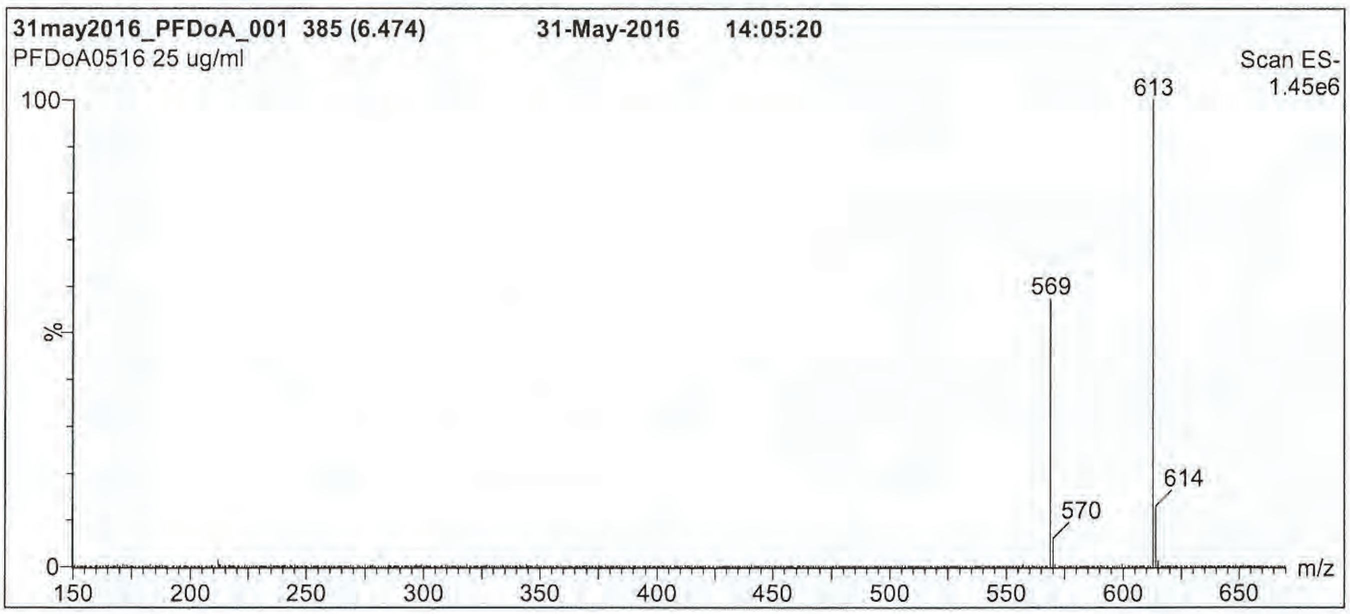
CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **PFDoA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

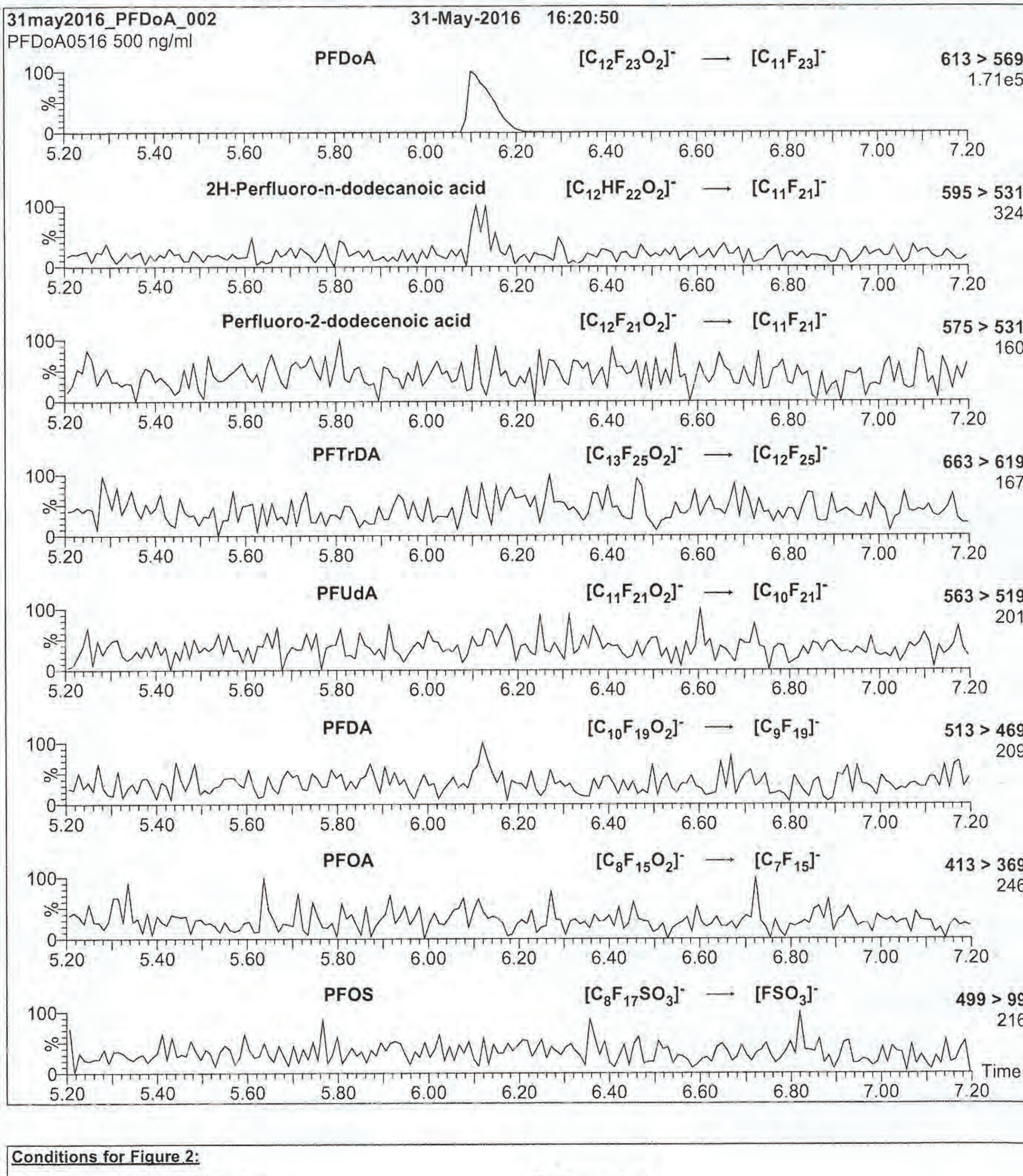
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFDoA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml PFDoA)	**MS Parameters**
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	Collision Gas (mbar) = 3.39e-3 Collision Energy (eV) = 13
Flow:	300 µl/min	

17H0821

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

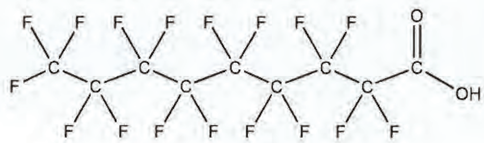
PRODUCT CODE: PFNA

COMPOUND: Perfluoro-n-nonanoic acid

LOT NUMBER: PFNA0916

STRUCTURE:

CAS #: 375-95-1



MOLECULAR FORMULA: $C_9HF_{17}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 464.08

SOLVENT(S): Methanol, Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 09/30/2016

EXPIRY DATE: (mm/dd/yyyy) 09/30/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of perfluoro-n-octanoic acid (PFOA) and < 0.1% of perfluoro-n-heptanoic acid (PFHpA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/11/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

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SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

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The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

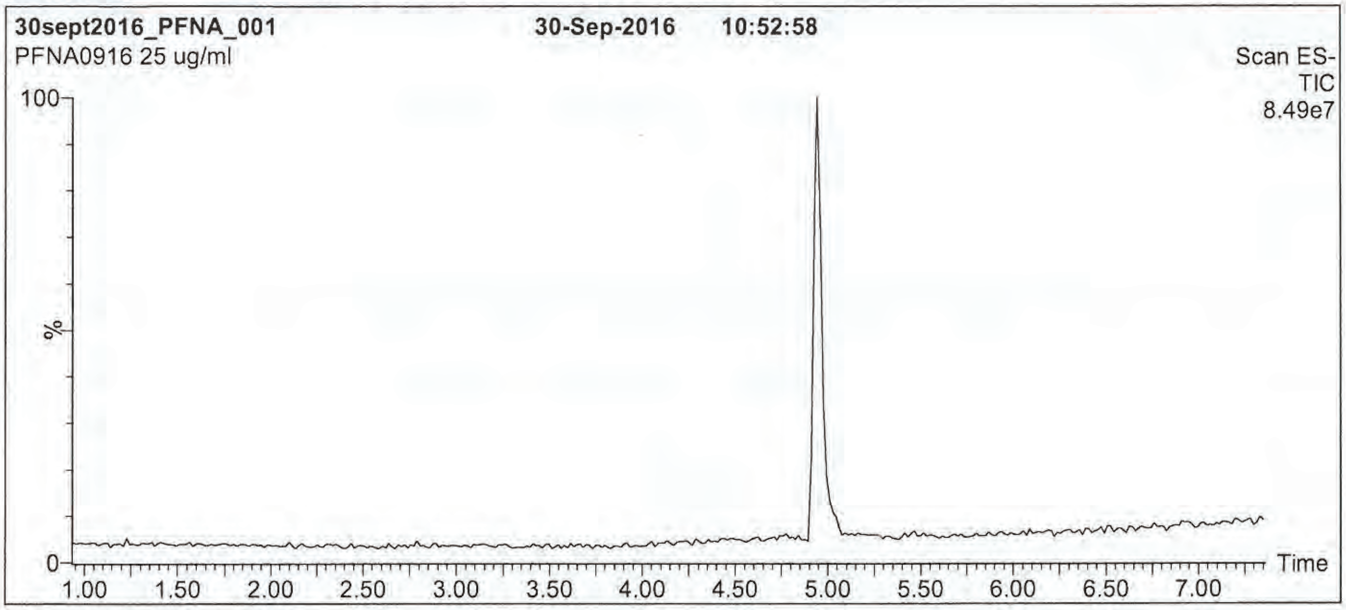
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

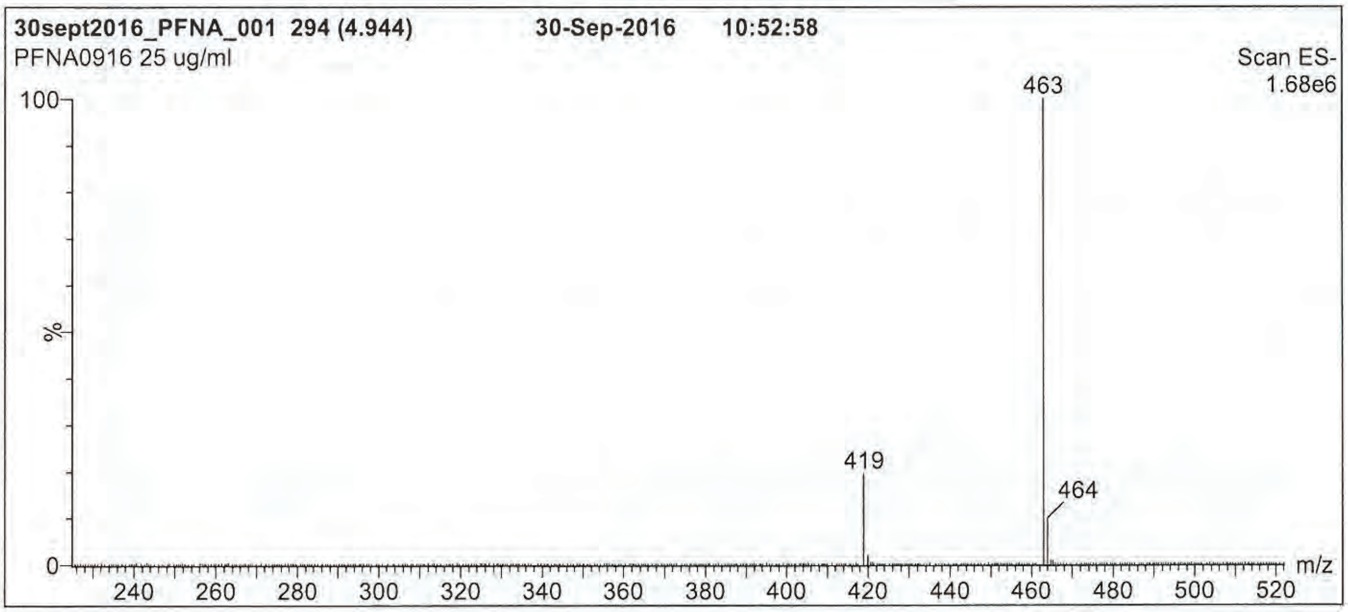
CALA

ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **PFNA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

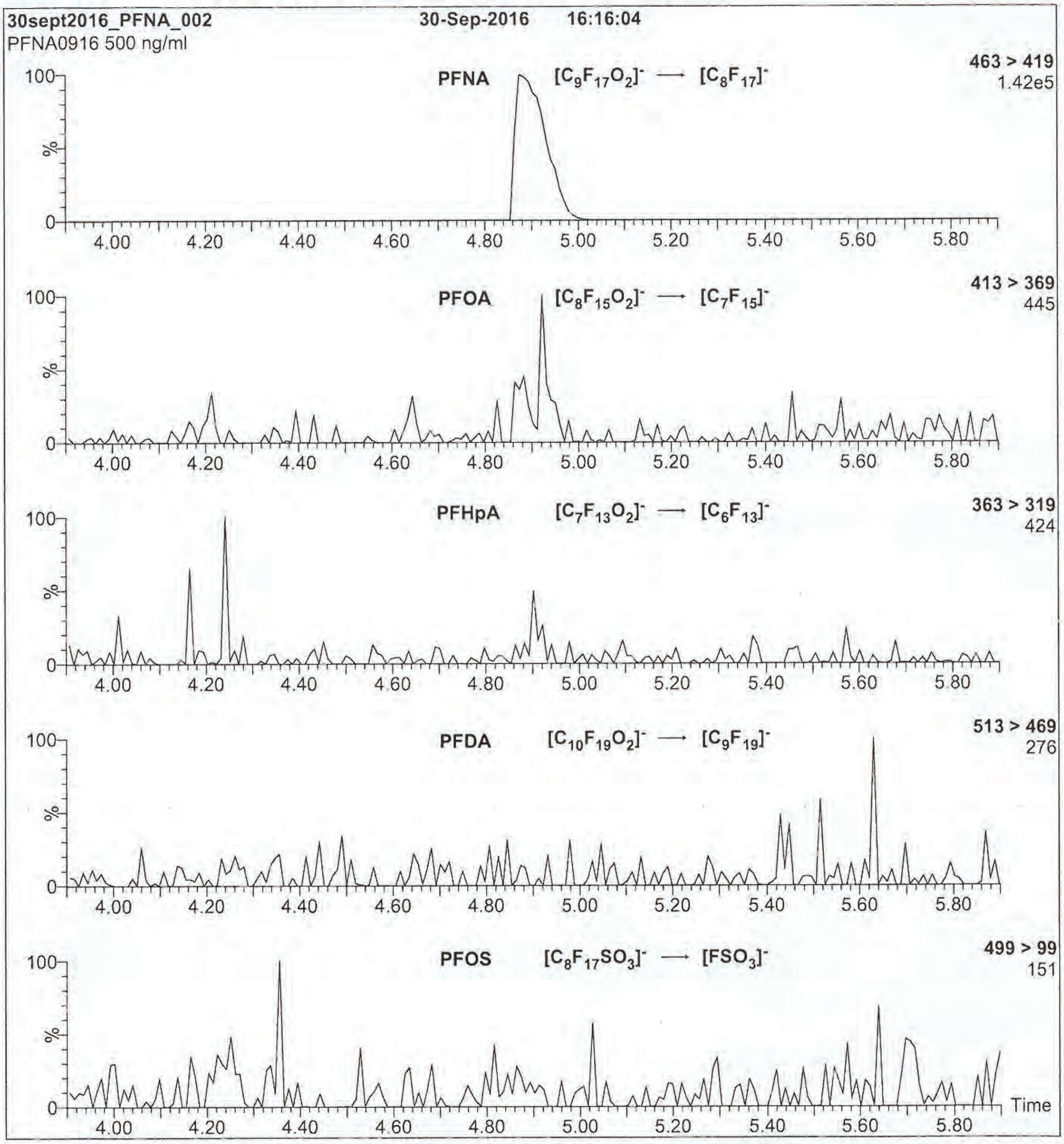
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: PFNA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:		
Injection:	Direct loop injection 10 µl (500 ng/ml PFNA)	**MS Parameters**
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	Collision Gas (mbar) = 3.24e-3 Collision Energy (eV) = 11
Flow:	300 µl/min	

17H0822

WELLINGTON LABORATORIES

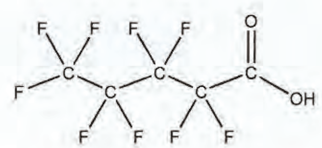
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFPeA ✓

COMPOUND: Perfluoro-n-pentanoic acid

LOT NUMBER: PFPeA0617

STRUCTURE:



CAS #: 2706-90-3

MOLECULAR FORMULA: $C_5HF_9O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 264.05

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 06/14/2017

EXPIRY DATE: (mm/dd/yyyy) 06/14/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of Perfluoro-n-heptanoic acid (PFHpA) and ~ 0.2% of $C_5H_2F_8O_2$ (hydrido - derivative) as measured by ^{19}F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim, General Manager

Date: 06/16/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

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.

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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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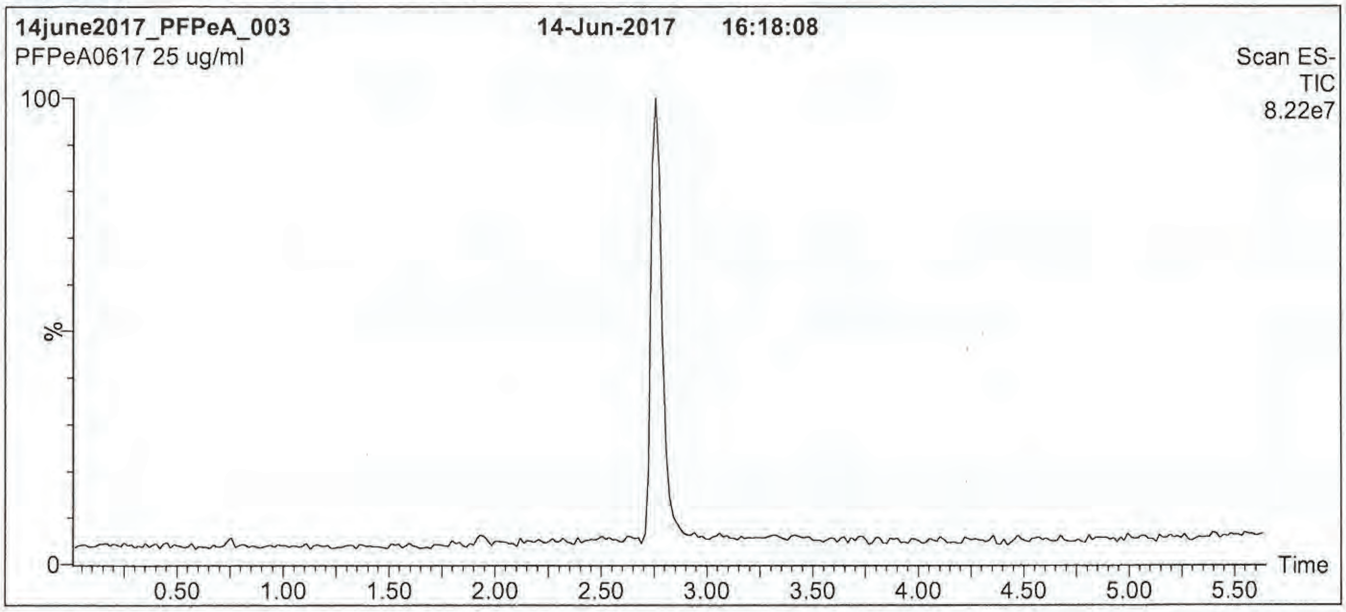
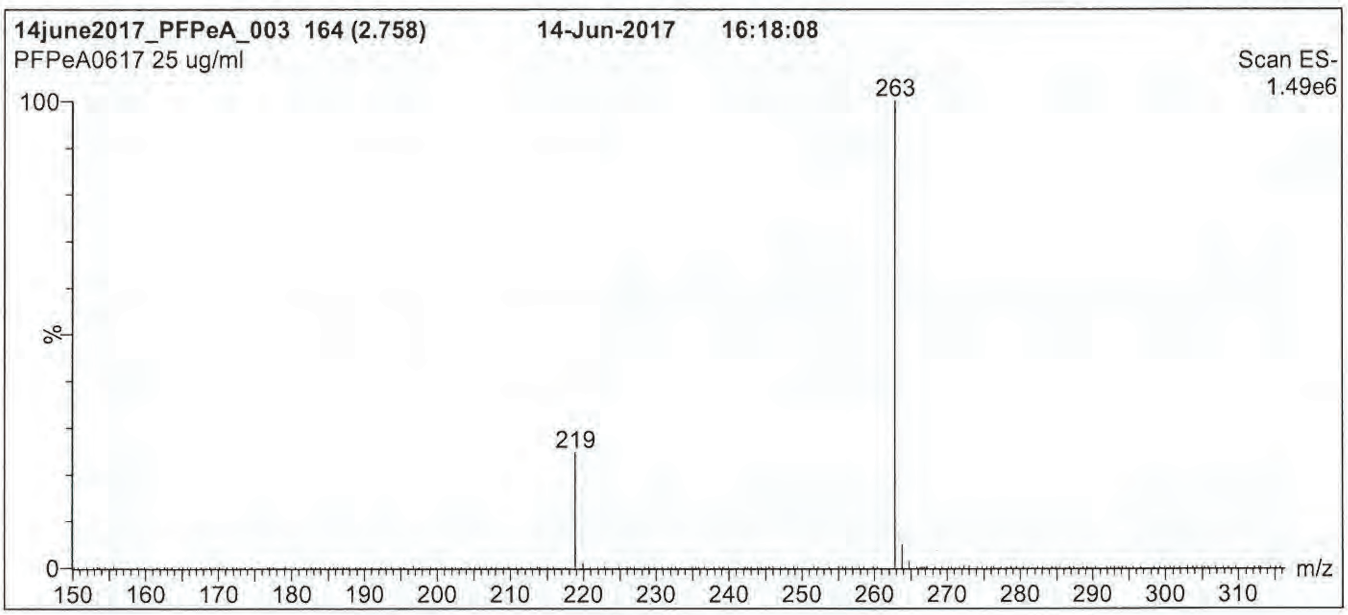
Figure 1: **PFPeA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

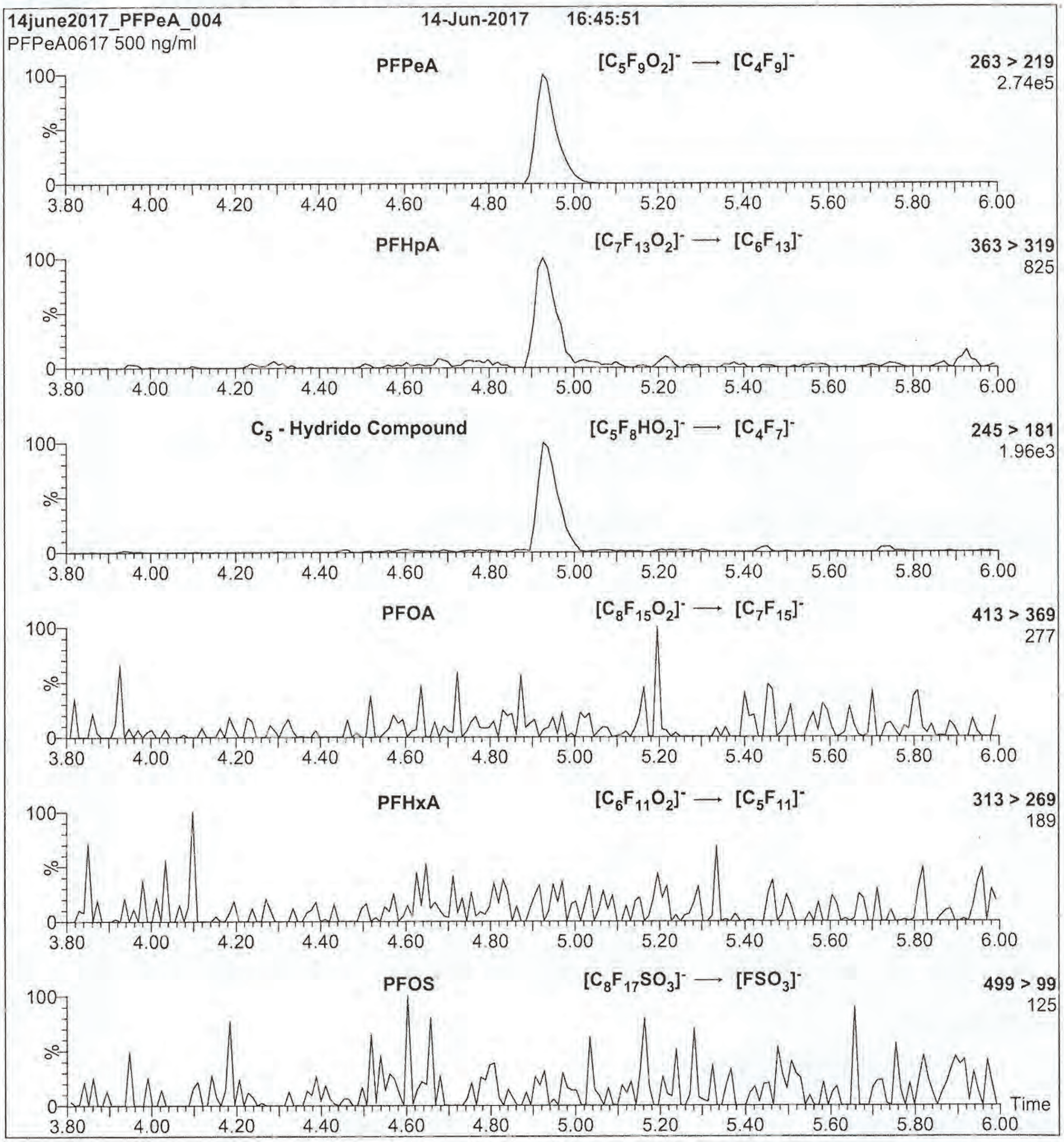
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFPeA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml PFPeA)
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.62e-3
Collision Energy (eV) = 9

17H0823

WELLINGTON LABORATORIES

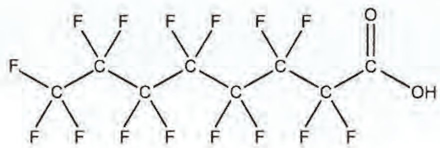
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFOA

COMPOUND: Perfluoro-n-octanoic acid

LOT NUMBER: PFOA0217

STRUCTURE:



CAS #: 335-67-1

MOLECULAR FORMULA: $C_8HF_{15}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 414.07

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 02/17/2017

EXPIRY DATE: (mm/dd/yyyy) 02/17/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 02/22/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

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.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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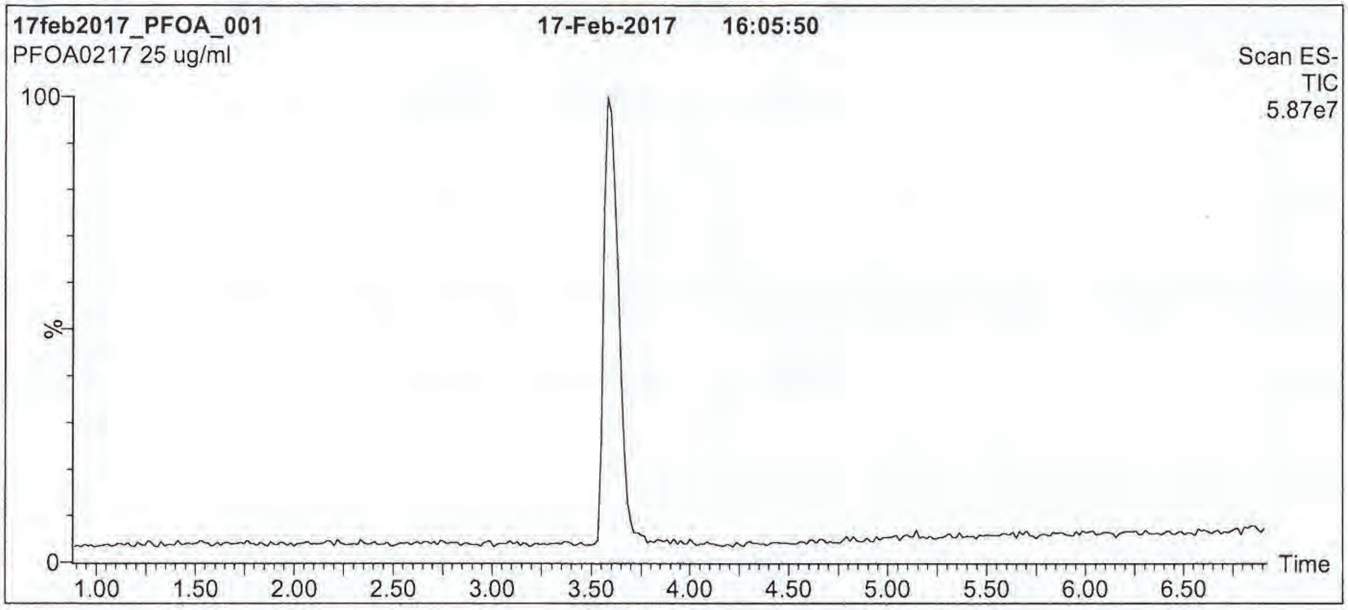
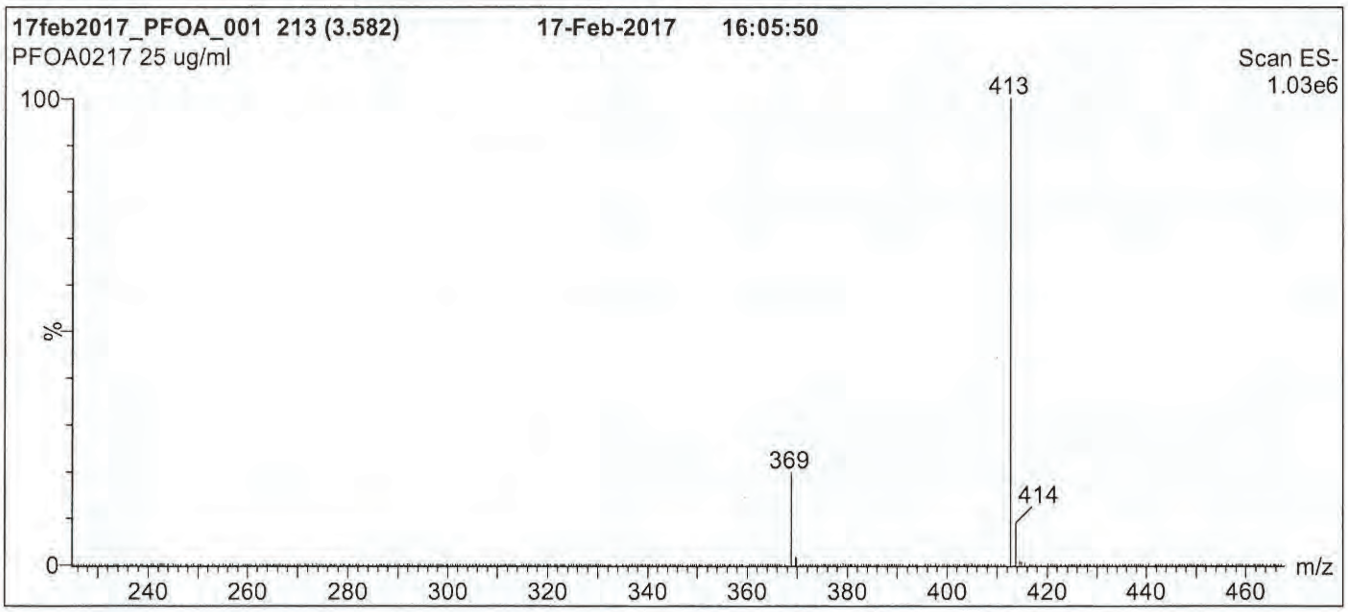
Figure 1: PFOA; LC/MS Data (TIC and Mass Spectrum)





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
1 min before returning to initial conditions in 0.5 min.
Time: 10 min

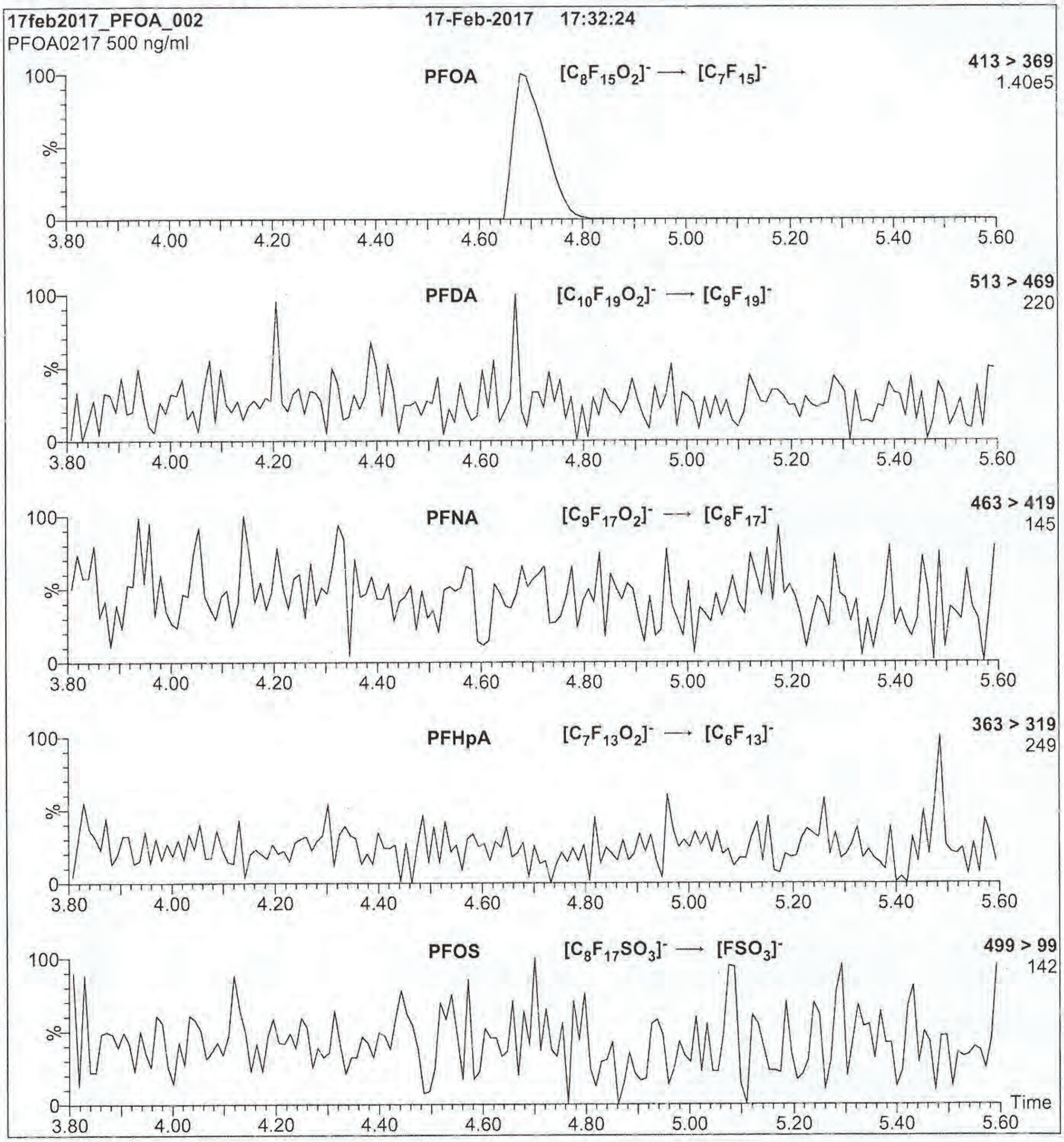
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml PFOA)	**MS Parameters**	
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	Collision Gas (mbar) = 3.39e-3 Collision Energy (eV) = 10	
Flow:	300 µl/min		

1740824

WELLINGTON LABORATORIES

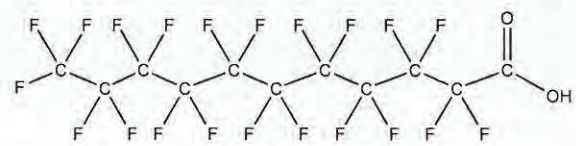
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFUdA

COMPOUND: Perfluoro-n-undecanoic acid

LOT NUMBER: PFUdA1016

STRUCTURE:



CAS #: 2058-94-8

MOLECULAR FORMULA: $C_{11}HF_{21}O_2$

CONCENTRATION: 50 ± 2.5 μg/ml

MOLECULAR WEIGHT: 564.09

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 10/18/2016

EXPIRY DATE: (mm/dd/yyyy) 10/18/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/19/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

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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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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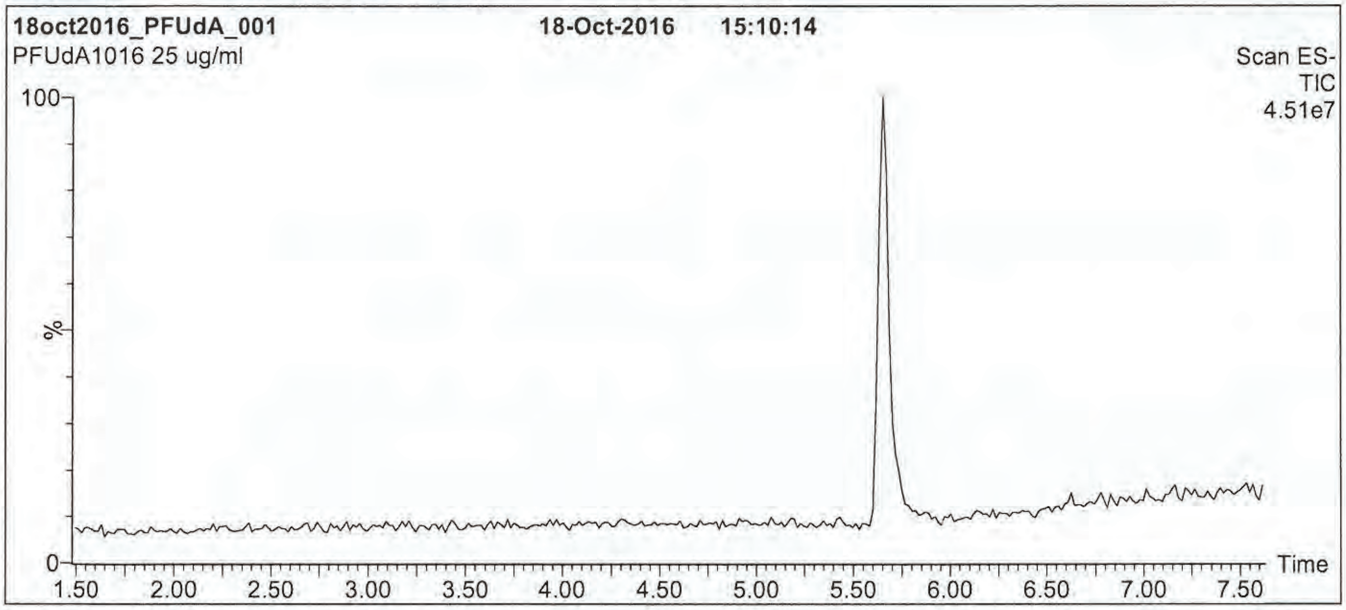
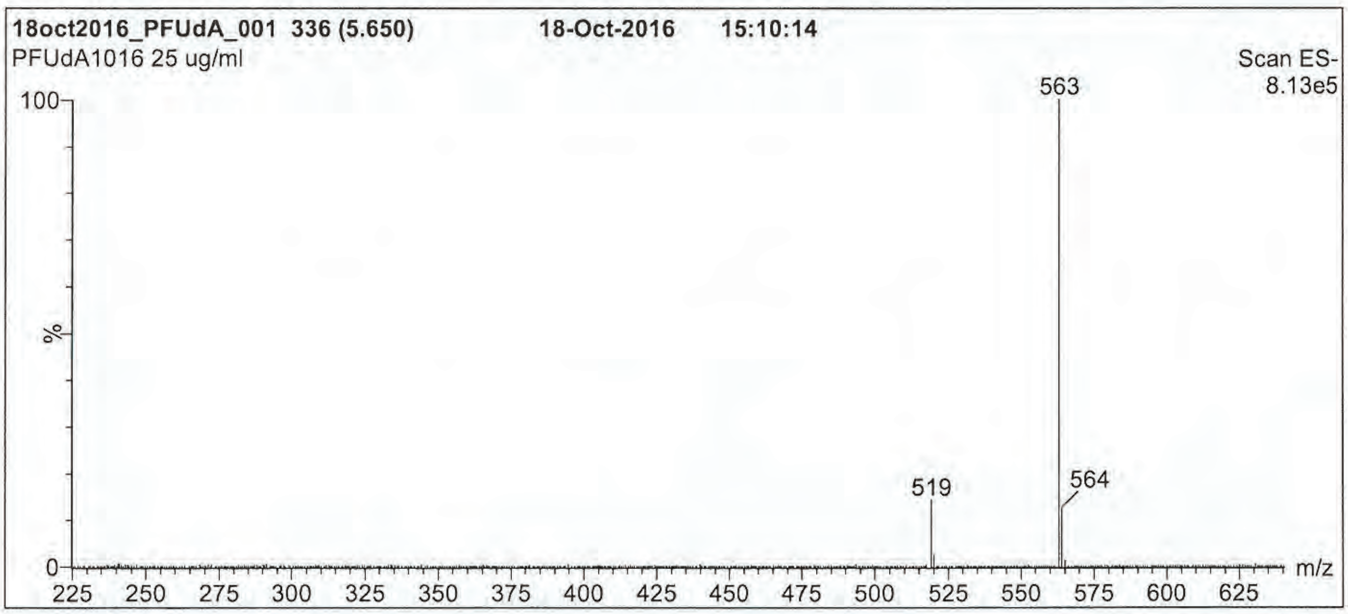
Figure 1: **PFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

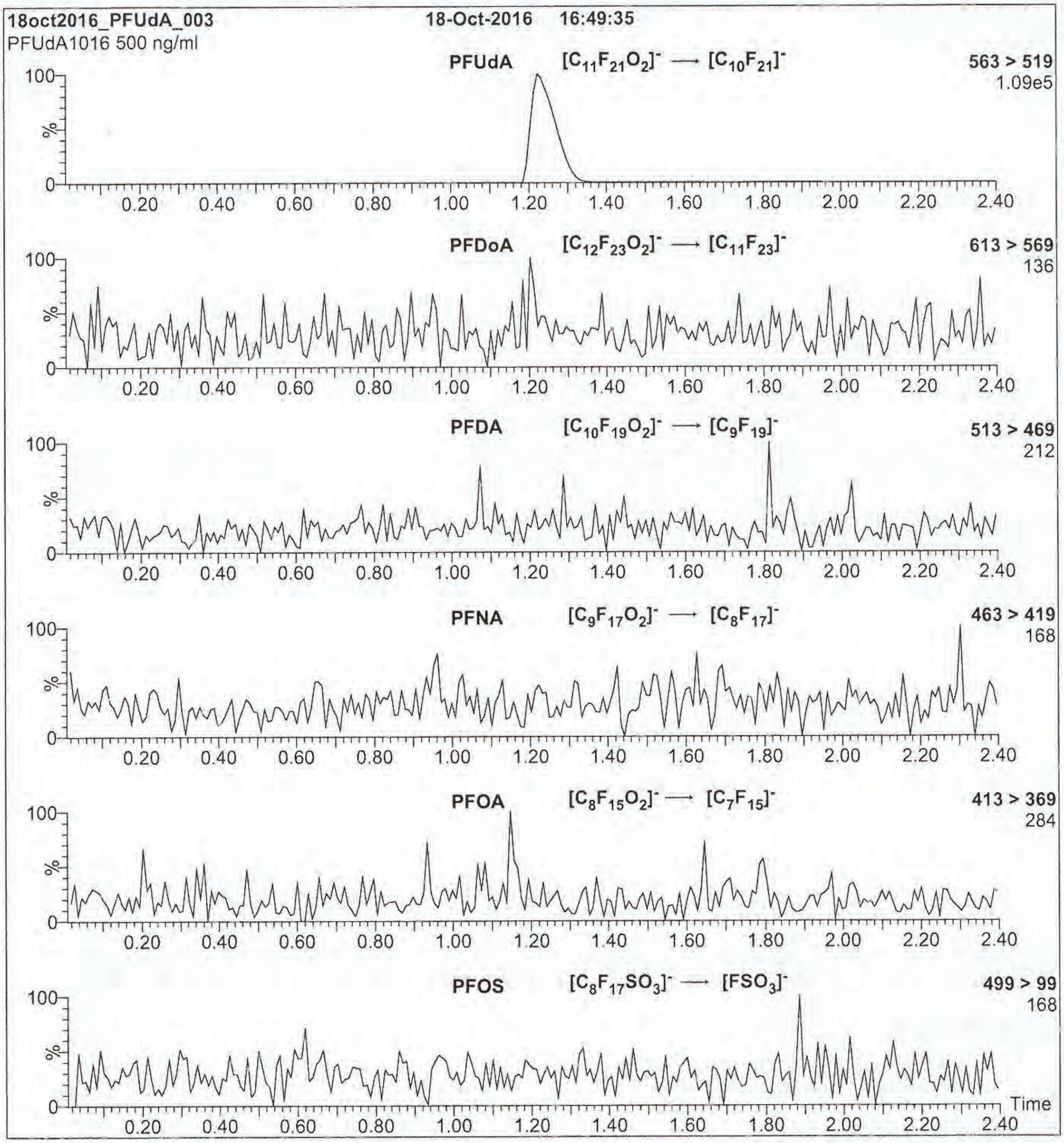
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 65
Desolvation Gas Flow (l/hr) = 750

Figure 2: PFUdA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml PFUdA)	**MS Parameters**
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	Collision Gas (mbar) = 3.24e-3 Collision Energy (eV) = 11
Flow:	300 µl/min	

17H0825

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

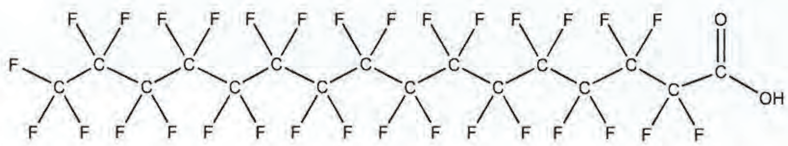
PRODUCT CODE: PFHxDA

COMPOUND: Perfluoro-n-hexadecanoic acid

LOT NUMBER: PFHxDA0516

STRUCTURE:

CAS #: 67905-19-5



MOLECULAR FORMULA: $C_{16}HF_{31}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 814.13

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 05/25/2016

EXPIRY DATE: (mm/dd/yyyy) 05/25/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.4% of PFODA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim

Date: 05/27/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

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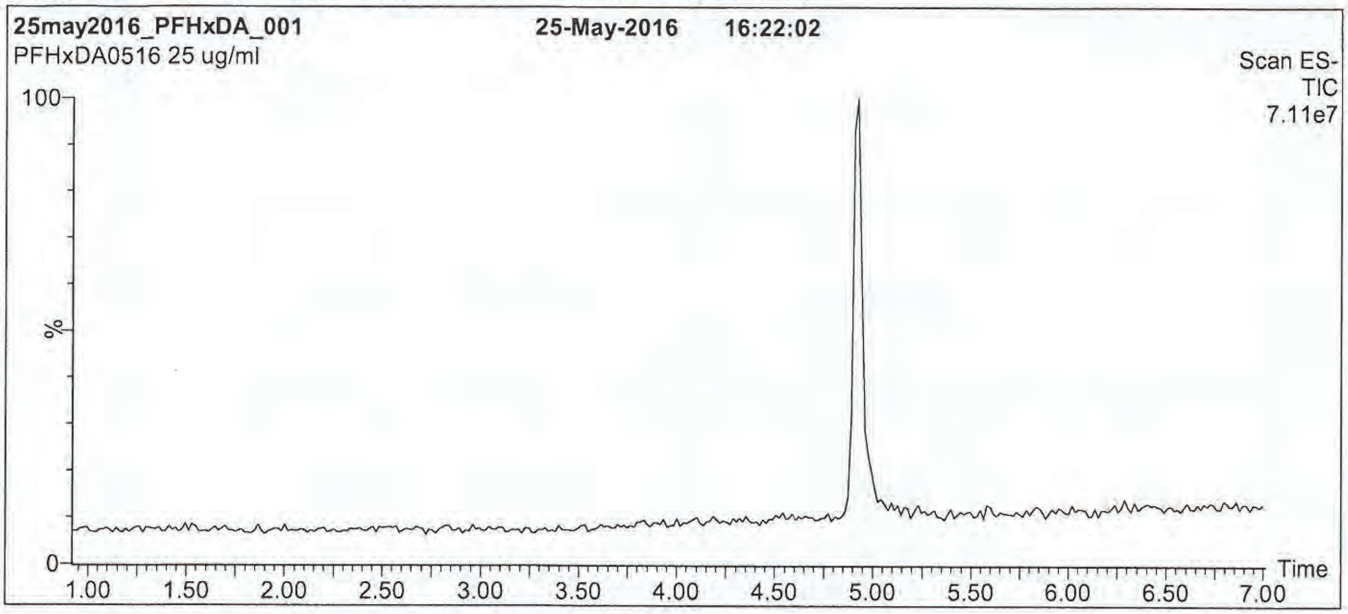
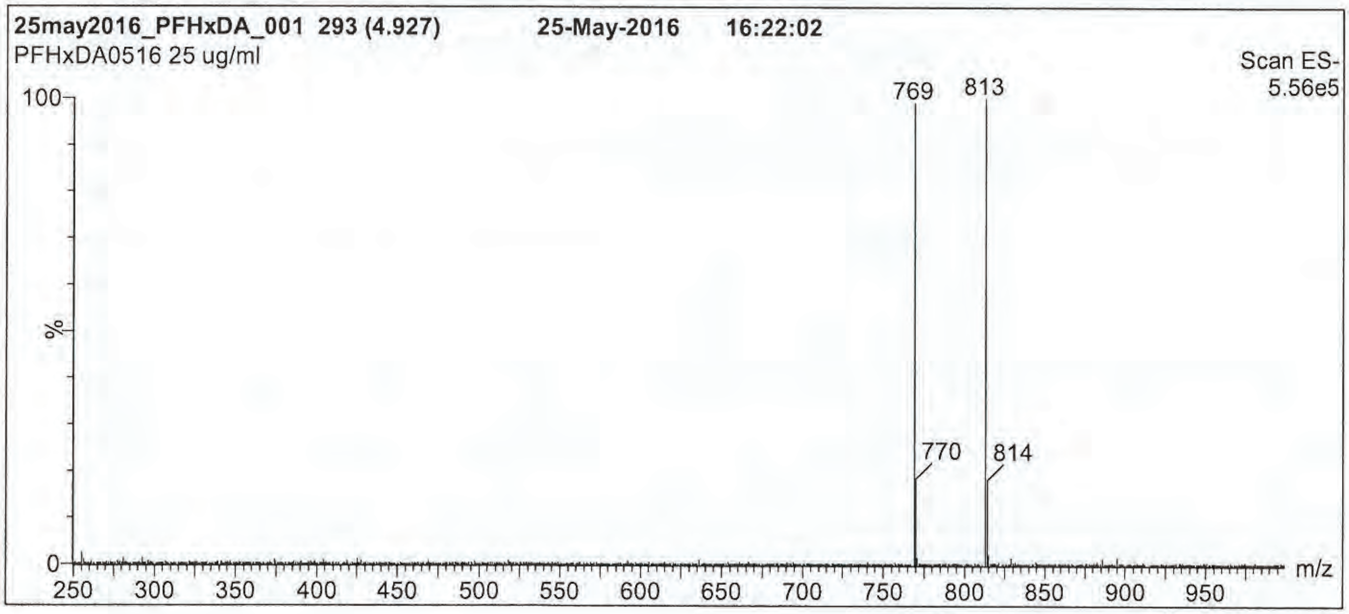
Figure 1: PFHxDA; LC/MS Data (TIC and Mass Spectrum)





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 70% (80:20 MeOH:ACN) / 30% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 95% organic over 6 min and hold for 2.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

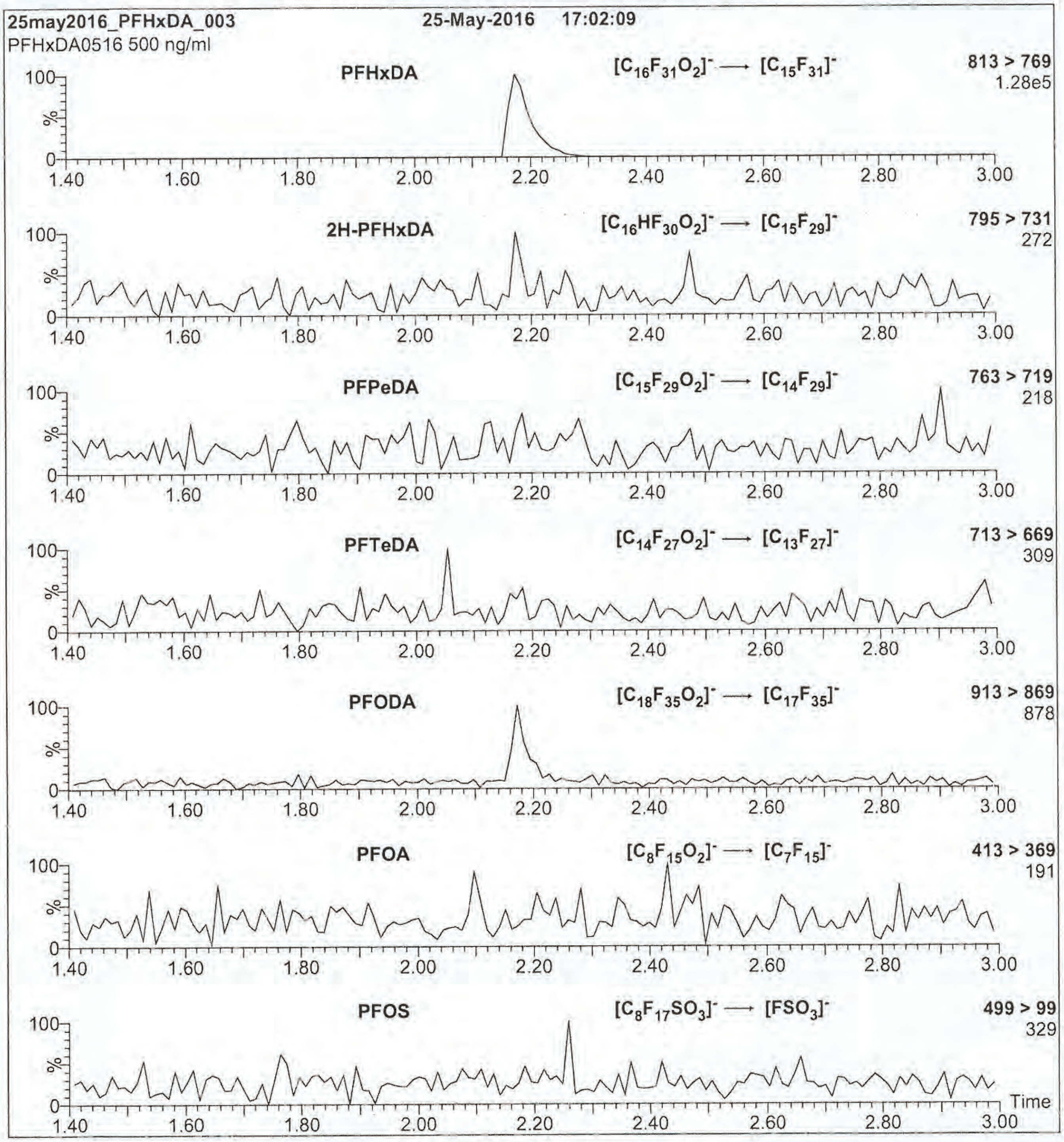
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 1250 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFHxDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFHxDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.66e-3
Collision Energy (eV) = 15

17H0826

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

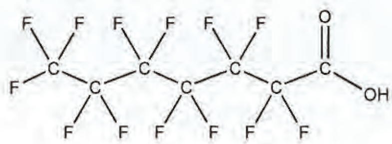
PRODUCT CODE: PFHpA ✓

COMPOUND: Perfluoro-n-heptanoic acid

LOT NUMBER: PFHpA1216

STRUCTURE:

CAS #: 375-85-9



MOLECULAR FORMULA: $C_7HF_{13}O_2$

CONCENTRATION: 50 ± 2.5 μg/ml

MOLECULAR WEIGHT: 364.06

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 12/02/2016

EXPIRY DATE: (mm/dd/yyyy) 12/02/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/12/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

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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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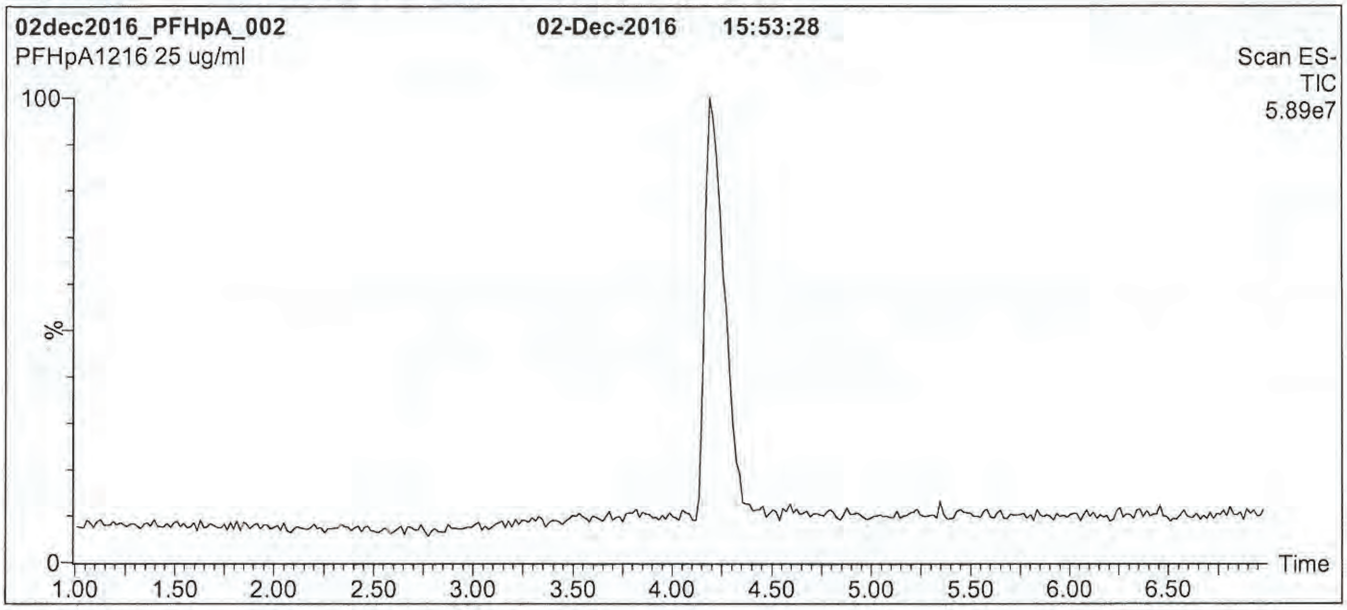
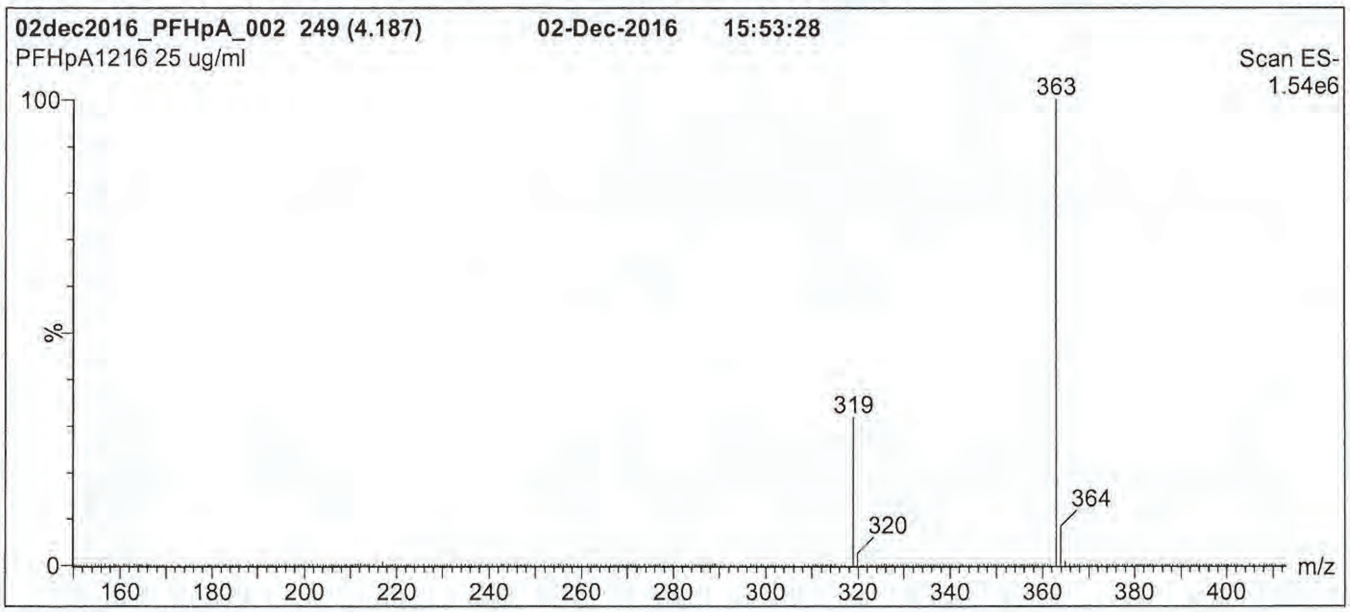
CALA

ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **PFHpA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

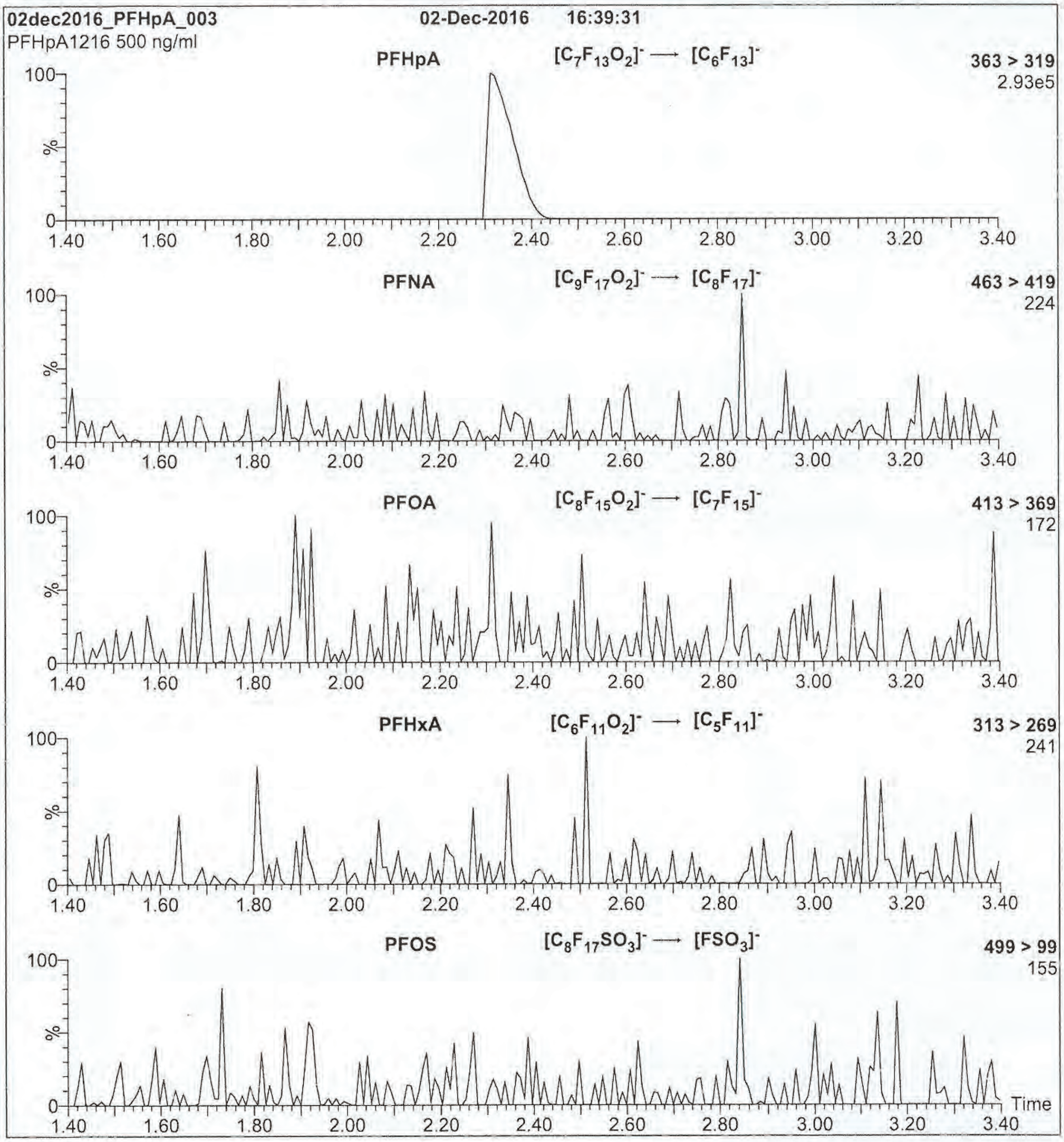
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFHpA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml PFHpA)
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.50e-3
Collision Energy (eV) = 11

17H0827

WELLINGTON LABORATORIES

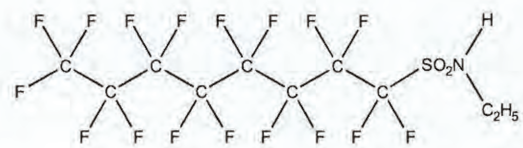
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSA-M

COMPOUND: N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEtFOSA0717M

STRUCTURE:



CAS #: 4151-50-2

MOLECULAR FORMULA: $C_{10}H_{6}F_{17}NO_{2}S$

CONCENTRATION: 50 ± 2.5 µg/ml

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 07/05/2017

EXPIRY DATE: (mm/dd/yyyy) 07/05/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 527.20

SOLVENT(S): Methanol

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim, General Manager

Date: 07/18/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

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HAZARDS:

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HOMOGENEITY:

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UNCERTAINTY:

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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

ANAB

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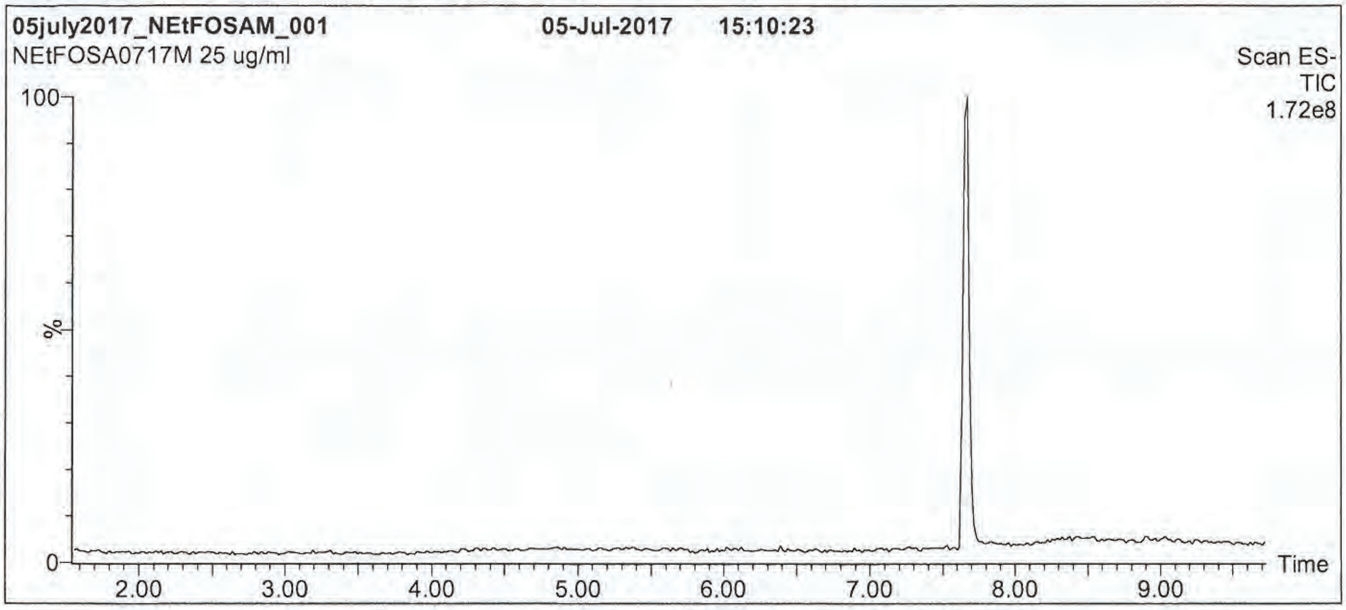
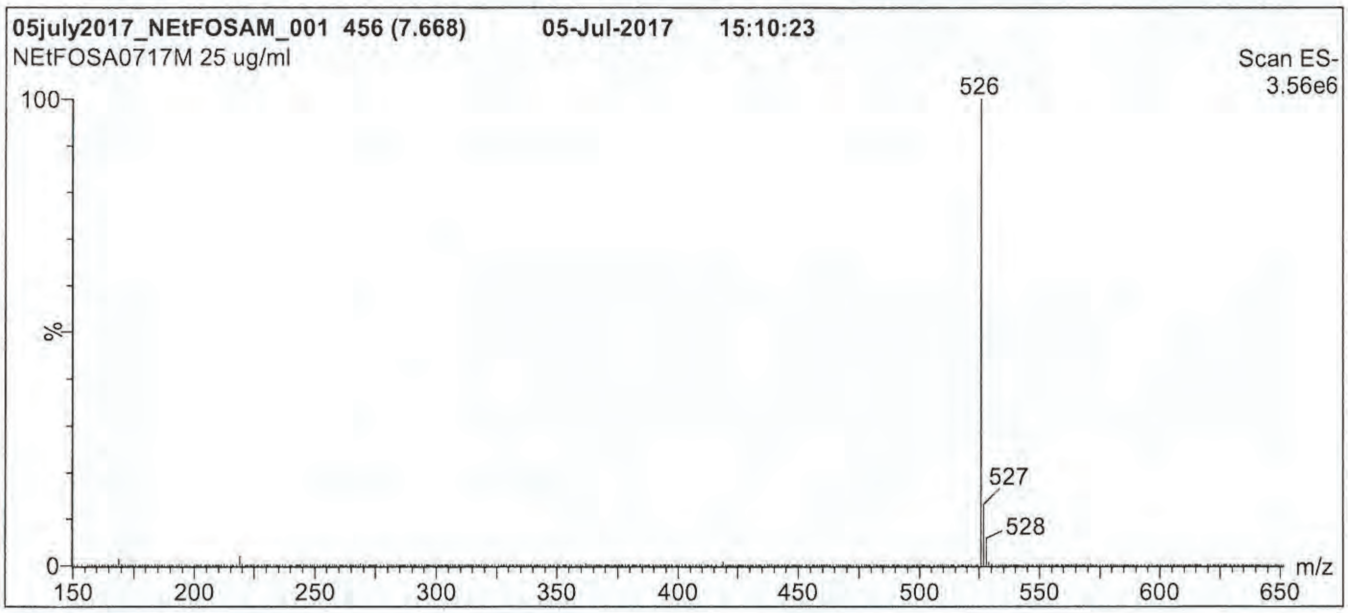
Figure 1: **N-EtFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 45% H_2O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

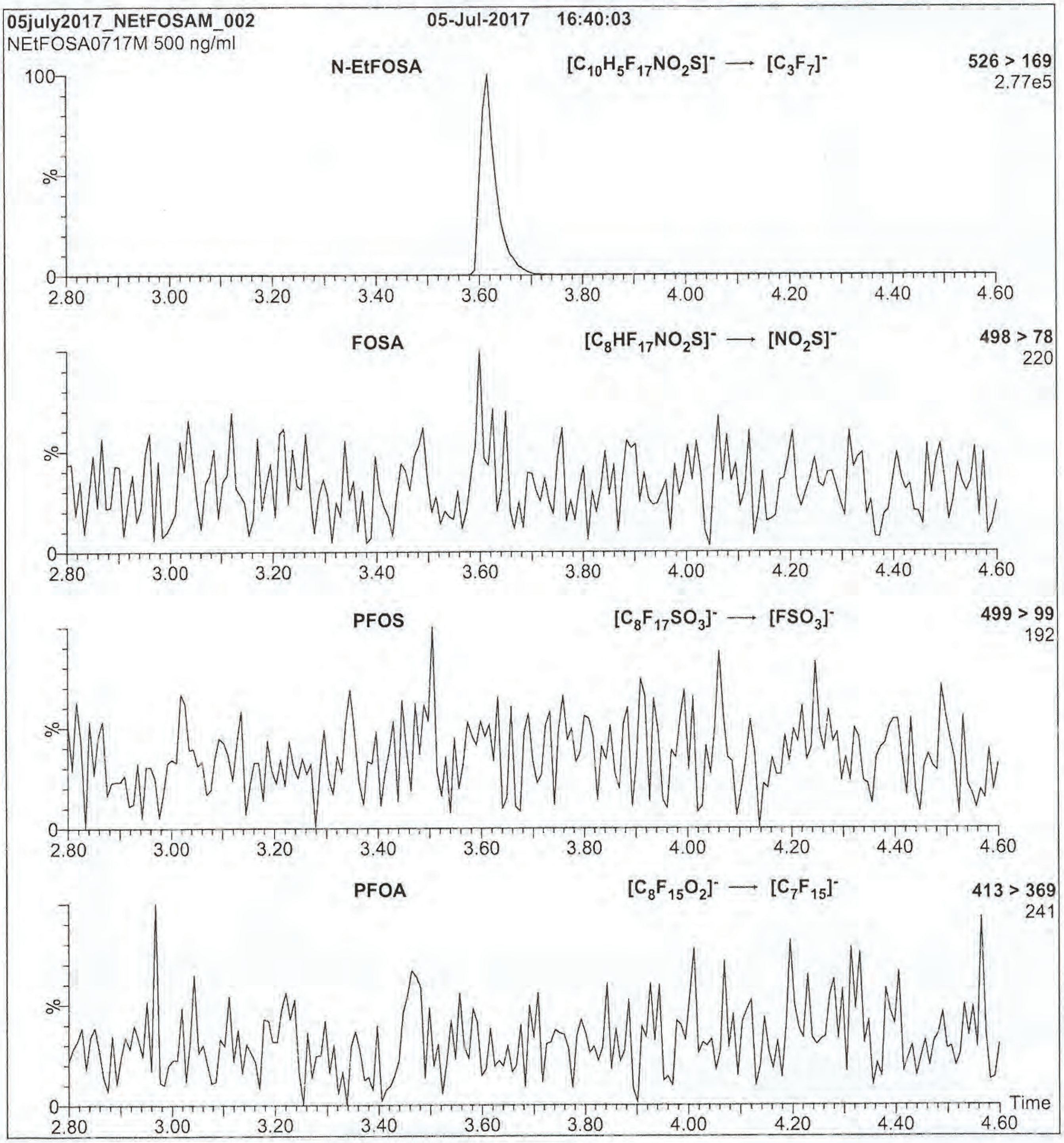
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **N-EtFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-EtFOSA-M)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 30

17H0828

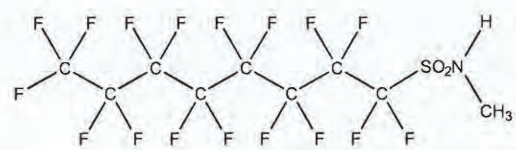
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M ✓ **LOT NUMBER:** NMeFOSA0717M

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) 07/05/2017

EXPIRY DATE: (mm/dd/yyyy) 07/05/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)

Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim, General Manager **Date:** 07/10/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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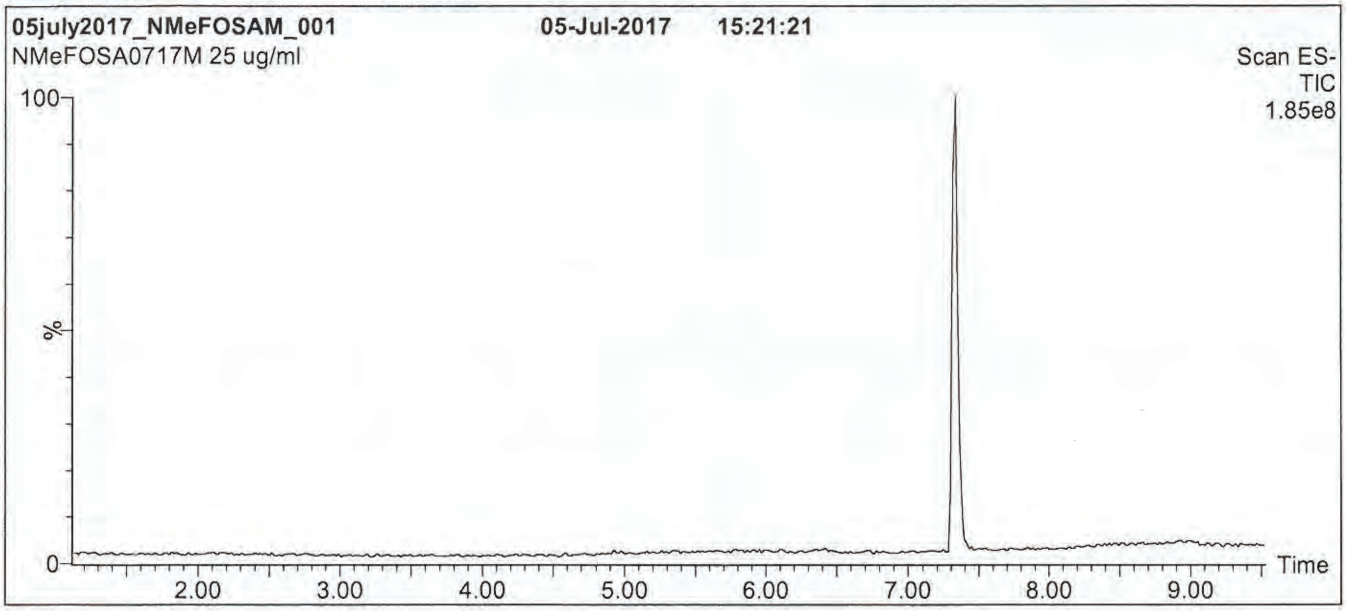
CALA

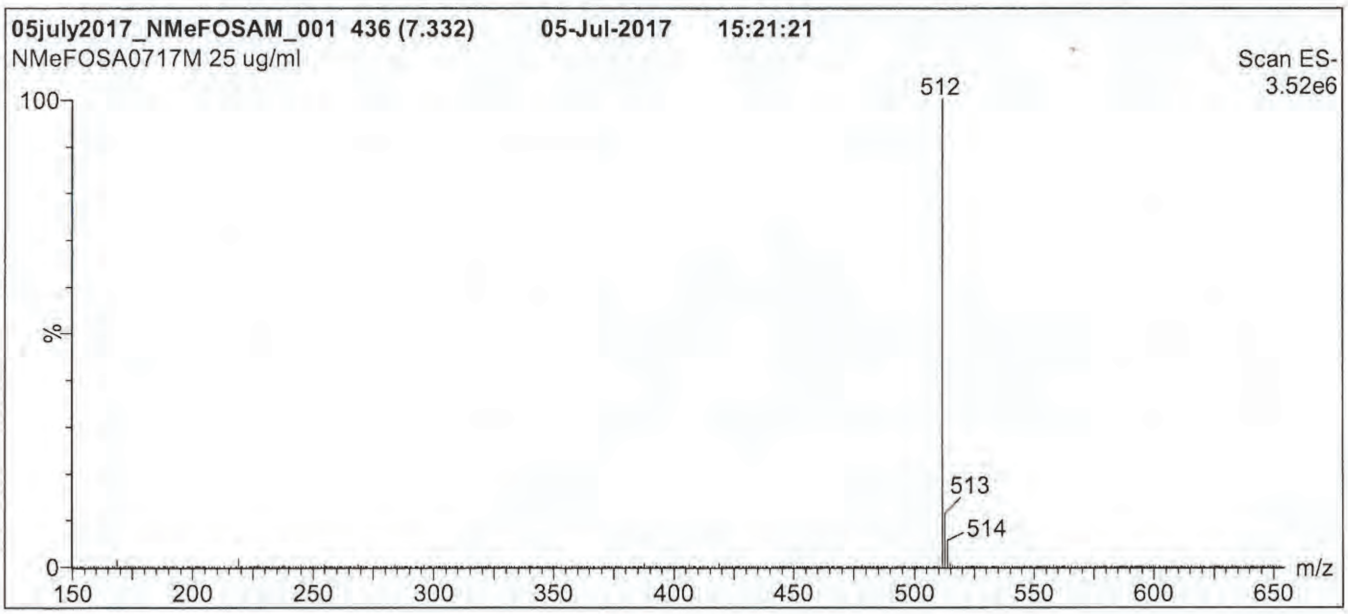
ANAB ACCREDITED

REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **N-MeFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 45% H_2O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

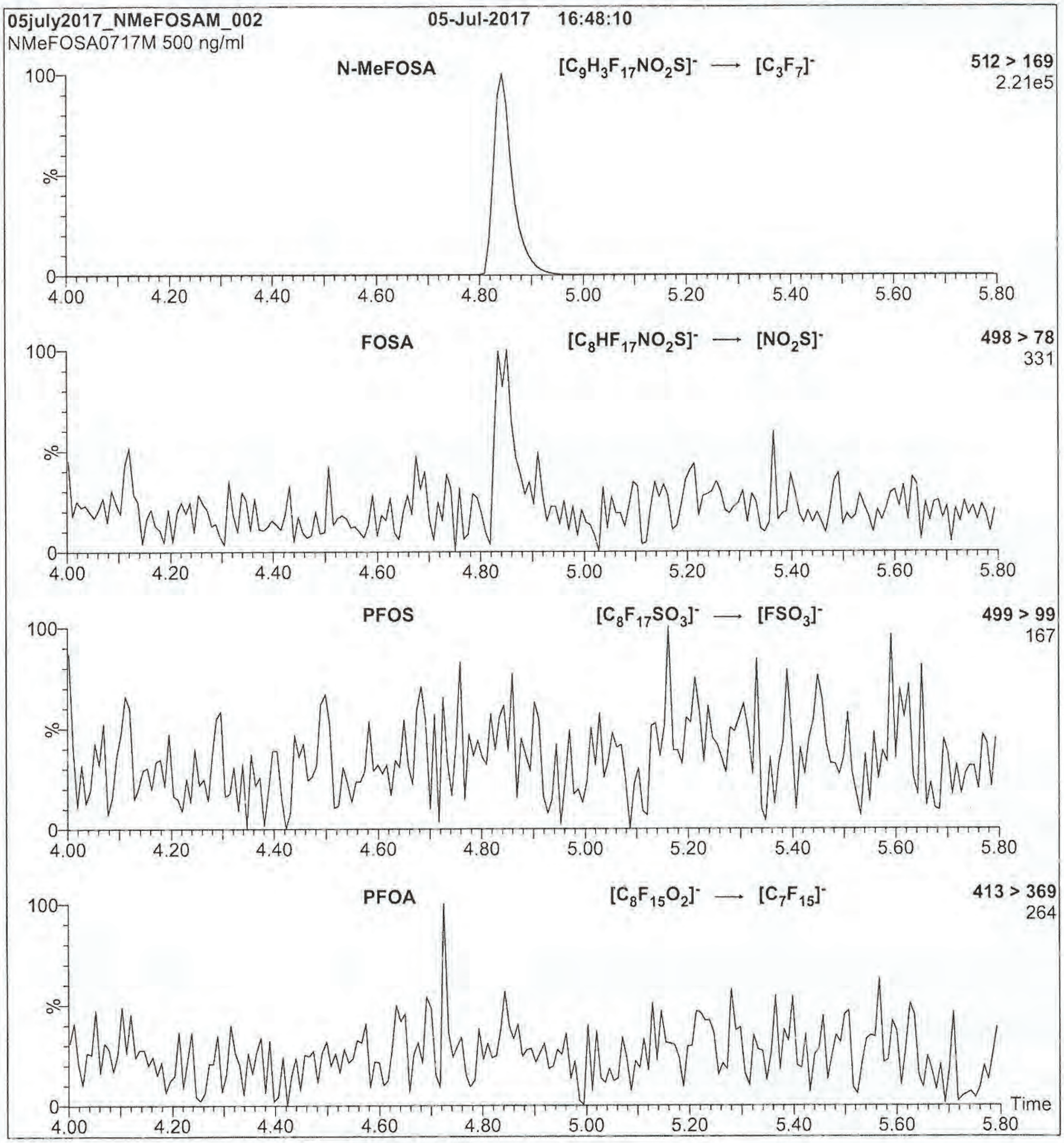
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **N-MeFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml N-MeFOSA-M)
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 30

17H0829

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

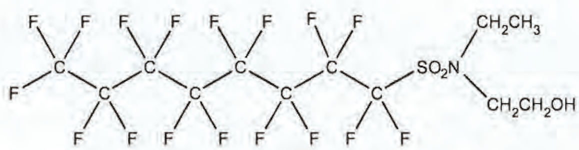
PRODUCT CODE: N-EtFOSE-M

LOT NUMBER: NEtFOSE0417M

COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE:

CAS #: 1691-99-2



MOLECULAR FORMULA: $C_{12}H_{10}F_{17}NO_3S$

MOLECULAR WEIGHT: 571.25

CONCENTRATION: 50 ± 2.5 µg/ml

SOLVENT(S): Methanol

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 04/24/2017 (HRGC/LRMS)
04/21/2017 (LC/MS)

EXPIRY DATE: (mm/dd/yyyy) 04/24/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: [signature]
B.G. Chittim, General Manager

Date: 04/26/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2,...x_n$ on which it depends is:

$$u_c(y(x_1, x_2, ... x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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

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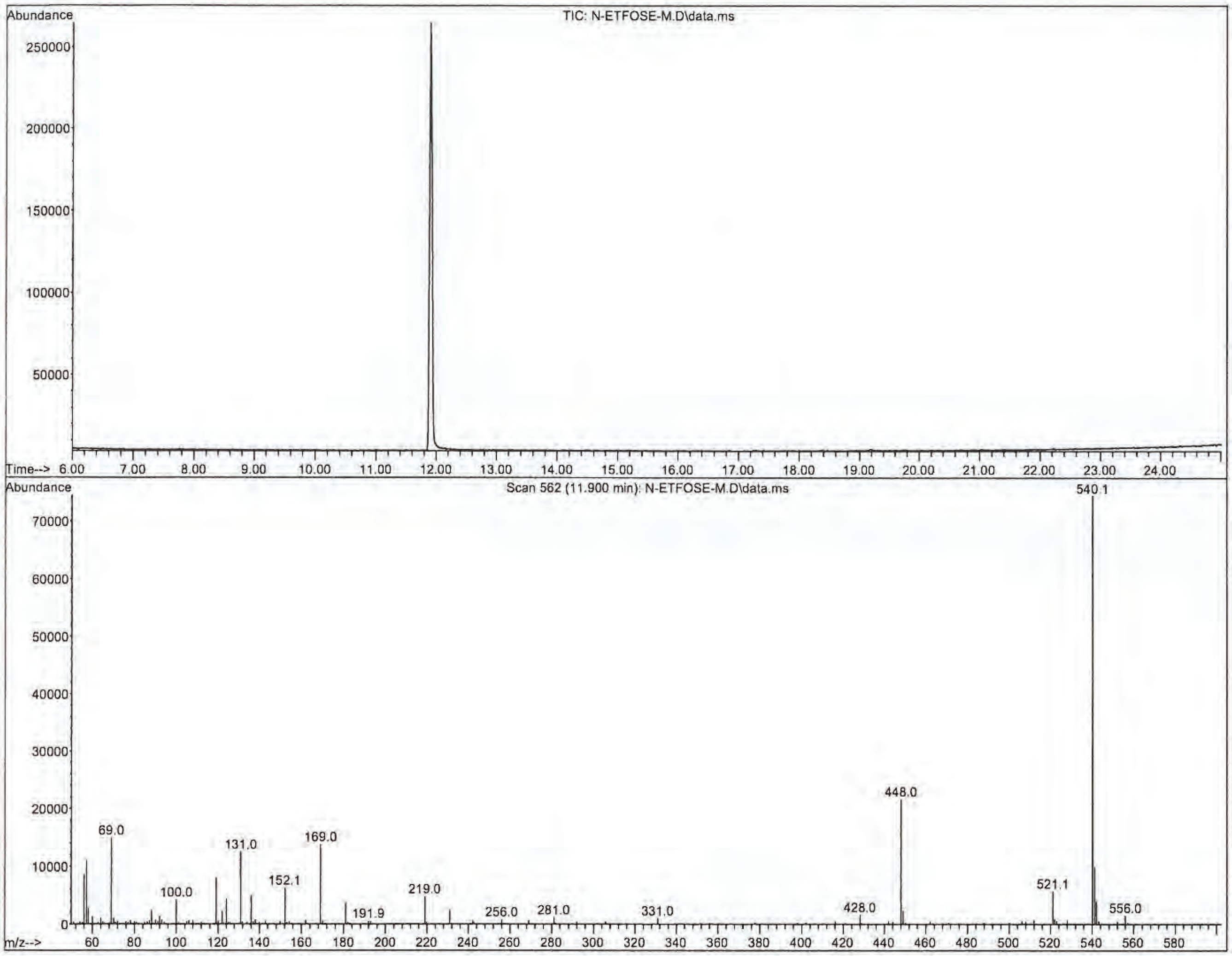
Figure 1: N-EtFOSE-M; HRGC/LRMS Data (TIC and Mass Spectrum)



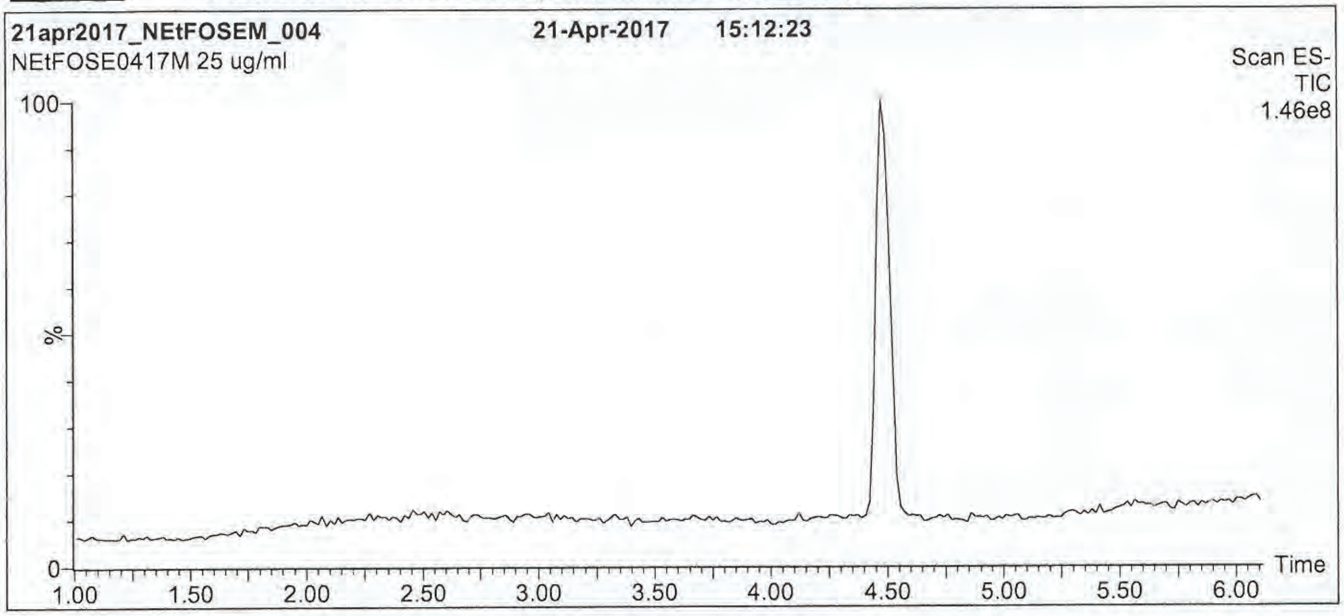
HRGC/LRMS:

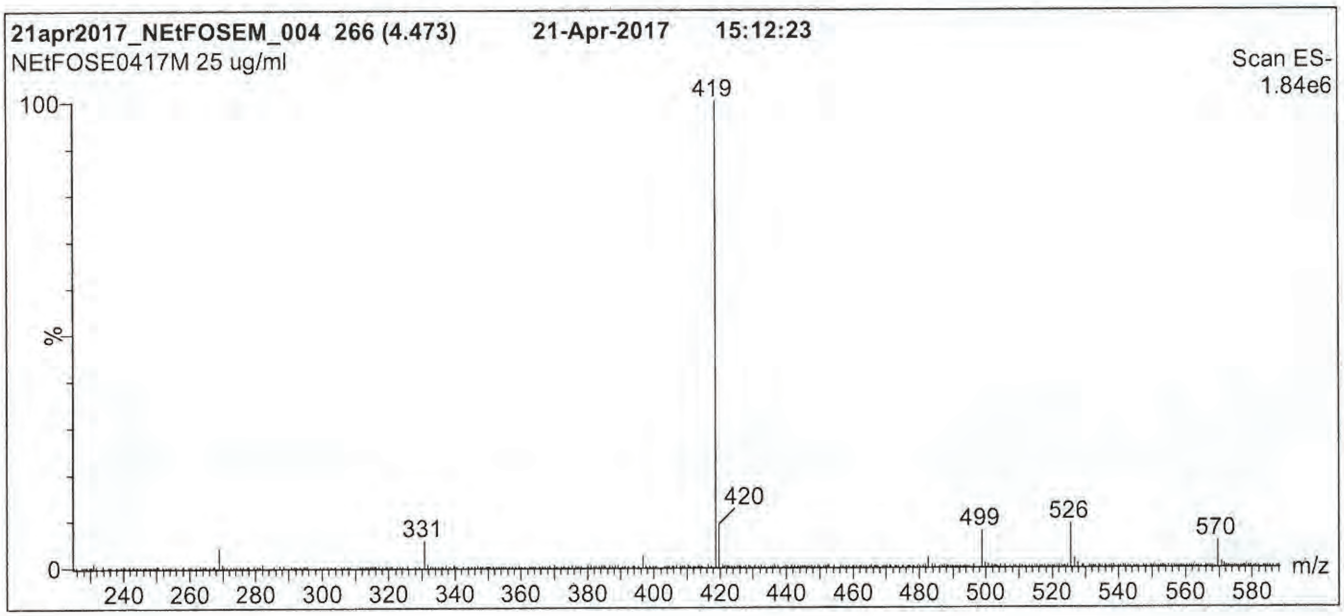
Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

Chromatographic Conditions:

Column:	30 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W
Injector:	250 °C (Splitless Injection)
Oven:	100 °C (5 min) 10 °C/min to 325 °C 325 °C (20 min)
Ionization:	EI+
Detector:	250 °C Full Scan (50-1000 amu)

Figure 2: **N-EtFOSE-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% MeOH / 40% H_2O
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

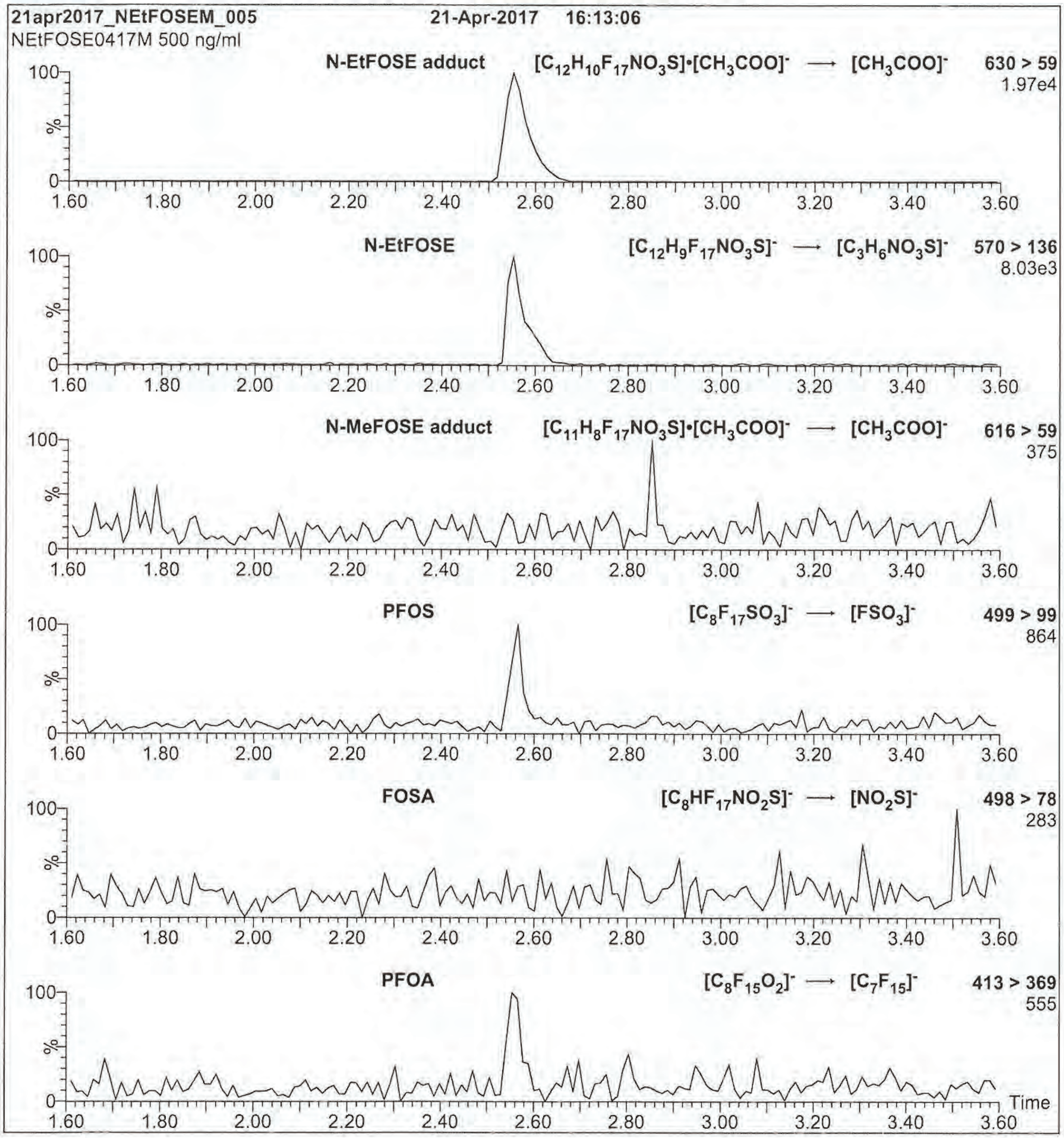
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 3: N-EtFOSE-M; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 3:

Injection: Direct loop injection
10 µl (500 ng/ml N-EtFOSE-M)

Mobile phase: Isocratic 80% MeOH / 20% H_2O

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 33

17H0830

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

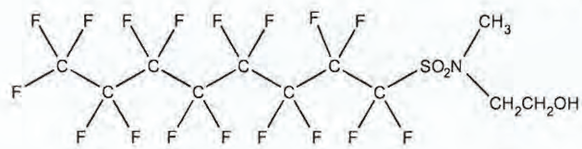
PRODUCT CODE: N-MeFOSE-M

LOT NUMBER: NMeFOSE0417M

COMPOUND: 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE:

CAS #: 24448-09-7



MOLECULAR FORMULA: $C_{11}H_8F_{17}NO_3S$

MOLECULAR WEIGHT: 557.22

CONCENTRATION: 50 ± 2.5 µg/ml

SOLVENT(S): Methanol

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 04/24/2017 (HRGC/LRMS)
04/21/2017 (LC/MS)

EXPIRY DATE: (mm/dd/yyyy) 04/24/2022

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- See page 2 for further details.
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Certified By: [signature]
B.G. Chittim, General Manager

Date: 05/05/2017 (mm/dd/yyyy)

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519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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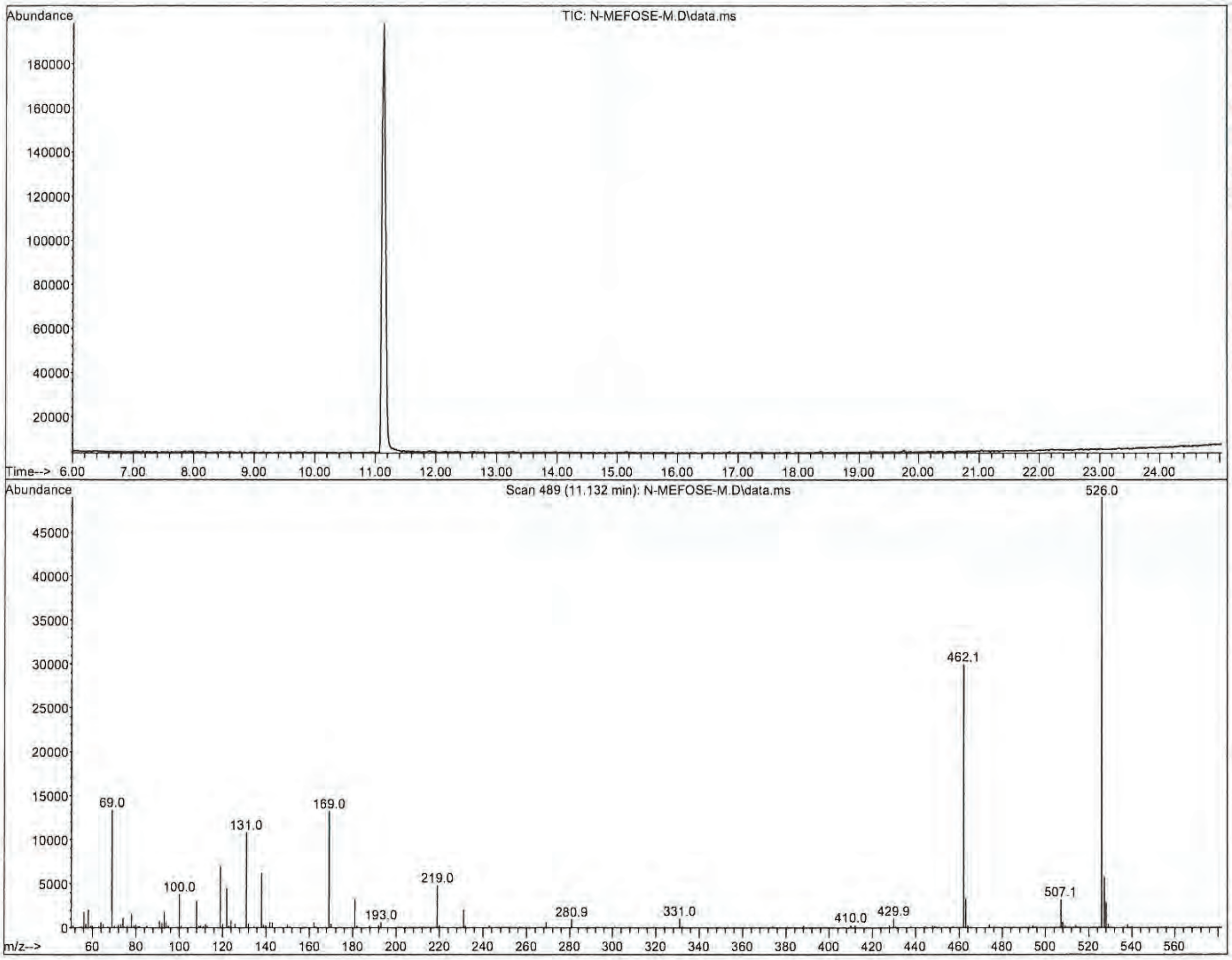
Figure 1: N-MeFOSE-M; HRGC/LRMS Data (TIC and Mass Spectrum)



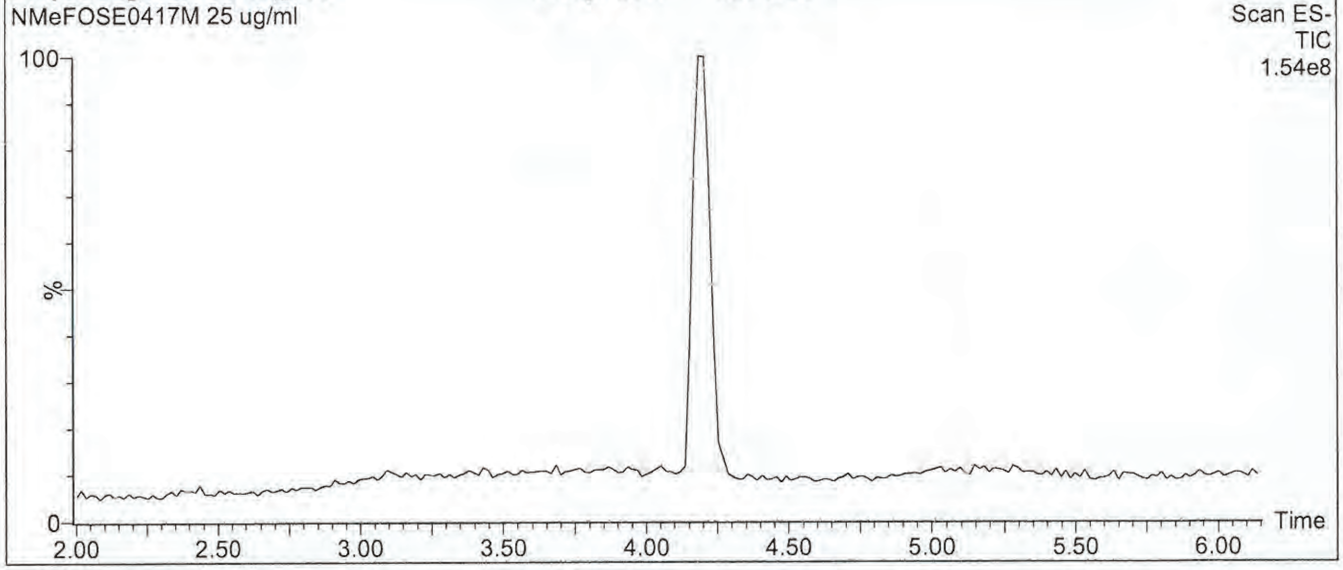
HRGC/LRMS:

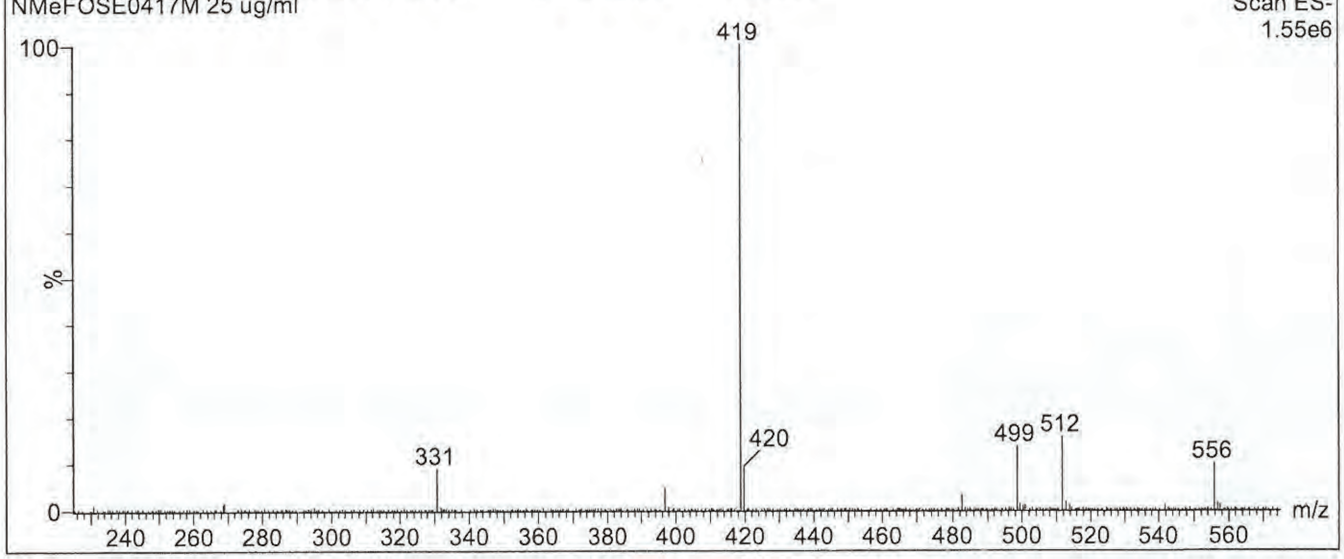
Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

Chromatographic Conditions:

Column:	30 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W
Injector:	250 °C (Splitless Injection)
Oven:	100 °C (5 min)
	10 °C/min to 325 °C
	325 °C (20 min)
Ionization:	EI+
Detector:	250 °C
	Full Scan (50-1000 amu)

Figure 2: N-MeFOSE-M; LC/MS Data (TIC and Mass Spectrum)





Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% MeOH / 40% H_2O
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

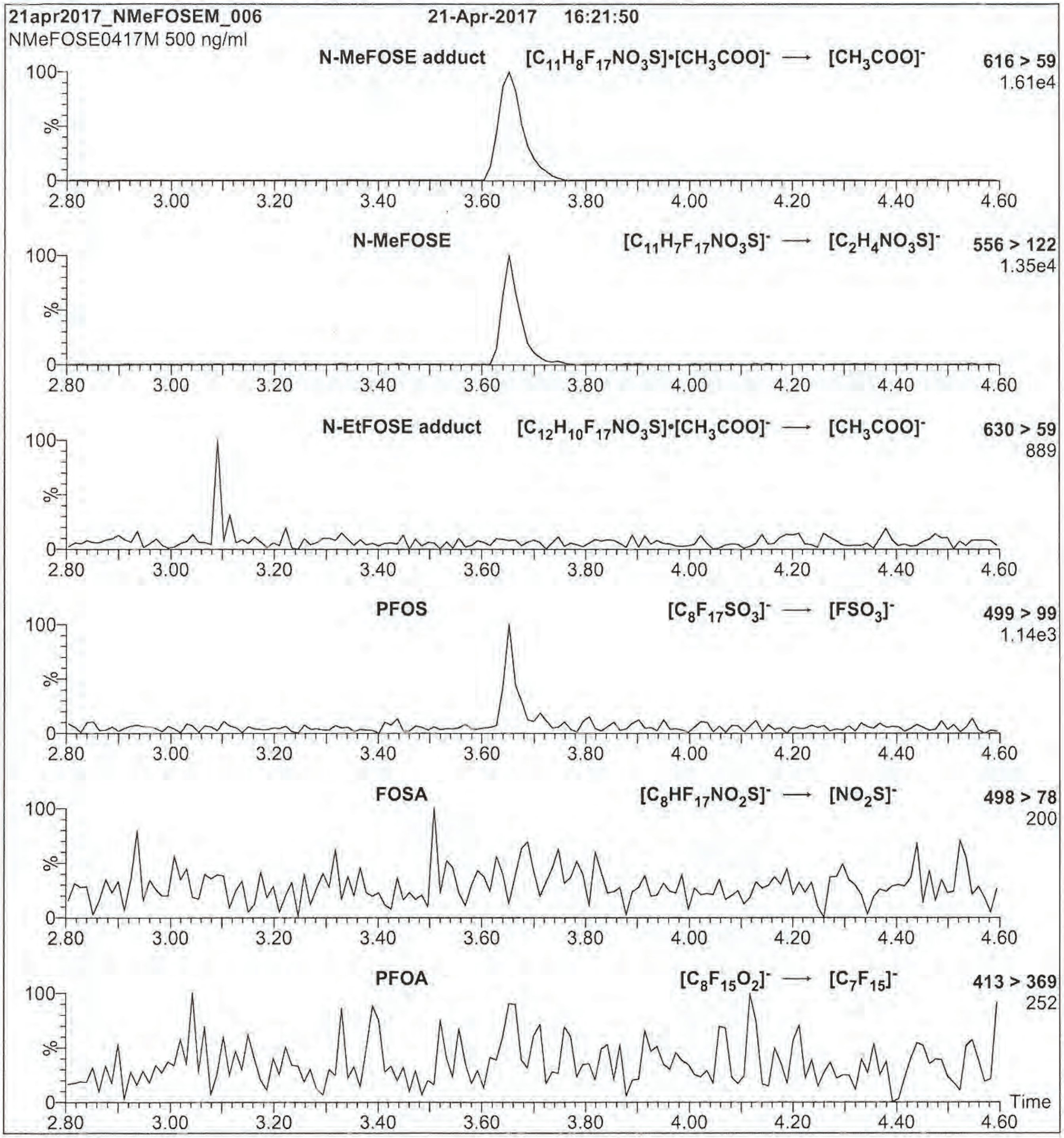
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 3: **N-MeFOSE-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection:	Direct loop injection 10 µl (500 ng/ml N-MeFOSE-M)	**MS Parameters**
		Collision Gas (mbar) = 3.28e-3
Mobile phase:	Isocratic 80% MeOH / 20% H_2O	Collision Energy (eV) = 35
Flow:	300 µl/min	

Analytical Standard Record

Vista Analytical Laboratory

17L0402

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	(mls)
17E1716	13C2-PFHxA	17-May-17	** Vendor **	22-Nov-21	0.2
17H0801	13C2-PFHxDA	08-Aug-17	** Vendor **	07-Jan-21	0.2
17K0802	d3-N-Me-FOSAA	08-Nov-17	** Vendor **	19-May-22	0.5
17K0803	d5-N-EtFOSAA	08-Nov-17	** Vendor **	22-Nov-21	0.5
17K0804	13C3-PFBA	08-Nov-17	** Vendor **	27-May-21	0.5
17K0805	13C2-8:2 FTS	08-Nov-17	** Vendor **	05-Jul-22	0.522
17K0807	13C2-6:2 FTS	08-Nov-17	** Vendor **	17-Feb-22	0.526
17K0810	13C5-PFNA	08-Nov-17	** Vendor **	30-Sep-21	0.5
17K0812	13C2-PFTeDA	08-Nov-17	** Vendor **	01-Mar-22	0.5
17K0813	13C2-PFUdA	08-Nov-17	** Vendor **	22-Nov-21	0.5
17K0814	13C4-PFHpA	08-Nov-17	** Vendor **	03-May-22	0.5
17K0816	13C2-PFDoA	08-Nov-17	** Vendor **	23-May-22	0.5
17K0818	18O2-PFHxS	08-Nov-17	** Vendor **	17-Feb-22	0.529
17K0819	13C8-PFOS	08-Nov-17	** Vendor **	30-Sep-21	0.539
17K0821	13C3-PFBS	08-Nov-17	** Vendor **	24-May-22	0.538
17K3038	13C8-FOSA-I	30-Nov-17	** Vendor **	11-Oct-22	0.5
17K3039	13C2-PFDA	30-Nov-17	** Vendor **	13-Jul-22	0.5
17K3040	13C2-PFOA	30-Nov-17	** Vendor **	26-Oct-22	0.5
17K3041	13C3-PFPeA	30-Nov-17	** Vendor **	20-Apr-22	0.5

Description:	PFC - IS	Expires:	04-Dec-18
Standard Type:	Reagent	Prepared:	04-Dec-17
Solvent:	MeOH	Prepared By:	Kyle Byrd-Fisher
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	12-Dec-17 09:51 by AEW

Analyte	CAS Number	Concentration	Units
13C3-PFBS		1.25	ug/mL
13C2-8:2 FTS		1.25	ug/mL
13C2-PFDA		1.25	ug/mL
13C2-PFDoA		1.25	ug/mL
13C2-PFHxA		0.5	ug/mL
13C2-PFHxDA		0.5	ug/mL
13C2-PFOA		1.25	ug/mL
13C2-PFTeDA		1.25	ug/mL
13C2-6:2 FTS		1.25	ug/mL
13C3-PFBA		1.25	ug/mL
d5-EtFOSAA		1.25	ug/mL
13C3-PFPeA		1.25	ug/mL
13C4-PFHpA		1.25	ug/mL
13C5-PFNA		1.25	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

17L0402

Description:	PFC - IS	Expires:	04-Dec-18
Standard Type:	Reagent	Prepared:	04-Dec-17
Solvent:	MeOH	Prepared By:	Kyle Byrd-Fisher
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	12-Dec-17 09:51 by AEW

Analyte	CAS Number	Concentration	Units
13C8-PFOS		1.25	ug/mL
13C8-PFOSA		1.25	ug/mL
18O2-PFHxS		1.25	ug/mL
d3-MeFOSAA		1.25	ug/mL
13C2-PFUnA		1.25	ug/mL

✓ 17E1716

WELLINGTON LABORATORIES

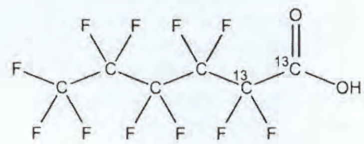
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFHxA

COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid

LOT NUMBER: MPFHxA1116

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_2{}^{12}C_4HF_{11}O_2$

CONCENTRATION: 50 ± 2.5 μg/ml

MOLECULAR WEIGHT: 316.04

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 11/22/2016

EXPIRY DATE: (mm/dd/yyyy) 11/22/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: ≥99% ^{13}C (1,2-$^{13}C_2$)

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 and ~ 0.3% of perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim   **Date:** 12/13/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17I-10801

WELLINGTON LABORATORIES

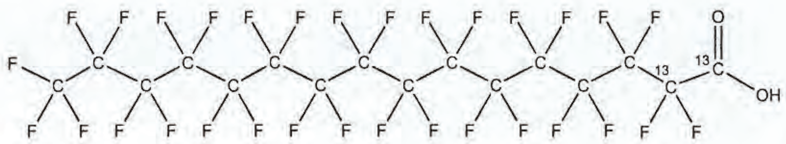
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2PFHxDA ✓

COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexadecanoic acid

LOT NUMBER: M2PFHxDA1112

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_2{}^{12}C_{14}HF_{31}O_2$

CONCENTRATION: 50 ± 2.5 μg/ml

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 01/07/2016

EXPIRY DATE: (mm/dd/yyyy) 01/07/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 816.11

SOLVENT(S): Methanol
Water (<1%)

ISOTOPIC PURITY: $\geq$99% ^{13}C (1,2-$^{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 ~ 0.3% of native perfluoro-n-hexadecanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 01/11/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

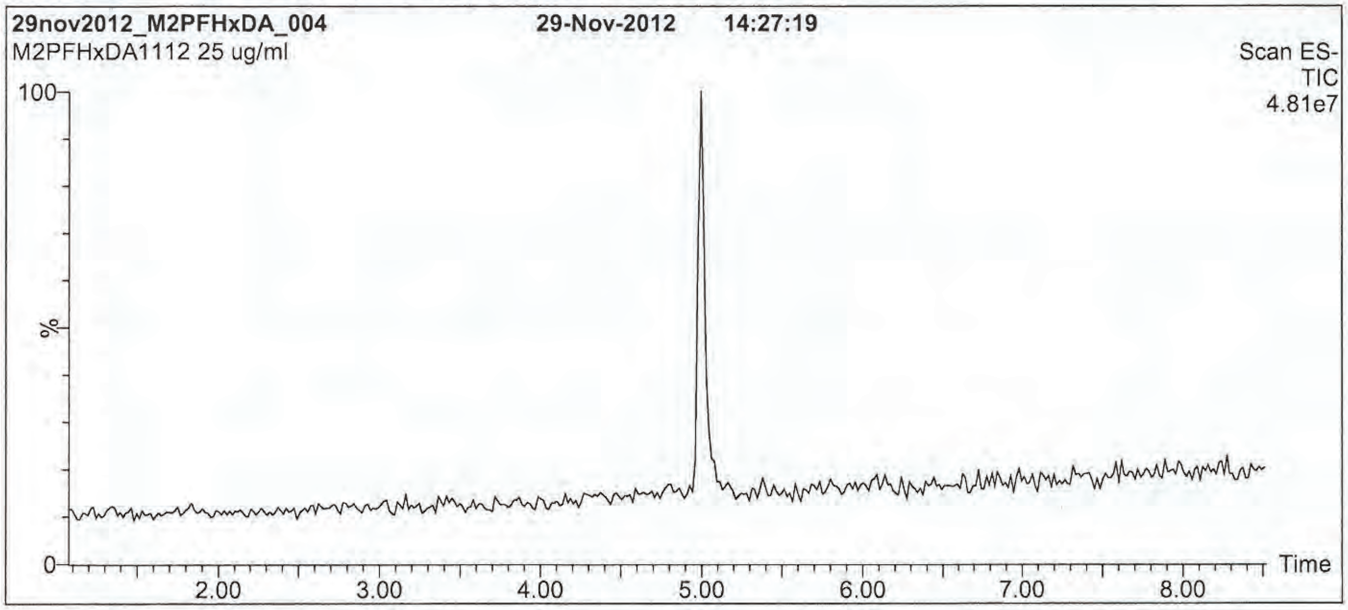
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

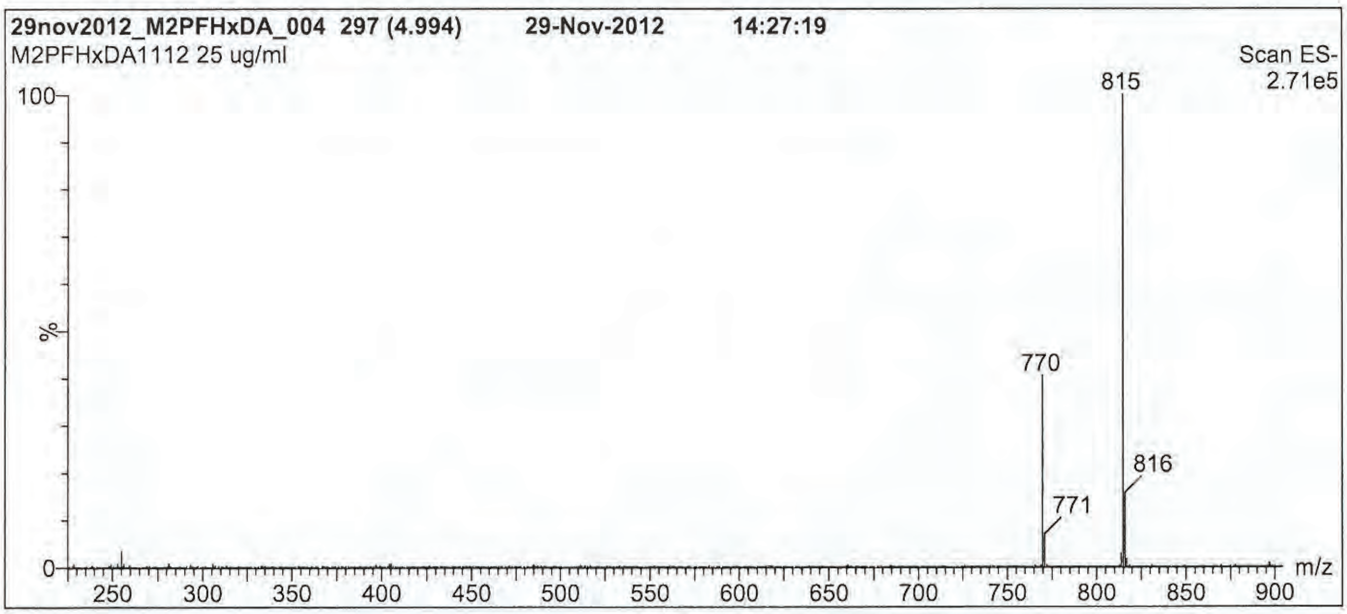
CALA

ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **M2PFHxDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 100% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

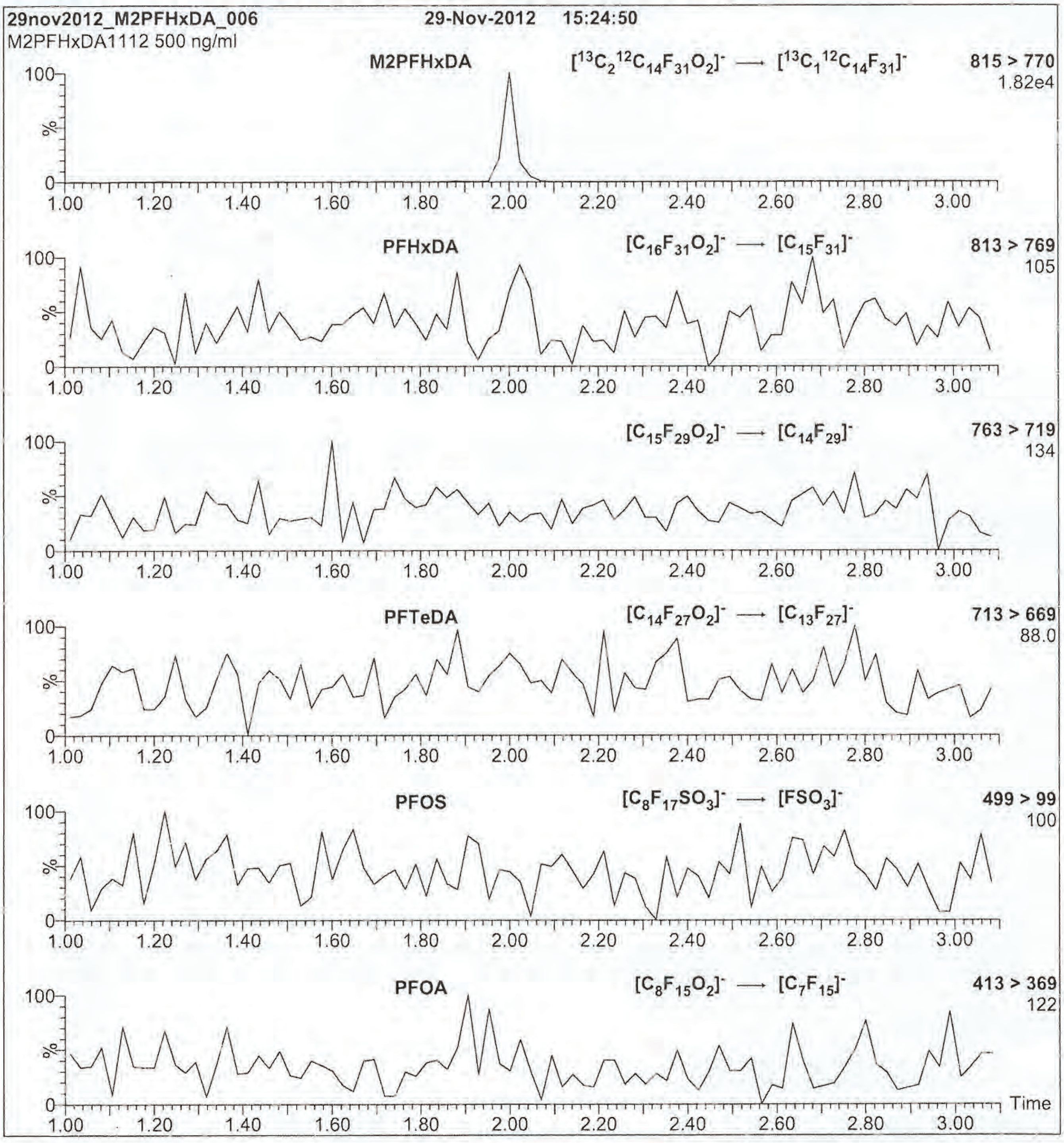
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 1200 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **M2PFHxDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M2PFHxDA)
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 15

17K0802

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

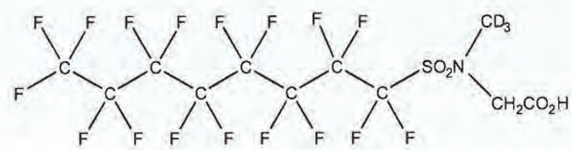
PRODUCT CODE: d3-N-MeFOSAA

LOT NUMBER: d3NMeFOSAA0517

COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $C_{11}D_3H_3F_{17}NO_4S$

CONCENTRATION: 50 ± 2.5 µg/ml

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 05/19/2017

EXPIRY DATE: (mm/dd/yyyy) 05/19/2022

RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 574.23

SOLVENT(S): Methanol
Water (<1%)

ISOTOPIC PURITY: $\geq$98% $^2H_3$

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: [signature]
B.G. Chittim, General Manager

Date: 05/31/2017
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0802

INTENDED USE:

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HAZARDS:

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SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. 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.

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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).

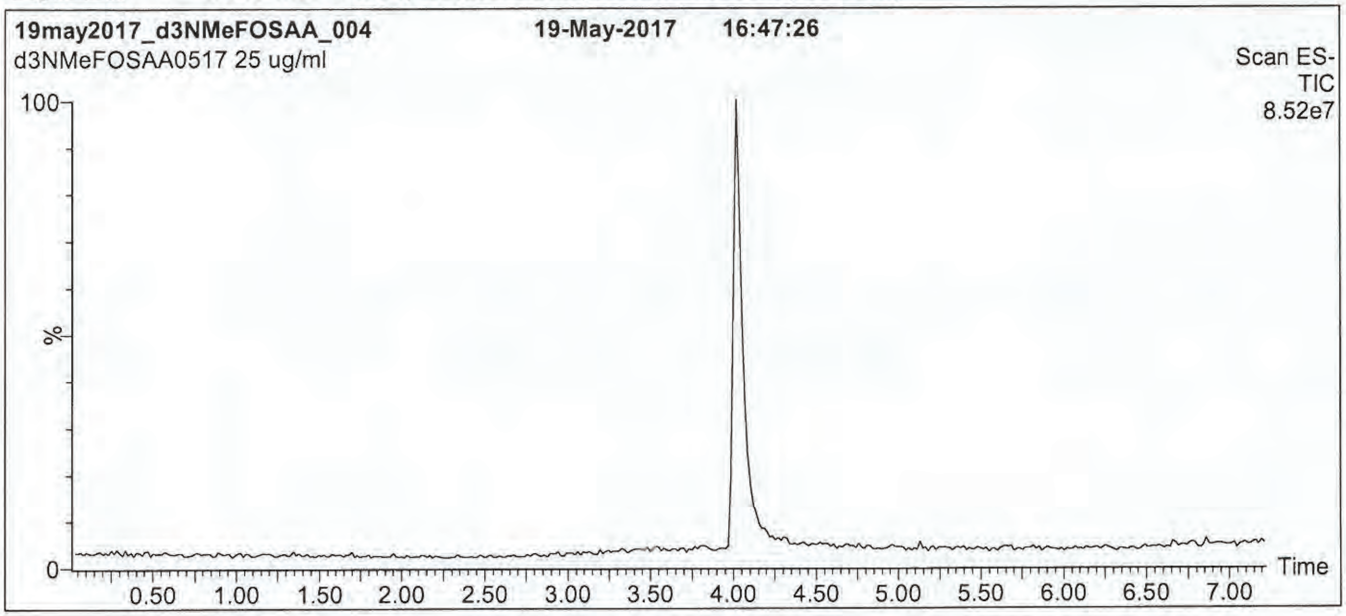
CALA Testing

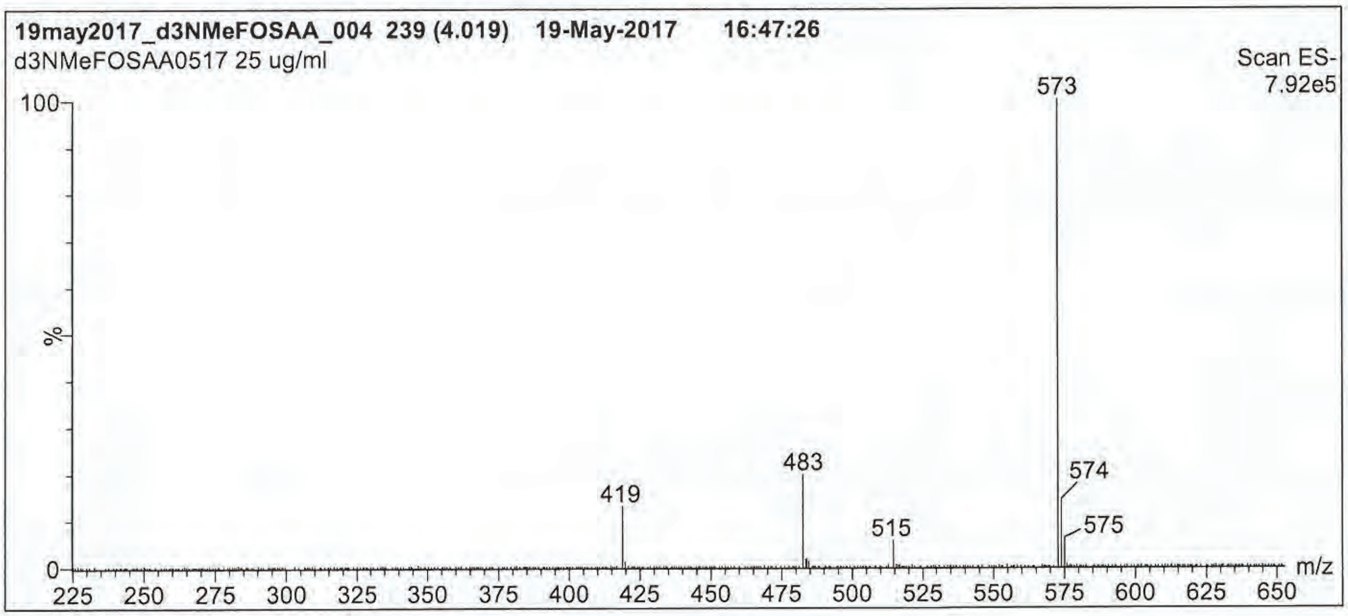
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K0802

Figure 1: **d3-N-MeFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

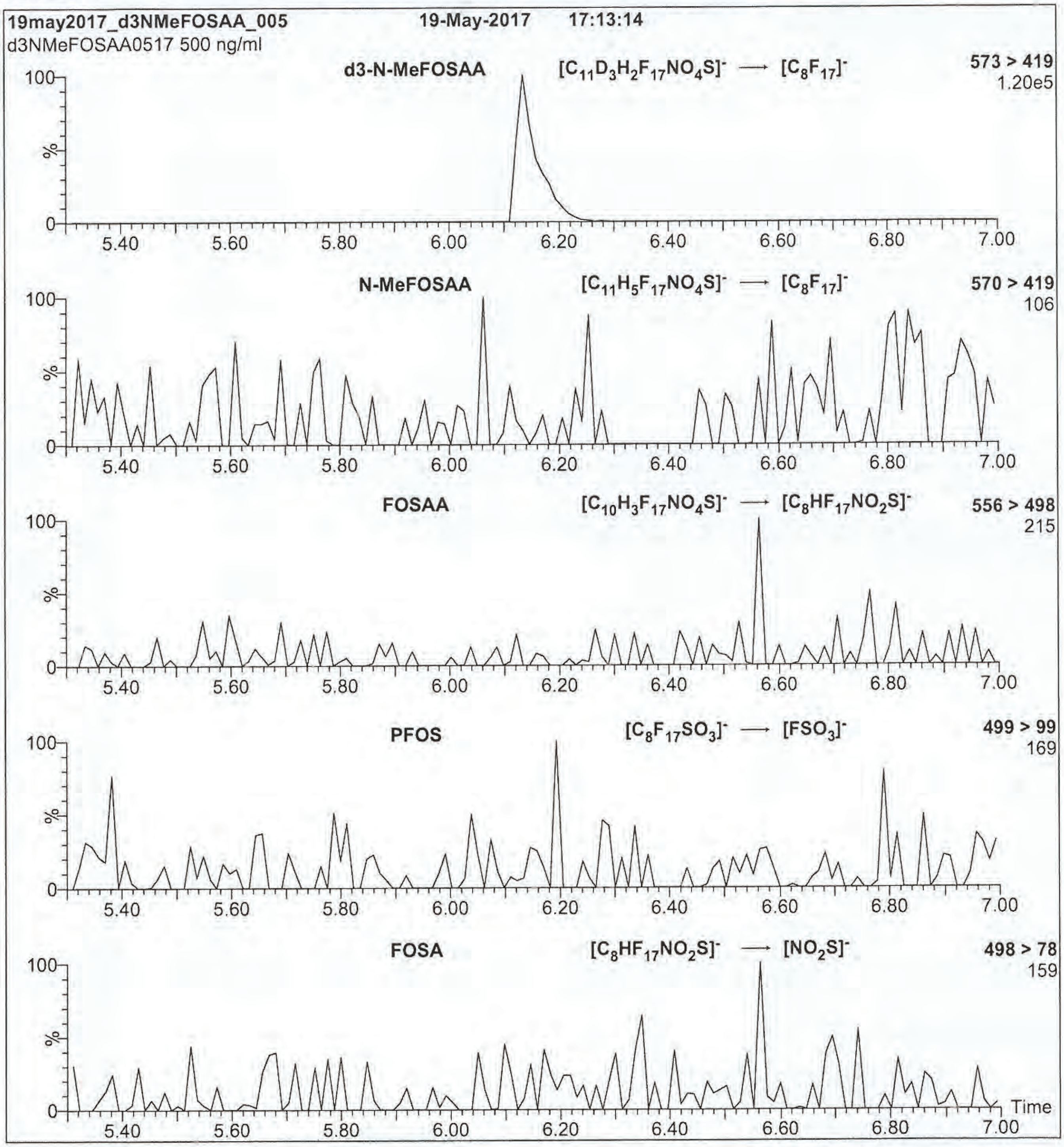
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0802

Figure 2: d3-N-MeFOSAA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml d3-N-MeFOSAA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 20

17K0803

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

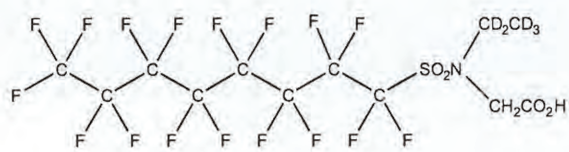
PRODUCT CODE: d5-N-EtFOSAA

LOT NUMBER: d5NEtFOSAA1116

COMPOUND: N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $C_{12}D_5H_3F_{17}NO_4S$

MOLECULAR WEIGHT: 590.26

CONCENTRATION: 50 ± 2.5 µg/ml

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: $\geq$98% $^2H_5$

LAST TESTED: (mm/dd/yyyy) 11/22/2016

EXPIRY DATE: (mm/dd/yyyy) 11/22/2021

RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim

Date: 12/01/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0803

INTENDED USE:

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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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CALA

ANAB ACCREDITED

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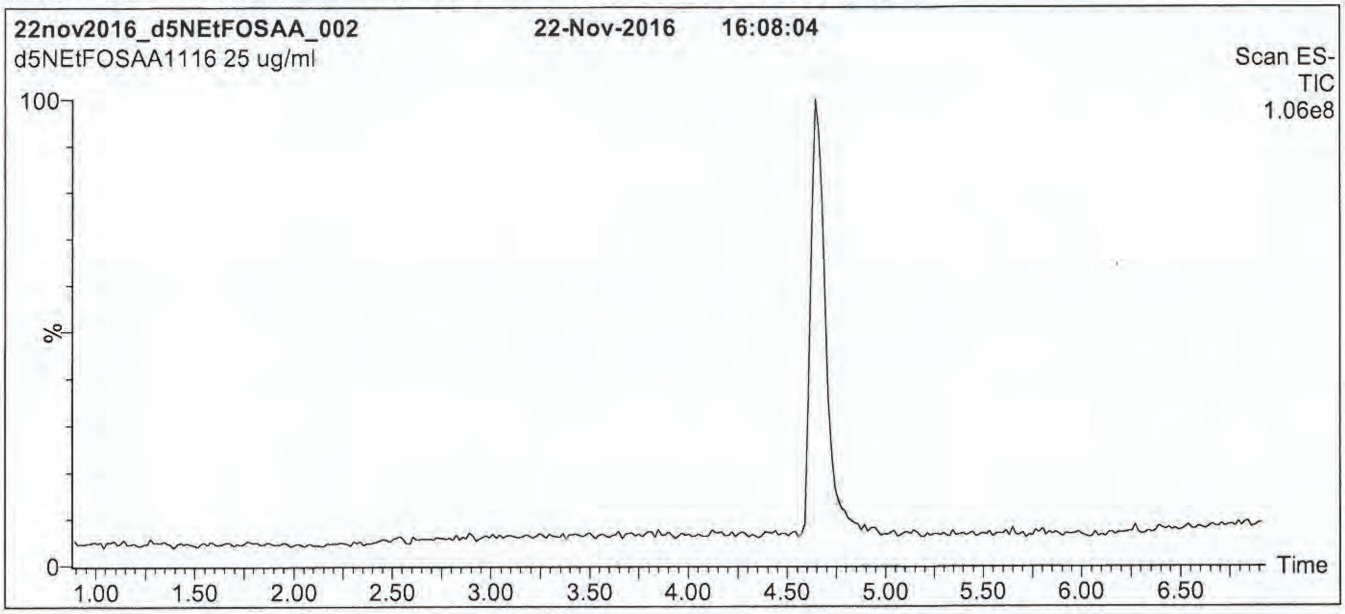
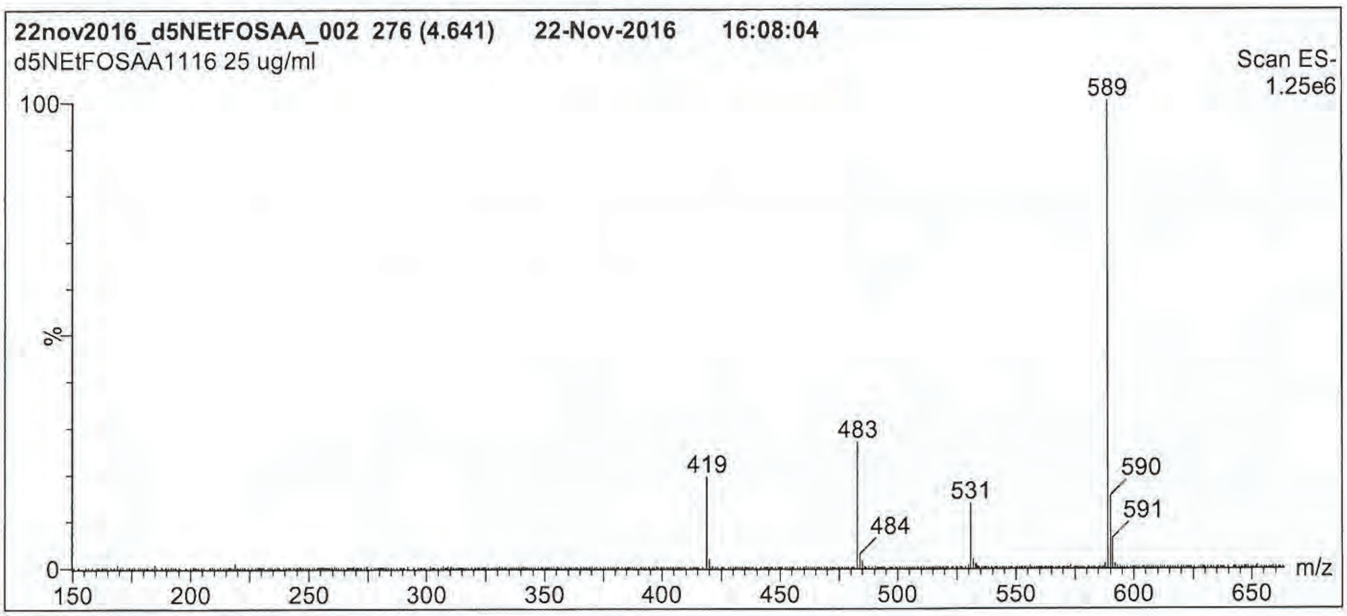
17K0803

Figure 1: **d5-N-EtFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

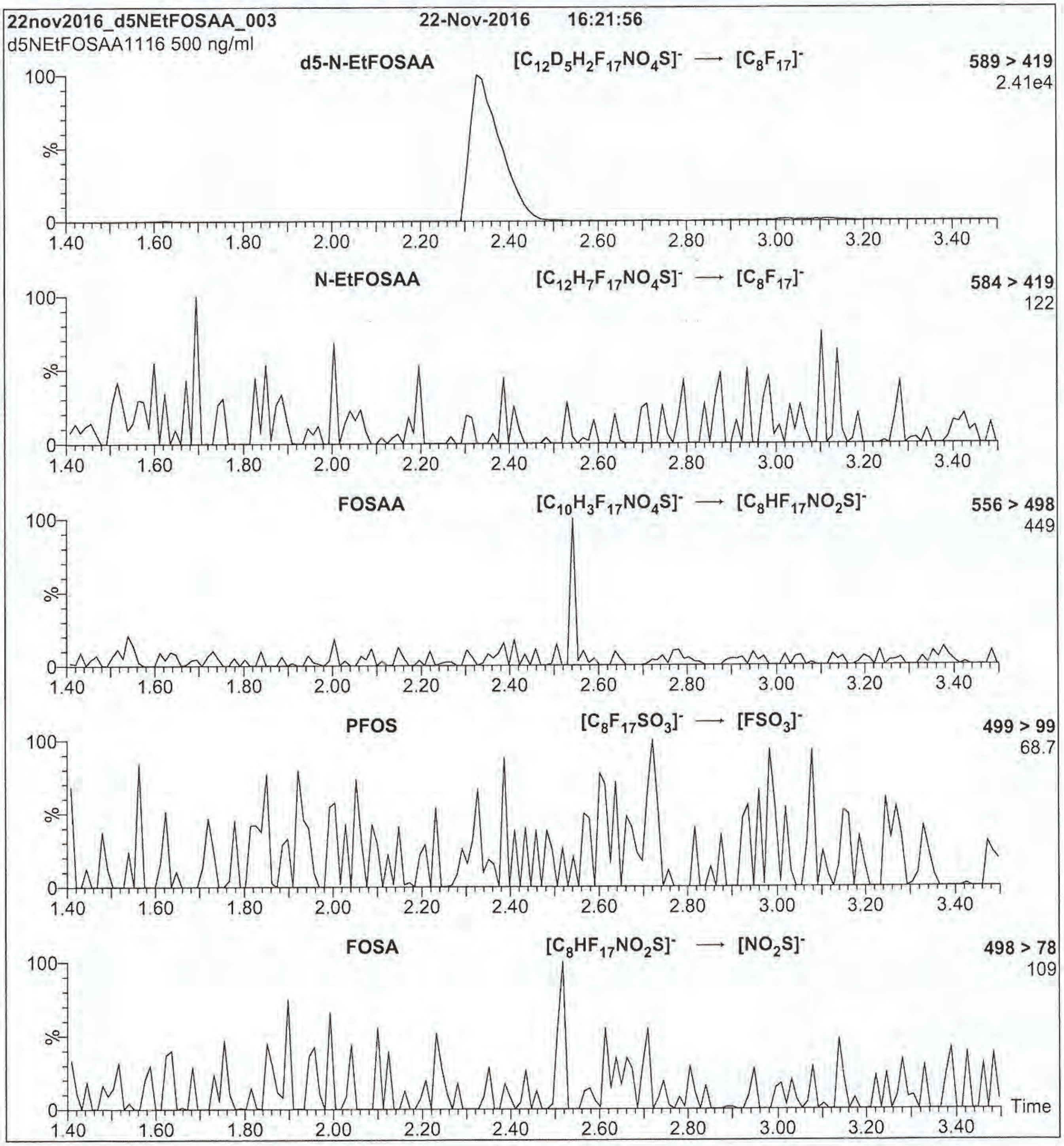
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0803

Figure 2: d5-N-EtFOSAA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:		
Injection:	Direct loop injection 10 µl (500 ng/ml d5-N-EtFOSAA)	**MS Parameters**
		Collision Gas (mbar) = 3.43e-3 Collision Energy (eV) = 20
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	
Flow:	300 µl/min	

17K0804

WELLINGTON LABORATORIES

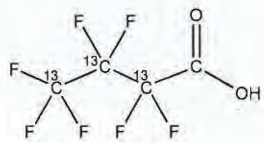
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFBA

COMPOUND: Perfluoro-n-[2,3,4-$^{13}C_3$]butanoic acid

LOT NUMBER: M3PFBA0516

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_3{}^{12}CHF_7O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 217.02

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 05/27/2016

EXPIRY DATE: (mm/dd/yyyy) 05/27/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: $\geq$99% ^{13}C (2,3,4-$^{13}C_3$)

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: B.G. Chittim

Date: 07/08/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0804

INTENDED USE:

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LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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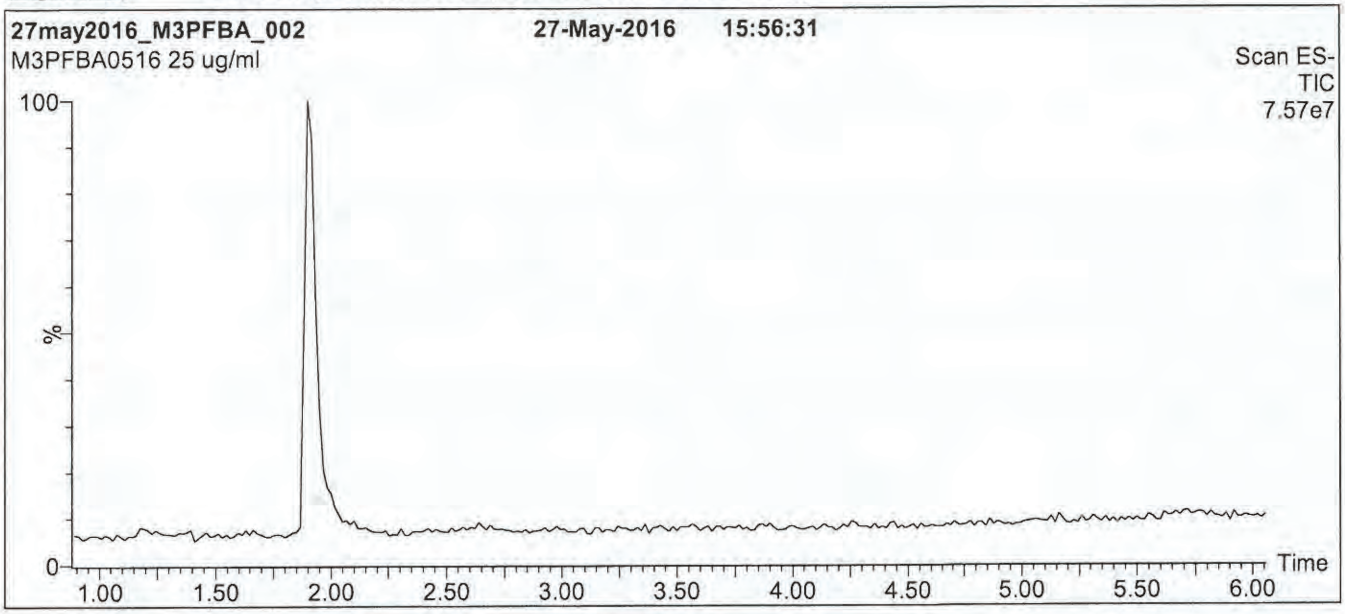
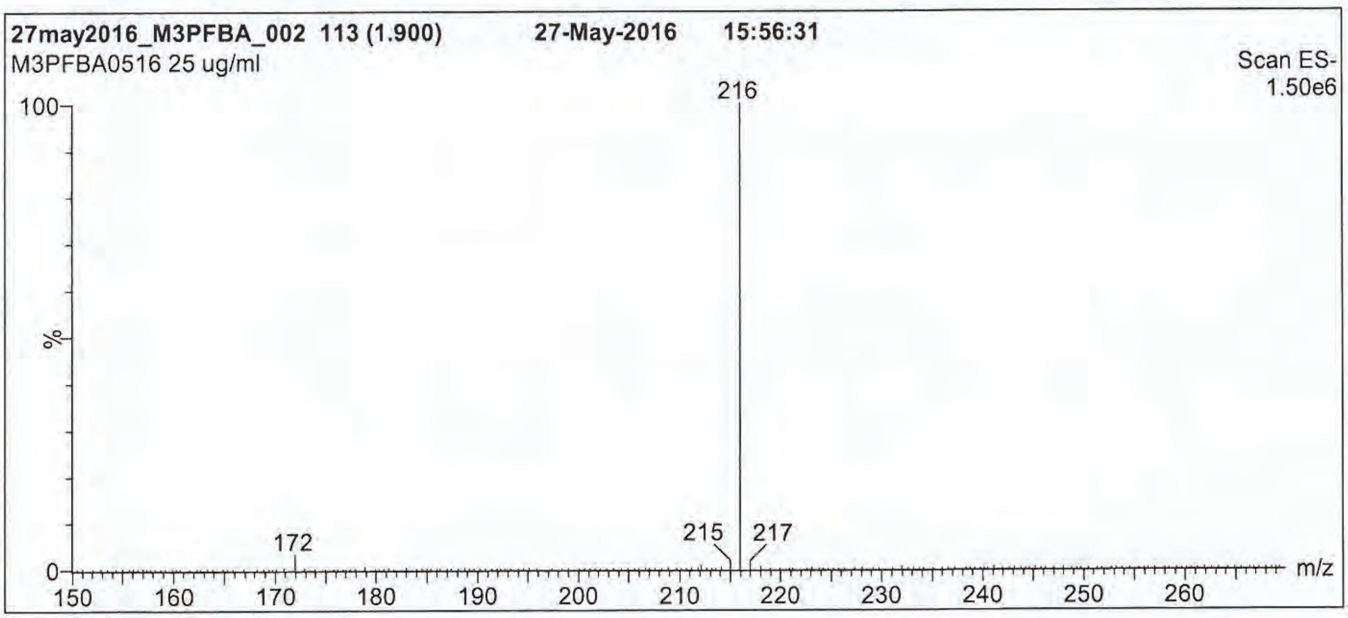
17K0804

Figure 1: **M3PFBA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

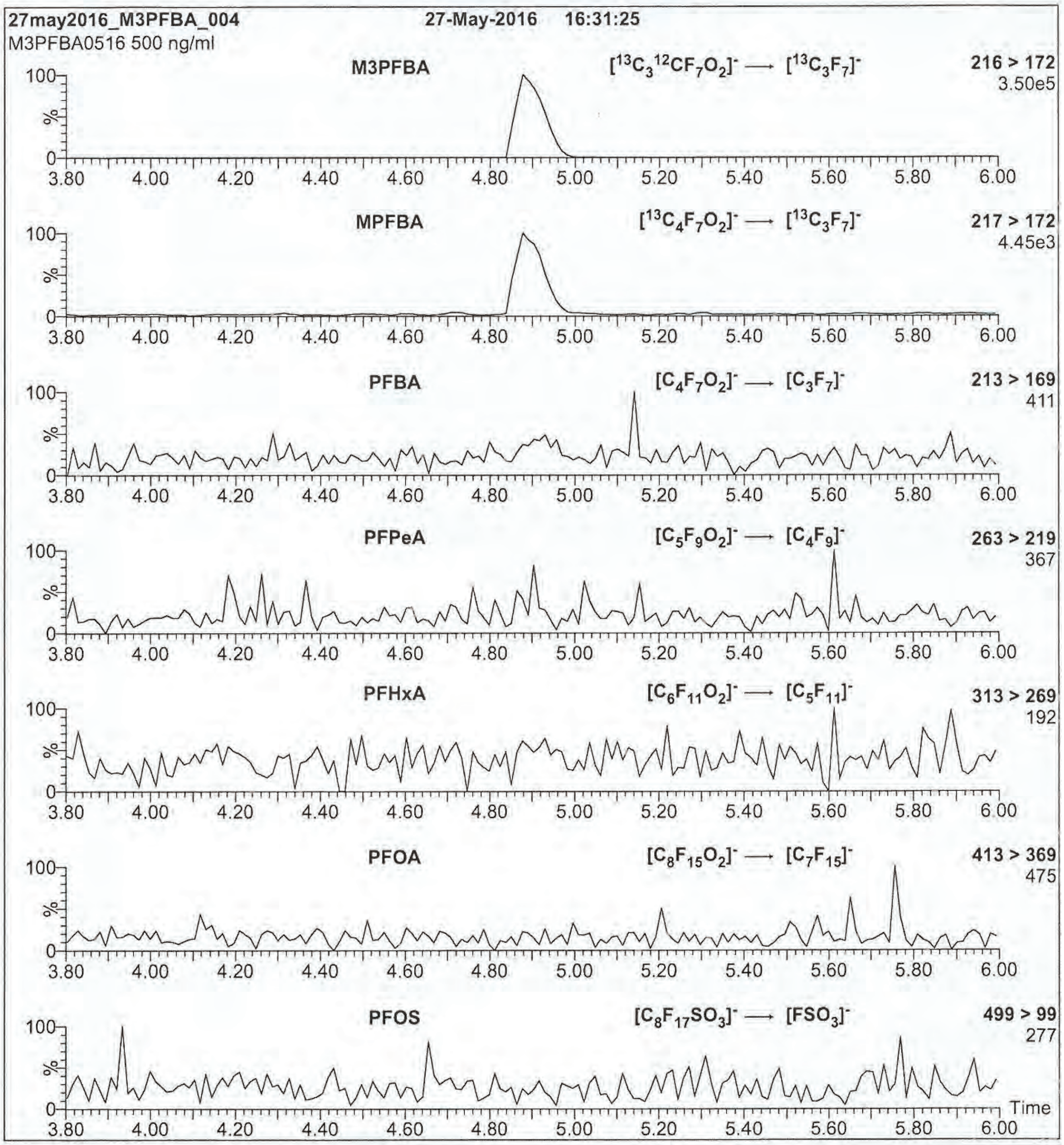
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17K0804

Figure 2: **M3PFBA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M3PFBA)	**MS Parameters**
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	Collision Gas (mbar) = 3.62e-3 Collision Energy (eV) = 10
Flow:	300 µl/min	

17K0805

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

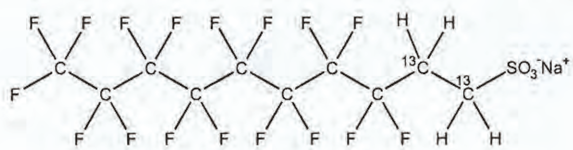
PRODUCT CODE: M2-8:2FTS

LOT NUMBER: M282FTS0717

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]decane sulfonate

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_8H_4F_{17}SO_3Na$

MOLECULAR WEIGHT: 552.15

CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.9 ± 2.4 µg/ml (M2-8:2FTS anion)

SOLVENT(S): Methanol

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ^{13}C (1,2-$^{13}C_2$)

LAST TESTED: (mm/dd/yyyy) 07/05/2017

EXPIRY DATE: (mm/dd/yyyy) 07/05/2022

RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 8:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim, General Manager

Date: 07/07/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0805

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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CALA

ANAB ACCREDITED

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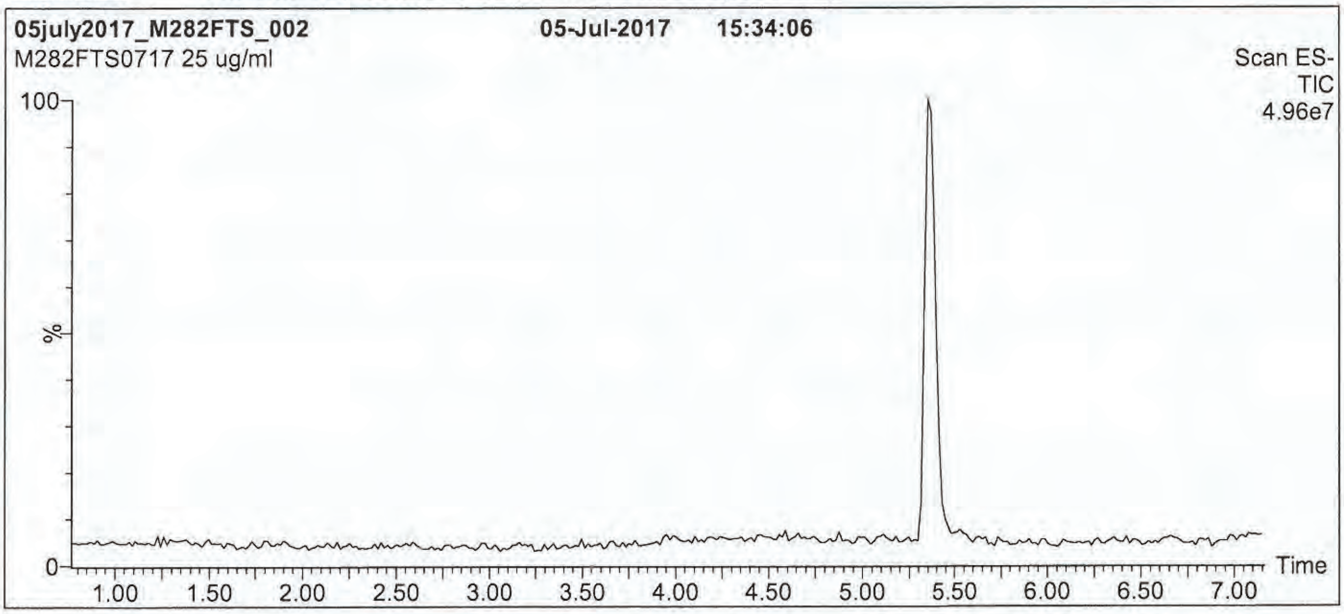
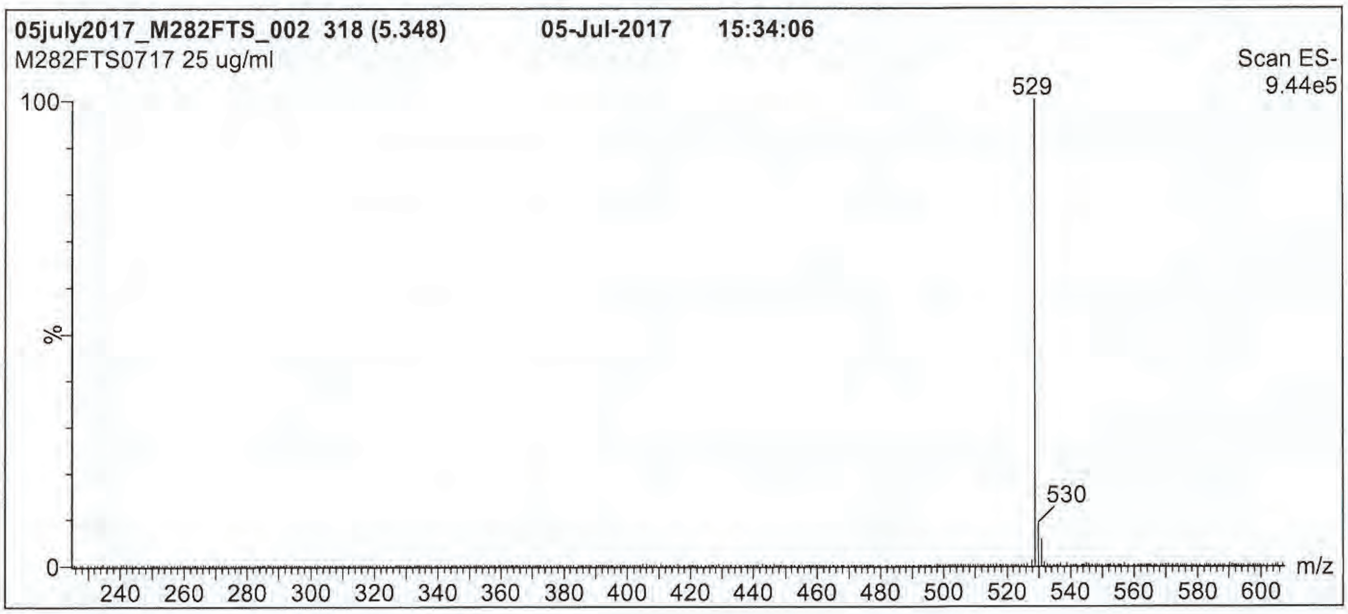
17K0805

Figure 1: **M2-8:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

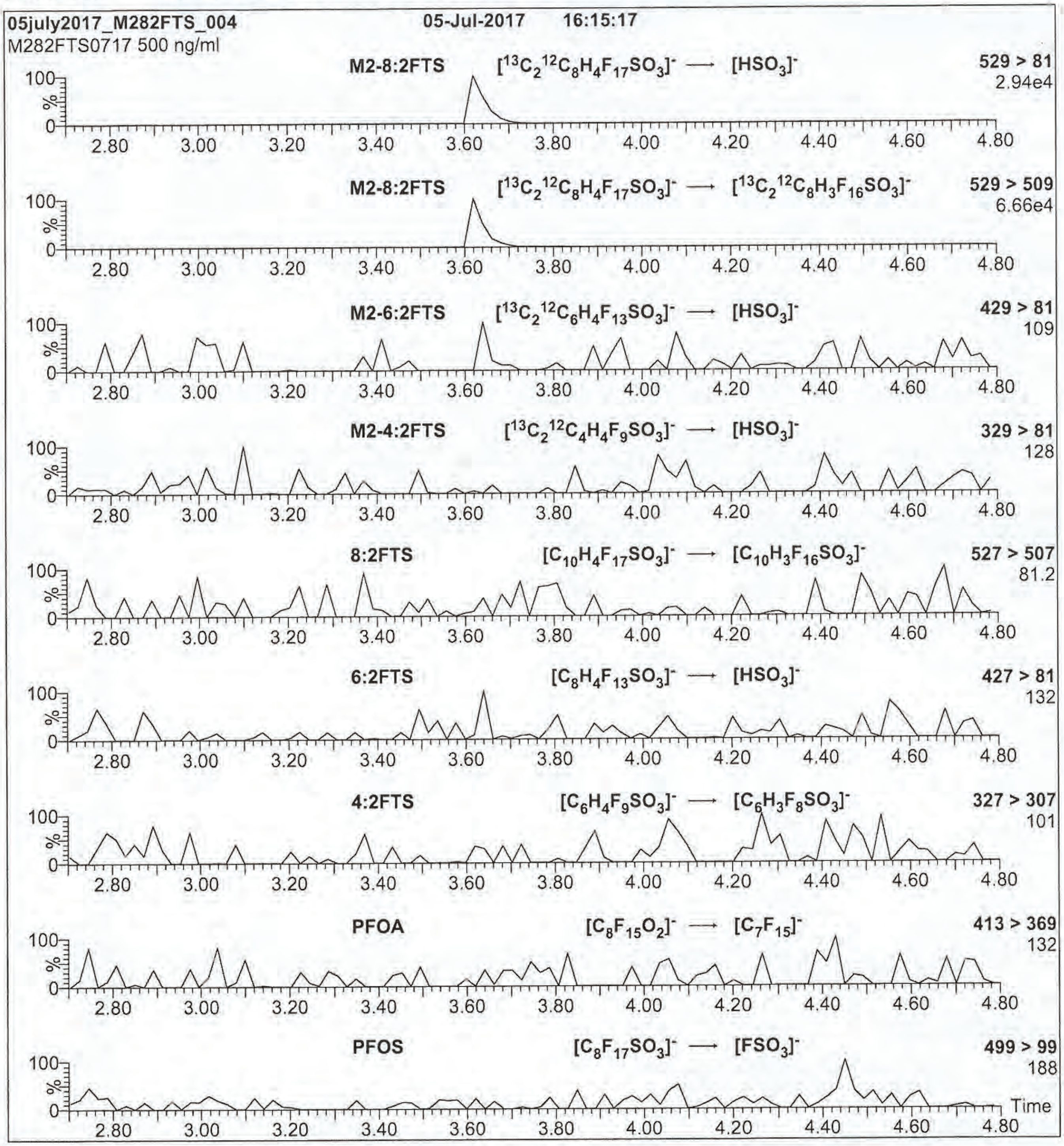
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source:Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17K0805

Figure 2: **M2-8:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2-8:2FTS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.50e-3
Collision Energy (eV) = 30

17K0807

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

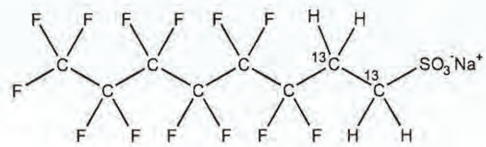
PRODUCT CODE: M2-6:2FTS

LOT NUMBER: M262FTS0217

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]octane sulfonate

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6H_4F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	452.13
CONCENTRATION:	50.0 ± 2.5 μg/ml (Na salt) 47.5 ± 2.4 μg/ml (M2-6:2FTS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2-$^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	02/17/2017		
EXPIRY DATE: (mm/dd/yyyy)	02/17/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 6:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 6:2FTS and M2-6:2FTS will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim

Date: 02/24/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0807

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

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$$u_c(y(x_1, x_2,...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

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QUALITY MANAGEMENT:

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ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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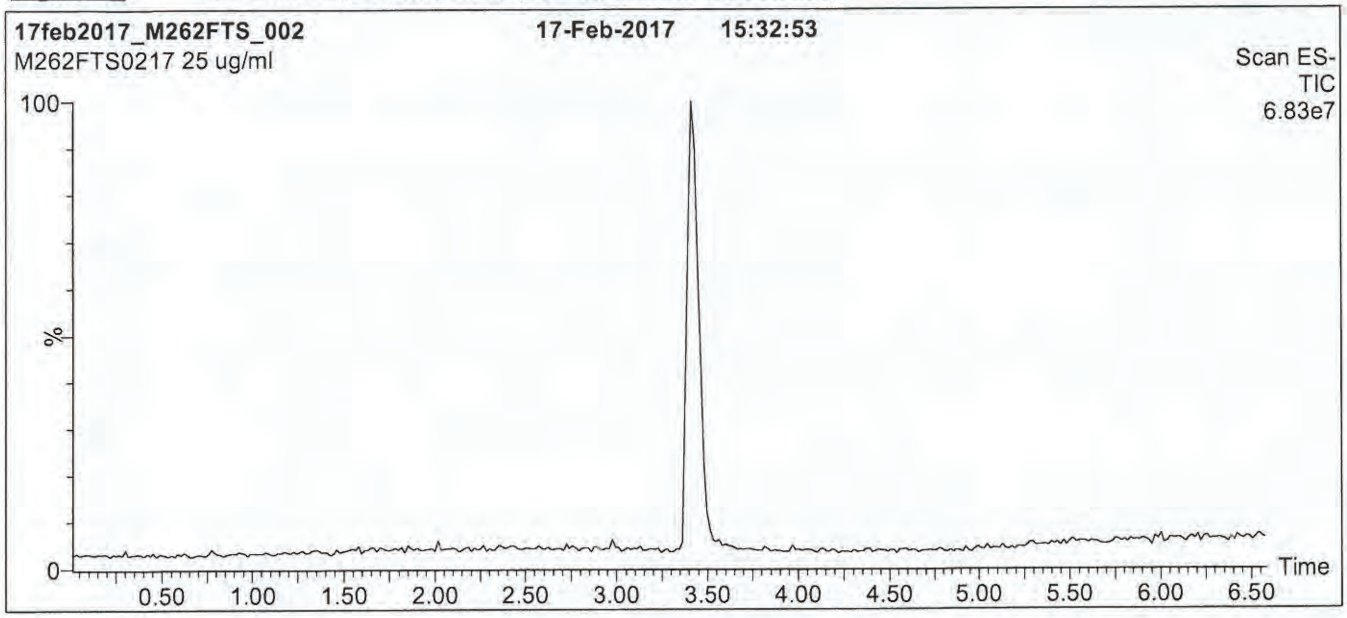
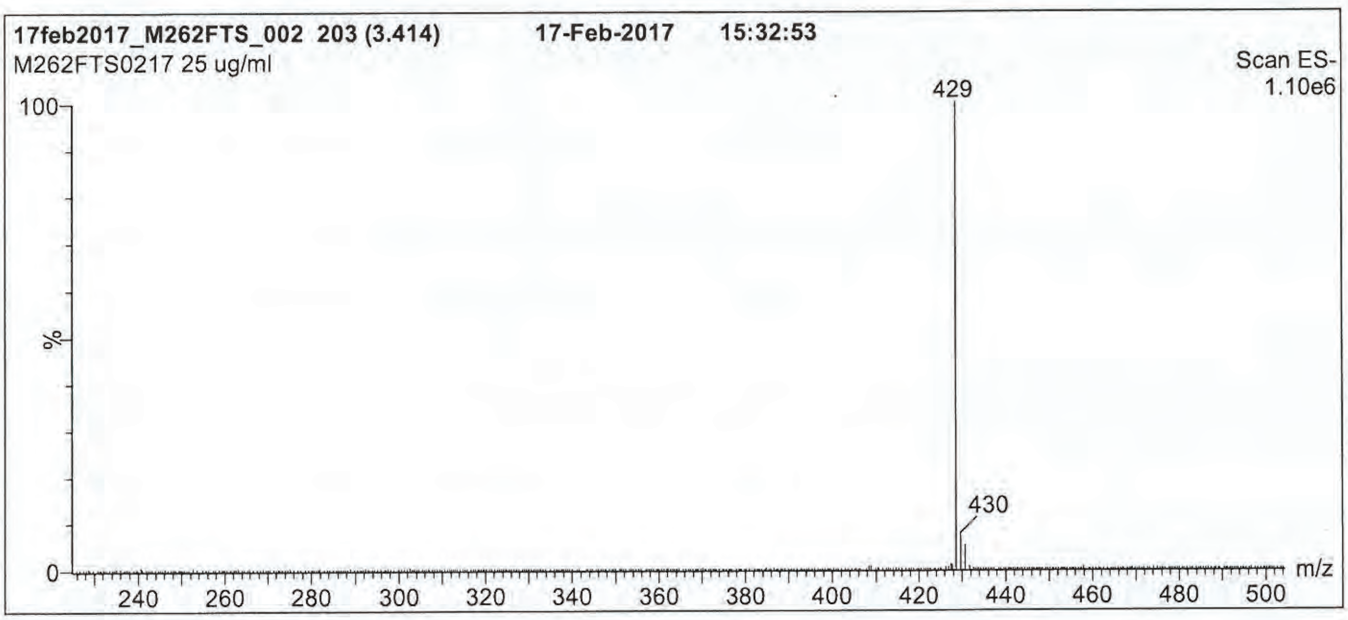
17K0807

Figure 1: **M2-6:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 1 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

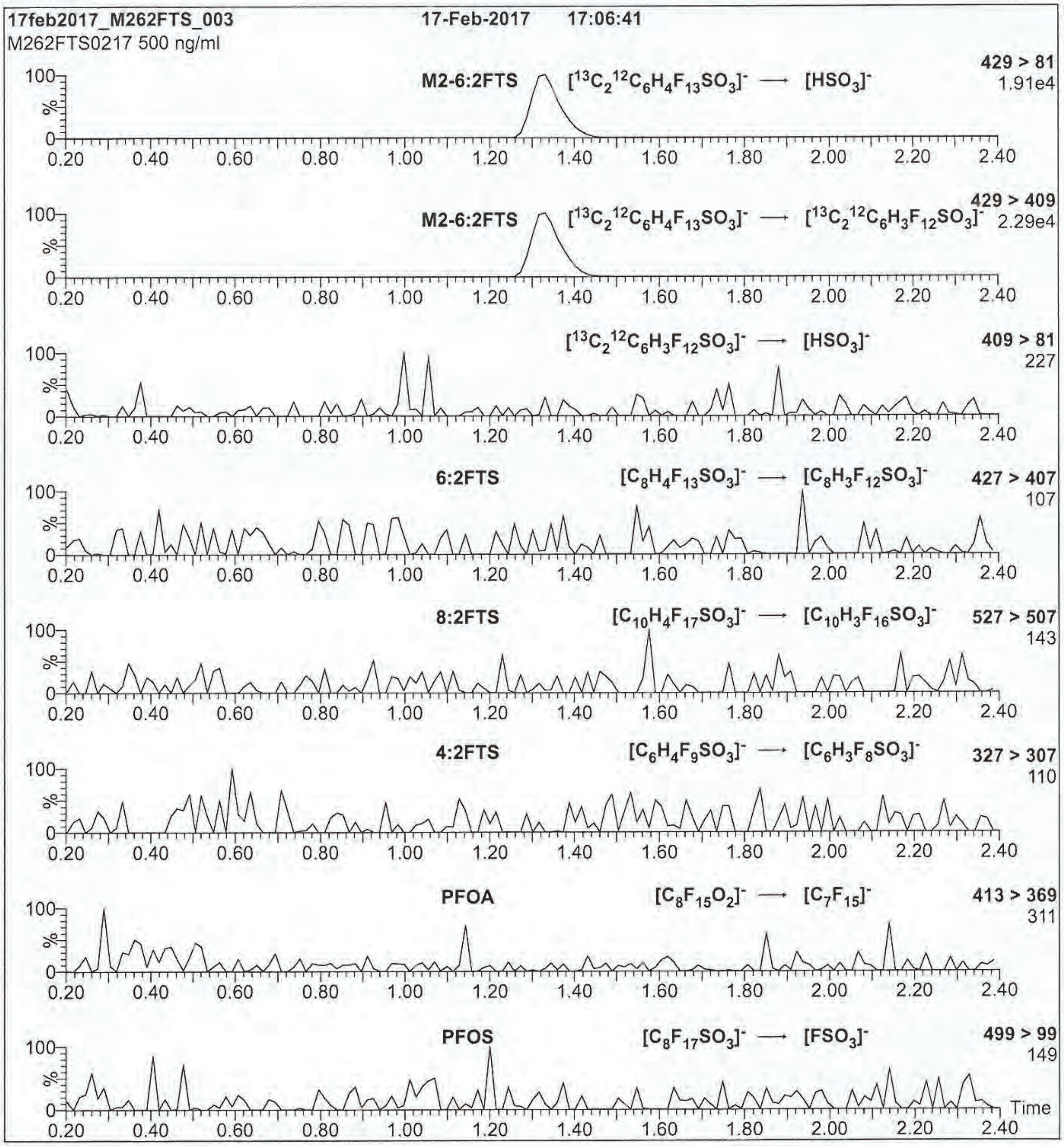
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source:Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0807

Figure 2: **M2-6:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M2-6:2FTS)	**MS Parameters**
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	Collision Gas (mbar) = 3.39e-3 Collision Energy (eV) = 25
Flow:	300 µl/min	

17K0810

WELLINGTON LABORATORIES

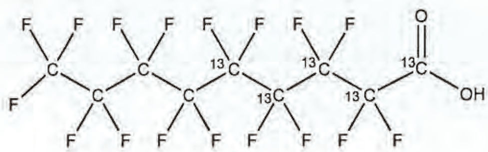
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFNA

COMPOUND: Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid

LOT NUMBER: MPFNA0916

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_5{}^{12}C_4HF_{17}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 469.04

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 09/30/2016

EXPIRY DATE: (mm/dd/yyyy) 09/30/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: $\geq$99% ^{13}C (1,2,3,4,5-$^{13}C_5$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim

Date: 10/11/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0810

INTENDED USE:

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UNCERTAINTY:

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$$u_c(y(x_1, x_2,...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

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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ANAB ACCREDITED

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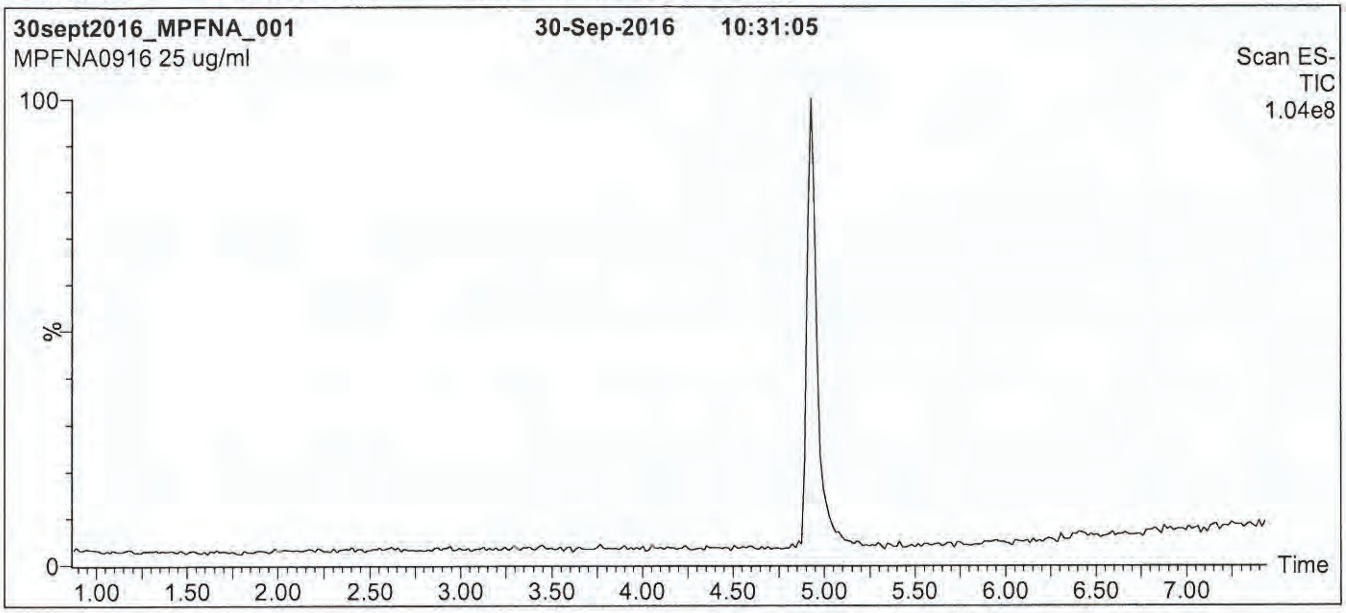
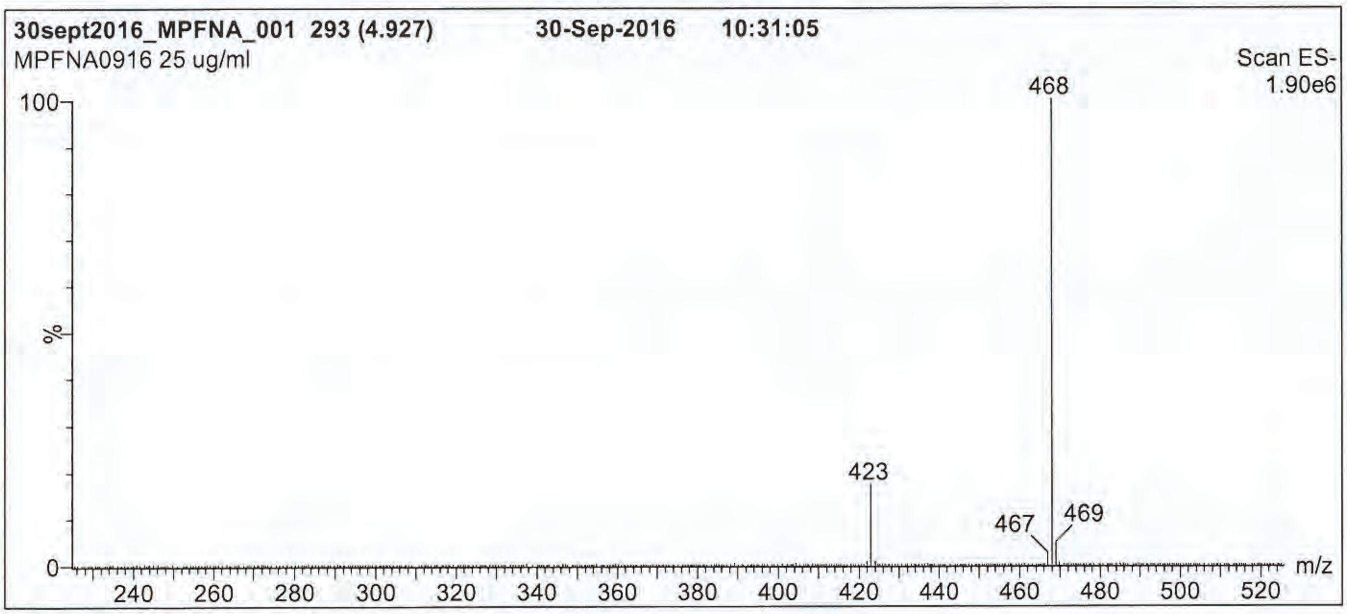
17K0810

Figure 1: **MPFNA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

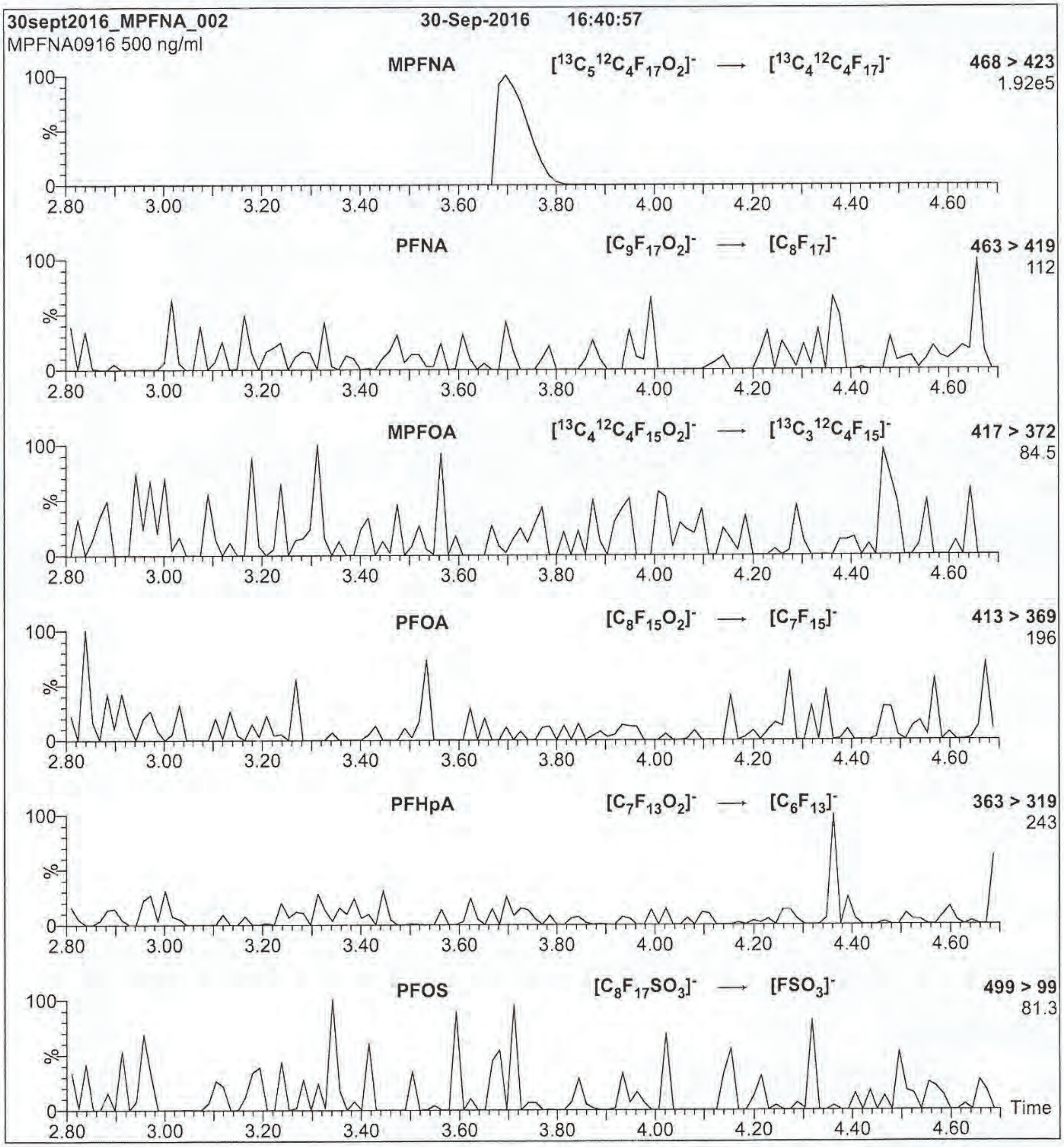
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0810

Figure 2: **MPFNA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFNA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 11

17K0812

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

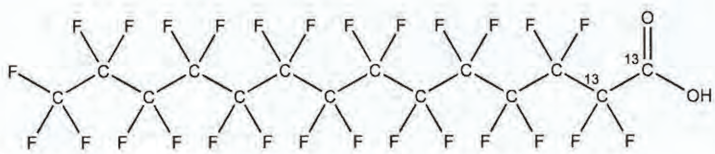
PRODUCT CODE: M2PFTeDA

LOT NUMBER: M2PFTeDA0217

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: $\geq$99% ^{13}C (1,2-$^{13}C_2$)

LAST TESTED: (mm/dd/yyyy) 03/01/2017

EXPIRY DATE: (mm/dd/yyyy) 03/01/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim, General Manager

Date: 03/07/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0812

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

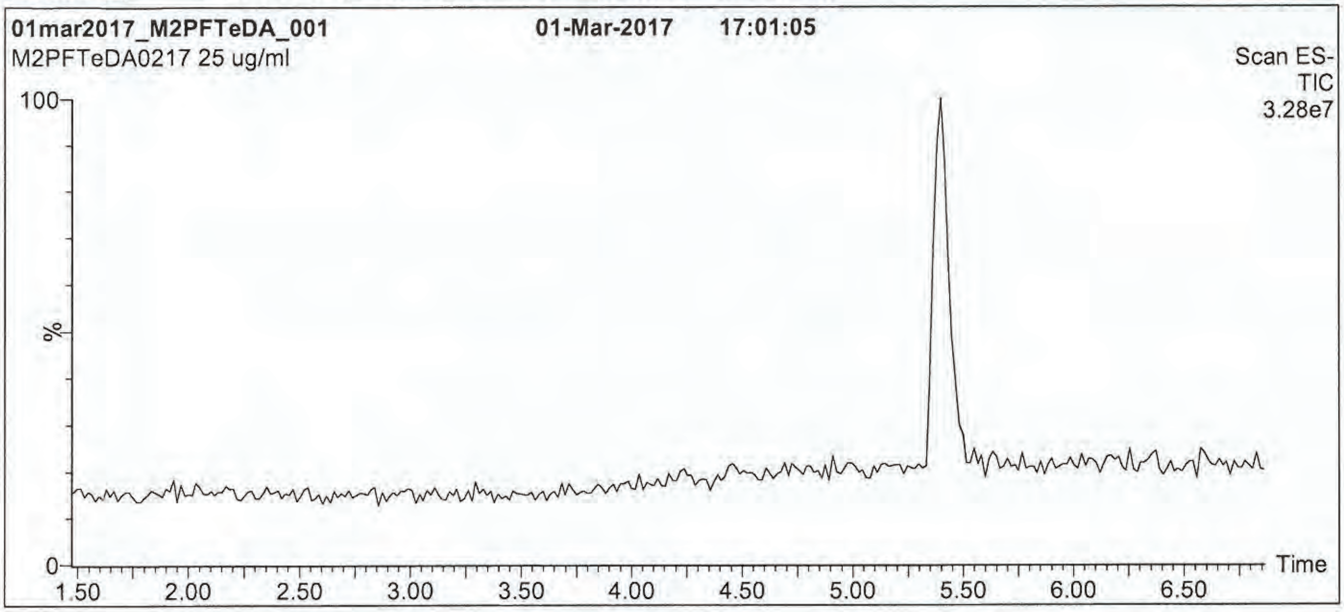
CALA Testing

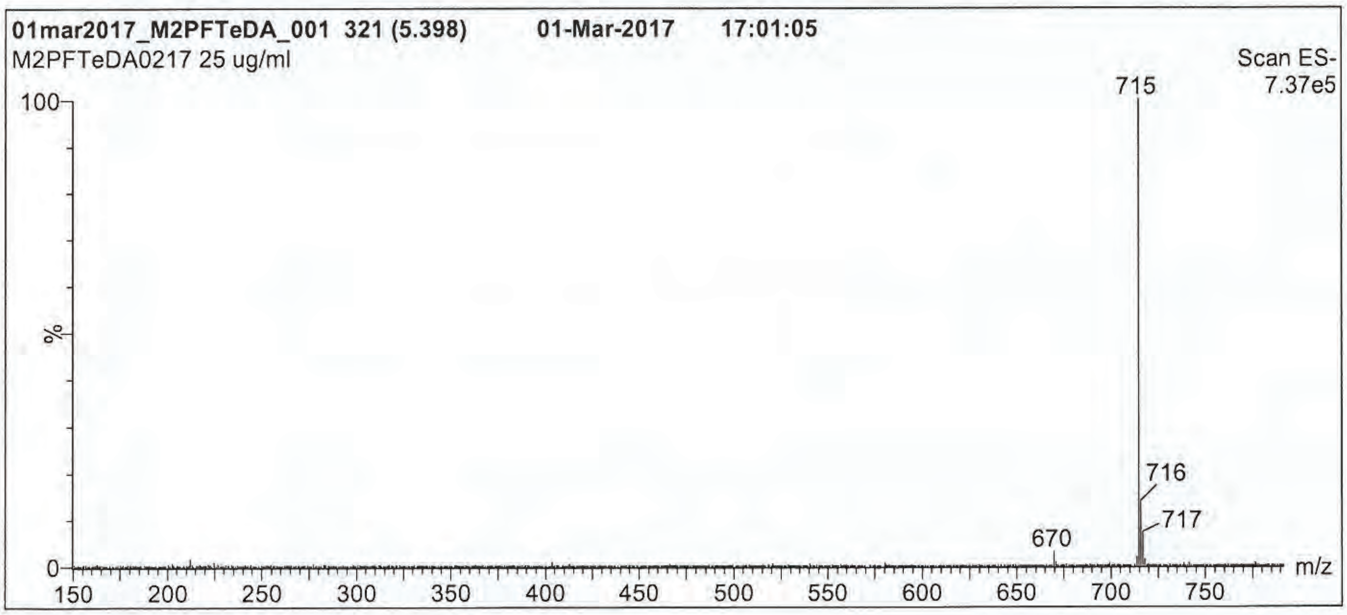
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K0812

Figure 1: **M2PFTeDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

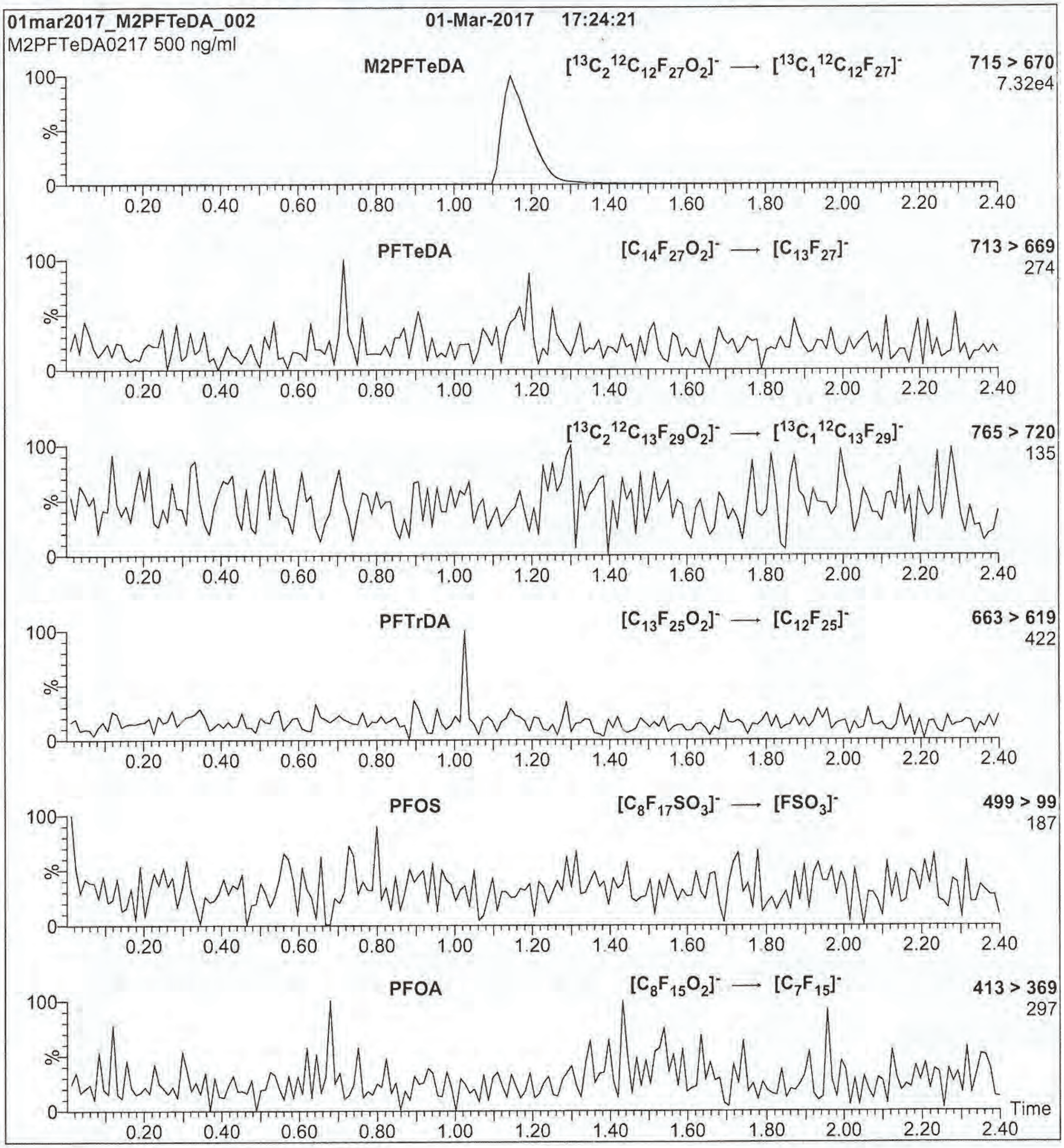
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17K0812

Figure 2: **M2PFTeDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M2PFTeDA)	**MS Parameters**	
		Collision Gas (mbar) = 3.46e-3 Collision Energy (eV) = 14	
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)		
Flow:	300 µl/min		

17K0813

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

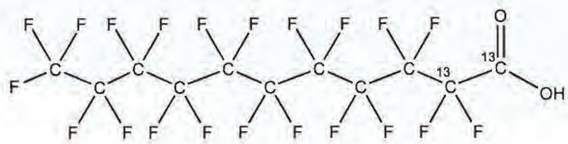
PRODUCT CODE: MPFUdA

COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]undecanoic acid

LOT NUMBER: MPFUdA1116

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_2{}^{12}C_9HF_{21}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 566.08

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 11/22/2016

EXPIRY DATE: (mm/dd/yyyy) 11/22/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: $\geq$99% ^{13}C (1,2-$^{13}C_2$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Presence of 1-$^{13}C_1$-PFUdA (~1%; see Figure 2), 2-$^{13}C_1$-PFUdA (~1%), and PFUdA (~0.2%; see Figure 2) are due to the isotopic purity of the ^{13}C-precursor.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/07/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0813

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where x is expressed as a relative standard uncertainty of the individual parameter.

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Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

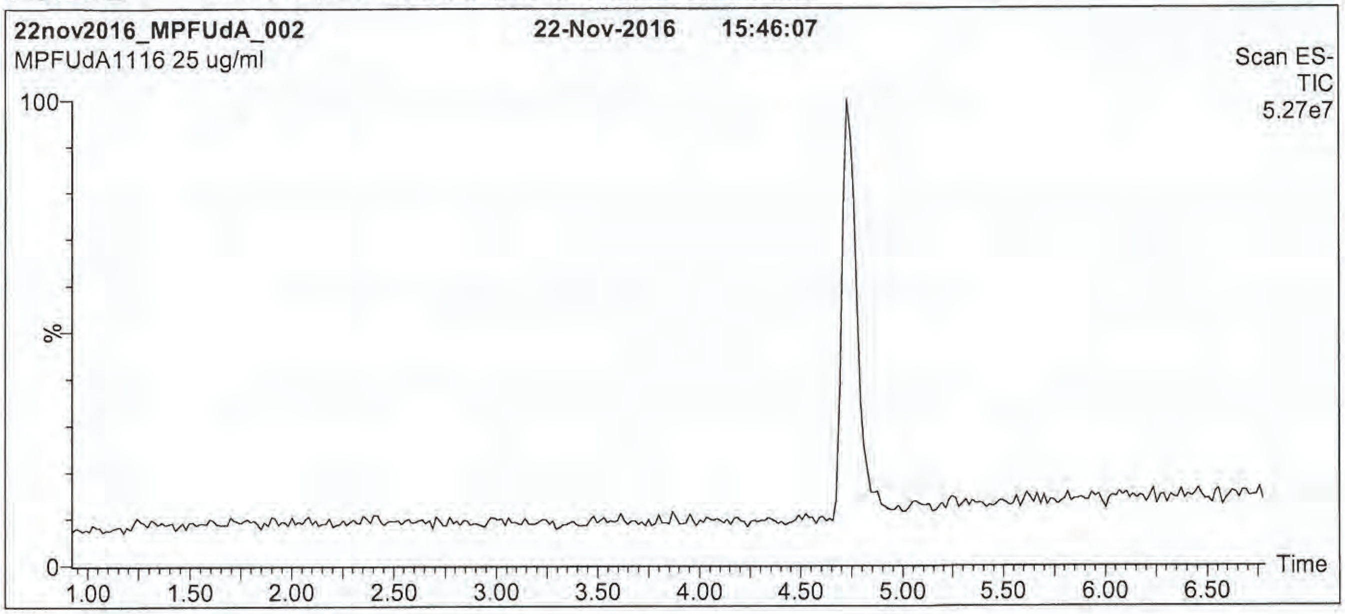
CALA Testing Accreditation No. A1226

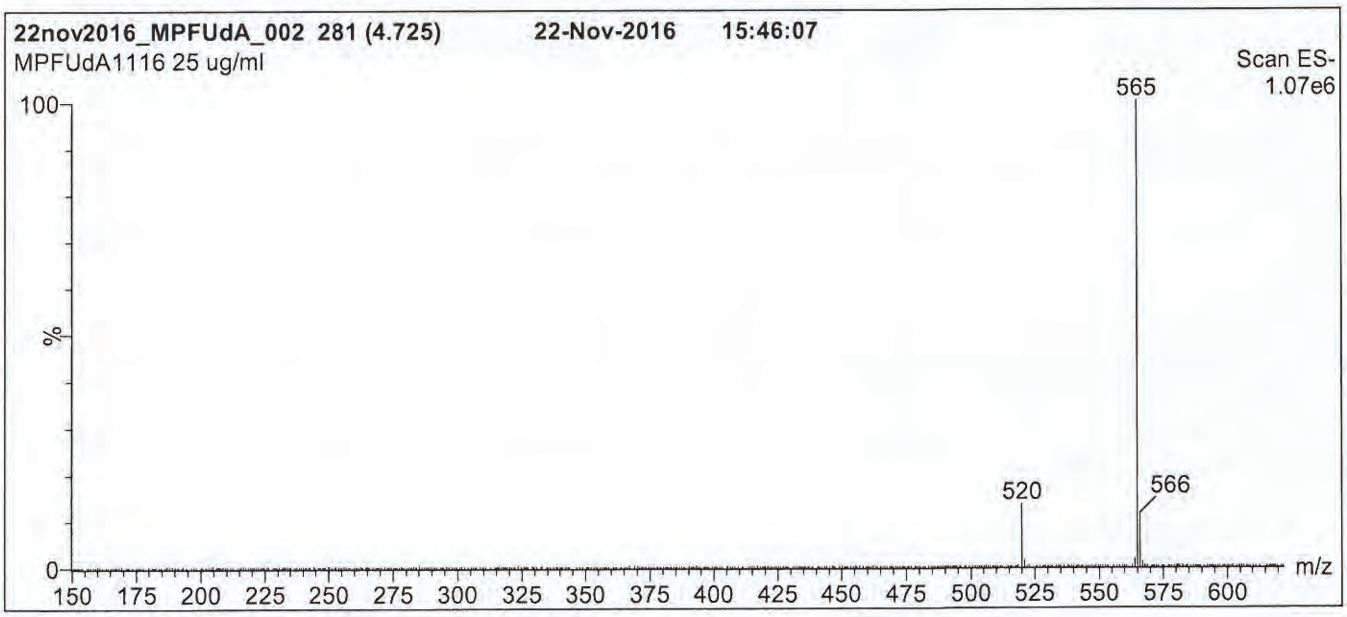
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K0813

Figure 1: **MPFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

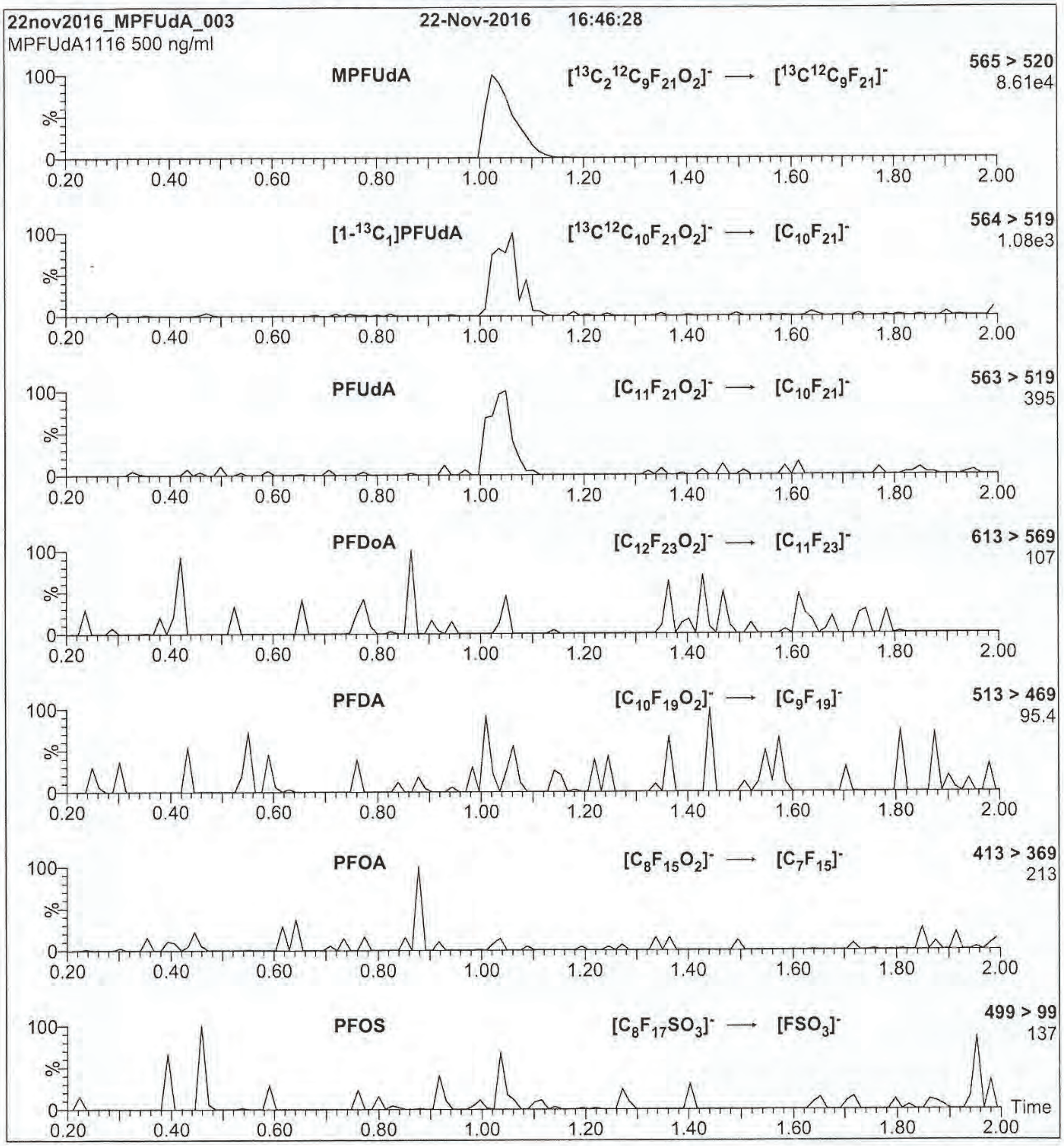
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 65
Desolvation Gas Flow (l/hr) = 750

17K0813

Figure 2: **MPFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml MPFUdA)
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 11

17K0814

WELLINGTON LABORATORIES

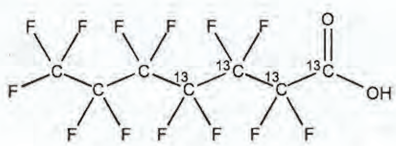
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M4PFHpA

COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid

LOT NUMBER: M4PFHpA0517

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_4{}^{12}C_3HF_{13}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 05/03/2017

EXPIRY DATE: (mm/dd/yyyy) 05/03/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 368.03

SOLVENT(S): Methanol
Water (<1%)

ISOTOPIC PURITY: $\geq$99% ^{13}C (1,2,3,4-$^{13}C_4$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim, General Manager **Date:** 05/11/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0814

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CALA

ANAB ACCREDITED

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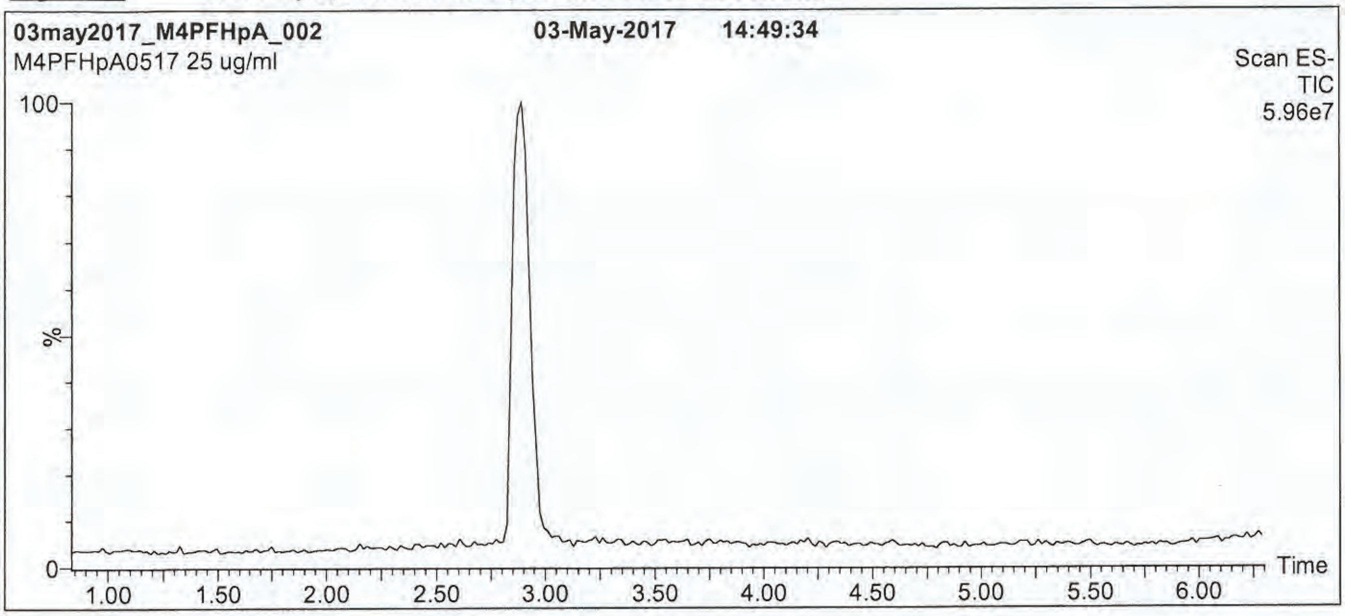
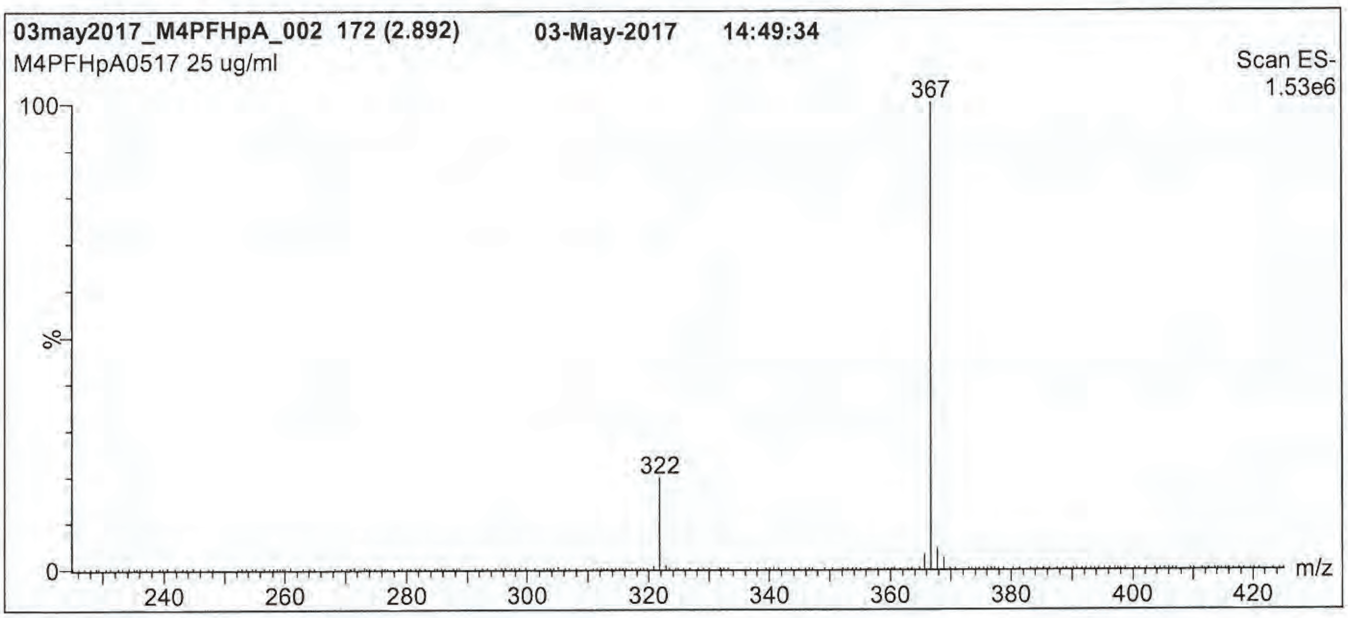
17K0814

Figure 1: **M4PFHpA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 1 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

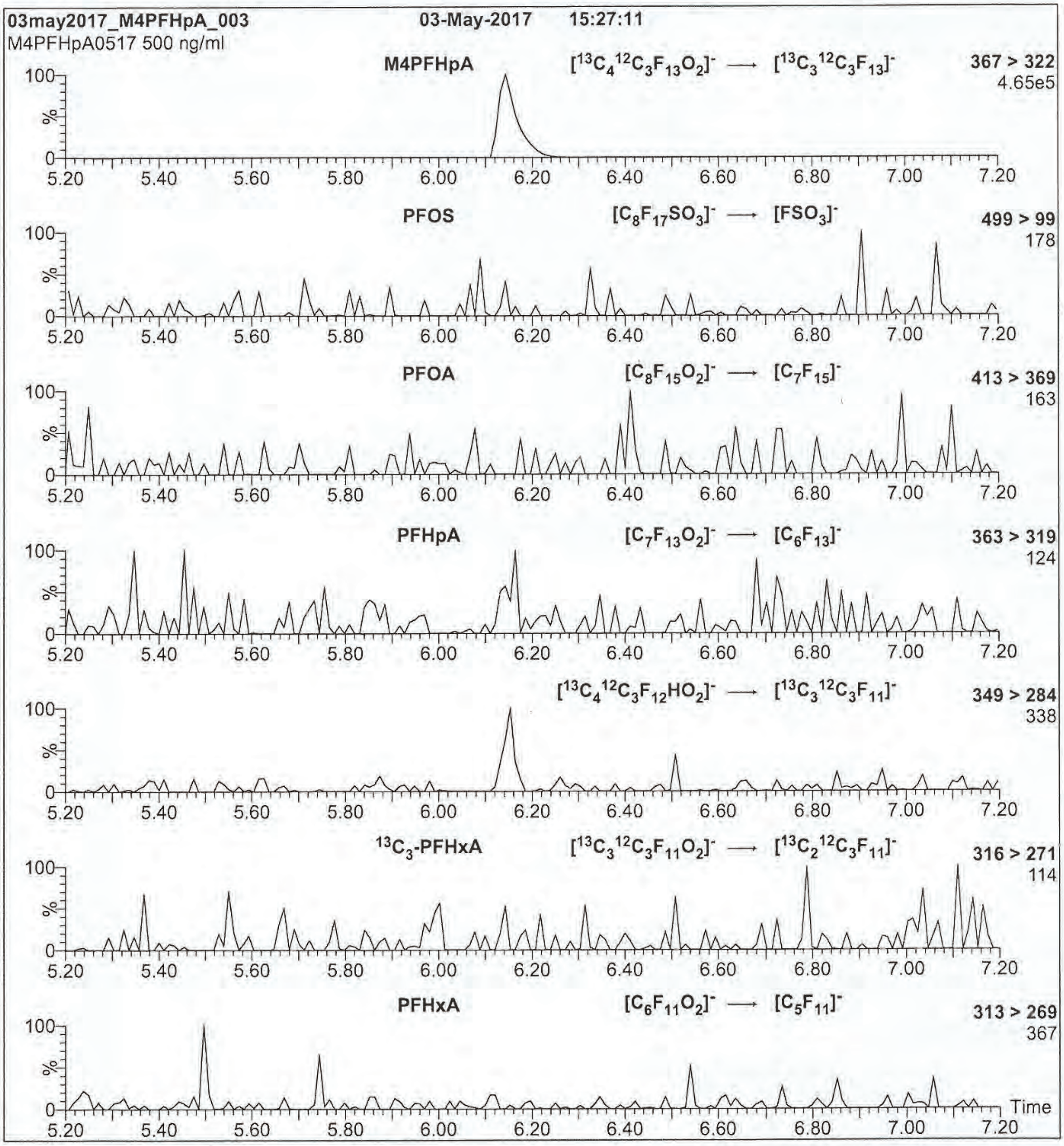
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0814

Figure 2: **M4PFHpA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M4PFHpA)	**MS Parameters**	
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	Collision Gas (mbar) = 3.46e-3 Collision Energy (eV) = 9	
Flow:	300 µl/min		

1710816

WELLINGTON LABORATORIES

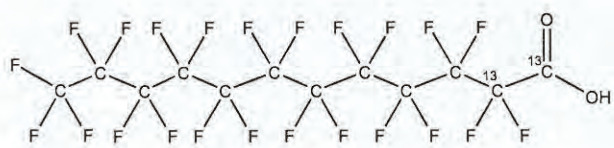
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFDoA

COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid

LOT NUMBER: MPFDoA0517

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_2{}^{12}C_{10}HF_{23}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 616.08

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 05/23/2017

EXPIRY DATE: (mm/dd/yyyy) 05/23/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: $\geq$99% ^{13}C (1,2-$^{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.

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Certified By: B.G. Chittim, General Manager

Date: 05/26/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0816

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The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

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$$u_c(y(x_1,x_2,...x_n)) = \sqrt{\sum_{i=1}^{n} u(y,x_i)^2}$$

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).

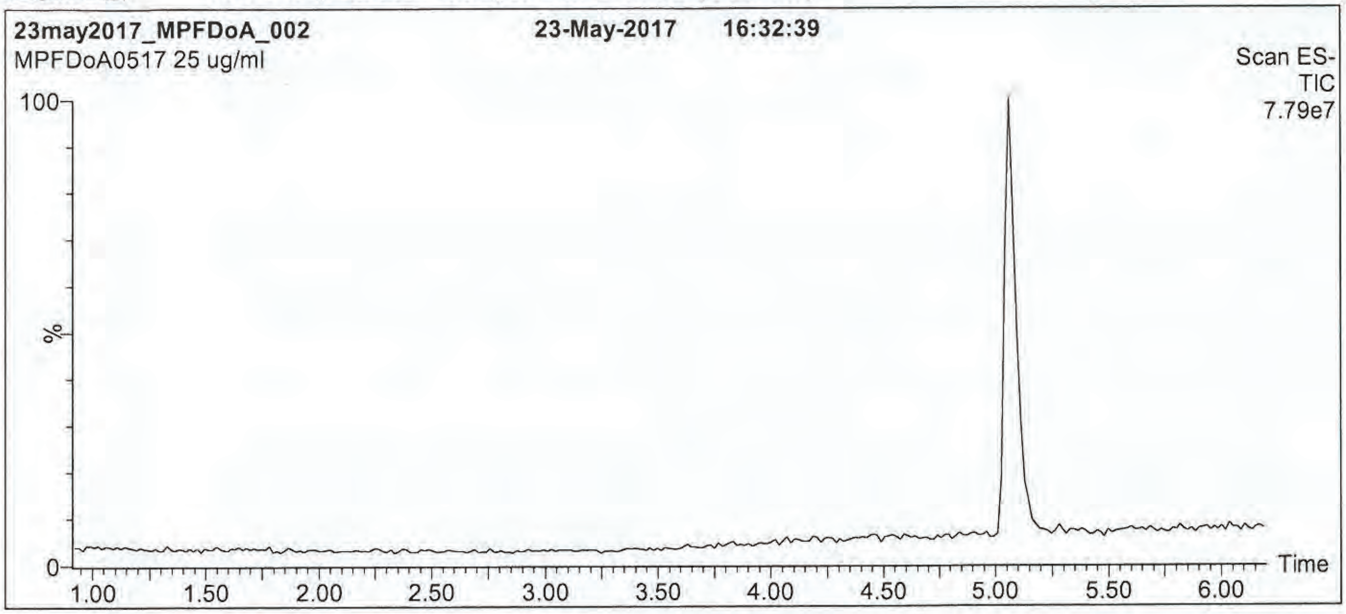
CALA

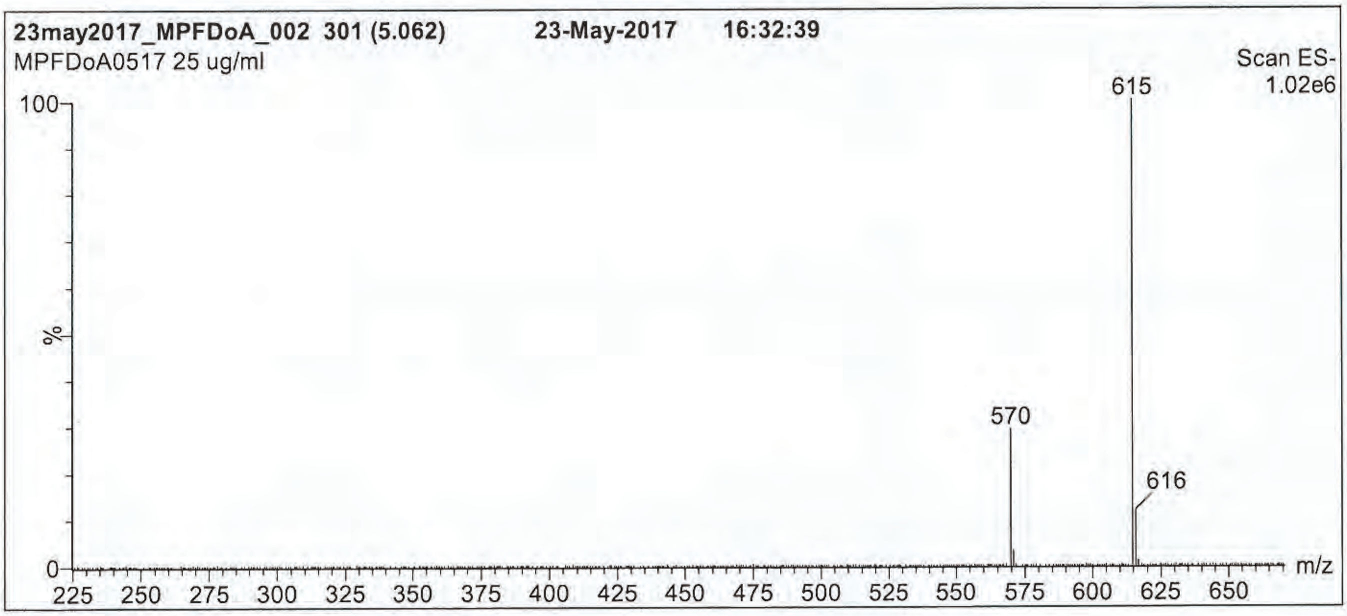
ANAB ACCREDITED

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

17K0816

Figure 1: **MPFDoA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

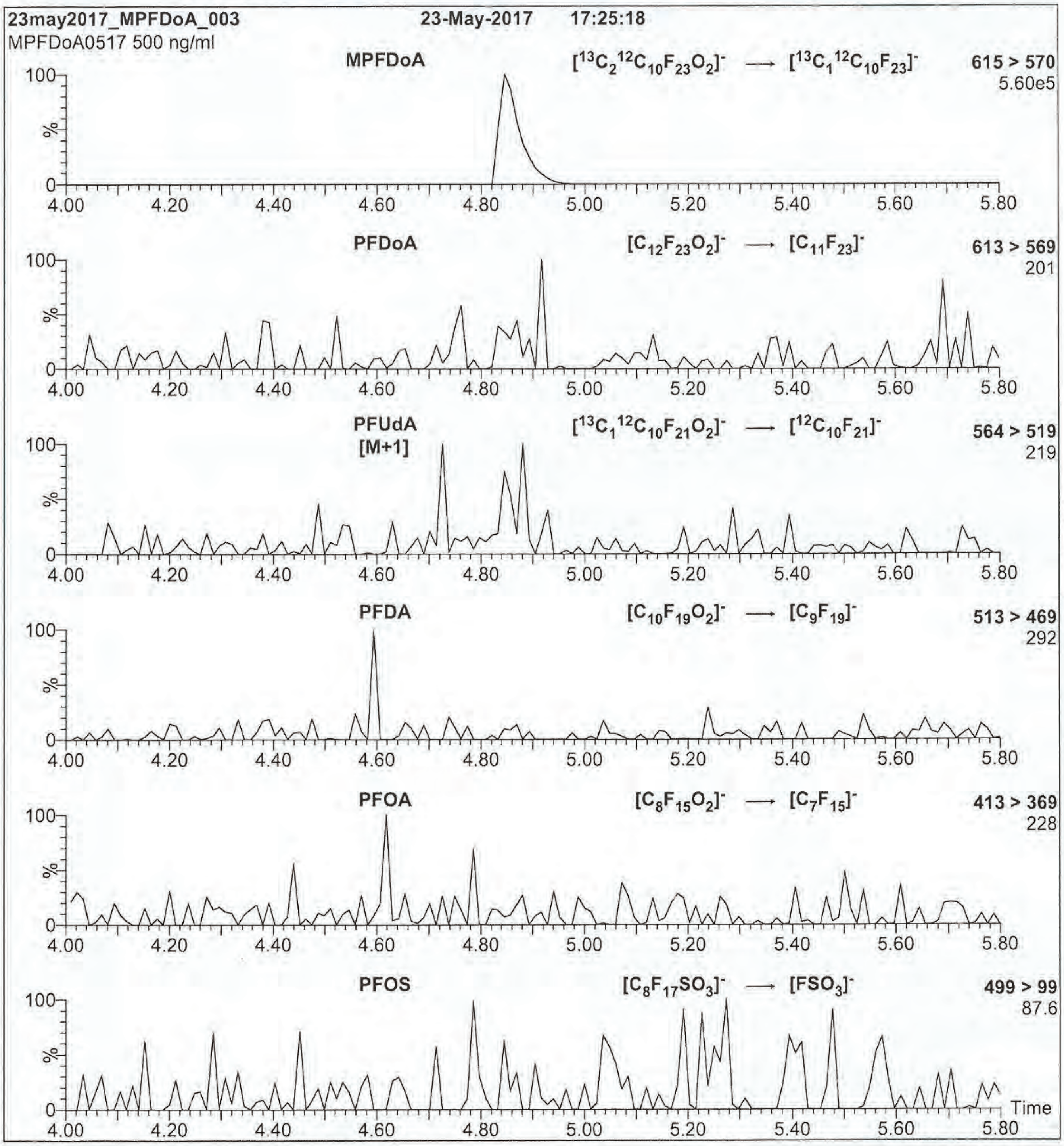
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17K0816

Figure 2: **MPFDoA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml MPFDoA)
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 13

17K0818

WELLINGTON LABORATORIES

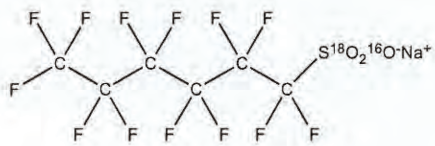
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFHxS

LOT NUMBER: MPFHxS0217

COMPOUND: Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $C_6F_{13}S^{18}O_2{}^{16}ONa$

MOLECULAR WEIGHT: 426.10

CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.3 ± 2.4 µg/ml (MPFHxS anion)

SOLVENT(S): Methanol

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: >94% ($^{18}O_2$)

LAST TESTED: (mm/dd/yyyy) 02/17/2017

EXPIRY DATE: (mm/dd/yyyy) 02/17/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The response factor for MPFHxS ($C_6F_{13}S^{18}O_2{}^{16}O^-$) has been observed to be up to 10% lower than for PFHxS ($C_6F_{13}S^{16}O_3^-$) when both compounds are injected together. This difference may vary between instruments.
- Contains ~ 1.0% of sodium perfluoro-1-octane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFOS).
- Due to the isotopic purity of the starting material ($^{18}O_2$ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim

Date: 03/02/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0818

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2,...x_n$ on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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TRACEABILITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

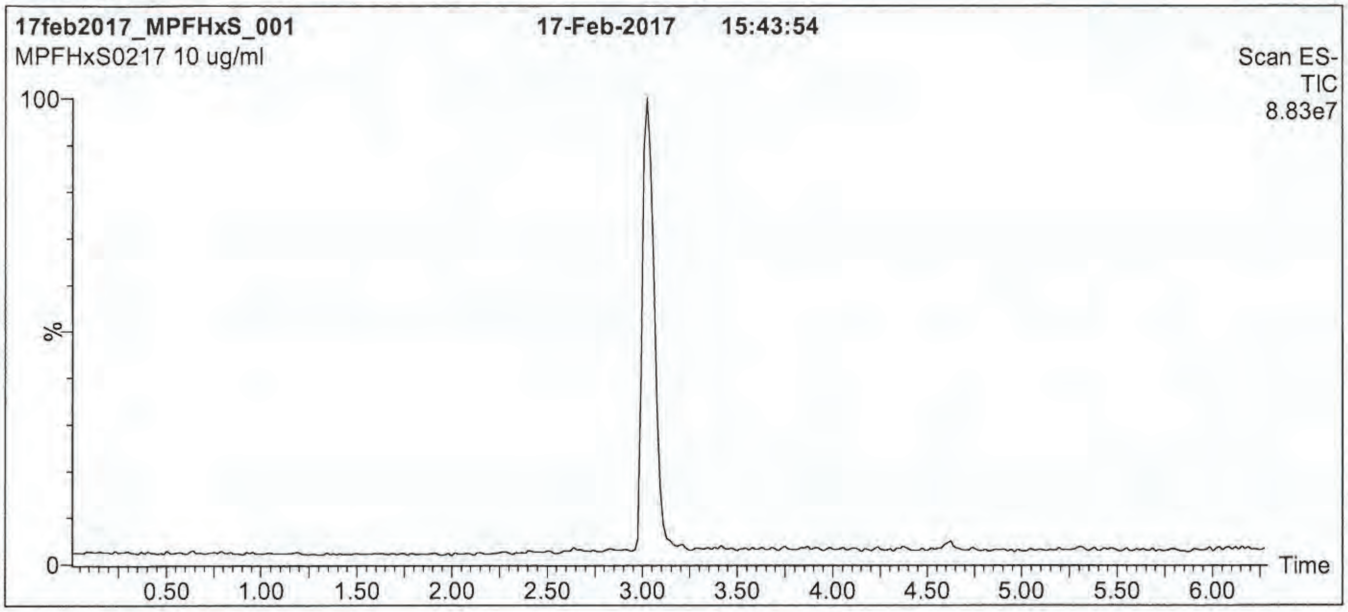
CALA

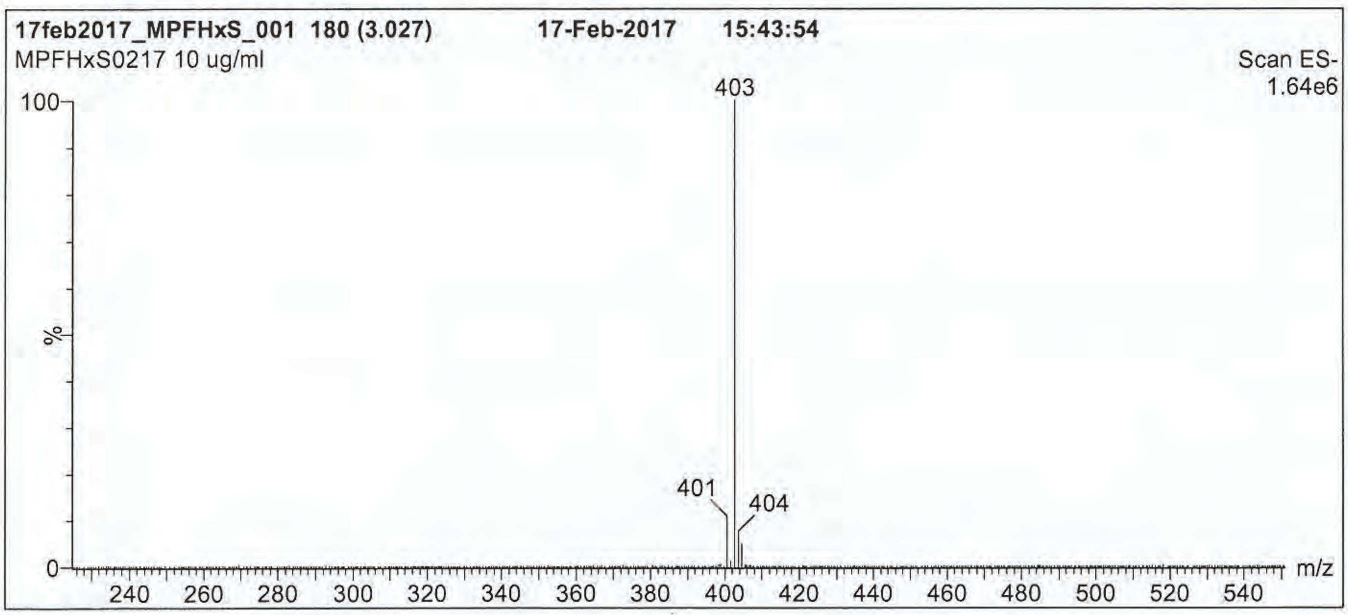
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K0818

Figure 1: **MPFHxS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 1 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

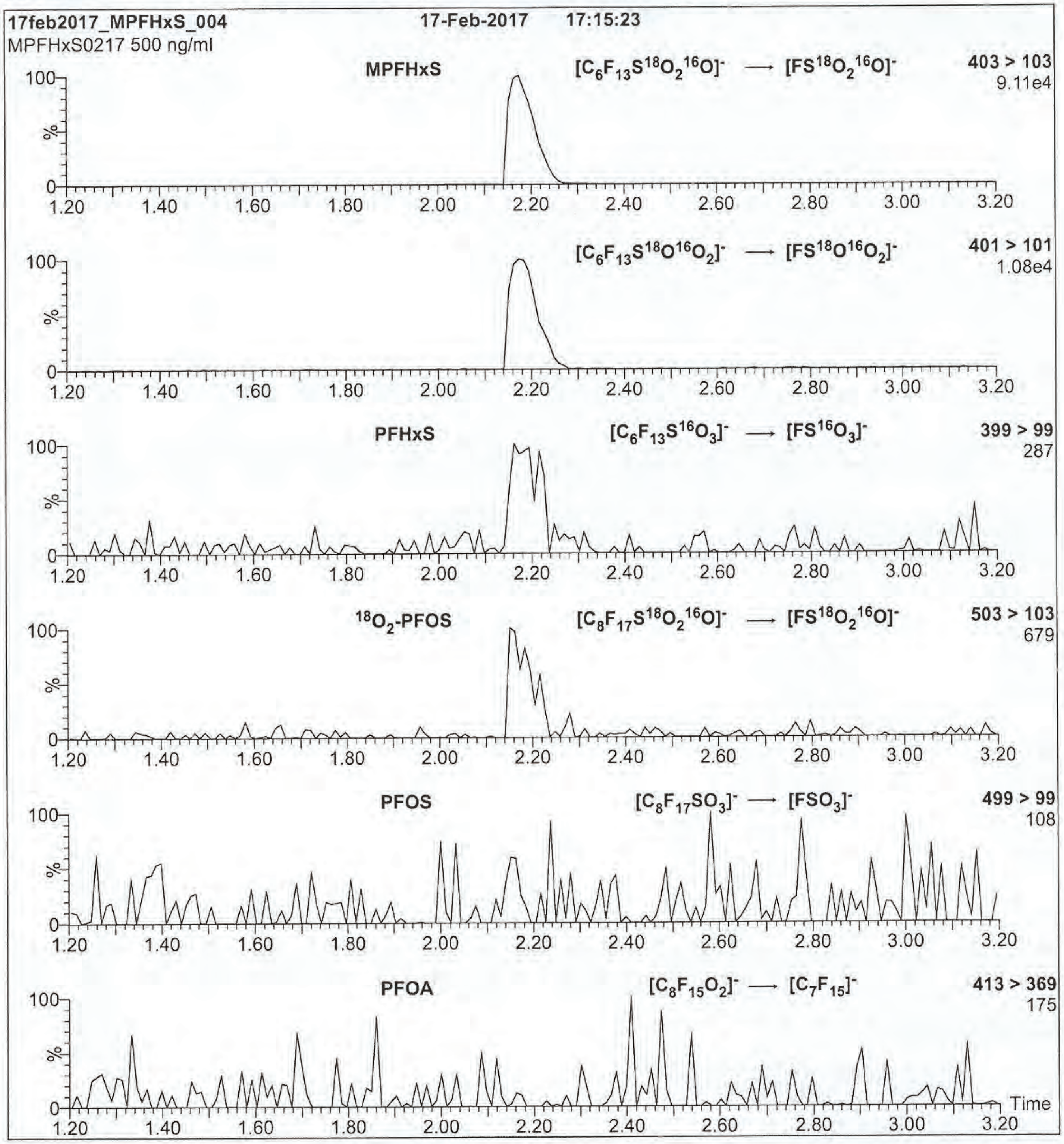
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17K0818

Figure 2: **MPFHxS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:		
Injection:	Direct loop injection 10 µl (500 ng/ml MPFHxS)	**MS Parameters**
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	Collision Gas (mbar) = 3.43e-3 Collision Energy (eV) = 30
Flow:	300 µl/min	

17K0819

WELLINGTON LABORATORIES

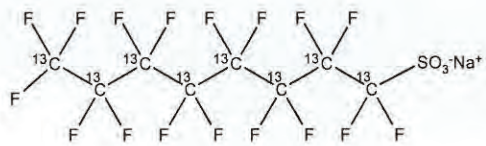
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M8PFOS

LOT NUMBER: M8PFOS0916

COMPOUND: Sodium perfluoro-1-[$^{13}C_8$]octanesulfonate

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_8F_{17}SO_3Na$

MOLECULAR WEIGHT: 530.05

CONCENTRATION: 48.5 ± 2.4 µg/ml (Na salt)
46.4 ± 2.3 µg/ml (M8PFOS anion)

SOLVENT(S): Methanol

CHEMICAL PURITY: >97%

ISOTOPIC PURITY: >99% ^{13}C ($^{13}C_8$)

LAST TESTED: (mm/dd/yyyy) 09/30/2016

EXPIRY DATE: (mm/dd/yyyy) 09/30/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.6% of sodium perfluoro-1-[$^{13}C_7$]heptanesulfonate ($^{13}C_7$-PFHpS), ~ 1.0% of chlorohexadecafluoro-1-[$^{13}C_8$]octanesulfonate, and ~ 1.5% of sodium perfluoro-1-[$^{13}C_4$]octanesulfonate (MPFOS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim

Date: 10/11/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0819

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

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SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

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$$u_c(y(x_1,x_2,\ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y,x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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CALA

ANAB ACCREDITED

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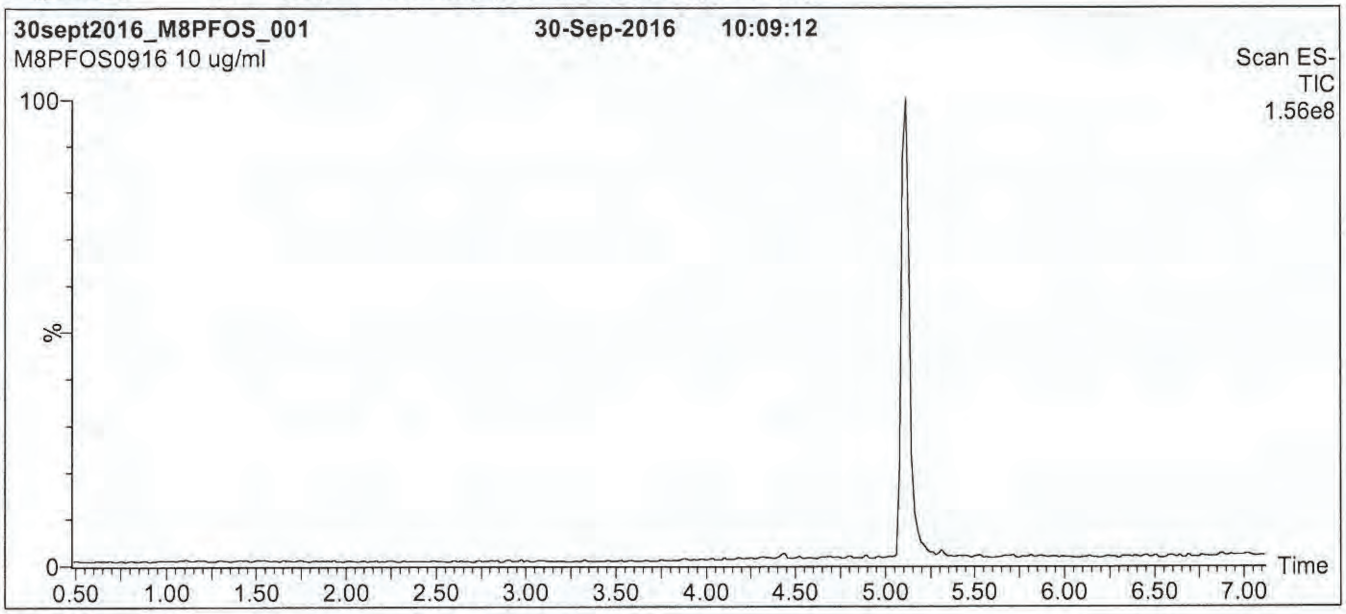
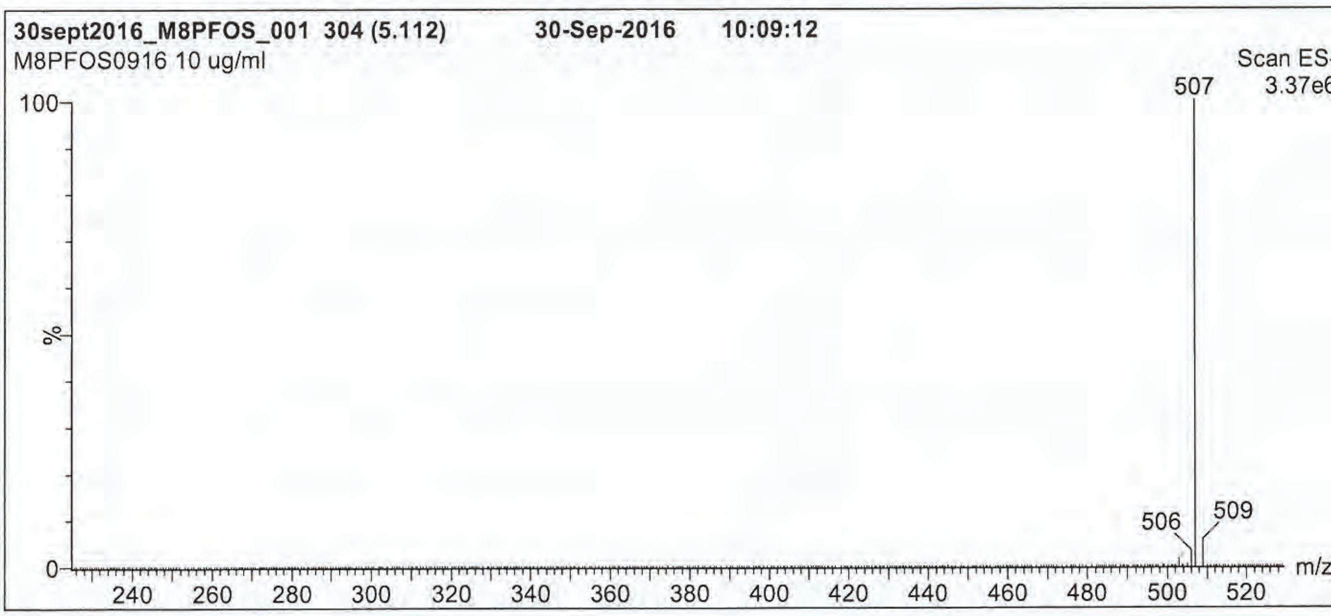
17K0819

Figure 1: **M8PFOS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

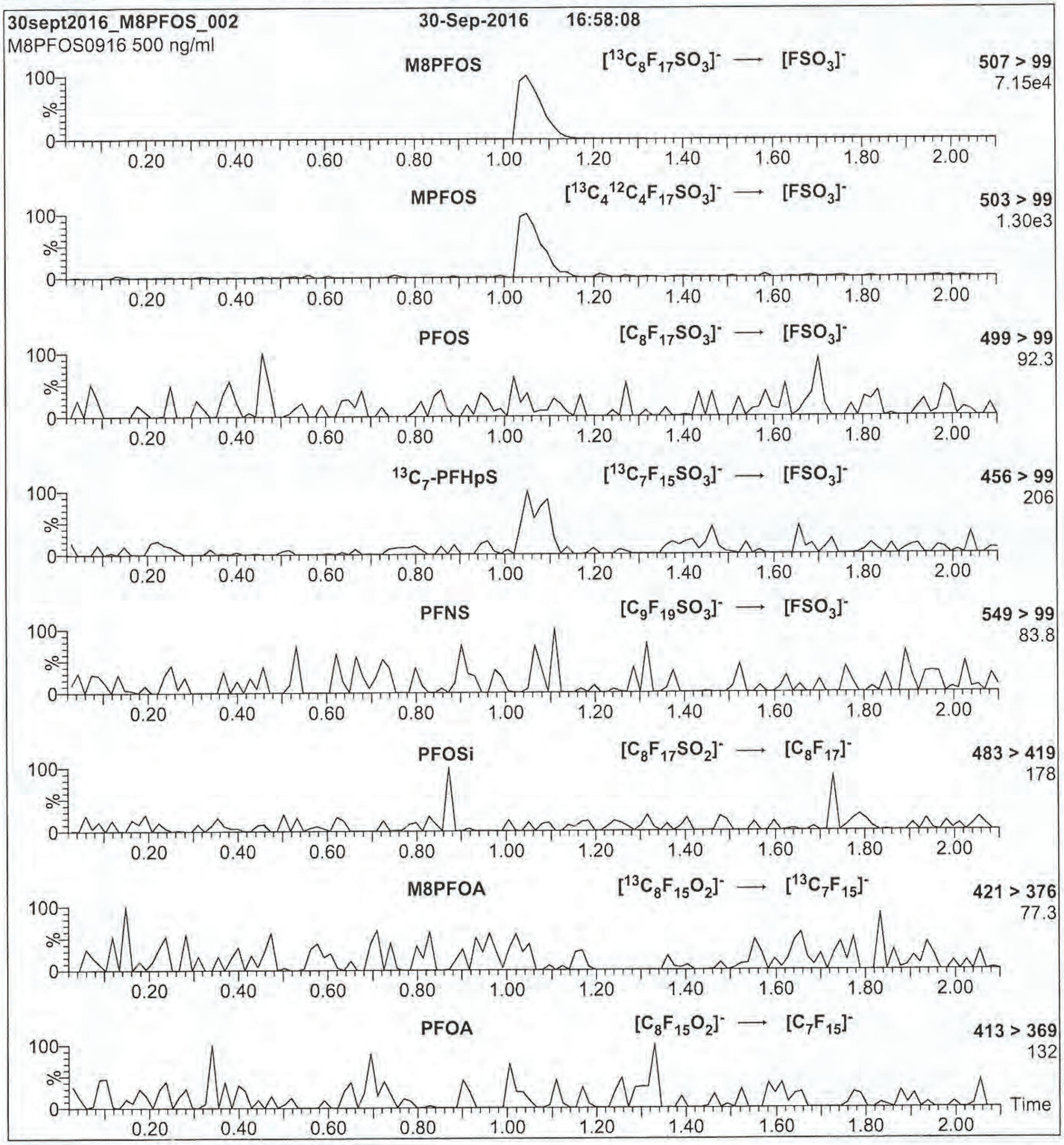
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0819

Figure 2: **M8PFOS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M8PFOS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 40

17K0821

WELLINGTON LABORATORIES

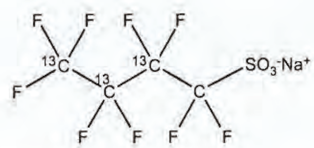
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFBS

LOT NUMBER: M3PFBS0815

COMPOUND: Sodium perfluoro-1-[2,3,4-$^{13}C_3$]butanesulfonate

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_3{}^{12}CF_9SO_3Na$

MOLECULAR WEIGHT: 325.06

CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
46.5 ± 2.3 µg/ml (M3PFBS anion)

SOLVENT(S): Methanol

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ^{13}C (2,3,4-$^{13}C_3$)

LAST TESTED: (mm/dd/yyyy) 05/24/2017

EXPIRY DATE: (mm/dd/yyyy) 05/24/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: [signature]
B.G. Chittim, General Manager

Date: 05/25/2017
(mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0821

INTENDED USE:

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HAZARDS:

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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 $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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ANAB ACCREDITED

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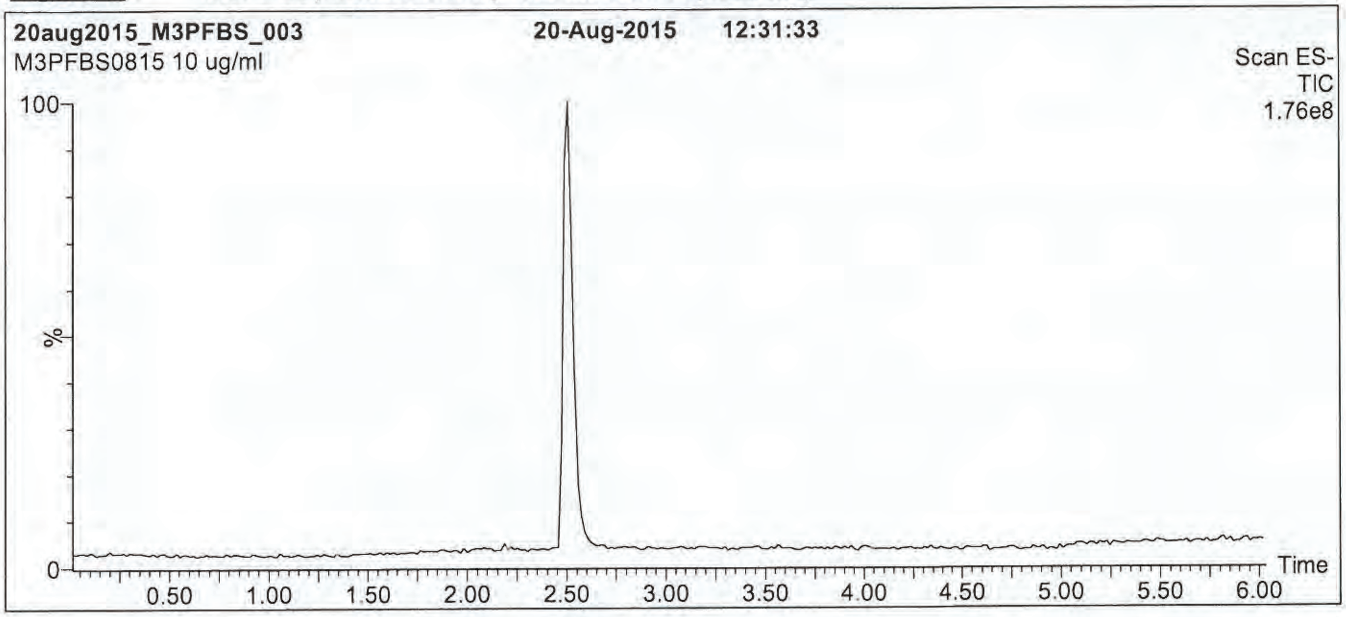
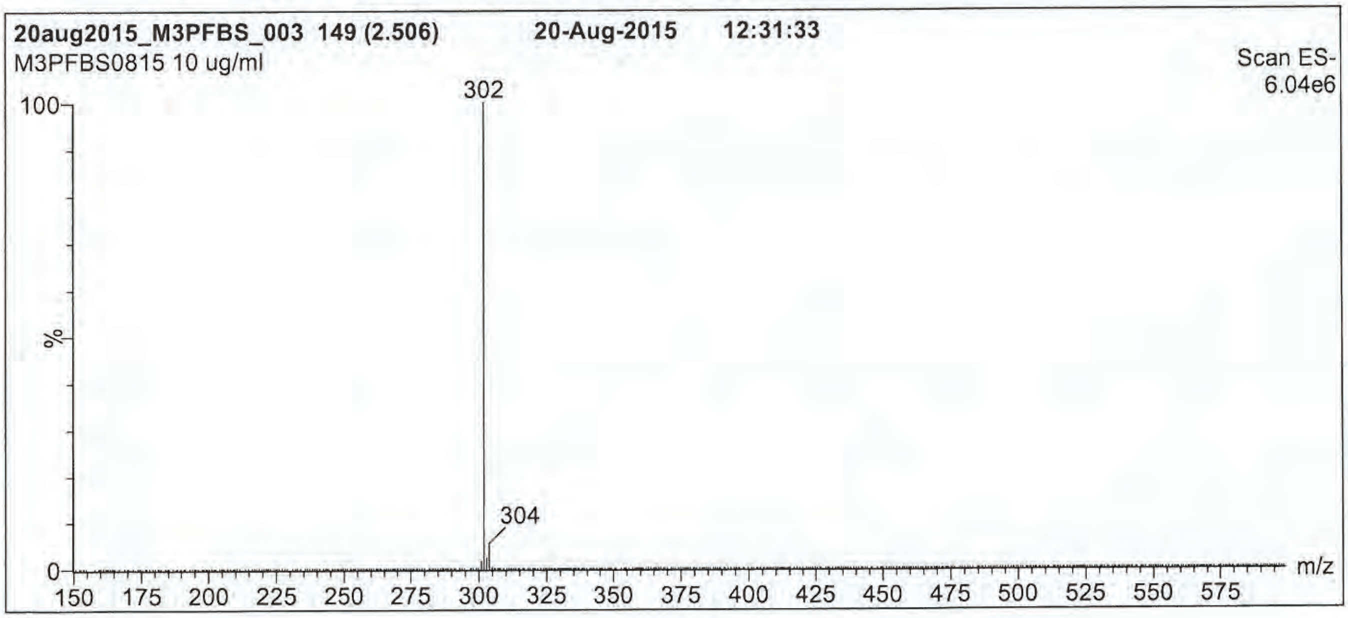
17K0821

Figure 1: **M3PFBS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

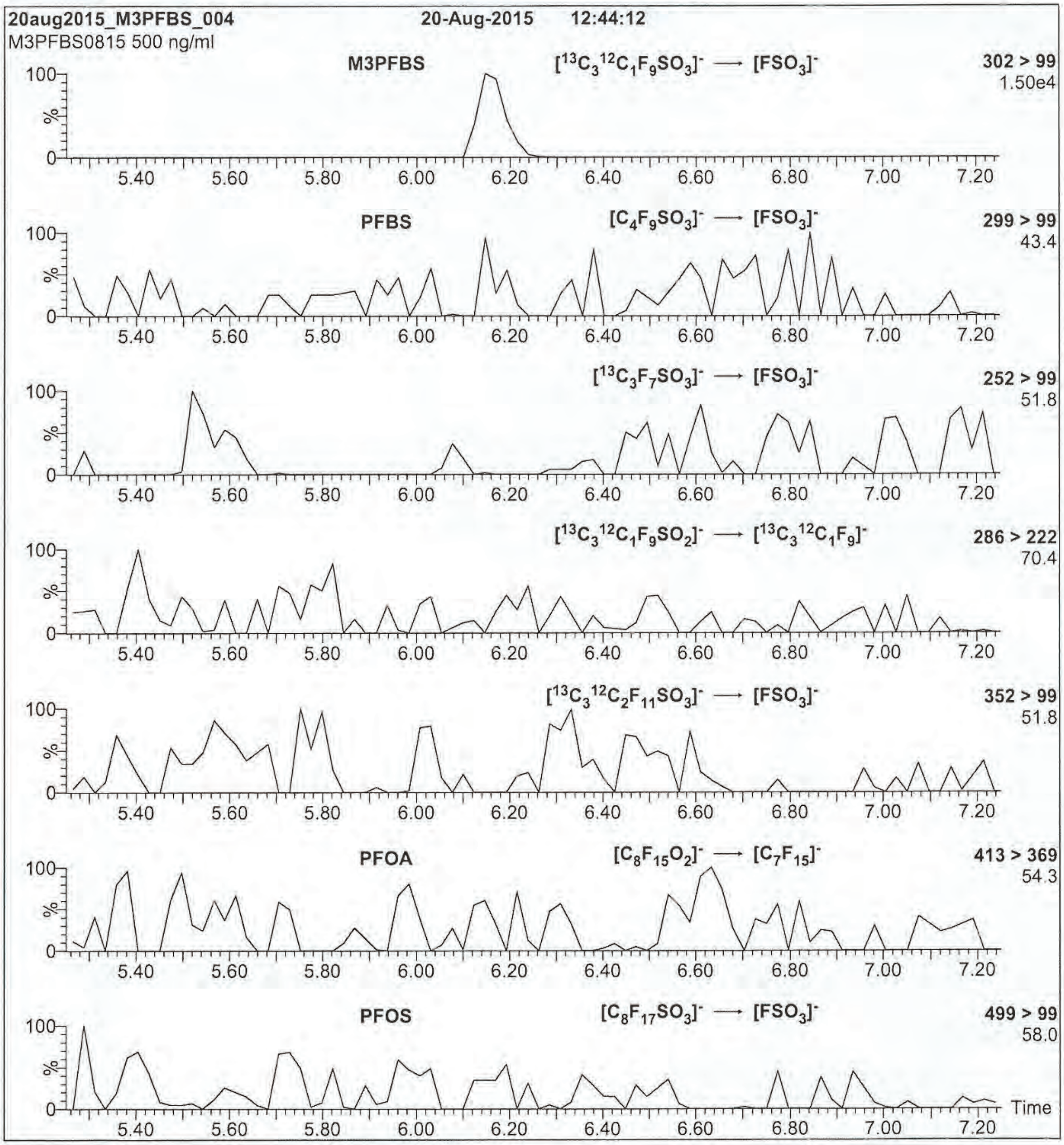
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0821

Figure 2: **M3PFBS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M3PFBS)	**MS Parameters**
		Collision Gas (mbar) = 3.31e-3 Collision Energy (eV) = 25
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	
Flow:	300 µl/min	

17K3038

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

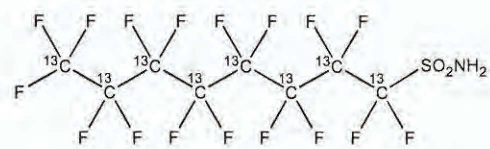
PRODUCT CODE: M8FOSA-I

LOT NUMBER: M8FOSA1017I

COMPOUND: Perfluoro-1-[$^{13}C_8$]octanesulfonamide

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_8H_2F_{17}NO_2S$

MOLECULAR WEIGHT: 507.09

CONCENTRATION: 50 ± 2.5 µg/ml

SOLVENT(S): Isopropanol

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ^{13}C ($^{13}C_8$)

LAST TESTED: (mm/dd/yyyy) 10/11/2017

EXPIRY DATE: (mm/dd/yyyy) 10/11/2022

RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.1% of perfluoro-1-[$^{13}C_4$]octanesulfonamide and ~ 0.01% of perfluoro-1-[$^{13}C_7$]heptanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim, General Manager

Date: 10/20/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K3038

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

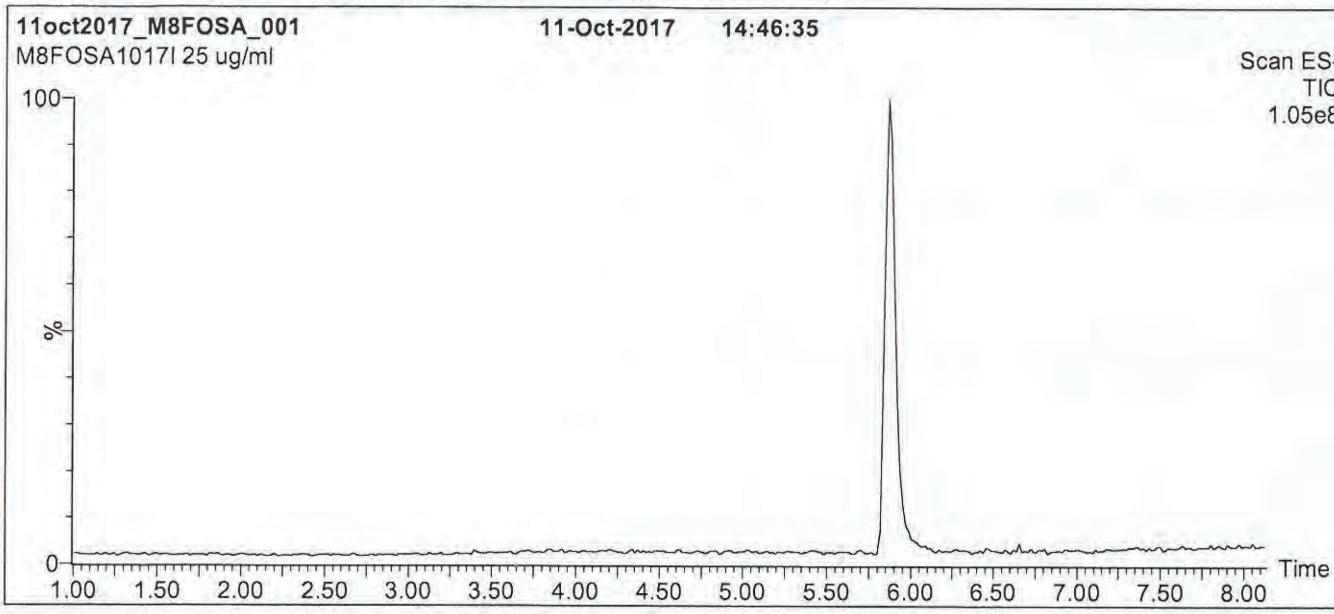
CALA

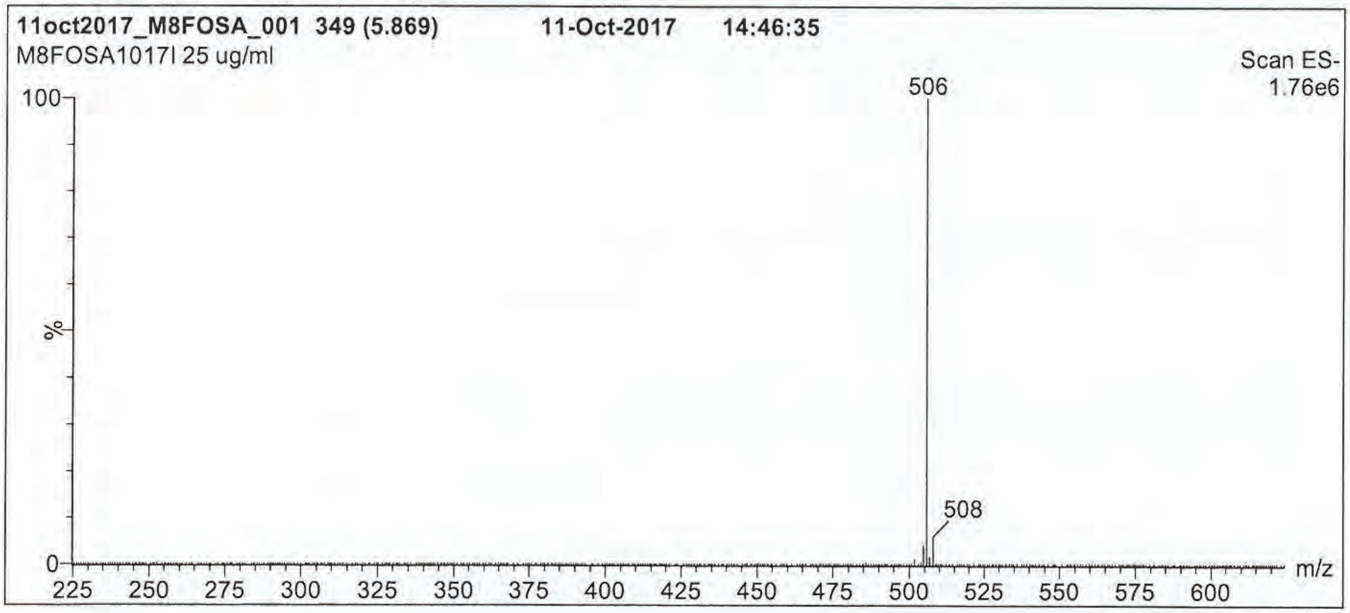
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K3038

Figure 1: **M8FOSA-I; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 85% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

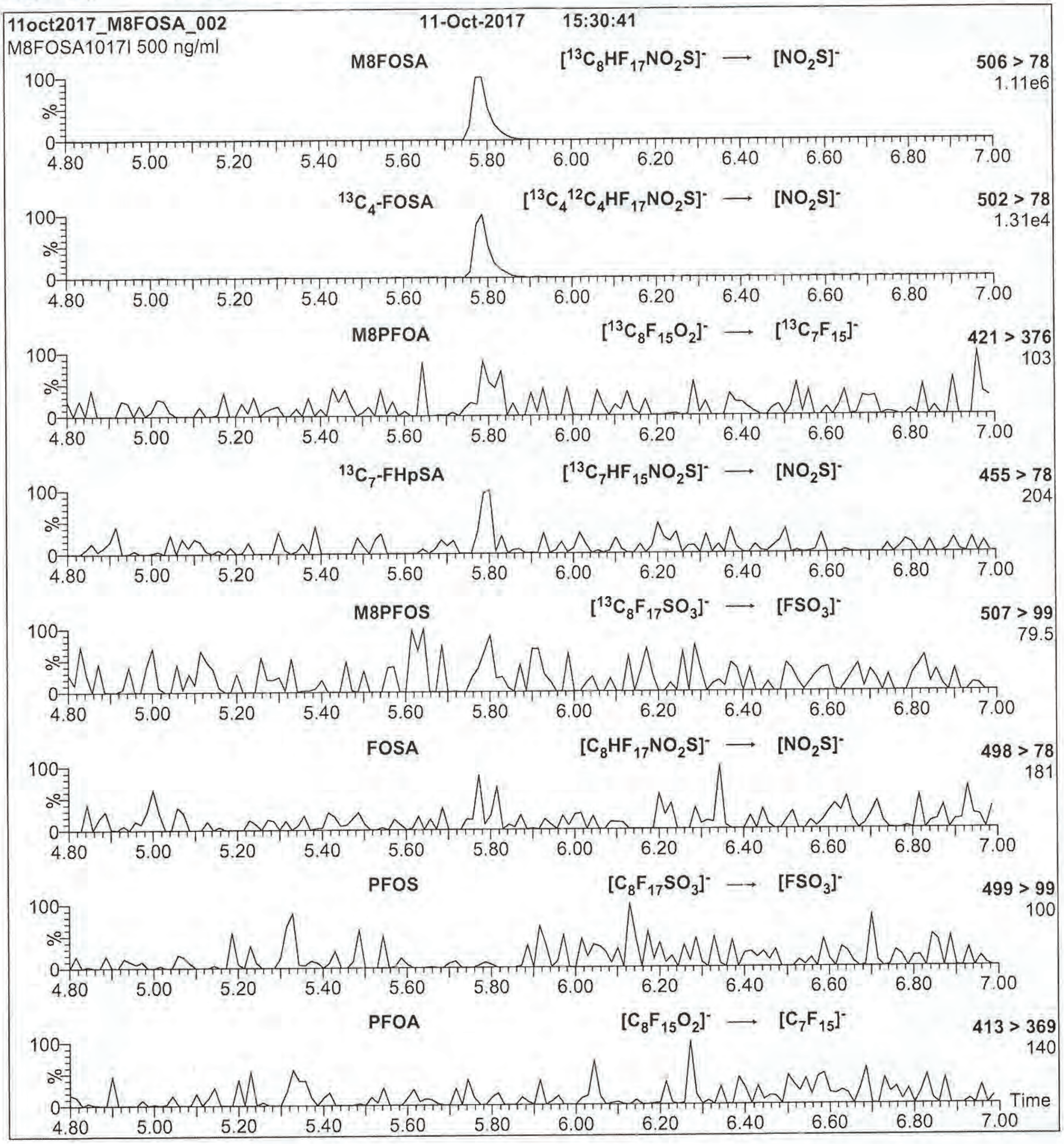
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K3038

Figure 2: **M8FOSA-I; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M8FOSA-I)	**MS Parameters**
		Collision Gas (mbar) = 3.43e-3 Collision Energy (eV) = 30
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	
Flow:	300 µl/min	

17K3039

WELLINGTON LABORATORIES

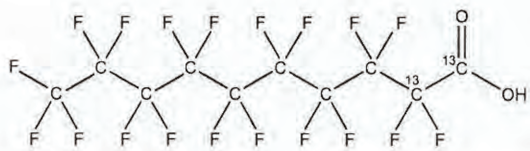
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFDA

COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid

LOT NUMBER: MPFDA0717

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_2{}^{12}C_8HF_{19}O_2$

CONCENTRATION: 50 ± 2.5 μg/ml

MOLECULAR WEIGHT: 516.07

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ^{13}C (1,2-$^{13}C_2$)

LAST TESTED: (mm/dd/yyyy) 07/13/2017

EXPIRY DATE: (mm/dd/yyyy) 07/13/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of $^{13}C_1$-PFNA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: [signature]
B.G. Chittim, General Manager

Date: 07/14/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K3039

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

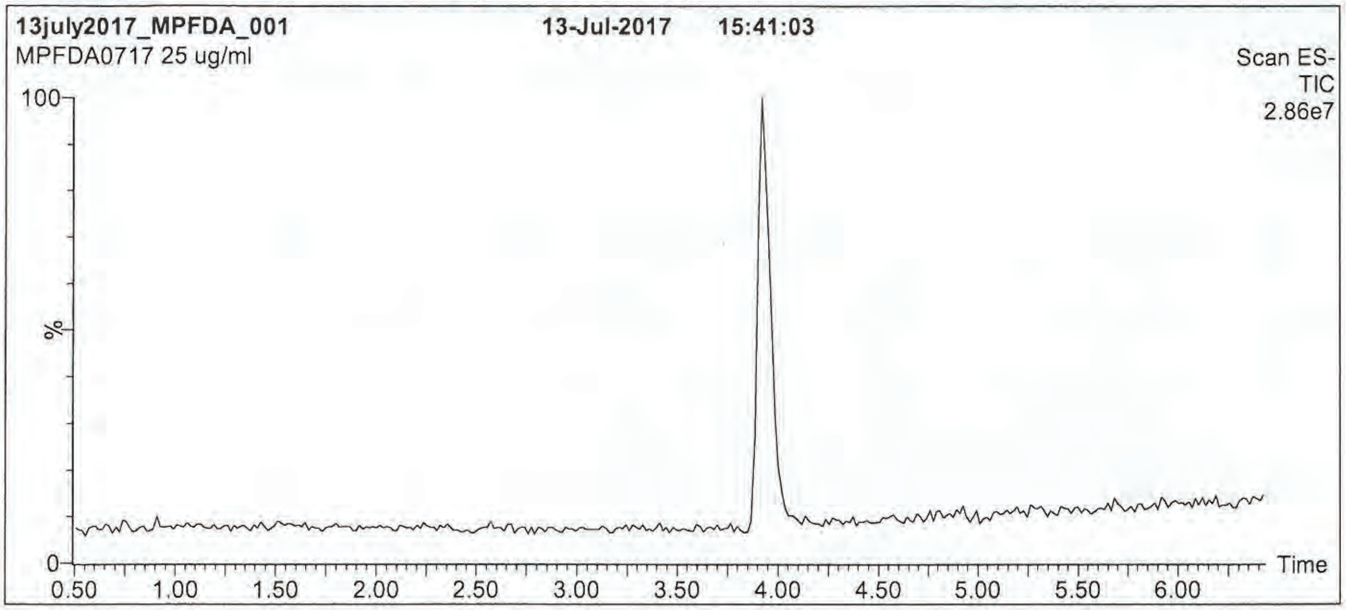
CALA

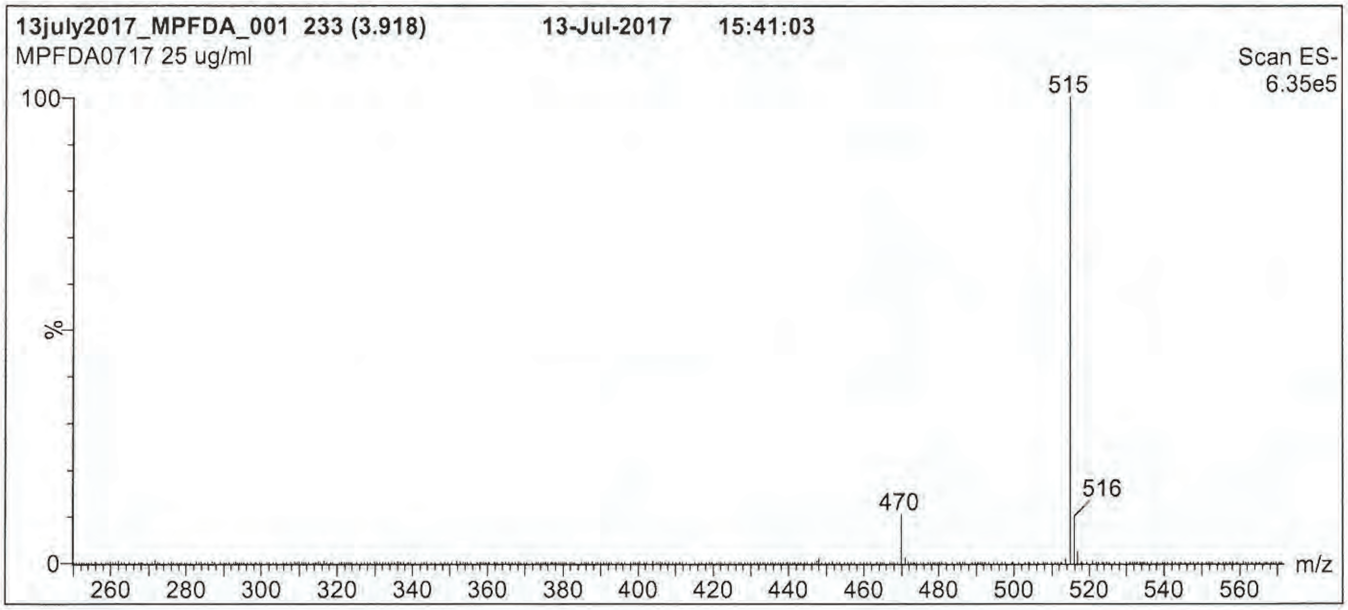
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K3039

Figure 1: **MPFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

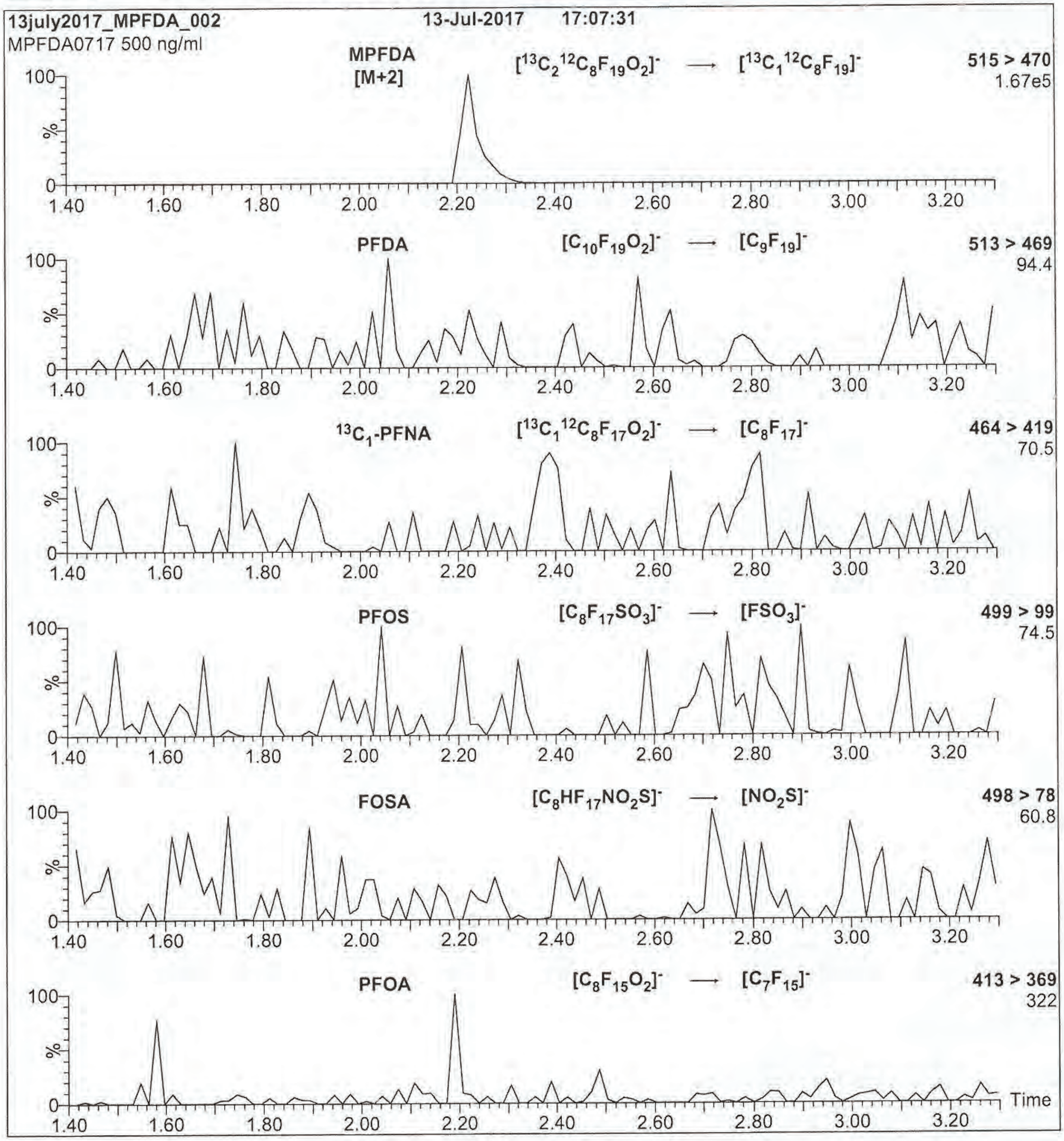
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K3039

Figure 2: **MPFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.17e-3
Collision Energy (eV) = 13

17K3040

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

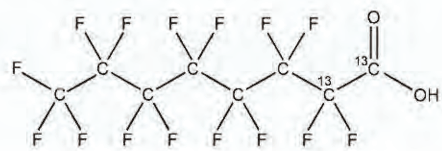
PRODUCT CODE: M2PFOA

COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]octanoic acid

LOT NUMBER: M2PFOA1017

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6HF_{15}O_2$	**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)	10/26/2017		
EXPIRY DATE: (mm/dd/yyyy)	10/26/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: [signature]
B.G. Chittim, General Manager

Date: 10/30/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K3040

INTENDED USE:

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SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. 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:

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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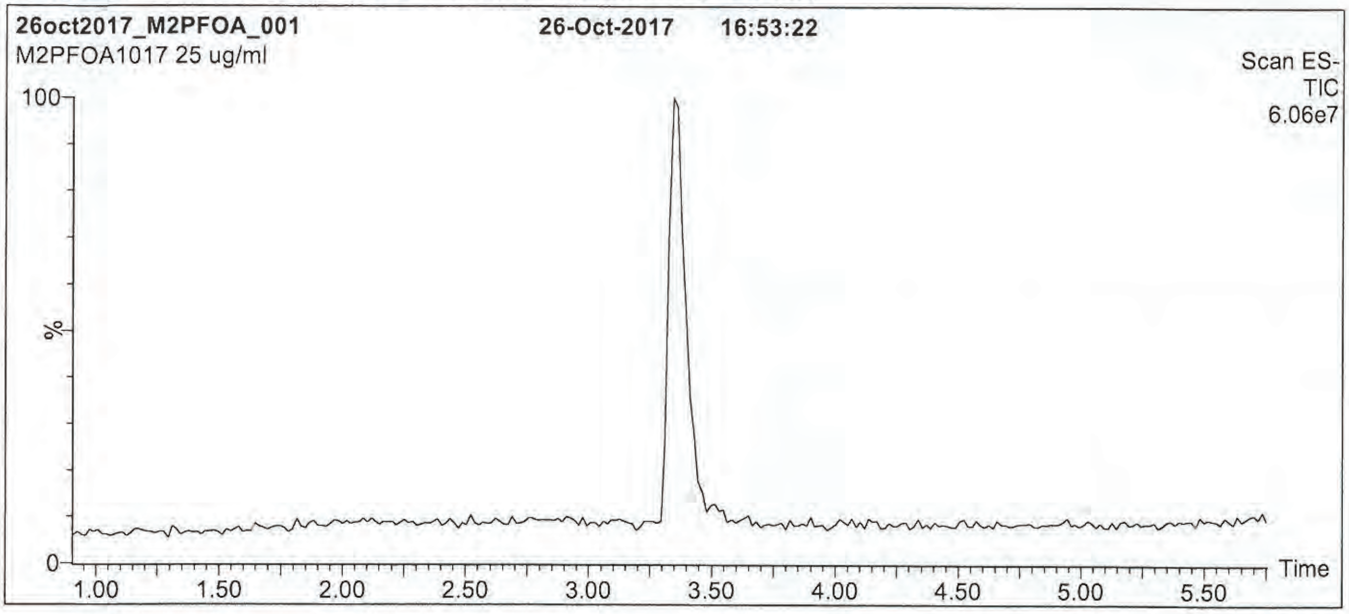
CALA Testing Accreditation No. A1226

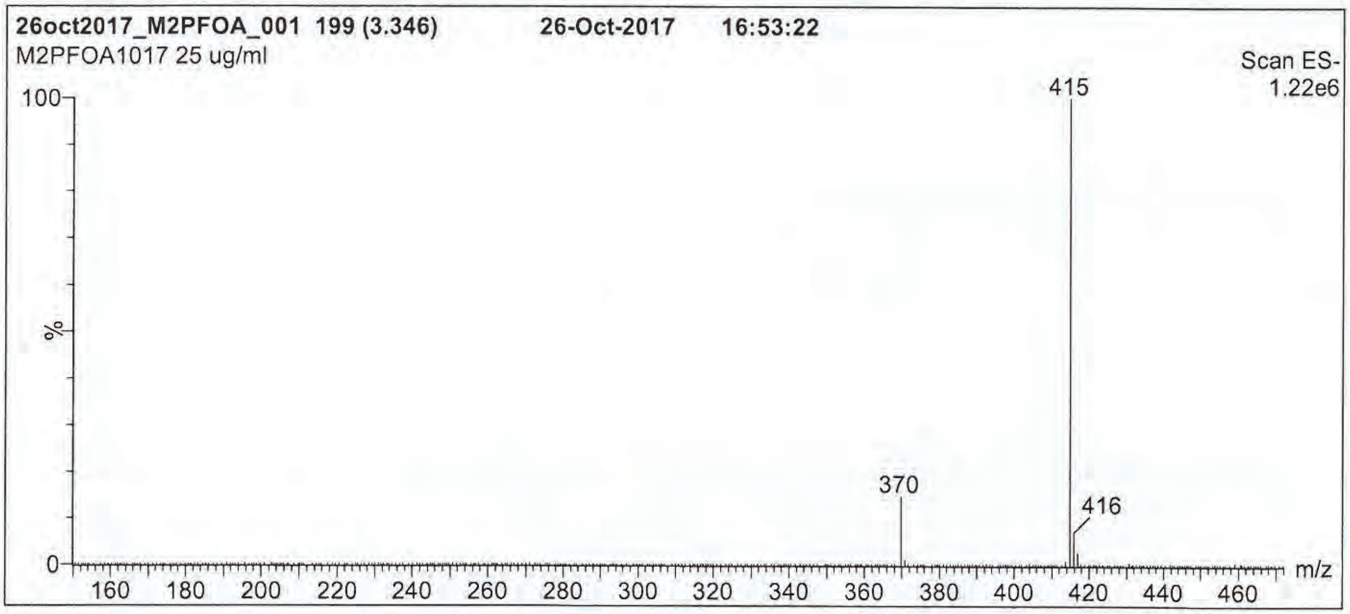
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K3040

Figure 1: **M2PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

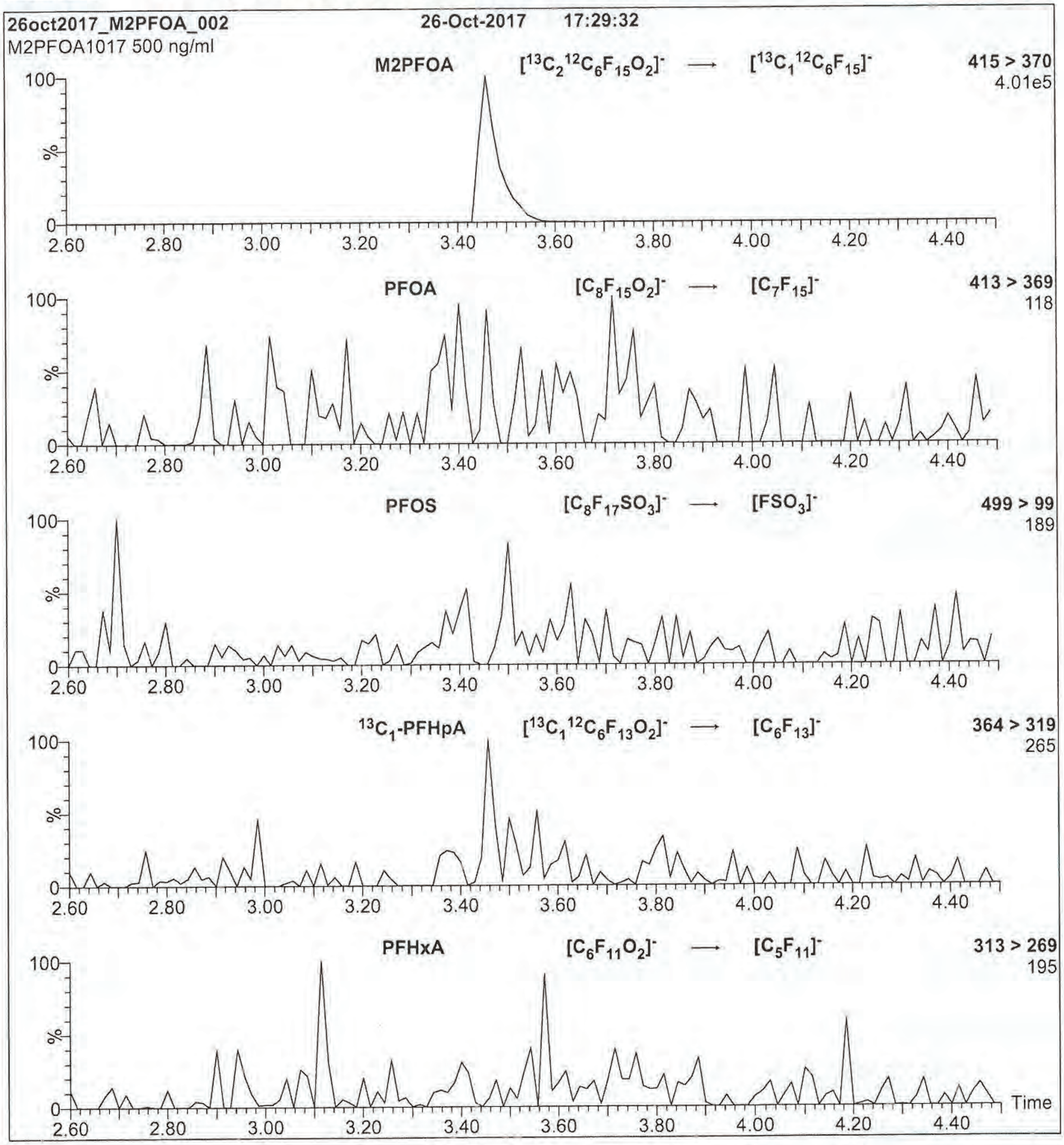
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17K3040

Figure 2: **M2PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2PFOA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 10

17K3041

WELLINGTON LABORATORIES

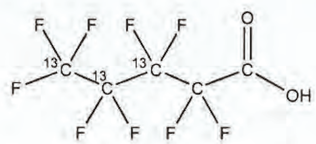
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFPeA

COMPOUND: Perfluoro-n-[3,4,5-$^{13}C_3$]pentanoic acid

LOT NUMBER: M3PFPeA0417

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_3{}^{12}C_2HF_9O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 267.02

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

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

ISOTOPIC PURITY: ≥99% ^{13}C (3,4,5-$^{13}C_3$)

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: B.G. Chittim, General Manager

Date: 04/24/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K3041

INTENDED USE:

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HAZARDS:

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SYNTHESIS / CHARACTERIZATION:

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UNCERTAINTY:

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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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QUALITY MANAGEMENT:

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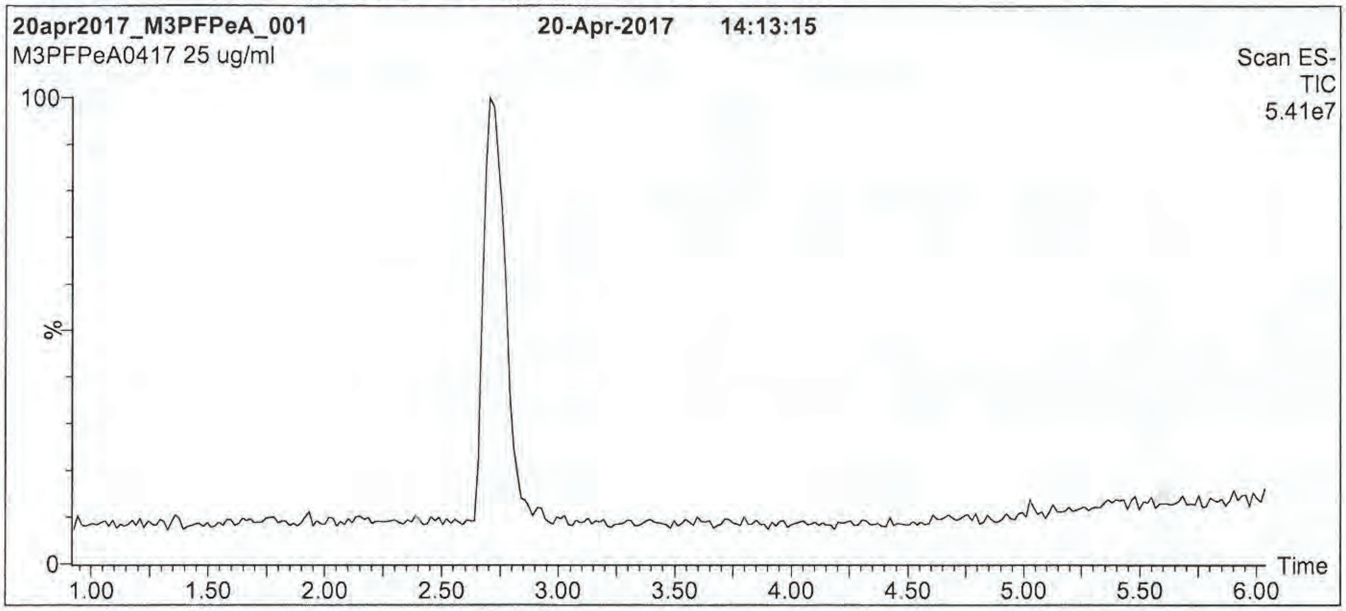
CALA Testing Accreditation No. A 1226

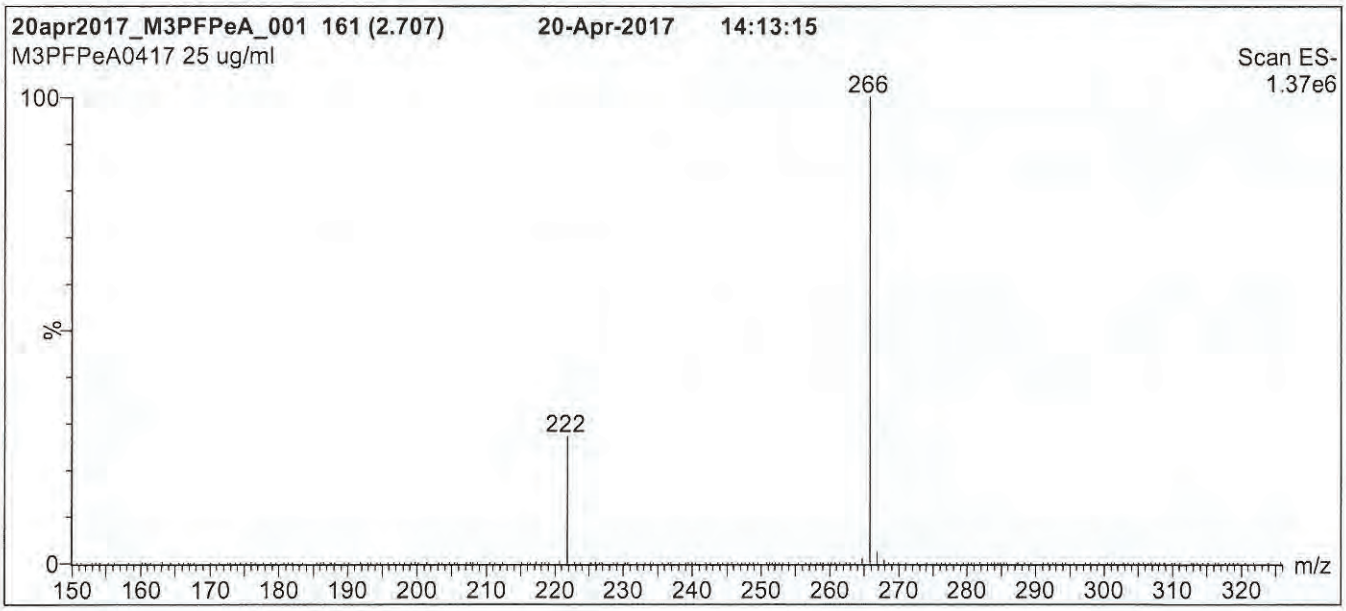
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K3041

Figure 1: **M3PFPeA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

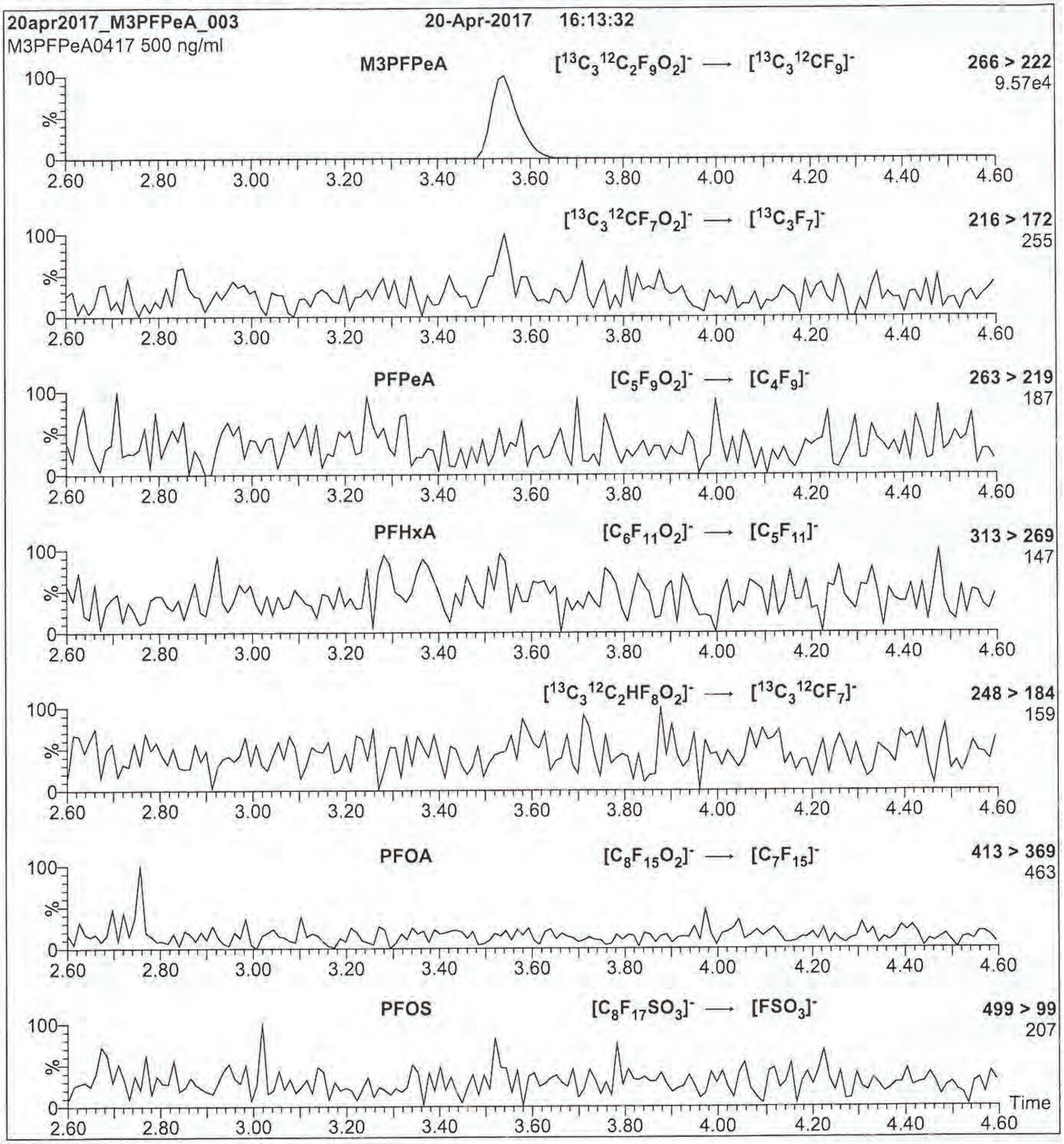
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17K3041

Figure 2: **M3PFPeA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M3PFPeA)	**MS Parameters**
		Collision Gas (mbar) = 3.31e-3 Collision Energy (eV) = 9
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	
Flow:	300 µl/min	

Analytical Standard Record

Vista Analytical Laboratory

17K2502

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	(mls)
17J0526	13C6-PFDA	05-Oct-17	** Vendor **	31-May-21	0.5
17J0527	13C8-PFOA	05-Oct-17	** Vendor **	05-Jul-22	0.51
17J1018	13C4-PFBA	10-Oct-17	** Vendor **	12-Apr-22	0.5
17J1019	13C5-PFHxA	10-Oct-17	** Vendor **	27-Aug-19	0.5
17J1020	13C9-PFNA	10-Oct-17	** Vendor **	23-May-22	0.5
17J1021	13C7-PFUdA	10-Oct-17	** Vendor **	13-Jul-22	0.5
17J1022	13C3-PFHxS	10-Oct-17	** Vendor **	05-Jul-22	0.53
17J1023	13C4-PFOS	10-Oct-17	** Vendor **	19-May-22	0.525
17J1024	13C2-FOUEA	10-Oct-17	** Vendor **	02-Aug-18	0.5

Description:	PFC-RS	Expires:	25-Nov-19
Standard Type:	Reagent	Prepared:	25-Nov-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	25-Nov-17 10:25 by INJ

Analyte	CAS Number	Concentration	Units
13C9-PFNA		1.25	ug/mL
13C8-PFOA		1.25	ug/mL
13C7-PFUnA		1.25	ug/mL
13C6-PFDA		1.25	ug/mL
13C5-PFHxA		1.25	ug/mL
13C4-PFOS		1.25	ug/mL
13C4-PFBA		1.25	ug/mL
13C3-PFHxS		1.25	ug/mL
13C2-FOUEA		1.25	ug/mL

17J0526

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

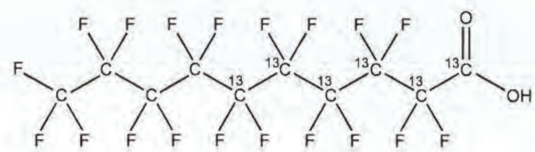
PRODUCT CODE: M6PFDA

LOT NUMBER: M6PFDA0516

COMPOUND: Perfluoro-n-[1,2,3,4,5,6-$^{13}C_6$]decanoic acid

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_6{}^{12}C_4HF_{19}O_2$

MOLECULAR WEIGHT: 520.04

CONCENTRATION: 50 ± 2.5 μg/ml

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: $\geq$99% ^{13}C (1,2,3,4,5,6-$^{13}C_6$)

LAST TESTED: (mm/dd/yyyy) 05/31/2016

EXPIRY DATE: (mm/dd/yyyy) 05/31/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 06/13/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J0526

INTENDED USE:

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.

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TRACEABILITY:

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CALA

ANAB ACCREDITED

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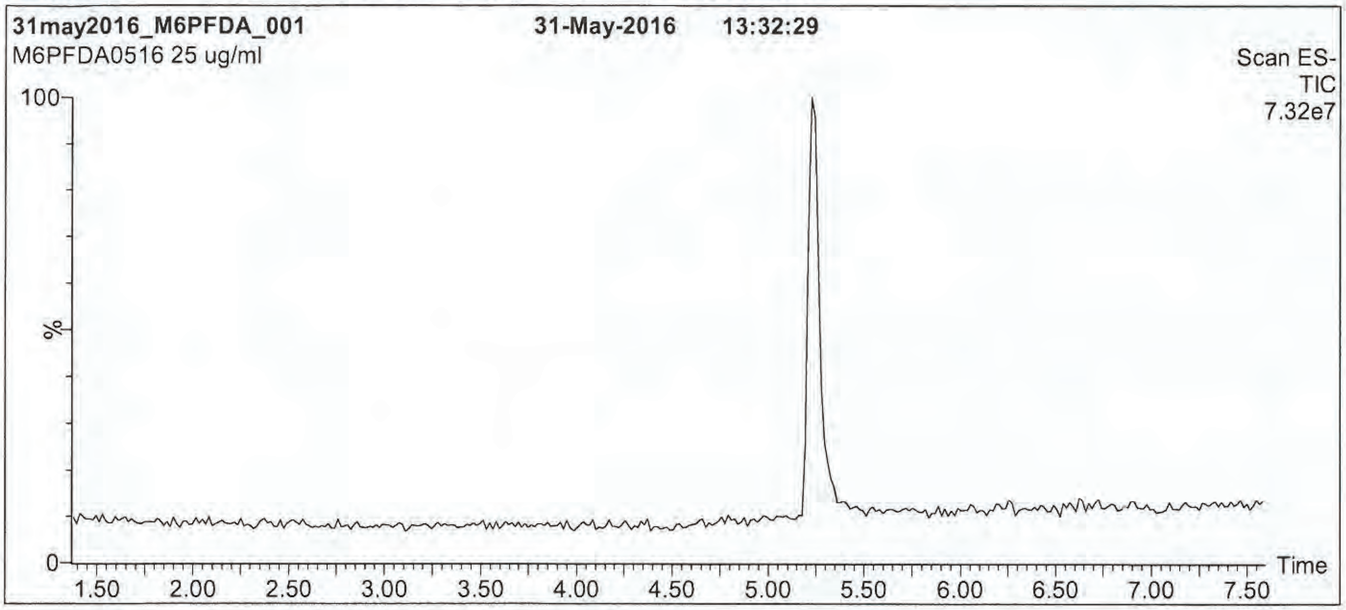
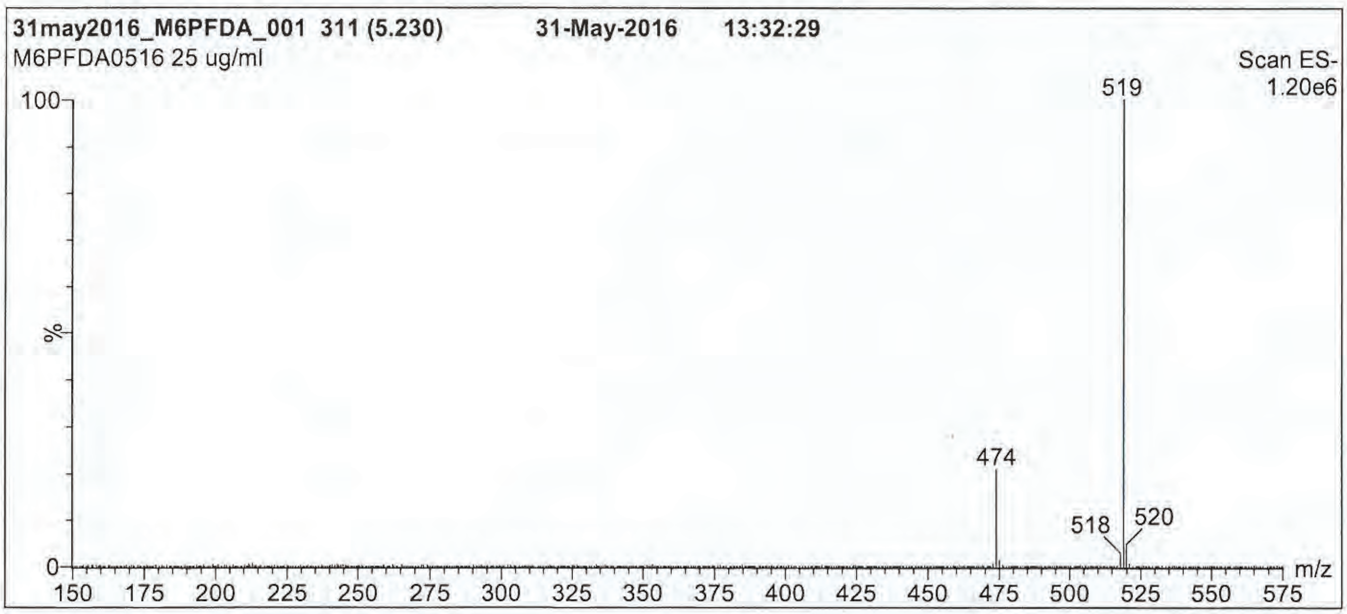
17J0526

Figure 1: **M6PFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

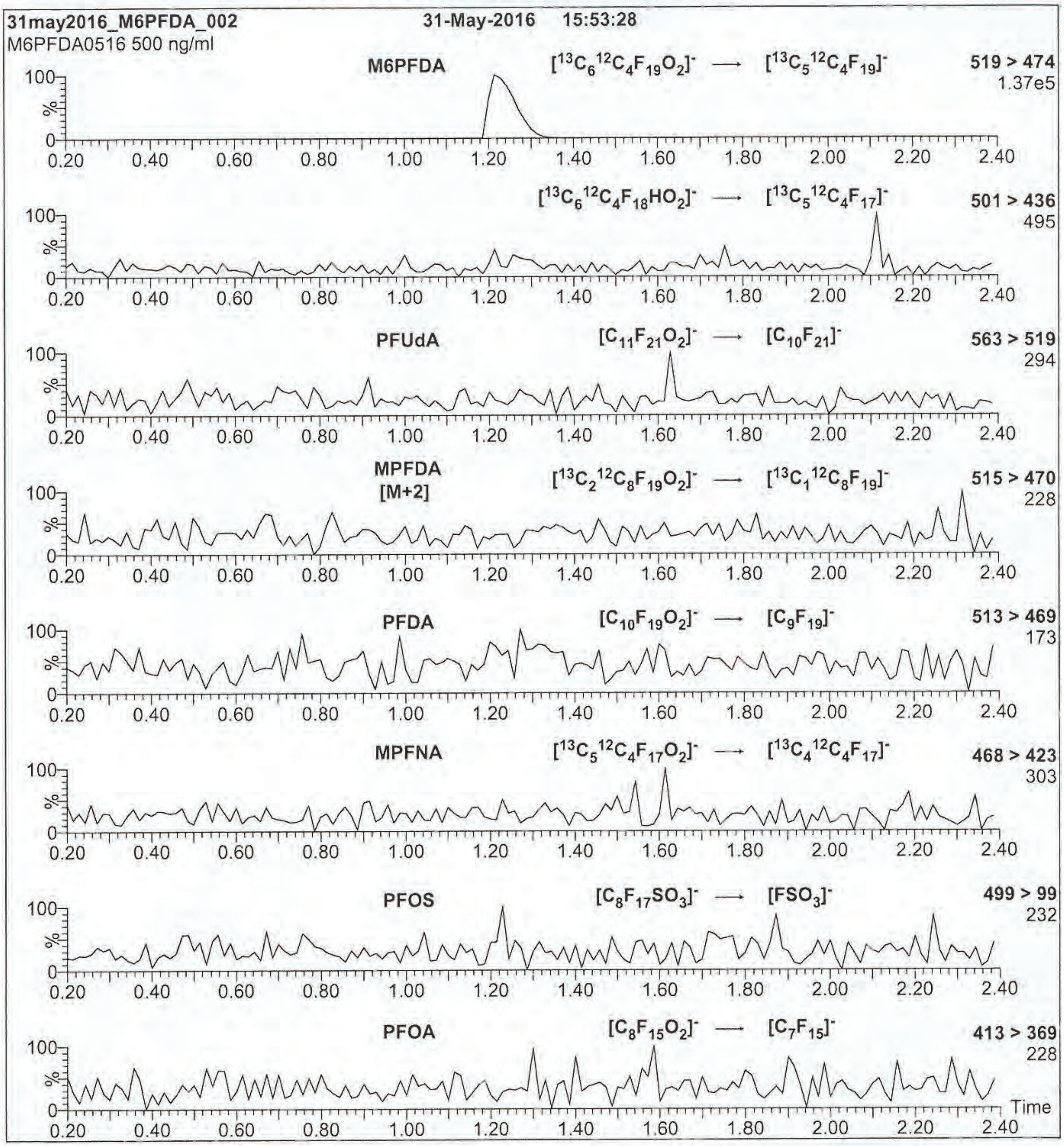
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17J0526

Figure 2: **M6PFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M6PFDA)
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 13

~~17G~~ INJ 10/5/17 17J0527

WELLINGTON LABORATORIES

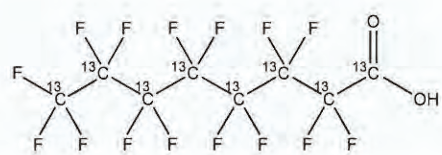
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M8PFOA

LOT NUMBER: M8PFOA0717

COMPOUND: Perfluoro-n-[$^{13}C_8$]octanoic acid

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_8HF_{15}O_2$

MOLECULAR WEIGHT: 422.01

CONCENTRATION: 49 ± 2.45 µg/ml

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: 97.9% (M8PFOA)
2.1% (MPFOA [M+4])

ISOTOPIC PURITY: $\geq$99% ^{13}C ($^{13}C_8$)

LAST TESTED: (mm/dd/yyyy) 07/05/2017

EXPIRY DATE: (mm/dd/yyyy) 07/05/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of native perfluoro-n-octanoic acid (PFOA) and ~ 2.1% of [M+4] perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: [signature]
B.G. Chittim, General Manager

Date: 07/14/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J0527

INTENDED USE:

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CALA

ANAB

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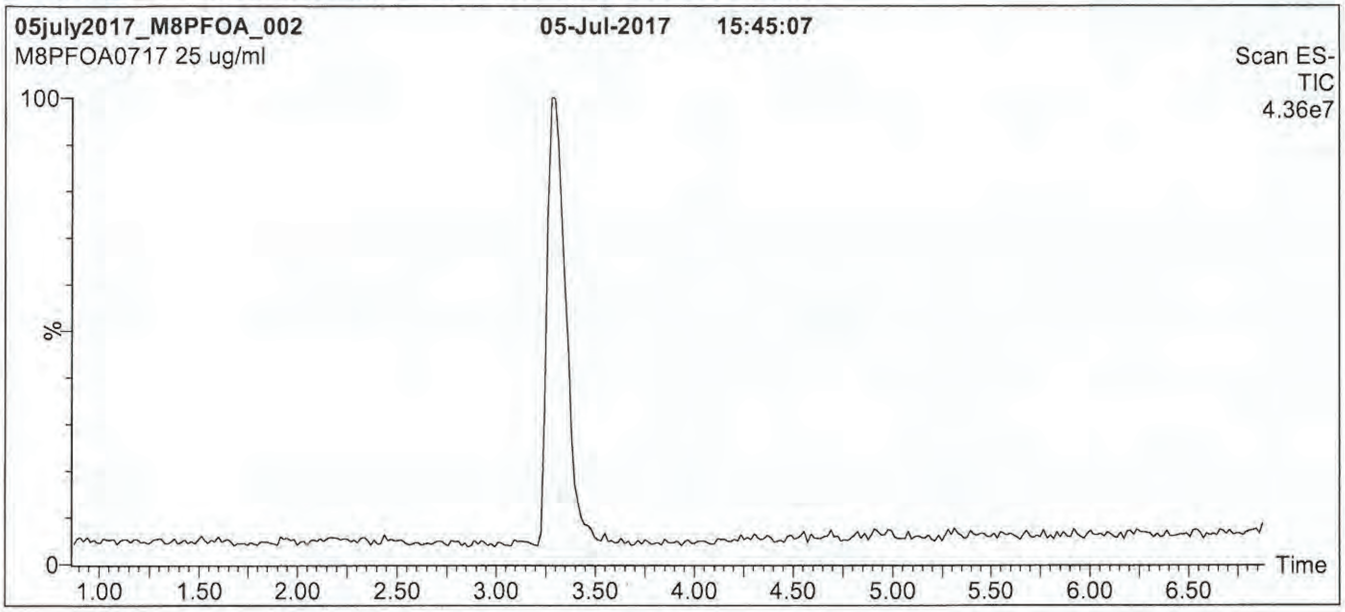
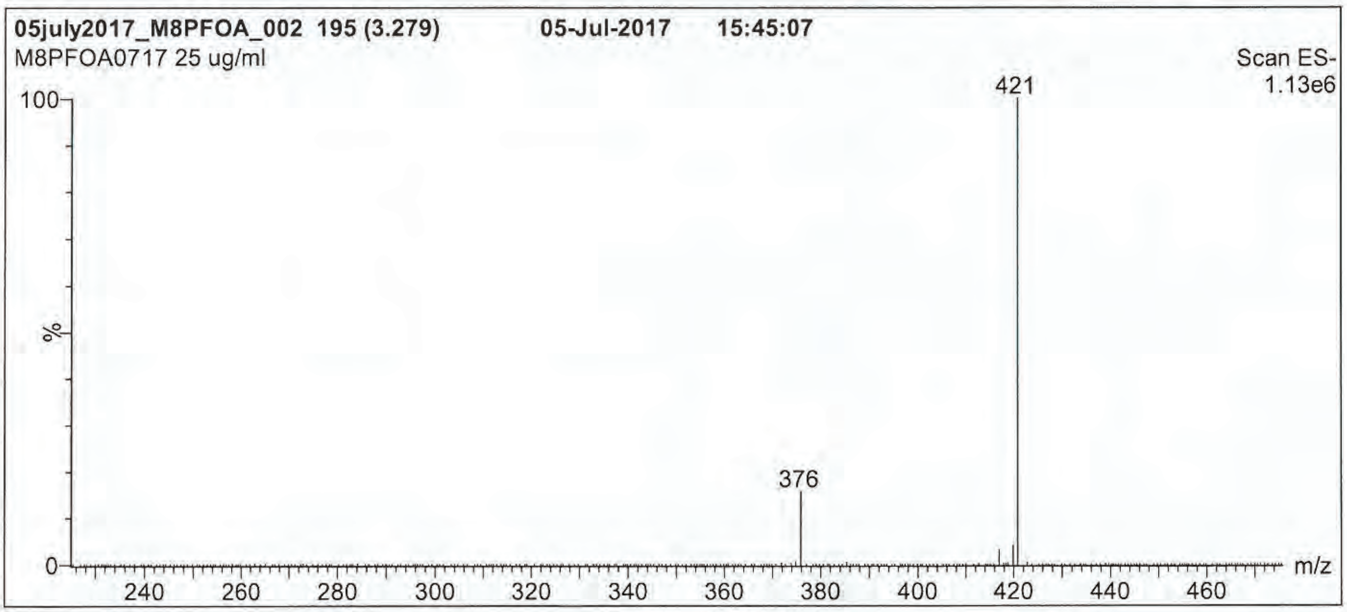
17J0527

Figure 1: **M8PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

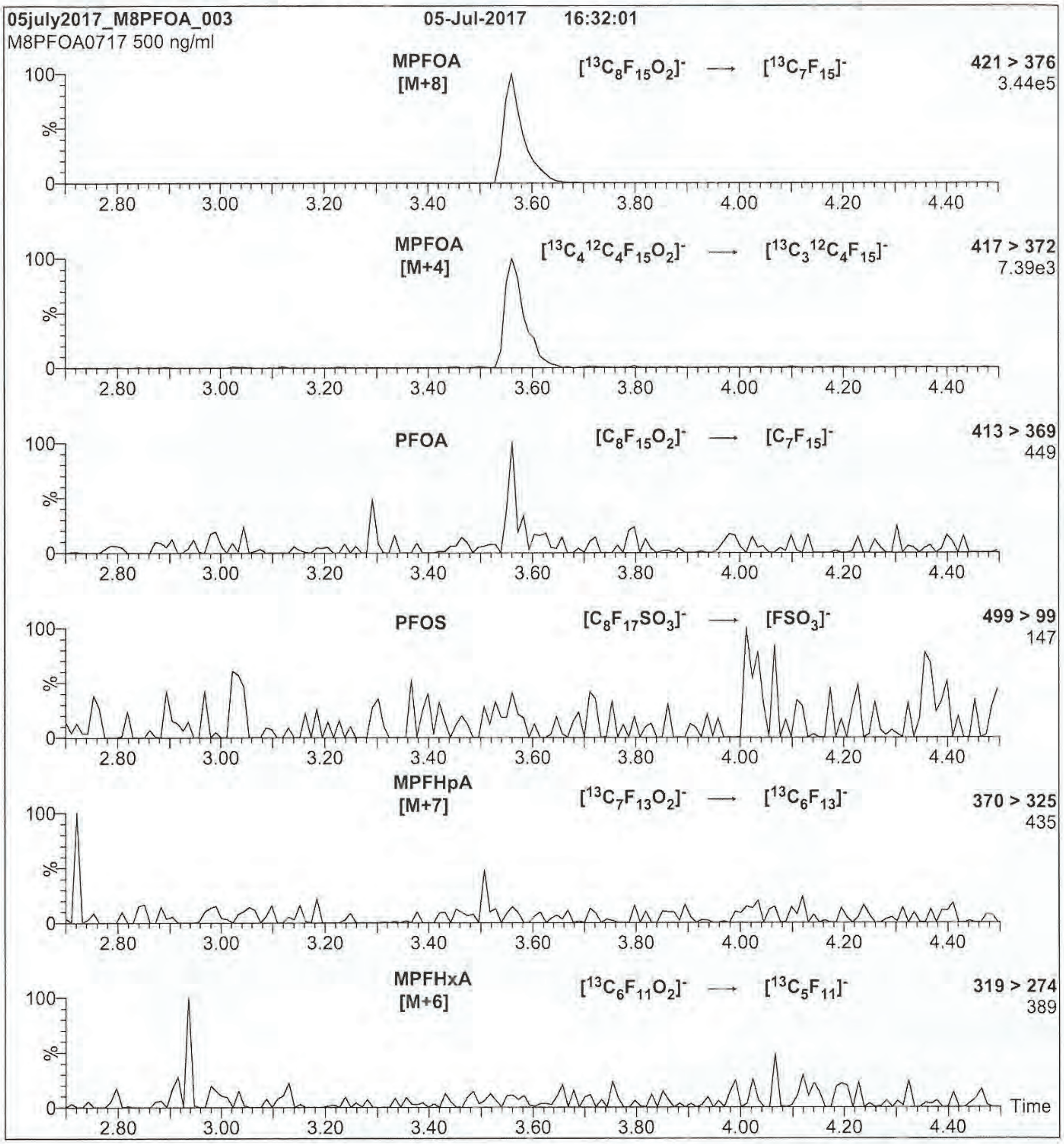
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17J0527

Figure 2: **M8PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M8PFOA)	**MS Parameters**
		Collision Gas (mbar) = 3.28e-3 Collision Energy (eV) = 10
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	
Flow:	300 µl/min	

17J1018

WELLINGTON LABORATORIES

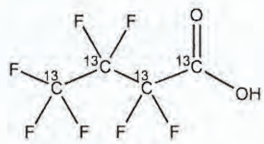
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFBA

COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid

LOT NUMBER: MPFBA0417

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_4HF_7O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 218.01

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ^{13}C (1,2,3,4-$^{13}C_4$)

LAST TESTED: (mm/dd/yyyy) 04/12/2017

EXPIRY DATE: (mm/dd/yyyy) 04/12/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: [signature]
B.G. Chittim, General Manager

Date: 04/20/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1018

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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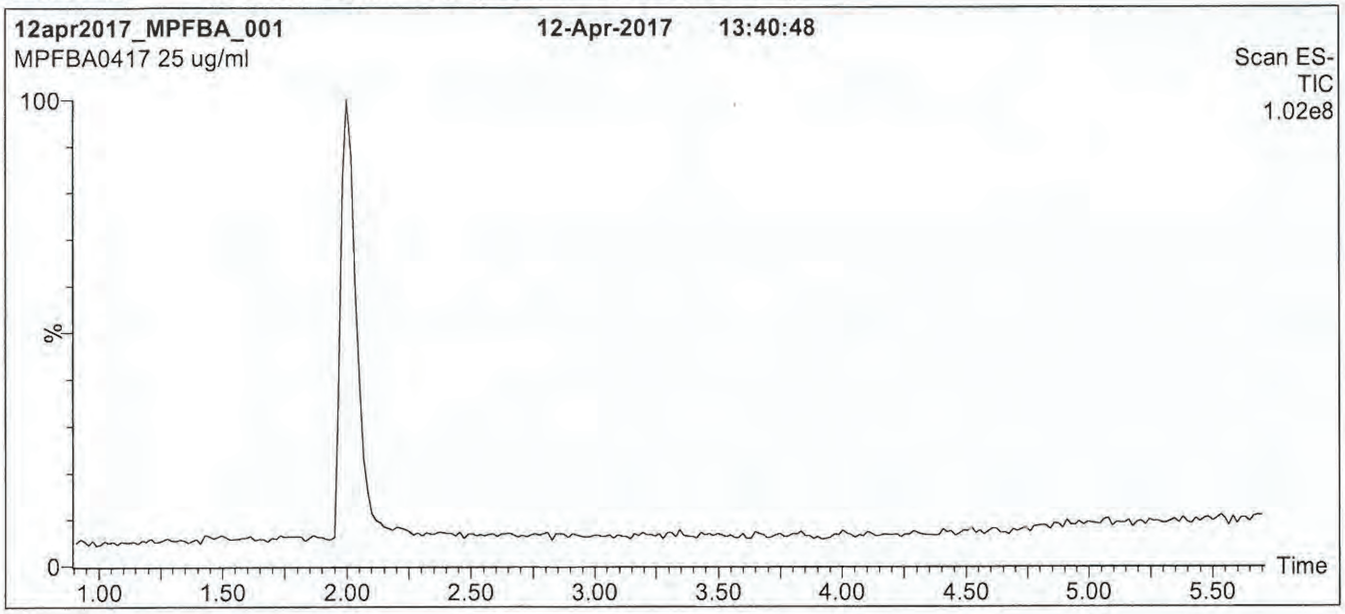
CALA

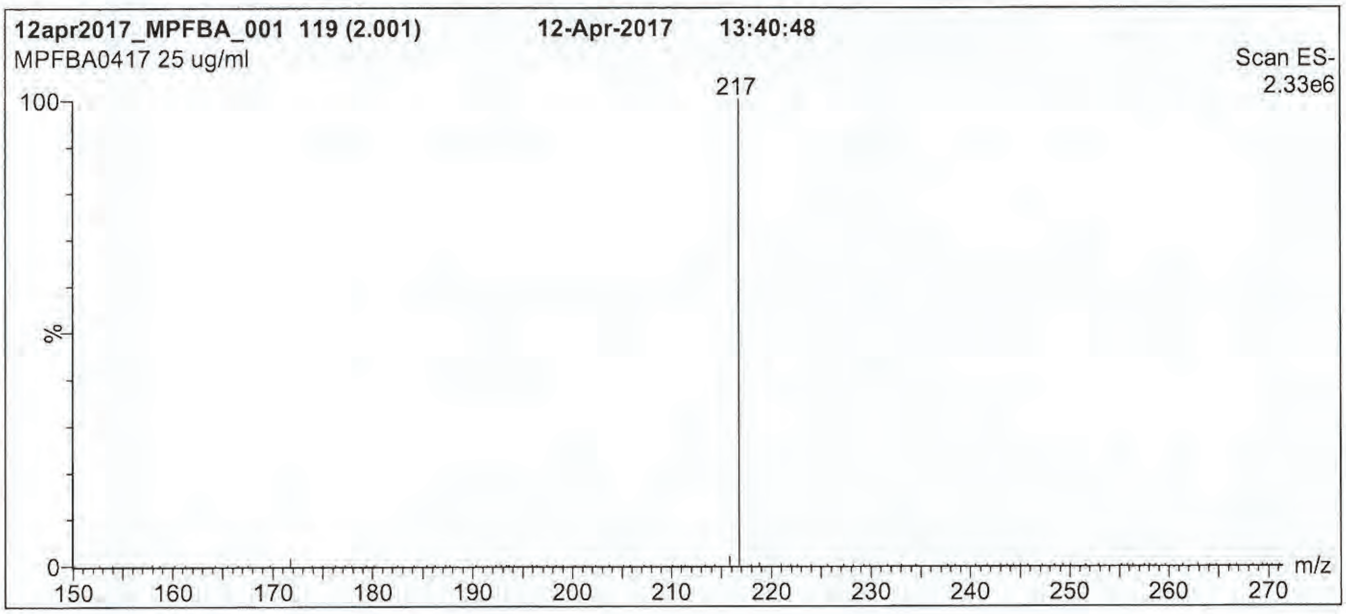
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17J1018

Figure 1: **MPFBA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

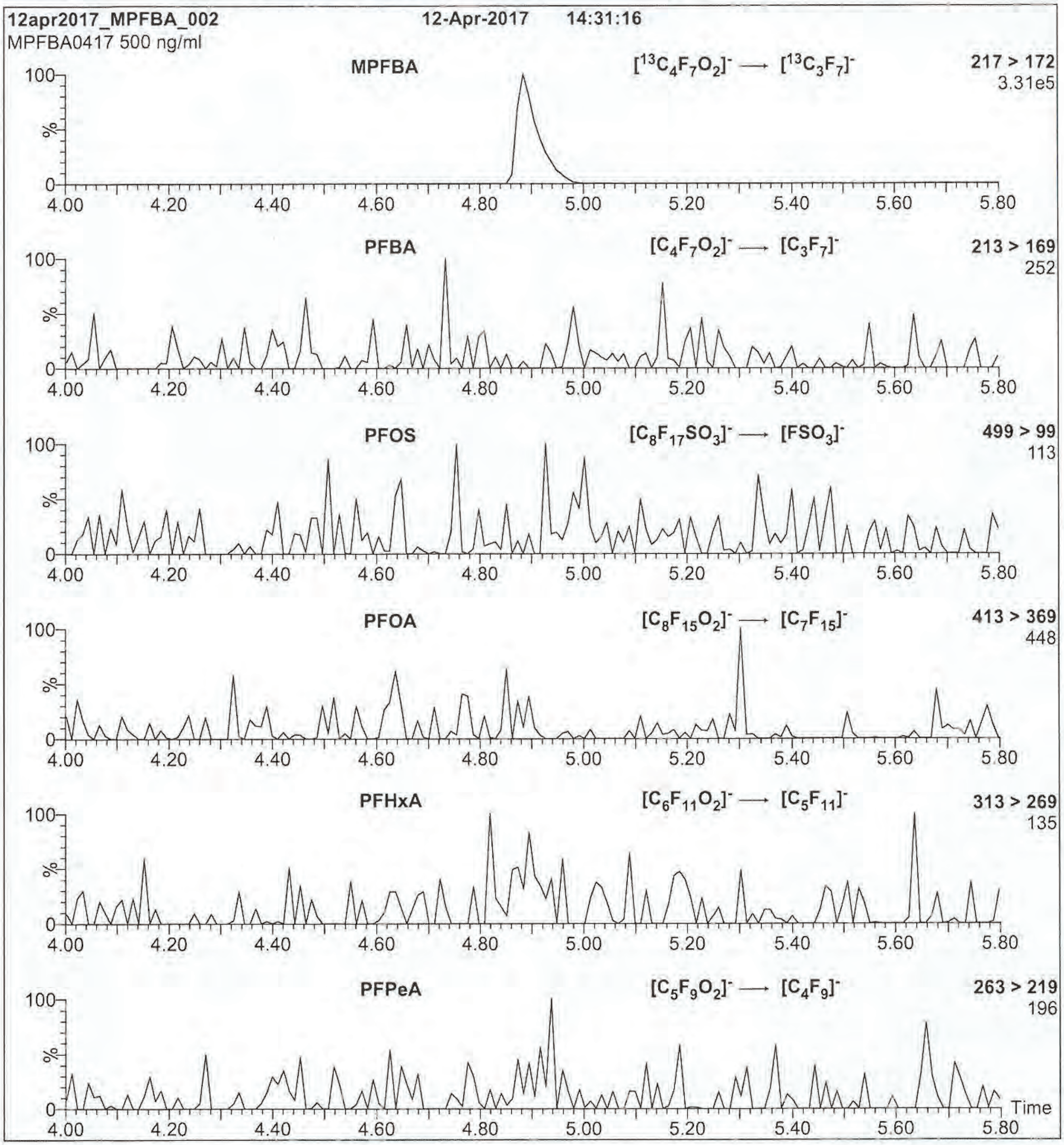
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17J1018

Figure 2: **MPFBA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml MPFBA)
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 10

17J1019

WELLINGTON LABORATORIES

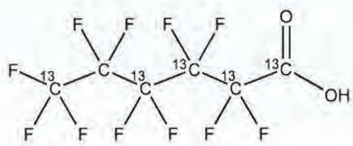
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M5PFHxA

COMPOUND: Perfluoro-n-[1,2,3,4,6-$^{13}C_5$]hexanoic acid

LOT NUMBER: M5PFHxA0814

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_5{}^{12}C_1HF_{11}O_2$

CONCENTRATION: 50 ± 2.5 μg/ml

MOLECULAR WEIGHT: 319.02

SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 08/27/2014

EXPIRY DATE: (mm/dd/yyyy) 08/27/2019

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

ISOTOPIC PURITY: $\geq$99% ^{13}C (1,2,3,4,6-$^{13}C_5$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim

Date: 03/31/2015 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1019

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

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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.

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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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QUALITY MANAGEMENT:

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CALA

ANAB ACCREDITED

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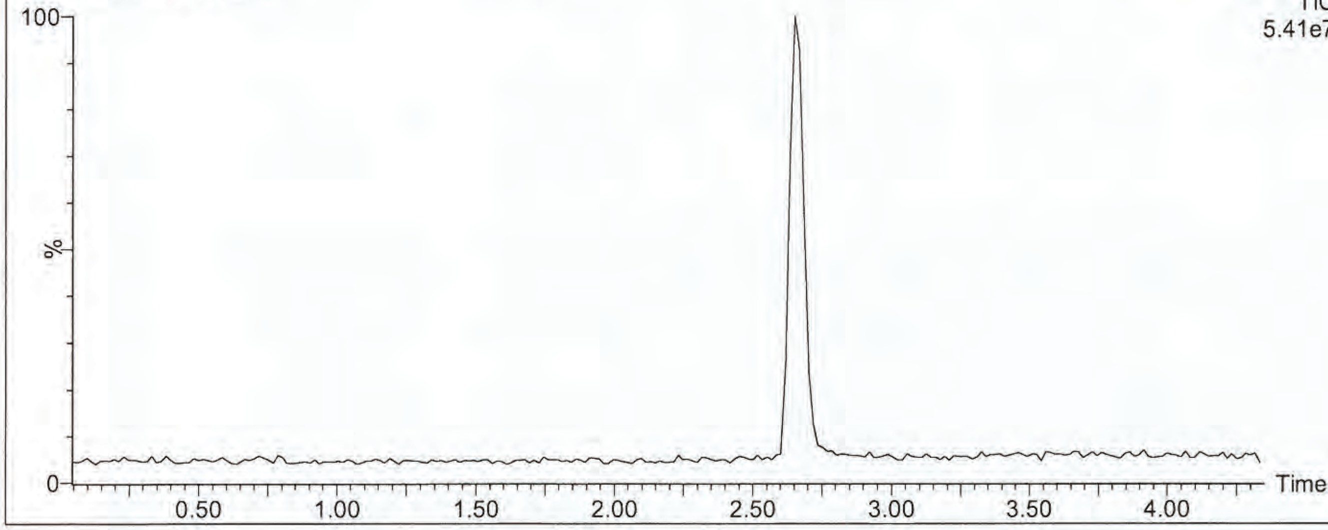
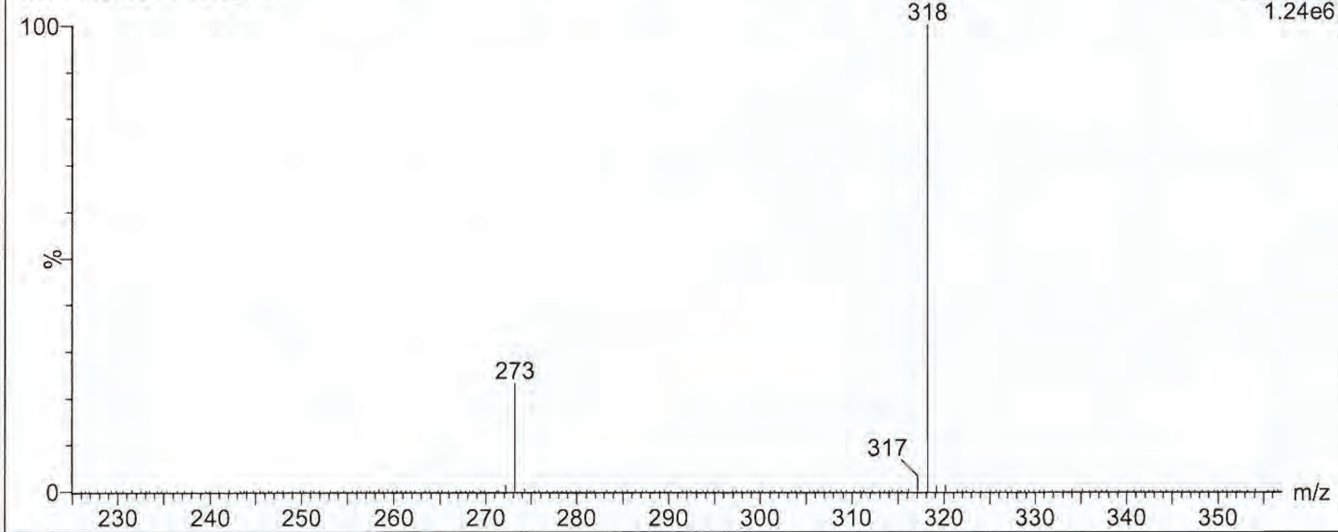
17J1019

Figure 1: **M5PFHxA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

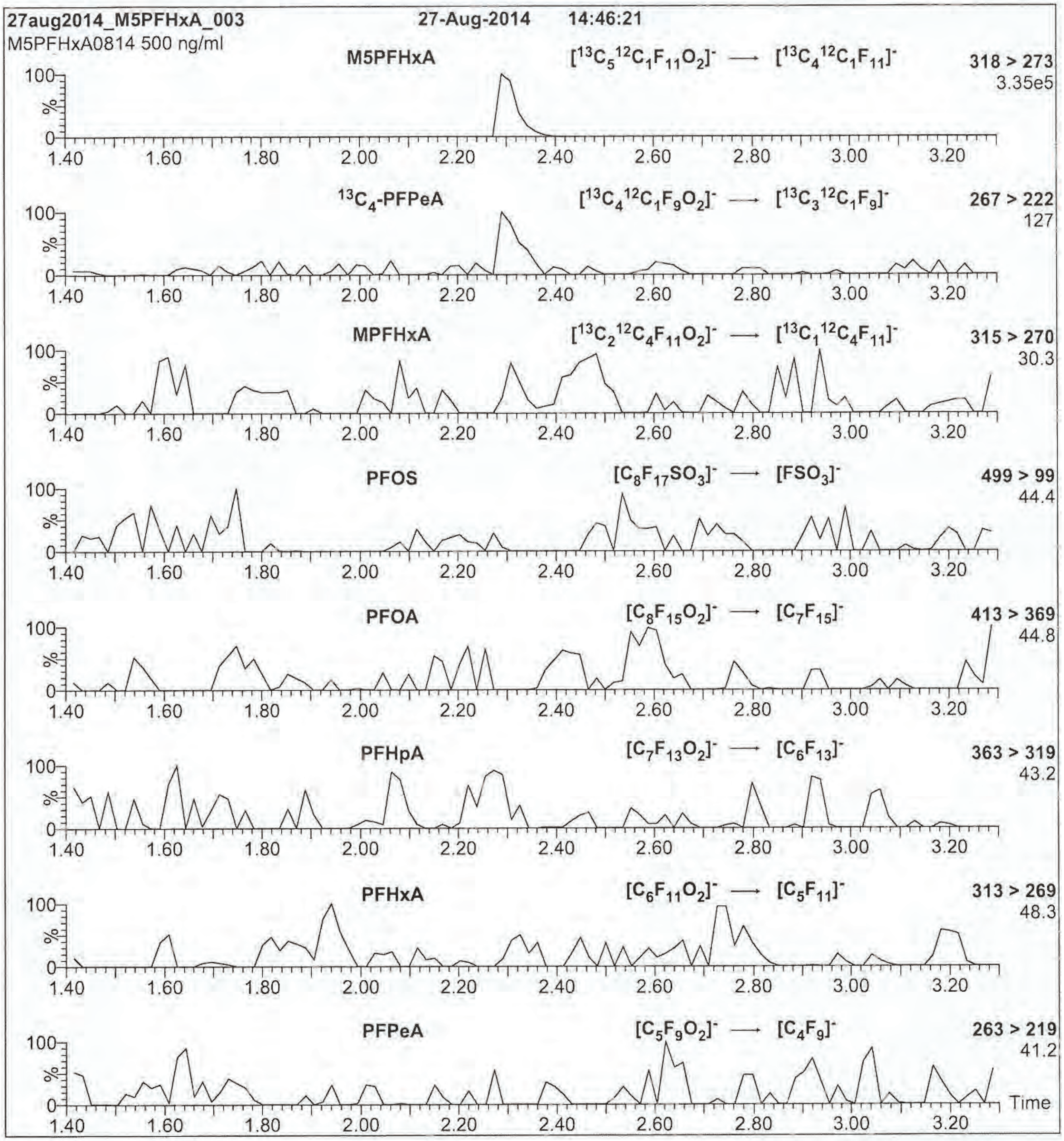
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17J1019

Figure 2: **M5PFHxA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:		
Injection:	Direct loop injection 10 µl (500 ng/ml M5PFHxA)	**MS Parameters**
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	Collision Gas (mbar) = 3.54e-3 Collision Energy (eV) = 10
Flow:	300 µl/min	

17J1020

WELLINGTON LABORATORIES

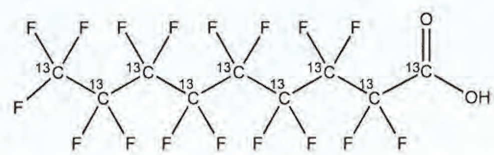
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M9PFNA

COMPOUND: Perfluoro-n-[$^{13}C_9$]nonanoic acid

LOT NUMBER: M9PFNA0517

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_9HF_{17}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 05/23/2017

EXPIRY DATE: (mm/dd/yyyy) 05/23/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 473.01

SOLVENT(S): Methanol
Water (<1%)

ISOTOPIC PURITY: ≥99% ^{13}C ($^{13}C_9$)

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: [signature]
B.G. Chittim, General Manager

Date: 05/25/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1020

INTENDED USE:

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HAZARDS:

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UNCERTAINTY:

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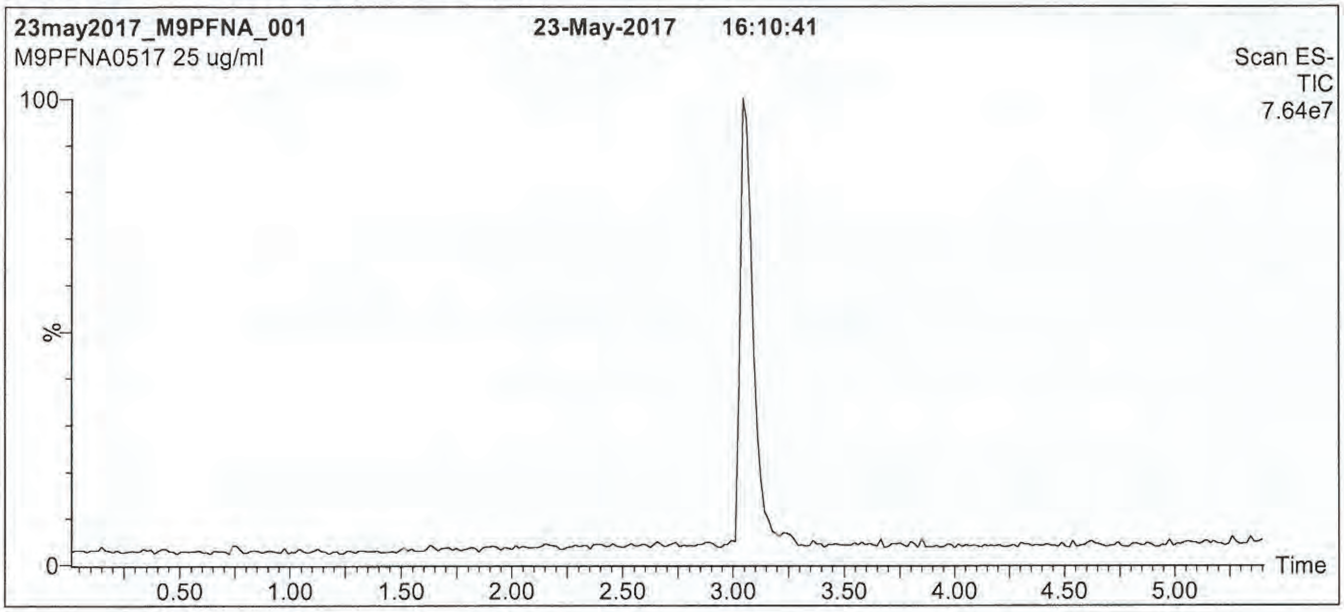
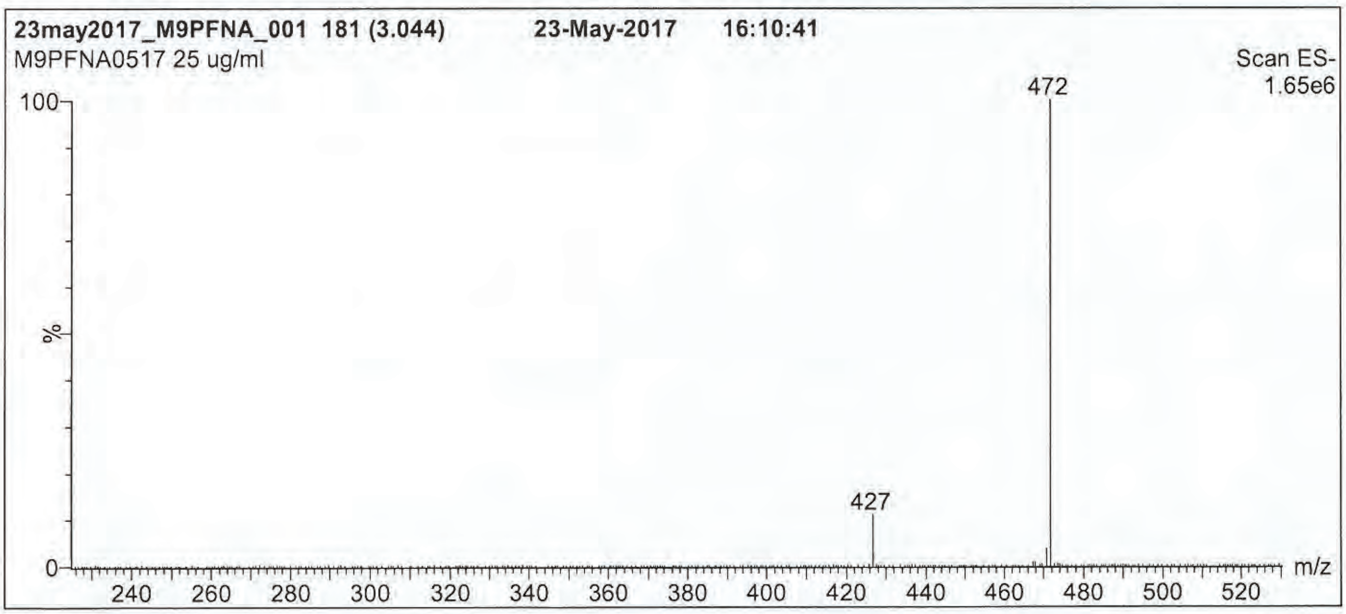
17J1020

Figure 1: **M9PFNA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

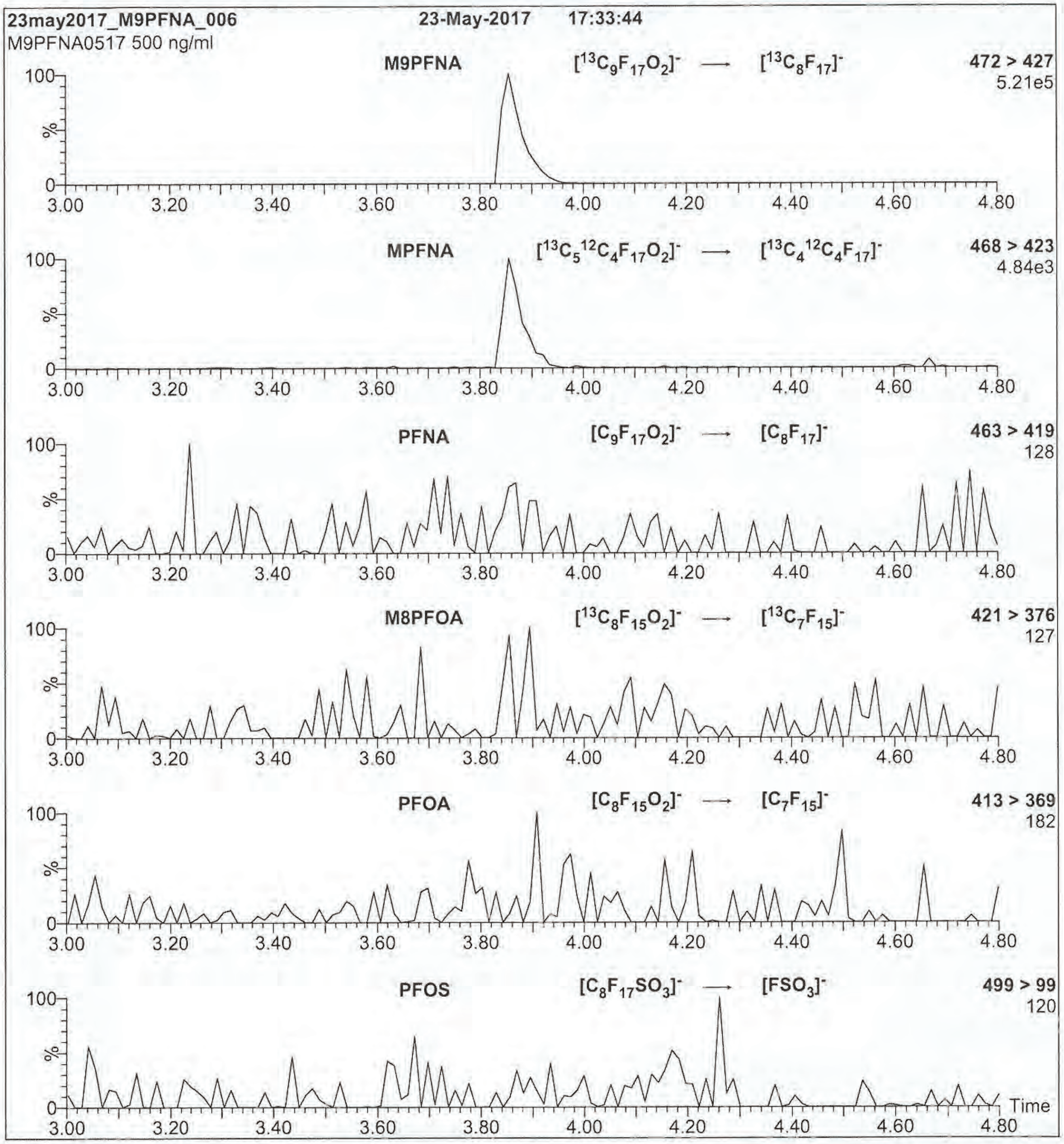
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17J1020

Figure 2: **M9PFNA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml M9PFNA)	**MS Parameters** Collision Gas (mbar) = 3.20e-3 Collision Energy (eV) = 11
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	
Flow:	300 µl/min	

17J1021

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

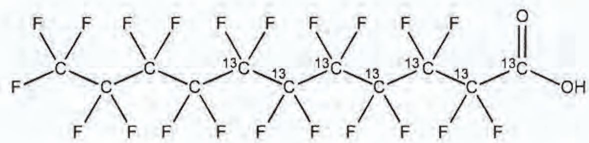
PRODUCT CODE: M7PFUdA

LOT NUMBER: M7PFUdA0717

COMPOUND: Perfluoro-n-[1,2,3,4,5,6,7-$^{13}C_7$]undecanoic acid

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_7{}^{12}C_4HF_{21}O_2$

MOLECULAR WEIGHT: 571.04

CONCENTRATION: 50 ± 2.5 µg/ml

SOLVENT(S): Methanol, Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ^{13}C (1,2,3,4,5,6,7-$^{13}C_7$)

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: B.G. Chittim, General Manager

Date: 07/14/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1021

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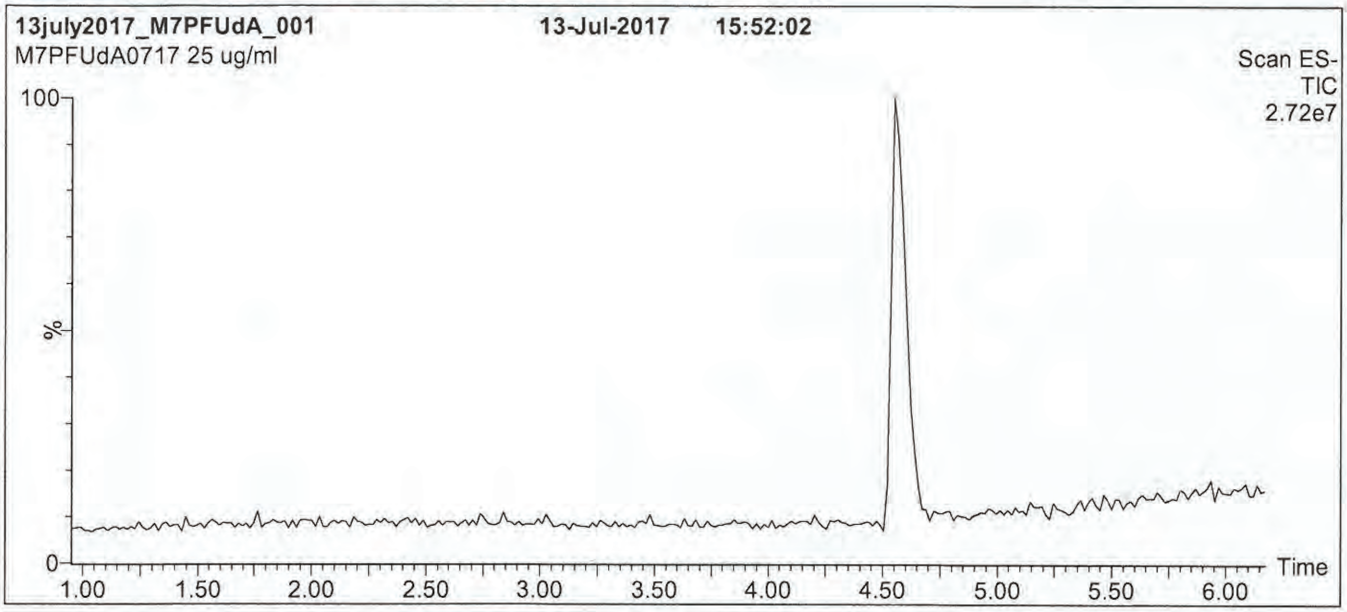
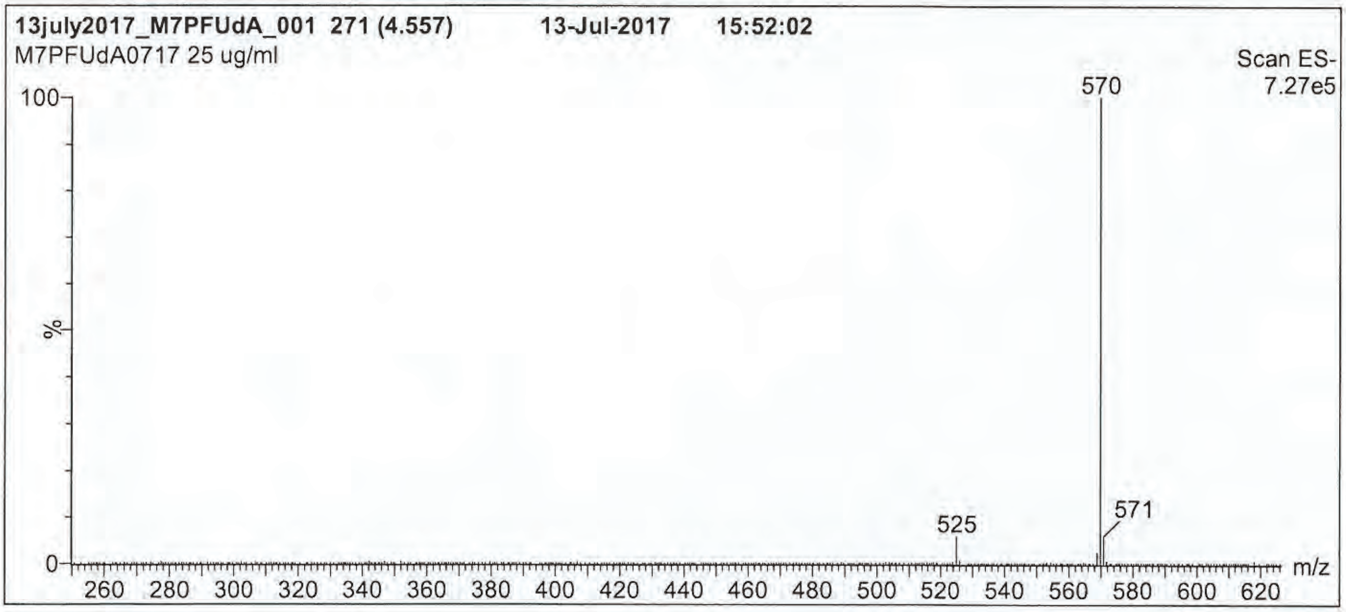
17J1021

Figure 1: **M7PFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

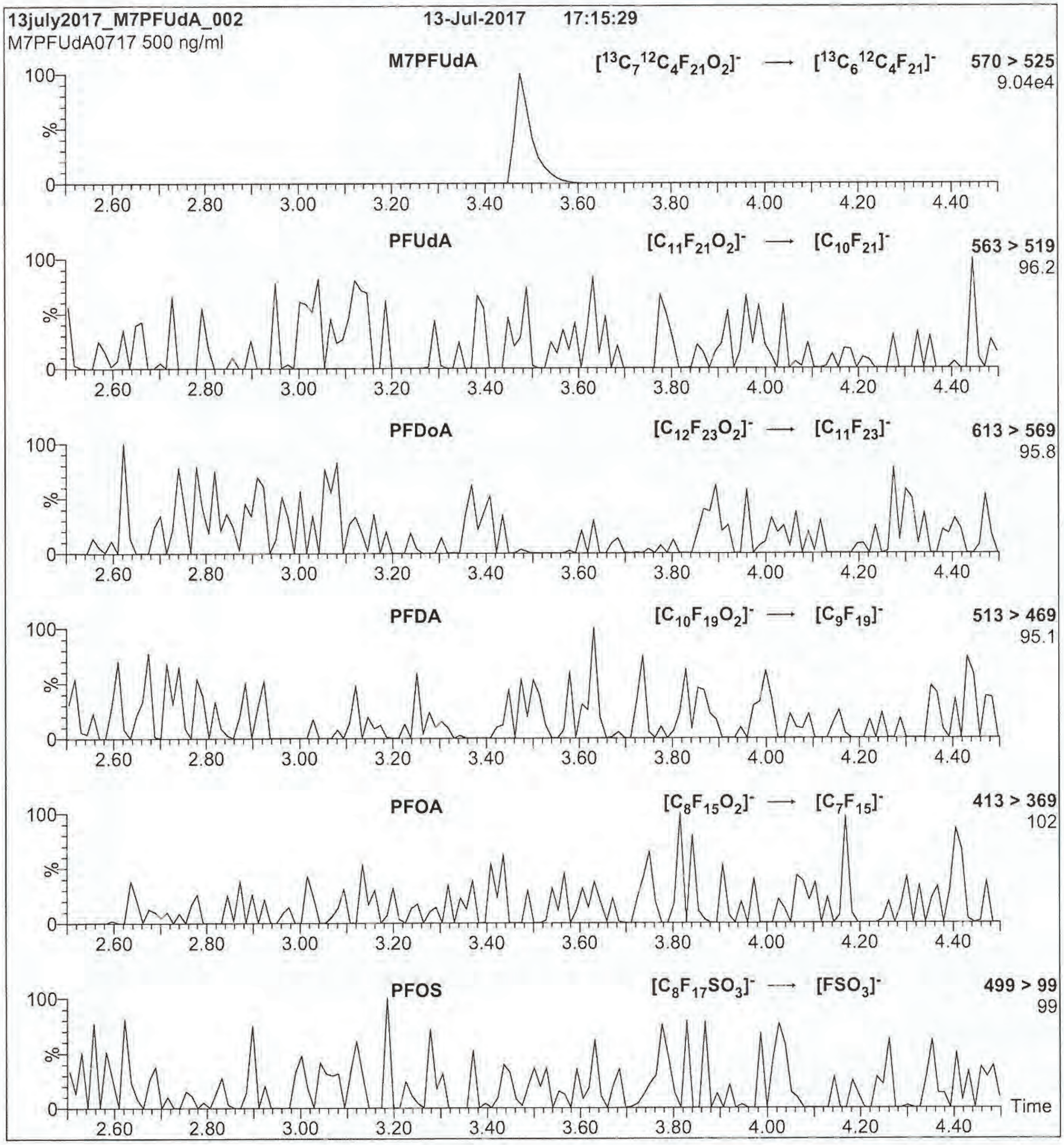
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 65
Desolvation Gas Flow (l/hr) = 750

17J1021

Figure 2: **M7PFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

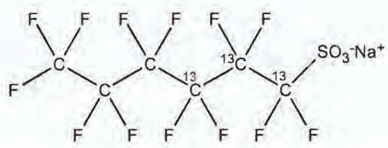
Injection:	Direct loop injection 10 µl (500 ng/ml M7PFUdA)	**MS Parameters**
		Collision Gas (mbar) = 3.28e-3 Collision Energy (eV) = 11
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	
Flow:	300 µl/min	

17J1022

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M3PFHxS	**LOT NUMBER:**	M3PFHxS0717
COMPOUND:	Sodium perfluoro-1-[1,2,3-$^{13}C_3$]hexanesulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}C_3F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	425.07
CONCENTRATION:	50.0 ± 2.5 μg/ml (Na salt) 47.3 ± 2.4 μg/ml (M3PFHxS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3-$^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	07/05/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/05/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: [signature]
B.G. Chittim, General Manager

Date: 07/14/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1022

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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).

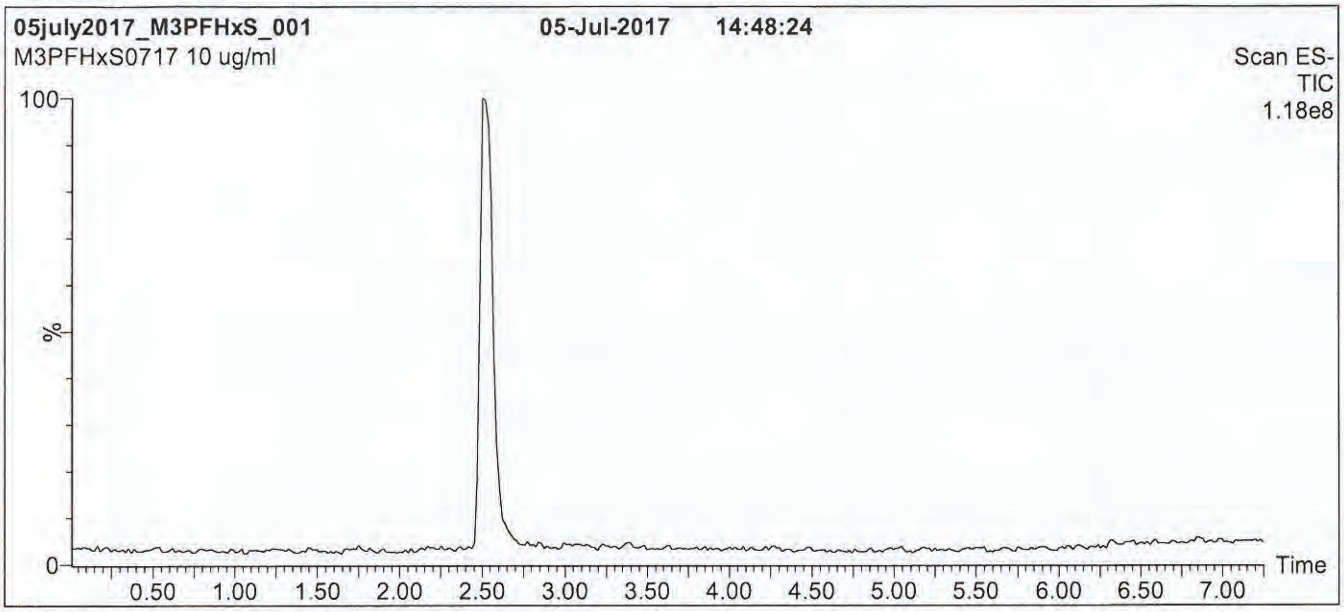
CALA

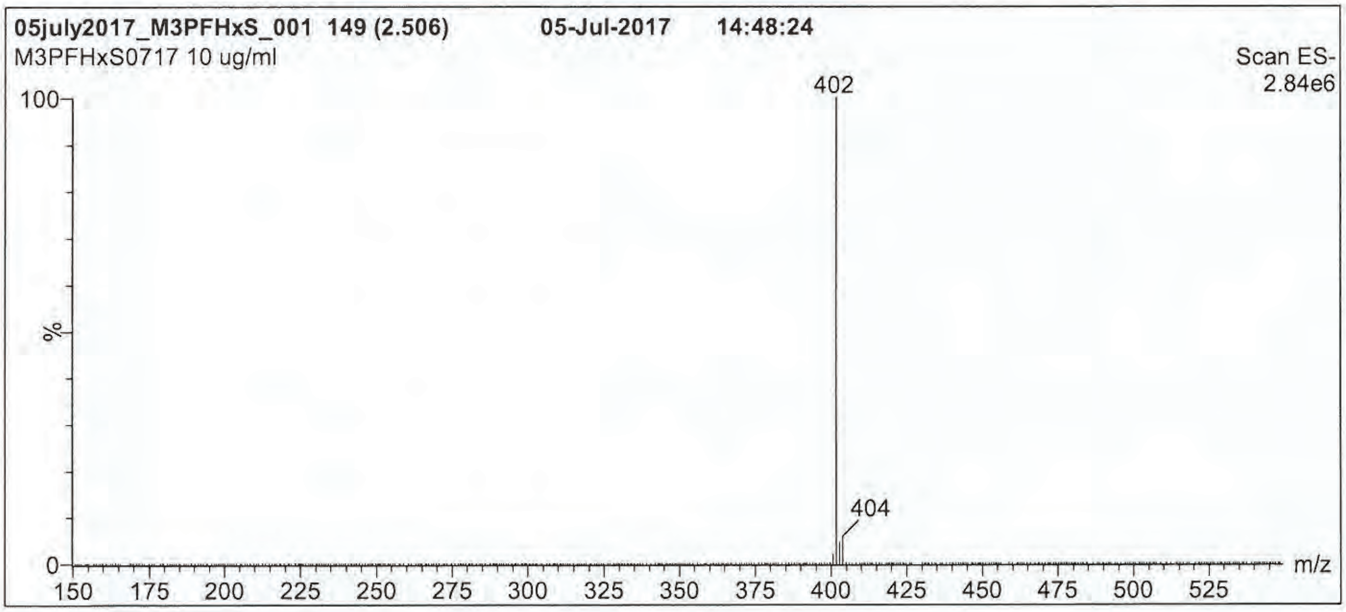
ANAB

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17J1022

Figure 1: **M3PFHxS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

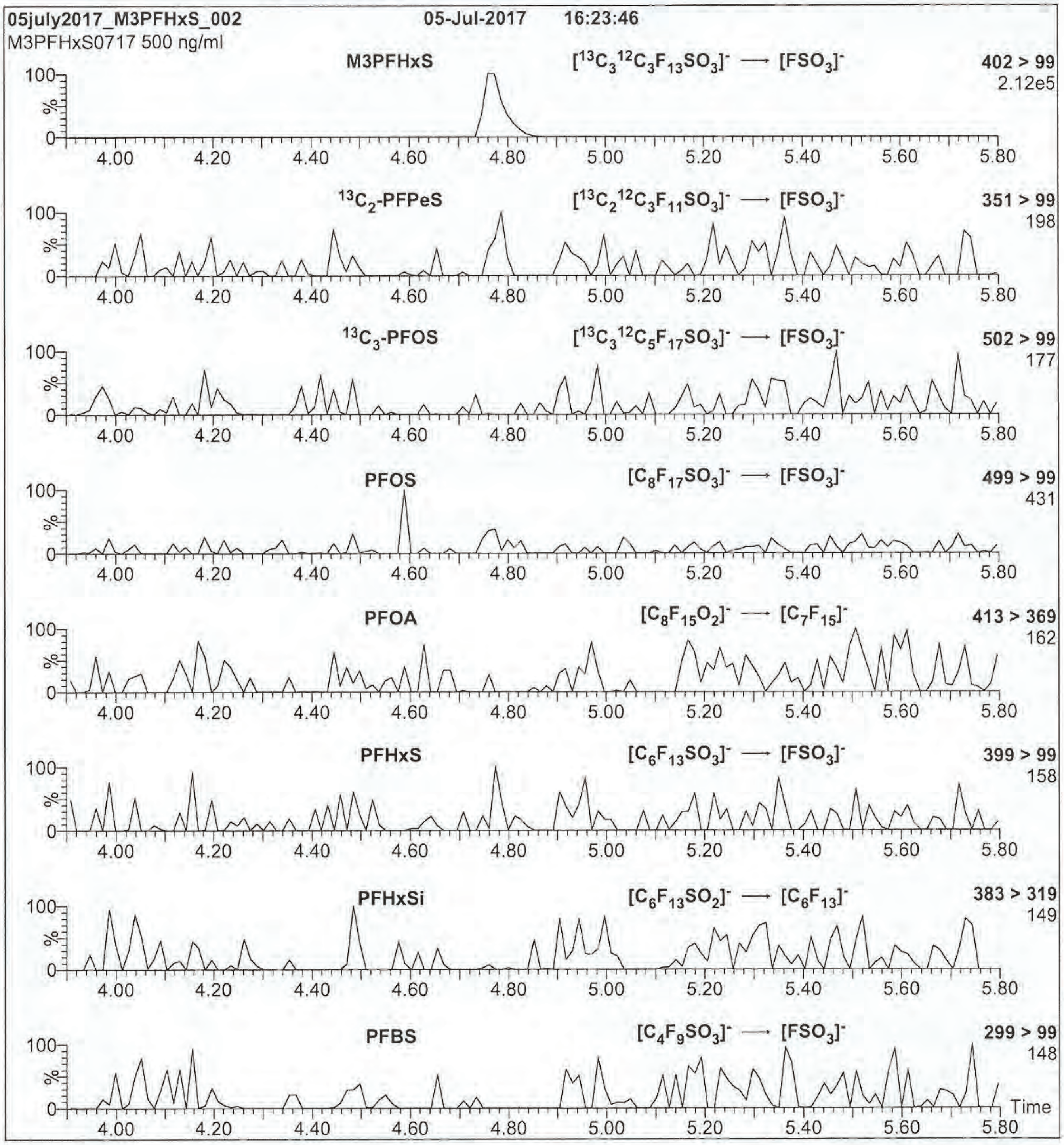
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17J1022

Figure 2: **M3PFHxS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M3PFHxS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 30

17J1023

WELLINGTON LABORATORIES

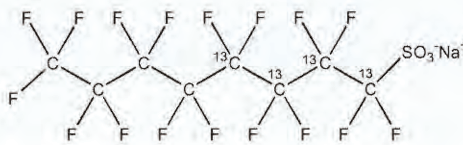
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFOS

LOT NUMBER: MPFOS0517

COMPOUND: Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_4{}^{12}C_4F_{17}SO_3Na$

MOLECULAR WEIGHT: 526.08

CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.8 ± 2.4 µg/ml (MPFOS anion)

SOLVENT(S): Methanol

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: $\geq$99% ^{13}C (1,2,3,4-$^{13}C_4$)

LAST TESTED: (mm/dd/yyyy) 05/19/2017

EXPIRY DATE: (mm/dd/yyyy) 05/19/2022

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.8% Sodium perfluoro-1-[1,2,3-$^{13}C_3$]heptanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: [signature]
B.G. Chittim, General Manager

Date: 05/30/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1023

INTENDED USE:

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Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

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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.

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CALA

ANAB ACCREDITED

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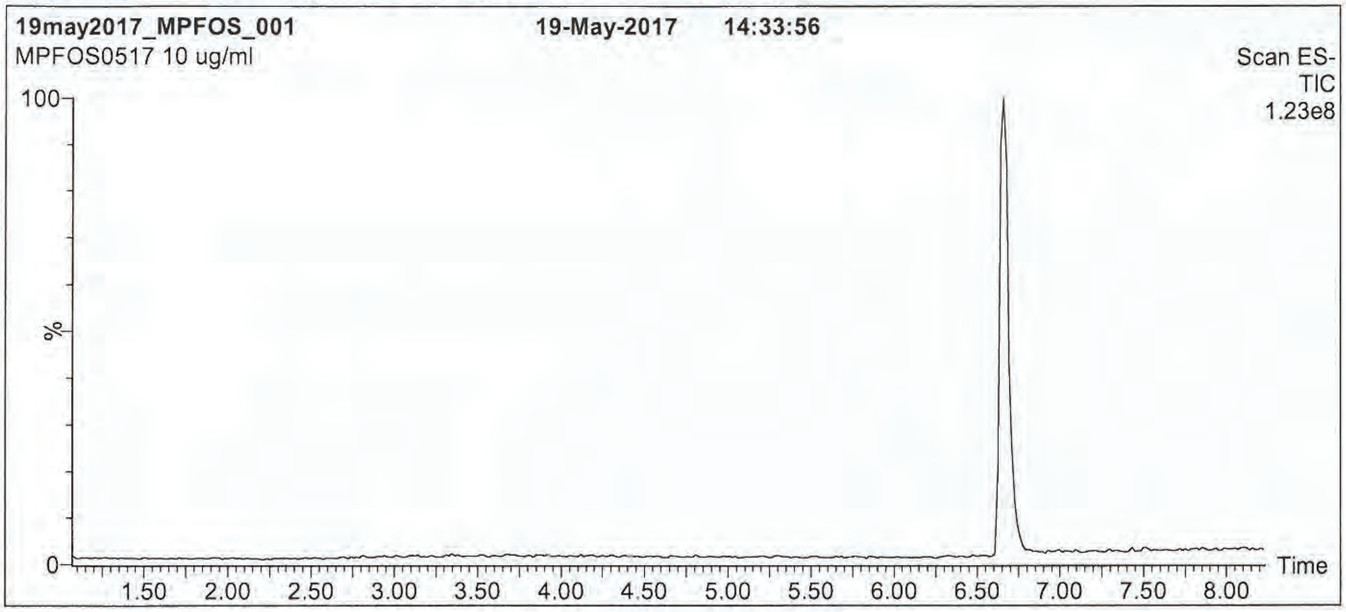
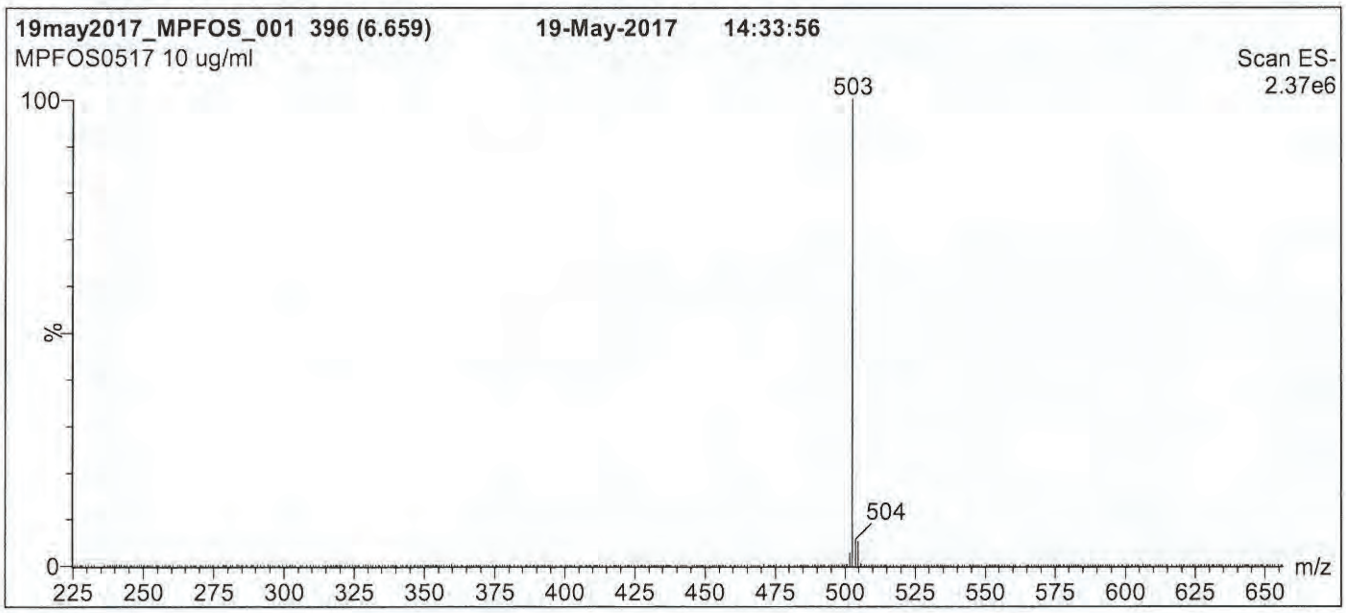
17J1023

Figure 1: **MPFOS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 1 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

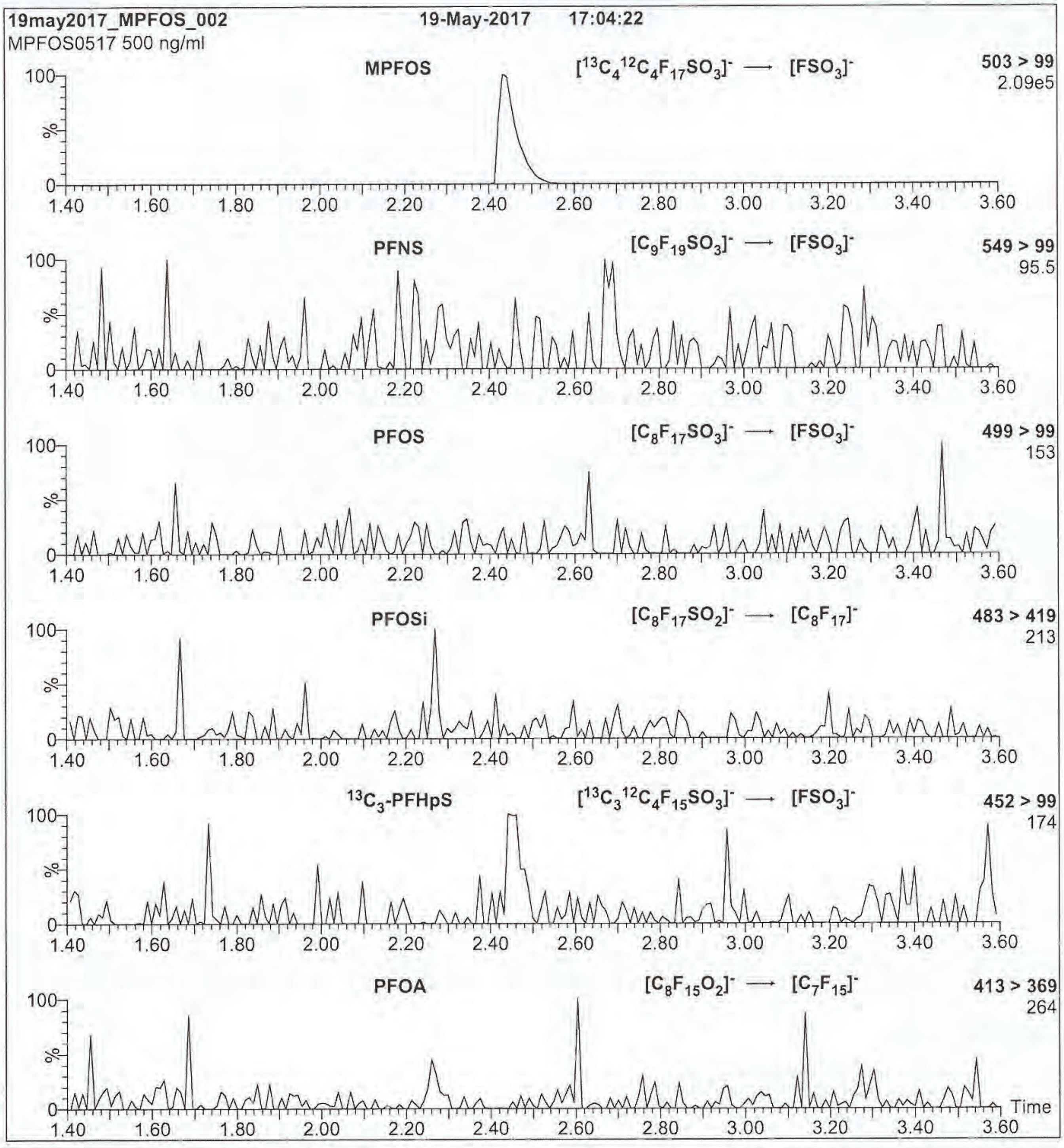
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17J1023

Figure 2: **MPFOS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml MPFOS)	**MS Parameters**
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	Collision Gas (mbar) = 3.31e-3 Collision Energy (eV) = 40
Flow:	300 µl/min	

17J1024

WELLINGTON LABORATORIES

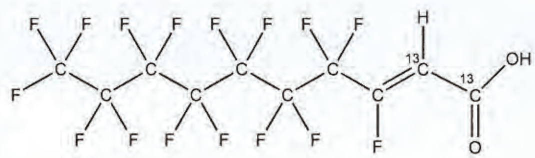
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MFOUEA

COMPOUND: 2H-Perfluoro-[1,2-$^{13}C_2$]-2-decenoic acid

LOT NUMBER: MFOUEA0716

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA: $^{13}C_2{}^{12}C_8H_2F_{16}O_2$

CONCENTRATION: 50 ± 2.5 µg/ml

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 08/02/2016

EXPIRY DATE: (mm/dd/yyyy) 08/02/2018

RECOMMENDED STORAGE: Refrigerate ampoule

MOLECULAR WEIGHT: 460.08

SOLVENT(S): Anhydrous Isopropanol

ISOTOPIC PURITY: $\geq$99% ^{13}C (1,2-$^{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.
- Dilution of this standard in methanol may lead to the formation of 2H-3-methoxy-perfluoro-[1,2-$^{13}C_2$]-2-decenoic acid. This reaction can be catalyzed by the presence of acid or base. All dilutions should be routinely checked for degradation.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 08/19/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1024

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where x is expressed as a relative standard uncertainty of the individual parameter.

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CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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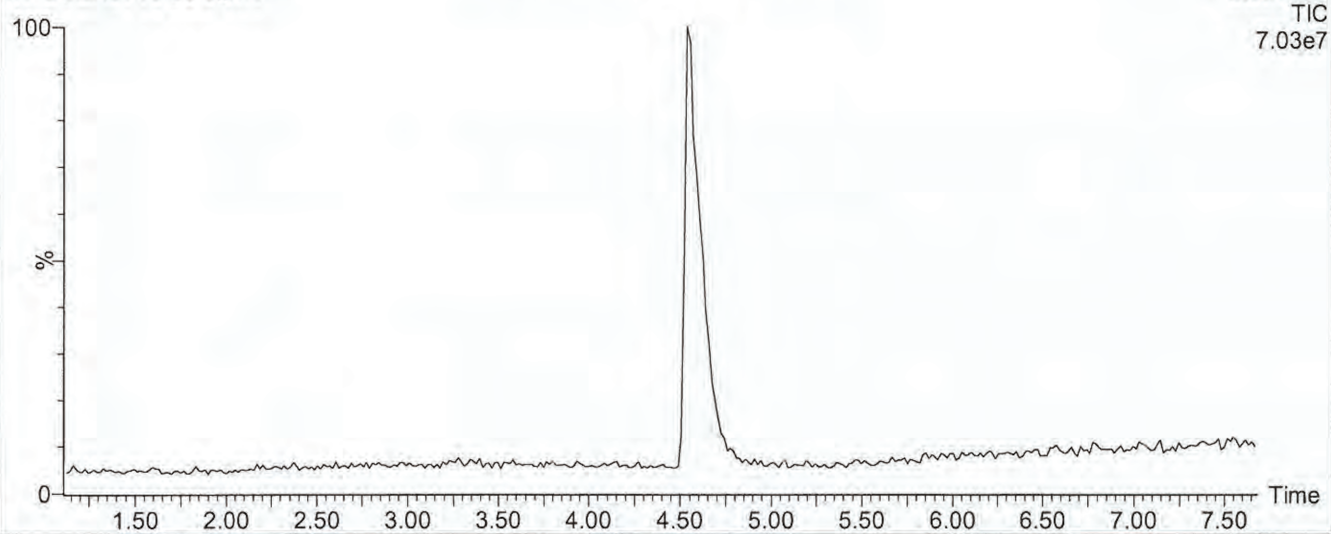
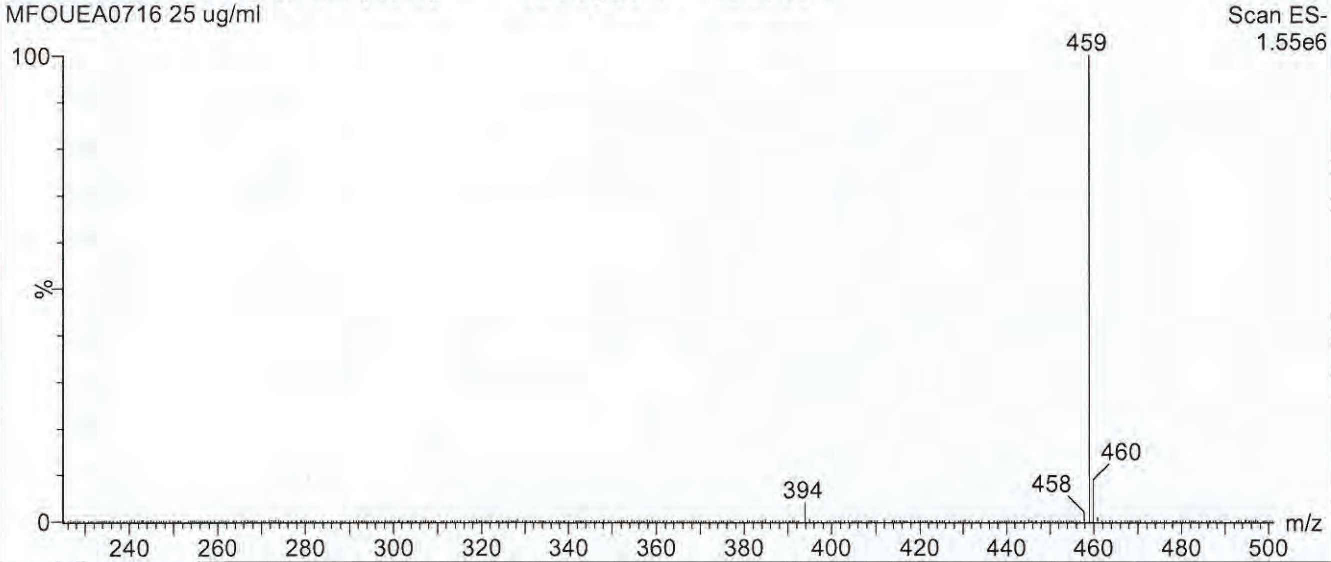
17J1024

Figure 1: **MFOUEA; LC/MS Data (TIC and Mass Spectrum)**

02aug2016_MFOUEA_001 **02-Aug-2016** **12:06:53**
MFOUEA0716 25 ug/ml



02aug2016_MFOUEA_001 270 (4.540) **02-Aug-2016** **12:06:53**
MFOUEA0716 25 ug/ml



Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold
for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

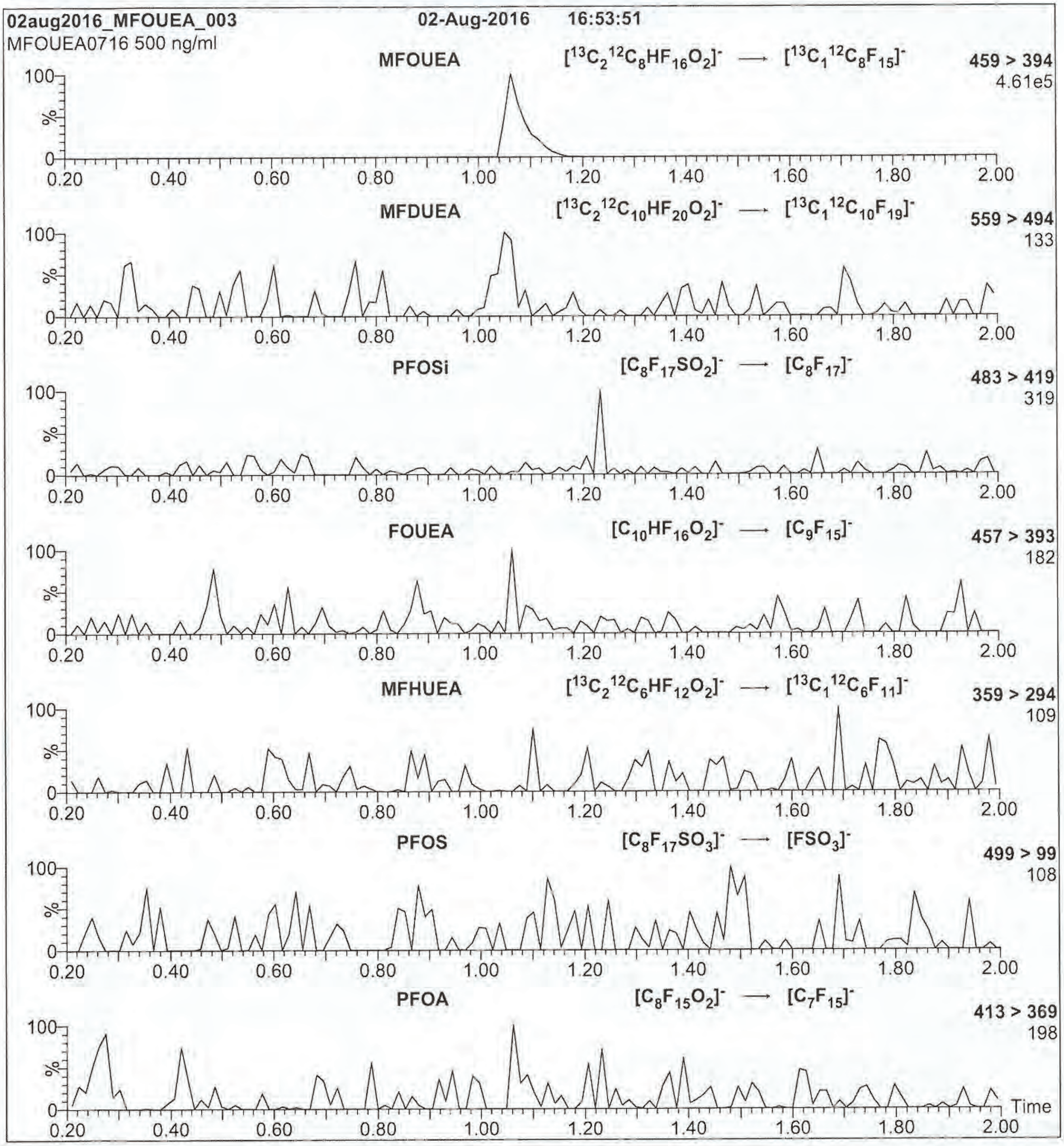
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 14.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17J1024

Figure 2: **MFOUEA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml MFOUEA)	**MS Parameters**
		Collision Gas (mbar) = 3.39e-3 Collision Energy (eV) = 21
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)	
Flow:	300 µl/min	

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"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","355-46-4","PFHxS","0.684","ng/L","J","0.463","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.256","0.001","2.44",""
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"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","1763-23-1","PFOS","13.5","ng/L","","0.394","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.256","0.001","2.44",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","375-95-1","PFNA","7.81","ng/L","","0.396","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.256","0.001","2.44",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","335-76-2","PFDA","0.728","ng/L","J","0.728","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.256","0.001","2.44",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","2355-31-9","MeFOSAA","2.44","ng/L","U","0.806","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.256","0.001","2.44",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","2058-94-8","PFUnA","33.3","ng/L","","0.513","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.256","0.001","2.44",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","2991-50-6","EtFOSAA","2.44","ng/L","U","0.669","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.256","0.001","2.44",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","307-55-1","PFDoA","2.44","ng/L","U","0.387","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.256","0.001","2.44",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","72629-94-8","PFTrDA","2.44","ng/L","U","0.241","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.256","0.001","2.44",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","376-06-7","PFTeDA","2.44","ng/L","U","0.369","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.256","0.001","2.44",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","13C3-PFBS","13C3-PFBS","89.7","%R","","-99","NA","","IS","89.7","","-99","NA","YES","100","","0.256","0.001","-99",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","13C2-PFHxA","13C2-PFHxA","90.3","%R","","-99","NA","","IS","90.3","","-99","NA","YES","100","","0.256","0.001","-99",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","13C4-PFHpA","13C4-PFHpA","88.1","%R","","-99","NA","","IS","88.1","","-99","NA","YES","100","","0.256","0.001","-99",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","18O2-PFHxS","18O2-PFHxS","104","%R","","-99","NA","","IS","104","","-99","NA","YES","100","","0.256","0.001","-99",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","13C2-PFOA","13C2-PFOA","90.8","%R","","-99","NA","","IS","90.8","","-99","NA","YES","100","","0.256","0.001","-99",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","13C8-PFOS","13C8-PFOS","100","%R","","-99","NA","","IS","100","","-99","NA","YES","100","","0.256","0.001","-99",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","13C5-PFNA","13C5-PFNA","76.0","%R","","-99","NA","","IS","76.0","","-99","NA","YES","100","","0.256","0.001","-99",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","13C2-PFDA","13C2-PFDA","89.3","%R","","-99","NA","","IS","89.3","","-99","NA","YES","100","","0.256","0.001","-99",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","d3-MeFOSAA","d3-MeFOSAA","75.8","%R","","-99","NA","","IS","75.8","","-99","NA","YES","100","","0.256","0.001","-99",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","13C2-PFUnA","13C2-PFUnA","85.1","%R","","-99","NA","","IS","85.1","","-99","NA","YES","100","","0.256","0.001","-99",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","d5-EtFOSAA","d5-

EtFOSAA","71.3","%R","","-99","NA","","IS","71.3","","-99","NA","YES","100","","0.256","0.001","-99",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","13C2-PFDoA","13C2-PFDoA","68.4","%R","","-99","NA","","IS","68.4","","-99","NA","YES","100","","0.256","0.001","-99",""
"FC-MW06S-20171212","Modified EPA Method 537","Initial","1701951-01","Vista","13C2-PFTeDA","13C2-PFTeDA","63.6","%R","","-99","NA","","IS","63.6","","-99","NA","YES","100","","0.256","0.001","-99",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","375-73-5","PFBS","1.16","ng/L","J","0.893","LOD","","TRG","","","3.99","LOQ","YES","-99","","0.251","0.001","2.49",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","307-24-4","PFHxA","29.4","ng/L","","1.09","LOD","","TRG","","","3.99","LOQ","YES","-99","","0.251","0.001","2.49",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","375-85-9","PFHpA","11.5","ng/L","","0.295","LOD","","TRG","","","3.99","LOQ","YES","-99","","0.251","0.001","2.49",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","355-46-4","PFHxS","1.36","ng/L","J","0.472","LOD","","TRG","","","3.99","LOQ","YES","-99","","0.251","0.001","2.49",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","335-67-1","PFOA","31.1","ng/L","","0.325","LOD","","TRG","","","3.99","LOQ","YES","-99","","0.251","0.001","2.49",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","1763-23-1","PFOS","7.44","ng/L","","0.402","LOD","","TRG","","","3.99","LOQ","YES","-99","","0.251","0.001","2.49",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","375-95-1","PFNA","310","ng/L","","0.404","LOD","","TRG","","","3.99","LOQ","YES","-99","","0.251","0.001","2.49",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","335-76-2","PFDA","66.6","ng/L","","0.743","LOD","","TRG","","","3.99","LOQ","YES","-99","","0.251","0.001","2.49",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","2355-31-9","MeFOSAA","2.49","ng/L","U","0.823","LOD","","TRG","","","3.99","LOQ","YES","-99","","0.251","0.001","2.49",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Dilution","1701951-02","Vista","2058-94-8","PFUnA","1670","ng/L","D","2.62","LOD","","TRG","","","19.9","LOQ","YES","-99","","0.251","0.001","12.5",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","2991-50-6","EtFOSAA","2.49","ng/L","U","0.683","LOD","","TRG","","","3.99","LOQ","YES","-99","","0.251","0.001","2.49",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","307-55-1","PFDoA","1.08","ng/L","J","0.395","LOD","","TRG","","","3.99","LOQ","YES","-99","","0.251","0.001","2.49",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","72629-94-8","PFTrDA","1.64","ng/L","J","0.246","LOD","","TRG","","","3.99","LOQ","YES","-99","","0.251","0.001","2.49",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","376-06-7","PFTeDA","2.49","ng/L","U","0.377","LOD","","TRG","","","3.99","LOQ","YES","-99","","0.251","0.001","2.49",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","13C3-PFBS","13C3-PFBS","90.1","%R","","-99","NA","","IS","90.1","","-99","NA","YES","100","","0.251","0.001","-99",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","13C2-PFHxA","13C2-PFHxA","87.5","%R","","-99","NA","","IS","87.5","","-99","NA","YES","100","","0.251","0.001","-99",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","13C4-PFHpA","13C4-PFHpA","80.5","%R","","-99","NA","","IS","80.5","","-99","NA","YES","100","","0.251","0.001","-99",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","18O2-PFHxS","18O2-PFHxS","93.8","%R","","-99","NA","","IS","93.8","","-99","NA","YES","100","","0.251","0.001","-99",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","13C2-PFOA","13C2-PFOA","99.2","%R","","-99","NA","","IS","99.2","","-99","NA","YES","100","","0.251","0.001","-99",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","13C8-PFOS","13C8-PFOS","94.1","%R","","-99","NA","","IS","94.1","","-99","NA","YES","100","","0.251","0.001","-99",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","13C5-PFNA","13C5-PFNA","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.251","0.001","-99",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","13C2-PFDA","13C2-PFDA","86.8","%R","","-99","NA","","IS","86.8","","-99","NA","YES","100","","0.251","0.001","-99",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","d3-MeFOSAA","d3-MeFOSAA","65.6","%R","","-99","NA","","IS","65.6","","-99","NA","YES","100","","0.251","0.001","-99",""

"FC-MW02SR1-20171212","Modified EPA Method 537","Dilution","1701951-02","Vista","13C2-PFUnA","13C2-PFUnA","78.2","%R","D","-99","NA","","IS","78.2","","-99","NA","YES","100","","0.251","0.001","-99",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","d5-EtFOSAA","d5-EtFOSAA","55.4","%R","","-99","NA","","IS","55.4","","-99","NA","YES","100","","0.251","0.001","-99",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","13C2-PFDoA","13C2-PFDoA","90.8","%R","","-99","NA","","IS","90.8","","-99","NA","YES","100","","0.251","0.001","-99",""
"FC-MW02SR1-20171212","Modified EPA Method 537","Initial","1701951-02","Vista","13C2-PFTeDA","13C2-PFTeDA","80.0","%R","","-99","NA","","IS","80.0","","-99","NA","YES","100","","0.251","0.001","-99",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","375-73-5","PFBS","2.55","ng/L","U","0.912","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","307-24-4","PFHxA","22.9","ng/L","","1.11","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","375-85-9","PFHpA","36.3","ng/L","","0.301","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","355-46-4","PFHxS","0.806","ng/L","J","0.482","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","335-67-1","PFOA","32.3","ng/L","","0.332","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","1763-23-1","PFOS","1.44","ng/L","J","0.411","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","375-95-1","PFNA","226","ng/L","","0.413","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","335-76-2","PFDA","3.77","ng/L","J","0.759","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","2355-31-9","MeFOSAA","2.55","ng/L","U","0.841","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","2058-94-8","PFUnA","31.5","ng/L","","0.535","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","2991-50-6","EtFOSAA","2.55","ng/L","U","0.698","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","307-55-1","PFDoA","2.55","ng/L","U","0.403","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","72629-94-8","PFTrDA","2.55","ng/L","U","0.252","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","376-06-7","PFTeDA","2.55","ng/L","U","0.385","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","13C3-PFBS","13C3-PFBS","92.7","%R","","-99","NA","","IS","92.7","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","13C2-PFHxA","13C2-PFHxA","114","%R","","-99","NA","","IS","114","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","13C4-PFHpA","13C4-PFHpA","86.3","%R","","-99","NA","","IS","86.3","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","18O2-PFHxS","18O2-PFHxS","105","%R","","-99","NA","","IS","105","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","13C2-PFOA","13C2-PFOA","92.6","%R","","-99","NA","","IS","92.6","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","13C8-PFOS","13C8-PFOS","109","%R","","-99","NA","","IS","109","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","13C5-PFNA","13C5-PFNA","92.5","%R","","-99","NA","","IS","92.5","","-99","NA","YES","100","","0.245","0.001","-99",""

"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","13C2-PFDA","13C2-PFDA","97.7","%R","","-99","NA","","IS","97.7","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","d3-MeFOSAA","d3-MeFOSAA","72.9","%R","","-99","NA","","IS","72.9","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","13C2-PFUnA","13C2-PFUnA","72.5","%R","","-99","NA","","IS","72.5","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","d5-EtFOSAA","d5-EtFOSAA","69.3","%R","","-99","NA","","IS","69.3","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","13C2-PFDoA","13C2-PFDoA","105","%R","","-99","NA","","IS","105","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW04I-20171212","Modified EPA Method 537","Initial","1701951-03","Vista","13C2-PFTeDA","13C2-PFTeDA","80.3","%R","","-99","NA","","IS","80.3","","-99","NA","YES","100","","0.245","0.001","-99",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","375-73-5","PFBS","4.81","ng/L","U","0.426","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","307-24-4","PFHxA","0.843","ng/L","J,B","0.638","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","375-85-9","PFHpA","4.81","ng/L","U","0.513","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","355-46-4","PFHxS","4.81","ng/L","U","0.399","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","335-67-1","PFOA","4.81","ng/L","U","1.04","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","375-95-1","PFNA","4.81","ng/L","U","1.39","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","1763-23-1","PFOS","4.81","ng/L","U","1.00","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","335-76-2","PFDA","4.81","ng/L","U","1.23","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","2355-31-9","MeFOSAA","4.81","ng/L","U","2.93","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","2991-50-6","EtFOSAA","4.81","ng/L","U","1.86","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","2058-94-8","PFUnA","4.81","ng/L","U","0.245","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","307-55-1","PFDoA","4.81","ng/L","U","0.916","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","72629-94-8","PFTrDA","4.81","ng/L","U","0.907","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","376-06-7","PFTeDA","4.81","ng/L","U","0.748","LOD","","TRG","","","9.62","LOQ","YES","-99","","0.260","0.001","4.81",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","13C2-PFHxA","13C2-PFHxA","92.6","%R","","-99","NA","","SURR","92.6","","-99","NA","YES","100","","0.260","0.001","-99",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","13C2-PFDA","13C2-PFDA","84.9","%R","","-99","NA","","SURR","84.9","","-99","NA","YES","100","","0.260","0.001","-99",""
"FT-RW01-20171212","EPA Method 537","Initial","1701951-04","Vista","d5-EtFOSAA","d5-EtFOSAA","103","%R","","-99","NA","","SURR","103","","-99","NA","YES","100","","0.260","0.001","-99",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","375-73-5","PFBS","4.94","ng/L","U","0.438","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","307-24-4","PFHxA","0.838","ng/L","J,

B","0.655","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","375-85-9","PFHpA","4.94","ng/L","U","0.526","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","355-46-4","PFHxS","4.94","ng/L","U","0.410","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","335-67-1","PFOA","4.94","ng/L","U","1.07","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","375-95-1","PFNA","4.94","ng/L","U","1.42","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","1763-23-1","PFOS","4.94","ng/L","U","1.03","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","335-76-2","PFDA","4.94","ng/L","U","1.26","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","2355-31-9","MeFOSAA","4.94","ng/L","U","3.00","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","2991-50-6","EtFOSAA","4.94","ng/L","U","1.91","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","2058-94-8","PFUnA","4.94","ng/L","U","0.252","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","307-55-1","PFDoA","4.94","ng/L","U","0.940","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","72629-94-8","PFTrDA","4.94","ng/L","U","0.931","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","376-06-7","PFTeDA","4.94","ng/L","U","0.768","LOD","","TRG","","","9.88","LOQ","YES","-99","","0.253","0.001","4.94",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","13C2-PFHxA","13C2-PFHxA","91.0","%R","","-99","NA","","SURR","91.0","","-99","NA","YES","100","","0.253","0.001","-99",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","13C2-PFDA","13C2-PFDA","77.5","%R","","-99","NA","","SURR","77.5","","-99","NA","YES","100","","0.253","0.001","-99",""
"FT-RW01-FRB-20171212","EPA Method 537","Initial","1701951-05","Vista","d5-EtFOSAA","d5-EtFOSAA","85.9","%R","","-99","NA","","SURR","85.9","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","375-73-5","PFBS","1.97","ng/L","J","0.915","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","307-24-4","PFHxA","13.7","ng/L","","1.11","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","375-85-9","PFHpA","3.95","ng/L","J","0.302","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","355-46-4","PFHxS","1.41","ng/L","J","0.484","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","335-67-1","PFOA","15.9","ng/L","","0.333","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","1763-23-1","PFOS","6.60","ng/L","","0.412","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","375-95-1","PFNA","20.3","ng/L","","0.414","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","335-76-2","PFDA","2.99","ng/L","J","0.761","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","2355-31-9","MeFOSAA","2.55","ng/L","U","0.843","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55",""

"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","2058-94-
8","PFUnA","47.5","ng/L","","0.537","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","2991-50-
6","EtFOSAA","2.55","ng/L","U","0.700","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55"
,""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","307-55-
1","PFDoA","2.55","ng/L","U","0.405","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","72629-94-
8","PFTrDA","0.382","ng/L","J","0.252","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55",
""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","376-06-
7","PFTeDA","2.55","ng/L","U","0.386","LOD","","TRG","","","4.09","LOQ","YES","-99","","0.245","0.001","2.55",
""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","13C3-PFBS","13C3-
PFBS","89.5","%R","","-99","NA","","IS","89.5","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","13C2-PFHxA","13C2-
PFHxA","97.5","%R","","-99","NA","","IS","97.5","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","13C4-PFHpA","13C4-
PFHpA","87.7","%R","","-99","NA","","IS","87.7","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","18O2-PFHxS","18O2-
PFHxS","97.7","%R","","-99","NA","","IS","97.7","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","13C2-PFOA","13C2-
PFOA","83.3","%R","","-99","NA","","IS","83.3","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","13C8-PFOS","13C8-
PFOS","71.2","%R","","-99","NA","","IS","71.2","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","13C5-PFNA","13C5-
PFNA","103","%R","","-99","NA","","IS","103","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","13C2-PFDA","13C2-
PFDA","134","%R","","-99","NA","","IS","134","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","d3-MeFOSAA","d3-
MeFOSAA","70.0","%R","","-99","NA","","IS","70.0","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","13C2-PFUnA","13C2-
PFUnA","99.1","%R","","-99","NA","","IS","99.1","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","d5-EtFOSAA","d5-
EtFOSAA","72.2","%R","","-99","NA","","IS","72.2","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","13C2-PFDoA","13C2-
PFDoA","69.3","%R","","-99","NA","","IS","69.3","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW03SR1-20171212","Modified EPA Method 537","Initial","1701951-06","Vista","13C2-PFTeDA","13C2-
PFTeDA","87.4","%R","","-99","NA","","IS","87.4","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","375-73-
5","PFBS","2.48","ng/L","U","0.889","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","307-24-
4","PFHxA","2.48","ng/L","U","1.08","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","375-85-
9","PFHpA","1.11","ng/L","J","0.294","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","355-46-
4","PFHxS","2.48","ng/L","U","0.470","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","335-67-
1","PFOA","4.23","ng/L","","0.323","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","1763-23-
1","PFOS","2.12","ng/L","J","0.401","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","375-95-
1","PFNA","5.53","ng/L","","0.402","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","335-76-

2","PFDA","2.48","ng/L","U","0.740","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","2355-31-9","MeFOSAA","2.48","ng/L","U","0.819","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","2058-94-8","PFUnA","2.48","ng/L","U","0.521","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","2991-50-6","EtFOSAA","2.48","ng/L","U","0.680","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","307-55-1","PFDoA","2.48","ng/L","U","0.393","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","72629-94-8","PFTrDA","2.48","ng/L","U","0.245","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","376-06-7","PFTeDA","2.48","ng/L","U","0.375","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","13C3-PFBS","13C3-PFBS","87.7","%R","","-99","NA","","IS","87.7","","-99","NA","YES","100","","0.252","0.001","-99",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","13C2-PFHxA","13C2-PFHxA","102","%R","","-99","NA","","IS","102","","-99","NA","YES","100","","0.252","0.001","-99",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","13C4-PFHpA","13C4-PFHpA","81.2","%R","","-99","NA","","IS","81.2","","-99","NA","YES","100","","0.252","0.001","-99",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","18O2-PFHxS","18O2-PFHxS","86.2","%R","","-99","NA","","IS","86.2","","-99","NA","YES","100","","0.252","0.001","-99",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","13C2-PFOA","13C2-PFOA","87.6","%R","","-99","NA","","IS","87.6","","-99","NA","YES","100","","0.252","0.001","-99",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","13C8-PFOS","13C8-PFOS","70.6","%R","","-99","NA","","IS","70.6","","-99","NA","YES","100","","0.252","0.001","-99",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","13C5-PFNA","13C5-PFNA","104","%R","","-99","NA","","IS","104","","-99","NA","YES","100","","0.252","0.001","-99",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","13C2-PFDA","13C2-PFDA","81.0","%R","","-99","NA","","IS","81.0","","-99","NA","YES","100","","0.252","0.001","-99",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","d3-MeFOSAA","d3-MeFOSAA","54.4","%R","","-99","NA","","IS","54.4","","-99","NA","YES","100","","0.252","0.001","-99",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","13C2-PFUnA","13C2-PFUnA","77.2","%R","","-99","NA","","IS","77.2","","-99","NA","YES","100","","0.252","0.001","-99",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","d5-EtFOSAA","d5-EtFOSAA","60.3","%R","","-99","NA","","IS","60.3","","-99","NA","YES","100","","0.252","0.001","-99",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","13C2-PFDoA","13C2-PFDoA","81.6","%R","","-99","NA","","IS","81.6","","-99","NA","YES","100","","0.252","0.001","-99",""
"FC-MW04S-20171212","Modified EPA Method 537","Initial","1701951-07","Vista","13C2-PFTeDA","13C2-PFTeDA","52.2","%R","","-99","NA","","IS","52.2","","-99","NA","YES","100","","0.252","0.001","-99",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","375-73-5","PFBS","2.46","ng/L","U","0.881","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","307-24-4","PFHxA","2.46","ng/L","U","1.07","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","375-85-9","PFHpA","4.52","ng/L","","0.291","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","355-46-4","PFHxS","2.46","ng/L","U","0.466","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","335-67-1","PFOA","11.6","ng/L","","0.320","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","1763-23-

1","PFOS","28.9","ng/L","","0.397","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","375-95-
1","PFNA","35.0","ng/L","","0.399","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","335-76-
2","PFDA","2.46","ng/L","U","0.733","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","2355-31-
9","MeFOSAA","2.46","ng/L","U","0.812","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46
",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","2058-94-
8","PFUnA","6.77","ng/L","","0.517","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","2991-50-
6","EtFOSAA","2.46","ng/L","U","0.674","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46"
,""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","307-55-
1","PFDoA","2.46","ng/L","U","0.390","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","72629-94-
8","PFTrDA","2.46","ng/L","U","0.243","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46","
"
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","376-06-
7","PFTeDA","2.46","ng/L","U","0.372","LOD","","TRG","","","3.94","LOQ","YES","-99","","0.254","0.001","2.46",
""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","13C3-PFBS","13C3-
PFBS","99.1","%R","","-99","NA","","IS","99.1","","-99","NA","YES","100","","0.254","0.001","-99",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","13C2-PFHxA","13C2-
PFHxA","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.254","0.001","-99",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","13C4-PFHpA","13C4-
PFHpA","82.3","%R","","-99","NA","","IS","82.3","","-99","NA","YES","100","","0.254","0.001","-99",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","18O2-PFHxS","18O2-
PFHxS","96.6","%R","","-99","NA","","IS","96.6","","-99","NA","YES","100","","0.254","0.001","-99",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","13C2-PFOA","13C2-
PFOA","97.3","%R","","-99","NA","","IS","97.3","","-99","NA","YES","100","","0.254","0.001","-99",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","13C8-PFOS","13C8-
PFOS","90.6","%R","","-99","NA","","IS","90.6","","-99","NA","YES","100","","0.254","0.001","-99",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","13C5-PFNA","13C5-
PFNA","87.9","%R","","-99","NA","","IS","87.9","","-99","NA","YES","100","","0.254","0.001","-99",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","13C2-PFDA","13C2-
PFDA","106","%R","","-99","NA","","IS","106","","-99","NA","YES","100","","0.254","0.001","-99",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","d3-MeFOSAA","d3-
MeFOSAA","62.4","%R","","-99","NA","","IS","62.4","","-99","NA","YES","100","","0.254","0.001","-99",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","13C2-PFUnA","13C2-
PFUnA","57.5","%R","","-99","NA","","IS","57.5","","-99","NA","YES","100","","0.254","0.001","-99",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","d5-EtFOSAA","d5-
EtFOSAA","67.5","%R","","-99","NA","","IS","67.5","","-99","NA","YES","100","","0.254","0.001","-99",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","13C2-PFDoA","13C2-
PFDoA","86.9","%R","","-99","NA","","IS","86.9","","-99","NA","YES","100","","0.254","0.001","-99",""
"FC-MW02IR1-20171212","Modified EPA Method 537","Initial","1701951-08","Vista","13C2-PFTeDA","13C2-
PFTeDA","65.9","%R","","-99","NA","","IS","65.9","","-99","NA","YES","100","","0.254","0.001","-99",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","375-73-
5","PFBS","2.59","ng/L","U","0.928","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","307-24-
4","PFHxA","2.59","ng/L","U","1.13","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","375-85-
9","PFHpA","2.59","ng/L","U","0.306","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","355-46-

4","PFHxS","2.59","ng/L","U","0.491","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","335-67-1","PFOA","2.59","ng/L","U","0.338","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","1763-23-1","PFOS","2.59","ng/L","U","0.418","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","375-95-1","PFNA","0.907","ng/L","J","0.420","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","335-76-2","PFDA","2.59","ng/L","U","0.773","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","2355-31-9","MeFOSAA","2.59","ng/L","U","0.855","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","2058-94-8","PFUnA","7.17","ng/L","","0.544","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","2991-50-6","EtFOSAA","2.59","ng/L","U","0.710","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","307-55-1","PFDoA","2.59","ng/L","U","0.411","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","72629-94-8","PFTrDA","2.59","ng/L","U","0.256","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","376-06-7","PFTeDA","2.59","ng/L","U","0.391","LOD","","TRG","","","4.15","LOQ","YES","-99","","0.241","0.001","2.59",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","13C3-PFBS","13C3-PFBS","93.1","%R","","-99","NA","","IS","93.1","","-99","NA","YES","100","","0.241","0.001","-99",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","13C2-PFHxA","13C2-PFHxA","92.4","%R","","-99","NA","","IS","92.4","","-99","NA","YES","100","","0.241","0.001","-99",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","13C4-PFHpA","13C4-PFHpA","96.4","%R","","-99","NA","","IS","96.4","","-99","NA","YES","100","","0.241","0.001","-99",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","18O2-PFHxS","18O2-PFHxS","111","%R","","-99","NA","","IS","111","","-99","NA","YES","100","","0.241","0.001","-99",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","13C2-PFOA","13C2-PFOA","103","%R","","-99","NA","","IS","103","","-99","NA","YES","100","","0.241","0.001","-99",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","13C8-PFOS","13C8-PFOS","109","%R","","-99","NA","","IS","109","","-99","NA","YES","100","","0.241","0.001","-99",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","13C5-PFNA","13C5-PFNA","95.4","%R","","-99","NA","","IS","95.4","","-99","NA","YES","100","","0.241","0.001","-99",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","13C2-PFDA","13C2-PFDA","74.8","%R","","-99","NA","","IS","74.8","","-99","NA","YES","100","","0.241","0.001","-99",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","d3-MeFOSAA","d3-MeFOSAA","75.5","%R","","-99","NA","","IS","75.5","","-99","NA","YES","100","","0.241","0.001","-99",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","13C2-PFUnA","13C2-PFUnA","85.5","%R","","-99","NA","","IS","85.5","","-99","NA","YES","100","","0.241","0.001","-99",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","d5-EtFOSAA","d5-EtFOSAA","69.0","%R","","-99","NA","","IS","69.0","","-99","NA","YES","100","","0.241","0.001","-99",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","13C2-PFDoA","13C2-PFDoA","114","%R","","-99","NA","","IS","114","","-99","NA","YES","100","","0.241","0.001","-99",""
"FC-MW05S-20171212","Modified EPA Method 537","Initial","1701951-09","Vista","13C2-PFTeDA","13C2-PFTeDA","52.2","%R","","-99","NA","","IS","52.2","","-99","NA","YES","100","","0.241","0.001","-99",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","375-73-5","PFBS","1.02","ng/L","J","0.912","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","307-24-

4","PFHxA","27.9","ng/L","","1.11","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","375-85-
9","PFHpA","12.7","ng/L","","0.301","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","355-46-
4","PFHxS","1.30","ng/L","J","0.482","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","335-67-
1","PFOA","39.3","ng/L","","0.332","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","1763-23-
1","PFOS","10.8","ng/L","","0.411","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","375-95-
1","PFNA","303","ng/L","","0.413","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","335-76-
2","PFDA","64.2","ng/L","","0.759","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","2355-31-
9","MeFOSAA","2.55","ng/L","U","0.841","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55
",""
"FC-DUP07-20171212","Modified EPA Method 537","Dilution","1701951-10","Vista","2058-94-
8","PFUnA","1510","ng/L","D","2.67","LOD","","TRG","","","20.4","LOQ","YES","-99","","0.245","0.001","12.8",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","2991-50-
6","EtFOSAA","2.55","ng/L","U","0.698","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55"
,""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","307-55-
1","PFDoA","1.20","ng/L","J","0.403","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","72629-94-
8","PFTrDA","2.02","ng/L","J","0.252","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","376-06-
7","PFTeDA","2.55","ng/L","U","0.385","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",
""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","13C3-PFBS","13C3-
PFBS","99.5","%R","","-99","NA","","IS","99.5","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","13C2-PFHxA","13C2-
PFHxA","96.0","%R","","-99","NA","","IS","96.0","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","13C4-PFHpA","13C4-
PFHpA","94.9","%R","","-99","NA","","IS","94.9","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","18O2-PFHxS","18O2-
PFHxS","99.5","%R","","-99","NA","","IS","99.5","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","13C2-PFOA","13C2-
PFOA","76.7","%R","","-99","NA","","IS","76.7","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","13C8-PFOS","13C8-
PFOS","74.4","%R","","-99","NA","","IS","74.4","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","13C5-PFNA","13C5-
PFNA","87.0","%R","","-99","NA","","IS","87.0","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","13C2-PFDA","13C2-
PFDA","83.2","%R","","-99","NA","","IS","83.2","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","d3-MeFOSAA","d3-
MeFOSAA","67.0","%R","","-99","NA","","IS","67.0","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-DUP07-20171212","Modified EPA Method 537","Dilution","1701951-10","Vista","13C2-PFUnA","13C2-
PFUnA","124","%R","D","-99","NA","","IS","124","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","d5-EtFOSAA","d5-
EtFOSAA","58.6","%R","","-99","NA","","IS","58.6","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","13C2-PFDoA","13C2-
PFDoA","99.5","%R","","-99","NA","","IS","99.5","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-DUP07-20171212","Modified EPA Method 537","Initial","1701951-10","Vista","13C2-PFTeDA","13C2-
PFTeDA","96.8","%R","","-99","NA","","IS","96.8","","-99","NA","YES","100","","0.245","0.001","-99",""

"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","375-73-
5","PFBS","4.88","ng/L","U","0.433","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","307-24-4","PFHxA","1.04","ng/L","J,
B","0.648","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","375-85-
9","PFHpA","4.88","ng/L","U","0.521","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","355-46-
4","PFHxS","4.88","ng/L","U","0.405","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","335-67-
1","PFOA","4.88","ng/L","U","1.06","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","375-95-
1","PFNA","4.88","ng/L","U","1.41","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","1763-23-
1","PFOS","4.88","ng/L","U","1.02","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","335-76-
2","PFDA","4.88","ng/L","U","1.25","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","2355-31-
9","MeFOSAA","4.88","ng/L","U","2.97","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88"
,""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","2991-50-
6","EtFOSAA","4.88","ng/L","U","1.89","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",
""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","2058-94-
8","PFUnA","4.88","ng/L","U","0.249","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","307-55-
1","PFDoA","4.88","ng/L","U","0.930","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","72629-94-
8","PFTrDA","4.88","ng/L","U","0.921","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88","
"
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","376-06-
7","PFTeDA","4.88","ng/L","U","0.759","LOD","","TRG","","","9.77","LOQ","YES","-99","","0.256","0.001","4.88",
""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","13C2-PFHxA","13C2-
PFHxA","94.7","%R","","-99","NA","","SURR","94.7","","-99","NA","YES","100","","0.256","0.001","-99",""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","13C2-PFDA","13C2-
PFDA","77.3","%R","","-99","NA","","SURR","77.3","","-99","NA","YES","100","","0.256","0.001","-99",""
"FT-DUP08-20171212","EPA Method 537","Initial","1701951-11","Vista","d5-EtFOSAA","d5-
EtFOSAA","118","%R","","-99","NA","","SURR","118","","-99","NA","YES","100","","0.256","0.001","-99",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","375-73-
5","PFBS","2.52","ng/L","U","0.903","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","307-24-
4","PFHxA","2.52","ng/L","U","1.10","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","375-85-
9","PFHpA","0.310","ng/L","J","0.298","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52","
"
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","355-46-
4","PFHxS","2.52","ng/L","U","0.478","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","335-67-
1","PFOA","4.22","ng/L","","0.328","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","1763-23-
1","PFOS","0.443","ng/L","J","0.407","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","375-95-
1","PFNA","1.66","ng/L","J","0.409","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","335-76-

2","PFDA","2.52","ng/L","U","0.752","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","2355-31-9","MeFOSAA","2.52","ng/L","U","0.832","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","2058-94-8","PFUnA","1.43","ng/L","J","0.530","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","2991-50-6","EtFOSAA","2.52","ng/L","U","0.691","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","307-55-1","PFDoA","2.52","ng/L","U","0.400","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","72629-94-8","PFTrDA","2.52","ng/L","U","0.249","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","376-06-7","PFTeDA","2.52","ng/L","U","0.381","LOD","","TRG","","","4.04","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","13C3-PFBS","13C3-PFBS","95.3","%R","","-99","NA","","IS","95.3","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","13C2-PFHxA","13C2-PFHxA","102","%R","","-99","NA","","IS","102","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","13C4-PFHpA","13C4-PFHpA","80.8","%R","","-99","NA","","IS","80.8","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","18O2-PFHxS","18O2-PFHxS","79.7","%R","","-99","NA","","IS","79.7","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","13C2-PFOA","13C2-PFOA","77.9","%R","","-99","NA","","IS","77.9","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","13C8-PFOS","13C8-PFOS","109","%R","","-99","NA","","IS","109","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","13C5-PFNA","13C5-PFNA","93.8","%R","","-99","NA","","IS","93.8","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","13C2-PFDA","13C2-PFDA","91.9","%R","","-99","NA","","IS","91.9","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","d3-MeFOSAA","d3-MeFOSAA","62.4","%R","","-99","NA","","IS","62.4","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","13C2-PFUnA","13C2-PFUnA","86.8","%R","","-99","NA","","IS","86.8","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","d5-EtFOSAA","d5-EtFOSAA","68.9","%R","","-99","NA","","IS","68.9","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","13C2-PFDoA","13C2-PFDoA","107","%R","","-99","NA","","IS","107","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW01S-20171212","Modified EPA Method 537","Initial","1701951-12","Vista","13C2-PFTeDA","13C2-PFTeDA","71.1","%R","","-99","NA","","IS","71.1","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","375-73-5","PFBS","2.53","ng/L","U","0.907","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","307-24-4","PFHxA","2.53","ng/L","U","1.10","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","375-85-9","PFHpA","2.53","ng/L","U","0.299","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","355-46-4","PFHxS","2.53","ng/L","U","0.480","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","335-67-1","PFOA","2.53","ng/L","U","0.330","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","1763-23-

1","PFOS","2.53","ng/L","U","0.409","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","375-95-
1","PFNA","2.53","ng/L","U","0.410","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","335-76-
2","PFDA","2.53","ng/L","U","0.755","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","2355-31-
9","MeFOSAA","2.53","ng/L","U","0.836","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53
",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","2058-94-
8","PFUnA","2.53","ng/L","U","0.532","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","2991-50-
6","EtFOSAA","2.53","ng/L","U","0.694","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53"
,""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","307-55-
1","PFDoA","2.53","ng/L","U","0.401","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","72629-94-
8","PFTrDA","2.53","ng/L","U","0.250","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53","
"
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","376-06-
7","PFTeDA","2.53","ng/L","U","0.383","LOD","","TRG","","","4.05","LOQ","YES","-99","","0.247","0.001","2.53",
""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","13C3-PFBS","13C3-
PFBS","96.7","%R","","-99","NA","","IS","96.7","","-99","NA","YES","100","","0.247","0.001","-99",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","13C2-PFHxA","13C2-
PFHxA","90.2","%R","","-99","NA","","IS","90.2","","-99","NA","YES","100","","0.247","0.001","-99",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","13C4-PFHpA","13C4-
PFHpA","83.5","%R","","-99","NA","","IS","83.5","","-99","NA","YES","100","","0.247","0.001","-99",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","18O2-PFHxS","18O2-
PFHxS","113","%R","","-99","NA","","IS","113","","-99","NA","YES","100","","0.247","0.001","-99",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","13C2-PFOA","13C2-
PFOA","83.2","%R","","-99","NA","","IS","83.2","","-99","NA","YES","100","","0.247","0.001","-99",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","13C8-PFOS","13C8-
PFOS","87.2","%R","","-99","NA","","IS","87.2","","-99","NA","YES","100","","0.247","0.001","-99",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","13C5-PFNA","13C5-
PFNA","92.8","%R","","-99","NA","","IS","92.8","","-99","NA","YES","100","","0.247","0.001","-99",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","13C2-PFDA","13C2-
PFDA","80.8","%R","","-99","NA","","IS","80.8","","-99","NA","YES","100","","0.247","0.001","-99",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","d3-MeFOSAA","d3-
MeFOSAA","69.9","%R","","-99","NA","","IS","69.9","","-99","NA","YES","100","","0.247","0.001","-99",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","13C2-PFUnA","13C2-
PFUnA","81.6","%R","","-99","NA","","IS","81.6","","-99","NA","YES","100","","0.247","0.001","-99",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","d5-EtFOSAA","d5-
EtFOSAA","56.0","%R","","-99","NA","","IS","56.0","","-99","NA","YES","100","","0.247","0.001","-99",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","13C2-PFDoA","13C2-
PFDoA","106","%R","","-99","NA","","IS","106","","-99","NA","YES","100","","0.247","0.001","-99",""
"ET-MW01S-FRB-20171212","Modified EPA Method 537","Initial","1701951-13","Vista","13C2-PFTeDA","13C2-
PFTeDA","57.1","%R","","-99","NA","","IS","57.1","","-99","NA","YES","100","","0.247","0.001","-99",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","375-73-
5","PFBS","2.55","ng/L","U","0.914","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","307-24-
4","PFHxA","2.55","ng/L","U","1.11","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","375-85-
9","PFHpA","1.41","ng/L","J","0.302","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","355-46-

4","PFHxS","2.46","ng/L","J","0.483","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","335-67-1","PFOA","4.47","ng/L","","0.332","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","1763-23-1","PFOS","5.85","ng/L","","0.412","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","375-95-1","PFNA","5.67","ng/L","","0.413","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","335-76-2","PFDA","2.55","ng/L","U","0.761","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","2355-31-9","MeFOSAA","2.55","ng/L","U","0.842","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","2058-94-8","PFUnA","11.6","ng/L","","0.536","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","2991-50-6","EtFOSAA","2.55","ng/L","U","0.699","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","307-55-1","PFDoA","2.55","ng/L","U","0.404","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","72629-94-8","PFTrDA","2.55","ng/L","U","0.252","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","376-06-7","PFTeDA","2.55","ng/L","U","0.385","LOD","","TRG","","","4.08","LOQ","YES","-99","","0.245","0.001","2.55",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","13C3-PFBS","13C3-PFBS","100","%R","","-99","NA","","IS","100","","-99","NA","YES","100","","0.245","0.001","-99",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","13C2-PFHxA","13C2-PFHxA","88.9","%R","","-99","NA","","IS","88.9","","-99","NA","YES","100","","0.245","0.001","-99",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","13C4-PFHpA","13C4-PFHpA","98.1","%R","","-99","NA","","IS","98.1","","-99","NA","YES","100","","0.245","0.001","-99",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","18O2-PFHxS","18O2-PFHxS","99.7","%R","","-99","NA","","IS","99.7","","-99","NA","YES","100","","0.245","0.001","-99",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","13C2-PFOA","13C2-PFOA","100","%R","","-99","NA","","IS","100","","-99","NA","YES","100","","0.245","0.001","-99",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","13C8-PFOS","13C8-PFOS","92.9","%R","","-99","NA","","IS","92.9","","-99","NA","YES","100","","0.245","0.001","-99",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","13C5-PFNA","13C5-PFNA","76.8","%R","","-99","NA","","IS","76.8","","-99","NA","YES","100","","0.245","0.001","-99",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","13C2-PFDA","13C2-PFDA","106","%R","","-99","NA","","IS","106","","-99","NA","YES","100","","0.245","0.001","-99",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","d3-MeFOSAA","d3-MeFOSAA","76.7","%R","","-99","NA","","IS","76.7","","-99","NA","YES","100","","0.245","0.001","-99",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","13C2-PFUnA","13C2-PFUnA","72.3","%R","","-99","NA","","IS","72.3","","-99","NA","YES","100","","0.245","0.001","-99",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","d5-EtFOSAA","d5-EtFOSAA","73.9","%R","","-99","NA","","IS","73.9","","-99","NA","YES","100","","0.245","0.001","-99",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","13C2-PFDoA","13C2-PFDoA","82.6","%R","","-99","NA","","IS","82.6","","-99","NA","YES","100","","0.245","0.001","-99",""
"FT-PZ-454S-20171212","Modified EPA Method 537","Initial","1701951-14","Vista","13C2-PFTeDA","13C2-PFTeDA","67.8","%R","","-99","NA","","IS","67.8","","-99","NA","YES","100","","0.245","0.001","-99",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","375-73-5","PFBS","2.47","ng/L","U","0.883","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","307-24-

4","PFHxA","2.75","ng/L","J","1.08","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","375-85-
9","PFHpA","3.01","ng/L","J","0.292","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","355-46-
4","PFHxS","1.26","ng/L","J","0.467","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","335-67-
1","PFOA","7.62","ng/L","","0.321","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","1763-23-
1","PFOS","2.39","ng/L","J","0.398","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","375-95-
1","PFNA","11.4","ng/L","","0.400","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","335-76-
2","PFDA","2.47","ng/L","U","0.735","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","2355-31-
9","MeFOSAA","2.47","ng/L","U","0.814","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47
",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","2058-94-
8","PFUnA","8.11","ng/L","","0.518","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","2991-50-
6","EtFOSAA","2.47","ng/L","U","0.676","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47"
,""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","307-55-
1","PFDoA","2.47","ng/L","U","0.391","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","72629-94-
8","PFTrDA","2.47","ng/L","U","0.244","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47","
"
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","376-06-
7","PFTeDA","2.47","ng/L","U","0.372","LOD","","TRG","","","3.95","LOQ","YES","-99","","0.253","0.001","2.47",
""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","13C3-PFBS","13C3-
PFBS","111","%R","","-99","NA","","IS","111","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","13C2-PFHxA","13C2-
PFHxA","105","%R","","-99","NA","","IS","105","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","13C4-PFHpA","13C4-
PFHpA","103","%R","","-99","NA","","IS","103","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","18O2-PFHxS","18O2-
PFHxS","93.4","%R","","-99","NA","","IS","93.4","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","13C2-PFOA","13C2-
PFOA","94.7","%R","","-99","NA","","IS","94.7","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","13C8-PFOS","13C8-
PFOS","79.9","%R","","-99","NA","","IS","79.9","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","13C5-PFNA","13C5-
PFNA","96.7","%R","","-99","NA","","IS","96.7","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","13C2-PFDA","13C2-
PFDA","96.3","%R","","-99","NA","","IS","96.3","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","d3-MeFOSAA","d3-
MeFOSAA","63.5","%R","","-99","NA","","IS","63.5","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","13C2-PFUnA","13C2-
PFUnA","85.1","%R","","-99","NA","","IS","85.1","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","d5-EtFOSAA","d5-
EtFOSAA","78.6","%R","","-99","NA","","IS","78.6","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","13C2-PFDoA","13C2-
PFDoA","84.7","%R","","-99","NA","","IS","84.7","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-MW05I-20171212","Modified EPA Method 537","Initial","1701951-15","Vista","13C2-PFTeDA","13C2-

PFTeDA","71.5","%R","","-99","NA","","IS","71.5","","-99","NA","YES","100","","0.253","0.001","-99",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","375-73-5","PFBS","2.45","ng/L","U","0.876","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","307-24-4","PFHxA","2.45","ng/L","U","1.07","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","375-85-9","PFHpA","0.595","ng/L","J","0.289","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","355-46-4","PFHxS","2.45","ng/L","U","0.463","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","335-67-1","PFOA","6.17","ng/L","","0.319","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","1763-23-1","PFOS","2.59","ng/L","J","0.395","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","375-95-1","PFNA","2.18","ng/L","J","0.396","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","335-76-2","PFDA","2.45","ng/L","U","0.729","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","2355-31-9","MeFOSAA","2.45","ng/L","U","0.807","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","2058-94-8","PFUnA","2.45","ng/L","U","0.514","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","2991-50-6","EtFOSAA","2.45","ng/L","U","0.670","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","307-55-1","PFDoA","2.45","ng/L","U","0.388","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","72629-94-8","PFTrDA","2.45","ng/L","U","0.242","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","376-06-7","PFTeDA","2.45","ng/L","U","0.369","LOD","","TRG","","","3.91","LOQ","YES","-99","","0.255","0.001","2.45",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","13C3-PFBS","13C3-PFBS","81.8","%R","","-99","NA","","IS","81.8","","-99","NA","YES","100","","0.255","0.001","-99",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","13C2-PFHxA","13C2-PFHxA","99.5","%R","","-99","NA","","IS","99.5","","-99","NA","YES","100","","0.255","0.001","-99",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","13C4-PFHpA","13C4-PFHpA","86.2","%R","","-99","NA","","IS","86.2","","-99","NA","YES","100","","0.255","0.001","-99",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","18O2-PFHxS","18O2-PFHxS","106","%R","","-99","NA","","IS","106","","-99","NA","YES","100","","0.255","0.001","-99",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","13C2-PFOA","13C2-PFOA","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.255","0.001","-99",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","13C8-PFOS","13C8-PFOS","80.9","%R","","-99","NA","","IS","80.9","","-99","NA","YES","100","","0.255","0.001","-99",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","13C5-PFNA","13C5-PFNA","93.8","%R","","-99","NA","","IS","93.8","","-99","NA","YES","100","","0.255","0.001","-99",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","13C2-PFDA","13C2-PFDA","105","%R","","-99","NA","","IS","105","","-99","NA","YES","100","","0.255","0.001","-99",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","d3-MeFOSAA","d3-MeFOSAA","65.4","%R","","-99","NA","","IS","65.4","","-99","NA","YES","100","","0.255","0.001","-99",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","13C2-PFUnA","13C2-PFUnA","93.1","%R","","-99","NA","","IS","93.1","","-99","NA","YES","100","","0.255","0.001","-99",""

"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","d5-EtFOSAA","d5-EtFOSAA","59.7","%R","","-99","NA","","IS","59.7","","-99","NA","YES","100","","0.255","0.001","-99",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","13C2-PFDoA","13C2-PFDoA","76.8","%R","","-99","NA","","IS","76.8","","-99","NA","YES","100","","0.255","0.001","-99",""
"ET-MW02S-20171212","Modified EPA Method 537","Initial","1701951-16","Vista","13C2-PFTeDA","13C2-PFTeDA","58.2","%R","","-99","NA","","IS","58.2","","-99","NA","YES","100","","0.255","0.001","-99",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","375-73-5","PFBS","2.52","ng/L","U","0.902","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","307-24-4","PFHxA","3.59","ng/L","J","1.10","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","375-85-9","PFHpA","1.66","ng/L","J","0.298","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","355-46-4","PFHxS","2.52","ng/L","U","0.477","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","335-67-1","PFOA","5.51","ng/L","","0.328","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","1763-23-1","PFOS","0.862","ng/L","J","0.407","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","375-95-1","PFNA","2.55","ng/L","J","0.408","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","335-76-2","PFDA","2.52","ng/L","U","0.751","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","2355-31-9","MeFOSAA","2.52","ng/L","U","0.831","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","2058-94-8","PFUnA","2.52","ng/L","U","0.529","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","2991-50-6","EtFOSAA","2.52","ng/L","U","0.690","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","307-55-1","PFDoA","2.52","ng/L","U","0.399","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","72629-94-8","PFTrDA","2.52","ng/L","U","0.249","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","376-06-7","PFTeDA","2.52","ng/L","U","0.380","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","13C3-PFBS","13C3-PFBS","87.3","%R","","-99","NA","","IS","87.3","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","13C2-PFHxA","13C2-PFHxA","97.3","%R","","-99","NA","","IS","97.3","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","13C4-PFHpA","13C4-PFHpA","86.5","%R","","-99","NA","","IS","86.5","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","18O2-PFHxS","18O2-PFHxS","89.4","%R","","-99","NA","","IS","89.4","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","13C2-PFOA","13C2-PFOA","102","%R","","-99","NA","","IS","102","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","13C8-PFOS","13C8-PFOS","96.0","%R","","-99","NA","","IS","96.0","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","13C5-PFNA","13C5-PFNA","84.8","%R","","-99","NA","","IS","84.8","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","13C2-PFDA","13C2-PFDA","84.2","%R","","-99","NA","","IS","84.2","","-99","NA","YES","100","","0.248","0.001","-99",""

"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","d3-MeFOSAA","d3-MeFOSAA","90.9","%R","","-99","NA","","IS","90.9","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","13C2-PFUnA","13C2-PFUnA","89.6","%R","","-99","NA","","IS","89.6","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","d5-EtFOSAA","d5-EtFOSAA","71.5","%R","","-99","NA","","IS","71.5","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","13C2-PFDoA","13C2-PFDoA","84.7","%R","","-99","NA","","IS","84.7","","-99","NA","YES","100","","0.248","0.001","-99",""
"ET-MW03S-20171212","Modified EPA Method 537","Initial","1701951-17","Vista","13C2-PFTeDA","13C2-PFTeDA","85.5","%R","","-99","NA","","IS","85.5","","-99","NA","YES","100","","0.248","0.001","-99",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","375-73-5","PFBS","1.05","ng/L","J","0.886","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","307-24-4","PFHxA","11.8","ng/L","","1.08","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","375-85-9","PFHpA","16.5","ng/L","","0.292","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","355-46-4","PFHxS","0.584","ng/L","J","0.469","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","335-67-1","PFOA","17.0","ng/L","","0.322","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","1763-23-1","PFOS","8.53","ng/L","","0.399","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","375-95-1","PFNA","256","ng/L","","0.401","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","335-76-2","PFDA","5.74","ng/L","","0.737","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","2355-31-9","MeFOSAA","2.47","ng/L","U","0.817","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","2058-94-8","PFUnA","134","ng/L","","0.520","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","2991-50-6","EtFOSAA","2.47","ng/L","U","0.678","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","307-55-1","PFDoA","2.47","ng/L","U","0.392","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","72629-94-8","PFTrDA","2.47","ng/L","U","0.244","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","376-06-7","PFTeDA","2.47","ng/L","U","0.374","LOD","","TRG","","","3.96","LOQ","YES","-99","","0.253","0.001","2.47",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","13C3-PFBS","13C3-PFBS","95.2","%R","","-99","NA","","IS","95.2","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","13C2-PFHxA","13C2-PFHxA","104","%R","","-99","NA","","IS","104","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","13C4-PFHpA","13C4-PFHpA","94.1","%R","","-99","NA","","IS","94.1","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","18O2-PFHxS","18O2-PFHxS","98.7","%R","","-99","NA","","IS","98.7","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","13C2-PFOA","13C2-PFOA","103","%R","","-99","NA","","IS","103","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","13C8-PFOS","13C8-PFOS","98.3","%R","","-99","NA","","IS","98.3","","-99","NA","YES","100","","0.253","0.001","-99",""

"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","13C5-PFNA","13C5-PFNA","83.5","%R","","-99","NA","","IS","83.5","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","13C2-PFDA","13C2-PFDA","95.7","%R","","-99","NA","","IS","95.7","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","d3-MeFOSAA","d3-MeFOSAA","68.0","%R","","-99","NA","","IS","68.0","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","13C2-PFUnA","13C2-PFUnA","70.0","%R","","-99","NA","","IS","70.0","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","d5-EtFOSAA","d5-EtFOSAA","69.4","%R","","-99","NA","","IS","69.4","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","13C2-PFDoA","13C2-PFDoA","80.0","%R","","-99","NA","","IS","80.0","","-99","NA","YES","100","","0.253","0.001","-99",""
"FC-PZ05I1-20171212","Modified EPA Method 537","Initial","1701951-18","Vista","13C2-PFTeDA","13C2-PFTeDA","61.4","%R","","-99","NA","","IS","61.4","","-99","NA","YES","100","","0.253","0.001","-99",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","375-73-5","PFBS","2.49","ng/L","U","0.891","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","307-24-4","PFHxA","10.7","ng/L","","1.09","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","375-85-9","PFHpA","27.9","ng/L","","0.294","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","355-46-4","PFHxS","2.49","ng/L","U","0.472","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","335-67-1","PFOA","31.9","ng/L","","0.324","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","1763-23-1","PFOS","3.36","ng/L","J","0.402","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","375-95-1","PFNA","866","ng/L","","0.403","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","335-76-2","PFDA","16.5","ng/L","","0.742","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","2355-31-9","MeFOSAA","2.49","ng/L","U","0.822","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","2058-94-8","PFUnA","294","ng/L","","0.523","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","2991-50-6","EtFOSAA","2.49","ng/L","U","0.682","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","307-55-1","PFDoA","2.49","ng/L","U","0.394","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","72629-94-8","PFTrDA","2.49","ng/L","U","0.246","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","376-06-7","PFTeDA","2.49","ng/L","U","0.376","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","13C3-PFBS","13C3-PFBS","100","%R","","-99","NA","","IS","100","","-99","NA","YES","100","","0.251","0.001","-99",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","13C2-PFHxA","13C2-PFHxA","92.0","%R","","-99","NA","","IS","92.0","","-99","NA","YES","100","","0.251","0.001","-99",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","13C4-PFHpA","13C4-PFHpA","84.9","%R","","-99","NA","","IS","84.9","","-99","NA","YES","100","","0.251","0.001","-99",""

"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","18O2-PFHxS","18O2-PFHxS","90.3","%R","","-99","NA","","IS","90.3","","-99","NA","YES","100","","0.251","0.001","-99",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","13C2-PFOA","13C2-PFOA","86.9","%R","","-99","NA","","IS","86.9","","-99","NA","YES","100","","0.251","0.001","-99",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","13C8-PFOS","13C8-PFOS","76.2","%R","","-99","NA","","IS","76.2","","-99","NA","YES","100","","0.251","0.001","-99",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","13C5-PFNA","13C5-PFNA","96.1","%R","","-99","NA","","IS","96.1","","-99","NA","YES","100","","0.251","0.001","-99",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","13C2-PFDA","13C2-PFDA","84.6","%R","","-99","NA","","IS","84.6","","-99","NA","YES","100","","0.251","0.001","-99",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","d3-MeFOSAA","d3-MeFOSAA","63.5","%R","","-99","NA","","IS","63.5","","-99","NA","YES","100","","0.251","0.001","-99",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","13C2-PFUnA","13C2-PFUnA","75.1","%R","","-99","NA","","IS","75.1","","-99","NA","YES","100","","0.251","0.001","-99",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","d5-EtFOSAA","d5-EtFOSAA","76.6","%R","","-99","NA","","IS","76.6","","-99","NA","YES","100","","0.251","0.001","-99",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","13C2-PFDoA","13C2-PFDoA","67.5","%R","","-99","NA","","IS","67.5","","-99","NA","YES","100","","0.251","0.001","-99",""
"CV-FLTS-COMBINF-20171213","Modified EPA Method 537","Initial","1701951-19","Vista","13C2-PFTeDA","13C2-PFTeDA","61.0","%R","","-99","NA","","IS","61.0","","-99","NA","YES","100","","0.251","0.001","-99",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","375-73-5","PFBS","2.49","ng/L","U","0.891","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","307-24-4","PFHxA","16.3","ng/L","","1.08","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","375-85-9","PFHpA","31.2","ng/L","","0.294","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","355-46-4","PFHxS","2.49","ng/L","U","0.471","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","335-67-1","PFOA","46.8","ng/L","","0.324","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","1763-23-1","PFOS","3.63","ng/L","J","0.402","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","375-95-1","PFNA","2.49","ng/L","U","0.403","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","335-76-2","PFDA","22.3","ng/L","","0.741","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","2355-31-9","MeFOSAA","2.49","ng/L","U","0.821","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","2058-94-8","PFUnA","636","ng/L","","0.522","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","2991-50-6","EtFOSAA","2.49","ng/L","U","0.682","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","307-55-1","PFDoA","2.49","ng/L","U","0.394","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","72629-94-8","PFTrDA","2.49","ng/L","U","0.246","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","376-06-

7","PFTeDA","2.49","ng/L","U","0.376","LOD","","TRG","","","3.98","LOQ","YES","-99","","0.251","0.001","2.49",
""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","13C3-PFBS","13C3-
PFBS","85.3","%R","","-99","NA","","IS","85.3","","-99","NA","YES","100","","0.251","0.001","-99",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","13C2-PFHxA","13C2-
PFHxA","107","%R","","-99","NA","","IS","107","","-99","NA","YES","100","","0.251","0.001","-99",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","13C4-PFHpA","13C4-
PFHpA","77.8","%R","","-99","NA","","IS","77.8","","-99","NA","YES","100","","0.251","0.001","-99",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","18O2-PFHxS","18O2-
PFHxS","96.2","%R","","-99","NA","","IS","96.2","","-99","NA","YES","100","","0.251","0.001","-99",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","13C2-PFOA","13C2-
PFOA","90.4","%R","","-99","NA","","IS","90.4","","-99","NA","YES","100","","0.251","0.001","-99",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","13C8-PFOS","13C8-
PFOS","95.3","%R","","-99","NA","","IS","95.3","","-99","NA","YES","100","","0.251","0.001","-99",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","13C5-PFNA","13C5-
PFNA","65.7","%R","","-99","NA","","IS","65.7","","-99","NA","YES","100","","0.251","0.001","-99",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","13C2-PFDA","13C2-
PFDA","68.1","%R","","-99","NA","","IS","68.1","","-99","NA","YES","100","","0.251","0.001","-99",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","d3-MeFOSAA","d3-
MeFOSAA","73.5","%R","","-99","NA","","IS","73.5","","-99","NA","YES","100","","0.251","0.001","-99",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","13C2-PFUnA","13C2-
PFUnA","67.4","%R","","-99","NA","","IS","67.4","","-99","NA","YES","100","","0.251","0.001","-99",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","d5-EtFOSAA","d5-
EtFOSAA","63.2","%R","","-99","NA","","IS","63.2","","-99","NA","YES","100","","0.251","0.001","-99",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","13C2-PFDoA","13C2-
PFDoA","84.7","%R","","-99","NA","","IS","84.7","","-99","NA","YES","100","","0.251","0.001","-99",""
"SA-MW127I-20171213","Modified EPA Method 537","Initial","1701951-20","Vista","13C2-PFTeDA","13C2-
PFTeDA","64.8","%R","","-99","NA","","IS","64.8","","-99","NA","YES","100","","0.251","0.001","-99",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","375-73-
5","PFBS","2.50","ng/L","U","0.895","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","307-24-
4","PFHxA","2.50","ng/L","U","1.09","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","375-85-
9","PFHpA","2.50","ng/L","U","0.296","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","355-46-
4","PFHxS","2.50","ng/L","U","0.474","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","335-67-
1","PFOA","2.50","ng/L","U","0.326","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","1763-23-
1","PFOS","2.50","ng/L","U","0.404","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","375-95-
1","PFNA","2.50","ng/L","U","0.405","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","335-76-
2","PFDA","2.50","ng/L","U","0.745","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","2355-31-
9","MeFOSAA","2.50","ng/L","U","0.825","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50
",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","2058-94-
8","PFUnA","2.50","ng/L","U","0.525","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","2991-50-
6","EtFOSAA","2.50","ng/L","U","0.685","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50"
,""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","307-55-
1","PFDoA","2.50","ng/L","U","0.396","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""

"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","72629-94-8","PFTrDA","2.50","ng/L","U","0.247","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","376-06-7","PFTeDA","2.50","ng/L","U","0.378","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","13C3-PFBS","13C3-PFBS","105","%R","","-99","NA","","IS","105","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","13C2-PFHxA","13C2-PFHxA","99.3","%R","","-99","NA","","IS","99.3","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","13C4-PFHpA","13C4-PFHpA","94.6","%R","","-99","NA","","IS","94.6","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","18O2-PFHxS","18O2-PFHxS","112","%R","","-99","NA","","IS","112","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","13C2-PFOA","13C2-PFOA","85.5","%R","","-99","NA","","IS","85.5","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","13C8-PFOS","13C8-PFOS","113","%R","","-99","NA","","IS","113","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","13C5-PFNA","13C5-PFNA","82.1","%R","","-99","NA","","IS","82.1","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","13C2-PFDA","13C2-PFDA","85.4","%R","","-99","NA","","IS","85.4","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","d3-MeFOSAA","d3-MeFOSAA","64.4","%R","","-99","NA","","IS","64.4","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","13C2-PFUnA","13C2-PFUnA","53.3","%R","","-99","NA","","IS","53.3","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","d5-EtFOSAA","d5-EtFOSAA","49.7","%R","H","-99","NA","","IS","49.7","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","13C2-PFDoA","13C2-PFDoA","70.7","%R","","-99","NA","","IS","70.7","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BLK1","Modified EPA Method 537","Initial","B7L0182-BLK1","Vista","13C2-PFTeDA","13C2-PFTeDA","60.5","%R","","-99","NA","","IS","60.5","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","375-73-5","PFBS","51.7","ng/L","","0.895","LOD","","TRG","129","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","307-24-4","PFHxA","51.6","ng/L","","1.09","LOD","","TRG","129","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","375-85-9","PFHpA","51.1","ng/L","","0.296","LOD","","TRG","128","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","355-46-4","PFHxS","47.4","ng/L","","0.474","LOD","","TRG","119","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","335-67-1","PFOA","46.9","ng/L","","0.326","LOD","","TRG","117","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","1763-23-1","PFOS","36.8","ng/L","","0.404","LOD","","TRG","92.0","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","375-95-1","PFNA","43.1","ng/L","","0.405","LOD","","TRG","108","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","335-76-

2","PFDA","39.2","ng/L","","0.745","LOD","","TRG","98.0","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","2355-31-9","MeFOSAA","56.3","ng/L","H","0.825","LOD","","TRG","141","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","2058-94-8","PFUnA","42.3","ng/L","","0.525","LOD","","TRG","106","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","2991-50-6","EtFOSAA","44.6","ng/L","","0.685","LOD","","TRG","111","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","307-55-1","PFDoA","40.7","ng/L","","0.396","LOD","","TRG","102","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","72629-94-8","PFTrDA","51.1","ng/L","","0.247","LOD","","TRG","128","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","376-06-7","PFTeDA","63.9","ng/L","H","0.378","LOD","","TRG","160","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","13C3-PFBS","13C3-PFBS","92.8","%R","","-99","NA","","IS","92.8","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","13C2-PFHxA","13C2-PFHxA","97.4","%R","","-99","NA","","IS","97.4","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","13C4-PFHpA","13C4-PFHpA","88.8","%R","","-99","NA","","IS","88.8","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","18O2-PFHxS","18O2-PFHxS","104","%R","","-99","NA","","IS","104","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","13C2-PFOA","13C2-PFOA","87.7","%R","","-99","NA","","IS","87.7","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","13C8-PFOS","13C8-PFOS","102","%R","","-99","NA","","IS","102","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","13C5-PFNA","13C5-PFNA","87.9","%R","","-99","NA","","IS","87.9","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","13C2-PFDA","13C2-PFDA","89.7","%R","","-99","NA","","IS","89.7","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","d3-MeFOSAA","d3-MeFOSAA","62.1","%R","","-99","NA","","IS","62.1","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","13C2-PFUnA","13C2-PFUnA","72.8","%R","","-99","NA","","IS","72.8","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","d5-EtFOSAA","d5-EtFOSAA","60.5","%R","","-99","NA","","IS","60.5","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","13C2-PFDoA","13C2-PFDoA","71.1","%R","","-99","NA","","IS","71.1","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-BS1","Modified EPA Method 537","Initial","B7L0182-BS1","Vista","13C2-PFTeDA","13C2-PFTeDA","52.0","%R","","-99","NA","","IS","52.0","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","375-73-5","PFBS","49.3","ng/L","","0.897","LOD","","TRG","123","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","307-24-4","PFHxA","64.2","ng/L","H","1.09","LOD","","TRG","133","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","375-85-9","PFHpA","74.6","ng/L","","0.296","LOD","","TRG","117","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-

20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","355-46-4","PFHxS","45.0","ng/L","","0.474","LOD","","TRG","111","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","335-67-1","PFOA","85.3","ng/L","H","0.326","LOD","","TRG","133","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","1763-23-1","PFOS","51.8","ng/L","","0.404","LOD","","TRG","121","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","375-95-1","PFNA","1030","ng/L","H","0.406","LOD","","TRG","397","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","335-76-2","PFDA","69.5","ng/L","H","0.747","LOD","","TRG","132","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","2355-31-9","MeFOSAA","59.4","ng/L","H","0.827","LOD","","TRG","148","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","2058-94-8","PFUnA","466","ng/L","H","0.526","LOD","","TRG","429","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","2991-50-6","EtFOSAA","47.3","ng/L","","0.686","LOD","","TRG","118","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","307-55-1","PFDoA","36.9","ng/L","","0.397","LOD","","TRG","92.1","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","72629-94-8","PFTrDA","40.9","ng/L","","0.248","LOD","","TRG","102","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","376-06-7","PFTeDA","60.6","ng/L","H","0.378","LOD","","TRG","151","","4.01","LOQ","YES","40.1","CV-FLTS-COMBINF-20171213","0.249","0.001","2.51",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","13C3-PFBS","13C3-PFBS","88.9","%R","","-99","NA","","IS","88.9","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.249","0.001","-99",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","13C2-PFHxA","13C2-PFHxA","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.249","0.001","-99",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","13C4-PFHpA","13C4-PFHpA","90.7","%R","","-99","NA","","IS","90.7","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.249","0.001","-99",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","18O2-PFHxS","18O2-PFHxS","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.249","0.001","-99",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","13C2-PFOA","13C2-PFOA","97.9","%R","","-99","NA","","IS","97.9","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.249","0.001","-99",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","13C8-PFOS","13C8-PFOS","106","%R","","-99","NA","","IS","106","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.249","0.001","-99",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","13C5-PFNA","13C5-PFNA","103","%R","","-99","NA","","IS","103","","-99","NA","YES","100","CV-FLTS-COMBINF-

20171213","0.249","0.001","-99",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","13C2-PFDA","13C2-PFDA","77.9","%R","","-99","NA","","IS","77.9","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.249","0.001","-99",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","d3-MeFOSAA","d3-MeFOSAA","60.4","%R","","-99","NA","","IS","60.4","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.249","0.001","-99",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","13C2-PFUnA","13C2-PFUnA","54.7","%R","","-99","NA","","IS","54.7","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.249","0.001","-99",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","d5-EtFOSAA","d5-EtFOSAA","60.9","%R","","-99","NA","","IS","60.9","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.249","0.001","-99",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","13C2-PFDoA","13C2-PFDoA","81.8","%R","","-99","NA","","IS","81.8","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.249","0.001","-99",""
"B7L0182-MS1","Modified EPA Method 537","Initial","B7L0182-MS1","Vista","13C2-PFTeDA","13C2-PFTeDA","60.1","%R","","-99","NA","","IS","60.1","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.249","0.001","-99",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","375-73-5","PFBS","53.8","ng/L","H","0.884","LOD","","TRG","136","10.0","3.95","LOQ","YES","39.5","CV-FLTS-COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","307-24-4","PFHxA","61.0","ng/L","","1.08","LOD","","TRG","127","4.62","3.95","LOQ","YES","39.5","CV-FLTS-COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","375-85-9","PFHpA","81.9","ng/L","H","0.292","LOD","","TRG","137","15.7","3.95","LOQ","YES","39.5","CV-FLTS-COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","355-46-4","PFHxS","49.4","ng/L","","0.468","LOD","","TRG","124","11.1","3.95","LOQ","YES","39.5","CV-FLTS-COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","335-67-1","PFOA","73.2","ng/L","","0.321","LOD","","TRG","105","23.5","3.95","LOQ","YES","39.5","CV-FLTS-COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","1763-23-1","PFOS","41.1","ng/L","","0.398","LOD","","TRG","95.4","23.7","3.95","LOQ","YES","39.5","CV-FLTS-COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","375-95-1","PFNA","942","ng/L","H","0.400","LOD","","TRG","192","69.6","3.95","LOQ","YES","39.5","CV-FLTS-COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","335-76-2","PFDA","62.0","ng/L","","0.736","LOD","","TRG","115","13.8","3.95","LOQ","YES","39.5","CV-FLTS-COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","2355-31-9","MeFOSAA","45.0","ng/L","","0.815","LOD","","TRG","114","26.0","3.95","LOQ","YES","39.5","CV-FLTS-COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","2058-94-8","PFUnA","411","ng/L","H","0.518","LOD","","TRG","296","36.7","3.95","LOQ","YES","39.5","CV-FLTS-COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","2991-50-6","EtFOSAA","53.2","ng/L","H","0.676","LOD","","TRG","135","13.4","3.95","LOQ","YES","39.5","CV-FLTS-COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","307-55-1","PFDoA","46.4","ng/L","","0.391","LOD","","TRG","117","23.8","3.95","LOQ","YES","39.5","CV-FLTS-

COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","72629-94-8","PFTrDA","44.2","ng/L","","0.244","LOD","","TRG","112","9.35","3.95","LOQ","YES","39.5","CV-FLTS-COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","376-06-7","PFTeDA","60.1","ng/L","H","0.373","LOD","","TRG","152","0.660","3.95","LOQ","YES","39.5","CV-FLTS-COMBINF-20171213","0.253","0.001","2.47",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","13C3-PFBS","13C3-PFBS","93.3","%R","","-99","NA","","IS","93.3","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.253","0.001","-99",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","13C2-PFHxA","13C2-PFHxA","97.3","%R","","-99","NA","","IS","97.3","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.253","0.001","-99",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","13C4-PFHpA","13C4-PFHpA","83.4","%R","","-99","NA","","IS","83.4","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.253","0.001","-99",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","18O2-PFHxS","18O2-PFHxS","98.0","%R","","-99","NA","","IS","98.0","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.253","0.001","-99",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","13C2-PFOA","13C2-PFOA","87.0","%R","","-99","NA","","IS","87.0","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.253","0.001","-99",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","13C8-PFOS","13C8-PFOS","91.0","%R","","-99","NA","","IS","91.0","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.253","0.001","-99",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","13C5-PFNA","13C5-PFNA","95.3","%R","","-99","NA","","IS","95.3","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.253","0.001","-99",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","13C2-PFDA","13C2-PFDA","109","%R","","-99","NA","","IS","109","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.253","0.001","-99",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","d3-MeFOSAA","d3-MeFOSAA","80.9","%R","","-99","NA","","IS","80.9","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.253","0.001","-99",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","13C2-PFUnA","13C2-PFUnA","68.0","%R","","-99","NA","","IS","68.0","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.253","0.001","-99",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","d5-EtFOSAA","d5-EtFOSAA","64.1","%R","","-99","NA","","IS","64.1","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.253","0.001","-99",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","13C2-PFDoA","13C2-PFDoA","91.2","%R","","-99","NA","","IS","91.2","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.253","0.001","-99",""
"B7L0182-MSD1","Modified EPA Method 537","Initial","B7L0182-MSD1","Vista","13C2-PFTeDA","13C2-PFTeDA","61.9","%R","","-99","NA","","IS","61.9","","-99","NA","YES","100","CV-FLTS-COMBINF-20171213","0.253","0.001","-99",""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","375-73-5","PFBS","5.00","ng/L","U","0.443","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","307-24-4","PFHxA","1.02","ng/L","J","0.663","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","375-85-9","PFHpA","5.00","ng/L","U","0.533","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","355-46-4","PFHxS","5.00","ng/L","U","0.415","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",""

"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","335-67-
1","PFOA","5.00","ng/L","U","1.08","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","375-95-
1","PFNA","5.00","ng/L","U","1.44","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","1763-23-
1","PFOS","5.00","ng/L","U","1.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","335-76-
2","PFDA","5.00","ng/L","U","1.28","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","2355-31-
9","MeFOSAA","5.00","ng/L","U","3.04","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00"
,""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","2991-50-
6","EtFOSAA","5.00","ng/L","U","1.93","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","2058-94-
8","PFUnA","5.00","ng/L","U","0.255","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","307-55-
1","PFDoA","5.00","ng/L","U","0.952","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","72629-94-
8","PFTrDA","5.00","ng/L","U","0.943","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00","
"
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","376-06-
7","PFTeDA","5.00","ng/L","U","0.777","LOD","","TRG","","","10.0","LOQ","YES","-99","","0.250","0.001","5.00",
""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","13C2-PFHxA","13C2-
PFHxA","101","%R","","-99","NA","","SUR","101","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","13C2-PFDA","13C2-
PFDA","104","%R","","-99","NA","","SUR","104","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0184-BLK1","EPA Method 537","Initial","B7L0184-BLK1","Vista","d5-EtFOSAA","d5-
EtFOSAA","97.9","%R","","-99","NA","","SUR","97.9","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","375-73-
5","PFBS","68.3","ng/L","","0.443","LOD","","TRG","96.4","","10.0","LOQ","YES","70.8","","0.250","0.001","5.00",
""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","307-24-
4","PFHxA","71.3","ng/L","B","0.663","LOD","","TRG","89.1","","10.0","LOQ","YES","80.0","","0.250","0.001","5.0
0",""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","375-85-
9","PFHpA","84.9","ng/L","","0.533","LOD","","TRG","106","","10.0","LOQ","YES","80.0","","0.250","0.001","5.00"
,""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","355-46-
4","PFHxS","75.5","ng/L","","0.415","LOD","","TRG","104","","10.0","LOQ","YES","72.8","","0.250","0.001","5.00"
,""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","335-67-
1","PFOA","82.0","ng/L","","1.08","LOD","","TRG","103","","10.0","LOQ","YES","80.0","","0.250","0.001","5.00","
"
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","375-95-
1","PFNA","77.1","ng/L","","1.44","LOD","","TRG","96.3","","10.0","LOQ","YES","80.0","","0.250","0.001","5.00","
"
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","1763-23-
1","PFOS","78.1","ng/L","","1.04","LOD","","TRG","106","","10.0","LOQ","YES","74.0","","0.250","0.001","5.00",""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","335-76-
2","PFDA","85.6","ng/L","","1.28","LOD","","TRG","107","","10.0","LOQ","YES","80.0","","0.250","0.001","5.00","
"
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","2355-31-

9","MeFOSAA","72.5","ng/L","","3.04","LOD","","TRG","90.6","","10.0","LOQ","YES","80.0","","0.250","0.001","5.00",""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","2991-50-6","EtFOSAA","68.8","ng/L","","1.93","LOD","","TRG","86.0","","10.0","LOQ","YES","80.0","","0.250","0.001","5.00",""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","2058-94-8","PFUnA","81.3","ng/L","","0.255","LOD","","TRG","102","","10.0","LOQ","YES","80.0","","0.250","0.001","5.00",""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","307-55-1","PFDoA","84.9","ng/L","","0.952","LOD","","TRG","106","","10.0","LOQ","YES","80.0","","0.250","0.001","5.00",""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","72629-94-8","PFTrDA","81.5","ng/L","","0.943","LOD","","TRG","102","","10.0","LOQ","YES","80.0","","0.250","0.001","5.00",""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","376-06-7","PFTeDA","78.1","ng/L","","0.777","LOD","","TRG","97.6","","10.0","LOQ","YES","80.0","","0.250","0.001","5.00",""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","13C2-PFHxA","13C2-PFHxA","103","%R","","-99","NA","","SUR","103","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","13C2-PFDA","13C2-PFDA","107","%R","","-99","NA","","SUR","107","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0184-BS1","EPA Method 537","Initial","B7L0184-BS1","Vista","d5-EtFOSAA","d5-EtFOSAA","93.3","%R","","-99","NA","","SUR","93.3","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","375-73-5","PFBS","68.6","ng/L","","0.455","LOD","","TRG","94.3","","10.3","LOQ","YES","72.7","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","307-24-4","PFHxA","68.5","ng/L","B","0.681","LOD","","TRG","82.3","","10.3","LOQ","YES","82.2","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","375-85-9","PFHpA","78.9","ng/L","","0.547","LOD","","TRG","95.9","","10.3","LOQ","YES","82.2","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","355-46-4","PFHxS","77.1","ng/L","","0.426","LOD","","TRG","103","","10.3","LOQ","YES","74.8","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","335-67-1","PFOA","79.7","ng/L","","1.11","LOD","","TRG","96.7","","10.3","LOQ","YES","82.2","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","375-95-1","PFNA","77.4","ng/L","","1.48","LOD","","TRG","94.2","","10.3","LOQ","YES","82.2","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","1763-23-1","PFOS","74.4","ng/L","","1.07","LOD","","TRG","97.9","","10.3","LOQ","YES","76.0","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","335-76-2","PFDA","71.7","ng/L","","1.31","LOD","","TRG","87.0","","10.3","LOQ","YES","82.2","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","2355-31-9","MeFOSAA","78.2","ng/L","","3.12","LOD","","TRG","95.1","","10.3","LOQ","YES","82.2","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","2991-50-6","EtFOSAA","69.9","ng/L","","1.98","LOD","","TRG","85.0","","10.3","LOQ","YES","82.2","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","2058-94-

8","PFUnA","77.3","ng/L","","0.262","LOD","","TRG","94.1","","10.3","LOQ","YES","82.2","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","307-55-1","PFDoA","77.5","ng/L","","0.978","LOD","","TRG","94.2","","10.3","LOQ","YES","82.2","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","72629-94-8","PFTrDA","76.0","ng/L","","0.969","LOD","","TRG","92.5","","10.3","LOQ","YES","82.2","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","376-06-7","PFTeDA","75.0","ng/L","","0.798","LOD","","TRG","91.2","","10.3","LOQ","YES","82.2","FT-RW01-20171212","0.243","0.001","5.14",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","13C2-PFHxA","13C2-PFHxA","92.9","%R","","-99","NA","","SUR","92.9","","-99","NA","YES","100","FT-RW01-20171212","0.243","0.001","-99",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","13C2-PFDA","13C2-PFDA","88.3","%R","","-99","NA","","SUR","88.3","","-99","NA","YES","100","FT-RW01-20171212","0.243","0.001","-99",""
"B7L0184-MS2","EPA Method 537","Initial","B7L0184-MS2","Vista","d5-EtFOSAA","d5-EtFOSAA","77.1","%R","","-99","NA","","SUR","77.1","","-99","NA","YES","100","FT-RW01-20171212","0.243","0.001","-99",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","375-73-5","PFBS","71.3","ng/L","","0.431","LOD","","TRG","104","9.78","9.74","LOQ","YES","68.9","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","307-24-4","PFHxA","72.4","ng/L","B","0.645","LOD","","TRG","91.9","11.0","9.74","LOQ","YES","77.9","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","375-85-9","PFHpA","77.3","ng/L","","0.519","LOD","","TRG","99.1","3.28","9.74","LOQ","YES","77.9","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","355-46-4","PFHxS","75.8","ng/L","","0.404","LOD","","TRG","107","3.81","9.74","LOQ","YES","70.9","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","335-67-1","PFOA","78.9","ng/L","","1.05","LOD","","TRG","101","4.35","9.74","LOQ","YES","77.9","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","375-95-1","PFNA","70.2","ng/L","","1.40","LOD","","TRG","90.1","4.45","9.74","LOQ","YES","77.9","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","1763-23-1","PFOS","70.6","ng/L","","1.01","LOD","","TRG","98.0","0.102","9.74","LOQ","YES","72.0","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","335-76-2","PFDA","72.5","ng/L","","1.25","LOD","","TRG","92.7","6.34","9.74","LOQ","YES","77.9","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","2355-31-9","MeFOSAA","72.6","ng/L","","2.96","LOD","","TRG","93.1","2.13","9.74","LOQ","YES","77.9","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","2991-50-6","EtFOSAA","63.5","ng/L","","1.88","LOD","","TRG","81.5","4.20","9.74","LOQ","YES","77.9","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","2058-94-8","PFUnA","74.6","ng/L","","0.248","LOD","","TRG","95.8","1.79","9.74","LOQ","YES","77.9","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","307-55-

1","PFDoA","75.8","ng/L","","0.927","LOD","","TRG","97.3","3.24","9.74","LOQ","YES","77.9","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","72629-94-8","PFTrDA","69.8","ng/L","","0.918","LOD","","TRG","89.6","3.19","9.74","LOQ","YES","77.9","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","376-06-7","PFTeDA","68.8","ng/L","","0.756","LOD","","TRG","88.3","3.23","9.74","LOQ","YES","77.9","FT-RW01-20171212","0.257","0.001","4.86",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","13C2-PFHxA","13C2-PFHxA","98.4","%R","","-99","NA","","SUR","98.4","","-99","NA","YES","100","FT-RW01-20171212","0.257","0.001","-99",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","13C2-PFDA","13C2-PFDA","83.2","%R","","-99","NA","","SUR","83.2","","-99","NA","YES","100","FT-RW01-20171212","0.257","0.001","-99",""
"B7L0184-MSD2","EPA Method 537","Initial","B7L0184-MSD2","Vista","d5-EtFOSAA","d5-EtFOSAA","93.7","%R","","-99","NA","","SUR","93.7","","-99","NA","YES","100","FT-RW01-20171212","0.257","0.001","-99",""
"112G08005-WE05","112G08005-WE05","FC-MW06S-20171212","12/12/2017 09:30","AQ","1701951-01","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/17/2018 19:34","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FC-MW06S-20171212","12/12/2017 09:30","AQ","1701951-01","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/18/2018 18:51","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FC-MW06S-20171212","12/12/2017 09:30","AQ","1701951-01","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/22/2018 16:45","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FC-MW06S-20171212","12/12/2017 09:30","AQ","1701951-01","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/26/2018 07:23","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FC-MW02SR1-20171212","12/12/2017 09:31","AQ","1701951-02","NM","","2.30","Modified EPA Method 537","METHOD","Dilution","12/26/2017 08:50","02/02/2018 08:25","Vista","COA","WET","NA","5","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FC-MW02SR1-20171212","12/12/2017 09:31","AQ","1701951-02","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/17/2018 19:45","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FC-MW02SR1-20171212","12/12/2017 09:31","AQ","1701951-02","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/18/2018 19:03","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FC-MW02SR1-20171212","12/12/2017 09:31","AQ","1701951-02","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/22/2018 16:56","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FC-MW02SR1-20171212","12/12/2017 09:31","AQ","1701951-02","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/26/2018 07:34","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FC-MW04I-20171212","12/12/2017 09:34","AQ","1701951-

03","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/17/2018 19:57","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FC-MW04I-20171212","12/12/2017 09:34","AQ","1701951-03","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/26/2018 07:46","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FC-MW04I-20171212","12/12/2017 09:34","AQ","1701951-03","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/22/2018 17:07","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FC-MW04I-20171212","12/12/2017 09:34","AQ","1701951-03","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/18/2018 19:14","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","FT-RW01-20171212","12/12/2017 09:50","AQ","1701951-04","NM","","2.30","EPA Method 537","METHOD","Initial","12/26/2017 09:30","12/28/2017 20:59","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0184","B7L0184","NA","S7L0093","1701951","12/14/2017 11:03","01/01/1900 00:00",""
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08","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/22/2018
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09","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/18/2018
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"112G08005-WE05","112G08005-WE05","FC-MW05S-20171212","12/12/2017 11:58","AQ","1701951-
09","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/22/2018
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10","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/18/2018
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13","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/22/2018
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"112G08005-WE05","112G08005-WE05","ET-MW03S-20171212","12/12/2017 14:13","AQ","1701951-17","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/22/2018 19:48","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
"112G08005-WE05","112G08005-WE05","ET-MW03S-20171212","12/12/2017 14:13","AQ","1701951-17","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/26/2018 10:26","Vista","COA","WET","NA","1","NA","NA","01/01/1900 00:00","100","B7L0182","B7L0182","NA","S8A0059","1701951","12/14/2017 11:03","01/01/1900 00:00",""
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18","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/18/2018
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18","NM","","2.30","Modified EPA Method 537","METHOD","Initial","12/26/2017 08:50","01/17/2018
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TETRA TECH

INTERNAL CORRESPONDENCE

TO:	**K. FRANCISCO**	**DATE:**	**MARCH 19, 2018**
FROM:	**TERRI L. SOLOMON**	**COPIES:**	**DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – POLYFLUOROALKYL SUBSTANCES (PFAS) NAVAL WEAPONS INDUSTRIAL RESERVE PLANT (NWIRP), CALVERTON SAMPLE DELIVERY GROUP (SDG) 1701951**

SAMPLES: 16/Groundwater

FC-MW05S-20171212	CV-FLTS-COMBINF-20171213
ET-MW01S-20171212	ET-MW02S-20171212
FC-MW06S-20171212	ET-MW03S-20171212
FC-DUP07-20171212	FC-MW02IR1-20171212
FC-MW02SR1-20171212	FC-MW03SR1-20171212
FC-MW04I-20171212	FC-PZ05I1-20171212
FC-MW04S-20171212	FC-MW05I-20171212
FT-PZ-454S-20171212	SA-MW127I-20171213

2/Drinking Water

FT-DUP08-20171212	FT-RW01-20171212

2/Field Reagent Blank (FRB)

ET-MW01S-FRB-20171212	FT-RW01-FRB-20171212

<u>Overview</u>

The sample set for NWIRP Calverton, SDG 1701951 consisted of sixteen (16) groundwater samples, two (2) drinking water samples and two (2) FRB samples. All samples were analyzed for polyfluoroalkyl substances (PFAS). Two (2) field duplicate sample pairs, FT-MW02SR1-20171212 / FC-DUP07-20171212 and FT-RW01-20171212 / FT-DUP08-20171212 were included in this SDG. Original sample CV-FLTS-COMBINF-20171213 was included in this SDG and the corresponding field duplicate sample CV-DUP09-20171213 was included in SDG 1701951.

The samples were collected by Tetra Tech, Inc. on December 12 and 13, 2017 and analyzed by Vista Analytical Laboratory. All analyses were conducted in accordance with EPA Method 537 Modified analytical and reporting protocols. The data contained in this SDG was validated with regard to the following parameters:

- * Data completeness
- Hold times/Sample Preservation
- * LC/MS/MS System Tuning and Performance
- * Ion Transition Check
- Initial/Continuing Calibrations
- Laboratory Method Blank Results
- * Field Reagent Blank Results
- * Extraction Internal Standard Recoveries
- * Injection Internal Standard Recoveries
- Matrix Spike / Matrix Spike Duplicate Recoveries
- Ongoing Precision Recovery (OPR) Results

- * • Laboratory Fortified Blank (LFB) Results
- * • Compound Identification
- * • Compound Quantitation
- * • Detection Limits

The symbol (*) indicates that all quality control criteria were met for this parameter. Qualified analytical results are presented in Appendix A, results as reported by the laboratory are presented in Appendix B, and documentation supporting these findings is presented in Appendix C.

PFAS

The 28 day hold time from extraction to analyses was exceeded by three (3) days for pefluorododecanoic acid (PFDoA) for all groundwater samples. The detected and nondetected results reported for PFDoA in the affected samples were qualified as estimated (J) and (UJ) respectively.

The 28 day hold time from extraction to analyses was exceeded by ten (10) days for perfluoroundecanoic acid (PFUnA) for samples FC-MW02SR1-20171212 and FC-DUP07-20171212. The detected results reported for PFUnA in the affected samples were qualified as estimated (J).

The 28 day hold time from extraction to analyses was exceeded by three (3) days for perfluorononanoic acid (PFNA) for sample CV-FLTS-COMBINF-20171213. The detected result reported for PFNA in the affected sample was qualified as estimated (J).

The following compound was detected in a preparation blank (B7L0184-BLK1) at the maximum concentration indicated below:

Compound	Concentration	Action Level
Perfluorohexanoic acid (PFHxA)(1)	1.02 ng/L	<LOQ

(1) Maximum concentration affecting the drinking water samples.

An action level of 5X the maximum concentration was established to evaluate for blank contamination. The detected results less than the action level for the aforementioned compound were qualified as (U) and raised to the limit of detection. The PFHxA result detected above was less than one-third of the method reporting limit. It should be noted that FRB samples are not qualified for laboratory blank contamination.

The matrix spike (MS) percent recoveries (%Rs) for PFHxA, pentdecafluorooctanoic acid (PFOA), perfluorodecanioc acid (PFDA), n-methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA) and perfluorotetradecanoic acid (PFTeDA) were above the quality control limits for sample CV-FLTS-COMBINF-20171213. The matrix spike duplicate (MSD) %Rs for perfluorobutanesulfonic acid (PFBS), perfluoroheptanioc acid (PFHpA), n-ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA) and PFTeDA were above the quality control limits. The MS/MSD relative percent differences (RPDs) were within the quality control limits. The detected results for the aforementioned compounds were qualified as estimated (J). The bias could not be determined because one recovery was acceptable and the other was outside the quality control limits.

Field duplicate imprecision (relative percent difference > 30%) was noted for sample pair FT-MW02SR1-20171212 / FC-DUP07-20171212 for perfluorooctane sulfonic acid (PFOS). The detected results reported for PFOS in samples FT-MW02SR1-20171212 and FC-DUP07-20171212 were qualified as estimated (J).

Field duplicate imprecision (relative percent difference > 30%) was noted for sample pair CV-FLTS-COMBINF-20171213 / CV-DUP09-20171213 (SDG 1701951) for PFHpA. The detected result reported for PFHpA in sample CV-FLTS-COMBINF-20171213 was qualified as estimated (J).

Detected results reported below the Limit of Quantitation (LOQ) but above the Method Detection Limit (MDL) were qualified as estimated, (J). Non-detected results were reported to the limit of detection (LOD).

Additional Comments

Samples FC-MW02SR1-20171212 and FC-DUP07-20171212 were analyzed at a dilution for PFUnA.

The buffering agent Trizma was added to all drinking water samples.

The OPR (B7L0182-BS1) percent recoveries for MeFOSAA and PFTeDA were above the quality control limits. All groundwater samples were affected. No validation actions were required as all sample results were nondetects.

The MS/MSD percent recoveries for PFNA and PFUnA were above the quality control limits for sample CV-FLTS-COMBINF-20171213. No validation actions were required as the sample results were greater than twenty (20) times the spike added.

The continuing calibration performed on 01/17/18 @ 21:40 had percent recoveries for PFDoA and PFTeDA which exceeded the 130% laboratory quality control limit. All groundwater samples were affected. No validation actions were warranted as the aforementioned sample results in the affected samples were nondetects.

Executive Summary

Laboratory Performance Issues: Several hold times were exceeded. The compound PFHxA was present the laboratory preparation blank. Several MS/MSD percent recoveries were outside the quality control limits.

Other Factors Affecting Data Quality: Field duplicate imprecision was noted for several compounds. Detected results below the LOQ were estimated.

The data for these analyses were reviewed with reference to the "National Functional Guidelines for Organic Superfund Methods Data Review" (January 2017), the Environmental Protection Agency document EPA/600/R-08/092, Method 537, "Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)", (September 2009) and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (2017). The text of this report has been formulated to address only those areas affecting data quality.

Terri L Solomon

Tetra Tech, Inc.
Terri L. Solomon
Chemist/Data Validator

Joseph A. Samchuck

Tetra Tech, Inc.
Joseph A. Samchuck
Data Validation Manager

Attachments:
Appendix A - Qualified Analytical Results

Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Appendix A

Qualified Analytical Results

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's r < 0.995
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08005-WE05	NSAMPLE	CV-FLTS-COMBINF-20171213			ET-MW01S-20171212			ET-MW01S-FRB-20171212			ET-MW02S-20171212		
SDG: 1701951	LAB_ID	1701951-19			1701951-12			1701951-13			1701951-16		
FRACTION: PFAS	SAMP_DATE	12/13/2017			12/12/2017			12/12/2017			12/12/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.49	U		2.52	U		2.53	U		2.45	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.49	U		2.52	U		2.53	U		2.45	U	
PENTADECAFLUOROOCTANOIC ACID		31.9	J	D	4.22			2.53	U		6.17		
PERFLUOROBUTANESULFONIC ACID		2.49	U		2.52	U		2.53	U		2.45	U	
PERFLUORODECANOIC ACID		16.5	J	D	2.52	U		2.53	U		2.45	U	
PERFLUORODODECANOIC ACID		2.49	UJ	H	2.52	UJ	H	2.53	UJ	H	2.45	UJ	H
PERFLUOROHEPTANOIC ACID		27.9	J	DG	0.31	J	P	2.53	U		0.595	J	P
PERFLUOROHEXANESULFONIC ACID		2.49	U		2.52	U		2.53	U		2.45	U	
PERFLUOROHEXANOIC ACID		10.7	J	D	2.52	U		2.53	U		2.45	U	
PERFLUORONONANOIC ACID		866	J	H	1.66	J	P	2.53	U		2.18	J	P
PERFLUOROOCTANE SULFONIC ACID		3.36	J	P	0.443	J	P	2.53	U		2.59	J	P
PERFLUOROTETRADECANOIC ACID		2.49	U		2.52	U		2.53	U		2.45	U	
PERFLUOROTRIDECANOIC ACID		2.49	U		2.52	U		2.53	U		2.45	U	
PERFLUOROUNDECANOIC ACID		294			1.43	J	P	2.53	U		2.45	U	

PROJ_NO: 08005-WE05	NSAMPLE	ET-MW03S-20171212			FC-DUP07-20171212			FC-MW02IR1-20171212			FC-MW02SR1-20171212		
SDG: 1701951	LAB_ID	1701951-17			1701951-10			1701951-08			1701951-02		
FRACTION: PFAS	SAMP_DATE	12/12/2017			12/12/2017			12/12/2017			12/12/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF				FC-MW02SR1-20171212								
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.52	U		2.55	U		2.46	U		2.49	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.52	U		2.55	U		2.46	U		2.49	U	
PENTADECAFLUOROOCTANOIC ACID		5.51			39.3			11.6			31.1		
PERFLUOROBUTANESULFONIC ACID		2.52	U		1.02	J	P	2.46	U		1.16	J	P
PERFLUORODECANOIC ACID		2.52	U		64.2			2.46	U		66.6		
PERFLUORODODECANOIC ACID		2.52	UJ	H	1.2	J	HP	2.46	UJ	H	1.08	J	HP
PERFLUOROHEPTANOIC ACID		1.66	J	P	12.7			4.52			11.5		
PERFLUOROHEXANESULFONIC ACID		2.52	U		1.3	J	P	2.46	U		1.36	J	P
PERFLUOROHEXANOIC ACID		3.59	J	P	27.9			2.46	U		29.4		
PERFLUORONONANOIC ACID		2.55	J	P	303			35			310		
PERFLUOROOCTANE SULFONIC ACID		0.862	J	P	10.8	J	G	28.9			7.44	J	G
PERFLUOROTETRADECANOIC ACID		2.52	U		2.55	U		2.46	U		2.49	U	
PERFLUOROTRIDECANOIC ACID		2.52	U		2.02	J	P	2.46	U		1.64	J	P
PERFLUOROUNDECANOIC ACID		2.52	U		1510	J	H	6.77			1670	J	H

PROJ_NO: 08005-WE05	NSAMPLE	FC-MW03SR1-20171212			FC-MW04I-20171212			FC-MW04S-20171212			FC-MW05I-20171212		
SDG: 1701951	LAB_ID	1701951-06			1701951-03			1701951-07			1701951-15		
FRACTION: PFAS	SAMP_DATE	12/12/2017			12/12/2017			12/12/2017			12/12/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.55	U		2.55	U		2.48	U		2.47	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.55	U		2.55	U		2.48	U		2.47	U	
PENTADECAFLUOROOCTANOIC ACID		15.9			32.3			4.23			7.62		
PERFLUOROBUTANESULFONIC ACID		1.97	J	P	2.55	U		2.48	U		2.47	U	
PERFLUORODECANOIC ACID		2.99	J	P	3.77	J	P	2.48	U		2.47	U	
PERFLUORODODECANOIC ACID		2.55	UJ	H	2.55	UJ	H	2.48	UJ	H	2.47	UJ	H
PERFLUOROHEPTANOIC ACID		3.95	J	P	36.3			1.11	J	P	3.01	J	P
PERFLUOROHEXANESULFONIC ACID		1.41	J	P	0.806	J	P	2.48	U		1.26	J	P
PERFLUOROHEXANOIC ACID		13.7			22.9			2.48	U		2.75	J	P
PERFLUORONONANOIC ACID		20.3			226			5.53			11.4		
PERFLUOROOCTANE SULFONIC ACID		6.6			1.44	J	P	2.12	J	P	2.39	J	P
PERFLUOROTETRADECANOIC ACID		2.55	U		2.55	U		2.48	U		2.47	U	
PERFLUOROTRIDECANOIC ACID		0.382	J	P	2.55	U		2.48	U		2.47	U	
PERFLUOROUNDECANOIC ACID		47.5			31.5			2.48	U		8.11		

PROJ_NO: 08005-WE05	NSAMPLE	FC-MW05S-20171212			FC-MW06S-20171212			FC-PZ05I1-20171212			FT-DUP08-20171212		
SDG: 1701951	LAB_ID	1701951-09			1701951-01			1701951-18			1701951-11		
FRACTION: PFAS	SAMP_DATE	12/12/2017			12/12/2017			12/12/2017			12/12/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF										FT-RW01-20171212		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.59	U		2.44	U		2.47	U		4.88	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.59	U		2.44	U		2.47	U		4.88	U	
PENTADECAFLUOROOCTANOIC ACID		2.59	U		18.3			17			4.88	U	
PERFLUOROBUTANESULFONIC ACID		2.59	U		1.37	J	P	1.05	J	P	4.88	U	
PERFLUORODECANOIC ACID		2.59	U		0.728	J	P	5.74			4.88	U	
PERFLUORODODECANOIC ACID		2.59	UJ	H	2.44	UJ	H	2.47	UJ	H	4.88	U	
PERFLUOROHEPTANOIC ACID		2.59	U		4.73			16.5			4.88	U	
PERFLUOROHEXANESULFONIC ACID		2.59	U		0.684	J	P	0.584	J	P	4.88	U	
PERFLUOROHEXANOIC ACID		2.59	U		2.81	J	P	11.8			4.88	U	A
PERFLUORONONANOIC ACID		0.907	J	P	7.81			256			4.88	U	
PERFLUOROOCTANE SULFONIC ACID		2.59	U		13.5			8.53			4.88	U	
PERFLUOROTETRADECANOIC ACID		2.59	U		2.44	U		2.47	U		4.88	U	
PERFLUOROTRIDECANOIC ACID		2.59	U		2.44	U		2.47	U		4.88	U	
PERFLUOROUNDECANOIC ACID		7.17			33.3			134			4.88	U	

PROJ_NO: 08005-WE05	NSAMPLE	FT-PZ-454S-20171212			FT-RW01-20171212			FT-RW01-FRB-20171212			SA-MW127I-20171213		
SDG: 1701951	LAB_ID	1701951-14			1701951-04			1701951-05			1701951-20		
FRACTION: PFAS	SAMP_DATE	12/12/2017			12/12/2017			12/12/2017			12/13/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.55	U		4.81	U		4.94	U		2.49	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.55	U		4.81	U		4.94	U		2.49	U	
PENTADECAFLUOROOCTANOIC ACID		4.47			4.81	U		4.94	U		46.8		
PERFLUOROBUTANESULFONIC ACID		2.55	U		4.81	U		4.94	U		2.49	U	
PERFLUORODECANOIC ACID		2.55	U		4.81	U		4.94	U		22.3		
PERFLUORODODECANOIC ACID		2.55	UJ	H	4.81	U		4.94	U		2.49	UJ	H
PERFLUOROHEPTANOIC ACID		1.41	J	P	4.81	U		4.94	U		31.2		
PERFLUOROHEXANESULFONIC ACID		2.46	J	P	4.81	U		4.94	U		2.49	U	
PERFLUOROHEXANOIC ACID		2.55	U		4.81	U	A	0.838	J	P	16.3		
PERFLUORONONANOIC ACID		5.67			4.81	U		4.94	U		2.49	U	
PERFLUOROOCTANE SULFONIC ACID		5.85			4.81	U		4.94	U		3.63	J	P
PERFLUOROTETRADECANOIC ACID		2.55	U		4.81	U		4.94	U		2.49	U	
PERFLUOROTRIDECANOIC ACID		2.55	U		4.81	U		4.94	U		2.49	U	
PERFLUOROUNDECANOIC ACID		11.6			4.81	U		4.94	U		636		

Appendix B

Results as Reported by the Laboratory

Sample ID: FC-MW06S-20171212 | **Modified EPA Method 537**

Client Data				**Laboratory Data**			
Name:	Tetra Tech	Matrix:	Aqueous	Lab Sample:	1701951-01	Column:	BEH C18
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 09:30	Date Received:	14-Dec-17 11:03		
Location:	FC-MW06S						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.37	0.875	2.44	3.91	J	B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
PFHxA	2.81	1.07	2.44	3.91	J	B7L0182	26-Dec-17	0.256 L	18-Jan-18 18:51	1
PFHpA	4.73	0.289	2.44	3.91		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
PFHxS	0.684	0.463	2.44	3.91	J	B7L0182	26-Dec-17	0.256 L	22-Jan-18 16:45	1
PFOA	18.3	0.318	2.44	3.91		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
PFOS	13.5	0.394	2.44	3.91		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
PFNA	7.81	0.396	2.44	3.91		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
PFDA	0.728	0.728	2.44	3.91	J	B7L0182	26-Dec-17	0.256 L	22-Jan-18 16:45	1
MeFOSAA	ND	0.806	2.44	3.91		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
PFUnA	33.3	0.513	2.44	3.91		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
EtFOSAA	ND	0.669	2.44	3.91		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
PFDoA	ND	0.387	2.44	3.91		B7L0182	26-Dec-17	0.256 L	26-Jan-18 07:23	1
PFTrDA	ND	0.241	2.44	3.91		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
PFTeDA	ND	0.369	2.44	3.91		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	89.7	50 - 150		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
13C2-PFHxA	IS	90.3	50 - 150		B7L0182	26-Dec-17	0.256 L	18-Jan-18 18:51	1
13C4-PFHpA	IS	88.1	50 - 150		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
18O2-PFHxS	IS	104	50 - 150		B7L0182	26-Dec-17	0.256 L	22-Jan-18 16:45	1
13C2-PFOA	IS	90.8	50 - 150		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
13C8-PFOS	IS	100	50 - 150		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
13C5-PFNA	IS	76.0	50 - 150		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
13C2-PFDA	IS	89.3	50 - 150		B7L0182	26-Dec-17	0.256 L	22-Jan-18 16:45	1
d3-MeFOSAA	IS	75.8	50 - 150		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
13C2-PFUnA	IS	85.1	50 - 150		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
d5-EtFOSAA	IS	71.3	50 - 150		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1
13C2-PFDoA	IS	68.4	50 - 150		B7L0182	26-Dec-17	0.256 L	26-Jan-18 07:23	1
13C2-PFTeDA	IS	63.6	50 - 150		B7L0182	26-Dec-17	0.256 L	17-Jan-18 19:34	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Vista Analytical Laboratory

Sample ID: FC-MW02SR1-20171212 | **Modified EPA Method 537**

Client Data

Name:	Tetra Tech	Matrix:	Aqueous
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 09:31
Location:	FC-MW02SR1		

Laboratory Data

Lab Sample:	1701951-02	Column:	BEH C18
Date Received:	14-Dec-17 11:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.16	0.893	2.49	3.99	J	B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
PFHxA	29.4	1.09	2.49	3.99		B7L0182	26-Dec-17	0.251 L	18-Jan-18 19:03	1
PFHpA	11.5	0.295	2.49	3.99		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
PFHxS	1.36	0.472	2.49	3.99	J	B7L0182	26-Dec-17	0.251 L	22-Jan-18 16:56	1
PFOA	31.1	0.325	2.49	3.99		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
PFOS	7.44	0.402	2.49	3.99		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
PFNA	310	0.404	2.49	3.99		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
PFDA	66.6	0.743	2.49	3.99		B7L0182	26-Dec-17	0.251 L	22-Jan-18 16:56	1
MeFOSAA	ND	0.823	2.49	3.99		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
PFUnA	1670	2.62	12.5	19.9	D	B7L0182	26-Dec-17	0.251 L	02-Feb-18 08:25	5
EtFOSAA	ND	0.683	2.49	3.99		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
PFDoA	1.08	0.395	2.49	3.99	J	B7L0182	26-Dec-17	0.251 L	26-Jan-18 07:34	1
PFTrDA	1.64	0.246	2.49	3.99	J	B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
PFTeDA	ND	0.377	2.49	3.99		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	90.1	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
13C2-PFHxA	IS	87.5	50 - 150		B7L0182	26-Dec-17	0.251 L	18-Jan-18 19:03	1
13C4-PFHpA	IS	80.5	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
18O2-PFHxS	IS	93.8	50 - 150		B7L0182	26-Dec-17	0.251 L	22-Jan-18 16:56	1
13C2-PFOA	IS	99.2	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
13C8-PFOS	IS	94.1	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
13C5-PFNA	IS	101	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
13C2-PFDA	IS	86.8	50 - 150		B7L0182	26-Dec-17	0.251 L	22-Jan-18 16:56	1
d3-MeFOSAA	IS	65.6	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
13C2-PFUnA	IS	78.2	50 - 150	D	B7L0182	26-Dec-17	0.251 L	02-Feb-18 08:25	5
d5-EtFOSAA	IS	55.4	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1
13C2-PFDoA	IS	90.8	50 - 150		B7L0182	26-Dec-17	0.251 L	26-Jan-18 07:34	1
13C2-PFTeDA	IS	80.0	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 19:45	1

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

Vista Analytical Laboratory

Sample ID: FC-MW04I-20171212 | **Modified EPA Method 537**

Client Data				**Laboratory Data**			
Name:	Tetra Tech	Matrix:	Aqueous	Lab Sample:	1701951-03	Column:	BEH C18
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 09:34	Date Received:	14-Dec-17 11:03		
Location:	FC-MW04I						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.912	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
PFHxA	22.9	1.11	2.55	4.08		B7L0182	26-Dec-17	0.245 L	18-Jan-18 19:14	1
PFHpA	36.3	0.301	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
PFHxS	0.806	0.482	2.55	4.08	J	B7L0182	26-Dec-17	0.245 L	22-Jan-18 17:07	1
PFOA	32.3	0.332	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
PFOS	1.44	0.411	2.55	4.08	J	B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
PFNA	226	0.413	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
PFDA	3.77	0.759	2.55	4.08	J	B7L0182	26-Dec-17	0.245 L	22-Jan-18 17:07	1
MeFOSAA	ND	0.841	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
PFUnA	31.5	0.535	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
EtFOSAA	ND	0.698	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
PFDoA	ND	0.403	2.55	4.08		B7L0182	26-Dec-17	0.245 L	26-Jan-18 07:46	1
PFTrDA	ND	0.252	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
PFTeDA	ND	0.385	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	92.7	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
13C2-PFHxA	IS	114	50 - 150		B7L0182	26-Dec-17	0.245 L	18-Jan-18 19:14	1
13C4-PFHpA	IS	86.3	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
18O2-PFHxS	IS	105	50 - 150		B7L0182	26-Dec-17	0.245 L	22-Jan-18 17:07	1
13C2-PFOA	IS	92.6	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
13C8-PFOS	IS	109	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
13C5-PFNA	IS	92.5	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
13C2-PFDA	IS	97.7	50 - 150		B7L0182	26-Dec-17	0.245 L	22-Jan-18 17:07	1
d3-MeFOSAA	IS	72.9	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
13C2-PFUnA	IS	72.5	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
d5-EtFOSAA	IS	69.3	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1
13C2-PFDoA	IS	105	50 - 150		B7L0182	26-Dec-17	0.245 L	26-Jan-18 07:46	1
13C2-PFTeDA	IS	80.3	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 19:57	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Vista Analytical Laboratory

Sample ID: FC-MW03SR1-20171212 | **Modified EPA Method 537**

Client Data

Name:	Tetra Tech	Matrix:	Aqueous
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 10:47
Location:	FC-MW035SR1		

Laboratory Data

Lab Sample:	1701951-06	Column:	BEH C18
Date Received:	14-Dec-17 11:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.97	0.915	2.55	4.09	J	B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
PFHxA	13.7	1.11	2.55	4.09		B7L0182	26-Dec-17	0.245 L	18-Jan-18 19:25	1
PFHpA	3.95	0.302	2.55	4.09	J	B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
PFHxS	1.41	0.484	2.55	4.09	J	B7L0182	26-Dec-17	0.245 L	22-Jan-18 17:19	1
PFOA	15.9	0.333	2.55	4.09		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
PFOS	6.60	0.412	2.55	4.09		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
PFNA	20.3	0.414	2.55	4.09		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
PFDA	2.99	0.761	2.55	4.09	J	B7L0182	26-Dec-17	0.245 L	22-Jan-18 17:19	1
MeFOSAA	ND	0.843	2.55	4.09		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
PFUnA	47.5	0.537	2.55	4.09		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
EtFOSAA	ND	0.700	2.55	4.09		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
PFDoA	ND	0.405	2.55	4.09		B7L0182	26-Dec-17	0.245 L	26-Jan-18 07:57	1
PFTrDA	0.382	0.252	2.55	4.09	J	B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
PFTeDA	ND	0.386	2.55	4.09		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	89.5	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
13C2-PFHxA	IS	97.5	50 - 150		B7L0182	26-Dec-17	0.245 L	18-Jan-18 19:25	1
13C4-PFHpA	IS	87.7	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
18O2-PFHxS	IS	97.7	50 - 150		B7L0182	26-Dec-17	0.245 L	22-Jan-18 17:19	1
13C2-PFOA	IS	83.3	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
13C8-PFOS	IS	71.2	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
13C5-PFNA	IS	103	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
13C2-PFDA	IS	134	50 - 150		B7L0182	26-Dec-17	0.245 L	22-Jan-18 17:19	1
d3-MeFOSAA	IS	70.0	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
13C2-PFUnA	IS	99.1	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
d5-EtFOSAA	IS	72.2	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1
13C2-PFDoA	IS	69.3	50 - 150		B7L0182	26-Dec-17	0.245 L	26-Jan-18 07:57	1
13C2-PFTeDA	IS	87.4	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:08	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Vista Analytical Laboratory

Sample ID: FC-MW04S-20171212 | **Modified EPA Method 537**

Client Data				**Laboratory Data**			
Name:	Tetra Tech	Matrix:	Aqueous	Lab Sample:	1701951-07	Column:	BEH C18
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 10:58	Date Received:	14-Dec-17 11:03		
Location:	FC-MW04S						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.889	2.48	3.97		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
PFHxA	ND	1.08	2.48	3.97		B7L0182	26-Dec-17	0.252 L	18-Jan-18 19:37	1
PFHpA	1.11	0.294	2.48	3.97	J	B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
PFHxS	ND	0.470	2.48	3.97		B7L0182	26-Dec-17	0.252 L	22-Jan-18 17:30	1
PFOA	4.23	0.323	2.48	3.97		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
PFOS	2.12	0.401	2.48	3.97	J	B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
PFNA	5.53	0.402	2.48	3.97		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
PFDA	ND	0.740	2.48	3.97		B7L0182	26-Dec-17	0.252 L	22-Jan-18 17:30	1
MeFOSAA	ND	0.819	2.48	3.97		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
PFUnA	ND	0.521	2.48	3.97		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
EtFOSAA	ND	0.680	2.48	3.97		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
PFDoA	ND	0.393	2.48	3.97		B7L0182	26-Dec-17	0.252 L	26-Jan-18 08:09	1
PFTrDA	ND	0.245	2.48	3.97		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
PFTeDA	ND	0.375	2.48	3.97		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	87.7	50 - 150		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
13C2-PFHxA	IS	102	50 - 150		B7L0182	26-Dec-17	0.252 L	18-Jan-18 19:37	1
13C4-PFHpA	IS	81.2	50 - 150		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
18O2-PFHxS	IS	86.2	50 - 150		B7L0182	26-Dec-17	0.252 L	22-Jan-18 17:30	1
13C2-PFOA	IS	87.6	50 - 150		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
13C8-PFOS	IS	70.6	50 - 150		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
13C5-PFNA	IS	104	50 - 150		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
13C2-PFDA	IS	81.0	50 - 150		B7L0182	26-Dec-17	0.252 L	22-Jan-18 17:30	1
d3-MeFOSAA	IS	54.4	50 - 150		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
13C2-PFUnA	IS	77.2	50 - 150		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
d5-EtFOSAA	IS	60.3	50 - 150		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1
13C2-PFDoA	IS	81.6	50 - 150		B7L0182	26-Dec-17	0.252 L	26-Jan-18 08:09	1
13C2-PFTeDA	IS	52.2	50 - 150		B7L0182	26-Dec-17	0.252 L	17-Jan-18 20:20	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Vista Analytical Laboratory

Sample ID: FC-MW02IR1-20171212 | **Modified EPA Method 537**

Client Data			
Name:	Tetra Tech	Matrix:	Aqueous
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 11:10
Location:	FC-MW02IR1		

Laboratory Data			
Lab Sample:	1701951-08	Column:	BEH C18
Date Received:	14-Dec-17 11:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.881	2.46	3.94		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
PFHxA	ND	1.07	2.46	3.94		B7L0182	26-Dec-17	0.254 L	18-Jan-18 19:48	1
PFHpA	4.52	0.291	2.46	3.94		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
PFHxS	ND	0.466	2.46	3.94		B7L0182	26-Dec-17	0.254 L	22-Jan-18 17:42	1
PFOA	11.6	0.320	2.46	3.94		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
PFOS	28.9	0.397	2.46	3.94		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
PFNA	35.0	0.399	2.46	3.94		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
PFDA	ND	0.733	2.46	3.94		B7L0182	26-Dec-17	0.254 L	22-Jan-18 17:42	1
MeFOSAA	ND	0.812	2.46	3.94		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
PFUnA	6.77	0.517	2.46	3.94		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
EtFOSAA	ND	0.674	2.46	3.94		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
PFDoA	ND	0.390	2.46	3.94		B7L0182	26-Dec-17	0.254 L	26-Jan-18 08:20	1
PFTrDA	ND	0.243	2.46	3.94		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
PFTeDA	ND	0.372	2.46	3.94		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	99.1	50 - 150		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
13C2-PFHxA	IS	101	50 - 150		B7L0182	26-Dec-17	0.254 L	18-Jan-18 19:48	1
13C4-PFHpA	IS	82.3	50 - 150		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
18O2-PFHxS	IS	96.6	50 - 150		B7L0182	26-Dec-17	0.254 L	22-Jan-18 17:42	1
13C2-PFOA	IS	97.3	50 - 150		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
13C8-PFOS	IS	90.6	50 - 150		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
13C5-PFNA	IS	87.9	50 - 150		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
13C2-PFDA	IS	106	50 - 150		B7L0182	26-Dec-17	0.254 L	22-Jan-18 17:42	1
d3-MeFOSAA	IS	62.4	50 - 150		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
13C2-PFUnA	IS	57.5	50 - 150		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
d5-EtFOSAA	IS	67.5	50 - 150		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1
13C2-PFDoA	IS	86.9	50 - 150		B7L0182	26-Dec-17	0.254 L	26-Jan-18 08:20	1
13C2-PFTeDA	IS	65.9	50 - 150		B7L0182	26-Dec-17	0.254 L	17-Jan-18 20:31	1

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

Vista Analytical Laboratory

Sample ID: FC-MW05S-20171212 | **Modified EPA Method 537**

Client Data

Name:	Tetra Tech	Matrix:	Aqueous
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 11:58
Location:	FC-MWODS		

Laboratory Data

Lab Sample:	1701951-09	Column:	BEH C18
Date Received:	14-Dec-17 11:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.928	2.59	4.15		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
PFHxA	ND	1.13	2.59	4.15		B7L0182	26-Dec-17	0.241 L	18-Jan-18 20:00	1
PFHpA	ND	0.306	2.59	4.15		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
PFHxS	ND	0.491	2.59	4.15		B7L0182	26-Dec-17	0.241 L	22-Jan-18 17:53	1
PFOA	ND	0.338	2.59	4.15		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
PFOS	ND	0.418	2.59	4.15		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
PFNA	0.907	0.420	2.59	4.15	J	B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
PFDA	ND	0.773	2.59	4.15		B7L0182	26-Dec-17	0.241 L	22-Jan-18 17:53	1
MeFOSAA	ND	0.855	2.59	4.15		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
PFUnA	7.17	0.544	2.59	4.15		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
EtFOSAA	ND	0.710	2.59	4.15		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
PFDoA	ND	0.411	2.59	4.15		B7L0182	26-Dec-17	0.241 L	26-Jan-18 08:31	1
PFTrDA	ND	0.256	2.59	4.15		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
PFTeDA	ND	0.391	2.59	4.15		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	93.1	50 - 150		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
13C2-PFHxA	IS	92.4	50 - 150		B7L0182	26-Dec-17	0.241 L	18-Jan-18 20:00	1
13C4-PFHpA	IS	96.4	50 - 150		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
18O2-PFHxS	IS	111	50 - 150		B7L0182	26-Dec-17	0.241 L	22-Jan-18 17:53	1
13C2-PFOA	IS	103	50 - 150		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
13C8-PFOS	IS	109	50 - 150		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
13C5-PFNA	IS	95.4	50 - 150		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
13C2-PFDA	IS	74.8	50 - 150		B7L0182	26-Dec-17	0.241 L	22-Jan-18 17:53	1
d3-MeFOSAA	IS	75.5	50 - 150		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
13C2-PFUnA	IS	85.5	50 - 150		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
d5-EtFOSAA	IS	69.0	50 - 150		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1
13C2-PFDoA	IS	114	50 - 150		B7L0182	26-Dec-17	0.241 L	26-Jan-18 08:31	1
13C2-PFTeDA	IS	52.2	50 - 150		B7L0182	26-Dec-17	0.241 L	17-Jan-18 20:42	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: FC-DUP07-20171212 **Modified EPA Method 537**

Client Data				Laboratory Data			
Name:	Tetra Tech	Matrix:	Aqueous	Lab Sample:	1701951-10	Column:	BEH C18
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 12:00	Date Received:	14-Dec-17 11:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.02	0.912	2.55	4.08	J	B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
PFHxA	27.9	1.11	2.55	4.08		B7L0182	26-Dec-17	0.245 L	18-Jan-18 20:11	1
PFHpA	12.7	0.301	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
PFHxS	1.30	0.482	2.55	4.08	J	B7L0182	26-Dec-17	0.245 L	22-Jan-18 18:05	1
PFOA	39.3	0.332	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
PFOS	10.8	0.411	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
PFNA	303	0.413	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
PFDA	64.2	0.759	2.55	4.08		B7L0182	26-Dec-17	0.245 L	22-Jan-18 18:05	1
MeFOSAA	ND	0.841	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
PFUnA	1510	2.67	12.8	20.4	D	B7L0182	26-Dec-17	0.245 L	02-Feb-18 08:36	5
EtFOSAA	ND	0.698	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
PFDoA	1.20	0.403	2.55	4.08	J	B7L0182	26-Dec-17	0.245 L	26-Jan-18 08:43	1
PFTrDA	2.02	0.252	2.55	4.08	J	B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
PFTeDA	ND	0.385	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	99.5	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
13C2-PFHxA	IS	96.0	50 - 150		B7L0182	26-Dec-17	0.245 L	18-Jan-18 20:11	1
13C4-PFHpA	IS	94.9	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
18O2-PFHxS	IS	99.5	50 - 150		B7L0182	26-Dec-17	0.245 L	22-Jan-18 18:05	1
13C2-PFOA	IS	76.7	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
13C8-PFOS	IS	74.4	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
13C5-PFNA	IS	87.0	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
13C2-PFDA	IS	83.2	50 - 150		B7L0182	26-Dec-17	0.245 L	22-Jan-18 18:05	1
d3-MeFOSAA	IS	67.0	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
13C2-PFUnA	IS	124	50 - 150	D	B7L0182	26-Dec-17	0.245 L	02-Feb-18 08:36	5
d5-EtFOSAA	IS	58.6	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1
13C2-PFDoA	IS	99.5	50 - 150		B7L0182	26-Dec-17	0.245 L	26-Jan-18 08:43	1
13C2-PFTeDA	IS	96.8	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 20:54	1

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

Vista Analytical Laboratory

Sample ID: ET-MW01S-20171212 | **Modified EPA Method 537**

Client Data				**Laboratory Data**			
Name:	Tetra Tech	Matrix:	Aqueous	Lab Sample:	1701951-12	Column:	BEH C18
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 12:17	Date Received:	14-Dec-17 11:03		
Location:	ET-MW01S						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.903	2.52	4.04		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
PFHxA	ND	1.10	2.52	4.04		B7L0182	26-Dec-17	0.248 L	18-Jan-18 20:23	1
PFHpA	0.310	0.298	2.52	4.04	J	B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
PFHxS	ND	0.478	2.52	4.04		B7L0182	26-Dec-17	0.248 L	22-Jan-18 18:16	1
PFOA	4.22	0.328	2.52	4.04		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
PFOS	0.443	0.407	2.52	4.04	J	B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
PFNA	1.66	0.409	2.52	4.04	J	B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
PFDA	ND	0.752	2.52	4.04		B7L0182	26-Dec-17	0.248 L	22-Jan-18 18:16	1
MeFOSAA	ND	0.832	2.52	4.04		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
PFUnA	1.43	0.530	2.52	4.04	J	B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
EtFOSAA	ND	0.691	2.52	4.04		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
PFDoA	ND	0.400	2.52	4.04		B7L0182	26-Dec-17	0.248 L	26-Jan-18 08:54	1
PFTrDA	ND	0.249	2.52	4.04		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
PFTeDA	ND	0.381	2.52	4.04		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	95.3	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
13C2-PFHxA	IS	102	50 - 150		B7L0182	26-Dec-17	0.248 L	18-Jan-18 20:23	1
13C4-PFHpA	IS	80.8	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
18O2-PFHxS	IS	79.7	50 - 150		B7L0182	26-Dec-17	0.248 L	22-Jan-18 18:16	1
13C2-PFOA	IS	77.9	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
13C8-PFOS	IS	109	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
13C5-PFNA	IS	93.8	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
13C2-PFDA	IS	91.9	50 - 150		B7L0182	26-Dec-17	0.248 L	22-Jan-18 18:16	1
d3-MeFOSAA	IS	62.4	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
13C2-PFUnA	IS	86.8	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
d5-EtFOSAA	IS	68.9	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1
13C2-PFDoA	IS	107	50 - 150		B7L0182	26-Dec-17	0.248 L	26-Jan-18 08:54	1
13C2-PFTeDA	IS	71.1	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 21:05	1

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

Sample ID: ET-MW01S-FRB-20171212 | **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Matrix: Aqueous
Project: NWIRP Calverton Site 2 Southern Area112G08005-W
Date Collected: 12-Dec-17 12:17
Location: ET-MW01S-FRB

Laboratory Data

Lab Sample: 1701951-13
Column: BEH C18
Date Received: 14-Dec-17 11:03

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.907	2.53	4.05		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
PFHxA	ND	1.10	2.53	4.05		B7L0182	26-Dec-17	0.247 L	18-Jan-18 20:34	1
PFHpA	ND	0.299	2.53	4.05		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
PFHxS	ND	0.480	2.53	4.05		B7L0182	26-Dec-17	0.247 L	22-Jan-18 18:28	1
PFOA	ND	0.330	2.53	4.05		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
PFOS	ND	0.409	2.53	4.05		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
PFNA	ND	0.410	2.53	4.05		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
PFDA	ND	0.755	2.53	4.05		B7L0182	26-Dec-17	0.247 L	22-Jan-18 18:28	1
MeFOSAA	ND	0.836	2.53	4.05		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
PFUnA	ND	0.532	2.53	4.05		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
EtFOSAA	ND	0.694	2.53	4.05		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
PFDoA	ND	0.401	2.53	4.05		B7L0182	26-Dec-17	0.247 L	26-Jan-18 09:06	1
PFTrDA	ND	0.250	2.53	4.05		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
PFTeDA	ND	0.383	2.53	4.05		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	96.7	50 - 150		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
13C2-PFHxA	IS	90.2	50 - 150		B7L0182	26-Dec-17	0.247 L	18-Jan-18 20:34	1
13C4-PFHpA	IS	83.5	50 - 150		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
18O2-PFHxS	IS	113	50 - 150		B7L0182	26-Dec-17	0.247 L	22-Jan-18 18:28	1
13C2-PFOA	IS	83.2	50 - 150		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
13C8-PFOS	IS	87.2	50 - 150		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
13C5-PFNA	IS	92.8	50 - 150		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
13C2-PFDA	IS	80.8	50 - 150		B7L0182	26-Dec-17	0.247 L	22-Jan-18 18:28	1
d3-MeFOSAA	IS	69.9	50 - 150		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
13C2-PFUnA	IS	81.6	50 - 150		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
d5-EtFOSAA	IS	56.0	50 - 150		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1
13C2-PFDoA	IS	106	50 - 150		B7L0182	26-Dec-17	0.247 L	26-Jan-18 09:06	1
13C2-PFTeDA	IS	57.1	50 - 150		B7L0182	26-Dec-17	0.247 L	17-Jan-18 21:17	1

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

Sample ID: FT-PZ-454S-20171212 | **Modified EPA Method 537**

Client Data

Name:	Tetra Tech	Matrix:	Aqueous
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 12:23
Location:	FT-PZ-454S		

Laboratory Data

Lab Sample:	1701951-14	Column:	BEH C18
Date Received:	14-Dec-17 11:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.914	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
PFHxA	ND	1.11	2.55	4.08		B7L0182	26-Dec-17	0.245 L	18-Jan-18 21:20	1
PFHpA	1.41	0.302	2.55	4.08	J	B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
PFHxS	2.46	0.483	2.55	4.08	J	B7L0182	26-Dec-17	0.245 L	22-Jan-18 19:14	1
PFOA	4.47	0.332	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
PFOS	5.85	0.412	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
PFNA	5.67	0.413	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
PFDA	ND	0.761	2.55	4.08		B7L0182	26-Dec-17	0.245 L	22-Jan-18 19:14	1
MeFOSAA	ND	0.842	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
PFUnA	11.6	0.536	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
EtFOSAA	ND	0.699	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
PFDoA	ND	0.404	2.55	4.08		B7L0182	26-Dec-17	0.245 L	26-Jan-18 09:52	1
PFTrDA	ND	0.252	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
PFTeDA	ND	0.385	2.55	4.08		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	100	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
13C2-PFHxA	IS	88.9	50 - 150		B7L0182	26-Dec-17	0.245 L	18-Jan-18 21:20	1
13C4-PFHpA	IS	98.1	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
18O2-PFHxS	IS	99.7	50 - 150		B7L0182	26-Dec-17	0.245 L	22-Jan-18 19:14	1
13C2-PFOA	IS	100	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
13C8-PFOS	IS	92.9	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
13C5-PFNA	IS	76.8	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
13C2-PFDA	IS	106	50 - 150		B7L0182	26-Dec-17	0.245 L	22-Jan-18 19:14	1
d3-MeFOSAA	IS	76.7	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
13C2-PFUnA	IS	72.3	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
d5-EtFOSAA	IS	73.9	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1
13C2-PFDoA	IS	82.6	50 - 150		B7L0182	26-Dec-17	0.245 L	26-Jan-18 09:52	1
13C2-PFTeDA	IS	67.8	50 - 150		B7L0182	26-Dec-17	0.245 L	17-Jan-18 22:03	1

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

Sample ID: FC-MW05I-20171212 — **Modified EPA Method 537**

Client Data

Name:	Tetra Tech	Matrix:	Aqueous
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 13:10
Location:	FC-MW05I		

Laboratory Data

Lab Sample:	1701951-15	Column:	BEH C18
Date Received:	14-Dec-17 11:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.883	2.47	3.95		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
PFHxA	2.75	1.08	2.47	3.95	J	B7L0182	26-Dec-17	0.253 L	18-Jan-18 21:32	1
PFHpA	3.01	0.292	2.47	3.95	J	B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
PFHxS	1.26	0.467	2.47	3.95	J	B7L0182	26-Dec-17	0.253 L	22-Jan-18 19:25	1
PFOA	7.62	0.321	2.47	3.95		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
PFOS	2.39	0.398	2.47	3.95	J	B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
PFNA	11.4	0.400	2.47	3.95		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
PFDA	ND	0.735	2.47	3.95		B7L0182	26-Dec-17	0.253 L	22-Jan-18 19:25	1
MeFOSAA	ND	0.814	2.47	3.95		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
PFUnA	8.11	0.518	2.47	3.95		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
EtFOSAA	ND	0.676	2.47	3.95		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
PFDoA	ND	0.391	2.47	3.95		B7L0182	26-Dec-17	0.253 L	26-Jan-18 10:03	1
PFTrDA	ND	0.244	2.47	3.95		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
PFTeDA	ND	0.372	2.47	3.95		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	111	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
13C2-PFHxA	IS	105	50 - 150		B7L0182	26-Dec-17	0.253 L	18-Jan-18 21:32	1
13C4-PFHpA	IS	103	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
18O2-PFHxS	IS	93.4	50 - 150		B7L0182	26-Dec-17	0.253 L	22-Jan-18 19:25	1
13C2-PFOA	IS	94.7	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
13C8-PFOS	IS	79.9	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
13C5-PFNA	IS	96.7	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
13C2-PFDA	IS	96.3	50 - 150		B7L0182	26-Dec-17	0.253 L	22-Jan-18 19:25	1
d3-MeFOSAA	IS	63.5	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
13C2-PFUnA	IS	85.1	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
d5-EtFOSAA	IS	78.6	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1
13C2-PFDoA	IS	84.7	50 - 150		B7L0182	26-Dec-17	0.253 L	26-Jan-18 10:03	1
13C2-PFTeDA	IS	71.5	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:14	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Vista Analytical Laboratory

Sample ID: ET-MW02S-20171212 **Modified EPA Method 537**

Client Data				Laboratory Data			
Name:	Tetra Tech	Matrix:	Aqueous	Lab Sample:	1701951-16	Column:	BEH C18
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 13:40	Date Received:	14-Dec-17 11:03		
Location:	ET-MW02S						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.876	2.45	3.91		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
PFHxA	ND	1.07	2.45	3.91		B7L0182	26-Dec-17	0.255 L	18-Jan-18 21:43	1
PFHpA	0.595	0.289	2.45	3.91	J	B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
PFHxS	ND	0.463	2.45	3.91		B7L0182	26-Dec-17	0.255 L	22-Jan-18 19:37	1
PFOA	6.17	0.319	2.45	3.91		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
PFOS	2.59	0.395	2.45	3.91	J	B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
PFNA	2.18	0.396	2.45	3.91	J	B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
PFDA	ND	0.729	2.45	3.91		B7L0182	26-Dec-17	0.255 L	22-Jan-18 19:37	1
MeFOSAA	ND	0.807	2.45	3.91		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
PFUnA	ND	0.514	2.45	3.91		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
EtFOSAA	ND	0.670	2.45	3.91		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
PFDoA	ND	0.388	2.45	3.91		B7L0182	26-Dec-17	0.255 L	26-Jan-18 10:15	1
PFTrDA	ND	0.242	2.45	3.91		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
PFTeDA	ND	0.369	2.45	3.91		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	81.8	50 - 150		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
13C2-PFHxA	IS	99.5	50 - 150		B7L0182	26-Dec-17	0.255 L	18-Jan-18 21:43	1
13C4-PFHpA	IS	86.2	50 - 150		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
18O2-PFHxS	IS	106	50 - 150		B7L0182	26-Dec-17	0.255 L	22-Jan-18 19:37	1
13C2-PFOA	IS	101	50 - 150		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
13C8-PFOS	IS	80.9	50 - 150		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
13C5-PFNA	IS	93.8	50 - 150		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
13C2-PFDA	IS	105	50 - 150		B7L0182	26-Dec-17	0.255 L	22-Jan-18 19:37	1
d3-MeFOSAA	IS	65.4	50 - 150		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
13C2-PFUnA	IS	93.1	50 - 150		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
d5-EtFOSAA	IS	59.7	50 - 150		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1
13C2-PFDoA	IS	76.8	50 - 150		B7L0182	26-Dec-17	0.255 L	26-Jan-18 10:15	1
13C2-PFTeDA	IS	58.2	50 - 150		B7L0182	26-Dec-17	0.255 L	17-Jan-18 22:26	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: ET-MW03S-20171212 | **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: NWIRP Calverton Site 2 Southern Area112G08005-W
Location: ET-MW03S
Matrix: Aqueous
Date Collected: 12-Dec-17 14:13

Laboratory Data

Lab Sample: 1701951-17
Date Received: 14-Dec-17 11:03
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.902	2.52	4.03		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
PFHxA	3.59	1.10	2.52	4.03	J	B7L0182	26-Dec-17	0.248 L	18-Jan-18 21:55	1
PFHpA	1.66	0.298	2.52	4.03	J	B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
PFHxS	ND	0.477	2.52	4.03		B7L0182	26-Dec-17	0.248 L	22-Jan-18 19:48	1
PFOA	5.51	0.328	2.52	4.03		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
PFOS	0.862	0.407	2.52	4.03	J	B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
PFNA	2.55	0.408	2.52	4.03	J	B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
PFDA	ND	0.751	2.52	4.03		B7L0182	26-Dec-17	0.248 L	22-Jan-18 19:48	1
MeFOSAA	ND	0.831	2.52	4.03		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
PFUnA	ND	0.529	2.52	4.03		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
EtFOSAA	ND	0.690	2.52	4.03		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
PFDoA	ND	0.399	2.52	4.03		B7L0182	26-Dec-17	0.248 L	26-Jan-18 10:26	1
PFTrDA	ND	0.249	2.52	4.03		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
PFTeDA	ND	0.380	2.52	4.03		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	87.3	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
13C2-PFHxA	IS	97.3	50 - 150		B7L0182	26-Dec-17	0.248 L	18-Jan-18 21:55	1
13C4-PFHpA	IS	86.5	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
18O2-PFHxS	IS	89.4	50 - 150		B7L0182	26-Dec-17	0.248 L	22-Jan-18 19:48	1
13C2-PFOA	IS	102	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
13C8-PFOS	IS	96.0	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
13C5-PFNA	IS	84.8	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
13C2-PFDA	IS	84.2	50 - 150		B7L0182	26-Dec-17	0.248 L	22-Jan-18 19:48	1
d3-MeFOSAA	IS	90.9	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
13C2-PFUnA	IS	89.6	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
d5-EtFOSAA	IS	71.5	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1
13C2-PFDoA	IS	84.7	50 - 150		B7L0182	26-Dec-17	0.248 L	26-Jan-18 10:26	1
13C2-PFTeDA	IS	85.5	50 - 150		B7L0182	26-Dec-17	0.248 L	17-Jan-18 22:37	1

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

Sample ID: FC-PZ05I1-20171212 | **Modified EPA Method 537**

Client Data

Name:	Tetra Tech	Matrix:	Aqueous
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 14:14
Location:	FC-PZ05I1		

Laboratory Data

Lab Sample:	1701951-18	Column:	BEH C18
Date Received:	14-Dec-17 11:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.05	0.886	2.47	3.96	J	B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
PFHxA	11.8	1.08	2.47	3.96		B7L0182	26-Dec-17	0.253 L	18-Jan-18 22:06	1
PFHpA	16.5	0.292	2.47	3.96		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
PFHxS	0.584	0.469	2.47	3.96	J	B7L0182	26-Dec-17	0.253 L	22-Jan-18 20:00	1
PFOA	17.0	0.322	2.47	3.96		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
PFOS	8.53	0.399	2.47	3.96		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
PFNA	256	0.401	2.47	3.96		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
PFDA	5.74	0.737	2.47	3.96		B7L0182	26-Dec-17	0.253 L	22-Jan-18 20:00	1
MeFOSAA	ND	0.817	2.47	3.96		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
PFUnA	134	0.520	2.47	3.96		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
EtFOSAA	ND	0.678	2.47	3.96		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
PFDoA	ND	0.392	2.47	3.96		B7L0182	26-Dec-17	0.253 L	26-Jan-18 10:38	1
PFTrDA	ND	0.244	2.47	3.96		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
PFTeDA	ND	0.374	2.47	3.96		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	95.2	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
13C2-PFHxA	IS	104	50 - 150		B7L0182	26-Dec-17	0.253 L	18-Jan-18 22:06	1
13C4-PFHpA	IS	94.1	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
18O2-PFHxS	IS	98.7	50 - 150		B7L0182	26-Dec-17	0.253 L	22-Jan-18 20:00	1
13C2-PFOA	IS	103	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
13C8-PFOS	IS	98.3	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
13C5-PFNA	IS	83.5	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
13C2-PFDA	IS	95.7	50 - 150		B7L0182	26-Dec-17	0.253 L	22-Jan-18 20:00	1
d3-MeFOSAA	IS	68.0	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
13C2-PFUnA	IS	70.0	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
d5-EtFOSAA	IS	69.4	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1
13C2-PFDoA	IS	80.0	50 - 150		B7L0182	26-Dec-17	0.253 L	26-Jan-18 10:38	1
13C2-PFTeDA	IS	61.4	50 - 150		B7L0182	26-Dec-17	0.253 L	17-Jan-18 22:49	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Vista Analytical Laboratory

Sample ID: CV-FLTS-COMBINF-20171213 | **Modified EPA Method 537**

Client Data

Name:	Tetra Tech	Matrix:	Aqueous
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	13-Dec-17 08:10
Location:	Combinded Influent		

Laboratory Data

Lab Sample:	1701951-19	Column:	BEH C18
Date Received:	14-Dec-17 11:03		

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.891	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
PFHxA	10.7	1.09	2.49	3.98		B7L0182	26-Dec-17	0.251 L	18-Jan-18 22:18	1
PFHpA	27.9	0.294	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
PFHxS	ND	0.472	2.49	3.98		B7L0182	26-Dec-17	0.251 L	22-Jan-18 20:11	1
PFOA	31.9	0.324	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
PFOS	3.36	0.402	2.49	3.98	J	B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
PFNA	866	0.403	2.49	3.98		B7L0182	26-Dec-17	0.251 L	26-Jan-18 10:49	1
PFDA	16.5	0.742	2.49	3.98		B7L0182	26-Dec-17	0.251 L	22-Jan-18 20:11	1
MeFOSAA	ND	0.822	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
PFUnA	294	0.523	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
EtFOSAA	ND	0.682	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
PFDoA	ND	0.394	2.49	3.98		B7L0182	26-Dec-17	0.251 L	26-Jan-18 10:49	1
PFTrDA	ND	0.246	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
PFTeDA	ND	0.376	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	100	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
13C2-PFHxA	IS	92.0	50 - 150		B7L0182	26-Dec-17	0.251 L	18-Jan-18 22:18	1
13C4-PFHpA	IS	84.9	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
18O2-PFHxS	IS	90.3	50 - 150		B7L0182	26-Dec-17	0.251 L	22-Jan-18 20:11	1
13C2-PFOA	IS	86.9	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
13C8-PFOS	IS	76.2	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
13C5-PFNA	IS	96.1	50 - 150		B7L0182	26-Dec-17	0.251 L	26-Jan-18 10:49	1
13C2-PFDA	IS	84.6	50 - 150		B7L0182	26-Dec-17	0.251 L	22-Jan-18 20:11	1
d3-MeFOSAA	IS	63.5	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
13C2-PFUnA	IS	75.1	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
d5-EtFOSAA	IS	76.6	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1
13C2-PFDoA	IS	67.5	50 - 150		B7L0182	26-Dec-17	0.251 L	26-Jan-18 10:49	1
13C2-PFTeDA	IS	61.0	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:00	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: SA-MW127I-20171213 | **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: NWIRP Calverton Site 2 Southern Area112G08005-W
Location: SA-MW127I
Matrix: Aqueous
Date Collected: 13-Dec-17 09:48

Laboratory Data

Lab Sample: 1701951-20
Date Received: 14-Dec-17 11:03
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.891	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
PFHxA	16.3	1.08	2.49	3.98		B7L0182	26-Dec-17	0.251 L	18-Jan-18 22:29	1
PFHpA	31.2	0.294	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
PFHxS	ND	0.471	2.49	3.98		B7L0182	26-Dec-17	0.251 L	22-Jan-18 20:23	1
PFOA	46.8	0.324	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
PFOS	3.63	0.402	2.49	3.98	J	B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
PFNA	ND	0.403	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
PFDA	22.3	0.741	2.49	3.98		B7L0182	26-Dec-17	0.251 L	22-Jan-18 20:23	1
MeFOSAA	ND	0.821	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
PFUnA	636	0.522	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
EtFOSAA	ND	0.682	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
PFDoA	ND	0.394	2.49	3.98		B7L0182	26-Dec-17	0.251 L	26-Jan-18 11:01	1
PFTrDA	ND	0.246	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
PFTeDA	ND	0.376	2.49	3.98		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	85.3	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
13C2-PFHxA	IS	107	50 - 150		B7L0182	26-Dec-17	0.251 L	18-Jan-18 22:29	1
13C4-PFHpA	IS	77.8	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
18O2-PFHxS	IS	96.2	50 - 150		B7L0182	26-Dec-17	0.251 L	22-Jan-18 20:23	1
13C2-PFOA	IS	90.4	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
13C8-PFOS	IS	95.3	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
13C5-PFNA	IS	65.7	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
13C2-PFDA	IS	68.1	50 - 150		B7L0182	26-Dec-17	0.251 L	22-Jan-18 20:23	1
d3-MeFOSAA	IS	73.5	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
13C2-PFUnA	IS	67.4	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
d5-EtFOSAA	IS	63.2	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1
13C2-PFDoA	IS	84.7	50 - 150		B7L0182	26-Dec-17	0.251 L	26-Jan-18 11:01	1
13C2-PFTeDA	IS	64.8	50 - 150		B7L0182	26-Dec-17	0.251 L	17-Jan-18 23:12	1

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

Vista Analytical Laboratory

Sample ID: FT-RW01-20171212 | **EPA Method 537**

Client Data

Name: Tetra Tech
Matrix: Drinking Water
Project: NWIRP Calverton Site 2 Southern Area112G08005-W
Date Collected: 12-Dec-17 09:50
Location: FT-RW01

Laboratory Data

Lab Sample: 1701951-04
Column: BEH C18
Date Received: 14-Dec-17 11:03

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.426	4.81	9.62		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
PFHxA	0.843	0.638	4.81	9.62	J, B	B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
PFHpA	ND	0.513	4.81	9.62		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
PFHxS	ND	0.399	4.81	9.62		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
PFOA	ND	1.04	4.81	9.62		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
PFNA	ND	1.39	4.81	9.62		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
PFOS	ND	1.00	4.81	9.62		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
PFDA	ND	1.23	4.81	9.62		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
MeFOSAA	ND	2.93	4.81	9.62		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
EtFOSAA	ND	1.86	4.81	9.62		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
PFUnA	ND	0.245	4.81	9.62		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
PFDoA	ND	0.916	4.81	9.62		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
PFTrDA	ND	0.907	4.81	9.62		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
PFTeDA	ND	0.748	4.81	9.62		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	92.6	70 - 130		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
13C2-PFDA	SURR	84.9	70 - 130		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1
d5-EtFOSAA	SURR	103	70 - 130		B7L0184	26-Dec-17	0.260 L	28-Dec-17 20:59	1

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

Vista Analytical Laboratory

Sample ID: FT-RW01-FRB-20171212 **EPA Method 537**

Client Data				Laboratory Data			
Name:	Tetra Tech	Matrix:	Drinking Water	Lab Sample:	1701951-05	Column:	BEH C18
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W	Date Collected:	12-Dec-17 09:50	Date Received:	14-Dec-17 11:03		
Location:	FT-RW01FRB						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.438	4.94	9.88		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
PFHxA	0.838	0.655	4.94	9.88	J, B	B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
PFHpA	ND	0.526	4.94	9.88		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
PFHxS	ND	0.410	4.94	9.88		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
PFOA	ND	1.07	4.94	9.88		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
PFNA	ND	1.42	4.94	9.88		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
PFOS	ND	1.03	4.94	9.88		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
PFDA	ND	1.26	4.94	9.88		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
MeFOSAA	ND	3.00	4.94	9.88		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
EtFOSAA	ND	1.91	4.94	9.88		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
PFUnA	ND	0.252	4.94	9.88		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
PFDoA	ND	0.940	4.94	9.88		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
PFTrDA	ND	0.931	4.94	9.88		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
PFTeDA	ND	0.768	4.94	9.88		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	91.0	70 - 130		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
13C2-PFDA	SURR	77.5	70 - 130		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1
d5-EtFOSAA	SURR	85.9	70 - 130		B7L0184	26-Dec-17	0.253 L	28-Dec-17 21:11	1

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

Vista Analytical Laboratory

Sample ID: FT-DUP08-20171212 | **EPA Method 537**

Client Data

Name: Tetra Tech
Matrix: Drinking Water
Project: NWIRP Calverton Site 2 Southern Area112G08005-W
Date Collected: 12-Dec-17 11:00

Laboratory Data

Lab Sample: 1701951-11
Column: BEH C18
Date Received: 14-Dec-17 11:03

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.433	4.88	9.77		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
PFHxA	1.04	0.648	4.88	9.77	J, B	B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
PFHpA	ND	0.521	4.88	9.77		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
PFHxS	ND	0.405	4.88	9.77		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
PFOA	ND	1.06	4.88	9.77		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
PFNA	ND	1.41	4.88	9.77		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
PFOS	ND	1.02	4.88	9.77		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
PFDA	ND	1.25	4.88	9.77		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
MeFOSAA	ND	2.97	4.88	9.77		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
EtFOSAA	ND	1.89	4.88	9.77		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
PFUnA	ND	0.249	4.88	9.77		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
PFDoA	ND	0.930	4.88	9.77		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
PFTrDA	ND	0.921	4.88	9.77		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
PFTeDA	ND	0.759	4.88	9.77		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	94.7	70 - 130		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
13C2-PFDA	SURR	77.3	70 - 130		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1
d5-EtFOSAA	SURR	118	70 - 130		B7L0184	26-Dec-17	0.256 L	28-Dec-17 21:24	1

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

Appendix C

Support Documentation

ANALYTE		ORIGINAL FT-MW02SR1-20171212	DUPLICATE FC-DUP07-20171212	RL	RPD	RPD > 30%	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2XRL
PENTADECAFLUOROOCTANOIC ACID	PFOA	31.1	39.3	2.49	23.295	FALSE	TRUE	TRUE	TRUE
PERFLUOROBUTANESULFONIC ACID	PFBS	1.16	1.02	2.49	12.844	FALSE	FALSE	FALSE	FALSE
PERFLUORODECANOIC ACID	PFDA	66.6	64.2	2.49	3.670	FALSE	TRUE	TRUE	FALSE
PERFLUORODODECANOIC ACID	PFDoA	1.08	1.2	2.49	10.526	FALSE	FALSE	FALSE	FALSE
PERFLUOROHEPTANOIC ACID	PFHpA	11.5	12.7	2.49	9.917	FALSE	TRUE	TRUE	FALSE
PERFLUOROHEXANESULFONIC ACID	PFHxS	1.36	1.3	2.49	4.511	FALSE	FALSE	FALSE	FALSE
PERFLUOROHEXANOIC ACID	PFHxA	29.4	27.9	2.49	5.236	FALSE	TRUE	TRUE	FALSE
PERFLUORONONANOIC ACID	PFNA	310	303	2.49	2.284	FALSE	TRUE	TRUE	TRUE
PERFLUOROOCTANE SULFONIC ACID	PFOS	7.44	10.8	2.49	36.842	TRUE	TRUE	TRUE	FALSE
PERFLUOROTRIDECANOIC ACID	PFTrDA	1.64	2.02	2.49	20.765	FALSE	FALSE	FALSE	FALSE
PERFLUOROUNDECANOIC ACID	PFUnA	1670	1510	12.5	10.063	FALSE	TRUE	TRUE	TRUE

ANALYTE		ORIGINAL FT-RW01-20171212	DUPLICATE FC-DUP08-20171212	RL	RPD	RPD > 30%	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2XRL
PERFLUOROHEXANOIC ACID	PFHxA	0.843	0.838	4.81	0.595	FALSE	FALSE	FALSE	FALSE

ANALYTE		ORIGINAL CV-FLTS-COMBINF-20171213 SDG 1701951	DUPLICATE CV-DUP09-20171213 SDG 1701953	RL	RPD	RPD > 30%	ORIGINAL SAMPLE CONC >2xRL	DUPLICATE SAMPLE CONC >2xRL	DIFFERENCE >2XRL
PENTADECAFLUOROOCTANOIC ACID	PFOA	31.9	28.9	3.98	9.868	FALSE	TRUE	TRUE	FALSE
PERFLUORODECANOIC ACID	PFDA	16.5	15.4	3.98	6.897	FALSE	TRUE	TRUE	FALSE
PERFLUOROHEPTANOIC ACID	PFHpA	27.9	19.7	3.98	34.454	TRUE	TRUE	TRUE	TRUE
PERFLUOROHEXANESULFONIC ACID	PFHxS	2.49	0.761	2.49	106.367	TRUE	FALSE	FALSE	FALSE
PERFLUOROHEXANOIC ACID	PFHxA	10.7	9.84	3.98	8.374	FALSE	TRUE	TRUE	FALSE
PERFLUORONONANOIC ACID	PFNA	866	790	3.98	9.179	FALSE	TRUE	TRUE	TRUE
PERFLUOROOCTANE SULFONIC ACID	PFOS	3.36	2.67	3.98	22.886	FALSE	FALSE	FALSE	FALSE
PERFLUOROUNDECANOIC ACID	PFUnA	294	372	38.9	23.423	FALSE	TRUE	TRUE	TRUE

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

ID: LR - 537COC

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Vista Analytical Laboratory

CHAIN OF COSTODY

For Laboratory Use Only
Work Order #: 1701951 Temp: 0.4 2.3 °C
Storage ID: WR-2 Storage Secured: Yes ☑ No ☐

NWIRP Calverton Site 2/Southern Area
Project ID: 112G08005-WE05 PO#: ______ Sampler: Jacob Birkett (name)

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

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

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Jacob Birkett	12-13-17	1630	FedEx		
FedEx			Ian Arguelles	12/14/17	1129

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

ATTN: ______

Method of Shipment: FedEx
Tracking No.: 8102-9107-0488

Add Analysis(es) Requested: Mod. EPA Method 537; EPA Method 537 (DW only)

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	Mod. EPA 537: PFOA/PFOS	Mod. EPA 537: UCMR3 PFAS List:6	Mod. EPA 537: 537 List: 14	Mod. EPA 537: Full List of 26	Mod. EPA 537: Other: Please List Below	EPA 537 (DW only): PFOA/PFOS	EPA 537 (DW only): UCMR3 PFAS List:6	EPA 537 (DW only): PFAS List: 14	Comments
FC-MW06S-20171212	12-12-17	0930	FC-MW06S	2	P	AQ			2						
FC-MW02SR1-20171212	12-12-17	0931	FC-MW02SR1	2	P	AQ			2						
FC-MW04I-20171212		0934	FC-MW04I	2	P	AQ			2						
FT-RW01-20171212		0950	FT-RW01	4	P	AQ								4	MSMSD
FT-RW01-FRB-20171212		0950	FT-RW01-FRB	2	P	AQ								2	FRB
FC-MW03SR1-20171212		1047	FC-MW03SR1	2	P	AQ			2						
FC-MW04S-20171212		1058	FC-MW04S	2	P	AQ			2						
FC-MW02IR1-20171212		1110	FC-MW02IR1	2	P	AQ			2						
FC-MW05S-20171212		1158	FC-MW05S	2	P	AQ			2						
FC-Dup07-20171212		1200	———	2	P	AQ			2						Duplicate

Special Instructions/Comments: ______

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

Container Types: P= HDPE, PJ= HDPE Jar, O = Other: ______
Bottle Preservation Type: T = Thiosulfate, TZ = Trizma: ______
Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: ______

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

ID: LR - 537COC

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Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1701951 Temp: 0.4 2.3 °C
Storage ID: WR-2 Storage Secured: Yes ☑ No ☐

NWIRP Calverton Site 2 SA
Project ID: 112G08005-WE05 PO#: Sampler: Jacob Birkett (name)

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

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

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Jacob Birkett	12-13-17	1630	FedEx		
FedEx			Ian Arguello	12/14/17	1129

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

ATTN:

Method of Shipment: FedEx
Tracking No.: 8102-9107-0488

Add Analysis(es) Requested — Mod. EPA Method 537 / EPA Method 537 (DW only)

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	Mod. EPA Method 537: PFOA/PFOS	UCMR3 PFAS List: 6	537 List: 14	Full List of 26	Other: Please List Below	EPA Method 537 (DW only): PFOA/PFOS	UCMR3 PFAS List: 6	PFAS List: 14	Comments
FT-Dup08-20171212	12-12-17	1100	—	2	P	AQ								2	Duplicate
ET-MW01S-20171212	12-12-17	1217	ET-MW01S	2	P	AQ			2						
ET-MW01S-FRB-20171212	12-12-17	1217	ET-MW01S-FRB	2	P	AQ			2						FRB
FT-PZ-454S-20171212		1223	FT-PZ-454S	2	P	AQ			2						
FC-MW05I-20171212		1310	FC-MW05I	2	P	AQ			2						
ET-MW02S-20171212		1340	ET-MW02S	2	P	AQ			2						
* ET-MW03S-20171212		1413	ET-MW03S	2	P	AQ			2						
FC-PZ05I1-20171212		1414	FC-PZ05I1	2	P	AQ			2						
CV-FLTS-COMBINF-20171213		0810	Combined Influent	6	P	AQ			6						Treatment System, Run MSMSD
SA-MW127I-20171213	12-13-17	0948	SA-MW127I	2	P	AQ			2						

Special Instructions/Comments:

SEND DOCUMENTATION AND RESULTS TO:
Name: See first page
Company:
Address:
City: State: Zip:
Phone: Fax:
Email:

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

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

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

Vista
Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1701951 **TAT** Std

Samples Arrival:	**Date/Time** 12/14/17 1103	**Initials:** IA	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 12/15/17 0803	**Initials:** BAB WWS	**Location:** WR-2 **Shelf/Rack:** F6

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

Temp °C: 2.2 **(uncorrected)**	**Time:** 1127	**Thermometer ID:** IR-1
Temp °C: 2.3 **(corrected)**	**Probe used: Yes☐ No☑**	

	YES	NO	NA
Adequate Sample Volume Received? A/B	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill 1 of 2 Trk # 8102 9107 0488	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?	✓		
COC Anomaly/Sample Acceptance Form completed?		✓	✓

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

Comments: Sample Label ID
FT-PZ4545-20171212 (No dash)
COC ID
FT-PZ-4545-20171212
Dash present in between "PZ-4545"

Trizma Preservation on samples for unmodified 537

ID.: LR – SLC **Rev No.:** 0 **Rev Date:** 05/18/2017 **Page:** 1 of 1

Vista Analytical Laboratory

Sample Log-in Checklist

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

Samples Arrival:	**Date/Time** 12/14/17 1133	**Initials:** IA	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 12/15/17 0803	**Initials:** BDB WWS	**Location:** WR-2 **Shelf/Rack:** F6

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

Temp °C: 0.3 **(uncorrected)**	**Time:** 1134	**Thermometer ID:** IR-1
Temp °C: 0.4 **(corrected)**	**Probe used: Yes☐ No☑**	

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill 2 of 2 Trk # 7889 1916 9400	✓		
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Chain of Custody / Sample Documentation Present?			✓
COC Anomaly/Sample Acceptance Form completed?		✓	✓

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

Comments: Trizma preservation on samples for Unmodified 537

ID.: LR – SLC *Rev No.: 0* *Rev Date: 05/18/2017* *Page: 1 of 1*

Vista Work Order No. 1701951
Case Narrative

Sample Condition on Receipt:

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

Analytical Notes:

Modified EPA Method 537

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

The following samples, as well as the Matrix Spike and Matrix Spike Duplicate, contained particulate and were centrifuged prior to extraction:

Laboratory ID	Sample Name
1701951-02	FC-MW02SR1-20171212
1701951-06	FC-MW03SR1-20171212
1701951-07	FC-MW04S-20171212
1701951-10	FC-DUP07-20171212
1701951-16	ET-MW02S-20171212
1701951-19	CV-FLTS-COMBINF-20171213
1701951-20	SA-MW127I-20171213

Holding Times

The samples were extracted within the method hold times. The re-injections for PFNA and PFDoA in sample "CV-FLTS-COMBINF-20171213", as well as the MS/MSD, were analyzed outside of the hold time. The dilutions for PFUdA in samples "FC-MW02SR1-20171212" and "FC-DUP07-20171212" were analyzed outside the hold time. All other analyses were performed within the hold time.

Quality Control

The Initial Calibration met the method acceptance criteria. The recoveries of PFDoA, PFTrDA and PFTeDA were >130% in one of more Continuing Calibration Verifications; these analytes were not detected in the samples. The Continuing Calibration Verifications met the acceptance criteria for all other analytes quantified from the associated runs.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 the LOQ. The recoveries of MeFOSAA and PFTeDA were >130% in the OPR. These analytes were not detected in the samples. The recoveries of all other analytes were within the acceptance criteria.

The extracts were re-injected to meet the Calibration Verification acceptance criteria. The results for PFDA, PFHxS, PFDoA and PFHxA were taken from separate injections of the extracts.

An MS/MSD was performed on sample "CV-FLTS-COMBINF-20171213" The recoveries and/or RPDs were outside of the acceptance criteria for PFBS, PFHxA, PFHpA, PFOA, PFNA, PFDA, MeFOSAA, PFUnA, EtFOSAA and PFTeDA.

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

EPA Method 537

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

Holding Times

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

Quality Control

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

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

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

A Laboratory Fortified Sample Matrix (LFSM) and Laboratory Fortified Sample Matrix Duplicate (LFSMD) were performed on sample "FT-RW01-20171212". The analyte recoveries and RPDs were within the method acceptance criteria.

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
B7L0182-BLK1	B7L0182-BLK1	Modified EPA Method 537	d5-EtFOSAA	H	49.7

H = Recovery was outside laboratory acceptance criteria.

Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
1701951-01	FC-MW06S-20171212		12-Dec-17 09:30	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-02	FC-MW02SR1-20171212		12-Dec-17 09:31	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-03	FC-MW04I-20171212		12-Dec-17 09:34	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-04	FT-RW01-20171212	MS/MSD	12-Dec-17 09:50	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-05	FT-RW01-FRB-20171212	FRB	12-Dec-17 09:50	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-06	FC-MW03SR1-20171212		12-Dec-17 10:47	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-07	FC-MW04S-20171212		12-Dec-17 10:58	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-08	FC-MW02IR1-20171212		12-Dec-17 11:10	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-09	FC-MW05S-20171212		12-Dec-17 11:58	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-10	FC-DUP07-20171212		12-Dec-17 12:00	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-11	FT-DUP08-20171212		12-Dec-17 11:00	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-12	ET-MW01S-20171212		12-Dec-17 12:17	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-13	ET-MW01S-FRB-20171212		12-Dec-17 12:17	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-14	FT-PZ-454S-20171212		12-Dec-17 12:23	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-15	FC-MW05I-20171212		12-Dec-17 13:10	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-16	ET-MW02S-20171212		12-Dec-17 13:40	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-17	ET-MW03S-20171212		12-Dec-17 14:13	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-18	FC-PZ05I1-20171212		12-Dec-17 14:14	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-19	CV-FLTS-COMBINF-20171213	MS/MSD	13-Dec-17 08:10	14-Dec-17 11:03	HDPE Bottle, 250 mL

Vista Project: 1701951 Client Project: NWIRP Calverton Site 2 Southern Area112G08005-WE05

Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
1701951-19	CV-FLTS-COMBINF-20171213	MS/MSD	13-Dec-17 08:10	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701951-20	SA-MW127I-20171213		13-Dec-17 09:48	14-Dec-17 11:03	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL

Process Sheet

Workorder: 1701951

Prep Expiration: 2017-Dec-26
Client: Tetra Tech

Workorder Due: 08-Jan-18 00:00
TAT: 25

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

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

Prep Batch: B7L0182

Prep Data Entered: MA 12·27·17
Date and Initials

Initial Sequence: S8A0059

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
1701951-01 A	☑ ✓	FC-MW06S-20171212	14-Dec-17 11:03	WR-2 F-6	~~125~~ 250 mL KC 12/23/17
1701951-02	☑ ✓	FC-MW02SR1-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-03	☑ ✓	FC-MW04I-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-06	☑ ✓	FC-MW03SR1-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-07	☑ ✓	FC-MW04S-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-08	☑ ✓	FC-MW02IR1-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-09	☑ ✓	FC-MW05S-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-10	☑ ✓	FC-DUP07-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-12	☑ ✓	ET-MW01S-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-13	☑ ✓	ET-MW01S-FRB-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-14	☑ ✓	FT-PZ-454S-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-15	☑ ✓	FC-MW05I-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-16	☑ ✓	ET-MW02S-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-17	☑ ✓	ET-MW03S-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-18	☑ ✓	FC-PZ05I1-20171212	14-Dec-17 11:03	WR-2 F-6	
1701951-19 B, C	☑ ✓	CV-FLTS-COMBINF-20171213	14-Dec-17 11:03	WR-2 F-6	**MS/MSD**
1701951-20	☑ ✓	SA-MW127I-20171213	14-Dec-17 11:03	WR-2 F-6	

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

Vista PM: Martha Maier

SPIKE RECONCILED: GRB 12/26/17

Vial Box ID: HUGO DINO VET

Sample Reconciled By: KC 12 23 17

Page 1 of 2

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

B7L0182

Chemist: KC

Prep Date/Time: 23-~~Dec~~-17 08:50 12·26·17 GRB

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: KC 12/23/17 BalanceID: HRMS-8

Cen	VISTA Sample ID	pH Before	pH After	Chlorine (Cl)	Drops HCl Added	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
☐	B7L0182-BLK1	5	2	0	4	~~(0.250)~~ NA KC 12/23/17	NA	(0.250)	KC GRB 12·26·17	GRB 12·26·17	KC GRB 12·26·17
☐	B7L0182-BS1	5	2	0	4	~~(0.25~~		(0.250)			
☒	B7L0182-MS1 1701951-19	5	2	0	4	277.25 KC 12/23/17	27.76	0.24949			
☒	B7L0182-MSD1 1701951-19	5	2	0	4	~~28.8~~ 280.84	27.65	0.25319			
☐	1701951-01	6	2	0	5	~~282~~ 282.89 KC 12/23/17	27.09	0.25580 ✓			
☒	1701951-02	~~5~~ 6 KC 12/23/17	2	0	7	278.29	27.66	0.25063 ✓			
☐	1701951-03	5	2	0	4	273.08	27.72	0.24536 ✓			
☒	1701951-06	6	2	0	4	272.12	27.49	0.24463 ✓	MA 12·27·17		
☒	1701951-07	5	2	0	4	278.64	26.96	0.25~~14~~168 ✓			
☐	1701951-08	5	2	0	4	281.43	27.50	0.25393 ✓			
☐	1701951-09	5	2	0	4	268.92	27.82	0.24110 ✓			
☒	1701951-10	6	2	0	7	272.34	26.98	0.24536 ✓			
☐	1701951-12	5	2	0	4	275.31	27.53	0.24778 ✓			
☐	1701951-13	5	2	0	4	273.65	26.98	0.24667 ✓			
☐	1701951-14	5	2	0	4	272.41	27.52	0.24489 ✓			
☐	1701951-15	5	2	0	4	280.94	27.54	0.25340 ✓			

IS: 17L0402, 10µL (V3) (V2) KC 12/26/17

IS SUP: NA

NS: 17J1820, 10µL (V4)

RS: 17K2502, 10µL (V1)

SPE Chem: Strata X-AW 33µm 200mg 6mL

Ele SOLV: 0.5% NH_4OH in MeOH / MeOH

Final Volume(s) 1mL

Notes:

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

PREPARATION BENCH SHEET

B7L0182

Chemist: KC

Prep Date/Time: ~~23-Dec-17~~ 08:50 12·26·17 GRB

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: KC 12/23/17 BalanceID: HRMS-8

Cen	VISTA Sample ID	pH Before	pH After	Chlorine (Cl)	Drops HCl Added	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
☒	1701951-16	5	2	0	4	283.34	27.87	0.25547 ✓	KC GRB 12·26·17	GRB 12·26·17	KC GRB 12·26·17
☐	1701951-17	5	2	0	4	275.13	26.98	0.24815 ✓			
☐	1701951-18	5	2	0	4	280.28	27.70	0.25258 ✓			
☒	1701951-19	5	2	0	4	278.08	27.03	0.25105 ✓			
☒	1701951-20	5	2	0	4	278.71	27.51	0.25120 ✓			

IS: 17L0402, 10µL (V2)

IS SUP: NA

NS: 17J1820, 10µL (V4)

RS: 17K2502, 10µL (V1)

SPE Chem: Strata X-AW 33µm 200mg/6mL

Ele SOLV: 0.5% NH4OH in MeOH/MeOH

Final Volume(s) 1mL

Notes:

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

Batch: B7L0182

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1701951-01	0.2558	NA	NA	1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-02	0.25063			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-03	0.24536			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-06	0.24463			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-07	0.25168			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-08	0.25393			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-09	0.2411			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-10	0.24536			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-12	0.24778			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-13	0.24667			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-14	0.24489			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-15	0.2534			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-16	0.25547			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-17	0.24815			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-18	0.25258			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-19	0.25105			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
1701951-20	0.2512			1000	26-Dec-17 08:50	KC			Aqueous	537M PFAS DOD (LOQ as
B7L0182-BLK1	0.25			1000	26-Dec-17 08:50	KC				QC
B7L0182-BS1	0.25			1000	26-Dec-17 08:50	KC	17J1820	10		QC
B7L0182-MS1	0.24949			1000	26-Dec-17 08:50	KC	17J1820	10		QC
B7L0182-MSD1	0.25319			1000	26-Dec-17 08:50	KC	17J1820	10		QC

MA 12/27/17

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

PREPARATION BENCH SHEET

B7L0184

Chemist: HC

Prep Date/Time: 26-Dec-17 08:~~23~~ 0930 HC

Prepared using: LCMS - SPE Extraction-LCMS

BalanceID: HRMS-8 HN 12/26/17

Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	B7L0184-BLK1 (A)	~~(0.250)~~ HC 12-26-17 NA	NA	~~NA~~ HC 12-26-17 (0.250)	HC HN 12-26-17	HN 12/26/17	HC HN 12-26-17
☐	B7L0184-BS1 (A)	↓ ↓	NA	~~NA~~ HC 12-26-17 (0.250)			
☐	B7L0184-MS1 1701938-01	279.12	27.77	0.25135			
☐	B7L0184-MS2 1701951-04	271.37	27.98	0.24339 ✓			
☐	B7L0184-MSD1 1701938-01	280.43	27.25	0.25318			
☐	B7L0184-MSD2 1701951-04	284.93	28.14	0.25679 ✓			
☐	1701938-01	287.36	27.92	0.25944			
☐	1701938-02	275.24	27.25	0.24799			
☐	1701938-03	271.08	27.63	0.24345			
☐	1701938-04	282.42	27.78	0.25464			
☐	1701940-01	272.55	26.88	0.24567			
☐	1701940-02	285.14	27.73	0.25741			
☐	1701940-03	280.50	27.60	0.25290			
☐	1701951-04	287.70	27.88	0.25982 ✓			
☐	1701951-05	280.58	27.49	0.25309 ✓	↓	↓	↓

SS/IS: 17L1416, 20μL (V5)

NS: 17I2601, 20μL (V1)

IS/RS: 17L1417, 20μL (V5)

SPE Chem: Strata-X 33μm 500mg 6mL
Lot#: S17-003138/S17-005188

Ele SOLV: MeOH
Lot#: JB054469

Final Volume(s) 1mL

Notes: (A) Added 1.25g Trizma HN 12/26/17

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

B7L0184

Chemist: 7C

Prep Date/Time: 26-Dec-17 ~~08:23~~ 0930 7C

Prepared using: LCMS - SPE Extraction-LCMS

BalanceID: HRMS-8 HN 12/26/17

Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
☐	1701951-11	284.05	28.15	0.25590	7C HN 12·26·17	HN 12/26/17	7C HN 12·26·17

SS/IS: 1721416, 20µL V5 NS: 1717601, 20µL V1 IS/RS: 1721417, 20µL V5	SPE Chem: Strata-X 33µm 500mg 6mL Lot#: S17-003138/S17-005188 Ele SOLV: MeOH Lot#: JB054409 Final Volume(s) 1 mL	Notes:

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

Batch: B7L0184

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1701938-01	0.25944 ✓	NA	NA	1000	26-Dec-17 09:30	HAC			Potable Water	ZArch_537 PFAS DW DoD
1701938-02	0.24799 ✓			1000	26-Dec-17 09:30	HAC			Potable Water	ZArch_537 PFAS DW DoD
1701938-03	0.24345 ✓			1000	26-Dec-17 09:30	HAC			Potable Water	ZArch_537 PFAS DW DoD
1701938-04	0.25464 ✓			1000	26-Dec-17 09:30	HAC			Potable Water	ZArch_537 PFAS DW DoD
1701940-01	0.24567 ✓			1000	26-Dec-17 09:30	HAC			QC Water	ZArch_537 PFAS DW DoD
1701940-02	0.25741 ✓			1000	26-Dec-17 09:30	HAC			QC Water	ZArch_537 PFAS DW DoD
1701940-03	0.2529 ✓			1000	26-Dec-17 09:30	HAC			QC Water	ZArch_537 PFAS DW DoD
1701951-04	0.25982 ✓			1000	26-Dec-17 09:30	HAC			Drinking Water	ZArch_537 PFAS DW DoD
1701951-05	0.25309 ✓			1000	26-Dec-17 09:30	HAC			Drinking Water	ZArch_537 PFAS DW DoD
1701951-11	0.2559 ✓			1000	26-Dec-17 09:30	HAC			Drinking Water	ZArch_537 PFAS DW DoD
B7L0184-BLK1	0.25 ✓			1000	26-Dec-17 09:30	HAC				QC
B7L0184-BS1	0.25 ✓			1000	26-Dec-17 09:30	HAC	17I2601 ✓	20		QC
B7L0184-MS1	0.25135 ✓			1000	26-Dec-17 09:30	HAC	17I2601 ✓	20		QC
B7L0184-MS2	0.24339 ✓			1000	26-Dec-17 09:30	HAC	17I2601 ✓	20		QC
B7L0184-MSD1	0.25318 ✓			1000	26-Dec-17 09:30	HAC	17I2601 ✓	20		QC
B7L0184-MSD2	0.25679 ✓			1000	26-Dec-17 09:30	HAC	17I2601 ✓	20		QC

MA 12/27/17

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

Client Data

Name: Tetra Tech | Matrix: Aqueous
Project: NWIRP Calverton Site 2 Southern Area112G08005-W

Laboratory Data

Lab Sample: B7L0182-BLK1 | Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.895	2.50	4.00		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
PFHxA	ND	1.09	2.50	4.00		B7L0182	26-Dec-17	0.250 L	18-Jan-18 18:17	1
PFHpA	ND	0.296	2.50	4.00		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
PFHxS	ND	0.474	2.50	4.00		B7L0182	26-Dec-17	0.250 L	22-Jan-18 16:10	1
PFOA	ND	0.326	2.50	4.00		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
PFOS	ND	0.404	2.50	4.00		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
PFNA	ND	0.405	2.50	4.00		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
PFDA	ND	0.745	2.50	4.00		B7L0182	26-Dec-17	0.250 L	22-Jan-18 16:10	1
MeFOSAA	ND	0.825	2.50	4.00		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
PFUnA	ND	0.525	2.50	4.00		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
EtFOSAA	ND	0.685	2.50	4.00		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
PFDoA	ND	0.396	2.50	4.00		B7L0182	26-Dec-17	0.250 L	26-Jan-18 06:48	1
PFTrDA	ND	0.247	2.50	4.00		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
PFTeDA	ND	0.378	2.50	4.00		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	105	50 - 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
13C2-PFHxA	IS	99.3	50 - 150		B7L0182	26-Dec-17	0.250 L	18-Jan-18 18:17	1
13C4-PFHpA	IS	94.6	50 - 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
18O2-PFHxS	IS	112	50 - 150		B7L0182	26-Dec-17	0.250 L	22-Jan-18 16:10	1
13C2-PFOA	IS	85.5	50 - 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
13C8-PFOS	IS	113	50 - 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
13C5-PFNA	IS	82.1	50 - 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
13C2-PFDA	IS	85.4	50 - 150		B7L0182	26-Dec-17	0.250 L	22-Jan-18 16:10	1
d3-MeFOSAA	IS	64.4	50 - 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
13C2-PFUnA	IS	53.3	50 - 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
d5-EtFOSAA	IS	49.7	50 - 150	H	B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1
13C2-PFDoA	IS	70.7	50 - 150		B7L0182	26-Dec-17	0.250 L	26-Jan-18 06:48	1
13C2-PFTeDA	IS	60.5	50 - 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:59	1

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

Sample ID: LRB | **EPA Method 537**

Client Data				**Laboratory Data**			
Name:	Tetra Tech	Matrix:	Aqueous	Lab Sample:	B7L0184-BLK1	Column:	BEH C18
Project:	NWIRP Calverton Site 2 Southern Area112G08005-W						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.443	5.00	10.0		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
PFHxA	1.02	0.663	5.00	10.0	J	B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
PFHpA	ND	0.533	5.00	10.0		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
PFHxS	ND	0.415	5.00	10.0		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
PFOA	ND	1.08	5.00	10.0		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
PFNA	ND	1.44	5.00	10.0		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
PFOS	ND	1.04	5.00	10.0		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
PFDA	ND	1.28	5.00	10.0		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
MeFOSAA	ND	3.04	5.00	10.0		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
EtFOSAA	ND	1.93	5.00	10.0		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
PFUnA	ND	0.255	5.00	10.0		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
PFDoA	ND	0.952	5.00	10.0		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
PFTrDA	ND	0.943	5.00	10.0		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
PFTeDA	ND	0.777	5.00	10.0		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	101	70 - 130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
13C2-PFDA	SURR	104	70 - 130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1
d5-EtFOSAA	SURR	97.9	70 - 130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:58	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

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

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

Sample ID: OPR | **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: NWIRP Calverton Site 2 Southern Area112G08005
Matrix: Aqueous

Laboratory Data

Lab Sample: B7L0182-BS1
Column: BEH C18

Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	51.7	40.0	129	70-130		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
PFHxA	51.6	40.0	129	70-130		B7L0182	26-Dec-17	0.250 L	18-Jan-18 18:05	1
PFHpA	51.1	40.0	128	70-130		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
PFHxS	47.4	40.0	119	70-130		B7L0182	26-Dec-17	0.250 L	22-Jan-18 15:59	1
PFOA	46.9	40.0	117	70-130		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
PFOS	36.8	40.0	92.0	70-130		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
PFNA	43.1	40.0	108	70-130		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
PFDA	39.2	40.0	98.0	70-130		B7L0182	26-Dec-17	0.250 L	22-Jan-18 15:59	1
MeFOSAA	56.3	40.0	141	70-130	H	B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
PFUnA	42.3	40.0	106	70-130		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
EtFOSAA	44.6	40.0	111	70-130		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
PFDoA	40.7	40.0	102	70-130		B7L0182	26-Dec-17	0.250 L	26-Jan-18 06:37	1
PFTrDA	51.1	40.0	128	60-130		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
PFTeDA	63.9	40.0	160	70-130	H	B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	92.8	50- 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
13C2-PFHxA	IS	97.4	50- 150		B7L0182	26-Dec-17	0.250 L	18-Jan-18 18:05	1
13C4-PFHpA	IS	88.8	50- 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
18O2-PFHxS	IS	104	50- 150		B7L0182	26-Dec-17	0.250 L	22-Jan-18 15:59	1
13C2-PFOA	IS	87.7	50- 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
13C8-PFOS	IS	102	50- 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
13C5-PFNA	IS	87.9	50- 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
13C2-PFDA	IS	89.7	50- 150		B7L0182	26-Dec-17	0.250 L	22-Jan-18 15:59	1
d3-MeFOSAA	IS	62.1	50- 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
13C2-PFUnA	IS	72.8	50- 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
d5-EtFOSAA	IS	60.5	50- 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1
13C2-PFDoA	IS	71.1	50- 150		B7L0182	26-Dec-17	0.250 L	26-Jan-18 06:37	1
13C2-PFTeDA	IS	52.0	50- 150		B7L0182	26-Dec-17	0.250 L	17-Jan-18 18:48	1

Sample ID: LFB | **EPA Method 537**

Client Data

Name: Tetra Tech
Matrix: Aqueous
Project: NWIRP Calverton Site 2 Southern Area112G08005

Laboratory Data

Lab Sample: B7L0184-BS1
Column: BEH C18

Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	68.3	70.8	96.4	70-130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
PFHxA	71.3	80.0	89.1	70-130	B	B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
PFHpA	84.9	80.0	106	70-130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
PFHxS	75.5	72.8	104	70-130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
PFOA	82.0	80.0	103	70-130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
PFNA	77.1	80.0	96.3	70-130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
PFOS	78.1	74.0	106	70-130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
PFDA	85.6	80.0	107	70-130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
MeFOSAA	72.5	80.0	90.6	70-130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
EtFOSAA	68.8	80.0	86.0	70-130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
PFUnA	81.3	80.0	102	70-130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
PFDoA	84.9	80.0	106	70-130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
PFTrDA	81.5	80.0	102	70-130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
PFTeDA	78.1	80.0	97.6	70-130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	103	70- 130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
13C2-PFDA	SURR	107	70- 130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1
d5-EtFOSAA	SURR	93.3	70- 130		B7L0184	26-Dec-17	0.250 L	28-Dec-17 14:33	1

Vista Analytical Laboratory

Sample ID: CV-FLTS-COMBINF-20171213 **Modified EPA Method 537**

Name:	Tetra Tech	Lab Sample:	B7L0182-MS1/B7L0182-MSD1	Source Lab Sample:	1701951-19
Project:	NWIRP Calverton Site 2 Southern Area112G08005	QC Batch:	B7L0182	Date Extracted:	26-Dec-17
Matrix:	Aqueous	Samp Size:	0.249/0.253 L	Column:	BEH C18

Analyte	Sample (ng/L)	MS (ng/L)	MS Spike Amt	MS % Rec	MS Quals	MSD (ng/L)	MSD Spike Amt	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBS	ND	49.3	40.1	123		53.8	39.5	136	10.0	H	70-130	30	17-Jan-18 19:11	1	17-Jan-18 19:22	1
PFHxA	10.7	64.2	40.1	133	H	61.0	39.5	127	4.62		70-130	30	18-Jan-18 18:28	1	18-Jan-18 18:40	1
PFHpA	27.9	74.6	40.1	117		81.9	39.5	137	15.7	H	70-130	30	17-Jan-18 19:11	1	17-Jan-18 19:22	1
PFHxS	ND	45.0	40.1	111		49.4	39.5	124	11.1		70-130	30	22-Jan-18 16:22	1	22-Jan-18 16:33	1
PFOA	31.9	85.3	40.1	133	H	73.2	39.5	105	23.5		70-130	30	17-Jan-18 19:11	1	17-Jan-18 19:22	1
PFOS	3.36	51.8	40.1	121		41.1	39.5	95.4	23.7		70-130	30	17-Jan-18 19:11	1	17-Jan-18 19:22	1
PFNA	866	1030	40.1	397	H	942	39.5	192	69.6	H	70-130	30	26-Jan-18 07:00	1	26-Jan-18 07:11	1
PFDA	16.5	69.5	40.1	132	H	62.0	39.5	115	13.8		70-130	30	22-Jan-18 16:22	1	22-Jan-18 16:33	1
MeFOSAA	ND	59.4	40.1	148	H	45.0	39.5	114	26.0		70-130	30	17-Jan-18 19:11	1	17-Jan-18 19:22	1
PFUnA	294	466	40.1	429	H	411	39.5	296	36.7	H	70-130	30	17-Jan-18 19:11	1	17-Jan-18 19:22	1
EtFOSAA	ND	47.3	40.1	118		53.2	39.5	135	13.4	H	70-130	30	17-Jan-18 19:11	1	17-Jan-18 19:22	1
PFDoA	ND	36.9	40.1	92.1		46.4	39.5	117	23.8		70-130	30	26-Jan-18 07:00	1	26-Jan-18 07:11	1
PFTrDA	ND	40.9	40.1	102		44.2	39.5	112	9.35		60-130	30	17-Jan-18 19:11	1	17-Jan-18 19:22	1
PFTeDA	ND	60.6	40.1	151	H	60.1	39.5	152	0.660	H	70-130	30	17-Jan-18 19:11	1	17-Jan-18 19:22	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBS	IS	88.9		93.3		50-150	17-Jan-18 19:11	1	17-Jan-18 19:22	1
13C2-PFHxA	IS	101		97.3		50-150	18-Jan-18 18:28	1	18-Jan-18 18:40	1
13C4-PFHpA	IS	90.7		83.4		50-150	17-Jan-18 19:11	1	17-Jan-18 19:22	1
18O2-PFHxS	IS	101		98.0		50-150	22-Jan-18 16:22	1	22-Jan-18 16:33	1
13C2-PFOA	IS	97.9		87.0		50-150	17-Jan-18 19:11	1	17-Jan-18 19:22	1
13C8-PFOS	IS	106		91.0		50-150	17-Jan-18 19:11	1	17-Jan-18 19:22	1
13C5-PFNA	IS	103		95.3		50-150	26-Jan-18 07:00	1	26-Jan-18 07:11	1
13C2-PFDA	IS	77.9		109		50-150	22-Jan-18 16:22	1	22-Jan-18 16:33	1
d3-MeFOSAA	IS	60.4		80.9		50-150	17-Jan-18 19:11	1	17-Jan-18 19:22	1
13C2-PFUnA	IS	54.7		68.0		50-150	17-Jan-18 19:11	1	17-Jan-18 19:22	1
d5-EtFOSAA	IS	60.9		64.1		50-150	17-Jan-18 19:11	1	17-Jan-18 19:22	1
13C2-PFDoA	IS	81.8		91.2		50-150	26-Jan-18 07:00	1	26-Jan-18 07:11	1
13C2-PFTeDA	IS	60.1		61.9		50-150	17-Jan-18 19:11	1	17-Jan-18 19:22	1

Sample ID: FT-RW01-20171212 | EPA Method 537

Name:	Tetra Tech	Lab Sample:	B7L0184-MS2/B7L0184-MSD2	Source Lab Sample:	1701951-04
Project:	NWIRP Calverton Site 2 Southern Area112G08005	QC Batch:	B7L0184	Date Extracted:	26-Dec-17
Matrix:	Aqueous	Samp Size:	0.243/0.257 L	Column:	BEH C18

Analyte	Sample (ng/L)	MS (ng/L)	MS Spike Amt	MS % Rec	MS Quals	MSD (ng/L)	MSD Spike Amt	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBS	ND	68.6	72.7	94.3		71.3	68.9	104	9.78		70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1
PFHxA	0.843	68.5	82.2	82.3	B	72.4	77.9	91.9	11.0	B	70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1
PFHpA	ND	78.9	82.2	95.9		77.3	77.9	99.1	3.28		70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1
PFHxS	ND	77.1	74.8	103		75.8	70.9	107	3.81		70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1
PFOA	ND	79.7	82.2	96.7		78.9	77.9	101	4.35		70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1
PFNA	ND	77.4	82.2	94.2		70.2	77.9	90.1	4.45		70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1
PFOS	ND	74.4	76.0	97.9		70.6	72.0	98.0	0.102		70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1
PFDA	ND	71.7	82.2	87.0		72.5	77.9	92.7	6.34		70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1
MeFOSAA	ND	78.2	82.2	95.1		72.6	77.9	93.1	2.13		70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1
EtFOSAA	ND	69.9	82.2	85.0		63.5	77.9	81.5	4.20		70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1
PFUnA	ND	77.3	82.2	94.1		74.6	77.9	95.8	1.79		70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1
PFDoA	ND	77.5	82.2	94.2		75.8	77.9	97.3	3.24		70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1
PFTrDA	ND	76.0	82.2	92.5		69.8	77.9	89.6	3.19		70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1
PFTeDA	ND	75.0	82.2	91.2		68.8	77.9	88.3	3.23		70-130	30	28-Dec-17 16:38	1	28-Dec-17 16:50	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C2-PFHxA	SURR	92.9		98.4		70 - 130	28-Dec-17 16:38	1	28-Dec-17 16:50	1
13C2-PFDA	SURR	88.3		83.2		70 - 130	28-Dec-17 16:38	1	28-Dec-17 16:50	1
d5-EtFOSAA	SURR	77.1		93.7		70 - 130	28-Dec-17 16:38	1	28-Dec-17 16:50	1

IS Areas

Ical 50-150

Compound 18: 13C2-PFOA

	ID	Name	Type	Std. Con	RT	Area	IS Area	Ical Area	Area %
1	B7L0166-BS1 LFB 0.25	171228G1_	Analyte	10	4.42	8134.149	8134.149	9205.266	88.36
2	B7L0184-BS1 LFB 0.25	171228G1_	Analyte	10	4.42	7382.15	7382.15	9205.266	80.19
3	IPA	171228G1_	Analyte	10				9205.266	0.00
4	B7L0184-BLK1 LRB 0.25	171228G1_	Analyte	10	4.42	7649.749	7649.749	9205.266	83.10
5	B7L0166-BLK1 LRB 0.25	171228G1_	Analyte	10	4.42	8439.395	8439.395	9205.266	91.68
6	B7L0166-MS1 LFSM 0.25546	171228G1_	Analyte	10	4.42	7667.438	7667.438	9205.266	83.29
7	B7L0166-MSD1 LFSMD 0.25461	171228G1_	Analyte	10	4.41	8321.361	8321.361	9205.266	90.40
8	B7L0166-MS2 LFSM 0.24013	171228G1_	Analyte	10	4.41	7819.387	7819.387	9205.266	84.94
9	B7L0166-MSD2 LFSMD 0.26049	171228G1_	Analyte	10	4.42	7477.444	7477.444	9205.266	81.23
10	B7L0184-MS1 LFSM 0.25135	171228G1_	Analyte	10	4.42	8448.588	8448.588	9205.266	91.78
11	B7L0184-MSD1 LFSMD 0.25318	171228G1_	Analyte	10	4.42	8164.852	8164.852	9205.266	88.70
12	B7L0184-MS2 LFSM 0.24339	171228G1_	Analyte	10	4.41	8132.217	8132.217	9205.266	88.34
13	B7L0184-MSD2 LFSMD 0.25679	171228G1_	Analyte	10	4.41	8114.574	8114.574	9205.266	88.15
14	1701927-01RE1 TOLDO-12072017-RW-2945SE 0.24674	171228G1_	Analyte	10	4.41	7793.037	7793.037	9205.266	84.66
15	1701927-02RE1 TOLDO-12072017-DUP-01 0.26138	171228G1_	Analyte	10	4.41	8724.262	8724.262	9205.266	94.77
16	1701936-01RE1 HORSH-120717-RW-1505 0.25319	171228G1_	Analyte	10	4.41	7400.02	7400.02	9205.266	80.39
17	1701936-03RE1 HORSH-120717-RW-1385 0.23995	171228G1_	Analyte	10	4.41	8177.709	8177.709	9205.266	88.84
18	1701936-05RE1 HORSH-120817-RW-2279 0.25809	171228G1_	Analyte	10	4.41	8173.433	8173.433	9205.266	88.79
19	1701936-07RE1 HORSH-120517-RW-1367 0.2552	171228G1_	Analyte	10	4.41	7826.231	7826.231	9205.266	85.02
20	1701936-09RE1 HORSH-120817-RW-1376 0.25904	171228G1_	Analyte	10	4.41	7875.671	7875.671	9205.266	85.56
21	1701936-11RE1 HORSH-120817-RW-1745 0.26398	171228G1_	Analyte	10	4.42	8241.642	8241.642	9205.266	89.53
22	1701936-13RE1 HORSH-120817-DUP-1745 0.26801	171228G1_	Analyte	10	4.41	8085.475	8085.475	9205.266	87.84
23	1701938-01 REEPDW040 0.25944	171228G1_	Analyte	10	4.41	8565.321	8565.321	9205.266	93.05
24	IPA	171228G1_	Analyte	10				9205.266	0.00
25	ST171228G1-10 PFC CS3 537 17L1424	171228G1_	Analyte	10	4.41	9757.258	9757.258	9205.266	106.00
26	IPA	171228G1_	Analyte	10				9205.266	0.00
27	1701938-02 REEPDW503 0.24799	171228G1_	Analyte	10	4.41	7761.315	7761.315	9205.266	84.31

GM12/29/17

28	1701938-03 REEPDW041 0.24345	171228G1_	Analyte	10	4.41	8358.493	8358.493	9205.266	90.80
29	1701938-04 REEPDW042 0.25464	171228G1_	Analyte	10	4.41	7717.58	7717.58	9205.266	83.84
30	1701940-01 REEPDWO40FRB 0.24567	171228G1_	Analyte	10	4.41	8374.946	8374.946	9205.266	90.98
31	1701940-02 REEPDW041FRB 0.25741	171228G1_	Analyte	10	4.41	8435.157	8435.157	9205.266	91.63
32	1701940-03 REEPDW042FRB 0.2529	171228G1_	Analyte	10	4.41	8430.976	8430.976	9205.266	91.59
33	1701951-04 FT-RW01-20171212 0.25982	171228G1_	Analyte	10	4.41	8793.807	8793.807	9205.266	95.53
34	1701951-05 FT-RW01-FRB-20171212 0.25309	171228G1_	Analyte	10	4.41	7846.419	7846.419	9205.266	85.24
35	1701951-11 FT-DUP08-20171212 0.2559	171228G1_	Analyte	10	4.41	8001.56	8001.56	9205.266	86.92
36	IPA	171228G1_	Analyte	10				9205.266	0.00
37	ST171228G1-11 PFC CS5 537 17L1426	171228G1_	Analyte	10	4.41	7957.802	7957.802	9205.266	86.45
38	IPA	171228G1_	Analyte	10				9205.266	0.00

Compound 19: 13C4-PFOS

	ID	Name	Type	Std. Con	RT	Area	IS Area	Ical Area	Area %
1	B7L0166-BS1 LFB 0.25	171228G1_	Analyte	28.7	4.83	10274.54	10274.54	11325.63	90.72
2	B7L0184-BS1 LFB 0.25	171228G1_	Analyte	28.7	4.83	9038.416	9038.416	11325.63	79.80
3	IPA	171228G1_	Analyte	28.7				11325.63	0.00
4	B7L0184-BLK1 LRB 0.25	171228G1_	Analyte	28.7	4.82	9620.383	9620.383	11325.63	84.94
5	B7L0166-BLK1 LRB 0.25	171228G1_	Analyte	28.7	4.82	9904.74	9904.74	11325.63	87.45
6	B7L0166-MS1 LFSM 0.25546	171228G1_	Analyte	28.7	4.83	9627.918	9627.918	11325.63	85.01
7	B7L0166-MSD1 LFSMD 0.25461	171228G1_	Analyte	28.7	4.82	10280.79	10280.79	11325.63	90.77
8	B7L0166-MS2 LFSM 0.24013	171228G1_	Analyte	28.7	4.82	9200.448	9200.448	11325.63	81.24
9	B7L0166-MSD2 LFSMD 0.26049	171228G1_	Analyte	28.7	4.83	10150.81	10150.81	11325.63	89.63
10	B7L0184-MS1 LFSM 0.25135	171228G1_	Analyte	28.7	4.83	9066.489	9066.489	11325.63	80.05
11	B7L0184-MSD1 LFSMD 0.25318	171228G1_	Analyte	28.7	4.82	10008.71	10008.71	11325.63	88.37
12	B7L0184-MS2 LFSM 0.24339	171228G1_	Analyte	28.7	4.82	9406.242	9406.242	11325.63	83.05
13	B7L0184-MSD2 LFSMD 0.25679	171228G1_	Analyte	28.7	4.82	9281.271	9281.271	11325.63	81.95
14	1701927-01RE1 TOLDO-12072017-RW-2945SE 0.24674	171228G1_	Analyte	28.7	4.82	10282.61	10282.61	11325.63	90.79
15	1701927-02RE1 TOLDO-12072017-DUP-01 0.26138	171228G1_	Analyte	28.7	4.82	10340.64	10340.64	11325.63	91.30
16	1701936-01RE1 HORSH-120717-RW-1505 0.25319	171228G1_	Analyte	28.7	4.82	9746.272	9746.272	11325.63	86.05
17	1701936-03RE1 HORSH-120717-RW-1385 0.23995	171228G1_	Analyte	28.7	4.82	9323.36	9323.36	11325.63	82.32
18	1701936-05RE1 HORSH-120817-RW-2279 0.25809	171228G1_	Analyte	28.7	4.82	9660.278	9660.278	11325.63	85.30

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19	1701936-07RE1 HORSH-120517-RW-1367 0.2552	171228G1_	Analyte	28.7	4.82	9846.267	9846.267	11325.63	86.94
20	1701936-09RE1 HORSH-120817-RW-1376 0.25904	171228G1_	Analyte	28.7	4.82	9892.387	9892.387	11325.63	87.35
21	1701936-11RE1 HORSH-120817-RW-1745 0.26398	171228G1_	Analyte	28.7	4.82	10176.75	10176.75	11325.63	89.86
22	1701936-13RE1 HORSH-120817-DUP-1745 0.26801	171228G1_	Analyte	28.7	4.82	10367.42	10367.42	11325.63	91.54
23	1701938-01 REEPDW040 0.25944	171228G1_	Analyte	28.7	4.82	9852.024	9852.024	11325.63	86.99
24	IPA	171228G1_	Analyte	28.7				11325.63	0.00
25	ST171228G1-10 PFC CS3 537 17L1424	171228G1_	Analyte	28.7	4.82	10712.31	10712.31	11325.63	94.58
26	IPA	171228G1_	Analyte	28.7				11325.63	0.00
27	1701938-02 REEPDW503 0.24799	171228G1_	Analyte	28.7	4.82	9338.899	9338.899	11325.63	82.46
28	1701938-03 REEPDW041 0.24345	171228G1_	Analyte	28.7	4.82	9414.109	9414.109	11325.63	83.12
29	1701938-04 REEPDW042 0.25464	171228G1_	Analyte	28.7	4.82	9374.374	9374.374	11325.63	82.77
30	1701940-01 REEPDWO40FRB 0.24567	171228G1_	Analyte	28.7	4.82	9473.94	9473.94	11325.63	83.65
31	1701940-02 REEPDW041FRB 0.25741	171228G1_	Analyte	28.7	4.82	9054.453	9054.453	11325.63	79.95
32	1701940-03 REEPDW042FRB 0.2529	171228G1_	Analyte	28.7	4.82	10290.79	10290.79	11325.63	90.86
33	1701951-04 FT-RW01-20171212 0.25982	171228G1_	Analyte	28.7	4.81	10221.43	10221.43	11325.63	90.25
34	1701951-05 FT-RW01-FRB-20171212 0.25309	171228G1_	Analyte	28.7	4.82	9225.396	9225.396	11325.63	81.46
35	1701951-11 FT-DUP08-20171212 0.2559	171228G1_	Analyte	28.7	4.82	9646.335	9646.335	11325.63	85.17
36	IPA	171228G1_	Analyte	28.7				11325.63	0.00
37	ST171228G1-11 PFC CS5 537 17L1426	171228G1_	Analyte	28.7	4.81	9610.105	9610.105	11325.63	84.85
38	IPA	171228G1_	Analyte	28.7				11325.63	0.00

Compound 20: d3-N-MeFOSAA

	ID	Name	Type	Std. Con	RT	Area	IS Area	Ical Area	Area %
1	B7L0166-BS1 LFB 0.25	171228G1_	Analyte	40	5.18	5189.06	5189.06	6158.85	84.25
2	B7L0184-BS1 LFB 0.25	171228G1_	Analyte	40	5.17	5680.777	5680.777	6158.85	92.24
3	IPA	171228G1_	Analyte	40				6158.85	0.00
4	B7L0184-BLK1 LRB 0.25	171228G1_	Analyte	40	5.17	5370.736	5370.736	6158.85	87.20
5	B7L0166-BLK1 LRB 0.25	171228G1_	Analyte	40	5.18	4874.518	4874.518	6158.85	79.15
6	B7L0166-MS1 LFSM 0.25546	171228G1_	Analyte	40	5.18	4359.906	4359.906	6158.85	70.79
7	B7L0166-MSD1 LFSMD 0.25461	171228G1_	Analyte	40	5.18	4966.961	4966.961	6158.85	80.65
8	B7L0166-MS2 LFSM 0.24013	171228G1_	Analyte	40	5.17	5096.846	5096.846	6158.85	82.76
9	B7L0166-MSD2 LFSMD 0.26049	171228G1_	Analyte	40	5.18	5232.019	5232.019	6158.85	84.95

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10	B7L0184-MS1 LFSM 0.25135	171228G1_Analyte	40	5.18	5740.167	5740.167	6158.85	93.20
11	B7L0184-MSD1 LFSMD 0.25318	171228G1_Analyte	40	5.18	5031.104	5031.104	6158.85	81.69
12	B7L0184-MS2 LFSM 0.24339	171228G1_Analyte	40	5.17	5740.905	5740.905	6158.85	93.21
13	B7L0184-MSD2 LFSMD 0.25679	171228G1_Analyte	40	5.17	5760.419	5760.419	6158.85	93.53
14	1701927-01RE1 TOLDO-12072017-RW-2945SE 0.24674	171228G1_Analyte	40	5.17	4736.178	4736.178	6158.85	76.90
15	1701927-02RE1 TOLDO-12072017-DUP-01 0.26138	171228G1_Analyte	40	5.17	5944.765	5944.765	6158.85	96.52
16	1701936-01RE1 HORSH-120717-RW-1505 0.25319	171228G1_Analyte	40	5.17	5250.325	5250.325	6158.85	85.25
17	1701936-03RE1 HORSH-120717-RW-1385 0.23995	171228G1_Analyte	40	5.17	5213.055	5213.055	6158.85	84.64
18	1701936-05RE1 HORSH-120817-RW-2279 0.25809	171228G1_Analyte	40	5.18	4555.667	4555.667	6158.85	73.97
19	1701936-07RE1 HORSH-120517-RW-1367 0.2552	171228G1_Analyte	40	5.17	4581.066	4581.066	6158.85	74.38
20	1701936-09RE1 HORSH-120817-RW-1376 0.25904	171228G1_Analyte	40	5.17	5578.451	5578.451	6158.85	90.58
21	1701936-11RE1 HORSH-120817-RW-1745 0.26398	171228G1_Analyte	40	5.17	5263.742	5263.742	6158.85	85.47
22	1701936-13RE1 HORSH-120817-DUP-1745 0.26801	171228G1_Analyte	40	5.17	4973.241	4973.241	6158.85	80.75
23	1701938-01 REEPDW040 0.25944	171228G1_Analyte	40	5.17	4904.258	4904.258	6158.85	79.63
24	IPA	171228G1_Analyte	40				6158.85	0.00
25	ST171228G1-10 PFC CS3 537 17L1424	171228G1_Analyte	40	5.17	6000.766	6000.766	6158.85	97.43
26	IPA	171228G1_Analyte	40				6158.85	0.00
27	1701938-02 REEPDW503 0.24799	171228G1_Analyte	40	5.17	4615.947	4615.947	6158.85	74.95
28	1701938-03 REEPDW041 0.24345	171228G1_Analyte	40	5.17	4741.186	4741.186	6158.85	76.98
29	1701938-04 REEPDW042 0.25464	171228G1_Analyte	40	5.17	4095.114	4095.114	6158.85	66.49
30	1701940-01 REEPDWO40FRB 0.24567	171228G1_Analyte	40	5.17	4286.961	4286.961	6158.85	69.61
31	1701940-02 REEPDW041FRB 0.25741	171228G1_Analyte	40	5.17	3874.042	3874.042	6158.85	62.90
32	1701940-03 REEPDW042FRB 0.2529	171228G1_Analyte	40	5.17	4933.611	4933.611	6158.85	80.11
33	1701951-04 FT-RW01-20171212 0.25982	171228G1_Analyte	40	5.17	4947.003	4947.003	6158.85	80.32
34	1701951-05 FT-RW01-FRB-20171212 0.25309	171228G1_Analyte	40	5.17	5206.006	5206.006	6158.85	84.53
35	1701951-11 FT-DUP08-20171212 0.2559	171228G1_Analyte	40	5.17	4205.676	4205.676	6158.85	68.29
36	IPA	171228G1_Analyte	40				6158.85	0.00
37	ST171228G1-11 PFC CS5 537 17L1426	171228G1_Analyte	40	5.17	5030.049	5030.049	6158.85	81.67
38	IPA	171228G1_Analyte	40				6158.85	0

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Compound 18: 13C2-PFOA ST171228G1-10 PFC CS3 537 17L1424

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	ID	Name	Type	Std. Con	RT	Area	IS Area	Ccal Area	Area %
25	ST171228G1-10 PFC CS3 537 17L1424	171228G1_	Analyte	10	4.41	9757.258	9757.258	9757.258	100.00
26	IPA	171228G1_	Analyte	10				9757.258	0.00
27	1701938-02 REEPDW503 0.24799	171228G1_	Analyte	10	4.41	7761.315	7761.315	9757.258	79.54
28	1701938-03 REEPDW041 0.24345	171228G1_	Analyte	10	4.41	8358.493	8358.493	9757.258	85.66
29	1701938-04 REEPDW042 0.25464	171228G1_	Analyte	10	4.41	7717.58	7717.58	9757.258	79.10
30	1701940-01 REEPDWO40FRB 0.24567	171228G1_	Analyte	10	4.41	8374.946	8374.946	9757.258	85.83
31	1701940-02 REEPDW041FRB 0.25741	171228G1_	Analyte	10	4.41	8435.157	8435.157	9757.258	86.45
32	1701940-03 REEPDW042FRB 0.2529	171228G1_	Analyte	10	4.41	8430.976	8430.976	9757.258	86.41
33	1701951-04 FT-RW01-20171212 0.25982	171228G1_	Analyte	10	4.41	8793.807	8793.807	9757.258	90.13
34	1701951-05 FT-RW01-FRB-20171212 0.25309	171228G1_	Analyte	10	4.41	7846.419	7846.419	9757.258	80.42
35	1701951-11 FT-DUP08-20171212 0.2559	171228G1_	Analyte	10	4.41	8001.56	8001.56	9757.258	82.01
36	IPA	171228G1_	Analyte	10				9757.258	0.00
37	ST171228G1-11 PFC CS5 537 17L1426	171228G1_	Analyte	10	4.41	7957.802	7957.802	9757.258	81.56
38	IPA	171228G1_	Analyte	10				9757.258	0.00

Compound 19: 13C4-PFOS ST171228G1-10 PFC CS3 537 17L1424

	ID	Name	Type	Std. Con	RT	Area	IS Area	Ccal Area	Area %
25	ST171228G1-10 PFC CS3 537 17L1424	171228G1_	Analyte	28.7	4.82	10712.31	10712.31	10712.31	100.00
26	IPA	171228G1_	Analyte	28.7				10712.31	0.00
27	1701938-02 REEPDW503 0.24799	171228G1_	Analyte	28.7	4.82	9338.899	9338.899	10712.31	87.18
28	1701938-03 REEPDW041 0.24345	171228G1_	Analyte	28.7	4.82	9414.109	9414.109	10712.31	87.88
29	1701938-04 REEPDW042 0.25464	171228G1_	Analyte	28.7	4.82	9374.374	9374.374	10712.31	87.51
30	1701940-01 REEPDWO40FRB 0.24567	171228G1_	Analyte	28.7	4.82	9473.94	9473.94	10712.31	88.44
31	1701940-02 REEPDW041FRB 0.25741	171228G1_	Analyte	28.7	4.82	9054.453	9054.453	10712.31	84.52
32	1701940-03 REEPDW042FRB 0.2529	171228G1_	Analyte	28.7	4.82	10290.79	10290.79	10712.31	96.07
33	1701951-04 FT-RW01-20171212 0.25982	171228G1_	Analyte	28.7	4.81	10221.43	10221.43	10712.31	95.42
34	1701951-05 FT-RW01-FRB-20171212 0.25309	171228G1_	Analyte	28.7	4.82	9225.396	9225.396	10712.31	86.12
35	1701951-11 FT-DUP08-20171212 0.2559	171228G1_	Analyte	28.7	4.82	9646.335	9646.335	10712.31	90.05
36	IPA	171228G1_	Analyte	28.7				10712.31	0.00
37	ST171228G1-11 PFC CS5 537 17L1426	171228G1_	Analyte	28.7	4.81	9610.105	9610.105	10712.31	89.71
38	IPA	171228G1_	Analyte	28.7				10712.31	0.00

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Compound 20: d3-N-MeFOSAA

ST171228G1-10 PFC CS3 537 17L1424

	ID	Name	Type	Std. Con	RT	Area	IS Area	Ccal Area	Area %	
25	ST171228G1-10 PFC CS3 537 17L1424	171228G1_	Analyte	40	5.17	6000.766	6000.766	6000.766	100	
26	IPA	171228G1_	Analyte	40				6000.766	0	
27	1701938-02 REEPDW503 0.24799	171228G1_	Analyte	40	5.17	4615.947	4615.947	6000.766	76.92	
28	1701938-03 REEPDW041 0.24345	171228G1_	Analyte	40	5.17	4741.186	4741.186	6000.766	79.01	
29	1701938-04 REEPDW042 0.25464	171228G1_	Analyte	40	5.17	4095.114	4095.114	6000.766	68.24	Not in SDG
30	1701940-01 REEPDWO40FRB 0.24567	171228G1_	Analyte	40	5.17	4286.961	4286.961	6000.766	71.44	
31	1701940-02 REEPDW041FRB 0.25741	171228G1_	Analyte	40	5.17	3874.042	3874.042	6000.766	64.56	Not in SDG
32	1701940-03 REEPDW042FRB 0.2529	171228G1_	Analyte	40	5.17	4933.611	4933.611	6000.766	82.22	
33	1701951-04 FT-RW01-20171212 0.25982	171228G1_	Analyte	40	5.17	4947.003	4947.003	6000.766	82.44	
34	1701951-05 FT-RW01-FRB-20171212 0.25309	171228G1_	Analyte	40	5.17	5206.006	5206.006	6000.766	86.76	
35	1701951-11 FT-DUP08-20171212 0.2559	171228G1_	Analyte	40	5.17	4205.676	4205.676	6000.766	70.09	
36	IPA	171228G1_	Analyte	40				6000.766	0.00	
37	ST171228G1-11 PFC CS5 537 17L1426	171228G1_	Analyte	40	5.17	5030.049	5030.049	6000.766	83.82	
38	IPA	171228G1_	Analyte	40				6000.766	0	

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Dataset: U:\G1.PRO\Results\2017\171228G1\171228G1-CRV.qld

Last Altered: Friday, December 29, 2017 10:21:25 Pacific Standard Time
Printed: Friday, December 29, 2017 10:22:23 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-28-17_L14.cdb 29 Dec 2017 10:21:25

Compound name: PFBS
Coefficient of Determination: R^2 = 0.995495
Calibration curve: 0.855592 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

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	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	0.443	3.15	156.008	11543.968	0.388	0.5	2.4	NO	0.995	NO	bb
2	2 171228G1_4	Standard	0.885	3.15	323.981	11261.563	0.826	1.0	9.0	NO	0.995	NO	bb
3	3 171228G1_5	Standard	1.770	3.15	665.722	11408.358	1.675	2.0	10.6	NO	0.995	NO	bb
4	4 171228G1_6	Standard	4.420	3.15	1436.263	11426.986	3.607	4.2	-4.6	NO	0.995	NO	bb
5	5 171228G1_7	Standard	8.850	3.15	3022.142	11556.328	7.505	8.8	-0.9	NO	0.995	NO	bb
6	6 171228G1_8	Standard	22.100	3.15	7071.595	11589.742	17.512	20.5	-7.4	NO	0.995	NO	bb
7	7 171228G1_9	Standard	44.200	3.15	15536.180	10712.165	41.624	48.6	10.1	NO	0.995	NO	bb
8	8 171228G1_10	Standard	66.300	3.15	23769.469	11617.523	58.720	68.6	3.5	NO	0.995	NO	bb
9	9 171228G1_11	Standard	88.400	3.15	26840.180	10814.080	71.232	83.3	-5.8	NO	0.995	NO	bb

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.997699
Calibration curve: -0.000537566 * x^2 + 0.275255 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	0.500	3.51	187.379	9616.197	0.195	0.7	41.8	NO	0.998	NO	bb
2	2 171228G1_4	Standard	1.000	3.50	238.119	8948.097	0.266	1.0	-3.1	NO	0.998	NO	bb
3	3 171228G1_5	Standard	2.000	3.51	589.749	9652.695	0.611	2.2	11.5	NO	0.998	NO	bb
4	4 171228G1_6	Standard	5.000	3.51	1230.209	9585.868	1.283	4.7	-5.9	NO	0.998	NO	bb
5	5 171228G1_7	Standard	10.000	3.51	2327.743	8412.562	2.767	10.3	2.6	NO	0.998	NO	bb
6	6 171228G1_8	Standard	25.000	3.51	5651.132	8882.052	6.362	24.3	-2.9	NO	0.998	NO	bb
7	7 171228G1_9	Standard	50.000	3.51	11675.836	9339.389	12.502	50.4	0.7	NO	0.998	NO	bb
8	8 171228G1_10	Standard	75.000	3.51	18302.162	11157.446	16.404	68.9	-8.2	NO	0.998	NO	bbX
9	9 171228G1_11	Standard	100.000	3.50	20780.318	8187.476	25.381	120.6	20.6	NO	0.998	NO	bbX

Dataset: U:\G1.PRO\Results\2017\171228G1\171228G1-CRV.qld

Last Altered: Friday, December 29, 2017 09:50:14 Pacific Standard Time
Printed: Friday, December 29, 2017 10:16:56 Pacific Standard Time

Compound name: PFHpA
Coefficient of Determination: R^2 = 0.998320
Calibration curve: 0.895151 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	0.500	4.02	423.525	9616.197	0.440	0.5	-1.6	NO	0.998	NO	bb
2	2 171228G1_4	Standard	1.000	4.01	879.697	8948.097	0.983	1.1	9.8	NO	0.998	NO	bb
3	3 171228G1_5	Standard	2.000	4.01	1715.313	9652.695	1.777	2.0	-0.7	NO	0.998	NO	bb
4	4 171228G1_6	Standard	5.000	4.02	4257.111	9585.868	4.441	5.0	-0.8	NO	0.998	NO	bb
5	5 171228G1_7	Standard	10.000	4.02	8297.640	8412.562	9.863	11.0	10.2	NO	0.998	NO	bb
6	6 171228G1_8	Standard	25.000	4.02	19854.434	8882.052	22.353	25.0	-0.1	NO	0.998	NO	bb
7	7 171228G1_9	Standard	50.000	4.02	40942.176	9339.389	43.838	49.0	-2.1	NO	0.998	NO	bb
8	8 171228G1_10	Standard	75.000	4.02	71359.570	11157.446	63.957	71.4	-4.7	NO	0.998	NO	bbX
9	9 171228G1_11	Standard	100.000	4.01	71498.180	8187.476	87.326	97.6	-2.4	NO	0.998	NO	bbX

Compound name: PFHxS
Coefficient of Determination: R^2 = 0.993541
Calibration curve: 0.970348 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	0.455	4.13	168.627	11543.968	0.419	0.4	-5.0	NO	0.994	NO	MM
2	2 171228G1_4	Standard	0.910	4.13	330.396	11261.563	0.842	0.9	-4.6	NO	0.994	NO	MM
3	3 171228G1_5	Standard	1.820	4.13	691.087	11408.358	1.739	1.8	-1.6	NO	0.994	NO	MM
4	4 171228G1_6	Standard	4.560	4.14	1754.884	11426.986	4.408	4.5	-0.4	NO	0.994	NO	MM
5	5 171228G1_7	Standard	9.120	4.14	3268.190	11556.328	8.117	8.4	-8.3	NO	0.994	NO	MM
6	6 171228G1_8	Standard	22.800	4.13	8292.395	11589.742	20.535	21.2	-7.2	NO	0.994	NO	MM
7	7 171228G1_9	Standard	45.600	4.13	17247.771	10712.165	46.210	47.6	4.4	NO	0.994	NO	MM
8	8 171228G1_10	Standard	68.400	4.13	29636.693	11617.523	73.215	75.5	10.3	NO	0.994	NO	MM
9	9 171228G1_11	Standard	91.200	4.13	30942.920	10814.080	82.121	84.6	-7.2	NO	0.994	NO	MM

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Compound name: PFOA
Coefficient of Determination: R^2 = 0.997896
Calibration curve: 0.846674 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	0.500	4.42	444.179	9616.197	0.462	0.5	9.1	NO	0.998	NO	bb
2	2 171228G1_4	Standard	1.000	4.42	718.656	8948.097	0.803	0.9	-5.1	NO	0.998	NO	bb
3	3 171228G1_5	Standard	2.000	4.42	1762.882	9652.695	1.826	2.2	7.9	NO	0.998	NO	bb
4	4 171228G1_6	Standard	5.000	4.43	3923.357	9585.868	4.093	4.8	-3.3	NO	0.998	NO	bb
5	5 171228G1_7	Standard	10.000	4.43	7916.375	8412.562	9.410	11.1	11.1	NO	0.998	NO	bd
6	6 171228G1_8	Standard	25.000	4.43	18722.438	8882.052	21.079	24.9	-0.4	NO	0.998	NO	bd
7	7 171228G1_9	Standard	50.000	4.42	38749.738	9339.389	41.491	49.0	-2.0	NO	0.998	NO	bd
8	8 171228G1_10	Standard	75.000	4.42	67393.055	11157.446	60.402	71.3	-4.9	NO	0.998	NO	bbX
9	9 171228G1_11	Standard	100.000	4.42	69834.078	8187.476	85.294	100.7	0.7	NO	0.998	NO	bdX

Compound name: PFNA
Coefficient of Determination: R^2 = 0.997958
Calibration curve: 0.91166 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	0.500	4.77	412.989	9616.197	0.429	0.5	-5.8	NO	0.998	NO	bb
2	2 171228G1_4	Standard	1.000	4.77	814.051	8948.097	0.910	1.0	-0.2	NO	0.998	NO	bb
3	3 171228G1_5	Standard	2.000	4.77	1574.519	9652.695	1.631	1.8	-10.5	NO	0.998	NO	bb
4	4 171228G1_6	Standard	5.000	4.77	4530.199	9585.868	4.726	5.2	3.7	NO	0.998	NO	bd
5	5 171228G1_7	Standard	10.000	4.77	7958.219	8412.562	9.460	10.4	3.8	NO	0.998	NO	bb
6	6 171228G1_8	Standard	25.000	4.77	19012.078	8882.052	21.405	23.5	-6.1	NO	0.998	NO	bd
7	7 171228G1_9	Standard	50.000	4.77	43595.273	9339.389	46.679	51.2	2.4	NO	0.998	NO	bb
8	8 171228G1_10	Standard	75.000	4.77	67948.430	11157.446	60.900	66.8	-10.9	NO	0.998	NO	bbX
9	9 171228G1_11	Standard	100.000	4.77	73826.844	8187.476	90.170	98.9	-1.1	NO	0.998	NO	bbX

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Compound name: PFOS
Coefficient of Determination: R^2 = 0.996677
Calibration curve: 1.23232 * x
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	0.464	4.83	233.467	11543.968	0.580	0.5	1.5	NO	0.997	NO	MM
2	2 171228G1_4	Standard	0.925	4.83	386.231	11261.563	0.984	0.8	-13.6	NO	0.997	NO	MM
3	3 171228G1_5	Standard	1.850	4.83	834.709	11408.358	2.100	1.7	-7.9	NO	0.997	NO	MM
4	4 171228G1_6	Standard	4.625	4.83	2041.169	11426.986	5.127	4.2	-10.1	NO	0.997	NO	MM
5	5 171228G1_7	Standard	9.250	4.83	4210.949	11556.328	10.458	8.5	-8.3	NO	0.997	NO	MM
6	6 171228G1_8	Standard	23.100	4.83	10604.495	11589.742	26.260	21.3	-7.8	NO	0.997	NO	MM
7	7 171228G1_9	Standard	46.200	4.83	22442.100	10712.165	60.127	48.8	5.6	NO	0.997	NO	MM
8	8 171228G1_10	Standard	69.300	4.83	36554.102	11617.523	90.303	73.3	5.7	NO	0.997	NO	MM
9	9 171228G1_11	Standard	92.400	4.83	41378.531	10814.080	109.816	89.1	-3.6	NO	0.997	NO	MM

Compound name: PFDA
Coefficient of Determination: R^2 = 0.998159
Calibration curve: -0.00168419 * x^2 + 0.864678 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	0.500	5.06	412.979	9616.197	0.429	0.5	-0.6	NO	0.998	NO	bb
2	2 171228G1_4	Standard	1.000	5.06	934.373	8948.097	1.044	1.2	21.0	NO	0.998	NO	bb
3	3 171228G1_5	Standard	2.000	5.06	1761.919	9652.695	1.825	2.1	6.0	NO	0.998	NO	bb
4	4 171228G1_6	Standard	5.000	5.07	3855.568	9585.868	4.022	4.7	-6.1	NO	0.998	NO	bb
5	5 171228G1_7	Standard	10.000	5.07	7488.775	8412.562	8.902	10.5	5.1	NO	0.998	NO	bd
6	6 171228G1_8	Standard	25.000	5.07	17591.451	8882.052	19.806	24.0	-3.9	NO	0.998	NO	bb
7	7 171228G1_9	Standard	50.000	5.06	36737.652	9339.389	39.336	50.4	0.9	NO	0.998	NO	bb
8	8 171228G1_10	Standard	75.000	5.06	63259.305	11157.446	56.697	77.2	2.9	NO	0.998	NO	bbX
9	9 171228G1_11	Standard	100.000	5.06	64960.406	8187.476	79.341	119.6	19.6	NO	0.998	NO	bbX

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.993308
Calibration curve: 0.00236446 * x^2 + 2.48743 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	171228G1_3	Standard	0.500	5.18	198.978	6359.849	1.251	0.5	0.6	NO	0.993	NO	bb
2	2	171228G1_4	Standard	1.000	5.18	367.439	6306.363	2.331	0.9	-6.4	NO	0.993	NO	bb
3	3	171228G1_5	Standard	2.000	5.19	630.117	6561.747	3.841	1.5	-22.9	NO	0.993	NO	bb
4	4	171228G1_6	Standard	5.000	5.18	1759.531	5647.429	12.463	5.0	-0.3	NO	0.993	NO	bb
5	5	171228G1_7	Standard	10.000	5.19	3464.958	6393.742	21.677	8.6	-13.6	NO	0.993	NO	bb
6	6	171228G1_8	Standard	25.000	5.19	10409.923	6114.826	68.096	26.7	6.8	NO	0.993	NO	bd
7	7	171228G1_9	Standard	50.000	5.18	18734.965	6160.144	121.653	46.8	-6.4	NO	0.993	NO	bd
8	8	171228G1_10	Standard	75.000	5.19	34180.613	6175.573	221.392	82.5	10.0	NO	0.993	NO	bd
9	9	171228G1_11	Standard	100.000	5.18	37088.180	5709.973	259.813	95.7	-4.3	NO	0.993	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.997522
Calibration curve: 1.71892 * x
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	171228G1_3	Standard	0.500	5.31	139.100	6359.849	0.875	0.5	1.8	NO	0.998	NO	bb
2	2	171228G1_4	Standard	1.000	5.30	233.860	6306.363	1.483	0.9	-13.7	NO	0.998	NO	bb
3	3	171228G1_5	Standard	2.000	5.31	643.793	6561.747	3.925	2.3	14.2	NO	0.998	NO	bb
4	4	171228G1_6	Standard	5.000	5.31	1176.526	5647.429	8.333	4.8	-3.0	NO	0.998	NO	bb
5	5	171228G1_7	Standard	10.000	5.31	2651.639	6393.742	16.589	9.7	-3.5	NO	0.998	NO	bb
6	6	171228G1_8	Standard	25.000	5.31	6766.835	6114.826	44.265	25.8	3.0	NO	0.998	NO	bb
7	7	171228G1_9	Standard	50.000	5.31	12695.381	6160.144	82.436	48.0	-4.1	NO	0.998	NO	bd
8	8	171228G1_10	Standard	75.000	5.31	21213.447	6175.573	137.402	79.9	6.6	NO	0.998	NO	bb
9	9	171228G1_11	Standard	100.000	5.31	23728.014	5709.973	166.222	96.7	-3.3	NO	0.998	NO	bd

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Compound name: PFUnA
Coefficient of Determination: R^2 = 0.997590
Calibration curve: 0.86949 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	0.500	5.31	359.914	9616.197	0.374	0.4	-13.9	NO	0.998	NO	MM
2	2 171228G1_4	Standard	1.000	5.31	770.120	8948.097	0.861	1.0	-1.0	NO	0.998	NO	bb
3	3 171228G1_5	Standard	2.000	5.31	1639.007	9652.695	1.698	2.0	-2.4	NO	0.998	NO	bb
4	4 171228G1_6	Standard	5.000	5.31	3689.776	9585.868	3.849	4.4	-11.5	NO	0.998	NO	bb
5	5 171228G1_7	Standard	10.000	5.32	8035.258	8412.562	9.551	11.0	9.9	NO	0.998	NO	bd
6	6 171228G1_8	Standard	25.000	5.32	19702.148	8882.052	22.182	25.5	2.0	NO	0.998	NO	bb
7	7 171228G1_9	Standard	50.000	5.32	39955.523	9339.389	42.782	49.2	-1.6	NO	0.998	NO	bb
8	8 171228G1_10	Standard	75.000	5.32	64680.633	11157.446	57.971	66.7	-11.1	NO	0.998	NO	bdX
9	9 171228G1_11	Standard	100.000	5.31	69640.461	8187.476	85.057	97.8	-2.2	NO	0.998	NO	bbX

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.997723
Calibration curve: 0.17695 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	0.500	5.54	67.032	9616.197	0.070	0.4	-21.2	NO	0.998	NO	bb
2	2 171228G1_4	Standard	1.000	5.54	142.823	8948.097	0.160	0.9	-9.8	NO	0.998	NO	bb
3	3 171228G1_5	Standard	2.000	5.54	343.593	9652.695	0.356	2.0	0.6	NO	0.998	NO	bb
4	4 171228G1_6	Standard	5.000	5.54	764.335	9585.868	0.797	4.5	-9.9	NO	0.998	NO	bb
5	5 171228G1_7	Standard	10.000	5.54	1580.828	8412.562	1.879	10.6	6.2	NO	0.998	NO	bb
6	6 171228G1_8	Standard	25.000	5.54	3765.447	8882.052	4.239	24.0	-4.2	NO	0.998	NO	bb
7	7 171228G1_9	Standard	50.000	5.54	8446.277	9339.389	9.044	51.1	2.2	NO	0.998	NO	bb
8	8 171228G1_10	Standard	75.000	5.54	13982.007	11157.446	12.532	70.8	-5.6	NO	0.998	NO	bdX
9	9 171228G1_11	Standard	100.000	5.54	14085.404	8187.476	17.204	97.2	-2.8	NO	0.998	NO	bbX

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999328
Calibration curve: 1.42543 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	0.500	5.73	645.131	9616.197	0.671	0.5	-5.9	NO	0.999	NO	bb
2	2 171228G1_4	Standard	1.000	5.73	1294.362	8948.097	1.447	1.0	1.5	NO	0.999	NO	bb
3	3 171228G1_5	Standard	2.000	5.73	2883.075	9652.695	2.987	2.1	4.8	NO	0.999	NO	bb
4	4 171228G1_6	Standard	5.000	5.73	6537.007	9585.868	6.819	4.8	-4.3	NO	0.999	NO	bd
5	5 171228G1_7	Standard	10.000	5.74	12571.452	8412.562	14.944	10.5	4.8	NO	0.999	NO	bb
6	6 171228G1_8	Standard	25.000	5.73	32106.160	8882.052	36.147	25.4	1.4	NO	0.999	NO	bb
7	7 171228G1_9	Standard	50.000	5.73	65621.680	9339.389	70.263	49.3	-1.4	NO	0.999	NO	bb
8	8 171228G1_10	Standard	75.000	5.73	111417.445	11157.446	99.859	70.1	-6.6	NO	0.999	NO	bbX
9	9 171228G1_11	Standard	100.000	5.73	115503.813	8187.476	141.074	99.0	-1.0	NO	0.999	NO	bbX

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.999327
Calibration curve: 1.38026 * x
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	0.500	5.90	635.856	9616.197	0.661	0.5	-4.2	NO	0.999	NO	bb
2	2 171228G1_4	Standard	1.000	5.89	1188.867	8948.097	1.329	1.0	-3.7	NO	0.999	NO	bb
3	3 171228G1_5	Standard	2.000	5.90	2797.361	9652.695	2.898	2.1	5.0	NO	0.999	NO	bb
4	4 171228G1_6	Standard	5.000	5.90	5991.379	9585.868	6.250	4.5	-9.4	NO	0.999	NO	bd
5	5 171228G1_7	Standard	10.000	5.90	11742.494	8412.562	13.958	10.1	1.1	NO	0.999	NO	bd
6	6 171228G1_8	Standard	25.000	5.90	30866.508	8882.052	34.752	25.2	0.7	NO	0.999	NO	bd
7	7 171228G1_9	Standard	50.000	5.90	64634.898	9339.389	69.207	50.1	0.3	NO	0.999	NO	bb
8	8 171228G1_10	Standard	75.000	5.90	110342.953	11157.446	98.896	71.7	-4.5	NO	0.999	NO	bbX
9	9 171228G1_11	Standard	100.000	5.90	116548.750	8187.476	142.350	103.1	3.1	NO	0.999	NO	bbX

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Compound name: 13C2-PFHxA
Response Factor: 0.498869
RRF SD: 0.027857, Relative SD: 5.58404
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	171228G1_3	Standard	10.000	3.50	4616.387	9616.197	4.801	9.6	-3.8	NO		NO	bb
2	2	171228G1_4	Standard	10.000	3.50	4628.783	8948.097	5.173	10.4	3.7	NO		NO	bb
3	3	171228G1_5	Standard	10.000	3.50	4680.351	9652.695	4.849	9.7	-2.8	NO		NO	bb
4	4	171228G1_6	Standard	10.000	3.51	4689.450	9585.868	4.892	9.8	-1.9	NO		NO	bd
5	5	171228G1_7	Standard	10.000	3.51	4657.353	8412.562	5.536	11.1	11.0	NO		NO	bb
6	6	171228G1_8	Standard	10.000	3.51	4204.746	8882.052	4.734	9.5	-5.1	NO		NO	bd
7	7	171228G1_9	Standard	10.000	3.51	4610.188	9339.389	4.936	9.9	-1.1	NO		NO	bb
8	8	171228G1_10	Standard	10.000	3.50	5337.031	11157.446	4.783	9.6	-4.1	NO		NO	bbX
9	9	171228G1_11	Standard	10.000	3.50	4315.054	8187.476	5.270	10.6	5.6	NO		NO	bbX

Compound name: 13C2-PFDA
Response Factor: 0.582167
RRF SD: 0.0395445, Relative SD: 6.79265
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	171228G1_3	Standard	10.000	5.06	5693.775	9616.197	5.921	10.2	1.7	NO		NO	bd
2	2	171228G1_4	Standard	10.000	5.06	5300.004	8948.097	5.923	10.2	1.7	NO		NO	bb
3	3	171228G1_5	Standard	10.000	5.06	5076.118	9652.695	5.259	9.0	-9.7	NO		NO	bb
4	4	171228G1_6	Standard	10.000	5.06	5328.732	9585.868	5.559	9.5	-4.5	NO		NO	bb
5	5	171228G1_7	Standard	10.000	5.06	5303.460	8412.562	6.304	10.8	8.3	NO		NO	bb
6	6	171228G1_8	Standard	10.000	5.07	4896.271	8882.052	5.513	9.5	-5.3	NO		NO	bb
7	7	171228G1_9	Standard	10.000	5.06	5858.713	9339.389	6.273	10.8	7.8	NO		NO	bb
8	8	171228G1_10	Standard	10.000	5.06	5932.525	11157.446	5.317	9.1	-8.7	NO		NO	bbX
9	9	171228G1_11	Standard	10.000	5.06	5164.591	8187.476	6.308	10.8	8.4	NO		NO	bbX

Dataset: U:\G1.PRO\Results\2017\171228G1\171228G1-CRV.qld

Last Altered: Friday, December 29, 2017 09:50:14 Pacific Standard Time
Printed: Friday, December 29, 2017 10:16:56 Pacific Standard Time

Compound name: d5-N-EtFOSAA
Response Factor: 1.18231
RRF SD: 0.121591, Relative SD: 10.2843
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	40.000	5.30	7558.749	6359.849	47.540	40.2	0.5	NO		NO	bb
2	2 171228G1_4	Standard	40.000	5.30	7120.129	6306.363	45.162	38.2	-4.5	NO		NO	bb
3	3 171228G1_5	Standard	40.000	5.30	7320.658	6561.747	44.626	37.7	-5.6	NO		NO	bb
4	4 171228G1_6	Standard	40.000	5.30	7496.497	5647.429	53.097	44.9	12.3	NO		NO	bb
5	5 171228G1_7	Standard	40.000	5.31	6320.259	6393.742	39.540	33.4	-16.4	NO		NO	bb
6	6 171228G1_8	Standard	40.000	5.31	7739.659	6114.826	50.629	42.8	7.1	NO		NO	bd
7	7 171228G1_9	Standard	40.000	5.30	7650.919	6160.144	49.680	42.0	5.0	NO		NO	bb
8	8 171228G1_10	Standard	40.000	5.30	8251.974	6175.573	53.449	45.2	13.0	NO		NO	bb
9	9 171228G1_11	Standard	40.000	5.30	5982.135	5709.973	41.907	35.4	-11.4	NO		NO	bb

Compound name: 13C2-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 171228G1_3	Standard	10.000	4.42	9616.197	9616.197	10.000	10.0	0.0	NO		NO	bb
2	2 171228G1_4	Standard	10.000	4.42	8948.097	8948.097	10.000	10.0	0.0	NO		NO	bb
3	3 171228G1_5	Standard	10.000	4.42	9652.695	9652.695	10.000	10.0	0.0	NO		NO	bb
4	4 171228G1_6	Standard	10.000	4.42	9585.868	9585.868	10.000	10.0	0.0	NO		NO	bb
5	5 171228G1_7	Standard	10.000	4.42	8412.562	8412.562	10.000	10.0	0.0	NO		NO	bd
6	6 171228G1_8	Standard	10.000	4.42	8882.052	8882.052	10.000	10.0	0.0	NO		NO	bb
7	7 171228G1_9	Standard	10.000	4.42	9339.389	9339.389	10.000	10.0	0.0	NO		NO	bb
8	8 171228G1_10	Standard	10.000	4.43	11157.446	11157.446	10.000	10.0	0.0	NO		NO	bdX
9	9 171228G1_11	Standard	10.000	4.42	8187.476	8187.476	10.000	10.0	0.0	NO		NO	bdX

Dataset: U:\G1.PRO\Results\2017\171228G1\171228G1-CRV.qld

Last Altered: Friday, December 29, 2017 09:50:14 Pacific Standard Time
Printed: Friday, December 29, 2017 10:16:56 Pacific Standard Time

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 3.92523e-017, Relative SD: 3.92523e-015
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	171228G1_3	Standard	28.700	4.83	11543.968	11543.968	28.700	28.7	0.0	NO		NO	bb
2	2	171228G1_4	Standard	28.700	4.83	11261.563	11261.563	28.700	28.7	0.0	NO		NO	bd
3	3	171228G1_5	Standard	28.700	4.83	11408.358	11408.358	28.700	28.7	0.0	NO		NO	bb
4	4	171228G1_6	Standard	28.700	4.83	11426.986	11426.986	28.700	28.7	0.0	NO		NO	bb
5	5	171228G1_7	Standard	28.700	4.84	11556.328	11556.328	28.700	28.7	0.0	NO		NO	bd
6	6	171228G1_8	Standard	28.700	4.83	11589.742	11589.742	28.700	28.7	0.0	NO		NO	bb
7	7	171228G1_9	Standard	28.700	4.83	10712.165	10712.165	28.700	28.7	0.0	NO		NO	bd
8	8	171228G1_10	Standard	28.700	4.83	11617.523	11617.523	28.700	28.7	0.0	NO		NO	bb
9	9	171228G1_11	Standard	28.700	4.83	10814.080	10814.080	28.700	28.7	0.0	NO		NO	bb

Compound name: d3-N-MeFOSAA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	171228G1_3	Standard	40.000	5.18	6359.849	6359.849	40.000	40.0	0.0	NO		NO	bb
2	2	171228G1_4	Standard	40.000	5.18	6306.363	6306.363	40.000	40.0	0.0	NO		NO	bb
3	3	171228G1_5	Standard	40.000	5.18	6561.747	6561.747	40.000	40.0	0.0	NO		NO	bd
4	4	171228G1_6	Standard	40.000	5.18	5647.429	5647.429	40.000	40.0	0.0	NO		NO	bd
5	5	171228G1_7	Standard	40.000	5.18	6393.742	6393.742	40.000	40.0	0.0	NO		NO	bb
6	6	171228G1_8	Standard	40.000	5.18	6114.826	6114.826	40.000	40.0	0.0	NO		NO	bd
7	7	171228G1_9	Standard	40.000	5.18	6160.144	6160.144	40.000	40.0	0.0	NO		NO	bb
8	8	171228G1_10	Standard	40.000	5.18	6175.573	6175.573	40.000	40.0	0.0	NO		NO	bd
9	9	171228G1_11	Standard	40.000	5.18	5709.973	5709.973	40.000	40.0	0.0	NO		NO	bb

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Dataset: U:\G1.PRO\Results\2017\171228G1\171228G1-CRV.qld

Last Altered: Friday, December 29, 2017 10:21:25 Pacific Standard Time
Printed: Friday, December 29, 2017 10:23:49 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-28-17_L14.cdb 29 Dec 2017 10:21:25

Name: 171228G1_3, Date: 28-Dec-2017, Time: 12:15:18, ID: ST171228G1-1 PFC CS-3 537 17L1418, Description: PFC CS-3 537 17L1418

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBS	0.9955	NO	
2	2	PFHxA	0.9977	NO	
3	3	PFHpA	0.9983	NO	
4	4	PFHxS	0.9935	NO	
5	5	PFOA	0.9979	NO	
6	6	PFNA	0.9980	NO	
7	7	PFOS	0.9967	NO	
8	8	PFDA	0.9982	NO	
9	9	N-MeFOSAA	0.9933	NO	
10	10	N-EtFOSAA	0.9975	NO	
11	11	PFUnA	0.9976	NO	
12	12	PFDoA	0.9977	NO	
13	13	PFTrDA	0.9993	NO	
14	14	PFTeDA	0.9993	NO	
15	15	13C2-PFHxA		NO	5.584
16	16	13C2-PFDA		NO	6.793
17	17	d5-N-EtFOSAA		NO	10.284
18	18	13C2-PFOA		NO	0.000
19	19	13C4-PFOS		NO	0.000
20	20	d3-N-MeFOSAA		NO	0.000

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, December 29, 2017 10:49:02 Pacific Standard Time
Printed: Friday, December 29, 2017 10:49:10 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-28-17_L14.cdb 29 Dec 2017 10:21:25

Compound name: PFBS

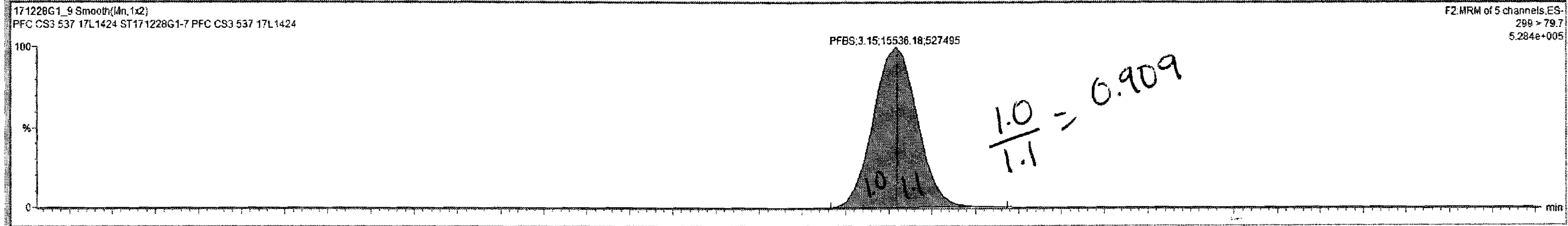
	Name	ID	Acq.Date	Acq.Time
1	171228G1_1	IPA	28-Dec-17	11:50:26
2	171228G1_2	ICV171228G1-1 PFC ICV 537 17L1427	28-Dec-17	12:02:54
3	171228G1_3	ST171228G1-1 PFC CS-3 537 17L1418	28-Dec-17	12:15:18
4	171228G1_4	ST171228G1-2 PFC CS-2 537 17L1419	28-Dec-17	12:27:42
5	171228G1_5	ST171228G1-3 PFC CS-1 537 17L2105	28-Dec-17	12:40:08
6	171228G1_6	ST171228G1-4 PFC CS0 537 17L1421	28-Dec-17	12:52:35
7	171228G1_7	ST171228G1-5 PFC CS1 537 17L1422	28-Dec-17	13:05:01
8	171228G1_8	ST171228G1-6 PFC CS2 537 17L1423	28-Dec-17	13:17:29
9	171228G1_9	ST171228G1-7 PFC CS3 537 17L1424	28-Dec-17	13:29:56
10	171228G1_10	ST171228G1-8 PFC CS4 537 17L1425	28-Dec-17	13:42:25
11	171228G1_11	ST171228G1-9 PFC CS5 537 17L1426	28-Dec-17	13:54:49
12	171228G1_12	IPA	28-Dec-17	14:07:14

TargetLynx XS - 171228G1-CRV.qld - [Chromatogram]

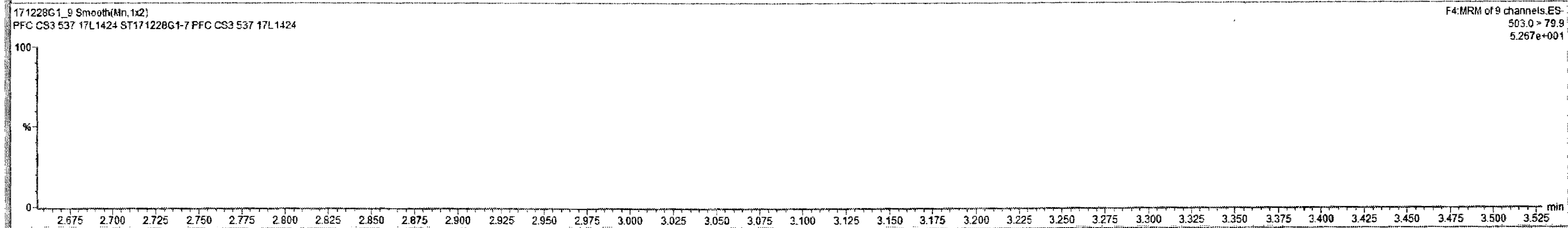
File Edit View Display Processing Window Help

PFBS

	#	Name	Type	Std. Conc	RT	Resp	IS Resp	Response	Conc.	%Dev	RRF Mean	RRF %RSD	RRF	Primary Flags
1	1	171228G1_3	Standard	0.443	3.15	1.560e2	1.154e4	0.386	0.5	2.4			0.877	bb
2	2	171228G1_4	Standard	0.885	3.15	3.240e2	1.126e4	0.826	1.0	9.0			0.933	bb
3	3	171228G1_5	Standard	1.770	3.15	6.657e2	1.141e4	1.675	2.0	10.6			0.946	bb
4	4	171228G1_6	Standard	4.420	3.15	1.436e3	1.143e4	3.607	4.2	-4.6			0.816	bb
5	5	171228G1_7	Standard	8.850	3.15	3.022e3	1.156e4	7.505	8.8	-0.9			0.848	bb
6	6	171228G1_8	Standard	22.100	3.15	7.072e3	1.159e4	17.512	20.5	-7.4			0.792	bb
7	7	171228G1_9	Standard	44.200	3.15	1.554e4	1.071e4	41.624	48.6	10.1			0.942	bb
8	8	171228G1_10	Standard	66.300	3.15	2.377e4	1.162e4	58.720	68.6	3.5			0.886	bb
9	9	171228G1_11	Standard	88.400	3.15	2.684e4	1.081e4	71.232	83.3	-5.8			0.806	bb



$\frac{1.0}{1.1} = 0.909$



Custom Reporting: Select reports to generate PFBS CAP NUM

TargetLynx XS - 171228G1-CRV.qld - [Chromatogram]

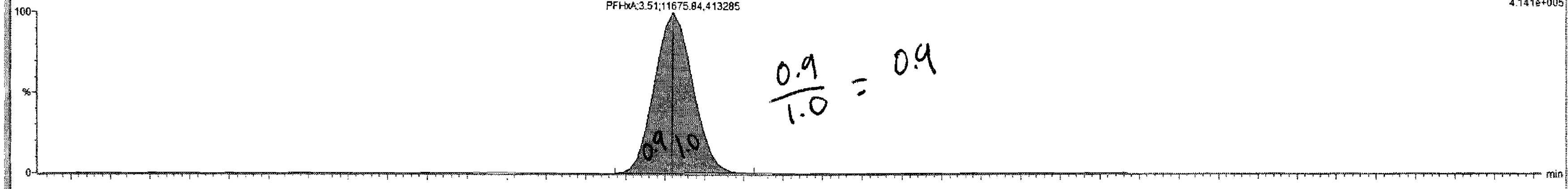
File Edit View Display Processing Window Help

PFHxA

	#	Name	Type	Std. Conc	RT	Resp	IS Resp	Response	Conc.	%Dev	RRF Mean	RRF %RSD	RRF	Primary Flags
1	1	171228G1_3	Standard	0.500	3.51	1.874e2	9.616e3	0.195	0.6	51.9			0.390	bb
2	2	171228G1_4	Standard	1.000	3.50	2.381e2	8.948e3	0.266	1.0	3.7			0.266	bb
3	3	171228G1_5	Standard	2.000	3.51	5.897e2	9.653e3	0.611	2.4	19.1			0.305	bb
4	4	171228G1_6	Standard	5.000	3.51	1.230e3	9.586e3	1.283	5.0	0.1			0.257	bb
5	5	171228G1_7	Standard	10.000	3.51	2.328e3	8.413e3	2.767	10.8	7.9			0.277	bb
6	6	171228G1_8	Standard	25.000	3.51	5.651e3	8.882e3	6.362	24.8	-0.8			0.254	bb
7	7	171228G1_9	Standard	50.000	3.51	1.168e4	9.339e3	12.502	48.7	-2.5			0.250	bb
8	8	171228G1_10	Standard	75.000	3.51	1.830e4	1.116e4	16.404	63.9	-14.7			0.219	bbX
9	9	171228G1_11	Standard	100.000	3.50	2.078e4	8.187e3	25.381	98.9	-1.1			0.254	bbX

171228G1_9 Smooth(Mn,1x2)
PFC CS3 537 17L1424 ST171228G1-7 PFC CS3 537 17L1424

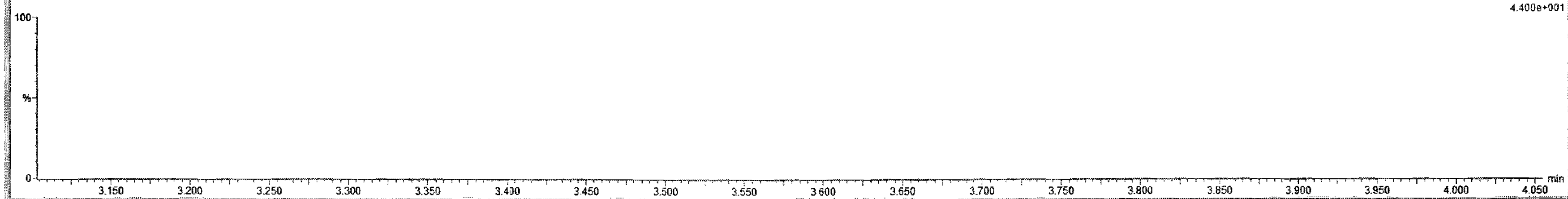
F2:MRM of 5 channels,ES-
313.2 > 268.9
4.141e+005



$\frac{0.9}{1.0} = 0.9$

171228G1_9 Smooth(Mn,1x2)
PFC CS3 537 17L1424 ST171228G1-7 PFC CS3 537 17L1424

F4:MRM of 9 channels,ES-
414.9 > 369.7
4.400e+001



Custom Reporting: Select reports to generate PFHxA CAP NUM

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: U:\G1.PRO\Results\2017\171228G1\171228G1-.qld

Last Altered: Friday, December 29, 2017 10:47:01 Pacific Standard Time
Printed: Friday, December 29, 2017 10:47:22 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-28-17_L14.cdb 29 Dec 2017 10:21:25

Name: 171228G1_2, Date: 28-Dec-2017, Time: 12:02:54, ID: ICV171228G1-1 PFC ICV 537 17L1427, Description: PFC ICV 537 17L1427

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	3.45e3	1.17e4	1.0000		3.19	3.15	8.43	9.849	98.5
2	2 PFHxA	313.2 > 268.9	2.60e3	1.00e4	1.0000		3.54	3.50	2.60	9.609	96.1
3	3 PFHpA	363 > 318.9	8.06e3	1.00e4	1.0000		4.02	4.01	8.05	8.993	89.9
4	4 PFHxS	398.9 > 79.6	3.93e3	1.17e4	1.0000		4.18	4.13	9.60	9.890	98.9
5	5 PFOA	413 > 368.7	8.76e3	1.00e4	1.0000		4.42	4.42	8.76	10.342	103.4
6	6 PFNA	463 > 418.8	8.63e3	1.00e4	1.0000		4.77	4.77	8.62	9.453	94.5
7	7 PFOS	499 >79.9	5.00e3	1.17e4	1.0000		4.83	4.83	12.2	9.914	99.1
8	8 PFDA	513 > 468.8	8.72e3	1.00e4	1.0000		5.03	5.06	8.71	10.279	102.8
9	9 N-MeFOSAA	570.1 > 419.0	4.29e3	6.16e3	1.0000		5.18	5.18	27.8	11.066	110.7
10	10 N-EtFOSAA	584.2 >419.0	2.48e3	6.16e3	1.0000		5.30	5.31	16.1	9.369	93.7
11	11 PFUnA	563 > 518.9	8.05e3	1.00e4	1.0000		5.27	5.31	8.04	9.251	92.5
12	12 PFDoA	612.9 > 318.8	1.65e3	1.00e4	1.0000		5.48	5.54	1.65	9.312	93.1
13	13 PFTrDA	662.9 > 618.9	1.32e4	1.00e4	1.0000		5.64	5.73	13.2	9.246	92.5
14	14 PFTeDA	712.9 > 668.8	1.34e4	1.00e4	1.0000		5.82	5.90	13.4	9.700	97.0
15	15 13C2-PFHxA	315 > 269.8	4.77e3	1.00e4	1.0000	0.499	3.54	3.50	4.77	9.559	95.6
16	16 13C2-PFDA	515.1 > 469.9	5.40e3	1.00e4	1.0000	0.582	5.04	5.06	5.39	9.260	92.6
17	17 d5-N-EtFOSAA	589.3 > 419.0	6.99e3	6.16e3	1.0000	1.182	5.18	5.30	45.4	38.385	96.0
18	18 13C2-PFOA	414.9 > 369.7	1.00e4	1.00e4	1.0000	1.000	4.41	4.42	10.0	10.000	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.17e4	1.17e4	1.0000	1.000	4.81	4.83	28.7	28.700	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	6.16e3	6.16e3	1.0000	1.000	5.16	5.18	40.0	40.000	100.0

70-130

12/29/17

12/29/2017

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

PFDS <70% in ICV.

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time
Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_011518.mdb 15 Jan 2018 11:38:30
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-15-18-FULL-OLD.cdb 16 Jan 2018 10:22:57

DC 1/16/18

JHA 01/16/2018

Compound name: PFBA
Correlation coefficient: r = 0.998579, r^2 = 0.997160
Calibration curve: 1.33977 * x + -0.0328732
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	1.53	169.362	8006.990	0.264	0.2	-11.2	NO	0.997	NO	bb
2	2 180115M2_2	Standard	0.500	1.53	462.377	8945.453	0.646	0.5	1.4	NO	0.997	NO	bb
3	3 180115M2_3	Standard	1.000	1.53	1135.743	11178.312	1.270	1.0	-2.8	NO	0.997	NO	bb
4	4 180115M2_4	Standard	2.000	1.53	2008.745	9860.501	2.546	1.9	-3.7	NO	0.997	NO	bb
5	5 180115M2_5	Standard	5.000	1.52	5607.313	10104.886	6.936	5.2	4.0	NO	0.997	NO	bb
6	6 180115M2_6	Standard	10.000	1.52	12518.734	10919.465	14.331	10.7	7.2	NO	0.997	NO	bb
7	7 180115M2_7	Standard	50.000	1.52	47957.504	9706.659	61.759	46.1	-7.8	NO	0.997	NO	bb
8	8 180115M2_8	Standard	100.000	1.52	99506.547	9008.640	138.071	103.1	3.1	NO	0.997	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.997990, r^2 = 0.995984
Calibration curve: 1.15515 * x + -0.0327357
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	2.48	169.733	8868.418	0.239	0.2	-5.8	NO	0.996	NO	MM
2	2 180115M2_2	Standard	0.500	2.48	456.397	10441.303	0.546	0.5	0.3	NO	0.996	NO	MM
3	3 180115M2_3	Standard	1.000	2.48	1148.539	13027.811	1.102	1.0	-1.8	NO	0.996	NO	MM
4	4 180115M2_4	Standard	2.000	2.48	2044.792	11372.540	2.248	2.0	-1.3	NO	0.996	NO	MM
5	5 180115M2_5	Standard	5.000	2.48	5892.852	11971.679	6.153	5.4	7.1	NO	0.996	NO	MM
6	6 180115M2_6	Standard	10.000	2.48	12361.923	12510.149	12.352	10.7	7.2	NO	0.996	NO	MM
7	7 180115M2_7	Standard	50.000	2.48	46897.496	11201.616	52.333	45.3	-9.3	NO	0.996	NO	MM
8	8 180115M2_8	Standard	100.000	2.48	99353.172	10375.532	119.696	103.6	3.6	NO	0.996	NO	MM

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Compound name: PFBS
Coefficient of Determination: R^2 = 0.996395
Calibration curve: 0.00351371 * x^2 + 1.85665 * x + 0.254875
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	2.75	57.475	1196.924	0.600	0.2	-25.6	NO	0.996	NO	MM
2	2 180115M2_2	Standard	0.500	2.75	97.312	1206.778	1.008	0.4	-18.9	NO	0.996	NO	bb
3	3 180115M2_3	Standard	1.000	2.75	267.604	1442.793	2.318	1.1	10.9	NO	0.996	NO	bb
4	4 180115M2_4	Standard	2.000	2.75	456.564	1290.825	4.421	2.2	11.7	NO	0.996	NO	bb
5	5 180115M2_5	Standard	5.000	2.74	1258.317	1432.762	10.978	5.7	14.3	NO	0.996	NO	bb
6	6 180115M2_6	Standard	10.000	2.75	2824.915	1624.717	21.734	11.3	13.3	NO	0.996	NO	bb
7	7 180115M2_7	Standard	50.000	2.75	9832.006	1307.205	94.017	46.4	-7.2	NO	0.996	NO	bb
8	8 180115M2_8	Standard	100.000	2.74	21516.695	1197.229	224.651	101.4	1.4	NO	0.996	NO	bb

Compound name: PFHxA
Correlation coefficient: r = 0.996265, r^2 = 0.992544
Calibration curve: 1.75438 * x + 0.0169924
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	3.25	306.921	2798.348	0.548	0.3	21.2	NO	0.993	NO	bb
2	2 180115M2_2	Standard	0.500	3.25	548.713	3301.620	0.831	0.5	-7.2	NO	0.993	NO	bb
3	3 180115M2_3	Standard	1.000	3.25	1388.564	4246.745	1.635	0.9	-7.8	NO	0.993	NO	bb
4	4 180115M2_4	Standard	2.000	3.25	2429.710	3760.921	3.230	1.8	-8.4	NO	0.993	NO	bb
5	5 180115M2_5	Standard	5.000	3.25	7106.033	3739.436	9.501	5.4	8.1	NO	0.993	NO	bb
6	6 180115M2_6	Standard	10.000	3.25	14392.021	4073.186	17.667	10.1	0.6	NO	0.993	NO	bb
7	7 180115M2_7	Standard	50.000	3.25	53584.609	3489.034	76.790	43.8	-12.5	NO	0.993	NO	bb
8	8 180115M2_8	Standard	100.000	3.24	123063.164	3308.405	185.986	106.0	6.0	NO	0.993	NO	bb

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Compound name: PFHpA
Correlation coefficient: r = 0.997692, r^2 = 0.995389
Calibration curve: 1.49645 * x + -0.0592287
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	3.87	179.873	7169.426	0.314	0.2	-0.3	NO	0.995	NO	bb
2	2 180115M2_2	Standard	0.500	3.87	469.863	8300.460	0.708	0.5	2.5	NO	0.995	NO	bb
3	3 180115M2_3	Standard	1.000	3.87	1139.616	10064.894	1.415	1.0	-1.5	NO	0.995	NO	bb
4	4 180115M2_4	Standard	2.000	3.87	2080.912	8890.794	2.926	2.0	-0.3	NO	0.995	NO	bb
5	5 180115M2_5	Standard	5.000	3.87	5066.119	8790.349	7.204	4.9	-2.9	NO	0.995	NO	bb
6	6 180115M2_6	Standard	10.000	3.87	12529.151	9715.788	16.120	10.8	8.1	NO	0.995	NO	bb
7	7 180115M2_7	Standard	50.000	3.87	47028.797	8726.845	67.362	45.1	-9.9	NO	0.995	NO	bb
8	8 180115M2_8	Standard	100.000	3.86	101713.539	8149.912	156.004	104.3	4.3	NO	0.995	NO	bb

Compound name: L-PFHxS
Coefficient of Determination: R^2 = 0.999726
Calibration curve: -0.0119577 * x^2 + 2.1128 * x + 0.0383417
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	4.01	38.643	793.087	0.609	0.3	8.2	NO	1.000	NO	MM
2	2 180115M2_2	Standard	0.500	4.02	85.314	971.136	1.098	0.5	0.6	NO	1.000	NO	MM
3	3 180115M2_3	Standard	1.000	4.01	182.145	1035.130	2.200	1.0	2.9	NO	1.000	NO	MM
4	4 180115M2_4	Standard	2.000	4.01	349.074	1074.646	4.060	1.9	-3.8	NO	1.000	NO	MM
5	5 180115M2_5	Standard	5.000	4.01	873.617	1083.133	10.082	4.9	-2.2	NO	1.000	NO	MM
6	6 180115M2_6	Standard	10.000	4.01	1964.532	1211.424	20.271	10.2	1.6	NO	1.000	NO	MM
7	7 180115M2_7	Standard	50.000	4.01	6470.750	1067.766	75.751	50.0	-0.1	NO	1.000	NO	MM
8	8 180115M2_8	Standard	100.000	4.01	14751.116	1041.940	176.967			NO	1.000	NO	MMXI

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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.995384
Calibration curve: -0.00485621 * x^2 + 2.92773 * x + -0.123035
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	4.32	28.815	793.087	0.454	0.2	-21.1	NO	0.995	NO	MM
2	2 180115M2_2	Standard	0.500	4.34	118.251	971.136	1.522	0.6	12.5	NO	0.995	NO	bb
3	3 180115M2_3	Standard	1.000	4.34	221.274	1035.130	2.672	1.0	-4.4	NO	0.995	NO	bb
4	4 180115M2_4	Standard	2.000	4.33	430.245	1074.646	5.004	1.8	-12.2	NO	0.995	NO	bb
5	5 180115M2_5	Standard	5.000	4.32	1149.229	1083.133	13.263	4.6	-7.9	NO	0.995	NO	bb
6	6 180115M2_6	Standard	10.000	4.33	3333.318	1211.424	34.395	12.0	20.3	NO	0.995	NO	bb
7	7 180115M2_7	Standard	50.000	4.33	10895.729	1067.766	127.553	47.3	-5.4	NO	0.995	NO	bb
8	8 180115M2_8	Standard	100.000	4.32	20578.084	1041.940	246.872	101.4	1.4	NO	0.995	NO	bb

Compound name: L-PFOA
Correlation coefficient: r = 0.997397, r^2 = 0.994801
Calibration curve: 1.11967 * x + 0.355683
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	4.38	600.230	11129.10C	0.674	0.3	13.8	NO	0.995	NO	bb
2	2 180115M2_2	Standard	0.500	4.39	831.124	12054.782	0.862	0.5	-9.6	NO	0.995	NO	bb
3	3 180115M2_3	Standard	1.000	4.39	1444.660	13949.129	1.295	0.8	-16.1	NO	0.995	NO	bb
4	4 180115M2_4	Standard	2.000	4.38	2614.963	13294.508	2.459	1.9	-6.1	NO	0.995	NO	bb
5	5 180115M2_5	Standard	5.000	4.38	6889.996	12417.951	6.936	5.9	17.5	NO	0.995	NO	bb
6	6 180115M2_6	Standard	10.000	4.39	14997.181	15251.905	12.291	10.7	6.6	NO	0.995	NO	bb
7	7 180115M2_7	Standard	50.000	4.38	52255.660	12829.036	50.915	45.2	-9.7	NO	0.995	NO	bb
8	8 180115M2_8	Standard	100.000	4.38	105739.719	11359.297	116.358	103.6	3.6	NO	0.995	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.998980
Calibration curve: -0.00141138 * x^2 + 0.29869 * x + -0.030036
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	4.49	37.480	11129.100	0.042	0.2	-3.3	NO	0.999	NO	MM
2	2 180115M2_2	Standard	0.500	4.49	130.063	12054.782	0.135	0.6	10.7	NO	0.999	NO	bb
3	3 180115M2_3	Standard	1.000	4.49	279.276	13949.129	0.250	0.9	-5.7	NO	0.999	NO	bb
4	4 180115M2_4	Standard	2.000	4.49	558.214	13294.508	0.525	1.9	-6.3	NO	0.999	NO	bb
5	5 180115M2_5	Standard	5.000	4.48	1514.899	12417.951	1.525	5.3	6.8	NO	0.999	NO	bb
6	6 180115M2_6	Standard	10.000	4.49	3361.794	15251.905	2.755	9.8	-2.2	NO	0.999	NO	bb
7	7 180115M2_7	Standard	50.000	4.49	11679.672	12829.036	11.380	50.0	0.1	NO	0.999	NO	bb
8	8 180115M2_8	Standard	100.000	4.48	25926.199	11359.297	28.530			NO	0.999	NO	bbXI

Compound name: PFNA
Coefficient of Determination: R^2 = 0.998251
Calibration curve: 0.00123227 * x^2 + 1.35269 * x + -0.0256811
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	4.82	259.860	8611.178	0.377	0.3	19.1	NO	0.998	NO	bb
2	2 180115M2_2	Standard	0.500	4.82	449.605	10629.969	0.529	0.4	-18.1	NO	0.998	NO	bb
3	3 180115M2_3	Standard	1.000	4.82	1316.261	11370.316	1.447	1.1	8.8	NO	0.998	NO	bb
4	4 180115M2_4	Standard	2.000	4.81	2082.001	11056.825	2.354	1.8	-12.2	NO	0.998	NO	bb
5	5 180115M2_5	Standard	5.000	4.81	6798.414	13849.589	6.136	4.5	-9.3	NO	0.998	NO	bb
6	6 180115M2_6	Standard	10.000	4.81	15373.284	12422.833	15.469	11.3	13.4	NO	0.998	NO	bb
7	7 180115M2_7	Standard	50.000	4.81	56579.699	10235.261	69.099	48.9	-2.2	NO	0.998	NO	bb
8	8 180115M2_8	Standard	100.000	4.81	119351.391	10065.815	148.214	100.4	0.4	NO	0.998	NO	bb

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Compound name: PFOSA
Correlation coefficient: r = 0.999519, r^2 = 0.999039
Calibration curve: 1.2051 * x + -0.0242098
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	4.87	37.636	2018.146	0.233	0.2	-14.6	NO	0.999	NO	MM
2	2 180115M2_2	Standard	0.500	4.88	105.176	2450.537	0.536	0.5	-6.9	NO	0.999	NO	bb
3	3 180115M2_3	Standard	1.000	4.88	323.306	3263.926	1.238	1.0	4.8	NO	0.999	NO	bb
4	4 180115M2_4	Standard	2.000	4.88	552.892	2580.329	2.678	2.2	12.1	NO	0.999	NO	bb
5	5 180115M2_5	Standard	5.000	4.87	1393.146	2747.783	6.338	5.3	5.6	NO	0.999	NO	bb
6	6 180115M2_6	Standard	10.000	4.88	3058.177	3176.006	12.036	10.0	0.1	NO	0.999	NO	bb
7	7 180115M2_7	Standard	50.000	4.88	11742.631	2461.930	59.621	49.5	-1.0	NO	0.999	NO	bb
8	8 180115M2_8	Standard	100.000	4.87	25960.203	1976.078	164.215	136.3	36.3	NO	0.999	NO	bbX

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.997719
Calibration curve: 0.000945797 * x^2 + 1.10838 * x + -0.0443788
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	4.89	39.696	2273.944	0.218	0.2	-5.3	NO	0.998	NO	MM
2	2 180115M2_2	Standard	0.500	4.90	100.584	2945.228	0.427	0.4	-15.0	NO	0.998	NO	MM
3	3 180115M2_3	Standard	1.000	4.89	310.652	3464.374	1.121	1.1	5.0	NO	0.998	NO	MM
4	4 180115M2_4	Standard	2.000	4.89	535.144	3222.043	2.076	1.9	-4.5	NO	0.998	NO	MM
5	5 180115M2_5	Standard	5.000	4.89	1476.891	2939.392	6.281	5.7	13.6	NO	0.998	NO	MM
6	6 180115M2_6	Standard	10.000	4.89	3408.097	3461.071	12.309	11.0	10.4	NO	0.998	NO	MM
7	7 180115M2_7	Standard	50.000	4.89	12781.024	2933.493	54.462	47.3	-5.5	NO	0.998	NO	MM
8	8 180115M2_8	Standard	100.000	4.89	23913.445	2455.447	121.737	101.1	1.1	NO	0.998	NO	MM

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.996672
Calibration curve: 0.0014094 * x^2 + 1.42444 * x + 0.0195565
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	5.19	236.809	9117.220	0.325	0.2	-14.3	NO	0.997	NO	bb
2	2 180115M2_2	Standard	0.500	5.19	522.395	9259.429	0.705	0.5	-3.8	NO	0.997	NO	bb
3	3 180115M2_3	Standard	1.000	5.19	1297.286	10469.260	1.549	1.1	7.3	NO	0.997	NO	bb
4	4 180115M2_4	Standard	2.000	5.18	2358.456	11543.967	2.554	1.8	-11.2	NO	0.997	NO	bb
5	5 180115M2_5	Standard	5.000	5.18	6493.696	10095.664	8.040	5.6	12.0	NO	0.997	NO	bb
6	6 180115M2_6	Standard	10.000	5.19	13712.378	10322.235	16.605	11.5	15.1	NO	0.997	NO	bb
7	7 180115M2_7	Standard	50.000	5.19	49480.613	8868.471	69.742	46.8	-6.4	NO	0.997	NO	bb
8	8 180115M2_8	Standard	100.000	5.18	124944.242	9834.333	158.811	101.3	1.3	NO	0.997	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.990883
Calibration curve: -0.00290289 * x^2 + 0.283311 * x + -0.0505687
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	5.16	13.774	9117.220	0.019	0.2	-1.7	NO	0.991	NO	MM
2	2 180115M2_2	Standard	0.500	5.16	45.840	9259.429	0.062	0.4	-20.3	NO	0.991	NO	MM
3	3 180115M2_3	Standard	1.000	5.16	258.452	10469.260	0.309	1.3	28.5	NO	0.991	NO	bb
4	4 180115M2_4	Standard	2.000	5.16	452.092	11543.967	0.490	1.9	-2.7	NO	0.991	NO	bb
5	5 180115M2_5	Standard	5.000	5.16	994.999	10095.664	1.232	4.8	-4.8	NO	0.991	NO	bb
6	6 180115M2_6	Standard	10.000	5.16	2080.582	10322.235	2.520	10.1	1.2	NO	0.991	NO	bb
7	7 180115M2_7	Standard	50.000	5.16	10637.392	8868.471	14.993			NO	0.991	YES	bbXI
8	8 180115M2_8	Standard	100.000	5.15	18031.459	9834.333	22.919			NO	0.991	YES	bbXI

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.999579
Calibration curve: -0.00488709 * x^2 + 1.70404 * x + -0.0213461
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	5.34	110.162	3668.057	0.375	0.2	-6.8	NO	1.000	NO	bb
2	2 180115M2_2	Standard	0.500	5.34	278.179	4068.198	0.855	0.5	3.0	NO	1.000	NO	bb
3	3 180115M2_3	Standard	1.000	5.34	608.335	4941.718	1.539	0.9	-8.2	NO	1.000	NO	bb
4	4 180115M2_4	Standard	2.000	5.33	1231.249	4259.577	3.613	2.1	7.3	NO	1.000	NO	bb
5	5 180115M2_5	Standard	5.000	5.33	3181.715	4700.651	8.461	5.1	1.0	NO	1.000	NO	bb
6	6 180115M2_6	Standard	10.000	5.34	6179.386	4734.263	16.316	9.9	-1.3	NO	1.000	NO	bb
7	7 180115M2_7	Standard	50.000	5.33	28100.633	4812.376	72.991	50.0	0.0	NO	1.000	NO	bb
8	8 180115M2_8	Standard	100.000	5.33	46974.879	4204.535	139.655	131.7	31.7	NO	1.000	NO	bbX

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999053
Calibration curve: -0.0014328 * x^2 + 1.31318 * x + -0.0721789
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	5.49	100.263	4291.856	0.292	0.3	11.0	NO	0.999	NO	bb
2	2 180115M2_2	Standard	0.500	5.49	161.902	4807.261	0.421	0.4	-24.9	NO	0.999	NO	bb
3	3 180115M2_3	Standard	1.000	5.49	569.706	5925.357	1.202	1.0	-2.9	NO	0.999	NO	bb
4	4 180115M2_4	Standard	2.000	5.49	867.935	4489.890	2.416	1.9	-5.1	NO	0.999	NO	bb
5	5 180115M2_5	Standard	5.000	5.49	2512.091	5242.137	5.990	4.6	-7.2	NO	0.999	NO	bb
6	6 180115M2_6	Standard	10.000	5.49	6584.632	5935.848	13.866	10.7	7.4	NO	0.999	NO	bb
7	7 180115M2_7	Standard	50.000	5.49	21965.389	4444.999	61.770	49.8	-0.4	NO	0.999	NO	bb
8	8 180115M2_8	Standard	100.000	5.48	40613.773	4340.295	116.967	100.0	0.0	NO	0.999	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.996917
Calibration curve: -0.00723799 * x^2 + 1.36957 * x + -0.252476
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	5.51	291.033	10659.157	0.341	0.4	73.8	NO	0.997	NO	bbX
2	2 180115M2_2	Standard	0.500	5.51	541.356	12827.074	0.528	0.6	14.3	NO	0.997	NO	bb
3	3 180115M2_3	Standard	1.000	5.51	1323.581	14368.888	1.151	1.0	3.1	NO	0.997	NO	bb
4	4 180115M2_4	Standard	2.000	5.50	1949.719	12801.493	1.904	1.6	-20.6	NO	0.997	NO	bb
5	5 180115M2_5	Standard	5.000	5.50	5686.633	11208.095	6.342	4.9	-1.1	NO	0.997	NO	bb
6	6 180115M2_6	Standard	10.000	5.51	14467.421	13602.793	13.295	10.5	4.7	NO	0.997	NO	bb
7	7 180115M2_7	Standard	50.000	5.50	48741.223	12174.631	50.044	49.9	-0.3	NO	0.997	NO	bb
8	8 180115M2_8	Standard	100.000	5.50	109631.352	10688.771	128.209			NO	0.997	NO	bbXI

Compound name: PFDS
Coefficient of Determination: R^2 = 0.995370
Calibration curve: -0.00111201 * x^2 + 0.354642 * x + -0.0526574
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	5.55	49.403	10659.157	0.058	0.3	24.9	NO	0.995	NO	MM
2	2 180115M2_2	Standard	0.500	5.56	81.719	12827.074	0.080	0.4	-25.3	NO	0.995	NO	MM
3	3 180115M2_3	Standard	1.000	5.55	298.787	14368.888	0.260	0.9	-11.6	NO	0.995	NO	bb
4	4 180115M2_4	Standard	2.000	5.55	698.640	12801.493	0.682	2.1	4.3	NO	0.995	NO	bb
5	5 180115M2_5	Standard	5.000	5.55	1750.839	11208.095	1.953	5.8	15.2	NO	0.995	NO	bb
6	6 180115M2_6	Standard	10.000	5.55	3408.681	13602.793	3.132	9.2	-7.5	NO	0.995	NO	bb
7	7 180115M2_7	Standard	50.000	5.55	14534.954	12174.631	14.923	50.1	0.2	NO	0.995	NO	bb
8	8 180115M2_8	Standard	100.000	5.55	29850.322	10688.771	34.909			NO	0.995	NO	bbXI

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.996448
Calibration curve: 0.00269229 * x^2 + 1.39884 * x + 0.292328
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	5.79	300.361	6851.029	0.548	0.2	-26.9	NO	0.996	NO	bd
2	2 180115M2_2	Standard	0.500	5.79	604.702	8538.500	0.885	0.4	-15.3	NO	0.996	NO	bd
3	3 180115M2_3	Standard	1.000	5.79	1422.547	10789.430	1.648	1.0	-3.3	NO	0.996	NO	bd
4	4 180115M2_4	Standard	2.000	5.78	2700.776	9022.085	3.742	2.5	22.7	NO	0.996	NO	bd
5	5 180115M2_5	Standard	5.000	5.78	7561.792	10734.802	8.805	6.0	20.3	NO	0.996	NO	bd
6	6 180115M2_6	Standard	10.000	5.78	15299.965	12215.312	15.657	10.8	7.6	NO	0.996	NO	bd
7	7 180115M2_7	Standard	50.000	5.78	57159.984	9999.913	71.451	46.7	-6.6	NO	0.996	NO	bb
8	8 180115M2_8	Standard	100.000	5.78	110208.867	8119.767	169.661	101.3	1.3	NO	0.996	NO	bd

Compound name: N-MeFOSA
Correlation coefficient: r = 0.999161, r^2 = 0.998323
Calibration curve: 1.1181 * x + -0.100317
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	1.250	5.84	138.791	15969.864	1.304	1.3	0.5	NO	0.998	NO	bb
2	2 180115M2_2	Standard	2.500	5.84	298.599	17622.953	2.542	2.4	-5.5	NO	0.998	NO	bb
3	3 180115M2_3	Standard	5.000	5.84	735.826	21395.508	5.159	4.7	-5.9	NO	0.998	NO	bb
4	4 180115M2_4	Standard	10.000	5.84	1273.874	18699.383	10.219	9.2	-7.7	NO	0.998	NO	bb
5	5 180115M2_5	Standard	25.000	5.84	3744.515	19396.660	28.957	26.0	4.0	NO	0.998	NO	bb
6	6 180115M2_6	Standard	50.000	5.84	8920.301	21606.223	61.929	55.5	11.0	NO	0.998	NO	bb
7	7 180115M2_7	Standard	250.000	5.84	31396.402	17688.914	266.238	238.2	-4.7	NO	0.998	NO	bb
8	8 180115M2_8	Standard	500.000	5.84	64370.148	17051.773	566.247	506.5	1.3	NO	0.998	NO	bb

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.997156
Calibration curve: -0.000208194 * x^2 + 2.13661 * x + 0.0644742
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	6.03	345.115	6851.029	0.630	0.3	5.8	NO	0.997	NO	bb
2	2 180115M2_2	Standard	0.500	6.03	831.761	8538.500	1.218	0.5	8.0	NO	0.997	NO	bb
3	3 180115M2_3	Standard	1.000	6.03	1617.529	10789.430	1.874	0.8	-15.3	NO	0.997	NO	bb
4	4 180115M2_4	Standard	2.000	6.03	3191.131	9022.085	4.421	2.0	2.0	NO	0.997	NO	bb
5	5 180115M2_5	Standard	5.000	6.03	7888.307	10734.802	9.185	4.3	-14.6	NO	0.997	NO	bb
6	6 180115M2_6	Standard	10.000	6.03	24356.207	12215.312	24.924	11.6	16.5	NO	0.997	NO	bb
7	7 180115M2_7	Standard	50.000	6.03	82605.594	9999.913	103.258	48.5	-2.9	NO	0.997	NO	bb
8	8 180115M2_8	Standard	100.000	6.03	138314.813	8119.767	212.929	100.6	0.6	NO	0.997	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.990929
Calibration curve: -0.0220572 * x^2 + 3.53283 * x + -0.322211
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 180115M2_1	Standard	0.250	6.24	230.708	3811.400	0.757	0.3	22.4	NO	0.991	NO	MM
2	2 180115M2_2	Standard	0.500	6.24	526.336	4625.902	1.422	0.5	-0.9	NO	0.991	NO	MM
3	3 180115M2_3	Standard	1.000	6.24	1174.005	5784.110	2.537	0.8	-18.7	NO	0.991	NO	MM
4	4 180115M2_4	Standard	2.000	6.23	2327.498	4166.997	6.982	2.1	4.7	NO	0.991	NO	bb
5	5 180115M2_5	Standard	5.000	6.23	5510.744	5054.189	13.629	4.1	-19.0	NO	0.991	NO	MM
6	6 180115M2_6	Standard	10.000	6.24	15163.117	5187.430	36.538	11.2	12.2	NO	0.991	NO	MM
7	7 180115M2_7	Standard	50.000	6.23	46221.027	4785.019	120.744	49.7	-0.6	NO	0.991	NO	bb
8	8 180115M2_8	Standard	100.000	6.23	113973.711	5518.160	258.179			NO	0.991	NO	bbXI

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.998672
Calibration curve: 7.78779e-006 * x^2 + 1.00573 * x + -0.161262
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 180115M2_1	Standard	1.250	6.21	150.663	23192.393	0.974	1.1	-9.7	NO	0.999	NO	bb
2	2 180115M2_2	Standard	2.500	6.20	406.969	25547.748	2.389	2.5	1.4	NO	0.999	NO	bb
3	3 180115M2_3	Standard	5.000	6.20	1002.338	31434.623	4.783	4.9	-1.7	NO	0.999	NO	bb
4	4 180115M2_4	Standard	10.000	6.20	1755.511	27705.471	9.505	9.6	-3.9	NO	0.999	NO	bb
5	5 180115M2_5	Standard	25.000	6.20	5156.592	28494.203	27.145	27.1	8.6	NO	0.999	NO	bb
6	6 180115M2_6	Standard	50.000	6.21	11703.195	32255.756	54.424	54.3	8.5	NO	0.999	NO	bb
7	7 180115M2_7	Standard	250.000	6.21	40516.031	25211.236	241.059	239.4	-4.2	NO	0.999	NO	bb
8	8 180115M2_8	Standard	500.000	6.20	83391.828	24552.484	509.471	504.8	1.0	NO	0.999	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.994875
Calibration curve: -0.000963947 * x^2 + 0.816406 * x + 0.115618
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 180115M2_1	Standard	0.250	6.54	123.810	2113.428	0.293	0.2	-13.1	NO	0.995	NO	bb
2	2 180115M2_2	Standard	0.500	6.54	258.296	2775.093	0.465	0.4	-14.3	NO	0.995	NO	bb
3	3 180115M2_3	Standard	1.000	6.54	613.721	3282.116	0.935	1.0	0.5	NO	0.995	NO	bb
4	4 180115M2_4	Standard	2.000	6.54	951.224	2733.865	1.740	2.0	-0.3	NO	0.995	NO	bb
5	5 180115M2_5	Standard	5.000	6.54	2968.312	2890.199	5.135	6.2	23.9	NO	0.995	NO	bb
6	6 180115M2_6	Standard	10.000	6.54	5757.014	3217.573	8.946	11.0	9.6	NO	0.995	NO	bb
7	7 180115M2_7	Standard	50.000	6.54	23373.615	3292.356	35.497	45.8	-8.4	NO	0.995	NO	bb
8	8 180115M2_8	Standard	100.000	6.54	44946.250	3057.260	73.507	102.2	2.2	NO	0.995	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.998411
Calibration curve: -0.00110371 * x^2 + 0.927917 * x + 0.0174073
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	0.250	6.77	115.014	2113.428	0.272	0.3	9.8	NO	0.998	NO	bb
2	2 180115M2_2	Standard	0.500	6.77	242.942	2775.093	0.438	0.5	-9.4	NO	0.998	NO	MM
3	3 180115M2_3	Standard	1.000	6.77	550.045	3282.116	0.838	0.9	-11.5	NO	0.998	NO	bb
4	4 180115M2_4	Standard	2.000	6.76	1100.954	2733.865	2.014	2.2	7.8	NO	0.998	NO	bb
5	5 180115M2_5	Standard	5.000	6.76	2821.314	2890.199	4.881	5.3	5.5	NO	0.998	NO	bb
6	6 180115M2_6	Standard	10.000	6.76	6417.821	3217.573	9.973	10.9	8.7	NO	0.998	NO	bb
7	7 180115M2_7	Standard	50.000	6.76	27476.373	3292.356	41.728	47.7	-4.7	NO	0.998	NO	bb
8	8 180115M2_8	Standard	100.000	6.76	50531.801	3057.260	82.642	101.2	1.2	NO	0.998	NO	bb

Compound name: N-MeFOSE
Coefficient of Determination: R^2 = 0.995669
Calibration curve: -0.000576302 * x^2 + 1.20032 * x + -0.665296
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	1.250	6.30	174.170	20888.145	1.251	1.6	27.8	NO	0.996	NO	bb
2	2 180115M2_2	Standard	2.500	6.30	360.986	26082.570	2.076	2.3	-8.5	NO	0.996	NO	bb
3	3 180115M2_3	Standard	5.000	6.31	977.036	31250.859	4.690	4.5	-10.6	NO	0.996	NO	bb
4	4 180115M2_4	Standard	10.000	6.30	2180.307	29842.697	10.959	9.7	-2.7	NO	0.996	NO	bb
5	5 180115M2_5	Standard	25.000	6.30	6234.112	30325.629	30.836	26.6	6.3	NO	0.996	NO	bd
6	6 180115M2_6	Standard	50.000	6.30	11465.369	35709.676	48.161	41.5	-17.0	NO	0.996	NO	bd
7	7 180115M2_7	Standard	250.000	6.31	46049.070	24759.139	278.982	267.3	6.9	NO	0.996	NO	bb
8	8 180115M2_8	Standard	500.000	6.30	86639.500	28975.107	448.520	489.1	-2.2	NO	0.996	NO	bb

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Compound name: N-EtFOSE
Coefficient of Determination: R^2 = 0.999660
Calibration curve: 0.00097229 * x^2 + 1.15972 * x + 0.350902
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 180115M2_1	Standard	1.250	6.45	222.976	22450.639	1.490	1.0	-21.5	NO	1.000	NO	bb
2	2 180115M2_2	Standard	2.500	6.46	541.090	21303.693	3.810	3.0	19.0	NO	1.000	NO	bb
3	3 180115M2_3	Standard	5.000	6.45	1251.249	31097.133	6.036	4.9	-2.4	NO	1.000	NO	bb
4	4 180115M2_4	Standard	10.000	6.45	2353.475	27869.063	12.667	10.5	5.3	NO	1.000	NO	bb
5	5 180115M2_5	Standard	25.000	6.45	5290.171	27858.053	28.485	23.8	-4.9	NO	1.000	NO	bb
6	6 180115M2_6	Standard	50.000	6.46	12232.546	28613.766	64.126	52.7	5.3	NO	1.000	NO	bd
7	7 180115M2_7	Standard	250.000	6.46	51195.125	22170.844	346.368	247.2	-1.1	NO	1.000	NO	bb
8	8 180115M2_8	Standard	500.000	6.45	111534.742	20270.486	825.348	501.0	0.2	NO	1.000	NO	bd

Compound name: 13C3-PFBA
Response Factor: 0.779165
RRF SD: 0.0334129, Relative SD: 4.2883
Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	1.53	8006.990	10061.779	9.947	12.8	2.1	NO		NO	bb
2	2 180115M2_2	Standard	12.500	1.52	8945.453	11662.093	9.588	12.3	-1.6	NO		NO	bb
3	3 180115M2_3	Standard	12.500	1.52	11178.312	14677.296	9.520	12.2	-2.3	NO		NO	bb
4	4 180115M2_4	Standard	12.500	1.52	9860.501	12356.659	9.975	12.8	2.4	NO		NO	bb
5	5 180115M2_5	Standard	12.500	1.52	10104.886	13477.931	9.372	12.0	-3.8	NO		NO	bb
6	6 180115M2_6	Standard	12.500	1.52	10919.465	14699.104	9.286	11.9	-4.7	NO		NO	bb
7	7 180115M2_7	Standard	12.500	1.52	9706.659	11470.707	10.578	13.6	8.6	NO		NO	bb
8	8 180115M2_8	Standard	12.500	1.52	9008.640	11668.103	9.651	12.4	-0.9	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 0.796717
RRF SD: 0.0707195, Relative SD: 8.87636
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	2.48	8868.418	12455.272	8.900	11.2	-10.6	NO		NO	bb
2	2 180115M2_2	Standard	12.500	2.48	10441.303	12561.499	10.390	13.0	4.3	NO		NO	bb
3	3 180115M2_3	Standard	12.500	2.48	13027.811	16767.305	9.712	12.2	-2.5	NO		NO	bb
4	4 180115M2_4	Standard	12.500	2.48	11372.540	14101.621	10.081	12.7	1.2	NO		NO	bb
5	5 180115M2_5	Standard	12.500	2.48	11971.679	15840.523	9.447	11.9	-5.1	NO		NO	bb
6	6 180115M2_6	Standard	12.500	2.48	12510.149	16157.200	9.678	12.1	-2.8	NO		NO	bb
7	7 180115M2_7	Standard	12.500	2.48	11201.616	11804.778	11.861	14.9	19.1	NO		NO	bb
8	8 180115M2_8	Standard	12.500	2.48	10375.532	13507.876	9.601	12.1	-3.6	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.0950157
RRF SD: 0.00787595, Relative SD: 8.2891
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	2.75	1196.924	12455.272	1.201	12.6	1.1	NO		NO	bb
2	2 180115M2_2	Standard	12.500	2.75	1206.778	12561.499	1.201	12.6	1.1	NO		NO	bb
3	3 180115M2_3	Standard	12.500	2.75	1442.793	16767.305	1.076	11.3	-9.4	NO		NO	bb
4	4 180115M2_4	Standard	12.500	2.75	1290.825	14101.621	1.144	12.0	-3.7	NO		NO	bb
5	5 180115M2_5	Standard	12.500	2.75	1432.762	15840.523	1.131	11.9	-4.8	NO		NO	bb
6	6 180115M2_6	Standard	12.500	2.75	1624.717	16157.200	1.257	13.2	5.8	NO		NO	bb
7	7 180115M2_7	Standard	12.500	2.75	1307.205	11804.778	1.384	14.6	16.5	NO		NO	bb
8	8 180115M2_8	Standard	12.500	2.75	1197.229	13507.876	1.108	11.7	-6.7	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.636292
RRF SD: 0.0537257, Relative SD: 8.44356
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	5.000	3.25	2798.348	12455.272	2.808	4.4	-11.7	NO		NO	bb
2	2 180115M2_2	Standard	5.000	3.25	3301.620	12561.499	3.285	5.2	3.3	NO		NO	bb
3	3 180115M2_3	Standard	5.000	3.25	4246.745	16767.305	3.166	5.0	-0.5	NO		NO	bb
4	4 180115M2_4	Standard	5.000	3.25	3760.921	14101.621	3.334	5.2	4.8	NO		NO	bb
5	5 180115M2_5	Standard	5.000	3.25	3739.436	15840.523	2.951	4.6	-7.2	NO		NO	bb
6	6 180115M2_6	Standard	5.000	3.25	4073.186	16157.200	3.151	5.0	-1.0	NO		NO	bb
7	7 180115M2_7	Standard	5.000	3.25	3489.034	11804.778	3.695	5.8	16.1	NO		NO	bb
8	8 180115M2_8	Standard	5.000	3.24	3308.405	13507.876	3.062	4.8	-3.8	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.620752
RRF SD: 0.0575853, Relative SD: 9.2767
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	3.87	7169.426	12455.272	7.195	11.6	-7.3	NO		NO	bb
2	2 180115M2_2	Standard	12.500	3.87	8300.460	12561.499	8.260	13.3	6.4	NO		NO	bb
3	3 180115M2_3	Standard	12.500	3.87	10064.894	16767.305	7.503	12.1	-3.3	NO		NO	bb
4	4 180115M2_4	Standard	12.500	3.87	8890.794	14101.621	7.881	12.7	1.6	NO		NO	bb
5	5 180115M2_5	Standard	12.500	3.87	8790.349	15840.523	6.937	11.2	-10.6	NO		NO	bb
6	6 180115M2_6	Standard	12.500	3.87	9715.788	16157.200	7.517	12.1	-3.1	NO		NO	bb
7	7 180115M2_7	Standard	12.500	3.87	8726.845	11804.778	9.241	14.9	19.1	NO		NO	bb
8	8 180115M2_8	Standard	12.500	3.86	8149.912	13507.876	7.542	12.1	-2.8	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.335817
RRF SD: 0.0498507, Relative SD: 14.8446
Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	4.01	793.087	2804.372	3.535	10.5	-15.8	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.01	971.136	3149.166	3.855	11.5	-8.2	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.01	1035.130	3283.306	3.941	11.7	-6.1	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.01	1074.646	3088.549	4.349	13.0	3.6	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.01	1083.133	3535.805	3.829	11.4	-8.8	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.01	1211.424	3990.885	3.794	11.3	-9.6	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.01	1067.766	2610.740	5.112	15.2	21.8	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.01	1041.940	2521.238	5.166	15.4	23.1	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.192395
RRF SD: 0.0380277, Relative SD: 19.7655
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	4.33	1703.521	11387.326	1.870	9.7	-22.2	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.33	2145.071	12172.035	2.203	11.4	-8.4	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.33	2487.351	13726.202	2.265	11.8	-5.8	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.33	2144.726	13300.389	2.016	10.5	-16.2	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.33	2742.800	12814.540	2.675	13.9	11.2	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.33	2540.768	15285.250	2.078	10.8	-13.6	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.33	2945.466	11556.618	3.186	16.6	32.5	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.32	2820.117	11963.216	2.947	15.3	22.5	NO		NO	bb

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Compound name: 13C2-PFOA
Response Factor: 1.00125
RRF SD: 0.0485388, Relative SD: 4.84783
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	4.38	11129.100	11387.326	12.217	12.2	-2.4	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.39	12054.782	12172.035	12.380	12.4	-1.1	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.39	13949.129	13726.202	12.703	12.7	1.5	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.38	13294.508	13300.389	12.494	12.5	-0.2	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.38	12417.951	12814.540	12.113	12.1	-3.2	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.38	15251.905	15285.250	12.473	12.5	-0.3	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.38	12829.036	11556.618	13.876	13.9	10.9	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.38	11359.297	11963.216	11.869	11.9	-5.2	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.810837
RRF SD: 0.0778338, Relative SD: 9.59919
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	4.81	8611.178	9887.708	10.886	13.4	7.4	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.82	10629.969	14541.915	9.137	11.3	-9.8	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.81	11370.316	15659.906	9.076	11.2	-10.5	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.81	11056.825	14165.005	9.757	12.0	-3.7	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.81	13849.589	14881.775	11.633	14.3	14.8	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.81	12422.833	16690.238	9.304	11.5	-8.2	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.81	10235.261	11566.101	11.062	13.6	9.1	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.81	10065.815	12301.464	10.228	12.6	0.9	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.196454
RRF SD: 0.0326291, Relative SD: 16.609
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	4.88	2018.146	9597.051	2.629	13.4	7.0	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.88	2450.537	12232.438	2.504	12.7	2.0	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.88	3263.926	16108.975	2.533	12.9	3.1	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.88	2580.329	15359.841	2.100	10.7	-14.5	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.87	2747.783	14601.564	2.352	12.0	-4.2	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.88	3176.006	14430.306	2.751	14.0	12.0	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.88	2461.930	10068.811	3.056	15.6	24.5	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.87	1976.078	14359.005	1.720	8.8	-29.9	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 0.861518
RRF SD: 0.080099, Relative SD: 9.29742
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	4.89	2273.944	3065.292	9.273	10.8	-13.9	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.89	2945.228	3701.104	9.947	11.5	-7.6	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.89	3464.374	4167.454	10.391	12.1	-3.5	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.89	3222.043	3259.616	12.356	14.3	14.7	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.89	2939.392	3538.393	10.384	12.1	-3.6	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.89	3461.071	3917.062	11.045	12.8	2.6	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.89	2933.493	3367.256	10.890	12.6	1.1	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.89	2455.447	2586.616	11.866	13.8	10.2	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 0.995958
RRF SD: 0.0416295, Relative SD: 4.17985
Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	5.19	9117.220	8643.550	13.185	13.2	5.9	NO		NO	bb
2	2 180115M2_2	Standard	12.500	5.19	9259.429	9573.944	12.089	12.1	-2.9	NO		NO	bb
3	3 180115M2_3	Standard	12.500	5.19	10469.260	10839.729	12.073	12.1	-3.0	NO		NO	bb
4	4 180115M2_4	Standard	12.500	5.18	11543.967	11526.396	12.519	12.6	0.6	NO		NO	bb
5	5 180115M2_5	Standard	12.500	5.18	10095.664	10211.842	12.358	12.4	-0.7	NO		NO	bb
6	6 180115M2_6	Standard	12.500	5.19	10322.235	10477.224	12.315	12.4	-1.1	NO		NO	bb
7	7 180115M2_7	Standard	12.500	5.19	8868.471	9388.578	11.808	11.9	-5.2	NO		NO	bb
8	8 180115M2_8	Standard	12.500	5.18	9834.333	9278.257	13.249	13.3	6.4	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.102966
RRF SD: 0.0196885, Relative SD: 19.1214
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	5.16	1084.677	12455.272	1.089	10.6	-15.4	NO		NO	bb
2	2 180115M2_2	Standard	12.500	5.16	1447.292	12561.499	1.440	14.0	11.9	NO		NO	bb
3	3 180115M2_3	Standard	12.500	5.16	2016.216	16767.305	1.503	14.6	16.8	NO		NO	bb
4	4 180115M2_4	Standard	12.500	5.16	1733.439	14101.621	1.537	14.9	19.4	NO		NO	bb
5	5 180115M2_5	Standard	12.500	5.16	1179.393	15840.523	0.931	9.0	-27.7	NO		NO	bb
6	6 180115M2_6	Standard	12.500	5.16	1581.232	16157.200	1.223	11.9	-5.0	NO		NO	bb
7	7 180115M2_7	Standard	12.500	5.16	1661.151	11804.778	1.759	17.1	36.7	NO		NO	bbX
8	8 180115M2_8	Standard	12.500	5.16	1868.278	13507.876	1.729	16.8	34.3	NO		NO	bbX

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Compound name: d3-N-MeFOSAA
Response Factor: 0.339955
RRF SD: 0.0639138, Relative SD: 18.8007
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180115M2_1	Standard	12.500	5.33	3668.057	9597.051	4.778	14.1	12.4	NO		NO	bb
2	2	180115M2_2	Standard	12.500	5.33	4068.198	12232.438	4.157	12.2	-2.2	NO		NO	bb
3	3	180115M2_3	Standard	12.500	5.33	4941.718	16108.975	3.835	11.3	-9.8	NO		NO	bb
4	4	180115M2_4	Standard	12.500	5.33	4259.577	15359.841	3.466	10.2	-18.4	NO		NO	bb
5	5	180115M2_5	Standard	12.500	5.33	4700.651	14601.564	4.024	11.8	-5.3	NO		NO	bb
6	6	180115M2_6	Standard	12.500	5.33	4734.263	14430.306	4.101	12.1	-3.5	NO		NO	bb
7	7	180115M2_7	Standard	12.500	5.33	4812.376	10068.811	5.974	17.6	40.6	NO		NO	bb
8	8	180115M2_8	Standard	12.500	5.33	4204.535	14359.005	3.660	10.8	-13.9	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.376804
RRF SD: 0.0581665, Relative SD: 15.4368
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180115M2_1	Standard	12.500	5.49	4291.856	9597.051	5.590	14.8	18.7	NO		NO	bb
2	2	180115M2_2	Standard	12.500	5.49	4807.261	12232.438	4.912	13.0	4.3	NO		NO	bb
3	3	180115M2_3	Standard	12.500	5.49	5925.357	16108.975	4.598	12.2	-2.4	NO		NO	bb
4	4	180115M2_4	Standard	12.500	5.48	4489.890	15359.841	3.654	9.7	-22.4	NO		NO	bb
5	5	180115M2_5	Standard	12.500	5.48	5242.137	14601.564	4.488	11.9	-4.7	NO		NO	bb
6	6	180115M2_6	Standard	12.500	5.48	5935.848	14430.306	5.142	13.6	9.2	NO		NO	bb
7	7	180115M2_7	Standard	12.500	5.48	4444.999	10068.811	5.518	14.6	17.2	NO		NO	bb
8	8	180115M2_8	Standard	12.500	5.48	4340.295	14359.005	3.778	10.0	-19.8	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 0.943561
RRF SD: 0.166868, Relative SD: 17.6849
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	5.51	10659.157	9597.051	13.883	14.7	17.7	NO		NO	bb
2	2 180115M2_2	Standard	12.500	5.51	12827.074	12232.438	13.108	13.9	11.1	NO		NO	bb
3	3 180115M2_3	Standard	12.500	5.51	14368.888	16108.975	11.150	11.8	-5.5	NO		NO	bb
4	4 180115M2_4	Standard	12.500	5.50	12801.493	15359.841	10.418	11.0	-11.7	NO		NO	bb
5	5 180115M2_5	Standard	12.500	5.50	11208.095	14601.564	9.595	10.2	-18.6	NO		NO	bb
6	6 180115M2_6	Standard	12.500	5.51	13602.793	14430.306	11.783	12.5	-0.1	NO		NO	bb
7	7 180115M2_7	Standard	12.500	5.50	12174.631	10068.811	15.114	16.0	28.1	NO		NO	bb
8	8 180115M2_8	Standard	12.500	5.50	10688.771	14359.005	9.305	9.9	-21.1	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.726172
RRF SD: 0.138899, Relative SD: 19.1275
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	5.79	6851.029	9597.051	8.923	12.3	-1.7	NO		NO	bb
2	2 180115M2_2	Standard	12.500	5.79	8538.500	12232.438	8.725	12.0	-3.9	NO		NO	MM
3	3 180115M2_3	Standard	12.500	5.79	10789.430	16108.975	8.372	11.5	-7.8	NO		NO	bb
4	4 180115M2_4	Standard	12.500	5.78	9022.085	15359.841	7.342	10.1	-19.1	NO		NO	bb
5	5 180115M2_5	Standard	12.500	5.78	10734.802	14601.564	9.190	12.7	1.2	NO		NO	bb
6	6 180115M2_6	Standard	12.500	5.78	12215.312	14430.306	10.581	14.6	16.6	NO		NO	bb
7	7 180115M2_7	Standard	12.500	5.78	9999.913	10068.811	12.414	17.1	36.8	NO		NO	bb
8	8 180115M2_8	Standard	12.500	5.78	8119.767	14359.005	7.069	9.7	-22.1	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.118962
RRF SD: 0.0169862, Relative SD: 14.2787
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	150.000	5.86	15969.864	9597.051	20.800	174.9	16.6	NO		NO	bb
2	2 180115M2_2	Standard	150.000	5.86	17622.953	12232.438	18.008	151.4	0.9	NO		NO	bb
3	3 180115M2_3	Standard	150.000	5.86	21395.508	16108.975	16.602	139.6	-7.0	NO		NO	bb
4	4 180115M2_4	Standard	150.000	5.86	18699.383	15359.841	15.218	127.9	-14.7	NO		NO	bb
5	5 180115M2_5	Standard	150.000	5.86	19396.660	14601.564	16.605	139.6	-6.9	NO		NO	bb
6	6 180115M2_6	Standard	150.000	5.86	21606.223	14430.306	18.716	157.3	4.9	NO		NO	bb
7	7 180115M2_7	Standard	150.000	5.86	17688.914	10068.811	21.960	184.6	23.1	NO		NO	bb
8	8 180115M2_8	Standard	150.000	5.86	17051.773	14359.005	14.844	124.8	-16.8	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.371352
RRF SD: 0.056833, Relative SD: 15.3043
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	6.24	3811.400	9597.051	4.964	13.4	6.9	NO		NO	bb
2	2 180115M2_2	Standard	12.500	6.24	4625.902	12232.438	4.727	12.7	1.8	NO		NO	bb
3	3 180115M2_3	Standard	12.500	6.24	5784.110	16108.975	4.488	12.1	-3.3	NO		NO	bb
4	4 180115M2_4	Standard	12.500	6.23	4166.997	15359.841	3.391	9.1	-26.9	NO		NO	MM
5	5 180115M2_5	Standard	12.500	6.23	5054.189	14601.564	4.327	11.7	-6.8	NO		NO	bb
6	6 180115M2_6	Standard	12.500	6.24	5187.430	14430.306	4.494	12.1	-3.2	NO		NO	MM
7	7 180115M2_7	Standard	12.500	6.23	4785.019	10068.811	5.940	16.0	28.0	NO		NO	bb
8	8 180115M2_8	Standard	12.500	6.23	5518.160	14359.005	4.804	12.9	3.5	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.17355
RRF SD: 0.0236433, Relative SD: 13.6233
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	150.000	6.21	23192.393	9597.051	30.208	174.1	16.0	NO		NO	bb
2	2 180115M2_2	Standard	150.000	6.22	25547.748	12232.438	26.107	150.4	0.3	NO		NO	bb
3	3 180115M2_3	Standard	150.000	6.21	31434.623	16108.975	24.392	140.5	-6.3	NO		NO	bb
4	4 180115M2_4	Standard	150.000	6.21	27705.471	15359.841	22.547	129.9	-13.4	NO		NO	bb
5	5 180115M2_5	Standard	150.000	6.21	28494.203	14601.564	24.393	140.6	-6.3	NO		NO	bb
6	6 180115M2_6	Standard	150.000	6.22	32255.756	14430.306	27.941	161.0	7.3	NO		NO	bb
7	7 180115M2_7	Standard	150.000	6.22	25211.236	10068.811	31.299	180.3	20.2	NO		NO	bb
8	8 180115M2_8	Standard	150.000	6.21	24552.484	14359.005	21.374	123.2	-17.9	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.559258
RRF SD: 0.111637, Relative SD: 19.9617
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	5.000	6.54	2113.428	9597.051	2.753	4.9	-1.6	NO		NO	MM
2	2 180115M2_2	Standard	5.000	6.54	2775.093	12232.438	2.836	5.1	1.4	NO		NO	bb
3	3 180115M2_3	Standard	5.000	6.54	3282.116	16108.975	2.547	4.6	-8.9	NO		NO	MM
4	4 180115M2_4	Standard	5.000	6.54	2733.865	15359.841	2.225	4.0	-20.4	NO		NO	MM
5	5 180115M2_5	Standard	5.000	6.54	2890.199	14601.564	2.474	4.4	-11.5	NO		NO	bb
6	6 180115M2_6	Standard	5.000	6.54	3217.573	14430.306	2.787	5.0	-0.3	NO		NO	bb
7	7 180115M2_7	Standard	5.000	6.54	3292.356	10068.811	4.087	7.3	46.2	NO		NO	MM
8	8 180115M2_8	Standard	5.000	6.54	3057.260	14359.005	2.661	4.8	-4.8	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.179375
RRF SD: 0.0175828, Relative SD: 9.80226
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180115M2_1	Standard	150.000	6.29	20888.145	9597.051	27.206	151.7	1.1	NO		NO	bb
2	2	180115M2_2	Standard	150.000	6.29	26082.570	12232.438	26.653	148.6	-0.9	NO		NO	bb
3	3	180115M2_3	Standard	150.000	6.29	31250.859	16108.975	24.250	135.2	-9.9	NO		NO	bb
4	4	180115M2_4	Standard	150.000	6.29	29842.697	15359.841	24.286	135.4	-9.7	NO		NO	bb
5	5	180115M2_5	Standard	150.000	6.29	30325.629	14601.564	25.961	144.7	-3.5	NO		NO	bb
6	6	180115M2_6	Standard	150.000	6.29	35709.676	14430.306	30.933	172.4	15.0	NO		NO	bb
7	7	180115M2_7	Standard	150.000	6.29	24759.139	10068.811	30.737	171.4	14.2	NO		NO	bb
8	8	180115M2_8	Standard	150.000	6.29	28975.107	14359.005	25.224	140.6	-6.3	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.159689
RRF SD: 0.0235867, Relative SD: 14.7704
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180115M2_1	Standard	150.000	6.44	22450.639	9597.051	29.242	183.1	22.1	NO		NO	bd
2	2	180115M2_2	Standard	150.000	6.45	21303.693	12232.438	21.770	136.3	-9.1	NO		NO	bb
3	3	180115M2_3	Standard	150.000	6.44	31097.133	16108.975	24.130	151.1	0.7	NO		NO	bb
4	4	180115M2_4	Standard	150.000	6.44	27869.063	15359.841	22.680	142.0	-5.3	NO		NO	bb
5	5	180115M2_5	Standard	150.000	6.44	27858.053	14601.564	23.849	149.3	-0.4	NO		NO	bb
6	6	180115M2_6	Standard	150.000	6.44	28613.766	14430.306	24.786	155.2	3.5	NO		NO	bb
7	7	180115M2_7	Standard	150.000	6.45	22170.844	10068.811	27.524	172.4	14.9	NO		NO	bb
8	8	180115M2_8	Standard	150.000	6.44	20270.486	14359.005	17.646	110.5	-26.3	NO		NO	bb

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Compound name: 13C4-PFBA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	1.52	10061.779	10061.779	12.500	12.5	0.0	NO		NO	bb
2	2 180115M2_2	Standard	12.500	1.52	11662.093	11662.093	12.500	12.5	0.0	NO		NO	bb
3	3 180115M2_3	Standard	12.500	1.52	14677.296	14677.296	12.500	12.5	0.0	NO		NO	bb
4	4 180115M2_4	Standard	12.500	1.52	12356.659	12356.659	12.500	12.5	0.0	NO		NO	bb
5	5 180115M2_5	Standard	12.500	1.52	13477.931	13477.931	12.500	12.5	0.0	NO		NO	bb
6	6 180115M2_6	Standard	12.500	1.52	14699.104	14699.104	12.500	12.5	0.0	NO		NO	bb
7	7 180115M2_7	Standard	12.500	1.52	11470.707	11470.707	12.500	12.5	0.0	NO		NO	bb
8	8 180115M2_8	Standard	12.500	1.52	11668.103	11668.103	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	3.25	12455.272	12455.272	12.500	12.5	0.0	NO		NO	bb
2	2 180115M2_2	Standard	12.500	3.25	12561.499	12561.499	12.500	12.5	0.0	NO		NO	bb
3	3 180115M2_3	Standard	12.500	3.25	16767.305	16767.305	12.500	12.5	0.0	NO		NO	bb
4	4 180115M2_4	Standard	12.500	3.25	14101.621	14101.621	12.500	12.5	0.0	NO		NO	bb
5	5 180115M2_5	Standard	12.500	3.24	15840.523	15840.523	12.500	12.5	0.0	NO		NO	bb
6	6 180115M2_6	Standard	12.500	3.25	16157.200	16157.200	12.500	12.5	0.0	NO		NO	bb
7	7 180115M2_7	Standard	12.500	3.25	11804.778	11804.778	12.500	12.5	0.0	NO		NO	bb
8	8 180115M2_8	Standard	12.500	3.24	13507.876	13507.876	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180115M2_1	Standard	12.500	4.01	2804.372	2804.372	12.500	12.5	0.0	NO		NO	bb
2	2	180115M2_2	Standard	12.500	4.01	3149.166	3149.166	12.500	12.5	0.0	NO		NO	bb
3	3	180115M2_3	Standard	12.500	4.01	3283.306	3283.306	12.500	12.5	0.0	NO		NO	bb
4	4	180115M2_4	Standard	12.500	4.01	3088.549	3088.549	12.500	12.5	0.0	NO		NO	bb
5	5	180115M2_5	Standard	12.500	4.01	3535.805	3535.805	12.500	12.5	0.0	NO		NO	bb
6	6	180115M2_6	Standard	12.500	4.01	3990.885	3990.885	12.500	12.5	0.0	NO		NO	bb
7	7	180115M2_7	Standard	12.500	4.01	2610.740	2610.740	12.500	12.5	0.0	NO		NO	bb
8	8	180115M2_8	Standard	12.500	4.01	2521.238	2521.238	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180115M2_1	Standard	12.500	4.38	11387.326	11387.326	12.500	12.5	0.0	NO		NO	bb
2	2	180115M2_2	Standard	12.500	4.39	12172.035	12172.035	12.500	12.5	0.0	NO		NO	bb
3	3	180115M2_3	Standard	12.500	4.39	13726.202	13726.202	12.500	12.5	0.0	NO		NO	bb
4	4	180115M2_4	Standard	12.500	4.38	13300.389	13300.389	12.500	12.5	0.0	NO		NO	bb
5	5	180115M2_5	Standard	12.500	4.38	12814.540	12814.540	12.500	12.5	0.0	NO		NO	bb
6	6	180115M2_6	Standard	12.500	4.39	15285.250	15285.250	12.500	12.5	0.0	NO		NO	bb
7	7	180115M2_7	Standard	12.500	4.38	11556.618	11556.618	12.500	12.5	0.0	NO		NO	bb
8	8	180115M2_8	Standard	12.500	4.38	11963.216	11963.216	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	4.81	9887.708	9887.708	12.500	12.5	0.0	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.82	14541.915	14541.915	12.500	12.5	0.0	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.81	15659.906	15659.906	12.500	12.5	0.0	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.81	14165.005	14165.005	12.500	12.5	0.0	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.81	14881.775	14881.775	12.500	12.5	0.0	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.81	16690.238	16690.238	12.500	12.5	0.0	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.81	11566.101	11566.101	12.500	12.5	0.0	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.81	12301.464	12301.464	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	4.89	3065.292	3065.292	12.500	12.5	0.0	NO		NO	bb
2	2 180115M2_2	Standard	12.500	4.89	3701.104	3701.104	12.500	12.5	0.0	NO		NO	bb
3	3 180115M2_3	Standard	12.500	4.89	4167.454	4167.454	12.500	12.5	0.0	NO		NO	bb
4	4 180115M2_4	Standard	12.500	4.89	3259.616	3259.616	12.500	12.5	0.0	NO		NO	bb
5	5 180115M2_5	Standard	12.500	4.89	3538.393	3538.393	12.500	12.5	0.0	NO		NO	bb
6	6 180115M2_6	Standard	12.500	4.89	3917.062	3917.062	12.500	12.5	0.0	NO		NO	bb
7	7 180115M2_7	Standard	12.500	4.89	3367.256	3367.256	12.500	12.5	0.0	NO		NO	bb
8	8 180115M2_8	Standard	12.500	4.89	2586.616	2586.616	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	5.19	8643.550	8643.550	12.500	12.5	0.0	NO		NO	bb
2	2 180115M2_2	Standard	12.500	5.19	9573.944	9573.944	12.500	12.5	0.0	NO		NO	bb
3	3 180115M2_3	Standard	12.500	5.19	10839.729	10839.729	12.500	12.5	0.0	NO		NO	bb
4	4 180115M2_4	Standard	12.500	5.18	11526.396	11526.396	12.500	12.5	0.0	NO		NO	bb
5	5 180115M2_5	Standard	12.500	5.18	10211.842	10211.842	12.500	12.5	0.0	NO		NO	bb
6	6 180115M2_6	Standard	12.500	5.19	10477.224	10477.224	12.500	12.5	0.0	NO		NO	bb
7	7 180115M2_7	Standard	12.500	5.19	9388.578	9388.578	12.500	12.5	0.0	NO		NO	bb
8	8 180115M2_8	Standard	12.500	5.18	9278.257	9278.257	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C7-PFUdA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180115M2_1	Standard	12.500	5.51	9597.051	9597.051	12.500	12.5	0.0	NO		NO	bb
2	2 180115M2_2	Standard	12.500	5.51	12232.438	12232.438	12.500	12.5	0.0	NO		NO	bb
3	3 180115M2_3	Standard	12.500	5.51	16108.975	16108.975	12.500	12.5	0.0	NO		NO	bb
4	4 180115M2_4	Standard	12.500	5.50	15359.841	15359.841	12.500	12.5	0.0	NO		NO	bb
5	5 180115M2_5	Standard	12.500	5.50	14601.564	14601.564	12.500	12.5	0.0	NO		NO	bb
6	6 180115M2_6	Standard	12.500	5.51	14430.306	14430.306	12.500	12.5	0.0	NO		NO	bb
7	7 180115M2_7	Standard	12.500	5.50	10068.811	10068.811	12.500	12.5	0.0	NO		NO	bb
8	8 180115M2_8	Standard	12.500	5.50	14359.005	14359.005	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time
Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_011518.mdb 15 Jan 2018 11:38:30
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-15-18-FULL-OLD.cdb 16 Jan 2018 10:22:57

Name: 180115M2_1, Date: 16-Jan-2018, Time: 00:14:07, ID: ST180115M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBA	0.9972	NO	
2	2	PFPeA	0.9960	NO	
3	3	PFBS	0.9964	NO	
4	4	PFHxA	0.9925	NO	
5	5	PFHpA	0.9954	NO	
6	6	L-PFHxS	0.9997	NO	
7	8	6:2 FTS	0.9954	NO	
8	9	L-PFOA	0.9948	NO	
9	11	PFHpS	0.9990	NO	
10	12	PFNA	0.9983	NO	
11	13	PFOSA	0.9990	NO	
12	14	L-PFOS	0.9977	NO	
13	16	PFDA	0.9967	NO	
14	17	8:2 FTS	0.9909	NO	
15	18	N-MeFOSAA	0.9996	NO	
16	19	N-EtFOSAA	0.9991	NO	
17	20	PFUdA	0.9969	NO	
18	21	PFDS	0.9954	NO	
19	22	PFDoA	0.9964	NO	
20	23	N-MeFOSA	0.9983	NO	
21	24	PFTrDA	0.9972	NO	
22	25	PFTeDA	0.9909	NO	
23	26	N-EtFOSA	0.9987	NO	
24	27	PFHxDA	0.9949	NO	
25	28	PFODA	0.9984	NO	
26	29	N-MeFOSE	0.9957	NO	
27	30	N-EtFOSE	0.9997	NO	
28	31	13C3-PFBA		NO	4.288
29	32	13C3-PFPeA		NO	8.876
30	33	13C3-PFBS		NO	8.289
31	34	13C2-PFHxA		NO	8.444

Dataset: U:\Q4.PRO\results\180115M2\180115M2-CRV.qld

Last Altered: Tuesday, January 16, 2018 10:22:57 Pacific Standard Time
Printed: Tuesday, January 16, 2018 10:29:14 Pacific Standard Time

Name: 180115M2_1, Date: 16-Jan-2018, Time: 00:14:07, ID: ST180115M2-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD
32	35	13C4-PFHpA		NO	9.277
33	36	18O2-PFHxS		NO	14.845
34	37	13C2-6:2 FTS		NO	19.765
35	38	13C2-PFOA		NO	4.848
36	39	13C5-PFNA		NO	9.599
37	40	13C8-PFOSA		NO	16.609
38	41	13C8-PFOS		NO	9.297
39	42	13C2-PFDA		NO	4.180
40	43	13C2-8:2 FTS		NO	19.121
41	44	d3-N-MeFOSAA		NO	18.801
42	45	d5-N-EtFOSAA		NO	15.437
43	46	13C2-PFUdA		NO	17.685
44	47	13C2-PFDoA		NO	19.128
45	48	d3-N-MeFOSA		NO	14.279
46	49	13C2-PFTeDA		NO	15.304
47	50	d5-N-ETFOSA		NO	13.623
48	51	13C2-PFHxDA		NO	19.962
49	52	d7-N-MeFOSE		NO	9.802
50	53	d9-N-EtFOSE		NO	14.770
51	54	13C4-PFBA		NO	0.000
52	55	13C5-PFHxA		NO	0.000
53	56	13C3-PFHxS		NO	0.000
54	57	13C8-PFOA		NO	0.000
55	58	13C9-PFNA		NO	0.000
56	59	13C4-PFOS		NO	0.000
57	60	13C6-PFDA		NO	0.000
58	61	13C7-PFUdA		NO	0.000

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Dataset: Untitled

Last Altered: Tuesday, January 16, 2018 10:06:30 Pacific Standard Time
Printed: Tuesday, January 16, 2018 10:09:05 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_011518.mdb 15 Jan 2018 11:38:30
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-15-18-FULL-OLD.cdb 16 Jan 2018 09:37:18

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180115M2_1	ST180115M2-1 PFC CS-2 17L2606	16-Jan-18	00:14:07
2	180115M2_2	ST180115M2-2 PFC CS-1 17L2607	16-Jan-18	00:25:32
3	180115M2_3	ST180115M2-3 PFC CS0 17L2608	16-Jan-18	00:37:02
4	180115M2_4	ST180115M2-4 PFC CS1 17L2609	16-Jan-18	00:48:46
5	180115M2_5	ST180115M2-5 PFC CS2 17L2610	16-Jan-18	01:00:17
6	180115M2_6	ST180115M2-6 PFC CS3 17L2611	16-Jan-18	01:11:44
7	180115M2_7	ST180115M2-7 PFC CS4 17L1208	16-Jan-18	01:23:11
8	180115M2_8	ST180115M2-8 PFC CS5 17L2613	16-Jan-18	01:34:38
9	180115M2_9	IPA	16-Jan-18	01:46:05
10	180115M2_10	ICV180115M2-1 PFC ICV 17L1201	16-Jan-18	01:57:31
11	180115M2_11	IPA	16-Jan-18	02:08:58

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180115M2\180115M2-10.qld

Last Altered: Tuesday, January 16, 2018 10:33:59 Pacific Standard Time
Printed: Tuesday, January 16, 2018 10:34:30 Pacific Standard Time

(A) PFDS < 70%.
(B) NO SS available.

AC 1/16/18

JA 01/16/2018

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_011518.mdb 15 Jan 2018 11:38:30
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-15-18-FULL-OLD.cdb 16 Jan 2018 10:22:57

Name: 180115M2_10, Date: 16-Jan-2018, Time: 01:57:31, ID: ICV180115M2-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBA	213.0 > 168.8	4.22e4	4.31e4	1.0000		1.64	1.53	12.2	9.143	91.4 70-130
2	2 PFPeA	263.1 > 218.9	3.87e4	4.74e4	1.0000		2.60	2.48	10.2	8.865	88.7
3	3 PFBS	299.0 > 79.7	7.49e3	5.83e3	1.0000		2.87	2.74	16.1	8.388	83.9
4	4 PFHxA	313.2 > 268.9	5.03e4	1.55e4	1.0000		3.36	3.25	16.2	9.233	92.3
5	5 PFHpA	363.0 > 318.9	3.86e4	3.81e4	1.0000		4.00	3.86	12.7	8.516	85.2
6	6 L-PFHxS	398.9 > 79.6	5.32e3	4.45e3	1.0000		4.14	4.01	15.0	7.365	73.7
7	8 6:2 FTS	427.1 > 407	7.45e3	4.45e3	1.0000		4.46	4.32	20.9	7.277	72.8
8	9 L-PFOA	413 > 368.7	4.17e4	5.84e4	1.0000		4.50	4.38	8.91	7.641	76.4
9	11 PFHpS	449 > 80.0	1.07e4	5.84e4	1.0000		4.60	4.48	2.29	8.064	80.6
10	12 PFNA	463.0 > 418.8	4.68e4	4.69e4	1.0000		4.94	4.81	12.5	9.162	91.6
11	13 PFOSA	498.1 > 77.8	3.83e3	3.99e3	1.0000		5.00	4.87	12.0	9.978	99.8
12	14 L-PFOS	499 > 79.9	9.56e3	1.09e4	1.0000		5.02	4.89	11.0	9.839	98.4
13	16 PFDA	513 > 468.8	3.70e4	4.01e4	1.0000		5.31	5.18	11.5	8.007	80.1
14	17 8:2 FTS	527 > 506.9	6.16e3	4.01e4	1.0000		5.28	5.15	1.92	7.523	75.2
15	18 N-MeFOSAA	570.1 > 419	1.06e4	9.21e3	1.0000		5.45	5.33	14.4	8.677	86.8
16	19 N-EtFOSAA	584.2 > 419	8.54e3	1.06e4	1.0000		5.60	5.48	10.0	7.762	77.6
17	20 PFUdA	563.0 > 518.9	1.34e4	1.66e4	1.0000		5.62	5.50	10.1	7.882	78.8
18	21 PFDS	598.8 > 80	1.97e3	1.66e4	1.0000		5.67	5.55	1.48	4.394	(A) 43.9
19	22 PFDoA	612.9 > 569.0	7.26e3	5.53e3	1.0000		5.91	5.78	16.4	11.272	112.7
20	23 N-MeFOSA	512.1 > 168.9		2.76e3	1.0000		5.87				(B)
21	24 PFTrDA	662.9 > 618.9	6.78e3	5.53e3	1.0000		6.15	6.03	15.3	7.147	71.5
22	25 PFTeDA	712.9 > 668.8	3.76e3	1.87e3	1.0000		6.35	6.23	25.2	7.572	75.7
23	26 N-EtFOSA	526.1 > 168.9		2.97e3	1.0000		6.25				(B)
24	27 PFHxDA	813.1 > 768.6		1.01e3	1.0000		6.64				
25	28 PFODA	913.1 > 868.8		1.01e3	1.0000		6.85				
26	29 N-MeFOSE	616.1 > 58.9		1.02e4	1.0000		6.31				
27	30 N-EtFOSE	630.1 > 58.9		9.18e3	1.0000		6.45				
28	31 13C3-PFBA	216.1 > 171.8	4.31e4	4.78e4	1.0000	0.779	1.64	1.53	11.3	14.466	115.7
29	32 13C3-PFPeA	266. > 221.8	4.74e4	5.13e4	1.0000	0.797	2.60	2.48	11.5	14.472	115.8
30	33 13C3-PFBS	302. > 98.8	5.83e3	5.13e4	1.0000	0.095	2.87	2.75	1.42	14.929	119.4
31	34 13C2-PFHxA	315 > 269.8	1.55e4	5.13e4	1.0000	0.636	3.36	3.25	3.78	5.937	118.7

Dataset: U:\Q4.PRO\results\180115M2\180115M2-10.qld

Last Altered: Tuesday, January 16, 2018 10:33:59 Pacific Standard Time
Printed: Tuesday, January 16, 2018 10:34:30 Pacific Standard Time

Name: 180115M2_10, Date: 16-Jan-2018, Time: 01:57:31, ID: ICV180115M2-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35 13C4-PFHpA	367.2 > 321.8	3.81e4	5.13e4	1.0000	0.621	4.00	3.86	9.27	14.929	119.4
33	36 18O2-PFHxS	403.0 > 102.6	4.45e3	1.25e4	1.0000	0.336	4.14	4.01	4.44	13.221	105.8
34	37 13C2-6:2 FTS	429.1 > 408.9	9.75e3	4.79e4	1.0000	0.192	4.46	4.33	2.55	13.229	105.8
35	38 13C2-PFOA	414.9 > 369.7	5.84e4	4.79e4	1.0000	1.001	4.50	4.38	15.3	15.234	121.9
36	39 13C5-PFNA	468.2 > 422.9	4.69e4	4.38e4	1.0000	0.811	4.94	4.81	13.4	16.506	132.0
37	40 13C8-PFOSA	506.1 > 77.7	3.99e3	1.79e4	1.0000	0.196	5.00	4.87	2.78	14.134	113.1
38	41 13C8-PFOS	507.0 > 79.9	1.09e4	1.14e4	1.0000	0.862	5.02	4.89	11.9	13.836	110.7
39	42 13C2-PFDA	515.1 > 469.9	4.01e4	3.72e4	1.0000	0.996	5.31	5.18	13.5	13.560	108.5
40	43 13C2-8:2 FTS	529.1 > 508.7	4.91e3	5.13e4	1.0000	0.103	5.28	5.15	1.19	11.599	92.8
41	44 d3-N-MeFOSAA	573.3 > 419	9.21e3	1.79e4	1.0000	0.340	5.45	5.32	6.42	18.871	151.0
42	45 d5-N-EtFOSAA	589.3 > 419	1.06e4	1.79e4	1.0000	0.377	5.60	5.48	7.41	19.663	157.3
43	46 13C2-PFUdA	565 > 519.8	1.66e4	1.79e4	1.0000	0.944	5.62	5.50	11.5	12.235	97.9
44	47 13C2-PFDoA	615.0 > 569.7	5.53e3	1.79e4	1.0000	0.726	5.91	5.78	3.85	5.307	42.5
45	48 d3-N-MeFOSA	515.2 > 168.9	2.76e3	1.79e4	1.0000	0.119	5.87	5.86	1.92	16.158	10.8
46	49 13C2-PFTeDA	714.8 > 669.6	1.87e3	1.79e4	1.0000	0.371	6.35	6.23	1.30	3.503	28.0
47	50 d5-N-ETFOSA	531.1 > 168.9	2.97e3	1.79e4	1.0000	0.174	6.25	6.21	2.07	11.921	7.9
48	51 13C2-PFHxDA	815 > 769.7	1.01e3	1.79e4	1.0000	0.559	6.64	6.54	0.702	1.256	25.1
49	52 d7-N-MeFOSE	623.1 > 58.9	1.02e4	1.79e4	1.0000	0.179	6.31	6.29	7.09	39.533	26.4
50	53 d9-N-EtFOSE	639.2 > 58.8	9.18e3	1.79e4	1.0000	0.160	6.45	6.44	6.40	40.069	26.7
51	54 13C4-PFBA	217. > 171.8	4.78e4	4.78e4	1.0000	1.000	1.64	1.52	12.5	12.500	100.0
52	55 13C5-PFHxA	318 > 272.9	5.13e4	5.13e4	1.0000	1.000	3.36	3.25	12.5	12.500	100.0
53	56 13C3-PFHxS	401.9 > 79.9	1.25e4	1.25e4	1.0000	1.000	4.14	4.01	12.5	12.500	100.0
54	57 13C8-PFOA	421.3 > 376	4.79e4	4.79e4	1.0000	1.000	4.50	4.38	12.5	12.500	100.0
55	58 13C9-PFNA	472.2 > 426.9	4.38e4	4.38e4	1.0000	1.000	4.94	4.81	12.5	12.500	100.0
56	59 13C4-PFOS	503 > 79.9	1.14e4	1.14e4	1.0000	1.000	5.02	4.89	12.5	12.500	100.0
57	60 13C6-PFDA	519.1 > 473.7	3.72e4	3.72e4	1.0000	1.000	5.31	5.18	12.5	12.500	100.0
58	61 13C7-PFUdA	570.1 > 524.8	1.79e4	1.79e4	1.0000	1.000	5.62	5.50	12.5	12.500	100.0

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Dataset: U:\Q4.PRO\results\180116M1\180116M1-CRV.qld

Last Altered: Wednesday, January 17, 2018 09:42:17 Pacific Standard Time
Printed: Wednesday, January 17, 2018 09:46:51 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 09:08:01
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-16-18-FULL.cdb 17 Jan 2018 09:42:17

AC 1/17/18

VJA 01/17/2018

Compound name: PFBA
Correlation coefficient: r = 0.999912, r^2 = 0.999825
Calibration curve: 1.16188 * x + 0.0241636
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	1.44	221.706	9686.104	0.286	0.2	-9.8	NO	1.000	NO	MM
2	2 180116M1_2	Standard	0.500	1.44	438.913	9490.231	0.578	0.5	-4.6	NO	1.000	NO	bb
3	3 180116M1_3	Standard	1.000	1.42	993.891	9853.670	1.261	1.1	6.4	NO	1.000	NO	bb
4	4 180116M1_4	Standard	2.000	1.43	1859.448	9420.711	2.467	2.1	5.1	NO	1.000	NO	bb
5	5 180116M1_5	Standard	5.000	1.42	4872.647	9738.424	6.254	5.4	7.2	NO	1.000	NO	bb
6	6 180116M1_6	Standard	10.000	1.44	9812.157	10224.787	11.996	10.3	3.0	NO	1.000	NO	bb
7	7 180116M1_7	Standard	50.000	1.44	46718.449	9889.910	59.048	50.8	1.6	NO	1.000	NO	bb
8	8 180116M1_8	Standard	100.000	1.43	95026.594	10226.978	116.147	99.9	-0.1	NO	1.000	NO	bb
9	9 180116M1_9	Standard	250.000	1.43	227973.688	9870.156	288.716	248.5	-0.6	NO	1.000	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.999917, r^2 = 0.999833
Calibration curve: 1.01796 * x + 0.0490163
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	2.39	259.979	11759.350	0.276	0.2	-10.7	NO	1.000	NO	bb
2	2 180116M1_2	Standard	0.500	2.39	466.009	11129.373	0.523	0.5	-6.8	NO	1.000	NO	bb
3	3 180116M1_3	Standard	1.000	2.39	1006.105	11364.861	1.107	1.0	3.9	NO	1.000	NO	bb
4	4 180116M1_4	Standard	2.000	2.39	1850.529	10704.574	2.161	2.1	3.7	NO	1.000	NO	bb
5	5 180116M1_5	Standard	5.000	2.39	4912.249	11539.417	5.321	5.2	3.6	NO	1.000	NO	bb
6	6 180116M1_6	Standard	10.000	2.39	10202.376	11757.996	10.846	10.6	6.1	NO	1.000	NO	bb
7	7 180116M1_7	Standard	50.000	2.39	46689.473	11315.473	51.577	50.6	1.2	NO	1.000	NO	bb
8	8 180116M1_8	Standard	100.000	2.39	91893.852	11365.634	101.065	99.2	-0.8	NO	1.000	NO	bb
9	9 180116M1_9	Standard	250.000	2.39	227974.141	11226.455	253.836	249.3	-0.3	NO	1.000	NO	bb

Dataset: U:\Q4.PRO\results\180116M1\180116M1-CRV.qld

Last Altered: Wednesday, January 17, 2018 09:42:17 Pacific Standard Time
Printed: Wednesday, January 17, 2018 09:46:51 Pacific Standard Time

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999617
Calibration curve: -0.00032592 * x^2 + 1.81726 * x + 0.0442359
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	2.66	56.230	1383.717	0.508	0.3	2.1	NO	1.000	NO	MM
2	2 180116M1_2	Standard	0.500	2.66	118.229	1549.968	0.953	0.5	0.1	NO	1.000	NO	bb
3	3 180116M1_3	Standard	1.000	2.66	221.131	1476.877	1.872	1.0	0.6	NO	1.000	NO	bb
4	4 180116M1_4	Standard	2.000	2.66	380.858	1418.377	3.356	1.8	-8.8	NO	1.000	NO	bb
5	5 180116M1_5	Standard	5.000	2.66	1139.539	1407.387	10.121	5.6	11.0	NO	1.000	NO	bb
6	6 180116M1_6	Standard	10.000	2.66	2071.781	1515.414	17.089	9.4	-6.0	NO	1.000	NO	bb
7	7 180116M1_7	Standard	50.000	2.66	10361.717	1407.596	92.016	51.1	2.2	NO	1.000	NO	bb
8	8 180116M1_8	Standard	100.000	2.66	20414.463	1445.271	176.563	98.9	-1.1	NO	1.000	NO	bb
9	9 180116M1_9	Standard	250.000	2.66	45545.148	1310.550	434.409	250.3	0.1	NO	1.000	NO	bb

Compound name: PFHxA
Correlation coefficient: r = 0.996644, r^2 = 0.993300
Calibration curve: 1.5776 * x + 0.158148
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	3.16	319.711	3223.630	0.496	0.2	-14.4	NO	0.993	NO	bb
2	2 180116M1_2	Standard	0.500	3.15	580.140	3375.689	0.859	0.4	-11.1	NO	0.993	NO	bb
3	3 180116M1_3	Standard	1.000	3.16	1127.286	3482.693	1.618	0.9	-7.4	NO	0.993	NO	bb
4	4 180116M1_4	Standard	2.000	3.16	2255.886	3382.451	3.335	2.0	0.7	NO	0.993	NO	bb
5	5 180116M1_5	Standard	5.000	3.16	5757.562	3263.638	8.821	5.5	9.8	NO	0.993	NO	bb
6	6 180116M1_6	Standard	10.000	3.16	12380.637	3483.716	17.769	11.2	11.6	NO	0.993	NO	bb
7	7 180116M1_7	Standard	50.000	3.16	57177.016	3021.616	94.613	59.9	19.7	NO	0.993	NO	bb
8	8 180116M1_8	Standard	100.000	3.16	104414.156	3567.892	146.325	92.7	-7.3	NO	0.993	NO	bb
9	9 180116M1_9	Standard	250.000	3.16	269433.281	3470.238	388.206	246.0	-1.6	NO	0.993	NO	bb

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Compound name: PFHpA
Correlation coefficient: r = 0.996966, r^2 = 0.993941
Calibration curve: 1.17636 * x + 0.12679
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	3.78	255.095	8450.651	0.377	0.2	-14.8	NO	0.994	NO	bb
2	2 180116M1_2	Standard	0.500	3.77	429.736	8364.292	0.642	0.4	-12.4	NO	0.994	NO	bb
3	3 180116M1_3	Standard	1.000	3.78	874.351	9033.274	1.210	0.9	-7.9	NO	0.994	NO	bb
4	4 180116M1_4	Standard	2.000	3.78	1633.358	8965.800	2.277	1.8	-8.6	NO	0.994	NO	bb
5	5 180116M1_5	Standard	5.000	3.78	4948.742	8580.876	7.209	6.0	20.4	NO	0.994	NO	bb
6	6 180116M1_6	Standard	10.000	3.77	9563.499	9087.307	13.155	11.1	10.8	NO	0.994	NO	bb
7	7 180116M1_7	Standard	50.000	3.78	47321.668	9092.034	65.059	55.2	10.4	NO	0.994	NO	bb
8	8 180116M1_8	Standard	100.000	3.77	96119.359	9429.717	127.415	108.2	8.2	NO	0.994	NO	bb
9	9 180116M1_9	Standard	250.000	3.77	195458.063	8839.615	276.395	234.9	-6.1	NO	0.994	NO	bb

Compound name: L-PFHxS
Correlation coefficient: r = 0.996947, r^2 = 0.993903
Calibration curve: 1.8399 * x + -0.08335
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	3.92	44.205	1163.872	0.475	0.3	21.3	NO	0.994	NO	MM
2	2 180116M1_2	Standard	0.500	3.92	79.809	1162.604	0.858	0.5	2.3	NO	0.994	NO	MM
3	3 180116M1_3	Standard	1.000	3.92	137.704	1232.114	1.397	0.8	-19.5	NO	0.994	NO	MM
4	4 180116M1_4	Standard	2.000	3.92	309.202	1027.618	3.761	2.1	4.5	NO	0.994	NO	MM
5	5 180116M1_5	Standard	5.000	3.92	770.193	1007.890	9.552	5.2	4.7	NO	0.994	NO	MM
6	6 180116M1_6	Standard	10.000	3.92	1562.867	1269.069	15.394	8.4	-15.9	NO	0.994	NO	MM
7	7 180116M1_7	Standard	50.000	3.92	7621.926	1117.479	85.258	46.4	-7.2	NO	0.994	NO	MM
8	8 180116M1_8	Standard	100.000	3.92	15291.647	920.215	207.718	112.9	12.9	NO	0.994	NO	MM
9	9 180116M1_9	Standard	250.000	3.92	37106.273	1041.621	445.295	242.1	-3.2	NO	0.994	NO	MM

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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.998668
Calibration curve: 0.00692048 * x^2 + 1.91686 * x + 0.0199382
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	4.24	49.512	1163.872	0.532	0.3	6.7	NO	0.999	NO	MM
2	2 180116M1_2	Standard	0.500	4.23	89.629	1162.604	0.964	0.5	-1.7	NO	0.999	NO	bb
3	3 180116M1_3	Standard	1.000	4.24	145.436	1232.114	1.475	0.8	-24.3	NO	0.999	NO	bb
4	4 180116M1_4	Standard	2.000	4.23	367.537	1027.618	4.471	2.3	15.1	NO	0.999	NO	bb
5	5 180116M1_5	Standard	5.000	4.24	926.146	1007.890	11.486	5.9	17.2	NO	0.999	NO	bb
6	6 180116M1_6	Standard	10.000	4.23	1833.953	1269.069	18.064	9.1	-8.9	NO	0.999	NO	bb
7	7 180116M1_7	Standard	50.000	4.24	10095.528	1117.479	112.927	49.9	-0.2	NO	0.999	NO	bb
8	8 180116M1_8	Standard	100.000	4.23	19222.791	920.215	261.118	100.1	0.1	NO	0.999	NO	bb
9	9 180116M1_9	Standard	250.000	4.23	39964.934	1041.621	479.600	159.0	-36.4	NO	0.999	NO	bbX

Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.999726
Calibration curve: -7.16737e-005 * x^2 + 1.04718 * x + 0.112994
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	4.29	369.764	11449.431	0.404	0.3	11.0	NO	1.000	NO	bb
2	2 180116M1_2	Standard	0.500	4.29	637.650	13002.049	0.613	0.5	-4.5	NO	1.000	NO	bb
3	3 180116M1_3	Standard	1.000	4.29	1317.634	14277.301	1.154	1.0	-0.6	NO	1.000	NO	bb
4	4 180116M1_4	Standard	2.000	4.29	1971.440	11199.146	2.200	2.0	-0.3	NO	1.000	NO	bd
5	5 180116M1_5	Standard	5.000	4.29	5257.171	11989.519	5.481	5.1	2.6	NO	1.000	NO	bb
6	6 180116M1_6	Standard	10.000	4.29	9391.745	12243.932	9.588	9.1	-9.5	NO	1.000	NO	bb
7	7 180116M1_7	Standard	50.000	4.29	46541.707	11080.365	52.505	50.2	0.4	NO	1.000	NO	bb
8	8 180116M1_8	Standard	100.000	4.29	95594.047	11357.656	105.209	101.1	1.1	NO	1.000	NO	bb
9	9 180116M1_9	Standard	250.000	4.29	214226.078	10420.163	256.985	249.6	-0.2	NO	1.000	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.998907
Calibration curve: -0.000515033 * x^2 + 0.287945 * x + -0.0780111
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	4.40	54.283	11449.431	0.059	0.5	90.9	NO	0.999	NO	MMX
2	2 180116M1_2	Standard	0.500	4.40	91.894	13002.049	0.088	0.6	15.7	NO	0.999	NO	bb
3	3 180116M1_3	Standard	1.000	4.40	190.161	14277.301	0.166	0.9	-15.0	NO	0.999	NO	bb
4	4 180116M1_4	Standard	2.000	4.40	440.732	11199.146	0.492	2.0	-0.7	NO	0.999	NO	bb
5	5 180116M1_5	Standard	5.000	4.40	1375.000	11989.519	1.434	5.3	6.0	NO	0.999	NO	bb
6	6 180116M1_6	Standard	10.000	4.40	2484.676	12243.932	2.537	9.2	-7.7	NO	0.999	NO	bb
7	7 180116M1_7	Standard	50.000	4.40	11791.681	11080.365	13.302	51.1	2.3	NO	0.999	NO	bb
8	8 180116M1_8	Standard	100.000	4.40	21305.338	11357.656	23.448	99.4	-0.6	NO	0.999	NO	bb
9	9 180116M1_9	Standard	250.000	4.40	53331.574	10420.163	63.976			NO	0.999	NO	bbXI

Compound name: PFNA
Coefficient of Determination: R^2 = 0.999213
Calibration curve: -0.00113985 * x^2 + 1.33616 * x + -0.00709813
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	4.72	336.573	10717.531	0.393	0.3	19.7	NO	0.999	NO	bb
2	2 180116M1_2	Standard	0.500	4.72	613.169	10745.446	0.713	0.5	7.9	NO	0.999	NO	bb
3	3 180116M1_3	Standard	1.000	4.72	1074.246	12645.761	1.062	0.8	-19.9	NO	0.999	NO	bb
4	4 180116M1_4	Standard	2.000	4.72	2115.573	9439.675	2.801	2.1	5.3	NO	0.999	NO	bb
5	5 180116M1_5	Standard	5.000	4.72	6471.356	12821.122	6.309	4.7	-5.1	NO	0.999	NO	bb
6	6 180116M1_6	Standard	10.000	4.72	10510.558	11142.601	11.791	8.9	-11.0	NO	0.999	NO	bb
7	7 180116M1_7	Standard	50.000	4.72	52936.535	10043.859	65.882	51.6	3.2	NO	0.999	NO	bb
8	8 180116M1_8	Standard	100.000	4.72	112468.070	11474.841	122.516	100.3	0.3	NO	0.999	NO	bb
9	9 180116M1_9	Standard	250.000	4.72	229778.922	10948.215	262.347	249.4	-0.2	NO	0.999	NO	bb

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Compound name: PFOSA
Coefficient of Determination: R^2 = 0.999429
Calibration curve: -0.00189304 * x^2 + 1.25215 * x + -0.0907594
Response type: Internal Std (Ref 40), 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	180116M1_1	Standard	0.250	4.79	57.088	2887.098	0.247	0.3	8.0	NO	0.999	NO	MM
2	2	180116M1_2	Standard	0.500	4.79	110.314	2835.896	0.486	0.5	-7.8	NO	0.999	NO	bb
3	3	180116M1_3	Standard	1.000	4.79	264.280	3116.662	1.060	0.9	-8.0	NO	0.999	NO	bb
4	4	180116M1_4	Standard	2.000	4.79	514.483	2507.907	2.564	2.1	6.4	NO	0.999	NO	bb
5	5	180116M1_5	Standard	5.000	4.79	1317.111	2778.751	5.925	4.8	-3.2	NO	0.999	NO	bb
6	6	180116M1_6	Standard	10.000	4.79	2763.193	2663.223	12.969	10.6	6.0	NO	0.999	NO	bb
7	7	180116M1_7	Standard	50.000	4.79	11069.777	2436.828	56.784	49.1	-1.9	NO	0.999	NO	bb
8	8	180116M1_8	Standard	100.000	4.79	22564.408	2645.185	106.630	100.5	0.5	NO	0.999	NO	bb
9	9	180116M1_9	Standard	250.000	4.78	54629.605	2709.175	252.058			NO	0.999	NO	bbXI

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.999296
Calibration curve: -0.000377183 * x^2 + 1.18185 * x + -0.0427942
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180116M1_1	Standard	0.250	4.80	64.016	2748.249	0.291	0.3	13.0	NO	0.999	NO	MM
2	2	180116M1_2	Standard	0.500	4.80	135.412	3062.637	0.553	0.5	0.8	NO	0.999	NO	MM
3	3	180116M1_3	Standard	1.000	4.80	255.868	3581.426	0.893	0.8	-20.8	NO	0.999	NO	MM
4	4	180116M1_4	Standard	2.000	4.80	478.262	2753.752	2.171	1.9	-6.3	NO	0.999	NO	MM
5	5	180116M1_5	Standard	5.000	4.80	1436.165	2607.384	6.885	5.9	17.5	NO	0.999	NO	MM
6	6	180116M1_6	Standard	10.000	4.80	2563.387	2808.887	11.407	9.7	-2.8	NO	0.999	NO	MM
7	7	180116M1_7	Standard	50.000	4.80	12649.566	2788.892	56.696	48.8	-2.5	NO	0.999	NO	MM
8	8	180116M1_8	Standard	100.000	4.80	23828.654	2574.809	115.682	101.2	1.2	NO	0.999	NO	MM
9	9	180116M1_9	Standard	250.000	4.80	60560.223	2787.223	271.597	249.8	-0.1	NO	0.999	NO	MM

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.999172
Calibration curve: 0.00451209 * x^2 + 1.16201 * x + 0.0740213
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	5.10	299.779	11939.189	0.314	0.2	-17.5	NO	0.999	NO	bb
2	2 180116M1_2	Standard	0.500	5.10	444.254	10330.241	0.538	0.4	-20.3	NO	0.999	NO	bb
3	3 180116M1_3	Standard	1.000	5.10	1017.517	9086.503	1.400	1.1	13.6	NO	0.999	NO	bb
4	4 180116M1_4	Standard	2.000	5.10	2054.222	9162.107	2.803	2.3	16.4	NO	0.999	NO	bb
5	5 180116M1_5	Standard	5.000	5.10	4941.804	9184.283	6.726	5.6	12.1	NO	0.999	NO	bb
6	6 180116M1_6	Standard	10.000	5.10	9558.316	10128.068	11.797	9.7	-2.8	NO	0.999	NO	bb
7	7 180116M1_7	Standard	50.000	5.10	47115.371	8665.843	67.961	49.1	-1.9	NO	0.999	NO	bb
8	8 180116M1_8	Standard	100.000	5.10	104698.211	8071.998	162.132	100.4	0.4	NO	0.999	NO	bb
9	9 180116M1_9	Standard	250.000	5.09	228650.172	9659.693	295.882	157.8	-36.9	NO	0.999	NO	bbX

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997721
Calibration curve: 0.000866712 * x^2 + 0.17819 * x + 0.0132104
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	5.06	55.176	11939.189	0.058	0.2	-0.1	NO	0.998	NO	MM
2	2 180116M1_2	Standard	0.500	5.06	67.507	10330.241	0.082	0.4	-23.3	NO	0.998	NO	bb
3	3 180116M1_3	Standard	1.000	5.06	148.733	9086.503	0.205	1.1	6.9	NO	0.998	NO	bb
4	4 180116M1_4	Standard	2.000	5.06	345.407	9162.107	0.471	2.5	27.0	NO	0.998	NO	bb
5	5 180116M1_5	Standard	5.000	5.07	830.481	9184.283	1.130	6.1	21.8	NO	0.998	NO	bb
6	6 180116M1_6	Standard	10.000	5.06	1535.274	10128.068	1.895	10.1	0.7	NO	0.998	NO	bb
7	7 180116M1_7	Standard	50.000	5.07	7280.793	8665.843	10.502	47.8	-4.5	NO	0.998	NO	bb
8	8 180116M1_8	Standard	100.000	5.06	17293.080	8071.998	26.779	100.8	0.8	NO	0.998	NO	bb
9	9 180116M1_9	Standard	250.000	5.06	39548.992	9659.693	51.178	161.0	-35.6	NO	0.998	NO	bbX

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.996422
Calibration curve: -0.000436198 * x^2 + 1.42659 * x + 0.0368734
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180116M1_1	Standard	0.250	5.25	110.232	4536.339	0.304	0.2	-25.2	NO	0.996	NO	bb
2	2	180116M1_2	Standard	0.500	5.24	249.402	4212.159	0.740	0.5	-1.4	NO	0.996	NO	bb
3	3	180116M1_3	Standard	1.000	5.24	494.146	4742.209	1.303	0.9	-11.3	NO	0.996	NO	bb
4	4	180116M1_4	Standard	2.000	5.24	1028.404	4153.334	3.095	2.1	7.3	NO	0.996	NO	bb
5	5	180116M1_5	Standard	5.000	5.24	2759.672	4062.903	8.490	5.9	18.7	NO	0.996	NO	bb
6	6	180116M1_6	Standard	10.000	5.24	6338.637	4372.872	18.119	12.7	27.2	NO	0.996	NO	bb
7	7	180116M1_7	Standard	50.000	5.25	25158.420	4465.175	70.430	50.1	0.2	NO	0.996	NO	bb
8	8	180116M1_8	Standard	100.000	5.24	51936.297	4998.960	129.868	93.7	-6.3	NO	0.996	NO	bb
9	9	180116M1_9	Standard	250.000	5.24	120272.102	4520.222	332.595	252.6	1.1	NO	0.996	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.998687
Calibration curve: -0.000995229 * x^2 + 1.24486 * x + -0.111773
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180116M1_1	Standard	0.250	5.41	96.014	5620.763	0.214	0.3	4.5	NO	0.999	NO	bb
2	2	180116M1_2	Standard	0.500	5.40	167.547	5095.419	0.411	0.4	-16.0	NO	0.999	NO	bb
3	3	180116M1_3	Standard	1.000	5.40	436.730	5070.402	1.077	1.0	-4.5	NO	0.999	NO	bb
4	4	180116M1_4	Standard	2.000	5.41	904.619	5451.059	2.074	1.8	-12.1	NO	0.999	NO	bb
5	5	180116M1_5	Standard	5.000	5.41	2318.178	5147.810	5.629	4.6	-7.4	NO	0.999	NO	bb
6	6	180116M1_6	Standard	10.000	5.40	5325.536	5425.866	12.269	10.0	0.3	NO	0.999	NO	bb
7	7	180116M1_7	Standard	50.000	5.41	22846.248	5032.401	56.748	47.5	-5.0	NO	0.999	NO	bb
8	8	180116M1_8	Standard	100.000	5.40	49491.453	5167.844	119.710	105.1	5.1	NO	0.999	NO	bb
9	9	180116M1_9	Standard	250.000	5.40	93832.344	4741.378	247.376	248.0	-0.8	NO	0.999	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.999765
Calibration curve: 0.000117185 * x^2 + 1.20421 * x + -0.000421214
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	5.42	246.194	11496.501	0.268	0.2	-10.9	NO	1.000	NO	bb
2	2 180116M1_2	Standard	0.500	5.42	539.451	11539.497	0.584	0.5	-2.9	NO	1.000	NO	bb
3	3 180116M1_3	Standard	1.000	5.42	1080.951	10280.838	1.314	1.1	9.2	NO	1.000	NO	bb
4	4 180116M1_4	Standard	2.000	5.42	1820.334	9928.053	2.292	1.9	-4.8	NO	1.000	NO	bb
5	5 180116M1_5	Standard	5.000	5.42	4876.209	9665.206	6.306	5.2	4.7	NO	1.000	NO	bb
6	6 180116M1_6	Standard	10.000	5.42	10634.579	10468.256	12.699	10.5	5.3	NO	1.000	NO	bb
7	7 180116M1_7	Standard	50.000	5.42	45718.391	9344.350	61.158	50.5	1.1	NO	1.000	NO	bb
8	8 180116M1_8	Standard	100.000	5.42	107801.867	11293.555	119.318	98.1	-1.9	NO	1.000	NO	bb
9	9 180116M1_9	Standard	250.000	5.42	236981.625	9582.808	309.123	250.6	0.2	NO	1.000	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.997540
Calibration curve: -0.000152273 * x^2 + 0.561726 * x + -0.0687212
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	5.47	39.969	6840.596	0.073	0.3	1.0	NO	0.998	NO	MM
2	2 180116M1_2	Standard	0.500	5.47	106.321	8875.636	0.150	0.4	-22.2	NO	0.998	NO	bb
3	3 180116M1_3	Standard	1.000	5.46	269.721	6389.428	0.528	1.1	6.2	NO	0.998	NO	bb
4	4 180116M1_4	Standard	2.000	5.47	415.329	5576.514	0.931	1.8	-11.0	NO	0.998	NO	bb
5	5 180116M1_5	Standard	5.000	5.47	1534.919	6506.571	2.949	5.4	7.6	NO	0.998	NO	bb
6	6 180116M1_6	Standard	10.000	5.46	2746.076	5168.371	6.642	12.0	19.8	NO	0.998	NO	bb
7	7 180116M1_7	Standard	50.000	5.46	13905.516	6050.928	28.726	52.0	4.0	NO	0.998	NO	bb
8	8 180116M1_8	Standard	100.000	5.46	23729.492	5787.021	51.256	93.8	-6.2	NO	0.998	NO	bb
9	9 180116M1_9	Standard	250.000	5.46	61908.117	5866.489	131.910	252.2	0.9	NO	0.998	NO	bb

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.994614
Calibration curve: -0.0264859 * x^2 + 3.1618 * x + -0.440243
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	5.70	300.718	6840.596	0.550	0.3	25.5	NO	0.995	NO	MM
2	2 180116M1_2	Standard	0.500	5.70	681.058	8875.636	0.959	0.4	-11.1	NO	0.995	NO	MM
3	3 180116M1_3	Standard	1.000	5.70	1268.545	6389.428	2.482	0.9	-6.9	NO	0.995	NO	bb
4	4 180116M1_4	Standard	2.000	5.70	2452.367	5576.514	5.497	1.9	-4.6	NO	0.995	NO	bb
5	5 180116M1_5	Standard	5.000	5.70	6758.206	6506.571	12.983	4.4	-11.8	NO	0.995	NO	bb
6	6 180116M1_6	Standard	10.000	5.70	12830.749	5168.371	31.032	11.0	9.6	NO	0.995	NO	bb
7	7 180116M1_7	Standard	50.000	5.70	44110.227	6050.928	91.123	49.4	-1.2	NO	0.995	NO	bb
8	8 180116M1_8	Standard	100.000	5.70	112638.633	5787.021	243.300			NO	0.995	NO	bbXI
9	9 180116M1_9	Standard	250.000	5.70	277742.469	5866.489	591.799			NO	0.995	NO	bbXI

Compound name: N-MeFOSA
Correlation coefficient: r = 0.998343, r^2 = 0.996689
Calibration curve: 0.967469 * x + 0.364764
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	1.250	5.80	176.876	18664.809	1.421	1.1	-12.6	NO	0.997	NO	bb
2	2 180116M1_2	Standard	2.500	5.79	332.038	18295.717	2.722	2.4	-2.5	NO	0.997	NO	bb
3	3 180116M1_3	Standard	5.000	5.79	698.400	19197.830	5.457	5.3	5.3	NO	0.997	NO	bb
4	4 180116M1_4	Standard	10.000	5.80	1317.378	18358.277	10.764	10.7	7.5	NO	0.997	NO	bb
5	5 180116M1_5	Standard	25.000	5.80	3557.406	19128.270	27.896	28.5	13.8	NO	0.997	NO	bb
6	6 180116M1_6	Standard	50.000	5.79	6815.889	19283.318	53.019	54.4	8.8	NO	0.997	NO	bb
7	7 180116M1_7	Standard	250.000	5.80	32148.586	18067.268	266.907	275.5	10.2	NO	0.997	NO	bb
8	8 180116M1_8	Standard	500.000	5.79	63347.246	18870.586	503.540	520.1	4.0	NO	0.997	NO	bb
9	9 180116M1_9	Standard	1250.000	5.79	144017.594	18668.119	1157.194	1195.7	-4.3	NO	0.997	NO	bb

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.995300
Calibration curve: -0.000670158 * x^2 + 2.3193 * x + 0.0178559
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	5.95	356.509	6840.596	0.651	0.3	9.3	NO	0.995	NO	bb
2	2 180116M1_2	Standard	0.500	5.95	625.274	8875.636	0.881	0.4	-25.6	NO	0.995	NO	bb
3	3 180116M1_3	Standard	1.000	5.94	1303.575	6389.428	2.550	1.1	9.2	NO	0.995	NO	bb
4	4 180116M1_4	Standard	2.000	5.95	2559.473	5576.514	5.737	2.5	23.4	NO	0.995	NO	bb
5	5 180116M1_5	Standard	5.000	5.95	4985.872	6506.571	9.579	4.1	-17.5	NO	0.995	NO	bb
6	6 180116M1_6	Standard	10.000	5.94	10178.988	5168.371	24.618	10.6	6.4	NO	0.995	NO	bb
7	7 180116M1_7	Standard	50.000	5.95	48431.180	6050.928	100.049	43.7	-12.6	NO	0.995	NO	bb
8	8 180116M1_8	Standard	100.000	5.94	112709.742	5787.021	243.454	108.4	8.4	NO	0.995	NO	bb
9	9 180116M1_9	Standard	250.000	5.95	250381.297	5866.489	533.499	247.8	-0.9	NO	0.995	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.998877
Calibration curve: 0.0126791 * x^2 + 1.7855 * x + 0.404941
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 180116M1_1	Standard	0.250	6.17	177.581	4512.448	0.492	0.0	-80.5	NO	0.999	NO	bbX
2	2 180116M1_2	Standard	0.500	6.15	358.711	3698.448	1.212	0.5	-9.8	NO	0.999	NO	bb
3	3 180116M1_3	Standard	1.000	6.15	634.376	3848.938	2.060	0.9	-7.9	NO	0.999	NO	bb
4	4 180116M1_4	Standard	2.000	6.16	1465.562	3836.873	4.775	2.4	20.3	NO	0.999	NO	bb
5	5 180116M1_5	Standard	5.000	6.16	3364.228	4331.780	9.708	5.0	0.6	NO	0.999	NO	bb
6	6 180116M1_6	Standard	10.000	6.16	6000.745	3979.488	18.849	9.7	-3.3	NO	0.999	NO	bb
7	7 180116M1_7	Standard	50.000	6.16	32479.619	3342.038	121.481	50.0	0.1	NO	0.999	NO	bb
8	8 180116M1_8	Standard	100.000	6.15	59941.289	4303.681	174.099	66.2	-33.8	NO	0.999	NO	bbX
9	9 180116M1_9	Standard	250.000	6.15	113294.648	4158.729	340.533	107.9	-56.9	NO	0.999	NO	bbX

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999777
Calibration curve: -7.91814e-005 * x^2 + 0.911816 * x + 0.224562
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 180116M1_1	Standard	1.250	6.17	260.452	28223.400	1.384	1.3	1.8	NO	1.000	NO	bb
2	2 180116M1_2	Standard	2.500	6.17	465.609	28298.604	2.468	2.5	-1.6	NO	1.000	NO	bb
3	3 180116M1_3	Standard	5.000	6.17	922.511	29142.270	4.748	5.0	-0.7	NO	1.000	NO	bb
4	4 180116M1_4	Standard	10.000	6.17	1699.594	27914.186	9.133	9.8	-2.2	NO	1.000	NO	bb
5	5 180116M1_5	Standard	25.000	6.17	4533.878	29278.414	23.228	25.3	1.1	NO	1.000	NO	bb
6	6 180116M1_6	Standard	50.000	6.17	9180.264	29238.688	47.096	51.6	3.3	NO	1.000	NO	bb
7	7 180116M1_7	Standard	250.000	6.18	41044.523	28438.600	216.490	242.3	-3.1	NO	1.000	NO	bb
8	8 180116M1_8	Standard	500.000	6.17	81742.750	27681.230	442.950	507.9	1.6	NO	1.000	NO	bb
9	9 180116M1_9	Standard	1250.000	6.17	174602.281	25805.504	1014.913	1248.1	-0.2	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998292
Calibration curve: -0.00121541 * x^2 + 0.832632 * x + 0.0987095
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 180116M1_1	Standard	0.250	6.48	131.731	2287.884	0.288	0.2	-9.1	NO	0.998	NO	bb
2	2 180116M1_2	Standard	0.500	6.48	291.158	2750.796	0.529	0.5	3.5	NO	0.998	NO	bb
3	3 180116M1_3	Standard	1.000	6.47	426.316	2497.487	0.853	0.9	-9.2	NO	0.998	NO	bb
4	4 180116M1_4	Standard	2.000	6.48	978.529	2391.055	2.046	2.3	17.4	NO	0.998	NO	bb
5	5 180116M1_5	Standard	5.000	6.48	2304.914	2688.168	4.287	5.1	1.4	NO	0.998	NO	bb
6	6 180116M1_6	Standard	10.000	6.48	5019.895	3056.490	8.212	9.9	-1.1	NO	0.998	NO	bb
7	7 180116M1_7	Standard	50.000	6.48	22305.412	3080.510	36.204	46.5	-7.0	NO	0.998	NO	bb
8	8 180116M1_8	Standard	100.000	6.47	39735.074	2676.116	74.240	105.2	5.2	NO	0.998	NO	bb
9	9 180116M1_9	Standard	250.000	6.47	88025.656	3344.985	131.579	246.9	-1.3	NO	0.998	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.993376
Calibration curve: -0.00110199 * x^2 + 0.823967 * x + 0.015256
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	0.250	6.71	112.793	2287.884	0.247	0.3	12.3	NO	0.993	NO	bb
2	2 180116M1_2	Standard	0.500	6.70	206.991	2750.796	0.376	0.4	-12.3	NO	0.993	NO	bb
3	3 180116M1_3	Standard	1.000	6.70	465.737	2497.487	0.932	1.1	11.5	NO	0.993	NO	bb
4	4 180116M1_4	Standard	2.000	6.70	917.722	2391.055	1.919	2.3	15.9	NO	0.993	NO	bb
5	5 180116M1_5	Standard	5.000	6.71	2073.762	2688.168	3.857	4.7	-6.2	NO	0.993	NO	bb
6	6 180116M1_6	Standard	10.000	6.71	4441.363	3056.490	7.265	8.9	-10.9	NO	0.993	NO	bb
7	7 180116M1_7	Standard	50.000	6.71	20915.785	3080.510	33.949	43.7	-12.5	NO	0.993	NO	bb
8	8 180116M1_8	Standard	100.000	6.70	42109.531	2676.116	78.677	112.3	12.3	NO	0.993	NO	bb
9	9 180116M1_9	Standard	250.000	6.70	90420.867	3344.985	135.159	243.0	-2.8	NO	0.993	NO	bb

Compound name: N-MeFOSE
Correlation coefficient: r = 0.998549, r^2 = 0.997101
Calibration curve: 0.949387 * x + 0.316534
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	1.250	6.29	218.574	25858.709	1.268	1.0	-19.8	NO	0.997	NO	bb
2	2 180116M1_2	Standard	2.500	6.29	506.060	27276.381	2.783	2.6	3.9	NO	0.997	NO	bb
3	3 180116M1_3	Standard	5.000	6.29	1045.355	28903.693	5.425	5.4	7.6	NO	0.997	NO	bb
4	4 180116M1_4	Standard	10.000	6.29	1554.576	27366.512	8.521	8.6	-13.6	NO	0.997	NO	bb
5	5 180116M1_5	Standard	25.000	6.30	5382.625	32377.256	24.937	25.9	3.7	NO	0.997	NO	bd
6	6 180116M1_6	Standard	50.000	6.30	9134.290	25632.105	53.454	56.0	11.9	NO	0.997	NO	bb
7	7 180116M1_7	Standard	250.000	6.30	52939.156	29830.061	266.204	280.1	12.0	NO	0.997	NO	bb
8	8 180116M1_8	Standard	500.000	6.29	105570.414	35058.652	451.688	475.4	-4.9	NO	0.997	NO	bd
9	9 180116M1_9	Standard	1250.000	6.29	213340.188	27203.719	1176.348	1238.7	-0.9	NO	0.997	NO	bb

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.998665, r^2 = 0.997331
Calibration curve: 1.07655 * x + 0.502038
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 180116M1_1	Standard	1.250	6.45	290.612	27220.227	1.601	1.0	-18.3	NO	0.997	NO	bb
2	2 180116M1_2	Standard	2.500	6.44	587.458	25274.818	3.486	2.8	10.9	NO	0.997	NO	bb
3	3 180116M1_3	Standard	5.000	6.44	1066.879	29485.193	5.428	4.6	-8.5	NO	0.997	NO	bb
4	4 180116M1_4	Standard	10.000	6.45	1937.175	25789.371	11.267	10.0	-0.0	NO	0.997	NO	bb
5	5 180116M1_5	Standard	25.000	6.45	6079.333	30222.031	30.173	27.6	10.2	NO	0.997	NO	bb
6	6 180116M1_6	Standard	50.000	6.45	11017.960	28652.809	57.680	53.1	6.2	NO	0.997	NO	bb
7	7 180116M1_7	Standard	250.000	6.45	44678.395	26491.758	252.975	234.5	-6.2	NO	0.997	NO	bb
8	8 180116M1_8	Standard	500.000	6.44	110892.625	28580.506	582.001	540.2	8.0	NO	0.997	NO	bb
9	9 180116M1_9	Standard	1250.000	6.45	234203.828	26736.955	1313.933	1220.0	-2.4	NO	0.997	NO	bb

Compound name: 13C3-PFBA
Response Factor: 0.885989
RRF SD: 0.020724, Relative SD: 2.33909
Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	1.44	9686.104	11050.020	10.957	12.4	-1.1	NO		NO	bb
2	2 180116M1_2	Standard	12.500	1.44	9490.231	10571.813	11.221	12.7	1.3	NO		NO	bb
3	3 180116M1_3	Standard	12.500	1.42	9853.670	11595.762	10.622	12.0	-4.1	NO		NO	bb
4	4 180116M1_4	Standard	12.500	1.43	9420.711	10569.876	11.141	12.6	0.6	NO		NO	bb
5	5 180116M1_5	Standard	12.500	1.42	9738.424	10822.726	11.248	12.7	1.6	NO		NO	bb
6	6 180116M1_6	Standard	12.500	1.43	10224.787	11465.634	11.147	12.6	0.7	NO		NO	bb
7	7 180116M1_7	Standard	12.500	1.44	9889.910	10986.499	11.252	12.7	1.6	NO		NO	bb
8	8 180116M1_8	Standard	12.500	1.43	10226.978	11236.524	11.377	12.8	2.7	NO		NO	bb
9	9 180116M1_9	Standard	12.500	1.43	9870.156	11521.590	10.708	12.1	-3.3	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 0.92926
RRF SD: 0.050219, Relative SD: 5.4042
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	2.39	11759.350	12073.535	12.175	13.1	4.8	NO		NO	bb
2	2 180116M1_2	Standard	12.500	2.39	11129.373	12476.502	11.150	12.0	-4.0	NO		NO	bb
3	3 180116M1_3	Standard	12.500	2.39	11364.861	12756.279	11.137	12.0	-4.1	NO		NO	bb
4	4 180116M1_4	Standard	12.500	2.39	10704.574	12144.904	11.018	11.9	-5.1	NO		NO	bb
5	5 180116M1_5	Standard	12.500	2.39	11539.417	12731.519	11.330	12.2	-2.5	NO		NO	bb
6	6 180116M1_6	Standard	12.500	2.39	11757.996	13469.731	10.911	11.7	-6.1	NO		NO	bb
7	7 180116M1_7	Standard	12.500	2.39	11315.473	11818.463	11.968	12.9	3.0	NO		NO	bb
8	8 180116M1_8	Standard	12.500	2.39	11365.634	11344.723	12.523	13.5	7.8	NO		NO	bb
9	9 180116M1_9	Standard	12.500	2.39	11226.455	11380.839	12.330	13.3	6.2	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.117345
RRF SD: 0.00543451, Relative SD: 4.63124
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	2.66	1383.717	12073.535	1.433	12.2	-2.3	NO		NO	bb
2	2 180116M1_2	Standard	12.500	2.66	1549.968	12476.502	1.553	13.2	5.9	NO		NO	bb
3	3 180116M1_3	Standard	12.500	2.66	1476.877	12756.279	1.447	12.3	-1.3	NO		NO	bb
4	4 180116M1_4	Standard	12.500	2.66	1418.377	12144.904	1.460	12.4	-0.5	NO		NO	bb
5	5 180116M1_5	Standard	12.500	2.66	1407.387	12731.519	1.382	11.8	-5.8	NO		NO	bb
6	6 180116M1_6	Standard	12.500	2.66	1515.414	13469.731	1.406	12.0	-4.1	NO		NO	bb
7	7 180116M1_7	Standard	12.500	2.66	1407.596	11818.463	1.489	12.7	1.5	NO		NO	bb
8	8 180116M1_8	Standard	12.500	2.66	1445.271	11344.723	1.592	13.6	8.6	NO		NO	bb
9	9 180116M1_9	Standard	12.500	2.66	1310.550	11380.839	1.439	12.3	-1.9	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.688653
RRF SD: 0.0526107, Relative SD: 7.63966
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	5.000	3.16	3223.630	12073.535	3.337	4.8	-3.1	NO		NO	bb
2	2 180116M1_2	Standard	5.000	3.15	3375.689	12476.502	3.382	4.9	-1.8	NO		NO	bb
3	3 180116M1_3	Standard	5.000	3.16	3482.693	12756.279	3.413	5.0	-0.9	NO		NO	bb
4	4 180116M1_4	Standard	5.000	3.16	3382.451	12144.904	3.481	5.1	1.1	NO		NO	bb
5	5 180116M1_5	Standard	5.000	3.16	3263.638	12731.519	3.204	4.7	-6.9	NO		NO	bb
6	6 180116M1_6	Standard	5.000	3.15	3483.716	13469.731	3.233	4.7	-6.1	NO		NO	bb
7	7 180116M1_7	Standard	5.000	3.16	3021.616	11818.463	3.196	4.6	-7.2	NO		NO	bb
8	8 180116M1_8	Standard	5.000	3.16	3567.892	11344.723	3.931	5.7	14.2	NO		NO	bb
9	9 180116M1_9	Standard	5.000	3.16	3470.238	11380.839	3.811	5.5	10.7	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.726952
RRF SD: 0.0559992, Relative SD: 7.70329
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	3.78	8450.651	12073.535	8.749	12.0	-3.7	NO		NO	bb
2	2 180116M1_2	Standard	12.500	3.77	8364.292	12476.502	8.380	11.5	-7.8	NO		NO	bb
3	3 180116M1_3	Standard	12.500	3.77	9033.274	12756.279	8.852	12.2	-2.6	NO		NO	bb
4	4 180116M1_4	Standard	12.500	3.78	8965.800	12144.904	9.228	12.7	1.6	NO		NO	bb
5	5 180116M1_5	Standard	12.500	3.78	8580.876	12731.519	8.425	11.6	-7.3	NO		NO	bb
6	6 180116M1_6	Standard	12.500	3.77	9087.307	13469.731	8.433	11.6	-7.2	NO		NO	bb
7	7 180116M1_7	Standard	12.500	3.78	9092.034	11818.463	9.616	13.2	5.8	NO		NO	bb
8	8 180116M1_8	Standard	12.500	3.77	9429.717	11344.723	10.390	14.3	14.3	NO		NO	bb
9	9 180116M1_9	Standard	12.500	3.77	8839.615	11380.839	9.709	13.4	6.8	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.362384
RRF SD: 0.0296798, Relative SD: 8.19013
Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	3.92	1163.872	3454.812	4.211	11.6	-7.0	NO		NO	bb
2	2 180116M1_2	Standard	12.500	3.92	1162.604	2963.786	4.903	13.5	8.2	NO		NO	bb
3	3 180116M1_3	Standard	12.500	3.92	1232.114	3145.618	4.896	13.5	8.1	NO		NO	bb
4	4 180116M1_4	Standard	12.500	3.92	1027.618	3060.330	4.197	11.6	-7.3	NO		NO	bb
5	5 180116M1_5	Standard	12.500	3.92	1007.890	3105.605	4.057	11.2	-10.4	NO		NO	bb
6	6 180116M1_6	Standard	12.500	3.92	1269.069	3293.453	4.817	13.3	6.3	NO		NO	bb
7	7 180116M1_7	Standard	12.500	3.92	1117.479	2861.310	4.882	13.5	7.8	NO		NO	bb
8	8 180116M1_8	Standard	12.500	3.92	920.215	2787.766	4.126	11.4	-8.9	NO		NO	bb
9	9 180116M1_9	Standard	12.500	3.92	1041.621	2782.713	4.679	12.9	3.3	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.218317
RRF SD: 0.0316822, Relative SD: 14.512
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	4.24	2341.250	10385.357	2.818	12.9	3.3	NO		NO	bb
2	2 180116M1_2	Standard	12.500	4.23	2432.881	11407.506	2.666	12.2	-2.3	NO		NO	bb
3	3 180116M1_3	Standard	12.500	4.23	2341.103	12947.326	2.260	10.4	-17.2	NO		NO	bb
4	4 180116M1_4	Standard	12.500	4.23	2165.109	11403.713	2.373	10.9	-13.0	NO		NO	bb
5	5 180116M1_5	Standard	12.500	4.24	2024.808	10734.931	2.358	10.8	-13.6	NO		NO	bb
6	6 180116M1_6	Standard	12.500	4.23	2441.641	10788.871	2.829	13.0	3.7	NO		NO	bb
7	7 180116M1_7	Standard	12.500	4.24	2832.089	11185.677	3.165	14.5	16.0	NO		NO	bb
8	8 180116M1_8	Standard	12.500	4.23	2892.263	10750.554	3.363	15.4	23.2	NO		NO	bb
9	9 180116M1_9	Standard	12.500	4.23	4093.192	10268.148	4.983	22.8	82.6	NO		NO	bbX

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Compound name: 13C2-PFOA
Response Factor: 1.07118
RRF SD: 0.0619022, Relative SD: 5.77888
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	4.29	11449.431	10385.357	13.781	12.9	2.9	NO		NO	bb
2	2 180116M1_2	Standard	12.500	4.29	13002.049	11407.506	14.247	13.3	6.4	NO		NO	bb
3	3 180116M1_3	Standard	12.500	4.29	14277.301	12947.326	13.784	12.9	2.9	NO		NO	bb
4	4 180116M1_4	Standard	12.500	4.29	11199.146	11403.713	12.276	11.5	-8.3	NO		NO	bb
5	5 180116M1_5	Standard	12.500	4.30	11989.519	10734.931	13.961	13.0	4.3	NO		NO	bb
6	6 180116M1_6	Standard	12.500	4.29	12243.932	10788.871	14.186	13.2	5.9	NO		NO	bb
7	7 180116M1_7	Standard	12.500	4.29	11080.365	11185.677	12.382	11.6	-7.5	NO		NO	bb
8	8 180116M1_8	Standard	12.500	4.29	11357.656	10750.554	13.206	12.3	-1.4	NO		NO	bb
9	9 180116M1_9	Standard	12.500	4.29	10420.163	10268.148	12.685	11.8	-5.3	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.968471
RRF SD: 0.0717027, Relative SD: 7.4037
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	4.72	10717.531	11721.332	11.430	11.8	-5.6	NO		NO	bb
2	2 180116M1_2	Standard	12.500	4.72	10745.446	11214.854	11.977	12.4	-1.1	NO		NO	bb
3	3 180116M1_3	Standard	12.500	4.72	12645.761	13094.815	12.071	12.5	-0.3	NO		NO	bb
4	4 180116M1_4	Standard	12.500	4.72	9439.675	9620.638	12.265	12.7	1.3	NO		NO	bb
5	5 180116M1_5	Standard	12.500	4.72	12821.122	11574.011	13.847	14.3	14.4	NO		NO	bb
6	6 180116M1_6	Standard	12.500	4.72	11142.601	11492.758	12.119	12.5	0.1	NO		NO	bb
7	7 180116M1_7	Standard	12.500	4.72	10043.859	11984.002	10.476	10.8	-13.5	NO		NO	bb
8	8 180116M1_8	Standard	12.500	4.72	11474.841	11777.771	12.178	12.6	0.6	NO		NO	bb
9	9 180116M1_9	Standard	12.500	4.72	10948.215	10870.310	12.590	13.0	4.0	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.283348
RRF SD: 0.0200449, Relative SD: 7.0743
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	4.79	2887.098	10210.835	3.534	12.5	-0.2	NO		NO	bb
2	2 180116M1_2	Standard	12.500	4.78	2835.896	9729.924	3.643	12.9	2.9	NO		NO	bb
3	3 180116M1_3	Standard	12.500	4.78	3116.662	10027.175	3.885	13.7	9.7	NO		NO	bb
4	4 180116M1_4	Standard	12.500	4.78	2507.907	8580.147	3.654	12.9	3.2	NO		NO	bb
5	5 180116M1_5	Standard	12.500	4.79	2778.751	11127.871	3.121	11.0	-11.9	NO		NO	bb
6	6 180116M1_6	Standard	12.500	4.78	2663.223	8984.025	3.705	13.1	4.6	NO		NO	bb
7	7 180116M1_7	Standard	12.500	4.79	2436.828	9380.541	3.247	11.5	-8.3	NO		NO	bb
8	8 180116M1_8	Standard	12.500	4.78	2645.185	9856.826	3.355	11.8	-5.3	NO		NO	bb
9	9 180116M1_9	Standard	12.500	4.78	2709.175	9075.307	3.732	13.2	5.4	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 0.99887
RRF SD: 0.129919, Relative SD: 13.0066
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	4.81	2748.249	2792.583	12.302	12.3	-1.5	NO		NO	bb
2	2 180116M1_2	Standard	12.500	4.80	3062.637	2843.265	13.464	13.5	7.8	NO		NO	bb
3	3 180116M1_3	Standard	12.500	4.80	3581.426	2884.635	15.519	15.5	24.3	NO		NO	bb
4	4 180116M1_4	Standard	12.500	4.81	2753.752	2699.778	12.750	12.8	2.1	NO		NO	bb
5	5 180116M1_5	Standard	12.500	4.81	2607.384	2978.699	10.942	11.0	-12.4	NO		NO	bb
6	6 180116M1_6	Standard	12.500	4.81	2808.887	3049.198	11.515	11.5	-7.8	NO		NO	bb
7	7 180116M1_7	Standard	12.500	4.81	2788.892	2541.166	13.719	13.7	9.9	NO		NO	bb
8	8 180116M1_8	Standard	12.500	4.80	2574.809	3195.924	10.071	10.1	-19.3	NO		NO	bb
9	9 180116M1_9	Standard	12.500	4.80	2787.223	2881.351	12.092	12.1	-3.2	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 1.32852
RRF SD: 0.17548, Relative SD: 13.2086
Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	5.10	11939.189	8821.698	16.917	12.7	1.9	NO		NO	bb
2	2 180116M1_2	Standard	12.500	5.09	10330.241	8328.056	15.505	11.7	-6.6	NO		NO	bb
3	3 180116M1_3	Standard	12.500	5.09	9086.503	7667.870	14.813	11.1	-10.8	NO		NO	bb
4	4 180116M1_4	Standard	12.500	5.10	9162.107	6189.709	18.503	13.9	11.4	NO		NO	bb
5	5 180116M1_5	Standard	12.500	5.10	9184.283	6495.553	17.674	13.3	6.4	NO		NO	bb
6	6 180116M1_6	Standard	12.500	5.09	10128.068	6185.501	20.467	15.4	23.2	NO		NO	bb
7	7 180116M1_7	Standard	12.500	5.09	8665.843	7076.858	15.307	11.5	-7.8	NO		NO	bb
8	8 180116M1_8	Standard	12.500	5.09	8071.998	7703.452	13.098	9.9	-21.1	NO		NO	bb
9	9 180116M1_9	Standard	12.500	5.09	9659.693	7030.358	17.175	12.9	3.4	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.084908
RRF SD: 0.0154575, Relative SD: 18.2049
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	5.07	982.468	12073.535	1.017	12.0	-4.2	NO		NO	bb
2	2 180116M1_2	Standard	12.500	5.07	1340.280	12476.502	1.343	15.8	26.5	NO		NO	bb
3	3 180116M1_3	Standard	12.500	5.07	1150.632	12756.279	1.128	13.3	6.2	NO		NO	bb
4	4 180116M1_4	Standard	12.500	5.07	831.167	12144.904	0.855	10.1	-19.4	NO		NO	bb
5	5 180116M1_5	Standard	12.500	5.07	989.605	12731.519	0.972	11.4	-8.5	NO		NO	bb
6	6 180116M1_6	Standard	12.500	5.07	913.465	13469.731	0.848	10.0	-20.1	NO		NO	bb
7	7 180116M1_7	Standard	12.500	5.07	1198.093	11818.463	1.267	14.9	19.4	NO		NO	bb
8	8 180116M1_8	Standard	12.500	5.07	1836.881	11344.723	2.024	23.8	90.7	NO		NO	bbX
9	9 180116M1_9	Standard	12.500	5.07	2332.842	11380.839	2.562	30.2	141.4	NO		NO	bbX

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Compound name: d3-N-MeFOSAA
Response Factor: 0.463029
RRF SD: 0.0437239, Relative SD: 9.443
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	5.25	4536.339	10210.835	5.553	12.0	-4.1	NO		NO	bb
2	2 180116M1_2	Standard	12.500	5.24	4212.159	9729.924	5.411	11.7	-6.5	NO		NO	bb
3	3 180116M1_3	Standard	12.500	5.24	4742.209	10027.175	5.912	12.8	2.1	NO		NO	bb
4	4 180116M1_4	Standard	12.500	5.24	4153.334	8580.147	6.051	13.1	4.5	NO		NO	bb
5	5 180116M1_5	Standard	12.500	5.24	4062.903	11127.871	4.564	9.9	-21.1	NO		NO	bb
6	6 180116M1_6	Standard	12.500	5.24	4372.872	8984.025	6.084	13.1	5.1	NO		NO	bb
7	7 180116M1_7	Standard	12.500	5.25	4465.175	9380.541	5.950	12.9	2.8	NO		NO	bb
8	8 180116M1_8	Standard	12.500	5.24	4998.960	9856.826	6.339	13.7	9.5	NO		NO	bb
9	9 180116M1_9	Standard	12.500	5.24	4520.222	9075.307	6.226	13.4	7.6	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.540544
RRF SD: 0.0515781, Relative SD: 9.54189
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	5.40	5620.763	10210.835	6.881	12.7	1.8	NO		NO	bb
2	2 180116M1_2	Standard	12.500	5.40	5095.419	9729.924	6.546	12.1	-3.1	NO		NO	bb
3	3 180116M1_3	Standard	12.500	5.40	5070.402	10027.175	6.321	11.7	-6.5	NO		NO	bb
4	4 180116M1_4	Standard	12.500	5.40	5451.059	8580.147	7.941	14.7	17.5	NO		NO	bb
5	5 180116M1_5	Standard	12.500	5.40	5147.810	11127.871	5.783	10.7	-14.4	NO		NO	bb
6	6 180116M1_6	Standard	12.500	5.40	5425.866	8984.025	7.549	14.0	11.7	NO		NO	bb
7	7 180116M1_7	Standard	12.500	5.40	5032.401	9380.541	6.706	12.4	-0.8	NO		NO	bb
8	8 180116M1_8	Standard	12.500	5.39	5167.844	9856.826	6.554	12.1	-3.0	NO		NO	bb
9	9 180116M1_9	Standard	12.500	5.40	4741.378	9075.307	6.531	12.1	-3.3	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 1.08065
RRF SD: 0.103788, Relative SD: 9.60423
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	5.42	11496.501	10210.835	14.074	13.0	4.2	NO		NO	bb
2	2 180116M1_2	Standard	12.500	5.42	11539.497	9729.924	14.825	13.7	9.7	NO		NO	bb
3	3 180116M1_3	Standard	12.500	5.42	10280.838	10027.175	12.816	11.9	-5.1	NO		NO	bb
4	4 180116M1_4	Standard	12.500	5.42	9928.053	8580.147	14.464	13.4	7.1	NO		NO	bb
5	5 180116M1_5	Standard	12.500	5.42	9665.206	11127.871	10.857	10.0	-19.6	NO		NO	bb
6	6 180116M1_6	Standard	12.500	5.42	10468.256	8984.025	14.565	13.5	7.8	NO		NO	bb
7	7 180116M1_7	Standard	12.500	5.42	9344.350	9380.541	12.452	11.5	-7.8	NO		NO	bb
8	8 180116M1_8	Standard	12.500	5.42	11293.555	9856.826	14.322	13.3	6.0	NO		NO	bb
9	9 180116M1_9	Standard	12.500	5.42	9582.808	9075.307	13.199	12.2	-2.3	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.656428
RRF SD: 0.10172, Relative SD: 15.496
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	5.70	6840.596	10210.835	8.374	12.8	2.1	NO		NO	bb
2	2 180116M1_2	Standard	12.500	5.70	8875.636	9729.924	11.402	17.4	39.0	NO		NO	bb
3	3 180116M1_3	Standard	12.500	5.70	6389.428	10027.175	7.965	12.1	-2.9	NO		NO	bb
4	4 180116M1_4	Standard	12.500	5.70	5576.514	8580.147	8.124	12.4	-1.0	NO		NO	bb
5	5 180116M1_5	Standard	12.500	5.70	6506.571	11127.871	7.309	11.1	-10.9	NO		NO	bb
6	6 180116M1_6	Standard	12.500	5.70	5168.371	8984.025	7.191	11.0	-12.4	NO		NO	bb
7	7 180116M1_7	Standard	12.500	5.70	6050.928	9380.541	8.063	12.3	-1.7	NO		NO	bb
8	8 180116M1_8	Standard	12.500	5.70	5787.021	9856.826	7.339	11.2	-10.6	NO		NO	bb
9	9 180116M1_9	Standard	12.500	5.70	5866.489	9075.307	8.080	12.3	-1.5	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.162272
RRF SD: 0.0118637, Relative SD: 7.31097
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	150.000	5.82	18664.809	10210.835	22.849	140.8	-6.1	NO		NO	bb
2	2 180116M1_2	Standard	150.000	5.81	18295.717	9729.924	23.504	144.8	-3.4	NO		NO	bb
3	3 180116M1_3	Standard	150.000	5.81	19197.830	10027.175	23.932	147.5	-1.7	NO		NO	bb
4	4 180116M1_4	Standard	150.000	5.82	18358.277	8580.147	26.745	164.8	9.9	NO		NO	bb
5	5 180116M1_5	Standard	150.000	5.82	19128.270	11127.871	21.487	132.4	-11.7	NO		NO	bb
6	6 180116M1_6	Standard	150.000	5.82	19283.318	8984.025	26.830	165.3	10.2	NO		NO	bb
7	7 180116M1_7	Standard	150.000	5.82	18067.268	9380.541	24.075	148.4	-1.1	NO		NO	bb
8	8 180116M1_8	Standard	150.000	5.81	18870.586	9856.826	23.931	147.5	-1.7	NO		NO	bb
9	9 180116M1_9	Standard	150.000	5.82	18668.119	9075.307	25.713	158.5	5.6	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.415159
RRF SD: 0.0373792, Relative SD: 9.00357
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	6.16	4512.448	10210.835	5.524	13.3	6.4	NO		NO	bb
2	2 180116M1_2	Standard	12.500	6.15	3698.448	9729.924	4.751	11.4	-8.4	NO		NO	bb
3	3 180116M1_3	Standard	12.500	6.15	3848.938	10027.175	4.798	11.6	-7.5	NO		NO	bb
4	4 180116M1_4	Standard	12.500	6.15	3836.873	8580.147	5.590	13.5	7.7	NO		NO	bb
5	5 180116M1_5	Standard	12.500	6.16	4331.780	11127.871	4.866	11.7	-6.2	NO		NO	bb
6	6 180116M1_6	Standard	12.500	6.15	3979.488	8984.025	5.537	13.3	6.7	NO		NO	bb
7	7 180116M1_7	Standard	12.500	6.16	3342.038	9380.541	4.453	10.7	-14.2	NO		NO	bb
8	8 180116M1_8	Standard	12.500	6.15	4303.681	9856.826	5.458	13.1	5.2	NO		NO	bb
9	9 180116M1_9	Standard	12.500	6.15	4158.729	9075.307	5.728	13.8	10.4	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.244456
RRF SD: 0.0176848, Relative SD: 7.23434
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	150.000	6.19	28223.400	10210.835	34.551	141.3	-5.8	NO		NO	bb
2	2 180116M1_2	Standard	150.000	6.19	28298.604	9729.924	36.355	148.7	-0.9	NO		NO	bb
3	3 180116M1_3	Standard	150.000	6.19	29142.270	10027.175	36.329	148.6	-0.9	NO		NO	bb
4	4 180116M1_4	Standard	150.000	6.18	27914.186	8580.147	40.667	166.4	10.9	NO		NO	bb
5	5 180116M1_5	Standard	150.000	6.19	29278.414	11127.871	32.889	134.5	-10.3	NO		NO	bb
6	6 180116M1_6	Standard	150.000	6.18	29238.688	8984.025	40.681	166.4	10.9	NO		NO	bb
7	7 180116M1_7	Standard	150.000	6.19	28438.600	9380.541	37.896	155.0	3.3	NO		NO	db
8	8 180116M1_8	Standard	150.000	6.19	27681.230	9856.826	35.104	143.6	-4.3	NO		NO	bb
9	9 180116M1_9	Standard	150.000	6.19	25805.504	9075.307	35.544	145.4	-3.1	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.717995
RRF SD: 0.121808, Relative SD: 16.965
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	5.000	6.48	2287.884	10210.835	2.801	3.9	-22.0	NO		NO	bb
2	2 180116M1_2	Standard	5.000	6.48	2750.796	9729.924	3.534	4.9	-1.6	NO		NO	bb
3	3 180116M1_3	Standard	5.000	6.47	2497.487	10027.175	3.113	4.3	-13.3	NO		NO	bb
4	4 180116M1_4	Standard	5.000	6.48	2391.055	8580.147	3.483	4.9	-3.0	NO		NO	bb
5	5 180116M1_5	Standard	5.000	6.48	2688.168	11127.871	3.020	4.2	-15.9	NO		NO	bb
6	6 180116M1_6	Standard	5.000	6.47	3056.490	8984.025	4.253	5.9	18.5	NO		NO	bb
7	7 180116M1_7	Standard	5.000	6.48	3080.510	9380.541	4.105	5.7	14.3	NO		NO	bb
8	8 180116M1_8	Standard	5.000	6.48	2676.116	9856.826	3.394	4.7	-5.5	NO		NO	bb
9	9 180116M1_9	Standard	5.000	6.48	3344.985	9075.307	4.607	6.4	28.3	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.249119
RRF SD: 0.0242624, Relative SD: 9.73927
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	150.000	6.29	25858.709	10210.835	31.656	127.1	-15.3	NO		NO	bd
2	2 180116M1_2	Standard	150.000	6.28	27276.381	9729.924	35.042	140.7	-6.2	NO		NO	bb
3	3 180116M1_3	Standard	150.000	6.28	28903.693	10027.175	36.032	144.6	-3.6	NO		NO	bb
4	4 180116M1_4	Standard	150.000	6.29	27366.512	8580.147	39.869	160.0	6.7	NO		NO	bb
5	5 180116M1_5	Standard	150.000	6.29	32377.256	11127.871	36.370	146.0	-2.7	NO		NO	bb
6	6 180116M1_6	Standard	150.000	6.29	25632.105	8984.025	35.663	143.2	-4.6	NO		NO	bb
7	7 180116M1_7	Standard	150.000	6.29	29830.061	9380.541	39.750	159.6	6.4	NO		NO	bd
8	8 180116M1_8	Standard	150.000	6.28	35058.652	9856.826	44.460	178.5	19.0	NO		NO	bd
9	9 180116M1_9	Standard	150.000	6.29	27203.719	9075.307	37.469	150.4	0.3	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.238747
RRF SD: 0.0154086, Relative SD: 6.45395
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	150.000	6.44	27220.227	10210.835	33.323	139.6	-7.0	NO		NO	bd
2	2 180116M1_2	Standard	150.000	6.43	25274.818	9729.924	32.470	136.0	-9.3	NO		NO	bb
3	3 180116M1_3	Standard	150.000	6.43	29485.193	10027.175	36.757	154.0	2.6	NO		NO	bb
4	4 180116M1_4	Standard	150.000	6.44	25789.371	8580.147	37.571	157.4	4.9	NO		NO	bb
5	5 180116M1_5	Standard	150.000	6.44	30222.031	11127.871	33.949	142.2	-5.2	NO		NO	bd
6	6 180116M1_6	Standard	150.000	6.44	28652.809	8984.025	39.866	167.0	11.3	NO		NO	bb
7	7 180116M1_7	Standard	150.000	6.44	26491.758	9380.541	35.301	147.9	-1.4	NO		NO	bb
8	8 180116M1_8	Standard	150.000	6.44	28580.506	9856.826	36.245	151.8	1.2	NO		NO	bb
9	9 180116M1_9	Standard	150.000	6.44	26736.955	9075.307	36.827	154.2	2.8	NO		NO	bd

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Compound name: 13C4-PFBA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	1.44	11050.020	11050.020	12.500	12.5	0.0	NO		NO	bb
2	2 180116M1_2	Standard	12.500	1.44	10571.813	10571.813	12.500	12.5	0.0	NO		NO	bb
3	3 180116M1_3	Standard	12.500	1.42	11595.762	11595.762	12.500	12.5	0.0	NO		NO	bb
4	4 180116M1_4	Standard	12.500	1.43	10569.876	10569.876	12.500	12.5	0.0	NO		NO	bb
5	5 180116M1_5	Standard	12.500	1.42	10822.726	10822.726	12.500	12.5	0.0	NO		NO	bb
6	6 180116M1_6	Standard	12.500	1.43	11465.634	11465.634	12.500	12.5	0.0	NO		NO	bb
7	7 180116M1_7	Standard	12.500	1.43	10986.499	10986.499	12.500	12.5	0.0	NO		NO	bb
8	8 180116M1_8	Standard	12.500	1.43	11236.524	11236.524	12.500	12.5	0.0	NO		NO	bb
9	9 180116M1_9	Standard	12.500	1.43	11521.590	11521.590	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	3.16	12073.535	12073.535	12.500	12.5	0.0	NO		NO	bb
2	2 180116M1_2	Standard	12.500	3.15	12476.502	12476.502	12.500	12.5	0.0	NO		NO	bb
3	3 180116M1_3	Standard	12.500	3.16	12756.279	12756.279	12.500	12.5	0.0	NO		NO	bb
4	4 180116M1_4	Standard	12.500	3.16	12144.904	12144.904	12.500	12.5	0.0	NO		NO	bb
5	5 180116M1_5	Standard	12.500	3.16	12731.519	12731.519	12.500	12.5	0.0	NO		NO	bb
6	6 180116M1_6	Standard	12.500	3.16	13469.731	13469.731	12.500	12.5	0.0	NO		NO	bb
7	7 180116M1_7	Standard	12.500	3.16	11818.463	11818.463	12.500	12.5	0.0	NO		NO	bb
8	8 180116M1_8	Standard	12.500	3.15	11344.723	11344.723	12.500	12.5	0.0	NO		NO	bb
9	9 180116M1_9	Standard	12.500	3.16	11380.839	11380.839	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	3.92	3454.812	3454.812	12.500	12.5	0.0	NO		NO	bb
2	2 180116M1_2	Standard	12.500	3.92	2963.786	2963.786	12.500	12.5	0.0	NO		NO	bb
3	3 180116M1_3	Standard	12.500	3.92	3145.618	3145.618	12.500	12.5	0.0	NO		NO	bb
4	4 180116M1_4	Standard	12.500	3.92	3060.330	3060.330	12.500	12.5	0.0	NO		NO	bb
5	5 180116M1_5	Standard	12.500	3.92	3105.605	3105.605	12.500	12.5	0.0	NO		NO	bb
6	6 180116M1_6	Standard	12.500	3.92	3293.453	3293.453	12.500	12.5	0.0	NO		NO	bb
7	7 180116M1_7	Standard	12.500	3.92	2861.310	2861.310	12.500	12.5	0.0	NO		NO	bb
8	8 180116M1_8	Standard	12.500	3.92	2787.766	2787.766	12.500	12.5	0.0	NO		NO	bb
9	9 180116M1_9	Standard	12.500	3.92	2782.713	2782.713	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	4.29	10385.357	10385.357	12.500	12.5	0.0	NO		NO	bb
2	2 180116M1_2	Standard	12.500	4.29	11407.506	11407.506	12.500	12.5	0.0	NO		NO	bb
3	3 180116M1_3	Standard	12.500	4.29	12947.326	12947.326	12.500	12.5	0.0	NO		NO	bb
4	4 180116M1_4	Standard	12.500	4.29	11403.713	11403.713	12.500	12.5	0.0	NO		NO	bb
5	5 180116M1_5	Standard	12.500	4.29	10734.931	10734.931	12.500	12.5	0.0	NO		NO	bb
6	6 180116M1_6	Standard	12.500	4.29	10788.871	10788.871	12.500	12.5	0.0	NO		NO	bb
7	7 180116M1_7	Standard	12.500	4.29	11185.677	11185.677	12.500	12.5	0.0	NO		NO	bb
8	8 180116M1_8	Standard	12.500	4.29	10750.554	10750.554	12.500	12.5	0.0	NO		NO	bb
9	9 180116M1_9	Standard	12.500	4.29	10268.148	10268.148	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180116M1\180116M1-CRV.qld

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	4.72	11721.332	11721.332	12.500	12.5	0.0	NO		NO	bb
2	2 180116M1_2	Standard	12.500	4.72	11214.854	11214.854	12.500	12.5	0.0	NO		NO	bb
3	3 180116M1_3	Standard	12.500	4.72	13094.815	13094.815	12.500	12.5	0.0	NO		NO	bb
4	4 180116M1_4	Standard	12.500	4.72	9620.638	9620.638	12.500	12.5	0.0	NO		NO	bb
5	5 180116M1_5	Standard	12.500	4.72	11574.011	11574.011	12.500	12.5	0.0	NO		NO	bb
6	6 180116M1_6	Standard	12.500	4.72	11492.758	11492.758	12.500	12.5	0.0	NO		NO	bb
7	7 180116M1_7	Standard	12.500	4.72	11984.002	11984.002	12.500	12.5	0.0	NO		NO	bb
8	8 180116M1_8	Standard	12.500	4.72	11777.771	11777.771	12.500	12.5	0.0	NO		NO	bb
9	9 180116M1_9	Standard	12.500	4.72	10870.310	10870.310	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	4.80	2792.583	2792.583	12.500	12.5	0.0	NO		NO	bb
2	2 180116M1_2	Standard	12.500	4.80	2843.265	2843.265	12.500	12.5	0.0	NO		NO	bb
3	3 180116M1_3	Standard	12.500	4.80	2884.635	2884.635	12.500	12.5	0.0	NO		NO	bb
4	4 180116M1_4	Standard	12.500	4.80	2699.778	2699.778	12.500	12.5	0.0	NO		NO	bb
5	5 180116M1_5	Standard	12.500	4.80	2978.699	2978.699	12.500	12.5	0.0	NO		NO	bb
6	6 180116M1_6	Standard	12.500	4.80	3049.198	3049.198	12.500	12.5	0.0	NO		NO	bb
7	7 180116M1_7	Standard	12.500	4.80	2541.166	2541.166	12.500	12.5	0.0	NO		NO	bb
8	8 180116M1_8	Standard	12.500	4.80	3195.924	3195.924	12.500	12.5	0.0	NO		NO	bb
9	9 180116M1_9	Standard	12.500	4.80	2881.351	2881.351	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180116M1\180116M1-CRV.qld

Last Altered: Wednesday, January 17, 2018 09:42:17 Pacific Standard Time
Printed: Wednesday, January 17, 2018 09:46:51 Pacific Standard Time

Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	5.10	8821.698	8821.698	12.500	12.5	0.0	NO		NO	bb
2	2 180116M1_2	Standard	12.500	5.09	8328.056	8328.056	12.500	12.5	0.0	NO		NO	bb
3	3 180116M1_3	Standard	12.500	5.09	7667.870	7667.870	12.500	12.5	0.0	NO		NO	bb
4	4 180116M1_4	Standard	12.500	5.09	6189.709	6189.709	12.500	12.5	0.0	NO		NO	bb
5	5 180116M1_5	Standard	12.500	5.10	6495.553	6495.553	12.500	12.5	0.0	NO		NO	bb
6	6 180116M1_6	Standard	12.500	5.09	6185.501	6185.501	12.500	12.5	0.0	NO		NO	bb
7	7 180116M1_7	Standard	12.500	5.10	7076.858	7076.858	12.500	12.5	0.0	NO		NO	bb
8	8 180116M1_8	Standard	12.500	5.09	7703.452	7703.452	12.500	12.5	0.0	NO		NO	bb
9	9 180116M1_9	Standard	12.500	5.09	7030.358	7030.358	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C7-PFUdA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180116M1_1	Standard	12.500	5.42	10210.835	10210.835	12.500	12.5	0.0	NO		NO	bb
2	2 180116M1_2	Standard	12.500	5.42	9729.924	9729.924	12.500	12.5	0.0	NO		NO	bb
3	3 180116M1_3	Standard	12.500	5.42	10027.175	10027.175	12.500	12.5	0.0	NO		NO	bb
4	4 180116M1_4	Standard	12.500	5.42	8580.147	8580.147	12.500	12.5	0.0	NO		NO	bb
5	5 180116M1_5	Standard	12.500	5.42	11127.871	11127.871	12.500	12.5	0.0	NO		NO	bb
6	6 180116M1_6	Standard	12.500	5.42	8984.025	8984.025	12.500	12.5	0.0	NO		NO	bb
7	7 180116M1_7	Standard	12.500	5.42	9380.541	9380.541	12.500	12.5	0.0	NO		NO	bb
8	8 180116M1_8	Standard	12.500	5.42	9856.826	9856.826	12.500	12.5	0.0	NO		NO	bb
9	9 180116M1_9	Standard	12.500	5.42	9075.307	9075.307	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180116M1\180116M1-CRV.qld

Last Altered: Wednesday, January 17, 2018 09:42:17 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 09:08:01
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-16-18-FULL.cdb 17 Jan 2018 09:42:17

Name: 180116M1_1, Date: 16-Jan-2018, Time: 23:13:00, ID: ST180116M1-1 PFC CS-2 18A0806, Description: ST180108M2-1 PFC CS-2 18A0806

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBA	0.9998	NO	
2	2	PFPeA	0.9998	NO	
3	3	PFBS	0.9996	NO	
4	4	PFHxA	0.9933	NO	
5	5	PFHpA	0.9939	NO	
6	6	L-PFHxS	0.9939	NO	
7	8	6:2 FTS	0.9987	NO	
8	9	L-PFOA	0.9997	NO	
9	11	PFHpS	0.9989	NO	
10	12	PFNA	0.9992	NO	
11	13	PFOSA	0.9994	NO	
12	14	L-PFOS	0.9993	NO	
13	16	PFDA	0.9992	NO	
14	17	8:2 FTS	0.9977	NO	
15	18	N-MeFOSAA	0.9964	NO	
16	19	N-EtFOSAA	0.9987	NO	
17	20	PFUdA	0.9998	NO	
18	21	PFDS	0.9975	NO	
19	22	PFDoA	0.9946	NO	
20	23	N-MeFOSA	0.9967	NO	
21	24	PFTrDA	0.9953	NO	
22	25	PFTeDA	0.9989	NO	
23	26	N-EtFOSA	0.9998	NO	
24	27	PFHxDA	0.9983	NO	
25	28	PFODA	0.9934	NO	
26	29	N-MeFOSE	0.9971	NO	
27	30	N-EtFOSE	0.9973	NO	
28	31	13C3-PFBA		NO	2.339
29	32	13C3-PFPeA		NO	5.404
30	33	13C3-PFBS		NO	4.631
31	34	13C2-PFHxA		NO	7.640

Dataset: U:\Q4.PRO\results\180116M1\180116M1-CRV.qld

Last Altered: Wednesday, January 17, 2018 09:42:17 Pacific Standard Time
Printed: Wednesday, January 17, 2018 09:46:51 Pacific Standard Time

Name: 180116M1_1, Date: 16-Jan-2018, Time: 23:13:00, ID: ST180116M1-1 PFC CS-2 18A0806, Description: ST180108M2-1 PFC CS-2 18A0806

	#	Name	CoD	CoD Flag	%RSD
32	35	13C4-PFHpA		NO	7.703
33	36	18O2-PFHxS		NO	8.190
34	37	13C2-6:2 FTS		NO	14.512
35	38	13C2-PFOA		NO	5.779
36	39	13C5-PFNA		NO	7.404
37	40	13C8-PFOSA		NO	7.074
38	41	13C8-PFOS		NO	13.007
39	42	13C2-PFDA		NO	13.209
40	43	13C2-8:2 FTS		NO	18.205
41	44	d3-N-MeFOSAA		NO	9.443
42	45	d5-N-EtFOSAA		NO	9.542
43	46	13C2-PFUdA		NO	9.604
44	47	13C2-PFDoA		NO	15.496
45	48	d3-N-MeFOSA		NO	7.311
46	49	13C2-PFTeDA		NO	9.004
47	50	d5-N-ETFOSA		NO	7.234
48	51	13C2-PFHxDA		NO	16.965
49	52	d7-N-MeFOSE		NO	9.739
50	53	d9-N-EtFOSE		NO	6.454
51	54	13C4-PFBA		NO	0.000
52	55	13C5-PFHxA		NO	0.000
53	56	13C3-PFHxS		NO	0.000
54	57	13C8-PFOA		NO	0.000
55	58	13C9-PFNA		NO	0.000
56	59	13C4-PFOS		NO	0.000
57	60	13C6-PFDA		NO	0.000
58	61	13C7-PFUdA		NO	0.000

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Wednesday, January 17, 2018 10:15:50 Pacific Standard Time
Printed: Wednesday, January 17, 2018 10:17:26 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 10:07:37
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-16-18-FULL.cdb 17 Jan 2018 09:42:17

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180116M1_1	ST180116M1-1 PFC CS-2 18A0806	16-Jan-18	23:13:00
2	180116M1_2	ST180116M1-2 PFC CS-1 18A0807	16-Jan-18	23:24:34
3	180116M1_3	ST180116M1-3 PFC CS0 18A0808	16-Jan-18	23:36:01
4	180116M1_4	ST180116M1-4 PFC CS1 18A0809	16-Jan-18	23:47:35
5	180116M1_5	ST180116M1-5 PFC CS2 18A0810	16-Jan-18	23:59:02
6	180116M1_6	ST180116M1-6 PFC CS3 18A0811	17-Jan-18	00:10:29
7	180116M1_7	ST180116M1-7 PFC CS4 18A0812	17-Jan-18	00:21:56
8	180116M1_8	ST180116M1-8 PFC CS5 18A0813	17-Jan-18	00:33:23
9	180116M1_9	ST180116M1-9 PFC CS6 18A0814	17-Jan-18	00:44:53
10	180116M1_10	ST180116M1-10 PFC CS7 18A0815	17-Jan-18	00:56:27
11	180116M1_11	IPA	17-Jan-18	01:08:08
12	180116M1_12	ICV180116M1-1 PFC ICV 18A0805	17-Jan-18	01:19:34
13	180116M1_13	IPA	17-Jan-18	01:31:01

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180116M1\180116M1-12.qld

Last Altered: Wednesday, January 17, 2018 10:08:48 Pacific Standard Time
Printed: Wednesday, January 17, 2018 10:12:30 Pacific Standard Time

(A) No SS available.

AC 1/17/18

JA 01/17/2018

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 09:08:01
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-16-18-FULL.cdb 17 Jan 2018 09:42:17

Name: 180116M1_12, Date: 17-Jan-2018, Time: 01:19:34, ID: ICV180116M1-1 PFC ICV 18A0805, Description: ICV180108M2-1 PFC ICV 18A0805

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBA	213.0 > 168.8	9.53e3	1.04e4	1.0000		1.44	1.44	11.5	9.849	98.5
2	2 PFPeA	263.1 > 218.9	9.38e3	1.20e4	1.0000		2.39	2.39	9.76	9.541	95.4
3	3 PFBS	299.0 > 79.7	2.02e3	1.59e3	1.0000		2.66	2.66	15.9	8.720	87.2
4	4 PFHxA	313.2 > 268.9	1.25e4	3.95e3	1.0000		3.16	3.15	15.8	9.894	98.9
5	5 PFHpA	363.0 > 318.9	1.01e4	1.00e4	1.0000		3.77	3.77	12.6	10.617	106.2
6	6 L-PFHxS	398.9 > 79.6	1.51e3	1.24e3	1.0000		3.92	3.91	15.3	8.366	83.7
7	8 6:2 FTS	427.1 > 407	1.60e3	1.24e3	1.0000		4.23	4.23	16.2	8.174	81.7
8	9 L-PFOA	413 > 368.7	9.48e3	1.14e4	1.0000		4.29	4.28	10.4	9.785	97.8
9	11 PFHpS	449 > 80.0	2.23e3	1.14e4	1.0000		4.40	4.39	2.43	8.853	88.5
10	12 PFNA	463.0 > 418.8	1.20e4	1.23e4	1.0000		4.72	4.72	12.2	9.196	92.0
11	13 PFOSA	498.1 > 77.8	2.70e3	2.68e3	1.0000		4.79	4.78	12.6	10.288	102.9
12	14 L-PFOS	499 > 79.9	2.31e3	3.46e3	1.0000		4.80	4.80	8.36	7.124	71.2
13	16 PFDA	513 > 468.8	1.11e4	1.20e4	1.0000		5.10	5.09	11.6	9.585	95.9
14	17 8:2 FTS	527 > 506.9	2.03e3	1.20e4	1.0000		5.06	5.06	2.12	11.225	112.2
15	18 N-MeFOSAA	570.1 > 419	6.28e3	4.70e3	1.0000		5.24	5.24	16.7	11.723	117.2
16	19 N-EtFOSAA	584.2 > 419	4.22e3	5.79e3	1.0000		5.40	5.40	9.11	7.454	74.5
17	20 PFUdA	563.0 > 518.9	1.00e4	1.37e4	1.0000		5.42	5.41	9.19	7.630	76.3
18	21 PFDS	598.8 > 80	2.29e3	6.86e3	1.0000		5.46	5.46	4.18	7.575	75.8
19	22 PFDoA	612.9 > 569.0	1.12e4	6.86e3	1.0000		5.70	5.69	20.4	6.996	70.0
20	23 N-MeFOSA	512.1 > 168.9		2.01e4	1.0000		5.79				(A)
21	24 PFTrDA	662.9 > 618.9	1.19e4	6.86e3	1.0000		5.94	5.94	21.6	9.348	93.5
22	25 PFTeDA	712.9 > 668.8	6.01e3	4.59e3	1.0000		6.16	6.15	16.4	8.430	84.3
23	26 N-EtFOSA	526.1 > 168.9		3.03e4	1.0000		6.17				(A)
24	27 PFHxDA	813.1 > 768.6		2.56e3	1.0000		6.48				
25	28 PFODA	913.1 > 868.8		2.56e3	1.0000		6.71				
26	29 N-MeFOSE	616.1 > 58.9		3.08e4	1.0000		6.31				
27	30 N-EtFOSE	630.1 > 58.9		2.92e4	1.0000		6.45				
28	31 13C3-PFBA	216.1 > 171.8	1.04e4	1.19e4	1.0000	0.886	1.44	1.43	10.9	12.277	98.2
29	32 13C3-PFPeA	266. > 221.8	1.20e4	1.42e4	1.0000	0.929	2.39	2.39	10.6	11.367	90.9
30	33 13C3-PFBS	302. > 98.8	1.59e3	1.42e4	1.0000	0.117	2.66	2.66	1.40	11.909	95.3
31	34 13C2-PFHxA	315 > 269.8	3.95e3	1.42e4	1.0000	0.689	3.16	3.15	3.48	5.046	100.9

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Dataset: U:\Q4.PRO\results\180116M1\180116M1-12.qld

Last Altered: Wednesday, January 17, 2018 10:08:48 Pacific Standard Time
Printed: Wednesday, January 17, 2018 10:12:30 Pacific Standard Time

Name: 180116M1_12, Date: 17-Jan-2018, Time: 01:19:34, ID: ICV180116M1-1 PFC ICV 18A0805, Description: ICV180108M2-1 PFC ICV 18A0805

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35 13C4-PFHpA	367.2 > 321.8	1.00e4	1.42e4	1.0000	0.727	3.77	3.77	8.80	12.105	96.8
33	36 18O2-PFHxS	403.0 > 102.6	1.24e3	3.58e3	1.0000	0.362	3.92	3.91	4.31	11.903	95.2
34	37 13C2-6:2 FTS	429.1 > 408.9	2.32e3	1.14e4	1.0000	0.218	4.23	4.23	2.55	11.671	93.4
35	38 13C2-PFOA	414.9 > 369.7	1.14e4	1.14e4	1.0000	1.071	4.29	4.28	12.5	11.716	93.7
36	39 13C5-PFNA	468.2 > 422.9	1.23e4	1.32e4	1.0000	0.968	4.72	4.71	11.7	12.035	96.3
37	40 13C8-PFOSA	506.1 > 77.7	2.68e3	1.16e4	1.0000	0.283	4.79	4.78	2.89	10.204	81.6
38	41 13C8-PFOS	507.0 > 79.9	3.46e3	2.95e3	1.0000	0.999	4.80	4.79	14.7	14.706	117.6
39	42 13C2-PFDA	515.1 > 469.9	1.20e4	7.21e3	1.0000	1.329	5.10	5.09	20.8	15.625	125.0
40	43 13C2-8:2 FTS	529.1 > 508.7	1.04e3	1.42e4	1.0000	0.085	5.06	5.06	0.912	10.740	85.9
41	44 d3-N-MeFOSAA	573.3 > 419	4.70e3	1.16e4	1.0000	0.463	5.24	5.23	5.06	10.926	87.4
42	45 d5-N-EtFOSAA	589.3 > 419	5.79e3	1.16e4	1.0000	0.541	5.40	5.39	6.24	11.537	92.3
43	46 13C2-PFUdA	565 > 519.8	1.37e4	1.16e4	1.0000	1.081	5.42	5.41	14.7	13.611	108.9
44	47 13C2-PFDoA	615.0 > 569.7	6.86e3	1.16e4	1.0000	0.656	5.70	5.69	7.39	11.259	90.1
45	48 d3-N-MeFOSA	515.2 > 168.9	2.01e4	1.16e4	1.0000	0.162	5.79	5.81	21.7	133.499	89.0
46	49 13C2-PFTeDA	714.8 > 669.6	4.59e3	1.16e4	1.0000	0.415	6.16	6.15	4.94	11.907	95.3
47	50 d5-N-ETFOSA	531.1 > 168.9	3.03e4	1.16e4	1.0000	0.244	6.17	6.19	32.6	133.283	88.9
48	51 13C2-PFHxDA	815 > 769.7	2.56e3	1.16e4	1.0000	0.718	6.48	6.47	2.75	3.836	76.7
49	52 d7-N-MeFOSE	623.1 > 58.9	3.08e4	1.16e4	1.0000	0.249	6.31	6.28	33.2	133.353	88.9
50	53 d9-N-EtFOSE	639.2 > 58.8	2.92e4	1.16e4	1.0000	0.239	6.45	6.43	31.4	131.594	87.7
51	54 13C4-PFBA	217. > 171.8	1.19e4	1.19e4	1.0000	1.000	1.44	1.43	12.5	12.500	100.0
52	55 13C5-PFHxA	318 > 272.9	1.42e4	1.42e4	1.0000	1.000	3.16	3.15	12.5	12.500	100.0
53	56 13C3-PFHxS	401.9 > 79.9	3.58e3	3.58e3	1.0000	1.000	3.92	3.91	12.5	12.500	100.0
54	57 13C8-PFOA	421.3 > 376	1.14e4	1.14e4	1.0000	1.000	4.29	4.28	12.5	12.500	100.0
55	58 13C9-PFNA	472.2 > 426.9	1.32e4	1.32e4	1.0000	1.000	4.72	4.72	12.5	12.500	100.0
56	59 13C4-PFOS	503 > 79.9	2.95e3	2.95e3	1.0000	1.000	4.80	4.79	12.5	12.500	100.0
57	60 13C6-PFDA	519.1 > 473.7	7.21e3	7.21e3	1.0000	1.000	5.10	5.09	12.5	12.500	100.0
58	61 13C7-PFUdA	570.1 > 524.8	1.16e4	1.16e4	1.0000	1.000	5.42	5.41	12.5	12.500	100.0

Dataset: F:\Projects\PFAS.PRO\Results\180118M1\180118M1-CRV.qld

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 13:31:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-18-18-FULL.cdb 19 Jan 2018 09:30:24

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Compound name: PFBA
Correlation coefficient: r = 0.998766, r^2 = 0.997534
Calibration curve: 1.12321 * x + 0.0746027
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	1.29	61.483	6628.176	0.116	0.0	-85.3	YES	0.998	NO	MMX
2	2 180118M1_3	Standard	0.500	1.30	289.665	6766.416	0.535	0.4	-18.0	NO	0.998	NO	MM
3	3 180118M1_4	Standard	1.000	1.30	610.926	6783.989	1.126	0.9	-6.4	NO	0.998	NO	MM
4	4 180118M1_5	Standard	2.000	1.31	1301.976	6314.151	2.577	2.2	11.4	NO	0.998	NO	MM
5	5 180118M1_6	Standard	5.000	1.31	3418.455	6706.746	6.371	5.6	12.1	NO	0.998	NO	MM
6	6 180118M1_7	Standard	10.000	1.32	7251.712	7498.908	12.088	10.7	7.0	NO	0.998	NO	bb
7	7 180118M1_8	Standard	50.000	1.32	34845.137	7335.596	59.377	52.8	5.6	NO	0.998	NO	bb
8	8 180118M1_9	Standard	100.000	1.33	70785.023	7463.100	118.558	105.5	5.5	NO	0.998	NO	bb
9	9 180118M1_10	Standard	250.000	1.32	191556.891	8867.412	270.029	240.3	-3.9	NO	0.998	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.998876, r^2 = 0.997753
Calibration curve: 0.942465 * x + 0.121253
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	2.30	209.304	8624.307	0.303	0.2	-22.7	NO	0.998	NO	bb
2	2 180118M1_3	Standard	0.500	2.30	363.103	8386.112	0.541	0.4	-10.9	NO	0.998	NO	bb
3	3 180118M1_4	Standard	1.000	2.29	794.859	9145.476	1.086	1.0	2.4	NO	0.998	NO	bb
4	4 180118M1_5	Standard	2.000	2.29	1419.128	8628.688	2.056	2.1	2.6	NO	0.998	NO	bb
5	5 180118M1_6	Standard	5.000	2.30	3859.556	8970.576	5.378	5.6	11.6	NO	0.998	NO	bb
6	6 180118M1_7	Standard	10.000	2.30	8408.020	10123.032	10.382	10.9	8.9	NO	0.998	NO	bb
7	7 180118M1_8	Standard	50.000	2.29	40198.230	9769.188	51.435	54.4	8.9	NO	0.998	NO	bb
8	8 180118M1_9	Standard	100.000	2.29	78963.547	10192.470	96.841	102.6	2.6	NO	0.998	NO	bb
9	9 180118M1_10	Standard	250.000	2.30	211458.484	11607.073	227.726	241.5	-3.4	NO	0.998	NO	bb

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Compound name: PFBS
Coefficient of Determination: R^2 = 0.999752
Calibration curve: -0.000839655 * x^2 + 1.91091 * x + -0.0957011
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	2.57	46.403	1184.853	0.490	0.3	22.5	NO	1.000	NO	MM
2	2 180118M1_3	Standard	0.500	2.58	84.431	1175.155	0.898	0.5	4.0	NO	1.000	NO	bb
3	3 180118M1_4	Standard	1.000	2.57	164.026	1294.367	1.584	0.9	-12.1	NO	1.000	NO	bb
4	4 180118M1_5	Standard	2.000	2.57	334.754	1239.980	3.375	1.8	-9.1	NO	1.000	NO	bb
5	5 180118M1_6	Standard	5.000	2.57	898.063	1222.566	9.182	4.9	-2.7	NO	1.000	NO	bb
6	6 180118M1_7	Standard	10.000	2.57	1903.254	1302.228	18.269	9.7	-3.5	NO	1.000	NO	bb
7	7 180118M1_8	Standard	50.000	2.57	9151.818	1232.572	92.812	49.7	-0.6	NO	1.000	NO	bb
8	8 180118M1_9	Standard	100.000	2.57	18818.912	1268.084	185.505	101.7	1.7	NO	1.000	NO	bb
9	9 180118M1_10	Standard	250.000	2.57	48362.152	1425.323	424.133	249.3	-0.3	NO	1.000	NO	bb

Compound name: PFHxA
Correlation coefficient: r = 0.996965, r^2 = 0.993939
Calibration curve: 1.54608 * x + 0.228362
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	3.07	309.327	3061.157	0.505	0.2	-28.4	NO	0.994	NO	bb
2	2 180118M1_3	Standard	0.500	3.07	569.600	3351.196	0.850	0.4	-19.6	NO	0.994	NO	bb
3	3 180118M1_4	Standard	1.000	3.07	1129.087	3244.312	1.740	1.0	-2.2	NO	0.994	NO	bb
4	4 180118M1_5	Standard	2.000	3.07	2246.596	3263.661	3.442	2.1	3.9	NO	0.994	NO	bb
5	5 180118M1_6	Standard	5.000	3.07	5464.627	3111.942	8.780	5.5	10.6	NO	0.994	NO	bb
6	6 180118M1_7	Standard	10.000	3.07	11490.620	2964.833	19.378	12.4	23.9	NO	0.994	NO	bb
7	7 180118M1_8	Standard	50.000	3.07	57324.000	3171.605	90.371	58.3	16.6	NO	0.994	NO	bb
8	8 180118M1_9	Standard	100.000	3.07	103193.250	3353.509	153.859	99.4	-0.6	NO	0.994	NO	bb
9	9 180118M1_10	Standard	250.000	3.07	308811.594	4166.901	370.553	239.5	-4.2	NO	0.994	NO	bb

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Compound name: PFHpA
Correlation coefficient: r = 0.999711, r^2 = 0.999421
Calibration curve: 1.18196 * x + 0.246261
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	3.69	202.245	9221.989	0.274	0.0	-90.6	NO	0.999	NO	bbX
2	2 180118M1_3	Standard	0.500	3.69	528.518	9847.466	0.671	0.4	-28.2	NO	0.999	NO	bb
3	3 180118M1_4	Standard	1.000	3.68	1055.047	9050.854	1.457	1.0	2.4	NO	0.999	NO	bb
4	4 180118M1_5	Standard	2.000	3.68	2022.535	8772.772	2.882	2.2	11.5	NO	0.999	NO	bb
5	5 180118M1_6	Standard	5.000	3.68	4706.049	8900.424	6.609	5.4	7.7	NO	0.999	NO	bb
6	6 180118M1_7	Standard	10.000	3.68	10137.116	10152.992	12.480	10.4	3.5	NO	0.999	NO	bb
7	7 180118M1_8	Standard	50.000	3.68	48925.211	9974.576	61.312	51.7	3.3	NO	0.999	NO	bb
8	8 180118M1_9	Standard	100.000	3.68	98413.633	10264.402	119.848	101.2	1.2	NO	0.999	NO	bb
9	9 180118M1_10	Standard	250.000	3.68	270087.250	11587.292	291.361	246.3	-1.5	NO	0.999	NO	bb

Compound name: L-PFHxS
Coefficient of Determination: R^2 = 0.996856
Calibration curve: -0.00222639 * x^2 + 2.0759 * x + -0.300696
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	3.84	38.358	1013.195	0.473	0.4	49.2	NO	0.997	NO	MMX
2	2 180118M1_3	Standard	0.500	3.84	66.364	1189.182	0.698	0.5	-3.8	NO	0.997	NO	MM
3	3 180118M1_4	Standard	1.000	3.83	192.606	1056.759	2.278	1.2	24.4	NO	0.997	NO	MM
4	4 180118M1_5	Standard	2.000	3.83	249.350	1103.874	2.824	1.5	-24.6	NO	0.997	NO	MM
5	5 180118M1_6	Standard	5.000	3.83	780.177	1319.570	7.390	3.7	-25.6	NO	0.997	NO	MM
6	6 180118M1_7	Standard	10.000	3.83	1990.649	1235.924	20.133	9.9	-0.5	NO	0.997	NO	MM
7	7 180118M1_8	Standard	50.000	3.83	8377.754	1108.625	94.461	48.1	-3.7	NO	0.997	NO	MM
8	8 180118M1_9	Standard	100.000	3.83	16920.900	1084.545	195.023	106.2	6.2	NO	0.997	NO	MM
9	9 180118M1_10	Standard	250.000	3.83	41918.746	1392.528	376.283	246.7	-1.3	NO	0.997	NO	MM

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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.998683
Calibration curve: 0.0060392 * x^2 + 2.60937 * x + 0.129675
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	4.15	48.967	1013.195	0.604	0.2	-27.3	NO	0.999	NO	MM
2	2 180118M1_3	Standard	0.500	4.15	168.546	1189.182	1.772	0.6	25.7	NO	0.999	NO	bb
3	3 180118M1_4	Standard	1.000	4.14	280.280	1056.759	3.315	1.2	21.7	NO	0.999	NO	bb
4	4 180118M1_5	Standard	2.000	4.14	436.456	1103.874	4.942	1.8	-8.2	NO	0.999	NO	bb
5	5 180118M1_6	Standard	5.000	4.15	1433.901	1319.570	13.583	5.1	1.9	NO	0.999	NO	bb
6	6 180118M1_7	Standard	10.000	4.14	2886.458	1235.924	29.193	10.9	8.6	NO	0.999	NO	bb
7	7 180118M1_8	Standard	50.000	4.14	12447.915	1108.625	140.353	48.3	-3.3	NO	0.999	NO	bb
8	8 180118M1_9	Standard	100.000	4.14	28101.162	1084.545	323.882	100.6	0.6	NO	0.999	NO	bb
9	9 180118M1_10	Standard	250.000	4.15	56343.238	1392.528	505.764	145.1	-42.0	NO	0.999	NO	bbX

Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.998391
Calibration curve: 0.0020041 * x^2 + 0.850209 * x + 0.267167
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	4.21	291.916	13210.429	0.276	0.0	-95.7	NO	0.998	NO	bbX
2	2 180118M1_3	Standard	0.500	4.20	663.043	12533.280	0.661	0.5	-7.4	NO	0.998	NO	bb
3	3 180118M1_4	Standard	1.000	4.20	1156.250	14471.168	0.999	0.9	-14.1	NO	0.998	NO	bb
4	4 180118M1_5	Standard	2.000	4.20	1843.751	11511.098	2.002	2.0	1.5	NO	0.998	NO	bb
5	5 180118M1_6	Standard	5.000	4.20	6511.923	15269.152	5.331	5.9	17.5	NO	0.998	NO	bb
6	6 180118M1_7	Standard	10.000	4.20	11430.950	15085.087	9.472	10.6	5.6	NO	0.998	NO	bb
7	7 180118M1_8	Standard	50.000	4.20	54724.012	14973.517	45.684	48.0	-4.0	NO	0.998	NO	bb
8	8 180118M1_9	Standard	100.000	4.20	125658.992	14777.377	106.293	100.8	0.8	NO	0.998	NO	bb
9	9 180118M1_10	Standard	250.000	4.20	287700.688	17936.301	200.502	168.5	-32.6	NO	0.998	NO	bbX

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.996565
Calibration curve: -0.000989347 * x^2 + 1.15533 * x + -0.25073
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	4.32	65.807	2935.768	0.280	0.5	83.9	NO	0.997	NO	bbX
2	2 180118M1_3	Standard	0.500	4.32	102.400	3156.818	0.405	0.6	13.7	NO	0.997	NO	bb
3	3 180118M1_4	Standard	1.000	4.31	235.703	3664.074	0.804	0.9	-8.6	NO	0.997	NO	bb
4	4 180118M1_5	Standard	2.000	4.31	647.025	3382.708	2.391	2.3	14.5	NO	0.997	NO	bb
5	5 180118M1_6	Standard	5.000	4.31	1226.254	2851.818	5.375	4.9	-2.2	NO	0.997	NO	bb
6	6 180118M1_7	Standard	10.000	4.31	2630.048	3554.643	9.249	8.3	-17.2	NO	0.997	NO	bb
7	7 180118M1_8	Standard	50.000	4.31	14732.976	3579.305	51.452	46.6	-6.8	NO	0.997	NO	bb
8	8 180118M1_9	Standard	100.000	4.31	28806.516	3186.816	112.991	108.0	8.0	NO	0.997	NO	bb
9	9 180118M1_10	Standard	250.000	4.31	67427.547	3754.260	224.503	246.6	-1.4	NO	0.997	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.991105
Calibration curve: 6.82411e-005 * x^2 + 1.04841 * x + 0.405064
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	4.65	314.120	10075.711	0.390			NO	0.991	NO	bbXI
2	2 180118M1_3	Standard	0.500	4.64	731.854	11524.767	0.794	0.4	-25.8	NO	0.991	NO	bb
3	3 180118M1_4	Standard	1.000	4.63	1273.129	10933.791	1.455	1.0	0.2	NO	0.991	NO	bb
4	4 180118M1_5	Standard	2.000	4.63	2574.239	12811.041	2.512	2.0	0.5	NO	0.991	NO	bb
5	5 180118M1_6	Standard	5.000	4.63	7088.249	14782.018	5.994	5.3	6.6	NO	0.991	NO	bb
6	6 180118M1_7	Standard	10.000	4.63	14004.606	14157.063	12.365	11.4	14.0	NO	0.991	NO	bb
7	7 180118M1_8	Standard	50.000	4.63	64483.078	13019.187	61.912	58.4	16.9	NO	0.991	NO	bb
8	8 180118M1_9	Standard	100.000	4.63	100861.891	13804.038	91.334	86.2	-13.8	NO	0.991	NO	bb
9	9 180118M1_10	Standard	250.000	4.64	321989.844	14864.908	270.763	253.7	1.5	NO	0.991	NO	bb

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Compound name: PFOSA
Correlation coefficient: r = 0.999319, r^2 = 0.998638
Calibration curve: 1.02469 * x + 0.245921
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180118M1_2	Standard	0.250	4.71	45.972	2230.248	0.258	0.0	-95.4	NO	0.999	NO	MMX
2	2	180118M1_3	Standard	0.500	4.70	102.410	2042.124	0.627	0.4	-25.6	NO	0.999	NO	bb
3	3	180118M1_4	Standard	1.000	4.69	220.218	2235.724	1.231	1.0	-3.8	NO	0.999	NO	bb
4	4	180118M1_5	Standard	2.000	4.69	359.360	2069.984	2.170	1.9	-6.1	NO	0.999	NO	bb
5	5	180118M1_6	Standard	5.000	4.69	1119.452	2106.655	6.642	6.2	24.8	NO	0.999	NO	bb
6	6	180118M1_7	Standard	10.000	4.69	2223.013	2378.393	11.683	11.2	11.6	NO	0.999	NO	bb
7	7	180118M1_8	Standard	50.000	4.69	10025.400	2395.824	52.307	50.8	1.6	NO	0.999	NO	bb
8	8	180118M1_9	Standard	100.000	4.69	19536.793	2430.352	100.483	97.8	-2.2	NO	0.999	NO	bb
9	9	180118M1_10	Standard	250.000	4.69	55588.324	2717.913	255.657	249.3	-0.3	NO	0.999	NO	bb

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.998281
Calibration curve: -0.000701194 * x^2 + 1.21055 * x + -0.112546
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180118M1_2	Standard	0.250	4.73	57.670	2935.768	0.246	0.3	18.3	NO	0.998	NO	MM
2	2	180118M1_3	Standard	0.500	4.72	146.093	3156.818	0.578	0.6	14.2	NO	0.998	NO	MM
3	3	180118M1_4	Standard	1.000	4.72	236.649	3664.074	0.807	0.8	-24.0	NO	0.998	NO	MM
4	4	180118M1_5	Standard	2.000	4.72	444.272	3382.708	1.642	1.5	-27.5	NO	0.998	NO	MM
5	5	180118M1_6	Standard	5.000	4.72	1603.861	2851.818	7.030	5.9	18.4	NO	0.998	NO	MM
6	6	180118M1_7	Standard	10.000	4.72	3500.120	3554.643	12.308	10.3	3.2	NO	0.998	NO	MM
7	7	180118M1_8	Standard	50.000	4.72	15985.611	3579.305	55.827	47.5	-5.0	NO	0.998	NO	MM
8	8	180118M1_9	Standard	100.000	4.72	29734.006	3186.816	116.629	102.5	2.5	NO	0.998	NO	MM
9	9	180118M1_10	Standard	250.000	4.72	77534.656	3754.260	258.156	249.4	-0.3	NO	0.998	NO	MM

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.999432
Calibration curve: -0.000780615 * x^2 + 1.3466 * x + 0.00748908
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	5.02	333.456	11220.915	0.371	0.3	8.1	NO	0.999	NO	bb
2	2 180118M1_3	Standard	0.500	5.01	669.635	11578.018	0.723	0.5	6.3	NO	0.999	NO	bb
3	3 180118M1_4	Standard	1.000	5.01	1303.494	13077.289	1.246	0.9	-8.0	NO	0.999	NO	bb
4	4 180118M1_5	Standard	2.000	5.01	2364.353	11837.361	2.497	1.9	-7.5	NO	0.999	NO	bb
5	5 180118M1_6	Standard	5.000	5.01	6889.574	11638.346	7.400	5.5	10.1	NO	0.999	NO	bb
6	6 180118M1_7	Standard	10.000	5.00	10863.809	11248.381	12.073	9.0	-9.9	NO	0.999	NO	bb
7	7 180118M1_8	Standard	50.000	5.01	66064.820	12675.076	65.152	49.8	-0.4	NO	0.999	NO	bb
8	8 180118M1_9	Standard	100.000	5.01	114660.672	11147.298	128.575	101.4	1.4	NO	0.999	NO	bb
9	9 180118M1_10	Standard	250.000	5.01	307848.719	13395.402	287.271	249.4	-0.2	NO	0.999	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997978
Calibration curve: -0.000503731 * x^2 + 0.332424 * x + -0.046692
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	4.99	35.901	11220.915	0.040	0.3	4.3	NO	0.998	NO	MM
2	2 180118M1_3	Standard	0.500	4.99	93.745	11578.018	0.101	0.4	-11.0	NO	0.998	NO	bb
3	3 180118M1_4	Standard	1.000	4.98	204.331	13077.289	0.195	0.7	-27.1	NO	0.998	NO	bb
4	4 180118M1_5	Standard	2.000	4.98	417.468	11837.361	0.441	1.5	-26.5	NO	0.998	NO	bb
5	5 180118M1_6	Standard	5.000	4.98	1614.665	11638.346	1.734	5.4	8.0	NO	0.998	NO	bb
6	6 180118M1_7	Standard	10.000	4.97	2689.601	11248.381	2.989	9.3	-7.4	NO	0.998	NO	bb
7	7 180118M1_8	Standard	50.000	4.98	16157.579	12675.076	15.934	52.2	4.4	NO	0.998	NO	bb
8	8 180118M1_9	Standard	100.000	4.98	24936.775	11147.298	27.963	99.2	-0.8	NO	0.998	NO	bb
9	9 180118M1_10	Standard	250.000	4.98	55231.094	13395.402	51.539	249.5	-0.2	NO	0.998	NO	bb

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.990474
Calibration curve: 0.00121633 * x^2 + 1.31517 * x + -0.0845914
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	5.18	65.090	2985.703	0.273	0.3	8.6	NO	0.990	NO	bb
2	2 180118M1_3	Standard	0.500	5.17	112.838	3644.077	0.387	0.4	-28.3	NO	0.990	NO	bb
3	3 180118M1_4	Standard	1.000	5.16	253.932	3360.004	0.945	0.8	-21.8	NO	0.990	NO	bb
4	4 180118M1_5	Standard	2.000	5.16	697.102	3142.509	2.773	2.2	8.4	NO	0.990	NO	bb
5	5 180118M1_6	Standard	5.000	5.16	2118.124	3545.096	7.469	5.7	14.3	NO	0.990	NO	bb
6	6 180118M1_7	Standard	10.000	5.16	3574.920	3256.635	13.722	10.4	4.0	NO	0.990	NO	bb
7	7 180118M1_8	Standard	50.000	5.16	17686.707	4197.069	52.676	38.7	-22.5	NO	0.990	NO	bb
8	8 180118M1_9	Standard	100.000	5.16	45882.086	3519.573	162.953	112.3	12.3	NO	0.990	NO	bb
9	9 180118M1_10	Standard	250.000	5.16	110700.992	3458.090	400.152	247.6	-1.0	NO	0.990	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.995306
Calibration curve: -0.000318333 * x^2 + 1.2094 * x + -0.0720697
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	5.34	51.976	4136.433	0.157	0.2	-24.2	NO	0.995	NO	MM
2	2 180118M1_3	Standard	0.500	5.32	146.037	4482.346	0.407	0.4	-20.7	NO	0.995	NO	bb
3	3 180118M1_4	Standard	1.000	5.32	440.670	4101.455	1.343	1.2	17.0	NO	0.995	NO	bb
4	4 180118M1_5	Standard	2.000	5.32	611.447	3356.207	2.277	1.9	-2.8	NO	0.995	NO	bb
5	5 180118M1_6	Standard	5.000	5.32	2127.833	3539.426	7.515	6.3	25.7	NO	0.995	NO	bb
6	6 180118M1_7	Standard	10.000	5.32	3434.155	4207.344	10.203	8.5	-14.9	NO	0.995	NO	bb
7	7 180118M1_8	Standard	50.000	5.32	18434.148	4333.930	53.168	44.5	-10.9	NO	0.995	NO	bb
8	8 180118M1_9	Standard	100.000	5.31	37667.961	3716.367	126.696	107.9	7.9	NO	0.995	NO	bb
9	9 180118M1_10	Standard	250.000	5.32	100081.609	4466.246	280.106	247.8	-0.9	NO	0.995	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180118M1\180118M1-CRV.qld

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.999287
Calibration curve: -0.00133748 * x^2 + 1.26612 * x + -0.028293
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	5.35	458.173	15542.226	0.368	0.3	25.4	NO	0.999	NO	bb
2	2 180118M1_3	Standard	0.500	5.34	465.797	12565.826	0.463	0.4	-22.3	NO	0.999	NO	bb
3	3 180118M1_4	Standard	1.000	5.33	1358.875	14148.101	1.201	1.0	-2.8	NO	0.999	NO	bb
4	4 180118M1_5	Standard	2.000	5.33	2069.105	10704.468	2.416	1.9	-3.3	NO	0.999	NO	bb
5	5 180118M1_6	Standard	5.000	5.33	7196.309	14534.348	6.189	4.9	-1.3	NO	0.999	NO	bb
6	6 180118M1_7	Standard	10.000	5.33	13834.292	13444.508	12.862	10.3	2.9	NO	0.999	NO	bb
7	7 180118M1_8	Standard	50.000	5.33	74625.094	14974.295	62.294	52.1	4.2	NO	0.999	NO	bb
8	8 180118M1_9	Standard	100.000	5.33	121933.063	13867.754	109.907	96.7	-3.3	NO	0.999	NO	bb
9	9 180118M1_10	Standard	250.000	5.33	382704.000	20465.912	233.745	251.4	0.6	NO	0.999	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.993237
Calibration curve: -0.000344885 * x^2 + 0.420964 * x + -0.000554845
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	5.39	85.499	9893.501	0.108	0.3	3.2	NO	0.993	NO	bb
2	2 180118M1_3	Standard	0.500	5.38	141.148	10043.421	0.176	0.4	-16.2	NO	0.993	NO	bb
3	3 180118M1_4	Standard	1.000	5.38	383.691	9790.955	0.490	1.2	16.6	NO	0.993	NO	bb
4	4 180118M1_5	Standard	2.000	5.38	571.169	8348.712	0.855	2.0	1.8	NO	0.993	NO	bb
5	5 180118M1_6	Standard	5.000	5.38	1652.684	11191.940	1.846	4.4	-12.0	NO	0.993	NO	bb
6	6 180118M1_7	Standard	10.000	5.38	3548.905	9353.654	4.743	11.4	13.7	NO	0.993	NO	bb
7	7 180118M1_8	Standard	50.000	5.38	15014.423	10944.460	17.148	42.2	-15.6	NO	0.993	NO	bb
8	8 180118M1_9	Standard	100.000	5.38	32755.502	9724.193	42.106	109.9	9.9	NO	0.993	NO	bb
9	9 180118M1_10	Standard	250.000	5.38	80811.016	12186.347	82.891	246.8	-1.3	NO	0.993	NO	bb

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.999037
Calibration curve: -0.001843 * x^2 + 1.87892 * x + -0.0241226
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	5.63	299.221	9893.501	0.378	0.2	-14.4	NO	0.999	NO	bb
2	2 180118M1_3	Standard	0.500	5.62	758.312	10043.421	0.944	0.5	3.1	NO	0.999	NO	bb
3	3 180118M1_4	Standard	1.000	5.62	1371.189	9790.955	1.751	0.9	-5.5	NO	0.999	NO	bb
4	4 180118M1_5	Standard	2.000	5.62	2633.308	8348.712	3.943	2.1	5.8	NO	0.999	NO	bb
5	5 180118M1_6	Standard	5.000	5.61	8443.216	11191.940	9.430	5.1	1.1	NO	0.999	NO	bb
6	6 180118M1_7	Standard	10.000	5.61	15777.884	9353.654	21.085	11.4	13.6	NO	0.999	NO	bb
7	7 180118M1_8	Standard	50.000	5.61	75041.953	10944.460	85.708	47.9	-4.2	NO	0.999	NO	bb
8	8 180118M1_9	Standard	100.000	5.61	132205.734	9724.193	169.944	100.3	0.3	NO	0.999	NO	bb
9	9 180118M1_10	Standard	250.000	5.61	346028.656	12186.347	354.935	250.4	0.2	NO	0.999	NO	bb

Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.999505
Calibration curve: -0.000243814 * x^2 + 1.15095 * x + -0.281066
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 180118M1_2	Standard	1.250	5.73	116.429	14980.832	1.166	1.3	0.6	NO	1.000	NO	bb
2	2 180118M1_3	Standard	2.500	5.73	268.476	16001.392	2.517	2.4	-2.7	NO	1.000	NO	bb
3	3 180118M1_4	Standard	5.000	5.72	557.264	15583.063	5.364	4.9	-1.8	NO	1.000	NO	bb
4	4 180118M1_5	Standard	10.000	5.72	1039.506	14787.801	10.544	9.4	-5.8	NO	1.000	NO	bb
5	5 180118M1_6	Standard	25.000	5.72	2797.980	15817.274	26.534	23.4	-6.3	NO	1.000	NO	bb
6	6 180118M1_7	Standard	50.000	5.72	6019.913	16636.686	54.277	47.9	-4.2	NO	1.000	NO	bb
7	7 180118M1_8	Standard	250.000	5.72	28417.568	15942.258	267.380	245.3	-1.9	NO	1.000	NO	bd
8	8 180118M1_9	Standard	500.000	5.72	53888.371	15285.314	528.825	516.1	3.2	NO	1.000	NO	bb
9	9 180118M1_10	Standard	1250.000	5.72	135261.641	19273.289	1052.713	1241.3	-0.7	NO	1.000	NO	bb

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.995844
Calibration curve: -0.00306919 * x^2 + 2.32165 * x + -0.0280397
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	5.87	499.499	9893.501	0.631	0.3	13.6	NO	0.996	NO	bb
2	2 180118M1_3	Standard	0.500	5.87	901.180	10043.421	1.122	0.5	-0.9	NO	0.996	NO	bb
3	3 180118M1_4	Standard	1.000	5.87	1658.061	9790.955	2.117	0.9	-7.5	NO	0.996	NO	bb
4	4 180118M1_5	Standard	2.000	5.87	2996.775	8348.712	4.487	1.9	-2.5	NO	0.996	NO	bb
5	5 180118M1_6	Standard	5.000	5.86	9846.838	11191.940	10.998	4.8	-4.4	NO	0.996	NO	bb
6	6 180118M1_7	Standard	10.000	5.86	18190.943	9353.654	24.310	10.6	6.3	NO	0.996	NO	bb
7	7 180118M1_8	Standard	50.000	5.86	84453.227	10944.460	96.457	44.1	-11.7	NO	0.996	NO	bb
8	8 180118M1_9	Standard	100.000	5.86	168229.531	9724.193	216.251	108.8	8.8	NO	0.996	NO	bb
9	9 180118M1_10	Standard	250.000	5.86	375316.156	12186.347	384.976	245.5	-1.8	NO	0.996	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.998425
Calibration curve: -0.00275286 * x^2 + 2.43466 * x + -0.000678863
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 180118M1_2	Standard	0.250	6.09	235.263	5037.853	0.584	0.2	-4.0	NO	0.998	NO	bb
2	2 180118M1_3	Standard	0.500	6.09	566.438	5022.793	1.410	0.6	15.9	NO	0.998	NO	bb
3	3 180118M1_4	Standard	1.000	6.08	1003.571	5471.021	2.293	0.9	-5.7	NO	0.998	NO	bb
4	4 180118M1_5	Standard	2.000	6.08	2042.652	4792.470	5.328	2.2	9.7	NO	0.998	NO	bb
5	5 180118M1_6	Standard	5.000	6.08	4811.064	4987.284	12.058	5.0	-0.4	NO	0.998	NO	bb
6	6 180118M1_7	Standard	10.000	6.08	7877.303	5020.775	19.612	8.1	-18.7	NO	0.998	NO	bb
7	7 180118M1_8	Standard	50.000	6.08	53073.254	5696.931	116.451	50.7	1.5	NO	0.998	NO	bb
8	8 180118M1_9	Standard	100.000	6.08	85685.117	4864.495	220.180	102.3	2.3	NO	0.998	NO	db
9	9 180118M1_10	Standard	250.000	6.08	233984.891	6727.290	434.768	248.3	-0.7	NO	0.998	NO	db

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999666
Calibration curve: -0.000120496 * x^2 + 0.962768 * x + -0.128086
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 180118M1_2	Standard	1.250	6.13	161.605	21657.963	1.119	1.3	3.7	NO	1.000	NO	bb
2	2 180118M1_3	Standard	2.500	6.12	346.068	23140.080	2.243	2.5	-1.4	NO	1.000	NO	bb
3	3 180118M1_4	Standard	5.000	6.12	735.740	23495.924	4.697	5.0	0.3	NO	1.000	NO	bb
4	4 180118M1_5	Standard	10.000	6.12	1374.844	21361.910	9.654	10.2	1.7	NO	1.000	NO	bb
5	5 180118M1_6	Standard	25.000	6.12	3743.706	23496.209	23.900	25.0	0.1	NO	1.000	NO	bb
6	6 180118M1_7	Standard	50.000	6.12	7648.640	24992.623	45.905	48.1	-3.8	NO	1.000	NO	bb
7	7 180118M1_8	Standard	250.000	6.12	37304.500	24702.057	226.527	242.8	-2.9	NO	1.000	NO	bb
8	8 180118M1_9	Standard	500.000	6.12	71421.711	23172.662	462.323	513.3	2.7	NO	1.000	NO	bb
9	9 180118M1_10	Standard	1250.000	6.12	174863.219	25919.678	1011.952	1245.3	-0.4	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.997076
Calibration curve: -0.000851985 * x^2 + 0.727571 * x + 0.155465
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 180118M1_2	Standard	0.250	6.42	136.818	2243.896	0.305	0.2	-17.8	NO	0.997	NO	bb
2	2 180118M1_3	Standard	0.500	6.42	232.633	2515.967	0.462	0.4	-15.6	NO	0.997	NO	bb
3	3 180118M1_4	Standard	1.000	6.42	523.195	2432.108	1.076	1.3	26.7	NO	0.997	NO	bb
4	4 180118M1_5	Standard	2.000	6.42	896.666	3031.573	1.479	1.8	-8.9	NO	0.997	NO	bb
5	5 180118M1_6	Standard	5.000	6.42	2407.783	3077.301	3.912	5.2	3.9	NO	0.997	NO	bb
6	6 180118M1_7	Standard	10.000	6.42	5341.036	3099.393	8.616	11.8	17.9	NO	0.997	NO	bb
7	7 180118M1_8	Standard	50.000	6.42	20491.061	3239.779	31.624	45.7	-8.6	NO	0.997	NO	bb
8	8 180118M1_9	Standard	100.000	6.42	44007.414	3340.108	65.877	102.7	2.7	NO	0.997	NO	bb
9	9 180118M1_10	Standard	250.000	6.42	116565.555	4528.296	128.708	249.7	-0.1	NO	0.997	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.998863
Calibration curve: -0.00176379 * x^2 + 0.727145 * x + 0.0519948
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	0.250	6.66	123.982	2243.896	0.276	0.3	23.5	NO	0.999	NO	bb
2	2 180118M1_3	Standard	0.500	6.65	204.443	2515.967	0.406	0.5	-2.4	NO	0.999	NO	bb
3	3 180118M1_4	Standard	1.000	6.65	457.650	2432.108	0.941	1.2	22.6	NO	0.999	NO	bb
4	4 180118M1_5	Standard	2.000	6.65	788.671	3031.573	1.301	1.7	-13.8	NO	0.999	NO	bb
5	5 180118M1_6	Standard	5.000	6.65	2227.081	3077.301	3.619	5.0	-0.7	NO	0.999	NO	bb
6	6 180118M1_7	Standard	10.000	6.65	4390.066	3099.393	7.082	9.9	-0.9	NO	0.999	NO	bb
7	7 180118M1_8	Standard	50.000	6.65	20839.658	3239.779	32.162	50.3	0.6	NO	0.999	NO	bb
8	8 180118M1_9	Standard	100.000	6.65	36779.527	3340.108	55.057	99.8	-0.2	NO	0.999	NO	bb
9	9 180118M1_10	Standard	250.000	6.65	109566.594	4528.296	120.980			NO	0.999	NO	bbXI

Compound name: N-MeFOSE
Correlation coefficient: r = 0.999655, r^2 = 0.999310
Calibration curve: 0.958394 * x + 0.409465
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	1.250	6.28	172.182	17415.396	1.483	1.1	-10.4	NO	0.999	NO	bb
2	2 180118M1_3	Standard	2.500	6.28	300.986	19984.701	2.259	1.9	-22.8	NO	0.999	NO	bb
3	3 180118M1_4	Standard	5.000	6.28	719.831	20721.902	5.211	5.0	0.2	NO	0.999	NO	bb
4	4 180118M1_5	Standard	10.000	6.28	1316.902	18123.596	10.899	10.9	9.5	NO	0.999	NO	bb
5	5 180118M1_6	Standard	25.000	6.28	3394.358	17435.055	29.203	30.0	20.2	NO	0.999	NO	bb
6	6 180118M1_7	Standard	50.000	6.27	7919.895	23477.758	50.600	52.4	4.7	NO	0.999	NO	bb
7	7 180118M1_8	Standard	250.000	6.27	34673.496	21728.279	239.367	249.3	-0.3	NO	0.999	NO	bb
8	8 180118M1_9	Standard	500.000	6.27	72242.891	22800.027	475.282	495.5	-0.9	NO	0.999	NO	bd
9	9 180118M1_10	Standard	1250.000	6.27	201017.609	25210.842	1196.019	1247.5	-0.2	NO	0.999	NO	bd

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.997200, r^2 = 0.994407
Calibration curve: 1.12061 * x + 0.46359
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 180118M1_2	Standard	1.250	6.43	203.407	19155.027	1.593	1.0	-19.4	NO	0.994	NO	bb
2	2 180118M1_3	Standard	2.500	6.43	332.453	18968.391	2.629	1.9	-22.7	NO	0.994	NO	bb
3	3 180118M1_4	Standard	5.000	6.42	692.892	17547.807	5.923	4.9	-2.6	NO	0.994	NO	bb
4	4 180118M1_5	Standard	10.000	6.43	1696.348	18566.025	13.705	11.8	18.2	NO	0.994	NO	bb
5	5 180118M1_6	Standard	25.000	6.43	4134.430	21535.252	28.798	25.3	1.1	NO	0.994	NO	bb
6	6 180118M1_7	Standard	50.000	6.42	9707.213	21754.430	66.933	59.3	18.6	NO	0.994	NO	bb
7	7 180118M1_8	Standard	250.000	6.42	38152.457	20087.791	284.893	253.8	1.5	NO	0.994	NO	bb
8	8 180118M1_9	Standard	500.000	6.42	88203.984	21341.703	619.941	552.8	10.6	NO	0.994	NO	bb
9	9 180118M1_10	Standard	1250.000	6.42	208789.781	23618.215	1326.030	1182.9	-5.4	NO	0.994	NO	bb

Compound name: 13C3-PFBA
Response Factor: 0.872221
RRF SD: 0.0139435, Relative SD: 1.59862
Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	1.29	6628.176	7669.093	10.803	12.4	-0.9	NO		NO	MM
2	2 180118M1_3	Standard	12.500	1.30	6766.416	7598.055	11.132	12.8	2.1	NO		NO	MM
3	3 180118M1_4	Standard	12.500	1.30	6783.989	7951.014	10.665	12.2	-2.2	NO		NO	MM
4	4 180118M1_5	Standard	12.500	1.31	6314.151	7314.195	10.791	12.4	-1.0	NO		NO	MM
5	5 180118M1_6	Standard	12.500	1.31	6706.746	7566.779	11.079	12.7	1.6	NO		NO	MM
6	6 180118M1_7	Standard	12.500	1.31	7498.908	8593.296	10.908	12.5	0.0	NO		NO	bb
7	7 180118M1_8	Standard	12.500	1.31	7335.596	8457.297	10.842	12.4	-0.6	NO		NO	bb
8	8 180118M1_9	Standard	12.500	1.32	7463.100	8372.831	11.142	12.8	2.2	NO		NO	bb
9	9 180118M1_10	Standard	12.500	1.33	8867.412	10299.271	10.762	12.3	-1.3	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 0.78759
RRF SD: 0.0657094, Relative SD: 8.34309
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	2.29	8624.307	12361.655	8.721	11.1	-11.4	NO		NO	bb
2	2 180118M1_3	Standard	12.500	2.29	8386.112	10466.128	10.016	12.7	1.7	NO		NO	bb
3	3 180118M1_4	Standard	12.500	2.29	9145.476	12489.865	9.153	11.6	-7.0	NO		NO	bb
4	4 180118M1_5	Standard	12.500	2.30	8628.688	11243.905	9.593	12.2	-2.6	NO		NO	bb
5	5 180118M1_6	Standard	12.500	2.29	8970.576	12256.104	9.149	11.6	-7.1	NO		NO	bb
6	6 180118M1_7	Standard	12.500	2.30	10123.032	12170.751	10.397	13.2	5.6	NO		NO	bb
7	7 180118M1_8	Standard	12.500	2.30	9769.188	11962.639	10.208	13.0	3.7	NO		NO	bb
8	8 180118M1_9	Standard	12.500	2.29	10192.470	11108.530	11.469	14.6	16.5	NO		NO	bb
9	9 180118M1_10	Standard	12.500	2.30	11607.073	14657.479	9.899	12.6	0.5	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.104803
RRF SD: 0.00657207, Relative SD: 6.2709
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	2.57	1184.853	12361.655	1.198	11.4	-8.5	NO		NO	bb
2	2 180118M1_3	Standard	12.500	2.58	1175.155	10466.128	1.404	13.4	7.1	NO		NO	bb
3	3 180118M1_4	Standard	12.500	2.57	1294.367	12489.865	1.295	12.4	-1.1	NO		NO	bb
4	4 180118M1_5	Standard	12.500	2.57	1239.980	11243.905	1.379	13.2	5.2	NO		NO	bb
5	5 180118M1_6	Standard	12.500	2.57	1222.566	12256.104	1.247	11.9	-4.8	NO		NO	bb
6	6 180118M1_7	Standard	12.500	2.57	1302.228	12170.751	1.337	12.8	2.1	NO		NO	bb
7	7 180118M1_8	Standard	12.500	2.57	1232.572	11962.639	1.288	12.3	-1.7	NO		NO	bb
8	8 180118M1_9	Standard	12.500	2.57	1268.084	11108.530	1.427	13.6	8.9	NO		NO	bb
9	9 180118M1_10	Standard	12.500	2.57	1425.323	14657.479	1.216	11.6	-7.2	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.685181
RRF SD: 0.0660619, Relative SD: 9.64152
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	5.000	3.07	3061.157	12361.655	3.095	4.5	-9.6	NO		NO	bb
2	2 180118M1_3	Standard	5.000	3.07	3351.196	10466.128	4.002	5.8	16.8	NO		NO	bb
3	3 180118M1_4	Standard	5.000	3.07	3244.312	12489.865	3.247	4.7	-5.2	NO		NO	bb
4	4 180118M1_5	Standard	5.000	3.07	3263.661	11243.905	3.628	5.3	5.9	NO		NO	bb
5	5 180118M1_6	Standard	5.000	3.07	3111.942	12256.104	3.174	4.6	-7.4	NO		NO	bb
6	6 180118M1_7	Standard	5.000	3.07	2964.833	12170.751	3.045	4.4	-11.1	NO		NO	bb
7	7 180118M1_8	Standard	5.000	3.07	3171.605	11962.639	3.314	4.8	-3.3	NO		NO	bb
8	8 180118M1_9	Standard	5.000	3.07	3353.509	11108.530	3.774	5.5	10.1	NO		NO	bb
9	9 180118M1_10	Standard	5.000	3.07	4166.901	14657.479	3.554	5.2	3.7	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.811173
RRF SD: 0.0797935, Relative SD: 9.8368
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	3.69	9221.989	12361.655	9.325	11.5	-8.0	NO		NO	bb
2	2 180118M1_3	Standard	12.500	3.69	9847.466	10466.128	11.761	14.5	16.0	NO		NO	bb
3	3 180118M1_4	Standard	12.500	3.68	9050.854	12489.865	9.058	11.2	-10.7	NO		NO	bb
4	4 180118M1_5	Standard	12.500	3.68	8772.772	11243.905	9.753	12.0	-3.8	NO		NO	bb
5	5 180118M1_6	Standard	12.500	3.68	8900.424	12256.104	9.078	11.2	-10.5	NO		NO	bb
6	6 180118M1_7	Standard	12.500	3.68	10152.992	12170.751	10.428	12.9	2.8	NO		NO	bb
7	7 180118M1_8	Standard	12.500	3.68	9974.576	11962.639	10.423	12.8	2.8	NO		NO	bb
8	8 180118M1_9	Standard	12.500	3.68	10264.402	11108.530	11.550	14.2	13.9	NO		NO	bb
9	9 180118M1_10	Standard	12.500	3.68	11587.292	14657.479	9.882	12.2	-2.5	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.370858
RRF SD: 0.0371691, Relative SD: 10.0225
Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	3.84	1013.195	2834.296	4.468	12.0	-3.6	NO		NO	bb
2	2 180118M1_3	Standard	12.500	3.83	1189.182	2942.607	5.052	13.6	9.0	NO		NO	bb
3	3 180118M1_4	Standard	12.500	3.83	1056.759	3237.604	4.080	11.0	-12.0	NO		NO	bb
4	4 180118M1_5	Standard	12.500	3.83	1103.874	2771.926	4.978	13.4	7.4	NO		NO	bb
5	5 180118M1_6	Standard	12.500	3.83	1319.570	3365.293	4.901	13.2	5.7	NO		NO	bb
6	6 180118M1_7	Standard	12.500	3.83	1235.924	2991.450	5.164	13.9	11.4	NO		NO	bb
7	7 180118M1_8	Standard	12.500	3.83	1108.625	3018.176	4.591	12.4	-1.0	NO		NO	bb
8	8 180118M1_9	Standard	12.500	3.83	1084.545	3591.982	3.774	10.2	-18.6	NO		NO	bb
9	9 180118M1_10	Standard	12.500	3.83	1392.528	3694.003	4.712	12.7	1.6	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.245544
RRF SD: 0.0473638, Relative SD: 19.2893
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

Not used

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	4.15	2699.295	11045.427	3.055	12.4	-0.5	NO		NO	bb
2	2 180118M1_3	Standard	12.500	4.15	2502.851	12613.450	2.480	10.1	-19.2	NO		NO	bb
3	3 180118M1_4	Standard	12.500	4.14	3143.382	14387.428	2.731	11.1	-11.0	NO		NO	bb
4	4 180118M1_5	Standard	12.500	4.14	2690.382	11420.492	2.945	12.0	-4.1	NO		NO	bb
5	5 180118M1_6	Standard	12.500	4.14	2975.652	10777.910	3.451	14.1	12.4	NO		NO	bb
6	6 180118M1_7	Standard	12.500	4.14	3090.315	15538.602	2.486	10.1	-19.0	NO		NO	bb
7	7 180118M1_8	Standard	12.500	4.14	3764.777	15096.650	3.117	12.7	1.6	NO		NO	bb
8	8 180118M1_9	Standard	12.500	4.14	4466.345	13016.104	4.289	17.5	39.7	NO		NO	bb
9	9 180118M1_10	Standard	12.500	4.15	6609.282	15015.451	5.502	22.4	79.3	NO		NO	bbX

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Compound name: 13C2-PFOA
Response Factor: 1.1014
RRF SD: 0.148631, Relative SD: 13.4948
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	4.21	13210.429	11045.427	14.950	13.6	8.6	NO		NO	bb
2	2 180118M1_3	Standard	12.500	4.21	12533.280	12613.450	12.421	11.3	-9.8	NO		NO	bb
3	3 180118M1_4	Standard	12.500	4.20	14471.168	14387.428	12.573	11.4	-8.7	NO		NO	bb
4	4 180118M1_5	Standard	12.500	4.20	11511.098	11420.492	12.599	11.4	-8.5	NO		NO	bb
5	5 180118M1_6	Standard	12.500	4.20	15269.152	10777.910	17.709	16.1	28.6	NO		NO	bb
6	6 180118M1_7	Standard	12.500	4.20	15085.087	15538.602	12.135	11.0	-11.9	NO		NO	bb
7	7 180118M1_8	Standard	12.500	4.20	14973.517	15096.650	12.398	11.3	-9.9	NO		NO	bb
8	8 180118M1_9	Standard	12.500	4.20	14777.377	13016.104	14.191	12.9	3.1	NO		NO	bb
9	9 180118M1_10	Standard	12.500	4.20	17936.301	15015.451	14.932	13.6	8.5	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.931913
RRF SD: 0.0891826, Relative SD: 9.56983
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	4.65	10075.711	9974.009	12.627	13.6	8.4	NO		NO	bb
2	2 180118M1_3	Standard	12.500	4.64	11524.767	12552.051	11.477	12.3	-1.5	NO		NO	bb
3	3 180118M1_4	Standard	12.500	4.64	10933.791	12388.794	11.032	11.8	-5.3	NO		NO	bb
4	4 180118M1_5	Standard	12.500	4.63	12811.041	13680.797	11.705	12.6	0.5	NO		NO	bb
5	5 180118M1_6	Standard	12.500	4.63	14782.018	13627.233	13.559	14.5	16.4	NO		NO	bb
6	6 180118M1_7	Standard	12.500	4.63	14157.063	13850.425	12.777	13.7	9.7	NO		NO	bb
7	7 180118M1_8	Standard	12.500	4.63	13019.187	15464.554	10.523	11.3	-9.7	NO		NO	bb
8	8 180118M1_9	Standard	12.500	4.63	13804.038	16580.219	10.407	11.2	-10.7	NO		NO	bb
9	9 180118M1_10	Standard	12.500	4.64	14864.908	17313.514	10.732	11.5	-7.9	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.17608
RRF SD: 0.0276378, Relative SD: 15.6962
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180118M1_2	Standard	12.500	4.71	2230.248	16607.514	1.679	9.5	-23.7	NO		NO	bbX
2	2	180118M1_3	Standard	12.500	4.70	2042.124	16973.807	1.504	8.5	-31.7	NO		NO	bbX
3	3	180118M1_4	Standard	12.500	4.69	2235.724	11763.054	2.376	13.5	7.9	NO		NO	bb
4	4	180118M1_5	Standard	12.500	4.69	2069.984	9840.114	2.630	14.9	19.5	NO		NO	bb
5	5	180118M1_6	Standard	12.500	4.69	2106.655	13945.345	1.888	10.7	-14.2	NO		NO	bb
6	6	180118M1_7	Standard	12.500	4.69	2378.393	16448.322	1.807	10.3	-17.9	NO		NO	bb
7	7	180118M1_8	Standard	12.500	4.69	2395.824	12998.784	2.304	13.1	4.7	NO		NO	bb
8	8	180118M1_9	Standard	12.500	4.69	2430.352	10435.265	2.911	16.5	32.3	NO		NO	MMX
9	9	180118M1_10	Standard	12.500	4.69	2717.913	17313.598	1.962	11.1	-10.8	NO		NO	bbX

Compound name: 13C8-PFOS
Response Factor: 1.04689
RRF SD: 0.137734, Relative SD: 13.1565
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180118M1_2	Standard	12.500	4.73	2935.768	2620.023	14.006	13.4	7.0	NO		NO	bb
2	2	180118M1_3	Standard	12.500	4.72	3156.818	3352.441	11.771	11.2	-10.1	NO		NO	bb
3	3	180118M1_4	Standard	12.500	4.72	3664.074	3017.950	15.176	14.5	16.0	NO		NO	bb
4	4	180118M1_5	Standard	12.500	4.72	3382.708	3071.438	13.767	13.2	5.2	NO		NO	bb
5	5	180118M1_6	Standard	12.500	4.72	2851.818	2808.995	12.691	12.1	-3.0	NO		NO	bb
6	6	180118M1_7	Standard	12.500	4.72	3554.643	4291.462	10.354	9.9	-20.9	NO		NO	bb
7	7	180118M1_8	Standard	12.500	4.72	3579.305	3225.207	13.872	13.3	6.0	NO		NO	bb
8	8	180118M1_9	Standard	12.500	4.72	3186.816	2642.108	15.077	14.4	15.2	NO		NO	bb
9	9	180118M1_10	Standard	12.500	4.72	3754.260	4242.597	11.061	10.6	-15.5	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 1.17828
RRF SD: 0.162991, Relative SD: 13.8329
Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	5.02	11220.915	7212.510	19.447	16.5	32.0	NO		NO	bb
2	2 180118M1_3	Standard	12.500	5.01	11578.018	10647.363	13.593	11.5	-7.7	NO		NO	bb
3	3 180118M1_4	Standard	12.500	5.01	13077.289	11171.487	14.632	12.4	-0.7	NO		NO	bb
4	4 180118M1_5	Standard	12.500	5.01	11837.361	10998.669	13.453	11.4	-8.7	NO		NO	bb
5	5 180118M1_6	Standard	12.500	5.01	11638.346	10219.353	14.236	12.1	-3.3	NO		NO	bb
6	6 180118M1_7	Standard	12.500	5.01	11248.381	10522.795	13.362	11.3	-9.3	NO		NO	bb
7	7 180118M1_8	Standard	12.500	5.01	12675.076	12381.811	12.796	10.9	-13.1	NO		NO	bb
8	8 180118M1_9	Standard	12.500	5.00	11147.298	8602.176	16.198	13.7	10.0	NO		NO	bb
9	9 180118M1_10	Standard	12.500	5.01	13395.402	11283.332	14.840	12.6	0.8	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.127327
RRF SD: 0.0243727, Relative SD: 19.1417
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

Not used

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	4.99	1507.344	12361.655	1.524	12.0	-4.2	NO		NO	bb
2	2 180118M1_3	Standard	12.500	4.99	1141.863	10466.128	1.364	10.7	-14.3	NO		NO	bb
3	3 180118M1_4	Standard	12.500	4.98	1671.719	12489.865	1.673	13.1	5.1	NO		NO	bb
4	4 180118M1_5	Standard	12.500	4.98	1043.812	11243.905	1.160	9.1	-27.1	NO		NO	bb
5	5 180118M1_6	Standard	12.500	4.98	1818.130	12256.104	1.854	14.6	16.5	NO		NO	bb
6	6 180118M1_7	Standard	12.500	4.98	1921.789	12170.751	1.974	15.5	24.0	NO		NO	bb
7	7 180118M1_8	Standard	12.500	4.98	2490.443	11962.639	2.602	20.4	63.5	NO		NO	bbX
8	8 180118M1_9	Standard	12.500	4.98	2273.278	11108.530	2.558	20.1	60.7	NO		NO	bbX
9	9 180118M1_10	Standard	12.500	4.98	3712.022	14657.479	3.166	24.9	98.9	NO		NO	bbX

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Compound name: d3-N-MeFOSAA
Response Factor: 0.276007
RRF SD: 0.0551431, Relative SD: 19.9789
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	5.17	2985.703	16607.514	2.247	8.1	-34.9	NO		NO	bbX
2	2 180118M1_3	Standard	12.500	5.16	3644.077	16973.807	2.684	9.7	-22.2	NO		NO	bb
3	3 180118M1_4	Standard	12.500	5.16	3360.004	11763.054	3.571	12.9	3.5	NO		NO	bb
4	4 180118M1_5	Standard	12.500	5.16	3142.509	9840.114	3.992	14.5	15.7	NO		NO	bb
5	5 180118M1_6	Standard	12.500	5.15	3545.096	13945.345	3.178	11.5	-7.9	NO		NO	bb
6	6 180118M1_7	Standard	12.500	5.15	3256.635	16448.322	2.475	9.0	-28.3	NO		NO	bb
7	7 180118M1_8	Standard	12.500	5.15	4197.069	12998.784	4.036	14.6	17.0	NO		NO	bb
8	8 180118M1_9	Standard	12.500	5.15	3519.573	10435.265	4.216	15.3	22.2	NO		NO	bb
9	9 180118M1_10	Standard	12.500	5.16	3458.090	17313.598	2.497	9.0	-27.6	NO		NO	bbX

Compound name: d5-N-EtFOSAA
Response Factor: 0.295555
RRF SD: 0.0472832, Relative SD: 15.9981
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	5.32	4136.433	16607.514	3.113	10.5	-15.7	NO		NO	bb
2	2 180118M1_3	Standard	12.500	5.32	4482.346	16973.807	3.301	11.2	-10.7	NO		NO	bb
3	3 180118M1_4	Standard	12.500	5.31	4101.455	11763.054	4.358	14.7	18.0	NO		NO	bb
4	4 180118M1_5	Standard	12.500	5.31	3356.207	9840.114	4.263	14.4	15.4	NO		NO	bb
5	5 180118M1_6	Standard	12.500	5.31	3539.426	13945.345	3.173	10.7	-14.1	NO		NO	bb
6	6 180118M1_7	Standard	12.500	5.31	4207.344	16448.322	3.197	10.8	-13.5	NO		NO	bb
7	7 180118M1_8	Standard	12.500	5.31	4333.930	12998.784	4.168	14.1	12.8	NO		NO	bb
8	8 180118M1_9	Standard	12.500	5.31	3716.367	10435.265	4.452	15.1	20.5	NO		NO	bb
9	9 180118M1_10	Standard	12.500	5.31	4466.246	17313.598	3.225	10.9	-12.7	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 1.05437
RRF SD: 0.191491, Relative SD: 18.1616
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180118M1_2	Standard	12.500	5.34	15542.226	16607.514	11.698	11.1	-11.2	NO		NO	bb
2	2	180118M1_3	Standard	12.500	5.34	12565.826	16973.807	9.254	8.8	-29.8	NO		NO	bb
3	3	180118M1_4	Standard	12.500	5.33	14148.101	11763.054	15.034	14.3	14.1	NO		NO	bb
4	4	180118M1_5	Standard	12.500	5.33	10704.468	9840.114	13.598	12.9	3.2	NO		NO	bb
5	5	180118M1_6	Standard	12.500	5.33	14534.348	13945.345	13.028	12.4	-1.2	NO		NO	bb
6	6	180118M1_7	Standard	12.500	5.33	13444.508	16448.322	10.217	9.7	-22.5	NO		NO	bb
7	7	180118M1_8	Standard	12.500	5.33	14974.295	12998.784	14.400	13.7	9.3	NO		NO	bb
8	8	180118M1_9	Standard	12.500	5.33	13867.754	10435.265	16.612	15.8	26.0	NO		NO	bb
9	9	180118M1_10	Standard	12.500	5.33	20465.912	17313.598	14.776	14.0	12.1	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.746346
RRF SD: 0.134402, Relative SD: 18.008
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180118M1_2	Standard	12.500	5.63	9893.501	16607.514	7.447	10.0	-20.2	NO		NO	bb
2	2	180118M1_3	Standard	12.500	5.62	10043.421	16973.807	7.396	9.9	-20.7	NO		NO	bb
3	3	180118M1_4	Standard	12.500	5.61	9790.955	11763.054	10.404	13.9	11.5	NO		NO	bb
4	4	180118M1_5	Standard	12.500	5.62	8348.712	9840.114	10.605	14.2	13.7	NO		NO	bb
5	5	180118M1_6	Standard	12.500	5.61	11191.940	13945.345	10.032	13.4	7.5	NO		NO	bb
6	6	180118M1_7	Standard	12.500	5.61	9353.654	16448.322	7.108	9.5	-23.8	NO		NO	bb
7	7	180118M1_8	Standard	12.500	5.61	10944.460	12998.784	10.525	14.1	12.8	NO		NO	bb
8	8	180118M1_9	Standard	12.500	5.61	9724.193	10435.265	11.648	15.6	24.9	NO		NO	bb
9	9	180118M1_10	Standard	12.500	5.61	12186.347	17313.598	8.798	11.8	-5.7	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.0983556
RRF SD: 0.0180888, Relative SD: 18.3912
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180118M1_2	Standard	150.000	5.76	14980.832	16607.514	11.276	114.6	-23.6	NO		NO	MM
2	2	180118M1_3	Standard	150.000	5.75	16001.392	16973.807	11.784	119.8	-20.1	NO		NO	bb
3	3	180118M1_4	Standard	150.000	5.74	15583.063	11763.054	16.559	168.4	12.2	NO		NO	bb
4	4	180118M1_5	Standard	150.000	5.74	14787.801	9840.114	18.785	191.0	27.3	NO		NO	bb
5	5	180118M1_6	Standard	150.000	5.74	15817.274	13945.345	14.178	144.1	-3.9	NO		NO	bb
6	6	180118M1_7	Standard	150.000	5.74	16636.686	16448.322	12.643	128.5	-14.3	NO		NO	bb
7	7	180118M1_8	Standard	150.000	5.74	15942.258	12998.784	15.331	155.9	3.9	NO		NO	bb
8	8	180118M1_9	Standard	150.000	5.74	15285.314	10435.265	18.310	186.2	24.1	NO		NO	bb
9	9	180118M1_10	Standard	150.000	5.74	19273.289	17313.598	13.915	141.5	-5.7	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.389695
RRF SD: 0.077281, Relative SD: 19.8312
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180118M1_2	Standard	12.500	6.09	5037.853	16607.514	3.792	9.7	-22.2	NO		NO	bb
2	2	180118M1_3	Standard	12.500	6.09	5022.793	16973.807	3.699	9.5	-24.1	NO		NO	bb
3	3	180118M1_4	Standard	12.500	6.08	5471.021	11763.054	5.814	14.9	19.4	NO		NO	bb
4	4	180118M1_5	Standard	12.500	6.08	4792.470	9840.114	6.088	15.6	25.0	NO		NO	bb
5	5	180118M1_6	Standard	12.500	6.08	4987.284	13945.345	4.470	11.5	-8.2	NO		NO	bb
6	6	180118M1_7	Standard	12.500	6.08	5020.775	16448.322	3.816	9.8	-21.7	NO		NO	bb
7	7	180118M1_8	Standard	12.500	6.08	5696.931	12998.784	5.478	14.1	12.5	NO		NO	bb
8	8	180118M1_9	Standard	12.500	6.08	4864.495	10435.265	5.827	15.0	19.6	NO		NO	bb
9	9	180118M1_10	Standard	12.500	6.08	6727.290	17313.598	4.857	12.5	-0.3	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.144982
RRF SD: 0.0287357, Relative SD: 19.8201
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180118M1_2	Standard	150.000	6.15	21657.963	16607.514	16.301	112.4	-25.0	NO		NO	bb
2	2	180118M1_3	Standard	150.000	6.14	23140.080	16973.807	17.041	117.5	-21.6	NO		NO	bb
3	3	180118M1_4	Standard	150.000	6.14	23495.924	11763.054	24.968	172.2	14.8	NO		NO	bb
4	4	180118M1_5	Standard	150.000	6.13	21361.910	9840.114	27.136	187.2	24.8	NO		NO	bb
5	5	180118M1_6	Standard	150.000	6.13	23496.209	13945.345	21.061	145.3	-3.2	NO		NO	bb
6	6	180118M1_7	Standard	150.000	6.13	24992.623	16448.322	18.993	131.0	-12.7	NO		NO	bb
7	7	180118M1_8	Standard	150.000	6.14	24702.057	12998.784	23.754	163.8	9.2	NO		NO	bb
8	8	180118M1_9	Standard	150.000	6.14	23172.662	10435.265	27.758	191.5	27.6	NO		NO	bb
9	9	180118M1_10	Standard	150.000	6.13	25919.678	17313.598	18.713	129.1	-14.0	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.58659
RRF SD: 0.116691, Relative SD: 19.8931
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180118M1_2	Standard	5.000	6.42	2243.896	16607.514	1.689	2.9	-42.4	NO		NO	bbX
2	2	180118M1_3	Standard	5.000	6.42	2515.967	16973.807	1.853	3.2	-36.8	NO		NO	bbX
3	3	180118M1_4	Standard	5.000	6.42	2432.108	11763.054	2.584	4.4	-11.9	NO		NO	MM
4	4	180118M1_5	Standard	5.000	6.42	3031.573	9840.114	3.851	6.6	31.3	NO		NO	MM
5	5	180118M1_6	Standard	5.000	6.42	3077.301	13945.345	2.758	4.7	-6.0	NO		NO	bb
6	6	180118M1_7	Standard	5.000	6.42	3099.393	16448.322	2.355	4.0	-19.7	NO		NO	MM
7	7	180118M1_8	Standard	5.000	6.42	3239.779	12998.784	3.115	5.3	6.2	NO		NO	bb
8	8	180118M1_9	Standard	5.000	6.42	3340.108	10435.265	4.001	6.8	36.4	NO		NO	bbX
9	9	180118M1_10	Standard	5.000	6.42	4528.296	17313.598	3.269	5.6	11.5	NO		NO	bbX

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Compound name: d7-N-MeFOSE
Response Factor: 0.138019
RRF SD: 0.0259656, Relative SD: 18.813
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	150.000	6.27	17415.396	16607.514	13.108	95.0	-36.7	NO		NO	bbX
2	2 180118M1_3	Standard	150.000	6.26	19984.701	16973.807	14.717	106.6	-28.9	NO		NO	bdX
3	3 180118M1_4	Standard	150.000	6.26	20721.902	11763.054	22.020	159.5	6.4	NO		NO	bb
4	4 180118M1_5	Standard	150.000	6.26	18123.596	9840.114	23.023	166.8	11.2	NO		NO	bd
5	5 180118M1_6	Standard	150.000	6.26	17435.055	13945.345	15.628	113.2	-24.5	NO		NO	bd
6	6 180118M1_7	Standard	150.000	6.26	23477.758	16448.322	17.842	129.3	-13.8	NO		NO	bb
7	7 180118M1_8	Standard	150.000	6.26	21728.279	12998.784	20.895	151.4	0.9	NO		NO	bb
8	8 180118M1_9	Standard	150.000	6.26	22800.027	10435.265	27.311	197.9	31.9	NO		NO	bb
9	9 180118M1_10	Standard	150.000	6.26	25210.842	17313.598	18.202	131.9	-12.1	NO		NO	bd

Compound name: d9-N-EtFOSE
Response Factor: 0.133334
RRF SD: 0.0223292, Relative SD: 16.7469
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	150.000	6.42	19155.027	16607.514	14.417	108.1	-27.9	NO		NO	bdX
2	2 180118M1_3	Standard	150.000	6.42	18968.391	16973.807	13.969	104.8	-30.2	NO		NO	bbX
3	3 180118M1_4	Standard	150.000	6.42	17547.807	11763.054	18.647	139.9	-6.8	NO		NO	bd
4	4 180118M1_5	Standard	150.000	6.42	18566.025	9840.114	23.585	176.9	17.9	NO		NO	bb
5	5 180118M1_6	Standard	150.000	6.42	21535.252	13945.345	19.303	144.8	-3.5	NO		NO	bb
6	6 180118M1_7	Standard	150.000	6.41	21754.430	16448.322	16.532	124.0	-17.3	NO		NO	bb
7	7 180118M1_8	Standard	150.000	6.41	20087.791	12998.784	19.317	144.9	-3.4	NO		NO	bb
8	8 180118M1_9	Standard	150.000	6.41	21341.703	10435.265	25.564	191.7	27.8	NO		NO	bb
9	9 180118M1_10	Standard	150.000	6.41	23618.215	17313.598	17.052	127.9	-14.7	NO		NO	bd

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Compound name: 13C4-PFBA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180118M1_2	Standard	12.500	1.29	7669.093	7669.093	12.500	12.5	0.0	NO		NO	MM
2	2	180118M1_3	Standard	12.500	1.30	7598.055	7598.055	12.500	12.5	0.0	NO		NO	MM
3	3	180118M1_4	Standard	12.500	1.30	7951.014	7951.014	12.500	12.5	0.0	NO		NO	MM
4	4	180118M1_5	Standard	12.500	1.30	7314.195	7314.195	12.500	12.5	0.0	NO		NO	MM
5	5	180118M1_6	Standard	12.500	1.31	7566.779	7566.779	12.500	12.5	0.0	NO		NO	MM
6	6	180118M1_7	Standard	12.500	1.32	8593.296	8593.296	12.500	12.5	0.0	NO		NO	bb
7	7	180118M1_8	Standard	12.500	1.32	8457.297	8457.297	12.500	12.5	0.0	NO		NO	bb
8	8	180118M1_9	Standard	12.500	1.32	8372.831	8372.831	12.500	12.5	0.0	NO		NO	bb
9	9	180118M1_10	Standard	12.500	1.33	10299.271	10299.271	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180118M1_2	Standard	12.500	3.07	12361.655	12361.655	12.500	12.5	0.0	NO		NO	bb
2	2	180118M1_3	Standard	12.500	3.07	10466.128	10466.128	12.500	12.5	0.0	NO		NO	bb
3	3	180118M1_4	Standard	12.500	3.07	12489.865	12489.865	12.500	12.5	0.0	NO		NO	bb
4	4	180118M1_5	Standard	12.500	3.07	11243.905	11243.905	12.500	12.5	0.0	NO		NO	bb
5	5	180118M1_6	Standard	12.500	3.07	12256.104	12256.104	12.500	12.5	0.0	NO		NO	bb
6	6	180118M1_7	Standard	12.500	3.07	12170.751	12170.751	12.500	12.5	0.0	NO		NO	bb
7	7	180118M1_8	Standard	12.500	3.07	11962.639	11962.639	12.500	12.5	0.0	NO		NO	bb
8	8	180118M1_9	Standard	12.500	3.06	11108.530	11108.530	12.500	12.5	0.0	NO		NO	bb
9	9	180118M1_10	Standard	12.500	3.07	14657.479	14657.479	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	3.84	2834.296	2834.296	12.500	12.5	0.0	NO		NO	bb
2	2 180118M1_3	Standard	12.500	3.83	2942.607	2942.607	12.500	12.5	0.0	NO		NO	bb
3	3 180118M1_4	Standard	12.500	3.83	3237.604	3237.604	12.500	12.5	0.0	NO		NO	bb
4	4 180118M1_5	Standard	12.500	3.83	2771.926	2771.926	12.500	12.5	0.0	NO		NO	bb
5	5 180118M1_6	Standard	12.500	3.83	3365.293	3365.293	12.500	12.5	0.0	NO		NO	bb
6	6 180118M1_7	Standard	12.500	3.83	2991.450	2991.450	12.500	12.5	0.0	NO		NO	bb
7	7 180118M1_8	Standard	12.500	3.83	3018.176	3018.176	12.500	12.5	0.0	NO		NO	bb
8	8 180118M1_9	Standard	12.500	3.83	3591.982	3591.982	12.500	12.5	0.0	NO		NO	bb
9	9 180118M1_10	Standard	12.500	3.83	3694.003	3694.003	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	4.21	11045.427	11045.427	12.500	12.5	0.0	NO		NO	bb
2	2 180118M1_3	Standard	12.500	4.21	12613.450	12613.450	12.500	12.5	0.0	NO		NO	bb
3	3 180118M1_4	Standard	12.500	4.20	14387.428	14387.428	12.500	12.5	0.0	NO		NO	bb
4	4 180118M1_5	Standard	12.500	4.20	11420.492	11420.492	12.500	12.5	0.0	NO		NO	bb
5	5 180118M1_6	Standard	12.500	4.20	10777.910	10777.910	12.500	12.5	0.0	NO		NO	bb
6	6 180118M1_7	Standard	12.500	4.20	15538.602	15538.602	12.500	12.5	0.0	NO		NO	bb
7	7 180118M1_8	Standard	12.500	4.20	15096.650	15096.650	12.500	12.5	0.0	NO		NO	bb
8	8 180118M1_9	Standard	12.500	4.20	13016.104	13016.104	12.500	12.5	0.0	NO		NO	bb
9	9 180118M1_10	Standard	12.500	4.20	15015.451	15015.451	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	4.65	9974.009	9974.009	12.500	12.5	0.0	NO		NO	bb
2	2 180118M1_3	Standard	12.500	4.64	12552.051	12552.051	12.500	12.5	0.0	NO		NO	bb
3	3 180118M1_4	Standard	12.500	4.63	12388.794	12388.794	12.500	12.5	0.0	NO		NO	bb
4	4 180118M1_5	Standard	12.500	4.63	13680.797	13680.797	12.500	12.5	0.0	NO		NO	bb
5	5 180118M1_6	Standard	12.500	4.63	13627.233	13627.233	12.500	12.5	0.0	NO		NO	bb
6	6 180118M1_7	Standard	12.500	4.63	13850.425	13850.425	12.500	12.5	0.0	NO		NO	bb
7	7 180118M1_8	Standard	12.500	4.63	15464.554	15464.554	12.500	12.5	0.0	NO		NO	bb
8	8 180118M1_9	Standard	12.500	4.63	16580.219	16580.219	12.500	12.5	0.0	NO		NO	bb
9	9 180118M1_10	Standard	12.500	4.64	17313.514	17313.514	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	4.73	2620.023	2620.023	12.500	12.5	0.0	NO		NO	bb
2	2 180118M1_3	Standard	12.500	4.72	3352.441	3352.441	12.500	12.5	0.0	NO		NO	bb
3	3 180118M1_4	Standard	12.500	4.72	3017.950	3017.950	12.500	12.5	0.0	NO		NO	bb
4	4 180118M1_5	Standard	12.500	4.72	3071.438	3071.438	12.500	12.5	0.0	NO		NO	bb
5	5 180118M1_6	Standard	12.500	4.72	2808.995	2808.995	12.500	12.5	0.0	NO		NO	bb
6	6 180118M1_7	Standard	12.500	4.72	4291.462	4291.462	12.500	12.5	0.0	NO		NO	bb
7	7 180118M1_8	Standard	12.500	4.72	3225.207	3225.207	12.500	12.5	0.0	NO		NO	bb
8	8 180118M1_9	Standard	12.500	4.72	2642.108	2642.108	12.500	12.5	0.0	NO		NO	bb
9	9 180118M1_10	Standard	12.500	4.72	4242.597	4242.597	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	5.02	7212.510	7212.510	12.500	12.5	0.0	NO		NO	bb
2	2 180118M1_3	Standard	12.500	5.01	10647.363	10647.363	12.500	12.5	0.0	NO		NO	bb
3	3 180118M1_4	Standard	12.500	5.00	11171.487	11171.487	12.500	12.5	0.0	NO		NO	bb
4	4 180118M1_5	Standard	12.500	5.01	10998.669	10998.669	12.500	12.5	0.0	NO		NO	bb
5	5 180118M1_6	Standard	12.500	5.01	10219.353	10219.353	12.500	12.5	0.0	NO		NO	bb
6	6 180118M1_7	Standard	12.500	5.00	10522.795	10522.795	12.500	12.5	0.0	NO		NO	bb
7	7 180118M1_8	Standard	12.500	5.01	12381.811	12381.811	12.500	12.5	0.0	NO		NO	bb
8	8 180118M1_9	Standard	12.500	5.00	8602.176	8602.176	12.500	12.5	0.0	NO		NO	bb
9	9 180118M1_10	Standard	12.500	5.01	11283.332	11283.332	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C7-PFUdA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180118M1_2	Standard	12.500	5.34	16607.514	16607.514	12.500	12.5	0.0	NO		NO	bb
2	2 180118M1_3	Standard	12.500	5.34	16973.807	16973.807	12.500	12.5	0.0	NO		NO	bb
3	3 180118M1_4	Standard	12.500	5.33	11763.054	11763.054	12.500	12.5	0.0	NO		NO	bb
4	4 180118M1_5	Standard	12.500	5.33	9840.114	9840.114	12.500	12.5	0.0	NO		NO	bb
5	5 180118M1_6	Standard	12.500	5.33	13945.345	13945.345	12.500	12.5	0.0	NO		NO	bb
6	6 180118M1_7	Standard	12.500	5.33	16448.322	16448.322	12.500	12.5	0.0	NO		NO	bb
7	7 180118M1_8	Standard	12.500	5.33	12998.784	12998.784	12.500	12.5	0.0	NO		NO	bb
8	8 180118M1_9	Standard	12.500	5.33	10435.265	10435.265	12.500	12.5	0.0	NO		NO	bb
9	9 180118M1_10	Standard	12.500	5.33	17313.598	17313.598	12.500	12.5	0.0	NO		NO	bb

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 13:31:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-18-18-FULL.cdb 19 Jan 2018 09:30:24

Name: 180118M1_2, Date: 18-Jan-2018, Time: 15:36:48, ID: ST180118M1-1 PFC CS-2 18A0806, Description: PFC CS-2 18A0806

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBA	0.9975	NO	
2	2	PFPeA	0.9978	NO	
3	3	PFBS	0.9998	NO	
4	4	PFHxA	0.9939	NO	
5	5	PFHpA	0.9994	NO	
6	6	L-PFHxS	0.9969	NO	
7	8	6:2 FTS	0.9987	NO	
8	9	L-PFOA	0.9984	NO	
9	11	PFHpS	0.9966	NO	
10	12	PFNA	0.9911	NO	
11	13	PFOSA	0.9986	NO	
12	14	L-PFOS	0.9983	NO	
13	16	PFDA	0.9994	NO	
14	17	8:2 FTS	0.9980	NO	
15	18	N-MeFOSAA	0.9905	NO	
16	19	N-EtFOSAA	0.9953	NO	
17	20	PFUdA	0.9993	NO	
18	21	PFDS	0.9932	NO	
19	22	PFDoA	0.9990	NO	
20	23	N-MeFOSA	0.9995	NO	
21	24	PFTrDA	0.9958	NO	
22	25	PFTeDA	0.9984	NO	
23	26	N-EtFOSA	0.9997	NO	
24	27	PFHxDA	0.9971	NO	
25	28	PFODA	0.9989	NO	
26	29	N-MeFOSE	0.9993	NO	
27	30	N-EtFOSE	0.9944	NO	
28	31	13C3-PFBA		NO	1.599
29	32	13C3-PFPeA		NO	8.343
30	33	13C3-PFBS		NO	6.271
31	34	13C2-PFHxA		NO	9.642

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Name: 180118M1_2, Date: 18-Jan-2018, Time: 15:36:48, ID: ST180118M1-1 PFC CS-2 18A0806, Description: PFC CS-2 18A0806

	#	Name	CoD	CoD Flag	%RSD
32	35	13C4-PFHpA		NO	9.837
33	36	18O2-PFHxS		NO	10.022
34	37	13C2-6:2 FTS		NO	19.289
35	38	13C2-PFOA		NO	13.495
36	39	13C5-PFNA		NO	9.570
37	40	13C8-PFOSA		NO	15.696
38	41	13C8-PFOS		NO	13.157
39	42	13C2-PFDA		NO	13.833
40	43	13C2-8:2 FTS		NO	19.142
41	44	d3-N-MeFOSAA		NO	19.979
42	45	d5-N-EtFOSAA		NO	15.998
43	46	13C2-PFUdA		NO	18.162
44	47	13C2-PFDoA		NO	18.008
45	48	d3-N-MeFOSA		NO	18.391
46	49	13C2-PFTeDA		NO	19.831
47	50	d5-N-ETFOSA		NO	19.820
48	51	13C2-PFHxDA		NO	19.893
49	52	d7-N-MeFOSE		NO	18.813
50	53	d9-N-EtFOSE		NO	16.747
51	54	13C4-PFBA		NO	0.000
52	55	13C5-PFHxA		NO	0.000
53	56	13C3-PFHxS		NO	0.000
54	57	13C8-PFOA		NO	0.000
55	58	13C9-PFNA		NO	0.000
56	59	13C4-PFOS		NO	0.000
57	60	13C6-PFDA		NO	0.000
58	61	13C7-PFUdA		NO	0.000

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Last Altered: Friday, January 19, 2018 09:46:41 Pacific Standard Time
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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011818.mdb 18 Jan 2018 19:22:25
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-18-18-FULL.cdb 19 Jan 2018 09:30:24

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180118M1_1	IPA	18-Jan-18	15:25:26
2	180118M1_2	ST180118M1-1 PFC CS-2 18A0806	18-Jan-18	15:36:48
3	180118M1_3	ST180118M1-2 PFC CS-1 18A0807	18-Jan-18	15:48:15
4	180118M1_4	ST180118M1-3 PFC CS0 18A0808	18-Jan-18	15:59:42
5	180118M1_5	ST180118M1-4 PFC CS1 18A0809	18-Jan-18	16:11:12
6	180118M1_6	ST180118M1-5 PFC CS2 18A0810	18-Jan-18	16:22:39
7	180118M1_7	ST180118M1-6 PFC CS3 18A0811	18-Jan-18	16:34:06
8	180118M1_8	ST180118M1-7 PFC CS4 18A0812	18-Jan-18	16:45:33
9	180118M1_9	ST180118M1-8 PFC CS5 18A0813	18-Jan-18	16:57:03
10	180118M1_10	ST180118M1-9 PFC CS6 18A0814	18-Jan-18	17:08:30
11	180118M1_11	ST180118M1-10 PFC CS7 18A0815	18-Jan-18	17:19:57
12	180118M1_12	IPA	18-Jan-18	17:31:24
13	180118M1_13	ICV180118M1-1 PFC ICV 18A0805	18-Jan-18	17:42:50
14	180118M1_14	IPA	18-Jan-18	17:54:17

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180118M1\180118M1-13.qld

Last Altered: Friday, January 19, 2018 09:41:10 Pacific Standard Time
Printed: Friday, January 19, 2018 09:41:45 Pacific Standard Time

A Not included in SS.

AC 1/19/18

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011818.mdb 18 Jan 2018 19:22:25
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-18-18-FULL.cdb 19 Jan 2018 09:30:24

Name: 180118M1_13, Date: 18-Jan-2018, Time: 17:42:50, ID: ICV180118M1-1 PFC ICV 18A0805, Description: PFC ICV 18A0805

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBA	213.0 > 168.8	6.28e3	6.96e3	1.0000		1.34	1.34	11.3	9.969	99.7
2	2 PFPeA	263.1 > 218.9	7.10e3	9.22e3	1.0000		2.39	2.29	9.62	10.084	100.8
3	3 PFBS	299.0 > 79.7	1.54e3	1.17e3	1.0000		2.66	2.57	16.4	8.660	86.6
4	4 PFHxA	313.2 > 268.9	1.04e4	3.17e3	1.0000		3.16	3.07	16.4	10.450	104.5
5	5 PFHpA	363.0 > 318.9	8.55e3	8.13e3	1.0000		3.77	3.68	13.1	10.916	109.2
6	6 L-PFHxS	398.9 > 79.6	1.36e3	1.06e3	1.0000		3.92	3.83	16.0	7.906	79.1
7	8 6:2 FTS	427.1 > 407	1.80e3	1.06e3	1.0000		4.23	4.14	21.1	7.885	78.8
8	9 L-PFOA	413 > 368.7	8.94e3	1.51e4	1.0000		4.29	4.20	7.38	8.209	82.1
9	11 PFHpS	449 > 80.0	2.20e3	2.97e3	1.0000		4.40	4.31	9.27	8.297	83.0
10	12 PFNA	463.0 > 418.8	1.18e4	1.19e4	1.0000		4.72	4.63	12.4	11.405	114.1
11	13 PFOSA	498.1 > 77.8	1.68e3	2.14e3	1.0000		4.79	4.69	9.85	9.371	93.7
12	14 L-PFOS	499 > 79.9	2.48e3	2.97e3	1.0000		4.79	4.72	10.4	8.749	87.5
13	16 PFDA	513 > 468.8	1.05e4	1.06e4	1.0000		5.10	5.01	12.4	9.220	92.2
14	17 8:2 FTS	527 > 506.9	2.65e3	1.06e4	1.0000		5.06	4.97	3.13	9.696	97.0
15	18 N-MeFOSAA	570.1 > 419	3.24e3	3.76e3	1.0000		5.24	5.15	10.8	8.191	81.9
16	19 N-EtFOSAA	584.2 > 419	3.38e3	3.43e3	1.0000		5.40	5.31	12.3	10.285	102.9
17	20 PFUdA	563.0 > 518.9	1.03e4	1.34e4	1.0000		5.42	5.33	9.58	7.649	76.5
18	21 PFDS	598.8 > 80	2.72e3	9.84e3	1.0000		5.46	5.37	3.45	8.258	82.6
19	22 PFDoA	612.9 > 569.0	1.54e4	9.84e3	1.0000		5.70	5.61	19.6	10.561	105.6
20	23 N-MeFOSA	512.1 > 168.9		1.44e4	1.0000		5.79				A
21	24 PFTrDA	662.9 > 618.9	1.54e4	9.84e3	1.0000		5.94	5.86	19.6	8.554	85.5
22	25 PFTeDA	712.9 > 668.8	7.49e3	4.84e3	1.0000		6.16	6.08	19.3	8.008	80.1
23	26 N-EtFOSA	526.1 > 168.9		2.30e4	1.0000		6.17				A
24	27 PFHxDA	813.1 > 768.6		2.99e3	1.0000		6.48				
25	28 PFODA	913.1 > 868.8		2.99e3	1.0000		6.71				
26	29 N-MeFOSE	616.1 > 58.9		1.85e4	1.0000		6.31				
27	30 N-EtFOSE	630.1 > 58.9		1.80e4	1.0000		6.45				
28	31 13C3-PFBA	216.1 > 171.8	6.96e3	7.87e3	1.0000	0.872	1.34	1.34	11.1	12.686	101.5
29	32 13C3-PFPeA	266. > 221.8	9.22e3	1.23e4	1.0000	0.788	2.39	2.29	9.40	11.934	95.5
30	33 13C3-PFBS	302. > 98.8	1.17e3	1.23e4	1.0000	0.105	2.66	2.57	1.20	11.405	91.2
31	34 13C2-PFHxA	315 > 269.8	3.17e3	1.23e4	1.0000	0.685	3.16	3.06	3.24	4.721	94.4

70-130

Dataset: F:\Projects\PFAS.PRO\Results\180118M1\180118M1-13.qld

Last Altered: Friday, January 19, 2018 09:41:10 Pacific Standard Time
Printed: Friday, January 19, 2018 09:41:45 Pacific Standard Time

Name: 180118M1_13, Date: 18-Jan-2018, Time: 17:42:50, ID: ICV180118M1-1 PFC ICV 18A0805, Description: PFC ICV 18A0805

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35 13C4-PFHpA	367.2 > 321.8	8.13e3	1.23e4	1.0000	0.811	3.77	3.68	8.29	10.216	81.7
33	36 18O2-PFHxS	403.0 > 102.6	1.06e3	3.00e3	1.0000	0.371	3.92	3.82	4.44	11.962	95.7
34	37 13C2-6:2 FTS	429.1 > 408.9	2.27e3	1.35e4	1.0000	0.246	4.23	4.14	2.10	8.555	68.4
35	38 13C2-PFOA	414.9 > 369.7	1.51e4	1.35e4	1.0000	1.101	4.29	4.20	14.0	12.711	101.7
36	39 13C5-PFNA	468.2 > 422.9	1.19e4	1.23e4	1.0000	0.932	4.72	4.63	12.1	12.964	103.7
37	40 13C8-PFOSA	506.1 > 77.7	2.14e3	1.03e4	1.0000	0.176	4.79	4.69	2.60	14.756	118.0
38	41 13C8-PFOS	507.0 > 79.9	2.97e3	3.47e3	1.0000	1.047	4.80	4.71	10.7	10.207	81.7
39	42 13C2-PFDA	515.1 > 469.9	1.06e4	8.72e3	1.0000	1.178	5.10	5.00	15.2	12.859	102.9
40	43 13C2-8:2 FTS	529.1 > 508.7	1.64e3	1.23e4	1.0000	0.127	5.06	4.98	1.67	13.147	105.2
41	44 d3-N-MeFOSAA	573.3 > 419	3.76e3	1.03e4	1.0000	0.276	5.24	5.15	4.57	16.567	132.5
42	45 d5-N-EtFOSAA	589.3 > 419	3.43e3	1.03e4	1.0000	0.296	5.40	5.31	4.17	14.101	112.8
43	46 13C2-PFUdA	565 > 519.8	1.34e4	1.03e4	1.0000	1.054	5.42	5.33	16.3	15.495	124.0
44	47 13C2-PFDoA	615.0 > 569.7	9.84e3	1.03e4	1.0000	0.746	5.70	5.61	12.0	16.045	128.4
45	48 d3-N-MeFOSA	515.2 > 168.9	1.44e4	1.03e4	1.0000	0.098	5.79	5.74	17.5	177.824	118.5
46	49 13C2-PFTeDA	714.8 > 669.6	4.84e3	1.03e4	1.0000	0.390	6.16	6.08	5.89	15.121	121.0
47	50 d5-N-ETFOSA	531.1 > 168.9	2.30e4	1.03e4	1.0000	0.145	6.17	6.13	27.9	192.757	128.5
48	51 13C2-PFHxDA	815 > 769.7	2.99e3	1.03e4	1.0000	0.587	6.48	6.41	3.63	6.191	123.8
49	52 d7-N-MeFOSE	623.1 > 58.9	1.85e4	1.03e4	1.0000	0.138	6.31	6.26	22.5	162.719	108.5
50	53 d9-N-EtFOSE	639.2 > 58.8	1.80e4	1.03e4	1.0000	0.133	6.45	6.41	21.8	163.844	109.2
51	54 13C4-PFBA	217. > 171.8	7.87e3	7.87e3	1.0000	1.000	1.34	1.33	12.5	12.500	100.0
52	55 13C5-PFHxA	318 > 272.9	1.23e4	1.23e4	1.0000	1.000	3.16	3.06	12.5	12.500	100.0
53	56 13C3-PFHxS	401.9 > 79.9	3.00e3	3.00e3	1.0000	1.000	3.92	3.82	12.5	12.500	100.0
54	57 13C8-PFOA	421.3 > 376	1.35e4	1.35e4	1.0000	1.000	4.29	4.20	12.5	12.500	100.0
55	58 13C9-PFNA	472.2 > 426.9	1.23e4	1.23e4	1.0000	1.000	4.72	4.63	12.5	12.500	100.0
56	59 13C4-PFOS	503 > 79.9	3.47e3	3.47e3	1.0000	1.000	4.80	4.72	12.5	12.500	100.0
57	60 13C6-PFDA	519.1 > 473.7	8.72e3	8.72e3	1.0000	1.000	5.10	5.01	12.5	12.500	100.0
58	61 13C7-PFUdA	570.1 > 524.8	1.03e4	1.03e4	1.0000	1.000	5.42	5.33	12.5	12.500	100.0

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Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-CRV.qld

Last Altered: Friday, January 26, 2018 09:21:18 Pacific Standard Time
Printed: Friday, January 26, 2018 09:26:09 Pacific Standard Time

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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_012418.mdb 25 Jan 2018 11:07:33
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-25-18-FULL.cdb 26 Jan 2018 09:21:18

Compound name: PFBA
Correlation coefficient: r = 0.999666, r^2 = 0.999331
Calibration curve: 1.16878 * x + 0.0454111
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	0.250	1.40	308.600	12118.496	0.318	0.2	-6.6	NO	0.999	NO	bb
2	2	180125M1_3	Standard	0.500	1.40	584.338	11681.956	0.625	0.5	-0.8	NO	0.999	NO	bb
3	3	180125M1_4	Standard	1.000	1.40	1305.638	12962.398	1.259	1.0	3.8	NO	0.999	NO	bb
4	4	180125M1_5	Standard	2.000	1.40	2159.115	10869.919	2.483	2.1	4.3	NO	0.999	NO	bb
5	5	180125M1_6	Standard	5.000	1.41	5601.979	11689.071	5.991	5.1	1.7	NO	0.999	NO	bb
6	6	180125M1_7	Standard	10.000	1.40	12403.635	12597.677	12.307	10.5	4.9	NO	0.999	NO	bb
7	7	180125M1_8	Standard	50.000	1.35	60137.906	12093.022	62.162	53.1	6.3	NO	0.999	NO	bb
8	8	180125M1_9	Standard	100.000	1.35	120253.039	12473.643	120.507	103.1	3.1	NO	0.999	NO	bb
9	9	180125M1_10	Standard	210.000	1.34	211967.344	2139.672	247.663	211.9	0.9	NO	0.999	NO	bb
10	10	180125M1_11	Standard	420.000	1.34	432303.313	2248.294	480.701	411.2	-2.1	NO	0.999	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.999806, r^2 = 0.999611
Calibration curve: 0.993518 * x + 0.0828702
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	0.250	2.35	316.682	13088.159	0.302	0.2	-11.6	NO	1.000	NO	bb
2	2	180125M1_3	Standard	0.500	2.36	591.976	13162.983	0.562	0.5	-3.5	NO	1.000	NO	bb
3	3	180125M1_4	Standard	1.000	2.36	1227.693	14169.337	1.083	1.0	0.7	NO	1.000	NO	bb
4	4	180125M1_5	Standard	2.000	2.36	2178.229	13103.625	2.078	2.0	0.4	NO	1.000	NO	bb
5	5	180125M1_6	Standard	5.000	2.36	5271.654	12935.963	5.094	5.0	0.9	NO	1.000	NO	bb
6	6	180125M1_7	Standard	10.000	2.36	12750.899	14347.213	11.109	11.1	11.0	NO	1.000	NO	bb
7	7	180125M1_8	Standard	50.000	2.30	58664.422	14354.065	51.087	51.3	2.7	NO	1.000	NO	bb
8	8	180125M1_9	Standard	100.000	2.30	114626.781	14174.986	101.082	101.7	1.7	NO	1.000	NO	bb
9	9	180125M1_10	Standard	210.000	2.30	194558.453	2386.398	203.820	205.1	-2.3	NO	1.000	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-CRV.qld

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Compound name: PFPeA

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
10	10 180125M1_11	Standard	420.000	2.30	381280.063	2279.383	418.183	420.8	0.2	NO	1.000	NO	bb

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999316
Calibration curve: 0.000126473 * x^2 + 1.81075 * x + 0.0905384
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	0.250	2.63	72.476	1853.057	0.489	0.2	-12.0	NO	0.999	NO	bb
2	2 180125M1_3	Standard	0.500	2.63	134.283	1696.809	0.989	0.5	-0.7	NO	0.999	NO	bb
3	3 180125M1_4	Standard	1.000	2.64	286.211	1803.787	1.983	1.0	4.5	NO	0.999	NO	bb
4	4 180125M1_5	Standard	2.000	2.64	512.968	1685.030	3.805	2.1	2.6	NO	0.999	NO	bb
5	5 180125M1_6	Standard	5.000	2.64	1312.093	1704.244	9.624	5.3	5.3	NO	0.999	NO	bb
6	6 180125M1_7	Standard	10.000	2.63	2752.326	1982.626	17.353	9.5	-4.7	NO	0.999	NO	bb
7	7 180125M1_8	Standard	50.000	2.59	13865.382	1753.955	98.815	54.3	8.6	NO	0.999	NO	bb
8	8 180125M1_9	Standard	100.000	2.58	25227.275	1763.934	178.771	98.0	-2.0	NO	0.999	NO	bb
9	9 180125M1_10	Standard	210.000	2.58	43126.375	285.123	378.138	205.8	-2.0	NO	0.999	NO	bb
10	10 180125M1_11	Standard	420.000	2.58	80976.875	257.313	786.755	422.0	0.5	NO	0.999	NO	bb

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.997382
Calibration curve: -0.00125241 * x^2 + 1.86165 * x + -0.0910354
Response type: Internal Std (Ref 34), 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 180125M1_2	Standard	0.250	3.12	388.253	4327.028	0.449	0.3	16.0	NO	0.997	NO	bb
2	2 180125M1_3	Standard	0.500	3.12	745.411	4093.243	0.911	0.5	7.6	NO	0.997	NO	bb
3	3 180125M1_4	Standard	1.000	3.12	1533.336	4442.453	1.726	1.0	-2.3	NO	0.997	NO	bb
4	4 180125M1_5	Standard	2.000	3.13	2674.614	3661.307	3.653	2.0	0.7	NO	0.997	NO	bb
5	5 180125M1_6	Standard	5.000	3.12	7405.277	4401.181	8.413	4.6	-8.4	NO	0.997	NO	bb
6	6 180125M1_7	Standard	10.000	3.11	14307.619	4271.731	16.747	9.1	-9.0	NO	0.997	NO	bb
7	7 180125M1_8	Standard	50.000	3.08	70067.555	4173.145	83.951	46.6	-6.8	NO	0.997	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-CRV.qld

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Compound name: PFHxA

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
8	8	180125M1_9	Standard	100.000	3.07	133199.422	3983.650	167.183	96.1	-3.9	NO	0.997	NO	bb
9	9	180125M1_10	Standard	210.000	3.07	258326.109	717.088	360.243	228.8	8.9	NO	0.997	NO	bb
10	10	180125M1_11	Standard	420.000	3.07	472578.656	857.927	550.838	407.8	-2.9	NO	0.997	NO	bb

Compound name: PFHpA
Correlation coefficient: r = 0.997986, r^2 = 0.995976
Calibration curve: 1.31203 * x + 0.0964303
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	0.250	3.73	309.971	10734.581	0.361	0.2	-19.4	NO	0.996	NO	bb
2	2	180125M1_3	Standard	0.500	3.74	627.528	11416.730	0.687	0.5	-10.0	NO	0.996	NO	bb
3	3	180125M1_4	Standard	1.000	3.74	1191.758	11333.792	1.314	0.9	-7.2	NO	0.996	NO	bb
4	4	180125M1_5	Standard	2.000	3.74	2412.540	9497.099	3.175	2.3	17.3	NO	0.996	NO	bb
5	5	180125M1_6	Standard	5.000	3.74	5153.271	9694.273	6.645	5.0	-0.2	NO	0.996	NO	bb
6	6	180125M1_7	Standard	10.000	3.73	13357.427	10653.151	15.673	11.9	18.7	NO	0.996	NO	bb
7	7	180125M1_8	Standard	50.000	3.69	57249.250	10240.683	69.880	53.2	6.4	NO	0.996	NO	bb
8	8	180125M1_9	Standard	100.000	3.69	111714.727	10581.890	131.965	100.5	0.5	NO	0.996	NO	bb
9	9	180125M1_10	Standard	210.000	3.69	200733.641	2018.373	248.633	189.4	-9.8	NO	0.996	NO	bb
10	10	180125M1_11	Standard	420.000	3.69	376083.250	1647.698	570.619	434.8	3.5	NO	0.996	NO	bb

Compound name: L-PFHxS
Correlation coefficient: r = 0.997578, r^2 = 0.995161
Calibration curve: 1.85739 * x + -0.0273852
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	0.250	3.89	48.047	1291.943	0.465	0.3	6.0	NO	0.995	NO	MM
2	2	180125M1_3	Standard	0.500	3.89	92.761	1338.583	0.866	0.5	-3.8	NO	0.995	NO	MM
3	3	180125M1_4	Standard	1.000	3.89	200.265	1368.078	1.830	1.0	-0.0	NO	0.995	NO	MM
4	4	180125M1_5	Standard	2.000	3.89	364.211	1262.543	3.606	2.0	-2.2	NO	0.995	NO	MM
5	5	180125M1_6	Standard	5.000	3.89	923.196	1463.226	7.887	4.3	-14.8	NO	0.995	NO	MM

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Compound name: L-PFHxS

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
6	6 180125M1_7	Standard	10.000	3.88	2000.136	1422.179	17.580	9.5	-5.2	NO	0.995	NO	MM
7	7 180125M1_8	Standard	50.000	3.84	10185.841	1209.670	105.254	56.7	13.4	NO	0.995	NO	MM
8	8 180125M1_9	Standard	100.000	3.85	20869.775	1231.511	211.831	114.1	14.1	NO	0.995	NO	MM
9	9 180125M1_10	Standard	210.000	3.84	32902.148	223.602	367.865	198.1	-5.7	NO	0.995	NO	MM
10	10 180125M1_11	Standard	420.000	3.84	64177.070	209.419	766.132	412.5	-1.8	NO	0.995	NO	MM

Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.995295
Calibration curve: -8.69966e-005 * x^2 + 0.241453 * x + 0.0165164
Response type: Internal Std (Ref 38), 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 180125M1_2	Standard	0.250	4.20	90.862	13666.232	0.083	0.3	10.3	NO	0.995	NO	bb
2	2 180125M1_3	Standard	0.500	4.20	193.769	15252.614	0.159	0.6	17.9	NO	0.995	NO	bb
3	3 180125M1_4	Standard	1.000	4.20	302.940	16483.586	0.230	0.9	-11.7	NO	0.995	NO	bb
4	4 180125M1_5	Standard	2.000	4.20	621.335	14131.144	0.550	2.2	10.5	NO	0.995	NO	bb
5	5 180125M1_6	Standard	5.000	4.20	1376.427	14657.059	1.174	4.8	-4.0	NO	0.995	NO	bb
6	6 180125M1_7	Standard	10.000	4.19	3381.353	18369.568	2.301	9.5	-5.1	NO	0.995	NO	bb
7	7 180125M1_8	Standard	50.000	4.16	18476.959	16254.535	14.209	60.1	20.2	NO	0.995	NO	bb
8	8 180125M1_9	Standard	100.000	4.16	27360.176	16387.031	20.870	89.2	-10.8	NO	0.995	NO	bb
9	9 180125M1_10	Standard	210.000	4.16	57438.004	3075.617	46.688	209.0	-0.5	NO	0.995	NO	bb
10	10 180125M1_11	Standard	420.000	4.15	97047.703	2805.478	86.481	422.4	0.6	NO	0.995	NO	bb

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Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.998687
Calibration curve: -0.000234103 * x^2 + 0.929144 * x + 0.149021
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	0.250	4.25	350.571	13666.232	0.321	0.2	-26.1	NO	0.999	NO	bb
2	2 180125M1_3	Standard	0.500	4.25	690.536	15252.614	0.566	0.4	-10.3	NO	0.999	NO	bb
3	3 180125M1_4	Standard	1.000	4.25	1598.777	16483.586	1.212	1.1	14.5	NO	0.999	NO	bb
4	4 180125M1_5	Standard	2.000	4.26	2450.947	14131.144	2.168	2.2	8.7	NO	0.999	NO	bb
5	5 180125M1_6	Standard	5.000	4.25	5876.042	14657.059	5.011	5.2	4.8	NO	0.999	NO	bb
6	6 180125M1_7	Standard	10.000	4.24	14341.305	18369.568	9.759	10.4	3.7	NO	0.999	NO	bb
7	7 180125M1_8	Standard	50.000	4.22	64010.469	16254.535	49.225	53.5	7.1	NO	0.999	NO	bb
8	8 180125M1_9	Standard	100.000	4.22	120948.094	16387.031	92.259	101.7	1.7	NO	0.999	NO	bb
9	9 180125M1_10	Standard	210.000	4.21	215880.984	3075.617	175.478	198.6	-5.4	NO	0.999	NO	bb
10	10 180125M1_11	Standard	420.000	4.21	396210.125	2805.478	353.068	425.4	1.3	NO	0.999	NO	bb

Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999034
Calibration curve: -6.1344e-005 * x^2 + 1.01558 * x + 0.00690578
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	0.250	4.36	67.972	3833.215	0.222	0.2	-15.4	NO	0.999	NO	bb
2	2 180125M1_3	Standard	0.500	4.36	157.002	2993.193	0.656	0.6	27.8	NO	0.999	NO	bb
3	3 180125M1_4	Standard	1.000	4.36	252.308	4230.229	0.746	0.7	-27.3	NO	0.999	NO	bb
4	4 180125M1_5	Standard	2.000	4.37	667.094	3776.813	2.208	2.2	8.4	NO	0.999	NO	bb
5	5 180125M1_6	Standard	5.000	4.36	1550.057	3518.063	5.507	5.4	8.4	NO	0.999	NO	bb
6	6 180125M1_7	Standard	10.000	4.35	3149.948	4176.231	9.428	9.3	-7.2	NO	0.999	NO	bb
7	7 180125M1_8	Standard	50.000	4.33	15992.317	3630.818	55.058	54.4	8.8	NO	0.999	NO	bb
8	8 180125M1_9	Standard	100.000	4.33	30099.771	3793.851	99.173	98.2	-1.8	NO	0.999	NO	bb
9	9 180125M1_10	Standard	210.000	4.32	53677.039	651.162	206.082	205.5	-2.2	NO	0.999	NO	bb
10	10 180125M1_11	Standard	420.000	4.32	92717.813	554.686	417.884	422.2	0.5	NO	0.999	NO	bb

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Compound name: PFNA
Coefficient of Determination: R^2 = 0.995879
Calibration curve: -0.000670646 * x^2 + 1.40666 * x + -0.147618
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	0.250	4.68	309.808	13638.391	0.284	0.3	22.7	NO	0.996	NO	bb
2	2	180125M1_3	Standard	0.500	4.68	646.598	13458.755	0.601	0.5	6.4	NO	0.996	NO	bb
3	3	180125M1_4	Standard	1.000	4.68	1633.776	16525.070	1.236	1.0	-1.6	NO	0.996	NO	bb
4	4	180125M1_5	Standard	2.000	4.69	2647.577	12239.771	2.704	2.0	1.5	NO	0.996	NO	bb
5	5	180125M1_6	Standard	5.000	4.68	6814.438	15424.028	5.523	4.0	-19.2	NO	0.996	NO	bb
6	6	180125M1_7	Standard	10.000	4.67	14994.421	13702.806	13.678	9.9	-1.2	NO	0.996	NO	bb
7	7	180125M1_8	Standard	50.000	4.65	77183.938	16163.854	59.689	43.4	-13.1	NO	0.996	NO	bb
8	8	180125M1_9	Standard	100.000	4.65	152206.109	14554.074	130.725	97.6	-2.4	NO	0.996	NO	bb
9	9	180125M1_10	Standard	210.000	4.65	278502.781	2412.236	288.636	230.7	9.8	NO	0.996	NO	bb
10	10	180125M1_11	Standard	420.000	4.65	469700.094	2537.961	462.675	408.6	-2.7	NO	0.996	NO	bb

Compound name: PFOSA
Correlation coefficient: r = 0.999432, r^2 = 0.998865
Calibration curve: 1.10662 * x + 0.0970099
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	0.250	4.74	93.321	3413.635	0.342	0.2	-11.5	NO	0.999	NO	bb
2	2	180125M1_3	Standard	0.500	4.75	171.533	4067.377	0.527	0.4	-22.3	NO	0.999	NO	bb
3	3	180125M1_4	Standard	1.000	4.75	415.429	4642.212	1.119	0.9	-7.7	NO	0.999	NO	bb
4	4	180125M1_5	Standard	2.000	4.75	884.320	3761.316	2.939	2.6	28.4	NO	0.999	NO	bb
5	5	180125M1_6	Standard	5.000	4.75	1700.699	3458.108	6.148	5.5	9.4	NO	0.999	NO	bb
6	6	180125M1_7	Standard	10.000	4.74	4314.056	4702.252	11.468	10.3	2.8	NO	0.999	NO	bb
7	7	180125M1_8	Standard	50.000	4.71	20958.693	4732.331	55.360	49.9	-0.1	NO	0.999	NO	bb
8	8	180125M1_9	Standard	100.000	4.71	38981.691	4269.404	114.131	103.0	3.0	NO	0.999	NO	bb
9	9	180125M1_10	Standard	210.000	4.71	69082.414	757.569	227.974	205.9	-1.9	NO	0.999	NO	bb
10	10	180125M1_11	Standard	420.000	4.71	129451.336	742.590	435.810	393.7	-6.3	NO	0.999	NO	bbX

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Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.998190
Calibration curve: 0.000239982 * x^2 + 1.02704 * x + 0.0316742
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	0.250	4.76	67.630	3833.215	0.221	0.2	-26.4	NO	0.998	NO	MM
2	2 180125M1_3	Standard	0.500	4.76	149.799	2993.193	0.626	0.6	15.6	NO	0.998	NO	MM
3	3 180125M1_4	Standard	1.000	4.76	391.034	4230.229	1.155	1.1	9.4	NO	0.998	NO	MM
4	4 180125M1_5	Standard	2.000	4.77	564.434	3776.813	1.868	1.8	-10.6	NO	0.998	NO	MM
5	5 180125M1_6	Standard	5.000	4.76	1482.963	3518.063	5.269	5.1	1.9	NO	0.998	NO	MM
6	6 180125M1_7	Standard	10.000	4.75	3499.815	4176.231	10.475	10.1	1.4	NO	0.998	NO	MM
7	7 180125M1_8	Standard	50.000	4.74	17154.057	3630.818	59.057	56.7	13.4	NO	0.998	NO	MM
8	8 180125M1_9	Standard	100.000	4.74	31572.254	3793.851	104.024	99.0	-1.0	NO	0.998	NO	MM
9	9 180125M1_10	Standard	210.000	4.74	56067.051	651.162	215.258	200.2	-4.7	NO	0.998	NO	MM
10	10 180125M1_11	Standard	420.000	4.73	106201.367	554.686	478.655	424.0	1.0	NO	0.998	NO	MM

Compound name: PFDA
Coefficient of Determination: R^2 = 0.999185
Calibration curve: -0.00154494 * x^2 + 1.58288 * x + -0.201026
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	0.250	5.05	294.996	12213.221	0.302	0.3	27.1	NO	0.999	NO	MM
2	2 180125M1_3	Standard	0.500	5.05	667.232	13253.231	0.629	0.5	5.0	NO	0.999	NO	bb
3	3 180125M1_4	Standard	1.000	5.05	1560.924	14742.522	1.323	1.0	-3.6	NO	0.999	NO	bb
4	4 180125M1_5	Standard	2.000	5.06	3037.312	16071.077	2.362	1.6	-18.9	NO	0.999	NO	bb
5	5 180125M1_6	Standard	5.000	5.05	6493.323	10315.772	7.868	5.1	2.5	NO	0.999	NO	bb
6	6 180125M1_7	Standard	10.000	5.04	14325.914	13473.002	13.291	8.6	-14.0	NO	0.999	NO	bb
7	7 180125M1_8	Standard	50.000	5.02	81013.383	13326.184	75.991	50.6	1.3	NO	0.999	NO	bb
8	8 180125M1_9	Standard	100.000	5.03	141107.688	12437.072	141.822	99.4	-0.6	NO	0.999	NO	bb
9	9 180125M1_10	Standard	210.000	5.03	265436.438	2470.590	268.596	214.9	2.3	NO	0.999	NO	bb
10	10 180125M1_11	Standard	420.000	5.03	479963.313	3077.022	389.958	412.8	-1.7	NO	0.999	NO	bb

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Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.996250
Calibration curve: -0.000508287 * x^2 + 0.355029 * x + -0.0140533
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	0.250	5.03	87.528	12213.221	0.090	0.3	16.8	NO	0.996	NO	bb
2	2 180125M1_3	Standard	0.500	5.03	123.859	13253.231	0.117	0.4	-26.2	NO	0.996	NO	bb
3	3 180125M1_4	Standard	1.000	5.03	381.871	14742.522	0.324	1.0	-4.7	NO	0.996	NO	bb
4	4 180125M1_5	Standard	2.000	5.03	774.348	16071.077	0.602	1.7	-13.0	NO	0.996	NO	bb
5	5 180125M1_6	Standard	5.000	5.03	1824.499	10315.772	2.211	6.3	26.5	NO	0.996	NO	bb
6	6 180125M1_7	Standard	10.000	5.01	3224.001	13473.002	2.991	8.6	-14.3	NO	0.996	NO	bb
7	7 180125M1_8	Standard	50.000	4.99	16748.723	13326.184	15.710	47.5	-5.0	NO	0.996	NO	bb
8	8 180125M1_9	Standard	100.000	5.00	31648.000	12437.072	31.808	105.6	5.6	NO	0.996	NO	bb
9	9 180125M1_10	Standard	210.000	4.99	51044.887	2470.590	51.653	206.7	-1.6	NO	0.996	NO	bb
10	10 180125M1_11	Standard	420.000	4.99	88978.711	3077.022	72.293			NO	0.996	NO	bbXI

Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.998422
Calibration curve: -0.00148701 * x^2 + 1.56106 * x + -0.0316396
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	0.250	5.20	245.807	6597.556	0.466	0.3	27.5	NO	0.998	NO	bb
2	2 180125M1_3	Standard	0.500	5.20	355.696	6611.294	0.673	0.5	-9.7	NO	0.998	NO	bb
3	3 180125M1_4	Standard	1.000	5.20	804.584	6896.851	1.458	1.0	-4.5	NO	0.998	NO	bb
4	4 180125M1_5	Standard	2.000	5.21	1342.297	5972.174	2.809	1.8	-8.8	NO	0.998	NO	bb
5	5 180125M1_6	Standard	5.000	5.20	3271.936	5837.321	7.007	4.5	-9.4	NO	0.998	NO	bb
6	6 180125M1_7	Standard	10.000	5.19	7711.345	6872.865	14.025	9.1	-9.2	NO	0.998	NO	bb
7	7 180125M1_8	Standard	50.000	5.17	40783.020	6539.650	77.953	52.6	5.2	NO	0.998	NO	bb
8	8 180125M1_9	Standard	100.000	5.18	74472.773	6321.353	147.264	104.8	4.8	NO	0.998	NO	bb
9	9 180125M1_10	Standard	210.000	5.17	130308.891	1296.036	251.360	198.6	-5.4	NO	0.998	NO	bb
10	10 180125M1_11	Standard	420.000	5.17	229277.594	1444.180	396.899	432.2	2.9	NO	0.998	NO	bb

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Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999157
Calibration curve: -0.000873965 * x^2 + 1.12213 * x + -0.0632016
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	0.250	5.36	84.857	6949.490	0.153	0.2	-23.1	NO	0.999	NO	bb
2	2 180125M1_3	Standard	0.500	5.36	267.264	6655.562	0.502	0.5	0.8	NO	0.999	NO	bb
3	3 180125M1_4	Standard	1.000	5.36	773.846	8370.170	1.156	1.1	8.7	NO	0.999	NO	bb
4	4 180125M1_5	Standard	2.000	5.36	1066.159	6421.964	2.075	1.9	-4.6	NO	0.999	NO	bb
5	5 180125M1_6	Standard	5.000	5.36	2931.412	7291.768	5.025	4.6	-9.0	NO	0.999	NO	bb
6	6 180125M1_7	Standard	10.000	5.35	7119.624	7574.845	11.749	10.6	6.1	NO	0.999	NO	bb
7	7 180125M1_8	Standard	50.000	5.34	30957.299	7467.949	51.817	48.0	-3.9	NO	0.999	NO	bb
8	8 180125M1_9	Standard	100.000	5.34	56243.547	6619.863	106.202	103.0	3.0	NO	0.999	NO	bb
9	9 180125M1_10	Standard	210.000	5.33	92441.211	1178.022	196.179	208.9	-0.5	NO	0.999	NO	bb
10	10 180125M1_11	Standard	420.000	5.33	169442.813	871.253	486.204			NO	0.999	NO	bbXI

Compound name: PFUdA
Coefficient of Determination: R^2 = 0.995501
Calibration curve: -0.00062833 * x^2 + 1.08341 * x + 0.257772
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	0.250	5.37	348.009	16243.524	0.268	0.0	-96.3	YES	0.996	NO	bbX
2	2 180125M1_3	Standard	0.500	5.37	786.567	12389.071	0.794	0.5	-1.1	NO	0.996	NO	bb
3	3 180125M1_4	Standard	1.000	5.37	1656.199	19054.553	1.086	0.8	-23.5	NO	0.996	NO	bb
4	4 180125M1_5	Standard	2.000	5.37	2699.369	13306.267	2.536	2.1	5.3	NO	0.996	NO	bb
5	5 180125M1_6	Standard	5.000	5.37	6113.451	13673.215	5.589	4.9	-1.3	NO	0.996	NO	bb
6	6 180125M1_7	Standard	10.000	5.36	15232.932	13549.074	14.053	12.8	28.3	NO	0.996	NO	bb
7	7 180125M1_8	Standard	50.000	5.35	68955.930	18092.631	47.641	44.9	-10.2	NO	0.996	NO	bb
8	8 180125M1_9	Standard	100.000	5.35	140577.703	16765.213	104.814	102.6	2.6	NO	0.996	NO	bb
9	9 180125M1_10	Standard	210.000	5.35	235045.375	2938.439	199.975	209.9	-0.1	NO	0.996	NO	bb
10	10 180125M1_11	Standard	420.000	5.35	440395.125	2910.853	378.235	485.7	15.6	NO	0.996	NO	bbX

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Compound name: PFDS
Correlation coefficient: r = 0.997865, r^2 = 0.995734
Calibration curve: 0.364452 * x + 0.0384523
Response type: Internal Std (Ref 47), 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 180125M1_2	Standard	0.250	5.41	65.420	11067.724	0.074	0.1	-61.1	YES	0.996	NO	bbX
2	2 180125M1_3	Standard	0.500	5.42	143.376	10700.879	0.167	0.4	-29.2	NO	0.996	NO	bb
3	3 180125M1_4	Standard	1.000	5.42	378.810	11579.887	0.409	1.0	1.6	NO	0.996	NO	bb
4	4 180125M1_5	Standard	2.000	5.42	786.665	11209.014	0.877	2.3	15.1	NO	0.996	NO	bb
5	5 180125M1_6	Standard	5.000	5.42	1813.505	11620.383	1.951	5.2	4.9	NO	0.996	NO	bb
6	6 180125M1_7	Standard	10.000	5.41	4362.900	12200.239	4.470	12.2	21.6	NO	0.996	NO	bb
7	7 180125M1_8	Standard	50.000	5.40	18343.648	11585.384	19.792	54.2	8.4	NO	0.996	NO	bb
8	8 180125M1_9	Standard	100.000	5.40	35587.371	11776.407	37.774	103.5	3.5	NO	0.996	NO	bb
9	9 180125M1_10	Standard	210.000	5.40	61795.676	2121.748	72.812	199.7	-4.9	NO	0.996	NO	bb
10	10 180125M1_11	Standard	420.000	5.40	103344.406	2443.002	105.756	290.1	-30.9	YES	0.996	NO	bbX

Compound name: PFDoA
Coefficient of Determination: R^2 = 0.995048
Calibration curve: -0.00133232 * x^2 + 1.81115 * x + -0.00450441
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	0.250	5.65	435.357	11067.724	0.492	0.3	9.6	NO	0.995	NO	bb
2	2 180125M1_3	Standard	0.500	5.65	868.394	10700.879	1.014	0.6	12.6	NO	0.995	NO	bb
3	3 180125M1_4	Standard	1.000	5.65	1332.542	11579.887	1.438	0.8	-20.3	NO	0.995	NO	bb
4	4 180125M1_5	Standard	2.000	5.65	3384.488	11209.014	3.774	2.1	4.5	NO	0.995	NO	bb
5	5 180125M1_6	Standard	5.000	5.65	7196.437	11620.383	7.741	4.3	-14.2	NO	0.995	NO	bb
6	6 180125M1_7	Standard	10.000	5.64	16923.545	12200.239	17.339	9.6	-3.6	NO	0.995	NO	bb
7	7 180125M1_8	Standard	50.000	5.63	91970.875	11585.384	99.232	57.2	14.4	NO	0.995	NO	bb
8	8 180125M1_9	Standard	100.000	5.63	164786.953	11776.407	174.912	104.6	4.6	NO	0.995	NO	bb
9	9 180125M1_10	Standard	210.000	5.63	249029.672	2121.748	293.425	188.0	-10.5	NO	0.995	NO	bb
10	10 180125M1_11	Standard	420.000	5.63	524406.750	2443.002	536.642	436.4	3.9	NO	0.995	NO	bb

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Compound name: N-MeFOSA
Coefficient of Determination: R^2 = 0.999797
Calibration curve: -0.00019409 * x^2 + 1.10021 * x + 0.0141743
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 180125M1_2	Standard	1.250	5.76	178.832	19877.652	1.349	1.2	-2.9	NO	1.000	NO	bb
2	2 180125M1_3	Standard	2.500	5.76	355.288	18842.969	2.828	2.6	2.4	NO	1.000	NO	bb
3	3 180125M1_4	Standard	5.000	5.76	737.545	21203.770	5.218	4.7	-5.3	NO	1.000	NO	bb
4	4 180125M1_5	Standard	10.000	5.77	1341.628	17122.461	11.753	10.7	6.9	NO	1.000	NO	bb
5	5 180125M1_6	Standard	25.000	5.76	3258.343	18808.795	25.985	23.7	-5.2	NO	1.000	NO	bb
6	6 180125M1_7	Standard	50.000	5.75	8343.312	21517.822	58.161	53.4	6.7	NO	1.000	NO	bb
7	7 180125M1_8	Standard	250.000	5.72	36648.637	21339.939	257.606	244.7	-2.1	NO	1.000	NO	bb
8	8 180125M1_9	Standard	500.000	5.72	71028.383	21121.996	504.415	503.1	0.6	NO	1.000	NO	bb
9	9 180125M1_10	Standard	1050.000	5.71	122342.164	3899.974	941.100	1049.8	-0.0	NO	1.000	NO	bb
10	10 180125M1_11	Standard	2100.000	5.71	220546.438	4548.952	1454.487	2099.9	-0.0	NO	1.000	NO	bb

Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.996784
Calibration curve: -0.00097199 * x^2 + 1.76608 * x + 0.0094733
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	0.250	5.89	410.086	11067.724	0.463	0.3	2.8	NO	0.997	NO	bb
2	2 180125M1_3	Standard	0.500	5.89	913.652	10700.879	1.067	0.6	19.8	NO	0.997	NO	bb
3	3 180125M1_4	Standard	1.000	5.89	1556.789	11579.887	1.680	0.9	-5.3	NO	0.997	NO	bb
4	4 180125M1_5	Standard	2.000	5.90	3248.780	11209.014	3.623	2.0	2.4	NO	0.997	NO	bb
5	5 180125M1_6	Standard	5.000	5.89	8684.110	11620.383	9.341	5.3	6.0	NO	0.997	NO	bb
6	6 180125M1_7	Standard	10.000	5.89	13712.988	12200.239	14.050	8.0	-20.1	NO	0.997	NO	bb
7	7 180125M1_8	Standard	50.000	5.88	71830.906	11585.384	77.502	45.0	-10.0	NO	0.997	NO	bb
8	8 180125M1_9	Standard	100.000	5.88	155464.188	11776.407	165.017	98.8	-1.2	NO	0.997	NO	bb
9	9 180125M1_10	Standard	210.000	5.88	298011.125	2121.748	351.139	227.2	8.2	NO	0.997	NO	bb
10	10 180125M1_11	Standard	420.000	5.88	547494.125	2443.002	560.268	409.5	-2.5	NO	0.997	NO	bb

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Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.998046
Calibration curve: 0.00144968 * x^2 + 2.49715 * x + 0.103779
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	180125M1_2	Standard	0.250	6.11	247.860	4792.661	0.646	0.2	-13.1	NO	0.998	NO	bb
2	2	180125M1_3	Standard	0.500	6.11	487.917	5334.590	1.143	0.4	-16.8	NO	0.998	NO	bb
3	3	180125M1_4	Standard	1.000	6.11	1288.327	5292.026	3.043	1.2	17.6	NO	0.998	NO	bb
4	4	180125M1_5	Standard	2.000	6.11	2027.692	5029.292	5.040	2.0	-1.3	NO	0.998	NO	bb
5	5	180125M1_6	Standard	5.000	6.11	4641.325	4302.676	13.484	5.3	6.8	NO	0.998	NO	bb
6	6	180125M1_7	Standard	10.000	6.10	10169.075	4556.227	27.899	11.1	10.6	NO	0.998	NO	bb
7	7	180125M1_8	Standard	50.000	6.10	50070.457	5131.559	121.967	47.5	-5.0	NO	0.998	NO	bb
8	8	180125M1_9	Standard	100.000	6.10	115917.695	5420.510	267.313	101.1	1.1	NO	0.998	NO	bb
9	9	180125M1_10	Standard	210.000	6.09	189318.656	1683.738	281.099	106.0	-49.5	YES	0.998	NO	bbX
10	10	180125M1_11	Standard	420.000	6.09	295387.344	2145.147	344.251	128.3	-69.5	YES	0.998	NO	bbX

Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999699
Calibration curve: -6.32491e-005 * x^2 + 0.896108 * x + 0.22759
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	180125M1_2	Standard	1.250	6.15	245.501	29314.545	1.256	1.1	-8.2	NO	1.000	NO	bb
2	2	180125M1_3	Standard	2.500	6.15	439.668	28559.652	2.309	2.3	-7.1	NO	1.000	NO	bb
3	3	180125M1_4	Standard	5.000	6.15	998.928	31683.512	4.729	5.0	0.5	NO	1.000	NO	bb
4	4	180125M1_5	Standard	10.000	6.15	1677.965	26943.764	9.341	10.2	1.8	NO	1.000	NO	bb
5	5	180125M1_6	Standard	25.000	6.15	4381.252	27439.885	23.950	26.5	6.1	NO	1.000	NO	bb
6	6	180125M1_7	Standard	50.000	6.14	10208.691	32332.996	47.360	52.8	5.6	NO	1.000	NO	bb
7	7	180125M1_8	Standard	250.000	6.12	47562.891	31495.275	226.524	257.2	2.9	NO	1.000	NO	bb
8	8	180125M1_9	Standard	500.000	6.12	88559.297	30670.613	433.115	500.8	0.2	NO	1.000	NO	bb
9	9	180125M1_10	Standard	1050.000	6.12	150401.094	5295.445	852.059	1024.7	-2.4	NO	1.000	NO	bb
10	10	180125M1_11	Standard	2100.000	6.12	272301.594	5068.183	1611.830	2113.8	0.7	NO	1.000	NO	bb

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Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.993324
Calibration curve: -0.00283125 * x^2 + 0.833729 * x + 0.0271318
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 180125M1_2	Standard	0.250	6.43	192.887	3632.566	0.265	0.3	14.5	NO	0.993	NO	bb
2	2 180125M1_3	Standard	0.500	6.43	298.275	3325.745	0.448	0.5	1.2	NO	0.993	NO	bb
3	3 180125M1_4	Standard	1.000	6.44	646.152	3761.519	0.859	1.0	0.1	NO	0.993	NO	bb
4	4 180125M1_5	Standard	2.000	6.43	1151.687	3273.500	1.759	2.1	4.6	NO	0.993	NO	bb
5	5 180125M1_6	Standard	5.000	6.43	2681.341	3603.633	3.720	4.5	-10.0	NO	0.993	NO	bb
6	6 180125M1_7	Standard	10.000	6.43	4575.618	3397.328	6.734	8.3	-17.2	NO	0.993	NO	bb
7	7 180125M1_8	Standard	50.000	6.43	27667.635	3678.375	37.609	55.6	11.1	NO	0.993	NO	bb
8	8 180125M1_9	Standard	100.000	6.43	46111.156	4289.067	53.754	95.3	-4.7	NO	0.993	NO	bb
9	9 180125M1_10	Standard	210.000	6.43	80689.477	1316.149	61.307	141.4	-32.7	YES	0.993	NO	bbX
10	10 180125M1_11	Standard	420.000	6.43	151069.578	2053.556	73.565			NO	0.993	YES	bbXI

Compound name: PFODA
Coefficient of Determination: R^2 = 0.997286
Calibration curve: -0.0015644 * x^2 + 0.866231 * x + 0.00122725
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	0.250	6.66	127.346	3632.566	0.175	0.2	-19.6	NO	0.997	NO	bb
2	2 180125M1_3	Standard	0.500	6.66	323.788	3325.745	0.487	0.6	12.2	NO	0.997	NO	bb
3	3 180125M1_4	Standard	1.000	6.67	634.517	3761.519	0.843	1.0	-2.6	NO	0.997	NO	bb
4	4 180125M1_5	Standard	2.000	6.66	1245.095	3273.500	1.902	2.2	10.1	NO	0.997	NO	bb
5	5 180125M1_6	Standard	5.000	6.66	2785.529	3603.633	3.865	4.5	-10.1	NO	0.997	NO	bb
6	6 180125M1_7	Standard	10.000	6.66	6555.881	3397.328	9.649	11.4	13.7	NO	0.997	NO	bb
7	7 180125M1_8	Standard	50.000	6.66	27840.299	3678.375	37.843	47.8	-4.4	NO	0.997	NO	bb
8	8 180125M1_9	Standard	100.000	6.66	61473.844	4289.067	71.663	101.2	1.2	NO	0.997	NO	bb
9	9 180125M1_10	Standard	210.000	6.66	102155.234	1316.149	77.617	112.4	-46.5	YES	0.997	NO	bbX
10	10 180125M1_11	Standard	420.000	6.66	187385.703	2053.556	91.249	141.5	-66.3	YES	0.997	NO	bbX

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Compound name: N-MeFOSE
Correlation coefficient: r = 0.998948, r^2 = 0.997896
Calibration curve: 0.994351 * x + 0.0138182
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	1.250	6.28	188.716	23019.270	1.230	1.2	-2.2	NO	0.998	NO	bb
2	2 180125M1_3	Standard	2.500	6.28	410.914	23396.316	2.634	2.6	5.4	NO	0.998	NO	bb
3	3 180125M1_4	Standard	5.000	6.28	948.814	27139.652	5.244	5.3	5.2	NO	0.998	NO	bb
4	4 180125M1_5	Standard	10.000	6.28	1354.889	25696.836	7.909	7.9	-20.6	NO	0.998	NO	bb
5	5 180125M1_6	Standard	25.000	6.28	3510.526	20923.910	25.166	25.3	1.2	NO	0.998	NO	bb
6	6 180125M1_7	Standard	50.000	6.28	11055.075	28088.223	59.038	59.4	18.7	NO	0.998	NO	bb
7	7 180125M1_8	Standard	250.000	6.28	45118.223	30861.148	219.296	220.5	-11.8	NO	0.998	NO	bd
8	8 180125M1_9	Standard	500.000	6.28	101369.211	28926.580	525.654	528.6	5.7	NO	0.998	NO	bd
9	9 180125M1_10	Standard	1050.000	6.28	162052.266	4784.866	1016.030	1021.8	-2.7	NO	0.998	NO	bd
10	10 180125M1_11	Standard	2100.000	6.28	381569.625	5427.411	2109.125	2121.1	1.0	NO	0.998	NO	bd

Compound name: N-EtFOSE
Coefficient of Determination: R^2 = 0.999858
Calibration curve: -0.000300232 * x^2 + 1.36324 * x + -0.237449
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 180125M1_2	Standard	1.250	6.43	209.737	24639.736	1.277	1.1	-11.1	NO	1.000	NO	bbX
2	2 180125M1_3	Standard	2.500	6.43	441.199	21678.172	3.053	2.4	-3.4	NO	1.000	NO	MM
3	3 180125M1_4	Standard	5.000	6.43	1123.146	26901.668	6.263	4.8	-4.5	NO	1.000	NO	bb
4	4 180125M1_5	Standard	10.000	6.43	2088.165	22072.520	14.191	10.6	6.1	NO	1.000	NO	bb
5	5 180125M1_6	Standard	25.000	6.43	4385.262	18575.926	35.411	26.3	5.2	NO	1.000	NO	bb
6	6 180125M1_7	Standard	50.000	6.43	10413.569	23991.047	65.109	48.5	-3.1	NO	1.000	NO	bb
7	7 180125M1_8	Standard	250.000	6.43	55757.324	26149.014	319.844	248.4	-0.6	NO	1.000	NO	bb
8	8 180125M1_9	Standard	500.000	6.43	118009.023	29070.570	608.910	502.4	0.5	NO	1.000	NO	bb
9	9 180125M1_10	Standard	1050.000	6.43	171426.266	4677.626	1099.444	1049.0	-0.1	NO	1.000	NO	bb
10	10 180125M1_11	Standard	2100.000	6.43	333815.469	4264.320	2348.432			NO	1.000	NO	bbXI

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Compound name: 13C3-PFBA
Response Factor: 0.882166
RRF SD: 0.0143255, Relative SD: 1.6239
Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	1.40	12118.496	13683.070	11.071	12.5	0.4	NO		NO	bb
2	2 180125M1_3	Standard	12.500	1.40	11681.956	13333.805	10.951	12.4	-0.7	NO		NO	bb
3	3 180125M1_4	Standard	12.500	1.40	12962.398	14715.758	11.011	12.5	-0.1	NO		NO	bb
4	4 180125M1_5	Standard	12.500	1.40	10869.919	12623.360	10.764	12.2	-2.4	NO		NO	bb
5	5 180125M1_6	Standard	12.500	1.41	11689.071	13249.311	11.028	12.5	0.0	NO		NO	bb
6	6 180125M1_7	Standard	12.500	1.40	12597.677	13972.816	11.270	12.8	2.2	NO		NO	bb
7	7 180125M1_8	Standard	12.500	1.35	12093.022	14086.326	10.731	12.2	-2.7	NO		NO	bb
8	8 180125M1_9	Standard	12.500	1.35	12473.643	13840.253	11.266	12.8	2.2	NO		NO	bb
9	9 180125M1_10	Standard	2.500	1.34	2139.672	2410.990	2.219	2.5	0.6	NO		NO	bb
10	10 180125M1_11	Standard	2.500	1.34	2248.294	2535.000	2.217	2.5	0.5	NO		NO	bb

Compound name: 13C3-PFPeA
Response Factor: 0.887707
RRF SD: 0.0356147, Relative SD: 4.01199
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	2.35	13088.159	15850.322	10.322	11.6	-7.0	NO		NO	bb
2	2 180125M1_3	Standard	12.500	2.36	13162.983	15571.729	10.566	11.9	-4.8	NO		NO	bb
3	3 180125M1_4	Standard	12.500	2.36	14169.337	16095.684	11.004	12.4	-0.8	NO		NO	bb
4	4 180125M1_5	Standard	12.500	2.36	13103.625	14533.362	11.270	12.7	1.6	NO		NO	bb
5	5 180125M1_6	Standard	12.500	2.36	12935.963	14866.764	10.877	12.3	-2.0	NO		NO	bb
6	6 180125M1_7	Standard	12.500	2.35	14347.213	16105.280	11.135	12.5	0.4	NO		NO	bb
7	7 180125M1_8	Standard	12.500	2.31	14354.065	15686.091	11.439	12.9	3.1	NO		NO	bb
8	8 180125M1_9	Standard	12.500	2.30	14174.986	16048.404	11.041	12.4	-0.5	NO		NO	bb
9	9 180125M1_10	Standard	2.500	2.30	2386.398	2518.953	2.368	2.7	6.7	NO		NO	bb
10	10 180125M1_11	Standard	2.500	2.30	2279.383	2484.641	2.293	2.6	3.3	NO		NO	bb

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Compound name: 13C3-PFBS
Response Factor: 0.113011
RRF SD: 0.00522699, Relative SD: 4.62522
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	2.63	1853.057	15850.322	1.461	12.9	3.5	NO		NO	bb
2	2 180125M1_3	Standard	12.500	2.63	1696.809	15571.729	1.362	12.1	-3.6	NO		NO	bb
3	3 180125M1_4	Standard	12.500	2.63	1803.787	16095.684	1.401	12.4	-0.8	NO		NO	bb
4	4 180125M1_5	Standard	12.500	2.64	1685.030	14533.362	1.449	12.8	2.6	NO		NO	bb
5	5 180125M1_6	Standard	12.500	2.64	1704.244	14866.764	1.433	12.7	1.4	NO		NO	bb
6	6 180125M1_7	Standard	12.500	2.63	1982.626	16105.280	1.539	13.6	8.9	NO		NO	bb
7	7 180125M1_8	Standard	12.500	2.59	1753.955	15686.091	1.398	12.4	-1.1	NO		NO	bb
8	8 180125M1_9	Standard	12.500	2.58	1763.934	16048.404	1.374	12.2	-2.7	NO		NO	bb
9	9 180125M1_10	Standard	2.500	2.58	285.123	2518.953	0.283	2.5	0.2	NO		NO	bb
10	10 180125M1_11	Standard	2.500	2.58	257.313	2484.641	0.259	2.3	-8.4	NO		NO	bb

Compound name: 13C2-PFHxA
Response Factor: 0.692325
RRF SD: 0.0698077, Relative SD: 10.0831
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	5.000	3.12	4327.028	15850.322	3.412	4.9	-1.4	NO		NO	bb
2	2 180125M1_3	Standard	5.000	3.12	4093.243	15571.729	3.286	4.7	-5.1	NO		NO	bb
3	3 180125M1_4	Standard	5.000	3.12	4442.453	16095.684	3.450	5.0	-0.3	NO		NO	bb
4	4 180125M1_5	Standard	5.000	3.13	3661.307	14533.362	3.149	4.5	-9.0	NO		NO	bb
5	5 180125M1_6	Standard	5.000	3.13	4401.181	14866.764	3.701	5.3	6.9	NO		NO	bb
6	6 180125M1_7	Standard	5.000	3.12	4271.731	16105.280	3.315	4.8	-4.2	NO		NO	bb
7	7 180125M1_8	Standard	5.000	3.07	4173.145	15686.091	3.326	4.8	-3.9	NO		NO	bb
8	8 180125M1_9	Standard	5.000	3.07	3983.650	16048.404	3.103	4.5	-10.4	NO		NO	bb
9	9 180125M1_10	Standard	1.000	3.07	717.088	2518.953	0.712	1.0	2.8	NO		NO	bb
10	10 180125M1_11	Standard	1.000	3.07	857.927	2484.641	0.863	1.2	24.7	NO		NO	bb

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Compound name: 13C4-PFHpA
Response Factor: 0.685824
RRF SD: 0.0483731, Relative SD: 7.05329
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	12.500	3.74	10734.581	15850.322	8.466	12.3	-1.3	NO		NO	bb
2	2	180125M1_3	Standard	12.500	3.73	11416.730	15571.729	9.165	13.4	6.9	NO		NO	bb
3	3	180125M1_4	Standard	12.500	3.74	11333.792	16095.684	8.802	12.8	2.7	NO		NO	bb
4	4	180125M1_5	Standard	12.500	3.74	9497.099	14533.362	8.168	11.9	-4.7	NO		NO	bb
5	5	180125M1_6	Standard	12.500	3.74	9694.273	14866.764	8.151	11.9	-4.9	NO		NO	bb
6	6	180125M1_7	Standard	12.500	3.73	10653.151	16105.280	8.268	12.1	-3.6	NO		NO	bb
7	7	180125M1_8	Standard	12.500	3.69	10240.683	15686.091	8.161	11.9	-4.8	NO		NO	bb
8	8	180125M1_9	Standard	12.500	3.69	10581.890	16048.404	8.242	12.0	-3.9	NO		NO	bb
9	9	180125M1_10	Standard	2.500	3.69	2018.373	2518.953	2.003	2.9	16.8	NO		NO	bb
10	10	180125M1_11	Standard	2.500	3.69	1647.698	2484.641	1.658	2.4	-3.3	NO		NO	bb

Compound name: 18O2-PFHxS
Response Factor: 0.339521
RRF SD: 0.0261649, Relative SD: 7.70642
Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	12.500	3.88	1291.943	3885.833	4.156	12.2	-2.1	NO		NO	bb
2	2	180125M1_3	Standard	12.500	3.89	1338.583	3706.271	4.515	13.3	6.4	NO		NO	bb
3	3	180125M1_4	Standard	12.500	3.89	1368.078	4072.170	4.199	12.4	-1.0	NO		NO	bb
4	4	180125M1_5	Standard	12.500	3.89	1262.543	3844.163	4.105	12.1	-3.3	NO		NO	bb
5	5	180125M1_6	Standard	12.500	3.89	1463.226	3888.284	4.704	13.9	10.8	NO		NO	bb
6	6	180125M1_7	Standard	12.500	3.88	1422.179	3955.998	4.494	13.2	5.9	NO		NO	bb
7	7	180125M1_8	Standard	12.500	3.84	1209.670	4006.146	3.774	11.1	-11.1	NO		NO	bb
8	8	180125M1_9	Standard	12.500	3.84	1231.511	4041.679	3.809	11.2	-10.3	NO		NO	bb
9	9	180125M1_10	Standard	2.500	3.84	223.602	604.651	0.925	2.7	8.9	NO		NO	bb
10	10	180125M1_11	Standard	2.500	3.84	209.419	644.568	0.812	2.4	-4.3	NO		NO	bb

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Compound name: 13C2-6:2 FTS
Response Factor: 0.26588
RRF SD: 0.0336665, Relative SD: 12.6623
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	12.500	4.20	4073.234	13918.997	3.658	13.8	10.1	NO		NO	bb
2	2	180125M1_3	Standard	12.500	4.20	3212.761	13823.768	2.905	10.9	-12.6	NO		NO	bb
3	3	180125M1_4	Standard	12.500	4.20	4278.834	15102.404	3.542	13.3	6.6	NO		NO	bb
4	4	180125M1_5	Standard	12.500	4.20	3412.873	15059.801	2.833	10.7	-14.8	NO		NO	bb
5	5	180125M1_6	Standard	12.500	4.20	3819.901	14143.648	3.376	12.7	1.6	NO		NO	bb
6	6	180125M1_7	Standard	12.500	4.18	4018.925	17663.281	2.844	10.7	-14.4	NO		NO	bb
7	7	180125M1_8	Standard	12.500	4.16	4160.463	15007.374	3.465	13.0	4.3	NO		NO	bb
8	8	180125M1_9	Standard	12.500	4.16	4506.936	14207.905	3.965	14.9	19.3	NO		NO	bb
9	9	180125M1_10	Standard	2.500	4.16	3312.635	2689.905	3.079	11.6	363.2	NO		NO	bbX
10	10	180125M1_11	Standard	2.500	4.15	5418.768	2443.939	5.543	20.8	733.9	NO		NO	bbX

Compound name: 13C2-PFOA
Response Factor: 1.07191
RRF SD: 0.0724677, Relative SD: 6.76062
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	12.500	4.25	13666.232	13918.997	12.273	11.4	-8.4	NO		NO	bb
2	2	180125M1_3	Standard	12.500	4.25	15252.614	13823.768	13.792	12.9	2.9	NO		NO	bb
3	3	180125M1_4	Standard	12.500	4.25	16483.586	15102.404	13.643	12.7	1.8	NO		NO	bb
4	4	180125M1_5	Standard	12.500	4.26	14131.144	15059.801	11.729	10.9	-12.5	NO		NO	bb
5	5	180125M1_6	Standard	12.500	4.25	14657.059	14143.648	12.954	12.1	-3.3	NO		NO	bb
6	6	180125M1_7	Standard	12.500	4.24	18369.568	17663.281	13.000	12.1	-3.0	NO		NO	bb
7	7	180125M1_8	Standard	12.500	4.22	16254.535	15007.374	13.539	12.6	1.0	NO		NO	bb
8	8	180125M1_9	Standard	12.500	4.22	16387.031	14207.905	14.417	13.5	7.6	NO		NO	bb
9	9	180125M1_10	Standard	2.500	4.21	3075.617	2689.905	2.858	2.7	6.7	NO		NO	bb
10	10	180125M1_11	Standard	2.500	4.21	2805.478	2443.939	2.870	2.7	7.1	NO		NO	bb

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Compound name: 13C5-PFNA
Response Factor: 0.897517
RRF SD: 0.101792, Relative SD: 11.3415
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	4.68	13638.391	15626.332	10.910	12.2	-2.8	NO		NO	bb
2	2 180125M1_3	Standard	12.500	4.68	13458.755	16044.253	10.486	11.7	-6.5	NO		NO	bb
3	3 180125M1_4	Standard	12.500	4.68	16525.070	17775.693	11.621	12.9	3.6	NO		NO	bb
4	4 180125M1_5	Standard	12.500	4.68	12239.771	15922.248	9.609	10.7	-14.4	NO		NO	bb
5	5 180125M1_6	Standard	12.500	4.68	15424.028	16373.278	11.775	13.1	5.0	NO		NO	bb
6	6 180125M1_7	Standard	12.500	4.67	13702.806	14684.112	11.665	13.0	4.0	NO		NO	bb
7	7 180125M1_8	Standard	12.500	4.65	16163.854	14736.806	13.710	15.3	22.2	NO		NO	bb
8	8 180125M1_9	Standard	12.500	4.65	14554.074	18295.967	9.943	11.1	-11.4	NO		NO	bb
9	9 180125M1_10	Standard	2.500	4.65	2412.236	3002.268	2.009	2.2	-10.5	NO		NO	bb
10	10 180125M1_11	Standard	2.500	4.65	2537.961	2552.806	2.485	2.8	10.8	NO		NO	bb

Compound name: 13C8-PFOSA
Response Factor: 0.259861
RRF SD: 0.0322471, Relative SD: 12.4094
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	4.75	3413.635	15448.239	2.762	10.6	-15.0	NO		NO	bb
2	2 180125M1_3	Standard	12.500	4.75	4067.377	15499.804	3.280	12.6	1.0	NO		NO	bb
3	3 180125M1_4	Standard	12.500	4.75	4642.212	17491.867	3.317	12.8	2.1	NO		NO	bb
4	4 180125M1_5	Standard	12.500	4.75	3761.316	12499.089	3.762	14.5	15.8	NO		NO	bb
5	5 180125M1_6	Standard	12.500	4.75	3458.108	17059.645	2.534	9.8	-22.0	NO		NO	bb
6	6 180125M1_7	Standard	12.500	4.74	4702.252	20083.063	2.927	11.3	-9.9	NO		NO	bb
7	7 180125M1_8	Standard	12.500	4.71	4732.331	16461.711	3.593	13.8	10.6	NO		NO	bb
8	8 180125M1_9	Standard	12.500	4.71	4269.404	16492.871	3.236	12.5	-0.4	NO		NO	bb
9	9 180125M1_10	Standard	2.500	4.70	757.569	2554.815	0.741	2.9	14.1	NO		NO	bb
10	10 180125M1_11	Standard	2.500	4.71	742.590	2758.609	0.673	2.6	3.6	NO		NO	bb

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Compound name: 13C8-PFOS
Response Factor: 0.956538
RRF SD: 0.0863869, Relative SD: 9.03121
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	12.500	4.76	3833.215	4036.982	11.869	12.4	-0.7	NO		NO	bb
2	2	180125M1_3	Standard	12.500	4.76	2993.193	3951.047	9.470	9.9	-20.8	NO		NO	bb
3	3	180125M1_4	Standard	12.500	4.76	4230.229	4526.797	11.681	12.2	-2.3	NO		NO	bb
4	4	180125M1_5	Standard	12.500	4.77	3776.813	3745.977	12.603	13.2	5.4	NO		NO	bb
5	5	180125M1_6	Standard	12.500	4.76	3518.063	3487.810	12.608	13.2	5.5	NO		NO	bb
6	6	180125M1_7	Standard	12.500	4.76	4176.231	4049.564	12.891	13.5	7.8	NO		NO	bb
7	7	180125M1_8	Standard	12.500	4.73	3630.818	3871.251	11.724	12.3	-1.9	NO		NO	bb
8	8	180125M1_9	Standard	12.500	4.74	3793.851	3593.117	13.198	13.8	10.4	NO		NO	bb
9	9	180125M1_10	Standard	2.500	4.73	651.162	655.946	2.482	2.6	3.8	NO		NO	bb
10	10	180125M1_11	Standard	2.500	4.73	554.686	623.842	2.223	2.3	-7.0	NO		NO	bb

Compound name: 13C2-PFDA
Response Factor: 1.14225
RRF SD: 0.188256, Relative SD: 16.4811
Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	12.500	5.05	12213.221	9926.342	15.380	13.5	7.7	NO		NO	bb
2	2	180125M1_3	Standard	12.500	5.05	13253.231	10964.069	15.110	13.2	5.8	NO		NO	bb
3	3	180125M1_4	Standard	12.500	5.05	14742.522	14119.821	13.051	11.4	-8.6	NO		NO	bb
4	4	180125M1_5	Standard	12.500	5.06	16071.077	14512.353	13.843	12.1	-3.1	NO		NO	bb
5	5	180125M1_6	Standard	12.500	5.05	10315.772	10756.801	11.987	10.5	-16.0	NO		NO	bb
6	6	180125M1_7	Standard	12.500	5.04	13473.002	10425.069	16.155	14.1	13.1	NO		NO	bb
7	7	180125M1_8	Standard	12.500	5.02	13326.184	13904.121	11.980	10.5	-16.1	NO		NO	bb
8	8	180125M1_9	Standard	12.500	5.03	12437.072	11876.706	13.090	11.5	-8.3	NO		NO	bb
9	9	180125M1_10	Standard	2.500	5.02	2470.590	2448.029	2.523	2.2	-11.6	NO		NO	bb
10	10	180125M1_11	Standard	2.500	5.03	3077.022	1965.311	3.914	3.4	37.1	NO		NO	bb

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Compound name: 13C2-8:2 FTS
Response Factor: 0.173743
RRF SD: 0.0163075, Relative SD: 9.38596
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	5.02	2936.641	15850.322	2.316	13.3	6.6	NO		NO	bb
2	2 180125M1_3	Standard	12.500	5.03	2326.787	15571.729	1.868	10.8	-14.0	NO		NO	bb
3	3 180125M1_4	Standard	12.500	5.02	2846.249	16095.684	2.210	12.7	1.8	NO		NO	bb
4	4 180125M1_5	Standard	12.500	5.03	2412.049	14533.362	2.075	11.9	-4.5	NO		NO	bb
5	5 180125M1_6	Standard	12.500	5.03	2346.928	14866.764	1.973	11.4	-9.1	NO		NO	bb
6	6 180125M1_7	Standard	12.500	5.02	2894.764	16105.280	2.247	12.9	3.5	NO		NO	bb
7	7 180125M1_8	Standard	12.500	4.99	2716.763	15686.091	2.165	12.5	-0.3	NO		NO	bb
8	8 180125M1_9	Standard	12.500	5.00	3236.141	16048.404	2.521	14.5	16.1	NO		NO	bb
9	9 180125M1_10	Standard	2.500	4.99	2278.664	2518.953	2.262	13.0	420.7	NO		NO	bbX
10	10 180125M1_11	Standard	2.500	4.99	3450.177	2484.641	3.472	20.0	699.2	NO		NO	bbX

Compound name: d3-N-MeFOSAA
Response Factor: 0.422146
RRF SD: 0.0635588, Relative SD: 15.0561
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	5.19	6597.556	15448.239	5.338	12.6	1.2	NO		NO	bb
2	2 180125M1_3	Standard	12.500	5.20	6611.294	15499.804	5.332	12.6	1.0	NO		NO	bb
3	3 180125M1_4	Standard	12.500	5.20	6896.851	17491.867	4.929	11.7	-6.6	NO		NO	bb
4	4 180125M1_5	Standard	12.500	5.20	5972.174	12499.089	5.973	14.1	13.2	NO		NO	bb
5	5 180125M1_6	Standard	12.500	5.20	5837.321	17059.645	4.277	10.1	-18.9	NO		NO	bb
6	6 180125M1_7	Standard	12.500	5.19	6872.865	20083.063	4.278	10.1	-18.9	NO		NO	bb
7	7 180125M1_8	Standard	12.500	5.17	6539.650	16461.711	4.966	11.8	-5.9	NO		NO	bb
8	8 180125M1_9	Standard	12.500	5.18	6321.353	16492.871	4.791	11.3	-9.2	NO		NO	bb
9	9 180125M1_10	Standard	2.500	5.18	1296.036	2554.815	1.268	3.0	20.2	NO		NO	bb
10	10 180125M1_11	Standard	2.500	5.17	1444.180	2758.609	1.309	3.1	24.0	NO		NO	bb

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Compound name: d5-N-EtFOSAA
Response Factor: 0.430813
RRF SD: 0.0557187, Relative SD: 12.9334
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	5.35	6949.490	15448.239	5.623	13.1	4.4	NO		NO	bb
2	2 180125M1_3	Standard	12.500	5.35	6655.562	15499.804	5.367	12.5	-0.3	NO		NO	bb
3	3 180125M1_4	Standard	12.500	5.35	8370.170	17491.867	5.981	13.9	11.1	NO		NO	bb
4	4 180125M1_5	Standard	12.500	5.36	6421.964	12499.089	6.422	14.9	19.3	NO		NO	bb
5	5 180125M1_6	Standard	12.500	5.35	7291.768	17059.645	5.343	12.4	-0.8	NO		NO	bb
6	6 180125M1_7	Standard	12.500	5.34	7574.845	20083.063	4.715	10.9	-12.5	NO		NO	bb
7	7 180125M1_8	Standard	12.500	5.33	7467.949	16461.711	5.671	13.2	5.3	NO		NO	bb
8	8 180125M1_9	Standard	12.500	5.33	6619.863	16492.871	5.017	11.6	-6.8	NO		NO	bb
9	9 180125M1_10	Standard	2.500	5.33	1178.022	2554.815	1.153	2.7	7.0	NO		NO	bb
10	10 180125M1_11	Standard	2.500	5.33	871.253	2758.609	0.790	1.8	-26.7	NO		NO	bb

Compound name: 13C2-PFUdA
Response Factor: 0.980178
RRF SD: 0.160585, Relative SD: 16.3833
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	5.37	16243.524	15448.239	13.144	13.4	7.3	NO		NO	bb
2	2 180125M1_3	Standard	12.500	5.37	12389.071	15499.804	9.991	10.2	-18.5	NO		NO	bb
3	3 180125M1_4	Standard	12.500	5.37	19054.553	17491.867	13.617	13.9	11.1	NO		NO	bb
4	4 180125M1_5	Standard	12.500	5.37	13306.267	12499.089	13.307	13.6	8.6	NO		NO	bb
5	5 180125M1_6	Standard	12.500	5.37	13673.215	17059.645	10.019	10.2	-18.2	NO		NO	bb
6	6 180125M1_7	Standard	12.500	5.37	13549.074	20083.063	8.433	8.6	-31.2	NO		NO	bb
7	7 180125M1_8	Standard	12.500	5.35	18092.631	16461.711	13.738	14.0	12.1	NO		NO	bb
8	8 180125M1_9	Standard	12.500	5.35	16765.213	16492.871	12.706	13.0	3.7	NO		NO	bb
9	9 180125M1_10	Standard	2.500	5.35	2938.439	2554.815	2.875	2.9	17.3	NO		NO	bb
10	10 180125M1_11	Standard	2.500	5.35	2910.853	2758.609	2.638	2.7	7.7	NO		NO	bb

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Compound name: 13C2-PFDoA
Response Factor: 0.738817
RRF SD: 0.0977861, Relative SD: 13.2355
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	12.500	5.65	11067.724	15448.239	8.955	12.1	-3.0	NO		NO	bb
2	2	180125M1_3	Standard	12.500	5.65	10700.879	15499.804	8.630	11.7	-6.6	NO		NO	bb
3	3	180125M1_4	Standard	12.500	5.65	11579.887	17491.867	8.275	11.2	-10.4	NO		NO	bb
4	4	180125M1_5	Standard	12.500	5.66	11209.014	12499.089	11.210	15.2	21.4	NO		NO	bb
5	5	180125M1_6	Standard	12.500	5.65	11620.383	17059.645	8.515	11.5	-7.8	NO		NO	bb
6	6	180125M1_7	Standard	12.500	5.64	12200.239	20083.063	7.594	10.3	-17.8	NO		NO	bb
7	7	180125M1_8	Standard	12.500	5.63	11585.384	16461.711	8.797	11.9	-4.7	NO		NO	bb
8	8	180125M1_9	Standard	12.500	5.63	11776.407	16492.871	8.925	12.1	-3.4	NO		NO	bb
9	9	180125M1_10	Standard	2.500	5.63	2121.748	2554.815	2.076	2.8	12.4	NO		NO	bb
10	10	180125M1_11	Standard	2.500	5.63	2443.002	2758.609	2.214	3.0	19.9	NO		NO	bb

Compound name: d3-N-MeFOSA
Response Factor: 0.108425
RRF SD: 0.0148188, Relative SD: 13.6673
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	150.000	5.78	19877.652	15448.239	16.084	148.3	-1.1	NO		NO	bb
2	2	180125M1_3	Standard	150.000	5.78	18842.969	15499.804	15.196	140.2	-6.6	NO		NO	bb
3	3	180125M1_4	Standard	150.000	5.78	21203.770	17491.867	15.153	139.8	-6.8	NO		NO	bb
4	4	180125M1_5	Standard	150.000	5.79	17122.461	12499.089	17.124	157.9	5.3	NO		NO	bb
5	5	180125M1_6	Standard	150.000	5.79	18808.795	17059.645	13.782	127.1	-15.3	NO		NO	bb
6	6	180125M1_7	Standard	150.000	5.77	21517.822	20083.063	13.393	123.5	-17.7	NO		NO	bb
7	7	180125M1_8	Standard	150.000	5.74	21339.939	16461.711	16.204	149.5	-0.4	NO		NO	bb
8	8	180125M1_9	Standard	150.000	5.75	21121.996	16492.871	16.008	147.6	-1.6	NO		NO	bb
9	9	180125M1_10	Standard	30.000	5.74	3899.974	2554.815	3.816	35.2	17.3	NO		NO	bb
10	10	180125M1_11	Standard	30.000	5.74	4548.952	2758.609	4.123	38.0	26.7	NO		NO	bb

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Compound name: 13C2-PFTeDA
Response Factor: 0.309849
RRF SD: 0.0539272, Relative SD: 17.4043
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	6.11	4792.661	15448.239	3.878	12.5	0.1	NO		NO	bb
2	2 180125M1_3	Standard	12.500	6.11	5334.590	15499.804	4.302	13.9	11.1	NO		NO	bb
3	3 180125M1_4	Standard	12.500	6.11	5292.026	17491.867	3.782	12.2	-2.4	NO		NO	bb
4	4 180125M1_5	Standard	12.500	6.11	5029.292	12499.089	5.030	16.2	29.9	NO		NO	bb
5	5 180125M1_6	Standard	12.500	6.11	4302.676	17059.645	3.153	10.2	-18.6	NO		NO	bb
6	6 180125M1_7	Standard	12.500	6.10	4556.227	20083.063	2.836	9.2	-26.8	NO		NO	bb
7	7 180125M1_8	Standard	12.500	6.09	5131.559	16461.711	3.897	12.6	0.6	NO		NO	bb
8	8 180125M1_9	Standard	12.500	6.09	5420.510	16492.871	4.108	13.3	6.1	NO		NO	bb
9	9 180125M1_10	Standard	2.500	6.09	1683.738	2554.815	1.648	5.3	112.7	NO		NO	bbX
10	10 180125M1_11	Standard	2.500	6.09	2145.147	2758.609	1.944	6.3	151.0	NO		NO	bbX

Compound name: d5-N-ETFOSA
Response Factor: 0.15507
RRF SD: 0.0143234, Relative SD: 9.23673
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	150.000	6.16	29314.545	15448.239	23.720	153.0	2.0	NO		NO	bb
2	2 180125M1_3	Standard	150.000	6.16	28559.652	15499.804	23.032	148.5	-1.0	NO		NO	bb
3	3 180125M1_4	Standard	150.000	6.16	31683.512	17491.867	22.642	146.0	-2.7	NO		NO	bb
4	4 180125M1_5	Standard	150.000	6.16	26943.764	12499.089	26.946	173.8	15.8	NO		NO	bb
5	5 180125M1_6	Standard	150.000	6.16	27439.885	17059.645	20.106	129.7	-13.6	NO		NO	bb
6	6 180125M1_7	Standard	150.000	6.15	32332.996	20083.063	20.125	129.8	-13.5	NO		NO	bb
7	7 180125M1_8	Standard	150.000	6.13	31495.275	16461.711	23.916	154.2	2.8	NO		NO	bb
8	8 180125M1_9	Standard	150.000	6.14	30670.613	16492.871	23.245	149.9	-0.1	NO		NO	bb
9	9 180125M1_10	Standard	30.000	6.14	5295.445	2554.815	5.182	33.4	11.4	NO		NO	bb
10	10 180125M1_11	Standard	30.000	6.14	5068.183	2758.609	4.593	29.6	-1.3	NO		NO	bb

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Compound name: 13C2-PFHxDA
Response Factor: 0.55955
RRF SD: 0.0744005, Relative SD: 13.2965
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	5.000	6.43	3632.566	15448.239	2.939	5.3	5.1	NO		NO	bb
2	2 180125M1_3	Standard	5.000	6.43	3325.745	15499.804	2.682	4.8	-4.1	NO		NO	bb
3	3 180125M1_4	Standard	5.000	6.44	3761.519	17491.867	2.688	4.8	-3.9	NO		NO	bb
4	4 180125M1_5	Standard	5.000	6.44	3273.500	12499.089	3.274	5.9	17.0	NO		NO	bb
5	5 180125M1_6	Standard	5.000	6.43	3603.633	17059.645	2.640	4.7	-5.6	NO		NO	bb
6	6 180125M1_7	Standard	5.000	6.43	3397.328	20083.063	2.115	3.8	-24.4	NO		NO	bb
7	7 180125M1_8	Standard	5.000	6.43	3678.375	16461.711	2.793	5.0	-0.2	NO		NO	bb
8	8 180125M1_9	Standard	5.000	6.43	4289.067	16492.871	3.251	5.8	16.2	NO		NO	bb
9	9 180125M1_10	Standard	1.000	6.43	1316.149	2554.815	1.288	2.3	130.2	NO		NO	bbX
10	10 180125M1_11	Standard	1.000	6.43	2053.556	2758.609	1.861	3.3	232.6	NO		NO	bbX

Compound name: d7-N-MeFOSE
Response Factor: 0.139175
RRF SD: 0.0227372, Relative SD: 16.337
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	150.000	6.27	23019.270	15448.239	18.626	133.8	-10.8	NO		NO	bb
2	2 180125M1_3	Standard	150.000	6.27	23396.316	15499.804	18.868	135.6	-9.6	NO		NO	bd
3	3 180125M1_4	Standard	150.000	6.28	27139.652	17491.867	19.394	139.4	-7.1	NO		NO	bb
4	4 180125M1_5	Standard	150.000	6.27	25696.836	12499.089	25.699	184.6	23.1	NO		NO	bb
5	5 180125M1_6	Standard	150.000	6.27	20923.910	17059.645	15.331	110.2	-26.6	NO		NO	bb
6	6 180125M1_7	Standard	150.000	6.27	28088.223	20083.063	17.483	125.6	-16.3	NO		NO	bb
7	7 180125M1_8	Standard	150.000	6.27	30861.148	16461.711	23.434	168.4	12.3	NO		NO	bd
8	8 180125M1_9	Standard	150.000	6.27	28926.580	16492.871	21.924	157.5	5.0	NO		NO	bb
9	9 180125M1_10	Standard	30.000	6.27	4784.866	2554.815	4.682	33.6	12.1	NO		NO	bb
10	10 180125M1_11	Standard	30.000	6.27	5427.411	2758.609	4.919	35.3	17.8	NO		NO	bb

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Compound name: d9-N-EtFOSE
Response Factor: 0.127573
RRF SD: 0.0202723, Relative SD: 15.8908
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	150.000	6.42	24639.736	15448.239	19.937	156.3	4.2	NO		NO	bb
2	2 180125M1_3	Standard	150.000	6.42	21678.172	15499.804	17.483	137.0	-8.6	NO		NO	bb
3	3 180125M1_4	Standard	150.000	6.42	26901.668	17491.867	19.224	150.7	0.5	NO		NO	bb
4	4 180125M1_5	Standard	150.000	6.42	22072.520	12499.089	22.074	173.0	15.4	NO		NO	bd
5	5 180125M1_6	Standard	150.000	6.42	18575.926	17059.645	13.611	106.7	-28.9	NO		NO	bb
6	6 180125M1_7	Standard	150.000	6.42	23991.047	20083.063	14.932	117.0	-22.0	NO		NO	bb
7	7 180125M1_8	Standard	150.000	6.42	26149.014	16461.711	19.856	155.6	3.8	NO		NO	bb
8	8 180125M1_9	Standard	150.000	6.42	29070.570	16492.871	22.033	172.7	15.1	NO		NO	bd
9	9 180125M1_10	Standard	30.000	6.41	4677.626	2554.815	4.577	35.9	19.6	NO		NO	bb
10	10 180125M1_11	Standard	30.000	6.42	4264.320	2758.609	3.865	30.3	1.0	NO		NO	bb

Compound name: 13C4-PFBA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 54), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	1.40	13683.070	13683.070	12.500	12.5	0.0	NO		NO	bb
2	2 180125M1_3	Standard	12.500	1.40	13333.805	13333.805	12.500	12.5	0.0	NO		NO	bb
3	3 180125M1_4	Standard	12.500	1.40	14715.758	14715.758	12.500	12.5	0.0	NO		NO	bb
4	4 180125M1_5	Standard	12.500	1.40	12623.360	12623.360	12.500	12.5	0.0	NO		NO	bb
5	5 180125M1_6	Standard	12.500	1.40	13249.311	13249.311	12.500	12.5	0.0	NO		NO	bb
6	6 180125M1_7	Standard	12.500	1.40	13972.816	13972.816	12.500	12.5	0.0	NO		NO	bb
7	7 180125M1_8	Standard	12.500	1.35	14086.326	14086.326	12.500	12.5	0.0	NO		NO	bb
8	8 180125M1_9	Standard	12.500	1.34	13840.253	13840.253	12.500	12.5	0.0	NO		NO	bb
9	9 180125M1_10	Standard	2.500	1.34	2410.990	2410.990	2.500	2.5	0.0	NO		NO	bb
10	10 180125M1_11	Standard	2.500	1.34	2535.000	2535.000	2.500	2.5	0.0	NO		NO	bb

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Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 55), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	3.12	15850.322	15850.322	12.500	12.5	0.0	NO		NO	bb
2	2 180125M1_3	Standard	12.500	3.12	15571.729	15571.729	12.500	12.5	0.0	NO		NO	bb
3	3 180125M1_4	Standard	12.500	3.12	16095.684	16095.684	12.500	12.5	0.0	NO		NO	bb
4	4 180125M1_5	Standard	12.500	3.12	14533.362	14533.362	12.500	12.5	0.0	NO		NO	bb
5	5 180125M1_6	Standard	12.500	3.12	14866.764	14866.764	12.500	12.5	0.0	NO		NO	bb
6	6 180125M1_7	Standard	12.500	3.12	16105.280	16105.280	12.500	12.5	0.0	NO		NO	bb
7	7 180125M1_8	Standard	12.500	3.07	15686.091	15686.091	12.500	12.5	0.0	NO		NO	bb
8	8 180125M1_9	Standard	12.500	3.07	16048.404	16048.404	12.500	12.5	0.0	NO		NO	bb
9	9 180125M1_10	Standard	2.500	3.07	2518.953	2518.953	2.500	2.5	0.0	NO		NO	bb
10	10 180125M1_11	Standard	2.500	3.07	2484.641	2484.641	2.500	2.5	0.0	NO		NO	bb

Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 56), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	3.88	3885.833	3885.833	12.500	12.5	0.0	NO		NO	bb
2	2 180125M1_3	Standard	12.500	3.89	3706.271	3706.271	12.500	12.5	0.0	NO		NO	bb
3	3 180125M1_4	Standard	12.500	3.89	4072.170	4072.170	12.500	12.5	0.0	NO		NO	bb
4	4 180125M1_5	Standard	12.500	3.89	3844.163	3844.163	12.500	12.5	0.0	NO		NO	bb
5	5 180125M1_6	Standard	12.500	3.89	3888.284	3888.284	12.500	12.5	0.0	NO		NO	bb
6	6 180125M1_7	Standard	12.500	3.88	3955.998	3955.998	12.500	12.5	0.0	NO		NO	bb
7	7 180125M1_8	Standard	12.500	3.84	4006.146	4006.146	12.500	12.5	0.0	NO		NO	bb
8	8 180125M1_9	Standard	12.500	3.84	4041.679	4041.679	12.500	12.5	0.0	NO		NO	bb
9	9 180125M1_10	Standard	2.500	3.84	604.651	604.651	2.500	2.5	0.0	NO		NO	bb
10	10 180125M1_11	Standard	2.500	3.84	644.568	644.568	2.500	2.5	0.0	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-CRV.qld

Last Altered: Friday, January 26, 2018 09:21:18 Pacific Standard Time
Printed: Friday, January 26, 2018 09:26:09 Pacific Standard Time

Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	12.500	4.25	13918.997	13918.997	12.500	12.5	0.0	NO		NO	bb
2	2	180125M1_3	Standard	12.500	4.25	13823.768	13823.768	12.500	12.5	0.0	NO		NO	bb
3	3	180125M1_4	Standard	12.500	4.25	15102.404	15102.404	12.500	12.5	0.0	NO		NO	bb
4	4	180125M1_5	Standard	12.500	4.25	15059.801	15059.801	12.500	12.5	0.0	NO		NO	bb
5	5	180125M1_6	Standard	12.500	4.25	14143.648	14143.648	12.500	12.5	0.0	NO		NO	bb
6	6	180125M1_7	Standard	12.500	4.24	17663.281	17663.281	12.500	12.5	0.0	NO		NO	bb
7	7	180125M1_8	Standard	12.500	4.21	15007.374	15007.374	12.500	12.5	0.0	NO		NO	bb
8	8	180125M1_9	Standard	12.500	4.22	14207.905	14207.905	12.500	12.5	0.0	NO		NO	bb
9	9	180125M1_10	Standard	2.500	4.21	2689.905	2689.905	2.500	2.5	0.0	NO		NO	bb
10	10	180125M1_11	Standard	2.500	4.21	2443.939	2443.939	2.500	2.5	0.0	NO		NO	bb

Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180125M1_2	Standard	12.500	4.68	15626.332	15626.332	12.500	12.5	0.0	NO		NO	bb
2	2	180125M1_3	Standard	12.500	4.68	16044.253	16044.253	12.500	12.5	0.0	NO		NO	bb
3	3	180125M1_4	Standard	12.500	4.68	17775.693	17775.693	12.500	12.5	0.0	NO		NO	bb
4	4	180125M1_5	Standard	12.500	4.68	15922.248	15922.248	12.500	12.5	0.0	NO		NO	bb
5	5	180125M1_6	Standard	12.500	4.68	16373.278	16373.278	12.500	12.5	0.0	NO		NO	bb
6	6	180125M1_7	Standard	12.500	4.67	14684.112	14684.112	12.500	12.5	0.0	NO		NO	bb
7	7	180125M1_8	Standard	12.500	4.65	14736.806	14736.806	12.500	12.5	0.0	NO		NO	bb
8	8	180125M1_9	Standard	12.500	4.65	18295.967	18295.967	12.500	12.5	0.0	NO		NO	bb
9	9	180125M1_10	Standard	2.500	4.65	3002.268	3002.268	2.500	2.5	0.0	NO		NO	bb
10	10	180125M1_11	Standard	2.500	4.65	2552.806	2552.806	2.500	2.5	0.0	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-CRV.qld

Last Altered: Friday, January 26, 2018 09:21:18 Pacific Standard Time
Printed: Friday, January 26, 2018 09:26:09 Pacific Standard Time

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	4.76	4036.982	4036.982	12.500	12.5	0.0	NO		NO	bb
2	2 180125M1_3	Standard	12.500	4.76	3951.047	3951.047	12.500	12.5	0.0	NO		NO	bb
3	3 180125M1_4	Standard	12.500	4.76	4526.797	4526.797	12.500	12.5	0.0	NO		NO	bb
4	4 180125M1_5	Standard	12.500	4.77	3745.977	3745.977	12.500	12.5	0.0	NO		NO	bb
5	5 180125M1_6	Standard	12.500	4.76	3487.810	3487.810	12.500	12.5	0.0	NO		NO	bb
6	6 180125M1_7	Standard	12.500	4.76	4049.564	4049.564	12.500	12.5	0.0	NO		NO	bb
7	7 180125M1_8	Standard	12.500	4.74	3871.251	3871.251	12.500	12.5	0.0	NO		NO	bb
8	8 180125M1_9	Standard	12.500	4.74	3593.117	3593.117	12.500	12.5	0.0	NO		NO	bb
9	9 180125M1_10	Standard	2.500	4.73	655.946	655.946	2.500	2.5	0.0	NO		NO	bb
10	10 180125M1_11	Standard	2.500	4.73	623.842	623.842	2.500	2.5	0.0	NO		NO	bb

Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	5.05	9926.342	9926.342	12.500	12.5	0.0	NO		NO	bb
2	2 180125M1_3	Standard	12.500	5.05	10964.069	10964.069	12.500	12.5	0.0	NO		NO	bb
3	3 180125M1_4	Standard	12.500	5.06	14119.821	14119.821	12.500	12.5	0.0	NO		NO	bb
4	4 180125M1_5	Standard	12.500	5.06	14512.353	14512.353	12.500	12.5	0.0	NO		NO	bb
5	5 180125M1_6	Standard	12.500	5.05	10756.801	10756.801	12.500	12.5	0.0	NO		NO	bb
6	6 180125M1_7	Standard	12.500	5.04	10425.069	10425.069	12.500	12.5	0.0	NO		NO	bb
7	7 180125M1_8	Standard	12.500	5.03	13904.121	13904.121	12.500	12.5	0.0	NO		NO	bb
8	8 180125M1_9	Standard	12.500	5.03	11876.706	11876.706	12.500	12.5	0.0	NO		NO	bb
9	9 180125M1_10	Standard	2.500	5.03	2448.029	2448.029	2.500	2.5	0.0	NO		NO	bb
10	10 180125M1_11	Standard	2.500	5.02	1965.311	1965.311	2.500	2.5	0.0	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-CRV.qld

Last Altered: Friday, January 26, 2018 09:21:18 Pacific Standard Time
Printed: Friday, January 26, 2018 09:26:09 Pacific Standard Time

Compound name: 13C7-PFUdA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180125M1_2	Standard	12.500	5.37	15448.239	15448.239	12.500	12.5	0.0	NO		NO	bb
2	2 180125M1_3	Standard	12.500	5.37	15499.804	15499.804	12.500	12.5	0.0	NO		NO	bb
3	3 180125M1_4	Standard	12.500	5.37	17491.867	17491.867	12.500	12.5	0.0	NO		NO	bb
4	4 180125M1_5	Standard	12.500	5.37	12499.089	12499.089	12.500	12.5	0.0	NO		NO	bb
5	5 180125M1_6	Standard	12.500	5.37	17059.645	17059.645	12.500	12.5	0.0	NO		NO	bb
6	6 180125M1_7	Standard	12.500	5.36	20083.063	20083.063	12.500	12.5	0.0	NO		NO	bb
7	7 180125M1_8	Standard	12.500	5.35	16461.711	16461.711	12.500	12.5	0.0	NO		NO	bb
8	8 180125M1_9	Standard	12.500	5.35	16492.871	16492.871	12.500	12.5	0.0	NO		NO	bb
9	9 180125M1_10	Standard	2.500	5.35	2554.815	2554.815	2.500	2.5	0.0	NO		NO	bb
10	10 180125M1_11	Standard	2.500	5.35	2758.609	2758.609	2.500	2.5	0.0	NO		NO	bb

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Dataset: Untitled

Last Altered: Friday, January 26, 2018 10:18:34 Pacific Standard Time
Printed: Friday, January 26, 2018 10:18:48 Pacific Standard Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_012518.mdb 26 Jan 2018 09:01:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-25-18-FULL.cdb 26 Jan 2018 09:21:18

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180125M1_1	IPA	25-Jan-18	15:18:35
2	180125M1_2	ST180125M1-1 PFC CS-2 18A1904	25-Jan-18	15:30:09
3	180125M1_3	ST180125M1-2 PFC CS-1 18A1905	25-Jan-18	15:41:39
4	180125M1_4	ST180125M1-3 PFC CS0 18A1906	25-Jan-18	15:53:10
5	180125M1_5	ST180125M1-4 PFC CS1 18A1907	25-Jan-18	16:04:39
6	180125M1_6	ST180125M1-5 PFC CS2 18A1908	25-Jan-18	16:16:09
7	180125M1_7	ST180125M1-6 PFC CS3 18A1909	25-Jan-18	16:27:39
8	180125M1_8	ST180125M1-7 PFC CS4 18A1910	25-Jan-18	16:39:08
9	180125M1_9	ST180125M1-8 PFC CS5 18A1911	25-Jan-18	16:50:34
10	180125M1_10	ST180125M1-9 PFC CS6 18A2403	25-Jan-18	17:02:04
11	180125M1_11	ST180125M1-10 PFC CS7 18A2404	25-Jan-18	17:13:34
12	180125M1_12	IPA	25-Jan-18	17:25:03
13	180125M1_13	ICV180125M1-1 PFC ICV 18A1903	25-Jan-18	17:36:33
14	180125M1_14	IPA	25-Jan-18	17:48:00

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**
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Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-CRV.qld

Last Altered: Friday, January 26, 2018 09:21:18 Pacific Standard Time
Printed: Friday, January 26, 2018 09:26:09 Pacific Standard Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_012418.mdb 25 Jan 2018 11:07:33
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-25-18-FULL.cdb 26 Jan 2018 09:21:18

Name: 180125M1_2, Date: 25-Jan-2018, Time: 15:30:09, ID: ST180125M1-1 PFC CS-2 18A1904, Description: PFC CS-2 18A1904

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBA	0.9993	NO	
2	2	PFPeA	0.9996	NO	
3	3	PFBS	0.9993	NO	
4	4	PFHxA	0.9974	NO	
5	5	PFHpA	0.9960	NO	
6	6	L-PFHxS	0.9952	NO	
7	8	6:2 FTS	0.9953	NO	
8	9	L-PFOA	0.9987	NO	
9	11	PFHpS	0.9990	NO	
10	12	PFNA	0.9959	NO	
11	13	PFOSA	0.9989	NO	
12	14	L-PFOS	0.9982	NO	
13	16	PFDA	0.9992	NO	
14	17	8:2 FTS	0.9963	NO	
15	18	N-MeFOSAA	0.9984	NO	
16	19	N-EtFOSAA	0.9992	NO	
17	20	PFUdA	0.9955	NO	
18	21	PFDS	0.9957	NO	
19	22	PFDoA	0.9950	NO	
20	23	N-MeFOSA	0.9998	NO	
21	24	PFTrDA	0.9968	NO	
22	25	PFTeDA	0.9980	NO	
23	26	N-EtFOSA	0.9997	NO	
24	27	PFHxDA	0.9933	NO	
25	28	PFODA	0.9973	NO	
26	29	N-MeFOSE	0.9979	NO	
27	30	N-EtFOSE	0.9999	NO	
28	31	13C3-PFBA		NO	1.624
29	32	13C3-PFPeA		NO	4.012
30	33	13C3-PFBS		NO	4.625
31	34	13C2-PFHxA		NO	10.083

Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-CRV.qld

Last Altered: Friday, January 26, 2018 09:21:18 Pacific Standard Time
Printed: Friday, January 26, 2018 09:26:09 Pacific Standard Time

Name: 180125M1_2, Date: 25-Jan-2018, Time: 15:30:09, ID: ST180125M1-1 PFC CS-2 18A1904, Description: PFC CS-2 18A1904

	#	Name	CoD	CoD Flag	%RSD
32	35	13C4-PFHpA		NO	7.053
33	36	18O2-PFHxS		NO	7.706
34	37	13C2-6:2 FTS		NO	12.662
35	38	13C2-PFOA		NO	6.761
36	39	13C5-PFNA		NO	11.342
37	40	13C8-PFOSA		NO	12.409
38	41	13C8-PFOS		NO	9.031
39	42	13C2-PFDA		NO	16.481
40	43	13C2-8:2 FTS		NO	9.386
41	44	d3-N-MeFOSAA		NO	15.056
42	45	d5-N-EtFOSAA		NO	12.933
43	46	13C2-PFUdA		NO	16.383
44	47	13C2-PFDoA		NO	13.235
45	48	d3-N-MeFOSA		NO	13.667
46	49	13C2-PFTeDA		NO	17.404
47	50	d5-N-ETFOSA		NO	9.237
48	51	13C2-PFHxDA		NO	13.296
49	52	d7-N-MeFOSE		NO	16.337
50	53	d9-N-EtFOSE		NO	15.891
51	54	13C4-PFBA		NO	0.000
52	55	13C5-PFHxA		NO	0.000
53	56	13C3-PFHxS		NO	0.000
54	57	13C8-PFOA		NO	0.000
55	58	13C9-PFNA		NO	0.000
56	59	13C4-PFOS		NO	0.000
57	60	13C6-PFDA		NO	0.000
58	61	13C7-PFUdA		NO	0.000

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Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-13.qld

Last Altered: Friday, January 26, 2018 09:30:43 Pacific Standard Time
Printed: Friday, January 26, 2018 09:31:10 Pacific Standard Time

A No SS available.

AC 1/26/18

JA 01/26/2018

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_012518.mdb 26 Jan 2018 09:01:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-25-18-FULL.cdb 26 Jan 2018 09:21:18

Name: 180125M1_13, Date: 25-Jan-2018, Time: 17:36:33, ID: ICV180125M1-1 PFC ICV 18A1903, Description: PFC ICV 18A1903

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBA	213.0 > 168.8	1.13e4	1.18e4	1.0000		1.29	1.34	12.0	10.264	102.6
2	2 PFPeA	263.1 > 218.9	1.07e4	1.30e4	1.0000		2.27	2.30	10.3	10.263	102.6
3	3 PFBS	299.0 > 79.7	2.25e3	1.87e3	1.0000		2.56	2.58	15.0	8.238	82.4
4	4 PFHxA	313.2 > 268.9	1.33e4	4.02e3	1.0000		3.05	3.07	16.5	8.980	89.8
5	5 PFHpA	363.0 > 318.9	1.02e4	1.02e4	1.0000		3.68	3.69	12.5	9.460	94.6
6	6 L-PFHxS	398.9 > 79.6	1.64e3	1.27e3	1.0000		3.80	3.84	16.1	8.697	87.0
7	8 6:2 FTS	427.1 > 407	2.91e3	1.65e4	1.0000		4.15	4.16	2.20	9.090	90.9
8	9 L-PFOA	413 > 368.7	1.23e4	1.65e4	1.0000		4.20	4.22	9.29	9.861	98.6
9	11 PFHpS	449 > 80.0	2.55e3	3.59e3	1.0000		4.30	4.32	8.88	8.740	87.4
10	12 PFNA	463.0 > 418.8	1.43e4	1.59e4	1.0000		4.65	4.65	11.2	8.104	81.0
11	13 PFOSA	498.1 > 77.8	4.11e3	4.76e3	1.0000		4.70	4.71	10.8	9.665	96.6
12	14 L-PFOS	499 > 79.9	2.98e3	3.59e3	1.0000		4.75	4.73	10.4	10.047	100.5
13	16 PFDA	513 > 468.8	1.15e4	1.32e4	1.0000		5.03	5.03	10.9	7.061	70.6
14	17 8:2 FTS	527 > 506.9	2.64e3	1.32e4	1.0000		5.00	4.99	2.50	7.163	71.6
15	18 N-MeFOSAA	570.1 > 419	7.34e3	6.05e3	1.0000		5.20	5.18	15.2	9.824	98.2
16	19 N-EtFOSAA	584.2 > 419	5.35e3	6.27e3	1.0000		5.30	5.33	10.7	9.624	96.2
17	20 PFUdA	563.0 > 518.9	1.44e4	1.92e4	1.0000		5.36	5.35	9.41	8.485	84.8
18	21 PFDS	598.8 > 80	3.25e3	1.44e4	1.0000		5.40	5.40	2.81	7.614	76.1
19	22 PFDoA	612.9 > 569.0	1.70e4	1.44e4	1.0000		5.65	5.63	14.8	8.202	82.0
20	23 N-MeFOSA	512.1 > 168.9		2.04e4	1.0000		5.70				A
21	24 PFTrDA	662.9 > 618.9	1.76e4	1.44e4	1.0000		5.90	5.88	15.2	8.652	86.5
22	25 PFTeDA	712.9 > 668.8	9.56e3	5.67e3	1.0000		6.12	6.09	21.1	8.363	83.6
23	26 N-EtFOSA	526.1 > 168.9		3.04e4	1.0000		6.12				A
24	27 PFHxDA	813.1 > 768.6		3.82e3	1.0000		6.46				
25	28 PFODA	913.1 > 868.8		3.82e3	1.0000		6.70				
26	29 N-MeFOSE	616.1 > 58.9		2.76e4	1.0000		6.31				
27	30 N-EtFOSE	630.1 > 58.9		2.56e4	1.0000		6.45				
28	31 13C3-PFBA	216.1 > 171.8	1.18e4	1.33e4	1.0000	0.882	1.30	1.34	11.0	12.493	99.9
29	32 13C3-PFPeA	266. > 221.8	1.30e4	1.51e4	1.0000	0.888	2.27	2.30	10.7	12.085	96.7
30	33 13C3-PFBS	302. > 98.8	1.87e3	1.51e4	1.0000	0.113	2.56	2.58	1.55	13.684	109.5
31	34 13C2-PFHxA	315 > 269.8	4.02e3	1.51e4	1.0000	0.692	3.05	3.07	3.32	4.794	95.9

70-130

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Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-13.qld

Last Altered: Friday, January 26, 2018 09:30:43 Pacific Standard Time
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Name: 180125M1_13, Date: 25-Jan-2018, Time: 17:36:33, ID: ICV180125M1-1 PFC ICV 18A1903, Description: PFC ICV 18A1903

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35 13C4-PFHpA	367.2 > 321.8	1.02e4	1.51e4	1.0000	0.686	3.68	3.69	8.46	12.341	98.7
33	36 18O2-PFHxS	403.0 > 102.6	1.27e3	3.90e3	1.0000	0.340	3.80	3.84	4.09	12.033	96.3
34	37 13C2-6:2 FTS	429.1 > 408.9	3.82e3	1.41e4	1.0000	0.266	4.15	4.16	3.39	12.759	102.1
35	38 13C2-PFOA	414.9 > 369.7	1.65e4	1.41e4	1.0000	1.072	4.20	4.22	14.7	13.698	109.6
36	39 13C5-PFNA	468.2 > 422.9	1.59e4	1.69e4	1.0000	0.898	4.65	4.65	11.8	13.115	104.9
37	40 13C8-PFOSA	506.1 > 77.7	4.76e3	1.89e4	1.0000	0.260	4.70	4.71	3.15	12.105	96.8
38	41 13C8-PFOS	507.0 > 79.9	3.59e3	3.61e3	1.0000	0.957	4.75	4.74	12.4	12.990	103.9
39	42 13C2-PFDA	515.1 > 469.9	1.32e4	1.31e4	1.0000	1.142	5.03	5.03	12.6	11.018	88.1
40	43 13C2-8:2 FTS	529.1 > 508.7	2.32e3	1.51e4	1.0000	0.174	5.00	4.99	1.92	11.061	88.5
41	44 d3-N-MeFOSAA	573.3 > 419	6.05e3	1.89e4	1.0000	0.422	5.20	5.17	4.00	9.475	75.8
42	45 d5-N-EtFOSAA	589.3 > 419	6.27e3	1.89e4	1.0000	0.431	5.30	5.33	4.14	9.620	77.0
43	46 13C2-PFUdA	565 > 519.8	1.92e4	1.89e4	1.0000	0.980	5.36	5.35	12.7	12.944	103.6
44	47 13C2-PFDoA	615.0 > 569.7	1.44e4	1.89e4	1.0000	0.739	5.65	5.63	9.54	12.909	103.3
45	48 d3-N-MeFOSA	515.2 > 168.9	2.04e4	1.89e4	1.0000	0.108	5.70	5.74	13.5	124.312	82.9
46	49 13C2-PFTeDA	714.8 > 669.6	5.67e3	1.89e4	1.0000	0.310	6.12	6.09	3.74	12.085	96.7
47	50 d5-N-ETFOSA	531.1 > 168.9	3.04e4	1.89e4	1.0000	0.155	6.25	6.14	20.1	129.508	86.3
48	51 13C2-PFHxDA	815 > 769.7	3.82e3	1.89e4	1.0000	0.560	6.46	6.42	2.52	4.509	90.2
49	52 d7-N-MeFOSE	623.1 > 58.9	2.76e4	1.89e4	1.0000	0.139	6.31	6.27	18.3	131.296	87.5
50	53 d9-N-EtFOSE	639.2 > 58.8	2.56e4	1.89e4	1.0000	0.128	6.12	6.42	17.0	132.881	88.6
51	54 13C4-PFBA	217. > 171.8	1.33e4	1.33e4	1.0000	1.000	1.30	1.34	12.5	12.500	100.0
52	55 13C5-PFHxA	318 > 272.9	1.51e4	1.51e4	1.0000	1.000	3.05	3.07	12.5	12.500	100.0
53	56 13C3-PFHxS	401.9 > 79.9	3.90e3	3.90e3	1.0000	1.000	3.80	3.84	12.5	12.500	100.0
54	57 13C8-PFOA	421.3 > 376	1.41e4	1.41e4	1.0000	1.000	4.20	4.22	12.5	12.500	100.0
55	58 13C9-PFNA	472.2 > 426.9	1.69e4	1.69e4	1.0000	1.000	4.65	4.65	12.5	12.500	100.0
56	59 13C4-PFOS	503 > 79.9	3.61e3	3.61e3	1.0000	1.000	4.60	4.74	12.5	12.500	100.0
57	60 13C6-PFDA	519.1 > 473.7	1.31e4	1.31e4	1.0000	1.000	5.03	5.02	12.5	12.500	100.0
58	61 13C7-PFUdA	570.1 > 524.8	1.89e4	1.89e4	1.0000	1.000	5.36	5.35	12.5	12.500	100.0

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Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
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Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_020118.mdb 02 Feb 2018 08:43:15
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_02-01-18-FULL.cdb 02 Feb 2018 08:56:36

AC 2/2/18

VJA 02/02/2018

Compound name: PFBA
Correlation coefficient: r = 0.999588, r^2 = 0.999176
Calibration curve: 1.15301 * x + 0.0290072
Response type: Internal Std (Ref 34), 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 180201M2_2	Standard	0.250	1.74	212.707	9389.637	0.283	0.2	-11.8	NO	0.999	NO	bb
2	2 180201M2_3	Standard	0.500	1.74	512.017	9983.384	0.641	0.5	6.2	NO	0.999	NO	bb
3	3 180201M2_4	Standard	1.000	1.74	933.750	9986.440	1.169	1.0	-1.1	NO	0.999	NO	bb
4	4 180201M2_5	Standard	2.000	1.73	1893.553	9690.016	2.443	2.1	4.7	NO	0.999	NO	bb
5	5 180201M2_6	Standard	5.000	1.73	4584.294	9520.578	6.019	5.2	3.9	NO	0.999	NO	bb
6	6 180201M2_7	Standard	10.000	1.73	9560.794	9923.568	12.043	10.4	4.2	NO	0.999	NO	bb
7	7 180201M2_8	Standard	50.000	1.73	45262.359	9588.937	59.003	51.1	2.3	NO	0.999	NO	bb
8	8 180201M2_9	Standard	100.000	1.72	89634.344	9692.715	115.595	100.2	0.2	NO	0.999	NO	bb
9	9 180201M2_10	Standard	250.000	1.72	216936.203	9046.232	299.760	260.0	4.0	NO	0.999	NO	bb
10	10 180201M2_11	Standard	500.000	1.72	408663.469	9078.827	562.660	488.0	-2.4	NO	0.999	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.999459, r^2 = 0.998919
Calibration curve: 0.921641 * x + 0.120981
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	0.250	2.72	249.826	10291.811	0.303	0.2	-20.8	NO	0.999	NO	bb
2	2 180201M2_3	Standard	0.500	2.72	484.837	11538.120	0.525	0.4	-12.3	NO	0.999	NO	bb
3	3 180201M2_4	Standard	1.000	2.71	958.982	10814.430	1.108	1.1	7.1	NO	0.999	NO	bb
4	4 180201M2_5	Standard	2.000	2.71	1802.433	11918.526	1.890	1.9	-4.0	NO	0.999	NO	bb
5	5 180201M2_6	Standard	5.000	2.71	4775.363	11699.451	5.102	5.4	8.1	NO	0.999	NO	bb
6	6 180201M2_7	Standard	10.000	2.70	8525.360	10244.049	10.403	11.2	11.6	NO	0.999	NO	bb
7	7 180201M2_8	Standard	50.000	2.70	42027.309	10452.232	50.261	54.4	8.8	NO	0.999	NO	bb
8	8 180201M2_9	Standard	100.000	2.70	79031.859	10454.805	94.492	102.4	2.4	NO	0.999	NO	bb
9	9 180201M2_10	Standard	250.000	2.70	200848.563	10730.524	233.969	253.7	1.5	NO	0.999	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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Compound name: PFPeA

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
10	10 180201M2_11	Standard	500.000	2.69	357330.969	9927.790	449.913	488.0	-2.4	NO	0.999	NO	bb

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999372
Calibration curve: 0.000720487 * x^2 + 1.50907 * x + 0.184842
Response type: Internal Std (Ref 36), 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 180201M2_2	Standard	0.250	2.99	55.924	1433.712	0.488	0.2	-19.8	NO	0.999	NO	MM
2	2 180201M2_3	Standard	0.500	2.99	114.197	1551.910	0.920	0.5	-2.6	NO	0.999	NO	bb
3	3 180201M2_4	Standard	1.000	2.98	197.640	1514.292	1.631	1.0	-4.2	NO	0.999	NO	bb
4	4 180201M2_5	Standard	2.000	2.98	401.874	1492.356	3.366	2.1	5.3	NO	0.999	NO	bb
5	5 180201M2_6	Standard	5.000	2.98	1011.305	1480.229	8.540	5.5	10.4	NO	0.999	NO	bb
6	6 180201M2_7	Standard	10.000	2.98	2112.059	1572.907	16.785	10.9	9.4	NO	0.999	NO	bb
7	7 180201M2_8	Standard	50.000	2.97	9241.729	1491.415	77.458	50.0	0.0	NO	0.999	NO	bb
8	8 180201M2_9	Standard	100.000	2.97	19325.635	1464.832	164.913	104.0	4.0	NO	0.999	NO	bb
9	9 180201M2_10	Standard	250.000	2.97	45481.453	1395.219	407.476	241.9	-3.2	NO	0.999	NO	bb
10	10 180201M2_11	Standard	500.000	2.97	85698.891	1138.420	940.985	502.8	0.6	NO	0.999	NO	bb

Compound name: 4:2 FTS
Coefficient of Determination: R^2 = 0.999451
Calibration curve: 0.000203044 * x^2 + 1.61794 * x + 0.159207
Response type: Internal Std (Ref 36), 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 180201M2_2	Standard	0.250	3.40	50.736	1433.712	0.442	0.2	-30.0	~~YES~~ NO.	0.999	NO	MM
2	2 180201M2_3	Standard	0.500	3.39	119.567	1551.910	0.963	0.5	-0.6	NO	0.999	NO	bb
3	3 180201M2_4	Standard	1.000	3.39	244.639	1514.292	2.019	1.1	15.0	NO	0.999	NO	bb
4	4 180201M2_5	Standard	2.000	3.39	441.763	1492.356	3.700	2.2	9.4	NO	0.999	NO	bb
5	5 180201M2_6	Standard	5.000	3.38	1001.657	1480.229	8.459	5.1	2.5	NO	0.999	NO	bb
6	6 180201M2_7	Standard	10.000	3.38	2056.812	1572.907	16.346	10.0	-0.1	NO	0.999	NO	bb
7	7 180201M2_8	Standard	50.000	3.38	10091.644	1491.415	84.581	51.8	3.7	NO	0.999	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
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Compound name: 4:2 FTS

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
8	8 180201M2_9	Standard	100.000	3.38	19757.881	1464.832	168.602	102.8	2.8	NO	0.999	NO	bb
9	9 180201M2_10	Standard	250.000	3.38	45015.465	1395.219	403.301	241.8	-3.3	NO	0.999	NO	bb
10	10 180201M2_11	Standard	500.000	3.37	78840.711	1138.420	865.681	503.2	0.6	NO	0.999	NO	bb

Compound name: PFHxA
Coefficient of Determination: R^2 = 0.999268
Calibration curve: -0.000163281 * x^2 + 1.50548 * x + 0.113411
Response type: Internal Std (Ref 37), 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 180201M2_2	Standard	0.250	3.49	327.504	3752.902	0.436	0.2	-14.2	NO	0.999	NO	bb
2	2 180201M2_3	Standard	0.500	3.49	597.904	3439.315	0.869	0.5	0.4	NO	0.999	NO	bb
3	3 180201M2_4	Standard	1.000	3.49	1167.424	3523.702	1.657	1.0	2.5	NO	0.999	NO	bb
4	4 180201M2_5	Standard	2.000	3.48	2432.601	3231.672	3.764	2.4	21.3	NO	0.999	NO	bb
5	5 180201M2_6	Standard	5.000	3.48	5751.611	3472.787	8.281	5.4	8.6	NO	0.999	NO	bb
6	6 180201M2_7	Standard	10.000	3.48	10989.215	3293.221	16.685	11.0	10.2	NO	0.999	NO	bb
7	7 180201M2_8	Standard	50.000	3.48	51512.160	3350.827	76.865	51.3	2.5	NO	0.999	NO	bb
8	8 180201M2_9	Standard	100.000	3.47	105053.016	3472.382	151.269	101.5	1.5	NO	0.999	NO	bb
9	9 180201M2_10	Standard	250.000	3.47	225876.188	3192.434	353.768	241.2	-3.5	NO	0.999	NO	bb
10	10 180201M2_11	Standard	500.000	3.47	448298.469	3123.552	717.610	504.2	0.8	NO	0.999	NO	bb

Compound name: PFPeS
Correlation coefficient: r = 0.997255, r^2 = 0.994517
Calibration curve: 1.92826 * x + -0.169565
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	0.250	3.69	45.912	1433.712	0.400	0.3	18.2	NO	0.995	NO	MM
2	2 180201M2_3	Standard	0.500	3.68	89.330	1551.910	0.720	0.5	-7.8	NO	0.995	NO	bb
3	3 180201M2_4	Standard	1.000	3.68	212.781	1514.292	1.756	1.0	-0.1	NO	0.995	NO	bb
4	4 180201M2_5	Standard	2.000	3.68	470.903	1492.356	3.944	2.1	6.7	NO	0.995	NO	bb
5	5 180201M2_6	Standard	5.000	3.67	1109.698	1480.229	9.371	4.9	-1.0	NO	0.995	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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Compound name: PFPeS

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
6	6 180201M2_7	Standard	10.000	3.67	2337.649	1572.907	18.577	9.7	-2.8	NO	0.995	NO	bb
7	7 180201M2_8	Standard	50.000	3.67	11096.020	1491.415	92.999	48.3	-3.4	NO	0.995	NO	bb
8	8 180201M2_9	Standard	100.000	3.66	21066.156	1464.832	179.766	93.3	-6.7	NO	0.995	NO	bb
9	9 180201M2_10	Standard	250.000	3.66	48596.195	1395.219	435.381	225.9	-9.6	NO	0.995	NO	bb
10	10 180201M2_11	Standard	500.000	3.66	93530.148	1138.420	1026.973	532.7	6.5	NO	0.995	NO	bb

Compound name: PFHpA
Correlation coefficient: r = 0.999876, r^2 = 0.999751
Calibration curve: 1.33885 * x + -0.0298888
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	0.250	4.12	205.343	8537.186	0.301	0.2	-1.2	NO	1.000	NO	bb
2	2 180201M2_3	Standard	0.500	4.12	468.266	8665.500	0.675	0.5	5.4	NO	1.000	NO	bb
3	3 180201M2_4	Standard	1.000	4.11	887.099	8295.039	1.337	1.0	2.1	NO	1.000	NO	bb
4	4 180201M2_5	Standard	2.000	4.11	2028.035	8948.312	2.833	2.1	6.9	NO	1.000	NO	bb
5	5 180201M2_6	Standard	5.000	4.10	4822.485	9472.876	6.364	4.8	-4.5	NO	1.000	NO	bb
6	6 180201M2_7	Standard	10.000	4.10	9014.292	9280.252	12.142	9.1	-9.1	NO	1.000	NO	bb
7	7 180201M2_8	Standard	50.000	4.10	42484.176	8132.475	65.300	48.8	-2.4	NO	1.000	NO	bb
8	8 180201M2_9	Standard	100.000	4.10	88190.313	8029.674	137.288	102.6	2.6	NO	1.000	NO	bb
9	9 180201M2_10	Standard	250.000	4.10	203692.563	7548.560	337.304	252.0	0.8	NO	1.000	NO	bb
10	10 180201M2_11	Standard	500.000	4.09	370149.844	6944.875	666.228	497.6	-0.5	NO	1.000	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
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Compound name: L-PFHxS
Correlation coefficient: r = 0.999731, r^2 = 0.999462
Calibration curve: 1.66977 * x + 0.0985786
Response type: Internal Std (Ref 39), 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 180201M2_2	Standard	0.250	4.26	35.073	1056.209	0.415	0.2	-24.2	NO	0.999	NO	MM
2	2 180201M2_3	Standard	0.500	4.25	83.448	1160.678	0.899	0.5	-4.2	NO	0.999	NO	MM
3	3 180201M2_4	Standard	1.000	4.25	157.708	1082.664	1.821	1.0	3.1	NO	0.999	NO	MM
4	4 180201M2_5	Standard	2.000	4.24	305.706	1135.339	3.366	2.0	-2.2	NO	0.999	NO	MM
5	5 180201M2_6	Standard	5.000	4.24	818.170	1105.755	9.249	5.5	9.6	NO	0.999	NO	MM
6	6 180201M2_7	Standard	10.000	4.24	1665.759	1096.692	18.986	11.3	13.1	NO	0.999	NO	MM
7	7 180201M2_8	Standard	50.000	4.24	7835.177	1126.976	86.905	52.0	4.0	NO	0.999	NO	MM
8	8 180201M2_9	Standard	100.000	4.23	14767.560	1094.272	168.692	101.0	1.0	NO	0.999	NO	MM
9	9 180201M2_10	Standard	250.000	4.23	34389.738	1016.523	422.884	253.2	1.3	NO	0.999	NO	MM
10	10 180201M2_11	Standard	500.000	4.23	68657.250	1044.222	821.871	492.1	-1.6	NO	0.999	NO	MM

Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.998757
Calibration curve: -8.65385e-005 * x^2 + 0.263083 * x + 0.00293198
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	0.250	4.58	67.229	15180.339	0.055	0.2	-20.3	NO	0.999	NO	bb
2	2 180201M2_3	Standard	0.500	4.56	123.138	13847.419	0.111	0.4	-17.7	NO	0.999	NO	bb
3	3 180201M2_4	Standard	1.000	4.57	356.080	13183.470	0.338	1.3	27.3	NO	0.999	NO	bb
4	4 180201M2_5	Standard	2.000	4.56	586.612	13426.970	0.546	2.1	3.3	NO	0.999	NO	bb
5	5 180201M2_6	Standard	5.000	4.56	1263.803	12850.056	1.229	4.7	-6.6	NO	0.999	NO	bb
6	6 180201M2_7	Standard	10.000	4.56	3116.245	12564.818	3.100	11.8	18.2	NO	0.999	NO	bb
7	7 180201M2_8	Standard	50.000	4.56	11981.239	11610.387	12.899	49.8	-0.3	NO	0.999	NO	bb
8	8 180201M2_9	Standard	100.000	4.56	26238.688	12445.125	26.354	103.7	3.7	NO	0.999	NO	bb
9	9 180201M2_10	Standard	250.000	4.55	54837.234	11793.541	58.122	239.8	-4.1	NO	0.999	NO	bb
10	10 180201M2_11	Standard	500.000	4.55	92294.516	10408.093	110.845	505.3	1.1	NO	0.999	NO	bb

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Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.999666
Calibration curve: 0.000195402 * x^2 + 0.967507 * x + 0.0573653
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	0.250	4.63	320.028	15180.339	0.264	0.2	-14.8	NO	1.000	NO	bb
2	2 180201M2_3	Standard	0.500	4.62	499.409	13847.419	0.451	0.4	-18.7	NO	1.000	NO	bb
3	3 180201M2_4	Standard	1.000	4.62	1188.344	13183.470	1.127	1.1	10.5	NO	1.000	NO	bb
4	4 180201M2_5	Standard	2.000	4.62	2321.047	13426.970	2.161	2.2	8.7	NO	1.000	NO	bb
5	5 180201M2_6	Standard	5.000	4.61	5169.790	12850.056	5.029	5.1	2.7	NO	1.000	NO	bb
6	6 180201M2_7	Standard	10.000	4.61	10867.396	12564.818	10.811	11.1	10.9	NO	1.000	NO	bb
7	7 180201M2_8	Standard	50.000	4.61	47224.406	11610.387	50.843	51.9	3.9	NO	1.000	NO	bb
8	8 180201M2_9	Standard	100.000	4.61	95549.547	12445.125	95.971	97.2	-2.8	NO	1.000	NO	bb
9	9 180201M2_10	Standard	250.000	4.60	238264.297	11793.541	252.537	248.5	-0.6	NO	1.000	NO	bb
10	10 180201M2_11	Standard	500.000	4.60	444474.906	10408.093	533.809	501.0	0.2	NO	1.000	NO	bb

Compound name: PFHpS
Coefficient of Determination: R^2 = 0.998404
Calibration curve: -0.000351604 * x^2 + 1.0357 * x + -0.223659
Response type: Internal Std (Ref 44), 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 180201M2_2	Standard	0.250	4.73	82.629	3137.675	0.329	0.5	113.6	YES	0.998	NO	bbX
2	2 180201M2_3	Standard	0.500	4.73	65.901	3080.948	0.267	0.5	-5.2	NO	0.998	NO	bb
3	3 180201M2_4	Standard	1.000	4.72	278.063	3232.771	1.075	1.3	25.5	NO	0.998	NO	bb
4	4 180201M2_5	Standard	2.000	4.72	517.705	3242.907	1.996	2.1	7.2	NO	0.998	NO	bb
5	5 180201M2_6	Standard	5.000	4.72	917.281	2934.418	3.907	4.0	-20.1	NO	0.998	NO	bb
6	6 180201M2_7	Standard	10.000	4.71	2439.915	3221.173	9.468	9.4	-6.1	NO	0.998	NO	bb
7	7 180201M2_8	Standard	50.000	4.71	11451.972	3061.044	46.765	46.1	-7.8	NO	0.998	NO	bb
8	8 180201M2_9	Standard	100.000	4.71	25620.775	2990.104	107.107	107.6	7.6	NO	0.998	NO	bb
9	9 180201M2_10	Standard	250.000	4.70	57255.648	3049.938	234.659	247.6	-1.0	NO	0.998	NO	bb
10	10 180201M2_11	Standard	500.000	4.70	100399.539	2920.493	429.720	500.0	-0.0	NO	0.998	NO	bb

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Compound name: PFNA
Coefficient of Determination: R^2 = 0.997025
Calibration curve: -0.00027373 * x^2 + 1.17487 * x + 0.141309
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	0.250	5.05	328.290	10855.060	0.378	0.2	-19.4	NO	0.997	NO	bb
2	2 180201M2_3	Standard	0.500	5.05	565.966	11105.828	0.637	0.4	-15.6	NO	0.997	NO	bb
3	3 180201M2_4	Standard	1.000	5.04	1116.923	10172.259	1.373	1.0	4.8	NO	0.997	NO	bb
4	4 180201M2_5	Standard	2.000	5.04	2379.856	10992.008	2.706	2.2	9.2	NO	0.997	NO	bb
5	5 180201M2_6	Standard	5.000	5.04	6883.418	12525.866	6.869	5.7	14.7	NO	0.997	NO	bb
6	6 180201M2_7	Standard	10.000	5.04	10363.709	11422.679	11.341	9.6	-4.5	NO	0.997	NO	bb
7	7 180201M2_8	Standard	50.000	5.04	50737.699	9457.981	67.057	57.7	15.5	NO	0.997	NO	bb
8	8 180201M2_9	Standard	100.000	5.03	99274.172	10766.577	115.257	100.3	0.3	NO	0.997	NO	bb
9	9 180201M2_10	Standard	250.000	5.03	268166.688	12927.568	259.297	233.3	-6.7	NO	0.997	NO	bb
10	10 180201M2_11	Standard	500.000	5.03	458492.813	10876.807	526.916	508.6	1.7	NO	0.997	NO	bb

Compound name: PFOSA
Correlation coefficient: r = 0.999294, r^2 = 0.998588
Calibration curve: 1.03954 * x + 0.15214
Response type: Internal Std (Ref 43), 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 180201M2_2	Standard	0.250	5.11	77.926	2908.301	0.335	0.2	-29.7	NO	0.999	NO	bb
2	2 180201M2_3	Standard	0.500	5.10	167.526	3222.731	0.650	0.5	-4.3	NO	0.999	NO	bb
3	3 180201M2_4	Standard	1.000	5.10	338.944	3008.096	1.408	1.2	20.9	NO	0.999	NO	bb
4	4 180201M2_5	Standard	2.000	5.10	555.831	2726.330	2.548	2.3	15.3	NO	0.999	NO	bb
5	5 180201M2_6	Standard	5.000	5.10	1216.500	2933.252	5.184	4.8	-3.2	NO	0.999	NO	bb
6	6 180201M2_7	Standard	10.000	5.09	2767.181	3030.171	11.415	10.8	8.3	NO	0.999	NO	bb
7	7 180201M2_8	Standard	50.000	5.09	11524.962	3081.776	46.746	44.8	-10.4	NO	0.999	NO	bb
8	8 180201M2_9	Standard	100.000	5.09	24615.586	2954.469	104.146	100.0	0.0	NO	0.999	NO	bb
9	9 180201M2_10	Standard	250.000	5.09	58462.555	2694.043	271.258	260.8	4.3	NO	0.999	NO	bb
10	10 180201M2_11	Standard	500.000	5.08	100147.328	2440.696	512.904	493.3	-1.3	NO	0.999	NO	bb

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Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.999700
Calibration curve: -0.000302712 * x^2 + 1.09506 * x + 0.00573512
Response type: Internal Std (Ref 44), 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 180201M2_2	Standard	0.250	5.13	75.136	3137.675	0.299	0.3	7.3	NO	1.000	NO	MM
2	2 180201M2_3	Standard	0.500	5.13	145.682	3080.948	0.591	0.5	6.9	NO	1.000	NO	MM
3	3 180201M2_4	Standard	1.000	5.12	217.711	3232.771	0.842	0.8	-23.6	NO	1.000	NO	MM
4	4 180201M2_5	Standard	2.000	5.12	566.266	3242.907	2.183	2.0	-0.5	NO	1.000	NO	MM
5	5 180201M2_6	Standard	5.000	5.12	1411.466	2934.418	6.013	5.5	9.9	NO	1.000	NO	MM
6	6 180201M2_7	Standard	10.000	5.11	2751.907	3221.173	10.679	9.8	-2.3	NO	1.000	NO	MM
7	7 180201M2_8	Standard	50.000	5.11	13644.756	3061.044	55.719	51.6	3.2	NO	1.000	NO	MM
8	8 180201M2_9	Standard	100.000	5.11	25578.988	2990.104	106.932	100.4	0.4	NO	1.000	NO	MM
9	9 180201M2_10	Standard	250.000	5.11	61214.918	3049.938	250.886	245.8	-1.7	NO	1.000	NO	MM
10	10 180201M2_11	Standard	500.000	5.10	110646.789	2920.493	473.579	502.2	0.4	NO	1.000	NO	MM

Compound name: PFDA
Coefficient of Determination: R^2 = 0.995894
Calibration curve: 5.47654e-006 * x^2 + 1.19216 * x + 0.18128
Response type: Internal Std (Ref 45), 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 180201M2_2	Standard	0.250	5.42	419.944	11641.184	0.451	0.2	-9.5	NO	0.996	NO	bb
2	2 180201M2_3	Standard	0.500	5.42	693.899	12949.461	0.670	0.4	-18.0	NO	0.996	NO	bb
3	3 180201M2_4	Standard	1.000	5.41	1388.925	11726.376	1.481	1.1	9.0	NO	0.996	NO	bb
4	4 180201M2_5	Standard	2.000	5.41	2415.564	13257.169	2.278	1.8	-12.1	NO	0.996	NO	bb
5	5 180201M2_6	Standard	5.000	5.41	6013.211	12165.767	6.178	5.0	0.6	NO	0.996	NO	bb
6	6 180201M2_7	Standard	10.000	5.40	12651.417	10837.155	14.593	12.1	20.9	NO	0.996	NO	bb
7	7 180201M2_8	Standard	50.000	5.40	58887.707	11210.779	65.660	54.9	9.8	NO	0.996	NO	bb
8	8 180201M2_9	Standard	100.000	5.40	104220.281	10225.794	127.399	106.7	6.7	NO	0.996	NO	bb
9	9 180201M2_10	Standard	250.000	5.40	228302.969	10531.019	270.989	226.9	-9.2	NO	0.996	NO	bb
10	10 180201M2_11	Standard	500.000	5.39	510512.125	10475.140	609.195	509.7	1.9	NO	0.996	NO	bb

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Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.998259
Calibration curve: -0.000385715 * x^2 + 0.324873 * x + -0.0128103
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180201M2_2	Standard	0.250	5.40	64.168	15180.339	0.053	0.2	-19.2	NO	0.998	NO	bb
2	2	180201M2_3	Standard	0.500	5.39	160.888	13847.419	0.145	0.5	-2.6	NO	0.998	NO	bb
3	3	180201M2_4	Standard	1.000	5.39	391.632	13183.470	0.371	1.2	18.4	NO	0.998	NO	bb
4	4	180201M2_5	Standard	2.000	5.38	716.104	13426.970	0.667	2.1	4.8	NO	0.998	NO	bb
5	5	180201M2_6	Standard	5.000	5.38	1474.707	12850.056	1.435	4.5	-10.4	NO	0.998	NO	bb
6	6	180201M2_7	Standard	10.000	5.38	3006.310	12564.818	2.991	9.3	-6.5	NO	0.998	NO	bb
7	7	180201M2_8	Standard	50.000	5.38	13512.659	11610.387	14.548	47.5	-5.0	NO	0.998	NO	bb
8	8	180201M2_9	Standard	100.000	5.37	29929.625	12445.125	30.062	105.9	5.9	NO	0.998	NO	bb
9	9	180201M2_10	Standard	250.000	5.37	53472.387	11793.541	56.676	246.8	-1.3	NO	0.998	NO	bb
10	10	180201M2_11	Standard	500.000	5.37	99525.766	10408.093	119.529			NO	0.998	NO	bbXI

Compound name: PFNS
Coefficient of Determination: R^2 = 0.998790
Calibration curve: -0.000310309 * x^2 + 0.89006 * x + 0.0327266
Response type: Internal Std (Ref 44), 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	180201M2_2	Standard	0.250			3137.675				NO	0.999	NO	
2	2	180201M2_3	Standard	0.500	5.47	119.572	3080.948	0.485	0.5	1.7	NO	0.999	NO	MM
3	3	180201M2_4	Standard	1.000	5.47	225.814	3232.771	0.873	0.9	-5.5	NO	0.999	NO	MM
4	4	180201M2_5	Standard	2.000	5.46	459.069	3242.907	1.770	2.0	-2.4	NO	0.999	NO	MM
5	5	180201M2_6	Standard	5.000	5.46	999.624	2934.418	4.258	4.8	-4.9	NO	0.999	NO	MM
6	6	180201M2_7	Standard	10.000	5.46	2506.720	3221.173	9.728	10.9	9.3	NO	0.999	NO	MM
7	7	180201M2_8	Standard	50.000	5.45	10629.116	3061.044	43.405	49.6	-0.8	NO	0.999	NO	MM
8	8	180201M2_9	Standard	100.000	5.45	21781.516	2990.104	91.057	106.2	6.2	NO	0.999	NO	bb
9	9	180201M2_10	Standard	250.000	5.45	47476.277	3049.938	194.579	238.4	-4.6	NO	0.999	NO	MM
10	10	180201M2_11	Standard	500.000	5.45	86626.492	2920.493	370.770	505.7	1.1	NO	0.999	NO	MM

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.998624
Calibration curve: -0.000363125 * x^2 + 1.42776 * x + -0.075006
Response type: Internal Std (Ref 47), 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	180201M2_2	Standard	0.250	5.56	210.447	5277.298	0.498	0.4	60.7	YES	0.999	NO	bbX
2	2	180201M2_3	Standard	0.500	5.56	247.218	5755.686	0.537	0.4	-14.3	NO	0.999	NO	bb
3	3	180201M2_4	Standard	1.000	5.56	526.404	4977.270	1.322	1.0	-2.1	NO	0.999	NO	bb
4	4	180201M2_5	Standard	2.000	5.55	1314.370	5351.252	3.070	2.2	10.2	NO	0.999	NO	bb
5	5	180201M2_6	Standard	5.000	5.55	2918.092	5465.481	6.674	4.7	-5.3	NO	0.999	NO	bb
6	6	180201M2_7	Standard	10.000	5.55	5891.524	5434.169	13.552	9.6	-4.3	NO	0.999	NO	bb
7	7	180201M2_8	Standard	50.000	5.55	29003.156	5006.550	72.413	51.4	2.9	NO	0.999	NO	bb
8	8	180201M2_9	Standard	100.000	5.54	60351.309	5101.554	147.875	106.5	6.5	NO	0.999	NO	bb
9	9	180201M2_10	Standard	250.000	5.54	125367.289	4926.247	318.111	237.2	-5.1	NO	0.999	NO	bb
10	10	180201M2_11	Standard	500.000	5.54	251506.266	4997.280	629.108	505.7	1.1	NO	0.999	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999653
Calibration curve: -0.000347341 * x^2 + 1.08324 * x + -0.0568299
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	180201M2_2	Standard	0.250	5.72	128.376	6164.870	0.260	0.3	17.1	NO	1.000	NO	bb
2	2	180201M2_3	Standard	0.500	5.71	178.817	6123.357	0.365	0.4	-22.1	NO	1.000	NO	bb
3	3	180201M2_4	Standard	1.000	5.71	483.747	6029.236	1.003	1.0	-2.1	NO	1.000	NO	bb
4	4	180201M2_5	Standard	2.000	5.71	1077.277	6259.932	2.151	2.0	2.0	NO	1.000	NO	bb
5	5	180201M2_6	Standard	5.000	5.70	2057.843	5914.638	4.349	4.1	-18.5	NO	1.000	NO	bb
6	6	180201M2_7	Standard	10.000	5.70	5564.857	6288.980	11.061	10.3	3.0	NO	1.000	NO	bb
7	7	180201M2_8	Standard	50.000	5.70	24438.742	5807.799	52.599	49.4	-1.2	NO	1.000	NO	bb
8	8	180201M2_9	Standard	100.000	5.69	48485.758	5766.029	105.111	100.3	0.3	NO	1.000	NO	bb
9	9	180201M2_10	Standard	250.000	5.69	107230.797	5336.983	251.150	252.3	0.9	NO	1.000	NO	bb
10	10	180201M2_11	Standard	500.000	5.69	191416.422	5273.983	453.681	498.6	-0.3	NO	1.000	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.997854
Calibration curve: -0.000256831 * x^2 + 1.1318 * x + 0.0323822
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 180201M2_2	Standard	0.250	5.73	410.345	15200.801	0.337	0.3	7.8	NO	0.998	NO	bb
2	2 180201M2_3	Standard	0.500	5.73	926.525	15563.569	0.744	0.6	25.8	NO	0.998	NO	bb
3	3 180201M2_4	Standard	1.000	5.73	1203.429	13426.738	1.120	1.0	-3.9	NO	0.998	NO	bb
4	4 180201M2_5	Standard	2.000	5.73	1702.760	13117.037	1.623	1.4	-29.7	NO	0.998	NO	bb
5	5 180201M2_6	Standard	5.000	5.72	5908.609	12485.801	5.915	5.2	4.1	NO	0.998	NO	bb
6	6 180201M2_7	Standard	10.000	5.72	11529.538	12698.962	11.349	10.0	0.2	NO	0.998	NO	bb
7	7 180201M2_8	Standard	50.000	5.72	59433.605	15075.656	49.279	44.0	-12.1	NO	0.998	NO	bb
8	8 180201M2_9	Standard	100.000	5.71	117748.523	12250.399	120.148	108.8	8.8	NO	0.998	NO	bb
9	9 180201M2_10	Standard	250.000	5.71	263070.063	12438.353	264.374	247.5	-1.0	NO	0.998	NO	bb
10	10 180201M2_11	Standard	500.000	5.71	426579.938	10626.814	501.773	500.1	0.0	NO	0.998	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.994051
Calibration curve: -1.47e-005 * x^2 + 0.346528 * x + -0.012366
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 180201M2_2	Standard	0.250	5.77	65.641	11960.537	0.069	0.2	-6.5	NO	0.994	NO	bb
2	2 180201M2_3	Standard	0.500	5.78	149.453	13796.158	0.135	0.4	-14.7	NO	0.994	NO	bb
3	3 180201M2_4	Standard	1.000	5.77	307.968	10290.432	0.374	1.1	11.5	NO	0.994	NO	bb
4	4 180201M2_5	Standard	2.000	5.77	589.220	10609.885	0.694	2.0	2.0	NO	0.994	NO	bb
5	5 180201M2_6	Standard	5.000	5.76	1526.004	12375.247	1.541	4.5	-10.3	NO	0.994	NO	bb
6	6 180201M2_7	Standard	10.000	5.76	3019.841	9151.438	4.125	11.9	19.4	NO	0.994	NO	bb
7	7 180201M2_8	Standard	50.000	5.76	13522.194	8795.715	19.217	55.6	11.2	NO	0.994	NO	bb
8	8 180201M2_9	Standard	100.000	5.76	25528.313	11266.216	28.324	82.1	-17.9	NO	0.994	NO	bb
9	9 180201M2_10	Standard	250.000	5.75	62397.008	8564.437	91.070	265.8	6.3	NO	0.994	NO	bb
10	10 180201M2_11	Standard	500.000	5.75	117945.922	8779.890	167.921	495.0	-1.0	NO	0.994	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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Compound name: PFDoA
Coefficient of Determination: $R^2 = 0.997264$
Calibration curve: -0.000708969 * x^2 + 1.83544 * x + -0.0621147
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	180201M2_2	Standard	0.250	6.01	510.072	11960.537	0.533	0.3	29.7	NO	0.997	NO	bb
2	2	180201M2_3	Standard	0.500	6.00	767.873	13796.158	0.696	0.4	-17.4	NO	0.997	NO	bb
3	3	180201M2_4	Standard	1.000	6.00	1616.492	10290.432	1.964	1.1	10.4	NO	0.997	NO	bb
4	4	180201M2_5	Standard	2.000	6.00	2965.437	10609.885	3.494	1.9	-3.1	NO	0.997	NO	bb
5	5	180201M2_6	Standard	5.000	6.00	6808.854	12375.247	6.877	3.8	-24.3	NO	0.997	NO	bb
6	6	180201M2_7	Standard	10.000	5.99	13695.843	9151.438	18.707	10.3	2.7	NO	0.997	NO	bb
7	7	180201M2_8	Standard	50.000	5.99	68399.461	8795.715	97.206	54.1	8.3	NO	0.997	NO	bb
8	8	180201M2_9	Standard	100.000	5.98	143908.953	11266.216	159.669	90.2	-9.8	NO	0.997	NO	bb
9	9	180201M2_10	Standard	250.000	5.98	295640.250	8564.437	431.494	261.5	4.6	NO	0.997	NO	bb
10	10	180201M2_11	Standard	500.000	5.98	515936.281	8779.890	734.543	494.8	-1.0	NO	0.997	NO	bb

Compound name: N-MeFOSA
Correlation coefficient: r = 0.998754, $r^2 = 0.997509$
Calibration curve: 0.965539 * x + 0.338146
Response type: Internal Std (Ref 51), 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	180201M2_2	Standard	1.250	5.93	144.167	15934.890	1.357	1.1	-15.6	NO	0.998	NO	bb
2	2	180201M2_3	Standard	2.500	5.94	289.506	16124.691	2.693	2.4	-2.4	NO	0.998	NO	bb
3	3	180201M2_4	Standard	5.000	5.94	550.742	16184.368	5.104	4.9	-1.3	NO	0.998	NO	bb
4	4	180201M2_5	Standard	10.000	5.94	1185.626	15804.994	11.252	11.3	13.0	NO	0.998	NO	bb
5	5	180201M2_6	Standard	25.000	5.93	2727.323	16229.670	25.207	25.8	3.0	NO	0.998	NO	bb
6	6	180201M2_7	Standard	50.000	5.93	5726.789	15531.838	55.307	56.9	13.9	NO	0.998	NO	bb
7	7	180201M2_8	Standard	250.000	5.93	26739.990	14765.406	271.648	281.0	12.4	NO	0.998	NO	bb
8	8	180201M2_9	Standard	500.000	5.93	51787.793	14944.372	519.806	538.0	7.6	NO	0.998	NO	bb
9	9	180201M2_10	Standard	1250.000	5.93	121315.047	14927.584	1219.036	1262.2	1.0	NO	0.998	NO	bb
10	10	180201M2_11	Standard	2500.000	5.93	220969.891	14241.318	2327.417	2410.1	-3.6	NO	0.998	NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998862
Calibration curve: -0.00612122 * x^2 + 4.14698 * x + 0.107854
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	0.250	6.24	490.574	5245.019	1.169	0.3	2.4	NO	0.999	NO	bb
2	2 180201M2_3	Standard	0.500	6.23	1025.122	5728.347	2.237	0.5	2.8	NO	0.999	NO	bb
3	3 180201M2_4	Standard	1.000	6.23	1770.611	5075.495	4.361	1.0	2.7	NO	0.999	NO	bb
4	4 180201M2_5	Standard	2.000	6.23	3334.091	5616.486	7.420	1.8	-11.6	NO	0.999	NO	bb
5	5 180201M2_6	Standard	5.000	6.22	8856.109	5545.823	19.961	4.8	-3.6	NO	0.999	NO	bb
6	6 180201M2_7	Standard	10.000	6.22	17730.619	5109.631	43.375	10.6	6.0	NO	0.999	NO	bb
7	7 180201M2_8	Standard	50.000	6.22	86487.398	5383.240	200.826	52.5	4.9	NO	0.999	NO	bb
8	8 180201M2_9	Standard	100.000	6.22	154284.313	5661.808	340.625	95.6	-4.4	NO	0.999	NO	bb
9	9 180201M2_10	Standard	250.000	6.21	318701.313	6057.532	657.655	253.2	1.3	NO	0.999	NO	bb
10	10 180201M2_11	Standard	500.000	6.21	686576.000	6843.993	1253.976			NO	0.999	NO	dbXI

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.996729
Calibration curve: -0.00151355 * x^2 + 2.14066 * x + 0.339985
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	0.250	6.42	324.566	5245.019	0.774	0.2	-19.0	NO	0.997	NO	bb
2	2 180201M2_3	Standard	0.500	6.42	610.869	5728.347	1.333	0.5	-7.2	NO	0.997	NO	bb
3	3 180201M2_4	Standard	1.000	6.42	941.610	5075.495	2.319	0.9	-7.5	NO	0.997	NO	bb
4	4 180201M2_5	Standard	2.000	6.41	2246.256	5616.486	4.999	2.2	9.0	NO	0.997	NO	bb
5	5 180201M2_6	Standard	5.000	6.41	5041.827	5545.823	11.364	5.2	3.4	NO	0.997	NO	bb
6	6 180201M2_7	Standard	10.000	6.41	10107.482	5109.631	24.727	11.5	14.9	NO	0.997	NO	bb
7	7 180201M2_8	Standard	50.000	6.41	48881.230	5383.240	113.503	55.0	10.0	NO	0.997	NO	bb
8	8 180201M2_9	Standard	100.000	6.41	92287.109	5661.808	203.749	102.4	2.4	NO	0.997	NO	bb
9	9 180201M2_10	Standard	250.000	6.40	198182.656	6057.532	408.959	227.5	-9.0	NO	0.997	NO	bb
10	10 180201M2_11	Standard	500.000	6.40	386713.125	6843.993	706.300	523.7	4.7	NO	0.997	NO	bb

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999817
Calibration curve: -3.34121e-006 * x^2 + 0.865695 * x + 0.289617
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 180201M2_2	Standard	1.250	6.26	200.513	23440.152	1.283	1.1	-8.2	NO	1.000	NO	bb
2	2 180201M2_3	Standard	2.500	6.26	361.267	23665.994	2.290	2.3	-7.6	NO	1.000	NO	bb
3	3 180201M2_4	Standard	5.000	6.26	686.620	22391.053	4.600	5.0	-0.4	NO	1.000	NO	bb
4	4 180201M2_5	Standard	10.000	6.26	1343.923	22542.172	8.943	10.0	-0.0	NO	1.000	NO	bb
5	5 180201M2_6	Standard	25.000	6.26	3599.853	22500.492	23.998	27.4	9.6	NO	1.000	NO	bb
6	6 180201M2_7	Standard	50.000	6.25	7118.709	22910.971	46.607	53.5	7.0	NO	1.000	NO	bb
7	7 180201M2_8	Standard	250.000	6.26	32412.738	22048.441	220.510	254.6	1.9	NO	1.000	NO	bb
8	8 180201M2_9	Standard	500.000	6.25	63266.188	22431.035	423.071	489.3	-2.1	NO	1.000	NO	bb
9	9 180201M2_10	Standard	1250.000	6.25	145732.797	20330.299	1075.238	1247.7	-0.2	NO	1.000	NO	bb
10	10 180201M2_11	Standard	2500.000	6.25	265946.969	18589.168	2145.983	2502.8	0.1	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.999282
Calibration curve: -0.000546352 * x^2 + 0.663826 * x + 0.129998
Response type: Internal Std (Ref 54), 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 180201M2_2	Standard	0.250	6.70	158.732	2927.053	0.271	0.2	-14.9	NO	0.999	NO	bb
2	2 180201M2_3	Standard	0.500	6.70	269.357	3177.656	0.424	0.4	-11.4	NO	0.999	NO	bb
3	3 180201M2_4	Standard	1.000	6.70	452.490	2907.611	0.778	1.0	-2.3	NO	0.999	NO	bb
4	4 180201M2_5	Standard	2.000	6.70	979.145	3008.532	1.627	2.3	13.0	NO	0.999	NO	bb
5	5 180201M2_6	Standard	5.000	6.70	2233.745	2993.088	3.732	5.4	9.0	NO	0.999	NO	bb
6	6 180201M2_7	Standard	10.000	6.69	4068.251	2766.564	7.353	11.0	9.8	NO	0.999	NO	bb
7	7 180201M2_8	Standard	50.000	6.69	19997.895	3188.611	31.358	49.0	-2.0	NO	0.999	NO	bb
8	8 180201M2_9	Standard	100.000	6.69	40855.063	3394.128	60.185	98.4	-1.6	NO	0.999	NO	bb
9	9 180201M2_10	Standard	250.000	6.69	92265.750	3485.095	132.372	251.1	0.4	NO	0.999	NO	bb
10	10 180201M2_11	Standard	500.000	6.68	168234.203	3984.295	211.122			NO	0.999	NO	bbXI

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.999107
Calibration curve: -0.000503172 * x^2 + 0.717508 * x + 0.0259502
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 180201M2_2	Standard	0.250	6.91	106.890	2927.053	0.183	0.2	-12.7	NO	0.999	NO	bb
2	2 180201M2_3	Standard	0.500	6.92	246.164	3177.656	0.387	0.5	0.8	NO	0.999	NO	bb
3	3 180201M2_4	Standard	1.000	6.91	458.066	2907.611	0.788	1.1	6.2	NO	0.999	NO	bb
4	4 180201M2_5	Standard	2.000	6.91	886.530	3008.532	1.473	2.0	1.0	NO	0.999	NO	bb
5	5 180201M2_6	Standard	5.000	6.91	2386.181	2993.088	3.986	5.5	10.8	NO	0.999	NO	bb
6	6 180201M2_7	Standard	10.000	6.90	4365.359	2766.564	7.889	11.0	10.5	NO	0.999	NO	bb
7	7 180201M2_8	Standard	50.000	6.90	22263.652	3188.611	34.911	50.4	0.8	NO	0.999	NO	bb
8	8 180201M2_9	Standard	100.000	6.90	43792.262	3394.128	64.512	96.4	-3.6	NO	0.999	NO	bb
9	9 180201M2_10	Standard	250.000	6.90	103686.352	3485.095	148.757	251.7	0.7	NO	0.999	NO	bb
10	10 180201M2_11	Standard	500.000	6.90	190408.547	3984.295	238.949	529.9	6.0	NO	0.999	NO	bbX

Compound name: N-MeFOSE
Coefficient of Determination: R^2 = 0.997739
Calibration curve: -0.000734466 * x^2 + 1.13064 * x + 0.263653
Response type: Internal Std (Ref 55), 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 180201M2_2	Standard	1.250	6.33	184.547	16441.795	1.684	1.3	0.6	NO	0.998	NO	bbX
2	2 180201M2_3	Standard	2.500	6.33	329.264	15620.593	3.162	2.6	2.7	NO	0.998	NO	bb
3	3 180201M2_4	Standard	5.000	6.33	626.798	17932.805	5.243	4.4	-11.7	NO	0.998	NO	bb
4	4 180201M2_5	Standard	10.000	6.32	1328.342	16106.033	12.371	10.8	7.8	NO	0.998	NO	bb
5	5 180201M2_6	Standard	25.000	6.33	2837.834	16361.470	26.017	23.1	-7.5	NO	0.998	NO	bb
6	6 180201M2_7	Standard	50.000	6.33	7609.881	18751.580	60.874	55.6	11.2	NO	0.998	NO	bb
7	7 180201M2_8	Standard	250.000	6.33	29034.457	18959.506	229.709	240.5	-3.8	NO	0.998	NO	bb
8	8 180201M2_9	Standard	500.000	6.33	51295.734	19978.916	385.124	508.1	1.6	NO	0.998	NO	bb
9	9 180201M2_10	Standard	1250.000	6.33	131914.625	16907.701	1170.307			NO	0.998	NO	bbXI
10	10 180201M2_11	Standard	2500.000	6.33	267828.375	17665.924	2274.110			NO	0.998	NO	bbXI

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999435, r^2 = 0.998871
Calibration curve: 1.19168 * x + -0.396104
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 180201M2_2	Standard	1.250	6.47	143.915	18513.486	1.166	1.3	4.9	NO	0.999	NO	bb
2	2 180201M2_3	Standard	2.500	6.47	273.451	20288.641	2.022	2.0	-18.8	NO	0.999	NO	bb
3	3 180201M2_4	Standard	5.000	6.47	606.951	17693.893	5.145	4.7	-7.0	NO	0.999	NO	bb
4	4 180201M2_5	Standard	10.000	6.47	1349.301	16696.051	12.122	10.5	5.0	NO	0.999	NO	bb
5	5 180201M2_6	Standard	25.000	6.47	3228.591	16082.565	30.113	25.6	2.4	NO	0.999	NO	bb
6	6 180201M2_7	Standard	50.000	6.47	7208.168	16678.395	64.828	54.7	9.5	NO	0.999	NO	bb
7	7 180201M2_8	Standard	250.000	6.48	31446.287	14775.413	319.243	268.2	7.3	NO	0.999	NO	bd
8	8 180201M2_9	Standard	500.000	6.47	76468.148	19715.496	581.787	488.5	-2.3	NO	0.999	NO	bb
9	9 180201M2_10	Standard	1250.000	6.47	161448.719	16417.523	1475.089	1238.2	-0.9	NO	0.999	NO	bd
10	10 180201M2_11	Standard	2500.000	6.47	285436.438	18310.961	2338.242	1962.5	-21.5	NO	0.999	NO	bbX

Compound name: 13C3-PFBA
Response Factor: 0.87955
RRF SD: 0.0206589, Relative SD: 2.34881
Response type: Internal Std (Ref 57), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	1.74	9389.637	10615.242	11.057	12.6	0.6	NO		NO	bb
2	2 180201M2_3	Standard	12.500	1.74	9983.384	11525.407	10.828	12.3	-1.5	NO		NO	bb
3	3 180201M2_4	Standard	12.500	1.73	9986.440	11192.208	11.153	12.7	1.4	NO		NO	bb
4	4 180201M2_5	Standard	12.500	1.73	9690.016	11288.905	10.730	12.2	-2.4	NO		NO	bb
5	5 180201M2_6	Standard	12.500	1.73	9520.578	10775.118	11.045	12.6	0.5	NO		NO	bb
6	6 180201M2_7	Standard	12.500	1.73	9923.568	11219.852	11.056	12.6	0.6	NO		NO	bb
7	7 180201M2_8	Standard	12.500	1.72	9588.937	10630.448	11.275	12.8	2.6	NO		NO	bb
8	8 180201M2_9	Standard	12.500	1.72	9692.715	10644.079	11.383	12.9	3.5	NO		NO	bb
9	9 180201M2_10	Standard	12.500	1.72	9046.232	10752.428	10.516	12.0	-4.3	NO		NO	bb
10	10 180201M2_11	Standard	12.500	1.72	9078.827	10410.137	10.901	12.4	-0.8	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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Compound name: 13C3-PFPeA
Response Factor: 0.894466
RRF SD: 0.0504434, Relative SD: 5.63949
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	2.72	10291.811	13053.771	9.855	11.0	-11.9	NO		NO	bb
2	2 180201M2_3	Standard	12.500	2.72	11538.120	12714.314	11.344	12.7	1.5	NO		NO	bb
3	3 180201M2_4	Standard	12.500	2.71	10814.430	11731.575	11.523	12.9	3.1	NO		NO	bb
4	4 180201M2_5	Standard	12.500	2.71	11918.526	12374.524	12.039	13.5	7.7	NO		NO	bb
5	5 180201M2_6	Standard	12.500	2.71	11699.451	12778.301	11.445	12.8	2.4	NO		NO	bb
6	6 180201M2_7	Standard	12.500	2.70	10244.049	11963.210	10.704	12.0	-4.3	NO		NO	bb
7	7 180201M2_8	Standard	12.500	2.70	10452.232	12150.538	10.753	12.0	-3.8	NO		NO	bb
8	8 180201M2_9	Standard	12.500	2.70	10454.805	11938.145	10.947	12.2	-2.1	NO		NO	bb
9	9 180201M2_10	Standard	12.500	2.70	10730.524	11730.422	11.435	12.8	2.3	NO		NO	bb
10	10 180201M2_11	Standard	12.500	2.69	9927.790	10548.270	11.765	13.2	5.2	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.12012
RRF SD: 0.00746188, Relative SD: 6.21203
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	2.99	1433.712	13053.771	1.373	11.4	-8.6	NO		NO	bb
2	2 180201M2_3	Standard	12.500	2.98	1551.910	12714.314	1.526	12.7	1.6	NO		NO	bb
3	3 180201M2_4	Standard	12.500	2.98	1514.292	11731.575	1.613	13.4	7.5	NO		NO	bb
4	4 180201M2_5	Standard	12.500	2.98	1492.356	12374.524	1.507	12.5	0.4	NO		NO	bb
5	5 180201M2_6	Standard	12.500	2.97	1480.229	12778.301	1.448	12.1	-3.6	NO		NO	bb
6	6 180201M2_7	Standard	12.500	2.97	1572.907	11963.210	1.643	13.7	9.5	NO		NO	bb
7	7 180201M2_8	Standard	12.500	2.97	1491.415	12150.538	1.534	12.8	2.2	NO		NO	bb
8	8 180201M2_9	Standard	12.500	2.97	1464.832	11938.145	1.534	12.8	2.1	NO		NO	bb
9	9 180201M2_10	Standard	12.500	2.97	1395.219	11730.422	1.487	12.4	-1.0	NO		NO	bb
10	10 180201M2_11	Standard	12.500	2.96	1138.420	10548.270	1.349	11.2	-10.2	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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Compound name: 13C2-PFHxA
Response Factor: 0.70037
RRF SD: 0.0318753, Relative SD: 4.5512
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	5.000	3.50	3752.902	13053.771	3.594	5.1	2.6	NO		NO	bb
2	2 180201M2_3	Standard	5.000	3.49	3439.315	12714.314	3.381	4.8	-3.4	NO		NO	bb
3	3 180201M2_4	Standard	5.000	3.49	3523.702	11731.575	3.755	5.4	7.2	NO		NO	bb
4	4 180201M2_5	Standard	5.000	3.48	3231.672	12374.524	3.264	4.7	-6.8	NO		NO	bb
5	5 180201M2_6	Standard	5.000	3.48	3472.787	12778.301	3.397	4.9	-3.0	NO		NO	bb
6	6 180201M2_7	Standard	5.000	3.48	3293.221	11963.210	3.441	4.9	-1.7	NO		NO	bb
7	7 180201M2_8	Standard	5.000	3.48	3350.827	12150.538	3.447	4.9	-1.6	NO		NO	bb
8	8 180201M2_9	Standard	5.000	3.47	3472.382	11938.145	3.636	5.2	3.8	NO		NO	bb
9	9 180201M2_10	Standard	5.000	3.47	3192.434	11730.422	3.402	4.9	-2.9	NO		NO	bb
10	10 180201M2_11	Standard	5.000	3.47	3123.552	10548.270	3.701	5.3	5.7	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.692662
RRF SD: 0.0428966, Relative SD: 6.19301
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	4.12	8537.186	13053.771	8.175	11.8	-5.6	NO		NO	bb
2	2 180201M2_3	Standard	12.500	4.12	8665.500	12714.314	8.519	12.3	-1.6	NO		NO	bb
3	3 180201M2_4	Standard	12.500	4.11	8295.039	11731.575	8.838	12.8	2.1	NO		NO	bb
4	4 180201M2_5	Standard	12.500	4.11	8948.312	12374.524	9.039	13.0	4.4	NO		NO	bb
5	5 180201M2_6	Standard	12.500	4.10	9472.876	12778.301	9.267	13.4	7.0	NO		NO	bb
6	6 180201M2_7	Standard	12.500	4.10	9280.252	11963.210	9.697	14.0	12.0	NO		NO	bb
7	7 180201M2_8	Standard	12.500	4.10	8132.475	12150.538	8.366	12.1	-3.4	NO		NO	bb
8	8 180201M2_9	Standard	12.500	4.10	8029.674	11938.145	8.408	12.1	-2.9	NO		NO	bb
9	9 180201M2_10	Standard	12.500	4.10	7548.560	11730.422	8.044	11.6	-7.1	NO		NO	bb
10	10 180201M2_11	Standard	12.500	4.09	6944.875	10548.270	8.230	11.9	-4.9	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.342508
RRF SD: 0.0221743, Relative SD: 6.47408
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	4.26	1056.209	3386.498	3.899	11.4	-8.9	NO		NO	bb
2	2 180201M2_3	Standard	12.500	4.25	1160.678	3195.101	4.541	13.3	6.1	NO		NO	bb
3	3 180201M2_4	Standard	12.500	4.25	1082.664	3217.412	4.206	12.3	-1.8	NO		NO	bb
4	4 180201M2_5	Standard	12.500	4.24	1135.339	3277.805	4.330	12.6	1.1	NO		NO	bb
5	5 180201M2_6	Standard	12.500	4.24	1105.755	3110.121	4.444	13.0	3.8	NO		NO	bb
6	6 180201M2_7	Standard	12.500	4.24	1096.692	3382.044	4.053	11.8	-5.3	NO		NO	bb
7	7 180201M2_8	Standard	12.500	4.24	1126.976	3369.364	4.181	12.2	-2.3	NO		NO	bb
8	8 180201M2_9	Standard	12.500	4.23	1094.272	3156.459	4.333	12.7	1.2	NO		NO	bb
9	9 180201M2_10	Standard	12.500	4.23	1016.523	3177.749	3.999	11.7	-6.6	NO		NO	bb
10	10 180201M2_11	Standard	12.500	4.23	1044.222	2703.770	4.828	14.1	12.8	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.262225
RRF SD: 0.043559, Relative SD: 16.6113
Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)
Curve type: RF

not used.

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	4.58	2784.271	12442.034	2.797	10.7	-14.7	NO		NO	bb
2	2 180201M2_3	Standard	12.500	4.57	2767.150	13927.616	2.484	9.5	-24.2	NO		NO	bb
3	3 180201M2_4	Standard	12.500	4.57	2745.963	11536.977	2.975	11.3	-9.2	NO		NO	bb
4	4 180201M2_5	Standard	12.500	4.57	3297.972	12101.027	3.407	13.0	3.9	NO		NO	bb
5	5 180201M2_6	Standard	12.500	4.56	3054.882	12723.628	3.001	11.4	-8.4	NO		NO	bb
6	6 180201M2_7	Standard	12.500	4.56	3528.889	11188.508	3.943	15.0	20.3	NO		NO	bb
7	7 180201M2_8	Standard	12.500	4.56	3374.424	11408.001	3.697	14.1	12.8	NO		NO	bb
8	8 180201M2_9	Standard	12.500	4.55	3935.611	12553.944	3.919	14.9	19.6	NO		NO	bb
9	9 180201M2_10	Standard	12.500	4.55	5095.900	10956.082	5.814	22.2	77.4	NO		NO	bbX
10	10 180201M2_11	Standard	12.500	4.55	6681.250	10933.043	7.639	29.1	133.0	NO		NO	bbX

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Compound name: 13C2-PFOA
Response Factor: 1.06371
RRF SD: 0.0843462, Relative SD: 7.92947
Response type: Internal Std (Ref 60), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	4.63	15180.339	12442.034	15.251	14.3	14.7	NO		NO	bb
2	2 180201M2_3	Standard	12.500	4.62	13847.419	13927.616	12.428	11.7	-6.5	NO		NO	bb
3	3 180201M2_4	Standard	12.500	4.62	13183.470	11536.977	14.284	13.4	7.4	NO		NO	bb
4	4 180201M2_5	Standard	12.500	4.62	13426.970	12101.027	13.870	13.0	4.3	NO		NO	bb
5	5 180201M2_6	Standard	12.500	4.61	12850.056	12723.628	12.624	11.9	-5.1	NO		NO	bb
6	6 180201M2_7	Standard	12.500	4.61	12564.818	11188.508	14.038	13.2	5.6	NO		NO	bb
7	7 180201M2_8	Standard	12.500	4.61	11610.387	11408.001	12.722	12.0	-4.3	NO		NO	bb
8	8 180201M2_9	Standard	12.500	4.61	12445.125	12553.944	12.392	11.6	-6.8	NO		NO	bb
9	9 180201M2_10	Standard	12.500	4.60	11793.541	10956.082	13.455	12.6	1.2	NO		NO	bb
10	10 180201M2_11	Standard	12.500	4.60	10408.093	10933.043	11.900	11.2	-10.5	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.948668
RRF SD: 0.130033, Relative SD: 13.7069
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	5.05	10855.060	9544.361	14.217	15.0	19.9	NO		NO	bb
2	2 180201M2_3	Standard	12.500	5.05	11105.828	13668.581	10.156	10.7	-14.4	NO		NO	bb
3	3 180201M2_4	Standard	12.500	5.04	10172.259	12050.521	10.552	11.1	-11.0	NO		NO	bb
4	4 180201M2_5	Standard	12.500	5.04	10992.008	12800.386	10.734	11.3	-9.5	NO		NO	bb
5	5 180201M2_6	Standard	12.500	5.04	12525.866	11484.225	13.634	14.4	15.0	NO		NO	bb
6	6 180201M2_7	Standard	12.500	5.04	11422.679	13735.241	10.395	11.0	-12.3	NO		NO	bb
7	7 180201M2_8	Standard	12.500	5.04	9457.981	11131.926	10.620	11.2	-10.4	NO		NO	bb
8	8 180201M2_9	Standard	12.500	5.03	10766.577	11595.314	11.607	12.2	-2.1	NO		NO	bb
9	9 180201M2_10	Standard	12.500	5.03	12927.568	11479.413	14.077	14.8	18.7	NO		NO	bb
10	10 180201M2_11	Standard	12.500	5.03	10876.807	10797.500	12.592	13.3	6.2	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.211397
RRF SD: 0.0210985, Relative SD: 9.98052
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	5.11	2908.301	14040.942	2.589	12.2	-2.0	NO		NO	bb
2	2 180201M2_3	Standard	12.500	5.10	3222.731	14541.990	2.770	13.1	4.8	NO		NO	bb
3	3 180201M2_4	Standard	12.500	5.10	3008.096	14561.118	2.582	12.2	-2.3	NO		NO	bb
4	4 180201M2_5	Standard	12.500	5.10	2726.330	15664.660	2.176	10.3	-17.7	NO		NO	bb
5	5 180201M2_6	Standard	12.500	5.10	2933.252	15069.432	2.433	11.5	-7.9	NO		NO	bb
6	6 180201M2_7	Standard	12.500	5.09	3030.171	13351.479	2.837	13.4	7.4	NO		NO	bb
7	7 180201M2_8	Standard	12.500	5.09	3081.776	13593.405	2.834	13.4	7.2	NO		NO	bb
8	8 180201M2_9	Standard	12.500	5.09	2954.469	11830.616	3.122	14.8	18.1	NO		NO	bb
9	9 180201M2_10	Standard	12.500	5.08	2694.043	13747.411	2.450	11.6	-7.3	NO		NO	bb
10	10 180201M2_11	Standard	12.500	5.08	2440.696	11590.088	2.632	12.5	-0.4	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 1.01419
RRF SD: 0.065144, Relative SD: 6.42324
Response type: Internal Std (Ref 62), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	5.13	3137.675	3057.167	12.829	12.6	1.2	NO		NO	bb
2	2 180201M2_3	Standard	12.500	5.12	3080.948	3123.843	12.328	12.2	-2.8	NO		NO	bb
3	3 180201M2_4	Standard	12.500	5.12	3232.771	3301.509	12.240	12.1	-3.5	NO		NO	bb
4	4 180201M2_5	Standard	12.500	5.12	3242.907	3164.052	12.812	12.6	1.1	NO		NO	bb
5	5 180201M2_6	Standard	12.500	5.11	2934.418	3293.697	11.136	11.0	-12.2	NO		NO	bb
6	6 180201M2_7	Standard	12.500	5.11	3221.173	3159.861	12.743	12.6	0.5	NO		NO	bb
7	7 180201M2_8	Standard	12.500	5.11	3061.044	3024.667	12.650	12.5	-0.2	NO		NO	bb
8	8 180201M2_9	Standard	12.500	5.11	2990.104	2885.224	12.954	12.8	2.2	NO		NO	bb
9	9 180201M2_10	Standard	12.500	5.10	3049.938	3019.031	12.628	12.5	-0.4	NO		NO	bb
10	10 180201M2_11	Standard	12.500	5.10	2920.493	2525.752	14.454	14.3	14.0	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 1.09868
RRF SD: 0.0750681, Relative SD: 6.83258
Response type: Internal Std (Ref 63), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	5.42	11641.184	11031.247	13.191	12.0	-3.9	NO		NO	bb
2	2 180201M2_3	Standard	12.500	5.41	12949.461	12232.998	13.232	12.0	-3.7	NO		NO	bb
3	3 180201M2_4	Standard	12.500	5.41	11726.376	10804.623	13.566	12.3	-1.2	NO		NO	bb
4	4 180201M2_5	Standard	12.500	5.41	13257.169	10814.363	15.324	13.9	11.6	NO		NO	bb
5	5 180201M2_6	Standard	12.500	5.40	12165.767	9895.229	15.368	14.0	11.9	NO		NO	bb
6	6 180201M2_7	Standard	12.500	5.40	10837.155	10806.639	12.535	11.4	-8.7	NO		NO	bb
7	7 180201M2_8	Standard	12.500	5.40	11210.779	10528.153	13.310	12.1	-3.1	NO		NO	bb
8	8 180201M2_9	Standard	12.500	5.40	10225.794	9126.640	14.005	12.7	2.0	NO		NO	bb
9	9 180201M2_10	Standard	12.500	5.40	10531.019	10084.041	13.054	11.9	-4.9	NO		NO	bb
10	10 180201M2_11	Standard	12.500	5.39	10475.140	9524.107	13.748	12.5	0.1	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.194071
RRF SD: 0.0386563, Relative SD: 19.9187
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

not used.

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	5.40	1986.494	13053.771	1.902	9.8	-21.6	NO		NO	bb
2	2 180201M2_3	Standard	12.500	5.40	1941.495	12714.314	1.909	9.8	-21.3	NO		NO	bb
3	3 180201M2_4	Standard	12.500	5.39	2234.294	11731.575	2.381	12.3	-1.9	NO		NO	bb
4	4 180201M2_5	Standard	12.500	5.38	2639.042	12374.524	2.666	13.7	9.9	NO		NO	bb
5	5 180201M2_6	Standard	12.500	5.38	2283.479	12778.301	2.234	11.5	-7.9	NO		NO	bb
6	6 180201M2_7	Standard	12.500	5.38	2041.762	11963.210	2.133	11.0	-12.1	NO		NO	bb
7	7 180201M2_8	Standard	12.500	5.38	2895.652	12150.538	2.979	15.3	22.8	NO		NO	bb
8	8 180201M2_9	Standard	12.500	5.37	3059.593	11938.145	3.204	16.5	32.1	NO		NO	bb
9	9 180201M2_10	Standard	12.500	5.37	3779.445	11730.422	4.027	20.8	66.0	NO		NO	bbX
10	10 180201M2_11	Standard	12.500	5.37	5268.761	10548.270	6.244	32.2	157.4	NO		NO	bbX

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

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Compound name: d3-N-MeFOSAA
Response Factor: 0.381381
RRF SD: 0.0334256, Relative SD: 8.76438
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	5.56	5277.298	14040.942	4.698	12.3	-1.5	NO		NO	bb
2	2 180201M2_3	Standard	12.500	5.56	5755.686	14541.990	4.947	13.0	3.8	NO		NO	bb
3	3 180201M2_4	Standard	12.500	5.55	4977.270	14561.118	4.273	11.2	-10.4	NO		NO	bb
4	4 180201M2_5	Standard	12.500	5.55	5351.252	15664.660	4.270	11.2	-10.4	NO		NO	bb
5	5 180201M2_6	Standard	12.500	5.55	5465.481	15069.432	4.534	11.9	-4.9	NO		NO	bb
6	6 180201M2_7	Standard	12.500	5.54	5434.169	13351.479	5.088	13.3	6.7	NO		NO	bb
7	7 180201M2_8	Standard	12.500	5.54	5006.550	13593.405	4.604	12.1	-3.4	NO		NO	bb
8	8 180201M2_9	Standard	12.500	5.54	5101.554	11830.616	5.390	14.1	13.1	NO		NO	bb
9	9 180201M2_10	Standard	12.500	5.53	4926.247	13747.411	4.479	11.7	-6.0	NO		NO	bb
10	10 180201M2_11	Standard	12.500	5.53	4997.280	11590.088	5.390	14.1	13.1	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.429525
RRF SD: 0.0334994, Relative SD: 7.79918
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	5.71	6164.870	14040.942	5.488	12.8	2.2	NO		NO	bb
2	2 180201M2_3	Standard	12.500	5.71	6123.357	14541.990	5.264	12.3	-2.0	NO		NO	bb
3	3 180201M2_4	Standard	12.500	5.70	6029.236	14561.118	5.176	12.1	-3.6	NO		NO	bb
4	4 180201M2_5	Standard	12.500	5.70	6259.932	15664.660	4.995	11.6	-7.0	NO		NO	bb
5	5 180201M2_6	Standard	12.500	5.70	5914.638	15069.432	4.906	11.4	-8.6	NO		NO	bb
6	6 180201M2_7	Standard	12.500	5.70	6288.980	13351.479	5.888	13.7	9.7	NO		NO	bb
7	7 180201M2_8	Standard	12.500	5.69	5807.799	13593.405	5.341	12.4	-0.5	NO		NO	bb
8	8 180201M2_9	Standard	12.500	5.69	5766.029	11830.616	6.092	14.2	13.5	NO		NO	bb
9	9 180201M2_10	Standard	12.500	5.68	5336.983	13747.411	4.853	11.3	-9.6	NO		NO	bb
10	10 180201M2_11	Standard	12.500	5.68	5273.983	11590.088	5.688	13.2	5.9	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 0.965819
RRF SD: 0.101927, Relative SD: 10.5534
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180201M2_2	Standard	12.500	5.73	15200.801	14040.942	13.533	14.0	12.1	NO		NO	bb
2	2	180201M2_3	Standard	12.500	5.73	15563.569	14541.990	13.378	13.9	10.8	NO		NO	bb
3	3	180201M2_4	Standard	12.500	5.73	13426.738	14561.118	11.526	11.9	-4.5	NO		NO	bb
4	4	180201M2_5	Standard	12.500	5.72	13117.037	15664.660	10.467	10.8	-13.3	NO		NO	bb
5	5	180201M2_6	Standard	12.500	5.72	12485.801	15069.432	10.357	10.7	-14.2	NO		NO	bb
6	6	180201M2_7	Standard	12.500	5.72	12698.962	13351.479	11.889	12.3	-1.5	NO		NO	bb
7	7	180201M2_8	Standard	12.500	5.72	15075.656	13593.405	13.863	14.4	14.8	NO		NO	bb
8	8	180201M2_9	Standard	12.500	5.71	12250.399	11830.616	12.944	13.4	7.2	NO		NO	bb
9	9	180201M2_10	Standard	12.500	5.71	12438.353	13747.411	11.310	11.7	-6.3	NO		NO	bb
10	10	180201M2_11	Standard	12.500	5.71	10626.814	11590.088	11.461	11.9	-5.1	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.767108
RRF SD: 0.120664, Relative SD: 15.7297
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180201M2_2	Standard	12.500	6.00	11960.537	14040.942	10.648	13.9	11.0	NO		NO	bb
2	2	180201M2_3	Standard	12.500	6.00	13796.158	14541.990	11.859	15.5	23.7	NO		NO	bb
3	3	180201M2_4	Standard	12.500	6.00	10290.432	14561.118	8.834	11.5	-7.9	NO		NO	bb
4	4	180201M2_5	Standard	12.500	6.00	10609.885	15664.660	8.466	11.0	-11.7	NO		NO	bb
5	5	180201M2_6	Standard	12.500	5.99	12375.247	15069.432	10.265	13.4	7.1	NO		NO	bb
6	6	180201M2_7	Standard	12.500	5.99	9151.438	13351.479	8.568	11.2	-10.6	NO		NO	bb
7	7	180201M2_8	Standard	12.500	5.99	8795.715	13593.405	8.088	10.5	-15.6	NO		NO	bb
8	8	180201M2_9	Standard	12.500	5.98	11266.216	11830.616	11.904	15.5	24.1	NO		NO	bb
9	9	180201M2_10	Standard	12.500	5.98	8564.437	13747.411	7.787	10.2	-18.8	NO		NO	bb
10	10	180201M2_11	Standard	12.500	5.98	8779.890	11590.088	9.469	12.3	-1.2	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.0939039
RRF SD: 0.00625118, Relative SD: 6.65699
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180201M2_2	Standard	150.000	5.95	15934.890	14040.942	14.186	151.1	0.7	NO		NO	bb
2	2	180201M2_3	Standard	150.000	5.95	16124.691	14541.990	13.860	147.6	-1.6	NO		NO	bb
3	3	180201M2_4	Standard	150.000	5.95	16184.368	14561.118	13.893	148.0	-1.4	NO		NO	bb
4	4	180201M2_5	Standard	150.000	5.95	15804.994	15664.660	12.612	134.3	-10.5	NO		NO	bb
5	5	180201M2_6	Standard	150.000	5.95	16229.670	15069.432	13.462	143.4	-4.4	NO		NO	bb
6	6	180201M2_7	Standard	150.000	5.95	15531.838	13351.479	14.541	154.9	3.2	NO		NO	bb
7	7	180201M2_8	Standard	150.000	5.95	14765.406	13593.405	13.578	144.6	-3.6	NO		NO	bb
8	8	180201M2_9	Standard	150.000	5.95	14944.372	11830.616	15.790	168.1	12.1	NO		NO	bb
9	9	180201M2_10	Standard	150.000	5.95	14927.584	13747.411	13.573	144.5	-3.6	NO		NO	bb
10	10	180201M2_11	Standard	150.000	5.95	14241.318	11590.088	15.359	163.6	9.0	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.413102
RRF SD: 0.0736644, Relative SD: 17.832
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180201M2_2	Standard	12.500	6.42	5245.019	14040.942	4.669	11.3	-9.6	NO		NO	bb
2	2	180201M2_3	Standard	12.500	6.42	5728.347	14541.990	4.924	11.9	-4.6	NO		NO	bb
3	3	180201M2_4	Standard	12.500	6.42	5075.495	14561.118	4.357	10.5	-15.6	NO		NO	bb
4	4	180201M2_5	Standard	12.500	6.42	5616.486	15664.660	4.482	10.8	-13.2	NO		NO	bb
5	5	180201M2_6	Standard	12.500	6.41	5545.823	15069.432	4.600	11.1	-10.9	NO		NO	bb
6	6	180201M2_7	Standard	12.500	6.41	5109.631	13351.479	4.784	11.6	-7.4	NO		NO	bb
7	7	180201M2_8	Standard	12.500	6.41	5383.240	13593.405	4.950	12.0	-4.1	NO		NO	bb
8	8	180201M2_9	Standard	12.500	6.40	5661.808	11830.616	5.982	14.5	15.8	NO		NO	bb
9	9	180201M2_10	Standard	12.500	6.40	6057.532	13747.411	5.508	13.3	6.7	NO		NO	bb
10	10	180201M2_11	Standard	12.500	6.40	6843.993	11590.088	7.381	17.9	42.9	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.134029
RRF SD: 0.0111919, Relative SD: 8.35039
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	150.000	6.27	23440.152	14040.942	20.868	155.7	3.8	NO		NO	bb
2	2 180201M2_3	Standard	150.000	6.27	23665.994	14541.990	20.343	151.8	1.2	NO		NO	db
3	3 180201M2_4	Standard	150.000	6.27	22391.053	14561.118	19.222	143.4	-4.4	NO		NO	bb
4	4 180201M2_5	Standard	150.000	6.27	22542.172	15664.660	17.988	134.2	-10.5	NO		NO	bb
5	5 180201M2_6	Standard	150.000	6.27	22500.492	15069.432	18.664	139.3	-7.2	NO		NO	bb
6	6 180201M2_7	Standard	150.000	6.27	22910.971	13351.479	21.450	160.0	6.7	NO		NO	bb
7	7 180201M2_8	Standard	150.000	6.27	22048.441	13593.405	20.275	151.3	0.8	NO		NO	bb
8	8 180201M2_9	Standard	150.000	6.27	22431.035	11830.616	23.700	176.8	17.9	NO		NO	bb
9	9 180201M2_10	Standard	150.000	6.27	20330.299	13747.411	18.486	137.9	-8.1	NO		NO	bb
10	10 180201M2_11	Standard	150.000	6.27	18589.168	11590.088	20.049	149.6	-0.3	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.555424
RRF SD: 0.0776459, Relative SD: 13.9796
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	5.000	6.70	2927.053	14040.942	2.606	4.7	-6.2	NO		NO	bb
2	2 180201M2_3	Standard	5.000	6.70	3177.656	14541.990	2.731	4.9	-1.6	NO		NO	bb
3	3 180201M2_4	Standard	5.000	6.70	2907.611	14561.118	2.496	4.5	-10.1	NO		NO	bb
4	4 180201M2_5	Standard	5.000	6.70	3008.532	15664.660	2.401	4.3	-13.6	NO		NO	bb
5	5 180201M2_6	Standard	5.000	6.70	2993.088	15069.432	2.483	4.5	-10.6	NO		NO	bb
6	6 180201M2_7	Standard	5.000	6.69	2766.564	13351.479	2.590	4.7	-6.7	NO		NO	bb
7	7 180201M2_8	Standard	5.000	6.69	3188.611	13593.405	2.932	5.3	5.6	NO		NO	bb
8	8 180201M2_9	Standard	5.000	6.69	3394.128	11830.616	3.586	6.5	29.1	NO		NO	bb
9	9 180201M2_10	Standard	5.000	6.69	3485.095	13747.411	3.169	5.7	14.1	NO		NO	bb
10	10 180201M2_11	Standard	5.000	6.69	3984.295	11590.088	4.297	7.7	54.7	NO		NO	bbX

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Compound name: d7-N-MeFOSE
Response Factor: 0.106939
RRF SD: 0.0179061, Relative SD: 16.7442
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	150.000	6.31	16441.795	14040.942	14.637	136.9	-8.7	NO		NO	bb
2	2 180201M2_3	Standard	150.000	6.32	15620.593	14541.990	13.427	125.6	-16.3	NO		NO	bb
3	3 180201M2_4	Standard	150.000	6.31	17932.805	14561.118	15.394	144.0	-4.0	NO		NO	bb
4	4 180201M2_5	Standard	150.000	6.32	16106.033	15664.660	12.852	120.2	-19.9	NO		NO	bd
5	5 180201M2_6	Standard	150.000	6.32	16361.470	15069.432	13.572	126.9	-15.4	NO		NO	bb
6	6 180201M2_7	Standard	150.000	6.31	18751.580	13351.479	17.556	164.2	9.4	NO		NO	bb
7	7 180201M2_8	Standard	150.000	6.31	18959.506	13593.405	17.434	163.0	8.7	NO		NO	bb
8	8 180201M2_9	Standard	150.000	6.31	19978.916	11830.616	21.109	197.4	31.6	NO		NO	bb
9	9 180201M2_10	Standard	150.000	6.31	16907.701	13747.411	15.374	143.8	-4.2	NO		NO	bb
10	10 180201M2_11	Standard	150.000	6.31	17665.924	11590.088	19.053	178.2	18.8	NO		NO	bd

Compound name: d9-N-EtFOSE
Response Factor: 0.106989
RRF SD: 0.0174539, Relative SD: 16.3138
Response type: Internal Std (Ref 64), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	150.000	6.46	18513.486	14040.942	16.482	154.1	2.7	NO		NO	bb
2	2 180201M2_3	Standard	150.000	6.46	20288.641	14541.990	17.440	163.0	8.7	NO		NO	bb
3	3 180201M2_4	Standard	150.000	6.46	17693.893	14561.118	15.189	142.0	-5.4	NO		NO	bb
4	4 180201M2_5	Standard	150.000	6.46	16696.051	15664.660	13.323	124.5	-17.0	NO		NO	bd
5	5 180201M2_6	Standard	150.000	6.46	16082.565	15069.432	13.340	124.7	-16.9	NO		NO	bd
6	6 180201M2_7	Standard	150.000	6.46	16678.395	13351.479	15.615	145.9	-2.7	NO		NO	bb
7	7 180201M2_8	Standard	150.000	6.46	14775.413	13593.405	13.587	127.0	-15.3	NO		NO	bb
8	8 180201M2_9	Standard	150.000	6.46	19715.496	11830.616	20.831	194.7	29.8	NO		NO	bd
9	9 180201M2_10	Standard	150.000	6.46	16417.523	13747.411	14.928	139.5	-7.0	NO		NO	bd
10	10 180201M2_11	Standard	150.000	6.46	18310.961	11590.088	19.749	184.6	23.1	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 57), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	1.74	10615.242	10615.242	12.500	12.5	0.0	NO		NO	bb
2	2 180201M2_3	Standard	12.500	1.74	11525.407	11525.407	12.500	12.5	0.0	NO		NO	bb
3	3 180201M2_4	Standard	12.500	1.73	11192.208	11192.208	12.500	12.5	0.0	NO		NO	bb
4	4 180201M2_5	Standard	12.500	1.73	11288.905	11288.905	12.500	12.5	0.0	NO		NO	bb
5	5 180201M2_6	Standard	12.500	1.73	10775.118	10775.118	12.500	12.5	0.0	NO		NO	bb
6	6 180201M2_7	Standard	12.500	1.73	11219.852	11219.852	12.500	12.5	0.0	NO		NO	bb
7	7 180201M2_8	Standard	12.500	1.73	10630.448	10630.448	12.500	12.5	0.0	NO		NO	bb
8	8 180201M2_9	Standard	12.500	1.73	10644.079	10644.079	12.500	12.5	0.0	NO		NO	bb
9	9 180201M2_10	Standard	12.500	1.72	10752.428	10752.428	12.500	12.5	0.0	NO		NO	bb
10	10 180201M2_11	Standard	12.500	1.72	10410.137	10410.137	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 58), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	3.50	13053.771	13053.771	12.500	12.5	0.0	NO		NO	bb
2	2 180201M2_3	Standard	12.500	3.49	12714.314	12714.314	12.500	12.5	0.0	NO		NO	bb
3	3 180201M2_4	Standard	12.500	3.49	11731.575	11731.575	12.500	12.5	0.0	NO		NO	bb
4	4 180201M2_5	Standard	12.500	3.48	12374.524	12374.524	12.500	12.5	0.0	NO		NO	bb
5	5 180201M2_6	Standard	12.500	3.48	12778.301	12778.301	12.500	12.5	0.0	NO		NO	bb
6	6 180201M2_7	Standard	12.500	3.48	11963.210	11963.210	12.500	12.5	0.0	NO		NO	bb
7	7 180201M2_8	Standard	12.500	3.48	12150.538	12150.538	12.500	12.5	0.0	NO		NO	bb
8	8 180201M2_9	Standard	12.500	3.47	11938.145	11938.145	12.500	12.5	0.0	NO		NO	bb
9	9 180201M2_10	Standard	12.500	3.47	11730.422	11730.422	12.500	12.5	0.0	NO		NO	bb
10	10 180201M2_11	Standard	12.500	3.47	10548.270	10548.270	12.500	12.5	0.0	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
Printed: Friday, February 02, 2018 09:17:01 Pacific Standard Time

Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 59), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	4.26	3386.498	3386.498	12.500	12.5	0.0	NO		NO	bb
2	2 180201M2_3	Standard	12.500	4.25	3195.101	3195.101	12.500	12.5	0.0	NO		NO	bb
3	3 180201M2_4	Standard	12.500	4.25	3217.412	3217.412	12.500	12.5	0.0	NO		NO	bb
4	4 180201M2_5	Standard	12.500	4.24	3277.805	3277.805	12.500	12.5	0.0	NO		NO	bb
5	5 180201M2_6	Standard	12.500	4.24	3110.121	3110.121	12.500	12.5	0.0	NO		NO	bb
6	6 180201M2_7	Standard	12.500	4.24	3382.044	3382.044	12.500	12.5	0.0	NO		NO	bb
7	7 180201M2_8	Standard	12.500	4.24	3369.364	3369.364	12.500	12.5	0.0	NO		NO	bb
8	8 180201M2_9	Standard	12.500	4.23	3156.459	3156.459	12.500	12.5	0.0	NO		NO	bb
9	9 180201M2_10	Standard	12.500	4.23	3177.749	3177.749	12.500	12.5	0.0	NO		NO	bb
10	10 180201M2_11	Standard	12.500	4.23	2703.770	2703.770	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 60), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	4.63	12442.034	12442.034	12.500	12.5	0.0	NO		NO	bb
2	2 180201M2_3	Standard	12.500	4.62	13927.616	13927.616	12.500	12.5	0.0	NO		NO	bb
3	3 180201M2_4	Standard	12.500	4.62	11536.977	11536.977	12.500	12.5	0.0	NO		NO	bb
4	4 180201M2_5	Standard	12.500	4.61	12101.027	12101.027	12.500	12.5	0.0	NO		NO	bb
5	5 180201M2_6	Standard	12.500	4.61	12723.628	12723.628	12.500	12.5	0.0	NO		NO	bb
6	6 180201M2_7	Standard	12.500	4.61	11188.508	11188.508	12.500	12.5	0.0	NO		NO	bb
7	7 180201M2_8	Standard	12.500	4.61	11408.001	11408.001	12.500	12.5	0.0	NO		NO	bb
8	8 180201M2_9	Standard	12.500	4.61	12553.944	12553.944	12.500	12.5	0.0	NO		NO	bb
9	9 180201M2_10	Standard	12.500	4.60	10956.082	10956.082	12.500	12.5	0.0	NO		NO	bb
10	10 180201M2_11	Standard	12.500	4.60	10933.043	10933.043	12.500	12.5	0.0	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
Printed: Friday, February 02, 2018 09:17:01 Pacific Standard Time

Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 61), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180201M2_2	Standard	12.500	5.05	9544.361	9544.361	12.500	12.5	0.0	NO		NO	bb
2	2	180201M2_3	Standard	12.500	5.05	13668.581	13668.581	12.500	12.5	0.0	NO		NO	bb
3	3	180201M2_4	Standard	12.500	5.04	12050.521	12050.521	12.500	12.5	0.0	NO		NO	bb
4	4	180201M2_5	Standard	12.500	5.04	12800.386	12800.386	12.500	12.5	0.0	NO		NO	bb
5	5	180201M2_6	Standard	12.500	5.04	11484.225	11484.225	12.500	12.5	0.0	NO		NO	bb
6	6	180201M2_7	Standard	12.500	5.04	13735.241	13735.241	12.500	12.5	0.0	NO		NO	bb
7	7	180201M2_8	Standard	12.500	5.03	11131.926	11131.926	12.500	12.5	0.0	NO		NO	bb
8	8	180201M2_9	Standard	12.500	5.03	11595.314	11595.314	12.500	12.5	0.0	NO		NO	bb
9	9	180201M2_10	Standard	12.500	5.03	11479.413	11479.413	12.500	12.5	0.0	NO		NO	bb
10	10	180201M2_11	Standard	12.500	5.03	10797.500	10797.500	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 62), Area * (IS Conc. / IS Area)
Curve type: RF

	#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1	180201M2_2	Standard	12.500	5.13	3057.167	3057.167	12.500	12.5	0.0	NO		NO	bb
2	2	180201M2_3	Standard	12.500	5.12	3123.843	3123.843	12.500	12.5	0.0	NO		NO	bb
3	3	180201M2_4	Standard	12.500	5.12	3301.509	3301.509	12.500	12.5	0.0	NO		NO	bb
4	4	180201M2_5	Standard	12.500	5.12	3164.052	3164.052	12.500	12.5	0.0	NO		NO	bb
5	5	180201M2_6	Standard	12.500	5.11	3293.697	3293.697	12.500	12.5	0.0	NO		NO	bb
6	6	180201M2_7	Standard	12.500	5.11	3159.861	3159.861	12.500	12.5	0.0	NO		NO	bb
7	7	180201M2_8	Standard	12.500	5.11	3024.667	3024.667	12.500	12.5	0.0	NO		NO	bb
8	8	180201M2_9	Standard	12.500	5.11	2885.224	2885.224	12.500	12.5	0.0	NO		NO	bb
9	9	180201M2_10	Standard	12.500	5.10	3019.031	3019.031	12.500	12.5	0.0	NO		NO	bb
10	10	180201M2_11	Standard	12.500	5.10	2525.752	2525.752	12.500	12.5	0.0	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
Printed: Friday, February 02, 2018 09:17:01 Pacific Standard Time

Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 63), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	5.42	11031.247	11031.247	12.500	12.5	0.0	NO		NO	bb
2	2 180201M2_3	Standard	12.500	5.41	12232.998	12232.998	12.500	12.5	0.0	NO		NO	bb
3	3 180201M2_4	Standard	12.500	5.40	10804.623	10804.623	12.500	12.5	0.0	NO		NO	bb
4	4 180201M2_5	Standard	12.500	5.41	10814.363	10814.363	12.500	12.5	0.0	NO		NO	bb
5	5 180201M2_6	Standard	12.500	5.41	9895.229	9895.229	12.500	12.5	0.0	NO		NO	bb
6	6 180201M2_7	Standard	12.500	5.40	10806.639	10806.639	12.500	12.5	0.0	NO		NO	bb
7	7 180201M2_8	Standard	12.500	5.40	10528.153	10528.153	12.500	12.5	0.0	NO		NO	bb
8	8 180201M2_9	Standard	12.500	5.40	9126.640	9126.640	12.500	12.5	0.0	NO		NO	bb
9	9 180201M2_10	Standard	12.500	5.40	10084.041	10084.041	12.500	12.5	0.0	NO		NO	bb
10	10 180201M2_11	Standard	12.500	5.39	9524.107	9524.107	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 64), Area * (IS Conc. / IS Area)
Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	5.73	14040.942	14040.942	12.500	12.5	0.0	NO		NO	bb
2	2 180201M2_3	Standard	12.500	5.73	14541.990	14541.990	12.500	12.5	0.0	NO		NO	bb
3	3 180201M2_4	Standard	12.500	5.73	14561.118	14561.118	12.500	12.5	0.0	NO		NO	bb
4	4 180201M2_5	Standard	12.500	5.72	15664.660	15664.660	12.500	12.5	0.0	NO		NO	bb
5	5 180201M2_6	Standard	12.500	5.72	15069.432	15069.432	12.500	12.5	0.0	NO		NO	bb
6	6 180201M2_7	Standard	12.500	5.72	13351.479	13351.479	12.500	12.5	0.0	NO		NO	bb
7	7 180201M2_8	Standard	12.500	5.72	13593.405	13593.405	12.500	12.5	0.0	NO		NO	bb
8	8 180201M2_9	Standard	12.500	5.71	11830.616	11830.616	12.500	12.5	0.0	NO		NO	bb
9	9 180201M2_10	Standard	12.500	5.71	13747.411	13747.411	12.500	12.5	0.0	NO		NO	bb
10	10 180201M2_11	Standard	12.500	5.71	11590.088	11590.088	12.500	12.5	0.0	NO		NO	bb

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
Printed: Friday, February 02, 2018 09:17:01 Pacific Standard Time

Compound name: 13C2-4:2 FTS
Response Factor: 0.311876
RRF SD: 0.113937, Relative SD: 36.5327
Response type: Internal Std (Ref 58), Area * (IS Conc. / IS Area)
Curve type: RF

not used

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180201M2_2	Standard	12.500	3.40	3149.499	13053.771	3.016	9.7	-22.6	NO		NO	bb
2	2 180201M2_3	Standard	12.500	3.40	3035.483	12714.314	2.984	9.6	-23.4	NO		NO	bb
3	3 180201M2_4	Standard	12.500	3.39	3264.260	11731.575	3.478	11.2	-10.8	NO		NO	bb
4	4 180201M2_5	Standard	12.500	3.39	2934.018	12374.524	2.964	9.5	-24.0	NO		NO	bb
5	5 180201M2_6	Standard	12.500	3.38	3045.983	12778.301	2.980	9.6	-23.6	NO		NO	bb
6	6 180201M2_7	Standard	12.500	3.38	3148.314	11963.210	3.290	10.5	-15.6	NO		NO	bb
7	7 180201M2_8	Standard	12.500	3.38	3399.737	12150.538	3.498	11.2	-10.3	NO		NO	bb
8	8 180201M2_9	Standard	12.500	3.38	4020.884	11938.145	4.210	13.5	8.0	NO		NO	bb
9	9 180201M2_10	Standard	12.500	3.38	4796.105	11730.422	5.111	16.4	31.1	NO		NO	bb
10	10 180201M2_11	Standard	12.500	3.37	6290.864	10548.270	7.455	23.9	91.2	NO		NO	bb

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Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
Printed: Friday, February 02, 2018 09:17:01 Pacific Standard Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_020118.mdb 02 Feb 2018 08:43:15
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_02-01-18-FULL.cdb 02 Feb 2018 08:56:36

Name: 180201M2_2, Date: 01-Feb-2018, Time: 10:52:18, ID: ST180201M2-1 PFC CS-2 18A3007, Description: PFC CS-2 18A3007

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBA	0.9992	NO	
2	2	PFPeA	0.9989	NO	
3	3	PFBS	0.9994	NO	
4	4	4:2 FTS	0.9995	NO	
5	5	PFHxA	0.9993	NO	
6	6	PFPeS	0.9945	NO	
7	7	PFHpA	0.9998	NO	
8	8	L-PFHxS	0.9995	NO	
9	10	6:2 FTS	0.9988	NO	
10	11	L-PFOA	0.9997	NO	
11	13	PFHpS	0.9984	NO	
12	14	PFNA	0.9970	NO	
13	15	PFOSA	0.9986	NO	
14	16	L-PFOS	0.9997	NO	
15	18	PFDA	0.9959	NO	
16	19	8:2 FTS	0.9983	NO	
17	20	PFNS	0.9988	NO	
18	21	N-MeFOSAA	0.9986	NO	
19	22	N-EtFOSAA	0.9997	NO	
20	23	PFUdA	0.9979	NO	
21	24	PFDS	0.9941	NO	
22	25	PFDoA	0.9973	NO	
23	26	N-MeFOSA	0.9975	NO	
24	27	PFTrDA	0.9989	NO	
25	28	PFTeDA	0.9967	NO	
26	29	N-EtFOSA	0.9998	NO	
27	30	PFHxDA	0.9993	NO	
28	31	PFODA	0.9991	NO	
29	32	N-MeFOSE	0.9977	NO	
30	33	N-EtFOSE	0.9989	NO	
31	34	13C3-PFBA		NO	2.349

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-CRV.qld

Last Altered: Friday, February 02, 2018 08:56:36 Pacific Standard Time
Printed: Friday, February 02, 2018 09:17:01 Pacific Standard Time

Name: 180201M2_2, Date: 01-Feb-2018, Time: 10:52:18, ID: ST180201M2-1 PFC CS-2 18A3007, Description: PFC CS-2 18A3007

	#	Name	CoD	CoD Flag	%RSD
32	35	13C3-PFPeA		NO	5.639
33	36	13C3-PFBS		NO	6.212
34	37	13C2-PFHxA		NO	4.551
35	38	13C4-PFHpA		NO	6.193
36	39	18O2-PFHxS		NO	6.474
37	40	13C2-6:2 FTS		NO	16.611
38	41	13C2-PFOA		NO	7.929
39	42	13C5-PFNA		NO	13.707
40	43	13C8-PFOSA		NO	9.981
41	44	13C8-PFOS		NO	6.423
42	45	13C2-PFDA		NO	6.833
43	46	13C2-8:2 FTS		NO	19.919
44	47	d3-N-MeFOSAA		NO	8.764
45	48	d5-N-EtFOSAA		NO	7.799
46	49	13C2-PFUdA		NO	10.553
47	50	13C2-PFDoA		NO	15.730
48	51	d3-N-MeFOSA		NO	6.657
49	52	13C2-PFTeDA		NO	17.832
50	53	d5-N-ETFOSA		NO	8.350
51	54	13C2-PFHxDA		NO	13.980
52	55	d7-N-MeFOSE		NO	16.744
53	56	d9-N-EtFOSE		NO	16.314
54	57	13C4-PFBA		NO	0.000
55	58	13C5-PFHxA		NO	0.000
56	59	13C3-PFHxS		NO	0.000
57	60	13C8-PFOA		NO	0.000
58	61	13C9-PFNA		NO	0.000
59	62	13C4-PFOS		NO	0.000
60	63	13C6-PFDA		NO	0.000
61	64	13C7-PFUdA		NO	0.000
62	72	13C2-4:2 FTS		NO	36.533

Dataset: Untitled

Last Altered: Friday, February 02, 2018 09:22:24 Pacific Standard Time
Printed: Friday, February 02, 2018 09:23:43 Pacific Standard Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_020118.mdb 02 Feb 2018 09:02:54
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_02-01-18-FULL.cdb 02 Feb 2018 08:56:36

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180201M2_1	IPA	01-Feb-18	10:40:54
2	180201M2_2	ST180201M2-1 PFC CS-2 18A3007	01-Feb-18	10:52:18
3	180201M2_3	ST180201M2-2 PFC CS-1 18A3008	01-Feb-18	11:03:45
4	180201M2_4	ST180201M2-3 PFC CS0 18A3009	01-Feb-18	11:15:12
5	180201M2_5	ST180201M2-4 PFC CS1 18A3010	01-Feb-18	11:26:39
6	180201M2_6	ST180201M2-5 PFC CS2 18A3011	01-Feb-18	11:38:09
7	180201M2_7	ST180201M2-6 PFC CS3 18A3012	01-Feb-18	11:49:38
8	180201M2_8	ST180201M2-7 PFC CS4 18A3013	01-Feb-18	12:01:08
9	180201M2_9	ST180201M2-8 PFC CS5 18A3014	01-Feb-18	12:12:35
10	180201M2_10	ST180201M2-9 PFC CS6 18A3015	01-Feb-18	12:24:05
11	180201M2_11	ST180201M2-10 PFC CS7 18A3016	01-Feb-18	12:35:34
12	180201M2_12	IPA	01-Feb-18	12:47:03
13	180201M2_13	ICV180201M2-1 PFC ICV 18A3006	01-Feb-18	12:58:32
14	180201M2_14	IPA	01-Feb-18	13:10:02

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Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-13.qld

Ⓐ No SS available.

Last Altered: Friday, February 02, 2018 09:04:08 Pacific Standard Time
Printed: Friday, February 02, 2018 09:25:15 Pacific Standard Time

AC 2/2/18

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_020118.mdb 02 Feb 2018 09:02:54
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_02-01-18-FULL.cdb 02 Feb 2018 08:56:36

JA. 02/02/2018

Name: 180201M2_13, Date: 01-Feb-2018, Time: 12:58:32, ID: ICV180201M2-1 PFC ICV 18A3006, Description: PFC ICV 18A3006

	# Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBA	213.0 > 168.8	9.45e3	9.30e3		1.0000	1.73	1.71	12.7	10.99	109.9 70-130
2	2 PFPeA	263.1 > 218.9	9.30e3	1.10e4		1.0000	2.70	2.69	10.6	11.34	113.4
3	3 PFBS	299.0 > 79.7	2.02e3	1.44e3		1.0000	2.98	2.96	17.5	11.43	114.3
4	4 4:2 FTS	327.2>307.2	2.30e3	1.44e3		1.0000	3.38	3.37	20.0	12.23	122.3
5	5 PFHxA	313.2 > 268.9	1.14e4	3.43e3		1.0000	3.48	3.46	16.6	10.93	109.3
6	6 PFPeS	349.1>80.1	2.42e3	1.44e3		1.0000	3.67	3.65	21.0	10.97	109.7
7	7 PFHpA	363.0 > 318.9	8.90e3	8.26e3		1.0000	4.10	4.09	13.5	10.08	100.8
8	8 L-PFHxS	398.9 > 79.6	1.35e3	1.02e3		1.0000	4.24	4.23	16.5	9.826	98.3
9	10 6:2 FTS	427.1 > 407	3.02e3	1.18e4		1.0000	4.56	4.54	3.19	12.15	121.5
10	11 L-PFOA	413 > 368.7	1.00e4	1.18e4		1.0000	4.61	4.59	10.6	10.85	108.5
11	13 PFHpS	449 > 80.0	2.65e3	3.11e3		1.0000	4.71	4.69	10.6	10.52	105.2
12	14 PFNA	463.0 > 418.8	1.20e4	1.14e4		1.0000	5.04	5.02	13.2	11.15	111.5
13	15 PFOSA	498.1 > 77.8	2.46e3	2.90e3		1.0000	5.09	5.08	10.6	10.05	100.5
14	16 L-PFOS	499 > 79.9	2.09e3	3.11e3		1.0000	5.11	5.10	8.38	7.667	76.7
15	18 PFDA	513 > 468.8	1.20e4	1.21e4		1.0000	5.40	5.39	12.4	10.23	102.3
16	19 8:2 FTS	527 > 506.9	2.83e3	1.18e4		1.0000	5.38	5.36	2.99	9.336	93.4
17	20 PFNS	549.1>80.1	2.29e3	3.11e3		1.0000	5.46	5.44	9.20	10.33	103.3
18	21 N-MeFOSAA	570.1 > 419	5.70e3	5.45e3		1.0000	5.55	5.53	13.1	9.233	92.3
19	22 N-EtFOSAA	584.2 > 419	5.54e3	6.15e3		1.0000	5.70	5.68	11.3	10.49	104.9
20	23 PFUdA	563.0 > 518.9	9.71e3	1.25e4		1.0000	5.72	5.70	9.70	8.562	85.6
21	24 PFDS	598.8 > 80	2.74e3	8.02e3		1.0000	5.76	5.75	4.27	12.36	123.6
22	25 PFDoA	612.9 > 569.0	1.18e4	8.02e3		1.0000	5.99	5.98	18.4	10.11	101.1
23	26 N-MeFOSA	512.1 > 168.9		1.50e4		1.0000	5.93				Ⓐ
24	27 PFTrDA	662.9 > 618.9	1.65e4	5.58e3		1.0000	6.22	6.21	37.1	9.032	90.3
25	28 PFTeDA	712.9 > 668.8	1.05e4	5.58e3		1.0000	6.41	6.40	23.4	10.87	108.7
26	29 N-EtFOSA	526.1 > 168.9		2.29e4		1.0000	6.25				Ⓐ
27	30 PFHxDA	813.1 > 768.6		3.02e3		1.0000	6.69				
28	31 PFODA	913.1 > 868.8		3.02e3		1.0000	6.90				
29	32 N-MeFOSE	616.1 > 58.9		1.51e4		1.0000	6.31				
30	33 N-EtFOSE	630.1 > 58.9		1.95e4		1.0000	6.45				
31	34 13C3-PFBA	216.1 > 171.8	9.30e3	1.12e4	0.880	1.0000	1.73	1.71	10.4	11.80	94.4

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-13.qld

Last Altered: Friday, February 02, 2018 09:04:08 Pacific Standard Time
Printed: Friday, February 02, 2018 09:25:15 Pacific Standard Time

Name: 180201M2_13, Date: 01-Feb-2018, Time: 12:58:32, ID: ICV180201M2-1 PFC ICV 18A3006, Description: PFC ICV 18A3006

	# Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35 13C3-PFPeA	266. > 221.8	1.10e4	1.16e4	0.894	1.0000	2.70	2.69	11.8	13.20	105.6
33	36 13C3-PFBS	302. > 98.8	1.44e3	1.16e4	0.120	1.0000	2.98	2.96	1.55	12.88	103.1
34	37 13C2-PFHxA	315 > 269.8	3.43e3	1.16e4	0.700	1.0000	3.48	3.46	3.68	5.260	105.2
35	38 13C4-PFHpA	367.2 > 321.8	8.26e3	1.16e4	0.693	1.0000	4.10	4.09	8.86	12.79	102.3
36	39 18O2-PFHxS	403.0 > 102.6	1.02e3	2.77e3	0.343	1.0000	4.24	4.22	4.60	13.44	107.5
37	40 13C2-6:2 FTS	429.1 > 408.9	3.31e3	1.01e4	0.262	1.0000	4.56	4.54	4.10	15.63	125.1
38	41 13C2-PFOA	414.9 > 369.7	1.18e4	1.01e4	1.064	1.0000	4.61	4.59	14.7	13.80	110.4
39	42 13C5-PFNA	468.2 > 422.9	1.14e4	1.16e4	0.949	1.0000	5.04	5.02	12.3	12.95	103.6
40	43 13C8-PFOSA	506.1 > 77.7	2.90e3	1.32e4	0.211	1.0000	5.09	5.08	2.74	12.98	103.9
41	44 13C8-PFOS	507.0 > 79.9	3.11e3	2.64e3	1.014	1.0000	5.11	5.10	14.7	14.54	116.3
42	45 13C2-PFDA	515.1 > 469.9	1.21e4	1.20e4	1.099	1.0000	5.40	5.39	12.6	11.49	91.9
43	46 13C2-8:2 FTS	529.1 > 508.7	2.39e3	1.16e4	0.194	1.0000	5.38	5.36	2.57	13.22	105.8
44	47 d3-N-MeFOSAA	573.3 > 419	5.45e3	1.32e4	0.381	1.0000	5.55	5.53	5.16	13.54	108.3
45	48 d5-N-EtFOSAA	589.3 > 419	6.15e3	1.32e4	0.430	1.0000	5.70	5.68	5.83	13.56	108.5
46	49 13C2-PFUdA	565 > 519.8	1.25e4	1.32e4	0.966	1.0000	5.72	5.70	11.8	12.27	98.1
47	50 13C2-PFDoA	615.0 > 569.7	8.02e3	1.32e4	0.767	1.0000	5.99	5.98	7.60	9.904	79.2
48	51 d3-N-MeFOSA	515.2 > 168.9	1.50e4	1.32e4	0.094	1.0000	5.93	5.94	14.2	151.1	100.7
49	52 13C2-PFTeDA	714.8 > 669.6	5.58e3	1.32e4	0.413	1.0000	6.41	6.40	5.29	12.80	102.4
50	53 d5-N-ETFOSA	531.1 > 168.9	2.29e4	1.32e4	0.134	1.0000	6.25	6.26	21.7	162.0	108.0
51	54 13C2-PFHxDA	815 > 769.7	3.02e3	1.32e4	0.555	1.0000	6.69	6.68	2.87	5.160	103.2
52	55 d7-N-MeFOSE	623.1 > 58.9	1.51e4	1.32e4	0.107	1.0000	6.31	6.31	14.3	134.1	89.4
53	56 d9-N-EtFOSE	639.2 > 58.8	1.95e4	1.32e4	0.107	1.0000	6.45	6.46	18.5	172.5	115.0
54	57 13C4-PFBA	217. > 171.8	1.12e4	1.12e4	1.000	1.0000	1.73	1.71	12.5	12.50	100.0
55	58 13C5-PFHxA	318 > 272.9	1.16e4	1.16e4	1.000	1.0000	3.48	3.46	12.5	12.50	100.0
56	59 13C3-PFHxS	401.9 > 79.9	2.77e3	2.77e3	1.000	1.0000	4.24	4.23	12.5	12.50	100.0
57	60 13C8-PFOA	421.3 > 376	1.01e4	1.01e4	1.000	1.0000	4.61	4.59	12.5	12.50	100.0
58	61 13C9-PFNA	472.2 > 426.9	1.16e4	1.16e4	1.000	1.0000	5.04	5.02	12.5	12.50	100.0
59	62 13C4-PFOS	503 > 79.9	2.64e3	2.64e3	1.000	1.0000	5.11	5.09	12.5	12.50	100.0
60	63 13C6-PFDA	519.1 > 473.7	1.20e4	1.20e4	1.000	1.0000	5.40	5.38	12.5	12.50	100.0
61	64 13C7-PFUdA	570.1 > 524.8	1.32e4	1.32e4	1.000	1.0000	5.72	5.70	12.5	12.50	100.0
62	72 13C2-4:2 FTS	329.2>308.9	3.08e3	1.16e4	0.312	1.0000	3.38	3.37	3.30	10.59	84.7

Dataset: U:\G1.PRO\Results\2017\171228G1\171228G1-10.qld

Last Altered: Friday, December 29, 2017 11:27:43 Pacific Standard Time
Printed: Friday, December 29, 2017 11:27:57 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-28-17_L14.cdb 29 Dec 2017 10:21:25

Name: 171228G1_37, Date: 28-Dec-2017, Time: 19:20:00, ID: ST171228G1-10 PFC CS3 537 17L1424, Description: PFC CS3 537 17L1424

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.26e4	1.07e4	1.0000		3.18	3.14	33.8	39.561	89.5
2	2 PFHxA	313.2 > 268.9	9.96e3	9.76e3	1.0000		3.53	3.49	10.2	40.231	80.5
3	3 PFHpA	363 > 318.9	4.19e4	9.76e3	1.0000		4.01	4.00	43.0	48.018	96.0
4	4 PFHxS	398.9 > 79.6	1.57e4	1.07e4	1.0000		4.17	4.12	42.1	43.337	95.0
5	5 PFOA	413 > 368.7	3.77e4	9.76e3	1.0000		4.41	4.41	38.6	45.638	91.3
6	6 PFNA	463 > 418.8	3.78e4	9.76e3	1.0000		4.76	4.76	38.7	42.485	85.0
7	7 PFOS	499 >79.9	1.94e4	1.07e4	1.0000		4.82	4.82	52.1	42.264	91.5
8	8 PFDA	513 > 468.8	3.37e4	9.76e3	1.0000		5.02	5.05	34.6	43.723	87.4
9	9 N-MeFOSAA	570.1 > 419.0	1.91e4	6.00e3	1.0000		5.17	5.18	127	48.960	97.9
10	10 N-EtFOSAA	584.2 >419.0	1.23e4	6.00e3	1.0000		5.29	5.29	82.1	47.744	95.5
11	11 PFUnA	563 > 518.9	3.69e4	9.76e3	1.0000		5.26	5.30	37.8	43.446	86.9
12	12 PFDoA	612.9 > 318.8	8.05e3	9.76e3	1.0000		5.47	5.53	8.25	46.638	93.3
13	13 PFTrDA	662.9 > 618.9	6.16e4	9.76e3	1.0000		5.63	5.72	63.2	44.314	88.6
14	14 PFTeDA	712.9 > 668.8	5.90e4	9.76e3	1.0000		5.81	5.89	60.4	43.787	87.6
15	15 13C2-PFHxA	315 > 269.8	4.81e3	9.76e3	1.0000	0.499	3.54	3.49	4.93	9.891	98.9
16	16 13C2-PFDA	515.1 > 469.9	5.14e3	9.76e3	1.0000	0.582	5.03	5.05	5.26	9.042	90.4
17	17 d5-N-EtFOSAA	589.3 > 419.0	6.39e3	6.00e3	1.0000	1.182	5.17	5.29	42.6	36.050	90.1
18	18 13C2-PFOA	414.9 > 369.7	9.76e3	9.76e3	1.0000	1.000	4.41	4.41	10.0	10.000	100.0
19	19 13C4-PFOS	503.0 > 79.9	1.07e4	1.07e4	1.0000	1.000	4.81	4.82	28.7	28.700	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	6.00e3	6.00e3	1.0000	1.000	5.16	5.17	40.0	40.000	100.0

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YA 12/29/2017

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN 945**
Vista Analytical Laboratory

Dataset: U:\G1.PRO\Results\2017\171228G1\171228G1-49.qld

Last Altered: Friday, December 29, 2017 11:28:47 Pacific Standard Time
Printed: Friday, December 29, 2017 11:29:14 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-28-17_L14.cdb 29 Dec 2017 10:21:25

Name: 171228G1_49, Date: 28-Dec-2017, Time: 21:49:11, ID: ST171228G1-11 PFC CS5 537 17L1426, Description: PFC CS5 537 17L1426

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	2.47e4	9.61e3	1.0000		3.18	3.14	73.9	86.381	97.7
2	2 PFHxA	313.2 > 268.9	1.84e4	7.96e3	1.0000		3.52	3.49	23.2	106.111	106.1
3	3 PFHpA	363 > 318.9	7.44e4	7.96e3	1.0000		4.01	4.00	93.5	104.462	104.5
4	4 PFHxS	398.9 > 79.6	2.93e4	9.61e3	1.0000		4.17	4.12	87.6	90.251	99.0
5	5 PFOA	413 > 368.7	6.58e4	7.96e3	1.0000		4.41	4.41	82.7	97.674	97.7
6	6 PFNA	463 > 418.8	6.98e4	7.96e3	1.0000		4.76	4.75	87.7	96.237	96.2
7	7 PFOS	499 >79.9	3.53e4	9.61e3	1.0000		4.81	4.82	105	85.540	92.6
8	8 PFDA	513 > 468.8	6.10e4	7.96e3	1.0000		5.01	5.05	76.7	113.951	114.0
9	9 N-MeFOSAA	570.1 > 419.0	3.46e4	5.03e3	1.0000		5.17	5.17	275	101.049	101.0
10	10 N-EtFOSAA	584.2 >419.0	1.82e4	5.03e3	1.0000		5.29	5.29	145	84.221	84.2
11	11 PFUnA	563 > 518.9	5.98e4	7.96e3	1.0000		5.26	5.30	75.2	86.495	86.5
12	12 PFDoA	612.9 > 318.8	1.45e4	7.96e3	1.0000		5.46	5.52	18.3	103.207	103.2
13	13 PFTrDA	662.9 > 618.9	1.13e5	7.96e3	1.0000		5.63	5.72	142	99.940	99.9
14	14 PFTeDA	712.9 > 668.8	1.08e5	7.96e3	1.0000		5.81	5.88	136	98.448	98.4
15	15 13C2-PFHxA	315 > 269.8	4.21e3	7.96e3	1.0000	0.499	3.53	3.49	5.30	10.616	106.2
16	16 13C2-PFDA	515.1 > 469.9	4.55e3	7.96e3	1.0000	0.582	5.02	5.05	5.72	9.830	98.3
17	17 d5-N-EtFOSAA	589.3 > 419.0	4.87e3	5.03e3	1.0000	1.182	5.17	5.29	38.7	32.768	81.9
18	18 13C2-PFOA	414.9 > 369.7	7.96e3	7.96e3	1.0000	1.000	4.41	4.41	10.0	10.000	100.0
19	19 13C4-PFOS	503.0 > 79.9	9.61e3	9.61e3	1.0000	1.000	4.81	4.81	28.7	28.700	100.0
20	20 d3-N-MeFOSAA	573.3 > 419.0	5.03e3	5.03e3	1.0000	1.000	5.16	5.17	40.0	40.000	100.0

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Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, December 29, 2017 11:30:01 Pacific Standard Time
Printed: Friday, December 29, 2017 11:30:58 Pacific Standard Time

Method: U:\G1.PRO\MethDB\PFAS_DW_L14_1217.mdb 17 Dec 2017 15:10:41
Calibration: U:\G1.PRO\CurveDB\C18_537_Q1_12-28-17_L14.cdb 29 Dec 2017 10:21:25

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	171228G1_1	IPA	28-Dec-17	11:50:26
2	171228G1_2	ICV171228G1-1 PFC ICV 537 17L1427	28-Dec-17	12:02:54
3	171228G1_3	ST171228G1-1 PFC CS-3 537 17L1418	28-Dec-17	12:15:18
4	171228G1_4	ST171228G1-2 PFC CS-2 537 17L1419	28-Dec-17	12:27:42
5	171228G1_5	ST171228G1-3 PFC CS-1 537 17L2105	28-Dec-17	12:40:08
6	171228G1_6	ST171228G1-4 PFC CS0 537 17L1421	28-Dec-17	12:52:35
7	171228G1_7	ST171228G1-5 PFC CS1 537 17L1422	28-Dec-17	13:05:01
8	171228G1_8	ST171228G1-6 PFC CS2 537 17L1423	28-Dec-17	13:17:29
9	171228G1_9	ST171228G1-7 PFC CS3 537 17L1424	28-Dec-17	13:29:56
10	171228G1_10	ST171228G1-8 PFC CS4 537 17L1425	28-Dec-17	13:42:25
11	171228G1_11	ST171228G1-9 PFC CS5 537 17L1426	28-Dec-17	13:54:49
12	171228G1_12	IPA	28-Dec-17	14:07:14
13	171228G1_13	B7L0166-BS1 LFB 0.25	28-Dec-17	14:21:09
14	171228G1_14	B7L0184-BS1 LFB 0.25	28-Dec-17	14:33:34
15	171228G1_15	IPA	28-Dec-17	14:45:59
16	171228G1_16	B7L0184-BLK1 LRB 0.25	28-Dec-17	14:58:27
17	171228G1_17	B7L0166-BLK1 LRB 0.25	28-Dec-17	15:10:54
18	171228G1_18	B7L0166-MS1 LFSM 0.25546	28-Dec-17	15:23:22
19	171228G1_19	B7L0166-MSD1 LFSMD 0.25461	28-Dec-17	15:35:51
20	171228G1_20	B7L0166-MS2 LFSM 0.24013	28-Dec-17	15:48:20
21	171228G1_21	B7L0166-MSD2 LFSMD 0.26049	28-Dec-17	16:00:45
22	171228G1_22	B7L0184-MS1 LFSM 0.25135	28-Dec-17	16:13:10
23	171228G1_23	B7L0184-MSD1 LFSMD 0.25318	28-Dec-17	16:25:40
24	171228G1_24	B7L0184-MS2 LFSM 0.24339	28-Dec-17	16:38:08
25	171228G1_25	B7L0184-MSD2 LFSMD 0.25679	28-Dec-17	16:50:34
26	171228G1_26	1701927-01RE1 TOLDO-12072017-RW-2945...	28-Dec-17	17:03:02
27	171228G1_27	1701927-02RE1 TOLDO-12072017-DUP-01 0...	28-Dec-17	17:15:30
28	171228G1_28	1701936-01RE1 HORSH-120717-RW-1505 0....	28-Dec-17	17:27:57
29	171228G1_29	1701936-03RE1 HORSH-120717-RW-1385 0....	28-Dec-17	17:40:23
30	171228G1_30	1701936-05RE1 HORSH-120817-RW-2279 0....	28-Dec-17	17:52:49
31	171228G1_31	1701936-07RE1 HORSH-120517-RW-1367 0....	28-Dec-17	18:05:19

Dataset: Untitled

Last Altered: Friday, December 29, 2017 11:30:01 Pacific Standard Time
Printed: Friday, December 29, 2017 11:30:58 Pacific Standard Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
32	171228G1_32	1701936-09RE1 HORSH-120817-RW-1376 0....	28-Dec-17	18:17:47
33	171228G1_33	1701936-11RE1 HORSH-120817-RW-1745 0....	28-Dec-17	18:30:12
34	171228G1_34	1701936-13RE1 HORSH-120817-DUP-1745 0...	28-Dec-17	18:42:36
35	171228G1_35	1701938-01 REEPDW040 0.25944	28-Dec-17	18:55:02
36	171228G1_36	IPA	28-Dec-17	19:07:31
37	171228G1_37	ST171228G1-10 PFC CS3 537 17L1424	28-Dec-17	19:20:00
38	171228G1_38	IPA	28-Dec-17	19:32:26
39	171228G1_39	1701938-02 REEPDW503 0.24799	28-Dec-17	19:44:53
40	171228G1_40	1701938-03 REEPDW041 0.24345	28-Dec-17	19:57:17
41	171228G1_41	1701938-04 REEPDW042 0.25464	28-Dec-17	20:09:42
42	171228G1_42	1701940-01 REEPDWO40FRB 0.24567	28-Dec-17	20:22:07
43	171228G1_43	1701940-02 REEPDW041FRB 0.25741	28-Dec-17	20:34:32
44	171228G1_44	1701940-03 REEPDW042FRB 0.2529	28-Dec-17	20:46:58
45	171228G1_45	1701951-04 FT-RW01-20171212 0.25982	28-Dec-17	20:59:25
46	171228G1_46	1701951-05 FT-RW01-FRB-20171212 0.25309	28-Dec-17	21:11:52
47	171228G1_47	1701951-11 FT-DUP08-20171212 0.2559	28-Dec-17	21:24:19
48	171228G1_48	IPA	28-Dec-17	21:36:44
49	171228G1_49	ST171228G1-11 PFC CS5 537 17L1426	28-Dec-17	21:49:11
50	171228G1_50	IPA	28-Dec-17	22:01:39

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Dataset: F:\Projects\PFAS.PRO\Results\180117M1\180117M1-2.qld

Last Altered: Thursday, January 18, 2018 08:44:25 Pacific Standard Time
Printed: Thursday, January 18, 2018 08:45:29 Pacific Standard Time

AC 1/18/18

JA 01/18/2018

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 13:31:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-16-18-FULL.cdb 17 Jan 2018 09:42:17

Name: 180117M1_2, Date: 17-Jan-2018, Time: 16:07:34, ID: ST180117M1-1 PFC CS0 18A0808, Description: ~~ST180108M2-3~~ PFC CS0 18A0808

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	1	PFBA	213.0 > 168.8	8.33e2	9.01e3	1.0000		1.44	1.41	1.16	0.975	97.5	70-130
2	2	PFPeA	263.1 > 218.9	9.70e2	1.08e4	1.0000		2.39	2.35	1.13	1.057	105.7	
3	3	PFBS	299.0 > 79.7	1.97e2	1.40e3	1.0000		2.66	2.62	1.76	0.946	94.6	
4	4	PFHxA	313.2 > 268.9	1.15e3	3.14e3	1.0000		3.16	3.11	1.83	1.061	106.1	
5	5	PFHpA	363.0 > 318.9	9.85e2	8.45e3	1.0000		3.77	3.73	1.46	1.131	113.1	
6	6	L-PFHxS	398.9 > 79.6	1.24e2	9.96e2	1.0000		3.92	3.87	1.55	0.890	89.0	
7	8	6:2 FTS	427.1 > 407	1.99e2	9.96e2	1.0000		4.23	4.20	2.50	1.287	128.7	
8	9	L-PFOA	413 > 368.7	1.08e3	1.12e4	1.0000		4.29	4.25	1.21	1.045	104.5	
9	11	PFHpS	449 > 80.0	2.31e2	1.12e4	1.0000		4.40	4.36	0.257	1.166	116.6	
10	12	PFNA	463.0 > 418.8	1.15e3	1.21e4	1.0000		4.72	4.68	1.19	0.898	89.8	
11	13	PFOSA	498.1 > 77.8	1.85e2	2.17e3	1.0000		4.79	4.75	1.07	0.927	92.7	
12	14	L-PFOS	499 > 79.9	2.35e2	2.57e3	1.0000		4.79	4.76	1.15	1.005	100.5	
13	16	PFDA	513 > 468.8	1.02e3	8.01e3	1.0000		5.10	5.05	1.58	1.292	129.2	
14	17	8:2 FTS	527 > 506.9	1.50e2	8.01e3	1.0000		5.06	5.03	0.233	1.228	122.8	
15	18	N-MeFOSAA	570.1 > 419	5.45e2	3.94e3	1.0000		5.24	5.20	1.73	1.187	118.7	
16	19	N-EtFOSAA	584.2 > 419	4.56e2	4.63e3	1.0000		5.40	5.36	1.23	1.079	107.9	
17	20	PFUdA	563.0 > 518.9	9.83e2	1.20e4	1.0000		5.42	5.37	1.02	0.848	84.8	
18	21	PFDS	598.8 > 80	2.94e2	6.30e3	1.0000		5.46	5.42	0.583	1.161	116.1	
19	22	PFDoA	612.9 > 569.0	1.19e3	6.30e3	1.0000		5.70	5.65	2.36	0.891	89.1	
20	23	N-MeFOSA	512.1 > 168.9	6.41e2	1.80e4	1.0000		5.79	5.79	5.35	5.156	103.1	
21	24	PFTrDA	662.9 > 618.9	1.07e3	6.30e3	1.0000		5.94	5.90	2.11	0.904	90.4	
22	25	PFTeDA	712.9 > 668.8	5.18e2	3.29e3	1.0000		6.16	6.11	1.97	0.871	87.1	
23	26	N-EtFOSA	526.1 > 168.9	8.67e2	2.66e4	1.0000		6.17	6.17	4.88	5.109	102.2	
24	27	PFHxDA	813.1 > 768.6	5.17e2	2.57e3	1.0000		6.48	6.44	1.01	1.091	109.1	
25	28	PFODA	913.1 > 868.8	4.90e2	2.57e3	1.0000		6.71	6.67	0.954	1.141	114.1	
26	29	N-MeFOSE	616.1 > 58.9	1.02e3	2.80e4	1.0000		6.31	6.29	5.45	5.406	108.1	
27	30	N-EtFOSE	630.1 > 58.9	1.00e3	2.57e4	1.0000		6.45	6.44	5.85	4.972	99.4	
28	31	13C3-PFBA	216.1 > 171.8	9.01e3	1.06e4	1.0000	0.886	1.44	1.41	10.6	11.956	95.6	50-150
29	32	13C3-PFPeA	266. > 221.8	1.08e4	1.23e4	1.0000	0.929	2.39	2.35	10.9	11.747	94.0	
30	33	13C3-PFBS	302. > 98.8	1.40e3	1.23e4	1.0000	0.117	2.66	2.62	1.42	12.082	96.7	
31	34	13C2-PFHxA	315 > 269.8	3.14e3	1.23e4	1.0000	0.689	3.16	3.11	3.18	4.613	92.3	

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Dataset: F:\Projects\PFAS.PRO\Results\180117M1\180117M1-2.qld

Last Altered: Thursday, January 18, 2018 08:44:25 Pacific Standard Time
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Name: 180117M1_2, Date: 17-Jan-2018, Time: 16:07:34, ID: ST180117M1-1 PFC CS0 18A0808, Description: ST180108M2-3 PFC CS0 18A0808

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35 13C4-PFHpA	367.2 > 321.8	8.45e3	1.23e4	1.0000	0.727	3.77	3.73	8.56	11.770	94.2
33	36 18O2-PFHxS	403.0 > 102.6	9.96e2	2.86e3	1.0000	0.362	3.92	3.88	4.35	12.000	96.0
34	37 13C2-6:2 FTS	429.1 > 408.9	2.20e3	1.12e4	1.0000	0.218	4.23	4.20	2.46	11.288	90.3
35	38 13C2-PFOA	414.9 > 369.7	1.12e4	1.12e4	1.0000	1.071	4.29	4.25	12.5	11.699	93.6
36	39 13C5-PFNA	468.2 > 422.9	1.21e4	1.19e4	1.0000	0.968	4.72	4.68	12.7	13.086	104.7
37	40 13C8-PFOSA	506.1 > 77.7	2.17e3	1.10e4	1.0000	0.283	4.79	4.75	2.46	8.697	69.6
38	41 13C8-PFOS	507.0 > 79.9	2.57e3	2.71e3	1.0000	0.999	4.80	4.76	11.9	11.866	94.9
39	42 13C2-PFDA	515.1 > 469.9	8.01e3	6.79e3	1.0000	1.329	5.10	5.05	14.8	11.109	88.9
40	43 13C2-8:2 FTS	529.1 > 508.7	1.32e3	1.23e4	1.0000	0.085	5.06	5.02	1.34	15.800	126.4
41	44 d3-N-MeFOSAA	573.3 > 419	3.94e3	1.10e4	1.0000	0.463	5.24	5.20	4.48	9.681	77.4
42	45 d5-N-EtFOSAA	589.3 > 419	4.63e3	1.10e4	1.0000	0.541	5.40	5.35	5.27	9.752	78.0
43	46 13C2-PFUdA	565 > 519.8	1.20e4	1.10e4	1.0000	1.081	5.42	5.37	13.7	12.659	101.3
44	47 13C2-PFDoA	615.0 > 569.7	6.30e3	1.10e4	1.0000	0.656	5.70	5.65	7.17	10.917	87.3
45	48 d3-N-MeFOSA	515.2 > 168.9	1.80e4	1.10e4	1.0000	0.162	5.79	5.81	20.4	125.827	83.9
46	49 13C2-PFTeDA	714.8 > 669.6	3.29e3	1.10e4	1.0000	0.415	6.16	6.12	3.74	9.006	72.1
47	50 d5-N-ETFOSA	531.1 > 168.9	2.66e4	1.10e4	1.0000	0.244	6.17	6.18	30.3	123.997	82.7
48	51 13C2-PFHxDA	815 > 769.7	2.57e3	1.10e4	1.0000	0.718	6.48	6.44	2.92	4.069	81.4
49	52 d7-N-MeFOSE	623.1 > 58.9	2.80e4	1.10e4	1.0000	0.249	6.31	6.29	31.8	127.802	85.2
50	53 d9-N-EtFOSE	639.2 > 58.8	2.57e4	1.10e4	1.0000	0.239	6.45	6.43	29.2	122.471	81.6
51	54 13C4-PFBA	217. > 171.8	1.06e4	1.06e4	1.0000	1.000	1.44	1.41	12.5	12.500	100.0
52	55 13C5-PFHxA	318 > 272.9	1.23e4	1.23e4	1.0000	1.000	3.16	3.11	12.5	12.500	100.0
53	56 13C3-PFHxS	401.9 > 79.9	2.86e3	2.86e3	1.0000	1.000	3.92	3.88	12.5	12.500	100.0
54	57 13C8-PFOA	421.3 > 376	1.12e4	1.12e4	1.0000	1.000	4.29	4.25	12.5	12.500	100.0
55	58 13C9-PFNA	472.2 > 426.9	1.19e4	1.19e4	1.0000	1.000	4.72	4.68	12.5	12.500	100.0
56	59 13C4-PFOS	503 > 79.9	2.71e3	2.71e3	1.0000	1.000	4.80	4.76	12.5	12.500	100.0
57	60 13C6-PFDA	519.1 > 473.7	6.79e3	6.79e3	1.0000	1.000	5.10	5.05	12.5	12.500	100.0
58	61 13C7-PFUdA	570.1 > 524.8	1.10e4	1.10e4	1.0000	1.000	5.42	5.37	12.5	12.500	100.0

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A 6:2 FTS, 9:2 FTS >130%.

Dataset: F:\Projects\PFAS.PRO\Results\180117M1\180117M1-14.qld

Last Altered: Thursday, January 18, 2018 08:48:44 Pacific Standard Time
Printed: Thursday, January 18, 2018 08:49:20 Pacific Standard Time

AC 1/18/18

JA 01/18/2018

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 13:31:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-16-18-FULL.cdb 17 Jan 2018 09:42:17

Name: 180117M1_14, Date: 17-Jan-2018, Time: 18:25:17, ID: ST180117M1-2 PFC CS3 18A0811, Description: ~~ST180108M2-6~~ PFC CS3 18A0811

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	1 PFBA	213.0 > 168.8	9.93e3	1.04e4	1.0000		1.44	1.41	12.0	10.271	102.7	70-130
2	2 PFPeA	263.1 > 218.9	1.11e4	1.20e4	1.0000		2.39	2.35	11.5	11.253	112.5	
3	3 PFBS	299.0 > 79.7	2.01e3	1.57e3	1.0000		2.66	2.62	16.0	8.789	87.9	
4	4 PFHxA	313.2 > 268.9	1.21e4	3.78e3	1.0000		3.16	3.12	15.9	10.003	100.0	
5	5 PFHpA	363.0 > 318.9	8.90e3	8.85e3	1.0000		3.77	3.74	12.6	10.572	105.7	
6	6 L-PFHxS	398.9 > 79.6	1.54e3	9.27e2	1.0000		3.92	3.88	20.8	11.342	113.4	
7	8 6:2 FTS	427.1 > 407	2.23e3	9.27e2	1.0000		4.23	4.20	30.1	14.894 A	148.9	
8	9 L-PFOA	413 > 368.7	9.58e3	1.13e4	1.0000		4.29	4.25	10.6	9.983	99.8	
9	11 PFHpS	449 > 80.0	2.46e3	1.13e4	1.0000		4.40	4.36	2.72	9.886	98.9	
10	12 PFNA	463.0 > 418.8	1.13e4	1.07e4	1.0000		4.72	4.68	13.2	9.956	99.6	
11	13 PFOSA	498.1 > 77.8	2.04e3	2.63e3	1.0000		4.79	4.75	9.68	7.894	78.9	
12	14 L-PFOS	499 > 79.9	2.42e3	3.02e3	1.0000		4.79	4.76	10.0	8.546	85.5	
13	16 PFDA	513 > 468.8	1.02e4	1.05e4	1.0000		5.10	5.05	12.1	9.986	99.9	
14	17 8:2 FTS	527 > 506.9	2.49e3	1.05e4	1.0000		5.06	5.03	2.97	15.437 A	154.4	
15	18 N-MeFOSAA	570.1 > 419	6.34e3	4.47e3	1.0000		5.24	5.20	17.7	12.446	124.5	
16	19 N-EtFOSAA	584.2 > 419	4.90e3	5.57e3	1.0000		5.40	5.36	11.0	8.996	90.0	
17	20 PFUdA	563.0 > 518.9	1.08e4	1.17e4	1.0000		5.42	5.37	11.6	9.624	96.2	
18	21 PFDS	598.8 > 80	3.13e3	6.52e3	1.0000		5.46	5.42	5.99	10.825	108.3	
19	22 PFDoA	612.9 > 569.0	1.34e4	6.52e3	1.0000		5.70	5.65	25.7	8.946	89.5	
20	23 N-MeFOSA	512.1 > 168.9	6.59e3	1.78e4	1.0000		5.79	5.79	55.5	56.978	114.0	
21	24 PFTrDA	662.9 > 618.9	9.67e3	6.52e3	1.0000		5.94	5.90	18.5	8.005	80.0	
22	25 PFTeDA	712.9 > 668.8	6.94e3	3.39e3	1.0000		6.16	6.12	25.6	12.921	129.2	
23	26 N-EtFOSA	526.1 > 168.9	8.85e3	2.80e4	1.0000		6.17	6.17	47.5	52.035	104.1	
24	27 PFHxDA	813.1 > 768.6	4.83e3	2.27e3	1.0000		6.48	6.44	10.6	12.908	129.1	
25	28 PFODA	913.1 > 868.8	4.56e3	2.27e3	1.0000		6.71	6.67	10.1	12.400	124.0	
26	29 N-MeFOSE	616.1 > 58.9	8.92e3	3.11e4	1.0000		6.31	6.29	43.1	45.041	90.1	
27	30 N-EtFOSE	630.1 > 58.9	8.83e3	2.26e4	1.0000		6.45	6.44	58.7	54.040	108.1	
28	31 13C3-PFBA	216.1 > 171.8	1.04e4	1.16e4	1.0000	0.886	1.44	1.41	11.2	12.671	101.4	50-150
29	32 13C3-PFPeA	266. > 221.8	1.20e4	1.25e4	1.0000	0.929	2.39	2.35	12.0	12.914	103.3	
30	33 13C3-PFBS	302. > 98.8	1.57e3	1.25e4	1.0000	0.117	2.66	2.62	1.57	13.348	106.8	
31	34 13C2-PFHxA	315 > 269.8	3.78e3	1.25e4	1.0000	0.689	3.16	3.12	3.77	5.481	109.6	

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Dataset: F:\Projects\PFAS.PRO\Results\180117M1\180117M1-14.qld

Last Altered: Thursday, January 18, 2018 08:48:44 Pacific Standard Time
Printed: Thursday, January 18, 2018 08:49:20 Pacific Standard Time

Name: 180117M1_14, Date: 17-Jan-2018, Time: 18:25:17, ID: ST180117M1-2 PFC CS3 18A0811, Description: ST180108M2-6 PFC CS3 18A0811

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35 13C4-PFHpA	367.2 > 321.8	8.85e3	1.25e4	1.0000	0.727	3.77	3.74	8.84	12.156	97.2
33	36 18O2-PFHxS	403.0 > 102.6	9.27e2	3.02e3	1.0000	0.362	3.92	3.88	3.84	10.604	84.8
34	37 13C2-6:2 FTS	429.1 > 408.9	2.57e3	1.10e4	1.0000	0.218	4.23	4.20	2.91	13.325	106.6
35	38 13C2-PFOA	414.9 > 369.7	1.13e4	1.10e4	1.0000	1.071	4.29	4.25	12.8	11.980	95.8
36	39 13C5-PFNA	468.2 > 422.9	1.07e4	1.16e4	1.0000	0.968	4.72	4.68	11.5	11.900	95.2
37	40 13C8-PFOSA	506.1 > 77.7	2.63e3	1.17e4	1.0000	0.283	4.79	4.75	2.81	9.918	79.3
38	41 13C8-PFOS	507.0 > 79.9	3.02e3	3.02e3	1.0000	0.999	4.80	4.76	12.5	12.507	100.1
39	42 13C2-PFDA	515.1 > 469.9	1.05e4	8.14e3	1.0000	1.329	5.10	5.05	16.1	12.110	96.9
40	43 13C2-8:2 FTS	529.1 > 508.7	1.36e3	1.25e4	1.0000	0.085	5.06	5.03	1.35	15.942	127.5
41	44 d3-N-MeFOSAA	573.3 > 419	4.47e3	1.17e4	1.0000	0.463	5.24	5.20	4.78	10.318	82.5
42	45 d5-N-EtFOSAA	589.3 > 419	5.57e3	1.17e4	1.0000	0.541	5.40	5.35	5.95	11.004	88.0
43	46 13C2-PFUdA	565 > 519.8	1.17e4	1.17e4	1.0000	1.081	5.42	5.38	12.5	11.534	92.3
44	47 13C2-PFDoA	615.0 > 569.7	6.52e3	1.17e4	1.0000	0.656	5.70	5.66	6.97	10.611	84.9
45	48 d3-N-MeFOSA	515.2 > 168.9	1.78e4	1.17e4	1.0000	0.162	5.79	5.81	19.0	117.268	78.2
46	49 13C2-PFTeDA	714.8 > 669.6	3.39e3	1.17e4	1.0000	0.415	6.16	6.12	3.62	8.727	69.8
47	50 d5-N-ETFOSA	531.1 > 168.9	2.80e4	1.17e4	1.0000	0.244	6.17	6.19	29.9	122.271	81.5
48	51 13C2-PFHxDA	815 > 769.7	2.27e3	1.17e4	1.0000	0.718	6.48	6.44	2.42	3.374	67.5
49	52 d7-N-MeFOSE	623.1 > 58.9	3.11e4	1.17e4	1.0000	0.249	6.31	6.28	33.2	133.253	88.8
50	53 d9-N-EtFOSE	639.2 > 58.8	2.26e4	1.17e4	1.0000	0.239	6.45	6.43	24.1	100.946	67.3
51	54 13C4-PFBA	217. > 171.8	1.16e4	1.16e4	1.0000	1.000	1.44	1.41	12.5	12.500	100.0
52	55 13C5-PFHxA	318 > 272.9	1.25e4	1.25e4	1.0000	1.000	3.16	3.12	12.5	12.500	100.0
53	56 13C3-PFHxS	401.9 > 79.9	3.02e3	3.02e3	1.0000	1.000	3.92	3.88	12.5	12.500	100.0
54	57 13C8-PFOA	421.3 > 376	1.10e4	1.10e4	1.0000	1.000	4.29	4.25	12.5	12.500	100.0
55	58 13C9-PFNA	472.2 > 426.9	1.16e4	1.16e4	1.0000	1.000	4.72	4.68	12.5	12.500	100.0
56	59 13C4-PFOS	503 > 79.9	3.02e3	3.02e3	1.0000	1.000	4.80	4.76	12.5	12.500	100.0
57	60 13C6-PFDA	519.1 > 473.7	8.14e3	8.14e3	1.0000	1.000	5.10	5.05	12.5	12.500	100.0
58	61 13C7-PFUdA	570.1 > 524.8	1.17e4	1.17e4	1.0000	1.000	5.42	5.37	12.5	12.500	100.0

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8:2 FTS, N-MeFOSAA, PFTeDA, N-MeFOSE, N-EtFOSE > 130%.
PFDoA < 70%

Dataset: F:\Projects\PFAS.PRO\Results\180117M1\180117M1-31.qld

Last Altered: Thursday, January 18, 2018 09:05:53 Pacific Standard Time
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DC 1/18/18

JA 01/18/2018

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 13:31:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-16-18-FULL.cdb 17 Jan 2018 09:42:17

Name: 180117M1_31, Date: 17-Jan-2018, Time: 21:40:22, ID: ST180117M1-3 PFC CS3 18A0811, Description: ~~ST180108M2-6~~ PFC CS3 18A0811

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBA	213.0 > 168.8	9.81e3	1.01e4	1.0000		1.44	1.42	12.1	10.399	104.0
2	2 PFPeA	263.1 > 218.9	1.05e4	1.20e4	1.0000		2.39	2.36	11.0	10.765	107.6
3	3 PFBS	299.0 > 79.7	2.09e3	1.55e3	1.0000		2.66	2.63	16.8	9.243	92.4
4	4 PFHxA	313.2 > 268.9	1.24e4	3.58e3	1.0000		3.16	3.12	17.3	10.848	108.5
5	5 PFHpA	363.0 > 318.9	9.61e3	8.64e3	1.0000		3.77	3.74	13.9	11.710	117.1
6	6 L-PFHxS	398.9 > 79.6	1.65e3	9.63e2	1.0000		3.92	3.88	21.4	11.665	116.7
7	8 6:2 FTS	427.1 > 407	1.96e3	9.63e2	1.0000		4.23	4.20	25.4	12.663	126.6
8	9 L-PFOA	413 > 368.7	1.04e4	1.38e4	1.0000		4.29	4.25	9.39	8.860	88.6
9	11 PFHpS	449 > 80.0	2.65e3	1.38e4	1.0000		4.40	4.36	2.40	8.740	87.4
10	12 PFNA	463.0 > 418.8	1.22e4	1.37e4	1.0000		4.72	4.68	11.1	8.394	83.9
11	13 PFOSA	498.1 > 77.8	2.04e3	2.36e3	1.0000		4.79	4.75	10.8	8.819	88.2
12	14 L-PFOS	499 > 79.9	2.51e3	3.01e3	1.0000		4.79	4.76	10.4	8.879	88.8
13	16 PFDA	513 > 468.8	1.01e4	8.49e3	1.0000		5.10	5.05	14.9	12.186	121.9
14	17 8:2 FTS	527 > 506.9	2.04e3	8.49e3	1.0000		5.06	5.03	3.01	15.615	A 156.2
15	18 N-MeFOSAA	570.1 > 419	5.64e3	3.69e3	1.0000		5.24	5.20	19.1	13.440	134.4
16	19 N-EtFOSAA	584.2 > 419	5.03e3	4.88e3	1.0000		5.40	5.36	12.9	10.541	105.4
17	20 PFUdA	563.0 > 518.9	1.20e4	1.19e4	1.0000		5.42	5.37	12.6	10.483	104.8
18	21 PFDS	598.8 > 80	2.97e3	8.71e3	1.0000		5.46	5.42	4.26	7.724	77.2
19	22 PFDoA	612.9 > 569.0	1.35e4	8.71e3	1.0000		5.70	5.65	19.4	6.634	B 66.3
20	23 N-MeFOSA	512.1 > 168.9	6.64e3	1.76e4	1.0000		5.79	5.79	56.4	57.951	115.9
21	24 PFTrDA	662.9 > 618.9	1.26e4	8.71e3	1.0000		5.94	5.90	18.1	7.805	78.0
22	25 PFTeDA	712.9 > 668.8	8.10e3	3.62e3	1.0000		6.16	6.12	28.0	14.035	A 140.4
23	26 N-EtFOSA	526.1 > 168.9	8.73e3	2.71e4	1.0000		6.17	6.17	48.4	53.043	106.1
24	27 PFHxDA	813.1 > 768.6	4.55e3	2.84e3	1.0000		6.48	6.44	8.01	9.642	96.4
25	28 PFODA	913.1 > 868.8	4.93e3	2.84e3	1.0000		6.71	6.67	8.68	10.664	106.6
26	29 N-MeFOSE	616.1 > 58.9	1.12e4	2.36e4	1.0000		6.31	6.29	71.0	74.416	A 148.8
27	30 N-EtFOSE	630.1 > 58.9	1.15e4	2.34e4	1.0000		6.45	6.44	73.8	68.052	136.1
28	31 13C3-PFBA	216.1 > 171.8	1.01e4	1.15e4	1.0000	0.886	1.44	1.41	11.0	12.459	99.7
29	32 13C3-PFPeA	266. > 221.8	1.20e4	1.36e4	1.0000	0.929	2.39	2.35	11.0	11.789	94.3
30	33 13C3-PFBS	302. > 98.8	1.55e3	1.36e4	1.0000	0.117	2.66	2.63	1.42	12.108	96.9
31	34 13C2-PFHxA	315 > 269.8	3.58e3	1.36e4	1.0000	0.689	3.16	3.12	3.28	4.764	95.3

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No data reported

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Dataset: F:\Projects\PFAS.PRO\Results\180117M1\180117M1-31.qld

Last Altered: Thursday, January 18, 2018 09:05:53 Pacific Standard Time
Printed: Thursday, January 18, 2018 09:06:12 Pacific Standard Time

Name: 180117M1_31, Date: 17-Jan-2018, Time: 21:40:22, ID: ST180117M1-3 PFC CS3 18A0811, Description: ST180108M2-6 PFC CS3 18A0811

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	8.64e3	1.36e4	1.0000	0.727	3.77	3.74	7.92	10.889	87.1
33	36	18O2-PFHxS	403.0 > 102.6	9.63e2	3.16e3	1.0000	0.362	3.92	3.89	3.81	10.515	84.1
34	37	13C2-6:2 FTS	429.1 > 408.9	2.49e3	1.16e4	1.0000	0.218	4.23	4.20	2.68	12.255	98.0
35	38	13C2-PFOA	414.9 > 369.7	1.38e4	1.16e4	1.0000	1.071	4.29	4.25	14.8	13.852	110.8
36	39	13C5-PFNA	468.2 > 422.9	1.37e4	1.47e4	1.0000	0.968	4.72	4.68	11.7	12.070	96.6
37	40	13C8-PFOSA	506.1 > 77.7	2.36e3	1.17e4	1.0000	0.283	4.79	4.75	2.53	8.917	71.3
38	41	13C8-PFOS	507.0 > 79.9	3.01e3	2.87e3	1.0000	0.999	4.80	4.76	13.1	13.103	104.8
39	42	13C2-PFDA	515.1 > 469.9	8.49e3	7.65e3	1.0000	1.329	5.10	5.05	13.9	10.440	83.5
40	43	13C2-8:2 FTS	529.1 > 508.7	1.32e3	1.36e4	1.0000	0.085	5.06	5.03	1.21	14.195	113.6
41	44	d3-N-MeFOSAA	573.3 > 419	3.69e3	1.17e4	1.0000	0.463	5.24	5.20	3.95	8.530	68.2
42	45	d5-N-EtFOSAA	589.3 > 419	4.88e3	1.17e4	1.0000	0.541	5.40	5.35	5.22	9.665	77.3
43	46	13C2-PFUdA	565 > 519.8	1.19e4	1.17e4	1.0000	1.081	5.42	5.37	12.7	11.774	94.2
44	47	13C2-PFDoA	615.0 > 569.7	8.71e3	1.17e4	1.0000	0.656	5.70	5.66	9.33	14.216	113.7
45	48	d3-N-MeFOSA	515.2 > 168.9	1.76e4	1.17e4	1.0000	0.162	5.79	5.81	18.9	116.521	77.7
46	49	13C2-PFTeDA	714.8 > 669.6	3.62e3	1.17e4	1.0000	0.415	6.16	6.11	3.88	9.350	74.8
47	50	d5-N-ETFOSA	531.1 > 168.9	2.71e4	1.17e4	1.0000	0.244	6.17	6.19	29.0	118.631	79.1
48	51	13C2-PFHxDA	815 > 769.7	2.84e3	1.17e4	1.0000	0.718	6.48	6.44	3.04	4.238	84.8
49	52	d7-N-MeFOSE	623.1 > 58.9	2.36e4	1.17e4	1.0000	0.249	6.31	6.28	25.3	101.564	67.7
50	53	d9-N-EtFOSE	639.2 > 58.8	2.34e4	1.17e4	1.0000	0.239	6.45	6.43	25.0	104.922	69.9
51	54	13C4-PFBA	217. > 171.8	1.15e4	1.15e4	1.0000	1.000	1.44	1.42	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.36e4	1.36e4	1.0000	1.000	3.16	3.12	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.16e3	3.16e3	1.0000	1.000	3.92	3.88	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.16e4	1.16e4	1.0000	1.000	4.29	4.25	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.47e4	1.47e4	1.0000	1.000	4.72	4.68	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	2.87e3	2.87e3	1.0000	1.000	4.80	4.76	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	7.65e3	7.65e3	1.0000	1.000	5.10	5.05	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.17e4	1.17e4	1.0000	1.000	5.42	5.37	12.5	12.500	100.0

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(A) 6:2 FTS, 8:2 FTS, N-MeFOSSAA >130%.

Dataset: F:\Projects\PFAS.PRO\Results\180117M1\180117M1-46.qld

Last Altered: Thursday, January 18, 2018 08:57:23 Pacific Standard Time
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AC 1/18/18

VA 01/18/2018

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 13:31:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-16-18-FULL.cdb 17 Jan 2018 09:42:17

Name: 180117M1_46, Date: 18-Jan-2018, Time: 00:32:30, ID: ST180117M1-4 PFC CS3 18A0811, Description: ~~ST180108M2-6~~ PFC CS3 18A0811

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	9.59e3	1.01e4	1.0000		1.44	1.41	11.8	10.156	101.6
2	2	PFPeA	263.1 > 218.9	9.84e3	1.16e4	1.0000		2.39	2.36	10.6	10.374	103.7
3	3	PFBS	299.0 > 79.7	2.08e3	1.44e3	1.0000		2.66	2.62	18.1	9.963	99.6
4	4	PFHxA	313.2 > 268.9	1.24e4	3.78e3	1.0000		3.16	3.12	16.4	10.286	102.9
5	5	PFHpA	363.0 > 318.9	1.11e4	1.05e4	1.0000		3.77	3.73	13.2	11.088	110.9
6	6	L-PFHxS	398.9 > 79.6	1.72e3	9.02e2	1.0000		3.92	3.88	23.8	13.001	130.0
7	8	6:2 FTS	427.1 > 407	2.16e3	9.02e2	1.0000		4.23	4.20	29.9	14.786	(A) 147.9
8	9	L-PFOA	413 > 368.7	1.09e4	1.18e4	1.0000		4.29	4.25	11.6	10.970	109.7
9	11	PFHpS	449 > 80.0	2.58e3	1.18e4	1.0000		4.40	4.36	2.74	9.964	99.6
10	12	PFNA	463.0 > 418.8	1.01e4	1.08e4	1.0000		4.72	4.68	11.8	8.868	88.7
11	13	PFOSA	498.1 > 77.8	2.00e3	2.40e3	1.0000		4.79	4.75	10.4	8.502	85.0
12	14	L-PFOS	499 > 79.9	2.38e3	2.83e3	1.0000		4.79	4.76	10.5	8.989	89.9
13	16	PFDA	513 > 468.8	1.09e4	9.91e3	1.0000		5.10	5.05	13.8	11.283	112.8
14	17	8:2 FTS	527 > 506.9	2.17e3	9.91e3	1.0000		5.06	5.02	2.74	14.318	(A) 143.2
15	18	N-MeFOSAA	570.1 > 419	6.13e3	4.05e3	1.0000		5.24	5.20	18.9	13.293	132.9
16	19	N-EtFOSAA	584.2 > 419	4.26e3	4.26e3	1.0000		5.40	5.35	12.5	10.209	102.1
17	20	PFUdA	563.0 > 518.9	1.19e4	1.17e4	1.0000		5.42	5.37	12.6	10.471	104.7
18	21	PFDS	598.8 > 80	3.16e3	7.17e3	1.0000		5.46	5.41	5.52	9.974	99.7
19	22	PFDoA	612.9 > 569.0	1.19e4	7.17e3	1.0000		5.70	5.65	20.7	7.102	71.0
20	23	N-MeFOSA	512.1 > 168.9	6.45e3	1.78e4	1.0000		5.79	5.78	54.4	55.896	111.8
21	24	PFTrDA	662.9 > 618.9	1.16e4	7.17e3	1.0000		5.94	5.89	20.3	8.760	87.6
22	25	PFTeDA	712.9 > 668.8	6.37e3	3.09e3	1.0000		6.16	6.11	25.8	12.996	130.0
23	26	N-EtFOSA	526.1 > 168.9	8.74e3	2.72e4	1.0000		6.17	6.17	48.2	52.818	105.6
24	27	PFHxDA	813.1 > 768.6	4.24e3	2.66e3	1.0000		6.48	6.43	7.96	9.576	95.8
25	28	PFODA	913.1 > 868.8	4.74e3	2.66e3	1.0000		6.71	6.67	8.90	10.946	109.5
26	29	N-MeFOSE	616.1 > 58.9	9.36e3	2.53e4	1.0000		6.31	6.29	55.6	58.201	116.4
27	30	N-EtFOSE	630.1 > 58.9	1.10e4	2.39e4	1.0000		6.45	6.44	69.3	63.902	127.8
28	31	13C3-PFBA	216.1 > 171.8	1.01e4	1.15e4	1.0000	0.886	1.44	1.41	11.0	12.447	99.6
29	32	13C3-PFPeA	266. > 221.8	1.16e4	1.29e4	1.0000	0.929	2.39	2.35	11.2	12.080	96.6
30	33	13C3-PFBS	302. > 98.8	1.44e3	1.29e4	1.0000	0.117	2.66	2.62	1.39	11.851	94.8
31	34	13C2-PFHxA	315 > 269.8	3.78e3	1.29e4	1.0000	0.689	3.16	3.12	3.66	5.318	106.4

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Dataset: F:\Projects\PFAS.PRO\Results\180117M1\180117M1-46.qld

Last Altered: Thursday, January 18, 2018 08:57:23 Pacific Standard Time
Printed: Thursday, January 18, 2018 08:57:50 Pacific Standard Time

Name: 180117M1_46, Date: 18-Jan-2018, Time: 00:32:30, ID: ST180117M1-4 PFC CS3 18A0811, Description: ST180108M2-6 PFC CS3 18A0811

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35 13C4-PFHpA	367.2 > 321.8	1.05e4	1.29e4	1.0000	0.727	3.77	3.73	10.2	14.021	112.2
33	36 18O2-PFHxS	403.0 > 102.6	9.02e2	3.14e3	1.0000	0.362	3.92	3.88	3.59	9.907	79.3
34	37 13C2-6:2 FTS	429.1 > 408.9	2.24e3	1.07e4	1.0000	0.218	4.23	4.20	2.62	11.979	95.8
35	38 13C2-PFOA	414.9 > 369.7	1.18e4	1.07e4	1.0000	1.071	4.29	4.25	13.8	12.839	102.7
36	39 13C5-PFNA	468.2 > 422.9	1.08e4	1.46e4	1.0000	0.968	4.72	4.68	9.24	9.536	76.3
37	40 13C8-PFOSA	506.1 > 77.7	2.40e3	1.10e4	1.0000	0.283	4.79	4.75	2.74	9.663	77.3
38	41 13C8-PFOS	507.0 > 79.9	2.83e3	3.56e3	1.0000	0.999	4.80	4.76	9.91	9.921	79.4
39	42 13C2-PFDA	515.1 > 469.9	9.91e3	7.39e3	1.0000	1.329	5.10	5.05	16.8	12.611	100.9
40	43 13C2-8:2 FTS	529.1 > 508.7	1.42e3	1.29e4	1.0000	0.085	5.06	5.02	1.37	16.168	129.3
41	44 d3-N-MeFOSAA	573.3 > 419	4.05e3	1.10e4	1.0000	0.463	5.24	5.19	4.62	9.970	79.8
42	45 d5-N-EtFOSAA	589.3 > 419	4.26e3	1.10e4	1.0000	0.541	5.40	5.35	4.86	8.990	71.9
43	46 13C2-PFUdA	565 > 519.8	1.17e4	1.10e4	1.0000	1.081	5.42	5.37	13.4	12.397	99.2
44	47 13C2-PFDoA	615.0 > 569.7	7.17e3	1.10e4	1.0000	0.656	5.70	5.65	8.17	12.453	99.6
45	48 d3-N-MeFOSA	515.2 > 168.9	1.78e4	1.10e4	1.0000	0.162	5.79	5.81	20.3	124.975	83.3
46	49 13C2-PFTeDA	714.8 > 669.6	3.09e3	1.10e4	1.0000	0.415	6.16	6.11	3.53	8.495	68.0
47	50 d5-N-ETFOSA	531.1 > 168.9	2.72e4	1.10e4	1.0000	0.244	6.17	6.18	31.1	127.034	84.7
48	51 13C2-PFHxDA	815 > 769.7	2.66e3	1.10e4	1.0000	0.718	6.48	6.43	3.04	4.229	84.6
49	52 d7-N-MeFOSE	623.1 > 58.9	2.53e4	1.10e4	1.0000	0.249	6.31	6.28	28.8	115.750	77.2
50	53 d9-N-EtFOSE	639.2 > 58.8	2.39e4	1.10e4	1.0000	0.239	6.45	6.43	27.3	114.247	76.2
51	54 13C4-PFBA	217. > 171.8	1.15e4	1.15e4	1.0000	1.000	1.44	1.42	12.5	12.500	100.0
52	55 13C5-PFHxA	318 > 272.9	1.29e4	1.29e4	1.0000	1.000	3.16	3.12	12.5	12.500	100.0
53	56 13C3-PFHxS	401.9 > 79.9	3.14e3	3.14e3	1.0000	1.000	3.92	3.88	12.5	12.500	100.0
54	57 13C8-PFOA	421.3 > 376	1.07e4	1.07e4	1.0000	1.000	4.29	4.25	12.5	12.500	100.0
55	58 13C9-PFNA	472.2 > 426.9	1.46e4	1.46e4	1.0000	1.000	4.72	4.68	12.5	12.500	100.0
56	59 13C4-PFOS	503 > 79.9	3.56e3	3.56e3	1.0000	1.000	4.80	4.76	12.5	12.500	100.0
57	60 13C6-PFDA	519.1 > 473.7	7.39e3	7.39e3	1.0000	1.000	5.10	5.05	12.5	12.500	100.0
58	61 13C7-PFUdA	570.1 > 524.8	1.10e4	1.10e4	1.0000	1.000	5.42	5.37	12.5	12.500	100.0

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Dataset: Untitled

Last Altered: Thursday, January 18, 2018 14:49:09 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:49:58 Pacific Standard Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 13:31:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-15-18-FULL-OLD.cdb 16 Jan 2018 10:22:57

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180117M1_1	IPA	17-Jan-18	15:56:08
2	180117M1_2	ST180117M1-1 PFC CS0 18A0808	17-Jan-18	16:07:34
3	180117M1_3	IPA	17-Jan-18	16:19:01
4	180117M1_4	1701965-08 709 0.11662	17-Jan-18	16:30:28
5	180117M1_5	1701965-09 905 0.11622	17-Jan-18	16:41:54
6	180117M1_6	1701965-10 781 0.11915	17-Jan-18	16:53:22
7	180117M1_7	1701965-11 789 0.12127	17-Jan-18	17:04:49
8	180117M1_8	1701965-12 710 0.12143	17-Jan-18	17:16:18
9	180117M1_9	1701965-13 Field Blank 1 0.11521	17-Jan-18	17:27:47
10	180117M1_10	1701965-14 Field Blank 2 0.12027	17-Jan-18	17:39:18
11	180117M1_11	1701974-01 MTBE_4999 0.26225	17-Jan-18	17:50:48
12	180117M1_12	1701974-02 MTBE_15027 0.25729	17-Jan-18	18:02:18
13	180117M1_13	IPA	17-Jan-18	18:13:47
14	180117M1_14	ST180117M1-2 PFC CS3 18A0811	17-Jan-18	18:25:17
15	180117M1_15	IPA	17-Jan-18	18:36:47
16	180117M1_16	B7L0182-BS1 OPR 0.25	17-Jan-18	18:48:16
17	180117M1_17	B7L0182-BLK1 Method Blank 0.25	17-Jan-18	18:59:44
18	180117M1_18	B7L0182-MS1 Matrix Spike 0.24949	17-Jan-18	19:11:11
19	180117M1_19	B7L0182-MSD1 Matrix Spike Dup 0.25319	17-Jan-18	19:22:38
20	180117M1_20	1701951-01 FC-MW06S-20171212 0.2558	17-Jan-18	19:34:05
21	180117M1_21	1701951-02 FC-MW02SR1-20171212 0.25063	17-Jan-18	19:45:32
22	180117M1_22	1701951-03 FC-MW04I-20171212 0.24536	17-Jan-18	19:57:01
23	180117M1_23	1701951-06 FC-MW03SR1-20171212 0.24463	17-Jan-18	20:08:31
24	180117M1_24	1701951-07 FC-MW04S-20171212 0.25168	17-Jan-18	20:20:00
25	180117M1_25	1701951-08 FC-MW02IR1-20171212 0.25393	17-Jan-18	20:31:29
26	180117M1_26	1701951-09 FC-MW05S-20171212 0.2411	17-Jan-18	20:42:56
27	180117M1_27	1701951-10 FC-DUP07-20171212 0.24536	17-Jan-18	20:54:26
28	180117M1_28	1701951-12 ET-MW01S-20171212 0.24778	17-Jan-18	21:05:56
29	180117M1_29	1701951-13 ET-MW01S-FRB-20171212 0.24667	17-Jan-18	21:17:24
30	180117M1_30	IPA	17-Jan-18	21:28:54
31	180117M1_31	ST180117M1-3 PFC CS3 18A0811	17-Jan-18	21:40:22

Dataset: Untitled

Last Altered: Thursday, January 18, 2018 14:49:09 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:49:58 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	180117M1_32	IPA	17-Jan-18	21:51:49
33	180117M1_33	1701951-14 FT-PZ-454S-20171212 0.24489	17-Jan-18	22:03:20
34	180117M1_34	1701951-15 FC-MW05I-20171212 0.2534	17-Jan-18	22:14:46
35	180117M1_35	1701951-16 ET-MW02S-20171212 0.25547	17-Jan-18	22:26:16
36	180117M1_36	1701951-17 ET-MW03S-20171212 0.24815	17-Jan-18	22:37:46
37	180117M1_37	1701951-18 FC-PZ05I1-20171212 0.25258	17-Jan-18	22:49:15
38	180117M1_38	1701951-19 CV-FLTS-COMBINF-20171213 0.2...	17-Jan-18	23:00:45
39	180117M1_39	1701951-20 SA-MW127I-20171213 0.2512	17-Jan-18	23:12:06
40	180117M1_40	B7L0176-BS1 OPR 0.25	17-Jan-18	23:23:33
41	180117M1_41	B7L0176-BLK1 Method Blank 0.25	17-Jan-18	23:35:03
42	180117M1_42	1701971-01 WT1712111000JLB 0.25825	17-Jan-18	23:46:33
43	180117M1_43	1701971-02 WT1712111020JLB 0.2498	17-Jan-18	23:58:02
44	180117M1_44	1701971-03 WR1712111055JLB 0.26096	18-Jan-18	00:09:32
45	180117M1_45	IPA	18-Jan-18	00:21:01
46	180117M1_46	ST180117M1-4 PFC CS3 18A0811	18-Jan-18	00:32:30
47	180117M1_47	IPA	18-Jan-18	00:43:57
48	180117M1_48	1701971-04 WR1712111130JLB 0.25902	18-Jan-18	00:55:26
49	180117M1_49	1701971-05 WR1712111145JLB 0.25518	18-Jan-18	01:06:55
50	180117M1_50	1701971-06 WR1712111155JLB 0.25422	18-Jan-18	01:18:16
51	180117M1_51	1701971-07 WIRR1712111230JLB 0.26055	18-Jan-18	01:29:43
52	180117M1_52	1701971-08 WR1712111440JLB 0.25461	18-Jan-18	01:41:12
53	180117M1_53	1701971-09 WR1712111500JLB 0.25848	18-Jan-18	01:52:41
54	180117M1_54	1701971-10 WT1712111525JLB 0.26049	18-Jan-18	02:04:10
55	180117M1_55	1701971-11 WR1712121140MK 0.25838	18-Jan-18	02:15:40
56	180117M1_56	1701971-12 FB1712121145MK 0.25983	18-Jan-18	02:27:10
57	180117M1_57	1701971-13 WR1712121305MK 0.26029	18-Jan-18	02:38:39
58	180117M1_58	1701971-14 WT1712121330MK 0.25692	18-Jan-18	02:50:08
59	180117M1_59	IPA	18-Jan-18	03:01:38
60	180117M1_60	ST180117M1-5 PFC CS3 18A0811	18-Jan-18	03:13:08
61	180117M1_61	IPA	18-Jan-18	03:24:38
62	180117M1_62	1701971-15 WR1712131545JLB 0.25303	18-Jan-18	03:36:09
63	180117M1_63	B7L0191-BS1 OPR 0.25	18-Jan-18	03:47:34
64	180117M1_64	B7L0191-BLK1 Method Blank 0.25	18-Jan-18	03:59:00
65	180117M1_65	1701961-01 WT1712140815MK 0.2608	18-Jan-18	04:10:27

Dataset: Untitled

Last Altered: Thursday, January 18, 2018 14:49:09 Pacific Standard Time
Printed: Thursday, January 18, 2018 14:49:58 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
66	180117M1_66	1701961-02 WT1712140830MK 0.26446	18-Jan-18	04:21:56
67	180117M1_67	1701961-03 WT1712140845MK 0.26111	18-Jan-18	04:33:26
68	180117M1_68	1701961-04 WT1712140900MK 0.25908	18-Jan-18	04:44:55
69	180117M1_69	1701961-05 WT1712140925MK 0.25748	18-Jan-18	04:56:26
70	180117M1_70	1701961-06 WT1712140940MK 0.25732	18-Jan-18	05:07:54
71	180117M1_71	1701961-07 WT1712140955MK 0.26416	18-Jan-18	05:19:21
72	180117M1_72	1701961-08 WT1712141010MK 0.25507	18-Jan-18	05:30:51
73	180117M1_73	1701961-09 WR1712141025MK 0.26308	18-Jan-18	05:42:20
74	180117M1_74	IPA	18-Jan-18	05:53:49
75	180117M1_75	ST180117M1-6 PFC CS3 18A0811	18-Jan-18	06:05:18
76	180117M1_76	IPA	18-Jan-18	06:16:48

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Dataset: Z:\Projects\PFAS.PRO\Results\180118M1\180118M1-30.qld

Last Altered: Thursday, January 25, 2018 08:43:34 Pacific Standard Time
Printed: Thursday, January 25, 2018 08:43:59 Pacific Standard Time

Rev'd: AMH 01/25/2018

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011818.mdb 18 Jan 2018 19:22:25
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-18-18-FULL.cdb 19 Jan 2018 09:30:24

Name: 180118M1_30, Date: 18-Jan-2018, Time: 20:57:46, ID: ST180118M1-11 PFC CS3 18A0811, Description: PFC CS3 18A0811

	#	Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	4	PFHxA	313.2 > 268.9	1.30e4	3.94e3		1.0000	3.16	3.06	16.5	10.5	105.4
2	34	13C2-PFHxA	315 > 269.8	3.94e3	1.45e4	0.685	1.0000	3.16	3.05	3.40	4.96	99.2
3	55	13C5-PFHxA	318 > 272.9	1.45e4	1.45e4	1.000	1.0000	3.16	3.06	12.5	12.5	100.0

AC 1/25/2018

Dataset: Untitled

Last Altered: Thursday, January 25, 2018 08:45:42 Pacific Standard Time
Printed: Thursday, January 25, 2018 08:47:10 Pacific Standard Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011818.mdb 18 Jan 2018 19:22:25
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-18-18-FULL.cdb 19 Jan 2018 09:30:24

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180118M1_1	IPA	18-Jan-18	15:25:26
2	180118M1_2	ST180118M1-1 PFC CS-2 18A0806	18-Jan-18	15:36:48
3	180118M1_3	ST180118M1-2 PFC CS-1 18A0807	18-Jan-18	15:48:15
4	180118M1_4	ST180118M1-3 PFC CS0 18A0808	18-Jan-18	15:59:42
5	180118M1_5	ST180118M1-4 PFC CS1 18A0809	18-Jan-18	16:11:12
6	180118M1_6	ST180118M1-5 PFC CS2 18A0810	18-Jan-18	16:22:39
7	180118M1_7	ST180118M1-6 PFC CS3 18A0811	18-Jan-18	16:34:06
8	180118M1_8	ST180118M1-7 PFC CS4 18A0812	18-Jan-18	16:45:33
9	180118M1_9	ST180118M1-8 PFC CS5 18A0813	18-Jan-18	16:57:03
10	180118M1_10	ST180118M1-9 PFC CS6 18A0814	18-Jan-18	17:08:30
11	180118M1_11	ST180118M1-10 PFC CS7 18A0815	18-Jan-18	17:19:57
12	180118M1_12	IPA	18-Jan-18	17:31:24
13	180118M1_13	ICV180118M1-1 PFC ICV 18A0805	18-Jan-18	17:42:50
14	180118M1_14	IPA	18-Jan-18	17:54:17
15	180118M1_15	B7L0182-BS1 OPR 0.25	18-Jan-18	18:05:44
16	180118M1_16	B7L0182-BLK1 Method Blank 0.25	18-Jan-18	18:17:13
17	180118M1_17	B7L0182-MS1 Matrix Spike 0.24949	18-Jan-18	18:28:43
18	180118M1_18	B7L0182-MSD1 Matrix Spike Dup 0.25319	18-Jan-18	18:40:12
19	180118M1_19	1701951-01 FC-MW06S-20171212 0.2558	18-Jan-18	18:51:35
20	180118M1_20	1701951-02 FC-MW02SR1-20171212 0.25063	18-Jan-18	19:03:02
21	180118M1_21	1701951-03 FC-MW04I-20171212 0.24536	18-Jan-18	19:14:27
22	180118M1_22	1701951-06 FC-MW03SR1-20171212 0.24463	18-Jan-18	19:25:54
23	180118M1_23	1701951-07 FC-MW04S-20171212 0.25168	18-Jan-18	19:37:24
24	180118M1_24	1701951-08 FC-MW02IR1-20171212 0.25393	18-Jan-18	19:48:54
25	180118M1_25	1701951-09 FC-MW05S-20171212 0.2411	18-Jan-18	20:00:24
26	180118M1_26	1701951-10 FC-DUP07-20171212 0.24536	18-Jan-18	20:11:50
27	180118M1_27	1701951-12 ET-MW01S-20171212 0.24778	18-Jan-18	20:23:20
28	180118M1_28	1701951-13 ET-MW01S-FRB-20171212 0.24667	18-Jan-18	20:34:49
29	180118M1_29	IPA	18-Jan-18	20:46:16
30	180118M1_30	ST180118M1-11 PFC CS3 18A0811	18-Jan-18	20:57:46
31	180118M1_31	IPA	18-Jan-18	21:09:16
32	180118M1_32	1701951-14 FT-PZ-454S-20171212 0.24489	18-Jan-18	21:20:43

AC 1/25/2018

Dataset: Untitled

Last Altered: Thursday, January 25, 2018 08:45:42 Pacific Standard Time
Printed: Thursday, January 25, 2018 08:47:10 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
33	180118M1_33	1701951-15 FC-MW05I-20171212 0.2534	18-Jan-18	21:32:13
34	180118M1_34	1701951-16 ET-MW02S-20171212 0.25547	18-Jan-18	21:43:40
35	180118M1_35	1701951-17 ET-MW03S-20171212 0.24815	18-Jan-18	21:55:06
36	180118M1_36	1701951-18 FC-PZ05I1-20171212 0.25258	18-Jan-18	22:06:36
37	180118M1_37	1701951-19 CV-FLTS-COMBINF-20171213 0.2...	18-Jan-18	22:18:03
38	180118M1_38	1701951-20 SA-MW127I-20171213 0.2512	18-Jan-18	22:29:33
39	180118M1_39	IPA	18-Jan-18	22:41:03
40	180118M1_40	1701971-01@40X WT1712111000JLB 0.25825	18-Jan-18	22:52:30
41	180118M1_41	1701971-01@10X WT1712111000JLB 0.25825	18-Jan-18	23:04:00
42	180118M1_42	IPA	18-Jan-18	23:15:26
43	180118M1_43	1701971-02 WT1712111020JLB 0.2498	18-Jan-18	23:26:56
44	180118M1_44	IPA	18-Jan-18	23:38:22
45	180118M1_45	ST180118M1-12 PFC CS3 18A0811	18-Jan-18	23:49:46
46	180118M1_46	IPA	19-Jan-18	00:01:12

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Dataset: Z:\Projects\PFAS.PRO\Results\180122M2\180122M2-2.qld

Last Altered: Monday, January 29, 2018 15:16:06 Pacific Standard Time
Printed: Monday, January 29, 2018 15:17:40 Pacific Standard Time

Rev'd: AMH 01/26/2018

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 13:31:53
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-15-18-FULL-OLD.cdb 16 Jan 2018 10:22:57

Name: 180122M2_2, Date: 22-Jan-2018, Time: 15:36:21, ID: ST180122M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1	PFBA	213.0 > 168.8	8.71e2	9.15e3		1.44	1.45	1.19	0.913	91.3	NO
2	2	PFPeA	263.1 > 218.9	8.92e2	1.04e4		2.39	2.39	1.08	0.960	96.0	NO
3	3	PFBS	299.0 > 79.7	1.90e2	1.50e3		2.66	2.67	1.58	0.712	71.2	NO
4	4	PFHxA	313.2 > 268.9	1.04e3	3.71e3		3.16	3.18	1.39	0.785	78.5	NO
5	5	PFHpA	363.0 > 318.9	9.45e2	9.11e3		3.77	3.80	1.30	0.907	90.7	NO
6	6	L-PFHxS	398.9 > 79.6	1.52e2	1.11e3		3.92	3.95	1.72	0.799	79.9	NO
7	7	Br-PFHxS	398.9 > 79.6		1.11e3		3.76					NO
8	8	6:2 FTS	427.1 > 407	2.65e2	1.11e3		4.23	4.26	2.99	1.06	106.5	NO
9	9	L-PFOA	413 > 368.7	1.39e3	1.29e4		4.29	4.32	1.34	0.883	88.3	NO
10	10	Br-PFOA	413 > 368.7	6.86e1	1.29e4		4.20	4.24	0.0665			NO
11	11	PFHpS	449 > 80.0	1.95e2	1.29e4		4.40	4.43	0.189	0.735	73.5	NO
12	12	PFNA	463.0 > 418.8	1.09e3	9.81e3		4.72	4.75	1.39	1.05	104.6	NO
13	13	PFOSA	498.1 > 77.8	2.41e2	2.60e3		4.79	4.82	1.16	0.982	98.2	NO
14	14	L-PFOS	499 > 79.9	2.47e2	2.46e3		4.79	4.83	1.26	1.17	117.4	NO
15	15	Br-PFOS	499 > 79.9		2.46e3		4.65					NO
16	16	PFDA	513 > 468.8	1.14e3	1.06e4		5.10	5.13	1.35	0.931	93.1	NO
17	17	8:2 FTS	527 > 506.9	1.97e2	1.06e4		5.06	5.10	0.233	1.01	101.1	NO
18	18	N-MeFOSAA	570.1 > 419	6.18e2	4.60e3		5.24	5.27	1.68	1.00	100.1	NO
19	19	N-EtFOSAA	584.2 > 419	4.68e2	5.16e3		5.40	5.43	1.13	0.919	91.9	NO
20	20	PFUdA	563.0 > 518.9	9.99e2	1.05e4		5.42	5.45	1.19	1.06	106.1	NO
21	21	PFDS	598.8 > 80	2.36e2	8.59e3		5.46	5.49	0.343	1.12	112.0	NO
22	22	PFDoA	612.9 > 569.0	1.22e3	8.59e3		5.70	5.73	1.77	1.05	105.5	NO
23	23	N-MeFOSA	512.1 > 168.9	5.81e2	1.75e4		5.79	5.80	5.00	4.56	91.2	NO
24	24	PFTrDA	662.9 > 618.9	1.28e3	8.59e3		5.94	5.98	1.86	0.838	83.8	NO
25	25	PFTeDA	712.9 > 668.8	8.76e2	4.18e3		6.16	6.19	2.62	0.838	83.8	NO
26	26	N-EtFOSA	526.1 > 168.9	8.00e2	2.50e4		6.17	6.19	4.80	4.93	98.7	NO
27	27	PFHxDA	813.1 > 768.6	4.22e2	2.79e3		6.48	6.51	0.755	0.784	78.4	NO
28	28	PFODA	913.1 > 868.8	4.09e2	2.79e3		6.71	6.74	0.732	0.771	77.1	NO
29	29	N-MeFOSE	616.1 > 58.9	7.08e2	2.34e4		6.31	6.33	4.54	4.35	86.9	NO
30	30	N-EtFOSE	630.1 > 58.9	6.42e2	1.86e4		6.45	6.48	5.17	4.14	82.7	NO
31	31	13C3-PFBA	216.1 > 171.8	9.15e3	1.01e4	0.779	1.44	1.44	11.3	14.5	115.7	NO
32	32	13C3-PFPeA	266. > 221.8	1.04e4	1.20e4	0.797	2.39	2.39	10.8	13.6	108.4	NO

MJT1/29/2018

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Dataset: Z:\Projects\PFAS.PRO\Results\180122M2\180122M2-2.qld

Last Altered: Monday, January 29, 2018 15:16:06 Pacific Standard Time
Printed: Monday, January 29, 2018 15:17:40 Pacific Standard Time

Name: 180122M2_2, Date: 22-Jan-2018, Time: 15:36:21, ID: ST180122M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
33	33	13C3-PFBS	302. > 98.8	1.50e3	1.20e4	0.095	2.66	2.67	1.57	16.5	132.0	NO
34	34	13C2-PFHxA	315 > 269.8	3.71e3	1.20e4	0.636	3.16	3.17	3.87	6.08	121.7	NO
35	35	13C4-PFHpA	367.2 > 321.8	9.11e3	1.20e4	0.621	3.77	3.80	9.49	15.3	122.3	NO
36	36	18O2-PFHxS	403.0 > 102.6	1.11e3	3.12e3	0.336	3.92	3.95	4.44	13.2	105.8	NO
37	37	13C2-6:2 FTS	429.1 > 408.9	2.77e3	1.20e4	0.192	4.23	4.27	2.90	15.0	120.4	NO
38	38	13C2-PFOA	414.9 > 369.7	1.29e4	1.20e4	1.001	4.29	4.32	13.5	13.5	107.7	NO
39	39	13C5-PFNA	468.2 > 422.9	9.81e3	1.01e4	0.811	4.72	4.75	12.1	14.9	119.3	NO
40	40	13C8-PFOSA	506.1 > 77.7	2.60e3	1.26e4	0.196	4.79	4.81	2.57	13.1	104.7	NO
41	41	13C8-PFOS	507.0 > 79.9	2.46e3	3.10e3	0.862	4.80	4.83	9.92	11.5	92.1	NO
42	42	13C2-PFDA	515.1 > 469.9	1.06e4	8.86e3	0.996	5.10	5.12	14.9	15.0	119.8	NO
43	43	13C2-8:2 FTS	529.1 > 508.7	1.36e3	1.20e4	0.103	5.06	5.10	1.42	13.8	110.4	NO
44	44	d3-N-MeFOSAA	573.3 > 419	4.60e3	1.26e4	0.340	5.24	5.28	4.55	13.4	107.0	NO
45	45	d5-N-EtFOSAA	589.3 > 419	5.16e3	1.26e4	0.377	5.40	5.43	5.11	13.6	108.4	NO
46	46	13C2-PFUdA	565 > 519.8	1.05e4	1.26e4	0.944	5.42	5.45	10.4	11.0	87.8	NO
47	47	13C2-PFDoA	615.0 > 569.7	8.59e3	1.26e4	0.726	5.70	5.73	8.50	11.7	93.7	NO
48	48	d3-N-MeFOSA	515.2 > 168.9	1.75e4	1.26e4	0.119	5.79	5.83	17.3	145	96.8	NO
49	49	13C2-PFTeDA	714.8 > 669.6	4.18e3	1.26e4	0.371	6.16	6.19	4.13	11.1	89.0	NO
50	50	d5-N-ETFOSA	531.1 > 168.9	2.50e4	1.26e4	0.174	6.17	6.20	24.7	143	95.0	NO
51	51	13C2-PFHxDA	815 > 769.7	2.79e3	1.26e4	0.559	6.48	6.51	2.76	4.94	98.7	NO
52	52	d7-N-MeFOSE	623.1 > 58.9	2.34e4	1.26e4	0.179	6.31	6.31	23.2	129	86.1	NO
53	53	d9-N-EtFOSE	639.2 > 58.8	1.86e4	1.26e4	0.160	6.45	6.47	18.5	116	77.0	NO
54	54	13C4-PFBA	217. > 171.8	1.01e4	1.01e4	1.000	1.44	1.45	12.5	12.5	100.0	NO
55	55	13C5-PFHxA	318 > 272.9	1.20e4	1.20e4	1.000	3.16	3.17	12.5	12.5	100.0	NO
56	56	13C3-PFHxS	401.9 > 79.9	3.12e3	3.12e3	1.000	3.92	3.95	12.5	12.5	100.0	NO
57	57	13C8-PFOA	421.3 > 376	1.20e4	1.20e4	1.000	4.29	4.32	12.5	12.5	100.0	NO
58	58	13C9-PFNA	472.2 > 426.9	1.01e4	1.01e4	1.000	4.72	4.76	12.5	12.5	100.0	NO
59	59	13C4-PFOS	503 > 79.9	3.10e3	3.10e3	1.000	4.80	4.83	12.5	12.5	100.0	NO
60	60	13C6-PFDA	519.1 > 473.7	8.86e3	8.86e3	1.000	5.10	5.13	12.5	12.5	100.0	NO
61	61	13C7-PFUdA	570.1 > 524.8	1.26e4	1.26e4	1.000	5.42	5.45	12.5	12.5	100.0	NO

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Vista Analytical Laboratory

Dataset: Z:\Projects\PFAS.PRO\Results\180122M2\180122M2-19.qld

Rev'd: AMH 01/29/2018

Last Altered: Monday, January 29, 2018 15:23:59 Pacific Standard Time
Printed: Monday, January 29, 2018 15:24:09 Pacific Standard Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 13:31:53
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-15-18-FULL-OLD.cdb 16 Jan 2018 10:22:57

Name: 180122M2_19, Date: 22-Jan-2018, Time: 18:51:19, ID: ST180122M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1	PFBA	213.0 > 168.8	9.79e3	9.23e3		1.44	1.45	13.3	9.92	99.2	NO
2	2	PFPeA	263.1 > 218.9	9.30e3	1.15e4		2.39	2.41	10.1	8.75	87.5	NO
3	3	PFBS	299.0 > 79.7	2.17e3	1.42e3		2.66	2.69	19.2	10.0	100.0	NO
4	4	PFHxA	313.2 > 268.9	1.20e4	3.33e3		3.16	3.19	18.0	10.2	102.5	NO
5	5	PFHpA	363.0 > 318.9	1.02e4	9.51e3		3.77	3.81	13.4	8.96	89.6	NO
6	6	L-PFHxS	398.9 > 79.6	1.64e3	1.16e3		3.92	3.96	17.6	8.76	87.6	NO
7	7	Br-PFHxS	398.9 > 79.6		1.16e3		3.76					NO
8	8	6:2 FTS	427.1 > 407	2.65e3	1.16e3		4.23	4.28	28.4	9.92	99.2	NO
9	9	L-PFOA	413 > 368.7	1.20e4	1.53e4		4.29	4.33	9.76	8.40	84.0	NO
10	10	Br-PFOA	413 > 368.7		1.53e4		4.20					NO
11	11	PFHpS	449 > 80.0	2.79e3	1.53e4		4.40	4.44	2.27	8.01	80.1	NO
12	12	PFNA	463.0 > 418.8	1.11e4	9.79e3		4.72	4.77	14.2	10.4	104.1	NO
13	13	PFOSA	498.1 > 77.8	2.41e3	2.81e3		4.79	4.83	10.7	8.91	89.1	NO
14	14	L-PFOS	499 > 79.9	2.93e3	3.27e3		4.79	4.85	11.2	10.1	100.6	NO
15	15	Br-PFOS	499 > 79.9		3.27e3		4.65					NO
16	16	PFDA	513 > 468.8	1.32e4	1.22e4		5.10	5.14	13.6	9.44	94.4	NO
17	17	8:2 FTS	527 > 506.9	2.19e3	1.22e4		5.06	5.11	2.25	8.93	89.3	NO
18	18	N-MeFOSAA	570.1 > 419	7.08e3	4.67e3		5.24	5.29	19.0	11.5	115.2	NO
19	19	N-EtFOSAA	584.2 > 419	5.80e3	5.31e3		5.40	5.45	13.7	10.6	105.8	NO
20	20	PFUdA	563.0 > 518.9	1.13e4	1.25e4		5.42	5.46	11.4	8.91	89.1	NO
21	21	PFDS	598.8 > 80	2.75e3	1.03e4		5.46	5.51	3.34	9.86	98.6	NO
22	22	PFDoA	612.9 > 569.0	1.55e4	1.03e4		5.70	5.74	18.9	13.0	129.5	NO
23	23	N-MeFOSA	512.1 > 168.9	6.22e3	1.61e4		5.79	5.83	57.8	51.8	103.5	NO
24	24	PFTrDA	662.9 > 618.9	1.25e4	1.03e4		5.94	5.99	15.2	7.09	70.9	NO
25	25	PFTeDA	712.9 > 668.8	9.85e3	3.98e3		6.16	6.20	31.0	9.41	94.1	NO
26	26	N-EtFOSA	526.1 > 168.9	8.18e3	2.50e4		6.17	6.21	49.0	48.9	97.8	NO
27	27	PFHxDA	813.1 > 768.6	3.85e3	2.64e3		6.48	6.52	7.29	8.88	88.8	NO
28	28	PFODA	913.1 > 868.8	5.46e3	2.64e3		6.71	6.75	10.3	11.3	112.8	NO
29	29	N-MeFOSE	616.1 > 58.9	7.65e3	1.71e4		6.31	6.33	67.0	58.0	116.0	NO
30	30	N-EtFOSE	630.1 > 58.9	7.97e3	2.25e4		6.45	6.48	53.1	43.9	87.8	NO
31	31	13C3-PFBA	216.1 > 171.8	9.23e3	1.09e4	0.779	1.44	1.45	10.6	13.6	108.9	NO
32	32	13C3-PFPeA	266. > 221.8	1.15e4	1.17e4	0.797	2.39	2.41	12.3	15.5	124.0	NO

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Dataset: Z:\Projects\PFAS.PRO\Results\180122M2\180122M2-19.qld

Last Altered: Monday, January 29, 2018 15:23:59 Pacific Standard Time
Printed: Monday, January 29, 2018 15:24:09 Pacific Standard Time

Name: 180122M2_19, Date: 22-Jan-2018, Time: 18:51:19, ID: ST180122M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
33	33	13C3-PFBS	302. > 98.8	1.42e3	1.17e4	0.095	2.66	2.69	1.51	15.9	127.5	NO
34	34	13C2-PFHxA	315 > 269.8	3.33e3	1.17e4	0.636	3.16	3.19	3.56	5.60	111.9	NO
35	35	13C4-PFHpA	367.2 > 321.8	9.51e3	1.17e4	0.621	3.77	3.81	10.2	16.4	131.2	NO
36	36	18O2-PFHxS	403.0 > 102.6	1.16e3	3.06e3	0.336	3.92	3.96	4.76	14.2	113.5	NO
37	37	13C2-6:2 FTS	429.1 > 408.9	2.28e3	1.18e4	0.192	4.23	4.28	2.42	12.6	100.7	NO
38	38	13C2-PFOA	414.9 > 369.7	1.53e4	1.18e4	1.001	4.29	4.33	16.3	16.2	130.0	NO
39	39	13C5-PFNA	468.2 > 422.9	9.79e3	1.11e4	0.811	4.72	4.76	11.0	13.6	108.8	NO
40	40	13C8-PFOSA	506.1 > 77.7	2.81e3	1.17e4	0.196	4.79	4.83	3.00	15.3	122.1	NO
41	41	13C8-PFOS	507.0 > 79.9	3.27e3	3.07e3	0.862	4.80	4.84	13.3	15.4	123.6	NO
42	42	13C2-PFDA	515.1 > 469.9	1.22e4	1.06e4	0.996	5.10	5.14	14.4	14.5	115.6	NO
43	43	13C2-8:2 FTS	529.1 > 508.7	1.66e3	1.17e4	0.103	5.06	5.11	1.77	17.2	137.8	NO
44	44	d3-N-MeFOSAA	573.3 > 419	4.67e3	1.17e4	0.340	5.24	5.28	4.98	14.7	117.3	NO
45	45	d5-N-EtFOSAA	589.3 > 419	5.31e3	1.17e4	0.377	5.40	5.44	5.67	15.0	120.4	NO
46	46	13C2-PFUdA	565 > 519.8	1.25e4	1.17e4	0.944	5.42	5.46	13.3	14.1	112.8	NO
47	47	13C2-PFDoA	615.0 > 569.7	1.03e4	1.17e4	0.726	5.70	5.74	11.0	15.2	121.2	NO
48	48	d3-N-MeFOSA	515.2 > 168.9	1.61e4	1.17e4	0.119	5.79	5.85	17.2	145	96.6	NO
49	49	13C2-PFTeDA	714.8 > 669.6	3.98e3	1.17e4	0.371	6.16	6.20	4.25	11.4	91.5	NO
50	50	d5-N-ETFOSA	531.1 > 168.9	2.50e4	1.17e4	0.174	6.17	6.22	26.7	154	102.7	NO
51	51	13C2-PFHxDA	815 > 769.7	2.64e3	1.17e4	0.559	6.48	6.52	2.82	5.04	100.8	NO
52	52	d7-N-MeFOSE	623.1 > 58.9	1.71e4	1.17e4	0.179	6.31	6.32	18.3	102	68.0	NO
53	53	d9-N-EtFOSE	639.2 > 58.8	2.25e4	1.17e4	0.160	6.45	6.47	24.0	150	100.3	NO
54	54	13C4-PFBA	217. > 171.8	1.09e4	1.09e4	1.000	1.44	1.45	12.5	12.5	100.0	NO
55	55	13C5-PFHxA	318 > 272.9	1.17e4	1.17e4	1.000	3.16	3.19	12.5	12.5	100.0	NO
56	56	13C3-PFHxS	401.9 > 79.9	3.06e3	3.06e3	1.000	3.92	3.96	12.5	12.5	100.0	NO
57	57	13C8-PFOA	421.3 > 376	1.18e4	1.18e4	1.000	4.29	4.33	12.5	12.5	100.0	NO
58	58	13C9-PFNA	472.2 > 426.9	1.11e4	1.11e4	1.000	4.72	4.76	12.5	12.5	100.0	NO
59	59	13C4-PFOS	503 > 79.9	3.07e3	3.07e3	1.000	4.80	4.85	12.5	12.5	100.0	NO
60	60	13C6-PFDA	519.1 > 473.7	1.06e4	1.06e4	1.000	5.10	5.14	12.5	12.5	100.0	NO
61	61	13C7-PFUdA	570.1 > 524.8	1.17e4	1.17e4	1.000	5.42	5.46	12.5	12.5	100.0	NO

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Dataset: Z:\Projects\PFAS.PRO\Results\180122M2\180122M2-29.qld

* NOT USED
MJT 1/29/2018

Last Altered: Monday, January 29, 2018 15:28:17 Pacific Standard Time
Printed: Monday, January 29, 2018 15:29:52 Pacific Standard Time

Rev'd: AMH 01/29/2018

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 13:31:53
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-15-18-FULL-OLD.cdb 16 Jan 2018 10:22:57

Name: 180122M2_29, Date: 22-Jan-2018, Time: 20:46:10, ID: ST180122M2-3 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out	
1	1	PFBA	213.0 > 168.8	1.04e4	1.03e4		1.44	1.45	12.7	9.51	95.1	NO	
2	2	PFPeA	263.1 > 218.9	1.08e4	1.19e4		2.39	2.42	11.3	9.80	98.0	NO	
3	3	PFBS	299.0 > 79.7	2.48e3	1.43e3		2.66	2.69	21.7	11.3	112.9	NO	
4	4	PFHxA	313.2 > 268.9	1.20e4	3.72e3		3.16	3.19	16.1	9.19	91.9	NO	
5	5	PFHpA	363.0 > 318.9	1.08e4	9.34e3		3.77	3.81	14.4	9.69	96.9	NO	
6	6	L-PFHxS	398.9 > 79.6	1.89e3	1.25e3		3.92	3.96	18.9	9.46	94.6	NO	
7	7	Br-PFHxS	398.9 > 79.6		1.25e3		3.76					NO	
8	8	6:2 FTS	427.1 > 407	2.99e3	1.25e3		4.23	4.27	29.9	10.4	104.3	NO	
9	9	L-PFOA	413 > 368.7	1.15e4	1.36e4		4.29	4.33	10.5	9.09	90.9	NO	
10	10	Br-PFOA	413 > 368.7		1.36e4		4.20					NO	
11	11	PFHpS	449 > 80.0	3.13e3	1.36e4		4.40	4.44	2.87	10.2	102.0	NO	
12	12	PFNA	463.0 > 418.8	1.21e4	1.18e4		4.72	4.76	12.8	9.39	93.9	NO	
13	13	PFOSA	498.1 > 77.8	2.75e3	2.88e3		4.79	4.83	11.9	9.93	99.3	NO	
14	14	L-PFOS	499 > 79.9	2.53e3	3.18e3		4.79	4.84	9.94	8.94	89.4	NO	
15	15	Br-PFOS	499 > 79.9		3.18e3		4.65					NO	
16	16	PFDA	513 > 468.8	1.10e4	9.06e3		5.10	5.14	15.2	10.6	105.7	NO	
17	17	8:2 FTS	527 > 506.9	2.58e3	9.06e3		5.06	5.11	3.55	15.0	150.4	YES	*
18	18	N-MeFOSAA	570.1 > 419	7.66e3	5.47e3		5.24	5.29	17.5	10.6	106.2	NO	
19	19	N-EtFOSAA	584.2 > 419	5.62e3	5.97e3		5.40	5.44	11.8	9.11	91.1	NO	
20	20	PFUdA	563.0 > 518.9	1.08e4	1.23e4		5.42	5.46	11.0	8.59	85.9	NO	
21	21	PFDS	598.8 > 80	3.19e3	1.04e4		5.46	5.50	3.82	11.3	113.3	NO	
22	22	PFDoA	612.9 > 569.0	1.62e4	1.04e4		5.70	5.73	19.5	13.4	133.7	YES	* No sample results reported
23	23	N-MeFOSA	512.1 > 168.9	6.26e3	1.73e4		5.79	5.82	54.2	48.6	97.1	NO	
24	24	PFTrDA	662.9 > 618.9	1.26e4	1.04e4		5.94	5.99	15.1	7.03	70.3	NO	
25	25	PFTeDA	712.9 > 668.8	8.41e3	4.51e3		6.16	6.20	23.3	7.00	70.0	YES	*
26	26	N-EtFOSA	526.1 > 168.9	8.77e3	2.58e4		6.17	6.20	51.0	50.8	101.7	NO	
27	27	PFHxDA	813.1 > 768.6	4.86e3	2.44e3		6.48	6.51	9.94	12.2	122.1	NO	
28	28	PFODA	913.1 > 868.8	5.27e3	2.44e3		6.71	6.74	10.8	11.8	117.7	NO	
29	29	N-MeFOSE	616.1 > 58.9	7.22e3	2.12e4		6.31	6.33	51.1	44.1	88.1	NO	
30	30	N-EtFOSE	630.1 > 58.9	9.84e3	2.60e4		6.45	6.48	56.7	46.7	93.5	NO	
31	31	13C3-PFBA	216.1 > 171.8	1.03e4	1.16e4	0.779	1.44	1.46	11.1	14.2	113.9	NO	
32	32	13C3-PFPeA	266. > 221.8	1.19e4	1.26e4	0.797	2.39	2.41	11.9	14.9	119.2	NO	MJT1/29/2018

Dataset: Z:\Projects\PFAS.PRO\Results\180122M2\180122M2-29.qld

Last Altered: Monday, January 29, 2018 15:28:17 Pacific Standard Time
Printed: Monday, January 29, 2018 15:29:52 Pacific Standard Time

Name: 180122M2_29, Date: 22-Jan-2018, Time: 20:46:10, ID: ST180122M2-3 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
33	33	13C3-PFBS	302. > 98.8	1.43e3	1.26e4	0.095	2.66	2.69	1.43	15.0	120.1	NO
34	34	13C2-PFHxA	315 > 269.8	3.72e3	1.26e4	0.636	3.16	3.19	3.70	5.81	116.2	NO
35	35	13C4-PFHpA	367.2 > 321.8	9.34e3	1.26e4	0.621	3.77	3.81	9.29	15.0	119.7	NO
36	36	18O2-PFHxS	403.0 > 102.6	1.25e3	3.36e3	0.336	3.92	3.96	4.65	13.8	110.8	NO
37	37	13C2-6:2 FTS	429.1 > 408.9	2.64e3	1.04e4	0.192	4.23	4.28	3.17	16.5	131.7	NO
38	38	13C2-PFOA	414.9 > 369.7	1.36e4	1.04e4	1.001	4.29	4.33	16.3	16.3	130.6	NO
39	39	13C5-PFNA	468.2 > 422.9	1.18e4	1.19e4	0.811	4.72	4.76	12.4	15.3	122.6	NO
40	40	13C8-PFOSA	506.1 > 77.7	2.88e3	1.16e4	0.196	4.79	4.83	3.11	15.8	126.6	NO
41	41	13C8-PFOS	507.0 > 79.9	3.18e3	3.48e3	0.862	4.80	4.84	11.4	13.3	106.1	NO
42	42	13C2-PFDA	515.1 > 469.9	9.06e3	7.98e3	0.996	5.10	5.13	14.2	14.3	114.1	NO
43	43	13C2-8:2 FTS	529.1 > 508.7	1.31e3	1.26e4	0.103	5.06	5.11	1.30	12.7	101.4	NO
44	44	d3-N-MeFOSAA	573.3 > 419	5.47e3	1.16e4	0.340	5.24	5.28	5.90	17.3	138.8	NO
45	45	d5-N-EtFOSAA	589.3 > 419	5.97e3	1.16e4	0.377	5.40	5.44	6.45	17.1	136.8	NO
46	46	13C2-PFUdA	565 > 519.8	1.23e4	1.16e4	0.944	5.42	5.46	13.3	14.1	112.8	NO
47	47	13C2-PFDoA	615.0 > 569.7	1.04e4	1.16e4	0.726	5.70	5.73	11.2	15.5	123.9	NO
48	48	d3-N-MeFOSA	515.2 > 168.9	1.73e4	1.16e4	0.119	5.79	5.84	18.7	157	104.8	NO
49	49	13C2-PFTeDA	714.8 > 669.6	4.51e3	1.16e4	0.371	6.16	6.20	4.86	13.1	104.8	NO
50	50	d5-N-ETFOSA	531.1 > 168.9	2.58e4	1.16e4	0.174	6.17	6.22	27.8	160	106.9	NO
51	51	13C2-PFHxDA	815 > 769.7	2.44e3	1.16e4	0.559	6.48	6.51	2.64	4.72	94.3	NO
52	52	d7-N-MeFOSE	623.1 > 58.9	2.12e4	1.16e4	0.179	6.31	6.32	22.9	128	85.0	NO
53	53	d9-N-EtFOSE	639.2 > 58.8	2.60e4	1.16e4	0.160	6.45	6.47	28.1	176	117.3	NO
54	54	13C4-PFBA	217. > 171.8	1.16e4	1.16e4	1.000	1.44	1.45	12.5	12.5	100.0	NO
55	55	13C5-PFHxA	318 > 272.9	1.26e4	1.26e4	1.000	3.16	3.19	12.5	12.5	100.0	NO
56	56	13C3-PFHxS	401.9 > 79.9	3.36e3	3.36e3	1.000	3.92	3.96	12.5	12.5	100.0	NO
57	57	13C8-PFOA	421.3 > 376	1.04e4	1.04e4	1.000	4.29	4.33	12.5	12.5	100.0	NO
58	58	13C9-PFNA	472.2 > 426.9	1.19e4	1.19e4	1.000	4.72	4.76	12.5	12.5	100.0	NO
59	59	13C4-PFOS	503 > 79.9	3.48e3	3.48e3	1.000	4.80	4.84	12.5	12.5	100.0	NO
60	60	13C6-PFDA	519.1 > 473.7	7.98e3	7.98e3	1.000	5.10	5.13	12.5	12.5	100.0	NO
61	61	13C7-PFUdA	570.1 > 524.8	1.16e4	1.16e4	1.000	5.42	5.46	12.5	12.5	100.0	NO

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Dataset: Untitled

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Printed: Monday, January 29, 2018 15:33:21 Pacific Standard Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_011618.mdb 17 Jan 2018 13:31:53
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-15-18-FULL-OLD.cdb 16 Jan 2018 10:22:57

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180122M2_1	IPA	22-Jan-18	15:08:21
2	180122M2_2	ST180122M2-1 PFC CS0 17L2608	22-Jan-18	15:36:21
3	180122M2_3	IPA	22-Jan-18	15:47:47
4	180122M2_4	B7L0182-BS1 OPR 0.25	22-Jan-18	15:59:16
5	180122M2_5	B7L0182-BLK1 Method Blank 0.25	22-Jan-18	16:10:41
6	180122M2_6	B7L0182-MS1 Matrix Spike 0.24949	22-Jan-18	16:22:07
7	180122M2_7	B7L0182-MSD1 Matrix Spike Dup 0.25319	22-Jan-18	16:33:34
8	180122M2_8	1701951-01 FC-MW06S-20171212 0.2558	22-Jan-18	16:45:02
9	180122M2_9	1701951-02 FC-MW02SR1-20171212 0.25063	22-Jan-18	16:56:28
10	180122M2_10	1701951-03 FC-MW04I-20171212 0.24536	22-Jan-18	17:07:57
11	180122M2_11	1701951-06 FC-MW03SR1-20171212 0.24463	22-Jan-18	17:19:24
12	180122M2_12	1701951-07 FC-MW04S-20171212 0.25168	22-Jan-18	17:30:54
13	180122M2_13	1701951-08 FC-MW02IR1-20171212 0.25393	22-Jan-18	17:42:23
14	180122M2_14	1701951-09 FC-MW05S-20171212 0.2411	22-Jan-18	17:53:53
15	180122M2_15	1701951-10 FC-DUP07-20171212 0.24536	22-Jan-18	18:05:22
16	180122M2_16	1701951-12 ET-MW01S-20171212 0.24778	22-Jan-18	18:16:51
17	180122M2_17	1701951-13 ET-MW01S-FRB-20171212 0.24667	22-Jan-18	18:28:20
18	180122M2_18	IPA	22-Jan-18	18:39:49
19	180122M2_19	ST180122M2-2 PFC CS3 17L2611	22-Jan-18	18:51:19
20	180122M2_20	IPA	22-Jan-18	19:02:49
21	180122M2_21	1701951-14 FT-PZ-454S-20171212 0.24489	22-Jan-18	19:14:18
22	180122M2_22	1701951-15 FC-MW05I-20171212 0.2534	22-Jan-18	19:25:47
23	180122M2_23	1701951-16 ET-MW02S-20171212 0.25547	22-Jan-18	19:37:16
24	180122M2_24	1701951-17 ET-MW03S-20171212 0.24815	22-Jan-18	19:48:47
25	180122M2_25	1701951-18 FC-PZ05I1-20171212 0.25258	22-Jan-18	20:00:13
26	180122M2_26	1701951-19 CV-FLTS-COMBINF-20171213 0.2...	22-Jan-18	20:11:43
27	180122M2_27	1701951-20 SA-MW127I-20171213 0.2512	22-Jan-18	20:23:12
28	180122M2_28	IPA	22-Jan-18	20:34:41
29	180122M2_29	ST180122M2-3 PFC CS3 17L2611	22-Jan-18	20:46:10
30	180122M2_30	IPA	22-Jan-18	20:57:39

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Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-63.qld

Last Altered: Friday, January 26, 2018 10:11:00 Pacific Standard Time
Printed: Friday, January 26, 2018 10:11:17 Pacific Standard Time

AC 1/26/18

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_012518.mdb 26 Jan 2018 09:01:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-25-18-FULL.cdb 26 Jan 2018 09:21:18

JA 01/26/2018

Name: 180125M1_63, Date: 26-Jan-2018, Time: 03:10:28, ID: ST180125M1-13 PFC CS0 18A1906, Description: PFC CS0 18A1906

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBA	213.0 > 168.8	1.54e3	1.54e4	1.0000		1.29	1.34	1.25	1.032	103.2
2	2 PFPeA	263.1 > 218.9	1.53e3	1.81e4	1.0000		2.27	2.30	1.06	0.981	98.1
3	3 PFBS	299.0 > 79.7	3.63e2	2.36e3	1.0000		2.56	2.58	1.93	1.014	101.4
4	4 PFHxA	313.2 > 268.9	1.86e3	5.13e3	1.0000		3.05	3.07	1.82	1.025	102.5
5	5 PFHpA	363.0 > 318.9	1.52e3	1.40e4	1.0000		3.68	3.68	1.36	0.961	96.1
6	6 L-PFHxS	398.9 > 79.6	2.31e2	1.69e3	1.0000		3.80	3.84	1.71	0.933	93.3
7	8 6:2 FTS	427.1 > 407	3.22e2	2.06e4	1.0000		4.15	4.16	0.195	0.740	74.0
8	9 L-PFOA	413 > 368.7	1.65e3	2.06e4	1.0000		4.20	4.21	0.999	0.915	91.5
9	11 PFHpS	449 > 80.0	3.95e2	4.69e3	1.0000		4.30	4.32	1.05	1.029	102.9
10	12 PFNA	463.0 > 418.8	1.99e3	1.89e4	1.0000		4.65	4.65	1.32	1.041	104.1
11	13 PFOSA	498.1 > 77.8	4.79e2	5.22e3	1.0000		4.70	4.70	1.15	0.949	94.9
12	14 L-PFOS	499 > 79.9	4.40e2	4.69e3	1.0000		4.75	4.73	1.17	1.111	111.1
13	16 PFDA	513 > 468.8	1.89e3	1.64e4	1.0000		5.03	5.02	1.44	1.036	103.6
14	17 8:2 FTS	527 > 506.9	3.77e2	1.64e4	1.0000		5.00	4.99	0.287	0.848	84.8
15	18 N-MeFOSAA	570.1 > 419	8.67e2	8.49e3	1.0000		5.20	5.17	1.28	0.839	83.9
16	19 N-EtFOSAA	584.2 > 419	6.01e2	8.97e3	1.0000		5.30	5.33	0.838	0.804	80.4
17	20 PFUdA	563.0 > 518.9	2.28e3	2.50e4	1.0000		5.36	5.34	1.14	0.812	81.2
18	21 PFDS	598.8 > 80	4.49e2	1.67e4	1.0000		5.40	5.39	0.336	0.816	81.6
19	22 PFDoA	612.9 > 569.0	1.69e3	1.67e4	1.0000		5.65	5.62	1.26	0.701	70.1
20	23 N-MeFOSA	512.1 > 168.9	9.53e2	2.53e4	1.0000		5.70	5.71	5.66	5.135	102.7
21	24 PFTrDA	662.9 > 618.9	2.09e3	1.67e4	1.0000		5.90	5.87	1.56	0.881	88.1
22	25 PFTeDA	712.9 > 668.8	1.60e3	6.87e3	1.0000		6.12	6.09	2.90	1.121	112.1
23	26 N-EtFOSA	526.1 > 168.9	1.19e3	3.79e4	1.0000		6.12	6.12	4.68	4.976	99.5
24	27 PFHxDA	813.1 > 768.6	7.76e2	5.07e3	1.0000		6.46	6.42	0.765	0.887	88.7
25	28 PFODA	913.1 > 868.8	9.05e2	5.07e3	1.0000		6.70	6.65	0.891	1.029	102.9
26	29 N-MeFOSE	616.1 > 58.9	1.02e3	2.95e4	1.0000		6.31	6.28	5.17	5.188	103.8
27	30 N-EtFOSE	630.1 > 58.9	1.22e3	3.27e4	1.0000		6.45	6.43	5.62	4.302	86.0
28	31 13C3-PFBA	216.1 > 171.8	1.54e4	1.76e4	1.0000	0.882	1.30	1.34	10.9	12.386	99.1
29	32 13C3-PFPeA	266. > 221.8	1.81e4	2.23e4	1.0000	0.888	2.27	2.30	10.2	11.456	91.6
30	33 13C3-PFBS	302. > 98.8	2.36e3	2.23e4	1.0000	0.113	2.56	2.58	1.32	11.701	93.6
31	34 13C2-PFHxA	315 > 269.8	5.13e3	2.23e4	1.0000	0.692	3.05	3.07	2.88	4.156	[illegible]

70-130

50-150

Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-63.qld

Last Altered: Friday, January 26, 2018 10:11:00 Pacific Standard Time
Printed: Friday, January 26, 2018 10:11:17 Pacific Standard Time

Name: 180125M1_63, Date: 26-Jan-2018, Time: 03:10:28, ID: ST180125M1-13 PFC CS0 18A1906, Description: PFC CS0 18A1906

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35 13C4-PFHpA	367.2 > 321.8	1.40e4	2.23e4	1.0000	0.686	3.68	3.68	7.87	11.472	91.8
33	36 18O2-PFHxS	403.0 > 102.6	1.69e3	5.17e3	1.0000	0.340	3.80	3.84	4.10	12.070	96.6
34	37 13C2-6:2 FTS	429.1 > 408.9	4.20e3	1.86e4	1.0000	0.266	4.15	4.15	2.83	10.634	85.1
35	38 13C2-PFOA	414.9 > 369.7	2.06e4	1.86e4	1.0000	1.072	4.20	4.21	13.9	12.948	103.6
36	39 13C5-PFNA	468.2 > 422.9	1.89e4	2.10e4	1.0000	0.898	4.65	4.65	11.3	12.542	100.3
37	40 13C8-PFOSA	506.1 > 77.7	5.22e3	2.12e4	1.0000	0.260	4.70	4.70	3.08	11.842	94.7
38	41 13C8-PFOS	507.0 > 79.9	4.69e3	4.75e3	1.0000	0.957	4.75	4.73	12.3	12.901	103.2
39	42 13C2-PFDA	515.1 > 469.9	1.64e4	1.96e4	1.0000	1.142	5.03	5.01	10.5	9.185	73.5
40	43 13C2-8:2 FTS	529.1 > 508.7	3.32e3	2.23e4	1.0000	0.174	5.00	4.99	1.86	10.719	85.8
41	44 d3-N-MeFOSAA	573.3 > 419	8.49e3	2.12e4	1.0000	0.422	5.20	5.17	5.00	11.844	94.8
42	45 d5-N-EtFOSAA	589.3 > 419	8.97e3	2.12e4	1.0000	0.431	5.30	5.32	5.28	12.258	98.1
43	46 13C2-PFUdA	565 > 519.8	2.50e4	2.12e4	1.0000	0.980	5.36	5.34	14.7	15.037	120.3
44	47 13C2-PFDoA	615.0 > 569.7	1.67e4	2.12e4	1.0000	0.739	5.65	5.62	9.84	13.325	106.6
45	48 d3-N-MeFOSA	515.2 > 168.9	2.53e4	2.12e4	1.0000	0.108	5.70	5.74	14.9	137.240	91.5
46	49 13C2-PFTeDA	714.8 > 669.6	6.87e3	2.12e4	1.0000	0.310	6.12	6.09	4.05	13.056	104.5
47	50 d5-N-ETFOSA	531.1 > 168.9	3.79e4	2.12e4	1.0000	0.155	6.25	6.14	22.3	144.125	96.1
48	51 13C2-PFHxDA	815 > 769.7	5.07e3	2.12e4	1.0000	0.560	6.46	6.42	2.99	5.342	106.8
49	52 d7-N-MeFOSE	623.1 > 58.9	2.95e4	2.12e4	1.0000	0.139	6.31	6.27	17.4	124.801	83.2
50	53 d9-N-EtFOSE	639.2 > 58.8	3.27e4	2.12e4	1.0000	0.128	6.12	6.42	19.2	150.842	100.6
51	54 13C4-PFBA	217. > 171.8	1.76e4	1.76e4	1.0000	1.000	1.30	1.34	12.5	12.500	100.0
52	55 13C5-PFHxA	318 > 272.9	2.23e4	2.23e4	1.0000	1.000	3.05	3.07	12.5	12.500	100.0
53	56 13C3-PFHxS	401.9 > 79.9	5.17e3	5.17e3	1.0000	1.000	3.80	3.84	12.5	12.500	100.0
54	57 13C8-PFOA	421.3 > 376	1.86e4	1.86e4	1.0000	1.000	4.20	4.21	12.5	12.500	100.0
55	58 13C9-PFNA	472.2 > 426.9	2.10e4	2.10e4	1.0000	1.000	4.65	4.65	12.5	12.500	100.0
56	59 13C4-PFOS	503 > 79.9	4.75e3	4.75e3	1.0000	1.000	4.60	4.73	12.5	12.500	100.0
57	60 13C6-PFDA	519.1 > 473.7	1.96e4	1.96e4	1.0000	1.000	5.03	5.02	12.5	12.500	100.0
58	61 13C7-PFUdA	570.1 > 524.8	2.12e4	2.12e4	1.0000	1.000	5.36	5.34	12.5	12.500	100.0

50-150

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-78.qld

Last Altered: Friday, January 26, 2018 10:14:29 Pacific Standard Time
Printed: Friday, January 26, 2018 10:16:11 Pacific Standard Time

A PFHpS >130%

AC 1/26/18

✓ JA 01/26/2018

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_012518.mdb 26 Jan 2018 09:01:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-25-18-FULL.cdb 26 Jan 2018 09:21:18

Name: 180125M1_78, Date: 26-Jan-2018, Time: 06:02:42, ID: ST180125M1-14 PFC CS3 18A1909, Description: PFC CS3 18A1909

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	1	PFBA	213.0 > 168.8	1.67e4	1.68e4	1.0000		1.29	1.34	12.4	10.590	105.9	70-130
2	2	PFPeA	263.1 > 218.9	1.59e4	1.78e4	1.0000		2.27	2.30	11.1	11.114	111.1	
3	3	PFBS	299.0 > 79.7	3.53e3	2.42e3	1.0000		2.56	2.58	18.2	9.992	99.9	
4	4	PFHxA	313.2 > 268.9	2.10e4	5.77e3	1.0000		3.05	3.07	18.2	9.912	99.1	
5	5	PFHpA	363.0 > 318.9	1.65e4	1.43e4	1.0000		3.68	3.68	14.4	10.880	108.8	
6	6	L-PFHxS	398.9 > 79.6	2.72e3	1.82e3	1.0000		3.80	3.84	18.7	10.091	100.9	
7	8	6:2 FTS	427.1 > 407	4.15e3	2.38e4	1.0000		4.15	4.15	2.18	8.998	90.0	
8	9	L-PFOA	413 > 368.7	2.10e4	2.38e4	1.0000		4.20	4.20	11.0	11.731	117.3	
9	11	PFHpS	449 > 80.0	4.70e3	4.34e3	1.0000		4.30	4.32	13.5	13.328	A 133.3	
10	12	PFNA	463.0 > 418.8	2.29e4	1.93e4	1.0000		4.65	4.64	14.9	10.725	107.3	
11	13	PFOSA	498.1 > 77.8	5.37e3	5.29e3	1.0000		4.70	4.70	12.7	11.374	113.7	
12	14	L-PFOS	499 > 79.9	4.51e3	4.34e3	1.0000		4.75	4.73	13.0	12.576	125.8	
13	16	PFDA	513 > 468.8	2.20e4	2.01e4	1.0000		5.03	5.01	13.7	8.850	88.5	
14	17	8:2 FTS	527 > 506.9	4.37e3	2.01e4	1.0000		5.00	4.99	2.72	7.799	78.0	
15	18	N-MeFOSAA	570.1 > 419	1.10e4	8.83e3	1.0000		5.20	5.16	15.5	10.049	100.5	
16	19	N-EtFOSAA	584.2 > 419	7.96e3	1.08e4	1.0000		5.30	5.33	9.25	8.352	83.5	
17	20	PFUdA	563.0 > 518.9	1.86e4	2.50e4	1.0000		5.36	5.34	9.30	8.391	83.9	
18	21	PFDS	598.8 > 80	4.42e3	1.63e4	1.0000		5.40	5.38	3.39	9.198	92.0	
19	22	PFDoA	612.9 > 569.0	1.94e4	1.63e4	1.0000		5.65	5.62	14.9	8.262	82.6	
20	23	N-MeFOSA	512.1 > 168.9	9.97e3	2.76e4	1.0000		5.70	5.71	54.1	49.628	99.3	
21	24	PFTrDA	662.9 > 618.9	2.59e4	1.63e4	1.0000		5.90	5.87	19.8	11.296	113.0	
22	25	PFTeDA	712.9 > 668.8	1.50e4	5.82e3	1.0000		6.12	6.09	32.2	12.775	127.7	
23	26	N-EtFOSA	526.1 > 168.9	1.23e4	4.00e4	1.0000		6.12	6.12	46.3	51.548	103.1	
24	27	PFHxDA	813.1 > 768.6	7.15e3	5.28e3	1.0000		6.46	6.42	6.78	8.330	83.3	
25	28	PFODA	913.1 > 868.8	8.44e3	5.28e3	1.0000		6.70	6.65	8.00	9.389	93.9	
26	29	N-MeFOSE	616.1 > 58.9	1.10e4	3.49e4	1.0000		6.31	6.27	47.1	47.358	94.7	
27	30	N-EtFOSE	630.1 > 58.9	1.44e4	3.25e4	1.0000		6.45	6.43	66.6	49.538	99.1	
28	31	13C3-PFBA	216.1 > 171.8	1.68e4	1.89e4	1.0000	0.882	1.30	1.34	11.1	12.556	100.5	50-150
29	32	13C3-PFPeA	266. > 221.8	1.78e4	2.19e4	1.0000	0.888	2.27	2.30	10.2	11.476	91.8	
30	33	13C3-PFBS	302. > 98.8	2.42e3	2.19e4	1.0000	0.113	2.56	2.58	1.38	12.249	98.0	
31	34	13C2-PFHxA	315 > 269.8	5.77e3	2.19e4	1.0000	0.692	3.05	3.07	3.29	4.757	95.1	

Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-78.qld

Last Altered: Friday, January 26, 2018 10:14:29 Pacific Standard Time
Printed: Friday, January 26, 2018 10:16:11 Pacific Standard Time

Name: 180125M1_78, Date: 26-Jan-2018, Time: 06:02:42, ID: ST180125M1-14 PFC CS3 18A1909, Description: PFC CS3 18A1909

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35 13C4-PFHpA	367.2 > 321.8	1.43e4	2.19e4	1.0000	0.686	3.68	3.68	8.19	11.941	95.5
33	36 18O2-PFHxS	403.0 > 102.6	1.82e3	5.53e3	1.0000	0.340	3.80	3.83	4.11	12.097	96.8
34	37 13C2-6:2 FTS	429.1 > 408.9	4.45e3	2.12e4	1.0000	0.266	4.15	4.15	2.63	9.895	79.2
35	38 13C2-PFOA	414.9 > 369.7	2.38e4	2.12e4	1.0000	1.072	4.20	4.21	14.0	13.107	104.9
36	39 13C5-PFNA	468.2 > 422.9	1.93e4	2.22e4	1.0000	0.898	4.65	4.64	10.8	12.073	96.6
37	40 13C8-PFOSA	506.1 > 77.7	5.29e3	2.16e4	1.0000	0.260	4.70	4.70	3.06	11.779	94.2
38	41 13C8-PFOS	507.0 > 79.9	4.34e3	5.23e3	1.0000	0.957	4.75	4.73	10.4	10.837	86.7
39	42 13C2-PFDA	515.1 > 469.9	2.01e4	1.95e4	1.0000	1.142	5.03	5.01	12.8	11.242	89.9
40	43 13C2-8:2 FTS	529.1 > 508.7	3.18e3	2.19e4	1.0000	0.174	5.00	4.99	1.82	10.447	83.6
41	44 d3-N-MeFOSAA	573.3 > 419	8.83e3	2.16e4	1.0000	0.422	5.20	5.17	5.11	12.115	96.9
42	45 d5-N-EtFOSAA	589.3 > 419	1.08e4	2.16e4	1.0000	0.431	5.30	5.32	6.23	14.462	115.7
43	46 13C2-PFUdA	565 > 519.8	2.50e4	2.16e4	1.0000	0.980	5.36	5.34	14.4	14.737	117.9
44	47 13C2-PFDoA	615.0 > 569.7	1.63e4	2.16e4	1.0000	0.739	5.65	5.62	9.44	12.781	102.3
45	48 d3-N-MeFOSA	515.2 > 168.9	2.76e4	2.16e4	1.0000	0.108	5.70	5.74	16.0	147.511	98.3
46	49 13C2-PFTeDA	714.8 > 669.6	5.82e3	2.16e4	1.0000	0.310	6.12	6.09	3.37	10.865	86.9
47	50 d5-N-ETFOSA	531.1 > 168.9	4.00e4	2.16e4	1.0000	0.155	6.25	6.13	23.2	149.388	99.6
48	51 13C2-PFHxDA	815 > 769.7	5.28e3	2.16e4	1.0000	0.560	6.46	6.42	3.05	5.459	109.2
49	52 d7-N-MeFOSE	623.1 > 58.9	3.49e4	2.16e4	1.0000	0.139	6.31	6.27	20.2	145.079	96.7
50	53 d9-N-EtFOSE	639.2 > 58.8	3.25e4	2.16e4	1.0000	0.128	6.12	6.42	18.8	147.676	98.5
51	54 13C4-PFBA	217. > 171.8	1.89e4	1.89e4	1.0000	1.000	1.30	1.34	12.5	12.500	100.0
52	55 13C5-PFHxA	318 > 272.9	2.19e4	2.19e4	1.0000	1.000	3.05	3.07	12.5	12.500	100.0
53	56 13C3-PFHxS	401.9 > 79.9	5.53e3	5.53e3	1.0000	1.000	3.80	3.84	12.5	12.500	100.0
54	57 13C8-PFOA	421.3 > 376	2.12e4	2.12e4	1.0000	1.000	4.20	4.20	12.5	12.500	100.0
55	58 13C9-PFNA	472.2 > 426.9	2.22e4	2.22e4	1.0000	1.000	4.65	4.64	12.5	12.500	100.0
56	59 13C4-PFOS	503 > 79.9	5.23e3	5.23e3	1.0000	1.000	4.60	4.73	12.5	12.500	100.0
57	60 13C6-PFDA	519.1 > 473.7	1.95e4	1.95e4	1.0000	1.000	5.03	5.01	12.5	12.500	100.0
58	61 13C7-PFUdA	570.1 > 524.8	2.16e4	2.16e4	1.0000	1.000	5.36	5.34	12.5	12.500	100.0

50-150

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-96.qld

Last Altered: Friday, January 26, 2018 10:23:09 Pacific Standard Time
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AC 1/26/18

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_012518.mdb 26 Jan 2018 09:01:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-25-18-FULL.cdb 26 Jan 2018 09:21:18

✓ JA 01/26/2018

Name: 180125M1_96, Date: 26-Jan-2018, Time: 09:29:20, ID: ST180125M1-15 PFC CS3 18A1909, Description: PFC CS3 18A1909

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBA	213.0 > 168.8	1.81e4	1.81e4	1.0000		1.29	1.34	12.6	10.705	107.1
2	2 PFPeA	263.1 > 218.9	1.69e4	2.07e4	1.0000		2.27	2.30	10.2	10.226	102.3
3	3 PFBS	299.0 > 79.7	3.90e3	2.67e3	1.0000		2.56	2.58	18.3	10.029	100.3
4	4 PFHxA	313.2 > 268.9	2.23e4	6.33e3	1.0000		3.05	3.07	17.7	9.596	96.0
5	5 PFHpA	363.0 > 318.9	1.76e4	1.59e4	1.0000		3.68	3.68	13.8	10.466	104.7
6	6 L-PFHxS	398.9 > 79.6	2.91e3	1.85e3	1.0000		3.80	3.83	19.7	10.617	106.2
7	8 6:2 FTS	427.1 > 407	4.57e3	2.13e4	1.0000		4.15	4.15	2.68	11.084	110.8
8	9 L-PFOA	413 > 368.7	1.93e4	2.13e4	1.0000		4.20	4.20	11.3	12.055	120.5
9	11 PFHpS	449 > 80.0	5.00e3	5.77e3	1.0000		4.30	4.31	10.8	10.679	106.8
10	12 PFNA	463.0 > 418.8	2.42e4	2.29e4	1.0000		4.65	4.64	13.2	9.535	95.4
11	13 PFOSA	498.1 > 77.8	5.85e3	6.32e3	1.0000		4.70	4.70	11.6	10.358	103.6
12	14 L-PFOS	499 > 79.9	4.80e3	5.77e3	1.0000		4.75	4.72	10.4	10.077	100.8
13	16 PFDA	513 > 468.8	1.95e4	1.74e4	1.0000		5.03	5.01	14.0	9.056	90.6
14	17 8:2 FTS	527 > 506.9	4.86e3	1.74e4	1.0000		5.00	4.98	3.49	10.019	100.2
15	18 N-MeFOSAA	570.1 > 419	1.15e4	8.45e3	1.0000		5.20	5.17	17.0	11.001	110.0
16	19 N-EtFOSAA	584.2 > 419	9.56e3	1.15e4	1.0000		5.30	5.32	10.4	9.393	93.9
17	20 PFUdA	563.0 > 518.9	2.07e4	2.28e4	1.0000		5.36	5.34	11.3	10.297	103.0
18	21 PFDS	598.8 > 80	5.39e3	1.57e4	1.0000		5.40	5.38	4.28	11.638	116.4
19	22 PFDoA	612.9 > 569.0	2.42e4	1.57e4	1.0000		5.65	5.62	19.2	10.712	107.1
20	23 N-MeFOSA	512.1 > 168.9	1.01e4	2.81e4	1.0000		5.70	5.71	53.7	49.222	98.4
21	24 PFTrDA	662.9 > 618.9	2.55e4	1.57e4	1.0000		5.90	5.87	20.2	11.526	115.3
22	25 PFTeDA	712.9 > 668.8	1.54e4	7.10e3	1.0000		6.12	6.08	27.0	10.719	107.2
23	26 N-EtFOSA	526.1 > 168.9	1.36e4	4.33e4	1.0000		6.12	6.12	47.0	52.377	104.8
24	27 PFHxDA	813.1 > 768.6	7.64e3	5.07e3	1.0000		6.46	6.42	7.53	9.296	93.0
25	28 PFODA	913.1 > 868.8	9.43e3	5.07e3	1.0000		6.70	6.65	9.30	10.951	109.5
26	29 N-MeFOSE	616.1 > 58.9	1.12e4	4.20e4	1.0000		6.31	6.27	39.9	40.153	80.3
27	30 N-EtFOSE	630.1 > 58.9	1.40e4	3.93e4	1.0000		6.45	6.42	53.5	39.734	79.5
28	31 13C3-PFBA	216.1 > 171.8	1.81e4	2.04e4	1.0000	0.882	1.30	1.34	11.1	12.529	100.2
29	32 13C3-PFPeA	266. > 221.8	2.07e4	2.26e4	1.0000	0.888	2.27	2.30	11.4	12.863	102.9
30	33 13C3-PFBS	302. > 98.8	2.67e3	2.26e4	1.0000	0.113	2.56	2.58	1.47	13.041	104.3
31	34 13C2-PFHxA	315 > 269.8	6.33e3	2.26e4	1.0000	0.692	3.05	3.07	3.50	5.050	101.0

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Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-96.qld

Last Altered: Friday, January 26, 2018 10:23:09 Pacific Standard Time
Printed: Friday, January 26, 2018 10:23:27 Pacific Standard Time

Name: 180125M1_96, Date: 26-Jan-2018, Time: 09:29:20, ID: ST180125M1-15 PFC CS3 18A1909, Description: PFC CS3 18A1909

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35 13C4-PFHpA	367.2 > 321.8	1.59e4	2.26e4	1.0000	0.686	3.68	3.68	8.79	12.820	102.6
33	36 18O2-PFHxS	403.0 > 102.6	1.85e3	5.59e3	1.0000	0.340	3.80	3.83	4.13	12.168	97.3
34	37 13C2-6:2 FTS	429.1 > 408.9	5.36e3	2.09e4	1.0000	0.266	4.15	4.15	3.21	12.069	96.6
35	38 13C2-PFOA	414.9 > 369.7	2.13e4	2.09e4	1.0000	1.072	4.20	4.21	12.8	11.904	95.2
36	39 13C5-PFNA	468.2 > 422.9	2.29e4	2.63e4	1.0000	0.898	4.65	4.64	10.9	12.148	97.2
37	40 13C8-PFOSA	506.1 > 77.7	6.32e3	2.71e4	1.0000	0.260	4.70	4.70	2.92	11.240	89.9
38	41 13C8-PFOS	507.0 > 79.9	5.77e3	5.66e3	1.0000	0.957	4.75	4.72	12.7	13.308	106.5
39	42 13C2-PFDA	515.1 > 469.9	1.74e4	1.61e4	1.0000	1.142	5.03	5.01	13.5	11.790	94.3
40	43 13C2-8:2 FTS	529.1 > 508.7	3.03e3	2.26e4	1.0000	0.174	5.00	4.98	1.67	9.640	77.1
41	44 d3-N-MeFOSAA	573.3 > 419	8.45e3	2.71e4	1.0000	0.422	5.20	5.16	3.90	9.247	74.0
42	45 d5-N-EtFOSAA	589.3 > 419	1.15e4	2.71e4	1.0000	0.431	5.30	5.32	5.31	12.317	98.5
43	46 13C2-PFUdA	565 > 519.8	2.28e4	2.71e4	1.0000	0.980	5.36	5.34	10.6	10.767	86.1
44	47 13C2-PFDoA	615.0 > 569.7	1.57e4	2.71e4	1.0000	0.739	5.65	5.62	7.27	9.844	78.8
45	48 d3-N-MeFOSA	515.2 > 168.9	2.81e4	2.71e4	1.0000	0.108	5.70	5.74	13.0	119.777	79.9
46	49 13C2-PFTeDA	714.8 > 669.6	7.10e3	2.71e4	1.0000	0.310	6.12	6.08	3.28	10.588	84.7
47	50 d5-N-ETFOSA	531.1 > 168.9	4.33e4	2.71e4	1.0000	0.155	6.25	6.14	20.0	128.898	85.9
48	51 13C2-PFHxDA	815 > 769.7	5.07e3	2.71e4	1.0000	0.560	6.46	6.42	2.34	4.188	83.8
49	52 d7-N-MeFOSE	623.1 > 58.9	4.20e4	2.71e4	1.0000	0.139	6.31	6.27	19.4	139.261	92.8
50	53 d9-N-EtFOSE	639.2 > 58.8	3.93e4	2.71e4	1.0000	0.128	6.12	6.42	18.2	142.367	94.9
51	54 13C4-PFBA	217. > 171.8	2.04e4	2.04e4	1.0000	1.000	1.30	1.34	12.5	12.500	100.0
52	55 13C5-PFHxA	318 > 272.9	2.26e4	2.26e4	1.0000	1.000	3.05	3.07	12.5	12.500	100.0
53	56 13C3-PFHxS	401.9 > 79.9	5.59e3	5.59e3	1.0000	1.000	3.80	3.83	12.5	12.500	100.0
54	57 13C8-PFOA	421.3 > 376	2.09e4	2.09e4	1.0000	1.000	4.20	4.20	12.5	12.500	100.0
55	58 13C9-PFNA	472.2 > 426.9	2.63e4	2.63e4	1.0000	1.000	4.65	4.64	12.5	12.500	100.0
56	59 13C4-PFOS	503 > 79.9	5.66e3	5.66e3	1.0000	1.000	4.60	4.72	12.5	12.500	100.0
57	60 13C6-PFDA	519.1 > 473.7	1.61e4	1.61e4	1.0000	1.000	5.03	5.01	12.5	12.500	100.0
58	61 13C7-PFUdA	570.1 > 524.8	2.71e4	2.71e4	1.0000	1.000	5.36	5.34	12.5	12.500	100.0

50-150

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-111.qld

(A) 8:2FTS < 70%; not used.

Last Altered: Friday, January 26, 2018 13:26:38 Pacific Standard Time
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AC 1/26/18
✓JA 01/26/2018

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_012518.mdb 26 Jan 2018 09:01:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-25-18-FULL.cdb 26 Jan 2018 09:21:18

Name: 180125M1_111, Date: 26-Jan-2018, Time: 12:10:01, ID: ST180125M1-16 PFC CS3 18A1909, Description: PFC CS3 18A1909

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBA	213.0 > 168.8	1.86e4	1.82e4	1.0000		1.29	1.34	12.8	10.912	109.1
2	2 PFPeA	263.1 > 218.9	1.88e4	2.08e4	1.0000		2.27	2.30	11.3	11.254	112.5
3	3 PFBS	299.0 > 79.7	4.19e3	2.86e3	1.0000		2.56	2.58	18.3	10.052	100.5
4	4 PFHxA	313.2 > 268.9	2.19e4	5.79e3	1.0000		3.05	3.07	18.9	10.263	102.6
5	5 PFHpA	363.0 > 318.9	1.69e4	1.61e4	1.0000		3.68	3.68	13.1	9.918	99.2
6	6 L-PFHxS	398.9 > 79.6	3.16e3	2.04e3	1.0000		3.80	3.84	19.3	10.413	104.1
7	8 6:2 FTS	427.1 > 407	5.01e3	2.44e4	1.0000		4.15	4.15	2.57	10.621	106.2
8	9 L-PFOA	413 > 368.7	2.04e4	2.44e4	1.0000		4.20	4.20	10.4	11.108	111.1
9	11 PFHpS	449 > 80.0	5.40e3	6.14e3	1.0000		4.30	4.32	11.0	10.821	108.2
10	12 PFNA	463.0 > 418.8	2.31e4	1.79e4	1.0000		4.65	4.64	16.1	11.629	116.3
11	13 PFOSA	498.1 > 77.8	5.68e3	5.95e3	1.0000		4.70	4.70	11.9	10.688	106.9
12	14 L-PFOS	499 > 79.9	5.26e3	6.14e3	1.0000		4.75	4.73	10.7	10.379	103.8
13	16 PFDA	513 > 468.8	2.14e4	2.22e4	1.0000		5.03	5.01	12.1	7.811	78.1
14	17 8:2 FTS	527 > 506.9	3.63e3	2.22e4	1.0000		5.00	4.98	2.05	5.858	(A) 58.6
15	18 N-MeFOSAA	570.1 > 419	1.21e4	1.01e4	1.0000		5.20	5.17	14.9	9.632	96.3
16	19 N-EtFOSAA	584.2 > 419	9.87e3	9.31e3	1.0000		5.30	5.32	13.3	11.977	119.8
17	20 PFUdA	563.0 > 518.9	2.27e4	2.07e4	1.0000		5.36	5.34	13.7	12.495	124.9
18	21 PFDS	598.8 > 80	5.57e3	1.54e4	1.0000		5.40	5.39	4.51	12.267	122.7
19	22 PFDoA	612.9 > 569.0	2.39e4	1.54e4	1.0000		5.65	5.62	19.3	10.755	107.5
20	23 N-MeFOSA	512.1 > 168.9	1.07e4	2.86e4	1.0000		5.70	5.71	56.3	51.630	103.3
21	24 PFTrDA	662.9 > 618.9	2.20e4	1.54e4	1.0000		5.90	5.87	17.8	10.117	101.2
22	25 PFTeDA	712.9 > 668.8	1.02e4	6.09e3	1.0000		6.12	6.08	21.0	8.320	83.2
23	26 N-EtFOSA	526.1 > 168.9	1.34e4	4.33e4	1.0000		6.12	6.12	46.5	51.806	103.6
24	27 PFHxDA	813.1 > 768.6	7.31e3	5.41e3	1.0000		6.46	6.41	6.76	8.309	83.1
25	28 PFODA	913.1 > 868.8	7.87e3	5.41e3	1.0000		6.70	6.65	7.27	8.524	85.2
26	29 N-MeFOSE	616.1 > 58.9	1.28e4	3.48e4	1.0000		6.31	6.27	55.2	55.506	111.0
27	30 N-EtFOSE	630.1 > 58.9	1.57e4	3.92e4	1.0000		6.45	6.42	60.1	44.708	89.4
28	31 13C3-PFBA	216.1 > 171.8	1.82e4	2.10e4	1.0000	0.882	1.30	1.34	10.8	12.276	98.2
29	32 13C3-PFPeA	266. > 221.8	2.08e4	2.13e4	1.0000	0.888	2.27	2.30	12.2	13.743	109.9
30	33 13C3-PFBS	302. > 98.8	2.86e3	2.13e4	1.0000	0.113	2.56	2.58	1.68	14.854	118.8
31	34 13C2-PFHxA	315 > 269.8	5.79e3	2.13e4	1.0000	0.692	3.05	3.07	3.39	4.900	[illegible]

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50-150

Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180125M1\180125M1-111.qld

Last Altered: Friday, January 26, 2018 13:26:38 Pacific Standard Time
Printed: Friday, January 26, 2018 13:27:19 Pacific Standard Time

Name: 180125M1_111, Date: 26-Jan-2018, Time: 12:10:01, ID: ST180125M1-16 PFC CS3 18A1909, Description: PFC CS3 18A1909

	# Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
32	35 13C4-PFHpA	367.2 > 321.8	1.61e4	2.13e4	1.0000	0.686	3.68	3.68	9.45	13.783	110.3	50-150
33	36 18O2-PFHxS	403.0 > 102.6	2.04e3	5.74e3	1.0000	0.340	3.80	3.83	4.45	13.098	104.8	
34	37 13C2-6:2 FTS	429.1 > 408.9	4.85e3	2.39e4	1.0000	0.266	4.15	4.15	2.54	9.549	76.4	
35	38 13C2-PFOA	414.9 > 369.7	2.44e4	2.39e4	1.0000	1.072	4.20	4.20	12.7	11.887	95.1	
36	39 13C5-PFNA	468.2 > 422.9	1.79e4	2.39e4	1.0000	0.898	4.65	4.64	9.40	10.472	83.8	
37	40 13C8-PFOSA	506.1 > 77.7	5.95e3	1.83e4	1.0000	0.260	4.70	4.70	4.07	15.681	125.4	
38	41 13C8-PFOS	507.0 > 79.9	6.14e3	5.21e3	1.0000	0.957	4.75	4.72	14.7	15.403	123.2	
39	42 13C2-PFDA	515.1 > 469.9	2.22e4	1.82e4	1.0000	1.142	5.03	5.01	15.2	13.308	106.5	
40	43 13C2-8:2 FTS	529.1 > 508.7	3.36e3	2.13e4	1.0000	0.174	5.00	4.98	1.97	11.343	90.7	
41	44 d3-N-MeFOSAA	573.3 > 419	1.01e4	1.83e4	1.0000	0.422	5.20	5.17	6.94	16.443	131.5	
42	45 d5-N-EtFOSAA	589.3 > 419	9.31e3	1.83e4	1.0000	0.431	5.30	5.32	6.37	14.792	118.3	
43	46 13C2-PFUdA	565 > 519.8	2.07e4	1.83e4	1.0000	0.980	5.36	5.34	14.2	14.456	115.6	
44	47 13C2-PFDoA	615.0 > 569.7	1.54e4	1.83e4	1.0000	0.739	5.65	5.62	10.6	14.302	114.4	
45	48 d3-N-MeFOSA	515.2 > 168.9	2.86e4	1.83e4	1.0000	0.108	5.70	5.74	19.6	180.343	120.2	
46	49 13C2-PFTeDA	714.8 > 669.6	6.09e3	1.83e4	1.0000	0.310	6.12	6.08	4.17	13.455	107.6	
47	50 d5-N-ETFOSA	531.1 > 168.9	4.33e4	1.83e4	1.0000	0.155	6.25	6.14	29.7	191.296	127.5	
48	51 13C2-PFHxDA	815 > 769.7	5.41e3	1.83e4	1.0000	0.560	6.46	6.42	3.70	6.618	132.4	
49	52 d7-N-MeFOSE	623.1 > 58.9	3.48e4	1.83e4	1.0000	0.139	6.31	6.27	23.8	171.055	114.0	
50	53 d9-N-EtFOSE	639.2 > 58.8	3.92e4	1.83e4	1.0000	0.128	6.12	6.42	26.8	210.398	140.3	
51	54 13C4-PFBA	217. > 171.8	2.10e4	2.10e4	1.0000	1.000	1.30	1.34	12.5	12.500	100.0	
52	55 13C5-PFHxA	318 > 272.9	2.13e4	2.13e4	1.0000	1.000	3.05	3.07	12.5	12.500	100.0	
53	56 13C3-PFHxS	401.9 > 79.9	5.74e3	5.74e3	1.0000	1.000	3.80	3.84	12.5	12.500	100.0	
54	57 13C8-PFOA	421.3 > 376	2.39e4	2.39e4	1.0000	1.000	4.20	4.20	12.5	12.500	100.0	
55	58 13C9-PFNA	472.2 > 426.9	2.39e4	2.39e4	1.0000	1.000	4.65	4.64	12.5	12.500	100.0	
56	59 13C4-PFOS	503 > 79.9	5.21e3	5.21e3	1.0000	1.000	4.60	4.72	12.5	12.500	100.0	
57	60 13C6-PFDA	519.1 > 473.7	1.82e4	1.82e4	1.0000	1.000	5.03	5.01	12.5	12.500	100.0	
58	61 13C7-PFUdA	570.1 > 524.8	1.83e4	1.83e4	1.0000	1.000	5.36	5.34	12.5	12.500	100.0	

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, January 26, 2018 13:29:42 Pacific Standard Time
Printed: Friday, January 26, 2018 13:30:10 Pacific Standard Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_012518.mdb 26 Jan 2018 09:01:53
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_01-25-18-FULL.cdb 26 Jan 2018 09:21:18

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180125M1_1	IPA	25-Jan-18	15:18:35
2	180125M1_2	ST180125M1-1 PFC CS-2 18A1904	25-Jan-18	15:30:09
3	180125M1_3	ST180125M1-2 PFC CS-1 18A1905	25-Jan-18	15:41:39
4	180125M1_4	ST180125M1-3 PFC CS0 18A1906	25-Jan-18	15:53:10
5	180125M1_5	ST180125M1-4 PFC CS1 18A1907	25-Jan-18	16:04:39
6	180125M1_6	ST180125M1-5 PFC CS2 18A1908	25-Jan-18	16:16:09
7	180125M1_7	ST180125M1-6 PFC CS3 18A1909	25-Jan-18	16:27:39
8	180125M1_8	ST180125M1-7 PFC CS4 18A1910	25-Jan-18	16:39:08
9	180125M1_9	ST180125M1-8 PFC CS5 18A1911	25-Jan-18	16:50:34
10	180125M1_10	ST180125M1-9 PFC CS6 18A2403	25-Jan-18	17:02:04
11	180125M1_11	ST180125M1-10 PFC CS7 18A2404	25-Jan-18	17:13:34
12	180125M1_12	IPA	25-Jan-18	17:25:03
13	180125M1_13	ICV180125M1-1 PFC ICV 18A1903	25-Jan-18	17:36:33
14	180125M1_14	IPA	25-Jan-18	17:48:00
15	180125M1_15	B8A0097-BS1 OPR 0.25	25-Jan-18	17:59:33
16	180125M1_16	B8A0097-BLK1 Method Blank 0.25	25-Jan-18	18:10:57
17	180125M1_17	1800088-01 WT1801091210MK 0.2722	25-Jan-18	18:22:24
18	180125M1_18	1800088-02 WT1801091230MK 0.27357	25-Jan-18	18:33:50
19	180125M1_19	1800088-03 WT1801091245MK 0.27139	25-Jan-18	18:45:17
20	180125M1_20	1800088-04 WT1801091320MK 0.26532	25-Jan-18	18:56:44
21	180125M1_21	1800088-05 FB1801091325MK 0.27453	25-Jan-18	19:08:14
22	180125M1_22	1800088-06 WT1801091345MK 0.26957	25-Jan-18	19:19:41
23	180125M1_23	1800088-07 WT1801091400MK 0.26965	25-Jan-18	19:31:11
24	180125M1_24	1800088-08 WT1801091415MK 0.26689	25-Jan-18	19:42:41
25	180125M1_25	1800088-09 WT1801091425MK 0.26573	25-Jan-18	19:54:08
26	180125M1_26	1800088-10 WT1801091440MK 0.27009	25-Jan-18	20:05:38
27	180125M1_27	1800088-11 WT1801091550MK 0.27098	25-Jan-18	20:17:07
28	180125M1_28	IPA	25-Jan-18	20:28:37
29	180125M1_29	ST180125M1-11 PFC CS3 18A1909	25-Jan-18	20:40:06
30	180125M1_30	IPA	25-Jan-18	20:51:37
31	180125M1_31	1800088-12 WT1801091610MK 0.2709	25-Jan-18	21:03:05

Dataset: Untitled

Last Altered: Friday, January 26, 2018 13:29:42 Pacific Standard Time
Printed: Friday, January 26, 2018 13:30:10 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	180125M1_32	1800088-13 WT1801091655MK 0.26882	25-Jan-18	21:14:32
33	180125M1_33	B8A0095-BS1 OPR 0.25	25-Jan-18	21:25:59
34	180125M1_34	B8A0095-BLK1 Method Blank 0.25	25-Jan-18	21:37:29
35	180125M1_35	1800086-01 SWRAW1801111140CKA 0.25883	25-Jan-18	21:48:58
36	180125M1_36	1800086-02 SW72PIPE18011145CKA 0.25326	25-Jan-18	22:00:27
37	180125M1_37	1800086-03 SW48PIPE18011150CKA 0.25811	25-Jan-18	22:11:57
38	180125M1_38	1800086-04 WHITEFB1801111155CKA 0.26057	25-Jan-18	22:23:27
39	180125M1_39	1800086-05 WINF1801111350CKA 0.26195	25-Jan-18	22:34:56
40	180125M1_40	1800086-06 APPLEFB1801111355CKA 0.26264	25-Jan-18	22:46:26
41	180125M1_41	1800086-07 WEFF1801111400CKA 0.25971	25-Jan-18	22:57:54
42	180125M1_42	1800087-01 GW5559180108RAP 0.26262	25-Jan-18	23:09:24
43	180125M1_43	1800087-02 GW1216180109RAP 0.26413	25-Jan-18	23:20:54
44	180125M1_44	1800087-03 GW2226180109RAP 0.26128	25-Jan-18	23:32:23
45	180125M1_45	IPA	25-Jan-18	23:43:50
46	180125M1_46	ST180125M1-12 PFC CS3 18A1909	25-Jan-18	23:55:19
47	180125M1_47	IPA	26-Jan-18	00:06:50
48	180125M1_48	1800087-04 GW3236180109RAP 0.26128	26-Jan-18	00:18:16
49	180125M1_49	1800087-05 GW4549180110RAP 0.26506	26-Jan-18	00:29:46
50	180125M1_50	1800087-06 GW5559180110RAP 0.26174	26-Jan-18	00:41:13
51	180125M1_51	1800087-07 GW6569180110RAP 0.26085	26-Jan-18	00:52:42
52	180125M1_52	1800089-01 WR1801101345JLB 0.25333	26-Jan-18	01:04:12
53	180125M1_53	1800089-02 WR1801101440JLB 0.25894	26-Jan-18	01:15:39
54	180125M1_54	B8A0139-BS1 OPR 0.125	26-Jan-18	01:27:06
55	180125M1_55	B8A0139-BLK1 Method Blank 0.125	26-Jan-18	01:38:33
56	180125M1_56	B8A0139-MS1 Matrix Spike 0.1202	26-Jan-18	01:50:03
57	180125M1_57	B8A0139-MSD1 Matrix Spike Dup 0.11944	26-Jan-18	02:01:32
58	180125M1_58	1800161-01 REEPDW114 0.12037	26-Jan-18	02:13:01
59	180125M1_59	1800161-02 REEPDW115 0.12024	26-Jan-18	02:24:31
60	180125M1_60	1800161-03 REEPDW116 0.11886	26-Jan-18	02:36:00
61	180125M1_61	1800161-04 REEPDW117 0.12198	26-Jan-18	02:47:29
62	180125M1_62	IPA	26-Jan-18	02:58:59
63	180125M1_63	ST180125M1-13 PFC CS0 18A1906	26-Jan-18	03:10:28
64	180125M1_64	IPA	26-Jan-18	03:21:58
65	180125M1_65	1800161-05 REEPDW118 0.1203	26-Jan-18	03:33:27

Dataset: Untitled

Last Altered: Friday, January 26, 2018 13:29:42 Pacific Standard Time
Printed: Friday, January 26, 2018 13:30:10 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
66	180125M1_66	1800163-01 REEPDW114FRB 0.11677	26-Jan-18	03:44:57
67	180125M1_67	1800163-02 REEPDW115FRB 0.11851	26-Jan-18	03:56:26
68	180125M1_68	1800163-03 REEPDW116FRB 0.12178	26-Jan-18	04:07:56
69	180125M1_69	1800163-04 REEPDW117FRB 0.12142	26-Jan-18	04:19:25
70	180125M1_70	1800163-05 REEPDW118FRB 0.11535	26-Jan-18	04:30:56
71	180125M1_71	1800165-01 REEPDW119 0.12133	26-Jan-18	04:42:22
72	180125M1_72	1800165-02 REEPDW120 0.12087	26-Jan-18	04:53:49
73	180125M1_73	1800165-03 REEPDW511 0.12014	26-Jan-18	05:05:16
74	180125M1_74	1800165-04 REEPDW121 0.12033	26-Jan-18	05:16:43
75	180125M1_75	1800165-05 REEPDW122 0.11924	26-Jan-18	05:28:12
76	180125M1_76	1800165-06 REEPDW123 0.11954	26-Jan-18	05:39:42
77	180125M1_77	IPA	26-Jan-18	05:51:12
78	180125M1_78	ST180125M1-14 PFC CS3 18A1909	26-Jan-18	06:02:42
79	180125M1_79	IPA	26-Jan-18	06:14:11
80	180125M1_80	B8A0036-BS1 OPR 0.25	26-Jan-18	06:25:42
81	180125M1_81	B7L0182-BS1 OPR 0.25	26-Jan-18	06:37:11
82	180125M1_82	B7L0182-BLK1 Method Blank 0.25	26-Jan-18	06:48:40
83	180125M1_83	B7L0182-MS1 Matrix Spike 0.24949	26-Jan-18	07:00:10
84	180125M1_84	B7L0182-MSD1 Matrix Spike Dup 0.25319	26-Jan-18	07:11:39
85	180125M1_85	1701951-01 FC-MW06S-20171212 0.2558	26-Jan-18	07:23:05
86	180125M1_86	1701951-02 FC-MW02SR1-20171212 0.25063	26-Jan-18	07:34:36
87	180125M1_87	1701951-03 FC-MW04I-20171212 0.24536	26-Jan-18	07:46:04
88	180125M1_88	1701951-06 FC-MW03SR1-20171212 0.24463	26-Jan-18	07:57:33
89	180125M1_89	1701951-07 FC-MW04S-20171212 0.25168	26-Jan-18	08:09:03
90	180125M1_90	1701951-08 FC-MW02IR1-20171212 0.25393	26-Jan-18	08:20:30
91	180125M1_91	1701951-09 FC-MW05S-20171212 0.2411	26-Jan-18	08:31:57
92	180125M1_92	1701951-10 FC-DUP07-20171212 0.24536	26-Jan-18	08:43:26
93	180125M1_93	1701951-12 ET-MW01S-20171212 0.24778	26-Jan-18	08:54:53
94	180125M1_94	1701951-13 ET-MW01S-FRB-20171212 0.24667	26-Jan-18	09:06:22
95	180125M1_95	IPA	26-Jan-18	09:17:51
96	180125M1_96	ST180125M1-15 PFC CS3 18A1909	26-Jan-18	09:29:20
97	180125M1_97	IPA	26-Jan-18	09:40:51
98	180125M1_98	1701951-14 FT-PZ-454S-20171212 0.24489	26-Jan-18	09:52:17
99	180125M1_99	1701951-15 FC-MW05I-20171212 0.2534	26-Jan-18	10:03:46

Dataset: Untitled

Last Altered: Friday, January 26, 2018 13:29:42 Pacific Standard Time
Printed: Friday, January 26, 2018 13:30:10 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
100	180125M1_100	1701951-16 ET-MW02S-20171212 0.25547	26-Jan-18	10:15:16
101	180125M1_101	1701951-17 ET-MW03S-20171212 0.24815	26-Jan-18	10:26:43
102	180125M1_102	1701951-18 FC-PZ05I1-20171212 0.25258	26-Jan-18	10:38:09
103	180125M1_103	1701951-19 CV-FLTS-COMBINF-20171213 0.2...	26-Jan-18	10:49:37
104	180125M1_104	1701951-20 SA-MW127I-20171213 0.2512	26-Jan-18	11:01:03
105	180125M1_105	B7L0183-BS1 OPR 0.25	26-Jan-18	11:12:33
106	180125M1_106	B7L0183-BSD1 LCSD 0.25	26-Jan-18	11:24:03
107	180125M1_108	1701953-03 SA-MW126S-20171213 0.24287	26-Jan-18	11:35:32
108	180125M1_109	1701953-09 SA-PZ123I1-20171213 0.25747	26-Jan-18	11:47:01
109	180125M1_110	IPA	26-Jan-18	11:58:31
110	180125M1_111	ST180125M1-16 PFC CS3 18A1909	26-Jan-18	12:10:01
111	180125M1_112	IPA	26-Jan-18	12:21:30

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

(A) PFDS >130%

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-102.qld

Last Altered: Friday, February 02, 2018 09:11:04 Pacific Standard Time
Printed: Friday, February 02, 2018 09:47:22 Pacific Standard Time

AC 2/2/18

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_020118.mdb 02 Feb 2018 09:02:54
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_02-01-18-FULL.cdb 02 Feb 2018 08:56:36

✓ JA. 02/02/2018

Name: 180201M2_102, Date: 02-Feb-2018, Time: 06:30:11, ID: ST180201M2-15 PFC CS0 18A3009, Description: PFC CS0 18A3009

	# Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBA	213.0 > 168.8	1.20e3	1.22e4		1.0000	1.73	1.57	1.22	1.036	103.6
2	2 PFPeA	263.1 > 218.9	1.10e3	1.33e4		1.0000	2.70	2.54	1.03	0.9883	98.8
3	3 PFBS	299.0 > 79.7	2.60e2	1.83e3		1.0000	2.98	2.81	1.77	1.050	105.0
4	4 4:2 FTS	327.2>307.2	2.87e2	1.83e3		1.0000	3.38	3.22	1.96	1.110	111.0
5	5 PFHxA	313.2 > 268.9	1.59e3	4.11e3		1.0000	3.48	3.31	1.93	1.206	120.6
6	6 PFPeS	349.1>80.1	3.22e2	1.83e3		1.0000	3.67	3.51	2.20	1.227	122.7
7	7 PFHpA	363.0 > 318.9	1.18e3	1.07e4		1.0000	4.10	3.94	1.37	1.048	104.8
8	8 L-PFHxS	398.9 > 79.6	2.33e2	1.44e3		1.0000	4.24	4.08	2.02	1.152	115.2
9	10 6:2 FTS	427.1 > 407	3.26e2	1.81e4		1.0000	4.56	4.40	0.226	0.8465	84.6
10	11 L-PFOA	413 > 368.7	1.37e3	1.81e4		1.0000	4.45	4.45	0.949	0.9211	92.1
11	13 PFHpS	449 > 80.0	3.14e2	3.98e3		1.0000	4.71	4.56	0.988	1.171	117.1
12	14 PFNA	463.0 > 418.8	1.37e3	1.43e4		1.0000	5.04	4.89	1.20	0.8973	89.7
13	15 PFOSA	498.1 > 77.8	3.06e2	3.80e3		1.0000	5.09	4.94	1.01	0.8207	82.1
14	16 L-PFOS	499 > 79.9	3.58e2	3.98e3		1.0000	5.11	4.97	1.13	1.023	102.3
15	18 PFDA	513 > 468.8	1.69e3	1.39e4		1.0000	5.40	5.25	1.52	1.124	112.4
16	19 8:2 FTS	527 > 506.9	3.44e2	1.81e4		1.0000	5.38	5.23	0.238	0.7731	77.3
17	20 PFNS	549.1>80.1	2.99e2	3.98e3		1.0000	5.46	5.32	0.939	1.018	101.8
18	21 N-MeFOSAA	570.1 > 419	6.66e2	6.64e3		1.0000	5.55	5.40	1.25	0.9307	93.1
19	22 N-EtFOSAA	584.2 > 419	6.42e2	7.89e3		1.0000	5.70	5.56	1.02	0.9907	99.1
20	23 PFUdA	563.0 > 518.9	1.39e3	1.64e4		1.0000	5.72	5.58	1.06	0.9102	91.0
21	24 PFDS	598.8 > 80	4.40e2	1.15e4		1.0000	5.76	5.62	0.479	1.419	(A) 141.9
22	25 PFDoA	612.9 > 569.0	1.92e3	1.15e4		1.0000	5.99	5.86	2.09	1.173	117.3
23	26 N-MeFOSA	512.1 > 168.9	7.15e2	1.93e4		1.0000	5.93	5.86	5.57	5.414	108.3
24	27 PFTrDA	662.9 > 618.9	1.85e3	4.93e3		1.0000	6.22	6.10	4.69	1.108	110.8
25	28 PFTeDA	712.9 > 668.8	1.01e3	4.93e3		1.0000	6.41	6.30	2.55	1.033	103.3
26	29 N-EtFOSA	526.1 > 168.9	8.79e2	2.96e4		1.0000	6.25	6.23	4.45	4.809	96.2
27	30 PFHxDA	813.1 > 768.6	5.14e2	3.50e3		1.0000	6.69	6.60	0.733	0.9088	90.9
28	31 PFODA	913.1 > 868.8	6.71e2	3.50e3		1.0000	6.90	6.82	0.958	1.300	130.0
29	32 N-MeFOSE	616.1 > 58.9	8.77e2	2.55e4		1.0000	6.31	6.33	5.15	4.333	86.7
30	33 N-EtFOSE	630.1 > 58.9	1.00e3	2.50e4		1.0000	6.45	6.48	6.00	5.369	107.4
31	34 13C3-PFBA	216.1 > 171.8	1.22e4	1.40e4	0.880	1.0000	1.73	1.57	10.9	12.43	[illegible]

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Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-102.qld

Last Altered: Friday, February 02, 2018 09:11:04 Pacific Standard Time
Printed: Friday, February 02, 2018 09:47:22 Pacific Standard Time

Name: 180201M2_102, Date: 02-Feb-2018, Time: 06:30:11, ID: ST180201M2-15 PFC CS0 18A3009, Description: PFC CS0 18A3009

	# Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
32	35 13C3-PFPeA	266. > 221.8	1.33e4	1.49e4	0.894	1.0000	2.70	2.54	11.1	12.44	99.5	50-150
33	36 13C3-PFBS	302. > 98.8	1.83e3	1.49e4	0.120	1.0000	2.98	2.81	1.53	12.78	102.2	
34	37 13C2-PFHxA	315 > 269.8	4.11e3	1.49e4	0.700	1.0000	3.48	3.31	3.44	4.912	98.2	
35	38 13C4-PFHpA	367.2 > 321.8	1.07e4	1.49e4	0.693	1.0000	4.10	3.94	8.98	12.96	103.7	
36	39 18O2-PFHxS	403.0 > 102.6	1.44e3	4.26e3	0.343	1.0000	4.24	4.08	4.22	12.33	98.6	
37	40 13C2-6:2 FTS	429.1 > 408.9	3.43e3	1.46e4	0.262	1.0000	4.56	4.40	2.93	11.16	89.3	
38	41 13C2-PFOA	414.9 > 369.7	1.81e4	1.46e4	1.064	1.0000	4.61	4.45	15.4	14.50	116.0	
39	42 13C5-PFNA	468.2 > 422.9	1.43e4	1.71e4	0.949	1.0000	5.04	4.89	10.5	11.07	88.6	
40	43 13C8-PFOSA	506.1 > 77.7	3.80e3	1.86e4	0.211	1.0000	5.09	4.94	2.55	12.08	96.7	
41	44 13C8-PFOS	507.0 > 79.9	3.98e3	4.26e3	1.014	1.0000	5.11	4.96	11.7	11.50	92.0	
42	45 13C2-PFDA	515.1 > 469.9	1.39e4	1.41e4	1.099	1.0000	5.40	5.26	12.3	11.20	89.6	
43	46 13C2-8:2 FTS	529.1 > 508.7	2.44e3	1.49e4	0.194	1.0000	5.38	5.23	2.04	10.51	84.1	
44	47 d3-N-MeFOSAA	573.3 > 419	6.64e3	1.86e4	0.381	1.0000	5.55	5.40	4.46	11.70	93.6	
45	48 d5-N-EtFOSAA	589.3 > 419	7.89e3	1.86e4	0.430	1.0000	5.70	5.55	5.30	12.35	98.8	
46	49 13C2-PFUdA	565 > 519.8	1.64e4	1.86e4	0.966	1.0000	5.72	5.58	11.0	11.38	91.0	
47	50 13C2-PFDoA	615.0 > 569.7	1.15e4	1.86e4	0.767	1.0000	5.99	5.86	7.72	10.06	80.5	
48	51 d3-N-MeFOSA	515.2 > 168.9	1.93e4	1.86e4	0.094	1.0000	5.93	5.88	13.0	137.9	92.0	
49	52 13C2-PFTeDA	714.8 > 669.6	4.93e3	1.86e4	0.413	1.0000	6.41	6.30	3.31	8.018	64.1	
50	53 d5-N-ETFOSA	531.1 > 168.9	2.96e4	1.86e4	0.134	1.0000	6.25	6.24	19.9	148.4	98.9	
51	54 13C2-PFHxDA	815 > 769.7	3.50e3	1.86e4	0.555	1.0000	6.69	6.60	2.35	4.240	84.8	
52	55 d7-N-MeFOSE	623.1 > 58.9	2.55e4	1.86e4	0.107	1.0000	6.31	6.33	17.2	160.5	107.0	
53	56 d9-N-EtFOSE	639.2 > 58.8	2.50e4	1.86e4	0.107	1.0000	6.45	6.47	16.8	157.1	104.8	
54	57 13C4-PFBA	217. > 171.8	1.40e4	1.40e4	1.000	1.0000	1.73	1.57	12.5	12.50	100.0	
55	58 13C5-PFHxA	318 > 272.9	1.49e4	1.49e4	1.000	1.0000	3.48	3.31	12.5	12.50	100.0	
56	59 13C3-PFHxS	401.9 > 79.9	4.26e3	4.26e3	1.000	1.0000	4.24	4.08	12.5	12.50	100.0	
57	60 13C8-PFOA	421.3 > 376	1.46e4	1.46e4	1.000	1.0000	4.61	4.45	12.5	12.50	100.0	
58	61 13C9-PFNA	472.2 > 426.9	1.71e4	1.71e4	1.000	1.0000	5.04	4.89	12.5	12.50	100.0	
59	62 13C4-PFOS	503 > 79.9	4.26e3	4.26e3	1.000	1.0000	5.11	4.96	12.5	12.50	100.0	
60	63 13C6-PFDA	519.1 > 473.7	1.41e4	1.41e4	1.000	1.0000	5.40	5.26	12.5	12.50	100.0	
61	64 13C7-PFUdA	570.1 > 524.8	1.86e4	1.86e4	1.000	1.0000	5.72	5.57	12.5	12.50	100.0	
62	72 13C2-4:2 FTS	329.2>308.9	3.59e3	1.49e4	0.312	1.0000	3.38	3.22	3.00	9.628	77.0	50-150

Quantify Sample Summary Report **MassLynx MassLynx V4.1 SCN945 SCN960**
Vista Analytical Laboratory

Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-115.qld

Last Altered: Friday, February 02, 2018 09:14:29 Pacific Standard Time
Printed: Friday, February 02, 2018 09:48:40 Pacific Standard Time

AC 2/2/18
v JA 02/02/2018

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_020118.mdb 02 Feb 2018 09:02:54
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_02-01-18-FULL.cdb 02 Feb 2018 08:56:36

Name: 180201M2_115, Date: 02-Feb-2018, Time: 08:59:21, ID: ST180201M2-16 PFC CS3 18A3012, Description: PFC CS3 18A3012

	# Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBA	213.0 > 168.8	1.10e4	1.16e4		1.0000	1.73	1.56	11.9	10.27	102.7
2	2 PFPeA	263.1 > 218.9	1.07e4	1.33e4		1.0000	2.70	2.53	10.1	10.80	108.0
3	3 PFBS	299.0 > 79.7	2.56e3	1.74e3		1.0000	2.98	2.80	18.4	12.03	120.3
4	4 4:2 FTS	327.2>307.2	2.54e3	1.74e3		1.0000	3.38	3.21	18.3	11.19	111.9
5	5 PFHxA	313.2 > 268.9	1.31e4	4.21e3		1.0000	3.48	3.30	15.5	10.25	102.5
6	6 PFPeS	349.1>80.1	2.73e3	1.74e3		1.0000	3.67	3.50	19.7	10.31	103.1
7	7 PFHpA	363.0 > 318.9	1.04e4	1.04e4		1.0000	4.10	3.93	12.6	9.415	94.2
8	8 L-PFHxS	398.9 > 79.6	1.75e3	1.24e3		1.0000	4.24	4.07	17.5	10.44	104.4
9	10 6:2 FTS	427.1 > 407	2.75e3	1.39e4		1.0000	4.56	4.39	2.48	9.437	94.4
10	11 L-PFOA	413 > 368.7	1.12e4	1.39e4		1.0000	4.44	4.44	10.1	10.32	103.2
11	13 PFHpS	449 > 80.0	3.10e3	3.77e3		1.0000	4.71	4.55	10.3	10.18	101.8
12	14 PFNA	463.0 > 418.8	1.40e4	1.45e4		1.0000	5.04	4.88	12.1	10.19	101.9
13	15 PFOSA	498.1 > 77.8	2.82e3	3.46e3		1.0000	5.09	4.93	10.2	9.653	96.5
14	16 L-PFOS	499 > 79.9	3.29e3	3.77e3		1.0000	5.11	4.95	10.9	10.00	100.0
15	18 PFDA	513 > 468.8	1.20e4	1.20e4		1.0000	5.40	5.25	12.5	10.35	103.5
16	19 8:2 FTS	527 > 506.9	2.95e3	1.39e4		1.0000	5.38	5.22	2.66	8.313	83.1
17	20 PFNS	549.1>80.1	2.67e3	3.77e3		1.0000	5.46	5.30	8.87	9.963	99.6
18	21 N-MeFOSAA	570.1 > 419	6.84e3	5.96e3		1.0000	5.55	5.39	14.4	10.14	101.4
19	22 N-EtFOSAA	584.2 > 419	5.66e3	6.65e3		1.0000	5.70	5.55	10.6	9.907	99.1
20	23 PFUdA	563.0 > 518.9	1.53e4	1.58e4		1.0000	5.72	5.56	12.2	10.75	107.5
21	24 PFDS	598.8 > 80	3.47e3	9.99e3		1.0000	5.76	5.61	4.34	12.57	125.7
22	25 PFDoA	612.9 > 569.0	1.68e4	9.99e3		1.0000	5.99	5.85	21.0	11.52	115.2
23	26 N-MeFOSA	512.1 > 168.9	6.61e3	1.85e4		1.0000	5.93	5.86	53.5	55.03	110.1
24	27 PFTrDA	662.9 > 618.9	1.67e4	4.89e3		1.0000	6.22	6.09	42.6	10.40	104.0
25	28 PFTeDA	712.9 > 668.8	8.23e3	4.89e3		1.0000	6.41	6.29	21.0	9.731	97.3
26	29 N-EtFOSA	526.1 > 168.9	8.18e3	2.80e4		1.0000	6.25	6.22	43.8	50.32	100.6
27	30 PFHxDA	813.1 > 768.6	5.56e3	3.80e3		1.0000	6.69	6.59	7.32	10.93	109.3
28	31 PFODA	913.1 > 868.8	5.84e3	3.80e3		1.0000	6.90	6.81	7.69	10.76	107.6
29	32 N-MeFOSE	616.1 > 58.9	7.22e3	2.19e4		1.0000	6.31	6.33	49.5	44.85	89.7
30	33 N-EtFOSE	630.1 > 58.9	8.38e3	2.30e4		1.0000	6.45	6.48	54.6	46.11	92.2
31	34 13C3-PFBA	216.1 > 171.8	1.16e4	1.32e4	0.880	1.0000	1.73	1.56	11.0	12.49	99.9

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Dataset: F:\Projects\PFAS.PRO\Results\180201M2\180201M2-115.qld

Last Altered: Friday, February 02, 2018 09:14:29 Pacific Standard Time
Printed: Friday, February 02, 2018 09:48:40 Pacific Standard Time

Name: 180201M2_115, Date: 02-Feb-2018, Time: 08:59:21, ID: ST180201M2-16 PFC CS3 18A3012, Description: PFC CS3 18A3012

	# Name	Trace	Area	IS Area	RRF	Divisor1	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
32	35 13C3-PFPeA	266. > 221.8	1.33e4	1.52e4	0.894	1.0000	2.70	2.53	11.0	12.27	98.2	50-150
33	36 13C3-PFBS	302. > 98.8	1.74e3	1.52e4	0.120	1.0000	2.98	2.80	1.43	11.91	95.3	
34	37 13C2-PFHxA	315 > 269.8	4.21e3	1.52e4	0.700	1.0000	3.48	3.30	3.47	4.956	99.1	
35	38 13C4-PFHpA	367.2 > 321.8	1.04e4	1.52e4	0.693	1.0000	4.10	3.93	8.55	12.34	98.7	
36	39 18O2-PFHxS	403.0 > 102.6	1.24e3	3.88e3	0.343	1.0000	4.24	4.07	4.01	11.71	93.7	
37	40 13C2-6:2 FTS	429.1 > 408.9	3.23e3	1.35e4	0.262	1.0000	4.56	4.39	2.99	11.40	91.2	
38	41 13C2-PFOA	414.9 > 369.7	1.39e4	1.35e4	1.064	1.0000	4.61	4.44	12.8	12.07	96.5	
39	42 13C5-PFNA	468.2 > 422.9	1.45e4	1.32e4	0.949	1.0000	5.04	4.88	13.7	14.44	115.5	
40	43 13C8-PFOSA	506.1 > 77.7	3.46e3	1.41e4	0.211	1.0000	5.09	4.93	3.06	14.47	115.8	
41	44 13C8-PFOS	507.0 > 79.9	3.77e3	3.67e3	1.014	1.0000	5.11	4.95	12.8	12.66	101.3	
42	45 13C2-PFDA	515.1 > 469.9	1.20e4	1.08e4	1.099	1.0000	5.40	5.25	13.8	12.55	100.4	
43	46 13C2-8:2 FTS	529.1 > 508.7	1.99e3	1.52e4	0.194	1.0000	5.38	5.22	1.64	8.456	67.6	
44	47 d3-N-MeFOSAA	573.3 > 419	5.96e3	1.41e4	0.381	1.0000	5.55	5.39	5.27	13.82	110.6	
45	48 d5-N-EtFOSAA	589.3 > 419	6.65e3	1.41e4	0.430	1.0000	5.70	5.54	5.89	13.71	109.7	
46	49 13C2-PFUdA	565 > 519.8	1.58e4	1.41e4	0.966	1.0000	5.72	5.56	14.0	14.44	115.6	
47	50 13C2-PFDoA	615.0 > 569.7	9.99e3	1.41e4	0.767	1.0000	5.99	5.85	8.84	11.52	92.2	
48	51 d3-N-MeFOSA	515.2 > 168.9	1.85e4	1.41e4	0.094	1.0000	5.93	5.88	16.4	174.7	116.5	
49	52 13C2-PFTeDA	714.8 > 669.6	4.89e3	1.41e4	0.413	1.0000	6.41	6.29	4.33	10.48	83.9	
50	53 d5-N-ETFOSA	531.1 > 168.9	2.80e4	1.41e4	0.134	1.0000	6.25	6.23	24.8	184.9	123.2	
51	54 13C2-PFHxDA	815 > 769.7	3.80e3	1.41e4	0.555	1.0000	6.69	6.59	3.36	6.054	121.1	
52	55 d7-N-MeFOSE	623.1 > 58.9	2.19e4	1.41e4	0.107	1.0000	6.31	6.32	19.4	181.1	120.7	
53	56 d9-N-EtFOSE	639.2 > 58.8	2.30e4	1.41e4	0.107	1.0000	6.45	6.47	20.4	190.6	127.1	
54	57 13C4-PFBA	217. > 171.8	1.32e4	1.32e4	1.000	1.0000	1.73	1.56	12.5	12.50	100.0	
55	58 13C5-PFHxA	318 > 272.9	1.52e4	1.52e4	1.000	1.0000	3.48	3.30	12.5	12.50	100.0	
56	59 13C3-PFHxS	401.9 > 79.9	3.88e3	3.88e3	1.000	1.0000	4.24	4.07	12.5	12.50	100.0	
57	60 13C8-PFOA	421.3 > 376	1.35e4	1.35e4	1.000	1.0000	4.61	4.44	12.5	12.50	100.0	
58	61 13C9-PFNA	472.2 > 426.9	1.32e4	1.32e4	1.000	1.0000	5.04	4.88	12.5	12.50	100.0	
59	62 13C4-PFOS	503 > 79.9	3.67e3	3.67e3	1.000	1.0000	5.11	4.95	12.5	12.50	100.0	
60	63 13C6-PFDA	519.1 > 473.7	1.08e4	1.08e4	1.000	1.0000	5.40	5.25	12.5	12.50	100.0	
61	64 13C7-PFUdA	570.1 > 524.8	1.41e4	1.41e4	1.000	1.0000	5.72	5.56	12.5	12.50	100.0	
62	72 13C2-4:2 FTS	329.2>308.9	3.68e3	1.52e4	0.312	1.0000	3.38	3.21	3.04	9.744	77.9	50-150

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Dataset: Untitled

Last Altered: Friday, February 02, 2018 09:50:10 Pacific Standard Time
Printed: Friday, February 02, 2018 09:52:21 Pacific Standard Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_FULL_80C_020118.mdb 02 Feb 2018 09:02:54
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_VAL-PFAS_Q4_02-01-18-FULL.cdb 02 Feb 2018 08:56:36

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180201M2_1	IPA	01-Feb-18	10:40:54
2	180201M2_2	ST180201M2-1 PFC CS-2 18A3007	01-Feb-18	10:52:18
3	180201M2_3	ST180201M2-2 PFC CS-1 18A3008	01-Feb-18	11:03:45
4	180201M2_4	ST180201M2-3 PFC CS0 18A3009	01-Feb-18	11:15:12
5	180201M2_5	ST180201M2-4 PFC CS1 18A3010	01-Feb-18	11:26:39
6	180201M2_6	ST180201M2-5 PFC CS2 18A3011	01-Feb-18	11:38:09
7	180201M2_7	ST180201M2-6 PFC CS3 18A3012	01-Feb-18	11:49:38
8	180201M2_8	ST180201M2-7 PFC CS4 18A3013	01-Feb-18	12:01:08
9	180201M2_9	ST180201M2-8 PFC CS5 18A3014	01-Feb-18	12:12:35
10	180201M2_10	ST180201M2-9 PFC CS6 18A3015	01-Feb-18	12:24:05
11	180201M2_11	ST180201M2-10 PFC CS7 18A3016	01-Feb-18	12:35:34
12	180201M2_12	IPA	01-Feb-18	12:47:03
13	180201M2_13	ICV180201M2-1 PFC ICV 18A3006	01-Feb-18	12:58:32
14	180201M2_14	IPA	01-Feb-18	13:10:02
15	180201M2_15	B8A0134-BS1 OPR 0.25	01-Feb-18	13:21:29
16	180201M2_16	B8A0134-BLK1 Method Blank 0.25	01-Feb-18	13:33:00
17	180201M2_17	B8A0134-MS1 Matrix Spike 0.22205	01-Feb-18	13:44:26
18	180201M2_18	B8A0134-MSD1 Matrix Spike Dup 0.2339	01-Feb-18	13:55:56
19	180201M2_19	1800141-01 WT1801151310AB 0.24161	01-Feb-18	14:07:25
20	180201M2_20	1800144-01 WT1801181520MK 0.25508	01-Feb-18	14:18:56
21	180201M2_21	1800144-02 WT1801181540MK 0.24911	01-Feb-18	14:30:23
22	180201M2_22	1800144-03 MW-09-180118JLB 0.25454	01-Feb-18	14:41:53
23	180201M2_23	1800153-01 FT-TW507-1924 0.23859	01-Feb-18	14:53:20
24	180201M2_24	1800153-02 FT-TW510-1520 0.24548	01-Feb-18	15:04:46
25	180201M2_25	1800153-03 FT-TW511-1722 0.24264	01-Feb-18	15:16:13
26	180201M2_26	1800153-04 FT-TW513-2025 0.23397	01-Feb-18	15:27:40
27	180201M2_27	1800153-05 FT-Dup03-20180118 0.24917	01-Feb-18	16:09:28
28	180201M2_28	1800153-06 FT-TW507-1924-FRB 0.25367	01-Feb-18	16:20:57
29	180201M2_29	1800153-07 FT-EB01-20180116 0.25433	01-Feb-18	16:32:26
30	180201M2_30	1800153-08 FT-EB02-20180117 0.25791	01-Feb-18	16:43:47
31	180201M2_31	1800153-09 FT-EB03-20180118 0.23434	01-Feb-18	16:55:14

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Dataset: Untitled

Last Altered: Friday, February 02, 2018 09:50:10 Pacific Standard Time
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Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	180201M2_32	1800153-10 FT-FRB01-20180116 0.25664	01-Feb-18	17:06:41
33	180201M2_33	1800153-11 FT-FRB02-20180117 0.25152	01-Feb-18	17:18:08
34	180201M2_34	B8A0132-BS1 OPR 0.25	01-Feb-18	17:29:38
35	180201M2_35	B8A0132-BLK1 Method Blank 0.25	01-Feb-18	17:41:04
36	180201M2_36	1800145-01 WT1801161430AB 0.26882	01-Feb-18	17:52:34
37	180201M2_37	IPA	01-Feb-18	18:04:03
38	180201M2_38	ST180201M2-11 PFC CS3 18A3012	01-Feb-18	18:15:33
39	180201M2_39	IPA	01-Feb-18	18:26:59
40	180201M2_40	1800145-02 WT1801161450AB 0.26602	01-Feb-18	18:38:29
41	180201M2_41	1800145-03 WT1801161505AB 0.27119	01-Feb-18	18:49:54
42	180201M2_42	1800145-04 WT1801161515AB 0.27769	01-Feb-18	19:01:20
43	180201M2_43	B8A0178-BS1 OPR 1	01-Feb-18	19:12:50
44	180201M2_44	B8A0178-BLK1 Method Blank 1	01-Feb-18	19:24:19
45	180201M2_45	B8A0178-MS1 Matrix Spike 1.17	01-Feb-18	19:35:49
46	180201M2_46	B8A0178-MSD1 Matrix Spike Dup 1.16	01-Feb-18	19:47:18
47	180201M2_47	1800131-01 PITTS-03-SB01-0-2 1.11	01-Feb-18	19:58:47
48	180201M2_48	1800131-02 PITTS-03-SB01-19-21 1.11	01-Feb-18	20:10:16
49	180201M2_49	1800131-03 PITTS-03-SB02-0-2 1.14	01-Feb-18	20:21:42
50	180201M2_50	1800131-04 PITTS-03-SB02-13-15 1.14	01-Feb-18	20:33:13
51	180201M2_51	1800131-05 PITTS-05-SB01-0-2 1.12	01-Feb-18	20:44:39
52	180201M2_52	1800131-06 PITTS-05-SB01-8-10 1.1	01-Feb-18	20:56:10
53	180201M2_53	1800131-07 PITTS-05-SB02-0-2 1.15	01-Feb-18	21:07:38
54	180201M2_54	IPA	01-Feb-18	21:19:07
55	180201M2_55	ST180201M2-12 PFC CS0 18A3009	01-Feb-18	21:30:38
56	180201M2_56	IPA	01-Feb-18	21:42:04
57	180201M2_57	1800131-08 PITTS-05-SB02-13-15 1.12	01-Feb-18	21:53:33
58	180201M2_58	1800131-09 PITTS-21-SB02-0-2 1.18	01-Feb-18	22:05:02
59	180201M2_59	1800131-10 PITTS-21-SB02-3-5 1.17	01-Feb-18	22:16:31
60	180201M2_60	1800131-11 PITTS-SO-DUP01-010918 1.16	01-Feb-18	22:28:01
61	180201M2_61	1800131-12 PITTS-SO-DUP02-011018 1.17	01-Feb-18	22:39:30
62	180201M2_62	B8A0180-BS1 OPR 1	01-Feb-18	22:50:56
63	180201M2_63	B8A0180-BLK1 Method Blank 1	01-Feb-18	23:02:23
64	180201M2_64	B8A0180-MS1 Matrix Spike 1.28	01-Feb-18	23:13:51
65	180201M2_65	B8A0180-MSD1 Matrix Spike Dup 1.26	01-Feb-18	23:25:20

Dataset: Untitled

Last Altered: Friday, February 02, 2018 09:50:10 Pacific Standard Time
Printed: Friday, February 02, 2018 09:52:21 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
66	180201M2_66	1800132-01 PITTS-01-SB02-0-2 1.27	01-Feb-18	23:36:50
67	180201M2_67	1800132-02 PITTS-01-SB02-11-13 1.19	01-Feb-18	23:48:20
68	180201M2_68	1800132-03 PITTS-04-SB01-0-2 1.39	01-Feb-18	23:59:46
69	180201M2_69	1800132-04 PITTS-04-SB02-0-2 1.26	02-Feb-18	00:11:13
70	180201M2_70	1800132-05 PITTS-07-SB02-0-2 1.13	02-Feb-18	00:22:40
71	180201M2_71	IPA	02-Feb-18	00:34:07
72	180201M2_72	ST180201M2-13 PFC CS3 18A3012	02-Feb-18	00:45:37
73	180201M2_73	IPA	02-Feb-18	00:57:06
74	180201M2_74	1800132-06 PITTS-07-SB02-3-5 1.13	02-Feb-18	01:08:36
75	180201M2_75	1800132-07 PITTS-07-SB03-0-2 1.36	02-Feb-18	01:20:05
76	180201M2_76	1800132-08 PITTS-07-SB03-5.5-7.5 1.12	02-Feb-18	01:31:34
77	180201M2_77	1800132-09 PITTS-21-SB01-0-2 1.37	02-Feb-18	01:43:04
78	180201M2_78	1800132-10 PITTS-SO-DUP03-011018 1.08	02-Feb-18	01:54:34
79	180201M2_79	1800132-11 PITTS-SO-DUP04-011018 1.14	02-Feb-18	02:06:03
80	180201M2_80	1800132-12 PITTS-SO-DUP05-011118 1.43	02-Feb-18	02:17:33
81	180201M2_81	1800132-13 PITTS-04-SB03-0-2 1.27	02-Feb-18	02:29:03
82	180201M2_82	B8A0149-BS1 OPR 1	02-Feb-18	02:40:31
83	180201M2_83	B8A0149-BLK1 Method Blank 1.03	02-Feb-18	02:51:59
84	180201M2_84	B8A0149-MS1 Matrix Spike 1.17	02-Feb-18	03:03:28
85	180201M2_85	B8A0149-MSD1 Matrix Spike Dup 1.18	02-Feb-18	03:14:57
86	180201M2_86	1800129-01 PITTS-06-SB01-0-2 1.26	02-Feb-18	03:26:24
87	180201M2_87	1800129-02 PITTS-06-SB01-4-6 1.15	02-Feb-18	03:37:53
88	180201M2_88	IPA	02-Feb-18	03:49:23
89	180201M2_89	ST180201M2-14 PFC CS3 18A3012	02-Feb-18	04:00:53
90	180201M2_90	IPA	02-Feb-18	04:12:22
91	180201M2_91	1800129-03 PITTS-07-SB01-0-2 1.23	02-Feb-18	04:23:51
92	180201M2_92	1800129-04 PITTS-07-SB01-5-7 1.06	02-Feb-18	04:35:21
93	180201M2_93	1800129-05 PITTS-08-SB01-0-2 1.32	02-Feb-18	04:46:50
94	180201M2_94	1800129-06 PITTS-08-SB01-13-15 1.19	02-Feb-18	04:58:21
95	180201M2_95	1800129-08 PITTS-09-SB01-0-2 1.21	02-Feb-18	05:09:50
96	180201M2_96	1800129-09 PITTS-09-SB01-13-15 1.12	02-Feb-18	05:21:20
97	180201M2_97	1800129-11 PITTS-20-SB01-0-2 1.26	02-Feb-18	05:32:49
98	180201M2_98	1800129-12 PITTS-20-SB01-13-15 1.1	02-Feb-18	05:44:16
99	180201M2_99	1800148-01 01SB01 10-12' 1.27	02-Feb-18	05:55:45

Dataset: Untitled

Last Altered: Friday, February 02, 2018 09:50:10 Pacific Standard Time
Printed: Friday, February 02, 2018 09:52:21 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
100	180201M2_100	1800148-02 01SB02 1.5-2.5' 1.27	02-Feb-18	06:07:15
101	180201M2_101	IPA	02-Feb-18	06:18:44
102	180201M2_102	ST180201M2-15 PFC CS0 18A3009	02-Feb-18	06:30:11
103	180201M2_103	IPA	02-Feb-18	06:41:41
104	180201M2_104	1800148-03 01SB02 9.5-11.5' 1.22	02-Feb-18	06:53:08
105	180201M2_105	1800148-04 01SB03 1.5-2.5' 1.19	02-Feb-18	07:04:38
106	180201M2_106	1800148-05 01SB03 10-12' 1.26	02-Feb-18	07:16:08
107	180201M2_107	1800148-06 07SB01 1.5-2' 1.26	02-Feb-18	07:27:35
108	180201M2_108	1800148-07 07SB01 13-15' 1.29	02-Feb-18	07:39:05
109	180201M2_109	1800148-08 07SB02 1-2' 1.24	02-Feb-18	07:50:32
110	180201M2_110	1800148-09 07SB02 10-12' 1.26	02-Feb-18	08:02:01
111	180201M2_111	1800148-10 04SB09 13-15' 1.17	02-Feb-18	08:13:31
112	180201M2_112	1701951-02@5X FC-MW02SR1-20171212 0.2...	02-Feb-18	08:25:01
113	180201M2_113	1701951-10@5X FC-DUP07-20171212 0.24536	02-Feb-18	08:36:27
114	180201M2_114	IPA	02-Feb-18	08:47:55
115	180201M2_115	ST180201M2-16 PFC CS3 18A3012	02-Feb-18	08:59:21
116	180201M2_116	IPA	02-Feb-18	09:10:52
117	180201M2_117	1800131_RT	02-Feb-18	09:22:20
118	180201M2_118	180131_RTD	02-Feb-18	09:33:47
119	180201M2_119	180131_RTZ	02-Feb-18	09:45:14
120	180201M2_120	180131_RTZD		
121	180201M2_121	180131_C		
122	180201M2_122	180131_CD		
123	180201M2_123	180131_CTZ		
124	180201M2_124	180131_CTZD		

Calverton
SDG 1701951

Sample Identification	FC-MW06S-20171212		
Compound	PERFLUOROUNDECANOIC ACID (PFUnA)		
Sample volume (L)		0.256	
Internal standard concentration		1.25	
Concentration using quadratic/calibration curve			
	Area*(IS concentration/IS area)	10.26646	
	2540*(12.5/6380)		
Curve PFUdA			
	Calibration curve (y)=0.000117185*x^2+1.20421*x+-0.000421214		pg 1355 of data package
	0.000117185*x^2+1.20421*x+-0.000421214=10.26646		
	0.000117185*x^2+1.20421*x-10.26688=0		
a=	0.000117185		
b=	1.20421		
c=	-10.26688		
D=1.20421^2-4*-0.000117185*-10.26688	1.454934		
SQRT D	1.206206542		
x=-(1.20421+1.206206542)/(2*0.000117185)	8.5187600		
PFDA result Conc = x/wt		33.27641	ng/L
result reported		33.3	ng/L

DODCMD_ID	INSTALLATION_ID	SDG	SITE_NAME	NORM_SITE_NAME	LOCATION_NAME	LOCATION_TYPE_DESC	COORD_X	COORD_Y	CONTRACT_ID	DO_CTO_NUMBER	CONTR_NAME	SAMPLE_NAME	SAMPLE_MATRIX_DESC	SAMPLE_TYPE_DESC	COLLECT_DATE	ANALYTICAL_METHOD	ANALYTICAL_METHOD_GRP_DESC
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00002	SITE 00002	FTPZ454S	Piezometer	1318006.685	272155.904	N6247016D9008	WE05	TETRA TECH, INC.	FT-PZ454S-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00010	SITE 00010	ETMW01S	Monitoring well	1319219.53	272723.4	N6247016D9008	WE05	TETRA TECH, INC.	ET-MW01S-FRB-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00006	SITE 00006	FCMW02IR1	Monitoring well	1318372.56	273393.92	N6247016D9008	WE05	TETRA TECH, INC.	FC-MW02IR1-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00006	SITE 00006	SAMW127I	Monitoring well	1320597.18	271425.84	N6247016D9008	WE05	TETRA TECH, INC.	SA-MW127I-20171213	Ground water	Normal (Regular)	13-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00006	SITE 00006	FCPZ05I1	Piezometer	1318865.211	273022.113	N6247016D9008	WE05	TETRA TECH, INC.	FC-PZ05I1-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00006	SITE 00006	FCMW02SR1	Monitoring well	1318384.3	273393.05	N6247016D9008	WE05	TETRA TECH, INC.	FC-MW02SR1-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00006	SITE 00006	FCMW04S	Monitoring well	1318715.85	273411.44	N6247016D9008	WE05	TETRA TECH, INC.	FC-MW04S-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00006	SITE 00006	SAPTW1	Temporary well point	1320592.112	271417.305	N6247016D9008	WE05	TETRA TECH, INC.	CV-FLTS-COMBINF-20171213	Ground water	Normal (Regular)	13-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00010	SITE 00010	ETMW02S	Monitoring well	1319326.64	272738.48	N6247016D9008	WE05	TETRA TECH, INC.	ET-MW02S-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00006	SITE 00006	FCMW05I	Monitoring well	1318883.39	272995.36	N6247016D9008	WE05	TETRA TECH, INC.	FC-MW05I-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00002	SITE 00002	FTRW01	Recovery well	1318204.708	269224.474	N6247016D9008	WE05	TETRA TECH, INC.	FT-RW01-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00006	SITE 00006	FCMW02SR1	Monitoring well	1318384.3	273393.05	N6247016D9008	WE05	TETRA TECH, INC.	FC-MW02SR1-20171212-D	Ground water	Field duplicate	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00002	SITE 00002	FTRW01	Recovery well	1318204.708	269224.474	N6247016D9008	WE05	TETRA TECH, INC.	FT-RW01-20171212-D	Ground water	Field duplicate	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00006	SITE 00006	FCMW06S	Monitoring well	1318373.96	273038.44	N6247016D9008	WE05	TETRA TECH, INC.	FC-MW06S-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951							N6247016D9008	WE05	TETRA TECH, INC.	FT-RW01-FRB-20171212	Water for QC samples	Field Reagent Blank	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00006	SITE 00006	FCMW04I	Monitoring well	1318714.01	273427.03	N6247016D9008	WE05	TETRA TECH, INC.	FC-MW04I-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00006	SITE 00006	FCMW05S	Monitoring well	1318873.02	272990.57	N6247016D9008	WE05	TETRA TECH, INC.	FC-MW05S-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00010	SITE 00010	ETMW01S	Monitoring well	1319219.53	272723.4	N6247016D9008	WE05	TETRA TECH, INC.	ET-MW01S-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00010	SITE 00010	ETMW03S	Monitoring well	1319402.28	272861.96	N6247016D9008	WE05	TETRA TECH, INC.	ET-MW03S-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701951	SITE 00006	SITE 00006	FCMW03SR1	Monitoring well	1318566.27	273393.77	N6247016D9008	WE05	TETRA TECH, INC.	FC-MW03SR1-20171212	Ground water	Normal (Regular)	12-Dec-17	537	Perfluoroalkyl Compounds